



**Archi-Mation | An Animation Production Centre in Bloemfontein as  
appoint of convergence between architecture and animation**

University of the Free State | M.Arch. (Prof)  
Clarise Eke



## Architecture - Animation | A relationship between Animation and Architecture |

This dissertation's point of convergence is to transcribe  
an architectural outcome between the two domains.



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ASSESSMENT TITLE: Archi-Mation | Masters design dissertation

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## Abstract

Despite their differences, animation and architecture have similar conceptual and practical approaches to the design and construction of framed areas and spatial organization. The common ground between theoretical and practical methods in both domains with regard to frames and space is the subject of the thesis. A problem arises when a closed-off urban scape which allows no easy access becomes a no-man's land, and the thesis project sets itself to resolve the problem through research, design and critical solutions.

The following research question guides the study and design process:

Which architectural mechanisms can serve as tools to address the inaccessibility of the urban scape, allowing urban dwellers more ease of access? This focus aims to lead towards an architectural and critical response and hopes to unearth the necessary steps to unveil the above mechanisms.

The study analyses not only theoretical and practicalities of both the architectural and the animation domains but exhibits and magnifies the spaces which is created when they meet and evidently create hybridity between the two. The merging of spaces creates architectural opportunities through the translation of animation and architecture while conceptual approaches and site analysis aids in forming spatial qualities. These spatial qualities are products of hybrid elements, linking to the research question and answering it with specific and substantiated relevant elements.

Key words : Hybrid, Frames, Realm, Domains, Thresholds, Animation, Narrative route, Pocket, Tool, Language, Translate

Abstract

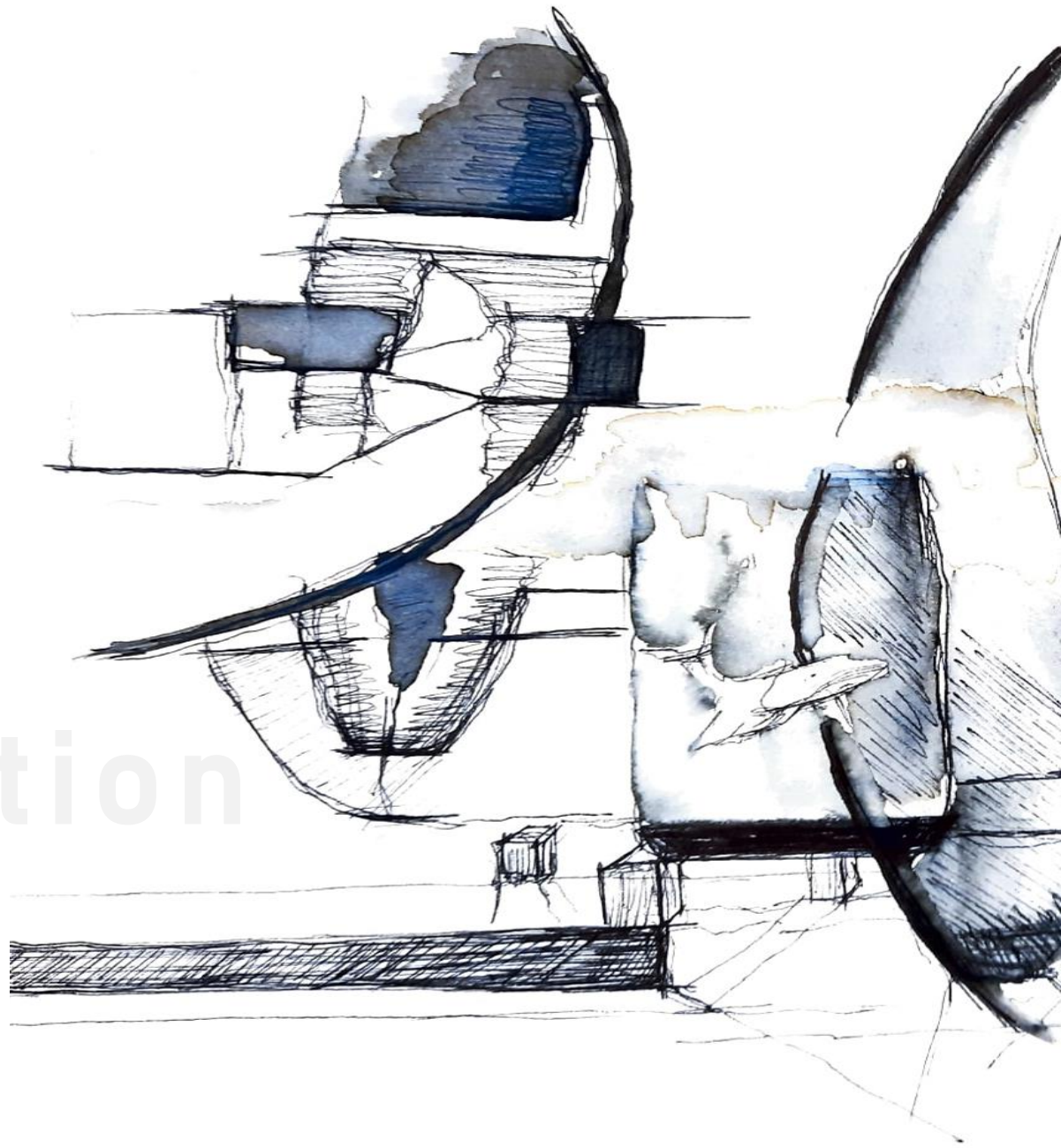


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# Chapter 1

# Introduction





## 1.1 Brief

Do we as individuals enjoy and feel fulfilment in any other forms more than translating and re-telling stories of life from our experiences, perspectives and thoughts? Animation is a rising craft for retelling and sharing stories within South Africa; students and animators use animation to develop a narrative to get their story out in the world.

Architecture translates the story of the past, present and future, with specific markers on a given site such as views which can be shepherd and accentuated while celebrating earth formations and forces. The thesis project studies and analysis the two domains and focuses on architectural outcomes when translating and telling a narrative of place.

Figure 1.1 : Mirage in form (author).

## 1.2 Background

Animation is one of the most compelling ways to retell a story. It is quite beautiful to see how each character in a film resembles their own in the world, for example a second-year student at The Animation School, Dieluv Tshingej creates this character of a 12-year-old African shepherd boy who carries great responsibility. Dieluv portrays this character within his own imagination and all that has influenced and inspired him; a film becomes a subjective canvas for the world to see, and consciously animation serves as a mediator for narrative to make its way to the viewer. This is one example of many where an animator brings his vision to reality. The client for this investigation is The Animation School (with existing branches in Cape Town and Johannesburg) who has voiced the need to branch out into a production centre for their graduates. Their main vision aims to enable and empower individuals to achieve success through their creative contribution in the animation field.



Figure 1.2: Shepherd boy by Dieluv (The Animation School,2022.).

## 1.3 Client



Figure 1.3: Logo (The Animation School,2022).

The Animation School is located in Cape Town and Johannesburg, South Africa.

The Animation School is one of the top 25 animation programs in the world, they opened their doors in 2000 and has been placed and recognized as the leading source of education when it comes to specializing in animation in South Africa. It ranks as 13<sup>th</sup> in the world (The Animation School, 2022).The client has formed a whole ritual and studio culture within the school of animation, and it has top tier graphical aspects to their website, posters, and of course their movies and short films. Visiting their website, the viewer already have an idea for the studio culture and standards of their productions.

The Animation School is all about transparency and creativity, they display and post their students short films with their international movies on their site. The Animation School has a three-year Diploma course in Digital Animation which is an accredited full-time programme; the short courses introduce 2D and 3D – Animation (which will be explained in depth further on), scripting for artists and digital drawing. The Animation School partners with international recognisable companies such as Netflix and creates opportunities for students to study a Diploma in Digital Animation through a 3-year bursary. For the reasons of having the same vision and studio culture they fit as the perfect client for this scheme.

## 1.4 Rituals

Studio culture is an element which exists to promote creativity and exposure in a communal and private workspace. By definition, a studio setting creates the environment for an individual to enhance his creative experience and workflow potential. Creativity sparks when conversations occur, and mindful interruptions take place. The Animation School, Architecture and Art houses space for studios to give opportunity for studio culture and rituals to form. The Animation School exhibits students' work, which shows appreciation to each unique individual. Film Fridays have been an ongoing ritual to bring all ages and experiences together to gather in the craft which they all love and invest in. These days have been posted as social media content on their site and by individuals partaking in this ritual.

Corridors are interrupted with open meeting areas so that each worker or student will flounder into another from time to time and spark conversation. Rituals form through these interactive spaces which allows free movement and flow of thoughts. They have many functions in place such as 'Film Fridays', open day presentations where they reach out to future students and to top it off, they open their doors occasionally to give the outsider a glimpse of what they do within The Animation School. Functions such as exhibitions of student and the company's work as well as short film nights. All these studio cultures and community rituals will be an ongoing activity within The Animation Centre.



Figure 1.4: Megan Redelinghuys 1<sup>st</sup> year 3D prop exhibition (The Animation School, 2021).

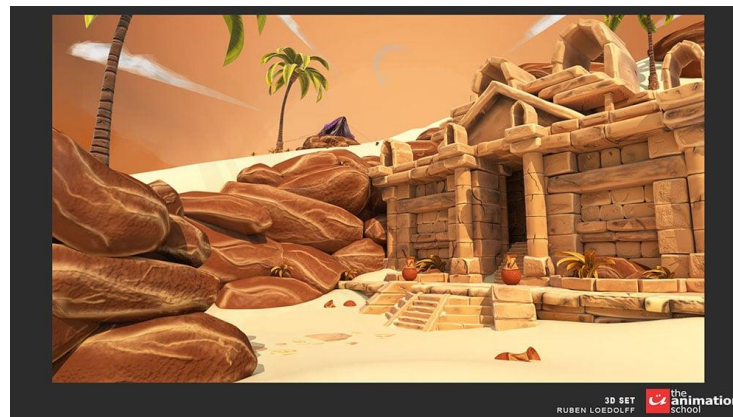


Figure 1.5: Ruben Loedolff 1<sup>st</sup> year 3D set exhibition (The Animation School, 2021).



Figure 1.6: Atlehang Mabokela 1<sup>st</sup> year 3D set exhibition (The Animation School, 2021).

## 1.5 Program

The Animation Centre intends to not only serve as a production centre, but to sit as a pocket of experiences for the urban dweller. Within this centre there will be specific studios allocated for 2D and 3D animators, computer scientists, staff rooms, and a classroom for occasional short-course attendees. Graduates of The Animation School who completed their 3-year Diploma in Digital Animation will have the opportunity to apply for work at The Animation Centre which is a branch of The Animation School. The centre is an animator's safe workspace filled with interactions and gatherings.

It is important to uphold a sensitive approach to the creative spirit and to allocate spaces for rituals. Rituals such as 'Film Friday', displaying of clay characters and posters create valuable experience and outlet for the animators, but it also creates interesting activities for the general public. Pixar will be introduced in the next paragraph. The program allows free arrangement of movement and easy access to public facilities and entertainment areas such as the cinema and gallery for comfortable and effortless events.



Figure 1.7: Luke Whyte 1<sup>st</sup> year 3D set exhibition (The Animation School, 2021).



Figure 1.8: Kristin Smith 1<sup>st</sup> year 3D prop exhibition (The Animation School, 2021).



Figure 1.9: Mpho Nkopane 1<sup>st</sup> year 3D prop exhibition (The Animation School, 2021).

## 1.6 Pixar

Pixar as mentioned before is a world renowned company which produces phenomenal animation movies. The company has incredible standards of digital animation whilst incorporating universal sensitivities towards cultures, religions, and races. Pixar was brought to the world by Steve Jobs, he kept an incredible level of professionalism and growth in Pixar from the very beginning of creating the company and simultaneously building a campus in California, USA. Jobs believed and said: "If a building doesn't encourage collaboration, you'll lose a lot of innovation and the magic that's sparked by serendipity" (Pixar,2022:online). Once again, another studio that incorporates interaction, gathering and ritual making within the community. As it has been done successfully by Pixar and The Animation School with world renowned success, it definitely has to be incorporated in The Animation Centre Bloemfontein!



Figure 1.10: Pixar characters (Pixar,2022).

Pixar has and still is making phenomenal films, but they remind us that storylines are drawn from the filmmakers' personal day-to-day highs and lows. Pete Docter the Chief Creative Officer of Pixar states the following in remark of when it comes to an individuals personal story telling: "Our stories talk about the challenges, successes, and joys of our own experiences" (Docter, 2021:online).



Figure 1.11: Pixar exhibition space (Pixar,2022).

Pixar has many artists who work on traditional media such as hand drawings, sculptures and painting. The finished product which is the film could never exist without the depth of the beautifully created art by those artists for each film. People easily connect a film as a product from a computer and disassociate the art form from digital screening. Pixar stands proud in their craft for the art that it is and has won and premiered several pieces.



Figure 1.12: Pixar hand made characters (Pixar,2022). 8

## 1.7 Accommodation list

### Private:

#### Animators Studios

- 2D animator - 9 studios
- 3D animator - 9 studios

- Computer scientists (2 studios with 2-3 desks each)
- Discussion rooms
- Informal boardrooms for 2D, 3D and hybrid

- Background artists
- Character animator
- Clean up Artist
- Digital ink and paint artist
- Image editor
- Key frame animator

### Semi Private:

- Library
- Kitchen for cafeteria
- Ablutions

- Lounge
- Coffee stations
- Staff Ablutions
- Washrooms and lockers
- Storage room

## Public:

- Reception
- Ablutions
- Cafeteria
- Landscaping
- Parking
- 45-degree parking spaces outside (existing)
- Bus drop off zone

## Semi-Public

- Gallery
- Cinema
- Boardroom
- Short course room (30 persons) including computers per desk for intro classes on programmes
- Parking 15-20

## 1.8 Animation

### 1.8.1 What is animation?

It is clear by now that animation is a mediator between the animator and the viewer; as it does not only create a whole world of creative possibilities and scenes but to display it. Animation is the practice of bringing photographs of inanimate objects or illustrations to life through moving images. As seen within The Animation School each first year creates in-depth characters and sets which clearly represent their thoughts, past, sensibilities and perspectives.

Animation is a beautiful translator of the world, just as architects translate through architecture. There are many layers and processes of input and creative scenery when producing an animation film, each process produces a different outcome and overall look to animation. Processes link to the animators' skillset and liking, therefore each background and character exists uniquely from the animator themselves.

### 1.8.2 The Animation Process From 1938

This segment is from the 1938 short "How Walt Disney Cartoons Are Made." This video was posted by Steve Little on 21 August 2011. Figures 13 – 27 (Little,2011)



Figure 13: Storyboard



Figure 14: Sketch artists draws main points in story.



Figure 15: Conference room



Figure 16: Director sharpens script and dialogue.

Films can be a product either of one or both of the processes called 2D animation or 3D animation. Both of these processes entails creative hand made character props and sets for exploration and expression, the difference comes to display when incorporating these ideas. Hybridity occurs when the two processes merge into a single film, a process consists out of frames per second (FPS) and the application of frames is the main difference when it comes to the two processed between 2D and 3D animation.

Media freaks explains the process of 2D animation in a sense, they state: "In traditional 2D animation, pictures are hand-drawn and every one showing subtle changes from the previous. When played back sequentially, it creates the illusion of motion. In stop motion animation, real-life models are moved slightly and filmed" (Mediafreaks, 2019). 2D animation is a slower process of hand and eye coordination when placing and moving characters through scenes. It is done manually by placing frames onto another.



Figure 17: Music composer and director discuss timing of each scene.



Figure 18: Skillful animators start the character drawing process and their movements.



Figure 19: Animators' drawings get photographed one at a time.



Figure 20: Film gets created and sent back to animator.

Everything in 2D animation takes place on a 2D surface and pictures provide one perspective. Typically, objects and figures are drawn without the soft, nuanced shadows that we see in real life, and there aren't many different shades of colour. 2D animation is a winsome image to some as it gives a vintage and traditional look; because of the traditional scenery and characters it takes us back to when we were younger and watching animation films for the first time. It sparks memories and the feelings we had when watching these films such as *Snow White and the Seven Dwarfs* (1937) and *Pinocchio* (1940).



Figure 1.28: Pinocchio 1940 ( Gambin,2018).

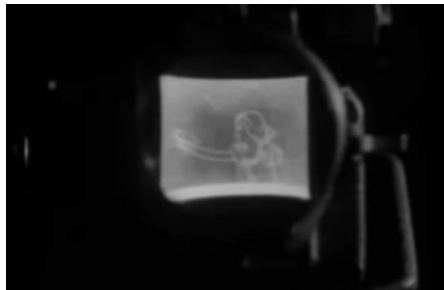


Figure 21: Films are played back and forth to ensure smooth movement of characters..



Figure 22: Paper drawings are then sent to ink department.



Figure 23: Ink drawings are then sent to the color department.



Figure 24: A different studio simultaneously paints the background.

3D animation is a different process, and with differences in process equals a different outcome. Through the careful manipulation of objects within the 3D software, a picture can be exported in sequences which will give the illusion of movement based on manipulated objects.

Everything takes place on a three-dimensional platform in 3D animation. Similar to real life, pictures contain depth, offer a variety of angles, and cast soft, and delicate shadows on their subjects.



Figure 25: Photographs are taken after the color process.



Figure 26: Sound effects are recorded.



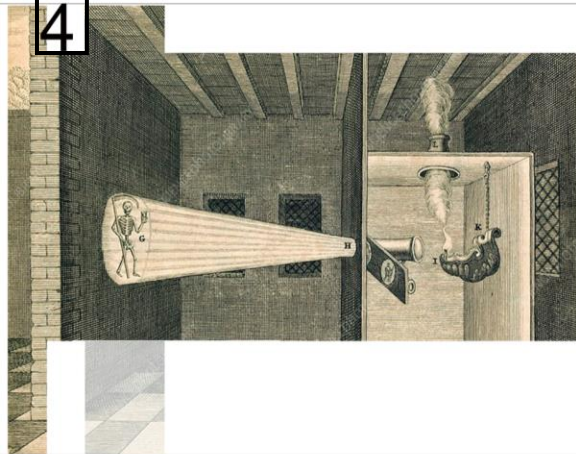
Figure 27: Film gets premiered.

### 1.8.3 Animation timeline

Animation has been one of the earliest forms of entertainment, Aaron Sorokin, a masterclass instructor of animation states the following : "The history of animation dates back to the ancient world. From the pottery of the ancient Greeks to the ocular toys of the seventeenth century to the computer-generated imagery (CGI) of the twenty-first century" (MasterClass,2021) The history of animation predates the creation of cinema since early animators throughout the ages figured out how to make movies without cameras or other recording equipment.

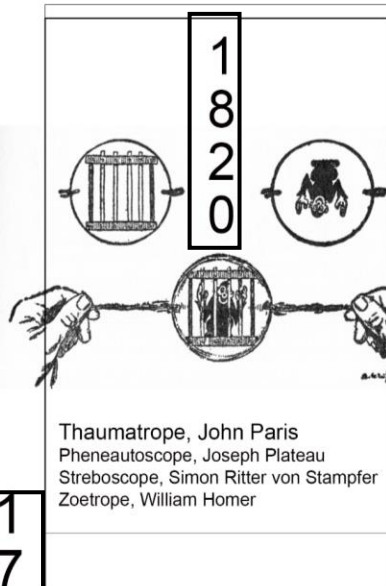
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Magic lantern, Althanasius Kircher  
Film strip, Gasper Schott



Pieter Musschenbroek creates series of drawings  
Magic Lantern becomes popular  
Swiss physician Peter Mark Roget writes an essay  
'Persistence of vision with Regard to moving Objects'

1  
7  
3  
6



Thaumatrope, John Paris  
Pheneautoscope, Joseph Plateau  
Streboscope, Simon Ritter von Stampfer  
Zoetrope, William Homer

1  
8  
4  
5

Movie projector, Baron Franz von Uchatios

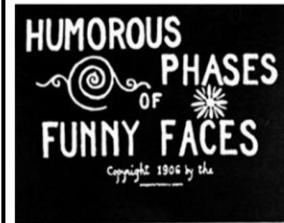
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Celluloid film, George Eastman



1st Animated cartoon  
'Humorous Phases of Funny Faces'  
by J. Stuart Blackton

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Mickey Mouse and the use of sound in animated films were made popular by Walt Disney's 1928 short *Steamboat Willie*, which was the first animated film to have a full score. It is elaborated by Sorokin that film historians contend that Émile Cohl's *Fantasmagorie* (1908) was the first animated film because it was created using conventional animation methods.

It is further stated by him that the first animated movie technically recorded on actual film was *Humorous Phases of Funny Faces*, which was the first animated movie recorded on standard picture film. *Snow White and the Seven Dwarfs*, produced by Walt Disney Studios, was the first animated feature picture (1937).



Phantasmagorie, Emile Cohl

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9  
2  
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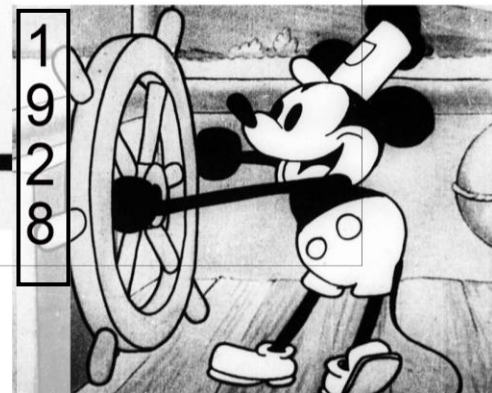
Walt Disney  
Children's stories into  
animated cartoons

**Walt Disney**  
Cartoonist

COMIC CARTOONS  
ADVERTISING CARTOONS  
ANIMATED MOTION  
PICTURE CARTOONS

3241 TROOST  
KANSAS CITY, MISSOURI

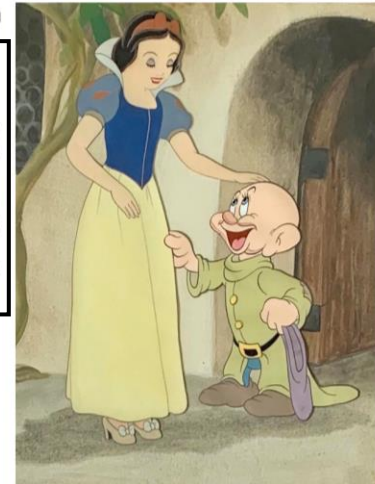
Mickey Mouse



Snow White and the Seven Dwarfs

Disney's 1st full length film

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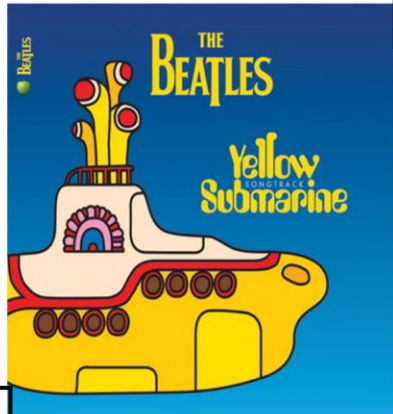
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Tom and Jerry  
2D Animation



Lord of the Rings  
by Ralph Balcshi

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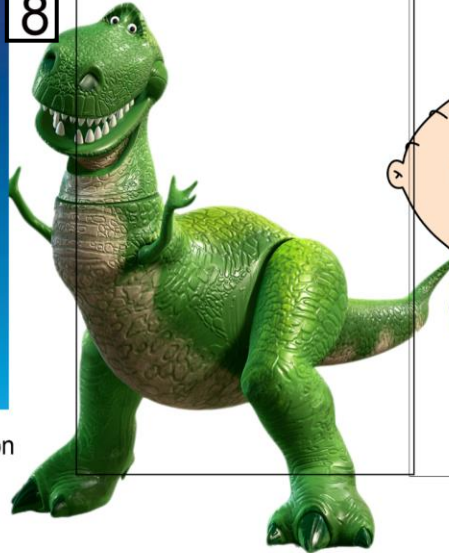


Process of pixilation and stop-motion  
in the film starring the Beatles

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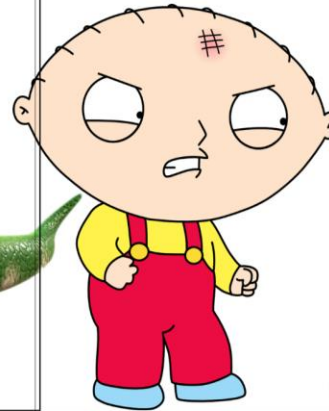
Toy Story  
Entirely created by computer

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Family Guy  
2D animation

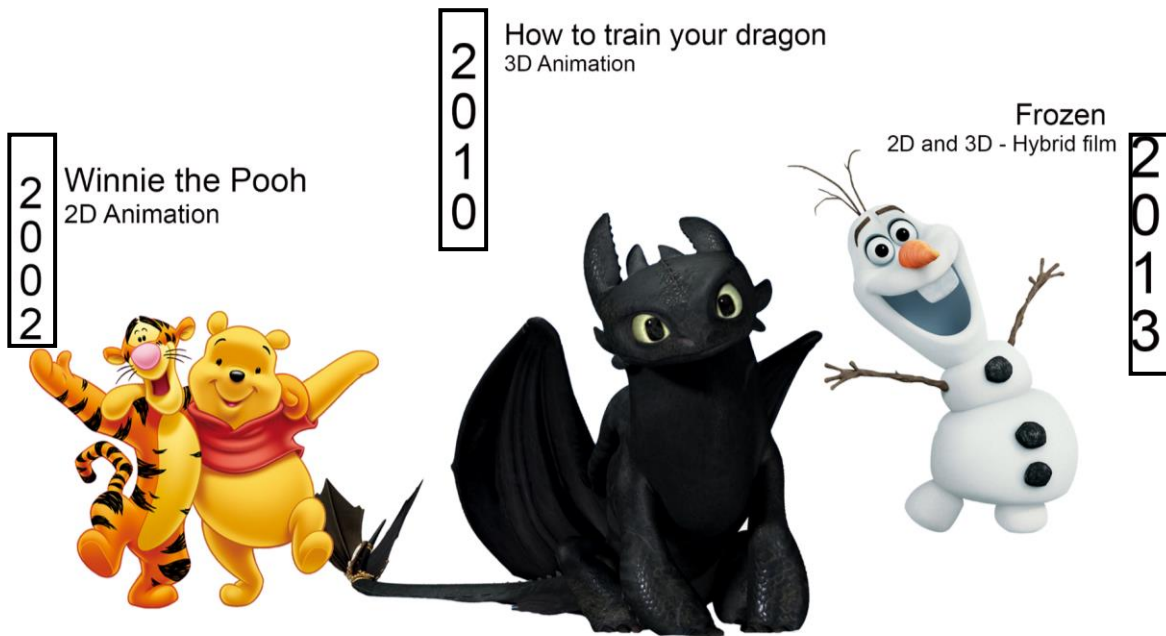
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Monsters Inc  
2D Animation elements in 3D computer  
generated





As more computers became commonplace during the 1960s, innovative digital graphics took off, and by the 1970s, many artists were employing computer graphics as an art form. By the middle of the 1980s, cartoons were widely available on television, especially on Disney and Nickelodeon.

Several films were created by Walt Disney Production Company and other Animation studios, these films are age-old fables and folklore.

*The Princess and the Frog (2010), Tarzan (1999), Beauty and the Beast (1991), Mulan (1998), Pocahontas (1995), and Bambi (1942)* are a few of the well-known and enduring animated movies among them.

Figure 1.29: Animation timeline (author, adapted illustrations derived from pngtree and edited).

# 1.9 Touch Stone

The following topic connects the concept of animation and architecture as two domains into an built object. This is one of the first steps of exploration into the two domains of architecture and animation. These domains must start to communicate in order to translate architecturally.

They can be seen as two languages that needs to be analyzed and translated. A touch stone is seen as a communicator to display in built form the main concept and theme of the project, the touch stone will further explain in depth the overall feeling which is pursued.

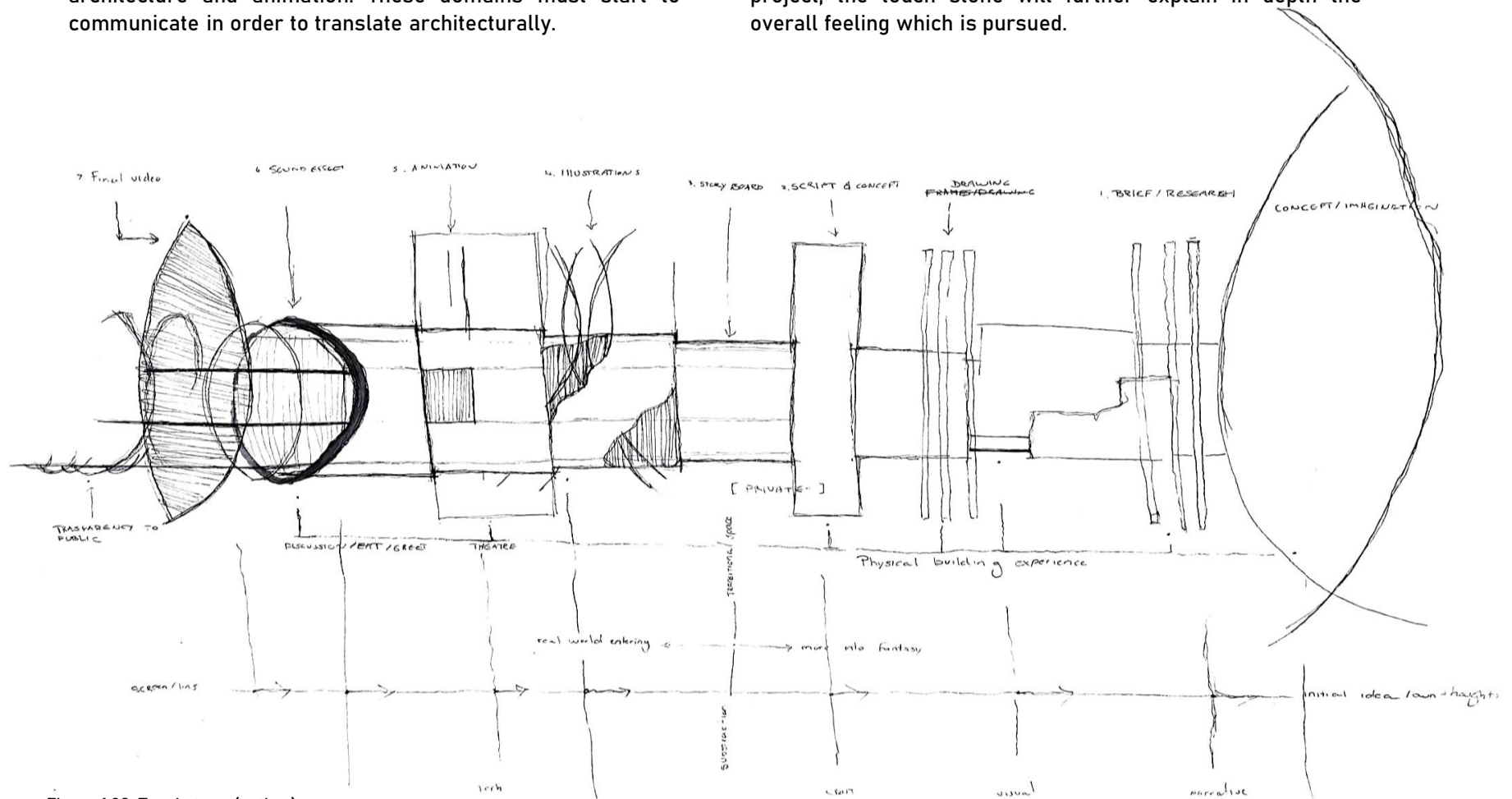


Figure 1.30: Touchstone (author).

The touch stone abstracts the craft of animation and displays it in segments. A kaleidoscope is used to represent the process of animation as it allows the viewer to enter a different realm of creative imagery.

This creates a hyper-real experience for the audience and participants. It might be an imitation or representation of a process, but it is creating possibilities for experiences . Even if the imagery might not be real, it does not mean that the experience is not real. It promotes interaction for the community.

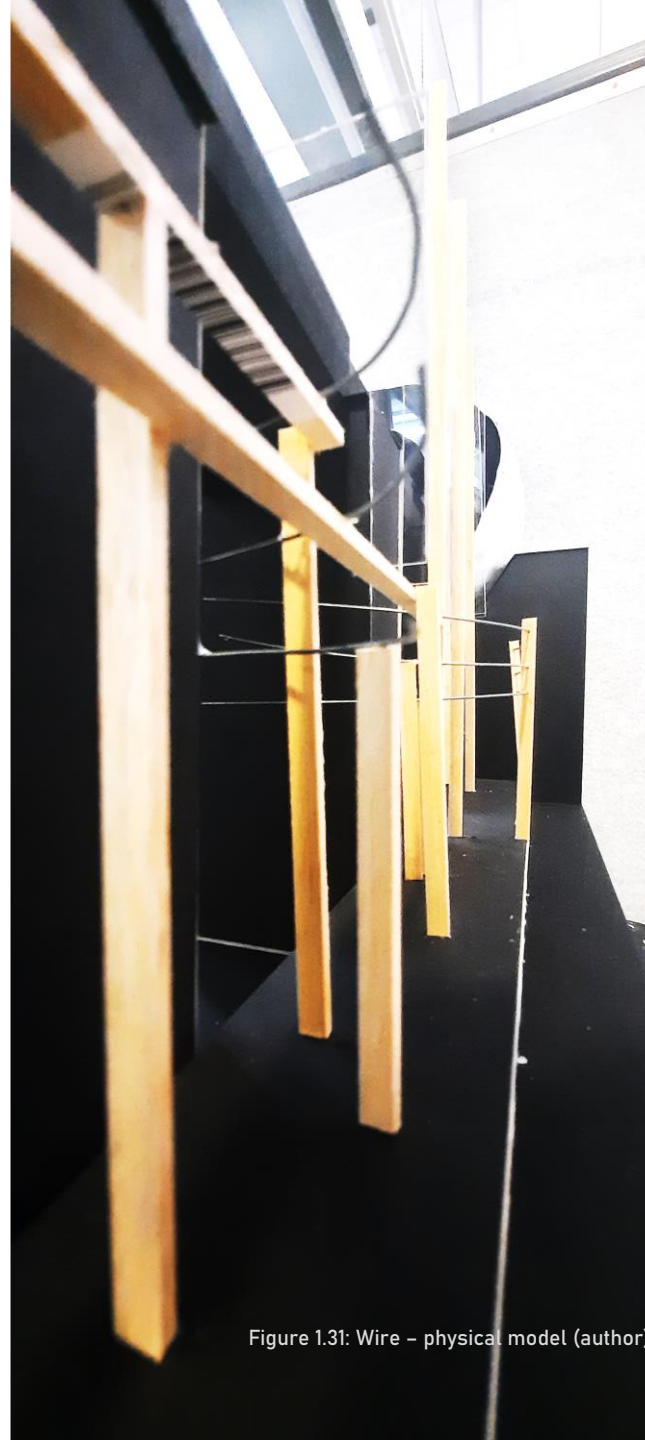


Figure 1.31: Wire – physical model (author).

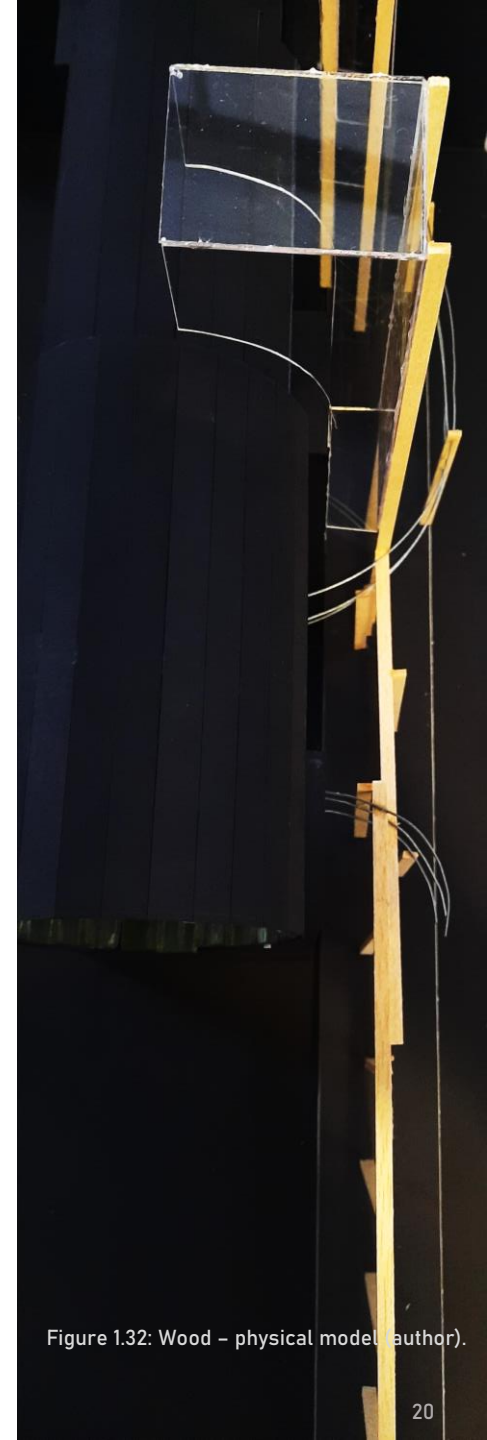


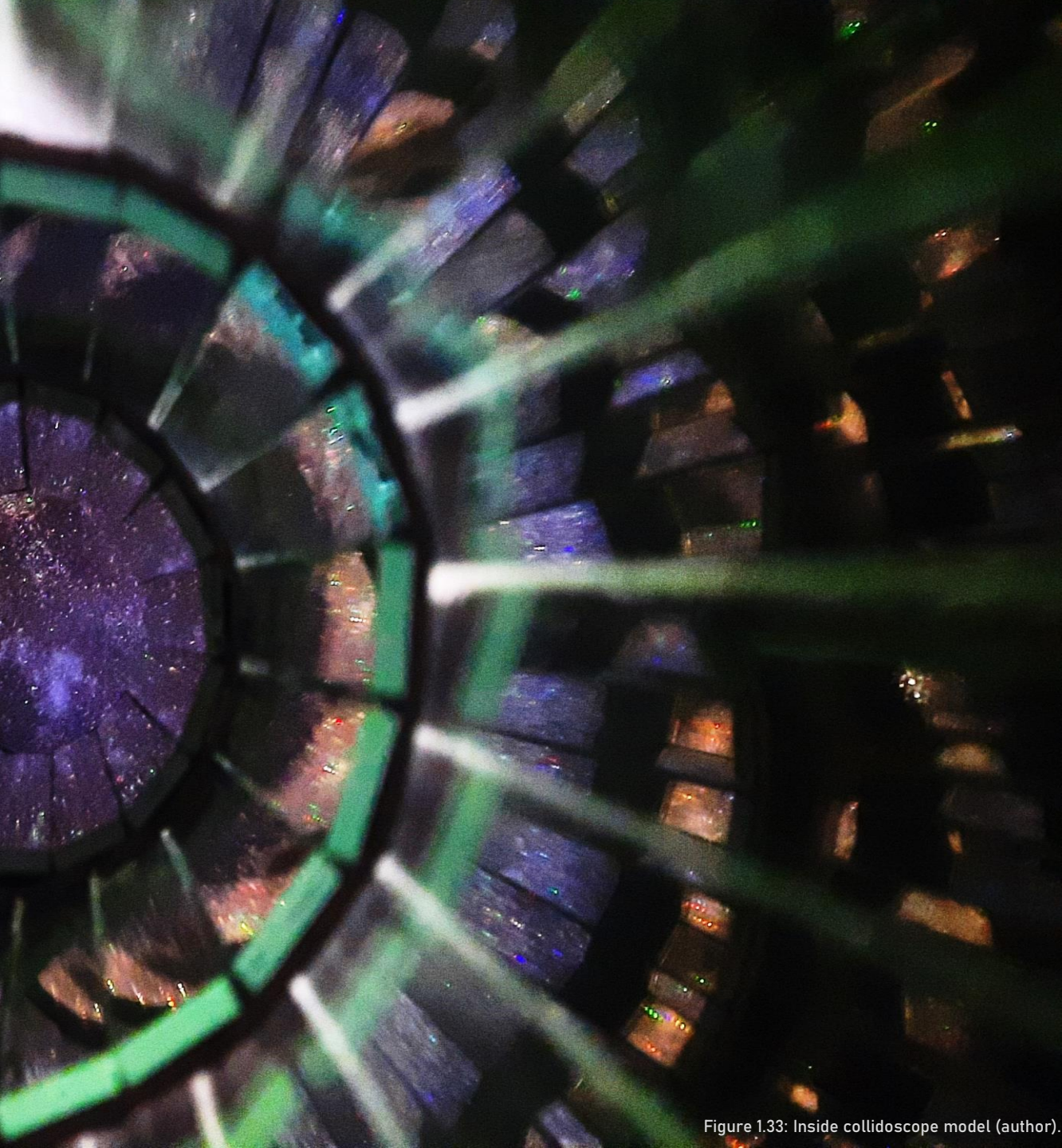
Figure 1.32: Wood – physical model (author).

It is an individual journey which indicates seeing and entering this fantasy world. Afterwards, the experience can be shared, as with any good animation, which will then spark conversation and creativity.

Each stage in the process of animation creates imagery, and each contributes to the outcome of the experience within the urban fabric.

The wood in the touch stone represents the warm feeling of interaction and gathering while the physical building holds a conversation with the individual parts of imagery, such as when touching the kaleidoscope.





The wire in the touch stone represents the free flow of footsteps and human interaction with the building . An opening is an opportunity for overlapping spaces within the urban setting. This element is giving different experiences and realms of entering the fantasy and hyper real world.

The essence is more than a hyper real element but an embodied experience. It is the experience of when you looked through a kaleidoscope as a young child. The touch stone focuses on entering the current while representing the possibility within the future. The interaction allows one to experience the now, while the smaller scale components are built within the future design.

## 1.10 Conclusion

The craft of animation is divided into segments which allows architecture to investigate and study each part, and to translate it into an appropriate outcome for the project. Animation houses possibilities for fantasy and imagination therefor this chapter focuses on capturing those parts and to allow these ideas of hyper real elements to follow through in the thesis project.



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# Chapter 2

# Context

## 2.1 Introduction

Bloemfontein is the capital of the Free State province and one of South Africa's three main cities. Bloemfontein serves as a corridor between Gauteng and Western Cape, Lesotho, and Northern Cape. The Orange and Vaal rivers displays stable water sources and an attraction for settling.

It attracted the British settlers and they settled next to a fountain for its water in Bloemfontein and so the city started to form into what we know and see today.

This chapter investigates the site and every element on and around it. The macro, micro, and in-between will be discussed and illustrated. There are elements which stood out as significant influences which have been taken into consideration.





## 2.2 Significances

T r e e s

W a t e r

P a r k s

Figure 2.1; Skyline on site (author).

## 2.2.1 Trees significance



Figure 2.2: Skyline on site (author).



Figure 2.3 : Open site (author).

Renowned trees were planted in Bloemfontein which currently serve as historical landmarks enriching the city's ground and skyline.

The history of tree planting in this specific area in Bloemfontein will be discussed, as the trees influenced and inspired the design process incredibly.





Figure 2.4: Section of trees (author).



Figure 2.5: Sidewalk of site (author).

Natural forces and site elements not only influenced the concept and design but helped to shape and form the design. A book by Karel Schoeman from 1980, *Bloemfontein: die ontstaan van 'n stad 1846-1946*, holds information on the establishment of Bloemfontein and the area's trees.

In March 1846, when Major HD Warden, his family and a division of British troops settled in the vicinity of the present Willows.

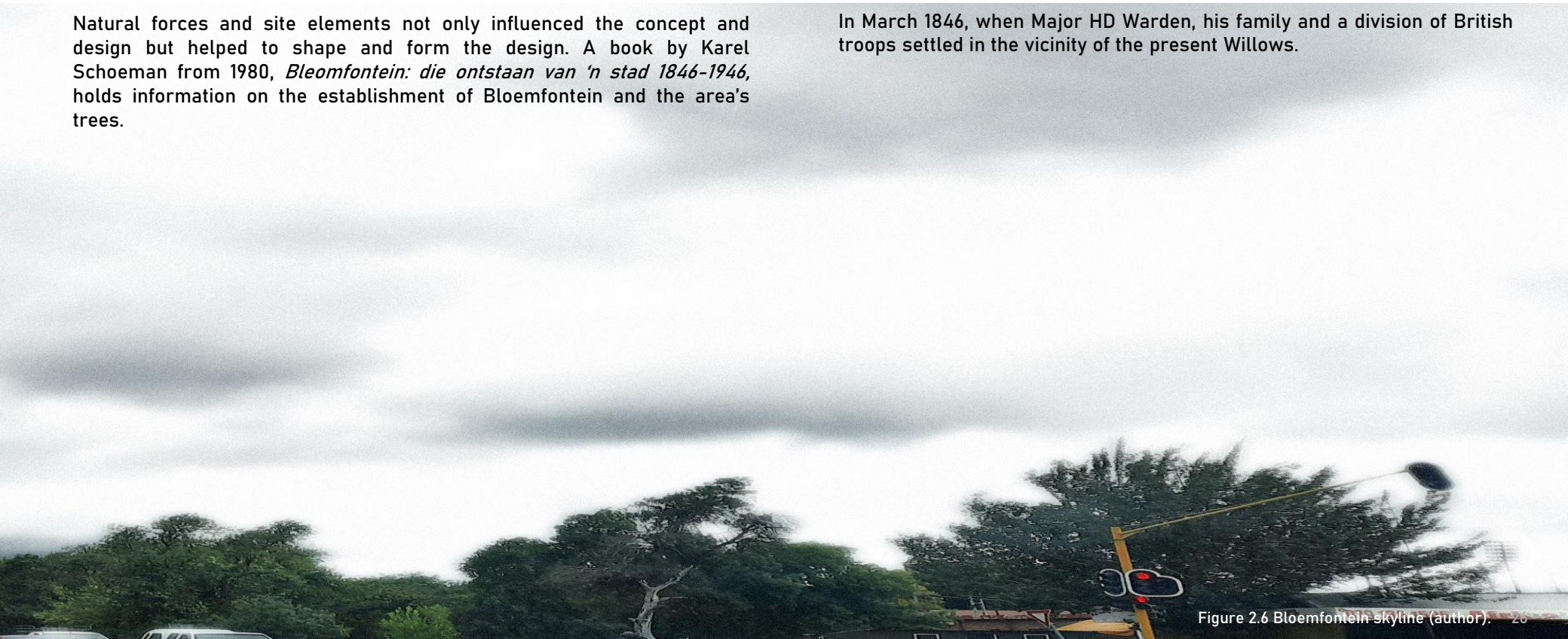


Figure 2.6 Bloemfontein skyline (author). 26



Figure 2.7: Bloemfontein's 170<sup>th</sup> (Hilton)



Figure 2.8 : Volksraad, Fourth Raadsaal (Hilton)



Figure 2.9: Bloemfontein (Hilton)

According to Karel, in 1989 the "Bloemfonteinsche Vereeniging tot Planting and Protection of Trees" was established to coordinate the beautification and planting of trees. Between 1904 and 1910, 125,000 trees were planted in the vicinity of Kings Park and Loch Logan.

Additionally, in 1912 more than 120,000 trees were planted in city parks. In the 1930s, the planting of a double row of trees in Pres. Brand Street is an example of good town planning. The street with its imposing buildings, then already used as the Council Chamber, Government Building, and Supreme Court.

It was further enhanced by the widening and paving of the sidewalks, The planting of a double row of trees served to enrich the city with pine trees on the inside, and pine trees interspersed with pine- and flower cherry trees on the outside.

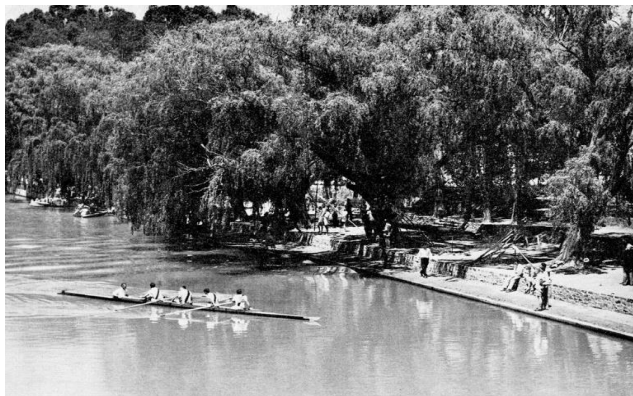


Figure 2.10 : Pleasure resort on the banks of the Modder River (Hilton)



Figure 2.11 : Mangaung voting station (SAHO, 2019)



Figure 2.12 : Fountain (SAHO, 2019)

## 2.2.2 The significance of the parks and its landscape



Figure 2.13: Historical map of King Edward Park (Auret & Roodt,2019)



Figure 2.14: Fountain in King Edward Park (Auret & Roodt,2019)



Figure 2.15: History and promise of King Edward Park (Auret & Roodt,2019)

The Bloemfontein Town Council measured out a piece of land in the open veld west of Bloemfontein on August 9, 1902, to mark King Edward VII's coronation. The Prince's Rose Garden, Loch Logan, Zoo, monuments and landscaping features, would eventually be included in the park between tall historical trees.

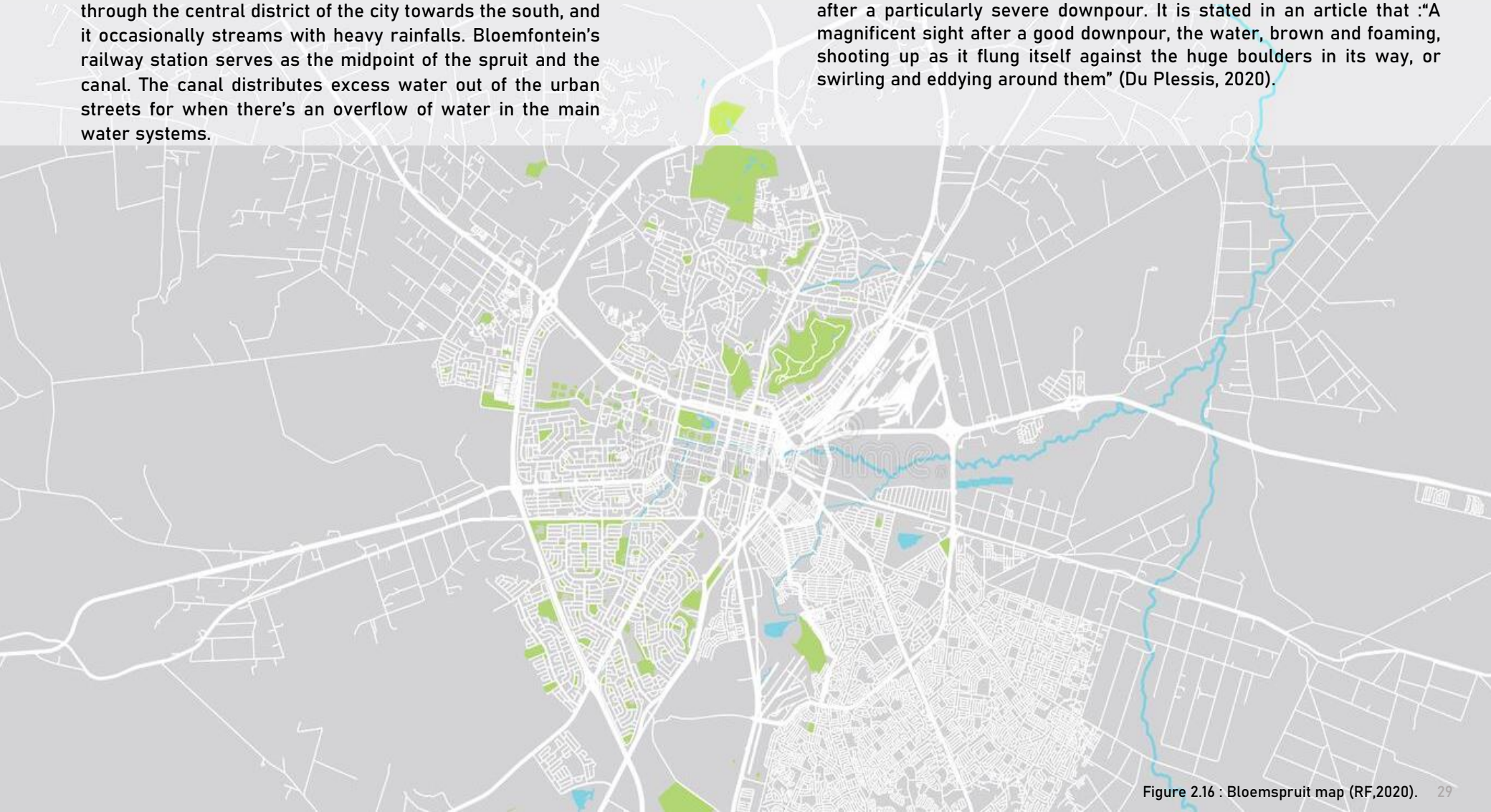
Water, roses and trees bloomed within the City of Roses. Bloemfontein sits between the idea of being small enough for intimate spots and pockets of greenery whilst being big enough for a city experience. A lot can be seen in Bloemfontein, someone passing through will encounter wonderful culture and skills. There are colours imbedded into crafts, and skilful wirework representing the roots of individuals, next to streets and corners ready for a buyer.

### 2.2.3 Water significance

Bloemspruit is a body of water which flows from the east, through the central district of the city towards the south, and it occasionally streams with heavy rainfalls. Bloemfontein's railway station serves as the midpoint of the spruit and the canal. The canal distributes excess water out of the urban streets for when there's an overflow of water in the main water systems.

### 2.3 The Bloemfontein Flood of 1904

Early on, Bloemfontein's renowned Bloemspruit frequently overflowed after a particularly severe downpour. It is stated in an article that :“A magnificent sight after a good downpour, the water, brown and foaming, shooting up as it flung itself against the huge boulders in its way, or swirling and eddying around them” (Du Plessis, 2020).



The article states further that for the most part, everything in the path of the floodwater would be washed away during times of extremely heavy rain because the little, winding creek that snaked through the town's centre was unable to drain the massive amount of water from the swamp west of it. An unusual amount of water struck the town on January 17, 1904, on a Sunday. On the previous Friday, clouds started to collect west of the town, and it started to rain heavily on Saturday. Although, Bloemfontein saw tremendous rainfall that day, the spruit did not yet exceed its banks, and the town did not receive any additional downpour to alert inhabitants to the potential threat. Later that day the spruit had already started filling up its banks at half past three, and the first flooding reached the steps of the Royal Hotel at the intersection of Fontein Street. The water level continued to increase due to the heavy rains that started to fall in the wetland west of the town.

Visitors understood their own danger as they saw the buildings on the other side of the street disappear from the Royal Hotel's porch. More people died when the structures they had taken shelter in were destroyed, and subsequently, bodies were discovered further from the town. The floodwaters carried away horses and animals, trees, tables, woodwork, corrugated iron, and other items. Following this, it became abundantly evident that significant adjustments would need to be made to the spruit in order to prevent a repeat of the catastrophe. Sandstone blocks were used to line the canal's sides, and brand-new stone structures were built in place of the previous ones. The canalisation of Bloemspruit was finished by 1907, and the rainwater from Bloemfontein is still channeled through the same Bloemspruit to the Renosterspruit and ultimately the Modder River.

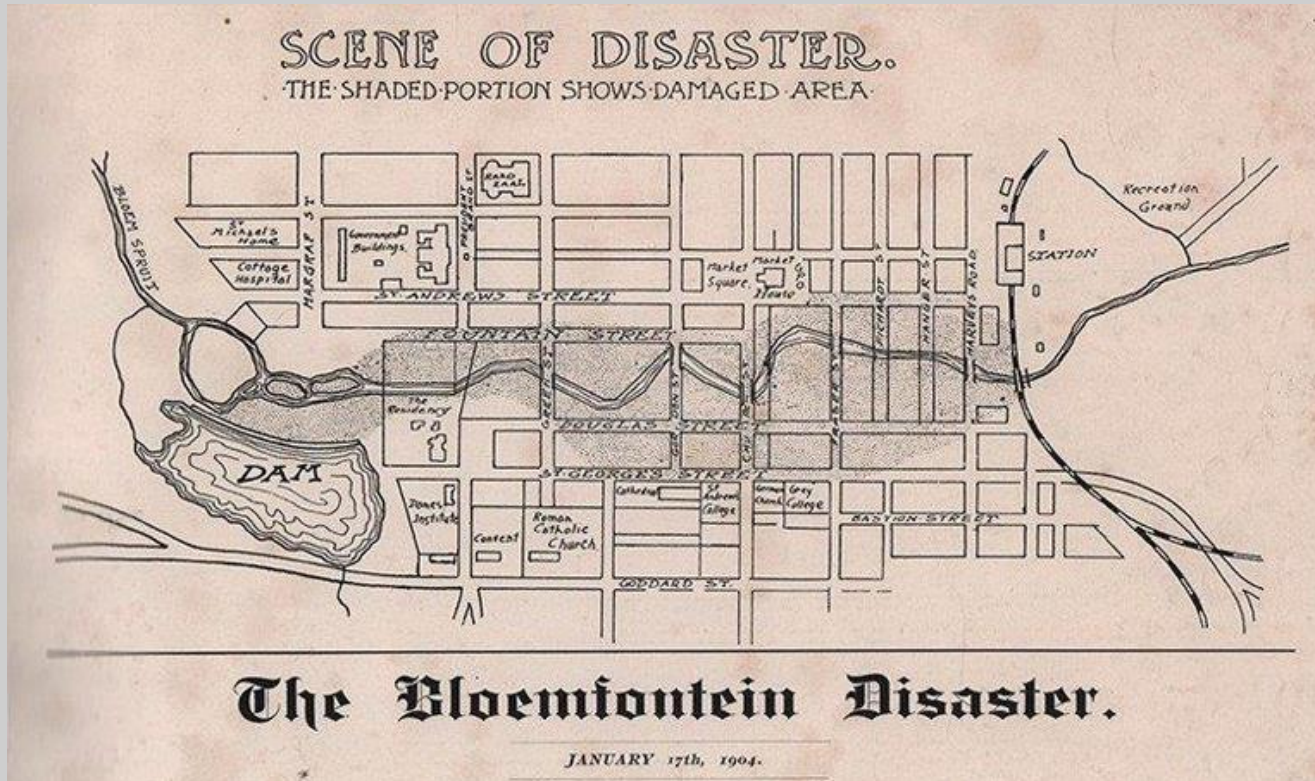


Figure 2.17: Scene of disaster (du Plessis,2020).



Figure 2.18: channelled and straightened spruit (du Plessis,2020:online)



Figure 2.19: Flooded East Burger Street (du Plessis,2020:online)

## 2.4 Site and surroundings

The chosen site is noticeable when driving to the city's attraction points such as malls and centres but it is easily overseen. Tall trees touches the skyline and silent waters flow through the hidden canal tucked in the ground.

Park Road, sits as a pocket of greenery between busy streets and buildings, this pocket is closed off with fences and concrete walls due to safety reasons at the canal which prevents any access to the site.

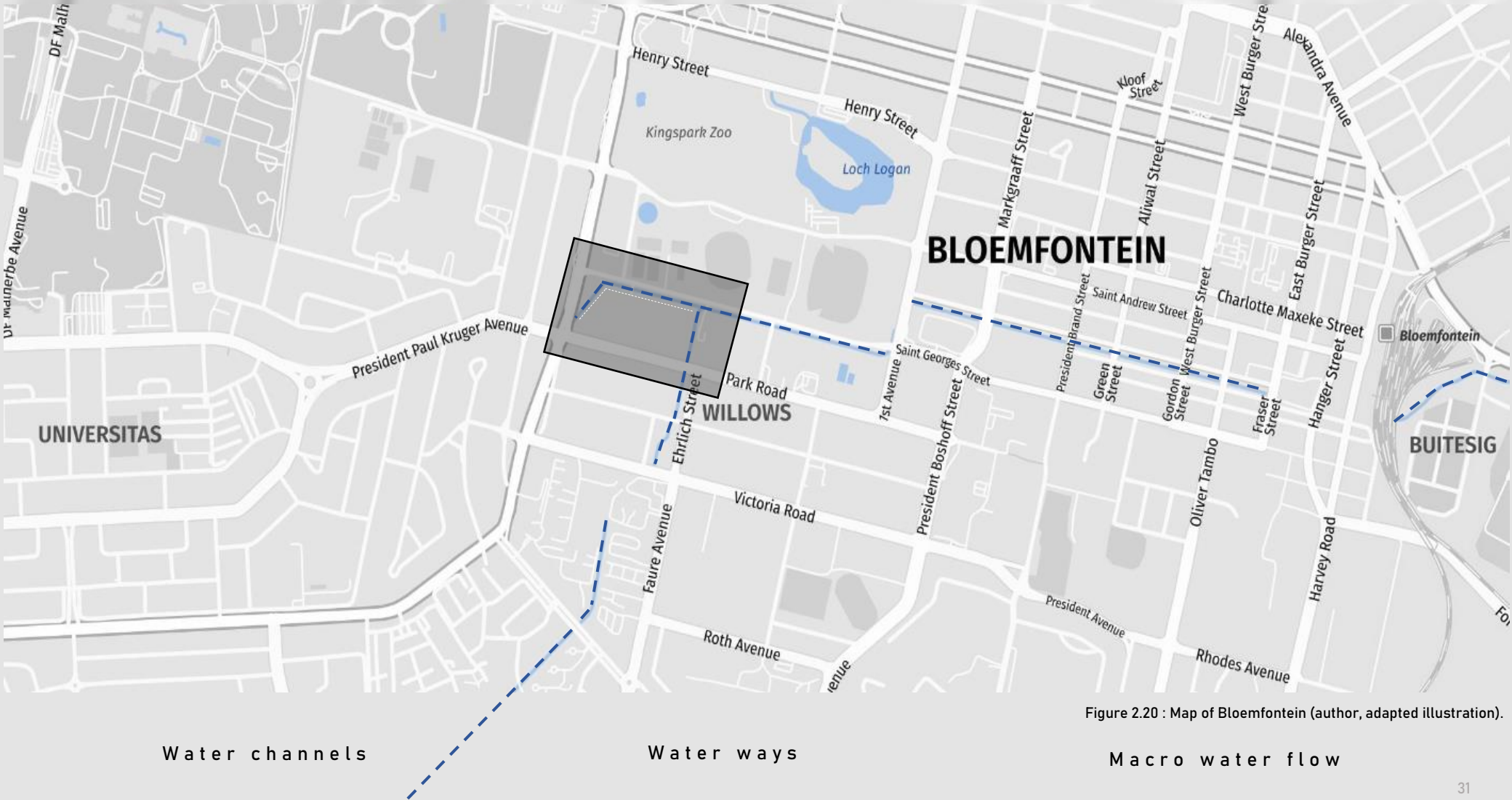


Figure 2.20 : Map of Bloemfontein (author, adapted illustration).

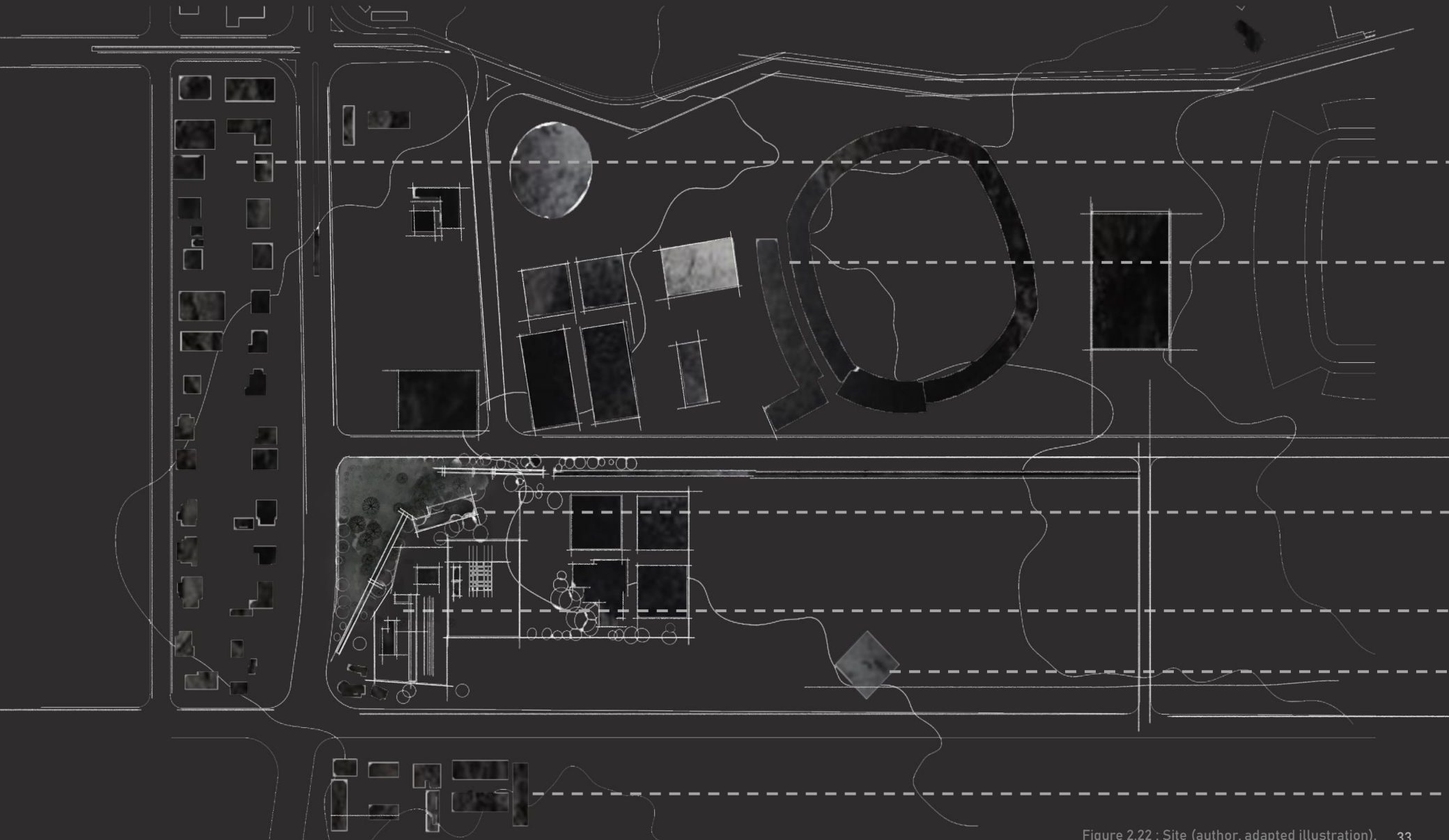


Figure 2.21 : Site (author, adapted illustration). CUT

The pocket sits next to one of the city's traffic dense streets, Parfitt Avenue, which connects the northern areas with the southern neighbourhoods through an axis. This pocket is between the University of the Free State (UFS) and the Central University of Technology (CUT), two of Bloemfontein's prominent campuses as a horizontal line on this axis.

