UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Inner City Sanctum

Employing an Architectural Lexicon that Exalts Linguistic Culture.

MARK de VEREDICIS

28075782

© University of Pretoria

© University of Pretoria

Acknowledgements

This dissertation is dedicated my parents, Dr Shifra Klebanoff, Dr Nicola de Veredicis and my brother David de Veredicis for their continued support and extensive culture they have given to me since birth.

I would like to extend my appreciation to my study leaders Derick de Bruyn and Dr Arthur Barker for constant motivation and inspiration throughout the year.

I would also like to thank Theo Gertsch for counsel and editing my dissertation to a humane level. Matthys Barnard Chrisna Viljoen and Jeandre Dednam for editing and conceptualisation, and Christoffel Mentz for advice and always helping me pin up.

Project Information:

Address : Corner of Lilian Ngoyi (Van der Walt) and Helen Joseph (Church) Streets
Pretoria CBD, Tshwane metropolitan District
Gauteng, South Africa
25°44’48.3”S 28°11’38.2”E
Function - Linguistics Understanding Centre
Research Field - Heritage and Cultural Landscapes - Urbanism

© University of Pretoria

© University of Pretoria

Submitted in partial fulfilment of the requirements for the degree
Masters in Architecture (Professional) - MArch (Prof)

Department of Architecture
Faculty of Engineering, Built Environment and Information Technology
University of Pretoria
South Africa
2015

Study Leader: Derick de Bruyn
Studio Master: Dr. Arthur Barker

© University of Pretoria

ABSTRACT

In the CBD of Tshwane, a cross societal and cultural architecture, that is of and from place, will be used to create an inner-city sanctum of a lingual repository that connects all walks of life in a societal apotheosis.

The site under investigation is seen as a politically and economically charged precinct within the CBD of Pretoria/Tshwane. Although it does not allow for human activity to proliferate to its fullest capacity, the inherent intention of the surrounding buildings is clear but their language doesn't talk to one another. An architecture that juxtaposes but also synthesises the existing is required. A contained within this program, dealing with language connects all walks of people, initiating inclusivity and a self restorative interaction between society in a bottom-up approach to node creation and synthesis of existing nodes in the CBD.

© University of Pretoria

A mimetic architecture will be employed to contextualise the surrounding buildings' formal intentions, to be employed as a basis for morphogenetic and neo-language architecture. This will be used as an unanimous translator of architectural built form and programme of linguistic translation. The architecture is from and out of place in an architectonically genetic level. By epitomisation of all architectures of context and distilling them into a succinct and openly intelligible form of morphed essentialist building blocks, a universal translator of context is achievable.

The program has a public interface on street level and of publishing and exhibition, retail and semi private repose spaces all focused on the proliferation of linguistic exchange and architectural language acknowledgement or cognisance to the average citizen.

© University of Pretoria

© University of Pretoria

Plagiarism report

In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and thesis, I declare that the thesis, which I hereby submit for the degree Master of Architecture (Professional) at the University of Pretoria, is my own work and has not been submitted by me for a degree at this or any other tertiary institution.
I further state that no part of my thesis has already, or is currently being submitted for any such degree, diploma or other qualification.
I further declare that the thesis is substantially my own work. Where reference is made to the works of other, the extent to which that work has been used is indicated and fully acknowledged in the text and list of references.

MARK de VEREDICIS

© University of Pretoria

CONTENTS PAGE

PART ONE - INTRODUCTION

Introduction - Page 13
Preconceived Mappings - Page 18-19
Project Intention - Page 20
Hypothetical Statement - Page 20
Approach to the Site in Question - Page 22
General issue - Page 22
Functional Impetus - Page 22
Contextual Icon - Page 23
Icon Vs Context - Page 24
General Issue - Page 25
Research Approach Method & Problem Statement - Page 26 -27

PART TWO - SEMIOLOGY

Semiotics - Page 30
Formulation of the sign - Page 31
Semiotic Premise of Understanding - Page 32
Semiotics within Historical Context - Page 33-34
Signification & Meaning - Page 35-37
Relationship between Architecture and Linguistics - Page 38
Empathic Imagination - Page 39
Semiotics within an Architectural Context - Page 40-44
Language Games - Page 45-47
History of Typological Meaning - Page 47-49
Architectural Necessities of Function - Page 50
Battle of the Enduring Form - Page 50-52
Analogy - Page 53
Language as an Analogy to Architecture - Page 56
Linguistic Theories 58-63
Connotative and Denotative Semiotics - Page 63-74
Trompe-l'œil - Page 75
Magritte's Treachery of Images - Page 76
Real and Simulated Forms - Page 77-78

PART 3 - SITE

Site Introduction - Page 84-85
History of Locality- Page 86
History of the Site in Question - Page 87-91
Immediate Context - Page 93
Architectural Movements at the Time - Page 94-98
Group Framework - Page 99
Mapping According to Urban Framework - Page 101-103
Pragmatic & Quantifiable Mapping - Page 104-105
Photographic Essay - Page 106 - 118
Punctuation Mapping - Page 118
Acceptance of the Past - Page 119
Alignment & Contestation of Urban Vision of 2055 - Page 120- 123

PART FOUR - PROGRAMME & CLIENT

Programme - Page 125
Language Confluence - Page 126
Programme and Client - Page 127-131
Programmatic Features - Page 132-135

PART FIVE - DESIGN DEVELOPMENT

Design Development - Page 137
Neologism - Page 138
Development Beginnings - Page 139
In Search of an Architecture on Site - Page 140-142
Biotic Metaphors - Page 143-145
Reconsideration of Mimesis - Page 146-147
Personified Semiotic Mapping - Page 148
Neologism and Anti-Language - Page 149
Material System - Page 150-151
Masterplan - Page 152-153
Forcing Dialogue - Page 154
Graphic Warping Techniques - Page 155-160
Corbel Definition - Page 162
Purple Morph - Page 163
No Curves or Rectilinear Lines - Page 164
Psychology of Entrants - Page 165
Visitor Choreography - Page 166-167
Specific Developments in Design - Page 170 - 175
Design - Page 176 - 183

© University of Pretoria

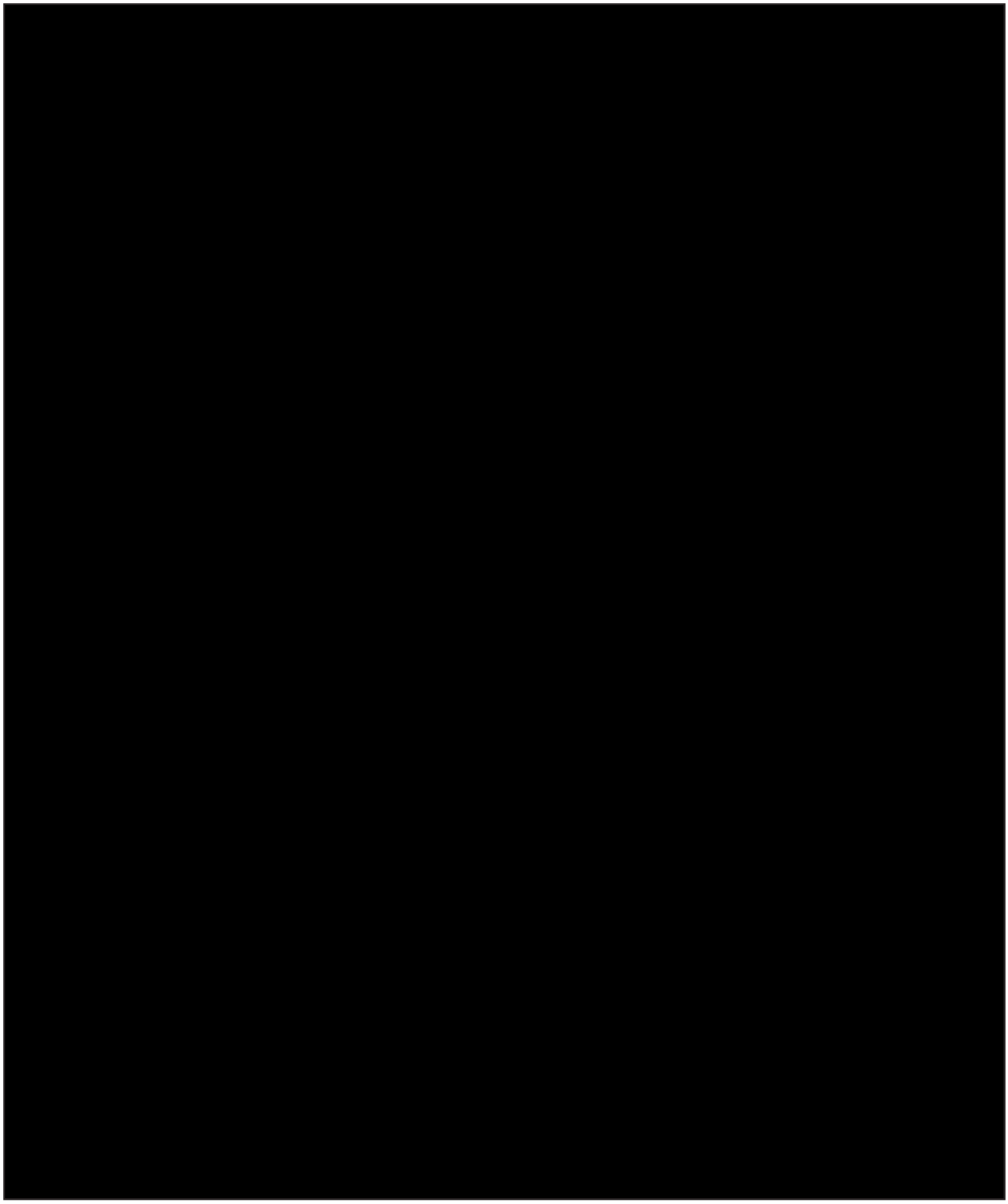
PART SIX - TECHNICAL RESOLUTION

Technical Resolution - Page 185
Introducing Technification - Page 186
Extracting Meaning From Form - Page 187
Material Selection - Page 188
Concrete Types Used - Page 189
Overall Structure & Finish - Page 190
General Structural Concept - Page 191
Full, Four, Two , One - Page 192
Spread out and Stagger - Page 193
Stepped Beam - Page 194
Specific Technical Features - Page 195-199
Structural Systems - Page 200-206

PART SEVEN - FINAL PRESENTATION

Presentation - Page 209
Rendering - Page 210-211
Site Plan - Page 212-213
Longitudinal Section - Page 216-217
Plans- Page 220-221
Transverse Section - Page 224-225
Technical Detail Location - Page 226
Programmatic Axonometric - Page 227
Transverse Section through Auditorium - Page 228-229
Rendering- Page 230
Tube Map - Page 231
Alley Section - Page 232
Interstitial Floor - Page 233
Rendering - Page 234-235
Auditorium Plan and Section - Page 236-237
Elevations - Page 238
Model Photography - Page 239-245
Conclusion - Page 246
References & Bibliography - Page 248-249

© University of Pretoria



© University of Pretoria

PART ONE
INTRODUCTION

© University of Pretoria

Kiki & Bouba

© University of Pretoria

© University of Pretoria

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

© University of Pretoria

Preconceived Mappings

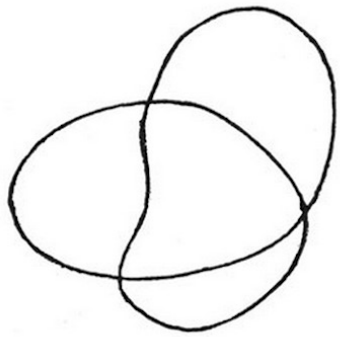


FIG. 18

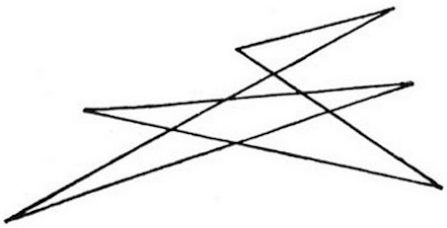
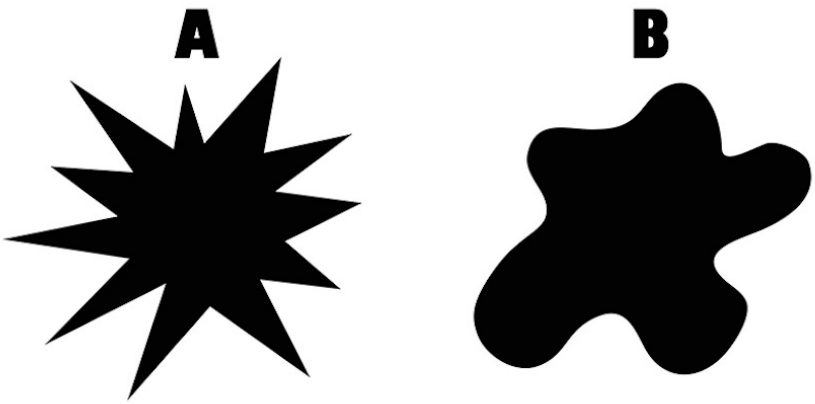


FIG. 19



THE KIKI AND BOUBA EFFECT.

© University of Pretoria

In 2001, Vilayanur S. Ramachandran and Edward Hubbard repeated Köhler's experiment using the words "kiki" and "bouba" and asked American college undergraduates and Tamil speakers in India "Which of these shapes is bouba and which is kiki?" In both groups, 95% to 98% selected the curvy shape as "bouba" and the jagged one as "kiki", suggesting that the human brain somehow attaches abstract meanings to the shapes and sounds in a consistent way. The study shows that even children as young as 2 years old - too young to read - may show this effect as well. (Ramachandran, S & Hubbard, E. M. :2001)

Ramachandran and Hubbard suggest that the kiki/bouba effect has implications for the evolution of language, because it suggests that the naming of objects is not completely arbitrary. The rounded shape may most commonly be named "bouba" because the mouth makes a more rounded shape to produce that sound, while a more taut, angular mouth shape is needed to make the sound "kiki". The sounds of a "K" are harder and more forceful than those of a "B", as well.

The presence of these "synesthesia-like mappings" suggest that this effect might be the neurological basis for sound symbolism, in which sounds are non-arbitrarily mapped to objects and events in the world. More recently research indicated that the effect may be a case of ideasthesia. "sensing concepts" or "sensing ideas" is defined as a phenomenon in which activations of concepts (inducers) evoke perception-like experiences (concurrents).

The idea that kiki or bouba represent specific forms based on their sound or lettering presents an idea being able to analogously compare differing forms or representations thereof. This is better understood within a semiotic context. This idea of form giving intended or unintended meaning, represents the proponents to understanding built meaning. Formal signs are decoded by a viewer, although they all exude an unintended meaning (apart form the intended sign) which is very subjectively received. Everyone has a different interpretation, but most people have a common vision about a designed form or space. This semantic cognitive understanding is useful in deciphering built form to a ubiquitous audience.

The understanding of form within an urban context and the search for a semiotic link to understanding it becomes the main premise of this dissertation.

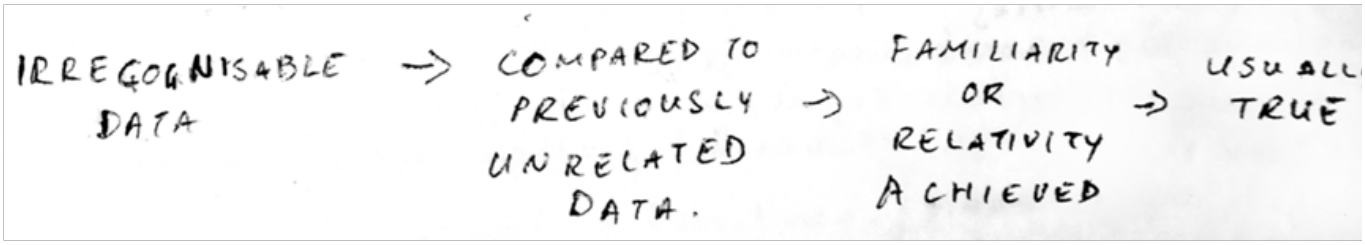
© University of Pretoria

Project Intention

Not understanding something at all is pure bliss. One does not find the necessity to want to know more. However with the slightest inkling of interest, the first question of one's surroundings sparks the snowballing of curiosity. Once one knows one thing, one desires to know the others that have specific pertinence to the first thing. A concepts ability to grasp more and more interest from the subject.

Hypothetical Statement

Is it possible to entice a person to question his built surroundings, and inevitably himself in that reflective and self-referential process?



© University of Pretoria

An unrecognisable form -> Gives off an intended meaning as well as an unintended meaning -> which in turn gives off a sense of place and space to the viewer. This gives rise to a triumvirate of form function and beauty all at equal levels. Together they give the built object a sense of importance within the formalist extremes - from a building which causes a sense of iconoclasm in its own right - to a means to a contextualism within the greater built context.

1. This unrecognisable form has its genetic and constructive basis in visible forms that have been mimed form the built context.

2. This unrecognisable form will have its basis in the viewer now starting to question his surroundings.

3. The viewer then gains a sense of intelligibility of the surrounding built entities in the context.

4. This act then sparks a snowballing of desire to want to know more about one's surroundings.

5. The viewer then possibly gains a cognisance of how to read and interpret the surroundings more so than if there was no unrecognisable form in the first place.

6. The viewer then will question more to find out more and eventually gain more interest about the surround he/she exists in.

© University of Pretoria

Approach to the site in question.

A preface for how the site was addressed must be established. The site was discussed in a semiotic manner and then buildings were personified into “characters” and based on the average user of each building respectively, but also as a means at haptic quantification of the emotions that each specific building exudes, pertaining to the architectural style, form, and domineering or timid personality with regards to their situation within the urban fabric within political, social, financial and historic spheres. Each seem to be battling for a personal right to exist, and they do not pay much homage to any other form that exists around them - They are islands of power.

The iconoclasm that can be read from each of these buildings’ very internalised and formally striking elements ends in a cacophony of architectural languages, with each striving for importance in their conceived zeitgeists.

These architectonic time periods or fashions ranged from the eclectic - Neo-Wilhemiens Metro Cycle House (Guldenfinger building) to the Internationally styled white tower of ABSA bank, the Metabolist - Brutalist South African State theatre, and the Neo historicist Sammy Mark’s Shopping centre and square.

General Issue

Within the interminable bustle of the inner city of Pretoria, so many different types of people inhabit the CBD, each with different understandings of what architecture is or should be . These interpretations are lost in sea of historical irrelevance and each style seems to be fighting with each other for an identity that is unique to them. These cultural icons are formally unidentifiable to the common user because their formal intention is apparent but not openly understandable. This results in an urban scenography that doesn’t talk to itself or its inhabitants, and gets lost in a sea of mistaken identity and shrouded intention.

Functional Impetus

An area within this metropole has been identified as a hotspot of activity from both past and present. It spans diverse and extreme political regimes, populated by various types of people that perform diverse programmes ranging from retail to clerical finance, informal trading to rest and repose.

© University of Pretoria

The relationship between architecture and language is explored through semantic and semiotic understanding of the nature of this urban landscape. The proposition of an intervention that assists in this understanding is needed.

Because of the multiplicity of different users that frequent this site in the CBD of Tshwane, the site becomes a perfect platform for the interplay between people across all class, castes, races or religions. This is why a centre for the interpretation of language and colloquialism is appropriated. It becomes a direct representation and a functional impetus to synthesising the multiplicity of cultures that frequent the area.

The proposition for a semantic strip on Church Street is glorified to the level of societal apotheosis by means of a linguistic centre that connects all walks of life in one synthesised but multifunctional and multi-charactered building. This urban framework aligns closely with the 2055 vision for Tshwane.

A Contextual Icon

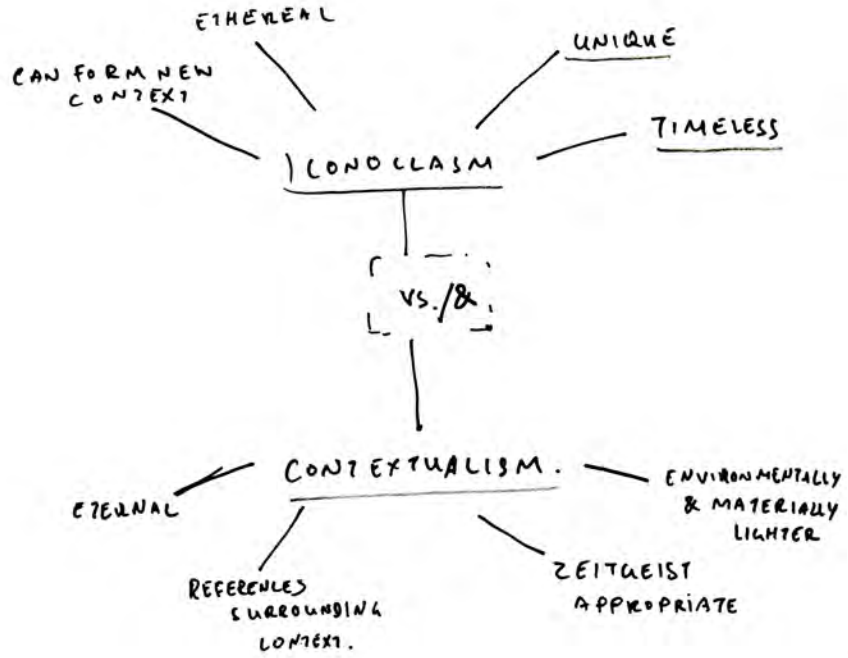
The intention of this proposed architectural intervention has its basis in understanding the historically contentious ideologies that are prevalent on site.While proliferating their programmes into the urban realm by re-appropriating space in a novel and neutral way, the architecture must contrast the harshly biased surrounding buildings prevalent on the immediate site.

The building that promises this should reenact the connection between the cultural and natural environment. A sanctuary or publicly sheltered repose park would provide humane necessities to the proximity of Pretoria CBD. Possibilities for a new language of architecture is what is sought. The parameters will not ascribe the form to be the alpha and omega of universal architectural language - but to find one that can encapsulate political and cultural diversity reflected in our society, and become a formal interpretation of the zeitgeist of the times.
What is sought regarding an architectural stance or ideology would be a middle ground or golden mean for buildings within a city as a whole. This intermediary stance would attempt to fall between a sense of iconoclasm and contextualism. Iconoclastic buildings have the ability to form a new context.

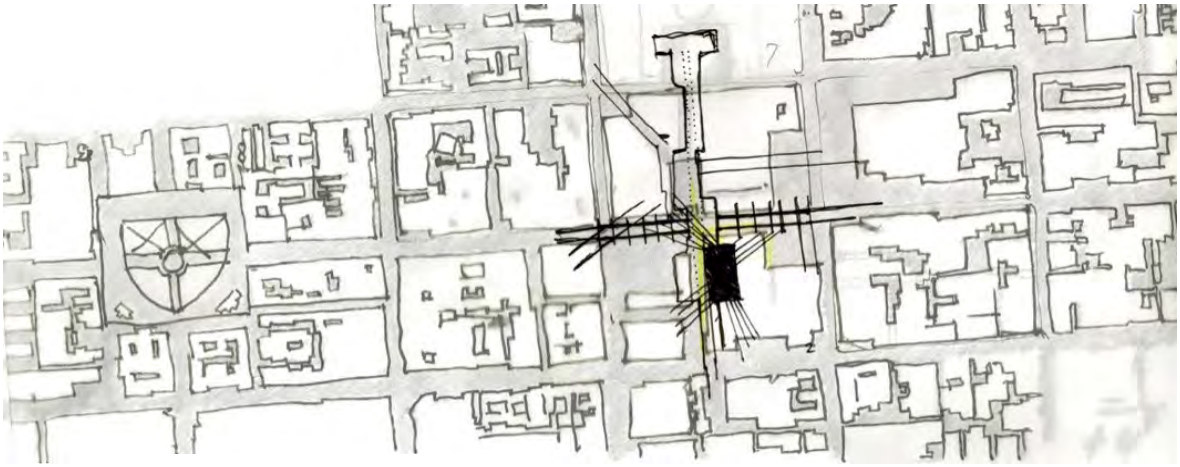
© University of Pretoria

They either are isolated islands of architectural ideology, or they are one subjective architectural ideology superimposed on a landscape that belongs to a general populous. Iconic buildings can be iconic for their form or clear ubiquitous function. While contrastingly, contextualism in architecture references the natural landscape and the built context around it.

The building being explored in this dissertation is created in an attempt at finding this fringe zone and being iconically contextual or contextually iconic. (Dr Arthur Barker Futurespaces.co.za)



© University of Pretoria



Parti diagramme of connecting functions and open spaces.

General Issue of Architecture on Site.

The site with it's plethora of functions and intended or unintended use tends to diverse architectural form. These forms have no apparent discourse between each other. They only speak an internalised conversation of self-referential importance, instead of stylistic and formal lucidity that assists in the understanding of the space and times - the zeitgeist - that the architecture was built in. What is necessary is an iconoclastic architecture that openly elucidates the programmatic intention as a lingual repository. At the same time it must also encourage the union with regards to its immediate context, albeit an urban scene with juxtaposed and conflicting histories, each requiring a justified memorialisation.

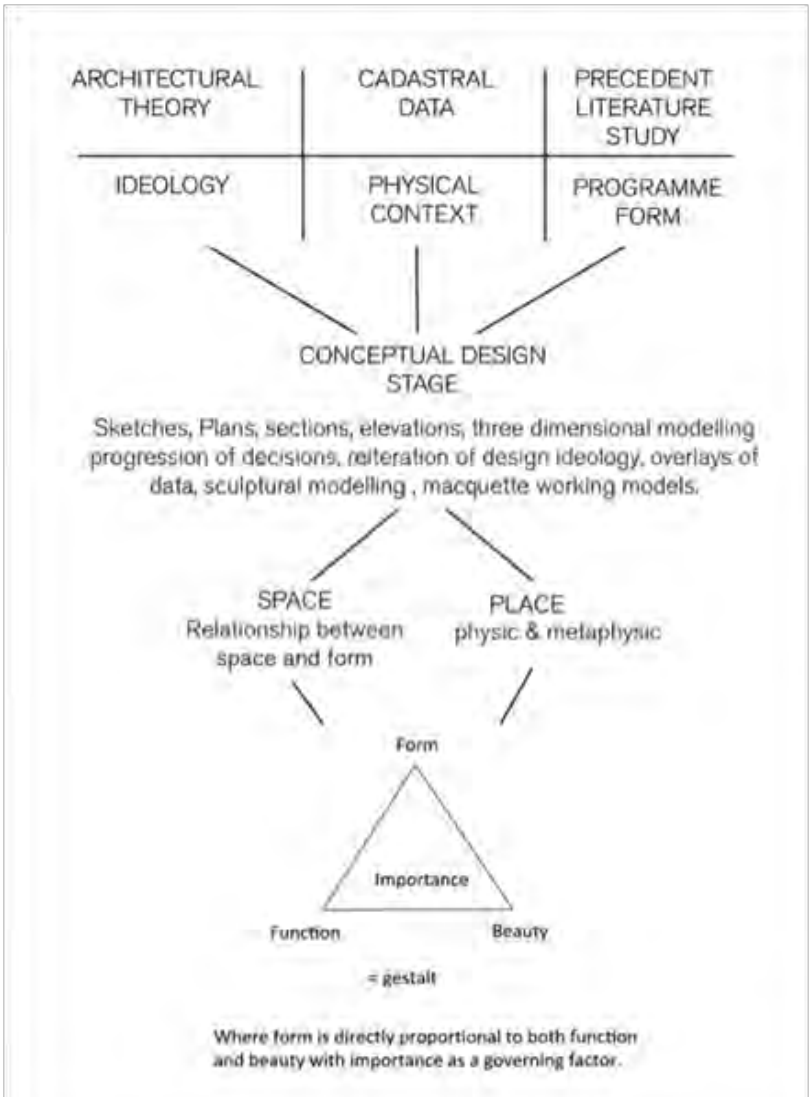
© University of Pretoria

Research Approach

An epistemological approach to architecture will be explored, By first researching and understanding built form, conjectures can be made with regards to the architecture that can be inserted therein.

Research Methods

This image shows a research methodology that will be adopted to further investigate the insertion of an architectural intervention on site. It is a complex iteration cycle that will be revisited and checked against itself throughout this investigation.



© University of Pretoria

Main Problem Statement.

What is required is a new image of iconoclasm that references history of the place and provides a fitting zeitgeist for future generations to concisely understand the present. It should also present a sphere of contextual sensitivity to the built environment it exists in.

How not to be a superficial imposition on the landscape and urban fabric.

How to be of surface, not surface architecture.

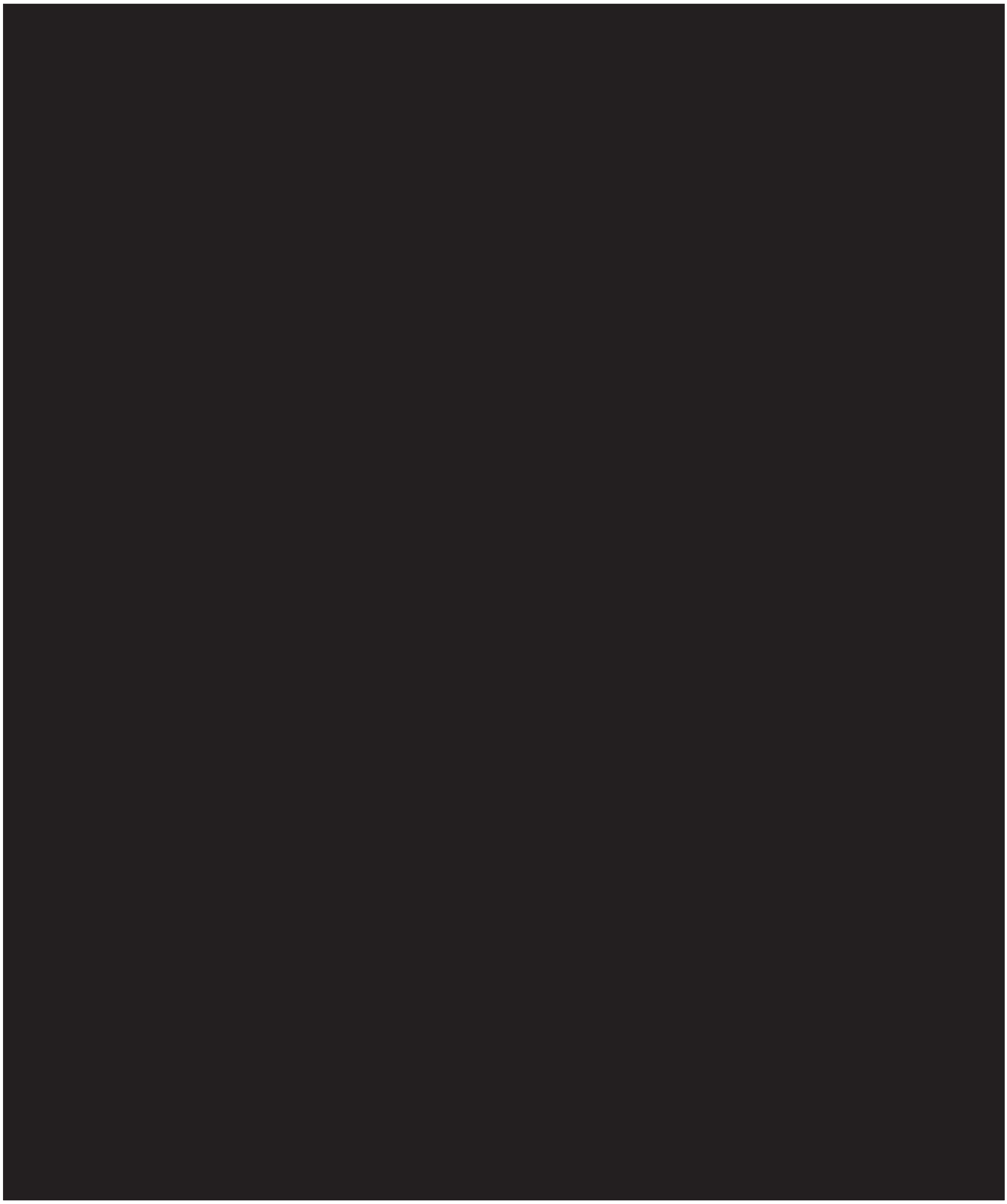
Whether architecture itself has a universally understandable language.

Whether it is possible to have architecture that is self-evident in its formal language and not encoded in precognitive enigma.

If studies of preconceived architectonic languages are undertaken over time it becomes plausible to determine languages for contemporary architectural understanding.

Whether language and meaning be extracted from tangible and intangible meaning of one's surroundings and its extant context.

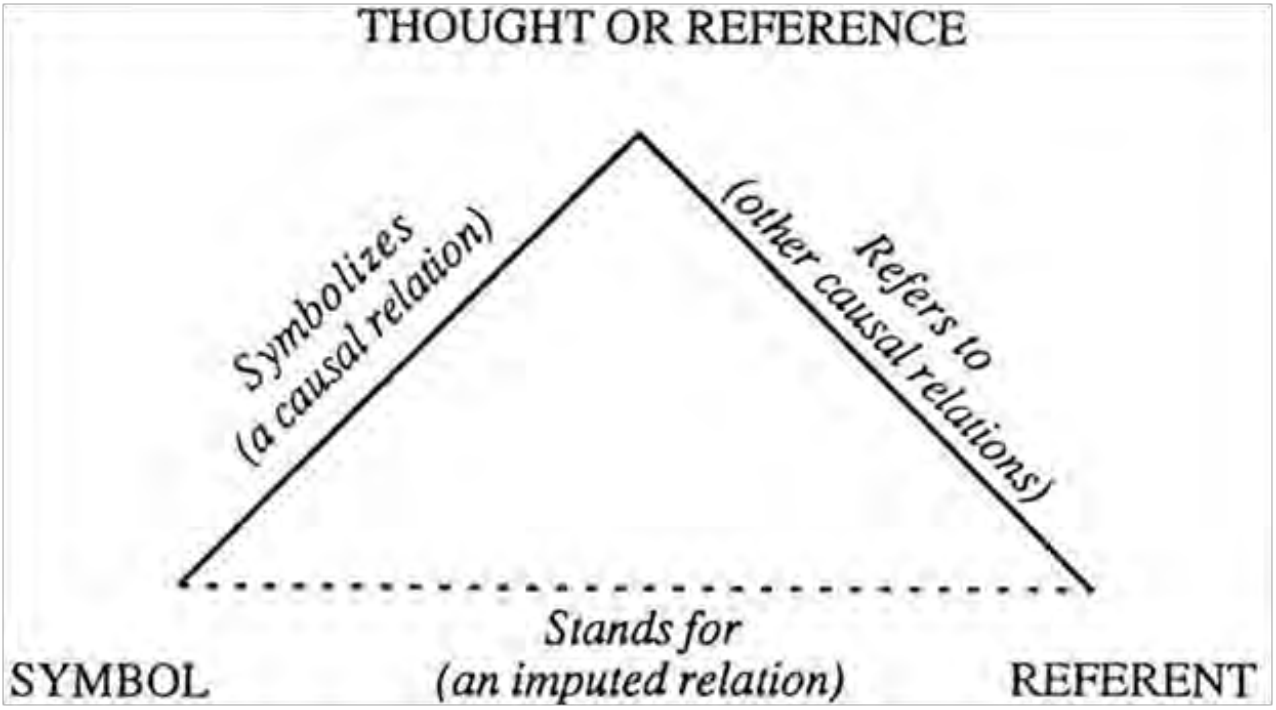
© University of Pretoria



© University of Pretoria

PART TWO
SEMIOLOGY

© University of Pretoria



Linguistics deals with the structure and meaning of languages.

Semiotics is a branch of social psychology that deals with non linguistic sign systems.
Semiotics consist of three main parts namely:
Semantics: The relation of the sign and things which they are referring to. - their meaning or denotata.
Syntactics: The relation of the sign among other signs of a formal relationship.
Pragmatics: The relation between the signs and users thereof

Semantics therefore refers to signs or sign systems
Syntactics therefore refers to the rules that govern how words are combined to create a sentence
Pragmatics therefore refers to the biotic aspects of the phenomena. The psychological, biological, and sociological aspect of the sign system.

Semiotics is often studied within an anthropological context and pertains to human signs and signification.
Umberto Eco stated that “every cultural phenomenon can be studied as a communication.” While John Locke understands semiotics as a doctrine of signs, from the Greek - Semiotikos - it was a branch of medicine that delay with symptom interpretation.

© University of Pretoria

Formulations of the sign:

Signs and sign systems are classified according to their relation to the way that they are transmitted. Within the anthropocentric context they can have three forms that govern the way they are dealt with. Carrying of the meaning depends on the use of code. It could be sonorous, gestural body movements or a general bodily appearance such as clothing.etc. All of these factors connote a certain residual image of a person and become their semiotic beacon of interpretation within the context of society.

A word that refers to a thing is known as a lexical word. They, by nature, have to have a communally understood simple meaning. This denotative meaning transmits meaning within grammatical and structural codes. This is the syntax and semantics of the code. These codes then represent the values of culture and add connotation to life's aspects.

Cognitive semiotics deals with signification and its manifestation to humans in a cultural practise. This concerns the study of meaning making - by method of conceptual and textual analysis and experimental investigation. Spatial cognition refers to knowledge or knowing in sentient beings and acquiring of that knowledge. Components of the mental structures include : thinking, imagining, perception, learning, memory, linguistic and nonlinguistic communication, reasoning or problem-solving.

Spatial beliefs on the other hand are acquired, developed, mentally organised, used deductively as reason, and then used as a navigational device.

Language and graphic symbols are used as a spatial communication device, but they are also measured against reasoning and spatial belief which are similar according to certain individuals. They affect human emotion and behaviour. They occur in contexts which are either real or imagined. They focus on space, place and environment.

© University of Pretoria

Architecture in this sense has an influence on cognition and behaviour, by allowing, facilitating, requiring, impeding various thoughts, perceptions, emotions or acts. It becomes the vehicle for the interpretation of signs. Physically it achieves this by : A wall literally blocking sound for example, but mentally, visual patterns are used to stimulate aesthetic responses and invite exploration into the understanding of the sign. Architecture also has a means to sensory access referring to the seen and heard. It draws attention to what is looked at and listened to. The memorability of a building becomes important to the meaning it conveys.

The architecture proposed will deal with the idea of providing a platform to observe and report on the semiotic nature of the city around it. The study of human communication becomes integral to the programme of the building as the idea of a semiological interpretation for the understanding of the urban site as a built context.

Semiotic Premise of Understanding

The question remains is why architectural semiotics are still not quantifiable to the point of useable interest? This is because most architectural objects communicate nothing but function. - a roof serves to cover a building, and that is why it looks as it does. Semiotics provides keys to the understanding of this cultural phenomena by fully understanding the semiotic function. A phenomenological consideration of architecture as a system of communication, while still recognising it's functionality, is ultimately sought.

Three major identified communicators within human society are addressed, then analogously compared with each other in terms of overriding principles in order to define a stance for understanding an architectural communication system. They include: Language, Art, Architecture.

These are the spheres of human society that will be compared by analogy within this chapter, to find a common denominating factor to the other, in order to find overriding formal logic or as a means to an abstracted architecture which in a semiotic manner, draws directly from its urban context to ratify it's existence in a formalistic sense.

© University of Pretoria

	Level 1	Level 2
Signifiers An expressive code refers to the conotata (Second function)	Form Space Surface Volume Suprasegmental properties: Rhythm Colour Texture	Noise Smell Tactility Kinaesthesia
Signified The content of code refers to the denotata (First function)	Iconography Intended Meaning Aesthetic Architectural Idea Spatial concepts Society or Religion Function Acitvity Way of life Commercial Goals Technical systems	Iconology Betrayed meaning Latent symbols Implicit functions Anthropology Proxemics (personal space) Land Value

Semiotics Within a Historical Context

"In essence the nature of architecture is diverse enough to defy all attempts at definition, but is elastic enough to make them all partly correct. It obediently follows the definers wish evolving like the bionic woman in whatever direction the scriptwriter has mapped out. Architecture like the woman of virtue is highly suggestible." (Jencks, 1969)

For Jencks in the past it was all about identity, place making and personalisation. In Jencks's time - the 1970s, it was all about energy, environment, ecology with syntax, semantics and sculpture as separate but equal spheres of interest.

The beginnings of semiotic thought started with Vitruvius around the first century BC had his architectural ideologies centred around order, symmetry, eurythmy, arrangement, propriety, and economy. His structural ideologies referred to firmness, commodity and delight.

© University of Pretoria

Firmitas - firmness - durability of the structure
Commoditas - comfort - convenience of the structure
Venustas - delight - the beauty of the structure

As for Walther Gropius in 1919, when asked the meaning of architecture - "It is the crystalline expression of man's noblest thoughts, ardour, humanity, faith and religion.

Christian Norberg Schultz a popular phenomenologist of the 1970s stated that " Architecture is a concretisation of man's existential space" but also states that architecture is conversely as polymorphous and malleable as life itself. Architecture according to Schultz evolves around sociology, planning, politics and psychology.

Charles Jencks wrote a contemporaneous commentary on these views and coined the idea of "signifiers and signified" were based on Pierce's semiotics theory.

The signified refers to an idea or a set of ideas about a certain signifier. This signifier could pertain to either forms, spaces, surfaces and volumes in the architectural sense - which refers to rhythm, colour, texture and density. Other systems of expression include : noise, smell, tactility, kinaesthetic quality or heat/cold etc.
These determine the architectural code of the city and form the sign vehicles that create an architecture.

The Saussurean model of linguistic theory ratified a structuralist manifestation of language. It is not completely accurate because architecture as a language can only be achieved when compared as an analogy or metaphor of another architecture.

The smallest unit of speech sound which is called a phoneme, can be compared to the smallest unit of building - a brick. Similarly the smallest unit of meaning - a morpheme can be compared to the smallest unit of construction - a window. This therefore proves that buildings are not merely constructed from the elements of language nor are these a generalised consensus as to which elements correspond with each other.

The idea of a signifier or signified when compared in an historical semiotic context gives light onto understanding the difference between the two.

© University of Pretoria

Semiotic theorist	Saussure	Scalvini	De fusco	Eco
Signifier	A sound image by which a word is dictated	The building's exterior	The building's exterior	An architectural element like a staircase.
Signified	The concept to which the sound image refers to.	The building's interior.	The building's interior	The act of traversing such a staircase.

Signification and Meaning

Signification and meaning in architecture. - From signs symbols and architecture JENCKS BROADBENT

With reference to Charles sanders Pierce, an american philosopher and semiotician in 19th century America. Pierce provides a good base for the understanding of semiology - based his theories on influences form both Saussurean and Piercian semiology.

He refers to his trichotomies of semiology:
The icon- which reminds one by resemblance.
The index - which is understood without precognitive cultural knowledge
The symbol - a word/building which needs social understanding

Signs according to Pierce have an indexical vs iconic relation. Indexical refers to the signifier and referent being directly and proportionately connected. Iconic signs are when the signifier is not part of the referent but it depicts it transparently. A symbolic sign is when the signifier is considered arbitrary and only exists in reference to other signs.

Signs: they can be either of a symbolic indexical or iconic in their nature
Symbol. The base level of a symbolic sign. It's conventional usage sets the arbitrary relation between the signifier in the signified - it refers to the appropriate use of revival styles.
Index: is in existential relation between the signifier and the signified- this is usually learned by the perceiver over time and disguised as symbolic signs. - example a stop sign meaning stop.
Iconic signs: these have a different set of relations between the signifier and signified but are both indexical and existential in relation. For example a hot dog shaped hotdog stand, pie/ wedge shaped auditoria, tubular circulation, structurally shaped bridges (the bridge never appearingly matches the forces going through it)

© University of Pretoria

Forms and materials are used according to the general and emotional overtones for example red can be seen as aggression of passion etc which leads to colour theory in semiotics.

Psychological nativism refer to the concept of “hardwiring” of thoughts. Immanauel kant in his critique of pure reason” was used to indicate that humankind knows objects in an innate ‘a priori’ way. In contrast to empiricism - the blank slate or tabula rasa type worldview, which states that the brain has innate and inborn capabilities for learning from the environment, But does not contain content such as innate beliefs. It will rectify is the idea of cognitive potential but denies that all humans are preprogrammed to act.

While Foucault’s emphasis is on the disciplinary technologies of modernity, Deleuze and Guattari seek to theorise and appropriate all of modernity’s positive aspects as the decoding of libidinal flows initiated by dynamics of capitalism (Deleuze for architects 1980:3)

“it’s nice to talk like everyone else, to say the sunrises, when everybody knows it’s only a matter of speaking”-the earth revolves around the sun which also has an orbit, therefore to say the sun rises is actually misnomer. “sunrise is a very limited and earthbound condition”

According to Tim Adams who did a comparative study in semiology which started at the genesis of Pierces ideologies of ‘pragmatics” which Deleuze and Guattari term “schizoanalysis” (Deleuze & Guattari 1993:146) Pierce’s pragmatism is a method of establishing meaning. Based on the practical effects produced - based on not what the thing is but what you can do with it.

Icon: which signifies an object by resembling it: a painting of a fire\
Index: which signifies by really being affected by its object: smoke indicating fire
Symbol: which signifies by depending on a learned convention” shouting FIRE in a theatre.

To Pierce, and image is an icon. A diagram can have an icon index awesome all in very degrees a predominantly iconic diagram which represents the creativity of a conventional sign and connectedness to the real of the indexical sign. A diagram is important and can represent essentialist relations of parts of one thing with analogous relations to its parts. Diagrams are not resemblances although sensuous resemblance is not ruled out they are veridically analogous to the thing being represented.

© University of Pretoria

- this gives diagrams a sense of truth about their objects, diagrams become the link of art with science. They become abstract machines to deleuze " on the cutting edge of creation and territorialisation.
"Deterritorialisation to the partitioning and coding of any continuum whatsoever whether it exists in time or space.

Refrain : a clock tower which marks the hours of a day for organised labour. A national anthem that includes some and aliennates others. Or tribal body territorialisation by inscribing it in rites of passage. Capitalism in this sense deterritorialises someone as not being the owner of his or her body and purely a lost being in the sea of commercialism.

Deleuze +Guattari when referring to the trans-semiotic regimes of signs, refer to pre-signification signification, counter signification and post signification of any one particular denotation.

"All semiotics are mixed and not only combine the various levels of content but also combine the different regimes of designs." (1993.119) The diagram of Deleuze and Guattari is one that is a transformation that blows apart all semiotic systems hence "a signifying diagramme" this diagram is an abstract machine that is in itself not physical or corporeal, any more than it is semiotic' It is diagrammatic and knows not the difference between the real and artificial. matter over substance and function over form.

Systems of signification are built up over time following the adoption or reuse of certain forms and their position with respect to other forms.. The signifier which pertains either to a word/symbol or form connotes a signified thought or content which may or may not denote something (a referent; object ; or natural function)

Contrary to Jencks theory, Umberto Eco and Maria Luisa Scalvini place use and denotation prior to aesthetics and the connotation. They are interchangeable to some degree because neither can claim priority or historical genesis of use > symbol or function > idea.

What must be made clear at this point is the clear difference between a depiction and a description.

The sun	Depiction of the sun
propositional	imageistic
discrete symbology	gradient marking
basically arbitrary	basically ironic
decode to interpret	imagine to interpret.

© University of Pretoria

The Relationship Between Architecture and Linguistics

Words such as functionalism are misused by architects and critics. The concepts that are used in discussing them and the words by which they are defined belong to the realm of linguistics, not that of architecture. The question is which mode of linguistic analysis can be used to apply to the language of architecture'. The language is defined as a system of signs as seen in Saussurean semiology - and that which it seems as an as aspect of communication. Contrarily Pierce's and Morris' semiology, which focuses on language existing in a particular movement in time and aims to find rules by which language is generated.

As in Noam Chomsky's generative and transformational grammar rules, learning can be done rationally, epistemologically or empirically. Rational learning refers to learning on the basis of innate ideas as a conception point for locally developed and self consistent theories. Learning epistemologically and empirically on the other hand, is to understand everything humankind knows as based on past experience.

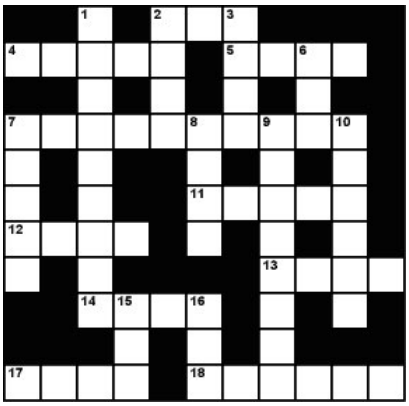
The difference between internal indoctrination which refers to precognitive thought versus a humanist collective consciousness is thusly explored.

This idea of operational conditioning can be attributed to the Pavlovian dog experiments, where a classical conditioning reflex was theorised. Pavlov's dog experiment was to prove a conditional reflex in dogs that start salivating before receiving a biscuit treat. The experiment implied the possibility of precognitive ideas.

The phenomenon of collective consciousness on the other hand, is illustrated with one major example- The Crossword Puzzle phenomenon as conducted by Monica England, a graduate student in Britain.

England's research essentially found that crossword puzzles were more easily solved by others once they had been published in a newspaper and completed by a large group of people.

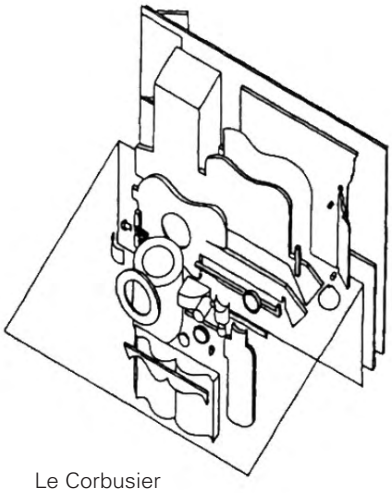
This research points to the existence of a collective consciousness. As the crossword puzzles are viewed and completed by a critical mass of people, the information becomes part of the collective consciousness and can be transmitted from one mind to another. When such phenomena occur, there is no other explanation than a collective consciousness, or the idea that we are all linked by an underlying universal consciousness.



http://amedram.com/wildflowers-a-z-alphabet/

© University of Pretoria

Empathic Imagination



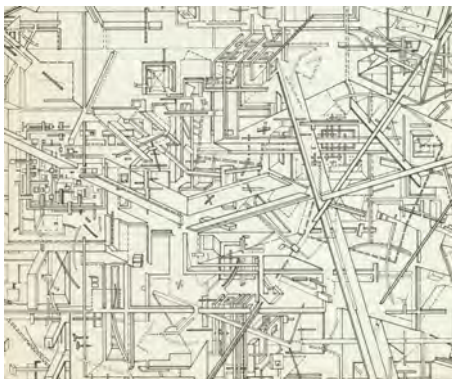
Le Corbusier

Aulis Blomstedt (1906–79), Taught Juhani Pallasma 'The talent of imagining human situations is more important for an architect than the gift of fantasising spaces" This statement was made in accordance to architecture not merely being involved with the formal, visually aesthetic, and compositional qualities of the design, It also guides, choreographs and stimulates the actions interests and moods in people. It gives are experiences of being specific content and meaning. Place and situation are tuned in a specific way which project a specific atmosphere.

There are two kinds of imagination, according to Pallasma, in 2011 formal and empathetic
The formal imagination pertains to topological or geometric facts. One that projects formal and geometric images - while the object remains out of the experiencing self (an object in isolation). Empathetic imagination refers human centric emotive judgements moods and experiences.

Le Corbusier photo - author

The sculptor Henry Moore refers to solid shape as form, volume and space as inseparable entities and worked on them as multi-sensory entities. Art becomes a product of the experience of human beings interacting with their environment. Human beings in formal structures and qualities have significance in perceptual process, but they are merely the intellectual scaffolding for experiential and sensory reality. Art can be divided into physical matter and mental imagery. A test of the validity of these ideas is to project imaginative personal influence into the work. The architectural design process starts with architectural ideas or aspirations, particularly emotive quality, emerging as initially immaterial mental feelings in design process, but then translated and transferred into the building and finally to the person experiencing it. Liebeskind's Micromegas and Le Corbusier's cubist layering of planes are a great example of both existing simultaneously in mental imagery as well as physical manifestations. This marks the dual nature of art - it' s ability to have a three dimensional connotation.



Daniel Liebeskind's Micromegas

According to Pallasma, design is a vague and alternating process of internalisation, projection, thinking and feeling which eventually becomes more precise and concrete. Zumthor's immediate feeling granted by an context - gives rise to the mood of the materiality of an existing room. It also has the ability to sense the atmosphere and tune of the space, projecting the image of itself onto the perceived object.

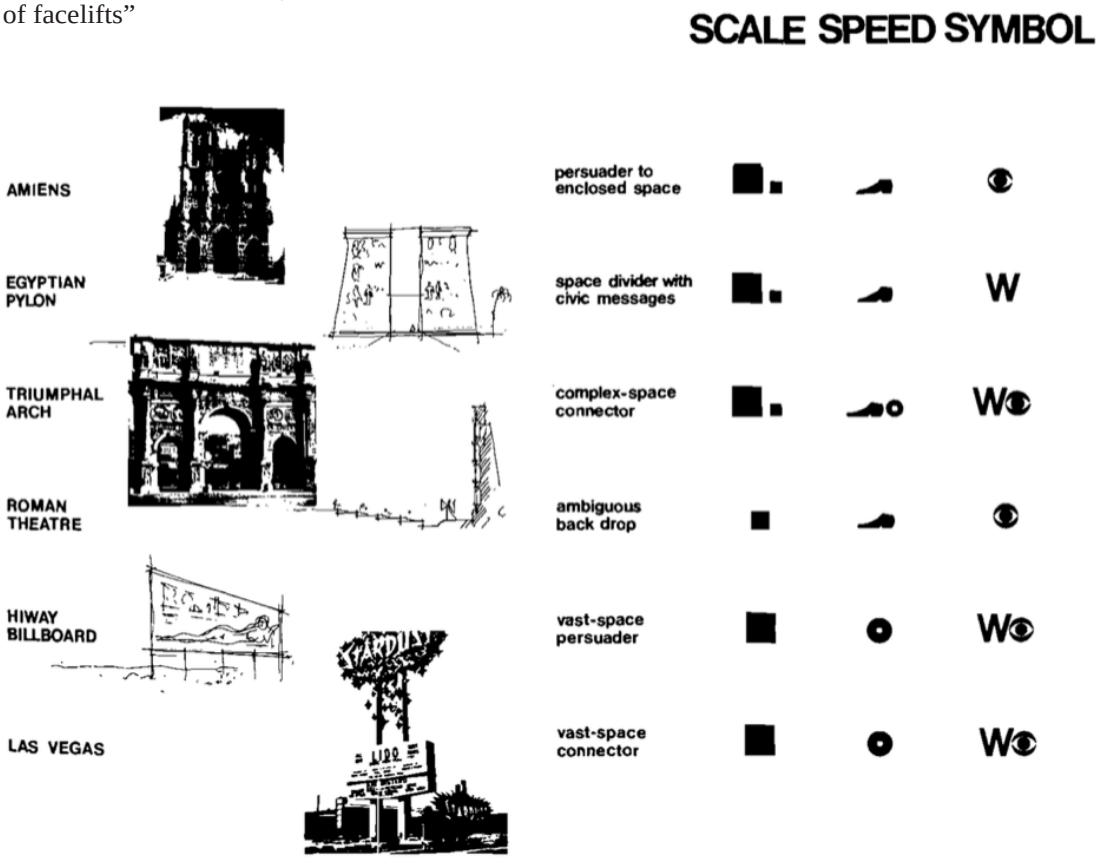
© University of Pretoria

Human empathic imagination refers to the capacity that someone can imagine something no- one else has imagined and also bring that vague vision into the context of a physical or lived reality.

Semiotics Within an Architectural Context

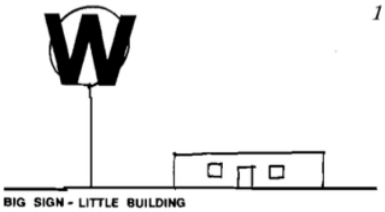
Semiotics reentered into the architecture in Italy in the 1950s, with theoreticians such as Maria Luisa Scalvini and Umberto Eco. It started as a reaction and questioning the international style, looking for local and regional responses to the flaccid esperanto of the international style. Semiotics then became a fashionable topic of the architectural discourse in the US with Robert Venturi, Denise Scott Brown and Charles Izenour with their seminal work - learning from las vegas.

Venturi states on page 37 “the rate of obsolescence of the sign seems nearer to that of an automobile than that of a building” This is based on the sign competitors which change at fast rates. The most unique and monumental parts of the las Vegas strip - signs, casino facades- are the most changeable and malleable to changing interests. It is the neutral systems such as the motel structures that are situated behind these ever changing signs that survive a “series of facelifts”



16. A comparative analysis of “billboards” in space

© University of Pretoria



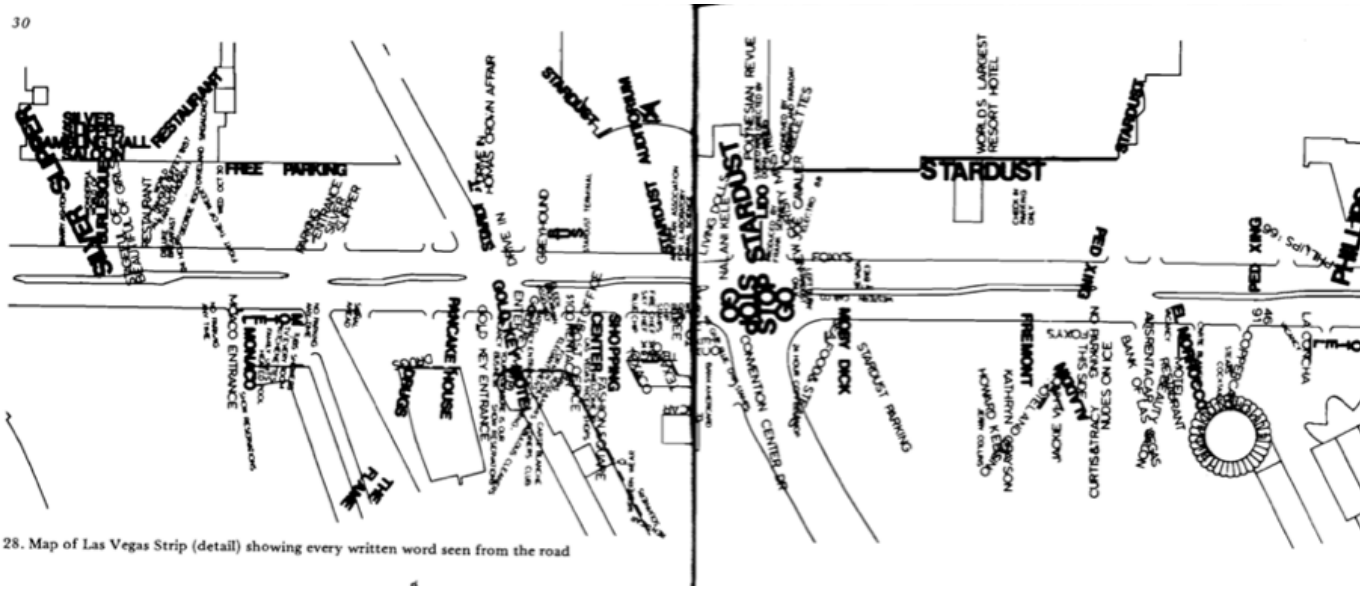
15. Big sign-little building or building as sign

p17 - learning from las vegas.

This leads to the concept of the validity of a commercial vernacular. The tshwane 2055 vision for the city of Pretoria/tshwane closely aligns with the commercialisation of the church street strip as a hub of commercial interest. I believe it is appropriate in a context devoid of historical relevance like that of las vegas, an oasis in the Mojave desert, but falls meaningfully short when superficially applied onto the historically rich palimpsest that is the urban fabric of Pretoria.

Las Vegas is seen as the city of self proclaimed commercial messages of roadside neo-historicist eclecticism. The commercial message is created when the sign itself becomes more important than the building itself, because of the message it portrays. “This architecture of styles and signs is anti-spatial” it therefore becomes an architecture based on communication over volumetric space - where communication is dominating the landscape.

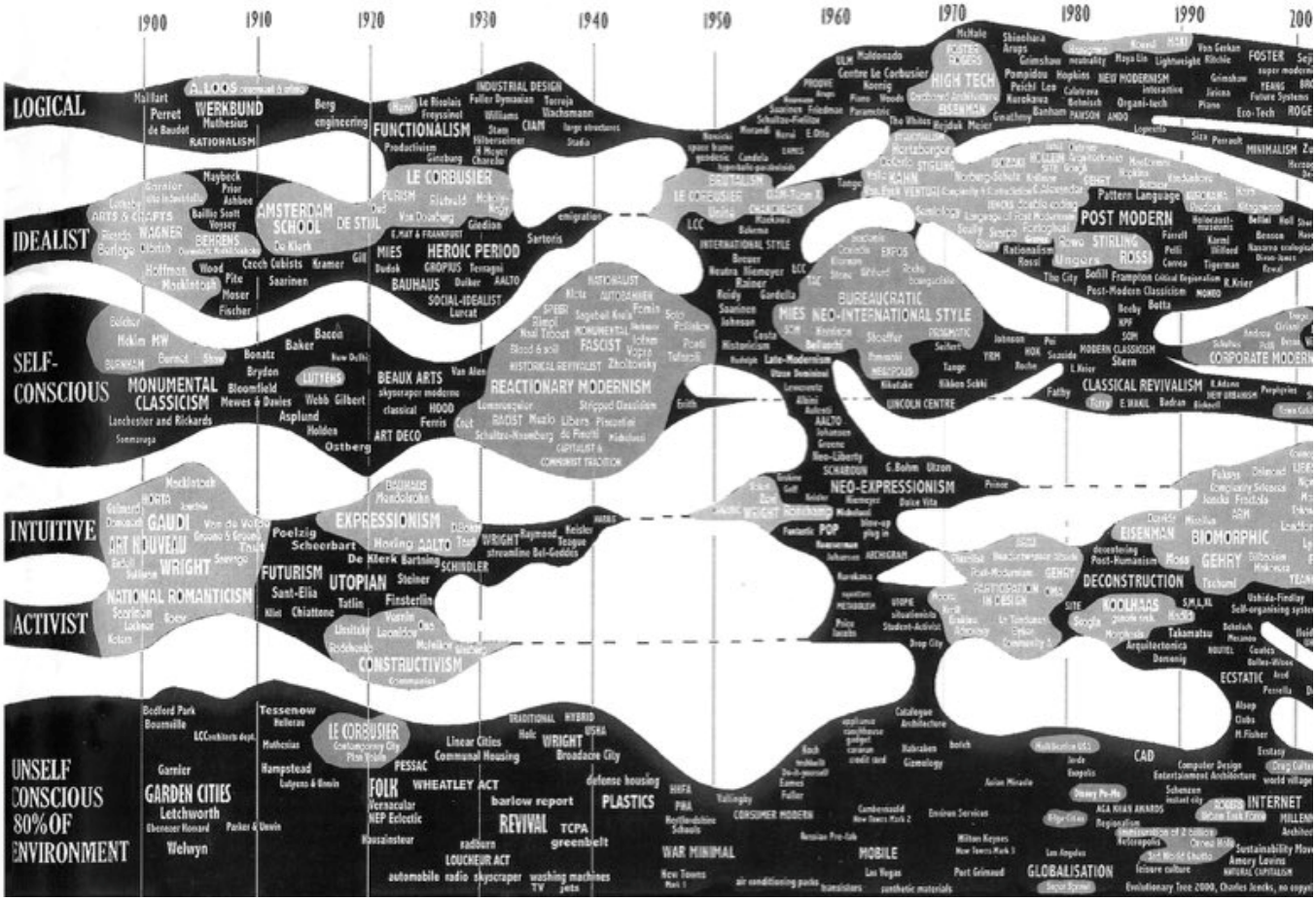
The roadside neo-historical eclecticism has “philosophical associations which evoke subtle or complex messages of meaning which are to be savoured in the docile spaces of the traditional landscape” (Venturi1969:3)



28. Map of Las Vegas Strip (detail) showing every written word seen from the road

Contrary to Saussurean semiology, the fact that the sign becomes more important than the object it is signifying, it then alludes to the connotation and denotation of the sign becoming more important and necessary to understanding the function contained in the building than the building itself. The building becomes secondary to the meaning of the sign. Much alike Magritte’s image treachery, or the idea of a visual scandal. The image being portrayed becomes more important than the object itself, or that the caption denotes that admission of truth.

© University of Pretoria



The las vegas strip shows the value of symbolism and allusion in an architecture of vast space and speed. It proves that people, even architects, have fun with architecture which reminds them of something else– A sense of nostalgia is instilled. Not necessarily to a specific thoughts but purely as a means to an illusion for allusion's sake. " the commentary that is placed on both past and present or on a great commonplaces or old cliches; and the inclusion of the everyday environment– The sacred and profane– Is what is lacking in present-day modern architecture"

© University of Pretoria

The symbol before form in space: las Vegas as a communication system " Wellcome to fabulous Las Vegas, free aspirin, ask us anything, vacancy, gas." is what is lambasted on the entrance sign to Las Vegas. Jencks states : Venturi, like the typical modernist which he means to supplant, is adopting the tactic of exclusive inversion" this refers to cutting an entire area of architectural communication away. The duck buildings, which exemplify the form they are trying to identify or the decorated shed with symbolic signs which become more potent than the building itself.

The analysis of Las Vegas as a phenomenon of architectural communication:
"an analysis of a Gothic cathedral structure will not debate the moral implications of the medieval Christian religion" therefore in the same sense, no moral values of gambling and competitive instances of commercial interest are questioned in Las Vegas. Only principles of semiotics are compared analogously to a study of method not content. Methods of commercial persuasion in the skyline of signs becomes the modern trend of the exclusion of the vernacular modern - it becomes improved and universal.

Modern architecture focuses explicitly on the sacredness of space, the essential ingredient that separates architecture from painting, sculpture and literature. Even though painting and sculpture can have spatial characteristics the opposite in principle is not allowed. Sculptural or pictorial architecture is unacceptable because space is sacred. When considering architecture as space purism was seen as a reaction to the Baroque 19th-century eclecticism which draws parallel to Mircea Elliade's myth of eternal return. In this book he notes on the cyclicism versus historicist time. its main theme is that the idea of time and belief will always cycle between a sense of Humanism or a scientific exploration and acquiesce. - the peaking and troughing of human belief paradigms.

This can be compared to Charles Jencks' style chart which indicated the reoccurrence in schools of thought over time. Or to the Renaissance idea of an Ouroborous, and this refers to a snake eating its own tail, is an alchemical physical symbol of recurrence in history par excellence.

© University of Pretoria

Architectural theory from Renaissance to the present Taschen

Le Corbusier 1887- 1965 was one of the main protagonists in the modern movement along side Alvar Aalto In Venturi's starts to identify the roots of contradiction architecture. His premise is varied in complexity and contradiction in architecture. He acknowledges that He wishes to offer a critique of architecture in order to justify his own work. With the premise not to objectify, but to give artistic license: he examined those aspects of architecture which interested him - mainly the complexity and contradiction thereof. Venturi postulated, in an anti-Miesian manner that " more is not less" as a rebuttal against Mies' Famous quote "less is more". The Miesian and Loos' lack of ornamentation was that which characterised the birth of the modernist style. The achievement and cultivation of this hermetic style, was done by ignoring many factors and societal needs for symbols. Demonstratively less, forms of a unification of ambiguity in modern architecture become quite boring to Venturi.

Villa Savoye with its simple exterior but complicated interior proved that Corbusier was the master of subtle but effective rule making and breaking. Venturi refers to literature and art in Las Vegas learning his second book. Using photography, maps and diagrams he demonstrates the seductive characteristic architecture of Las Vegas. With reference to how parking lots, advertisement boards, street lights and casino designs function with respect to each other.

It had less to do with a real architectural forms such as that of the Villa Savoye and more to do with architecture as a means of communication. Symbols dominate the space, not a architecture, with their sculptural form, neon lighting, and formal falseness that takes over the actual architectural form and it's validity within the context of architecture across time. In spite of this cacophony of chaotic messages, Which the writers do not deny, they find clues for the design of an animated, multifaceted and contradictory city would you do it exists in mockery of modern ideals.

Taken from Peter Blake's: "Gods Own Junkyard" which refers to the planned deterioration of America's landscape - Shows a duck - this duck, fast food restaurants specialising in poultry on a country road takes the form of a giant duck. The building becomes sculptural in its own right; symbolic form has taken over the architecture - contrast and then with the decorated shed which is no more than functional box dressed with symbolism. This decoration and the sign which is added on to the roof, or a second front wall for façadism indicates that its function is totally independent from the architecture.

© University of Pretoria

While in the duck, the architecture is the symbol and fulfils the function.

Venturi fundamentally accepted the duck and shed. He drew attention to the fact that they both have their place in architectural history. He believed the Cathedral in Amiens was also a giant advert to christianity with a functional shed behind it - which because of its symbolic form is still a duck. Modern architecture dictates that the role of the duck is not lost. It still has its gravitas today for the understanding of anything that countered the modern movement could ever be understood.

Language Games.

According to Ludwig Wittgenstein - links between words and meanings derive neither from any finite correspondence with objects (realism),nor do they form any shadowy 'inner meanings' (dualism/ambivalence) but always from their USE in any social situation. Human language is purposeful - there are as many languages in the world as there are customary forms of behaviour.
Furthermore it must be noted that the meaning varies according to the behavioural context in which words are used. For example the word 'fix' has a very different meaning to a handyman or an addict. Wittgenstein's language rules are not grammatical rules for language but rather behavioural rules that govern the use of language also dictates that variations of meaning reflect distinctive subcultures with their own internal dynamics. The meaning is also shared therefore behavioural rules fall within a social context.

Original Staunton chess pieces, left to right: pawn, rook, knight, bishop, queen, and king Photo used by permission of Frank A. Camaratta, Jr.; The House of Staunton, Inc.; houseofstaunton.com - http://en.wikipedia.org/wiki/Image:JaquesCookStaunton.jpg,

The meaning of a chess piece according to Wittgenstien's language games - *20

The meaning of a chess piece is not given in any one to one simple relation between the name and the chess piece, nor in it's specific use. The meaning is given by its position within the entire range of possible moves of all the chess pieces on the board, as governed by the social rules of the game of chess. Such meaning only makes sense if the players agree to abide by the rules of the game. Therefore to enter into any language is a tacit form of social contract governing the use of words in a particular context of human action, unlike a sentence, a language game cannot be analysed in terms of rules of grammar alone, but must be analysed according to both behavioural and grammatical rules.

Wittgensteins theory also stresses the relation of language use to the function codes of behaviour and modes of expression.

© University of Pretoria

This tends to the idea of linguistic relativism again which pertains to the rightness or wrongness of any particular statement relative to the criteria set up by specific rules of the language game.
The unique aspects of this language game - Its own integrity, style, and set of logical principles . The understanding of an individuals use of that particular game is achieved by a process similar to that of empathy.

Empathy in understanding a buildings given intention, meaning and denoted function becomes tantamount to the understanding the contextual position and validity of the building within the greater urban context. By means of the observer adopting the criteria and outlook of the language user on his/her own and by looking out at the world through linguistic spectacles. When applied to architecture a strong thesis of relativism results in a conclusion much alike that of Watkin's theory. Architecture is conceived as a language game all of its own, with its own independent language traditions and aims.
From this point of view architecture as "something else" is to deny the integrity of the architecture and is doomed to fail. Architecture can only be understood from within, according to terms of its own internal criteria established by a historical and empirical basis of architecture.

According to the theory of relativism, it is impossible to be unique without the comparison to something else and different. Relative autonomy in architecture with regards to meaning interpretation, is considered very important and as something else entirely. The analogy of architecture within a context of language therefore provides an opportune platform for focusing on the qualities and attributes of such an architecture.
Language games rely on manifold ways in which we use language to give form and meaning to life.

