

# Lit and Phil Conversation Club

Hudson Street, Gateshead / Laurence Elsdon







# Introduction



## Brief

- + The Literature and Philosophical Society was founded in 1793 as a Conversation Club - an independent library for the purpose of sharing knowledge.
- + Building upon the foundation of knowledge and achievement obtained by notable members of the Society the Conversation Club will be a venue where academia meets enterprise.
- + It will be an escape from the rigid professional nature of the workplace without the distractions of home.
- + The building will provide a creative, inspiring environment in which ideas can flourish.
- + The scheme will embody the ethos of sharing knowledge and compliment the existing Lit and Phil.



- + The current Lit and Phil is very clearly a place for literature. Books are recessed into every wall.



- + Books rise two storeys with access to the second floor via an elegant spiral staircase.

- + In the main room low shelves are arranged to form a isolated study space.



- + With the walls clad entirely in books the only daylighting is provided from large skylights.

- + For structural reasons they are slightly domed.

## Noteable Members

- + Since its founding the Lit and Phil has had numerous notable members who have had a significant impact in almost every field.
- + It's difficult to say whether the Lit and Phil helped them accomplish their feats or whether it was their success that drew them to the society.
- + The society is clearly an important player in academia and enterprise and should be celebrating these notable members.



John Dobson

- + Architect.
- + Designed Central Station among other notable buildings.
- + Worked with Richard Grainger to redevelop Newcastle



Richard Grainger

- + Architect
- + Redeveloped the centre of Newcastle in the 19th century along with John Dobson



Robert Stephenson

- + President of the Society 1855-1860
- + Mechanical and structural engineer.
- + Designed the High Level Bridge



Joseph Wilson Swan

- + President of the Society 1911-1914
- + Pharmacist, chemist, electrical engineer and inventor.
- + Invented the incandescent light bulb



John James Audubon

- + American ornithologist and artist.



Thomas Bewick

- + Wood engraver.
- + Illustrated various editions of Aesop's Fables



W.G. Armstrong

- + Inventor, industrialist and businessman.
- + Designed a lighter, more mobile field gun for the Crimea War

James Losh

- + Vice President of the Society 1799-1833
- + Barrister and reformer.
- + First chairman of the Newcastle and Carlisle Railway

Harriet Martineau

- + Political journalist.
- + Often cited as the first female sociologist.



Charles Grey

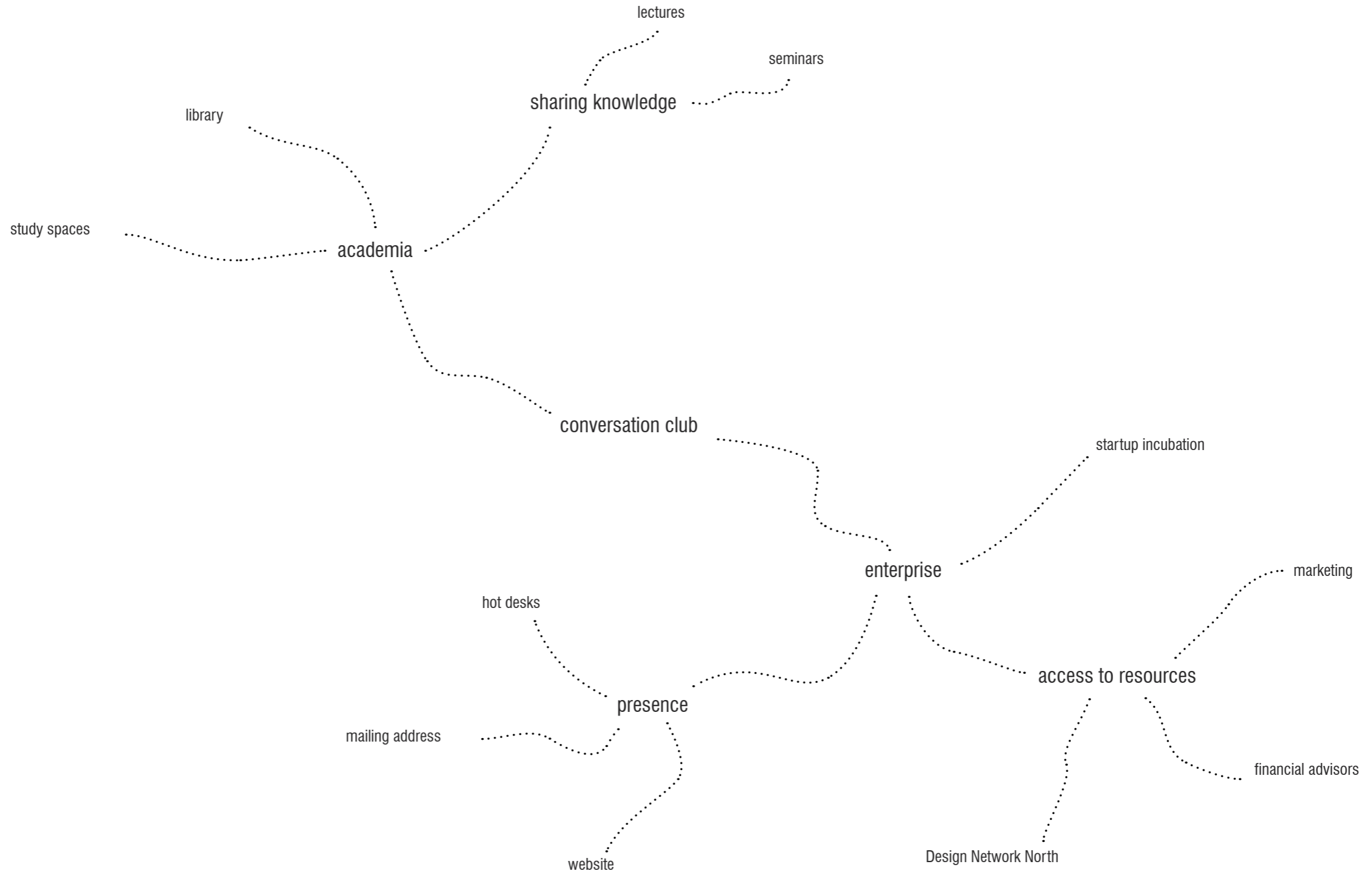
- + 2nd Earl Grey
- + Prime Minister and social reformer.



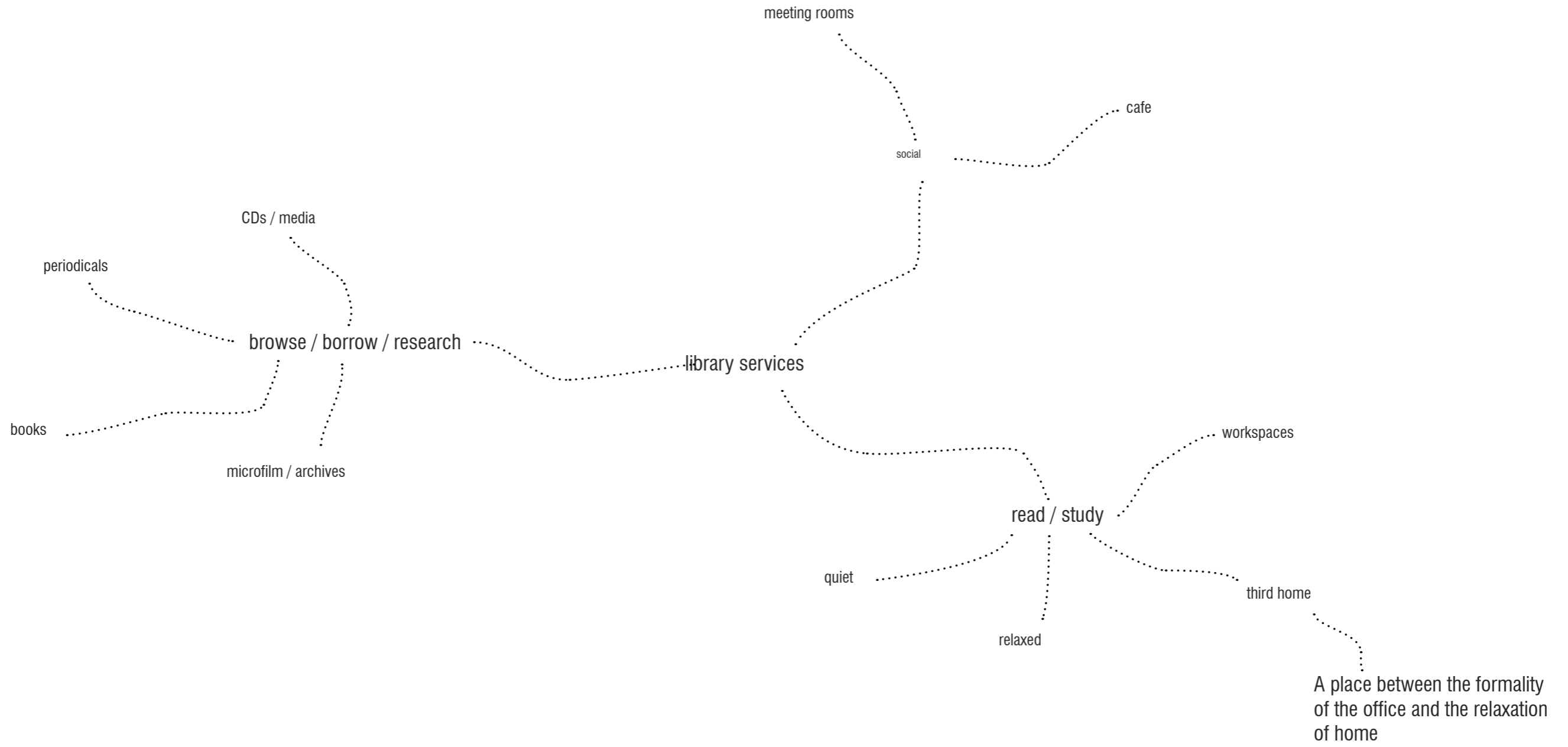
Robert Spence Watson

- + President of the Society 1901-1911
- + Solicitor, lecturer and writer.

Conversation Club



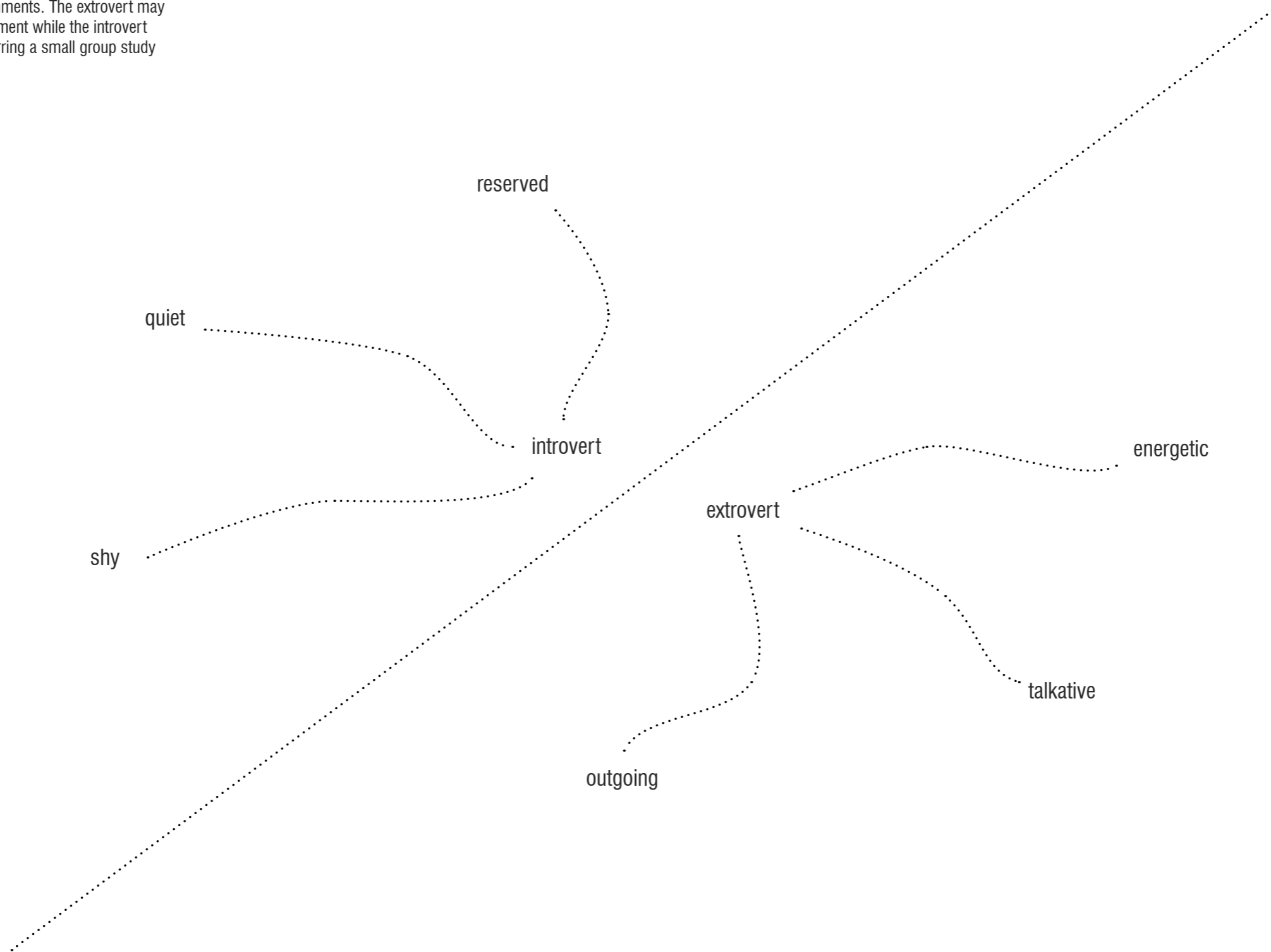
Conventional Library Services





### Introvert vs Extrovert

Introverts and extroverts require different environments. The extrovert may be happy in a noisy, open place working environment while the introvert would struggle to make themselves heard, preferring a small group study space or a solitary booth.



# The Site



Key Locations



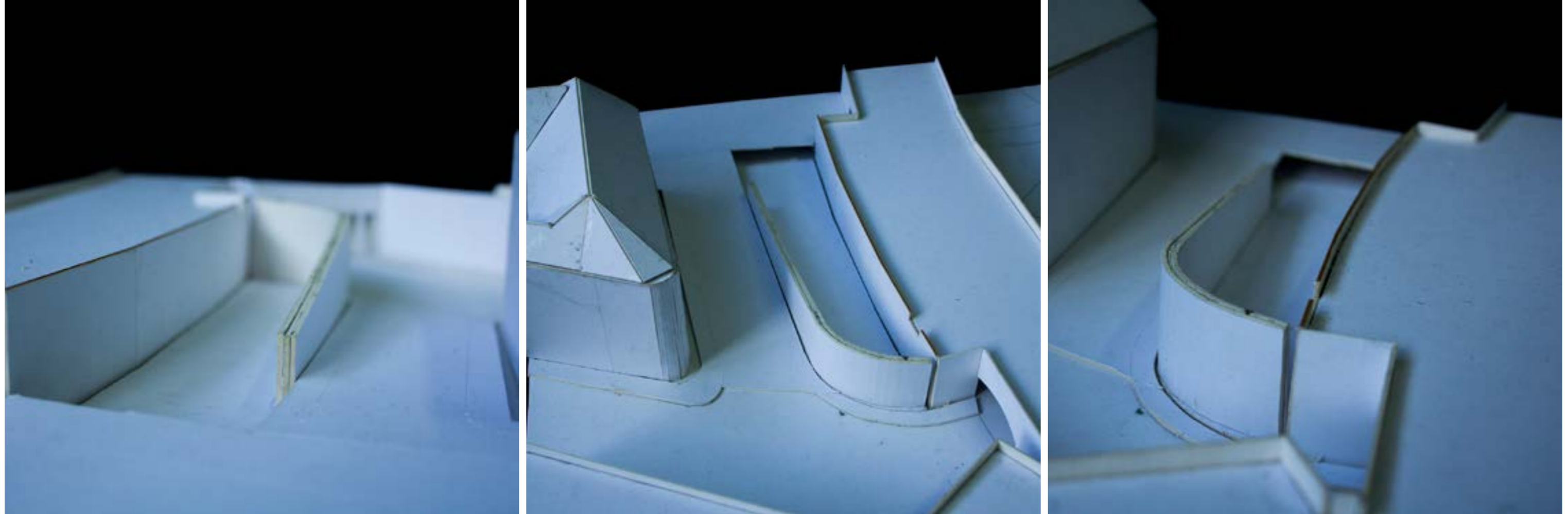
- Current Lit and Phil
- Proposed Site
- Enterprise Centres

- + i2, i4, i6 & i8 Newcastle Enterprise Centres
- + Newcastle Stephenson Quarter
- + The Toffee Factory/Ouseburn Development
- + Baltic Business Quarter
- + The Point, Gateshead
- + Gateshead Town Centre Development