Students, and scholars walk these streets creating the opportunity for urban intervention and revitalisation in this romantic pocket. What a beautiful and poetical site to bring different individuals together and to give to them the hidden romantics within site.

## 2.4.1 Macro analysis



- Guesthouses
- B&B
- Private businesses

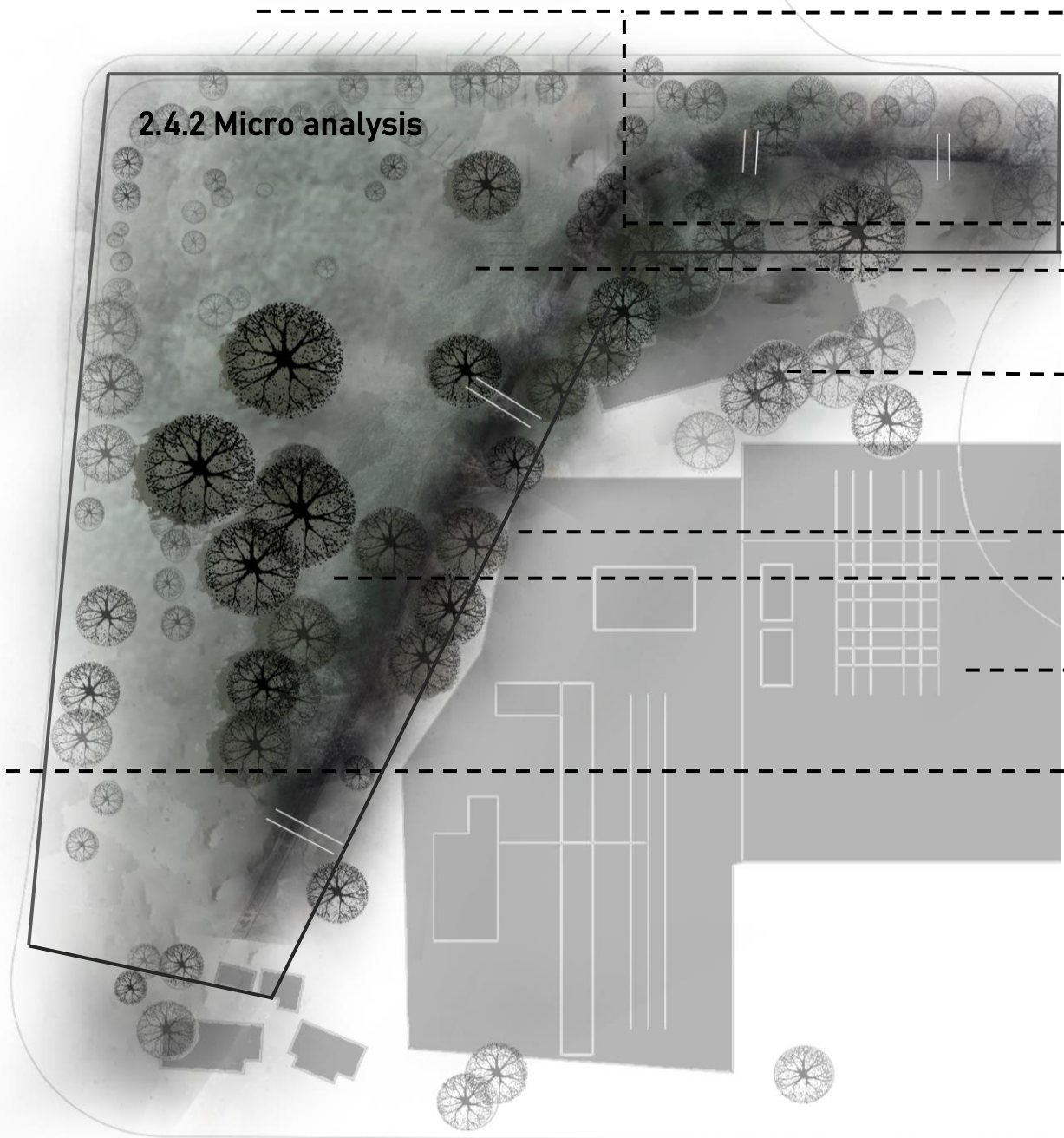
- Tennis fields
- Cricket fields
- Rugby Station

- Achilles running club
- Orangia Lawn Bowls Club

- Sub power station

- Old Greys Sport Club

- Flats
- Private shops



**2.4.2 Micro analysis**

- Advocates
- Att Horak Street
- Car wash Stations
- Achilles fitness
- Water Canal
- Pine Trees
- Power Station
- Parfitt Avenue
- Flowers of Africa

Figure 2.23 : Site (author, adapted illustration).



Figure 2.24: Advocates (author).



Figure 2.28: Car wash stations (author).



Figure 2.25: Achilles Fitness Club (author).



Figure 2.29 : Canal (author).



Figure 2.26: Newly planted trees (author).



Figure 2.30 : Sub Station(author).



Figure 2.27 : Pine trees (author).



Figure 2.31 : Africa's Flowers(author).

## 2.5 In the seam of the landscape

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In this part, the landscape is investigated and presented through recognisable methodology. Methodology aids in understanding and going about certain unfamiliar elements on site and to pursue this method to further develop understanding and analysis of surface, space and materiality.

The in-between is translated through a deeper feeling of the scape while being present. Senses aid in feeling and seeing elements which would normally not be seen if not on the landscape. To feel is to listen and be in a state of quietness to be able to acknowledge what is there.

---

The place has something to say, and the in-between has a voice. Martin Heidegger, a German philosopher states that in order to be able to fall silent, the presence must have something to say (Vladutescu, 2003, p. 165).

A clue given by the landscape could easily be missed when enforcing our own conception and expositions on the landscape without allowing it to speak to us. What should be understood is obstructed by speech that overflows with no opportunity for new speech to be inserted.

The statement binds with another brilliant quote and explanation by Heidegger: "...who is silent during a conversation can suggest, that is, help understanding more genuinely than the one who scatters his words." (Vladutescu, 2003, p.225)

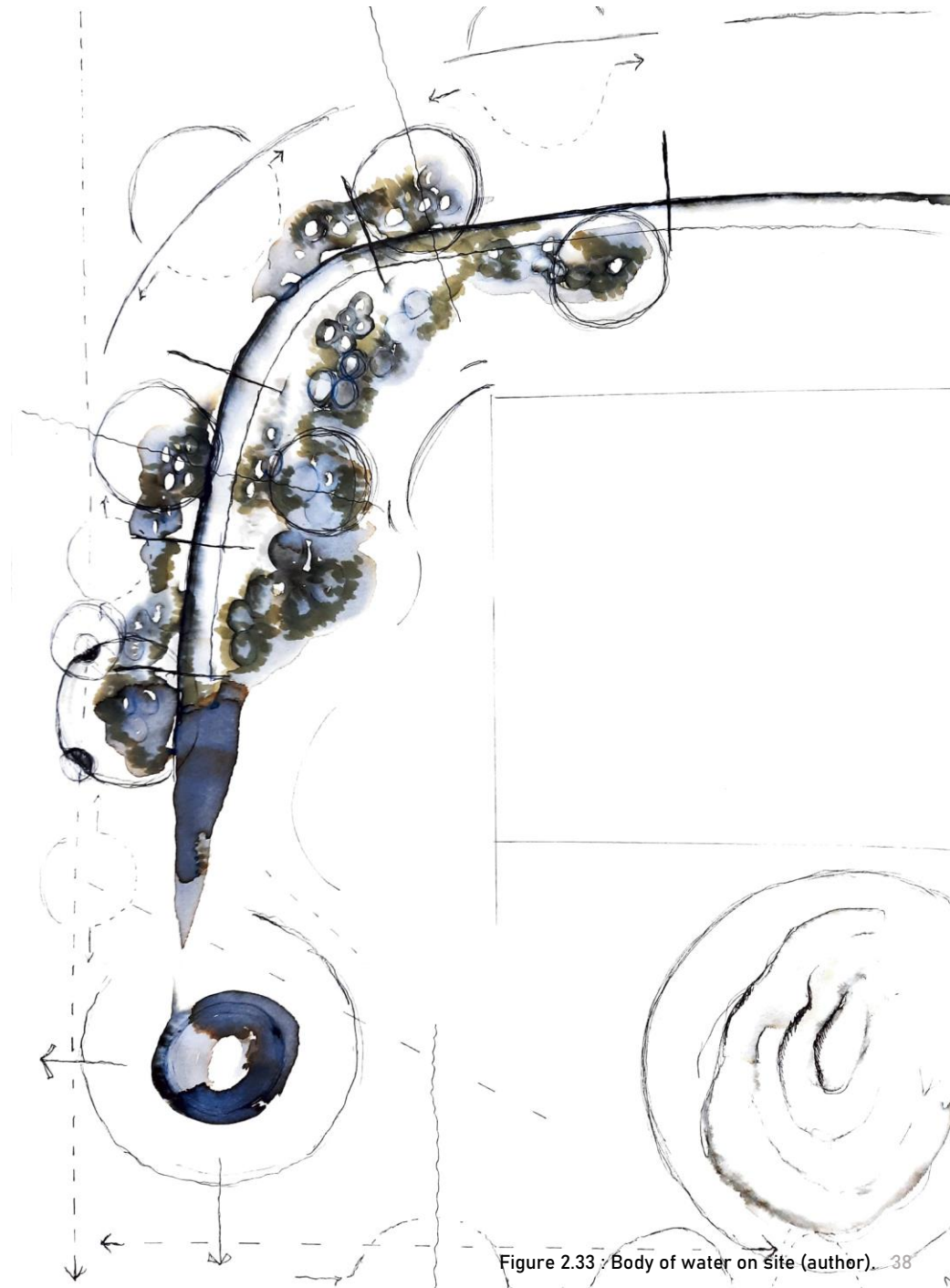
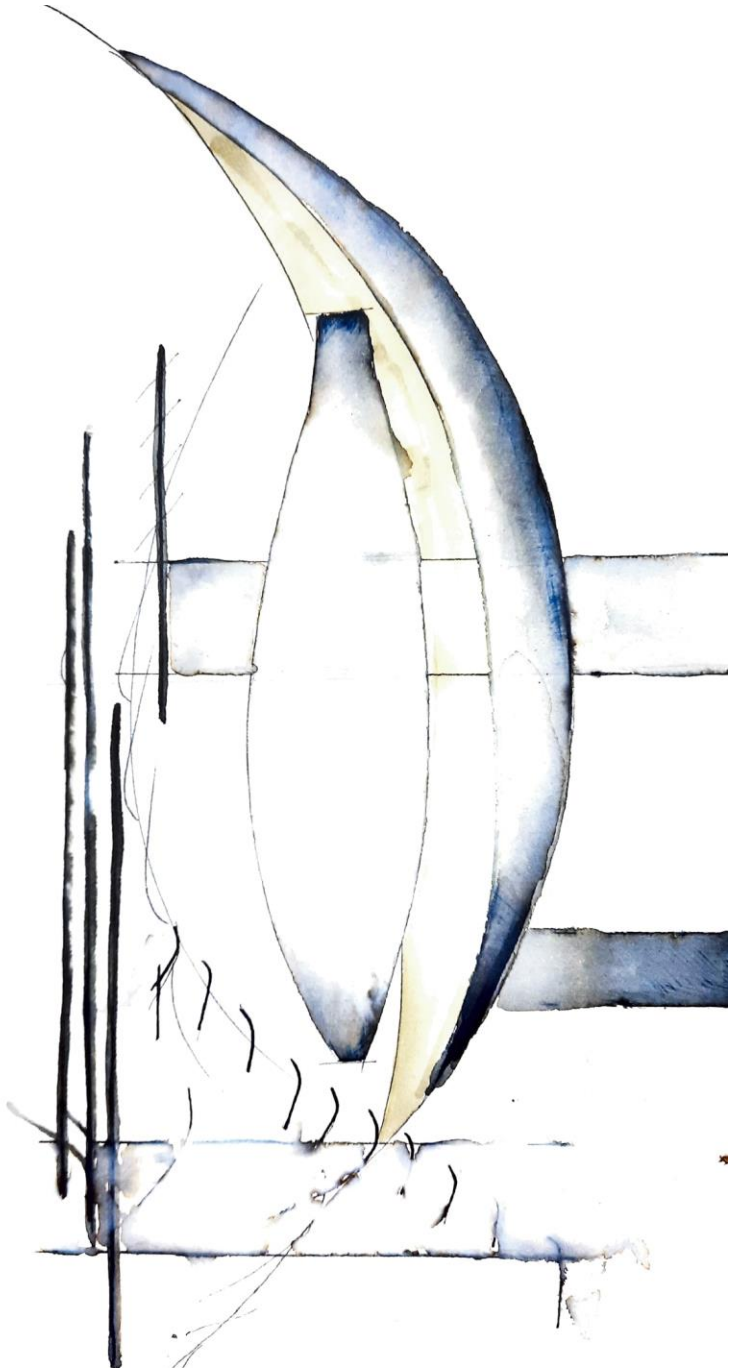


Figure 2.33 : Body of water on site (author), 38



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The seam of the landscape speaks within its language and shares its words. This thesis aims to be as open in the essence of listening and responding correctly as nature is.

The aim is not to enforce a language understood in own will but putting together what is said and given in time of quietness, "Language is, in its primary quality, putting together, without sound" (Cobley & Schultz, 2013), as the quote illustrates language connects us all and I hope to achieve this through my thesis.

Thus, language is a tool of communication, one listens and keeps quiet when speaking it. Language through its content of listening and silence, proves to be something else and, moreover, it can be seen as a tool that owns the man among others (Cobley & Schulz, 2013).

---

Site sway a feeling of calmness and mystery with all that is on and around the area. It was felt through being in and around the elements on site. It was beautifully spoken in silence. The canal and trees sits as promises and possibilities for housing the two domains of animation and architecture.

Sketches 32-35 based in the hermeneutic revises the existing which gives a response through a sensitive and respectful manner.

## 2.6 Methods of translation

Two methodologies are used in listening and translating respectfully towards the landscape namely mnemonic and mimicry. They are introduced in this chapter, but these methods are further clarified in Chapter 4, and presented for a better understanding in form retrieval and spatial layouts regarding to a possible plan for the thesis.

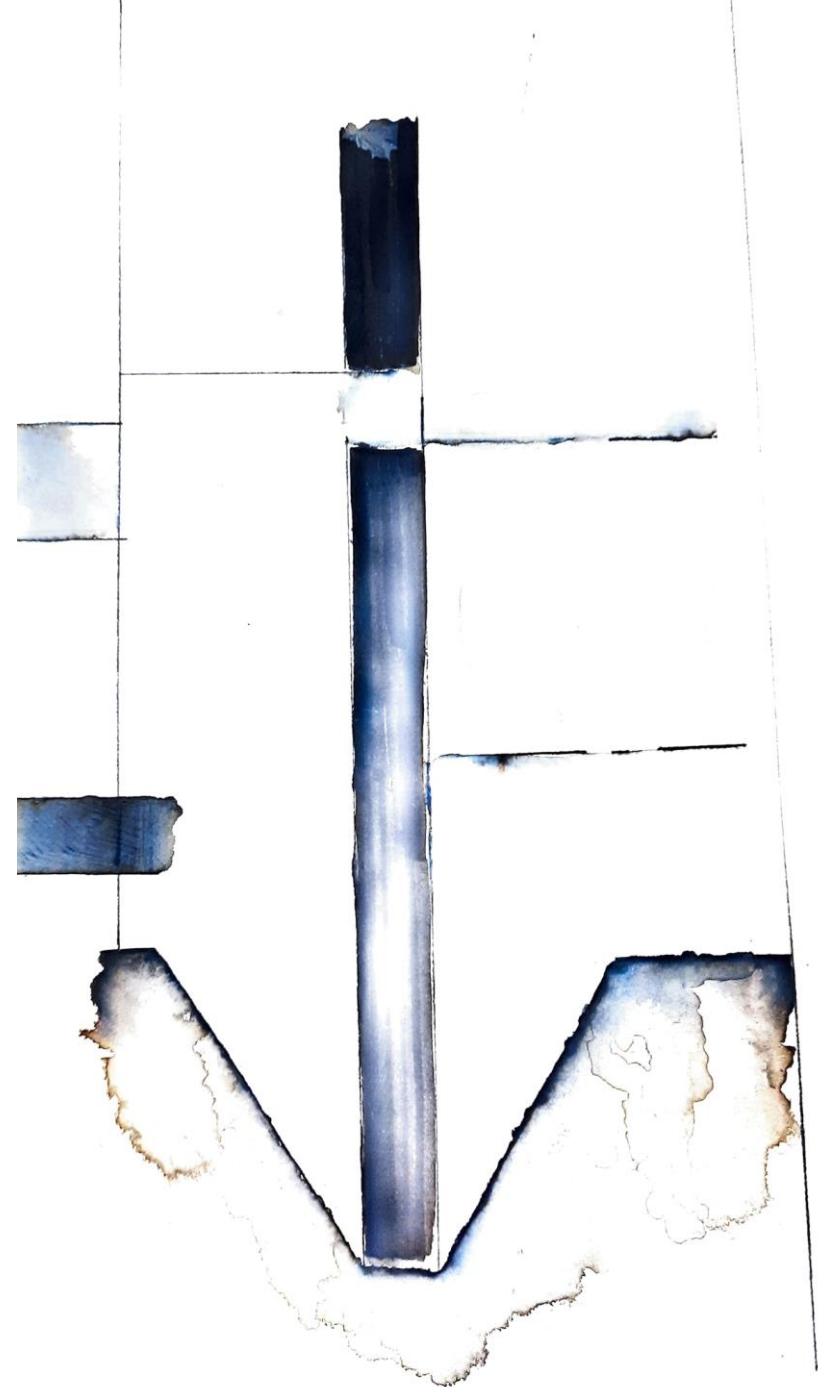


Figure 2.35 : Canal on section (author). 40

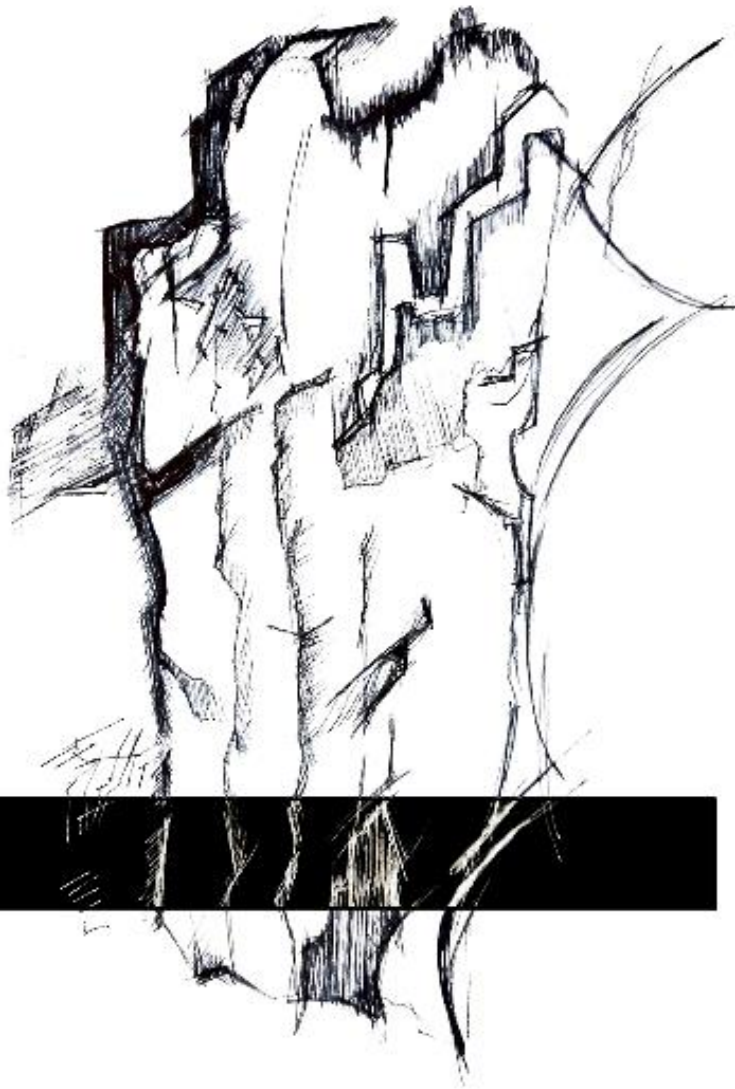
## 2.6.1 Mnemonic

- a method for remembering things, such as a pattern of letters, concepts, or associations.

Mnēmōn is a Greek word which means 'mindful', and itself comes from the verb 'mimnēskesthai' meaning to remember. Mnemonic is an in-between method through senses and observation to understanding and analysing a place. Senses embed a memory. Incifer Karnak adds to this through her thesis how senses aid in perceiving space, it states: "Perception of the architectural space in the phenomenal world is through different senses" (Karnak, 2018:29).



Figure 2.36 : On site element (author).



Senses aid in identifying and associating with an element or thing on site through translating things in ways we understand as an individual. We familiarise things, elements and atmospheres which we don't understand or see for a first time, we connect these things with past experiences and things we do know with the unfamiliar.

There are numerous strategies in place which we subconsciously pick and practice. Strategies are used to combat a familiar feeling or default skill which we fall back to when in unfamiliarity.

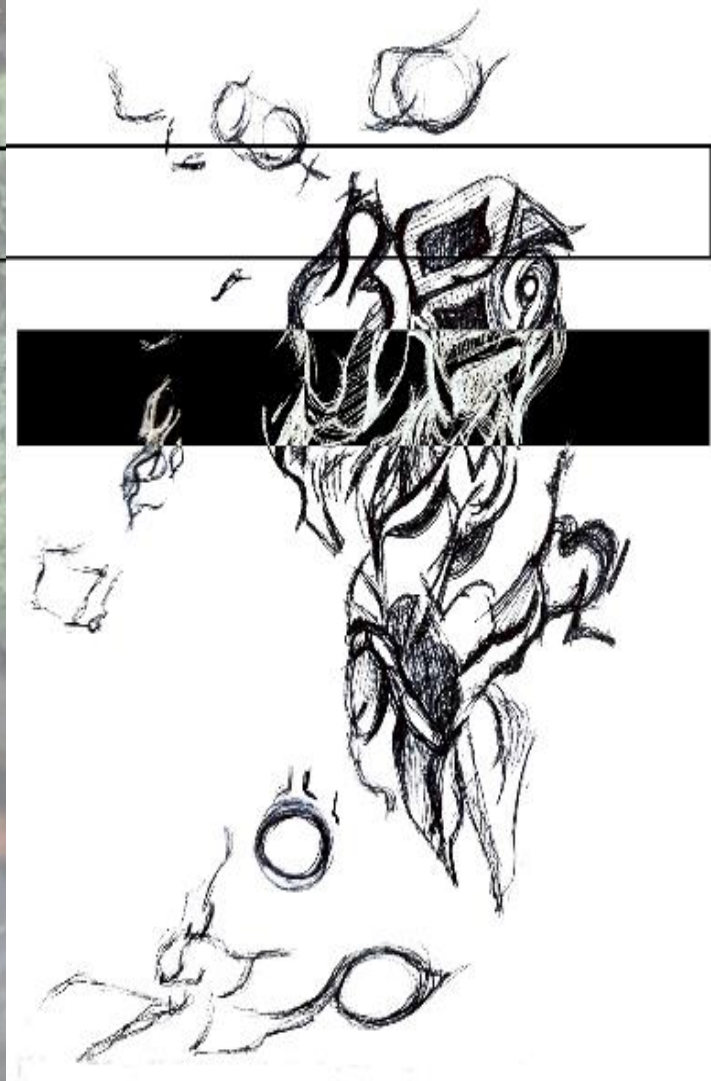
Figure 2.37 : Expressive drawing (author).

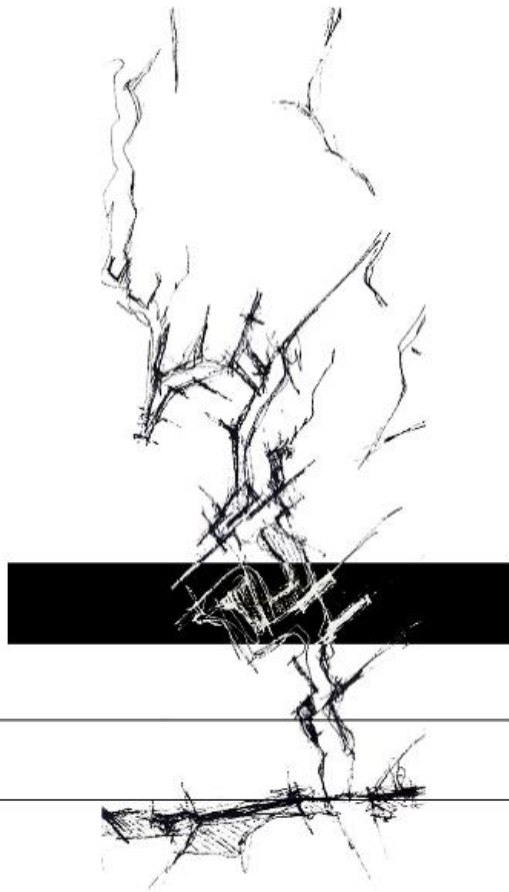
### 2.6.1.1 Method of loci

This mnemonic technique, which makes use of images, is also known as the memory journey approach. By picturing yourself going through a familiar place, employ the loci method.

### 2.6.1.2 Method of chunking

Ester Heerema, has worked with people who has Alzheimers, and she coheres with the current methods of memorizing and recognizing. Chunking is a type of organisation mnemonic in which information is broken down into smaller units and learned separately before being put together. “The method of loci works by giving your brain new information in order and grounding your memory of it to different points in a familiar setting that you can easily navigate in your mind” (Hereema,2022:online)





## 2.6.2 Mimicry

The fact that identity typically functions in terms of a metaphor is expressed through mimicry. Identity never resembles itself while mimicking. The method of mimicking fully rests on the fact that what is seen and experienced is translated in a direct manner of visualisation. Critical theorist and English academic, Homi Kharshedji Bhabha, who is from India flows into this statement with the following quote: "Mimicry being a strategy is characteristically visual" (Bhabha, 1994:online). Visualising and representation is the main factor of mimicry, form followed lines of the scape which represents time and place. He claims that the place of interdiction is where the mimicry's visibility is always formed.

Figure 2.39 : Mnemonic and Mimicry (author).

The concept of mimicry should rather be seen as a process that imitates no specific, conclusive, or fundamental identity than an exact moment or thing of place. In the moment it was a mere translation of the exact and therefore partaking in a universal language with one to an element. Bhabha substantiate and states that mimicry is an exaggeration copying of language, culture, manners, and ideas, thus mimicry is repetition with difference (Bhabha, 1994).



Figure 2.40 : Mnemonic and Mimicry (author).

## 2.7 Conclusion

Within the thesis mnemonics and mimicry is the grounded element on which it is derived from, in a sense of form giving and inserting elements which was mimicked from site.

In between methods as discussed aids one in understanding and relating with an object by familiarising oneself through senses and the things of the world we already familiarise with. Mimicking of site gave form giving, and these forms in the drawings developed plan and shape around sites current elements. Drawing is the marriage between what you know and see. Space can be perceived through senses as mentioned through mimicking and mnemonic, so why not create them through senses and remembering as presents in figures 37-41 ?



Figure 2.41 : Mnemonic and Mimicry (author).



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## Chapter 3

# Theoretical Discourse

### 3.1 Introduction

A unique relationship exists between architecture and animation. Both have similarities which can be translated to either direction of sources and share qualities which creates spatial significances when translated. This chapter investigates the conceptual aspects of both domains, where animation is a main operator of translation into the architectural language.

This chapter branches off into three sections, one where animation as a domain is investigated and the second where architecture as a domain explores similarities with animation through visual representations., the last section is hybridity between both, architecture and animation.

# Part 1 : Animation as a domain

## 3.2 Urbanity in Animation

Animation creates an awareness on sensitive and critical subjects through visual forms; these visual awareness' aid understanding for all age groups and races in these specific matters. In humanity, it speaks to accepting, respecting and acknowledging all things around us. There are a lot of films commenting on architecture and humanity within this world; therefore, Pixar has architectural points in its films. These films present concerns and always a bright side linking to each subject. It is quite grasping to see architecture not only in what is generally linked to the word 'architecture' and 'building' but that Pixar categorises architecture as SOUL, LOVE, LIVING, CREATING, APPRECIATION and EXPERIENCING. A few of these elements will be discussed in rooting how architecture helps urban matters and enriches souls.

### 3.2.1 Urban Clean-up

*WALL-E* (Waste Allocation Load Lifter Earth Class) the animation presents a whole heartedly robot who tries to clean the earth from waste. Earth was led down by generations of polluters which caused the effect of environmental imbalances and corporate overreach. WALL-E practices the art of care and sensitivity towards his environment. He has a fellow cockroach companion who is a neutral character within the story line. WALL-E protects his friend and treats all the characters as equals and someone you can always offer a helping hand to.

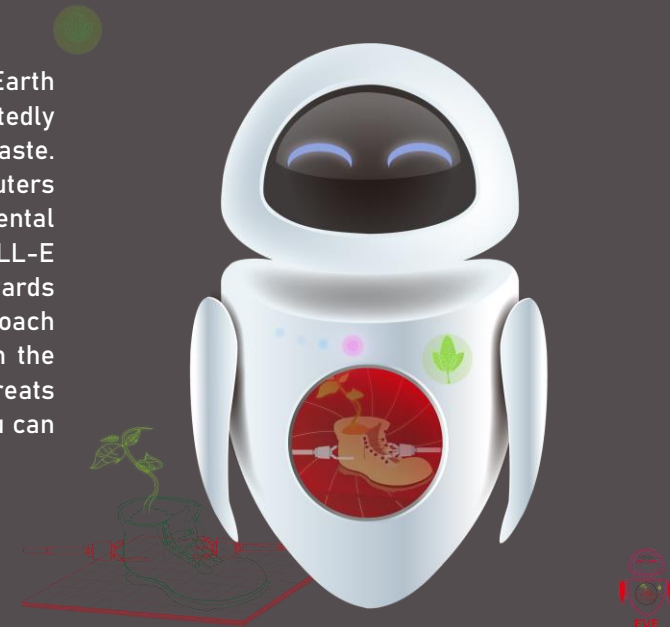
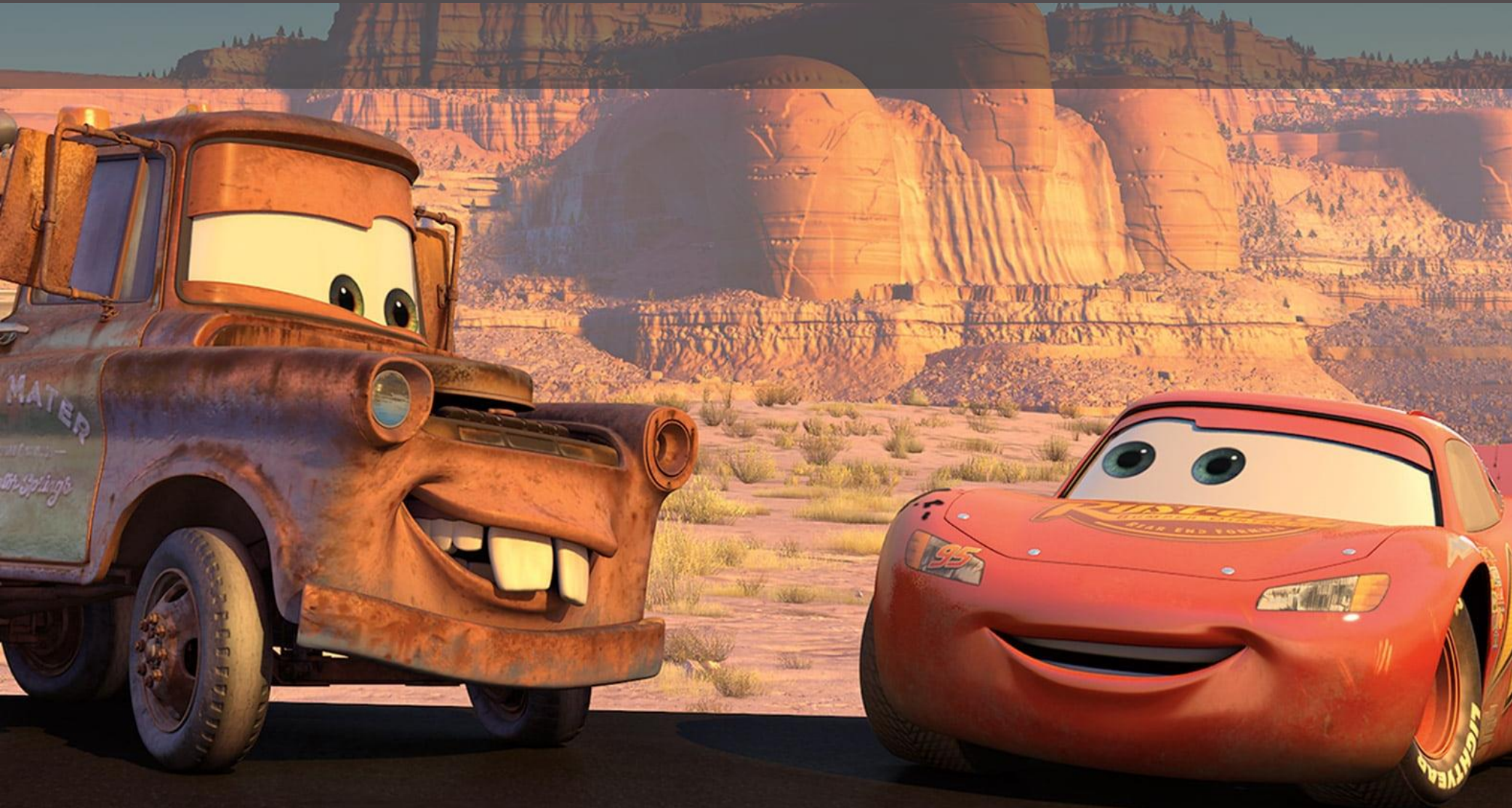


Figure 3.1 : Eve (pngtree,2022).

### 3.2.2 Site appreciation

*Cars*, another famous Pixar animation displays a protagonist who is a flashy, and headstrong celebrity. A race car, McQueen, is described through Justin Wolf, and writes that the race car is *en route* to California for his next race, when an incident occurs and he inadvertently detours to a dusty town, Radiator Springs. McQueen discovers the rich and storied history of the town through new friends and hardships.



### 3.2.3 Rapid development

*Up* presents jack hammers and construction trucks which displaced the environment and its birds. A piece of private property sits in the middle of these high risers being the pinnacle of a developers' dream. Carl, the owner of this private property holds on wholeheartedly to his beautiful two-story Victorian with scalloped shingles and a modest front porch of his home.

The home that he and his wife built together is rich in care and history for they both have built their dream. His wife has passed, and this home can not be bought by money which is shoved in his face nor can any toxins influence him to give up this property for zoning purposes. He turns creative when his removal by force becomes an inevitable factor.

He ties helium balloons to his fireplace allowing the entire home to escape the soulless urban fabric. On another viewpoint Pixar creates 'Ratatouille' and 'Soul' which are "implicit love letters" (Wolf,2021) to their city in accordance with the city's morality. Wolf states that "City life can be rough" (Wolf, 2021) but at the end beautiful and genuine moments filled with inspiration are always a glance and a heartbeat away.



## 3.3 Animation is architectural

Animation has an influence on our daily lives and in the world of architecture as seen through multiple films. An essay by Sekalias and Anthony presents architecture in animation and the following information extends the point of architecture in animation.

While Pixar is well-known for its contributions to cinema, storytelling, and computer rendering, its linkages to architecture have yet to be fully explored. One of Pixar's greatest, and sometimes underappreciated abilities are its ability to create convincing architectural settings alongside and inside the human world we inhabit every day. Pixar worlds could be a new way to encourage critical thinking about the environment. The anthropomorphism of Pixar's key characters are a big part of what makes it so successful at developing empathy and delivering these concepts. Pixar stories can also be useful in the development of future architects. These films, which are primarily aimed at the youth, provide opportunity for kids to experience idealised situations and may affect how they think about the world as individuals.

## 3.4 Architectural lessons from Pixar

### 3.4.1 Accessibility

Architects and future designers can gain knowledge from watching Pixar characters interact with their surroundings. Even though the Pixar characters fluctuate greatly in size, form, and athletic aptitude, they all manage to navigate their surroundings. Architecture is a tool of building warmth, inclusivity and accommodating every individual who wants to relate to the building form and the environment.

Let's look at the movie *Monsters Inc*, set in an imaginary city whose inhabitants are immensely diverse; some are giant, some are small, they crawl, scuttle, or walk, yet they can all move around freely. We can see how each character fits and how their residences reflect their unique personalities. The lessons of scale in animation must be incorporated within architecture. Doors throughout the factory building include two sets of push bars at varying heights to accommodate users of various heights, demonstrating a concern for accessibility and universal design.

It is said by Kathryn and Anastasia in their article in ArchDaily about lessons from Pixar states that: "on the other hand, in *Toy Story* we can see how individuals living in a world not created for them can suffer" (Anthony & Sekalias,2015:online). *Toy Story* characters must use mechanical vents as a mode of transportation at one point, similar to the hidden, uncomfortable backstage routes that wheelchair-bound people must frequently use to move around.



Figure 3.4 : Monsters, Inc (Frye,2021).



### 3.4.2 “Sustainability and Relationship to Nature”

In *Monsters Inc.*, the central figure Sully discovers that children's laughter can amass even stronger and less destructive energy. A comparison can be drawn between fossil fuels and their detrimental environmental effects (such as oil drilling) and less invasive sustainable energy gathering through technologies like wind and solar power.

The essay furthers the points and refers back to *WALL -E*, who takes a firmer position on our consumer habits, depicting a world that has been so badly damaged that we must abandon it since it can no longer sustain human life, forcing all people to live in a shielded environment with limited mobility aided by technology.



Figure 3.5: Meet the Monsters, Inc (Frye,2021).

*Finding Nemo* demonstrates how, in our own time, we must be mindful of our impact on the world's non-human residents. It is stated by Kathryn and Anastasia “we see how the other fish in the tank, through no fault of their own, are slightly unbalanced, only knowing a pet-store lifestyle” (Anthony & Sekalias,2015).

Architects designing for animals are responsible for their physical and mental wellbeing, and need to consider how to best suit their demands, rather than simply considering the needs of humans who observe them” (Anthony & Sekalias,2015).



Figure 3.6: Finding nemo (IMDb,2003). 54

### 3.4.3 “Reflection of Self”

In order to display how architecture can address ethics in relation to access and energy usage, Pixar also demonstrates how a building can go beyond the utilitarian and represent the personalities of its residents. *Up's* iconic home is a great example of this.

We watch how they make their home their own through a sequence, and how Carl's quiet character is represented in the more subdued furniture, while Ellie's outgoing attitude is reflected in the colourful and quirky touches in their home. "The house protects the dreamer," wrote French philosopher Gaston Bachelard in his classic book *The Poetics of Space*. Pixar demonstrates how much joy a structure or environment can bring to people when it is a mirror of themselves, and how far they will go to protect it. In some circumstances, an architect's concept of success and the residents' definition of success could be at a point of disagreement.

### 3.4.4 “Joy”

Pixar inspires architects to think outside the box and create surroundings that inspire delight and curiosity. Pixar invites audiences to dream, to experience the "plausible impossible," (Anthony & Sekalias,2015) a term established by Walt Disney to describe the unique ways animated films can make impossible accomplishments appear real. Kathryn and Anastasia says : “Pixar also takes care to warn us what can happen when people lose this “joy” in their surroundings” (Anthony & Sekalias,2015). This serves as a reminder to architects to cultivate designs that are both relatable and meaningful.

## Part 2 : Architecture as a domain

### 3.5 Similarities between the two domains

Visual storytelling serves as a common denominator with both disciplines conveying and engaging with the narrative of time and place, resulting in spatial sequence as the inevitable shared device. It is a passage of time and space as an infinite stream of consciousness. In an animation the relation between the frames or shots function to construct film space, a series of scenes or frames conduct movement and the introduction of a character. Both animation and architecture speak through light, space, time, and sequence. The magic of it all happens through the translation of both as a language and to share it as a bodily experience. A conceptual approach studies realms and spatial qualities of frames and gives visual and physical form to it.

S p a c e

L i g h t

S e q u e n c e

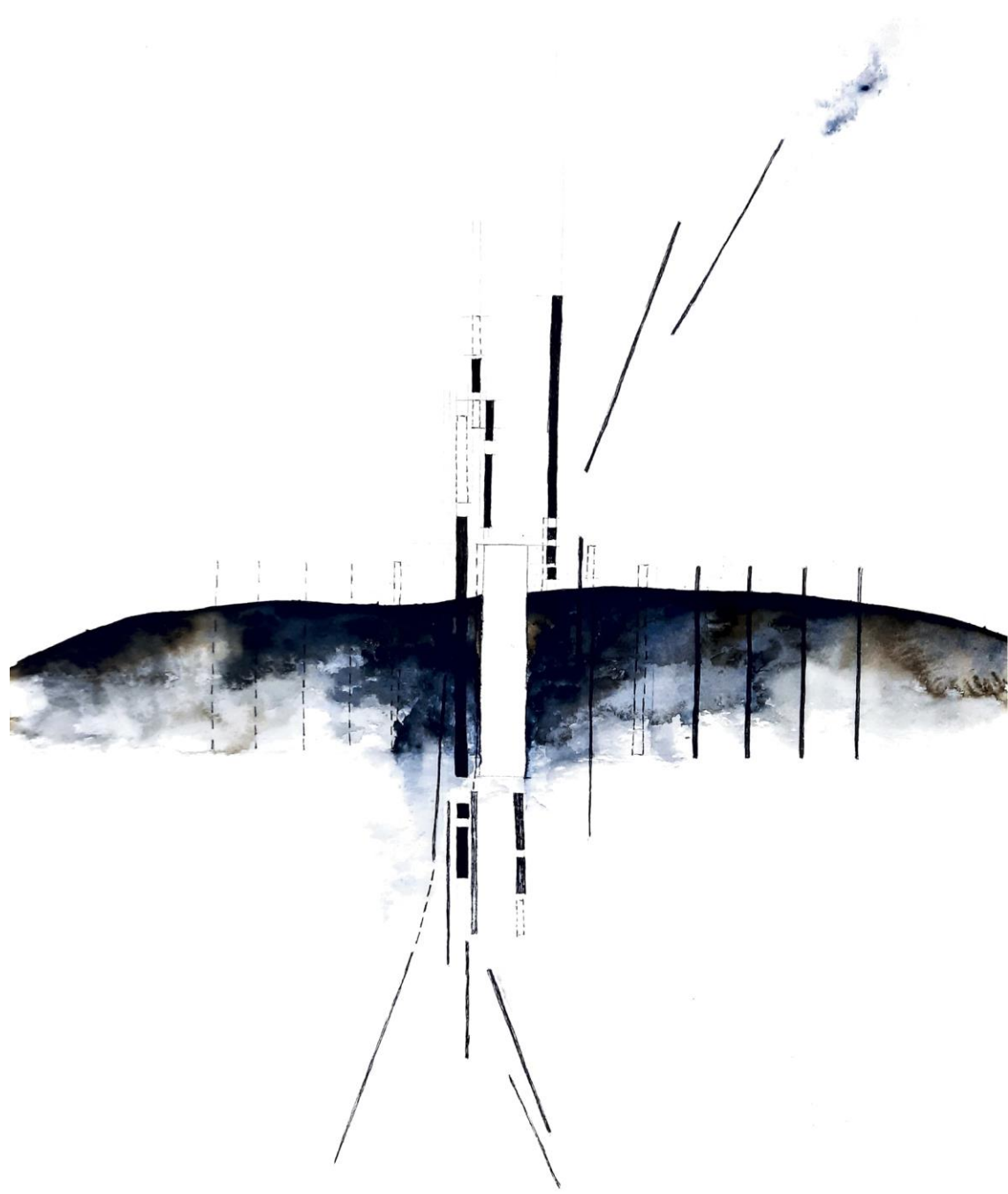
T i m e

## 3.6 Concepts

In the world of everydayness and things an author pursues the risks of discovering and translating these findings. This thesis includes new findings and allows personal knowledge to create new lenses to look through to seeing and reinterpreting concepts. Devices aid in translating concepts, abstract thoughts and spatial realms into physical surface studies to magnify opportunities and exploring them. Approaches of conceptualities will be discussed to substantiate and ground the reasoning of the outcome of the design.

### 3.6.1 Splicing Space and Time

Splicing translates to the joining or connecting by interweaving the strands at the ends and serves as appropriate conceptual research which focus as a tool towards combining space and time conceptually.



## Forces

Q u i e t n e s s

Frames within animation serve as a dominant factor of storytelling and projecting spaces and time. Moments and time can be altered through individual frames and a study meets the elements and analyses surface through architectural qualities.

In animation the default frame per second (FPS) is 24 for a realistic motion, with hand drawn animation around 12 frames is acceptable. Frames are not only a factor of animation but as mentioned can be translated within architecture:

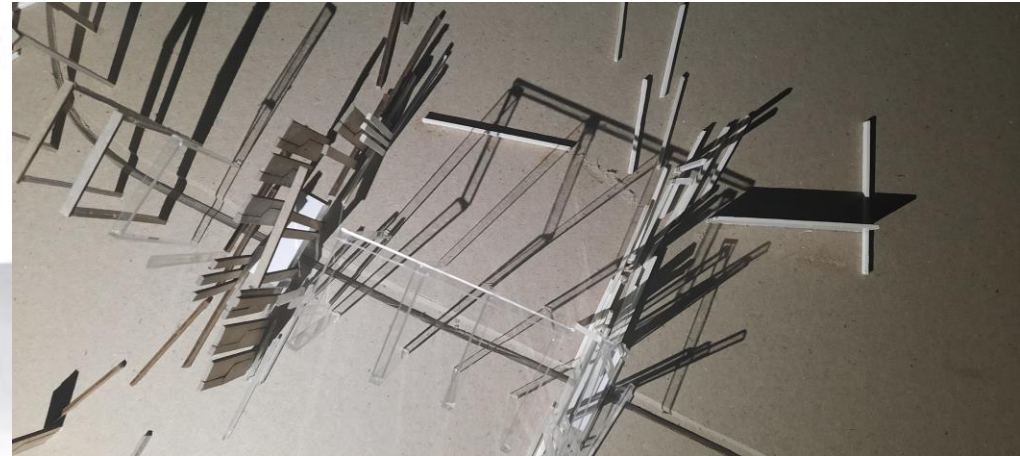


Figure 3.8: Electrical (sub-station) from East + complete silence resonating through green pockets (author).

This concept focuses on an analytic study of surface, void and frames. Space and time is translated within frames in sequence representing the specific site in the temporal current while withholding architectural possibilities of spatial and surface character

N o i s e



Figure 3.9: Traffic- vibrations and noise / footsteps from North-South & West-East (author).

The surface study is consciously treating views as sections which communicates process and intention. The goal is to portray time and space concurrently through interaction between surface, void, and depth. The method begins with spatial linkages, imitation of materials and forces on site, all which influence a frame. This is a study of things in this world captured in a moment of time and space.



Figure 3.10: 4 Bridges in sequence - walking over a time piece (author).

M a t e r i a l i t y

The morphological extension of design adopted for this concept is the creation of an embodied spatial experience and a few forces influenced the surface and spatial qualities.

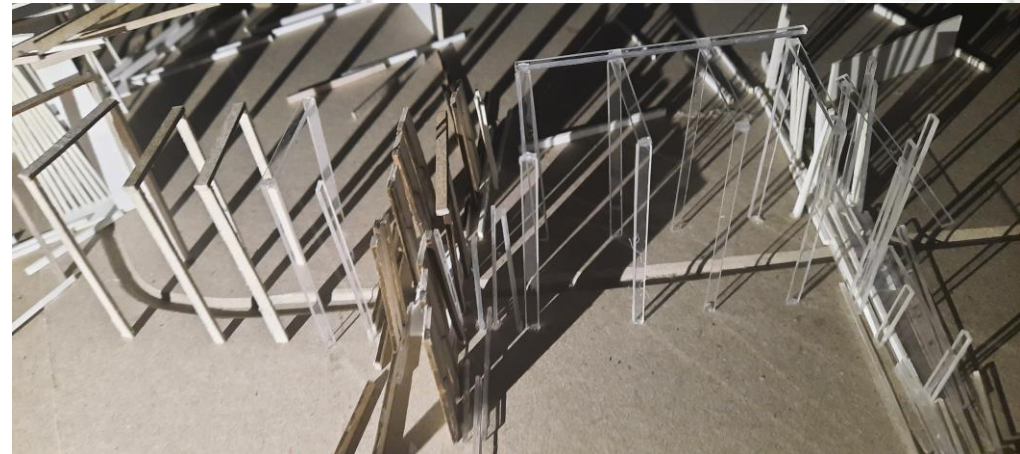
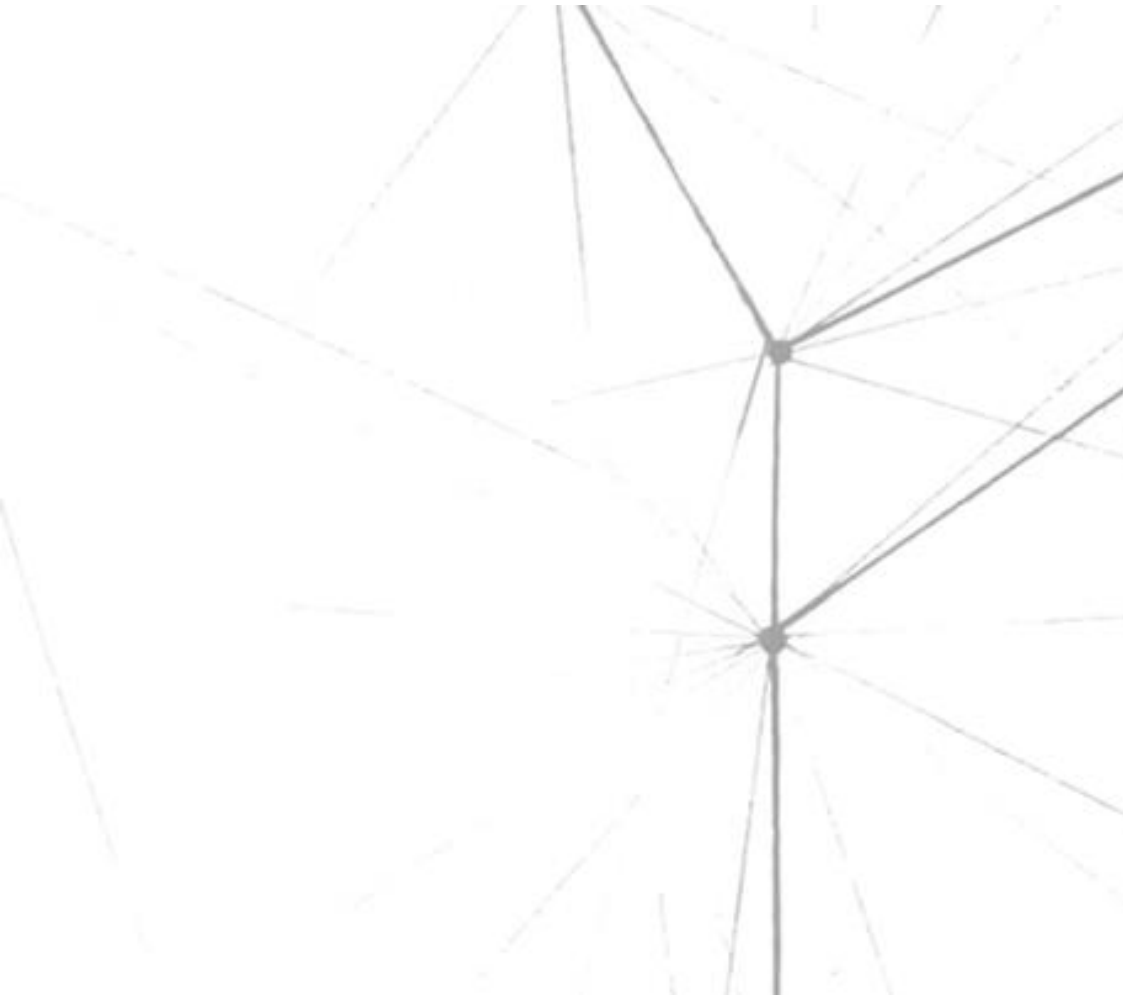


Figure 3.11: Materials on site consciously influence each frame (author).



### 3.6.2 Simulating Synapses sai·nap·suhz

#### Realm of connections

Connections link between all things of existence, such as the frames of splicing space and time which creates the in-between spaces and void. It is then further studied to see the intertwining links of the creative connections. Displaying these connections can be in translation through animation and architecture, the question arise in how architecture translate forms of animation.

Animation has various components within itself such as simulation. Simulation is a 3D model of a component or object which is to be studied.

Simulation uses the process of imitation and presentation which displays these components, creating the possibility of rewinding, pausing and fastening a process. Simulation also displays the happening of time and existence of connections.

The link between two nerve cells, known as a synapse, consists of a tiny space through which impulses can travel. A study completed at MIT University through simulation of the human brain explored the brain's ability to process emotion.

The emotion component of the brain is called amygdala. Neurons connect as it experiences external happenings and occurrences of life, neurons connecting is called axons.

When two groups connect it is called synapses (Thrahton,2016:online) and it can be viewed as groups of indifferences in culture, beliefs and ethics which shares the sphere of community and the urban fabric. Synapses can contribute to identifying the site's connectedness within itself.

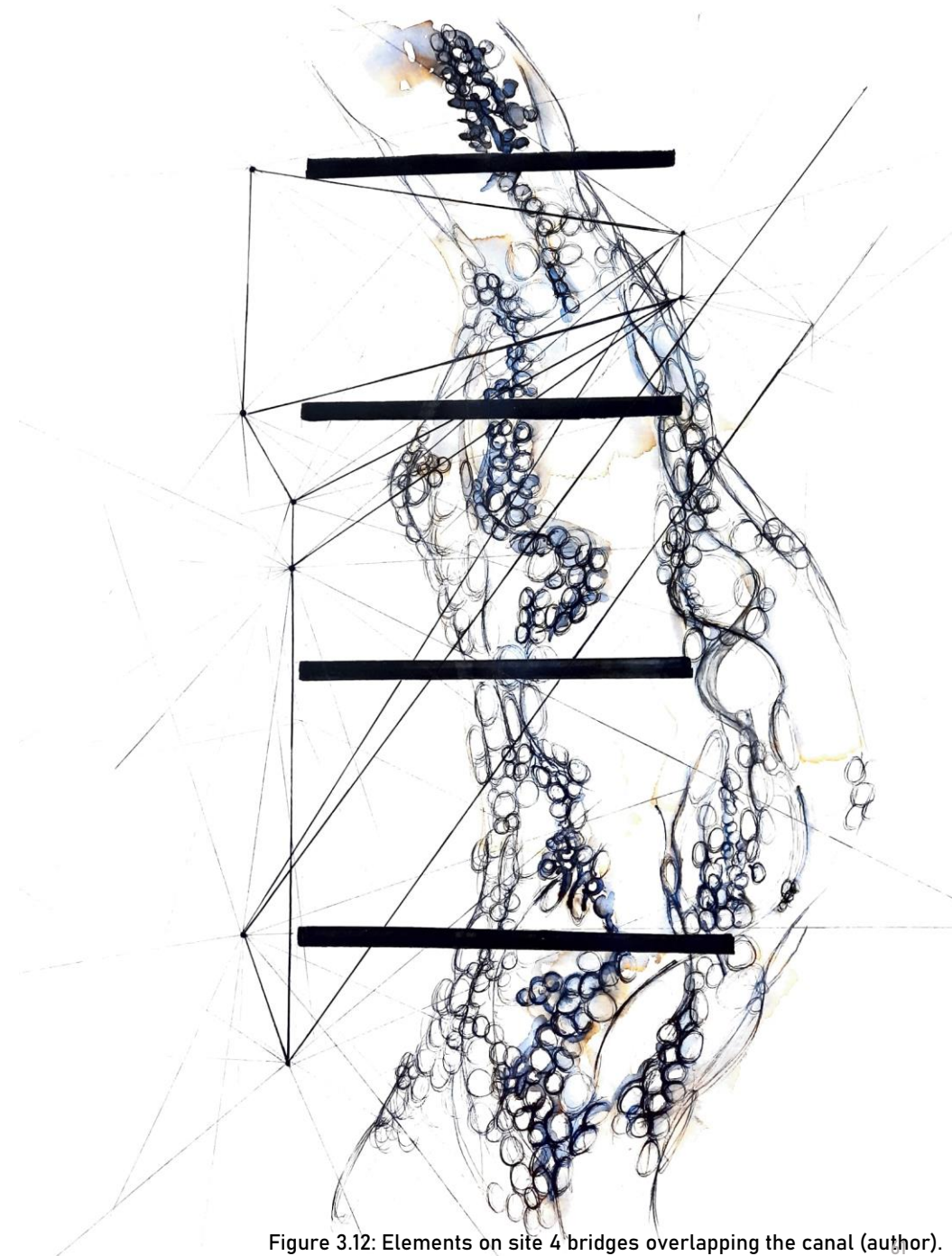


Figure 3.12: Elements on site 4 bridges overlapping the canal (author).

When translating synapses within Architecture it can be viewed as the connectedness of site and its elements influencing the atmosphere of the whole. Characteristics will differ on how each grow, sit, flow, and move on site.

All forms are part of a whole embodied realm of networking. A human networks and moves uniquely and therefore, searching for an understanding of how a site with all its components connect for it is an organism filled with systems and individual particles connecting with each other.



The objective of this concept is to use the idea of how simulation displays the brain's complexity of emotional neuron connections to understand the connectedness on site. Synapses aid in dividing site in groups and using light to display how these groups of forces and networking connect.

Forces and elements were imitated and layered over with a system of connection; light then filters through these groups indicating that it is not the seen but the unseen which upholds realms of possibilities and ultimately indicating architectural possibilities.

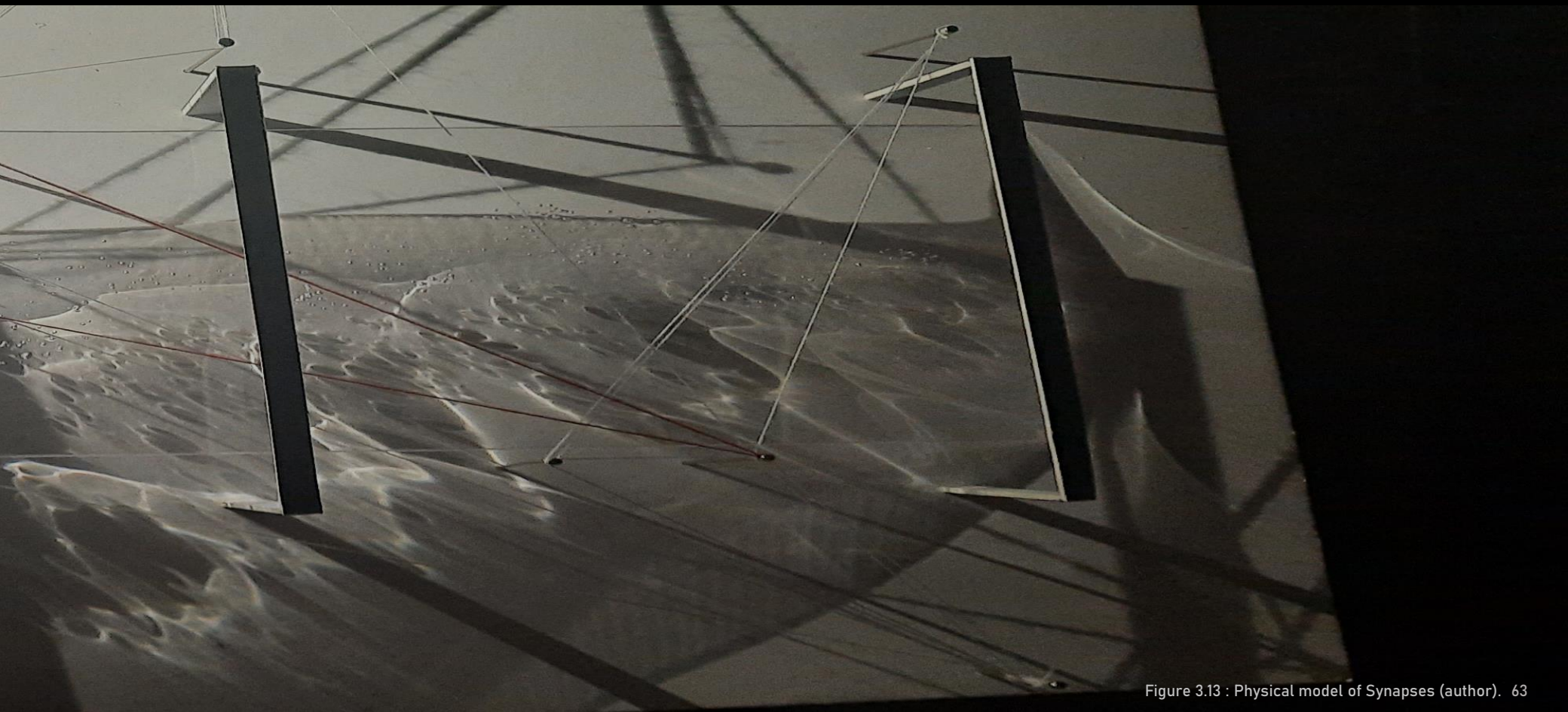
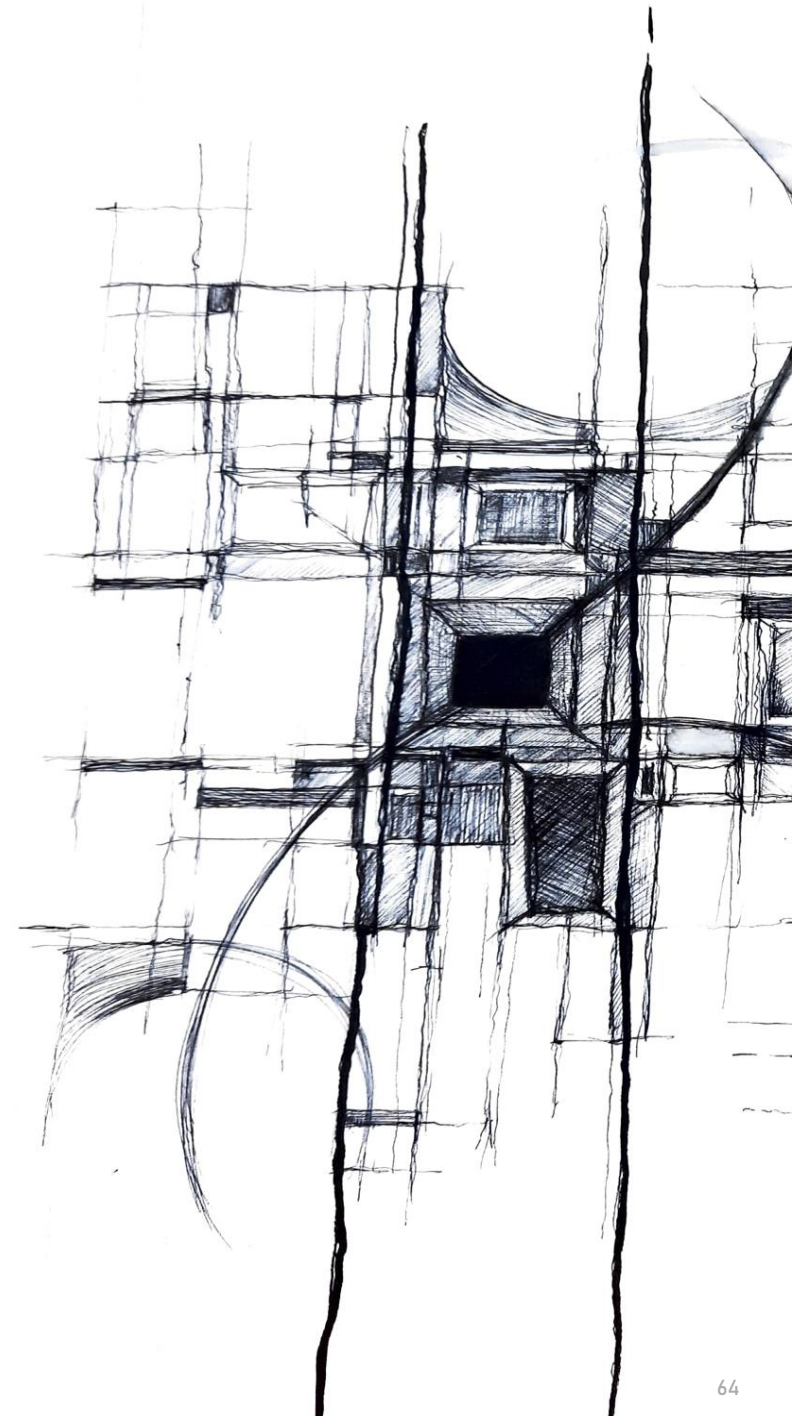
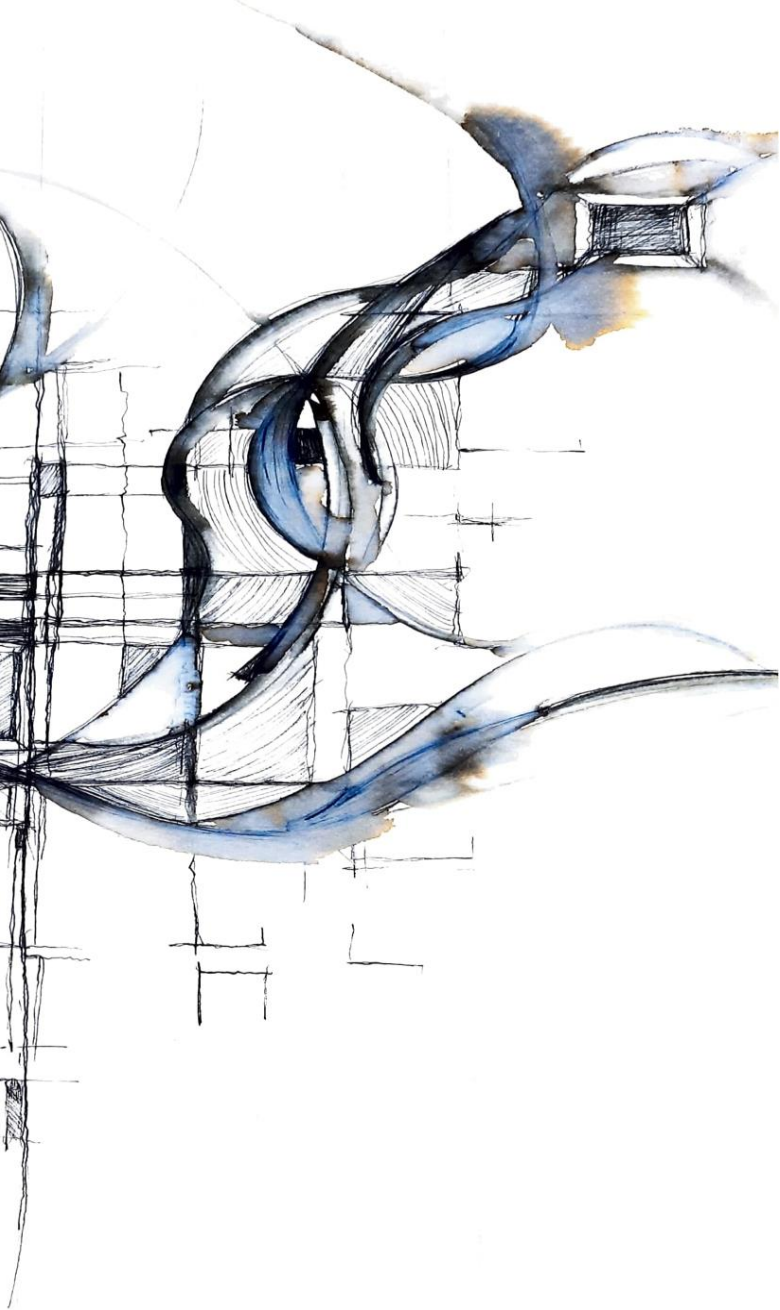


Figure 3.13 : Physical model of Synapses (author). 63

### 3.6.3 Episodical Fantasy

Episodical fantasy within animation is when a glimpse or piece of fantasy appears in an episode within its own narrative, then after the episode everything will reset back to the status quo (current situation). Animation has the ability to open worlds for an individual and can spark conversation among their experience and understanding, or one can simply sit within the world of experience and fantasy.





