

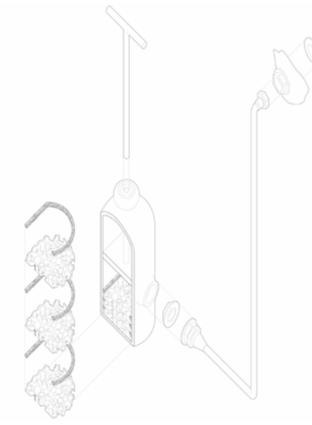


“The Scents of Sussex”

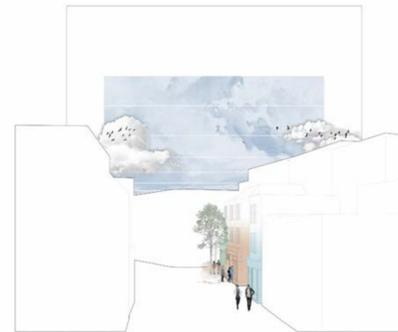
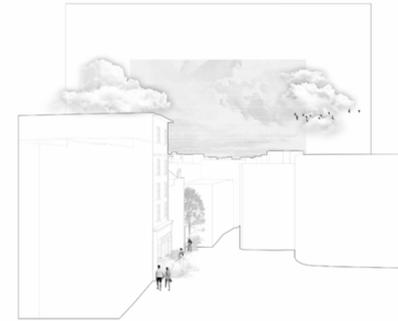
*Studio 11*  
*Andy Connacher*

Thesis; Term One Project

In term one, the studio brief was to investigate pleasure and our interpretation of it on site in the city of Brighton & Hove. My first experience on site was the pleasant aroma of the local perfume shops and, henceforth, I decided to pursue the task of modelling scent. In doing so, I constructed a device with the aim of making people stop and consider the scents present on site that they may have become desensitized to. This was concluded as a synthesis drawing which used the device as a model for scent as people would begin to form territories around the user of the device which would loosely equate to the radius of the scent, giving rise to interesting spatial territories.



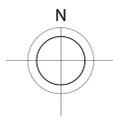
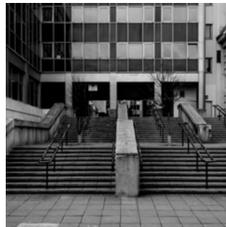
*Device; the Nasal Palate Cleanser*



*Synthesis Drawing: Formation of Territories Culminated from use of the Device + Aromas on Site*

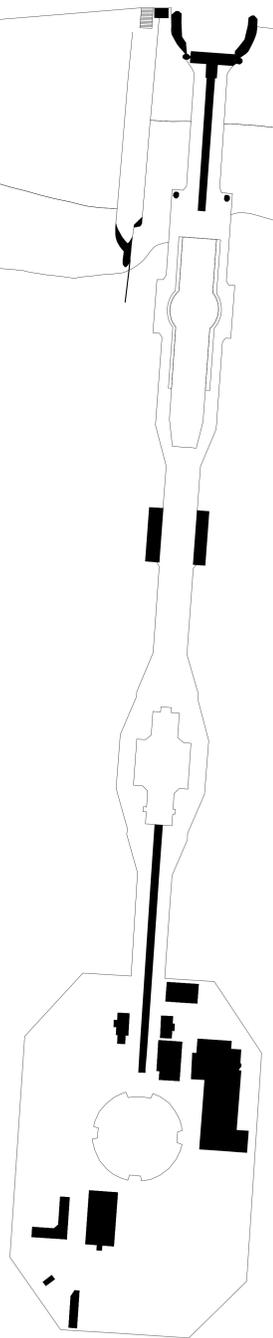
Term One

Site Research



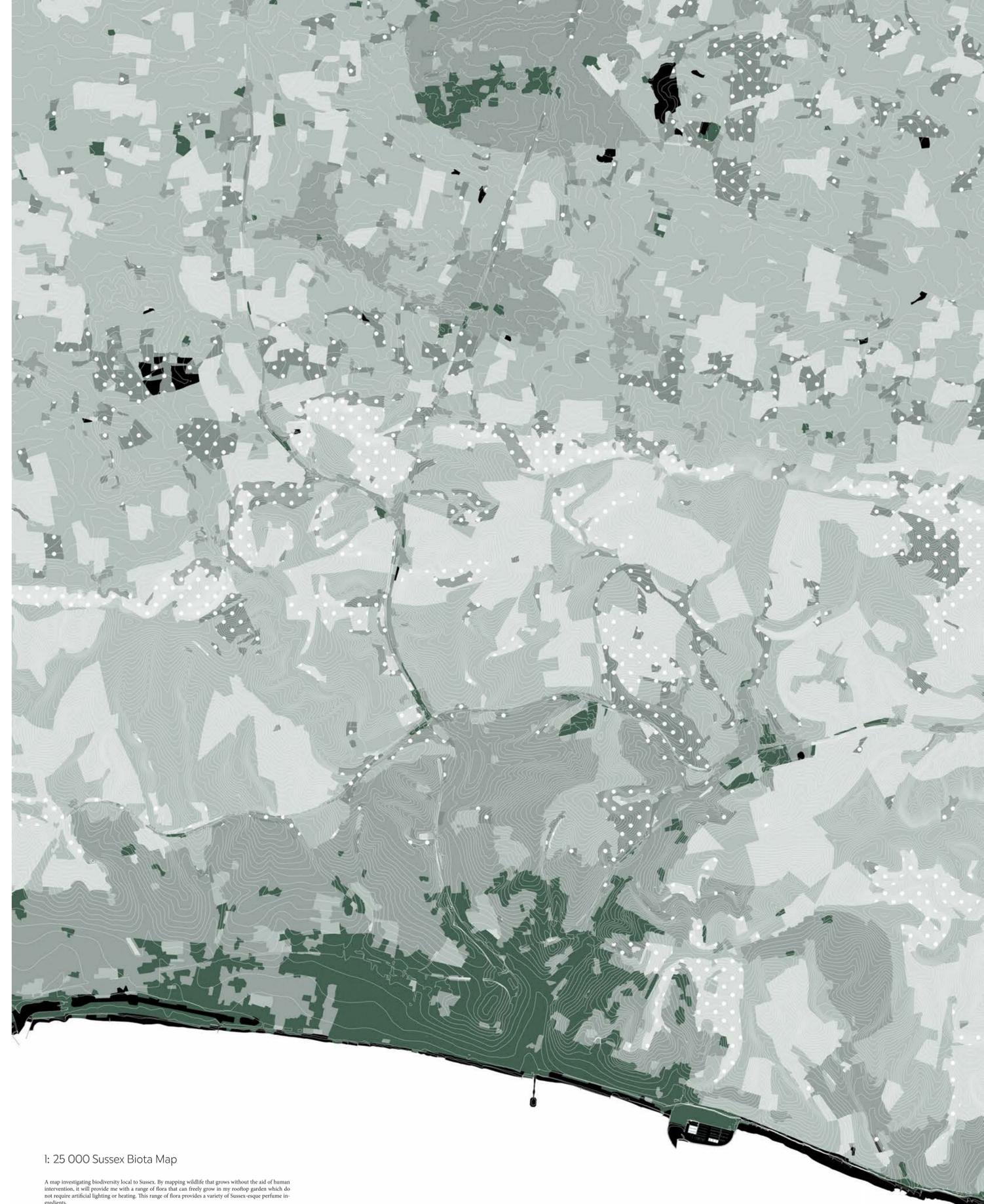
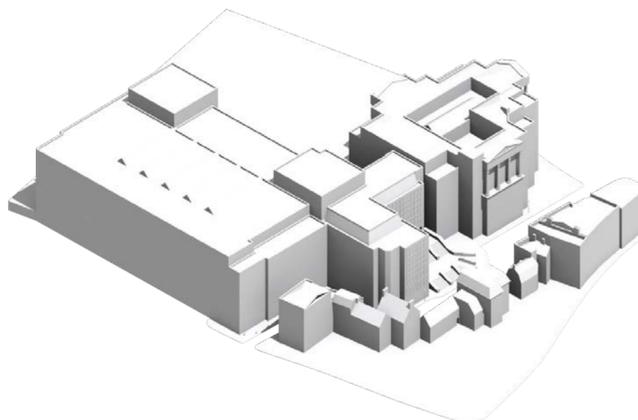
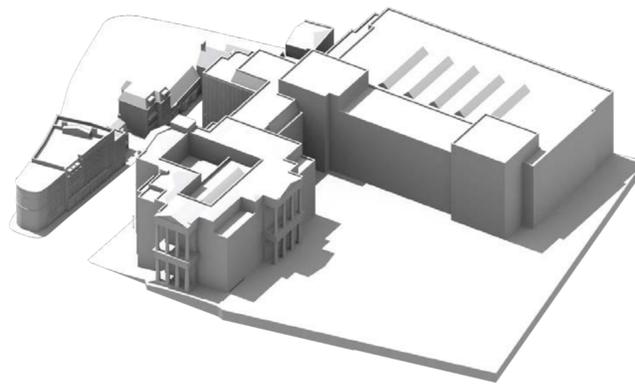
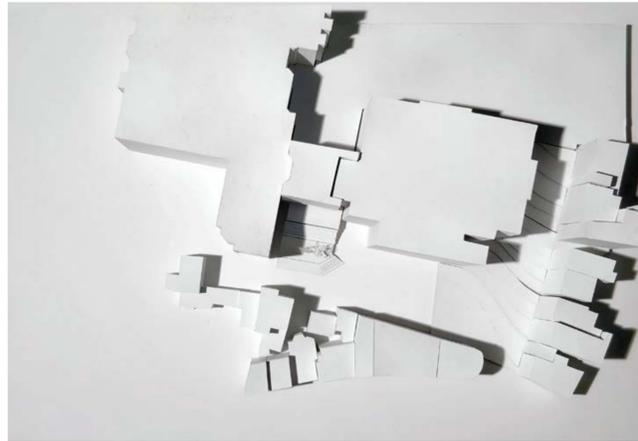
Brighton & Hove, I: 1000 Nolliplan

Contextual Nolliplan showing entry sequence. Labelled images of Bartholomews and the Jury's Inn staircase are areas of particular interest. This will be the site for my proposal.



Site Model

To allow for testing and to get a more detailed idea of the spatial qualities present on site, I made a physical site model as well as a 3D site model using Rhinoceros. They proved invaluable when quickly testing iterations and for compiling site information. They also allowed me to see how masses on site would affect sun paths and shadows.

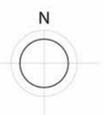


1: 25 000 Sussex Biota Map

A map investigating biodiversity local to Sussex. By mapping wildlife that grows without the aid of human intervention, it will provide me with a range of flora that can freely grow in my rooftop garden which do not require artificial lighting or heating. This range of flora provides a variety of Sussex-esque perfume ingredients.

