A STEP INTO A DEAF SPACE

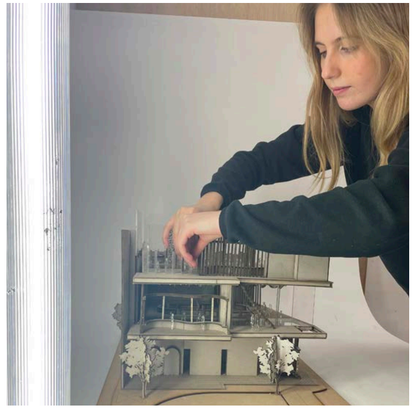
Adjusting spaces for hearing impairments

Ellie Pearson

Interior Architecture and Design
Project 5 Portfolio

“I am myself deaf. My greatest obstacle is not my deafness, but to overcome the prejudice and ignorance of those who do not understand what the deaf can do”
- Olof Hanson’s letter to President Theodore Roosevel in 1908.

ELLIE PEARSON



PHONE: 07495 821 763

EMAIL: elliep02@hotmail.co.uk

LINKEDLN: www.linkedin.com/in/ellie-pearson

INSTAGRAM: @elliepearson_designs

ADDRESS: 35 The Glade, Old Coulsdon
CR5 1SR

Architecture and Design has always fascinated me, the designing and use of aesthetics to produce visibly pleasurable and sustainable structures has always played a fundamental part in my interests. I'm a recent graduate in Interior Architecture and Design. My passion for design has grown since starting this journey in secondary school studying graphic design, to where I am currently. Through learning so much on my design journey, I've also discovered the passion and skills I have inhabited in model making especially.

CURRICULUM VITAE

Reference provided upon request.

EDUCATION

Reigate College // 2018-2020
Product Design
Media Studies
Applied Science

University for the Creative Arts // 2020-2023
Interior Architecture and Design

WORK AND PROJECT EXPERIENCE

Marks and Spencer // 2018-2023
Customer Assistant

This Job taught me:
-Time managment
-Team skills
-Organisation
-Communication and patience
-Technology knowledge in-store
-Managing till points
-Flexibility

Walk-In-Architecture // 2017
School work experience

During the two weeks I began to learn CAD softwares and teamwork.

A step into a Deaf space project // 2022-2023

Third year Club Chemistry project. My last year project heightened my design experience more than ever. I gained the most experience in CAD softwares and furthered my knowledge in model making.

NCS // 2018

I took part in NCS (National Citizen service) which enabled me to learn teamwork skills and allowed me to take part in volunteering arund different areas, including elderly homes and homless shelters.

HOBBIES AND INTERESTS

Interior Architecture and Design, Model making, Photography, Baking, Travelling, Reading, Going to the beach.

TECHNICAL SKILLS

2D drafting
AutoCAD, Revit, Vectorworks

3D modelling
SketchUp, Rhino, Revit

Rendering & Post Production
Enscape, Vray, Photoshop, InDesign, Illustrator

Manual
Sketching, Model making, Laser cutter.

Others
Microsoft Powerpoint, Microsoft Excel, Microsoft Word.

SOFT SKILLS

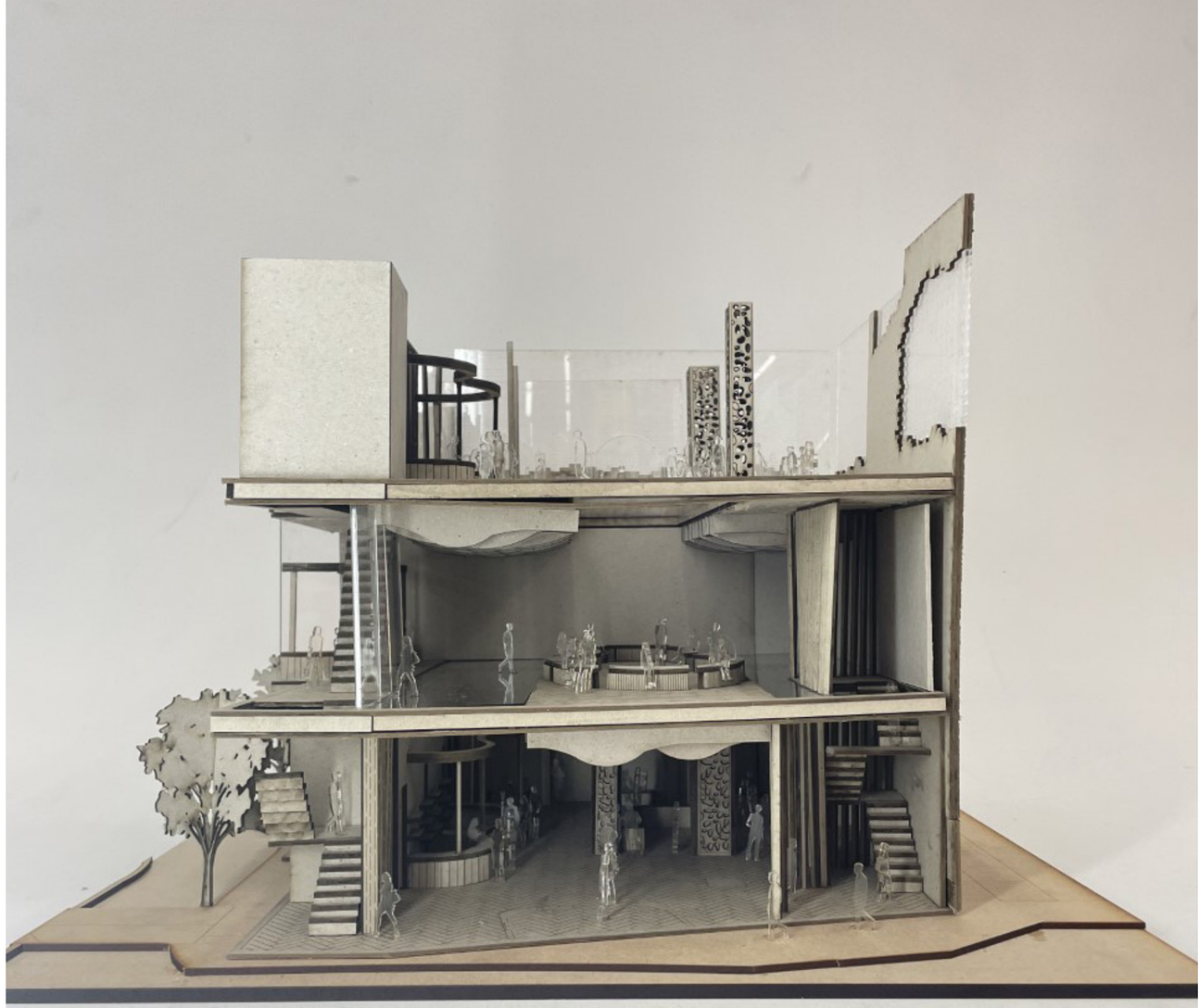
Critical thinker
Team player
Organisational
Communication
Flexible

TABLE OF CONTENTS

We live in a world built for those who hear, but what would our manmade world look like, even feel like if it were to be designed for those who don't hear?

This project, which is located in Canterbury at Club Chemistry, highlights the importance of the fundamental values and roles which create a Deaf space and how it's applied and implemented through architecture and design. The goal of this project is not only to create a Deaf space but to present a safer space for all users by adjusting the existing structure to tailor it to everyone's needs without segregation.

Throughout this portfolio the work d/Deaf will appear when describing users. This isn't for convienence purposes but instead to respect members in the Deaf community with how they personally identify themselves.



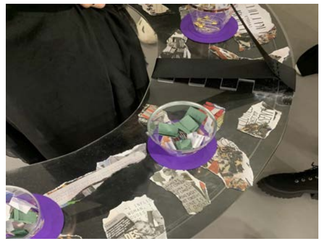
Final model southern side view.
More content on chapter 6.

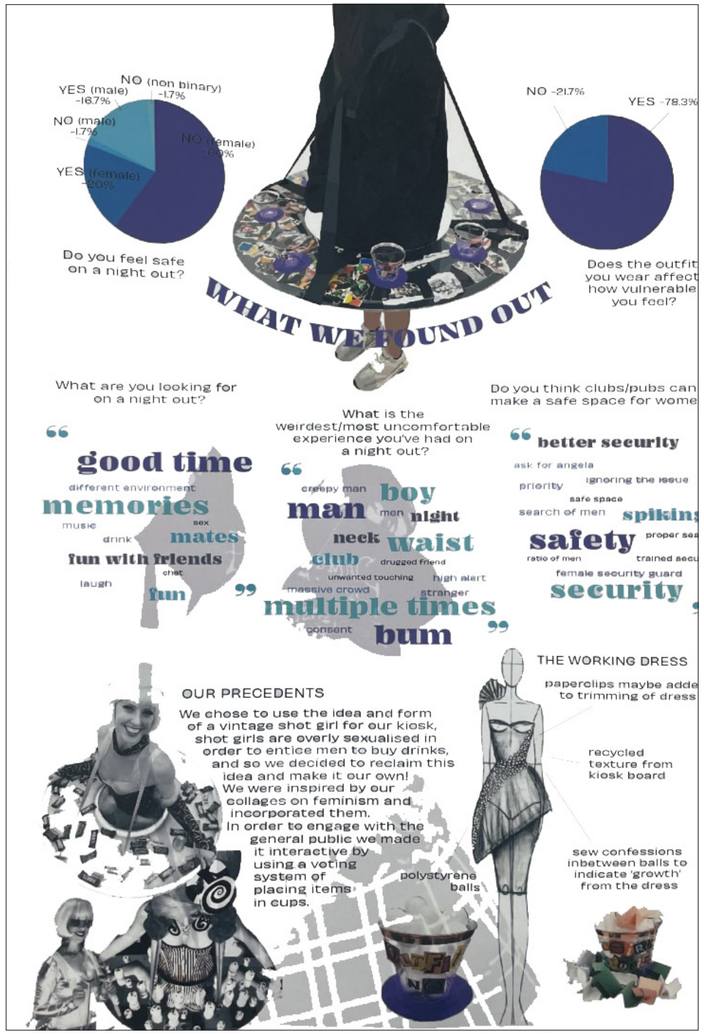
01:

PRIMARY RESEARCH

Our kiosk was made as a way to interact with members around our university campus to engage them and invite them to answer our questions about safety on a night out, and reassuring the participant that themselves and their answers would remain anonymous.

We collected the data through different materials such as papeclips, polystyrene balls and pieces of torn paper for written responses. Although we collected this data from around our campus, to recieve more data we created an online questionnaire to ask people through social media their respones. This data was then collected and written out by the group through reading the responses online.



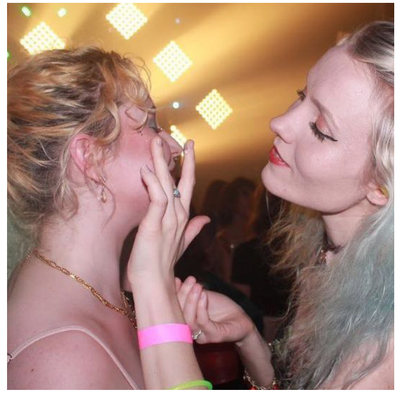


A poster we made as a group to show our results, questions and key words.

SAPPHIC SEATTLE

Is a female-run group that creates 21+ parties and club nights exclusively for queer women and sapphics. It states that it's a 'no boys allowed' night club. Unlike most club events, where females are typically

bombarded by male energy, Sapphic Seattle removes the heightened sexual energy in the club.



