

THE ESSENCE OF OBSOLESCENCE



BY
ELIZABETH RICHARDSON

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INTRODUCTION

The Festival of Britain is set to take place in August of 2022, and it needs planning and constructing. Using the data that I acquired from last semesters work as the driver my investigation, I will be creating a Pavilion that sits within the festival. This process will involve analysing information that influenced my decision making in my previous analysis, as the catalyst for my design. This project will not only explore the possibilities of a structure for the specified period of time but indulge in the prospect of architectural life after it's primary function. Emphasising on the ever increasing importance of sustainability in today's society.

CHAPTER 1.
CATALYST DESCRIPTION



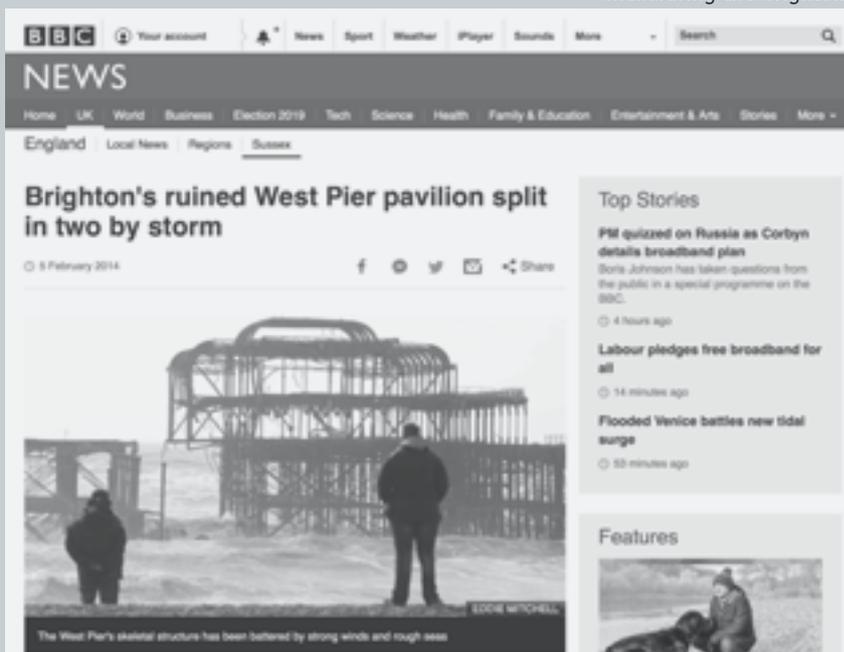


West pier, Jack Ryan, March 2003, Brighton, <https://www.flickr.com/photos/jasonryan/152969309>

Last Semester I decided to celebrate British culture through the topic of the weather. Questioning the concern of our ever-changing climate and relating this to the change in conversation with regard to British small talk. This idea developed from looking in to the history of West Pier and realising the amount of time the structure has fallen victim to the harsh elements thrown at it year in year out. Including fires, Wind and Rain.

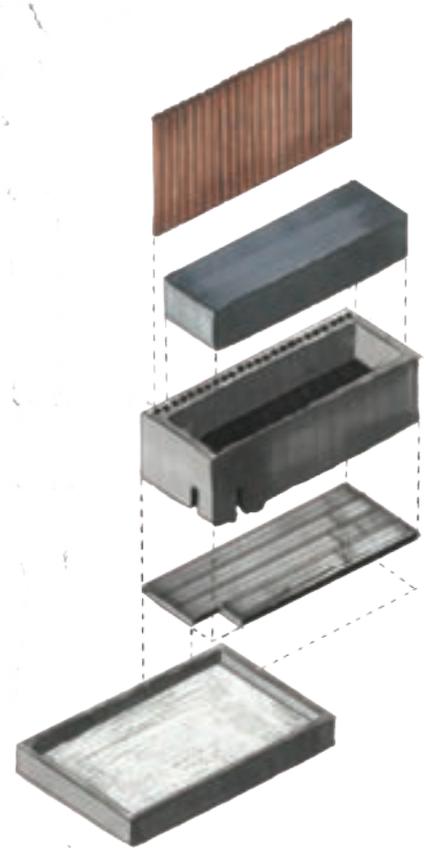
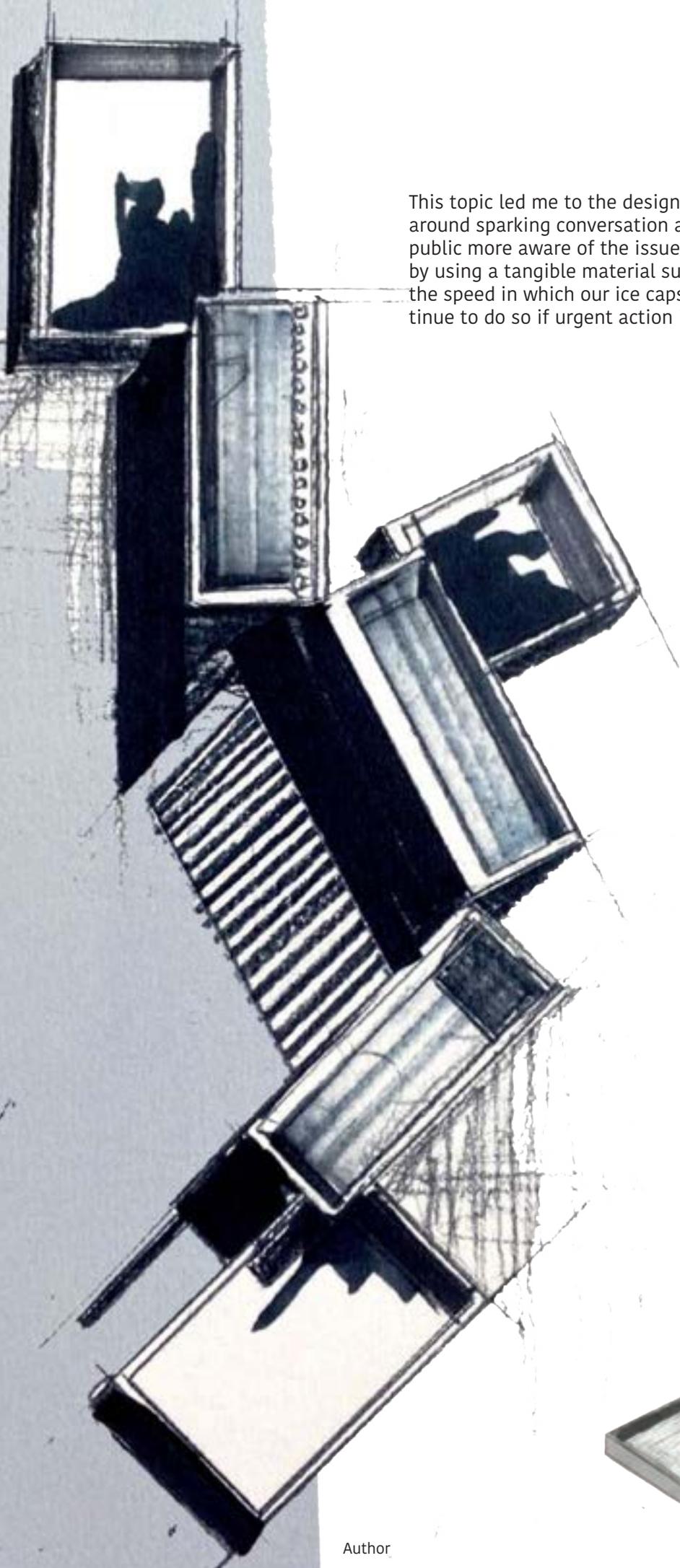


West pier, Editor, March 2011, Brighton, <http://www.urban75.org/blog/remembering-the-brighton-west-pier-in-photos-part-two/>



West pier, Eddie Mitchell, March 2011, Brighton, <http://www.urban75.org/blog/remembering-the-brighton-west-pier-in-photos-part-two/>

This topic led me to the design of a totem that revolved around sparking conversation and making members of the public more aware of the issues regarding climate change, by using a tangible material such as Ice, as a nod towards the speed in which our ice caps are melting and will continue to do so if urgent action isn't taken.



Author

Author

With Brighton and Hove being the only Green Party led city within the UK, it plays a huge part in provoking conversation regarding the environment. With the issue of climate change becoming nothing but a more prominent part of our society, I believe it to be important to aid the individuals and organisations that are taking the action required to fight the issue.



Green Party banner, <https://www.carolinelucas.com/latest/pride-freedom-to-live-and-give>





Some of the potential organisations that could be the centre to my programmatic research.





Gathering of Rebels, Danny Fitzpatrick, 2018 <https://brightongreengroup.wordpress.com/tag/oilie-sykes/>

After researching organisation involved in the action against climate change, the most relevant group in association I found was Extinction Rebellion.

Currently they don't have an official location within Brighton, yet the amount of active members and the vast activity is prominent. That is why I am proposing the design of a new Hub, for the members of XR to use as a primary place for their local and national meet ups, as well as

CHAPTER 2.
PROGRAMMATIC REQUIREMENTS





**extinction
rebellion**



Protesters, Jack Gilbert, London, 2019, <https://www.telegraph.co.uk/news/2019/04/15/extinction-rebellion-activists-threaten-bring-london-standstill/>

THE TRUTH

We are facing an unprecedented global emergency. Life on Earth is in crisis: scientists agree we have entered a period of abrupt climate breakdown, and we are in the midst of a mass extinction of our own making.

This statement is the opening paragraph on Extinction Rebellion's Website. The organisation believe this ethos, and that we have to start acting now to fight the battle of climate change. That is why I want to make it easier for them to access the specific space and materials to aid their process.

Below is a list of some of the possible activities that have occurred since I started planning this project. I wanted to analyse the specific activities to gain an understanding of the functional requirements for the space that might be needed.



25 FEB

WHERE DO I FIT IN?

25th Feb 2020
10:00 - 17:00

Brighton Eco Centre, 39 Surrey Street, Brighton, BN1 3PB

Meeting

The organisation hold day long meetings for new members where they can start to understand the types of activities that Extinction Rebellion take part in, and where they might come in to that equation



27 FEB

XR HOVE MEETING

27th Feb 2020
19:00 - 22:00

Vallance Community Centre, Unit 2 Conway Court, Hove, BN3 3WR

Meeting

They also hold evening meetings where they discuss previous actions that they have participated in, that act as debriefs, to keep everyone informed of their movements on a regular basis.



28 FEB

BRIGHTON CREATIVITY MEETING & MAKING SESSION

CREATIVES SESSION

28th Feb 2020
19:00 - 22:00

Brightheim Centre, North Road, Brighton, BN1 1YD

Meeting

Creative classes are held, where individuals can participate in the construction of need materials such as flag and banners. They also act as a chance for new members to get involved in a fun and positive way.



XR CENTRAL BRIGHTON MEETING

25th Feb 2020
19:00 - 21:00

Brighthelm Centre, North Road, BN1 1YD

Meeting

Action is required, so they will choose areas in which to act. These types of meetings will involve performance art out on the streets, creating interaction between themselves and members of the public.



XR BRIGHTON SAMBA BAND REHEARSAL

28th Feb 2020
19:00 - 21:00

Brighton Electric, 43-45 Coombe Terrace, Brighton, BN2 4AD

Meeting

Dance classes and rehearsals are a fun way of XR members to have fun, as well as to raise money for the cause.



OUTREACH EVENTS CIRCLE

3rd Mar 2020
19:00 - 21:00

Brighthelm Centre, North Road, Brighton, BN1 1YD

Meeting

They will also participate in out reach events where members will try and talk to members of the public on the streets and inform them of the work the organisation is doing. This is to help spread the word and recruit new members.

All images above are screen shots from The Extinction Rebellion Website, <https://rebellion.earth>



Meditation, Matthew Abrahams, 2019, <https://www.alternet.org/2019/04/extinction-rebellion-heres-how-disruption-and-arrests-can-bring-social-change/>



EX performance, The Conversation, 2019, <https://www.alternet.org/2019/04/extinction-rebellion-heres-how-disruption-and-arrests-can-bring-social-change/>



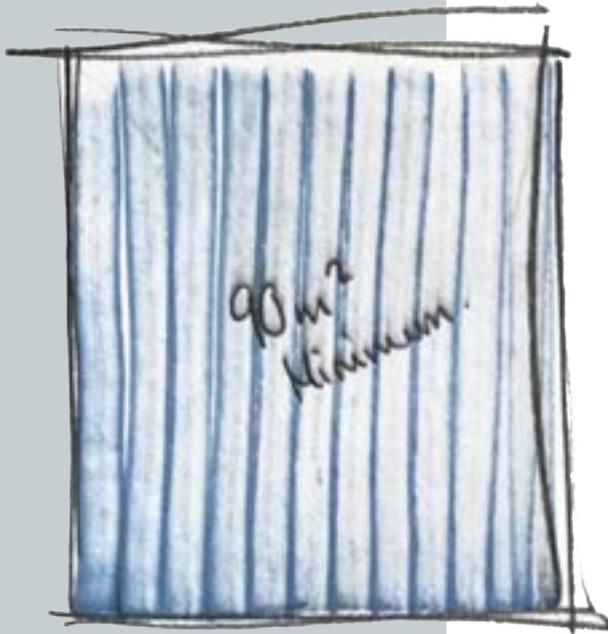
EX Meeting, Emily Goddard, 2019, https://www.vice.com/en_uk/article/bjqdbd/xr-is-telling-the-terrifying-truth-about-climate-change

After researching about the activities that the members of Extinction rebellion take part in. Here is a list of specific programmes that the pavilion will facilitate...

- Performances
- Lectures
- Workshops
- Meetings

As these are the types of activities that will be present and will need a range of different spaces within my pavilion. These will include an auditorium with a stage that can alternate between a performance space and a lecture hall. A lot of people turn up to these talks so this hall will have to be able to facilitate around 80 people. I will also need offices for the admin side of the centre, as well as a workshop to hold the craft activities such as flag and banner making. I also need there to be chambers that can be used to force conversation between members of the public.

The first thing I decided to do was research the amount of space that each area would require, so I found the types of spaces and worked out how many individuals could be in per square metre of the room, by linking them to similar programs. This will give me a guide line to abide to when discussing size.



Room capacity 60+ people.
 Auditorium / Assembly Room
 150 people capacity!

Type of Building	Type of Room	Area per Person	
		(m ²)	(ft ²)
Apartments			100 - 400
Assembly building	Lecture room	5	
	Library	5	
	Cinema	0.6	
	Concert hall	0.6	
	Theater	0.6	

Offices	Single office	10	
	Meeting room	1.5	



Offices
 4 people maximum.

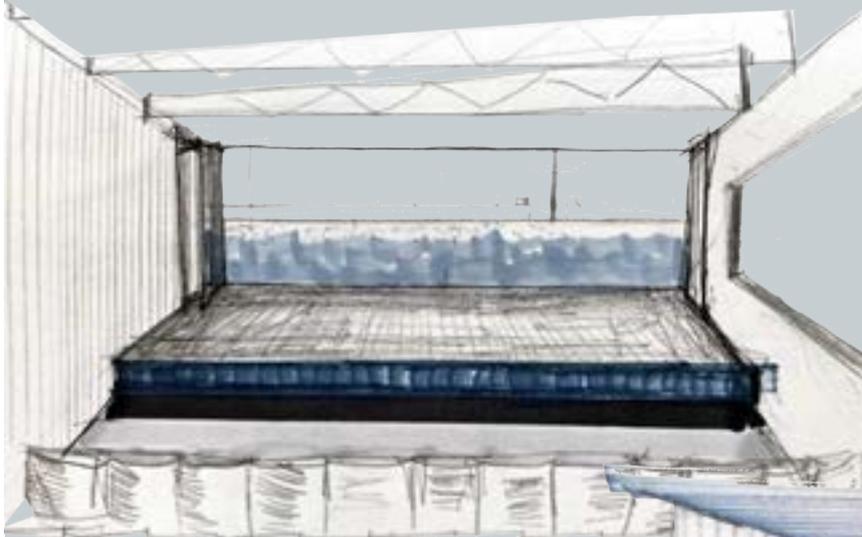


Workshops
 30 people maximum.

Lecture rooms	0.6	
Class rooms	2	
Corridors	2	
Laboratory	3	

All technical information sourced from, https://www.engineeringtoolbox.com/number-persons-buildings-d_118.html

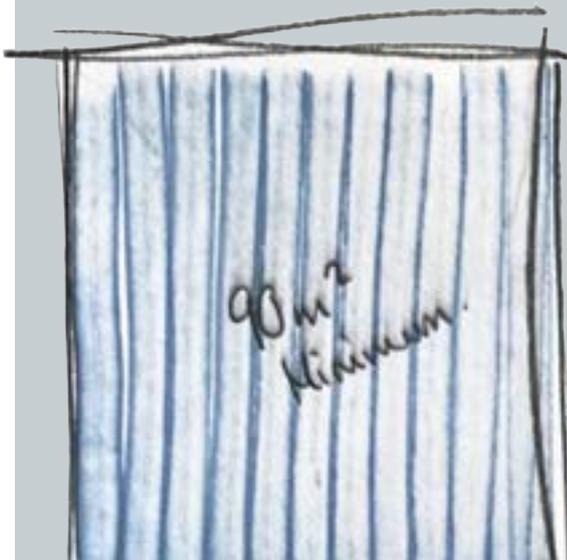
Next I've been thinking about some of the functional requirements for each of the rooms. The first is the auditorium/ performance room. The first obvious design feature would have to be a stage and seating that could house maximum of 150 people. As well as this Storage will be essential.



Author

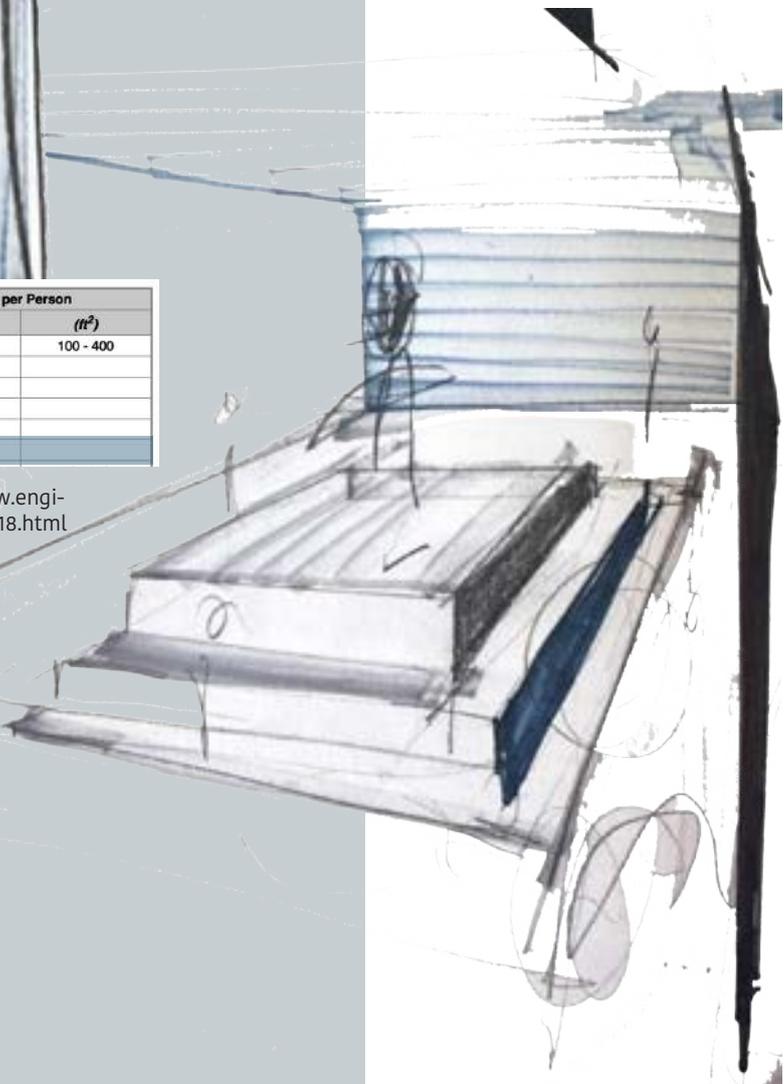


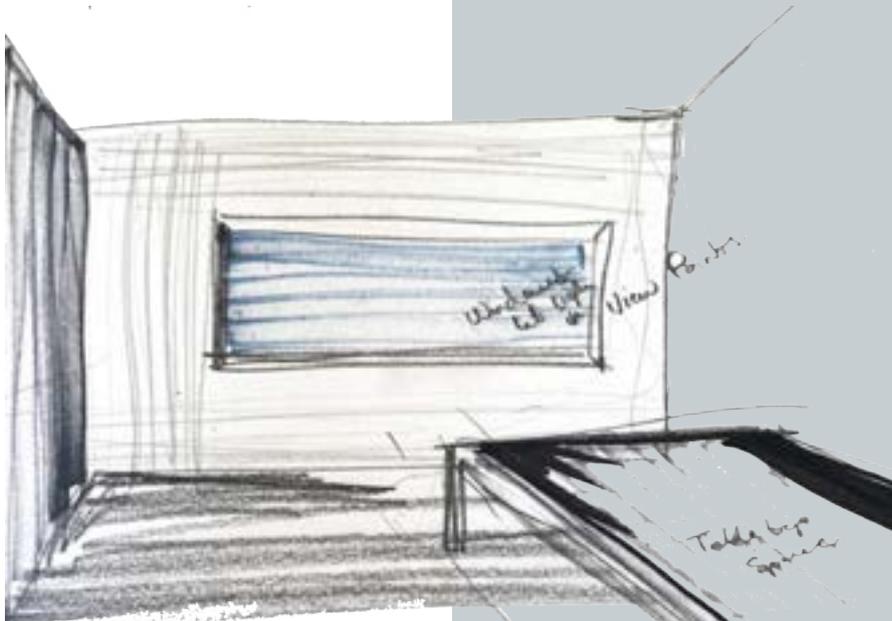
Author



Type of Building	Type of Room	Area per Person	
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	Library	5	
	Cinema	0.6	
	Concert hall	0.6	
	Theater	0.6	

All technical information sourced from, https://www.engineeringtoolbox.com/number-persons-buildings-d_118.html





Author

Within the workshops, the key aspects of the design will include, large tables for communal activities to take place in, as well as chairs for people to sit on and cupboards for the storage of supplies.

Schools	Lecture rooms	0.6	
	Class rooms	2	
	Corridors	2	
	Laboratory	3	

All technical information sourced from, https://www.engineeringtoolbox.com/number-persons-buildings-d_118.html



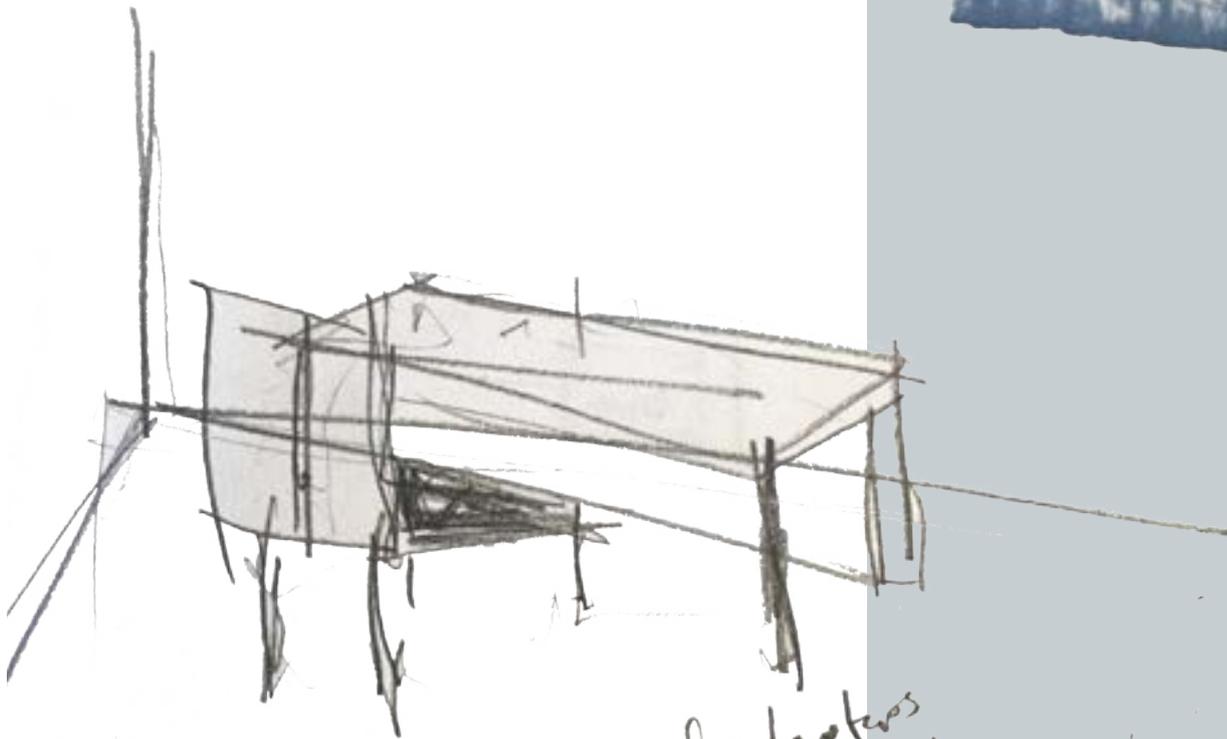
Author



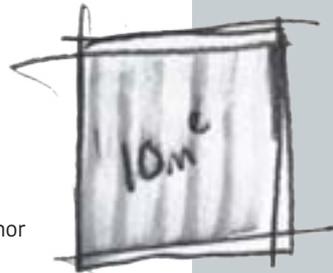
Author

Cupboards for storage





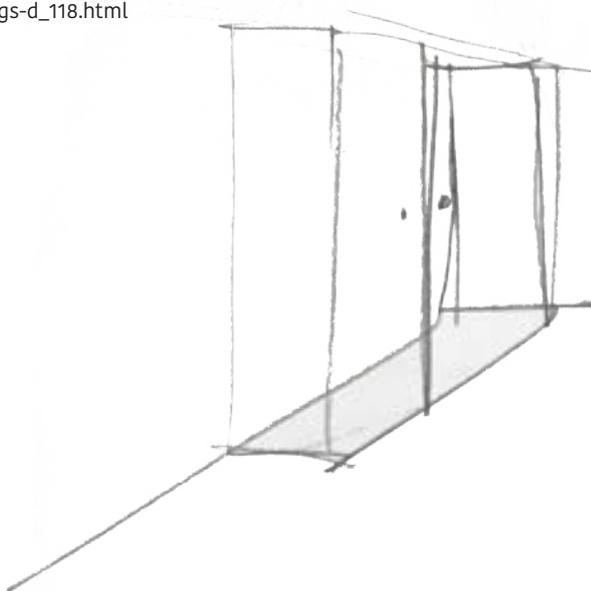
Desks for laptops and computers.



Author

Offices	Single office	10
	Meeting room	1.5

All technical information sourced from, https://www.engineeringtoolbox.com/number-persons-buildings-d_118.html



Cubsheds for storage



Author

The offices will be simple, with just desks and chairs for the staff to use with their own laptops and computers. The whole design will be based around minimalism, so nothing but essentials items will be included in the design. As well as shelving units for storage.

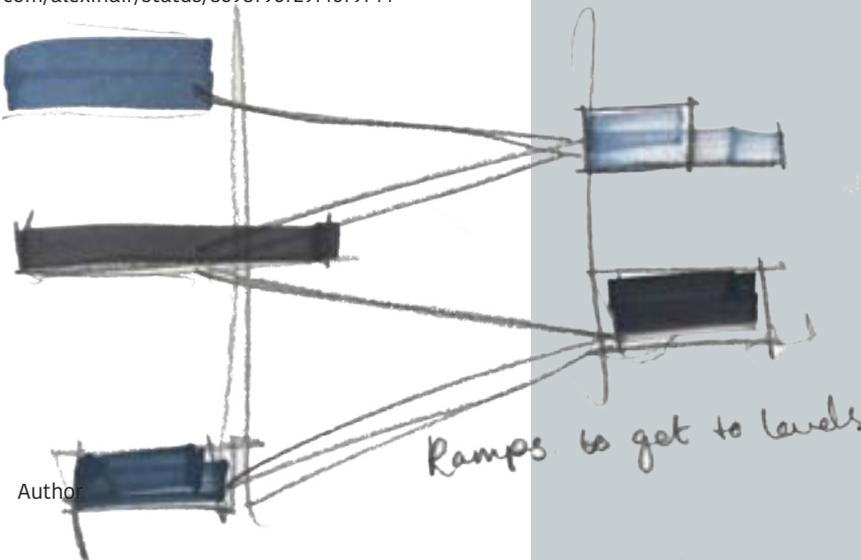


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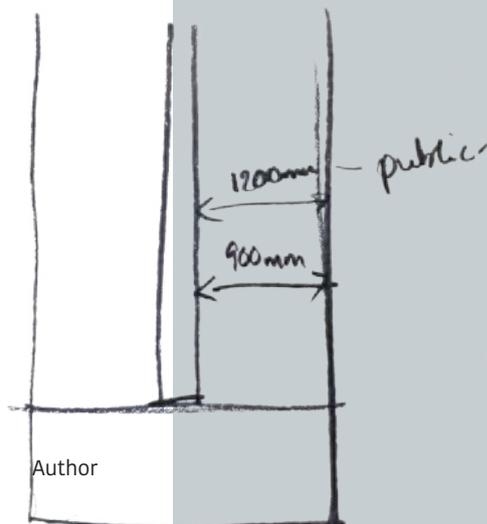


Gatwick Airport Ramps, Alex Macheras, 2017, <https://twitter.com/alexinair/status/859879572971679744>

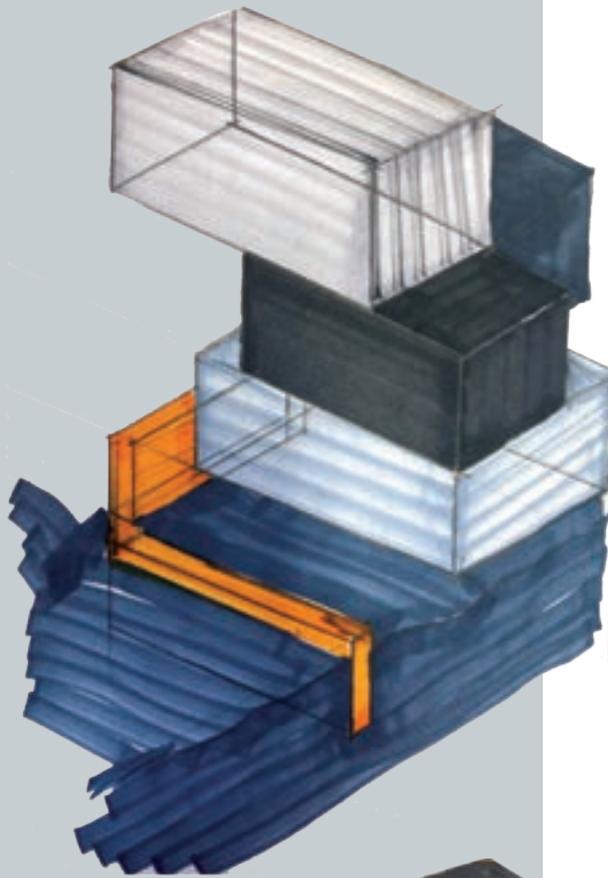
One element that is key to the functionality of the design will be disabled access. I want their to be ramps that mean that anyone can get around the space on their own accord. Making the space completely inclusive.



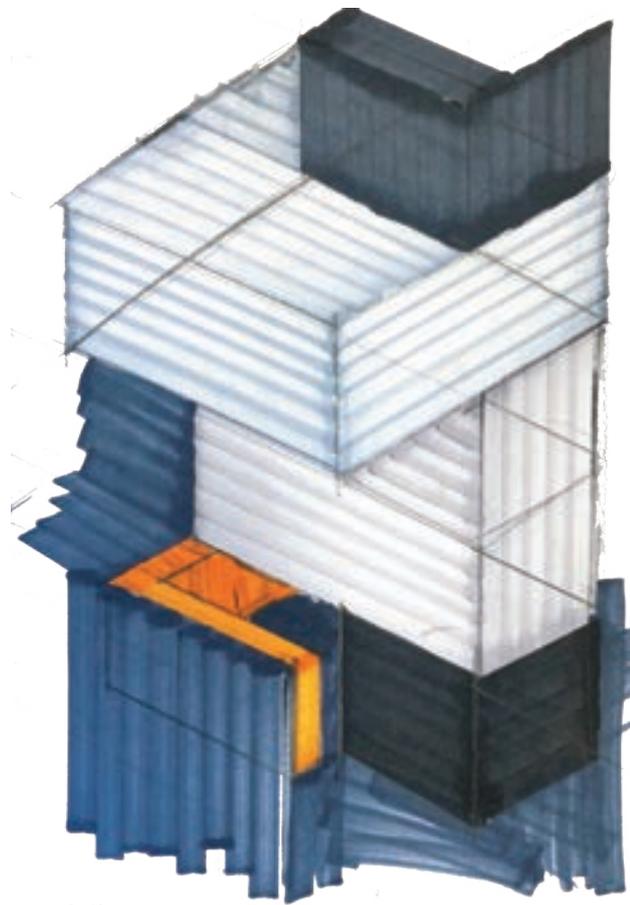
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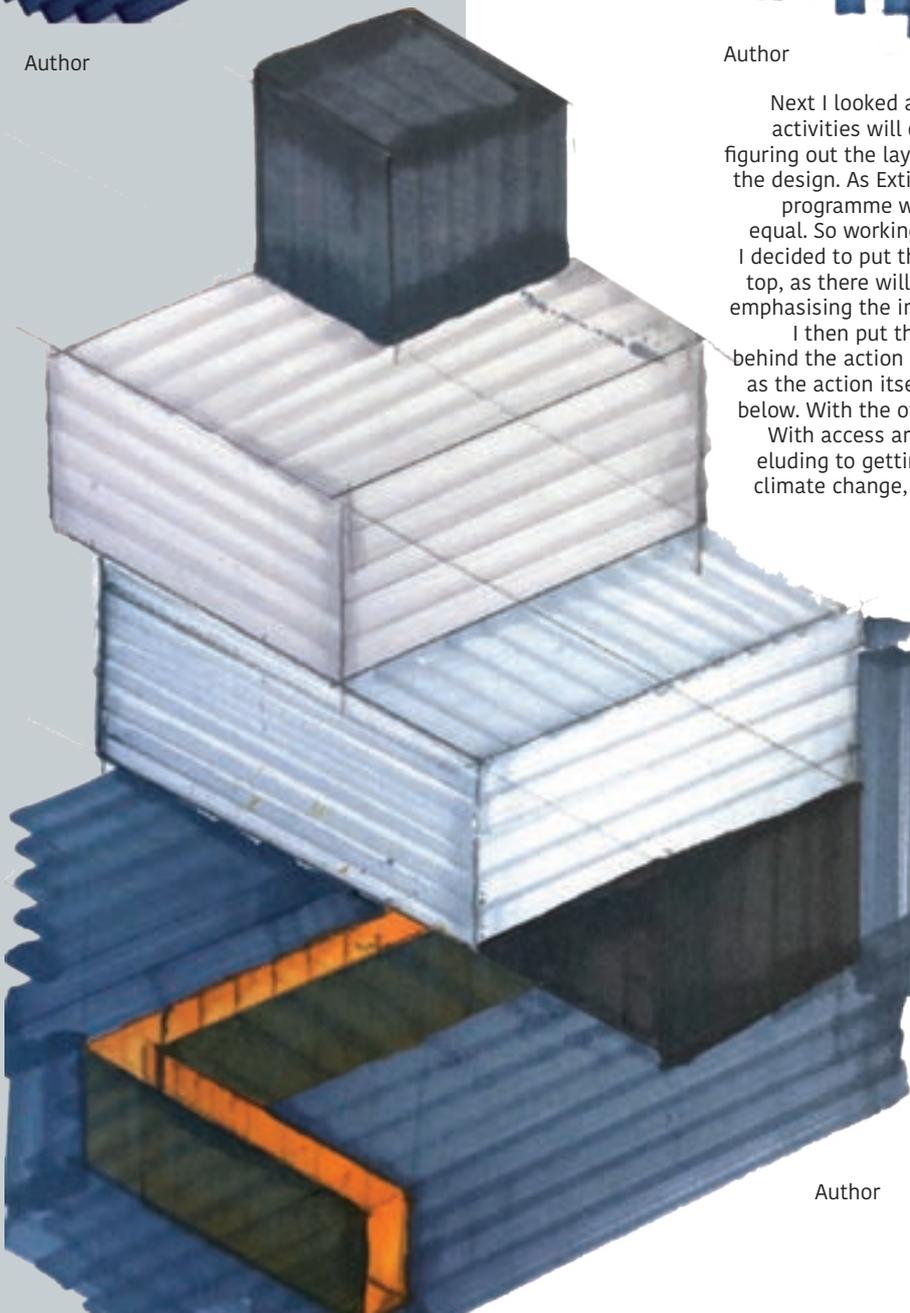
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Author



Author



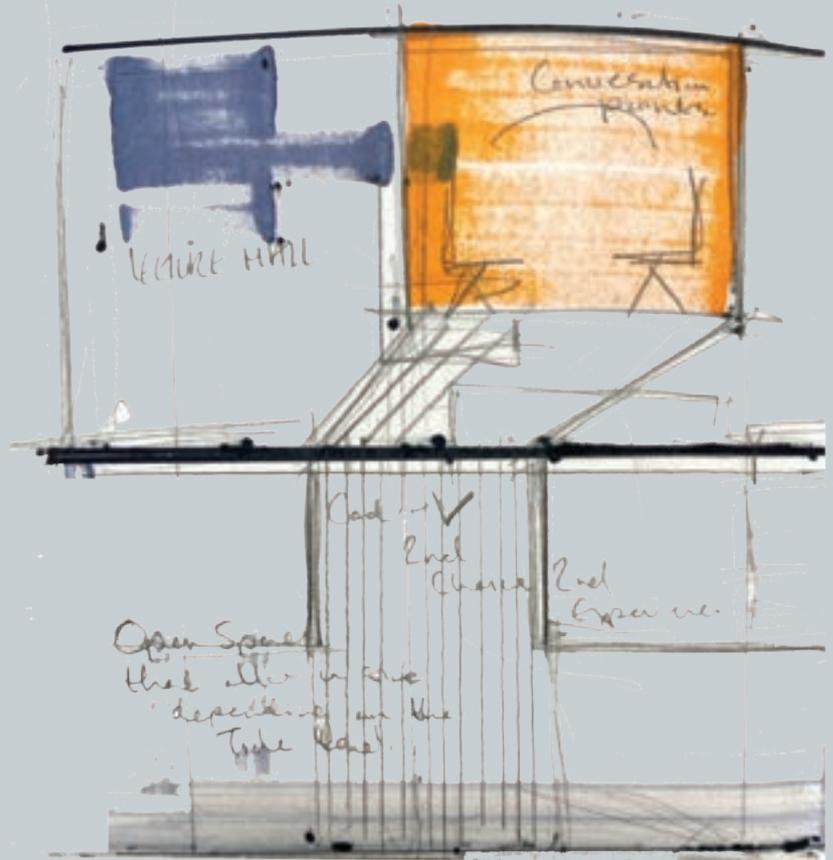
Author

Next I looked at the hierarchy of the levels and which activities will occur at certain points. This was due to figuring out the layout of the pavilion, as a main guide for the design. As Extinction Rebellion act as a very inclusive programme where members are all considered to be equal. So working with levels was a hard task. However, I decided to put the wind down, meditation rooms at the top, as there will be view-points from the highest point, emphasising the importance of reconnecting with nature.

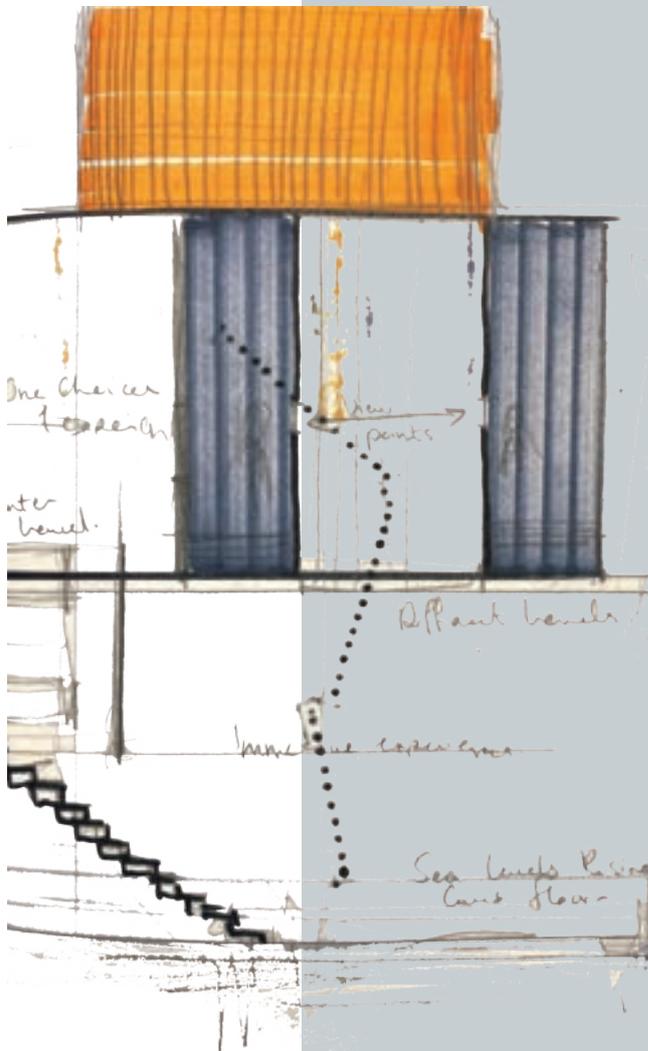
I then put the workshops below, as the preparation behind the action should be considered just as important as the action itself, so that why the auditorium sits just below. With the offices and meeting spaces again below.

With access arising from beneath, due to the pavilion eluding to getting larger in size, much like the issue of climate change, yet actually getting smaller at the top, after action takes place.

Day & Night experiences.



Author



Author

Next I started to sketch some of the types of spatial ideas of how certain scenarios could play out within the spaces. This involved layers, and view points playing a massive part within the concept for the design. Being connected to each other as well as nature is vital within the design process.

Infrastructure
- Access

There could be different routes, that can be taken by specific individuals influenced by their own decisions and ideas. I also want to try and connect the separated parts of the pier as another act of inclusive.



WHAT IS THERE BEFORE?
WHAT IS THERE DURING?
WHAT IS THERE AFTER?

I want to show the total plan view, of what it will be and then add the details of the left of

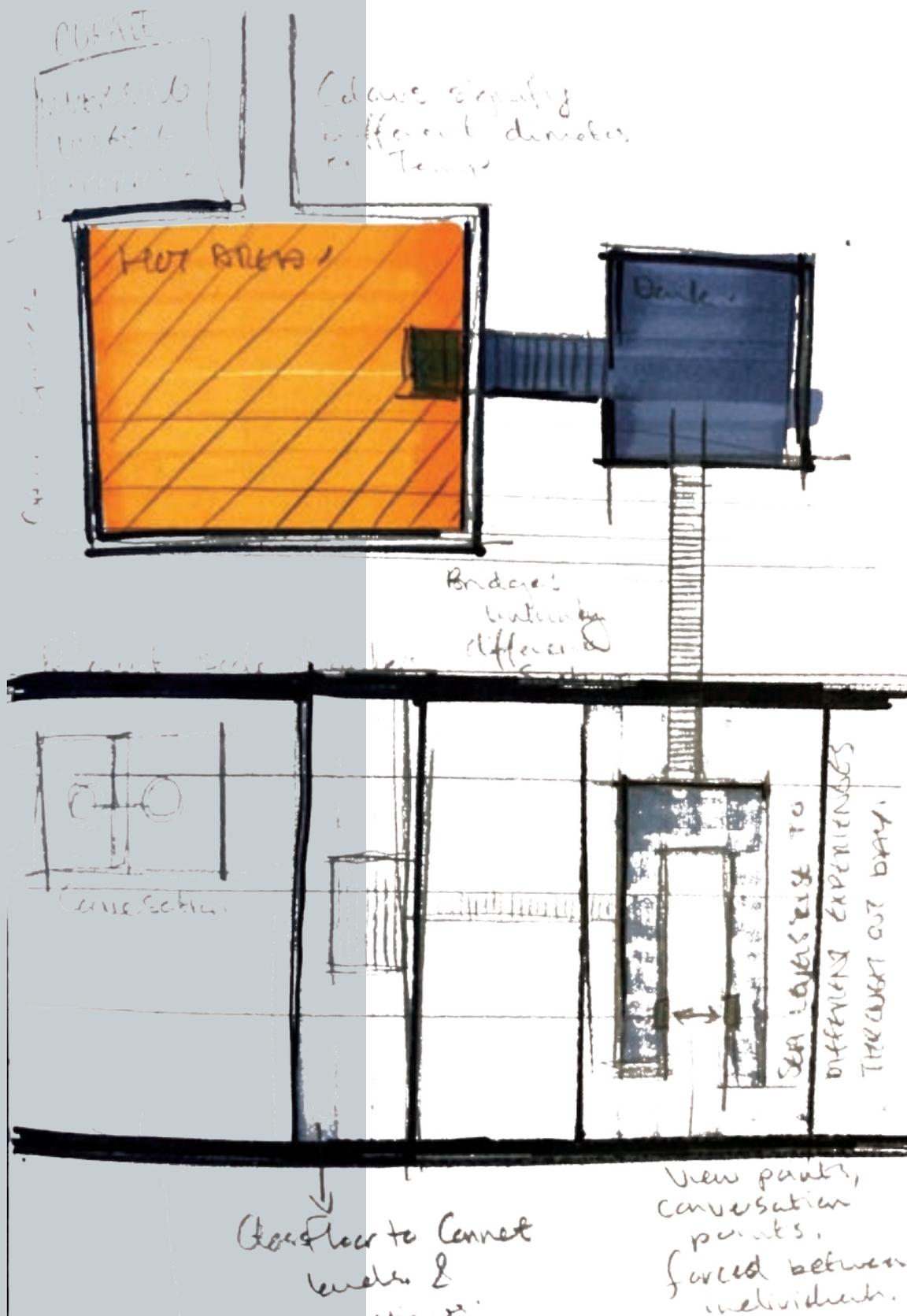
Entrance
different being

Two different routes joining.

Plan Grid of Site

* Show time through shadows

Author



It would be interesting to create different areas, that were connected by viewpoints that encouraged conversation between individuals involved about climate change. Making the centre an immersive installation, much like that of my Totem from the previous semester.

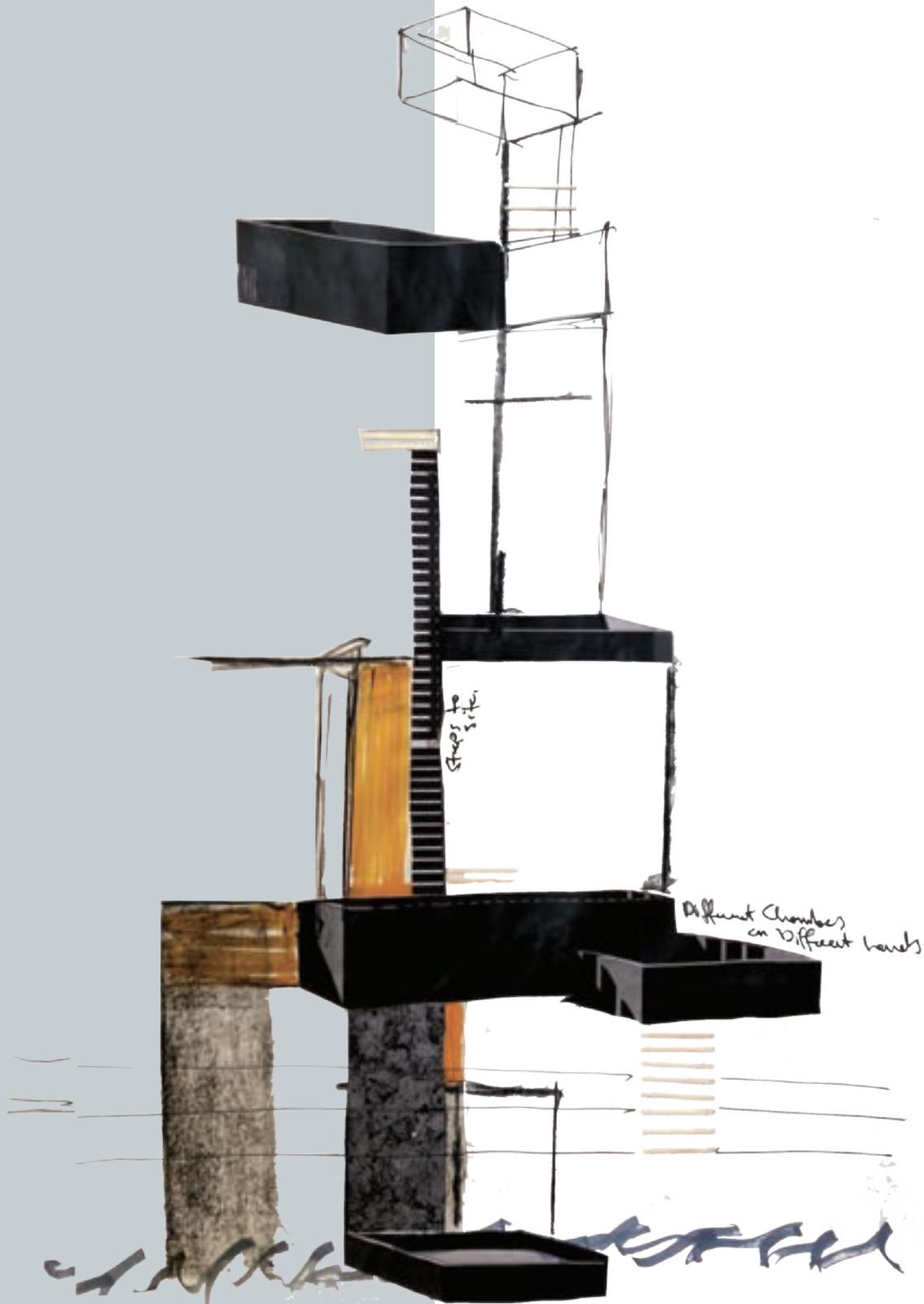
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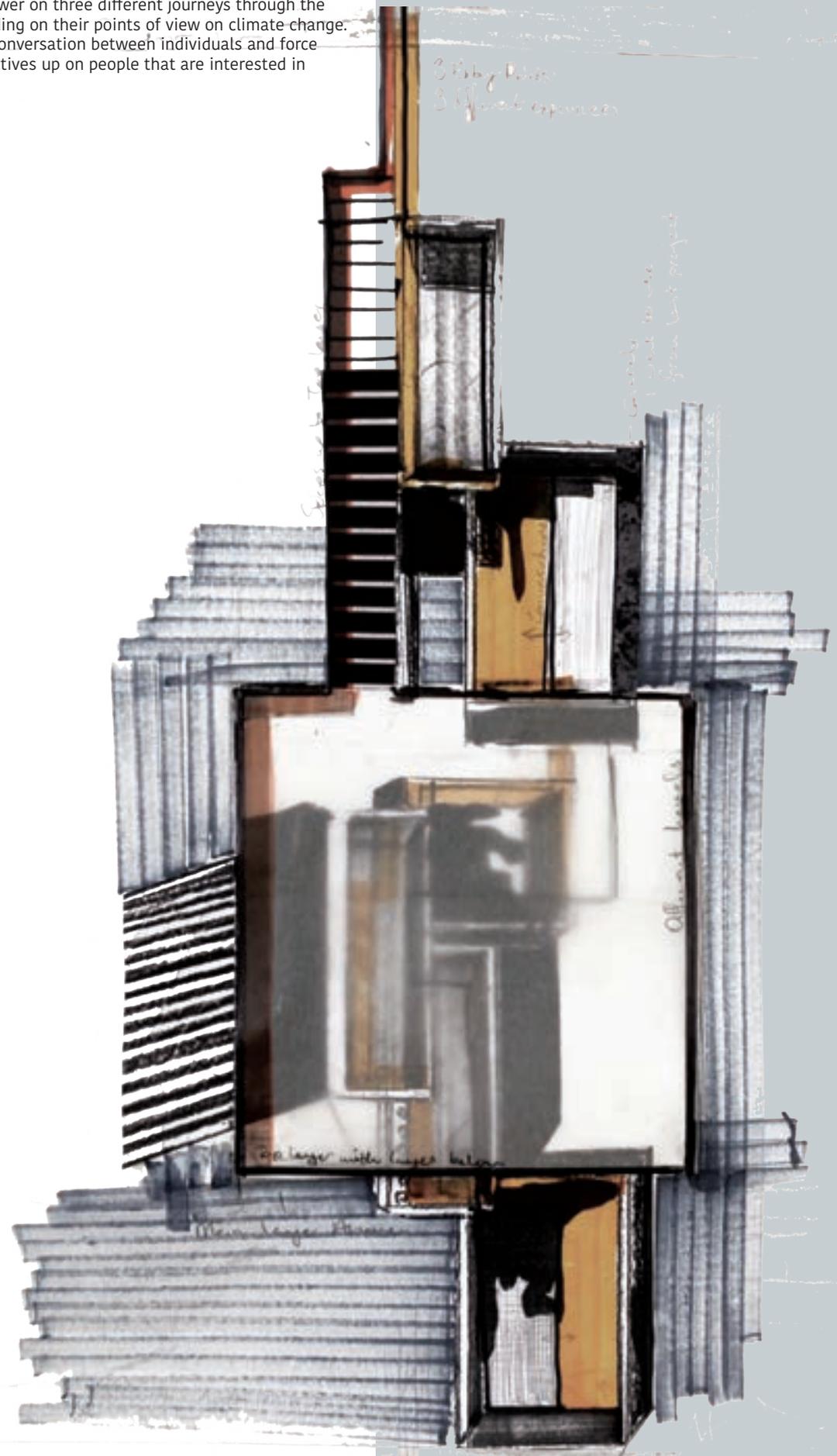
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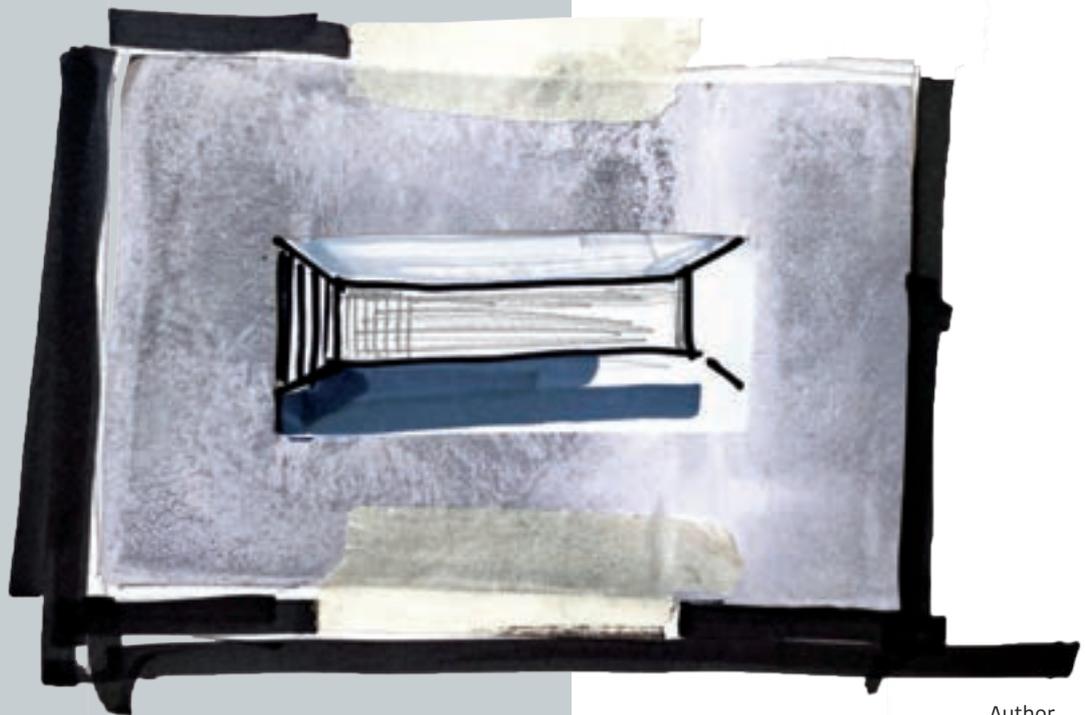
When thinking about the different spacial configurations of my space, I have thought back to the detail drawing that I created in the first semester. This piece of decorative iron fringing, sat at the highest point of the pier. I chose this specific element due to the fact it was situated so high up. Due to this I would like part of my structure to be placed alongside where the fringing would have originally been,

When I first started collaging for the spacial design process, I decided to chop up an image of my totem from the first semester. I placed them at different levels on the page, as I new I wanted my design to reflect the growing issues of climate change. I also wanted there to be individual chambers that were for specific activities within the site. I also wanted to show the access through stair cases to different levels. I also wanted to indicate the access to the water at the bottom, and how the lowest floor would interact with the English channel depending on the tides. I have also used a photograph of the plascharcrete that I designed in the first semester, as a hint to the type of sustainable materials that I might use.



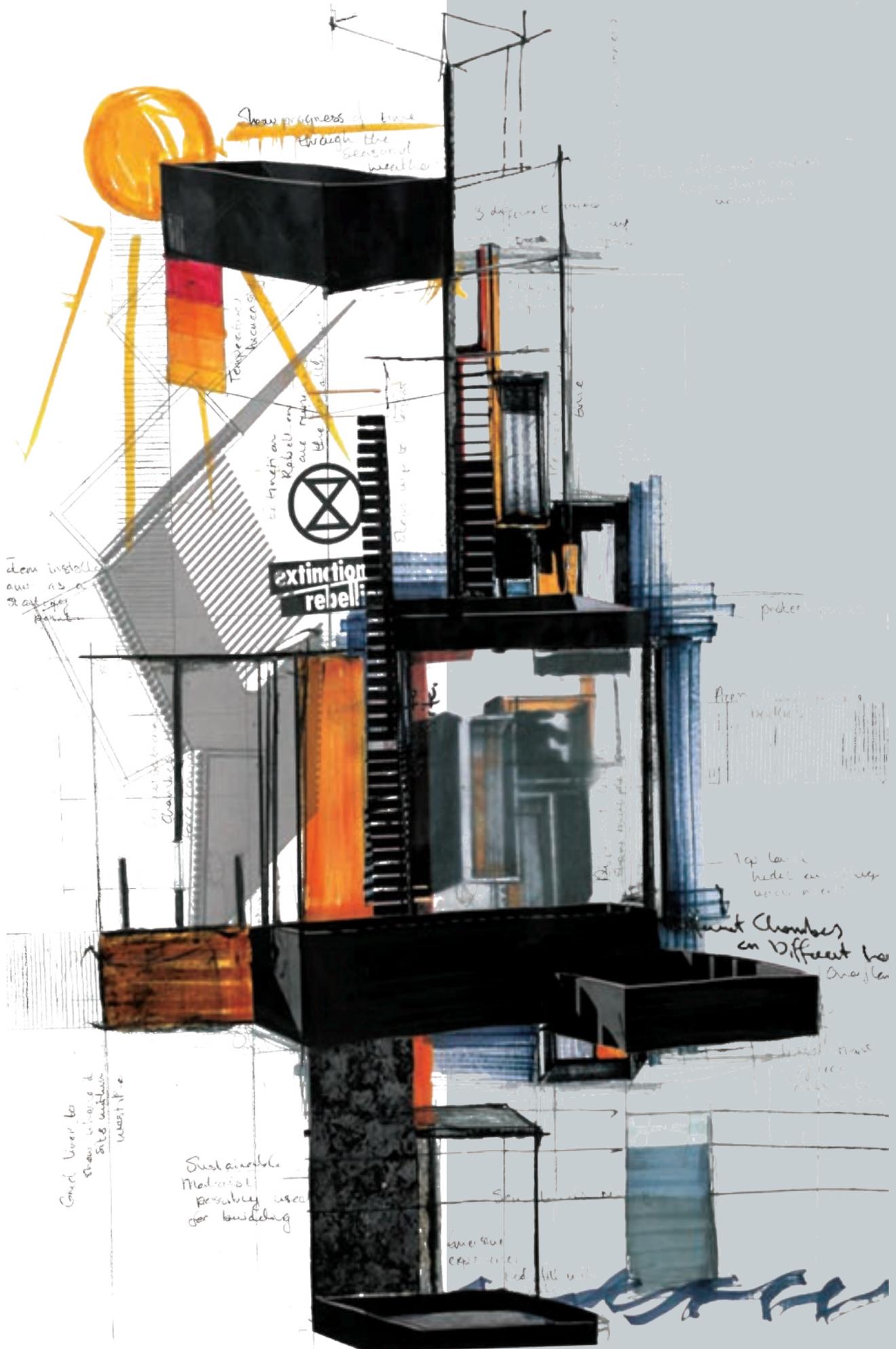
This sketch was supposed to show my design ideas in plan. Suggesting that the largest at the top covers the rest of the lower levels. Eluding to the idea of climate change being a continuously growing problem. It also shows that I want 3 different access points from the beginning of the process, that lead the viewer on three different journeys through the structure depending on their points of view on climate change. I hope to spark conversation between individuals and force different perspectives up on people that are interested in learning.