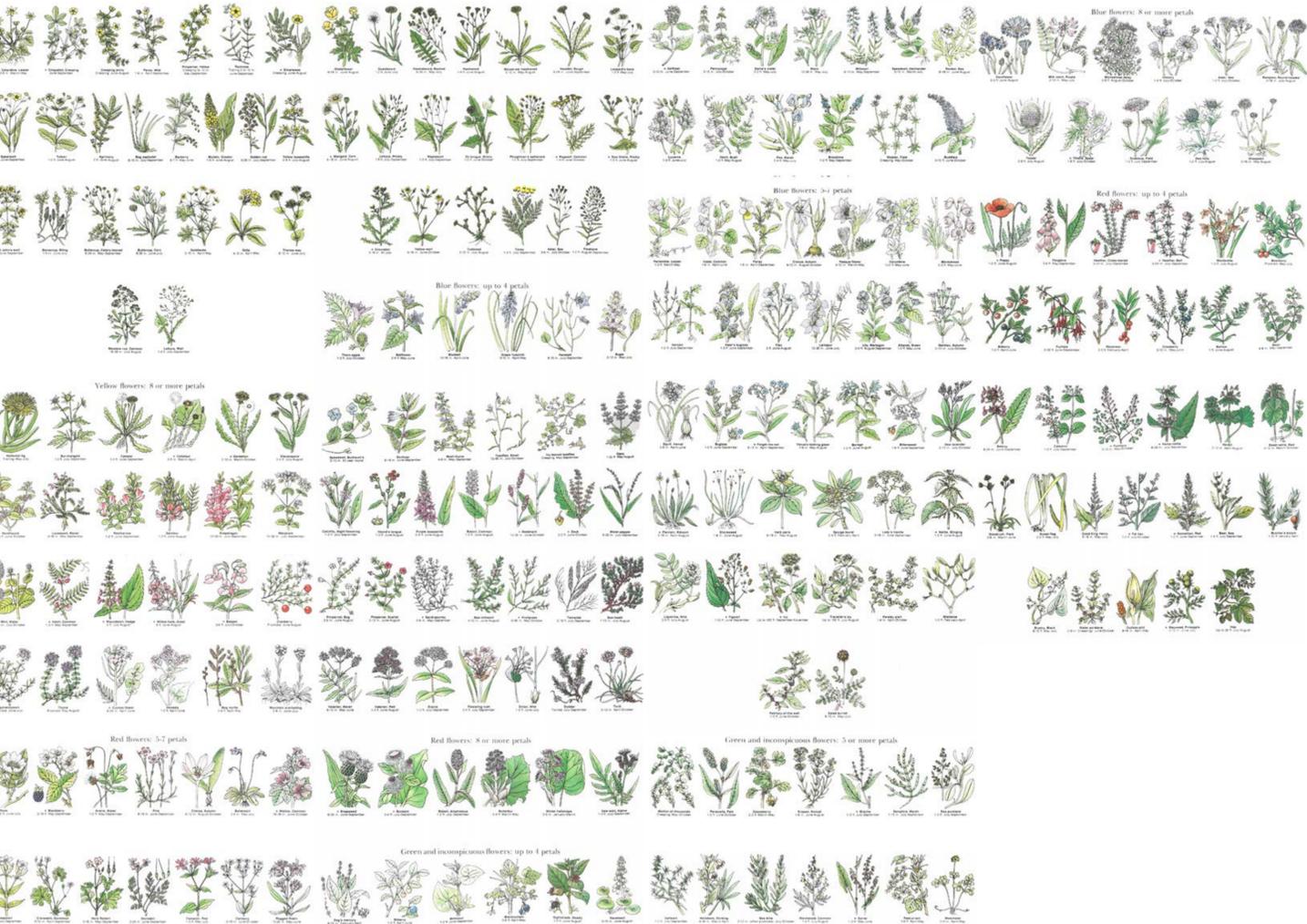
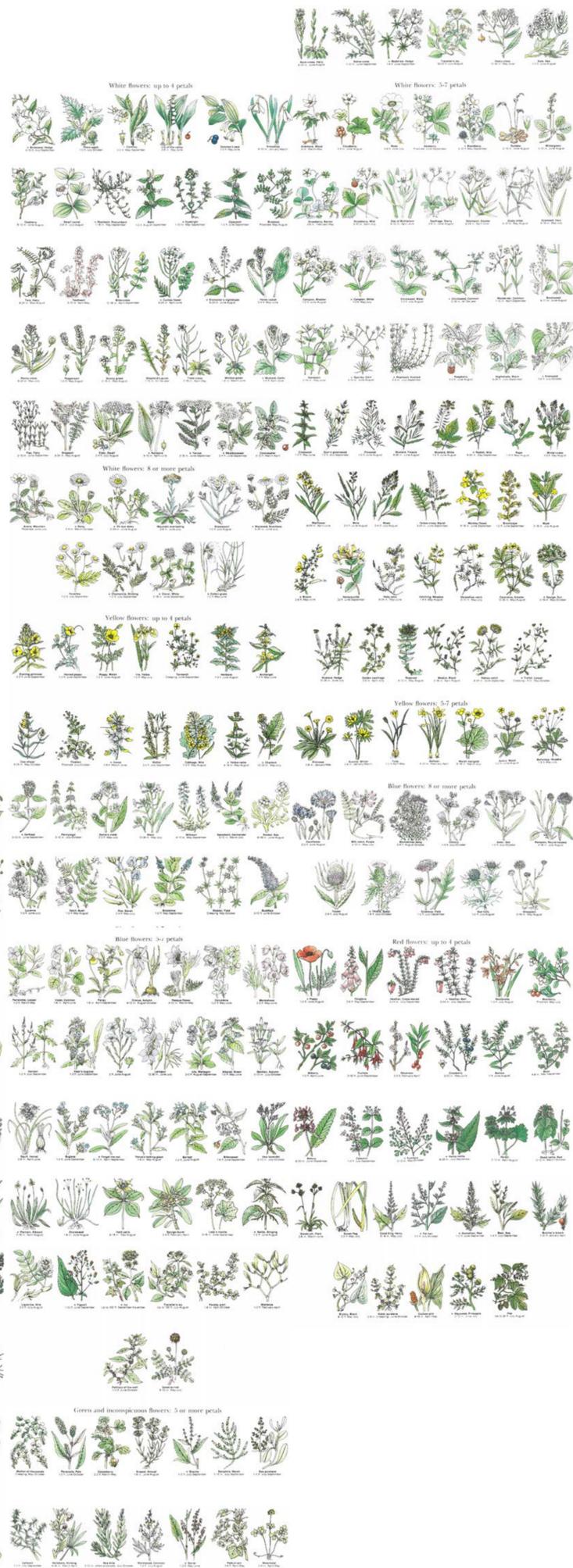
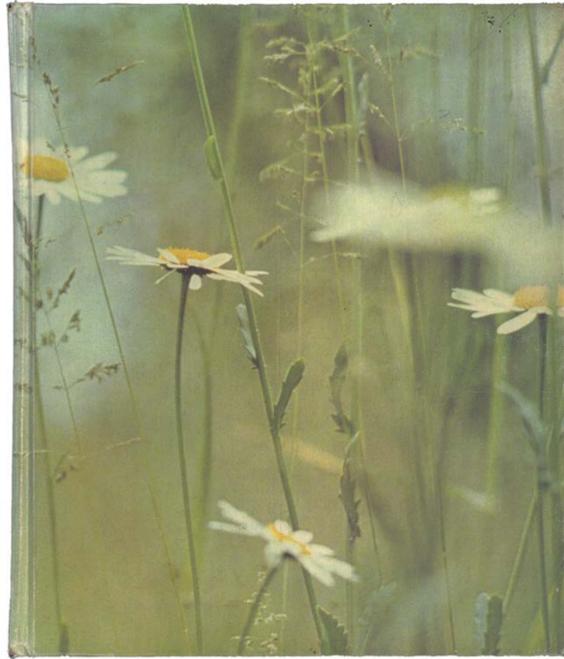
-  = Woodland
-  = Grass / Heathland
-  = Acidic Grassland
-  = Agriculture
-  = Suburban
-  = Urban

0 1 2 5 10km



# Local Wildlife Research

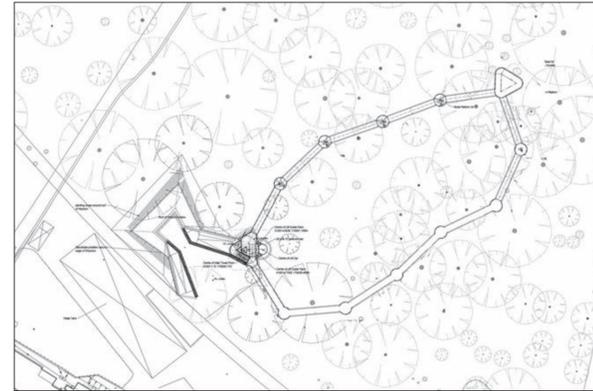
Using the AA's "Book of the British Countryside", I compiled a list of wildflowers native to Great Britain which thrive in the country's climate. The list also includes what time of year flowers bloom. Here they are grouped by petal count and colour. The list gives me freedom to choose any flower to plant in my rooftop garden knowing it will not require artificial lighting or heating for sustenance.



Precedent Buildings

In order to begin designing the proposal for my perfume factory, I investigated some precedent buildings to see how similar programmes were achieved under different circumstances and briefs.

Precedents Studies

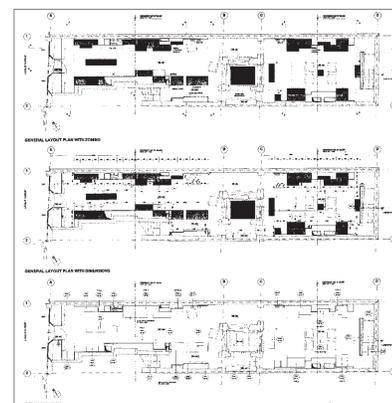


Kew Gardens Treetop Walkway  
by Marks Barfield Architects, completed in 2008



Grasse Perfume Museum  
by Frederic Jung, completed in 2009

Grasse Perfume Museum was a helpful precedent as it gave me an idea of the kind of space needed to produce perfume on an industrial scale as well as intertwining a tour route into the factory. The entrance (shown) is also sandwiched between a house and the rocky



Floris London  
by ???, Est. 1730

When thinking of how I wanted the entrance of the design to look,

## Scaled Precedent Tests

The programme for my site is a perfume factory intertwined with a tour route, allowing tourists to observe the art of perfumery.

I set myself the limitation to permit thoroughfare from Bartholomews to Grand Junction Rd. which led me to Kew Gardens Treetop Walkway as a precedent building, focusing on the elevated nature of the walkway. I hope to implement an elevated structure that bridges over Bartholomews.

I decided to use the existing topography on site, electing to place the entrance to the perfumery at the top of the Jury's Inn staircase. The entrance hall will resemble the Grasse International Museum of Perfume, in which the entrance is tucked in between a large hill and a residential property. I used the scaled plans of the ground floor of Floris London to test how much I could fit atop the Jury's Inn staircase - the test showed that I could easily fit the entire ground floor of Floris, making it an appropriate entryway for my programme.

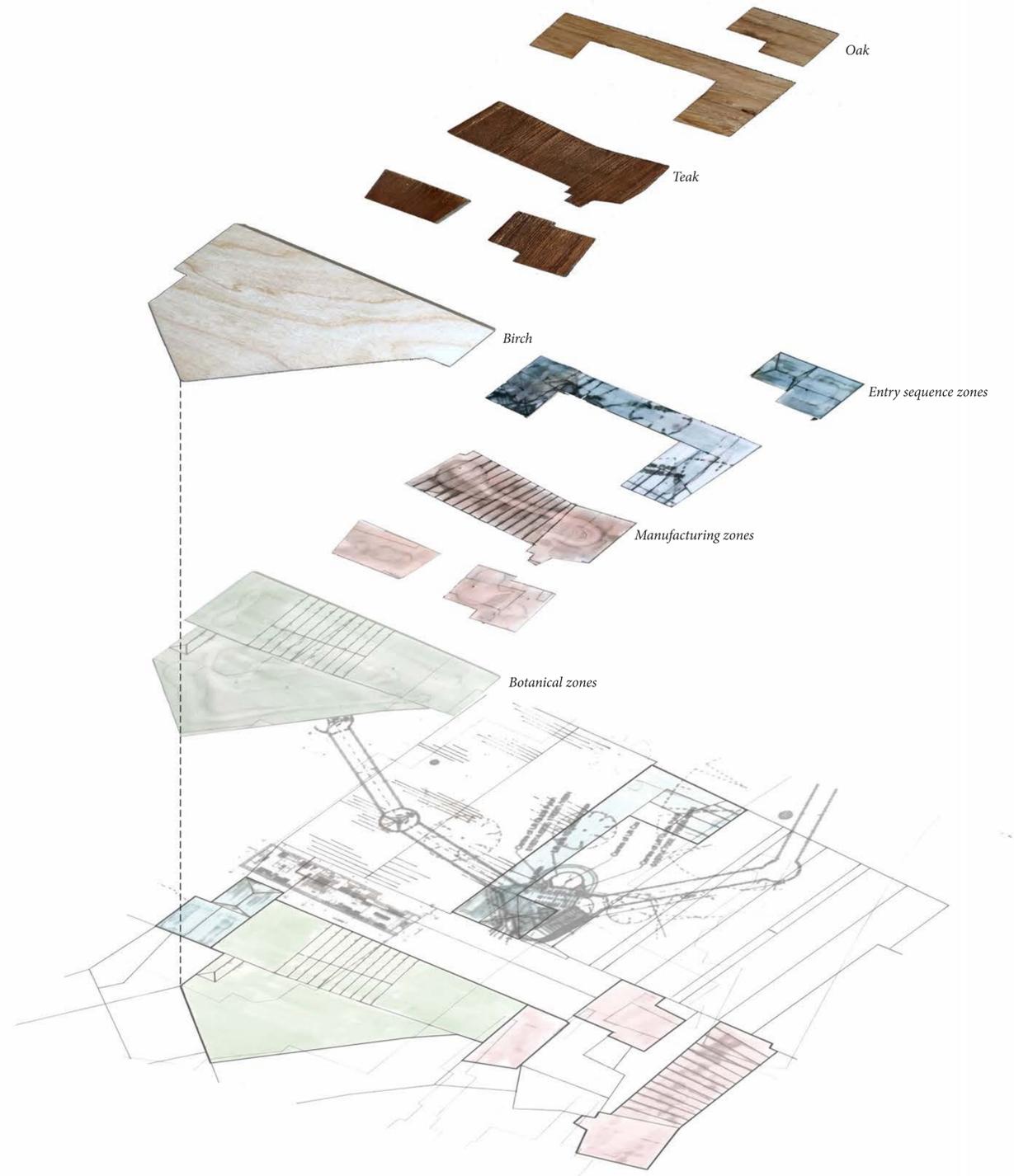
- Entry Sequence
- Manufacturing
- Botanical Gardens



## Programmatic Massing

By modelling the different zones at Grasse International Museum of Perfume as masses in foam board, I was able to arrange them on site in a way that allowed me to generate a programmatic route through my proposal tailored to my site as well as getting a sense of scale, however foam board was a poor choice of material as it had very little re-usability, making multiple iterations impossible.

