

RESEARCH CENTRE FOR LANGUAGE

A COSMOPOLITAN DIALECT

Avela Magqashela

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 daartrefhulletoediesleutels.
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 aan. Disnouediesleutelsvir diekluiswant
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 versteekis. Diekluisisegeterindie
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 bydie

ZULU
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XHOSA
MOLO
AFRIKAANS
HALLO
ENGLISH
HELLO
NORTHERN SOTHO
DUMELA
TSWANA
DUMELA
SOTHO
DUMELA
TSOGA
AVUXENI
SWAZI
SAWUBONA
VENDA
NDAA
NDEBELE
LOTJHANI
LANGUAGES

A COSMOPOLITAN DIALECT

The thesis is submitted in partial fulfilment of the requirements for the degree Master in Architecture (Professional).
Department of Architecture, Faculty of Natural and Agricultural Sciences, University of the Free State.

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The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

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The work contained in this thesis has been submitted for proof-reading and/or editing by Miss M. Viljoen and Mr Maleke Maleke.

Signature:



Date: 30 September 2014

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To my family, friends and fellow creatives:

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GEJAAG NA WIND FROM KYK AFRIKAANS BY WILLEM BOSHOFF

(VADISLAVIC'S, 2005:31)

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ABSTRACT

It is estimated that, if nothing is done, half of 6000 plus languages spoken today will disappear by the end of this century (Unesco, 2009:online). With the disappearance of unwritten and undocumented languages, humanity would lose not only a cultural wealth but also important ancestral knowledge embedded, in particular, in indigenous languages.

English has become the dominant language in the social and economic sectors of our society due to factors of globalization. Language carries an individual's story and miscommunication of that story may result in a segregated community.

This thesis is rooted in the idea of exploring the relationship between architecture and language. The project will focus on architecture's ability to accommodate the transition of a sign to its representation and link with what is desired to be communicated.

The proposed site (University of Free State campus) lies on the periphery of the campus, which has an accessible link to the public realm of the university. The proposed programme forms part of the universities' agenda which focuses on the integration of the city into university life and the wider South African context. This project aims to act as a public interface of exhibitions for dialogue, lectures, and interpretation of languages.

Over the past twenty years since South Africa embraced multiculturalism, issues of intercultural communication have become more and more prominent in the public space due to the diverse languages our country bears. According to the Oxford Dictionary (Oxford dictionaries, 2014:online), a language is a method of human communication, either spoken or written, consisting of the use of words in a structured and conventional way.

A Research Centre is envisioned as facility with an environment that will enable research and findings on human communication within the South African context. The process involves the producing and understanding of linguistic communication.

The proposed Research Centre for language and interpretation is to develop a platform of database-supported basic linguistic resources for the languages of South Africa.

Based on precedent studies and theoretical research, this thesis explores many difficulties faced by diversity (language/cultural) resulting from a lack of awareness of, and training in, intercultural communication and the capture of language data before it becomes extinct.

Richard Sennet, New York University sociologist and historian, (Sennet, 1977:88) refers to this phenomena of human miscommunication as “the fall of the public man”.

ZULU

XHOSA

AFRIKAANS

ENGLISH

NORTHERN SOTHO

TSWANA

SOTHO

TSOGA

SWAZI

VENDA

NDEBELE

LANGUAGES

ZULU

XHOSA

AFRIKAANS

ENGLISH

NORTHERN SOTHO

TSWANA

SOTHO

TSOGA

SWAZI

VENDA

NDEBELE

LANGUAGES

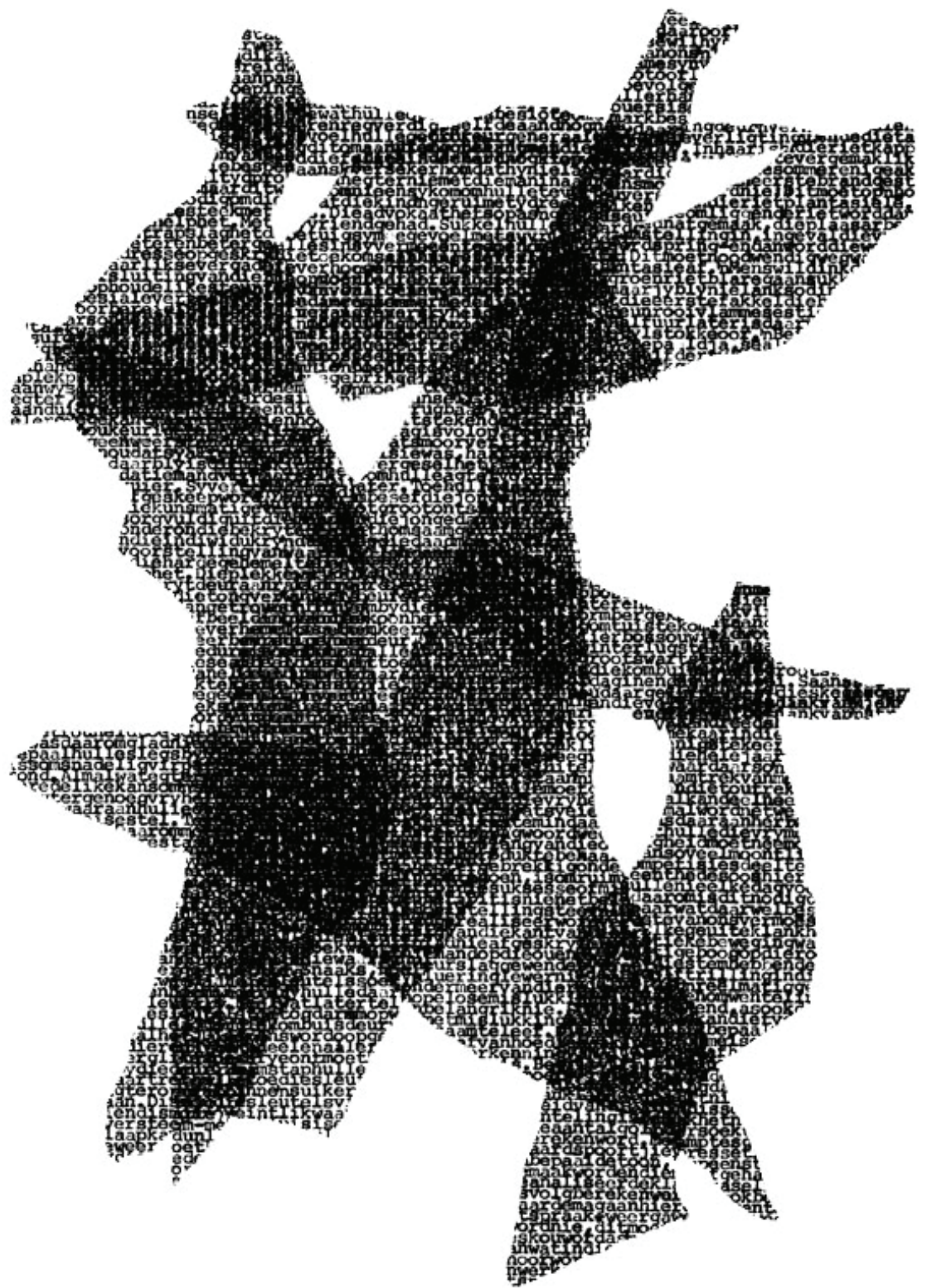
INTRODUCTION

This chapter focuses on the conceptual and practical conditions of the clients intent, qualitative site considerations and parameters .

The client and user requirements are briefly presented to reacquaint the research questions and aim of the thesis.

PROJECT PARAMETERS AND DESIGN CHALLENGES

CLIENT
BRIEF
SITE OVERVIEW



Skrifskerwe FROM KYK AFRIKAANS BY WILLEM BOSHOF (VADISLAVIC'S, 2005:27)



UFS MAIN BUILDING (UFS, 2000:ONLINE)

CLIENT UNIVERSITY OF THE FREE STATE,

Faculty of Humanities

The university receives students from all parts of the country and, even from the rest of the continent to study under similar conditions despite having undergone different developmental phases. For these students to partake freely in shared conditions, a method or means of communication that is understood is the main objective.

Challenges:

The basic methodological framework for data collection for such an objective involves the audio visual recording of spoken and phatic language use in a variety of social conditions in a natural environment, and the transcription and codification of the data in order to facilitate the electronic analysis and processing of the data.

The Centre will be responsible for collection, collation (ordering) and codification of language data, the analysis of collocation (association) and phraseological patterns, and the publishing of the resource material.

BRIEF

The significance of this Centre lies in its contribution to the creation of a textual corpora of natural language use which will serve as basic linguistic resources for:

- **language development** (spoken language grammars and lexica)
- **language teaching** (language teaching materials)
- **remedial and therapy programs** (speech therapy for sufferers of language disorder and other language deficiencies)
- **language functionality** (translation and interpretation)

Challenges:

The desired spaces differ in their functionality at different times of the day. For example, a therapy zone would be a quieter and smaller space, while language teaching might be the opposite. The challenge is to make these spaces relate to one another as parts of a whole rather than a series of isolated spaces. The positioning of the programs need to complement one another.

THE ACCOMMODATION is made up of:

PUBLIC SPACES

- **Reception**
 - Information area
 - Security control area
- **Toilets**
- **Integration space**
 - Break away spaces
 - Seating area
- **Seminar rooms**

- **Garden**
 - Outside learning platforms
 - Covered / uncovered seating space
 - Exhibition space
 - Break away (quiet) spaces

- **Library**
- **Performance area**

SEMI-PUBLIC SPACES

- **Research area**
- **Research offices**
- **Remedial and therapy room**
- **Translation and interpretation room**

- **Administrative offices**

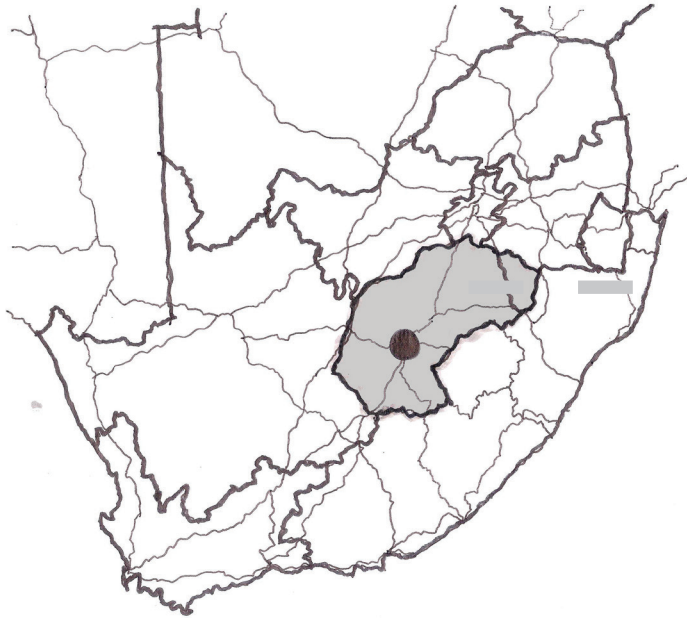
Cafeteria

- Kitchenette
- Serving area
- Vending space
- Tea kitchen

PRIVATE SPACES

- **Staff offices**
- **Storage**
- **Meeting rooms**
- **Refuse area**

SITE OVERVIEW



FREE STATE PROVINCE WITHIN SOUTH AFRICA(AUTHOR:2014)

MACRO CONTEXT

Location: South Africa

Province: Free State

Municipal : Bloemfontein(Mangaung)

Established: 1846

Population : Total 256,185

Density 1,100/km² (2,800/sq mi)

First languages

Afrikaans 42.5%

Sotho 33.4%

English 7.5%

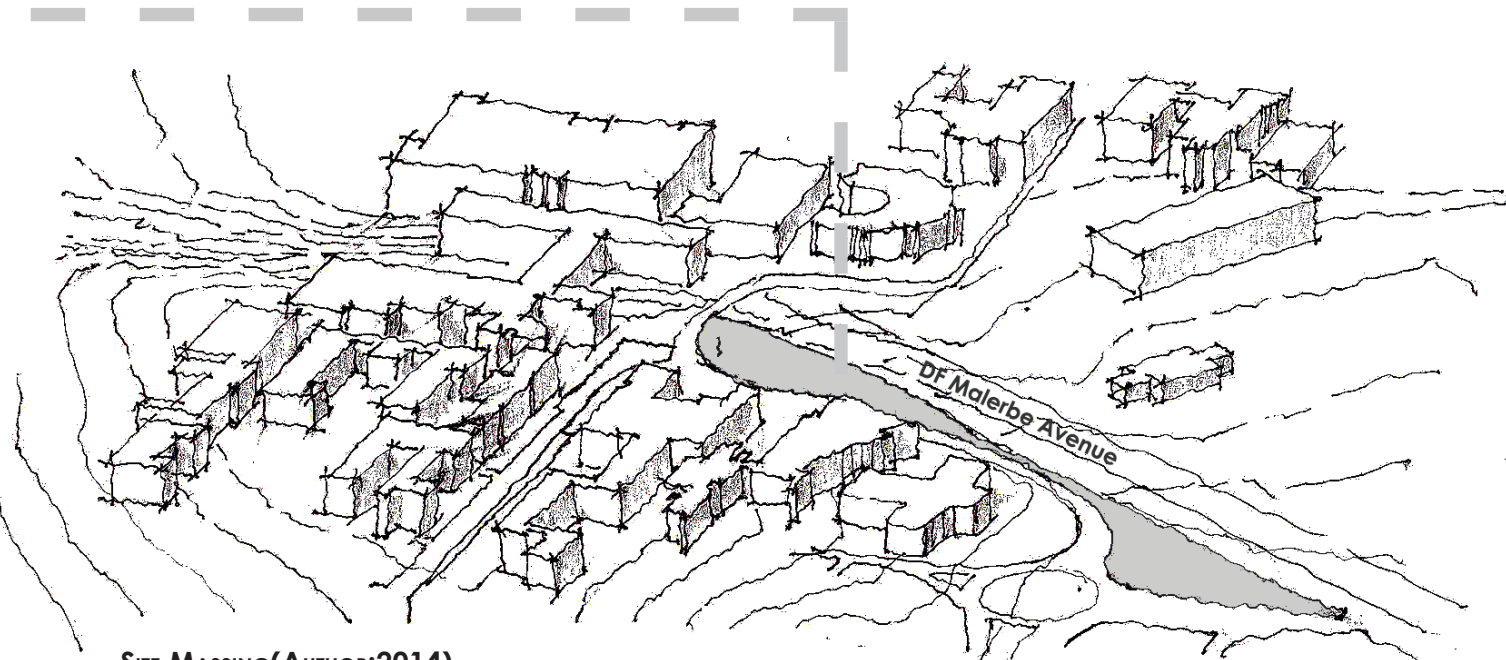
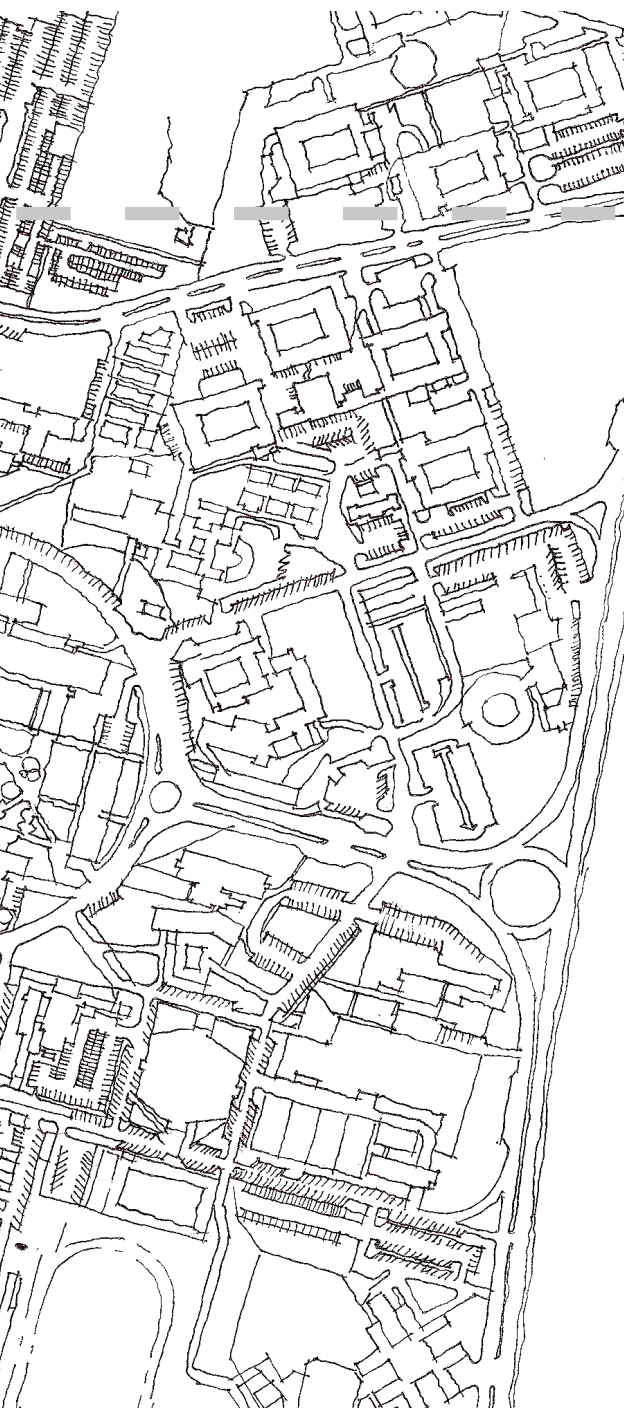
Xhosa 7.1%

Other 9.5%

(Statistics South Africa, 2012:online)



SITE LOCATION(AUTHOR:2014)



SITE MASSING(AUTHOR:2014)

THE PROPOSED SITE for this facility is the University of the Free State, a multi-campus public university in Bloemfontein, the capital of the Free State and the judicial capital of South Africa.

The existing buildings on the site are heterogeneous and fragmented but, in substance, a historical unit, yielding a special image of architecture for the University of Free State

Challenges:

The site is engrained within the old existing urban patterns of the UFS and acquires form by using its substance to incorporate, complement, and unify the fragmented parts of the existing buildings. This attitude aims at the wholeness of architectural expression, an architectural body.

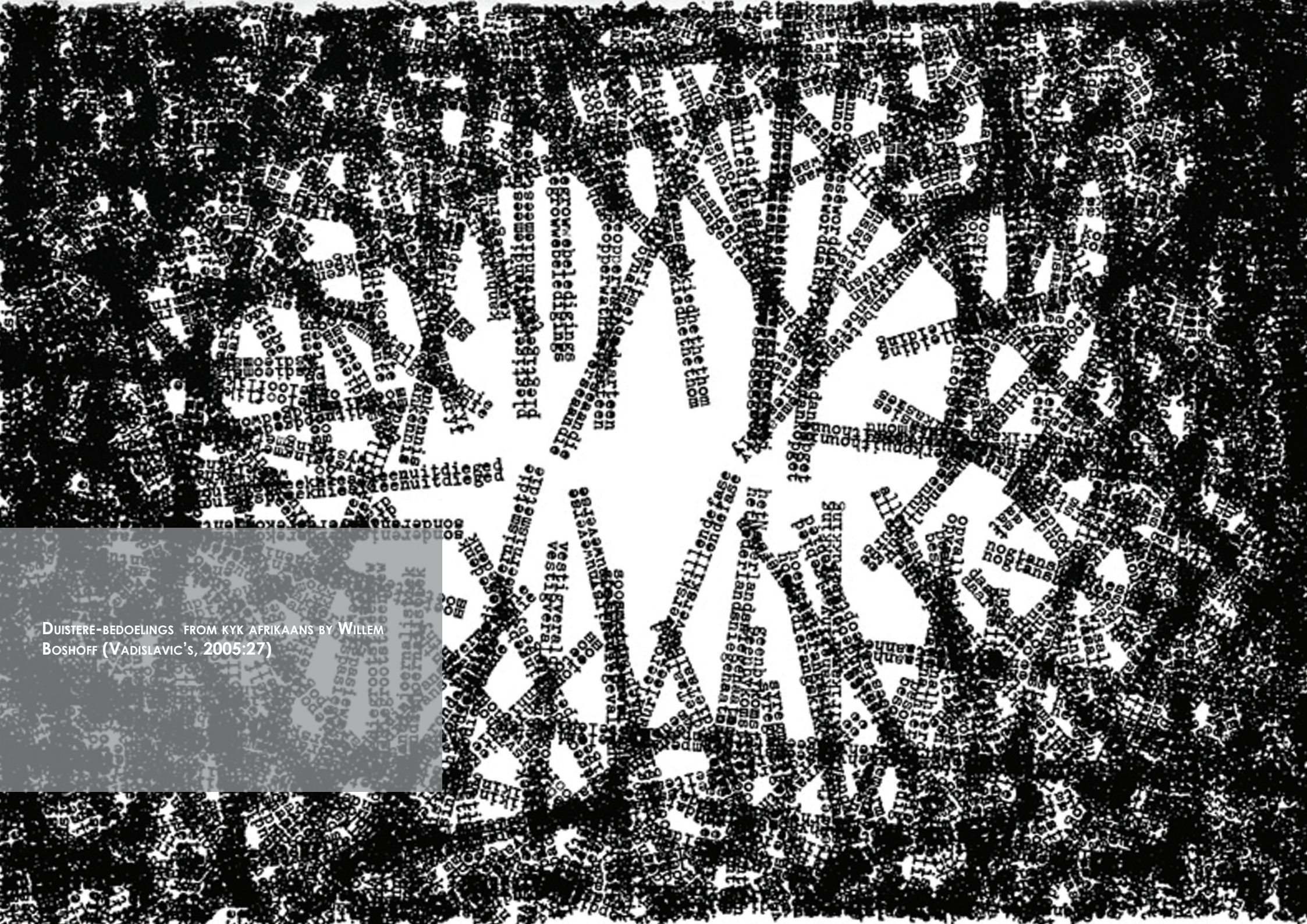
INTRODUCTION

This chapter intends to elaborate on observations that are influence to the research questions. It proposes an approach to unlocking the desired phenomena.

This unique approach is then a basis for comparison; a reference point against which other things can be evaluated

CONCEPTUAL FRAMEWORK

HYPOTHESIS 1
HYPOTHESIS 2
METHODOLOGY
AIM
UNIQUE APPROACH
TOUCH STONE



DUISTERE-BEDOELINGS FROM KYK AFRIKAANS BY WILLEM
BOSHOFF (VADISLAVIC'S, 2005:27)

HYPOTHESIS 1

Offer a platform of exchange where languages and their interpretation create a holistic understanding of diversity through an architectural intervention by exploring the analogies between architecture, time, and language within the South African context. If an architectural intervention explores and incorporates concepts and ideas analogous of architecture, time, and language within the South African context, a meaningful built platform for language exchange and interpretation promoting a holistic understanding of diversity can be created.

Establish a utilitarian integration of the proposed site to the rest of campus life as it is isolated by the pure nature of its topography and climatic conditions of the Free State region. A language has similar intrinsic characteristics being able to isolate individuals when not understood. Climatic conditions directly impact the type of materials used in the building which simultaneously give the building its identity. We best experience the visual delight in architecture's identity through the aggregation of colours, textures, forms and structure.

HYPOTHESIS 2

METHODOLOGY

A study of the context of the University of the Free State is critical for the success of the proposed intervention. By fully understanding and gaining awareness of the existing structural systems of the site, the clues of developing a rational system that explores the current spatial conditions is presented to achieve the required outcomes for the intervention.

Stages of the design process:

- Historical Understanding
- Language structure and understanding
- Theoretical underpinning
- Precedents
- Conceptual sketches
- Conceptual models

AIM

The research centre for language is designed for the University of the Free State with also the intention to serve the rest of the province. The project brief consists of key points of interest which will guide the design and development of the building. The aim of the building is to create a new node of interest within the edge of the university along Malherbe avenue, in order to promote public usage of this space. The main goals, as set by the universities strategic and structural plans are as follows: (Britz, 2006:409)

- Integration of the east and western parts of campus.
- A pedestrian network
- Transport network

UNIQUE APPROACH



CONCEPTUALIZING FUNCTIONS OF COSMOPOLITANISM AND IDENTITY BY JOHN LEE, PROFESSOR AT NORTH CAROLINA UNIVERSITY (LEE, 2011:ONLINE)

LANGUAGE is an act that has survived many generations and incorporated the changes that came along with that era. In a way, it can self-regulate itself. This gives the impression that the proposed research centre for a language agenda should also be able to self-regulate itself in its given conditions, especially those of climate. Architecturally this falls under the theme of sustainability.

How does architecture express the same values found in language? Maybe the clue lies in how a sentence is structured, the ability of knowing which word to use to capture a particular idea.

The approach would be an enquiry into the systems of sustainability. This will be

incorporated with theoretical ideas from **cosmopolitanism** (emphasis on social bonds rather than nation-states), **semiotics** (study of the life of signs within society) and **structuralism** (a method which seeks to analyse the relations within signs) (Hawkes, 1977:10) to create a meaningful experience for the client and users.

TOUCHSTONE argues and proposes the idea that it might be the very same language which liberates us that also leaves us in the moments of darkness.

TOUCHSTONE

TOUCH STONE, EXPLORING THE EXPERIENCE OF SHINING THROUGH THE DARKNESS ,OUT OF ISOLATION.
(AUTHOR:2014)



INTRODUCTION

This chapter concentrates on the historical and contextual influence on the Research centre. The significance of such a context is elaborated further by analysing similar interventions with interrelated activities and their applicability.

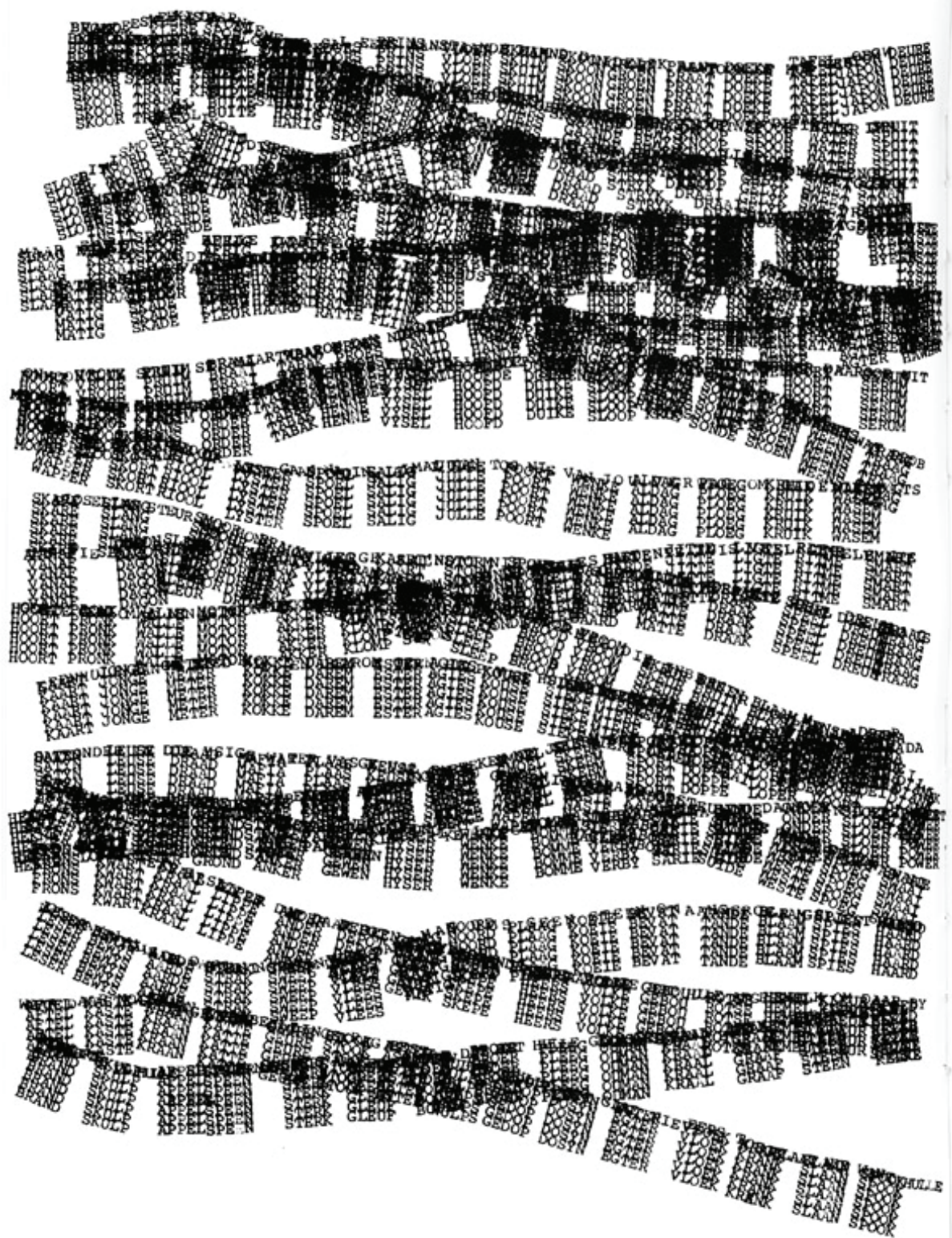
The proposed programme is then explained as a response to the concepts and ideas relating to the hypothesis.

DESIGN TOOLS

HISTORY AND SITE ANALYSIS PRECEDENTS

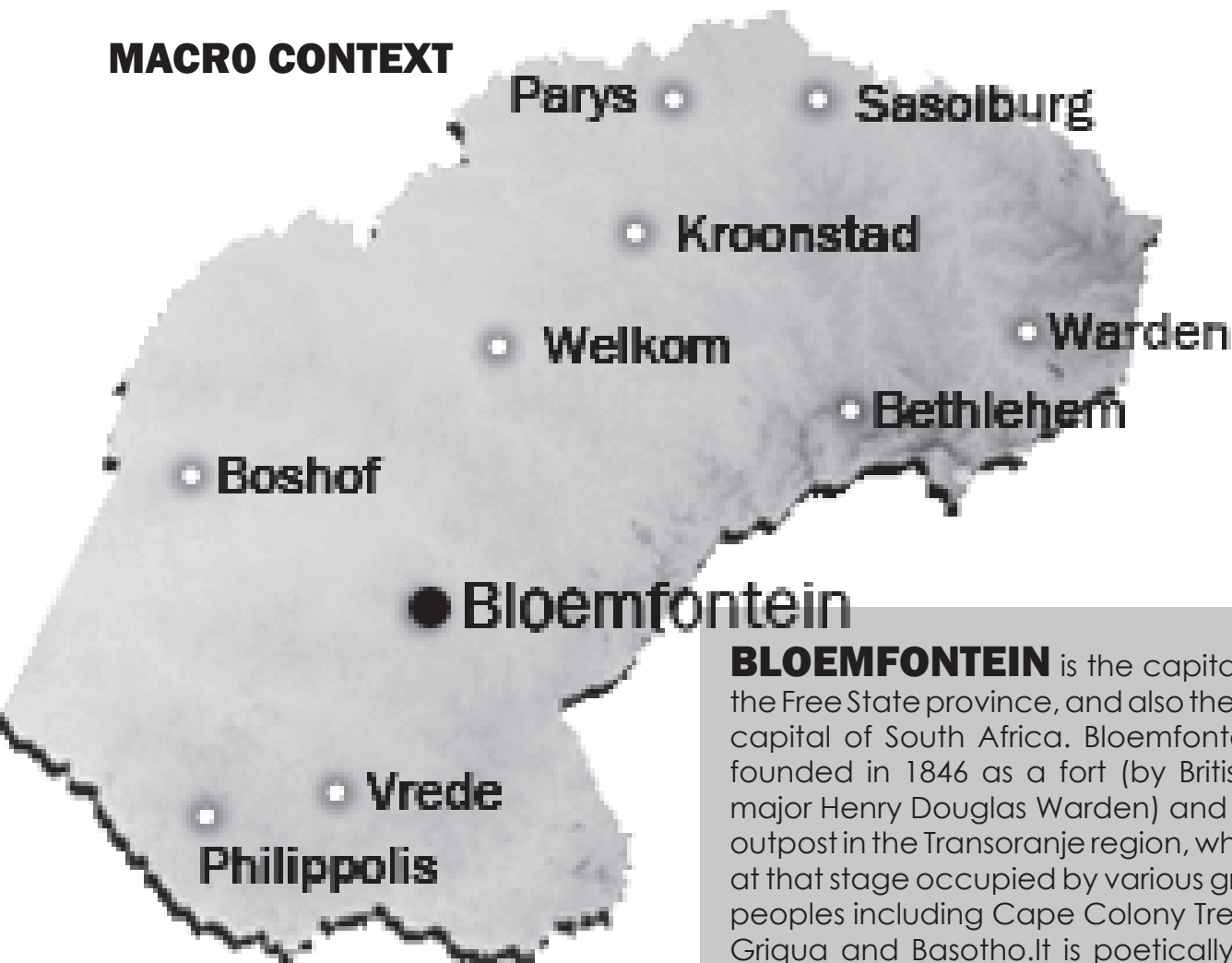
CONCEPT AND IDEAS RELATING TO HYPOTHESIS 1 HYPOTHESIS 2 TECHNICAL CONSIDERATIONS

VLAGGIES FROM KYK AFRIKAANS BY WILLEM
BOSHOF (VADISLAVIC's, 2005:27)



HISTORY OF BLOEMFONTEIN AND THE UNIVERSITY OF THE FREE STATE

MACRO CONTEXT



BLOEMFONTEIN is the capital city of the Free State province, and also the judicial capital of South Africa. Bloemfontein was founded in 1846 as a fort (by British army major Henry Douglas Warden) and a British outpost in the Transorange region, which was at that stage occupied by various groups of peoples including Cape Colony Trek Boers, Griqua and Basotho. It is poetically known as “the city of roses”.

The University of Free is the largest tertiary institution in Bloemfontein. The university campus is located near the city centre. The university is made up of a network of more than 20 sports, medical facilities, and cultural activities, ranging from the political

sphere to outdoor life and the creative arts. (UFS, 2000:online)

THE UNIVERSITY OF FREE STATE (UFS) is the largest tertiary institution in Bloemfontein.

The university campus is located near the city centre and is made up of a network of more than 20 sports, medical facilities, and cultural activities, ranging from the political sphere to outdoor life and the creative arts, its reach stretches across the country, the continent of Africa and abroad.

The UFS was established in 1904 as the Grey University College with 6 students. Today it has more than 33 000 students

BLOEMFONTEIN WITHIN THE FREE STATE PROVINCE (SASHERIFF, 2014:ONLINE)

thriving across three campuses. In 2003 the university bought the Qwaqwa Campus, situated in the Eastern Free State, and in 2004 the South Campus, located in the hills overlooking the city of Bloemfontein.

ABOUT UFS

- 33 000 students
- Over 4 000 faculty and support staff
- 7 faculties
- 100+ departments
- 3 campuses
- 50 satellite campuses
- 110 years old

GLOBAL FOOTPRINT

Over 2 000 students from across the African continent and around the world are part of campus life, representing 40 countries. These students are attracted by the vast variety of programmes in seven faculties for undergraduate and postgraduate students

The universities also recognised as one of the top universities in the world.



UFS MAIN CAMPUS (AUTHOR, 2014)

NODES OF INTEREST



UFS CAMPUS AND ITS PROXINITY (AUTHOR,2014)



**BRANDWAG
SHOPPING
CENTRE**

**GREY
PRIMARY
SCHOOL**

**MIMOSA
MALL**

**MEDI
CLINIC**

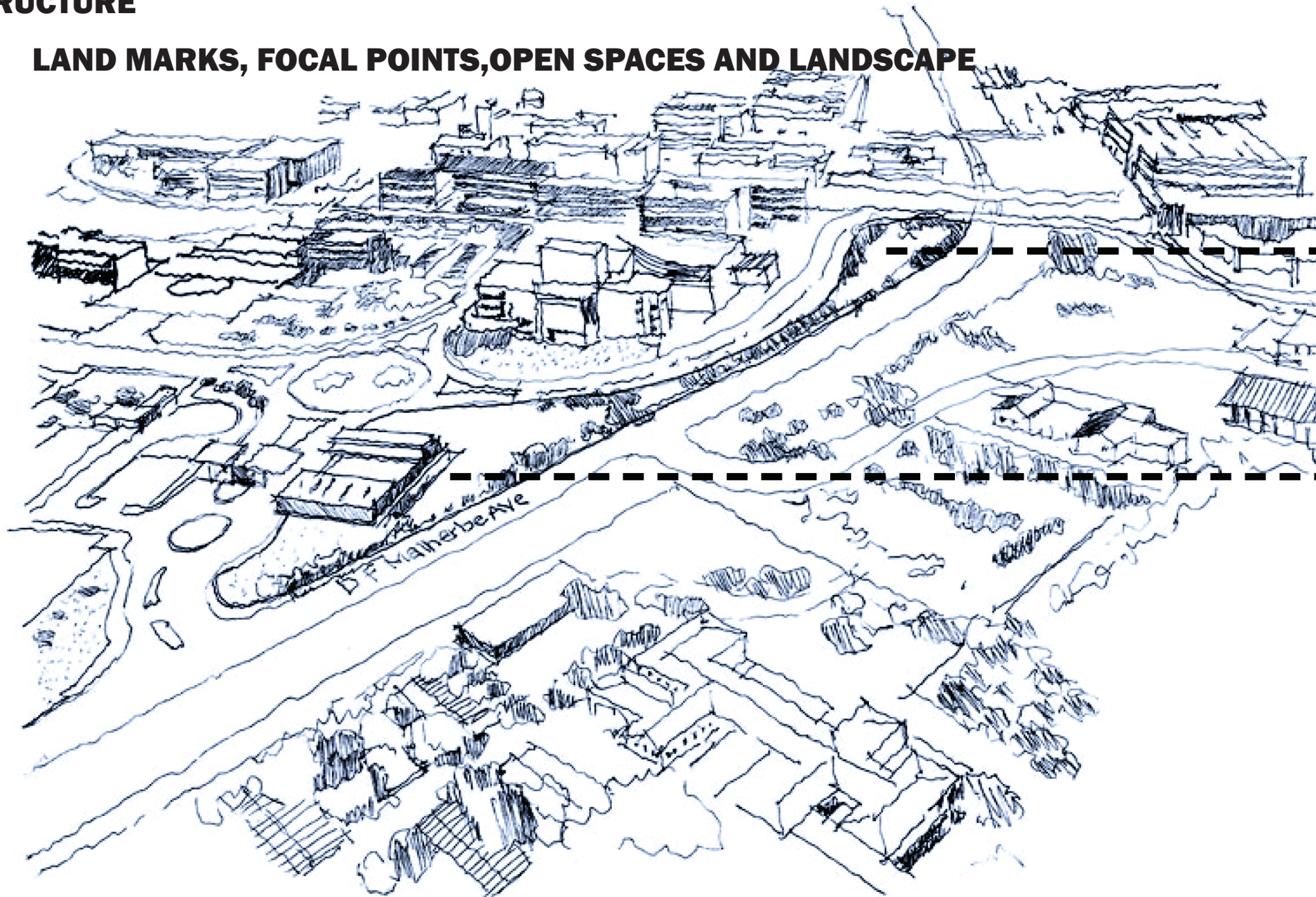
**EUNICE
PRIMARY
SCHOOL**

**FREE
STATE
STADIUM**

**WATERFRONT
SHOPPING
MALL**

URBAN STRUCTURE

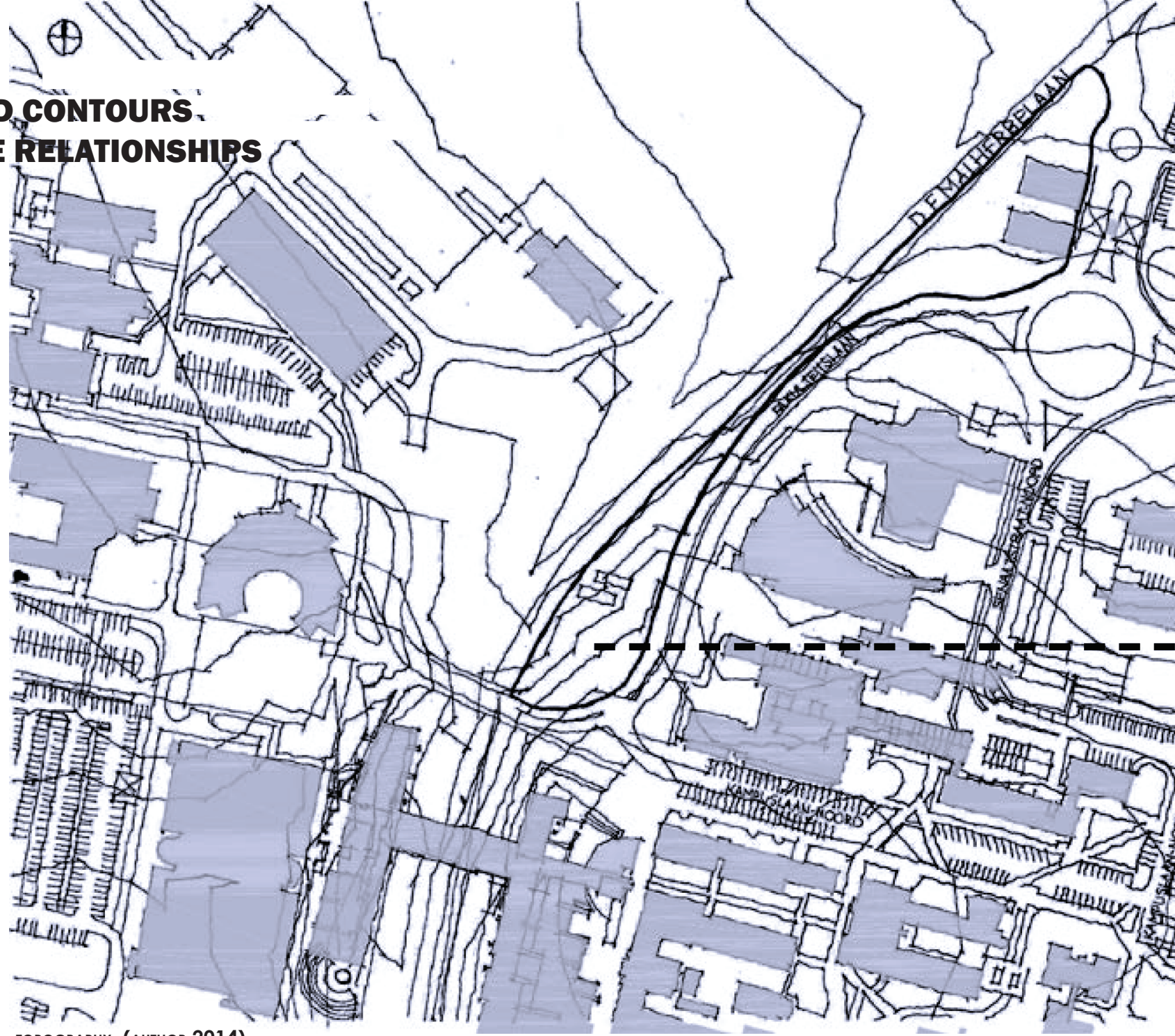
LAND MARKS, FOCAL POINTS, OPEN SPACES AND LANDSCAPE



URBAN STRUCTURE AND SITE LOCATION (AUTHOR, 2014)



DENSITY, FORM AND CONTOURS SOLID - VOID SPACE RELATIONSHIPS



TOPOGRAPHY (AUTHOR, 2014)