To establish a culture of consent and respect in the space, attendees receive the option of two wristbands when they arrive: pink if they're looking to flirt with others and yellow if they're there to just make friends in the community.

"This has been remarkably successful in helping people feel comfortable in the space."
This group is useful in my research as from looking into the data collected from the kiosk, most of my responses concluded that unwanted male attention and behaviour was the main reason for feeling discomfort during a night out.

SAFETY RESEARCH 01

CANTERBURY STREET PASTORS

As Street Pastors, "we are on the streets of Canterbury on a Saturday night from 9pm until 2-3am on a Sunday morning, to support those using the Night Time Economy (NTE).
In 'valuing and honouring the community,' we are there to help those who are vulnerable or in need of our help. We take the time to sit and listen, care for and help anyone who needs us, without being judgemental or discriminatory."

Each week there is something different, whether it's talking to vulnerable and lonely people or those struggling with faith or relationship problems. Sometimes, it's as simple as supporting those who have missed their last bus or train home; or
listening to people who are facing a host of challenging personal circumstances. They believe that it is through these
interactions of caring and listening to people that they can bring hope and light into their lives.

The street pastors hand out flip-flops and water on every patrol to those who need it, bring a calming presence to heated situations and act as guardians to young people who have become vulnerable while on a night out in the city. Saying 'hello' to people in the early hours of the morning and handing them a lolly or a bottle of water is all part of what we do on our patrols. To be in a position to give guidance, practical assistance and offer help when it is needed, is a very valuable and fulfilling part of their work.

"All our volunteers go through a structured training programme before going onto the streets. We train our volunteers in various topics including: knowing their community, police relations, drugs and alcohol awareness, providing first aid and how to share the Good News."

02:

SITE ANALYSIS

INFRASTRUCTURE MAP

This map highlights the following...

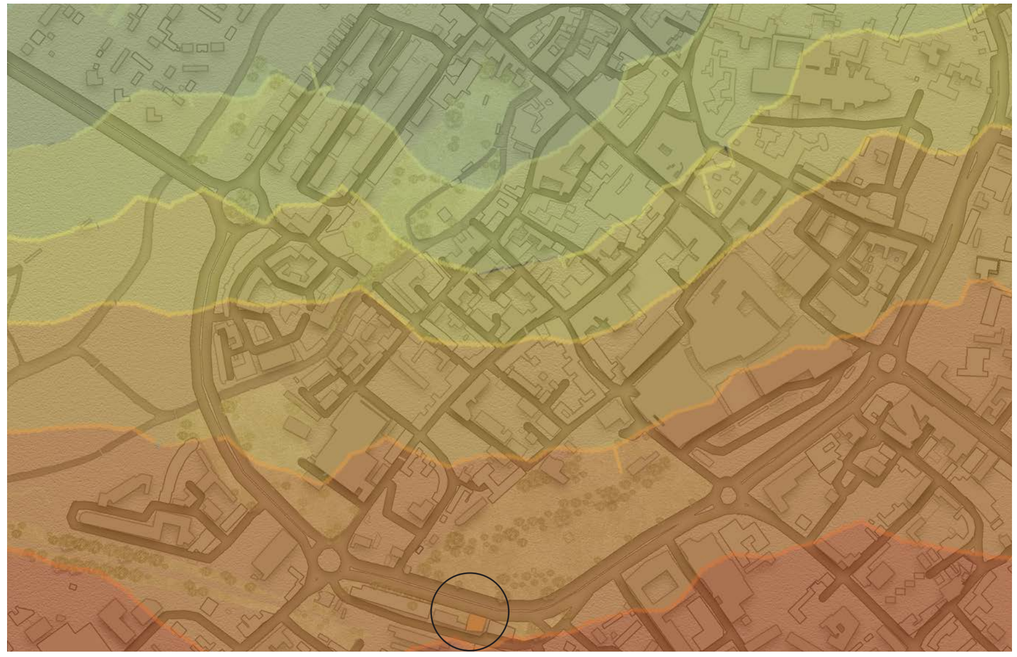
Legend:

- Club Chemistry
- Railway Infrastructure
- Motor Vehicle Infrastructure
- Pedestrian Infrastructure
- Safety Refuge Zones

1. Canterbury East train station CT12RB
2. Palamon Court CT12YA
3. Canterbury Police station CT13JQ
4. Canterbury Fire station CT12NH
5. McDonald's hight street CT12SS
6. Canterbury City Cathedral CT12HE

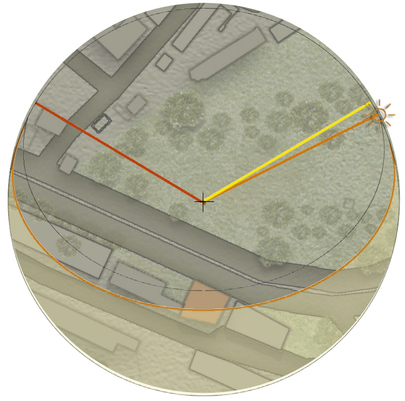
[These safety refuge zones are accessible to anyone who feels unsafe and needs help around canterbury whether that's in the day or at night.]

Average June month temperature and sun direction map.

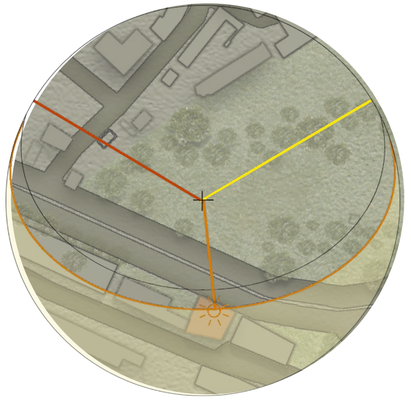


Mean temperatures throughout June
(Degrees Celcius).