Author

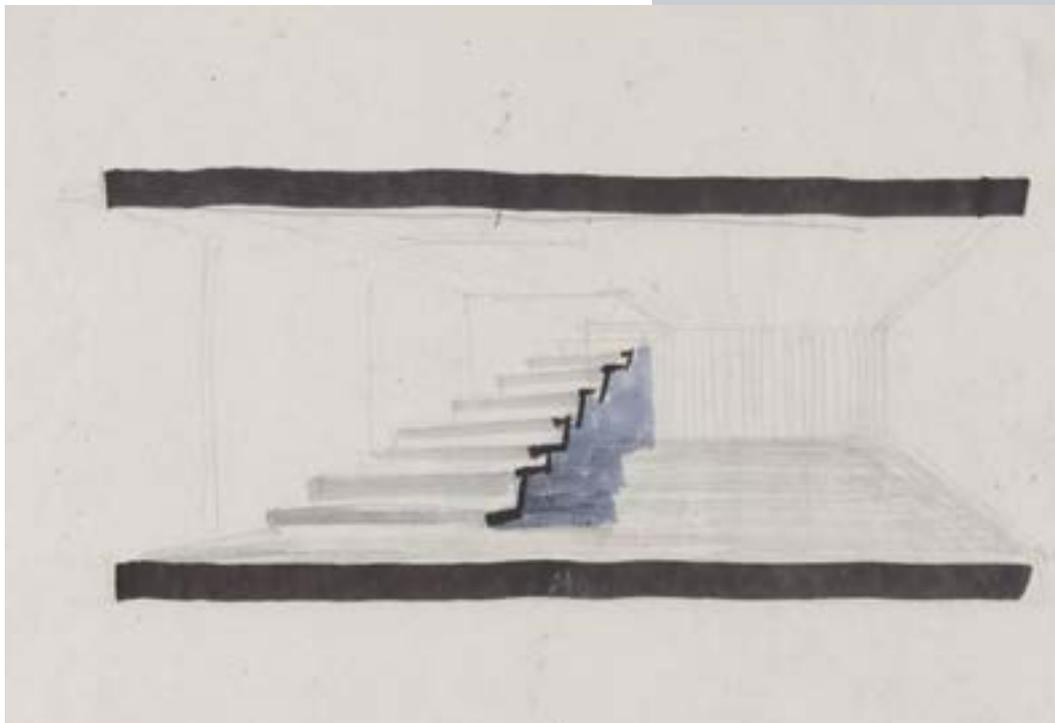
This collage is using the material of ice, that was a primary influence within my first semester project. It is supposed to depict the idea of looking through an ice block, which is melting and that most people, on a day to day basis look through the issue of climate change. I am considering using this as a material within my pavilion.



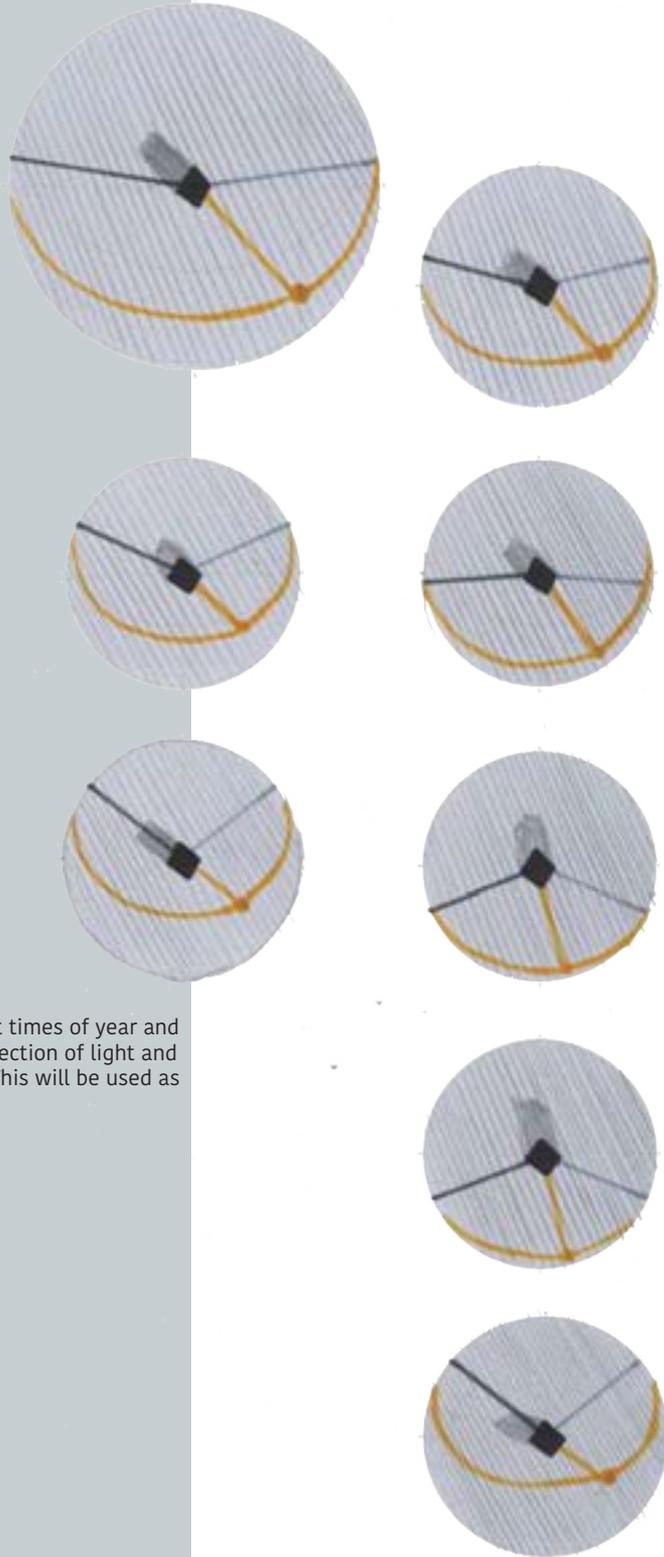


Author

As nature is the primary catalyst to the design, I want the elements to drive the design process. This mainly including the sun light. This diagram to the left is showing the different stages of light within a room in plan view, at different stages of the day. It is depicting the different angles that I want my spaces to be set at in order to be accessible at different times of day. For example, working with the sun path to provide natural light for certain rooms at specified times of day. Causing inaccessibility at different times of day, relating to nature acting as the primary force behind the design process.



Author



By sketching out the sun's path at different times of year and specific times of day, I can indicate the direction of light and the shadows that will be cast as a result. This will be used as a tool within the design process.

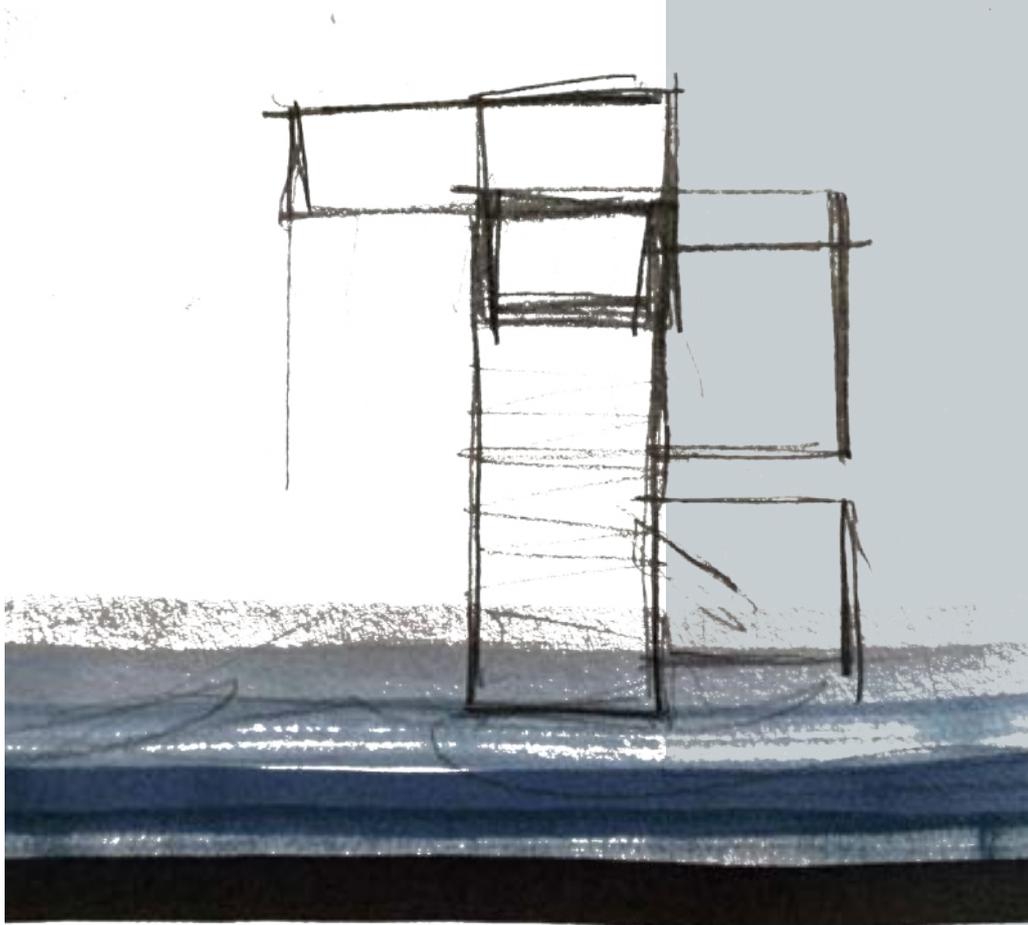
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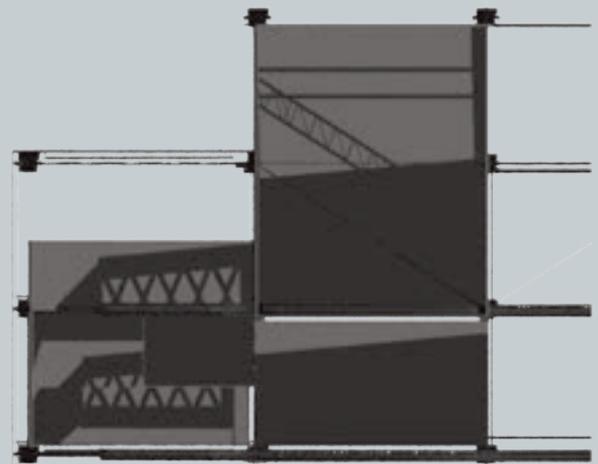
The elements acting as a key feature within my design has meant I have been looking at the Sea to represent the concept of time. For my time-line drawing, I wanted to include some photography of the English channel during different seasons, and weather conditions as the elements are the primary driver for my design. I also think I could link them to the different points within the festival and what is happening at specific times of year.



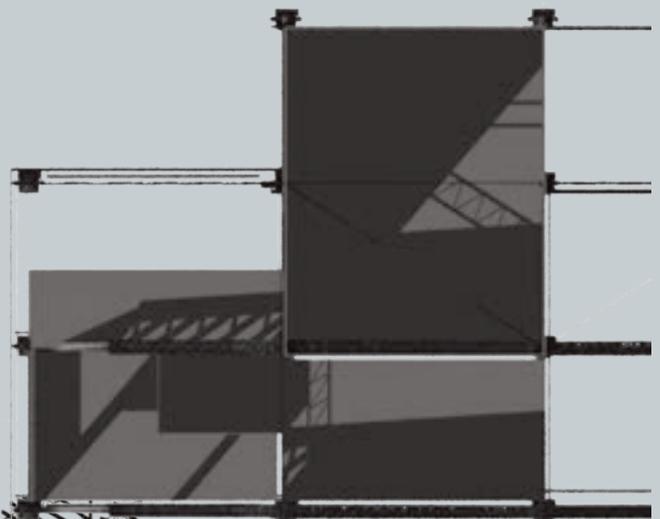
Author

As the elements are the main driving factor within the design, using the sea and tide levels would be a great link to the issue of climate change. I have considered accessibility being reliant on the tidal action. Meaning that access would rely primarily on environmental conditions.

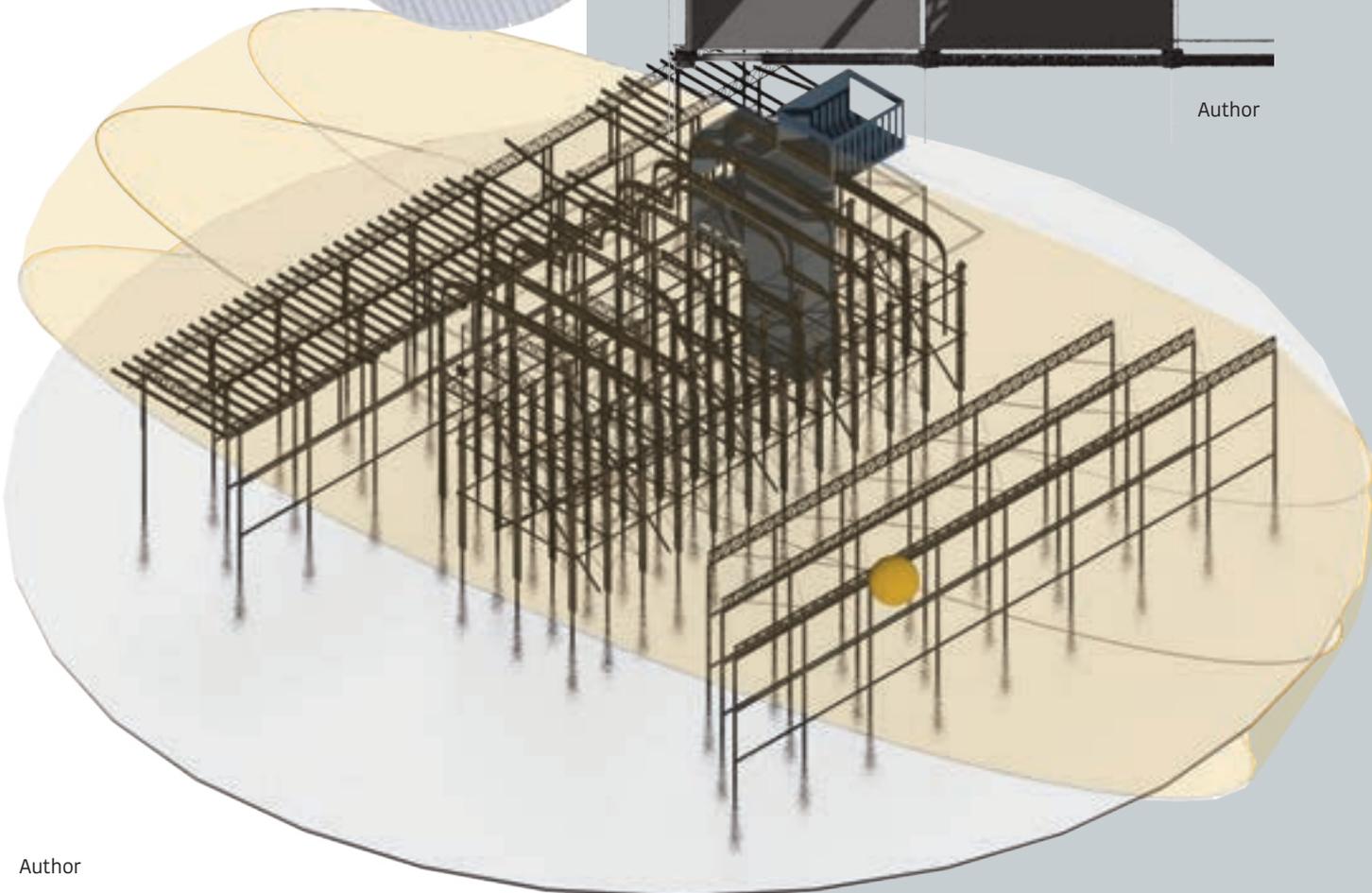
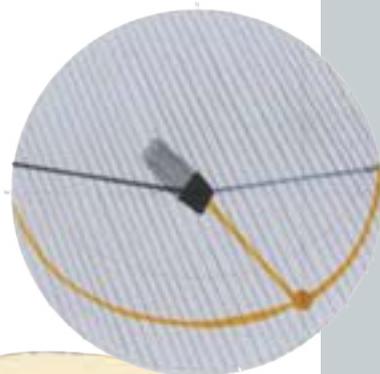
These diagrams are showing the sun path over site on April 1st at 9am, which is the proposed opening time of the festival. I want to figure out the sun path for other significant times during the festivals life.



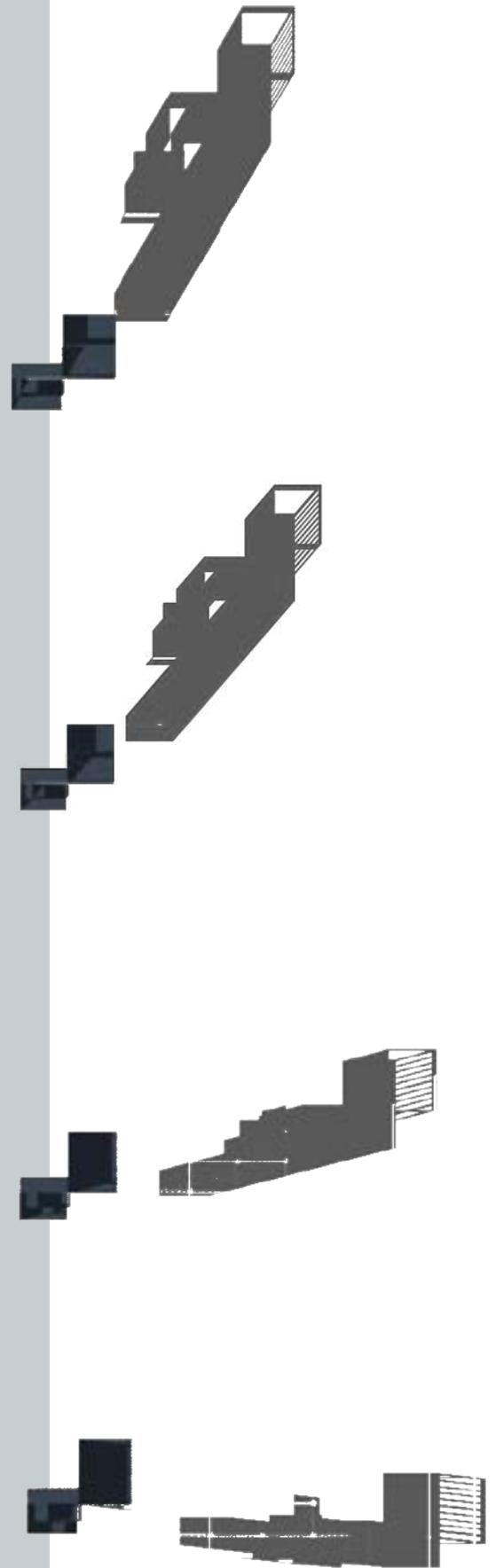
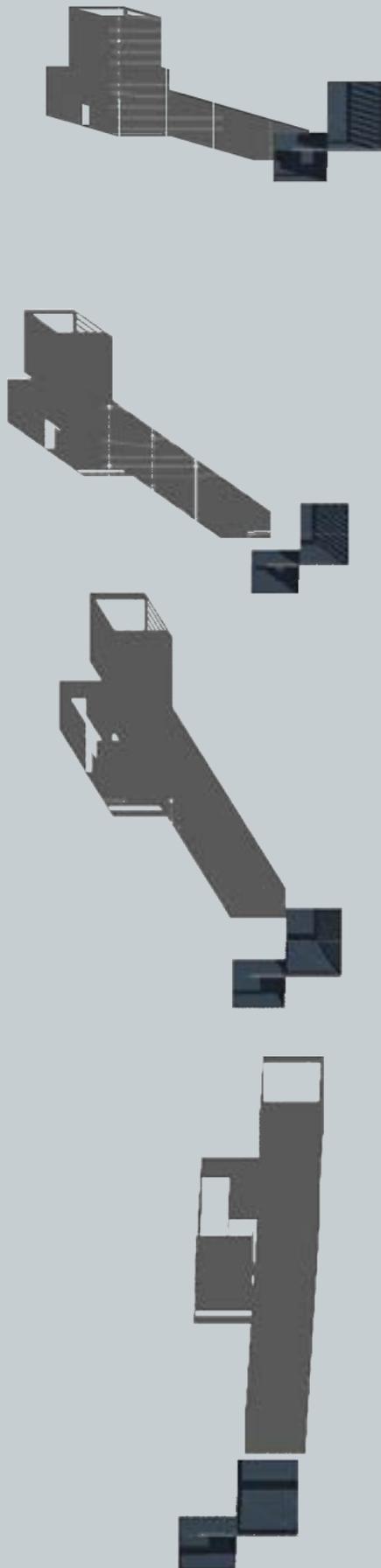
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Author



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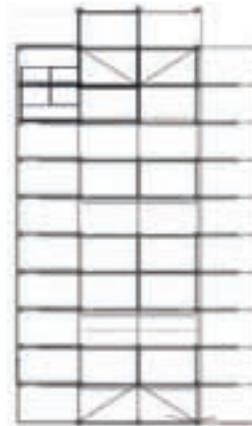
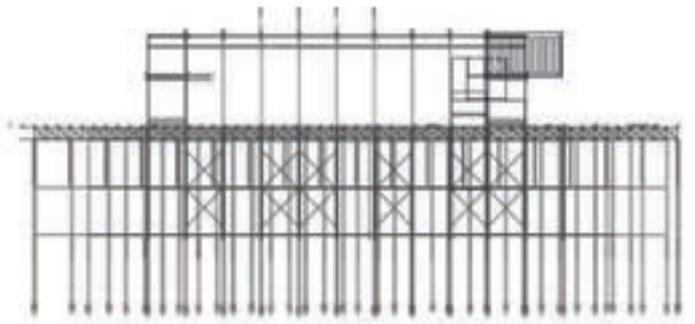
Author

One aspect to potentially follow as well as there the light hits the potential structure, is also the areas in which the structure prevents light from reaching. This can be explored through plotting where shadows will be cast around the exterior of the building, at different times of day.

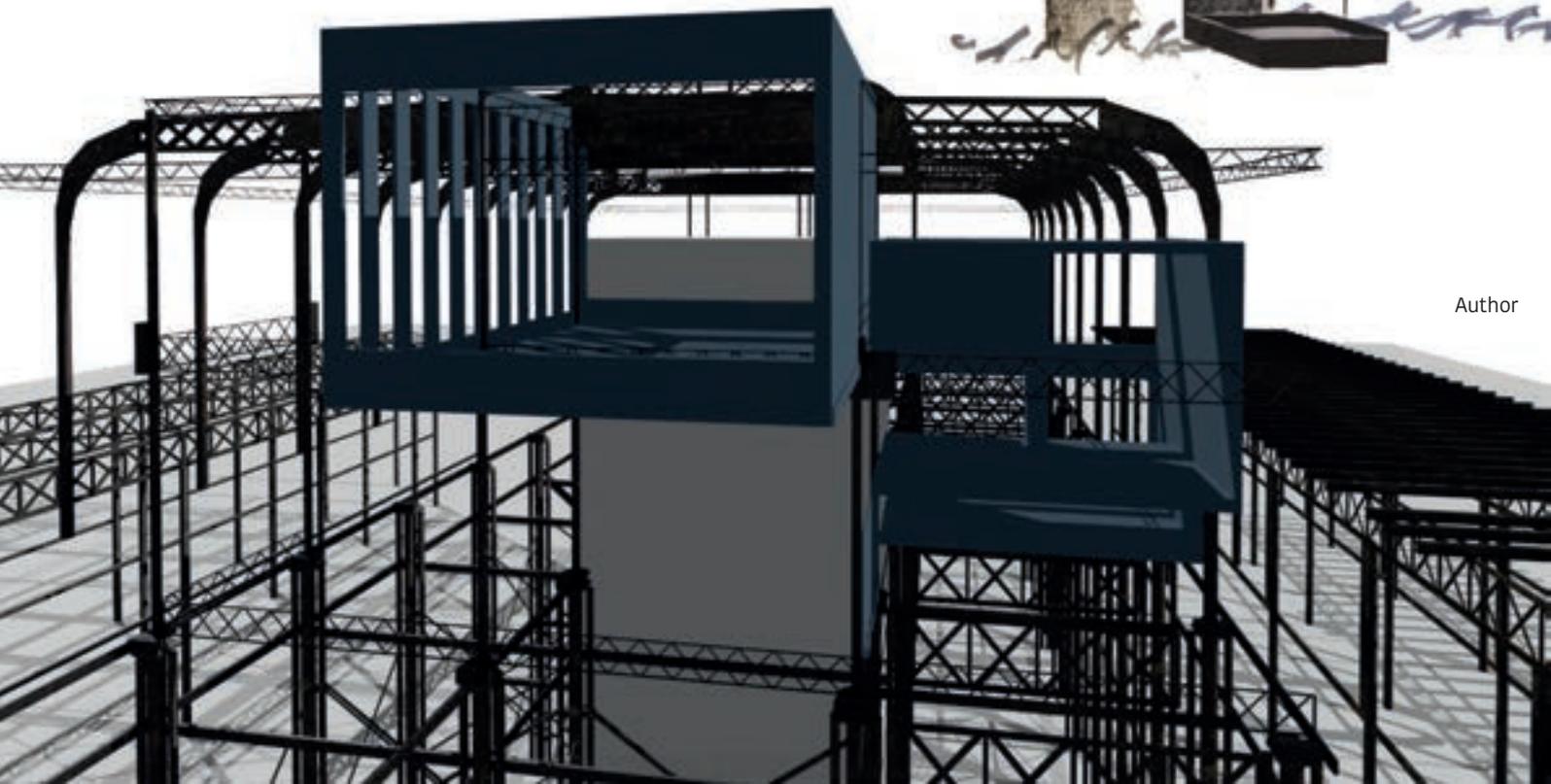
CHAPTER 3.

MASTER PLAN - SITE PLANNING

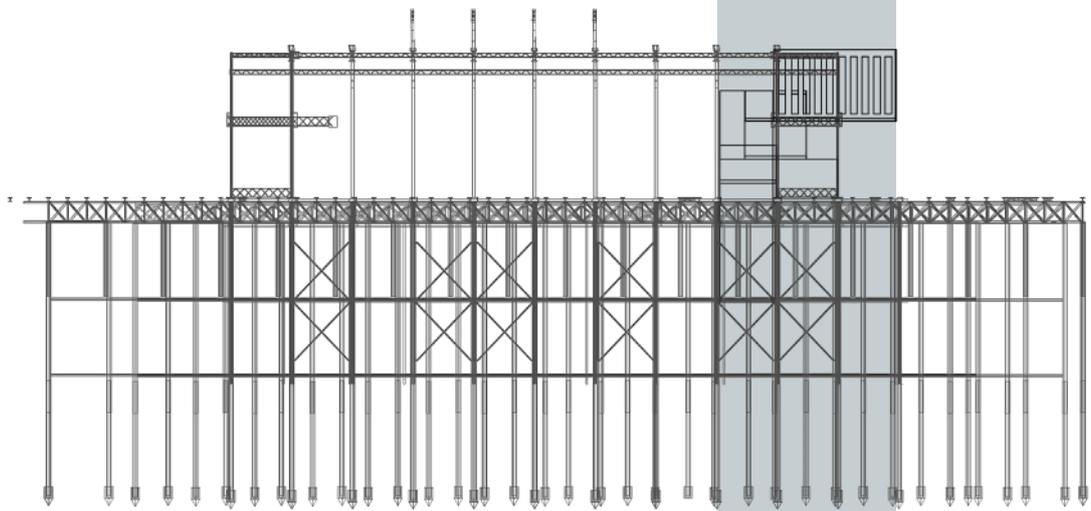




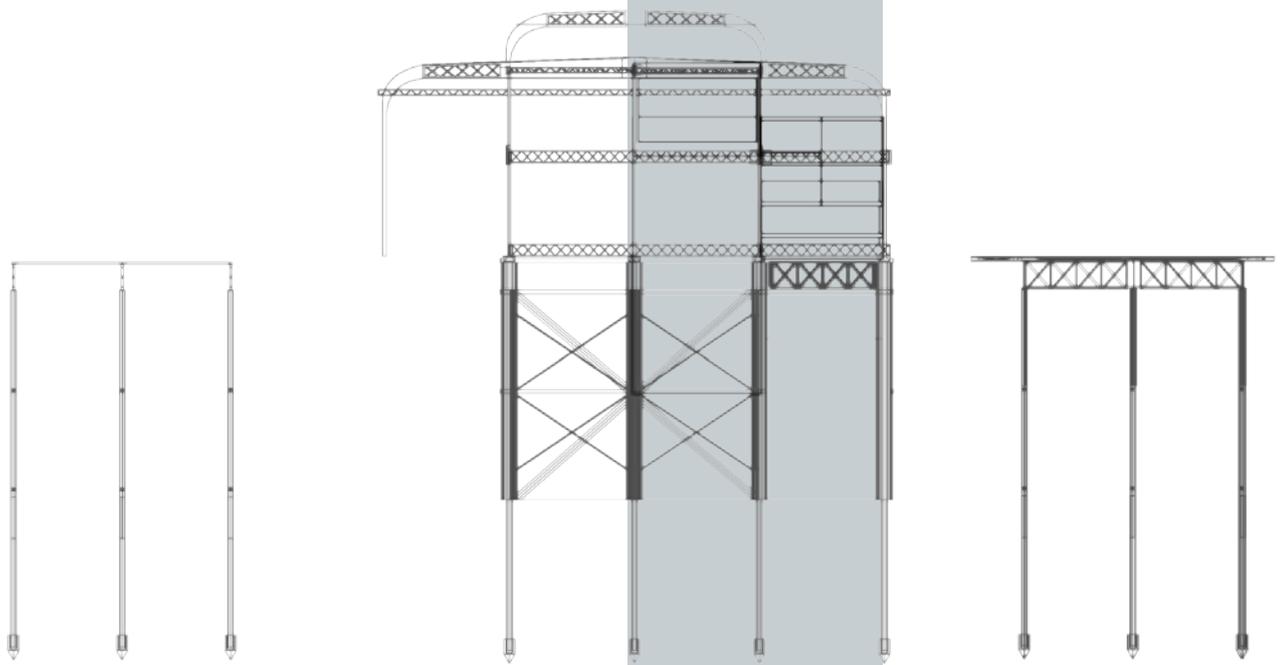
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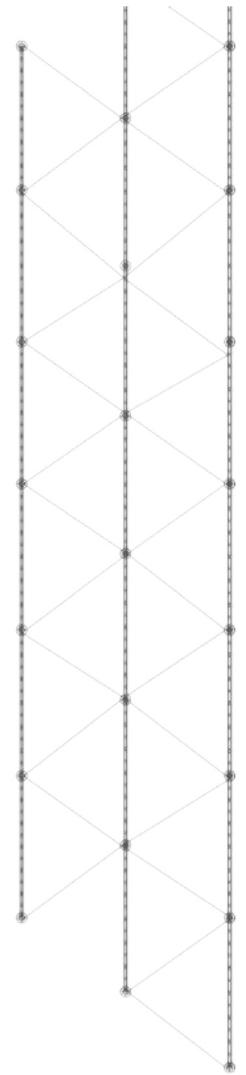
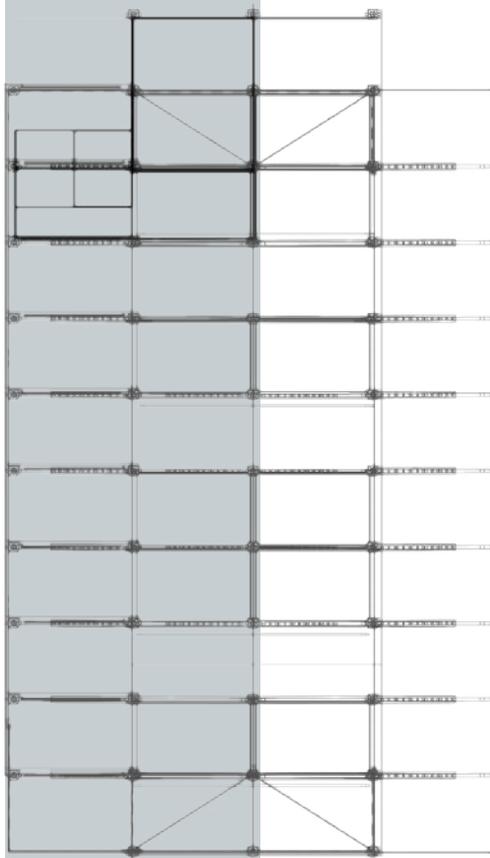
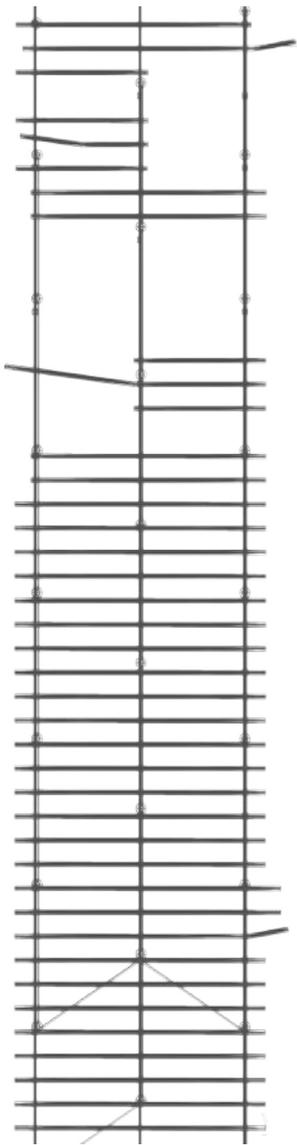
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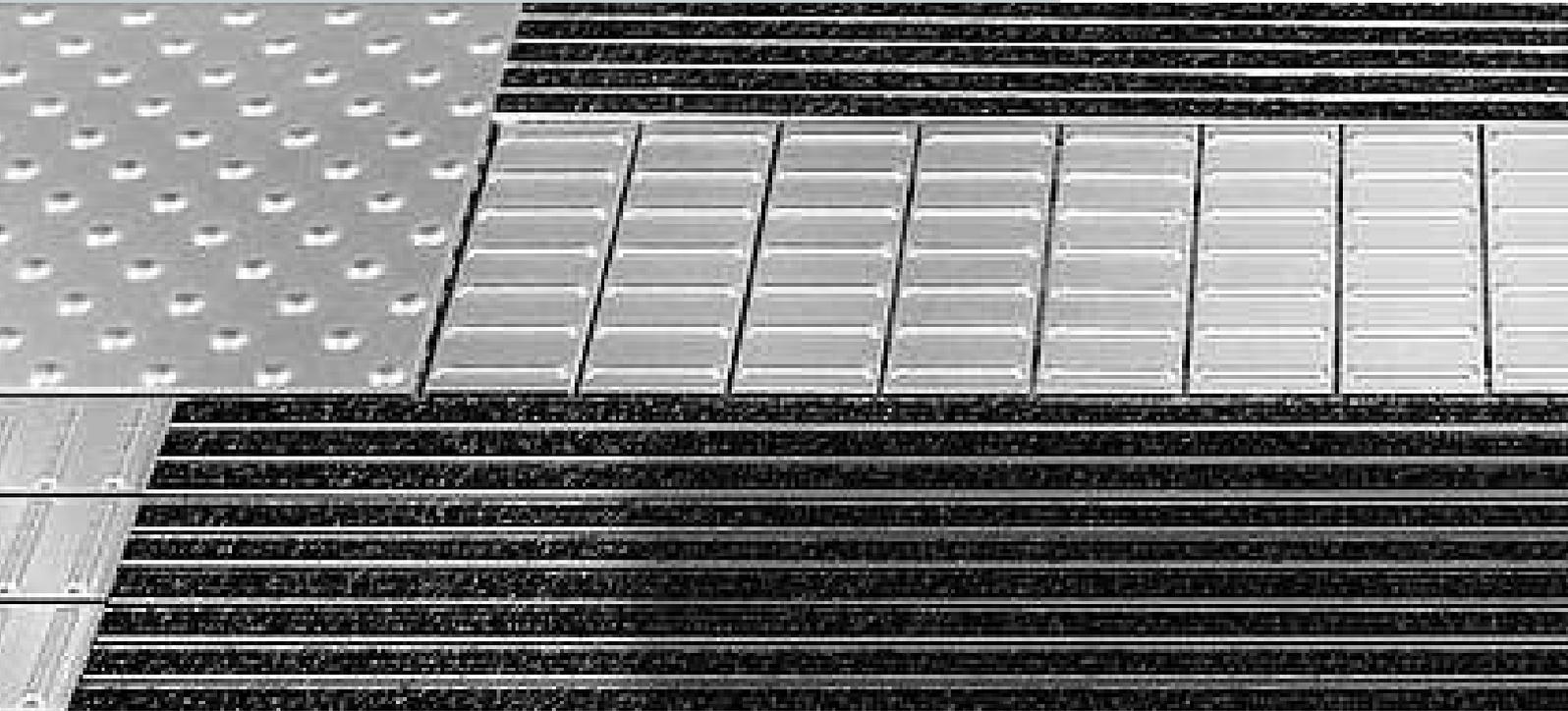
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Author

CHAPTER 4.

INFRASTRUCTURE PLAN

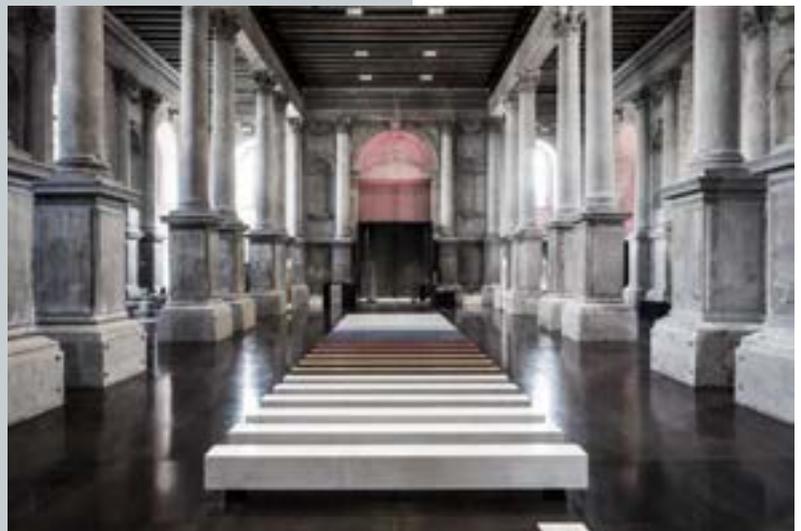


An event that I think can relate to our project to a high extent, is the Venice Biennale of Architecture. The architecture section of the Venice Biennale, was established in 1980, although architecture had been a part of the art biennale since 1968. This festival provides an opportunity for architects and designers to showcase new projects, arranged around a specific site, in individual pavilions. Each revolving around their own theme.

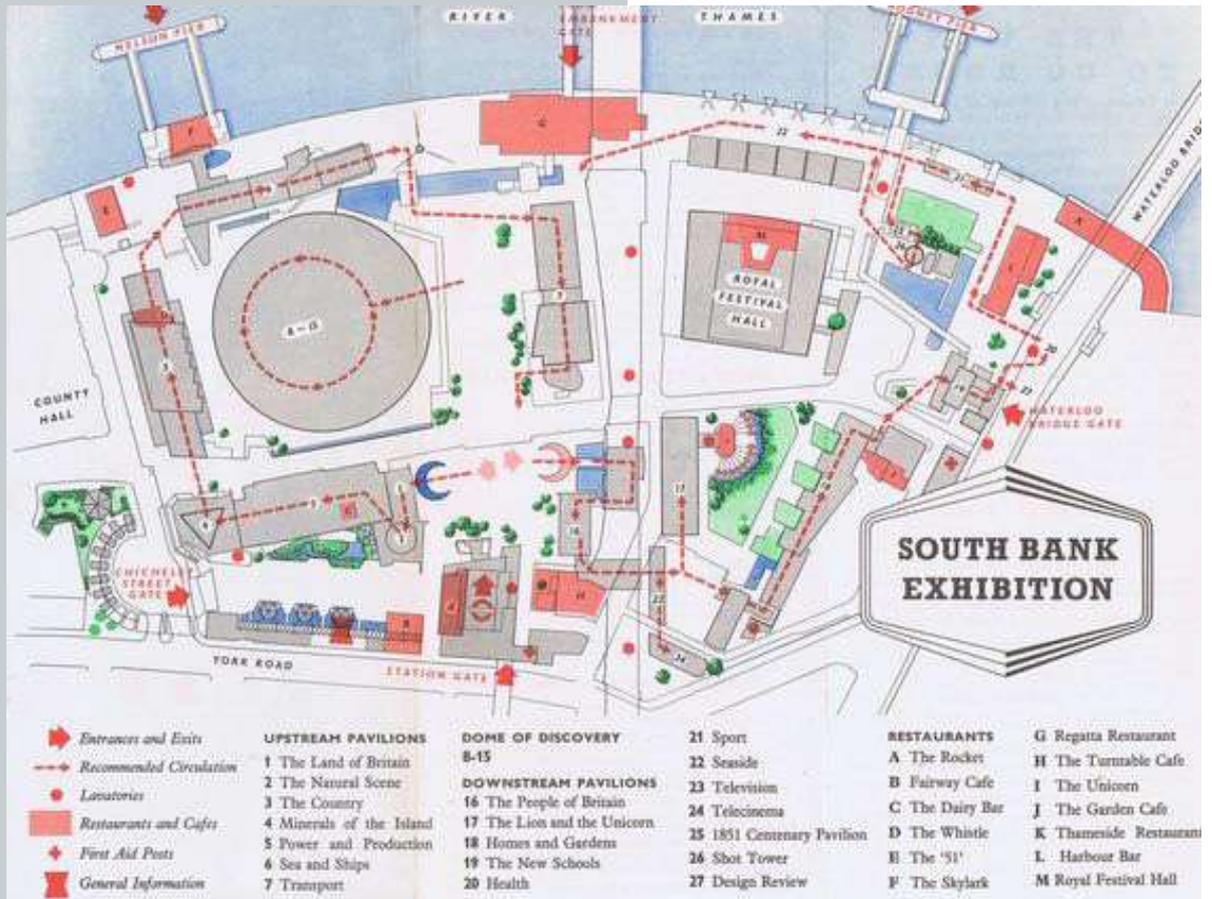
The festival is a temporary installation, so I can use this information as a basis to our design, seeing as our festival will only be around for a specific amount of time.



The Venice Biennale, <http://www.glamourworld.it/58th-venice-international-art-exhibition/>



venice Biennale, Luca Casonato. Courtesy of Studio Marco Piva, 2016 <https://aestheticamagazine.com/venice-biennale-15th-international-architecture-exhibition/>



Twice before, the UK has held a festival celebrating British Culture. In 1951 an exhibition was held at the South Bank in London, displaying some of the most amazing architectural designs, erected from the rumble of World War II. This map and key of the Festival of Britain 1951, is an amazing representation of indicating where specific structures and events are going to be taking place. I want to replicate this type of programme within my own portfolio to indicate the where each of the individual pavilions are situated and what activities they are representing.

Map of The festival of Britain, HMO, London, 1951, <https://www.alamy.com/stock-photo-map-of-the-south-bank-exhibition-from-the-festival-of-britain-guide-36845426.html>

Before deciding on the type of infrastructure that will connect our festival on the Pier together, I thought it was suitable to study some other similar structures and events around the world. The first one that I have found relevance to, is the Scheveningen Pier, in Der Hagg, The Netherlands.



This structure is an original pleasure pier in the Dutch resort town of Scheveningen near The Hague. Opened in 1959, the current pier is the second in the town, the first being lost just after, and as a result of, the Second World War. Similarly to West Pier, it has been through many events that have affected its structural integrity and aesthetic. However this particular pier is still in use and has been adapted over the years in multiple different ways, to enable tourism.

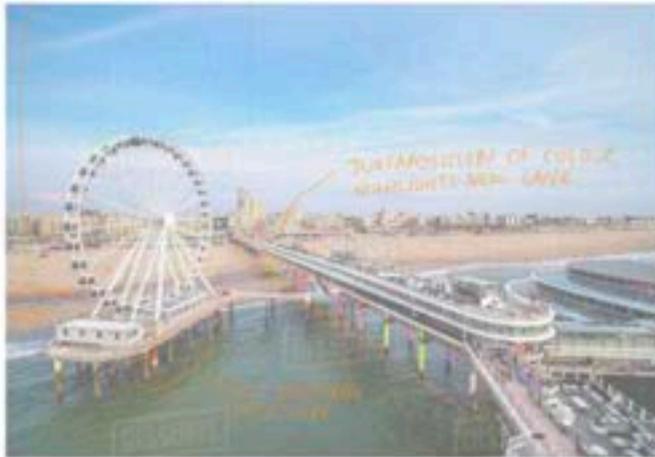
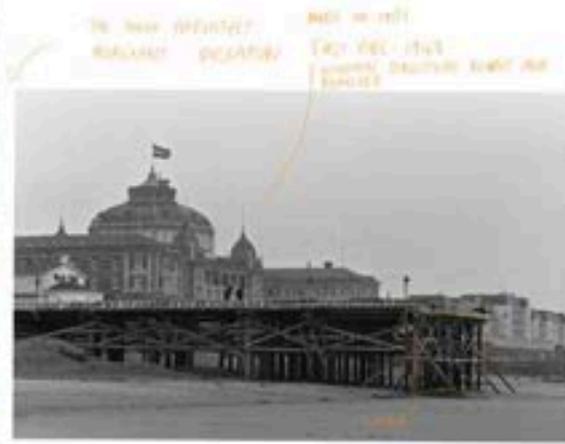


One of the methods that have been used include the construction of levels for the main pier, the lower deck a closed in section, the upper open to the elements, with four terminal section called 'islands', each originally with separate focus.

This tactic is one that I would like to use in the development of our access infrastructure. As access is needed among different heights, from specific pavilions, I am considering having multiple levels for members of the public to use.



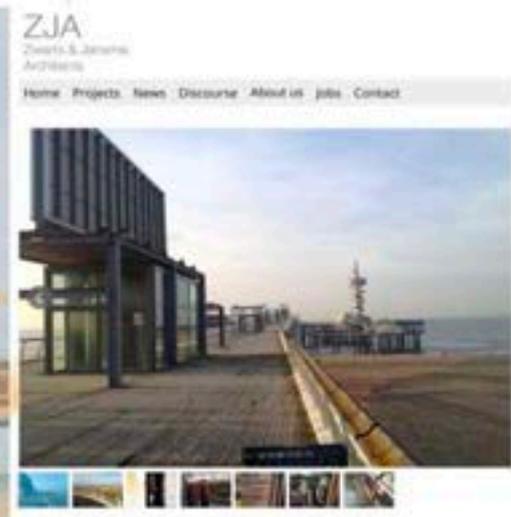
All above images sourced from, <https://den Haag.com/en/the-pier>



STEEL TIMBER WOOD

SCHEVENINGEN PIER DE HAAG

ARCHITECTS FOR INTERVENTION
COMPLETED IN 2014



All above images sourced from, <https://denhaag.com/en/the-pier>



Another place to potential take inspiration from is Australian studio PHAB Architects. They have converted a former condensed-milk packing shed into an art gallery and workshop, without losing the building's industrial character and materiality. They have achieved this by using a contrasting colour against the original framework, emphasising the salvation of the existing primary features.

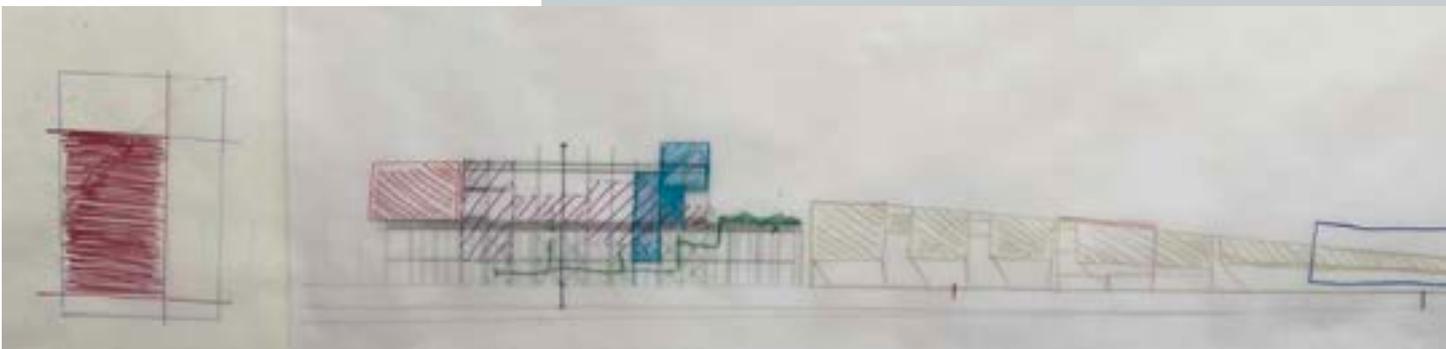
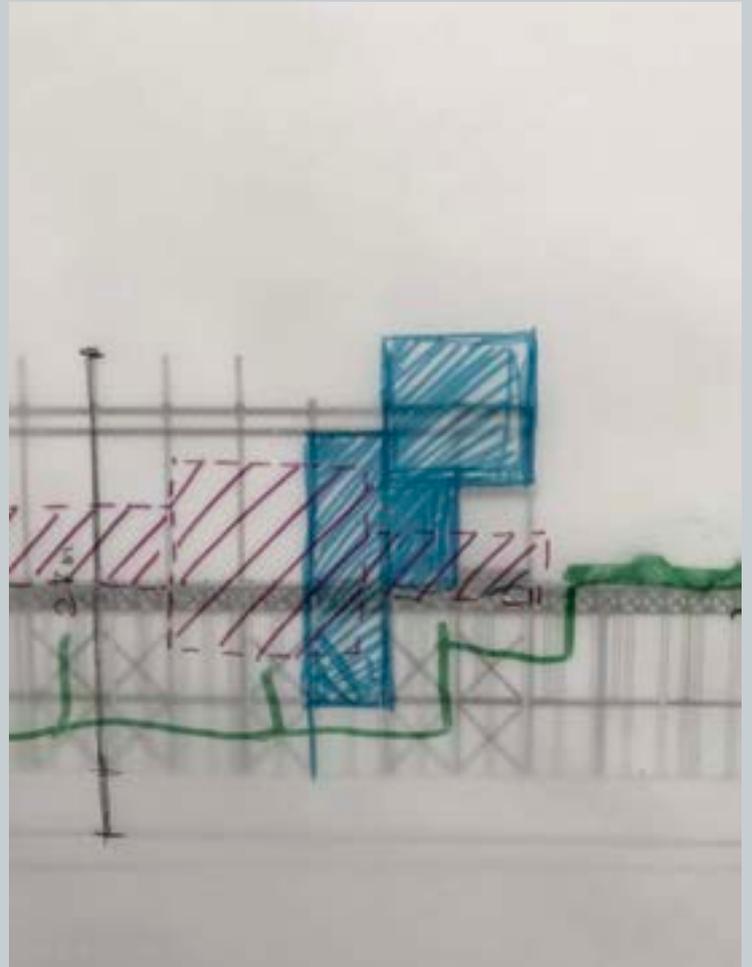


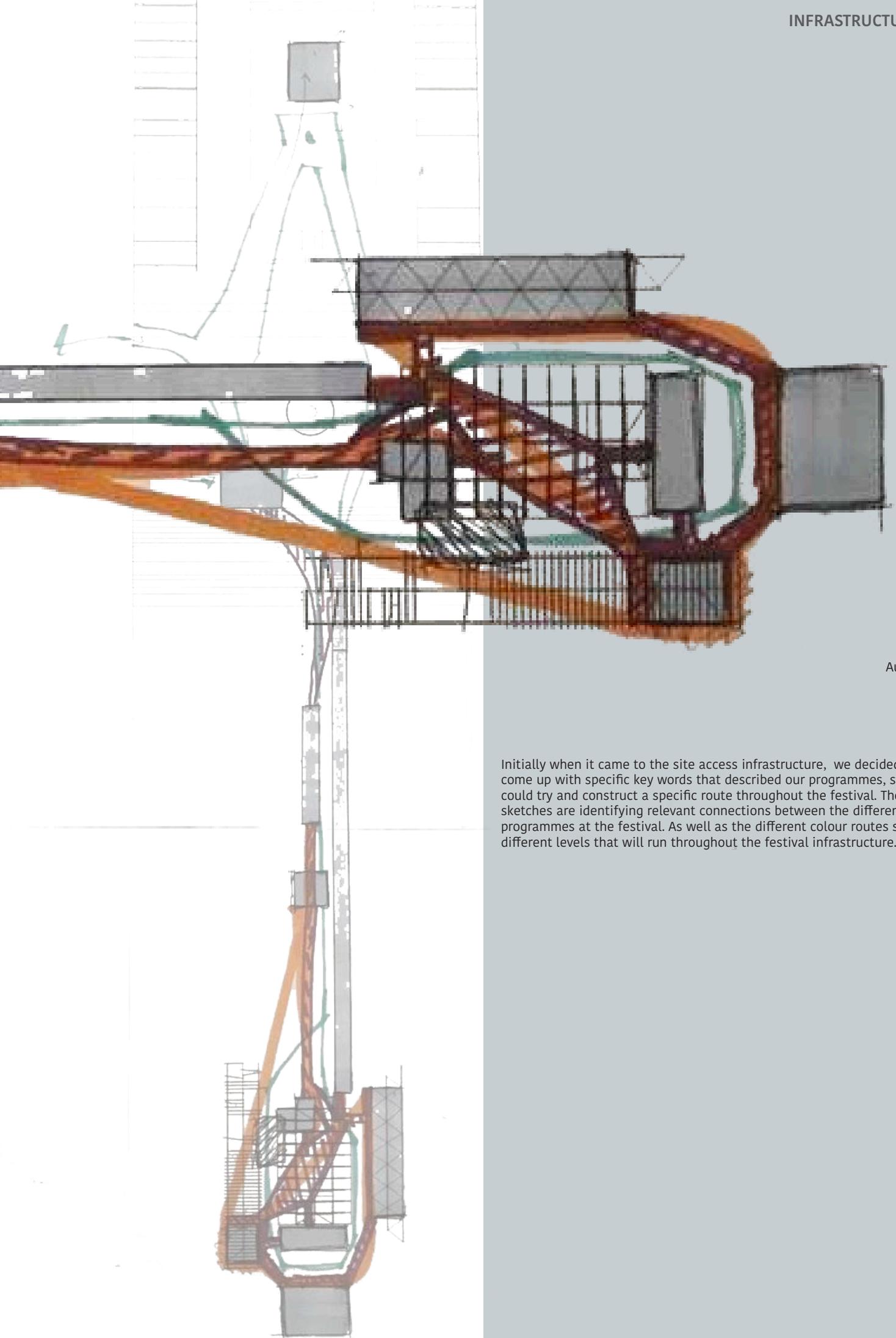
PHAB Architects, Queensland, 2016, Alan Griffiths, <https://www.dezeen.com/2016/05/15/somerset-regional-art-gallery-the-condensery-phab-architects-1920s-packing-shed-adaptive-reuse-modern-art-gallery-toogoolawah-australia/>

After researching some precedence relating to the type of event that we are going to be holding, we had a team meeting to discuss where each of our pavilions would sit within the site. As well as assigning individuals with what specified part of the infrastructure that they would be designing.

When decided where we would all be situated, it came down to justifying reasons as to why our pavilion should be placed where. This was achieved through individual presentations.

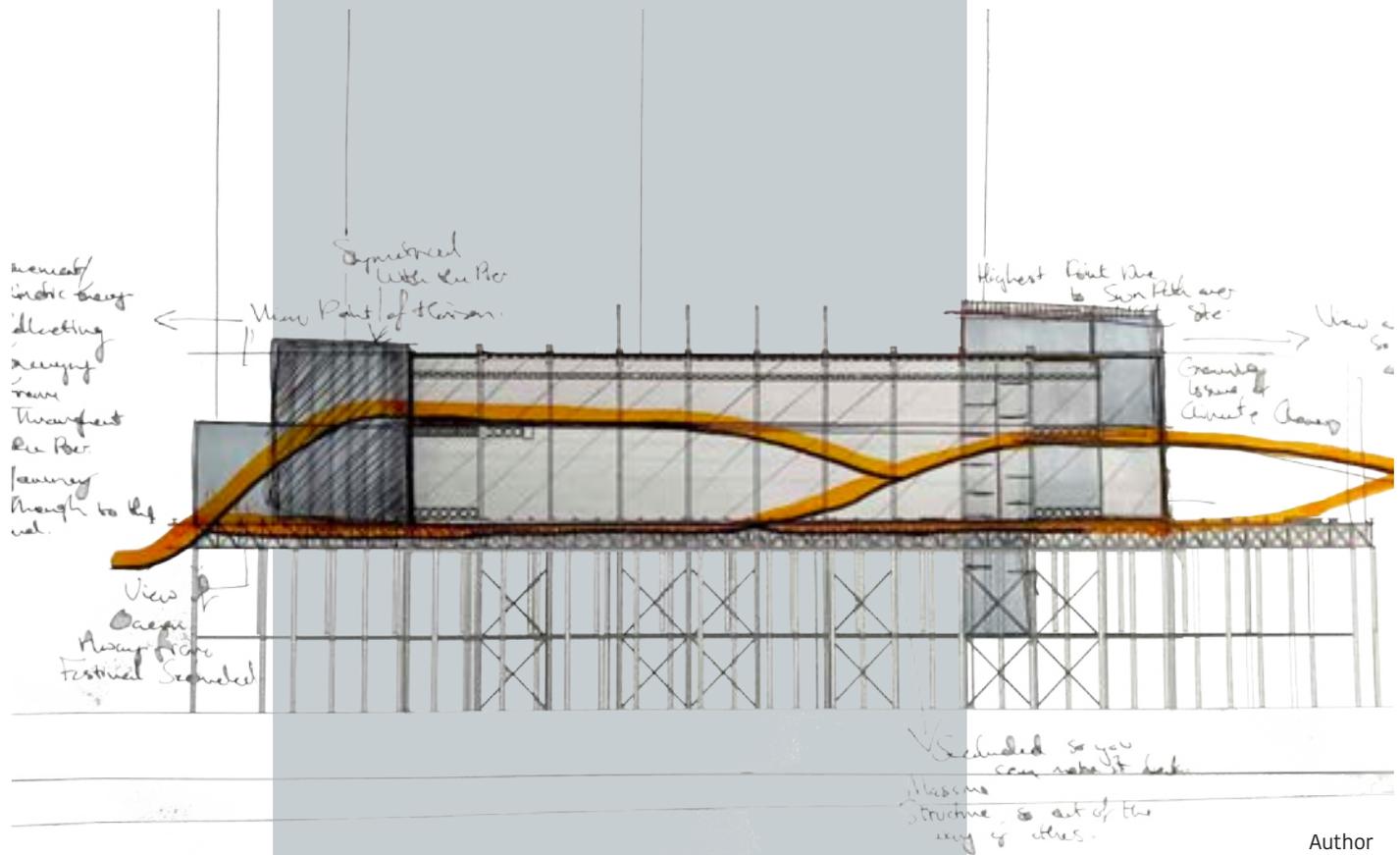
In the end we ended up with this configuration, and began problem solving with regard to how everyone would be connected within the space.