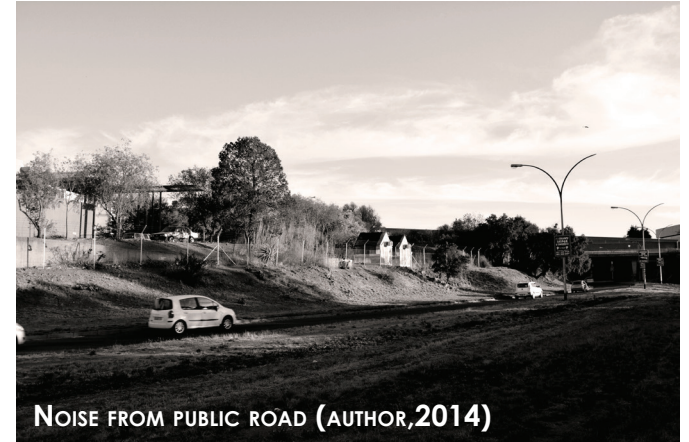
BUILDING SITE AND SCALE

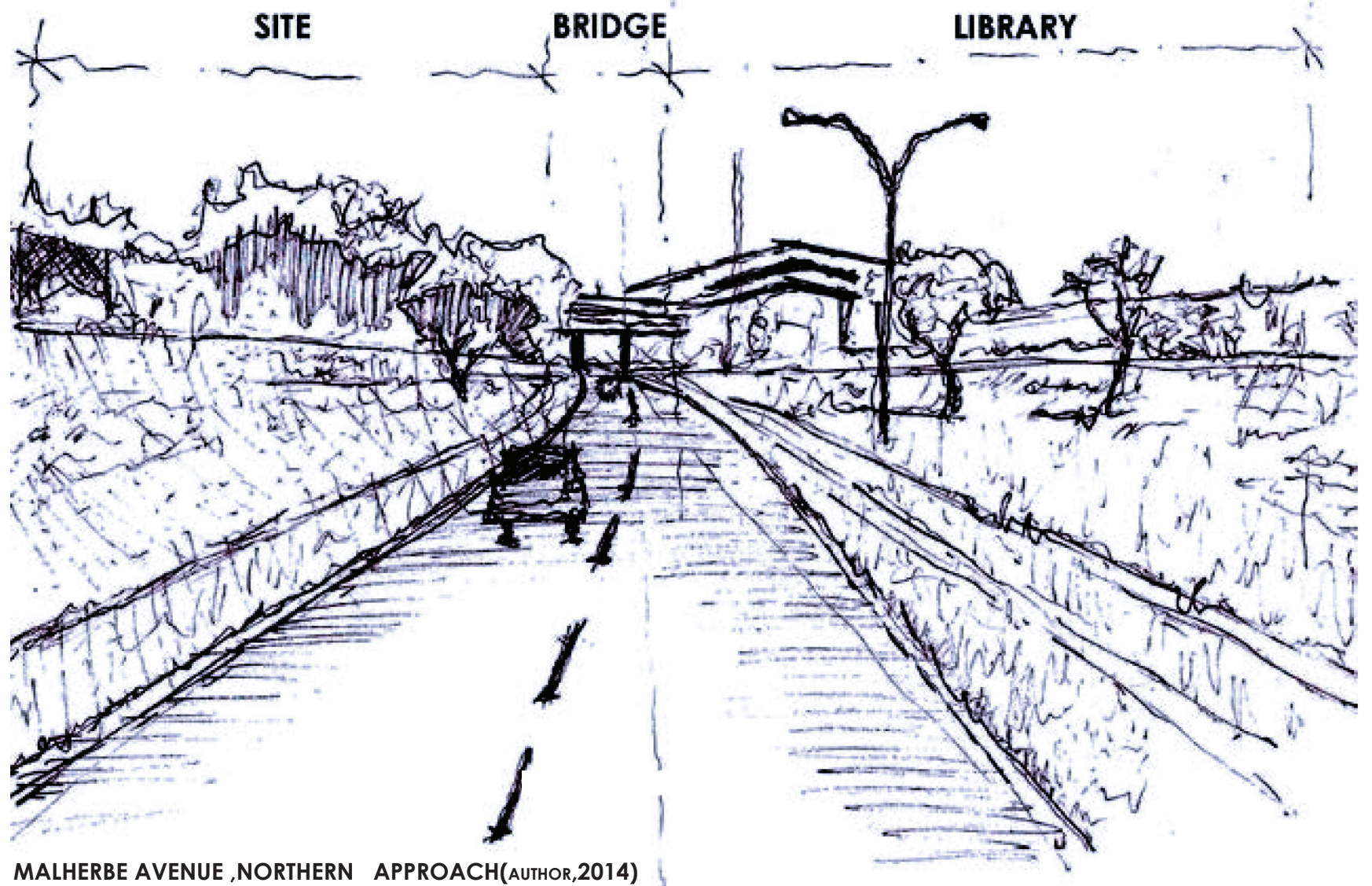
MICRO CONTEXT

CONNECTIONS AND ACCESS



APPROACH TO SITE (AUTHOR, 2014)



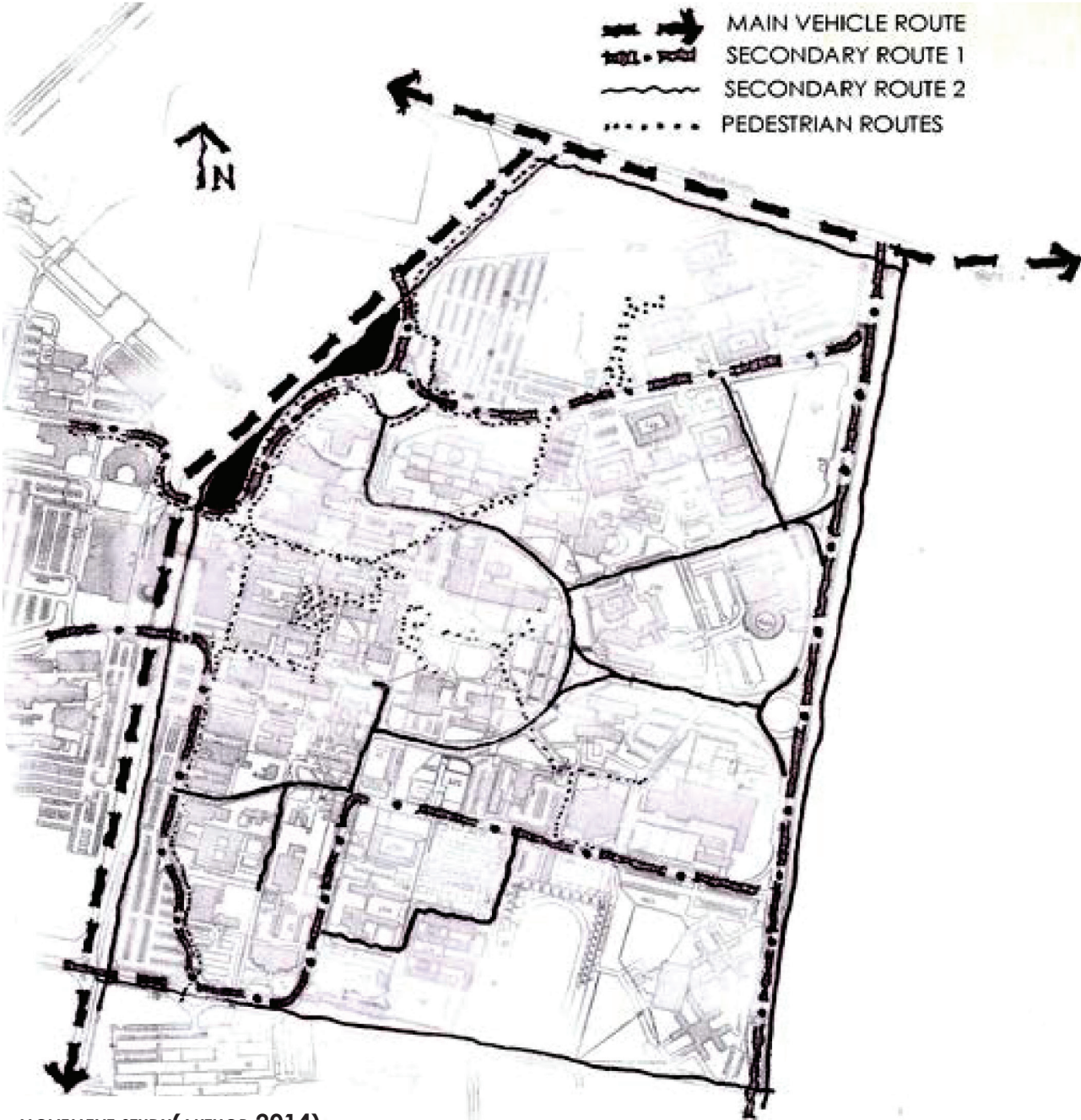


MALHERBE AVENUE ,NORTHERN APPROACH(AUTHOR,2014)

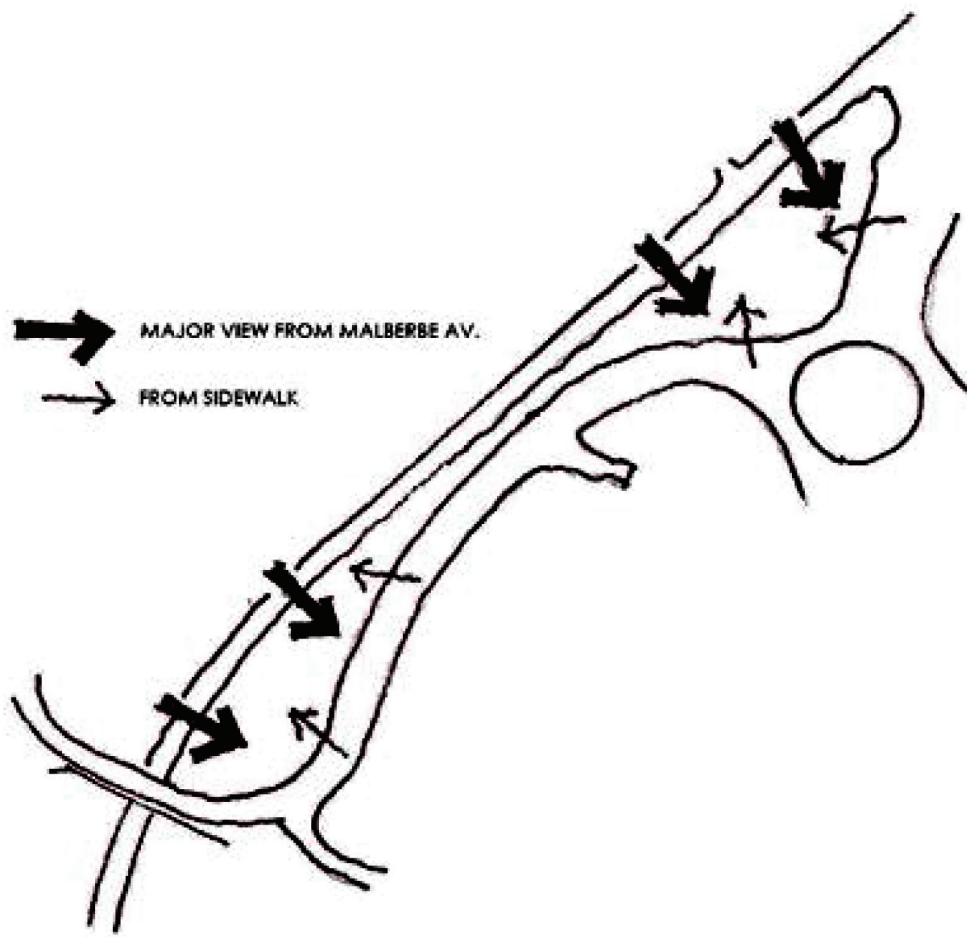


MALHERBE AVENUE ,SOUTHERN APPROACH(AUTHOR,2014)

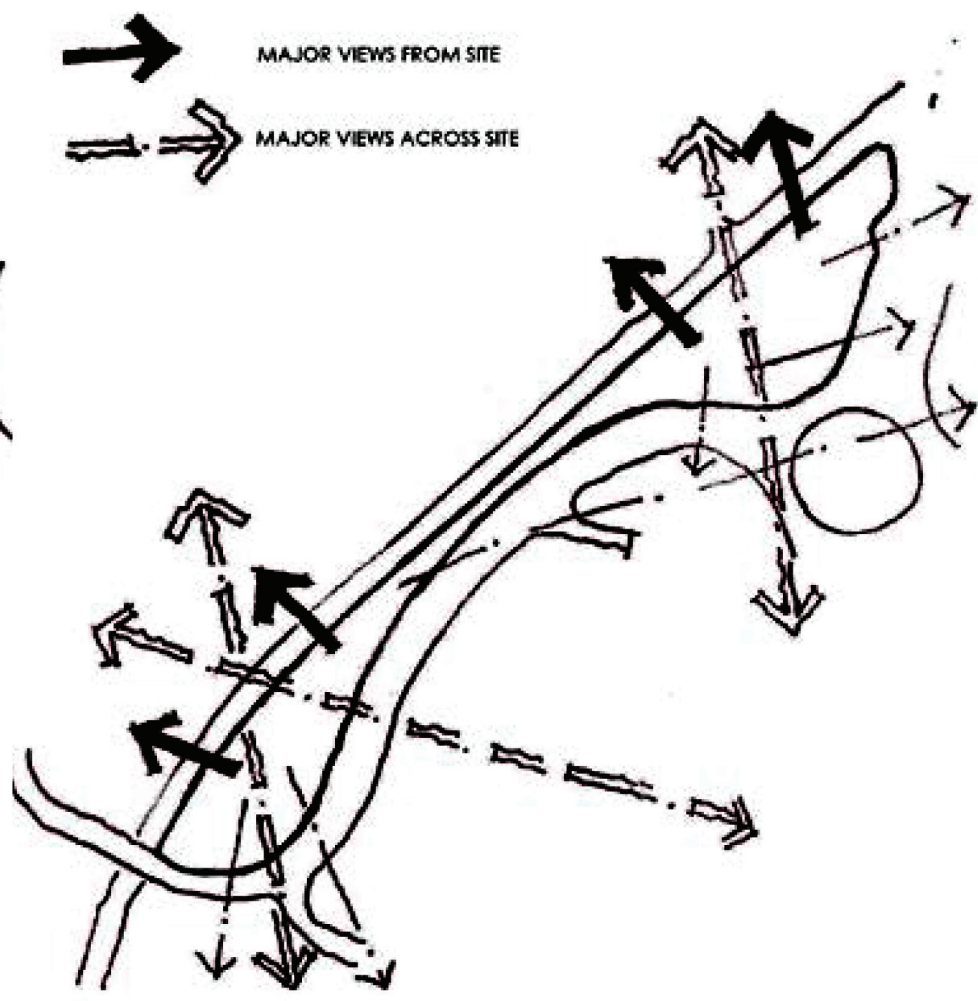
MOVEMENT FRAMEWORK



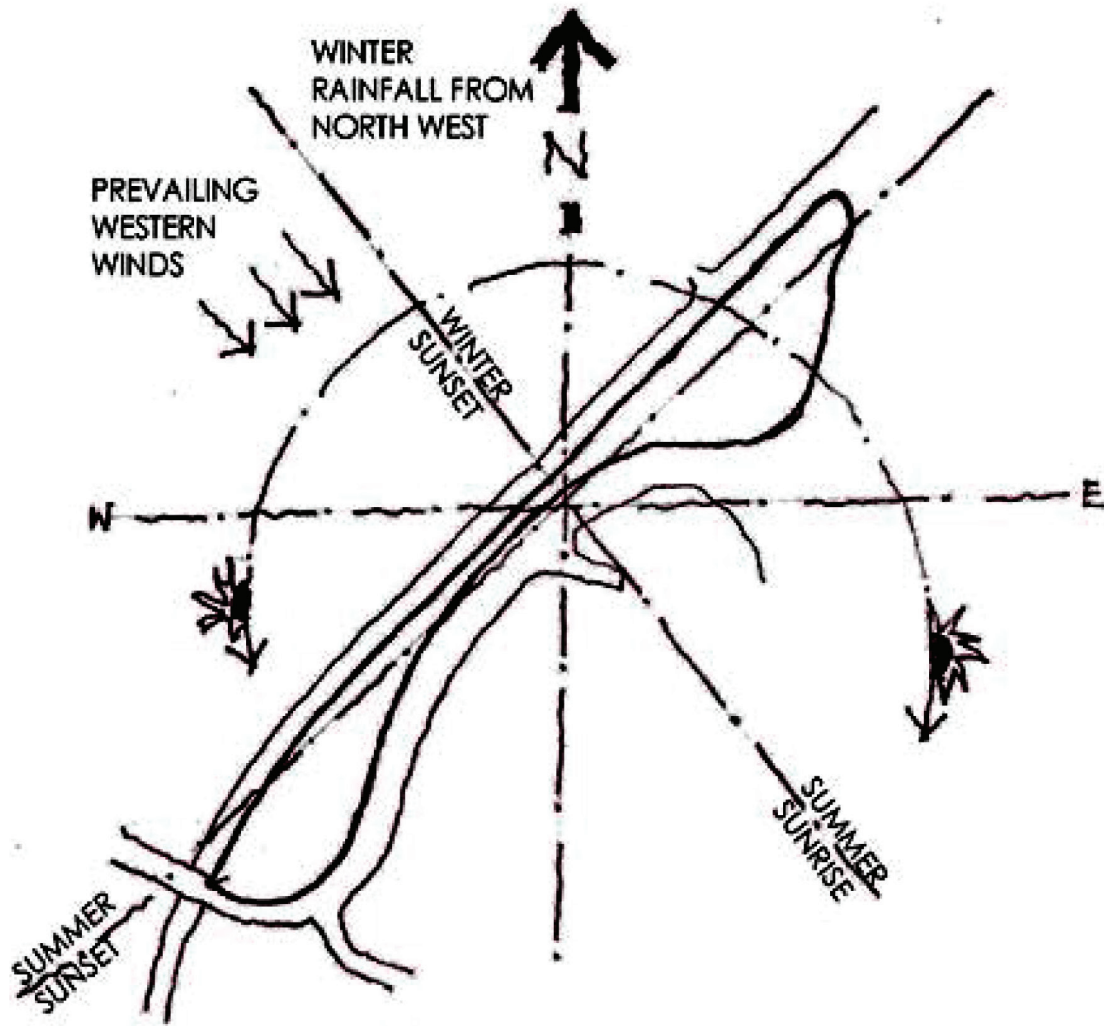
MOVEMENT STUDY(AUTHOR,2014)



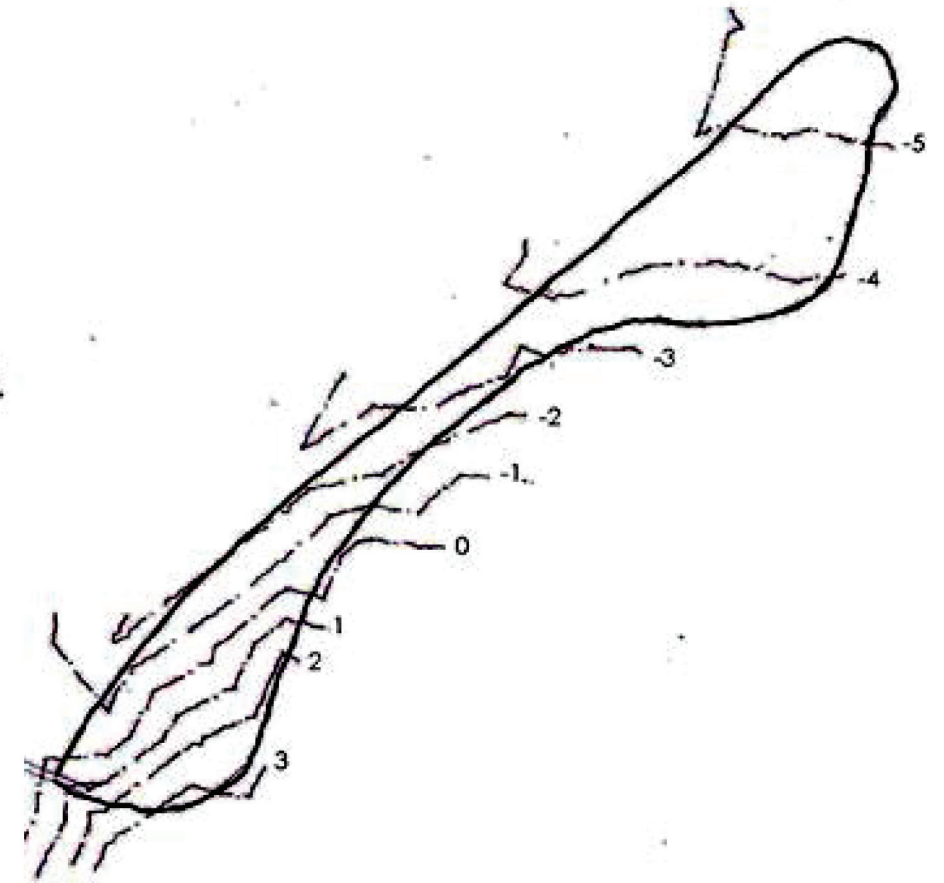
VIEWS ONTO SITE (AUTHOR,2014)



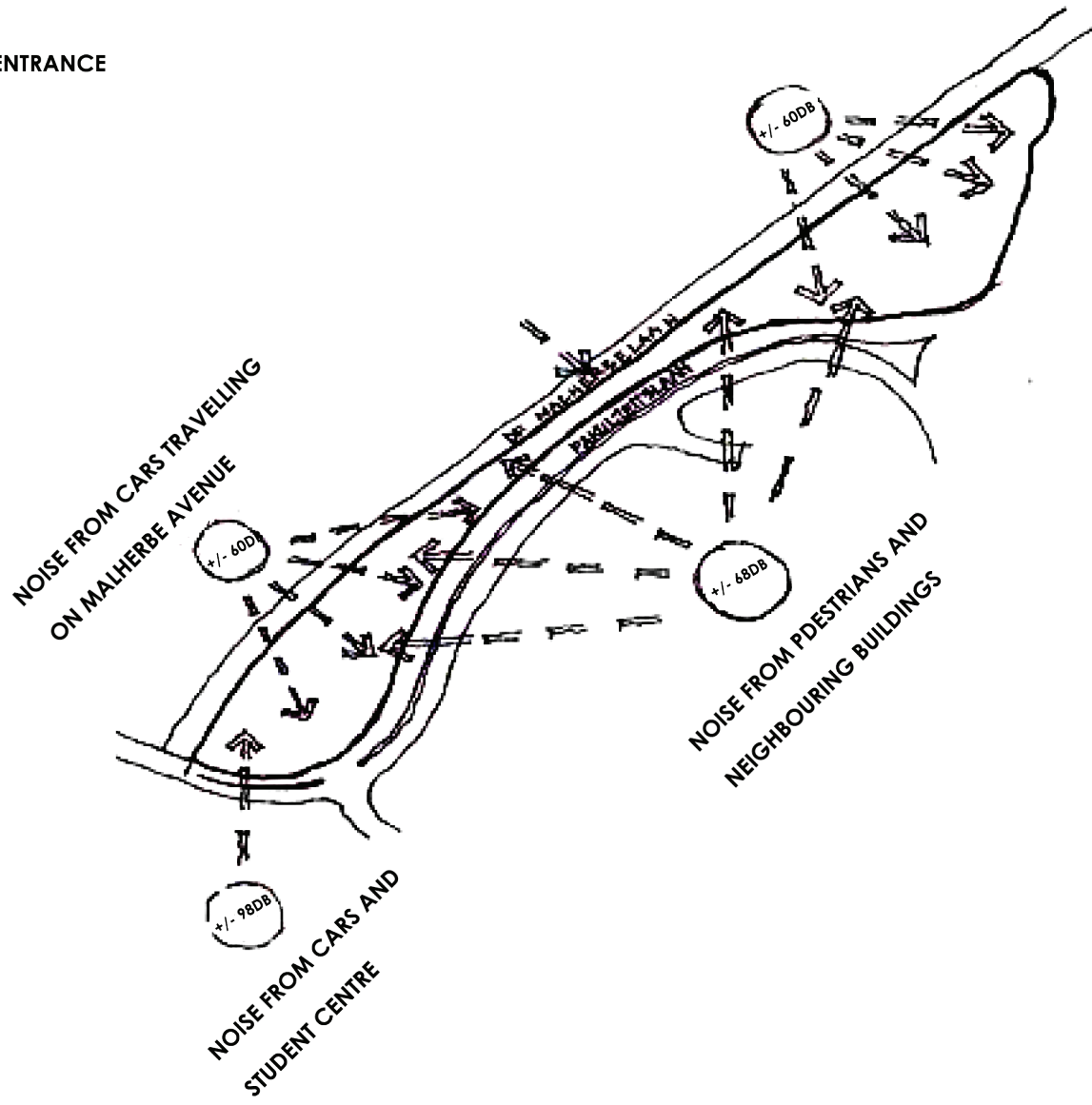
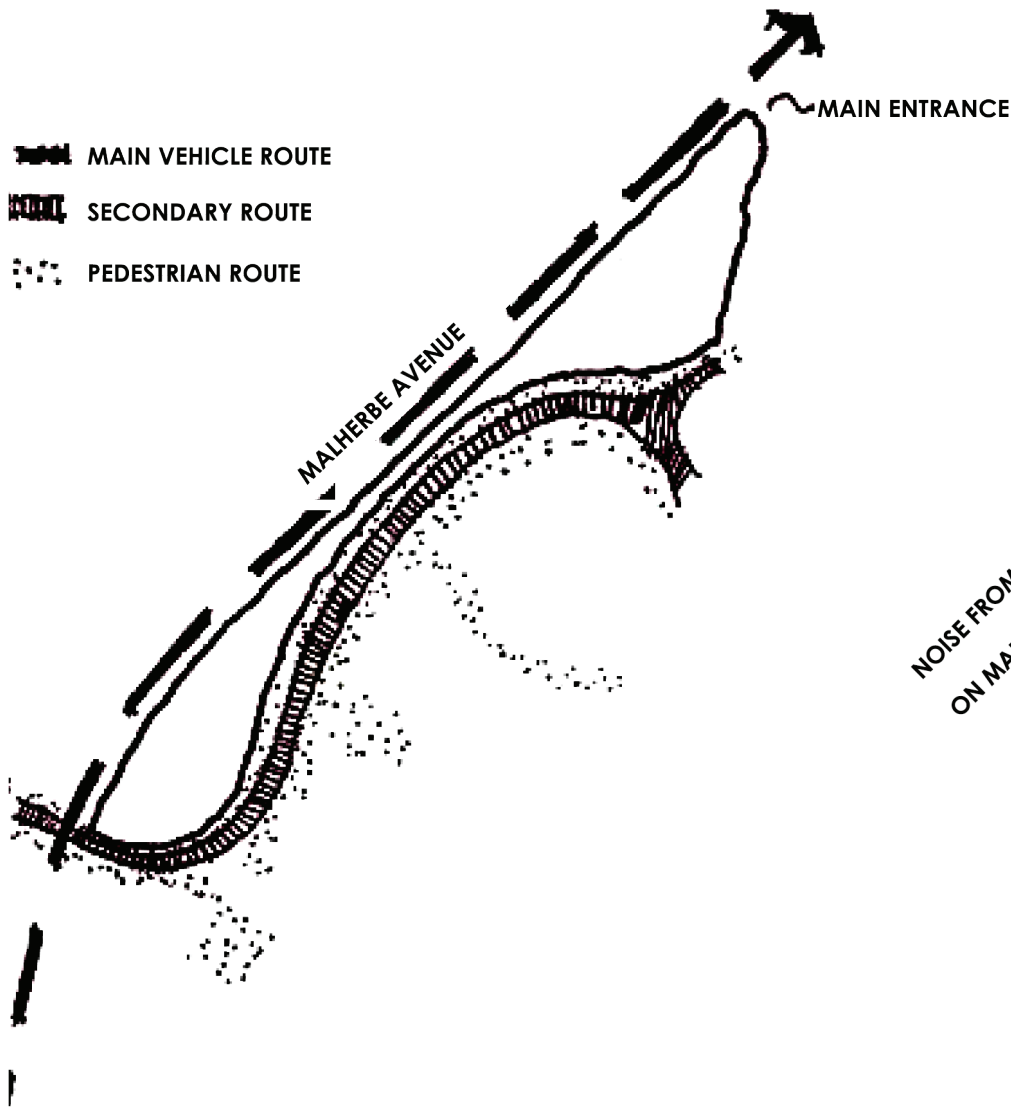
VIEWS FROM SITE (AUTHOR,2014)



CLIMATE STUDY (AUTHOR,2014)



CONTOUR STUDY (AUTHOR,2014)



MOVEMENT STUDY (AUTHOR,2014)

SOUND STUDY (AUTHOR,2014)

THE KIMBELL ART MUSEUM

BY

LOUIS KAHN



BRIEF DESCRIPTION

The project is Located in Fort Worth, United States of America. The element of natural light is the main focus of the design, and creates elegant spaces that are perfectly suited for the art that it houses. The vaulted

ceilings are used for integrating daylighting. There are three foot bays that are each fronted by a barrel-vaulted portico comprising the main facade to the west, where the central entrance is marked by

MUSEUM ENTRANCE (ARCHDAILY, 2011:ONLINE)

its glazing and recession from the rest of the facade. The building is punctuated by three courtyards, allowing for more light, air flow and relationships between interior and exterior spaces.

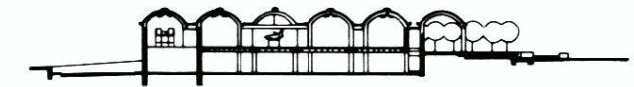
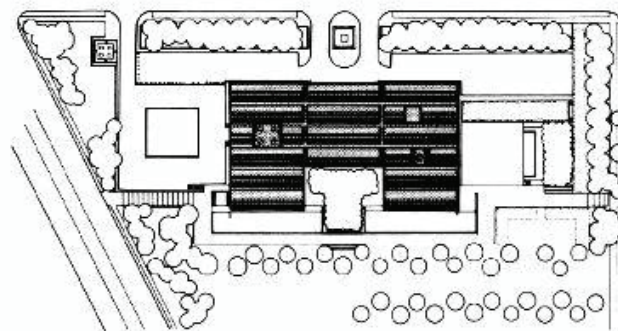
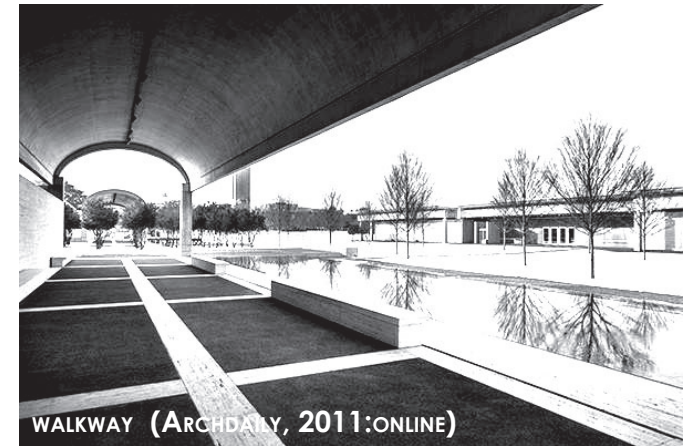


APPLICABILITY TO PROJECT: LIGHT

Language has an ability to self-regulate itself in how it functions. The distinct form of the Kimbell Museum's cycloid barrel vaults are rimmed with narrow Plexiglas skylights, which allow the building to regulate itself by providing room for natural light to penetrate into the spaces. To diffuse this light, pierced-aluminium reflectors shaped like wings hang below, illuminating the smooth surfaces of the concrete vault

while providing elegant and enchanting light conditions for the works of art.

Just like a language, a building constantly needs to readjust itself in order to adapt to environmental changes in a built form. The museum embraces this idea of reacting to conditions and these reactions having an effect on the way people use the space.



SECTION (ARCHDAILY, 2011:ONLINE)



ELEVATION (ARCHDAILY, 2011:ONLINE)

SITE PLAN (ARCHDAILY, 2011:ONLINE)



NEW YORK TIMES BUILDINGS

BY

★ **R** ENZO PIANO

BRIEF DESCRIPTION

The project is located in Fort Worth, United A headquarters for the New York Times newspaper. Building opens up to a neglected corner of Manhattan opposite the Port Authority with a 52-storey building whose themes of permeability and transparency express the intrinsic link between the newspaper and the city. The building's basic shape is simple and primary, and relates to the Manhattan grid of streets; the building has a distinctive double facade. An outer layer of horizontal off-white ceramic rods supported on a thin steel framework screens the floor-to-ceiling glass of the inner facade. The colour of the ceramic rods shifts in response to the changing city light and weather conditions. The rods also act as an energy-efficient sunscreen, capable of blocking up to 50% of the sun's rays. This allows the inner facade to be made of highly transparent glass, flooding the interior with incredible amounts of natural light, and maximising views in and out of the building, establishing a theme of transparency.

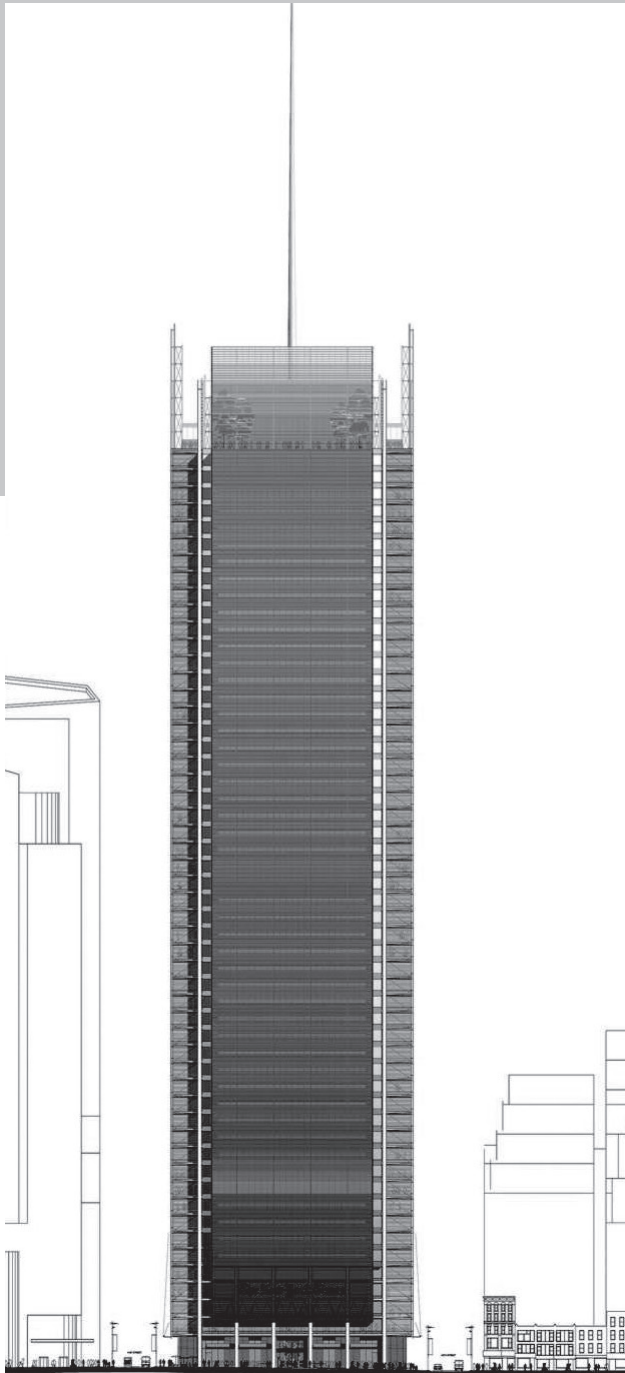
NEW YORK TIMES IN CONTEXT (RENZO PIANO BUILDING WORKSHOP, N.D.:ONLINE)

APPLICABILITY TO PROJECT:

STREET APPROACH AND MATERIAL

The building is designed to be as transparent and permeable as possible, expressing the paper's culture of openness. For this reason, it becomes applicable to the project because it acknowledges a culture's openness, just as similar to language which allows individuals to have a possible transparent exchange of communication with one another. The ground-floor lobby is not a closed private space, it serves as

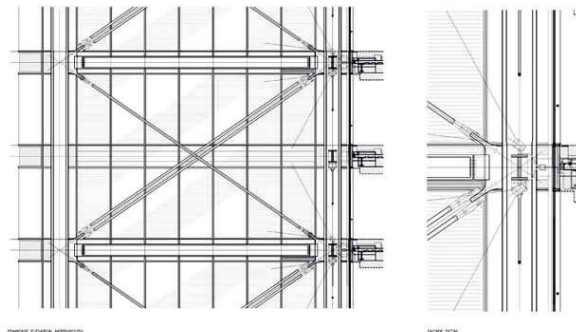
access to the offices on the floors above. The ground plane acts as the mediator and hub for the various users of the building. There is open access to anyone as a shortcut through the block from 40th to 41st streets. A language building will appeal to larger diverse that may require a common space to enhance integration.



LEISURE SPACE (RENZO PIANO BUILDING WORKSHOP, N.D.:ONLINE)



INSIDE / OUTSIDE RELATIONSHIP (RENZO PIANO BUILDING WORKSHOP, N.D.:ONLINE)



INTERNAL SECTION

WALL SECTION

GROUND LEVEL PEDESTRIANISED (RENZO PIANO BUILDING WORKSHOP, N.D.:ONLINE)

LIGHT MATERIAL USE (RENZO PIANO BUILDING WORKSHOP, N.D.:ONLINE)



CENTRAL BUILDING OF THE BMW PLANT

BY
ZAHA-HADID

BRIEF DESCRIPTION

The BMW Central Building is Located in Leipzig, Germany. The design is rooted on the idea of creating a unique connection between the vehicles, the employees, and the public. The design of the plant allows all the stages of production to be observed, so the visitors can actually watch their favourite cars produced.

STRUCTURAL WALLS(ZAHA HADID ARCHITECTS, N.D.:ONLINE)



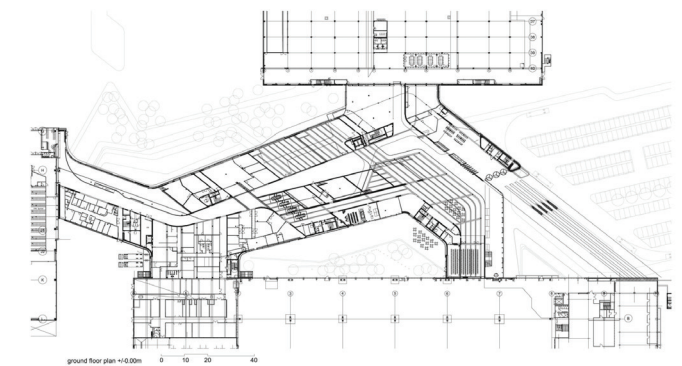
APPLICABILITY TO PROJECT:

SPATIAL PLANNING AND STRUCTURE

The architecture focuses on connectivity with the user. The Building is the active nerve-centre or brain of the factory complex. All threads of the building's activities gather together and branch out again from here. This becomes applicable to the proposed as it has to strive to be the point of confluence and culmination of the various converging flows.

This planning strategy as an active nerve-centre applies to the cycles and trajectories

of people - workers and visitors - as well as for the cycle and progress of the production line - departing and returning again. The nature of the proposed programme and project revolves around an exchange of data between researches and the public through structured research workshops. The idea is to educate and embrace the language heritage that initially developed in our domestic context, while respecting its daily functionality.



GROUND FLOOR PLAN (ZAHA HADID ARCHITECTS, N.D.:ONLINE)

CONSTITUTIONAL COURT OF SOUTH AFRICA

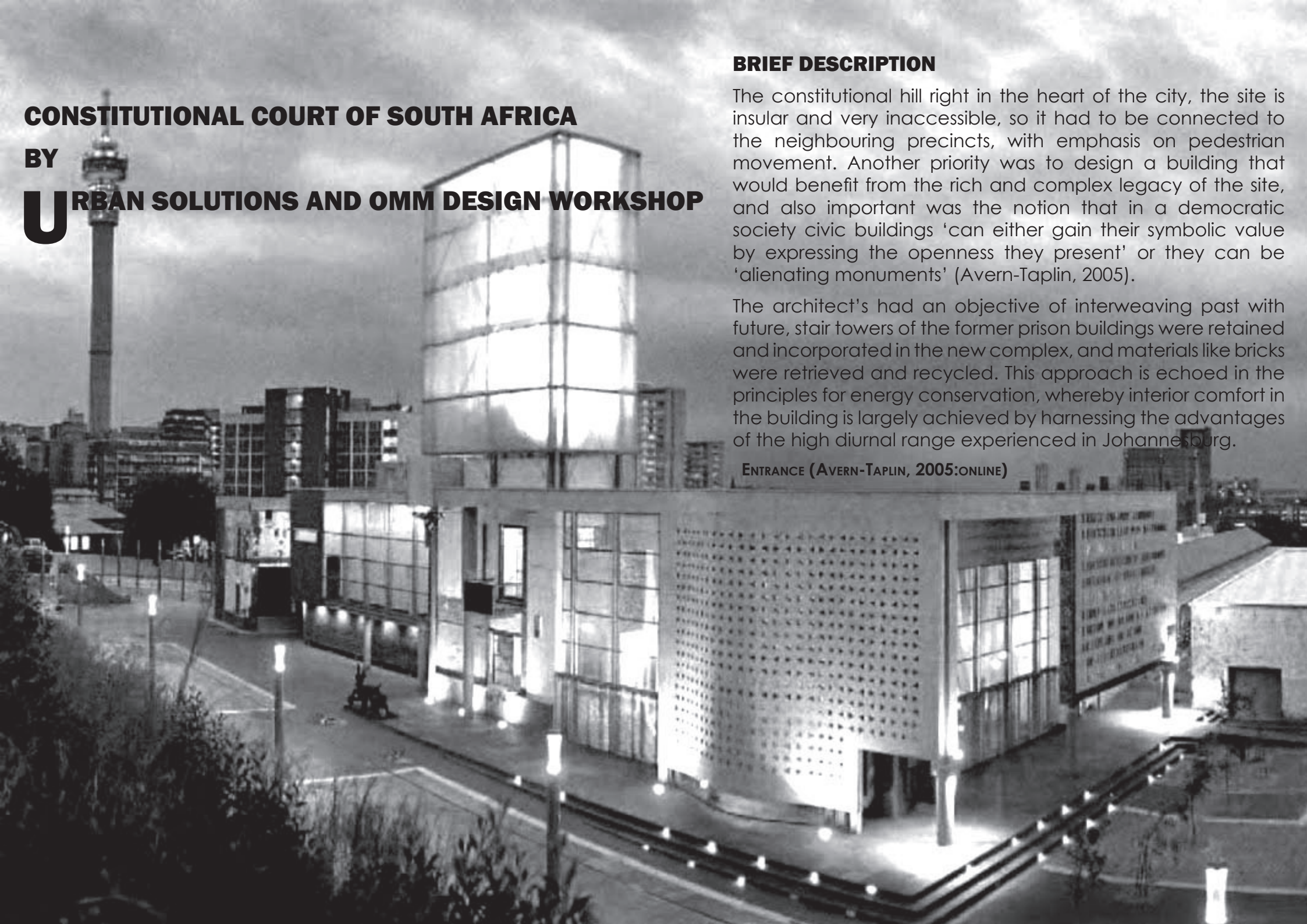
BY
URBAN SOLUTIONS AND OMM DESIGN WORKSHOP

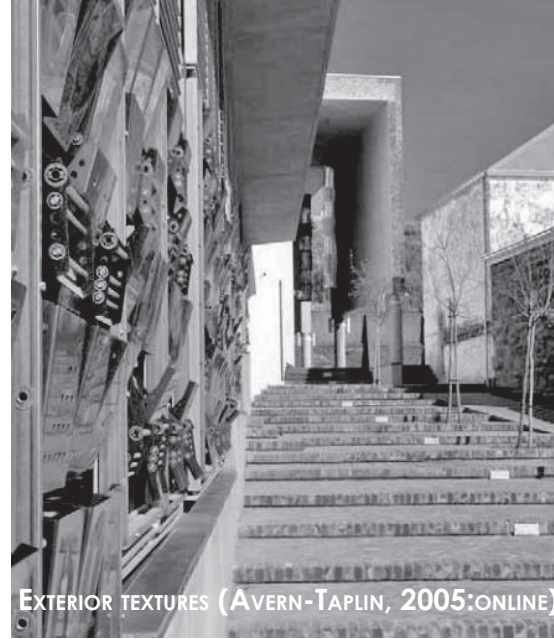
BRIEF DESCRIPTION

The constitutional hill right in the heart of the city, the site is insular and very inaccessible, so it had to be connected to the neighbouring precincts, with emphasis on pedestrian movement. Another priority was to design a building that would benefit from the rich and complex legacy of the site, and also important was the notion that in a democratic society civic buildings 'can either gain their symbolic value by expressing the openness they present' or they can be 'alienating monuments' (Avern-Taplin, 2005).

The architect's had an objective of interweaving past with future, stair towers of the former prison buildings were retained and incorporated in the new complex, and materials like bricks were retrieved and recycled. This approach is echoed in the principles for energy conservation, whereby interior comfort in the building is largely achieved by harnessing the advantages of the high diurnal range experienced in Johannesburg.