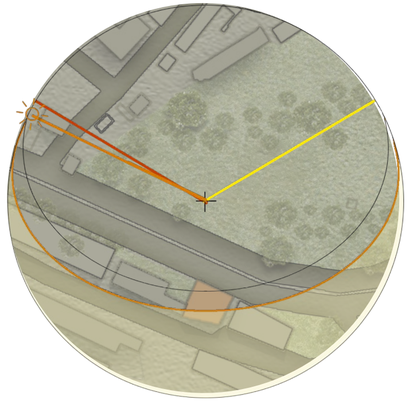
- 8 - 12
- 12 - 16
- 16 - 20
- 20 - 24



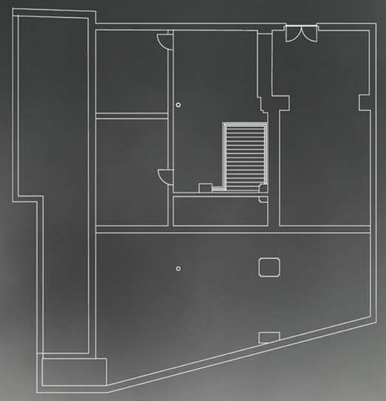
Sunrise 5:12am



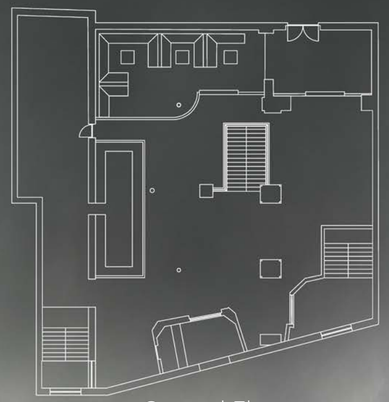
Solar noon 12:53pm



Sunset: 20:33pm

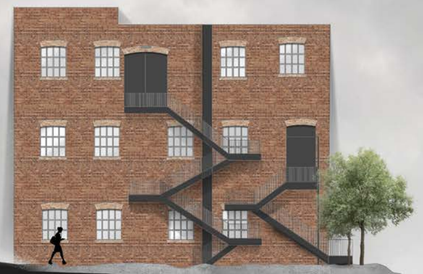


Basement



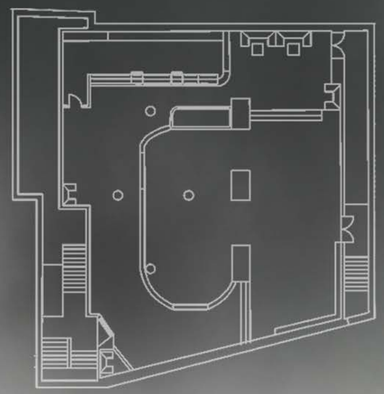
Ground Floor

Northern Side

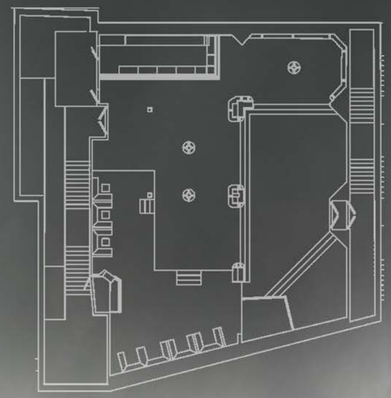


Eastern Side

EXISTING PLANS AND ELEVATIONS 02



First Floor



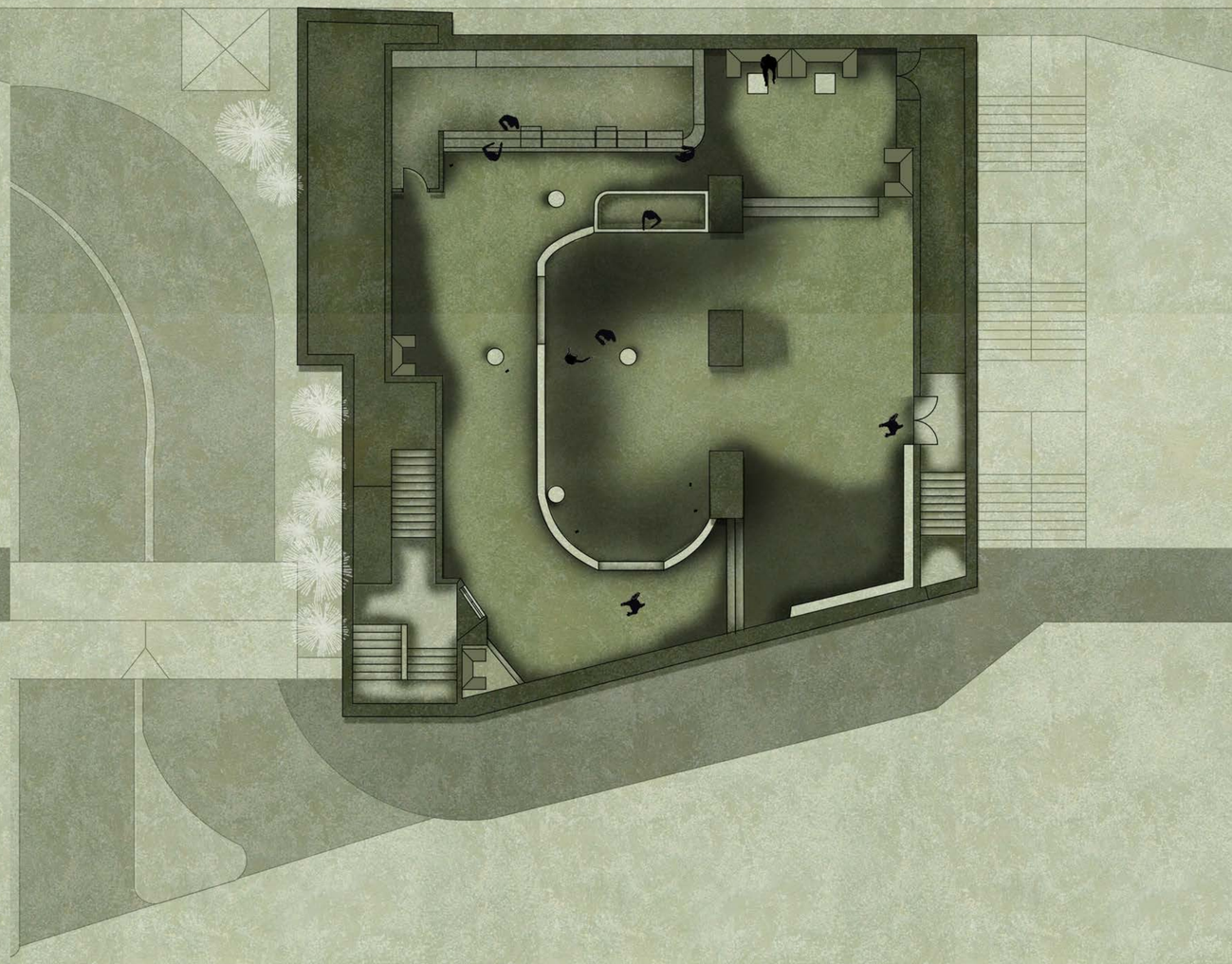
Second Floor

Southern Side

Western Side

EXISTING GROUND FLOOR PLAN

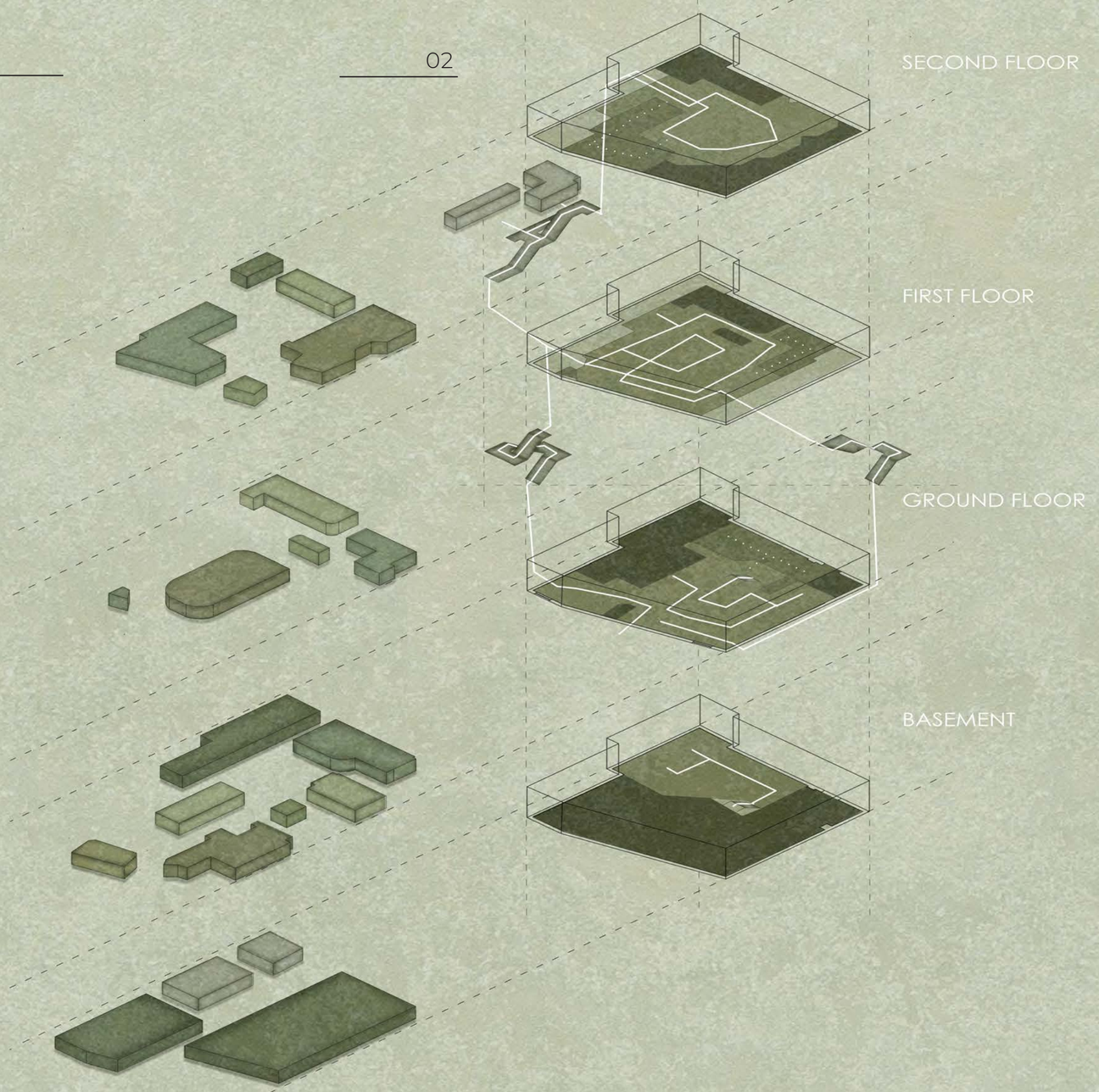
EXISTING FIRST FLOOR PLAN



The existing ground and first floor plan highlights the dark areas throughout the club. My question is how can i design a space that can lighen these areas but also keep the atmosphere of a nightclub?

EXISTING CIRCULATION AND ZONING

02



- VIP area
- Dance floor
- Bar
- Staff only
- DJ area
- Toilets
- Stairwells
- Entrance

- Public area
- VIP area
- Staff area
- VIP circulation
- Public circulation

03:

DESIGN DEVELOPMENT

Deaf Rave

Founder Troi “DJ Chinaman” Lee began with a vision to give Deaf, Hearing and Disabled Artists and performers a platform to display their love for music. Deaf Rave provides entertainment with music, sign song and visual performances to an all-inclusive audience, globally and across the UK.

“Our aim is to unite everyone through the love and passion for music. Promoting our unique Deaf/ Disabled identity and teaching everyone about Deaf Culture”.

Researching about Deaf rave resonated and inspired my project through creating an accessible space for Deaf, hard of hearing, and people who hear to enjoy music together whether it’s through vibration, sound or vision.

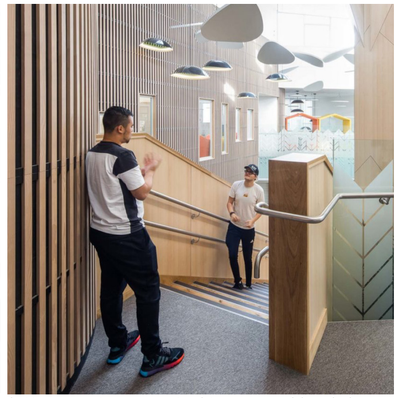
QR code for further information DEAF RAVE.

DEAF SPACE RESEARCH 03

Deaf Academy, Exemouth

Following my Deaf Space research, I discovered The Deaf Academy located in Exmouth. This academy is a space focused for Deaf students and for additional needs. What stood out for me when researching this design are the sight lines, colour, and light considered inside the space.

The building has a wooden tree-like structure thats wrapped by a open staircase, (which consideres sight lines), which is located in the centre of the atrium. There’s leaf shaped lighting and acoustic baffles
suspended from the ceiling to help control reverberation times and provide symmetrical illumination to make it easier to undertand activities inside the space.



The interior colour palette prioritises neutral tones and backdrops. it’s important for a space considered for these users inparticular to be surrounded by these colours to reduce eye strain.

When researching into Deaf space I was also revising Deaf space principles and steps to follow in creating and designing the spaces. The following principles are as follows:

VISUAL RANGE

Create a open space that allows a broader visual range due to vision being used the most in the Deaf community.

GROUP SPACE

Designing circular spaces to allow easier group communication.

WALKWAYS

Create open and wide walkways to allow easier communication across the space. Include ramps where possible for easy access whilst communicating.

MATERIALS

Choose materials that help to absorb vibration to help sensory touch.

LIGHT

Add appropriate lighting throughout the building without it being too harsh to effect vision and strain eyes. Be cautious of relfective materials around certain lighting.

COLOURS

The best colours to use in a Deaf space is melow blue and green shades. These colours not only represent the Deaf community but also reflect off of skin tones to help the eyes process information without eye strain.

Club Chemistry being one of three busy nightclubs located in Canterbury, is known as the ‘three story nightclub’, the nightclub that caters different music on each floor, mostly known for it’s busy weekends and cheaper nights out. However, it’s also known for its cramped spaces throughout the club making it almost ‘unbreathable’, also known as the club with lacked security and safety. Is the variety of music the club provides and the cheaper drinks worth a stressful night?

As a student whose attended Club Chemistry with friends, we’ve experienced these stressful nights first hand. The daunting feeling of not being able to breath anywhere in the club, as well as, people barging into you around blind and sharp corners. When this project later got introduced to me, I felt it was only right to create a safer, more breathable space. I researched and studied different night clubs and reviews over them to see what Club Chemistry is missing from other perspectives.

When researching experiences through creating a kiosk and online survey, a student with a level of hearing impairment approached me. She proceeded to show me how being a student she wants to experience clubbing with her friends but struggles to comprehend the spaces as well as feeling more vulnerable and unsafe throughout her night, she felt as though she can’t “let her hair down” and enjoy a night out, She explained how security never tried to understand how she felt and gave her the time to explain what was happening at the time due to her communication boundaries, She stated “I never stood a chance”. Hearing her story made me feel angry and sad for her experienc-es through night life. Anyone should be able to access and enjoy an experience no matter what, and an impairment shouldn’t defer that from being accomplished smoothly. As a student myself, I knew I had to design a space that not only was accessible for anyone but also adjusting and adding functions to enable the club to be a Deaf space.

I have explored Deaf space principles and designed a space suited to those things. This is shown through opening up the space, making it more accessible, visually, and more ‘breathable’, changing the solid walls into slats or opaque walls, as well as changing materials and colours throughout the club.

In order to create a safe, accessible space we have to obtain the following factors...

REFLECTION

Allowing users to become more aware of suroundings easily.

LOOKING TO THE FUTURE

Create a space that encourages and promotes sustainability throughout.

INTERACTION AND ADAPTION

Designing a space that allows users to interact through adapting the space to meet all criterias.

CONNECTIONS

Creating an environment which helps form connections person to person

SUPPORT

Providing uncoditional support for users wellbeing and safety explored throughout the open space.

VISIBILTY

Visual range explored through lighting and materials with the use of opening the space.

For my first concept model I explored making open spaces. I used a dry clay to create a realsitic space, then using light to explore different moods from the model. Due to lighting being an important part of not only designing a night club but also creating a Deaf space.

The first conept model is a blue light which causes a feeling of innocence and calm.

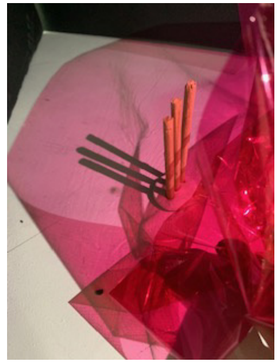
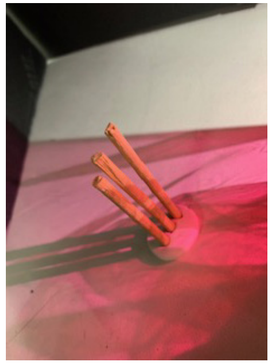
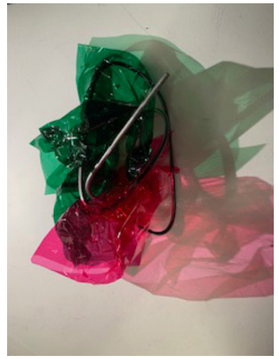
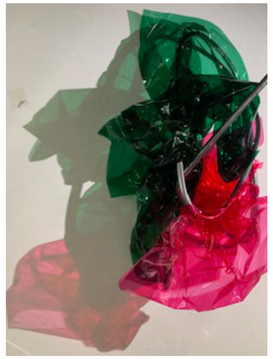
The second model has a red light, this creates a heated feeling, could be an emotion of anger or intimancy.

