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AD671

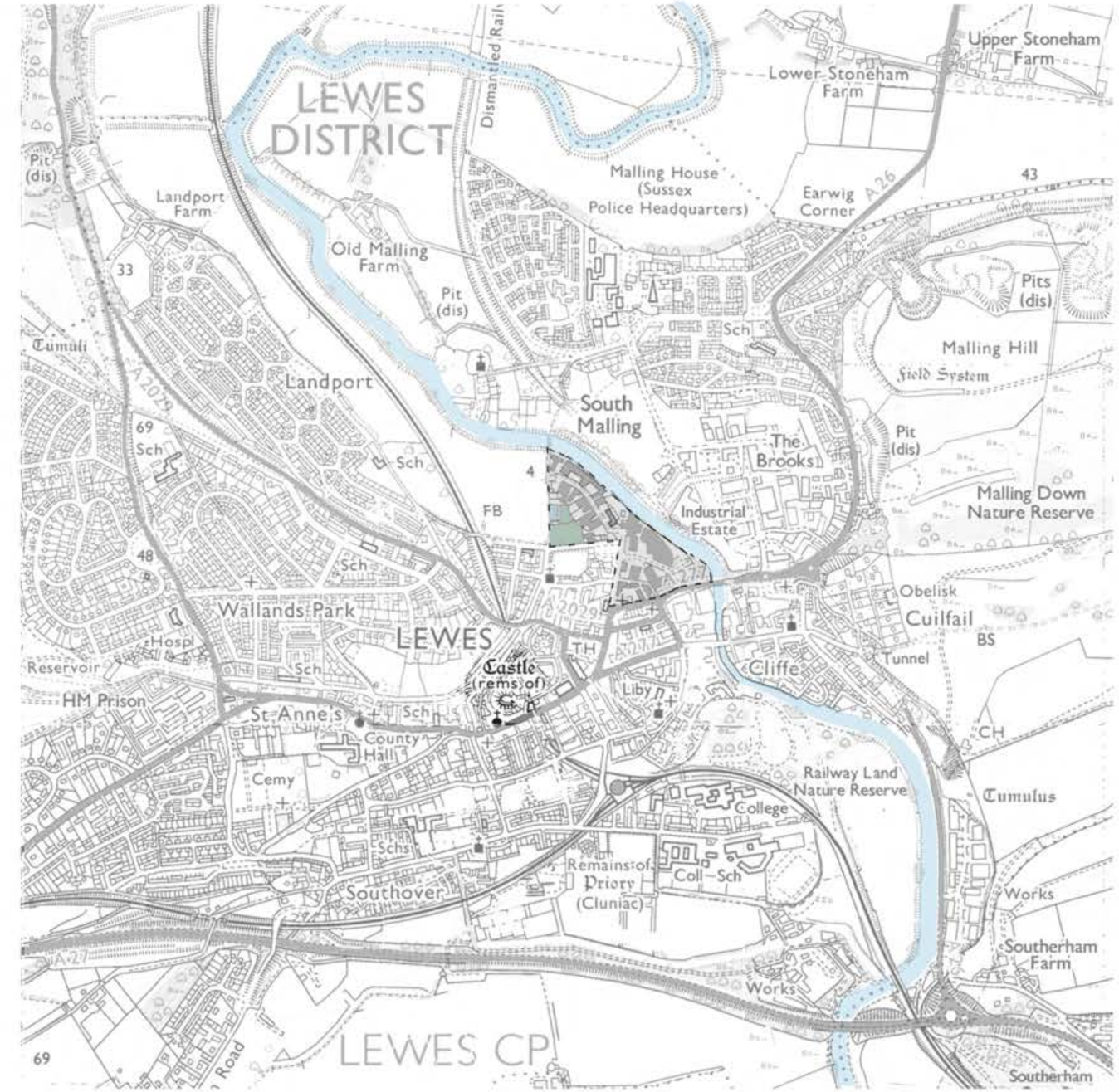
Studio 11

Exploring Contact Through the Architectural, Relational and Sensory Lens'

A Crafted Museum of Geometric Casts

Taking elements of playgrounds to create educational experiences through views and movement for kids about crafts as a representation of phoenix industrial estate's past inhabitance which consisted of casting iron workers.

Site: Phoenix industrial estate, Lewes, BN7 2QJ.



The brief

Limitations:
Site is a Flood Risk Area

Connections:
The proposed programme must connect to the history of Lewes and it's community.

Studio's method of working:
Testing and experimenting of design strategies following the 3 defined lens' below:

- **Architectural lens:** Materials, spaces and their connection.

- **Relational lens:** How we contact, communicate, share and express the worlds we occupy.

- **Sensory Lens:** How we feel in the spaces we inhabit.

Site Photos:

Pells Lake

Walkway between Pells Pool and lake.

Lewes Fire Station

Phoenix Past Iron works Building

Workshops in industrial estate.

Scale 1:5000

Concepts From Term 1 influencing the Design of a Device:

Phoenix Iron and steel works factory

Term 1 Brief:

Exploring and testing the 3 studio lenses in relation to site through the modelling of a chosen building in phoenix.
The process leads to the design of a device which holds the concept of the proposed programme for term 2.

Process Feeding into Concepts for Device

Chosen building::

Phoenix Iron and steel works factory

Exploring the sensory lens through **casts** of combined **local materials** to create tactile bricks.

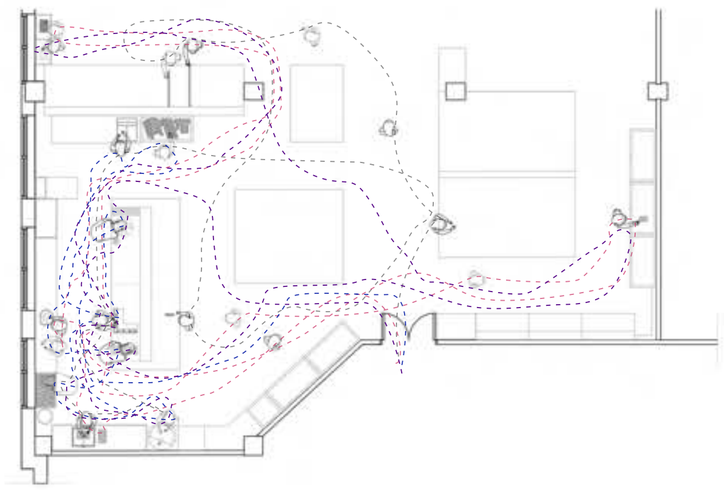
Exploring the architectural lens through experimenting with the layout/ **relationship** of materials within **space** through recreating the broken part of the phoenix iron works building.

From this model I took the concept of casting , local materials and relationship to space, to design my device.

Device From term 1 and Programme Proposal Concept

Programme Proposal: A Museum Of Casts That Represents Moments From Lewes' Past Inhabitance.

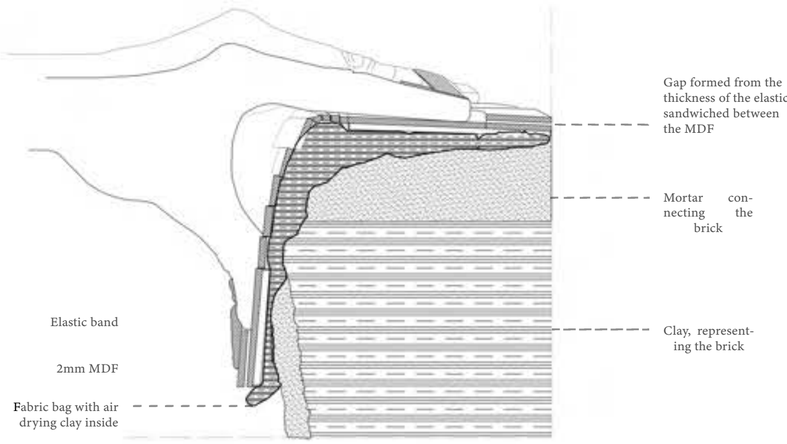
Spacial layout of Process

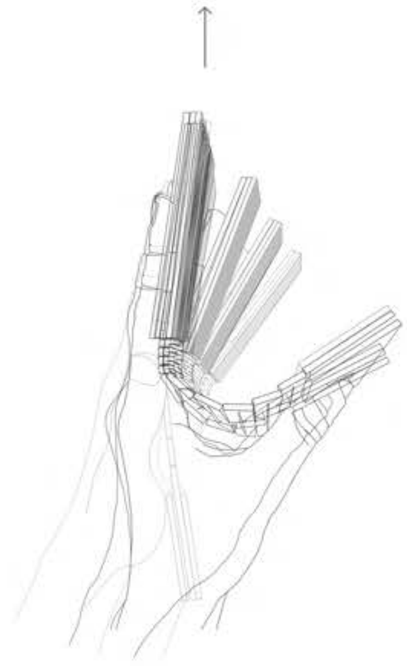


Exploring the relational lens through investigating my relationship to the model and experimenting which took place through the **making process.**

Which I've laid out spatially, tracking my **movement as a response** to the layout of **architecture**.

Proposed Device

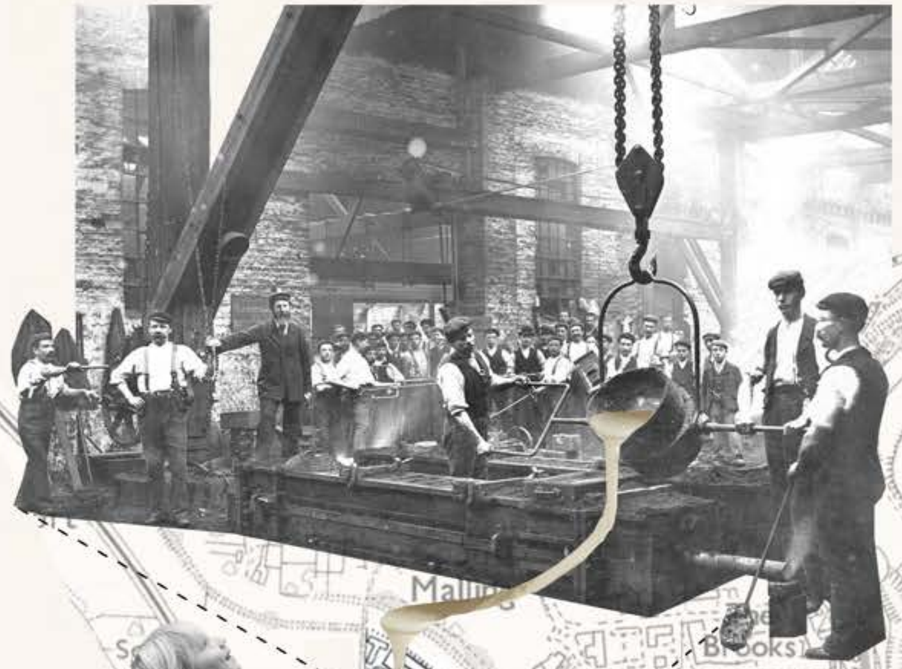




My proposed device was a glove that took clay prints of tactile materials from historic buildings in Lewes from one side and of the hand movement on the other side.
Acting as a **cast** that holds a **trace of people** who inhabited/ engaged with architecture.

Preserving The Craftsmanship of the Phoenix Cast Iron workers

A trace from The Phoenix Industrial Estate



Phoenix Industrial estate used to be inhabited by Iron and steel workers in the 1940s. The estate will soon be **demolished** due to the Phoenix housing project being proposed.

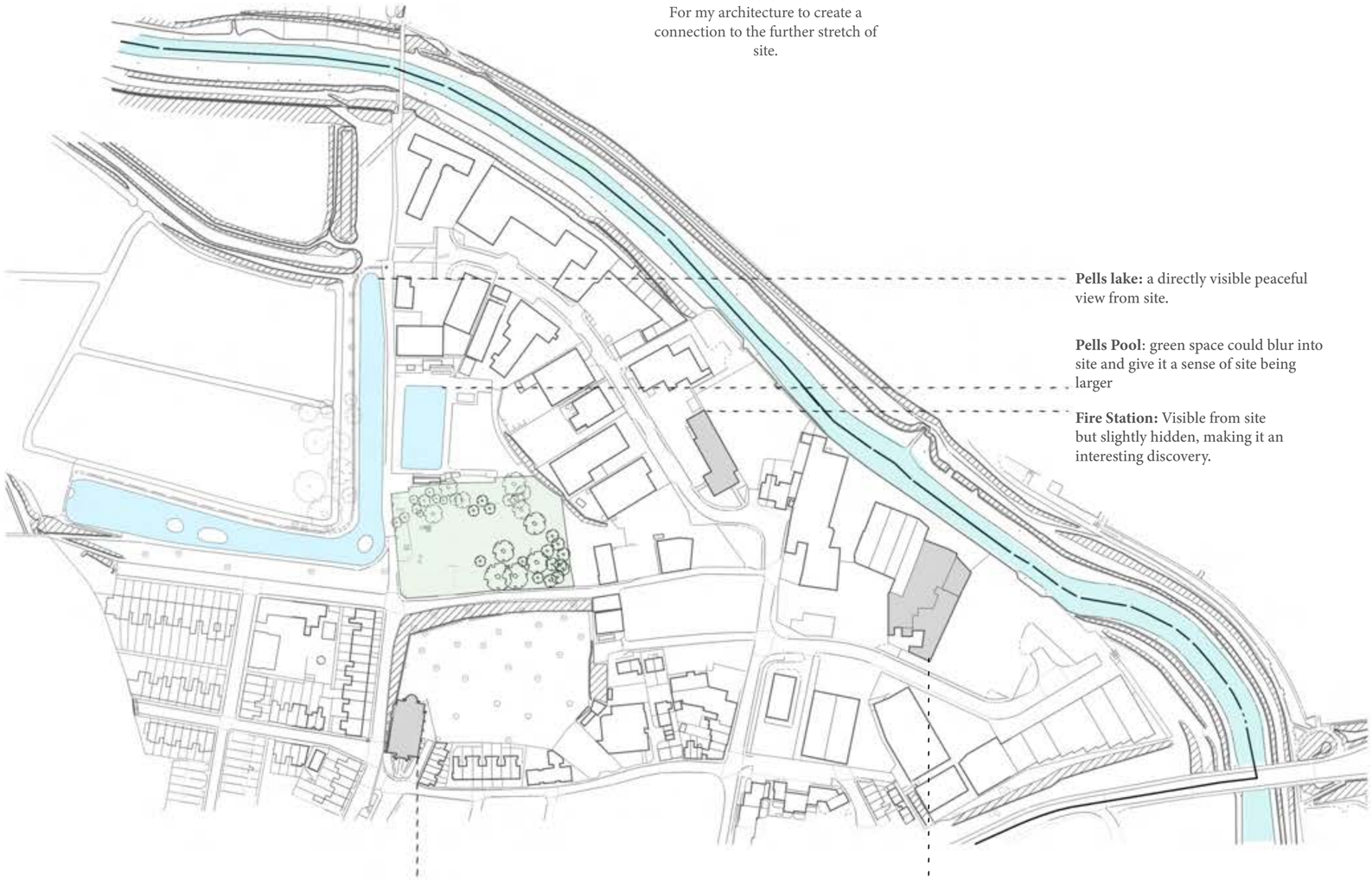
I aim to leave a **trace** of the industrial estate's production **heritage** through **representing** the **craftsmanship** of these workers in a form of **casts** in a **museum** for Kids; aiming to encourage **kids** to develop an **interest in craft.**

Chosen Site Within Phoenix Industrial estate:
Pells Park

Site Photos:




Points of interest in Phoenix:
For my architecture to create a connection to the further stretch of site.



Pells lake: a directly visible peaceful view from site.

Pells Pool: green space could blur into site and give it a sense of site being larger

Fire Station: Visible from site but slightly hidden, making it an interesting discovery.

Trinity Church, St John sub Castr: Historic monument/ in line with Lewes castle.

Phoenix Iron works: Building investigated in term 1

Scale 1:2000

Site Analysis

	Altitude	Azimuth
Winter Sun	14.38 °	195.36°
Summer Sun	62.57°	180.61°

- Main road leading to site
- The River Ouse
- Chosen Site for Project

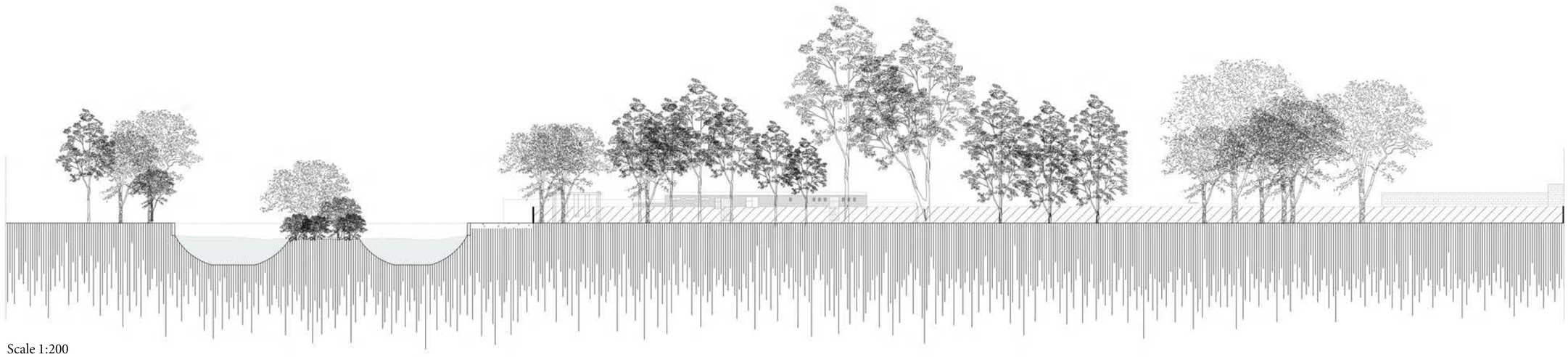
Reasons for Site Selection:

1. I wanted a space that would remain after the Phoenix housing project takes place.

2. Target the children that already inhabit and use the park.

3. Be closer to the community i.e housing/town, so the museum could attract more people.

Section Cut Through Site



Scale 1:200

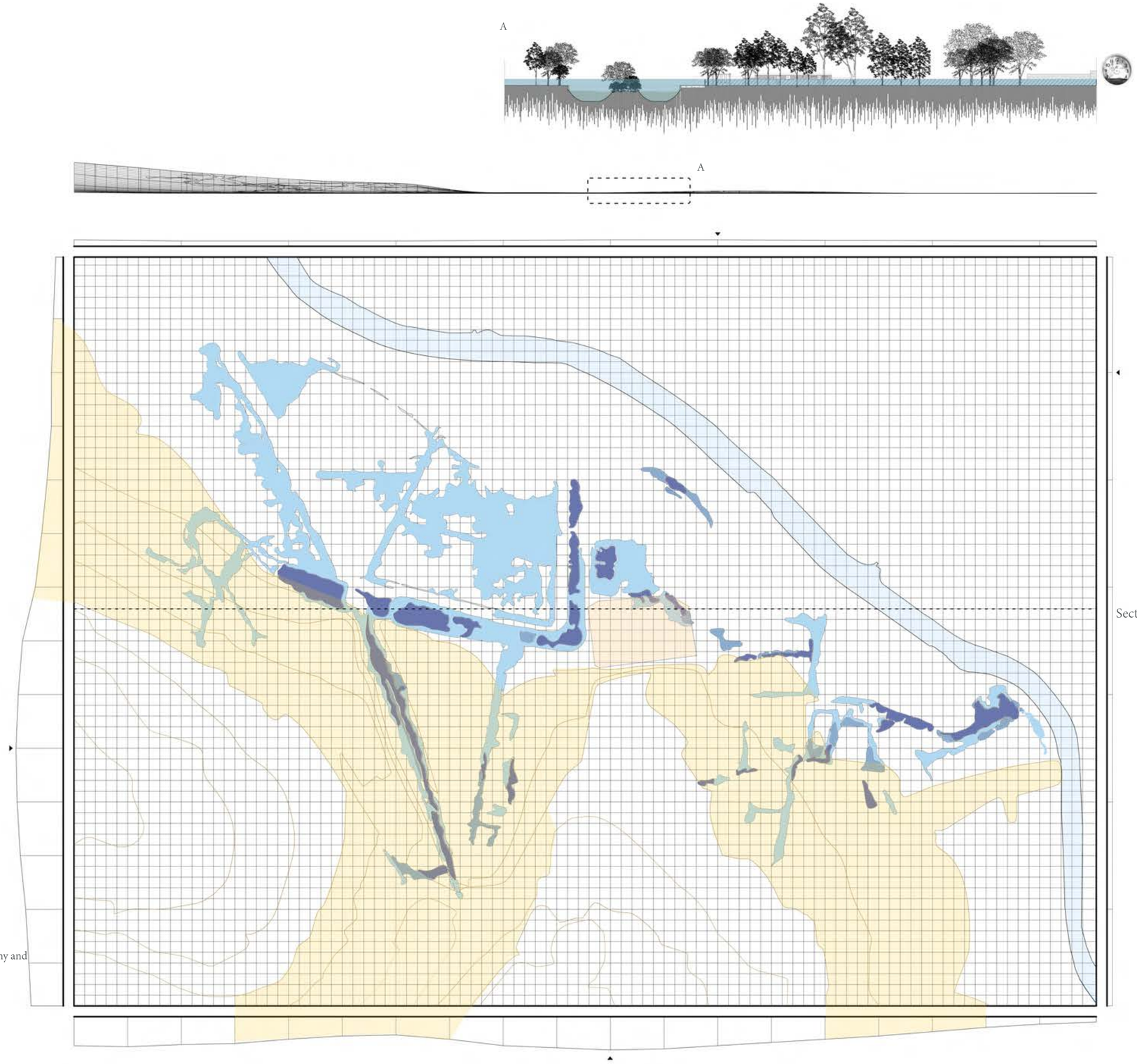
Scale 1:500

Site Analysis: Flooding as a constraint

I've created this plan to assess the risk of flood from surface and rain water on my chosen site.