The language and behaviour relation suggests that even within the same language speaking community, differences in language use reflect significant changes or differences in sub cultures. Therefore the architecture involved is properly interpreted as a semi-autonomous language game subjected to its own rules and criteria but also to influence from external sources. Stressing of the qualified creativity in architecture as in other realms of human activity which depends on open interaction with other culture forms. It does not necessarily follow therefore that architecture ought only to be assessed within its own terms as a form of artistic creativity and not an art form.

© University of Pretoria

The three evaluation types of comparability are:

1.To evaluate it according to internally established rules (the knowledge base merely increases in terms of existing rules or criteria.
2.To question the rules and criteria which led to the behavioural theory or product.
3.By the complete substitution of one set of criteria completely by another.

The history of typological meanings:

The ‘cheese grater’ as an arrangement of precast units for a parking garage. Or a truncated wedge or pie shaped form denotes an auditorium, this can be understood as visual acoustics from the outside and signifies that something inside will be of a cinematographic, theatrical or musical nature.

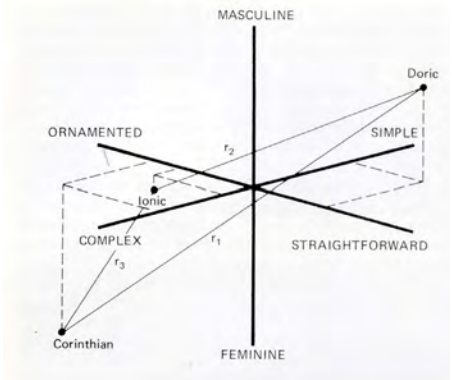
First basing unfamiliar units, are metaphorically mapped onto systems that are already known, in analogous way means that this metaphorical activity by necessity is an aspect of all thought that it is creative. It becomes crucial with respect to modern architecture simply because it is unfamiliar. Unfamiliarity brings a sense of excitement and in that manner it is unique.

On the other hand buildings can be metaphorically condemned by their forms for example: “that shoebox, filing cabinets, clothes irons, home has machine. etc this refers to the nicknames people colloquially give buildings with recognisable forms. This metaphor usually detracts from the iconoclasm of the building but sometimes it is a means to publicity anyway. For example the “tissue box” or “toilet bowl” that is Cape Town’s soccer stadium. The modern movement actually applauded these unexpected associations. This tends to the idea that an architectural possibility of a sign which gains cumulative meaning over time, or the meaning that changes according to societal desire.

20th century architects such as Le Corbusier and Walter Gropius tried to establish a universal language or ‘esperanto’ of ideology which they hoped would naturally grow out of the laws of function, structure and perception. The purism of Corbusian thought, was meant to be transcultural and not based in learning history and symbolism. Pier Luigi Nervi believed architecture was evolving towards I’m changing forms based on structural universals. The international style is largely based on this type of iconography, but it didn’t communicate the exact intention because it is too symbolic .

© University of Pretoria

In this picture it indicates the Doric Column which has overtones of rationality security and sobriety. These orders are invariably connected to functions by usage and are mostly functions of the symbolic sign.



This proves that the architectural sign is more indexical and iconic than the linguistic sign, which is relatively more symbolic. Therefore architecture can be more motivated than language. When language and the symbolic sign are arbitrary, the relation between the signifier in signified is irrational. But rather its initial interest is generally unmotivated ; subsequent use is motivated as the very slow changing nature of language indicates. Most architectural signs our compound, indexical, iconic and symbolic all at once - with one tendency that seems to dominate. Modern architecture is void of natural metaphors and therefore there is no self transcendence, it is therefore obsessively indexical and therefore but banal and literalist simplified into a sense of functionalism.

The specificity of codes from most to least architecturally relevant.

1. A way of life sign - this refers to in habitation and comfort (Clothing, effects and artefacts)

2. A sign of building activity - in reference to the historical process of change in a building.

3. A sign of tradition.- This refers to a sign of personal endeavour, identity and the fulfilment thereof. Ideas or beliefs represented in traditional architectural history is described as iconography. All sign systems fall into this category.

4. A sign of various functions including use. Any social activity, structural ability, environmental serviceability

5. A sign of anthropological meaning. This refers to proxemics refers to the study of the nature, degree, and effect of social spatial dimensions. (as in various social and interpersonal situations) and of how this separation relates to environmental and cultural factors. (merriam webster)

© University of Pretoria

Google earth images 2015 , Al Jawf, Libya

6.Claude Levi Strauss referred to the architecture with regards to the village and the city and how the patterns that were apparent when seen from above dictate a social and economic life difference.

7. A sign of social iconography or economic class: Land value and social systems can be ascertained as a semiotic system.

(Visible and highly juxtaposed division between rich and poor in Sao Paulo – Photo by Tuca Vieira) Or similarly in that of a South African context, the juxtaposition between Alexandria informal settlement in the fore-ground and the financial CBD of Sandton city in the background.

8. A sign of psychological motivation- whether something is hidden, betrayed or overt in phallic or sexual codes for example to "sell" its ideology.
9. A sign of spatial manipulation: The renaissance ideology that space is represented as positively at an interval between the walls and structure, where now the ideology is that space is the void created by enclosing solid positive elements.
10. A sign of surface covering- This refers to the last layer of constructional meaning. It is an expressive code that is most noticeable because it contains the ability to change the entire rhythm, colour, texture, proportion size, smell and tactility of the overall architecture.
11. A sign of formal articulation. The categories of material articulation should be separated from three dimensional articulation. These three dimensional material articulations are based on form, mass and density of the object in question.

Functional architecture refers to when the designer starts with a preconception of a physical structure, E.g a Building framed in steel or concrete with prefabricated panels or masonry infill. These structural preconceptions are stronger in system's building.

© University of Pretoria

Architectural necessities of function.

1. The provision of a comfortable environment with regards to : temperature humidity and light and the control thereof.
2. The protection of particular activities - from the hostile external environment. (safety security.etc.)
3. The provision of symbology for the necessary emotional, imaginative, fantastic and religious stimulation in people. These symbols do not necessarily denote a building, - a cave with paintings could suffice to these rules of necessity.

The archaeologist Professor Leakey in 1954 claimed that a pile of stones found in the Olduvai gorge was used as a wind break over two million years ago. Also, the recent findings in Johannesburg by the University of the Witwatersrand, of Homo Naledi prove that the concept of organised burial was conceived over 2 million years ago. These accounts prove that Australopithecus Africanus modified his natural habitat with respect to the given environment. They also could however been used for symbolic or religious purposes or merely marking an assembly point. Regardless of their intended uses these modifications to the landscape indicate an architecture of intervention and may be the origins of an architectural language that organised that intervention.

Battle of the enduring form - Can Classical be Compared to Organic?

The classical ideal form, comes at the expense of function. Universal standards are kept at the expense of site and client characters. Organic ideal form comes from a direct response to the function itself. The identity of the the client place and region are maintained and kept at paramount importance.

Partisan and prejudiced criticism to both the classical and organic forms form a perfectly normal discourse of opposing theories. Misrepresentation of theories that occurs are essential to both tenets. They present complimentary systems of values that are equally valid and important aspects of the human condition.

© University of Pretoria

Architecture is seen as needing support from all ecological, regionalist and populist spheres. In the same sense it must always revere the ideal. It must be used as a measure of present conditions but also as something to aspire to. It must be self referential, reference all the architecture that has led up to this point in theory and be sensitive to what can and should happen in the future. It can therefore be concluded that the classical architectural is no less a legitimate source of inspiration that is particular to a specific people or place.

Mies van der Rohe's New National Gallery in Berlin. is a good example of this criteria application - but not pertaining to the architectural work itself.

Temporary exhibition at this museum is located atop the glass prism that signifies the open public level while the permanent exhibition is located below the natural public ground level and seems to sit within the base plinth. No evident functional expression of the gallery's programmatic contents represented in the outer public realm.(and therefore not organic) Also the building provides little in terms of flexibility that would allow for adaption into another or multiple uses. It is in that sense iconic in its rigidity and that's what architects have come to revere about the esteemed Miesian building style.

A Miesian square steel modernist pavilion can be compared to an interior of a Sharoun building. Where mies places his emphasis of the building as an object, where the massive spaces have no relation to their function - while Sharoun is concerned with interior spatiality - the interiors directly relate to their programatic function and the forms that surround the interior spaces speak and indicate the nature of the enclosed function.

When comparing classical or neoclassical architectural building tenets to that of an organic style is bound to failure, where one style may portray that ornamentation is necessary for a sense of expression, the other style may be in full opposition to frivolous adornment which to modernism threatened to abolish. A classical or even modernist style represents the purity of form as its priority and the level of expression comes secondarily to this.
The idea of a classical building when understood within the zeitgeist of the advent of artificial light and using that to one's design advantage is a strong exertion of the expressive function of a classical building. Organic tenets on the other hand tend to favour natural light. This criticism fails without the understanding of mies' tenet of purist finality. Finite in the sense that each of his seminal buildings are pristine examples of the classical ideal of the architectural tradition and that the structure is no more complete (or incomplete) than a square steel structure, this makes it a wonderful success as an expression of pure form.

© University of Pretoria

From this it can be understood that the language of the classical versus the language of the organic is vastly different, even though they fall under the same umbrella term of architecture. They have a differing worldview and have different concepts of reality.

A literal interpretation of architecture as a language is unattainable, Architecture has its place in spoken language or as a communicative symbol system. Even though conversely a spoken language can have an architecture or structure.

This comparison of organic to classical may seem arbitrary at first as they are vastly differing schools of thought, but it becomes a paradigmatic lesson into understanding of language games and architectural traditions. Being masterpieces of each tradition, they can become analogously compared as differing systems of belief. When each of the buildings are compared, they represent distinctly different language which is being compared and each of them have their own internal rules and logic. Each offers a different interpretation of the reality that surrounds it.

One may deductively then say that language becomes the bridging translation between built form and the observer that views it, by means of a linguistic and analogous process of explanation.

IDEA	=	IDEA
TENET	=	TENET
VALUE	=	VALUE
PARADIGM	=	PARADIGM
BUILDING	=	BUILDING

Ideas can be compared with ideas , Tenets can be compared to tenets, values with values and paradigms can be compared to paradigms. But buildings cannot simply be compared to other buildings.

This analogy has three main spheres of comparison.
Positively- clearly shared aspects of comparability are being compared between the two
Negatively- Not clearly shared aspects and therefore it describes the difference between the two.
Neutrally- Yet unspecified attributes of comparison will be used but they will reveal their use later - either way.

This analogy is seen as a heuristic and self-empowering analogical tool to assist in the building of a theoretical stance or base for a stance and must be taken solemnly but not in the literal sense.

© University of Pretoria

This draws a parallel to the programmatic considerations of the building itself. There will be a choice upon entering whether the user or observer is allowed to interact by forced learning of information, by voluntarily learning or heuristically empowering oneself to be educated, the highest possible form of education.

Analogy

"There is a correct and proper place for interpreting architecture in other terms most especially in terms of a language analogy" (Abel, 2000:10).

The concept of "architecture" and the "other" is explored in this book concerned with the architecturally analogous function of language. The epistemological function of an analogy in the generation of new ideas and helping of others to understand the un-understandable.

A Language analogy - thinking analogically.

Using language in an architectural discourse it is not that architecture is being made, not that architecture is a language but is much alike to one. " the language of architecture is no more than a metaphor or the given name to a specific relation by analogy between otherwise different ideas.

This brings attention to the fact that firstly architecture and language are assumed to have common attributes. but obviously not all of them. Secondly that not all forms of analogy are assumed to have the same potency or effectiveness at meaning conveyance. T.S Eliot -in 1922 for example was more concerned with the emotive power of metaphors than the literal meaning itself as evident in this stanza of the poem- The Wasteland.

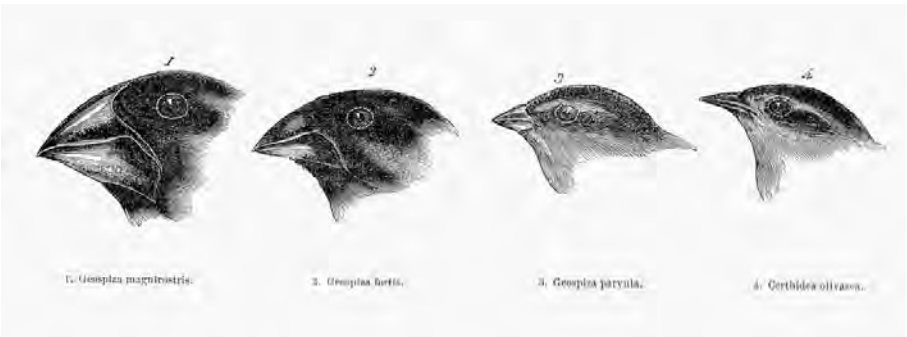
© University of Pretoria

“ Which are mountains of rock without water
If there were water we should stop and drink
Amongst the rock one cannot stop or think
Sweat is dry and feet are in the sand
If there were only water amongst the rock
Dead mountain mouth of carious teeth that cannot spit. ”

Marcus Hester’s commentary on this stanza of the poem draws attention to the line the dead mountain mouth of carious teeth that cannot spit. The metaphor is that of a dry mouth of a skeleton, but a mouth so thirsty he is unable to spit. The mere reading of these metaphors is to have an illusion that one is experiencing life. The personification of the mountain, makes the reader existentially aware of his immediate surround and not that he/she is reading about a personified mountain.

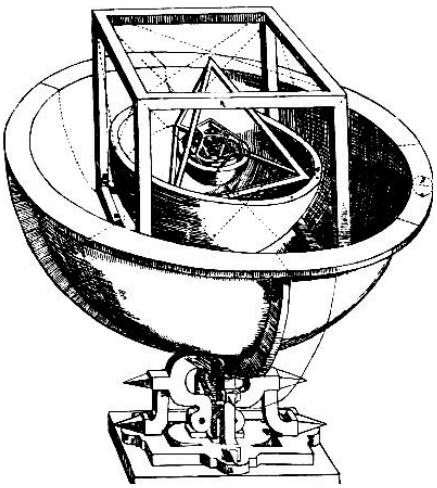
Contrastingly to the poetic interpretation of metaphor, the scientific and epistemological method of the scientific individual is to take a stance of analogy to understanding the world in its innovative and exploratory powers. - only by comparison to previous knowledge bases and in comparison to other similar ones, can a scientific theory be based. In his wide ranged studies of creativity- Arthur Koestler offers the discoveries of Kelper and Darwin as examples of the innovative function of analogy.

On his visit to the Galapagos Islands, Charles Darwin discovered several species of finches that varied from island to island, which helped him to develop his theory of natural selection. The comparison of these various species formed the basis of data comparison and then the ability for a theory to arrive as an informed deduction.



“Multiply, vary, let the strongest live and the weakest die.”
—Charles Darwin, On the Origin of Species
http://all-that-is-interesting.com/charles-darwin-facts/darwin-finches

© University of Pretoria



Charles Darwin is noted when explaining the apparent diversity of living species and their peculiar fitness to a specific habitat. The understanding Darwin at the time (c. 1859) was the obvious agent of selection.
Natural selection is an agent of microevolutionary change in which a population of an organism becomes better adapted to its natural habitat by genetic inheritance of advantageous traits which result in enhanced survival of individuals with superior fitness and reproductive success. This results in the production of amazing amount of phenotypic diversity that appears among organisms. (McGinley, M. 2012)

What was this natural agent that sparked the understanding of the diversity of species and natural selection?
The breakthrough came with his second bold theory that was partly inspired by Thomas Malthus' theory of population control.

"That the increase of population is necessarily limited by the means of subsistence,
That population does invariably increase when the means of subsistence increase, and,
That the superior power of population is repressed, and the actual population kept equal to the means of subsistence, by misery and vice." (Malthus T.R. 1798:61)

Based on Malthus' theories darwin concluded that 'survival of the fittest' pertains to both the human and animal population equally. - nature at large.

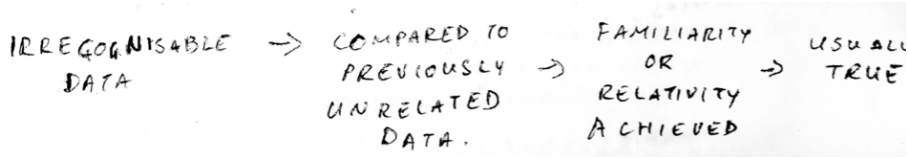
The other example of Johannes Kepler (1571-1630), is used to describe that planetary motion and astronomy was only understandable through their geometries relative to each other. As can be seen in the 'Mysterium Cosmographicum' (Hart, 1999), A model of circumscribed platonic solids was used to relate orbital planetary paths to a possible geometric ordering of the universe. He found this model to be too inaccurate, realising that other concepts were necessary to account for these irregularities in accuracy of his models. This formed the scientific basis of astronomy for the time - A knowledge base to be built on.

In both of these cases, Darwin and Kepler, the understanding of nature.
In both of these cases, some unexplained phenomena was compared, analogously, to data in terms of the already familiar, but previously unrelated ideas or processes.

© University of Pretoria

Explanations are founded on supported empirical evidence. This tends to the idea that great scientific theories are -as farfetched as they may seem at the time- analogously based on empirical evidence that is believed to be correct by a mass population already. If there is no means for this comparison, the idea seems dumbfounded and “in the clouds” per se. This contextualisation of scientific information by comparing it to information of the past is what is used to ratify it.

Irrecognisable data-> compared to previously unrelated data -> Familiarity or relativity can be achieved-> original statement usually holds true. This methodology of argument by analogy can be seen as the sinequanone of scientific discovery - all scientific theories are based on previous theories of the past and previous ideologies on the same subject.



Applying Language as an Analogy to Architecture

A language analogy in architecture is used to extend out knowledge of architecture as a form of culture. Not just a fleeting fad or fashion, The language analogy constitutes a perfectly legitimate and even rigorous inquiry into the nature of architecture itself.

Given the exploratory function of analogy, what kind of new knowledge can be expected from the idea of a language analogy in architectural discourse? The choice of analogy itself gives us a large part of this answer. We select a particular analogy because we already have an idea of a particular something which needs explaining. The analogy is almost always related to information that is known which will assist in finding the unknown counterpart successively. Darwin for instance, needed to explain what his realisation of selective breeding techniques was, therefore there was no arbitrary force of cognition, but the discourse is prompted by those aspects that nature sought to explain. - this makes for a wonderful basis of interaction between humans and their environment.

Darwin had to explain why some species changed and why some disappeared. His dramatic realisation that the relevance of selective breeding techniques was therefore no arbitrary act of cognition, but was prompted by those aspects of nature in which he sought to explain. Similarly in architecture, something in need of explanation, namely its function as a system of social communication.

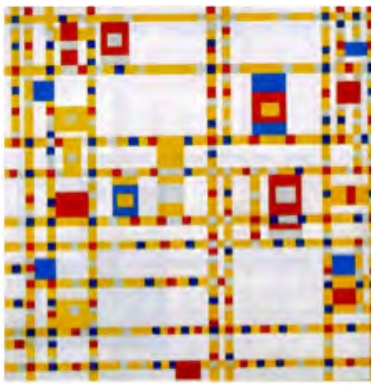
© University of Pretoria

Having recently discovered this semantic realm/dimension that architecture is able to convey, we come to realise how little we understand of it. (Abel 2000) The realm of signification and meaning in architecture constitutes the unknown to which the language analogy is sought to address. In referring to architecture as a language, we embark upon a voyage of discovery into the unknown and unfamiliar territory of architectural meaning.
The familiarity humans have with the known features of their languages forms a departure point, or a chart to plot a course. These language familiarities form a rapidly growing body of knowledge that deals with language as a communication system, by the way we attach certain meanings to certain signs, with ruling systems that govern those sign systems , we look to language as a model for those communicative processes that we do not yet understand.

On the other hand of the argument, analogies can take over our perceptions to the point when we begin to forget the halves which the analogy is comparing. This is the demise of the analogy. It must not be taken too literally to the point of forgetting the importance of the separate entities being compared.

'Architecture is a Language' - this is too absolute of a statement, albeit metaphorical, because it gives no autonomy to either entities in their own rights. Not that we should use analogies all the time to describe the difference between two entities, but they should be used to base analogical reasoning with an overriding sense of criticism and how it relates to other forms and reasonings - a basis for the beginning of an understanding.
Esperanto, a constructed international auxiliary language developed from 1870 - 1890 by Lahzar Zamenhof. It was taken mostly from Romance and Germanic languages became popular at that point because of its judicious use of affixes and the reduction in the number of root words. Zamenhof strived for a world language. Although this was unfortunately never a statutorily accepted as an international language in any country it gained quite a bit of acclaim in the 1920s and 30s. This example of over-standardisation or over-prescription becomes a denial of the basic human desire for variability. The synthesis of all languages into one would dull an otherwise rich cultural scenography.

© University of Pretoria



Linguistic Relativism. The primary issue is the choice of which architectural attributes are used in the comparison. The selection of a suitable theory is governed by matters relating both to the explanatory power of the theory and also a special interest in the language of architecture. It is less concerned with the minute semantic analysis popularised by semioticians, than with what a linguistic theory can contribute to our understanding of the role of architecture in the creation of social and cultural identities. With regards to linguistic relativism, The Sapir-Whorf (1954) hypothesis has long been established at understanding the link between thought and language, as well as the unique way in which each distinct language affects the language user's perception of the events. Human beings subjectively experience "their world" alone in the world of social activity as ordinarily understood, but are at the mercy of the particular language which has become the medium of expression of that society.

Quite an illusion to imagine that one adjusts his or her reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication and reflection. The fact is that the real world is to a large extent unconsciously built upon language habits of the specific group. We see, hear and otherwise experience largely as we do because language habits of our community predispose certain choices of 'on the spot' interpretation. This represents one of the main proponents to a relativistic theory regarding linguistics.

The extraction of meaning can be closely linked to that of abstracting meaning to find an underlying code that translates the meaning by analogously comparing its essentialist parts.

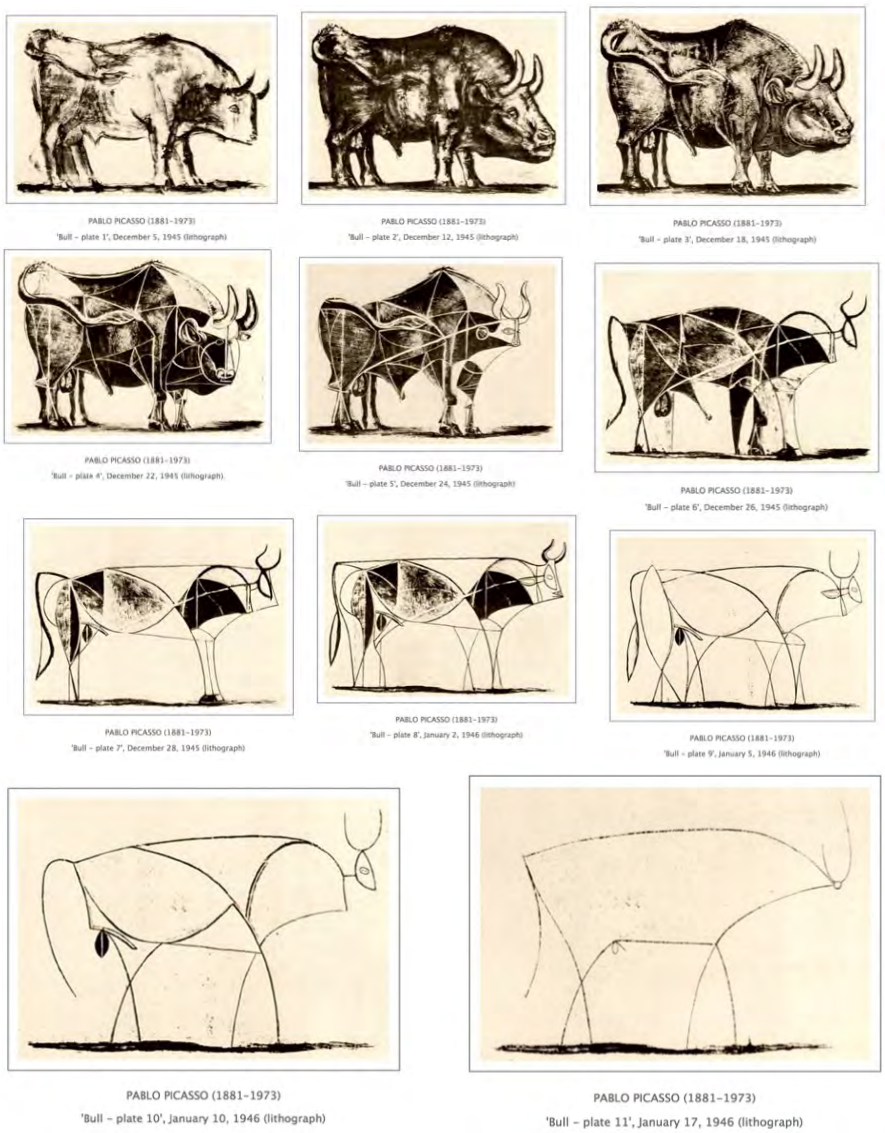
Piet Mondrian's abstract expressionism is evidence of this, and when compared to the abstractions of the bull by Pablo Picasso, it becomes evident that both were used as a means to derive a connotative way into the extraction of the essence of a symbol unit of meaning. This unit can then be used to understand the rest of the forms or shapes that surround it.

Symbology, whilst still denoting its signified function as a priority, allows the image of something with a great and implicit meaning to be broken down and abstracted into its purest form of iconography.

© University of Pretoria

In Piet Mondrian's Rot-Blau-Gelb abstractions, the original idea of purely documenting the landscape has been lost and now the connotative idea of the abstraction has gained more gravitas than the original landscape itself. The geometric abstraction of nature is more important than the representation.

http://www.artyfactory.com/art_appreciation/animals_in_art/pablo_picasso.htm

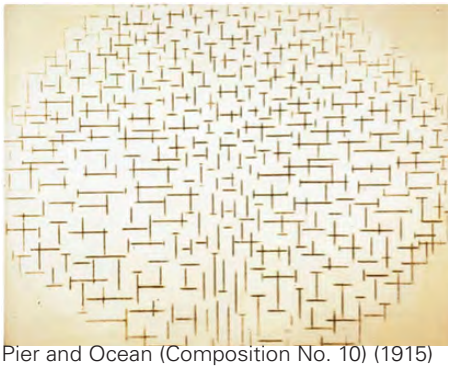


When compared to Picasso's bull abstractions, however, each of the levels of the abstraction still continue to portray the denotative main anatomical features of the bull as well as all its major functional features. The horns, tail, and reproductive organs remain evident throughout.

© University of Pretoria

These images show that the abstraction was taken to the point of still retaining a portion of the original essence of features, a graphic genetic code. It still retains the original representation but as functionally simple as possible. Piet Mondrian on the other hand took it to a further level, to not just understand the original denoted function, but to abstract to a level where the original representation is no longer visible and the graphic now becomes a symbol of the original landscape with no discerning functional landscape features. This symbol of a landscape becomes more powerful than the representation of the landscape itself.

Artwork description & Analysis:
Pier and Ocean marks a definitive step in Mondrian's path toward pure abstraction. Here he has eliminated diagonal and curved lines as well as color; the only true reference to nature is found within the title and the horizontal lines that allude to the horizon and the verticals that evoke the pilings of the pier. The rhythms created by the alternating lines and their varying lengths presages Mondrian's mature dynamic, depicting an asymmetrical balance as well as the pulse of the ocean waves. Reviewing this work, Theo van Doesburg wrote: "Spiritually, this work is more important than the others. It conveys the impression of peace; the stillness of the soul." Mondrian had begun to translate what he saw as the underlying ordered patterns of nature into a pure abstract language.



Pier and Ocean (Composition No. 10) (1915)
Oil on canvas - State Museum Kroller-Muller,
http://www.theartstory.org/artist-mondrian-piet-artworks.htm#pnt_2

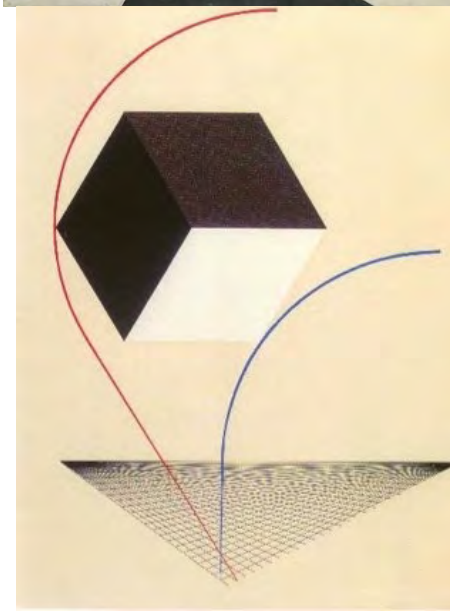
What seems to be a good example of Piet Mondrian's De Stijl like still distillations of natural landscape into compositions that retained the austere limits of the straight-line, three primary colours (rot, blau, gelb - red,blue and yellow) and three non-primary colours (white, black and grey). The style that he created is both personal and universal, it is inimitable despite it seeming simplicity, and it's seminal influence on 20th century painting architecture and sculpture. He is considered to be "the undaunted selfless champion of objectivity". According to Jaffe this is interesting to note when compared to "the subjective law of inner necessity." This seems to govern the work of his great contemporaries and fellow abstractionist Vassily Kandinsky in 1977:35.

Next page:
Pen and ink, watercolor, collage 64.6 x 49.7cm, Museum of Art, Rhode Island School of Design, (Proun Inv. 91), 1924-5.

Proun 19 d el lissitsky 1922
Proun 10
http://silverandexact.com/2010/07/23/proun-19d-el-lissitzky-1922/
http://fineartamerica.com/featured/proun-10-el-lissitzky.html
http://www.ibiblio.org/eldritch/el/elc.html

According to Kandinsky, the driving force of the creative process must be what he calls inner necessity. Kandinsky says, "All means [in painting] are sacred when they are dictated by inner necessity." All means are reprehensible when they do not spring from the fountain of inner necessity. "

© University of Pretoria



Mondrian termed his approach neo-plasticism or the 'new plastic' as a means to express a level of "pure reality" or a "unity that results from an equivalence of opposites " by the "abolition of all particular form" as well as making his art a beacon for future generations of art. Each of his later works seem as a constant refinement of previous iterations of composition. "A straightforward evolutionary character" and "always forward are visible in his evolution as an artist.
Mondrian also followed the trend go the cubists but he went much further in the direction of rigour and simplification than any one of the masters of the time, that of Pablo Picasso or Georges Braque.
The pictorial characteristic of the De Stijl was made famous by Mondrian's hefty contribution to this movement.

" It has its basis on the total abstraction that does not concede any connection to what ever is between the perception of fortuitous fragments of reality and artistic creation" (Jaffe, 1985:31). The elements of this painting style were used as the tenets of his abstraction. These include the straight line, the right angle, three primary and three non-primary colours. Albeit limited and stringent artistic arsenal was used to create the De Stijl ideology of a "true vision of reality" . An image that reality should be independent of the accidents of momentary perception which is similar to the "jumping to conclusions" that all humans inevitably do, as well as the arbitrariness of the individual temperament and personal subjectivity of the artist. And thus a means to an artistic objectivity was commenced.

The possibilities of Neo-plasticism were endless, They are like a prescription into openness as stringent as those rules were, the absolute possibilities of freedom within those rules were boundless. Much alike to the Corbusian five rules of successful modern architecture - " and they are only pervaded or hindered or limited by stern noble harmony, solemn let lively as in old psalms or plainsong" (Jaffe, 1985:35)

The Corbusian five rule seemed prescriptive at the time but became a system of spatial and formal flexibility instead of formalist rigour. It became a form of protest at the artificial forms of the time.

1. le pilotis - or columns that free the ground floor
2. the roof terrace - a free plan atop the building
3. le fenetre en longueur - ribbon windows
4. le facade libre - a free facade
5. le plan libre - a free plan.

© University of Pretoria

This analogy(which is a linguistic trait) of abstraction (an artistic trait) will be used to derive an essence (architectural) of the state theatre's constructive methodology.

Similarly to Mondrian, the suprematist abstractions of Kazmir Malevich of 1878-1935 are characterised by simple geometric shapes which are associated with ideas of spiritual purity. In The work of El Lissitzky a contemporary of Malevich, it is evident that these geometric abstractions that were seemingly two-dimensional, actually had a predisposed ideology to re represent three-dimensional forms. This can be seen in a series of paintings he coined "Prouns" A Proun was essentially Lissitzky's exploration of the visual language of suprematism with spatial elements, utilizing shifting axes and multiple perspectives; both uncommon ideas in suprematism. Suprematism at the time was conducted almost exclusively in flat, 2D forms and shapes, and Lissitzky, with a taste for architecture and their 3D concepts, tried to expand suprematism beyond this.

J.H Pierneef

Other personal favourite South African examples of notable artists that practised levels of artistic abstraction include J.H. Pierneef and Cecil Skotnes. They both retain levels of representing reality according to their particular understandings of what is to be retained in an abstraction to still effectively and beautifully convey a message with the intended information.

C. Skotnes

Kazmir Malevich on reference to objective and non objective painting. There are many figurative stages of perception of a painting :

Stage 1: Artistic objects are seen as they are.

Stage 2 : The subject/model is only a means of communicating the artist's experience in works of art. In this stage objects and nature become artistically unified by the tones running through them.

Stage 3: An artistic Weltempfang, or "perception of the deformation of phenomena" represents the disintegration of objects into separate pictorial elements.

Stage 4: Non objectivity. This stage refers to not just a revelation of artistic Weltempfang, but also to dynamic,magnetic and other elements which exist in nature, at this stage form is not important.

J.H Pierneef

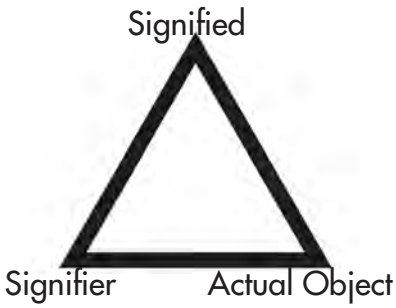
© University of Pretoria

A table, is an object of technical purpose and utilitarian functionality, but the artistic expression may not align with the functional order. The artistic content of a utilitarian functional object forms the basis of an abstract art which begins to part from pragmatic life, in this sense suprematist art is seen as non objective as all other types of art because practicality is still evident in its parts or symbolised by an essence, whether it is spatial or an easel where the symbol may appear.

This methodology of comparison by analogy has a new ability to compare architecture to art and to language equally only by means of the extraction of a specific aspect of reference and then comparing the three. In other words, paradigms have existed across these spheres because of their interrelation and intra-relation within their governing tenets of society, culture and environment.

These tests of artistic abstraction represent the proponents to studying built form in the graphic sense as two dimensional abstractions which can be also analogously compared to one another, with regards to their method, degree and effect of abstraction. This level of abstraction can be used as a formal 'language' sign and be compared to that of abstraction in architecture. Picasso's bull abstracted to the level of functionalism. Mondrian took it further to the level of the abstraction becoming more important than the original function. Where the denotation of the painting becomes more important than the connoted message. Then El Lissitsky's abstractions were given a sense of spatiality and three- dimensionality again, giving the connotative meaning of a visual abstraction a new meaning altogether, although completely void of the original functional denotation, the shapes have a connotation that form can be re-understood from the new sum of the original "parts"

ARCHITECTURE AS CONNOTATIVE AND DENOTATIVE SEMIOTICS



OGDEN RICHARDS Δ

1. The Ogden Richards Semiotic Triangle
2. The Hjelmslev double partition
3. The Morris Triangle

© University of Pretoria

According to the Ogden Richards semiotic triumvirate, which has a thought or reference at one pole, a symbol that symbolises that original thought and a referent at the third pole. This referent is the physical reality in which the symbol is herein referred (Jencks 1969:80).

With this triangle it is evident that A signifier (symbol, word or form) connotes a signified (thought, concept or content) and may or may not denote a thing, referent or actual object. The relations of each of these fields become important to the development of an architectural sign. The sign itself may then either be Indexical, iconic or symbolic.

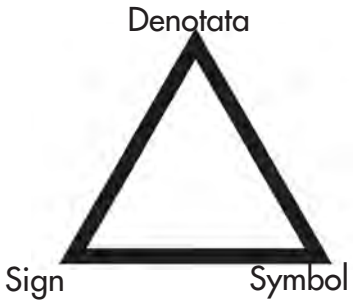
INDEXICAL ICONIC

ICONIC = ARCHITECTURE INDEXICAL = ART

The ogden Richards triangle also incorporates extra semiotics into architectural meaning.

Morrist developed a triangle similar to that of the ogden Richards one but with differences in
Koenig:"architecture is a system of sign symbol vehicles that promote certain kinds of behaviour. Koenig's example is that of someone stopping a travelling car and warning them about an upcoming landslide in the road. The words addressed become the sign. The detonated becomes the landslide at the place of its occurrence and the significatum refers to the condition of the landslide at that place.

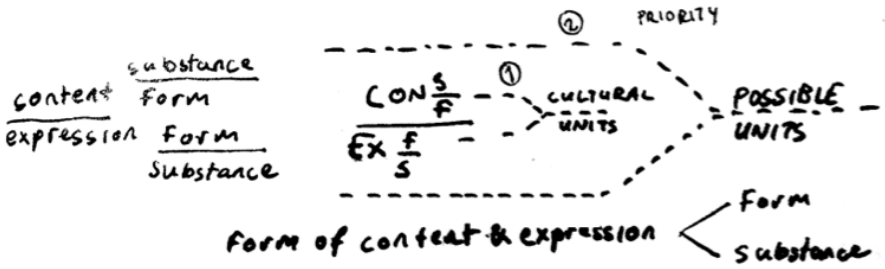
The morris triangle looks as follows:



Relation within reference to conotata or denotata.

© University of Pretoria

HJELMSLEV'S DOUBLE PARTITION



Hjelmslev's partition, on the other hand, divides the sign into two planes similar to signifier vs signified, or content vs expression, primary vs secondary and of course denotative vs connotative. The architecture of any era according to Hjelmslev is only concerned with the form of content and expression as its highest priority. This refers to the way culture articulates and conventionalises content and expression. The secondary priority is that of all possible units - everything on the plane of content and expression. This refers to the ultimate reality of the situation.

A sign which is Cf/Ef = Content form over expression form is used as the basis for sign equations.
The semiotic coupling of two planes can form a more expressive semiotic.

For example: A man approaches an elevator or it's plane of expression. He comes to an enclosed box, with sliding doors. It has a floor indicator above it and buttons in a polished aluminium surround plate.

Code EF1 - A denotation of a possible vertical circulation
CF 1 - Its actual utilitarian function of traversing vertically
EF2 - The utilitarian signifiers which pertain to the: speed, uplift, technological considerations etc.
CF2,3,4,5, refer to the connotations that the utilitarian signifiers provide, i.e how fast, how far, what material, what the building typology is that contains this elevator.

According to Scalvini in 1975, Connotative semiotics have a presence with the basic functional aims (tectonic) and only secondarily an aesthetic significance. This plane of expression becomes the semiotic system in itself. Scalvini built on Hjelmslev's double articulation by making a new formula to explain her semiotic theories.

© University of Pretoria

There are two basic planes or functions of architecture.

1. The plane of tectonics - What is used to perform the basic function.
2. The plane of the connotators - which is like architecture starting from poetry.

Like studying english from shakespeare's sonnets and nothing more.
It would be a biased and rudimentary sign with limited connotation.

The dramatisation of an Aesthetic Code

Architectural aesthetic codes are dramatised in various ways. The first function to actual use cannot be dramatised. Although the second and third functions can be dramatised in five different ways.

One.
Fetishism and self reflection of that aesthetic code - this refers to architecture which is about itself. The erogenous points of the building are highlighted and pleasure centres are usual fetish points. This could be seen in Las Vegas sign boards of neon lights etc.

Two.
The distortion or disruption of that code: the distortion takes time to perceive. By lengthening of that perceptual act it could be essential to the aesthetic code (Eco,1976) . Robert Venturi also uses this distortion to call attention to the scale of architecture by placing an ornament where it shouldn't be, for example. Robert Stern used this distortion by distorting the same motif and James Stirling used the roof-window-wall element which unites all three conventionally distinct elements into one indistinguishable element. By merging these elements into one it draws attention to each of the individual parts. This is a method of repetition-distortion which at first seems incomprehensible - becomes clear by questioning it.

Three.
Redundancy and miniaturisation in the aesthetic text. This according to Scalvini refers to reading an architecture taking more time than reading a building. This is because of the redundancy of messages that refer to themselves and small internal messages within a greater whole.

There is unity in variety within the smallest perceivable detail. - "Le bon Dieu est dans la detail" according to Gustav Flaubert in 1860 which translates to the more famous Mies van der Rohe's incarnation of "God is in the details". This pertains to a semiotic cross-reference of details which makes a text or architecture endlessly decodable.

© University of Pretoria

Every single element has to have a specific meaning and reason for its size, placement, fixture and finish.

Giuseppe Alberti and Frank Lloyd Wright are known for stressing this aspect of the architectural sign. and perhaps over unified their buildings as a result of this. They had specific formal language sign vehicles. Repetition and transformation (like the Op art movements based on optical illusion, such as scintillations and tesselation .etc) are use to achieve a magical endlessness of signification. Individual parts of architecture be can be fused by finding semiotic link between them that had before gone unnoticed.

Four.
Hermeneutic esoteric and even private methods: this has its beginning within the Romantic era which refers to personal dialects to ‘make it strange’. All architecture sends new and unexpected messages in a new code which at certain points become personal and variable . There is difficulty in decoding this code because of the fabricated nature of the building’s meaning. This indecipherability attempts at understanding by making a plausible meanings for unfamiliar architecture by using analogous forms.

Five.
To continuously create new interpretation. This refers to multivalence and plural meanings in their nature. All architecture is considered anew by each generation of history and that architecture is reinterpreted by a generation with its organic unity of traditions. This is where the introduction of new buildings, movements, styles, set of ideas change the relation of all the previous buildings in that tradition. Referring to the New York five or “whites” which was a name coined for Corbusian or Terragni style architecture prevalent in the International style around the 1950s.

Architectural Connotation:

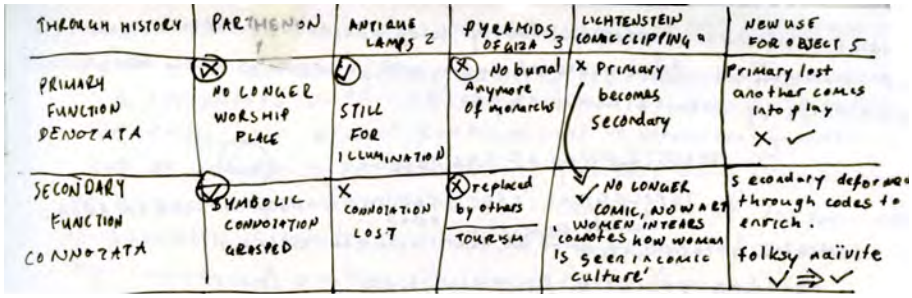
Besides the ability to denote function, the architectural object could connote a certain ideology of the function.

The cave denotes elemental shelter or ‘utilitas’ while it connotes a family, living, security and familiarity
The connotation therefore becomes a secondary function to the denotation.

© University of Pretoria

A seat is denotative that sitting can take place. While a throne shares this denotation but it has a symbology that is more important than the mere denotation. The connotation is to sit in dignity which becomes more important than the act of sitting itself. The connotation of regality occurs by means of its size, placement within a grand hall, and its level of adornment. This proves that function extends to all uses of objects of use although symbolic capacities become no less 'useful' than their 'functional' capacities.

An evening dress is another example of this. Instead of covering the body like that of utilitarian everyday clothing, it uncovers to show more skin , while men are covered poorly in a method of standardisation. It becomes functional only because of the complex connotation of convention and permits certain social relations.



The consumption and recovery of forms - consuming forms and obsolescence of values.
Architectural signs as denotative and connotative according to codes
Verbal communication is a code that has a language with certain sub codes. elements of articulation under a given code are the syntagms of another more analytic code or synthetic code.
A visual sub-code can be divided into both iconic and monographic types.

Syntactics and semantics of architecture attempt to search for what a word is of a verbal language in architectural sign terms. Units endowed with definite meaning and symbols pointing to reference and conventions governing the semantic reading of architectural signs, purely syntactic conditions of architecture are also important to understand architectural artefacts which the denoted functions cannot be ascertained as easily as in the menhir/dolmen/stonehenge type constructions.

Within the field of architecture, codes of reading and of construction of the object are distinguished from codes of reading and the construction of the design semiotics of architectural objects.

© University of Pretoria

Typological codes for the understanding on architecture are mainly semantic codes for a semiotic investigation of an architectural design which is based on social and functional types - Testing the semiotic triangle.

Significative forms understood as codes worked out on the strength of inference from usage and proposed structural models of given communicative relationships - Denotative and connotative meanings attached to the sign vehicles as the basis for codes. - these are what forms the semiotic universe, in which reading architecture as a form of a communication becomes viable. With verification through observable physical behaviour and actual objects (whether the denotata or referents become irrelevant) the only relevance comes with architectural objects as significative forms and this makes communicability possible.

Examples of these significative forms may include:

School

The signifier is the children that actually go to the school
A building that denotes a sign complex of children who study there

House

It connotes the people who divide into families - forces the implication that living with others under the same roof.
The building denotes the family that lives there

An Ancient Temple

The significatum is that people prayed or worship here
The denotation is that of an ancient function which is no longer relevant to

The same people therefore there is no existent denotation

© University of Pretoria

Door

A door is a symbol for the possibility of access into another space, If there is no apparent referent the door is either self referential (by denoting its own reality - only a thought and a reference) or it is the fulfilment of the function that constitutes the referent. Or if the fulfilment of the action is not necessary to communicate the function then it is brought into architectural characterisation as a sign to insist that semiotics deal with some things extra to semiotics itself.

Arch

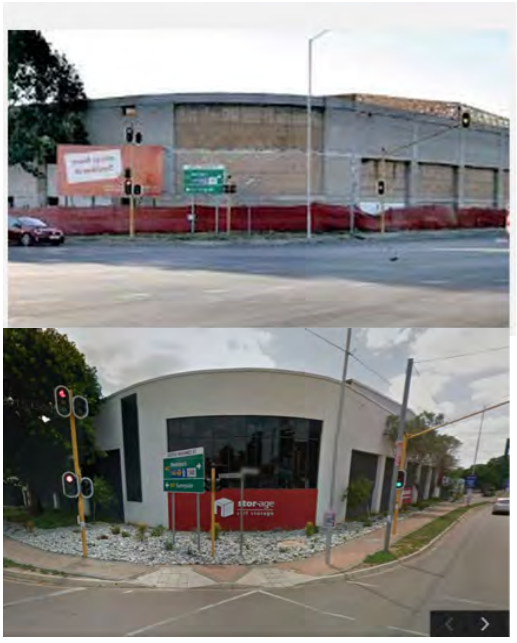
A triumphal arch has its semiotic value based on its inherent symbolism. Also, the physical act of passing through it on processional occasions proves that the reference itself branches out before and replaces the referred or referent which becomes the symbol itself.

Window

A real window as a means to its original function of letting light into a space but also shielding from the elements and a possible opportunity of ventilation is signified . On the other hand a window has the poetic ability to create rhythm in a facade.
“It is the formal play of a sign vehicles ability to form a contextual juxtaposition.

Fake window

This is still enjoyed as an architectural message even vif devoid of its function.The aesthetic architectural function is still fulfilled.



Stor-Age Building Photo:Author’s own

© University of Pretoria

The image opposit shows the “Stor-Age” building on the corner of Jan Shoba and Justice Mahomed street in Tshwane. It shows a black glass window as seen today, At the time of the building’s erection it is evident that the glass is purely a facade of black glass with a plastered brick wall directly behind. This becomes proof that the window is only present for psychological reasons. Because it is on such a visually central corner for traffic within Tshwane, it was deemed necessary by the designer to mask the enclosed facade with a glazed panel, which signifies that the window has something going on behind it, a café for the staff or a repose area although this is not the case. Since it is a storage facility, space had to be maximised, so this “glazed facade” exists purely for psychological reasons of symbology - To imply that the corner is not blocked off to the street but that “something” is happening inside.

A symbol may differ in form, number or disposition, and does not just denote a function, but it may also refer to a certain conception of inhabitation and use and also connote architectural ideologies One begins to assume a symbolic function by conceding the diverse manners of function based on analogous precedent.

A ramp denotes a possibility of ascension but it also gives the conventional conception of how one fulfils the function with that particular form. An elevator on the other hand denotes the possibility of function by means of entrance buttons, a floor indicator and opening doors. These are empathetic indicators as the forms are not evident as ‘key’ to the function of an elevator to ascend. This codification relies on the understanding of the viewer. In this sense form does indeed follow function. The form of the object, besides making the function of that object possible, must also denote that function in a practical and desirable manner. It then becomes clear enough to the user to dispose one to the actions which will be fulfilled, much like stairs in their semiotic nature, visually imply human ascension.

An architect or designer cannot make a new form functional and cannot make form to new function without the existing processes of codification. A work of art which is new and informative has articulation of elements that correspond to an idiolect of its own and not to present preexisting codes. An artistic object is intended to be contemplated upon by negating or evoking it on the basis of preexisting codes and it will be fashioned either way.

© University of Pretoria

An architectural object which is new and informative can promote a new function which could be contained in its form - or in its relation to comparable and familiar forms. Indications for the decoding of its function also plays upon the pre existing codes but does not negate nor evoke them, it draws attention directly to itself by deforming the convention of forms and of function (that usually refers to that form). It is not merely an ambiguous form which is interpretable according to various codes.

This is what separates an architectural form from a work of art. The interpretability according to one strict, or many lax codes of the same ideology.

Elevator

Consider the case that a primordial man would be faced with an elevator. He denotes a wall but cannot connote the enclosure as a vessel for vertical circulation. Therefore the denotation is a matter of coding, or the method in which meanings are learned. If the Cro-Magnon understood the social coding behind pressing a specific button to go up, he would understand the sign vehicle as a system. Because he has no precognitive understanding of the elevator's function, he would not understand the denotation of the floor indicators or call buttons.

Functionalism or anti expressionism in designed objects that are made purely for functional reasons are understood dependant on how well the codes are known, and not the objects utilitarian appearance or technical qualities alone .

Another example is the functional shape of a toilet bowl which is roughly determined by its use. The bidet or urinal were seen as having exemplary modern aesthetics to Le Corbusier or Duchamp. Their form is a direct translation of their functional requirements and also constitute a word or phrase of a new unambiguous language. They are indexical and iconic words and nothing else. The primary function has clearly been replaced by the connotation.

Cross

The christian cross denotes and connotes Christ and Christianity
The triumphant arch denotes a celebration and connotes passing through in a celebratory procession.

© University of Pretoria

Cave

In a primordial and simple metaphor, a stone age man took refuge in a cave. This represented the conception of inside spaces, while the functionality remains literal as a shelter against elemental authority. It also has its basis in the subconscious nostalgia for the protective womb. The “idea of the cave” also becomes a means to recognise someone else’s place of habitation- a communicable model of the cave to others. The architectural code creates the semiotic code and the cave principle becomes an object of communicative intercourse. drawing of the cave or seeing the cave in the distance becomes an object of possible function - even if unfulfilled. This is Umberto Eco’s understanding of the ‘Primitive hut of Laugier’ or the beginnings of architecture. He might have been admiring the patterns of leaves before conceiving the idea that these leaves could be conceived as a way to create an umbrella or shelter. Proving that it could have started with an admiration of the denotation which led to a different connotation.

Spoon

A spoon, the most basically designed object for eating, is foremost an artefact that promotes a function, shovelling to eat. It also has a communicative function which communicates that function - someone uses that spoon in a society that observes it. This represents the communication of conformity by the user to certain usages as opposed to others (eating with one’s hands/chopsticks). It signifies a way of eating and promotes a certain way of signifying eating. Just as the cave signifies the promotion of the act of shelter and signifies the existence of possible function; both objects signify without being used.

If semiotics is not just the recognition of signs and sign systems, it is the study of all cultural phenomena as a system of signs - therefore culture can be understood as a communication system. Undoubtedly then, the most challenging field concerning this system is architecture itself.

Church

A temple for example can have different articulations of the same semiotic which changes over time. Romanesque, Baroque Renaissance, Gothic and Modern all pertain to specific and different stylistic ideologies but all can be represented by the same symbol of a church.

© University of Pretoria

This leads to a hypothesis that architecture has some form of double articulation as found in verbal linguistics. A Basis of euclidean geometry is studied as a basis for rudimentary form.

The units may also have a second articulation at hand which is endowed with meaning but are distinguishable and calculable. and are defined by geometric equations of some kind.

1 Elementary syntagmatic relation a window/wall relation
2 A more complex element is that which is space defining such as in a greek cross plan in a rectangular configuration.
3 Solid geometry has a third level of articulation by means of the recognition of a non euclidean geometry.

Although a geometric code sadly falls short and cannot govern the particularities of architecture. Geometric codes such as that of Piet Mondrian like abstractions and the analysis of abstract geometric art such as that of the Suprematists are studied. Configurations of representational art can be reduced to an articulation, if perhaps quite complex one, of primordial geometries become the formulations of geometric elements in etymological sense of the word by surveying or transcription of terrain topographically one may have a Gestaltic code which presides over our perception of forms.

Euclidean form is understandable to ubiquitously because of our predisposition to the understanding of Euclidean shapes, Maybe non-nuclear uniform is a means to the form of confusion and changing the levels of understanding of the build form around someone.

The language code serves as a meta language and synthetic codes are used to find credence for a proposed architectural solution for the site. Phenomena compared to other meta languages are capable of describing them in the same terms. A codification of the landscape is used to compare it to certain proposed architectural solutions, iteration by iteration, to determine what architectural intervention can be inserted into that landscape context. Elements of coded solid and geometric forms are abstracted and a form that is contextually based can be applied.

© University of Pretoria

Trompe-l'œil

In this same line of interest, what permits the use of architecture (pausing, entering, going up, going down, passing sitting or reclining) is above and beyond the possible functions of the objects. The meaning of these objects dispose particular functional uses to them. Even with Trompe-l'œil type phenomena, one is predisposed to a particular use even when the possibility of that function is illusory - like trying to open a door handle reflected in a mirror.

The Trompe-l'œil, which refers to an optical illusion, pays attention to the code of expression and plays upon the fact that the user sees the double denotation. As in a real painting that depicts a fake street. This relates very well to Rene Magritte's treachery of images and the concept of visual scandal. The aesthetic of this visual scandal which focuses on pertinent aspects of language, makes their form part of the content. According to Eco, Trompe-l'œil refers to an architectural lie or a trick of the eye. It refers to both the real thing which has a denotation and an illusion which is a non physically existent connotation. With a Trompe-l'œil the connotation and denotation align because the unreal is being represented as real.

© University of Pretoria

http://blogs.artinfo.com/artint-heair/2013/03/19/john-baldessari-isnt-smoking-whatever-is-in-rene-magrittes-pipe/
"Rene Magritte" by Rene Passeron and translated by Elizabeth Abbot. 1970 Fillipacchi Editions, Paris.

Magritte's Treachery of Images.

What is important to note in the infamous painting of Rene Magritte (1896-1967) "The Treachery of Images"
is that the title "Ceci n'est pas une pipe" which literally translated means "this is not a pipe. He mentions this as a statement contrasting to the very pictorially realistic representation of a pipe. This statement of denial itself, that becomes the caption in this matter of fact style image of a pipe. Tension is created through the graphic representation of the pipe accompanied by the caption - a blatant denial of what was visually represented. The word "pipe" itself, becomes a signifier. It is not a pipe, nor is it even a representation thereof. It is a representation of an iconic image that the viewer understands by association. The font at the bottom also implies a very scholastic and didactic linguistic style which seems authoritarian and even condescending, as if the viewer is a mere student being educated by the master Magritte. Both the caption and image are however, not an actual pipe. This tends to the idea that the denial of authorities of language and representation are a possibility as a means to contextualise the un-contextual.

It may seem to be an irrational or perverse paradox in which the viewing mind tries to contextualise and find a stable and meaningful interpretation. There is no clear answer to this question that is posed to the viewer. It is the distortion of the viewer's perception that analogously allows for a contextualisation by comparison to the already familiar on a paradigmatic basis. Magritte seemingly overthrows of oppressive rationalism of bourgeois society which was so prevalent in his time. This is why it comes across as violent, disturbing and discontinuous.

© University of Pretoria

Real and Simulated Forms

A form that strives to be both real and a simulation, according to Baudrillard, “a simulation is the blending of reality and a representation thereof ”. In an attempt at escaping this “copy” world, we seek simulated stimuli and nothing more. The fabrication of a false reality for the 2055 vision is to be consumed as real, but is too farfetched and soap opera-like in its dramatic and semantically based characteristics.
This schematisation draws parallel to Baudrillard’s simulacra and simulation. The interpretation of many representations as a means of concealing the absence of reality or a simulacra - a copy without an original.

The successive phases of image according to Baudrillard are as follows

1. A reflection of basic reality.
2. Masking and perversion of the basic reality
3. Masking the absence of a basic reality
4. No relation to any reality because it is it’s own pure simulacrum

He also argues that when speech and writing were created, signs had to invariably succeed to point to a material or social reality, but the bond between the signifier and signified had eroded. (Baudrillard 1988, 170) With the advent of advertising and propaganda the commodification of the sign started to hide the ‘basic reality’ In Post-modern hyperreality illusions of media communications seem very real. Signs hide the absence of reality and only pretend to have a defined meaning. A simulacra- or a sign which characterises late capitalism, can be characterised by three basic forms ;

1. A counterfeit form (imitation) - where are the signifier is directly proportional to the signified
2. A productive form(illusionary) - with a signifier is inversely proportional to signified
3. A simulation (fake) - the signifiers only stand in relation to other signifiers and not in any relation to have fixed reality.

© University of Pretoria

These conjectures beg to question the reality of life itself. The semiotic stance which problematises reality and emphasises mediation and convention is as criticised as “extreme cultural relativism” but those who veer towards realism, often object to an apparent sidelining of referential concerns such as accuracy. However philosophical realists would accept that much of a knowledge in this world is indirect. We experience many things primarily as they are represented to us, within our media or modern digital communication technologies. Such as the modern advent of virtual social media. Representations cannot be direct carbon copies of what they represent they cannot never be neutral or transparent but are constitutive of a reality. As Judith Butler states: “what does transparency keep obscure?” (Butler 1999XiX)

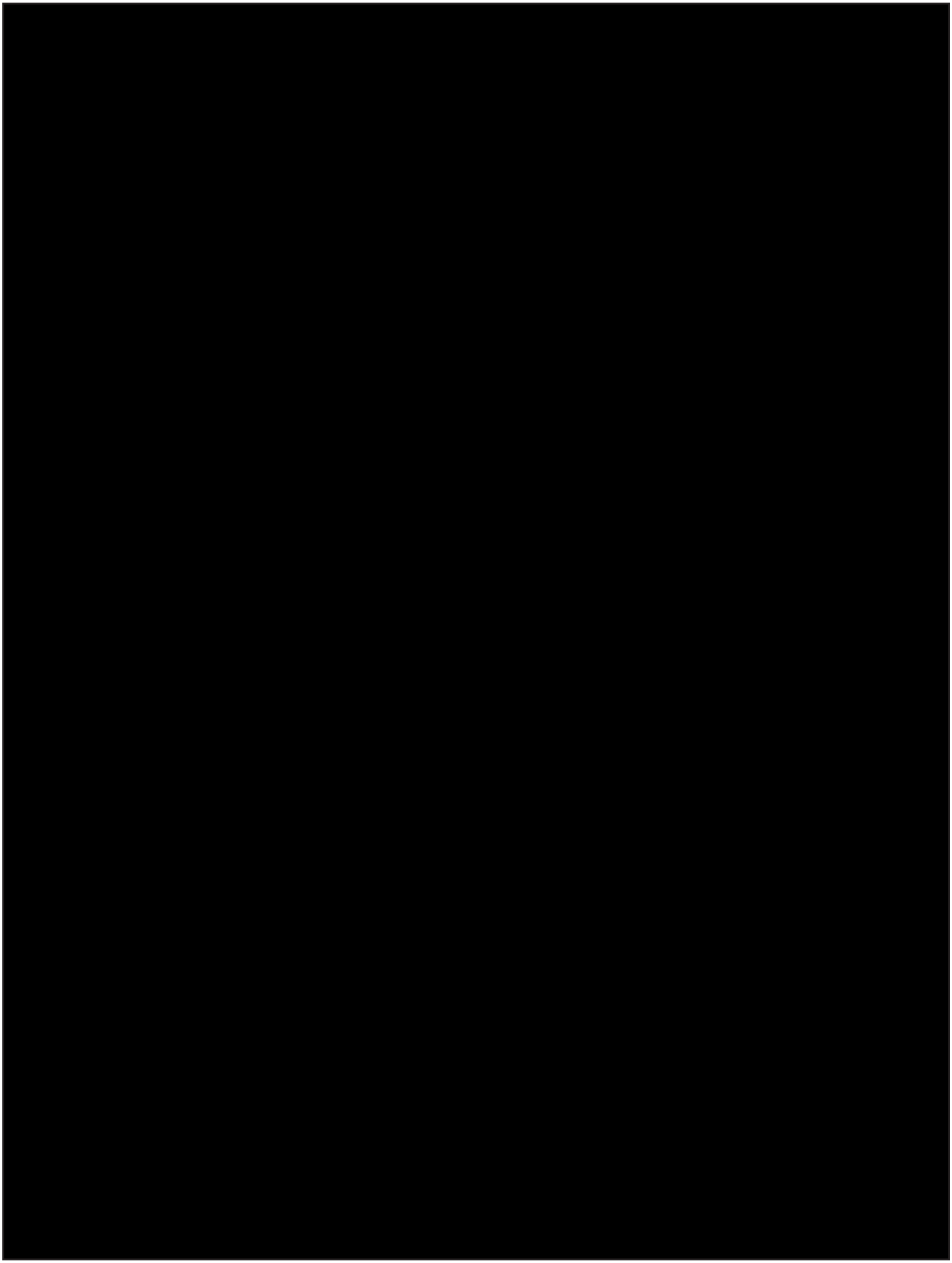
Semiotics can be used to not take representations for granted as ‘Direct representations of reality”. This then enables us to take them apart into their individual semiotic units and question which or whose reality do they represent

On page 34 of myths and history by Mircae Elliade : “ an object or act becomes real only insofar that it imitates or repeats an archetype. “this analogy to a previous state is considered reality - which is acquired solely through repetition of participation. Everything which lacks an exemplary model is “meaningless” and lacks a certain reality. (Elliade, 1959:34)

Facts show us that, for archaic man, reality is a function of the imitation of celestial archetype, and secondly how facts which show us how reality is conferred through participation in “the symbolism of the centre” cities, temples, houses become real by the fact that of being assimilated to the “centre of the world” or are the centre of one’s relative world and thirdly finally rituals and significant profane gestures acquire meaning attributed to them, and materialise that meaning, attributed to them only because they deliberately repeat such acts.

© University of Pretoria

© University of Pretoria



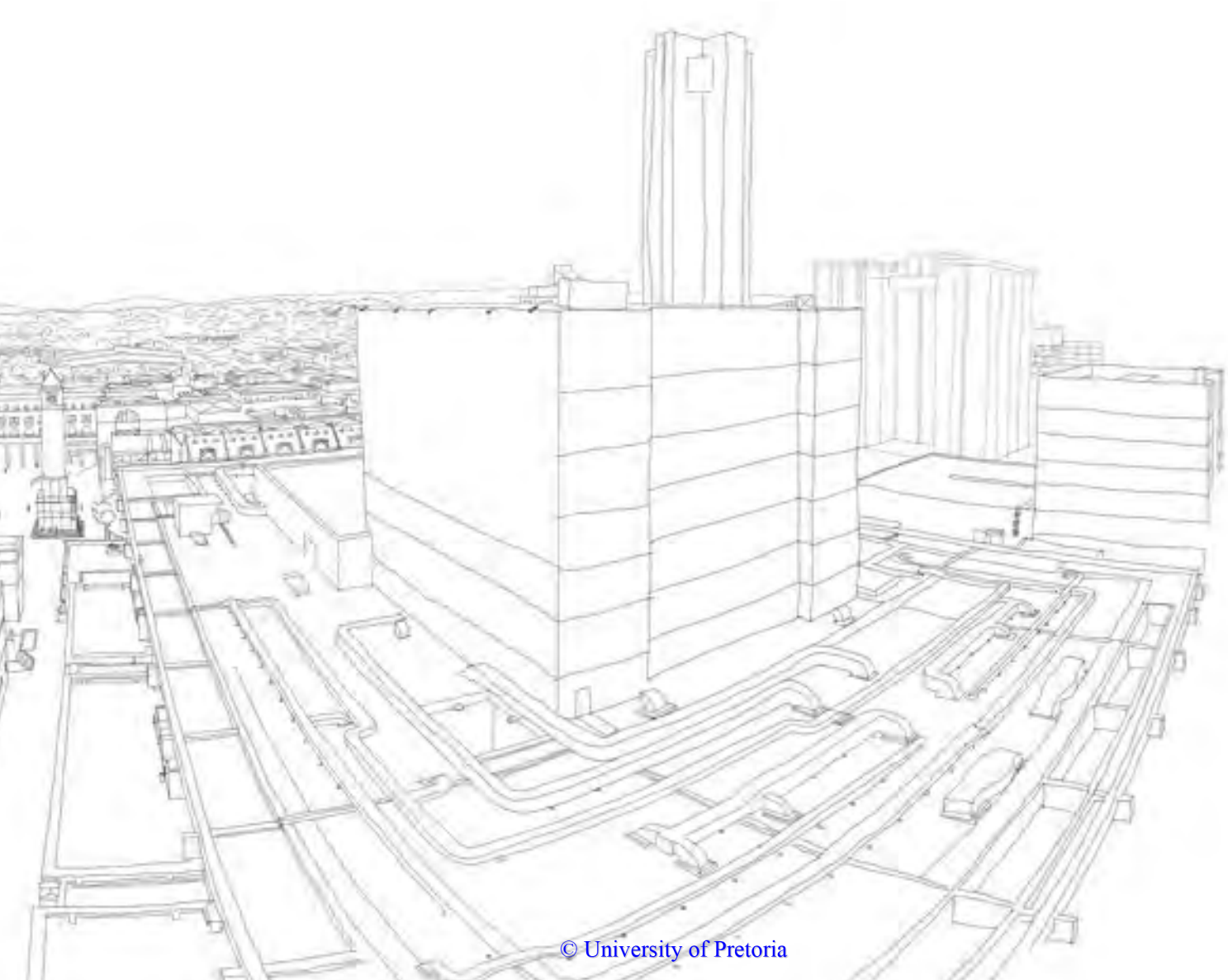
© University of Pretoria

PART THREE
SITE IN CONTEXT

© University of Pretoria

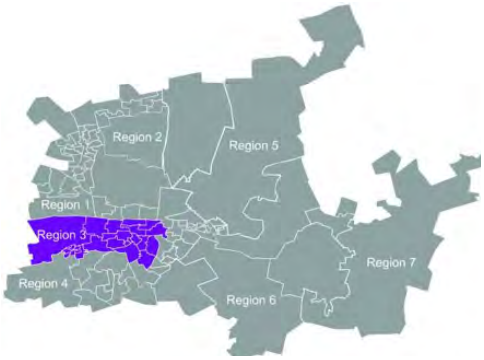
© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



© University of Pretoria

The site is seen as a civic centre deep in the central business district of Pretoria, on the corner of Lilian Ngoyi and Helen Joseph streets (formerly Van der Walt and Church streets respectively) - 25°44’48.3”S 28°11’38.2”E



It is located two blocks east from the historical genesis of Pretoria, Church Square. It falls within region three of Tshwane metropolitan districts. The eastern two-thirds of the region is mostly urbanised and includes the central business district of the city, whereas the western third is mostly rural. The region hosts National Government offices and forms the administrative heart of government with two of the three Tshwane stations of the Gautrain located in the region. Three landmark sites - the Union Buildings, the Voortrekker Monument and the Freedom Park National Legacy site are located in this Region.

This region of Tshwane also includes other prominent land uses of strategic significance to the City: the Inner City, Marabastad, Embassies, Nelson Mandela Development Corridor, Church Square, Brooklyn Metropolitan Node, Hatfield Metropolitan Node, Pretoria Industrial Township (including the Charlotte Maxeke Street and Souter Street industrial areas), Fresh Produce Market, Capital Park Container Depot, and the Steve Biko Academic Hospital.
The south eastern area of the Region accommodates middle and higher income groups while most of the low income groups are located in the west while. High density residential developments are to the east of the Inner City in Sunnyside and Arcadia. The Region contains some of the oldest townships in the greater Tshwane.

© University of Pretoria

Matthys Dippenaar.

Phase 1 of the TRT (Tshwane Rapid Transit) bus system is currently operating, joins Hatield with the CBD. The Region is generally well provided with service infrastructure. With development rapidly moving closer to the provincially demarcated urban edge and towards the open space area to the west of the region. Development pressure in this area is determined by the rate at which bulk infrastructure can be provided to accommodate expansion. (Vision 2055)

District Statistics according to the 2011 Census:

- Region 3 Profile Population 585 159
- Number of households 195 126
- Number of formal dwellings 169 761
- Average household Size 3.0
- Households with access to piped water (tap) 190 568
- Households with access to electricity for lighting 182 999
- Average annual household income R188 354
- Households with no income 32 516
- Persons employed in formal sector 183 940

© University of Pretoria

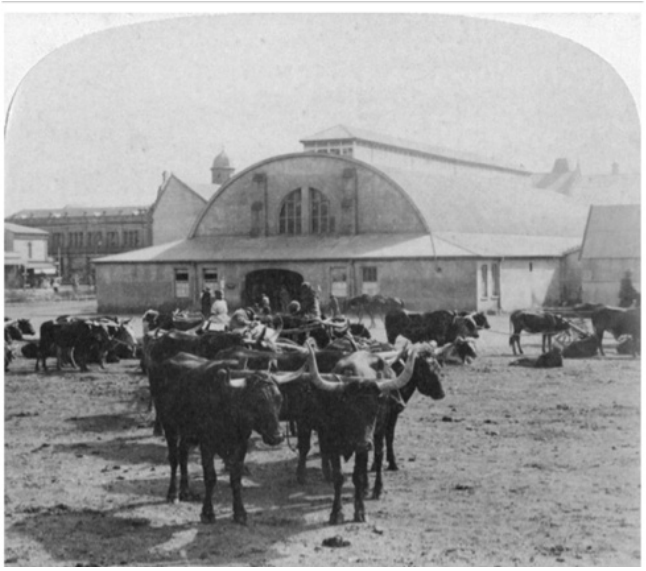
History of the Locality.