I decided to recreate the masses using different species of wood to easily differentiate them. The wood allowed me to drill holes in multiple orientations without affecting the strength of the material, greatly assisting the design's development.



Expressive Models

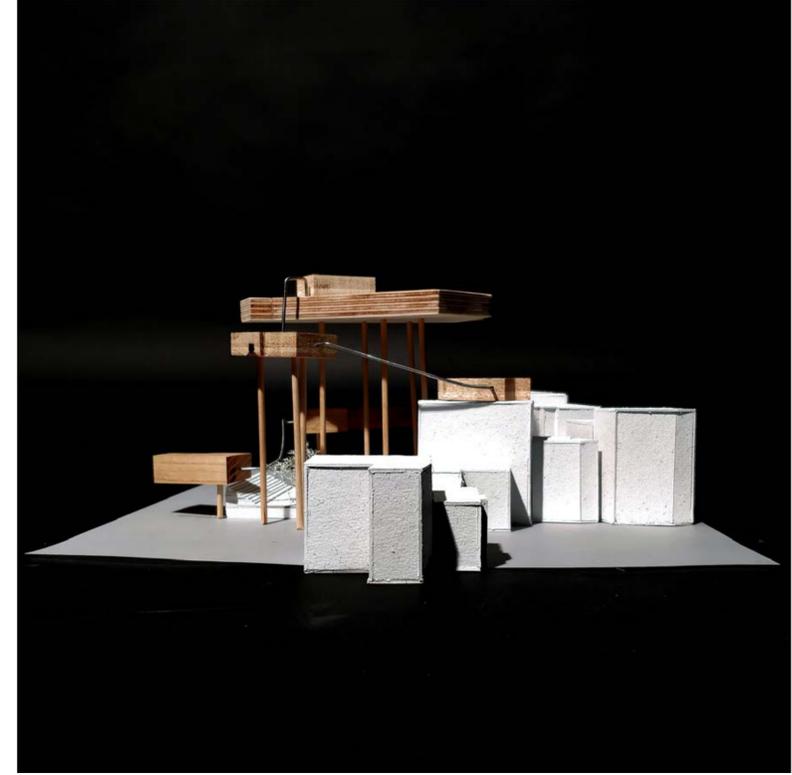
1: 200 Expressive Model

Mass model using zones derived from precedent studies to generate early conceptual programmatic arrangements.



1: 200 Expressive Model

Beginning to think about circulation through and around the building using steel wire to map potential routes.



### Internal Moment - Model Fragment

Building on the internal moments I wanted to occur in my proposal, I casted one of the spaces, further modelling the interface between the factory and the tourist route.

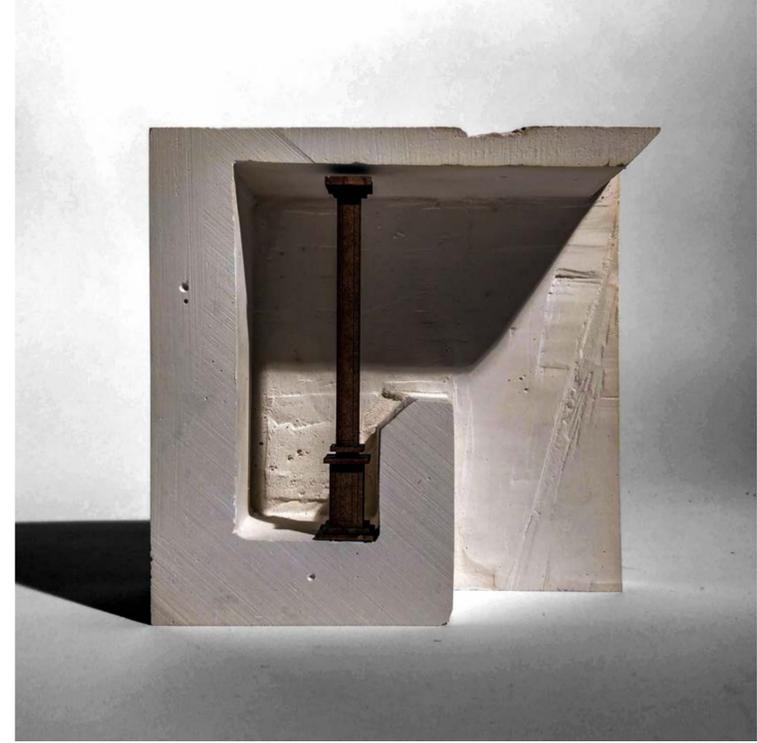
To symbolise this, I created two contrasting spaces using a combination of light, mass and material detail. On the left most area of the cast (space A), light freely fills the space creating a harsh shadow within the right most area of the cast (space B). I crafted the model in such a way that tourists occupying space B would be guided by the light, suggesting they observe the activities taking place in space A. This division of light turns space A into a stage, clearly presenting the art of perfumery to all tourists present. Space A also has an open perimeter, suggesting a continuation of the factory floor whereas space B is fully enclosed, suggesting a finite corridor.



### Internal Moment - Model Fragment

I casted a second moment, providing an alternative tourist point of view, one in which the tourist might be peering downward into the factory from an upper level.

The half wall separating the tourist from the factory is chamfered, inviting tourist to lean into the aperture, giving them a better view of processes taking place in the spaces below. The two spaces contrast using light similarly to the first cast, however in this instance there is no "floor" present in the factory area, suggesting an infinite space below.



## A View into the Factory

To develop my programme, I created some internal moments that I knew I wanted to occur within my proposal, one specific moment being the interface between the tourist and the factory worker.

This montage aims to create two contrasting spaces, the factory space here is shown in black and white whereas the tourist space is given colour and ornamentation in the form of William Morris wallpaper, decorative wooden columns and the use of wood in contrast to the metal shown in the factory.

The curtain as a threshold frames the art of perfumery as a performance, resembling that of a theatre. It also raises the question of smell - does the curtain smell like a curtain in an old Victorian country house? Or would it have absorbed the fragrances produced in the factory?