My site appears to 'escape' this type of flooding meaning I might only need to deal with flooding in extreme scenarios such as the flood of the year 2000.

Where I marked the level of the flood (1.8m) that occurred then on the section based on the lime scale marked on a clock in pell pool.



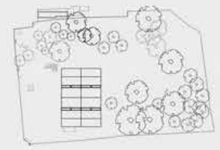
Section cut through site

Scale 1:2000

Scale 1:500

As a response I considered using an amphibious structure, but considering the feasibility of it and the rare event that the flooding occurs, I decided not to.

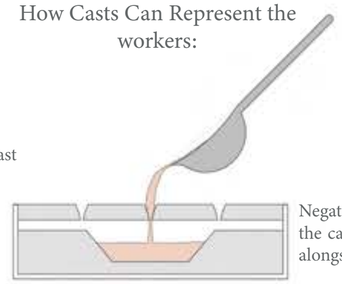
Referencing Potential Structure Concept



Amphibious House By Baca Architects Drawn on site
The amphibious structure sits on the ground but floats in the event of a flood. It's held by pontoons to stay in place and requires a lightweight waterproof material pallet/ structure.

Casts for Museum:
Simple Geometric Shapes with Residue of the Process

How Casts Can Represent the workers:



Negative Mould - shapes the cast but isn't presented alongside it.

Process of making moulds for iron casts to be made in Phoenix in 1940s.

All of the contact made with the product from the process is with the mould.

Therefore, **presenting** the making **process** of casting **represents** the iron **workers** and would be like presenting the mould of the cast.

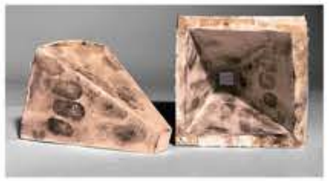
Experimenting with casts for Museum

Casting surrounding space rather than object (3)

Casting object from one side and mimicking workers hand movement when contacting iron mould on the other,

Using simple Geometric shapes of different scales (1).

Prints of residue of the process of making (2).



Conclusion from research:

Van Eyck Playgrounds consist of **simple geometric shapes** which have proven to aesthetically **attract children**.

Using this concept alongside having interesting **remains from the process** of making inspired by assemblies studio, I aim to stimulate kids' **curiosity** of the process through using **casts of simple geometric shapes with residue of the process,** before **revealing** the making **process** as part of the **museum exhibition.**

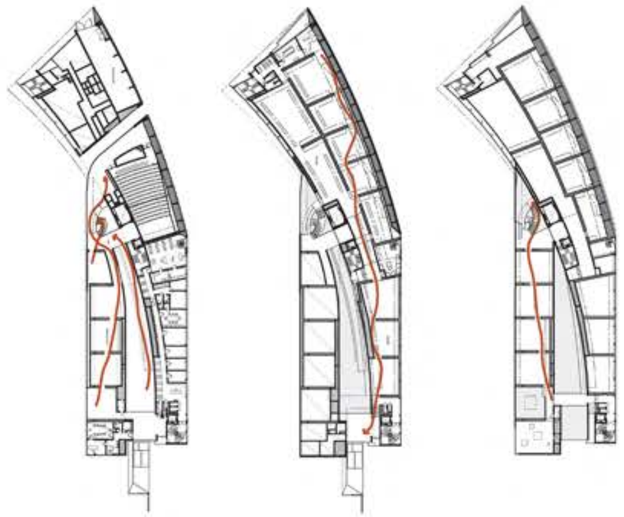
References

1. Van Eyck playgrounds
The abstract forms of a series of simple geometric shapes that formed the playgrounds have been said to stimulate kids' creativity in terms of the numerous playability options it provided. However, their arrangement of standardisation in terms of layout and various scaling had been said to have a negative impact on their playability, through these are the result of the aesthetic motives of making the playground appealing to children.

2. Assemble Studios
The Rules of Production, an exhibition at the Shiseido Gallery. Where Assemble and Granby Workshop produced ceramics in the gallery, creating an open production environment for visitors to engage with, and learn about, the process of working with clay. Where part of the making process was the firing of clay which left a mark on the pieces produces. Finally, a video of the making process was displayed along with the final pieces. Highlighting the process of making.

3. Rachel Whiteread
Rachel white reed casts the spaces of everyday objects rather than the objects themselves, as a way to capture the "ghosts" of it's users.

Precedent : The Kiasma, Steven Holl's Museum of Contemporary Art
Term 1 response: Movement of Body as a Response to Architecture



I've highlighted on the plans my interest in the way the layout of the structure allows for **choreographed views** and routes established due to desired views.

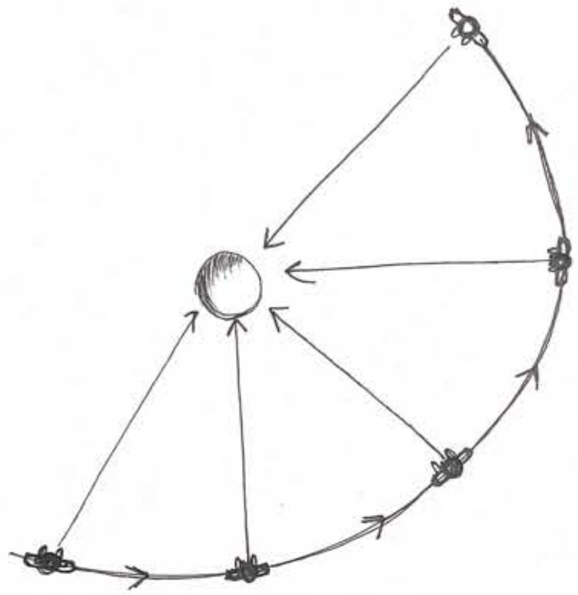
Where the views are connected to the shape of the building that's **a focal point** pointing towards **notable structures** in Finland that overlaps with a straight line corresponding to the landscape.

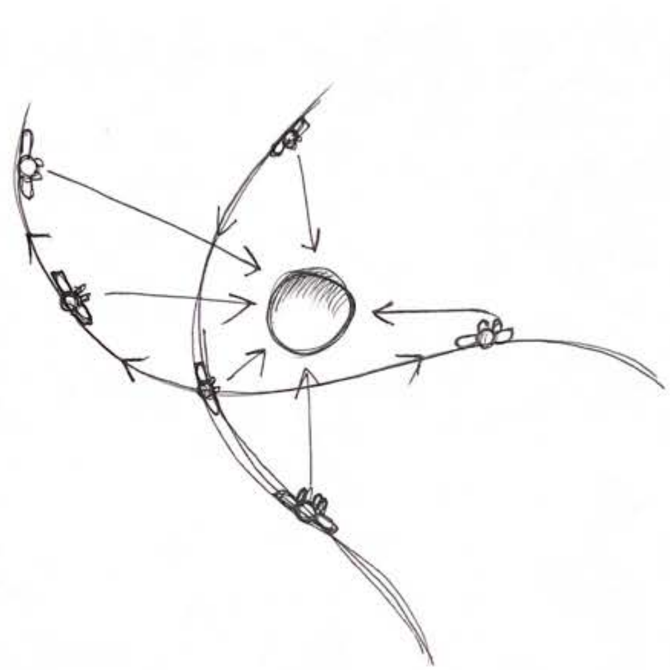
I'm also interested in the phenomenological aspect of the museum where the **routes** around the museum pass the same central point allowing **multiple views of the same space.**

The "Chiasm" drawn on Site

Scale 1:500

Experience of Space Through Movement





The Kiasma Museum uses a spiral to direct the visitors between two wings that intersect, allowing the **view of the same space from multiple perspectives**. Holl was inspired by the writing of Phenomenologist Maurice Merleau-Ponty. Holl's use of Phenomenology is in terms of going beyond the familiar senses (sight, sound, smell, taste and touch) in understanding the role of body in experiencing architecture. Where Merleau-Ponty explored the **body** as a **sensory** apparatus through which one can **understand "things"**(1).

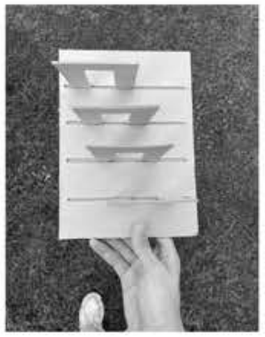
In the Case of the museum, the multiple views of the same space/ objects allow people to **engage** with the **spaces** through **movement**, where seeing **unfamiliar objects** from different perspectives can "**arouse** our **senses** and activate a sense of **wonder**"(2).

Reference:

(1) The "Chiasm" and the Experience of Space: Steven Holl's Museum of Contemporary Art, Helsinki Author(s): Scott Drake Source: Journal of Architectural Education (1984-) , Nov., 2005, Vol. 59, No. 2 (Nov., 2005), pp. 53-59

(2) Wonder, the Rainbow, and the Aesthetics of Rare Experiences

Site Analysis: Contour lines and Developing an Architectural Language




Test Model

I've made a model of the arrangement of the doors of the Kiasma museum to **frame** current **desired points** and see how the structure may influence the **view**.

The arrangement of the model didn't effect the views much, therefore, I shifted my interest into capturing the desire lines visible on the landscape.

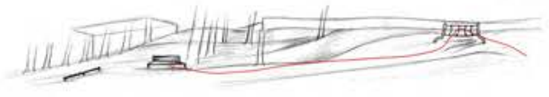
Capturing Desire lines

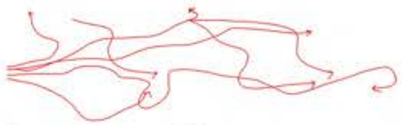
After sketching the desire lines, I noticed a grid forming due to the irregularity of the landscape.

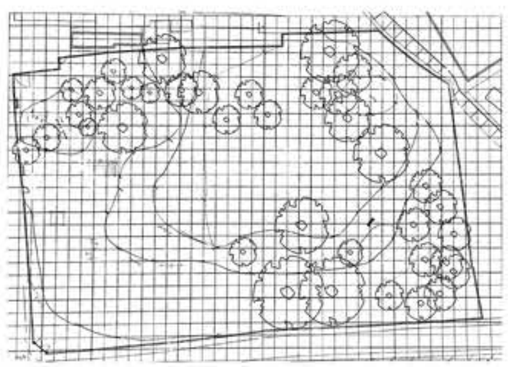
I made a grid of 2.5m distances, where I sat at the lowest point of the site and plotted the contour lines based on my view.

I marked the differences in height to be between 300/500mm to 1m. Based relation to on my height sat down.

Capturing The Process







Capturing Elements of Site to Develop an Architectural Language

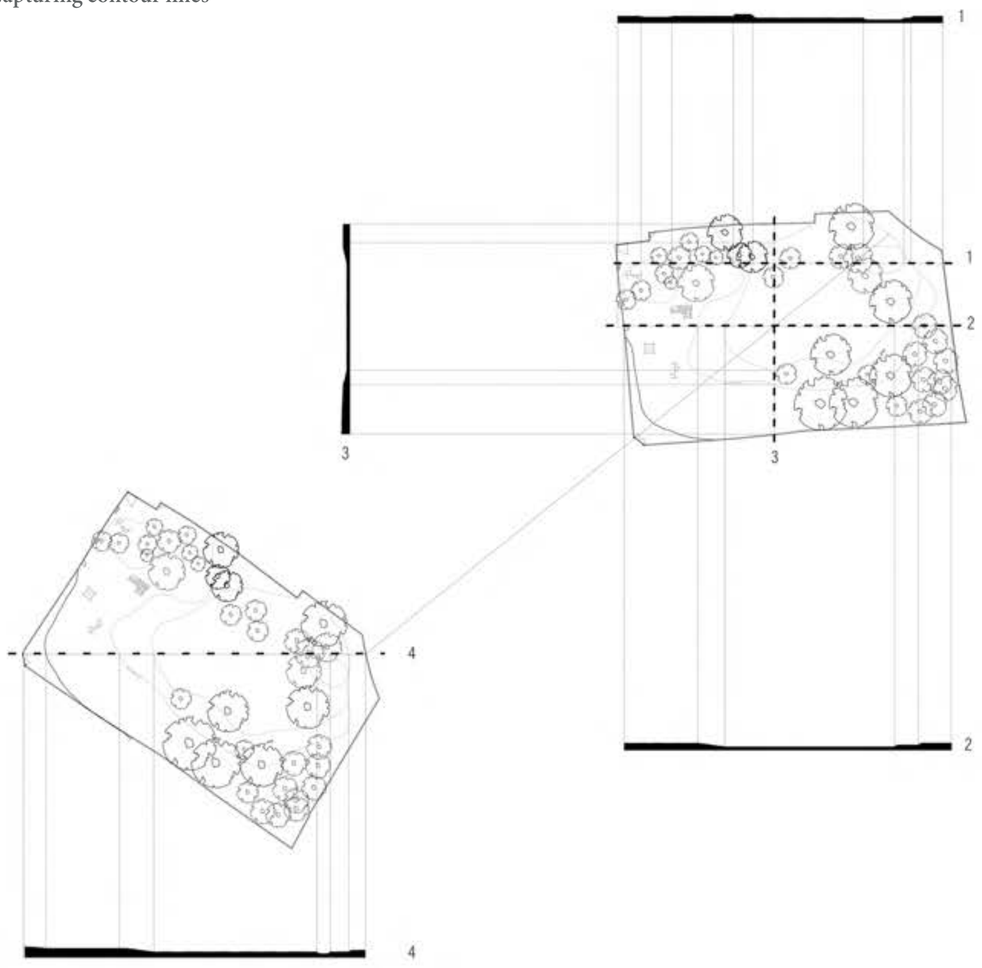
I decided to breakdown elements of the tree house to convert into an architectural language to make my architecture act as an **extension** to the **playground.**

Pillars will be used to frame walkways.

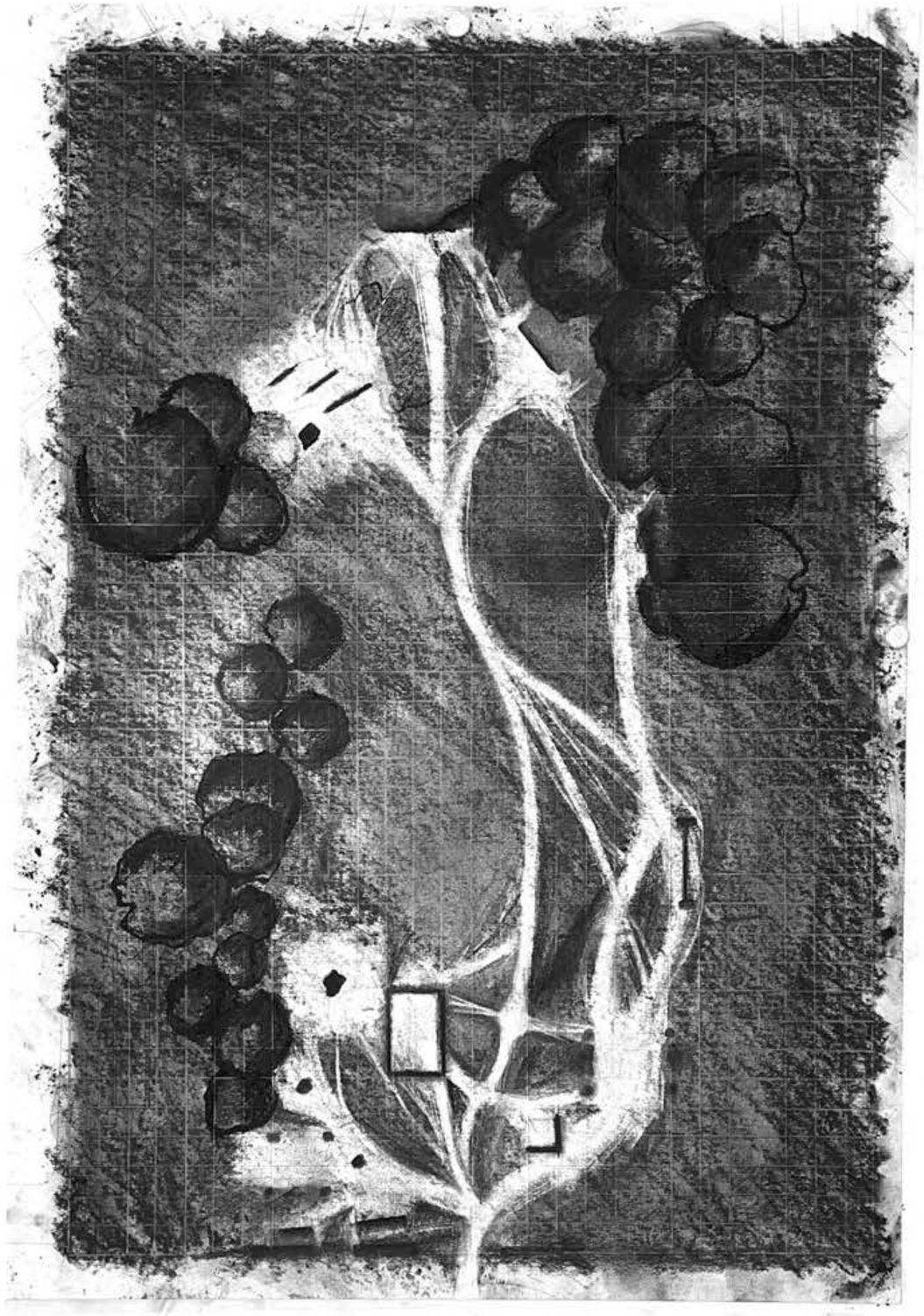
Roofs and window shapes to be used to frame views.