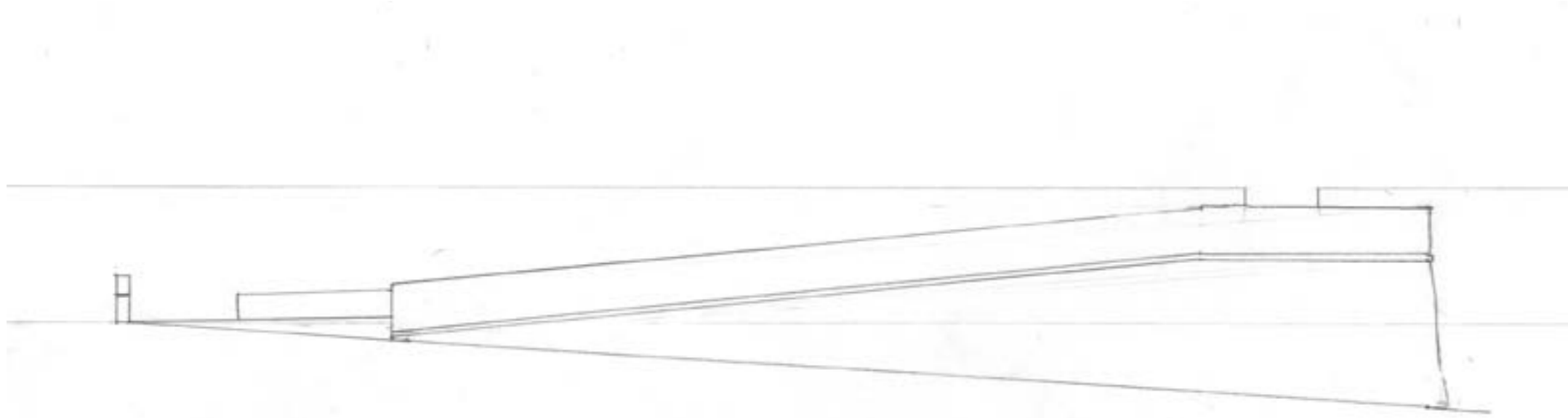
Site Photos



Site Model 1:200



1:200 Elevation



Site Section

+ Hudson Street Site





# Site Analysis





Site Context



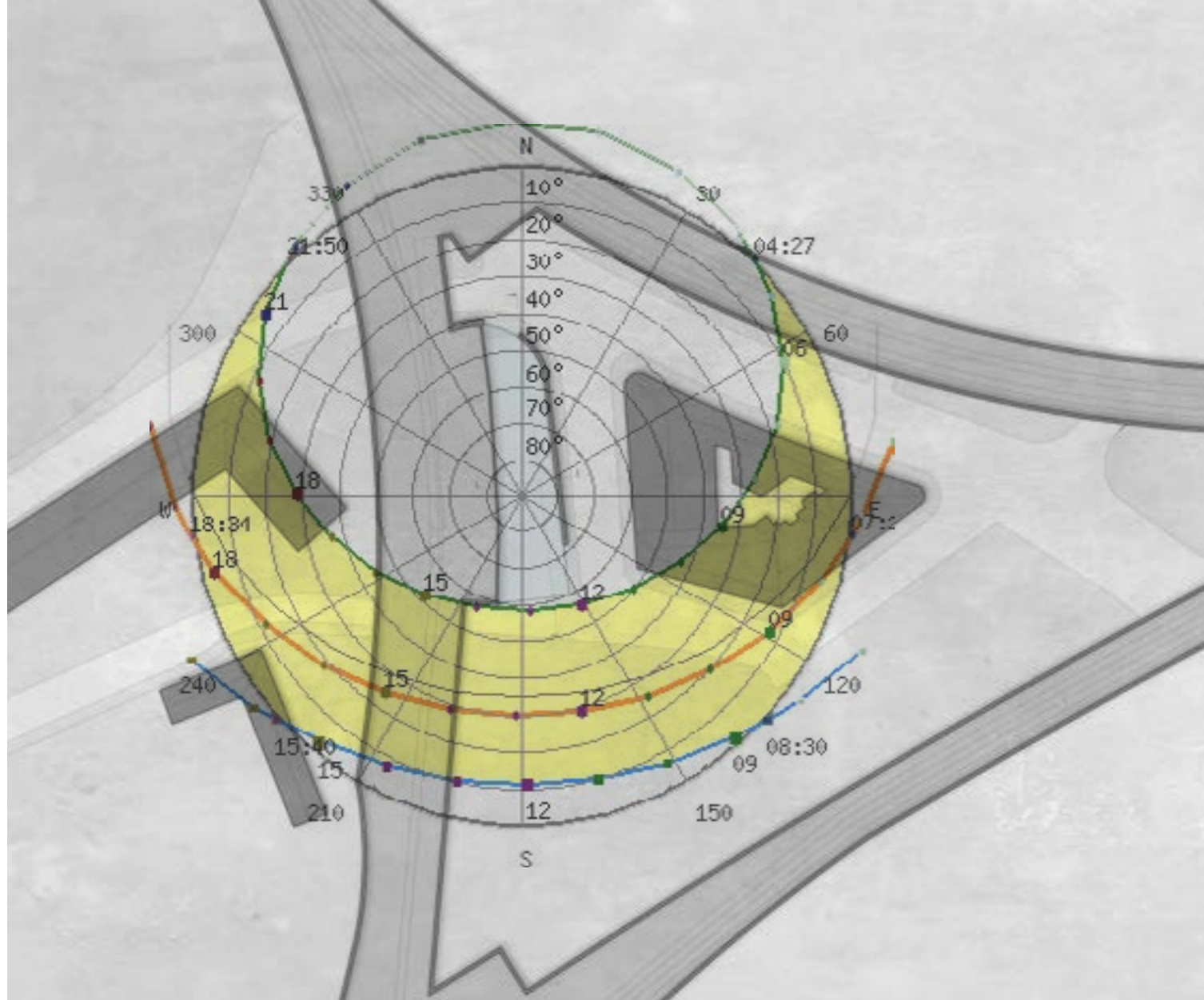
- The Site
- Roads
- Railway
- Buildings

Site Textures



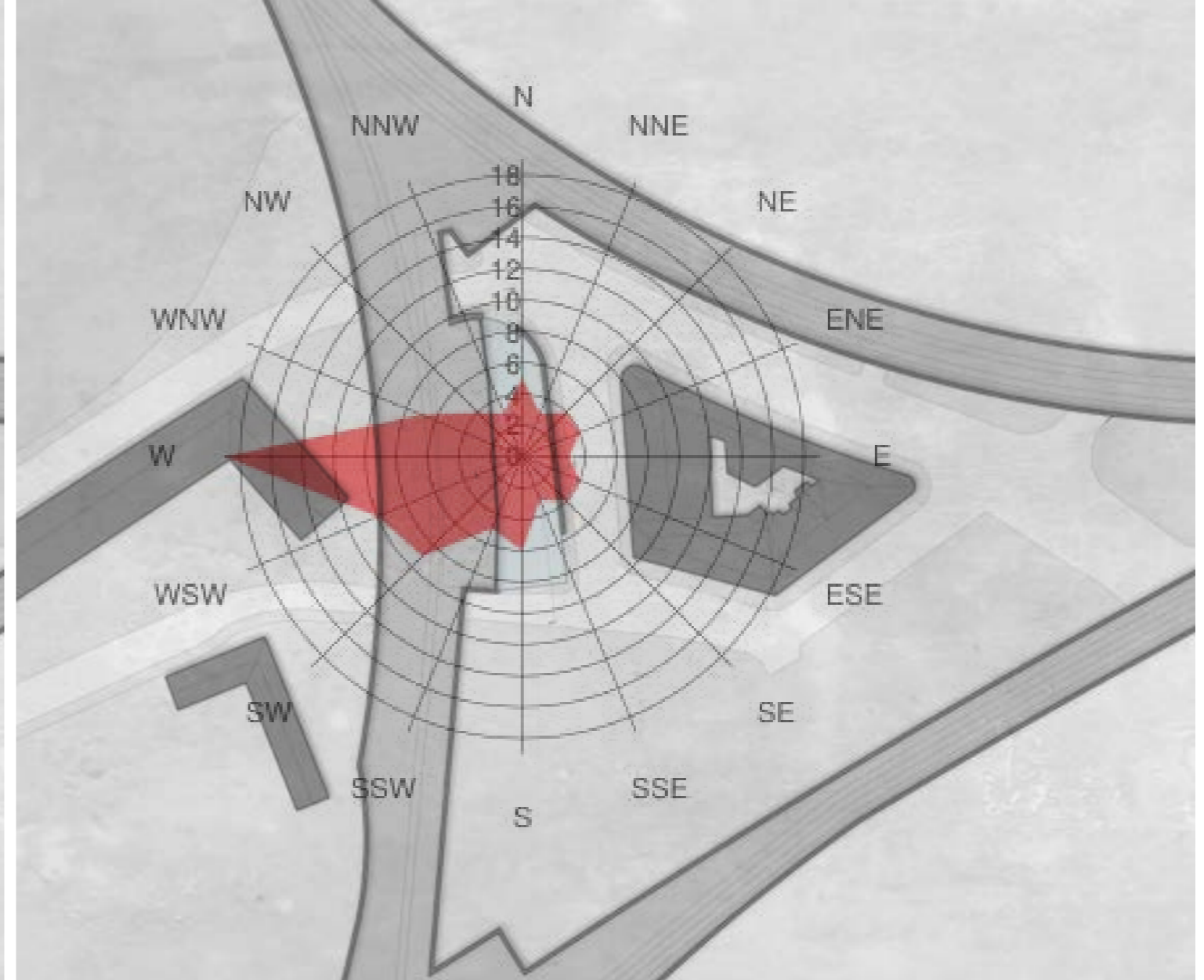
-  Soft / Landscaped
-  Asphalt / Public
-  Asphalt / Private
-  Loose / Granular
-  Scrub / Derelict

Sun Analysis



1:1000 site plan

Wind Analysis

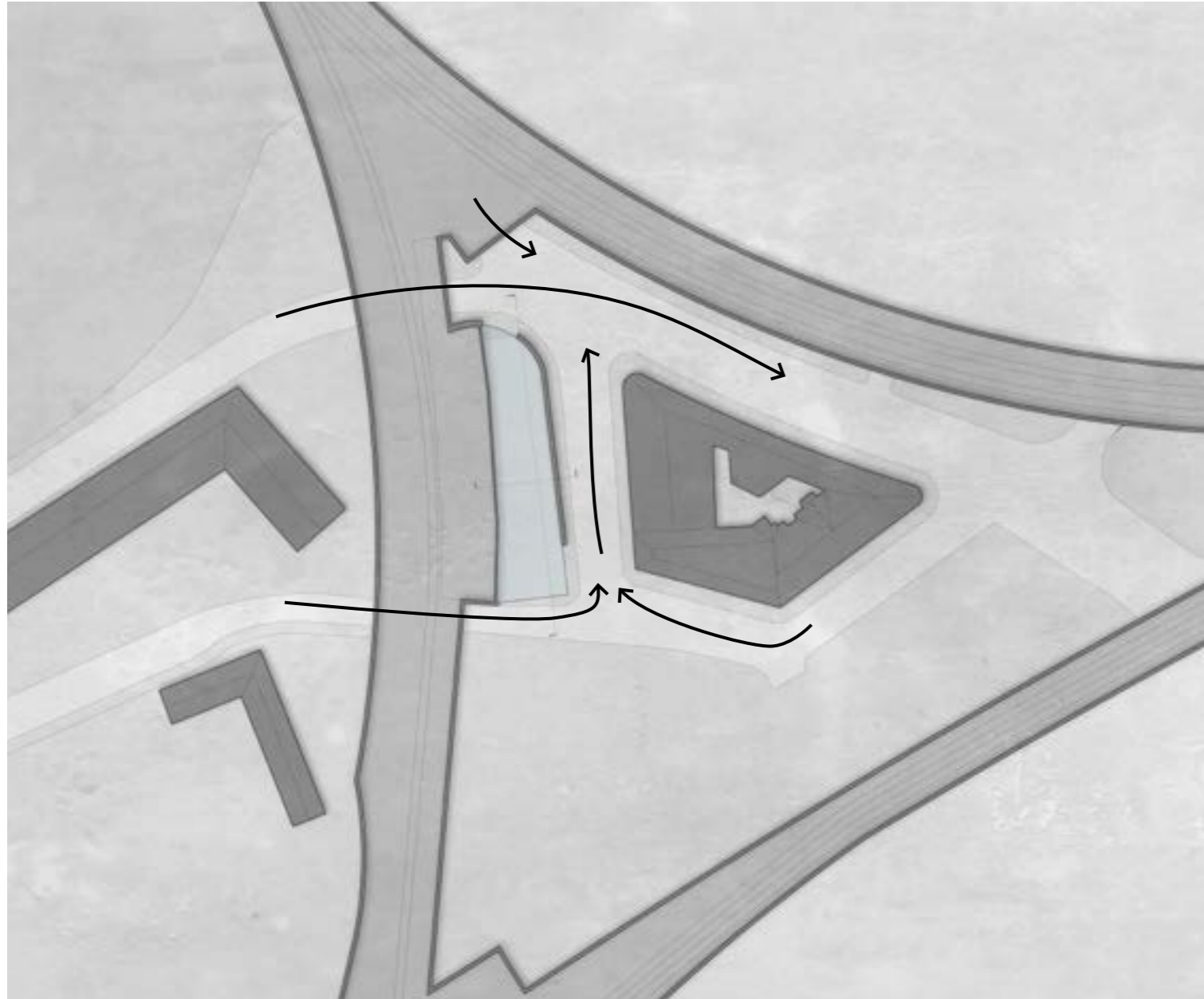


1:1000 site plan

+ Gaisma (Unknown Date) Sun path diagram. Available at: <http://www.gaisma.com/en/location/newcastle-upon-tyne.html>

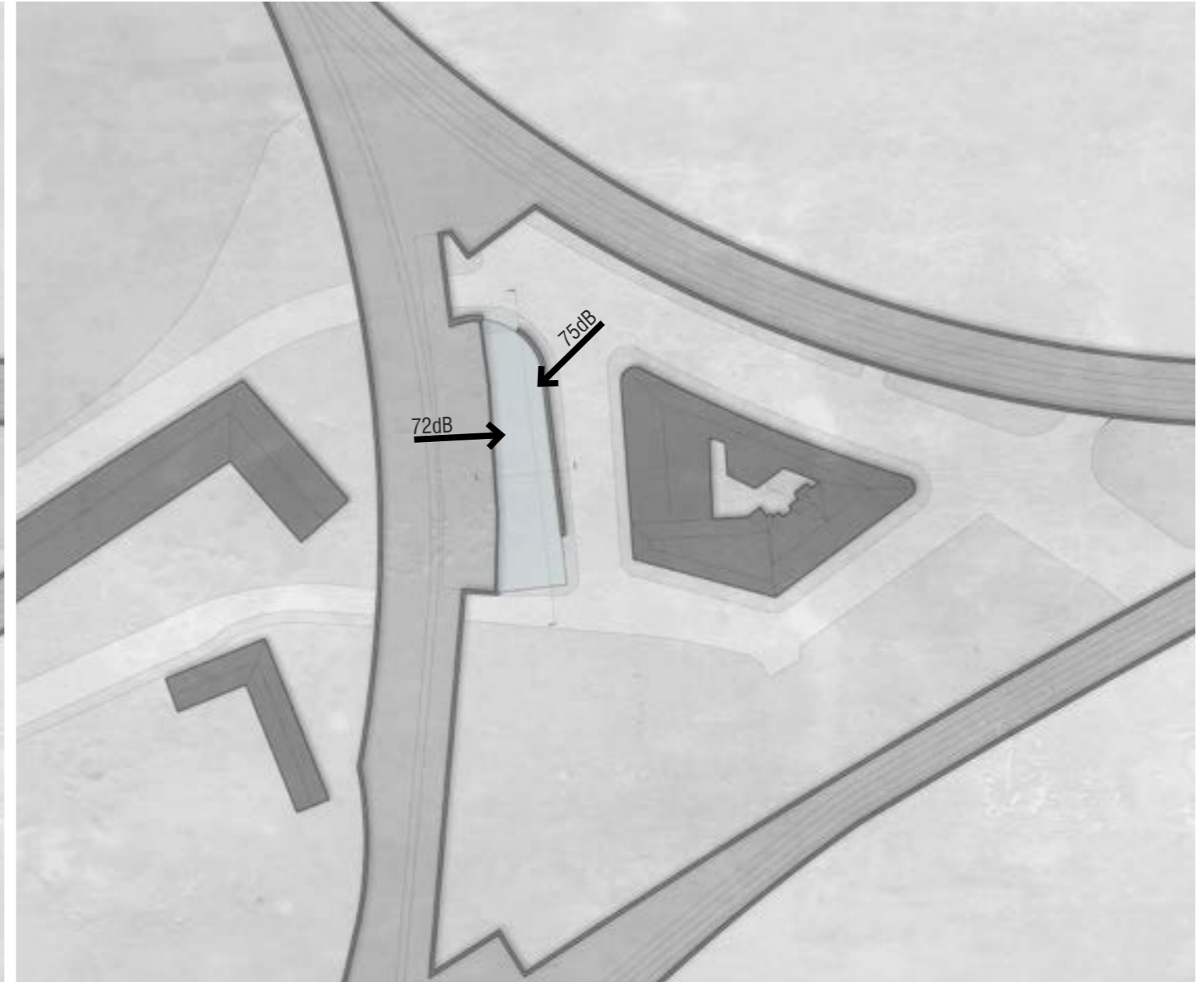
+ Windfinder (Unknown Date) Average wind diagram. Available at: [http://www.windfinder.com/windstats/windstatistic\\_newcastle.htm](http://www.windfinder.com/windstats/windstatistic_newcastle.htm)

Approach Routes



1:1000 site plan

Noise Sources



1:1000 site plan

- + Trains go past the site slowly and subsequently are not the greatest noise source.
- + Peak dB levels for a train were 72dB and peak for a bus going past 75 dB. Average traffic levels were around 50dB.