Episodical fantasy can occur within the site in creating glimpses or mystery towards main forces and elements on site. Site is already displaying mystery behind green pockets and with the canal tucked away in sight. Glimpses through frames and selected sections can reveal pieces of these elements.

What is architecture without dream, myth and fantasy? Architecture merely constitutes of materials, but it consists of art, sculpture and realms of thoughts and experiences. It starts with a dream and vision and ends within a built experience. This concept aspires to capture the threshold and morphological properties of fantasy and how it can add to site.

Figure 3.14 : Conceptual drawing of episodes translated into boxes or frames (author).

Frederick Kiesler an architect, theoretician, theatre designer, artist and sculptor once said that “painting, sculpture, and architecture should not be used to split our experiences of art and life, but they can be used to link and create realities and dreams”(Rosenbaum,2022).

The inversion of site in a way where elements are imitated and placed upside down is placed over the actual site creating an in-between, which is representing uncanny architecture. By making site in a strange manner it reveals possibilities of fantasy and the unreal within architecture.



Earth and sky have been replaced with elements of site. An episode is portrayed through a single focused area and moment of site. There seems to be a transitional threshold taking place within morphological properties indicating the connection between fantasy and site.

It is almost as if an immediate transition occurs on site from real life to the imagination through placing and light.



## 3.7 Research Question

The aim of this study is to decipher how to intertwine the animation production process and architectural elements into finding the hybridity between them and to use these domains to animate an urban pocket?

---

**Animation production process** - Frames in sequence echoes and transcribes between the two domains.

**Frames** - Frames activate site and the individual by careful placing thereof, subsequently a line of narrative/storyboard starts to form in these structures.

**Architectural elements** - Structures of the domains are inferential to sit sculpturally and structurally within this thesis.

**Hybrid** - The resultant of the synthesis between the two domains

**Animate** - Wield and activation of the urban pocket



### 3.8 Interstitial

Latin: inter (“between”) + sisto’ (“to stand, place”)

Interstitial space between the signifier and the signified. (Raja,2021:online). A signifier is referred to the physical thing which we see and read or interpret. Each signifier has a signified which holds the idea or meaning behind the signifier. Frames signify the scape, it coheres with Raja and expands the concepts that signifiers are perceptible cues and within design, materials and interfaces are used to optimize possible actions, encouraging appropriate behaviour.

It is aforethought for movement within a frame to occur, the frame pauses a moment in time and suddenly the story stops before the next thought happens.

## Part 3 : Hybridity

In a webinar Dr Masood describes hybridity as follows:

“In the process of signification when the signifier is invoked it points to a signified in the mind and a referent in the world. There is a space there where we can enter something else besides the signification, and that becomes the hybrid space” (Raja,2021:online)

Hybridity is a productive space it creates a safe space for cultural indifferences. Raja states that: “I can live with you knowing that these are the things that are different between us” (Raja,2021:online). It signifies you and me with all of our differentialities, differences come together and living peacefully with one another. “Hybridity is a loaded signifier” (Raja,2021:online).

The webinar states the following “The most productive person within subjectivity is one who can escape the very givens of life. Givens of life is where you are born and your regional identity. Your identity needs to take in other suspects of other cultures”. (Raja,2021:online)

Productive state

Loaded signifier

Free movement

Masood explains the following : “It privileges hybrid objects which can pass the threshold of such identities into others” (Raja,2021:online). The hybrid state can be distinguished between the idea of separation as a line separating humans from nonhumans on the one hand, and hybrid beings that stand for a fusion of these two poles on the other.

Hybrid beings has stepped out of regional identity which is the givens of life as previously mentioned, it is the state of being and not your givens but to be in a state to recognize other givens and identities, therefore you can become because you already are and have been. It can be linked to the way in falling silent is a tool, the tool of silence and entering a state of hybridity articulates each other. One identity meets another by being in a state of openness and willingness.

Both concepts from Heidegger and Masood depict a bridge of communication, and how I see it is that one should always be in a state of listening while the other communicates and that it is a passage for language.

In the theme of it all the question arises on hybridity and how it can be used to promote successful spaces. Spaces of passages where an individual accidently walk into another and spaces which emboldens silence and creativity such as a silent corner or a view which stops movement of an individual.

Hybridity serves as a platform for animation and architecture to develop between the two languages as one, both can form into each other and serve as a podium for manifold experiences. The language between the two domains signifies not only spaces but theoretical dense subjectivities within the users which promotes sensible, embodied experiences and perspectives.

Tool of silence

Bridge

Mindful

Hybridity exists there where architecture becomes a sight of animated elements and spaces where one feels as a character who can freely be placed upon a setting of scenery. Hybridity comes to be when backgrounds are entered through architectural elements and framed structures, frames as structures embodies the narrative through the project. Narrative is always present with unavoidable storytelling through the corridors.

Animation moves from one movement to another and such transitions from frame to frame exists as threshold for settings to be entered with mindful interruptions in architecture.

Space is an in-between for being and existing therefor you are always in a sequential time frame. Sequential happenings occur through coincidental gatherings while moving through a corridor. Coincidental gathering of interactions forms community and rituals, hybridity sees to exist when variabilities meet and speak. Hybridity is a sight, place of meeting and bridge for conversation.

Identity

Bridge

Accessibility

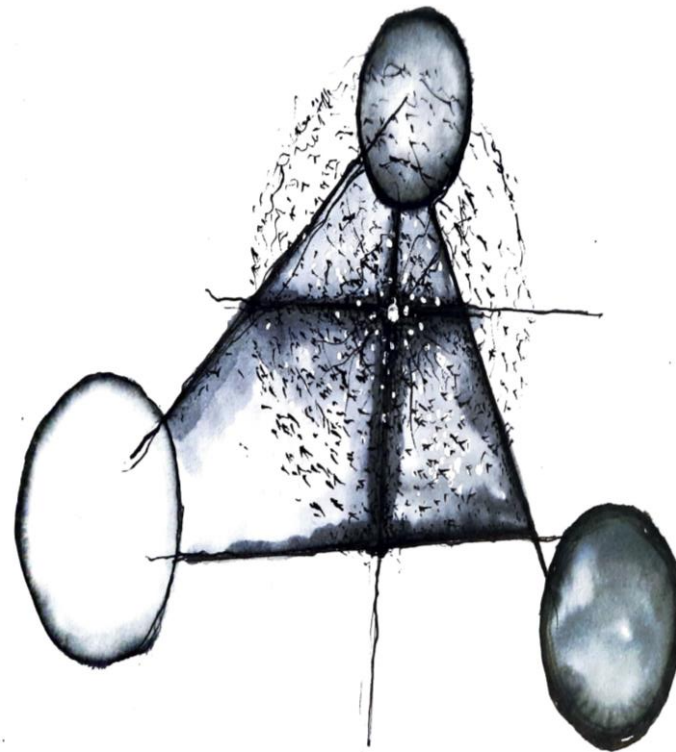


Figure 3.17: A space where we enter something else (author).

Jevremović states in her article *HYBRIDITY IN AND BEYOND ARCHITECTURE: LIMINAL CONDITIONS* the following, “hybrid cannot be explained as the third concept formed from the tense relations of two cultures” (Jevremović,2017.247). Studio cultures, identities and rituals have crossings towards each other, where one element exists and forms from the other.

Two domains translate into a language and creates it into an untouchable thought which one tries to unveil through an unknowable explanation but can't seem to succeed. This is us being in the temporal current as one with all things around us trying in translating it to oneself.

We unsuccessfully try to translate hybridity into words, but we promote it unconsciously when one's being collides with thoughts.

### 3.9 Hybrid architecture

Spaces of mindful interruptions and coincidental interaction occur when a space exists for identity to meet another, and for culture to acknowledge another, and merging of coactions creates rituals.

In built form hybridity forms when space overlaps with another and creates spontaneous interactions; hybridity in theoretical statements are seen as two cultures or perspectives meeting for conversation.

Place comes into being through interaction and contributions, architecture has the responsibility in creating a place for hybridity in social senses.

Animation has displayed hybridity by illustrating that characters of all sizes and forms can interact and commute in a space, therefore scale plays an important role for involving everyone.

Accessible openings and frames creates for differentialities in perspectives and thoughts to subsist. The beauty of an individual frame is that each will interpret and see something different from someone else. The story is forever changing as interaction occurs in the frames while simultaneously having viewers from both the public or private positions.

### 3.10 Quasi-object

A quasi-object is the the non-human actant that creates a network and is translated by interactions and other actants that it is entangled with such as believes, perspectives and cultures.

It is stated in an article by Wiel Arets about the state of being and of the Quasi-object : "The quasi-object equips us to develop a new model of knowledge that goes beyond dividing an object into two cultures" (Arets,2022). Instead of trying to comprehend the facts and values as fundamentally interconnected wholes, its also recognisable and a state of realisation to simply see an object as a form or a social function.

The location of these strange new hybrids can be pinpointed using two dimensions simultaneously, the longitude and the latitude, and the possibility to understand why it took science studies to define what will be referred to as quasi-objects or quasi-subjects in honour of Michel Serres (Arets,2022). Social scientists have long been free to criticise the worldview of the average person. This belief system is referred to as "naturalization". Latour describes the views of an average person as the following: "Ordinary people imagine that the power of gods, the objectivity of money, the attraction of fashion, the beauty of art, come from some objective properties intrinsic to the nature of things" (1993).

In one sense objects do not count much for many, something not to be thought about but to vastly catch the eye. On the other end of the spectrum is where an object catches thoughts and reminisce with it, it is a space of entrance for an individual to exit their givens of life to fully inhale the wholeness of the quasi-object. As the thesis continues the realisation came that the intended 'object' placed on a system of measurement reveals that the 'object' and the given natural state of earth and environment frames the network for interactions. This statement translates to the hybridity of the building and that it serves as a platform for one to enter another state of thinking, creativity and gathering with one another.

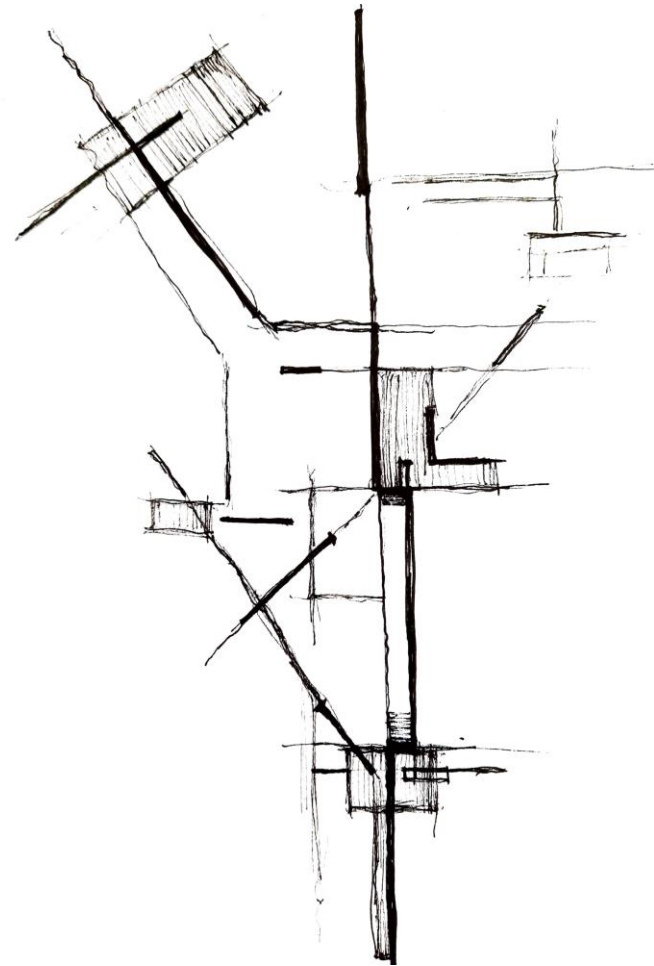


Figure 3.18 : Quasi-object, network and interactions (author).

### 3.11 Being

But first, the notion of the distinction between Being and beings appeared to be a rather effective way of accommodating the quasi-objects, a third tactic added to that of the modernizing philosophers and linguistic twists.

Hybrid and quasi-objects revolve around meaning the same thing of another space to be untouched but touching the being and links with Dr Masood's statement that where we may enter something different from the meaning, and that area would then become the hybrid space.



Figure 3.19 : Representation and expression of design's form (author). 76

### 3.11.1 Modern Being



Figure 3.20 : Frames leads towards entrance, expression of design ( author).

Over complicated systems over rule the simplicity of being in this world. In this modern world, who are we within and ever influencing it and it us? Latour asks :“Who has forgotten Being? No one, no one ever has, otherwise Nature would be truly available as a pure 'stock” (Latour,1993.66).

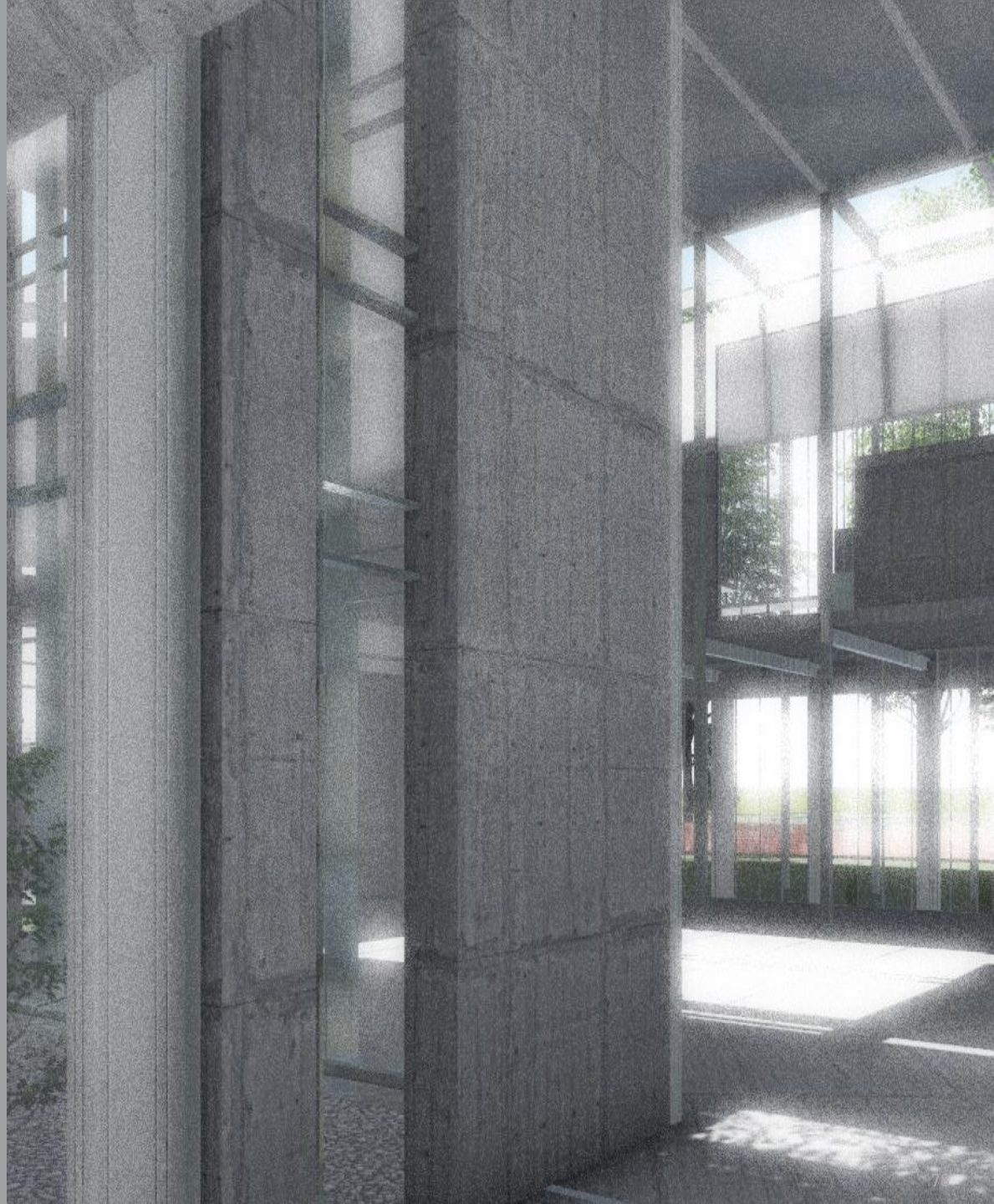
Connections are brimming with Being. The most unadorned object holds more for thoughts and connection between ordinary daily things of the world to dwell from.

Postmodernism condemns all empirical work as illusory and deceptively scientific, refusing to move on to empirical studies of the connections that give significance to the purification work it criticizes. Latour argues that :” No one has ever been modern” (Latour,1993.78) due to believing in two separated halves of constitution and to study what it makes clear and what it muddles. He furthers this by saying “. Either I defend the work of purification - and I myself serve as a purifier and a vigilant guardian of the Constitution - or else I study both the work of mediation and that of purification - but I then cease to be wholly modern” (Latour,1993.46)

The present Constitution cannot be understood, by suggesting that the procedures that enable it to exist be made public, and by arguing that the critical process is no longer necessary. Pure forms are a podium for more than one interpretation.

The arguing statements with Modern Being is objectively viewing in translating the hybrids of spaces into critical language to be on its own resonating spaces of time.

The temporal current is being activated through hybridity in the sense of placing appropriate objects of time such as the thesis aim in appropriating. as soon as we thoroughly examine the processes for creating hybrids and eradicating those same hybrids. Then we realize we've never been modern.



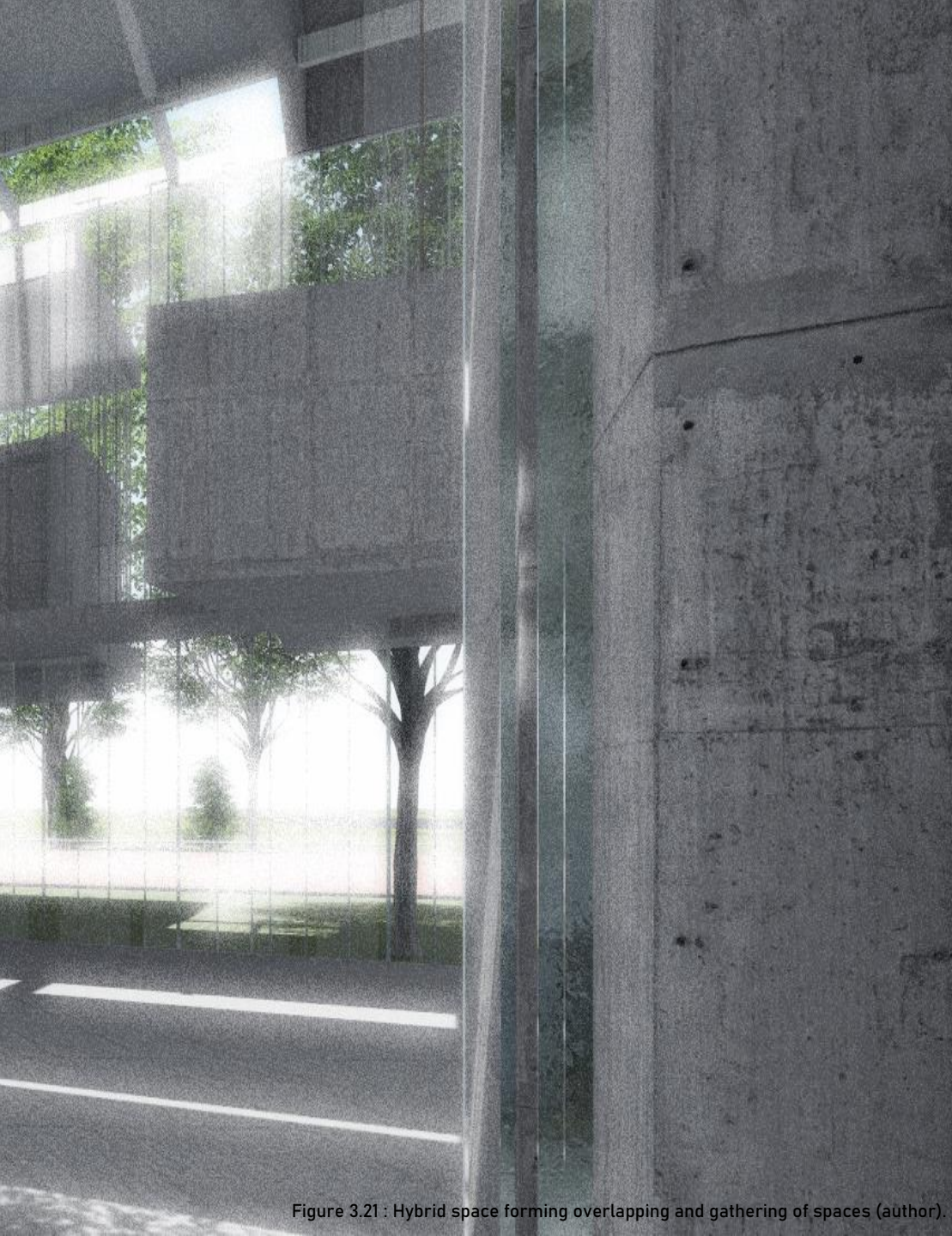


Figure 3.21 : Hybrid space forming overlapping and gathering of spaces (author).

### 3.12 Conclusion

To simplify and purify objects in this world is being of time while accommodating regional identities, if either one is in a hybrid space or own identity the perceivable state is always present. A space where we can enter something else besides the intended is the hybrid space.

In conclusion objects of hybridity does not cause one to be in a hybrid space but acts as an activation device for being an identity or releasing an identity and the state of being as individuals owns capacity in the temporal current .

# Chapter FOUR – Design development

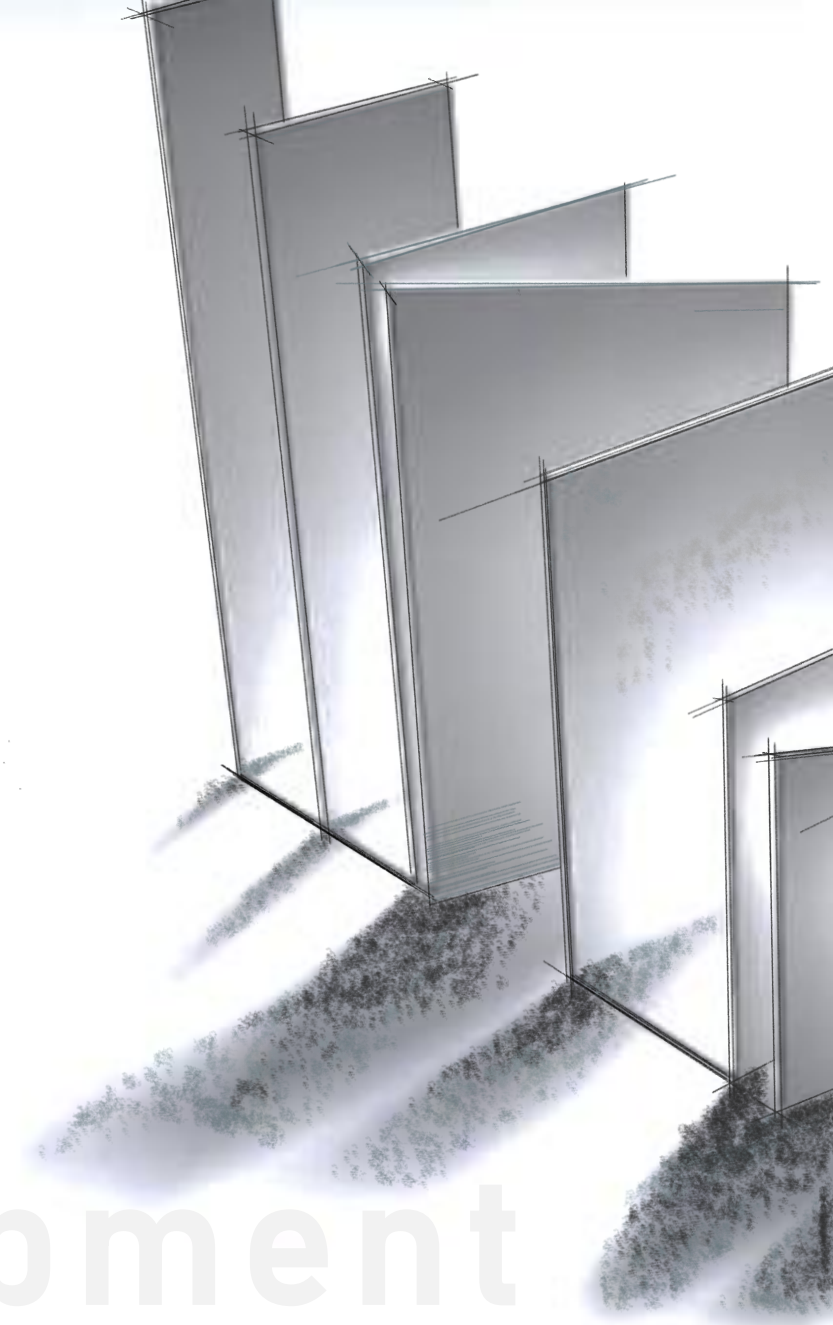
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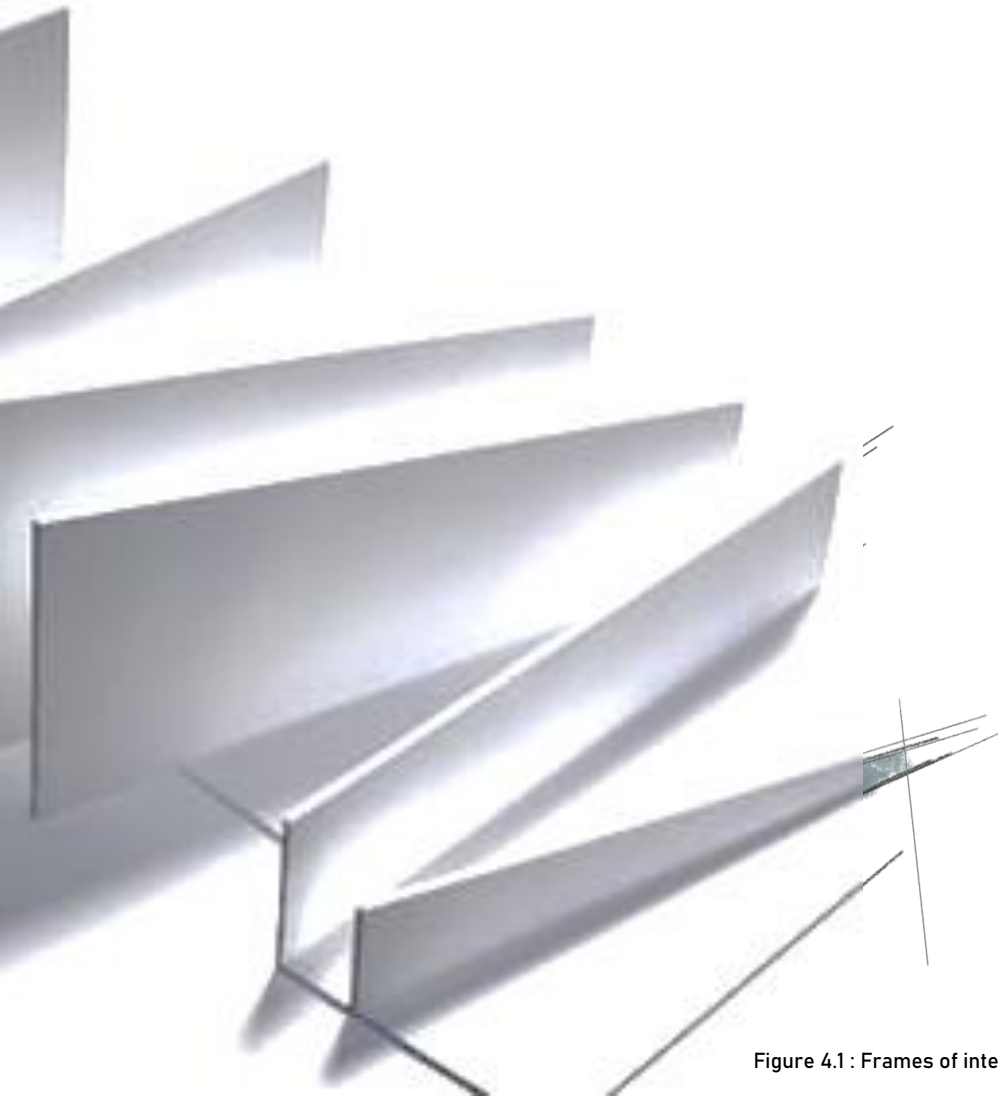
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Chapter 4

Design

development





## 4.1 Introduction

This chapter combines the theoretical studies with architectural possibilities and starts to unfold the theory and analysis of the two domains into the physical. Mnemonics aid in linking memory and understanding to the process, while concepts substantiate the grounds for the objects' spatial existence

The design starts to unravel and reveal itself through explorations and exists through translation of frames and hybridity. Precedent studies aid in giving a thing of the world which links with the brief and programme of this thesis and important gestures were taken into consideration when designing.

Figure 4.1 : Frames of interaction (author).

Area : 4900 ft<sup>2</sup>

Year : 2017

Photographs: Pallon Daruwala

Short stories with interconnected liveability of spaces merge here as a collection of short stories. Francisca Gonzalez writes about the “smooth merging of zinc plated modernity and hand poured concrete on site casting was dialectically presented in kind light”(Gonzalez,2017:online). The home symbolises a growing need for a delicate balance between the monastic and the flamboyant while the latter discreetly tucked away in the privacy of the master bedroom and study spaces. Green spaces extend from different interior spaces to the outdoors which is fragmenting a space. But still acts as one language.

# House of Stories / Architects

## 4.2 Precedent study



# Mathew and Ghosh



Figure 4.2: Casted concrete and slanted steel roof entrance (Daruwala, 2017).

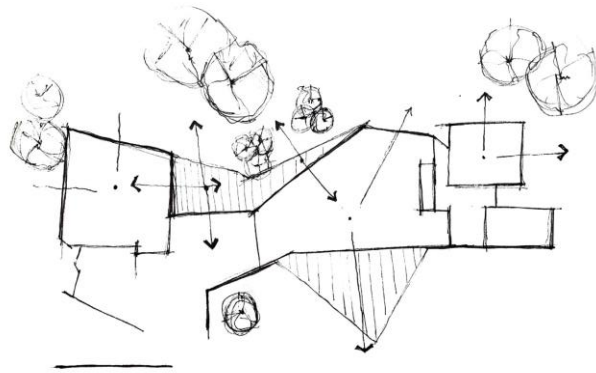


Figure 4.3: Fragmented spaces through extending to green spaces (author).

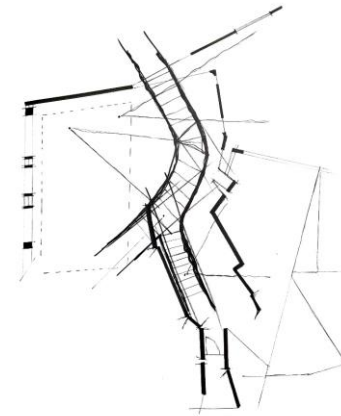


Figure 4.4: Poetics of the stairs (author).

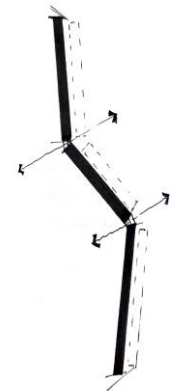
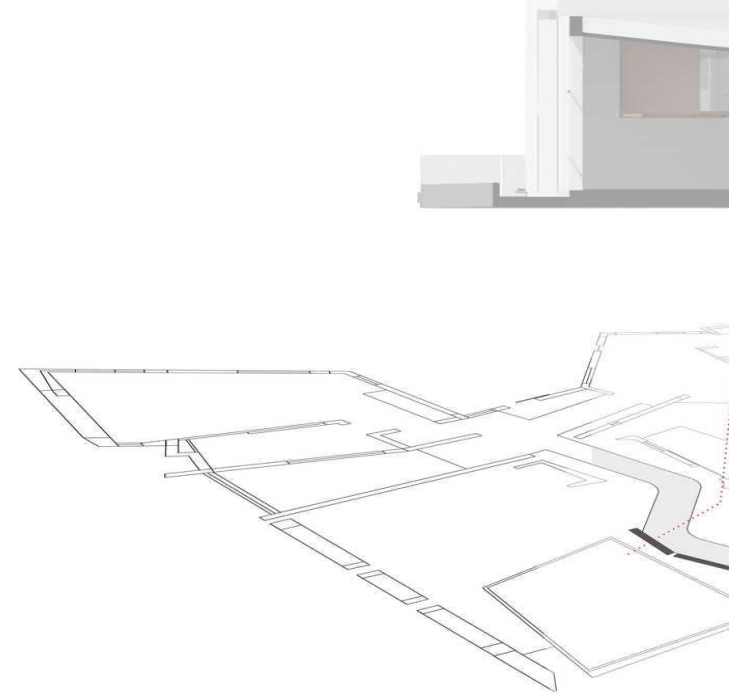


Figure 4.5: Optimizing angles for light (author).

Gonzalez further elaborates on the House of Stories and describes a single zinc door which adds to a path of entrance which operates independently on hinges as well as in conjunction with the entire pivoting door, opening louvers for ventilation with pulleys within the bigger door at its upper part. A lowered gargoye marks the entrance on the front and the house enters through a cavernous space that leads to an unknown location. The faceted roof rises, the walls rise in height, and the width narrows.

Movement is directed by light slits in the twisting and turning concrete walls, which flood the walls with sunshine and the slanted concrete walls reveal hidden passageways while welcoming sunshine into the dwelling which transforms it into a roofed sanctuary beneath the sun. The house extends out into its living room which is marked as the public heart of the house at the end of the cavernous corridor.



The precedent study gave lessons and guidelines on the following aspects: fragmenting, angles, movement and circulation are elements which opened opportunity within my design. A huge clue was fragmenting outer spaces with lines of inner spaces which gives a moment of mindful interruption to a daily routine. Concrete is shown to give a warm and cosy feeling when light touches the surface of the material. Stories resonate through material and the angles created to house shadow and depth while having contrasting elements such as skylights as a solution for when two roofs meet with different angles. These skylights lightens the passage of the home and simultaneously giving attention to materiality.

Figure 4.6 : Sky lights (Daruwala,2017).



Figure 4.7 : Sectional light study (Mathew and Ghosh Architects, 2017).

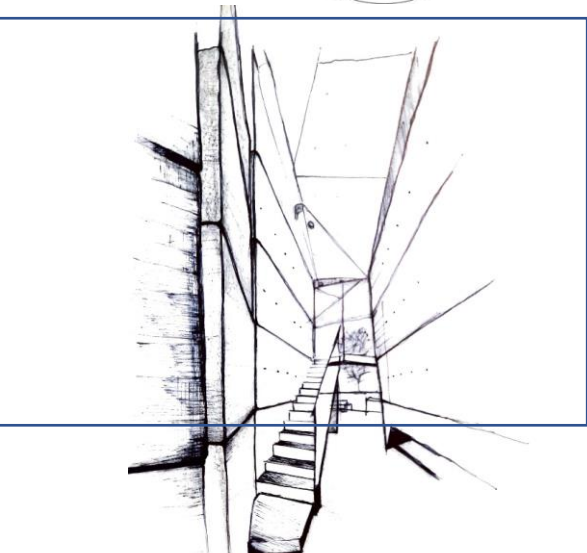


Figure 4.8: Angles of walls allows filtering of light into circulation spaces (author).

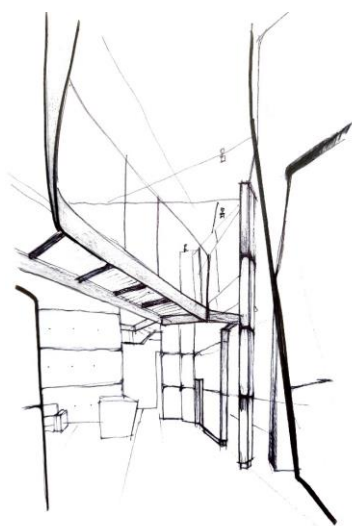


Figure 4.9: Living room, the heart of the home (author).



Figure 4.10: Light filter on concrete (Daruwala,2017).



### 4.3 Methodology

There are existing factors which influence the design greatly and these factors became guides to follow when thinking of outcomes. Factors can be described as the identity of space as the relevance and importance were discussed. Methods gave appropriateness to forming the design and simultaneously another lens to have on when viewing the site. These factors aid in organising the design while giving part to what is more important that needs to be emphasised and the other end what is unnecessary to keep. A few factors had to be present to answer the research question when it comes to animating and revitalising site and they will be discussed under this chapter of methodology.

### 4.4 Identity of place

The interaction between people and physical environments and meanings create how and where dimension known as place. As one has his identity a place secures its own. Dr Raja mentioned that to be in hybridity one must leave the given self and regional identity, therefore, it can be said that for when one leaves his regional identity and self, he can experience the place's identity (Raja,2021:online). The distinct personality of each location is a crucial consideration. Forces and elements are all in conversation and networks as we network with one another. Each element gives a sense of place and relevance. Relevance of the final design hatch into the environment and the place's identity. The design is a mere extension of and celebration of identity.

The quality of people's ties with a place can be characterised with place identity and place attachments. In contrast to space, the term "place" typically conveys a deep affective tie between a person and a specific setting. Places contain messages and meanings in addition to their physical characteristics, which individuals interpret and process based on their roles, emotions, beliefs, and desires. An article "The Concept of Place and Sense of Place In Architectural Studies" by Najafi states the following in relating a person and place, "It is also an important aspect in integrating user and place" (Najafi, 2011:online). Focusing on the meanings and experiences of place, phenomenology utilises a descriptive and qualitative approach.

Experience is a component that has the power to alter any situation and make a place from a space. A user attaches emotion and meaning to an area through relating with identity, either regional identity or past experiences. Such experiences resonate through nature and familiar objects. This parallels with Norberg-Schulz as he defined a place in terms of both character and space, "...he explained that changing a space to place is the existential purpose of architecture" (Najafi, 2011:online). The meanings that are present in the environment should therefore be actively sought out.

## 4.5 Depths of sense of place

Contribution and insertion of a user's self and his identity expands the meaning of space, a group or individual's sense of place can be described as a combination of symbolic meanings, attachment, and contentment with a particular spatial context. Najafi states that there are numerous senses of a place into the following "These included rootedness, alienation, relativity, and placelessness" (Najafi, 2011). Different types of sense of place that differ amongst individuals are brought about by people's happiness with, affiliation with, and attachment to their communities. The design aims to attract identities of place to the narrative of site as conceptually expressed in figure 4,12, it opens a space for subconscious connectedness and gives meaning from a user.

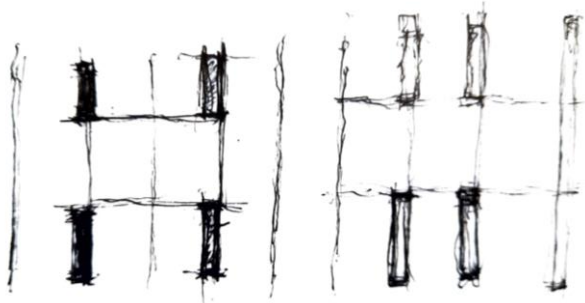
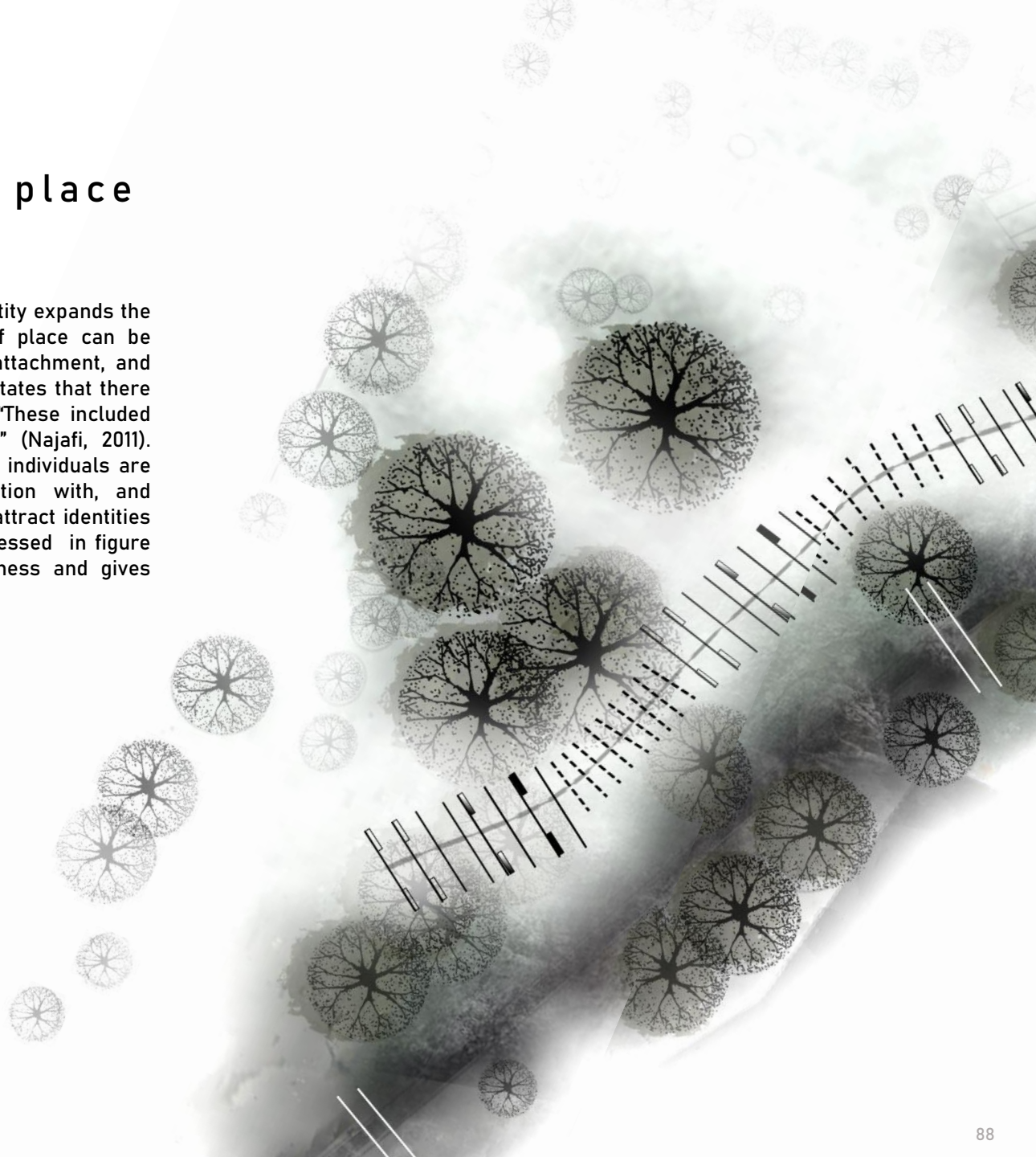


Figure 4.11: Narrative line creating frames for senses and interaction with site through its placement (author).





## 4.6 Animating site

The process of producing an animation film has showcased architectural possibilities which creates narrative and structure simultaneously. Animation directs the design to develop frames in sequence to function as a space of hybridity. Frames become a signifier of hybridity and of these spaces, which captures a moment in time.

Revitalising site serves to translate the environment into a storyboard with frames that is standing in sequence as not only a signifier but to animate and open it for an individual.

These frames are influencing not only the temporal current by defining the timeline of sites' past but is promoting the importance of the temporal current through making the individual part of the storyboard. Frames connect and emphasise the identity of place and simultaneously freezes the moment for meaning and acknowledgment. In an urban setting, placeness and connectedness are important elements of wellbeing and slowing down in a pocket of greenery.

Moments of mindfulness purposefully fuel a user with meaning and calmness. A domain of animation aid in transforming a space into a place of being and that is what this design aims in doing.

Figure 4.12 : Narrative line placement on site (author).

## 4.7 Forces

The storyboard is an important element in the domain which connects forces, materials, narrative and the mind all together. Animating site is bringing a character within a frame, as stated frames in sequence creates the imagery of animation which is what we as the viewer experience in a film, by incorporating a character it activates ground space.





## 4.7.1 Trees

Elements of site and its pocket of greenery lays a path for the narrative of frames. Some elements of site such as the trees, canal and bridges serves as influences which forms the planning.

There are roughly a dozen trees which sits deep and proud on site that serves as protection towards the western sun and as framed views of nature. Frames is a physical mediator between the green pocket and an individual, it subconsciously translates a view, giving focus and a mindful interruption.

Figure 4.13: Site's atmosphere and expression given through trees and greenery around water (author).

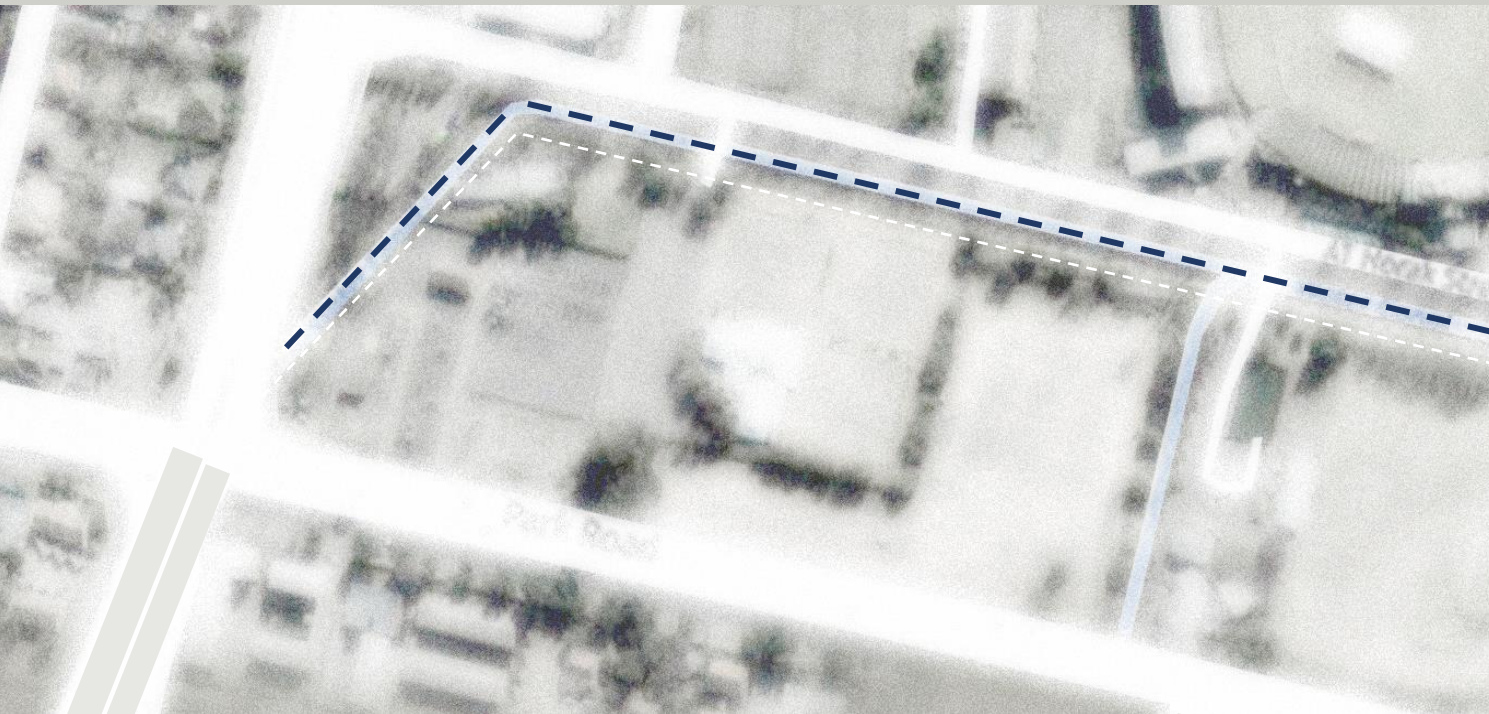


Figure 4.14: Canal position in context (author).

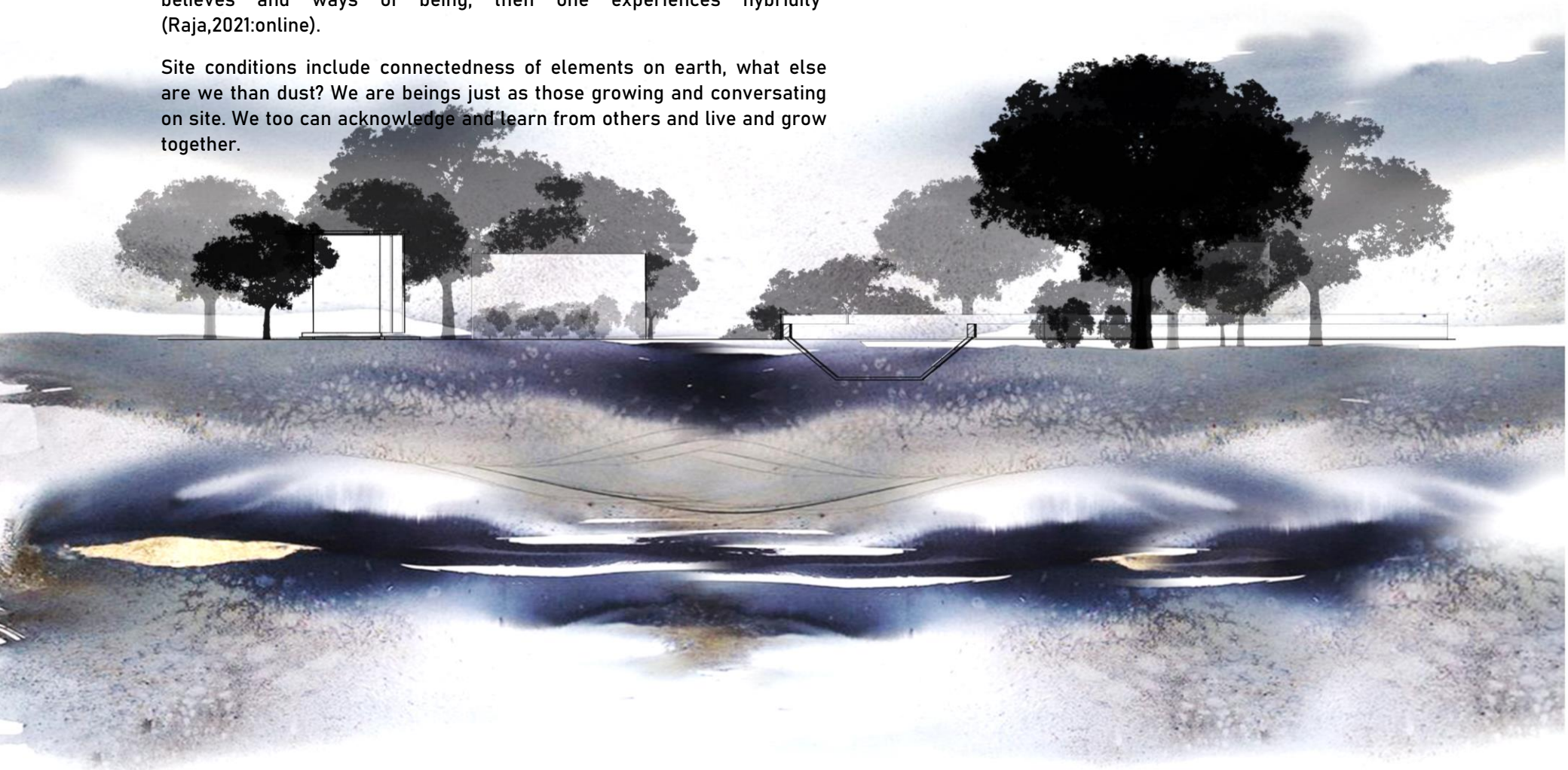
## 4.7.2 Water

The canal gives an atmosphere of calmness and a space for meditation. This is an environmental force which contributes to the design, the design opens towards the canal and the narrative storyboard frames are placed in a sequence that the canal can always be seen and accessed. Site conditions impact the design tremendously through the elements in and on site. The site gave an indication of flow through the canal and connectedness between different elements growing and living together while acknowledging and respecting their indifferences.

### 4.7.3 Spiritualistic of site

Concept of simulating synopsis displayed a representation of how elements on site grow and connect and the common grounds which they share. Despite their indifferences they harmonies, Dr Raj stated in his seminar about hybridity that when “one can live in peace and harmony while acknowledging and respecting the fact that another has different believes and ways of being, then one experiences hybridity” (Raja,2021:online).

Site conditions include connectedness of elements on earth, what else are we than dust? We are beings just as those growing and conversating on site. We too can acknowledge and learn from others and live and grow together.



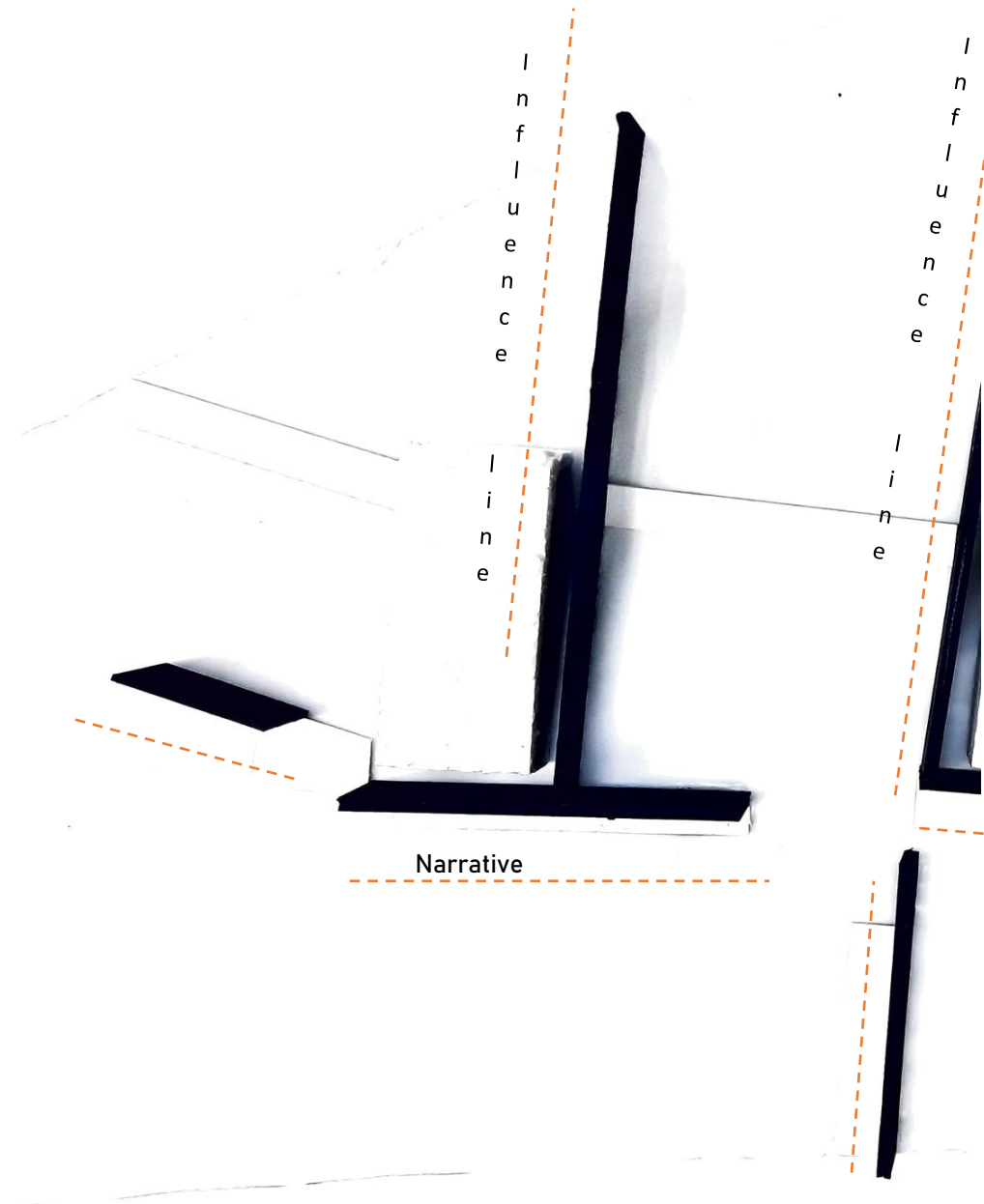
## 4.8 Influence lines

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Site is becoming the product of an animation process as frames weigh in with topography, climate and light, for it is a splice in time and space. Thus, building the environment through deriving materials and influences from forces of site.

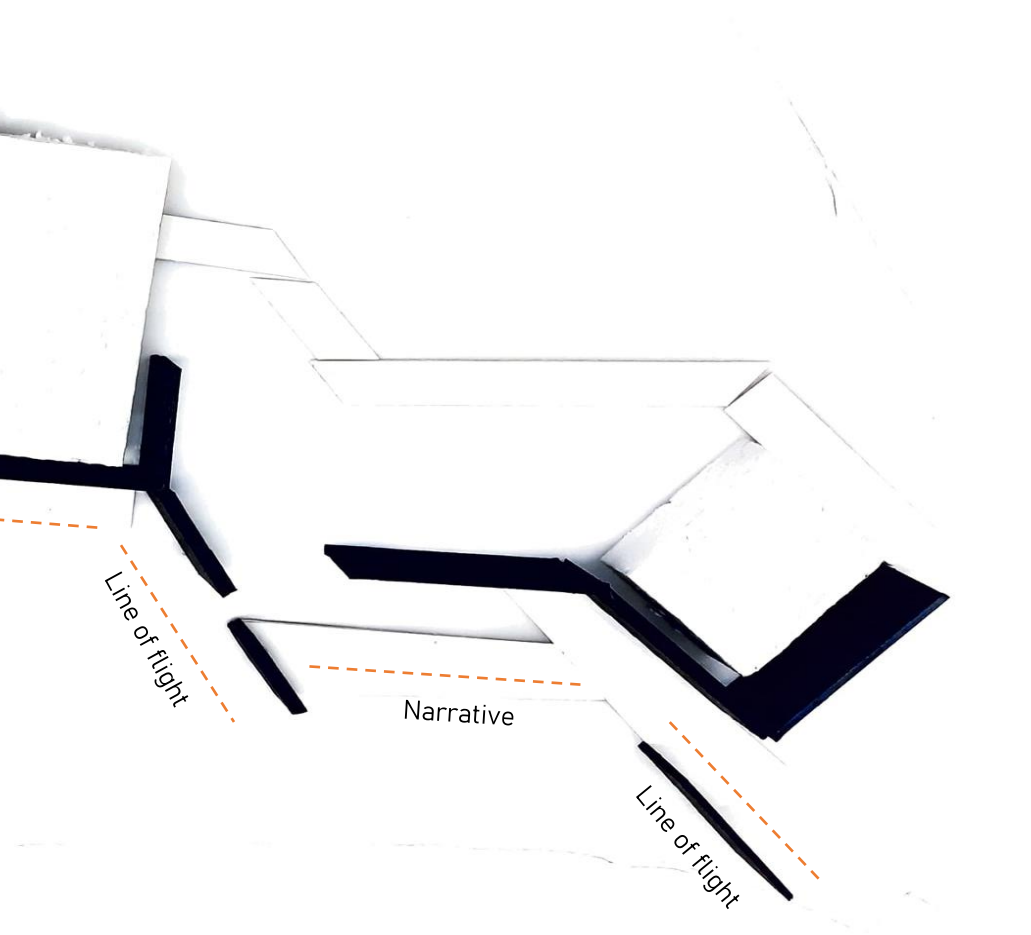
It promotes tectonic form through senses, structural poetics and local participation and usage of site. Influence lines is a factor which aids in organising site and fragmenting the brief.

They also serve as a poetical stance by serving as frames through the site, it enables direct viewpoints to the green pockets close to the canal.



## 4.9 Imitation

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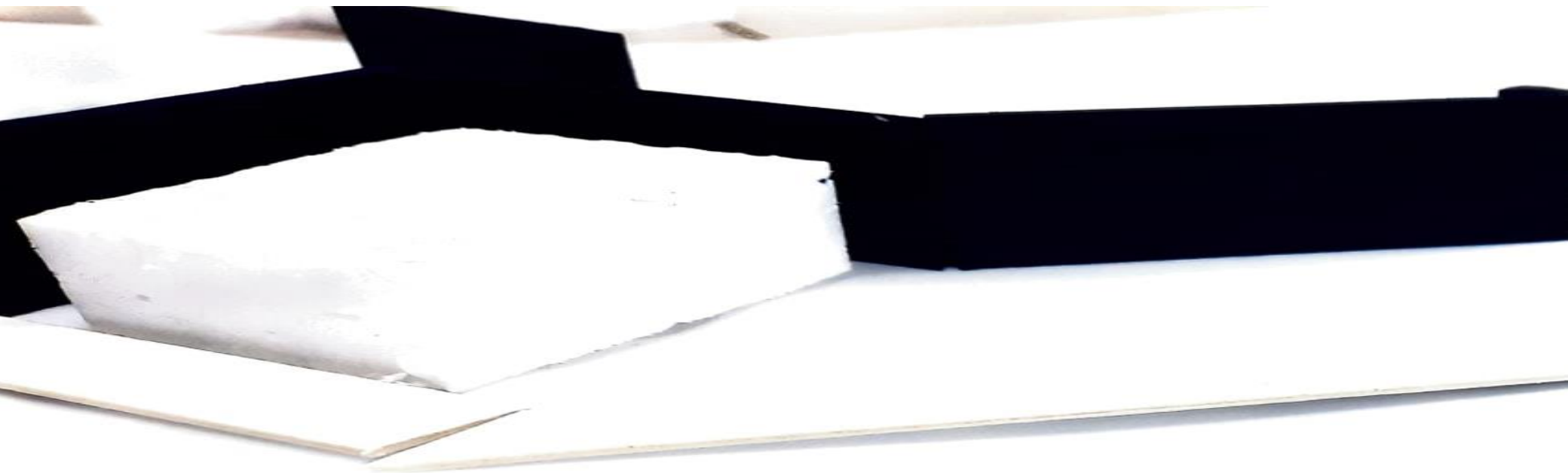
Imitation is a technique which has been a guide for new outcomes, the past and history of architecture evolves through observing and reinterpreting the past by studying and copying. It is stated by Heil from the University of Notre Dame's architecture department in her article *On Imitation and Originality* that: "The first principle of imitation would thus be to study the original" (Heil,2022). Imitation exists in all designs where patterns and materiality imitates nature and human behaviour.