The third model has a green light, this colour canbe assoctiated with the emotion of growth and reassurance.

The fourth model has an orange tone over it. Orange tones can give the emotion of happiness and warmth, sometimes comfort.

The last model has a more pink colour over the top. This can have a beauty, elegance feeling attached to it.

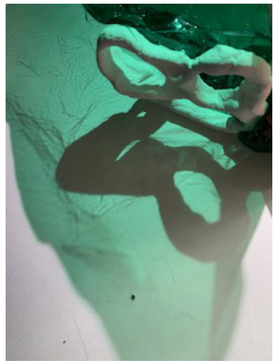
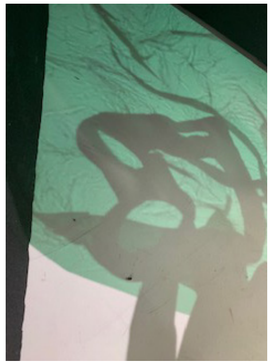
How do the colours make you feel?

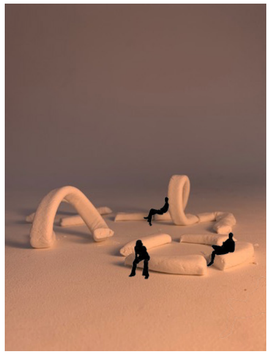
My second concept model explores shadows from light and colour.

I created a simple slat effect using some small sicks found from the studio and practiced screwing a peice of colours vinyl behind the model but in front of the light to create differeent textures and shadows.

I continued to explore these effects through different coloured vinyl and different shapes.

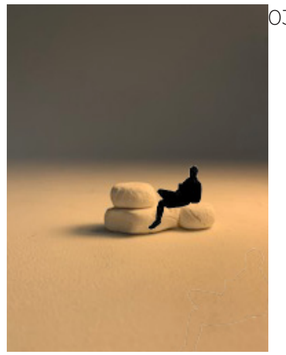





01




02
04


03

My next group of concept models where made to explore into my design of the space and what different curves could be used for. This group was explored as seating.

I chose to develop my conceptual research with curves due to curved objects and furnitures being an essential part of Deaf space development and design. This is to create a better communicational environment due to the curves allowing everyone to access the group visually.

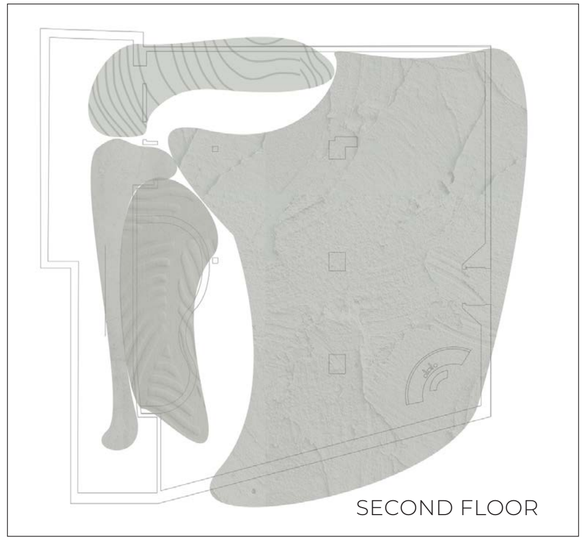
My fourth model on this page explores cutting a large peice of furniture into different segements to explore how the seating proposal could be pulled away to create a less restricting environment and users can divide into different groups.

04:

DESIGN PROPOSAL

MATERIAL			AREA
Plaster will be used on interior walls.	Plaster	Bar space	All floors
Contour line will be used as a pattern on the plaster walls.	Contour lines	Seating space	All floors
Brick materials will be placed into parallel interior walls.	Brick texture	Dance space	Ground and second floor
Croncrete used to inulate and on pillars inside the space.	Concrete	Hallway space	All floors.
Wooden slats placed in solid wall areas to break up space.	Wooden slats	Toilet space	Basement and stairs leading to second floor

PROGRAMME 04



This programme is textured with materials/ patterns that are proposed in my final design and will be shown in the following taxonomy.

The second floor of the night club will have more dance space, this is due to my converting one of the floors into a restin floor therefore the second floor will be more busy, and from first hand experience at Club Chemistry I've been in the center of the unbearably crowded dance floors, especially on the second floor as it's most popular.

MATERIAL TAXONOMY

Polycarbonate glass - This material can withstand approximately 63kg - force/Square cm (which is equivalent to 900psi). This material also will flex and return back to it's orignal shape.

Wooden slats - eco-friendly choice, also if properly maintained, wooden slats can last longer than metal and maintain it's shape overtime.

Recycled cardboard - I will be using recycled cardboard to shape the seating throughout the space.

Concrete - Selected for it's industrial effect in interior spaces as well as it being an economical material and high durability.

Herringbone wood - Not only is this effect beautiful wood also absorbs vibrations well, therefore is a great component to use inside a Deaf space.

Blue colours - When researching into Deaf space principles, mute blue shades are relaxing on the eye and reduces eye strain.

Green colours - As well as blue colours, green colours have the same qualities.

Wood - Not only is wood renewable and biodegradable but also has a sound absorbtion to create a more comfortable space.

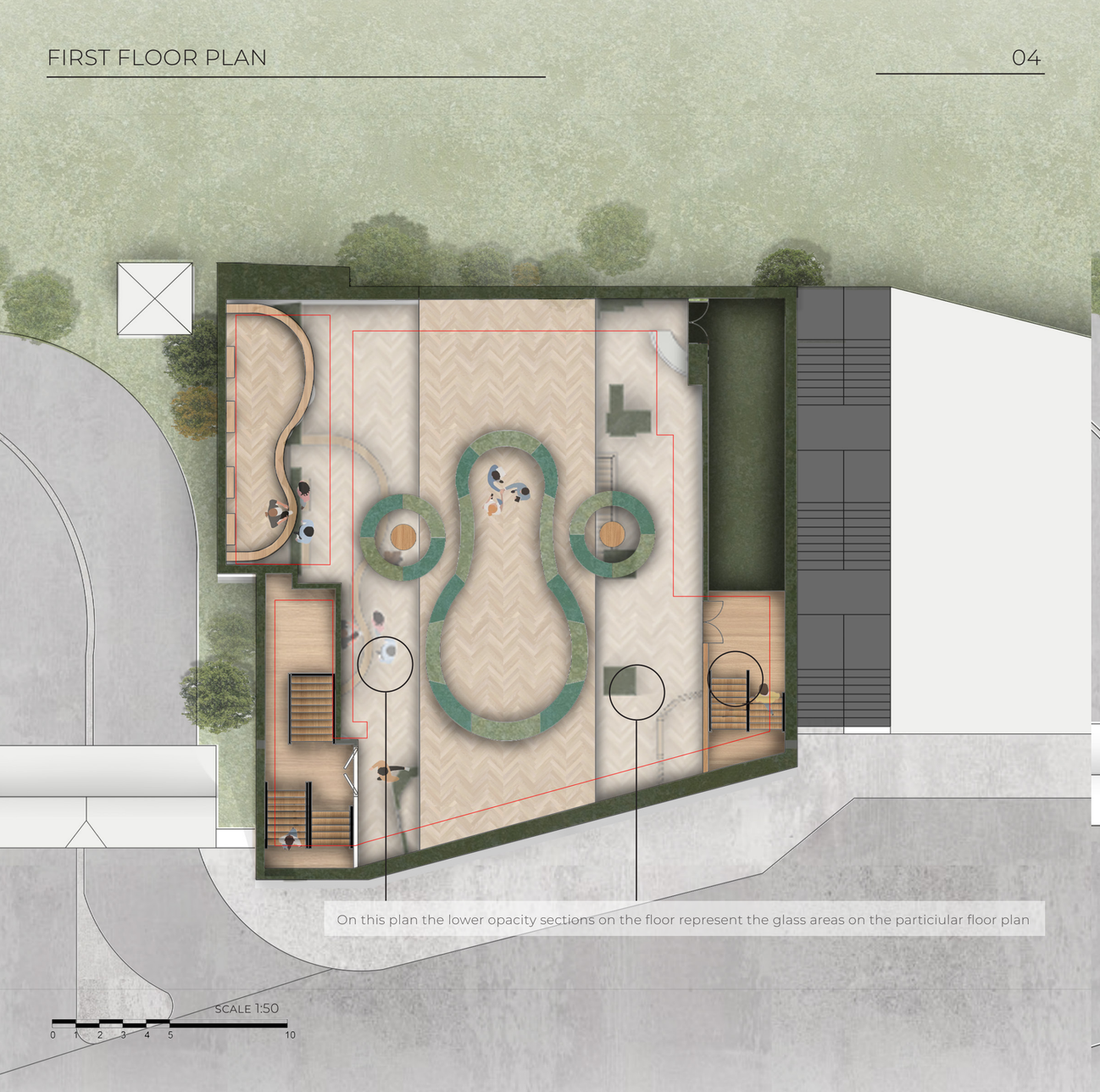
Brick - Raw material which makes it easily available, has a compressive strength, low maintanence, easy to demolish, reusable and highly fire resistant.

GROUND FLOOR PLAN

A hearing loop (sometimes called an audio induction loop) is a special type of sound system for use by people with hearing aids. The hearing loop provides a magnetic, wireless signal that is picked up by the hearing aid when it is set to 'T' (Telecoil) setting.