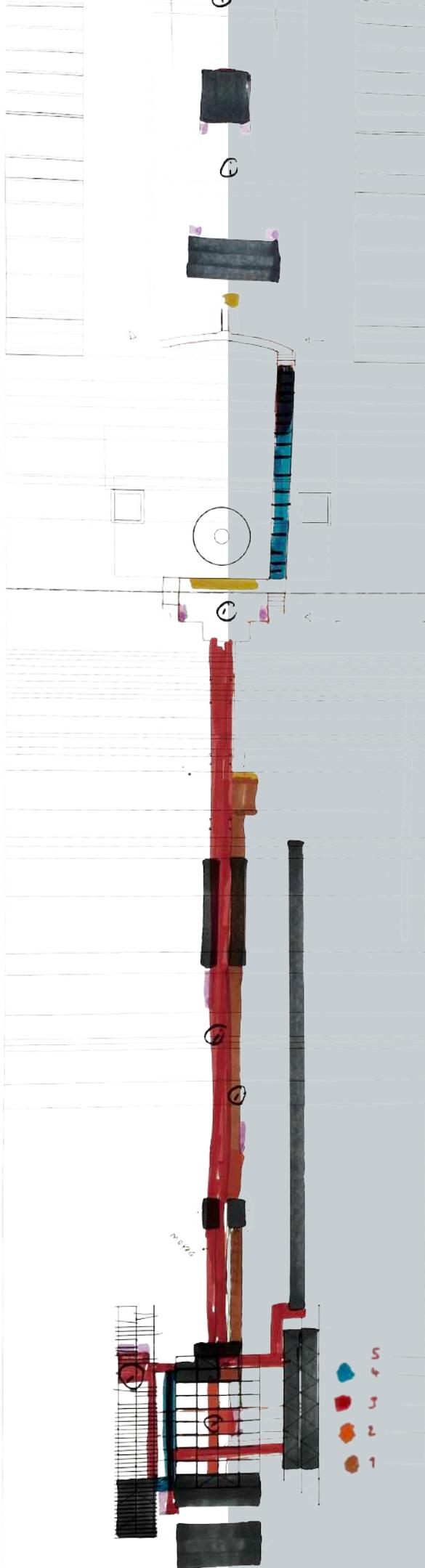
Author

Initially when it came to the site access infrastructure, we decided to all come up with specific key words that described our programmes, so that we could try and construct a specific route throughout the festival. These first sketches are identifying relevant connections between the different site programmes at the festival. As well as the different colour routes showing different levels that will run throughout the festival infrastructure.



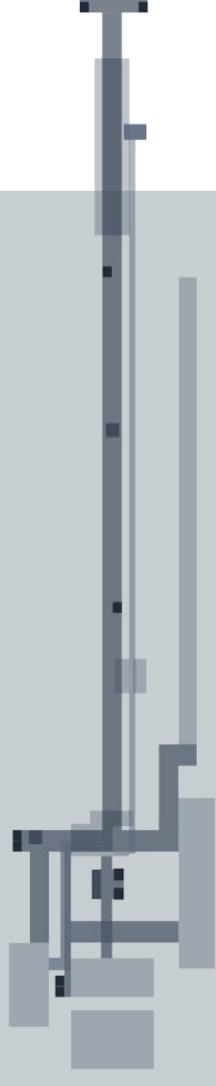
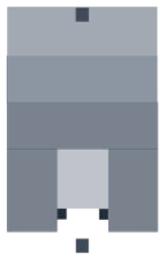
This section visually communicates the different levels that could potentially run throughout the festival. It also suggests why certain individuals have been placed in the areas that they are.

Author

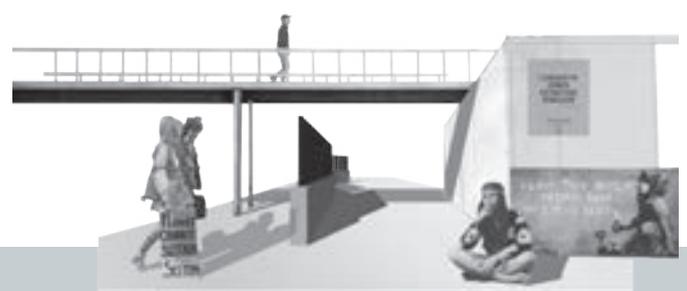


These sketches are a more finalised version of the design process. We planned as a group where certain infrastructural elements would sit within the festival structure, including, toilets, ticket and information points, and rest and view points. At this point I also decided on the placement of different levels for the access of infrastructure, after discussing with everyone, the necessary enter and exit points for their individual pavilions. The different colours indicate different levels



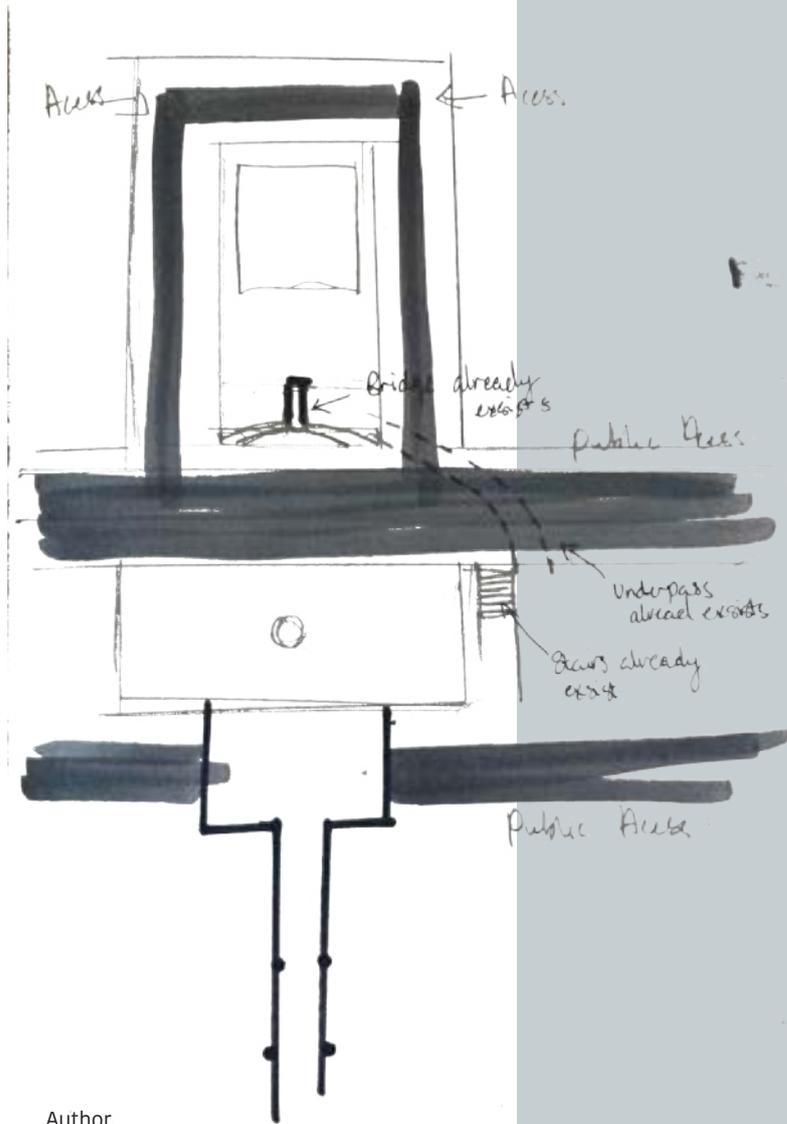


This diagram maps out where the infrastructure will sit in plan, including not only the access but the ticket booths and the toilets, as well as information and rest points. (Key will be added here) I am also displaying how the infrastructure will look in relation to my totem from the first semester, during the festival.



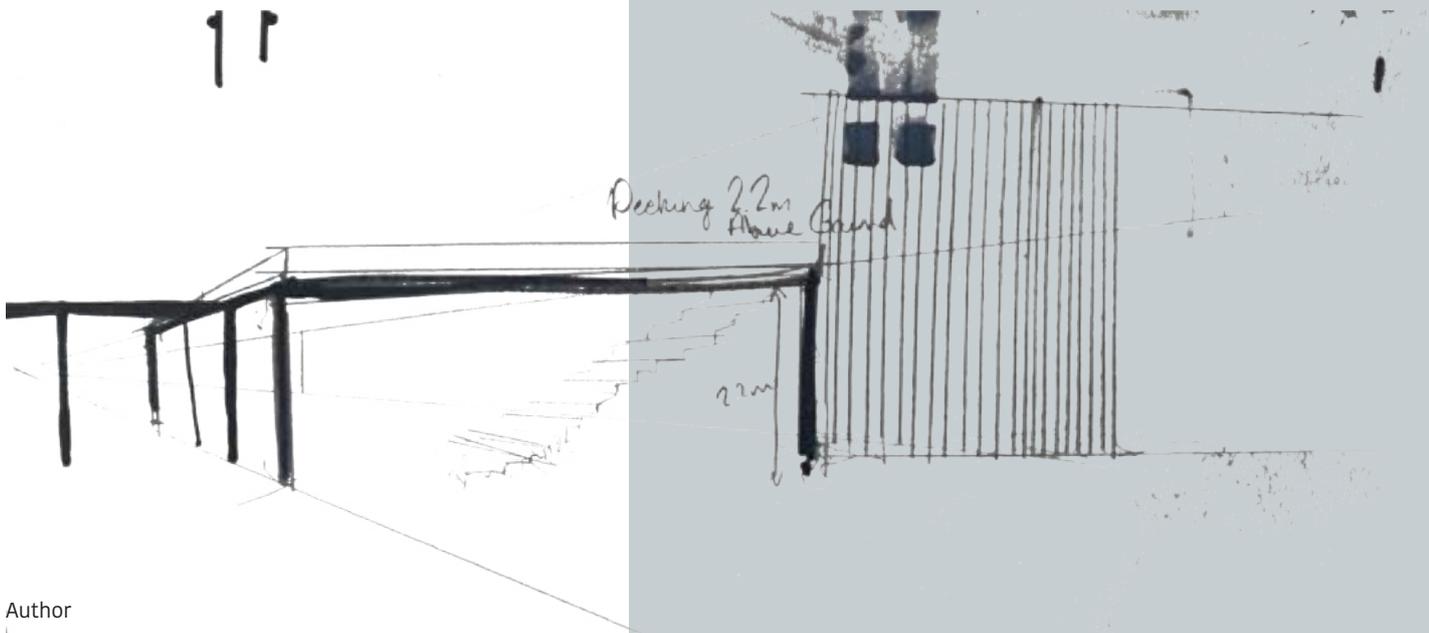
Author

Author



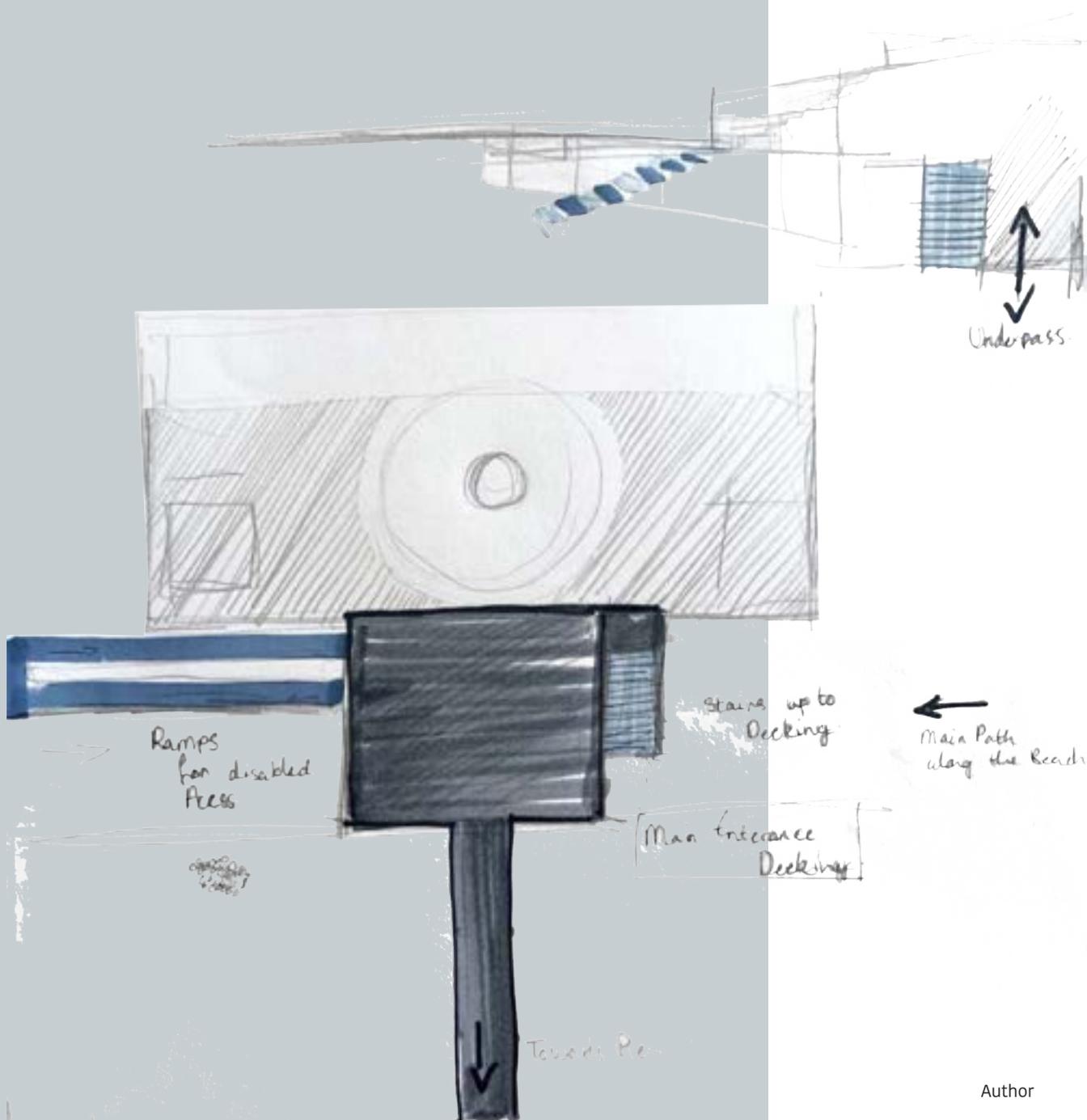
Author

When starting to design the access to the festival, I began with analysing the main points in which members of the public enter our site. As well as studying the existing structural features that could be used within my access design. I discovered there is a bridge that can connect the pavement on the main road to the gardens in between Regency Square, as well as an underpass, that connects the far side of the road with the Beach. This solves the problem for creating easy and safe access for festival goers between the two areas on the site.

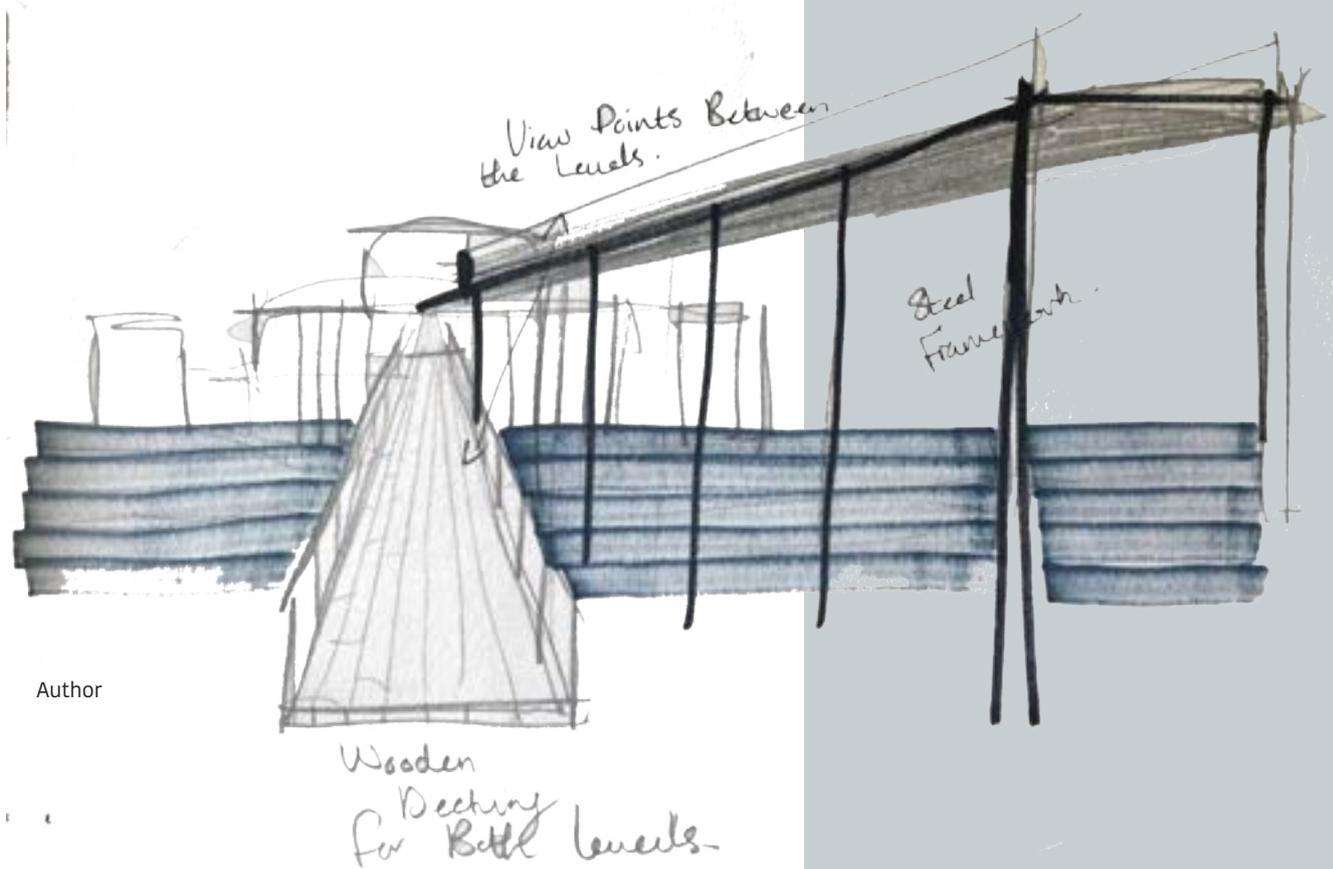


Author

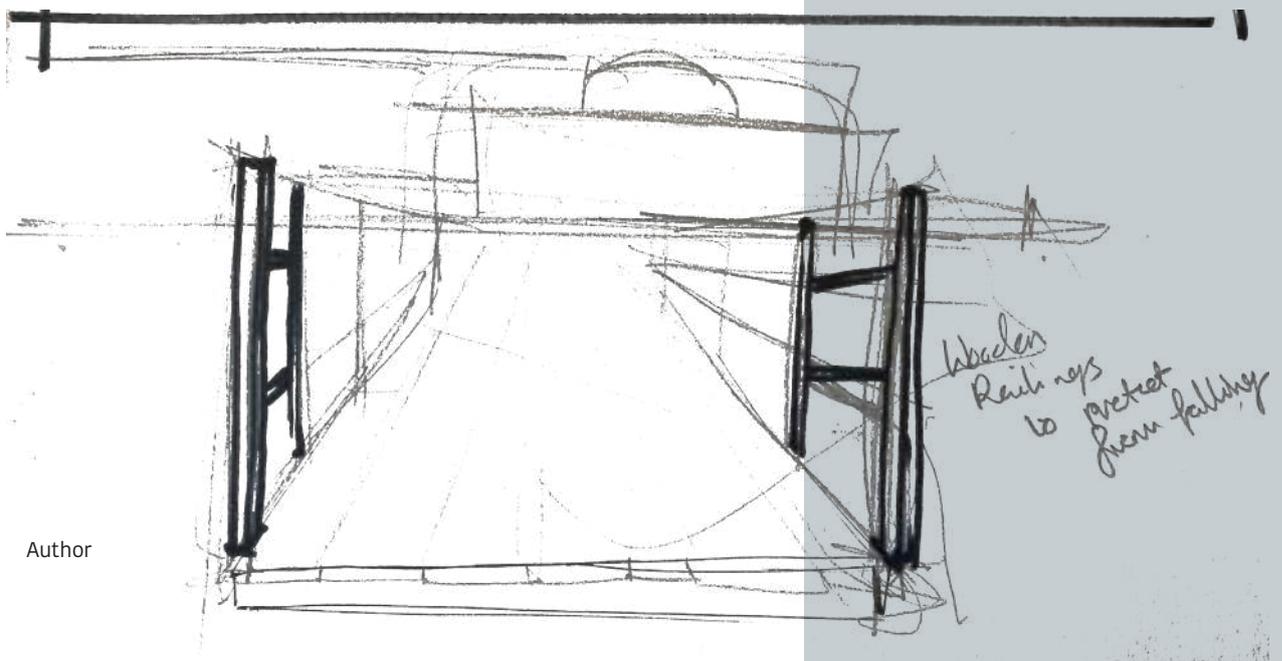
I have decided to create a raised decking area above the restaurant outside the i360. This is due to causing as little disruption to the existing programmes around the site. I have also considered access points on either side of the decking, consisting of steps and a set of ramps, enabling disabled access.



Author

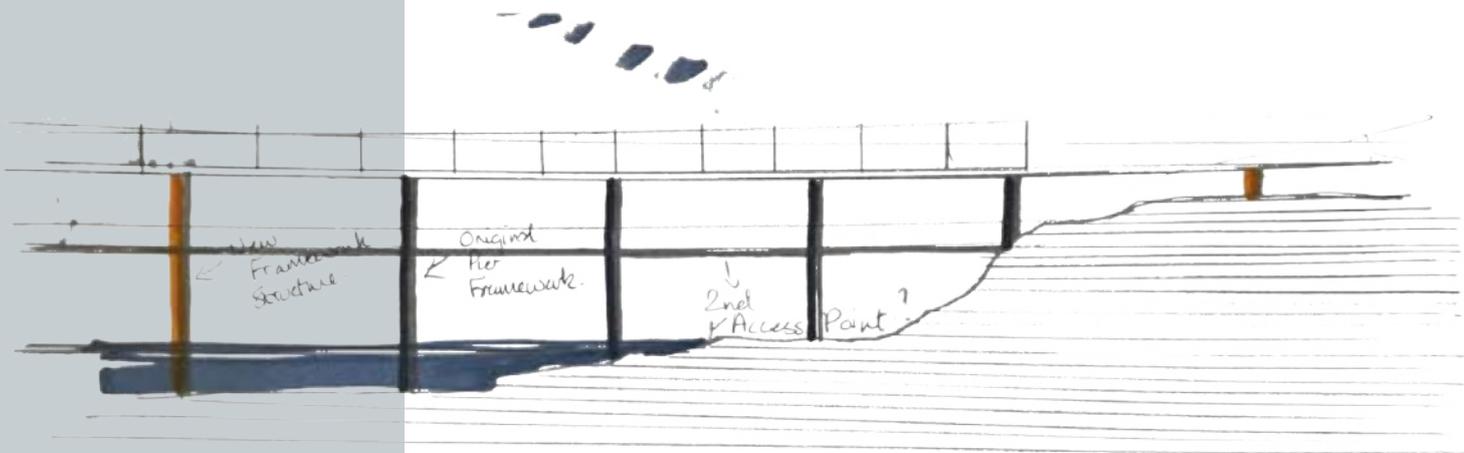


Author



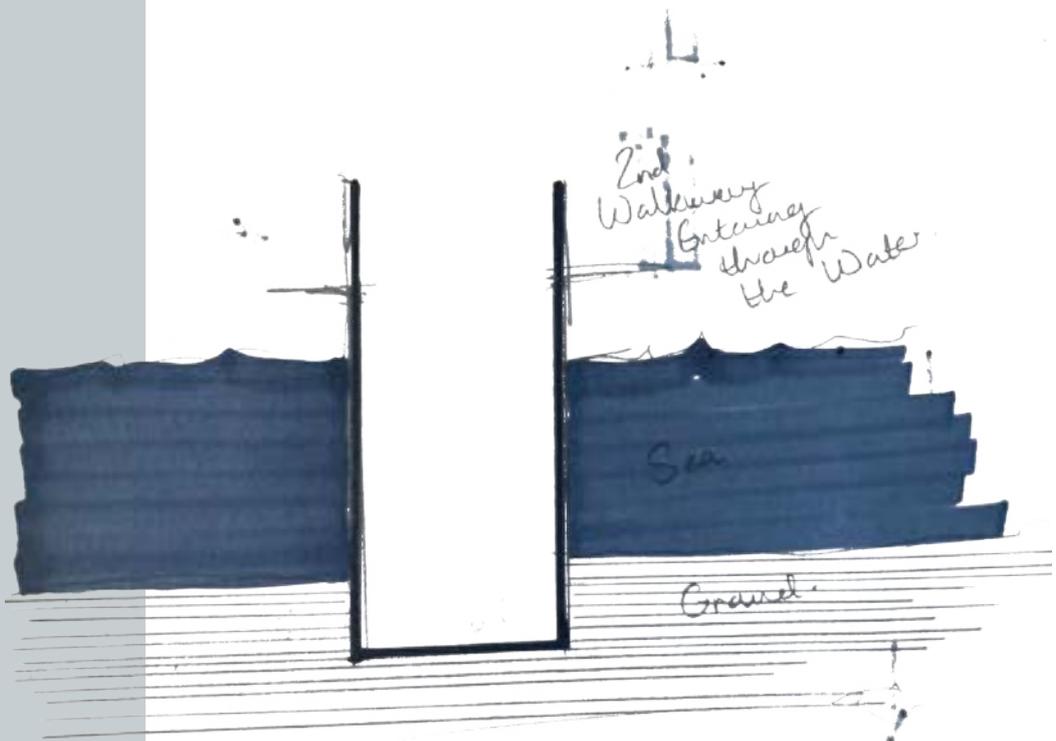
Author

Due to the positioning of specific pavilions within the festival, it was necessary to include to different points of access from different levels of the beach. This creates interesting spacial relationships through view points between the two structures. Running along each set of decking, will be railings to act as safety features.

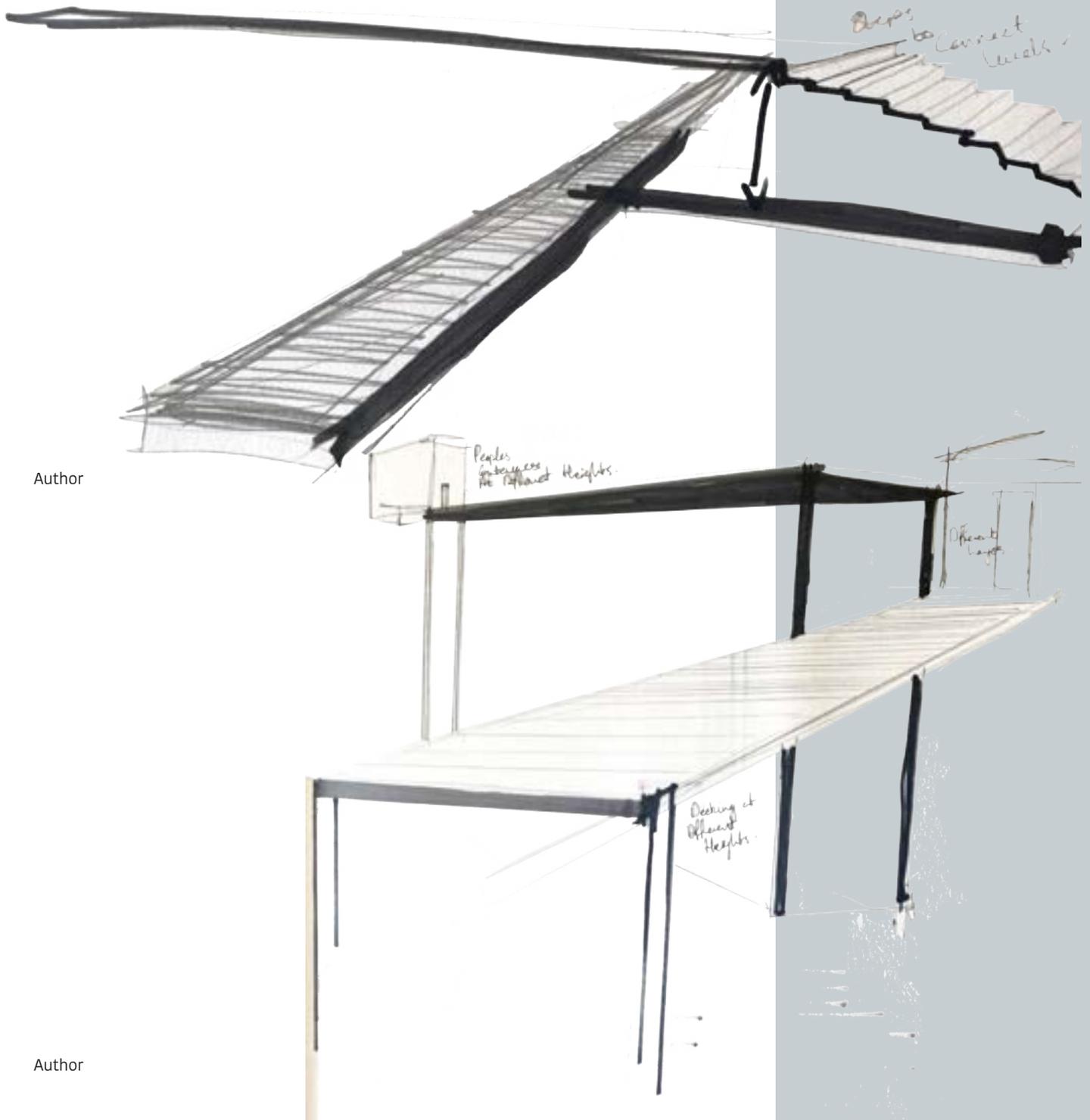


Author

When looking at the specific heights for the different levels, I took in to consideration the height of the existing columns from the original West pier. Using the original piles will act as a guidance point for the ground level of the Festival structure. I was also considering having the second access point, at a level that interacted with the water, depending on the tide levels. This was to make a connection between the infrastructure design and my programme.



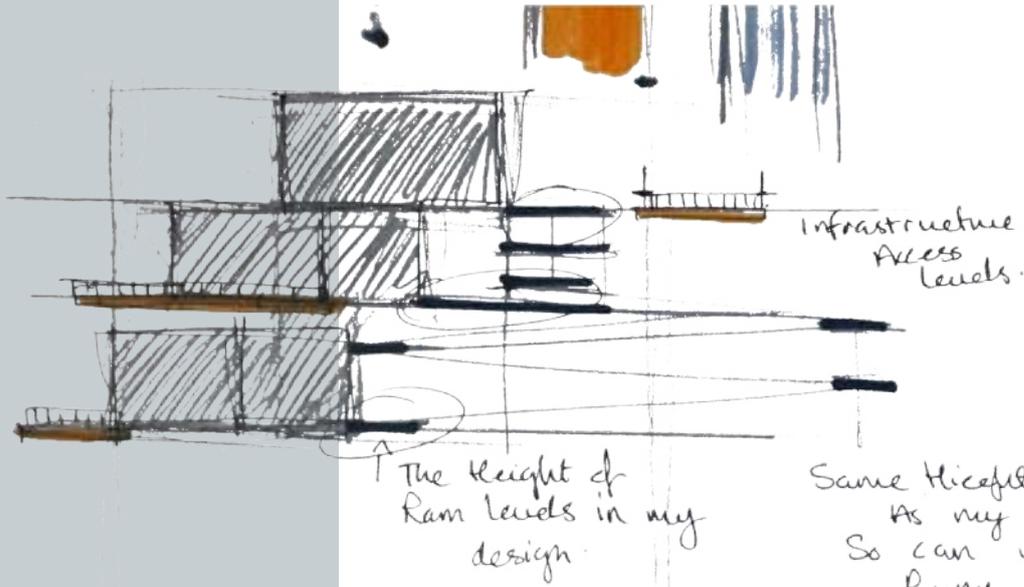
Author



Author

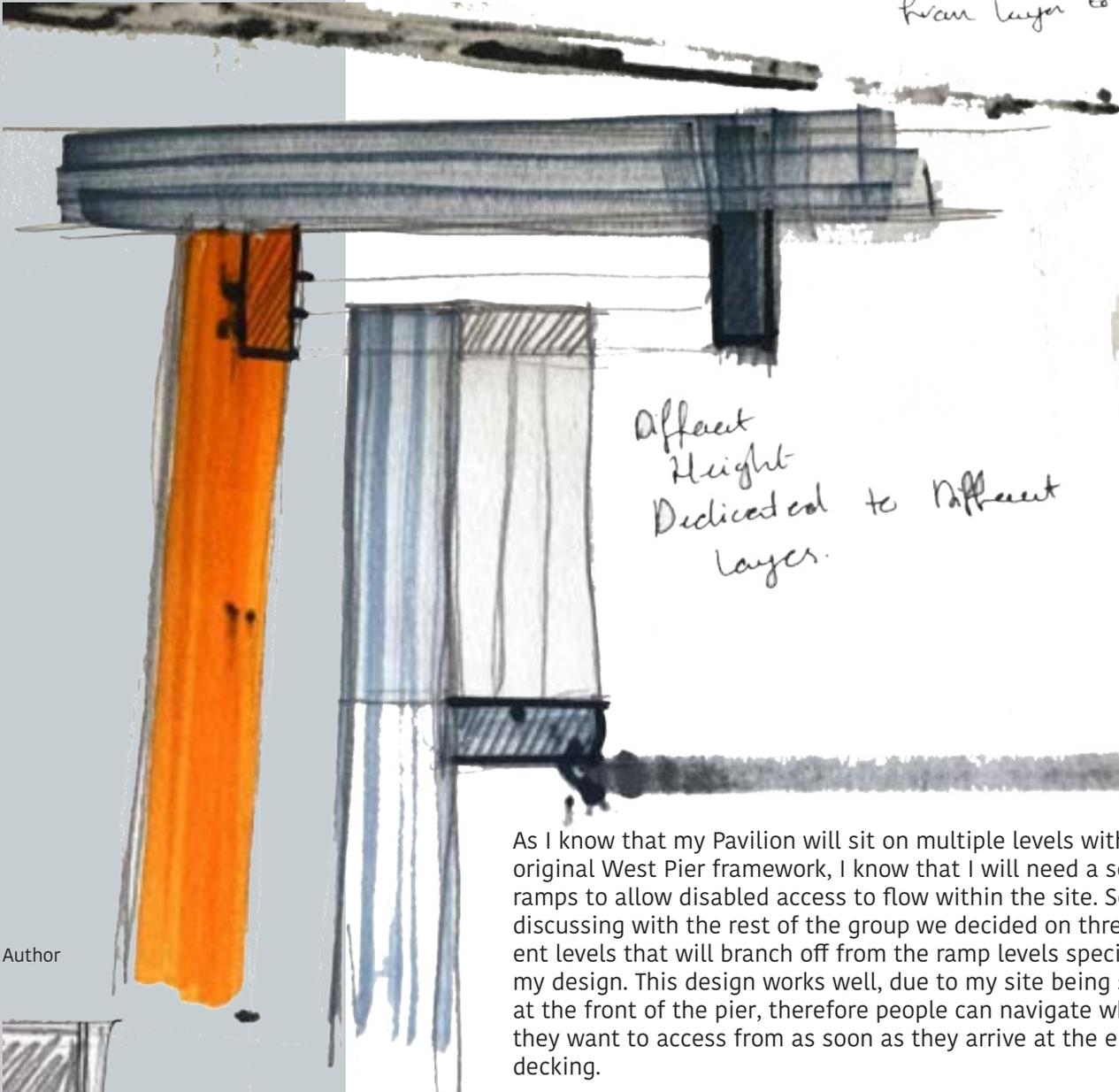
Author

Due to there being multiple pavilions with access points at different points and heights, multiple levels will be extended from the decking and to the main infrastructure, to navigate around the festival within West Pier. Creating easy access from different pavilions along the same height of entry and exit points.



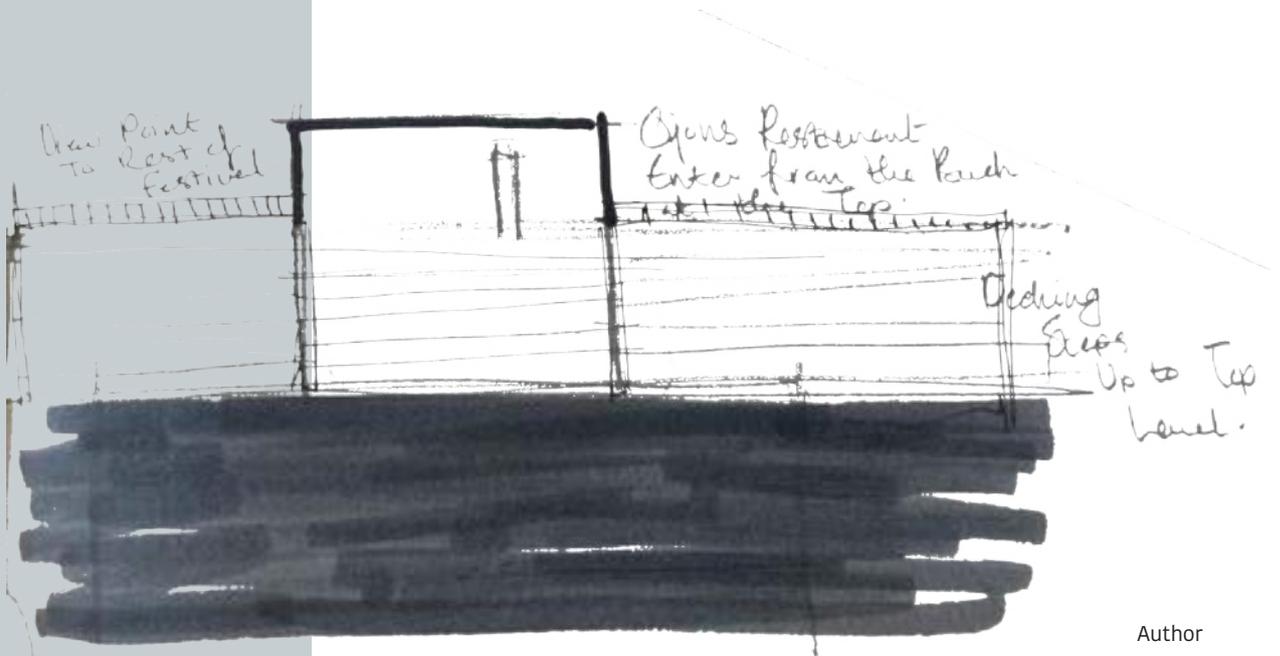
Author

Same Heights
As my levels
So can use the
Ramps from my
design to get
from layer to layer.

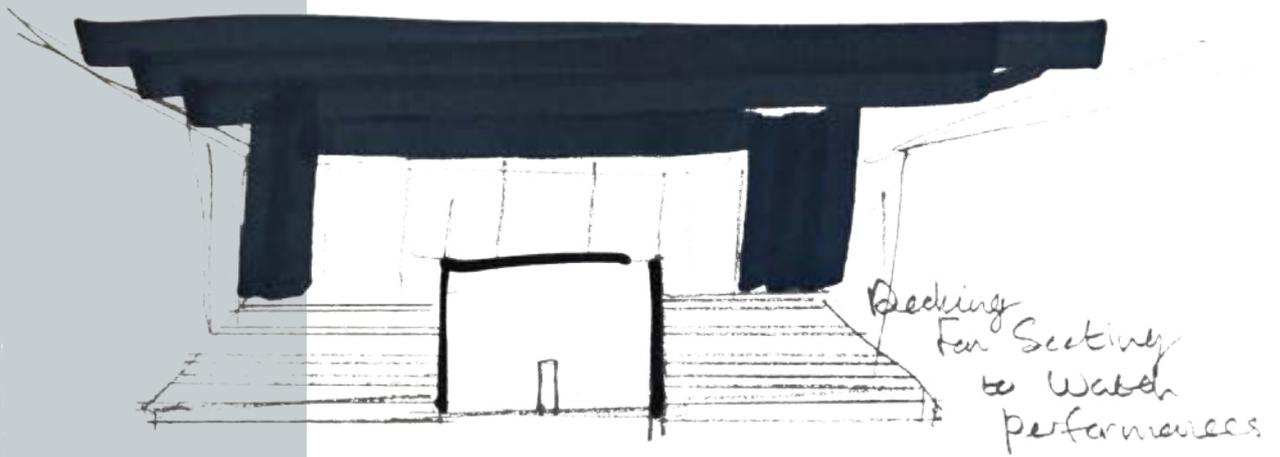


Author

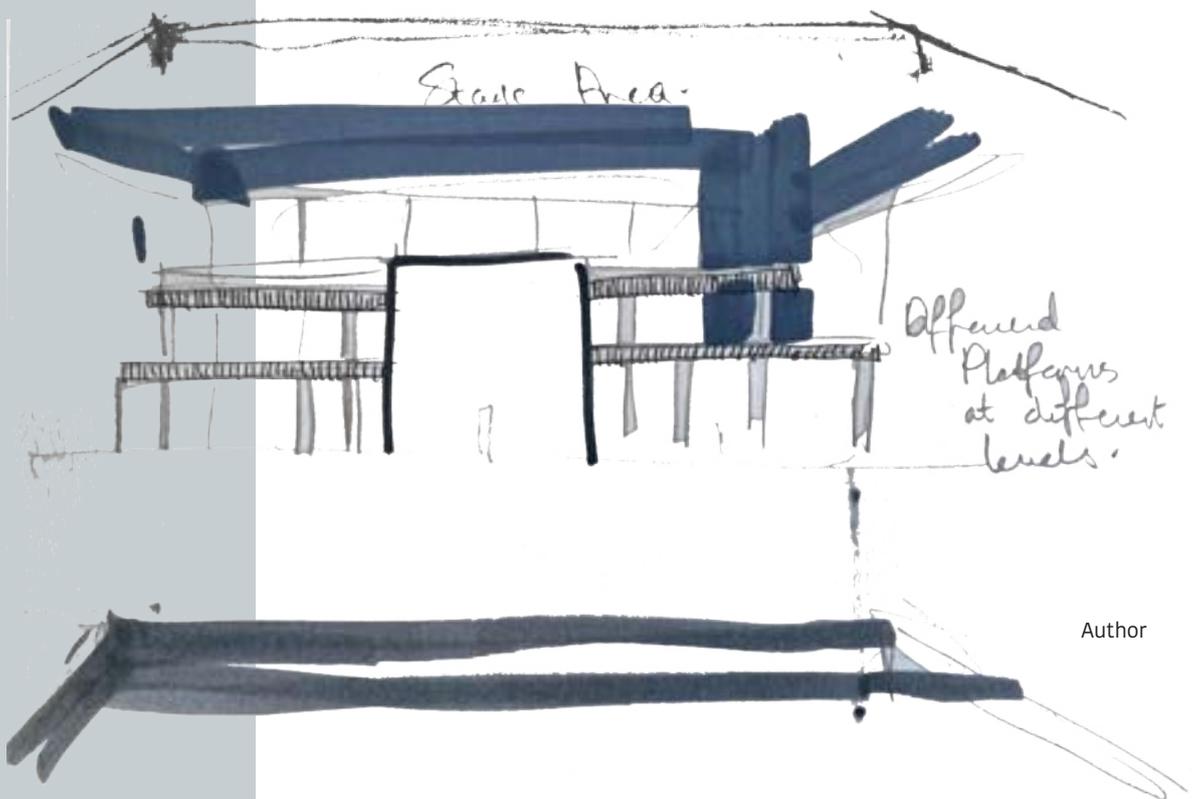
As I know that my Pavilion will sit on multiple levels within the original West Pier framework, I know that I will need a set of ramps to allow disabled access to flow within the site. So after discussing with the rest of the group we decided on three different levels that will branch off from the ramp levels specified for my design. This design works well, due to my site being situated at the front of the pier, therefore people can navigate which floor they want to access from as soon as they arrive at the end of the decking.



Author



Author



Author



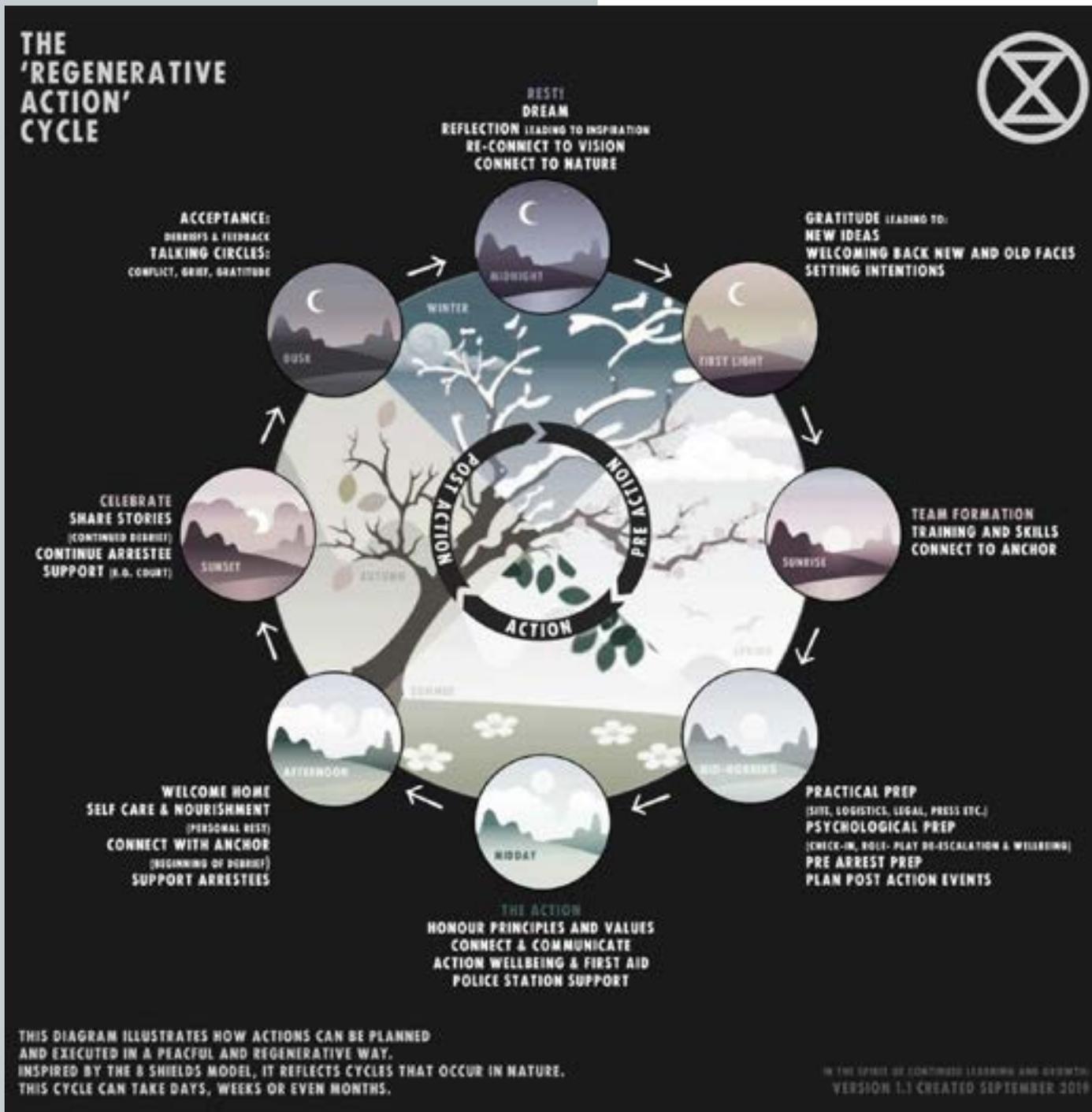
Author

This diagram represents where all of the individual pavilions from our festival will be placed. Along with where the infrastructural paths ways will sit in relation to the pier and the surrounding areas. It also maps on where the proposed set of toilets and tickets and information points are.

CHAPTER 5.

PAVILION DESIGN DEVELOPMENT



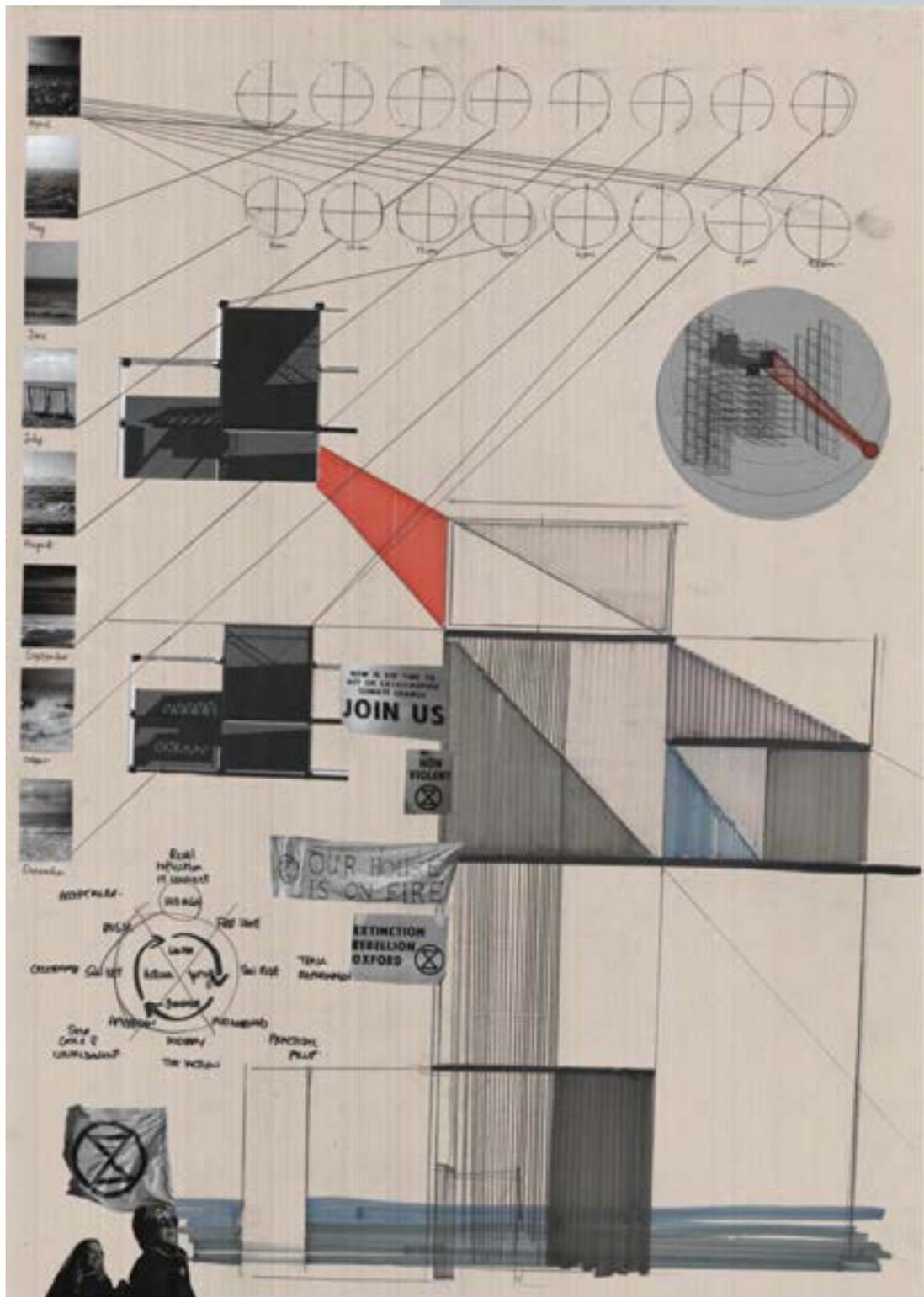


Regenerative-Action-Cycle, Imaged sourced from <https://rebellion.earth/act-now/>

When researching the type of activities Extinction Rebellion take part in, I found a diagram that explains the programmatic time-line of how they structure their days, as well as there years. I was surprised to discover that they run their day to day and yearly activities parallel to the seasons and times of day. Relating back to the elements and how nature can affect daily routines. For example, at first light, members will introduce new ideas, welcome new and old faces and set new goals, so meetings and admin will occur in the early hours of the morning. Midday will see the action happen, whether that be performances, protests or simply communicating ideas. Right up to Dusk, where debriefs will resume including talking circles which will discuss feedback from the day. This type of cycle will continue throughout the days, months and years on loop, which is described as a regeneration action cycle.

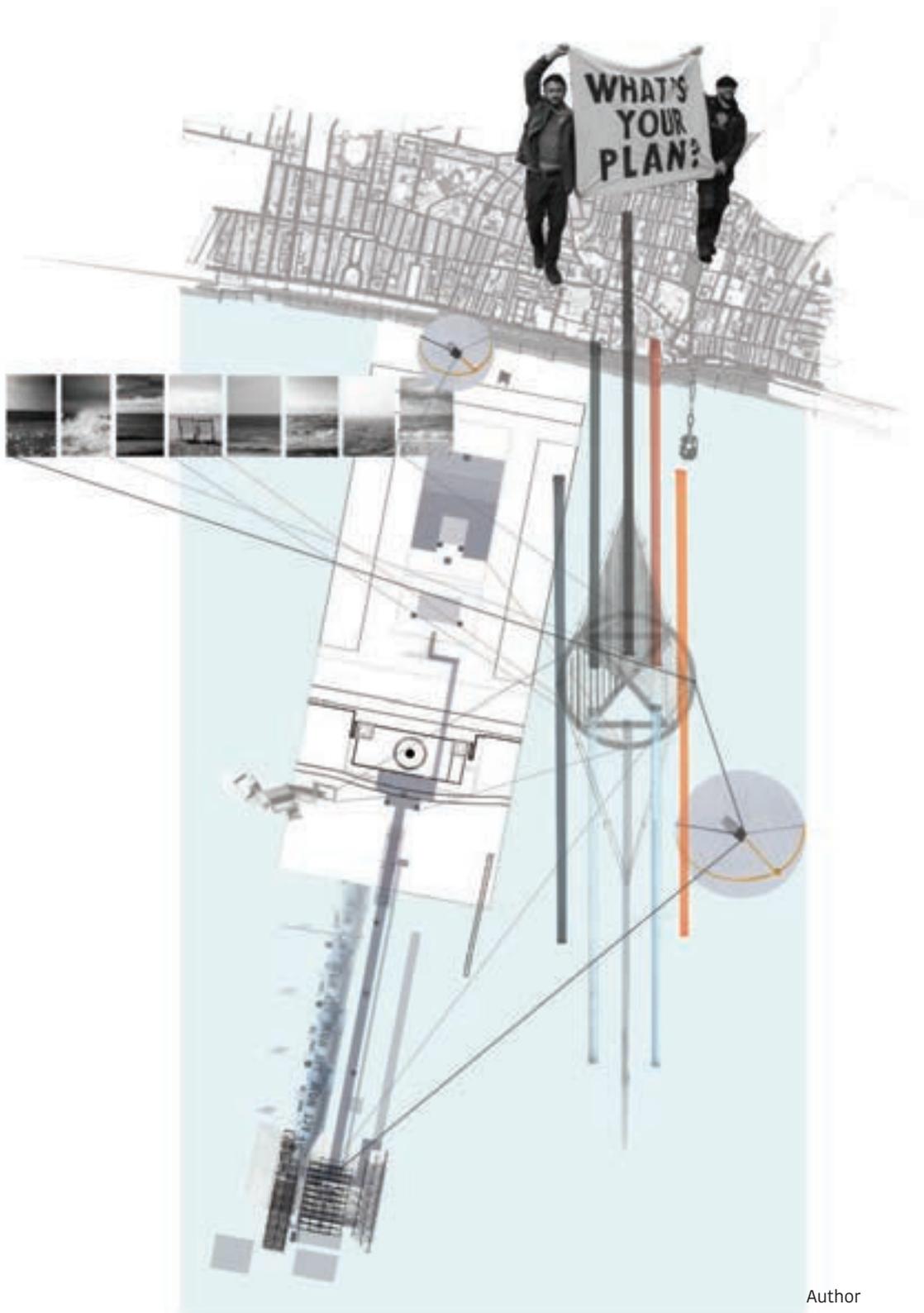


After analysing the Re-generative cycle I thought I would try and interpret it through a diagram. The different colours represent the different times of day, and the 4 blocks on the inside are the times of year. Each colour line represents a different action that would take place at the specified time. I thought that my creating this diagram it would simplify the diagram, however, I don't think it has managed to do that. It is too confusing to follow with a key attached let alone without a key. From this drawing I am going to try and make the next diagram easier to follow, and relate to the program more.



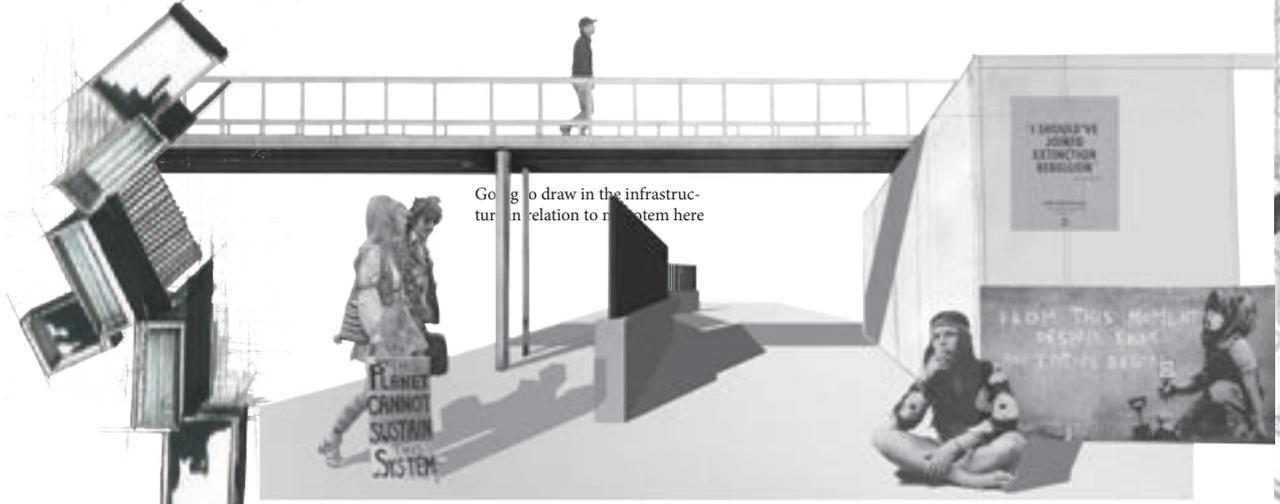
After finding The Re-generative action cycle, I decided that I could relate the time of day to the different activities are meant to be occurring in specific areas. I thought a way that I could achieve this would be through the light that enters certain spaces throughout the day, following the sun path. This was the beginning of a drawing that was starting to relate the seasonal time of year to the specific time of day and the light that might enter.