The site has its elements, and it is to examine them in their originality, their unheard-of uniqueness, without regard for what comes next. The site has bridges stretching over the canal giving access to the substation and fitness centre, they have opportunities within themselves that can be imitated as 'bridges' in the building which leads from one space to another.

Figure 4.16: Influence lines and imitation model (author).

These bridges already sit as one with the site and the bridges are imitated, therefore it is a possible outcome to use them in a literal sense in creating a threshold to walk over to another space.

The process of imitation gave an opening for gathering, first one would cross the bridge over landscaping into a shareable space. A shareable space is there for all, hybridity comes into stance where one separates from identity and can be with another.



A film cannot exist without light, motion and characters contributing essence within each frame. Taking out a frame will lead to a glitch within time and the view without a frame will disappear in the city's fastness of lines. It is through hybridity which we can experience a framed scene and allocate focus towards it. Frames give opportunity for the writing of narratives in the temporal current. The character who is the urban dweller or user determines the storyboard of site.

Each movement and light touching voids and surfaces will influence the storyboard, ultimately creating a new story of bodily experience each moment of the days. The public interacts freely within these frames, they are without knowing being framed and act as an animation character within the sites' narrative.

**-You are either a part of the narrative or viewing the process of a story unfolding in segments in front of your eyes-**



Methodology of the thesis exists through the usage of senses, in between sense such mnemonic, environmental factors and forces, and the translation of animation frames into architectural language. Through these methods the design sees to exist and form.

## 4.10 Design process

Retrieving from site : development of the plan exists through the method of Mnemonic which was mentioned is a hybrid approach that uses the senses and perception to comprehend and analyse a place.

The world and us as beings are composed of language and interpretations, we use our background and identity of self to relate and familiarise a thing of new and unfamiliar presence. All around us are networks intertwining and conversating, it is up to us to incorporate methods in translating by learning to identify and visualise ourselves in the space and to understand and interpret the language of nature.

Personally, it was a considerable task as an operator to translate and familiarise with the earth and its networking. Subjectively that which is done with good intention and appropriate language an outcome can exist out of what was intended. Behind this craft there are good intentions hoping to create a phenomenal outcome that is not only rooted in the nature, but also incorporates the nature and surroundings of the site.

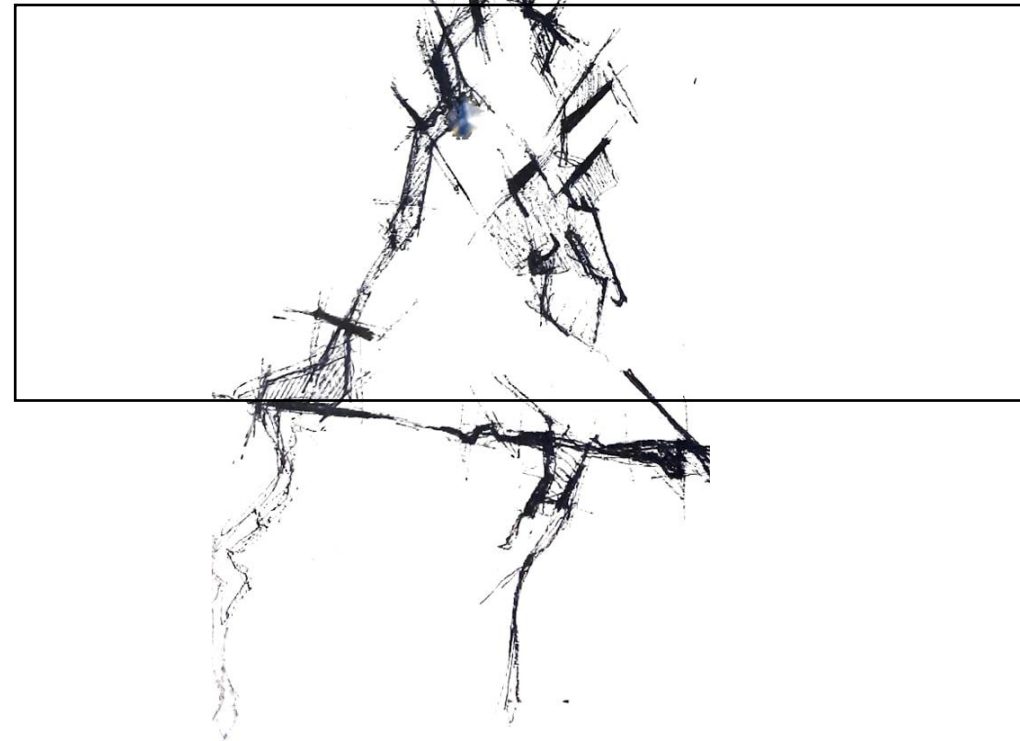


Figure 4.18: Prime plan form giving sketch from mimicry(author).

## 4.10.1 Mnemonic and mimicry applied

The presence of the site with its elements are the essence when planning and some elements such as the bridges and the canal are unchangeable. Purposefully placed mnemonic sketches develops numerous outcomes, two bridges kept as an element to mimic and acknowledge whilst incorporating the canal's shape.

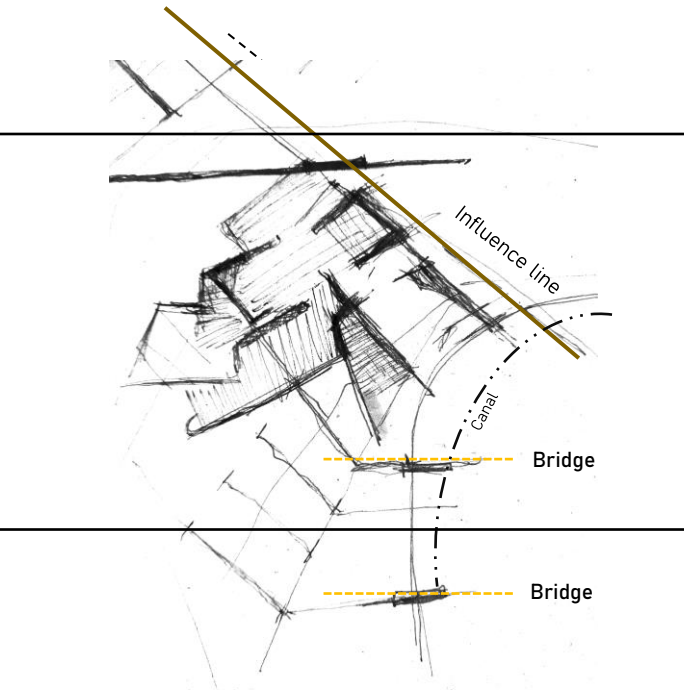


Figure 4.19: Exploration 1 (author).

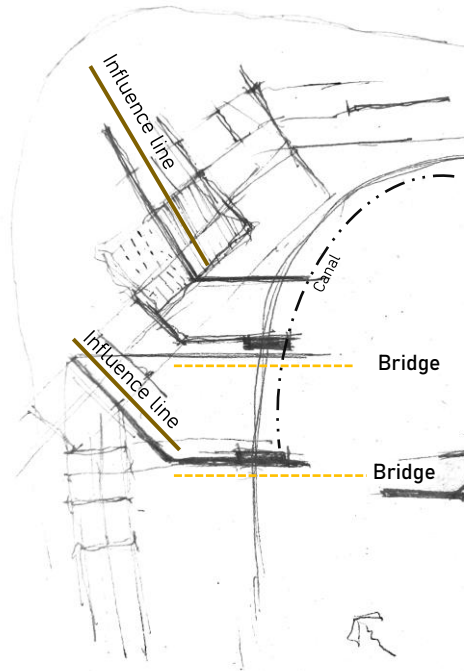


Figure 4.20: Exploration 2 (author).

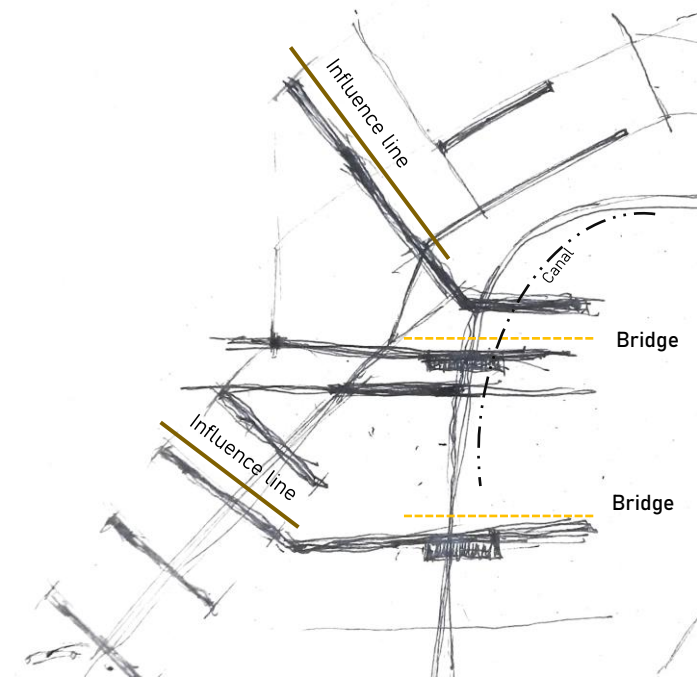


Figure 4.21: Exploration 2 (author).

# Yielding

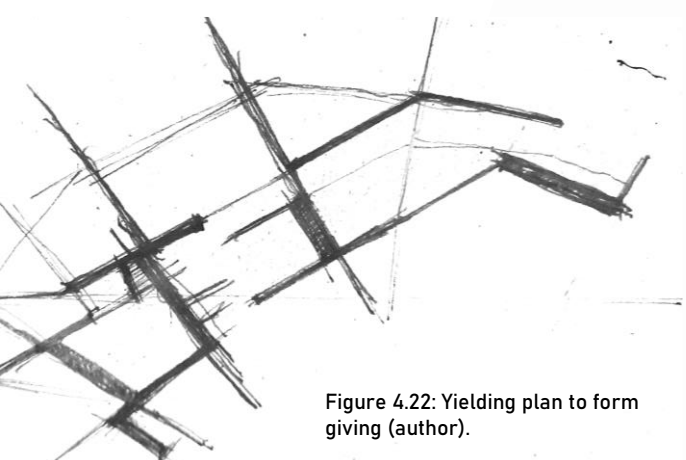


Figure 4.22: Yielding plan to form giving (author).

plan

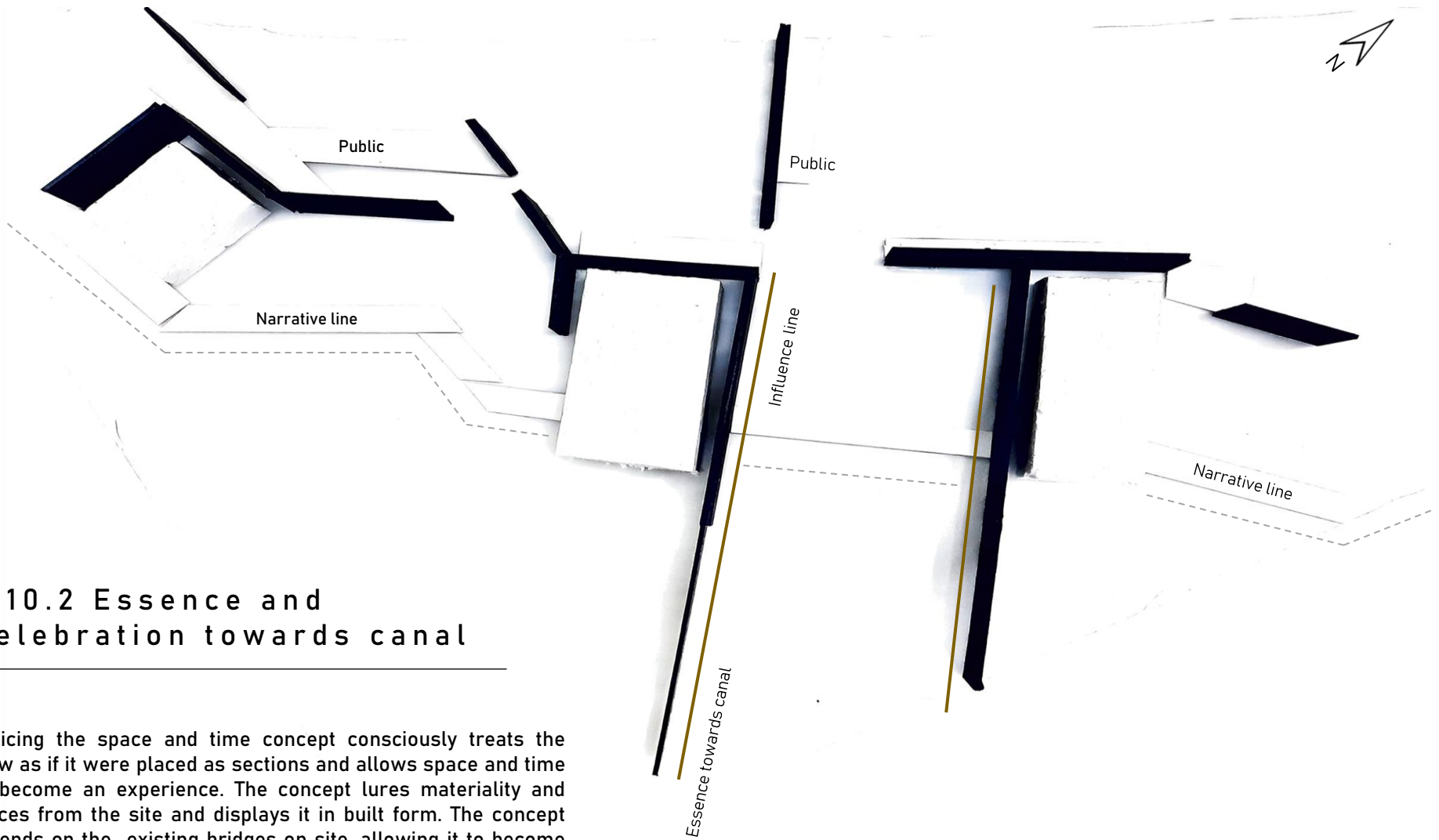


Figure 4.23: Yielding plan to form giving (author).

The presence of the site's remarkable elements are the given which greatly influenced the planning as seen in the yielding of the plan.

The elements such as the bridges, materiality, canal and existing tall trees are unbudging and therefore, ceaselessly giving clues throughout the conversation of planning.

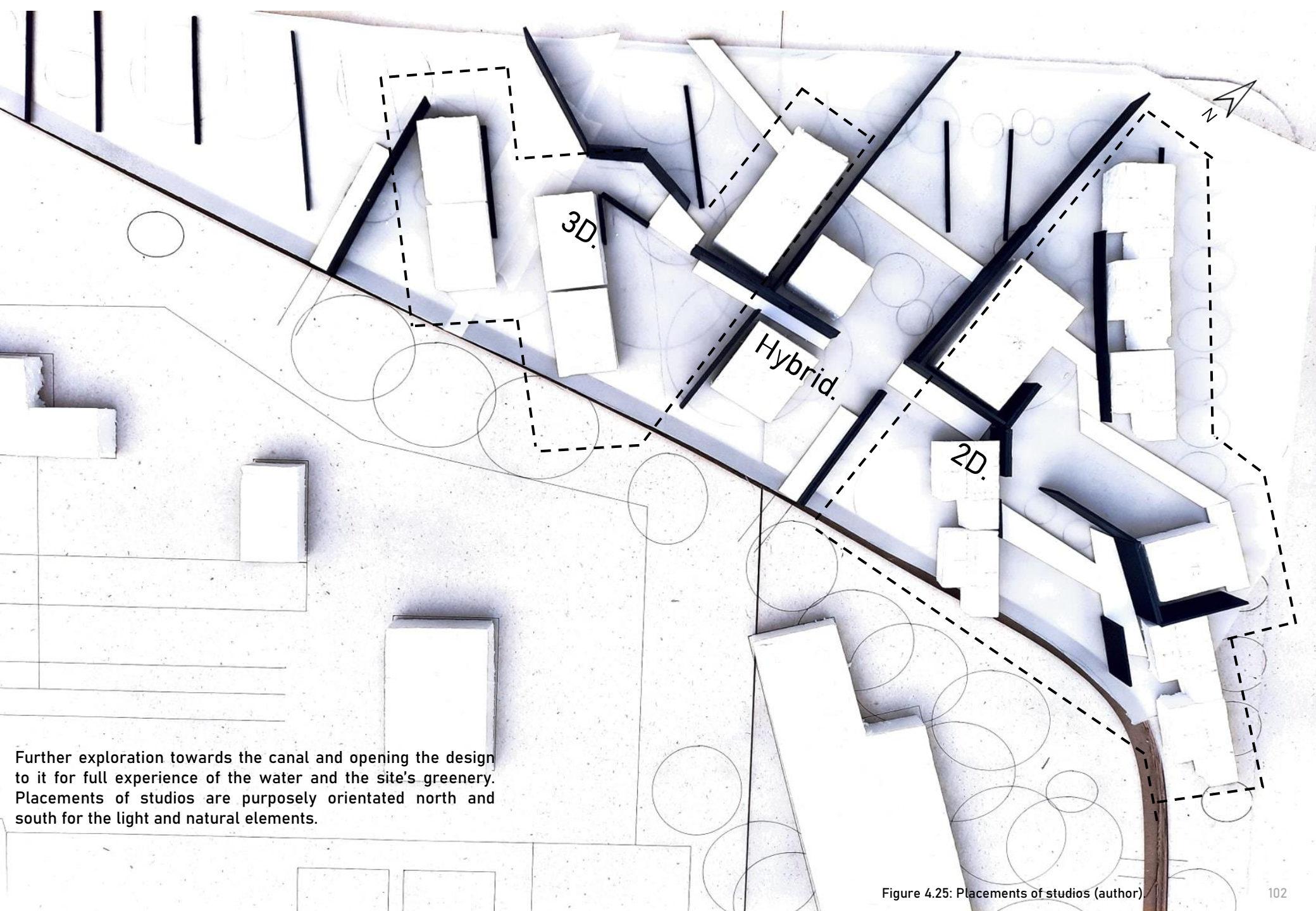
Purposefully placed sketches indicates development and numerous possibilities of outcomes. The thing is to respectfully choose competent placements. These influence lines snatch the shape of the canal and being a mere extension of the body of water.



#### 4.10.2 Essence and Celebration towards canal

Splicing the space and time concept consciously treats the view as if it were placed as sections and allows space and time to become an experience. The concept lures materiality and forces from the site and displays it in built form. The concept extends on the existing bridges on site, allowing it to become the essence and connection of experience.

Figure 4.24: Black placements indicate stretching to elements (author).



Further exploration towards the canal and opening the design to it for full experience of the water and the site's greenery. Placements of studios are purposely orientated north and south for the light and natural elements.

### 4.10.3 Mass allocation

Studios are sorted into three categories to suit the different processes animators use, such as 3D animation, 2D animation and hybrid. Hybrid meets the two processes in the middle of the centre.

In these model explorations studios are placed individually with a focus to expand and open towards nature instead of other studios.

Due to the space that the site offers, it seemed appropriate in these models to place them as such. The hybrid area serves as the core of the centre, which allows the overlapping of spaces to occur.

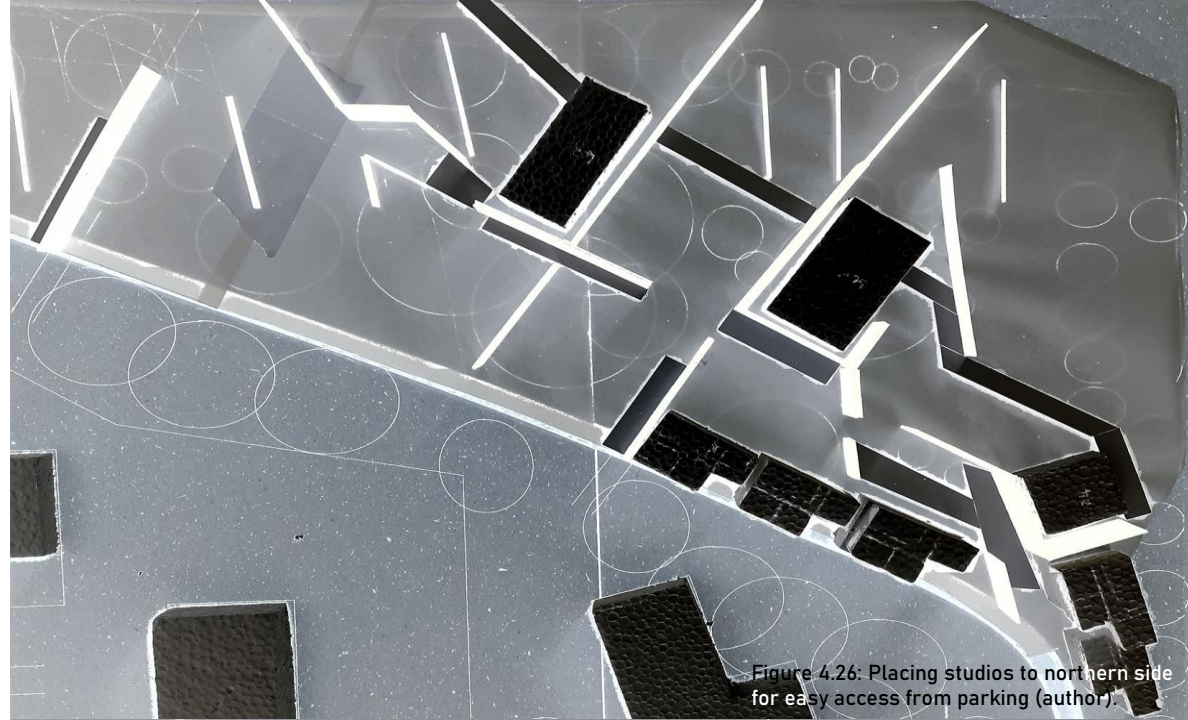


Figure 4.26: Placing studios to northern side for easy access from parking (author).

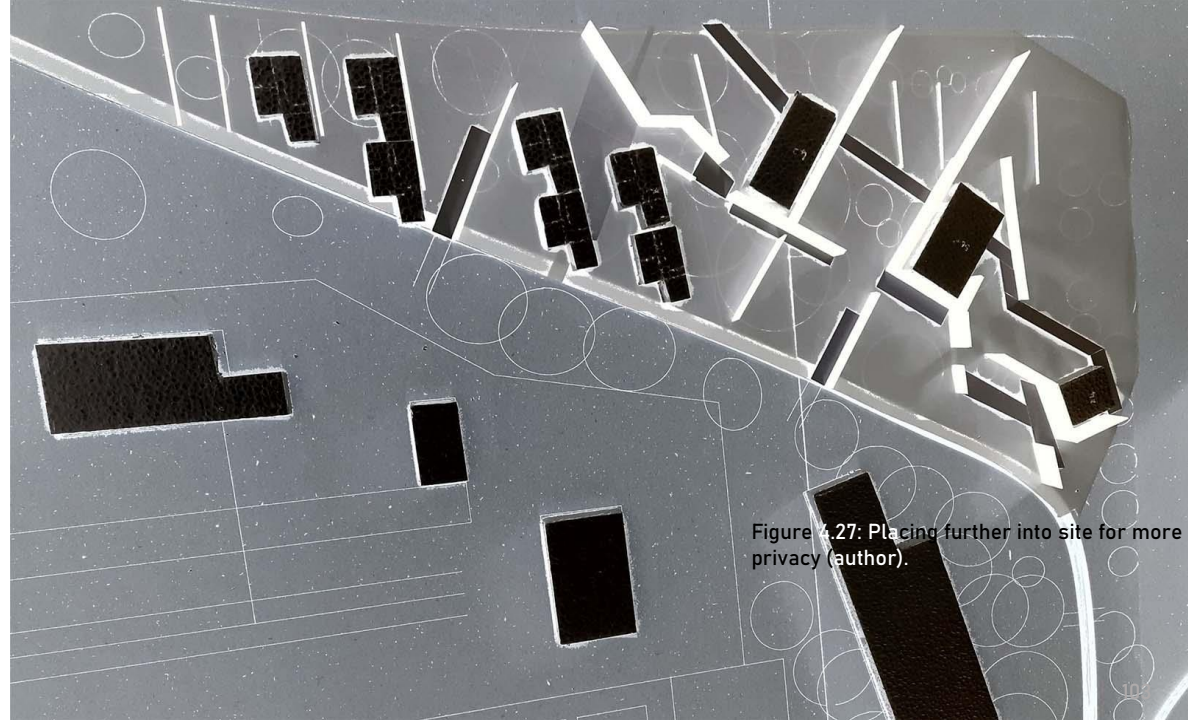


Figure 4.27: Placing further into site for more privacy (author).

#### 4.10.4 Placement analysis

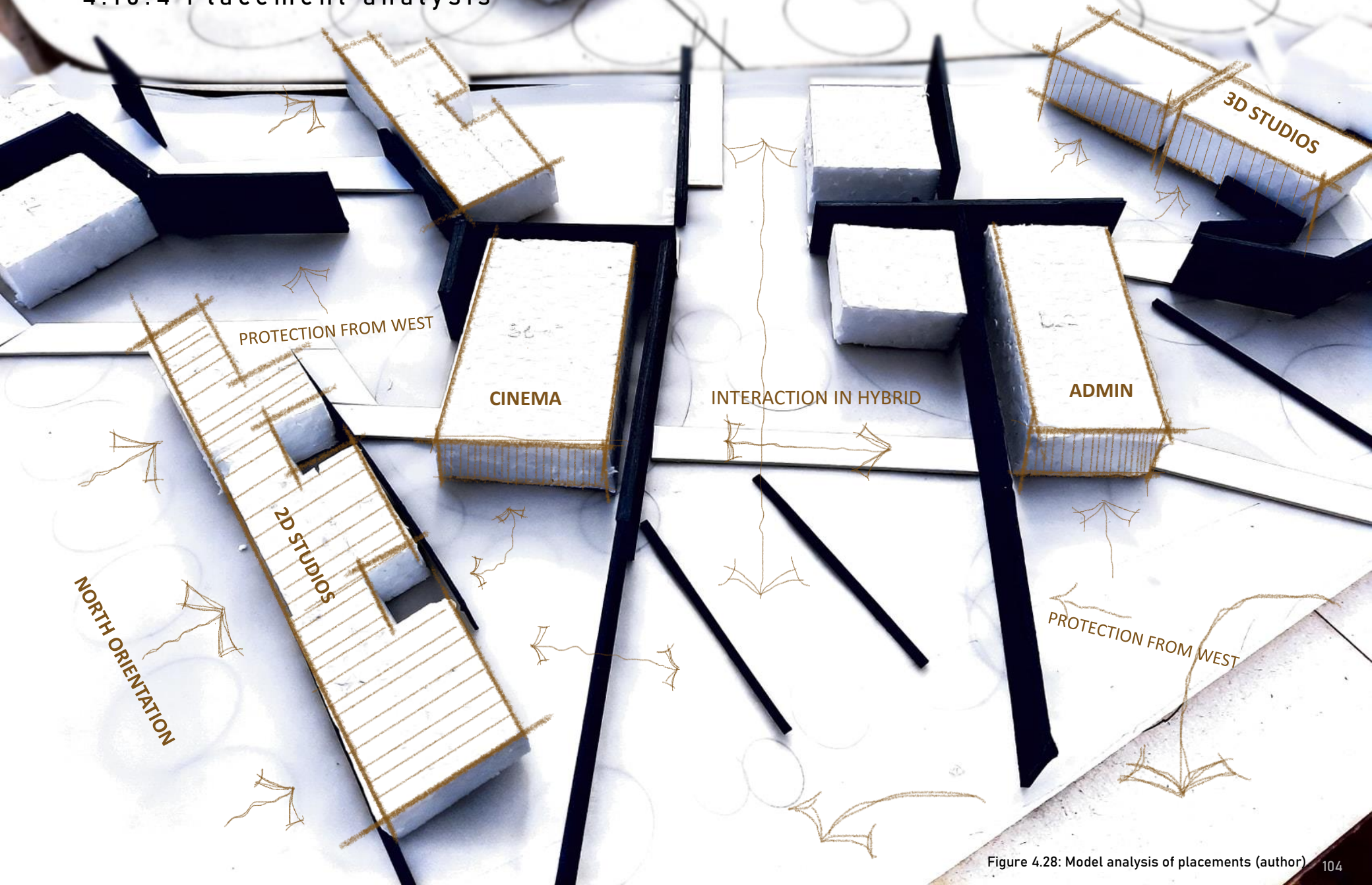


Figure 4.28: Model analysis of placements (author) 104

Restriction occurred within the lines of 3D, 2D and the hybrid allocated areas, some further explorations evolved from the previous illustrations. The physical models in the indicated figures explored the site in more detail by taking into account the materiality and longitude lines connecting the body of water and the street for public interaction.



Figure 4.29: Physical model further explorations (author).

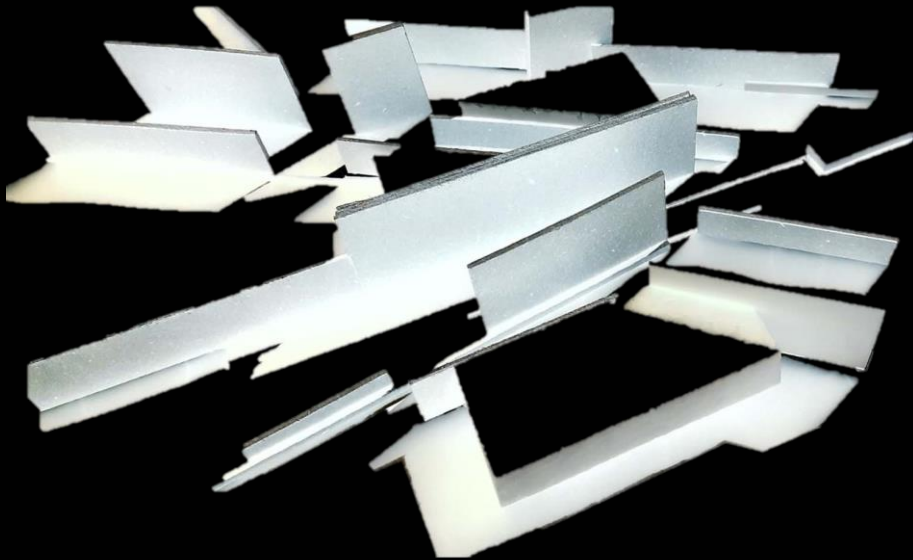


Figure 4.30: Physical model further explorations (author).

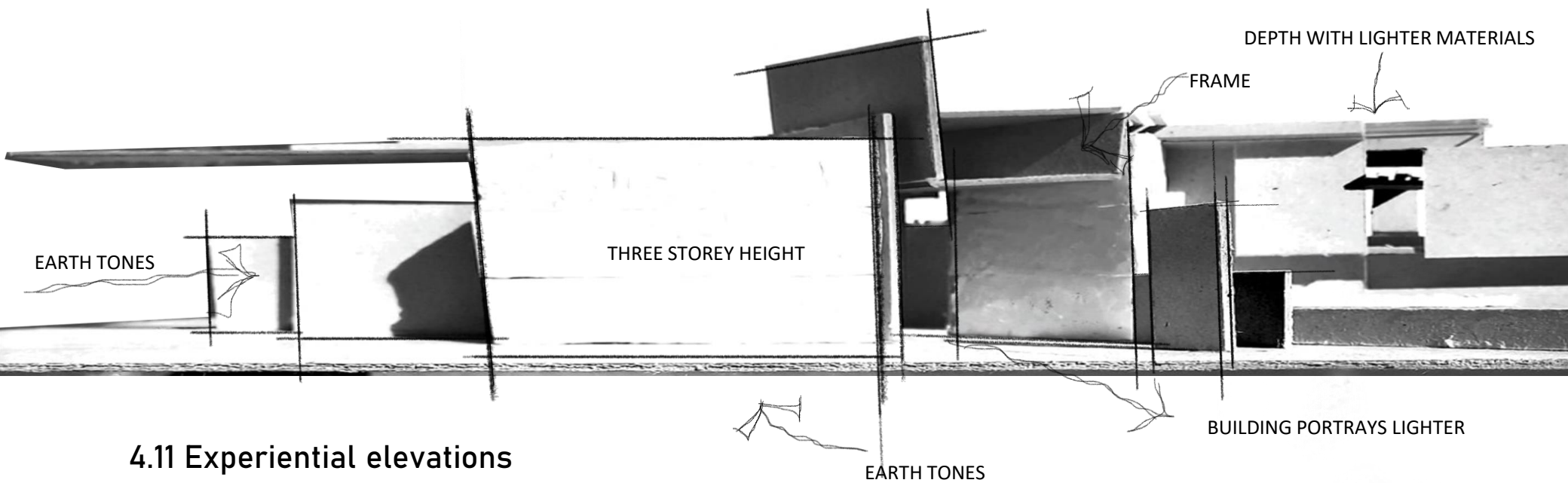
#### 4.10.5 Materiality and shape explorations

It is important to incorporate frames to appropriate the site and to start incorporating scale with regards to the canal which sits in the ground and the trees reaching into the skyline.





Figure 4.31: Physical model touching the canal (author).



## 4.11 Experiential elevations

The canal is a natural force which was used to influence the materiality, it changes from earthy tones and densities to more industrial – as can be seen through using steel and concrete materiality as the building moves away from the canal.

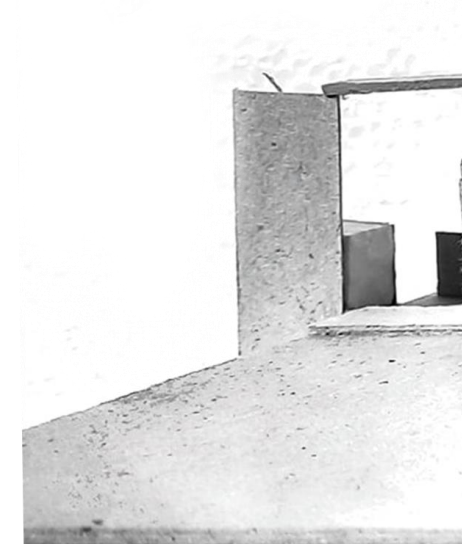
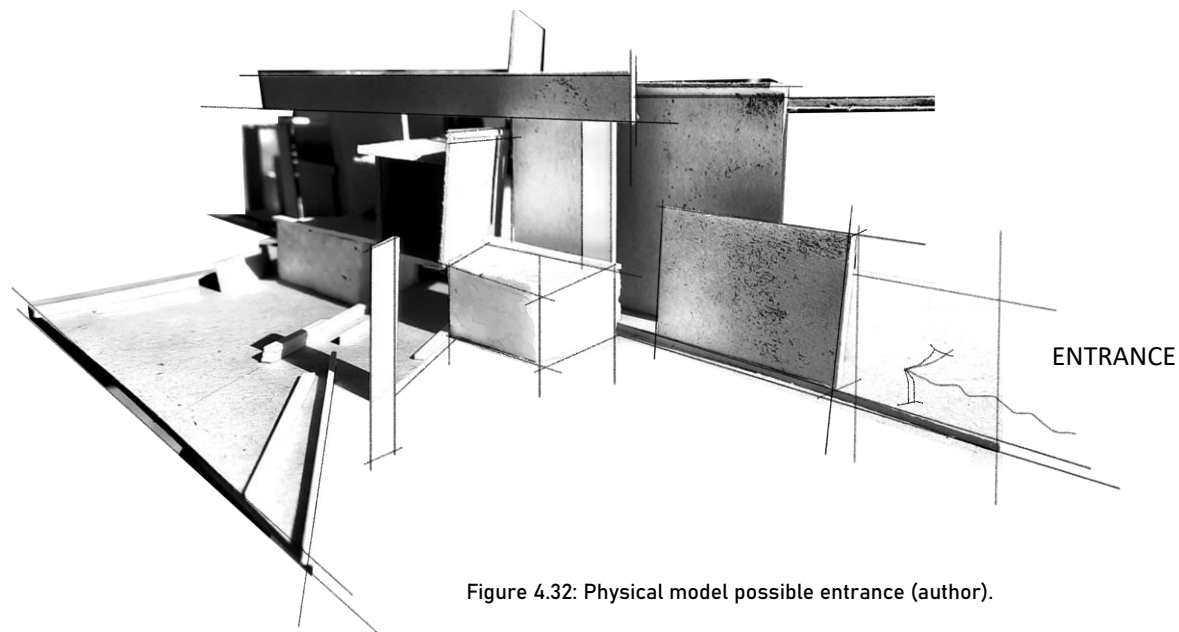
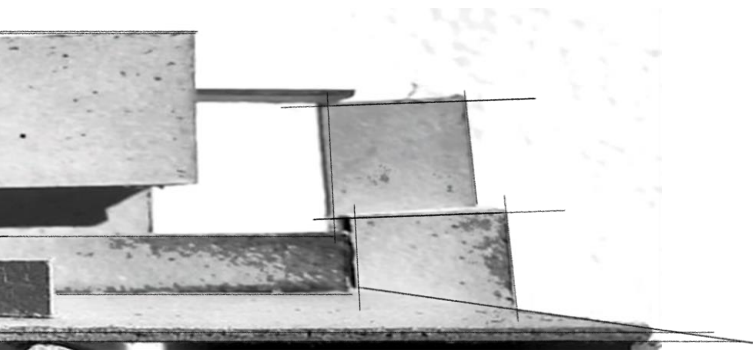


Figure 4.32: Physical model possible entrance (author).



The concept is to respect natural materials and to celebrate them by placing appropriate structures on site.

Figure 4.33: Physical model long elevation view (author).

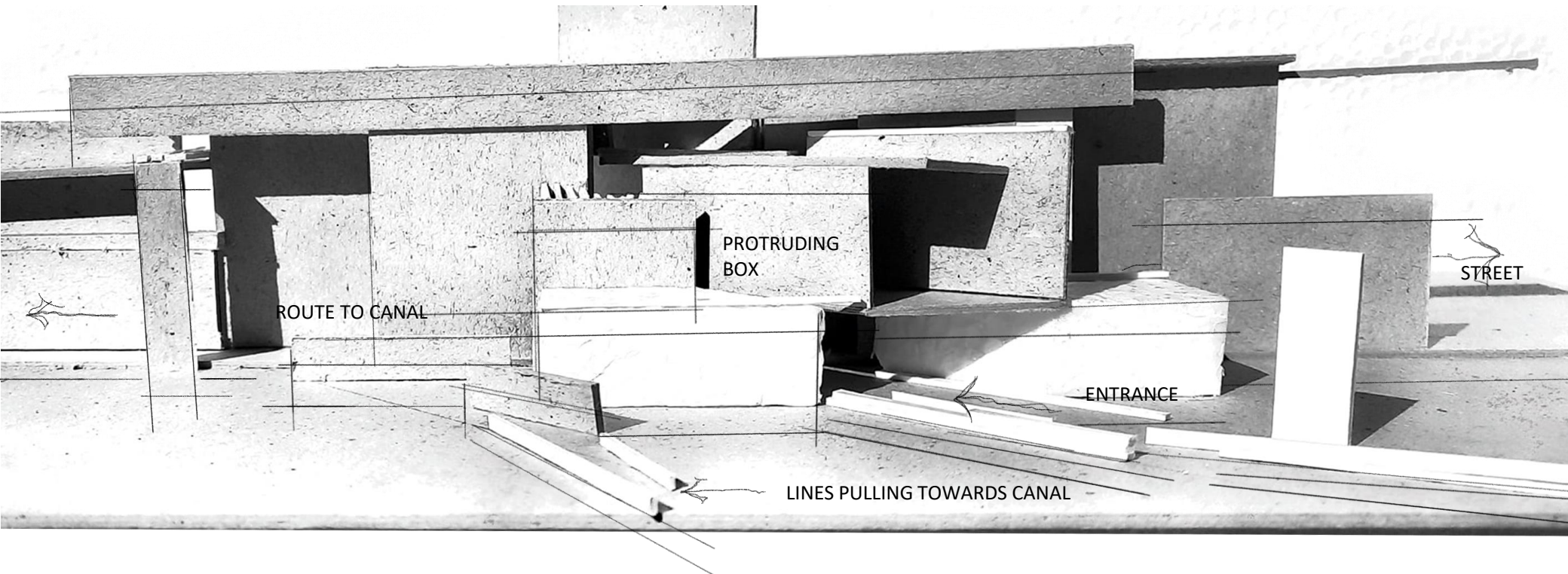
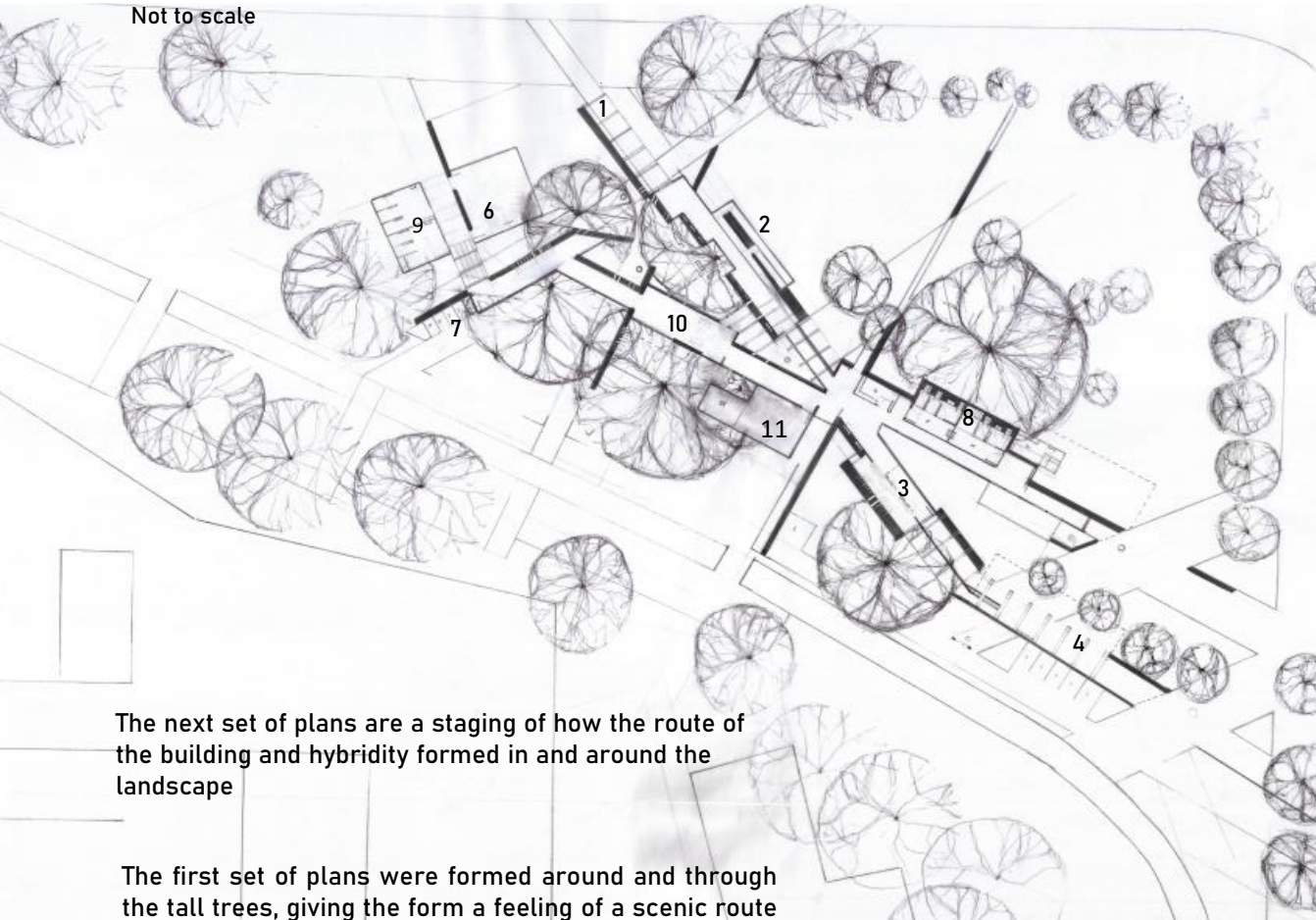


Figure 4.34: Physical model elevation view (author). 109

## 4.12 Plan development

### Plan development: Set A

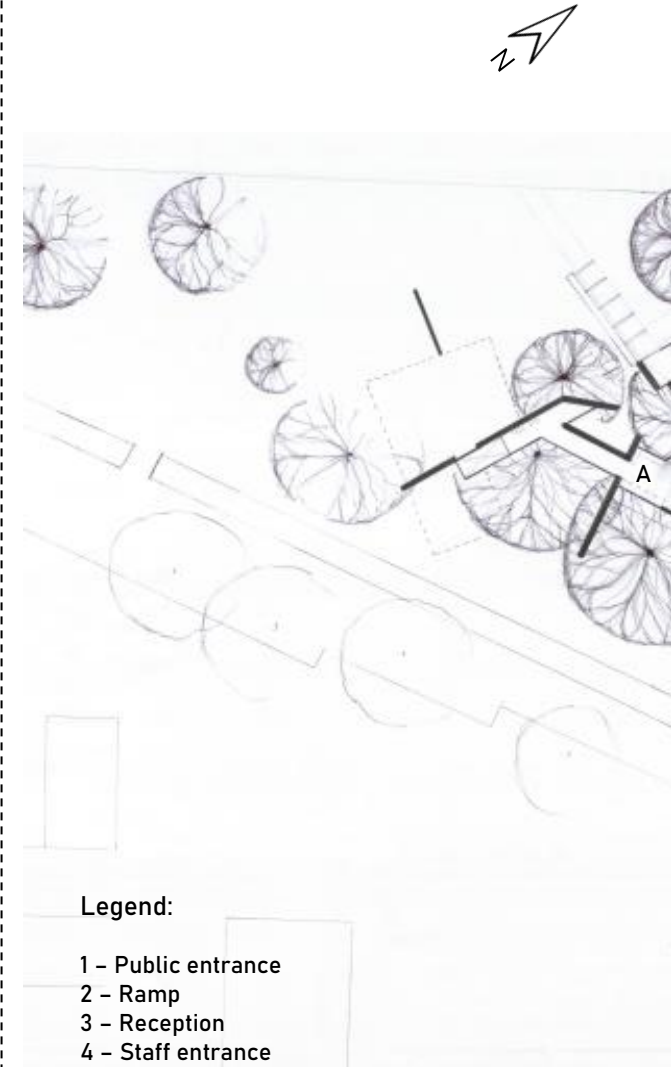
Not to scale



The next set of plans are a staging of how the route of the building and hybridity formed in and around the landscape

The first set of plans were formed around and through the tall trees, giving the form a feeling of a scenic route experience instead of an indicative urban building. Due to the site's elements and natural green pocket, it creates an opportunity for open facades, curtain walls and for most of the design to be placed on the ground floor.

Figure 4.35: Set A GF (author)



#### Legend:

- 1 - Public entrance
- 2 - Ramp
- 3 - Reception
- 4 - Staff entrance
- 5 - Coffee station
- 6 - Classroom
- 7 - Parking
- 8 - Ablutions
- 9 - Ablutions
- 10 - Coffee station
- 11 - Kitchen

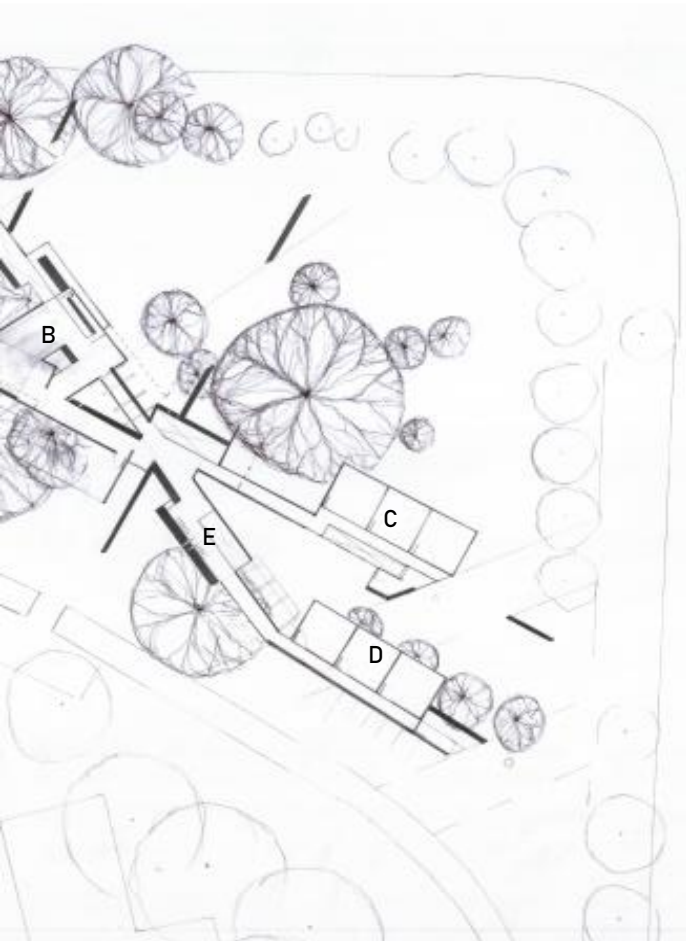
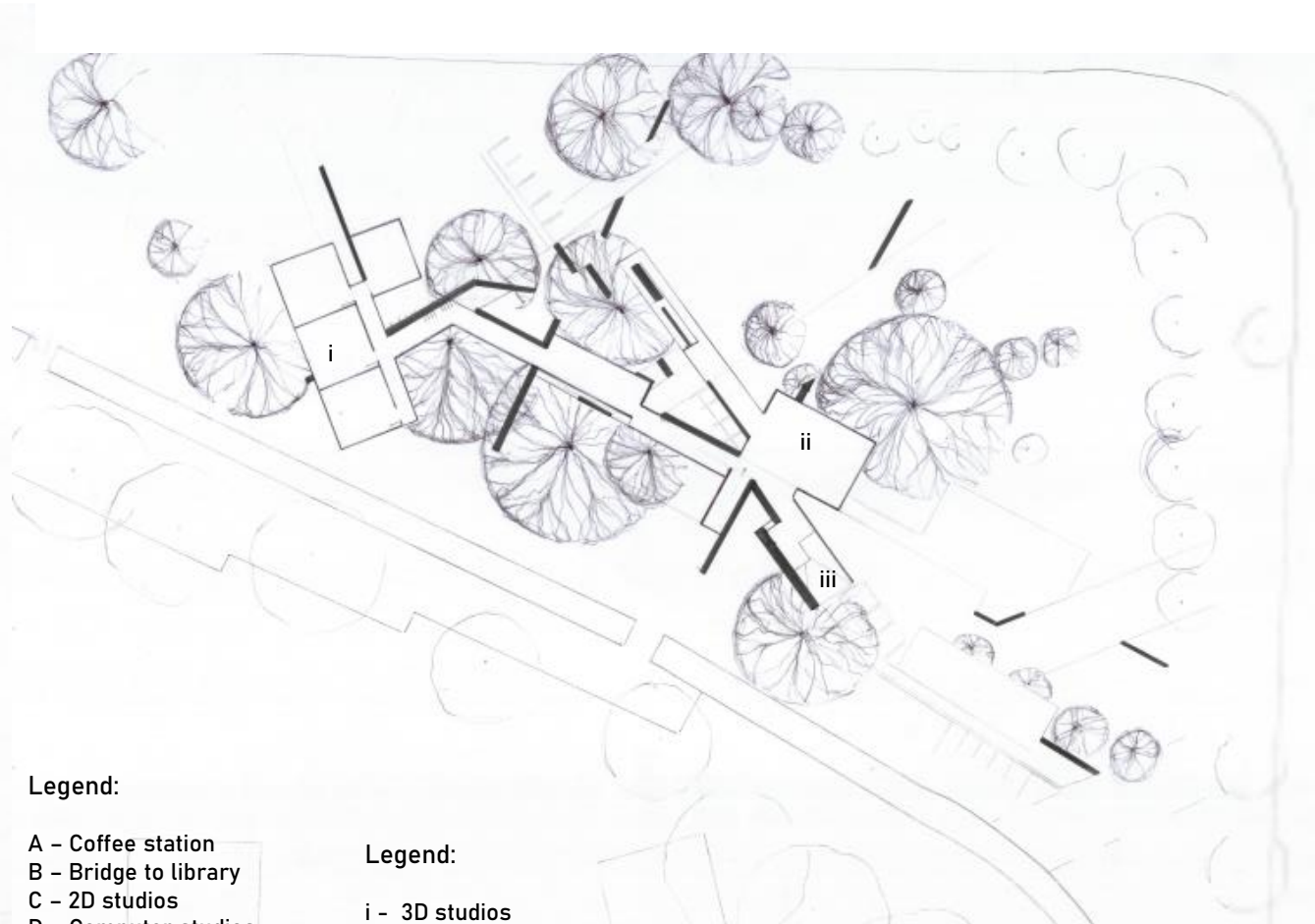


Figure 4.36: Set A 1<sup>st</sup> Floor (author).



Legend:

- A - Coffee station
- B - Bridge to library
- C - 2D studios
- D - Computer studios
- E - Coffee station

Legend:

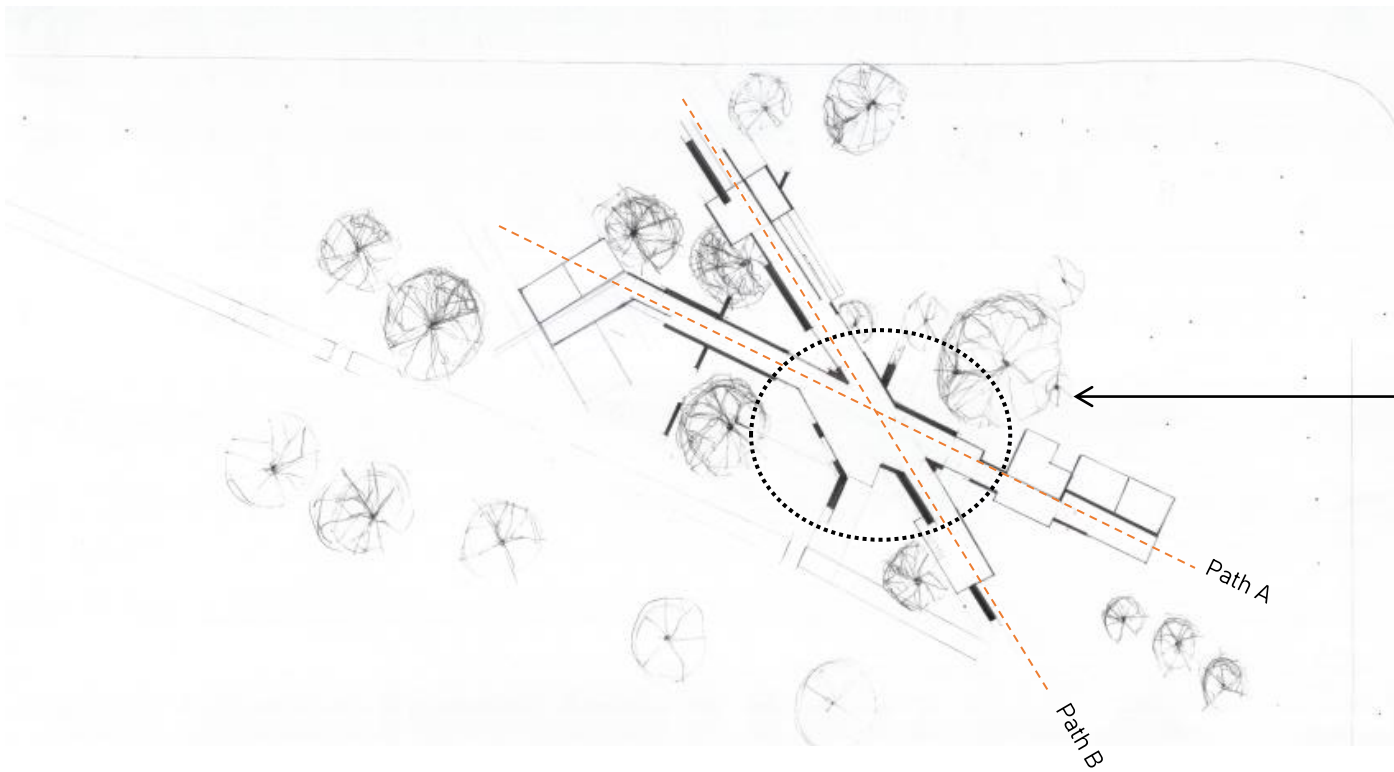
- i - 3D studios
- ii - Board room
- iii - Director studio

Figure 4.37: Set A 2<sup>nd</sup> Floor (author).



# Plan development: Set B

Not to scale

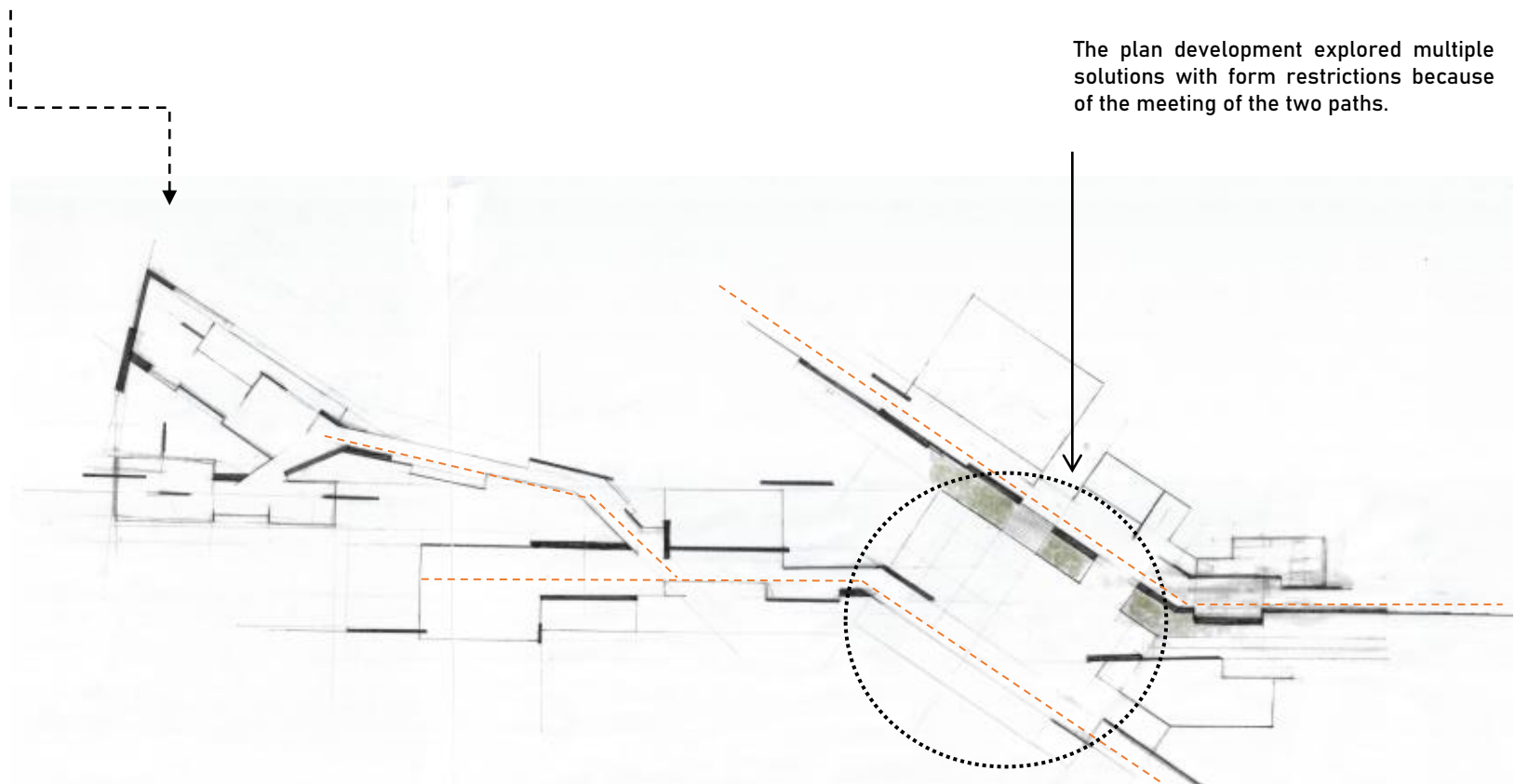


Exploration on gathering space and how the two routes connect into each other, The process and development of plans evolved mainly around the trees on site and how the two paths meet each other. These shapes of the two paths gave unworkable forms.

Figure 4.38: Set B GF (author).

# Plan development: Set C

Not to scale



The plan development explored multiple solutions with form restrictions because of the meeting of the two paths.

Figure 4.39: Set C GF (author).

#### 4.12.1 Set B Physical model

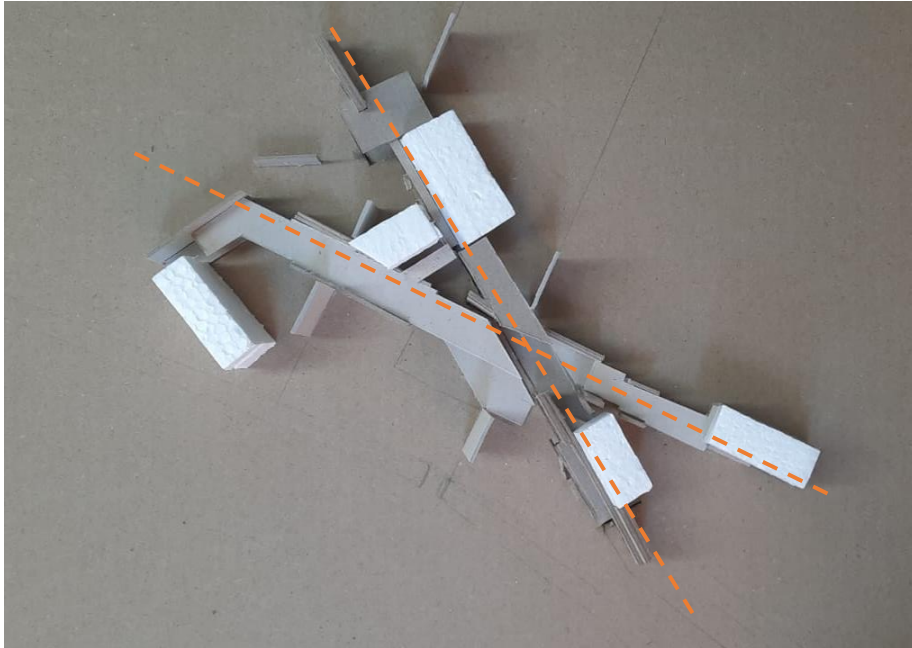


Figure 4.40: Set B physical model exploring crossing of two paths (author).

#### 4.12.2 Set C Physical model

These routes indicated in the figures 4.40 and 4.41 display how they started to move further away from each other, and not crossing anymore. These routes are now being connected with two bridges and these bridges fold into the theory of mimicry. Crossing these two routes did not allow at the time for a spacious hybrid area but created ignorant and atypical angles and overall complications with regards to free movement and spacious areas.

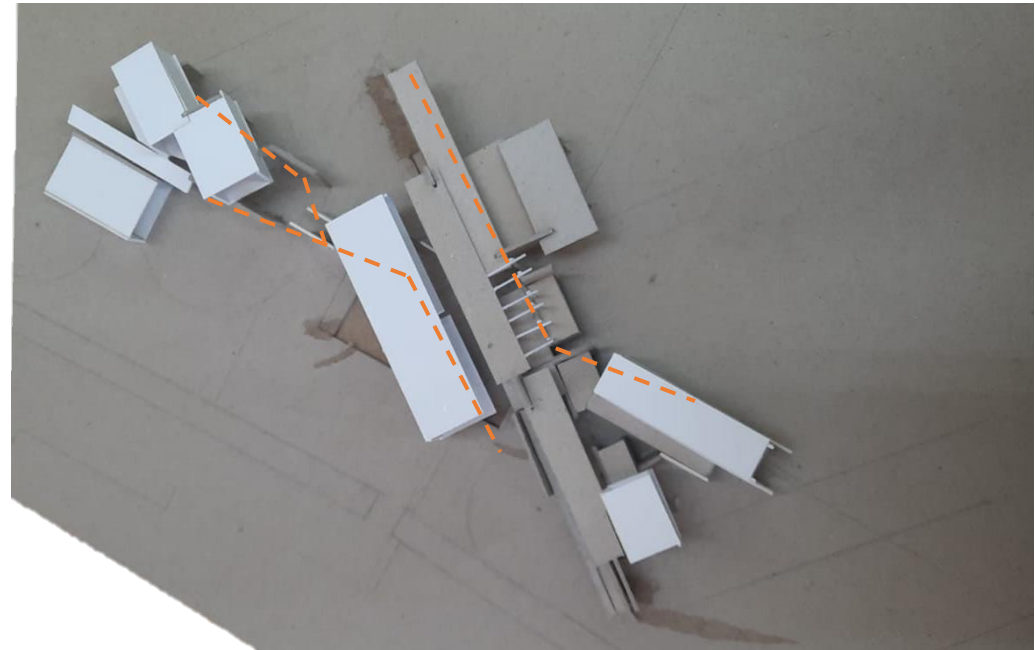


Figure 4.41: Set C physical model questioning crossing of two paths (author).