ENTRANCE (AVERN-TAPLIN, 2005:ONLINE)





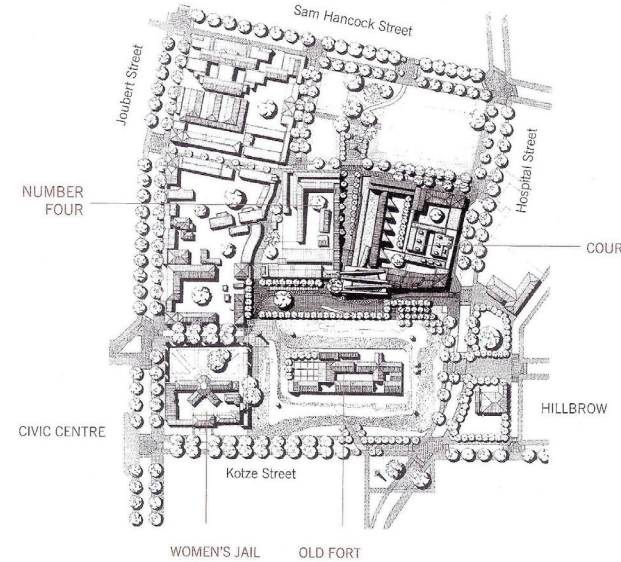
APPLICABILITY TO PROJECT:

URBAN FRAMEWORK AND FORM

The Court building is communicated through the language of its form in what it is about. And this expression shifts, with the different functions accommodated. The proposed projects seeks to amplify a strategy of a consisted language from outside to inside.

The timber entrance doors to the foyer of the court building stand 8m high. The space is formed in concrete, though largely transparent to the exterior, populated by slanting columns, and alert to the movement of the sun with skylights cast as slots at various angles into the concrete roof slab and closed by projecting glass boxes externally. T

His approach becomes appropriate by its similar conditions of inheriting an inaccessible site and have the design challenge of connecting to the neighbouring precincts.



SITE PLAN (AVERN-TAPLIN, 2005:ONLINE)



CASE STUDIES

THAKANENG BRIDGE

BY

ROODT ARCHITECTS

BRIEF DESCRIPTION

The University of the Free State had plans to develop and consolidate the main campus. The Student Centre was identified as a catalyst by which to link the east and west portions of the campus, currently bisected by D.F. Malherbe Avenue. The site

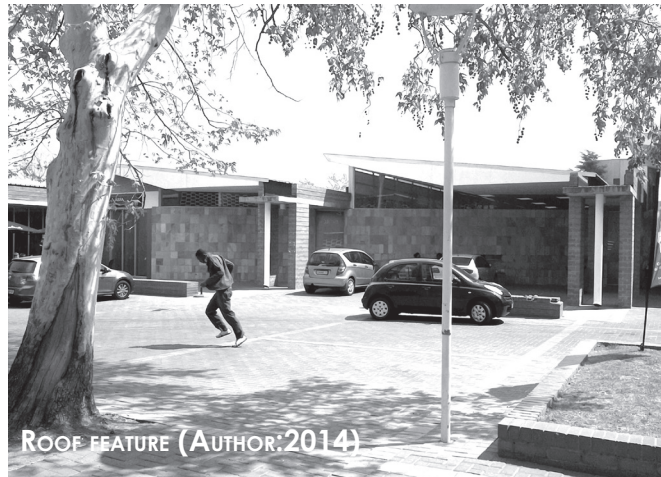
consists of two portions of land adjacent to the two edges of the road cutting formed by D.F. Malherbe Avenue. The zoning of the portion of land on the east campus, differs from that of the west campus, and D.F. Malherbe is a public road, and building

across a public road became a design challenge. The Student Centre is now officially known as the Thakaneng Bridge. Thakaneng means, "a place where boys and girls come together to play". (Roodt Architects)

SITE OVERVIEW (ROODT ARCHITECTS, ND:ONLINE)



APPROACH TO THAKANENG (AUTHOR:2014)



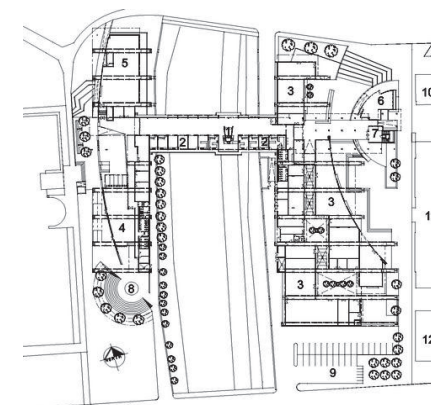
ROOF FEATURE (AUTHOR:2014)

APPLICABILITY TO PROJECT: SPATIAL PLANNING AND CONTEXT

The Student Centre is accessible from the centre of the campus without crossing any streets. This becomes applicable for the proposed project as it is also in a similar context and seeks to adopt a pedestrian connection with the neighbouring prominent neighbouring buildings on campus. The university is made up of a number of fine old buildings, dating to the early 20th century. The roof scape is designed in a manner that the other buildings would be visible from inside the centre, and the surrounding buildings would view it from above. The idea of transparency for the rest of campus is part of the design objectives for the proposed project.



BRIDGE PROMENADE (AUTHOR:2014)



- 1 radio station
- 2 food outlets
- 3 shops
- 4 multi functional area
- 5 computer laboratory
- 6 information centre
- 7 foyer
- 8 open air amfi theatre
- 9 public parking area
- 10 existing psychology building
- 11 existing biology building
- 12 existing mathematical science building
- 13 existing sasol library
- 14 of malherbe drive

PLAN (ROODT ARCHITECTS, ND:ONLINE)

BRIEF DESCRIPTION

THE BUILDING WAS DESIGNED TO ADDRESS THE NEED FOR LECTURE HALL FACILITIES ON THE BLOEMFONTEIN CAMPUS OF THE UNIVERSITY OF THE FREE STATE TO ACCOMMODATE THE GROWING STUDENT NUMBERS. THE BUILDING IS LOCATED ON THE NORTHERN SIDE OF THE CAMPUS. IT FORMS A BRIDGE BETWEEN THE CENTRAL CAMPUS AREA, THE TAXI TERMINUS, THE NORTHERN PARKING AREAS AND THE THAKANENG BRIDGE ON THE WESTERN EDGE OF CAMPUS.



ECONOMIC MANAGEMENT SCIENCES BUILDING

BY

CUBE ARCHITECTS AND INCLINE ARCHITECTS

ENTRANCE ON WESTERN SIDE (AUTHOR:2014)

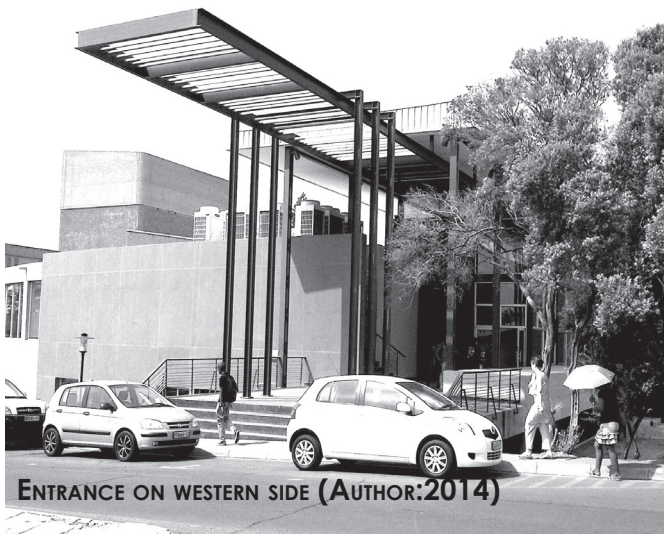


APPROACH (AUTHOR:2014)

APPLICABILITY TO PROJECT: SPATIAL PLANNING AND CONTEXT

The conceptual idea was to create a fragment of an urban environment, with intertwining and overlapping functions. On campus, the altering public realms of pedestrian and vehicle flow, as well as public areas are intricately linked together. Jako Olivier, (Olivier, 2013:30), a lecture from the architecture department of Free State, explains that a "fragment of the whole" is realised in this building by allowing the building to be an image and reference of the existing urban fibre.

This results in a building that overlaps with the existing streets on the east and west, promoting student flow through the site and buildings. This idea human interaction and flow is the key element that can be applicable for the proposed building as it also along a pedestrian path but at the same on the edge of the university boundary line.

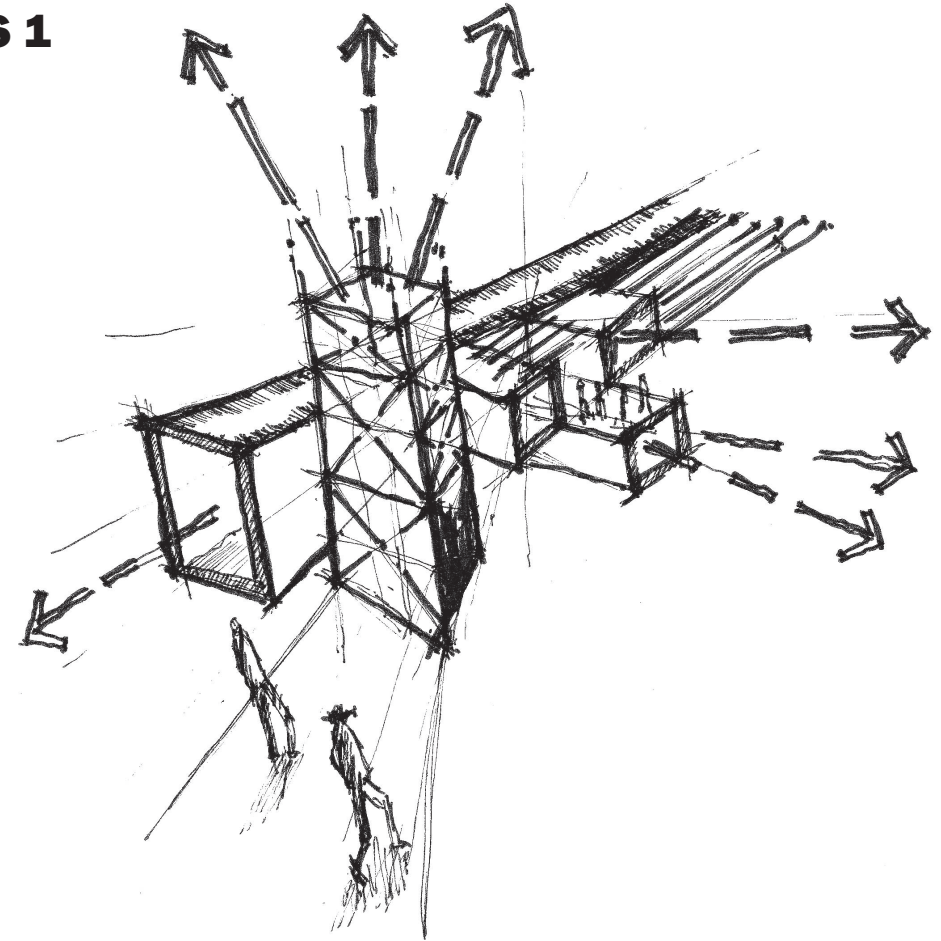


ENTRANCE ON WESTERN SIDE (AUTHOR:2014)



ALLOWS PEDESTRIAN FLOW (AUTHOR:2014)

CONCEPT AND IDEAS PERTAINING TO HYPOTHESIS 1



INTERGRATION OF ELEMENTS (AUTHOR:2014)

Ideas associated with the concept of cosmopolitanism, a social theory with a means to adjust to new challenges together with the theory of structuralism and semiotics, will possibly provide insights into developing the Research centre for language and interpretation which links to factors of

globalisation with developments in social and political positions. Cosmopolitanism promotes the idea that all ethnic groups belong to a single community based on a shared morality. Gerard Delanty (Delanty, 2009:52) a British Professor of Sociology, explains that the cosmopolitan imagination occurs when and wherever new relations

between self, other, and world develop in the moments of openness. It is an approach that shifts the emphasis to internal development processes within the social world rather than seeing globalisation as the primary mechanism and is also not reducible to the fact of pluralism. On an urban or architectural level, this causes one to look differently at a site and the design of a building as it implies that a building, together with the precinct in which it is placed, should represent how they should be experienced, identify which values to express, what position they should take in the Universities identity, (and countrywide) and what the primary relationship of the research centre for language should be to the architecture of our collective, shared



and diverse heritage.

For example, The Constitution Hill in Johannesburg has been the seat of South Africa's Constitutional Court since February 2004. It was the first major post-apartheid government structure to be constructed and intentionally designed with the cosmopolitan idea to embody the openness and transparency desired by the Constitution. Paul Wygers (Wygers, 2006:21), an architect from Urban Solutions, comments that the urban design strategy for the new constitutional court and constitutional hill determined that the previously isolated and impenetrable prison precinct should be integrated into the Johannesburg city grid.

THE LANGUAGE PROBLEM

The Postmodern period saw a revival of interest in meaning in architecture and self-consciousness about the terms in which the discipline was described. In the 1960s, issues as to what extent is architecture conventional, like language, and are its conventions so widely understood that there exists a social contract where explored.

Heinrich Klotz, an architectural theorist, (Harries, 2000:84) links the principle "at work when the final shape of a building is consciously tied to the recapturing of content that can become the "narrative substance" of a building's total form

and its subsidiary forms" to the goal "to liberate architecture from the muteness of "pure forms" and from the clamour of ostentatious constructions in order that a building might once again become an occasion for a creative effort, attend not only facts and utilization programs but also to poetic ideas and the handling of subject matter on an epic scale." The pure pleasure of communicating in a language, regardless what language, is to be understood. Anomalously, buildings provide the pleasure when they are easily understood by the user of the space. This would imply that the language employed in the building is known or familiar and clear

to the user. This understanding rests on the meaning carried by the experience given by the space.

The act of a language use precedes civilisation and readily makes it a carrier of cultures and knowledge. Before things are transformed in reflection, they have their place in a context of meaning that is inseparable from the activities in which we are engaged. Belonging to such a context, they themselves have a meaning.

Manfredo Tafuri (Harries, 2000:86), an Italian architectural historian, makes a link between language and communication with a contrast that works of architecture must

not just be meaningful in some sense but must be intended to communicate some meaning. It then only becomes relevant to speak of the semantics of architecture. Like language, architecture is governed by conventional rules, a syntactic make-up. But if buildings and the way their elements are joined are no doubt governed by rules, even if most of these rules can be violated, these elements seem to lack something that words possess. Words have meanings that allow them to be joined in propositions that assert something to be the case.

Tafuri explains that architecture, too, belongs to language, not because it makes assertions, nor because its “saying” can be translated without significant loss into spoken or written words, but because

of its style and particular configurations of elements within that style. In Architectural language, this is understood as semiotics. Tafuri adds that our first and most frequent way of experiencing persons and things is not at all detached observation of given objects. Such detachment presupposes prior engagement.

Within the language problem, the theme of symbolism as “mute objects’ comes up: is there not language only when there is communication? When a cloud is referred to as a sign of rain, there is no assumption of some person or spirit who by means of this cloud wants to tell us something. A case of one phenomenon being a reason to expect another. Therefore, the relation of words to meaning is not natural but

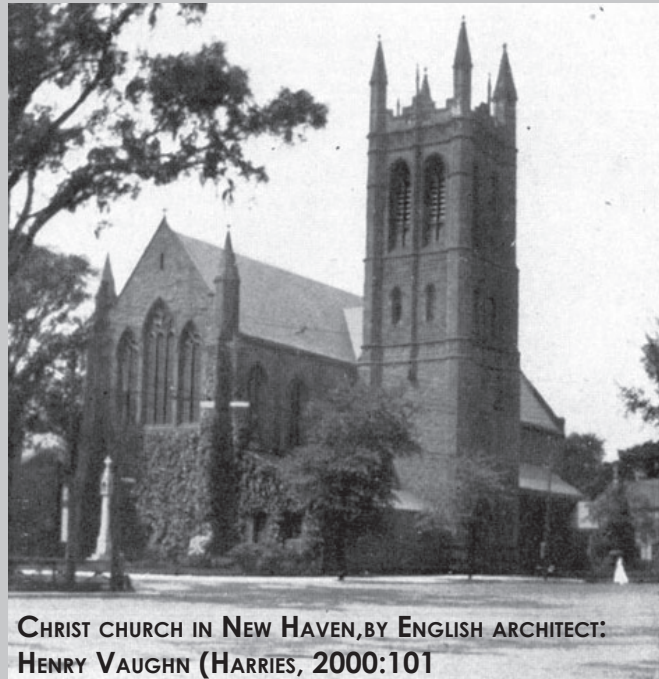
intended.

In 1960, Diana Agrest and Mario Gandelsonas (Agrest & Gandelsonas, 1996:112) distinguished between communication theory and semiotics. Semiotics is the science of the different systems of linguistic signs. It is concerned with the nature of signs and the rules governing their behaviour within a system. Semiotics is thus involved with signification or the production of meaning which is accomplished via the relation between the two components of the sign: the signifier (such as the word) and the signified (the object denoted).

Diana Agrest and Mario Gandelsonas see semiotics as a way to deepen the

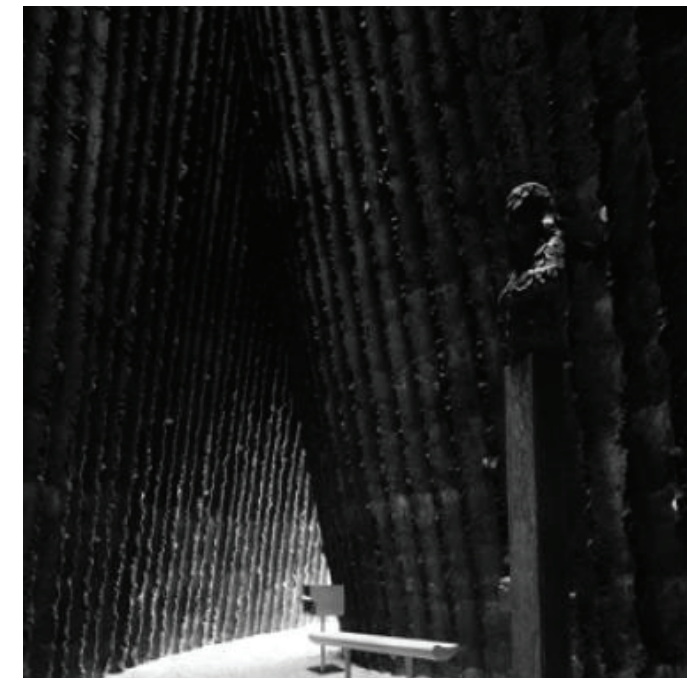
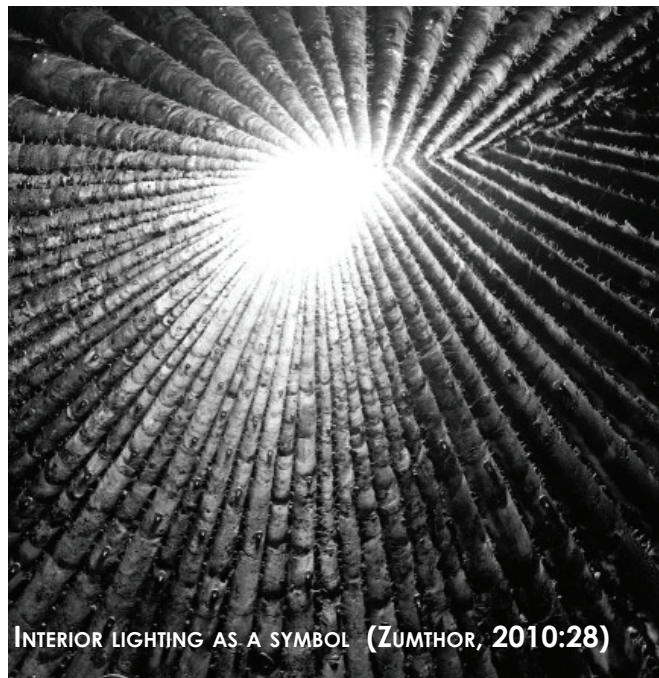
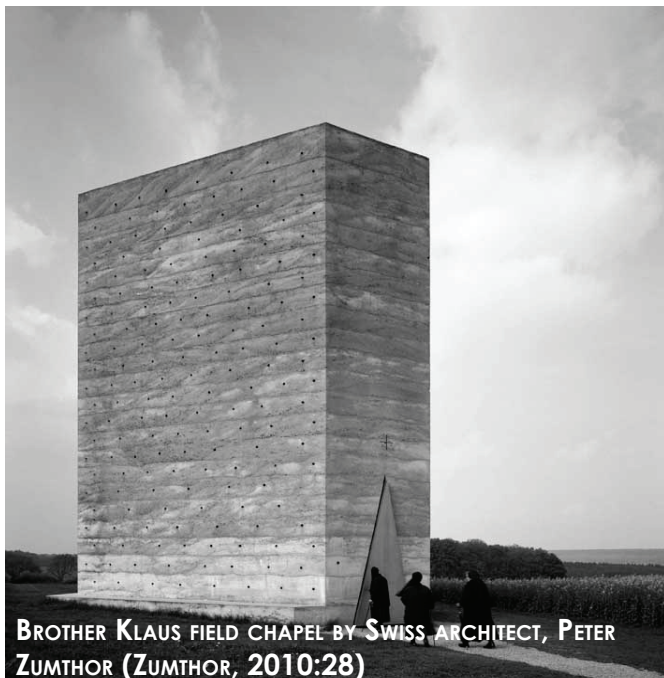
understanding of the production of meaning.

Tafuri (Harries, 2000:88), comments that "A man who understands language is able to recognize which words can, and which cannot, replace each other in a sentence". Therefore buildings are like propositions, the experience is understood by the user. Charles Morris, an American semiotician and philosopher, defined "semiotics" as the theory of signs. The language should provide the paradigm of a sign system to be expected. But this paradigm should not lead us to forget that there are many non-linguistic sign systems, which can be called "languages" in an extended sense, such as body language.



To function properly, objects must not only be functional but must communicate or denote that function and must be able to denote that function only on the basis of a code tied to established habits and expectations. A gothic cathedral looks like a church because it fits the church typology. But a gothic cathedral also signifies the city in heaven. It signifies the cosmos (something that exist everywhere) and it would be easy to add other significations. It becomes a nostalgic building that speaks to us by bounding space.

This idea of representation in architecture is illustrated in the Christ church in New Haven, designed by English architect: Henry Vaughn.



It is a typical nineteenth-century building that signifies a church typology. It does not only represent a church but a gothic church with Victorian glasses to connect to the times of medieval England.

The representation serves as self-representation. With the passage of time the church has acquired other connotations such as the image that represents heaven, a beautiful place that is beyond this world. This is illustrated in the Brother Klaus field chapel by Swiss architect, Peter Zumthor. Zumthor (Zumthor, 2010:28) refers to this specific representation as a “gentle art of seduction”, which is derived between the

composure and seduction of the form. The gentler art of seduction, is of getting the people (user) to let go and saunter in this type of space. The image of a church associated with heaven becomes standardized.

The Post-apartheid era presented a shift in architecture with the passage of time. The Union buildings in Pretoria, designed by Sir Herbert Baker and built between 1910 and 1913. The Buildings house the offices of the President of South Africa, becoming a symbol of power in a capital city. Materials used are light sandstone, with a wing on either side to represent the English and

Afrikaans languages and the unity of cultures. It is raised above the city and, overlook the city's public gardens.

The Red Location Museum by Noero Wolff Architects in Port Elizabeth, South Africa, opened in 2005. It was established as a tribute to the liberation struggle against apartheid. It has incorporated a spacious structure of corrugated iron as a theme borrowed from informal settlement from the area. The building shifts away from the traditional dominant powerful pillars of scale.

It then becomes safe to say that Architecture is an art of representation.



UNION BUILDINGS IN PRETORIA BY SIR HERBERT BAKER (AVERN-TAPLIN, 2005:ONLINE)



RED LOCATION MUSEUM BY NOERO WOLFF ARCHITECTS IN PORT ELIZABETH (NOERO, 2009:25)



LANGUAGE SPINE (AUTHOR:2014)

REPRESENTATION AND SYMBOL

Works of architecture represent buildings. Representing buildings, they denote (give meaning) a building type.

A Representation and Re-presentation

Goethe believed that architecture is an art of representation. Goethe's distinguishes three stages of the art of building namely.

- Building serves the human need for comfort
- Building becomes an art when it creates objects that present themselves to the eye as a harmonious whole (functional shed); and
- Architecture is no art of representation, but an art for itself

Hegel's insists that the work of architecture be experienced as a perfect whole, and that also means also that its termination be experienced as intended.

The question arises how does one make this art universally understood? Francis Ching (Ching, 1996:320), explains that order refers not simply to geometric regularity, but rather to a condition in which each part of a whole is properly disposed with reference to other parts and its purpose so as to produce a harmonious arrangement. Order without diversity can result in monotony (sameness); diversity without order can produce chaos. A sense of unity with variety is the ideal. Ordering universal principles (such Axis, Symmetry, Hierarchy, Rhythm, Datum, and Transformation) allow the varied and diverse forms and spaces to co-exist perceptually and conceptually within an ordered, unified, and harmonious whole.

STRUCTURALISM AND SEMIOTICS

Modern linguistics have also provided a basis for the study of the totality of human communication.

Giambattista Vico, (Hawkes, 1977:15) an Italian jurist insists, "In the nature of human institutions be a mental language common to all nations which uniformly grasps the substance of things feasible in human social life and express it with as many diverse modifications as these same things may have diverse aspects." The desired destination within the realm of communication is the ability to be understood and modify data in the various social life circles that we confront.

Jean Piaget, a Swiss developmental psychologist and philosopher sees this modification as a structure that can be observed in an arrangement of entities which embody fundamental ideal:

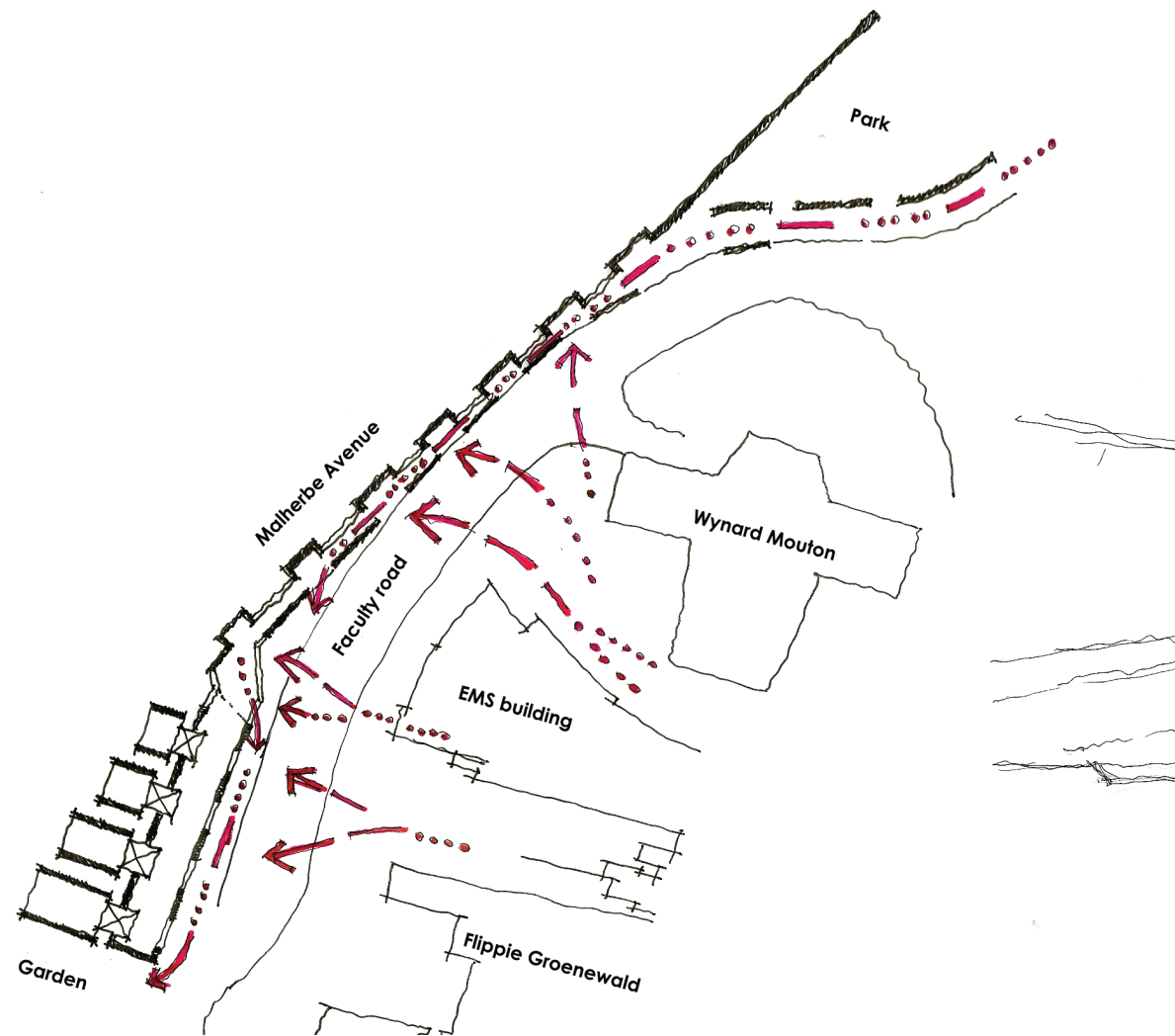
- The idea of wholeness
Wholeness, internal coherence
Not only structured but structuring
- The idea of transformation
Processed by and through the whole
Language, a word in a sentence
- The idea of self-regulation

LINGUISTICS AND ANTHROPOLOGY

Ferdinand de Saussure, a Swiss linguist, mentions that a notion of language as an aggregate of separate units, is called words. Language should not only be studied in terms of individual parts and diachronically, but also in terms of the relationship between the parts and synchronised and studied as a unified "field", a self-sufficient system, as we actually experience it now.

Structuralism argues that a specific domain of culture may be understood by means of a structure, modelled on language, that is distinct both from the organisations of reality and those of ideas or the imagination of the "third order" (Hawkes, 1977:23)

CONCEPT AND IDEAS PERTAINING TO HYPOTHESIS 2



STREET AND PEDESTRIAN ENGAGEMENT (AUTHOR:2014)

The research centre has intentions to educate, and connect to the rich cultural diversity of the city and the university. An approach to placement of functions is encapsulated with the goal to create a destination where casual visitors will stop by to take in the views or have a coffee in the park, and stay on to explore the art exhibitions.

CONSIDERATIONS OF SITE

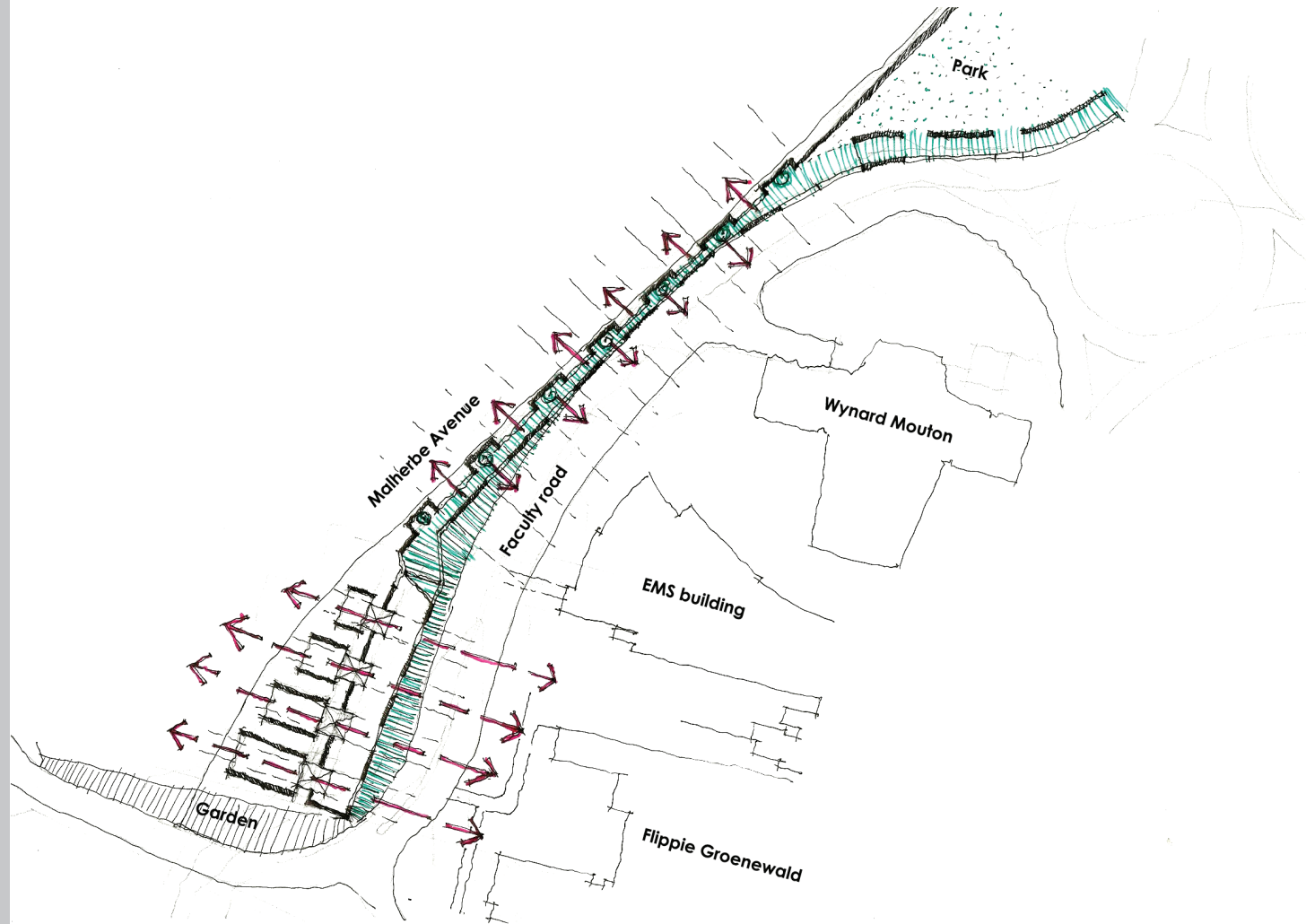
The proposed building is placed along a major path which starts from the main gate/ taxi rank to the bridge which is the heart of the campus

HARMONY WITH THE LANDSCAPE

The centre is intended to acknowledge the existing language site by not creating architecture as a tool of impacting or altering the landscape but rather of harmonising with the natural surroundings. The existing garden found on the site will be maintained and made more accessible for the users.

ARCHITECTURE AND PLACE

The University has homogeneous language that integrates the buildings in a historical unit. The main challenge was to establish a balance of openness and protection from the heat, humidity and storms as the site is very linear which meant that major elevations would experience western climatic conditions. A towering structure that provided sheltering to both indoor and outdoor spaces was considered, this also gave the centre a fluid, almost disembodied appearance.



TRANSPARENT PROGRESSION FROM STREET INTO BUILDING (AUTHOR:2014)

CONCEPTS, IDEAS and TECHNICAL CONSIDERATIONS

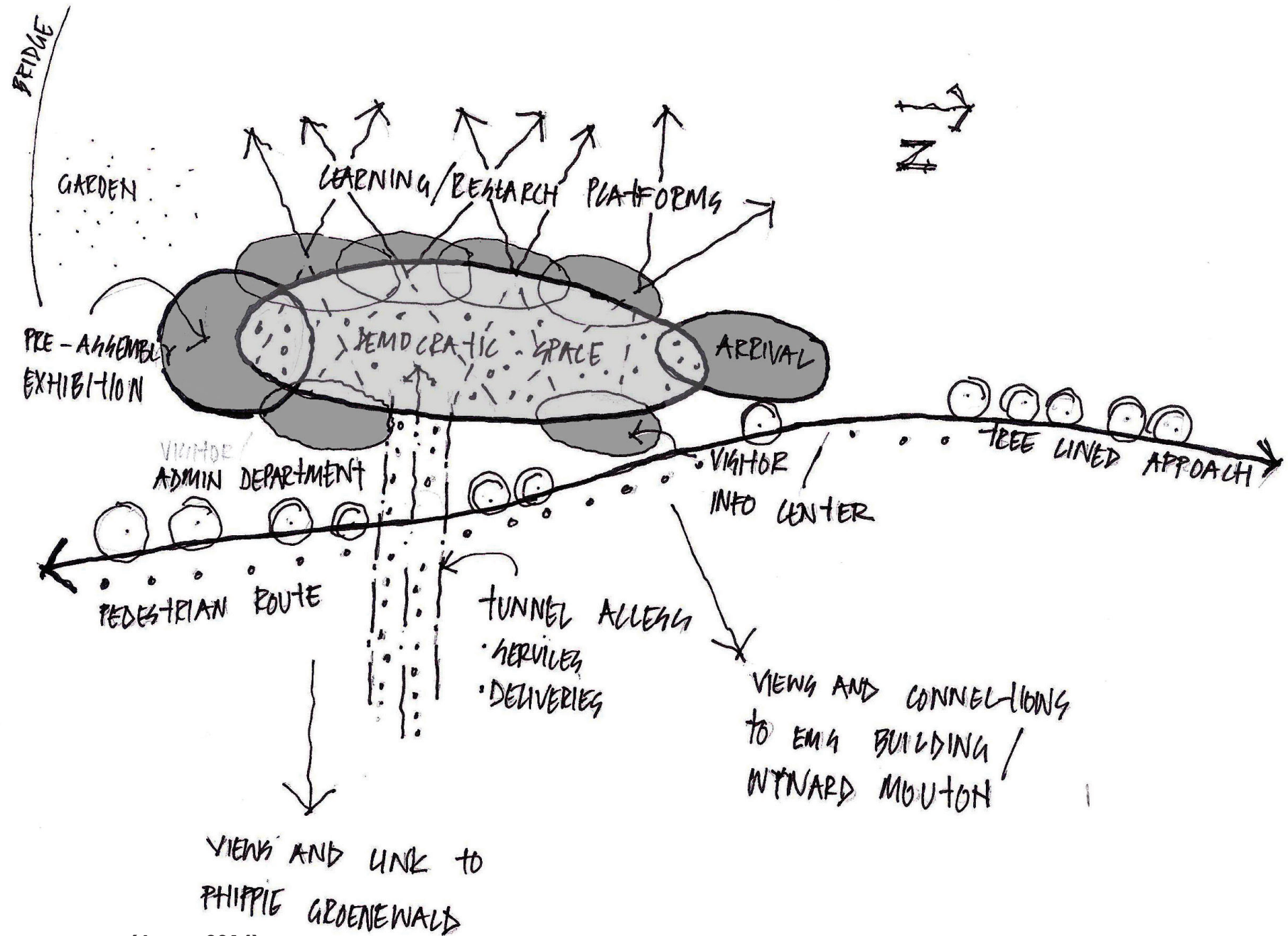
CONCEPT AND THE IDEA

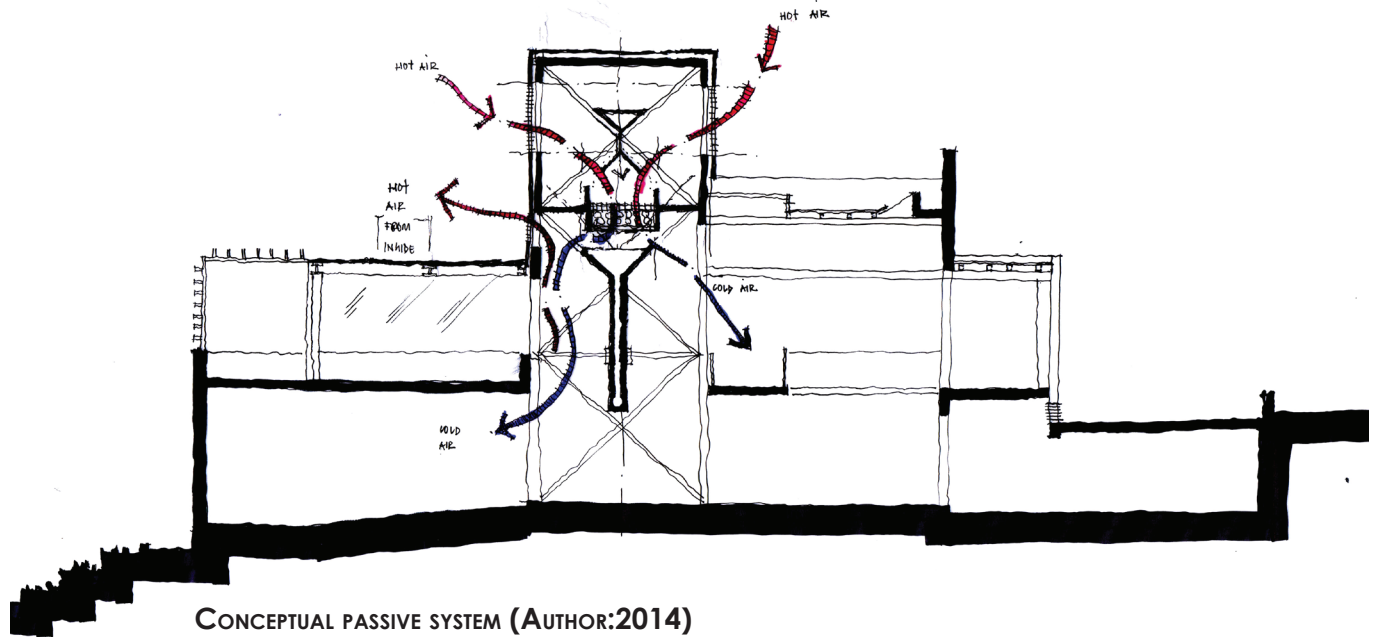
The idea is to create a common universal space to accommodate large crowds, which is complemented by less public spaces which act as break away spaces within the public realm. There is a consistent human presence on major public spaces due to the visual connections amongst users which is a result of the longitudinal formation (vistas) of the building.

The street edge has been addressed to capture the maximum of the student flows and as a way of displaying the language centre to the rest of campus in a direct and indirect manner. The path that connects through the campus centre is

organised to differentiate activities into streets, plazas, and urban islands. Without fragmenting the overall building, each part is articulated according to its specific needs and positioned to create urban elements in miniature. The main element is the continuous street edge, from the main gate via the taxi rank to Thakaneng (student centre), which unifies the heterogeneity of the context.

This form of social sustainability for the university community has derived on intentions to develop processes and structures for language integration, which not only meet the desires of the current members but also support the ability of future generations to maintain a healthy community.