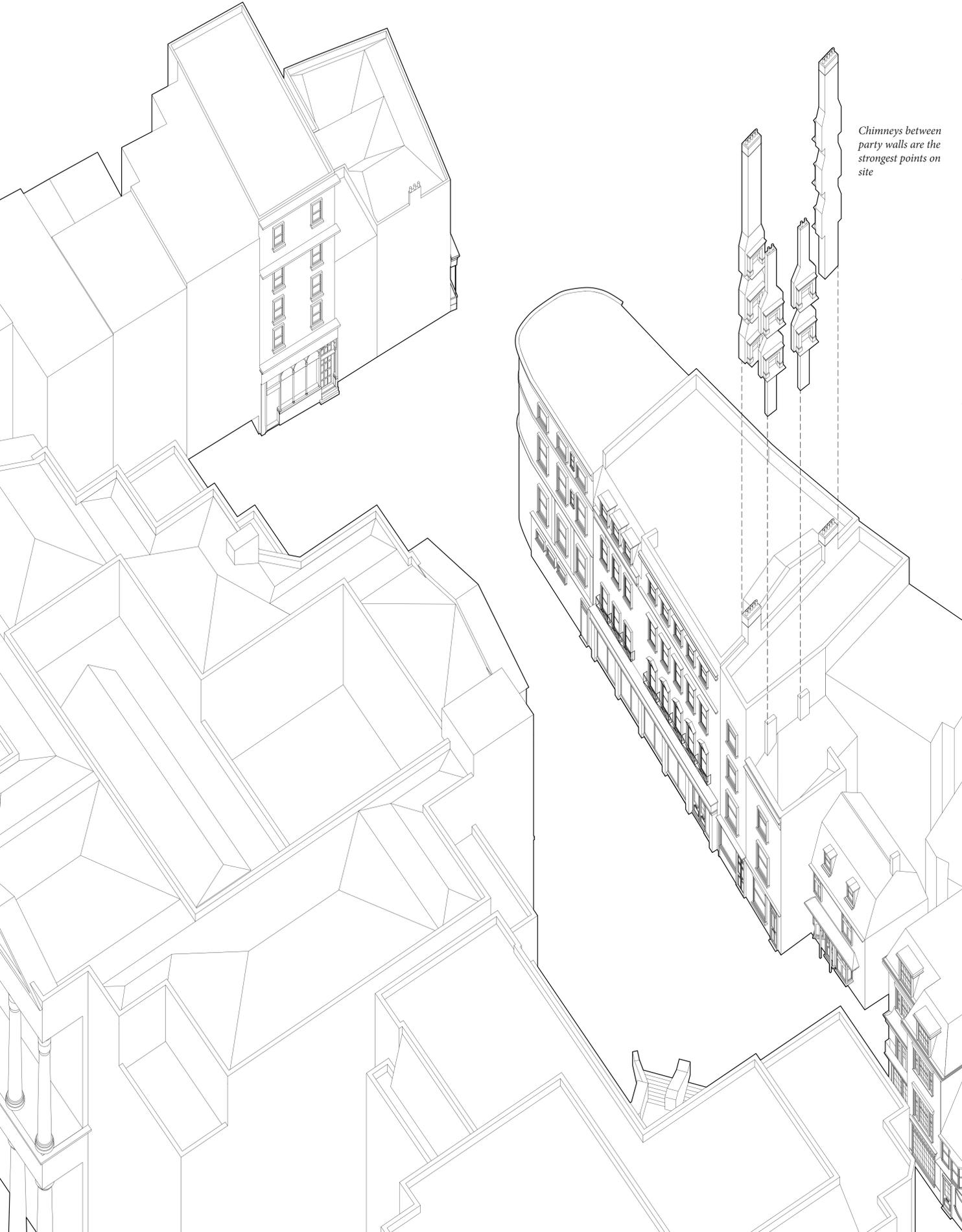
Internal Moment Montage



Design Iterations

Site Axonometric; Identifying Construction Nodes

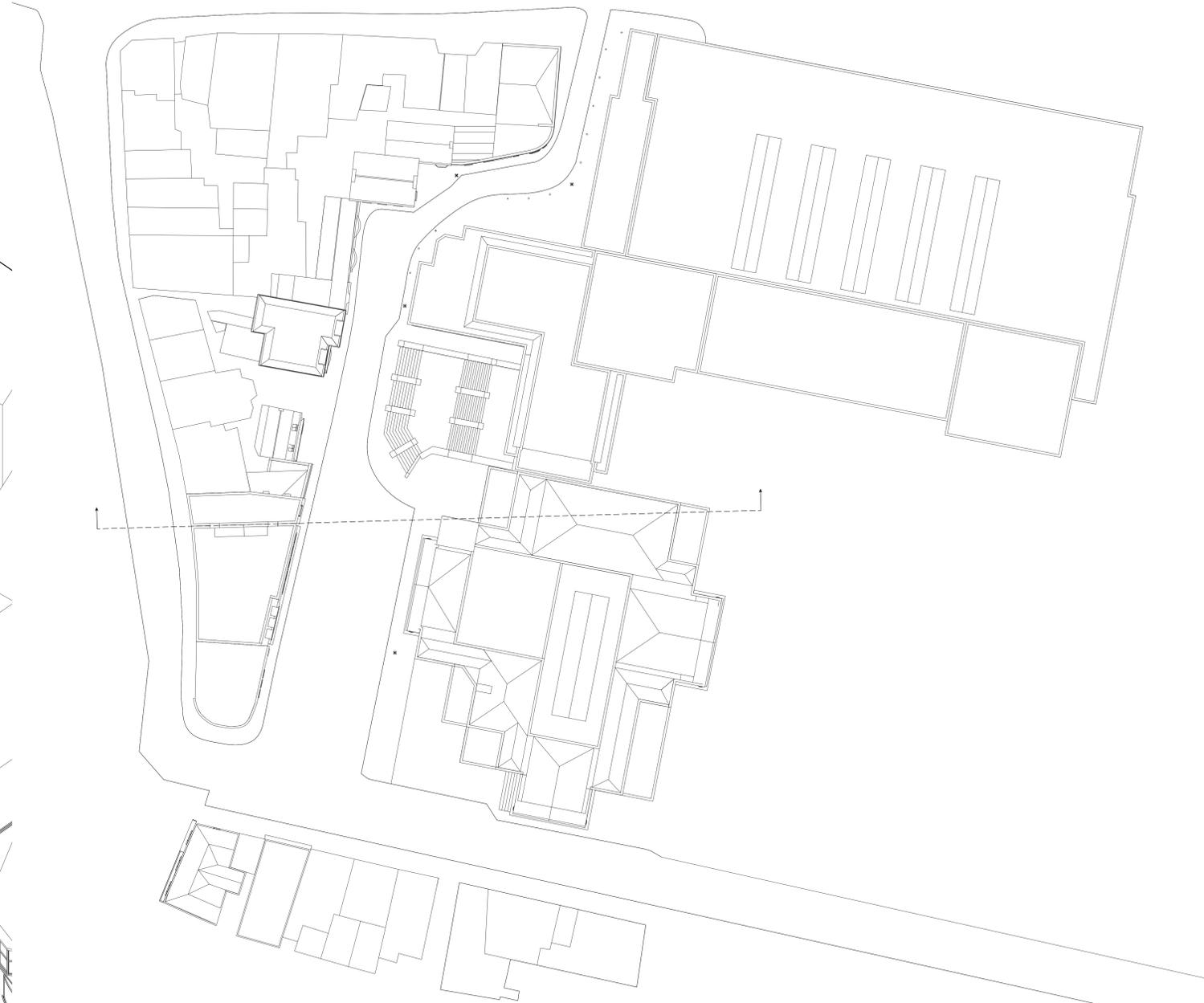
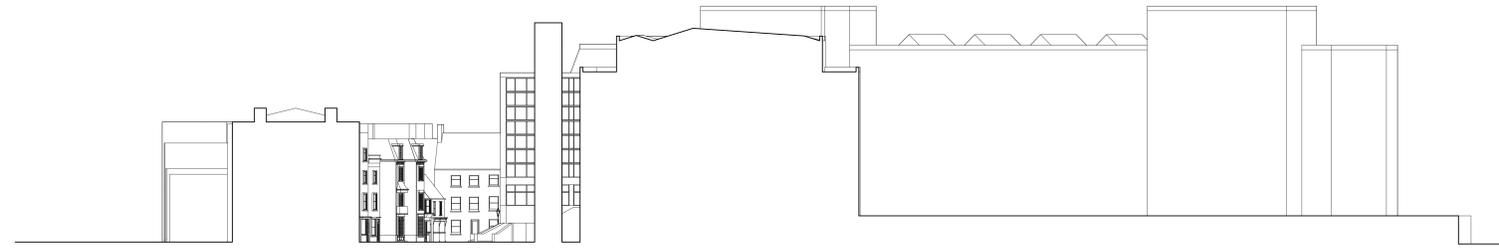
As the strongest points to build off of on site are party walls, I decided to highlight chimneys big enough which have the potential to house columns. These columns could be used to form the framework of the proposal as well as elevating the proposal above ground, leaving the road accessible to vehicles and pedestrians.



*Chimneys between party walls are the strongest points on site*

Site Plan & Section Through Nodes

Using my 3D model to take a section through these nodes allowed me to test design iterations through quick sketching.



# Sketch Iterations

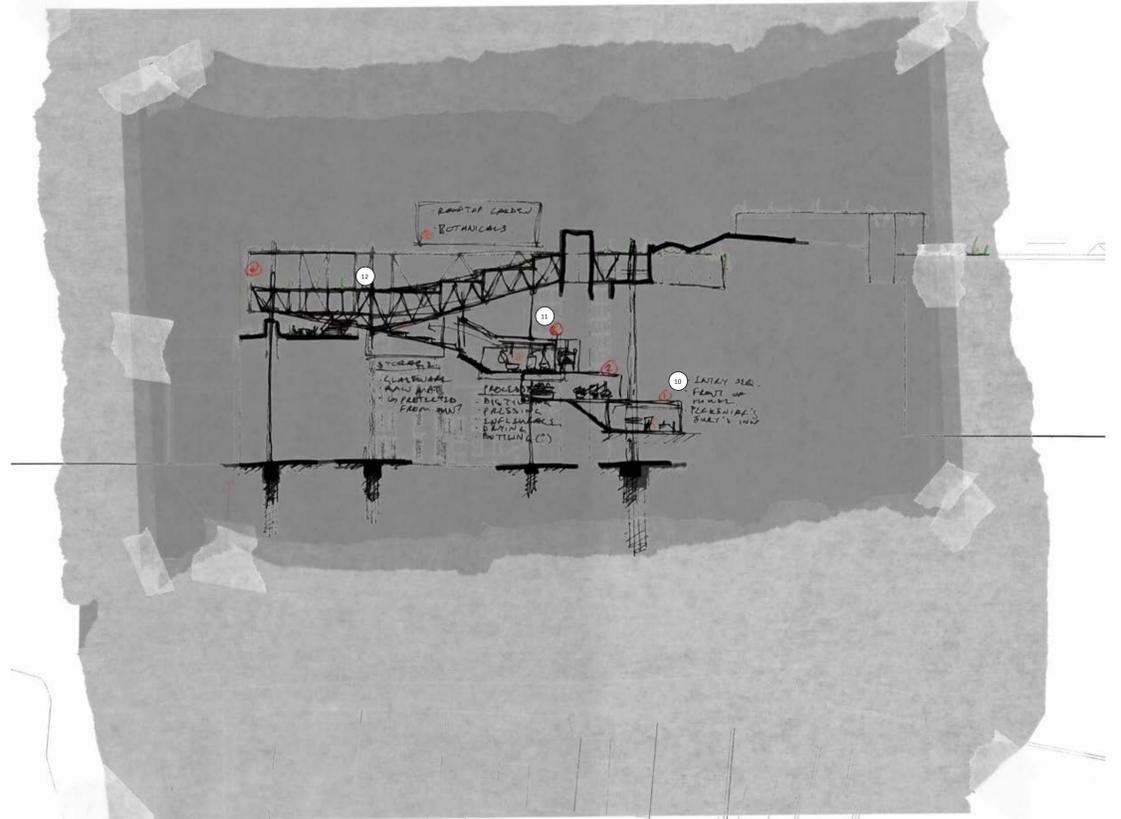
Quick sketch iterations overlain onto site plans and sections using detail paper. My intent was to connect structural nodes on site which could house steel beams, elevating my proposal above street level.

As I added more layers of detail paper, I was able to sketch more, building on previous iterations. I drew a line from two chimney pots extending towards an existing structural column within the Green Diamond Apts. and tried to see how I could weave my programme into the space beneath.

This allowed me to bridge the entry sequence (beginning at Peckhoff's, Jury's Inn) to the rooftop gardens.

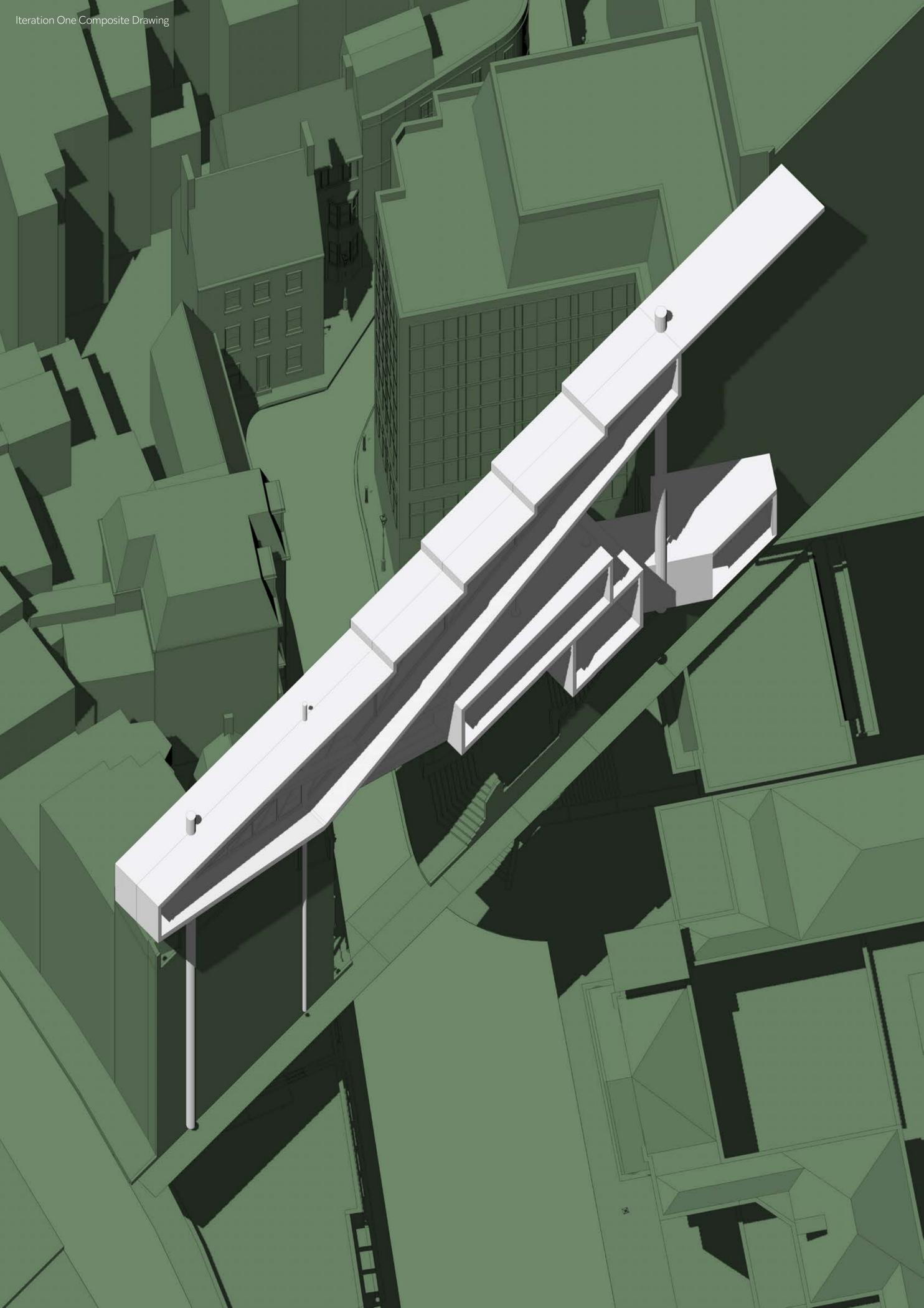
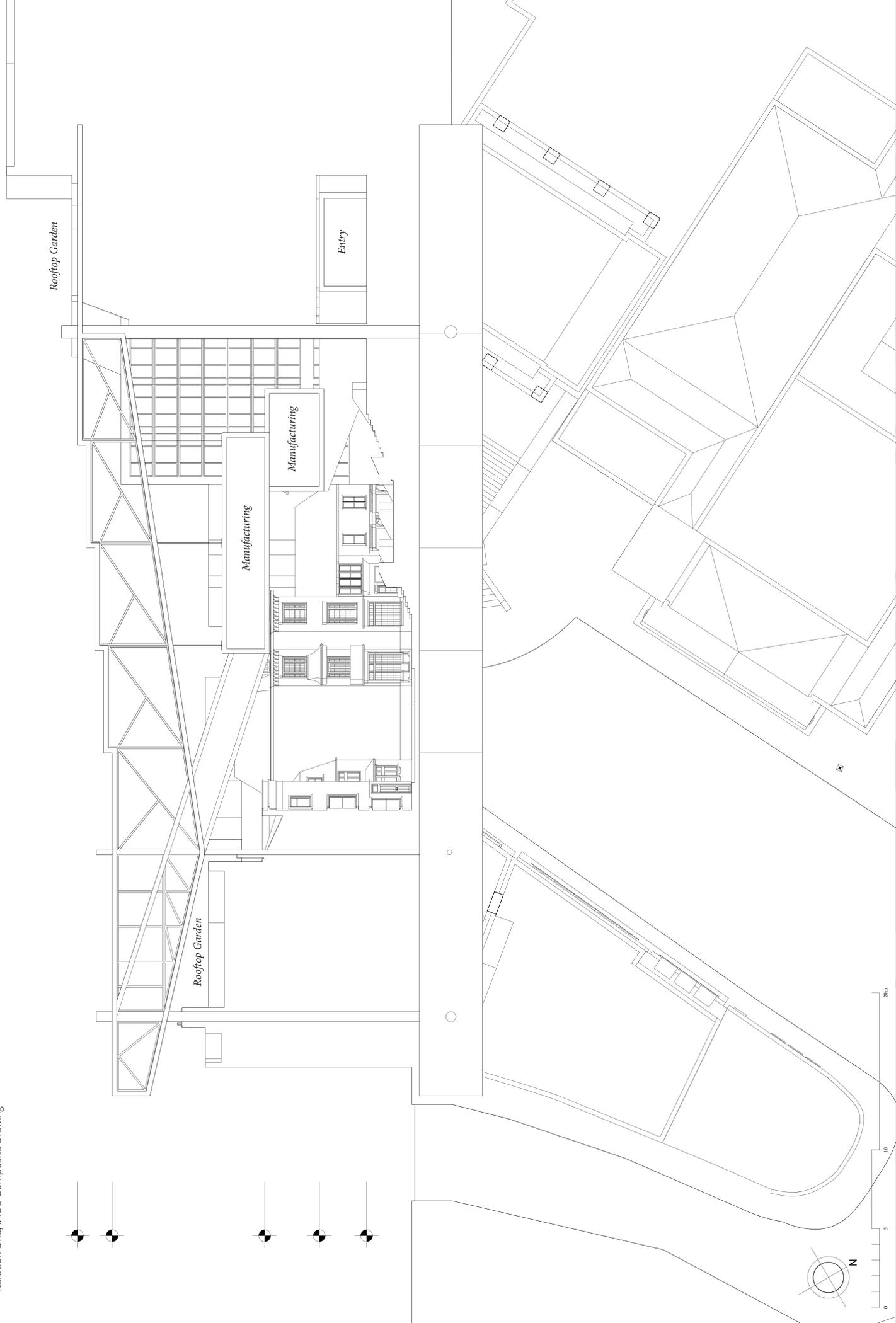