Author



Author

After taking into consideration all of the programmatic requirements for the design, I started to put together a time-line drawing of the project. To start to pin point the festivals life span. I thought I could to this by using the diagram I created that represented the regenerative cycle to relate to the specific seasons and the appropriate time of day and activity that occurs simultaneously. I also tried to add in where and when my totem was installed, along with the infrastructure, linking it to the specific sun path of the time of year that it was installed. After analysing whether this drawing clearly communicated my idea, I decided it was too confusing due to, too many layers. I am going to simplify the drawing in to a linear process that clearly shows a sense of transformation. As well as creating an easier diagram to understand.



Going to draw in the infrastructure in relation to the totem here

The next part of this process was trying to plot the exact moments that I wanted to communicate on to a page, and labelling what these moments are. Then I can use individual drawings to communicate each of the separate moments. I have decided to primarily use my photographs of the seasonal times of year as the main linear path the represent time. By also adding some programmatic information through inhabitation, using some activists from the 1960's.

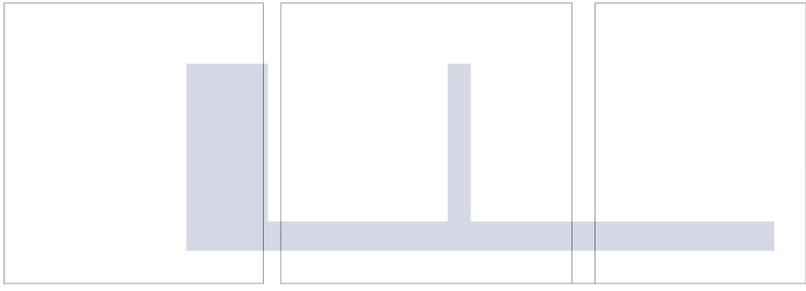
January 2020 XR Totem is installed

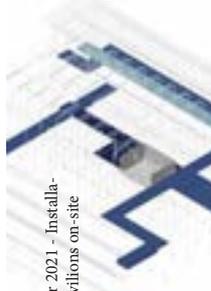
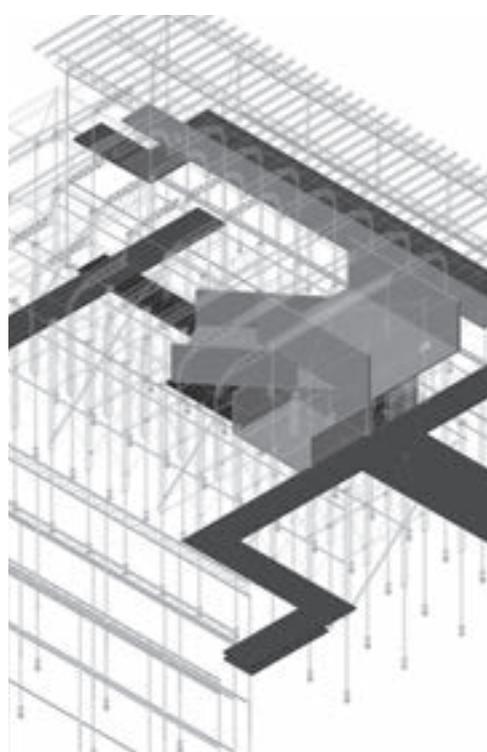
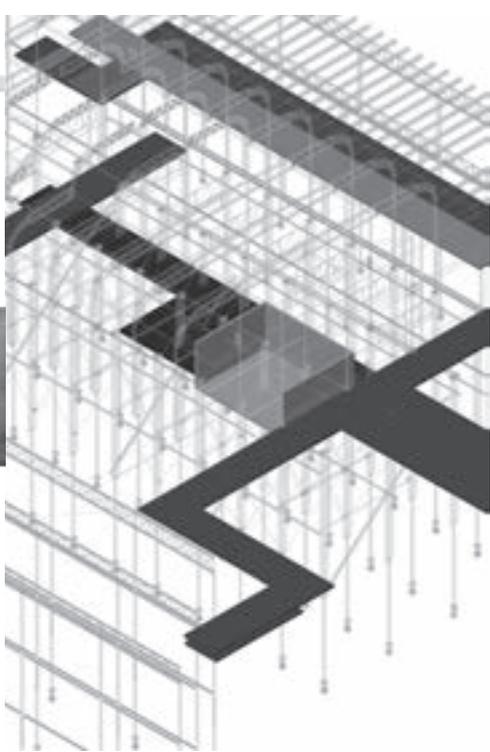


August 2020 - Access / on-site infrastructure begins



August 2021 - Access / on-site infrastructure ends





September 2021 - Installation of pavilions on-site



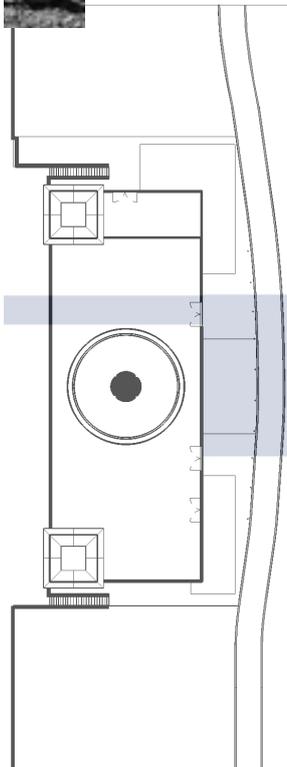
November 2021



March 2022 - Pavillion is finished



April 2022 - Festival Opens to public!



Author

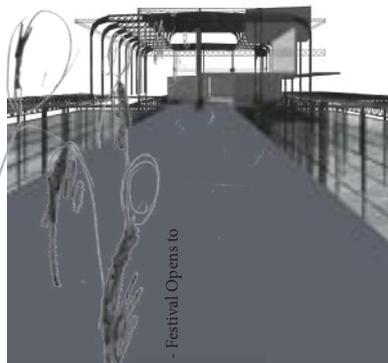
Using drawings to communicate different moments in time through out my project.



Doing this drawing was helpful to me to figure out what specific moments within my projects life span are important. I still think there is too much information on the page, so my next plan is to separate the information further by creating two pages. This might make the information easier to absorb.



March 2022 - Pavilion is finished

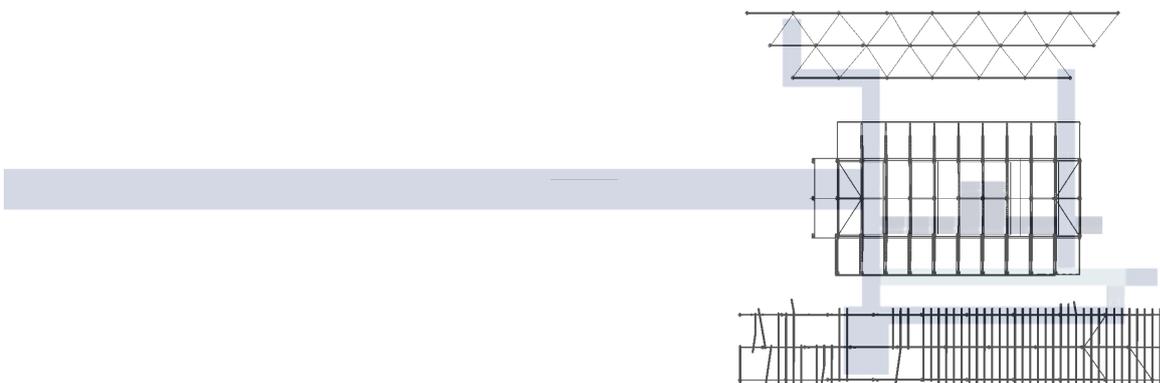
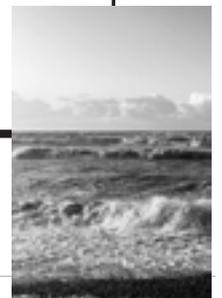


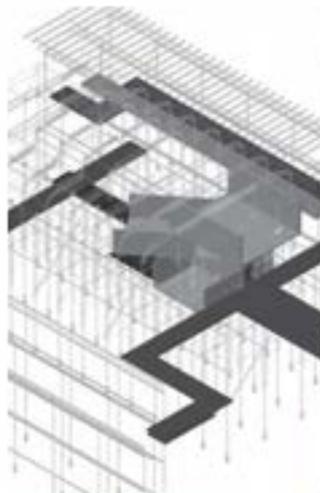
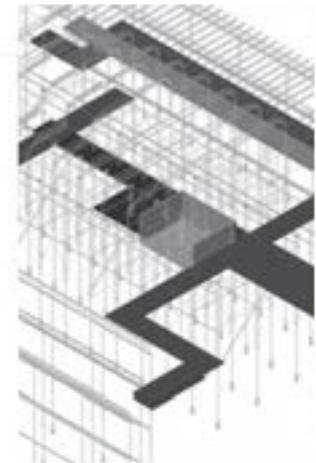
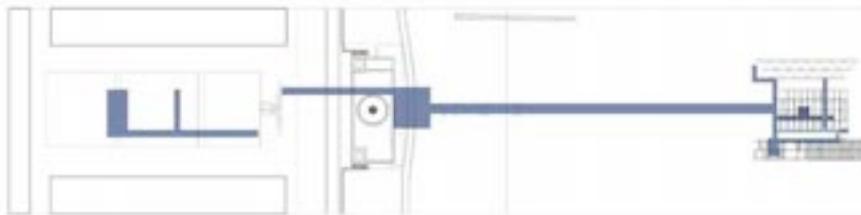
April 2022 - Festival Opens to public!



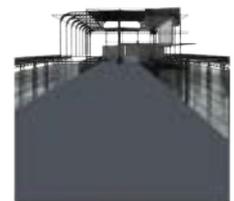
November 2022 - Festival closes / disassembly begins

March 2022 > - What becomes of your pavilion / site





This was my next attempt at the time-line drawing. I am starting to like the aesthetic more, and think that I am managing to get the information simplified down, to the basics. However I still think it is hard to read. This might be because of the three separate levels that are supposed to represent the three different years that are involved in the construction and lifespan of the festival. I would like to incorporate some more hand drawn elements as well, as that is what I enjoy doing to most, and think it would add another layer of technical skill.



CHAPTER 6.

PAVILION PARTI DIAGRAM





Modular, plywood boxes have been self-built by climate change protesters Extinction Rebellion to build lock-on sites, towers and stages for London protests.



The blocks are adapted from Studio Bark's U-Build system by architects involved in the actions, including members of Architect's Climate Action Network (ACAN).

This method of construction I believe to be a sustainable way of managing the build. I could consider commission each member of extinction rebellion in the UK to build one box each, that could build the flooring levels to the design. That way they would each be able to re collect their box, when the festival has finished and re-use them at any Protests they attend in the future.

Both Images, Protest Architecture, India Block, 2019, <https://www.dezeen.com/2019/10/17/extinction-rebellion-protest-architecture/>



This plant-covered extension to a bungalow in Miami is supported by a spiral concrete core that was precisely calibrated to match the sun's path at the height of summer.



All Images, Miami Bungalow, Christian Wassmann, Miami, 2017, James Brillion, <https://www.dezeen.com/2017/10/08/christian-wassmann-sun-path-house-bungalow-extension-miami/>

The way the sun influenced the design of this bungalow, is a feature that I want to take forward with my design. They needed the perfect amount to grow specific crops, within the greenhouse part of the structure. I want to develop this idea in to designing my spaces facing, the angle of the sun at relevant times of day.



Climate Change, Pekka Niittyvirta and Timo Aho, Scotland, 2019, <https://www.dezeen.com/2019/03/18/lines-pekka-niittyvirta-timo-aha-light-installation/>

Finnish artists Pekka Niittyvirta and Timo Aho have shone three lines of light across a Scottish coastal town in this installation that aims to show the impact of climate change.

Niittyvirta and Aho installed a series of sensors on North Uist in the Outer Hebrides of the Scottish archipelago that interact with the tide. The sensors activate three synchronised beams of light, which represent a scientific estimate of the level that the sea could rise to if the earth continues to warm.

I want the changing tide levels of the sea within site to be represented in some way. Climate change is the driver to my entire project so having a visual connection between the concept and the site will make people more aware of the underlying issue.



MultiPly, AHEC, Waugh Thistleton Architects and Arup, University of Milan, London Design Show, 2017, <https://www.wallpaper.com/gallery/architecture/bold-architectural-pavilions-and-temporary-structures>

Made of sustainable American tulipwood combined with innovative construction methods and lighting design by SEAM, this pavilion originally popped up at the London Design Festival 2018. The reconstruction for Milan Design Week revealed how modular constructions, engineered timber and reconfiguration can provide an architecture that can be re-used and re-purposed in many contexts.

I want to take the concept of challenging how we build our habitats and questioning how we can use architecture to combat climate change.

This forward way of thinking is the route that Extinction Rebellion explore thus, using modular systems that can be re-used in different scenarios could represent this.



After researching the different types of structures around the world with similar elements and properties to the vision I had in my head for my design I decided to get in contact with a member of Extinction Rebellion to gain more of an understanding of their principles and values.

I contacted Ellie Strangways, who was the previous Media co-ordinator for the Bristol Extinction Rebellion Team. Below I am going to list some of the key points that we discussed, that I must take in to consideration when designing.

The Capacity - Citizen Assemblies are held, so 1 room must be able to hold at least 100 individuals at one time.

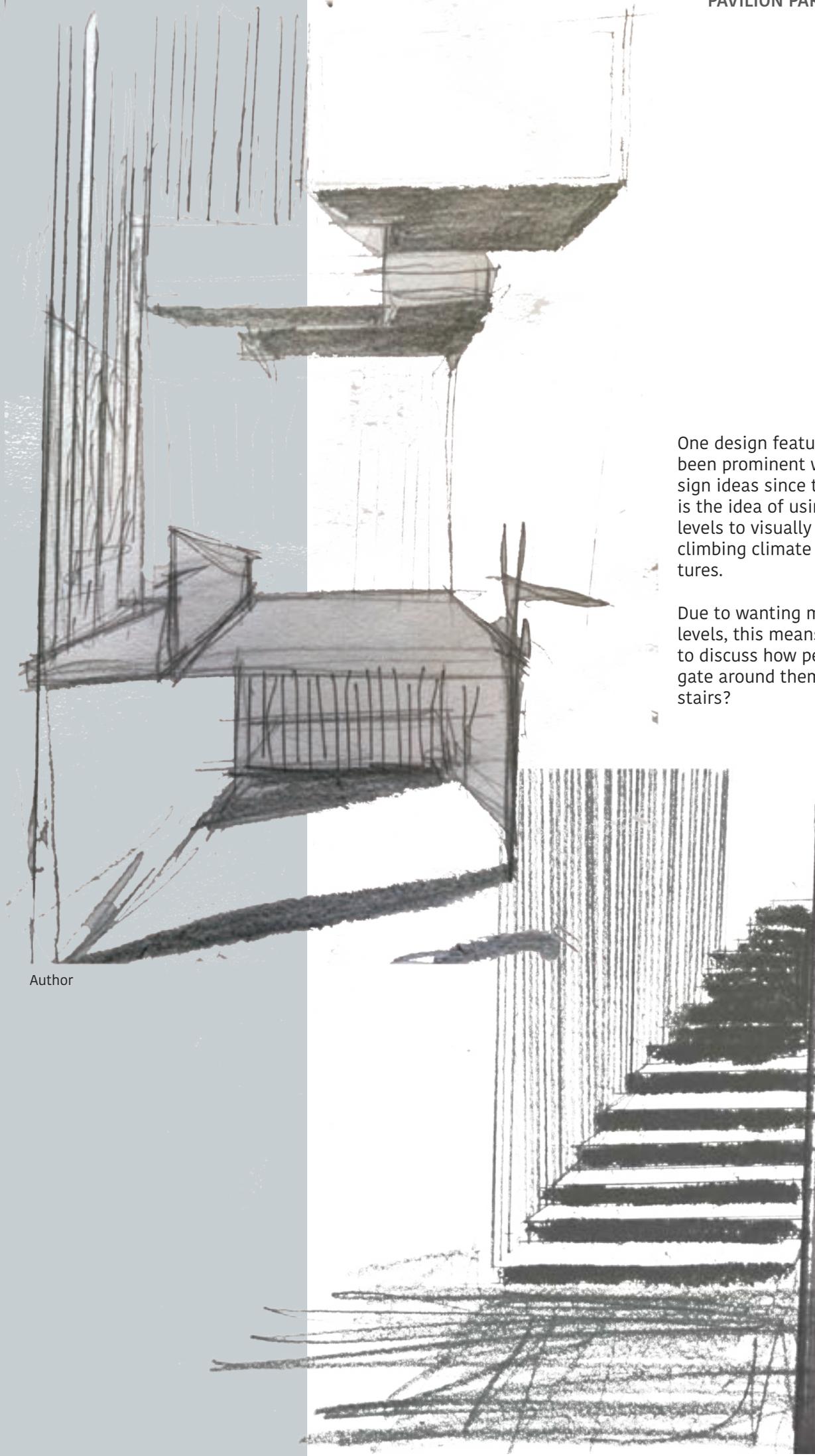
Bright Colour Theme - trying to incorporate loud colours to maintain their dramatic aesthetic, that engages with members of the public/ stands out from the crowd.

Design Templates - possibly use some of the design templates that they use for their posters within the design, that are easily recognisable and relatable to Extinction Rebellion.

Multifunctional Spaces - were emphasised, as there are many different types of activities that are alternate throughout the days, weeks and years.

Holistic Systems - the importance to include a space to meditate, as well as using systems that keep a connection between the people occupying the space to the nature surrounding them.

New ways of Functioning - focusing on explore new, sustainable methods of achieving tasks, and problem solving.

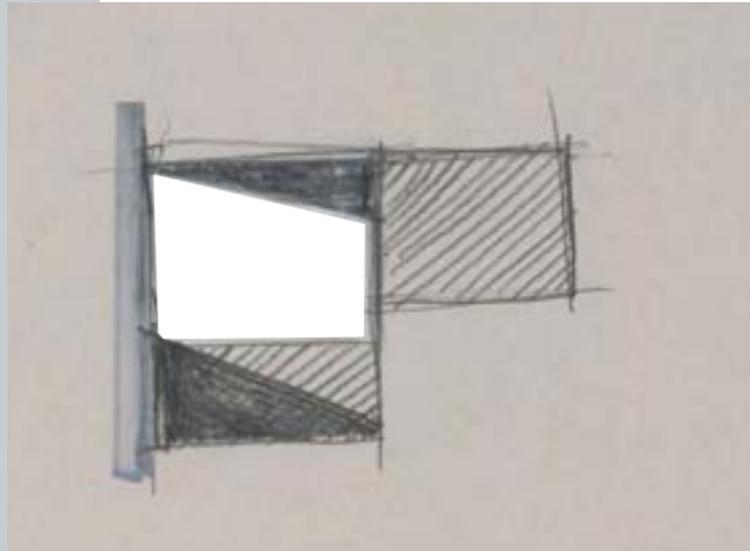


One design feature that has been prominent within my design ideas since the beginning is the idea of using multiple levels to visually describe the climbing climate temperatures.

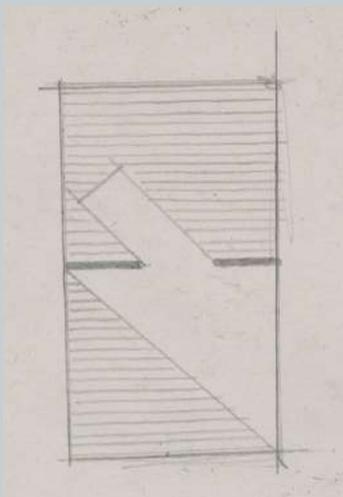
Due to wanting multiple levels, this means I will have to discuss how people navigate around them. Could I use stairs?

Author

Author



Author



Author

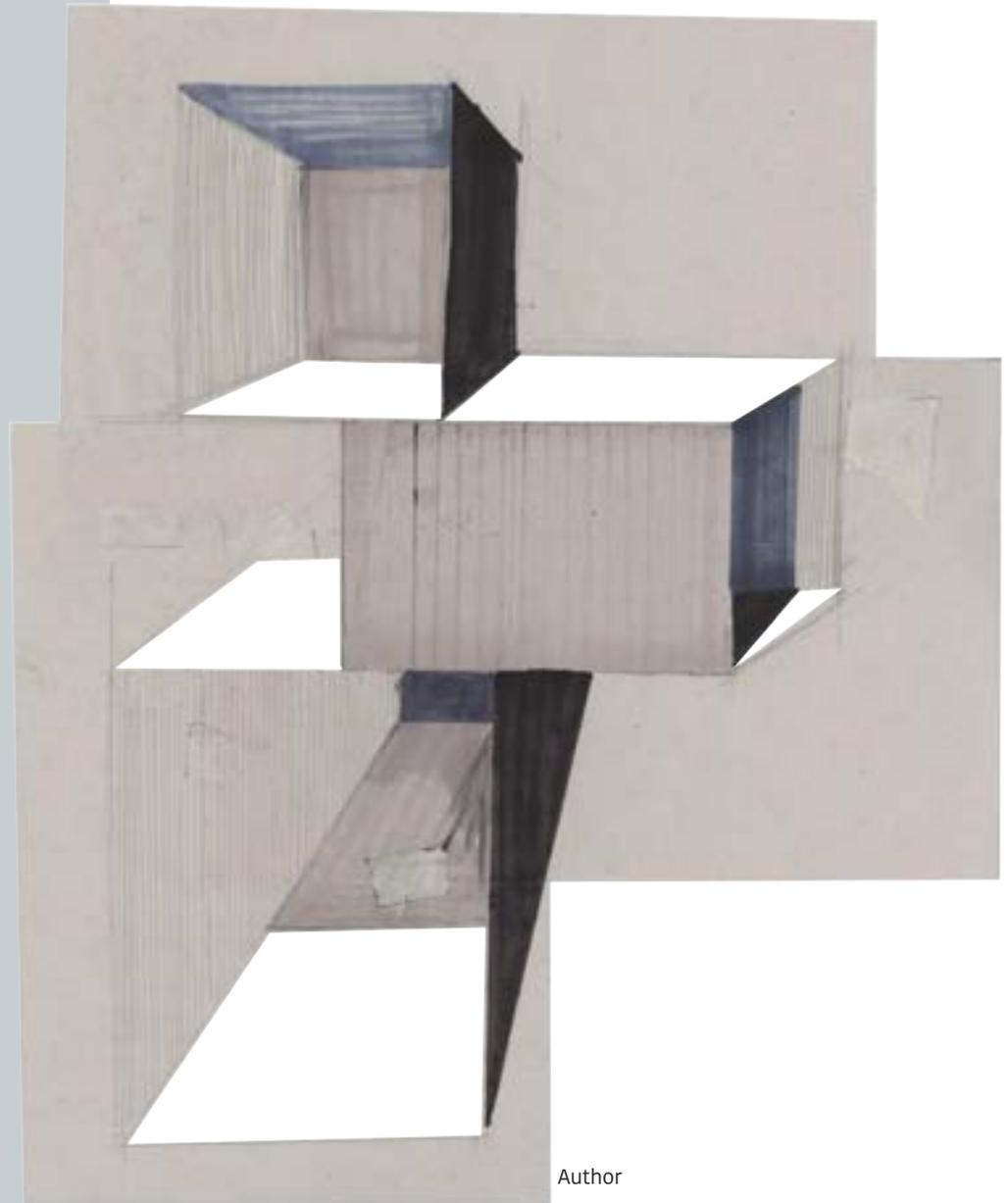


Author

These sketches are quickly suggesting the ways I could use light to create different spaces throughout the day. By using planes and cut through at certain points, different light and shadows will be cast a specific times of day.

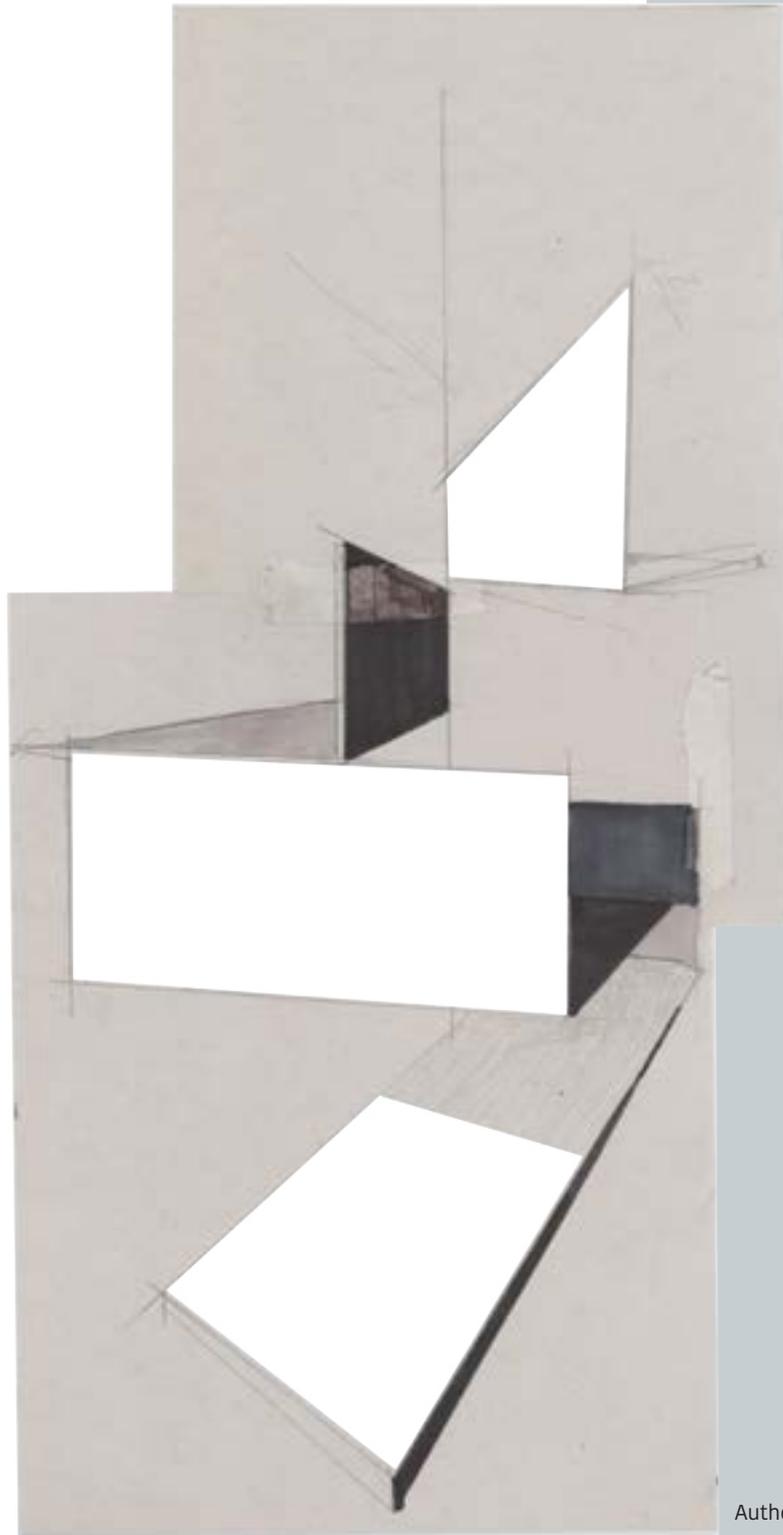


Author



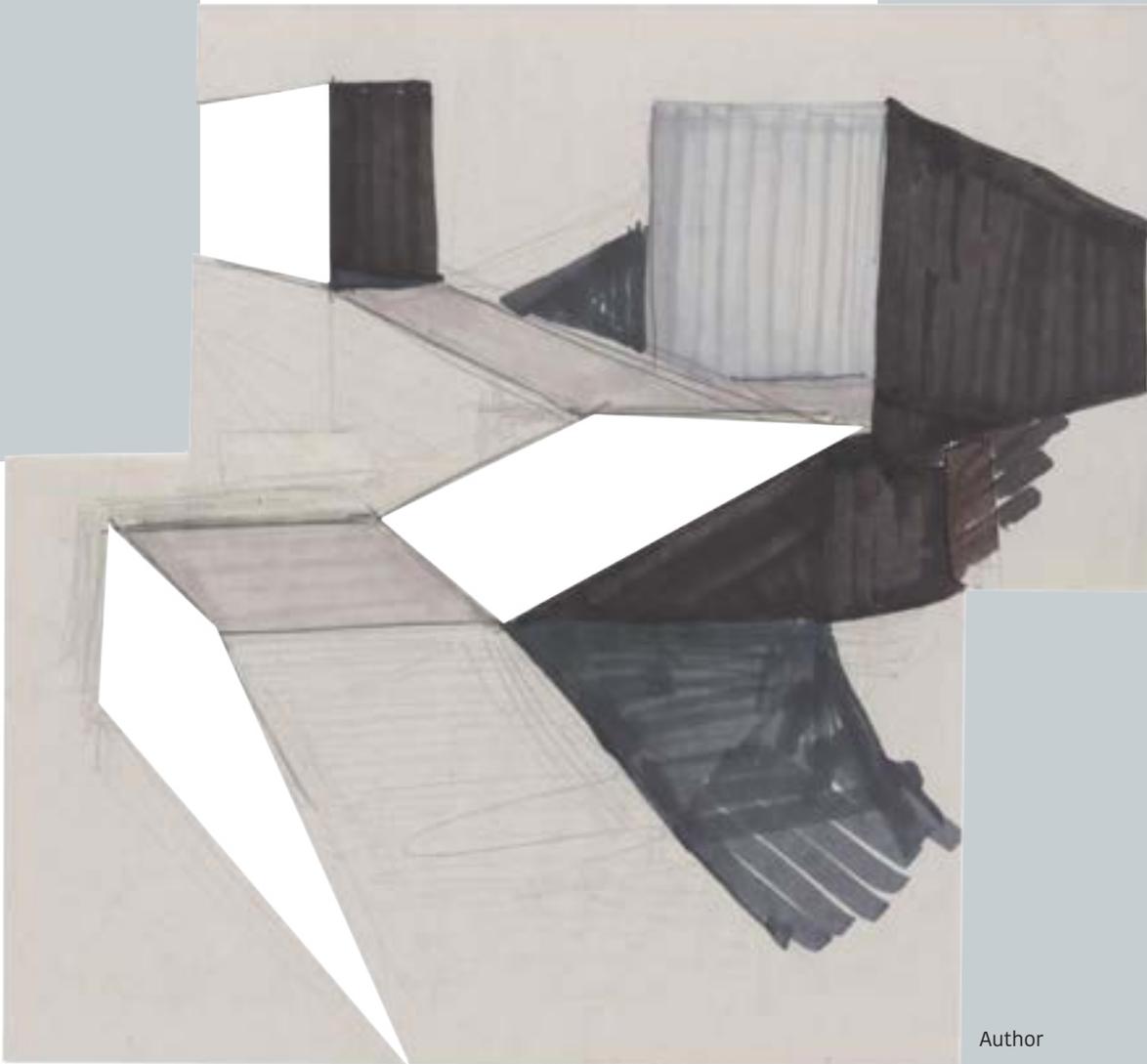
Author

I wanted to create a series of drawings exploring the lights and the angles of different planes. This one is showing how light could interact with a collection of stacked boxes in levels pivoting towards different angles.



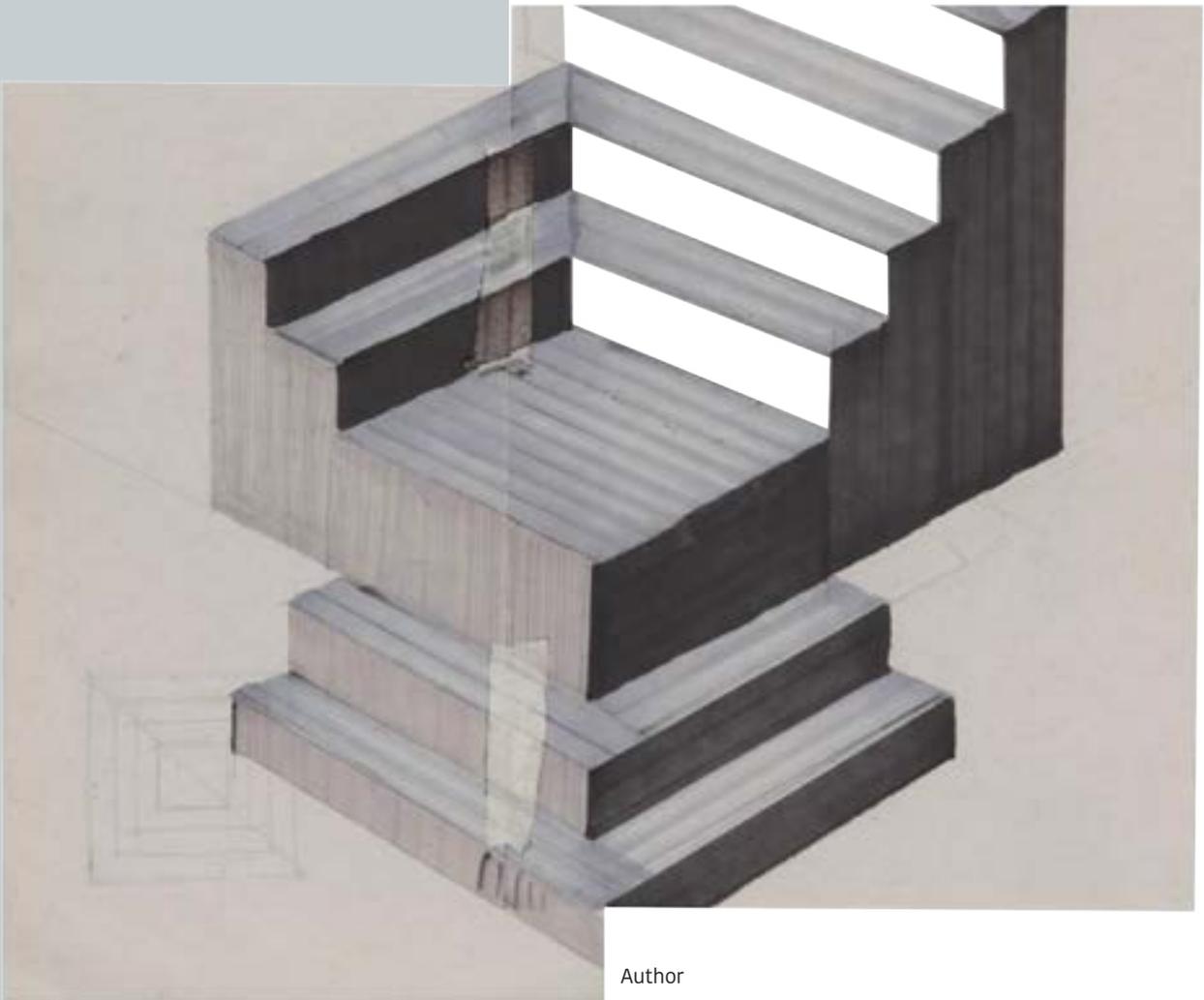
Author

This drawing is describing the same relationship between the light and objects however, here I am starting to open up the spaces in to a series of planes, and how light could potentially travel through to different levels.



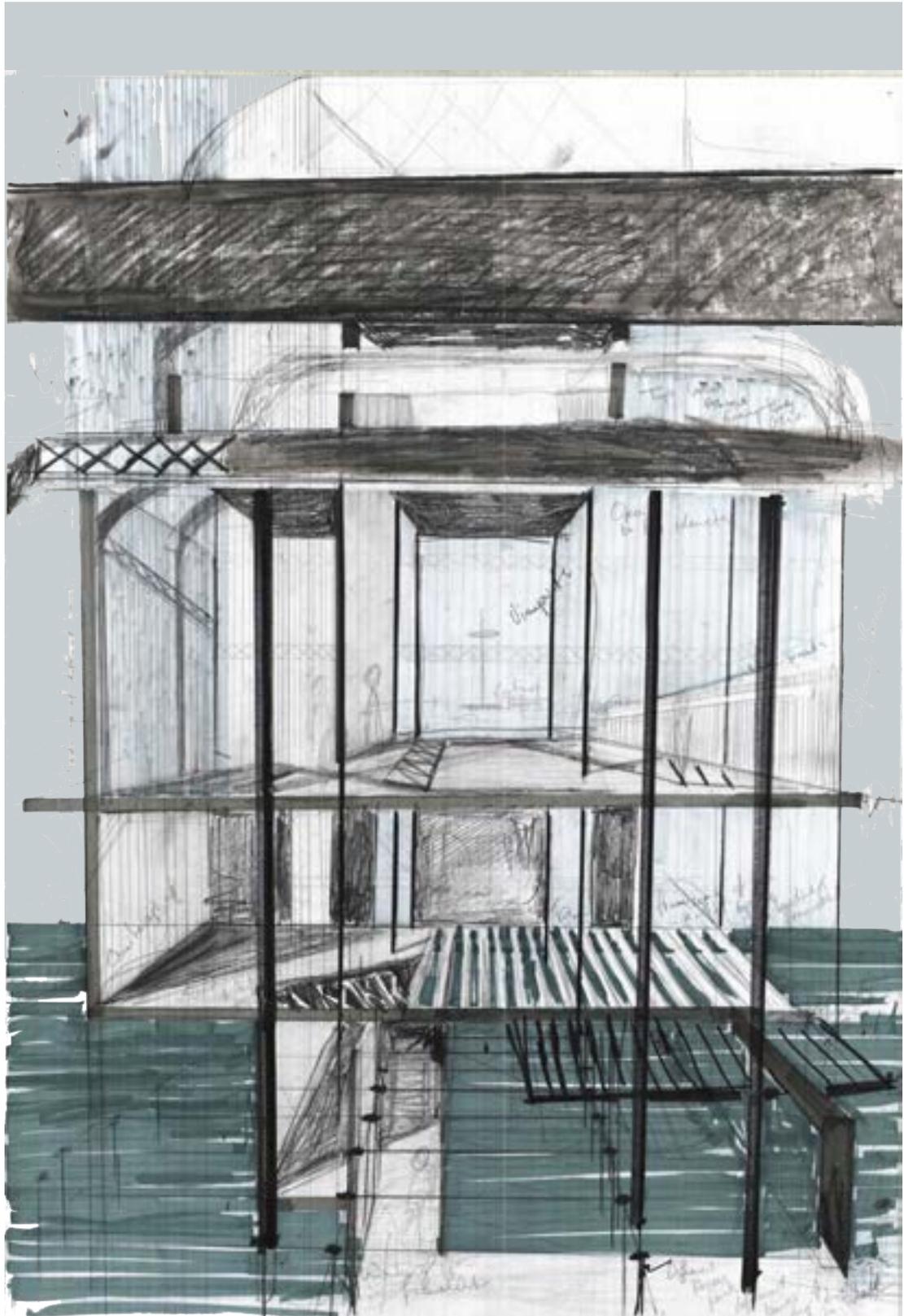
Author

After discussing the different levels that will be in my site, I have begun to consider the way in which they will be connected. Using ramps as a primary method of connection, due to the planes that can act as guides around the space. As well as being easily accessed by disabled individuals.



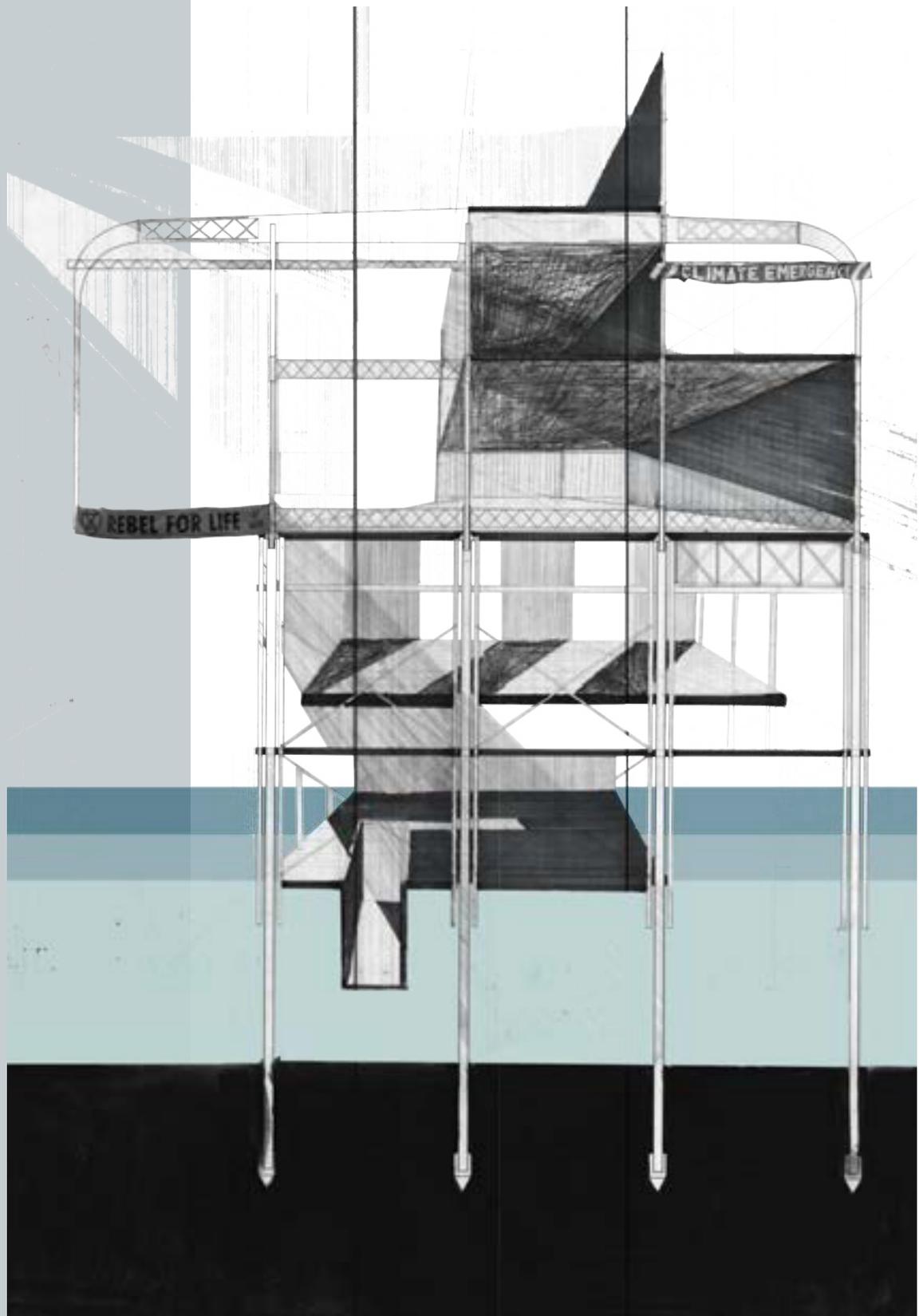
Author

This concept sketch is suggesting the inclusivity of an auditorium, on different levels. I thought that this style of design could act as a space where people can make speeches or have meetings, as well as performances.



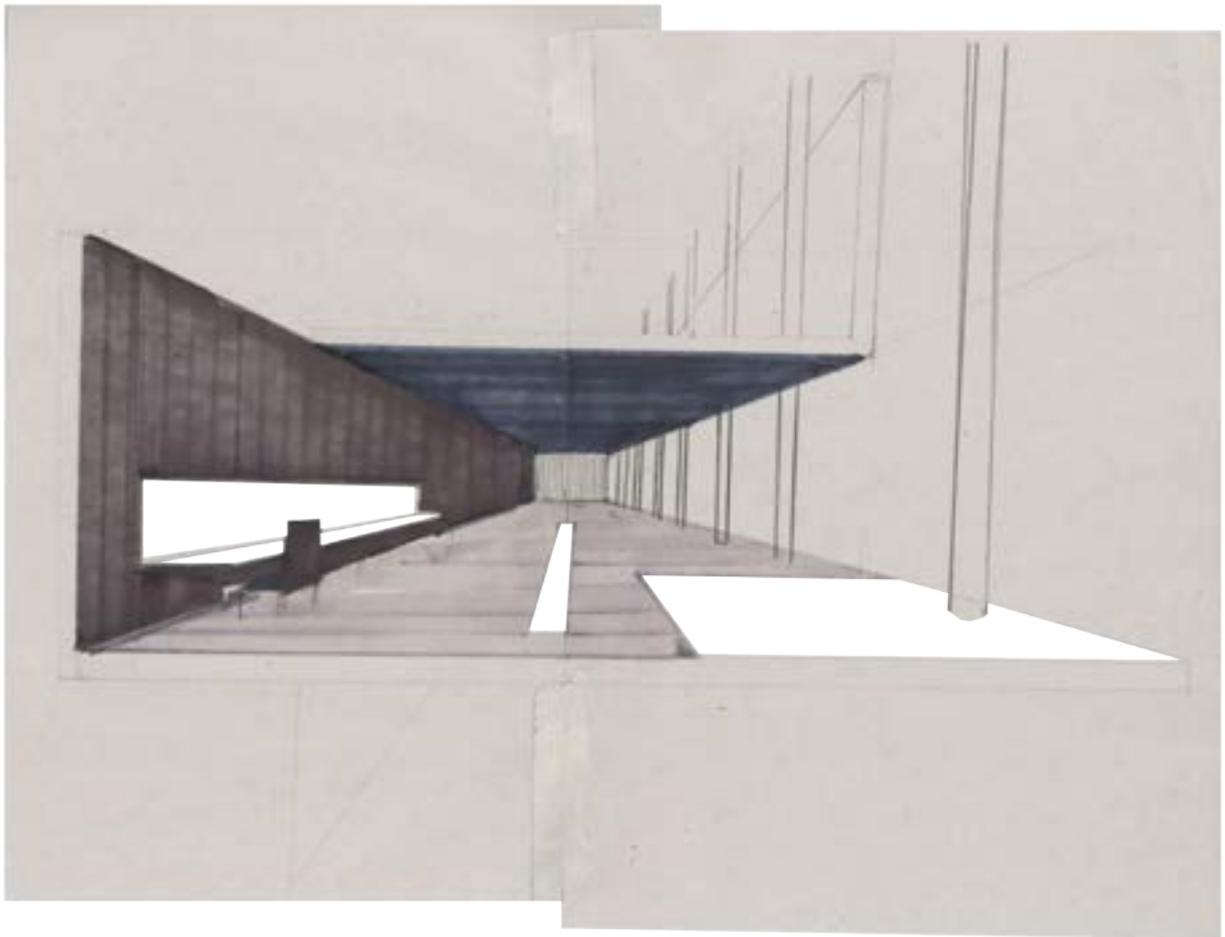
Author

This drawing is starting to determine how the specified levels and planes could possibly interact with the original framework. It is also suggesting how gaps within floors could allow light and shadows to pass through. It's also starting to show possible entrance points. To develop this further I could start to introduce light qualities and programmatic information.



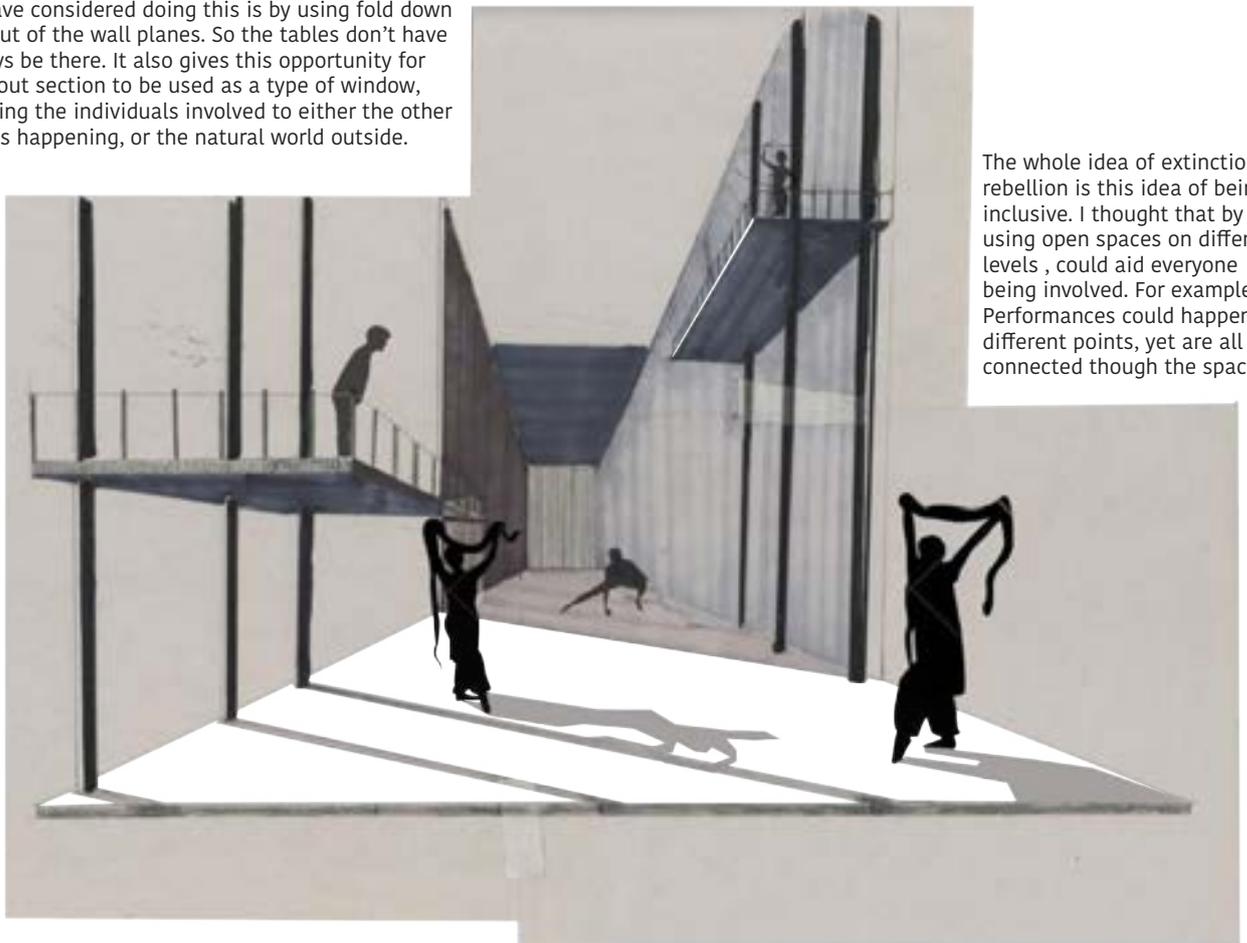
Author

This drawing, is showing the development regarding the concept of light determining the activity within the rooms. To move forward I will look at adding some inhabitation to show programmatic information, suggesting what activities are happening where.



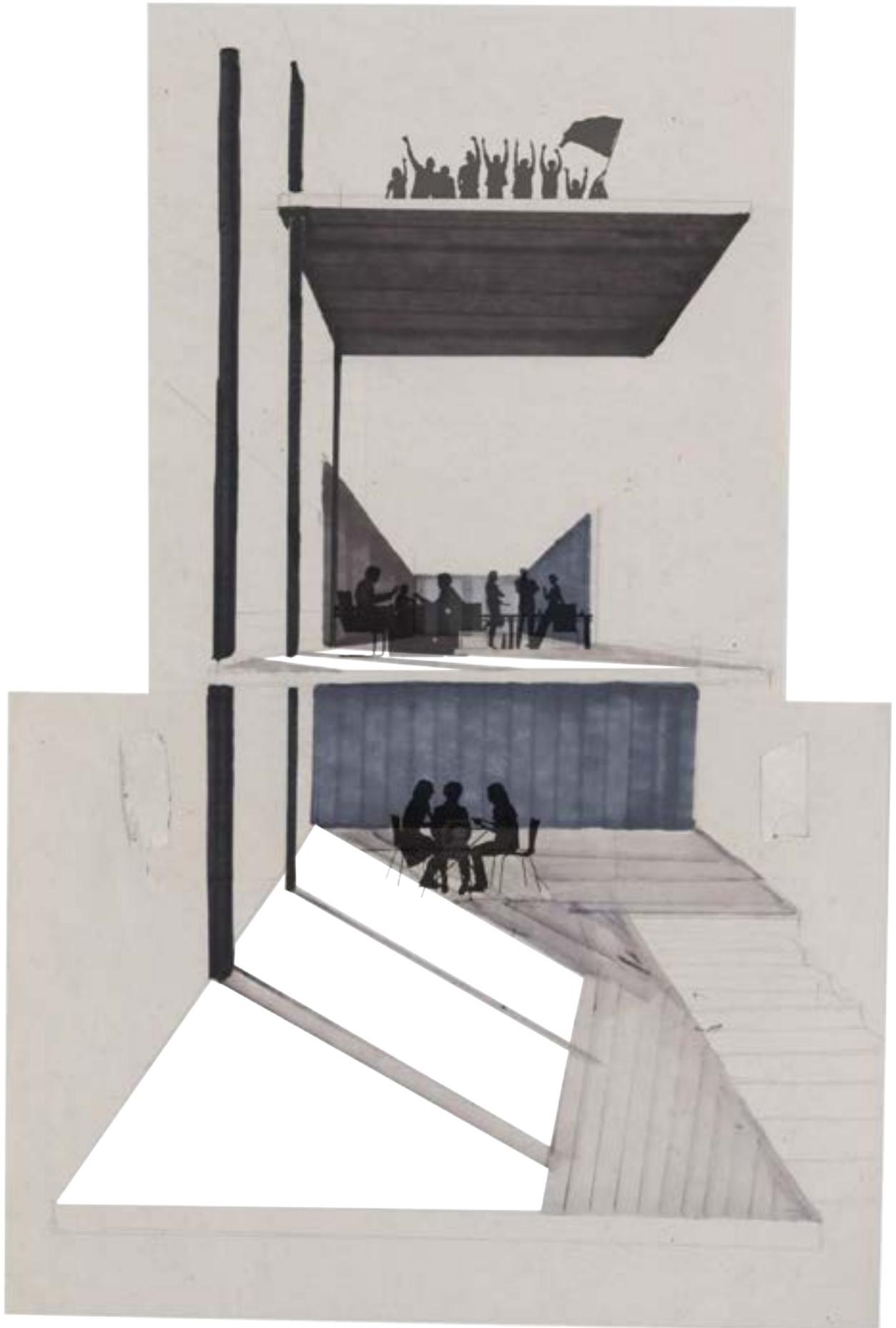
Author

Due to the programme revolving around the idea of climate change and sustainability, I have considered each space being used for more than one activity. One way I have considered doing this is by using fold down tables out of the wall planes. So the tables don't have to always be there. It also gives this opportunity for the cut out section to be used as a type of window, connecting the individuals involved to either the other activities happening, or the natural world outside.



The whole idea of extinction rebellion is this idea of being inclusive. I thought that by using open spaces on different levels, could aid everyone being involved. For example Performances could happen at different points, yet are all still connected through the space.

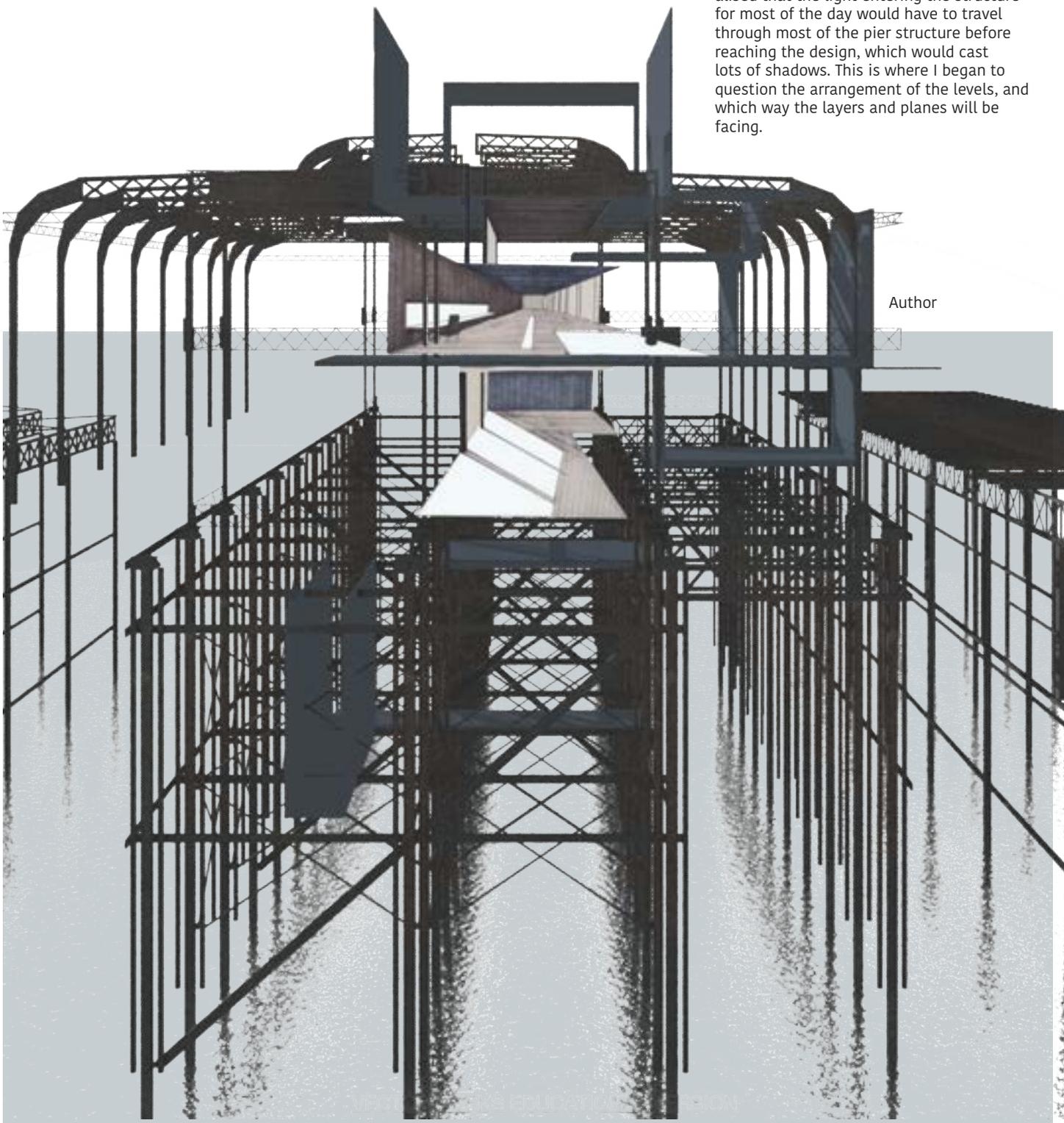
Author



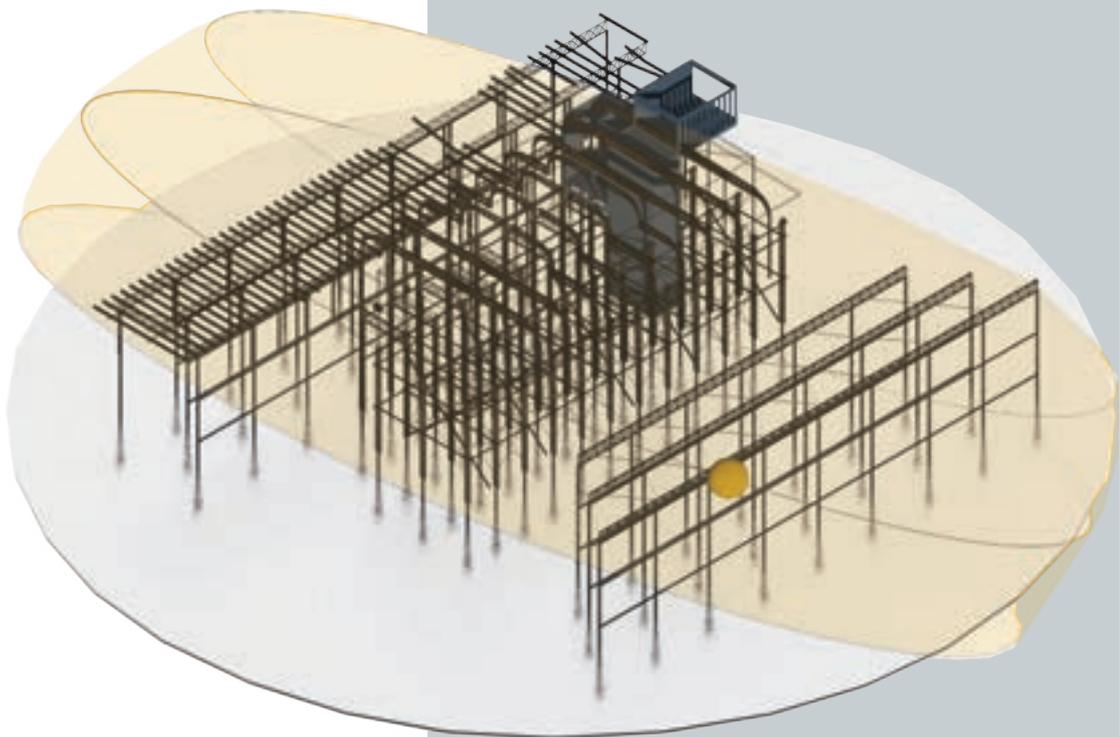
Author

I collaged my proposed design idea in to the original features to give a hypothetical idea of what my structure could begin to look like. Whilst doing this collaging I realised that the light entering the structure for most of the day would have to travel through most of the pier structure before reaching the design, which would cast lots of shadows. This is where I began to question the arrangement of the levels, and which way the layers and planes will be facing.