# The Scheme



Sharing Knowledge



- + The New Lit and Phil is built upon the ethos of the original Conversation Club.
- + It's a place for the sharing of knowledge.
- + This is immediately apparent with the lecture space positioned prominently at the entrance.
- + The semi-circular layout is derived from the shape of the rotunda wall, but also relates to classical democratic precedents such as the Athenian Pnyx and Roman Senate.
- + The lecture space is open to the entire building to encourage everyone to take part in the exchange of knowledge.
- + While lectures are not taking place the seating can be used as a breakout space for socialising.
- + Recorded lectures and academic resources such as TED ( slogan: talks by remarkable people, free to the world). Can be played on projectors throughout the day imparting knowledge and giving people a focus for discussion.



Victorian Operating Theatre Museum

- + Public surgery viewing gallery
- + Standing spaces
- + Top lit



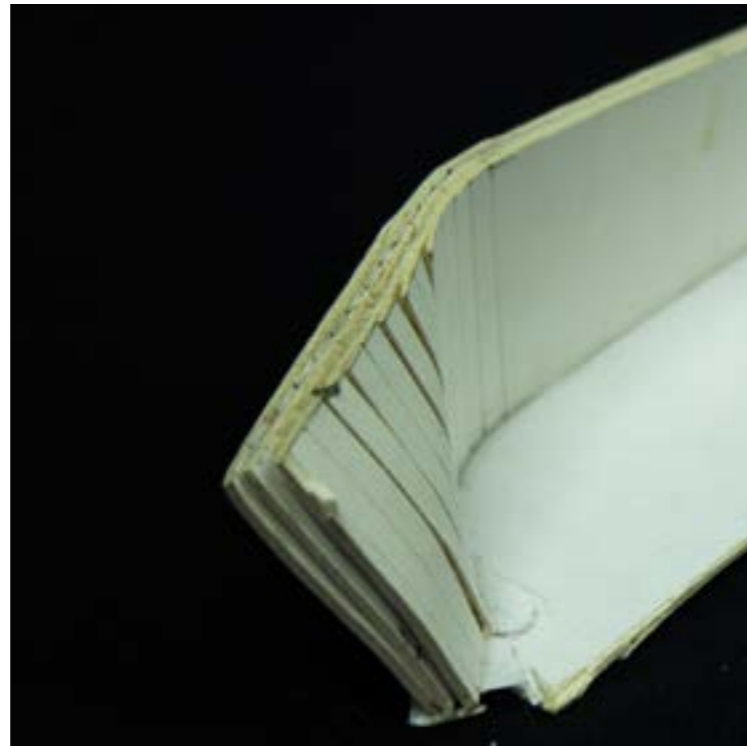
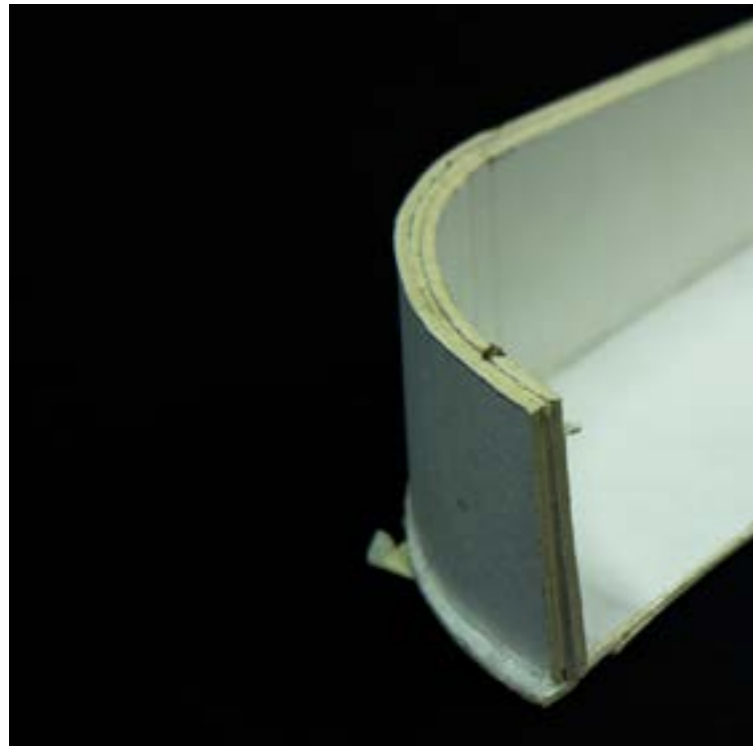
Roman Senate

- + Semi-circular organisation
- + Designed for discussion and consensus
- + Bench seating

Entrance



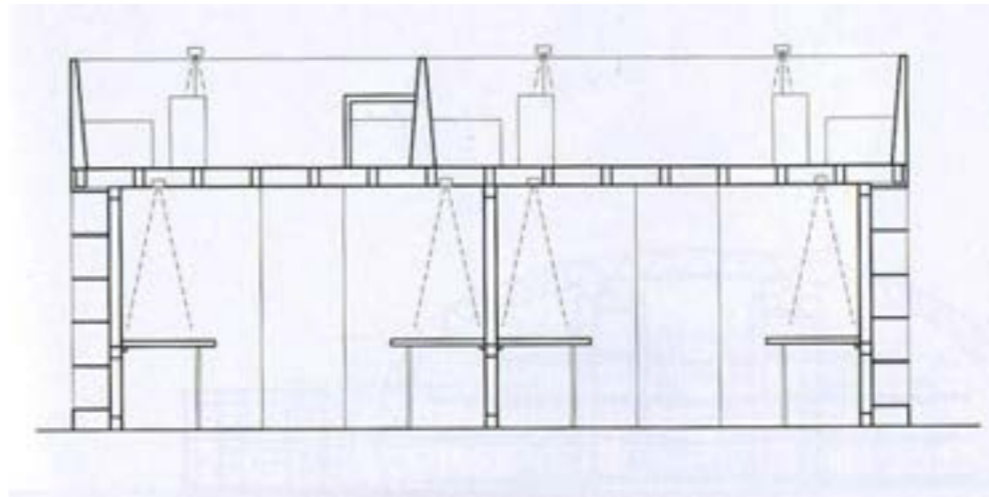
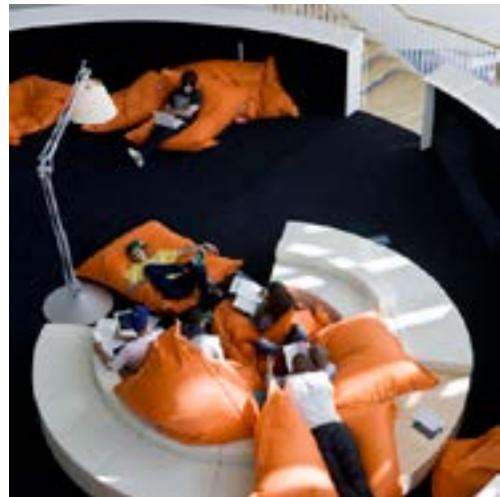
- + The pronounced entrance on Wellington Street is a symbolic peeling back to the existing fabric in order to open the building and the knowledge contained within to the public.
- + The glazed entrance echoes the openness of the society and encourages people into the building.
- + Lectures are clearly visible from the street, making the buildings function instantly apparent
- + There is a deliberate reduction of boundaries between the street and the lecture space. This demonstrates that this is a public resource anyone and everyone should use.



Rotundas



- + The library accommodation is formed into rotundas. Providing a variety of different spaces within the scheme.
- + The variety of study spaces accommodates people of different psychologies.
- + Study spaces within the rotundas are very insular, surrounded by books and are designed for those of an introverted psychology. Who learn best within a quiet, solitary environment.
- + The study spaces on top of the rotundas are very open and designed for a more extroverted person who learns best in a social environment.
- + Precedence for rotunda accommodation within an educational building can be found at Orestad College.
- + Frankfurt University's refurbishment stacked study spaces on top of bookshelves in order to increase the available floor space and provide insular study spaces below.



Orestad College / 3XN architects

- + Rotundas take up a large amount of the floorspace.
- + Within they provide interesting lecture spaces as well as services
- + Above are relaxation spaces. Furnished with bean bags and sofas.

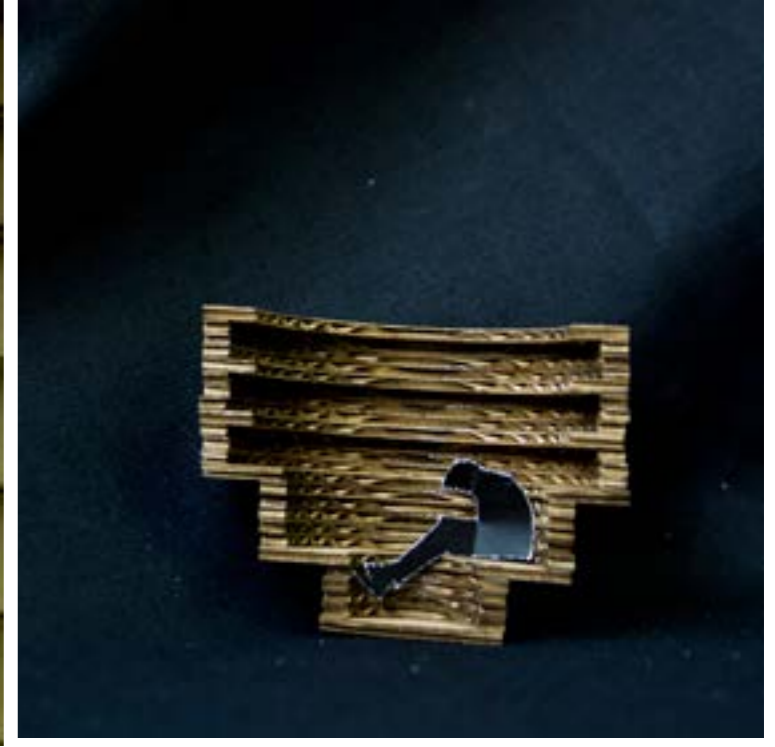
Frankfurt University Library Refurbishment

- + Additional floor space is acquired through stacking workspaces on top of bookshelves
- + The shelves form insular working spaces where the user is surrounded by walls of books

Rotunda Exploration



+ 1:20 scale model exploring the structure and ergonomics of the rotundas.



+ Early 1:50 scale study space ergonomics experiment.

Relation to Current Lit and Phil

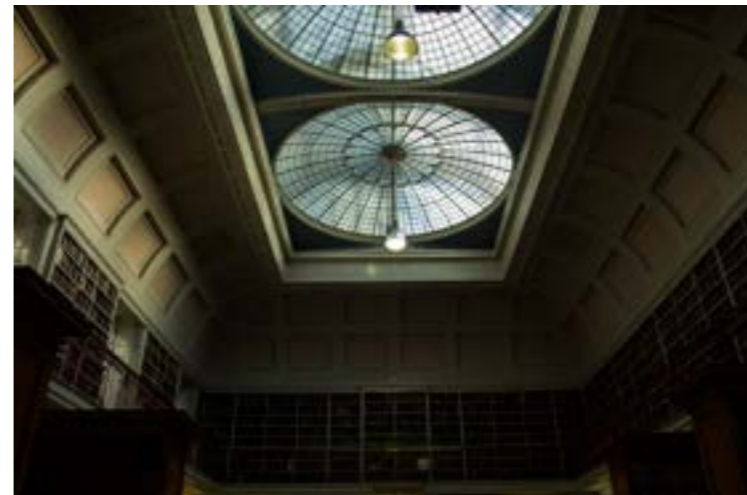


+ The rotunda has been inspired by the isolated space formed in the centre of the main room of the Lit and Phil.

+ The current Lit and Phil is very clearly a place for literature. Books are recessed into every wall.



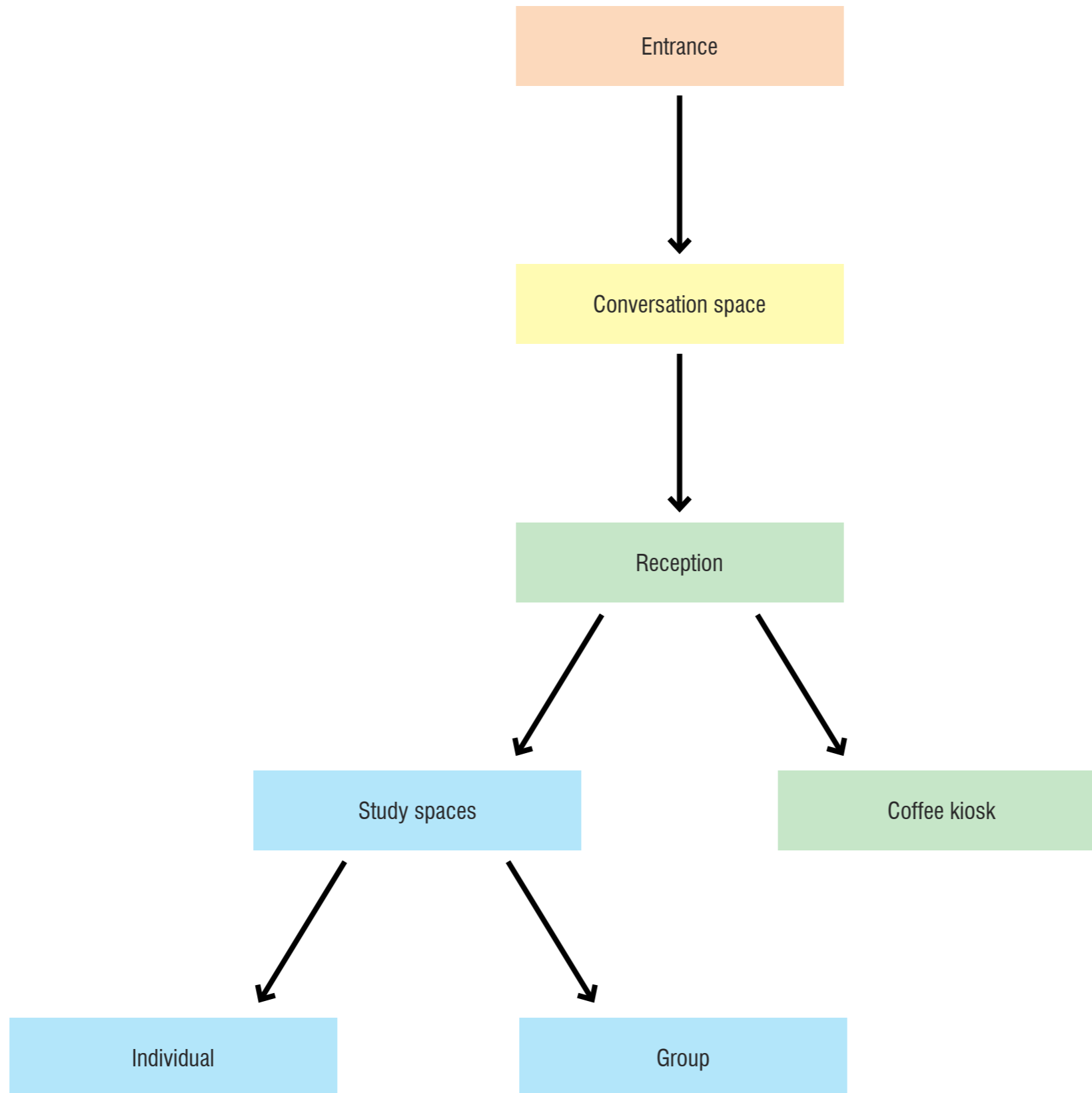
+ Books rise two storeys with access to the second floor via an elegant spiral staircase.



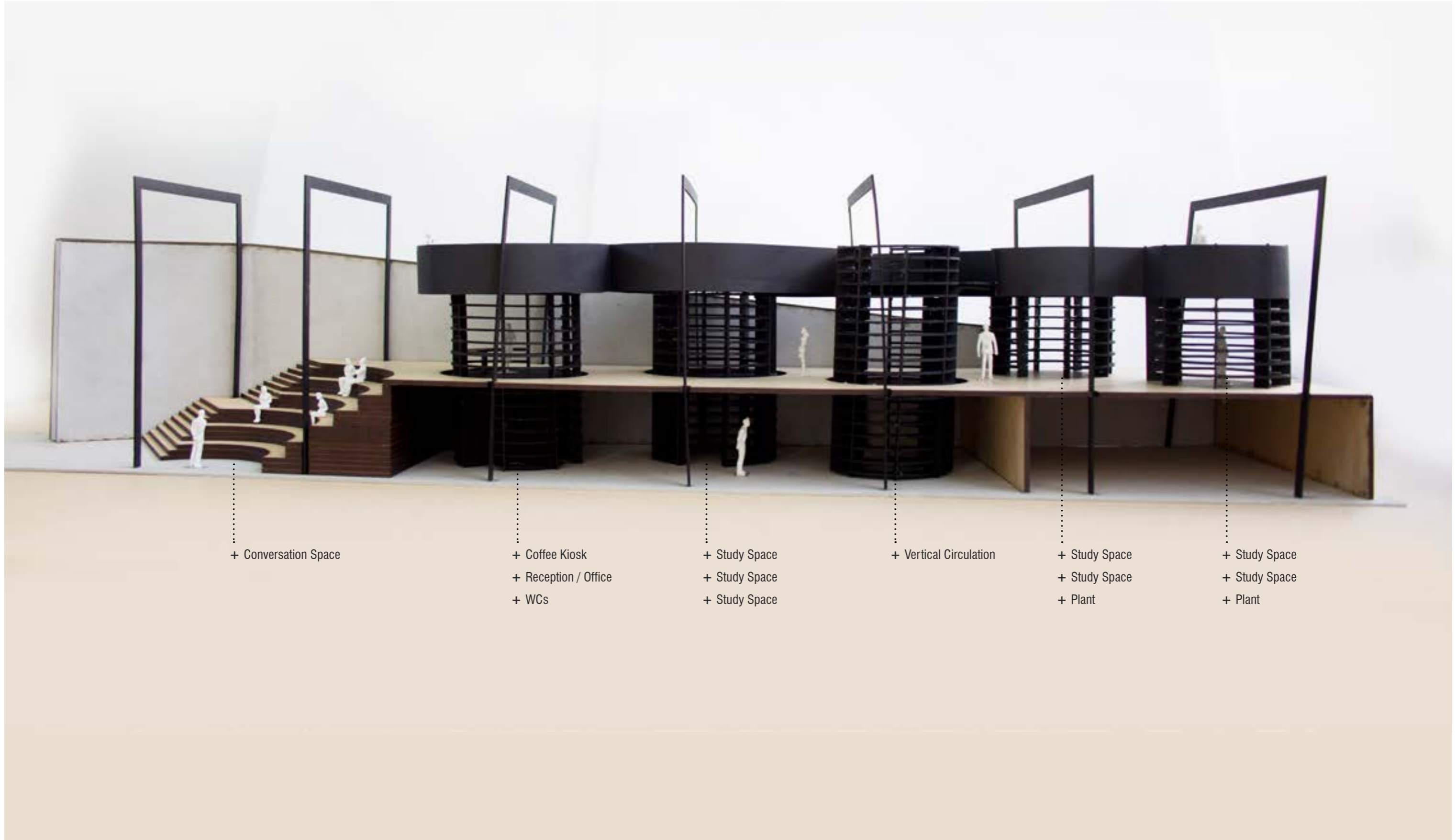
+ With the walls clad entirely in books the only daylighting is provided from large, domed skylights.