Pretoria had its humble beginnings in the early 1850's. In 1852 when independence was granted by Great Britain and Pretoria Was established as the statutory capital of the Zuid-Afrikaansche Republiek (ZAR), granted independence in 1852 by Great Britain, which at the time dominated Southern Africa politically. (Allen 1971)

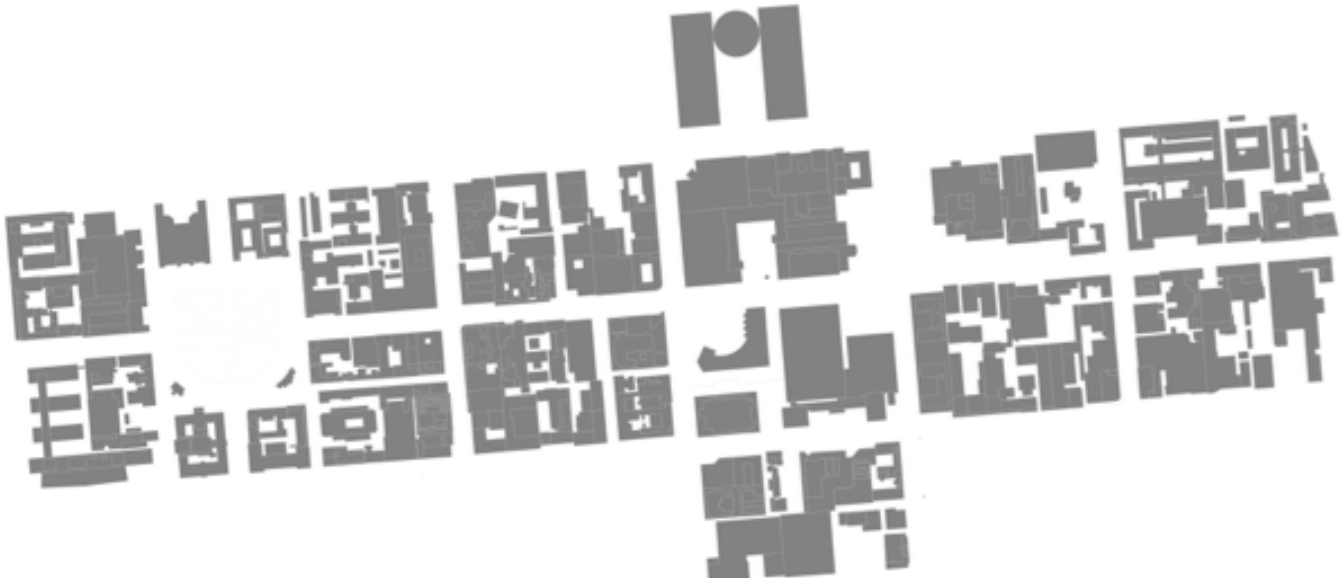
Settlement in this area, as is typically the case was centred around water.
For hundreds of years preceding Boer settlement the Apies River Valley which supported a large population of Iron-age peoples of different cultural groupings, notably small tribes of the AmaNdebele. The militant growth of the Zulu and the splintering of the Matabele people during the first half of the 19th century, resulted in great disruption and massive dislocation of the original peoples. When the Boers arrived in the year 1841, they trekked into a temporary uninhabited region and settled in an area over which a vacuum of power existed (Guiliomee and Mbenga 2007).

These beginnings formed the contextual history of the site in question.

flickr.



up repository.



© University of Pretoria

History of the Site in Question.

There exists an area of great historical value to the people of Pretoria. It had its humble beginnings as the second Market Square - the original was then re-dubbed Church square - was the beginnings of the original trading post for the first inhabitants to Pretoria in 1855.

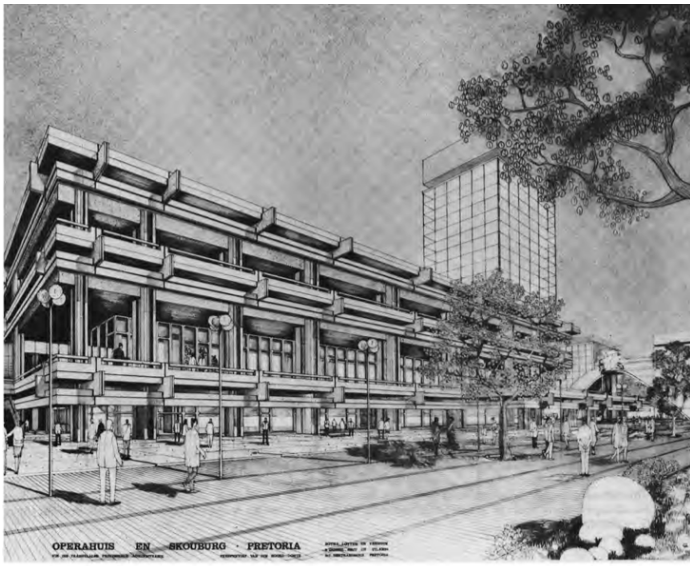
The site in question is on the original market square which began around the 1850's. At the time of great expansion around 1891, Church square became too busy to incorporate a market as well. The market moved two blocks East to where it exists today as the city block under consideration.

Market square as it was then called, beginning as a civic trading area, became home to the first South African museum. In 1892 the Staatsmuseum ("State Museum") was founded. It was housed in the market hall near Market Square The collection grew rapidly and soon had to move to its current position - The Transvaal museum on Paul Kruger street. (Gauteng Conference Centre.com)

© University of Pretoria

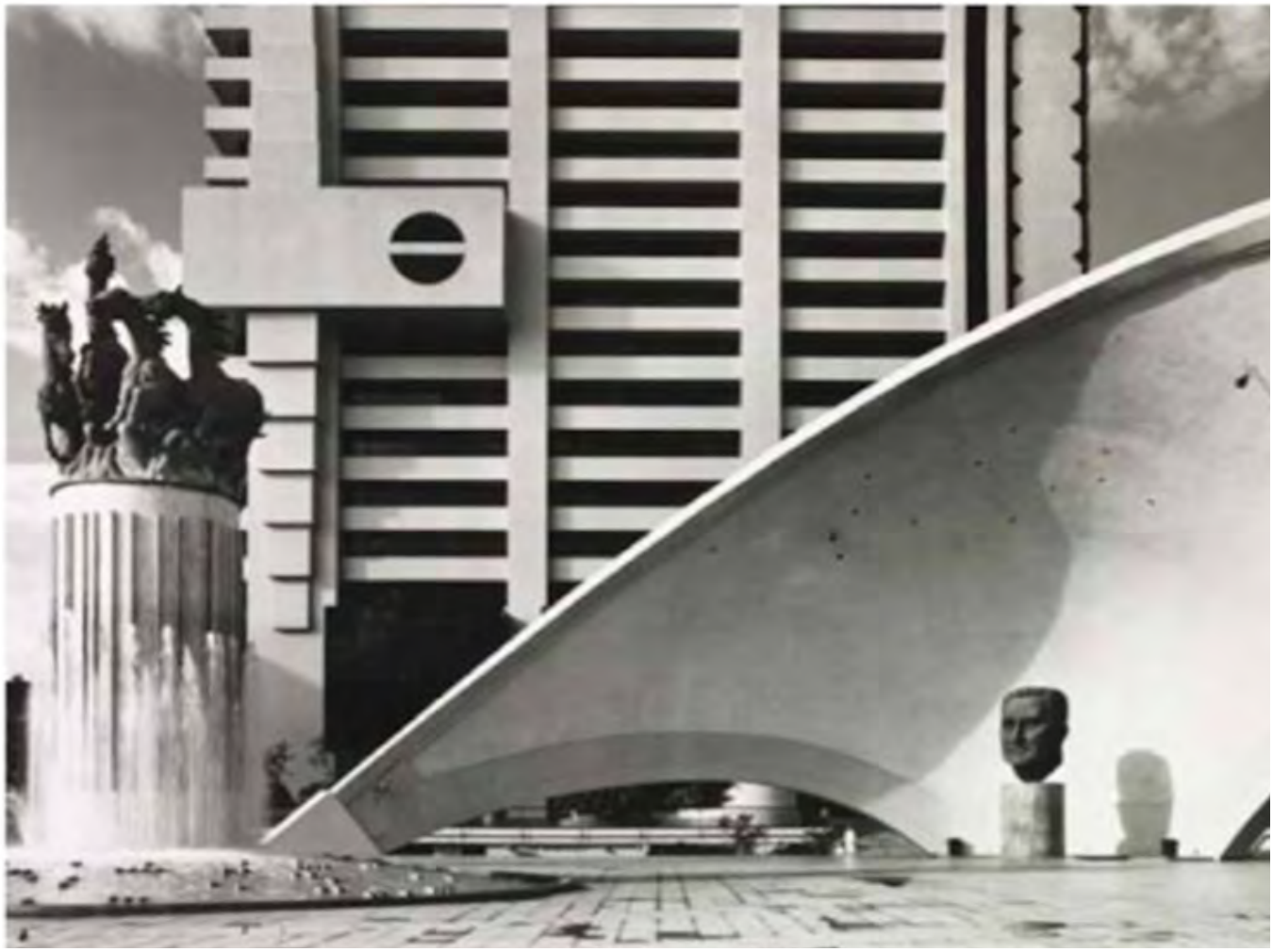
A postcard showing Market square at the turn of the 20th Century. It shows the open square, large indoor market and the Wilhelmiens inspired Guldenfinger building. Accessed from UP Repository.

Old realised proposals for the site in question, namely



Sedert die heel eerste argitektoniese skets van die latere Staatsteater Pretoria gemaak is, was daar heelwat veranderinge

© University of Pretoria



The square in the 1960s was changed from the open and barren square by Hans Botha and Walther Smit and
Market square changed character completely and became a nationalist monument commemorating prime minister J.G. Strijdom. Strijdom was prime minister of the Union of South Africa from 1954–1958. He was a staunch nationalist and is considered to be one of the main protagonists of the Apartheid separation laws that influenced the way South African cities were planned with regards to segregation acts. These acts were passed in order to separate races. It then became known as Strijdom square. The open civic square contained a bronze bust of the prime minister shaded by a Brazil Builds inspired cupola. It was left an open space of relief at the time, to acclimatise the up-coming and dominating forms of the Volkskas (now ABSA) bank and the Staatsteater (now South African State Theatre) buildings. These prestigious projects were seen as a sign of the grandiose boom in economic prosperity that South Africa experienced at the time. This was the square's most grand state.

© University of Pretoria

1. Die stadsgebou het in 'n voortreflike gemeenskapsaal ontwikkel
2. Die perseel word aangedui op een van die oorspronklike stadsplanne van Pretoria
3. Anton van Wouw en Frans Oerder het landskappe geskilder om die saal op te tooi vir die viering van die amptelike opening van die spoorweg na Delagoabaai

4. Die laaste dae van die ou stadsgebou. Montrovia het alreeds to die noorde verrys
5. Mnr "Fox" Oldendaal
6. Die eerste sooi word gegrit deur mnr S. G. J. van Niekerk, Administrateur van Transvaal
7. Model vir die toekoms

© University of Pretoria

Built in the Brazil Builds style, in the early 1940's the Brazilian mutation of the Modern Movement architecture started to gain a spirited following in the Transvaal. In 1943, to be exact, the Museum of Modern Art in New York staged the Brazil Builds exhibition. The exhibition portrayed an interpretation of the Brazilian Second Wave which proved to be more empathetic to both the privileged and the public than the austere International Style (Gerneke,1998:197) -An Oscar Niemeyer inspired cupola that shaded a large bronze head of JG Strijdom a former Prime minister to the Republic of South Africa. It also only represented one nationalistic hegemony prevalent in apartheid South Africa.

MORE OLD STATE PIC

On 31 May 2001 (iol.com), exactly 40 years after South Africa was declared a Republic, an ironic occurrence happened in Pretoria. The Strijdom Square's cupola mysteriously collapsed, and the bronze bust of the former prime minister fell into a cavern created in the parking garage. After the square was repaired, it became derelict, barren and open. It became relatively unused by citizens, apart form an informal marketplace in the beating sun. As it stands today, in harsh political contrast, a women's memorial is currently being erected. The memorial commemorates the women's struggle for voting rights which culminated in a march to the Union Buildings on the 9th of August 1956. Led by Lilian Ngoyi, the march briefly passed the square on its processional route.

Today the pedestrianised city block consists of The South African State theatre, ABSA bank, Sammy Marks square and shopping centre, the Guldenfinger building/ Metro Cycle House, the Kynoch building and the upcoming - nearly completed - Lilian Ngoyi Women's living memorial museum.

© University of Pretoria

Blood Fountain
Red pigment in the water of Strijdom Square, Pretoria
29 September 1992
Photographed by the late Richard Nezar for Pretoria News

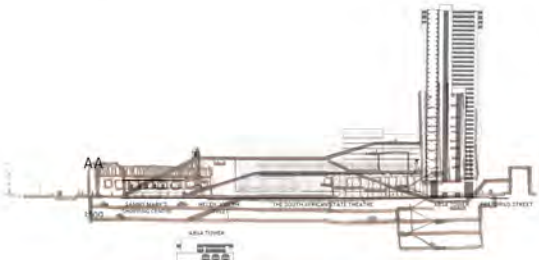
LOCATION :

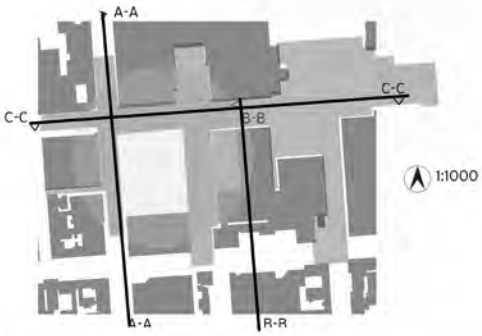
Lilian Ngoyi / Strijdom Square

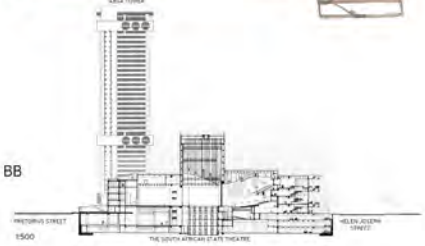
Corner Helen Joseph and Lilian Ngoyi Streets
TSHWANE / PRETORIA CBD.

ARCHITECTURAL INTENT

CHURCH STREET SEMANTIC STRIIP
LILIAN NGOYI/ SAMMY MARK'S SQUARE.

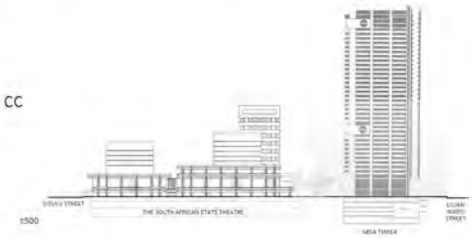




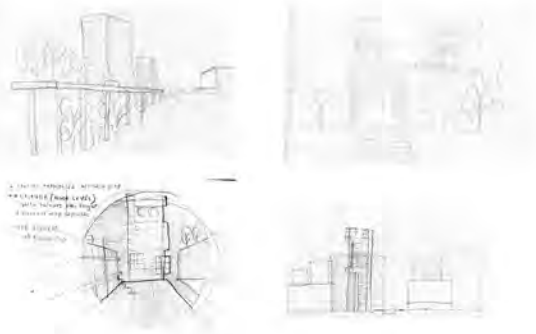


ARCHITECTURE AS A FRAMEWORK FOR THE DISTRICT'S NATURAL FUNCTION TO BETTER PROLIFERATE INTO THE CITY PROPER.

FOR INSTANCE:
- AWNINGS AND STRUCTURAL FRAMEWORK FOR INFORMAL TRADERS.
- WATER SOURCES ALONG THE FURROWS.
- SHADING AND REPOSE FOR CIVIC ACTIVITIES.
- AND THE PROPOSED PROGRAMME OF A LITERACY CENTRE.



USING ARCHITECTURE AS A SEMANTIC CONNECTION BETWEEN FUNCTIONS, USES AND INTENTIONS OF ADJACENT CONTEXT.



© University of Pretoria

Bazaar Building (Shoprite)
Corner of Church Street and
Van der Walt Street.

7 Storey building with ground floor retail Architectural influence: Art deco. Rounded street corner Materials: Plastered and painted white.

Sammy Marks Square
Erf 3357
The Sammy Marks shopping centre takes up most of the city block and consists of clothing and furniture shops, restaurants, general and municipal offices, a conferencecentre and catering facilities, Nu-Metro cinema, a library and parking for 1500 cars. It is 5 storeys high with ground floor retail facilities. Construction on the new shopping centre commenced in 1990. The aim was to improve the area, and make the CBD "a friendlier and more attractive area". A hotel, intended to be erected across the street from the Reserve Bank was never constructed. The remains of a structure and reinforcing remain on the square. The site is currently blocked off by fences and is unused. A steel structure with a polycarbonate roof covers the walkway between the shopping centre and the Lewis and Marks building. Materials: Red face brick, Green corrugated iron roofs, arcade and balconies surrounding Sammy Marks Square. +

Guldenfinger / Metro Cycle House
322-330 Church Street
Erf 3357
Three Storey office building with ground floor retail in 7 sections. Sections are divided with parapet walls. Each section has its own roof of corrugated iron. Ground floor: Shop front Upper Floors: Office Space Designed in 1903 by W.J. de Zwaan in the style of Amsterdam "gragtenpand". Materials: Red face brick in English bond, corrugated iron roofs.

Reserve Bank
370 Church Street
Erf 3271
37 Storey office-block on top of a podium and several basement floors. The building has a gr space with a large water feature in front of it. This area is surrounded by a palisade fence, restricting access to only those who have business in the building. Materials: Black granit panels and reflective glass.
A recent addition was added. The building cov most of the city block.

Standard Bank
225 Van der Walt street

An eight storey building with a large internal atrium. On the ground and first floors, and on the basement floors, this building is a shopping centre, which holds a large Standard Bank branch and offices over all the floors. The lower basement level is connected to the lower basement of the State Theatre basement parking via an underground arcade. Materials: Shutter Concrete, Polycarbonate skylight roof over atrium slanting towards the street, Flat concrete roof elsewhere.

Prinschurch Building
(House of Trade & Industry)
Sisulu Street
20 Storey office block, previously the offices of the House of Trade and Industry, now moved to new offices in Sunnyside. The building is owned by City Properties and is currently vacant with the intention of refurbishment as offices. Ground level plinth has street-front retail with parking above. Materials: Concrete with mosaic tiles and steel frame windows.

South African State
Theatre
301 Church Street/110 Pretorius Street Erf
2909/R
Large theatre building and Opera house, the State Theatre has 3 theatres. Architectural Expression/ Influence: Japanese Metabolism influence - flat roofs and balconies with large overhangs on northern facade. The building turns its back to the rest of the city and to Lillian Ngoyi Square. Three towers pierce through the flat roofs, two stage towers, and the "Trunk" administrative block, 42m above ground level at its highest point. The building also holds several basement parking floors and a set building workshop.

The Sheds
393 Helen Joseph stre
Private City Property Develo
associated with State theatre
and a monthly indoor food a
clothing market called "Mark
the Sheds"

Absa Building
320 Lilian Ngoyi Street
Erf 2909/1

38 Storey office tower with 5 basement floors. Architectural influence: Brutalism/ Modern movement. Materials: White ceramic cladding, multistory black glass "boxes" protrude from the building.

The Tramshed Building
393 Helen Josephs Street
The Tramshed Mall (historically, the old Electricity Board, that was later used as a depot for defunct trams); its modern parkade extension forms the southern edge of the site.

Pretmed Building
317 Pretorius Street
Private offices for the Department of Justice (DoJ)

Momentum Building
329 Pretorius Street

Public interface Constitution for the Department of Justice (DoJ)

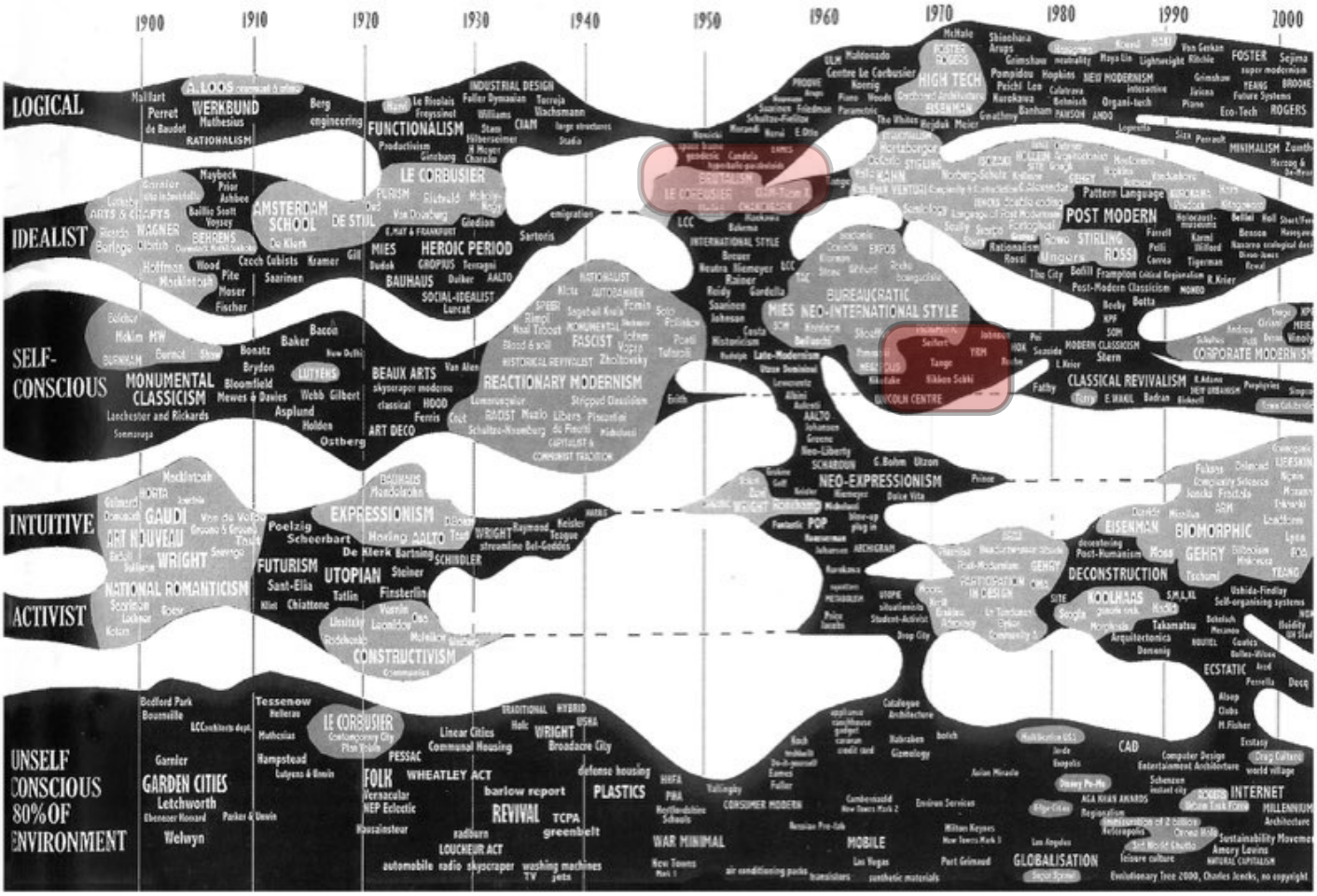
IMMEDIATE CONTEXT

© University of Pretoria

ARCHITECTURE ACROSS TIME

Architectural Paradigms at the time of construction.

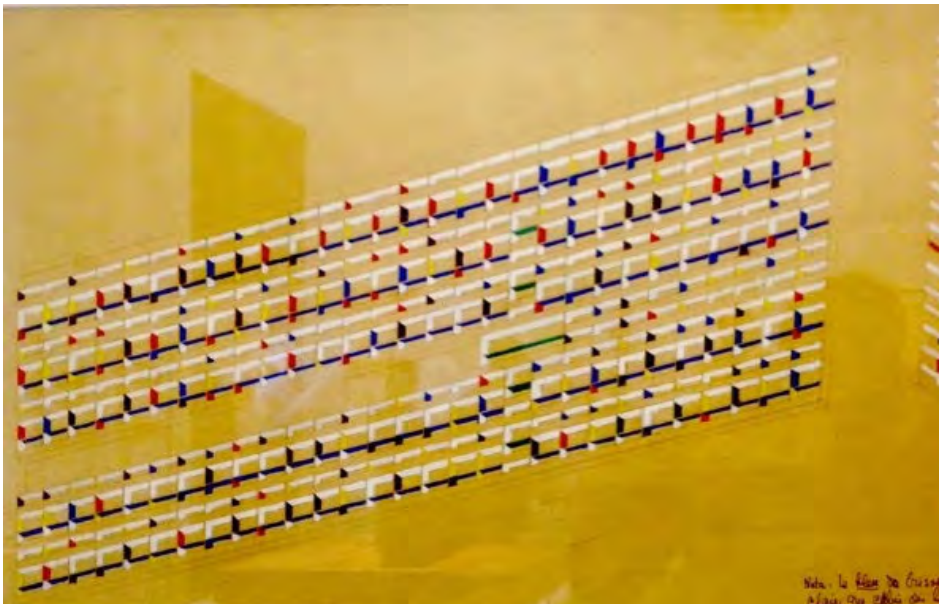
The understanding of the architectural movements at the time of the State Theatre and Volkskas' construction should be understood in the context of architectural history, before a theoretical stance can be formed regarding the extraction of a specific essence can be ascertained.
The State Theatre itself was a seminal building built in the fashionable Metabolist and Brutalist style which conformed to the nationalistic cultural grandeur that would be contained within. The building, of imposing forms, made and still makes a strong statement towards the urban context it situates in.



© University of Pretoria

Concerning the structure and construction of the state theatre.
Each of the buildings in question all exude a specific attitude towards the urban fabric, each have their own intention or message to convey and each of them were conceived in a specific time and thusly their style is reflective of this.

In reaction to the modernist international style of the 1950s Modern architecture is torn by remorse and doubt. It is still wavering on the point of renouncing Functionalism and yet has no other conviction to replace this god of its youth"(Boyd, 1956:85) Disparate influences were gaining strength and in the light of this, Le Corbusiers post-war projects erupted in the international press, triggering the New Brutalism (Gerneke, 1998:219). By the 1950s views contrary to the doctrine of Modernism were increasingly being aired. The Brutalist architectural style thus spawned from the Modern Movement and flourished from the 1950s to 1970s. The work of Le Corbusier largely inspired the early style, in particular his Unité d' Habitation (1952) and the Secretariat Building in Chandigarh, India in 1953.



Unite' d habitation - 1950 Le' Corbusier
thematic axonometric
photo Author's own.

The Secretariat in Chandigrah, Le Corbusier

© University of Pretoria

The term Brutalist architecture also originates from the French “beton brut” or raw concrete and it describes Le Corbusier’s choice of material. In 1954 the English architects, Alison and Peter Smithson, coined the term. However, it only gained strength when the British architectural critic, Reyner Banham, used it in the title of his 1954 book, “The New Brutalism”. The style has since been refined extensively and experienced historic appreciation and resurgences well into the 21st century.

Brutalist buildings usually consist of striking, repetitive, angular geometries and often reveal textures of the wooden shuttering used to shape the material which is normally rough, unadorned poured concrete - although this is not a pre-requisite for the style. Brutalist buildings may achieve its quality through a rough, blocky appearance and the expression of its structural elements, forms and services on the exterior facades. Other Brutalist materials include brick, glass, steel, rough-hewn stone and gabions. Another common theme of Brutalist buildings is the exposure of the building’s functions -ranging from its structure and services to its human usage and function. The Boston City Hall of 1952 and the Centre National de la Danse of 1972 in Lyon indicate strikingly different and projected portions on the facades, reflecting thespacial nature of rooms behind the walls

The first upsurge of New Brutalism occurred in the 1960s when inexpensive construction methods were sought after to re-build war- ravaged communities. The late 1960’s were also the era of expansions to various university campuses in North America and Canada and New Brutalism soon established itself at the American and Canadian universities. The first New Brutalist campus building was Paul Rudolphs Yale Art and Architecture Building in 1958. (Fisher, 2000:15)

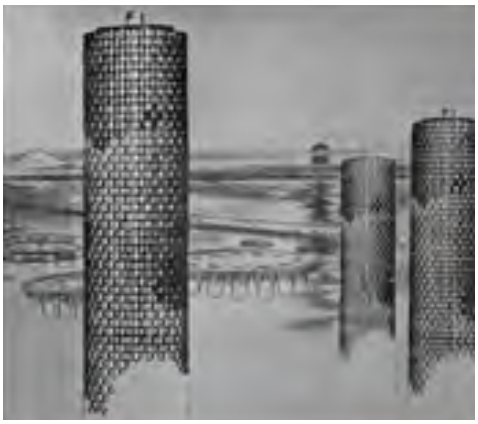
In defining the form of symbology for the representation, contextualisation and re-edification of the building of the state theatre to prior states of grandeur as a civic icon, architectural feat, and technological marvel. The state theatre’s expansion of a language and semiotics facility would subvert prior elitism associated with the theatre and bring it to a universally acceptable level that is accessible to all the users of the city. By means of the cross programming of a theatre which operates on an events basis, and a linguistic didactic facility which is free to access whenever.

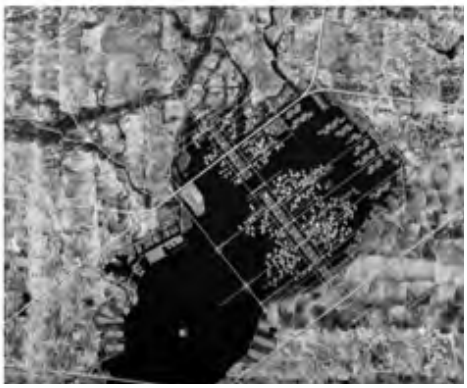
A connotative meaning associated with a style is seen as an analogous method of form derivation by the distillation and abstraction of key constructional elements that are endemic to the host building. This material DNA of The State Theatre is of off shutter concrete columns in a beton brut finish where the tie rod holes are left honestly exposed.

© University of Pretoria

The construction of the State Theatre consists of main beams that are also used as facing beams, these were finished with a sandblasted surface finish to create the exposed aggregate style, while the edges which are chamfered are left smooth from the casting. They were then masked when the sandblasting surface treatment took place- to create a smooth frame for the exposed aggregate sections.
The beams that signify cross beams are finished with a timber formwork impression. This brutalist influence in style, with its massive and dominating appearance was constructed in a building methodology that was heavily influenced from the then in vogue metabolic style of Japanese origin.

Metabolic structure is often associated with structure that is built of modular cellular parts that are arranged to form an architectural whole. Examples of this include the notable works of Kenzo Tange, Kisho Kurokawa , Kiyonori Kikutake.





https://www.jpf.go.jp/j/project/culture/exhibit/traveling/pdf/Struggling_Cities.pdf

http://www.domusweb.it/en/news/2011/05/03/metabolism-the-city-of-the-future.html

Whilst discussing the organic nature of Kikutake's theoretical Marine City project, Kawazoe used the Japanese word "Shinchintaisha" as being symbolic of the essential exchange of materials and energy between organisms and the exterior world (literally metabolism in a biological sense.) The Japanese meaning of the word has a feeling of replacement of the old with the new and the group further interpreted this to be equivalent to the continuous renewal and organic growth of the city.
(Lin 2010; 22)

Lin, Zhongjie (2010). Kenzo Tange and the Metabolist Movement. Routledge.

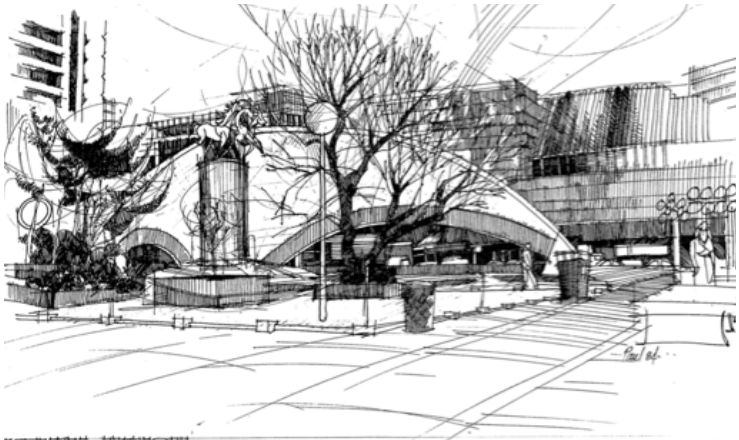
1 Kiyonori Kikutake *Tower Shape Community* 1958
2 Kiyonori Kikutake *Tower Shape Community* 1958 (Scale Model, 2010)
3 Arata Isozaki *Cities in the Air* 1960 (Scale Model, 2010)
4 Kenzo Tange *A Plan for Tokyo-1960* 1960

© University of Pretoria

It thus had an ambiguous meaning. One referent pertained to the organic growth of buildings out of an organism that is the city and also the literal energy exchange between organisms. The metabolism manifesto as presented to CIAM in 1960 attempted to understand human society as a vital process which is continuously in development from atom to nebula. such a biological word was used because the Metabolists believed that design and technology should be a denotation of human society. Not metabolism in its natural sense, but to try to encourage metabolic development in society itself.

Symbolic architecture should reflect human society in a manner that understands their capacity to develop and grow, nurturing knowledge in a didactic facility that metabolically functions on top. It extraneously grows like a tumour on an already metabolist inspired building.

Metabolic forms came across as cellular in form and always of modular parts which generated a cohesive whole. The repetition of elements involved tended to a construction that mimicked the timber joinery methods of the Japanese architectural past. The fact that corners never meet and the structure always extends past a transverse member alludes to the method of interlocking timber methods as well. Metabolic architecture - that is grown organically which alludes to timber and a certain lightness in terms of construction is heavily juxtaposed by the heavy stereotomic brutal concrete which is formed from timber formwork, which are mimetically referent to the Japanese timber construction style.



KEVIN LYNCH
CITY FORM—APPLIED TO PRETORIA BY P.SCHUMANN

Proposals for the precinct have differed greatly. During the 1980's, proposals were made to integrate Sammy Marks Square (then GJ Strijdom square) with Strijdom Square to form a pedestrianised route that would connect with Church street.

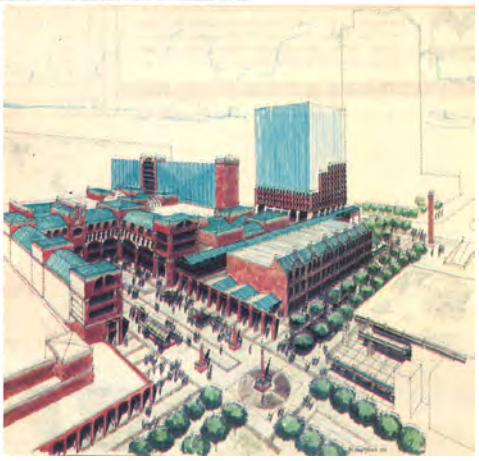
Pretoria se R215 miljoen-projek begin

KONSTRUKSIEWERK deur Murray en Roberts aan die Sammy Marksplein-projek van R215 miljoen in Pretoria het dié week begin en die eerste sooi word môre seremonieel deur die burgemeester, mnr. François Morkel, gespit.

Die argitekskets toon 'n aansig van die kompleks tussen Kerk-, Van der Walt-, Vermeulen- en Prinsloostraat soos dit teen einde aanstaande jaar sal lyk wanneer dit in gebruik geneem word.

Dis een van die grootste gesamentlike projekte van die Jakarandastad se stadsraad en die private sektor. Die raad sal 'n kwart finansier en bykomende munisipale gerieve daarop oprig. Die ander driekwart sal 'n winkel- en kantoorkompleks huisves en word gefinansier deur UAL deur sy Newport Property Fund, Prima Property Trust en AA Lewens.

Die kompleks strek oor meer as 30 000^2 meter waarop 24 000^2 meter winkelruimte ingeruim word. Twee historiese geboue, die Sammy Marks- en die Kynochgebou, word behou en in die kompleks ingesluit. — JOHAN BOOYENS.



© University of Pretoria

Urban Proscenium
A Cultural Precinct in Pretoria's CBD

Considering previous proposals for the square, it becomes evident that many previous urban frameworks would have suited the site much better than the current situation. These proposals curtailed dead space and encouraged civic space.

The future of this site, taking into consideration the Tshwane 2055 vision, sees Church Street as becoming a semantic strip that encourages commercial interest into the precinct by considering it much alike to a times square or the las vegas strip. This is a far too marginalised view of commercial interest. It completely negates the stratified history that would lie under the commercial veil of spectacle and sensationalism. This view not intrinsic to the cultural and social aspects of our city that deserve just exaltation.

Group Framework Beginnings

Considering the given context of a cultural centre within a business district of a South African city in the 21st century, it becomes important to conceive a departure point for a meaningful criticism of a building with this nature in Pretoria. It is the platform of interaction for the public with our cultural performing arts. It invariably houses, displays and proliferates what we deem important as a body of citizens whether it be politically, economically or socially reflected. It is a beacon to the cultural zeitgeist.

URBAN VISION
Design Guidelines For Urban Interventions

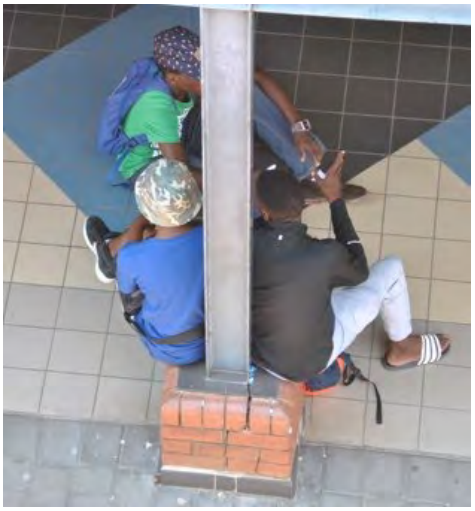
A group site framework was created with fellow M(Prof) students - Kira Bester, Marlette Burger and Tian du Toit Oosthuizen. This was a means to a vision for the cultural precinct that would be proposed for the site in question. The collective vision saw the advent of the "Urban Proscenium". This name was coined by our group as a means to an identification of a cultural precinct in two city blocks of Tshwane. This can be described as the cultural lens that is placed over the observer's eye to view the rest of the city from a culturally partial manner. This precinct is defined by the dashed orange line visible above.

© University of Pretoria

Precinct shown with orange line.

The defined precinct refers to a cultural, repose, retail and informal trading platform that would exalt each of these programmes respectively, and also form new programmes to further enhance the positive cultural aspect of the site. The proscenium arch in theatrical terms is what separates the observer from the performer, but in this case of urban proscenia, it alludes to the fact that this cultural node would be the platform to view the city within a culturally acceptable and accessible mode .

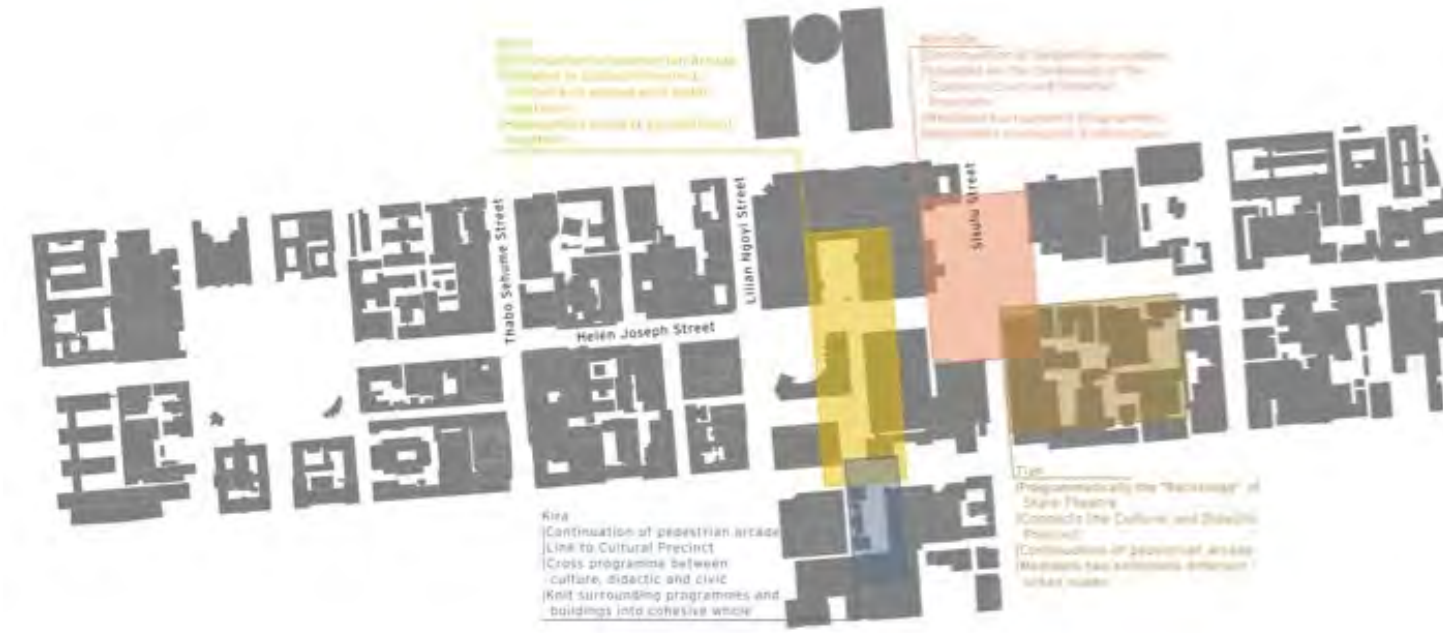
Site photo cadastral information form GIS:



Evident seating issue,
Photo - author's own.

In this google earth image it shows the informal market place made of temporary gazebo structures- these shading devices are even modelled in 3D as legitimate

© University of Pretoria

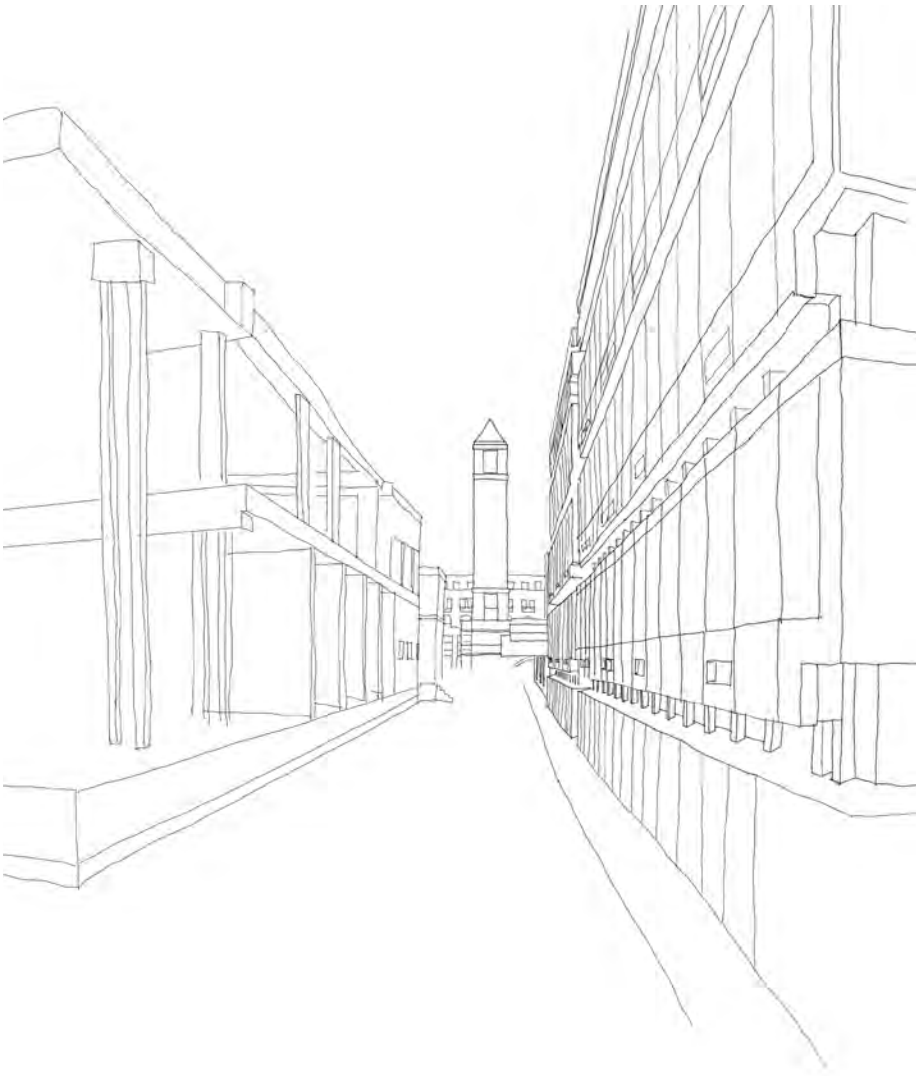


Mapping According to the Urban Framework

Stemming from the initial critique of the proposed developments, the mapping aimed to gain an understanding of the actual, everyday activities occurring in the area as a means by which to understand the types of interventions that are truly required in the CBD.

The levels of ownership of open space by the city dwellers were addressed through mapping the activities occurring in the area. The notion of levels of energy were of primary focus. Spatial arrangements were assessed and it became ascertainable to whether they either lend themselves to the occurrence of activities or discourage them.

The tradition of using arcades with Pretoria's CBD (Polly's, Burlington, and Sammy Marks square) was also drawn upon. This arcaded galleria becomes useful and a pleasant environment for pedestrians by cutting the large city blocks into smaller walkable intimate environments.



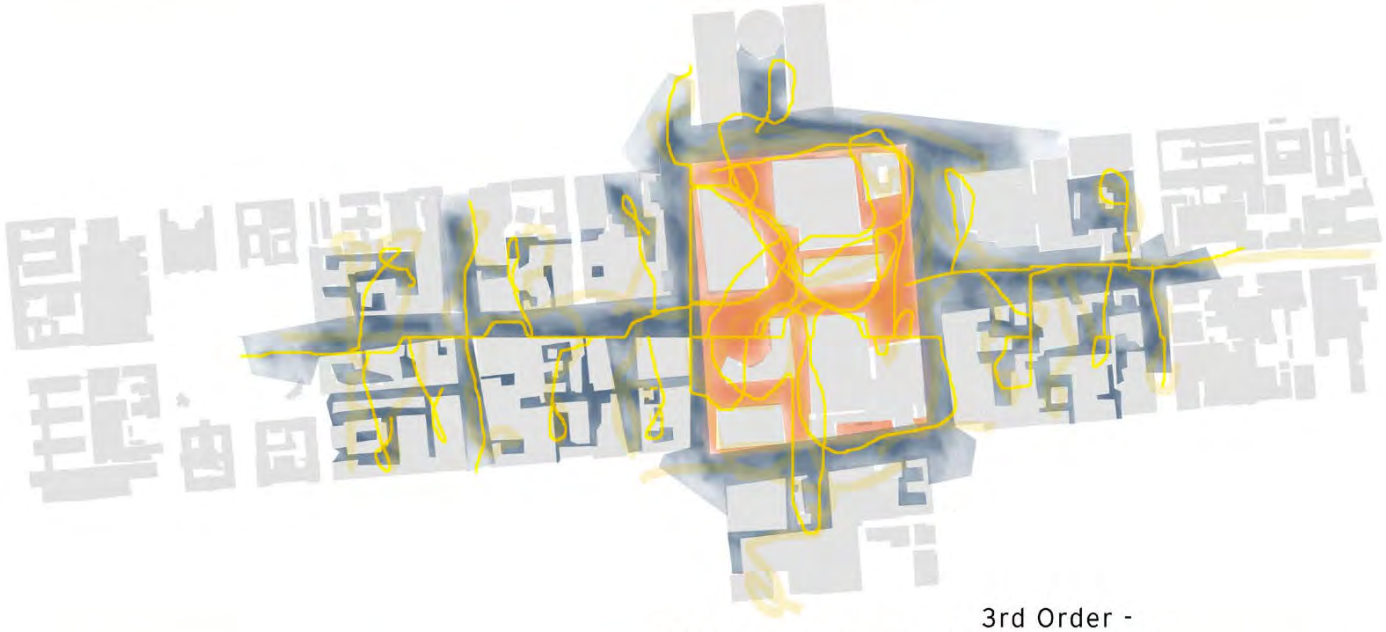
© University of Pretoria

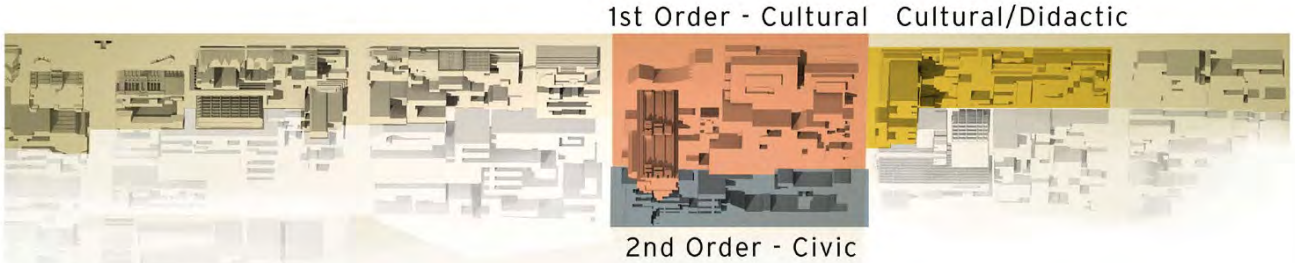
First Order - Cultural

Second Order - Civic

Third Order - Cultural / Didactic

Supporting Colour - Commercial





URBAN Spatial Hierarchy

Spatial Hierarchy: 1st, 2nd & 3rd Orders

© University of Pretoria

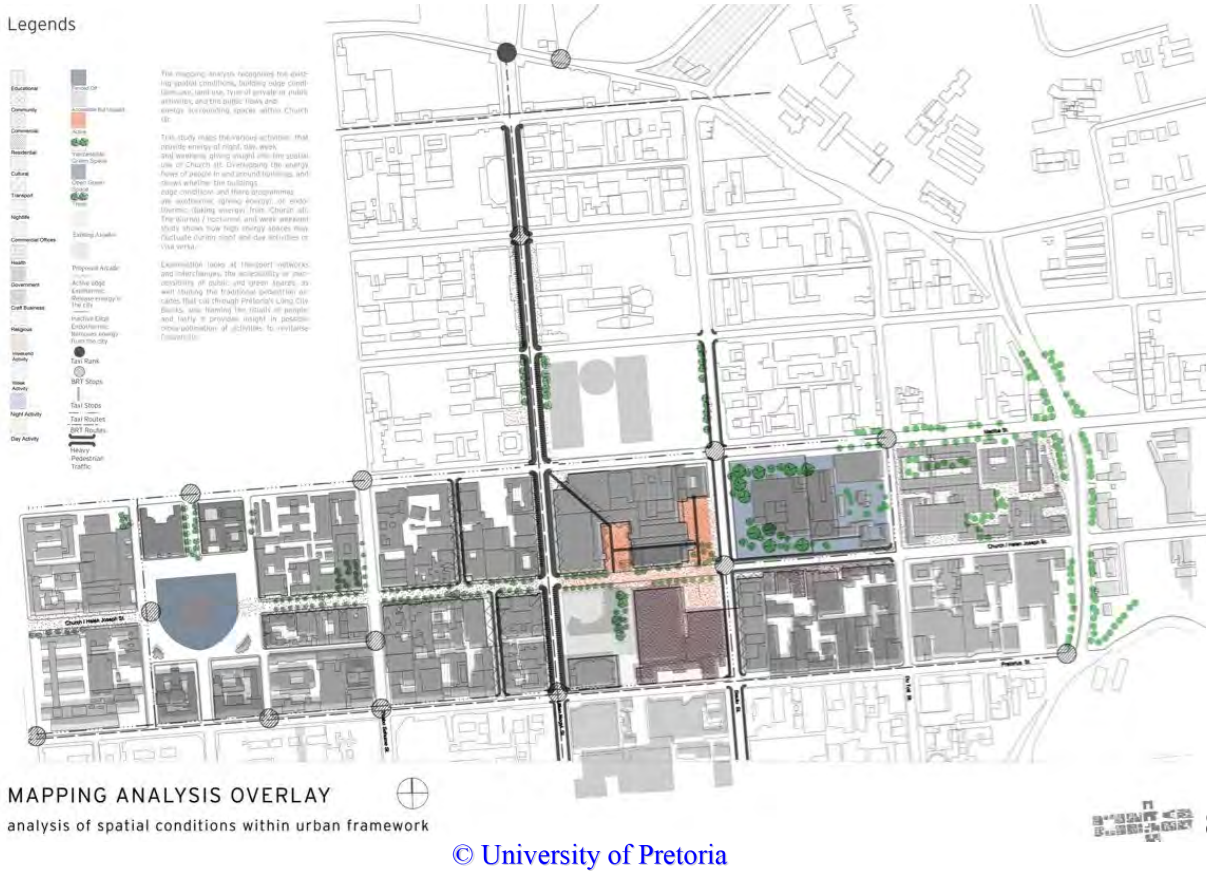
Open Spaces Heirarchy

The various open spaces that have been identified along the precinct have been classified within orders that are based on a spatial hierarchy. The hierarchy consists of three orders of typology of architecture that align with the Tshwane 2055 vision.

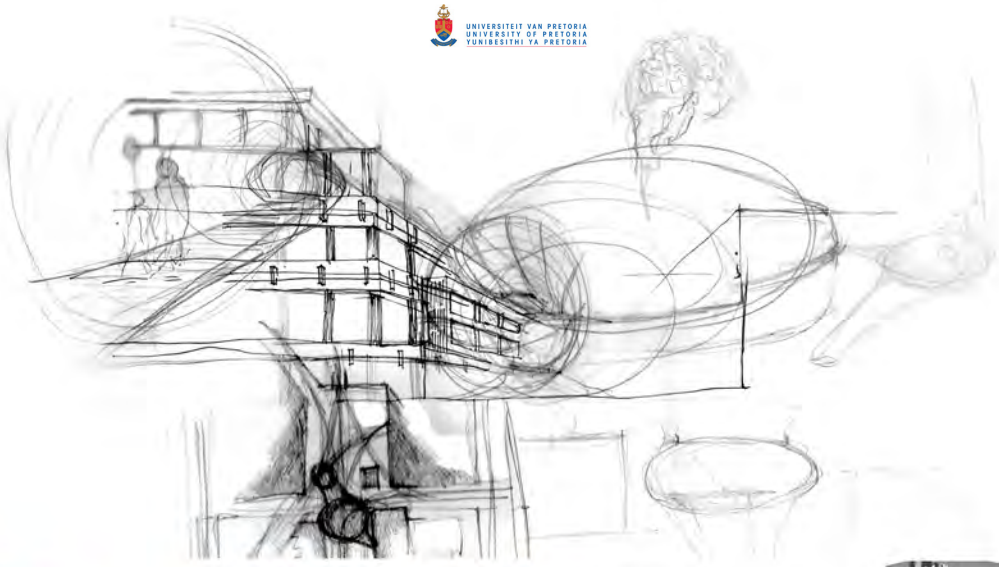
The first order pertains to the cultural precinct that is proposed for the State Theatre.
The second order concerns a civic precinct that surrounds this culturally prevalent pocket in the inner city.
The third order pertains to a didactic precinct which is already flourishing within the precinct.
These spatial hierarchies will exist in mutual symbiosis, and their programmes will infiltrate into each other as is evident in the impressionist figure.

Major aims for the urban framework included:
The unbiased representation of the history of the precinct. These architectural interventions aim at having building programmes that extend deeper than the mere retail activation that occurs in the precinct. They will focus at providing further layers of urban activation as well as providing events based activity during quiet and unsafe evening and weekend periods.
The urban vision proposes to provide a platform for the activities that are already occurring in the precinct to accentuate their positive influence. Street-front Retail provides the first layer of urban activation, although additional interventions are required in order to slow down the activity and to provide places for lingering.
Through an exposure of layers of use from the past, the pedestrianised portion of Church street will have additional layers of urban activity added to it.

Pragmatic and quantifiable mapping:

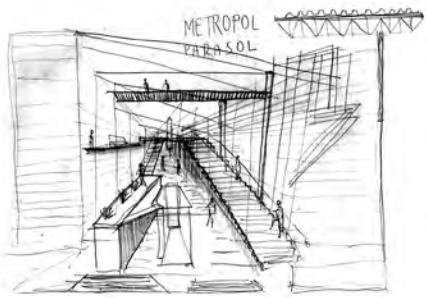


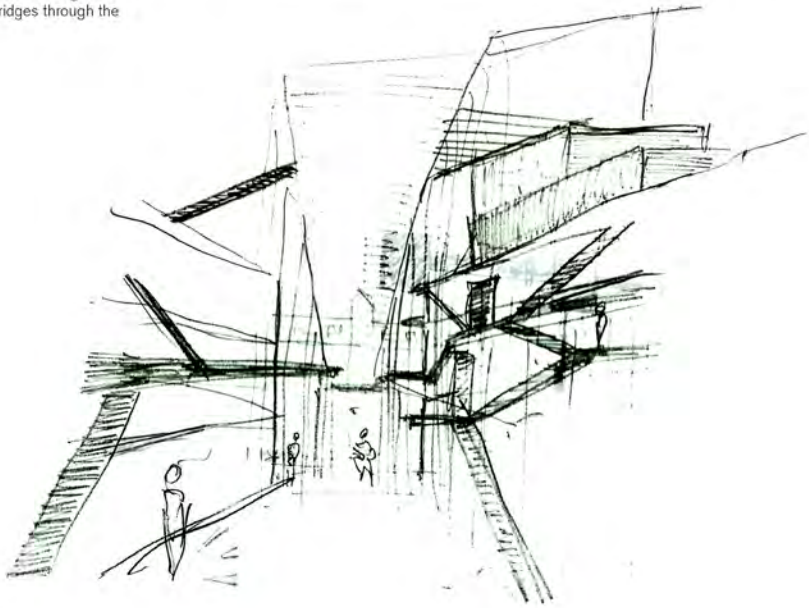
© University of Pretoria

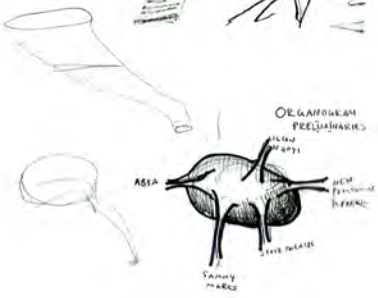


THE STATE THEATRE ABSA TOWERS STANDARD BANK BUILDING

Connection of the unknown underground realm by fissures and bridges through the ground plane.

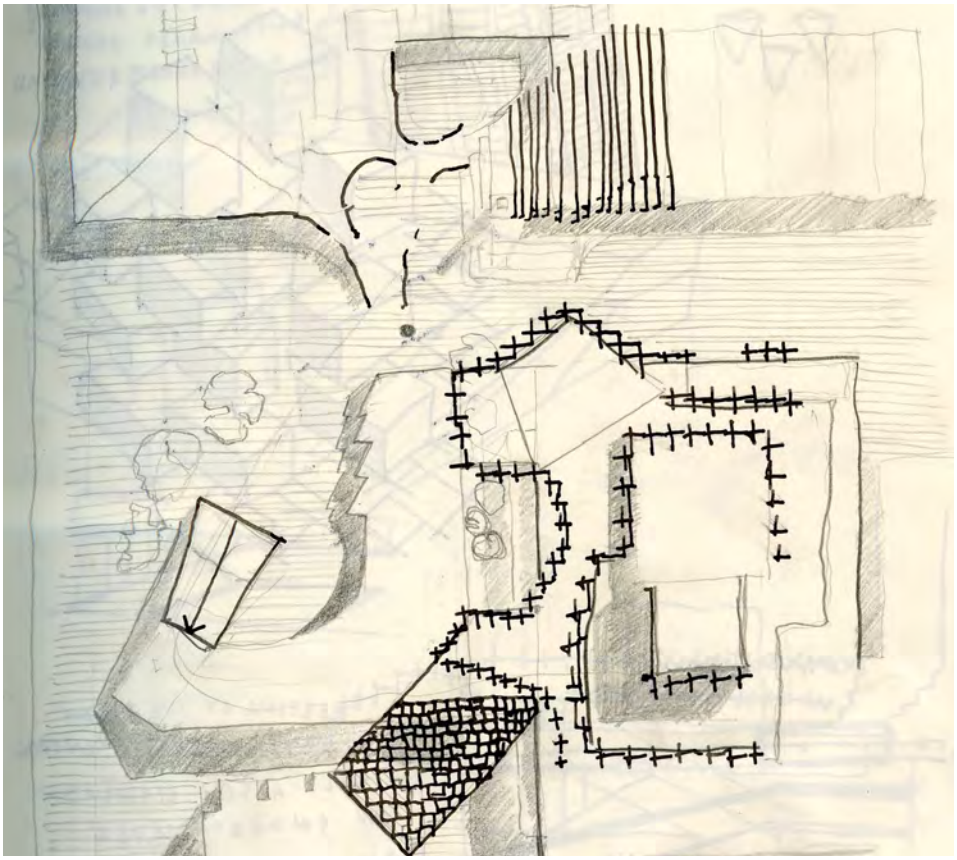


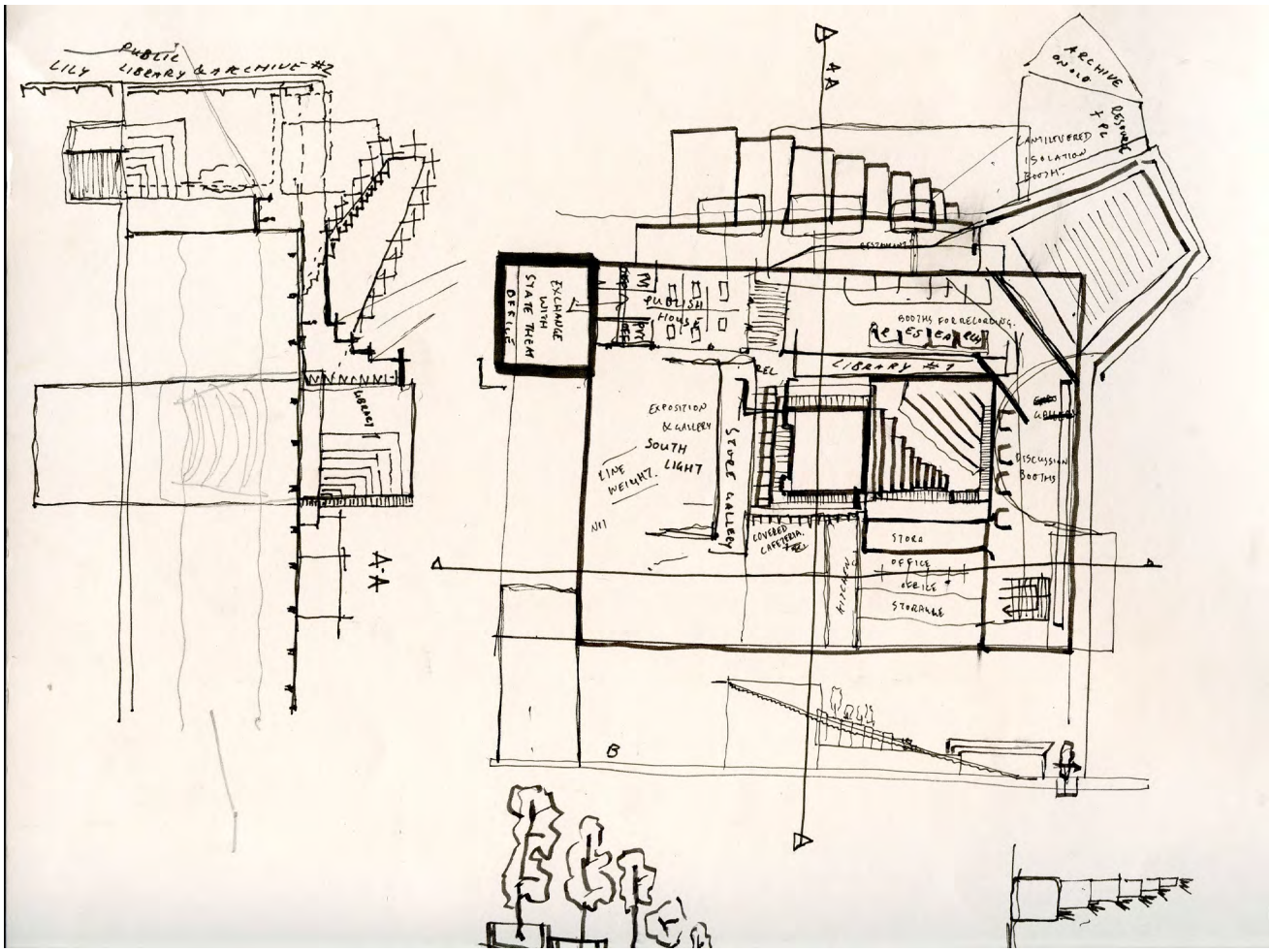




HELEN JOSEPHS - CHURCH STREET.
NORTHERN ELEVATION

© University of Pretoria





© University of Pretoria

A haptic narrative, photographic essay and sketches on site were used to achieve this understanding.

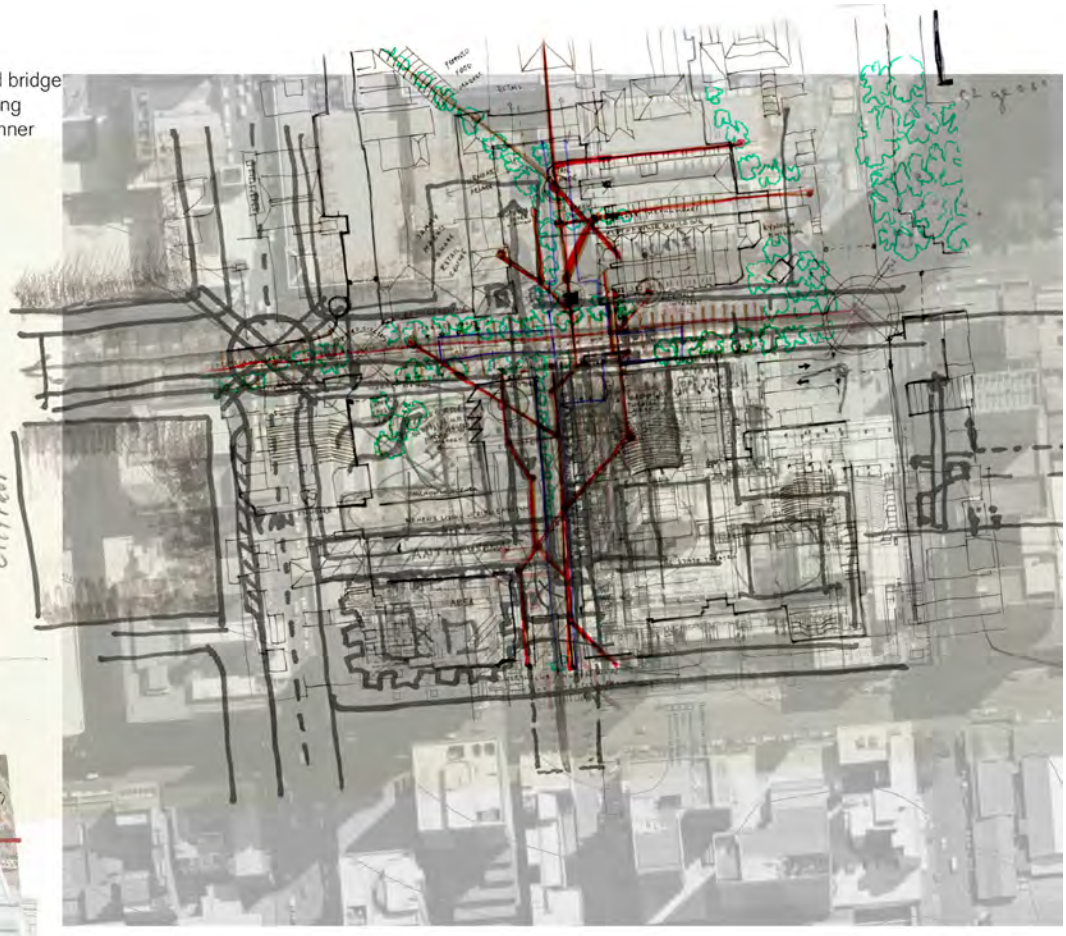
Around the square is a multitude of personas and activities that populate the rich urban canvas. The friendly ladies sell mielie cobs to the passing commuters and the occasional bankers, while specials on sunglasses and insect repellent are shouted across the Church street gazebo markets. Almost anything is available for the transient visitor to the inner city in terms of retail possibility. From fresh fruit, vegetables and snack foods to homeware, curios and curtains. Despite the rich history of market trade in the area, markets remain temporary with no infrastructure or basic amenities to assist their trade - only a provisioned area for them to do so. The formalised retail shops on the Northern periphery are mostly chain, speciality and clothing shops which draw people from all around Pretoria. Students form the nearby colleges use the Sammy Mark's Square as a place to meet friends between classes. Many businessmen come downstairs from their offices for lunch in one of the nearby arcades. Busking musicians use the very public nature of the area around the state theatre to burgeon their musical talent and sell a few CDs. It is a socially diverse and rich urban scenography full of interesting characters that could very well do with an area of public consideration at its utmost important tenet.

PHOTO ESSAY site photography photos.

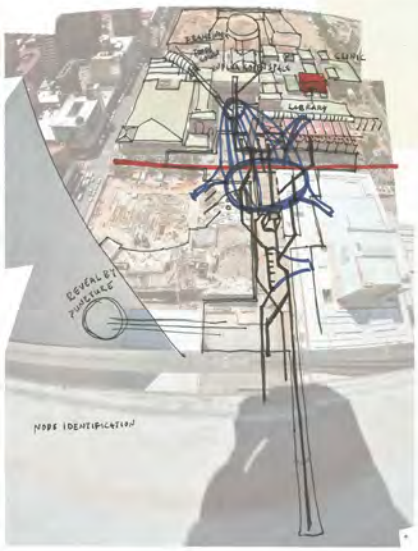
photograph of market stalls in church/helen joseph street
- Author's own

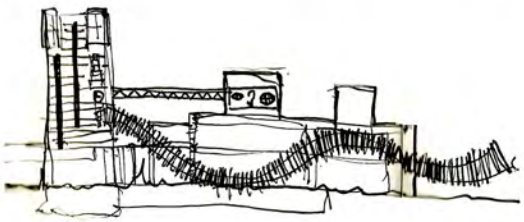
© University of Pretoria

Nodes that are connected bridge functions of the surrounding buildings in a mimetic manner



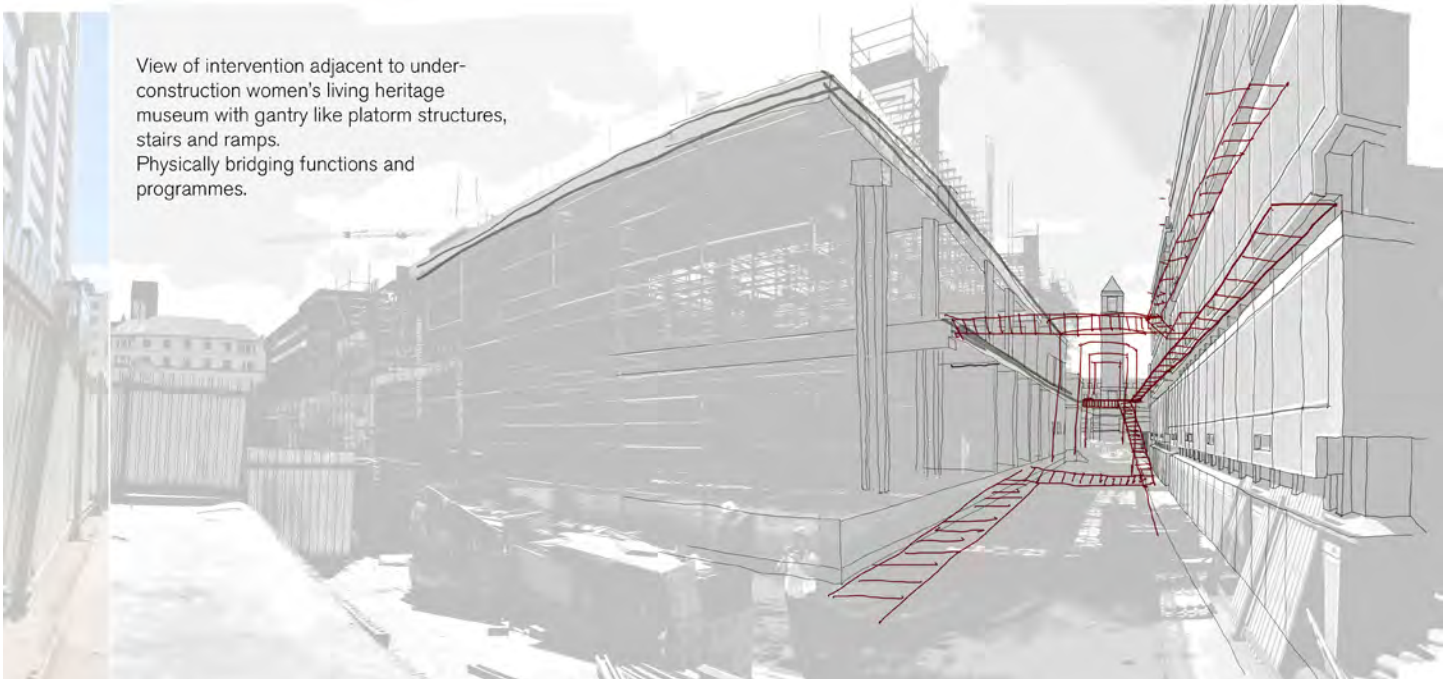
View from roof of ABSA building personal photograph.