Change of materiality for thresholds.

Capturing contour lines

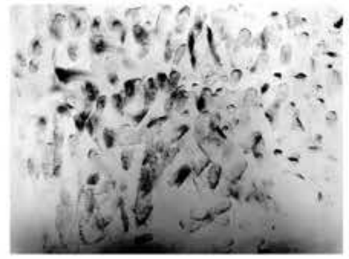


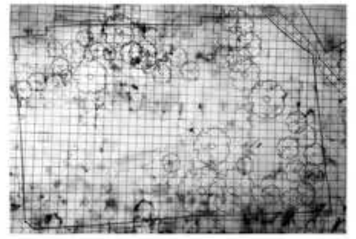
Site Analysis: Desire Lines, Understanding the Current Desired Spacial Occupation of Site



Inspired by Rodins interest in humans **movement** in response to nature. I drew the **desire lines** on site as they **mirrored casting**, where people inhabiting the site acted as the missing mould, **engraving the landscape**.

Capturing The Process





1. Gridded Site Plan.

2. Traced Grid in Graphite.

3. Covering drawing in charcoal.

3. Rubbing out desire lines seen on site.

4. Tracing in black the playground toys and tree stems, showing areas one cant walk on.

5. Drawing trees as shadows as their shadow in summer might make the spaces desirable.

Reference

Sculptor Auguste Rodin.

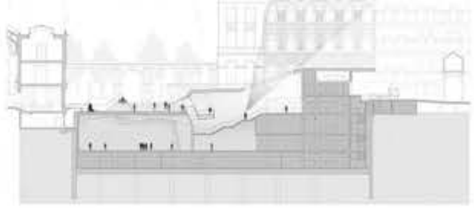
Interests:
Sculptures that appear to be incomplete yet reflect the intentions behind the sculptor. Rodin investigates nature and ideal, movement and impression. Where his fragmentary figure in The Walking Man explores his search for the veracity of nature and movement, where he implies that the body movement is influenced by nature.
Where desire lines carving into the ground is similar to the concept of having a positive cast and removing the mould (in this case humans) therefore, the landscape holds traces of human inhabitance.

Precedent : Cast Courts, The V&A Museum

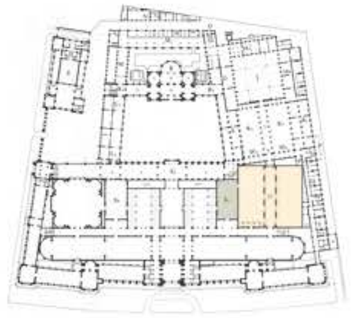
Interests:

I'm also interested in the variety of **roof shapes** available and how they **manipulate light** into the spaces.

Roof



Workshop Alongside Museum

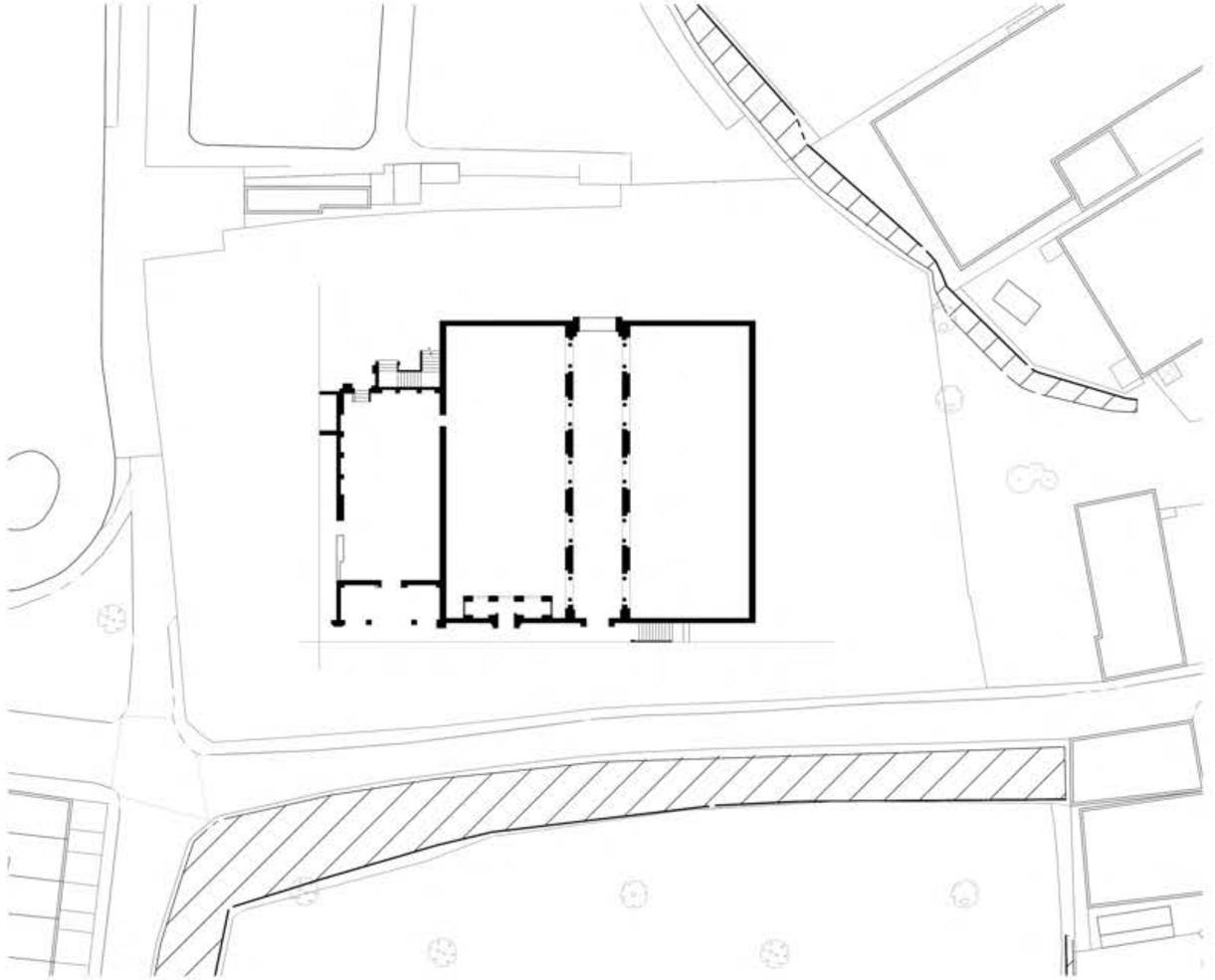


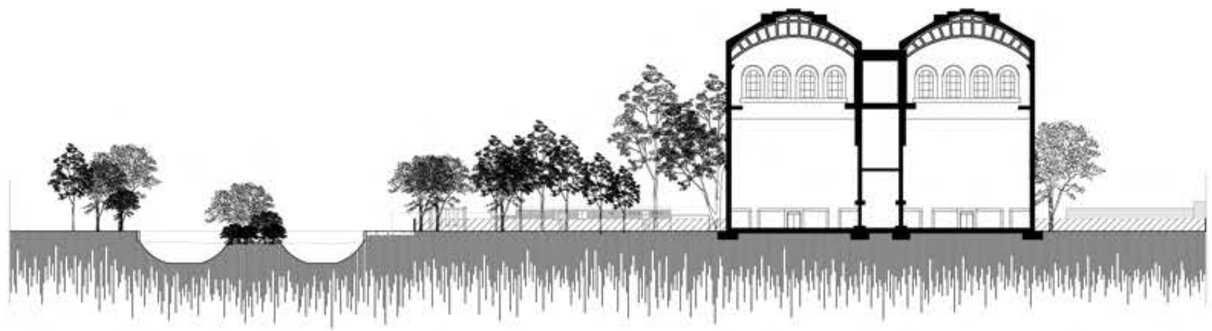
I'm interested in the concept of **presenting** the **working process** within the museum as an **educational** approach for **kids**. Thus, I will infuse a workshop and process of making casts into my museum.

Material Choices reflecting craft

I'm also interested in the **details** applied to making the floors and celling of the museum, reflecting the **craft** of the casts through the **architectural materiality**.

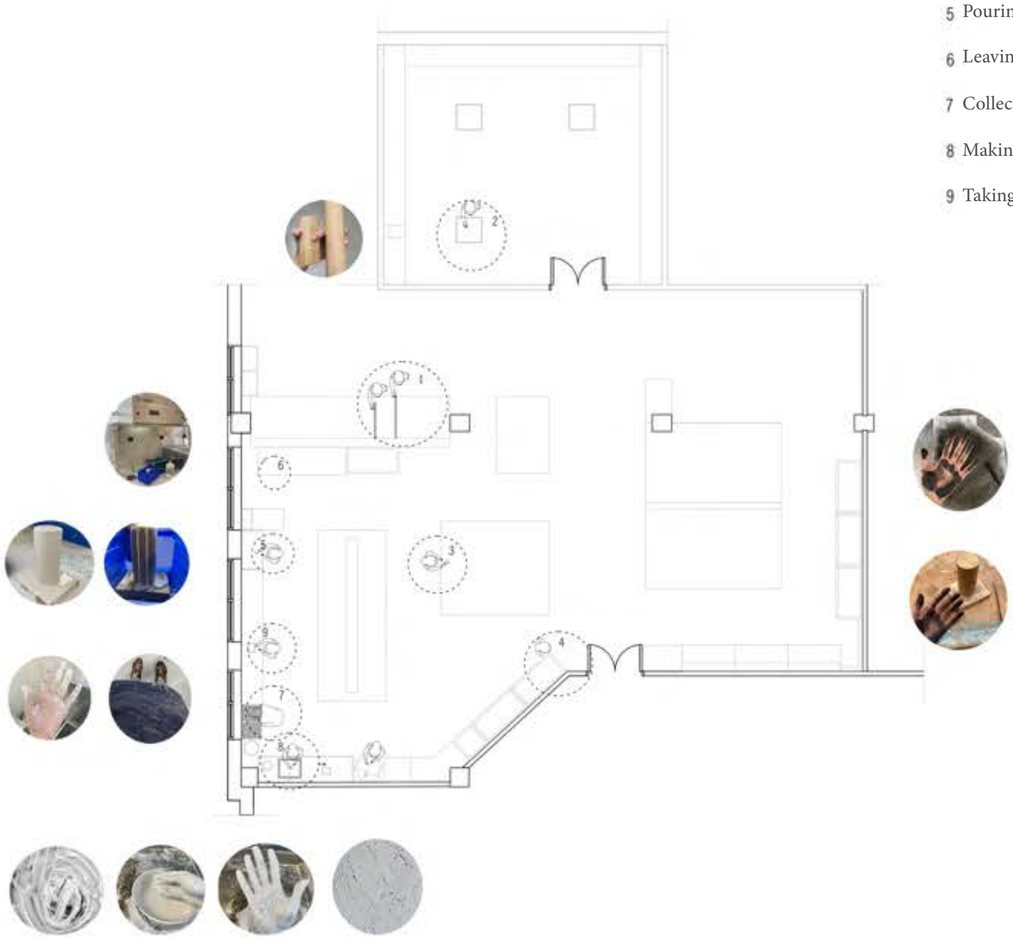
Cast Courts drawn on Site





Scale 1:500

Spatially laying out the process of casting



1 Collecting timber for mould

2 Using a band saw cutter to shape timber

3 Assembling timber mould

4 Collecting apron for casting.

5 Pouring Rubber liquid onto timber to create mould.

6 Leaving Rubber liquid to dry.

7 Collecting powder to mix plaster.

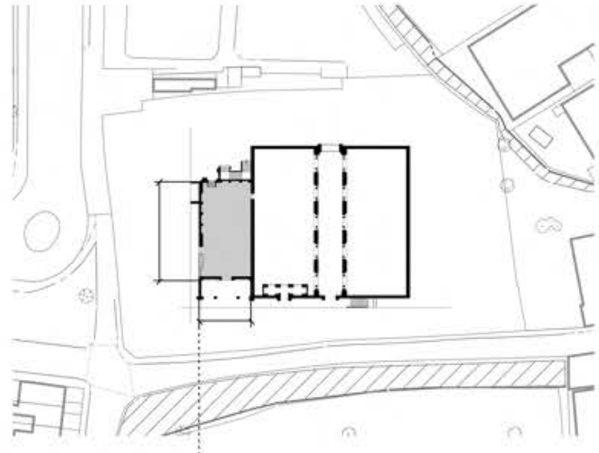
8 Making plaster mix.

9 Taking cast out of mould after drying

Attempting to mark hand movement on mould to show on cast as 'remains of process'

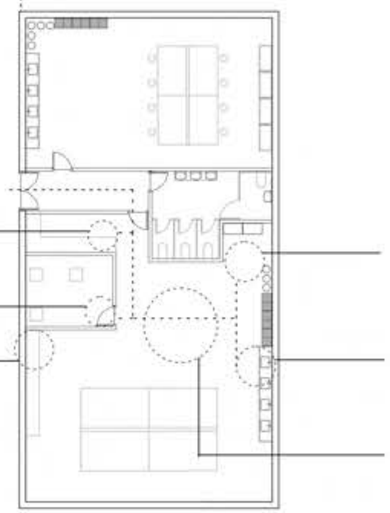
Scale 1:500

Using The Dimensions of the workshop in the V&A



Scale 1:1000

Arranging a spacial layout for the museums' workshop based on the process of casting



Timber storage closest to entrance and band saw cutters room.

Band saw cutters room directly facing casting zone if any quick changes need to be made.

Spaces to leave casts to dry.

Aprons and storage next to casting zone

Casting zone

Central free space to allow for circulation between casting and making moulds.

The Workers workshop is separated to the children's one but will be visible as part of the exhibition.

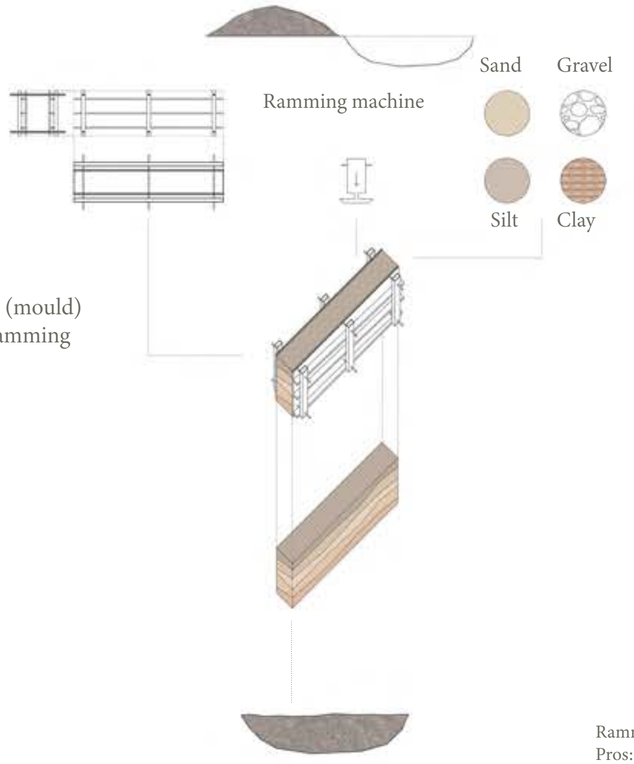
Materials

My choice of structural material for my building is rammed earth to relate to lewes and my programme. Where rammed earth uses **local materials** in lewes, and **blends** with the natural **landscape** on site. Meanwhile, relates to the programme in terms of its **reflection of craft** of casting and the process of casting iron involves soil and ramming, reflecting the iron workers.

This is so my **architecture relates** to both the **site and the craft** it's exhibiting inspired by studio Mumbai.

Process of Making

Locally Sourced Materials for the Production of Rammed Earth mixed

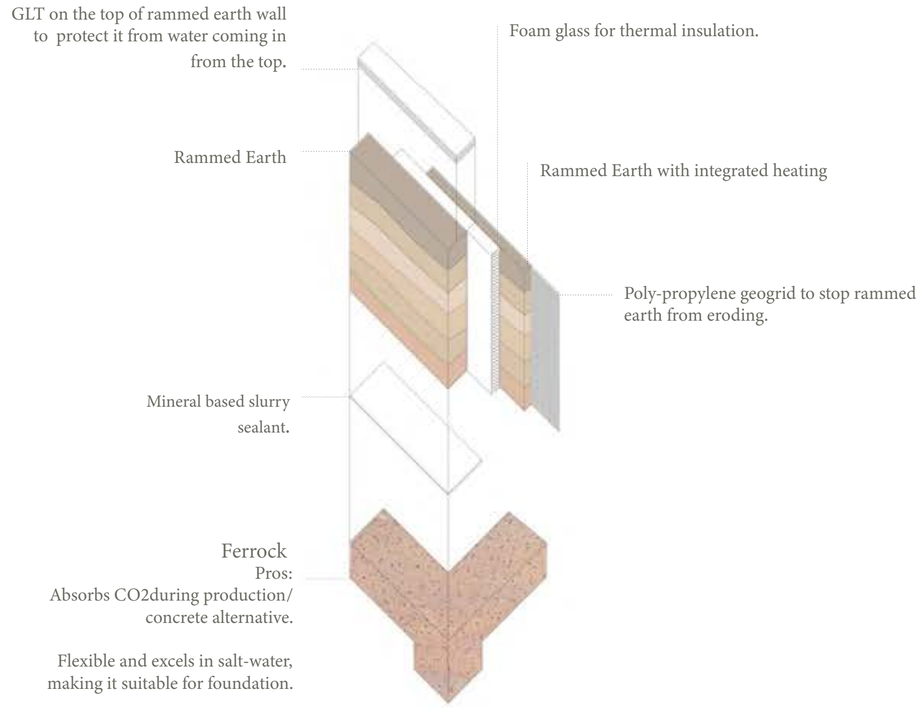


Plywood (mould) structure for ramming

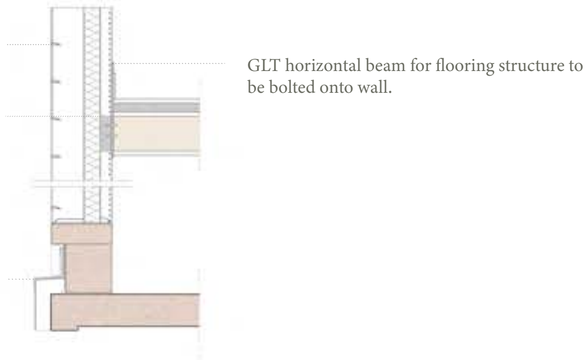
Rammed Earth eroding.
End of Life.

Rammed earth
Pros:
Very strong in compression
Low embodied energy
and low environmental, especially considering the locally sourced materials used.