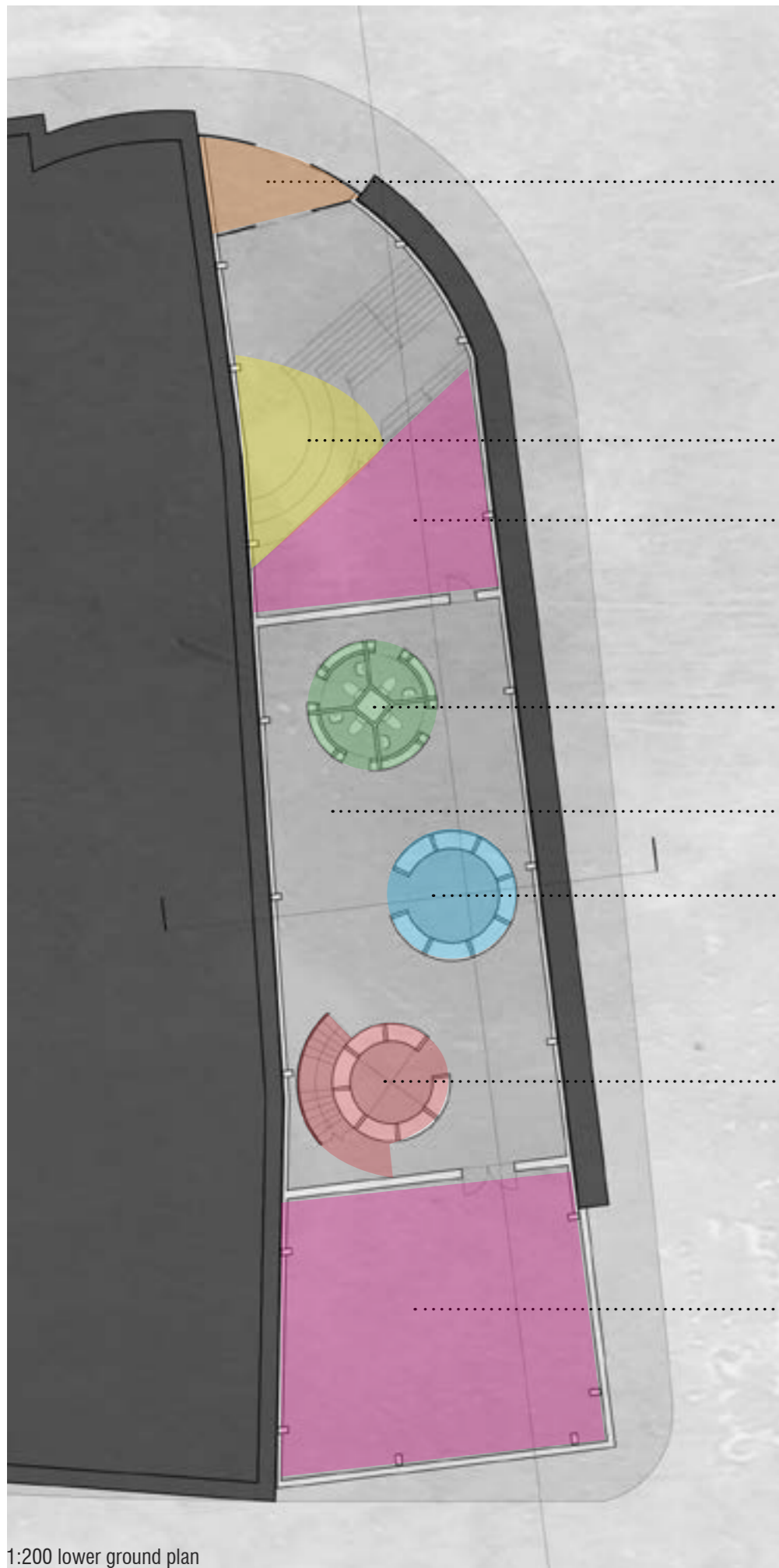


Adjacency



Organisation





+ Entrance lobby

### Entrance lobby

- + Prevents drafts penetrating the building
- + Transparent polycarbonate provides views into the scheme from the exterior
- + Minimises barriers between the road and the conversation space

+ Conversation space

### Store / Plant

- + Situated underneath the conversation space seating / stairs
- + No natural lighting

+ Store / Plant

### WCs

- + All services are stacked within a single rotunda

+ WCs

### Lower ground breakout space

- + All lower ground spaces (except conversation space) are situated below the upper ground
- + Limited daylight filters in through glass rings surrounding rotundas
- + Dim lighting suggests a much more relaxed environment secluded from the exterior
- + Acoustically insulated from the conversation space

+ Lower ground breakout space

+ Study space

### Study space

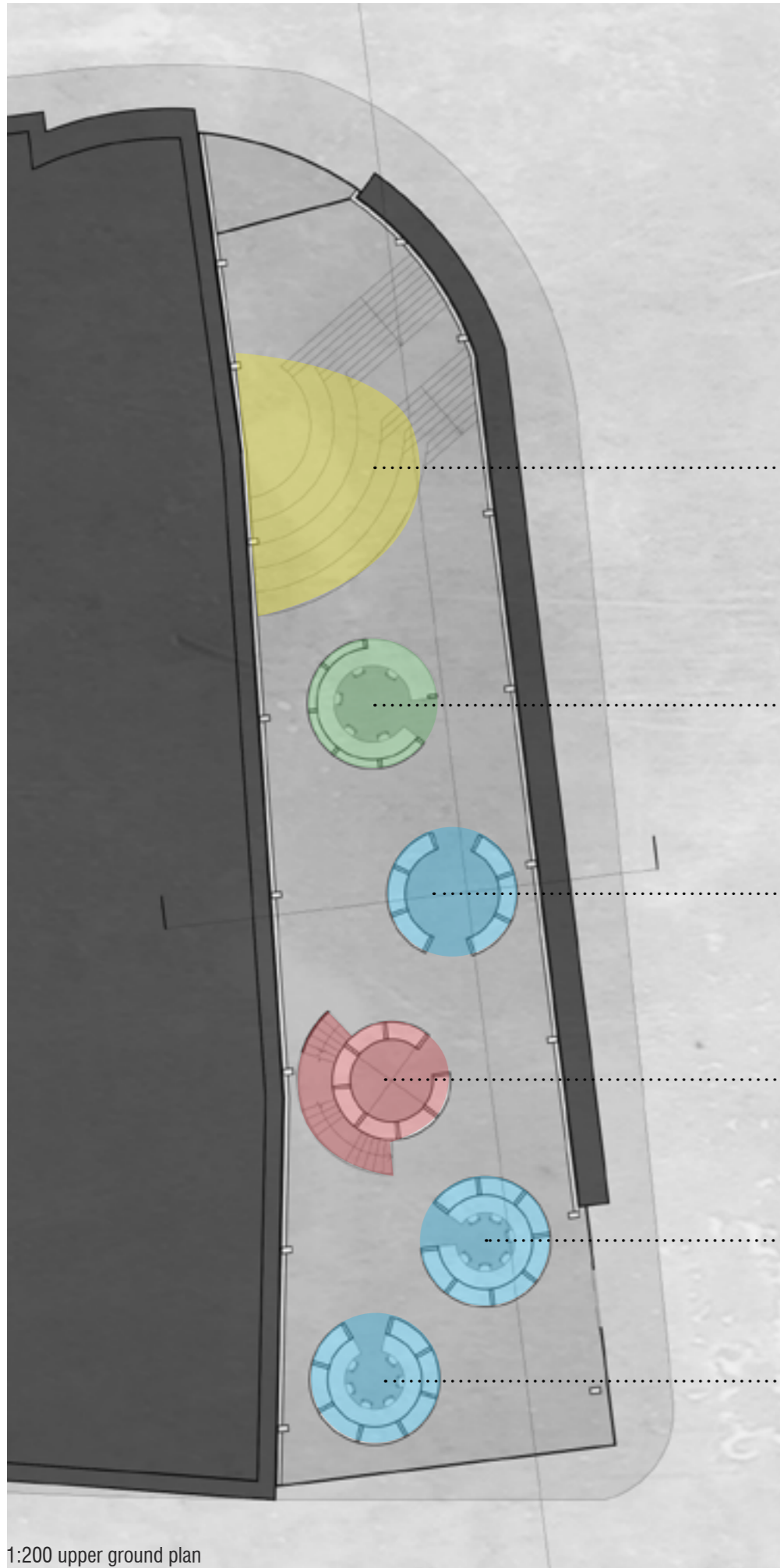
- + Dim lighting, suitable for reading but not fine study

+ Vertical circulation

### Plant

- + Generous plant provision with no natural lighting
- + Acoustically insulated from the main spaces

+ Plant



+ Conversation space

+ Reception

+ Study space

+ Vertical circulation

+ Private study space

+ Private study space

### Conversation space

- + Strongly daylit from above
- + Polycarbonate envelope reduces road and rail noises
- + Space is open to the majority of the building permitting conversation to spread
- + Reduced barriers between the road and the conversation space
- + While lectures are not in progress doubles as a projection space for recorded lectures

### Reception

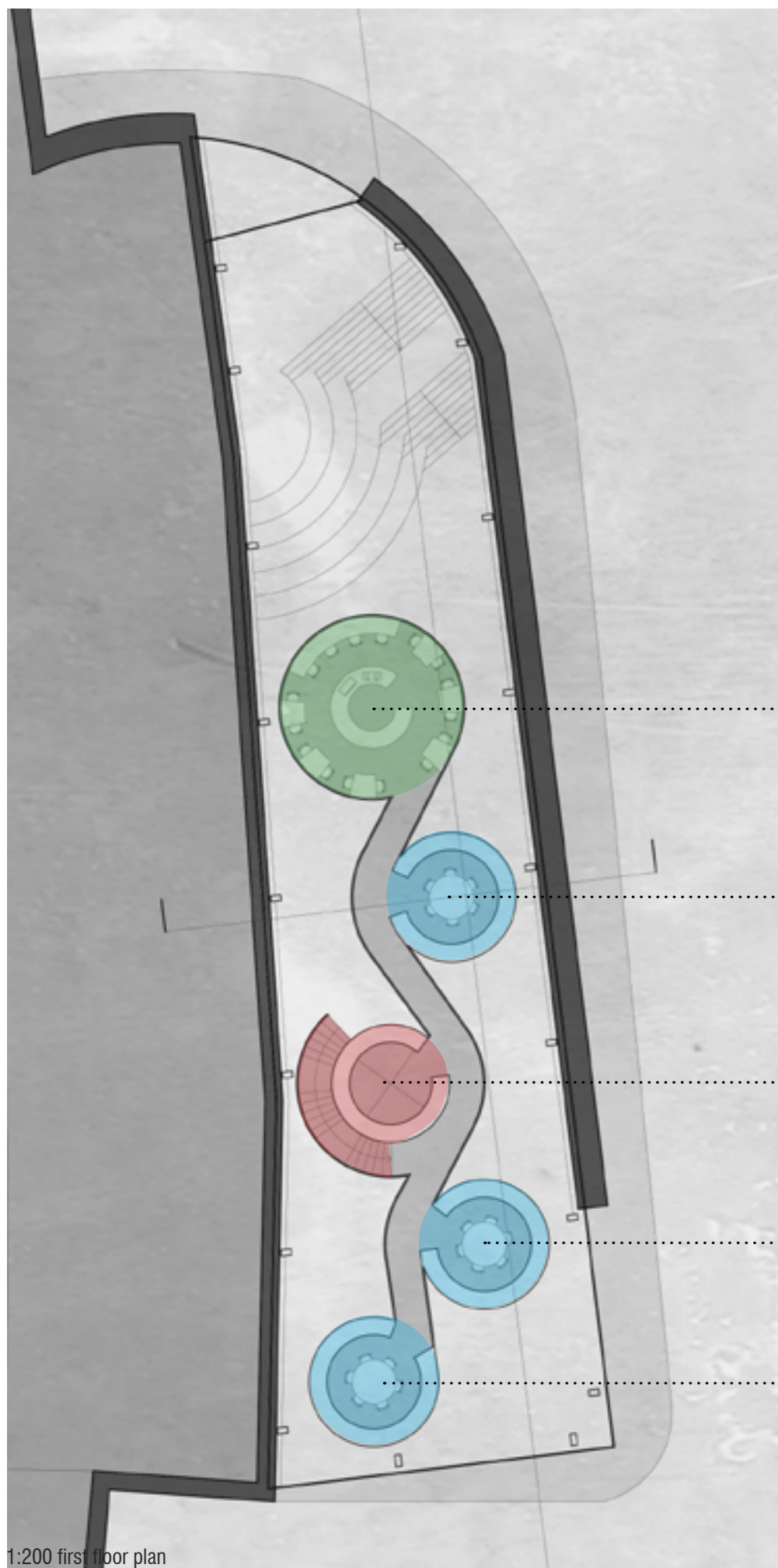
- + Task lighting
- + No specific noise requirements

### Study space

- + Task lighting
- + Books lining the rotunda provide acoustic attenuation but still permits the conversation to penetrate

### Private study space

- + Task lighting
- + Books lining the rotunda provide acoustic attenuation but still permits the conversation to penetrate
- + Private, secluded study space for individual study
- + Distant from conversation space discussion



### Coffee kiosk

- + Strong daylighting from above
- + Open to the conversation space below, thus influencing discussion
- + Coffee kiosk is comparable to a kiosk in a train station therefore little additional ventilation is required
- + Variety of seating, some outward looking towards the conversation space
- + Some inward conversational
- + Coffee can be taken away to any space within the building

### Group study space

- + Strong daylighting from above
- + Circular study tables encourage equal discussion
- + Rotunda shelves extrude up to these spaces