Sectional exploration of "speaking tube" an ideology that languages will be spoken in and by the tube (recorded colloqualisms) proliferating spoken communication.

View of intervention adjacent to under-construction women's living heritage museum with gantry like platorm structures, stairs and ramps.
Physically bridging functions and programmes.

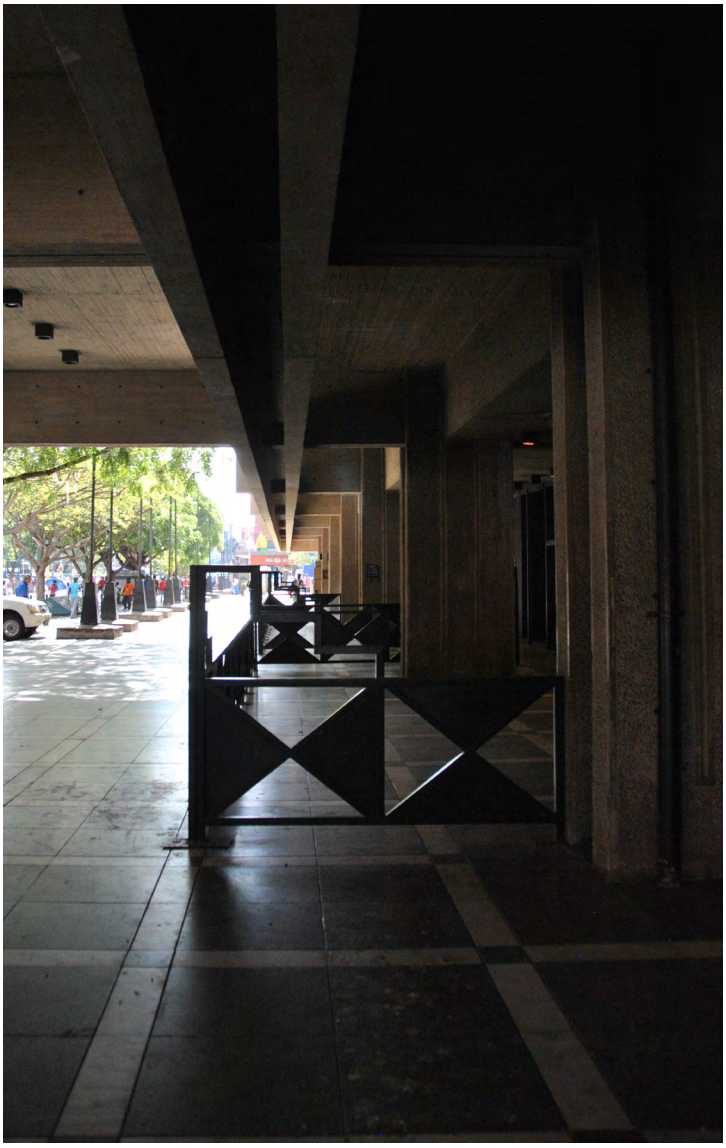


© University of Pretoria

South African State Theatre Foyer Interior

© University of Pretoria

Standard Bank Atrium



© University of Pretoria

Seating and Shading improvisation near Sammy Mark's Square

Helen Joseph Fresh Produce Market

© University of Pretoria

© University of Pretoria

From left:
ABSA lift shaft fenestration detail from inside & State theatre Opera block foyer.

Koedoe Arcade & Queen street

Mosque from ABSA roof

© University of Pretoria

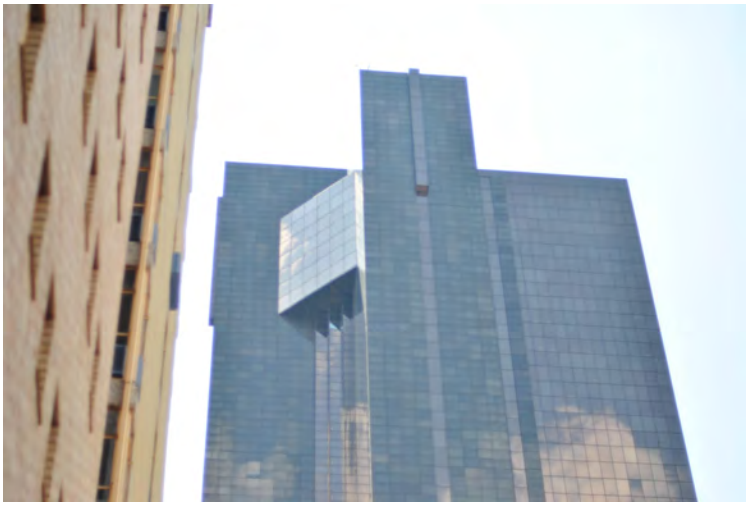
© University of Pretoria

Pedestrianised Church (Helen Joseph Street)

View looking West on top of ABSA Tower

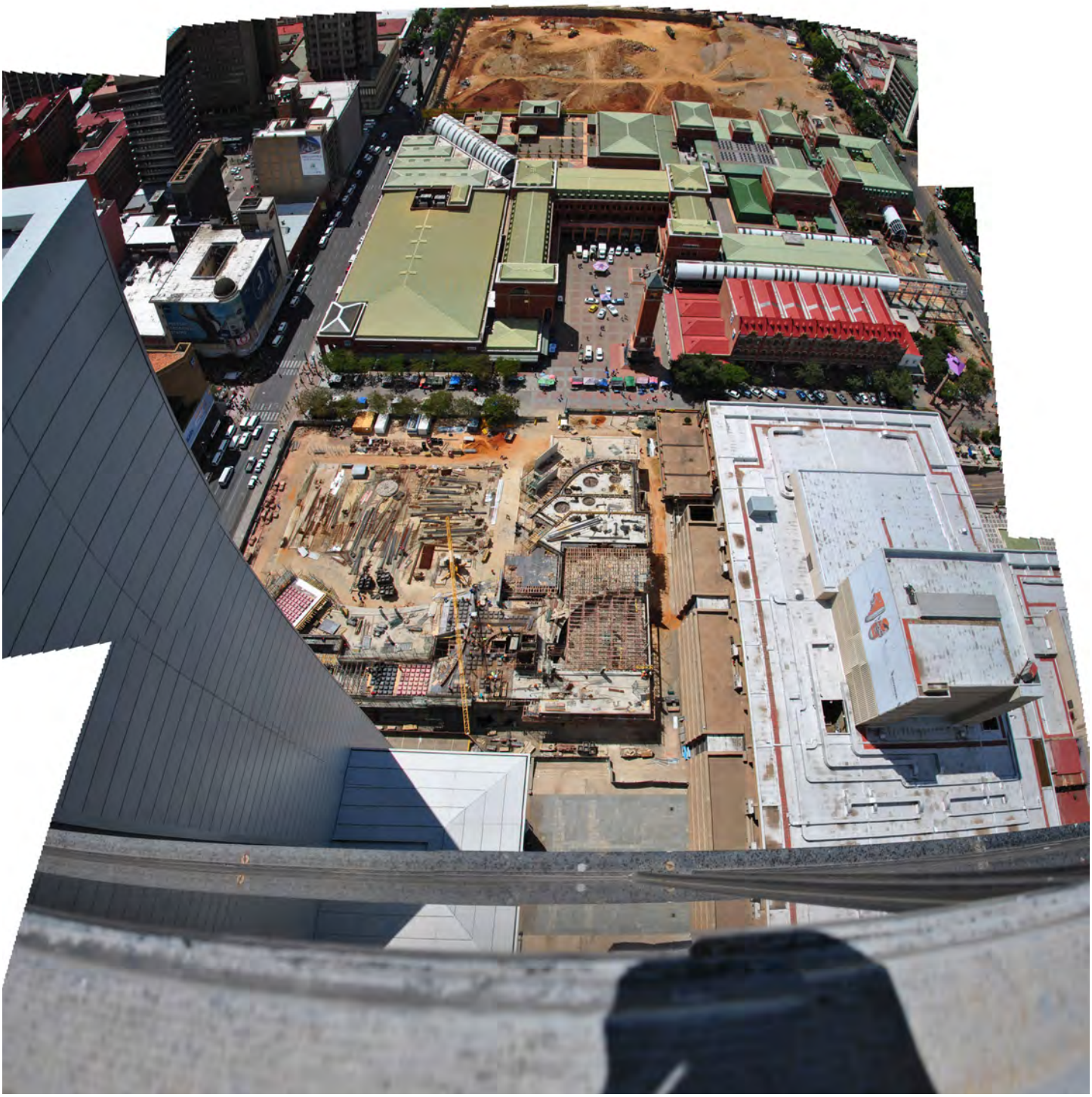
© University of Pretoria

State Theatre Stage Props Workshop



South African Reserve Bank

© University of Pretoria



View of Lilian Ngoyi Women's Memorial Centre From ABSA Roof

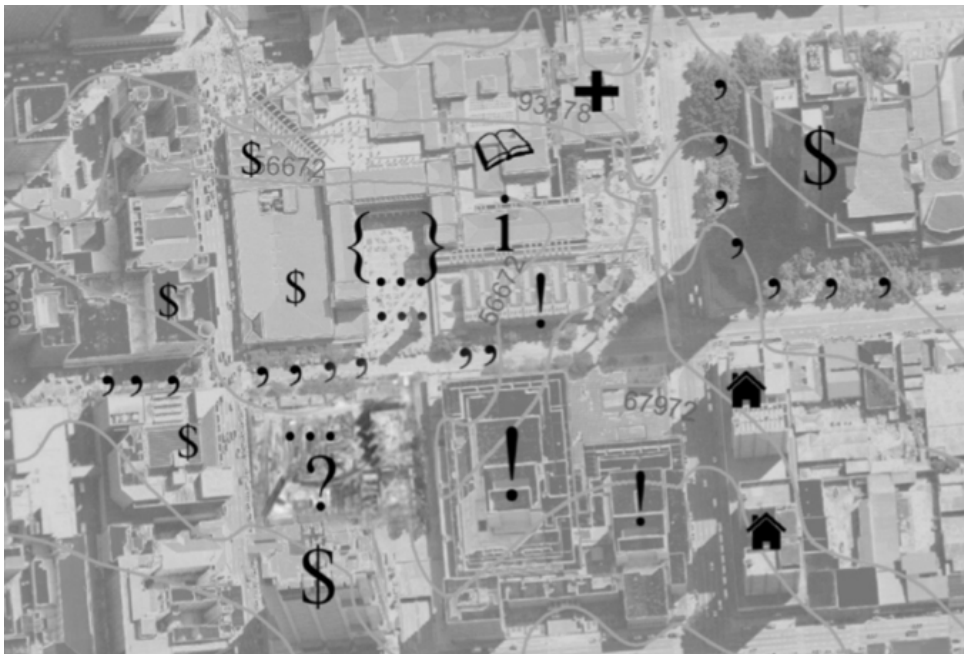
© University of Pretoria

© University of Pretoria

Punctuation Mapping

As part of the transect haptic mapping methodology, language associations were used and the fabric of the context becomes punctuated with meaning and function.

- Dollar signs indicate financial or shop ping centres.
- Commas indicate citizen repose points that are proposed.
- The question mark indicates an un known - marking the unforeseeable intention of the upcoming women's memorial centre.



Current site conditions of Lilian Ngoyi and Sammy Mark's Square - Photo

© University of Pretoria

Acceptance of the Past

The investigation begins with a critique of the proposed building for Lillian Ngoyi Square which is currently under construction. It is a women's living heritage monument and skills centre by DBM architects of Johannesburg. Consisting of an interpretive centre, narrative space and trading space for local crafters. It is currently being built on the South East quadrant of the square. This decision to take up much of the open space of the square with a building, that serving mostly as a static memorial, could be seen as a missed opportunity for the re-purposing of an open public space that is positioned in such a central part of the city.

The programme of the proposed building, which was believed to be marginalised and politically biased elicited initial concern. There are infinitely more effective ways that architecture and open space in the city can be appropriated. Public architecture should address the daily users of the city, rather than a marginalised political agenda.

The current proposal for this site completely negates the palimpsest of historical layers. The stratified past is completely lost in a banal contemporary translation of only one "history" and not the true, social and political nature of the site. It only represents one biased story that is proliferated better than others. Because of the polar political regimes, the previous history of white supremacist and nationalist power is brushed under the carpet. It is not a comfortable history to remember, however it has shaped South Africa with the diversity as it is today and cannot be easily forgotten. The atrocities committed against black people and voting rights for women were issues of racism, sexism and xenophobia whose effects are still felt today. The new proposition memorialises the women's march to the Union Buildings to protest for voting rights - a small fragment of the rich history of the site. It focuses on a history pertinent to the political views of the time, and conveniently turns a blind eye to the less popular histories of the site. The proposal is believed not be a true zeitgeist of the times. It has been a superficial and literal translation of the times square proposal that can be seen in the opposite picture.

© University of Pretoria

Tshwane 2055 Vision

The current vision for 2055 proposes that Church street function as a cereminial route, memorialing the Women's March of 1956. A museum in memorial of this march is currently being built on what has been rename to Lillian Ngoyi Square.

It represents the ideology that bad memories are much easier forgotten than dealt with. Justified memorialisation should come from all the histories of site and not the convenient and topical ones. A building proposed for this site should address all the stratified histories in a reverend manner exalting the positive memories and justifiably remembering and learning from the bad ones.

It is considered it to be much alike a pendulum. First swinging very strongly to one side and then very strongly to the other. Never a moments mediation or compromise. The proposed designs for the square are considered to be marginalised and retrospective.

The aesthetic of the initial proposal resembles nationalistic architecture. The monumental plaza containing the JG strijdom and cupola with a bust of his head, was an effective city landmark but provided little to the passer by. It was an unpleasant and barren, albeit grandiose, memorial space and that on a programmatic level did not allow for a freely open public space. Memorial spaces do not promote daily activity from all city users, instead they attract few people visiting one specific memory.

women's living heritage monument DBM architects

© University of Pretoria

It is stated in the DBM proposal that the structure is to be lightweight and space defining but the final design seems to have lost the original intentions of transparency. Looking at the open space of the square in the final design, it has been softened with vegetation and the open space has been landscaped to provide seating, which is seemingly an improvement on the initial square design proposal from the 2055 vision. However, from looking at the render, the nature of the square remains surprisingly similar to that of the previous Strijdom square. There is a sculpture in the centre of the space and while a certain amount of seating is provided, the spatial arrangement resembles that of the previous design. It needs to be questioned how much analysis was done of the previous square and how much was learnt from it.

With reference to the stylistic heritage of the site, the notion of the 'Brazil Builds' style has not been considered and memorialisation of the iconic paving pattern of the square has not been included into the new design. As the only space defining element that existed on the previous Strijdom Square, the cupola's curved shape, could have brought additional depth to the roof of the proposed building. Contrastingly, the flat roof of the proposed building allows for little connection to be made to the surrounding buildings and their massive variation in scale. The four columns on the outside of the building provide backdrops for the four faces of the women who lead the march. This becomes a rudimentary and literal representation of the purpose of the building. The placement of the building allows for the dead edges created by the backs of the state theatre and the ABSA tower to be activated. While this activates the edges of the square, it has been noted that the back of the new building will then create narrow, uncomfortable alleyways between the new and the old.

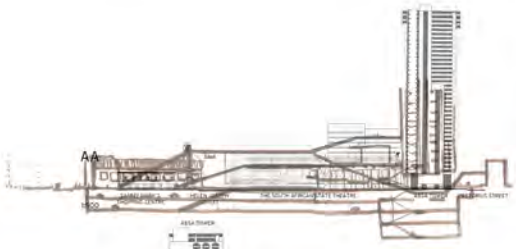
The architectural resolution by DBM architects for the open public space is contestable because it doesn't connect to the other public open areas. It is isolated and internalised in its formal and programmatic intentions - It does not comfortably respond to its surrounds. Programmatically a proposition for a women's heritage museum is not the most suited programme for the site , it does not contribute to the majority of users to the precinct, and does nothing for the transient user or daily citizen. Its on this site only because the women's march passed through the area on the way to the union buildings protesting for voting rights to the government under JG Strijdom the prime minister of the time.

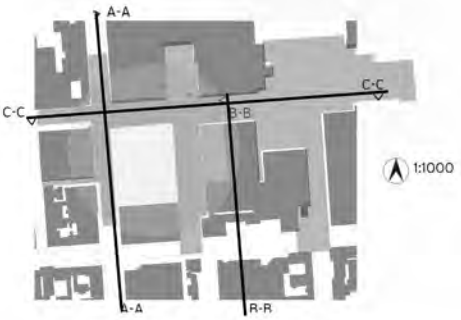
previous barren memorial JG strijdom square

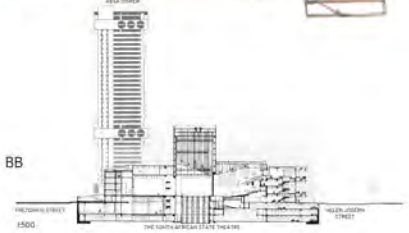
© University of Pretoria

ARCHITECTURAL INTENT

CHURCH STREET SEMANTIC STRIIP
LILIAN NGOYI/ SAMMY MARK'S SQUARE.



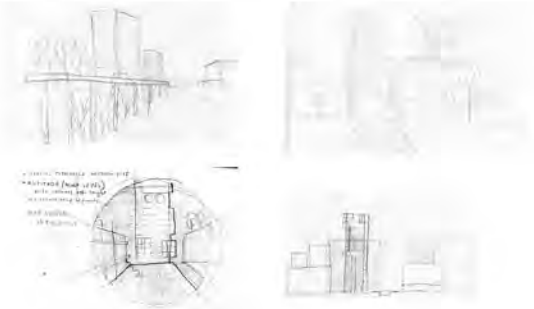


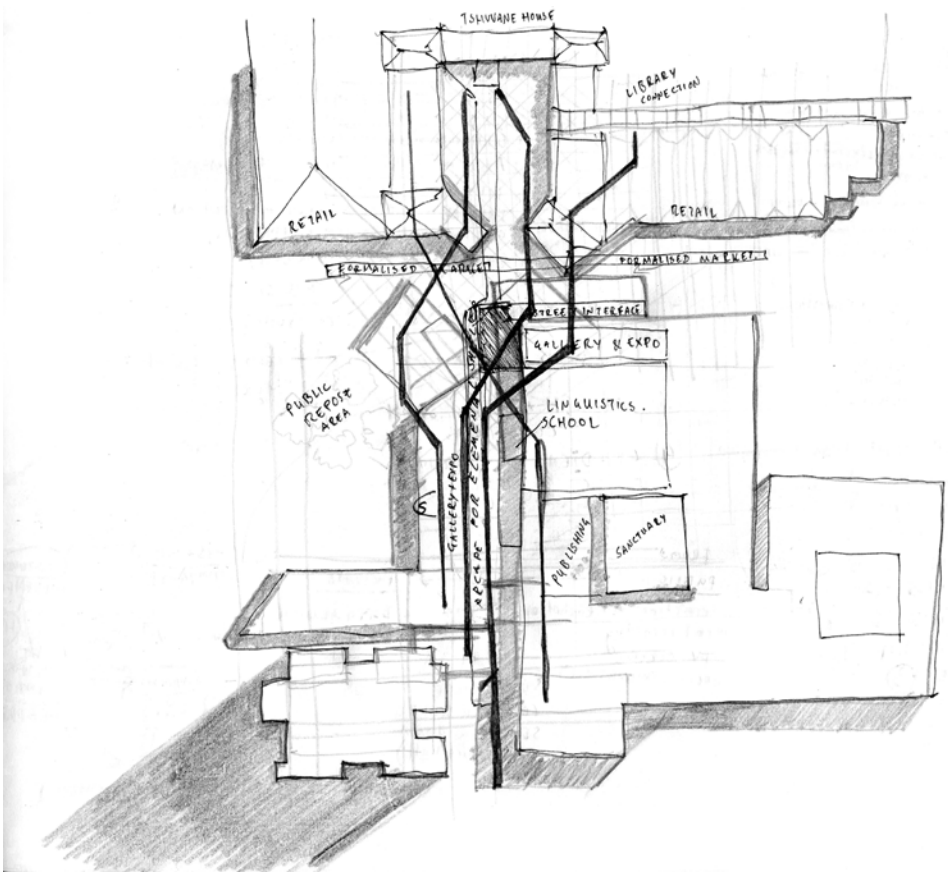


ARCHITECTURE AS A FRAMEWORK FOR THE DISTRICT'S NATURAL FUNCTION TO BETTER PROLIFERATE INTO THE CITY PROPER.

FOR INSTANCE:
AWNINGS AND STRUCTURAL FRAMEWORK FOR INFORMAL TRADERS.
WATER SOURCES ALONG THE FURROWS.
SHADING AND REPOSE FOR CIVIC ACTIVITIES.
AND THE PROPOSED PROGRAMME OF A LITERACY CENTRE.

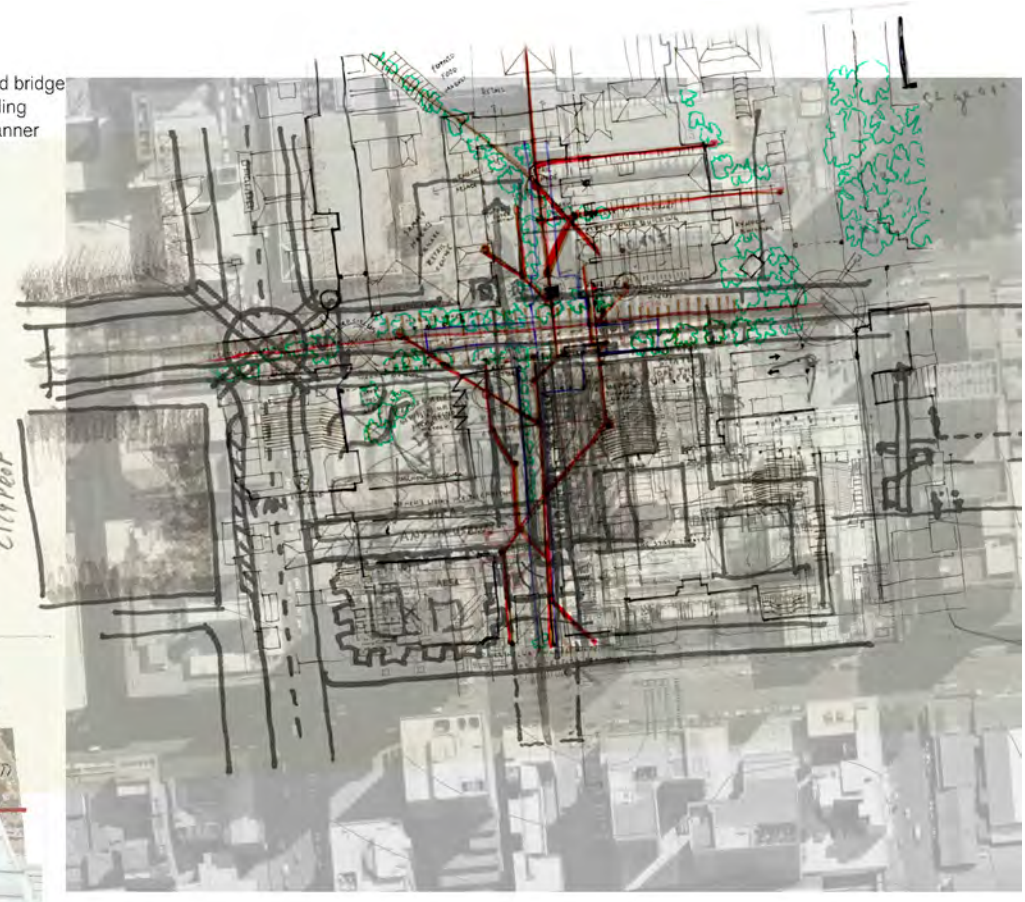
USING ARCHITECTURE AS A SEMANTIC CONNECTION BETWEEN FUNCTIONS, USES AND INTENTIONS OF ADJACENT CONTEXT.



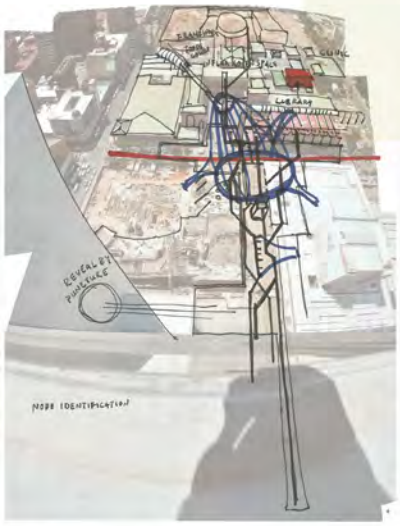


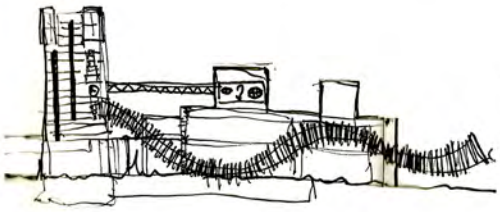
© University of Pretoria

Nodes that are connected bridge functions of the surrounding buildings in a mimetic manner



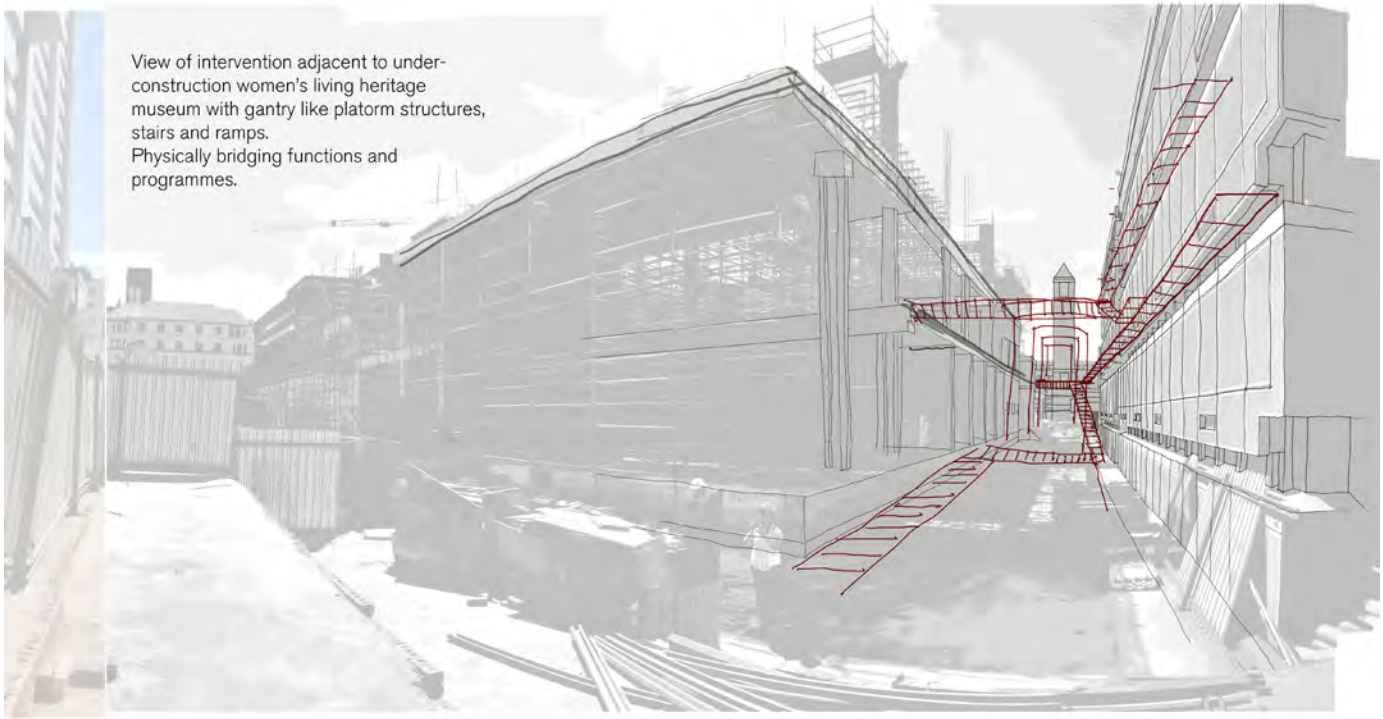
View from roof of ABSA building personal photograph.



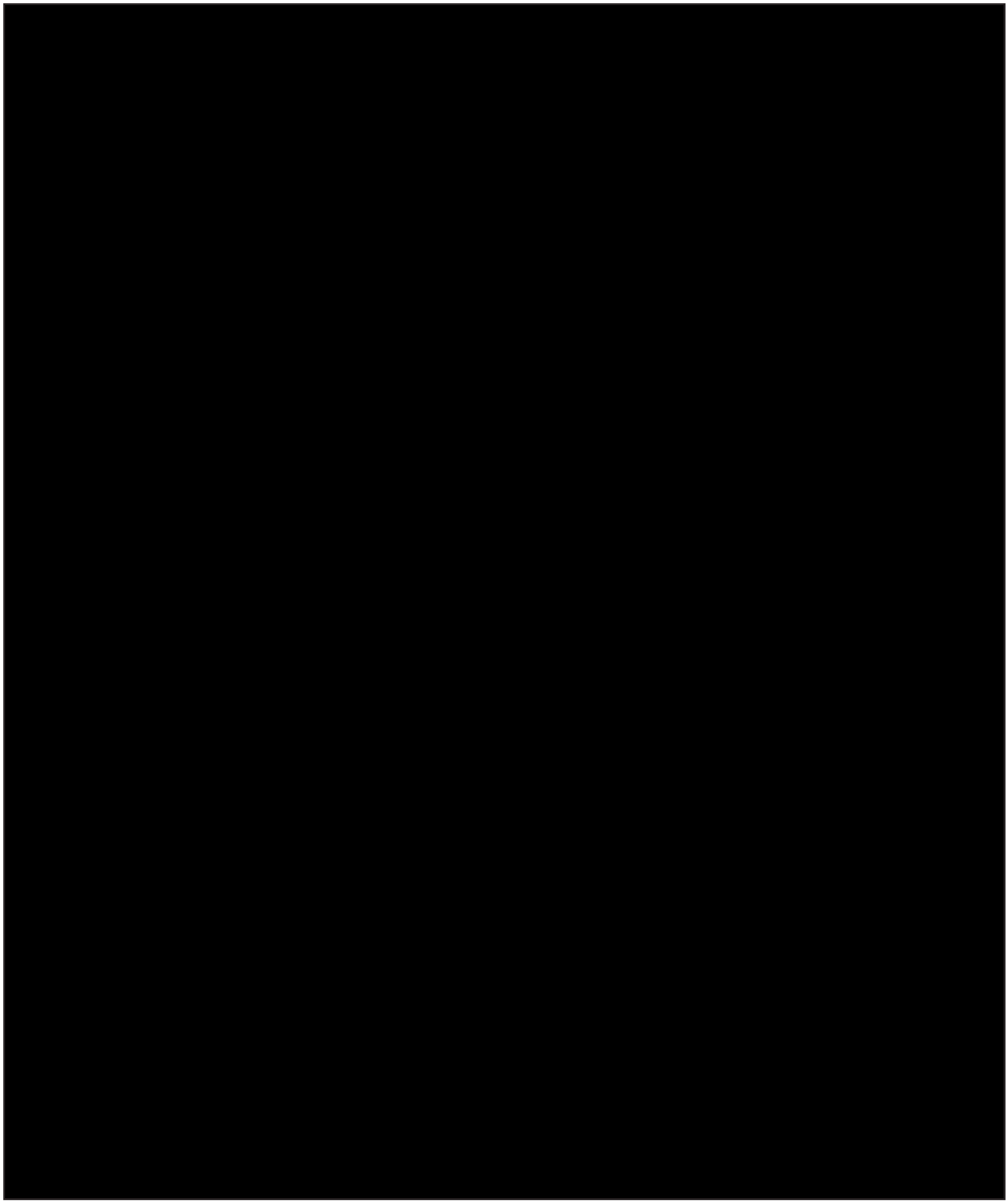


Sectional exploration of "speaking tube" an ideology that languages will be spoken in and by the tube (recorded colloqualisms) proliferating spoken communication.

View of intervention adjacent to under-construction women's living heritage museum with gantry like platorm structures, stairs and ramps.
Physically bridging functions and programmes.



© University of Pretoria



© University of Pretoria

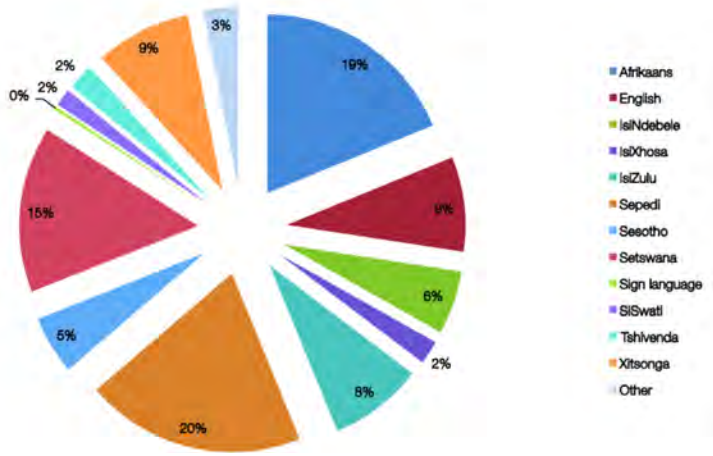
PART FOUR
PROGRAMME AND CLIENT

© University of Pretoria

Language profile

In terms of languages, Sepedi is the most widely spoken language at home within the City followed by Afrikaans, Setswana and English (see Figure 2.7)"[47].

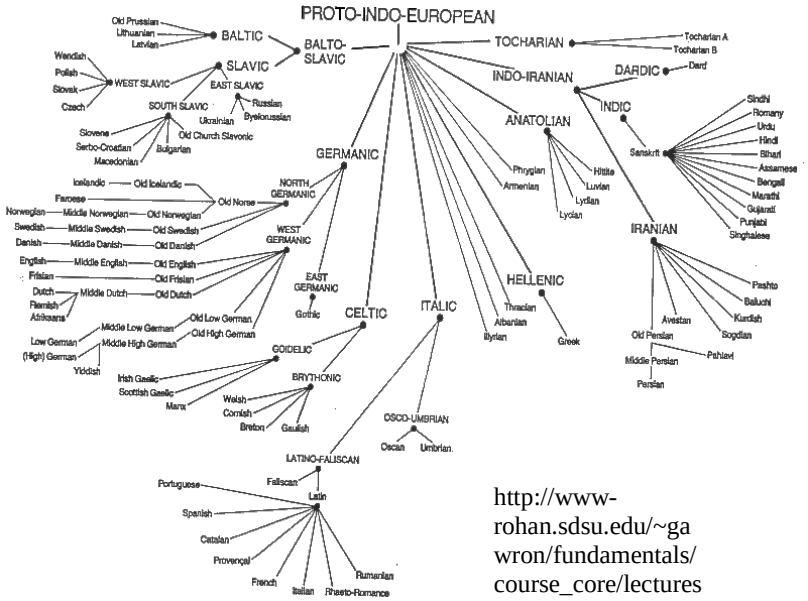
Figure 2.7 City of Tshwane language profile, 2011



© University of Pretoria

PROGRAMME AND CLIENT.

Within a worldly context, language barriers are the only thing separating humanity from open communication. A lingual repository Will serve people on both the hyper global and hyper local levels, universally connecting humans by celebrating their diversity and uniqueness. In a facility that openly facilitates human communication in an architectural translation, translation of the built context and a programme of translation contained within.
A centre for the interpretation of linguistics is born for the City of Tshwane itself as the main funding instigator for this project.



http://www-rohan.sdsu.edu/~gawron/fundamentals/course_core/lectures/historical/historical

Within a worldly context, language barriers are the only thing separating humanity from open communication. A lingual repository Will serve people on both the hyper global and hyper local levels, universally connecting humans by celebrating their diversity and uniqueness. In a facility that openly facilitates human communication in an architectural translation, translation of the built context and a programme of translation contained within.
A centre for the interpretation of linguistics is born for the City of Tshwane itself as the main funding instigator for this project.

© University of Pretoria

The Linguistic learning and language repository will be used as a freely accessible platform on top of the State Theatre's roof.
It subverts the elitism which is merely shrouded by a cultural veil, by adding a didactic layer atop the culturally elitist building.

Constitution court,
Johannesburg
11 official language

Also by using the building as a means to view the urban stage around it, the building becomes a proscenium for both the urban actor and spectator to become a solitary entity - by framing views or creating vistas to view the urban context in a voyeuristic repose and subvert the one sided interactions of people, buildings and their surrounding context.

A four sphere programme will be explored. this will be useful in an understanding of urban migrants or transient users as well as the day to day activities that are prevalent within the CBD. This space would be a point of reconciliation and openness toward all conflicting histories and contentious visions for the future.
A programme for this building would connects all classes and forms of people by initiating inclusivity and a self restorative interaction between society and culture in a bottom up approach to node creation. The four separate but associable spheres of programme are:

1 Linguistic School, Resource library, language repository.
2 Arcade for elemental shelter and a circulation route, transient movement, colloquialism recording,
retail - formal and informal platforms.
3 Sanctuary repose, light eating and entertainment.
4 Gallery publishing house exhibition space.

Within this specifically diverse and rich context, with regards to class, castes, races and religions, a programme of a linguistic resource facility would reform the

© University of Pretoria

elitist cultural district that personified the old apartheid regime's penchant for prestigious culture.

Programmatically it will be a place where information is forced on the observer and they will readily accept it. The confrontation with information, both vocal and visual, will make the transient flaneur and user become part of the building in an interactive manner-This would take the form of a street interface where information or colloquialisms could be recorded and replayed back to the viewer/listener.

Hypothetically a language for architecture that is unanimously understood with clear and near to unbiased intention and function is what this dissertation explores. This architecture should be self-referential, reference the immediate buildings in context as well as Tshwane/Pretoria as a whole.

According to Umberto Eco, every cultural phenomenon can be studied as communication, A place for recording cultural phenomenon is necessary, a place for recording communication is required.
All people could benefit from better communication skills weather pathological or linguistic - the learning of other languages - is becoming very important in local context. Our context, of which we have 11 official languages and countless colloquialisms that fade into obscurity if it weren't for oral histories and vocal tradition that are so prevalent in African cultures.

© University of Pretoria

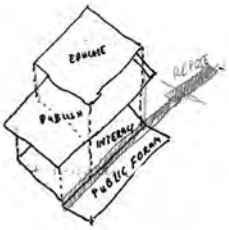
PROGRAMMATIC INTENTION

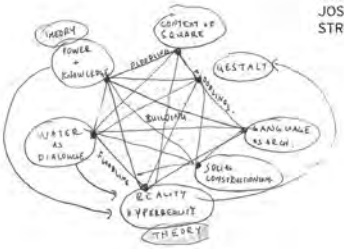
The four separate but associable spheres of programme are:

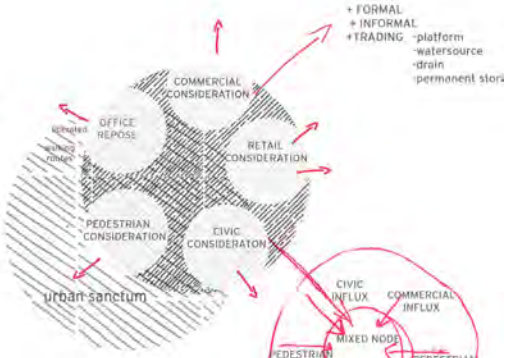
1. Linguistic School, Resource library, language repository.
2. Arcade for elemental shelter and a circulation route, transient movement, colloquialism recording, retail - formal and informal platforms.
3. Sanctuary repose, light eating and entertainment.
4. Gallery publishing house exhibition space

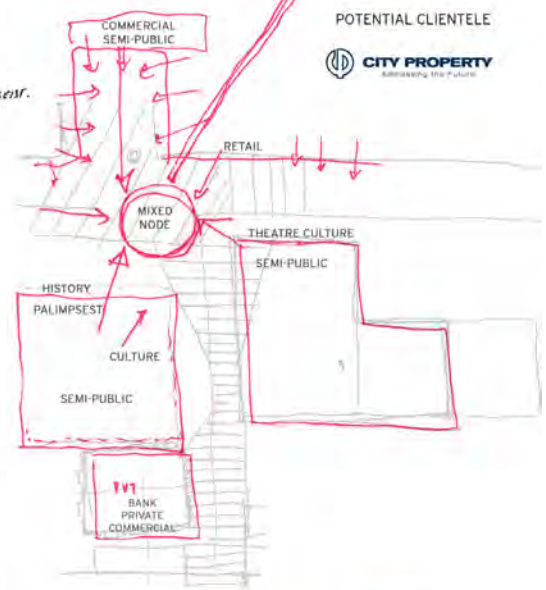
FOUR SPHERE PROGRAMME

TO REFLECT ITSELF & ZEITGEIST OF TIMES. REFER TO CONTEXT AS WELL AS CREATE NEW ALL ENCOMPASSING ZEITCONTEXT. THAT STRETCHES INFLUENCE ACROSS BOTH SPACE & TIME.

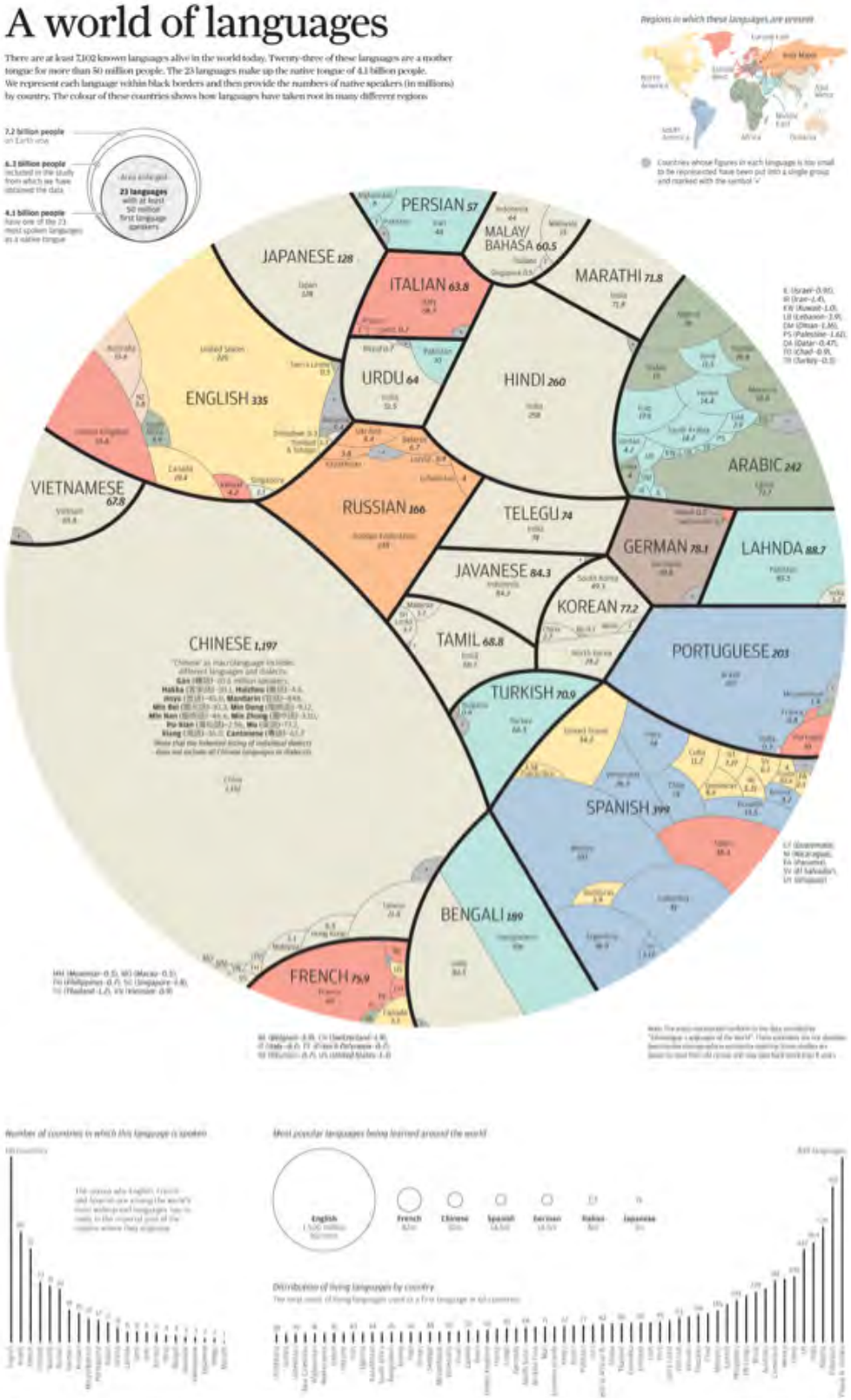








© University of Pretoria



© University of Pretoria

PROGRAMMATIC FEATURES.

design development of the programme on plan and section with reference to the site condition.

AUDITORIUM & SEMINAR HALL

This is the most formalised learning facility in the building. It consists of a sound and environment enclosed auditorium used for formal language seminars, as well as informal lectures for schoolchildren. It has seating for -+ 150 persons and is actively climate and insolation controlled.Behind a projections screen is storage for educational props as well as electronic devices.

PROGRAMMATIC FEATURES OF THE BUILDING

As part of the narrative circulation aisle, sonorous devices allow for interest to be created by means of acoustic design features. They all create differing environments for talking, reading or colloquialism vocal recording.

ANECHOIC CHAMBERS

Anechoic chambers are acoustically isolated chambers that have a sound lobby for quiet entrance and are fitted with acoustic absorbers and diffusers to remove all reverberation and impact noise from these sound recording rooms.

DISCUSSION PITS AND BOOTHS.

Discussion pits are open, sunken conversation spaces inside the building. They are used as public forum spaces for meeting or discussion. The reason they are sunken is to make them more openly accessible and subvert the hierarchy and approachability of the discussions contained within.

Discussion booths are more private areas of deliberation about language. They are external to the buildings envelope and cantilever off of the main structure Psychologically, these rooms would induce a sense of vulnerability to the user consciously or subconsciously, making them more honest in the discussion.

© University of Pretoria

PARABOLIC CONVERSERS

These auditory devices are based on the phenomenon of reflecting sound waves opposite to the intended direction. Inspiration for these devices came from the concave columns in St. Peter's cathedral in the Vatican. These concave forms are created by parabolic reflective wall surfaces that reflect sound toward each other based on the parabola's natural sound concentrating and reflecting abilities. The users face opposite directions and can have an informal and playful conversation with a friend or anonymous conversation with a stranger. This encourages chance encounters with different classes or castes of people.

OFFICES & ADMINISTRATION

The block towards the south of the opera theatre is used for administration and curatorship of the gathered information in the facility. The staff curate the data and allow for publishing or proliferation thereof. The block consists of offices, a discussion area for meetings, a common room or tea room for employee repose, staff ablutions and a cleaning and security storage facility. These form the service areas for the employees of the facility.

OUTDOOR AMPHITHEATRE

There is an outdoor amphitheatre above the auditorium/seminar hall to the north of the facility. This is used for large outdoor events based activity, such as movie screenings, shows or mere repose areas. A proscenium arch made of the endemic beam and column language is used to punctuate and focus the amphitheatre, allowing for production equipment such as screens or speakers to be externally supported.

SMALL OUTDOOR GRANDSTANDS

An auxiliary outdoor grandstand theatre is placed above the seating block of the theatre. These grandstands have a small fenestrated area that is used to allow dappled solar ingress into the nomenclature and etymology halls situated underneath.

© University of Pretoria

NOMENCLATURE & ETYMOLOGY HALLS

This facility exists to find out why objects or subjects are thusly named as well as the understanding of the historical background that forms a specific word. The study of how words or colloquialisms become specific jargon accepted by a certain area of language and how these specific terms are coined and understood through their etymological background. This part of the facility allows these two disparate linguistic fields to come together and coalesce in a formalised space as their functions contained do as well.

RESOURCE TOWER

The resource tower which exists on all floors of the vertical library consists of token based access to computers or internet for all users of the facility. The resource tower consolidates all recorded and researched information gained by users of the facility. Users are encouraged to digitise the information themselves for ease of access, and to enter the information they have acquired into a digital database. This database provides east of access to the next user.

CAMERA OBSCURA

A Camera obscura is situated atop this resource tower and provides a 270° view of a reflected image of the surrounding context onto a table surface for the viewing of the city in a quasi-voyeuristic manner. The reflection of the image assists in abstracting the meaning from a semiotically rich context by decoding anthropological messages in a purely graphical or visual sense. The camera is used to identify and study anthropological or semiotic interest within a context of a widely varied demographic scenography.

GALLERY

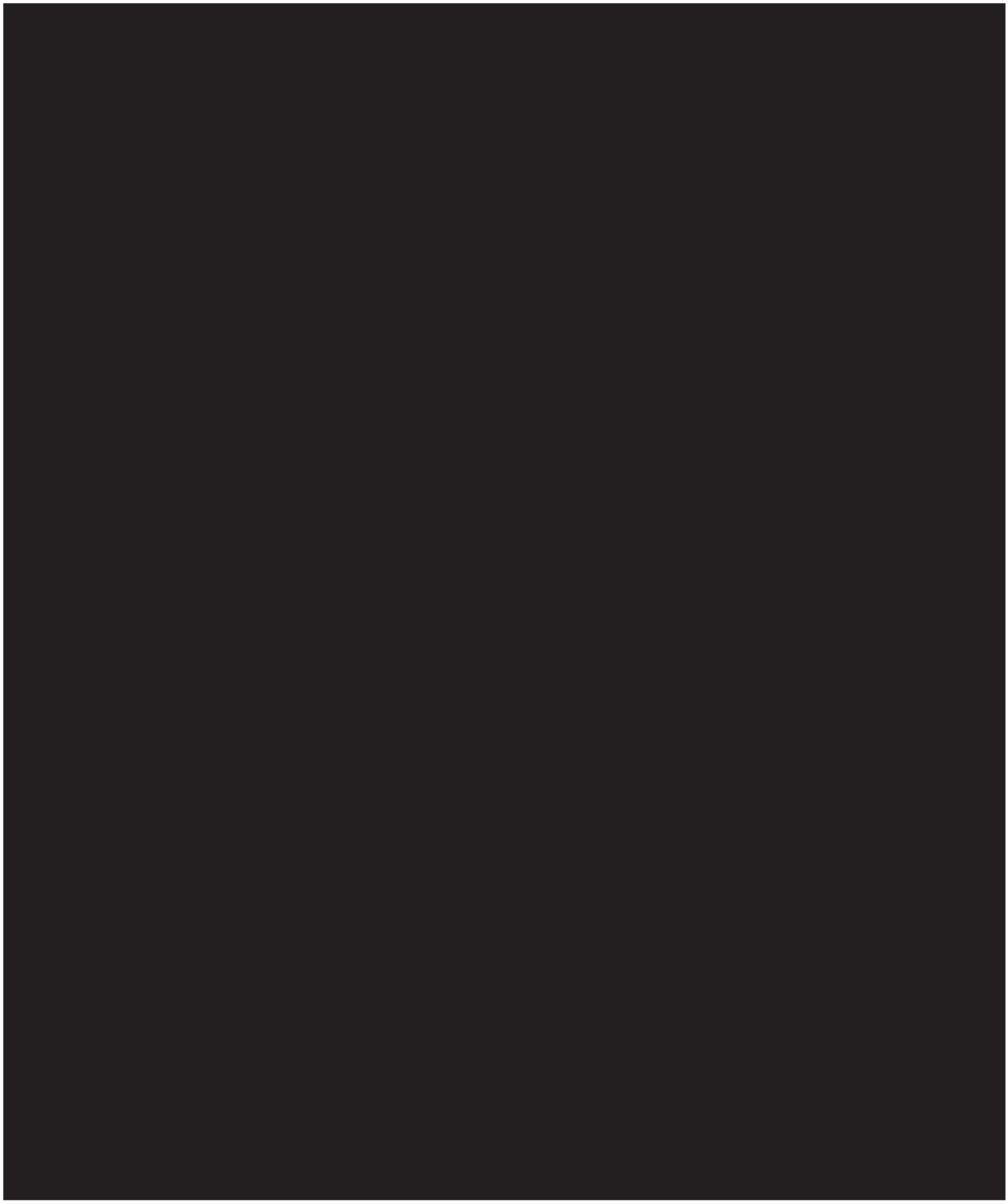
The gallery on the Northern end of the building has a permanent and temporary exhibition space for anthropologically or semiotically related artworks or pieces dealing with human gestures .etc The art contained within should elucidate the viewer on the levels of artistic abstraction. These abstractions are ubiquitously understood in a semiotic sense and as symbols that represent something very illicit or even messages with hidden or uninterpretable meaning. There is also an outdoor sculpture garden used for installation or sculptural artwork.

© University of Pretoria

SEMIOTICS STUDY ROOM

An externalised glazed viewing platform that is used to view the city and study it. Information regarding the external context is placed on the glass and informs the viewer of how many semiotic messages are presented to them on a daily basis. Without second thought, these messages are taken for granted. In a future context the information could be digitally displayed and constantly update in a heads up display like manner. The viewer could tap the interactive glass interface and be given any information they are interested in or require.

© University of Pretoria



© University of Pretoria

PART FIVE
DESIGN DEVELOPMENT

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

NEOLOGISM - a new lexicon that assists in decoding the bedlam of the urban context.

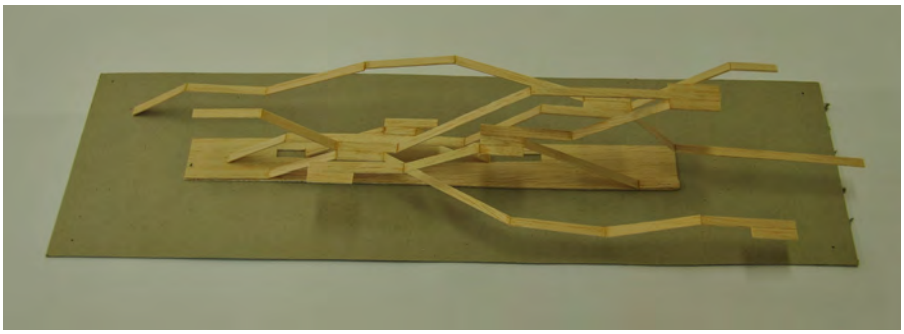
© University of Pretoria

DESIGN DEVELOPMENT BEGINNING

This proposed intervention will attempt to reconcile all styles of architecture and the plethora of languages and spatial legacies that are found in the area. By decoding them and making them universally accessible and openly understandable, one starts to unpack their function and undermine the elitist nature of the buildings' semiotic facade denotation. It encourages them to act and interact with their social and urban context, in an open way that is more cohesively understandable to all that use them. This translates to an architecture that has a form that synthesizes it's context by agglomerating the surrounding forms into one building. By bridging both their forms and functions into a succinct language, it depicts or references the societal zeitgeist, the history and memory of place in an accessible way to all who encounter the building.

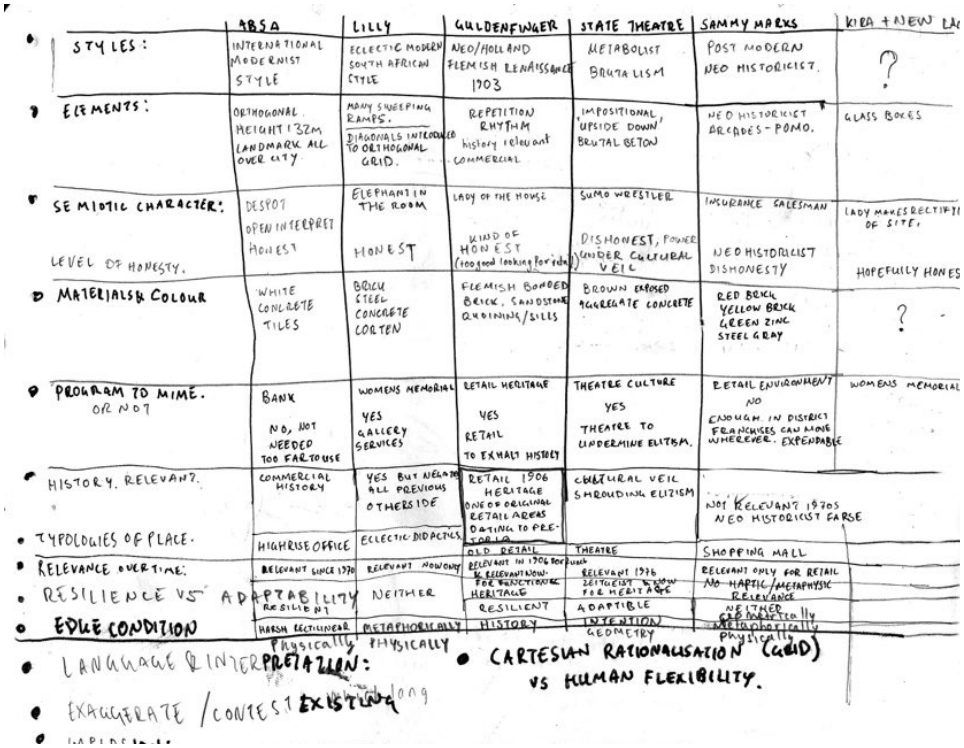
"Completed buildings constitute architecture's specific contribution to society there are those communicators which architecture uses to stimulate other forms of communications" (Schumacher, P 2011).
To find a normative position with the understanding of semiology in architecture was the first step in decoding the urban landscape. This will be used to find an appropriate language that communicates to the future architectural landscape.

The existing condition was assessed in Part Three of this dissertation.



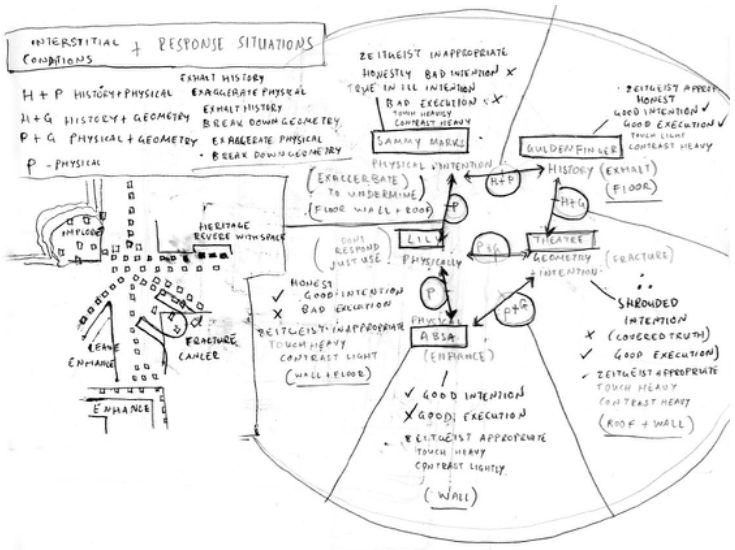
Functional Bridging Delineation

© University of Pretoria



In Search for an Architecture on Site:

A common language of architecture on site was sought by assessing each of the buildings in the immediate context. Commonalities or vast differences between the roof, wall and ceiling planes, the semiotic character that each building exudes, the main colour palette, the architectonic style and the reference to the zeitgeist it was built in was sought. Also explored was how this style matched the current programme functioning within. Their forms were then playfully given semiotic characters to better understand their place in the diorama of competing forms within the CBD.



These tenets of meaning were checked according to a marking rubric which aided in understanding of forms,

© University of Pretoria

programmes, historical relevance across time, resilience or adaptability, or honesty of architectonic language. This language is understood, extracted and proliferated. Conversely, if the language is biased or unclear, it elucidates itself as an uncommunicative architectonic dialogue. Finally, the architectonic language id subverted and the forms contrast the endemic vernacular.

Responses to these rules of meaning were used to develop an intervention stance of how to approach each building. Response situations were determined by assessing each of these five buildings -

Sammy Mark's shopping centre
The Guldenfinger Metro Cycle House
ABSA Bank
The State Theatre
The Lilian Ngoyi Women's Memorial site

These buildings were mapped to a finer scale according to certain parameters. These parameters included their intention at the time of construction, whether their semiotic character has changed over time and whether the appropriateness regarding the contained programme suits the building. The historical relevance and zeitgeist appropriateness were checked and stances were formed concerning what was to be done regarding the exaltation or subversion of historical content, whether to break down or build upon the geometries of specific building and how to approach the voids between these buildings. It was also ascertainable at this point which building emanated an honest or shrouded intention and how that intention was executed to form a semiotically prevalent building.

© University of Pretoria

Regarding all the morphs of the existing buildings, materials would have to be indigenous to the original building, juxtaposition coming from the formal or technological changes in the material itself.

From this response mapping it was decided that the Sammy Mark's building was not of true intention and badly executed in a neo-historicist manner. This allowed for the complete subversion of it's structural grid and an implosion of the structure could occur. Nothing need be saved in this case. The intentions, therefore, were to entirely counter the existing grid and make free brickwork forms of an organic nature in heavy juxtaposition to the rectilinearity of the original building. The structural intention was to use re-bar reinforcement threaded through the rebate holes of a brick before it its laid to achieve curvaceous corbels and non restrictive forms.

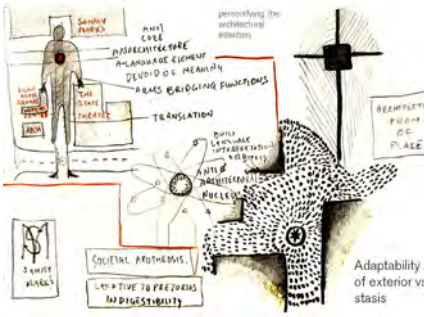
The Guldenfinger building or Metro Cycle House was zeitgeist appropriate and is an example of the first South African interpretation of Wilhelmiens retail architectures in the country. This history should be referenced and exalted. The intentions were to take one of the elevations of the building and dissolve it into the square itself by repetition and dissolving of a steel frame, which heavily juxtaposed the intricate traditional masonry work of the building.

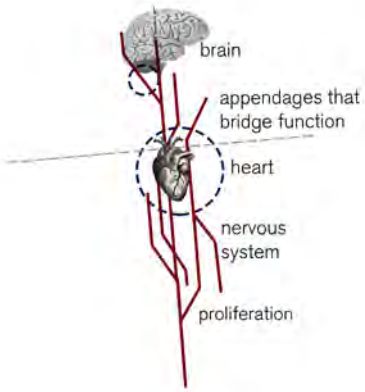
ABSA building on the other hand, not as historically relevant, never the less holds a very specific financial pronouncement over the precinct. Previously called Volkskas Bank, it was conceived in the internationally styled movement that reached Pretoria in 1978. It was particularly appropriate to its zeitgeist of a financially burgeoning Pretoria, which it's imposing architectural form reflects. The formal stance taken on this building intended to accentuate its rectilinear geometry by subtractively deforming it's North-Eastern corner, highlighting the modern aesthetic and enhancing the corbeled form on that corner.

The Lilian Ngoyi women's memorial centre (currently under construction) has a conflicting formal identity and was forced onto the site because of the women's march that moved through the area on their way to the Union buildings. It is thus seen as a heavily prejudiced concept, considering only one heritage, ignoring the rich palimpsest of history that occurred on site. Because of the cacophony of forms and materials that this building already presents, the formal language was deemed helpless in it's convoluted nature. This convolution would be exacerbated by any form that could possibly be added. So it was left to be.

© University of Pretoria

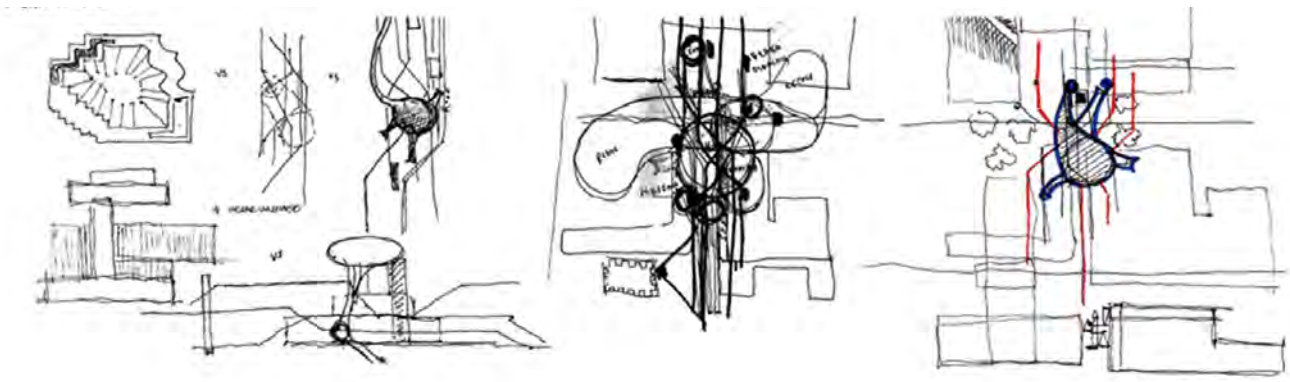
Finally the South African State Theatre, which opened in 1981 (ablewiki), is a seminal example of Metabolist Japanese inspired, Neo Brutalism in South Africa. It stands as a testament to the exploration of this style in Pretoria and this domineering and iconoclastic building needs justified exaltation. Heavily imposing on the human civic scale, the massive forms harks on the idea of monumentalism. The State Theatre is seen as having the most succinctly ascertainable formal language and is concisely understood as a formal statement on the precinct. The message conveyed by this building is clearly that of the nationalistic power of a prestigious cultural centre in the civic centre of the city. Build in context of nationalism and political fervour, the building's intention is shrouded in cultural elitism. This prestige project stands as a testament to the economic and political power of Pretoria at the time. The iconoclastic architecture needs to be accentuated but also contextualised in such a manner as to remain as relevant now as it was at it's conception. Intervention with this building would have to grow naturally out of the existing material and constructional systems, using the same materials and only subtly contrasting the forms by means of technological advancements in the material of concrete itself. Any harsher a juxtaposition would undermine its severity and iconoclasm as a seminal metabolist and brutalist building in Pretoria.





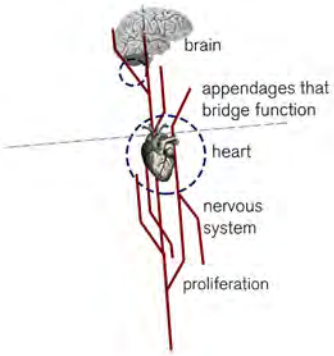
Biotic metaphors.

The biotic metaphors were a means to personify the urban landscape into a functioning 'body' of organs which seem to function as a corporeal system. This organism was defined as having organs of function that were bridged by a delineating nervous system - referring to the pathways which connect the functions of a building. It was eventually understood that these situations would occur in the same volumetric space , therefore the organs of the deconstructed body became one organ. A singular, compound organ which contains all the nervous connections in itself. These spaces would have voluminous implications of form and not mere delineated planar pathways that connect the various functional volumes.



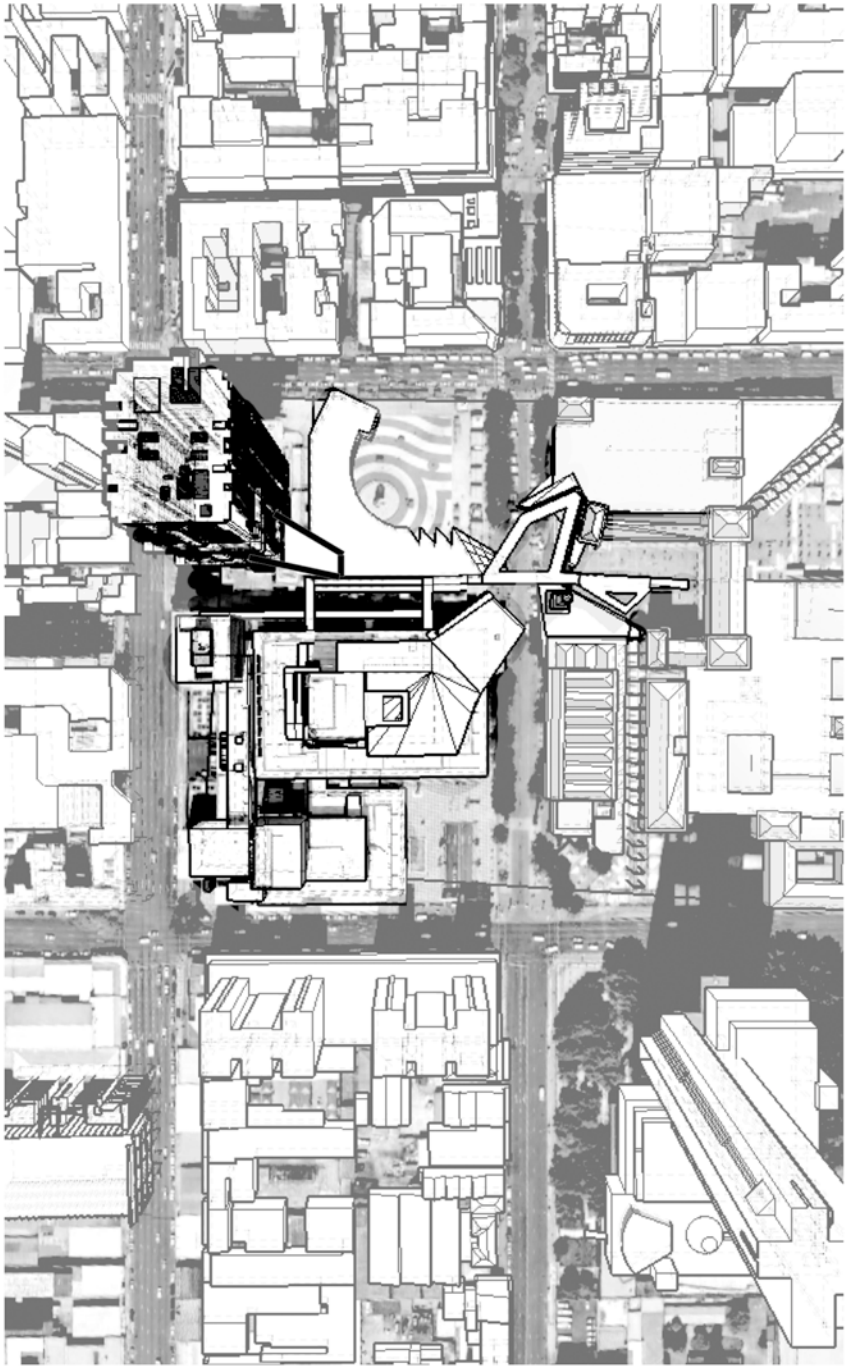
© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



SCALE 1:1000

© University of Pretoria



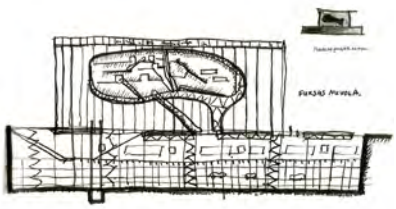
© University of Pretoria

Reconsiderations of Mimesis

Massimiliano Fuksas'
Nuvola/ Cloud.
Rectilinerly structured envelope
mimics the structure of fascist context
EUR in Rome, However inside is a mor-
phogenetically
created cloud which seems to hover
and create an entirely new language to
exhalt its function.

Nuvola or Cloud Congress Centre by Massimiliano Fuksas.