1. First sheet of iterations testing different structural nodes present in existing buildings. Lines were drawn from these nodes to give an idea of the kind of spaces that could be created by extrapolating from them.
2. Identifying potential existing areas on site that could be transformed into rooftop garden spaces.
3. Further highlighting structural nodes (not explored in the current iteration).
4. Coming to terms with how invasive inserting new foundations into an existing building will be for residents.
5. Subsequent programmatic modules will hang from the strongest parts of the truss system (where two truss members converge) using stainless steel cables.
6. Elevated rooftop botanical level will be supported by a variety of truss systems - in this instance a Warren truss is shown, however this kind of truss system limits types of apertures. The truss will be constructed from steel and welded to the steel columns inserted into existing structural nodes, forming a cantilever.
7. Botanicals will occupy the top of this structure, meaning a splayed floor plate must be attached to the top of the truss to make the space usable.
8. Sketches of alternate truss systems allowing more varied apertures, taking truss span and height into consideration.



9. Line connecting three existing structural nodes provides a means of bridging between no. 7 Little East St. and Green Diamond Apts.
10. Numbering axes relative to the programme allows rational allocation and distribution of space.
11. Steel cables will suspend hanging parts of the building.
12. A combination of trusses allow the bridge to support the botanical garden while providing appropriate apertures where needed.

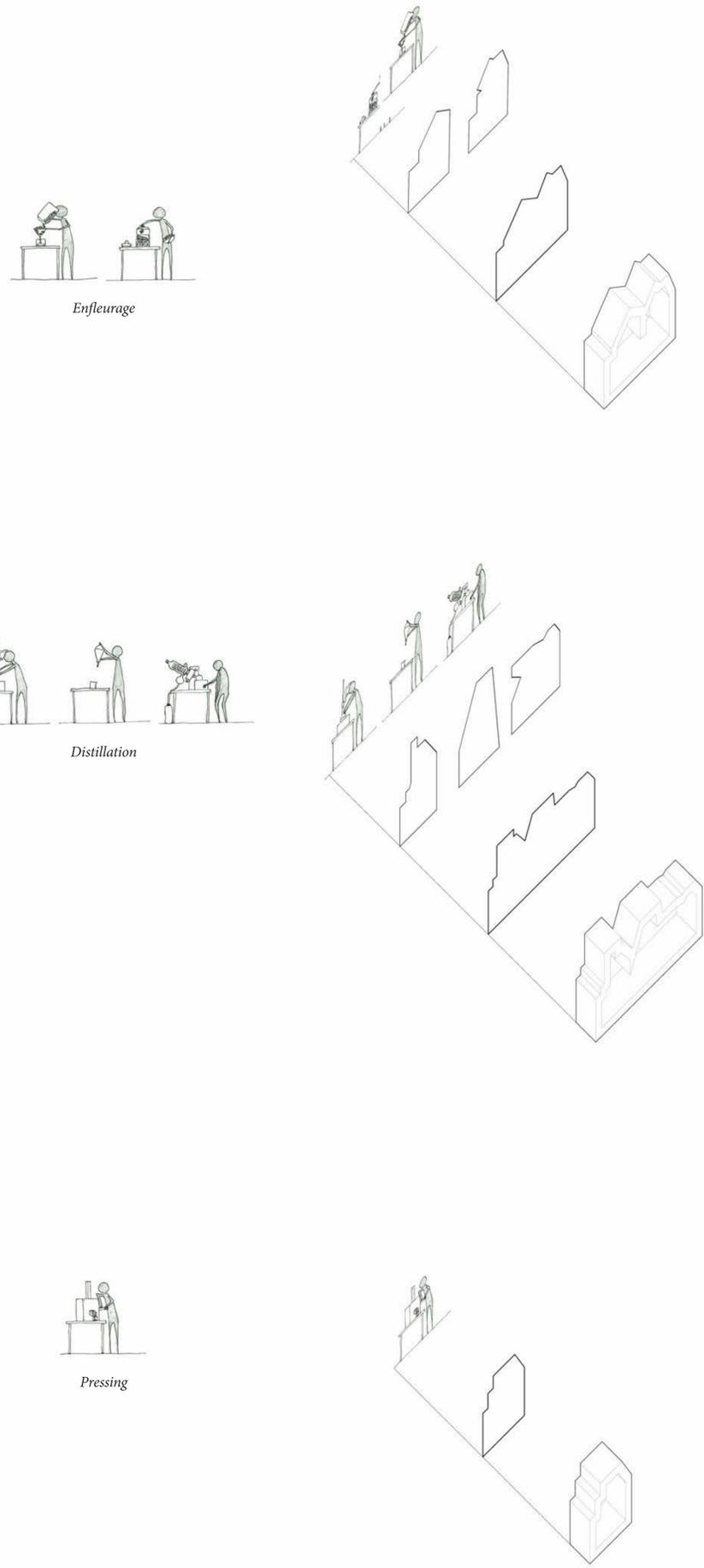




## Rationalising the Programme

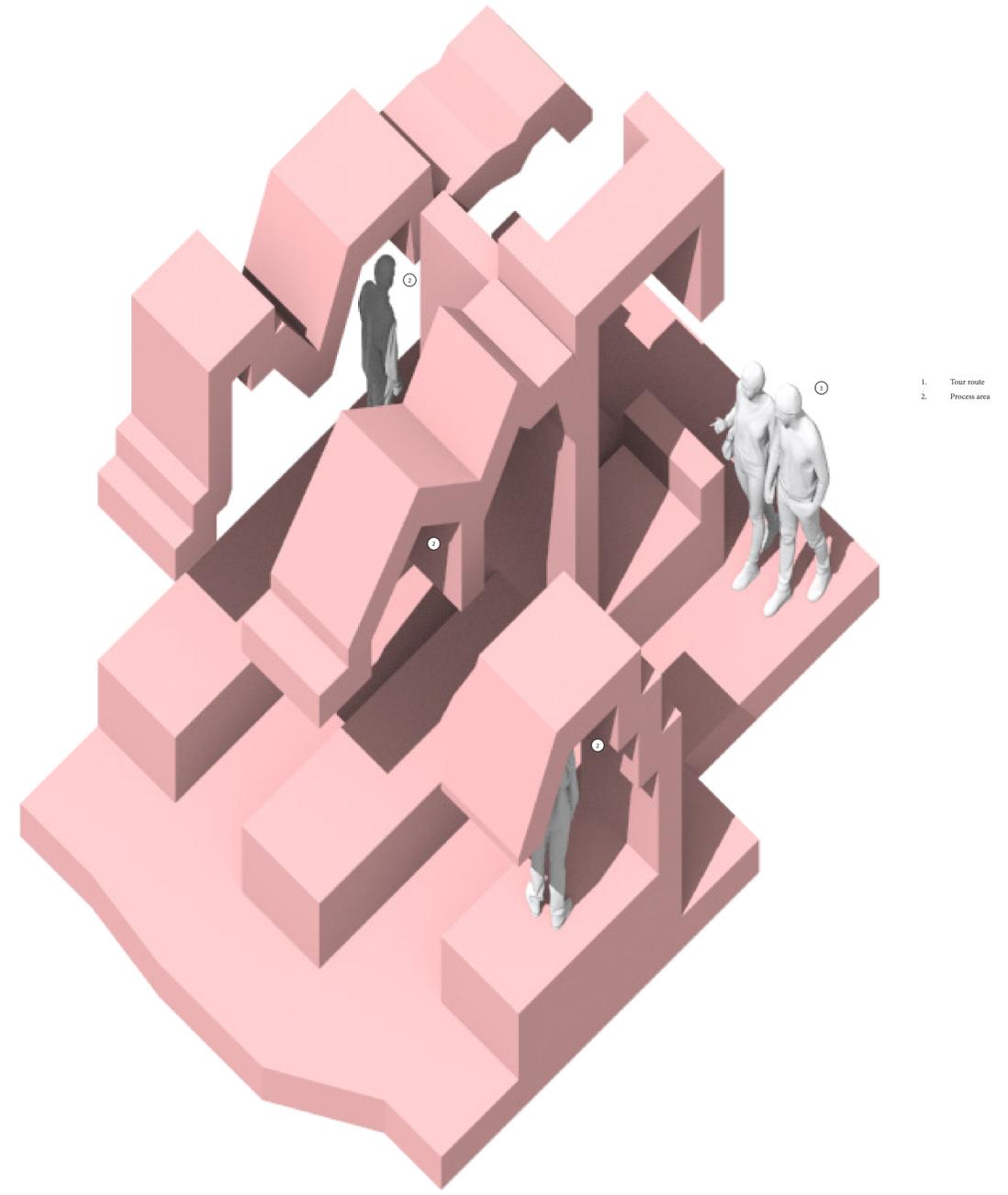
Iteration one was an overly simplified arrangement of cubes oriented to facilitate the programme for the proposal, however the aim of the proposal was to create spaces that came from the art of perfumery - to do this I took a more intimate look at the processes.

By revisiting my internal moment casts and using the various processes performed during the making of perfume, I was able to generate spaces that are sensitive to the programme.