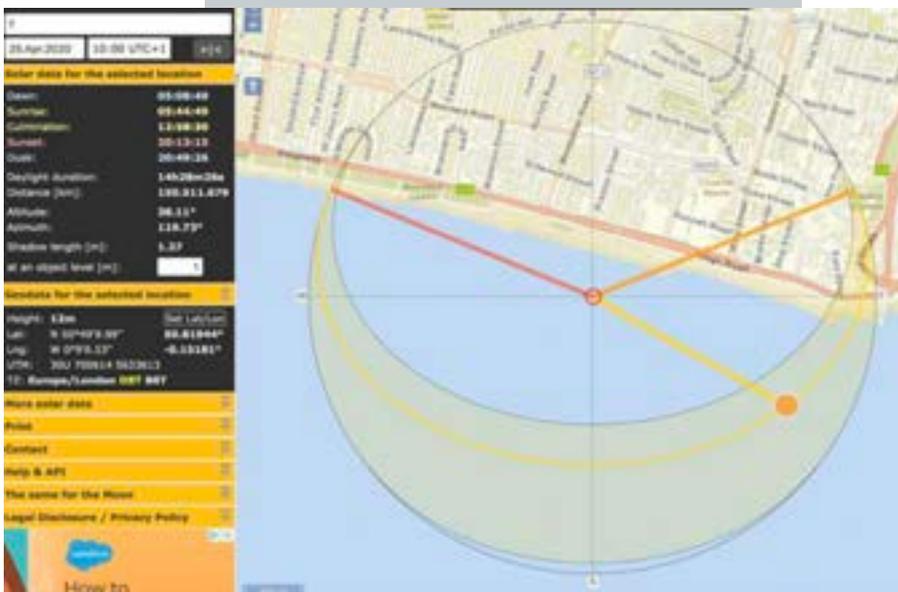
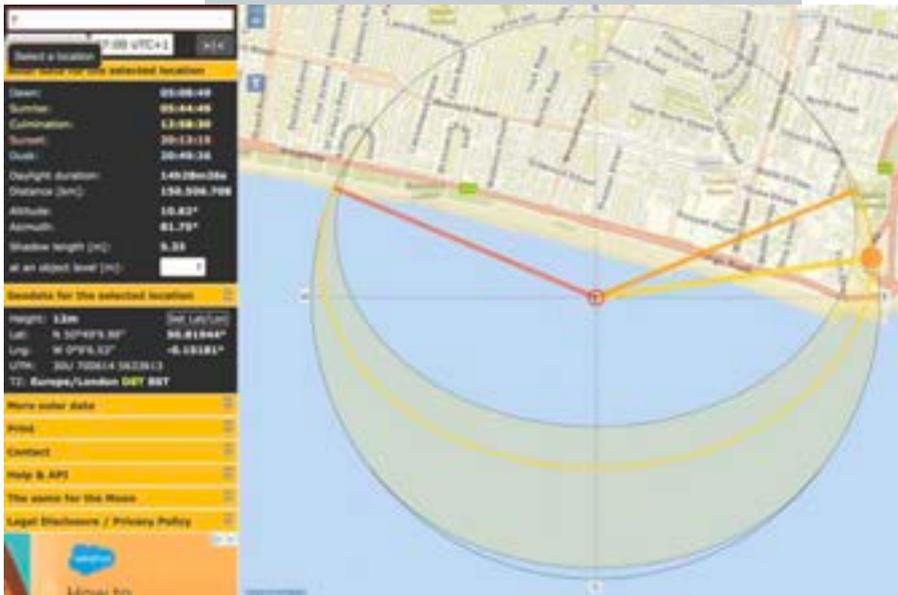
Author



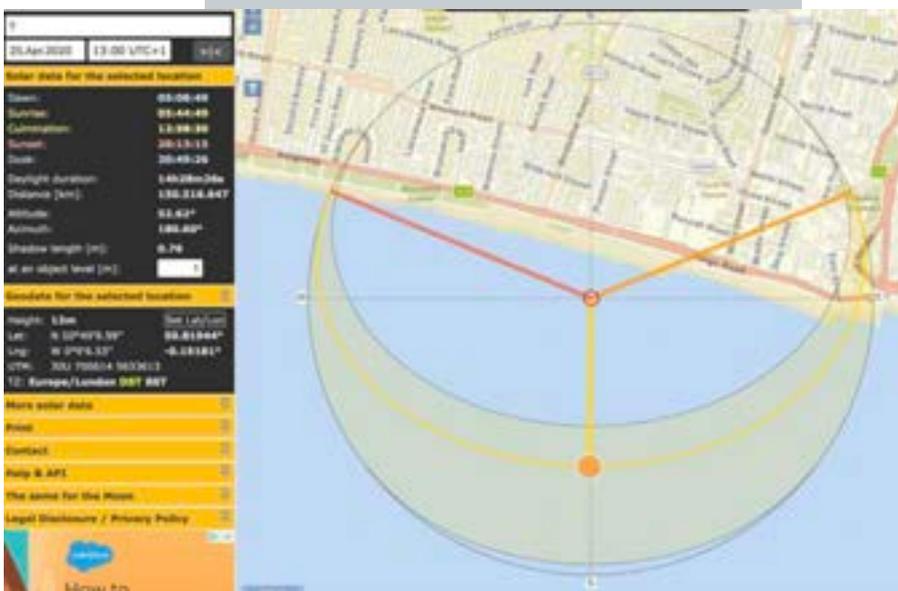
As I want to explore a more finalised lay out for the design proposal, I have gone back to studying the path and the direction of the light at certain times of day. By doing this I can plot specific angles and placements of spaces and walls.



Author

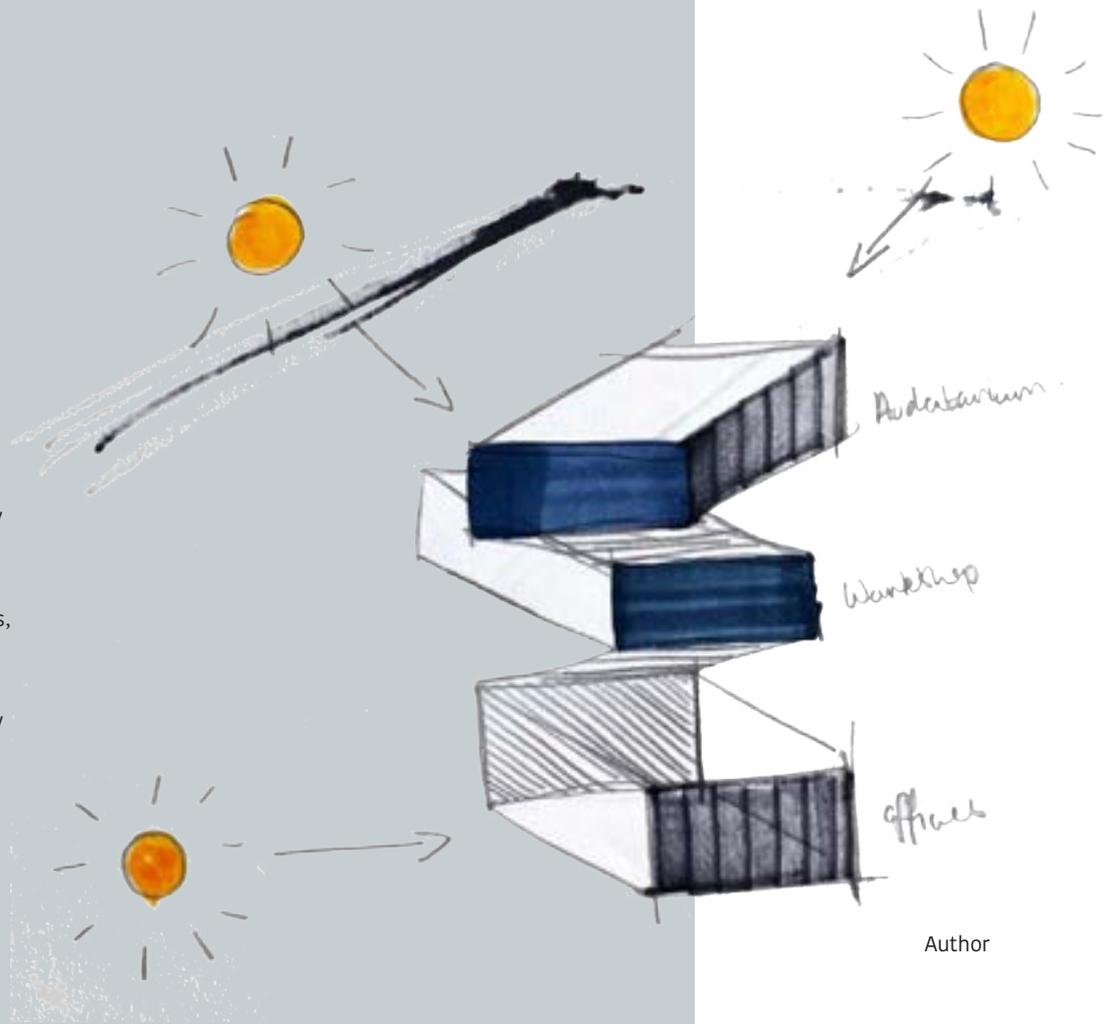


I went back and analysed the sun's position at specific times of day relevant to the programmatic activities that would be taking place in their allocated spaces.

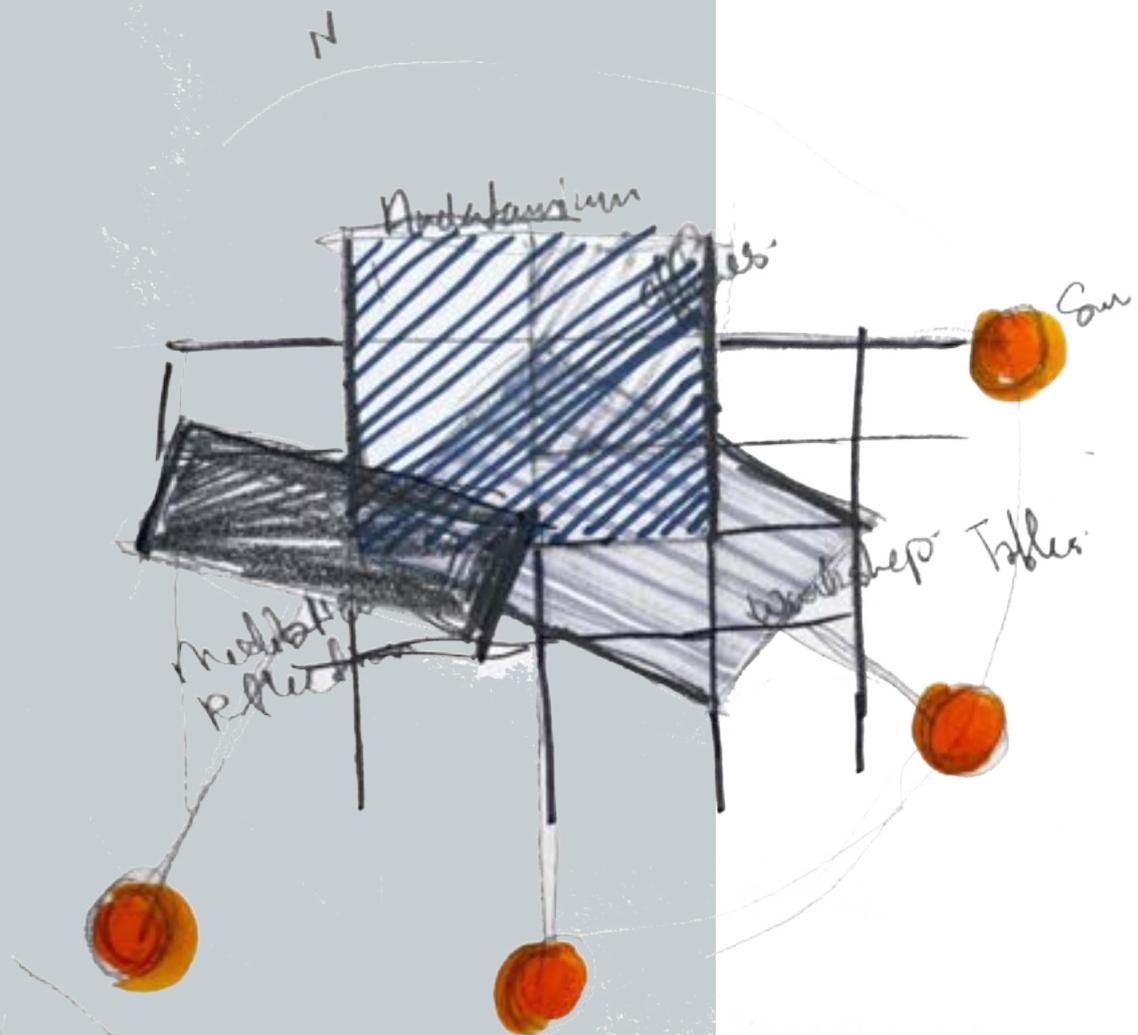


Screen Shots from, <https://www.suncalc.org/#/50.8194,-0.1518,15/2020.04.25/15:00/1/3>

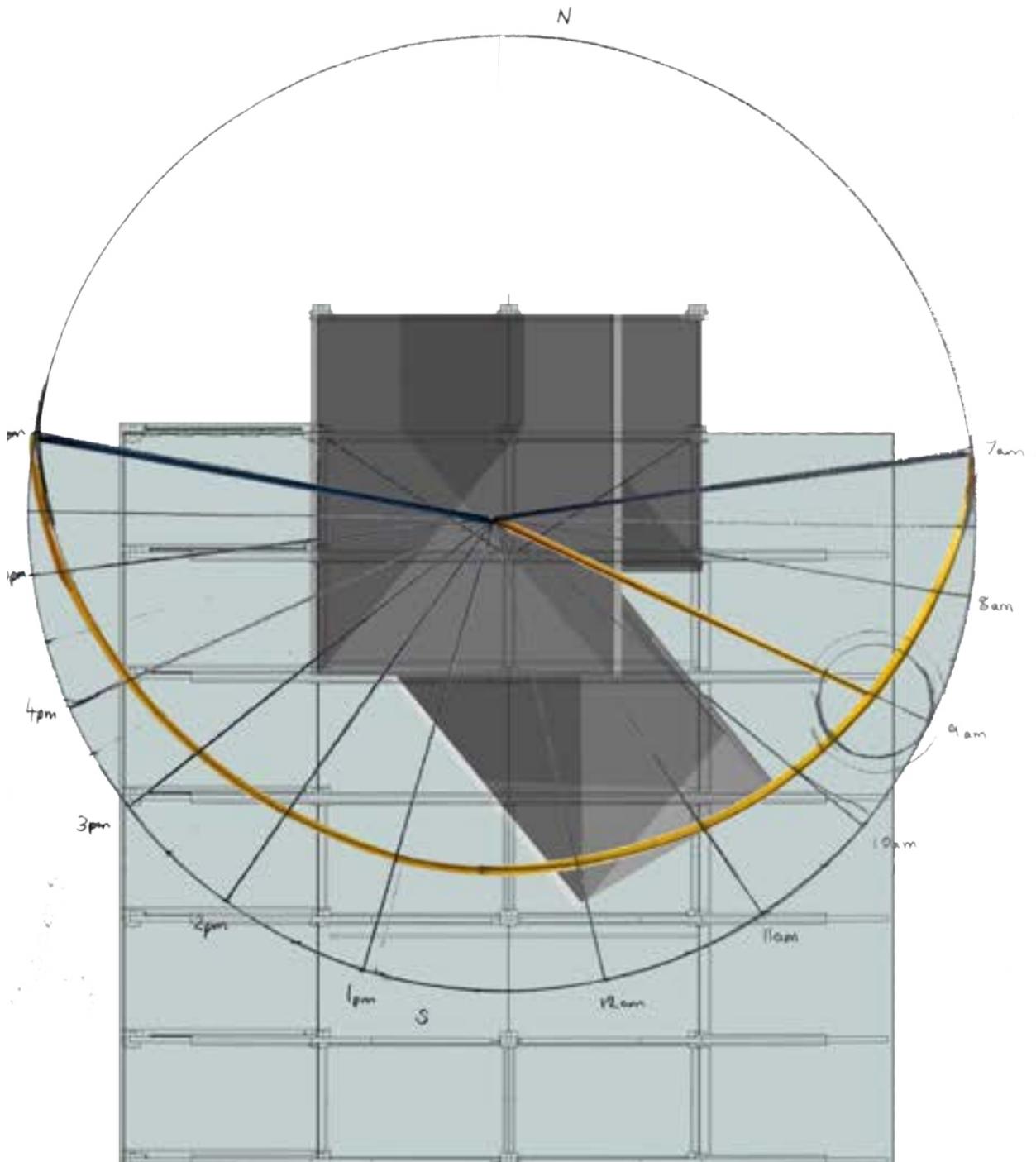
The sun is the key driver to my design, and after finding the regenerative cycle that Extinction Rebellion abide to on a seasonal and time of day basis, I decided to link this to the light of day which also abides to the same rotation. This means that i want to angle my rooms to towards to position of the sun at the times of day the activities inside occur. Meaning that the element of light structures the day to day activities.



Author

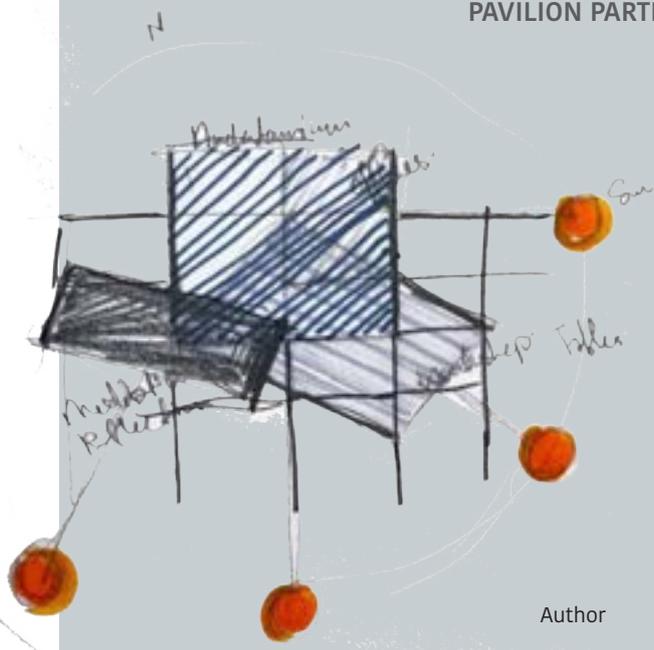
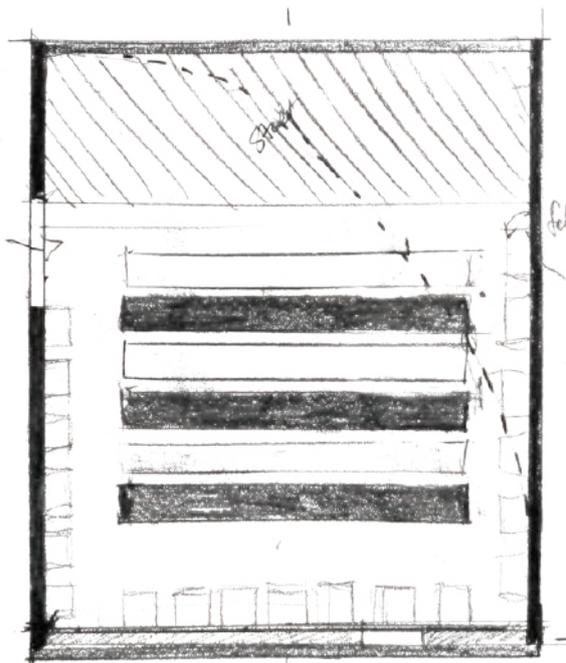


Author



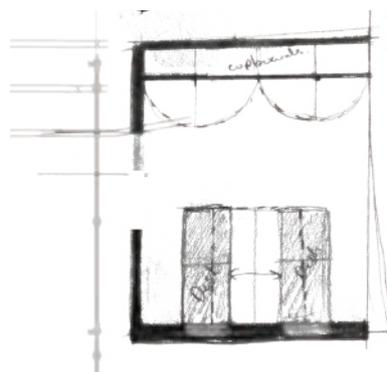
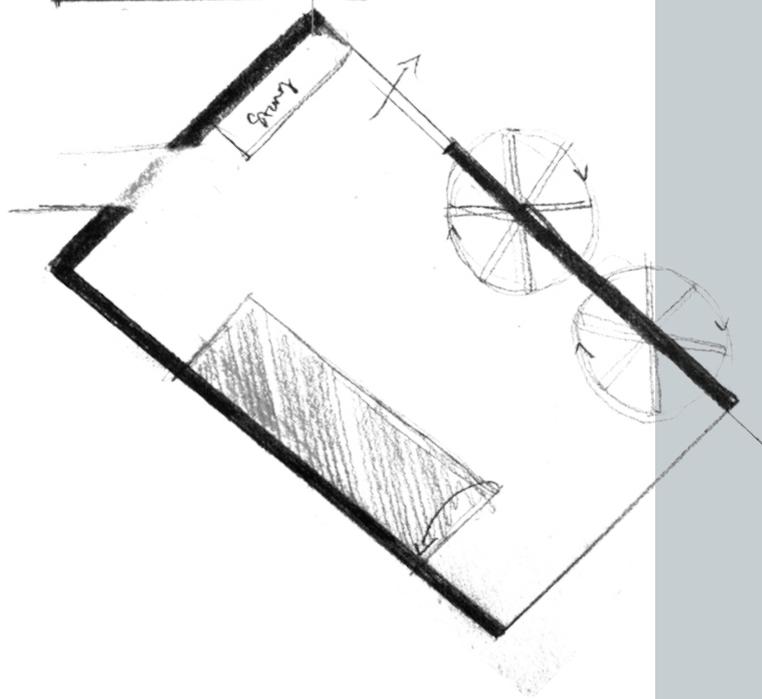
Simple sun path Diagram, over West Pier. Indication the angle of the Sun at different times of day, specifically relating to the month of April, which is the opening month of the festival.

Author

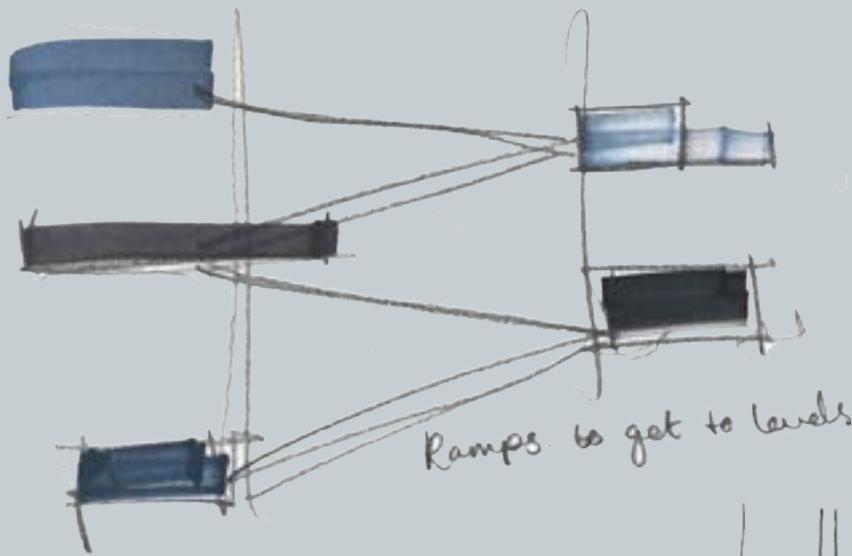


Author

After figuring out the angles and the placement of the spaces within the pier. I started to think about the needs of each individual room. I started to plot specific amenities suitable for each programmatic function of each of the rooms. These drawings are just draft ideas, I will continue to expand on this features in later drawings.



Author

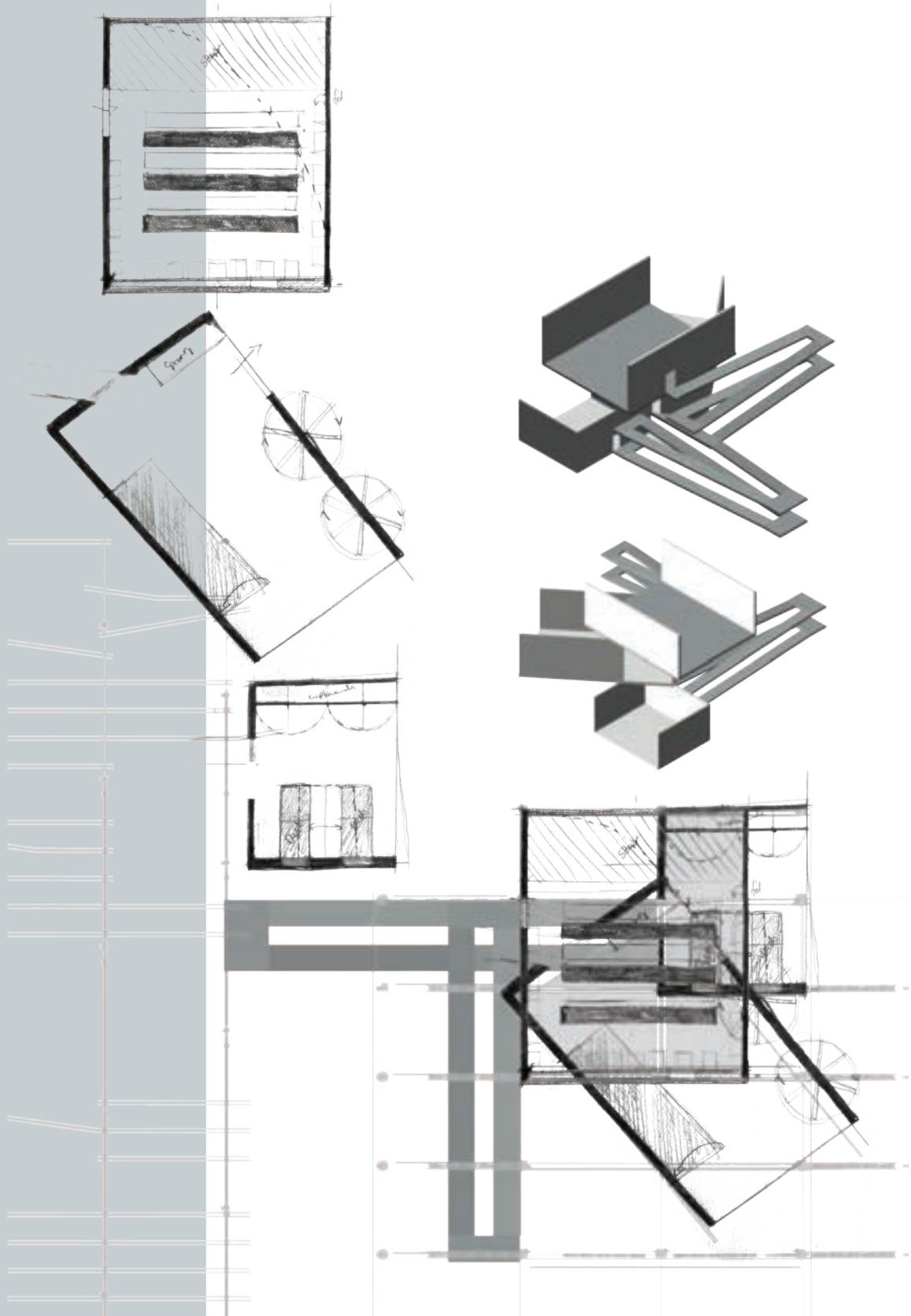


Author

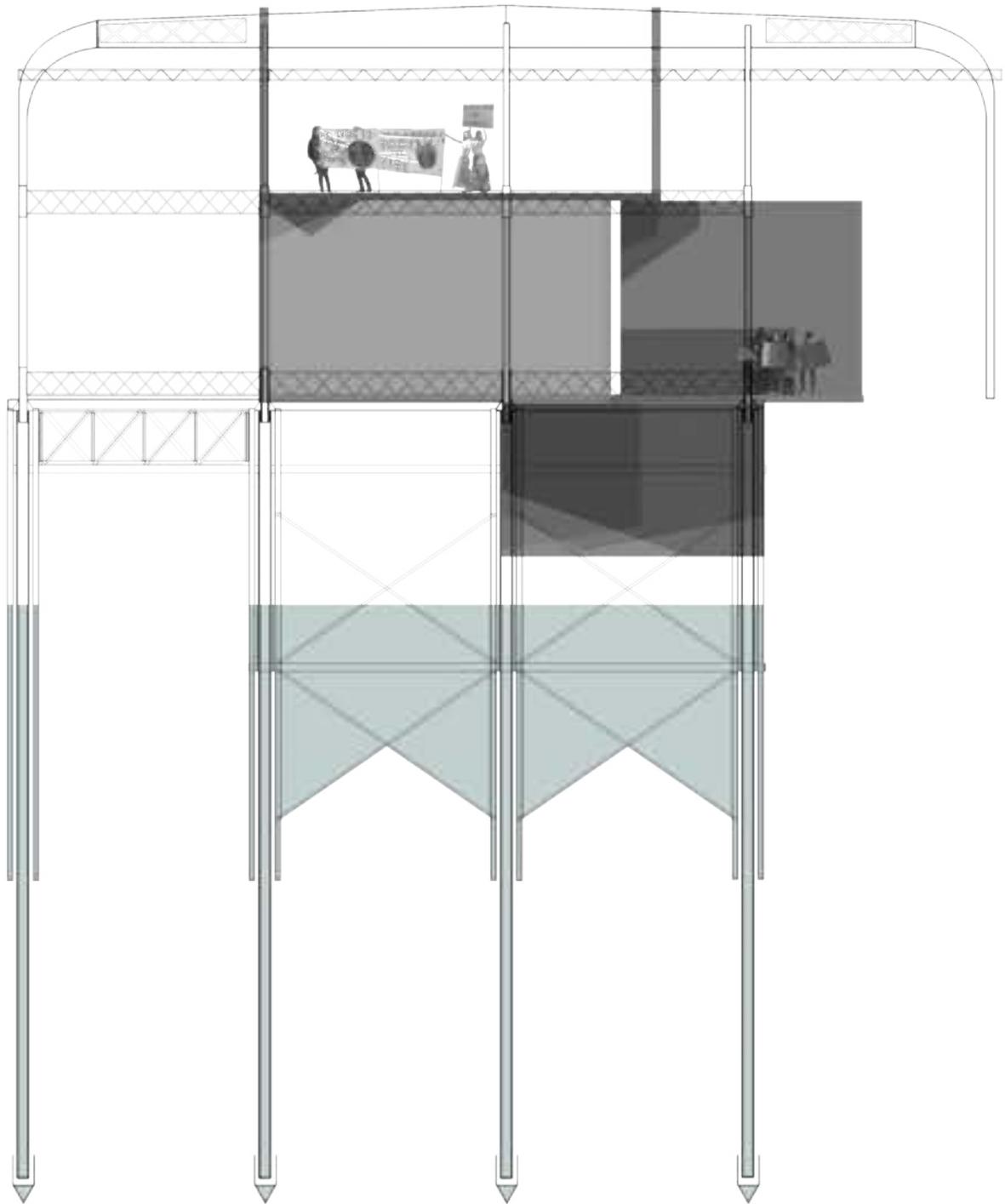


Author

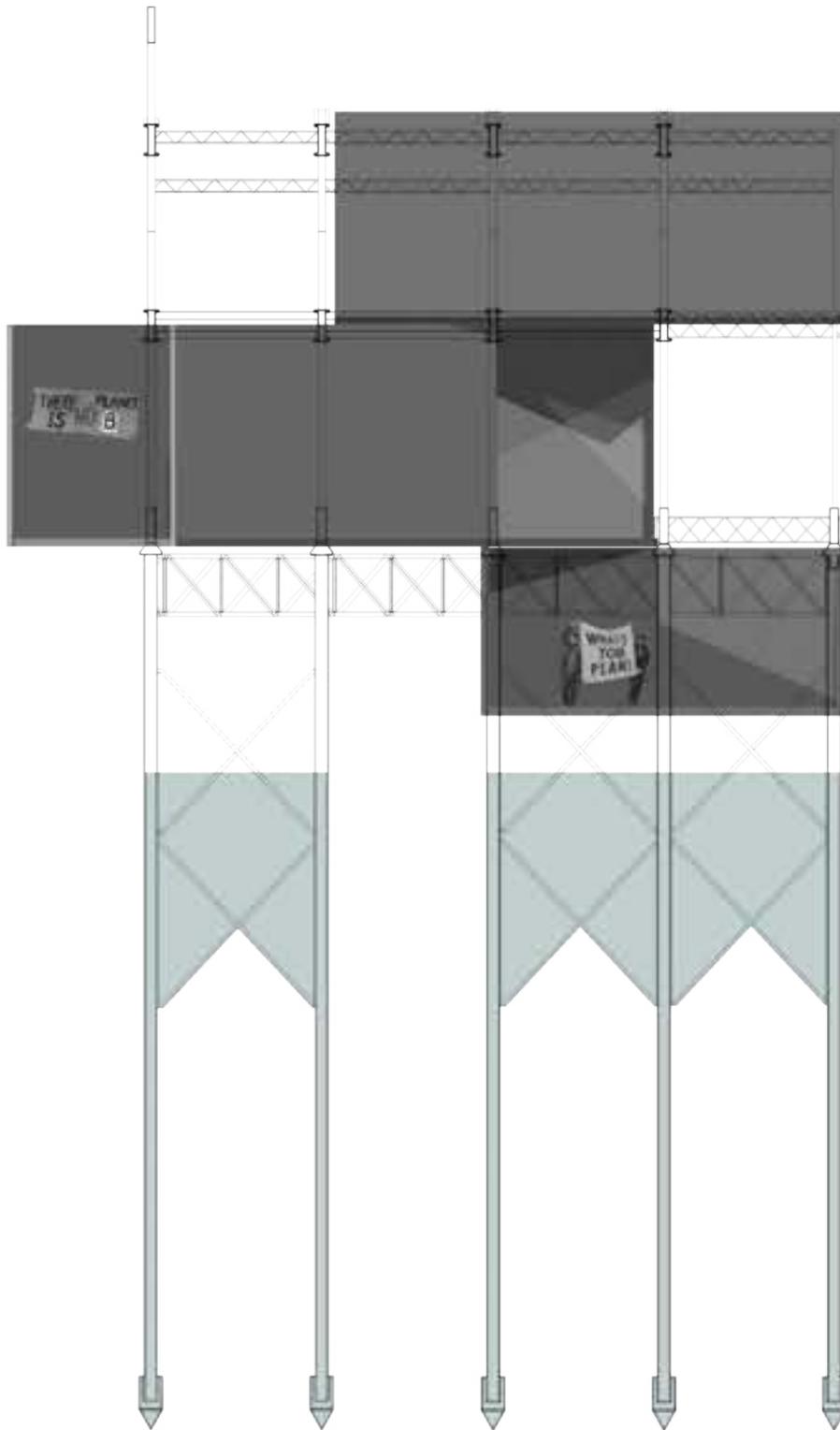
Now that I have specific placement of spaces, I could start to look at entry and exit points for each of the levels. This meant starting to interpret how people will get from level to level. I knew from the beginning that I wanted everyone, of all ages, genders, and abilities to be able to visit the site, therefore using ramp access was the obvious choice. I used the original grid points from the west piers structure to mark out when the ramps were going to be situated. This then led me to the



Author



Author



Author

CHAPTER 7.

CURATE INFRASTRUCTURE



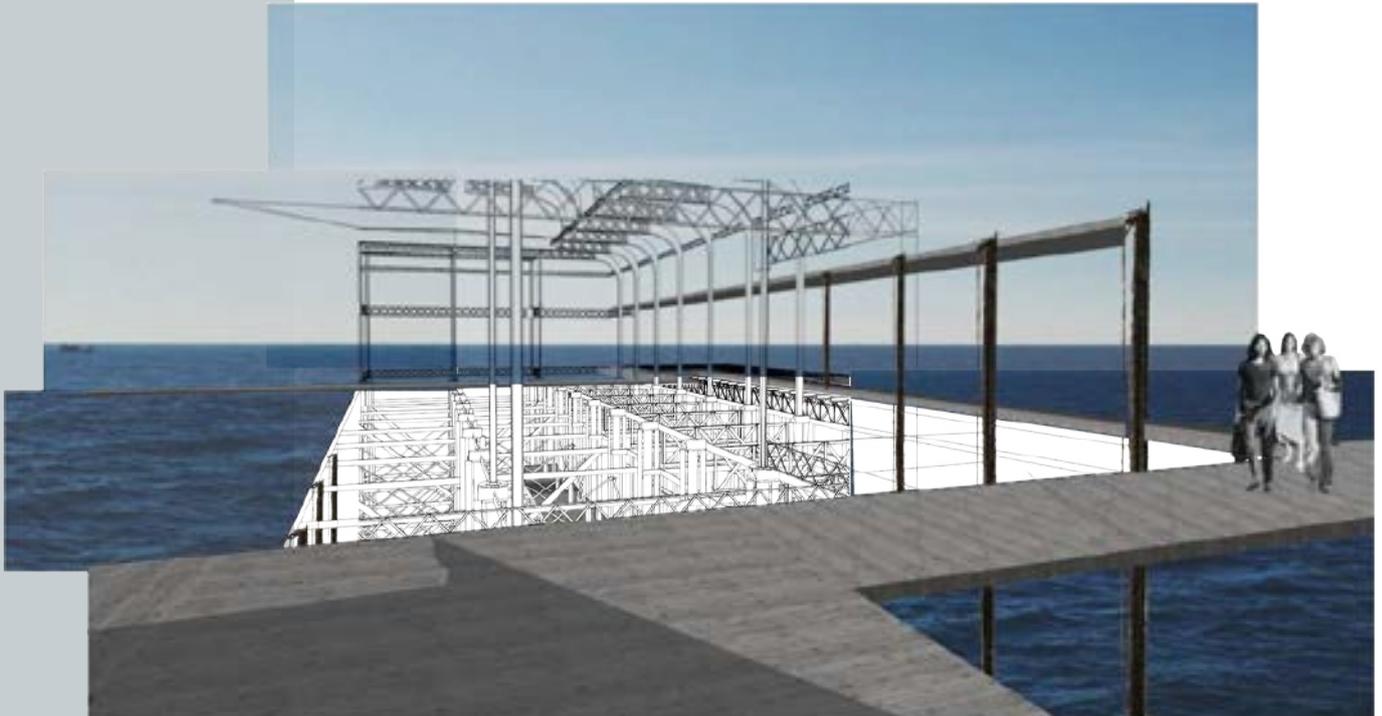


Author

This collage is representing the advertisement for my Pavilion, introducing people to the concept of what my design will be based up on. Giving members of the public an idea of what the infrastructure access will be leading towards when the festival opens.

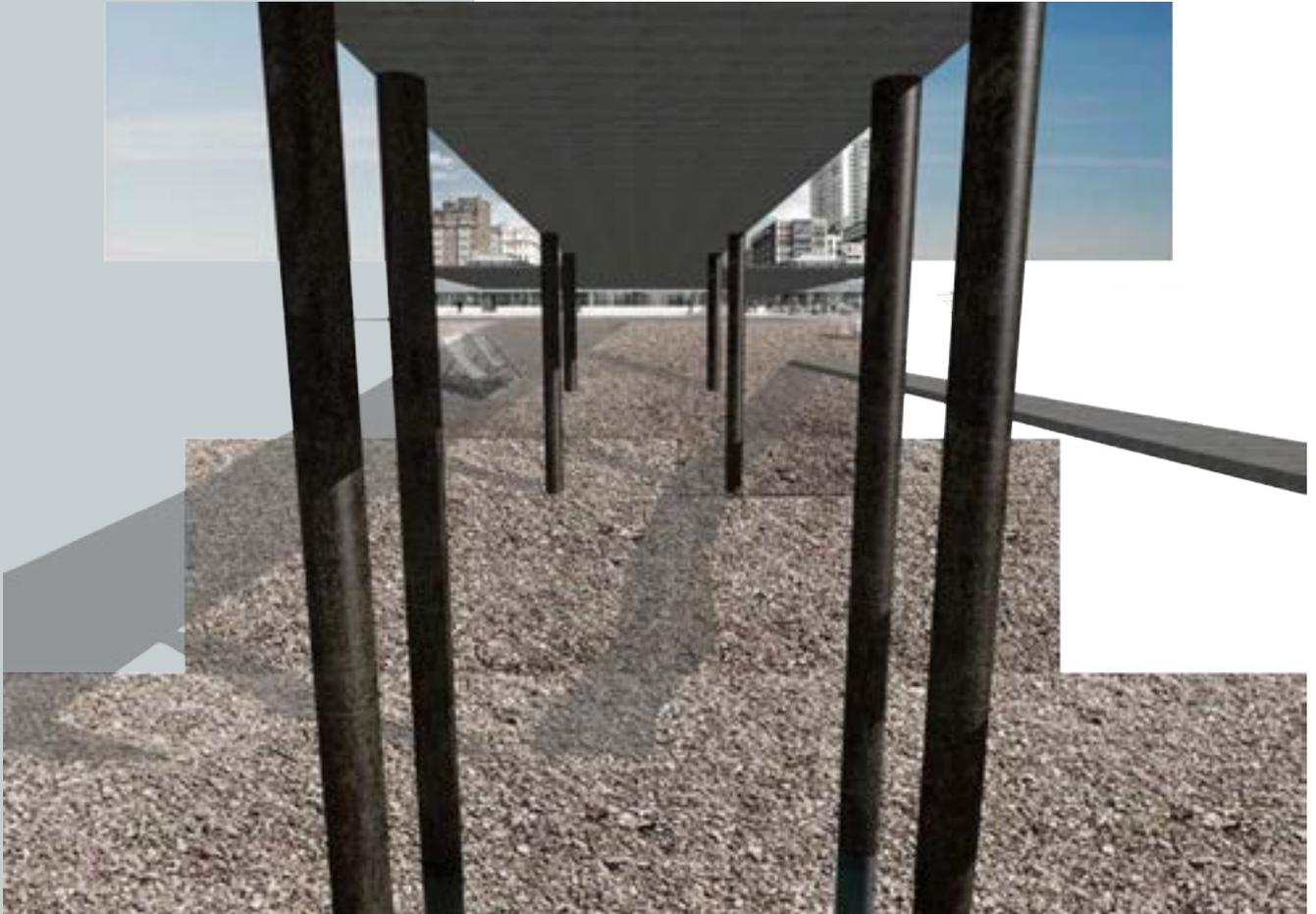


Author This collage is starting to capture an essence of how the proposed infrastructural will interact with the existing buildings on the site. I plan to have steps up to a decking from the busiest area on the beach for quick access for passers by. The height of the platform could site parallel to the top of the i360 centre there for adding to the height for view points from the shoreline.



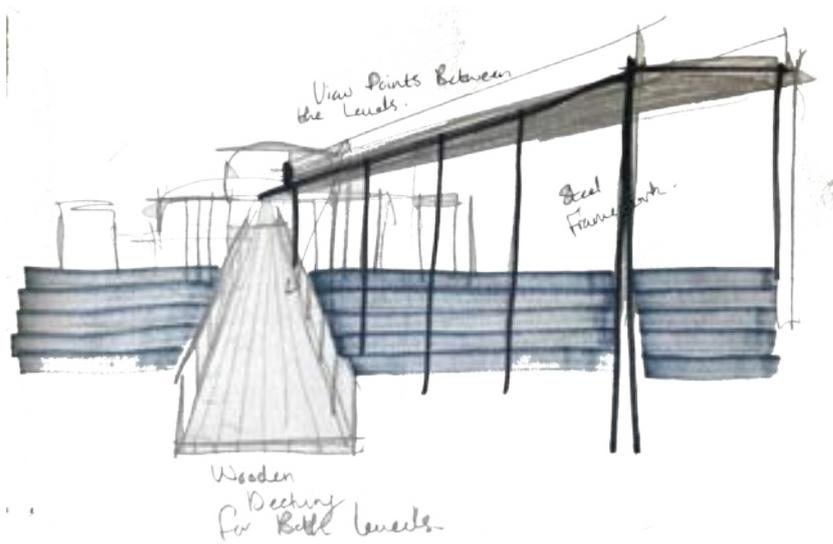
I wanted to try and communicate the different levels that will be situated within the pier framework, and how they will interact with each other, as well as the original feature. I plan to add some view points between the different levels to communicate this idea further.

Author



Author

One main feature of the infrastructure design, are the original iron columns that occupy part of Brighton beach currently. I wanted to use this image to depict the use of this piles within the final design ideas. It also gives a good perspective on how the decking levels interact with the shoreline. To develop this further I will be adding in the new structural elements to show a contrast between the old and the new.

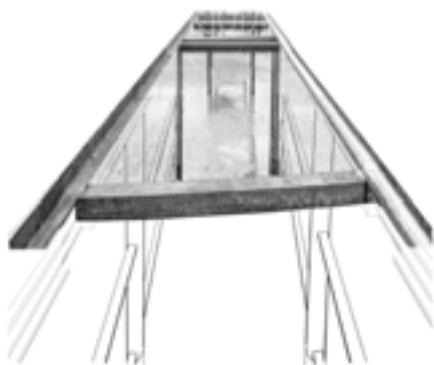


Author

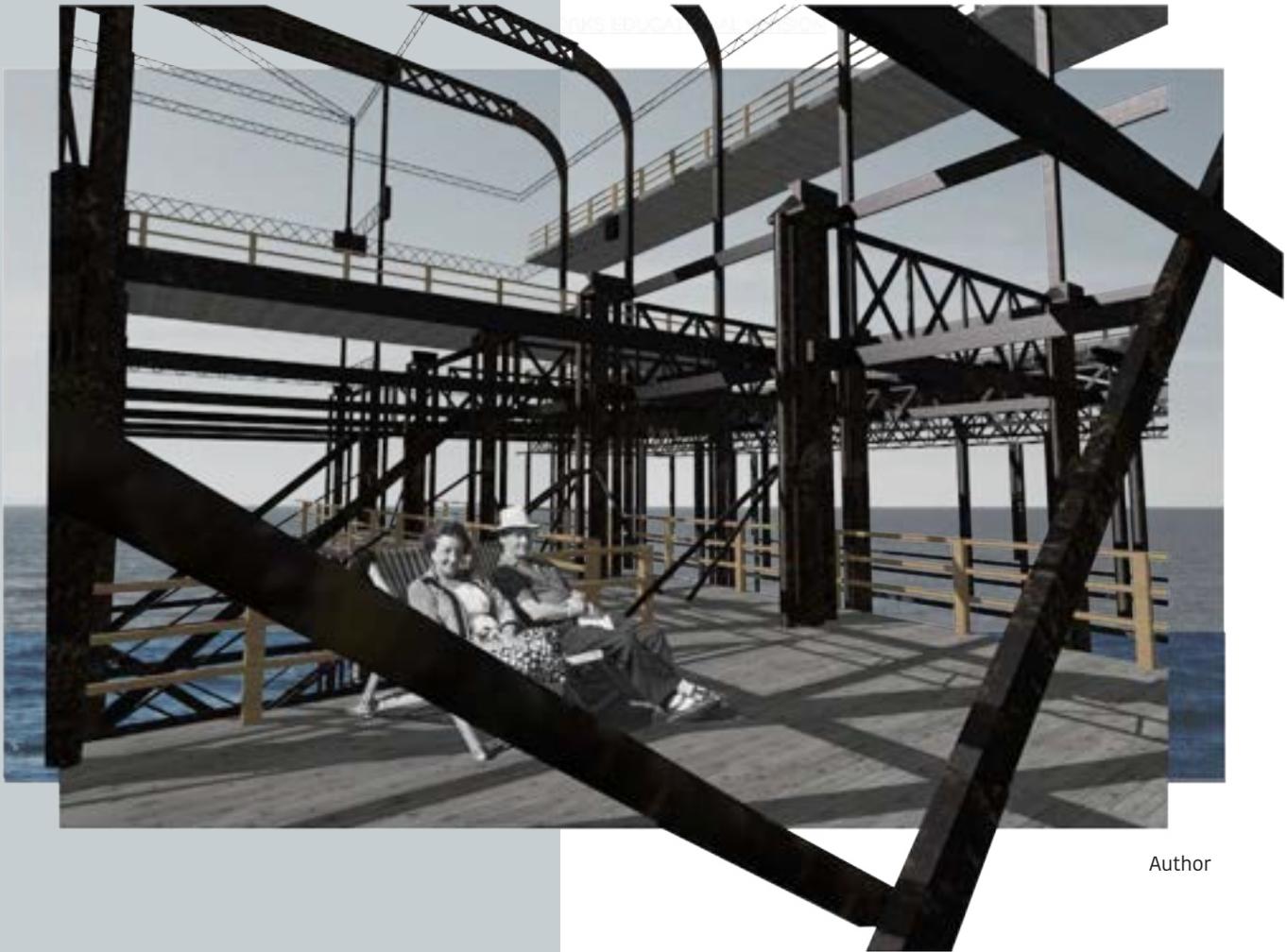


Here I wanted to start showing some of the material choices for the infrastructure design. Timber will be used for the decking, and balustrades. Where as steel I Beams will be used as structural support for the decking levels.

Author



Author



Author

This Collage is representing the relationship between the lower level decking to the inside of the pier's framework. I wanted to represent the change in levels and show the perspective from inside, and how the original pier features are prominent aspects of the design.

CHAPTER 8.
CURATE DESIGN





Author

I started trying to collage my space by drawing out the spacial orientation of the room. by combining this with cut out photography of the pier, I've being trying to create the experience of being consumed by the original structure. I also want to show the connection between the lowest floor and the water, proving there to be depth to the building.



Author

I draw out this view point of the workshop, to show the connections between the levels. Every floor has a view point connecting it to another, emphasising on the theme of being inclusive. I was happy with the layout of the drawing, however its lacking a sense of materiality, so I plan to add that layer into the drawing next, as well as some programmatic information.



Blackhorse Workshop, Assemble, Walthamstow, 2012,2014, <https://assemblestudio.co.uk/projects/blackhorse-workshop>

When thinking about materials for the workshop design I looked at Blackhorse Workshop is an interim use, supported by a long-term vision. Simple, utilitarian materials are coupled with hand-crafted elements, such as a range of furniture designed to be entirely reproducible on the machines within the workshop, to create a practical space with an economy of means. The flexibility and simplicity of the built elements are both intended to suit its robust current use and to be easily moved to an alternative location. They have specifically chosen cork as the material for the walls, so you can hang tools and materials up for easy access.



Author



I had the idea of incorporating cork as a material into the design due to its sustainable qualities. I thought this material would work well in the workshop due to you being able to hammer pins in to it, so you could use the wall to pin stuff up to, or hang any tools or appliances away to for storage. The wall tiles in the image by the side are made by combining recycled granulated cork with whole wine corks, which you can see as those oblong shapes in the tiles above. This is a pretty useful idea, considering the world apparently consumes around 31.7bn bottles of wine a year. I thought that I could collect the cork bottle stops from all the bars along the sea front to act as a sustainable method of creating material for the design.

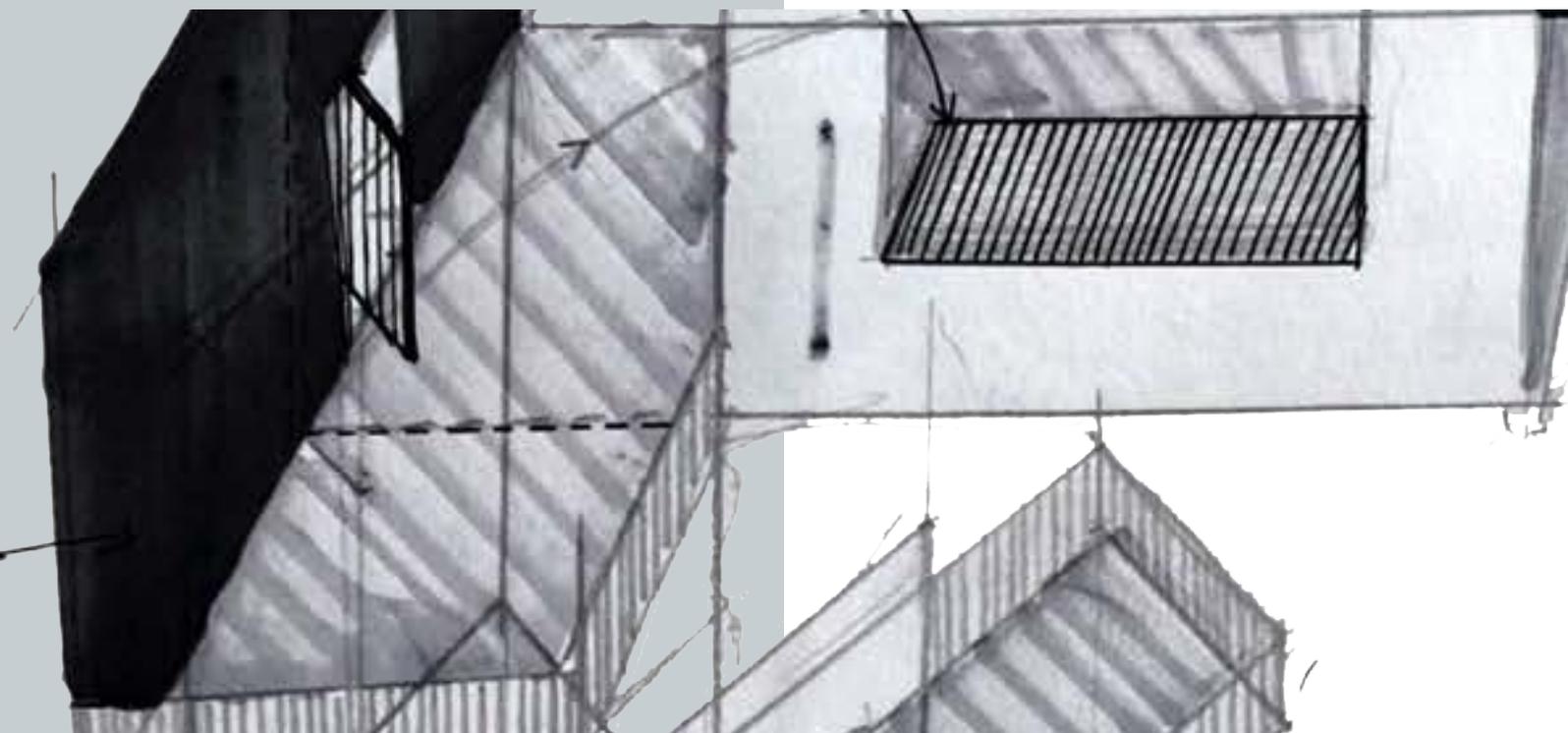


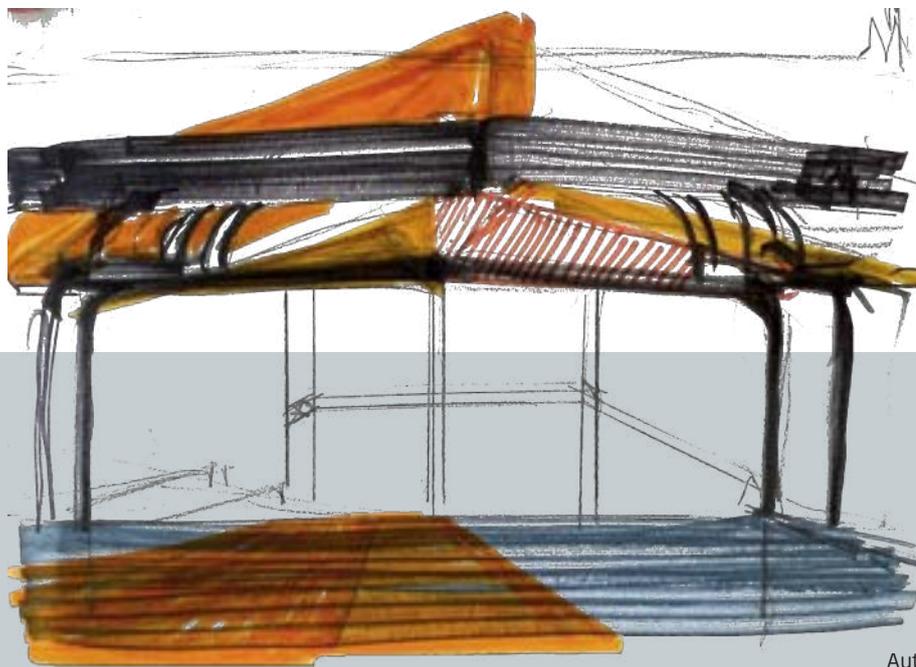
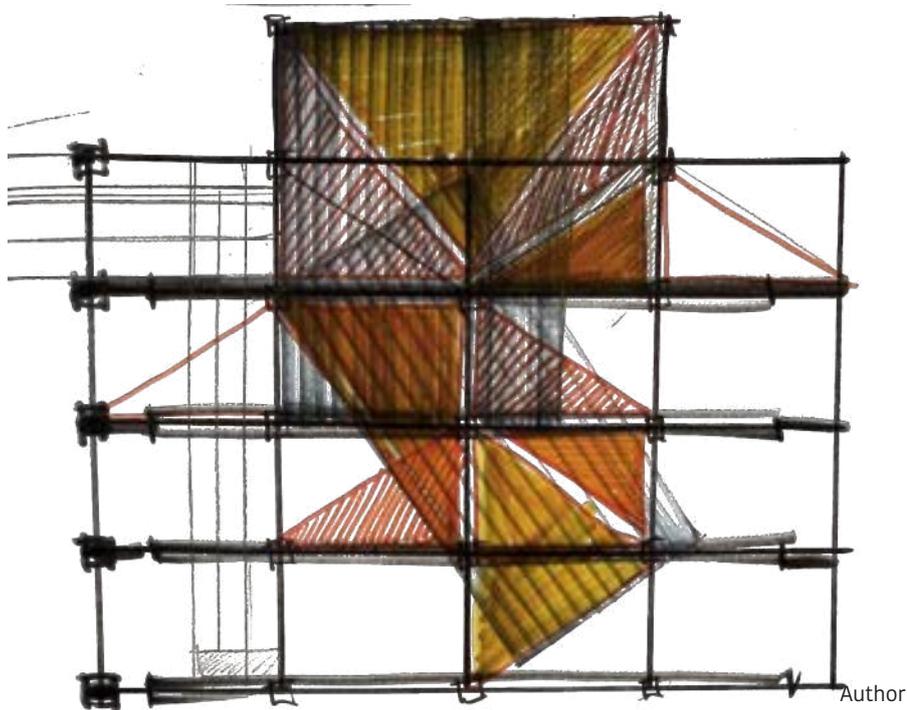
Author

The next collage I wanted to show the auditorium room. I did a few versions of this collage before this, however am unable to access them due to them being in the university building. However I took a printed cut out of the CAD model of the Pier and started to combine it with different materials to start to suggest how the space may begin to feel. As well as adding seating and people, which give the same a sense on programmatic information. To move forward with this drawing I think I am going to take aspects such as the layout, and inhabitation, but think more carefully about the actual materials I am going to use, so that the drawing reads better as a whole

CHAPTER 9.