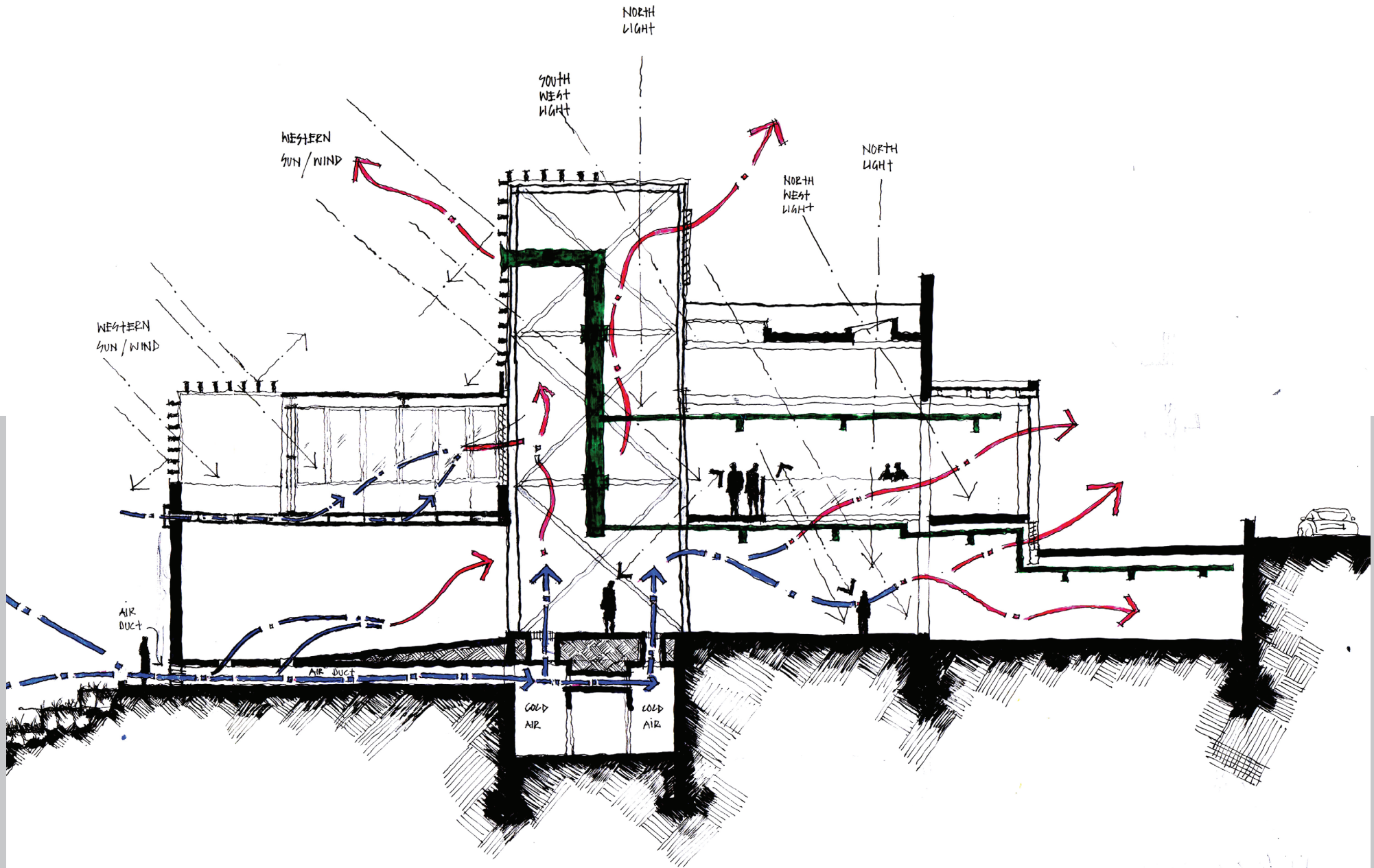
SUSTAINABILITY CONSIDERATION

A language has inherent qualities that entails it to sustain itself as it grows. The proposed research centre is to be a language corpora, it becomes an opportunity to explore the language of sustainability within architecture. The buildings longitudinal elevation faces the extreme western conditions. A tower approach whereby it acts as the brain of the building is implemented, an ancient Islamic motif reinterpreted by Hassan Fathy (Brown & DeKay, 2001, p. 189), and where the confluence of three main segments of sustainability occurs: light, ventilation and shading. It also serves as the entrance reference for the building.

The steel and glass facades allow the

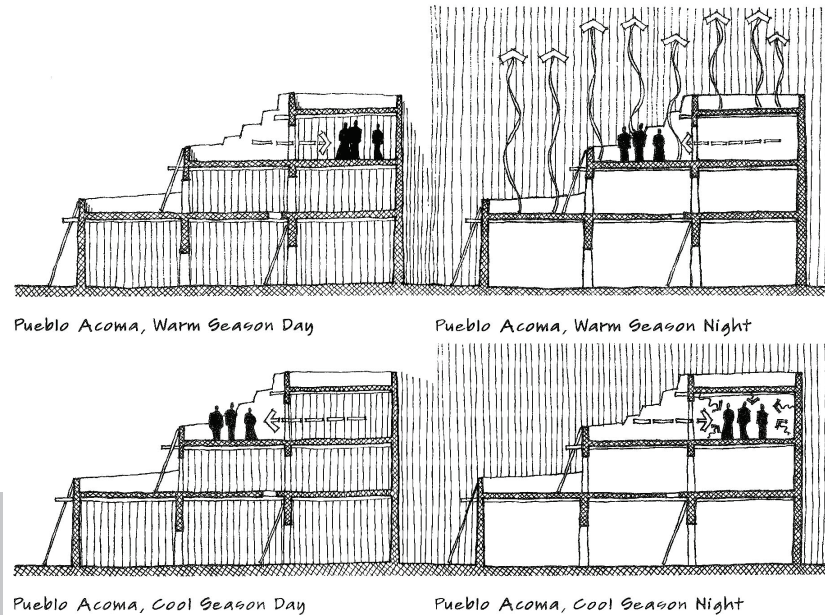
visitors to explore activities of language research taking place inside. The design intent is to provide a new interpretation of open office space, creating connections and transparency. Users and the visitors are the target of transparent architecture to translate an aesthetic that also complies with requirements and its functional representative.

The light effects continue inside by forming the patterns splashes on the white walls at different elevations throughout the day. In the upper level, built to house the researcher's workspace, skylights introduce shafts of ambient light.



CONCEPTUAL AIR MOVEMENT (AUTHOR:2014)

SUSTAINABLE DESIGN ELEMENTS

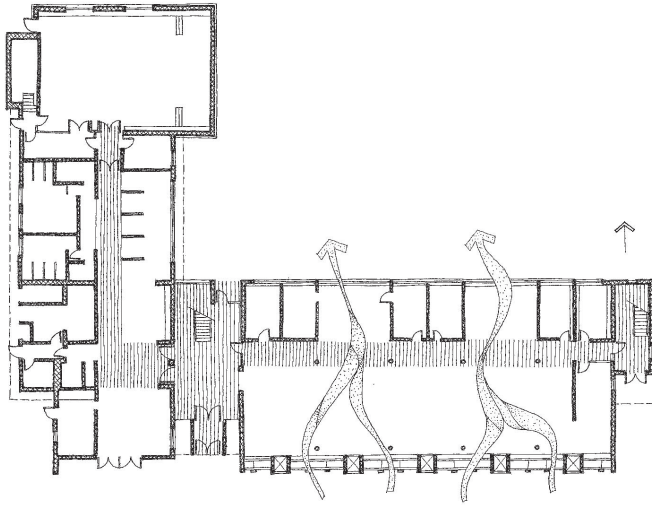


A BUILDING BY PUEBLO ACOMA ILLUSTRATING SEASONAL CHANGES (BROWN & DEKAY, 2001:136)

MIGRATION: HEATING AND COOLING

This is a strategy towards zoned organisation, whereby spaces can be zoned so that activities can take place in cooler areas during warm periods and warmer areas during cool periods of the day or season. This level of thermal comfort can be explored by taking advantage of the beneficial relationship between some materials thermal characteristics and certain compatibility of certain conditions with existing social patterns, like moving from research office area to a cafeteria area. A building by Pueblo Acoma, near Albuquerque, New Mexico is an example of a two zoned building whereby the time of the day that each zone is used changes from season to season (Brown &

DeKay, 2001:136). In cool seasons, the outside terraces are used during the day and the interior spaces during the night. In the warm season, the opposite happens: the outside terraces are used at night and the shaded cool interiors during the day. One zone, the exterior North-facing terrace, is protected from the wind and becomes sunny during the day, this is an advantage when the air is cool and a disadvantage when it is warm. The second zone, the interior, follows the outside climate less closely than the terrace. The heat storage characteristics of the massive construction cause the interior temperature to lag several hours behind the exterior temperature. The proposed building looks at the organisation zoning between public/private space and inside/ outside spaces to achieve a desirable thermal comfort.

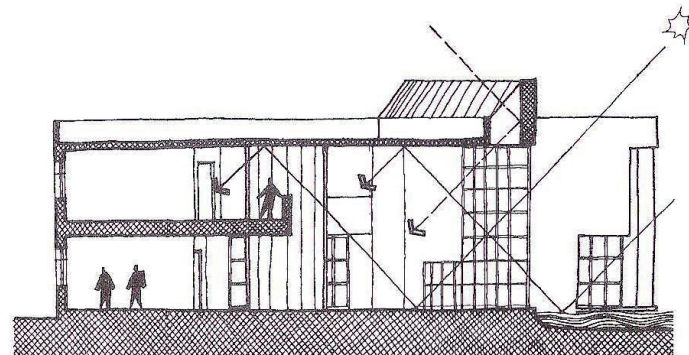


BUILDING RESEARCH ESTABLISHMENT OFFICE BUILDING,
UNITED KINGDOM BY FEILDEN-GLEGG ARCHITECTS (BROWN
& DeKAY, 2001:146)

PERMEABLE BUILDING

This is a combination of open plans, cross-ventilation and stack ventilation for cooling the building. Cross-ventilation is a valuable means of cooling during warm periods as it not only removes heat from the space but also increases the sensation of cooling by increasing people's rate of evaporation (Brown & DeKay, 2001:146). In hot and temperate climates at night such as Bloemfontein, air movement is frequently slow, in which case stack-ventilation becomes an important strategy for the

proposed building. A cross-ventilation and stack ventilation combination is explored. Cross-ventilation is more effective in the windward side (West) while the stack-ventilation is more effective in lower areas and those with less access to wind. In the Building Research Establishment Office building in Garston, United Kingdom by Feilden-Glegg architects: three strategies are used to promote cross-ventilation. First, the building is zoned so that circulation is open through one side of an open office plan to avoid corridor walls. Second, the north side offices are not continuous along the buildings perimeter, but are interrupted with openings to open up to the South. Third, the hollow concrete slab allows air to be pulled in by fans above the ceiling.



UNICON BETON HEADQUARTERS, IN ROSKILDE, DENMARK BY JAN SONDERGAARD ARCHITECTS (BROWN & DEKAY, 2001:158)

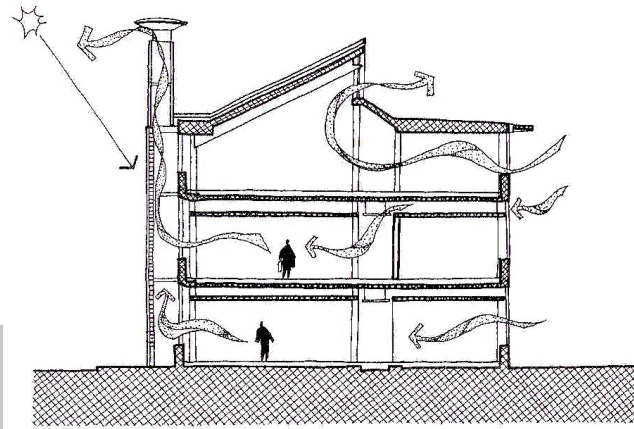
BORROWED DAYLIGHT

This is when smaller spaces are organized adjacent to larger or taller spaces to maximise on the incoming daylight. The proposed site is linear which limits the amount of incoming light, especially on the eastern side. More spaces can be naturally lit by using atria lit from the side (for example, from the western side), which allows deep side-light penetration when the atria exposure is high. In instances where the atrium faces north, it can also become a sunspace for heat collection. The proposed building makes use of photo-voltaic panels

which offer a multi-function of shading and generating energy for building use. In direct gain solar heating, there is often a conflict between the need to collect sun and the potential for glare from contrast between uncomfortably strong light and shadows (Brown & DeKay, 2001, p. 158). When more diffuse and indirect light is desired, solar heat can be collected in an area at the northern edge of the building and then transferred by convection to nearby spaces. Day light can then be reflected through the collector space or area, which will be bright and sunny in winter, to the adjacent spaces, where the lighting pattern will be more diffuse. This strategy was used in the Unicon Beton Headquarters, in Roskilde, Denmark by Jan Sondergaard architects. The buildings northern wall is pierced with tall windows, admitting low angle winter sun.

THERMAL STORAGE WALLS

This is a strategy whereby walls collect and store solar heat at the edge of the room (heating). Indirect-gain solar systems, such as trombe walls, place the thermal mass between the space to be heated and the north-facing glazing. The walls do not allow sunlight into the heated space. The rate of heat flow through the wall depends on the materials and thickness. The proposed building uses concrete walls which delay the transfer of heat from the sunny side of the wall into the building by several hours (most likely at night). The characteristic of thermal storage walls is their opaque, separating thickness.



RESEARCH ESTABLISHMENT OFFICE BUILDING, UNITED KINGDOM BY FEILDEN-CLEGG ARCHITECTS (BROWN & DEKAY, 2001:185)

STACK-VENTILATION

This is a cooling mechanism that is increased by a greater distance between high and low openings. When the wind is blowing and the outside temperature is below the inside temperature, cross-ventilation can be an effective cooling strategy. In Bloemfontein, where the wind may not be available during some times, such as at night or blocked by an urban condition, a stack ventilation can provide a similar cooling effect as it does not need require wind to move the air. The effective height

of the space can be increased by a stack chimney at the top, as it in the Building Research establishment office building in Garston, United Kingdom by Feilden-Clegg architects. Five stacks, serving the lower two floors, are located on the south side of the building. The south face is glazed to further heat the outgoing air (Brown & DeKay, 2001:185).

INTRODUCTION

This chapter focuses on the influential design generators and corroborates the decision making process within the client brief, theoretical investigation, practical and historical contexts of the thesis.

SYNTHESIS

DESIGN PROCESS

THE IDEA

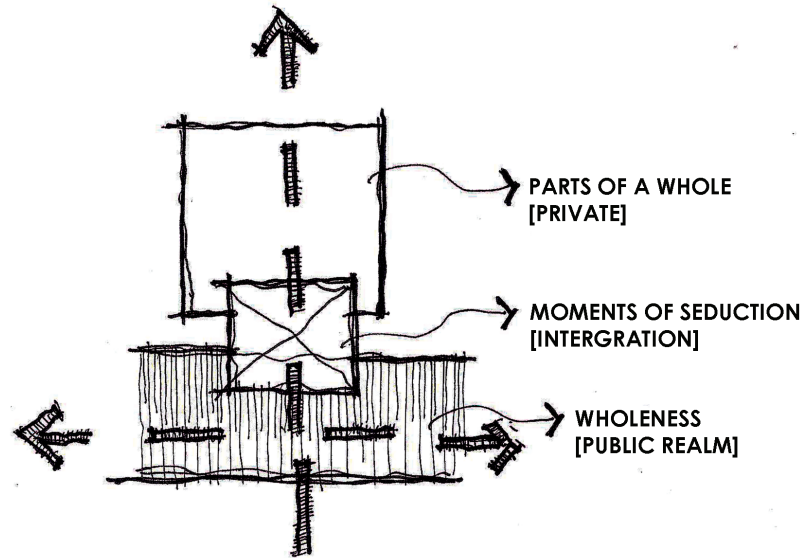
IDEA DEVELOPMENT

DESIGN SYNTHESIS

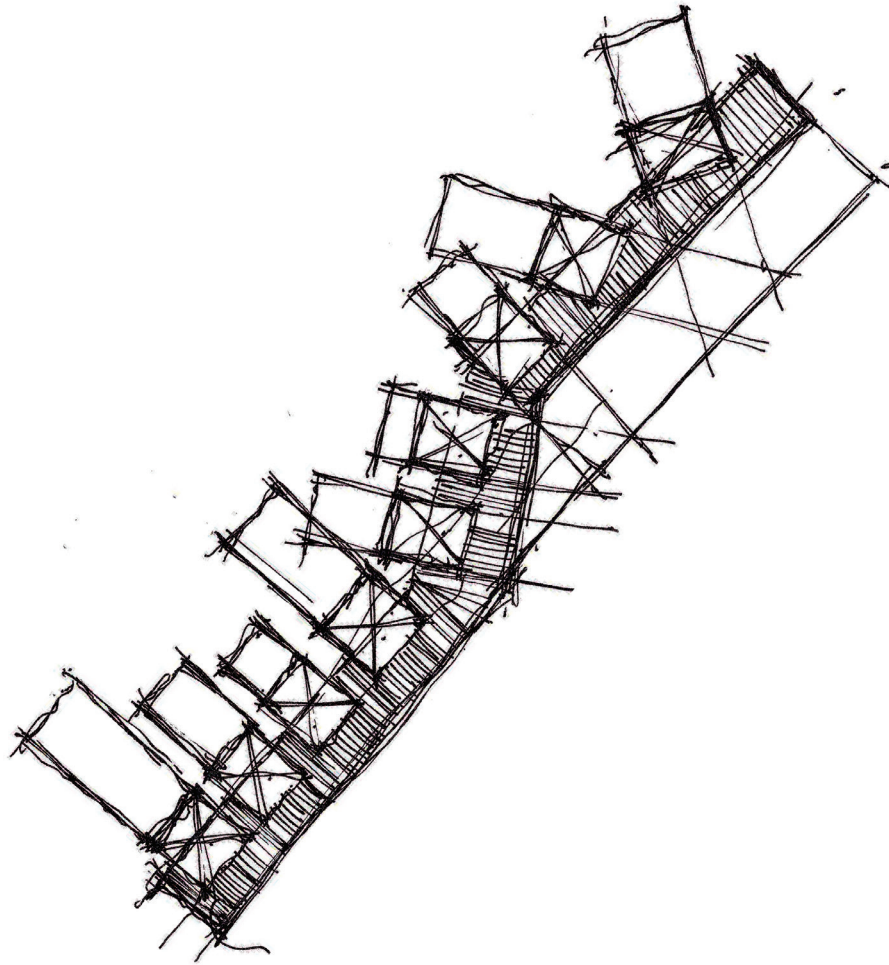
TECHNICAL RESOLUTION

DESIGN PROCESS

CONCEPT AND IDEA

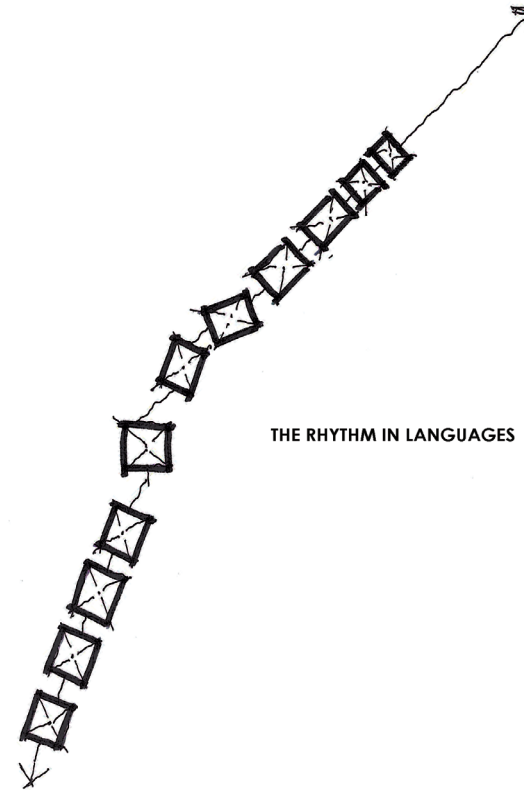
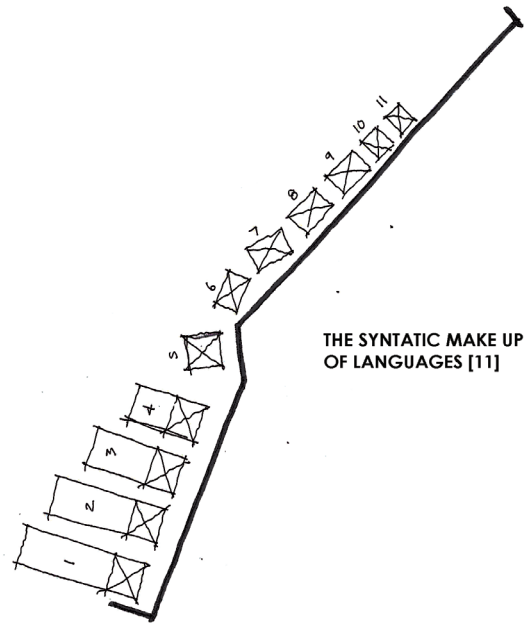


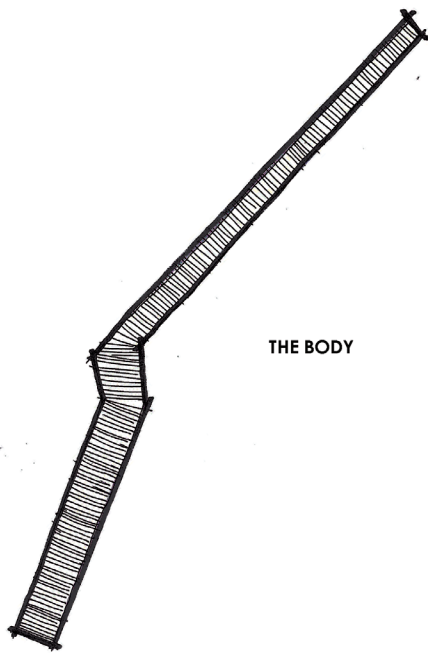
PARTS OF A WHOLE(AUTHOR:2014)



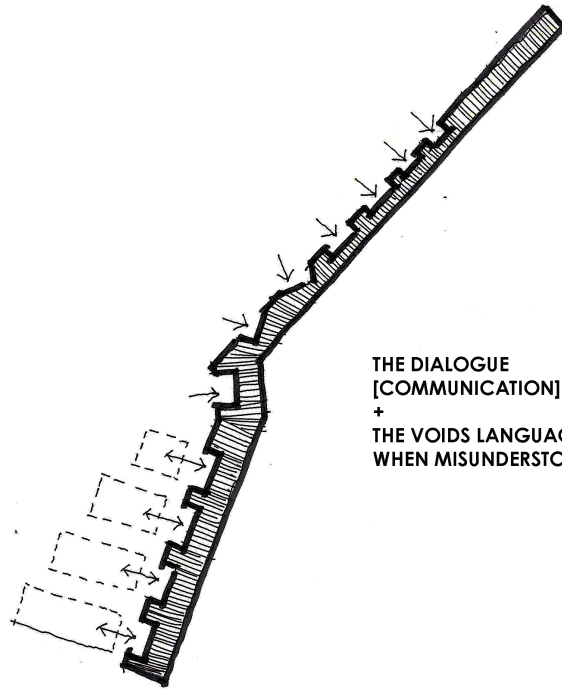
INTERGRATION ELEMENTS AT ITS WHOLENESS (AUTHOR:2014)

STRUCTURING LAYERS OF CONCEPT AND IDEA



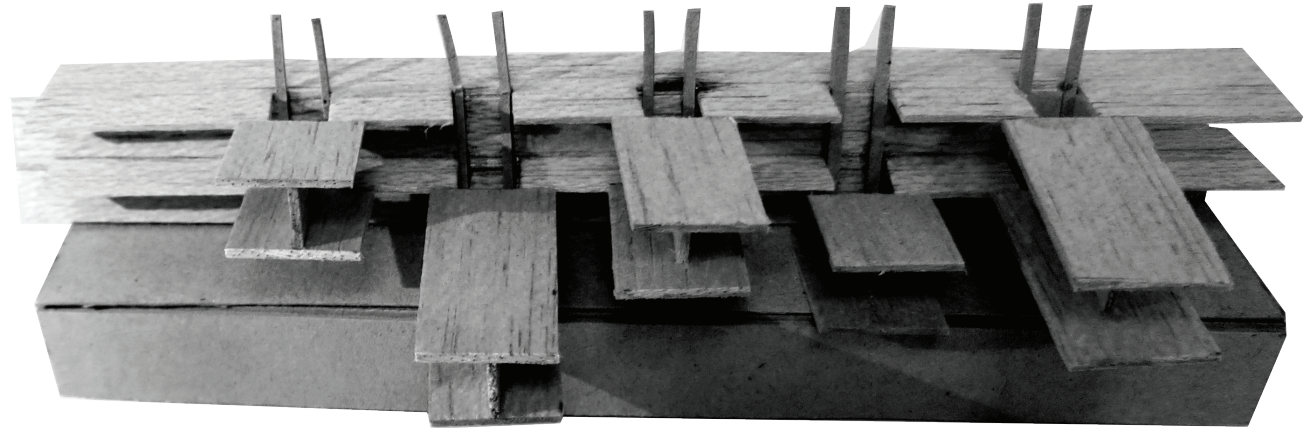


THE BODY



THE DIALOGUE
[COMMUNICATION]
+
THE VOIDS LANGUAGE CREATE
WHEN MISUNDERSTOOD

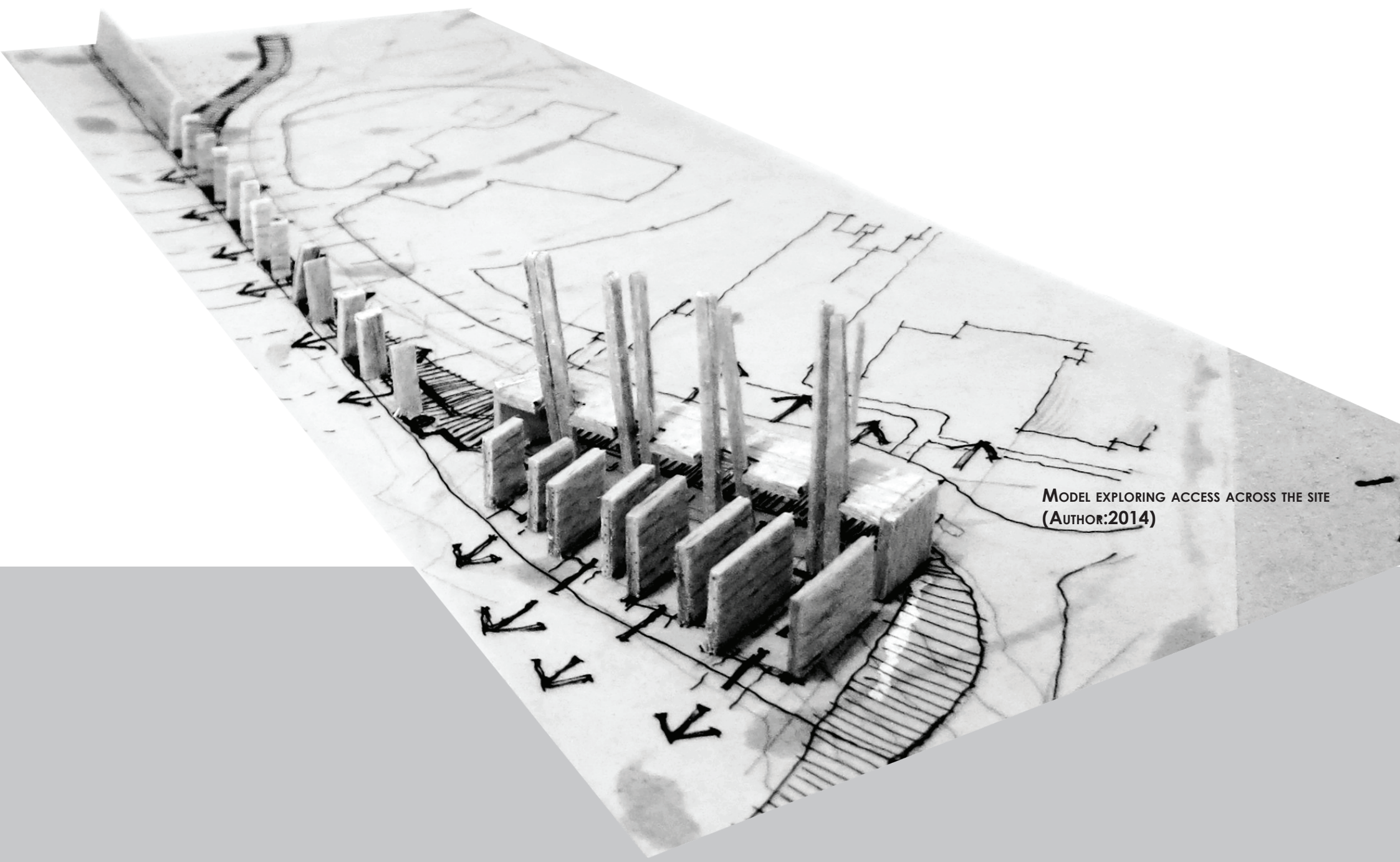
DESIGN DEVELOPMENT



1ST CONCEPT MODEL(AUTHOR:2014)

CONCEPT 1

The existing buildings on the site are heterogeneous (Consisting of elements that are not of the same kind or nature) and fragmented but, in substance, a historical unit, yielding a special image of a special edifice for the University of the Free State.



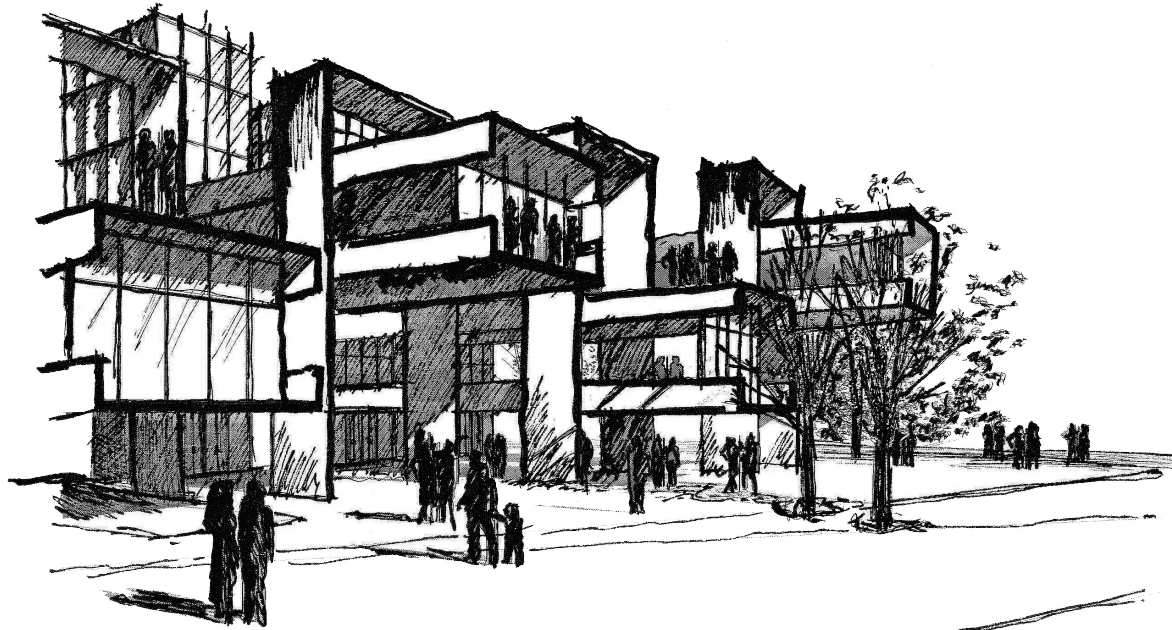
MODEL EXPLORING ACCESS ACROSS THE SITE
(AUTHOR:2014)



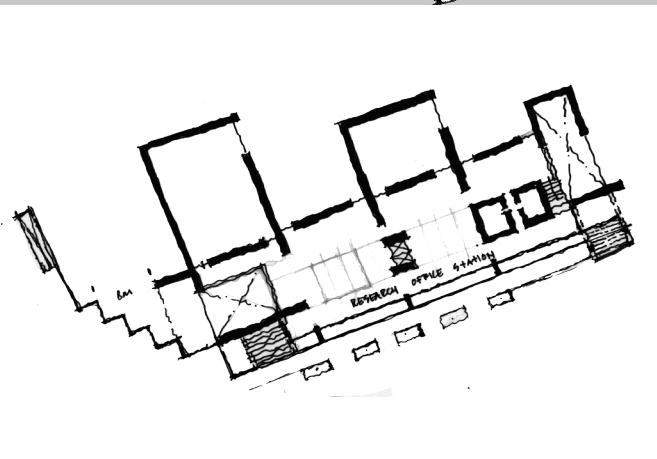
IDEA OF MOVING PLANES TO CREATE SOCIAL HUBS WITHIN THE BUILDING (AUTHOR:2014)

CONCEPT 2

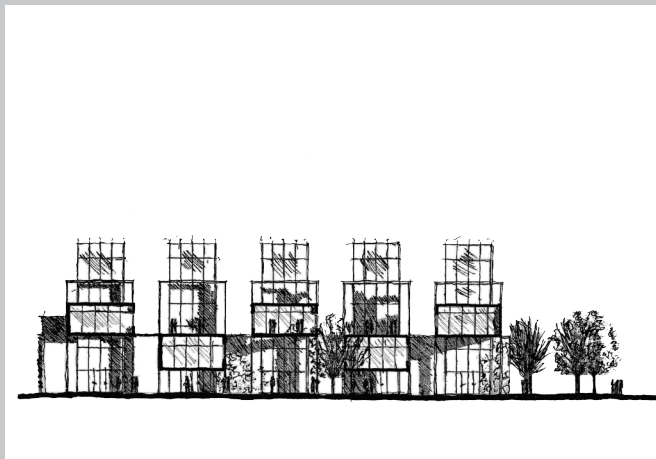
The new building rises on the old patterns and acquires form by using its substance to incorporate, complement, and unify the fragmented parts of the existing buildings. This attitude aims at the wholeness of architectural expression, an architectural body.



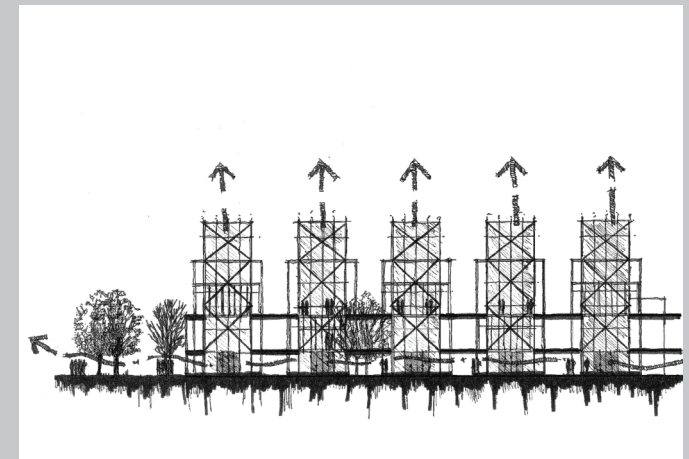
IDEA OF MOVING PLANES TO EXPOSE THE BUILDING ONTO THE BUSY MALHERBE AVENUE (AUTHOR:2014)



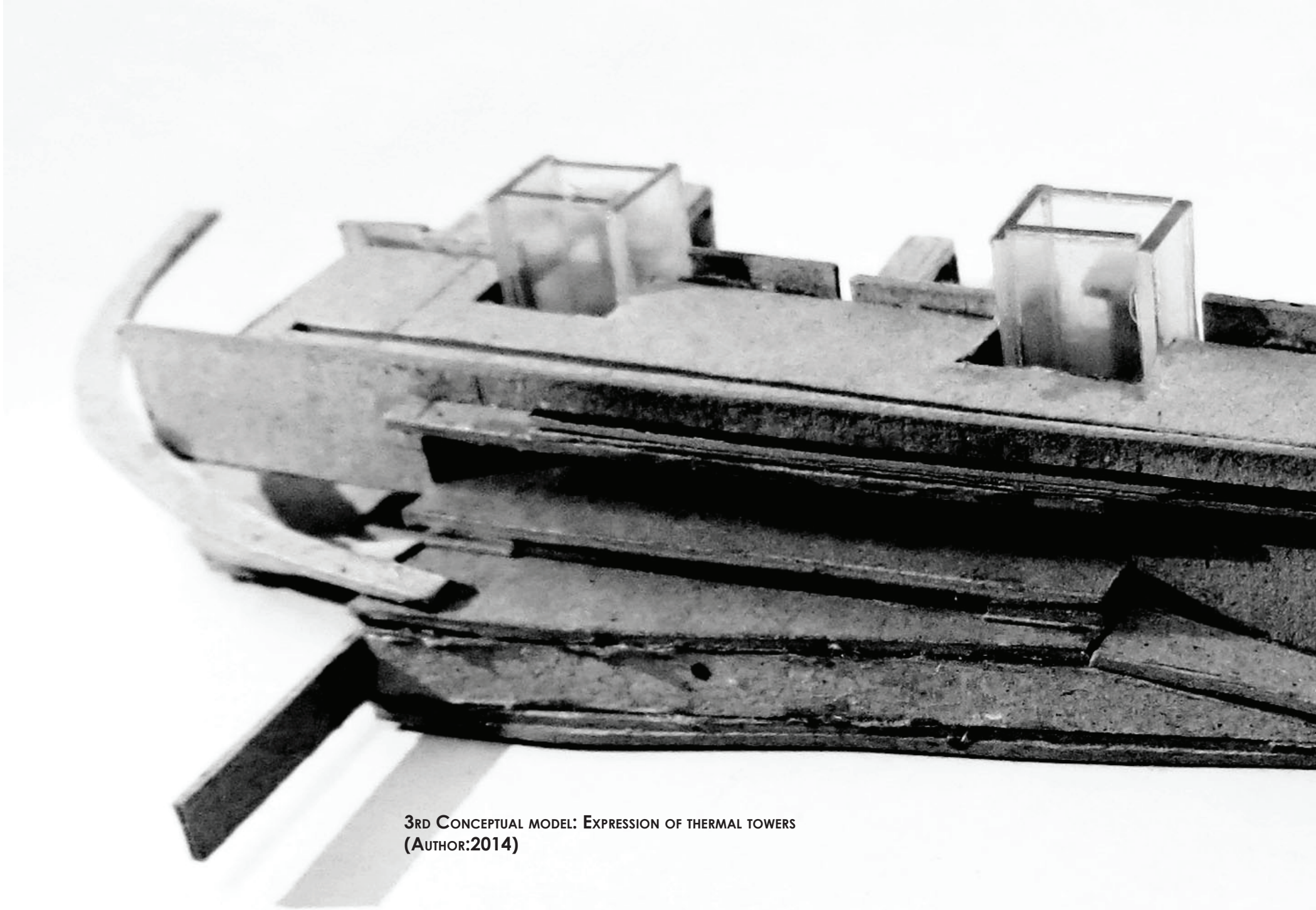
CONCEPTUAL LAYOUT: PARTS WITHIN A WHOLE (AUTHOR:2014)



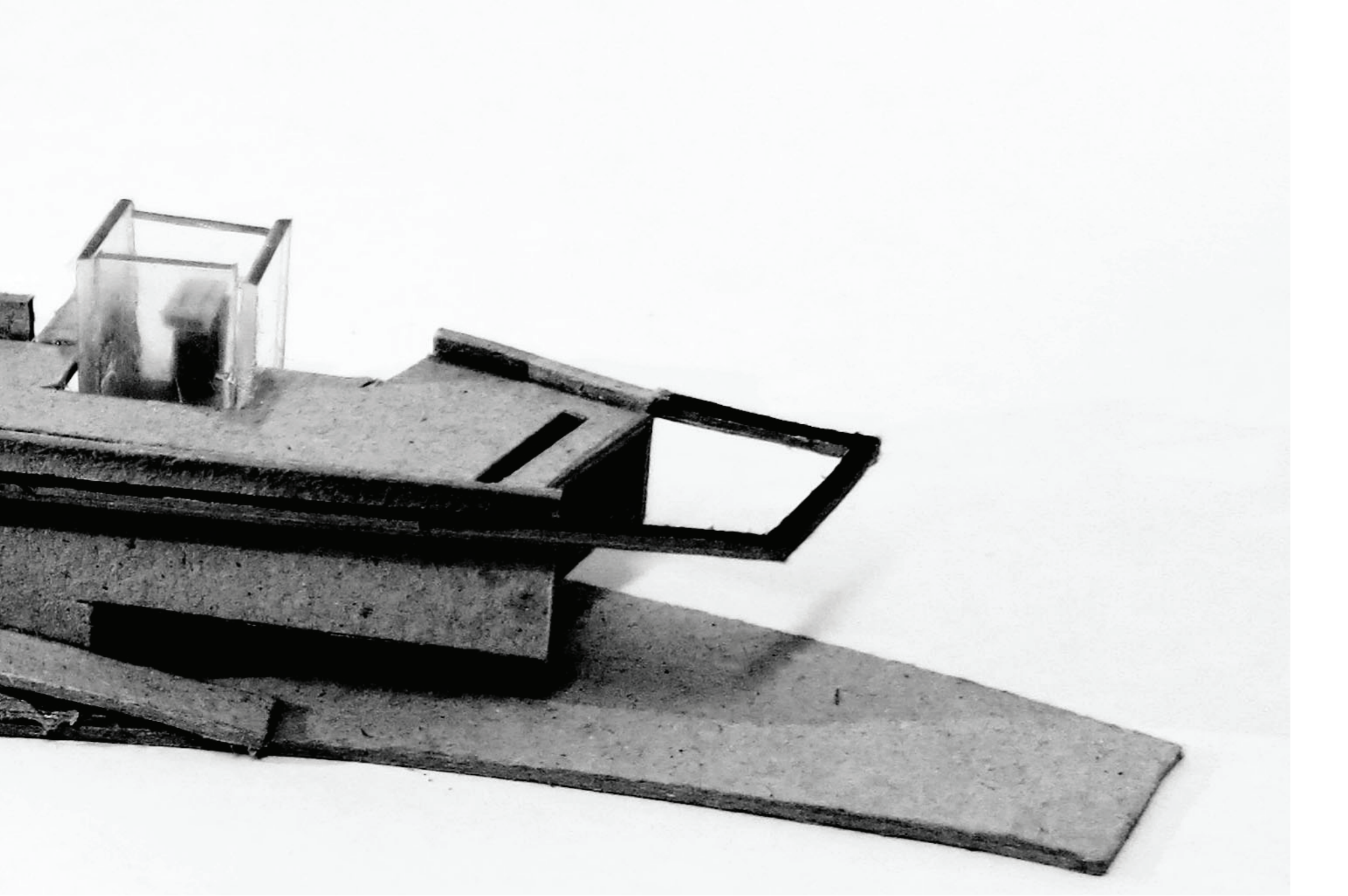
CONCEPTUAL ELEVATION: VOLUMETRIC EXPRESSION (AUTHOR:2014)

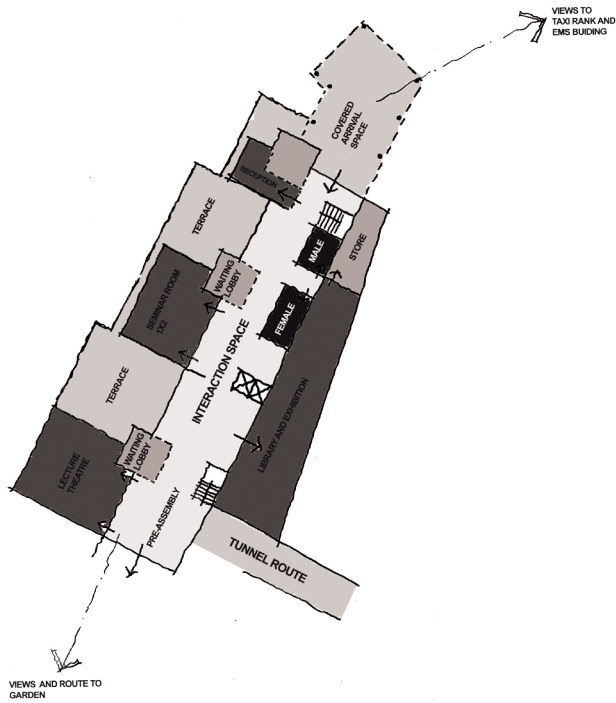


CONCEPTUAL ELEVATION: CROSS VENTILATION AND VISUAL CONTINUATION + CONNECTION (AUTHOR:2014)

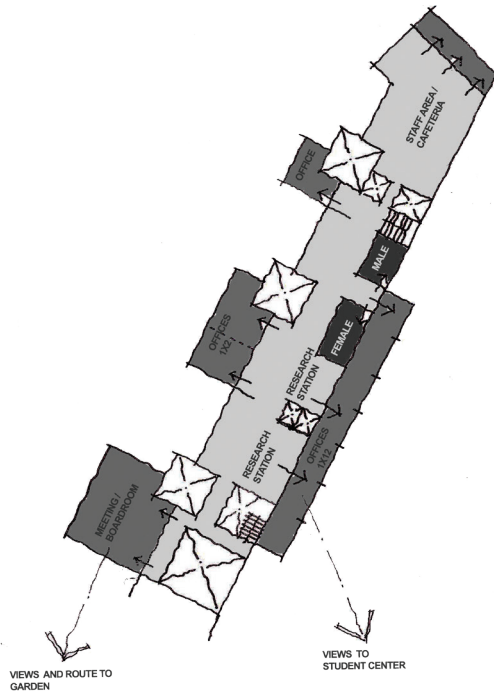


**3RD CONCEPTUAL MODEL: EXPRESSION OF THERMAL TOWERS
(AUTHOR:2014)**





DIAGRAMMATIC PLAN - LOWER GROUND FLOOR PLAN (AUTHOR:2014)