+ Coffee kiosk

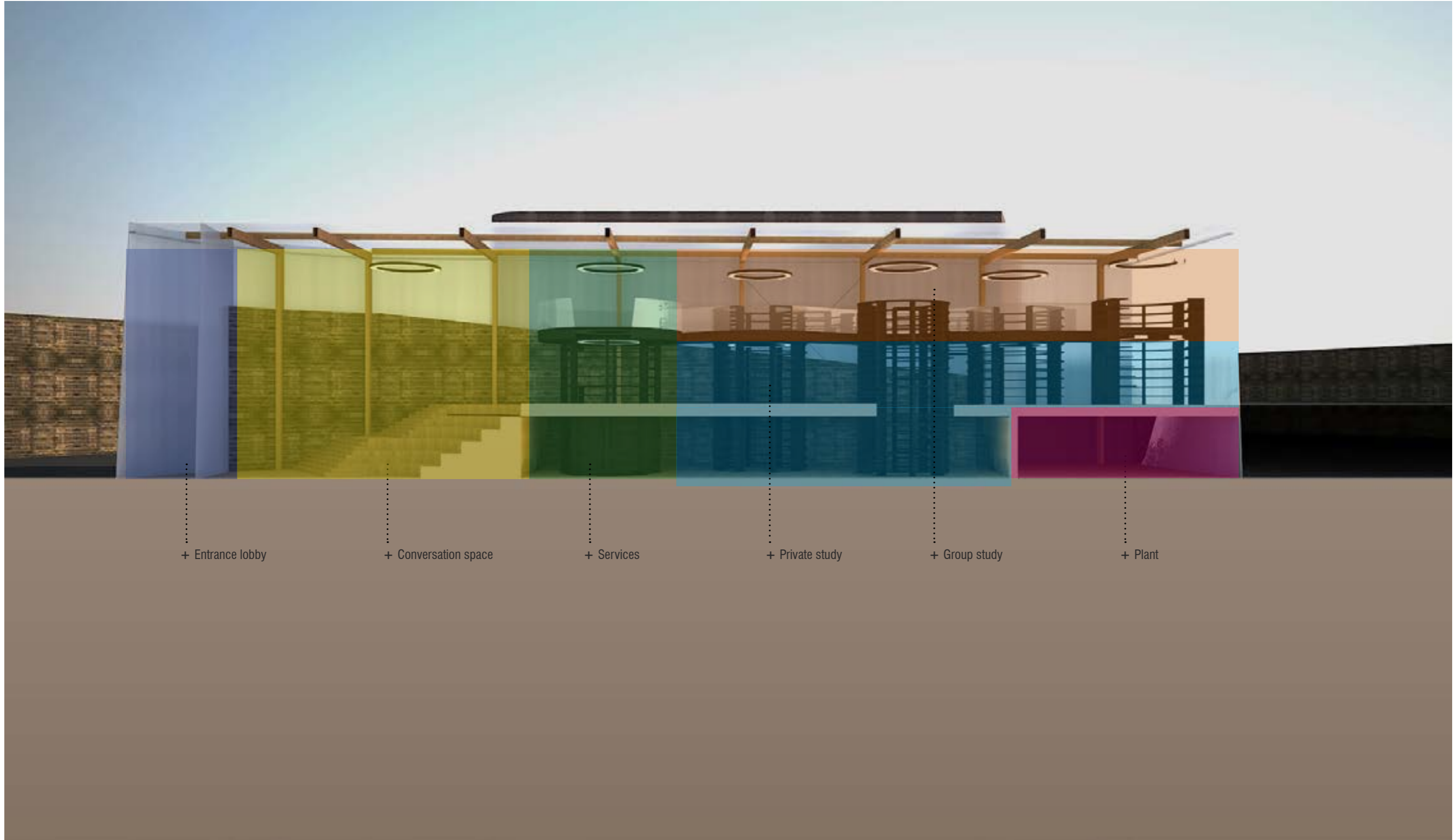
+ Group space

+ Vertical circulation

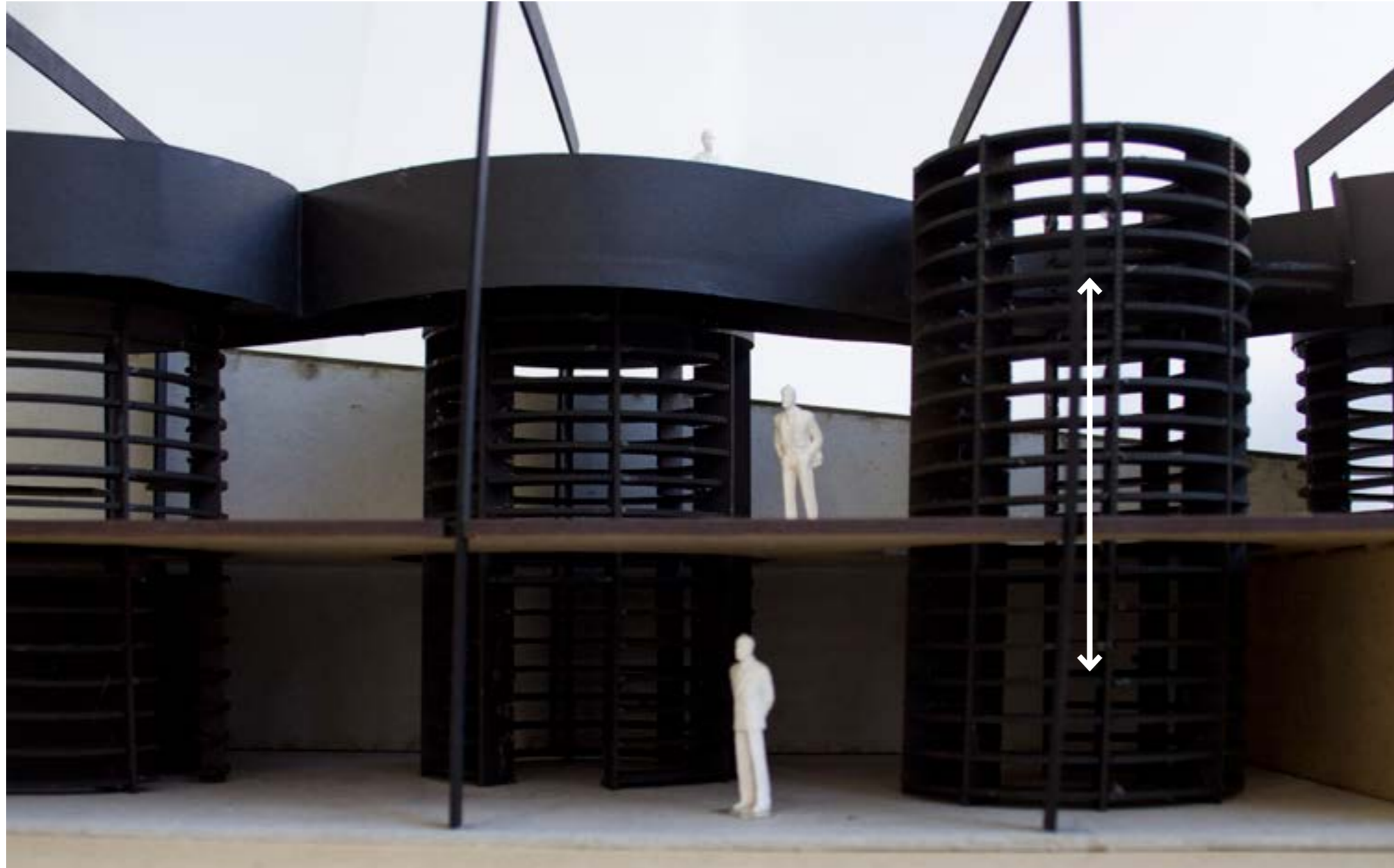
+ Group study space

+ Group study space

Organisation



Vertical Circulation



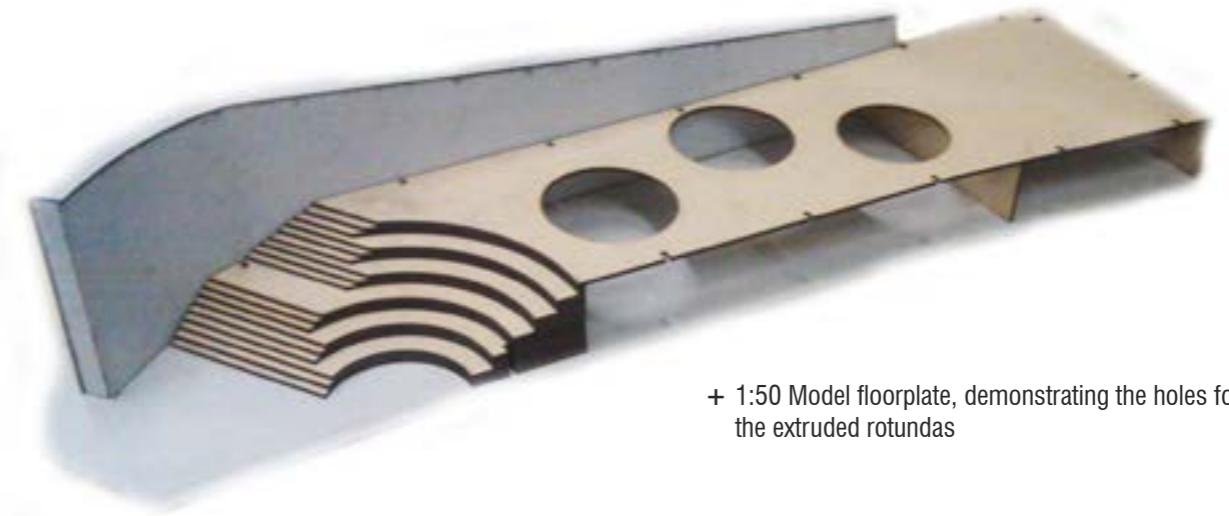
Louvre Elevator / I M Pei

- + Vertical circulation within the louvre is contained within a single stack.
- + The spiral stair wraps around a bespoke circular hydraulic lift.

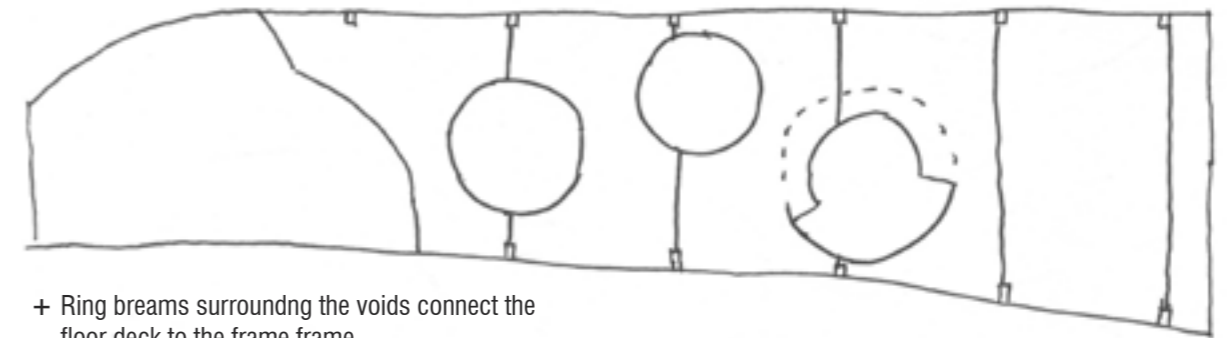
- + Inspire by the Louvre the vertical circulation within the scheme is contained within the third rotunda.
- + A bespoke hydraulic lift shaft enables the movement of the disabled and the main stair is gently wrapped around the outside. The wide stair permits people to linger and pick books from the rotunda wall.

### Cross Bracing

### Primary Structure



+ 1:50 Model floorplate, demonstrating the holes for the extruded rotundas



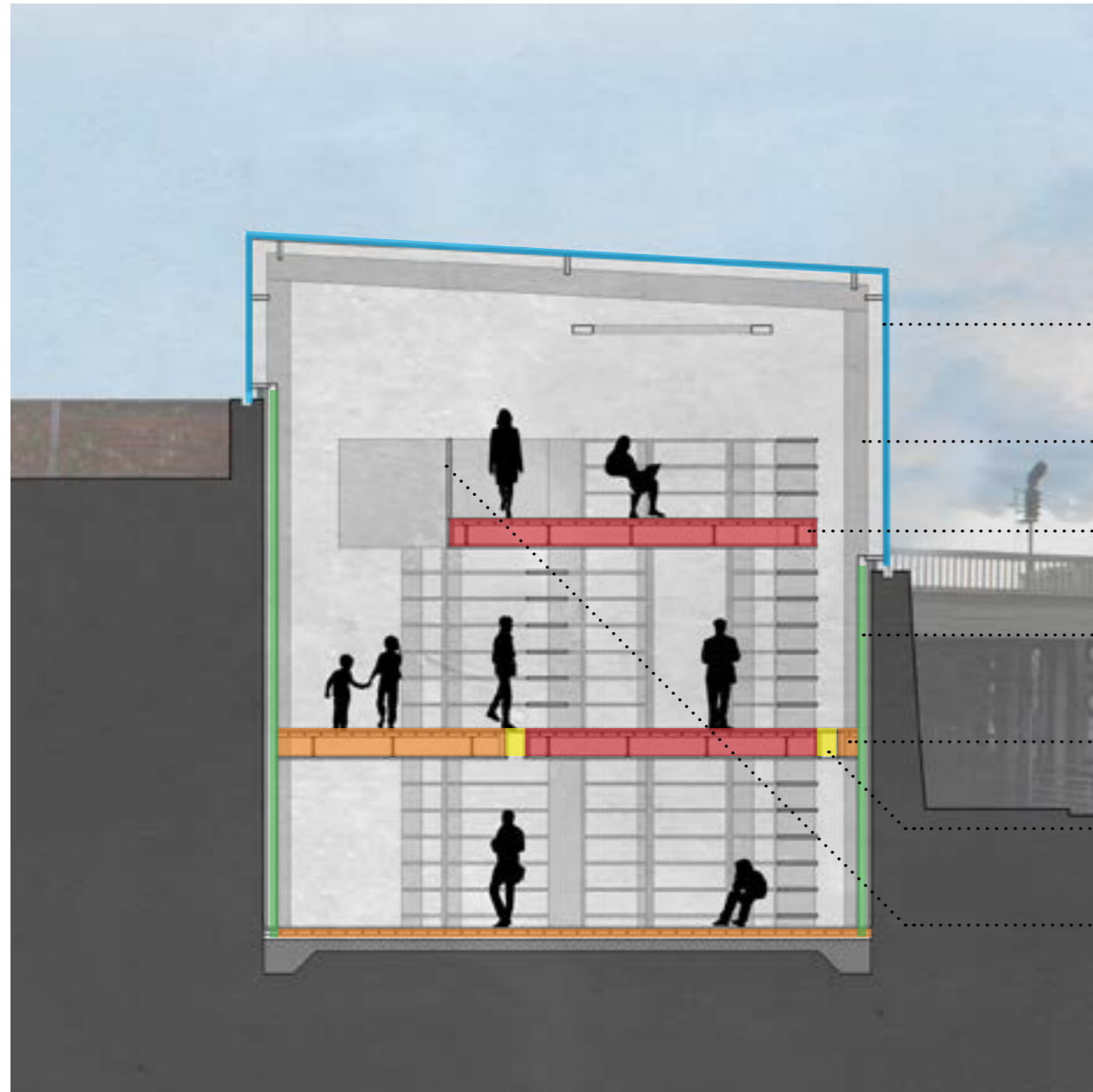
+ Ring beams surrounding the voids connect the floor deck to the frame frame

- + The scheme utilises a timber portal frame.
- + Timber has been chosen for its sustainability and low embodied energy.
- + The low height and slim width of the scheme mean spans are easily covered with timber.
- + The rotundas are each separate entities that sit within the scheme.
- + Where the rotundas extrude through the floorplate ring beams provide the necessary reinforcement.
- + The portal frame is braced by an Ancon tension and compression system





Interior surfaces



- + Polycarbonate
- + Glulam columns
- + Rotunda timber deck
- + Stone crete
- + Timber deck
- + Glazed flooring
- + Glazed balustrade

Polycarbonate envelope

- + 60 mm Rodeca Polycarbonate
- + Roof protected by a rain suppression mesh to reduce drumming noise

Glulam columns and beams

- + Metsawood glulam

Rotunda timber deck

- + 20.5 mm Junckers black stained oak timber floor

Stone crete

- + 50 mm Stone-crete wall system by Increte Systems
- + Cast in place to match the existing stone wall

Timber deck

- + 20.5 mm Junckers oak timber floor

Glazed flooring

- + Saint Gobain Lite-Floor laminated safety glass
- + Accentuates the extension of the rotundas into the lower ground floor

Glazed balustrade

- + Saint gobain glazed balustrade educes the visual impact of the 1st floor bridge links.

Polycarbonate Envelope

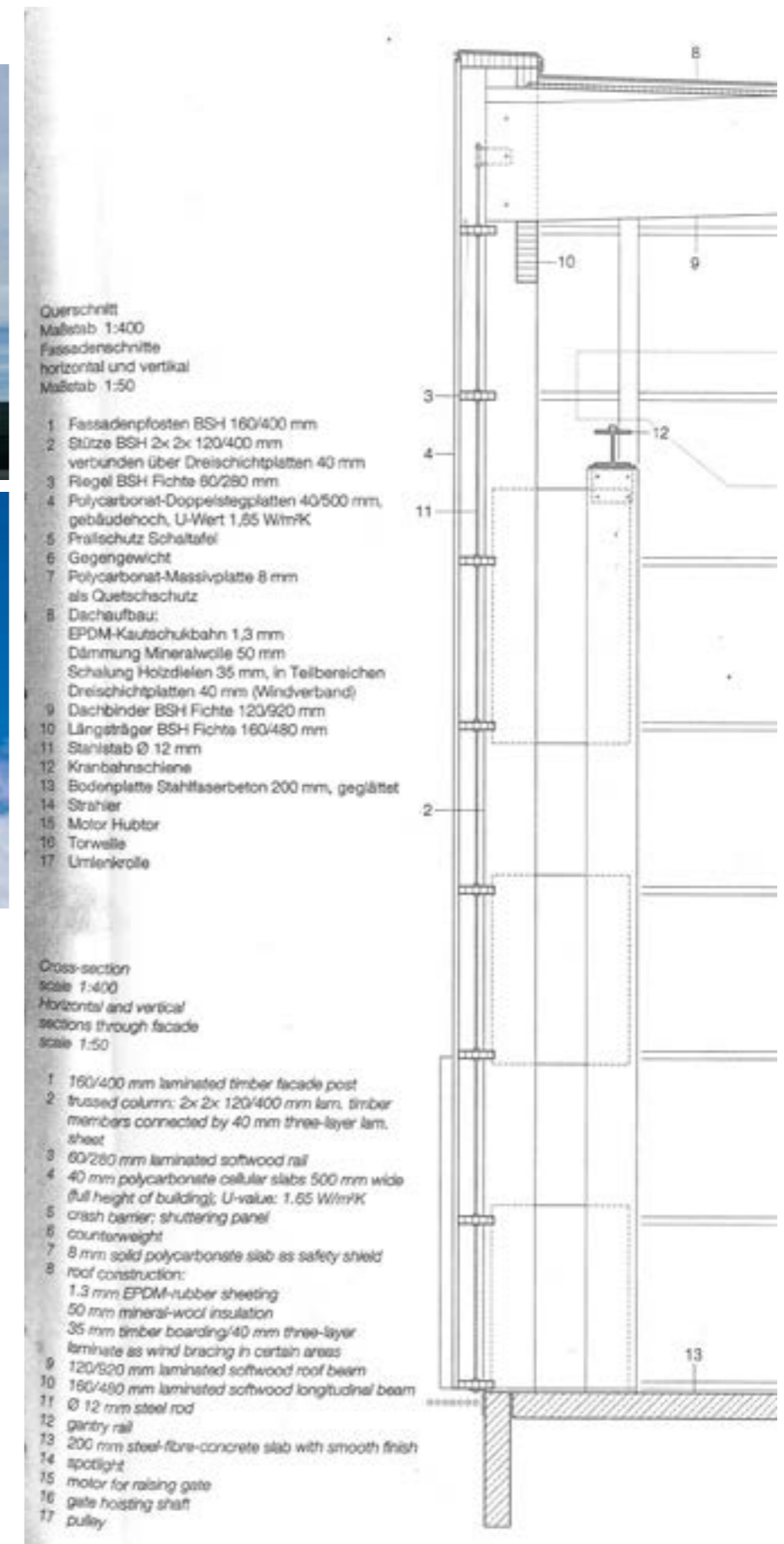


- + The walls and roof are clad in Rodeca 60mm translucent polycarbonate, attached to the primary structure via timber soffits.
- + The polycarbonate maximises daylighting while reducing glare and solar gain.
- + The transparency (up to 80%) means the rotundas and lecture space are visible from the building's exterior.
- + In the evenings the entire building will glow, emitting a warm light to the surroundings, encouraging people to seek refuge within.
- + The rectilinear polycarbonate envelope contrasts with timber rotundas and the stone walls, providing a clear visual separation between the different entities.
- + Precedence for the cladding comes from the Bobingen Factory.
- + Rodeca 60mm Polycarbonate has a U-value of 0.71, sound insulation of 27dB,