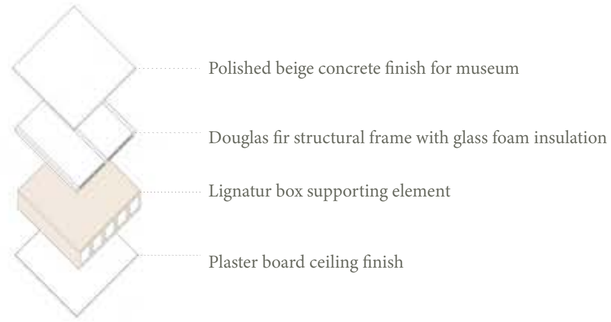
Rammed Earth For Walls



Connection of rammed earth to flooring and foundation



Floor



References

Graphics Also submitted for the technology module.

Lehmbau im Großformat
Building with Earth at Large Scale

From Detail magazine, 2019 edition.

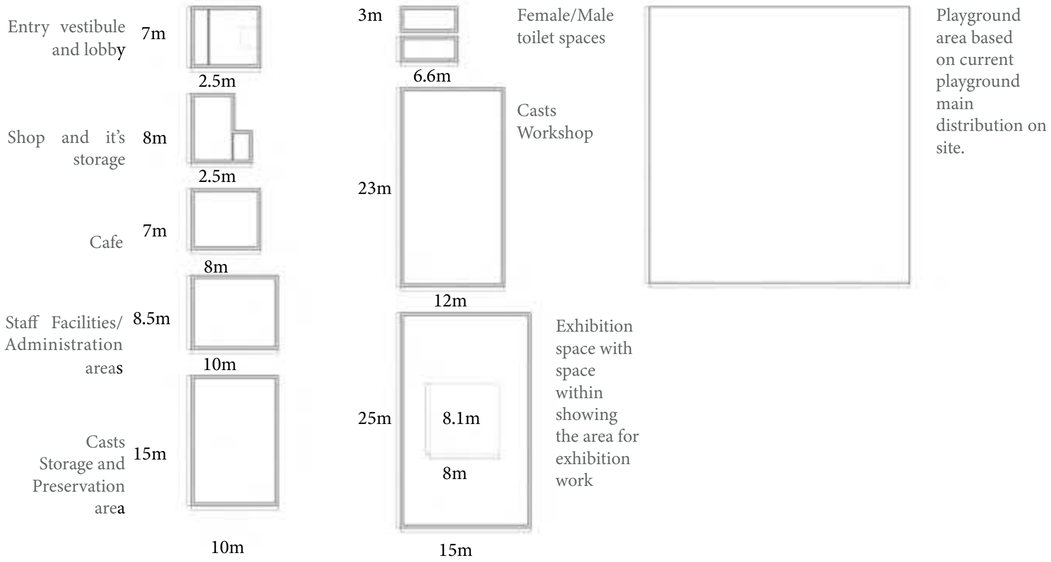
Precedent Study for Rammed Earth wall construction

Ganga Maki Textile Studio by Studio Mumbai

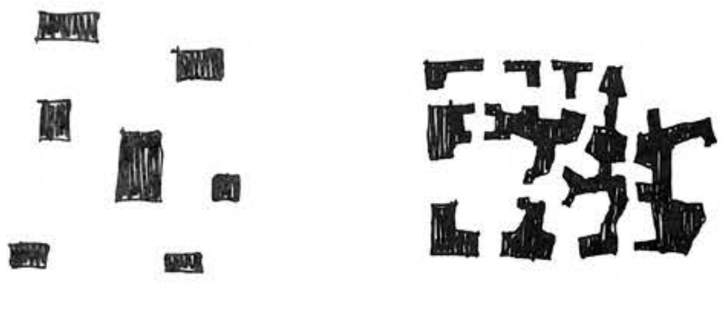
"Craft is not a story of stagnation but of sensible emergence"
The concept of these studios is to create an architecture, that uses materials, spaces, light and openings in relation to the function of the space. And creating a collaboration between the workers, the craft and the site to create a relationship between "work and life, the sun and the moon bringing together past, present, and future". As if developing the architecture from the combination of the site and the craft.

Spaces in Museum

Measurements of average areas for spaces required in museums. Additional loading and unloading spaces are required.



Shaping of Spaces Strategy: Positive and negative Spaces, Reflecting the Process of Casting

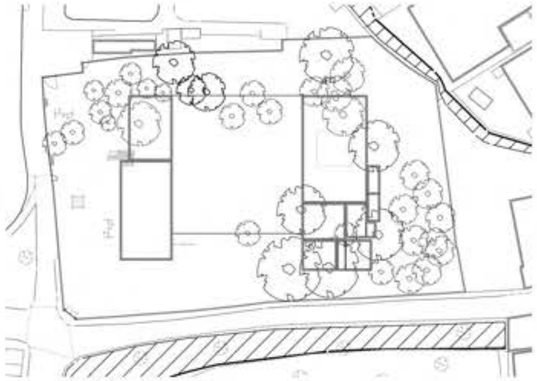


Negative exterior spaces

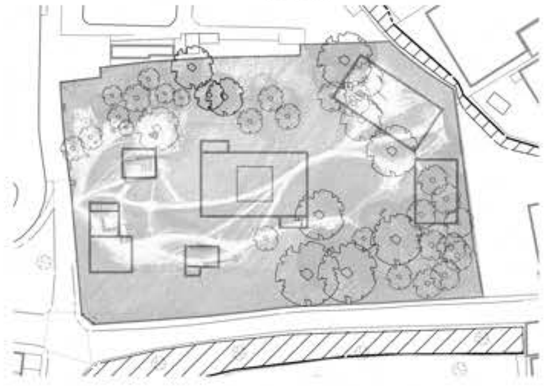
Positive exterior spaces

Where positive spaces are when the architecture frames the exterior spaces with it's shape.

Using initial spaces measurements on site for a sense of scale.



Separating spaces based on current desire points on site.



Orientation of buildings pointing towards the exhibition to allow for multiple views of the space.

Reference

Sketches From the Book 'A Pattern Language' showing negative exterior spaces on the left in contrast to the positive exterior spaces on the right.

Concept collage
Moment of Entrance

Moment of entrance, **views** revealing **peaks** of the programme and nature. An introduction to the options available.

Concept Collage
Moment into Museum

Moment of **experiencing** the exhibition **space**, through moving around the exhibited casts and **viewing** them from **different perspectives.**
Moment shows structure, where **natural materials** are used to **reflect** the **site and craft.**
Moment also shows multiple openings that reveal peaks of the site.

Concept collage
Moment into Workshop

Moment of revealing the process of casting before going into the kids' workshop to make their own cast.
The moment shows the playground being near the workshop so kids can use it whilst waiting for their casts to dry.

Moment also shows **walkway** framed by timber **pillars.**

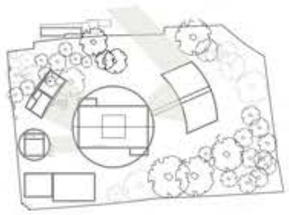
Shifting to Curvilinear Forms for Views

After collaging some moments within my museum, I decided that I want my architecture to be **curvilinear**. This is in responds to the **control of views** around site and due to the **flexibility of rammed earth** as a building material.

Positive and negative Arrangement of Spaces on desire points

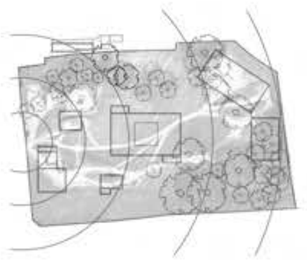
I wanted to keep the concept of having positive exterior spaces

Shifting to curved buildings offset and point towards the central exhibition space



I began by offsetting the buildings from the shape of the exhibition in the centre to draw out the exterior spaces too.
But the shapes created seemed difficult to control.

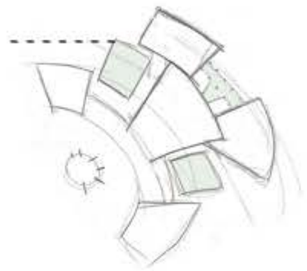
Creating Segments of a Circle inspired by Holiday Home



Creating lines of a circle offset from the current main entrance on site dissecting through desire points on site, so the shapes of the buildings would vary.

Shifting Centre point to preserve trees on site with positive exterior spaces

Exterior spaces



Shifting centre to corner entrance currently not in use to minimise the amount of trees needed to be removed/ relocated for project.

Process of Developing Initial Design

Shifting Centre point to preserve trees on site

Trees relocated

Views

Scale 1:1000

Reference

Holiday Home By Wood Marsh On Victorian Vineyards

Developing Initial Design
Ground Floor

Spaces in Museum/ Programme Arrangement

A: Entrance

Allows a view of the public spaces as an introduction to the scheme and spaces accessible for visitors.

B: Cafe and Shop

Allows for **views of Pells lake.**
Situated near playground for parents to use whilst kids play.

C: Administration

D: Exhibition

Having one route that guides the visitors through the museum and allows for **multiple views** of the same space/ objects through the backwards and forwards/ **up and down movement** established by the arrangements of rooms, inspired by the irregularity of the landscape and the sense of walking on it.

E: Workshop

Visible towards the end of the exhibition to reveal the making process at the end.
Located near exit to allow for kids to access their workshop spaces before leaving to the playground

F: Playground

Near workshop so kids could play whilst waiting for casts to dry.
Near exit door so people could still access the playground without visiting the museum.

G: Storage

Hidden From public.

Note:
Design made with the intention of developing walkways at further stages to establish connections between spaces.

Issues with Layout:

1 Exit separate to entrance to allow the use of playground makes site less secure:

Having more than one access points may cause some security issues and make it difficult to monitor who's on site.

2 Circulation between workshop and storage blocks views:

The route of the workers to the storage is narrow and blocks the viewing point from the exhibition revealing the making process from the workshop.

3 Storage Accessibility to Exhibition:

Where the spaces overlap is where the exhibition is planned to have a ramp placed.

4 Designing to a central point:

Directing all the spaces towards the site entrance made it difficult to control the spaces and routes as it was restricting.

Public circulation

Private Circulation For Workers in Museum

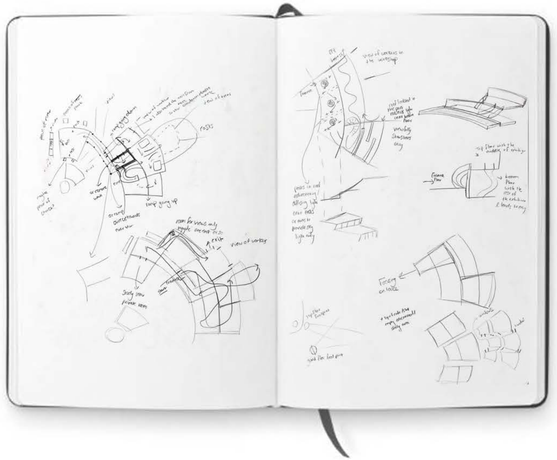
Pells Lake

Views

N

Scale: 1:150

Developing Circulation Sketches



Initial Design
First Floor

Spaces in Museum

D: Exhibition First Floor

Allows views of same objects/ spaces from different perspectives.

E: Exhibition Small Second Floor

Allows views of same objects/ spaces from different perspectives for spaces in first floor.
Allows views on site/ revealing what's behind the trees.

F: Study Room

Close to cafe but separate for quietness. (Upper level of cafe)

G: Overlapping Walking Redirecting Visitors to Exit on Lower Level.

Allows for a framed view of Pells lake.
Allows for view of workshop and playground from different perspectives as one walks down to exit.

Note:
Ramps / stairs aren't drawn they're placed as indicators of their location

Issues with Layout:

1 Uniformity of Walkway Reveals View too soon.

Difficult to control where people will be looking (workshop or view) due to the uniformity of walkway.
Space much larger than needed creating some wasted space.

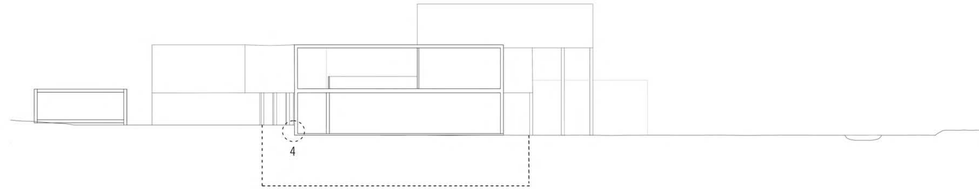
2 Walkway Overlap to Lower Level Might not be Feasible and Create Hazards on Ground Floor.

Its difficult to make the walkway that's changing level accessible by everyone.
The supporting structure for it on ground floor will disturb circulation and create a hazard for kids running in the playground.

3 Too Small and Reveals Unwanted views: roofs, storage and potentially loading and unloading zone.

Developing Section

4 Levelling of ground removes the natural character of site.



Developing Design concept: Upper level overlaps trace the walkways on ground floor with pillars to act as thresholds between spaces.

Public circulation

Pells Lake

Views

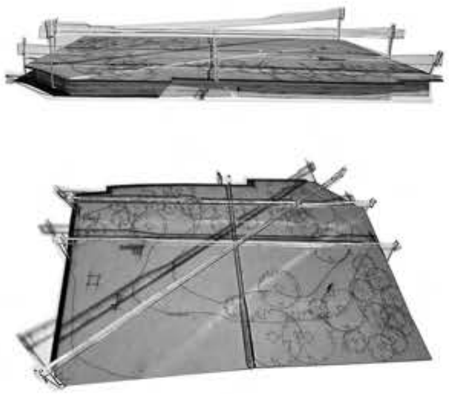
N

Scale: 1:150

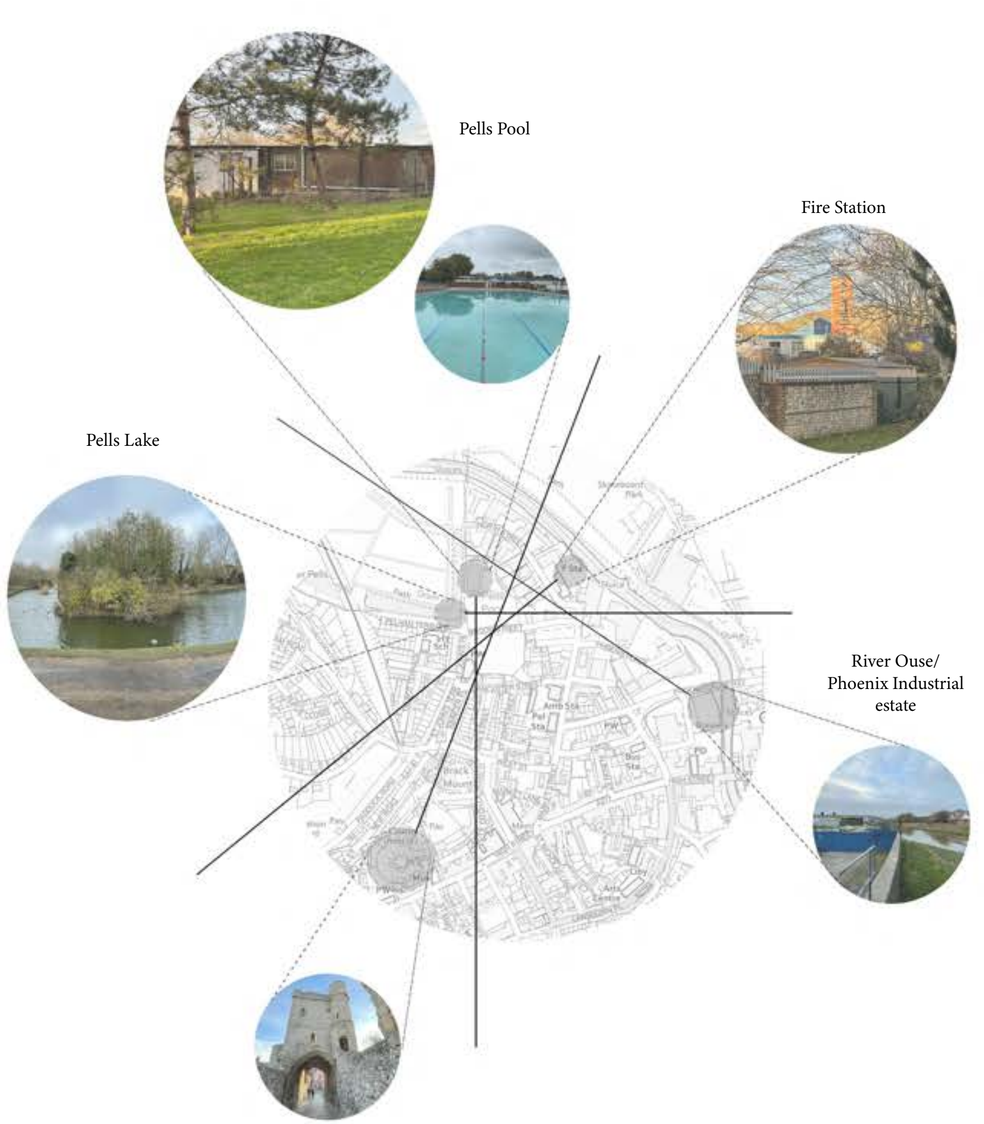
Generative Geometric Drawing

After looking at Alvar Alto and Tado Andos for inspiration, I decided to take the concept of **having shifting central points** to create that **frame views** from Alto. As well as Andos concept of architecture **dissecting the landscape** to create a generative geometric drawing to develop my design.

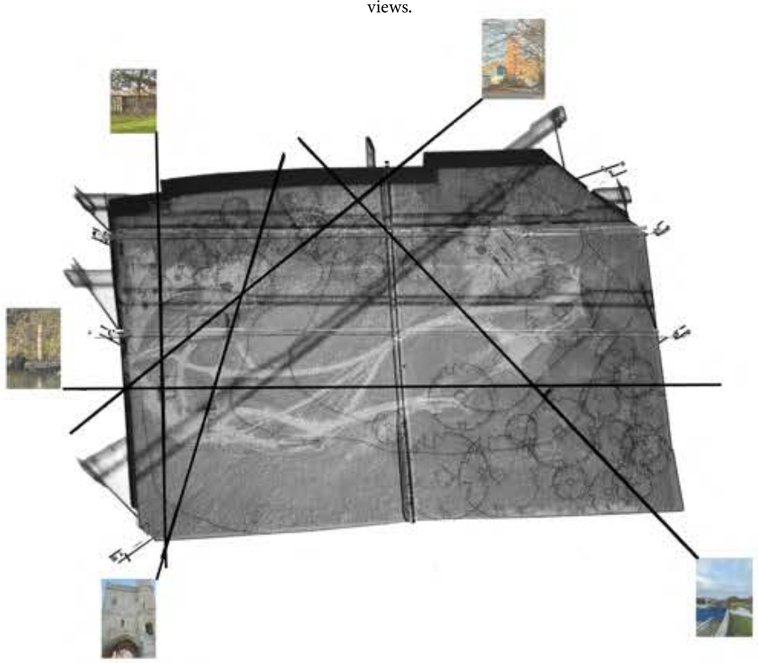
1. Model inspired by the Slow House where I took section cuts of the landscape to project their shadow onto the desire lines drawing to show the points of overlap between changing in landscape and desire points.



2. Highlighting Points of interest in Phoenix and lewes, extrapolating lines from these locations that then dissect through points of overlap between desire lines and change of landscape.