The steel and Teflon cloud holds an 1800-seat auditorium and other meeting rooms, with a total of 15,000 sqm of hovering space. The modernistic box around the cloud synthesises the building to the surroundings that feature early modernistic building from the 1930s in the rationalist, fascist district EUR of Rome. Formally, the decoding box contrasts and accentuates the recoding free-form cloud. Fuksas himself rightfully says the project is about the 'in-between space' between the blob and the box.



rationalist edifice with organic morphogenetic interior mass.

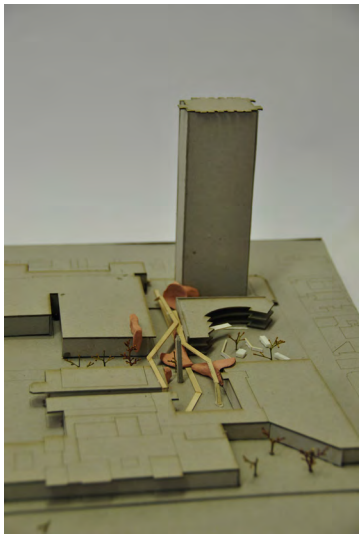
Total area:
26,981 m2

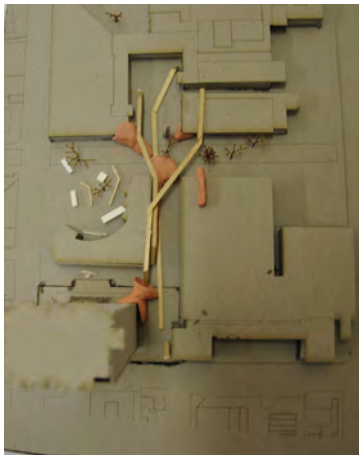
Architect:
Massimiliano Fuksas

Client:
Municipality of Rome and Ente EUR

This 'cloud' was a means at an architecture that references the context externally but internally has an 'anti-architecture' that strives to be formless in comparison to its rationalist, contextually referent rectilinear edifice. The formlessness is achieved by juxtaposition of forms while retaining the material. This proves that a juxtaposition of organic to rectilinearity in form is sufficient in creating a complex dialogue. The principle of a dialogue within a single building was explored to ascertain what can happen to a non coherent dialogue that exists between two buildings on a given site.

© University of Pretoria





With response to the previous research questions postulated in the introduction, it is ascertainable that there is no possible manner in which architecture should be distilled into one succinct language that is openly understandable to all humans. Architecture has deeply imbedded roots of historicism and stylistic changes, which transcends the timescale. Envisioning a singular language of architecture, therefore, is a very biased and marginalised way into an ephemeral architecture, bound to become unfashionable quickly. This architecture ascribes to the aesthetic sentiments of the time, falling short at any means of timeless iconoclasm, or contextualism within the architecturally rich environment.

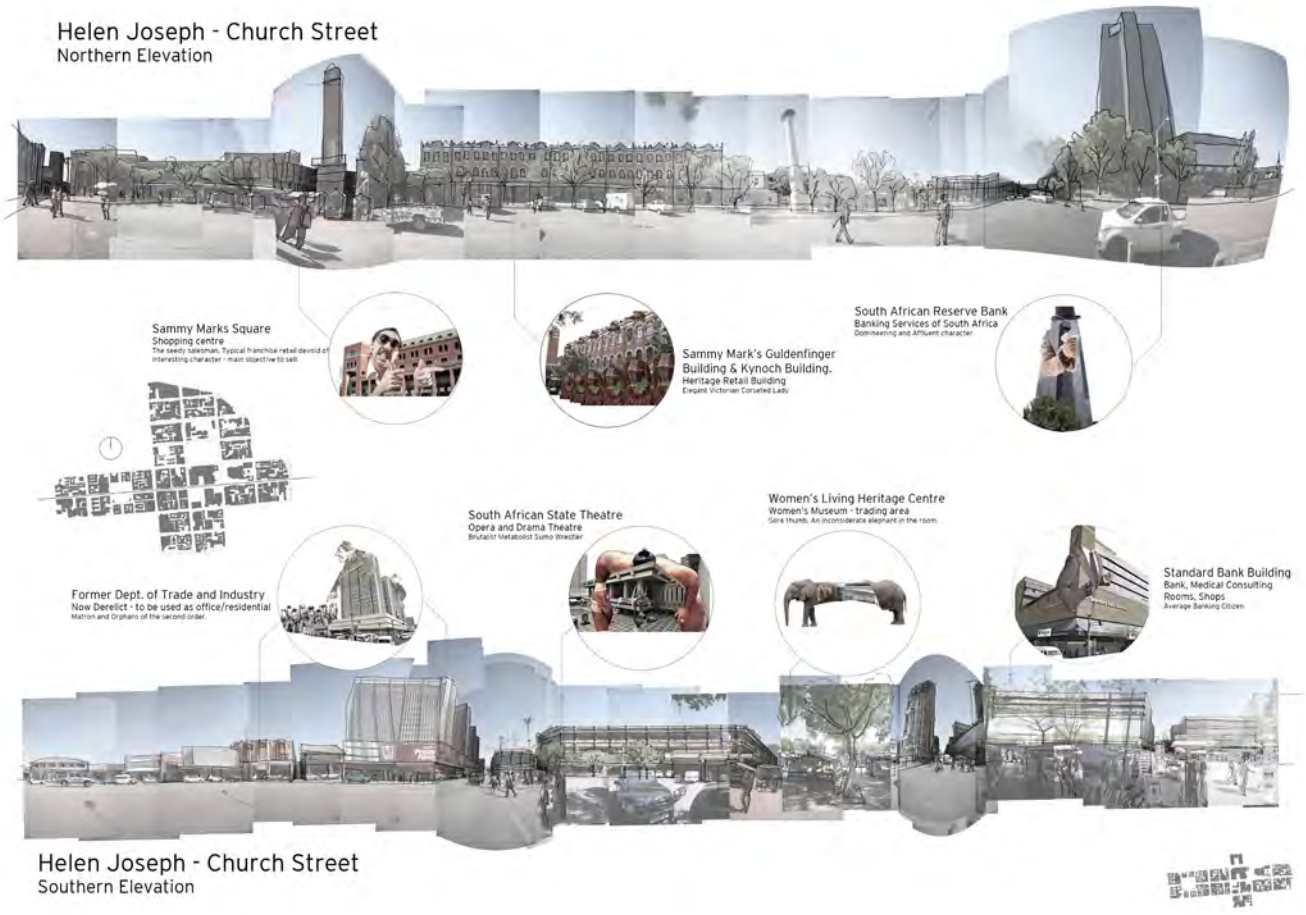
For a common man to understand architecture without preconceived notions of form, a language of an ubiquitously understandable architecture could be used. Such a language helps to understand the many differing forms and their intended denotata in an easily homogenised manner. A morphogenetic language of a modular and elemental basis will be utilised as a means to a form that is free from preconceived notions, reversing the form-making process into logical form-finding algorithms. These algorithms are the material and constructional systems that come from the site itself. This way, the connoted meaning that can be grasped is one that is founded by looking around at the context. The meaning becomes immediately derivable.

Instead of mimetic form replication of the surrounding built context a method of mimicry would be to use a network of pathways that bridge functions and programmes of the buildings that they connect.

A neologism or newly created language is used to openly differentiate the proposed intervention to the built context. These are the pathways. The building's form would "melt" and deform into the pathways that connect them . This morphing will become a volumetric manner of justification mimesis by homogenising all the existent architectural forms into a conglomerated mass. Such a mass possesses an openly understandable agglomeration of forms, with a dialogue between each other and the pathways that connect them.

A heavily insensitive approach to adaptive reuse architecture will be employed by means of subtracting material and form from adjacent buildings. The very materials themselves are used as a means of morphing the original shape into a homogenous puddle, punctuated and parenthesised by the functionally bridging pathways.

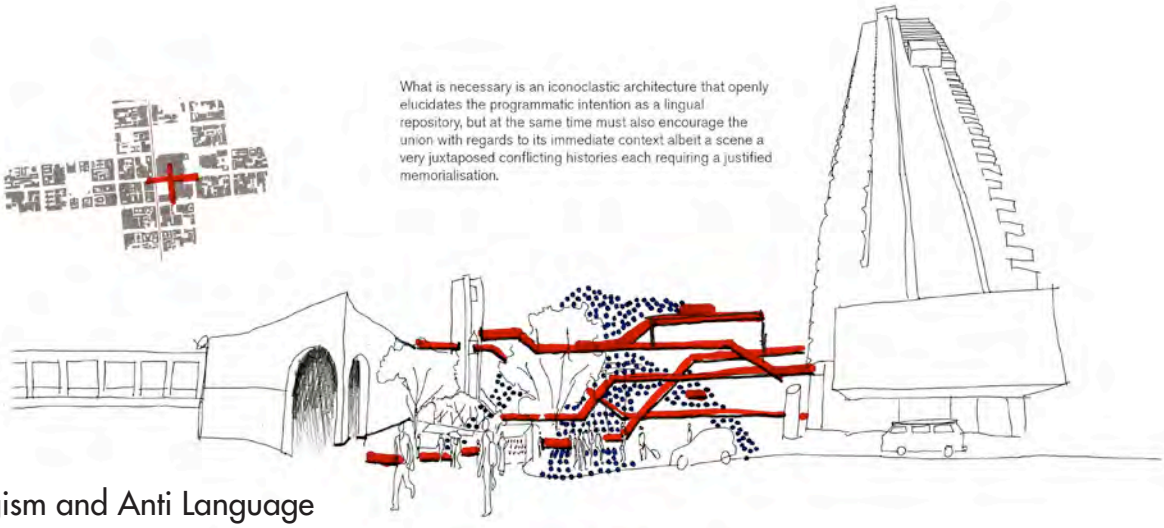
© University of Pretoria



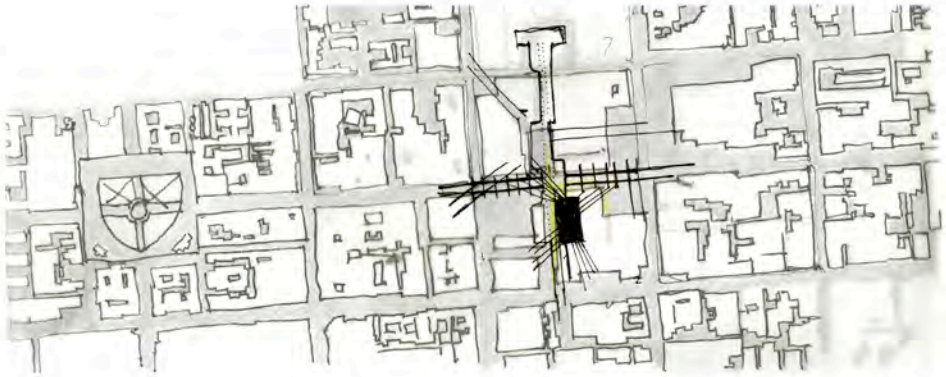
Personified Semiotic Context Mapping

© University of Pretoria

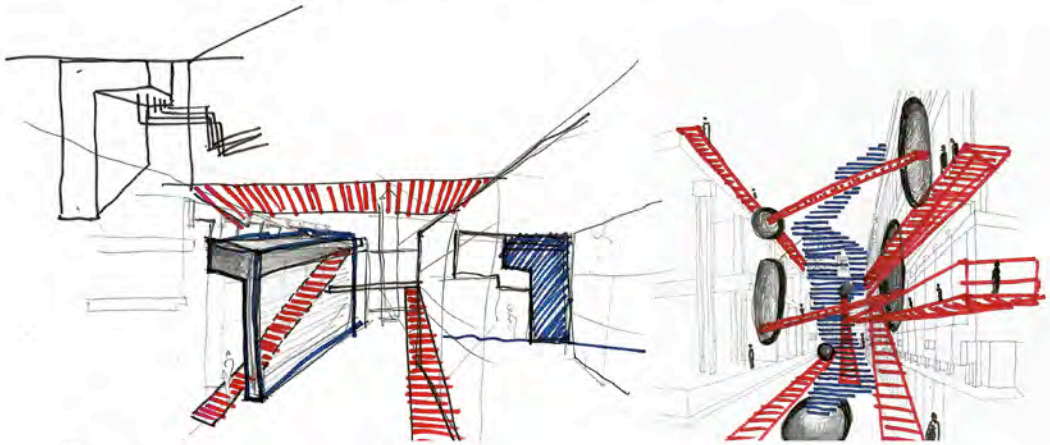
What is necessary is an iconoclastic architecture that openly elucidates the programmatic intention as a lingual repository, but at the same time must also encourage the union with regards to its immediate context albeit a scene a very juxtaposed conflicting histories each requiring a justified memorialisation.

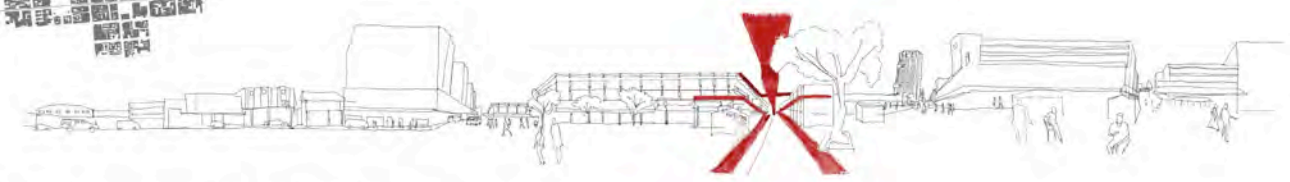


Neologism and Anti Language



Site location and justification.
The site under investigation is seen as a Civic Centre deep in the CBD of Pretoria, its plethora of functions and intended or unintended use tends to a multiplicity of architectural form. These forms have no apparent discourse between each other and they only speak an internalised conversation of self-referential importance instead of stylistic and formal lucidity that would assist in the understanding of the space and times- the zeitgeist - that the architecture was built in.





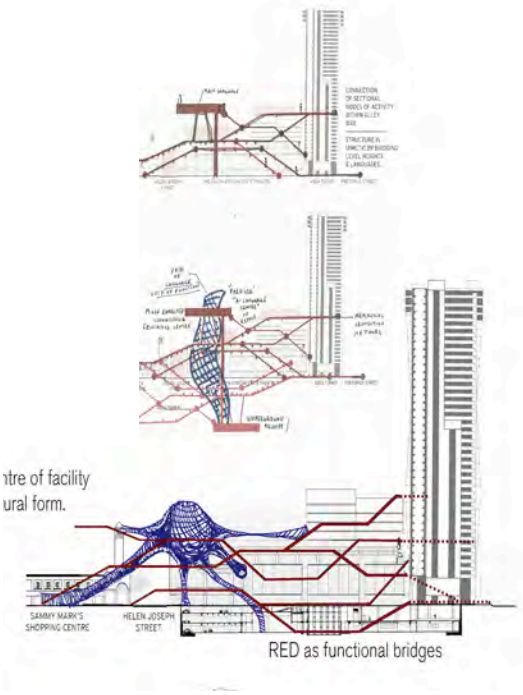
HELEN JOSEPHS - CHURCH STREET.
SOUTHERN ELEVATION

© University of Pretoria

Identified languages of architecture on site will be parametrically warped and deformed into an amorphous mass. It will extend the existing programs of buildings in the vicinity, exalting their effectivity and gravitas in the cacophony of formal languages prevalent around them. By subtractively deforming the built context, material will be gained to deform the built environment, still in keeping with thei inherent structural tenets or building styles. These styles, however, will be coales in a volumetric expression of the confusion of formal languages, and allow their programs to emanate into each other.

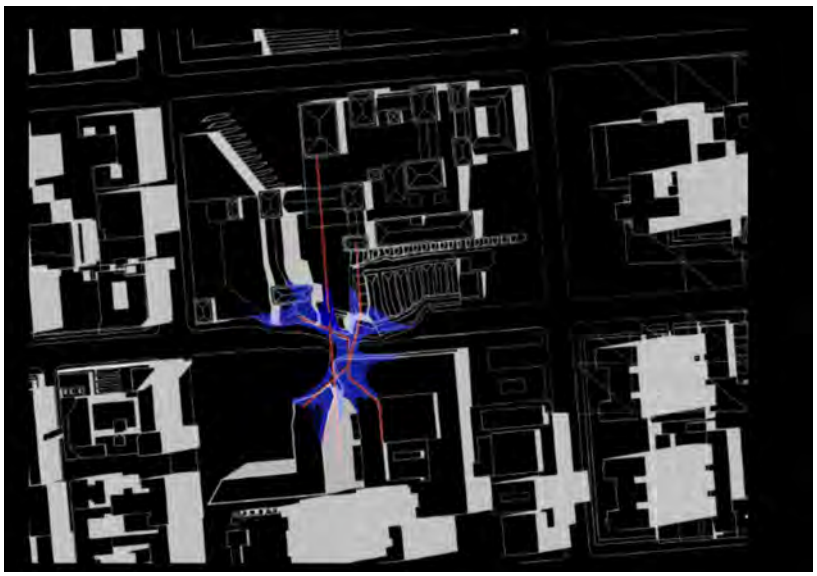
NEOLOGISM - a new lexicon for the decoding the bedlam of the urban context.

The aforementioned Neologism was first seen as delineating 'red' lines that bridge the various functions of the building, punctuated by a free 'blue' form that would make up new functions. The second stage of development agglomerated the imposed neologism of red lines with that of the blue forms into a 'purple agglomeration'.
The building's form would "melt" and deform into the pathways that connect them This morphing will become a volumetric, rather than a merely delineating method of justification mimesis by homogenising all the existent architectural forms into a conglomerated mass.



This agglomeration of the existing site forms, miming a material system, morphing them, then dissolving them into the built context would form the conditions of the neologism as a reinterpretation of the existing, instead of superimposition of an entirely new and contextually unmotivated form.

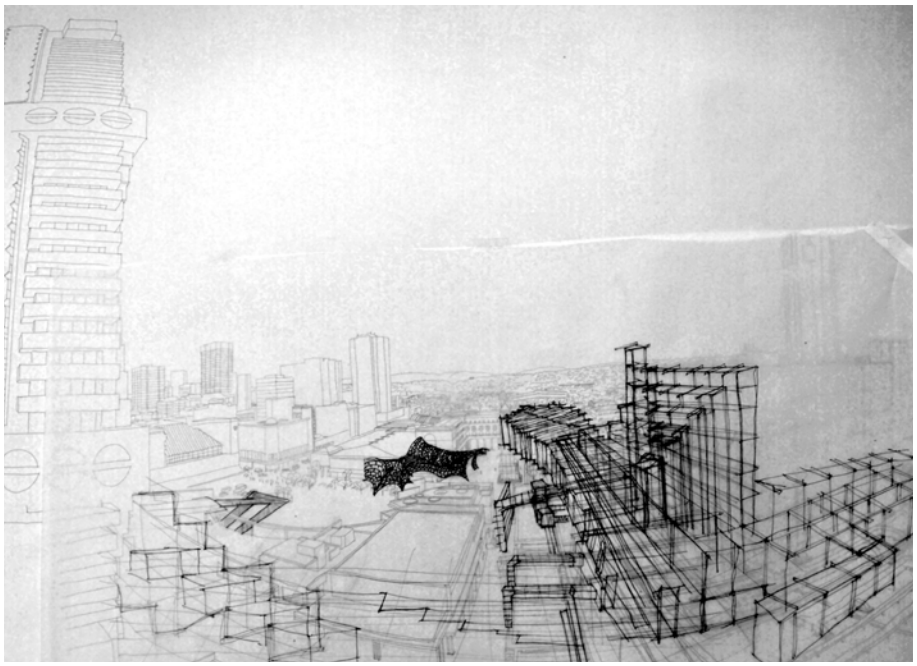
A concept of mimetically deriving a material system from the adjacent buildings on site as a form of structural DNA was identified as a sign vehicle for the interpretation and synthesis of differing architectural styles prevalent in the area. The 'metabolic' nature of the State Theatre is grown upon.



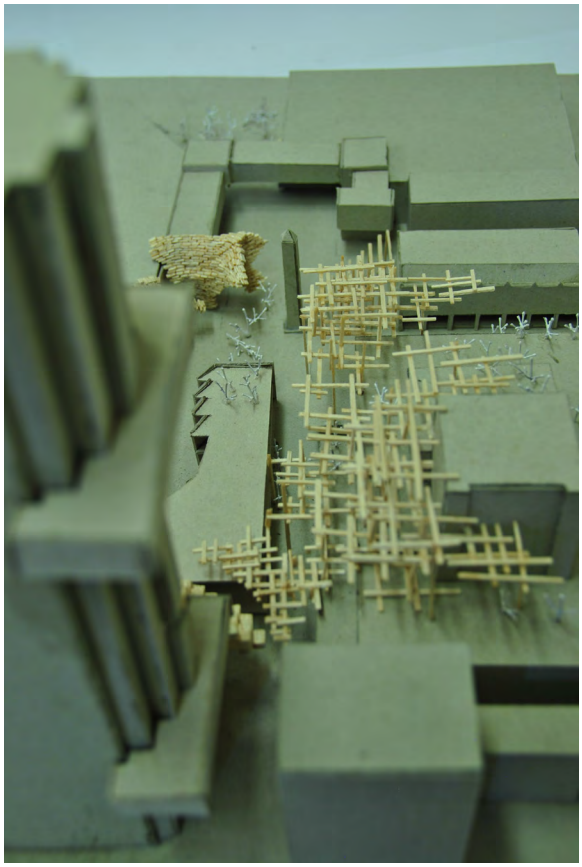
© University of Pretoria

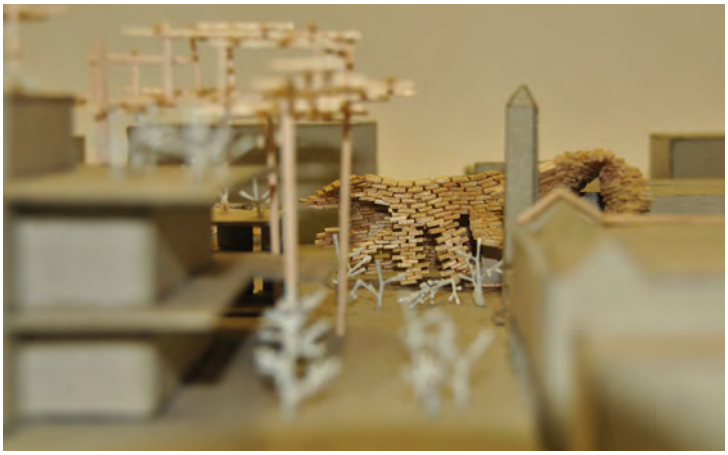
The material system of the state theatre is ascertained by defining a stance of abstraction between that of linguistics, science, art and technology. The column of the State Theatre is of off shutter," beton brut" style and constructed with an H-profile from reinforced concrete. It is extruded from the existing fabric, diminishing in number of extruded parts in sections, making it appear to dissolve with increasing height. The derived palette of architectural elements and features are used in a level of mimicry of the existing. Contemporary additions will be visually justified by the concrete material itself, and not merely juxtaposing with a steel and glass angular obtrusion. To do so would contrast the existing and form a banal superimposition of a new language, instead of an attempt at the synthesis of the existing.

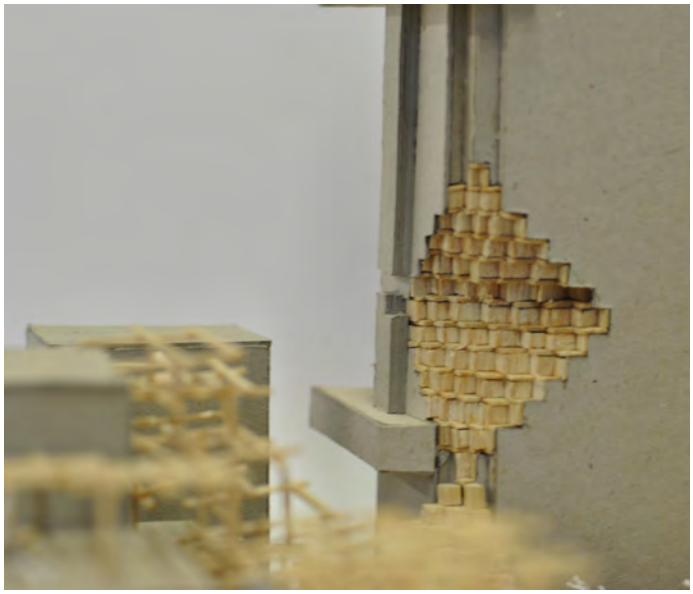
Concrete is generally used for its compressive strength properties, providing stability to a structure. The State Theatre, as it stands today, uses concrete in a tectonic method of lightness. Seemingly massive and domineering, the structure seems to be brutally finished. Contrastingly, with reference to its large structural spans, it is built in a modular building-block Japanese metabolist style of architecture. At the same time, it is lightened by its building block interlock aesthetic, which is finished in timber off shutter concrete as a poetic statement towards traditional Japanese timber structure. This aesthetic of 'lightness' with a 'heavy and stereotomic' building element is exaggerated by the new addition. The addition should only juxtapose the existing in terms of technological advancements in concrete and patinas to represent a new level of contemporaneity in this palimpsest filled urban context.

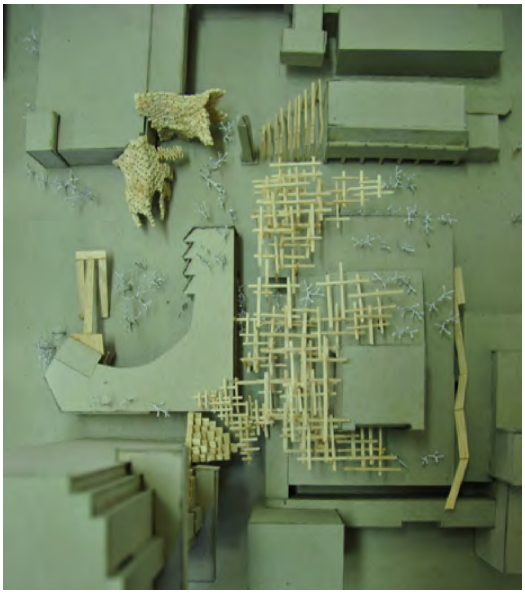


© University of Pretoria

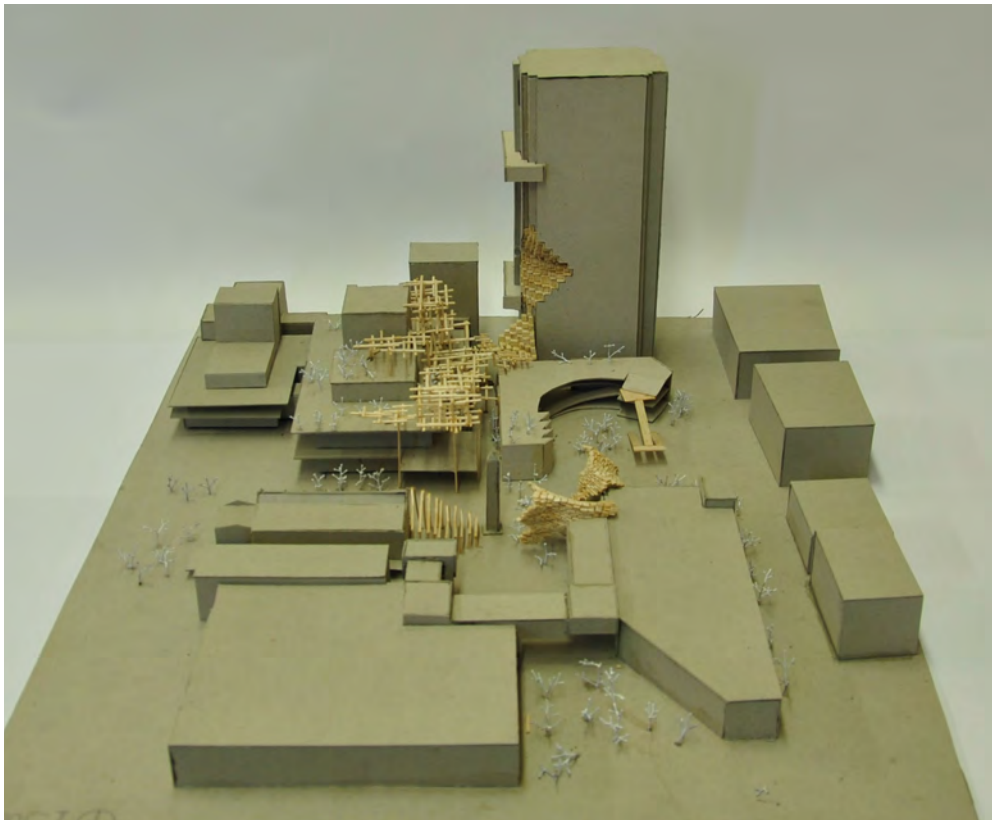








© University of Pretoria



© University of Pretoria

The usage of an architecture that naturally emerges out of the state theatre's original DNA structure and morphogenetically materialise from the built fabric itself, becomes a codification of the language that was extracted from the original building. It is used almost as a grammatical and syntactical overlord which governs which of the structural systems are extracted, repeated and eventually dissolve into the surrounding context.

The material system, which was originally defined as a simple corbel, is noticeable in some way or another on many elements of the buildings in the immediate built context:
Within the metabolism brutalist structure of the State Theatre, the corbeled sandstone window sill detail of the Metro Cycle House/ Guldenfinger building as part of the Sammy Marks Square Shopping Centre, and lastly the large and prominent corbeling detail on the western extrusion of the Internationally Styled ABSA building. This corbel in the built environment was taken as a graphic module for the repetition and distortion into the built context.

This abstraction breaks down the extracted module and change it into one that is formally understandable. This is achieved by comparing it to the imposing forms of the built context. It is then used to find a material and constructional stance between these buildings' formal intentions, and asserts a sense of contextualisation onto these

Iconic forms

The fact that the buildings appear to morph together even if not ever touching, implies a formal similarity by picking up, and accentuating the corbel shape through repetition. It would not be necessary for physical connection of the two different forms. The power of suggestibility that a void, created by enclosing adjacent solids, is enough to convey the concept of a formal dialogue. The void becomes the point of translation between languages. This is because from any vantage point on the site, the formal languages appear to coalesce as a ubiquitously understandable form.

The genesis of a neologism falls short at agglomerating the buildings' formal

© University of Pretoria

intentions. It does not effectively synthesise the buildings on a volumetric and spatial level - it merely bridges functions with delineating access pathways. This is linguistically comparable to a forced language like “Esperanto”, but instead, an agglomeration, or “lingua franca”, like that of “Fanagalo”. It instead now encourages the buildings to naturally grow out of their inherent building systems. This then proposes a level of discourse that is apparent as having overlapping syntactical traits of the same language. The level of formal discourse is directly proportional to the stance of abstraction of the building’s meaning that is proposed. In this way, the language does not become a banal superimposition on the build context, but coalesces the lexicons of the two adjacent buildings on a structurally elemental or molecular level.

Forcing a dialogue in a graphic sense

Gordon Matta Clark’s “Conical Intersect” of 1975 was an art installation that comprised of torqued, spiralling incisions done with fusion cutting of the material. It was done by subtracting walls, ceilings and floors from two housing blocks next to the upcoming Georges Pompidou Centre. With his self proclaimed “anarchitecture”, he succeeded in opening these abandoned buildings to light and air and began, as he put it “ a dialogue about the nature of the urban development and the role of art.” .The conical insection into the two abandoned buildings began “ an act of communication”. In this example of purely using vantage points and lines of human sight , Clark superimposed an image on top of another to create a sense of formal dialogue between the buildings by means of adjacency or visual supercomposition. This becomes an example of forced justification of the extrapolated essentialist languages of architecture within a given context by formally focusing them to “talk” to each other.

© University of Pretoria

INTERVENTION NECESSARY AREAS AND AREAS OF MORPH INITIATION

NODAL CONNECTIONS ACHIEVABLE

ENCLAVES FORCING LANGUAGES TO BE BLURRED AND PEOPLE TO BE FUN

PIXELLATED STRUCTURE THAT CAN BE DERIVED FROM TORSION DISTORTION

BLURRED AND PEOPLE TO BE FUN NELED AND SLOWED DOWN.

EXTRAPOLATED STRUCTURAL GRIDS FROM BUILT CONTEXT

DISTORTION OF STRUCTURAL GRIDS

POSSIBLE STRUCTURAL FRAMEWORK TO SUPPORT GRIDS

OVERLAY OF GRIDS, NODAL CONNECTION AND STRUCTURE

© University of Pretoria

GRAPHIC WARPING TECHNIQUES

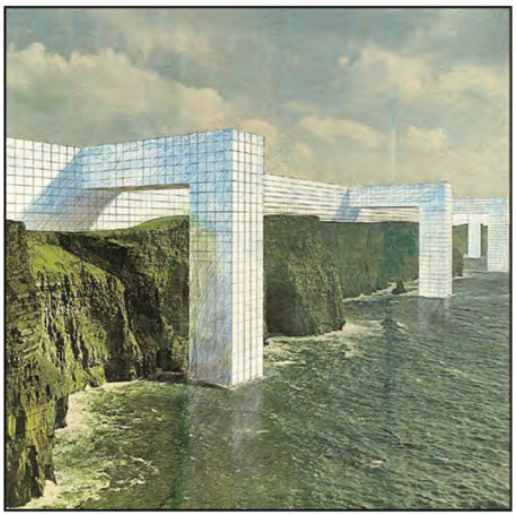
ORIGINAL PANORAMA IMAGE

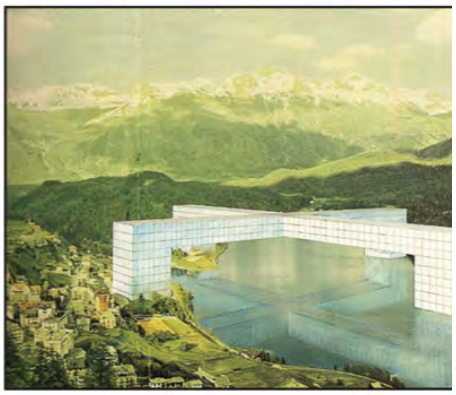
REPETITION AND DISTORTION WARP

FRACTAL TORSION OF A VANISHING POINT

© University of Pretoria

The ‘Continuous Monument’project by Florence’s SuperStudio was also an example of Superstudio’s most iconic technique of architectural representation. They make use of collage and superimposition to create photomontages that seem to either juxtapose a subject in a far-fetched context, or to subvert and create new meaning altogether. The didactic storyboarding of Superstudio was a means of critically examining the context and the course of architectural history.





The Continuous Monument

Superstudio's most famous exhibition is perhaps their proposal for t
Continuous Monument. As mentioned before this project utilized t
now famous black on white grid and extends throughout the existi
landscape, redefining what it means to occupy space.

Hence the spatial method of supercomposition became a methodology of design development in this dissertation. Inspired by Superstudio style compositions, and synthesis of visual data gathered from site, a visual language and basis for the distortion of the context was created. A simple graphic distortion of the language gives insight into the fact that the architecture can be studied two dimensionally and then altered on visual level, which in turn invariably has volumetric implications on that form.

© University of Pretoria

Graphic Warping

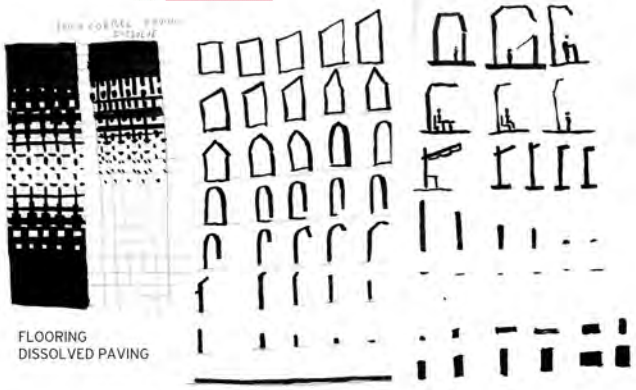
The site is morphed and an understanding is formed of what it takes to deform the built context on a visual level. This is a preliminary method of two dimensional form finding that has volumetric implications in three dimensional space. These graphic warps were undertaken by two methods: A graphic distortion of a photograph, and a visual morph of an aerial site view of the context.

This plan view shows the formal conception of the facility wherein the original plans are studied to ascertain their structural grid. Each of the respective building's grids were then extrapolated into the spaces between the buildings. These structural grids were overlaid and common intersections were noted according to the city's natural grid, on a finer scale and irrespective of building styles or measuring systems. The grids were then distorted graphically by barrel distortion or by manually pinching them. The building morphs that corresponded to each respective grid resulted in pinching distortions which would have volumetric implications. From any vantage point, building languages would seem to overlap and a discourse could occur between the buildings by the lines of sight of the walking observer. These morphed obtrusions need not ever touch, as from any point on site they would seem to overlap or at least visually reference one another.

Column locations were placed on the new points of grid intersection .This formed the structural beginnings of a bridging translator between the buildings and a connection of the nodes of functional interest. Enclaves to slow pedestrian traffic were also considered at this point, much like the "reaching colonnaded arms" of the St. Peter's Cathedral in Rome, accepting and exalting the community that enters them. This was then all overlaid to ascertain a possible architectural result for a building that would bridge the functions and morphed language intentions of the built context. This method fell short in defining a volumetric architecture and was restricted to this planar, two dimensional interpretation.

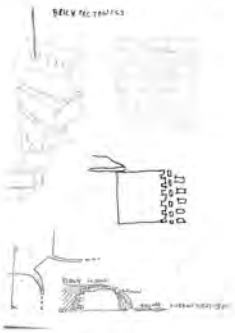
© University of Pretoria

CIRCULATORY ACCESS



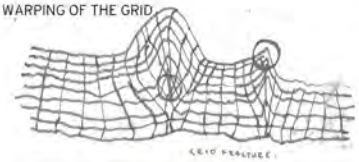
FLOORING
DISSOLVED PAVING

MORPH OF URBAN SITE ELEMENTS DISSOLVE INTO FLOOR PLANE



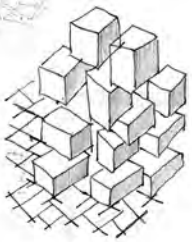
WHERE LANGUAGES AQUAINT THEMSELVES

WARPING OF THE GRID

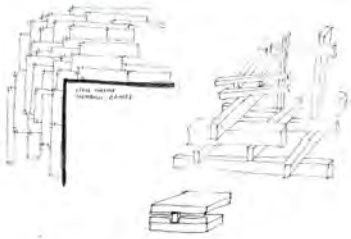


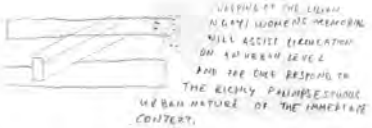
COMPLEXITY OF INTERACTION

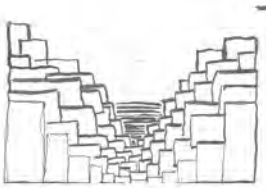
GULDENFINGER ELEVATION PROFILE DISSOLVE

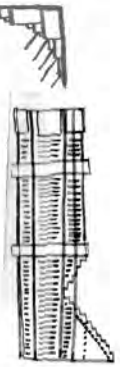


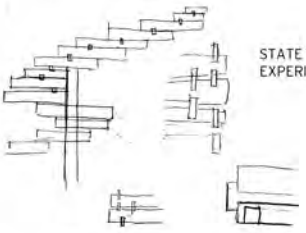
METHOD OF WARPING A REPEATING ELELMENT OF A SIMPLE CORBEL IN THE ABSA BUILDING.



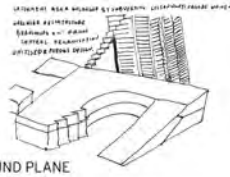




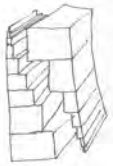


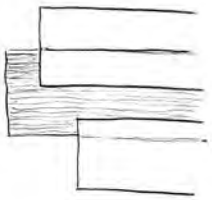


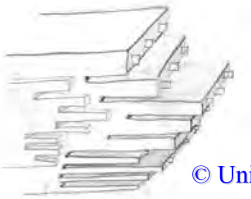
STATE THEATRE METABOLIC EXPERIMENTATION

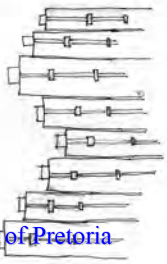


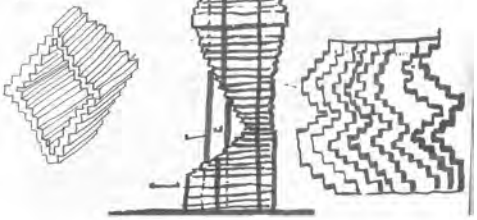
WARPING THE GROUND PLANE OF THE WOMEN'S MUSEUM







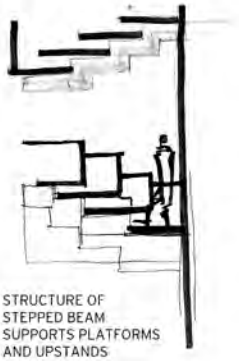




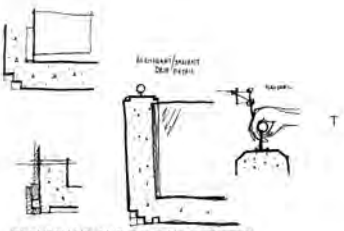
© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

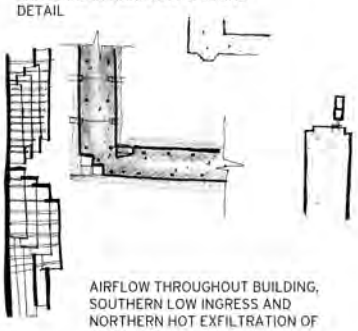
PLATFORMS THAT SEEM TO MORPH FROM GROUND PLANE



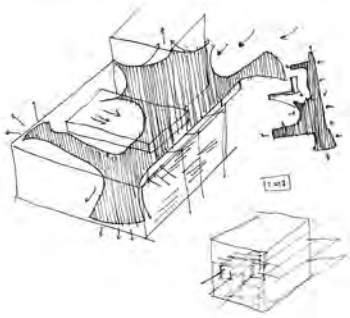
STRUCTURE OF STEPPED BEAM SUPPORTS PLATFORMS AND UPSTANDS

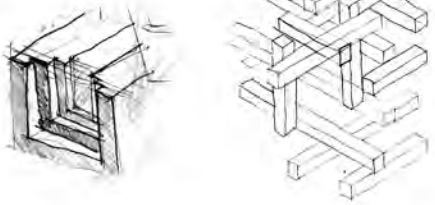


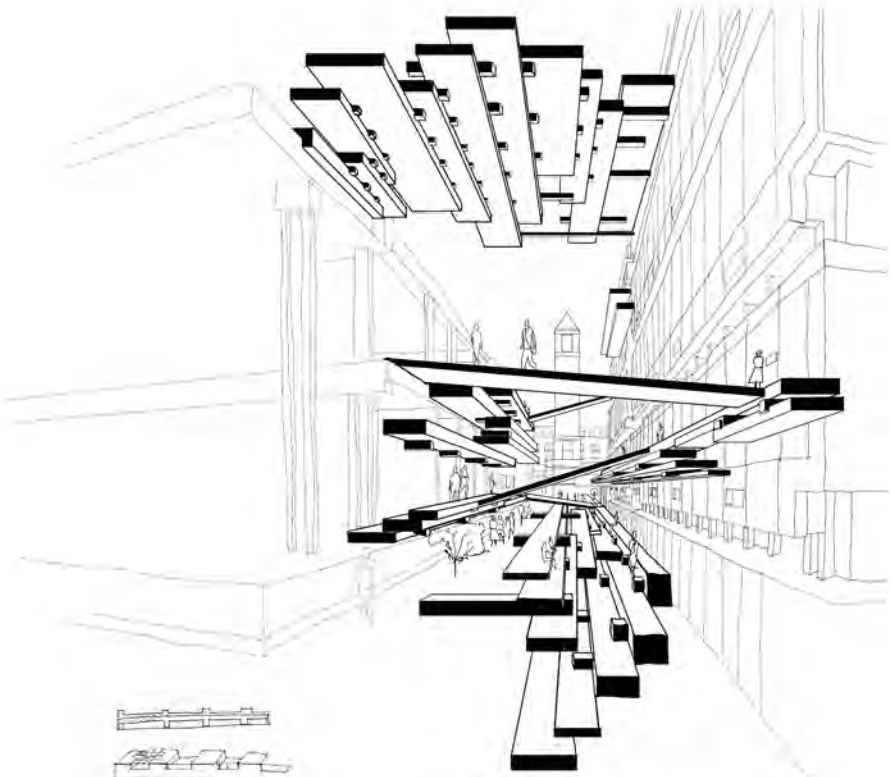
REENTRANT AND SALIENT CORNERS EXPLORED IN HANDRAIL UPSTAND DETAIL

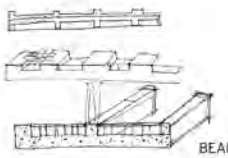


AIRFLOW THROUGHOUT BUILDING, SOUTHERN LOW INGRESS AND NORTHERN HOT EXFILTRATION OF STALE AIR.

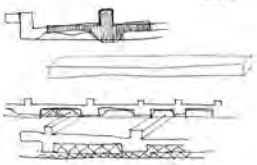


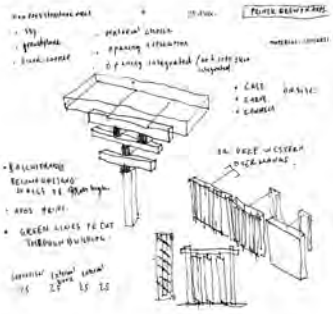


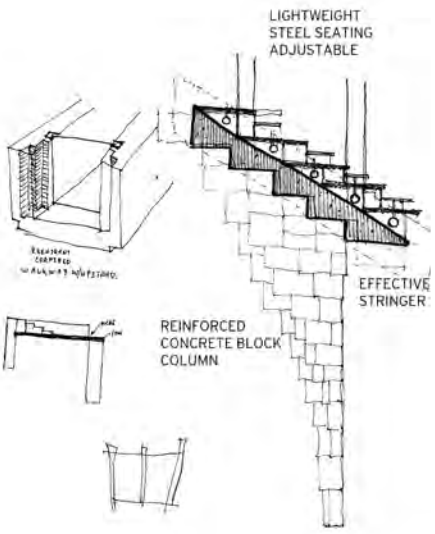




BEAM SYSTEM FOR FLOOR WEIGHT DISTRIBUTION,







LIGHTWEIGHT STEEL SEATING ADJUSTABLE

EFFECTIVE STRINGER

REINFORCED CONCRETE BLOCK COLUMN

© University of Pretoria

The other graphic method pursued was that of site photography distortion. A graphic distortion of a photograph uses circular concentric viewports which torsion and tessellate inwards, forming a fractal that seems to dissolve into a vanishing point. With this torsion exercise, an architectural dialogue appeared in the pixellated distortion. Both the buildings being distorted indicated a repeating pattern of a corbeled step derived from the stepping of the concentric distortion.

Other methods of graphically repeating elements of architecture visible in the photo were explored to ascertain which architectonic elements are most prominent in this specific photo vantage. This method was used as a preliminary means to the extraction of an essential architectural semiotic that could be repeated and fuse the forms to morph together. Again these visual methods of dissolving the architecture were a means at a volumetric implication that followed.

The artistically derived abstraction methodology purely based on graphic methods of distortion is then taken to the next level of volumetric implication by the extraction of a material and constructional system from the state theatre. This system is abstracted to a point of architectural cognisance on an elemental level. Roof, wall, stair, ground and column seem to be made of similar architectonic elements. This makes the viewer cognisant of these elements by means of a confusion of what they should look like based on our precognitive reasoning. All these elements can be condensed down to a simple corbel. This corbel becomes the ubiquitous translator of architectural form by joining each separate entity and architectural element, which is to be made from the same metabolic parts. The corbel noticed in one element is the same as the corbel noticed in another.

The element (a column, stair or beam etc.) is then questioned by the viewer, because he/she has noticed the similarity in formal message that it presents - regardless of which element is used. These elements then become explicitly accessible to the viewer by means of association.

The corbel skews the legibility of the element to the point that the viewer no longer sees it as a typical element anymore. Visually it is all corbel. The element itself is then questioned and so is it’s relation to elements adjacent or connected to it. This curiosity sparks enquiry into the recognisable architectonic forms around the confusing corbel, and therefore encourages the desire to understand the previously unnoticed architectural elements in buildings nearby. The viewer now has a means at understanding architectural elements in the rest of the city, and the desire to know more burgeons. A means to reading architecture is born by forced illegibility of the elemental parts.

© University of Pretoria

Masterplan scale down.
At this point of the dissertation the interventions to the Sammy Mark's and the Guldenfinger building were left at a conceptual level. The scheme developed, concentrating on the connection between The State Theatre, ABSA Bank, the upcoming Womens Memorial Centre as well as the fabric of the ground plane between these buildings.

Morph purple.

PIXELLATED STRUCTURE THAT CAN BE DERIVED FROM TORSION DISTORTION

The corbeling morph that became a successful ubiquitous translator of these buildings superseded the need for an impositional neo-language architecture. A new, imposed language is superfluous when there is such a rich and varied vernacular already being spoken. The distillation of the various existing languages into an elemental part becomes a much more powerful translator of more than one architecture. The architecture now talks to itself, and also directly references the context in a balance between each buildings' iconic presence and contextual validity within the CBD.

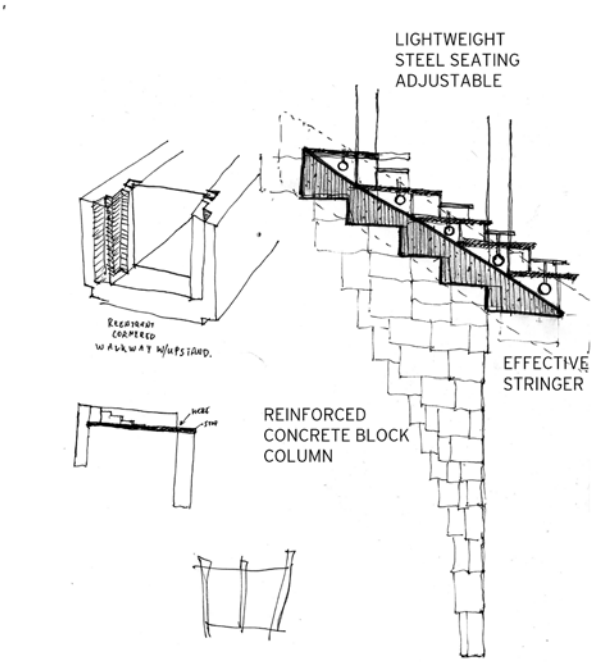
The defined methods of abstraction of architectural DNA according to The State Theatre's endemic construction methods were drawn from to create a language of ubiquity:

1. The extended beam which projects past the envelope- implying the meta bolic Japanese influenced construction methods -effectively comes across as a corbel.
2. The beton brut aesthetic- sandblasting the concrete to reveal aggregate in clean chamfer bordered panels.
3. The off shutter concrete which is finished with an exposed wood grain, draws direct reference to the traditional Japanese timber construction methods.
4. The material and construction system itself being broken up into its metabolic parts, is then placed in a modular system which pervades through the entire new facility.
5. The imposingly oversized constructional elements of concrete, tend to the idea of formal massivity present in the existing State Theatre. The elements still present an aesthetic of lightness, however, due to the manner in which they are cast. This in turn achieves larger spans and a sense of openness and vastness for the interior spaces.

© University of Pretoria

No Curves Or Non Rectilinear Angles.

The design tenets of rectilinearity and orthogonality that make up the constructional vernacular of a modern metabolist and brutal language on site are pivotal to the premise of the building. Any intervention on this site should retain, accentuate or exacerbate this orthogonality by breaking up the horizontal and vertical modules of the theatre and representing them as symbolic parts of the larger vision of rectilinearity. This smaller module of the same genetic parts dissolves into the built context or the ground plane itself. Curves and angles that are not 90° from each other are only for programmatic sound reflection necessity. They form part of the interior aesthetic and are not viewable from the exterior. The abstraction of the language is therefore coherently retained. Nothing visible from the context can be round obtuse or acutely angled to any other feature - only perpendicular changes in form are visibly allowed because they speak a morphed but still rule abiding dialect of the formal language endemic to the site. This is why everything in the designed building, from any visible angle, forms either a corbel or has a staggered, orthogonal and rectilinear appearance.



© University of Pretoria

The Psychology of Entrants.

Entrants to the facility have a number of choices of how to enter and egress the linguistics learning facility.

1. From the pedestrianised Church (now Helen Joseph street), via the State Theatre itself, from the Women's memorial or from the arcaded thoroughfare between the theatre and the memorial centre's back of houses.

2. Access via public Church street is one by using the stepped beam ramps which form interaction platforms that project into the pedestrianised street and morph the ground plane into platforms that begin to traverse vertical height .

3. Accessibility is also made possible from the existing State Theatre's actual vertical circulation. By restructuring and building out of the existing vertical circulation - the existing staircases are extruded through the existing roof and interstitial floor to the new base level above the roof of the theatre.

4. Access via the Lilian Ngoyi women's Living memorial centre is also made available to the transient user by means of the roof plane of this building becomes an extension of the public square with the addition of a ramp structure to the North Western end of the memorial to allow access to the roof plane which is already proposed to be used in some areas. Endemically inspired step beam ramps will be used to traverse over the semi-sheltered arcade area and connect to the main entrance to the language facility.

5. Then also from the arcaded alleyway itself. This was intended to be a back to back of house of both the buildings but now becomes a public thoroughfare punctuated by sheltered repose spaces and vocal and visual bombardment platforms of art and language installation. The visitor/user can either use the centrally located elevator for staircases, or stepped beam platforms to the north of the public circulation corridor or to the South- the colonnade supported ramps allow vertical circulation to the ballet balcony and then to the facility floor level.

© University of Pretoria

Visitor Choreography

Apart from the access through the theatre's opera block itself, main entrances to the facility's main level atop the block are achieved in two manners. The first central entrance allows both users and employees of the facility to enter into the main library atrium. The user is immediately faced with an impressively large library on various floor levels that terraces downwards. In the foreground there is immediate orientation by an information desk to the right and the lending library checkpoint to the left for the checking out of books. This imposing library with its intermittently staggered floors taper and diminish with height forming a natural hierarchy of most used books become the most accessible and have the most reading space which cantilevers from the opera stage block's new column structural integrity. these cantilevering reading balconies provide views to the city which are framed by vertical and orthogonal brise soleil devices made of concrete to protect the occupants and books from harsh Western afternoon sun.

The visitor, turns left and the employee turns right at this point. There is a clear delineation at the main entrance showing that employees of the building go to the offices and administration publishing house to the south of the block. This encompasses the publishing, curatorship, administration custodial staff or security of the facility. Visitors or users go North through the narrative circulation aisle. Here the user is faced with language learning devices and various levels of public to private discussion areas. The idea is that a flanéur would amble through this circulatory axis and be seduced by the various forms and linguistic devices that allow for interest in the activities that occur and encourage participation even if unintentionally. These various types of talking reading and recording spaces form an interest to draw the visitor to the Northern more formalised learning facility that culminates in a large auditorium and seminar hall.

The second main entrance that comes from the stepped beams in the public arcaded alley allows users (not employees) that are not concerned with the library facility to enter the building from this second entrance. This second entrance is used on a more events based aperture, where the entrant is faced with the direct choice of formalised learning to the left grading to more voluntary learning facilities to the right. If the user proceeds forward he is acquainted with the public amenities of the building. This includes a cafeteria restaurant for refreshments between lectures and a public ablution facility. There are also staircases and lift shafts in this section that connect to the state theatre's foyer of the opera block.

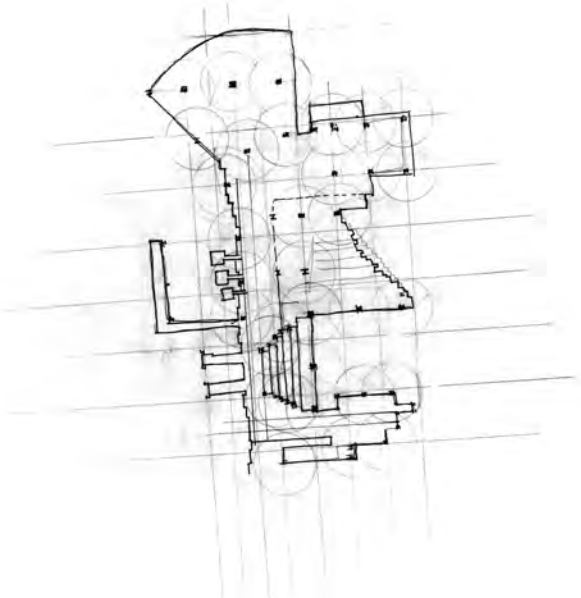
© University of Pretoria

Towards the entrant's left is the truly public wing of the building. The semiotics study hall that is herein contained is the most extraverted space by focusing on views of Church street in an educational semiotics viewing facility for anthropological study of the city directly and voyeuristically. There is also a gallery and exposition space complete with a sculpture garden that dissolves towards the east as the other wings do. This gallery houses a permanent and dynamic temporary collection of art pieces concerned with an anthropological or sociological context. Towards the entrant's right is the narrative aisle that leads to a small scale intimate outdoor amphitheatre situated on top of the opera block's seating area. This leads to a larger outdoor amphitheatre that is above the roof of the facility's auditorium. This public area is used for film screening or public events and presentations or even outdoor repose on top of the prominent auditorium and provides pertinent vantage points of the surrounding context.

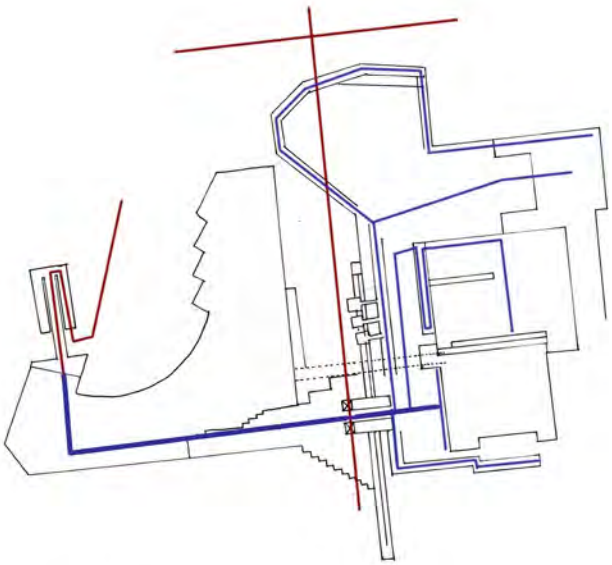
Underneath the smaller grandstand outdoor amphitheatre is a nomenclature and etymology hall where coining and derivation of words is discussed and understood. To the South of this space one can find the vertical circulation ramps that take the user to the various levels of the library facility and also through a vomitorium takes the user to the middle of the grandstand seating for inclusive access. There is also an elevator or staircase provided to fulfil this purpose.

This smaller outdoor amphitheatre's stage seems to morph out of a tatami oriented planter box arrangement on top of the seating block. They culminate in a highest block which forms this theatre's outdoor stage.

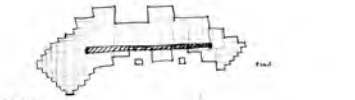
© University of Pretoria



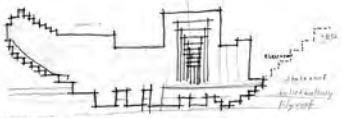
STRUCTURAL SPACING
& ROOF ENVELOPE
1:500



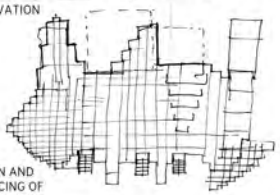
MAJOR CIRCULATION ROUTES
INTO FACILITY
1:500
RED REPRESENTS GROUND LEVEL AND BLUE ABOVE EXISTING
BUILDING ROOFS INTO FACILITY



PLAN

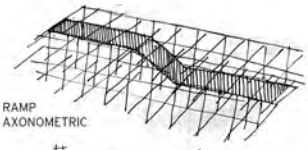


ELEVATION



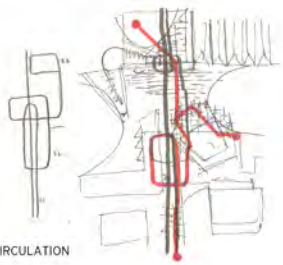
PLAN AND
SPACING OF
STRUCTURE

EFFECTIVE
SECTION



RAMP
AXONOMETRIC

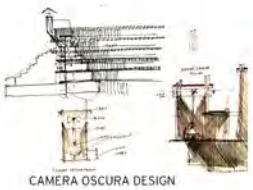
MASSING



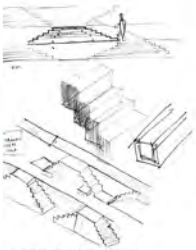
CIRCULATION

PERSPECTIVAL MASSING

© University of Pretoria

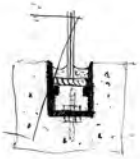


CAMERA OSCURA DESIGN



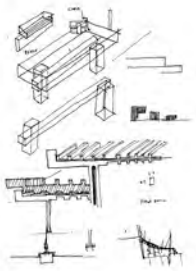
LIBRARY INDIA STAIR

SUSPENDED FLOORING
JUNCTION ARMATURE
PAVING IS FREE DRAINING
ON TOP

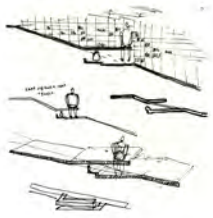


FENESTRATION DETAIL
FLUSH WITH
CONCRETE EDGE

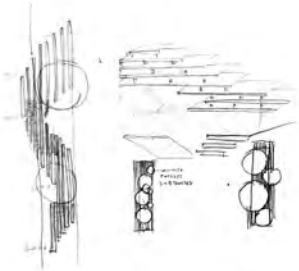
RESTAURANT SEATING DESIGN



VERTICAL AND HORIZONTAL SOLAR SHADING PARTI



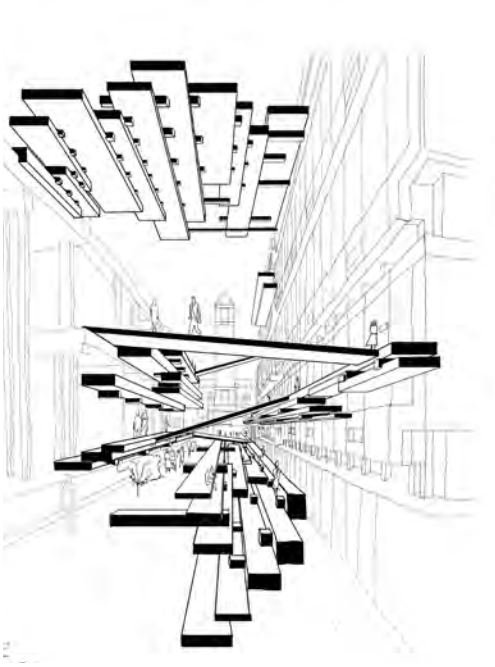
RAMP-SEAT



MASSES CREATED IN ALLEY-WAY AND
PROGRAMATIC SPACE CREATED
SUBTRACTIVELY

© University of Pretoria

Specific developments in design



Alley

The alleyway between the upcoming women's memorial museum, the ABSA building and the back of house of the South African State Theatre is currently a fenced off dead space that provides back of house type services to the buildings in context. It is currently inaccessible to the average citizen, but the proposition aims to change this.

In-keeping with the proposed urban vision for this site, a public arcade would be formed to provide elemental shelter and repose areas for passing commuters traversing large city blocks. Pretoria's tradition of splitting blocks into separate arcades of either commuting or retail based nature, is drawn upon and proliferated on the site. This virtually arcaded commuter alley is used as a major seductive device to enter the building and to gain interest in the function of a language centre that resides above. It is now publicly accessible. Information will be forced onto the observer in an installation format. These installations become interactive to the users who wish to participate..

Kinetically activated sensors activate a message that becomes comprehensible only when the viewer is in certain proximity and remains there for a certain period of time. When the viewer walks quickly by, it is incoherent multilingual babel. When attention and time is given to the installation and the building it represents, however, the message evolves into a comprehensible and concise message of invitation into the language centre above. The new users are now enticed into using the facilities of the language centre. They may learn a new language or educate themselves more about a familiar one, leaving the facility with more language acquiesce than previously.

The formal implications of these installation spaces, created by the ground plane morph and the stepped beam platforms, become an extension of the existing fabric. By this morphing of the ground plane, it implies that the context itself is also changing to pay homage to the architecture which strives for contextualism. The context now assists in justification of the buildings which are formally intruding to it. Now even the context in itself becomes contextualised.

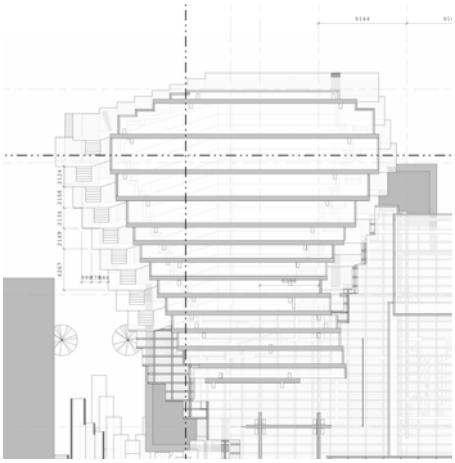
© University of Pretoria

These platforms seem to emerge out of the ground plane. They then dissolve into these stepped beam platforms that seem to cantilever out of the existing backs of house , allowing ingress into the main facility atop the State Theatre's opera block.

These stepped beam platforms follow the tenets of abstraction of the existing architecture by their corbeled appearance. They seem to change and elevate the ground plane in certain areas, and are used to extend the ideology of deconstructing the city square to allow the public areas to further proliferate onto roof spaces of the site. The roof plane of the buildings becomes an extension of the public arena within the centre of the CBD of Tshwane.

The underside of these stepped beams forms a roof or ceiling plane for the passing commuters to visually be enticed by the complex architectural language presented to them. They also provide elemental shelter for commuters to comfortably travel through or pause in sanctuary - like repose areas which are created by the void of the stepped beam platforms and provide visual calmness, in contrast to the complex formal confusion of these beam platforms.

These voids of form amongst the complexity of architecture allow for the cognisance of forms by spatial relativity. Solid forms make a space. This space is a void. Only with understanding the solid forms that are used to make up that void, is the void comprehensible, and then in turn, so are the solid forms. This complicated formal language is punctuated and parenthesised by the voids that allow for different means to interact with the environment.
Auditorium



Shape

The truncated wedge shape proved best to convey the semiotic shape of an auditorium typology of architecture. The inherent programme is thus immediately elucidated purely by its mass form. It also programmatically proves effective for the natural seating tendency of rectilinear auditoria. The more people fill it, the wider it becomes to the back, keeping most users front and centre. This prevents the massivity of the space from becoming an issue if the occupancy is lower than expected. This shape also tends to the avoidance of standing wave reverberation - perfect for an acoustically demanding structure. Using the corbel language, the auditoriums sides stagger inwards and naturally supplement the sound diffusion necessity of already effectively truncated walls.

© University of Pretoria

Parts

The auditorium consists of two main parts which make up the audience space. The larger part to the East is related to the rectilinearity of the entire scheme. The smaller part to the West is made angled in the interior by means of the base slab staggering, allowing for a 30° angle to the rectilinearity. The exterior implication is that the architecture visually dissolves to the West, while inside, a comfortable, converging, angled interior layout allows both parts to face the central lectern as a focal point.

Roof

The roof becomes a freely drained outdoor amphitheatre that is used for outdoor presentations or events. It becomes a viewing or repose platform above the building. This roof is made up of large beams that run in the transverse East to West direction. An insulated and reinforced concrete roof slab spans from transverse beam to beam. Curved ceilings of acoustically reflective properties are suspended by means of tension cable and hook between each beam, allowing for the speaker's voice to be correctly reflected to the audience. The acoustic reflectors have absorptive material attached to their top to absorb any noise that escapes between the gap between the reflector and beam where the artificial lighting armatures are held in place.

Connection to State Theatre

Conceptually, the connection to the State Theatre should have been achieved by naturally growing out of the existing structure and by using endemic materials and a vernacular constructional language. This becomes an issue when considering the existing Heating Ventilation and Air Conditioning (HVAC) system that currently dominates the relatively flat concrete roof. It is integral to the building's function and air quality because of the lack of natural ventilation in the interior auditorium and theatre spaces.

The connection to the existing theatre is achieved by an interstitial floor that elevates the ground level of the proposed facility to a height that doesn't interfere with the existing HVAC system.

© University of Pretoria

Litracon discussion booths.

As mentioned earlier, the discussion booths, through extrusion of that room into the public sphere of the arcaded alleyway, would instill in the visitor a sense of vulnerability. This vulnerability is further exacerbated by using light transmitting concrete - or Litracon. This light admittance is achieved by laying optical fibres within the cross section of the concrete as small pieces of aggregate. This homogenises both the materials of concrete and glass in a mixed material language of the “third” material. It agglomerates the inner structure and translucent surface features of both materials. Translucent to a certain degree - one would not be able to directly see what is behind a Litracon wall, though diffused light and silhouettes are clearly distinguishable.

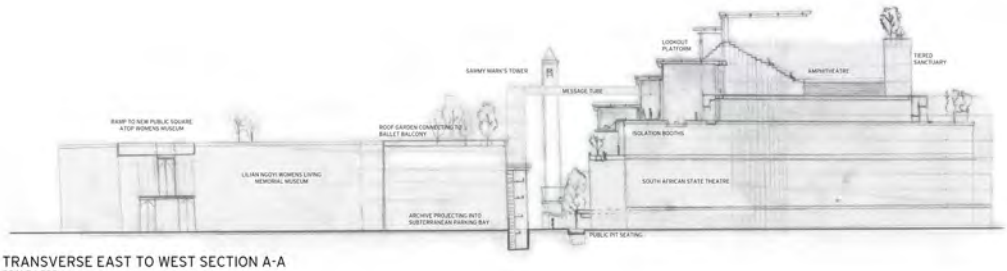
RESTAURANT AND CAFÉ

A restaurant serves visitors and employees of the facility. It is located in the North service wing. Instead of regular seating in the restaurant/café, concrete benches and tables morph out of the existing concrete beam structure. This structure elevates the State theatre’s roof level to the base level of the facility - above the interstitial floor that contains the existing and proposed HVAC services and ducting. The seating and tables are also made of the vernacular dialect of off shutter concrete, which seem to become extensions of the existing structure . Adherence to the main tenets of meaning extraction from the theatre - based on extending original columns and beams and the utilisation of a corbel - enforces the structural aesthetic. This allows a level of holism in the design, showing that all features even as small scale as furniture are treated according to the same structural system and material finish parameters that the rest of the design is subjected to.

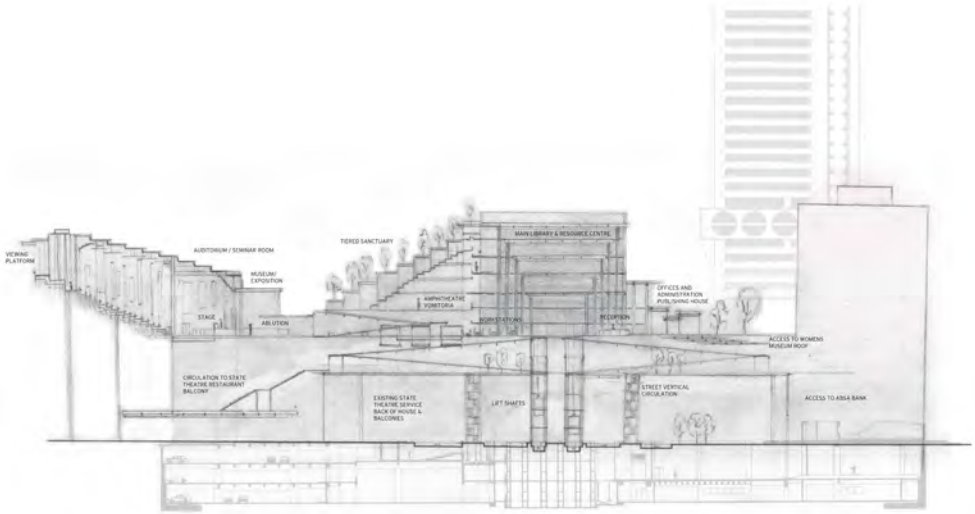
SEDUCTION FLOORS.