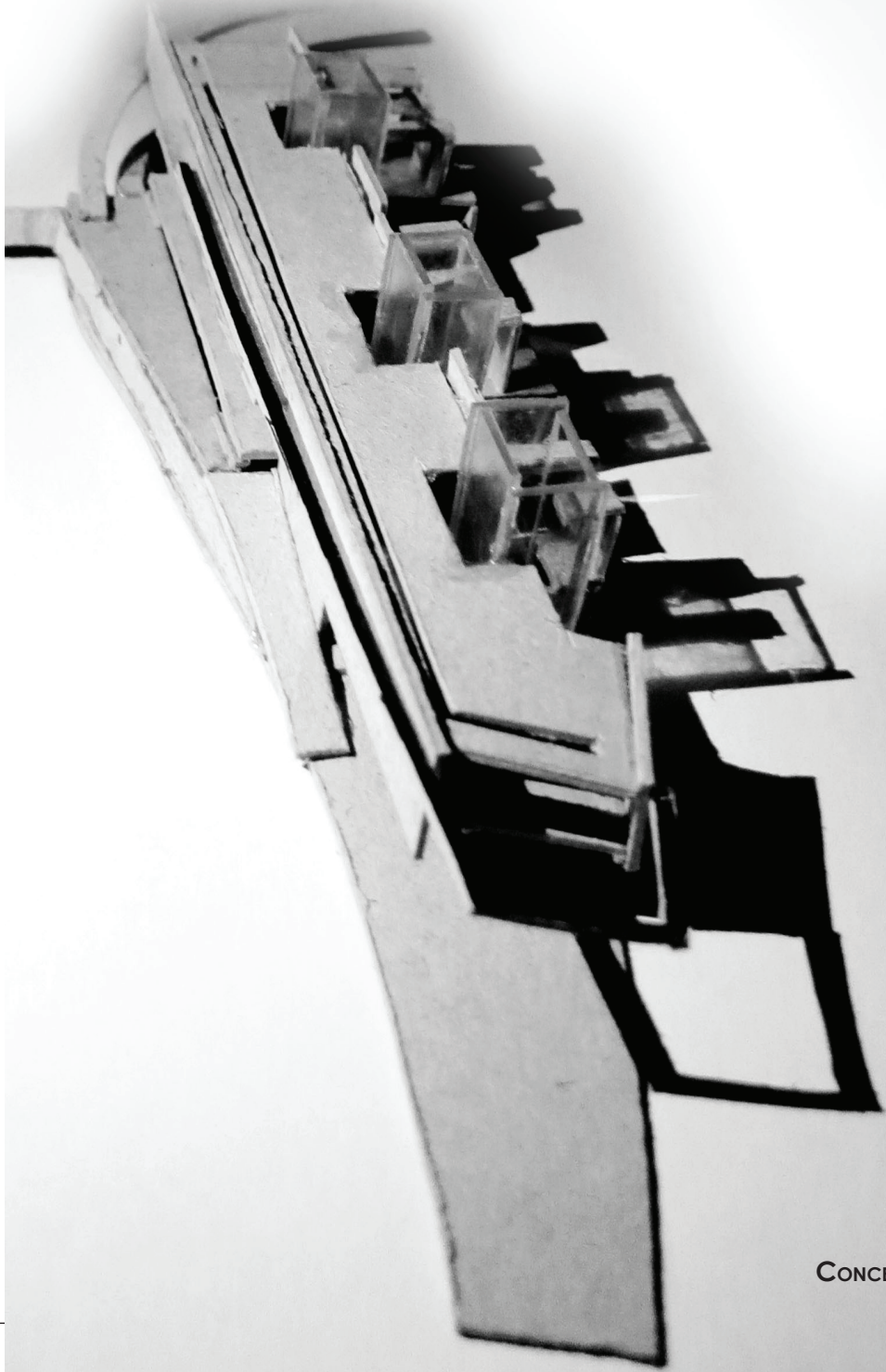
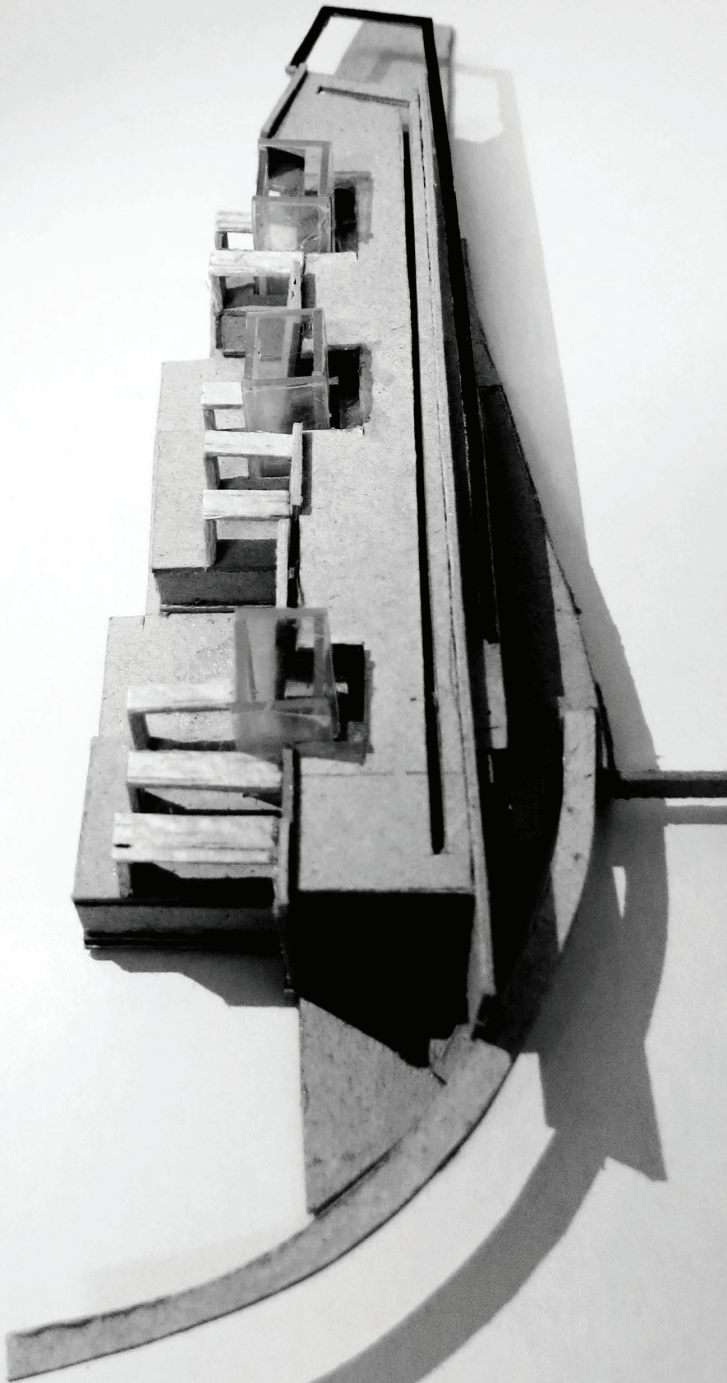


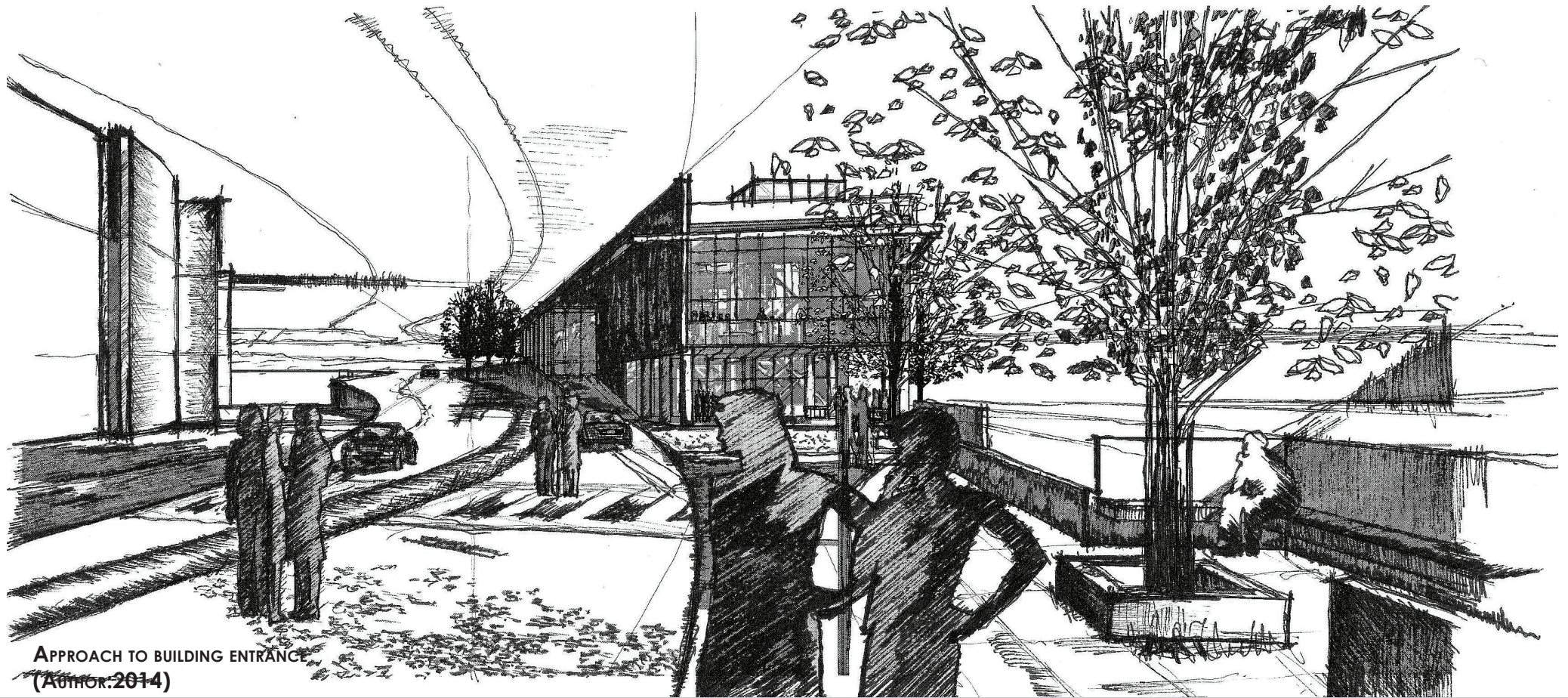
DIAGRAMMATIC PLAN - UPPER GROUND FLOOR PLAN (AUTHOR:2014)

CONCEPT 3

The idea is to create a building that connects to the urban environment. The pedestrian and vehicle flow have been linked as one of the main functions of the building. Open public spaces and the existing garden is designed for leisure experiences. The building stretches between the two ends of the site and promotes street flow on the east and west of campus.







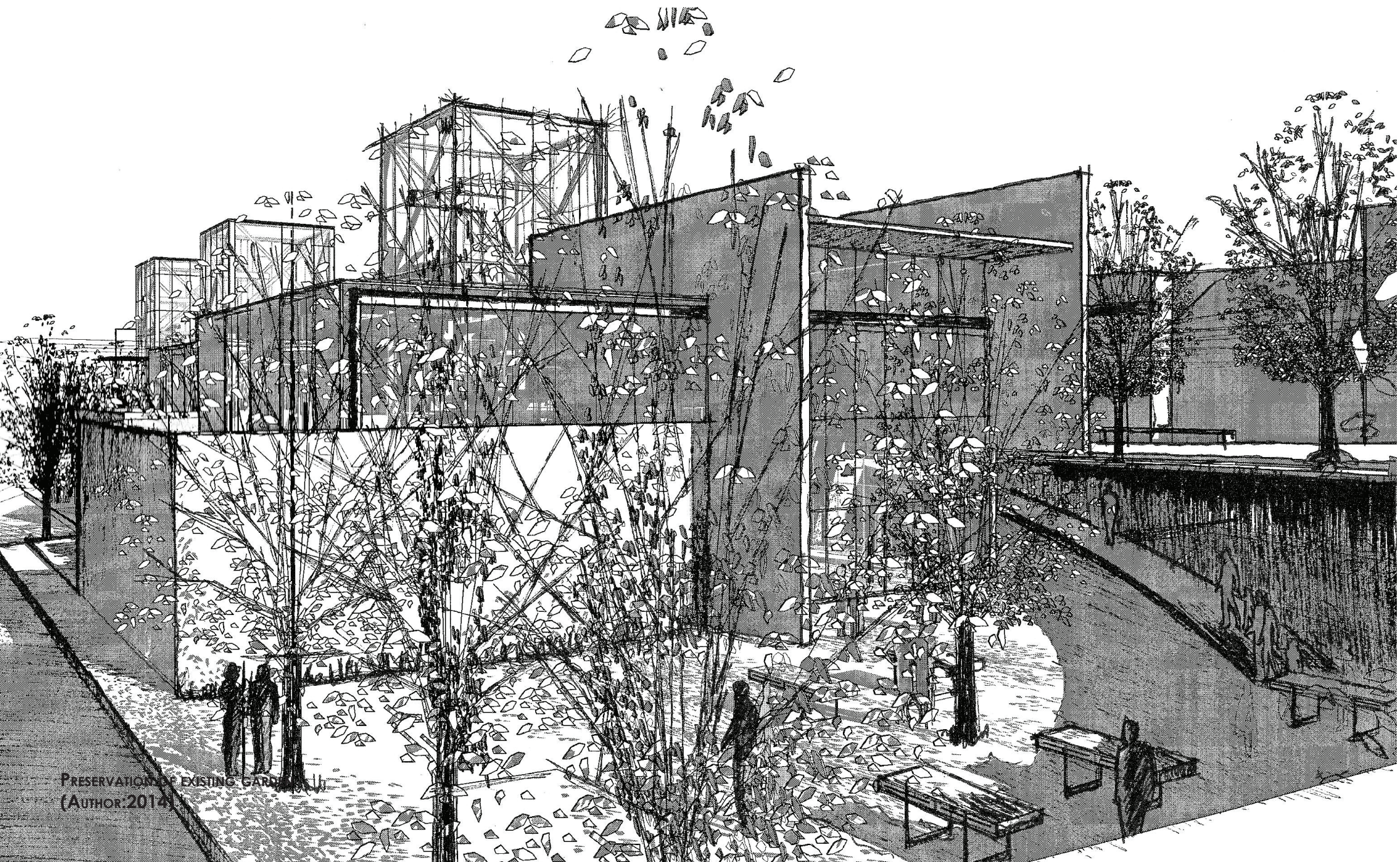
APPROACH TO BUILDING ENTRANCE
(AUTHOR: 2014)

CONCEPT 4 (FINAL)

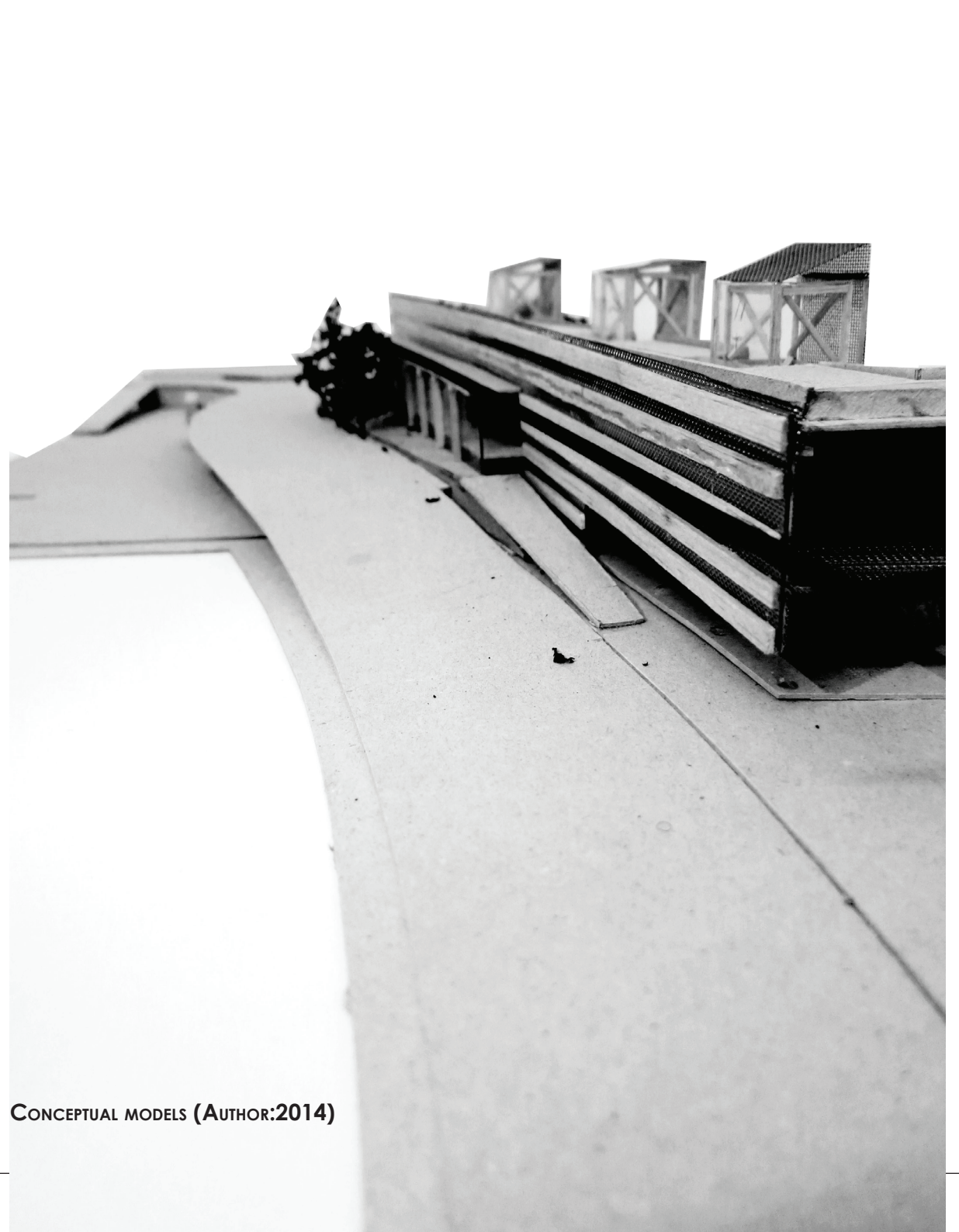
The idea of transparency for a language building is one of the key elements of the design. Pedestrian, student-flow and public spaces are integrated to become part of the building visually and physically.

Transparency is created with the use of lightweight structures and glass in the public areas, especially on the pedestrian street side. The main spaces such as the auditorium and the public areas are located at the lower ground floor and, the researchers offices are placed on upper ground floor which is more private.

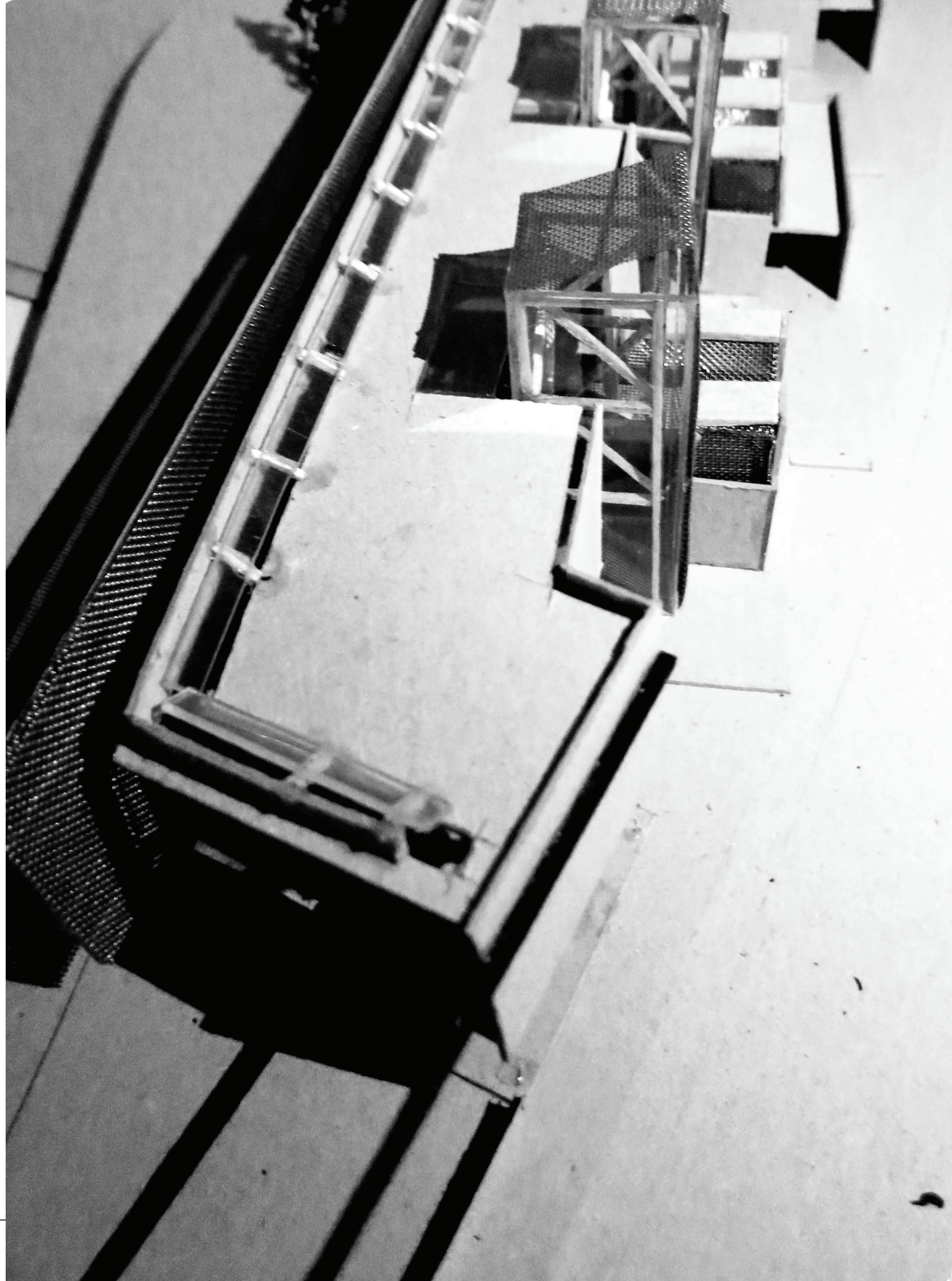
The garden, with designed break away spaces can accessed from the lower level and street.



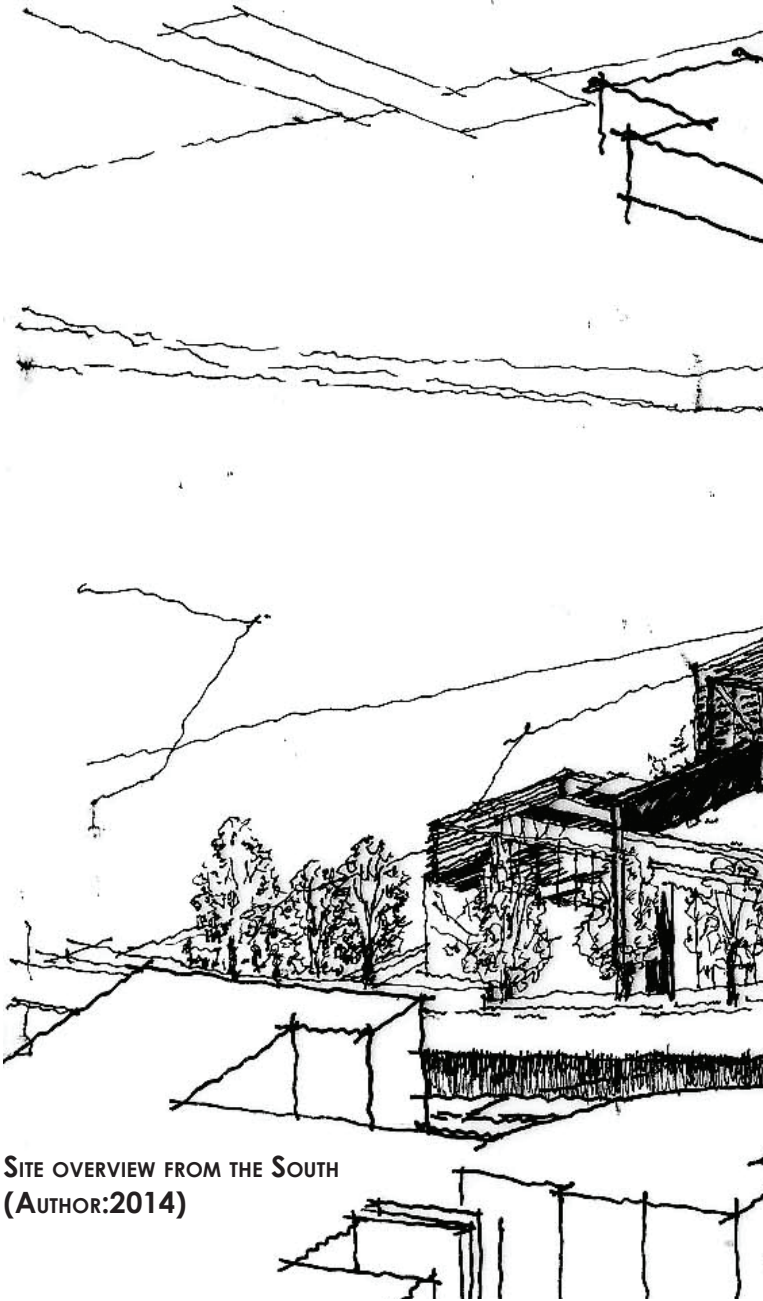
PRESERVATION OF EXISTING GARDEN
(AUTHOR: 2014)



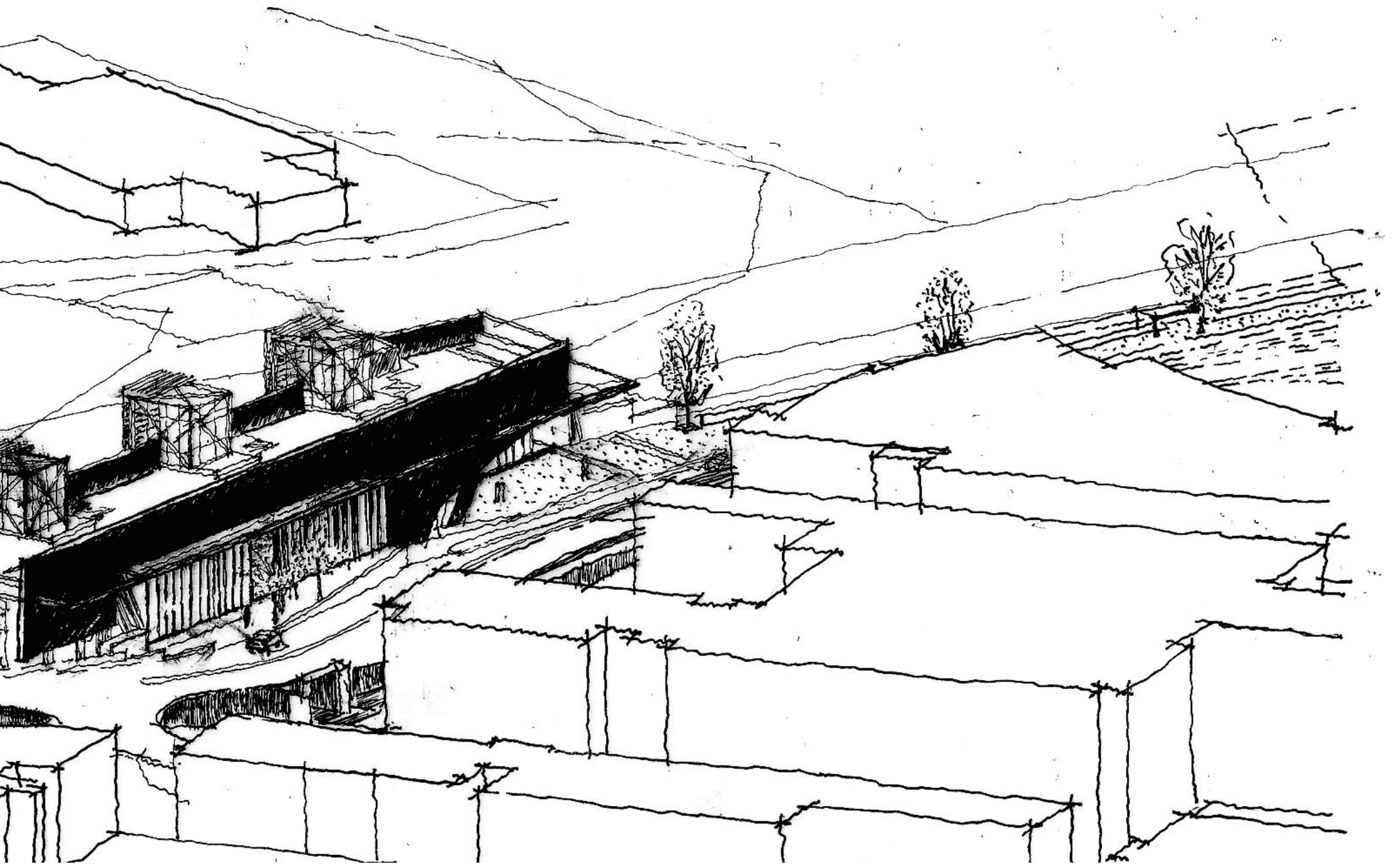
CONCEPTUAL MODELS (AUTHOR:2014)

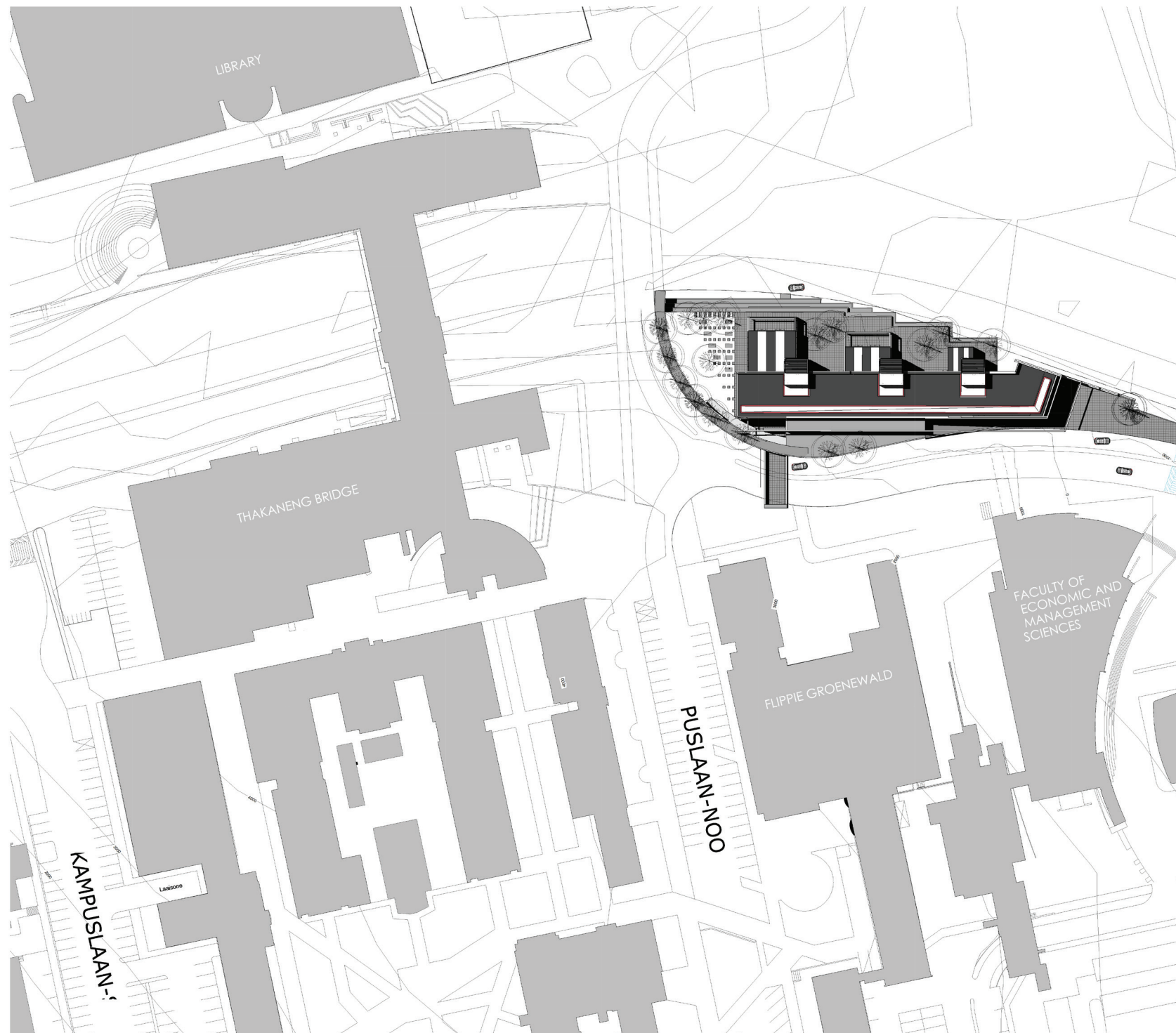


DESIGN SYNTHESIS



SITE OVERVIEW FROM THE SOUTH
(AUTHOR:2014)

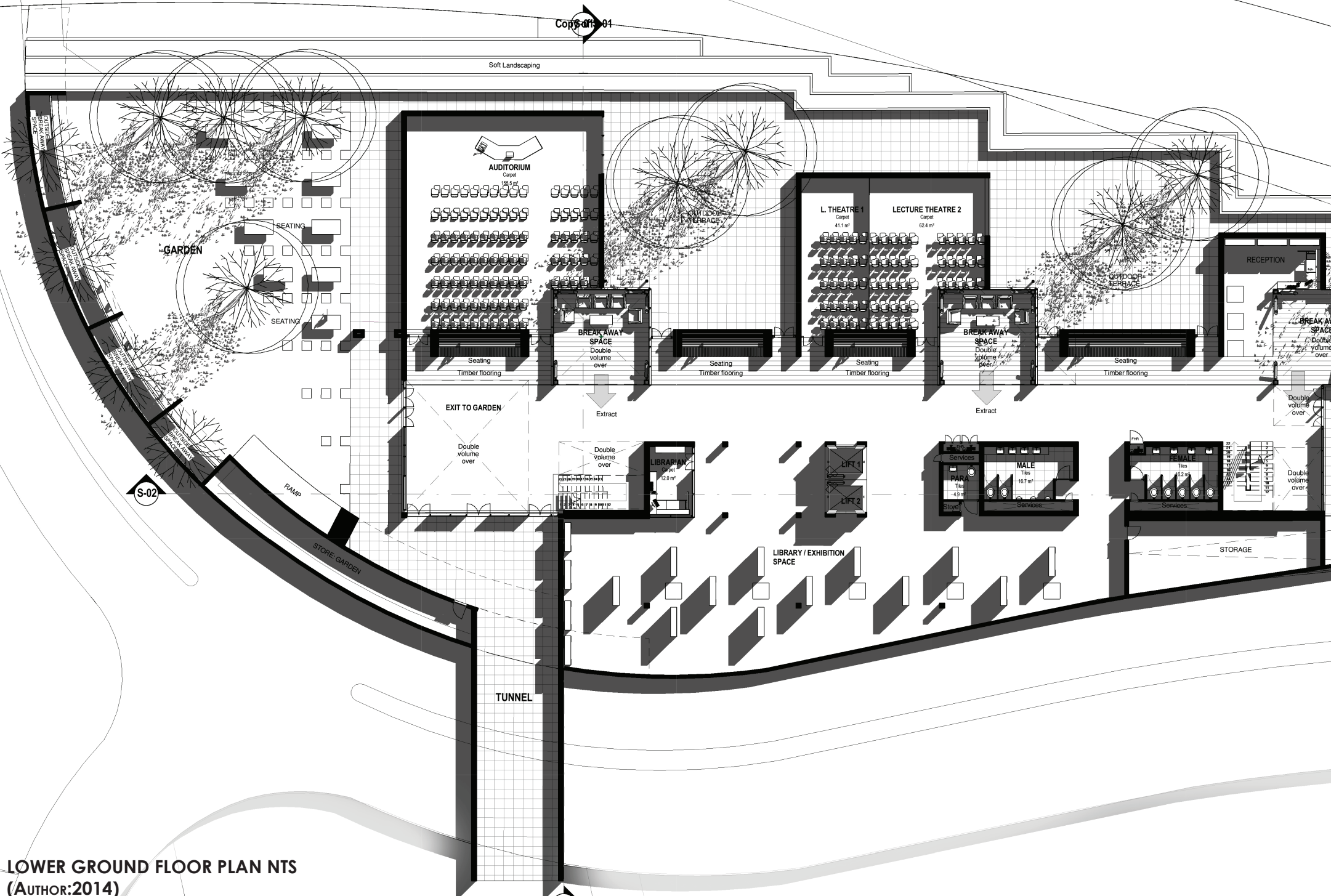




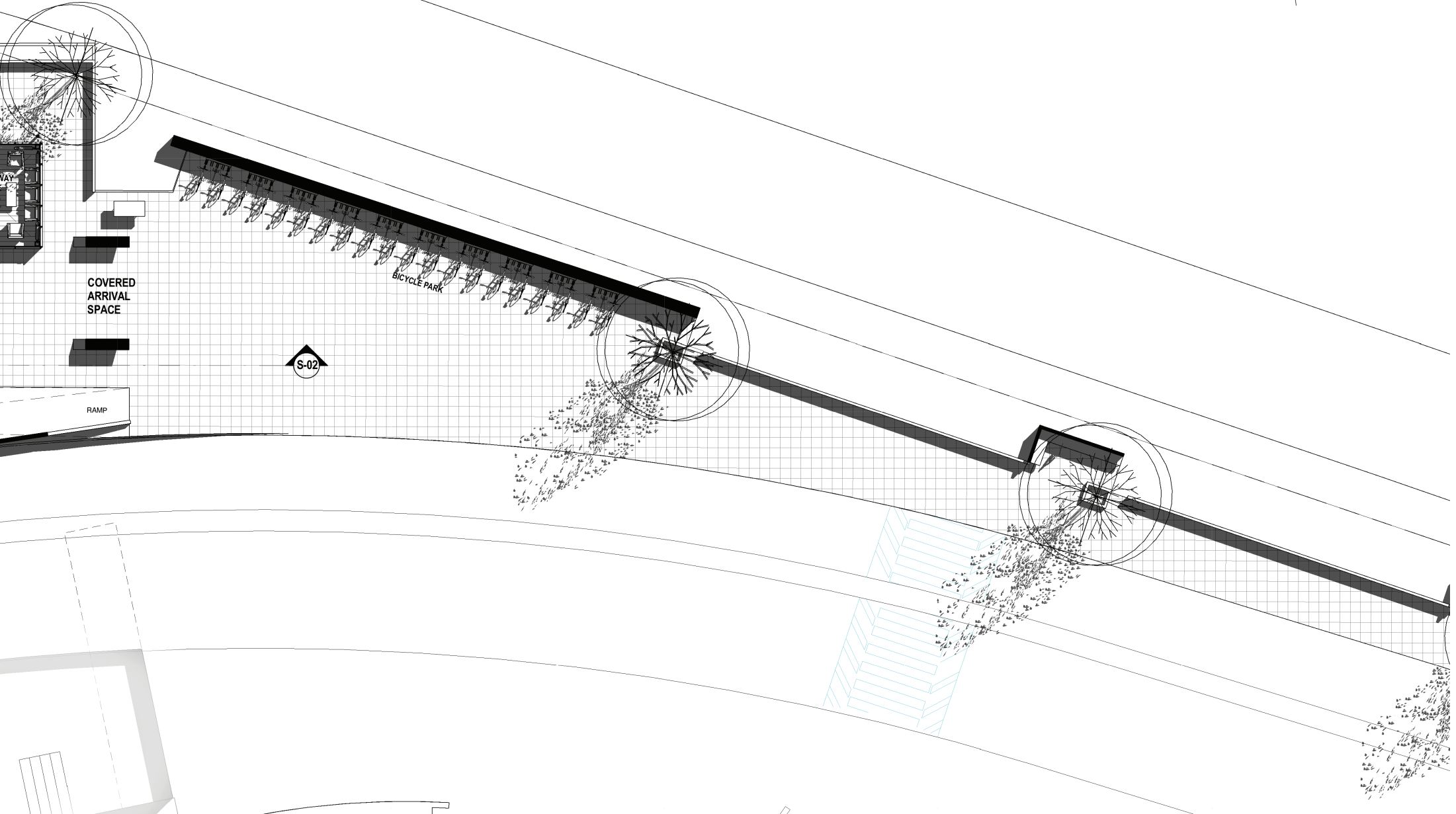
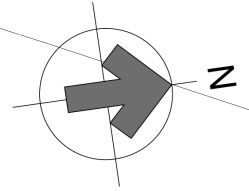
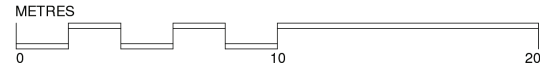
SITE PLAN NTS (AUTHOR:2014)