Bobingen Factory / Florian Nagler

- + Flush polycarbonate cladding provides a rich, transparent finish

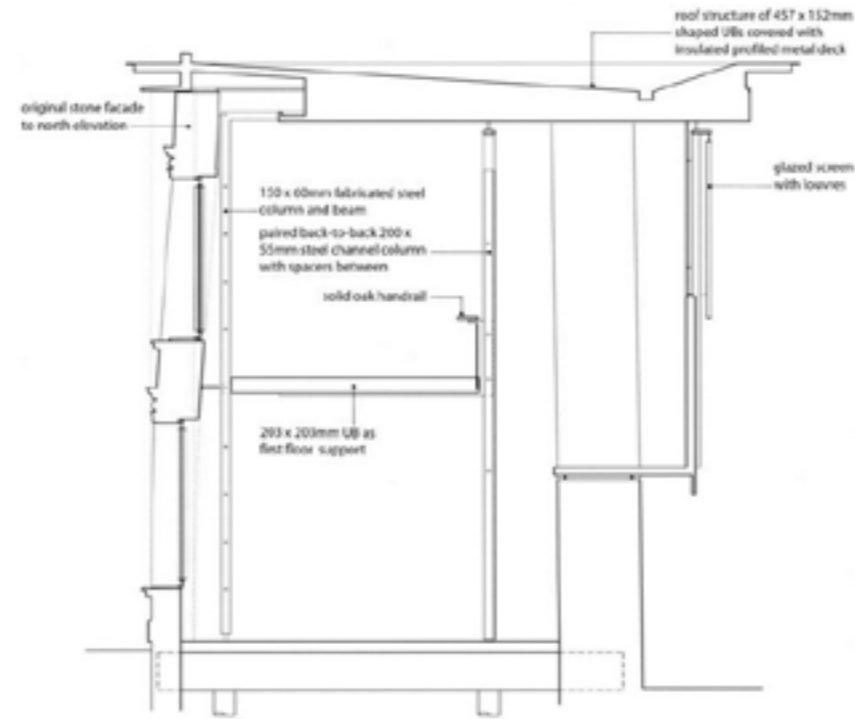


Retaining the existing wall



Whitby Abbey Visitor Centre / Stanton Williams

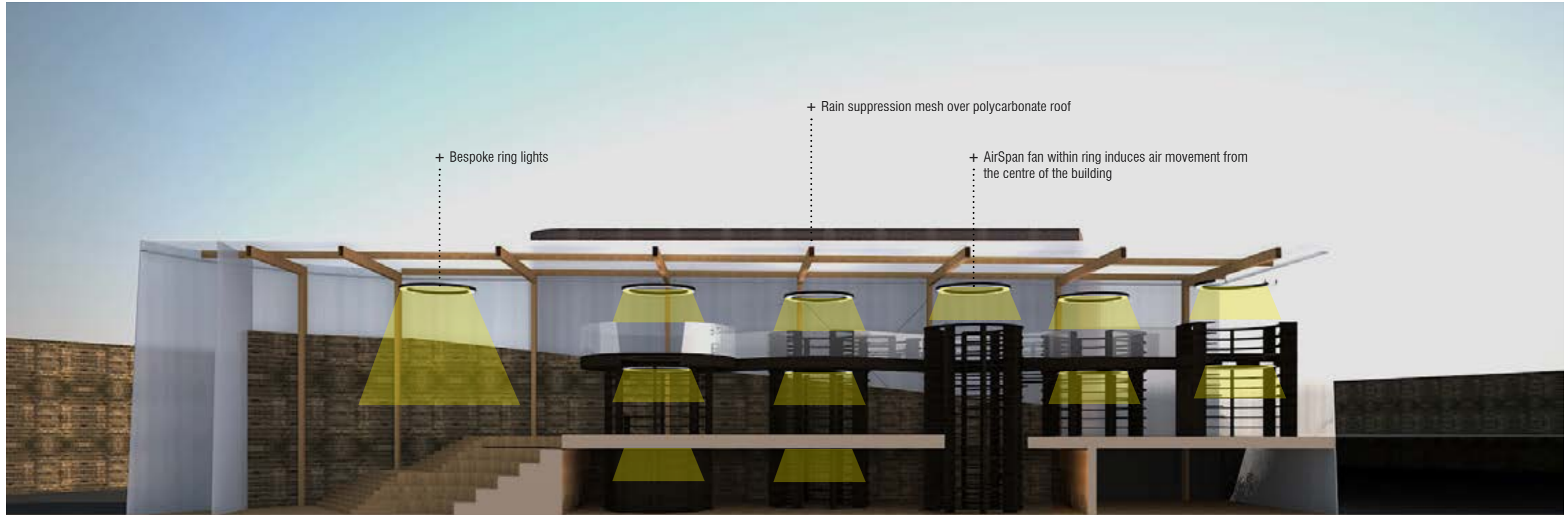
+ 30 mm diameter steel rods secure the interior frame to the existing fabric



Stone-crete by Increte Systems

- + Stone-crete is cast in place duplicating the look of hand laid stone permitting insulation and water proofing to sit between the interior surface and the existing wall.
- + Stone-crete is not a veneer, but a re-enforceable structural wall system

Technology



Rain Supression Mesh



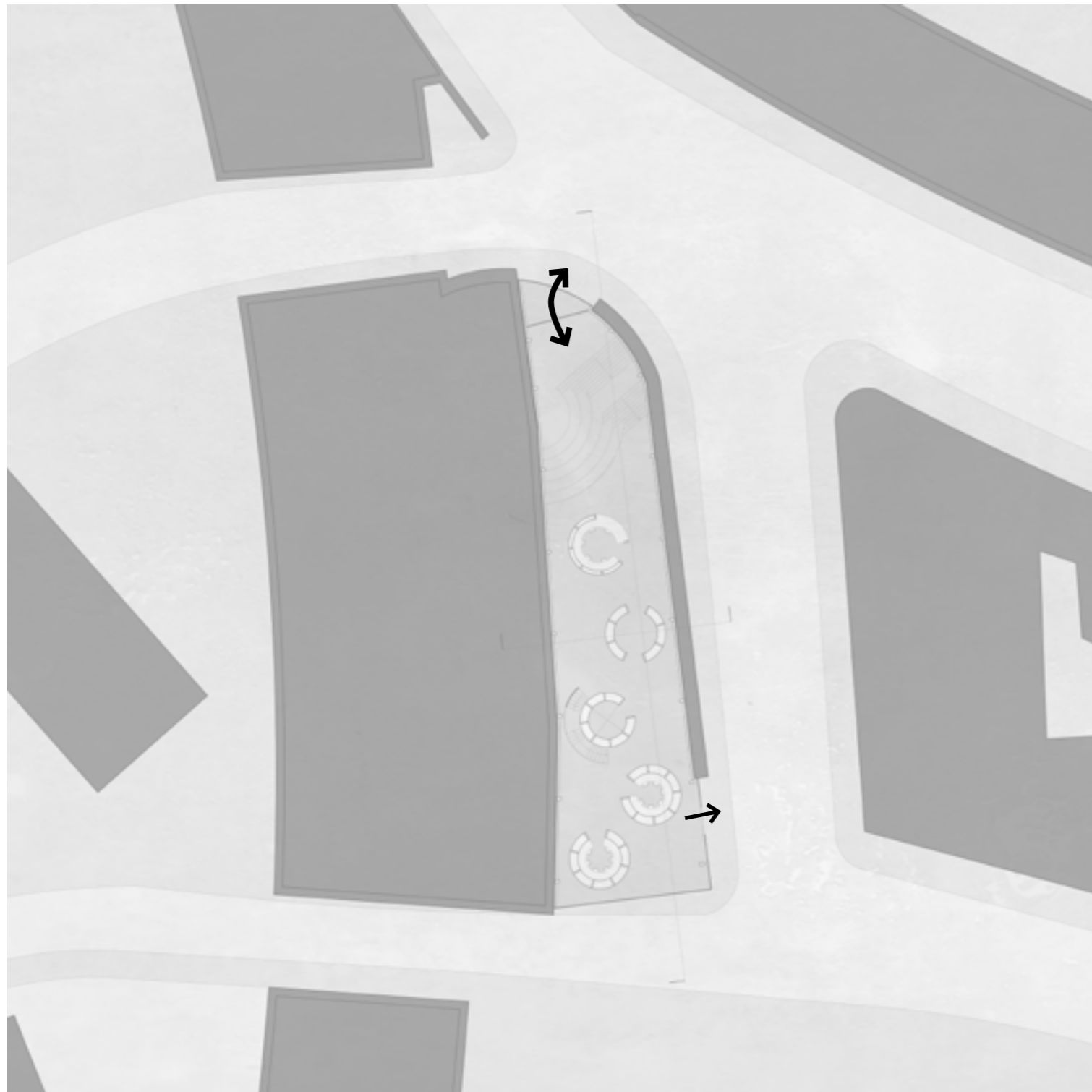
- + A rain suppression mesh reduces internal drumming sounds on the interior
- + The University of Bath, East Building uses a tensile mesh above the ETFE roof

MacroAir AirSpan Fan



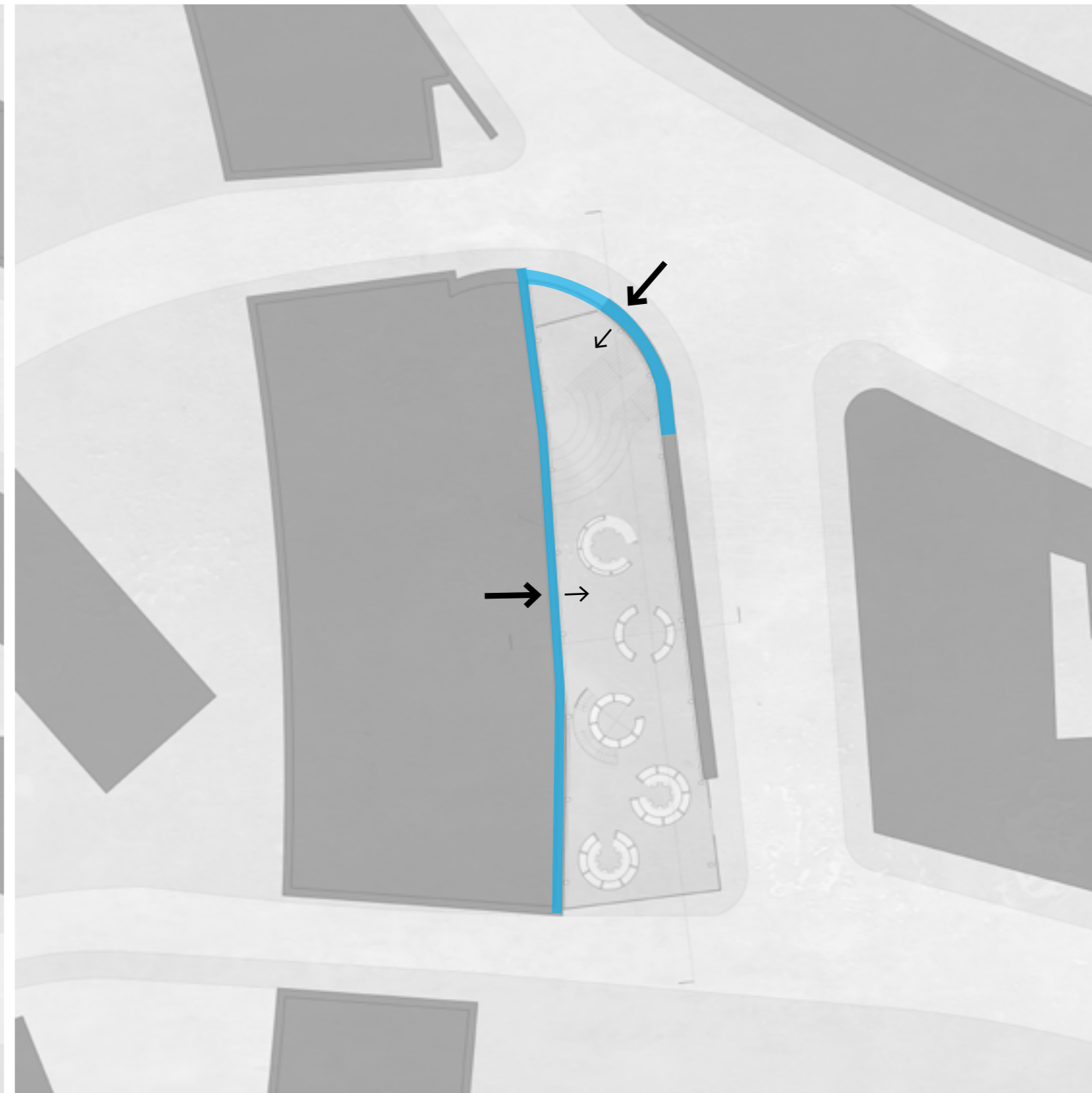
- + The AirSpan generates a column of air that flows down to the ground and outward 360 degrees
- + The large gently-moving air mass moves through the space effectively mixing and circulating the air to create a more pleasant environment

### Approach and Entrance



+ The main entrance is located at the north of the scheme. There is an additional exit at the south of the scheme in case of emergency.

### Noise attenuation



+ The 60 mm polycarbonate reduces sound levels by up to 28 dB.  
+ This makes the road and rail noises barely audibl within the building.

Public / Members



+ The stairs divide the conversation space from the main library.

+ This defines a distinction between public and members areas.