Areas of the facility where the flat slab areas of the roof structure of the existing State Theatre are ruptured between the coffered beam modules and glazed closed for a walkable surface above. This is a way for the user to see through the new floor structure as well as the existing coffered roof slab. This system is used as a means to voyeuristically view the functioning of the state theatre below in a tantalising manner. The theatre production won’t be visible but visitors can view the patrons watching a theatrical production.

© University of Pretoria



TRANSVERSE EAST TO WEST SECTION A-A
SCALE 1:200



LONGITUDINAL NORTH TO SOUTH SECTION B-B
SCALE 1:200

© University of Pretoria

Library Seating

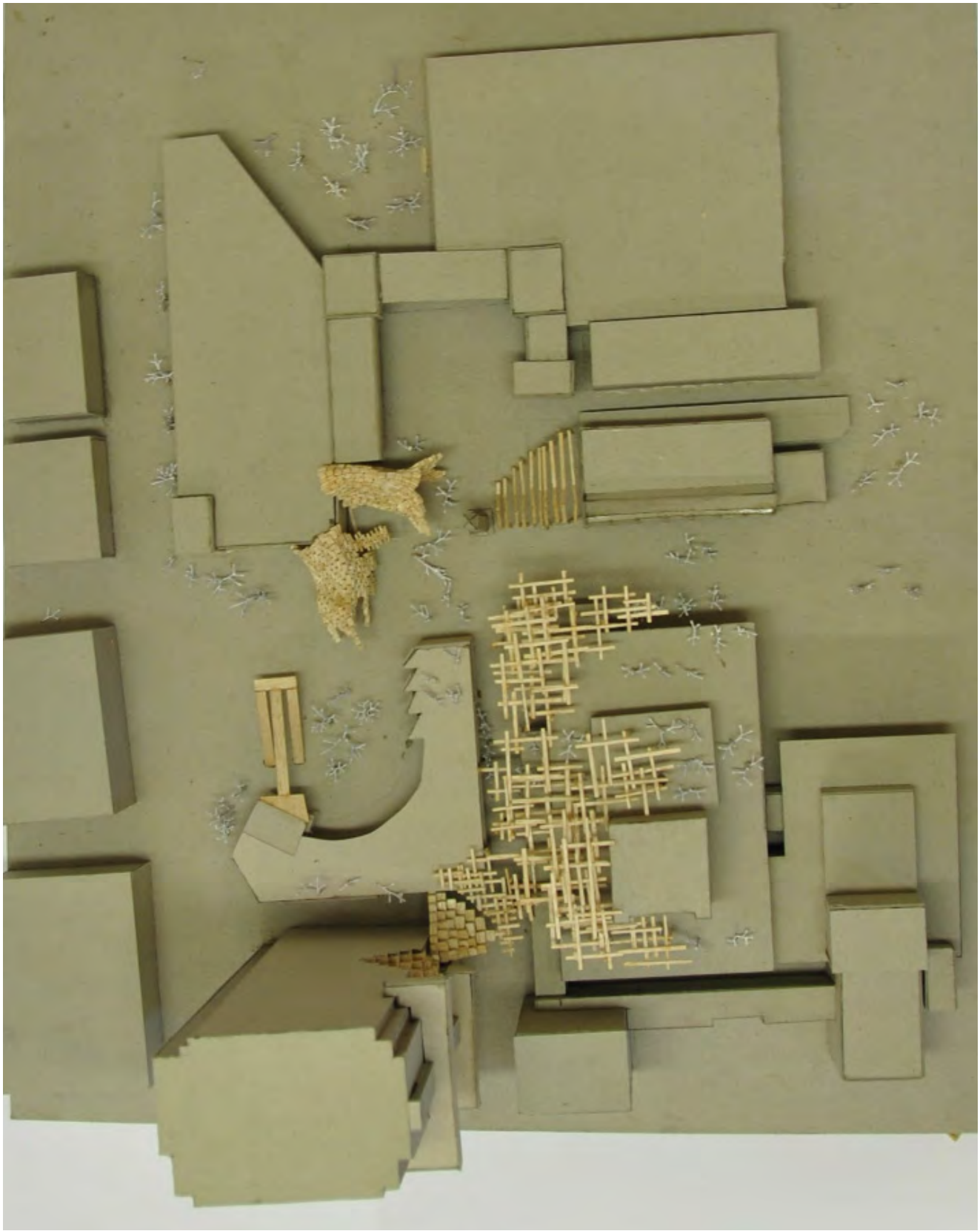
The library seating, conceived as a modern reinterpretation of traditional library desks and study areas, consists of two major types of seating: an extruded two dimensional ziggurat-style structure provides seating in various height levels and contains intermittent bookshelves. This creates an interesting interaction between users, encouraging movement in and amongst books in a social manner.

Seating inspired by Carlo Scarpa makes for steps that terrace and extend past a higher step. This is also used as a mixed use terraced step-seating arrangement that encourages visual interest as well as human interaction. These seating designs also speak the endemic vernacular of the corbel and are constructed of a lightweight steel structure, clad with precast concrete panels.

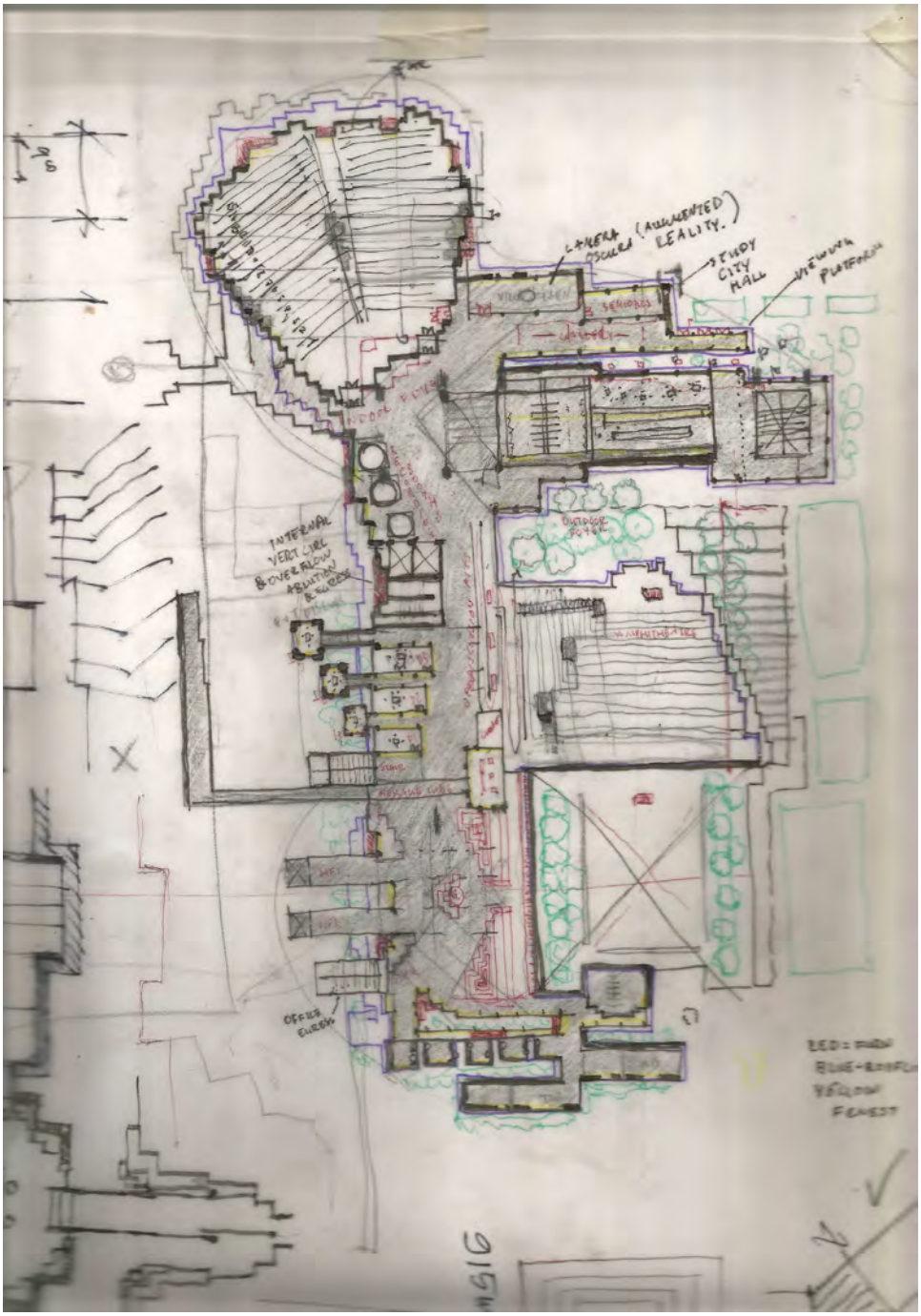
Access Through Existing

Vertical circulation is extruded from the existing fabric, staircases and elevator shafts which extend to the top floor of the facility and are taken through the existing roof. They thus become auxiliary circulation routes into the linguistics facility from the theatre itself. This assists in egress routes for large occupancy needs, as well as safety escape routes in a fire situation. At the same time it assists in cross-programming the culturally elitist “pay to view” theatre with an openly accessible language centre.

© University of Pretoria

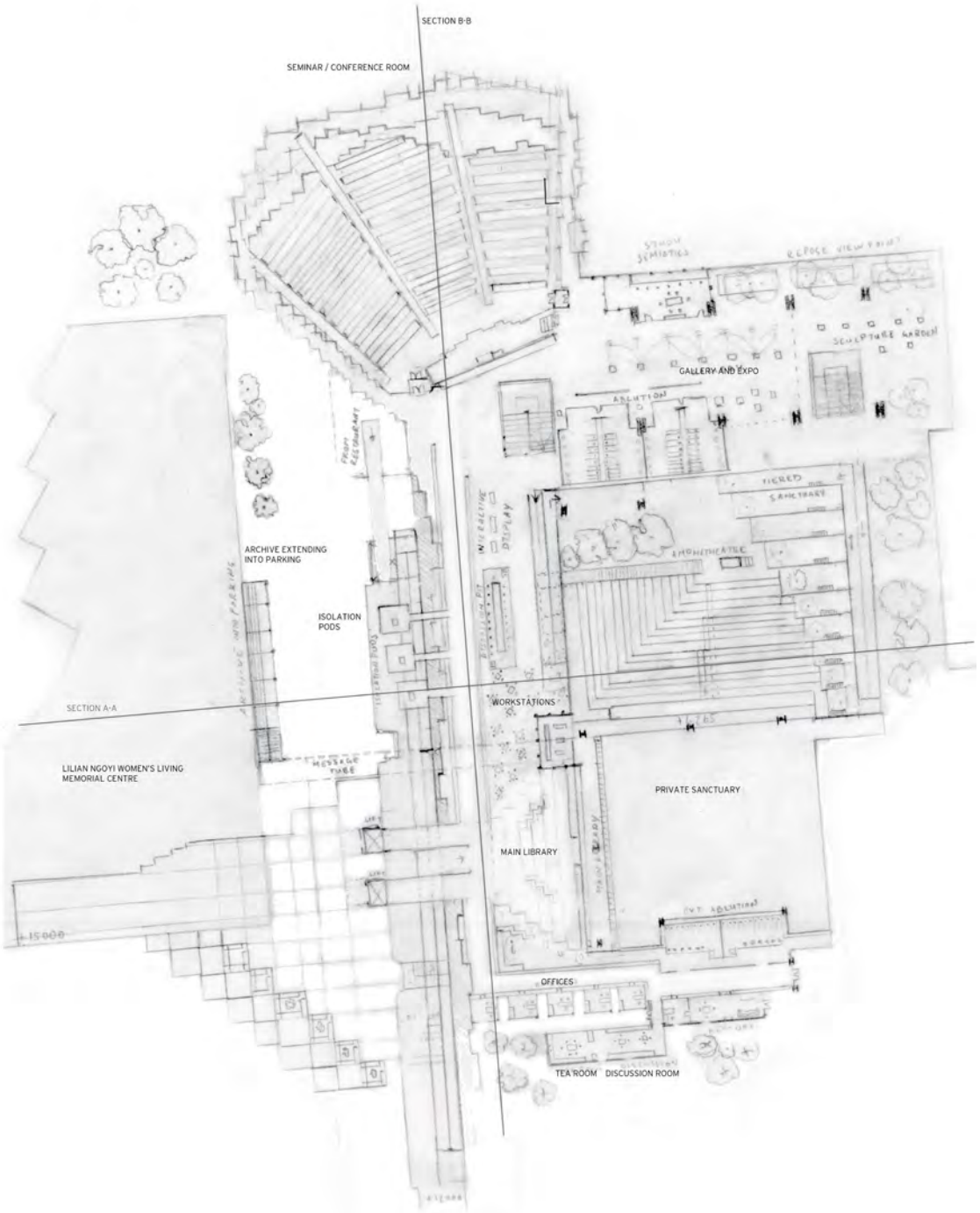


© University of Pretoria

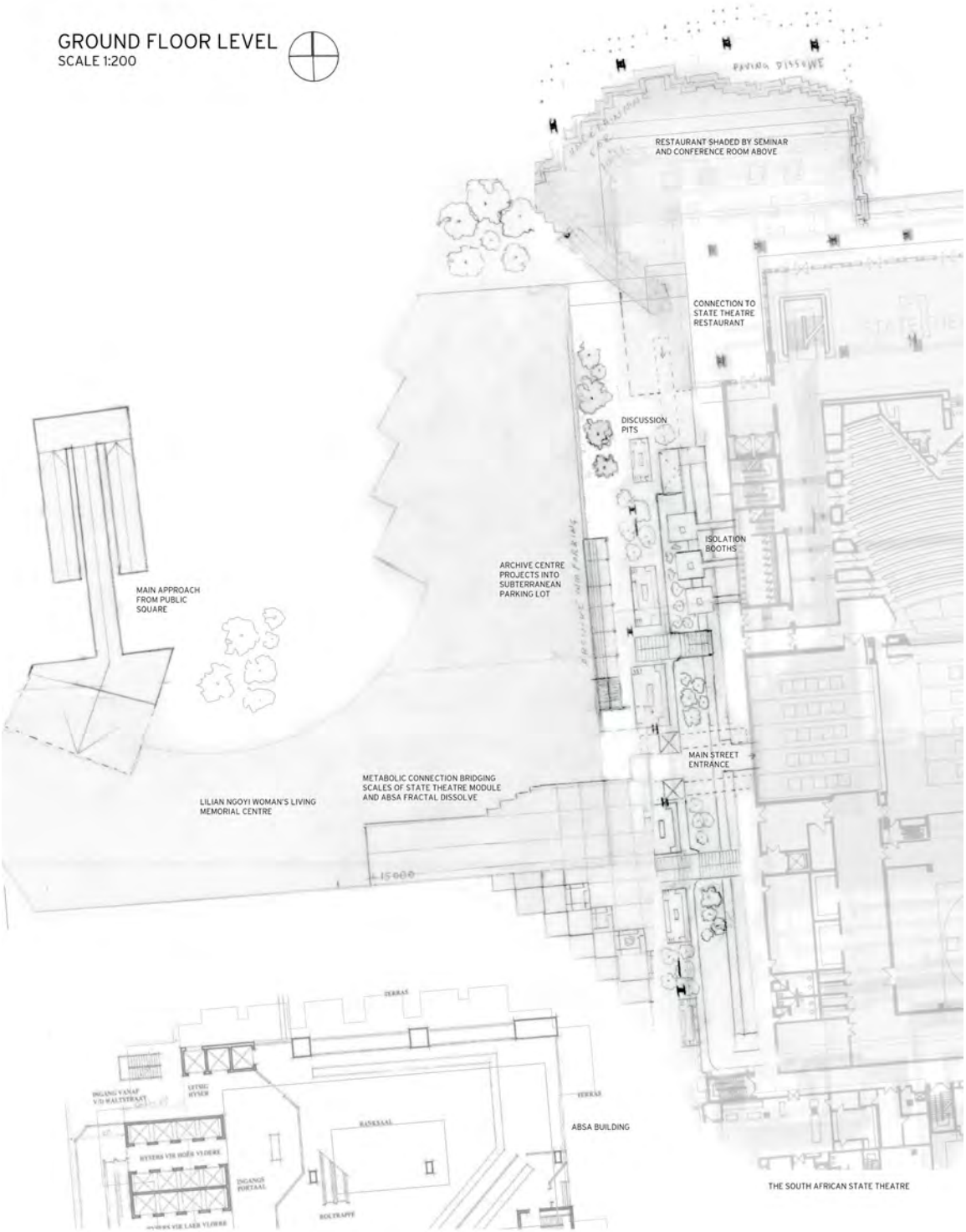


© University of Pretoria

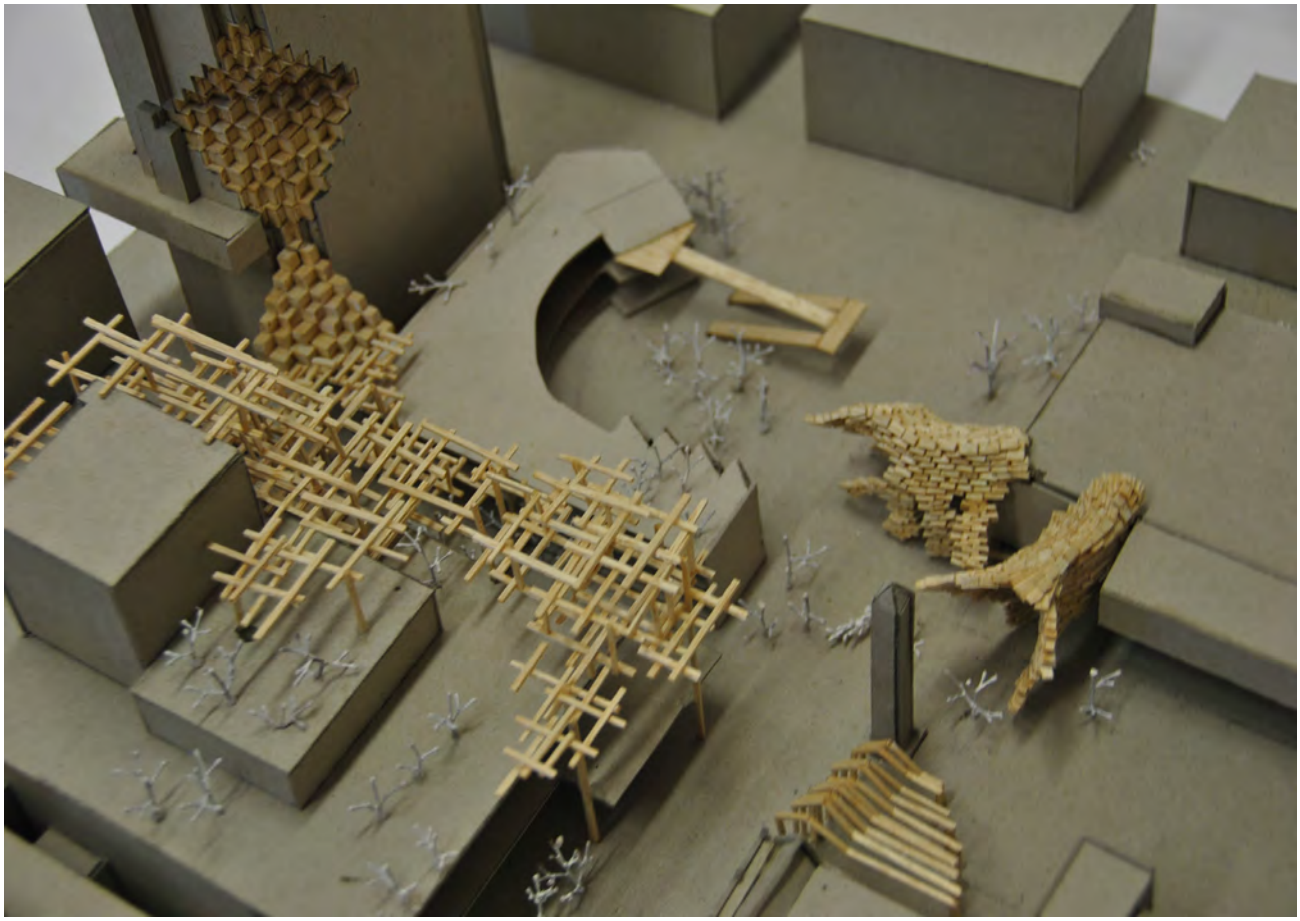
FACILITY FLOOR LEVEL
ON STATE THEATRE ROOF
SCALE 1:200



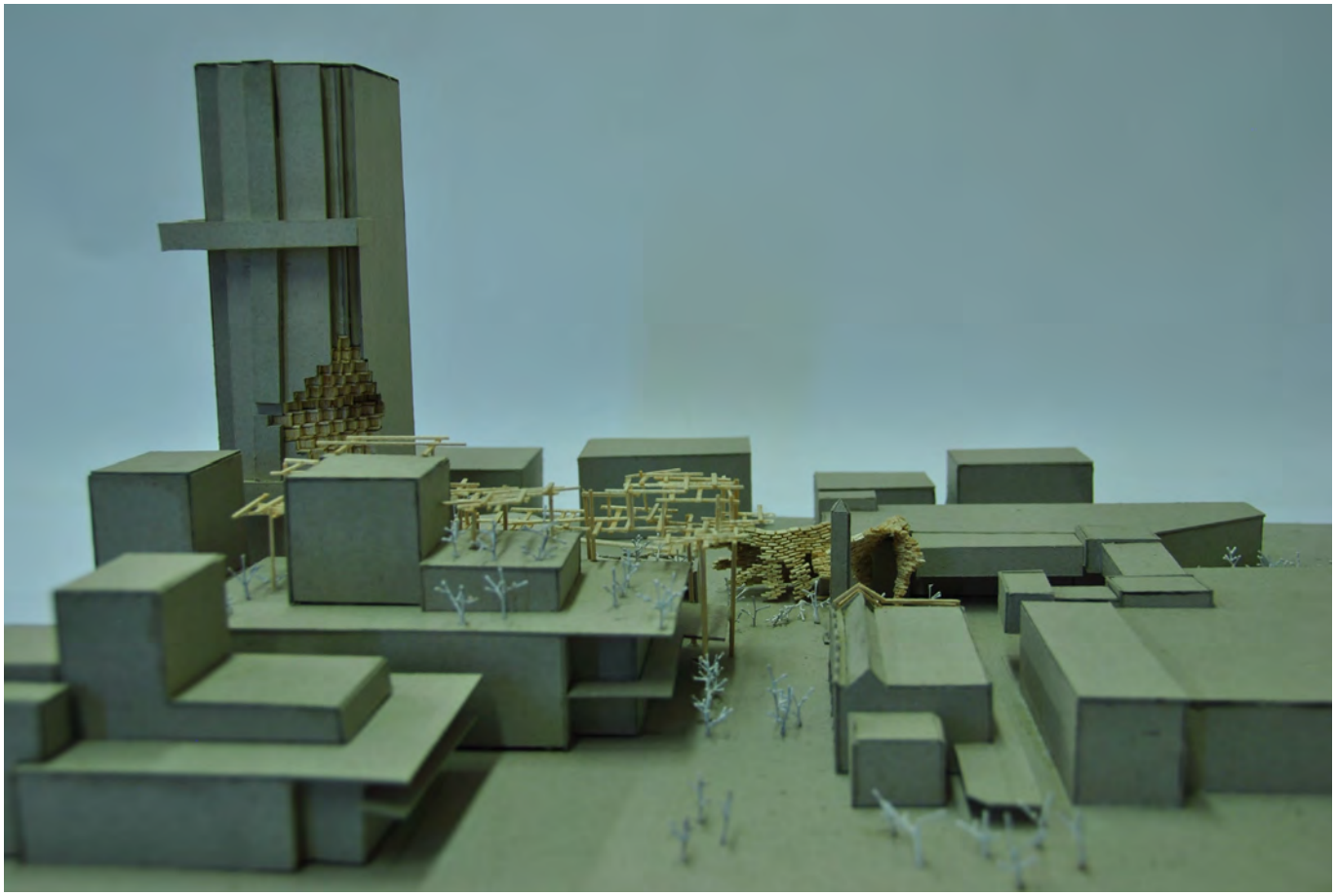
© University of Pretoria



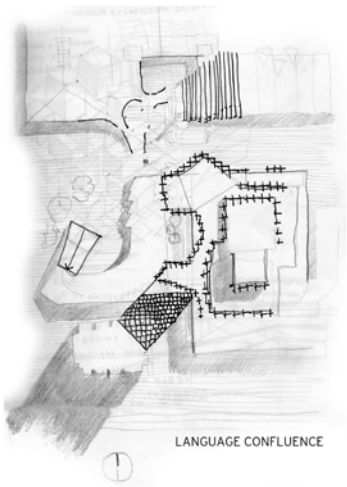
© University of Pretoria



© University of Pretoria

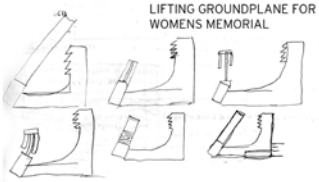


© University of Pretoria



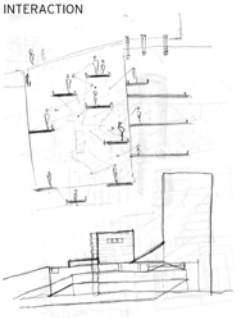
LANGUAGE CONFLUENCE

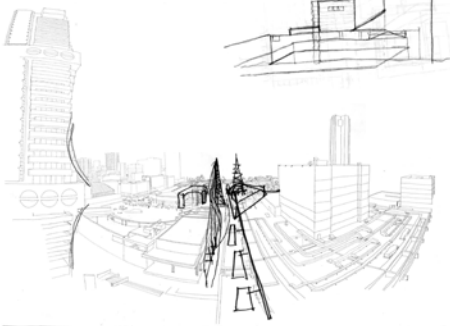
LIFTING GROUNDPLANE FOR WOMENS MEMORIAL



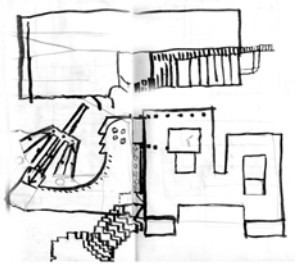
DISCUSSION PITS, CIRCULATION COLUMNS AND LIFT SHAFTS IN ALLEY WAY

COMPLEXITY OF INTERACTION

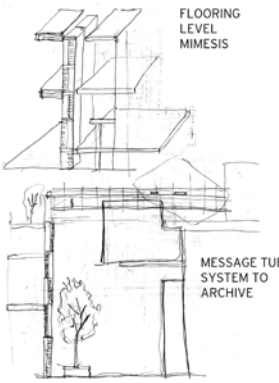




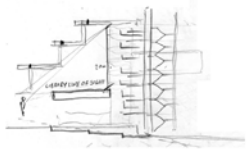
ISOLATION BOOTHS AND SUSPENSION TOWER



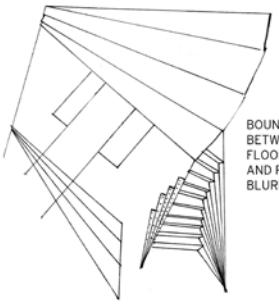
FLOORING LEVEL MIMESIS



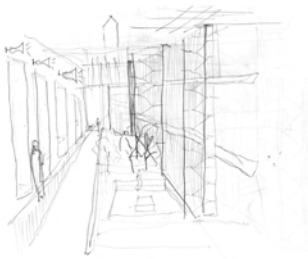
MESSAGE TUBE SYSTEM TO ARCHIVE



AMPHITHEATRE VOMITORIA

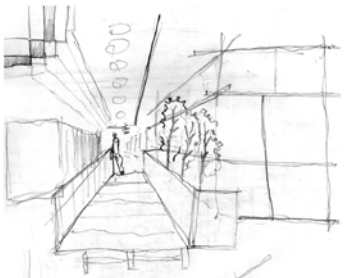


BOUNDARY BETWEEN FLOOR WALL AND ROOF IS BLURRED

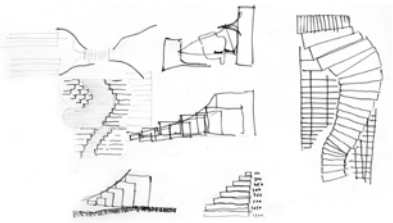


VOCAL AND VISUAL BOMBARDMENT IN ALLEY WAY

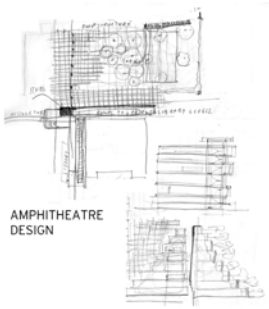
STANCES OF RESPONSE TO EACH BUILDING



CIRCULATORY CORRIDOR



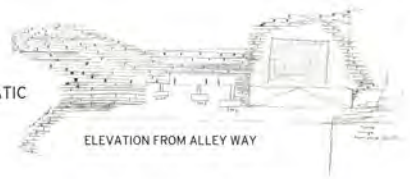
WARPING OF GROUND PLANE IN ALLEY WAY



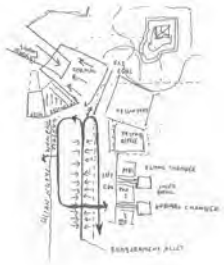
AMPHITHEATRE DESIGN

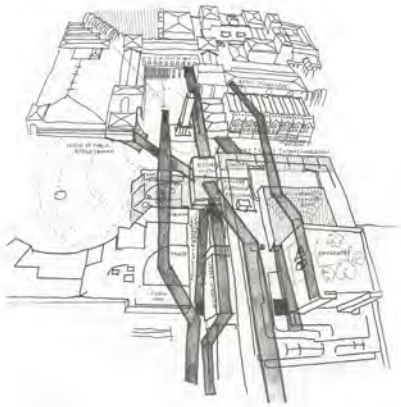
© University of Pretoria

DEVELOPMENT OF PROGRAMMATIC ORGANISATION

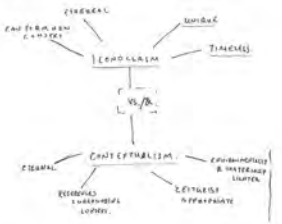


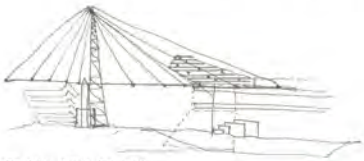
ELEVATION FROM ALLEY WAY



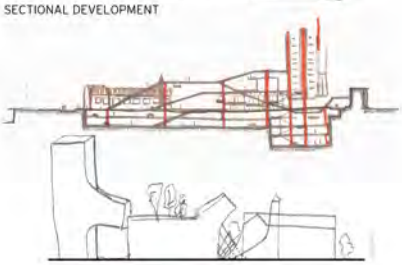


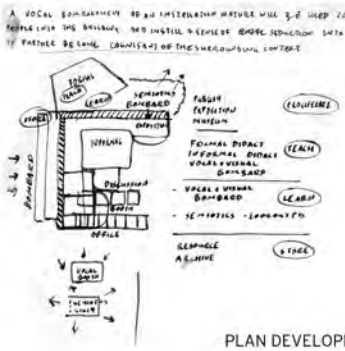
FINDING A MIDDLEGROUND BETWEEN ICONOCLASM AND CONTEXTUALISM





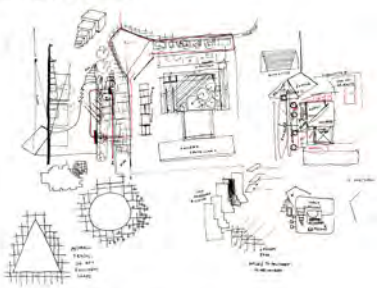
SECTIONAL DEVELOPMENT

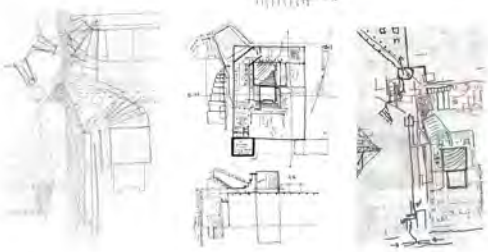


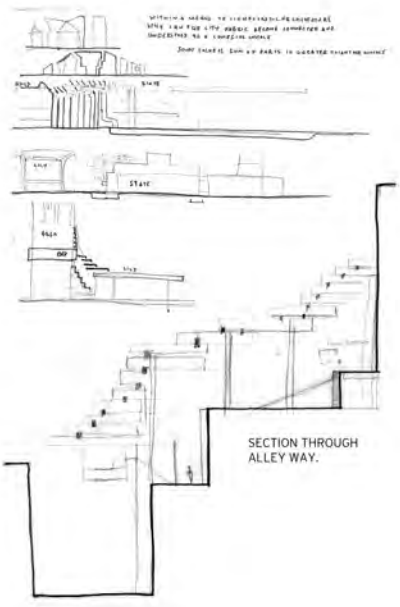


ALLEY SECTIONAL DEVELOPMENT

PLAN DEVELOPMENT

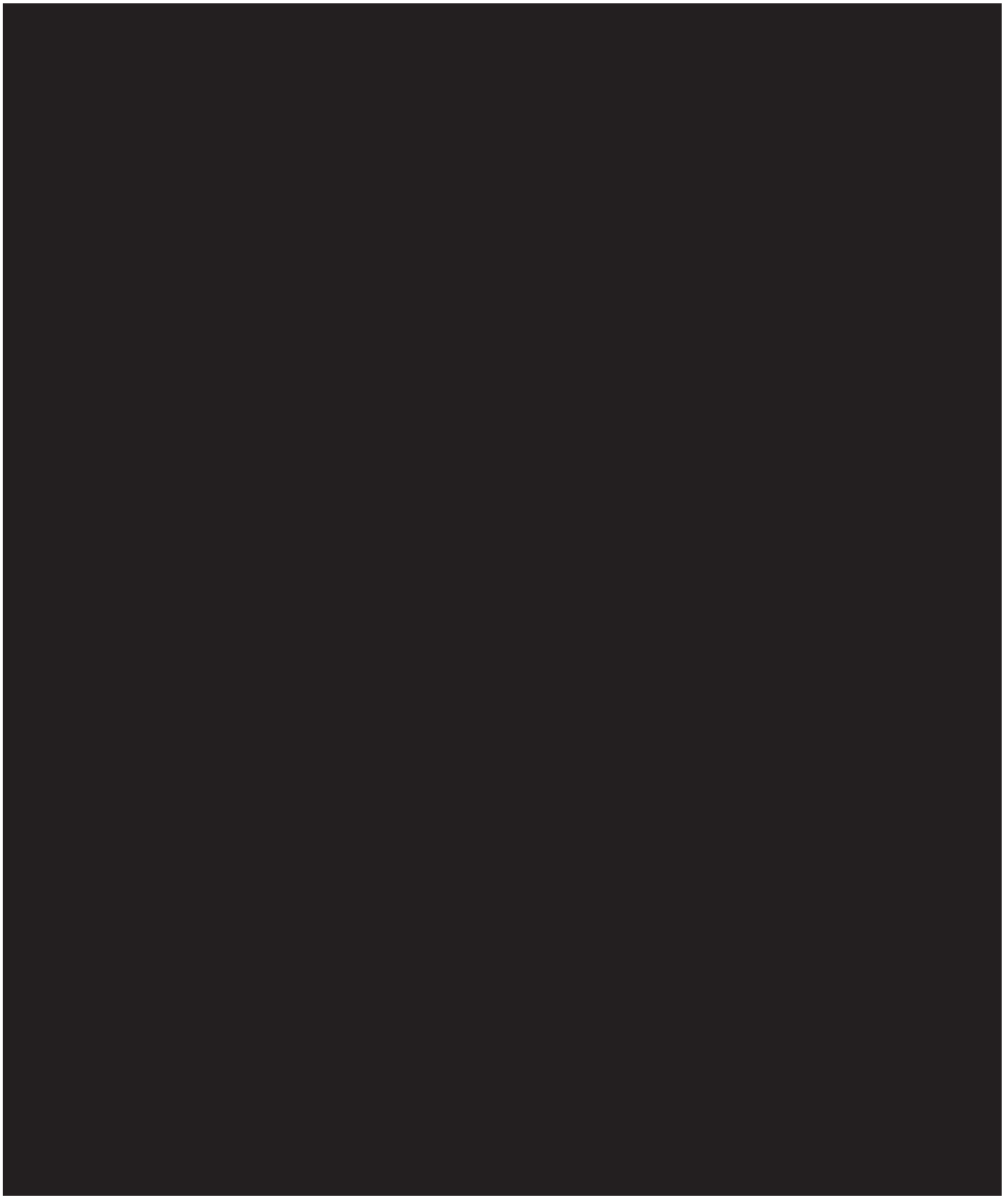






SECTION THROUGH ALLEY WAY.

© University of Pretoria



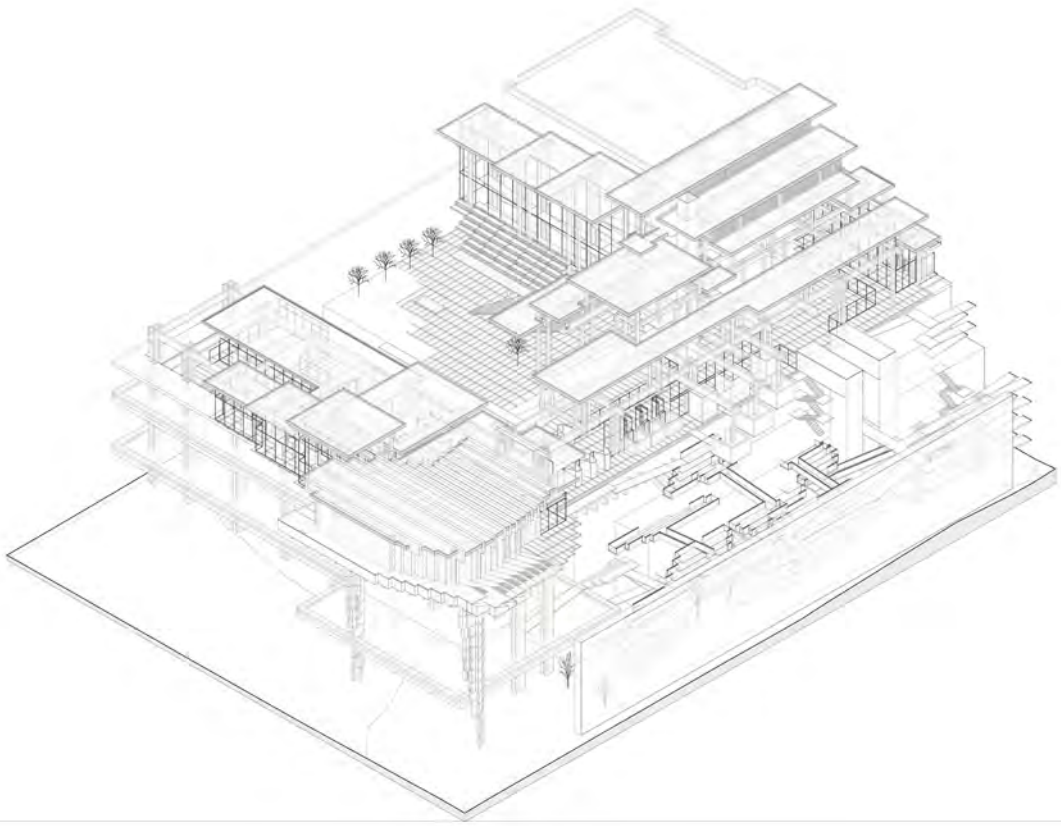
© University of Pretoria

PART SIX
TECHNICAL RESOLUTION

© University of Pretoria

Introducing Technification

The entirety of this dissertation culminates in a technical resolution. The resolution revisits the proposition of a formal middle ground within the fields of iconic and contextual architecture. Proliferation of the material mimesis is achieved by subtle material changes - technological advancement to the endemic concrete of the State Theatre. By formal dissolving of the endemic architectural style by breaking it down into its architectonically elemental
basis, and repeating that defined module, a new architecture based on etymology of the old that faintly but succinctly differs from the existing, is created.



© University of Pretoria

Extracting Meaning From Form

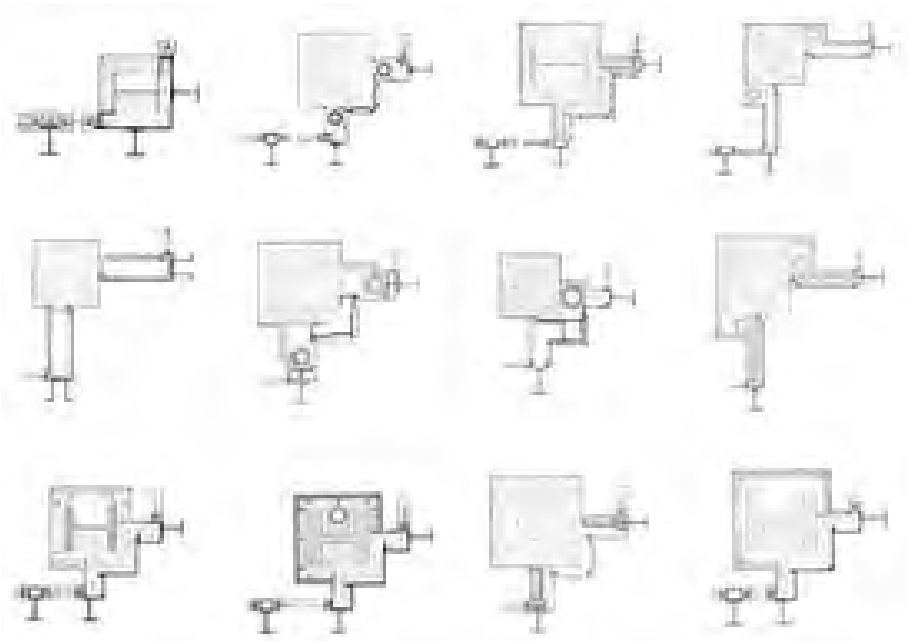
The Barcelona Pavilion by Mies van der Rohe in 1929 stands as a testament to material honesty and the powerful signification that comes with architectural detailing. This can be seen in the details of junctions and joining of steel elements to make a structure. The way in which the corner is articulated either fortifies or nullifies it due to the method of its fixture of the corner's elements(salient or re-entrant).

On a material level, the broaching of the travertine wall panels by Mies was used to attain a sense of material symmetry in the most natural way possible. This was achieved by using the grain of the travertine and onyx blocks, and mirroring them on themselves for a sense of symmetry.

Miesian corner theory has been coined as a means to understand the ways that Mies van der Rohe used the idea of adding or subtracting a corner to further reinforce its integrity, or undermine its severity as a junction point.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



http://www.detailsinsection.org/

Material Selection.

Materials will be selected mimetically. Concrete, therefore, will be used to seemingly grow metabolically out of the existing concrete of the State Theatre. Instead of a tectonic steel and glass construction, which would juxtapose the existing construction style completely, contrast to the existing is achieved by technological advances in concrete as a material itself.

A chronologically lucid palimpsest on the existing building is exalted by inherent changes in the material itself and not by a banal and superimposed juxtaposition of a new and non-vernacularly founded architectonic language or material system.

© University of Pretoria

Concrete types used:

Prestressed Tensioned Beams (PTB) - Prestressed, tensioned, high performance, cast in-situ concrete beams are used for the interstitial flooring beam system.

Low Density Concrete (LDC) - Lightweight or low density concrete slabs for non bearing elements such as the stepped beam platforms have a density of less than 2000 kg/m³
(Kearsley, 2009:309)

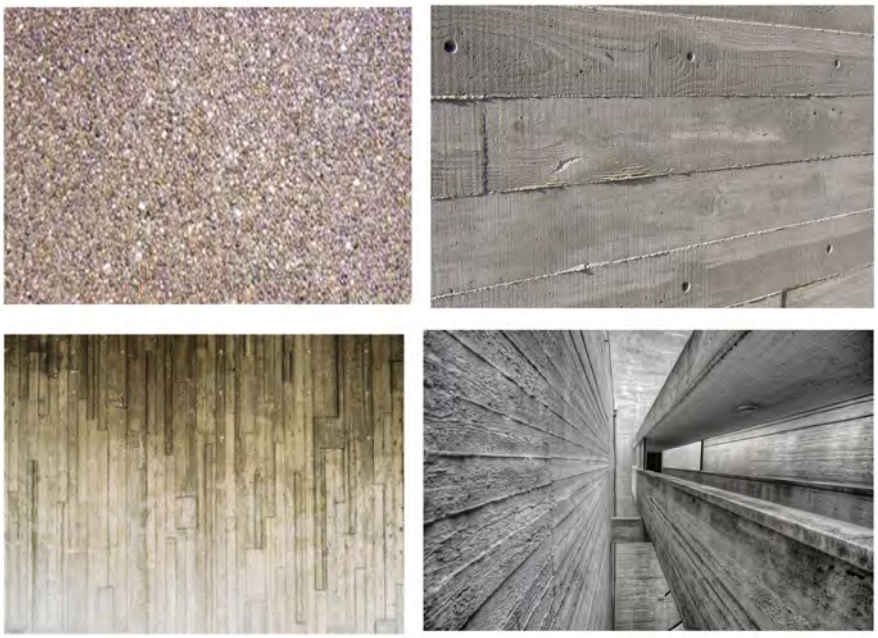
High Performance concrete (HPC) - High Performance concrete is used for the main column and beam structure that forms the main facility. It is preferred to normal strength concrete for its bearing capacity and slenderness ratios. Typical compressive strength: 100-150 MPa
(Beushausen, 2009:297)

Fibre Reinforced Concrete (FRC) - Using steel fibre reinforced concrete for the stepped beam, cantilevering, bearing elements adds bearing strength, while accentuating a slender dissolving aesthetic. By using carbon fibre, (PAN HM□ - 2500-3500 mPa of tensile strength) the large cantilevers of the stepped beams can be achieved.
(Perrie, 2009:329)

Litracon® Translucent Concrete (LTC) - Using Litracon® Translucent Concrete in certain places give a certain preferable light quality and also further juxtaposes the traditional concrete of the built context. It becomes the formal and material translator between the fenestration and the concrete bearing structure itself. Litracon panels are manufactured in controlled conditions, brought to site and assembled into the discussion booth walls by precast panels which are fixed together.
(www.litracon.hu)

Precast Concrete Systems (PCS) - Precast concrete systems are used for cladding type applications, such as the stringer and columns of the auditorium. They are bolted to the in situ members with concealed fixtures. Precast concrete has many benefits, including: reduced slab weight due to voids or prestressing, faster erecting and a guaranteed consistency and quality due to factor conditions. They are simply assembled on site.
(Cairns, 2009:339)

© University of Pretoria



Clockwise from top left:

Exposed aggregate sandblasted

Timber formwork beton brut with vertical and horizontal shuttering

Overall Structure and Finish

Concrete

Horizontal face elements such as walls are finished with a sandblasted and exposed aggregate method, with a smoothed, chamfered frame similar to that of the existing building.

Horizontal exposed beams will be finished in an off shutter 'beton brut' method, with the timber formwork imprints. Columns will be finished with vertical timber formwork, finished in the same manner.

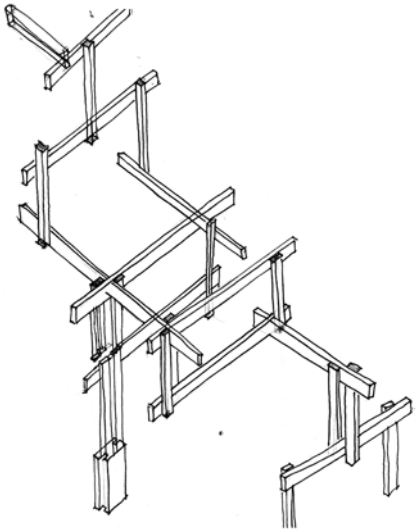
Aluminium

Aluminium is finished with an anodised coating for corrosion resistance on the structural fenestration elements.

Steel

Galvanised and intumescent coated mild steel is used for all structural steel members in the facility.

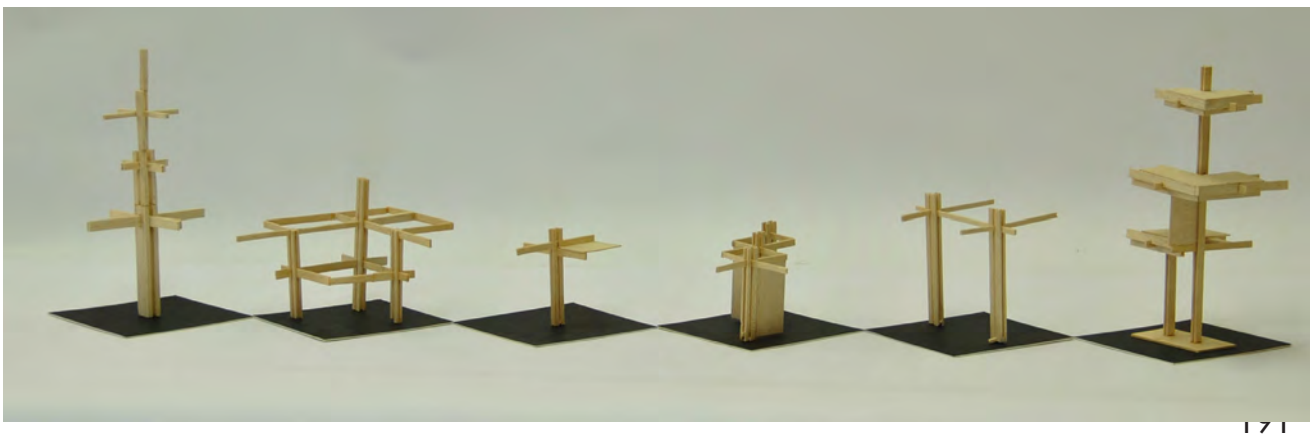
© University of Pretoria



General Structural Concepts

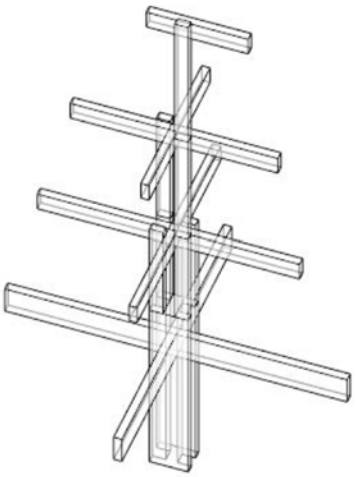
The general structural system that is used in the main library mass is created by casting columns directly onto starter bars that extrude from the prestressed beams that make up the interstitial floor above the State Theatre roof. This allows for space for existing Heating Ventilation and Air Conditioning (HVAC) systems to continue to function and supplement the proposed facility.

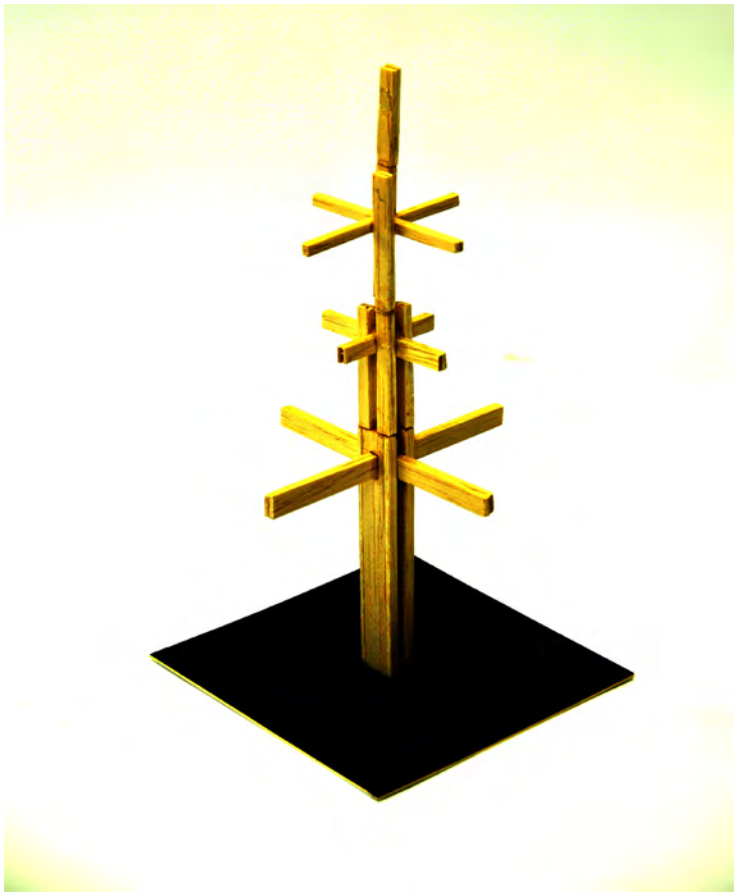
The structural system is created by these columns which seemingly emerge from the endemic structure, as if from a cellular, genetic level. This correlates to the biotic aspect of metabolist language of the Theatre itself. By extruding through the Full, Four, Two, One system and the spreading and staggering the column formation and their loads, the structure dissolves as it gets higher. This dissolving into the context is achieved by the spans and beams diminishing in depth and thickness as they ascend.



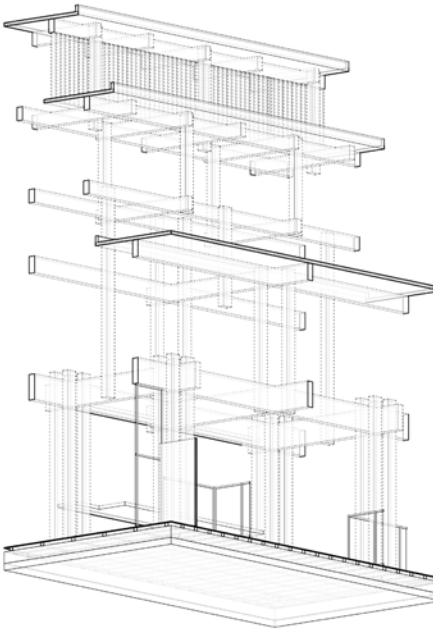
© University of Pretoria

This structural concept came from the genetic predisposition of formal logic and aesthetic that the State Theatre itself gives off. It starts by continuing the existing H-profile column, then splitting it into four columns which extrude out of the original column via the interstitial floor beam system. At a higher level, two diagonally opposite columns stop ascending, while the two others continue upwards. They are alternating, so the beam can be cast into the column and have two resting planes as opposed to one that two adjacent columns would. The last stage is of a one column extrusion. This is the smallest material genetic code of the original state theatre's column design.



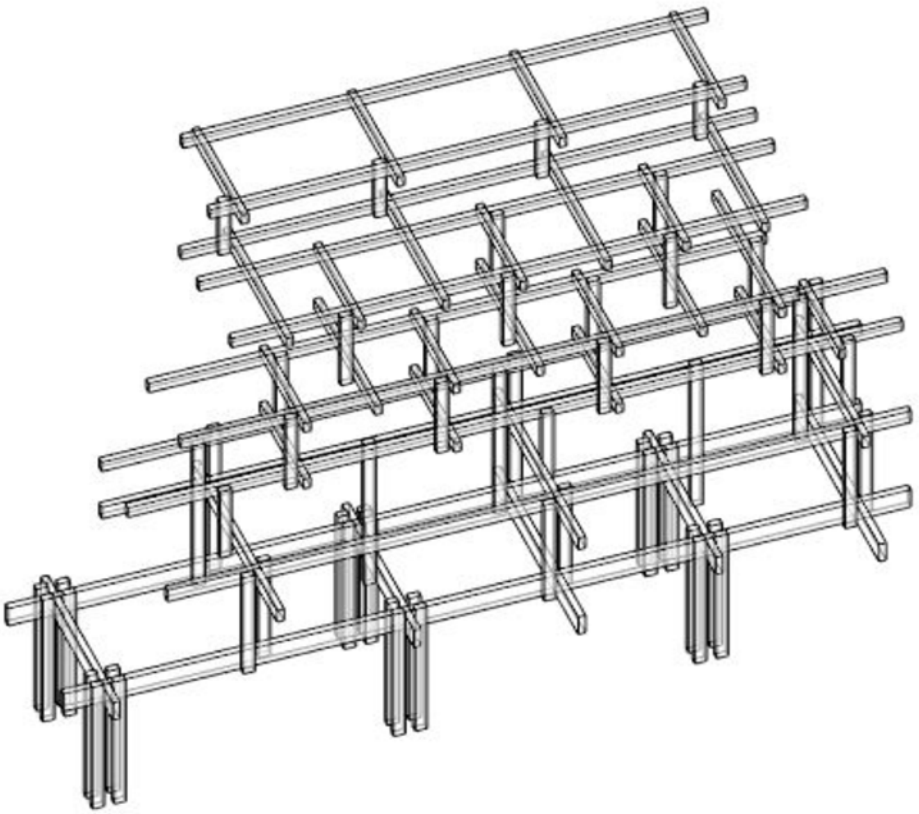


© University of Pretoria



Spread out and Stagger

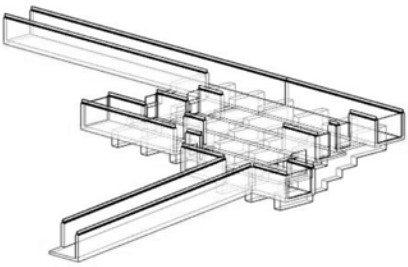
This was a means to further seemingly dissolve the structure as it grows outwards. In keeping with the original tenets of construction, elements must be repeated, mutated and then dissolved into contextual insignificance. This is basically a staggered column formation that also contains the “Full Four two one” idea of diminishing structure with height, according to span and necessary depth of the beams.

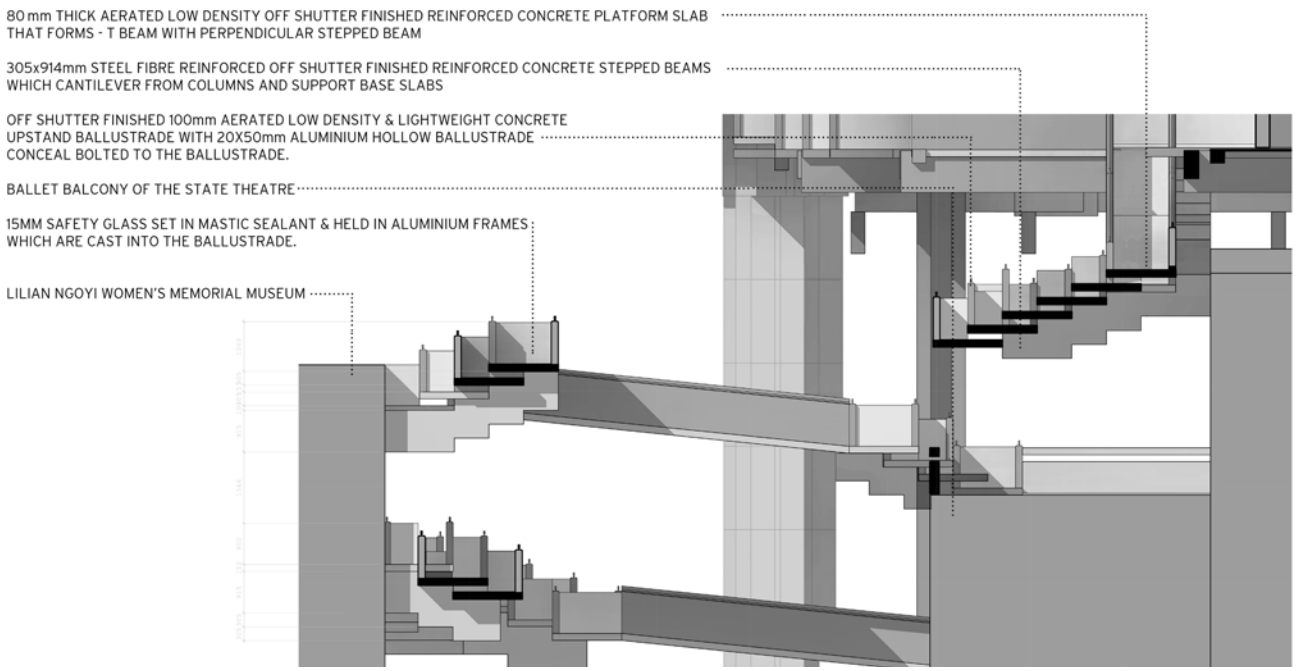


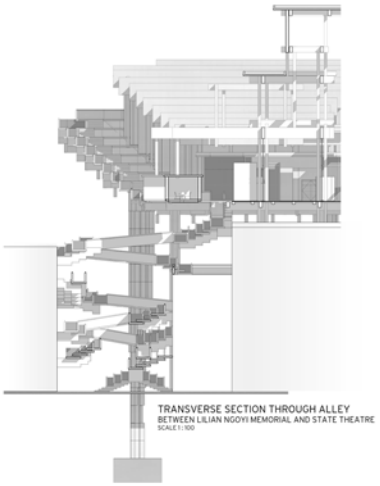
© University of Pretoria

Stepped Beam

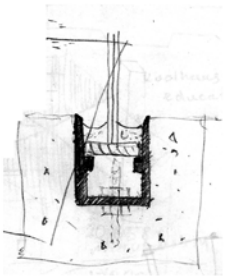
This became the translation of the “red” delineating lines that formed a public arcade in the alleyway between the women’s memorial and the State Theatre’s back of house. This construction ideology was a means to span the opening of a public thoroughfare and shade it as an arcade would With this premise, a column could easily be used instead of the stepping beams. With these tessellating platforms, however, it becomes evident tha the functionally bridging pathways seem to extrude out of the buildings themselves, and also out of the ground plane.



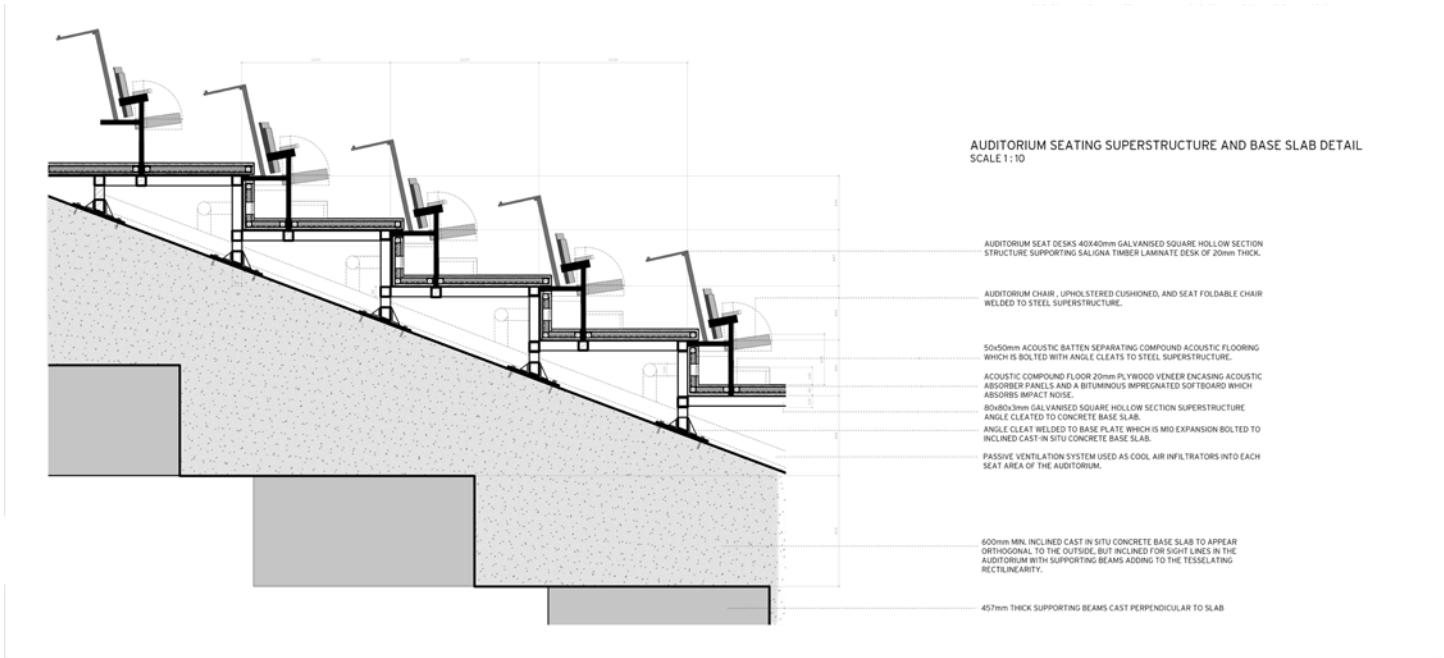




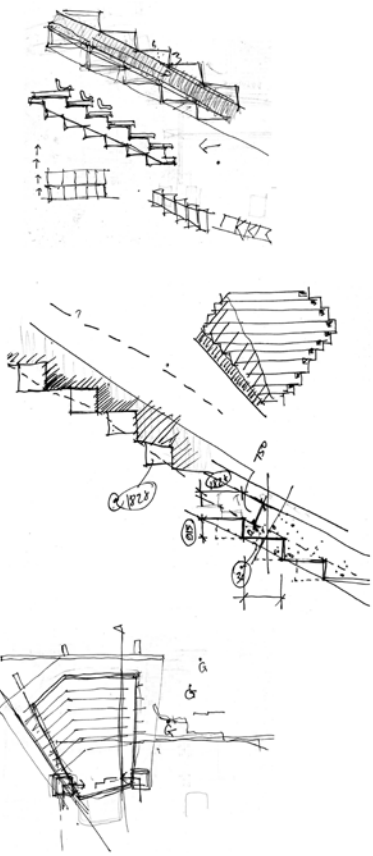
GLAZING DETAIL SET INTO CONCRETE FOR SEAMLESS APPEARANCE



© University of Pretoria



AUDITORIUM STRINGER STRUCTURE ON BASE SLAB DEVELOPMENT



Specific Technical Features

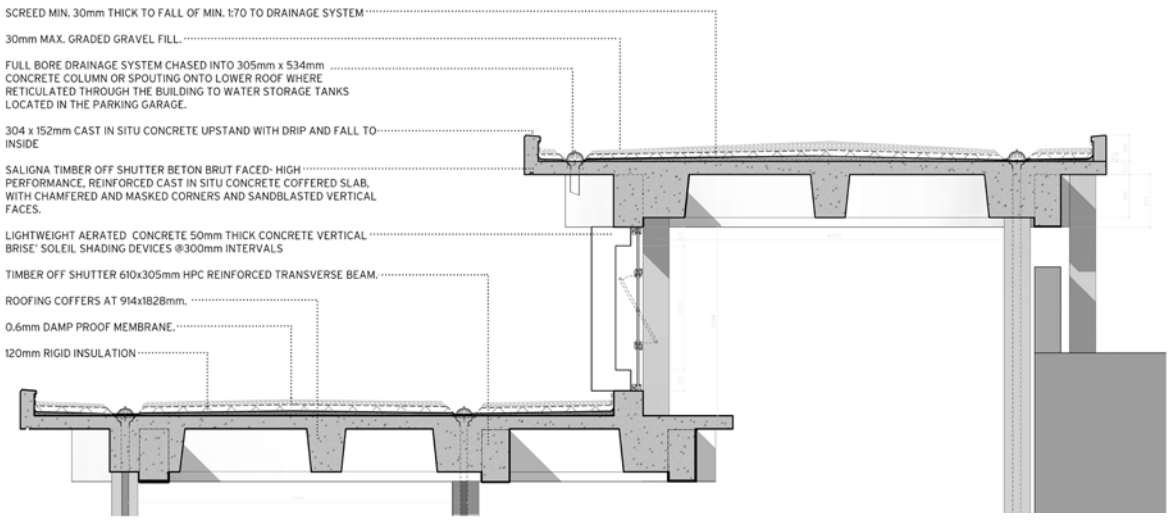
Auditorium

Composite floor

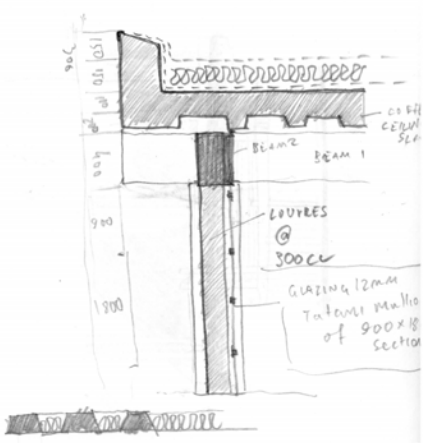
Underfoot in the auditorium, is a compound floor made up of a lightweight, steel, interior suspended structure which projects the actual seating above the load bearing inclined slab. The floor structure is clad with acoustically appropriate, composite floor made of a plywood veneer, acoustically absorbent board and a bituminous sheet as an underlay to absorb impact noise. This composite floor is fixed to the steel superstructure.

The steel superstructure is bolted with angled cleats to the reinforced concrete base slab that spans the entire auditorium floor. (It takes the load of the auditorium, the above outdoor amphitheatre and their respective live loads). It acts as an upside-down staircase, allowing for a staggered step aesthetic to be understood from the street underside. This is then clad with superficial beams that gives more prominence to the corbeled aesthetic. This slab is supported by two concrete stringer beams which are situated on the ends of the enclosure and run parallel to the stepped truncated walls. It transfers the load onto the original H-profile columns and two corbeled and precast, clad, reinforced concrete columns. These columns taper downwards and project through Helen Joseph street which are founded in the underground parking garage.

© University of Pretoria



Typical Roofing Detail.



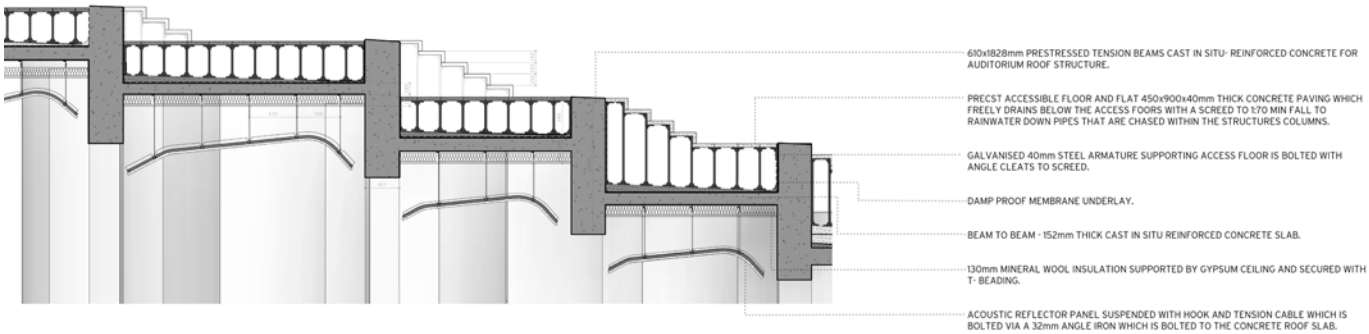
© University of Pretoria

Ventilation and lighting

The lectern of the auditorium system is fitted with remote systems that control natural lighting and ventilation of natural means by opening apertures in shaded South facing areas of the Southern facing short walls that stagger down the sides of the auditorium. This would provide completely closable, dappled and indirect, natural insolation which is controllable by closure mechanisms. These can also be used as passive, high altitude exfiltrators of hot stale air from the auditorium.