EXTENDED PAVILION DESIGN





One part of the design that I want to pick up on from before was the idea of being inclusive and creating connections. I came up with a design where a combination of canopy's would fill in the gaps of the existing pier structure to act as cover. However I decided this wouldn't be moved forward with. Due to the sun needed to protrude at specific times of day.

Author

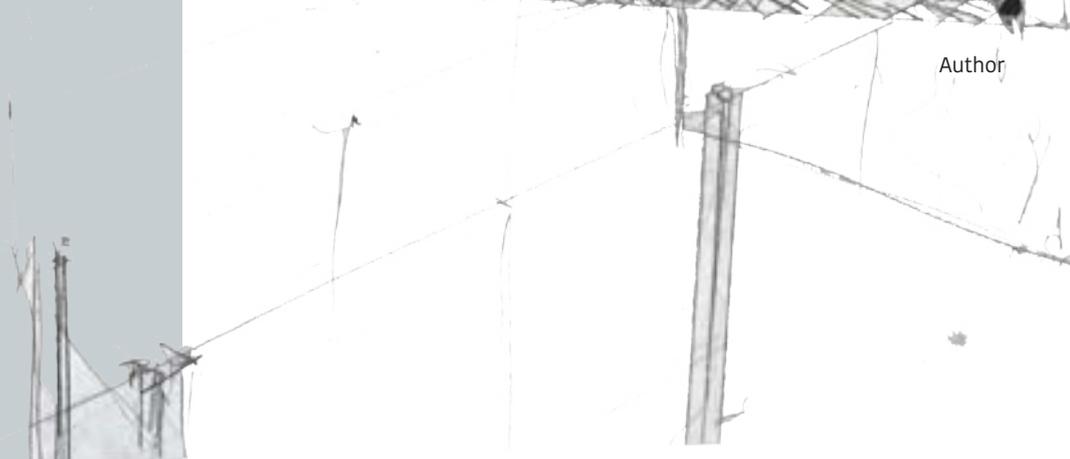


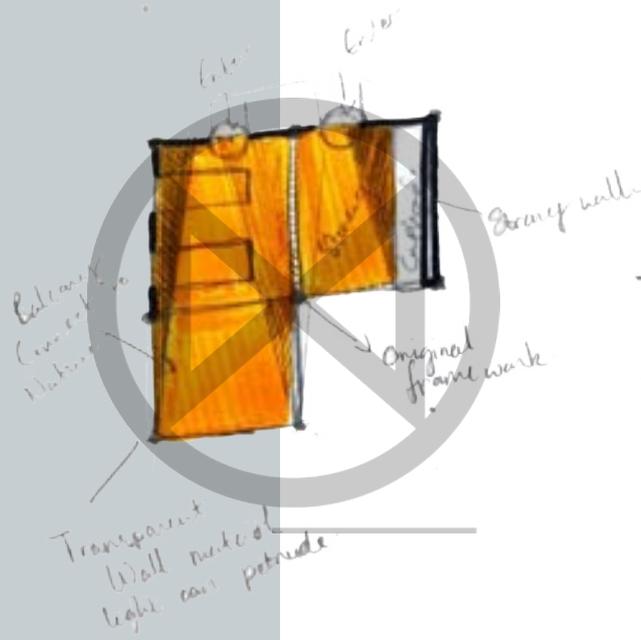
Design Collective Medium, Georgia, 2018-2020, <https://www.dezeen.com/2020/01/20/8-23-vi-pavilion-medium-tblisi-architecture-biennial/>

Next I started looking at parts of the structure that could move. Turning spaces in to multifunctional rooms. I looked at a 8-23-VI Pavilion in Georgia, that is made up of pivoting planes, that can move depending on the wind direction. Taking this design feature in to consideration when discussing the changing spaces that I want available. I also started looking at the types of materials that could be uses within the deign.

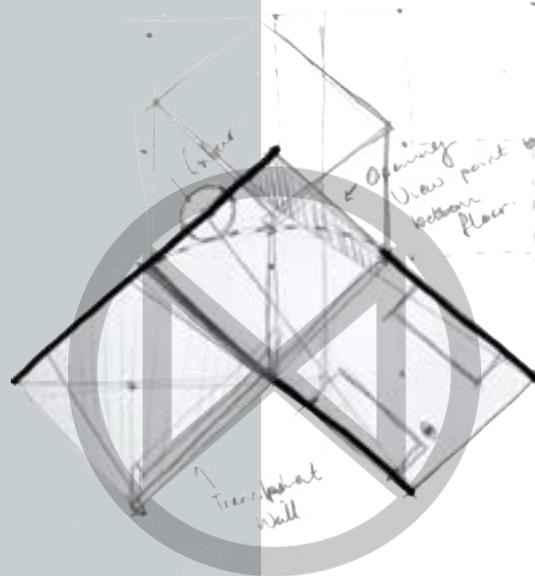


Author





Author

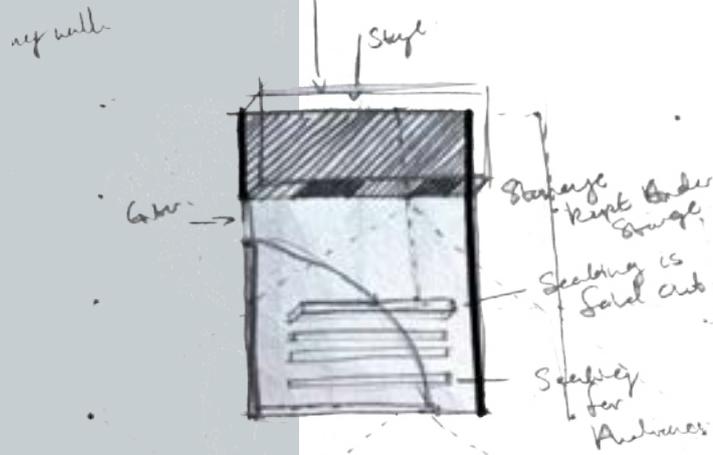


When looking at developing my design further spatially, I thought about taking influence from prominent XR branding. When looking at the main symbol I created links between itself and the shape of the grid that my pavilion sits on. This led me to the next design development stage.



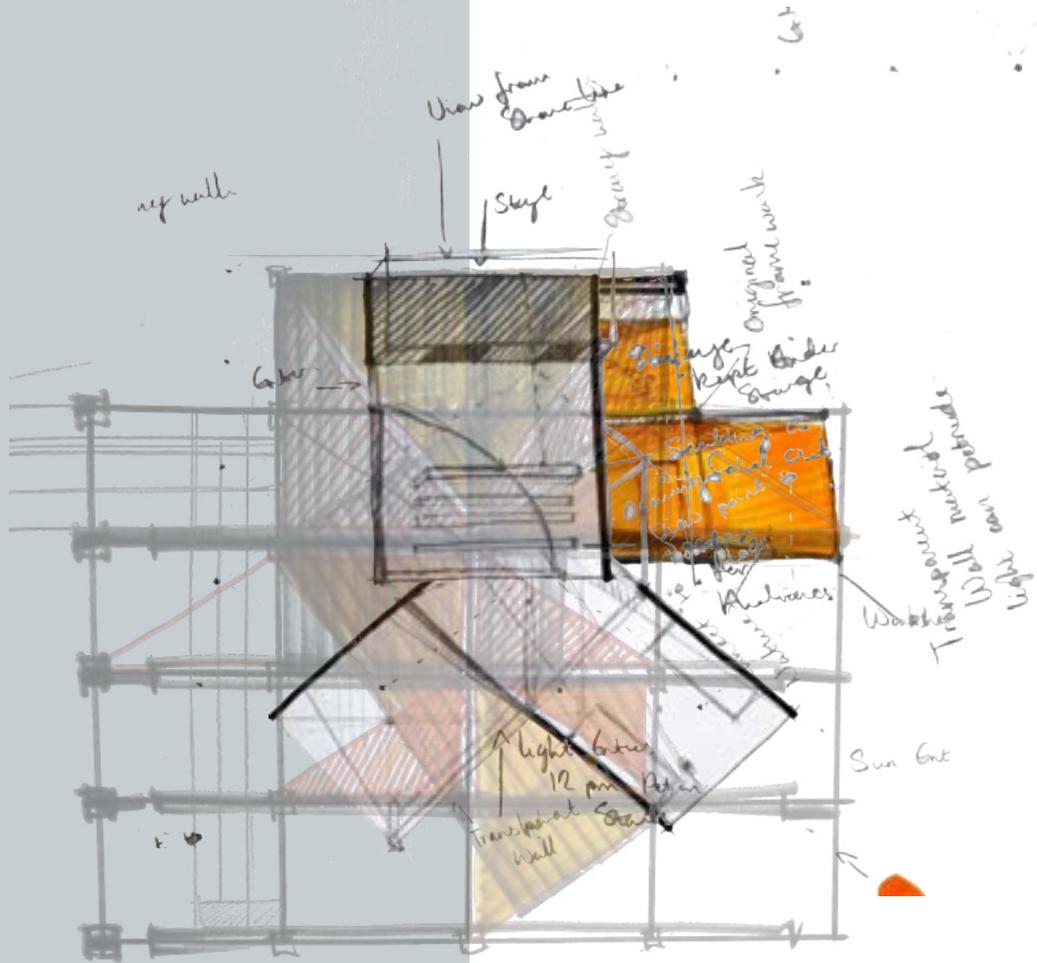
View from
above like

Author

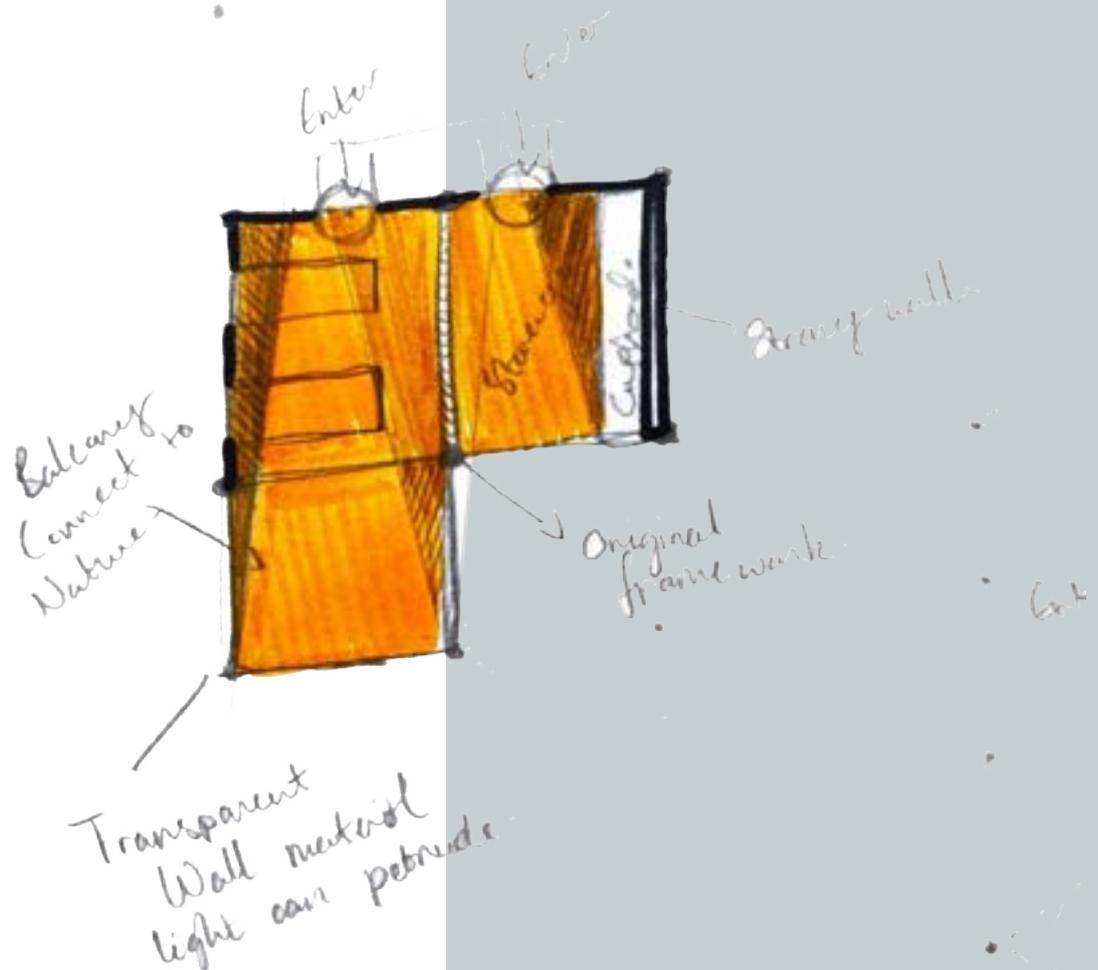


↑ light enters
12 pm when
starts.

Author

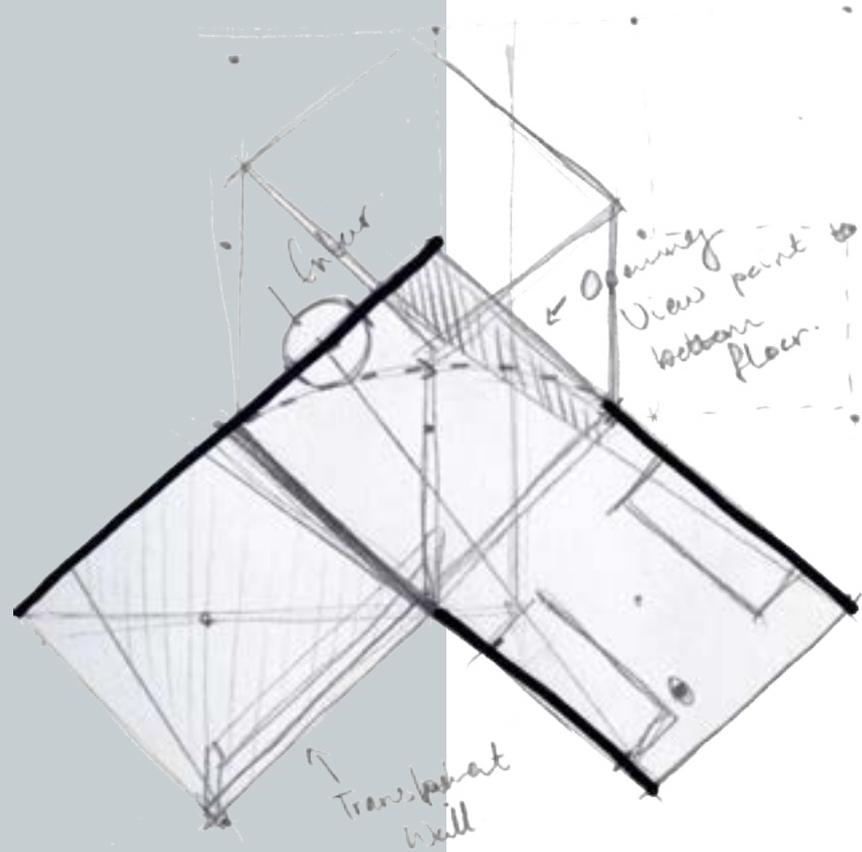


Author



Author

When looking at the office space, I decided that I wanted a space that wasn't covered by the floor above due to wanted to create connections between each room and the exterior environment. This meant I extended one of the side out to occupy a space where the West Pier once had other structural framework but had since fallen away due to damage. This acts as a restoration phase, as well as creating a fresh view point towards the horizon from the side angle, which isn't something that you can easily achieve from within the structure.



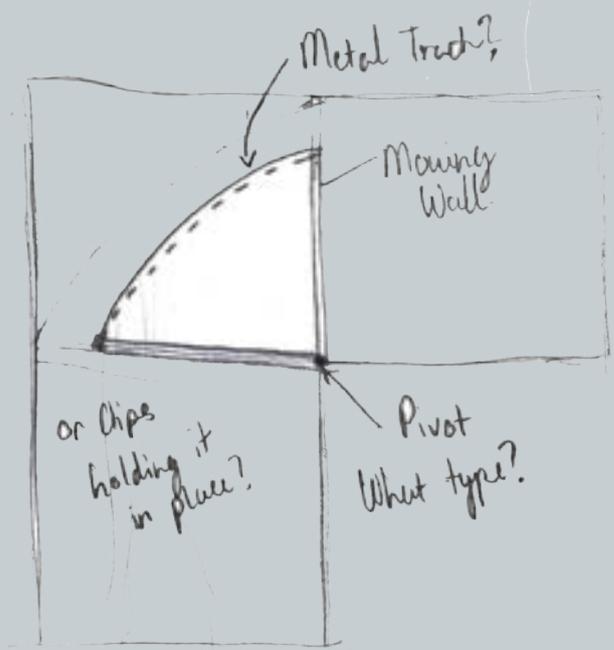
Workshop

Sun Enter Hall

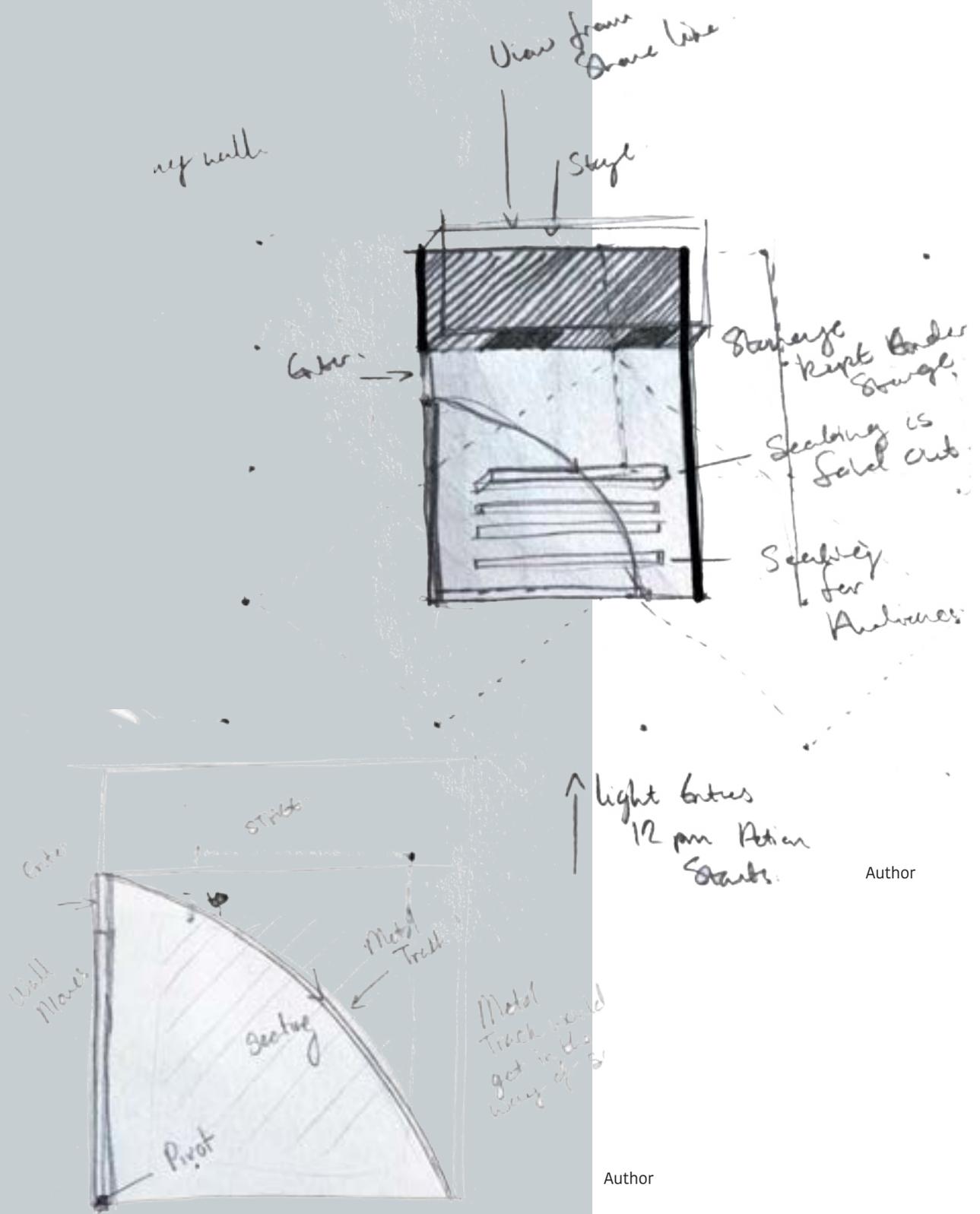


Author

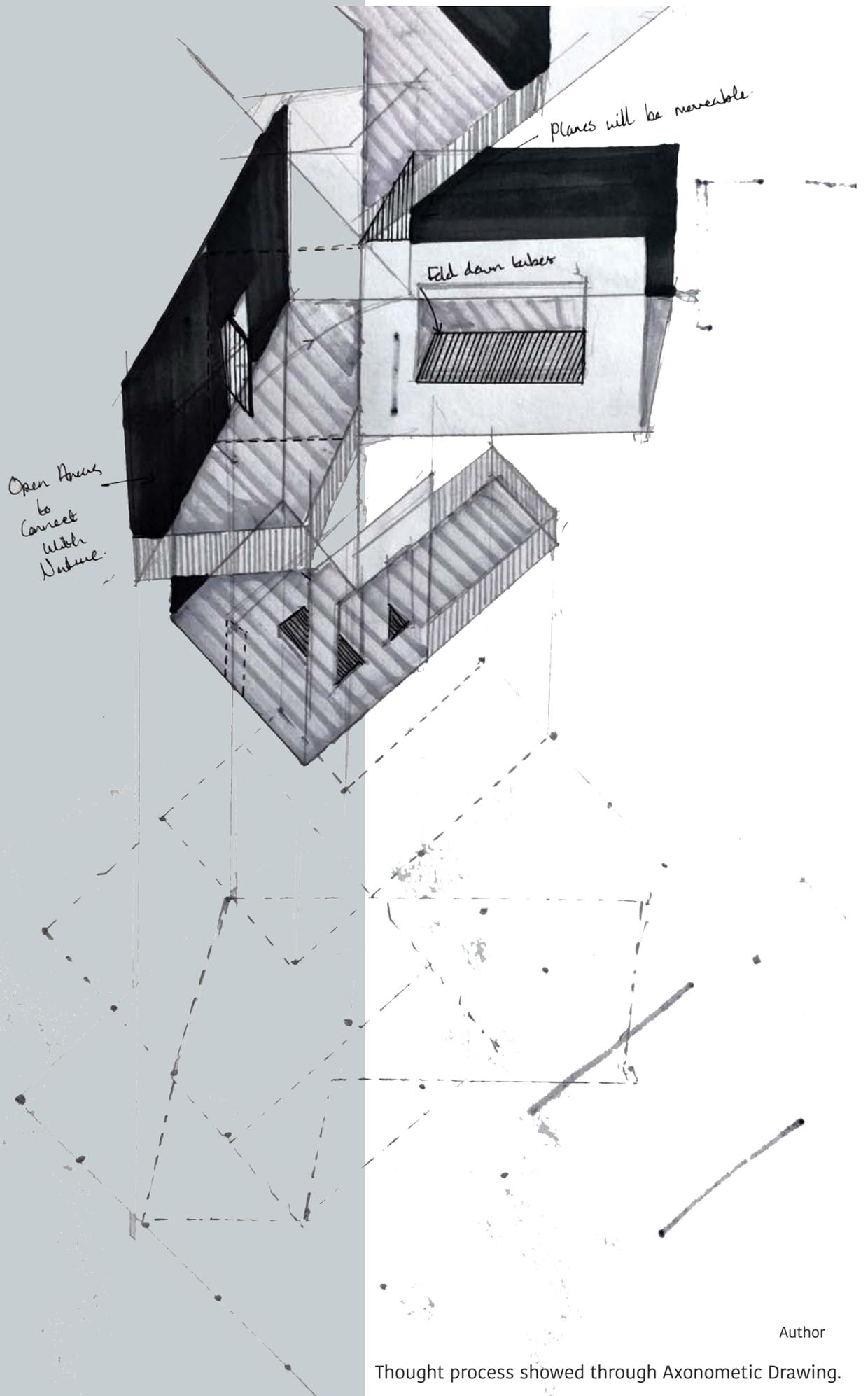
For the workshop I have once again added another section of the grid in floor span, for the outside space. Although this level is mostly uncovered anyway. I believe it to be an important feature to keep, where the space's functionality depends on the elements, so if it is raining certain parts of the design will be inaccessible. I have also considered adding a pivoting door in the middle section so depending on the configuration the workshop space can be converted in to a meditation area. As Ellie informed me of keeping space free for holistic activities, such as meditation.



Author

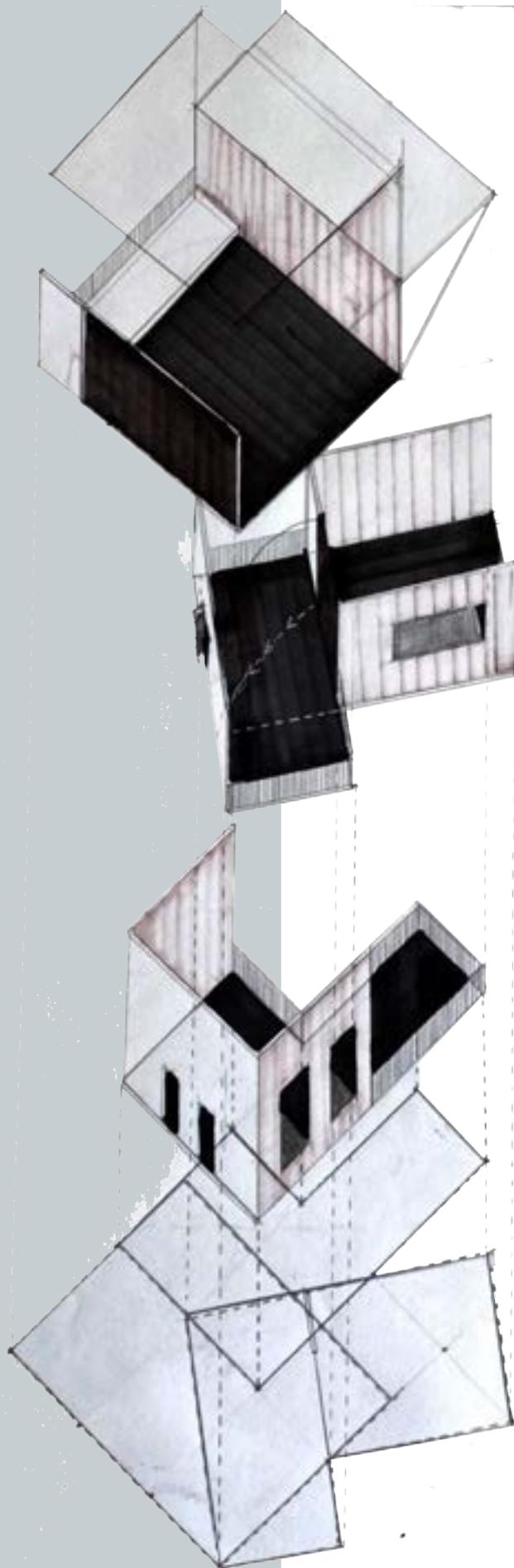


For the top floor, I have left it the same size on the inside, however I have started to question moving points within the design to open up to space and include the sun at certain times of day. I have also considered putting a seating area outside on the top floor, again, running with the idea that each floor should have an areas where individuals can connect to nature.

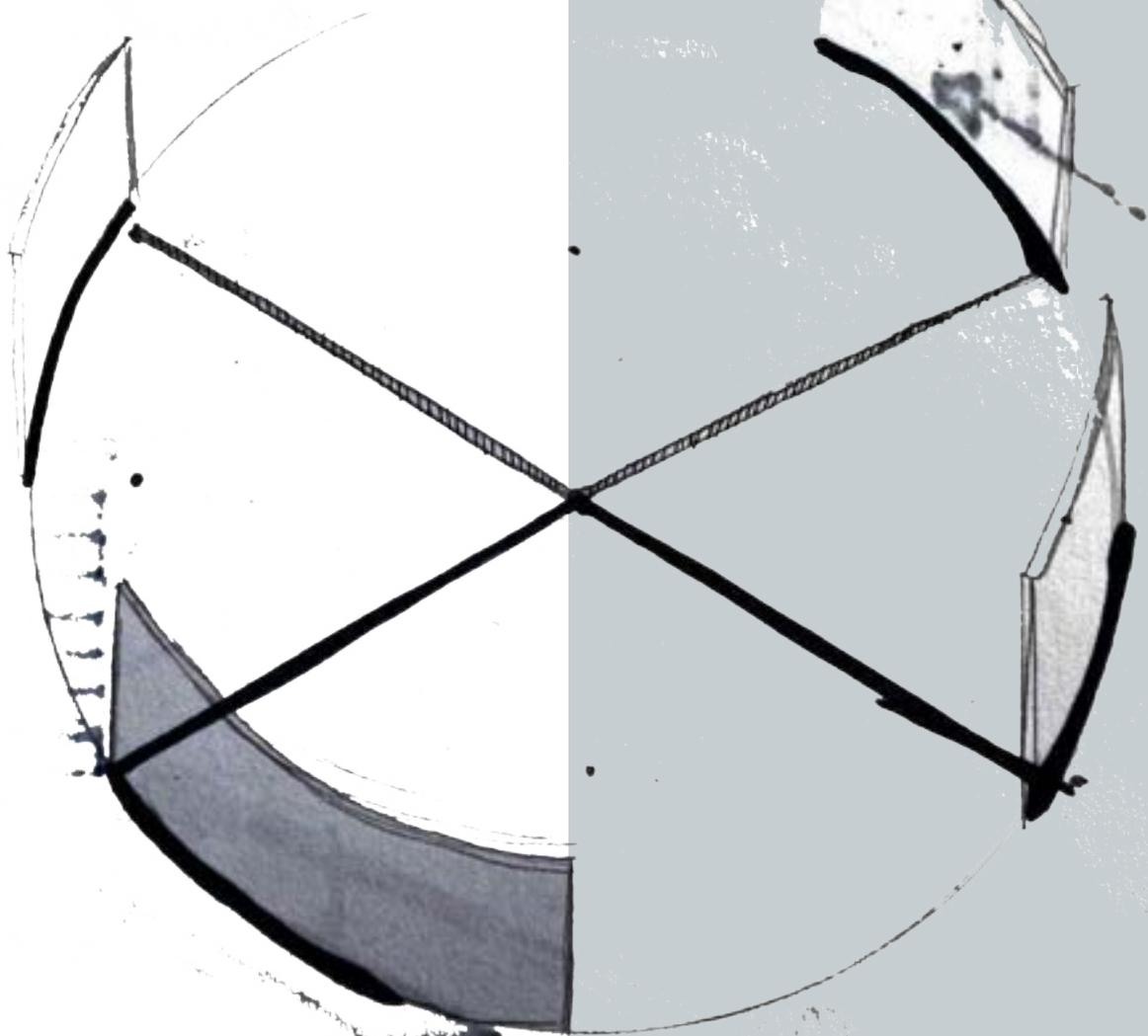


Author

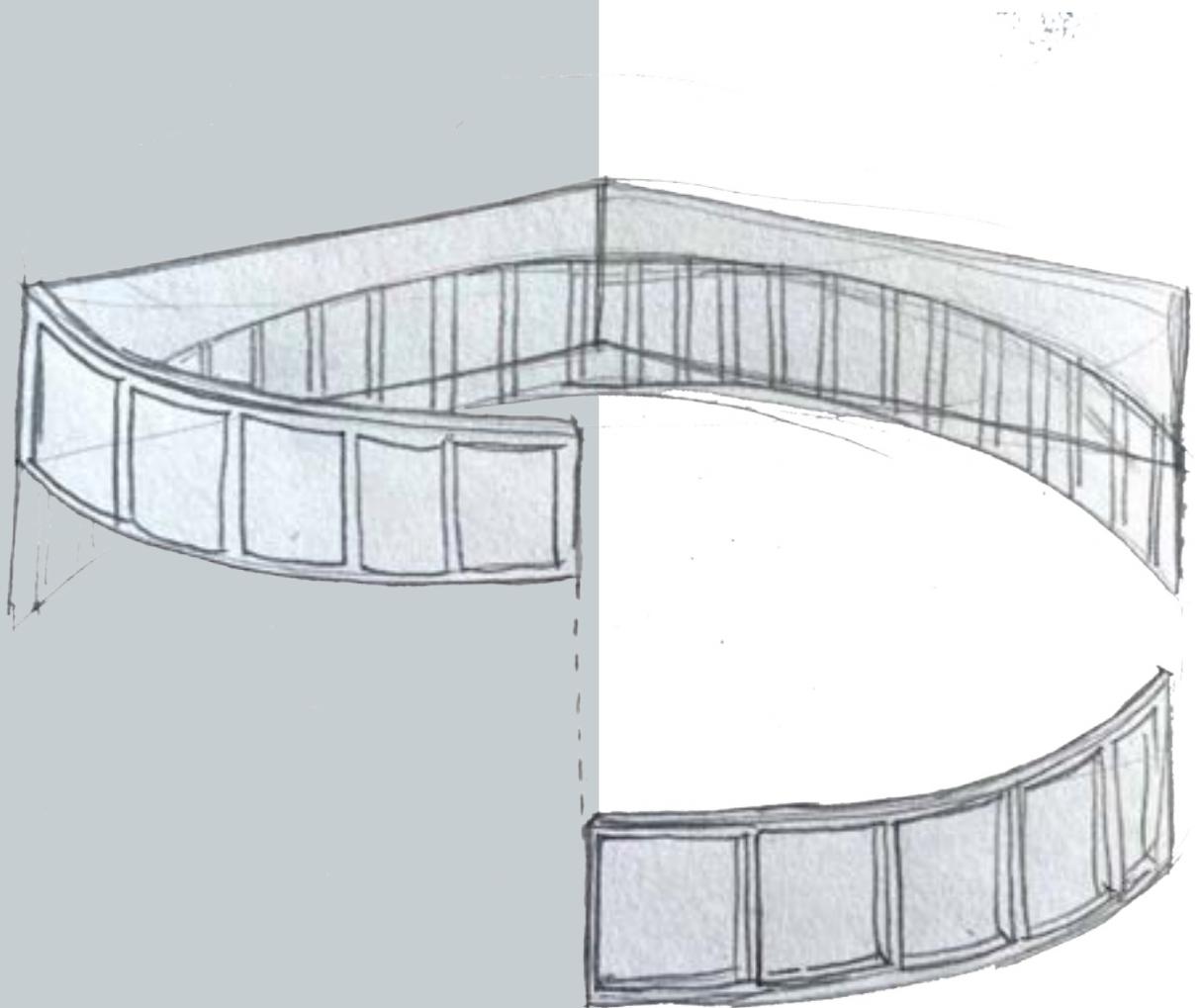
Thought process showed through Axonometric Drawing.



When I noticed that the X within the original framework grid of the pavilion can relate to the XR Logo, I thought I could try and incorporate this in to the design further. I am considering trying to recreate the symbol, so when you look at the building in plan view, the logo is presented.



Author

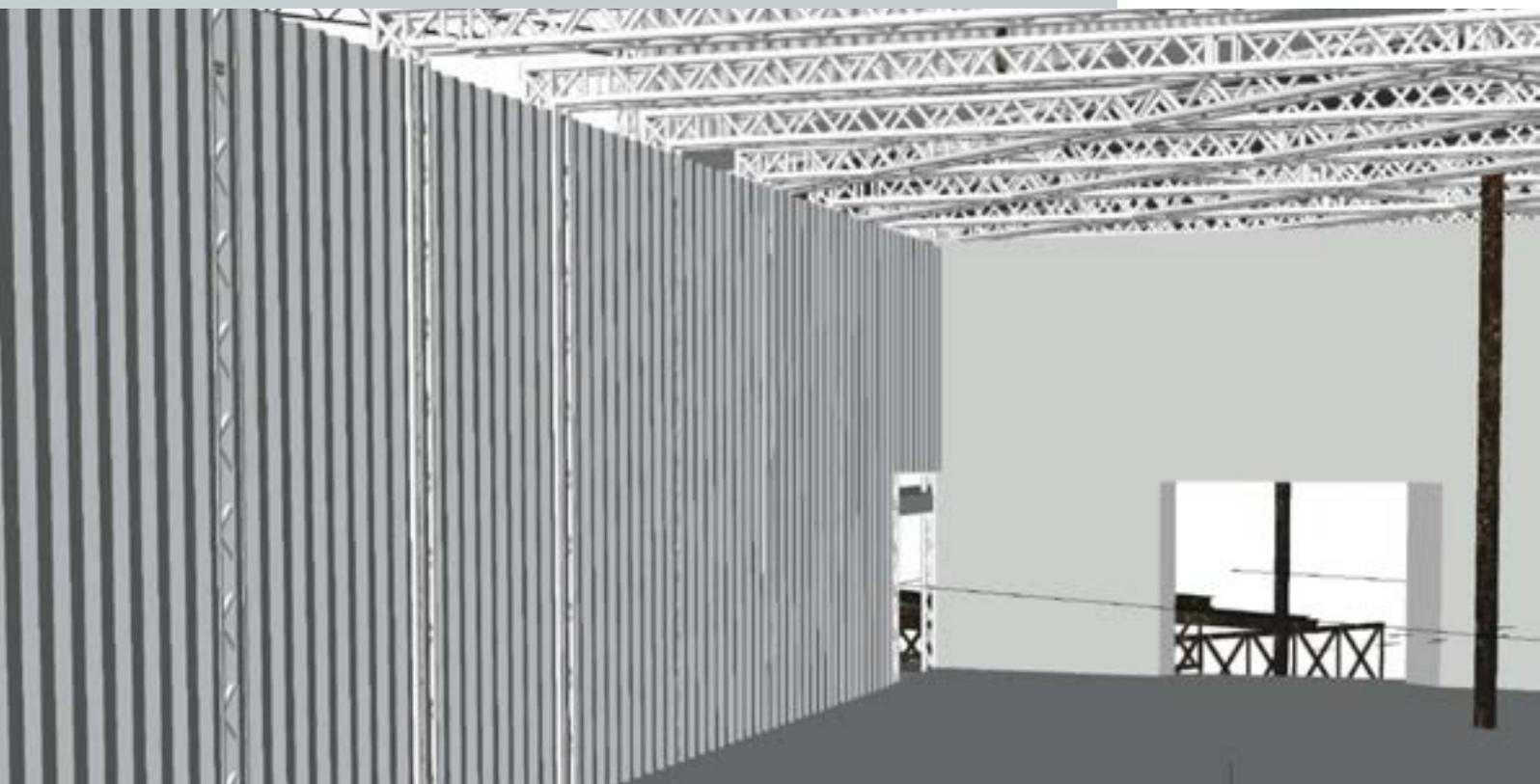


Author

I am thinking about using the circular shapes as a guide to create apertures that the sun can travel through across the different times of day, at varying heights of the structure. This is just the start to this possible investigation.

CHAPTER 10.

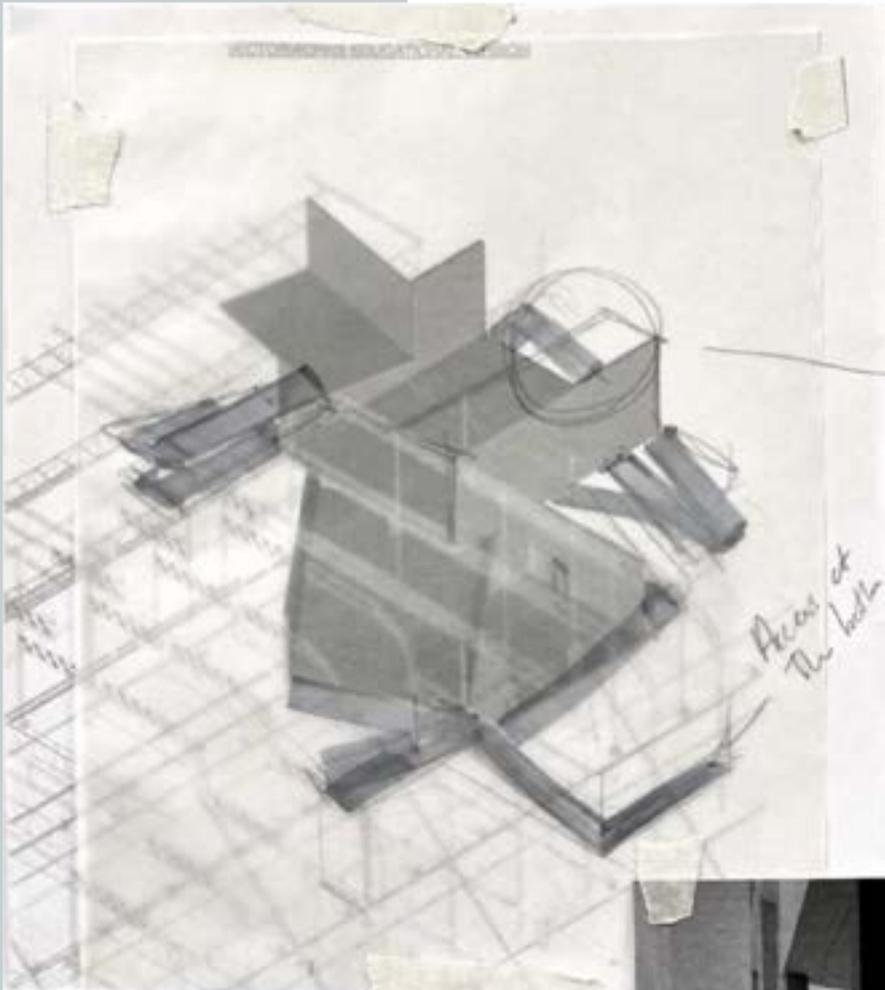
PAVILION SYSTEMS & MATERIALS



CONNECTING.

Layers are key to my design -
 Disabled Access is also key -
 Ramps became a main part of Design.

When I first started looking at SYSMAT, I knew that timber was going to be the primary starting point for the investigation. So I started looking at more sustainable ways of creating reinforced timber. Some of which included using recycled paper.



Access of The building



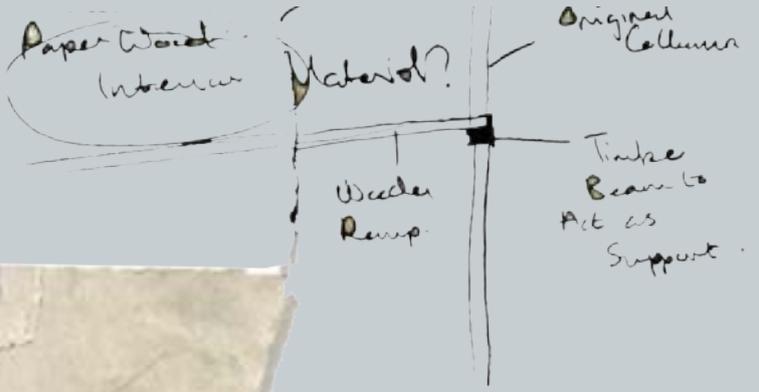
Pedestal Material
 Paper Wool
 - Recycled Paper -
 between ply & lime wool.

- Eco choice?;



House of Steps
 - Connects 3 storages
 height through purely Ramps.

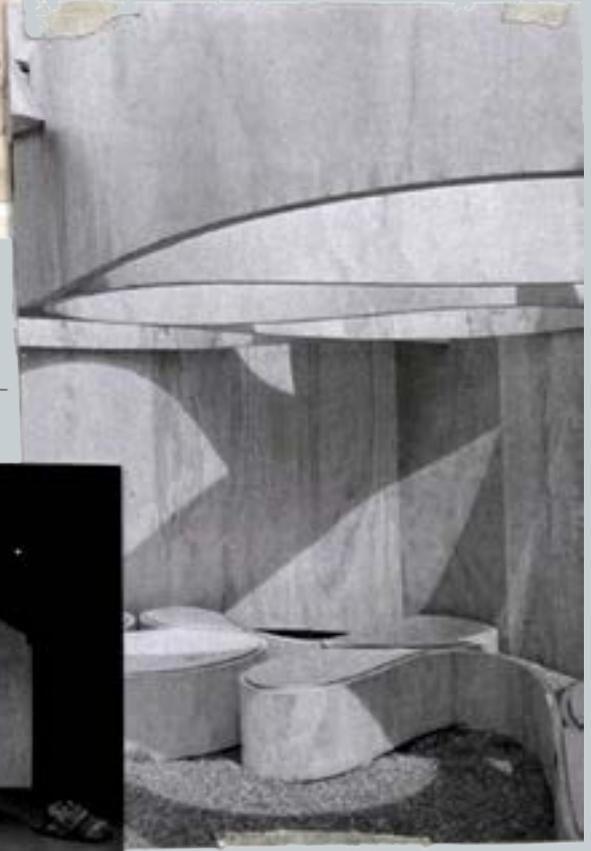
RESEARCHERS USE OR SET ON STRONGER MATERIALS



Plasticity Use
the existing structure
to act as a support
for the structural
Ramps.
Rm - 1m ↑

Ramps
Set in
Columns or
Pannels
on side

Serpentine Summer
House 2014



Materials

- Reinforced Timber
- Plywood
- Fiberglass - recycled plastic decking
- Steel
- Reinforced Steel
- Support for the structure.
- Steel Brackets.

(Concrete Mass) ↓



I also started looking prefabricated materials that are already in use as a guide to the types of products that are already out there, achieving the types of structures that I want to build. As well as trying to gain an understanding of how my structure will connect to that of West Pier.

ENERGY
 Coarcs
 - Relate
 to program

Original
 Iron Framework
 from West Pier

Iron Columns
 Slide through
 Timber Plates

Parasitic/Knitted
 Structure

- Make use of original structure
- Weaves between the frames
- Slabbing can act as a temporary measure.
- Balting - connecting planes together.

Different
 Timber Plates
 act as levels.

Moves

- Parasitic Structure
- Due to existing frame work - means sustainable.
 - Balting - Easy to connect planes - Temporary Nature - can be undone
 - Resting - On original Beam to act as
- Networkly
 Non Slip/
 Low maintenance
 for the en-
 cased
 areas.



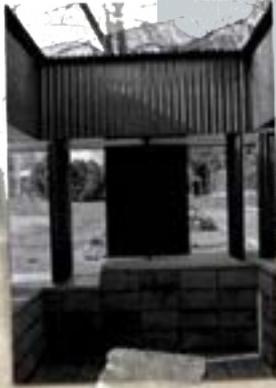
Envirobuild - Reused Decking Plastic & Timber Panels.



8-23 VI Pavilion
Tblisi

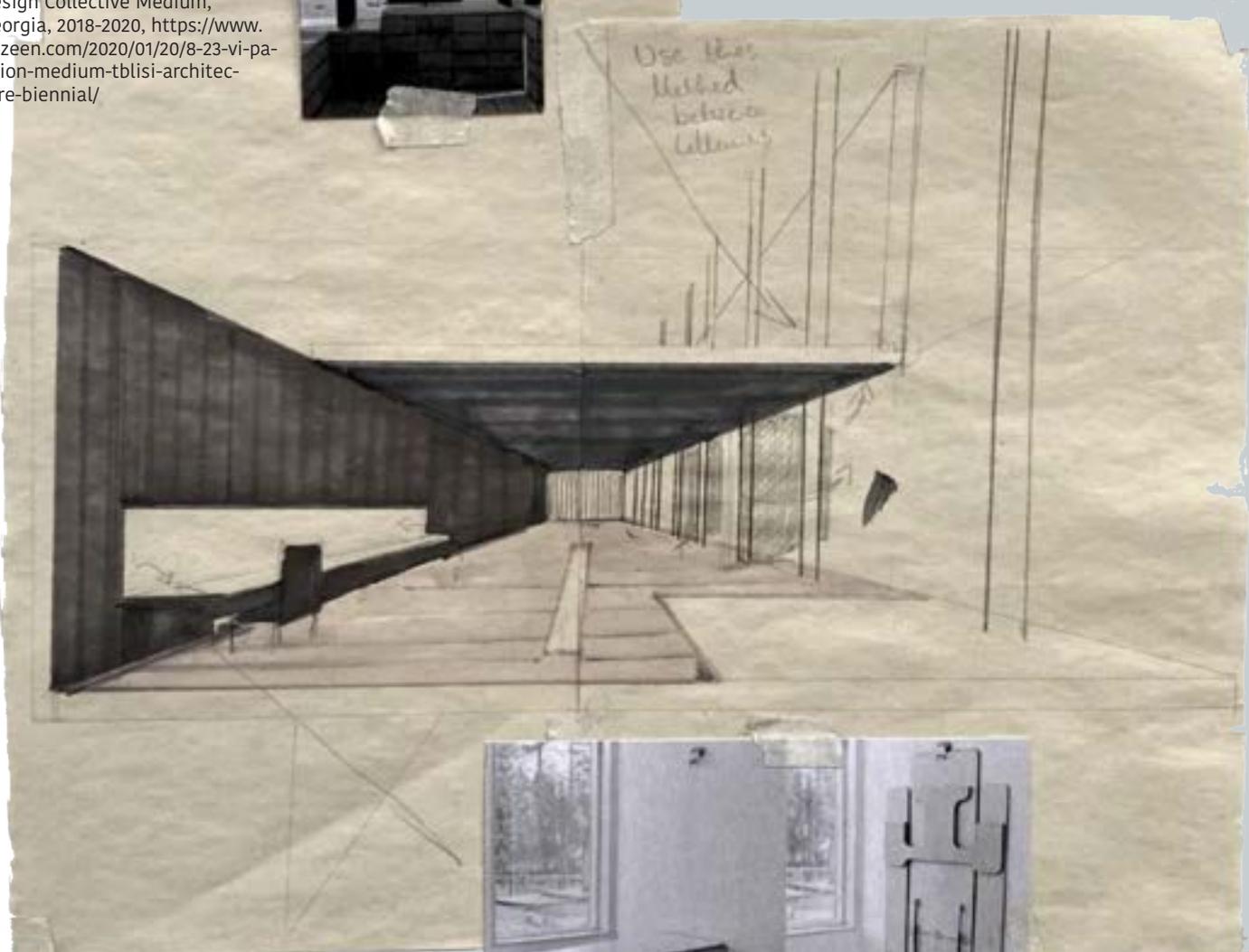
Has Red Hanging Panels
That can be altered
to offer protection from
the elements.

Concept
- ...
- ...
- ...



I also started to look at specific precedence that related to the type of systems that I want to use in my design. These included pivoting joints, as well as fold out tables and chairs. This would be to utilize the spaces, making them multifunctional.

Design Collective Medium, Georgia, 2018-2020, <https://www.dezeen.com/2020/01/20/8-23-vi-pavilion-medium-tblisi-architecture-biennial/>



Use this Method between columns

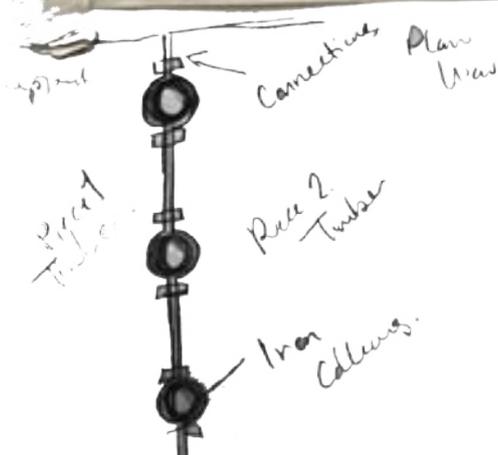


Fold out tables, acting as sustainable method of re using space.

Refers to Temporary Nature

Use As Minimal materials as possible - Use just wood for as many fans

Dovetail Joints



After researching a selection of different systems and materials, I have come up with some potential material tests. I knew that timber was going to be my primary source for construction. However I was considering making the process more sustainable. One of these methods consisted of making wood out of recycled paper. You do this by coating the sheets in watered down adhesive and wrapping them round each other. I made a test piece to replicate this method.



My next plan was to try and make the test pieces more structural by adding layers of recycled timber. If these tests were successful the next part of my testing was going to be based towards questioning the development of a waterproofing, that would help timber withstand the elements out on the ocean. Unfortunately I was unable to proceed with these plans due to the University building being closed.

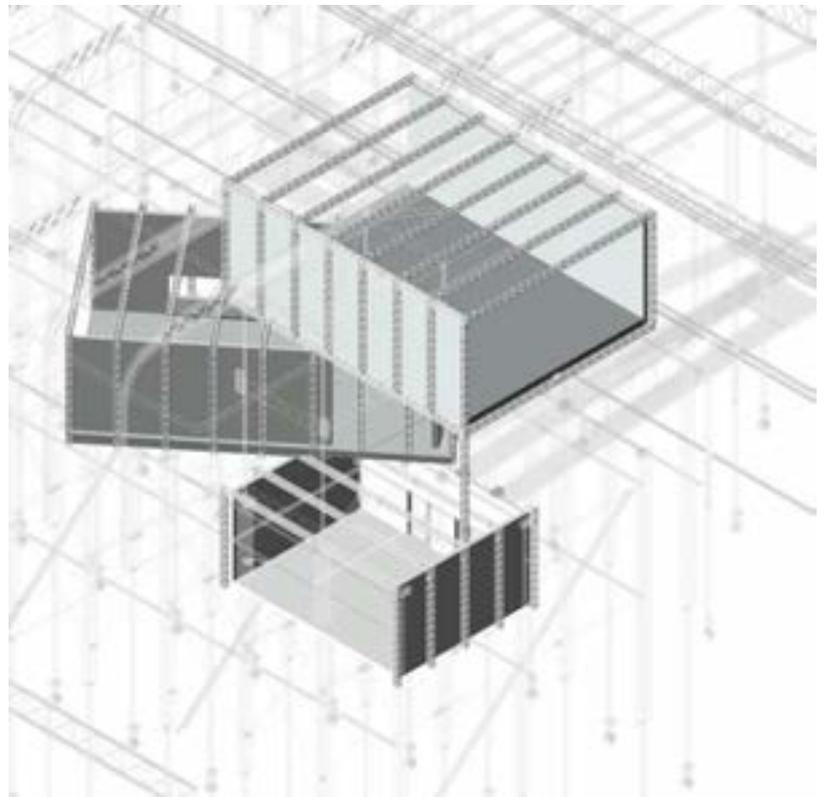


Paper Ply Wood, Drill Design, <http://www.drill-design.com/work-graphic/paper-wood-2>



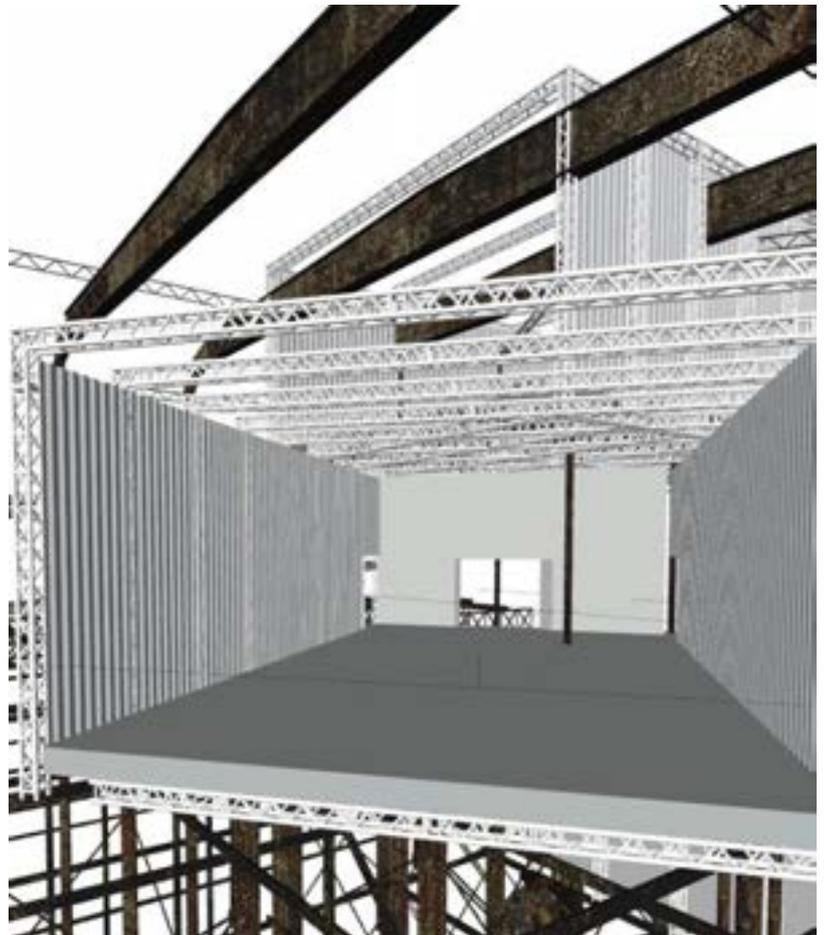
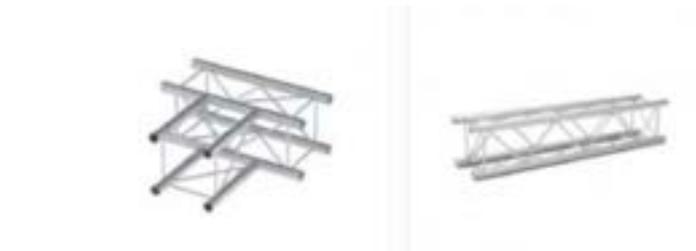
Brett Mahon, Joonas Parviainen, Saagar Tulshan, Shreyansh Sett have built a multi-level pavilion where people can gather and relax in Rijeka, Croatia. This method I am considering using for the temporary nature of the design. I enjoy the use of timber levels that span multiple layers. This technique would mean I could remove the structure from the pier as if it was never there.