3. Generative geometric drawing to use for changing my initial design, allowing for the control of views.



Reference

Slow House by Elizabeth Diller, Ricardo Scofidio

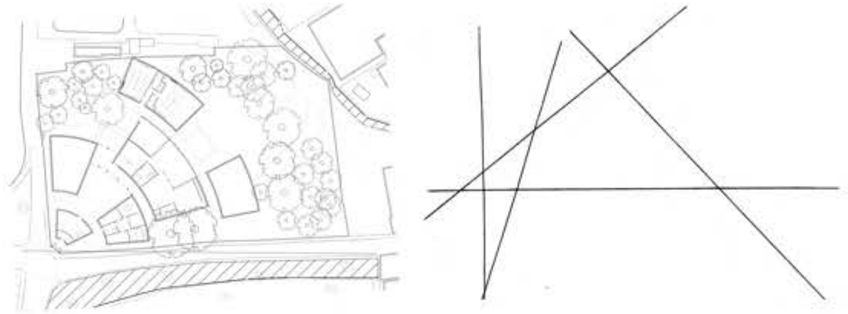
Building as a viewing device, slowing down the occupants through it's shape and playing a role with how they interact with each other in the building and revealing the window destination at the end that frames a view. The building shape is generated from a series of lines extending from a central circle.

Process of extrapolating lines from points of interest on site to Pells Park

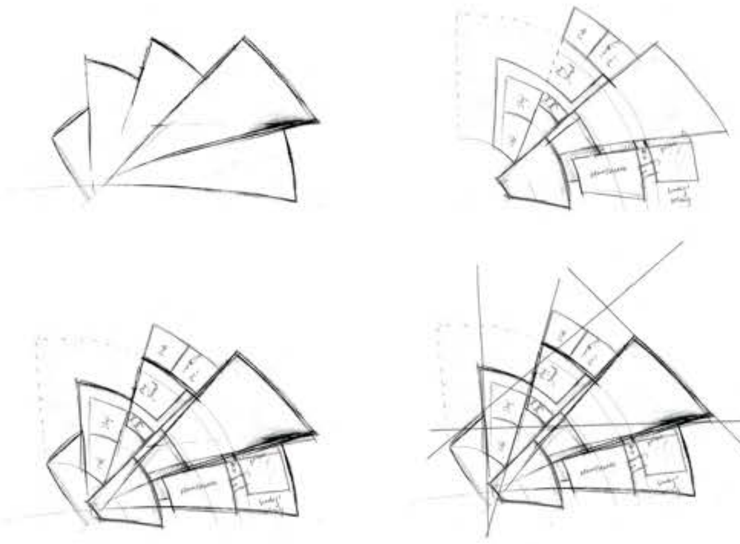
The centre has a 1:500 map with my buildings located on desire points with the contour lines and the sheets on the side are labelled with the names of each location and are placed in the direction they're located in relation to site.

Design iteration based on Generative Geometric Drawing

Placing generative geometric drawing on initial design with contour lines

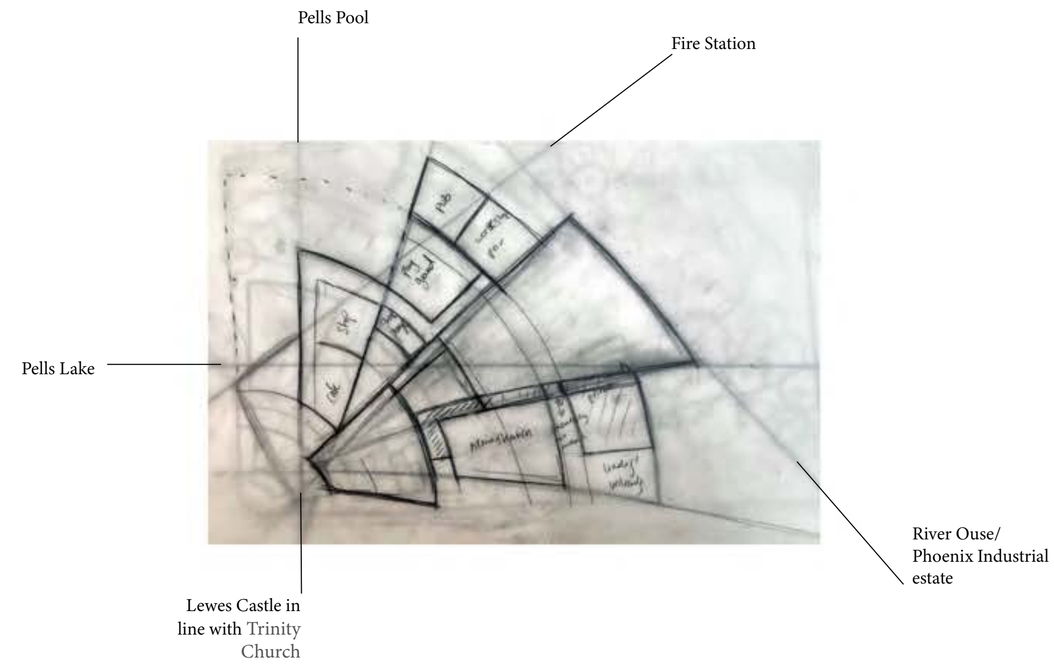


Converting buildings into **fan shapes** inspired by Alto , that create view points due to the **shifting of central points as one moves** through the architecture.



Incorporating **walkways** to generate/ **framed exterior spaces** too.

Dotted line shows continuation of playground extent.



Reference

Alvar Alto

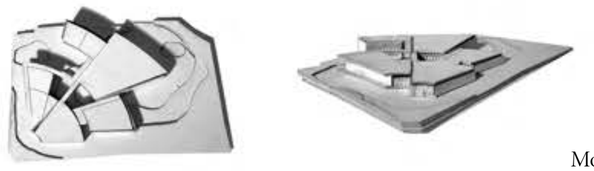
Slowly expanding central points shifting but relating to each other, creating fan shapes with peak points of views and allowing light into the structure.

Tado Ando

Uses Simple Geometric shapes to form his buildings, placing importance on light, wind and the walls to either shield or allow nature into the structure. Ando also integrates architecture with landscape and water to create a project that's both universal in its appeal and specific to its place.

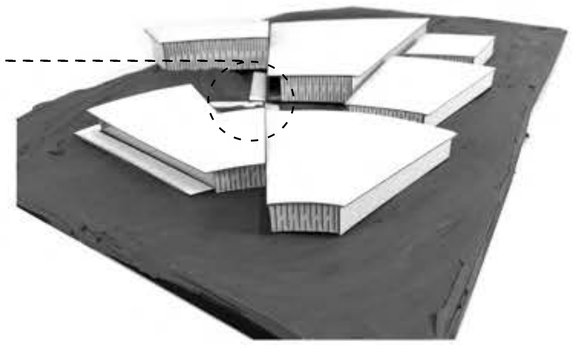
Developing First Floor design

I initially began with a sketch model to test how the design generated would work on the landscape



Model at 1:500

There's a drop in height between workshop and exhibition where the ground changes level

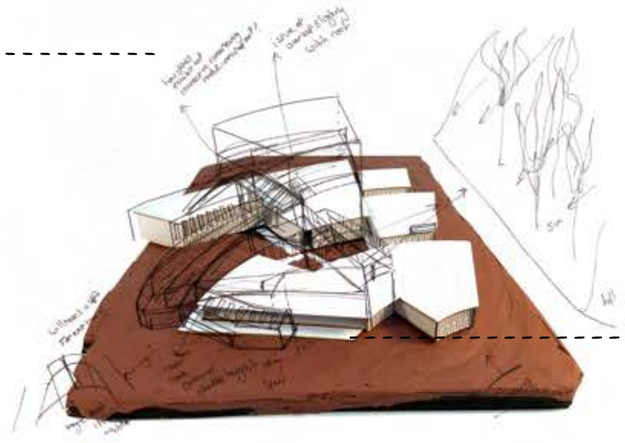


I then decided to move up a scale to add a mouldable surface on the landscape and place the buildings onto it to see the relationship between the different heights of the buildings and the influence of the landscape on it as I didn't want to shift the landscape.

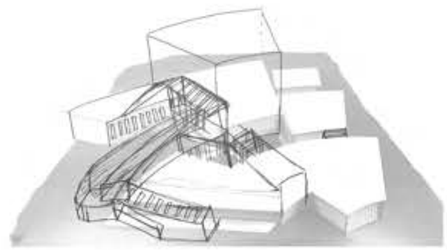
The entrance is 3m high meanwhile the ground floor for the exhibition is 4m high but they look like they're the same height. Meaning that the exhibition sits 1m below the entrance due to dip in landscape.

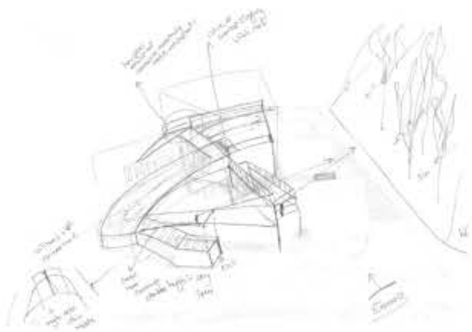
Model at 1:200

Identifying issues with how buildings would connect with a roof



This allowed me to begin developing the First floor and use the walkway developed as the exit from the top, leading to the view of Pells Lake.



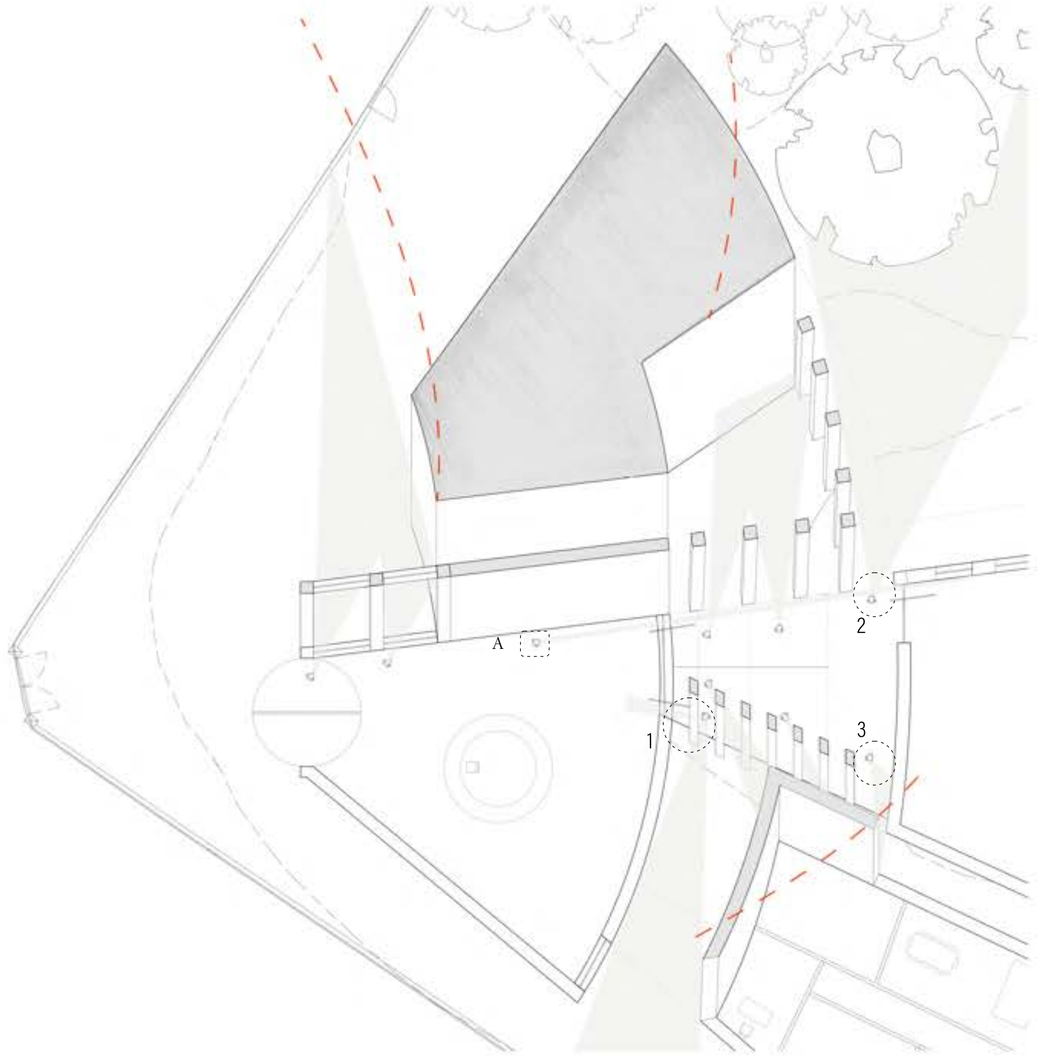


Imagining Myself Walking Though the Spaces

Peter Salter designs spaces based on how people would occupy and **experience a space**. In Walmer yard he paid attention to the **crafting details** of the building and choice of materials in order to create a sensory experience for the occupants.

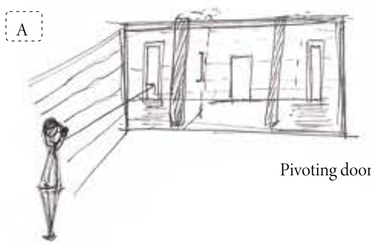
Inspired by his process, I imaged myself walking through the space and began thinking about crafting the **details of windows** and openings such as having **pivoting doors** that allow **views** from one building to another.

I then imagined where walls would **interrupt the views** or feel too close and began **cutting through them** as a way to develop my design.



Design concept: Views as shadow breaks separating where curved walls meet straight walls.

Seeing Through opening of door onto the window of next building



Pivoting door

Unwanted views

1 View of workers in administration circulating inside and out the building to give them privacy.

2 View of playground so kids won't be distracted before going into the museum.

3 View into walkway for transporting exhibits into the museum.

Views

Cutting lines

Scale 1:100

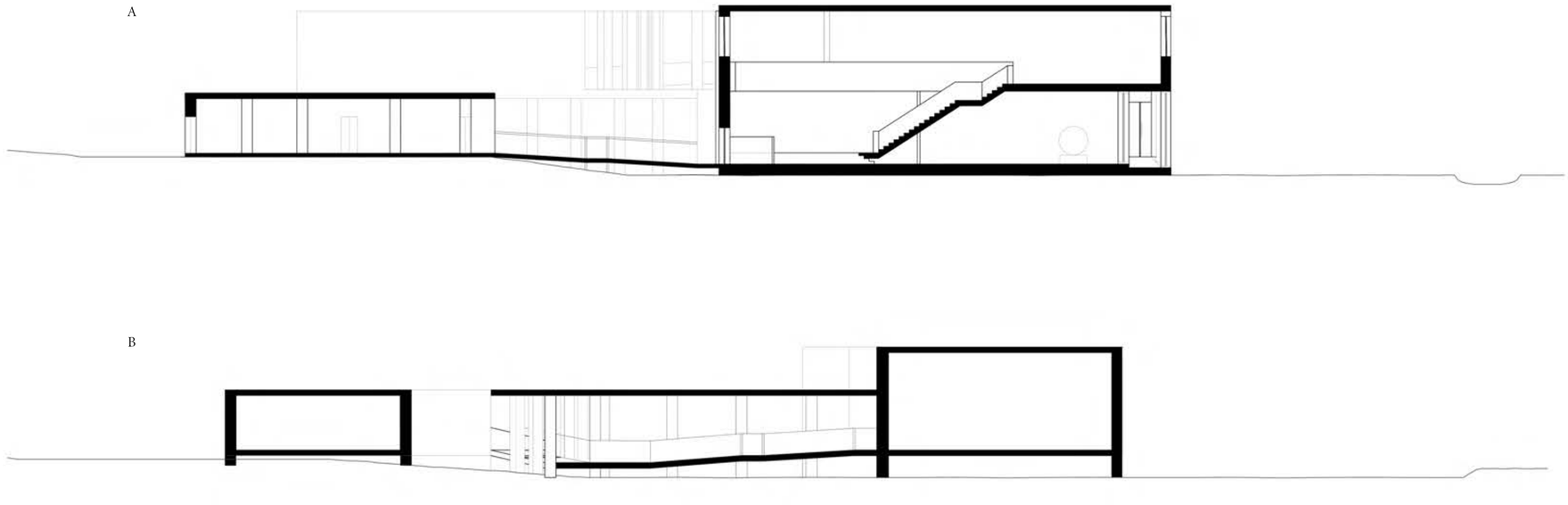
Reference

Walmer yard by Peter Salter

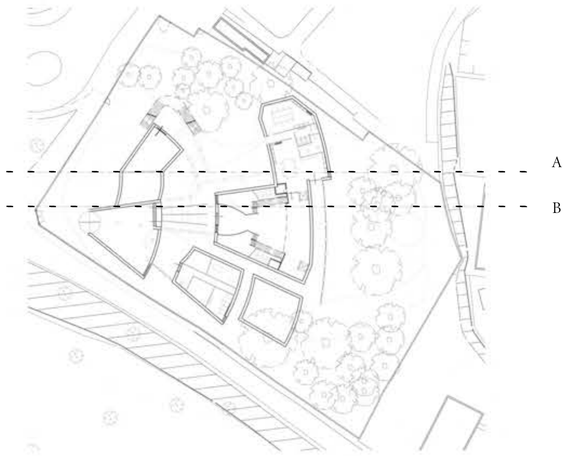
Walmer yard was crafted through the choice of material and the way it connected, the process of making the building itself was a process of communication and coordination of craftsmen who set out the process of making and remaking until the correct detail was achieved.
Where a choice of leaving some materials in their natural form enriched the detailing and the crafting qualities of the building.
Where a learning process takes place through the making and remaking of details, as craftsmanship is the ability to produce detail precisely.

Making the detailing of the building educate the builders of craft too.

Sections of Developing Design



Plan not to scale



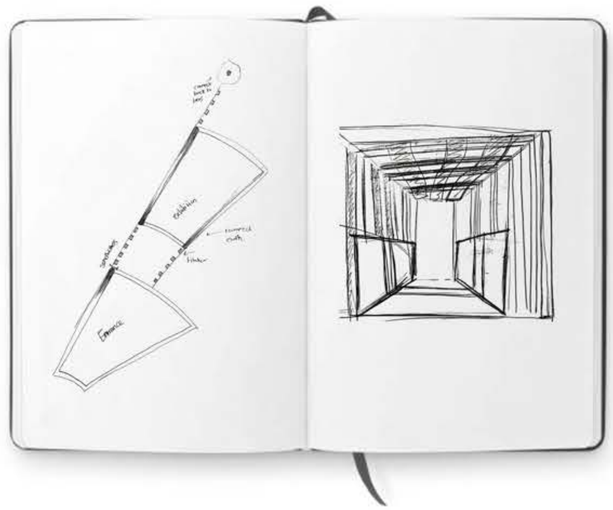
Scale 1:150

In response to the working model, I created ramps that look like 'floating' walkways **mimicking the landscape** that connect the buildings together using **pillars** that are the **same thickness** as **rammed earth** to make them appear to **continue from the walls** but are cut through to act as thresholds of semi interior/ exterior space.

I also decided to use **timber** for them, as I was inspired by the tree-house to use a shift of materials for thresholds which continue to connect to the **trees**.