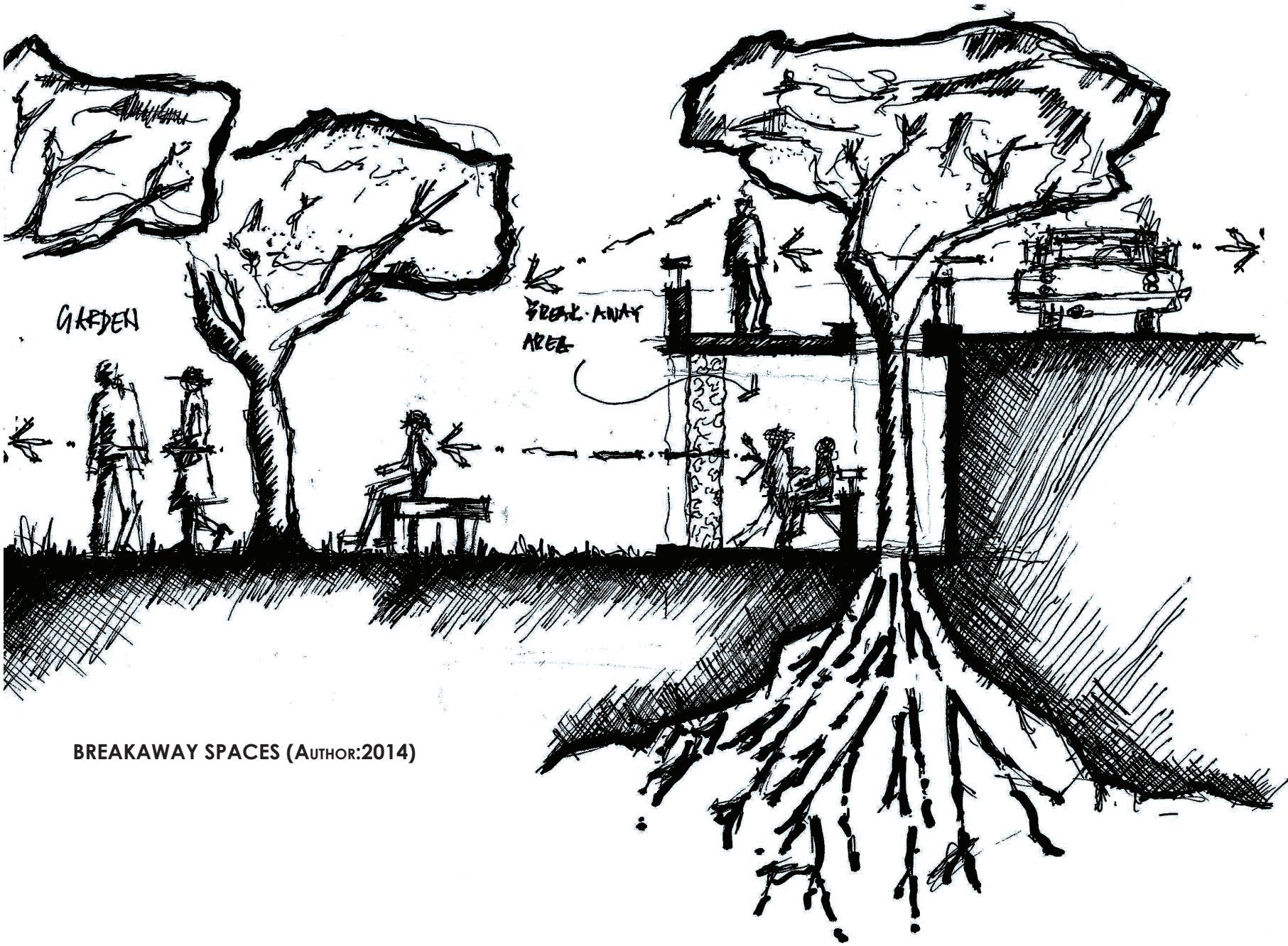
Soft Landscaping



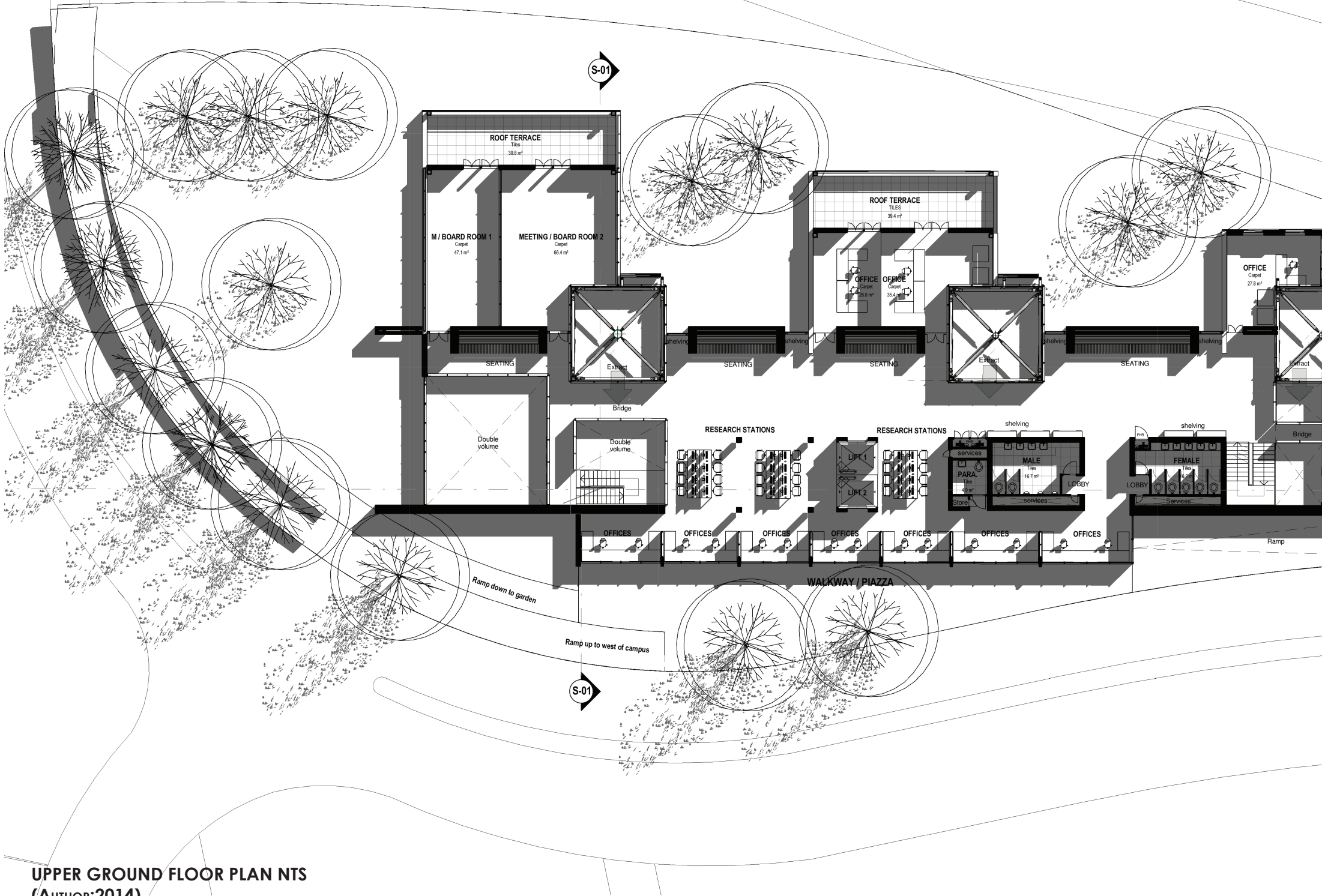
LOWER GROUND FLOOR PLAN NTS (AUTHOR:2014)



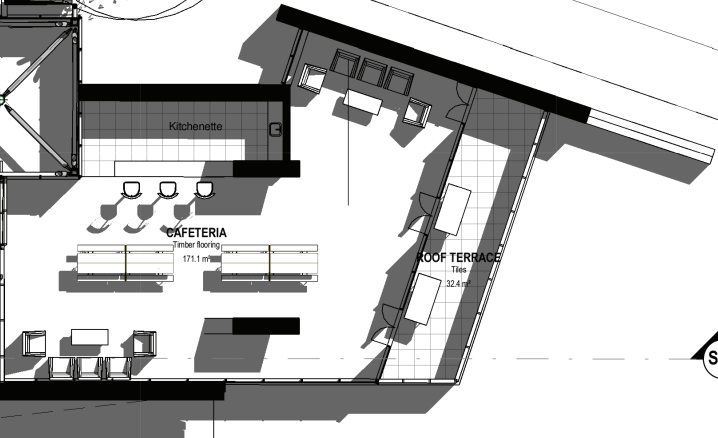
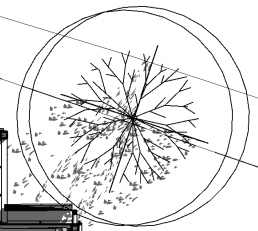
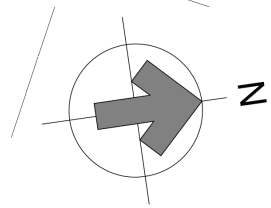
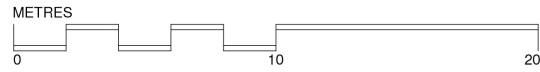




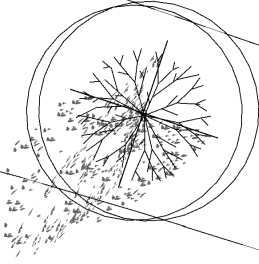
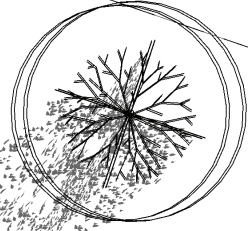
BREAKAWAY SPACES (AUTHOR:2014)

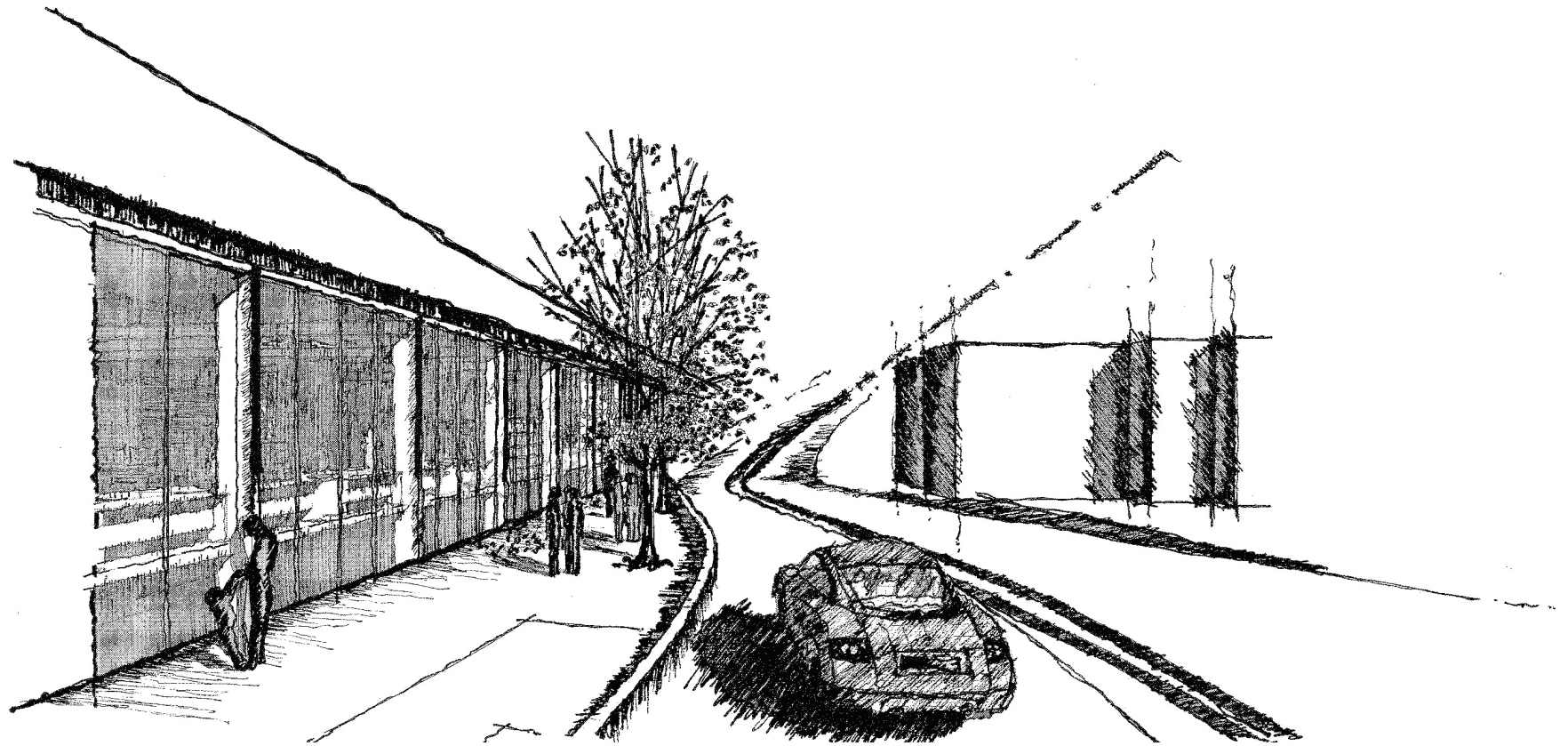


UPPER GROUND FLOOR PLAN NTS
(AUTHOR:2014)



S-02





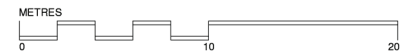
TRANSPARENT USE OF MATERIALS ON STREET LEVEL
(AUTHOR:2014)

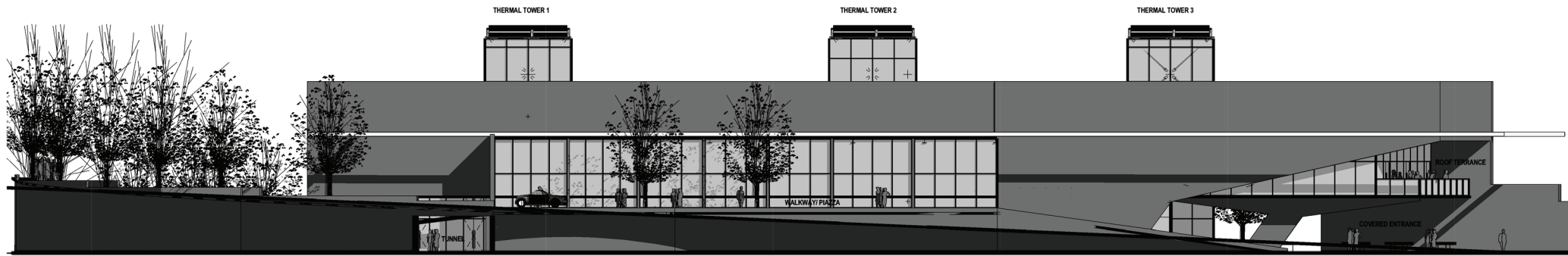


NORTH ELEVATION
(AUTHOR:2014)



SOUTH ELEVATION
(AUTHOR:2014)



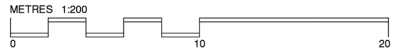


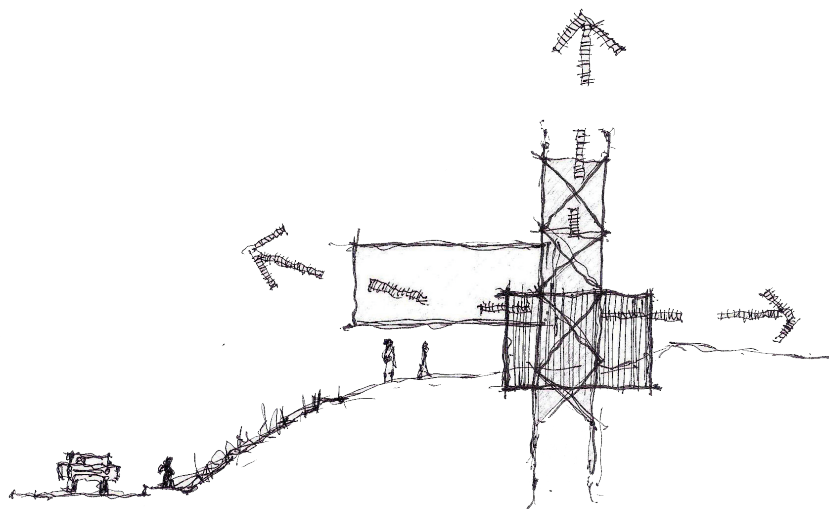
EAST ELEVATION
(AUTHOR:2014)





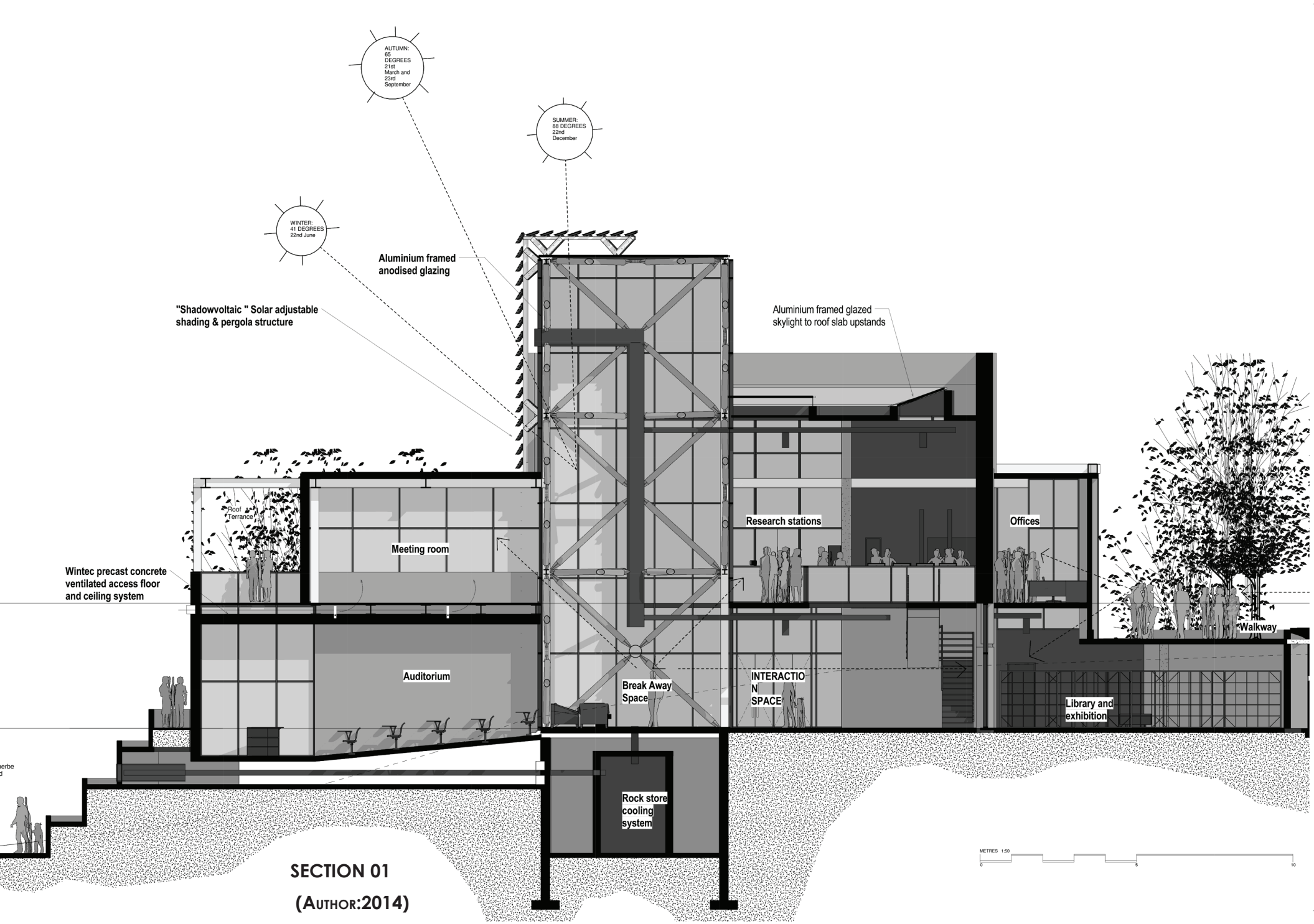
WEST ELEVATION
(AUTHOR:2014)





CONCEPTUAL SKETCH
(AUTHOR:2014)





SECTION 01
(AUTHOR:2014)

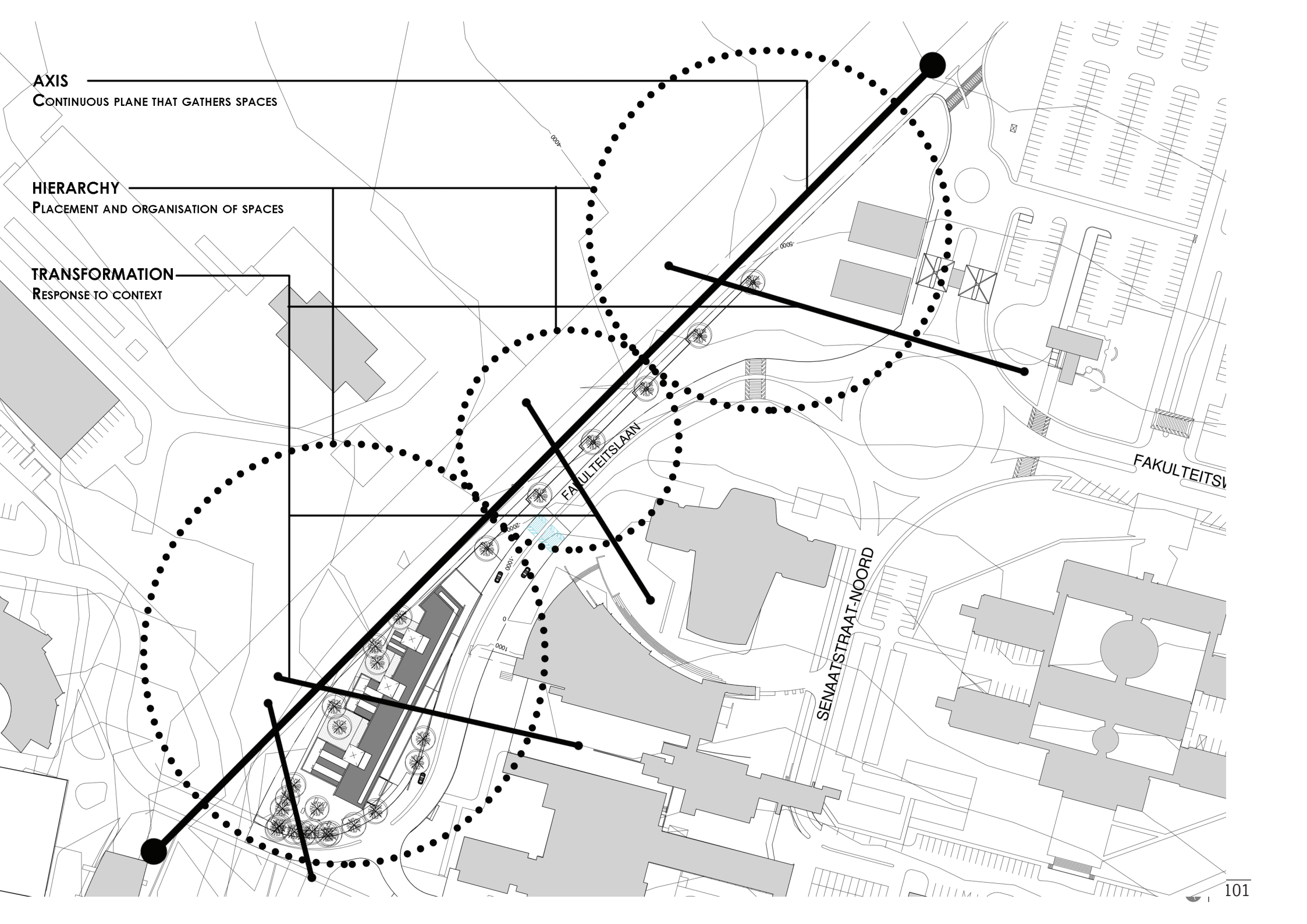
DESIGN ELEMENTS

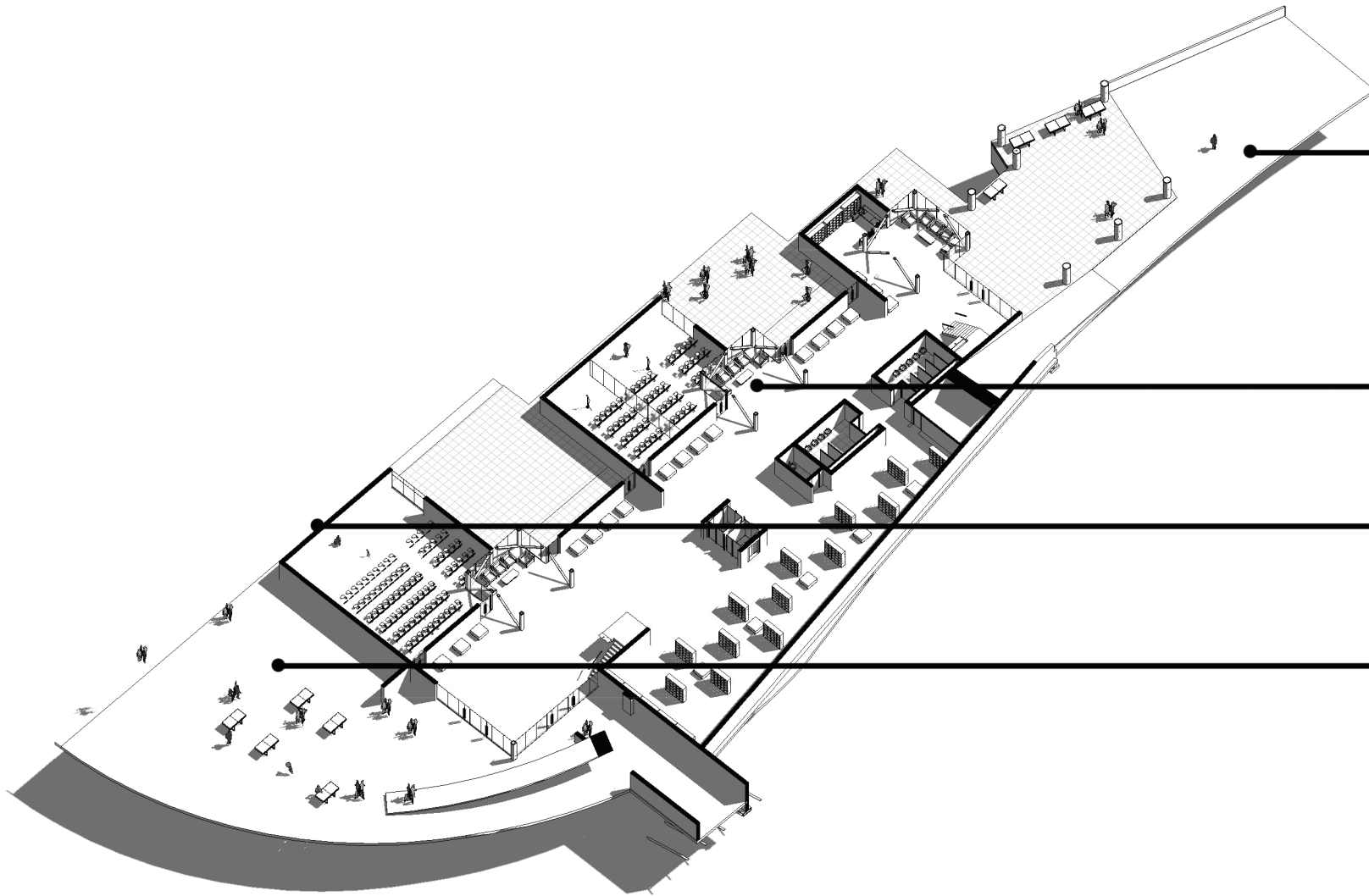


AXIS
CONTINUOUS PLANE THAT GATHERS SPACES

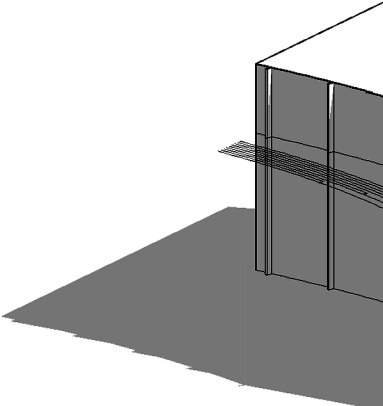
HIERARCHY
PLACEMENT AND ORGANISATION OF SPACES

TRANSFORMATION
RESPONSE TO CONTEXT





GROUND FLOOR



ENTRANCE

NODAL POINT ON AXIS AND OPPOSITE TO THE PROMINENT EMS BUSINESS BUILDING

CLIMATE CONTROL

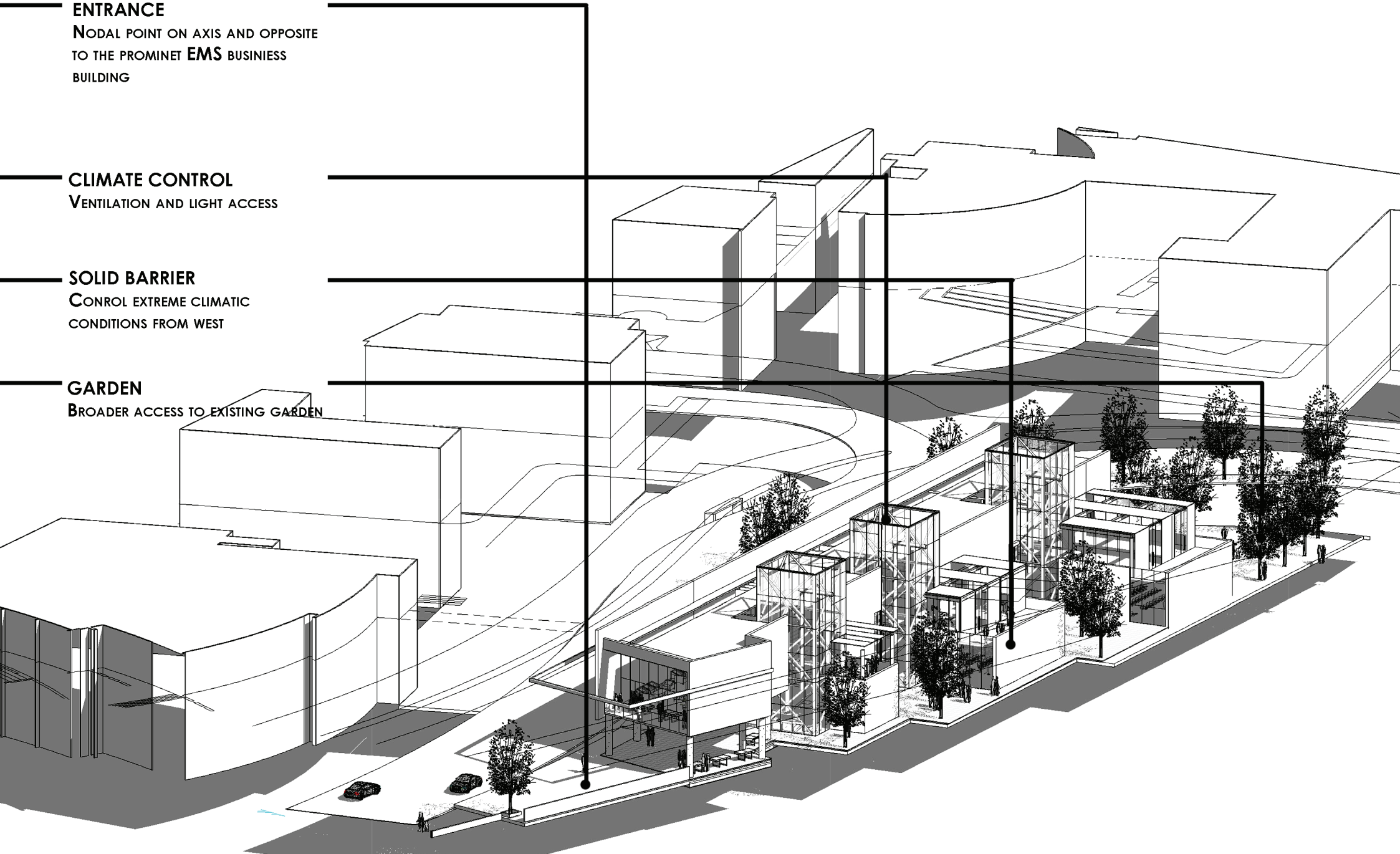
VENTILATION AND LIGHT ACCESS

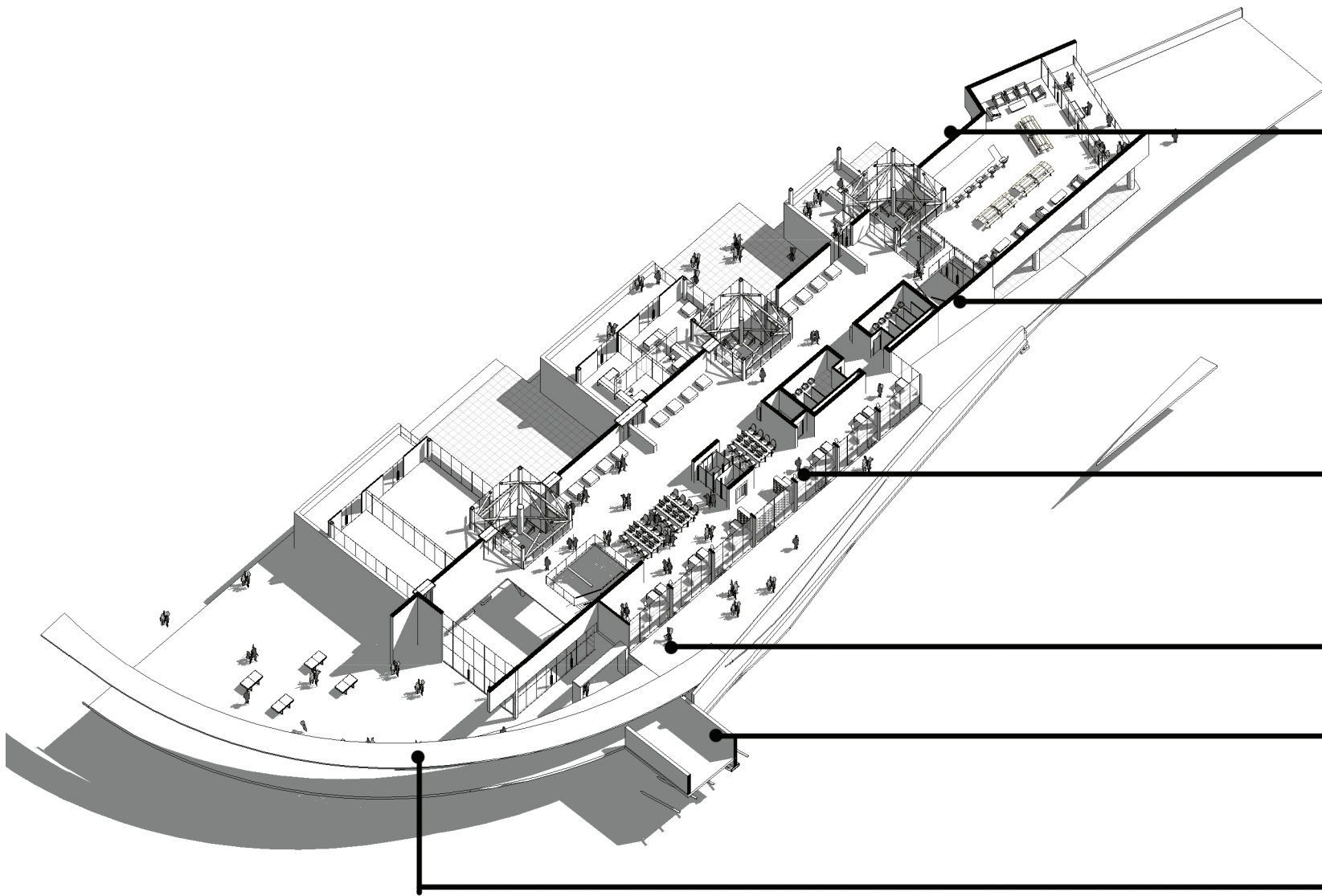
SOLID BARRIER

CONTROL EXTREME CLIMATIC CONDITIONS FROM WEST

GARDEN

BROADER ACCESS TO EXISTING GARDEN





FIRST FLOOR

SHADING

WESTERN CONDITIONS

DATUM

LINEAR WALL SERVING AS ORGANIZER
OF SPACES

LANGUAGE DISPLAY

RESEARCHERS OFFICES, EXPOSURE TO
PEDESTRIAN MOVEMENT AND BEHAVIOUR

PUBLIC REALM

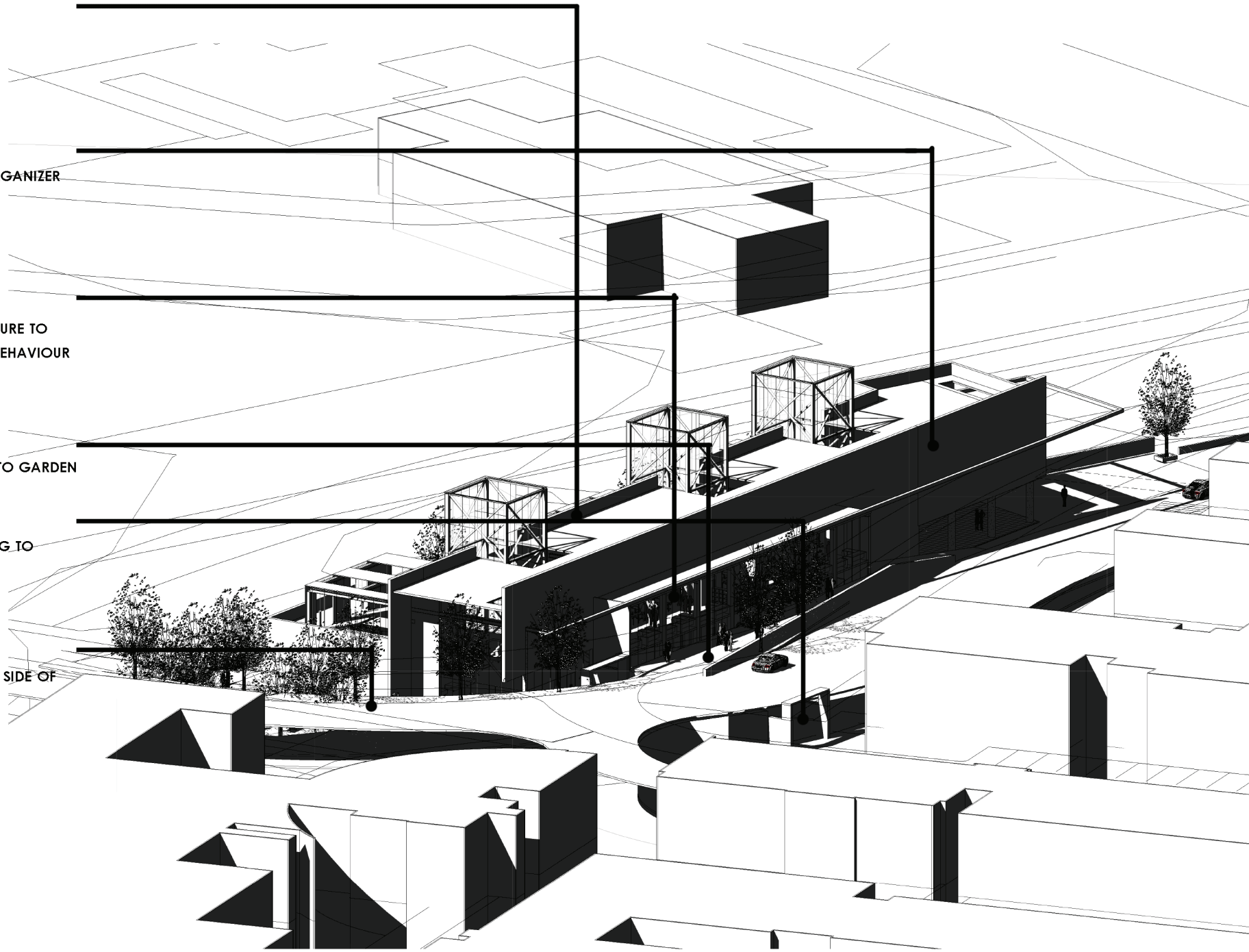
WALKWAY ALONG SITE AND TO GARDEN

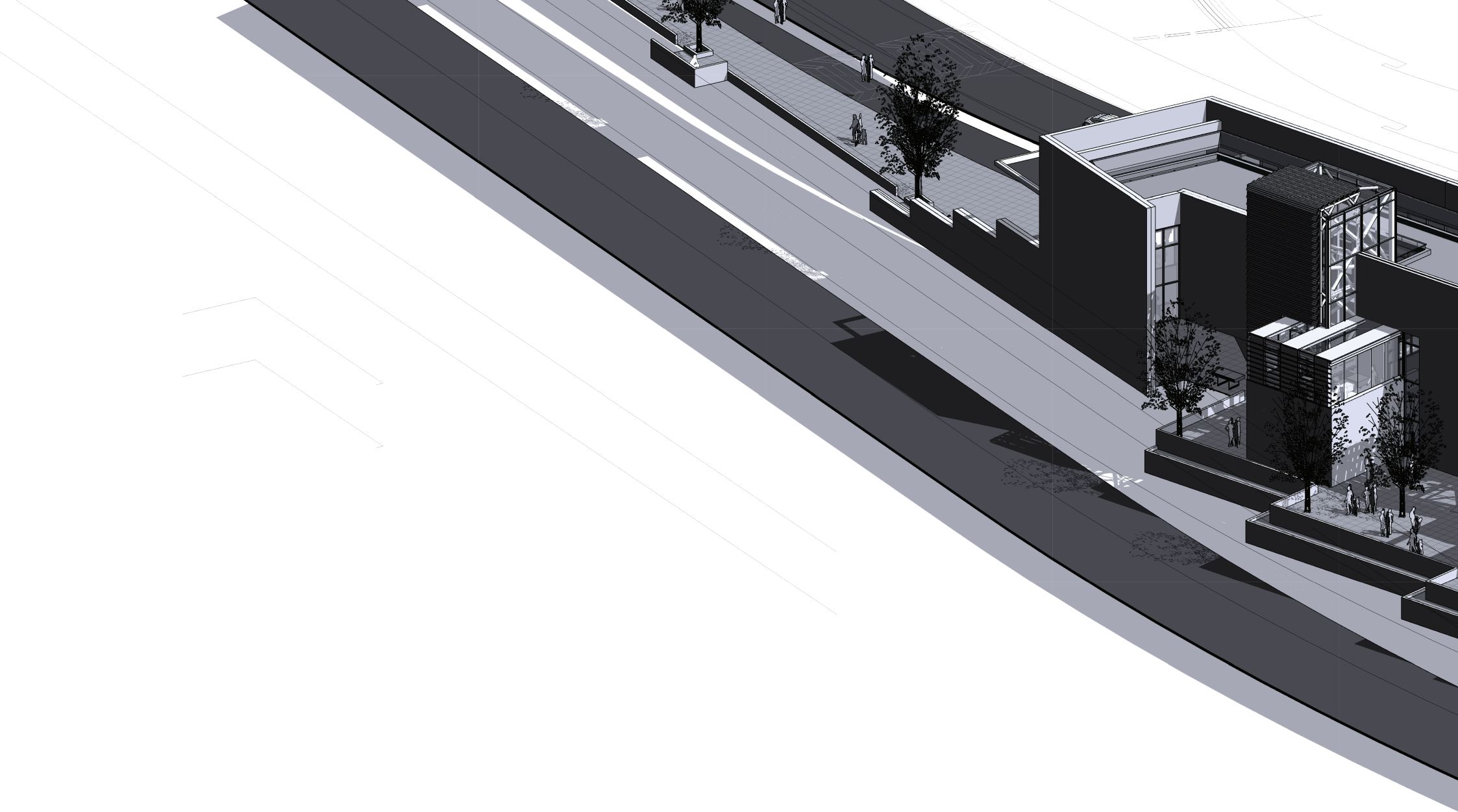
CONNECTION

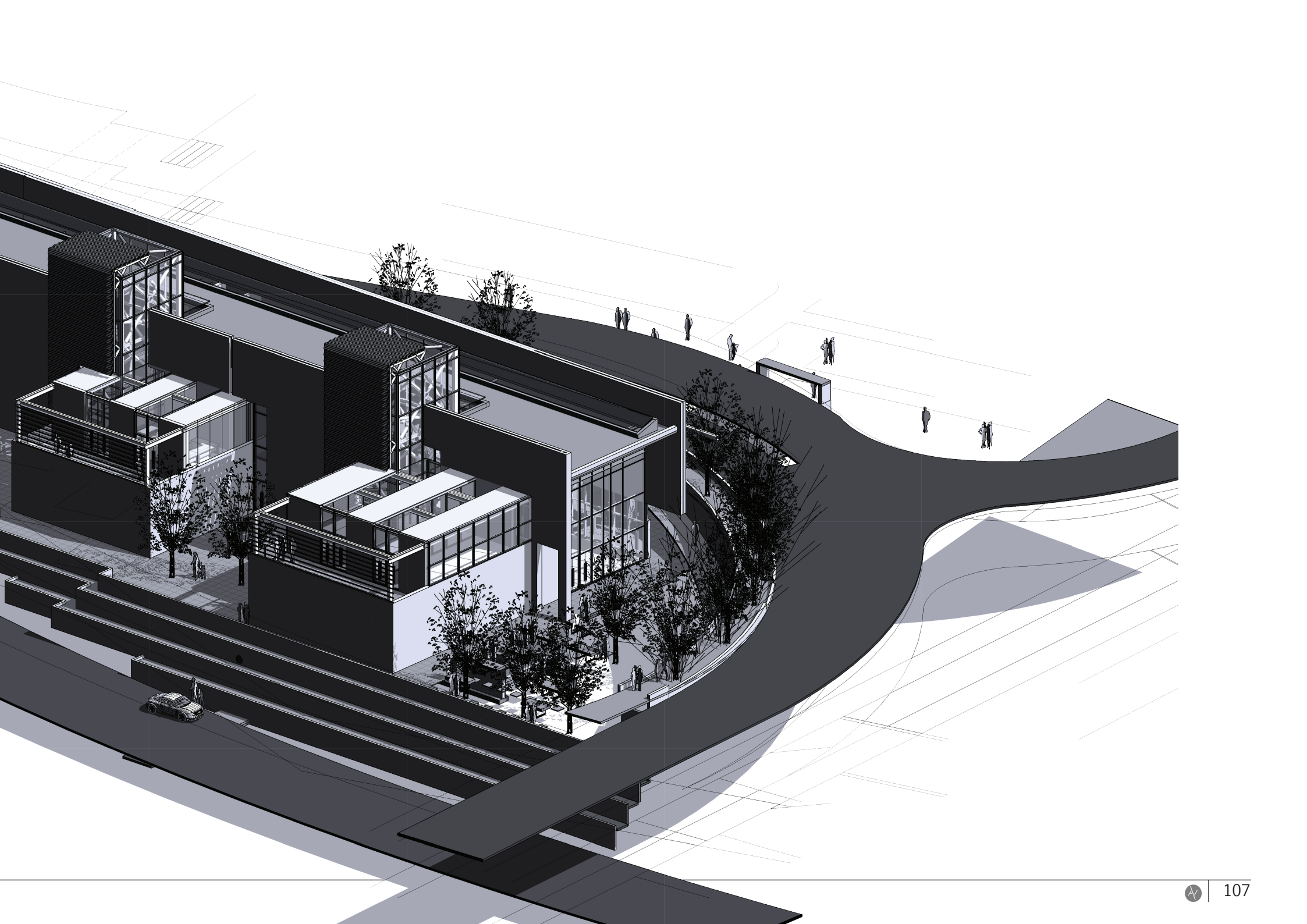
EXISTING TUNNEL CONNECTING TO
STUDENT CENTRE

EXTENSION OF SITE

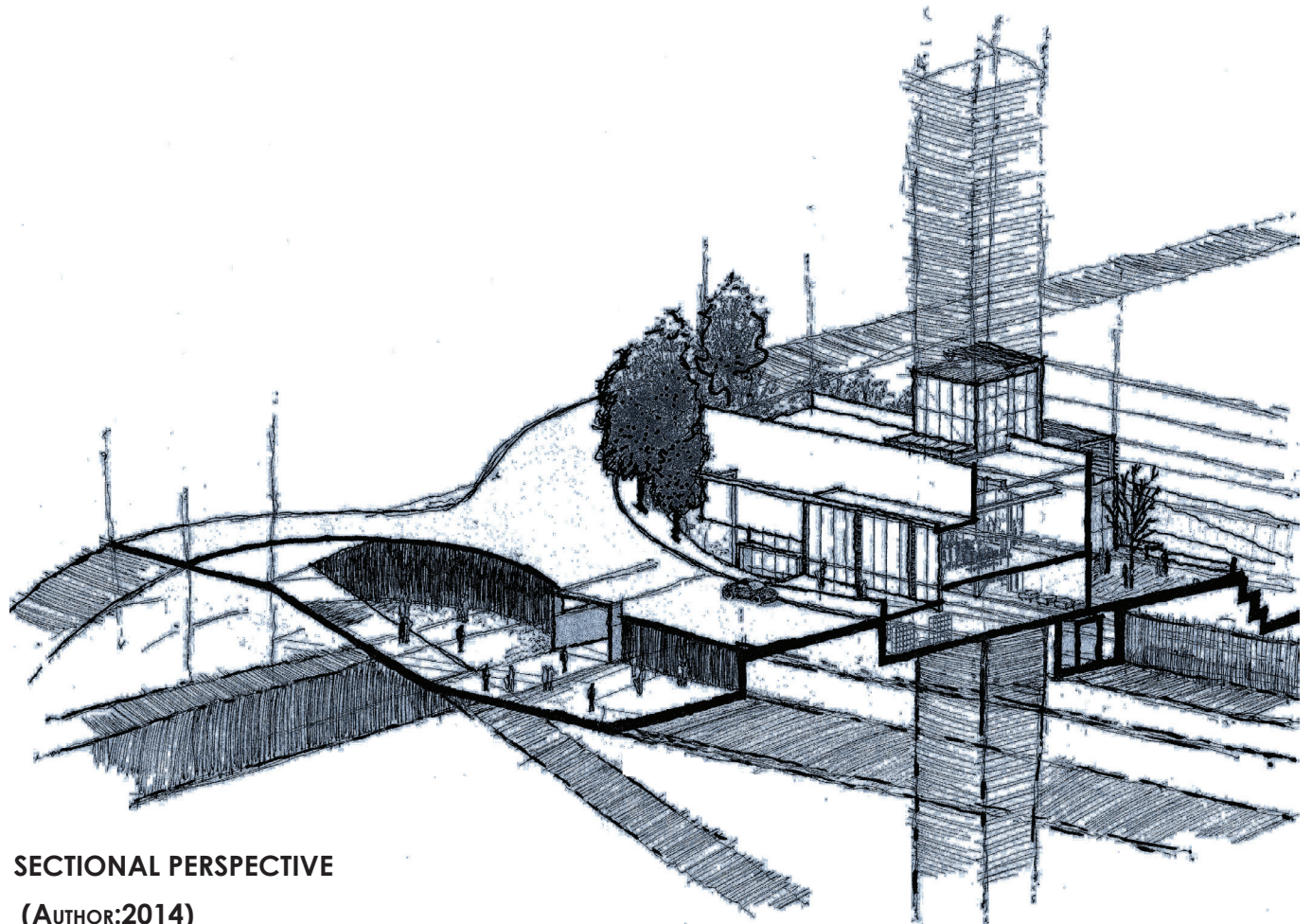
RAMP LINKAGE TO WESTERN SIDE OF
CAMPUS







TECHNICAL RESOLUTION



SECTIONAL PERSPECTIVE

(AUTHOR:2014)

SITE LAYOUT AND PLANNING

The research centre responds to the campus layout grid with a generous approach plaza from the taxi rank leading to a dramatic multi-volume student centre, Thakaneng Bridge. The Centre is

immediately adjacent to the North and a walkway leads pedestrians into the building. A service access to the South of the Lab Block ensures easy access for servicing, maintenance and deliveries.