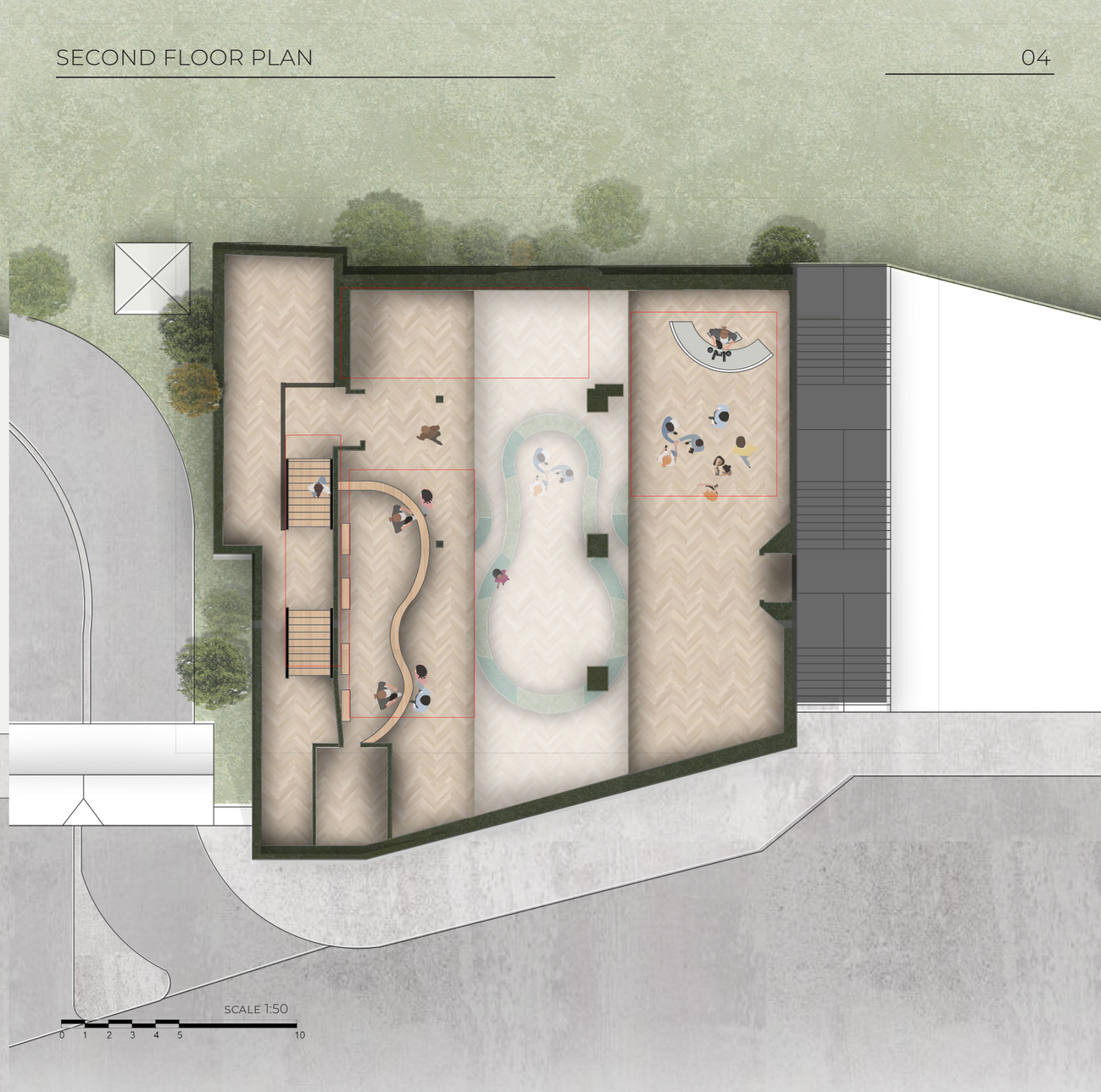
The hearing loop consists of a microphone to pick up the spoken word; an amplifier which processes the signal which is then sent through the final piece; the loop cable, a wire placed around the perimeter of a specific area i.e. a meeting room, a church, a service counter etc to act as an antenna that radiates the magnetic signal to the hearing aid.

FIRST FLOOR PLAN



On this plan the lower opacity sections on the floor represent the glass areas on the particiular floor plan

SECOND FLOOR PLAN



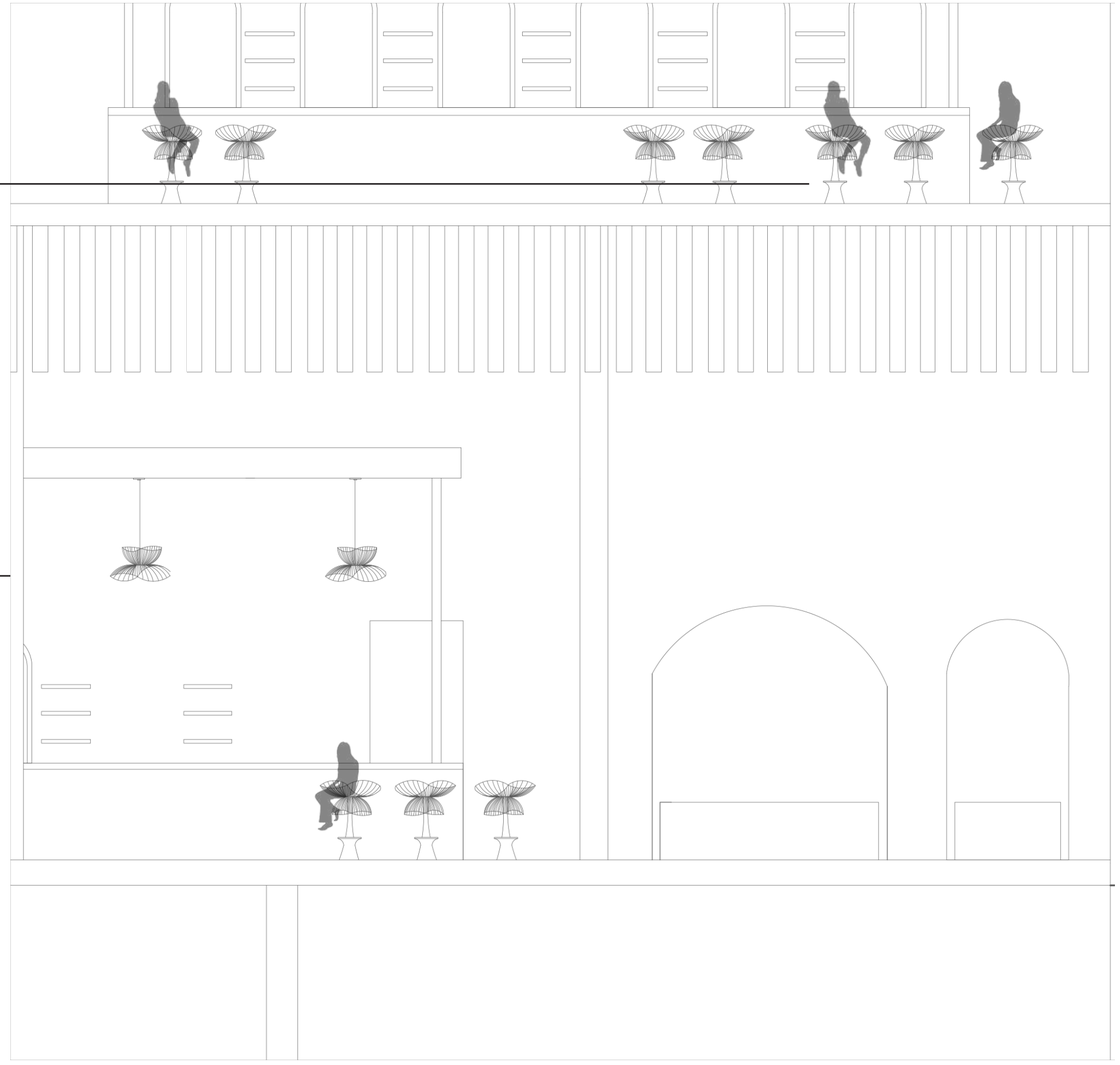
CEILING DETAIL MODEL

This model, rendered with birch wood, shows the ceiling design at a closer perspective.
The slats inbetween the curved details will hold light strips that will light up the rooms with different colours controlled by the DJ to fit the mood of the songs played.

SEATING DESIGN

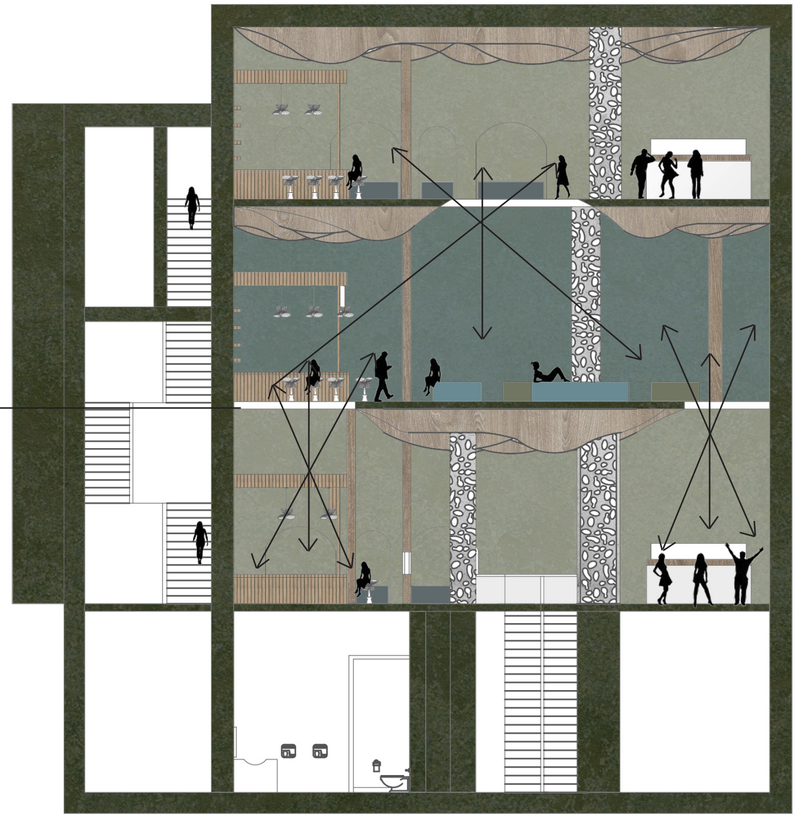
My seating design has been made to relefect on the open space it will be placed in. The curved wired furniture has beendrawn in a way of curving around the user creating a eeling of comfort and stability. These seats will be placed surrounding areas of the bar.

The top of the seat will be used as small lights around areas of the bar.



LINES OF SIGHT IN THE SPACE

SOUTHERN SECTION



Polycarbonate glass floor sections.

Lines of sight is one of many cruicial principles when designing a Deaf space. Space is particularly important for people communicating by signing to each other. Therefore, people need to maintain a clear line of sight to each other to read facial expressions and sign language. Building design should emphasize maximum visual reach in an effort to extend the awareness of Deaf people. For example, designing large window areas or open spaces to maintain open lines of sight.