### 4.12.3 Further explorations: physical models

Further models were investigated in means of how a bridge can cross onto and through an area and subsequently then into and onto another area. Creating bridges to unfold thresholds from one space to another became important for the hybrid area.

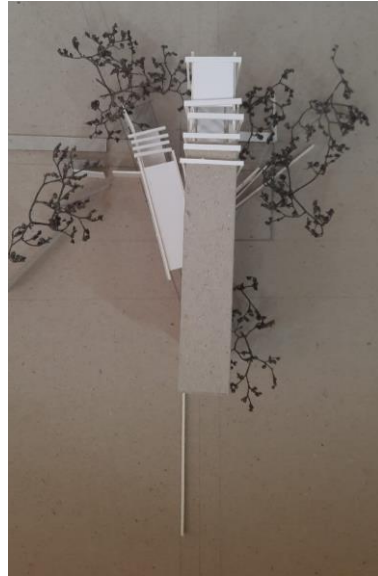


Figure 4.42: expanding out of an area (author).



Figure 4.43: piercing through an area (author).

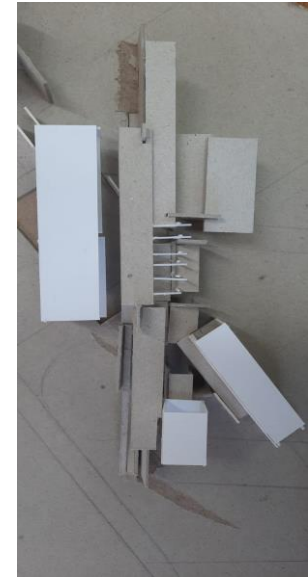


Figure 4.44: expanding under an area (author).



### Plan development: Set D

Not to scale

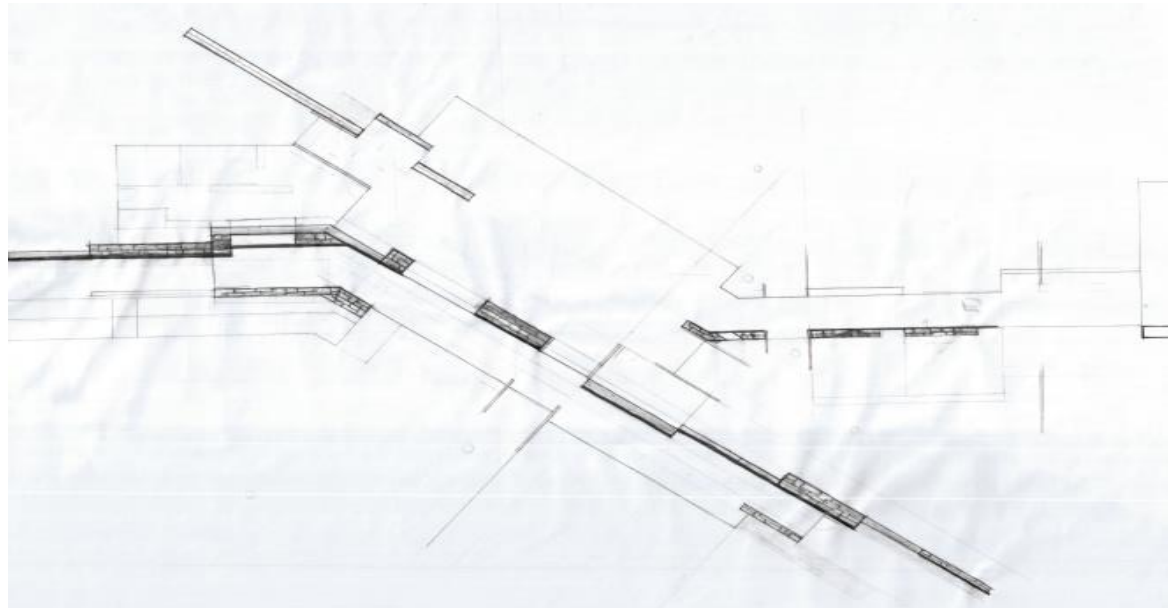


Figure 4.45: Set D GF (author).



Figure 4.46: Set E GF (author).

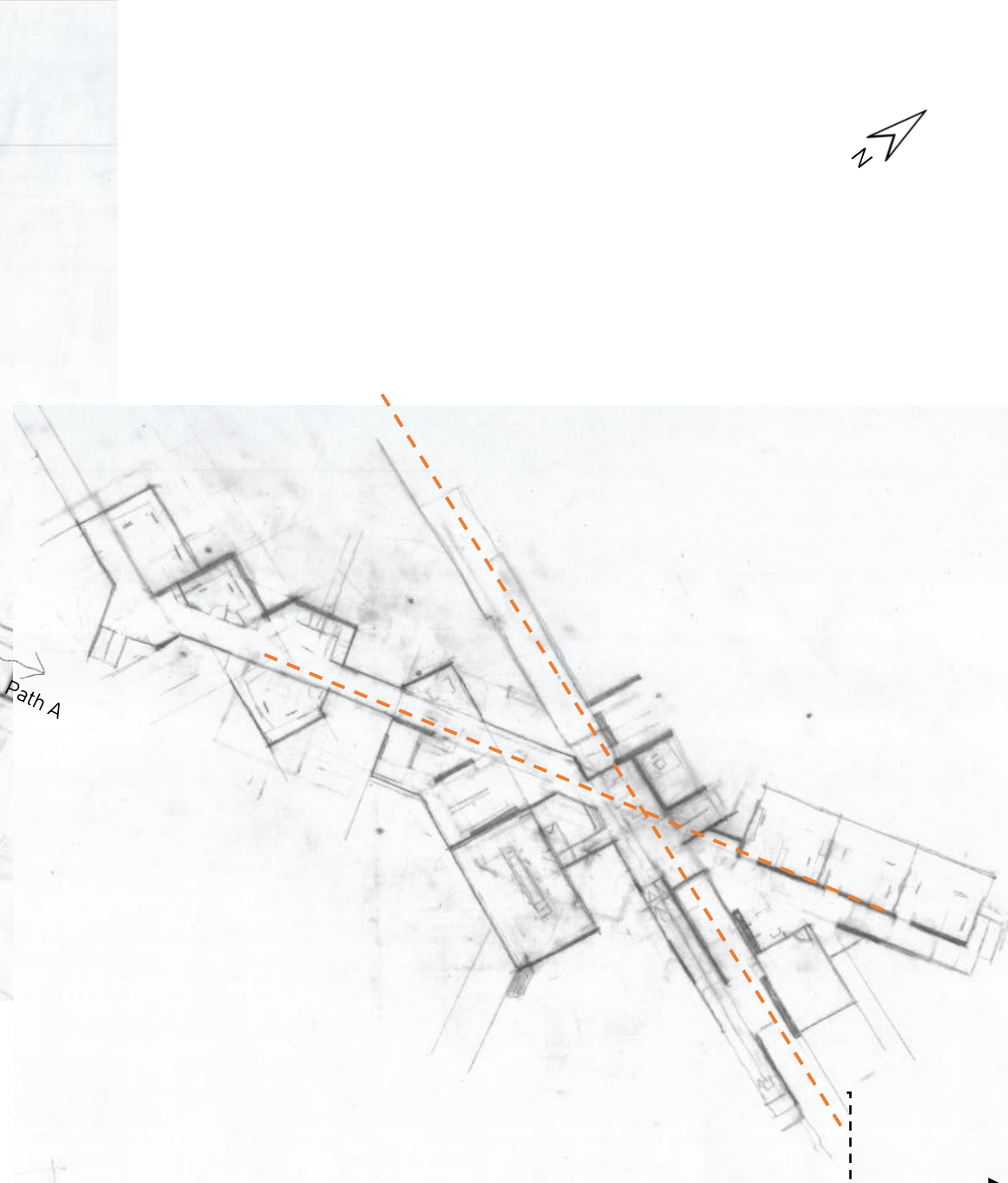


Figure 4.47: Set E 1<sup>st</sup> Floor (author).

Plan development: Set F

23 June

Not to scale

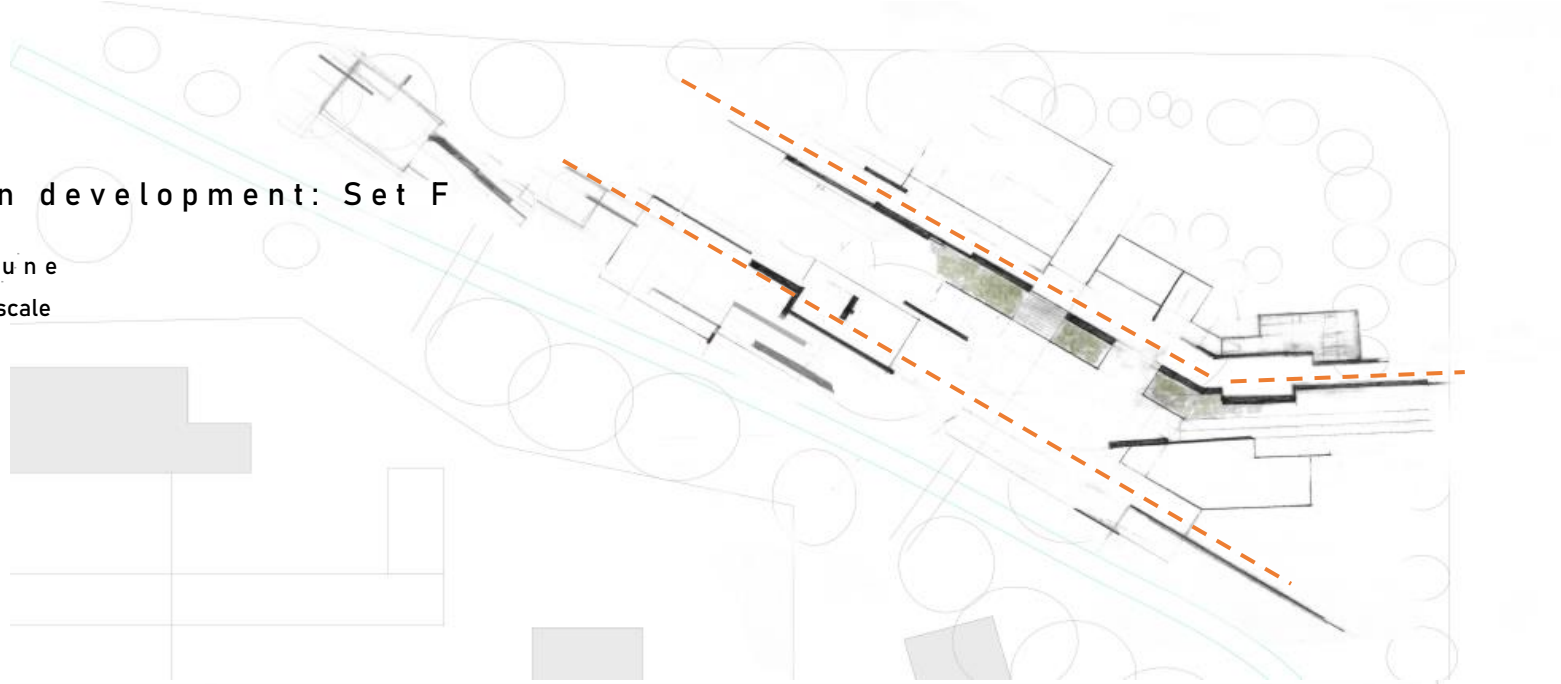


Figure 4.48: Set F GF (author).

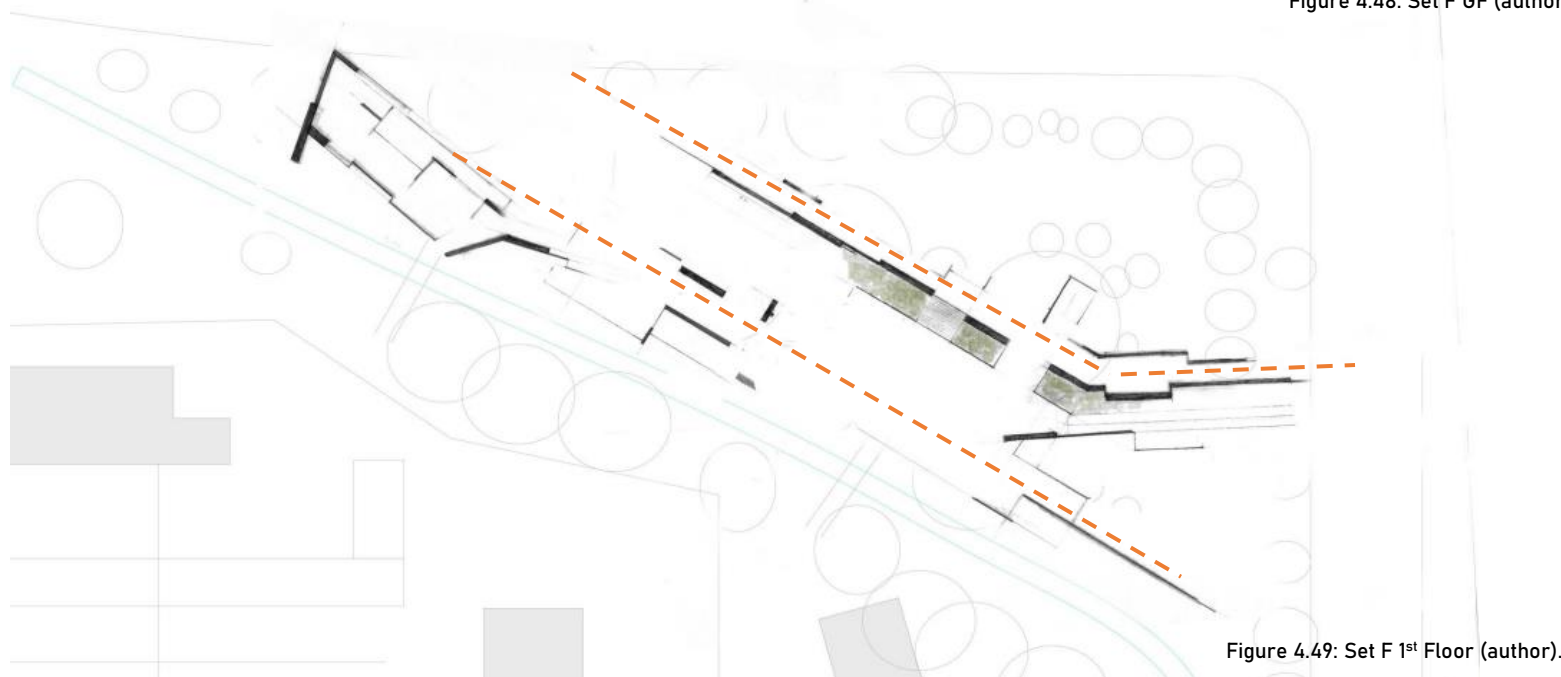


Figure 4.49: Set F 1<sup>st</sup> Floor (author).

#### 4.12.4 Set F physical model



Figure 4.50: West entrance view (author).



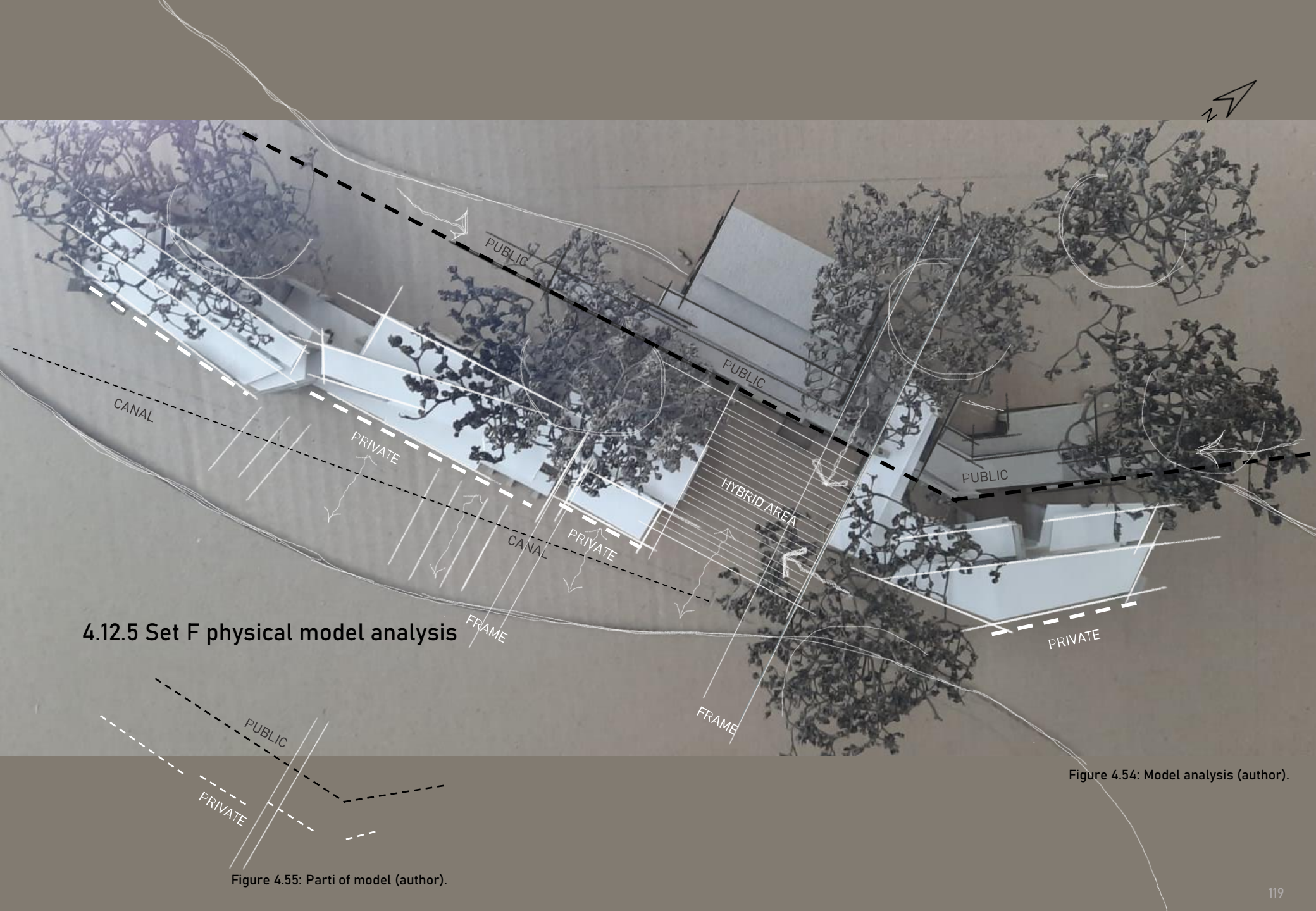
Figure 4.51: North west view (author).



Figure 4.52: North entrance (author).



Figure 4.53: Southern view (author).



#### 4.12.5 Set F physical model analysis

Figure 4.54: Model analysis (author).

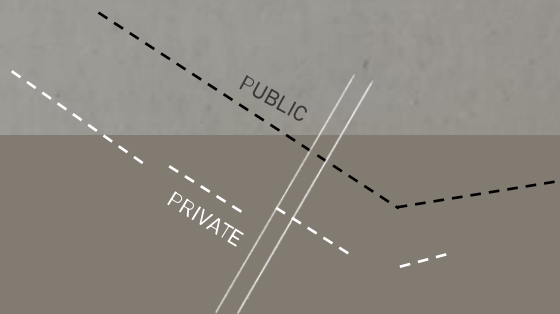
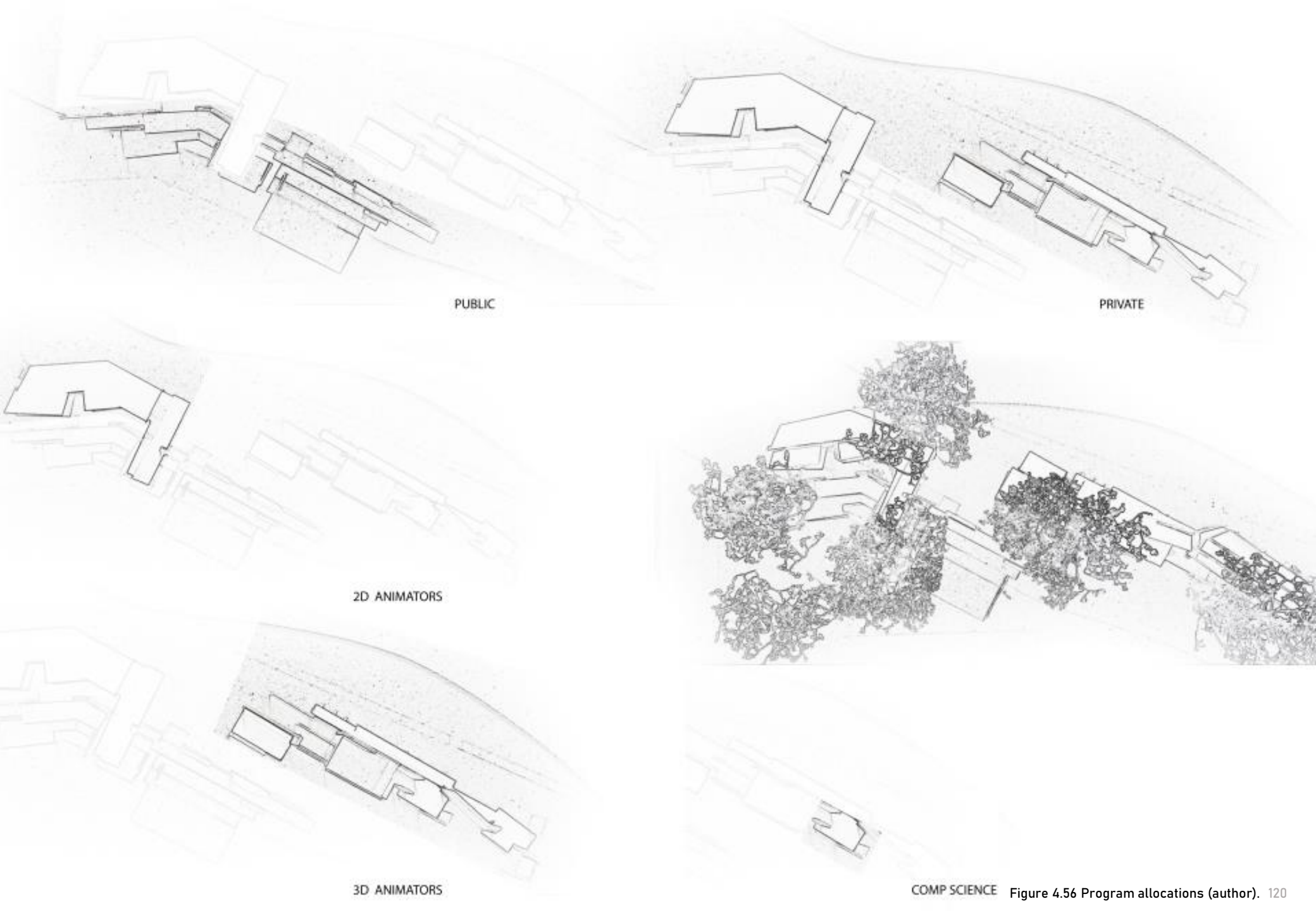


Figure 4.55: Part of model (author).



PUBLIC

PRIVATE

2D ANIMATORS

3D ANIMATORS



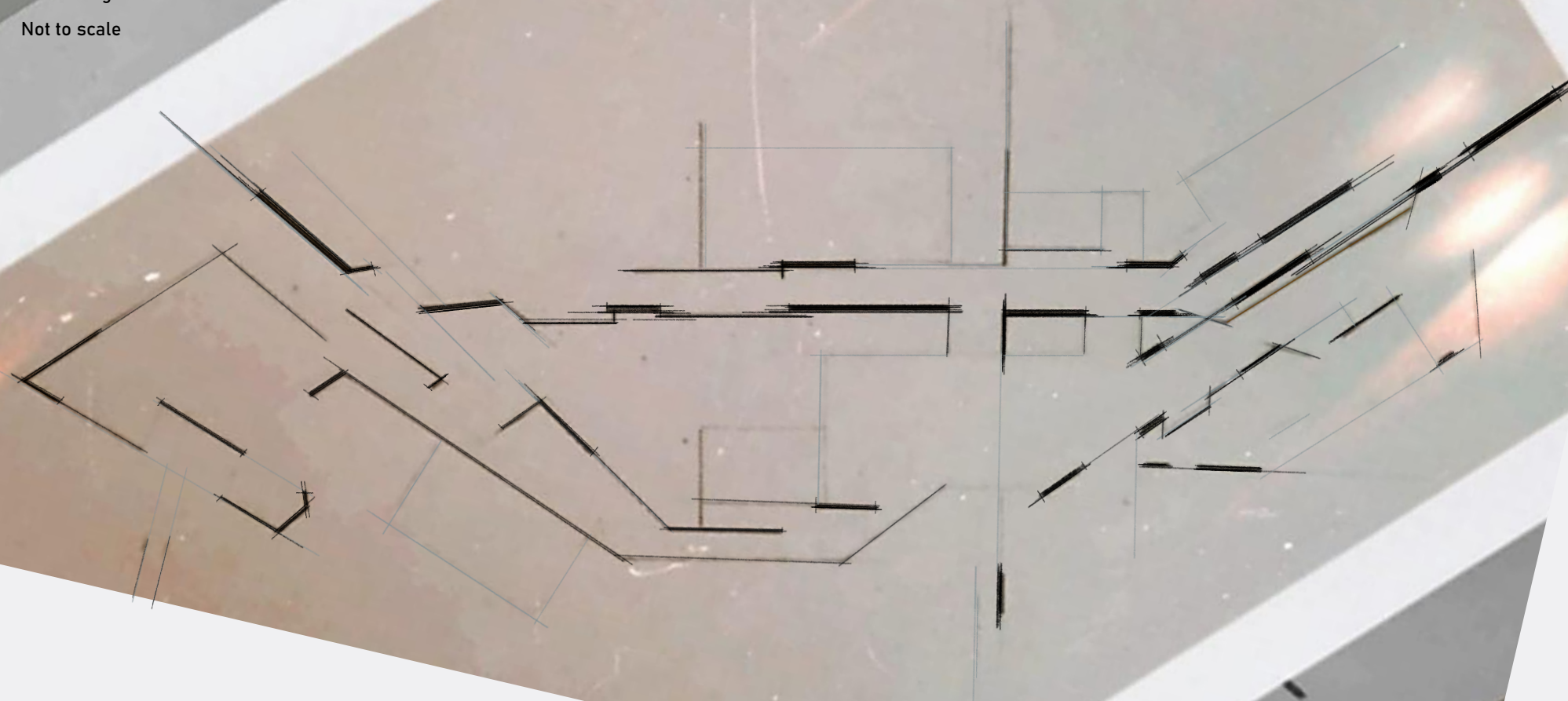
Figure 4.57: Preliminary elevations (author). 121

## 4.13 Final plan development

# 4.13.1 Parti

22 August

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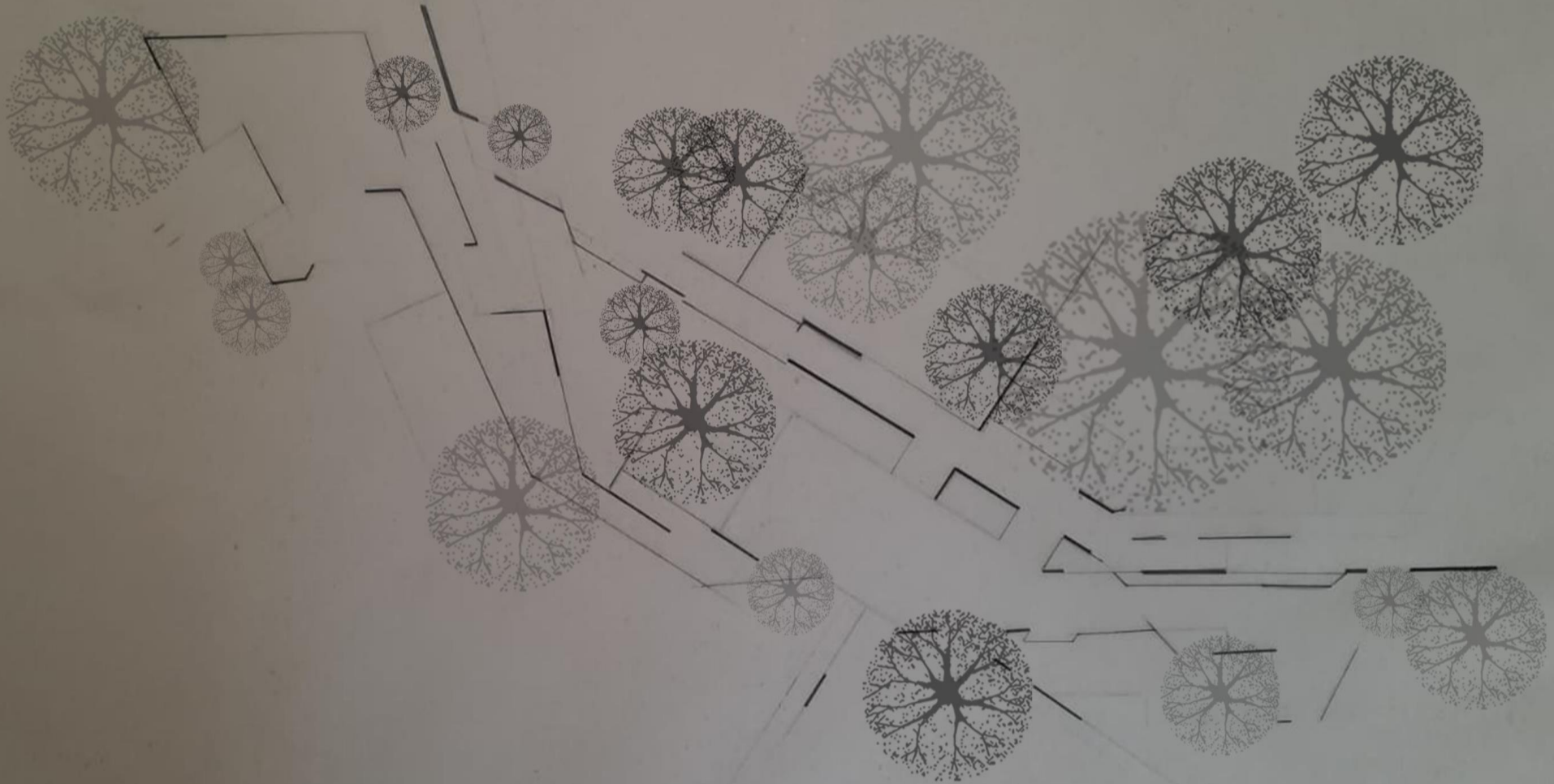




## 4.13.2 Unveiling into the landscape

Indicative formation of the plan.

Not to scale



### 4.13.3 Within the landscape

The plan unveils its roots, and the scenic route of the landscape. It divulges the user's journey through the elements and architecture. Within 3D models more can be seen and understood therefore more preferable outcomes can be made and altered into the current.

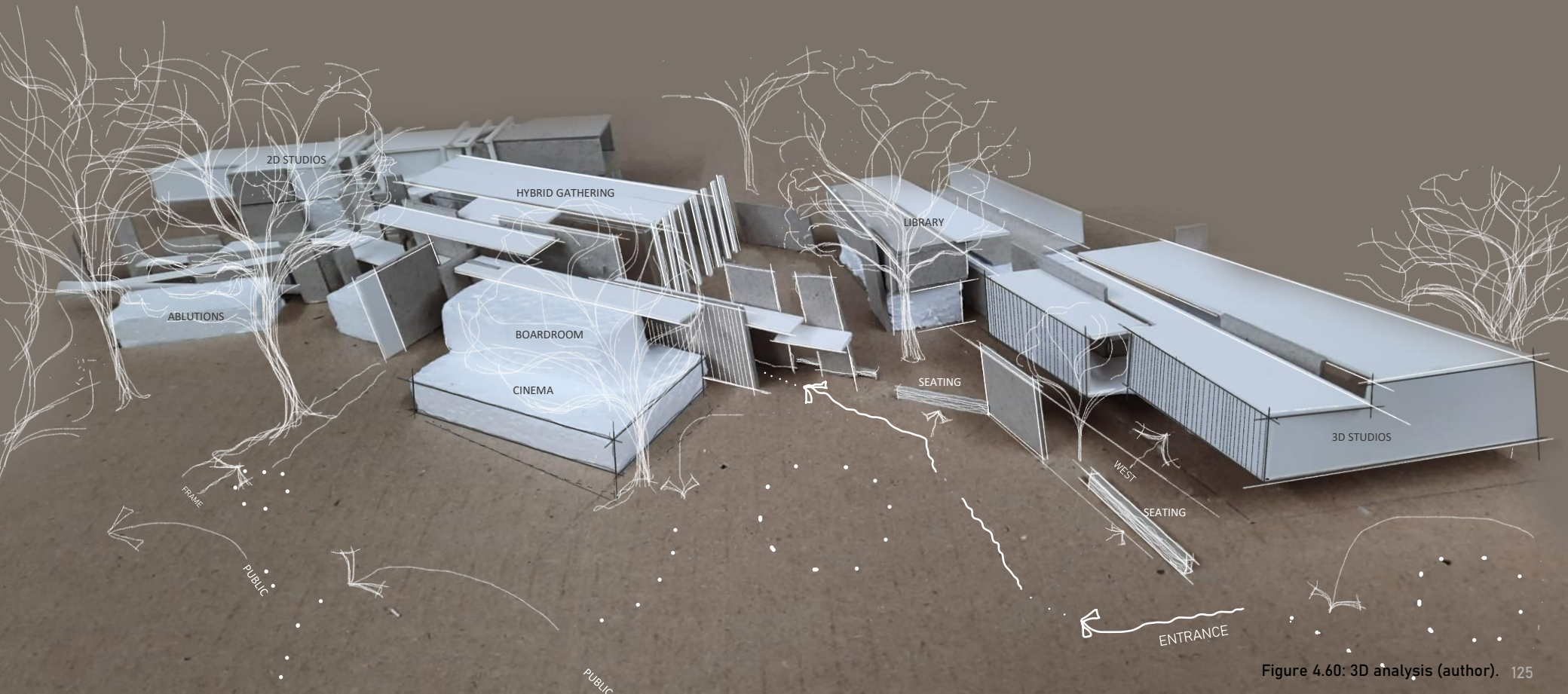
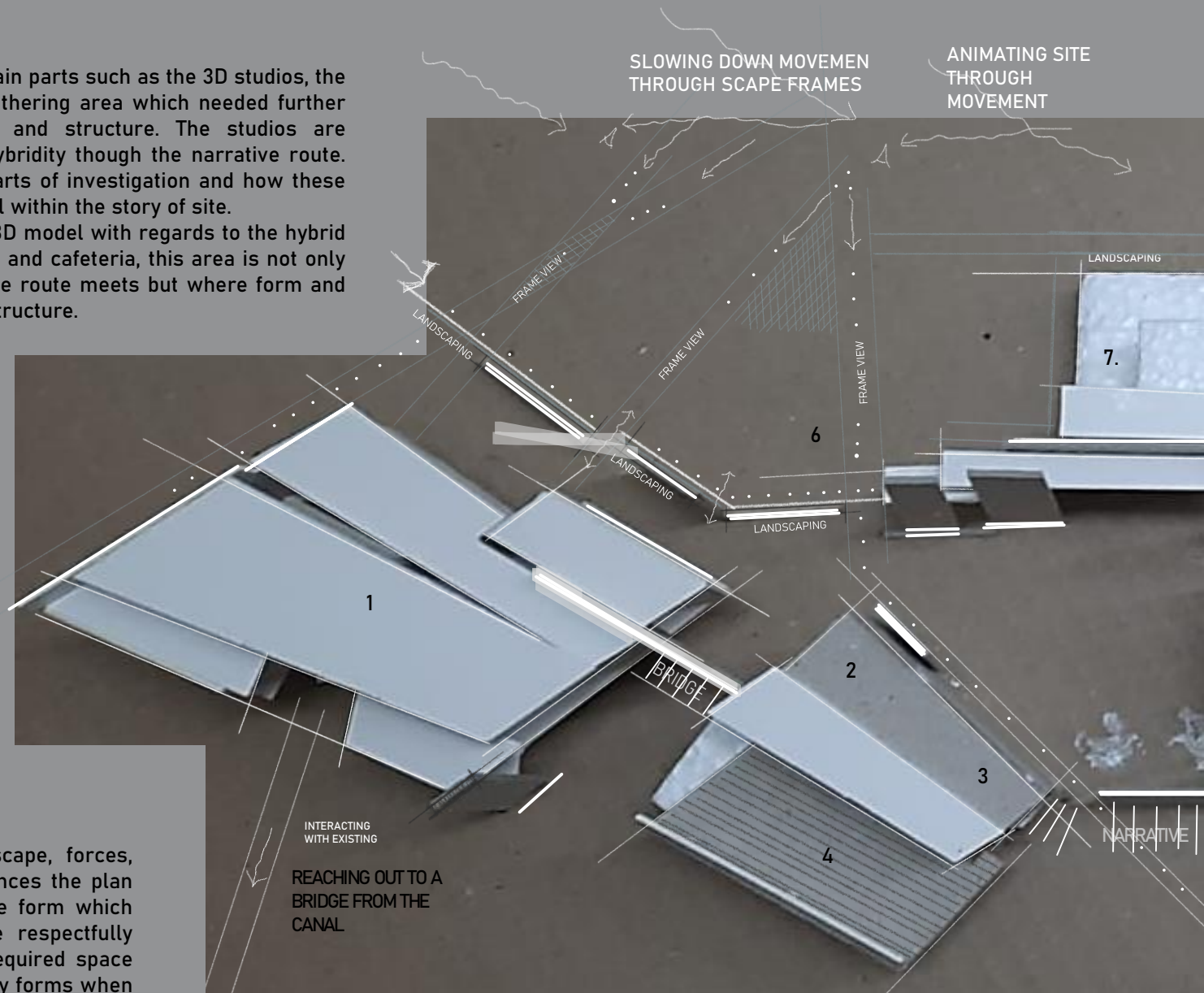


Figure 4.60: 3D analysis (author). 125

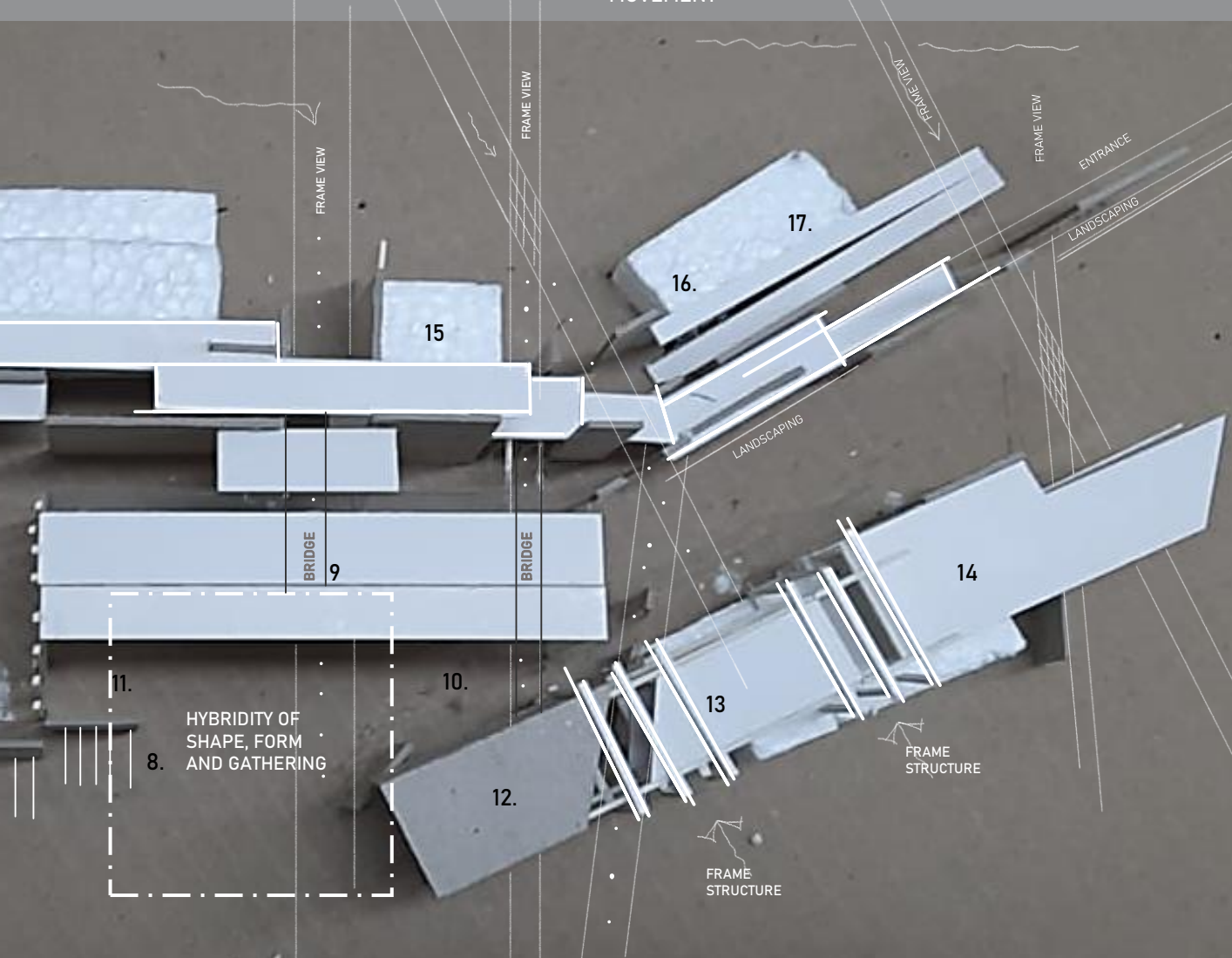
Figures 4.55 and 4.56 display certain parts such as the 3D studios, the narrative route and the hybrid gathering area which needed further investigation in terms of form and structure. The studios are connected through the area of hybridity through the narrative route. Figure 4.56 indicates the three parts of investigation and how these parts start to form the user's ritual within the story of site. Development occurred after this 3D model with regards to the hybrid area which houses the staff room and cafeteria, this area is not only where the public route and private route meets but where form and function creates hybridity within structure.



#### 4.14 Conclusion

After influences from the landscape, forces, surroundings and theoretical stances the plan was modeled into an appropriate form which houses the centre's programme respectfully and sensitively along with the required space for rituals and creativity. Hybridity forms when two domains meet and unfold mindful interruptions with unintended interactions.

ANIMATING SITE  
THROUGH  
MOVEMENT



Legend

- 1. 3D animators' studios
- 2. Library
- 3. Lounge
- 4. Classroom
- 6. Entrance
- 7. Cinema
- 8. Narrative route
- 9. Hybrid area
- 10. Caffeteria
- 11. Staff meeting room
- 12. Computer scientist
- 13. Lounge
- 14. 2D studios
- 15. Reception
- 16. Storage
- 17. Locker rooms

Figure 4.61: 3D analysis, top view (author).

# Chapter FIVE – Design synthesis

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# Chapter 5

# Design

# synthesis

## 5.1 Introduction

This chapter introduces the final design after careful placements and arranging of places on the chosen site. The chapter unfolds the plan, elevations and design sections of the project for better visual communication and understanding. Up until the previous physical model it held ideas and concepts which formed the parti and thereafter the plan.

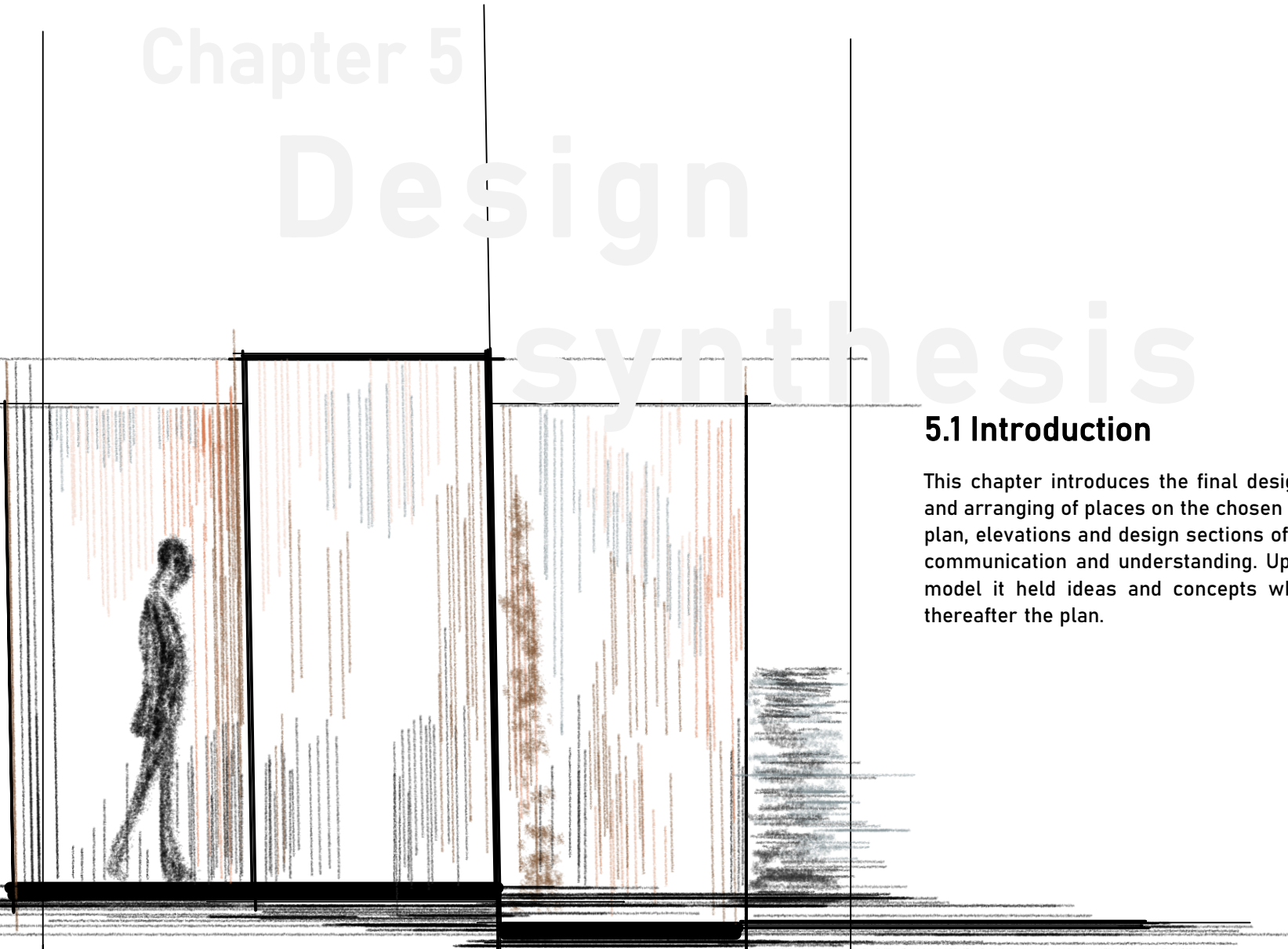
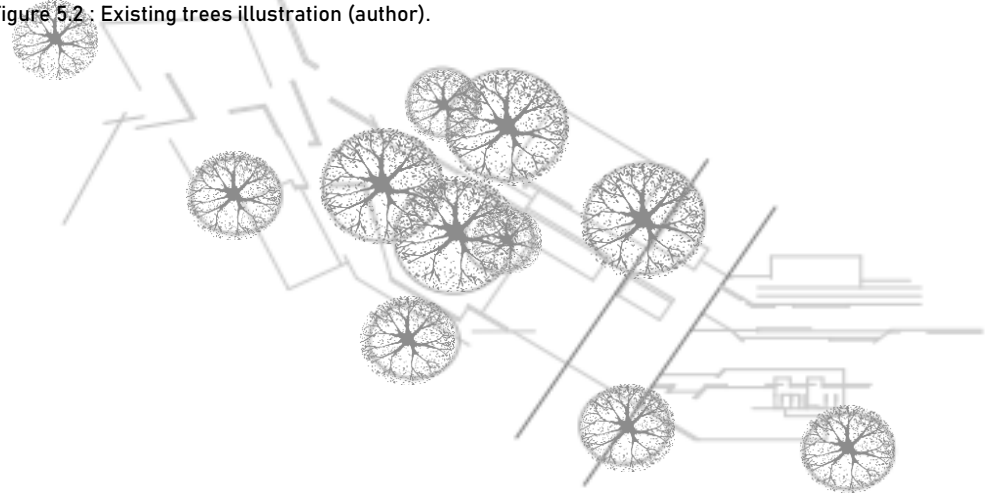


Figure 5.1 : Corten steel frames, framing views and movement (author).

## 5.2.1 Historical trees

Floor plan illustration not to scale

Figure 5.2 : Existing trees illustration (author).



## 5.2 Influences

Since the very start, not only did the trees influence my choice of site but also shaped the plan considerably.

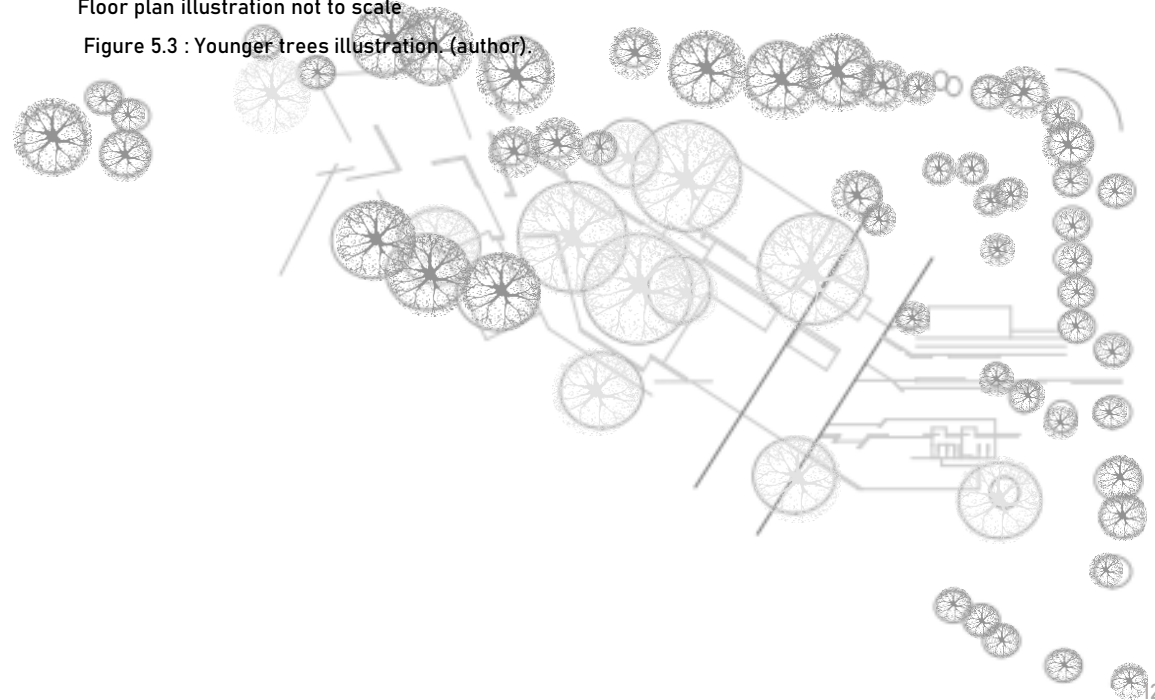
The trees were divided into two groups such as older trees with substantial historic essence to it and then trees which are newly planted and can be replanted if had to, this however is to the minimum or relocating trees.

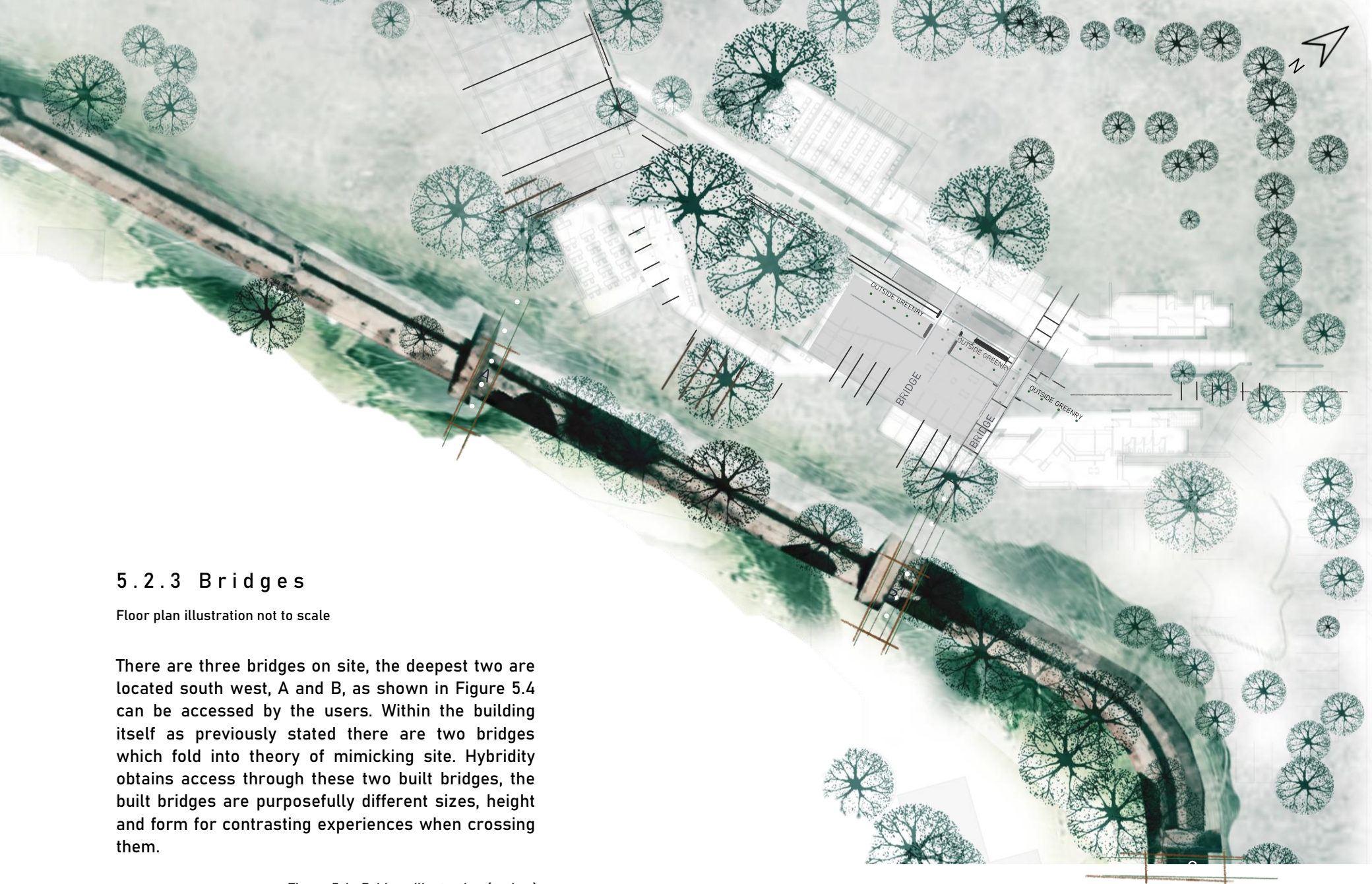
The thesis respects the growth and networking of the existing on site and the project is a mere extension and elevation of it in an architectural appearance.

## 5.2.2 Younger trees

Floor plan illustration not to scale

Figure 5.3 : Younger trees illustration. (author).



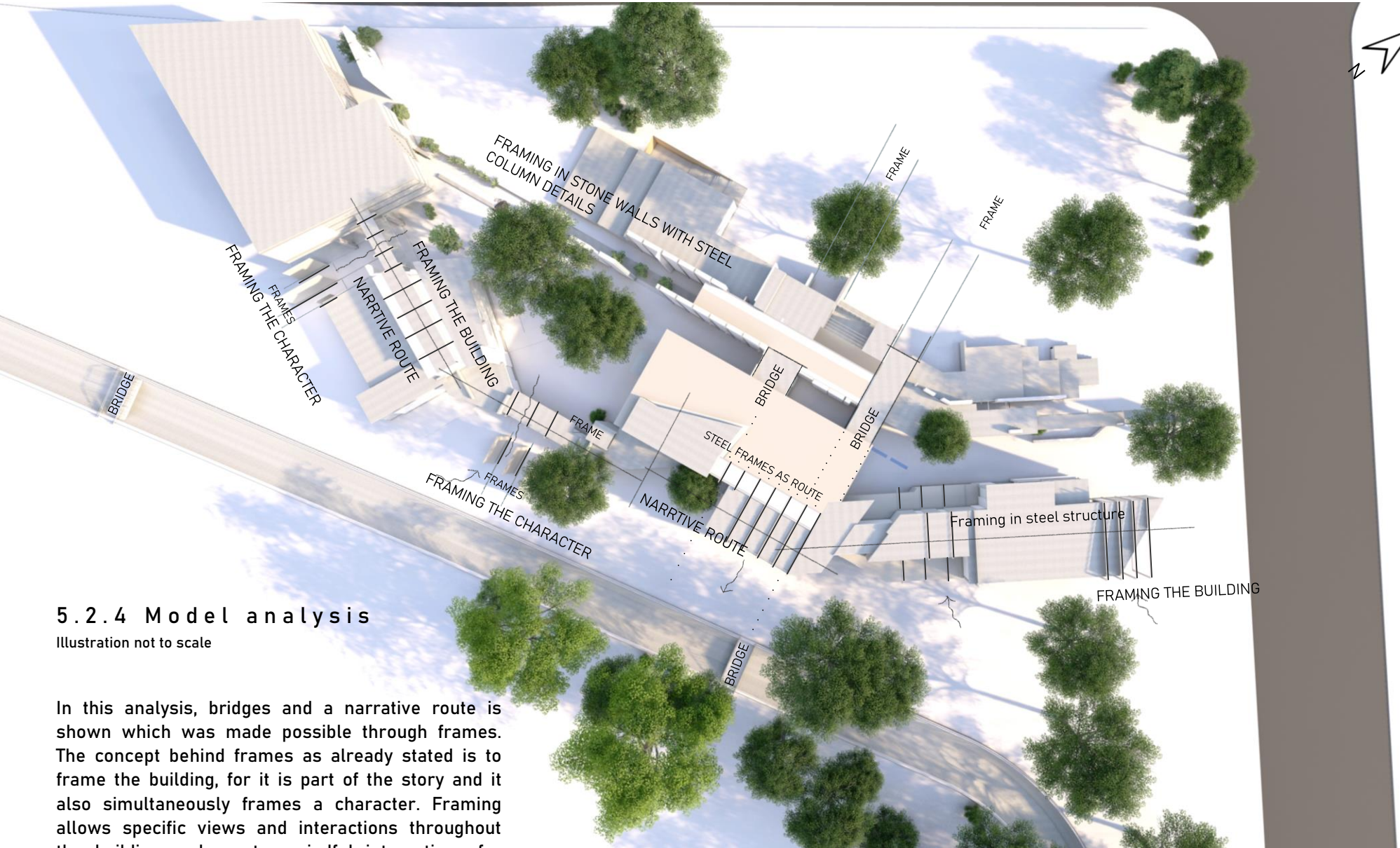


### 5.2.3 Bridges

Floor plan illustration not to scale

There are three bridges on site, the deepest two are located south west, A and B, as shown in Figure 5.4 can be accessed by the users. Within the building itself as previously stated there are two bridges which fold into theory of mimicking site. Hybridity obtains access through these two built bridges, the built bridges are purposefully different sizes, height and form for contrasting experiences when crossing them.

Figure 5.4 : Bridges illustration (author).



### 5.2.4 Model analysis

Illustration not to scale

In this analysis, bridges and a narrative route is shown which was made possible through frames. The concept behind frames as already stated is to frame the building, for it is part of the story and it also simultaneously frames a character. Framing allows specific views and interactions throughout the building and creates mindful interactions for creativity to occur, the project houses steel structural frames and stone walls which is specific to a certain route or view.

Figure 5.5 : Top view of 3d model (author).

## 5.3 Domains translated

Illustrations not to scale

### 5.3.1 Hybrid

After the natural forces influenced and formed the design in certain aspects, there are specific spaces for an animator which influenced the design immensely. Animation branched the design into three parts, these parts are the 2D animators studios, 3D animators studios and the hybrid area where the public and user gathers. Hybridity is not only a platform for the character to meet but where structure combines, it forms from heavy tall standing walls as seen in figure 5.7 to steel frames which becomes a route opening views to the canal and the beautiful green pocket.

TALL STONE WALLS

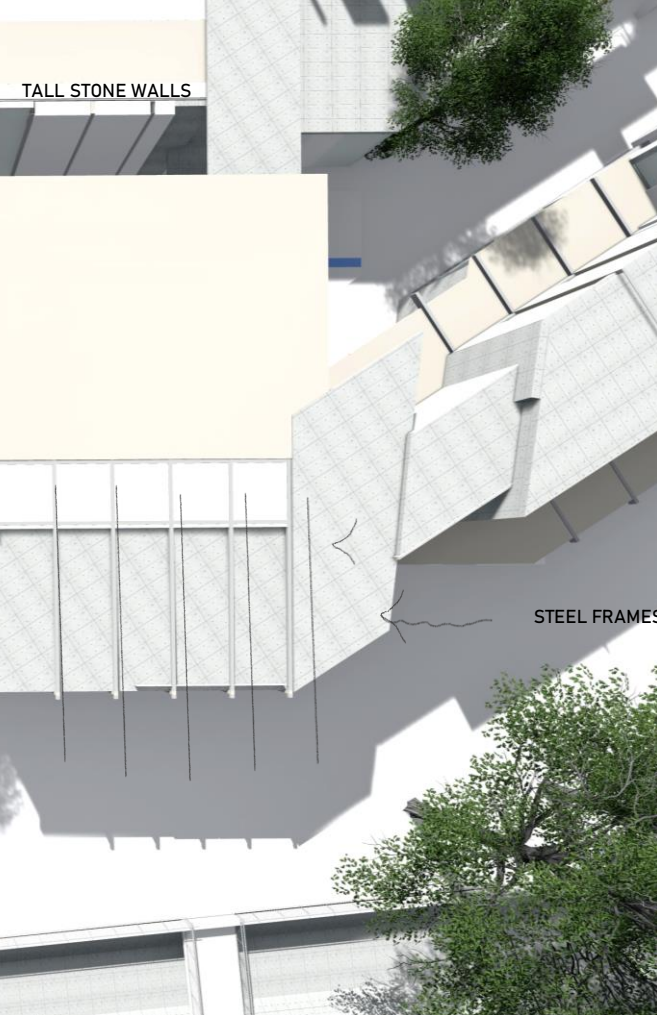
FRAMES

STEEL FRAMES AS A ROUTE

3D

HYBRID  
HYBRID FORM

Figure 5.6 : Illustration presents form giving of 3D studios (author).



Tall stone walls serve as an element of distinction, a distinction between public and private. Public footsteps follow the route of stone walls while the user steps through steel structure in their daily rituals.