Rammed Earth Converting to timber pillars for walkways and fade into the trees on site concept sketch

Walkway view moving from entrance to exhibition concept sketch



Reference

Pillars for walkways

Change of materiality for thresholds

Developing Design
Ground Floor

Spaces in Museum

A: Entrance

B: Study Room

C: Cafe

D: Administration

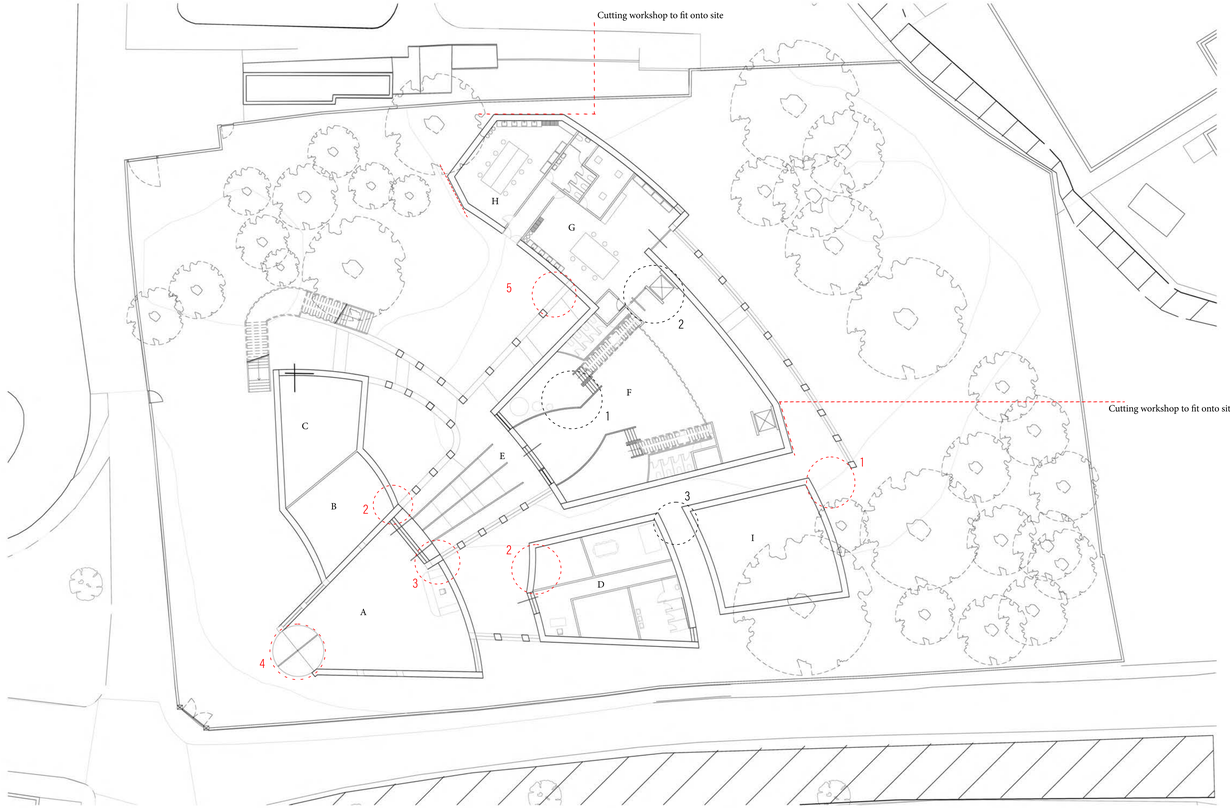
E: Walkway

F: Exhibition

G: Workshop for Workers

H: Workshop for Kids

I: Storage



Private circulation for workers

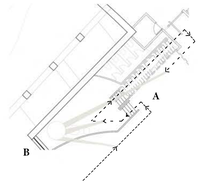
Views

Scale: 1:150

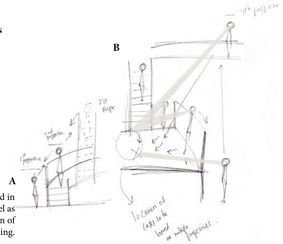
Design Development:

1

Stairs as an experience: Allowing views of casts from different perspectives



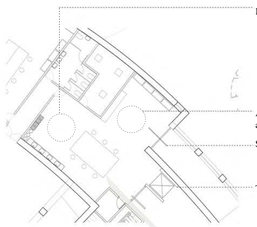
Stairs face away from entrance to directs visitors onto exhibit space before welcoming them onto stairs.



1m high raised in between level as an extension of the stair landing.

2

Modified Workshop as Part of the Museum



Keeping circulation space for casting

Allowing more circulation space in front of timber and storage

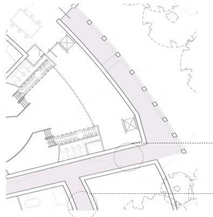
Shifting main Access to the Workshop

Two side lift for multi-use, workers and the public.

Window Allow a 'peak' into the workshop

3

Private workers and cast circulation space



Potential for adding opening for casts to be transferred from storage to exhibition/ from workshop to storage.

Potential for direct access from administration to the storage.

Design points to improve:

1 Need to add loading and non-laoding space.

2 The irregularity of the cuts make it difficult to control the space, therefore, ill be shifting the walls instead to make them aligned with walls from other buildings or mimic the shape of near by walls.

3 Kids might walk through the opening of the pivoting door which may be hazardous.

4 Need to extend the walkway to the point where it's levelled with the ground.

5 Need to reduce the size of pivoting door.

Reference

Experience of space through movement

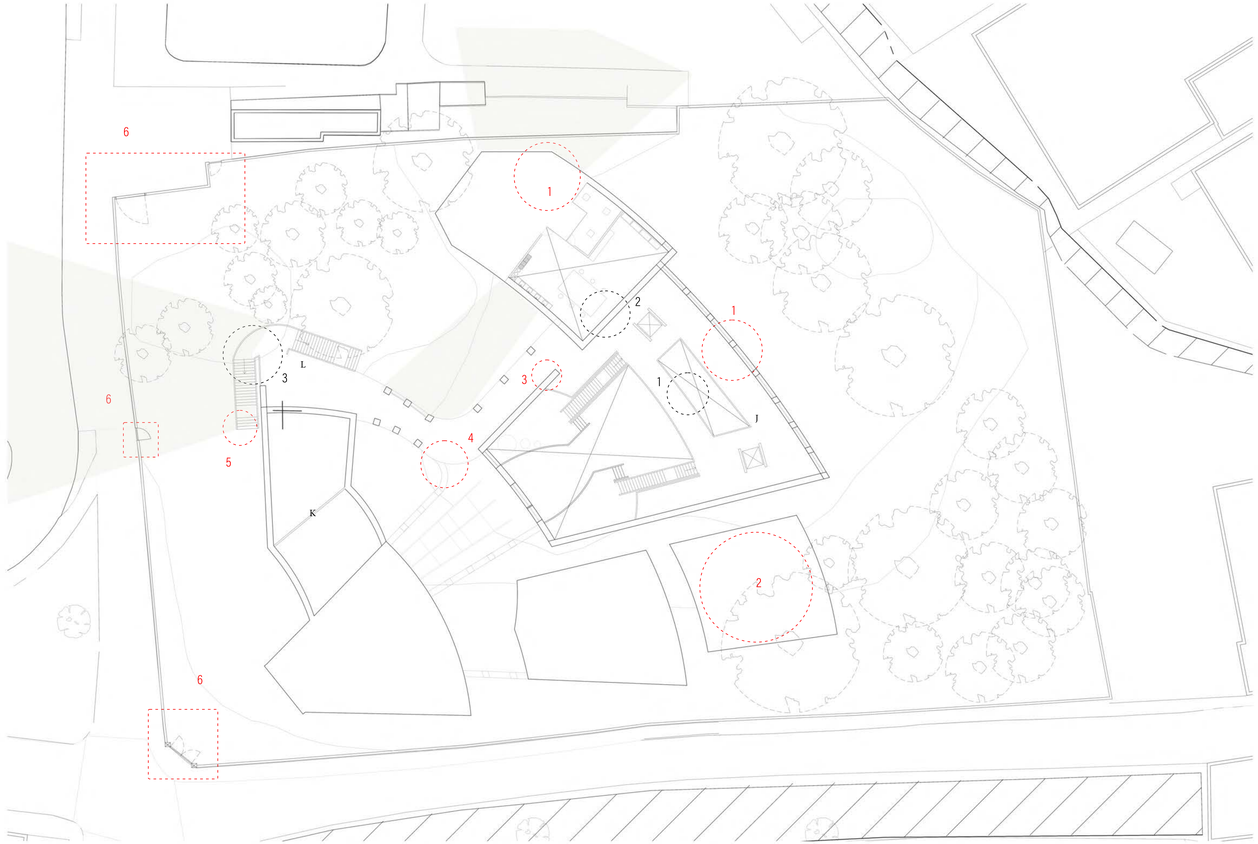
Developing Design
First Floor

Spaces in Museum

J: First Floor Exhibition
Allows for view of casts from level below at different perspectives.
Reveals view of working process (workshop).

K: Shop and it's storage

L: Exit
Framed view of Pells lake



Views

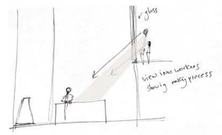
Scale: 1:150

Design Development:

1

Middle opening to allow for view of casts from different perspectives

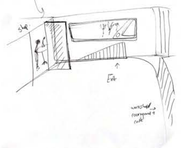
2



Glass Facade allowing the view of the work-shop without disturbing workers.

3

Walkway allowing view of playground and kids workshop.



Shop followed by exit. two staircases, giving option of leaving or going to playground/ workshop.

Design points to improve:

1 Space above workshop is wasted and will make it difficult to design a roof, plus extra spaces on the above exhibit is needed, therefore will use it to increase exhibit space.

2 Storage needs to be larger to fit the casts in the museum.

3 Need to increase opening to the walkway to allow more people.

4 Overlapping of walkway doesn't work due to the irregularity of the walkways shape.

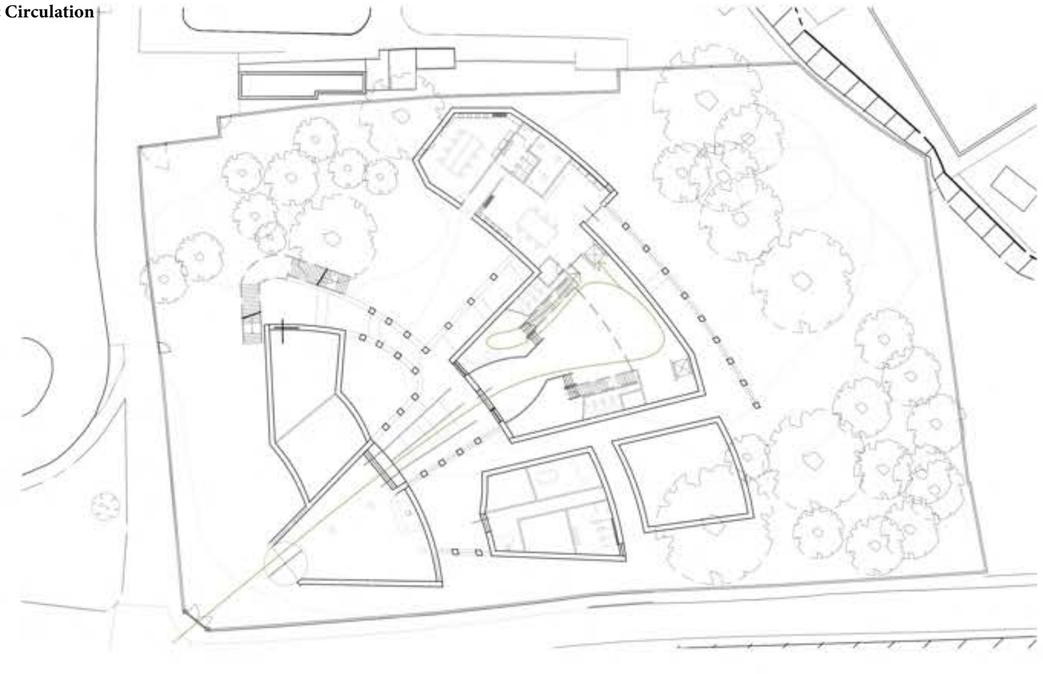
5 Stairs would be better if they're facing pells lake.

6 Need to reduce access points to site for security.
Having different entrance and exit points from site might be confusing for visitors.

Circulation Around developing Scheme

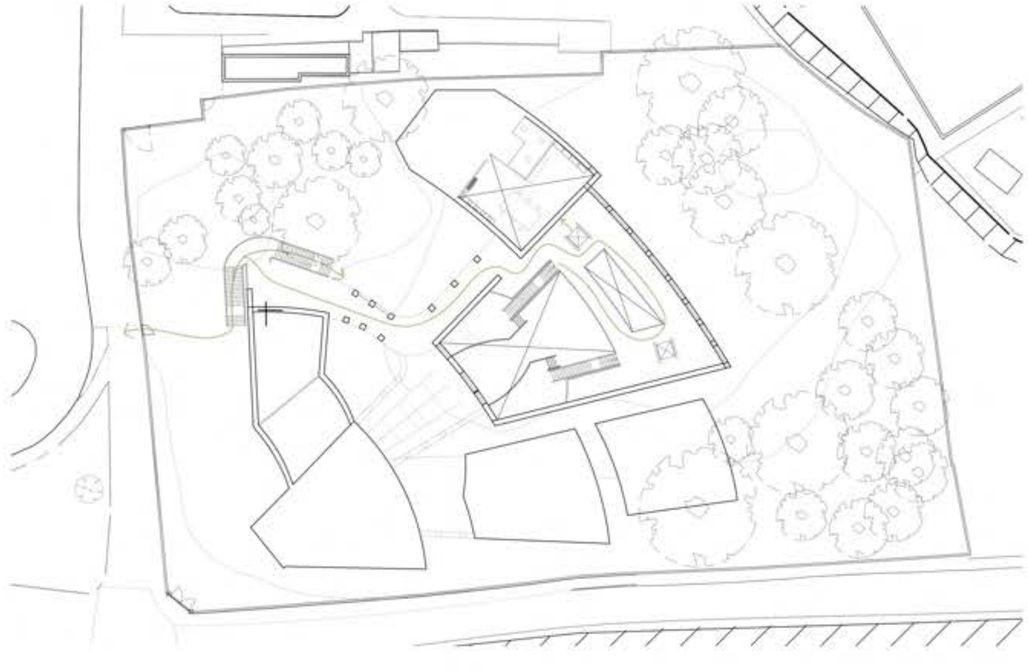
Ground Floor

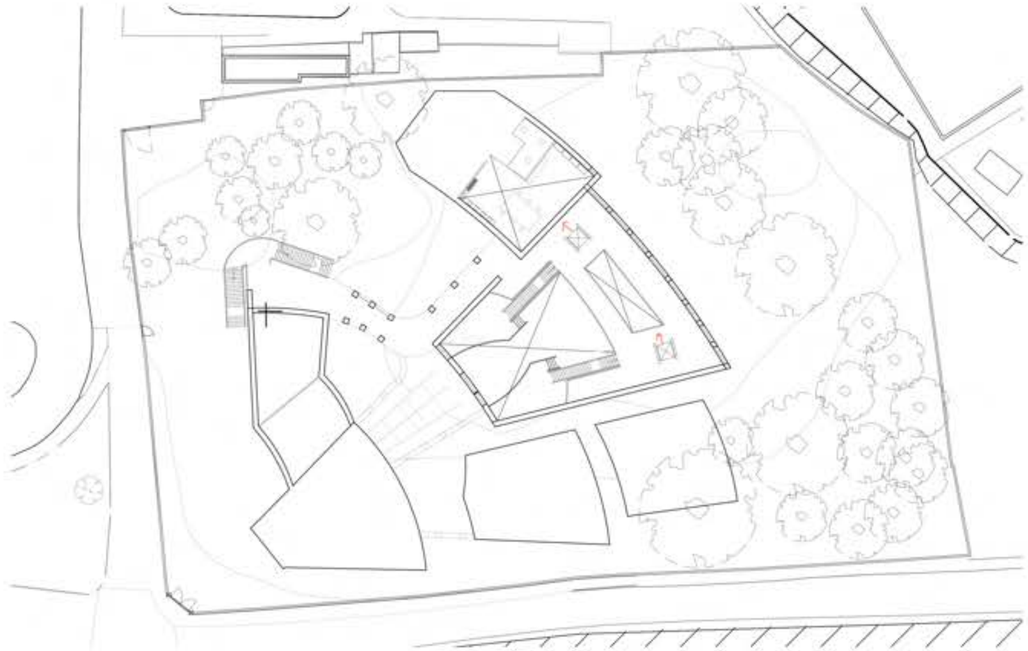
Public Circulation



Private Circulation/ route for casts into exhibit/ storage

First Floor

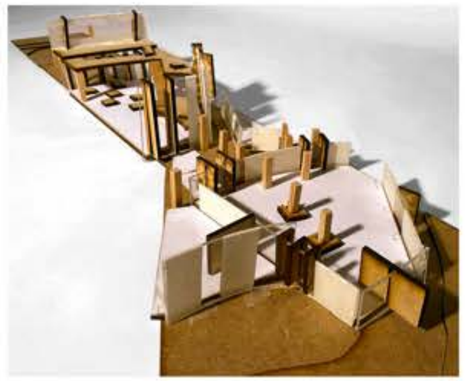




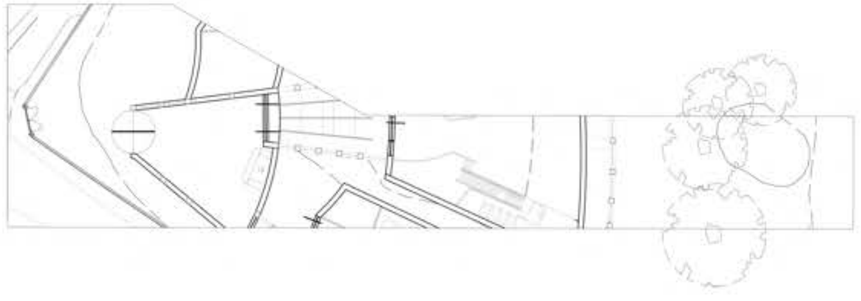
N

Working Sectional Model at 1:100

I in order to **locate windows** and **design the details** of the museum based on **materials** I decided to zoom into the entrance and exhibition space and include some of the study room and administration to get a sense of the **relationship between spaces** and the exterior walkways.



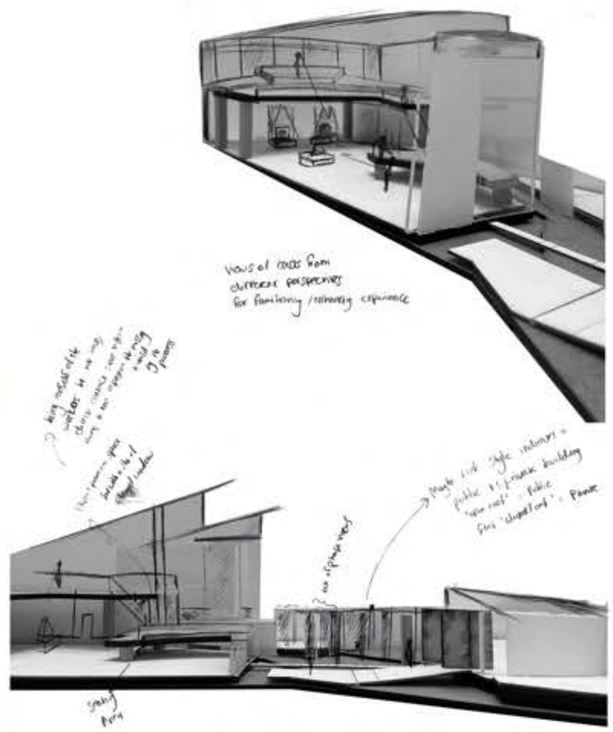
Section Cut



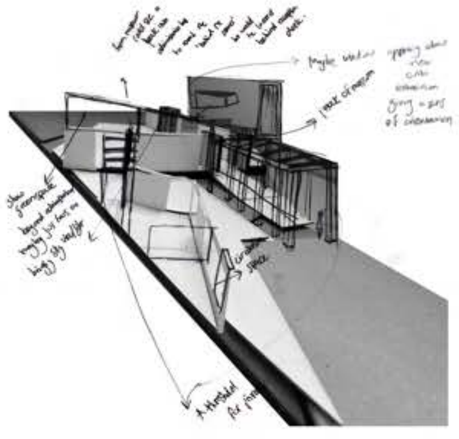
Scale 1:100

The Making Process

Model language: To make the model flexible I used tape where I wanted to block views with rammed earth walls and left the transparent acrylic to locate the windows.