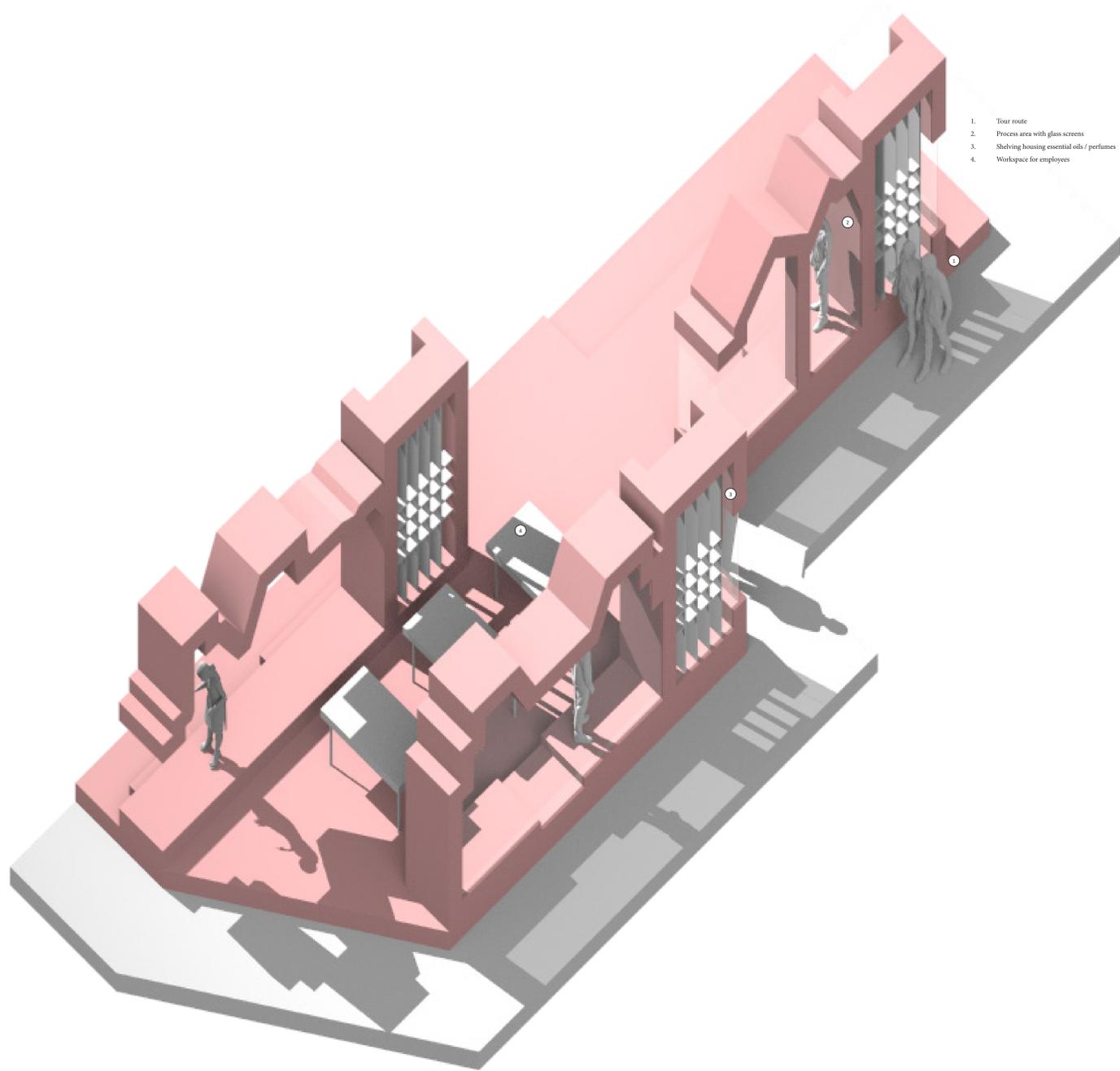
## Manufacturing: Iteration Two

Second iteration of the manufacturing portion of the design moving from the box in iteration one. Attention to human scale was integral to making sure spaces were intimate but not too small. Changes in height were employed to create a contrast between tourists and factory workers. Different processes were arranged in such a way that glimpses of each process could be viewed from the tour route.



### Manufacturing; Iteration Three

Second iteration; rearranged process areas and treated the tourist route as more of a perimeter. Added shelving providing a form of privacy for workers while still allowing glimpses of the process for tourists. Coloured liquids may also be stored on the shelves, letting coloured light pass through them. Provided more workspace for factory workers.

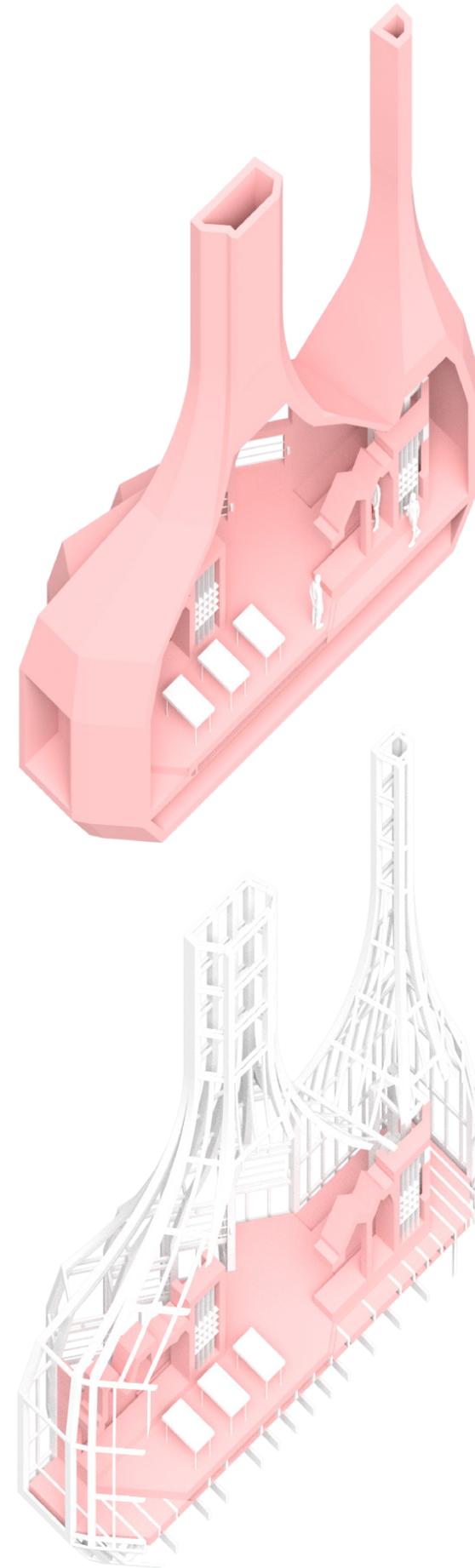


### Manufacturing; Iteration Four

In this iteration I covered the space in such a way that resembled laboratory instruments, tapering the walls to an abstracted cylinder rather than a conventional pitched roof.

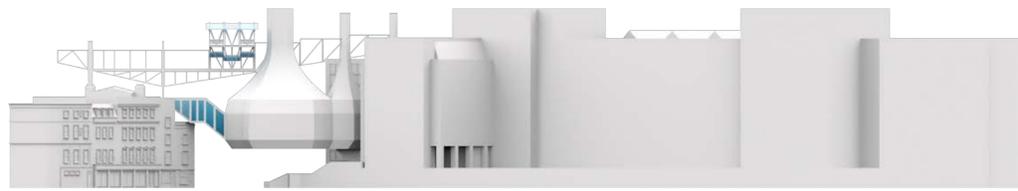
#### Timber Frame

To decide how the manufacturing portion of the build would be connected to other parts of the proposal, I thought about how the timber frame forming the shell would be constructed, providing nodes to attach to and a framework to fix cladding onto.

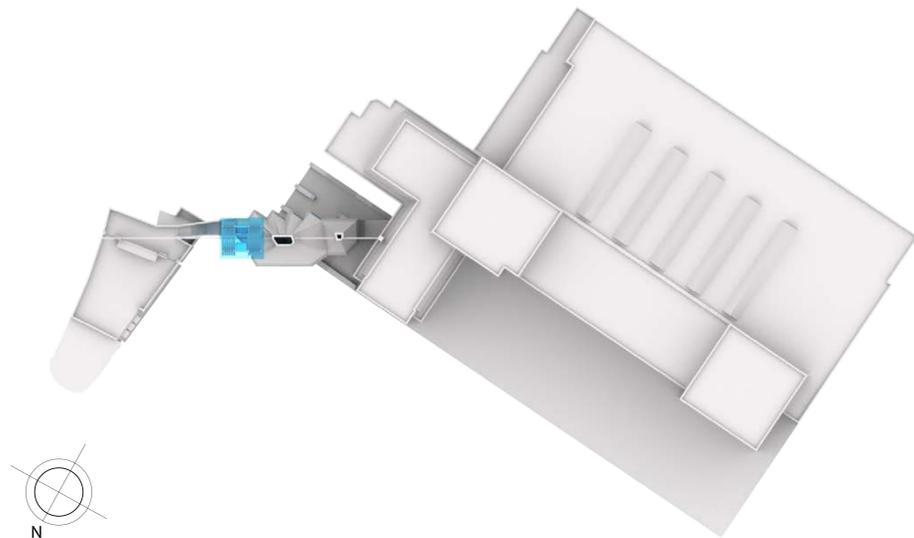




*Elevation facing North*

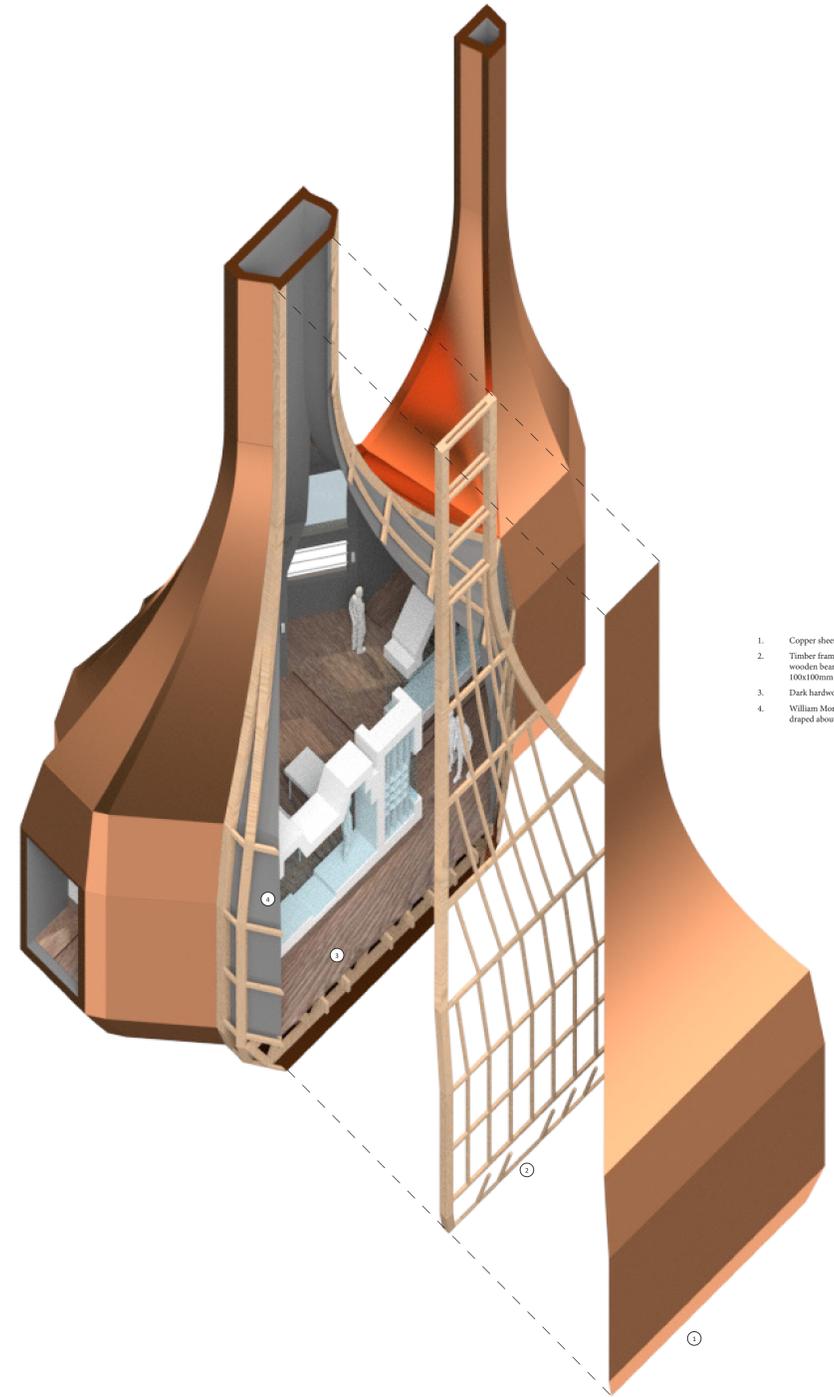


*Elevation facing South*



*Plan*

Taking inspiration from alchemical instruments, I decided to clad the exterior in copper sheets as they are durable, recyclable, weather well and are extremely resistant to salt corrosion which is an extremely destructive force due to the salty sea air of Brighton & Hove.