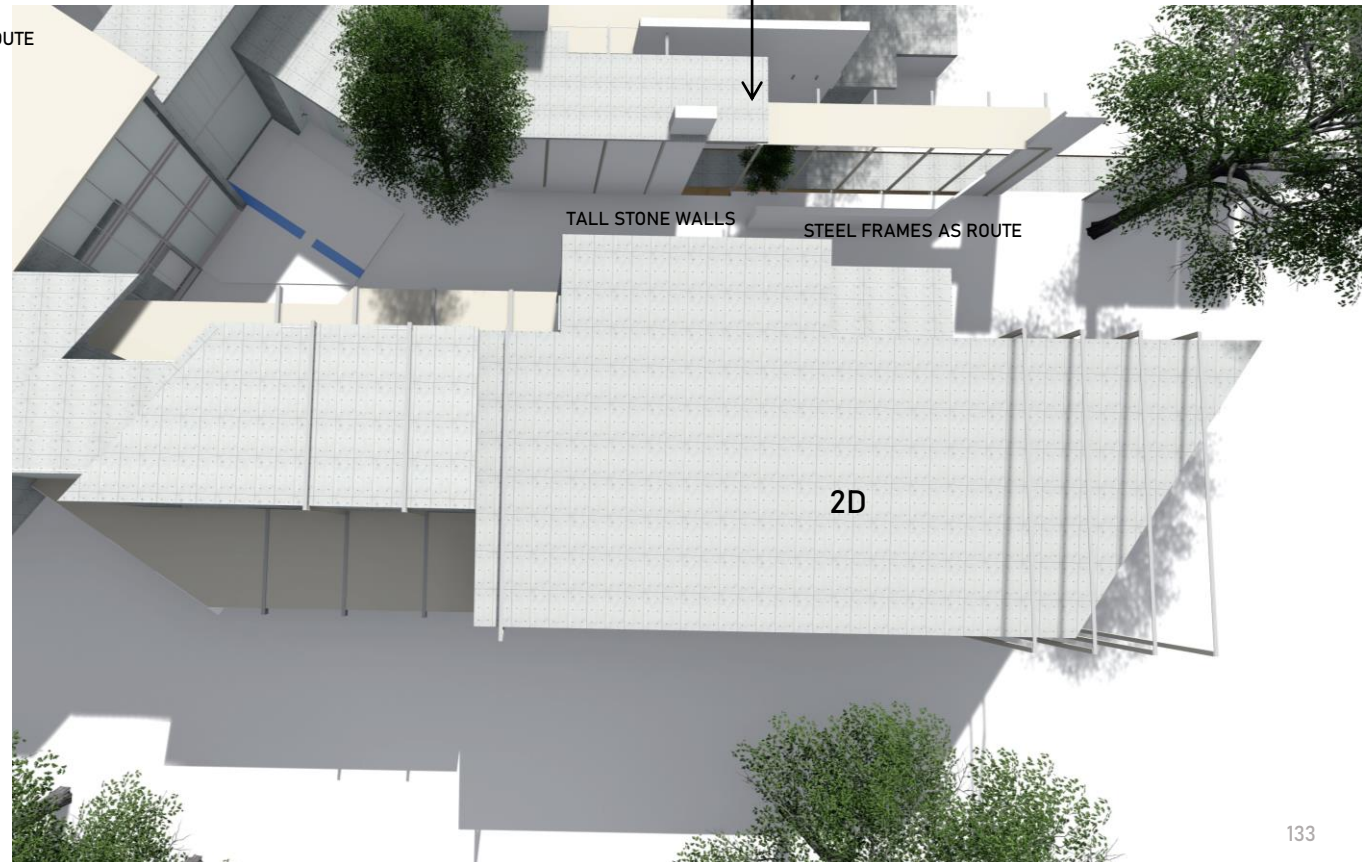


Figure 5.7 : Top- Illustration presents form giving of Hybridity (author)

Figure 5.8 : Bottom- Illustration presents form giving of 2D studios (author).



### 5.3.2 2 D

Illustration not to scale

Figure 5.9 : Illustration presents northern entrance (author).



Illustration not to scale

Figure 5.10 : Illustration presents western entrance and view of 3D form (author).

### 5.3.3 3D

Illustration not to scale

Figure 5.11 : Illustration presents 3D form (author).

## 5.4 Plans

### 5.4.1 Ground Floor Plan

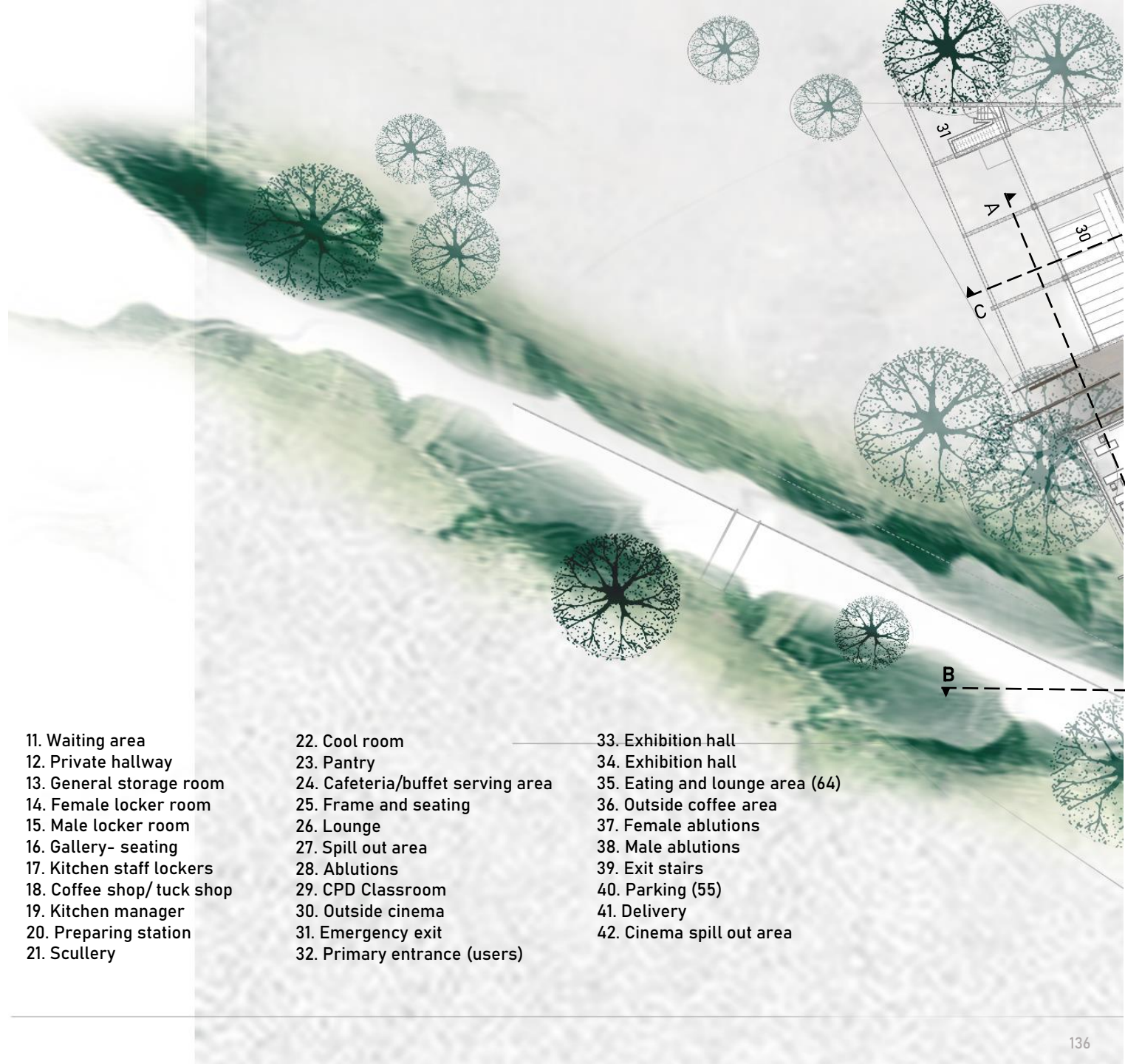
#### Legend

1. Secondary entrance (cinema nights)
2. Cinema (64)
3. Male ablutions
4. Wheelchair abluion
5. Female ablutions
6. Coffee station
7. Staff room
8. Reception
9. Exit stairs
10. Elevator

11. Waiting area
12. Private hallway
13. General storage room
14. Female locker room
15. Male locker room
16. Gallery- seating
17. Kitchen staff lockers
18. Coffee shop/ tuck shop
19. Kitchen manager
20. Preparing station
21. Scullery

22. Cool room
23. Pantry
24. Cafeteria/buffet serving area
25. Frame and seating
26. Lounge
27. Spill out area
28. Ablutions
29. CPD Classroom
30. Outside cinema
31. Emergency exit
32. Primary entrance (users)

33. Exhibition hall
34. Exhibition hall
35. Eating and lounge area (64)
36. Outside coffee area
37. Female ablutions
38. Male ablutions
39. Exit stairs
40. Parking (55)
41. Delivery
42. Cinema spill out area



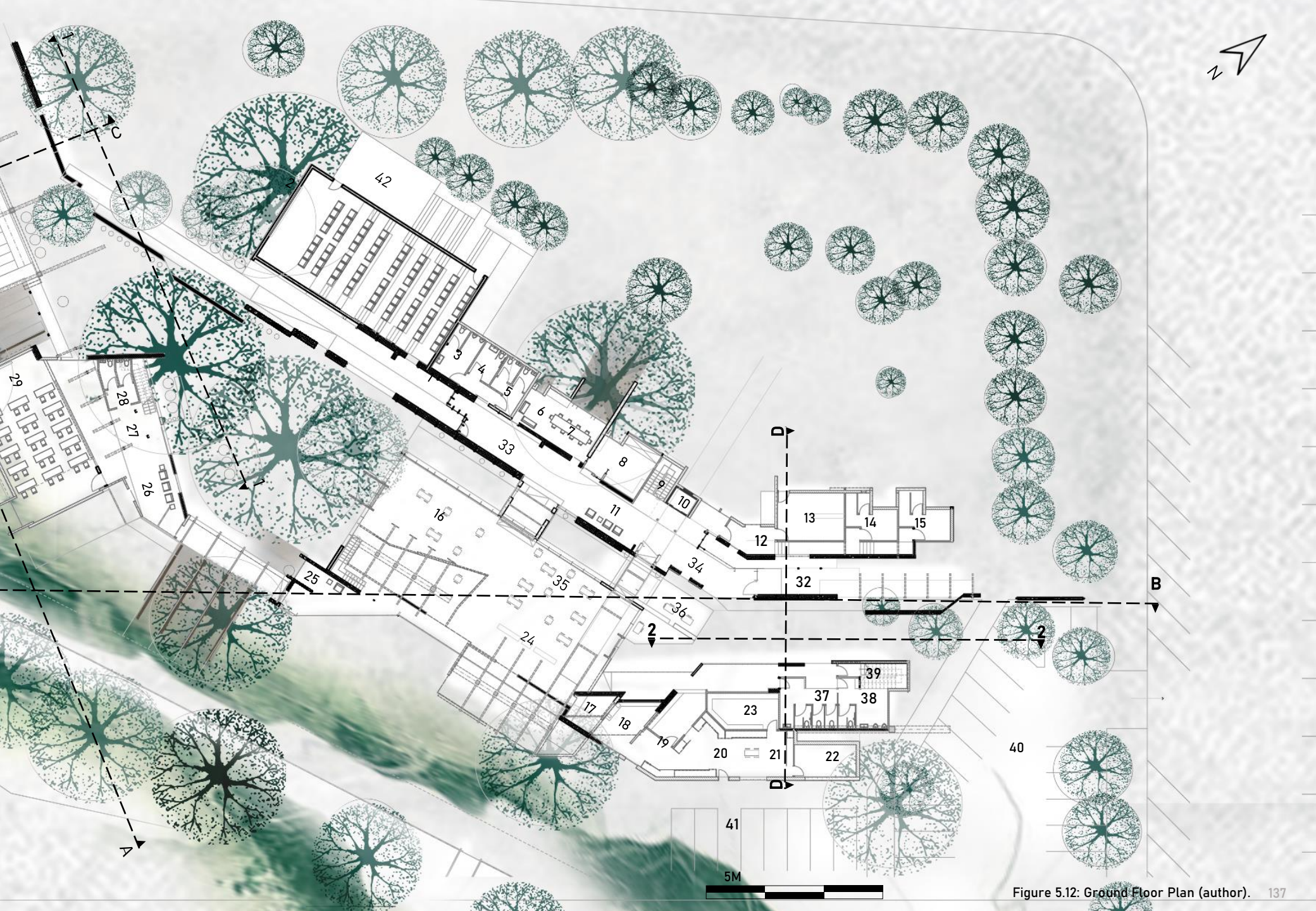


Figure 5.12: Ground Floor Plan (author). 137



Figure 5.13: West entrance from main street (author).

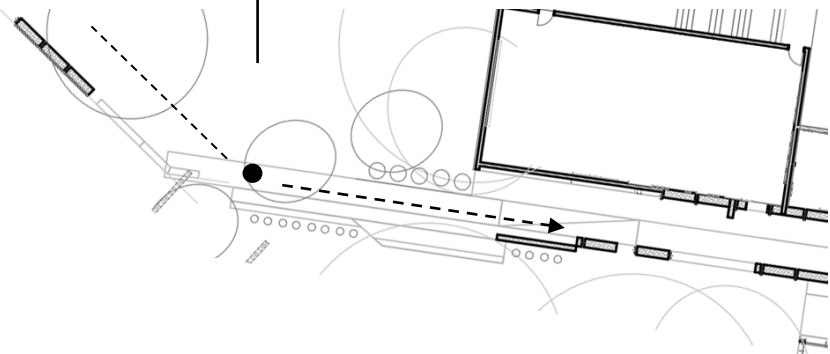


Figure 5.20 : Plan illustration (author).



Figure 5.14: Looking back at entrance and glimpse into first bridge (author).

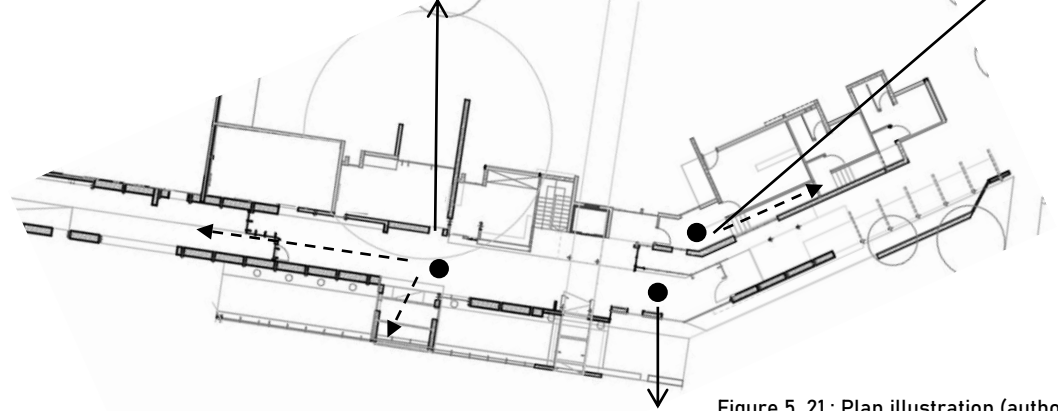


Figure 5.21 : Plan illustration (author).

## 5.4.2 Walk Through Renders on Ground Floor

Illustrations not to scale

Site allows the project to breathe with open spaces, glass facades and greenery following through the plan. Entrances are formed with heavy walls and connected with light steel structures allowing nature's shadows to fall in through selected framed views. The atmosphere of tall trees, tall rock walls and breathable glass facades takes the user and visitor away from a typical urban office block feeling.



Figure 5.15: Southern walkway to reception (author).



Figure 5. 16: Locker rooms (author).

Figure 5. 17 Northern entrance (author).

Figure 5. 18: Cafeteria and serving area (author).

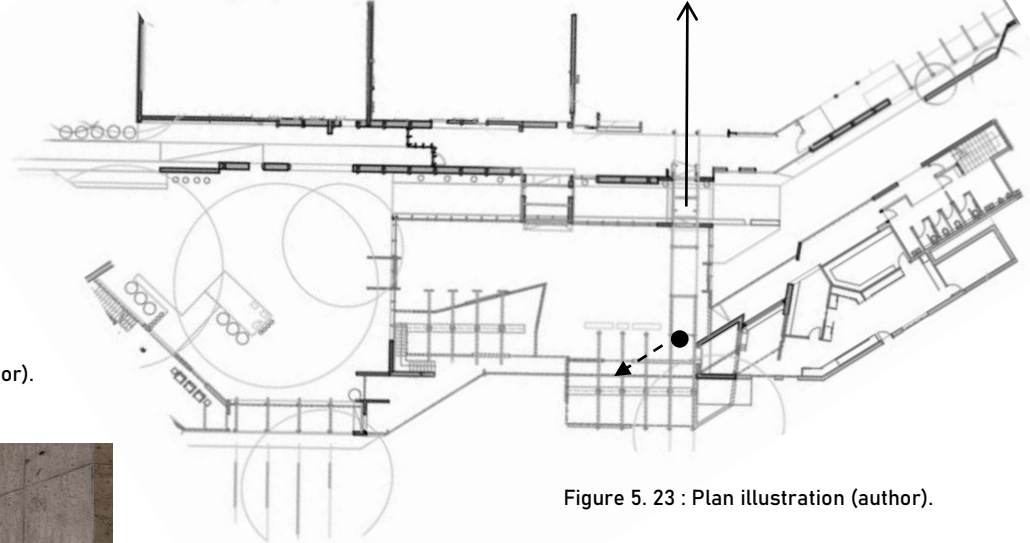
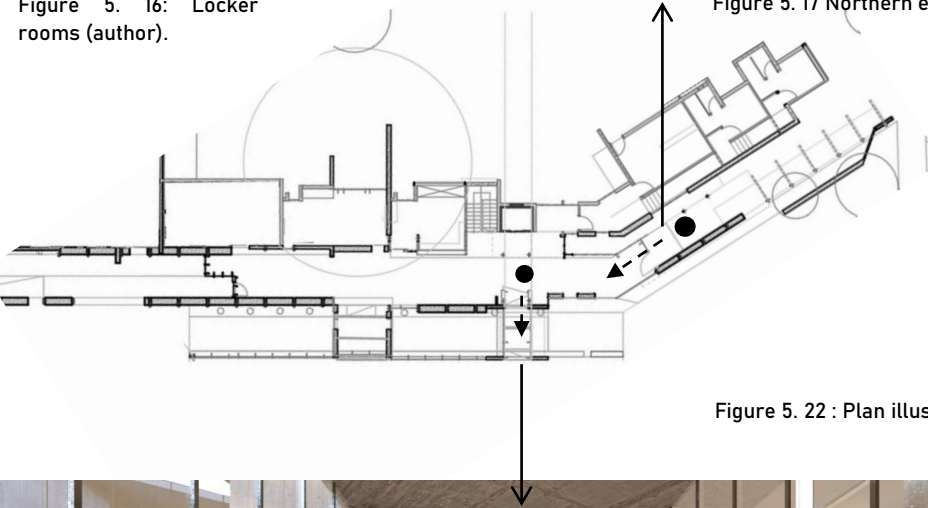


Figure 5. 22 : Plan illustration (author).

Figure 5. 23 : Plan illustration (author).



Figure 5. 19: Bridge towards hybrid space (author).

### 5.4.3 1st Floor Plan

#### Legend

- |                          |                             |                             |
|--------------------------|-----------------------------|-----------------------------|
| 1. Creative director     | 10. Coffee station          | 19. Lounge                  |
| 2. Director              | 11. Informal boardroom      | 20. Discussion room         |
| 3. Waiting area          | 12. Smoking area            | 21. Director office         |
| 4. Walkway               | 13. Background drawing desk | 22. Background drawing desk |
| 5. Lounge                | 14. Character drawing desk  | 23. Character drawing desk  |
| 6. Director meeting room | 15. Character drawing desk  | 24. Character drawing desk  |
| 7. Computer scientists   | 16. Background drawing desk | 25. Background drawing desk |
| 8. Mixed use studios     | 17. Sound director desk     | 26. Informal boardroom      |
| 9. Director office       | 18. Library                 | 27. Storage                 |
|                          |                             | 28. Coffee station          |





Figure 5.24: 1st Floor Plan (author). 141

## 5.4.4 Walk through Renders on 1st Floor

Illustrations not to scale

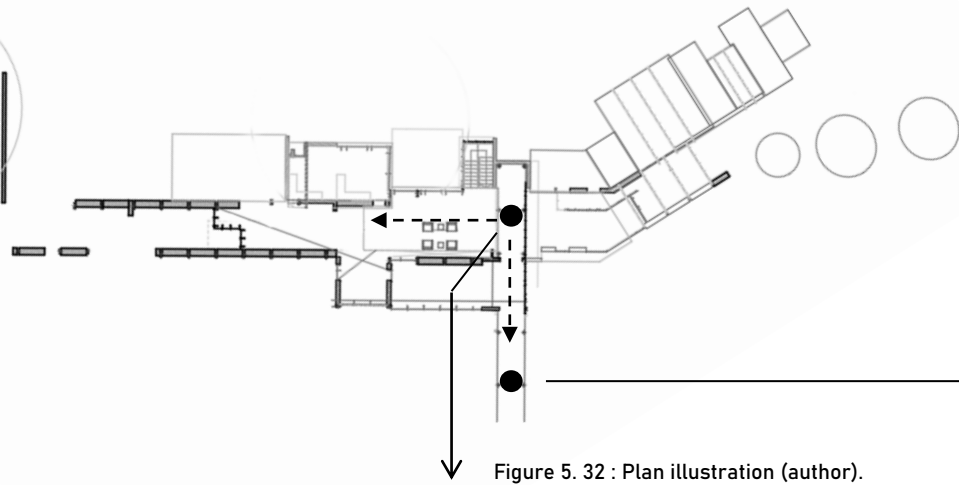


Figure 5.32 : Plan illustration (author).



Figure 5.25: View from bridge, walking towards computer studios and on left side 2D studios (author).



Figure 5.26: Waiting area and bridge towards studios (author).



Figure 5.27: Waiting area and bridge towards studios (author).

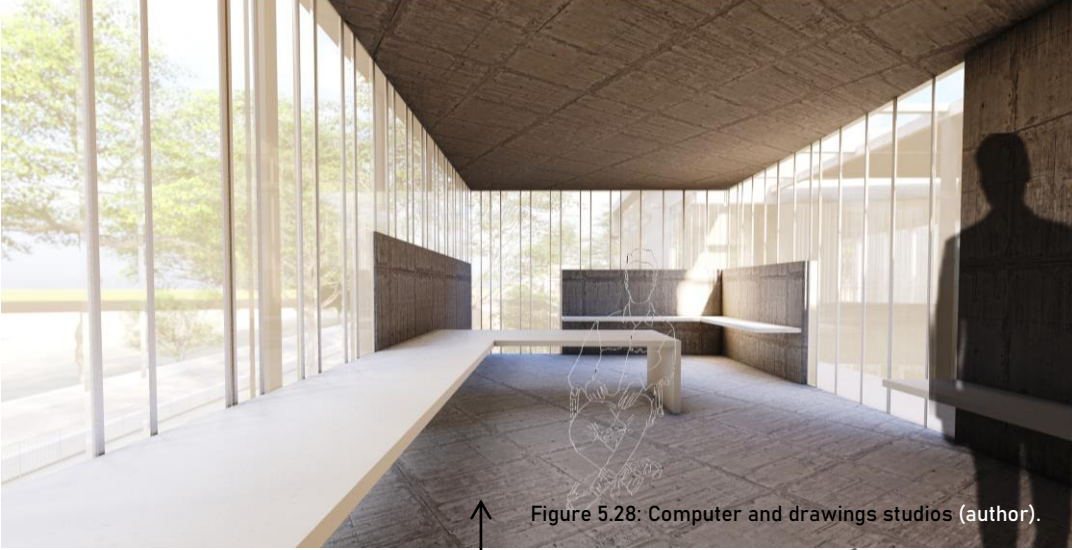


Figure 5.28: Computer and drawings studios (author).



Figure 5.29: Spill out area 1st Floor (author).

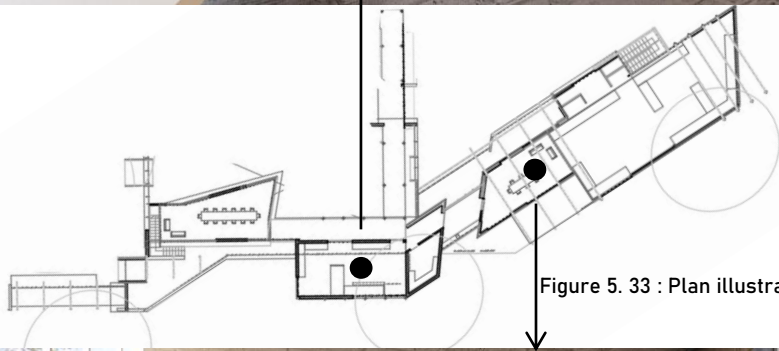


Figure 5.33 : Plan illustration. (author)

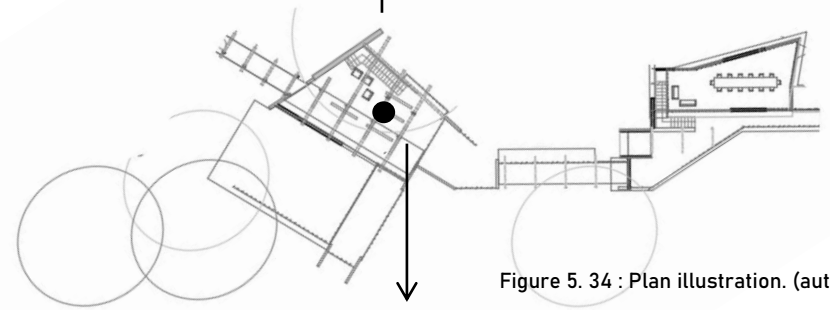


Figure 5.34 : Plan illustration. (author)



Figure 5.30: 2D studio's discussion room (author).



Figure 5.31: Classroom Spill out area Ground Floor (author)

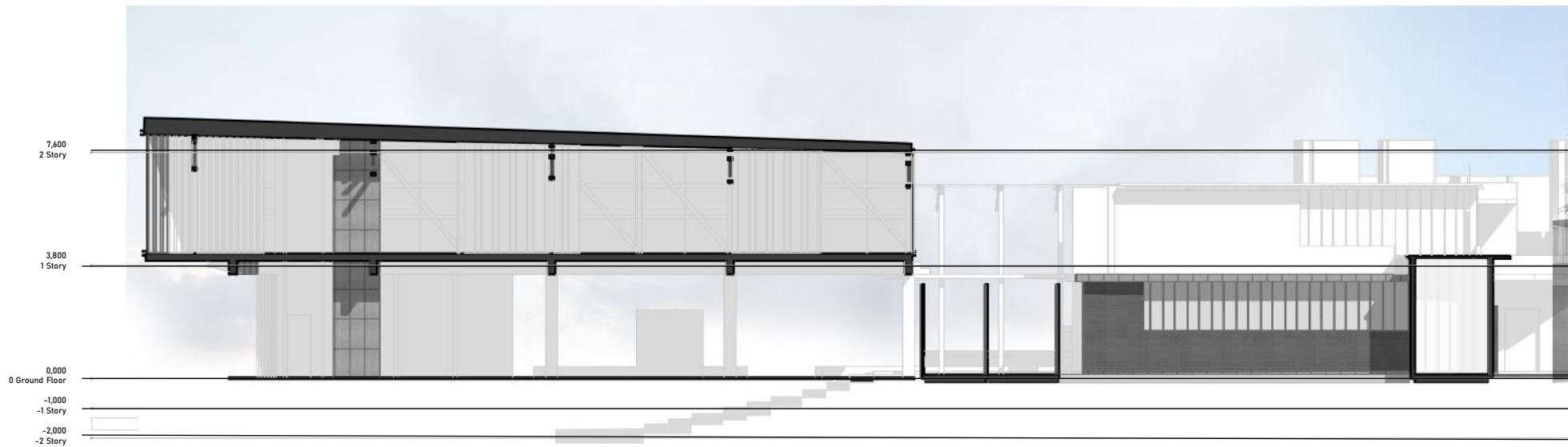
## 5.5 Sections

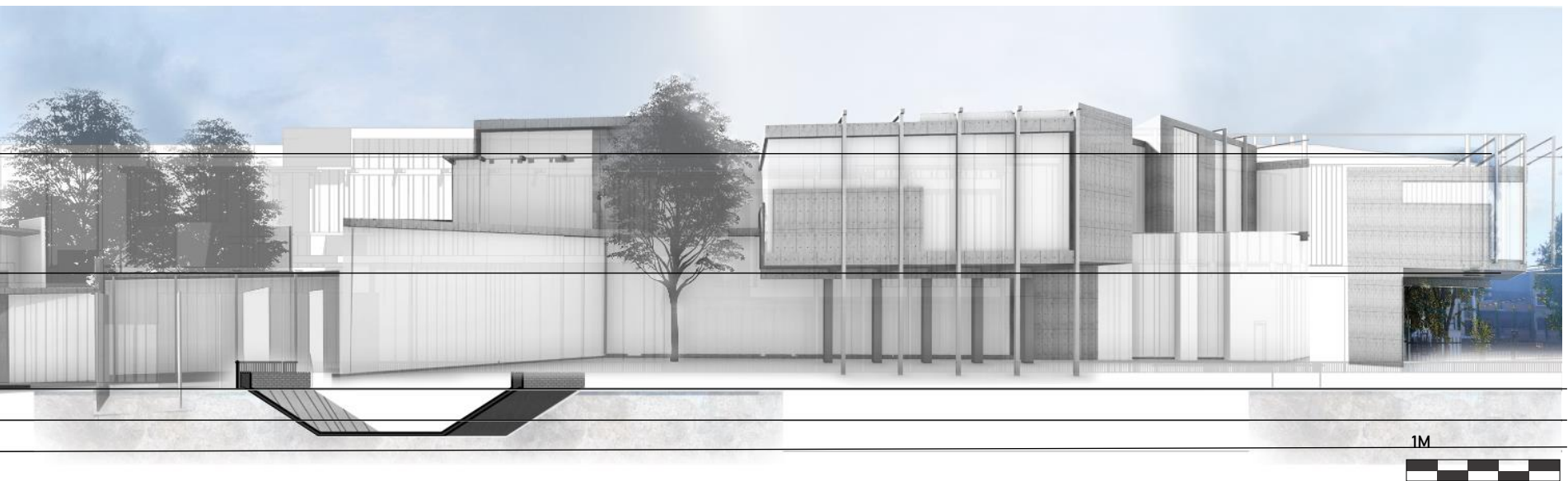
### 5.5.1 Longitude sectional elevation A-A.

Figure 5. 35 : Top - West entrance and sight towards 3D structure (author).

Figure 5. 36 : Bottom - Section A-A (author).

Section A-A





## 5.5.2 Longitude sectional elevation B-B

Figure 5. 37 : Hybrid, directors meeting room (author).

Figure 5. 38 : Bottom- Section (author).

### Section B-B





7,600  
2 Story

3,800  
1 Story

0,000  
0 Ground Floor

-1,000  
-1 Story

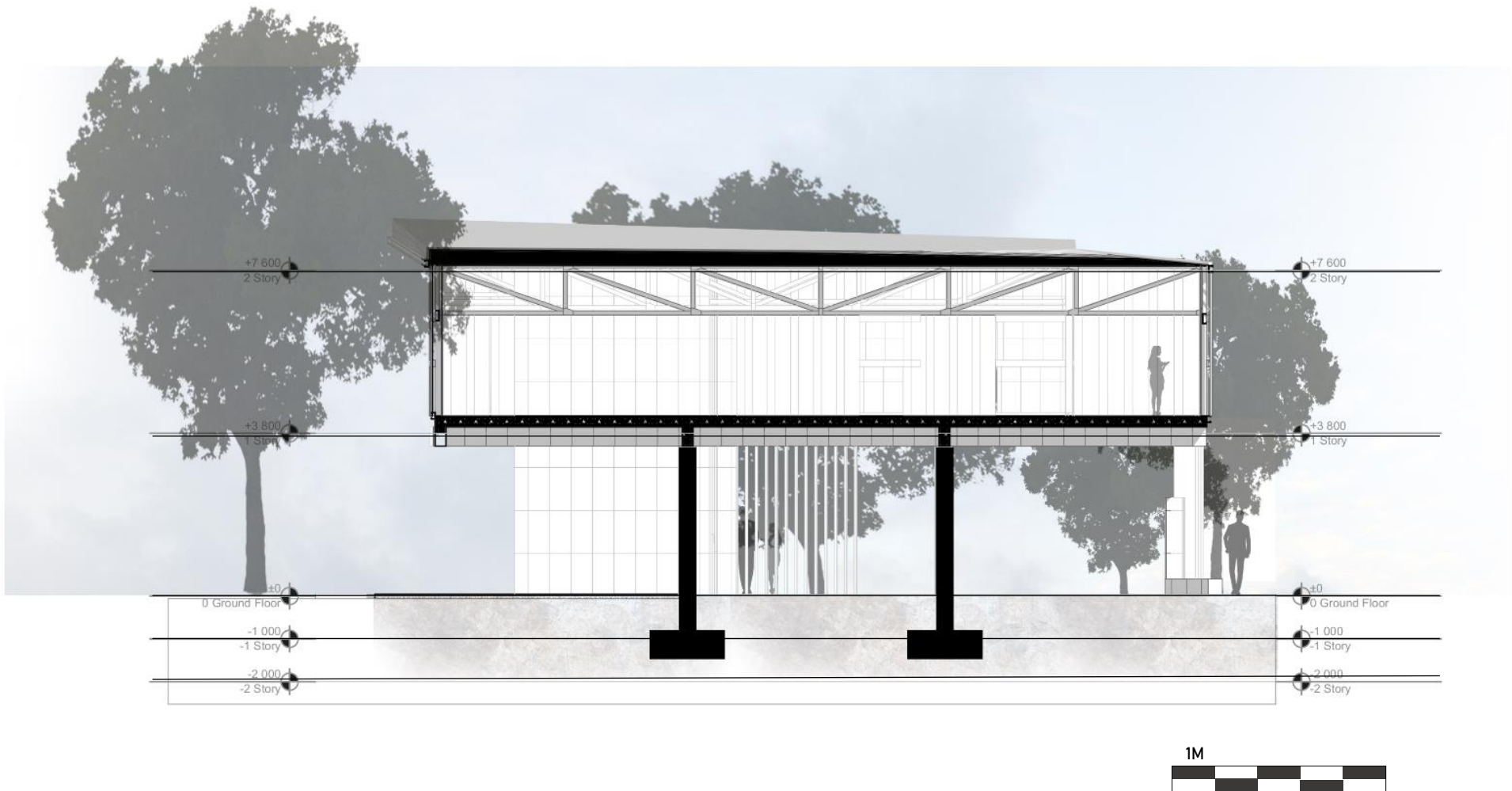
-2,000  
-2 Story



### 5.5.3 Short section C-C

Figure 5.39 :Section of 3D studios (author).

Section C-C



## 5.5.4 Short section D-D

Figure 5.40 : Section at northern entrance and sight to 2D studios (author).

### Section D-D



## 5.6 Perspectives

### 5.6.1 Southern perspective

Figure 5.41 : perspective (author).

Illustration not to scale





## 5.6.2 Western perspective

Figure 5.42 : perspective (author).

Illustration not to scale





## 5.7 Elevations

Figure 5.43 : North-West elevation of 3D studio (author).

### 5.7.1 Elevation 1-1



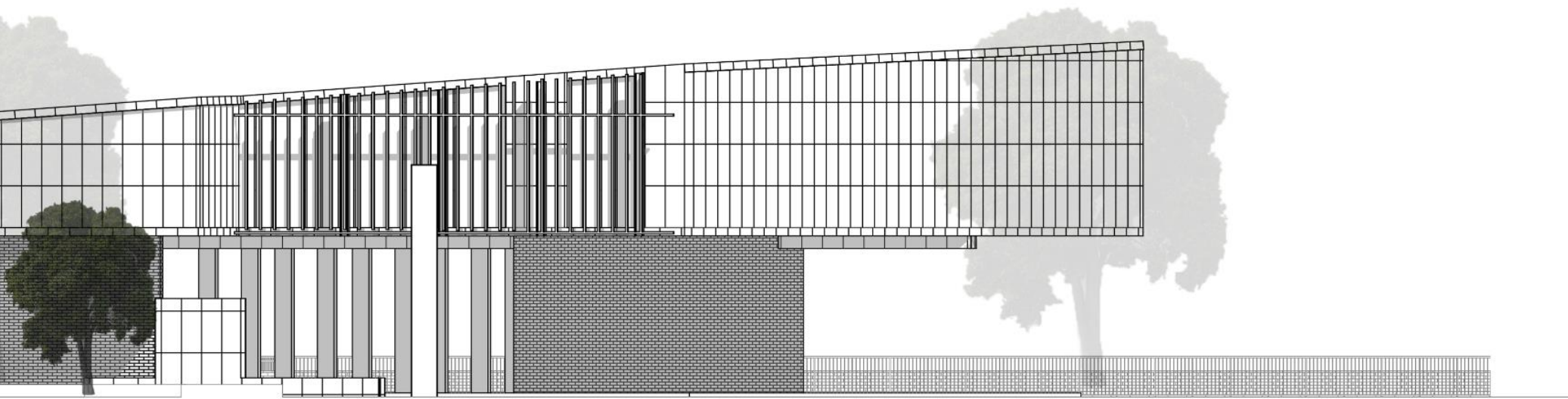
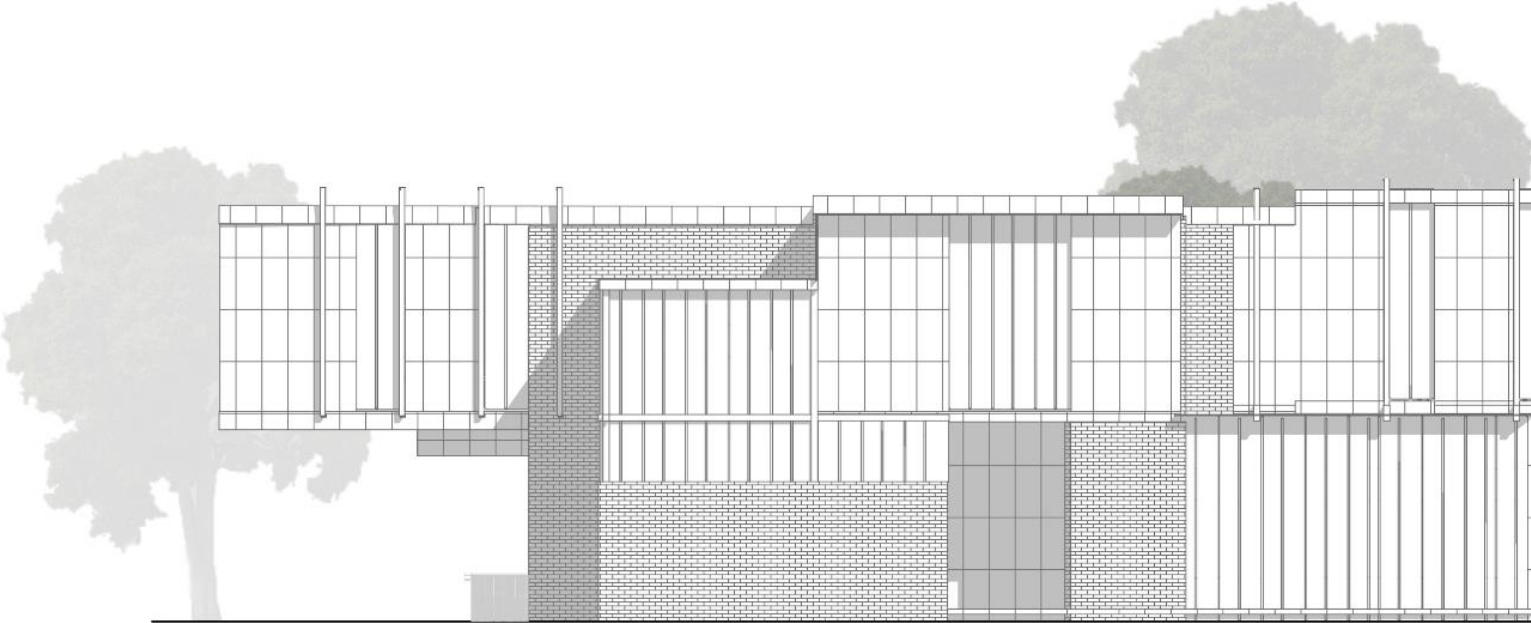


Figure 5.44 : North-West elevation of 3D studio (author).

5.7.2 Elevation 2-2





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# Chapter 6

# Construction

## **6.1 Introduction**

In this chapter elements are investigated and analyzed in terms of construction for appropriate structural outcomes. Part one discusses the theory within construction which coheres with the design theory and development, initial sketches and ideas regarding the thesis project, the second part illustrates current construction solutions and responses to the environment and brief as the final built form.

Part 1

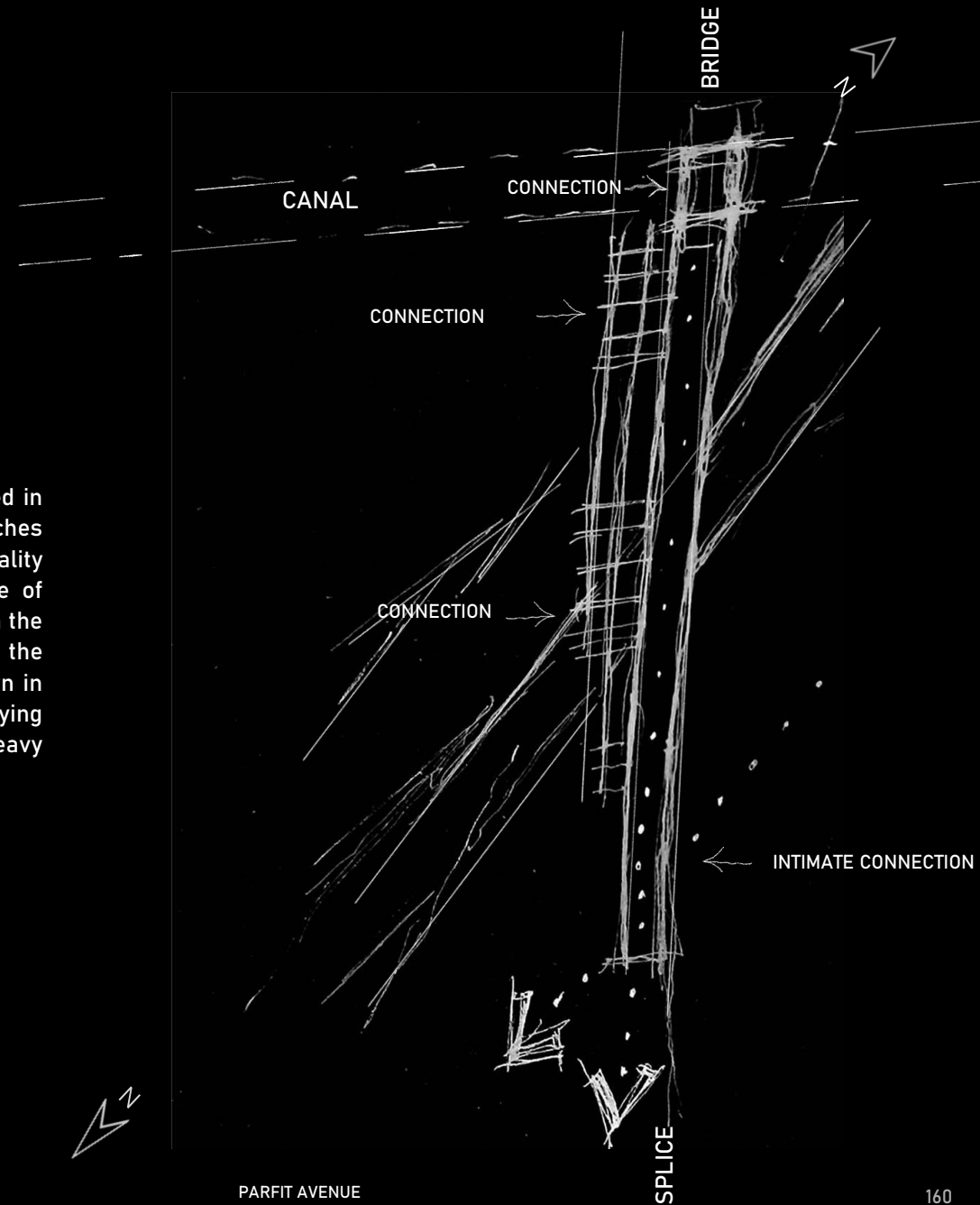
# Theory

## 6.2 Parti

Not to scale

Figure 6.1 : Parti sketch of retrieving material from canal (author).

Continuing with the concept splicing time and space as illustrated in chapter three, each bridge allows a 'splice' on site which stretches outwards to the public in Parfit Avenue's side. This allows materiality to touch an individual and simultaneously representing surface of time. Each perpendicular frame builds not only a relationship with the individual but with the body of water. Each bridge connects with the canal but in an independent relation, meaning each line as shown in the parti allows another way in connecting with the canal. Conveying ideas to construction it can start to look like a transition from heavy earth materials to light steel structures reaching into the city.



Sketch 6.2 explores form of connection in terms of connection and representation. The parti sketches are theoretical explorations of the canal and materiality while turning surfaces towards the canal. Pieces within the sketch illustrates dense materiality while other parts indicate possibilities for transparency and lightness within structure. Each line draws itself to north and each space it touches it influences with light. This can mean a lot of things especially at the early stage the parti was drawn, it could at the time represent a passage, skylight or connection in someway. Lines start to cut away pieces out of spaces opening them towards the canal.

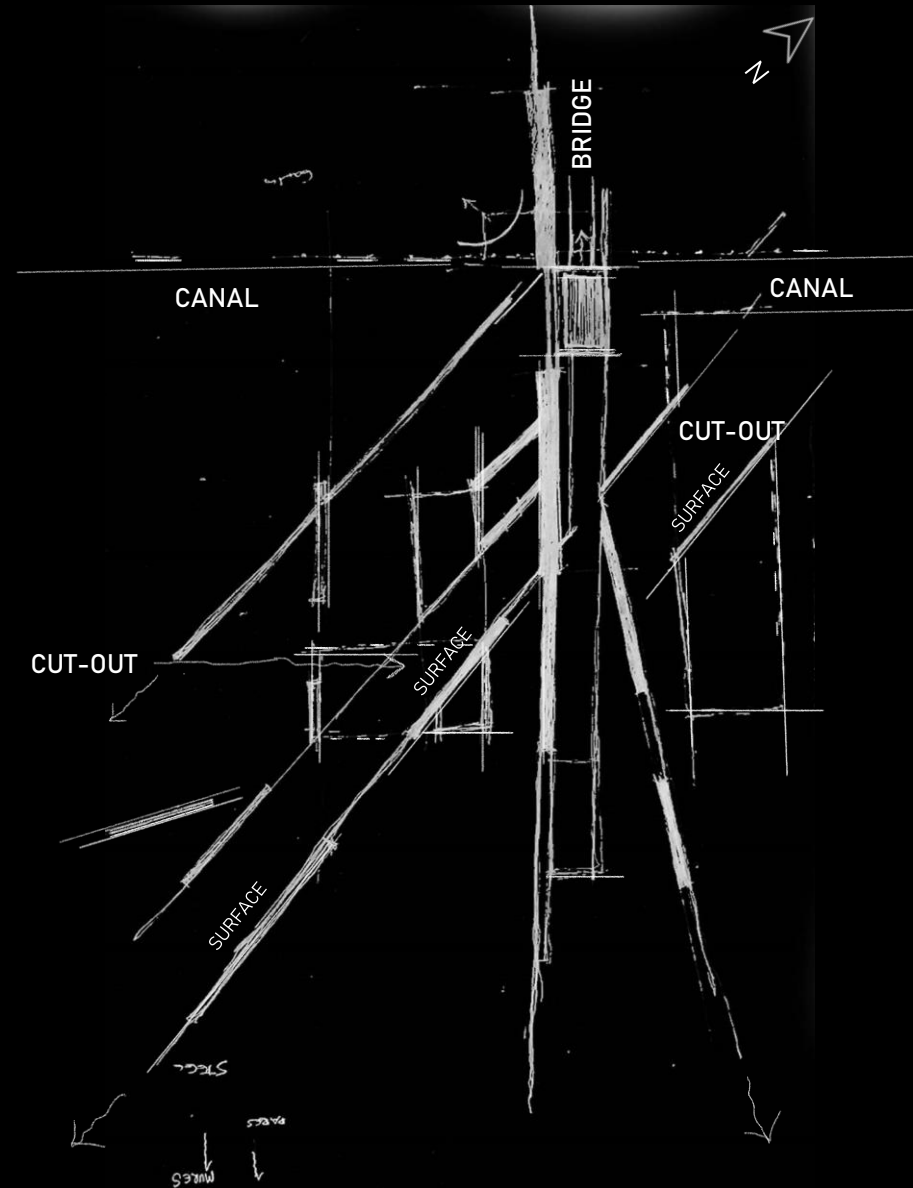


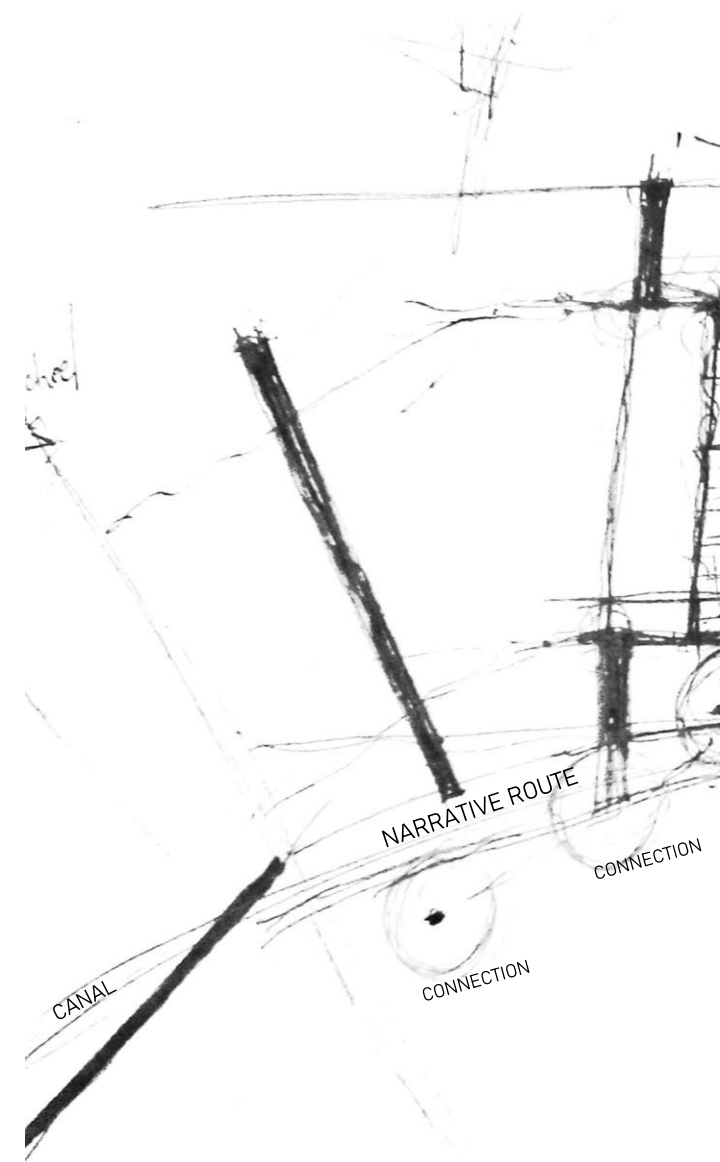
Figure 6.2 : Parti sketch of connection between canal and allocated spaces (author).

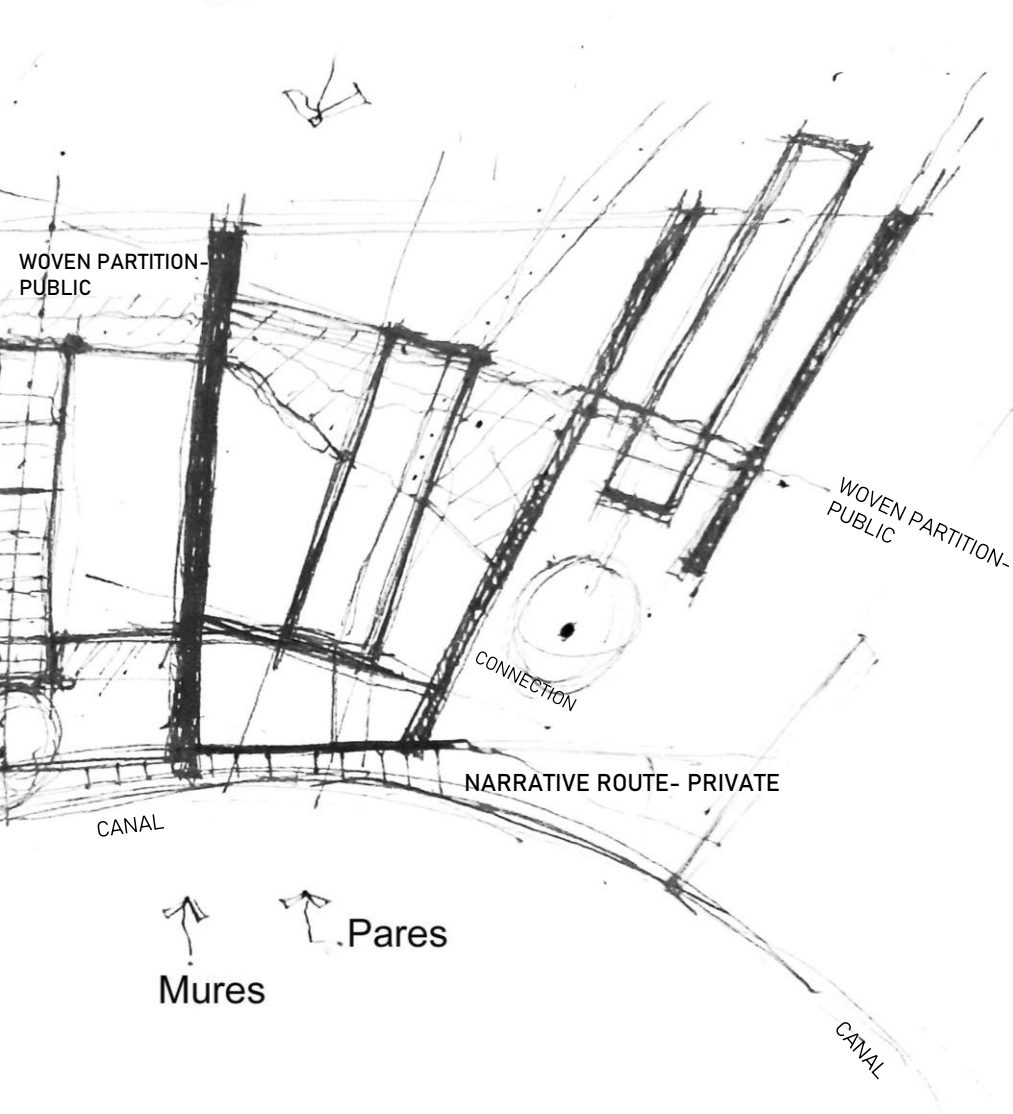
Theoretical stances and abstract inputs explore possibilities in coherence with design, the parti gave one of the first stepping stones into forming connections with the canal. The body of water and connecting the design with it became a big part while sketching in relation with design. Design and theory revealed that frames are the translation between the domains and therefore in terms of construction.

## 6.3 Touchstone

Not to scale

A frame becomes an important factor between the two domains and it is explored structurally, figure 6.3 illustrates that between two frames, forms and spaces can slant independently but still be part of a bigger connection. This concept also refers back to the design concept of simulating synapses where connections of site which are in constant conversation with each other is represented. Touch stone sketches followed the curve of the canal and have placed out frames to accommodate a space in-between.





### 6.3.1 Mures and Pares

The touchstone derives from 'Mures', which means that the structure resembles strong and tough external defensiveness and 'Pares', which means for a more soft and woven-like partition, these elements give sequence to frames and it allows splicing of time and surface. Within these elements there are possibilities created for different materials to take place. Pares can resemble a route or outside area between frames, pares are the narrative route within the final design and this route accommodates light steel structural frames opening to the canal.

Figure 6.3 : Mures and pares exploration (author).

### 6.3.2 Structural frames

Not to scale

Transparency is enhanced the hither the structure gets to the canal allowing the full experience of the pocket of greenery on ground floor. Animating site at the more private allocated spaces, is also linked with the same level of importance into animating site for the public. Animating site through splicing, therefore creating play and routes for a character. A character is part of the storyboard and in animation the elements of background, middle ground and foreground exists and the character is always part of a scene.

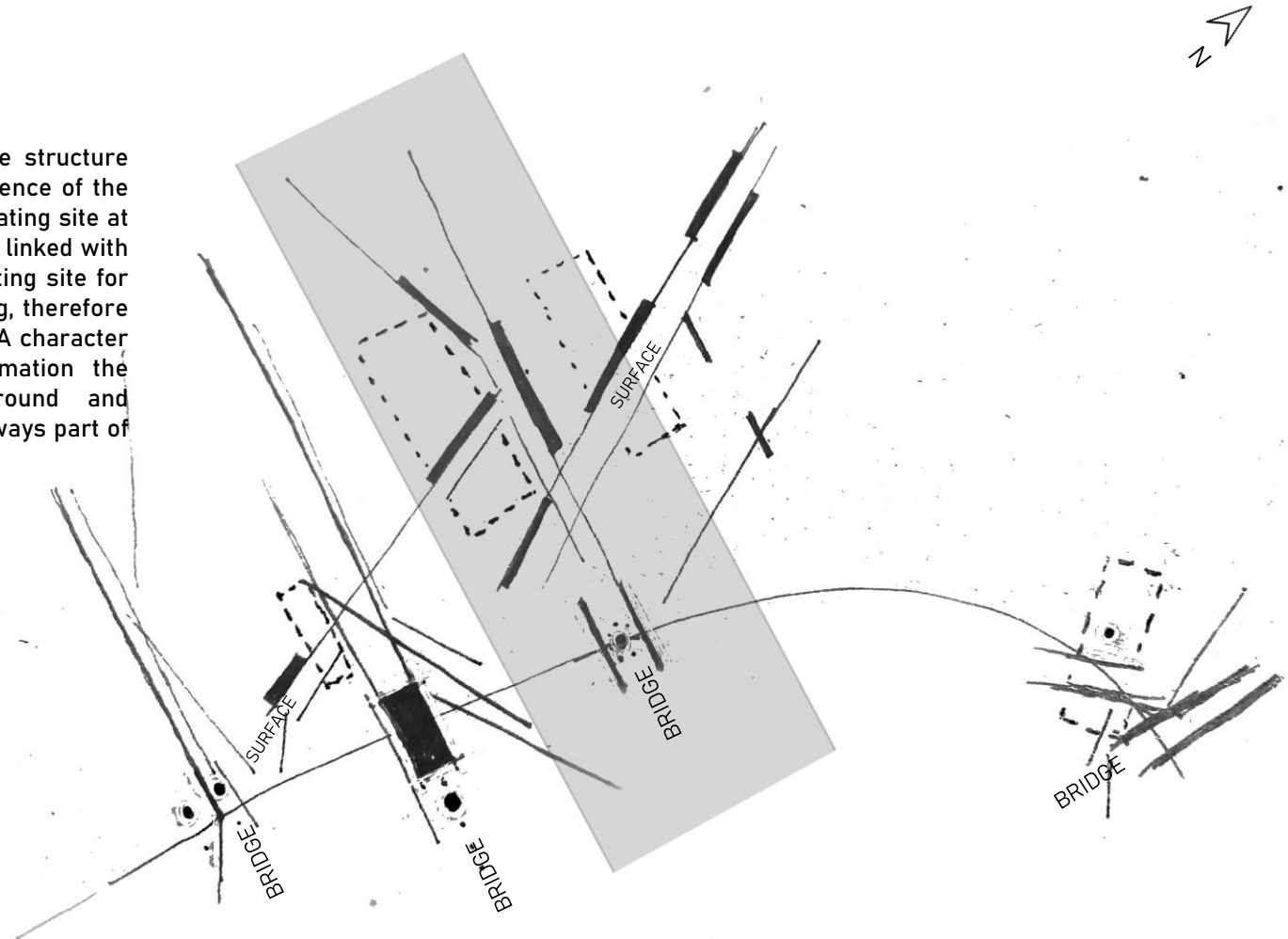
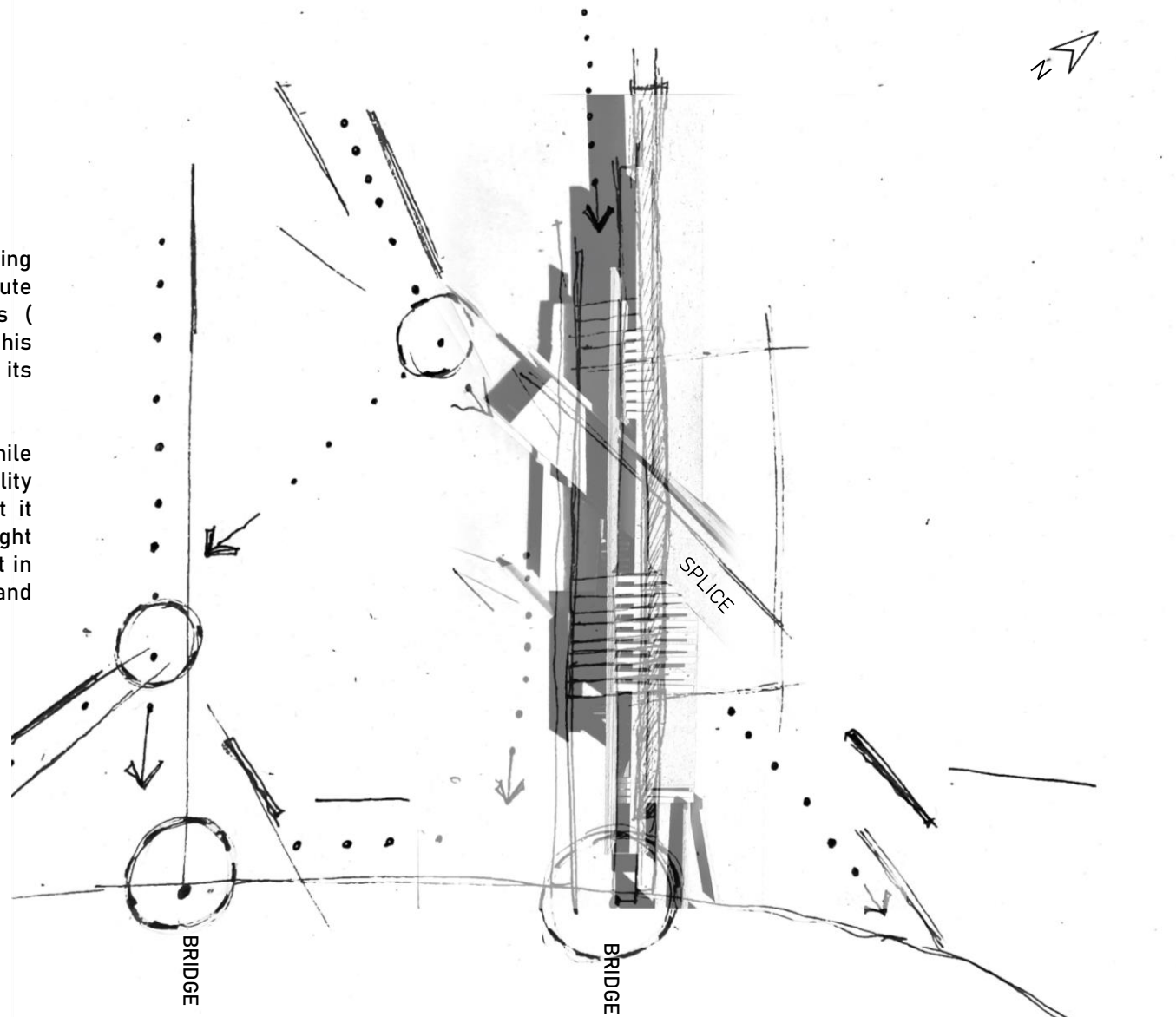


Figure 6.4 : Intimate areas of connection (author). 164

Sequential frames allows splicing while obliging structural strength. The north- western route accommodates mures with its tall stone walls ( present in the current final design), and this associates to the characteristics of mures with its strong defensive and structural frames.

It all derives from site's materials while simultaneously influencing the design's materiality and weight. As the design evolves to north-east it obtains characteristics of paves and it states for light tectonic structure touching dense massing(present in the final design), it is also used to create flow and intimate areas.





### 6.3.3 Physical models

Not to scale

Physical models explore possibilities in a built form of splicing through a space and opening the spliced surface towards the canal. Figure 6.6 illustrates a line of splicing through a vertical built form, simultaneously creating frames which pushes through on different levels. These frames located on different levels are already indicating possible areas and massing for animators studios and areas for the programme.

Figure 6.6 : Physical touchstone model (author).



Figure 6.7 : Physical touchstone model of different levels (author).

Figure 6.7 is uphold through frames, and in this model the form of framing a space on the outside rather than framing structurally on the inside came as a desired aspect. Frames on the outer surfaces of the space creates transparency of the storyboard and presents frames per second/ frames in sequence, already the publics sight of the building is accommodated.