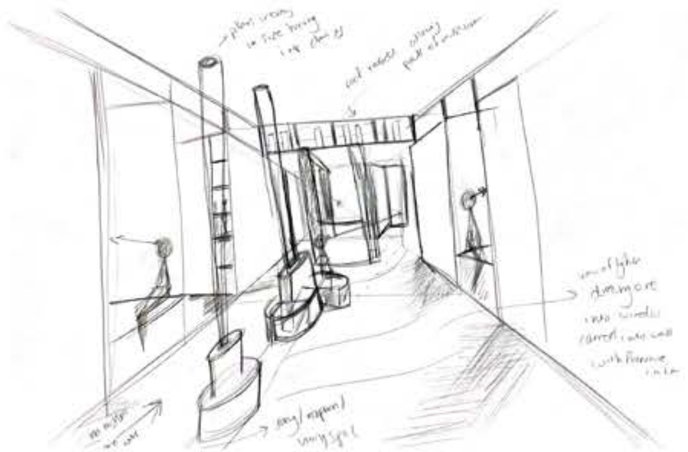


During the making I took photos and sketched on top of them some ideas I got and any issues that I spotted



Crafting Details for engaging experiences and working out errors

Windows as an experience

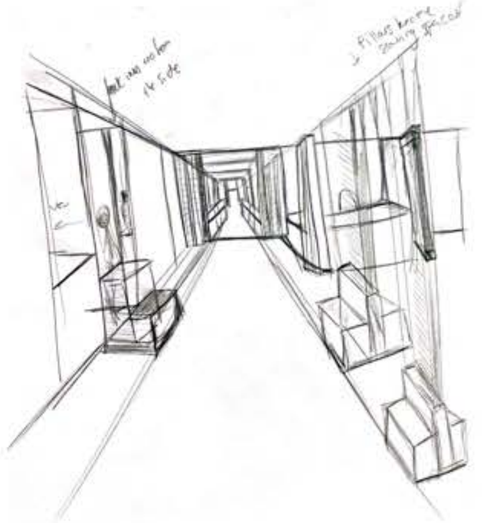


I decided to have **rammed earth walls** coming out of the structure wall at different **angles and lengths** where windows are to **control the views**. Either **framing** them or **redirecting** viewers away.

Model language: To represent the thickness of rammed earth I've added it's thickness from the interior and then added the extra length it would extend on the exterior of the window

This also means that on arrival, visitors would see the **light** coming from the windows but not the windows, **guiding them** towards them, acting as **desire points,** while waiting to enter the museum.

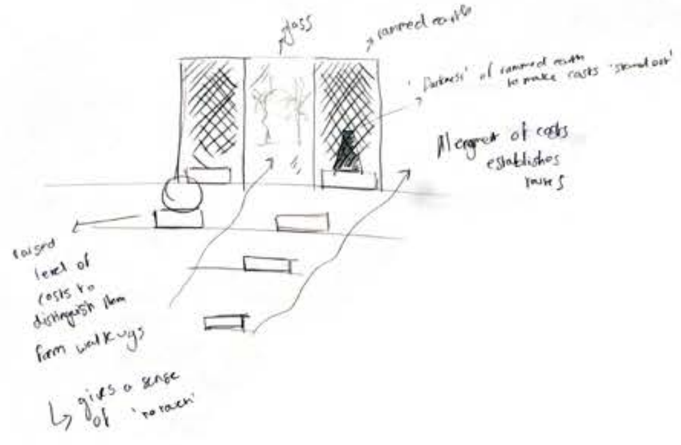
Architecture converting into furniture.



The **thickness of rammed earth** allows for **seating spaces** by the windows.

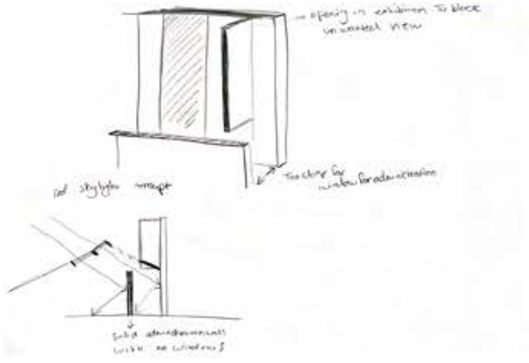
I also decided to continue the **timber pillars** from the walkways into the **interior** of the entrance and exhibition but turned them **into furniture,** creating a **threshold** between the **interior spaces and walkway** spaces of the building.

Locating casts based on circulation



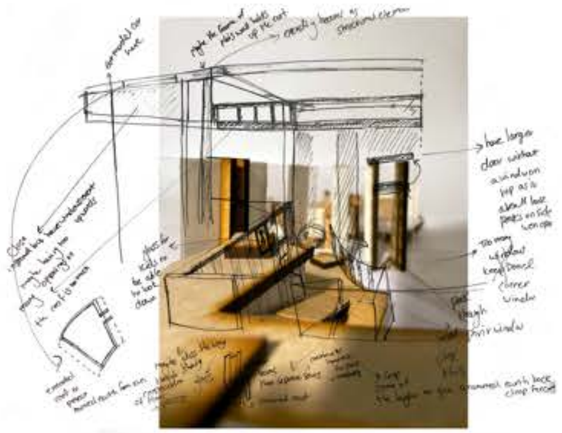
Making the casts out of phase for a **shift in background** based on the **viewed perspective**, between rammed earth and the outside and to **carve** out a **circulation route.**
Raising the casts on **plinths** made from rammed earth and finished with timber to give it a sense of being **raised** from the **architecture.**

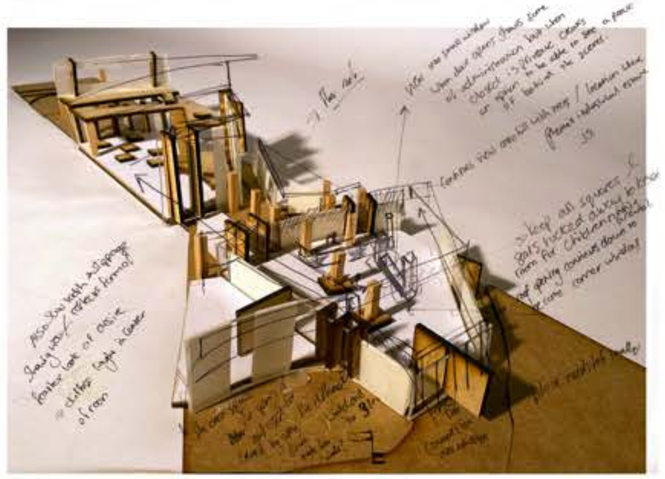
Resolving Design error

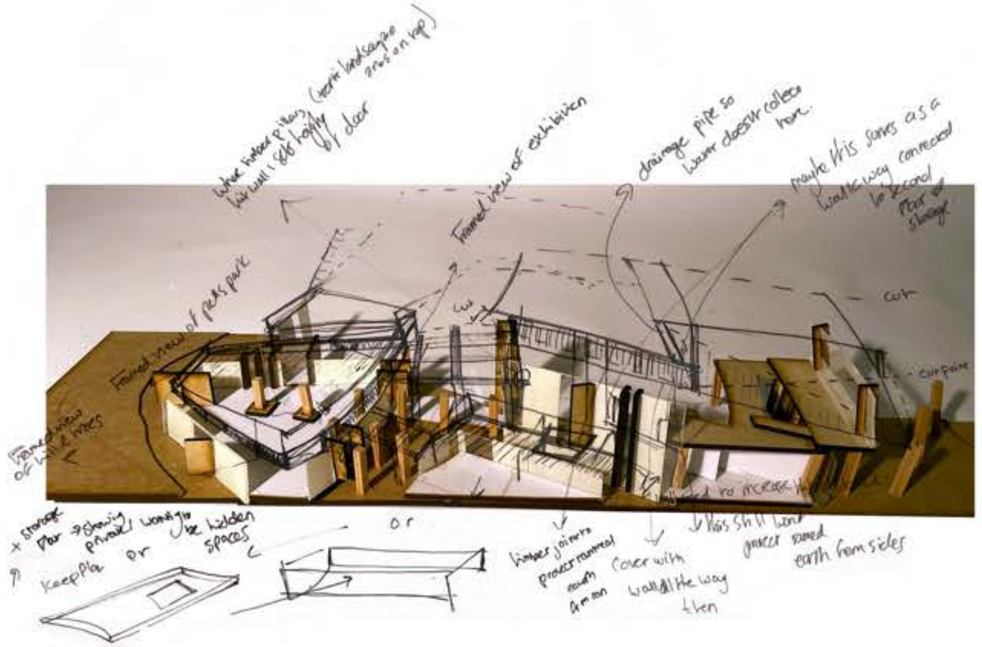


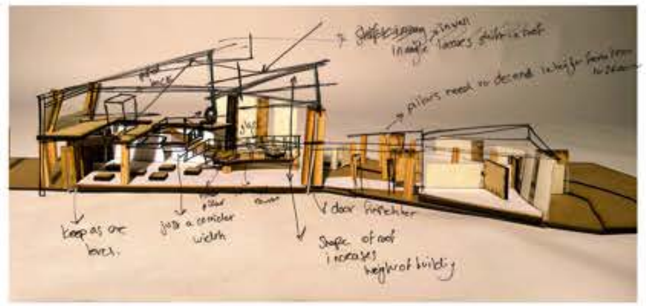
Window as a distraction, redirecting viewers away from the storage and administration. In doing so, I've noticed the error in relation between the administration building, exhibition and walkway, where they're too close for me to locate windows in that zone and the walkway in between blurs the lines between the private and public circulation.

Developing a roof







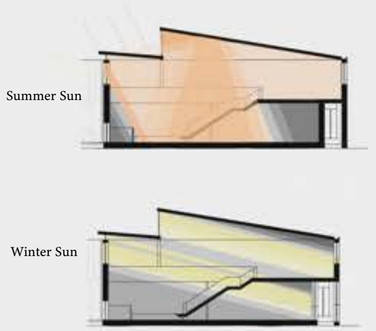


Considering the shape of the architecture is complex, I decided to chose a simple roof. Using Altos concept of shifting central points to create **fan shapes for views,** I decided to use a **saw tooth roof with a reflective surface**, allowing for views of the site and an evenly **diffused light.**

The angle of the roof also prevents rainwater from touching the top of the rammed earth walls. The roof will need to extend a meter from the walls for further protection from rain.

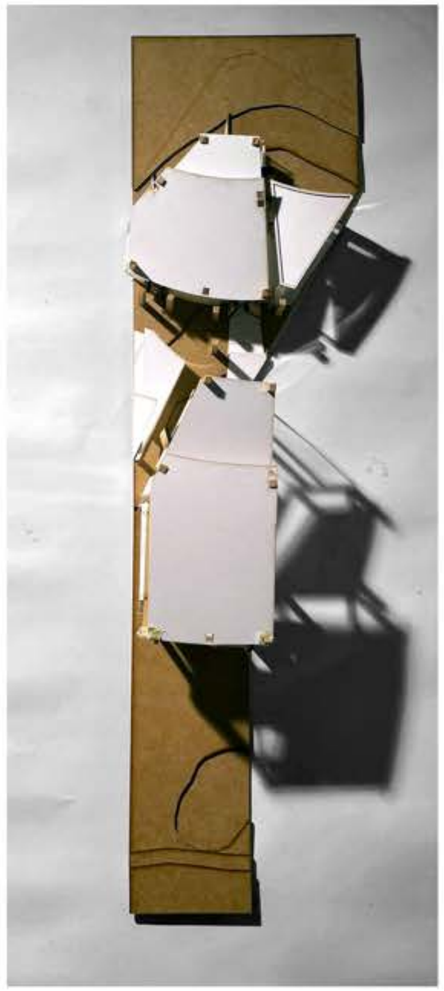
Reference

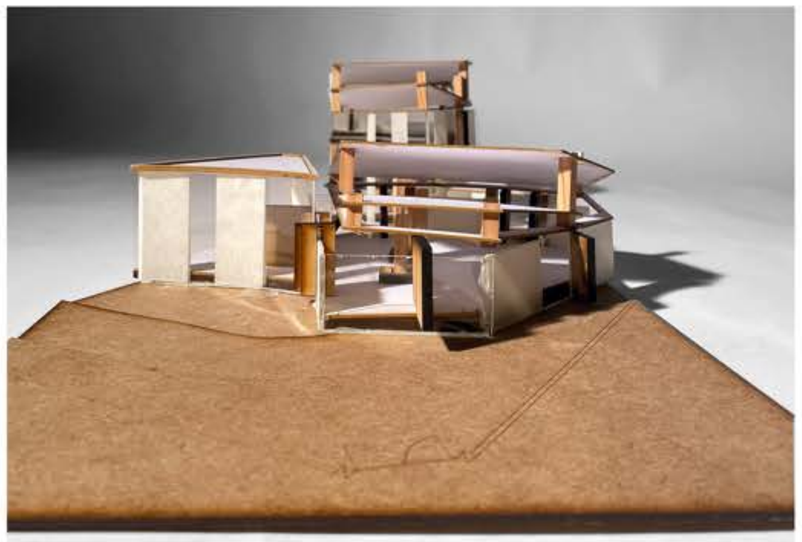
Saw tooth roof with a diffused reflective surface that redirects light down to spaces evenly



Graphics submitted for the technology module.
The orientation of the building allows directional winter sun which could highlight the texture of the casts.

Testing the Technology of the Roof





Final Annotated Ground Floor
1:100

Spaces

1. Entrance
Viewing space.

2. Study Room
Carper flooring for quietness.

3. Cafe
Timber floor finish

4. Exterior Seating Space for Cafe

5. Threshold Walkway (Public)

6. Exterior space accessible by the administration building for maintaining plants for viewing in museum.

7. Threshold Walkway (Private), direct route from administration to reception.

8. Administration Building (Private).
Timber floor finish

9. Loading and unloading zone (private).

10. Storage for casts with a movable racking system to increase the capacity of the space to hold casts in.
Rubber Flooring.

11. Threshold walkway for transportation of casts between storage, exhibition and workshop. Also private entrance for workers in administration and the workshop.

12. Exhibition space, point of private entrance for casts.

13. Cleaning Facilities room.

14. Workshop (private) but visible as part of the exhibition - the revealing of the process.
Rubber floor finish.

15. Workshop for kids (public).
Rubber floor finish.

16. Benches that extend from timber pillars from the walkways.

17. Playground zone surrounded by a paved pathway, connecting to route to benches at the back.

18. Exit, view to pells lake.

19. Seating zone around plant pots with paving due to being an activity area, as it's near the cafe and playground. it's also accessible without the need to visit the museum.

20. Trees separating the pathway between the entrance to the museum and the activity zone/ playground.

Views

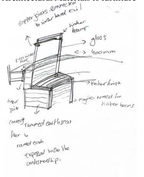
N

Scale 1:100

Main Design Concepts

A

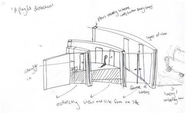
Architectural Materials to furniture



Timber pillers becoming seats. This sketch shows the seats by the exhibition stairs where the timber finishes on the seats and the baluster becomes glass to allow for views

Windows as an Experience and/or a Distraction

B

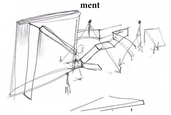


Initially the loading and unloading zone was visible from the entrance therefore, I designed the windows to be angles away from them into the view of trees around site.

I used the space these windows created for seating to crate a small space for the 'window experience'

Experience of Space Through movement

D

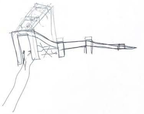


Continuing the concept of stairs as an experience and linking it to the openings on the top floor.

Inspired by Van Eyck playgrounds I created lines offset from the walls and used them as a guide to create a walking route that allows multiple views of the casts and then lets you take the stairs on the opposite site to the path of walking that you took, guiding you through the museum

Threshold shift marked by timber pillars connected to the trees on site.

F

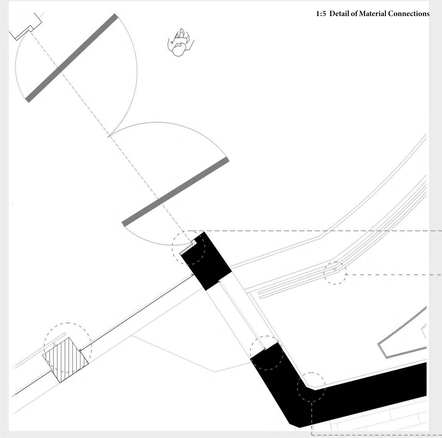


The walkway pillers turn into exterior benches and move down to the ground to connect to the trees on site.

Where the back of the site is currently only used as seating zones in contrast to the front with the playground.

C

1:5 Detail of Material Connections



Timber beam frame for pivoting door and windows placed within the rammed earth.

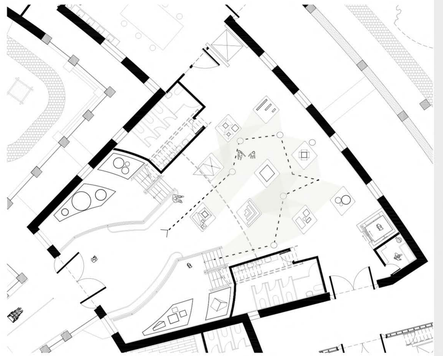
Copper Handrail.

Timber beam that connects the rammed earth and flooring exposed to create a shadow.
Rammed earth shaped around corners.
Presenting the process of crafting/making the museum.

Viewing Objects and Space from Different Perspectives

Taking the right route will result in moving up through the left staircase and vise versa.