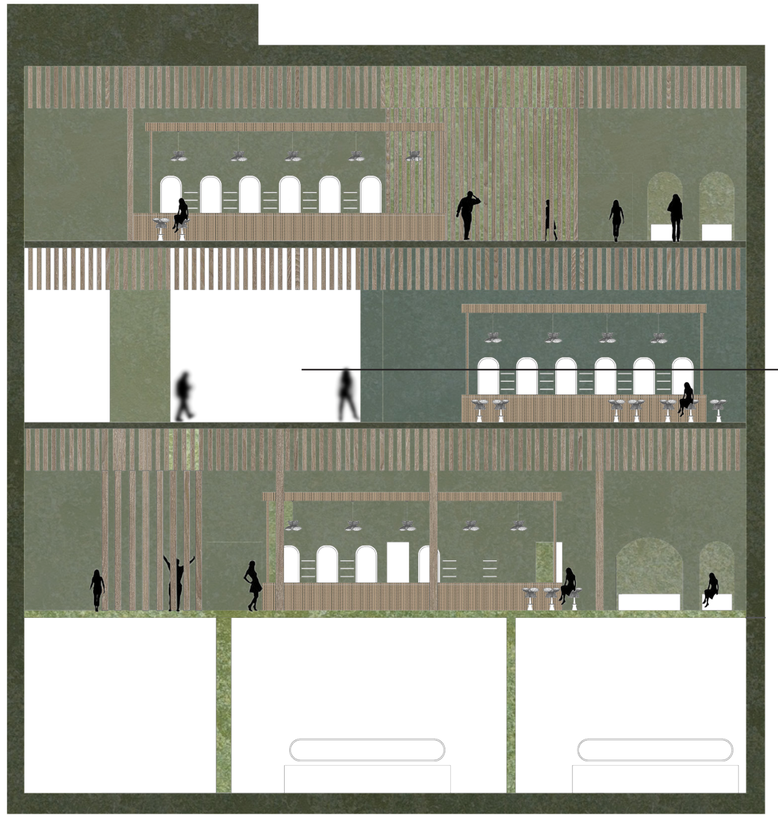
EASTERN SECTION

SECOND FLOOR
Dance floor
Seating floor
Bar

FIRST FLOOR
Seating area
Bar

GROUND FLOOR
Seating Area
Entrance
Dance floor
Bar

EXISTING BASEMENT
Bathroom
Storage

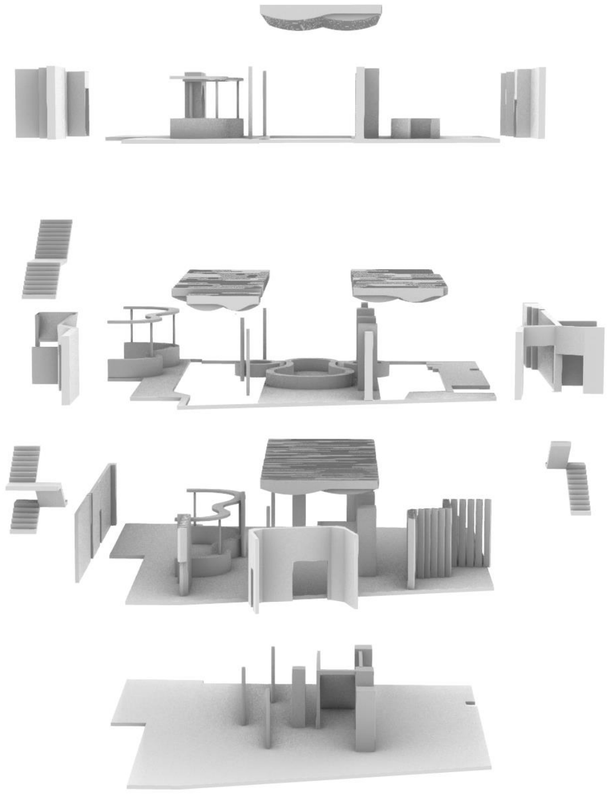


Frosted glass to show figures of people walking but not too distracting for the people resting.

No colour or material has been added to the basment due to it not being part of my design proposal.

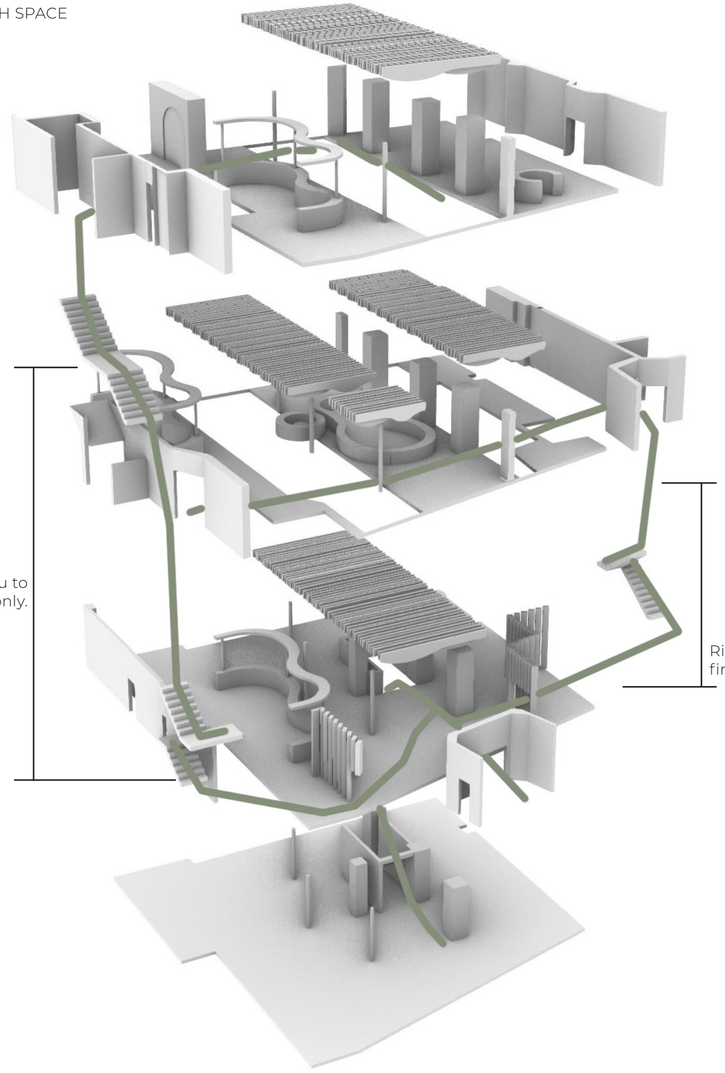
AXONOMETRIC FRONT VIEW

The front view of this axonometric shows the division between the floors and ceiling structures from the front view.



CIRCULATION

CIRCULATION THROUGH SPACE

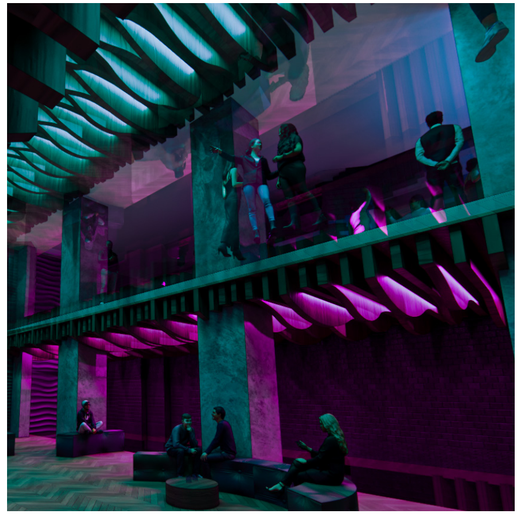


05:

RENDERS

FIRST FLOOR PERPECTIVE

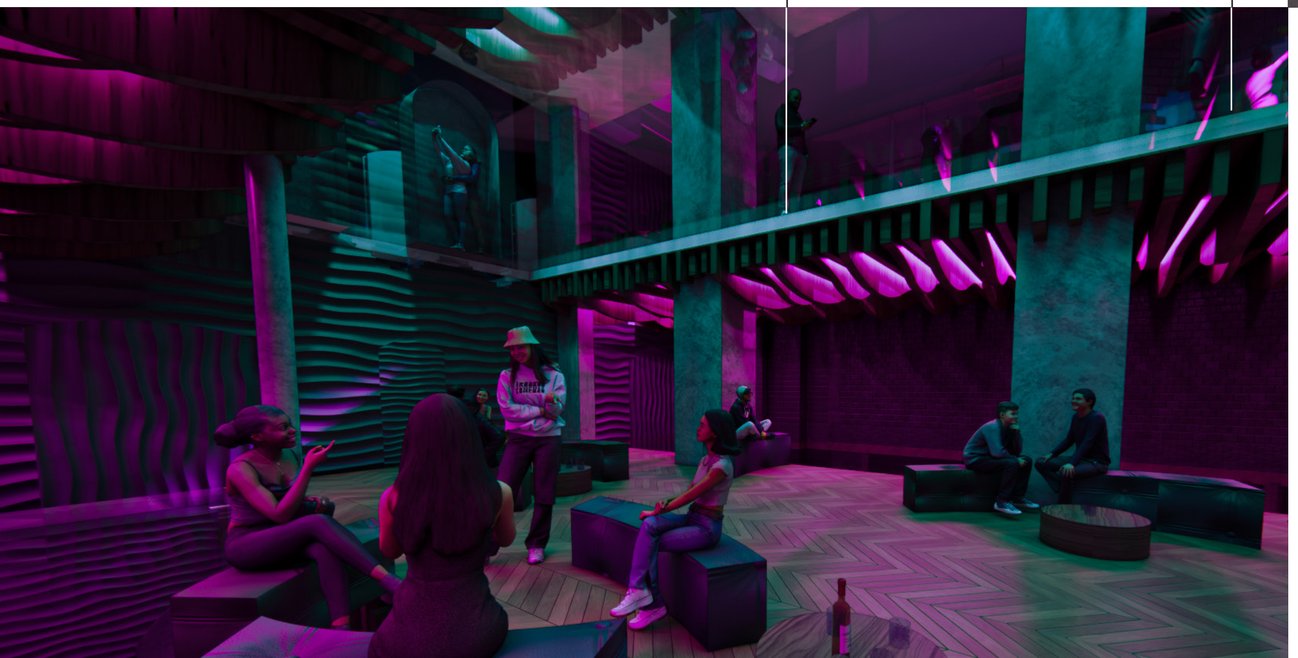
FIRST FLOOR PERSPECTIVES

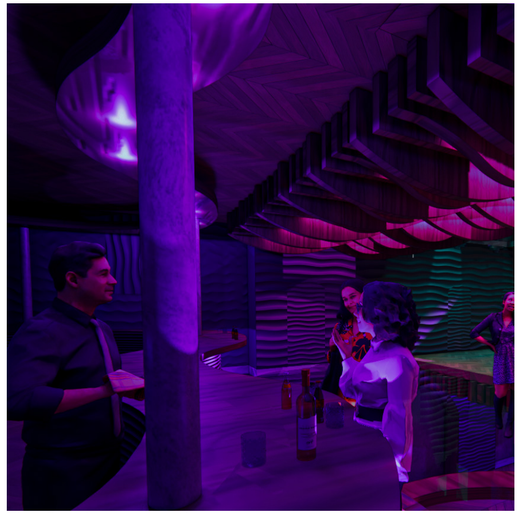


Left side perspective of first floor.

Polycarbonate glass floors/ceilings on designated sections on each floor to enable lines of site. Polycarbonate glass has been used for this part of my design due to it's strength and durability.

First floor seating perspective.





First floor bar perspective.

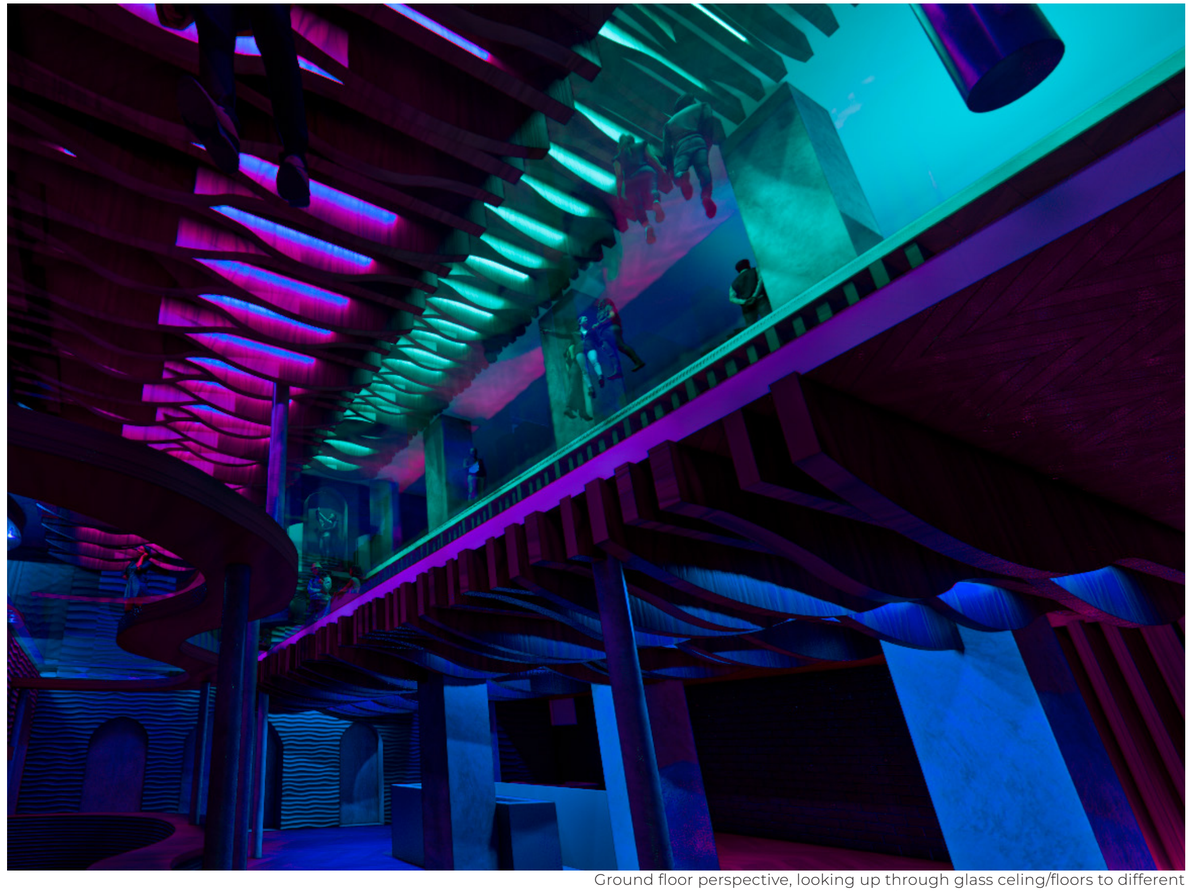
First floor seating view from bar perspective.