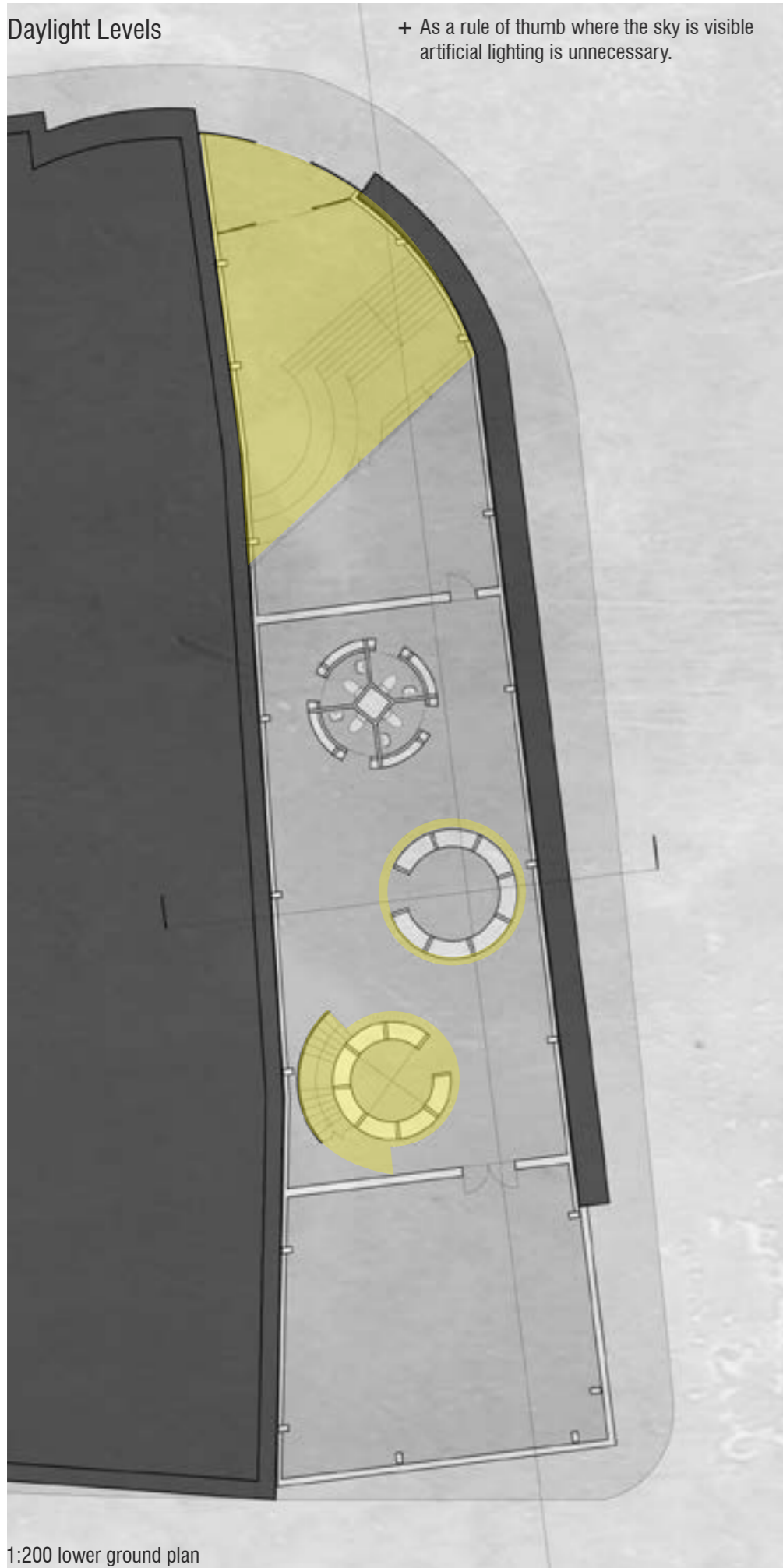




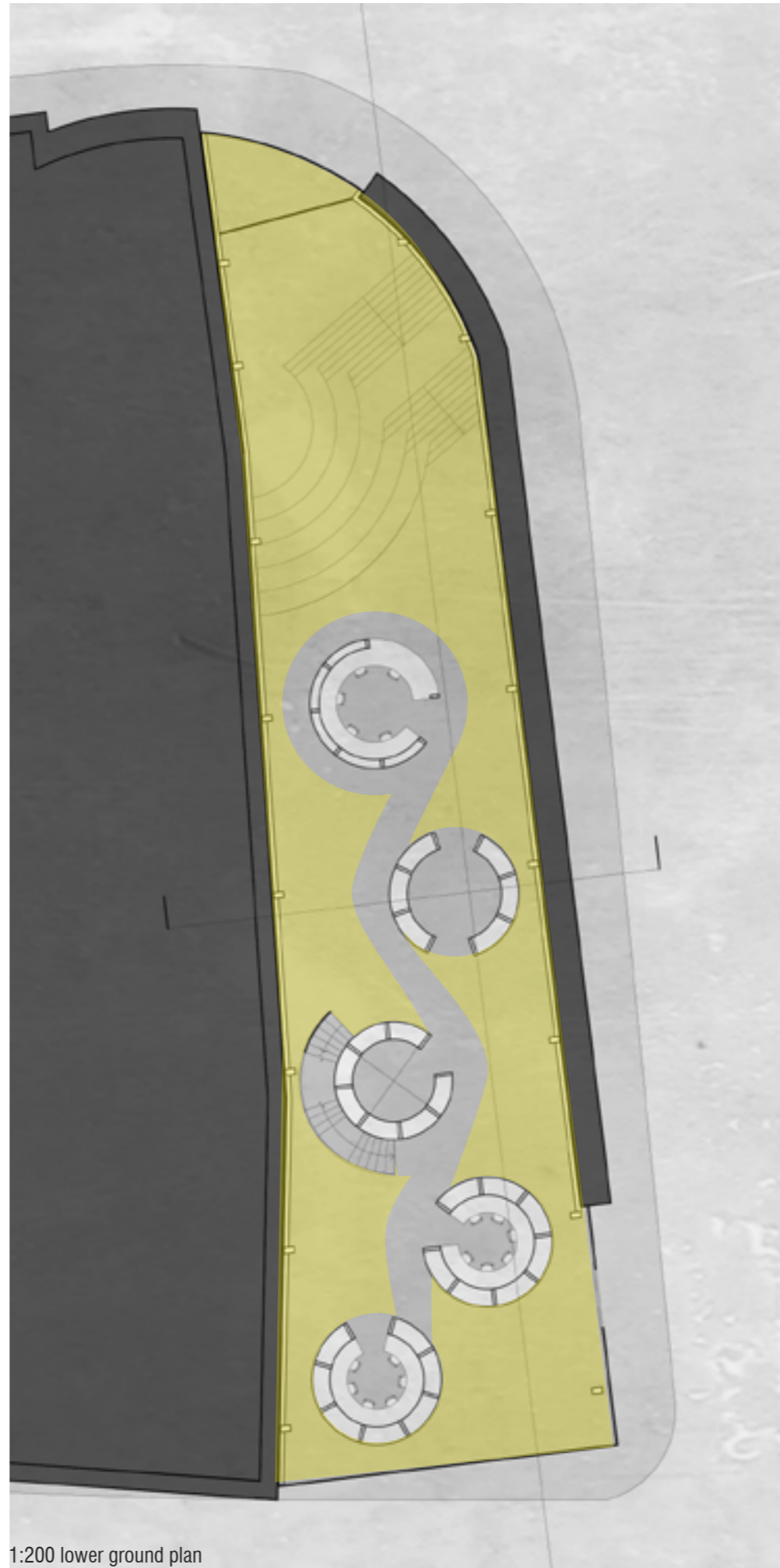


Daylight Levels

+ As a rule of thumb where the sky is visible artificial lighting is unnecessary.



1:200 lower ground plan



1:200 lower ground plan

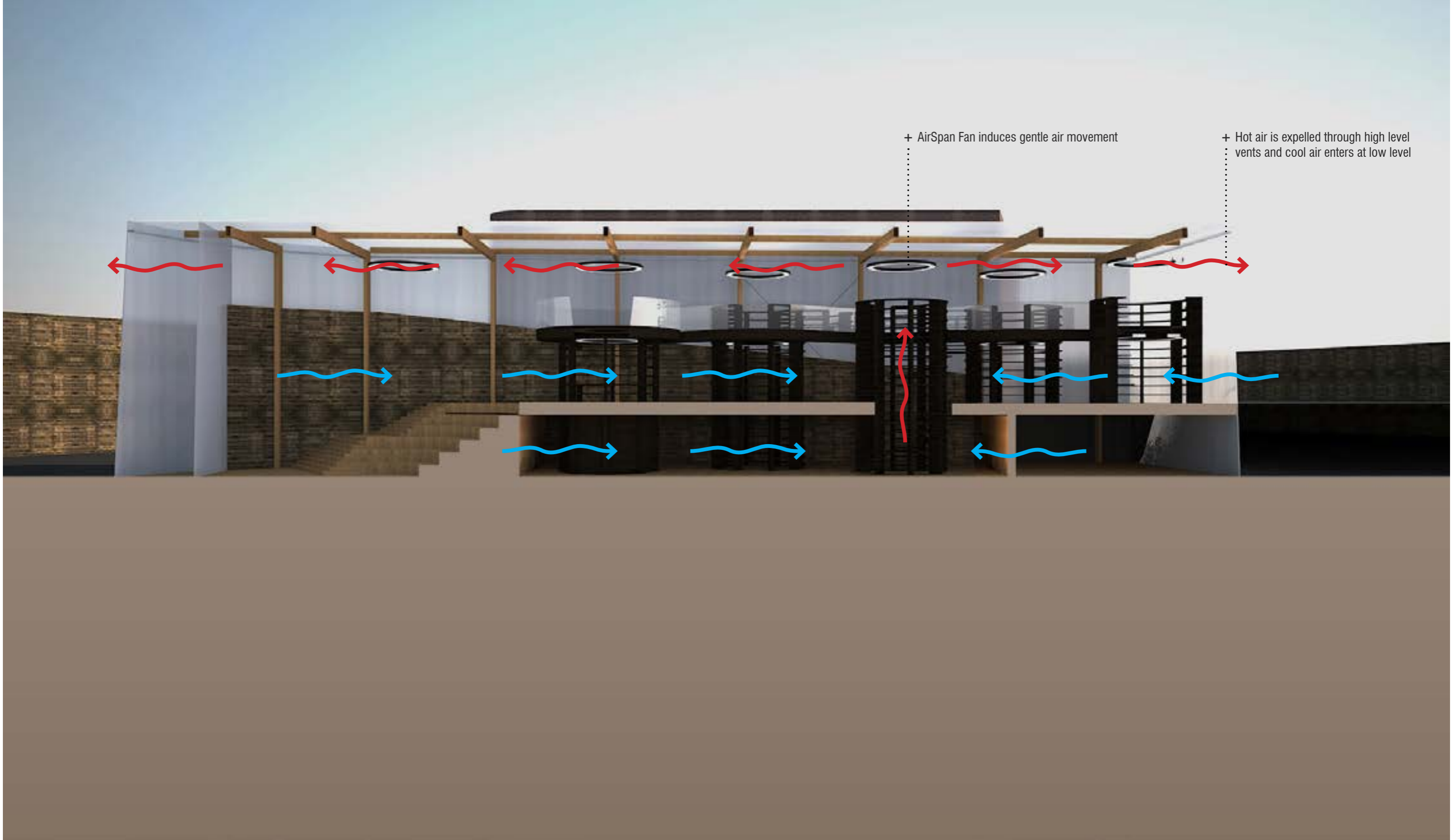


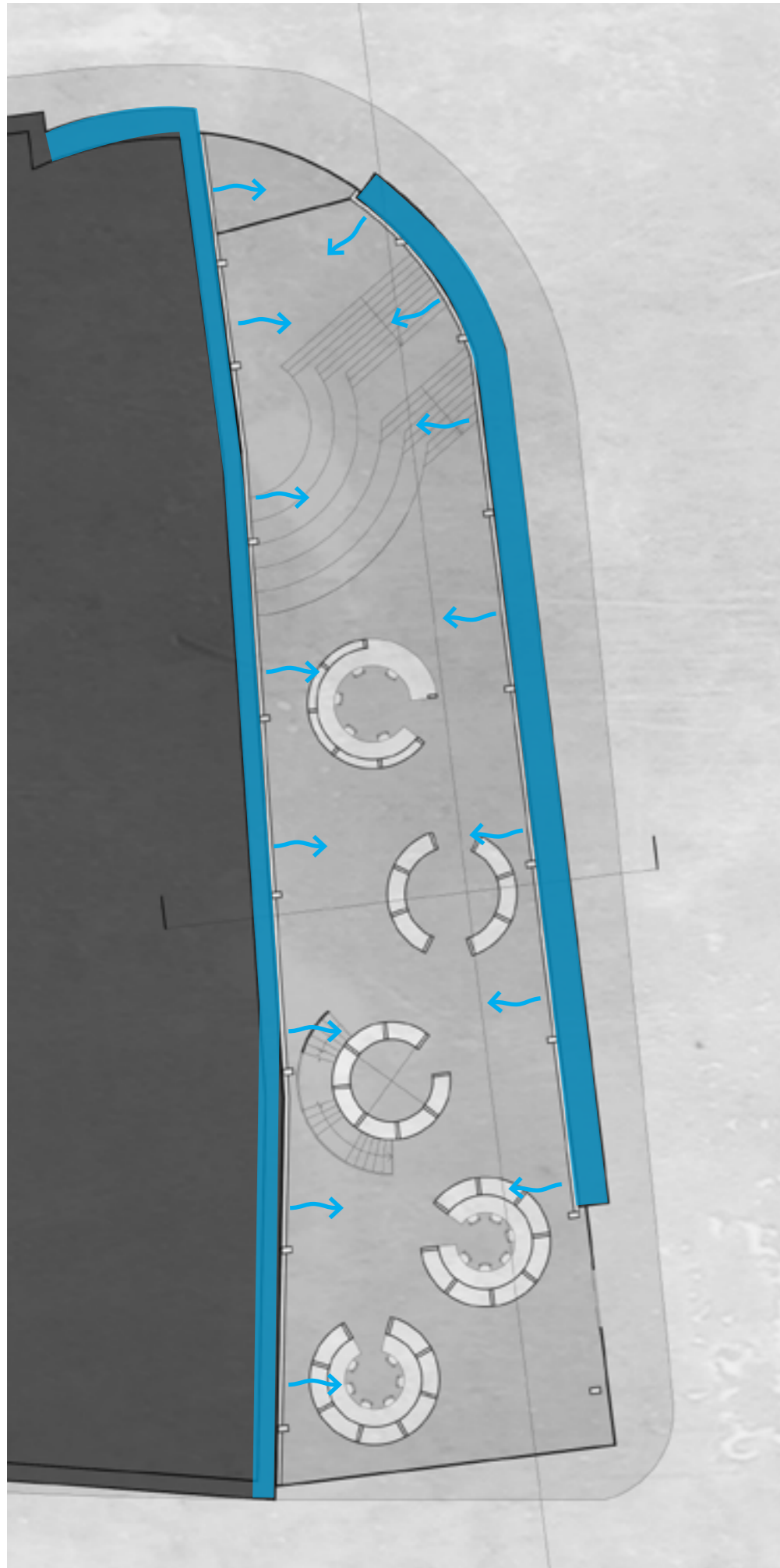
1:200 first floor plan

Daylight Levels



Ventilation





### Thermal Mass

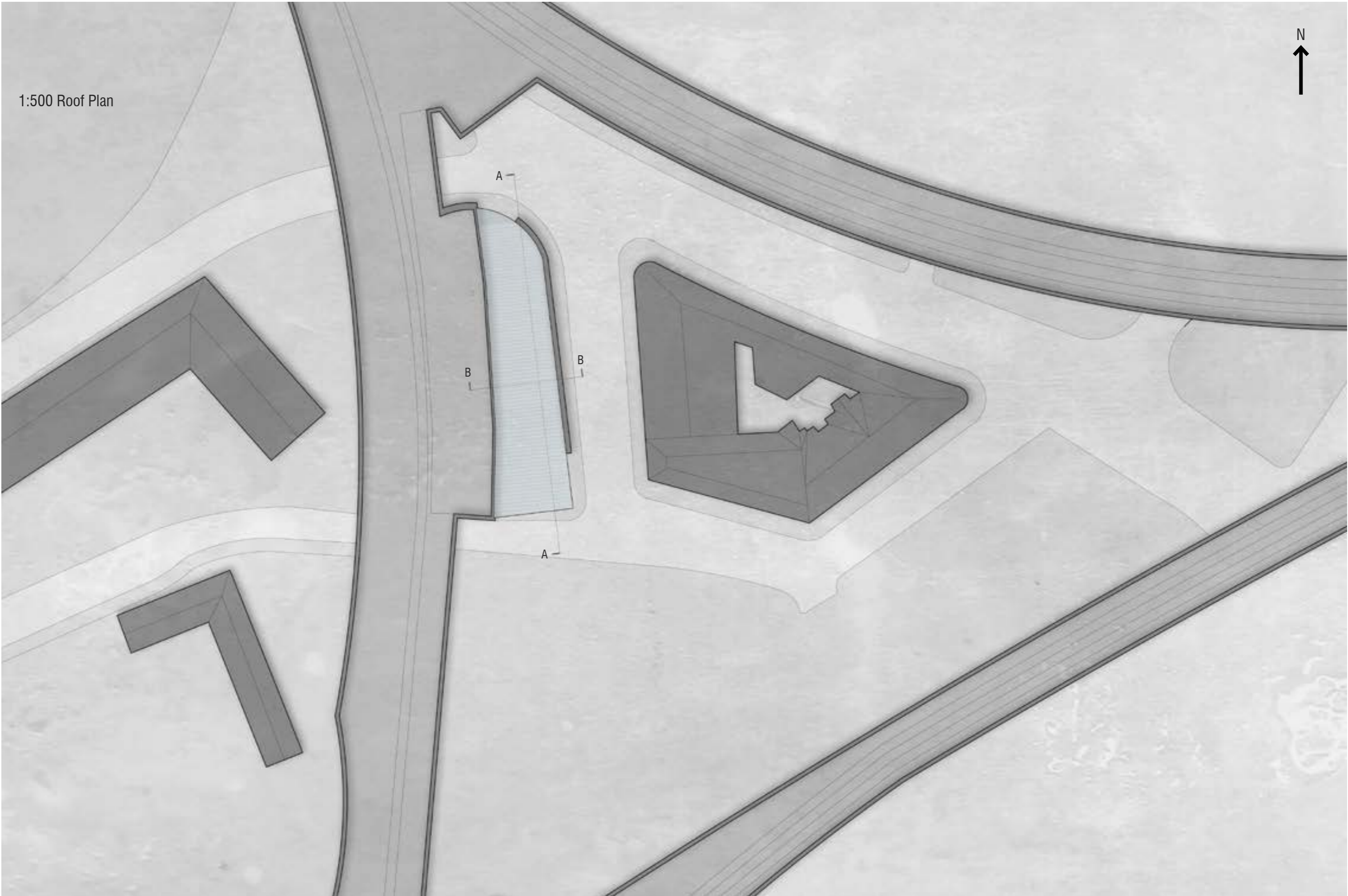
- + The thermal mass provides comfort cooling.
- + During hot summer days the building can be naturally ventilated over night to cool the thermal mass. Which will then maintain a comfortable level throughout the day,