Level Up Street Pavilion, Brett Mahon, Joonas Parviainen, Saagar Tulshan, Shreyansh, Croatia, 2019, <https://www.dezeen.com/2019/02/20/level-up-street-pavilion-rijeka/>

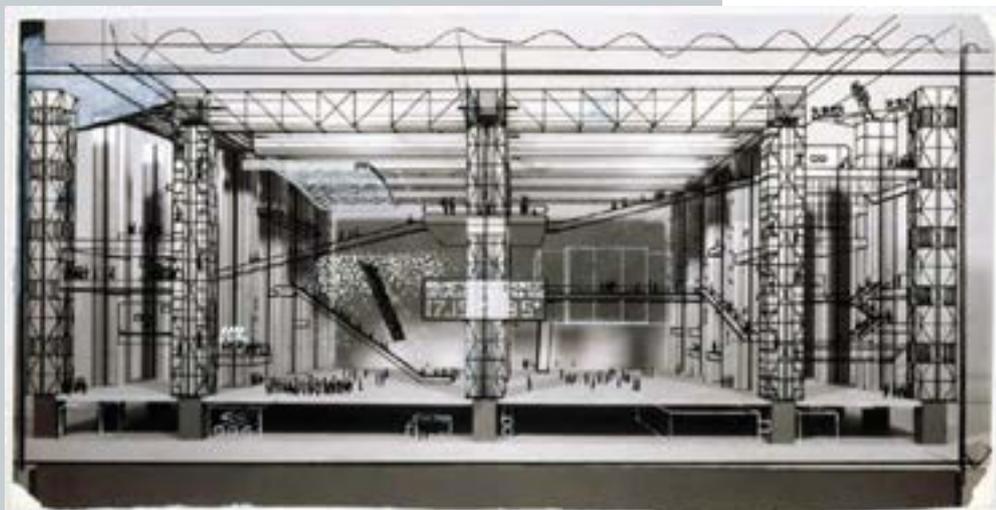
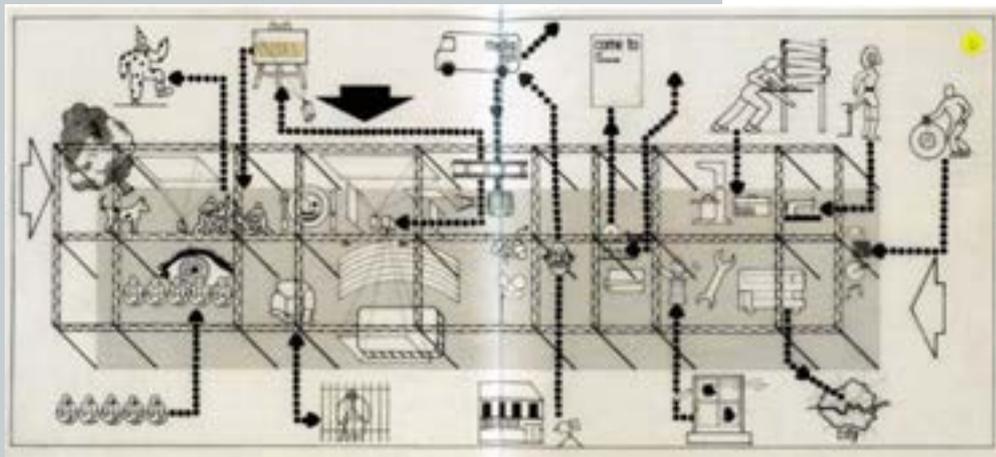


The first thing I tried to resolve for the structural side of the design was a grid that my structure to abide to. This would mean that a repeated pattern could be used to create the structure. Here I tried to develop a structure made from aluminium quad trussing. I thought this would work well because of the adaptability of the shapes, however I think it boxed the design in too much.

Author



Author



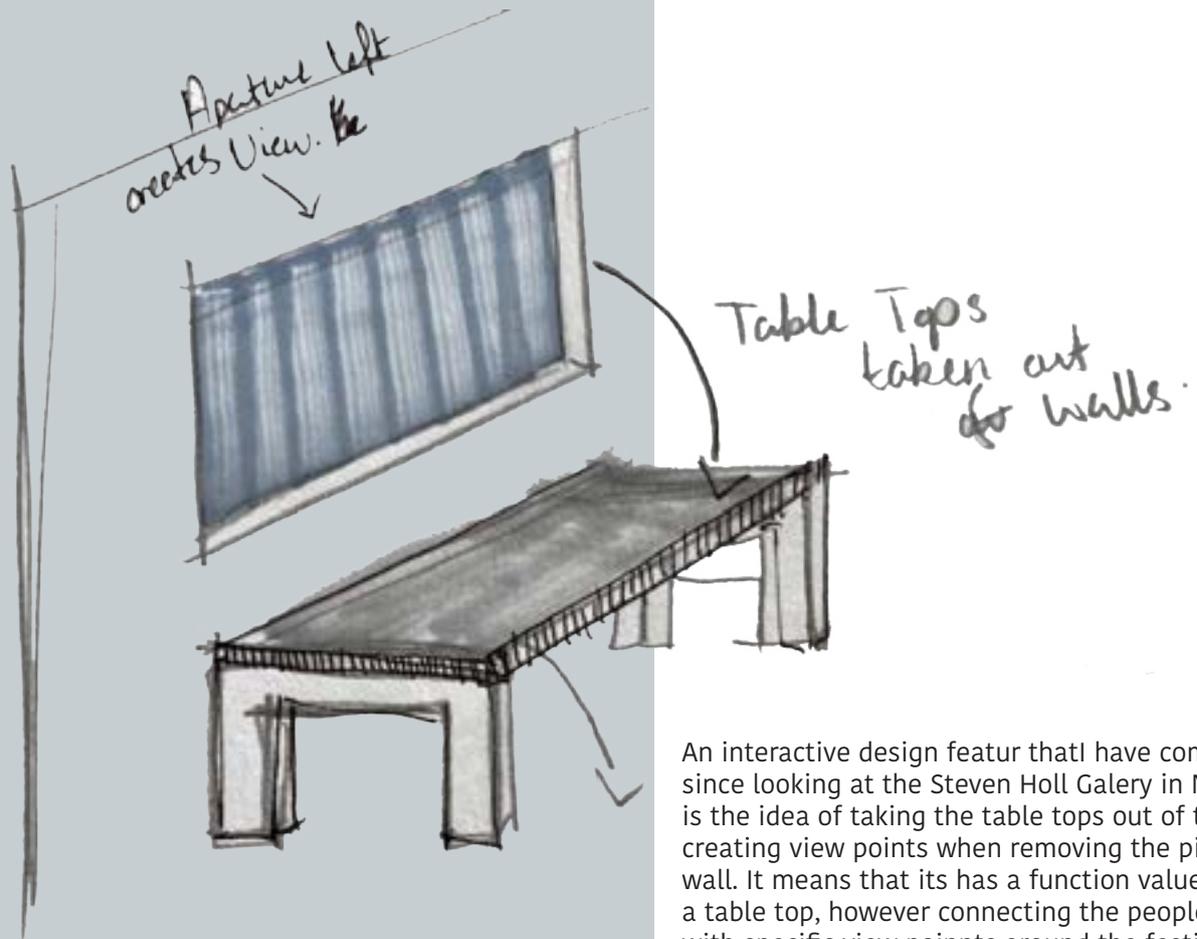
After finding the scaffolding technique I decided to look at the work of Cedric Price. This is The Fun Palace that he designed. The principle of the design reminded me of my structure. Using an exterior grid to hold up the interior structure. This design is more a permanent fixture though, so I might look in to using a fixed structure, of steel beams to support the entirety of my design.

The Fun Palace, Cedric Price, Paris, 1970's,
<http://www.interactivearchitecture.org/fun-palace-cedric-price.html>



Storefront, Steven Holl Architects, New York, 1993, <http://www.stevenholl.com/projects/storefront-for-art-and-architecture>

The next piece of precedence I decided to study, is the Gallery in New York by Steven Holl. It consists of rotating planes that have been created from reclaimed architecture book shelving units from a library. This incredibly clever design allows the inside to come out on to the streets, interacting with members of the public as they pass by. I not only want to take to technical, moving elements from this design but the idea to take, parts of furniture/ materials that would otherwise be thrown away and turn them into something new.



An interactive design feature that I have come up with since looking at the Steven Holl Gallery in New York, is the idea of taking the table tops out of the walls, creating view points when removing the piece from the wall. It means that it has a function value in becoming a table top, however connecting the people inside with specific view points around the festival at the same time.

Author



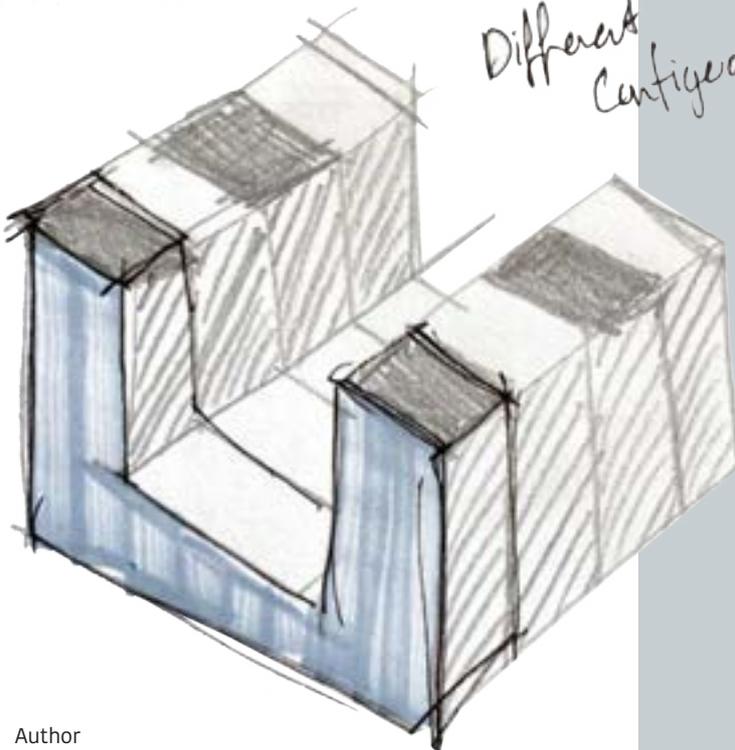
I wanted to look back at the precedence from earlier on in the design phase where I looked at modular construction, and using different type of configuration for multiple purposes. MultiPly by AHEC, Waugh Thistleton Architects and Arup, shows this well. I had the idea of potentiall applying that to the furniture within the rooms. Could the tables and chairs be configured in to multiple different uses?



Author

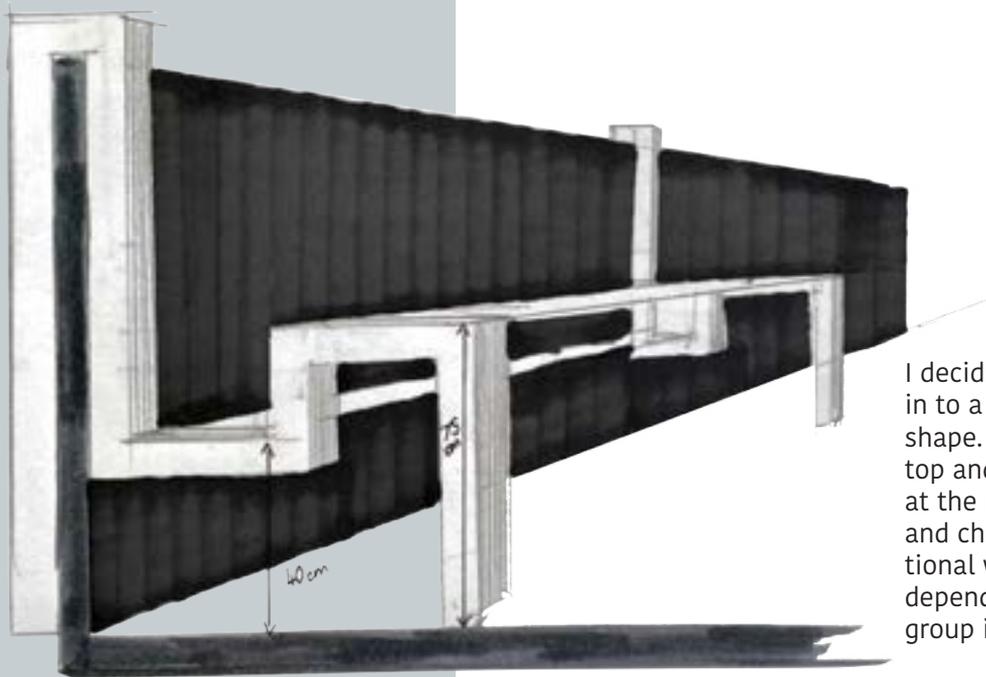


Different Configurations:



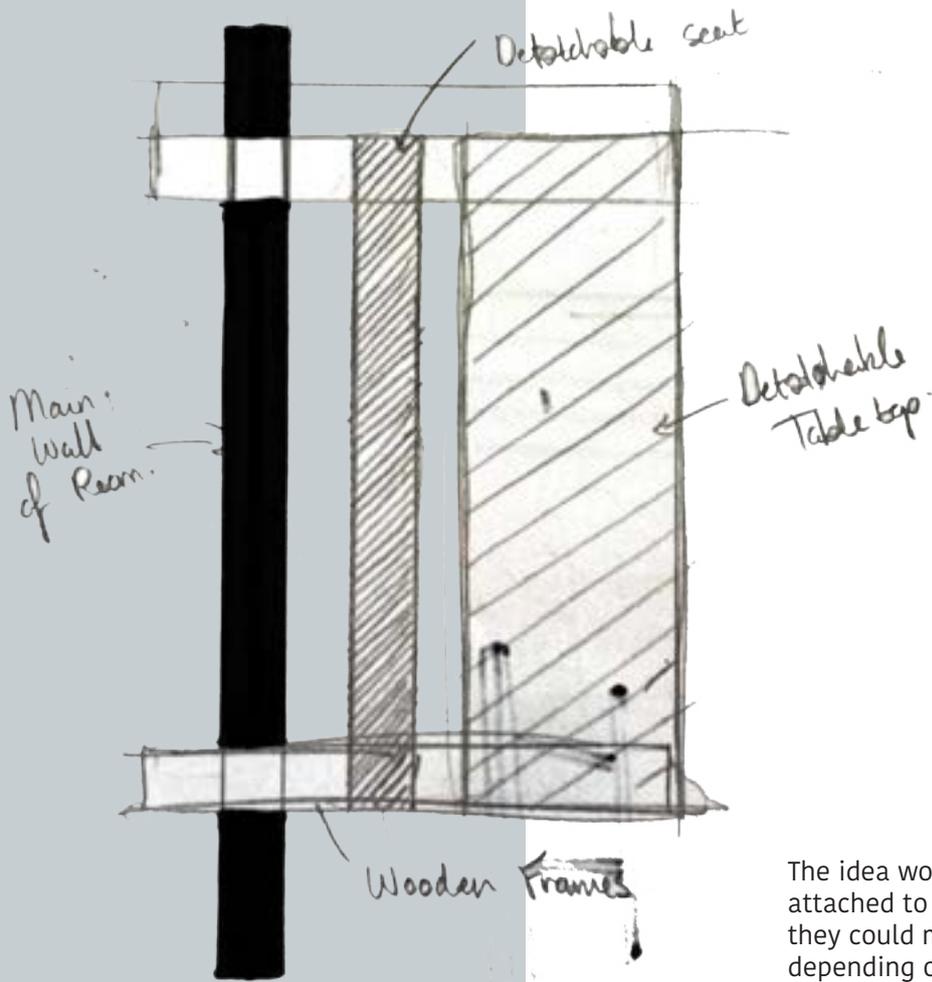
Author

*Wooden
Frame
Holds
out
well*



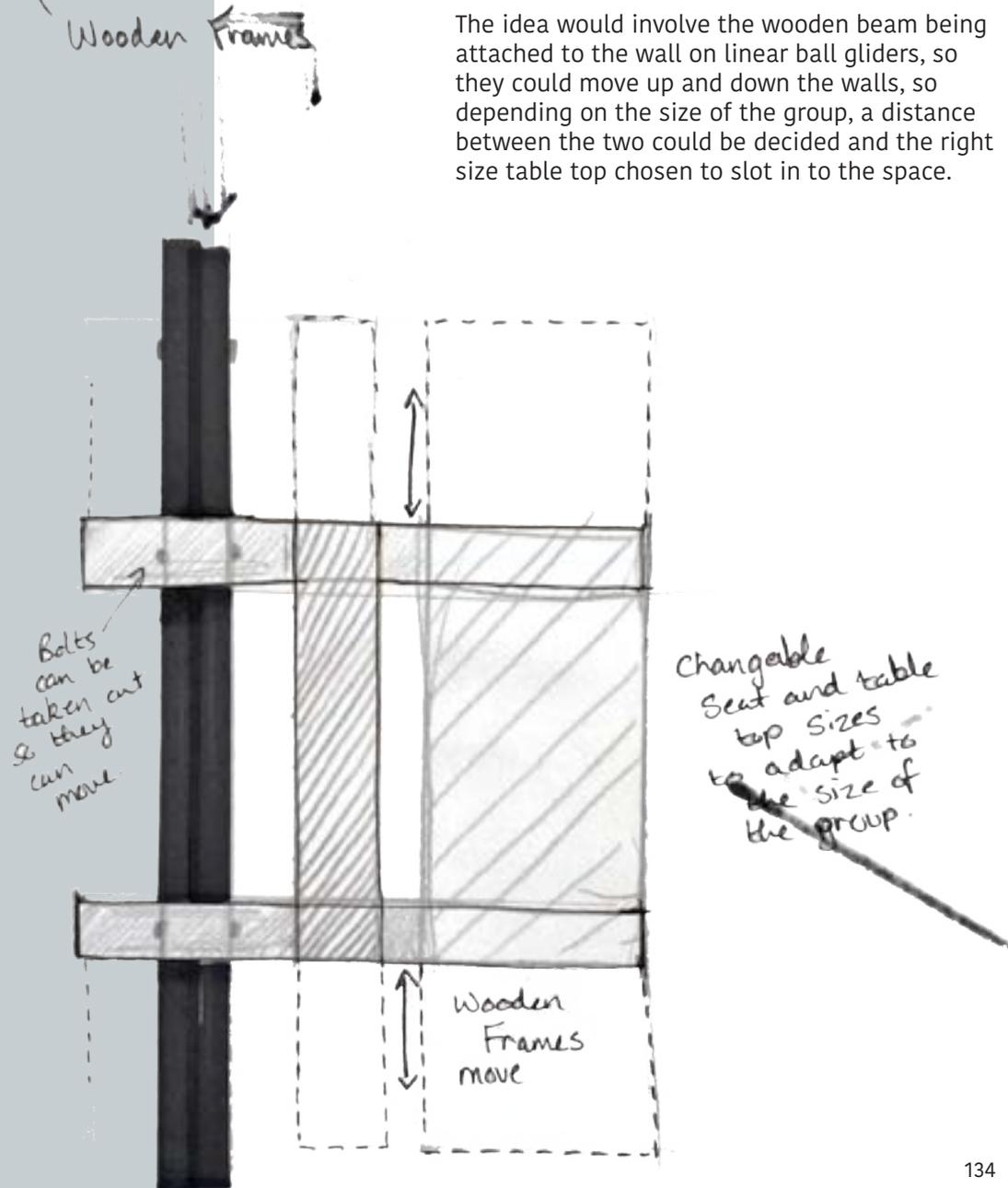
I decided to develop this design in to a more complex geometric shape. That allows for a table top and a bench top to be added at the perfect heights for table and chairs. Creating a multifunctional workspace that can alter depending on the size of the group involved with the space.

Author



Author

The idea would involve the wooden beam being attached to the wall on linear ball gliders, so they could move up and down the walls, so depending on the size of the group, a distance between the two could be decided and the right size table top chosen to slot in to the space.

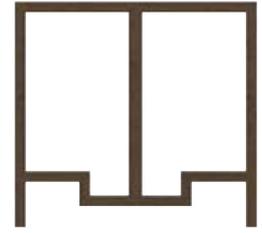


Author

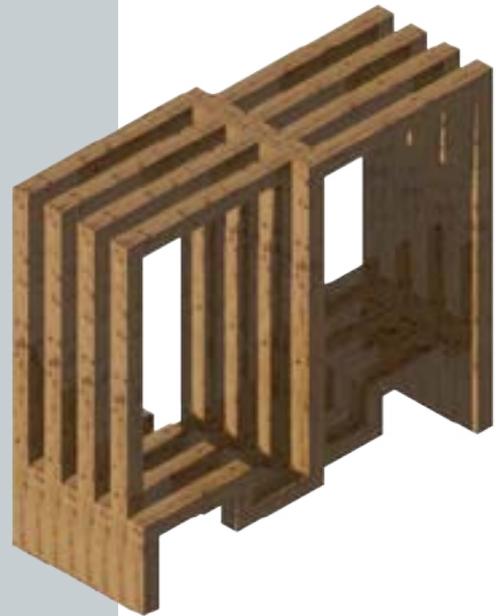


Author

The next stage of the design would be forming different configurations of the wooden structures, so that they could be reused at a later date. This idea brought me back to the modular boxes that Extinction rebellion have designed, to use as platforms for their protests. These structures could also be used as higher levelled platforms, that they can lock themselves to.



Author



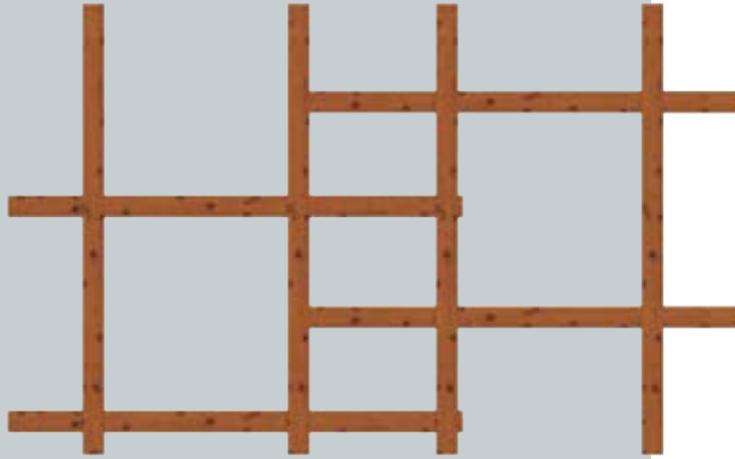
Author

Showing some of the ways in which this structure can be screwed together.



Author

Author



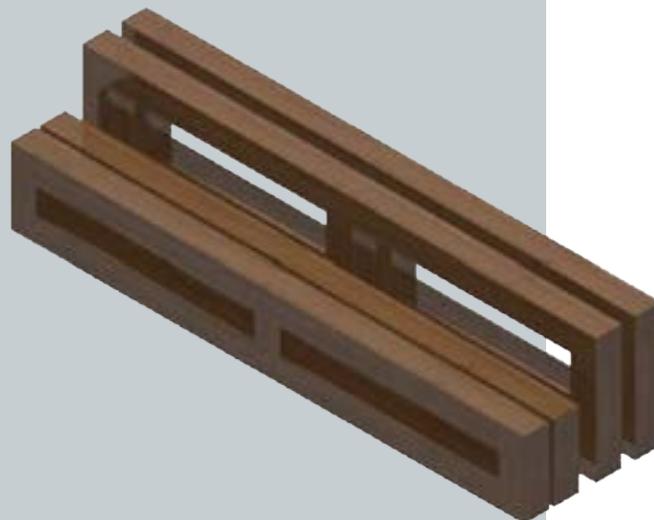
Author



Author



Author



I have been trying to configure multiple types of structure that can be used in a variety of ways. I thought a simple rectangular construction could work well in a variety of ways. For example they could become a table and chairs, for different seating arrangements, as well as an interchangeable shelving unit that can be multiple sizes.

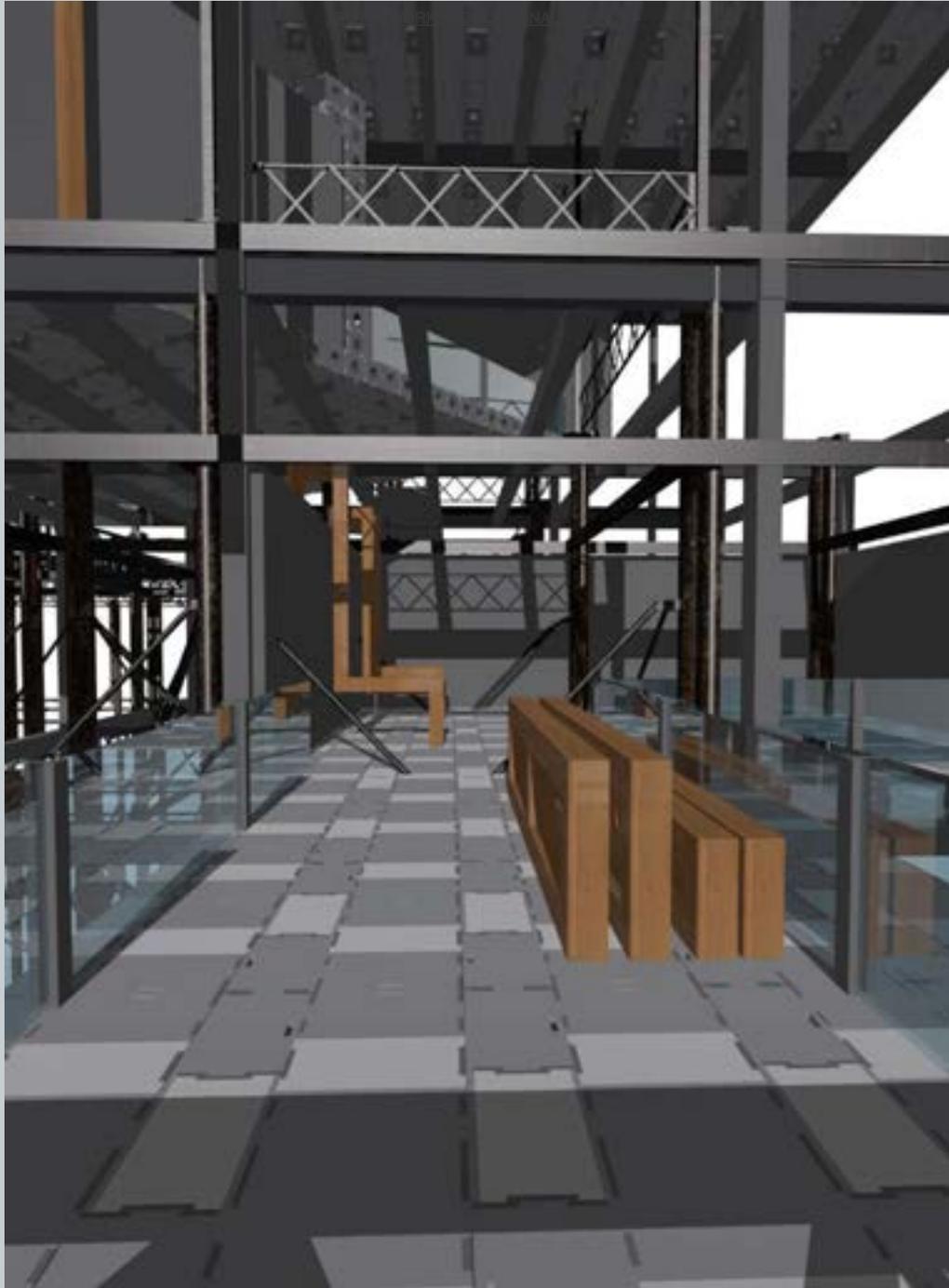


Author

Another iteration for a design of tables and chairs. This design seems to be more structural than the first, however you need two different shapes of framework, to use it as a functioning table and seat.

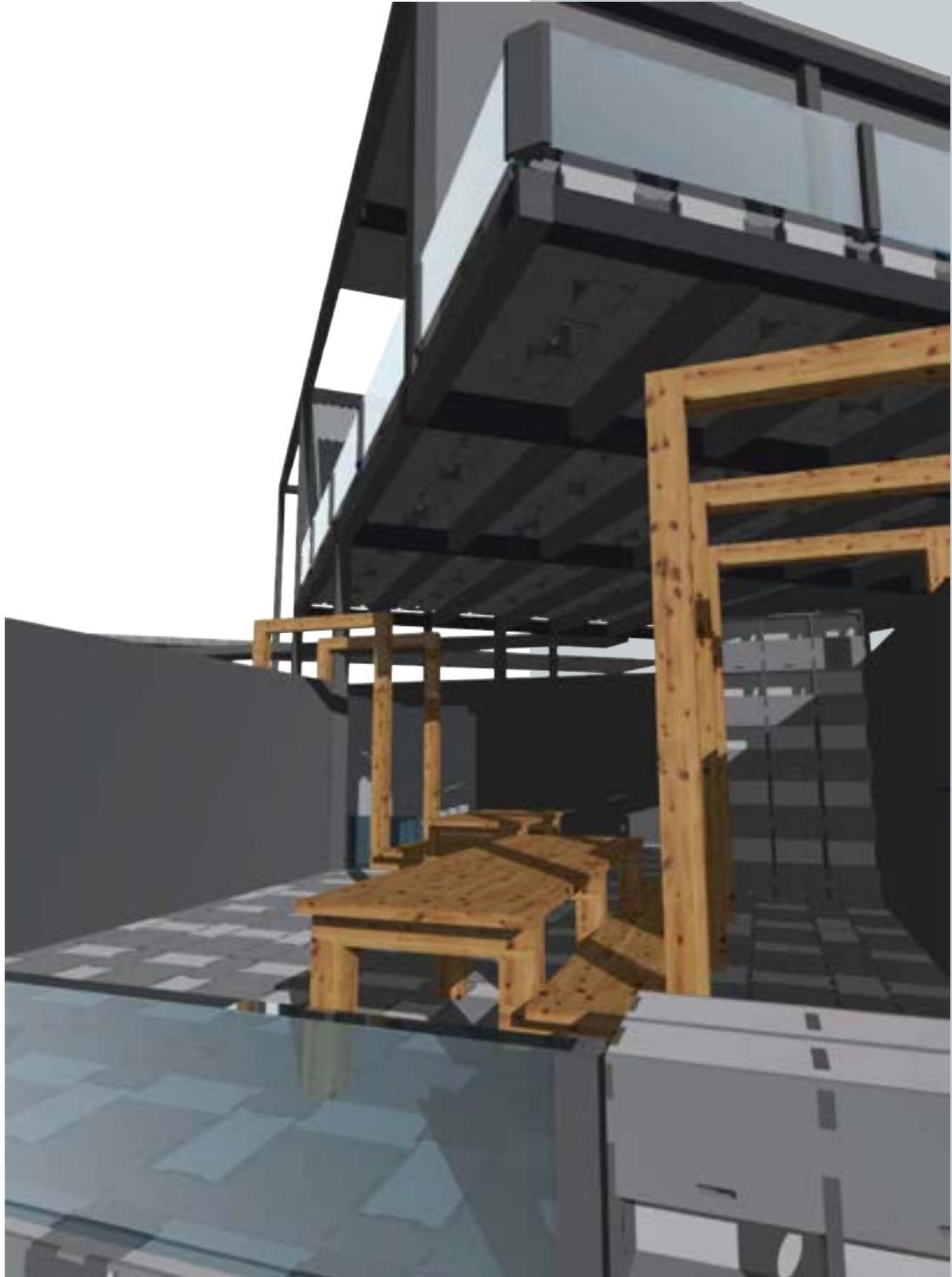


Author



Author

This visual depicts how this structures could begin to look within the office space. I plan on adding in some programmatic information to represent how the structures are used.



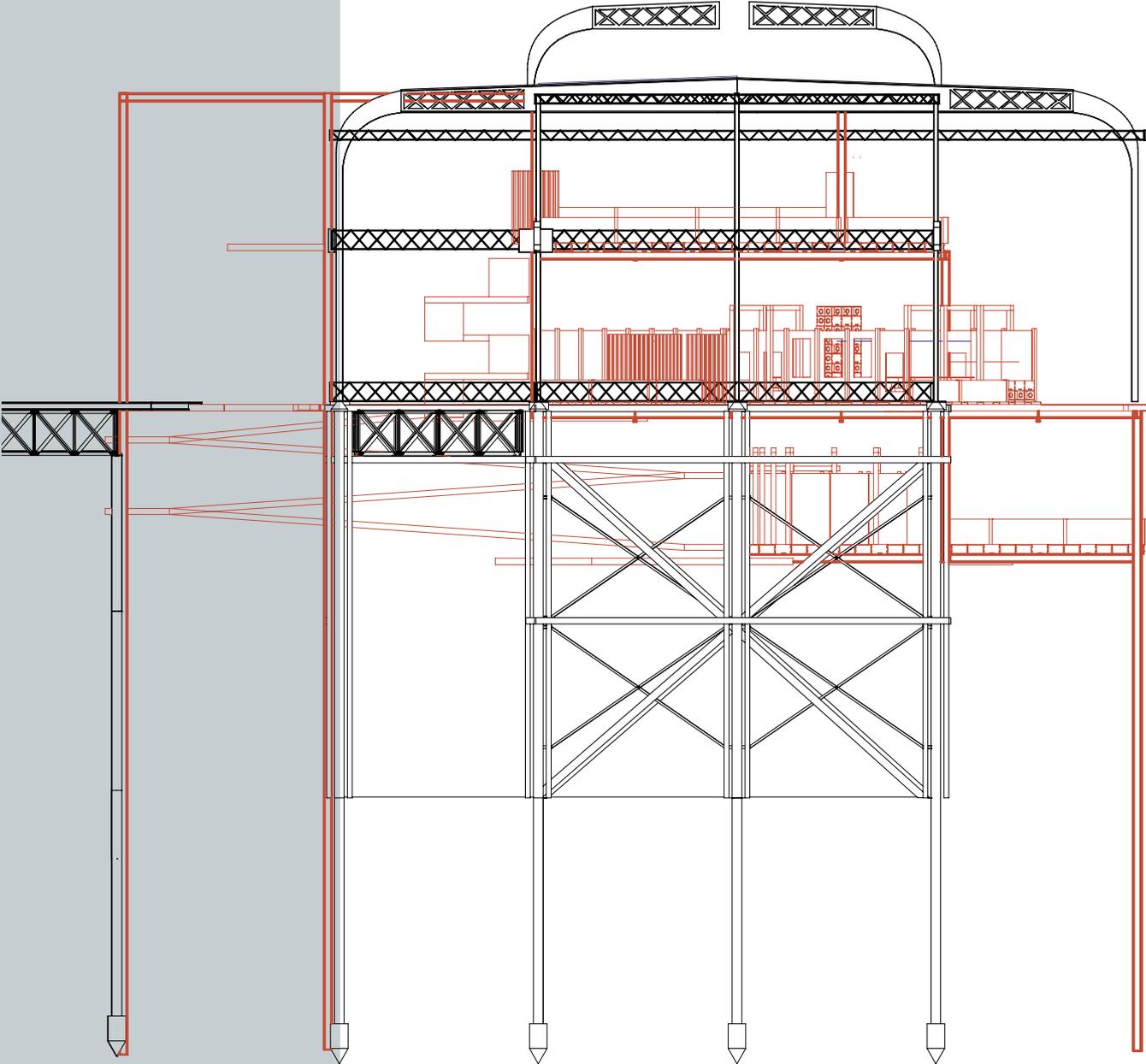
Author

This visual depicts how these structures could begin to look within the workshop, as well as showing the material that the wooden frameworks would be made out of.



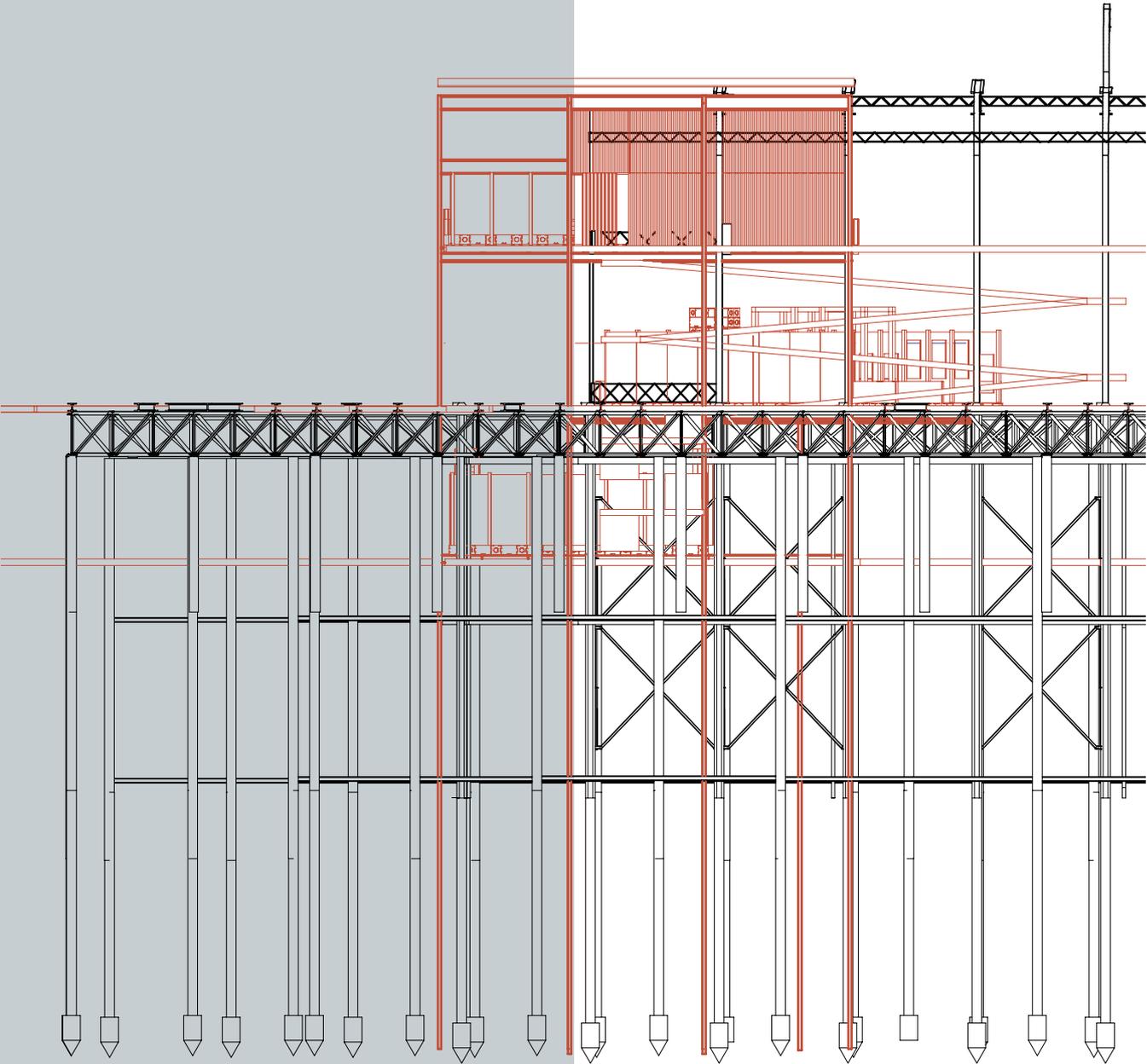
Author

This visual is starting to test using a striking colour to represent the contrast between the new and original features.



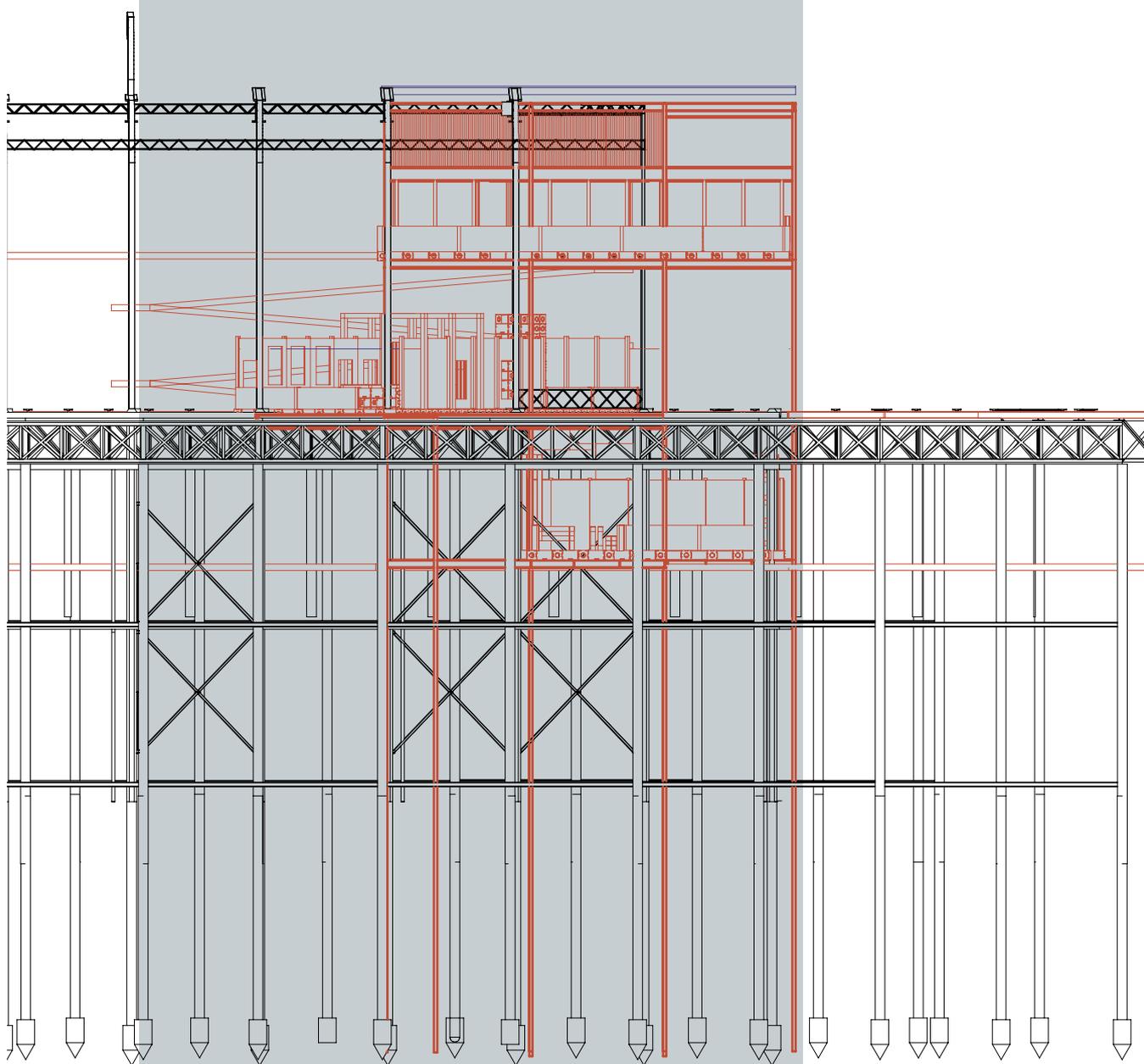
Author

Back Elevation of proposed design, 1:1000



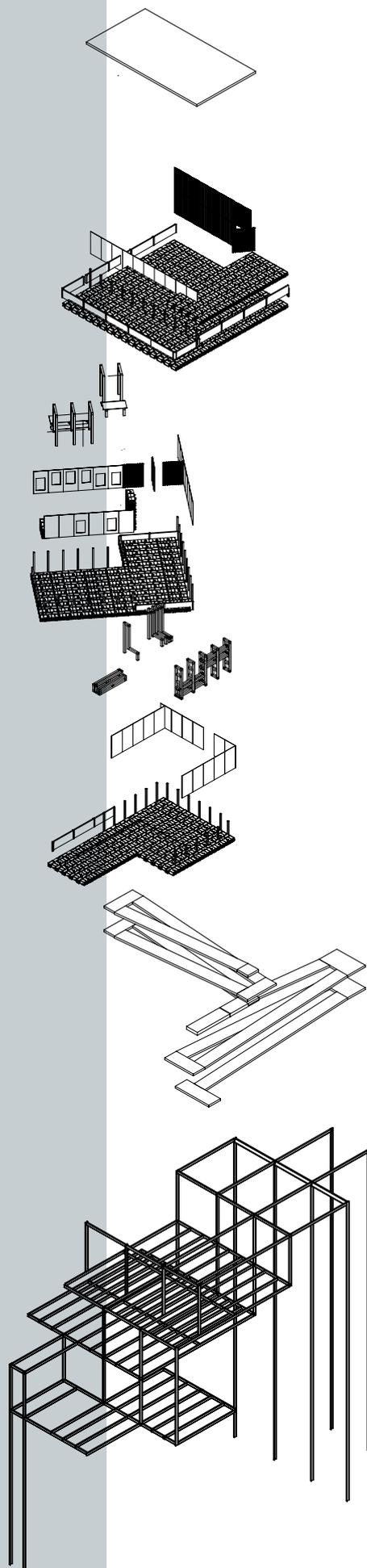
Author

Left Elevation of proposed design, 1:1000



Author

Left Elevation of proposed design, 1:1000



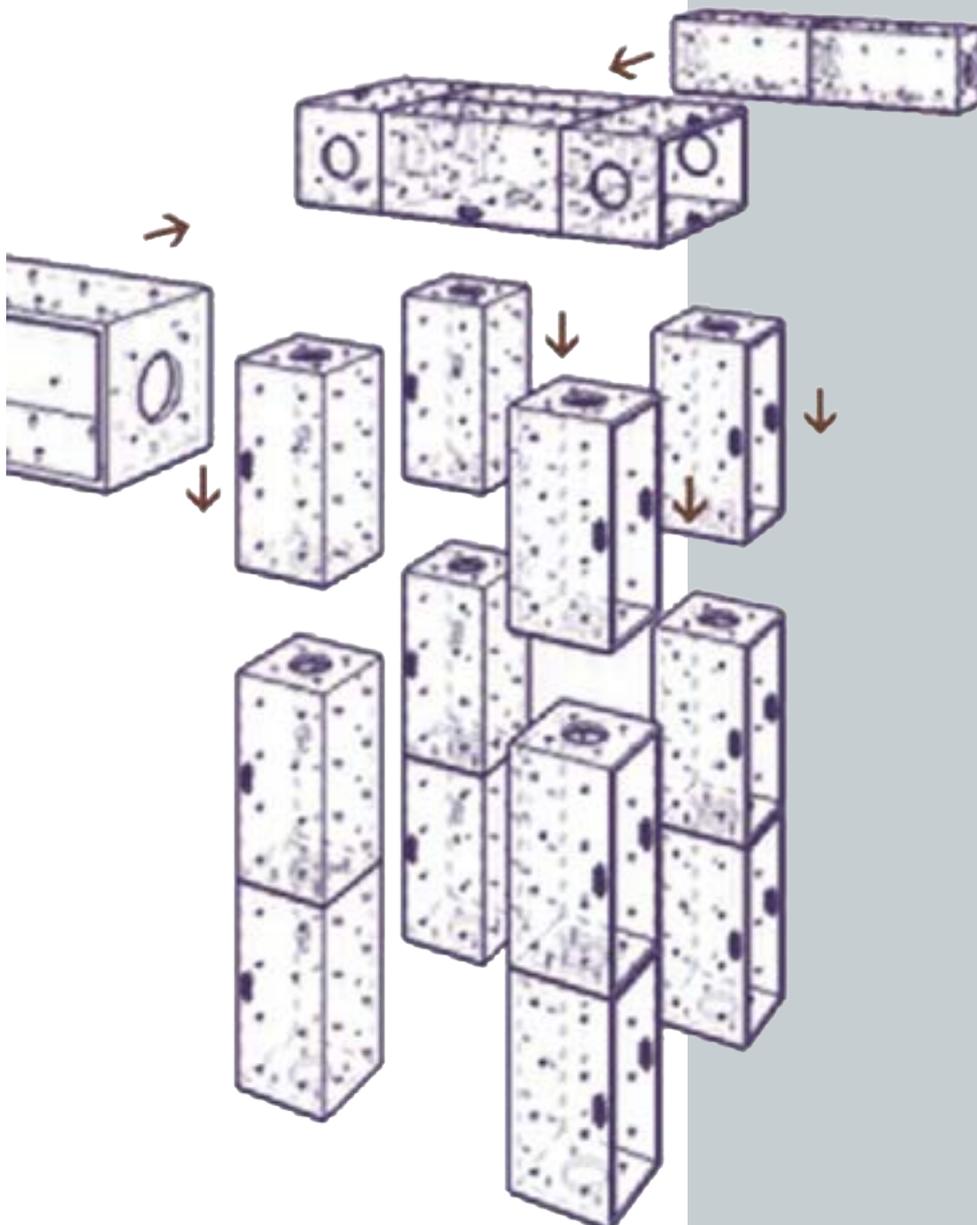
I created this Axo drawing to display the most up to date version of my design, to communicate the multiple layers that make up my pavilion. I wanted to show the design in full, to gage to scale of the entire structure. However I will be taking the elements that I have studied in detail, and zooming in to specific areas within the drawing, so that I can draw finer elements at a larger scale, to show how specific systems and materials operate or fit together.

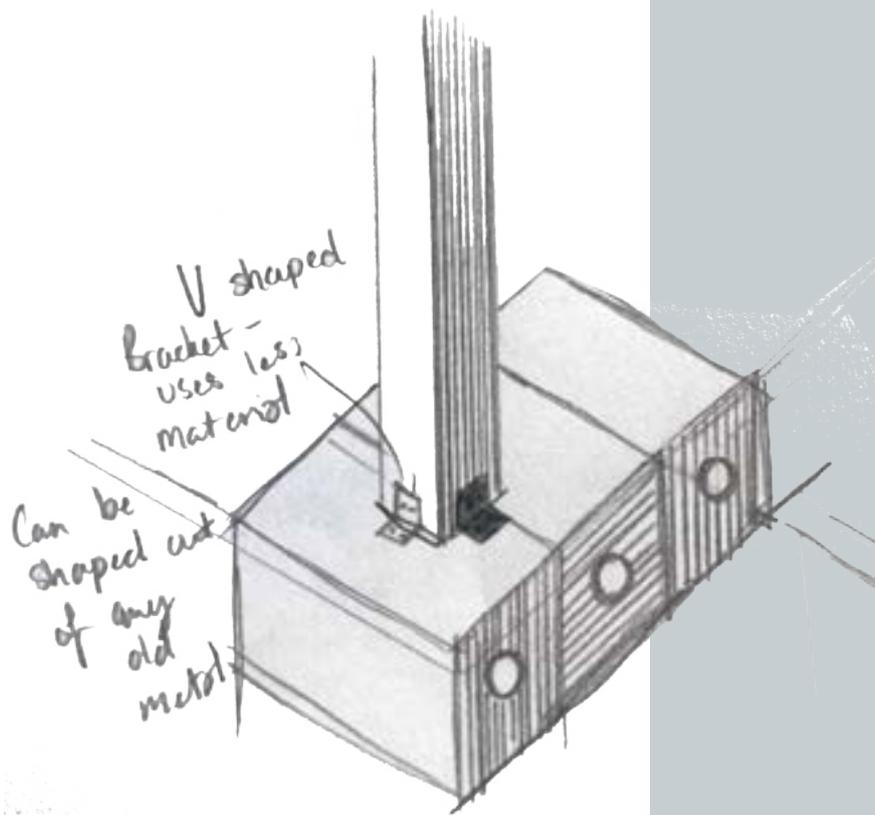
Author

This first technical element of the design that I have decided to use is, recreating the modular box system to act as the flooring for each of the levels. The reason for this choice is firstly due to the construction of the boxes. They are simple designs that members of extinction rebellion can easily resource the materials for and construct themselves. It will mean that each member of the organisation will play a part, and own a segment of the design. It will also mean that each member will have their own box that they can retrieve after the pavilion is finished with. So they will have a box that they can continue to take with them to protests in the future.



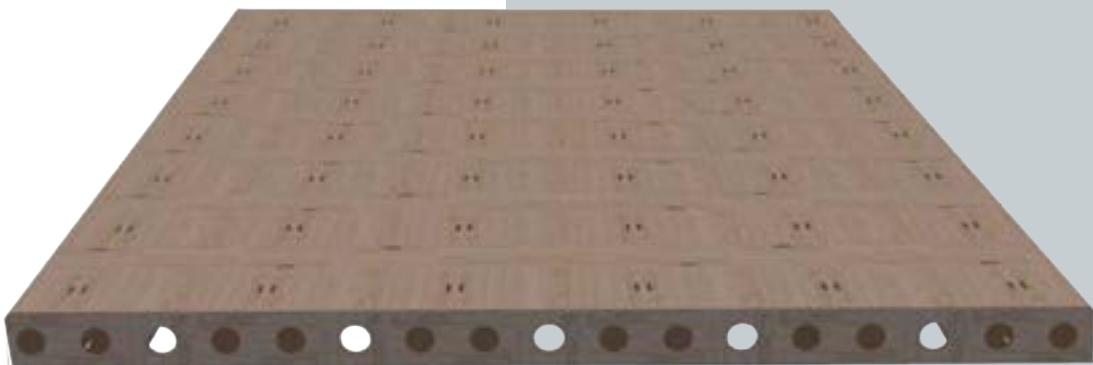
Both Images, Protest Architecture, India Block, 2019, <https://www.dezeen.com/2019/10/17/extinction-rebellion-protest-architecture/>



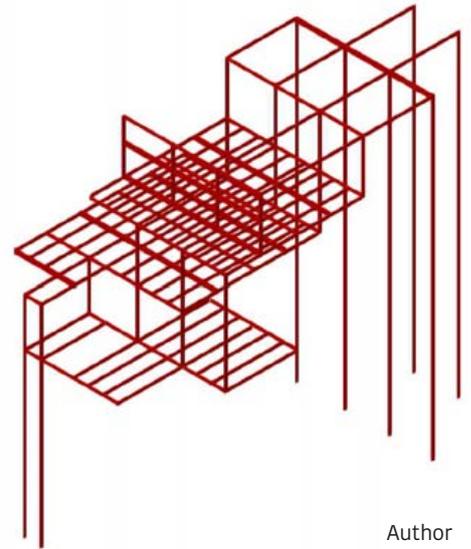


Author

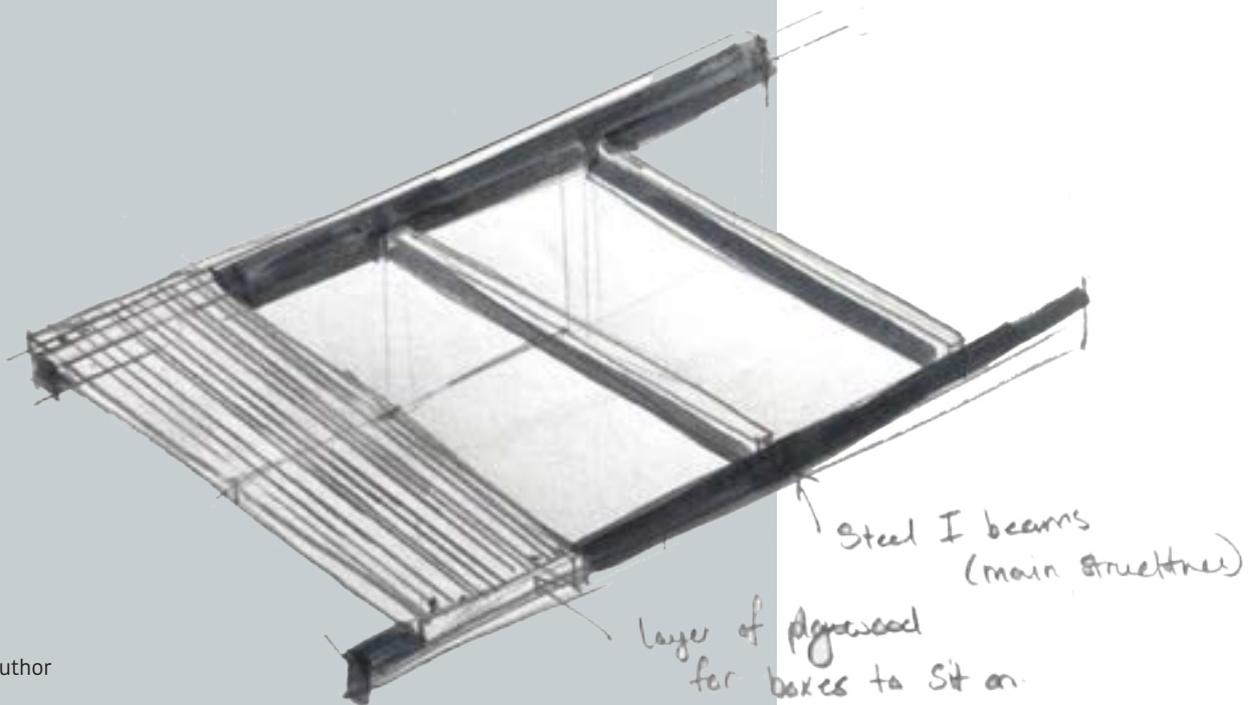
The bottom image is indicating how the boxes will be screwed together to create the flooring level. Each box will be alternated in position to increase stability. The top image is suggesting that if we have a wooden flooring, it will be easier to attach secondary structure to.



Author

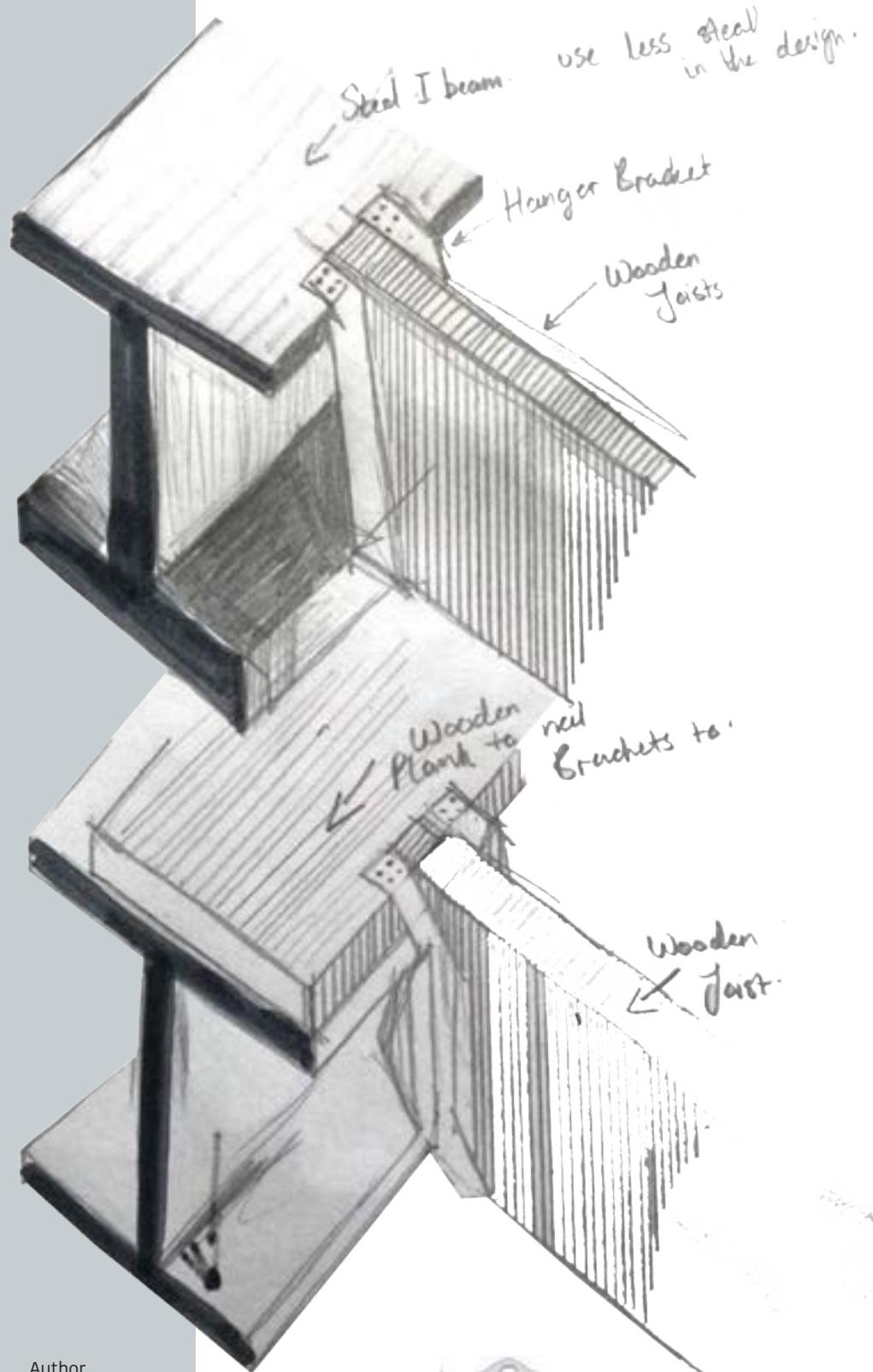


Author



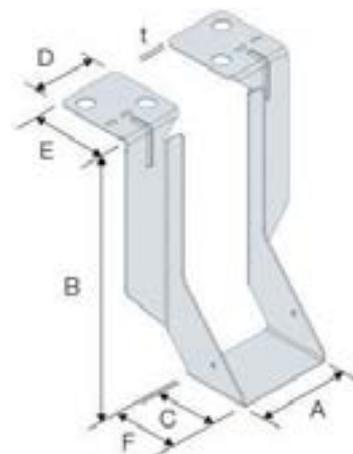
Author

For the structural framework that is need for the base of my design, I have decided to use steel I beams. So I have been considering ways in which to add the layer of timber boxes on top of it. One way I have looked in to would be to lay a plane of plywood over the top of the steel framework, across the areas that are needed.