Second floor dance floor to bar perspective.

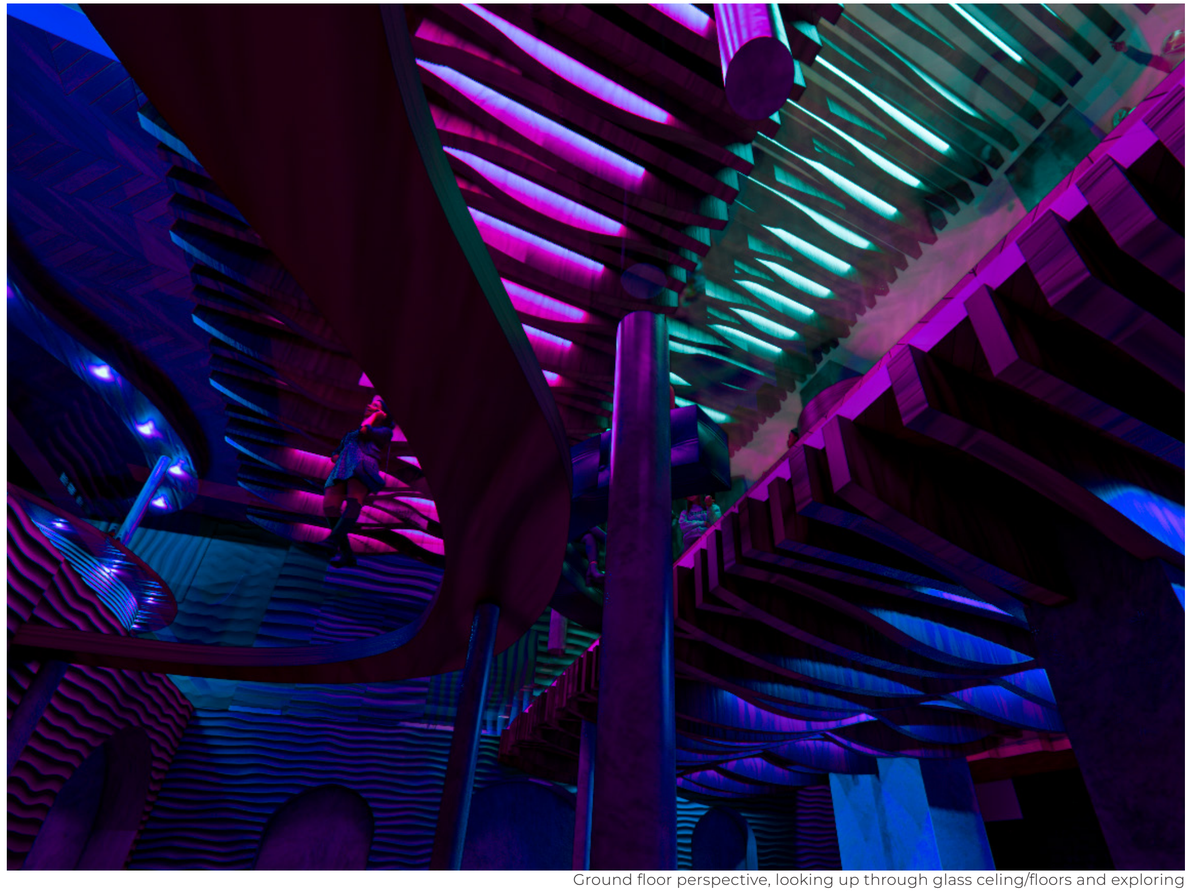
Second floor glass floor perspective.

Second floor bar perspective.

Second floor bar looking down to first floor seating area.
In this perspective I've brightened the lights andchanged the colours slightly
to give the space a different feeling to the space through colours.



Ground floor perspective, looking up through glass celing/floors to different floors to enable easier access visually.

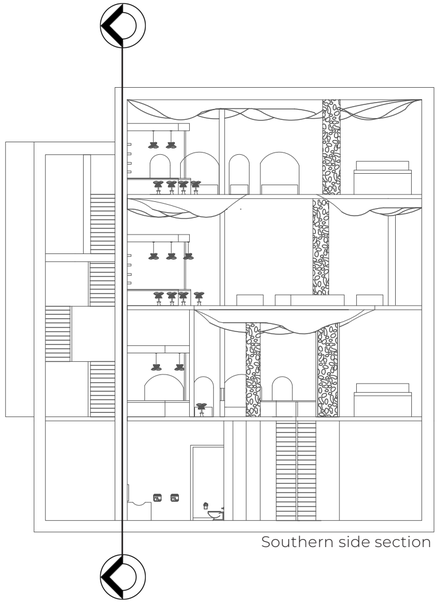


Ground floor perspective, looking up through glass celing/floors and exploring different colours to create different emotions.

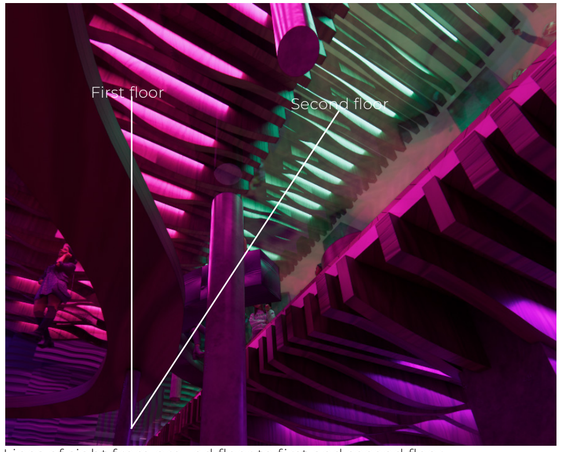
LEFT STAIRS

The left hand stairs on the gorund floor will take users up to the second floor only. This has been set in place to avoid obstuction on the 'resting floor' which is located on the first floor. Due to this only being a more quiet seated zone to take the user(s) out of the chaos dance floors. The left hand stair well will only allow direction of flow up and down second floor. However, user(s) that wish to leave the first floor can do so from the left side exit on the floor to take them up or down.

In order to navigate user(s) through the space clearly I'll be using light indication that will be seen through the glass ceiling/ floors. As seen on the right hand picture the lines of sight enable users to see which light is showing on what floor on that night to then know what stairs to use.



Southern side section

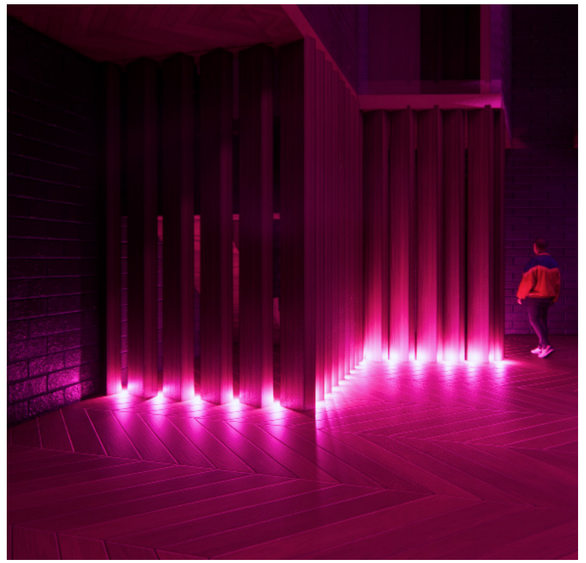


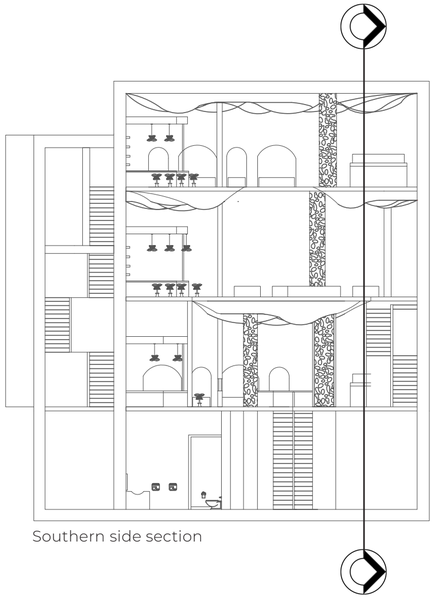
Lines of sight from ground floor to first and second floor

RIGHT STAIRS

Same as the left hand stairs, the right hand stairs will be a one way access to the first floor to "rest". This is because the floor needs to be used for it's purpose rather than user(s) walking through the rested space to get to the second floor causing disruption.

The lights will again be the same colour as the lighting on the first floor that you will be able to navigate through the glass floors./ ceilings.





Southern side section

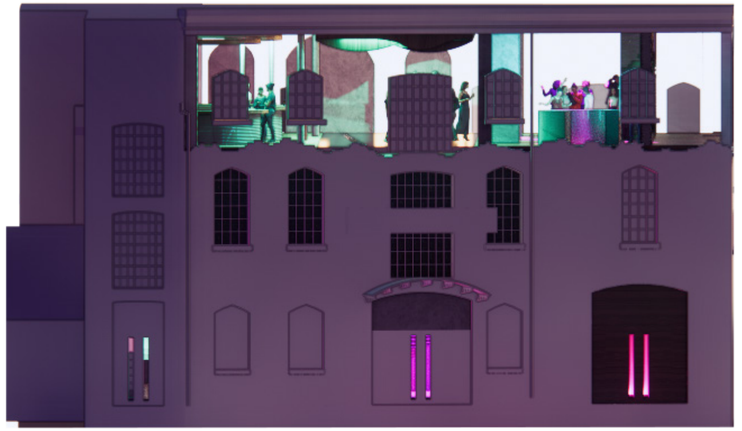
ELEVATIONS

These elevations are to show the exterior second floor walls in the atmosphere.

The nothern elevationwont be shown due toit not being changed from the existing. I didn't change the wall on the northern side due to it being a backstage section and part of the stairwell.