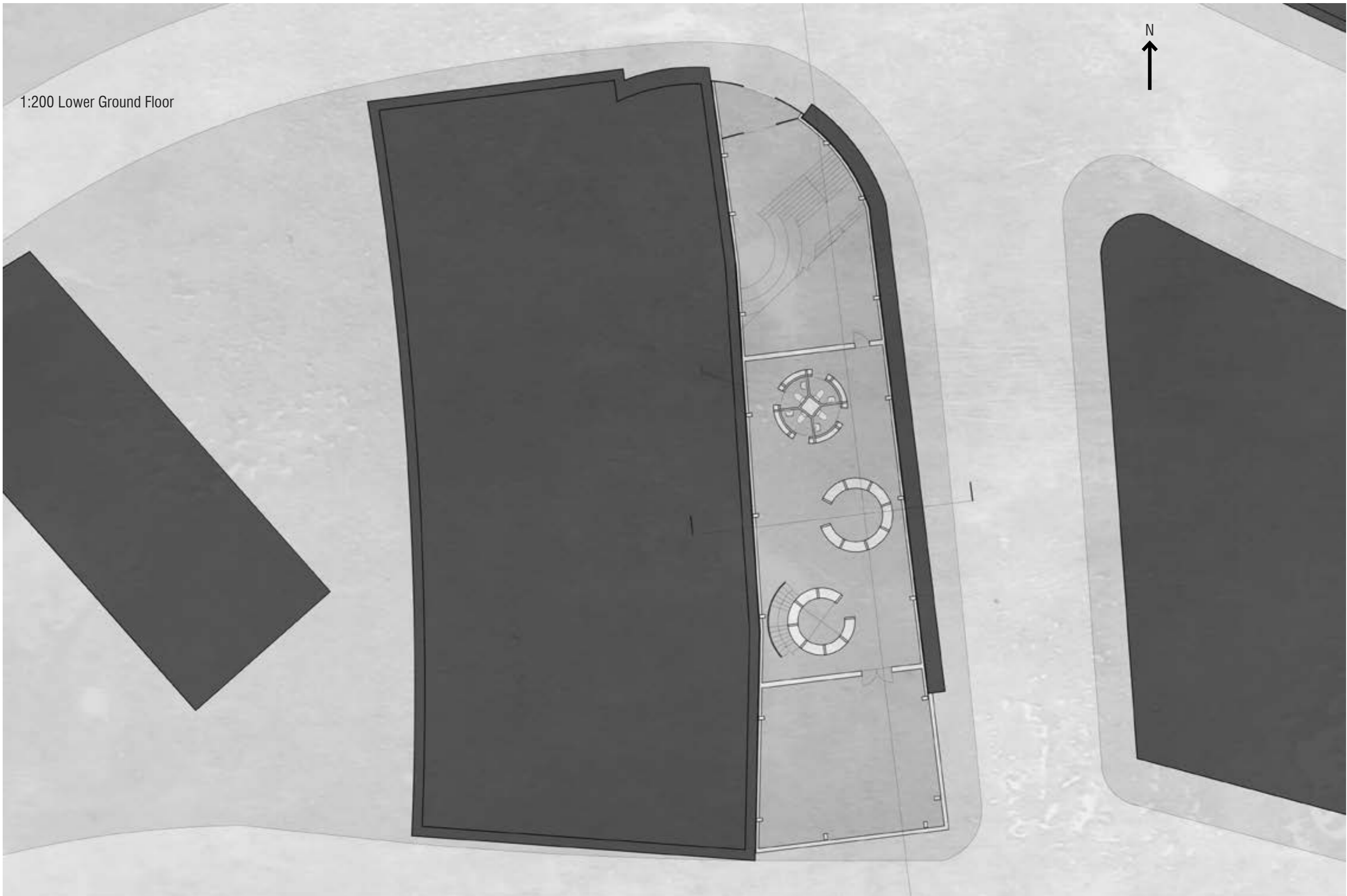


# Final Images



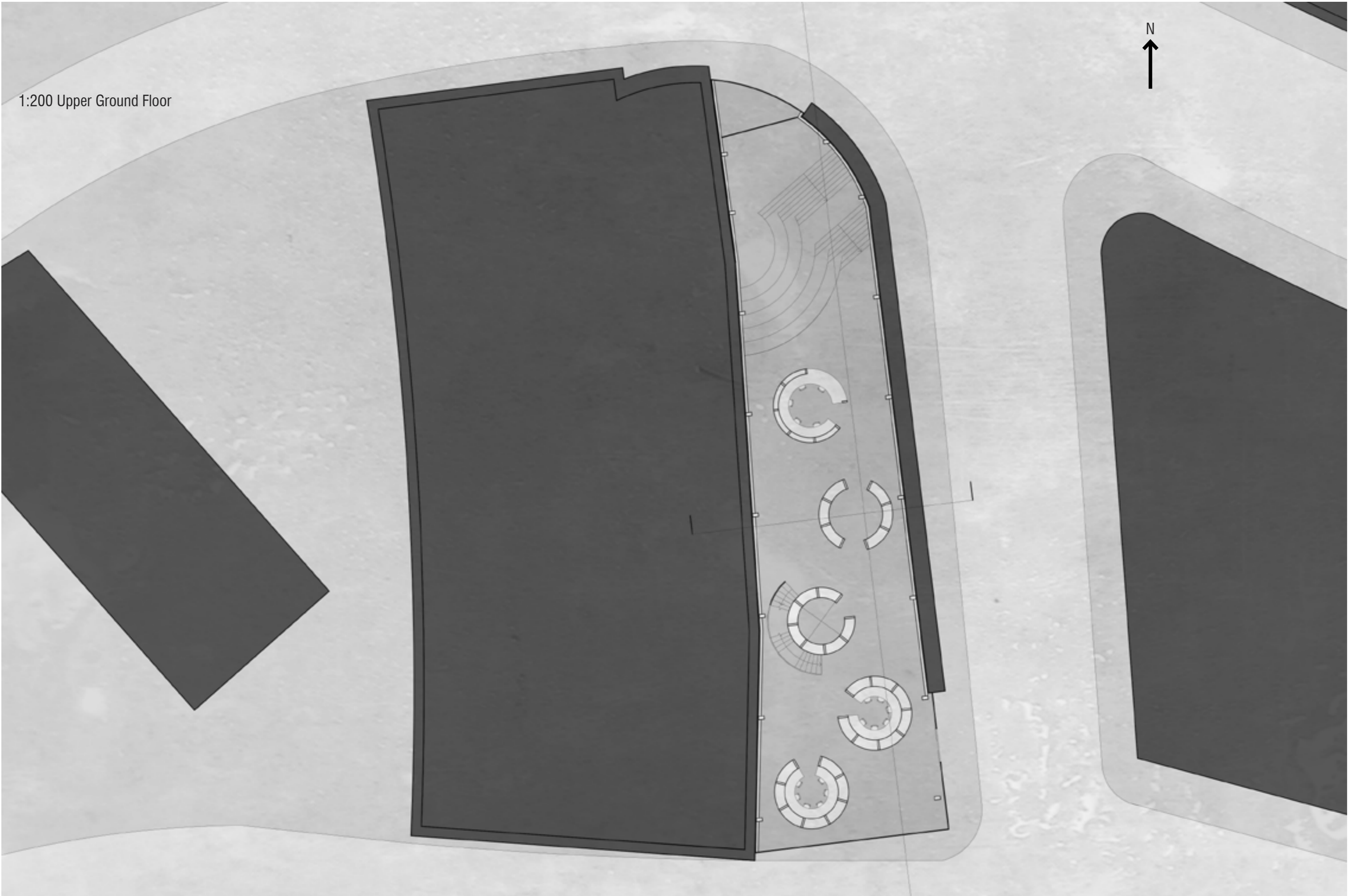
1:500 Roof Plan

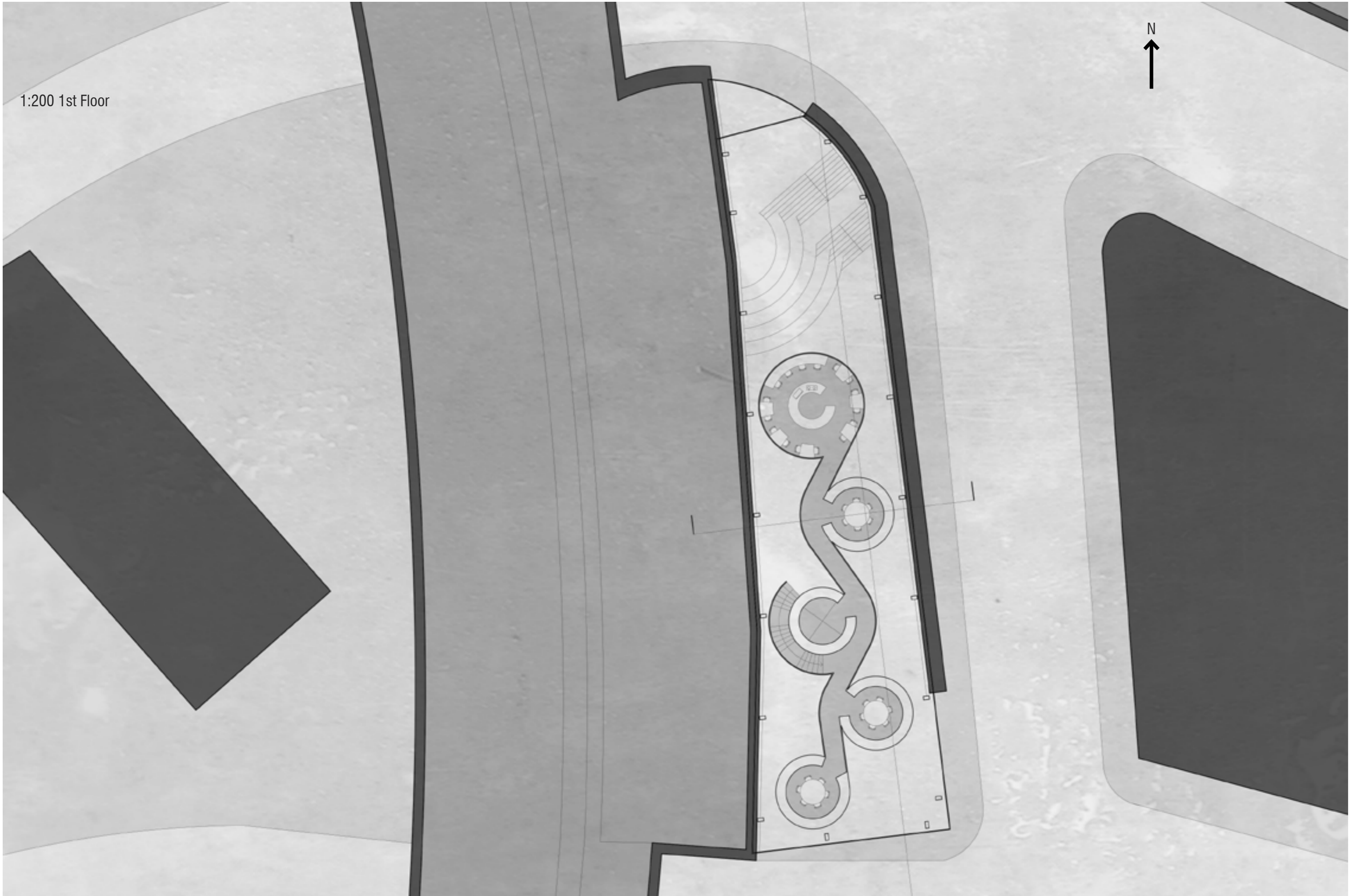






1:200 Upper Ground Floor

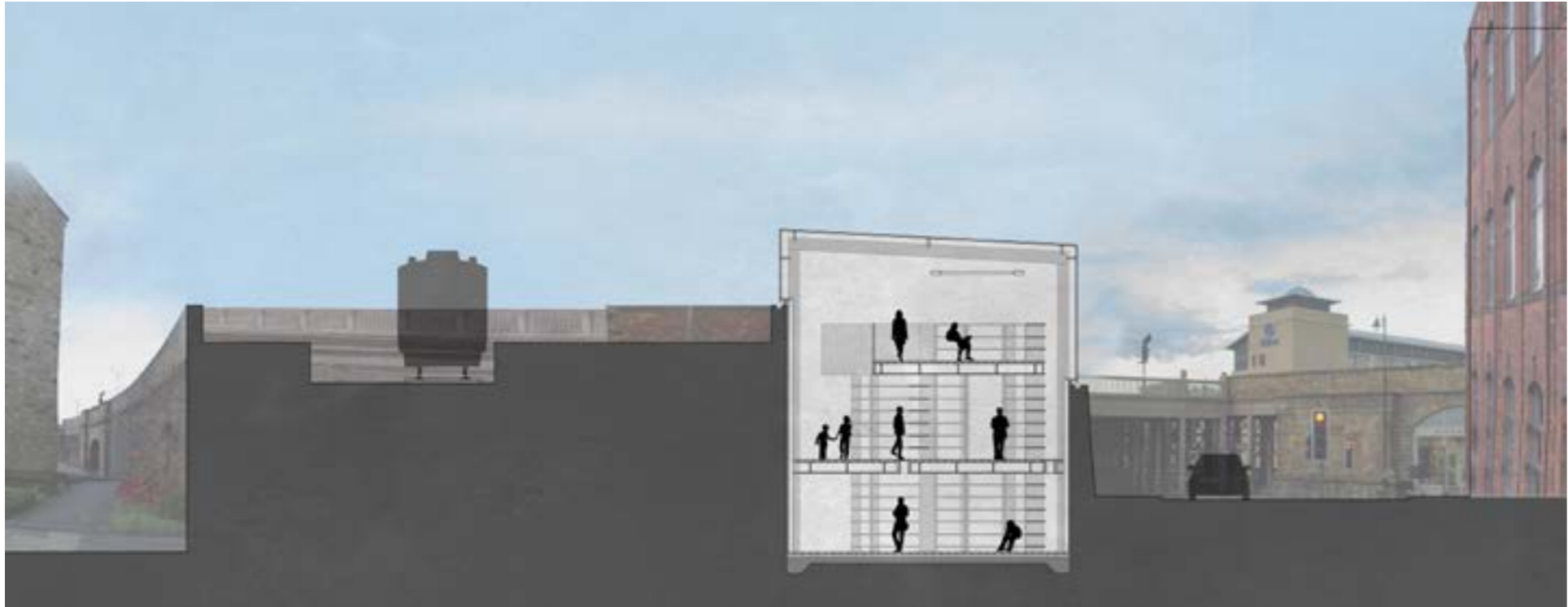




1:200 Section AA



1:200 Section BB

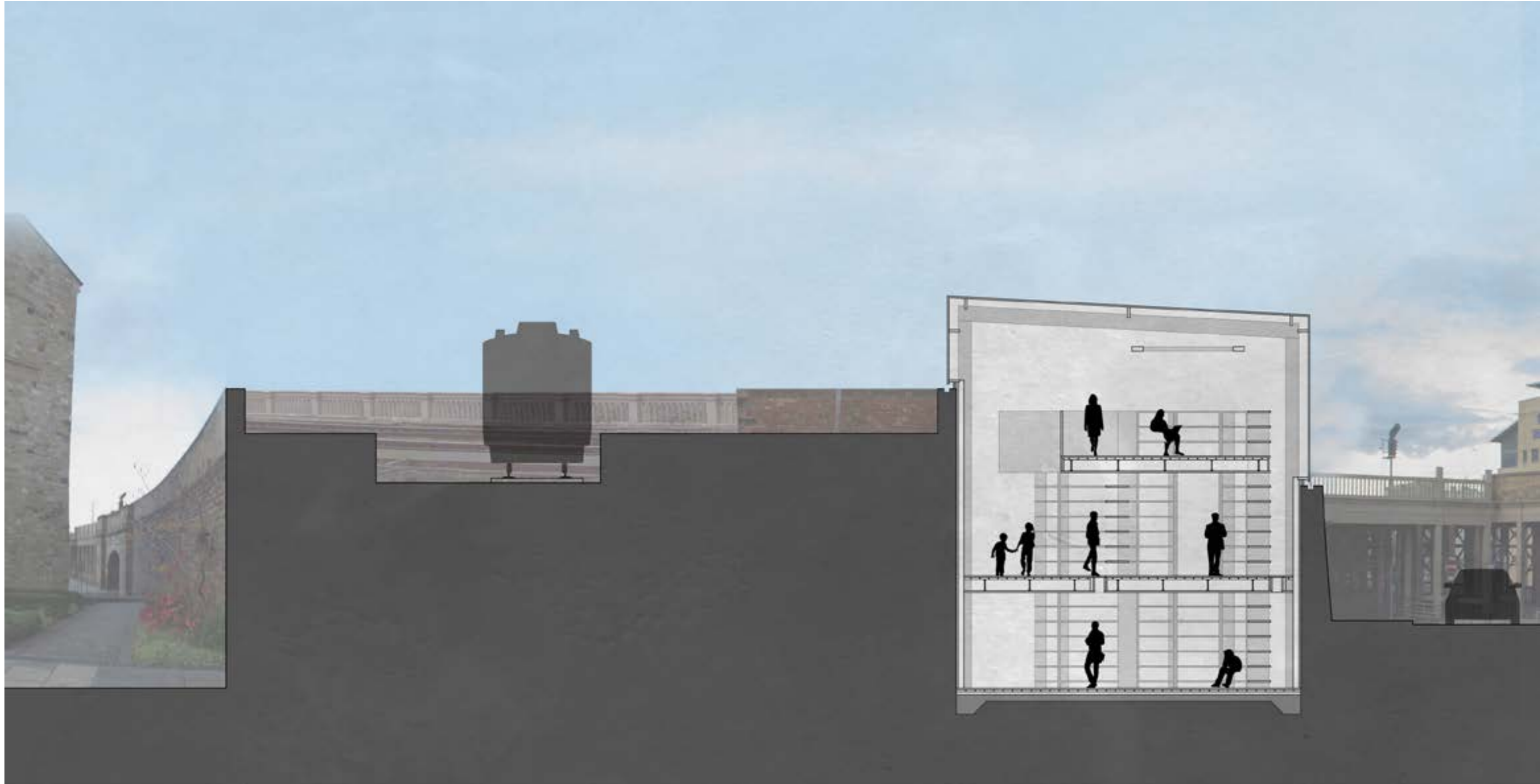


1:100 Section AA





1:100 Section BB





1:100 Elevation East







1:20 Technical Section