After considering the layer of ply wood that could act as a base to add the boxes to. I thought this was a waste of materials. Therefore I have looked at ways that I could attach the boxes straight to the structure itself. One way of doing this would be to replace some of the steel I beams with wooden joists. That way we could screw the boxes straight together. This method save material on steel construction as well as wood, making it more sustainable. This is achieved through using Steel joist hangers.

Author



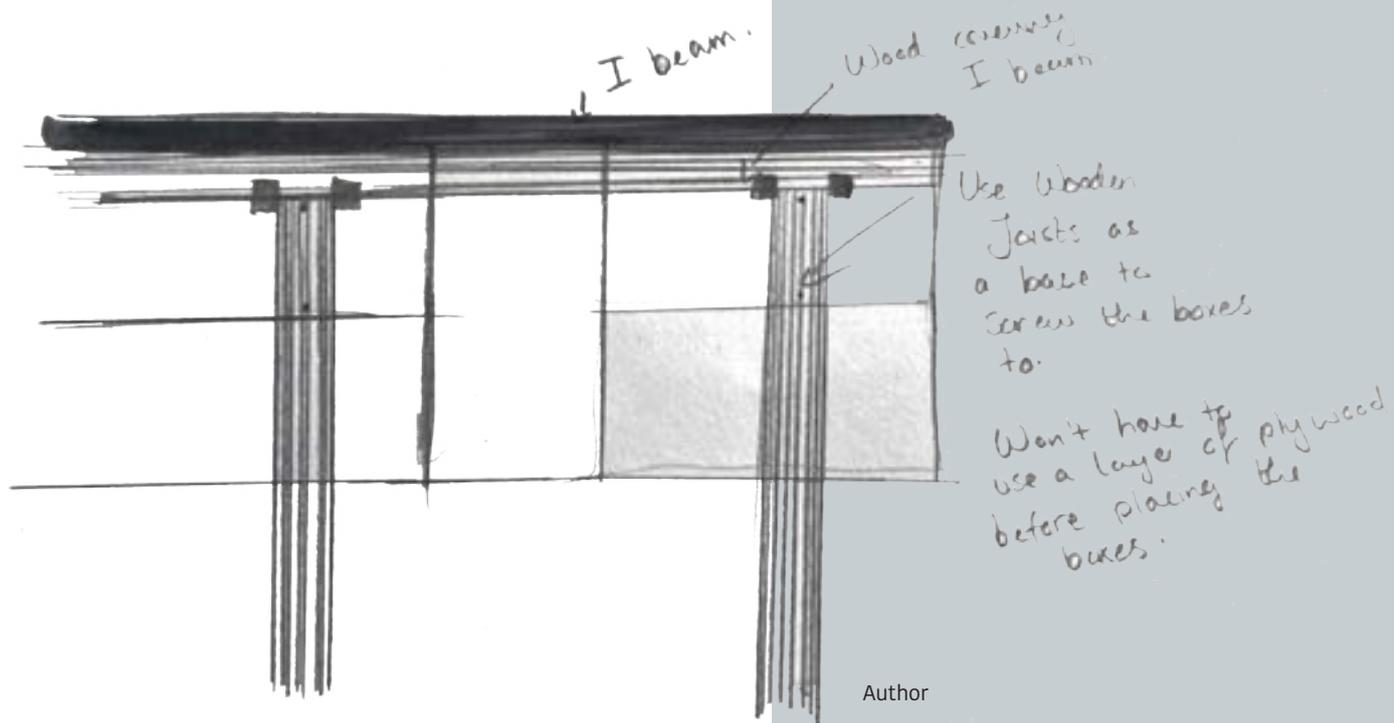
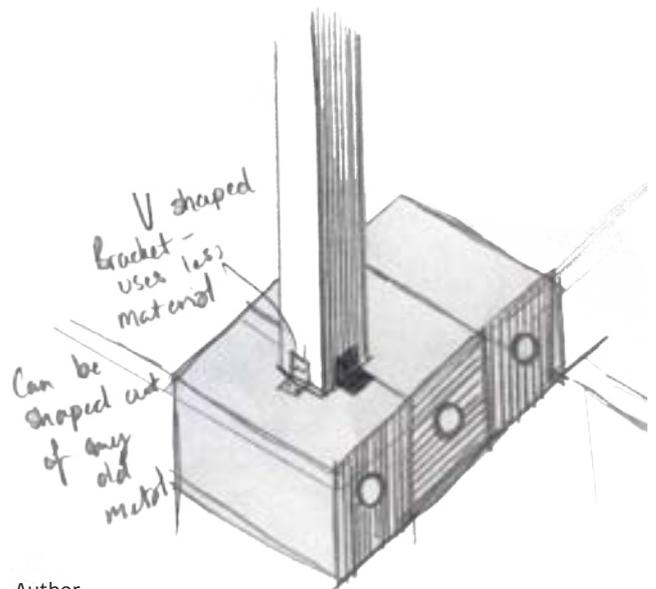


Diagram explaining that the wooden boxes could be screwed on to the wooden joists.

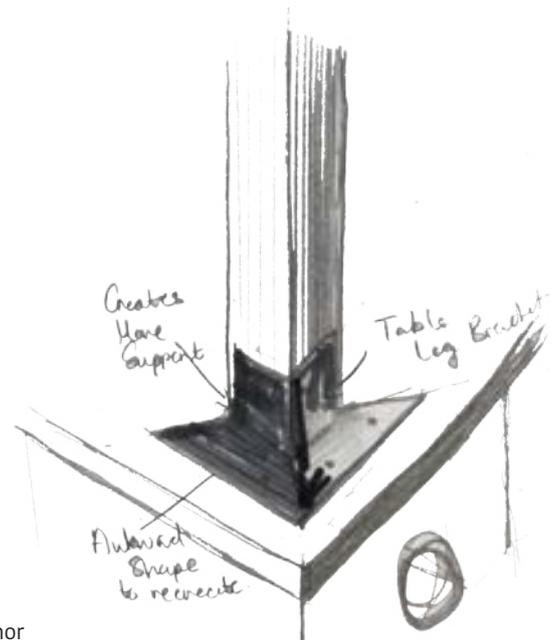
After constructing the base for the proposal, I have been starting to consider how the wall would be constructed. Timber columns are my chosen material the main framework to the walls. So I have been looking a certain ways of attaching these columns to the plywood boxes. I started by looking at simple right angled brackets. However when I started to take in to consideration the strength of the wind ill be applied to the walls, I didn't think they would be structurally strong enough to withstand that force.

That decision led me on to looking at right angled corner brackets, these could be places on either side of the columns to add more support. I believed they would be stronger however, I thought there was an easier way of achieving even more support in a more efficient manner.

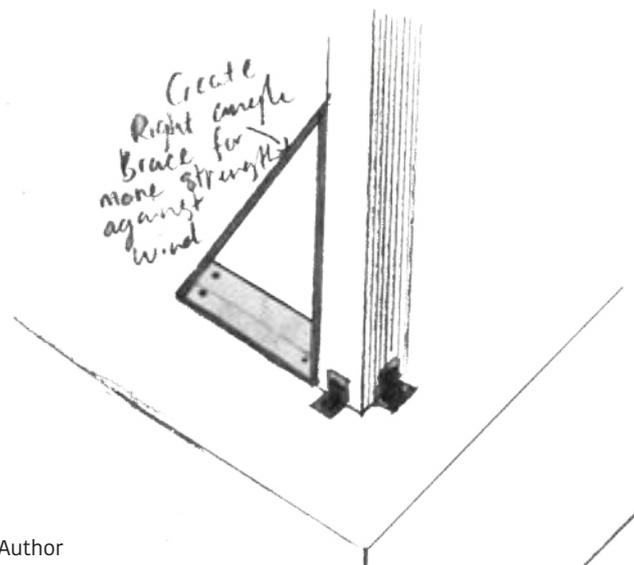
So I thought I could build a simple right angle triangle brace, using this method would mean that, the mechanism could be made out of old pieces of spare wood from the current or previous building sites.



Author

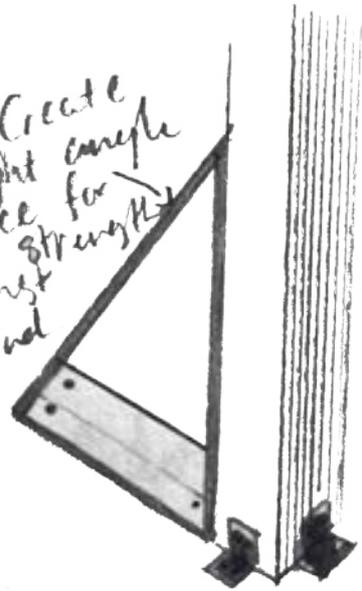


Author



Author

Create
Right angle
Brace for
more strength
against
wind



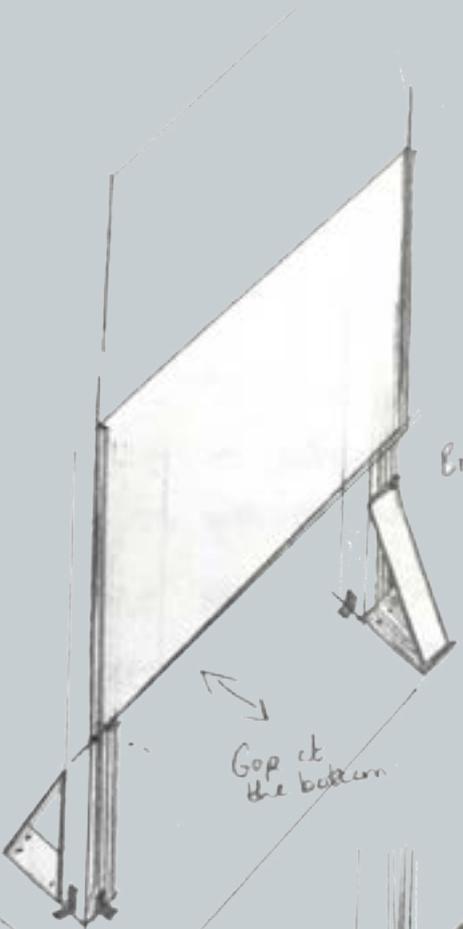
Author

Brackets
on alternating
sides for support

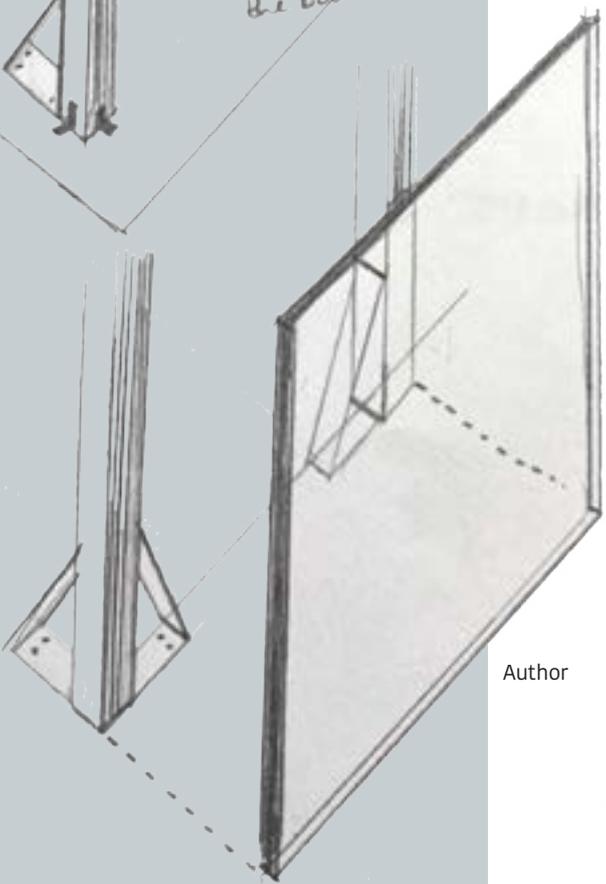
Alternate directions would
mean sitting ply
higher up

Author

Gap at
the bottom

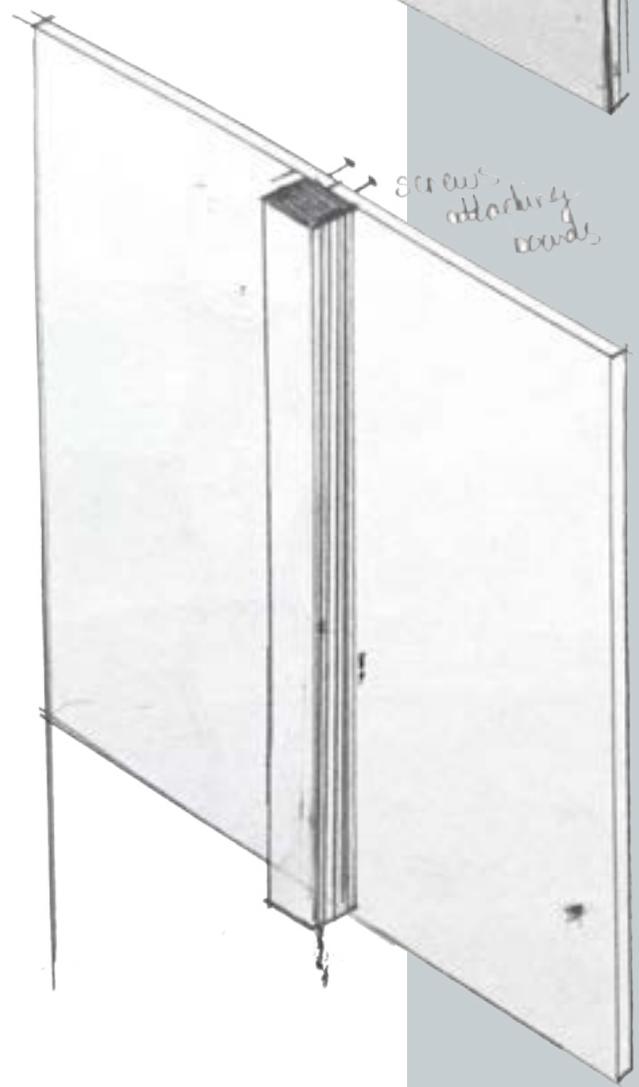


turning brackets
inwards
means cladding
of ply on outside
possible

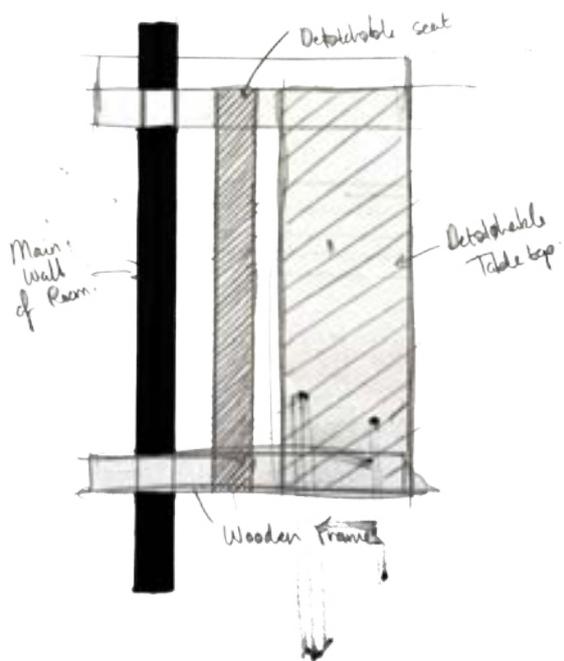


Author

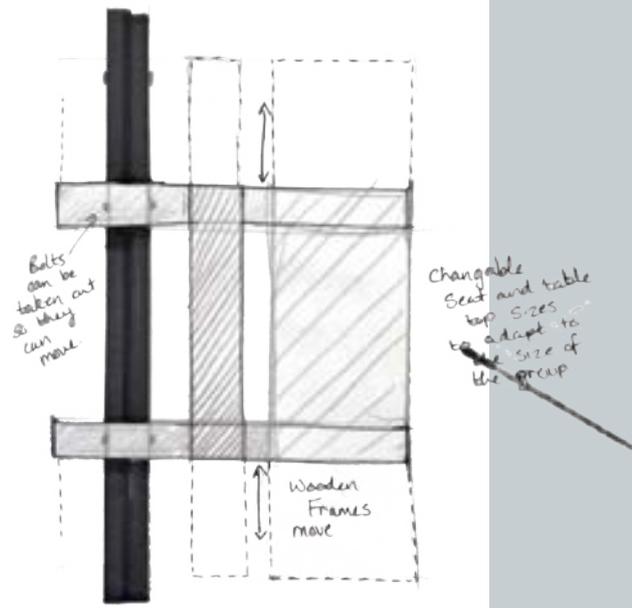
One thing I had to consider about this new design was which side I placed the support on. To make the walls more structurally supported, alternating angles would be the ideal circumstances, however due to the design this wasn't possible, as the reinforced timber walls have to be attached flush, on one side. This meant turning the supports inwards on the inner pillars and then having them face outwards on each end, to create multiple supporting an



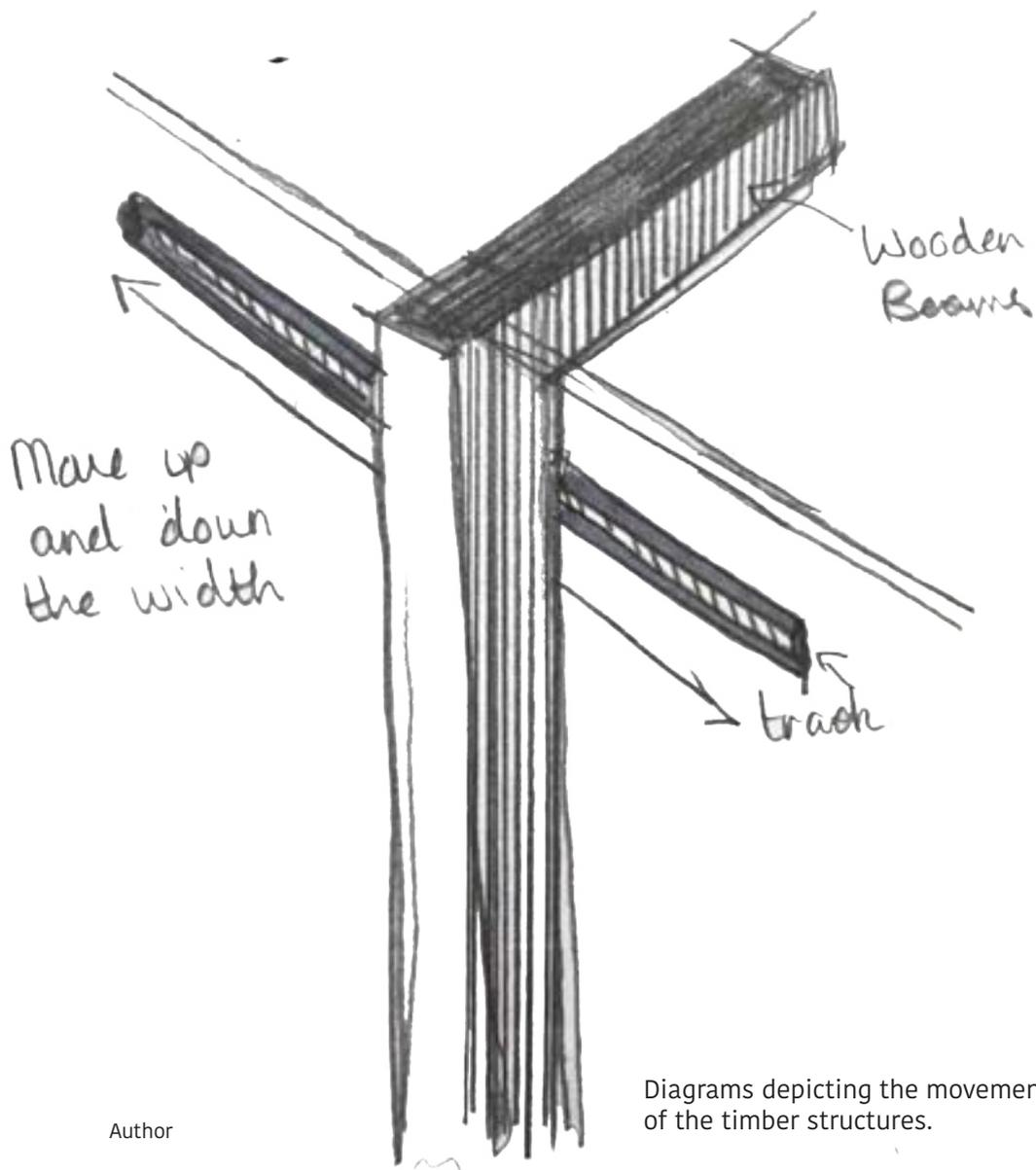
These diagrams are showing the different ways in which I could attach the reinforced timber walls to the cladding. Attaching them flush to the back of the wall wouldn't leave any left of material from cutting slots away to slide in to the wall.



Author

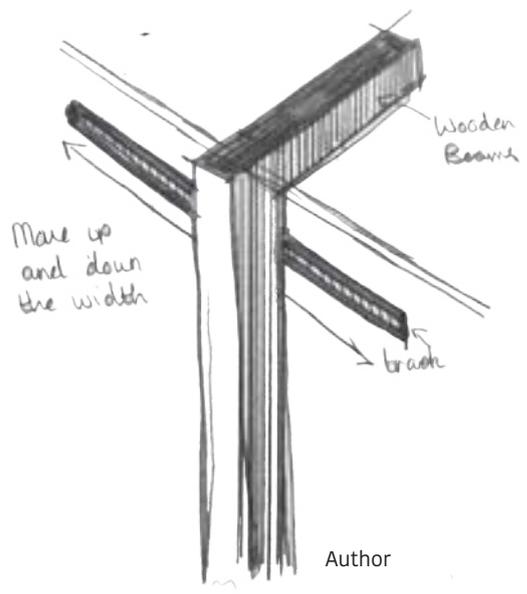


Author

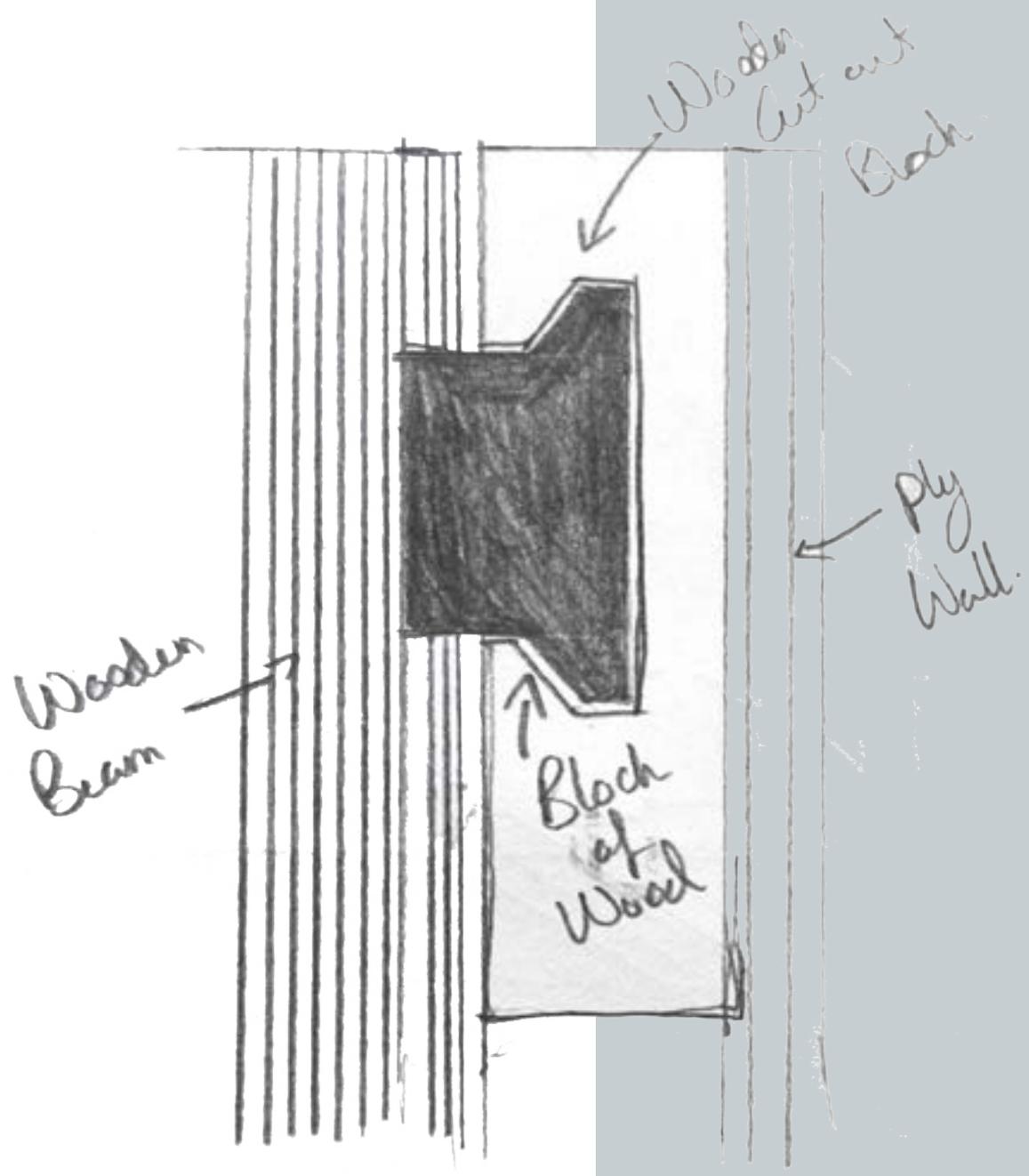


Author

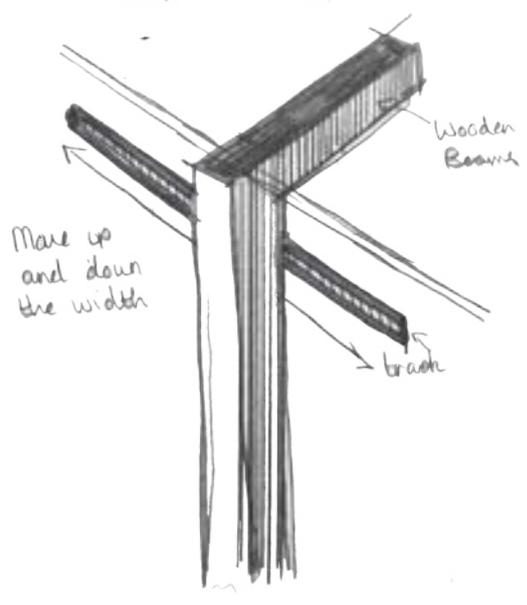
Diagrams depicting the movement of the timber structures.



Next I have been looking at the movable points within the design. The first one I have looked at is the sliding motion of the timber structures. This movement will require a guide to the beam to follow. I was considering using a wooden slot system where the inner block can slide through a cut out section.

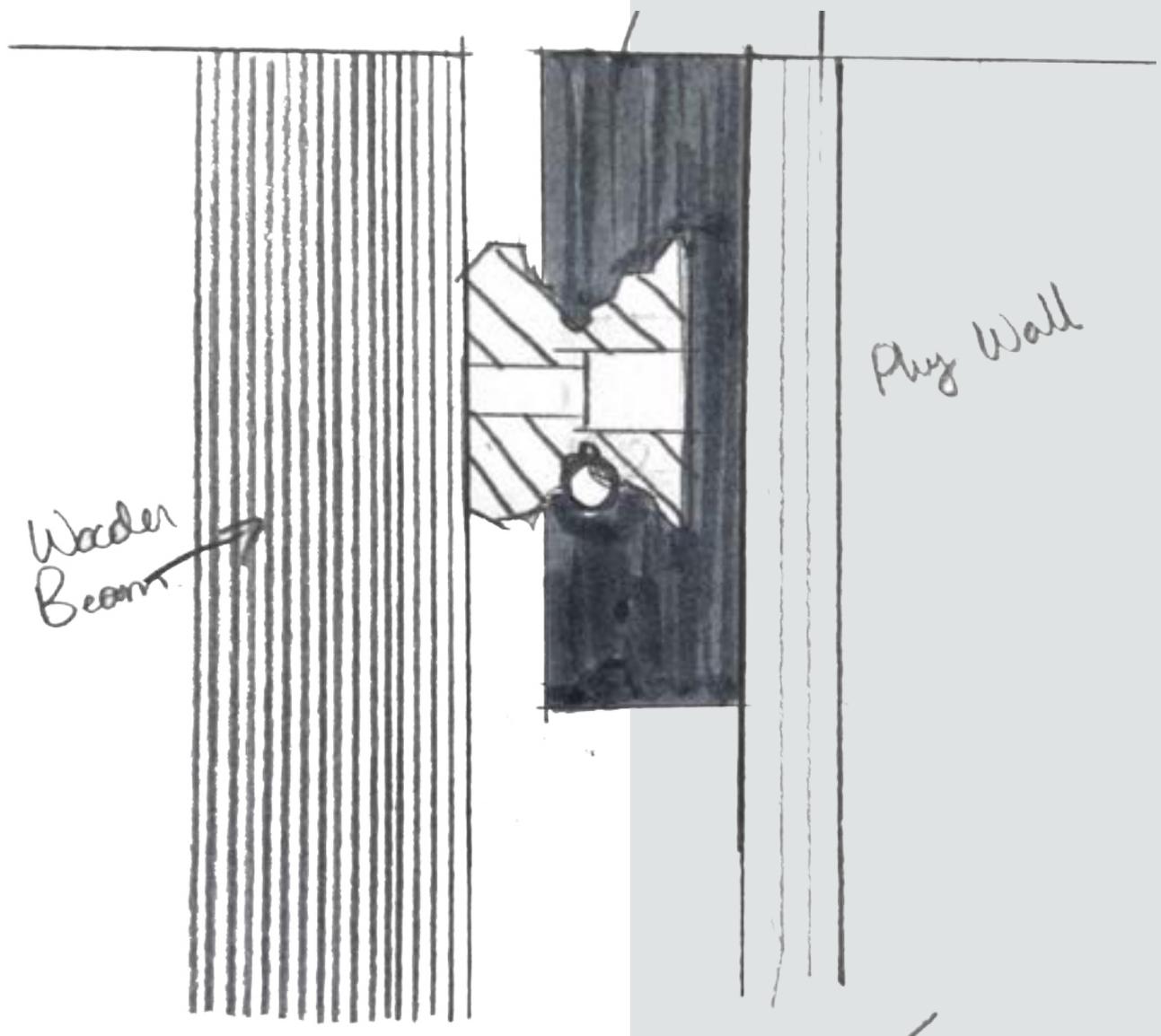


Author



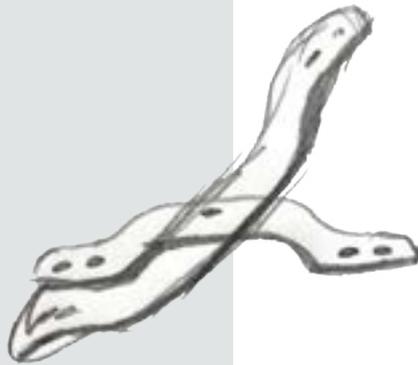
Author

I didn't know if the slotting mechanism would work as smoothly as I would prefer. So I have been looking in to metal ball guiders that I could attach to the appropriate parts of the structure for it to move in a more free manner.

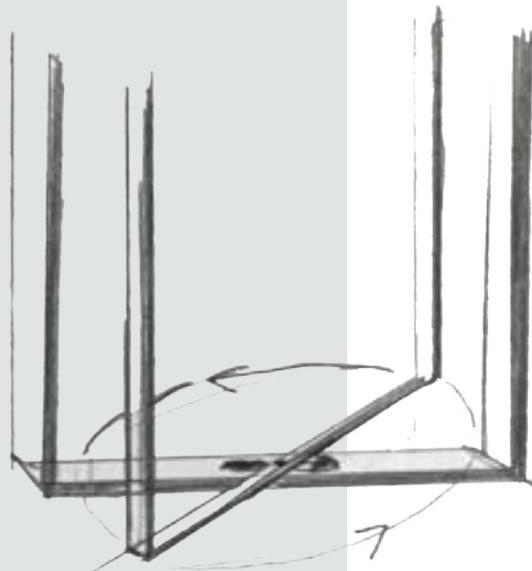


Author

Author

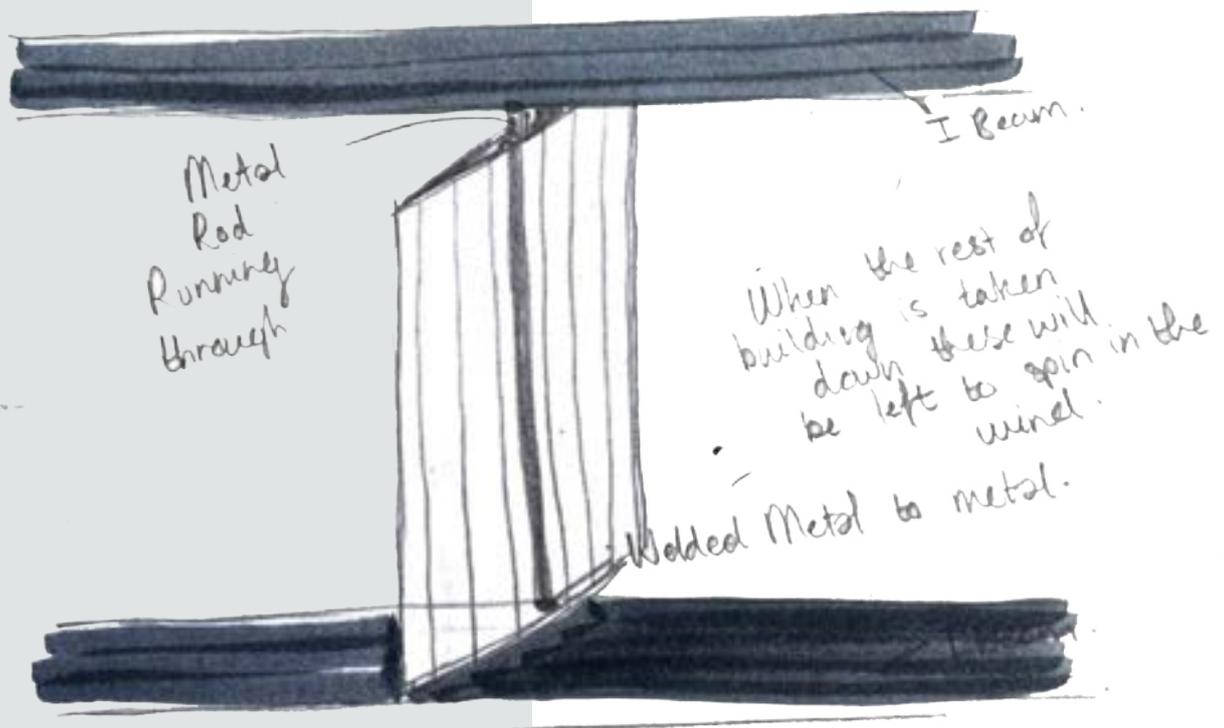


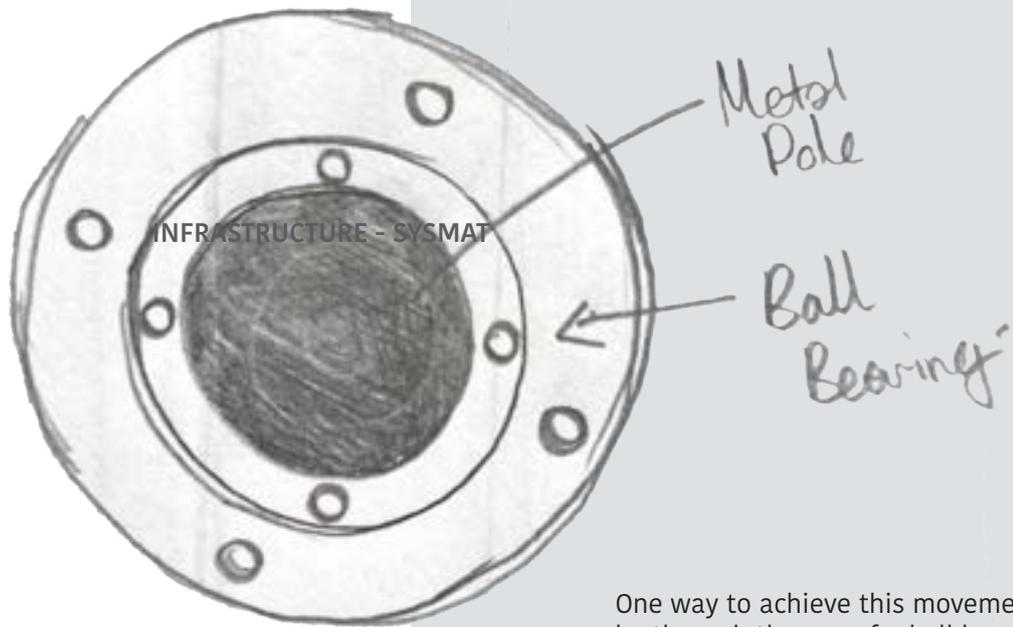
Author



Another mechanism that I need to work out, is how some of the walls are going to pivot. One way of achieving this would be to use a rotating hinge, that allows 360 degree movement. However I dont think that this mechanism would be strong enough to support a door from one side. This led me to question whether a metal rod could be passed through the middle of the door, and welded on to the steel framework in the correct places. I would need to research how to door would rotate around the pole if I use this method.

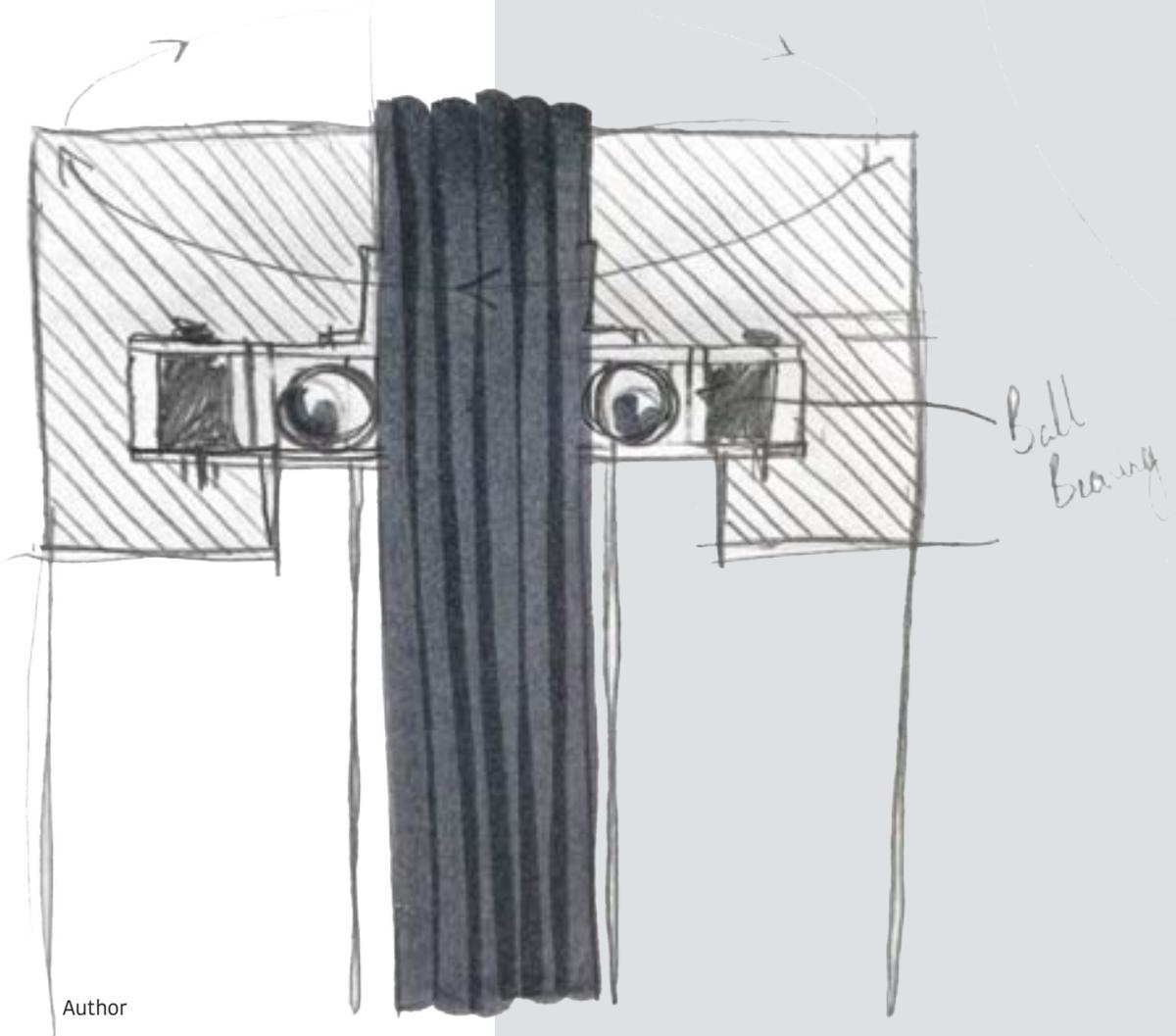
Author



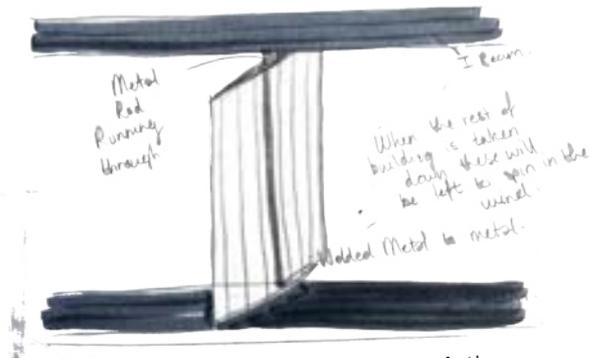


Author

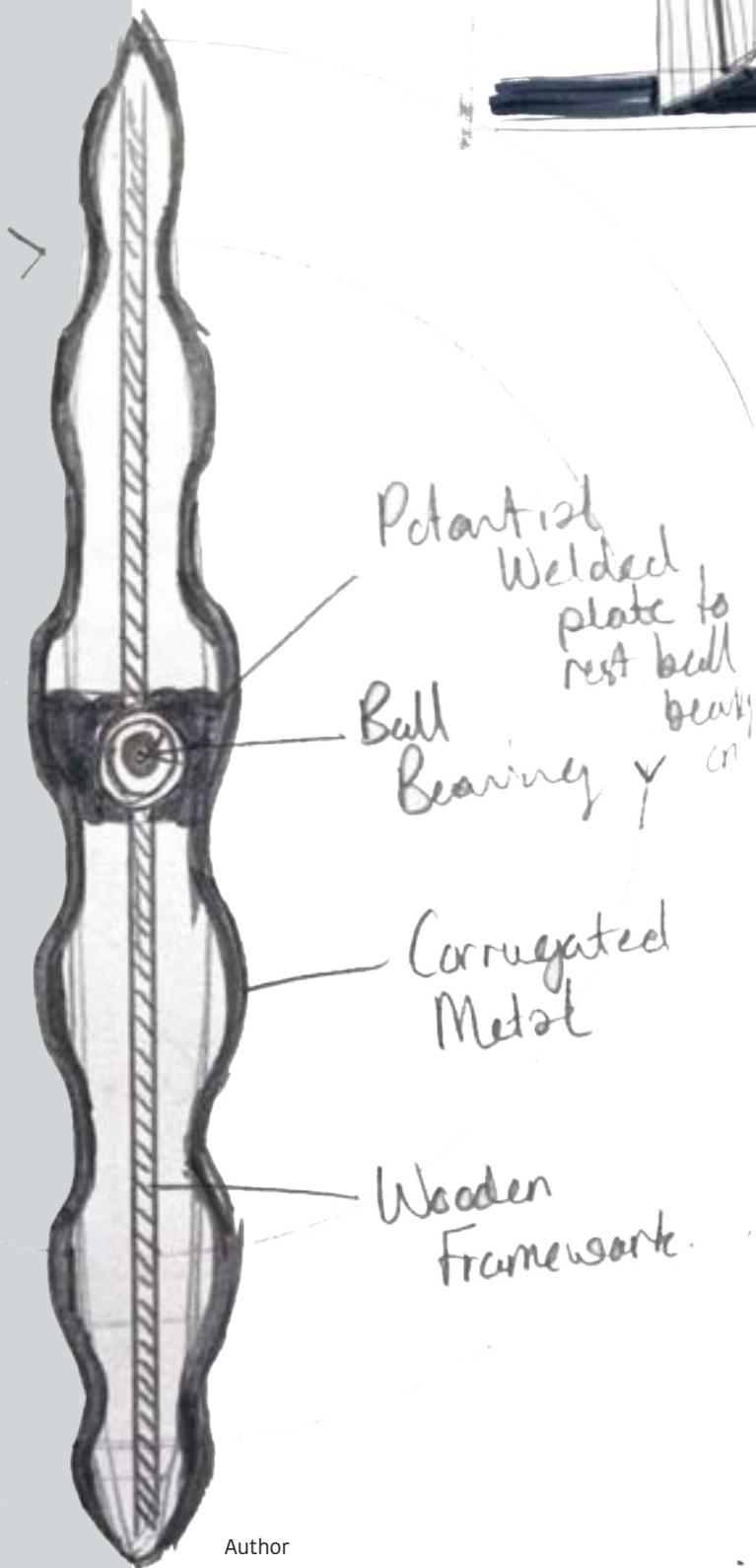
One way to achieve this movement would be through the use of a ball bearing. This mechanism would connect the pole to the inside of the door, whilst still creating rotational movement.



Author



Author

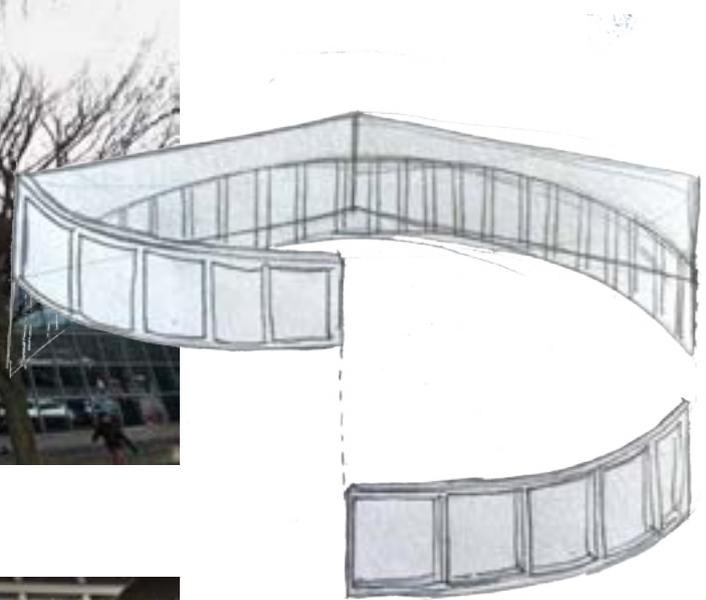


Author

Diagramme depicting where the ball bearing would sit within the door, and how it would sit there. As well as indicating corrugated metal as one of the potential material for this design.



Screen shot taken from, <https://www.google.com/maps>



Author



Screen shot taken from, <https://www.google.com/maps>

When I discovered Steven Holl's gallery project it inspired me to check if there were any demolitions scheduled for later on in the year, so that I could use some of the excess material in my re build. I looked on the Brighton and Hove planning portal and discovered an application regarding the demotion of part of Brighton College. I thought that the glass from these windows could be re-purposed as the proposed glass balustrades, surrounding parts of my structure.

MAJOR APPLICATIONS

Item	Application Number	Ward	Address	Proposal	Recommendation	Decision
A	BH2018/02607 (Sarah)	St Peters & North Laine	Greater Brighton Metropolitan College, Peiham Street, Brighton	Hybrid planning application comprising: Full Planning application Site A (West of Peiham Street): External alterations and internal refurbishment to the existing college building and redevelopment of the existing car park to provide 3 storey extensions to the existing college (D1 use), disabled parking spaces with new vehicular access, cycle parking spaces, open space and landscaping. Outline Application Site B (East of Peiham Street): Demolition of York, Trafalgar and Cheapside Buildings and the erection of up to 135 residential units (C3 use) at maximum 6 storeys with associated new and relocated vehicular accesses, car and cycle parking (with all matters reserved except access, layout and scale).	Minded to Grant	Minded to Grant



Design Collective Medium,
Georgia, 2018-2020, <https://www.dezeen.com/2020/01/20/8-23-vi-pavilion-medium-tblisi-architecture-biennial/>



Screen shot taken from, <https://www.google.com/maps>

Another building that was up for Demolition is this building in Hove. I thought that the corrugated metal on the exterior of this building could be perfect to create some of the pivoting walls within my design. Much like that of the Pavilion in Georgia.

CHAPTER 12.

INFRASTRUCTURE - SYSTEMS & MATERIALS





With regards to my infrastructure, I have started to plan what types of materials and systems could be implemented in the design process. I have started to do this by looking at some relevant precedence, that have explore some of the same ideas that I am thinking of generating. For example looking at the types of wood that I could use for the decking levels that I suggested in this collage. As well as looking at specific structural systems that could withstand the weight of the structures, as well as the harsh condistions that the beach has to offer.



South End Pier, White Architects, South End, 2012, <https://whitearkitekter.com/project/the-royal-pavilion/>

Constructing the building off site meant that Kier could prepare the base of the pier in parallel to the main construction, thereby helping to reduce the length of time the programme took. The pier consists of cast iron piles and columns linked by cross-bracing, topped by a timber deck.

It has a steel-trussed base and a steel frame. This Steel framework is the type of system, is one of the ones I am considering for the access construction. Since the framework will have to be drilled in to the sea bed, the steel is better suited to being in water, due to its lack of rusting. Two sides of the building and the roof were clad in plywood, which was protected by a weatherproof membrane, with the other two sides left open so a glass curtain wall could be installed after it was lowered into position by the crane. Using a boat crane, may be a suitable machine to be able to help construct the framework.



West Pier, Robin Webster, Brighton, 2015, <https://www.geograph.org.uk/photo/4679278>

After doing a bit of research on whether a boat crane would be necessary, I have realised that at low tide, a majority of the area, where piles would need to be set in to the sea bed, will be shallow enough for man power to set up construction on foot. This process would involve access to construction would only be available at specific times of day.



Image Source from, <http://www.koruarchitects.co.uk/choose-sustainable-timber/>

Timber has been a popular building material since construction started, but with recent shock and concern over global deforestation – 13 million hectares lost per year – many people are questioning whether they should be using it.

Most people assume that cutting trees down for use in construction will be bad for the environment and climate because fewer trees will be around to absorb carbon from the air.

This is absolutely right – if you're talking about 'conventional' (destructive) logging. However, with sustainable forestry, at least as many new trees are grown than are harvested. As long as a timber product does not burn or rot, its carbon stays 'locked up'. So, when trees are harvested, their carbon is stored in timber and they are replaced by new young trees therefore the net effect is removing carbon from the atmosphere, which is good for the environment.

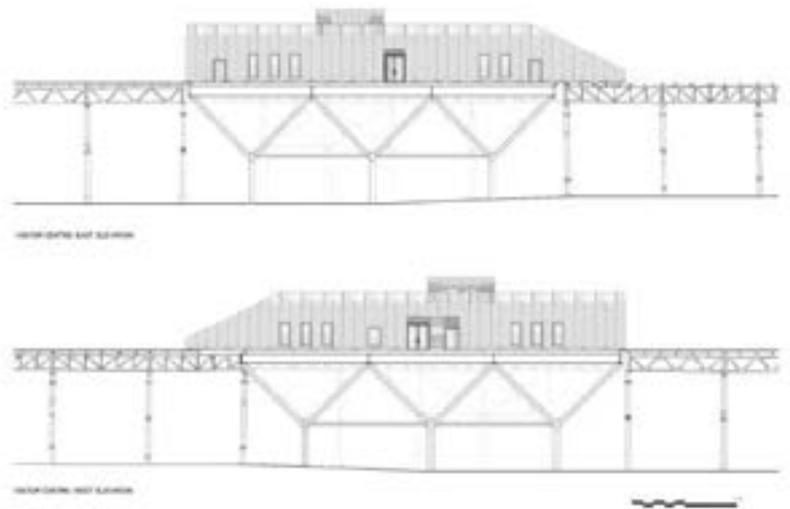


Pallet Office, Hiroki Tominaga, Tokyo, 2015, <https://www.dezeen.com/2015/05/05/hiroki-tominaga-atelier-shitomito-deconstructed-pallets-to-kyo-office-planks-timber/>

The designers came up with the idea to use wooden pallets after noticing the crates being used to deliver water to a number of small publishing factories that occupy nearby buildings. The renovation project is called Shitomito Pallet after this material. I hope to use this method of researching local materials for the construction of both my pavilion and the festival infrastructure access.



Hastings pier, DMRR, Hastings, 2016, <http://drmm.co.uk/projects/view.php?p=hastings-pier-redevelopment>



Creative use of timber is at the heart of the transformed Pier design. The new visitor centre is a 100% cross-laminated timber structure, clad in the limited timber decking that survived the 2010 fire. This reclaimed timber was also used to make the furniture on the deck, designed by dRMM and Hastings & Bexhill Wood Recycling Ltd as part of a local employment initiative. I want Timber to continue to be at centre of the material focus of the Infrastructure making up the access. Cross-laminated timber could be the answer to the type of wood that I can use for the decking, making up the floors to each level of the infrastructure.

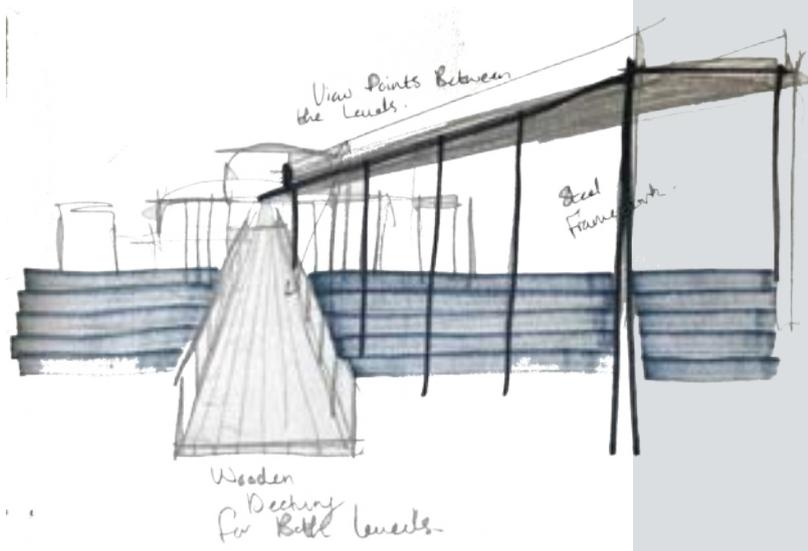
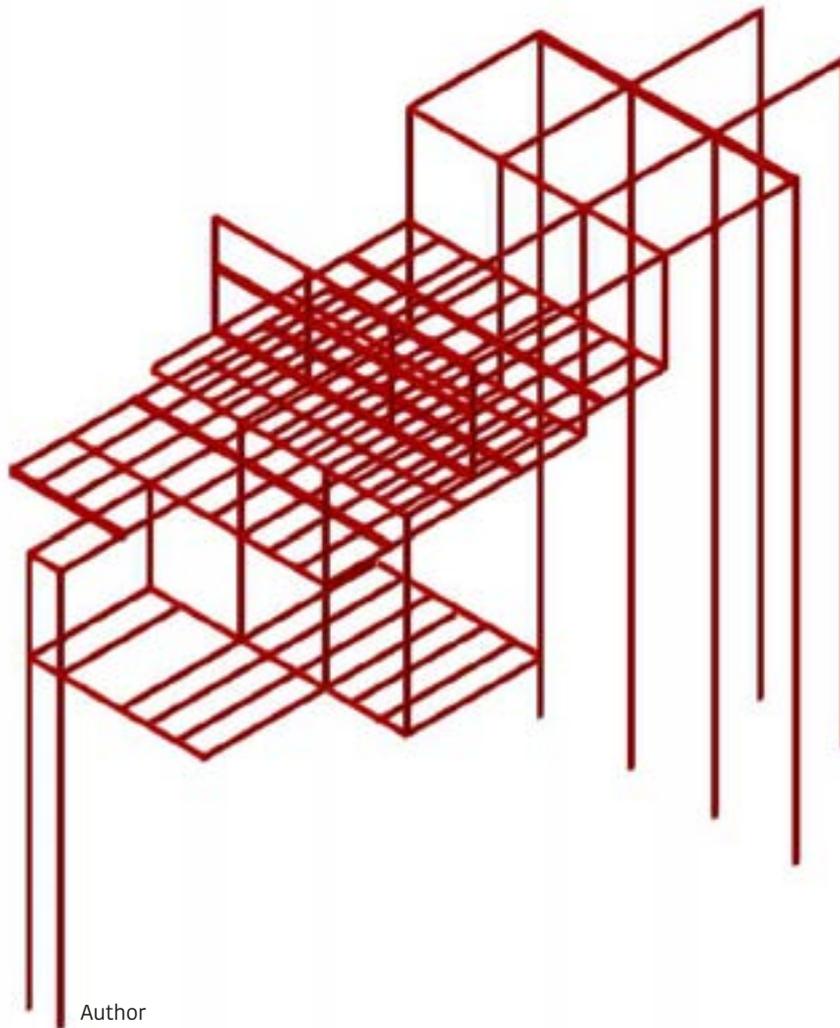


Image Source from, <https://www.envirobuild.com/pages/case-study-clockwork-building>

Another possibility for the decking, could be this recycled timber and plastic decking generated from Enviro-build. Reading up, it is apparent that this material includes features such as non-slip qualities. Which could help with the watery and wet conditions, that can occur down on the beach side. This material might have positive safety impacts when it comes to infrastructural design.

CHAPTER 13.
THE AFTER LIFE





Author

In today's society it is vitally important to consider what happens to our creations after their primary use. Architecture is no exception. Especially since the building belongs to regenerative activists, who highlight the importance of life after primary use. This means I have had to consider what happens to the structure after the festival is over. My idea revolves around all of the add materials used will be in a position to be re-purposed in another build. All made up of easy dissembled modules, it will be like taking apart a jig saw puzzle. Not forgetting that the members of extinction rebellion who built boxes will be able to take their back home to re use at future protests. That leave us with the skeletal structure. My plan is that, the framework will be left in the position on the grid, available for any other organisations to take up residence if and when they please. Whilst in the meantime if no one is there, the structure will act as a sculpture wrapped around West pier which will become a talking point for people to discuss on a day to day basis.



Parts of the design will also be taken for their second lease of life, and become structures that individuals can use at protests. Using different configurations, will mean that the wooden frames can become structures that people can chair themselves too, as well as set up temporary tables and seating arrangements at events that the organisation may want to attend. They will be able to continue using this system, on rotation.



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