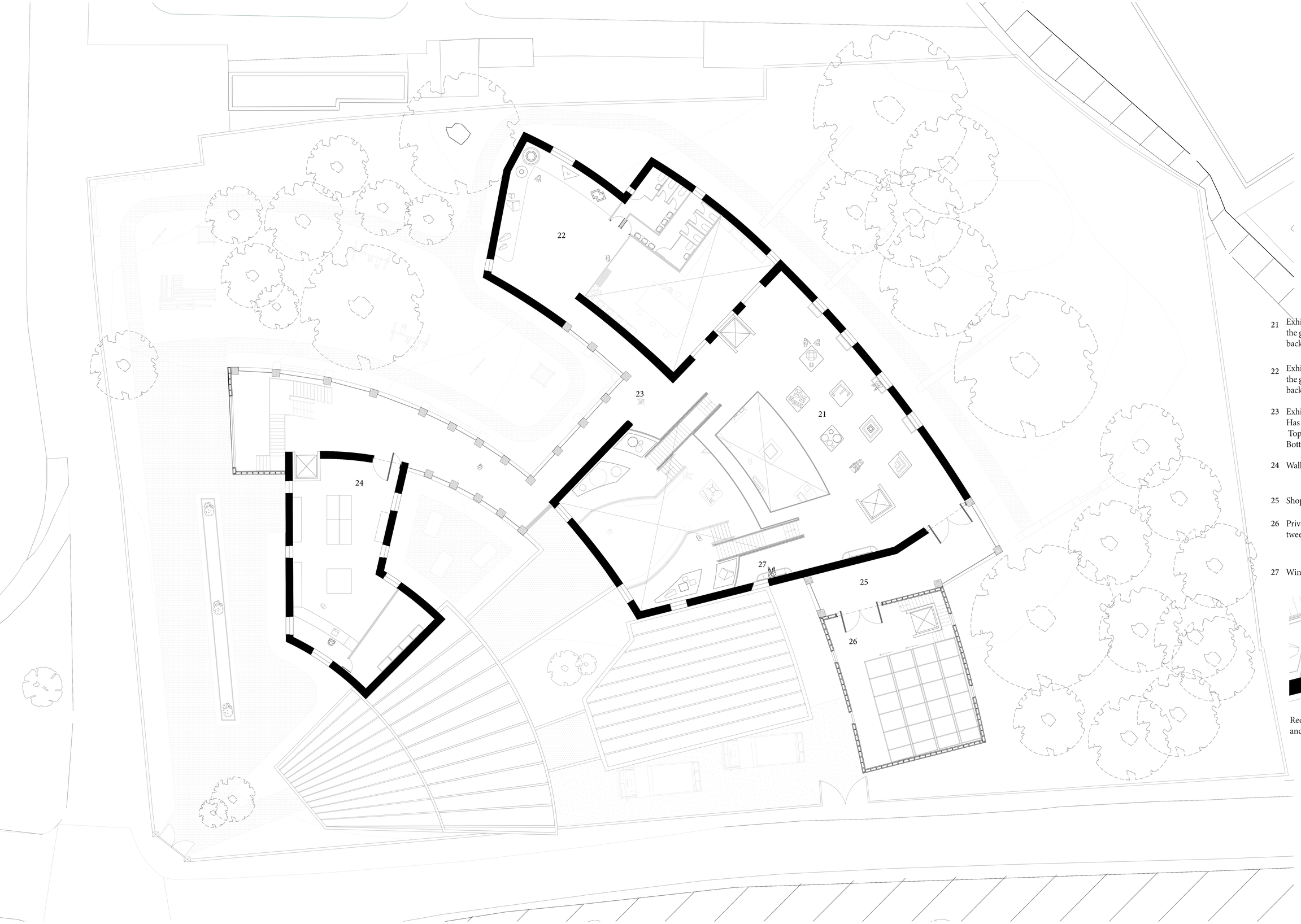
E



Reference

Van Eyck playgrounds
Where he created a grid and arranged the playground based on movement/ views at each different point within the playground.

Final Annotated First Floor
1:100



21 Exhibition space allowing views down to the ground floor, workshop and trees at the back of site.

22 Exhibition space allowing views down to the ground floor, workshop and trees at the back of site.

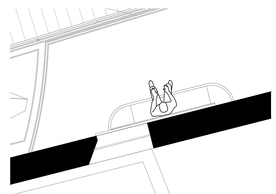
23 Exhibition space displaying work of kids. Has view down to the workshop.
Top window frames fire station view.
Bottom window frames pells lake.

24 Walkway to exit, slowly revealing pells lake.

25 Shop and it's storage.

26 Private walkway for transporting casts between storage and exhibit.

27 Window as a distraction at 1:50

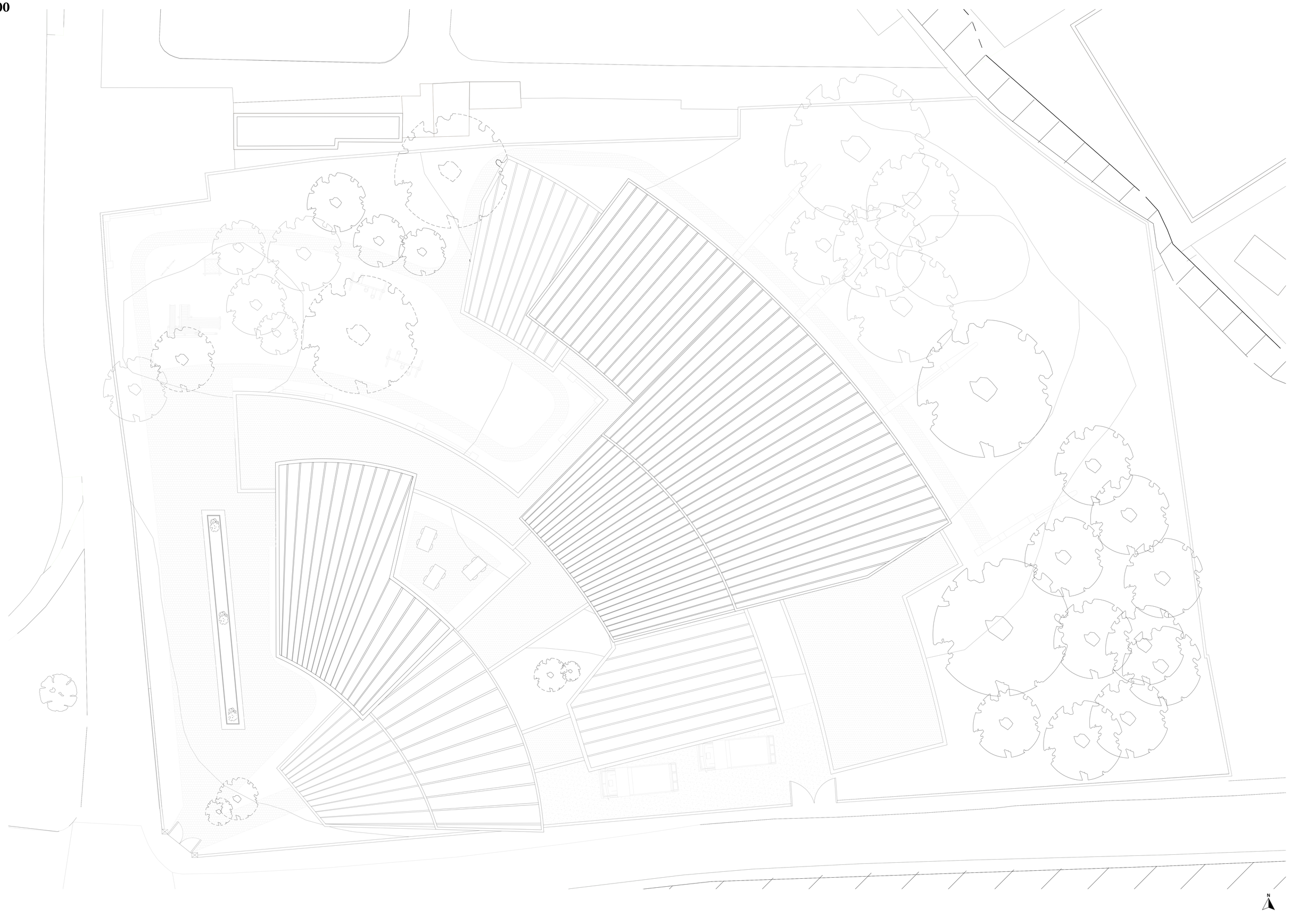


Redirecting viewers from view of roof below and the loading/ non-loading zone.

Scale 1:100

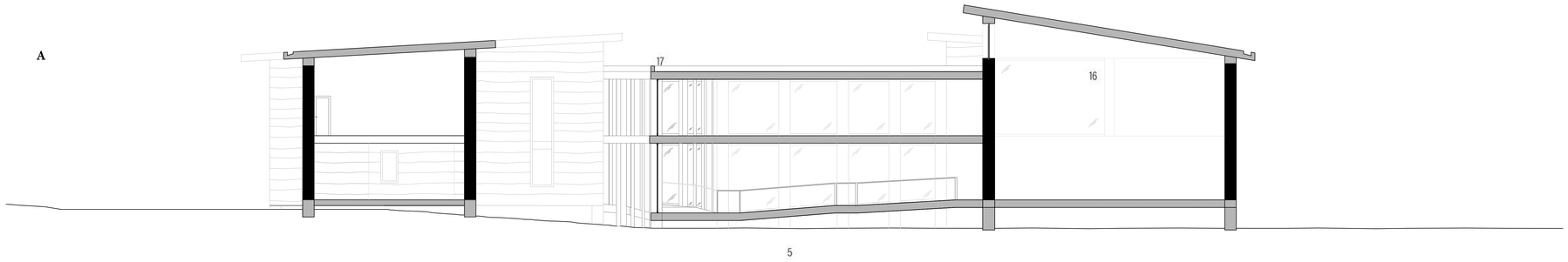
N

Final Roof plan
1:100

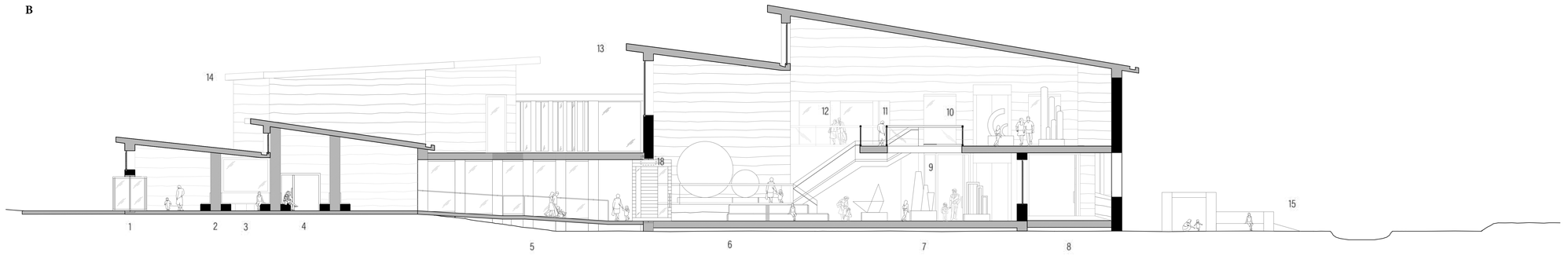


Final Annotated Spacial Sections at 1:100

A



B



Section cuts

Scale 1:100

1 Rotating glass entrance door.

2 Timber Pillers with rammed earth at the bottom, finished with Shou Sugi Ban finish to create seating benches, a blur of exterior elements into interior.

3 Seating extended from the windows for an experience of view, with the same material language as the seats from the pillars.

4 Pivoting doors, creating shadows openings between where curved walls and straights walls would touch.

5 Walkway constructed from pillars and glazing, the 'in between' zone of exterior and interior.

6 Landing of staircase extending to become a middle level, allowing views from different perspectives and resting on rammed earth that becomes a seating zone.

7 Plinth made from rammed earth and timber with changing heights to add irregularity to the heights of casts.

8 Private exterior walkway for transporting of casts and workers.

9 Plinth out of phase from opening on top floor for people to move around in order to see different casts from above. Allowing them to engage with the space through movement.

10 Glazed wall, allowing view down to the workshop, revealing the making process.

11 Route onto exhibition that allows another view onto the workshop.

12 Route onto exterior walkway leading to shop and exit.

13 Exhibiting spaces have a roof opening towards the south west for views.

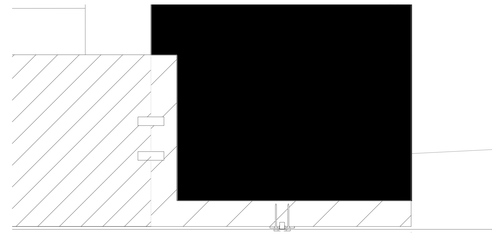
14 Non exhibiting spaces are oriented in the opposing direction to exhibits and are angled to protect rammed earth from rain.

15 Timber pillers extending into exterior benches and down to the landscape.

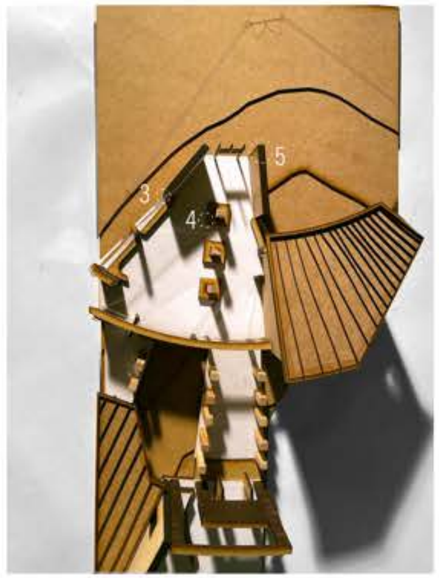
16 Glazed wall from secondary exhibit mentioned at point 11.

17 Green flat roof with timber structure for exterior walkways.

18 Details of connecting pivoting door and timber floors onto rammed earth at 1:5.



Final Model at 1:100



Materials

1 Shou Sugi Ban, Japanese burnt wood, for pillars and doors.

2 Standing seam zinc roof pre-weathered

3 Double glazed windows

4 Plinth and seats, rammed earth finished with Shou Sugi Ban

5 Rammed Earch for structure

6 Green roof for walkways

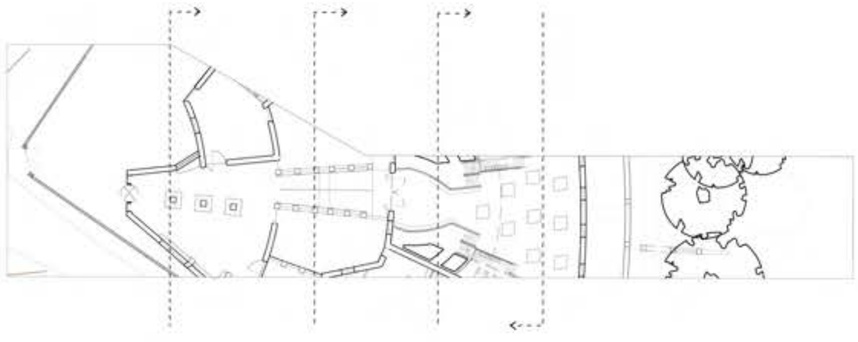
7 Beige polished concrete floor finish and stairs

8 Douglas fir for flooring structure

9 Ferrock for foundation

10 Plaster finish for interior non-load bearing walls and ceiling

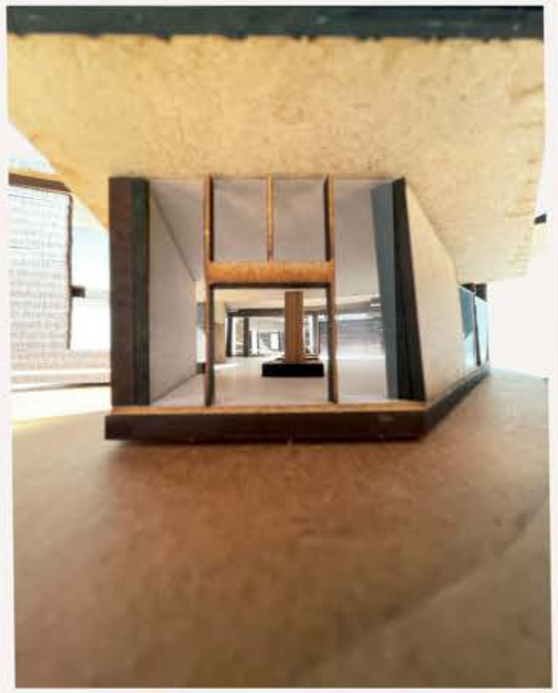
Interior Atmospheric Sections Through Model

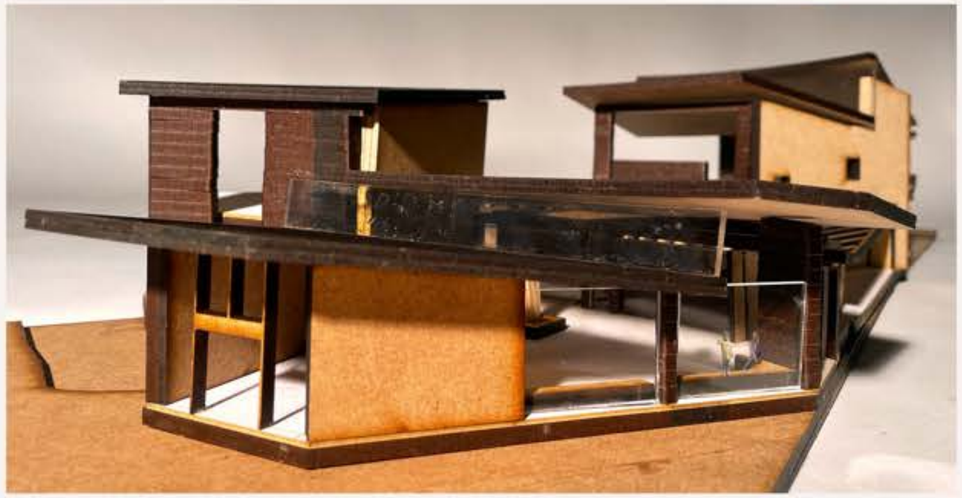


Arrows show the direction of view shown in section cuts.

Scale 1:100

Entrance
Viewing Space



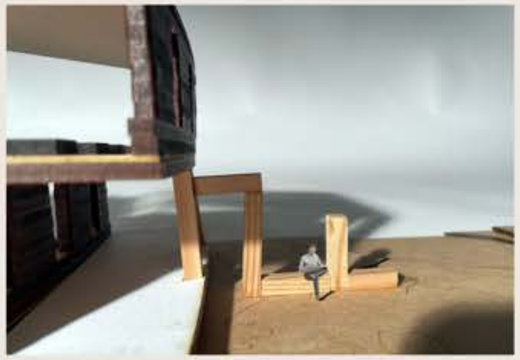


Walkway

Route From Entrance to Exhibition

Walkway between entrance and Administration

Private Workers walkway



Timber pillars shift into benches connecting to the trees on site

Exhibition Space

Shifting Views Through route through stairs

Materials for balustrade

1 Shou Sugi Ban, bottom support/ finish for floor structure and for the top.

Double glazing

Copper for stairs handle

Atmospheric Final Section on Site
1:200

Scale: 1:200

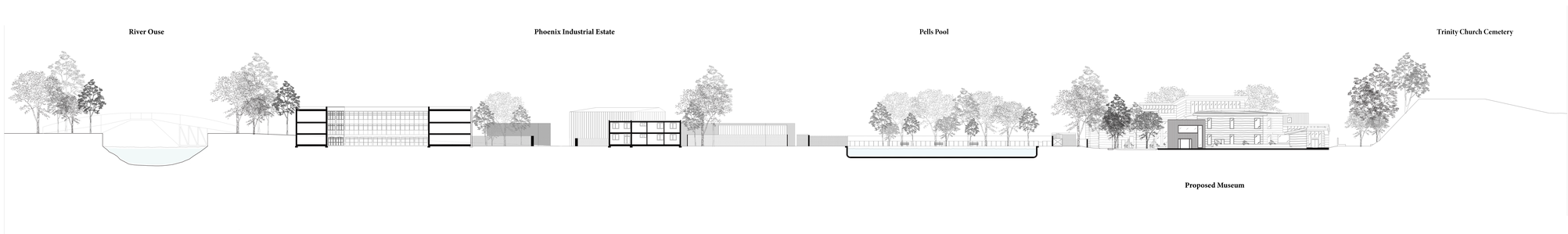
Building with Site Context

Scale 1:500

Section Cut

Atmospheric Final Elevation on Site
1:100

Final Stretch of Site Section
1:200



Scale 1:200