Northern elevation

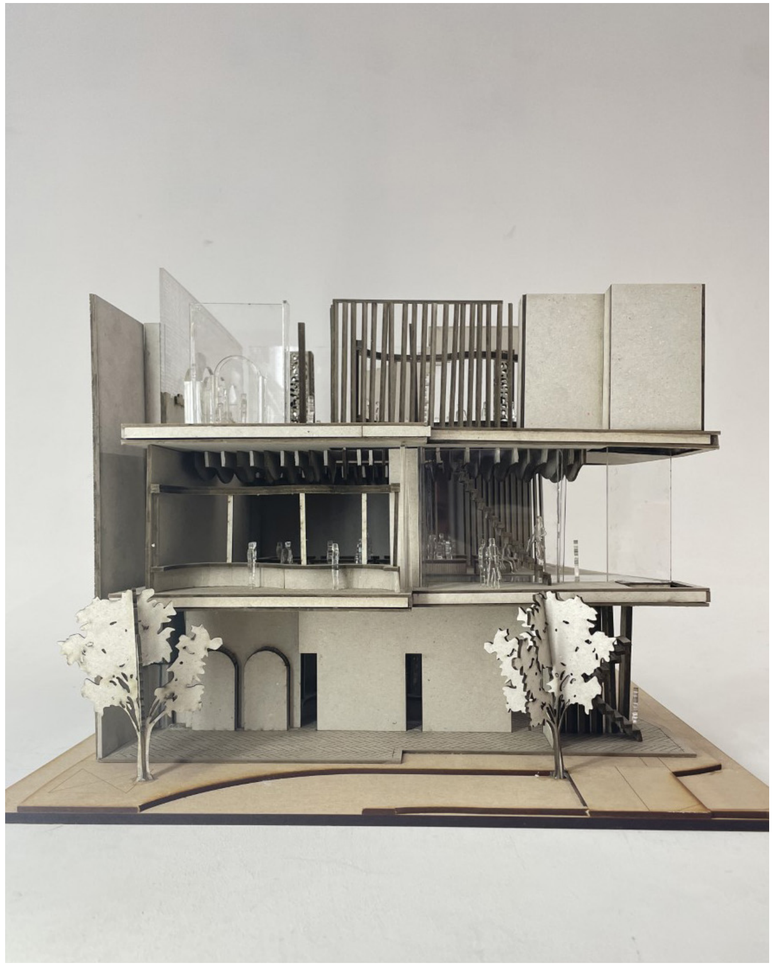
Eastern elevation



Southern elevation

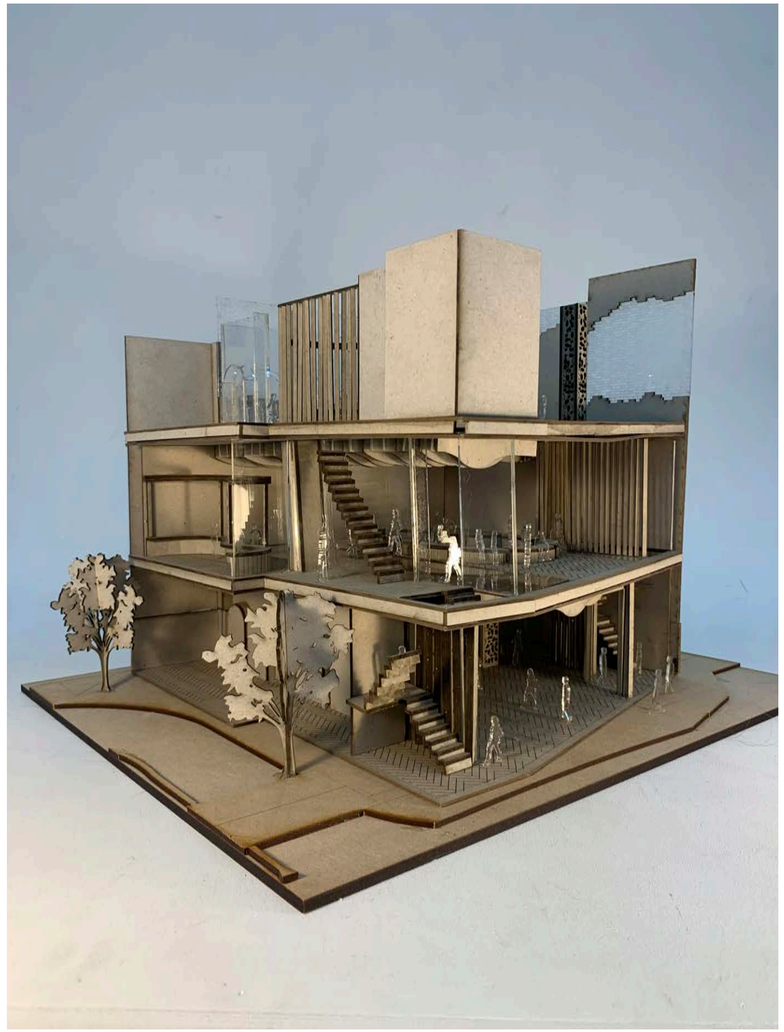
06:

FINAL MODEL

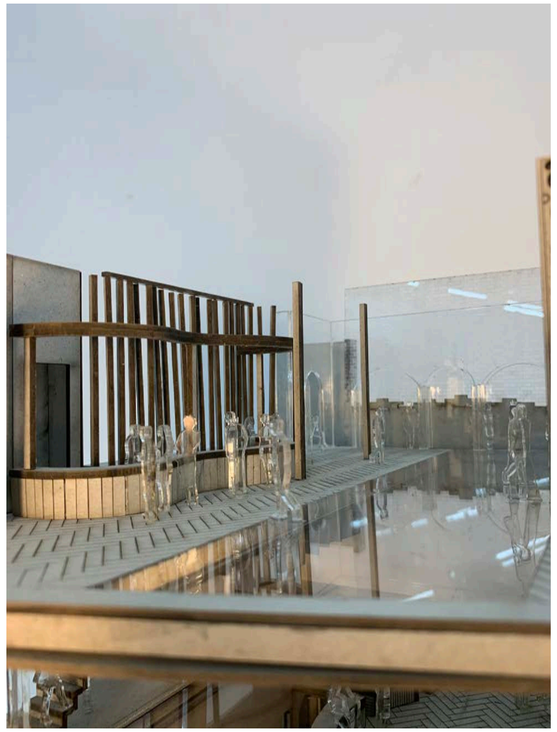


I made this model of my final design proposal of Club Chemistry. I left the southern and western walls off of the model to reveal the inside of the space. Made with grey board, acrylic and MDF. Drawn up on AutoCAD software and printed on Laser cutters.

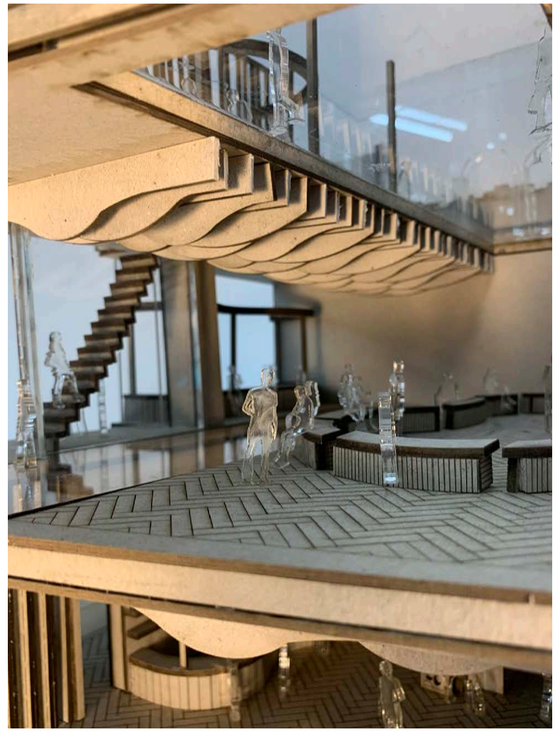
Detachable levels allow visible access to each floors detail. The floors rest on top of each other from the pillar supports oneach floor.



Right:
Buildings left
stairwell
perspective.

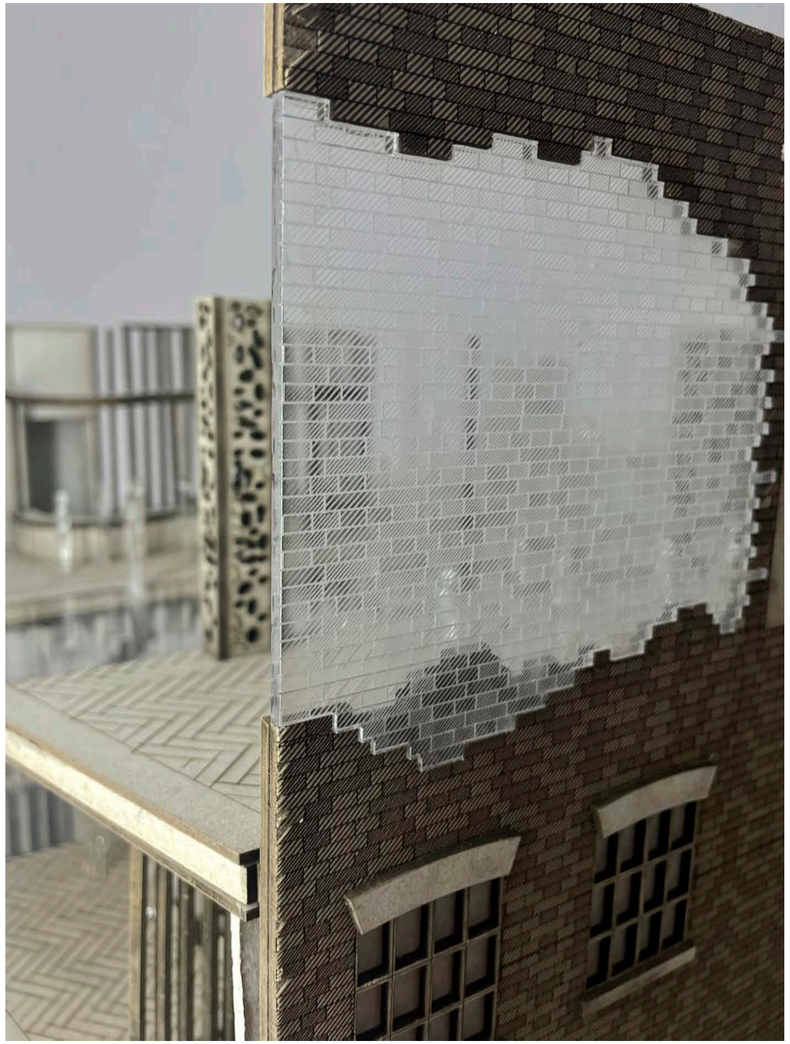


Second floor perspective from model



First floor perspective from model

Exterior of east side

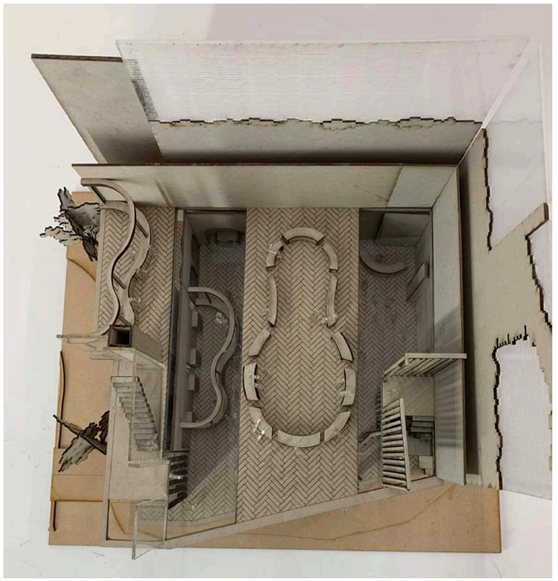


Perspective of acrylic brick wall.

Exterior ofnorth side

Perspective of ground floor

Ground floor plan



First floor plan