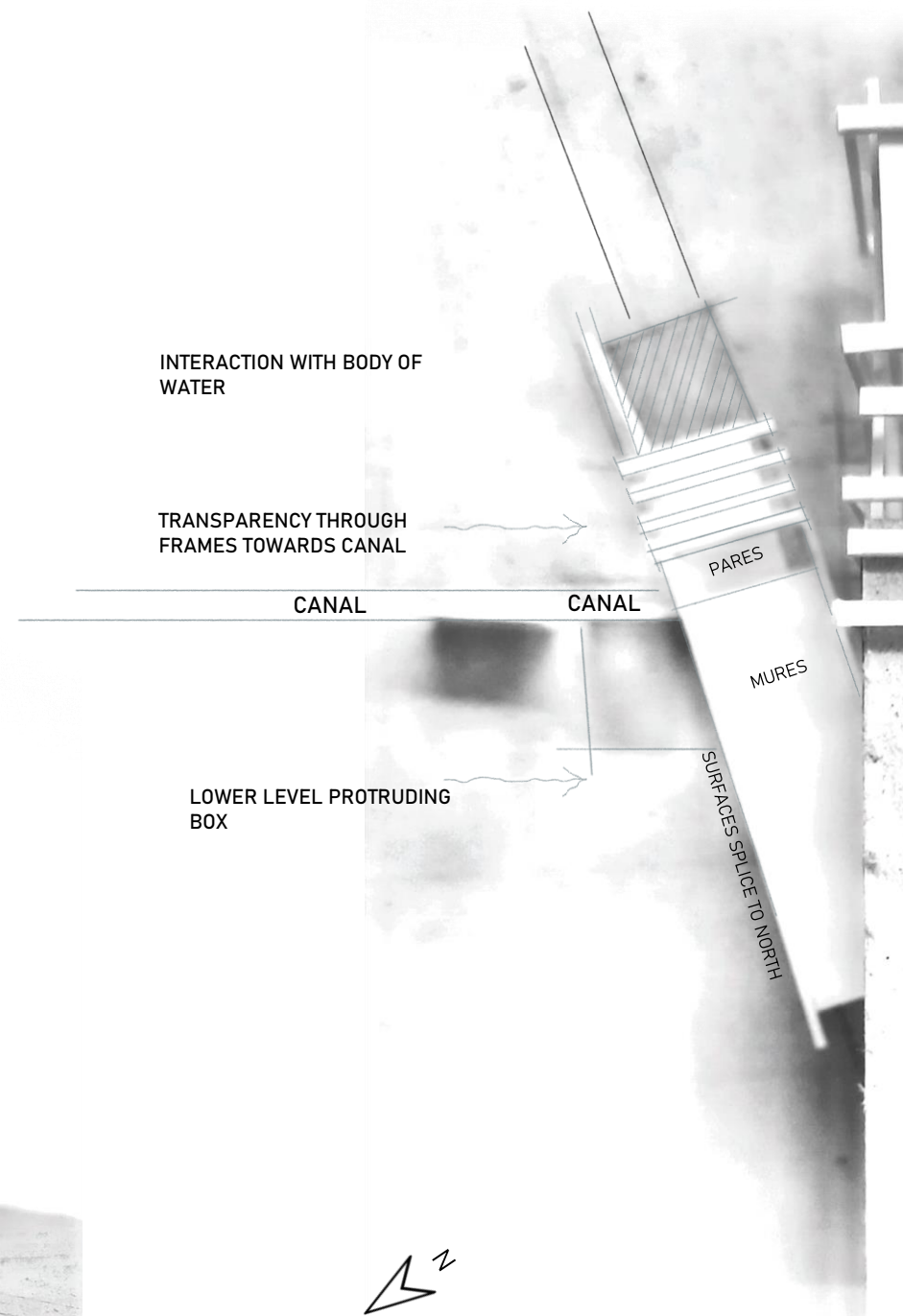
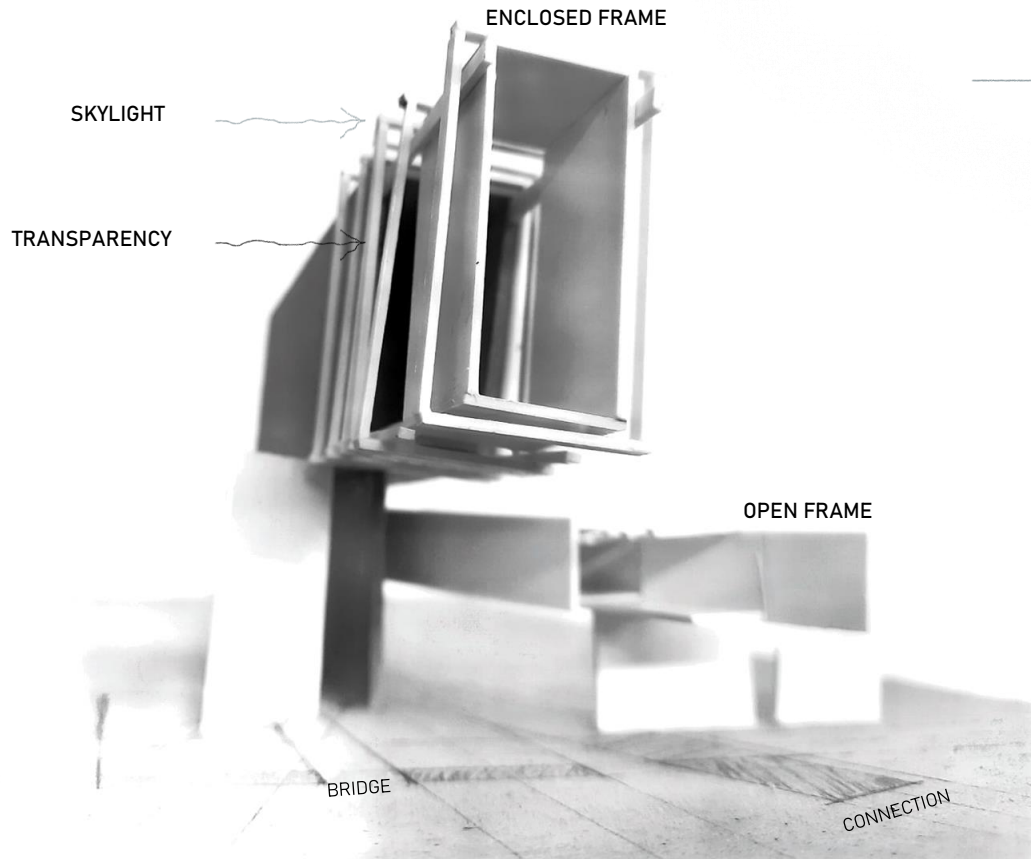
Between frames, slits are opened and allowing the publics eye to catch movement within the building, frames are allowing transparency throughout certain levels. Figure 6.7 illustrates a level which cantilevers towards the canal, and opening up a box which frames a certain view. Certain views of the site is framed and this is done as animation frames certain shots for the viewer to enhance the storyline through visuals.

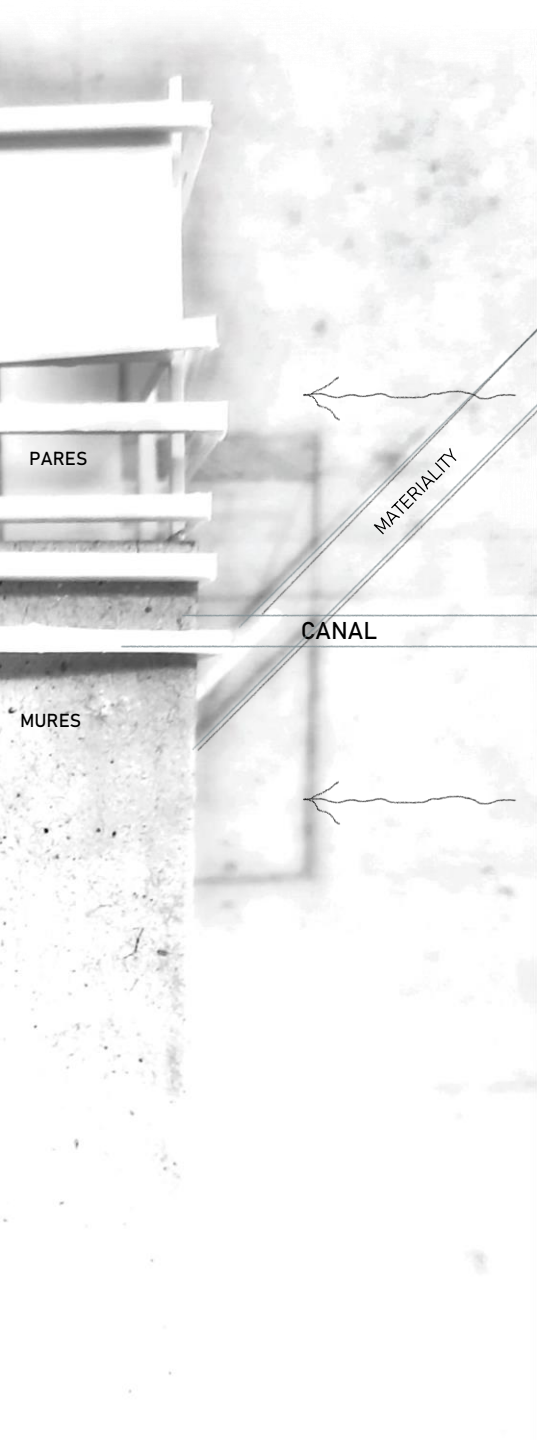
### 6.3.4 Physical model analysis

Figure 6.8 : Left- Physical touchstone model of different levels (author).

Figure 6.9 : Right - Model from top (author).

Not to scale





PARES

MURES

CANAL

CANAL

MATERIALITY

MATERIALITY

TRANSPARENCY WITHIN STORYBOARD

GROUND FLOOR PLATFORM

INTERACTION ON DIFFERENT LEVELS

## 6.4 Precedent studies

### 6.4.1 Auditorium, Community Centre, Refurbishment, Barcelona, Spain

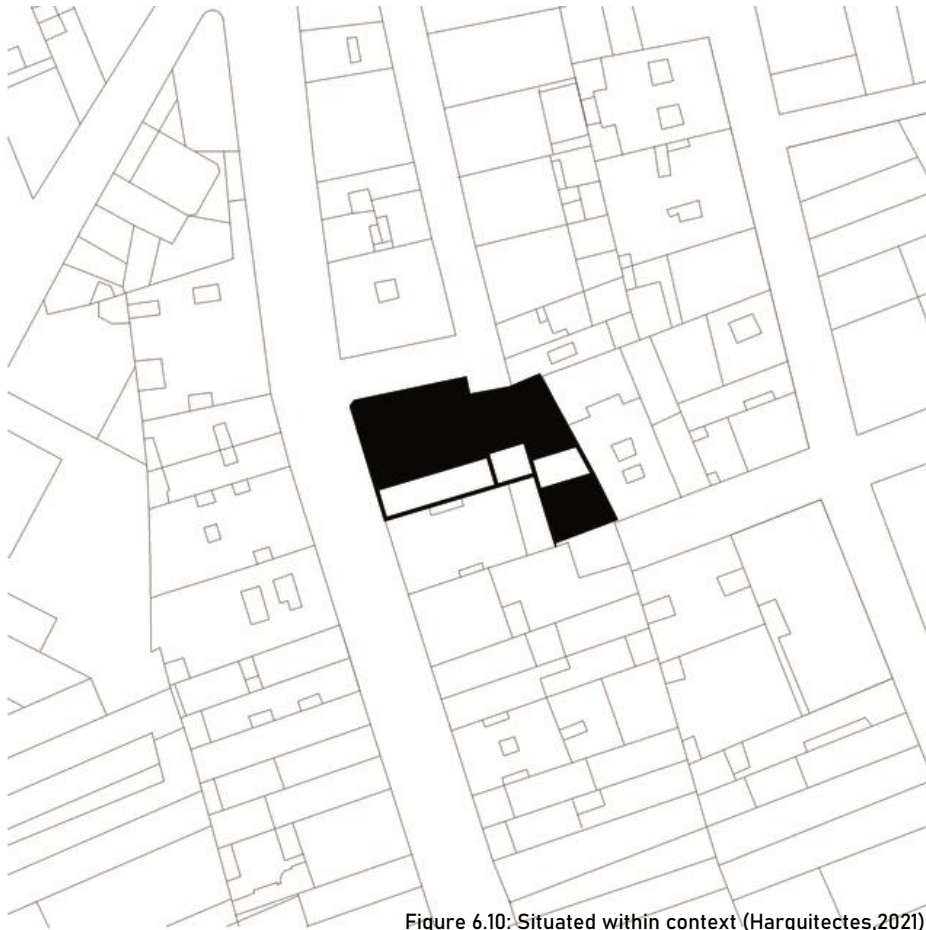


Figure 6.10: Situated within context (Harquitectes,2021).



Architects: HARQUITECTES

Area : 1750 m<sup>2</sup>

Year : 2017

Photographs :Adrià Goula

The structure is divided into three parts: the main one, which faces Olzinelles and Altafulla streets and houses the two main halls (old shop on the ground floor and atrium on the first floor); the central one, which faces Altafulla street; and the interior one, which is L-shaped and has no street access.



Figure 6.11: Steel as a passage giver (Goula,2021).

Harquitectes elaborates in the article about the poor hygienic conditions in the remainder of the buildings, combined with their inadequate connectivity, prompted the proposal of a vast longitudinal void connecting the three volumes and all of their spaces – new and old – in a steady development from more public to more private spaces. The vacuum is created by eliminating the centreline along the party wall to Olzinelles street, transforming it into an internal street that is accentuated in the second structural volume by increasing the existing light well.

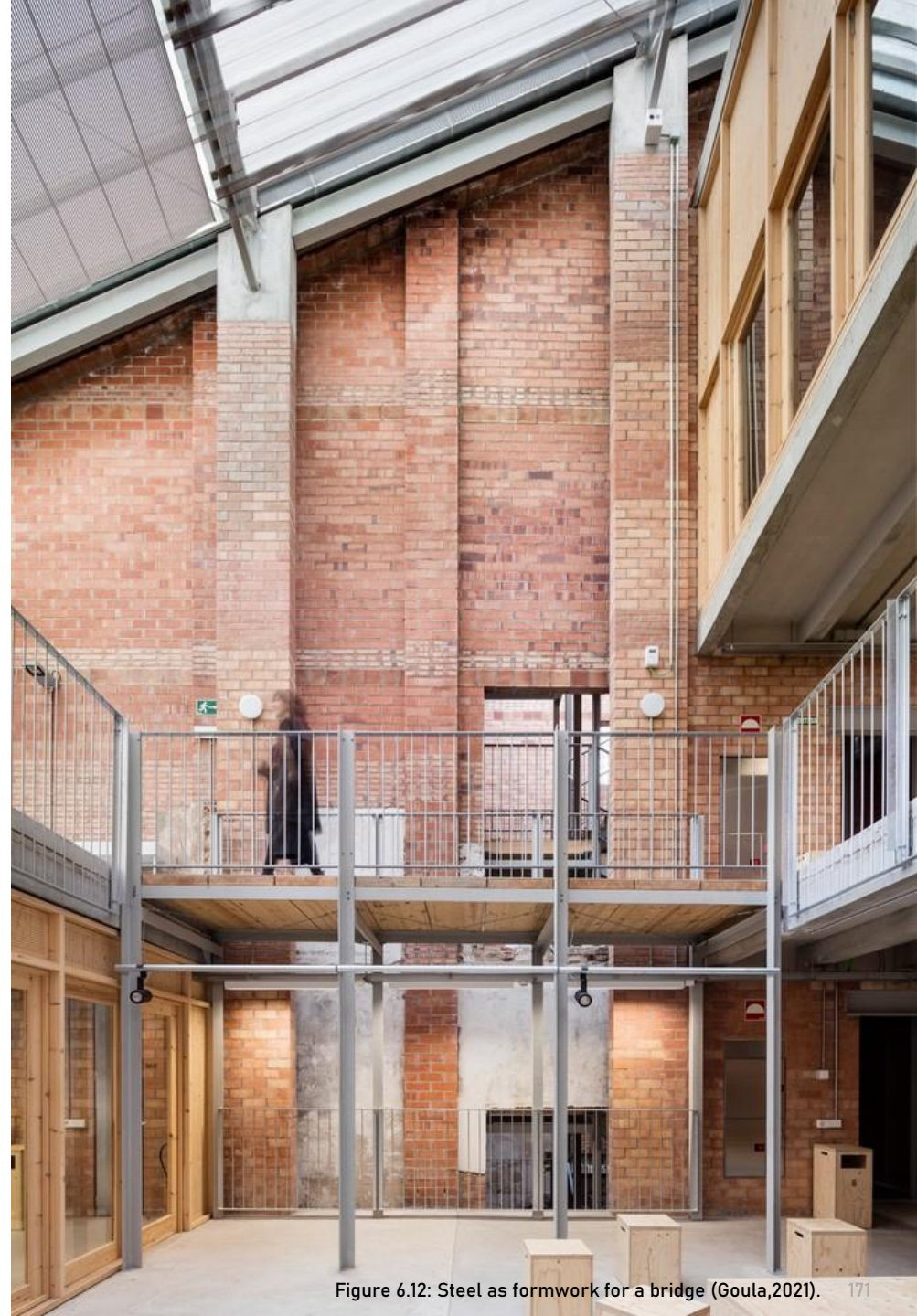
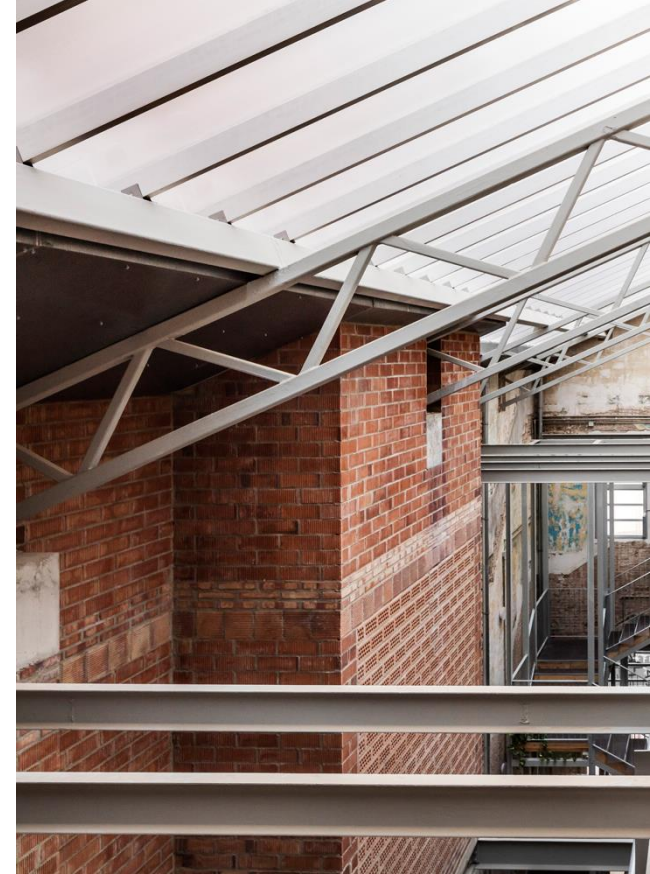


Figure 6.12: Steel as formwork for a bridge (Goula,2021). 171



Figure 6.13: Triple volume space (Goula,2021).



Finally, a triple space contiguous to the void of the two prior structural volumes finishes up the sequence behind the last structural volume. The series of holes creates an atrium with 'fresh' facades that contrast with the old party walls, which bear remnants of the building's past. The atrium provides light and air into all of the spaces, serving as the axis of horizontal and vertical circulation and providing new opportunities for programming.



Figure 6.14: Connection between old and new (Goula, 2021).

#### Lessons learnt:

In this study steel structures serve as passages and connections either between individuals or materiality. Steel serves as a mediator between old and new, private and public while creating double and triple volume spaces. Naturality comes with steel and framing structures therefore it influences the design into acknowledging steel can abide spaces as such.



Figure 6.15: Light steel structure characteristics (Goula, 2021).

## 6.4.2 Head Quarters of Pixar, California, USA

### - Engagements

Steve Jobs, CEO of Pixar brought in Bohlin Cywinski Jackson - who designed Bill Gates' Washington residence compound. Jobs' was a visionary of his time and wanted to have "promoted encounters and unplanned collaborations" (Snapshots, 2022) unlike the '90's office spaces being only enclosed and perfectly measured out cubicle farms. Job's didn't want a typical business park structure, such as one with corrugated metal exterior or ribbon windows. "The structure had to look fine and be applicable after 100 years" (Snapshots, 2022) . Jobs was a big lover of spontaneous engagements, so although an animation school/centre has different employee disciplines it is perfect to plan for all to merge for engagement somewhere and somehow. An atrium serves as a central hub for all. The notion was that those who are typically introverts would be compelled to engage in stimulating conversations. The atrium is important for things happen when people rush into each other and make eye contact.



Figure 6.16 : Triple volume space for meeting and the public (Risedorph,2021). 174

- **Beams in the atrium**

Jobs' had an eye for detail and it was particularly important for the atrium to not only house interactions but detailed structures and connections. It is said that "The architects used cold-rolled, bead-blasted steel, and all connections are custom-bolted, not welded, purely for aesthetics' sake" (Snapshots, 2022). The beams were visible giving honesty and height within the space.

- **Landscaping Plan**

The landscape, created by Peter Walker Partners, has an agrarian feel to it, with many seemingly unknown areas to explore, sit and converse, or eat lunch. This pastoral setting allows for a breath of fresh air which in turn allows for more relaxation which then inspires creativity.



Figure 6.17 : Lounge (Risedorph,2021). 175

- Clean interiors

The entire architectural plan was designed to provide a blank canvas for Pixar to creatively populate as they saw fit. By incorporating clean interiors it allows creativity to flow as everything can be seen as a canvas in one sense or another.



Figure 6.18 : Clean interiors (Risedorph,2021).





Figure 6.19 : Detailing with beam connections (Risedorph,2021).

## - Liveable and breathable offices

Many offices are set up in U-shaped units with 5 to 6 individual offices and a central meeting area in the middle, reducing the idea of unexpected collaboration to a working space concept.

### Lessons learnt:

Pixar headquarters incorporates liveable spaces and offices, there constant interaction points such lounges and or area located for coffee and creative chats. The building incorporates structural detailing which allows for display of materials. Material honesty is an important factor especially when steel frames serve as a lead element within a design. The thesis design assimilates lounges and material honesty.



Figure 6.20 : Lounges and liveable offices (Risedorph,2021).



Figure 6.21 : Lounges and liveable spaces (Risedorph,2021).





### 6.4.3 Cantilever House, Anderson Architecture

Architects: Anderson Anderson Architecture

Location: Granite Falls, Washington

Photographs : Anderson Architecture

In this case study, the steel form creates opportunity for an extensive cantilever in the design of the 'cantilever house', a prefabricated steel structural frame and a structural insulated panel system is standard mass produces materials. The system is built around a chosen few replaceable, repositionable assemblies to maximise time savings and reduce negative environmental effects. Simplicity and spatial quality resonates within this structure which also sits sculpturally within the scape, the cantilever of the building reduces the total footprint of the building.

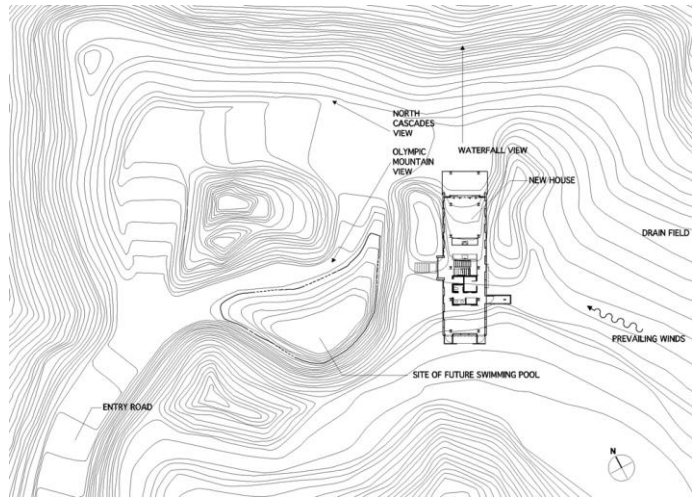


Figure 6.23: Ground floor plan (Anderson,2010).

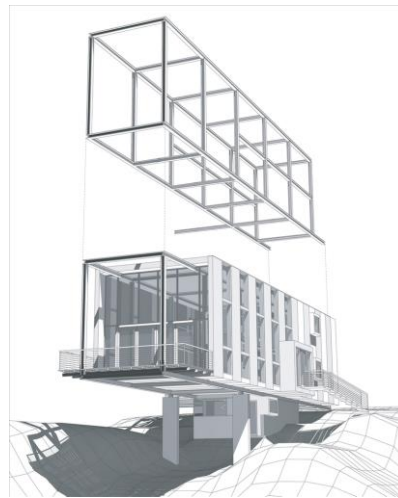
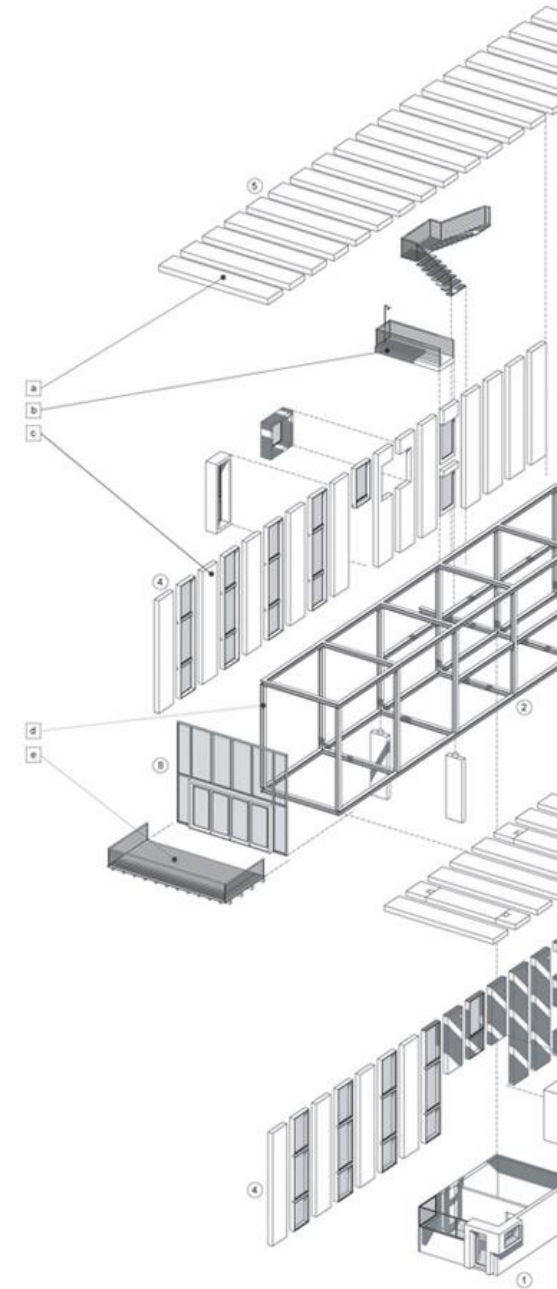


Figure 6.24: Structural assembly (Anderson,2010).



In this case study, the steel form creates opportunity for an extensive cantilever in the design of the 'cantilever house', a prefabricated steel structural frame and a structural insulated panel system is standard mass produces materials. The system is built around a chosen few replaceable, repositionable assemblies to maximise time savings and reduce negative environmental effects. Simplicity and spatial quality resonates within this structure which also sits sculpturally within the scape, the cantilever of the building reduces the total footprint of the building.

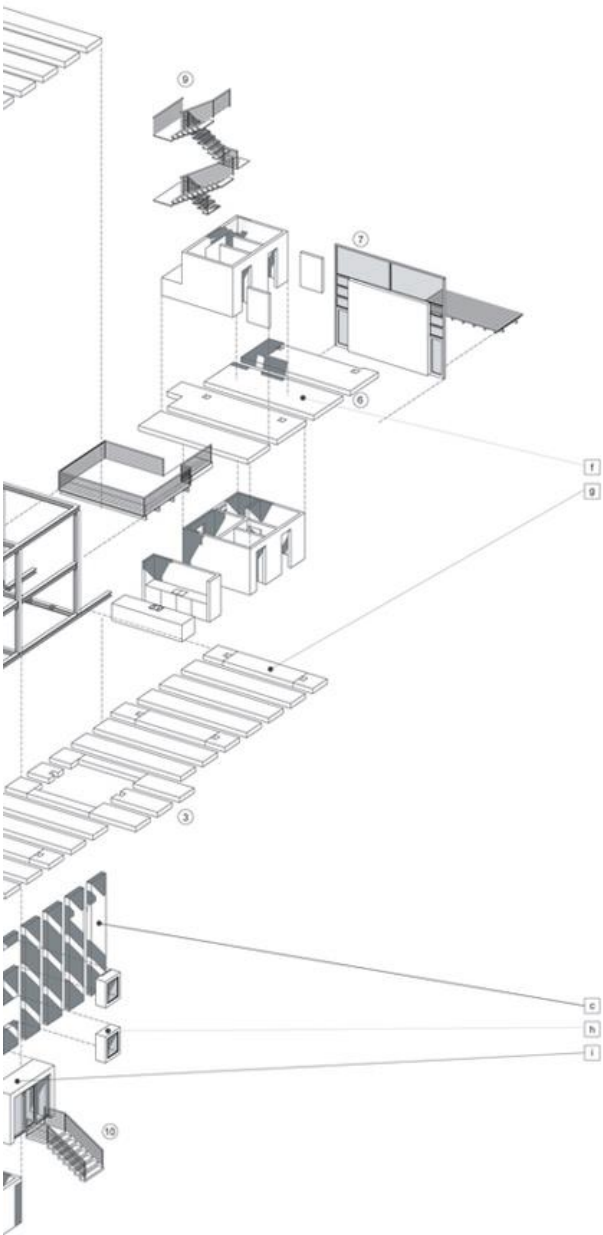


Figure 6.26: Steel framework (Anderson,2010).



Figure 6.27: Cantilever on site fully paneled (Anderson,2010).

### Lessons learnt:

In the thesis design standardised steel frames ensure simplistic and strong design outcomes especially for a cantilever design. Vertical panels connects on to the steel form for spatial enclosure. In the thesis design thin panels of concrete replaces the steel and corrugated panels as seen in the study.

Figure 6.25: Component illustration (Anderson,2010).

## 6.4.4 Johannesburg Holocaust & Genocide Centre (JHGC), Parktown, SA.

Architects: Lewis Levin

The AfriSam-SAIA Award for Sustainable Architecture and Innovation includes Lewis as one of its finalists.

Photographs :Gugu Zwane



Figure6.28: Holocaust & Genocide Centre (Zwane,2018). 182



Figure 6.29: Wall and steel detail (Zwane,2018).

In a private-public cooperation with the Metropolis of Johannesburg, the centre, which is located in the heart of the vibrant city of Johannesburg, South Africa, was established in 2008 and made accessible to the general public in March 2019. The design came about as a result of interaction with Holocaust and Rwandan genocide survivors.

Finding symbols for the horrors while still conveying a positive message is really challenging. Resources that were supplied by Johannesburg industries were repurposed and utilised. For the paving tombstone offcuts, burned bricks from Coro Brick, old railroad tracks from Macsteel, and dump rock stone from Afrisam were used.



Figure 6.30: Steel shading systems (Zwane,2018).



Figure 6.31: Holocaust & Genocide Centre (Zwane,2018).



Figure 6.32: Material integration. (Zwane,2018). 184

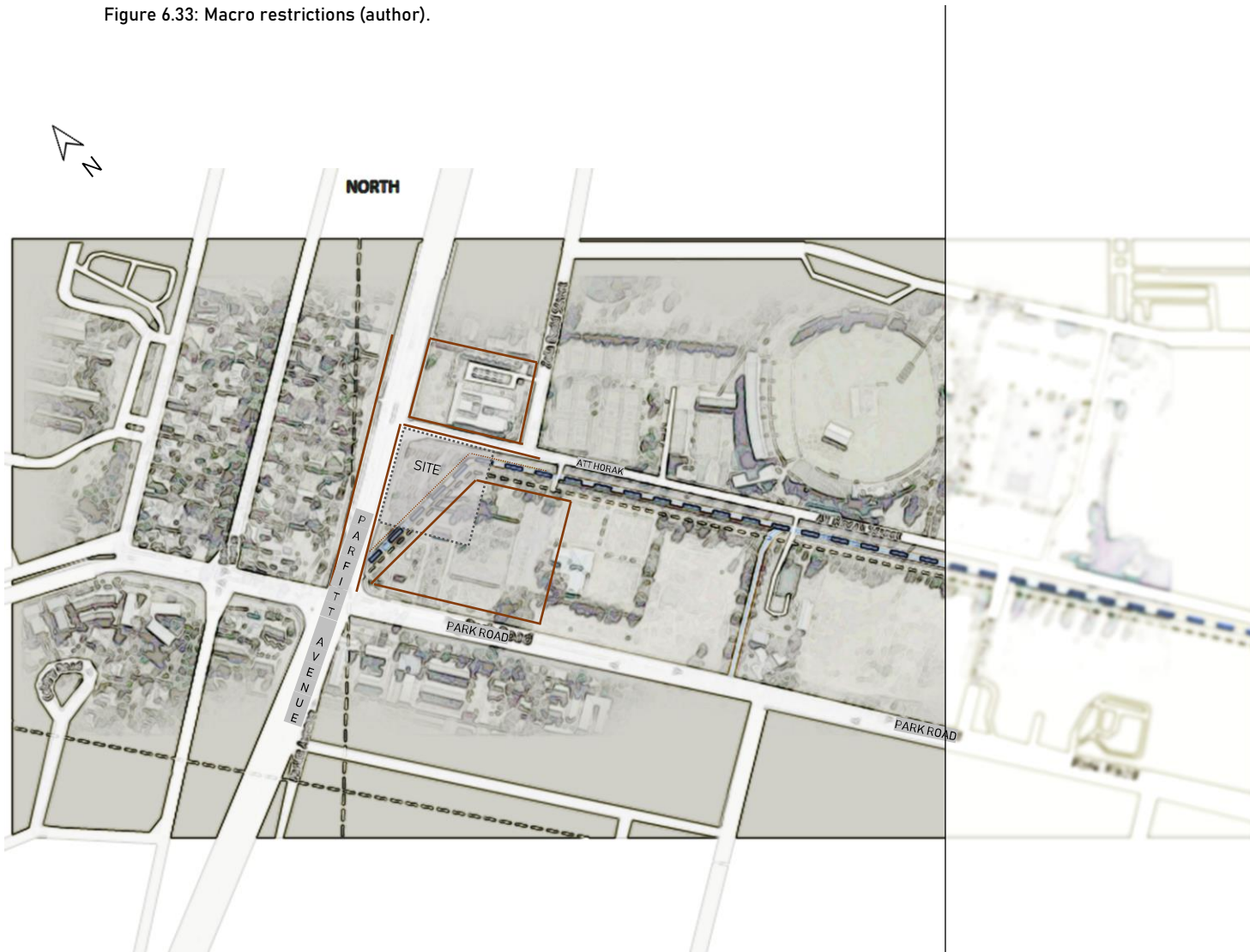


## 6.5 Restrictions

### 6.5.1 Macro restrictions

Illustration not to scale

Figure 6.33: Macro restrictions (author).



#### Streets-

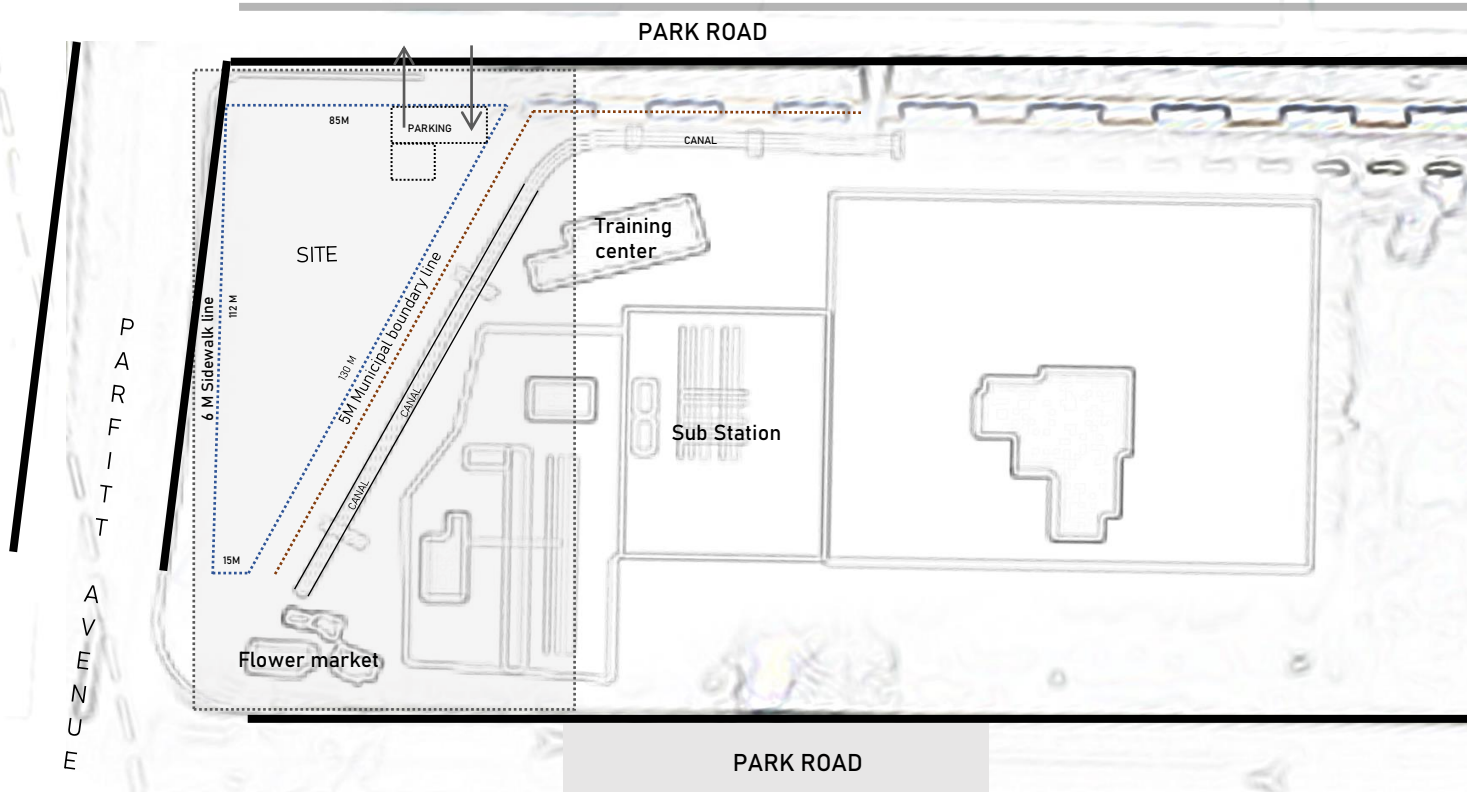
Due to site sitting in an urban scape, there exists concentrated restrictions and indurated lines of boundaries. Site finds itself surrounded by three streets, one main street with dense traffic and movements throughout the day. Parfitt Avenue, as a main street restricts any entrance into site and directed an entrance at Att Horak street, approximately 25-30 meters from the turning curve.

#### Sidewalk-

The design allows a 6M wide sidewalk for pedestrians due to the heavy traffic flow and movement in the city.



## 6.5.2 Micro restrictions



### Canal-

Although the canal serve as a big design development factor and a beautiful element to expose the design to, there are a few boundary lines not to exceed, such as a 5 meter boundary line alongside the canal for municipal maintenance vehicles to access. This boundary was purposefully inserted in order to avoid any disruptions to the site in the future.

### Trees-

As mentioned site has trees of significance and roots with history and therefor the need and responsibility was placed to preserve them.

Figure 6.34: Micro restrictions (author).

## 6.6 Environmental behaviour

### 6.6.1 Weather conditions

Illustration not to scale

Figure 6.35: Left- Wire model analysis (author).

Western sun touches the 3D animators studios and the public entrance at Parfitt Avenue's side. Due to site fronting mainly towards the western sun, alternative sun protection devices and components are in place to make the spaces workable and light friendly throughout the seasons.



WESTERN SUN

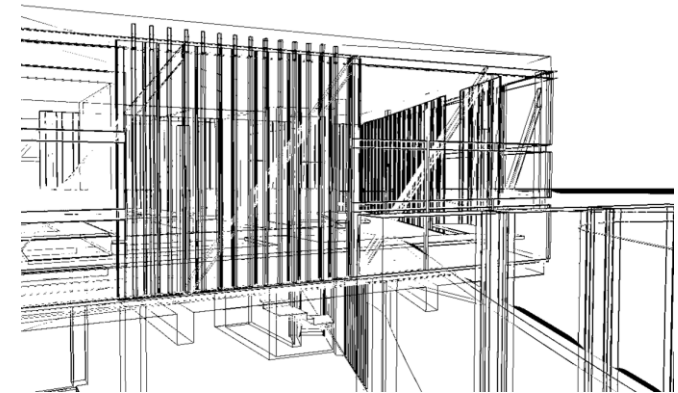
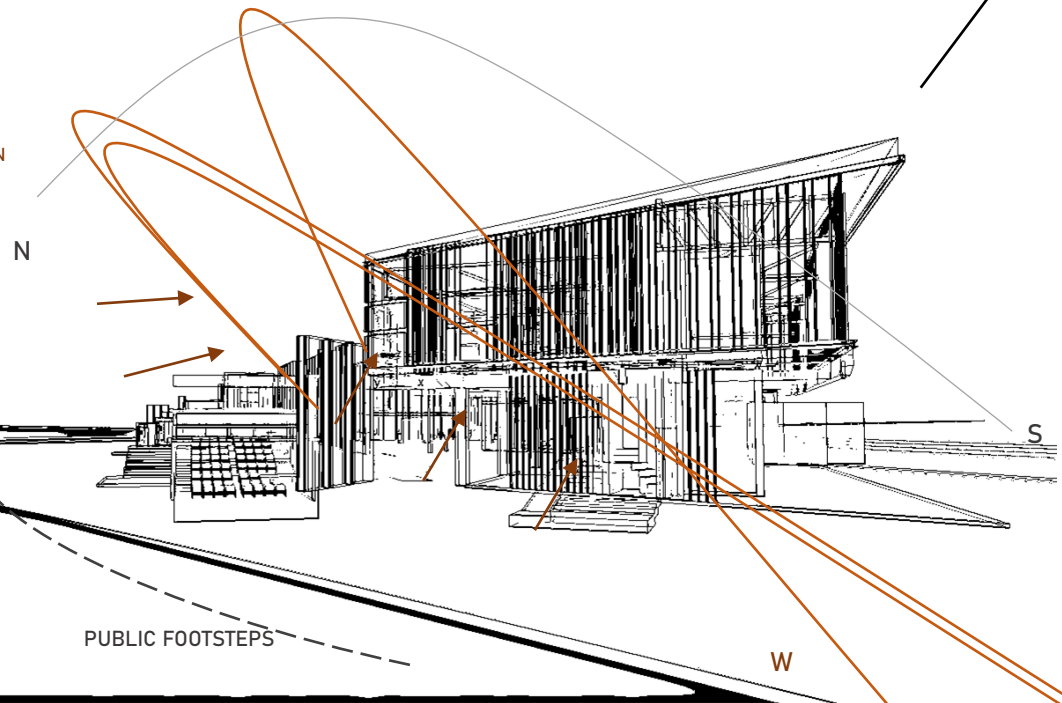


Figure 6.36: Layered steel systems (author).

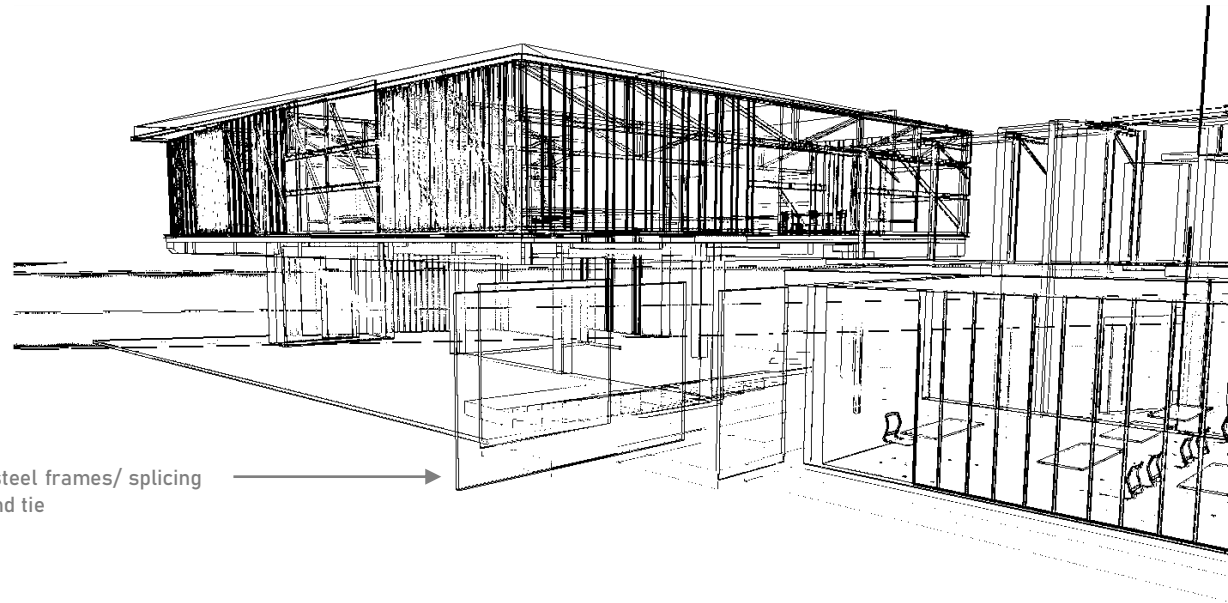
### 6.6.2 Western facades

Western facades are protected with vertical light steel louvers fixed to Parallel Flange Channel beams (PFC) / C-sections which are connected to vertical steel frames. Between the frames double glazed tinted curtain walls are fixed. The elements stated below starting from outside and moving towards the interior, make part of a three layer protection towards the western sun.

1. Light steel louvers connected to
2. Steel beams connected to
3. Vertical frame with
4. Double glaze, tinted aluminium frame curtain wall

This layered system allows for comfortable spaces and clean sophisticated western facades without implementing heavy materials nor sacrificing sunlight. Pre-casted concrete panels are clipped into the C-channels in vertical blocks, two next to each other and the rest stacked vertically makes up for one block. Transparency occurs in some blocks for allowing depth within the façade.

Western entrance and facades are protected by layered steel systems and tall rock walls with steel detailing. The steel section is a H-column connected to the wall, this method not only creates detailing but interesting shadow lines between the rock and steel.



Corten steel frames/ splicing space and tie

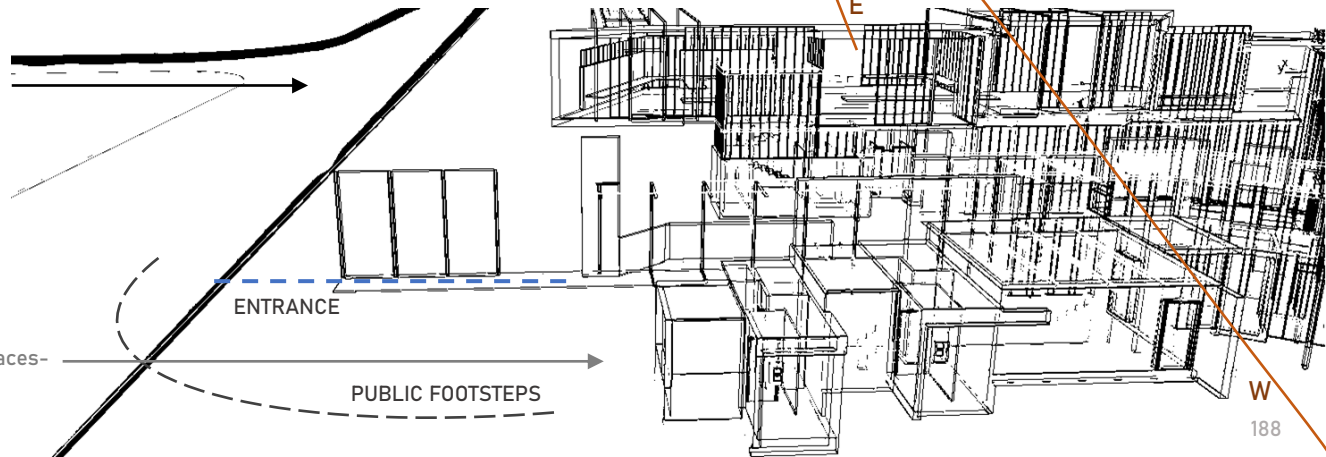
Figure 6.37: Top- Southern facade (author).

Figure 6.38: Bottom- Northern entrance analysis (author).

Elevated workable space - Steel and concrete.

Steel louver protected facades connected to frames.

The northern entrance greets an individual with three of these detailed rock walls, they are free standing pre-casted rock and mortar walls



Submerged functional spaces- brick, stone and concrete.

ENTRANCE

PUBLIC FOOTSTEPS

W

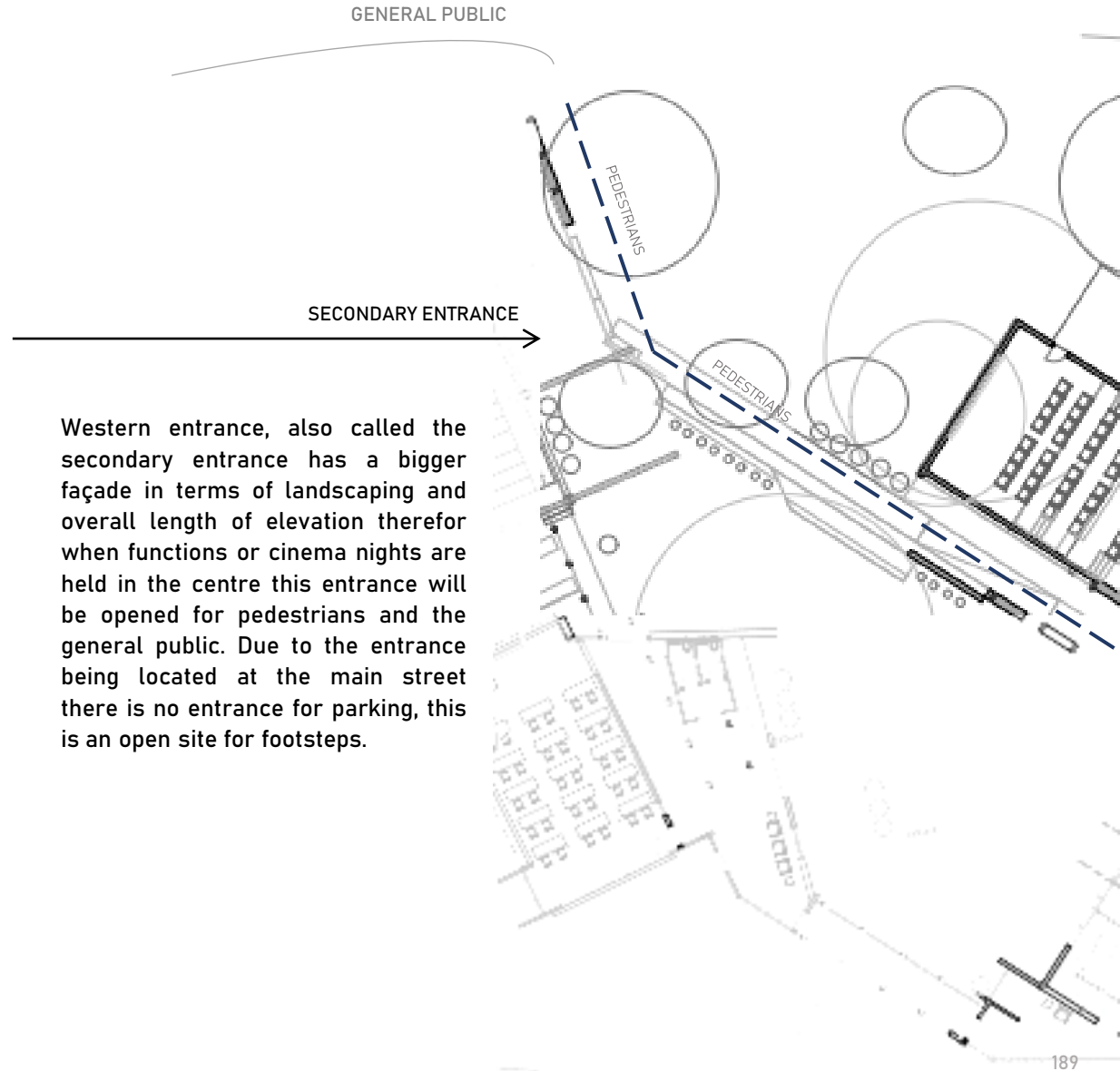
## 6.7 Private and Public entrances

### 6.7.1 Secondary entrance

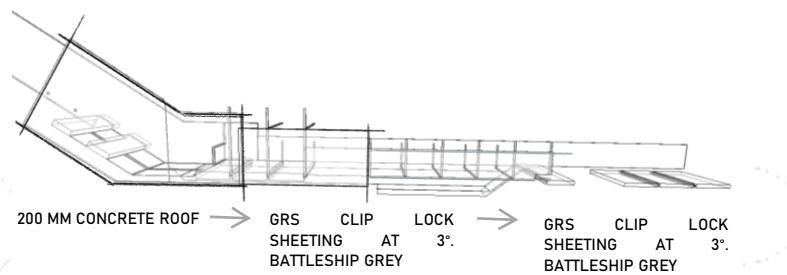
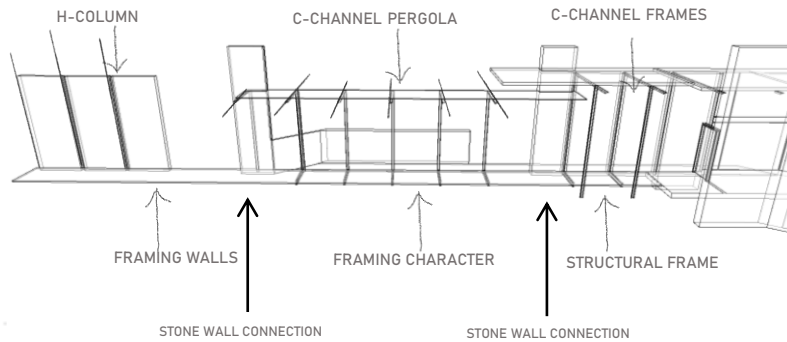
illustrations not to scale



Figure 6.39: Western entrance (author).



Western entrance, also called the secondary entrance has a bigger façade in terms of landscaping and overall length of elevation therefore when functions or cinema nights are held in the centre this entrance will be opened for pedestrians and the general public. Due to the entrance being located at the main street there is no entrance for parking, this is an open site for footsteps.



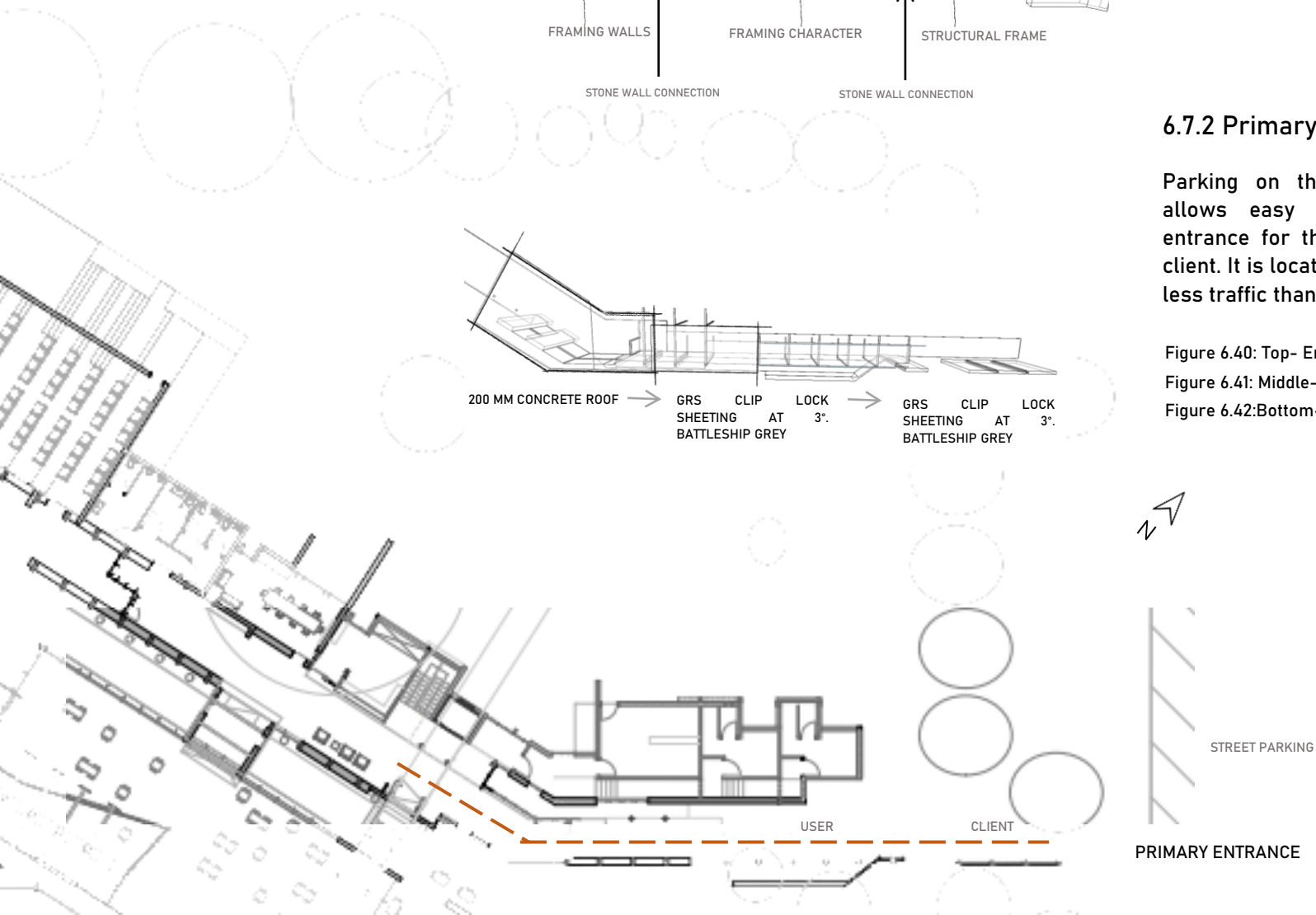
## 6.7.2 Primary entrance

Parking on the northern side of site allows easy access to the primary entrance for the daily user and regular client. It is located at a smaller street with less traffic than Parfitt Avenue.

Figure 6.40: Top- Entrance analysis of frames (author).

Figure 6.41: Middle- Entrance roofing (author).

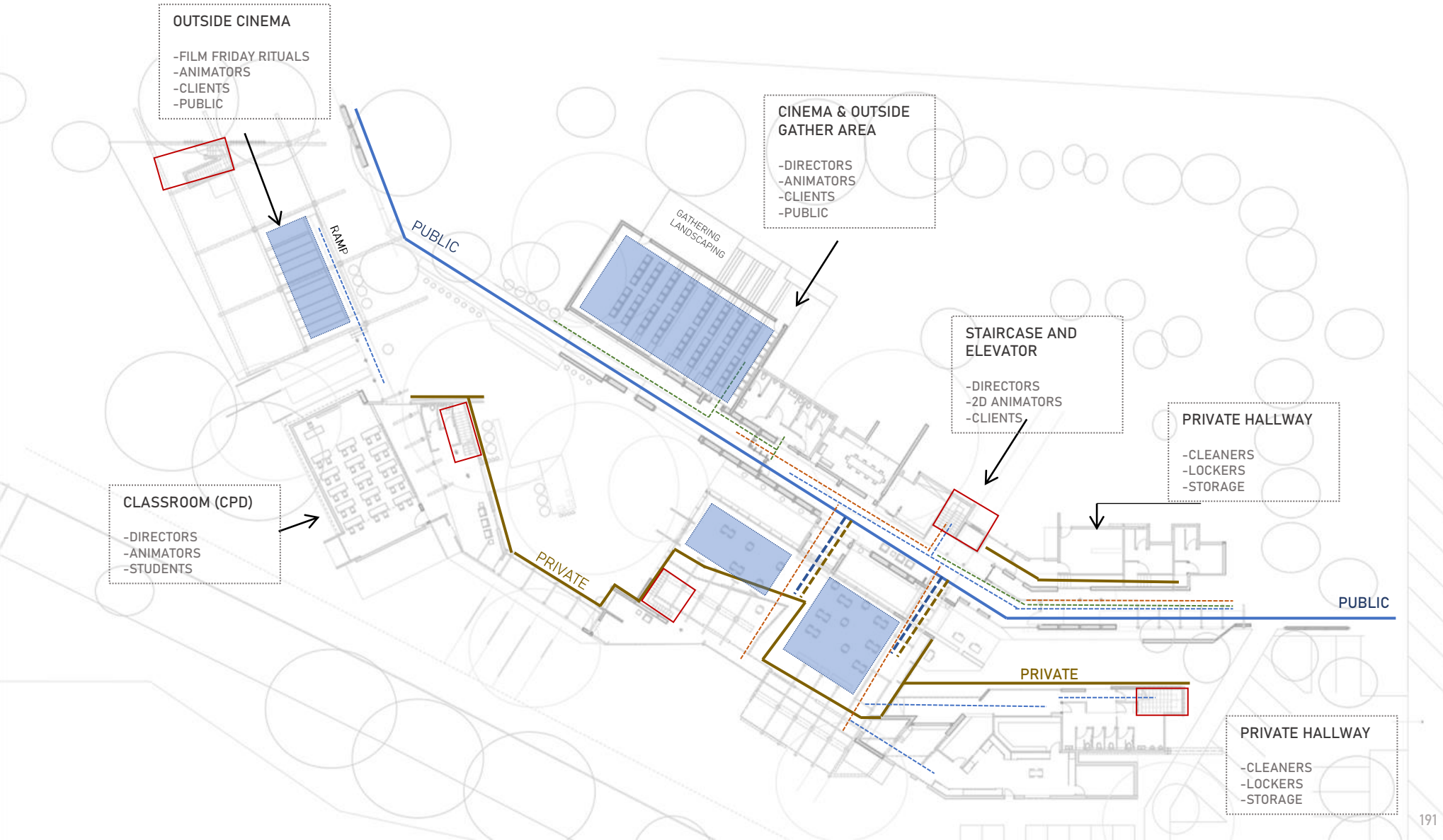
Figure 6.42: Bottom- Northern entrance (author).



# 6.8 Circulation and Accessibility

Illustration not to scale

Figure 6.43: Circulation diagram (author).



### 6.8.1 User ritual

- Animator
- Director
- Staff

The design has universal access points throughout the building with emergency exit stairs. The user's experience is directed with easy access and flow of movement, from one studio to another. Studios have an unstirred flow of communication and mindful interruptions.

### 6.8.2 Client ritual

- Private client
- Businesses
- Advertisements
- Films

A client will walk through the passage way with easy access to admin and from there will meet with a director on 1<sup>st</sup> floor. Waiting and spill out area are given to each space of function for effortless gathering. Privacy is obtained through closed offices and board rooms.

### 6.8.3 Public ritual

- Students
- Professionals (CPD)
- Cinema

Cinema nights and film Fridays are part of private and public rituals, therefore effortless access to the cinemas are obtained through careful placing of entertainment spots.

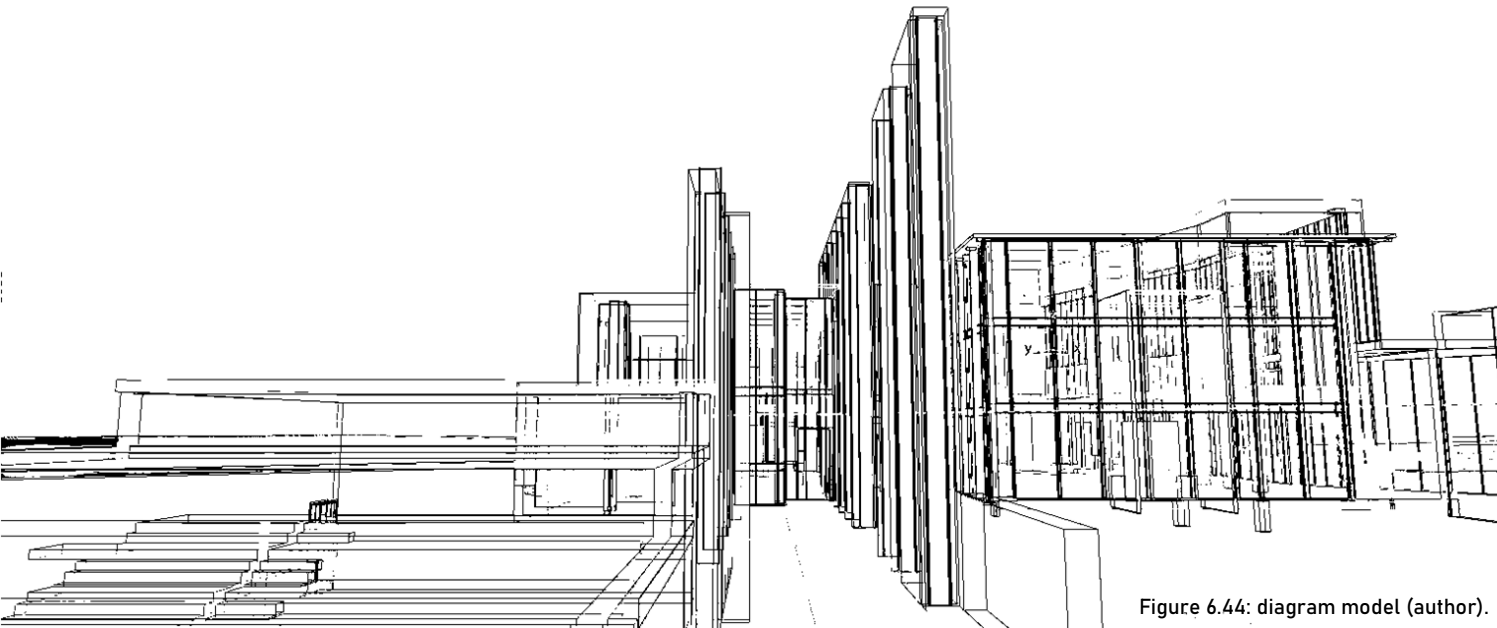
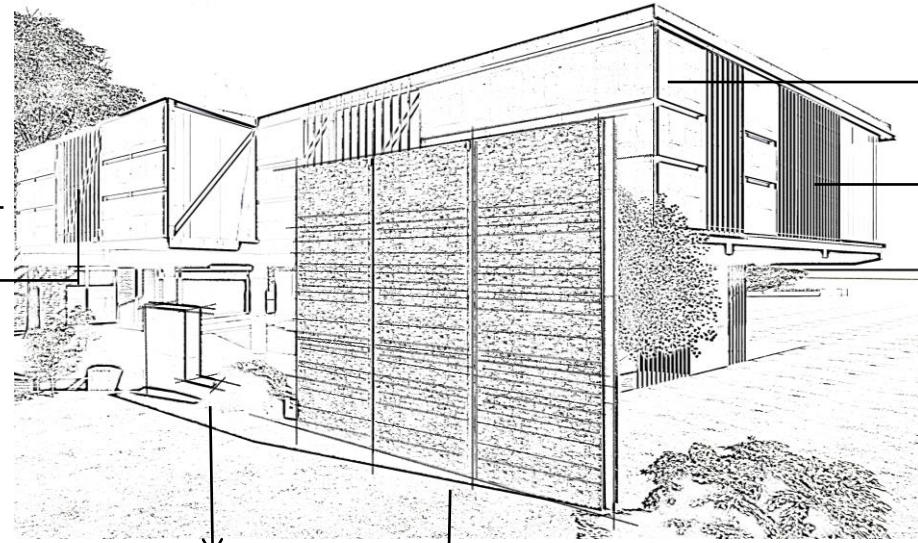


Figure 6.44: diagram model (author).