VERTICAL FUNCTIONAL ARRANGEMENT

Different functions are stacked vertically in thermal towers. Three vertical 'towers' serve two levels. Each 'tower' contains elements of passive design.

FLOOR ARRANGEMENTS

Lower ground floor has an exhibition space, democratic meeting space and lecture theatres that can accommodate 200 people. Lecture theatres are sub-divisible to ensure more flexible use in terms of group sizes and scheduling.

Spaces on upper ground floor level consists of offices with outdoor aspect to the North and a view through to adjacent open plan office stations and research stations with linear equipment arrangement. Each zone is separated by glazed partitions to permit daylight penetration and visual contiguity, ensuring a healthy and productive work environment.

The office zone is entered from a lobby with access controlled doors and receptionist. Meeting Rooms, cafeteria and Interaction spaces are clustered around seating areas. Researchers enter the office from the integration zone. A virtual corridor to the South provides acts as a universal circulation zone and host to open plan research stations.

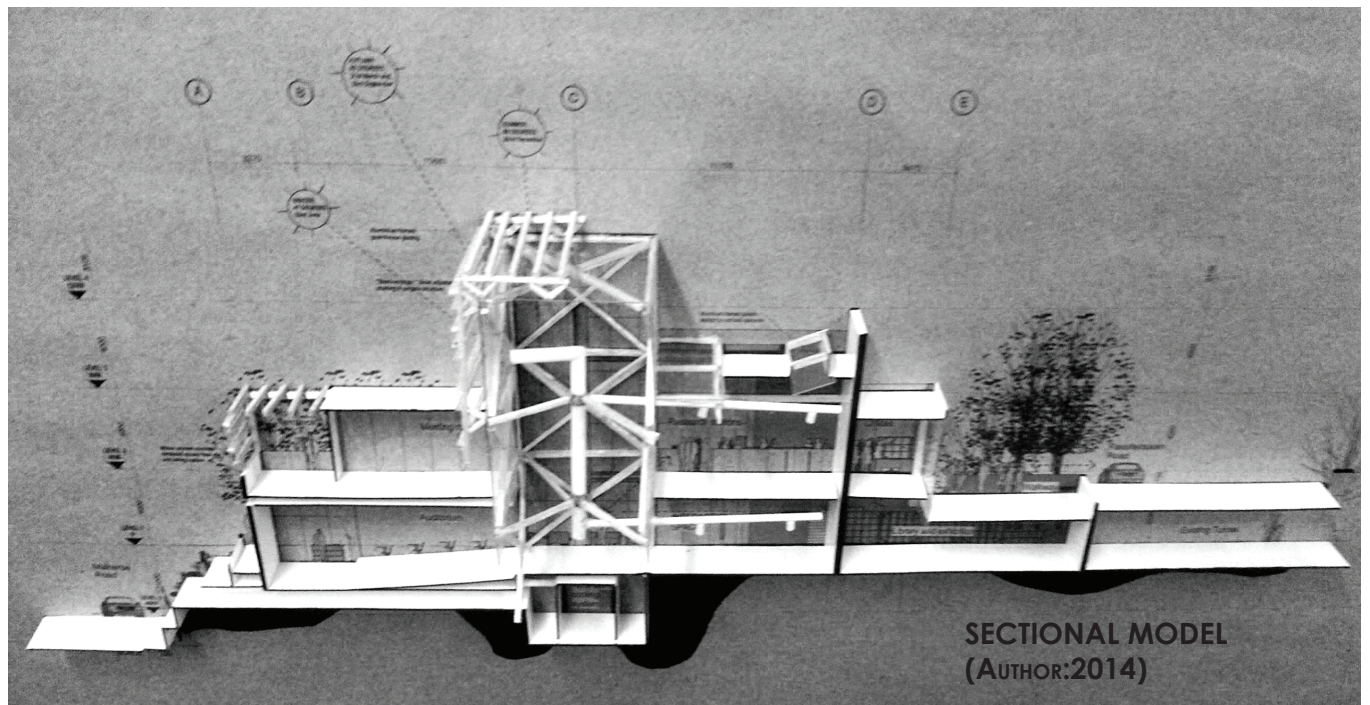
ENERGY EFFICIENCY AND 'GREEN' ASPECTS

The building orientation is a few degrees West of North.

Double glazing reduces noise levels from adjacent Malherbe Road and provides additional thermal insulation, reducing the need for heating in winter and cooling in summer. This is complemented by the air conditioning system hosted within the towers: Recirculation and filtration of inside air reduces the conditioning load on outside air drawn into the building and heat reclaim is employed from the condensers to provide heating in the building.

Lighting is switched by motion and presence sensors, ensuring power is only consumed in areas occupied by users. At lower level, stairs are provided lobbies to encourage users to avoid lifts. Parking for cyclist along the entrance zone were also introduced to encourage cycling to the campus, in anticipation of rising fuel costs and due to the known effects of greenhouse gas emissions.

This intervention seeks an integration with public space by introducing a pedestrian linkage and drop off in front of proposed centre and connect to campus. The idea is to make the entrance a semi-public square.



MATERIALS

FLOORS

- All screeds are the same level throughout. Edges of all finishes particularly ceramic tiles must be protected against Damages.
- All general office areas and board rooms have carpet tiles with double sided adhesive tape, with a preference for carpet tiles with low-VOC (volatile organic compound) emissions.
- Main circulation areas and toilets have ceramic tile finish. The tile size is chosen to be suitably thick enough to withstand the anticipated traffic and for easy maintenance. Expansion joints are provided to all hard tiles floor areas.

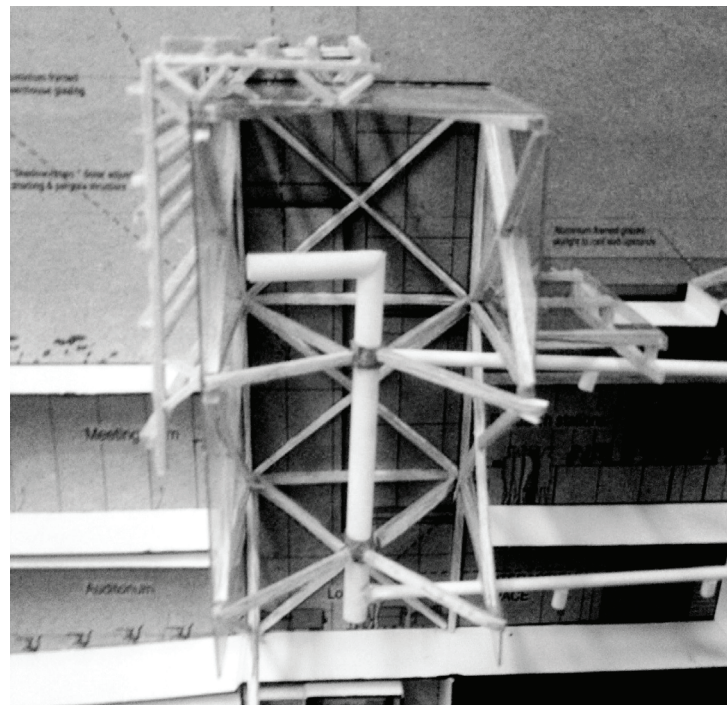
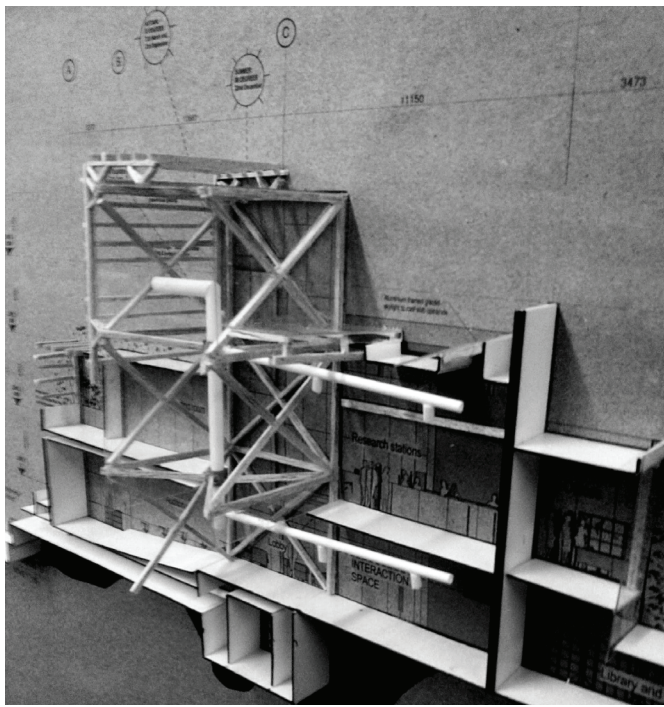
WALLS

- Walls should be plastered and finished with a low-VOC (volatile organic compound) emitting paint.
- Toilets and other wet areas are tiled to full height.

CEILINGS

Where ceilings are specified, the following criteria apply:

- 1200 x 600 mineral fibre lay in ceiling tiles to suspended T system



• Performance specifications are established taking into account in particular the following aspects:

- o Performance in fire
- o Acoustic performance
- o Structural stability
- o Finishes

DOORS

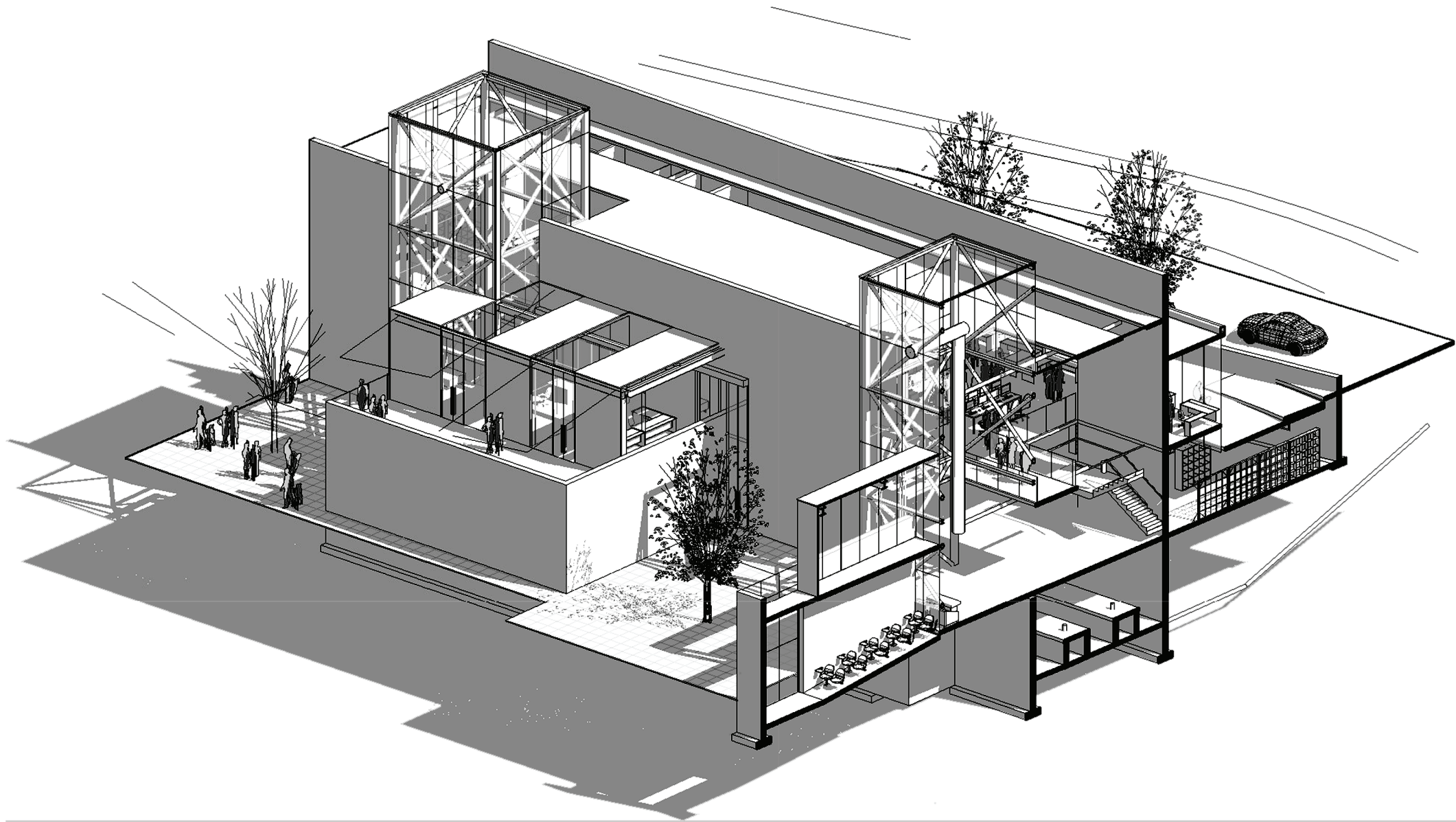
- All semi solid commercial veneer for painting.
- Only locally manufactured door locks

PAINTS

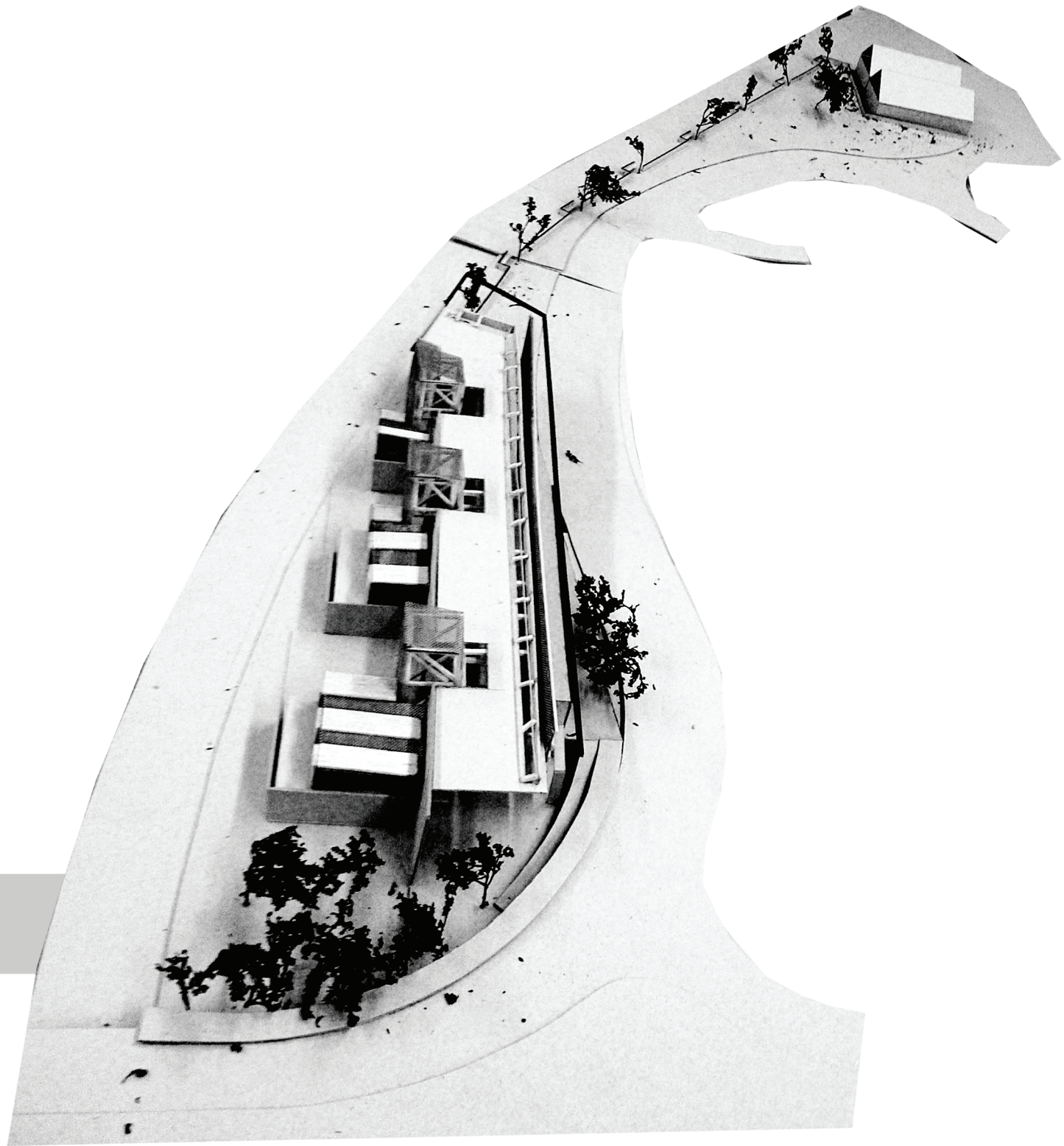
- Standard colours as per SABS colour code is to be used for painting throughout the project.
- All paints used internally must have low-VOC (volatile organic compound) emissions

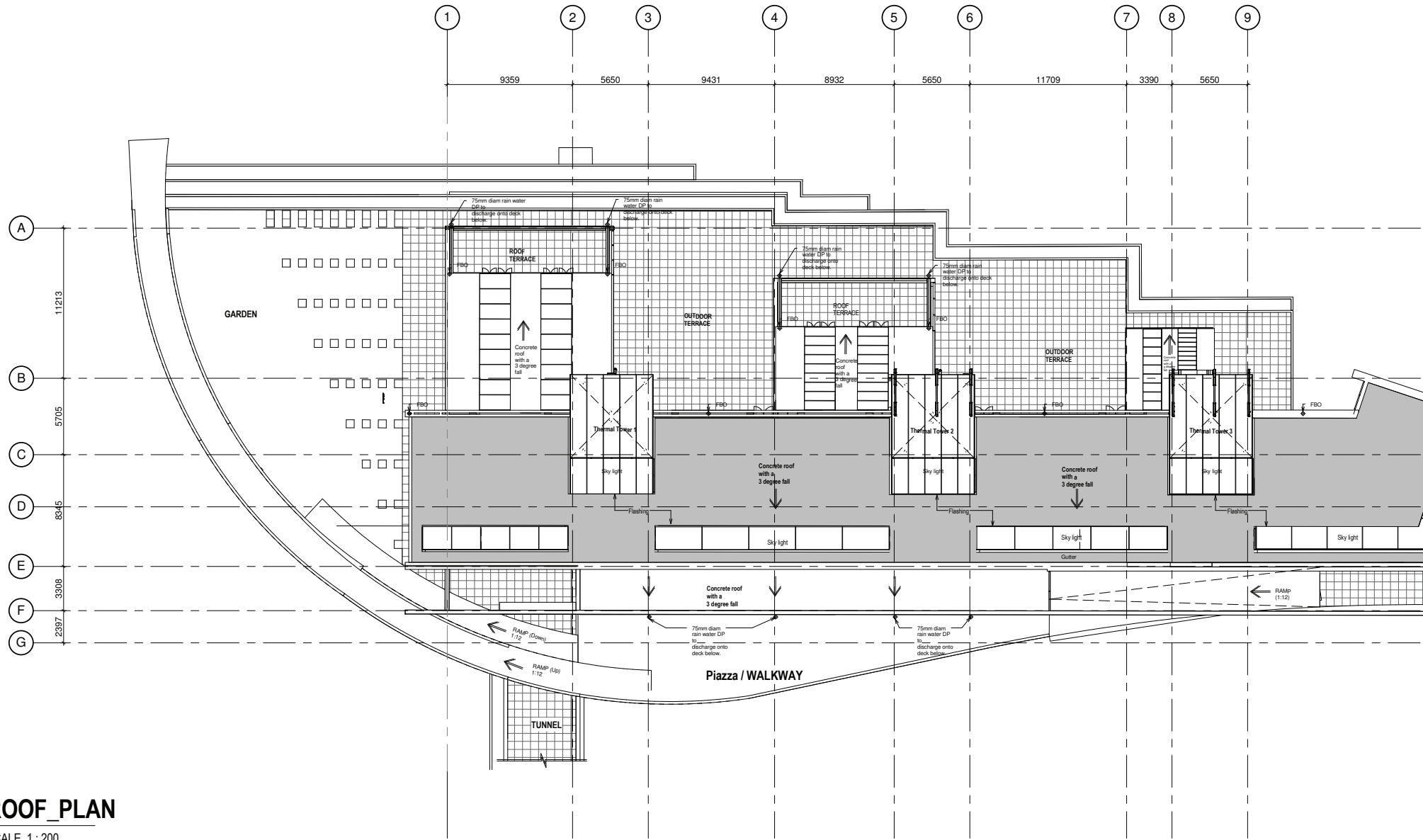
WINDOWS

- All windows are anodised aluminium as manufactured by an approved specialist.
- Thermal barriers are included in the window frames to minimise thermal transfer to the interior.
- Consideration is given to design to accommodate easy cleaning



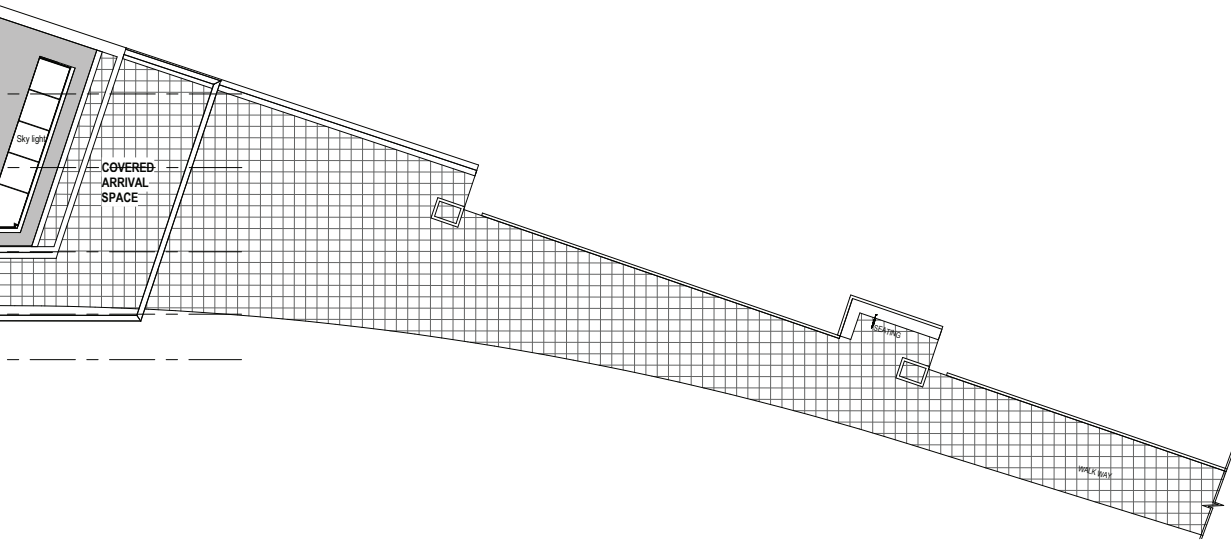
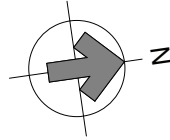
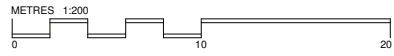
SECTIONAL PERSPECTIVE

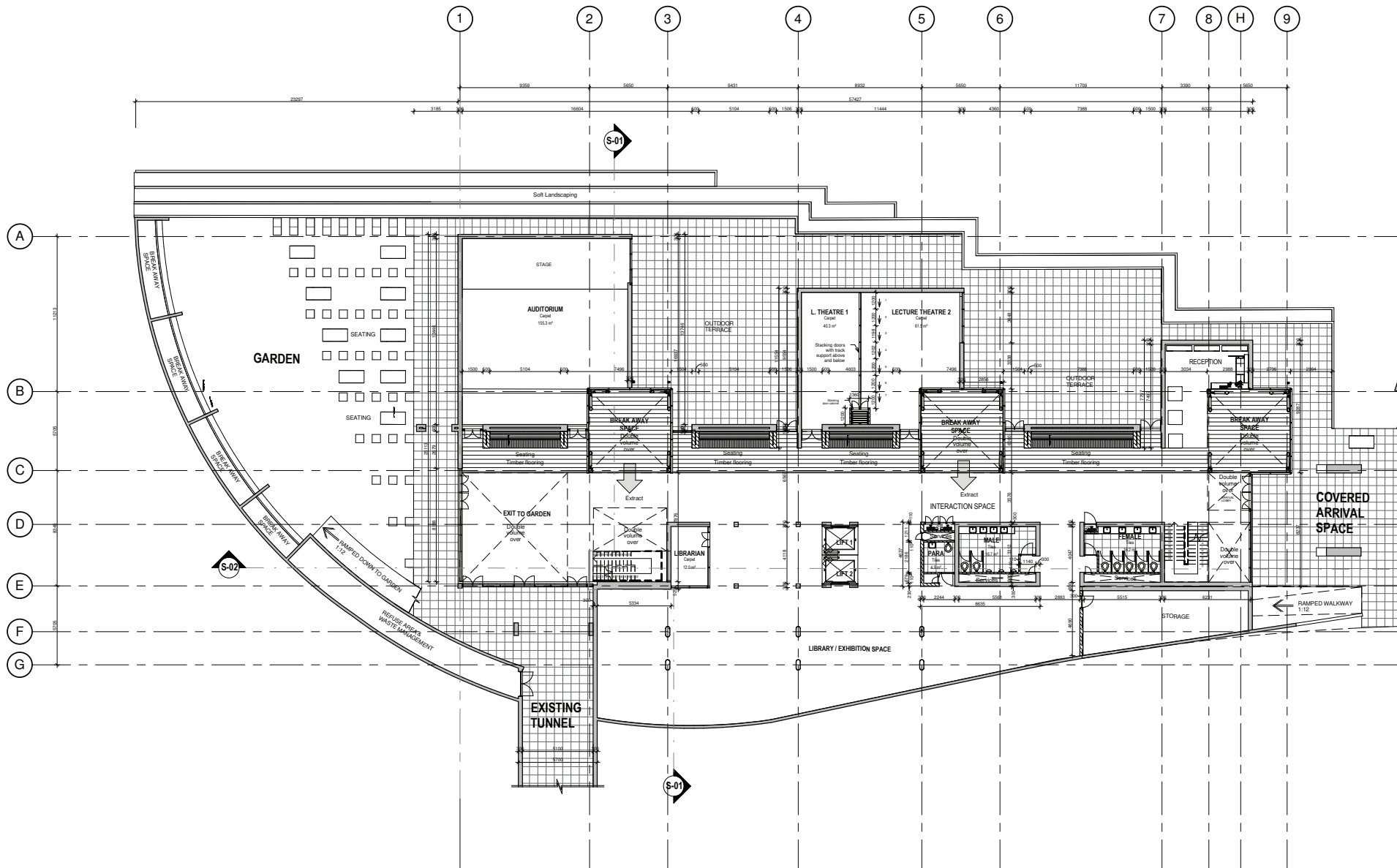




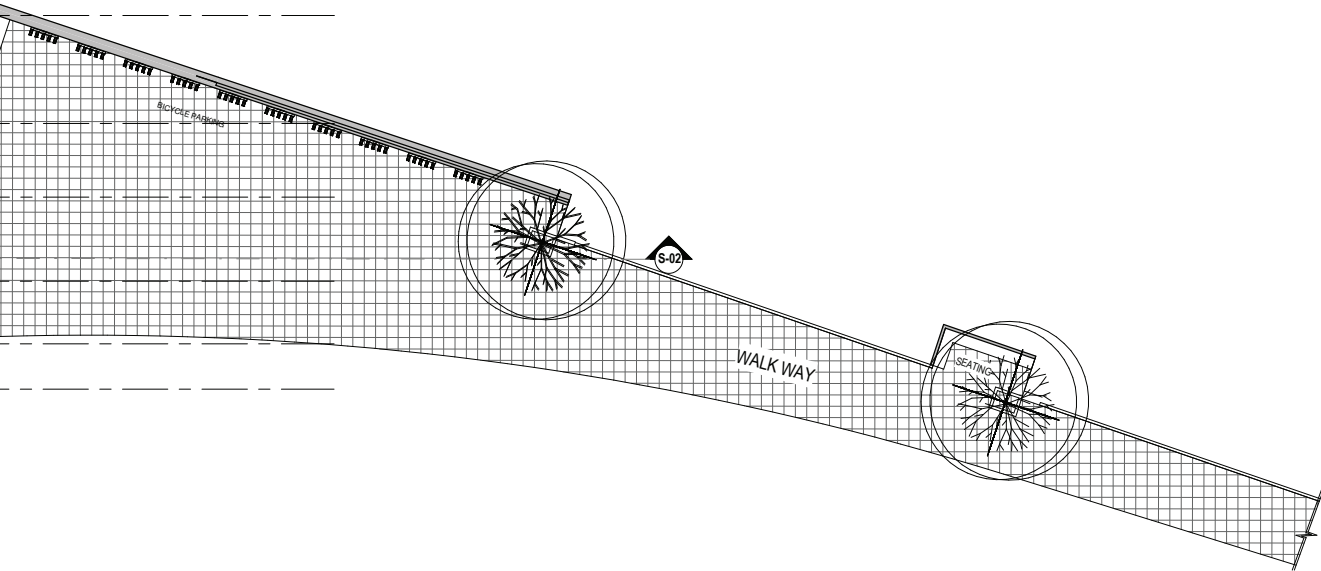
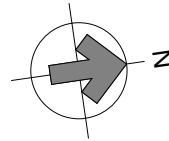
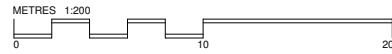
ROOF_PLAN

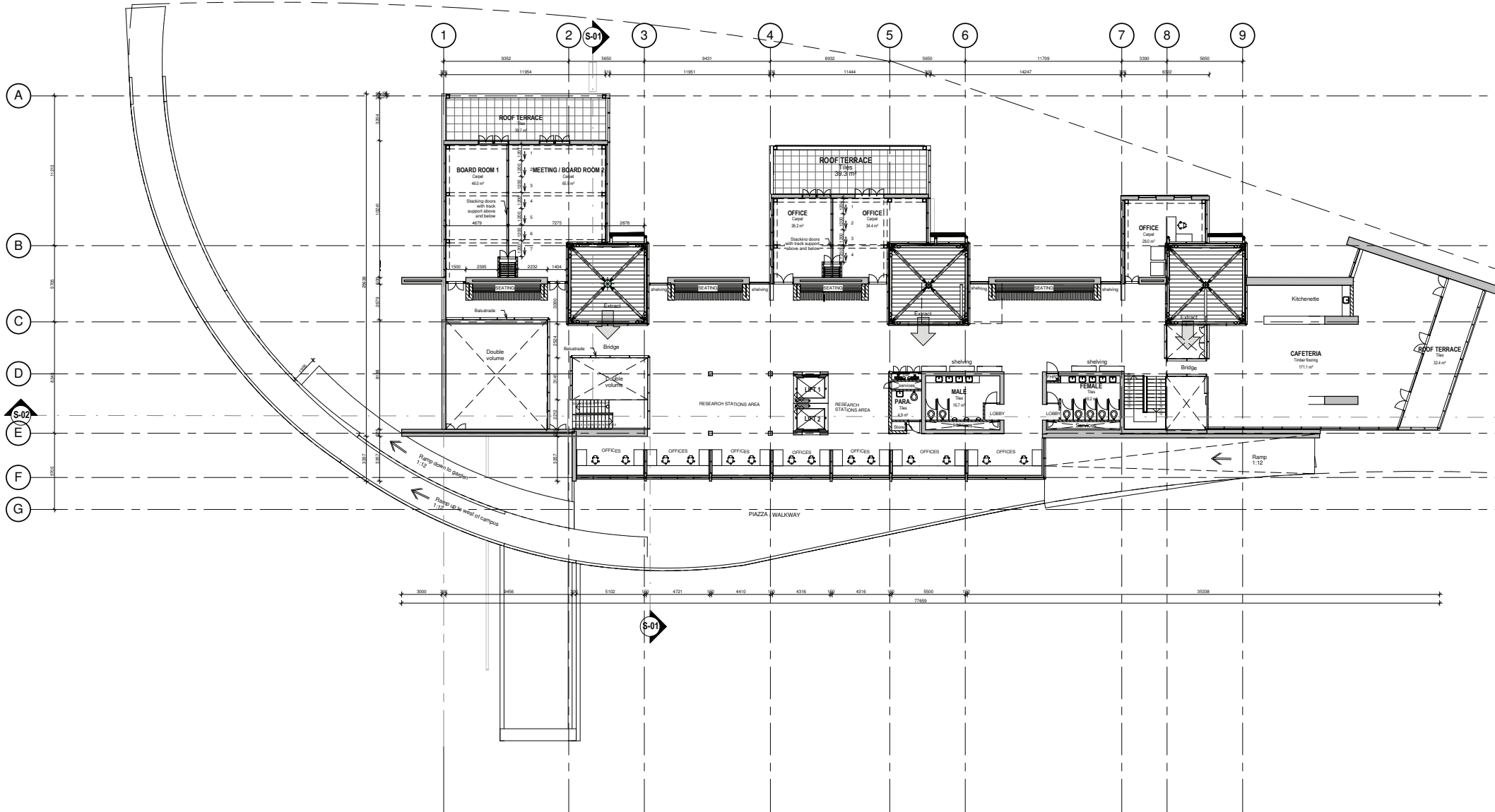
SCALE 1 : 200



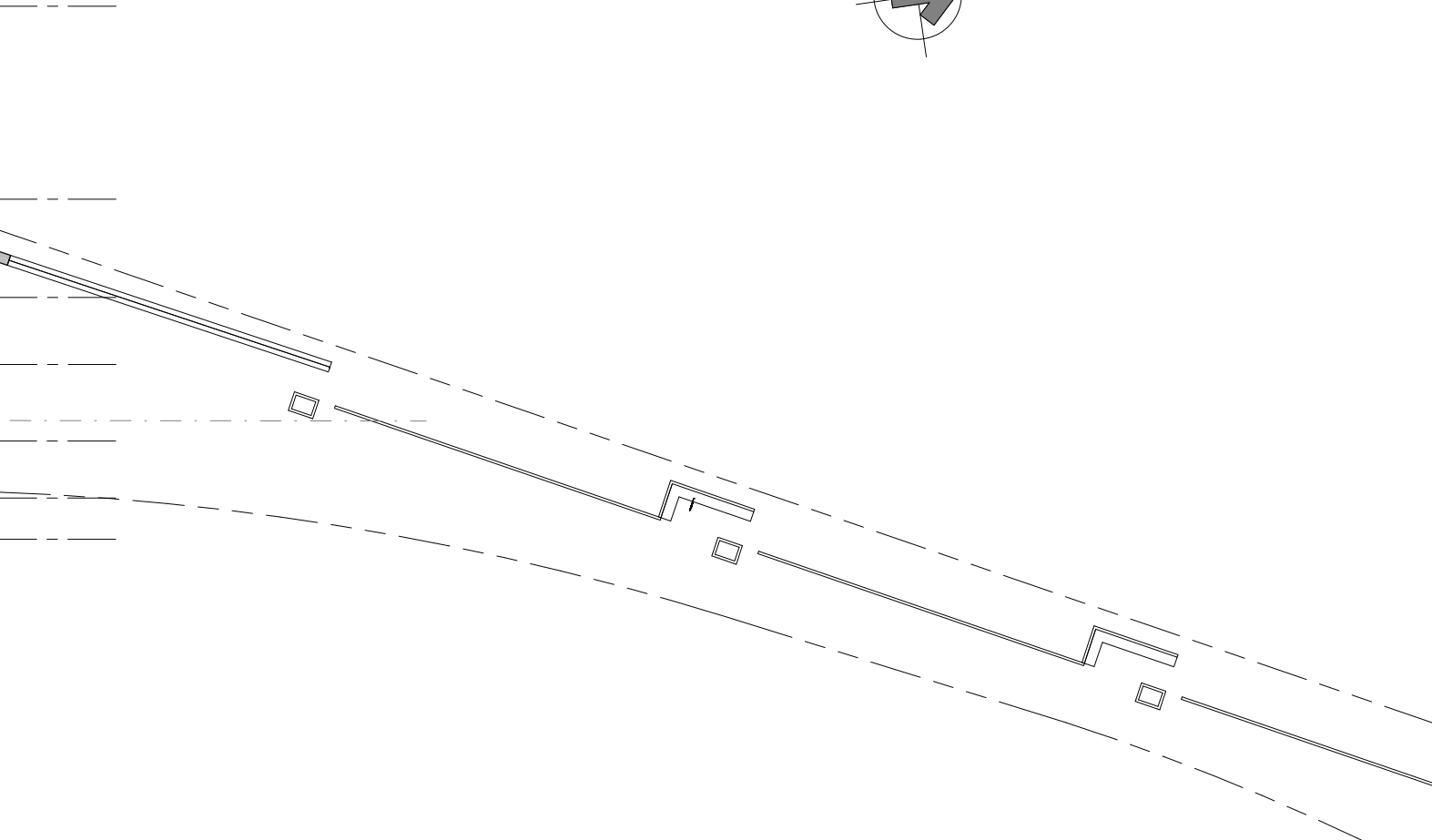
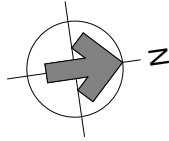
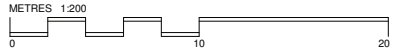


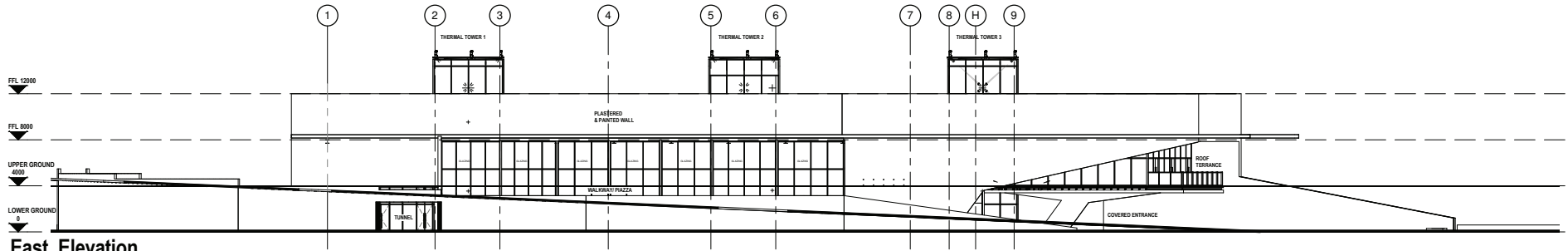
LOWER GROUND FLOOR PLAN NTS
(AUTHOR:2014)





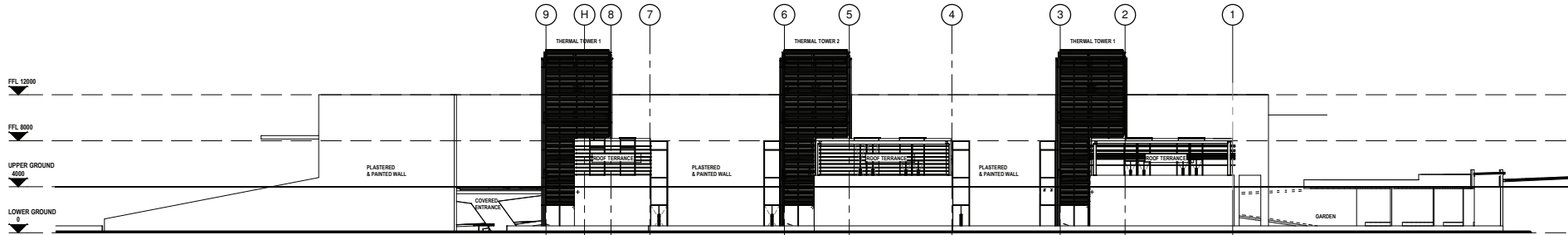
UPPER GROUND FLOOR PLAN NTS
(AUTHOR:2014)