Outdoor Amphitheatre

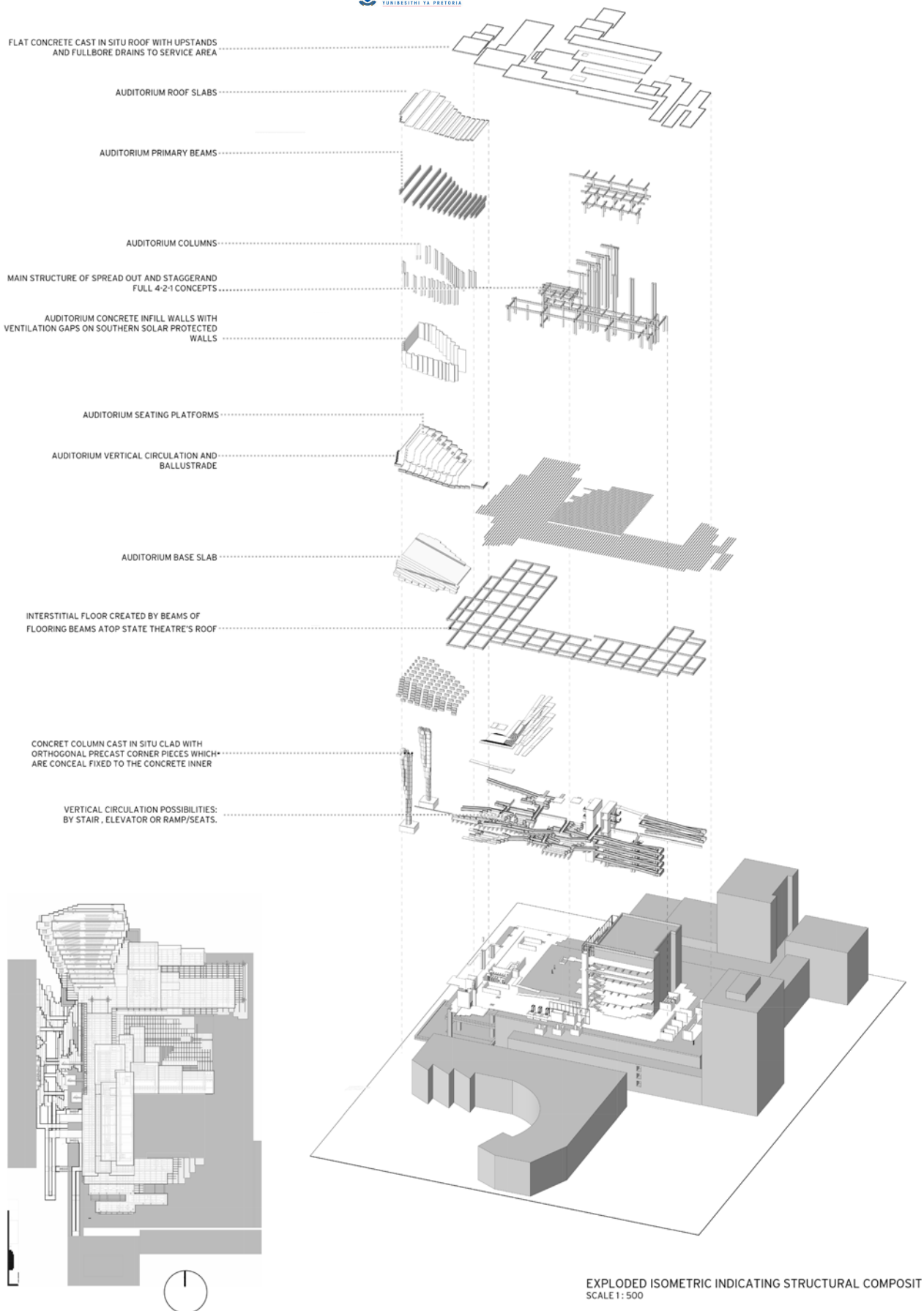
The amphitheatre's floor is free draining, allowing the rainwater to penetrate the top layer and be collected in rain water downpipes. The downpipes are chased down each beams respective columns onto a base slab and then eventually to underground water storage tanks. These tanks additionally assist in the water demand of the building during rainy summer months.



Anechoic chamber

Impact noise on the floor is dealt with acoustically absorbent material, used as an accessible floor. It is suspended over the existing roof structure by a system of beams and short columns. This allows for the existing HVAC services located on the roof to remain undisturbed in an interstitial or service floor that bridges the existing to the proposed. The service floor is suspended by steel armatures which are bolted to the beam and column system, as well as the existing roof of the theatre's opera block. Under these flooring panels, a thick sound absorbent material is used to absorb any extraneous sound attenuation. Acoustic diffuser panels are attached to the walls of these chambers and are used to diffuse reverberant sound. Absorbers are fitted behind these panels to absorb any unwanted sound disturbances. The ceiling is also of acoustic panelling which provides a completely anechoic environment.

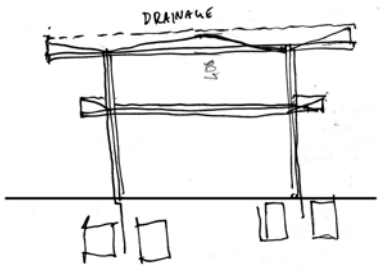
© University of Pretoria



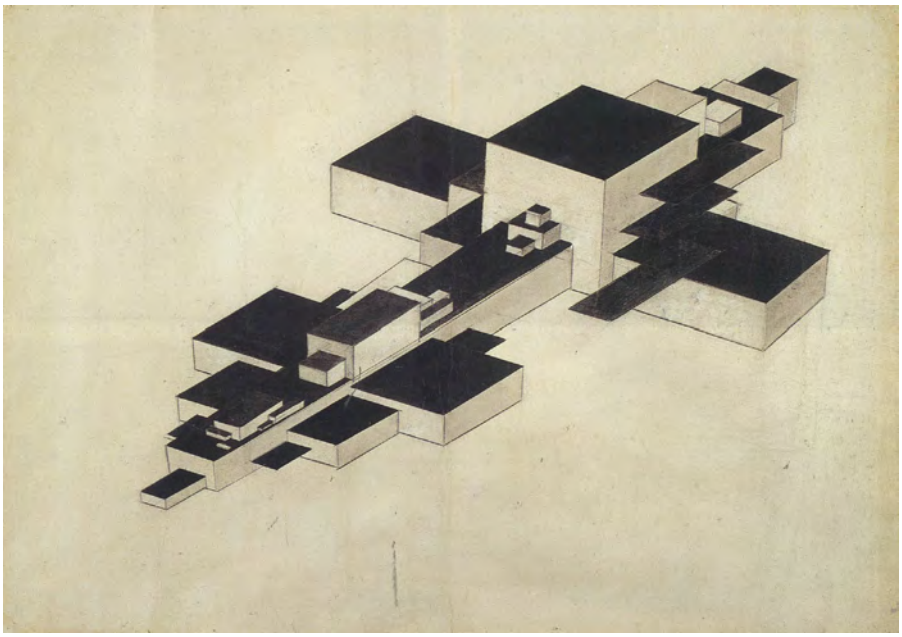
EXPLODED ISOMETRIC INDICATING STRUCTURAL COMPOSIT
SCALE 1 : 500

© University of Pretoria

BENDING MOMENT DIAGRAMME OF AUDITORIUM ADJUSTMENT



DRAINAGE SECTION THROUGH AUDITORIUM WITH WATER STORAGE TANKS UNDER GROUND



COMPARISON TO MALEVICH'S 3-DIMENSIONAL SUPREMATISM

© University of Pretoria

Structural Systems

Foundation Percentages principle.

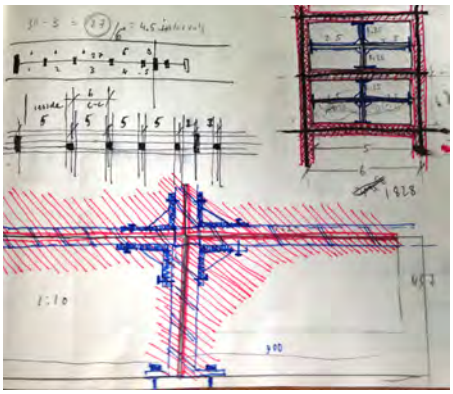
Percentage wise, the linguistics facility becomes a nominal addition to the load of the building on its existing foundation, even though the building has reasonable internal loading for inventory, equipment and live loads from occupants .The loads transfer via the existing building, through the parking garage and to its foundations. This is because the existing structure is massive already. A 10-15% increase in loads on top of the roof, with respect to the rest of the building, implies nominal changes to the foundation to strengthen it. Existing foundations can be supplementarily strengthened by adding the appropriate percentage to their size in higher strength concrete.

The load bearing, existing columns and beams of the State Theatre are braced with 15mm intumescent coated and galvanised sheet steel which is epoxied to the existing column to brace it and prevent buckling with the additional loads on top of them.

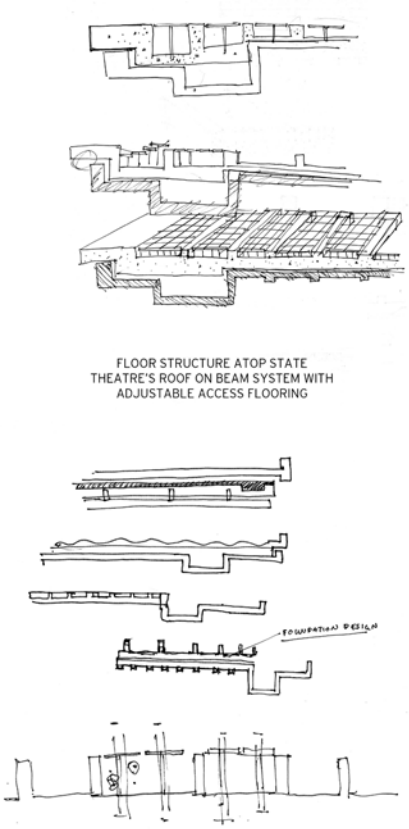
Prestressed beam system

To spread the load of the proposed facility on top of an existing structure, prestressed load transfer beams that are attached to the tops of the existing columns of the theatre are used. These prestressed beams contain tension cables that allow them to be of a much larger span without compromising depth. They are laid in the transverse, East to West direction across the roof of the Opera block of the State Theatre.

This beam system that is attached to the load bearing members of the state theatre forms a new structural grid that can be built onto in any configuration, as the loads are sufficiently spread across the State Theatre's structure itself.
This is the reason that the column module can change and stagger the way it does. The language centre can be of any modular configuration as long as it becomes a structural multiple that fits within the prestressed beam module, and thus the endemic structure of the theatre itself.



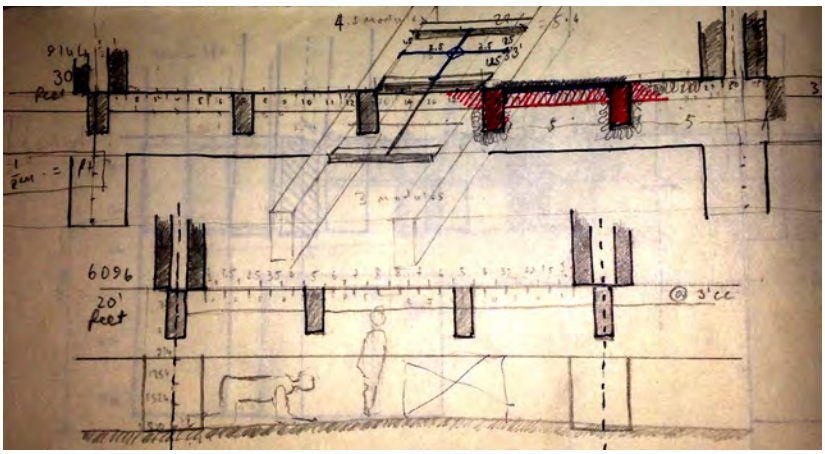
© University of Pretoria

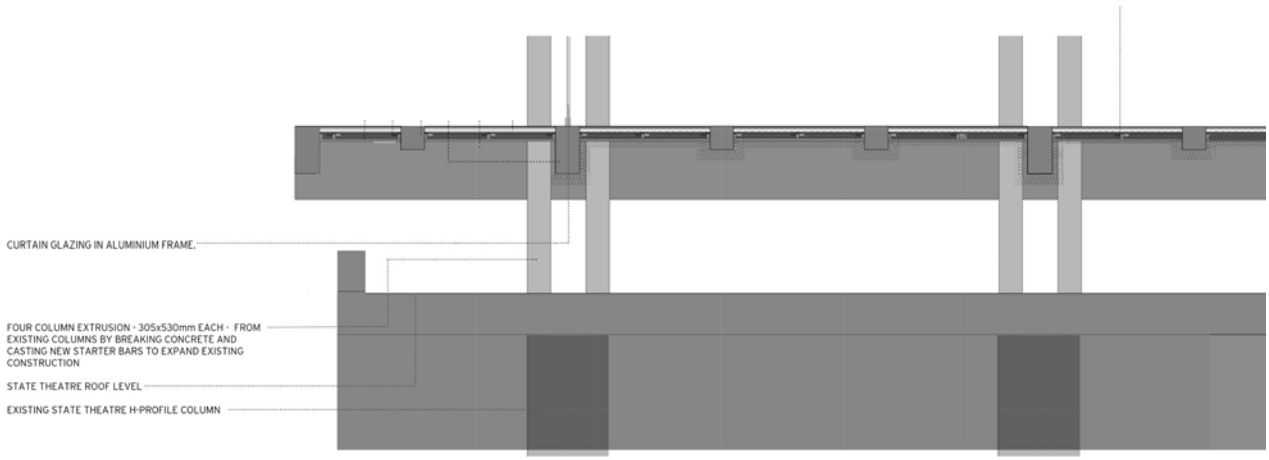


FLOOR STRUCTURE ATOP STATE THEATRE'S ROOF ON BEAM SYSTEM WITH ADJUSTABLE ACCESS FLOORING

Flooring of the facility.

An access floor is supported by galvanised steel armatures which are bolted to a concrete bearing slab that is cast in place. This slab hangs off the bottom of the prestressed beams. An access flooring system is used to achieve the desired flush with the top of the beam flooring height. The flooring surface can be constructed of acoustically absorptive panels in interior space, or lightweight precast panels that are used as exterior flooring surface. Services of the proposed linguistics facility will also be brought through this cavity between the new and old buildings. This way the interstitial floor is completely accessible to both repairing and maintaining both the new and old HVAC systems, as well as water and effluent service piping that the proposed and existing buildings require.

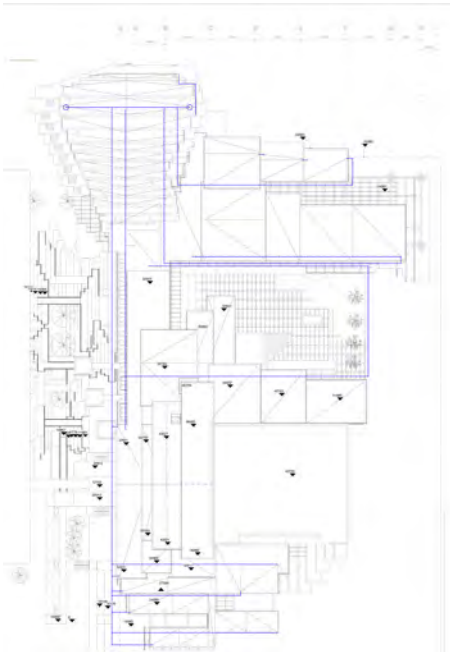




© University of Pretoria

Rainwater Harvesting

The stepped flat concrete roofs of the language centre are used as rainwater harvesting platforms. Rainwater is reticulated first from one roof to another by adequate falls of a minimum of a 1:40 gradient in the slab. The slab is then insulated with rigid insolation, which is then waterproofed and topped with gravel fill which assists in increasing the insulative R-Value of the roof slab.
Rainwater is reticulated vertically by chasing downpipes within the concrete columns. It is then collected and taken to the underground car park where it is stored in water tanks, This water is then pumped up to the ablutions of the facility as grey water for flushing, or into a treatment room, where it is ultraviolet and manually filtered to remove impurities. It then becomes accessible to all the transient users and informal traders on street level.



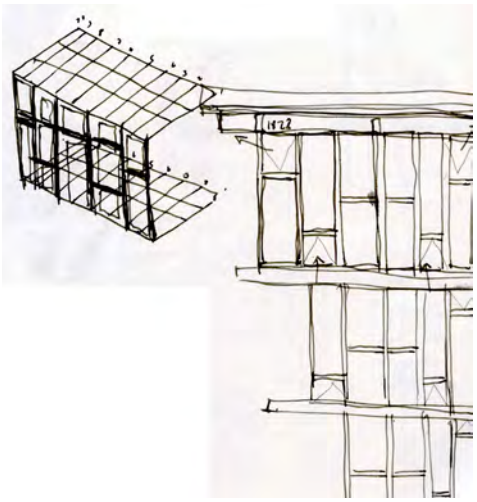
Total roof catchment area including stepped auditorium and opera stage block = 4130m
Pretoria
25º 44'S 28º11'E
1308m altitude from sea level.
Total Annual Precipitation 732mm

1) We attach the Tank Size calculator completed with your figures showing		
a roof area of	**4 130**	square metres
annual rainfall in your area of	**73**	centimetres
and, therefore, total annual collectable rain (Yield) of	**2 411 920**	litres
2) We have then calculated your typical daily usage of rain water indoors and in the garden.		
The number of people in the building is taken as	**100**	people
For toilets, we assume an average flush of 3 litres and...	**442,00**	flushes per day per person
We assume some water needed outdoors of...	**500**	litres per day
This makes a total daily use of	**2 710**	litres per day
or a total annual use (Demand) of ...	**989 150**	litres across a whole year
You can see that if the total amount of rain collectable, above, is more than or about the same as this figure,you have a coherent rain water "budget". Do you?	**YES**	
3) The drought protection provided by this rainwater system is:	**21**	days
The capacity of rainwater storage for drought protection is	**56 910**	litres
The lesser of Yield and Demand	**989 150**	litres
Therefore optimal volume of rainwater storage is...	**56 910**	litres
Tank size required	**[26,000 litres]**	
5% of annual rainwater yield (in litres)	**120 596**	litres
5% of annual non-potable water demand in the home (in litres)	**49 458**	litres
To be conform to BS8515, tank must hold at least ... (in litres)	**49 458**	litres

© University of Pretoria

Fenestration

On all the fenestrated facades solar heat gain is kept to a minimum using passive methods which include:



Large roof overhangs on all Northern exposed and glazed facades.
The brisé soléil sun-shading system on all exposed, Western facades.
Eastern solar ingress is mostly curbed by the massivity of the State Theatre's blocks itself, although any exposed Eastern faces are vertically shaded using the same lightweight concrete fin system as on the West.
Southern insolation is often encouraged ingress as it is ambient and never direct.

Anodised Aluminium fenestration systems are created in double glazed sealed systems that are fixed to the concrete structure. All glazing system throughout are double glazed, low emissivity coated, 15mm light-grey coloured laminated safety glass. They are manufactured either into fixed panes/door apertures of 1800x3600mm or smaller, fixed panes/door panels of 900x1800mm, or finally 900x900mm top or bottom hung openable ventilators. The internal cavity of the glazing system is filled with more inert Argon gas and it is rubber gasket sealed to the other pane in a fixed system. There are also two coatings on the external sides of the glazing system, apart from the low emissivity laminate. They are a photoactive coating which dissolves dirt as well as a hydrophobic coating which assists in shedding water. These coatings will assist in occupant comfortas well as reducing UV radiation on the occupants, equipment and inventory of the library. They are also there to greatly assist in maintenance or cleaning of the expansive glass panes. As a result, they will virtually only need replacing when damaged. If this is the case, the double glazed panel is replaced in its entirety.

© University of Pretoria

Ventilation

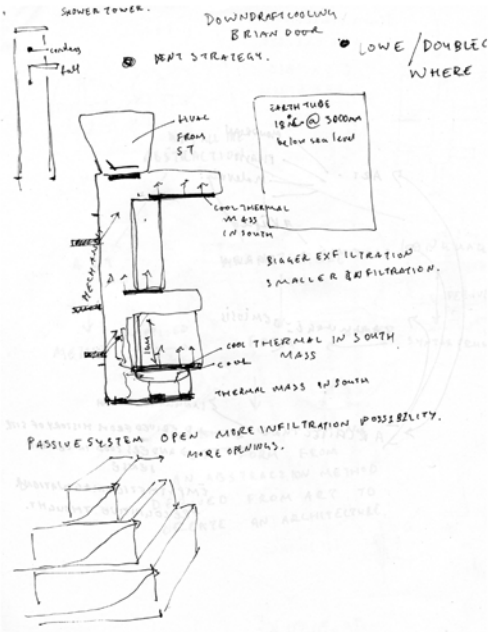
A comfortable ventilation environment will be achieved by passively cross-ventilating spaces that have overhangs and brisé soléil for solar control. HVAC systems of the existing State Theatre will supplement the high occupancy levels in the auditorium area. Various other passive and hybrid-active systems are used to achieve adequate air quality throughout the building.

Passive cross ventilation

Air is manually allowed ingress into the main spaces of the building by opening bottom hung ingress ventilators that are situated at a low height respective to the person opening them.Top-hung hopper windows are used as hot air egress ventilators and allow for hot, stale air to effectively exit the building.

Passive general ventilation

Cool air is gathered from the permanently shaded area South of the large Opera stage block. Air is filtered and pollutants are removed before being sequentially allowed ingress through the floor space to a specific module, thus maintaining constant clean ingress of airflow throughout. The air is reticulated successively by ducts that run under the access floor to where it is needed. Ducting that crosses vertical space is chased by simply attaching it to the vertical column with bolted armatures.

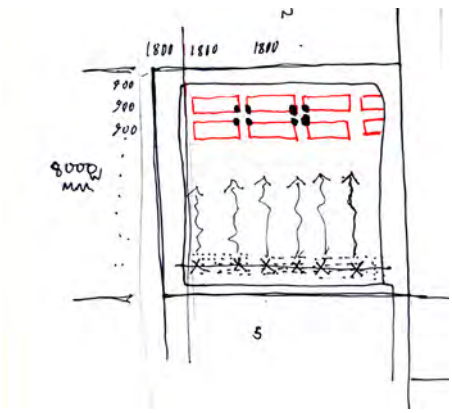


© University of Pretoria

HVAC Piggy Backing

The auditorium and seminar hall, due to its large occupancy, will have to be mechanically ventilated. HVAC systems of the State Theatre will be supplemented with necessary improvements, and will be used for the mechanically assisted portions of the linguistic centre's ventilation. The main library facility will use a hybrid approach and be supplemented by the existing HVAC system for cool, clean air ingress and be manually cross ventilated to achieve adequate air changes.

Floor to Ceiling Module



As cool air rises, it fills an indoor space and is heated by the occupants and equipment. It is then exfiltrated out of the space at ceiling height. This is the premise for the modular access floor to roof, in-situ, ventilation egress system. To address the lengthy voluminous space that requires adequate ventilation, it has effectively been divided into 10 module or 8000mm intervals. They are derived from the flooring and ceiling coffer modules, which are based on Japanese tatami mats - 900x1800mm. The in-situ ventilation system allows cool air ingress through the ventilated access floor system and hot air to be exfiltrated from the ceiling every 10 modules wide. This allows for a constant air temperature and change rate to be maintained across the entire lengthy North-South mass of the library block.

These ventilation systems are used to achieve the necessary 10AC/h (air changes per hour) for the auditorium space and more than the minimum 2AC/h for library type spaces. The minimum outdoor air requirements for both spaces is 7.5l of air per person per second according to SANS 10400 Part 0. This is achieved through the various ventilation systems.

© University of Pretoria

Fire Precautions

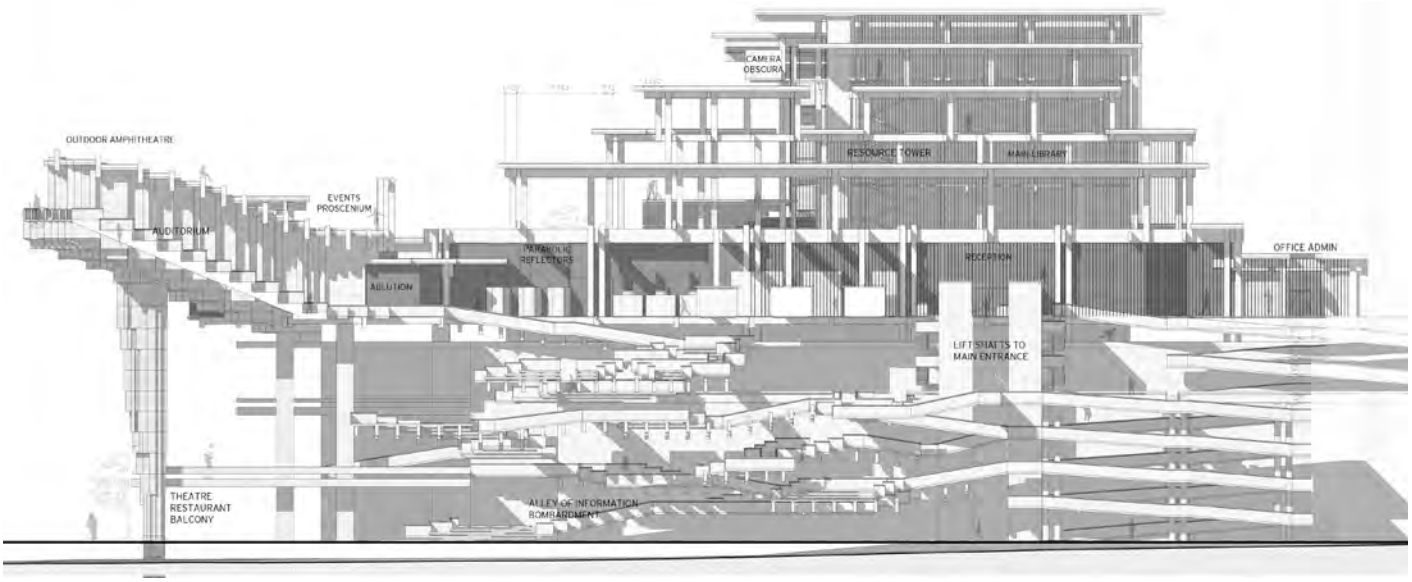
Precautions for fire are dealt with according to SANS 10400 part W regulations, fire escapes from any part of the building, as well as supplemented by the circulation through the State Theatre itself. There are nine possible exits from the facility and at any point, the visitor is never more than 30m from any of these escape routes that take to ground level. According to SANS part W, there is a system of piping that is connected to the main water supply. In the event of a fire, it activates and releases water through a series of sprinkler heads which are suspended within the coffered roof slabs throughout the building.

Site operation excavation.

Regarding site operations and excavations, the State Theatre's operations would have to halt very briefly for the casting of the prestressed load transfer beams. Once that is complete, the theatre's operations could continue as normal.

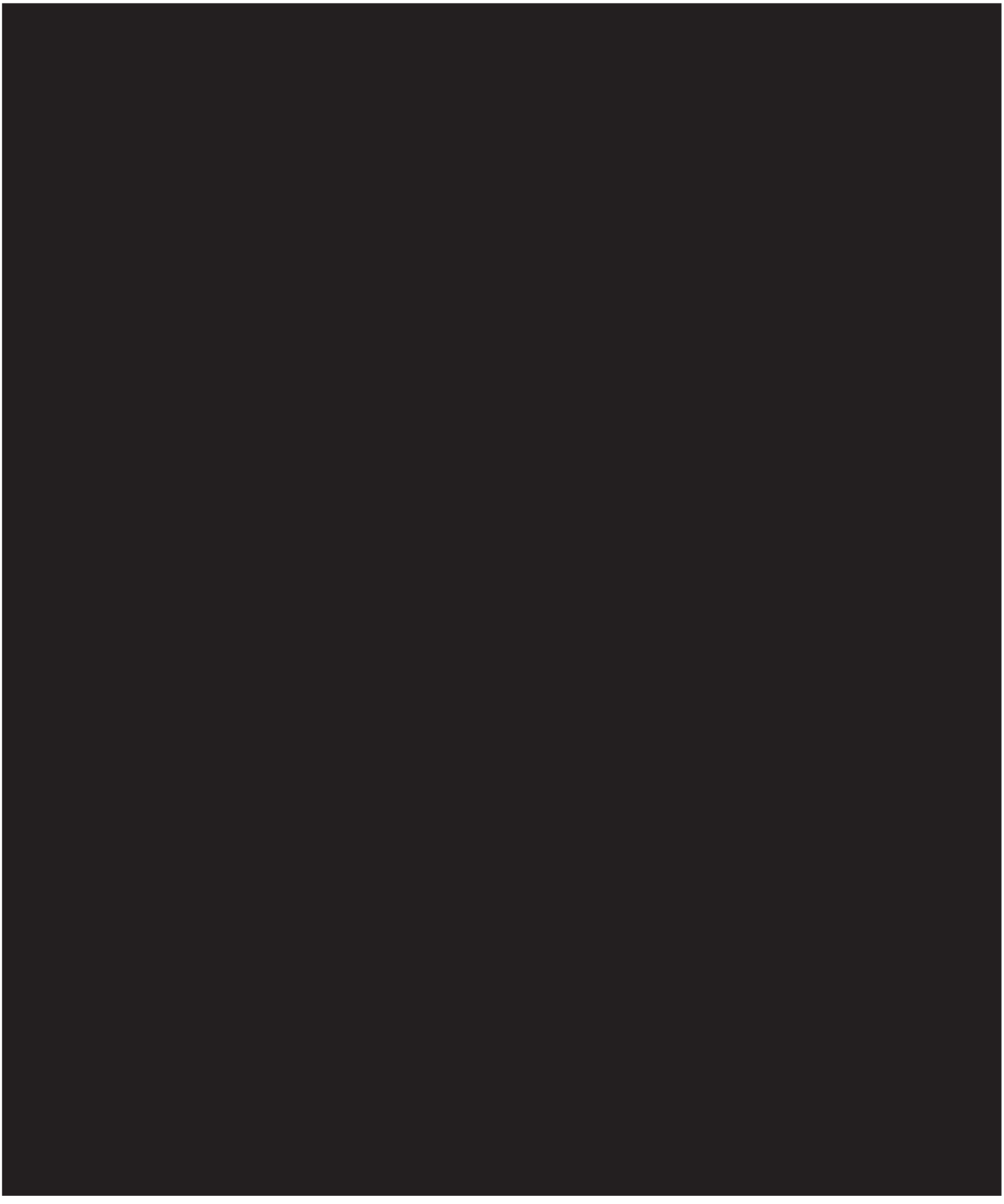
Inclusivity for Disability

Stairways and ramps conform to SANS 10400 part - S which concerns persons with disabilities. Access ramps do not exceed 6 m in length without having landings that are sufficient for bi-directional access. The ramps are of a non-slip, graded surface that is sandblasted to expose the concrete aggregate and provide a non slip finish for the exterior spaces.



© University of Pretoria

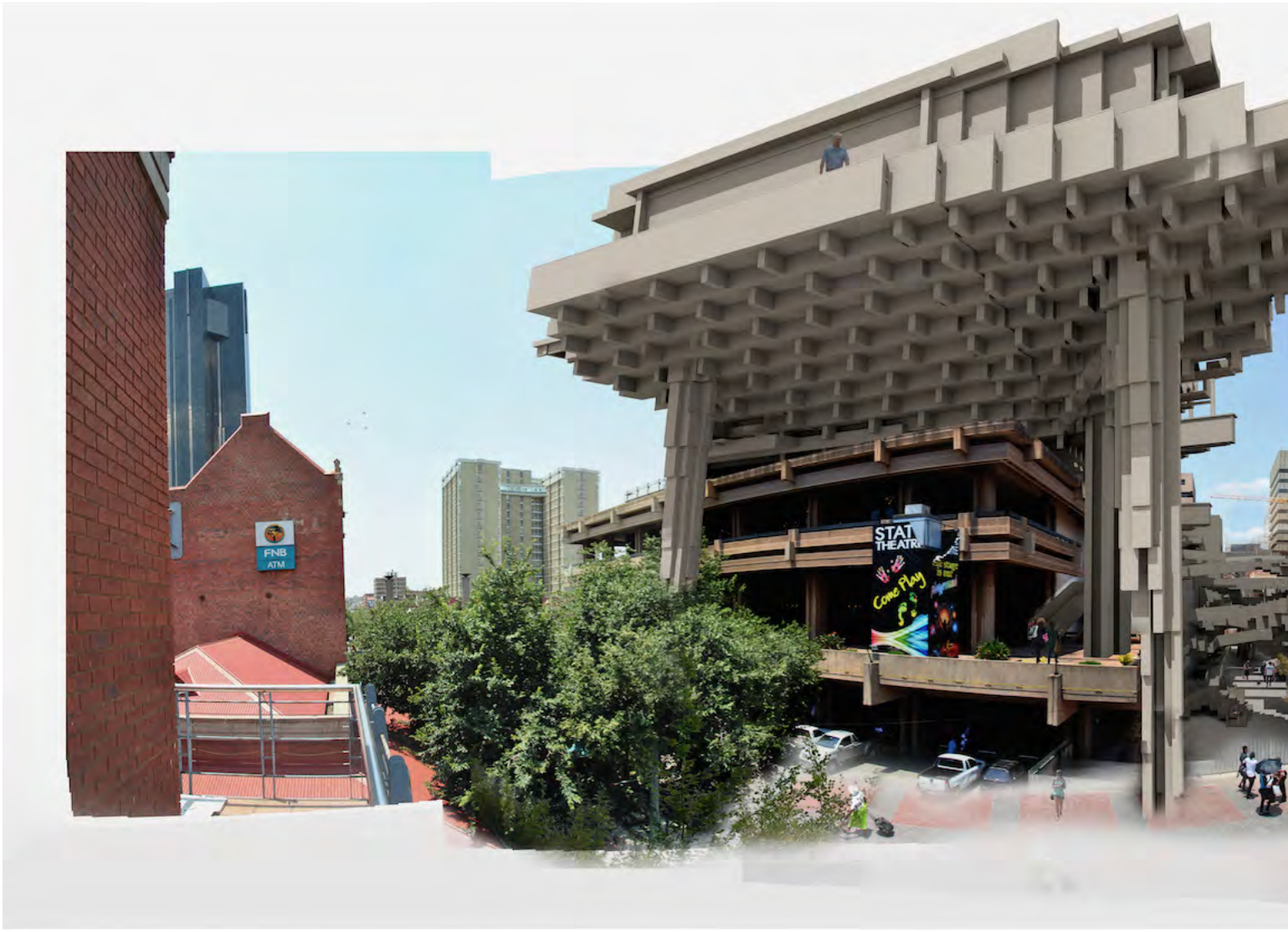
© University of Pretoria



© University of Pretoria

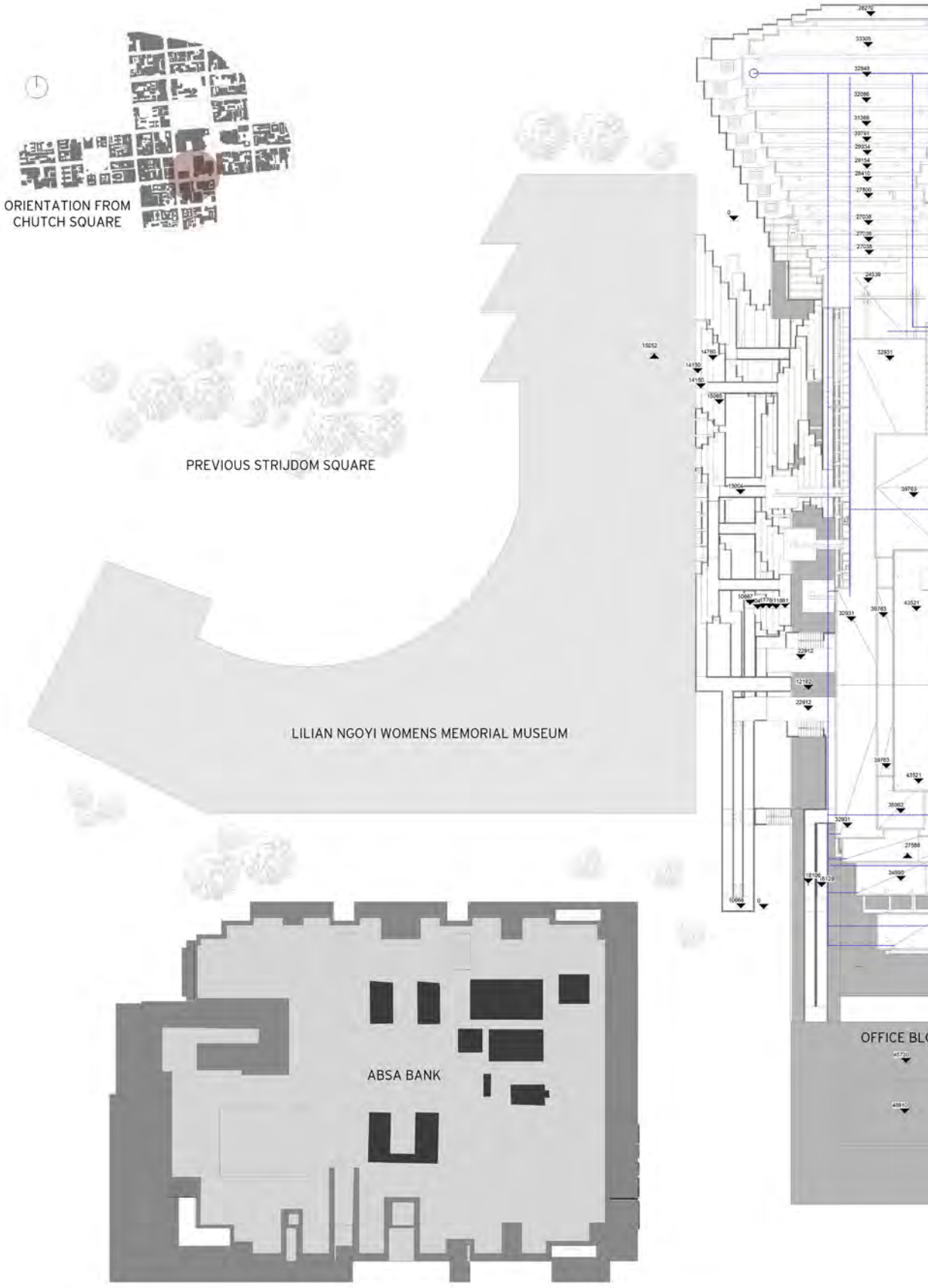
PART SEVEN
FINAL PRESENTATION

© University of Pretoria



© University of Pretoria

© University of Pretoria



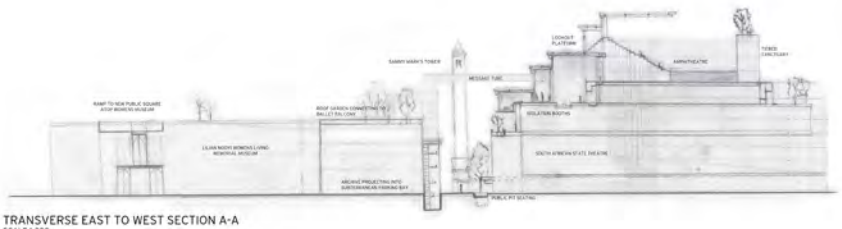
© University of Pretoria

© University of Pretoria

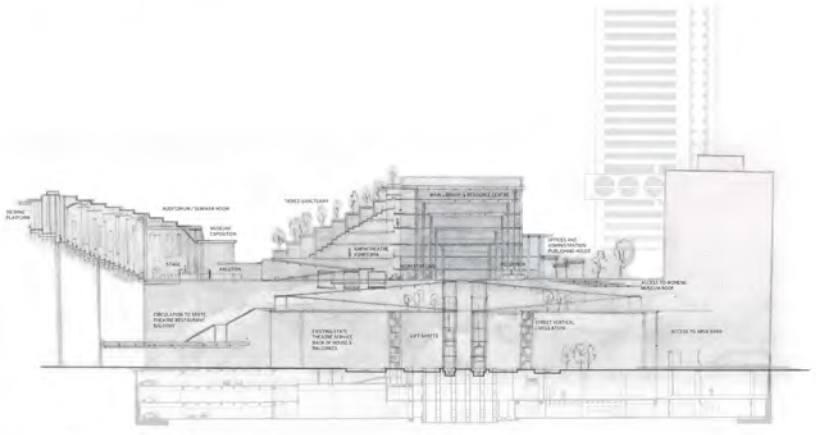
UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

GROUND FLOOR LEVEL
SCALE 1:200

FACILITY FLOOR LEVEL
ON STATE THEATRE ROOF
SCALE 1:200

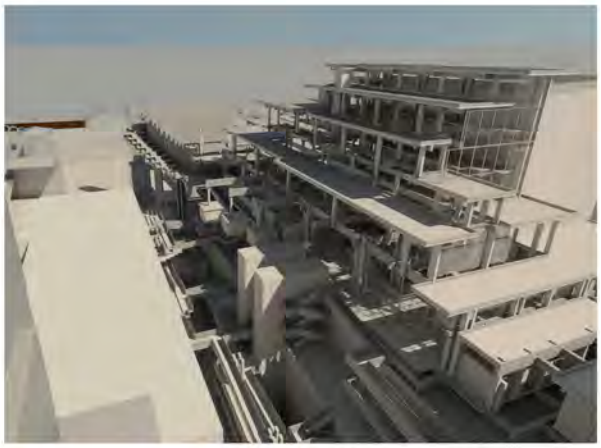


TRANSVERSE EAST TO WEST SECTION A-A
SCALE 1:200

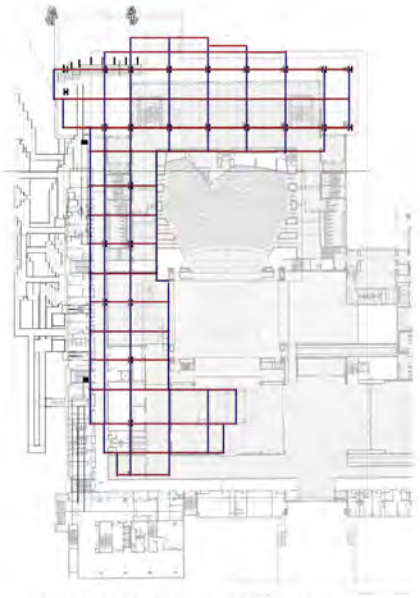


LONGITUDINAL NORTH TO SOUTH SECTION B-B
SCALE 1:200

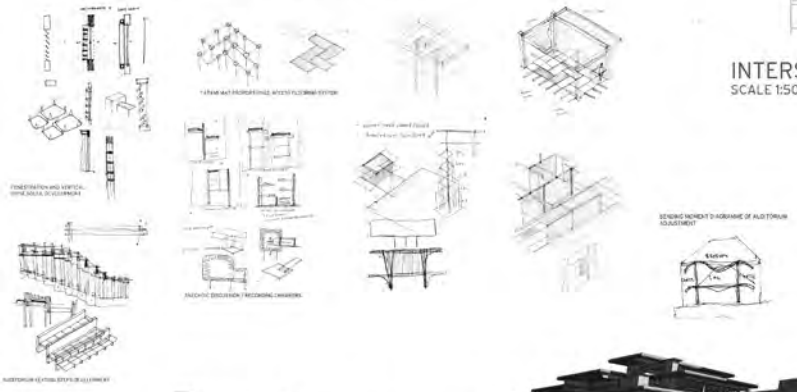
© University of Pretoria

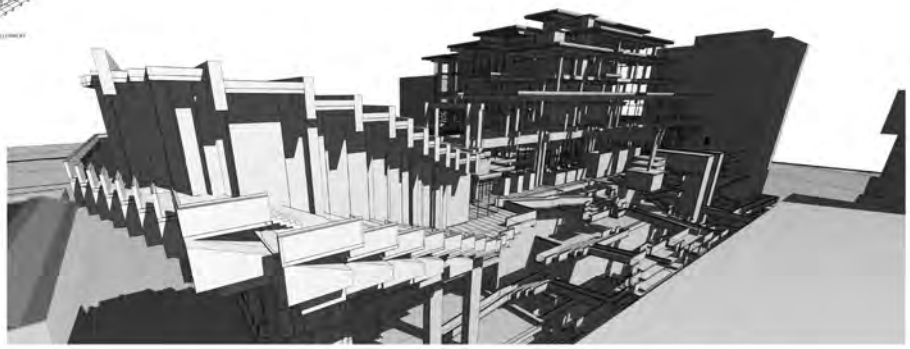


VIEW FROM ABSA TOWER



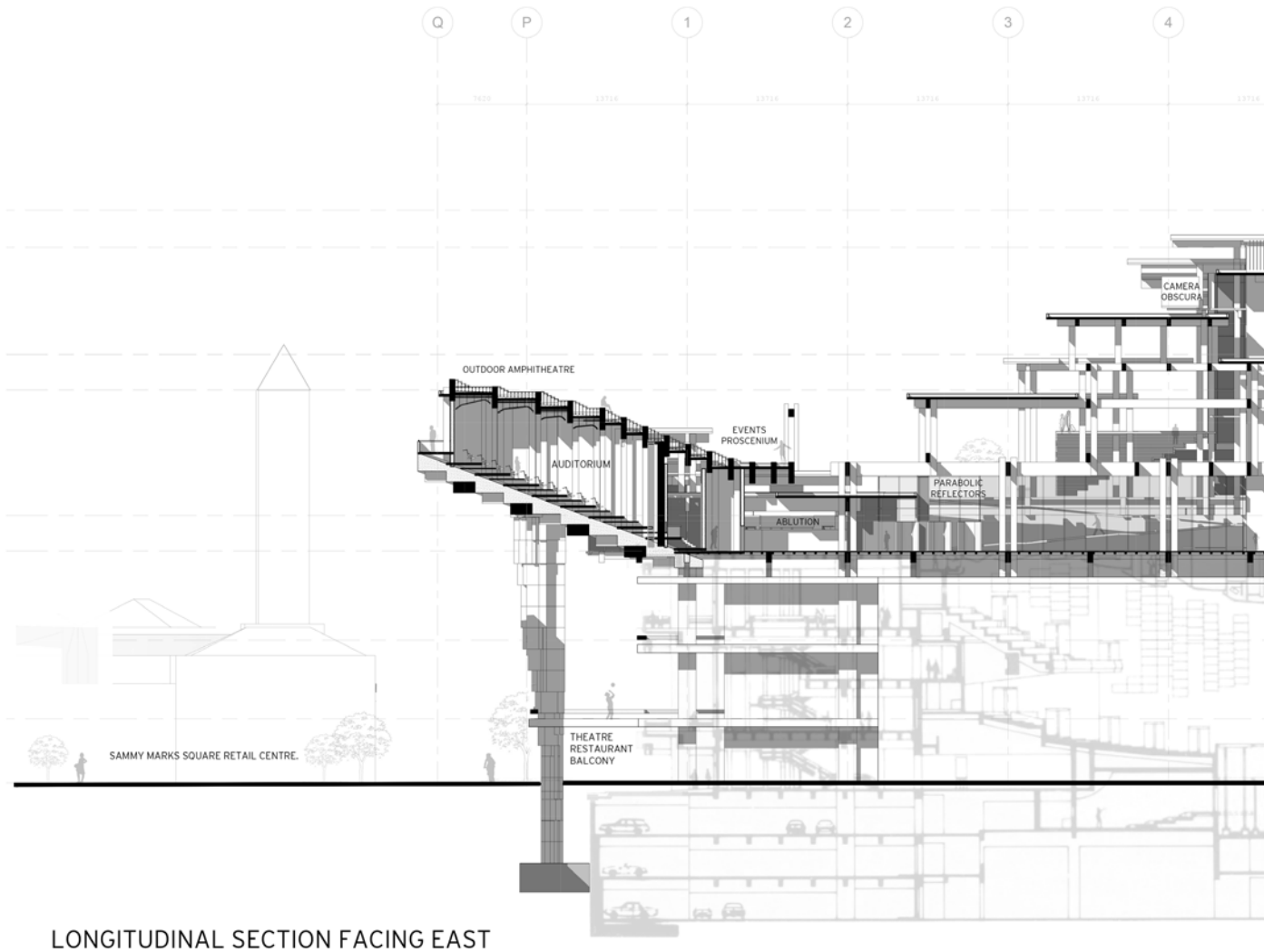
INTERSTITIAL FLOORING PLAN
SCALE 1:500
SHOWING I BEAM LAYOUT





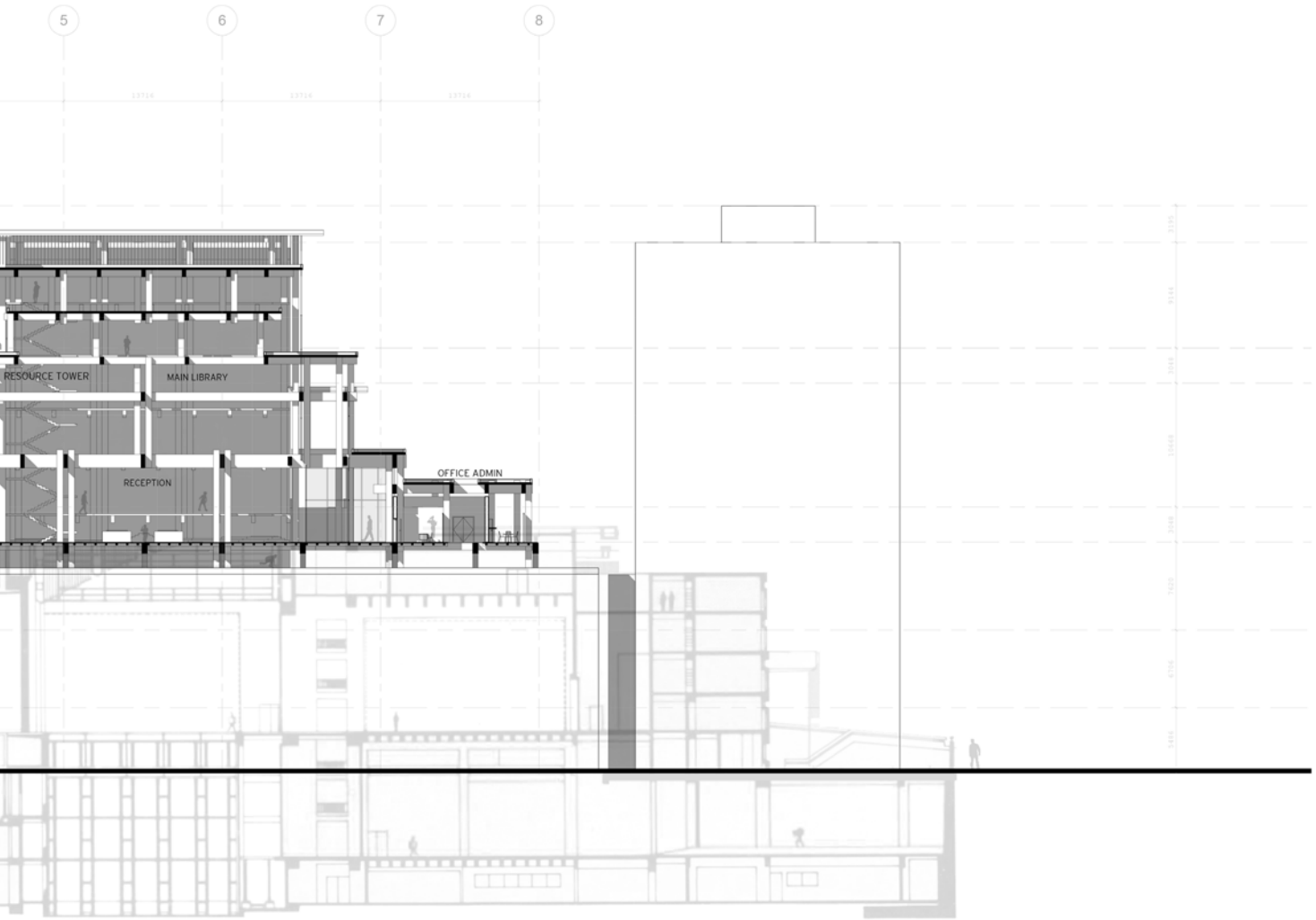
VIEW FROM LILIAN NGOYI WOMEN'S MEMORIAL CENTRE