# 6.9 Materiality

Pre-cast concrete panels  
clipped to  
C-Channel Steel frame



Seating

Figure 6.46: Materiality illustration (author).

Sandstone ashlar wall

An orderly stacked and cut stone wall leads to the entrance, while a bigger course stone is used for seating.

Pre-cast concrete panels  
Grey rockface brick  
GRS clip lock sheeting at 3°  
battleship grey  
Concrete roof



Sandstone ashlar wall

Figure 6.45: Materiality illustration (author).

C-Channel steel beams details between the concrete panels for creating depth within the façade. Steel is a mediator and element of connection when placing two materials next or on top of each other.

Next to a block of placed concrete panels is another form of surface which encloses a space through vertical placed steel structures. This placement fabricates contrast within not only the materiality but transparency of the building. Both the steel and pre-casted panels are designed to be almost equally light in weight due to the cantilever of the 3D studio building. It is important to continue the flow of concrete material of the screed into the walls. A steel beam connects to the screed giving it a sharp and articulated edge, and the rest of the louver and steel frame structures connects onto the steel beam. Steel eloquently queues with the concrete panels.

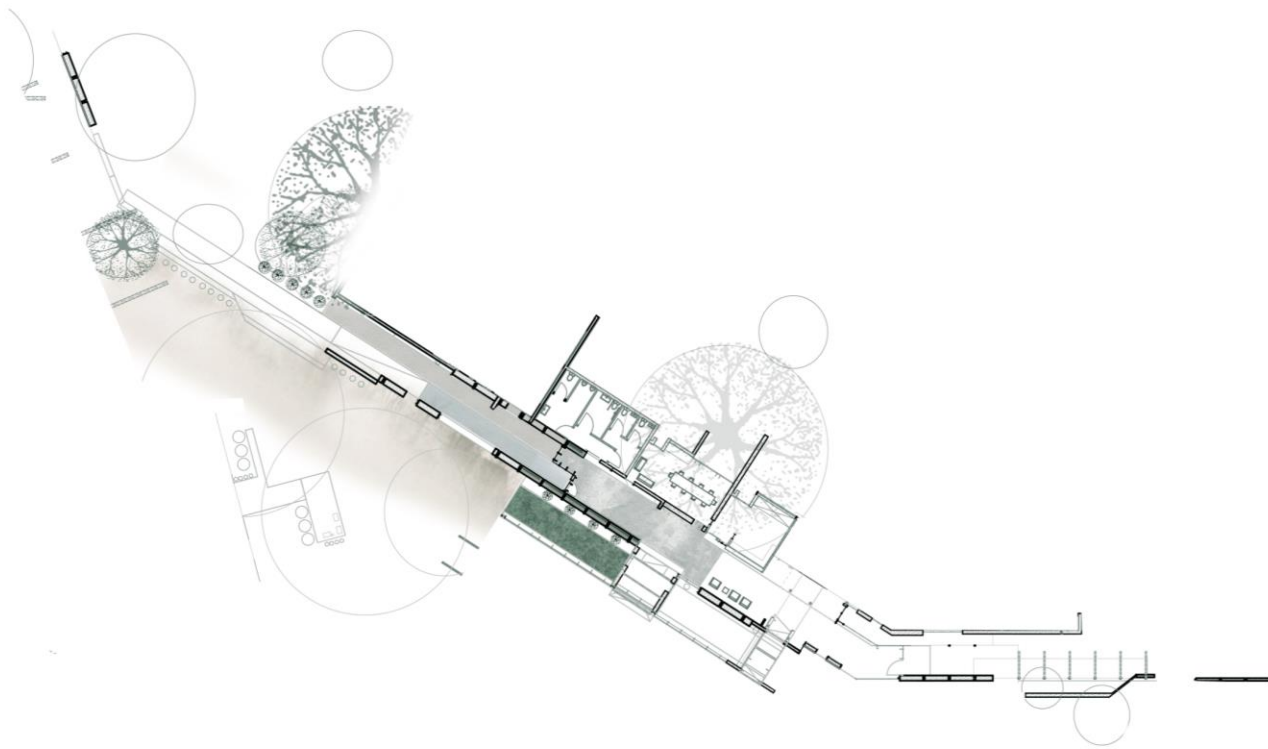


Figure 6.47: Materiality on plan (author).

## Conclusion

Characteristics between the two domains, especially viewing them on a surface level suggested that there are substantial factors which communicated effortlessly and displayed similarities. While researching each domain separately there was always a link to be made to the other, it was communication at full length. The thesis projected firstly adventured and thereupon researched similarities between the two domains and established that frames are a form of translation and can be implemented into the project to create many solutions and experiences throughout for an individual.

Frames were used to animate site, shape an individual into a character within site, and finally made these conceptualities structurally possible. Although frames play a role on a large scale in creating an appropriate built project which respects sites elements and the surroundings, there are also many other influences, forces and factors which played into the role of frames.

Hybridity occurs all around us and is everlastingly within this world, let it be a state of mind, crossing of spiritual or mental thresholds or simply allowing the bridge of communication to be in actuality, it is all an experience of our own and that is the beauty of it. It doesn't matter the character, narrative nor different believes, hybridity follows and exposes itself on the crossing of thresholds. This thesis project's aim branched to a part of clarifying through the domain of architecture and visually that hybridity as much as it is subjectively it is a physicality which allows sight and senses to have the experience of hybridity. Meaning that between the two domains stands hybridity, it stood for gathering, creativity and mindful interruptions.

In conclusion and in success the thesis project were brought into existence upon the being of many elements on site and through translation of architecture and animation the production centre exists.

Conclusion

## Reflection

A passion directed the project but only after realising that I could not enjoy a project if it was not evoked through the unexplainable feeling of art, animation and architecture. I truly believe that something done through curiosity and passion is done well. In early stages the two domains hardly displayed any similarities and combinations with one another, however for me, curiosity and vision retained a drive for research within these presented domains.

With every discovery and sketch, possibilities and factors of similarities came to surface, not only was it interesting doing concepts and deriving plans from site and all of its significances but a passion broadened for creative thinking, art and architectural conceptualities, kept me moving forward. Architecture is not a built material, and in many ways it was proven as similarities of the domains linked to real-life, one's narrative and sharing it through talents. Architecture is storytelling, it is translation of a language itself subsists of and that hybridity is a state we all can learn to explore, and to be in a state of hybridity is to endow into listening to these different languages. Languages can be seen as silent communications with and within the world.

How many languages does architecture speak ? If I had to answer, I'd say where love lays is where a understanding and translation stands.

Every step and critical session reminded me that we can, and often do find ourselves in the realm of love and creativity. Personally the spirit of how things were done and taught to me broke so many mental barriers and fears. On reflection of self, I did not research, discover nor stated this project but the development through all of those inputs I discovered bit more of my identity in architecture by letting be and so the project shaped and discovered me.

Reflection

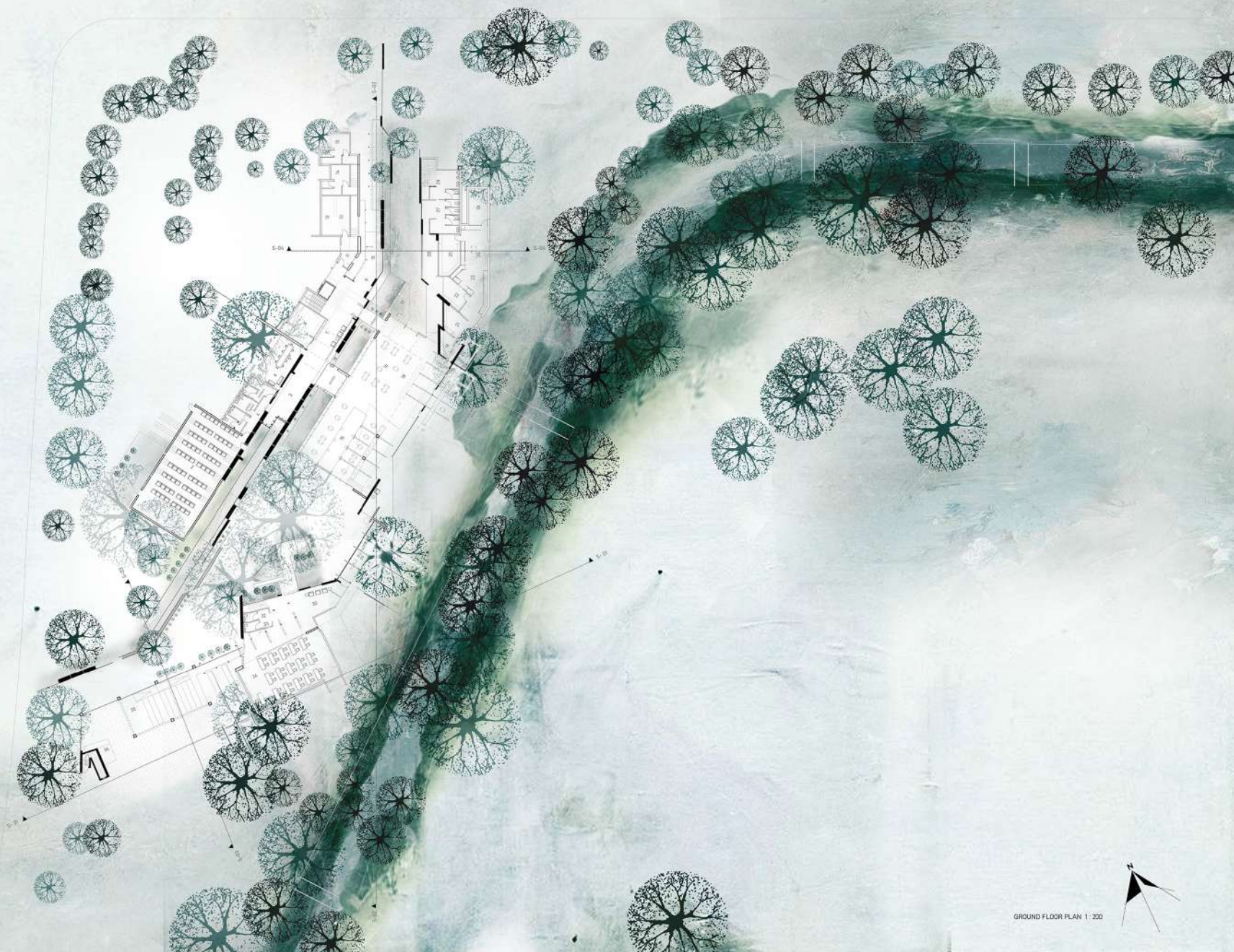
- Auret, H. and Roodt, A. 2019. *The history and promise of King Edward VII Park Bloemfontein: resoluteness, restraint and regions of concern*. South African Journal of Art History, 34(1),pp. 1-20, Online. Available from :< <https://journals.co.za/doi/abs/10.10520/EJC-1f5e98b6aa> > [ Accessed on 24 November 2022]
- Alamy. 2022. *Map of Bloemfontein*. Alamy. Image. Online. Available at :< <https://www.google.com/imgres?imgurl=https%3A%2F%2Fthumbs.dreamstime.com%2Fb%2Furban-vector-city-map-bloemfontein-south-africa-187227443.jpg&imgrefurl=https%3A%2F%2Fwww.dreamstime.com%2F> > [Accessed on 7 July 2022]
- Anderson Architecture. 2010. *Cantilever House*. ArchDaily. Online. Available from :< <https://www.archdaily.com/56853/cantilever-house-anderson-anderson-architecture> > [Accessed on 13 August]
- Anthony, K.H. & Sekalias, A. 2015. *4 Lessons Pixar Films Can Teach Us About Architecture*. ArchDaily. Online. Available from :< <https://www.archdaily.com/771987/4-lessons-pixar-films-can-teach-us-about-architecture> > [ Accessed on 12 August 2022]
- Archdaily. 2010. *Cantilever House by Anderson Anderson Architecture*. Archdaily. Online. Available from :< <https://www.archdaily.com/56853/cantilever-house-anderson-anderson-architecture>> ISSN 0719-8884 > [Accessed on 15 September 2022]
- Arets, W. 2022. *The Quasi Object*. Roemer van Toorn. PDF. Online. Available from:< <https://www.roemervantoor.nl/quasiobject.html> > [Accessed on 8 October 2022]
- Bhabha, H. 1994. *The Location of The Culture*. London: Routledge. Online. Available from:< <https://ejournal.unitomo.ac.id/index.php/dinamika/article/download/628/344> > [Accessed 12 August 2022]
- Darawula, P. 2017. *House of Stories | Mathew and Ghosh Architects*. ArchDaily. Online. Available from:< <https://www.archdaily.com/894334/house-of-stories-mathew-and-ghosh-architects>> [Accessed on 24 November 2022]
- Docter, P. 2021. *Pixar: BUILDING CHARACTERS*. Pixar. Online. Available from:< <https://www.pixar.com/extras> > [Accessed on 20 September 2022]
- Du Plessis, E. 2020. *The Bloemfontein Flood of 1904*. nationalmuseumpublications. Online. Available from:< <https://nationalmuseumpublications.co.za/the-bloemfontein-flood-of-1904/> > [Accessed on 7 June 2022]
- Frye, J. 2021. *Meet the monsters*. The official Disney fan club. Image. Online. Available from :< <https://d23.com/meet-the-monsters/> [Accessed on 10 August 2022]
- Gambin, L. 2018. *Secretely scary : Pinocchio (1940)*. Diabolique magazine. Online. Available from <: <https://diaboliquemagazine.com/secretly-scary-pinocchio-1940/> > [Accessed on 20 September 2022]
- Gonzalez, F. 2017. *House of Stories | Mathew and Ghosh Architects*. ArchDaily. Online. Available from:< <https://www.archdaily.com/894334/house-of-stories-mathew-and-ghosh-architects>> [Accessed on 24 November 2022]
- Goula, A. 2017. *Aufitorium, Community Centre, Refurbishment, Barcelona, Spain*. ArchDaily. Online. Available from:< [https://www.archdaily.com/589438/house-1014-h-arquitectes/54bdd1e7e58ecef70000082-03\\_mg\\_0415\\_tall-jpg](https://www.archdaily.com/589438/house-1014-h-arquitectes/54bdd1e7e58ecef70000082-03_mg_0415_tall-jpg) > [Accessed on 24 November]
- Harquitectes, 2021. *Civic Centre Lleialtat Santsenca*. ArchDaily. Online. Available from:< <https://www.archdaily.com/889515/civic-centre-lleialtat-santsenca-1214-harquitectes> > [ Accessed on 11 August 2022]
- Heidegger, M. 1997. 'Letter on Humanism', in Basic Writings, ed. David Farrell Krell, pp. 189-242, New York : Harper & Row. ( 1977a)
- Heil, L. 2022. *On Imitation and Originality*. Future symphony institute. Online. Available from :< <https://www.futuresymphony.org/on-imitation-and-originality/> > [Accessed on 14 August 2022]
- Hereema, E. 2022. *Mnemonics Are an Effective Strategy for Memorization*. Verywell. Online. Available from :< <https://www.verywellhealth.com/memory-tip-1-keyword-mnemonics-98466> > [ Accessed on 6 August 2022]
- Hilton, T. 2022. *Bloemfontein Raadsaal*. Flickr. Image. Online. Available at :< <https://www.flickr.com/photos/hilton-t/5664793673/in/photostream/> > [Accessed on 4 August 2022]
- Hookedonhouses. 2022. *Up. Recreating a real life "up" house*. Image. Online. Available from:< <https://hookedonhouses.net/2011/08/22/the-real-life-up-movie-house-interior-photos/> > [Accessed on 10 August 2022]

- Jevremović, I. 2017. *HYBRIDITY IN AND BEYOND ARCHITECTURE: LIMINAL CONDITIONS*. Bitstream. Online. Available from: <<https://raf.arh.bg.ac.rs/bitstream/handle/123456789/435/SAJ-2017-03-I-Jevremovic.pdf?sequence=1&isAllowed=y>> [Accessed on 9 August 2022]
- Karnak, İ. 2018. Architecture of the single room movies tectonic, scenographic and hybrid spaces [M.Arch. - Master of Architecture]. Middle East Technical University. Online. Available from: <<https://open.metu.edu.tr/handle/11511/27838>> [Accessed 7 August 2022]
- Latour, B. 1993. 'WE HAVE NEVER BEEN MODERN. Translated by Catherine Porter. P65. PDF. Online. Available from : <[https://monoskop.org/images/e/e4/Latour\\_Bruno\\_We\\_Have\\_Never\\_Been\\_Modern.pdf](https://monoskop.org/images/e/e4/Latour_Bruno_We_Have_Never_Been_Modern.pdf)> [Accessed on 11 August 2022]
- Little, S. 2011. *How Walt Disney Cartoons Are Made*. YouTube. Video. Online. Available from : <<https://www.youtube.com/watch?v=M2ORklrHUbq&t=192s>> [Accessed on 2 August 2022]
- Mapz, 2022. *Map of Bloemfontein*. Mapz. Image. Online. Available from : <[https://www.mapz.com/mapz/glasfaserausbau\\_filderstadt/map?zoom=16&lon=26.215495972123477&lat=-29.116395043047575&layers=mapz\\_multicolor\\_base](https://www.mapz.com/mapz/glasfaserausbau_filderstadt/map?zoom=16&lon=26.215495972123477&lat=-29.116395043047575&layers=mapz_multicolor_base)> [Accessed on 22 September 2022]
- MasterClass.2021. *A Guide to the History of Animation*. MasterClass. Online. Available from : <<https://www.masterclass.com/articles/a-guide-to-the-history-of-animation>> [Accessed on 20 September 2022]
- Mediafreaks.2019. *The Process of 3D Animation*. Mediafreaks. Online. Available from:< <https://www.media-freaks.com/the-process-of-3d-animation/>> [Accessed on 20 September]
- Najafi, M. 2011. *The Concept of Place and Sense of Place In Architectural Studies*. Psu.edu. Online. Available from : <<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.294.3599&rep=rep1&type=pdf>> [Accessed on 16 August 2022]
- Najeef,F. 2020. *History of Animation and its Evolution in Film*. Motioncue. Online. Available from:< <https://motioncue.com/history-and-evolution-of-animation-in-film/>> [Accessed on 20 September 2022]
- Pixar.2022. *Leadership*.Pixar. Online. Available from :< <https://www.pixar.com/leadership>> [Accessed on 20September]
- Quigley, T. 2022. *LETTER ON HUMANISM*. PDF. Online. Available from:< <http://timothyquigley.net/cont/heidegger-lh.pdf>> [Accessed on 11 August 2022]
- Raja, M. 2021. *Webinar: Postcolonialism(Edited Version) | Q and A | Postcolonial Theory. I*. Video. YouTube. Online. Available from:< <https://www.youtube.com/watch?v=KVzv4IUZ7bl>> [Accessed on 24 November 2022 ]
- RF. 2022. Urban vector city map of bloemfontein, south Africa. RF123. Image. Online. Available from : <[https://www.123rf.com/photo\\_153696124\\_stock-vector-urban-vector-city-map-of-bloemfontein-south-africa.html](https://www.123rf.com/photo_153696124_stock-vector-urban-vector-city-map-of-bloemfontein-south-africa.html)> [Accessed on 7 June 2022]
- Rosenbaum, S. 2022. *Visionary Architects: Barbara Guest, Frederick Kiesler, and the Surrealist Poetics of the Galaxy*. Mdpi. PDF. Online. Available from ;< [https://mdpi-res.com/d\\_attachment/humanities/humanities-11-00113/article\\_deploy/humanities-11-00113-v2.pdf?version=1663906320](https://mdpi-res.com/d_attachment/humanities/humanities-11-00113/article_deploy/humanities-11-00113-v2.pdf?version=1663906320)> [Accessed on 10 August 2022]
- Risedorph,S. 2021. *Pixar Headquarters and Legacy of Steve Jobs*. Snapshots. Online. Available from :< <https://officesnapshots.com/2012/07/16/pixar-headquarters-and-the-legacy-of-steve-jobs/> . [Accessed on 15 August]
- SAHO,2019. *Bloemfontein the segregated city*. SAHO. Image. Online. Available at :< <https://www.sahistory.org.za/article/bloemfontein-segregated-city>> [Accessed on 4 August 2022]
- Schoeman, K. 1980. Bloemfontein – Die ontstaan van `n stad 1846 - 1946. Kaapstad, Pretoria, Johannesburg. Human & Rousseau.

- The Animation School, 2021. Exhibitions, 3D set and props. The Animation School. Images. Online. Available from :< <https://theanimationschool.co.za/exhibitions/2021-exhibition/first-year/3d-set/> > [ Accessed 20 September 2022]
- Thrafton,A. 2016. *How the brain process emotions*. MIT news. Online. Available from :< <https://news.mit.edu/2016/brain-processes-emotions-mental-illness-depression-0331> > [Accessed on 24 November 2022]
- Vladutescu,S. (2003). *Ființă și timp*. București: Editura Humanitas. Online. Available from: <<https://www.scipress.com/ILSHS.17.49.pdf> > [Accessed on 8 August 2022]
- Wolf,J.R, 2022. *The Subversive Urbanism of Pixar Movies*. Common edge. Online. Available from :< [https://commonedge.org/the-subversive-urbanism-of-pixar-movies/?utm\\_medium=website&utm\\_source=archdaily.com](https://commonedge.org/the-subversive-urbanism-of-pixar-movies/?utm_medium=website&utm_source=archdaily.com) > [ Accessed on 13 August]
- Zwane, G. 2018. *Holocaust & Genocide Centre* . Joburg. Photo. Online. Available from:< [https://www.joburg.org.za/media/\\_Pages/Media/Media%20Statements/2019%20Media%20Statements/2019%20April/A-learning-adventure-at-the-Johannesburg-Holocaust-&-Genocide-Centre.aspx](https://www.joburg.org.za/media/_Pages/Media/Media%20Statements/2019%20Media%20Statements/2019%20April/A-learning-adventure-at-the-Johannesburg-Holocaust-&-Genocide-Centre.aspx) > [Accessed on 28 July 2022]

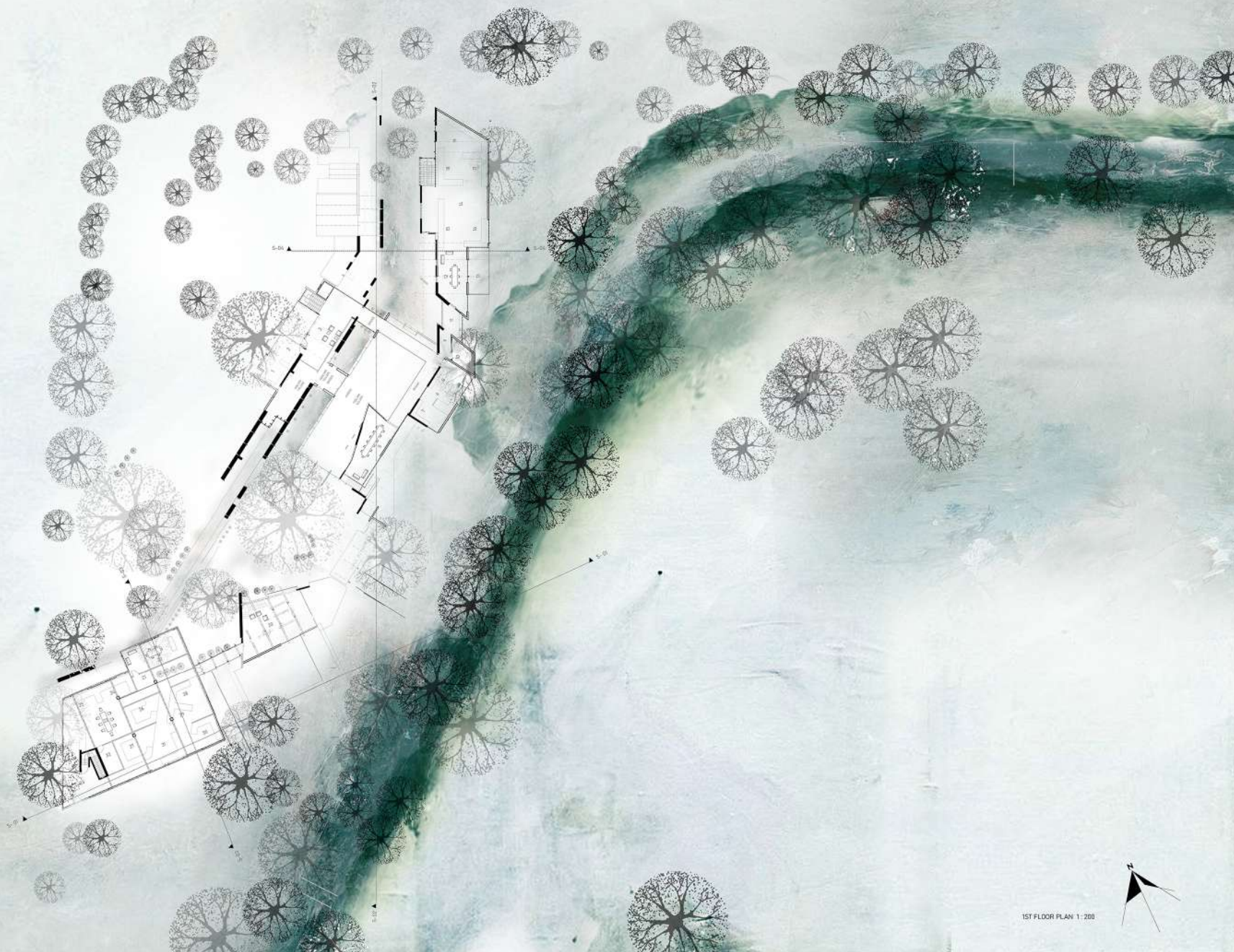
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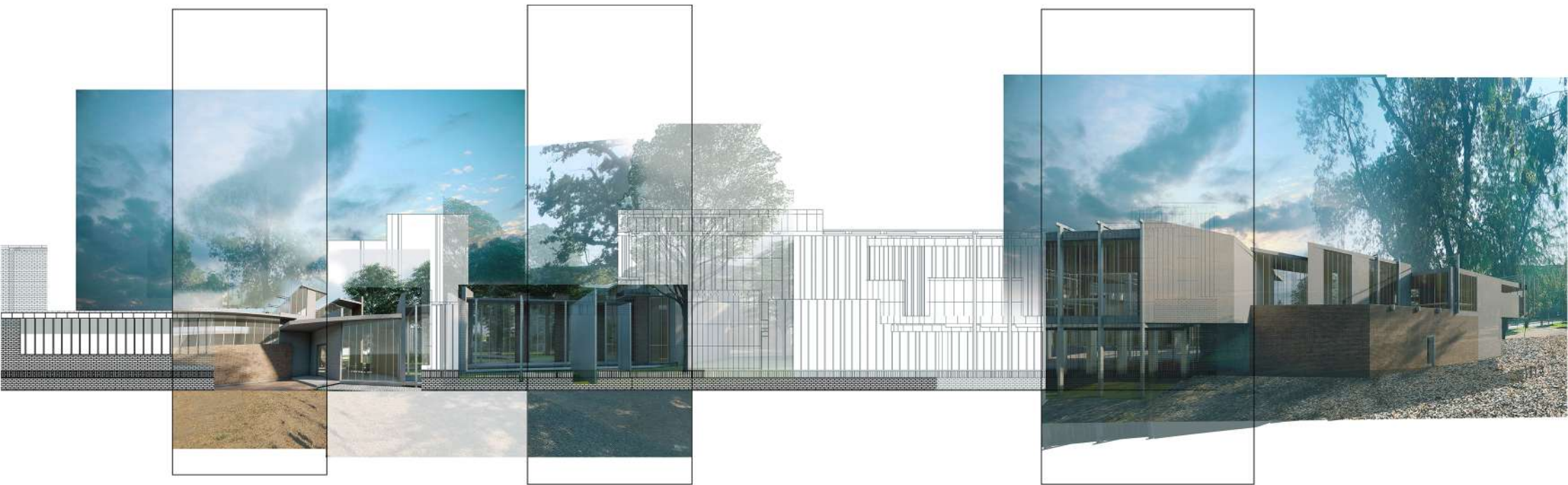
1. SECONDARY ENTRANCE/ CINEMA NIGHTS
2. CINEMA 70 - 80 SEATS
3. GALLERY
4. ABLUTIONS
5. CLIENT BOARD ROOM
6. COFFEE STATION
7. WAITING AREA
8. RECEPTION
9. GALLERY
10. PRIMARY ENTRANCE
11. PRIVATE HALLWAY
12. GARDEN EQUIPMENT
13. GENERAL EQUIPMENT
14. FEMALE LOCKERS
15. MALE LOCKERS
16. CHARACTER GALLERY
17. CAFETERIA 50 - 70 SEATS
18. OUTSIDE COFFEE AREA
19. SERVING AREA
20. KITCHEN STAFF ENTRY
21. SERVICE YARD
22. TUCK SHOP
23. PREPARING AREA
24. KITCHEN SUPERVISOR OFFICE
25. DELIVERY AREA
26. PANTRY
27. COOLING ROOM
28. FEMALE
29. MALE
30. PRIVATE HALLWAY
31. OUTSIDE HALLWAY
32. CLASS ROOM SPILL OUT AREA
33. OUTSIDE SEATING AREA
34. MALE
35. FEMALE
36. SKILLS DEVELOPMENT CLASS ROOM 30 SEATS
37. OUTSIDE CINEMA/ FILM FRIDAYS
38. SECURITY CORNER



LEGEND:

1. CREATIVE DIRECTOR
2. HEAD DIRECTOR
3. WAITING AREA
4. OUTSIDE SMOKING AREA
5. DIRECTORS MEETING ROOM
6. MIXED USE STUDIOS
7. COMPUTER SCIENTISTS
8. COMPUTER SCIENTISTS
9. HALL WAY
10. DIRECTOR OFFICE
11. COFFEE STATION
12. BOARD ROOM
13. OUTSIDE SMOKING AREA
14. 2D STUDIOS
15. BACK GROUND DRAWING DESK
16. BACK GROUND DRAWING DESK
17. CHARACTER DRAWING DESK
18. CHARACTER DRAWING DESK
19. SOUND DIRECTOR
20. LIBRARY/ SPILL OUT AREA
21. 3D STUDIOS
22. DIRECTOR OFFICE
23. BOARD ROOM
24. BACK GROUND DRAWING DESK
25. BACK GROUND DRAWING DESK
26. SOUND DIRECTOR
27. SOUND DIRECTOR
28. COMPUTER SCIENTISTS
29. COMPUTER SCIENTISTS
30. CHARACTER DRAWING DESK
31. CHARACTER DRAWING DESK
32. STORAGE ROOM
33. COFFEE STATION

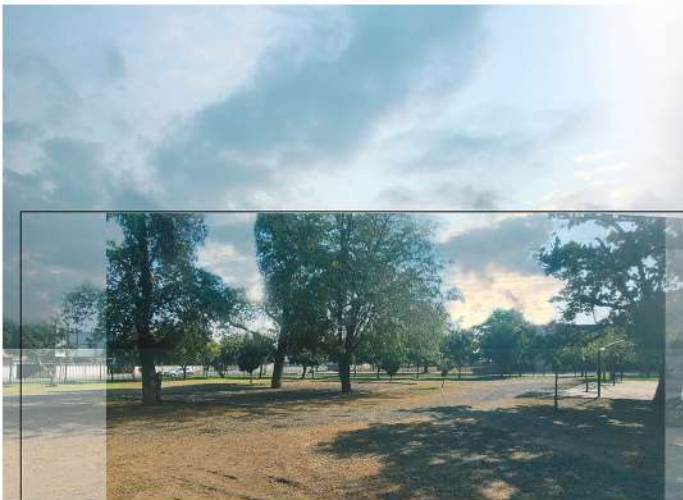




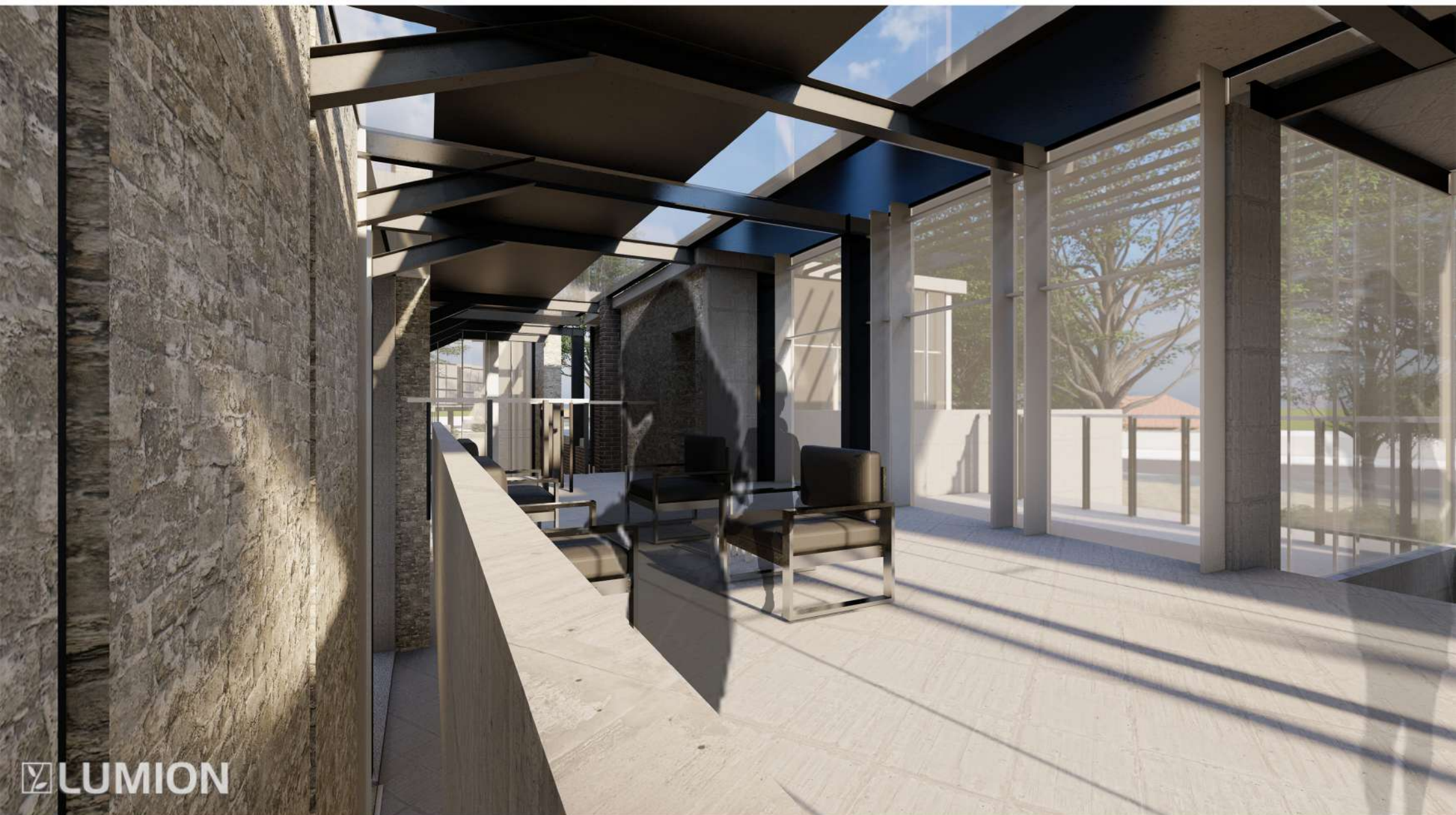


WEST

1:100



WESTERN PERSPECTIVE

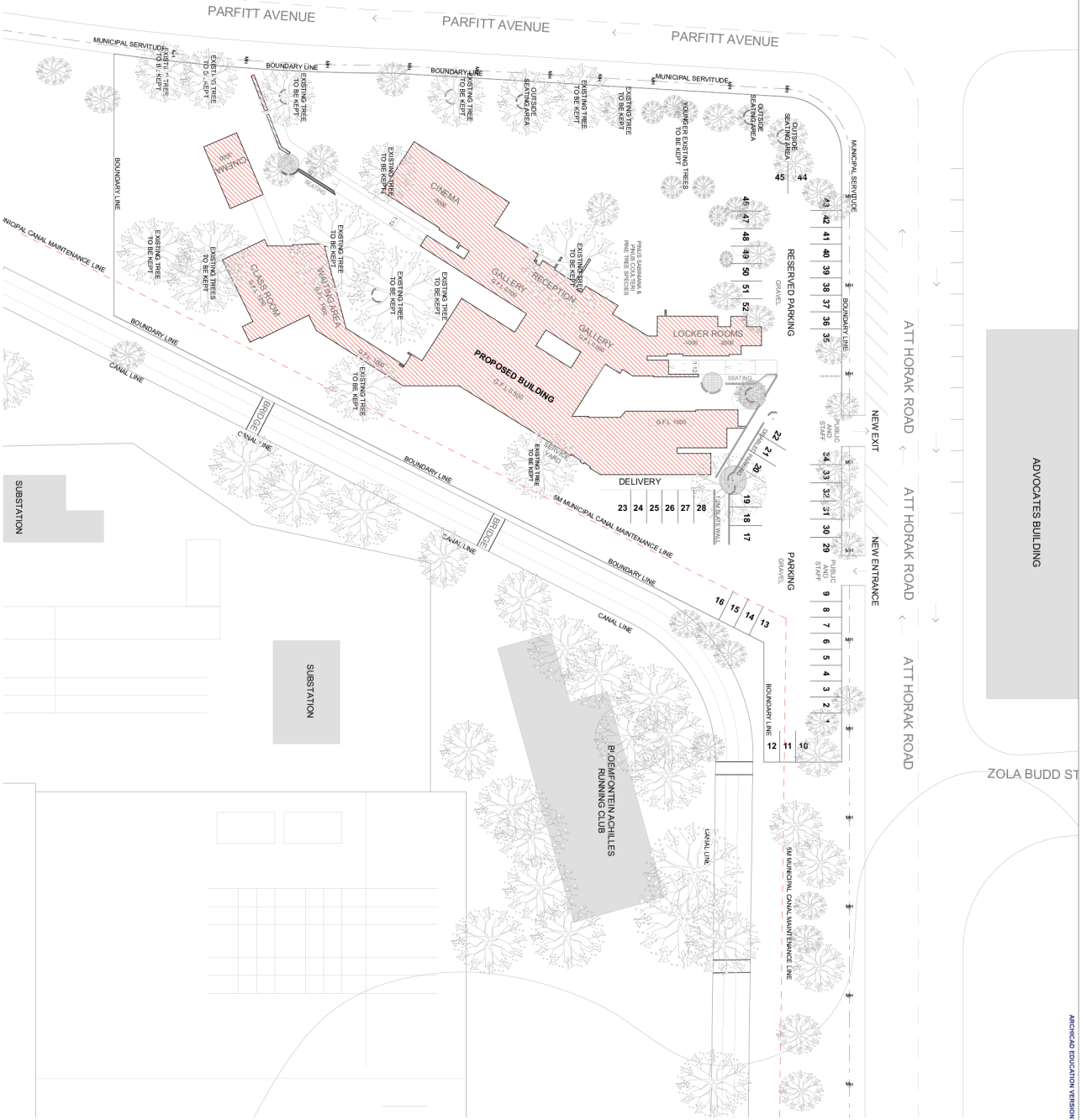




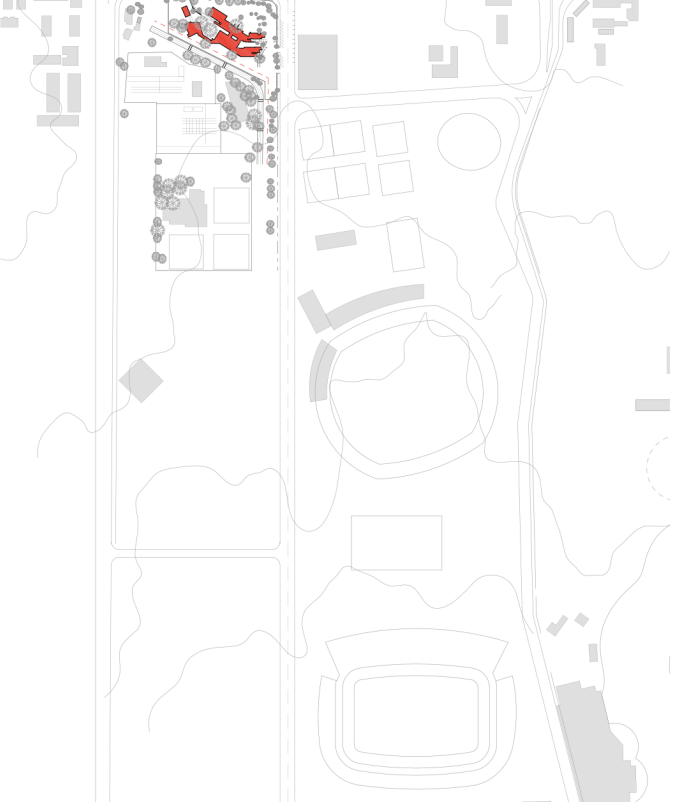








1:250



1:5000



EXISTING SITE CONDITIONS

1:5000

**GENERAL NOTES**

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CALIFORNIA BUILDING CODE AND ALL APPLICABLE ORDINANCES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.



**REVISIONS**



**AMBIATION PRODUCTION CENTRE STUDIOS**

Project: Ambition Centre, 1000 S. Main Street, Los Angeles, CA 90012

Architect: ARCHITECTURAL

**SITE LOCATION CONDITIONS**

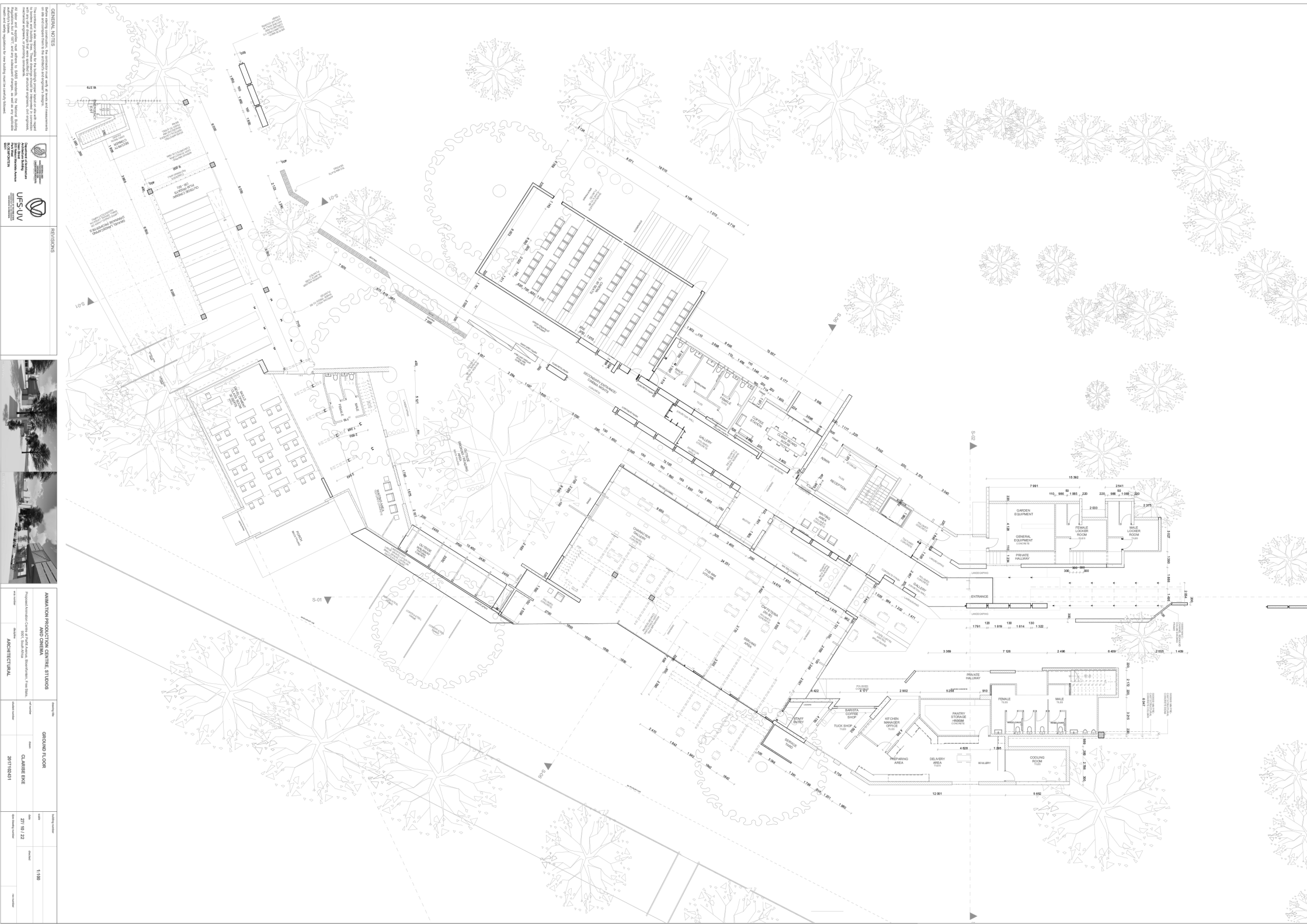
Client: CLARKE EHE

Project No: 20170001

**DATE** 11/08/2020

**SCALE** 1:5000

**DATE** 2/11/21



**GENERAL NOTES**

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES.

3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND PUBLIC AREAS AT ALL TIMES.

4. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES TO REMAIN.

5. THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AND WATER MANAGEMENT SYSTEMS THROUGHOUT THE PROJECT.

6. THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE ENVIRONMENTAL AND SOCIAL RESPONSIBILITY MEASURES.

7. THE CONTRACTOR SHALL MAINTAIN CLEAR COMMUNICATION AND REPORTING TO THE ARCHITECT AND CLIENT THROUGHOUT THE PROJECT.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INSURANCE COVERAGE.

9. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SAFETY MEASURES AND SITE SECURITY AT ALL TIMES.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY MATERIALS AND SUPPLIES.

11. THE CONTRACTOR SHALL MAINTAIN ADEQUATE RECORDS AND DOCUMENTATION OF THE PROJECT.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY TRANSPORTATION AND LOGISTICS ARRANGEMENTS.

13. THE CONTRACTOR SHALL MAINTAIN ADEQUATE COMMUNICATION AND REPORTING TO THE ARCHITECT AND CLIENT THROUGHOUT THE PROJECT.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES.

15. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND PUBLIC AREAS AT ALL TIMES.

16. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES TO REMAIN.

17. THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AND WATER MANAGEMENT SYSTEMS THROUGHOUT THE PROJECT.

18. THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE ENVIRONMENTAL AND SOCIAL RESPONSIBILITY MEASURES.

19. THE CONTRACTOR SHALL MAINTAIN CLEAR COMMUNICATION AND REPORTING TO THE ARCHITECT AND CLIENT THROUGHOUT THE PROJECT.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INSURANCE COVERAGE.



**REVISIONS**

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	2017/10/21
2	ISSUED FOR TENDER	2017/10/21
3	ISSUED FOR CONSTRUCTION	2017/10/21



**AMNATOM PRODUCTION CENTRE STUDIOS**  
AND OFFICES  
ARCHITECTURAL

**GROUND FLOOR**  
CLASSE END  
2017/10/21

**SCALE**  
1:100



**GENERAL NOTES**

1. ALL ROOFING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE REQUIREMENTS OF THE NATIONAL ROOFING CONTRACTORS ASSOCIATION (NORCA) AND THE NATIONAL ASSOCIATION OF ROOFING CONTRACTORS (NAR).

2. ALL ROOFING SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ROOFING CONTRACTORS ASSOCIATION (NORCA) AND THE NATIONAL ASSOCIATION OF ROOFING CONTRACTORS (NAR).

3. ALL ROOFING SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ROOFING CONTRACTORS ASSOCIATION (NORCA) AND THE NATIONAL ASSOCIATION OF ROOFING CONTRACTORS (NAR).

4. ALL ROOFING SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ROOFING CONTRACTORS ASSOCIATION (NORCA) AND THE NATIONAL ASSOCIATION OF ROOFING CONTRACTORS (NAR).

5. ALL ROOFING SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ROOFING CONTRACTORS ASSOCIATION (NORCA) AND THE NATIONAL ASSOCIATION OF ROOFING CONTRACTORS (NAR).



**ANALAYTON PRODUCTION CENTRE, STODOS AND DINERIA**

Project Architect: **ARCHITECTURAL**

Client: **ARCHITECTURAL**

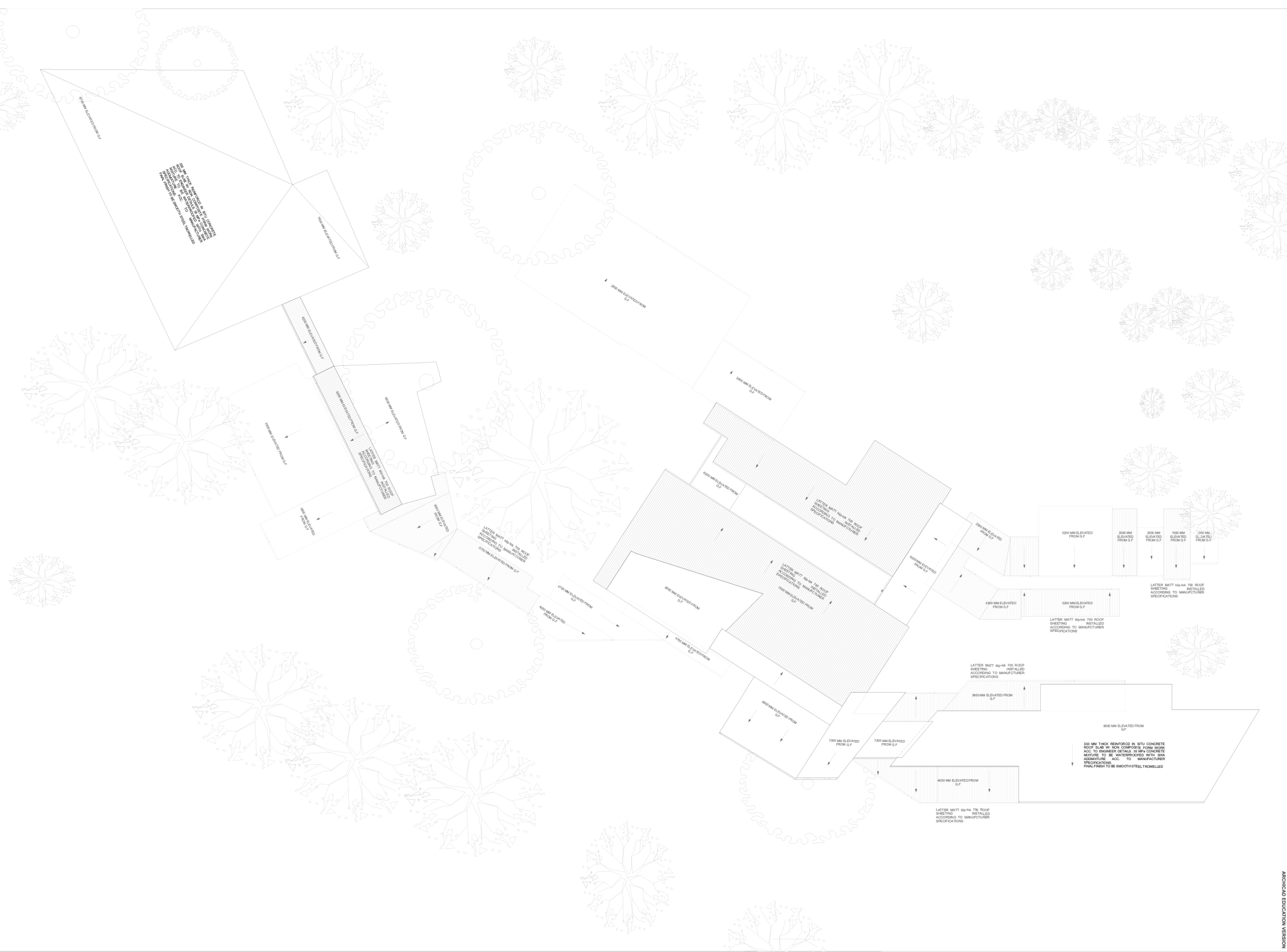
2017/10/31

**ROOFPAN**

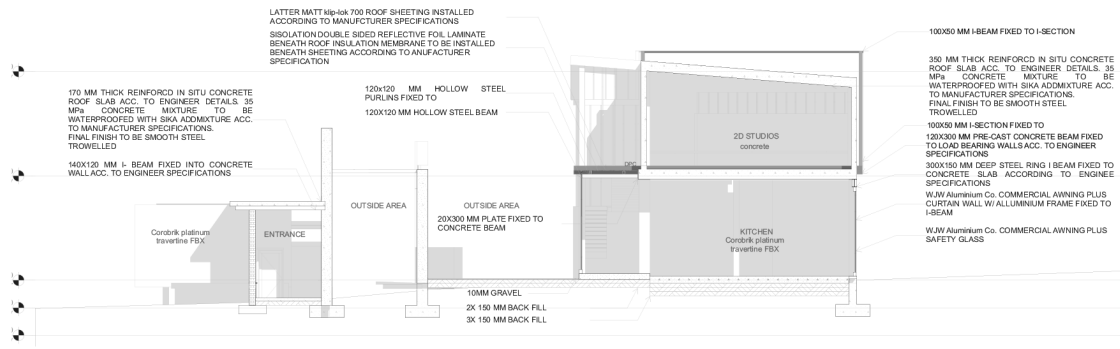
CLASSIFIED

27/11/22

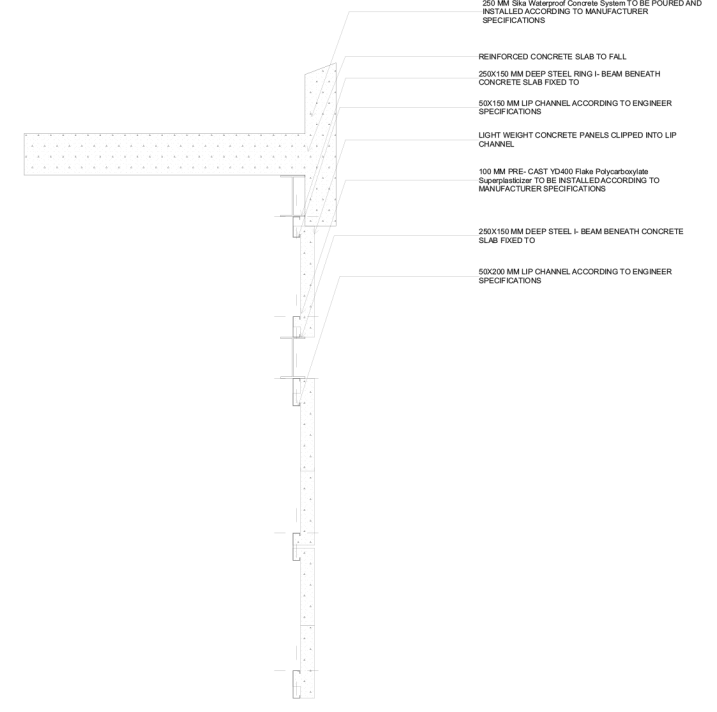
1:100







S-02 ENTRANCE 1:100



0. DETAIL: A 1:20



S-01 NORTH WEST 1:120

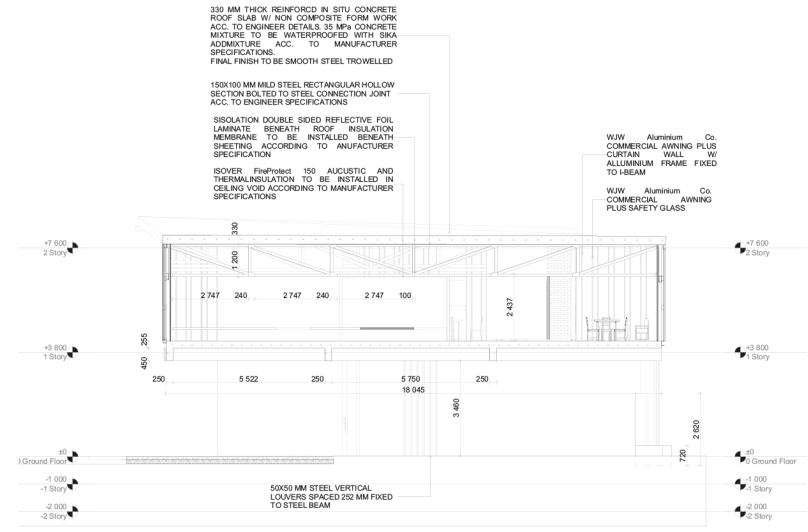
The contractor is also responsible for the building's proper layout on site with regard to drainage and building lines. These drawings should be reviewed in connection with any other drawings that were submitted for approval, such as structural, mechanical, electrical, or plumbing.

All floor and ceiling levels shown in SABS standards, the National Building Regulations Act of 1977, and any subsequent changes, as well as any applicable municipal by-laws.

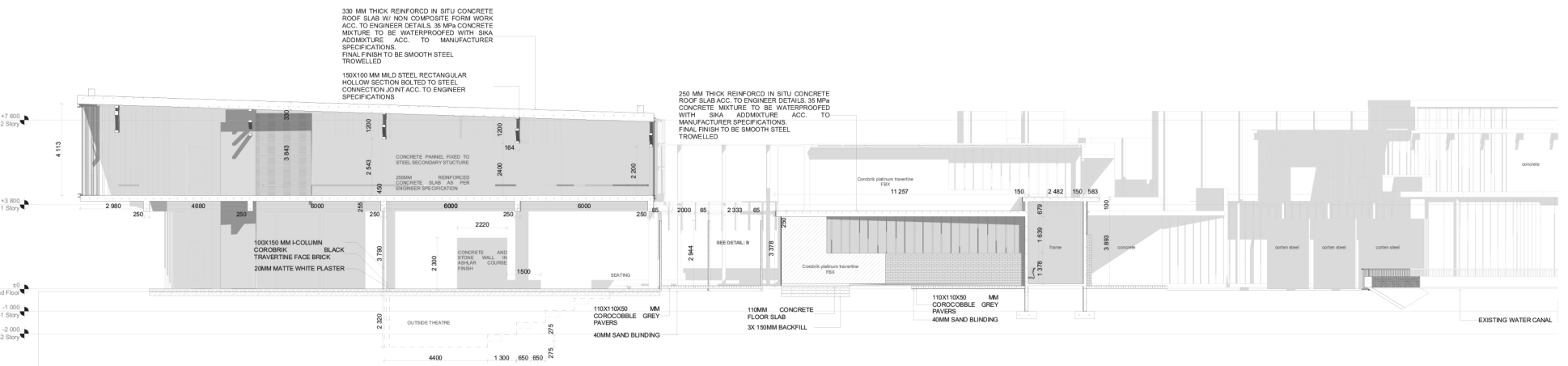
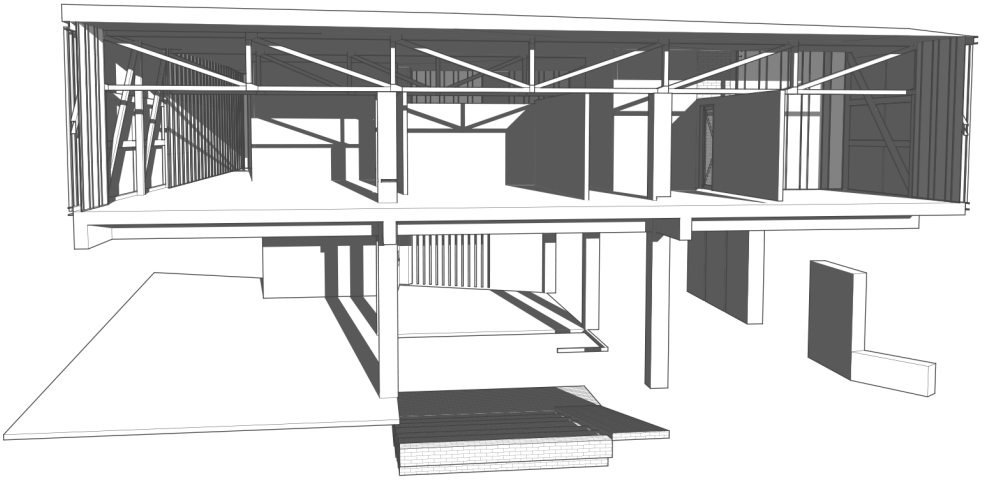
Health and safety regulations for new building must be carefully followed.

REVISIONS	

NOTES



S-01 3D STUDIOS 1:100



S-08 3D STUDS . LONG SECTION (1) 1:100



ANIMATION PRODUCTION CENTRE, STUDIOS AND CINEMA

Proposed Animation Centre at Park View, Bloemfontein, Free State, South Africa

no number 000000 ARCHITECTURAL

building number

drawing file

SECTIONS C

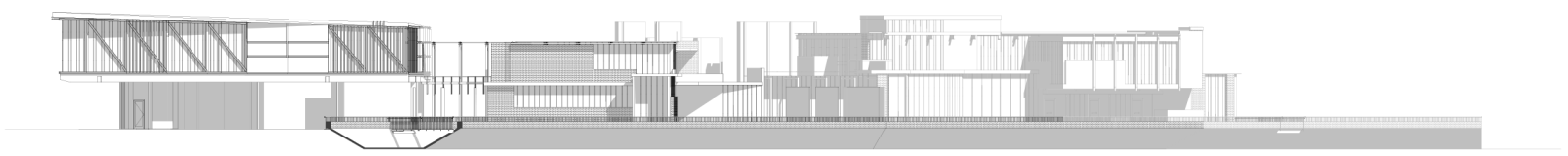
no number 000000 CLARISE EKE

project number 2017102431

scale 1:100

date 27/10/22

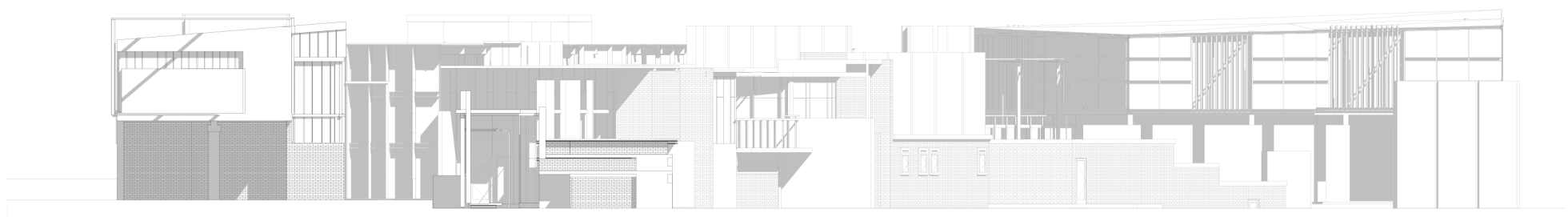
NO.	DESCRIPTION	DATE



E-02

EAST

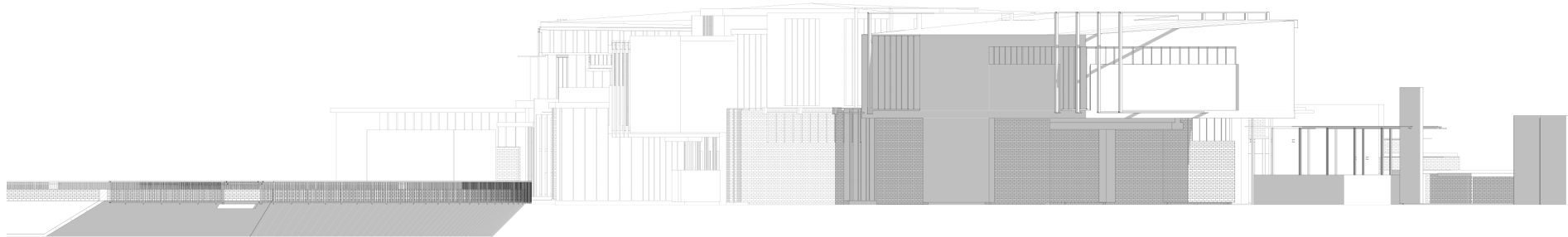
1:200



E-02

NORTH

1:100



E-02

NORTH EAST

1:100



ANIMATION PRODUCTION CENTRE, STUDIOS AND CINEMA

Proposed Animation Centre at Park Avenue, Bloemfontein, Free State, 9701, South Africa

job number discipline ARCHITECTURAL

building number

drawing title

ELEVATIONS A

ref number drawn CLARISE EKE

project number 2017102431

scale 1:100, 1:200

date 27/10/22 checked

user drawing number job number