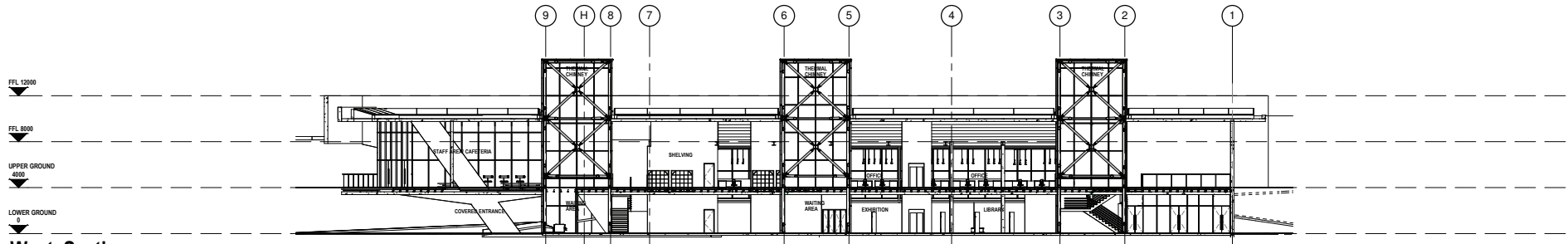
East Elevation

SCALE 1:200



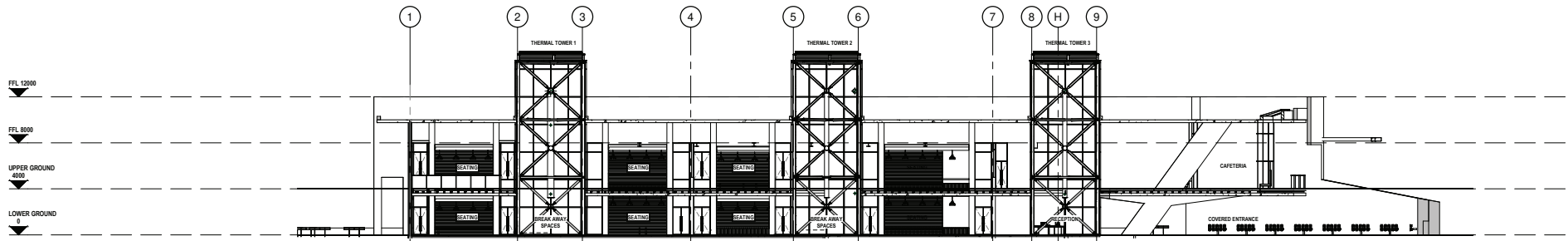
Western Elevation

SCALE 1:200



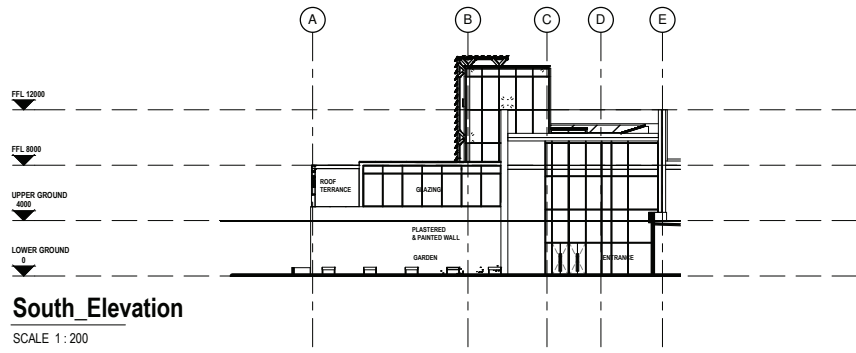
West Section

SCALE 1:200



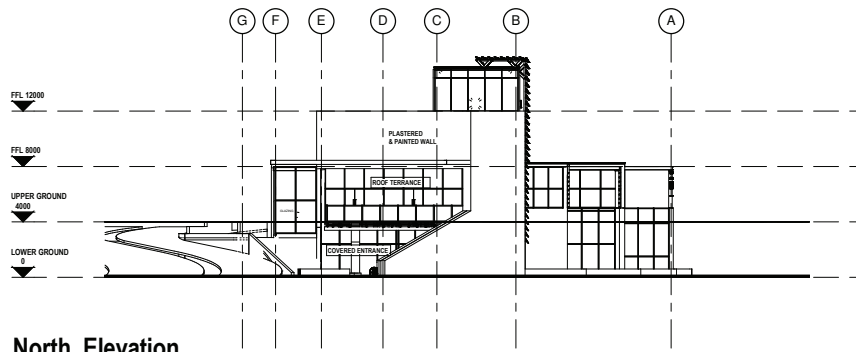
Eastern Section

SCALE 1:200



South Elevation

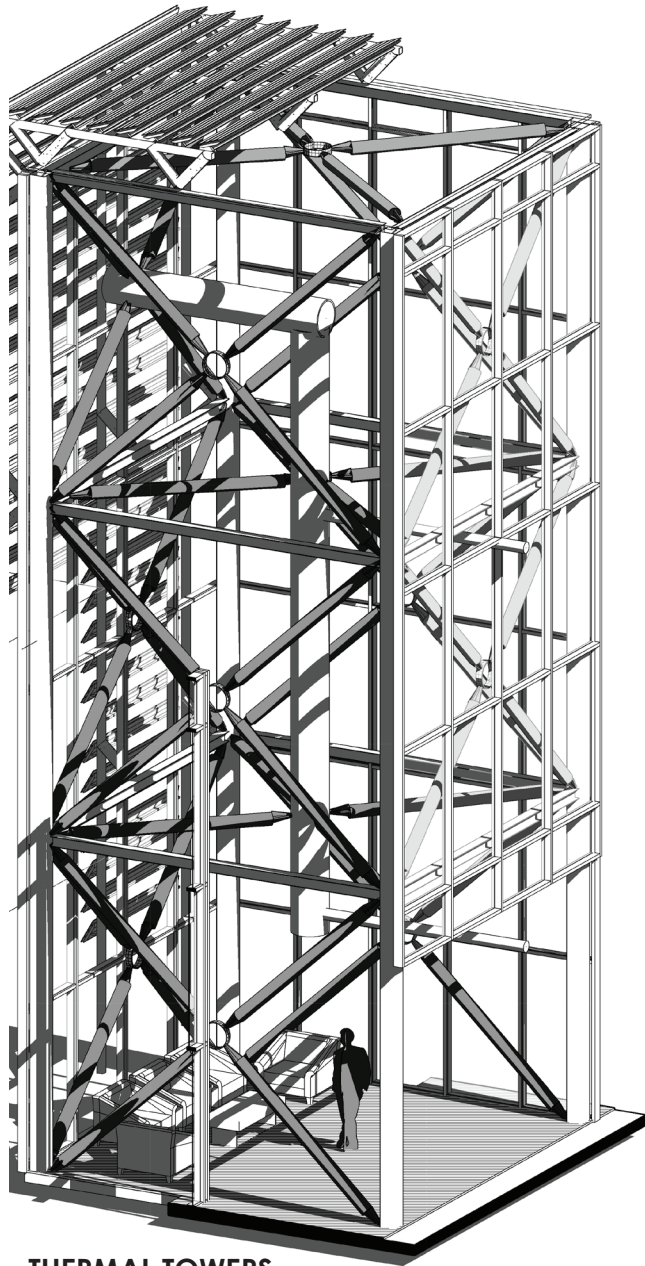
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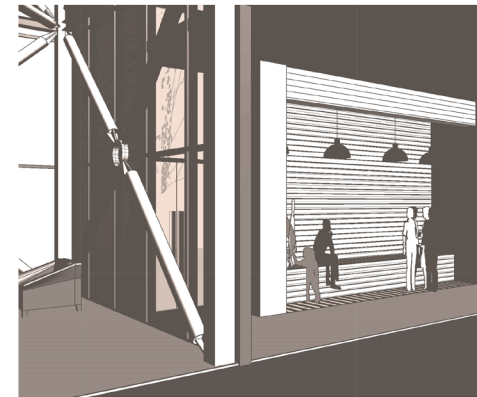
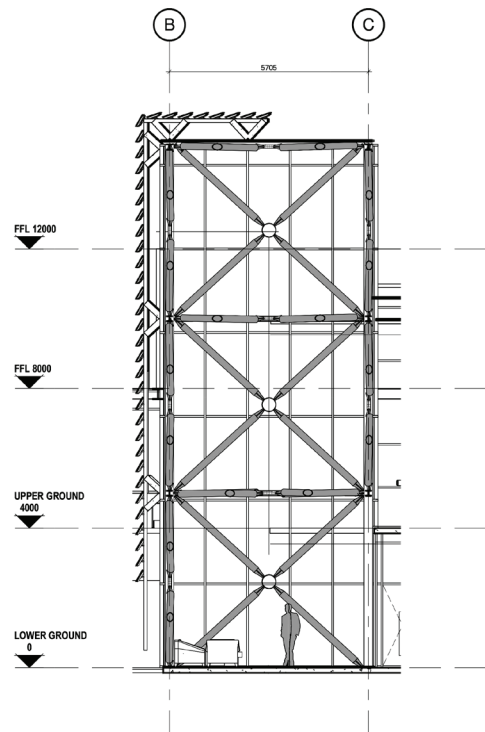
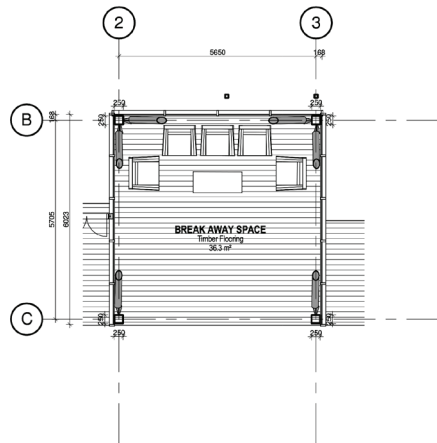
North Elevation

SCALE 1:200

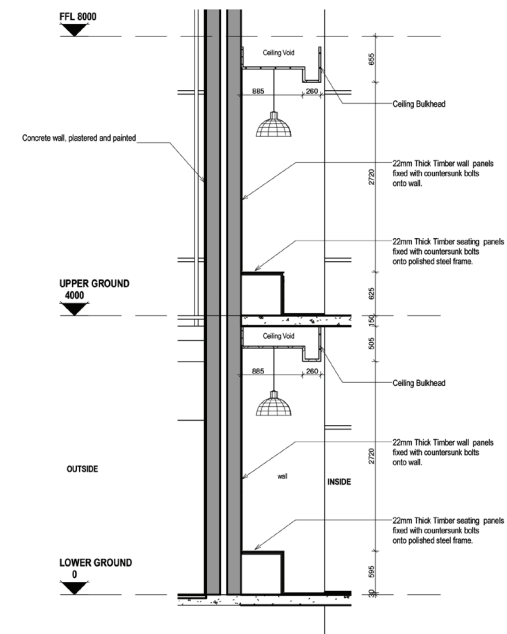
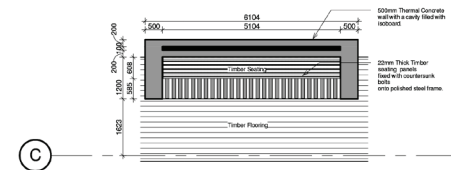


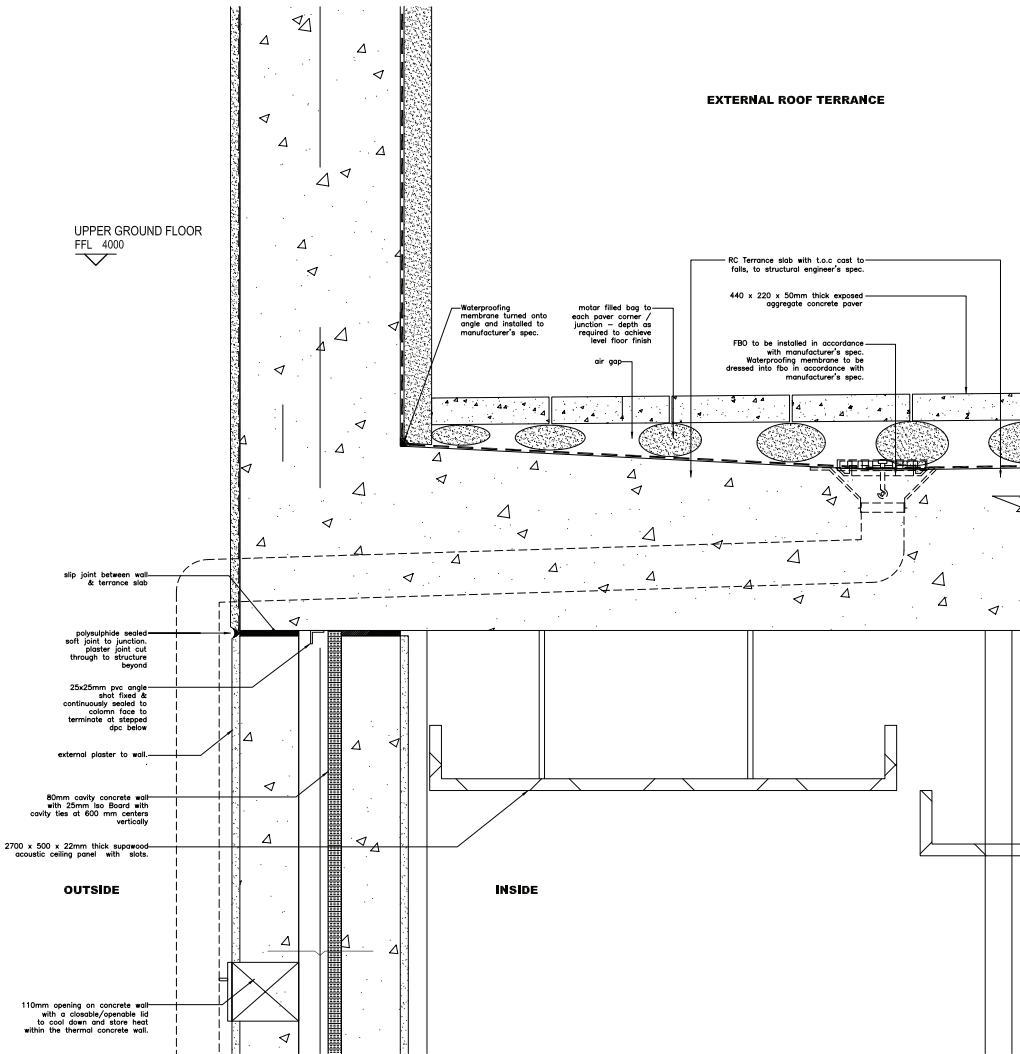


THERMAL TOWERS
(AUTHOR:2014)

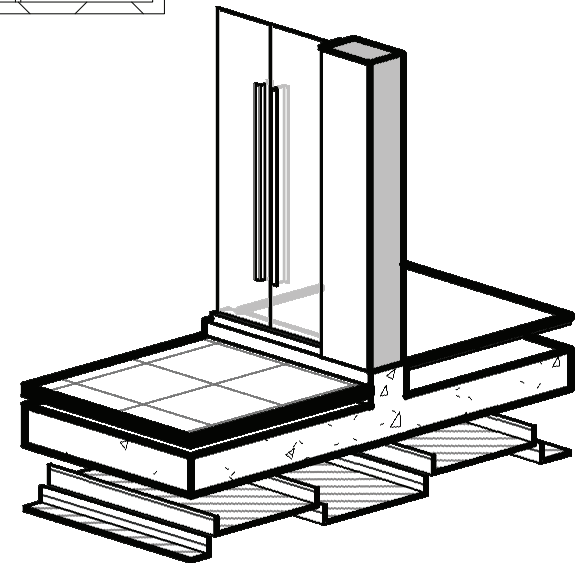
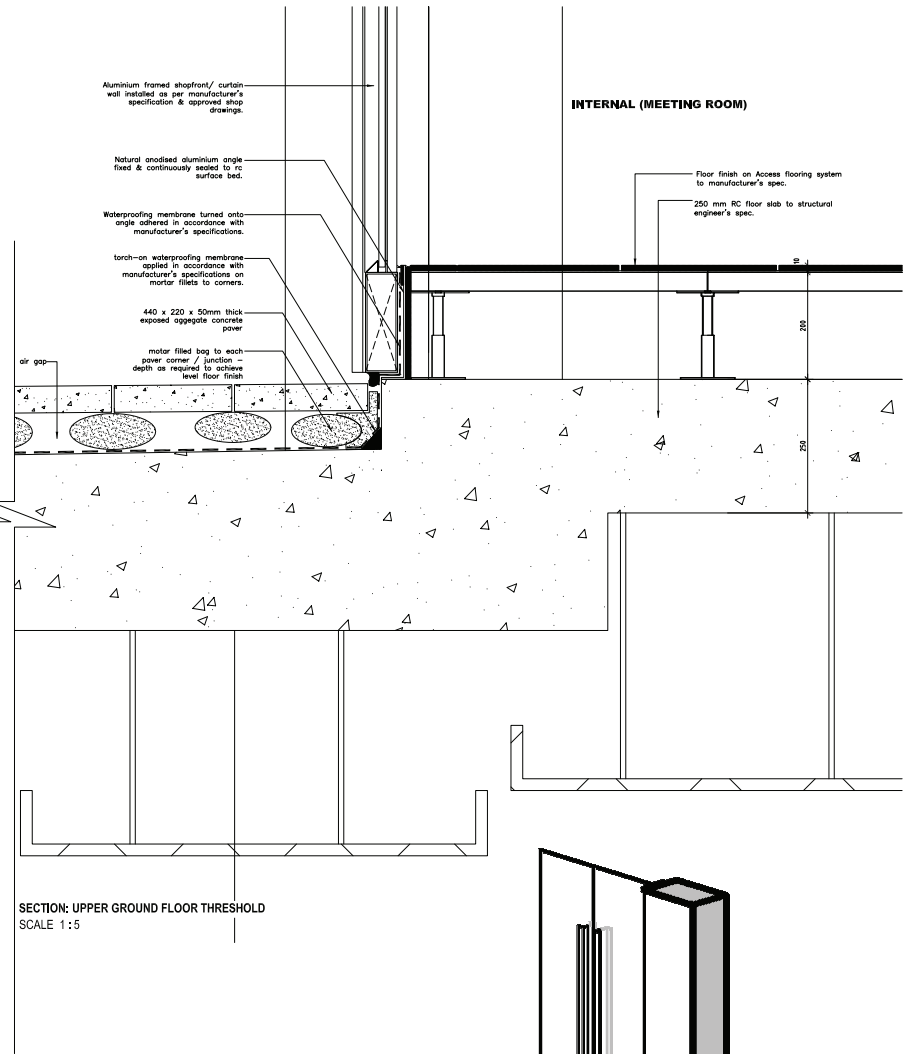


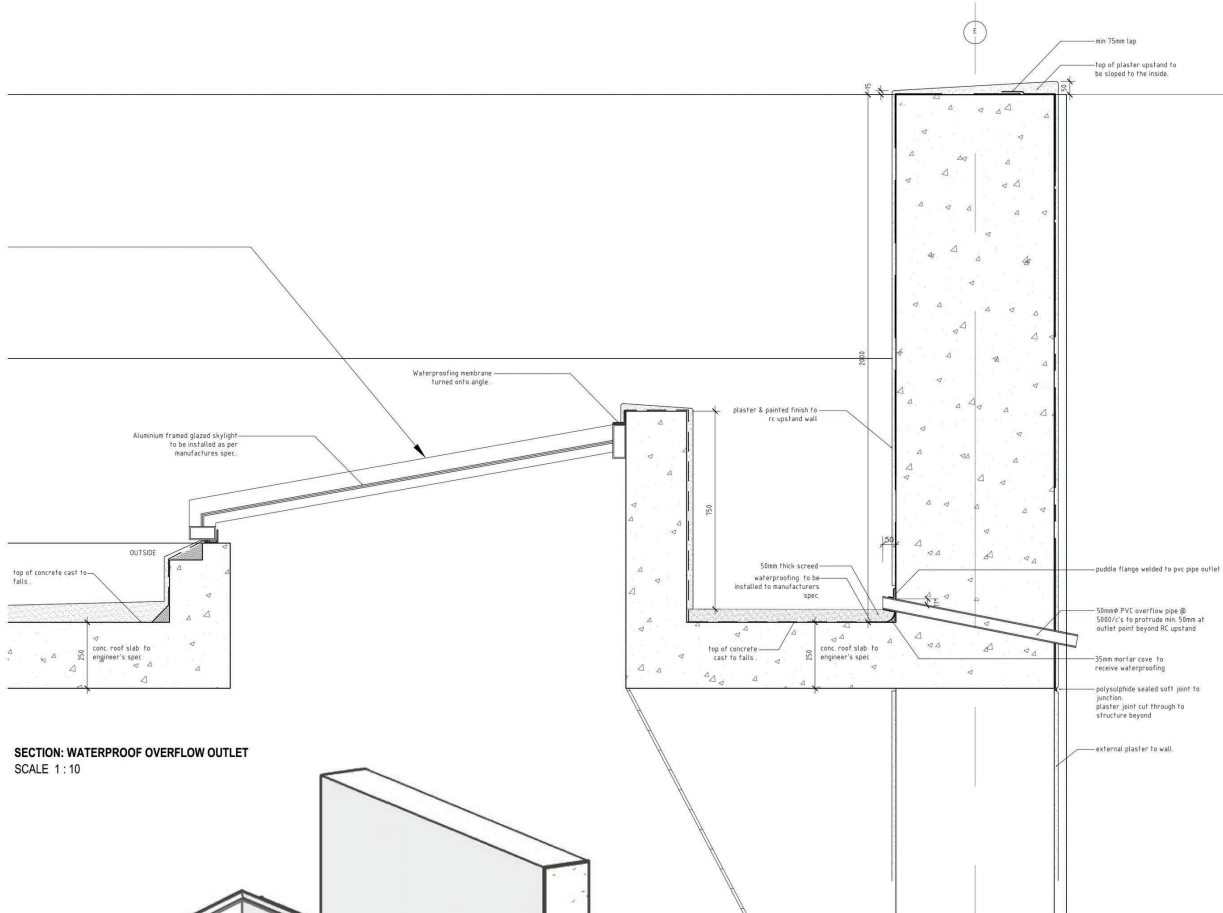
SEATING AREA
(AUTHOR:2014)



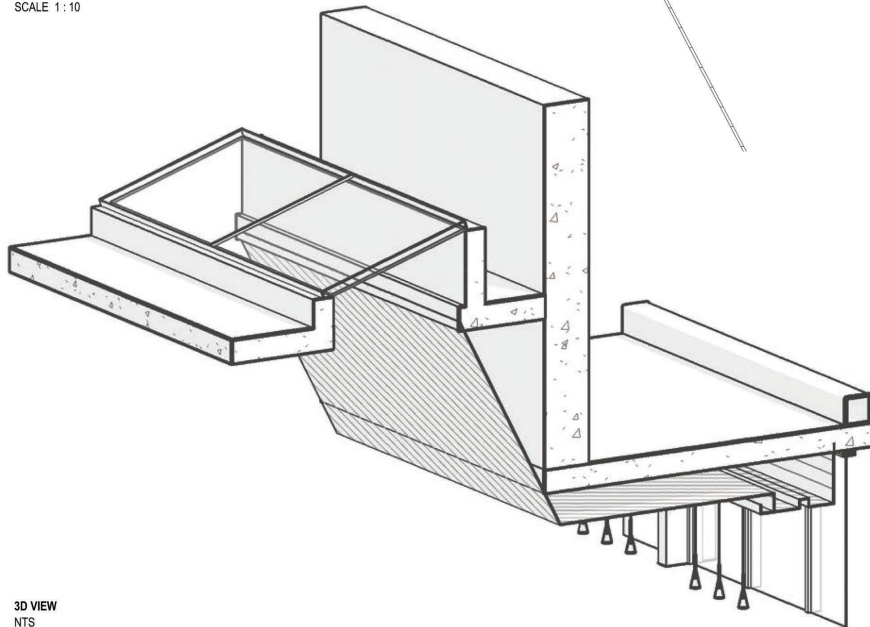


SECTION: ROOF TERRACE EDGE AND CEILING BELOW
SCALE 1:5

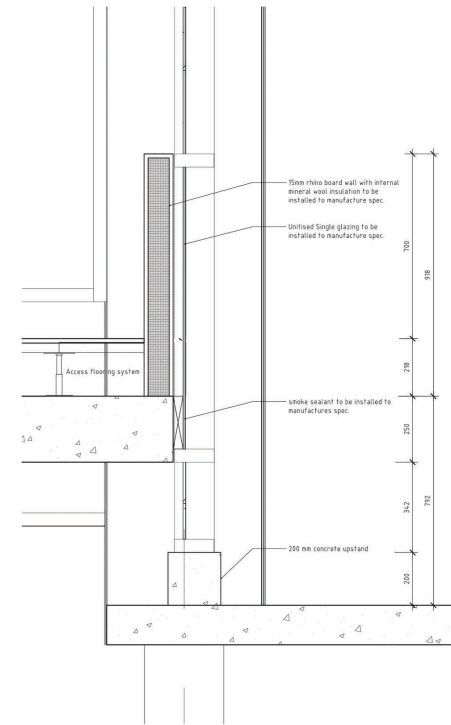




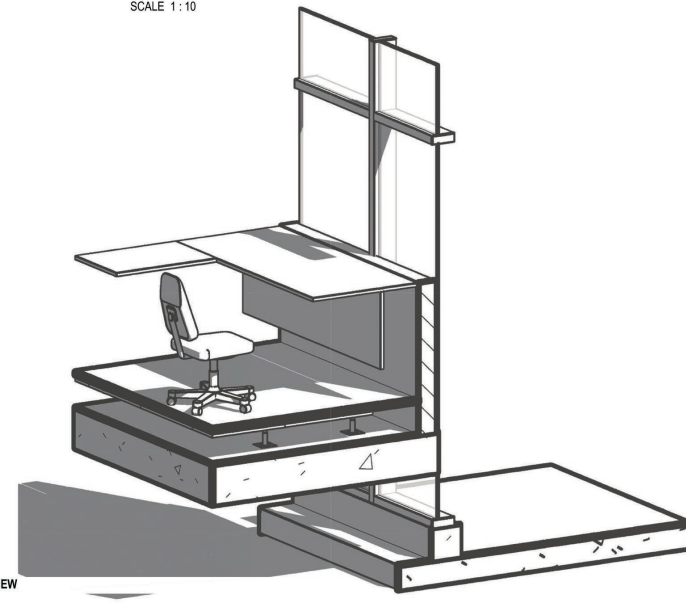
SECTION: WATERPROOF OVERFLOW OUTLET
SCALE 1 : 10



3D VIEW
NTS

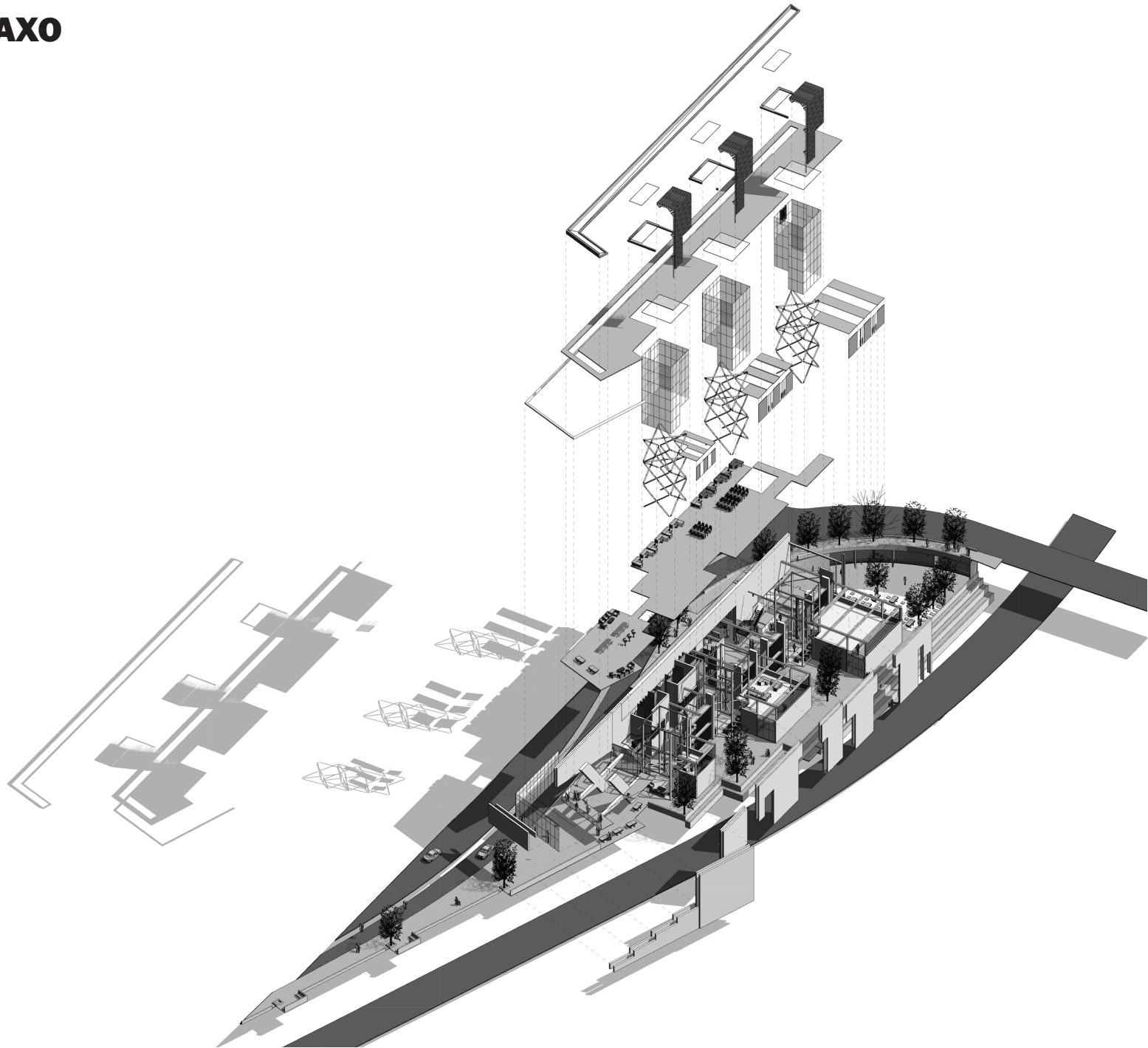


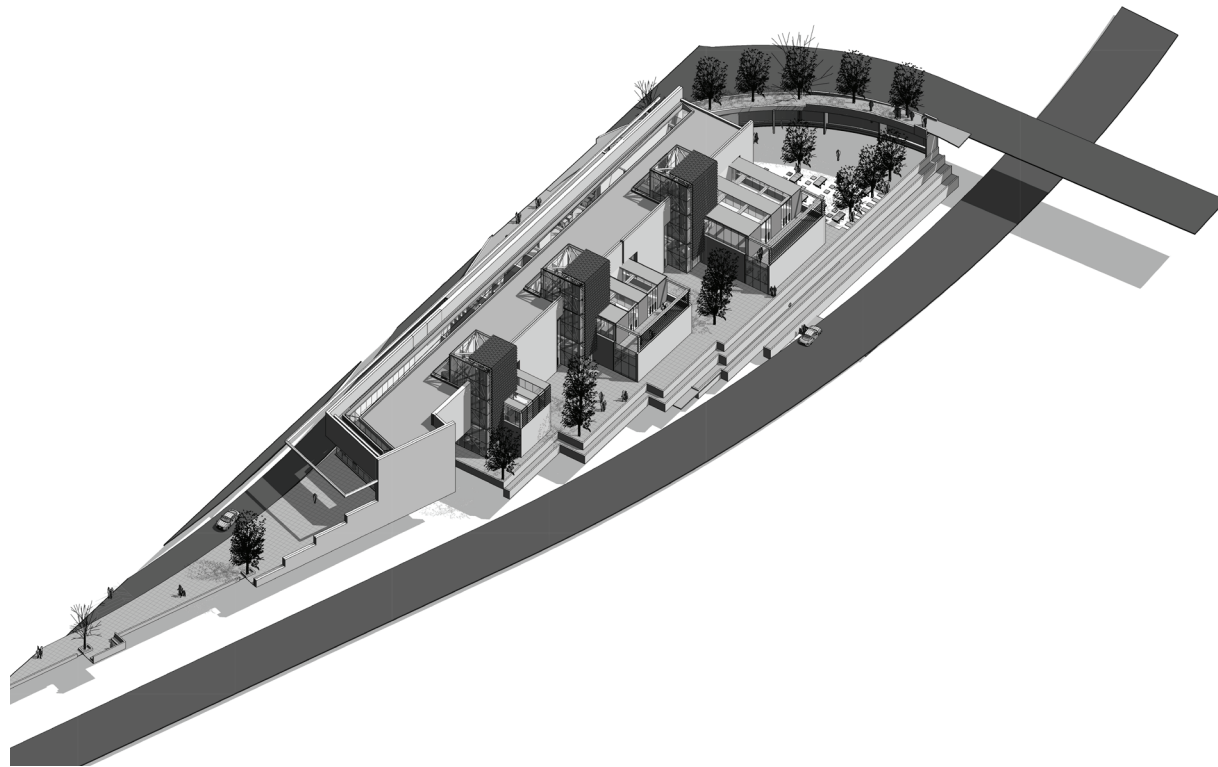
SECTION: EDGE
SCALE 1 : 10



3D VIEW
NTS

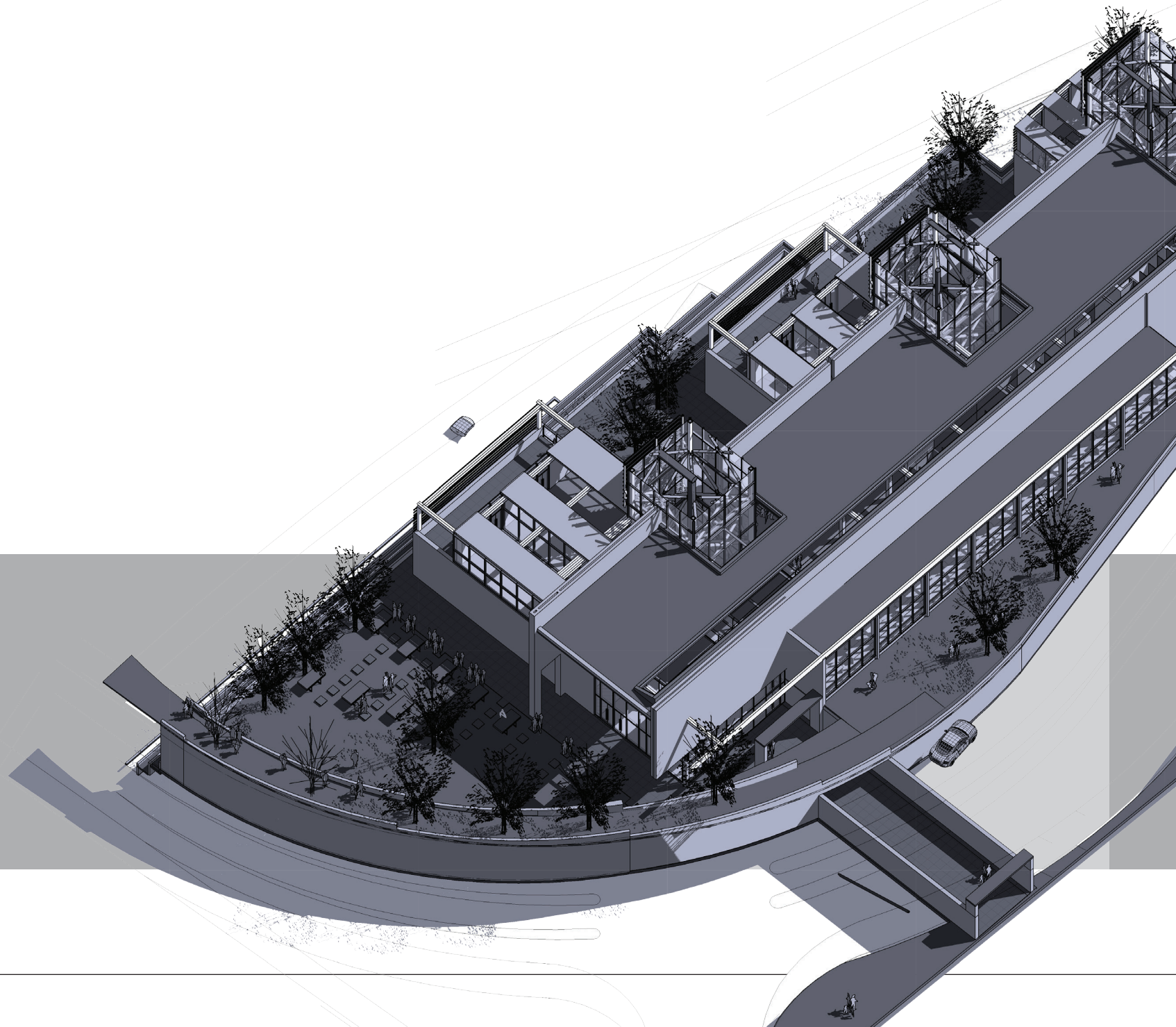
EXPLODED AXO

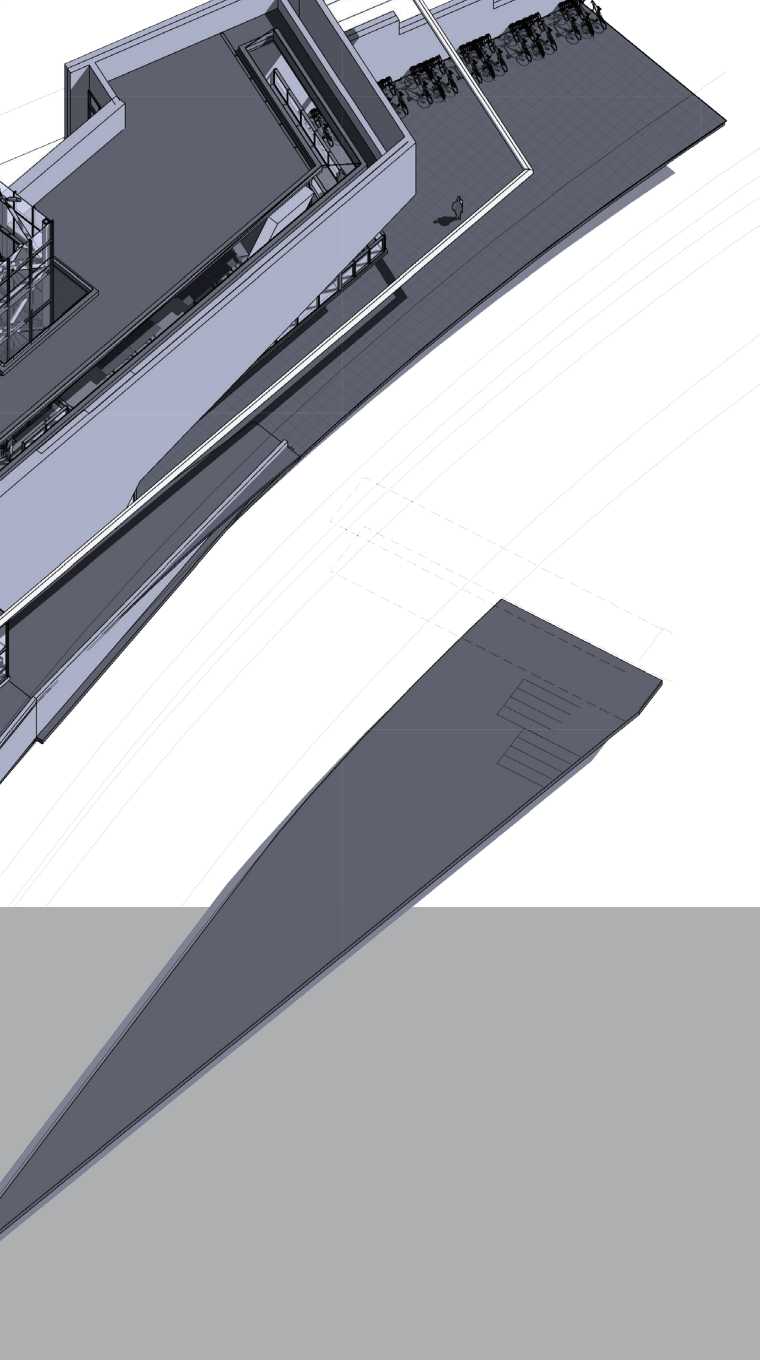




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CONCLUSION





Inclusion is a good note on which to offer a conclusion. The history of communication is self-evidence that great things can happen when majority is given the chance to shine.

However, the process of language extinction is neither inevitable nor irreversible: well-planned and implemented language policies can bolster the ongoing efforts of speaker communities to maintain or revitalize their mother tongues and pass them on to younger generations.

The research centre for language and interpretation is to support the university, communities, experts and governments by producing, coordinating and disseminating:

Tools for monitoring, advocacy, and assessment of status and trends in linguistic diversity,

Services such as policy advice, technical expertise and training, good practices and a platform for exchange and transfer of skills.

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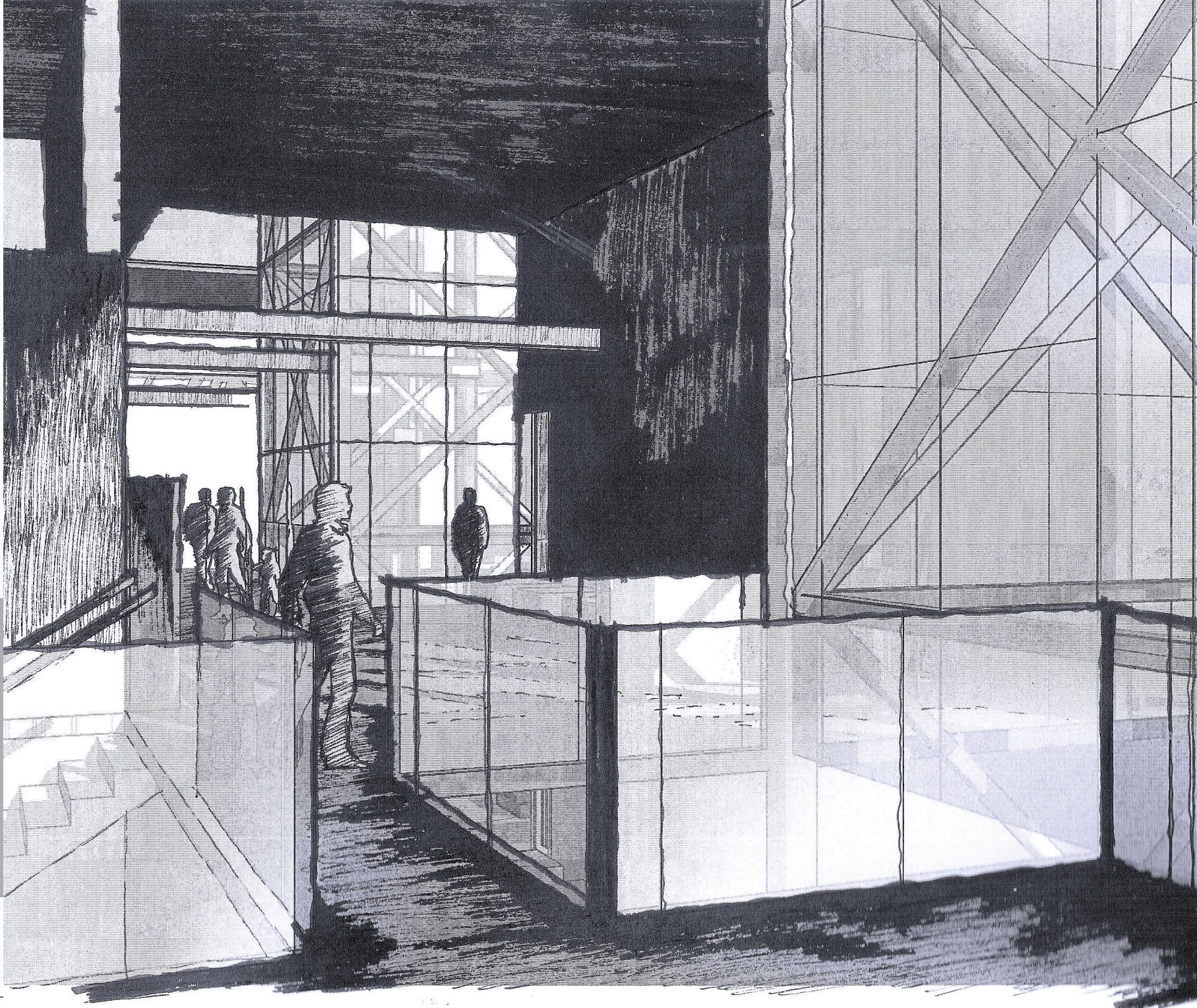


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