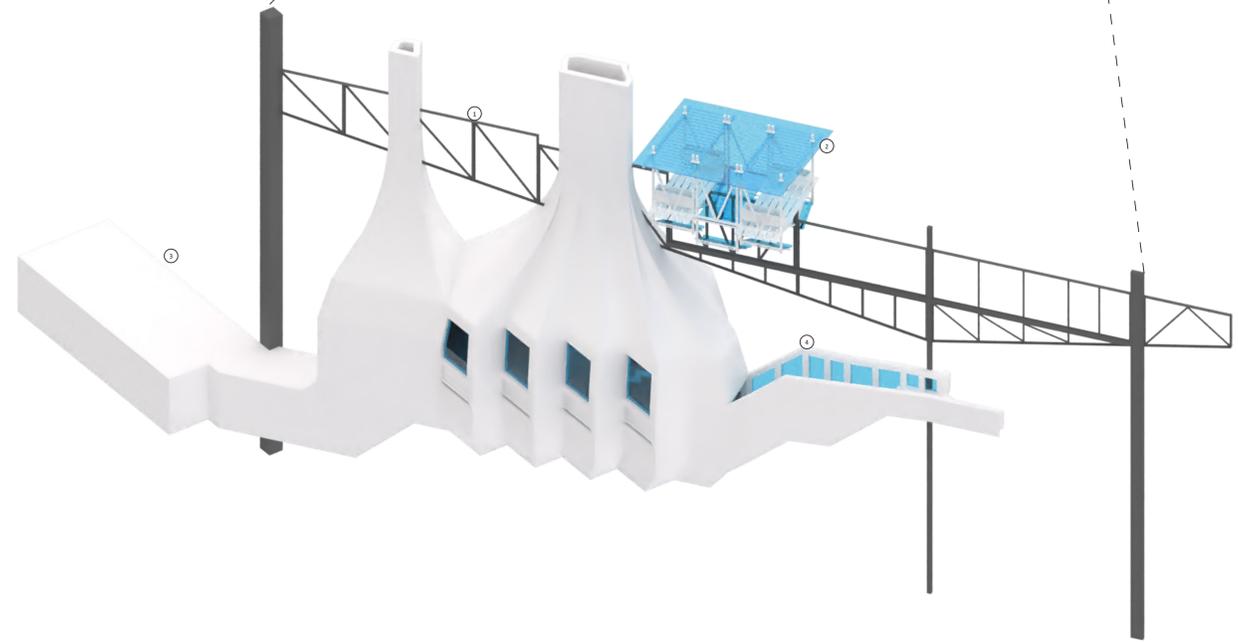
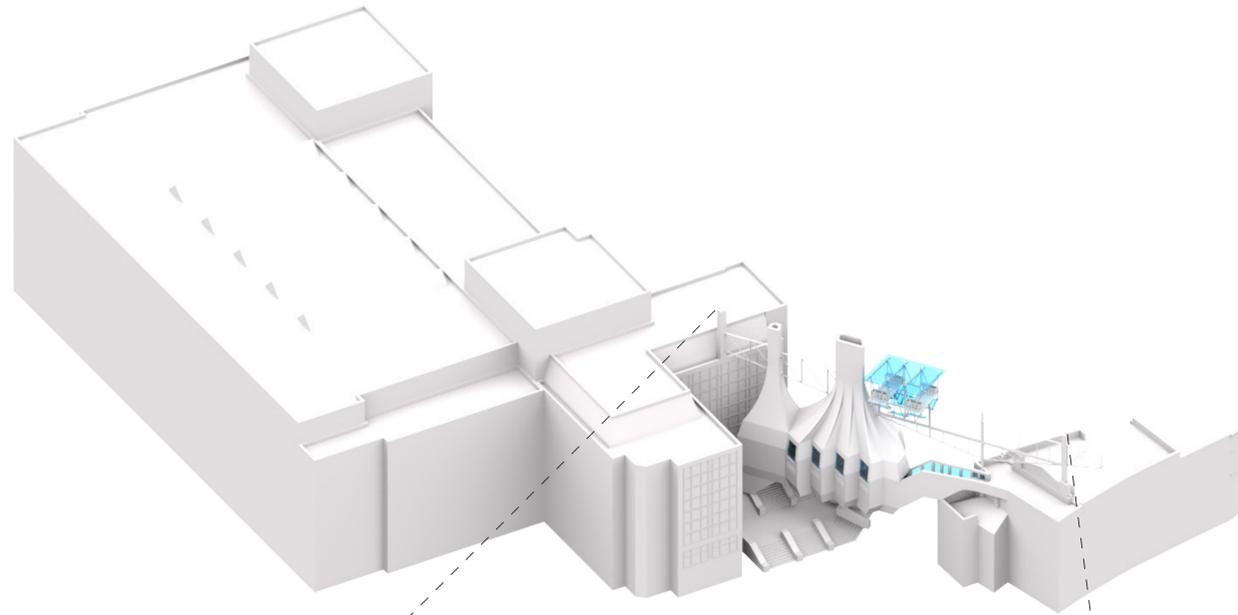
1. Copper sheets riveted on 100x100mm battens
2. Timber frame consisted of large 300x300 mm wooden beams at key points to direct load with 100x100mm joists between
3. Dark hardwood floors
4. William Morris style wallpaper printed onto fabric draped about the interior

## Iteration Four; Evaluation

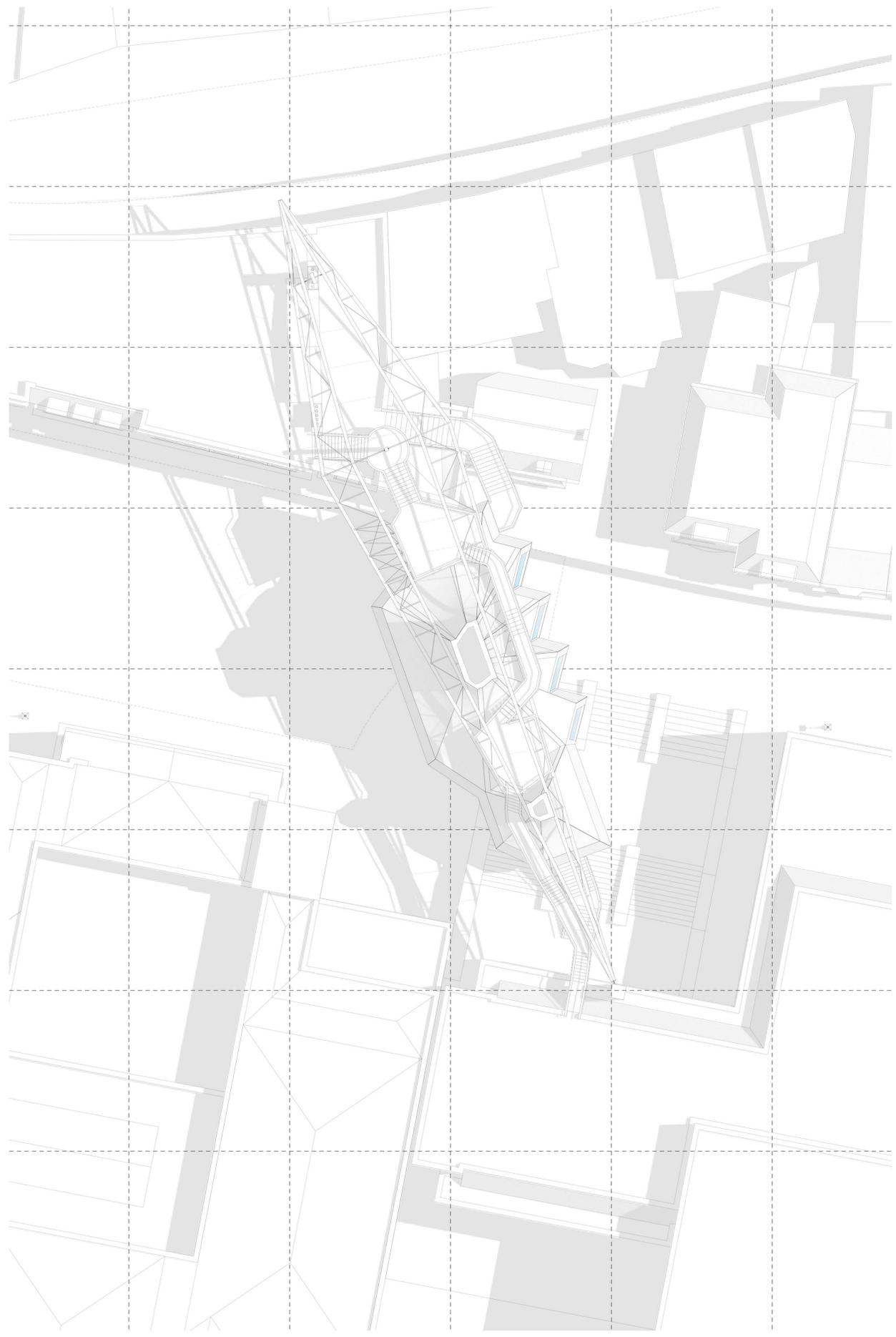
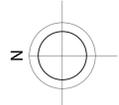
As I modelled iteration four, I started to see many flaws in the design:

1. The truss was unrealistically small for the size of the building it was intended to support
2. The rooftop structures seemed out of place and isolated, making the manufacturing area appear equally as isolated
3. The entryway was too bulky and took up space unnecessarily
4. Methods of connected different floors felt clunky and forced.

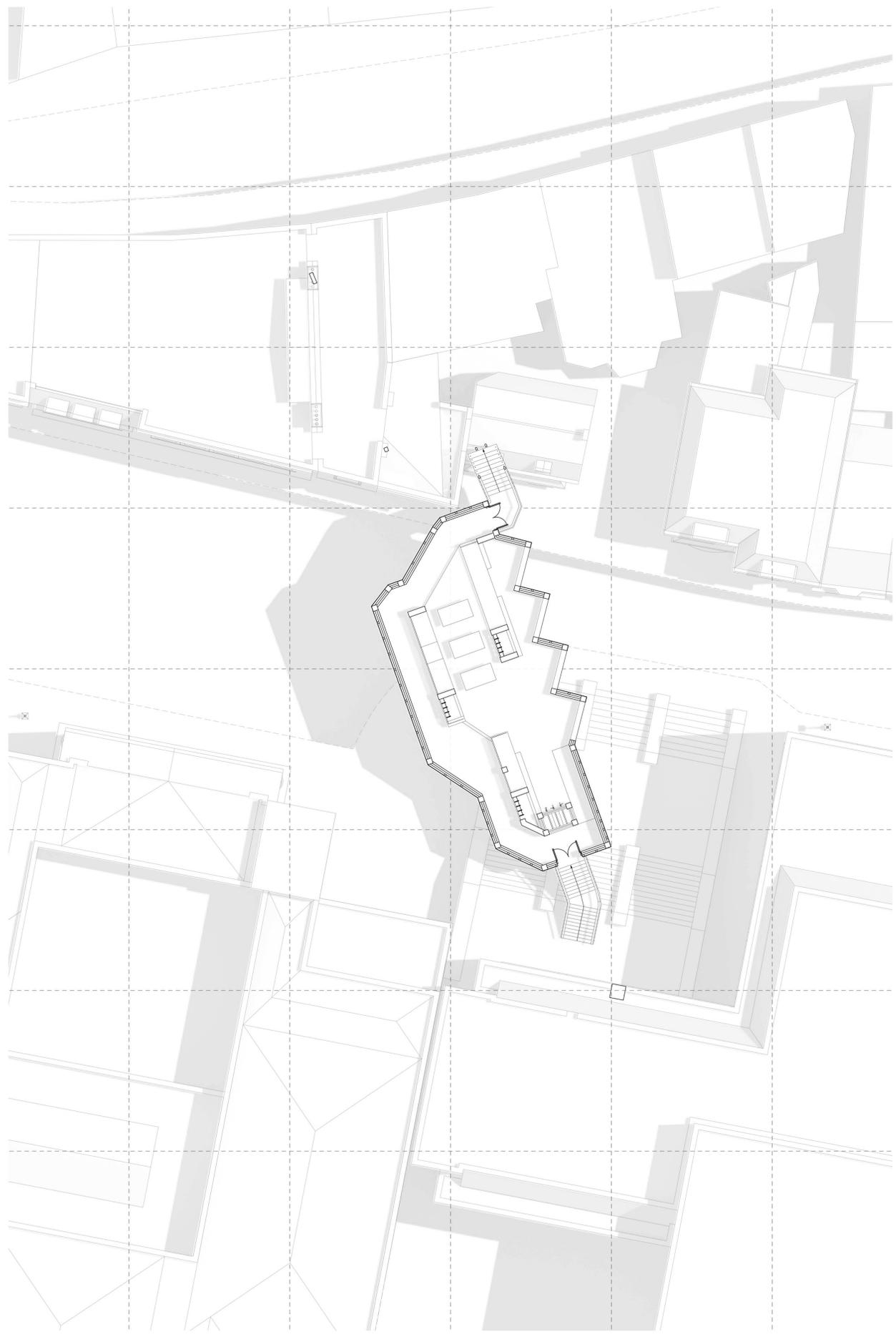
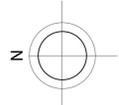
To move forward, I knew I needed to redesign the truss supporting the structure and pay more attention to how it would incorporate the other aspects of the proposal (see sketchbook, pg 51 onwards)



Iteration Five; Final Drawings

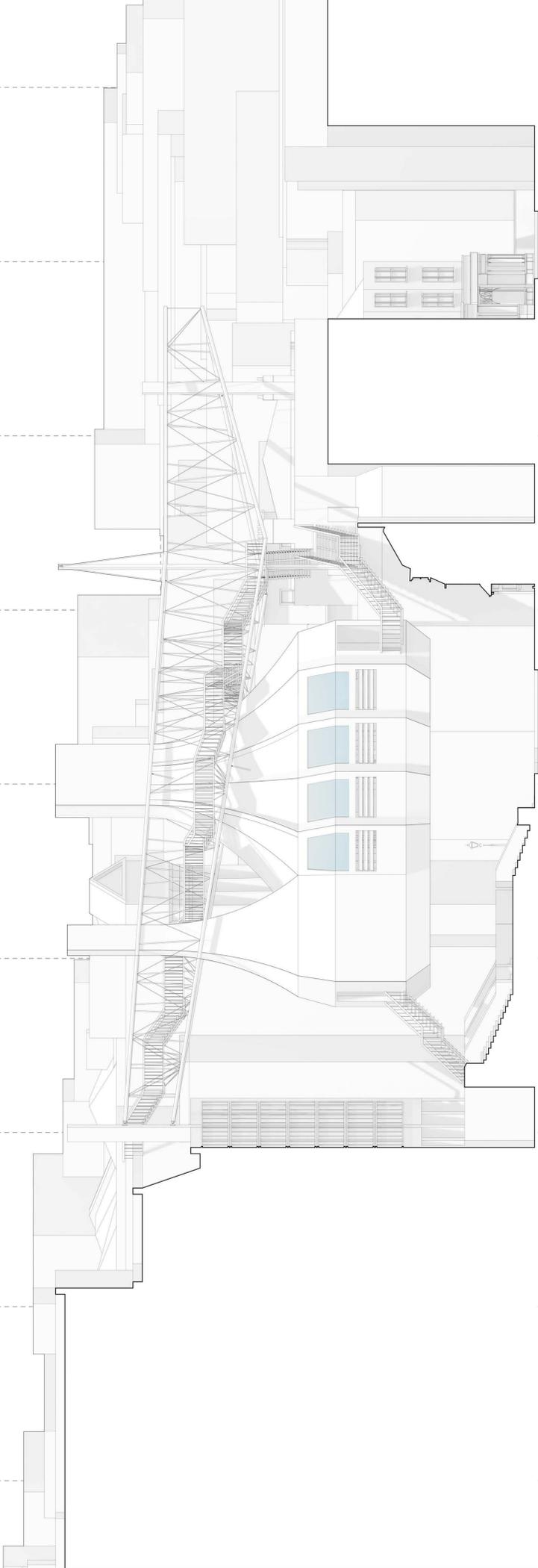


Roof Plan, 1:100 Scale

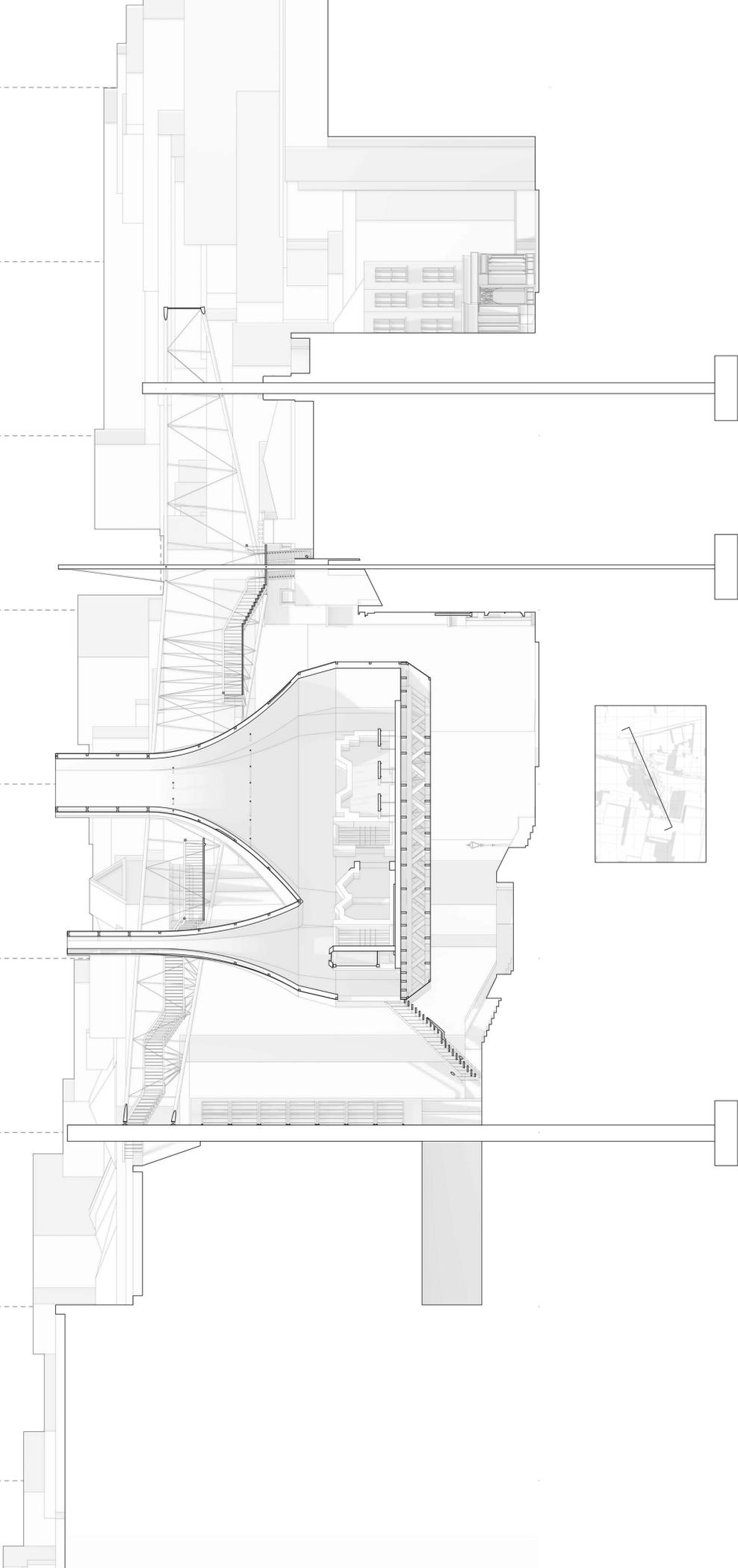
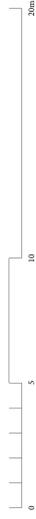


First Floor Plan, 1:100 Scale



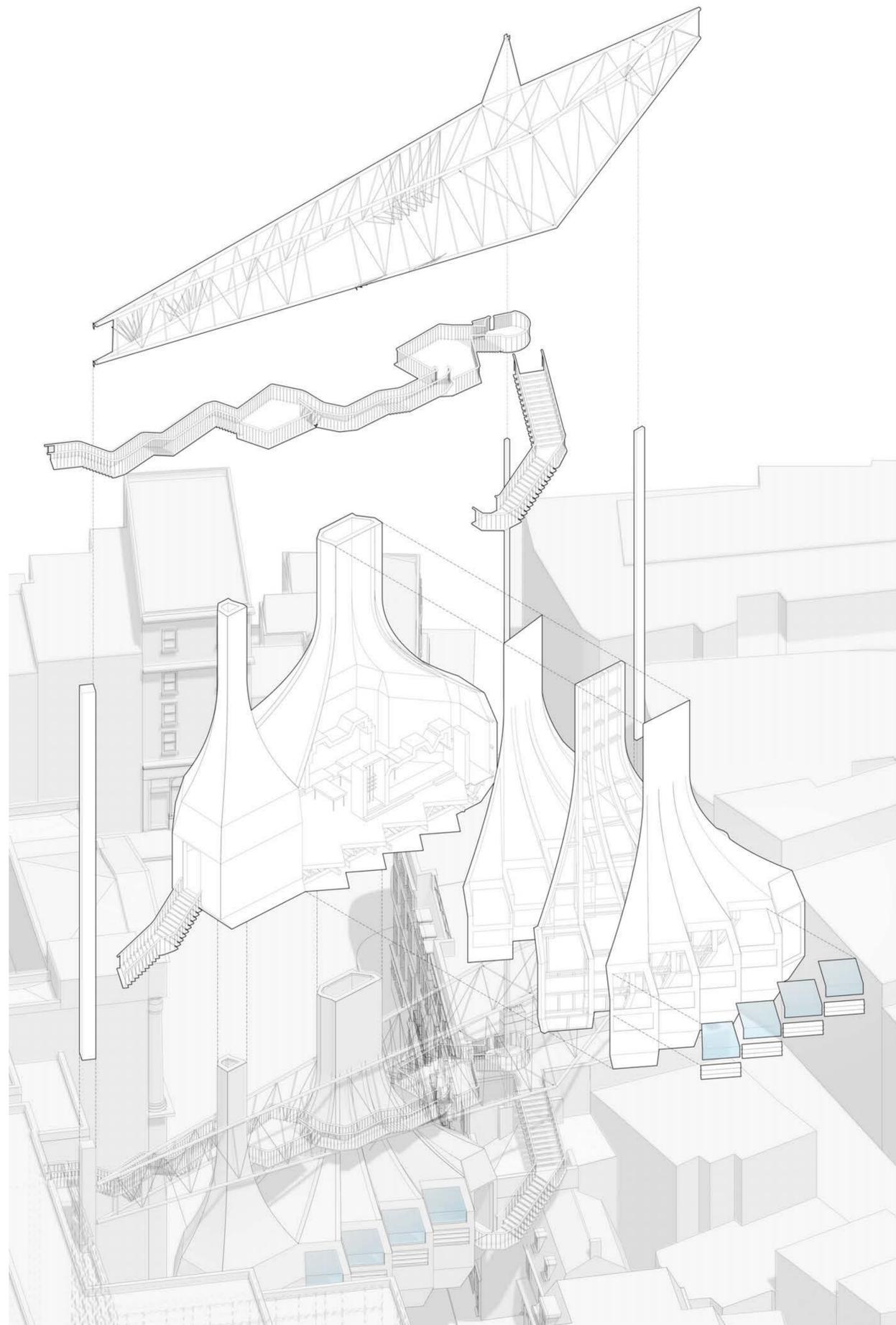


North Elevation, 1:100 Scale



Section, 1:100 Scale





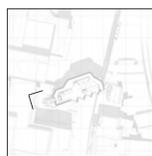
Site Atmosphere Montages

Exploded Axonometric, 1:100 Scale

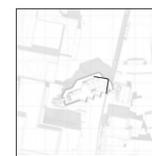




Entry



Internal View





*Rooftop Walkway*