© University of Pretoria

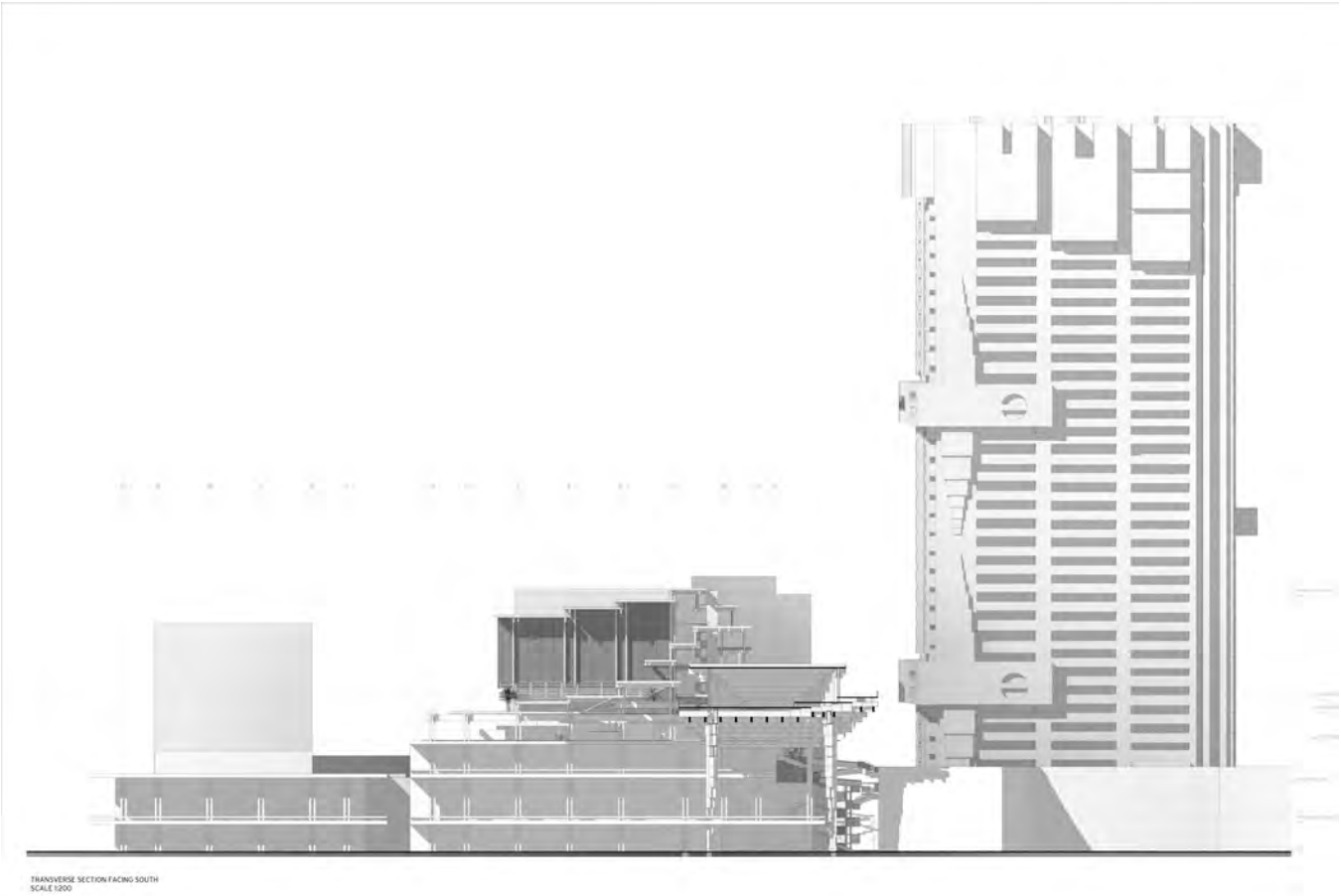


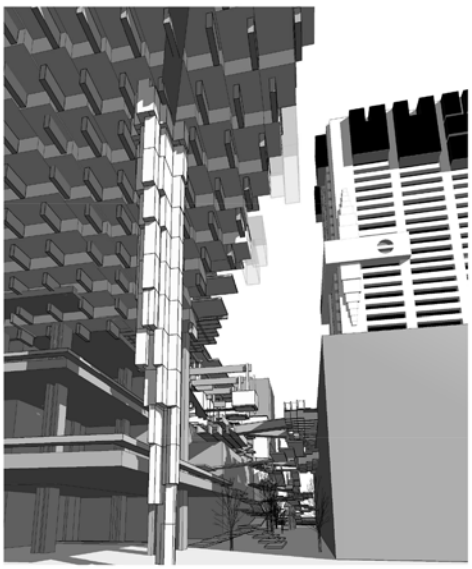
LONGITUDINAL SECTION FACING EAST

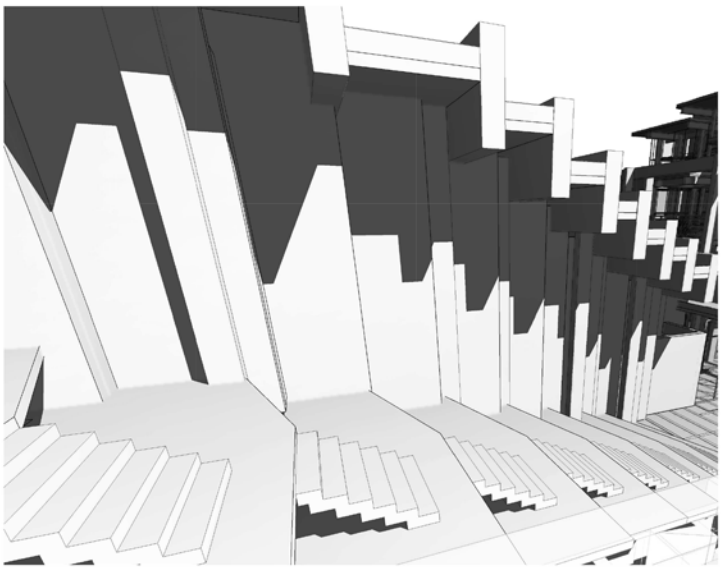
© University of Pretoria



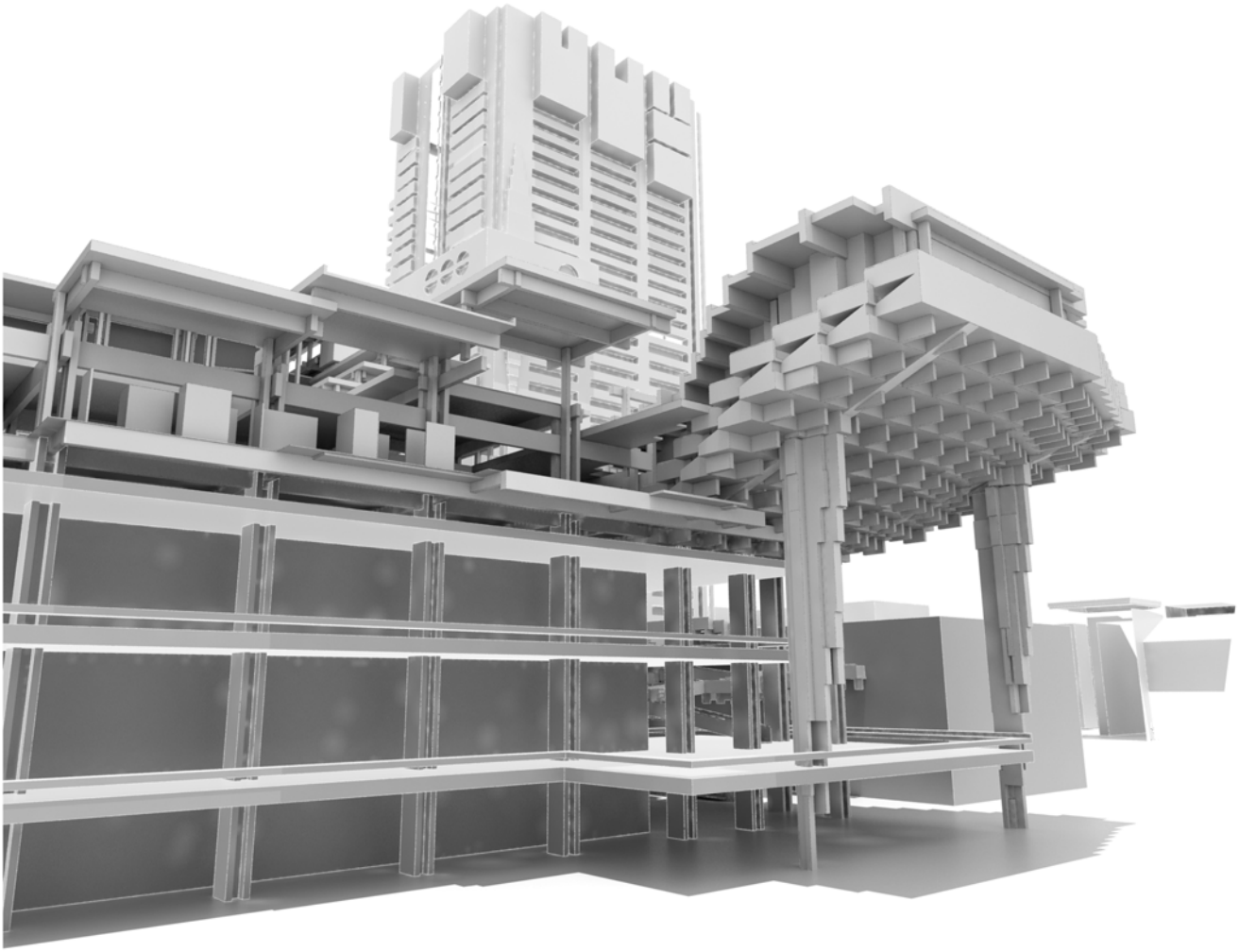
© University of Pretoria





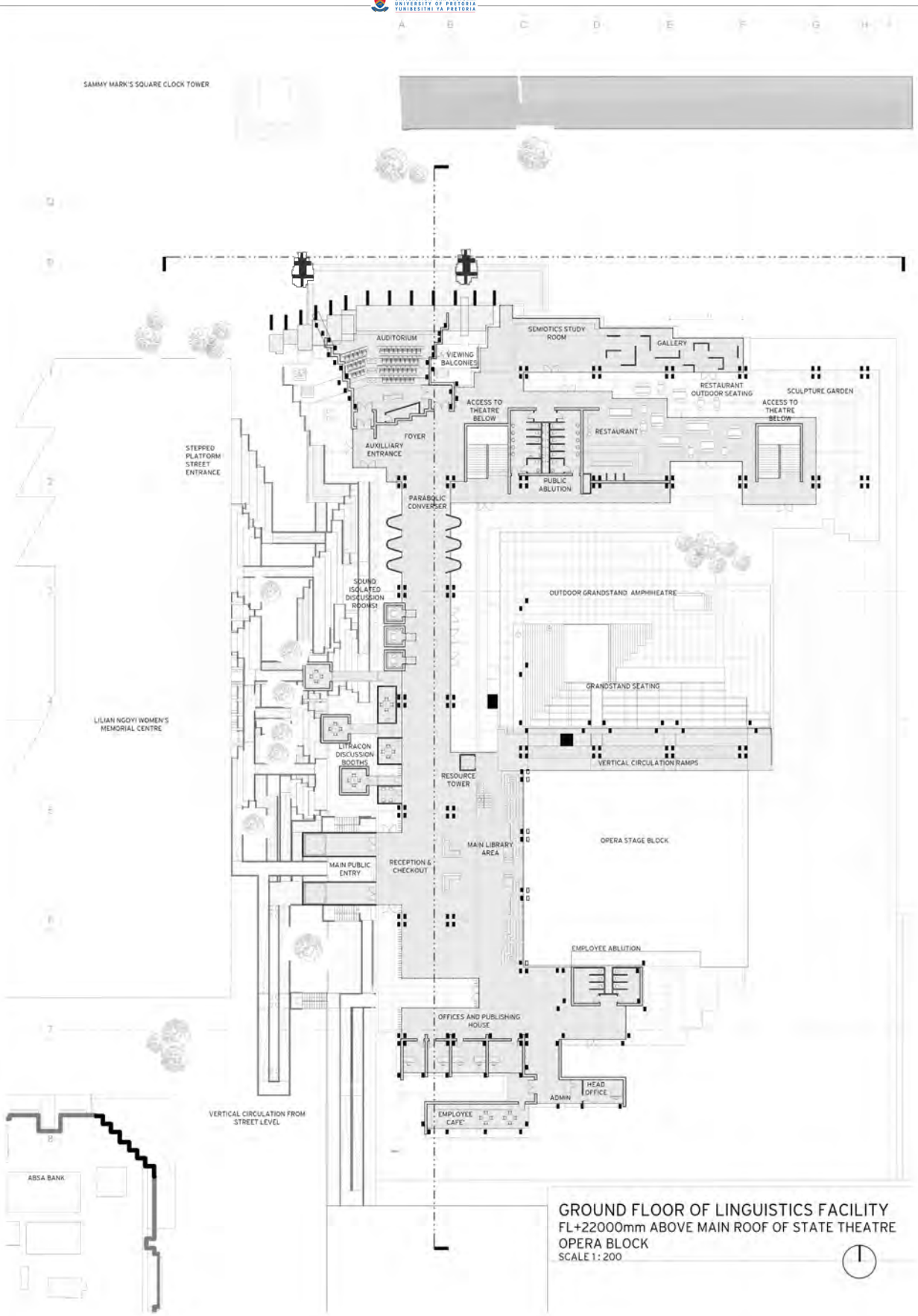


© University of Pretoria



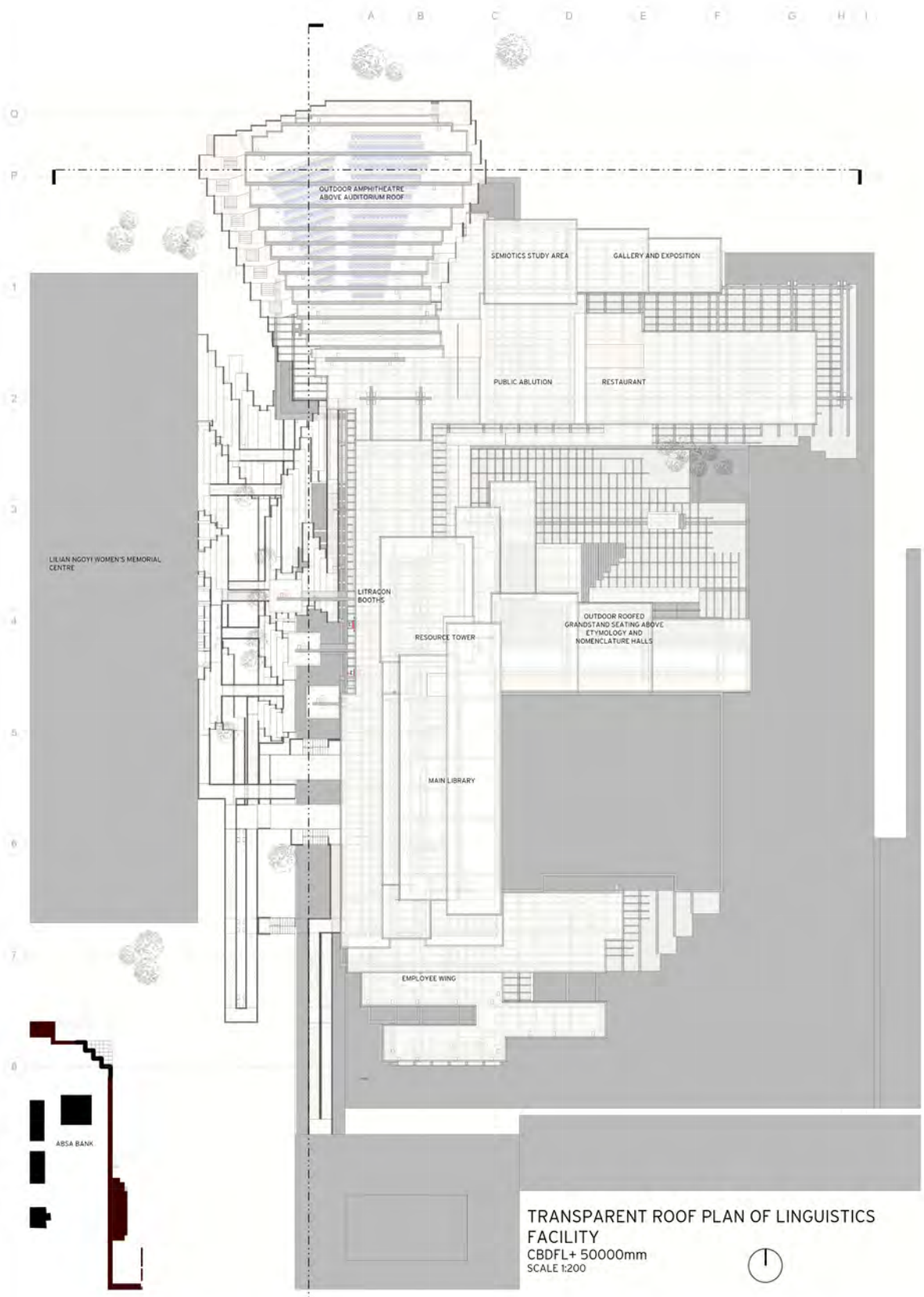
CHURCH- HELEN JOSEPHS STREET

© University of Pretoria

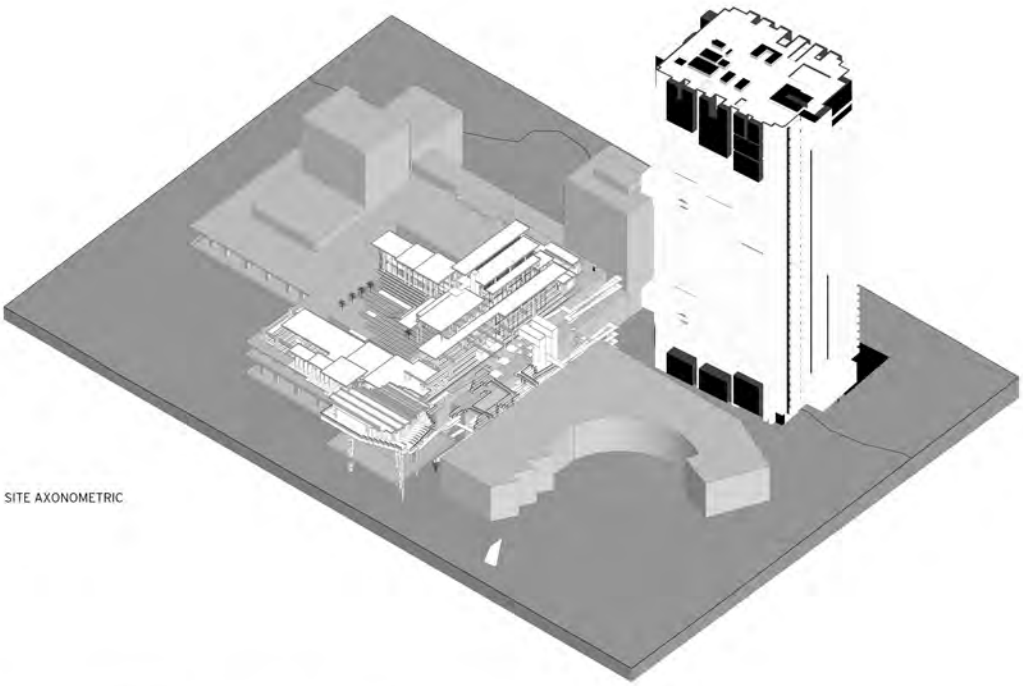


GROUND FLOOR OF LINGUISTICS FACILITY
FL+22000mm ABOVE MAIN ROOF OF STATE THEATRE
OPERA BLOCK
SCALE 1: 200

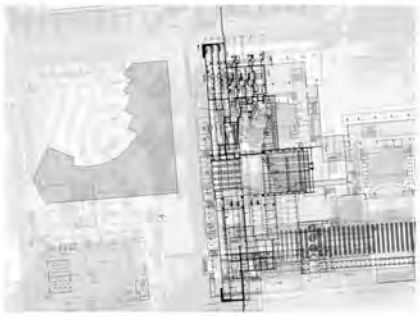
© University of Pretoria

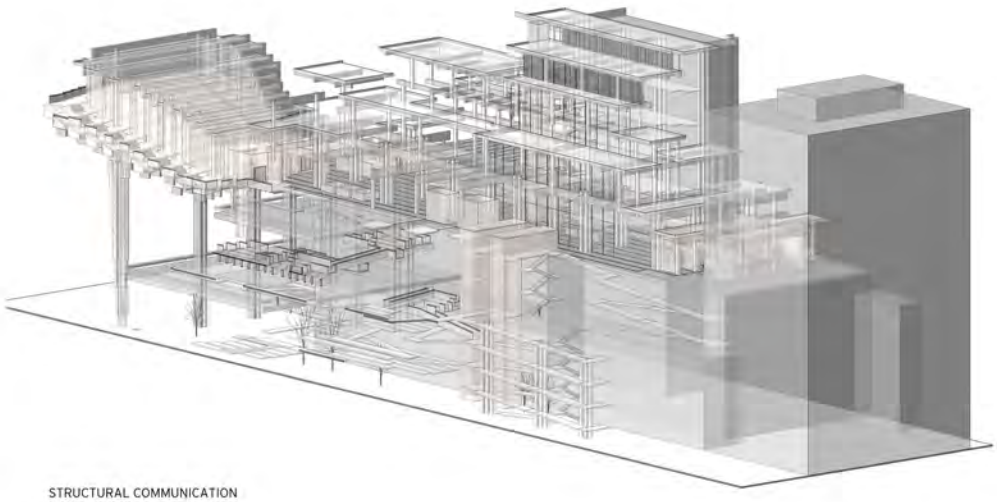


© University of Pretoria



SITE AXONOMETRIC

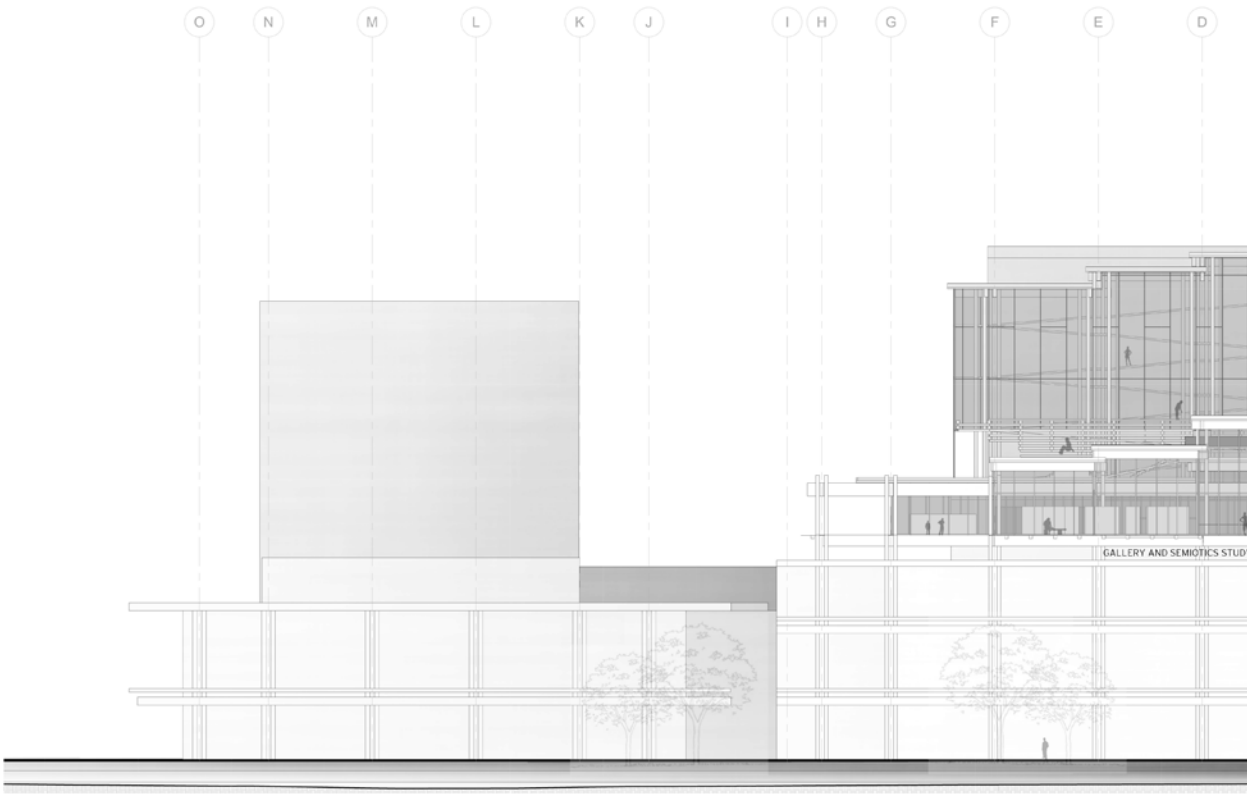




STRUCTURAL COMMUNICATION
SCALE: 1 : 200

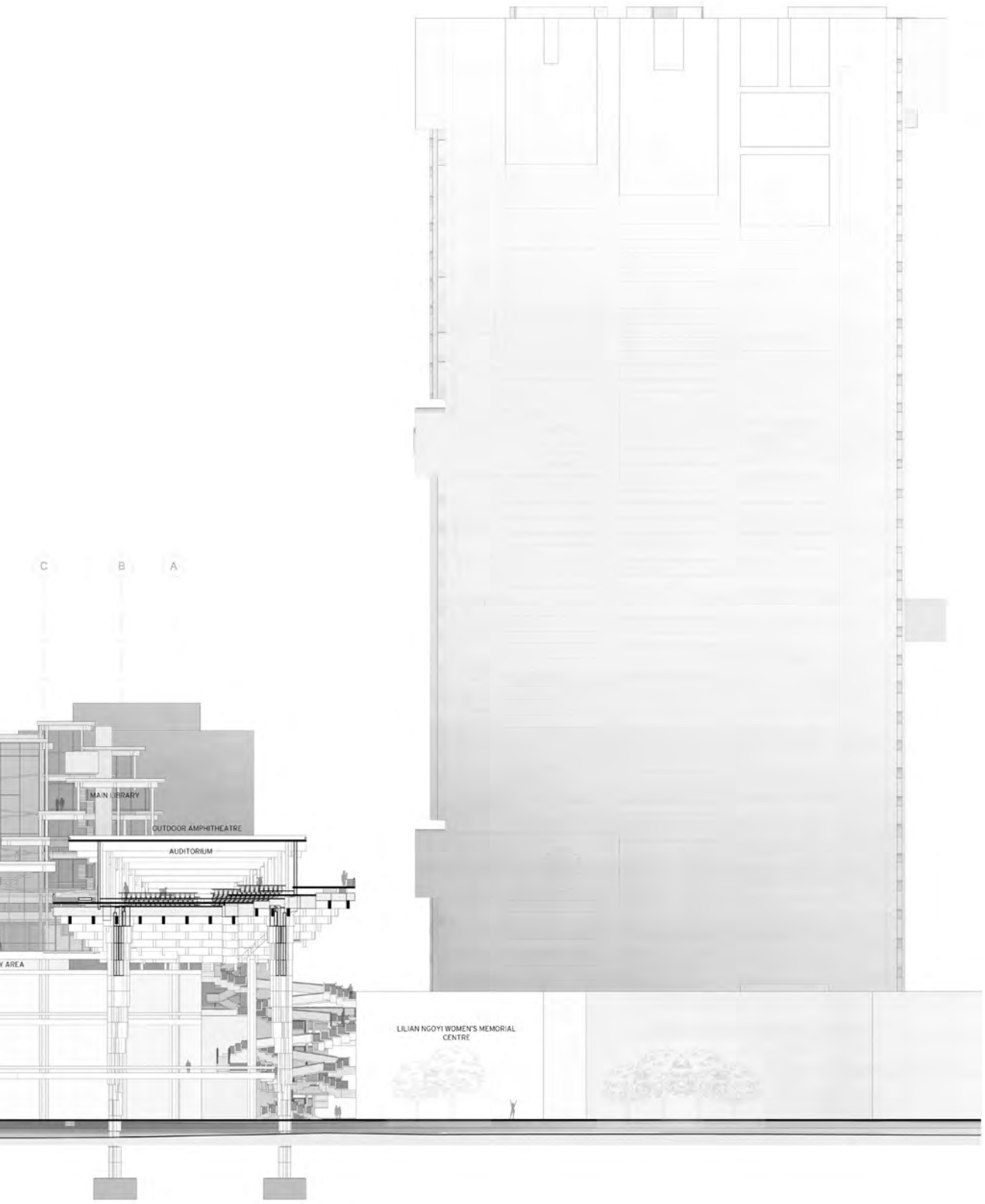
© University of Pretoria

© University of Pretoria

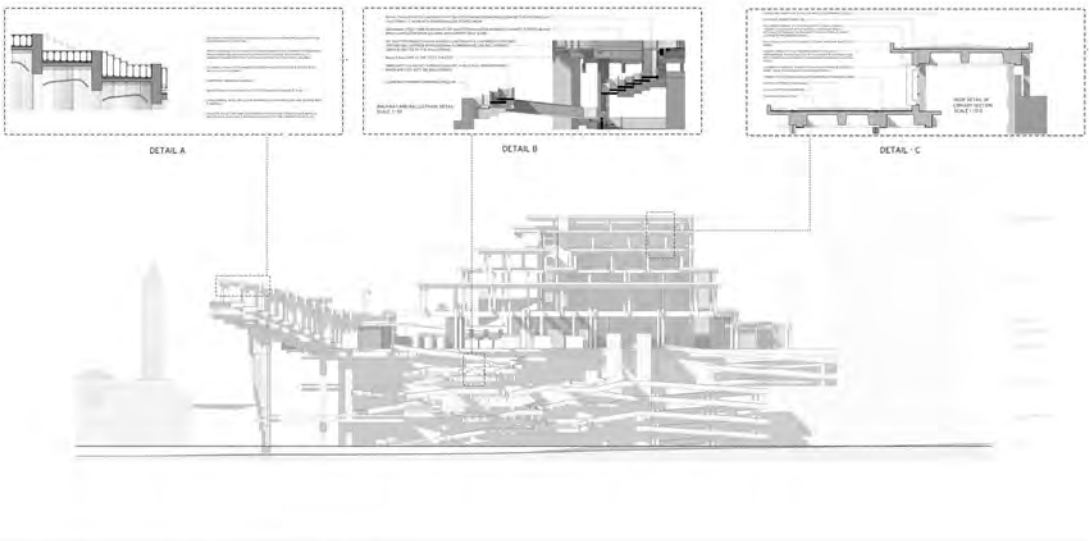


TRANSVERSE EAST TO WEST SECTION FACING SOUTH.
SCALE 1:200

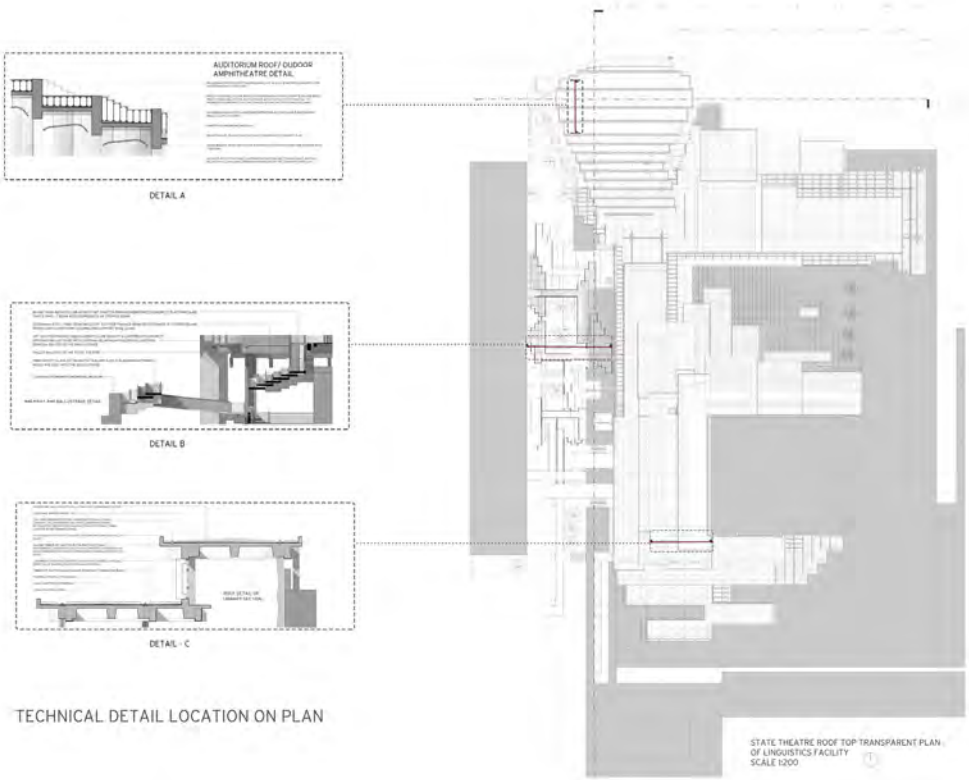
© University of Pretoria



© University of Pretoria

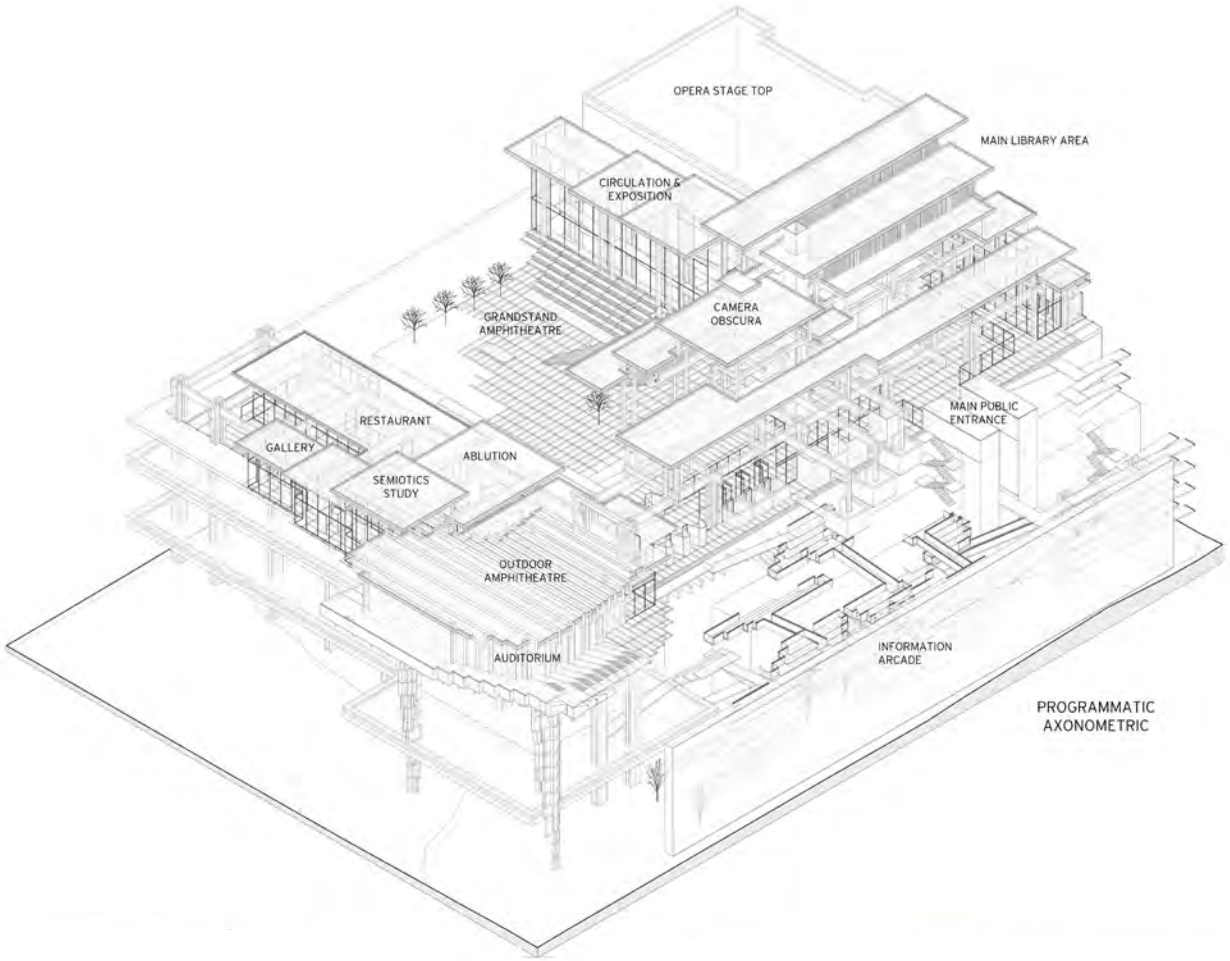


TECHNICAL LOCALITY ON WESTERN ELEVATION

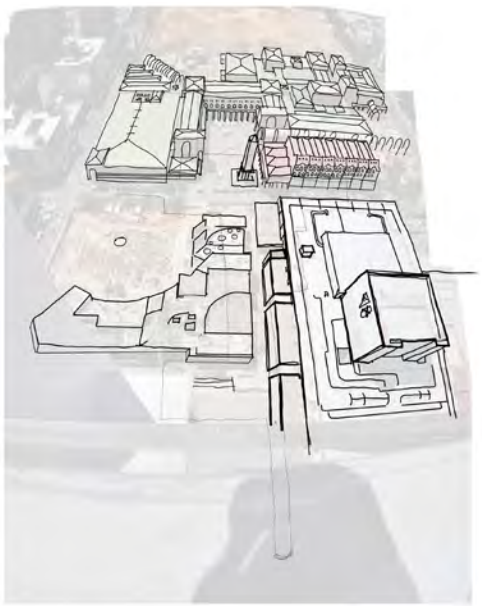


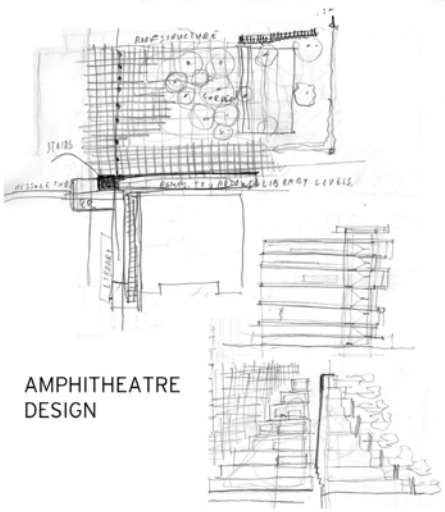
TECHNICAL DETAIL LOCATION ON PLAN

© University of Pretoria



PROGRAMMATIC AXONOMETRIC

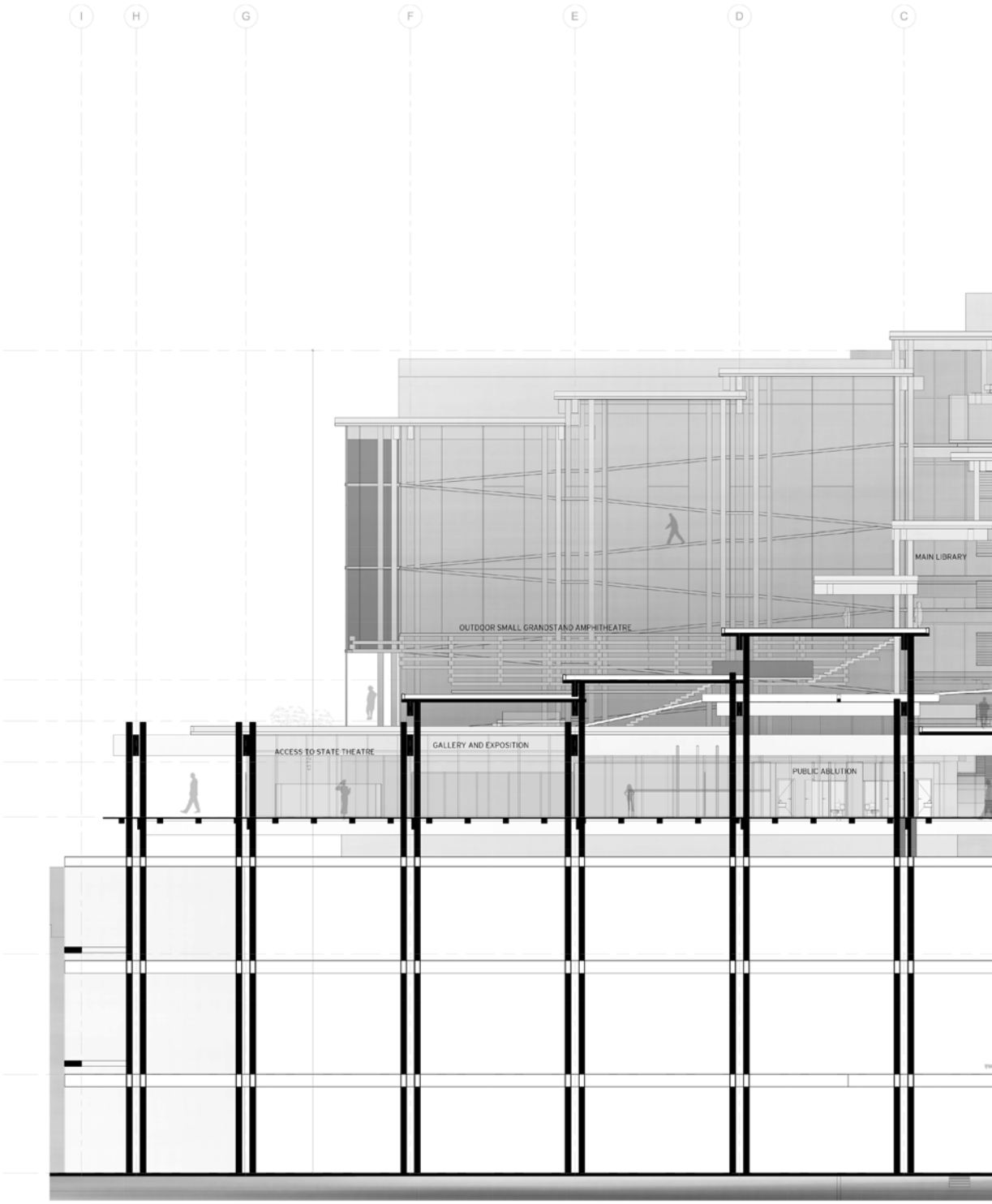




AMPHITHEATRE DESIGN

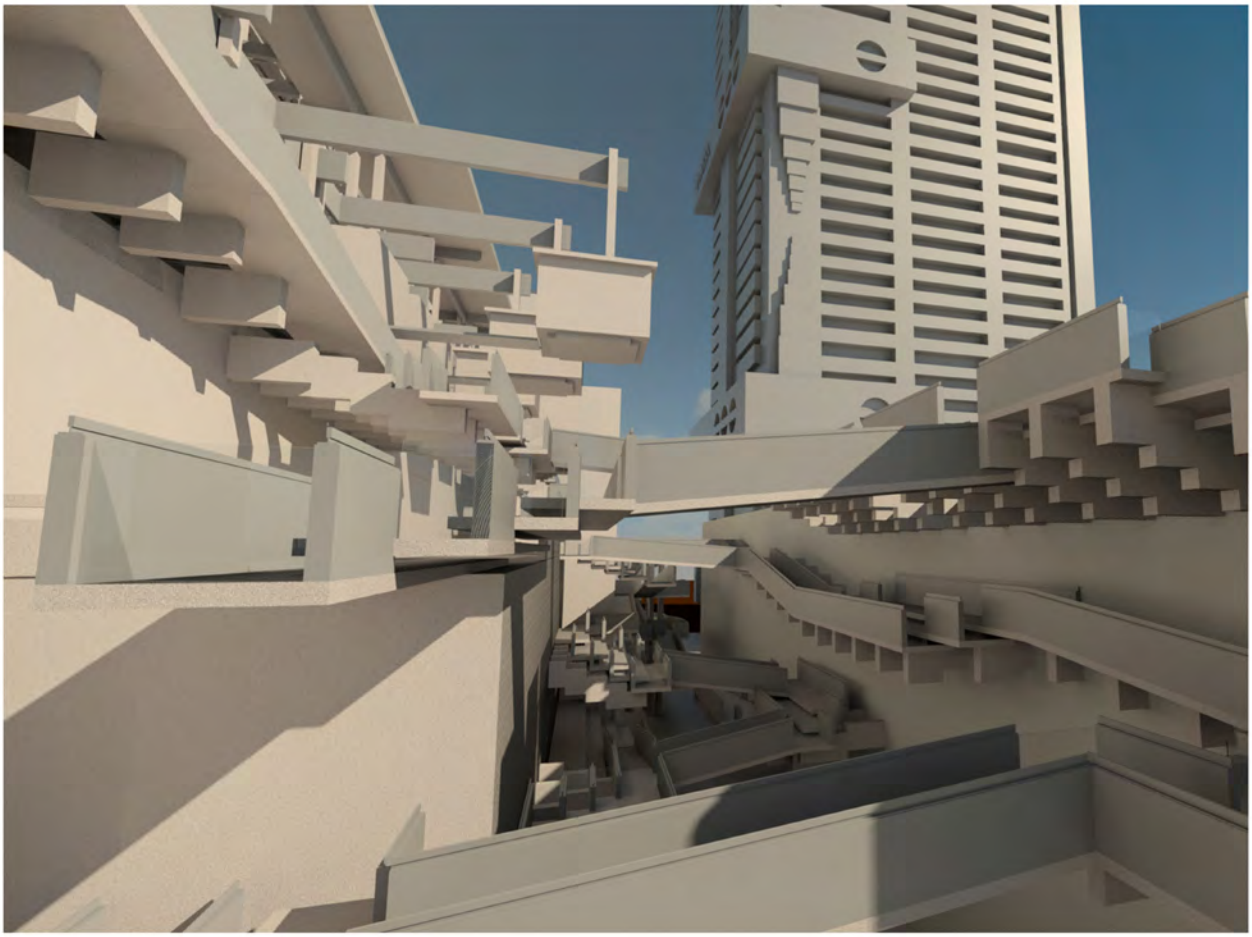
© University of Pretoria

TRANSVERSE SECTION FACING SOUTH.



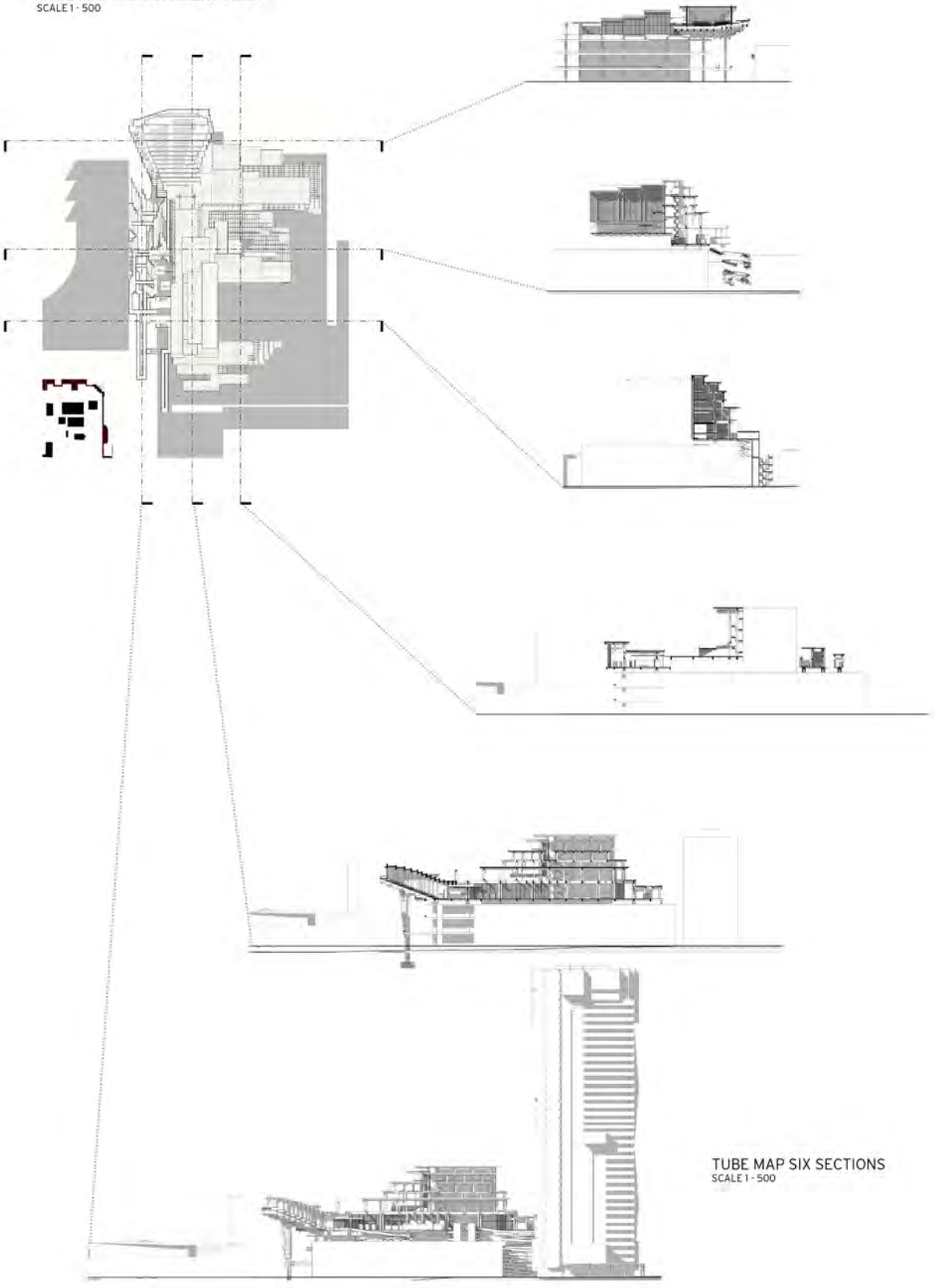
© University of Pretoria

© University of Pretoria



© University of Pretoria

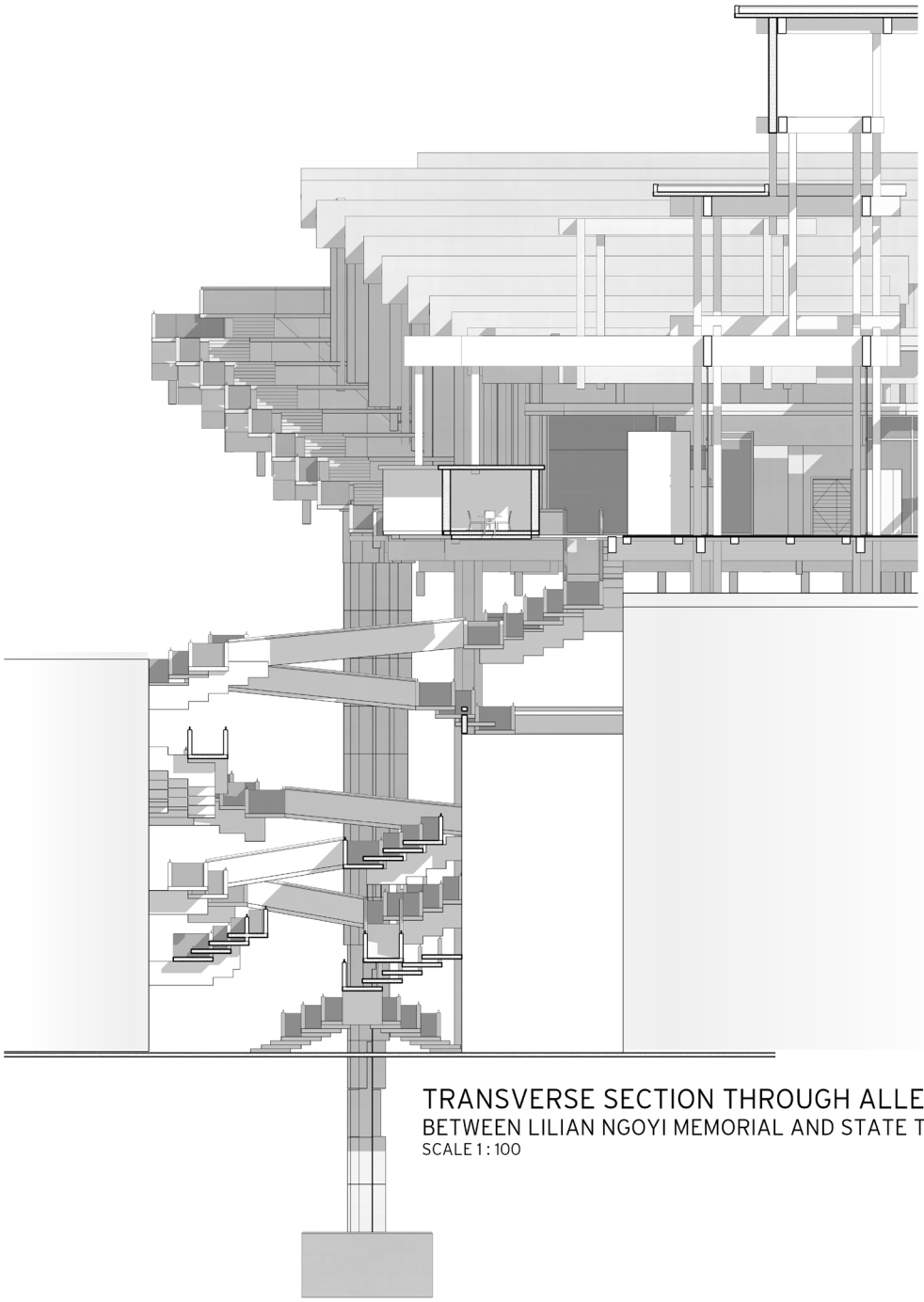
TUBE MAP TRANSPARENT PLAN
SCALE 1 : 500



TUBE MAP SIX SECTIONS
SCALE 1 : 500

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



TRANSVERSE SECTION THROUGH ALLEY
BETWEEN LILIAN NGOYI MEMORIAL AND STATE THEATRE
SCALE 1 : 100

CURTAIN GLAZING IN ALUMINIUM FRAME.

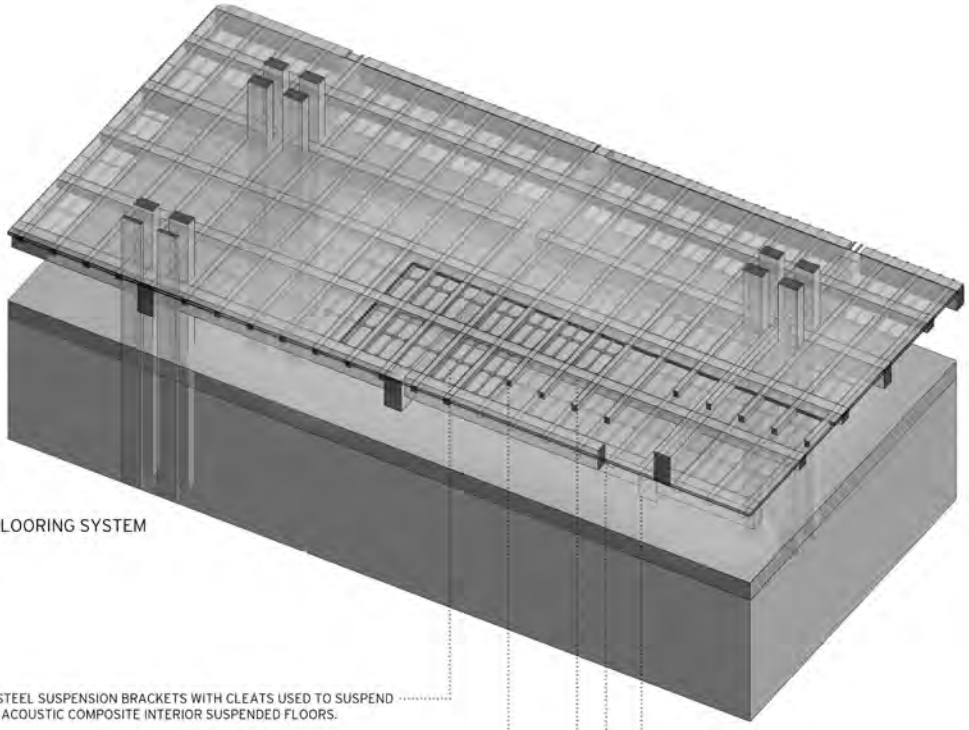
FOUR COLUMN EXTRUSION - 305x530mm EACH - FROM EXISTING COLUMNS BY BREAKING CONCRETE AND CASTING NEW STARTER BARS TO EXPAND EXISTING CONSTRUCTION

STATE THEATRE ROOF LEVEL

EXISTING STATE THEATRE H-PROFILE COLUMN

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



AXONOMETRIC OF FLOORING SYSTEM
SCALE 1:50

50x50 GALVANISED MILD STEEL SUSPENSION BRACKETS WITH CLEATS USED TO SUSPEND CONCRETE EXTERIOR AND ACOUSTIC COMPOSITE INTERIOR SUSPENDED FLOORS.

REINFORCED CAST IN SITU INTERSTITIAL FLOOR DISTRIBUTION BEAMS:

152x152mm- TATAMI BEAM - 914c/c

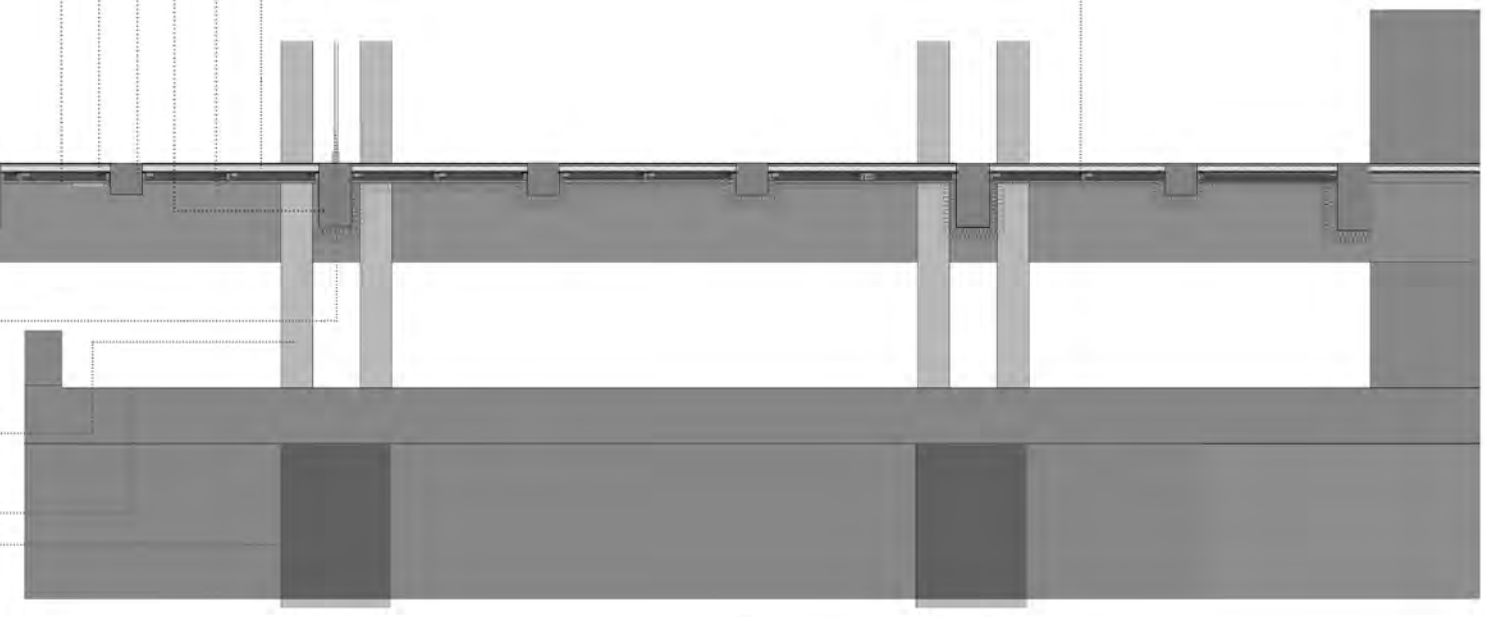
305x305mm- LONGITUDINAL TATAMI BEAM - 1829c/c

610x305mm- SECONDARY INTERSTITIAL BEAMS - 3048c/c

914x457mm- PRESTRESSED LOAD TRANSFER BEAMS - 6096 c/c

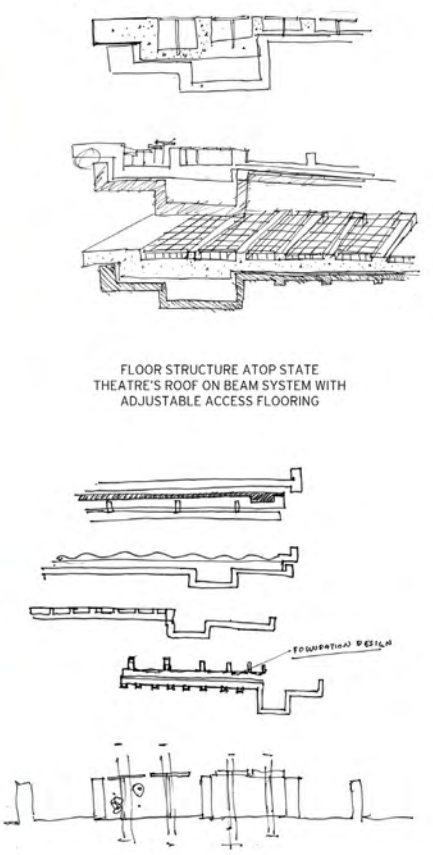
900X450X30mm PRECAST CONCRETE EXTERIOR TILES

900x450x100mm PLYWOOD CLAD ACOUSTIC COMPOSITE FLOORING



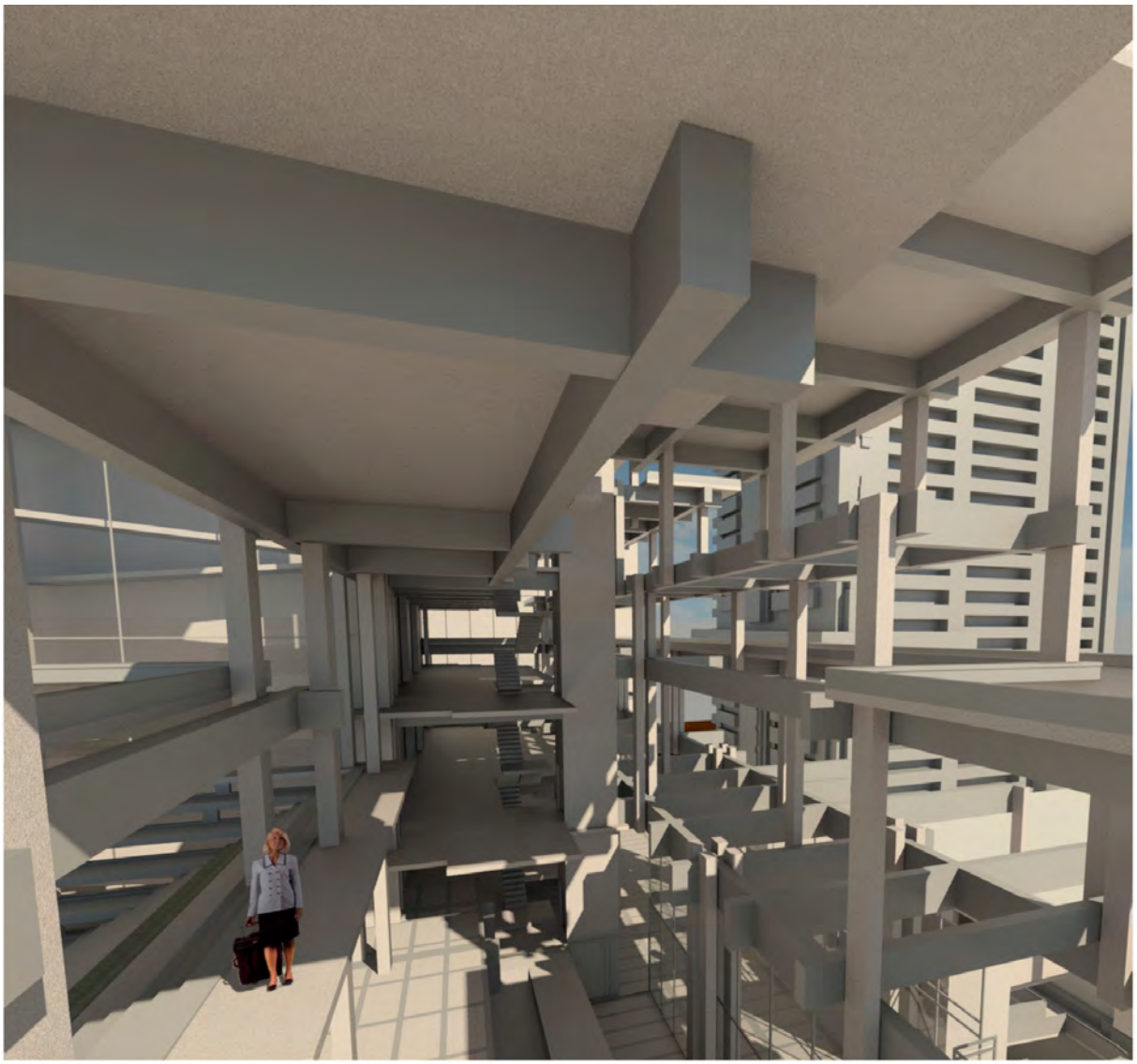
INTERSTITIAL SERVICE FLOOR
SUSPENSION OF LINGUISTICS FACILITY ABOVE STATE THEATRE
SCALE 1: 20

© University of Pretoria



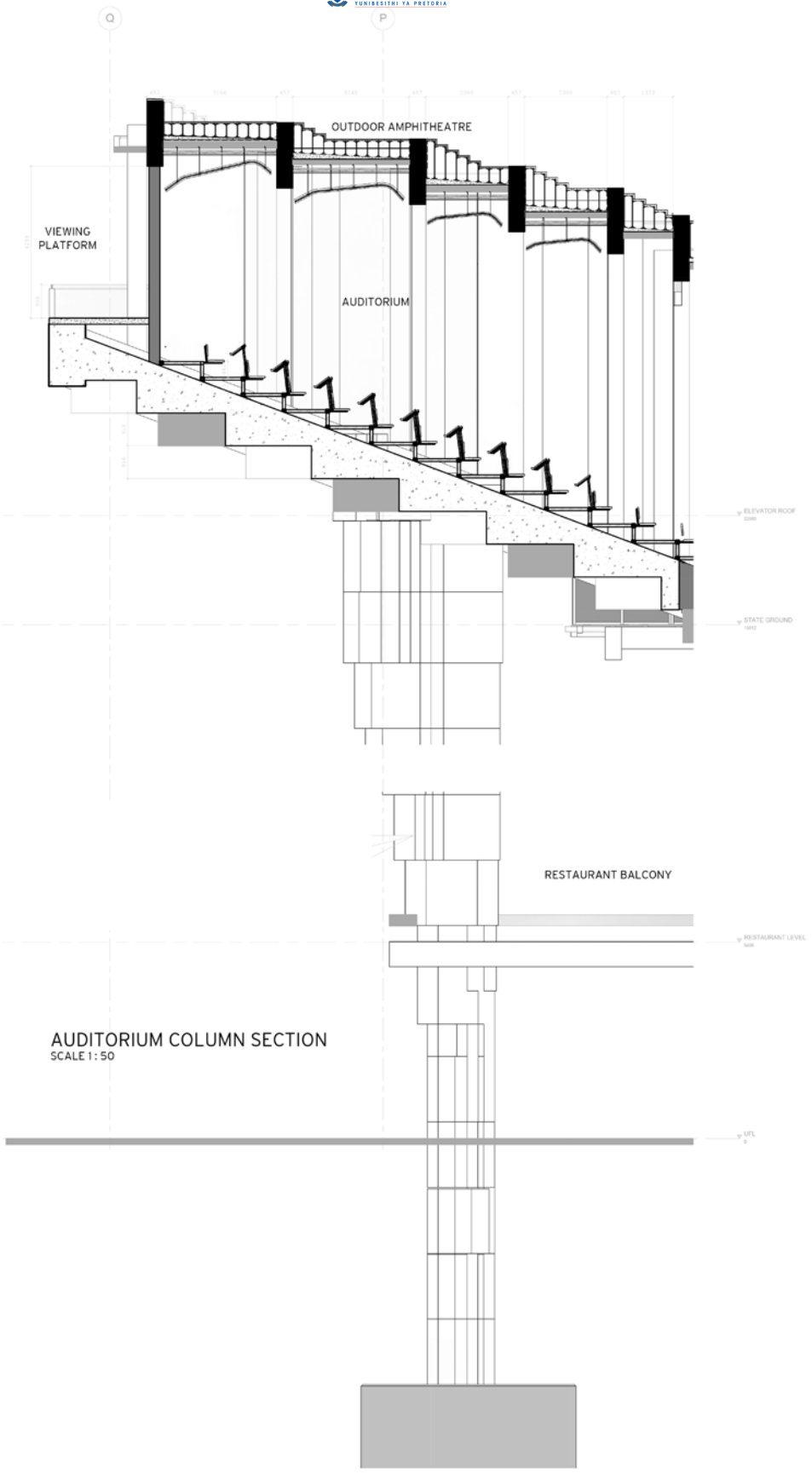
FLOOR STRUCTURE ATOP STATE THEATRE'S ROOF ON BEAM SYSTEM WITH ADJUSTABLE ACCESS FLOORING

© University of Pretoria



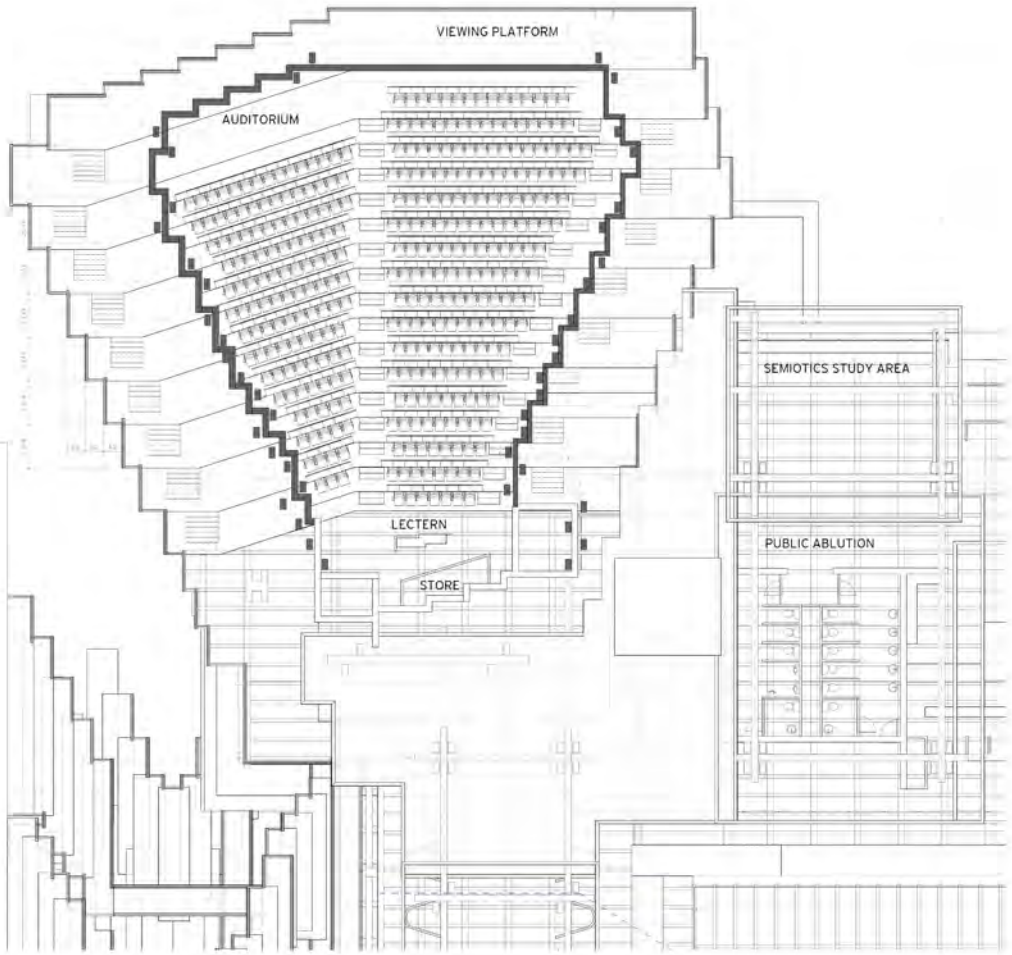
© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

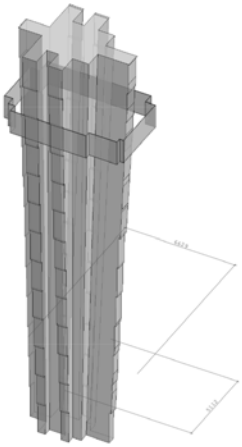


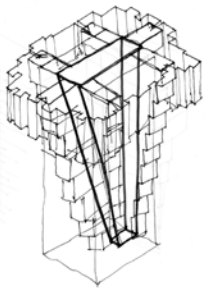
AUDITORIUM COLUMN SECTION
SCALE 1 : 50

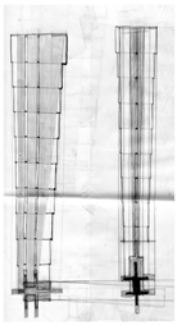
© University of Pretoria



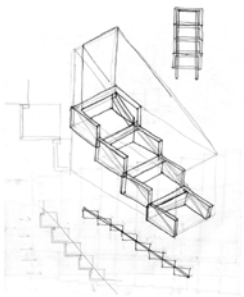
AUDITORIUM SEATING PLAN
SCALE 1 : 100







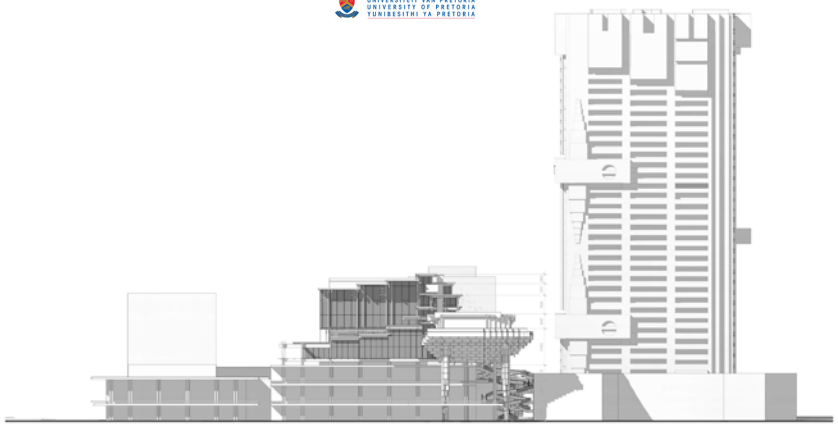
PRECAST CONCRETE CLAD STEPPED
TAPERING CAST IN SITU CONCRETE COLUMN
SUPPORTS AUDITORIUM



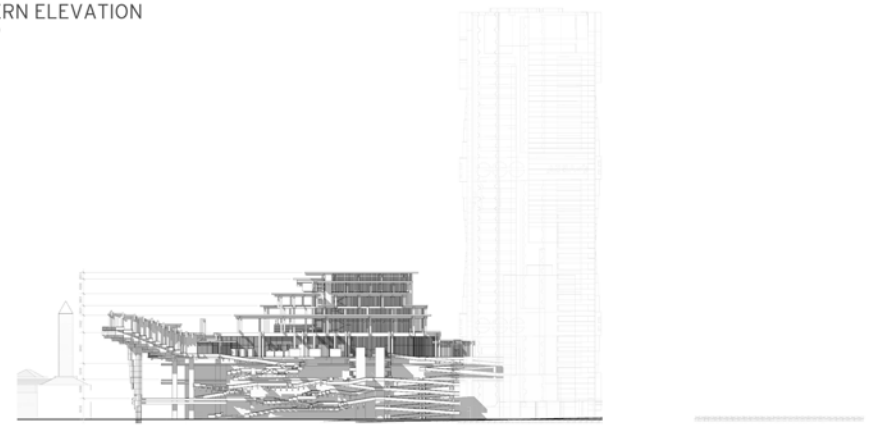
PRECAST STRINGER
CLAD DRAWER

© University of Pretoria

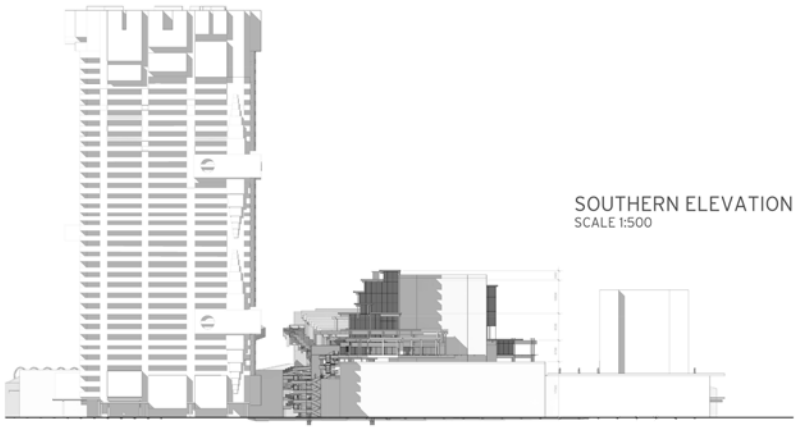
UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



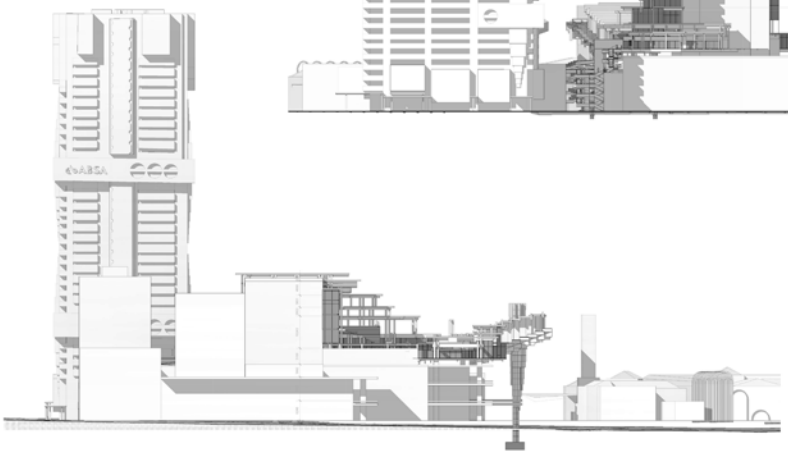
NORTHERN ELEVATION
SCALE 1:500



WESTERN ELEVATION
SCALE 1:500



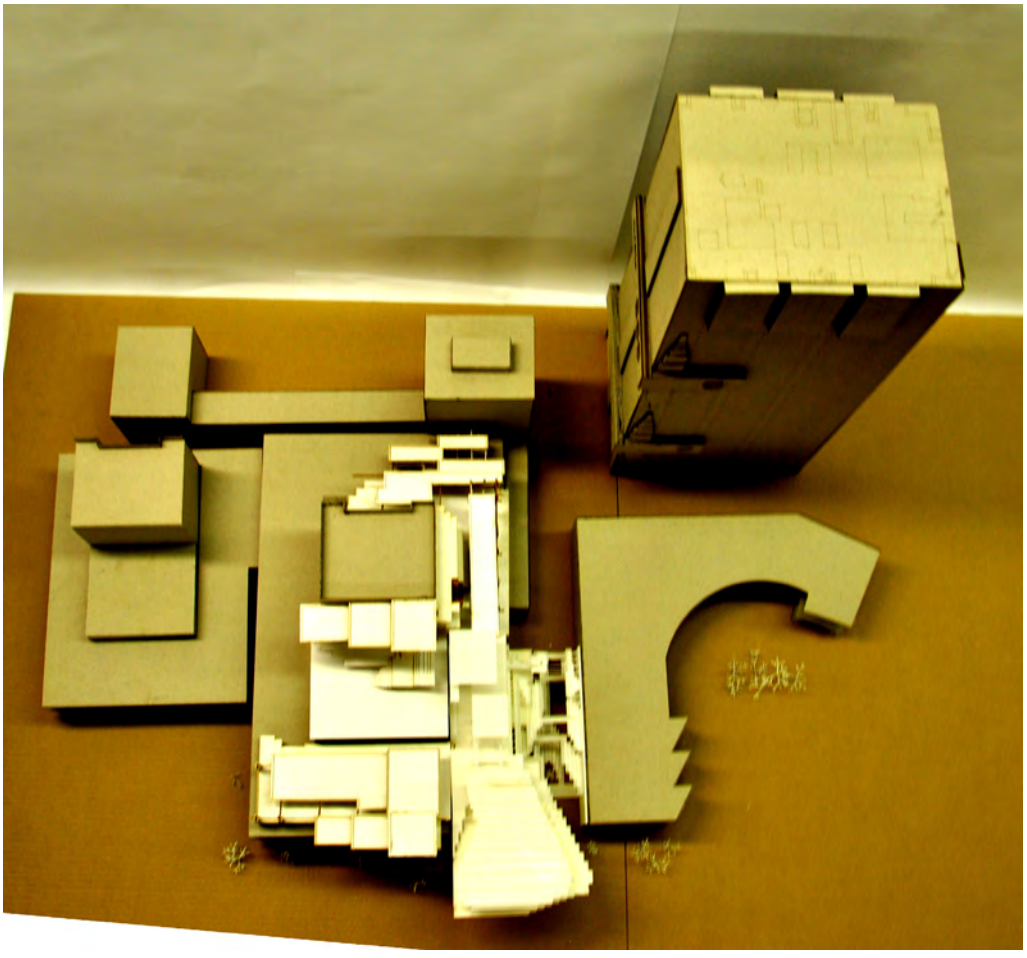
SOUTHERN ELEVATION
SCALE 1:500



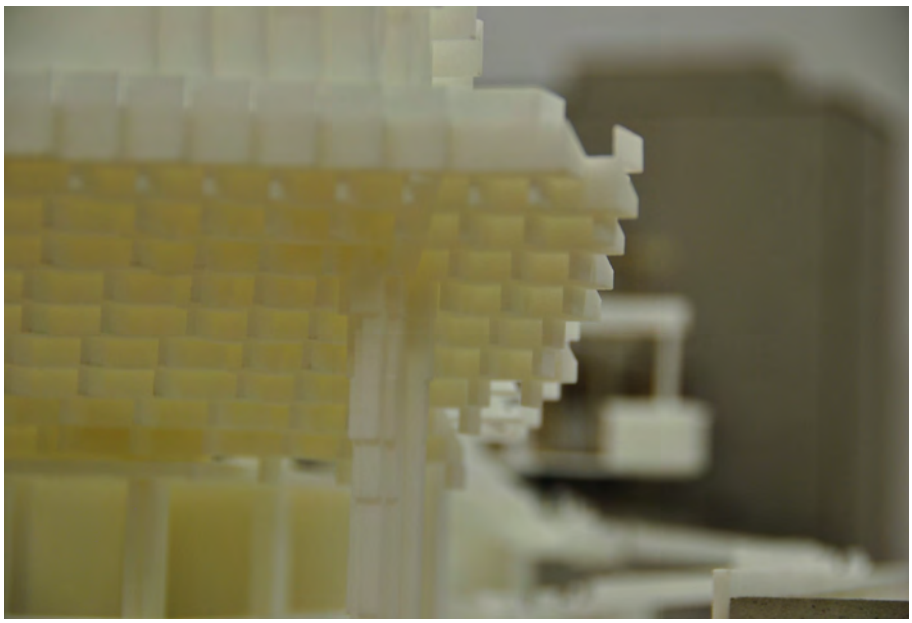
EASTERN ELEVATION
SCALE 1:500

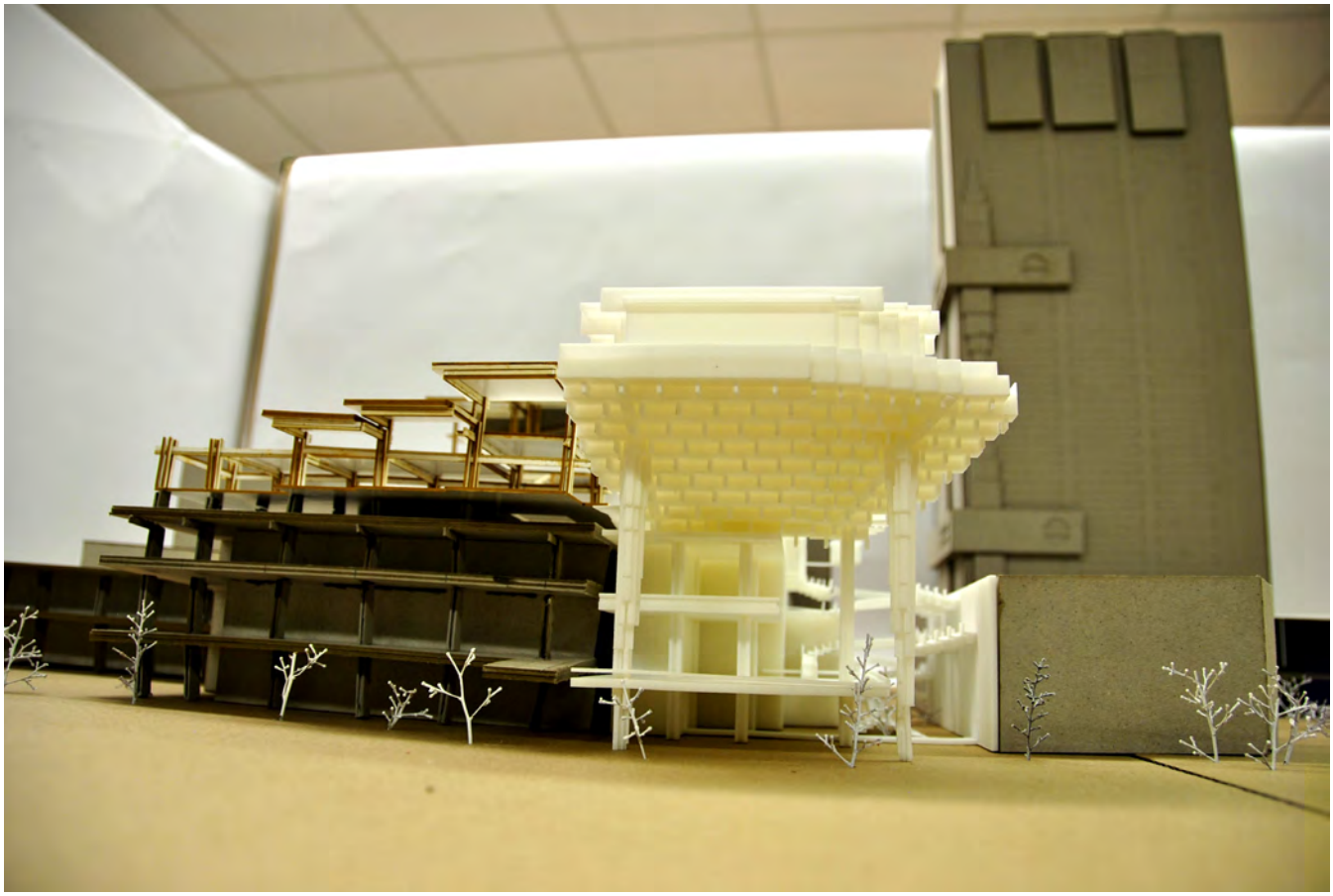
© University of Pretoria

© University of Pretoria

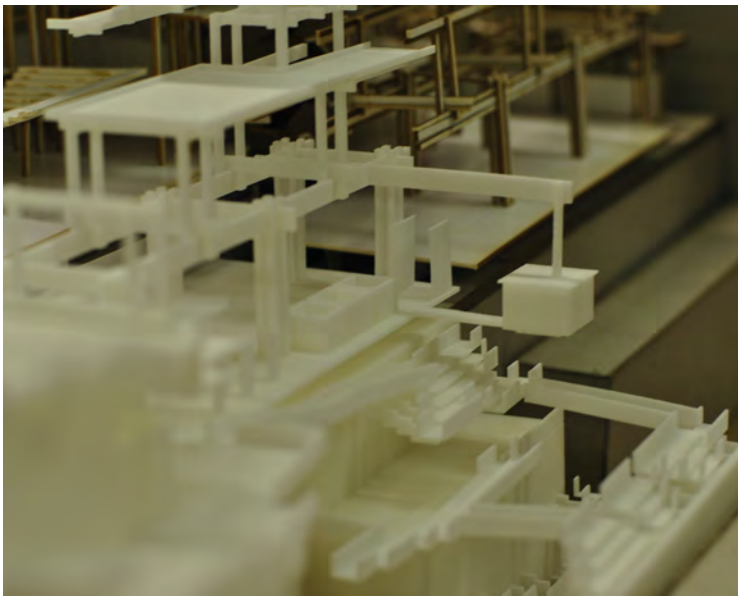


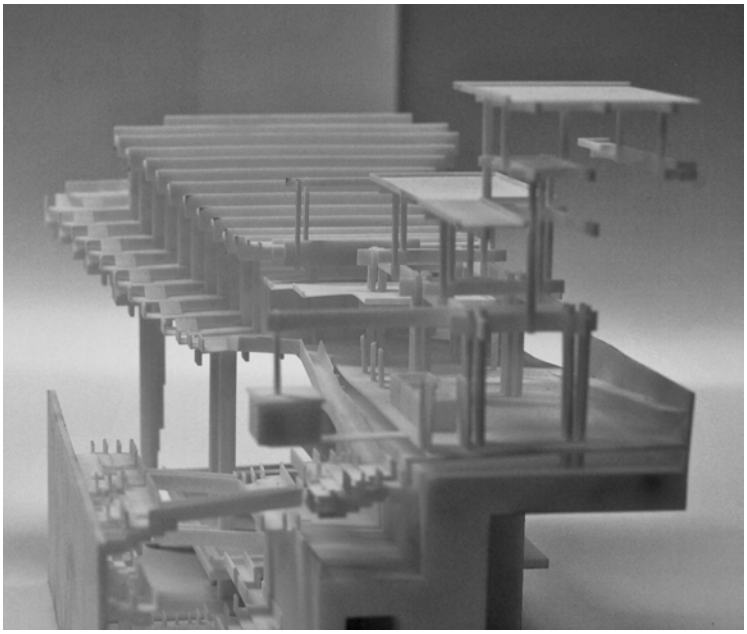
© University of Pretoria

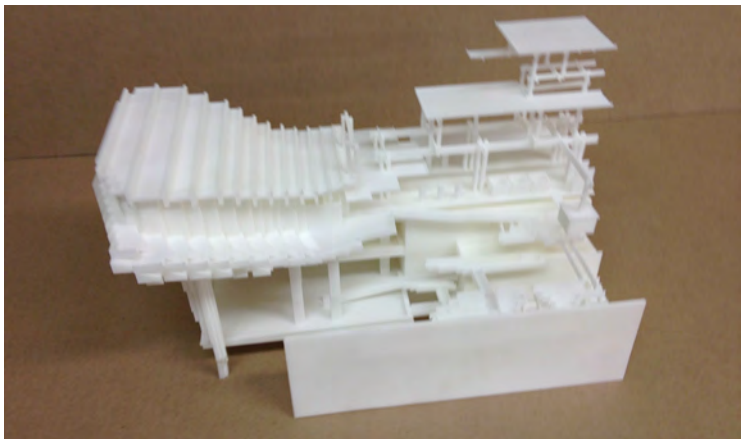




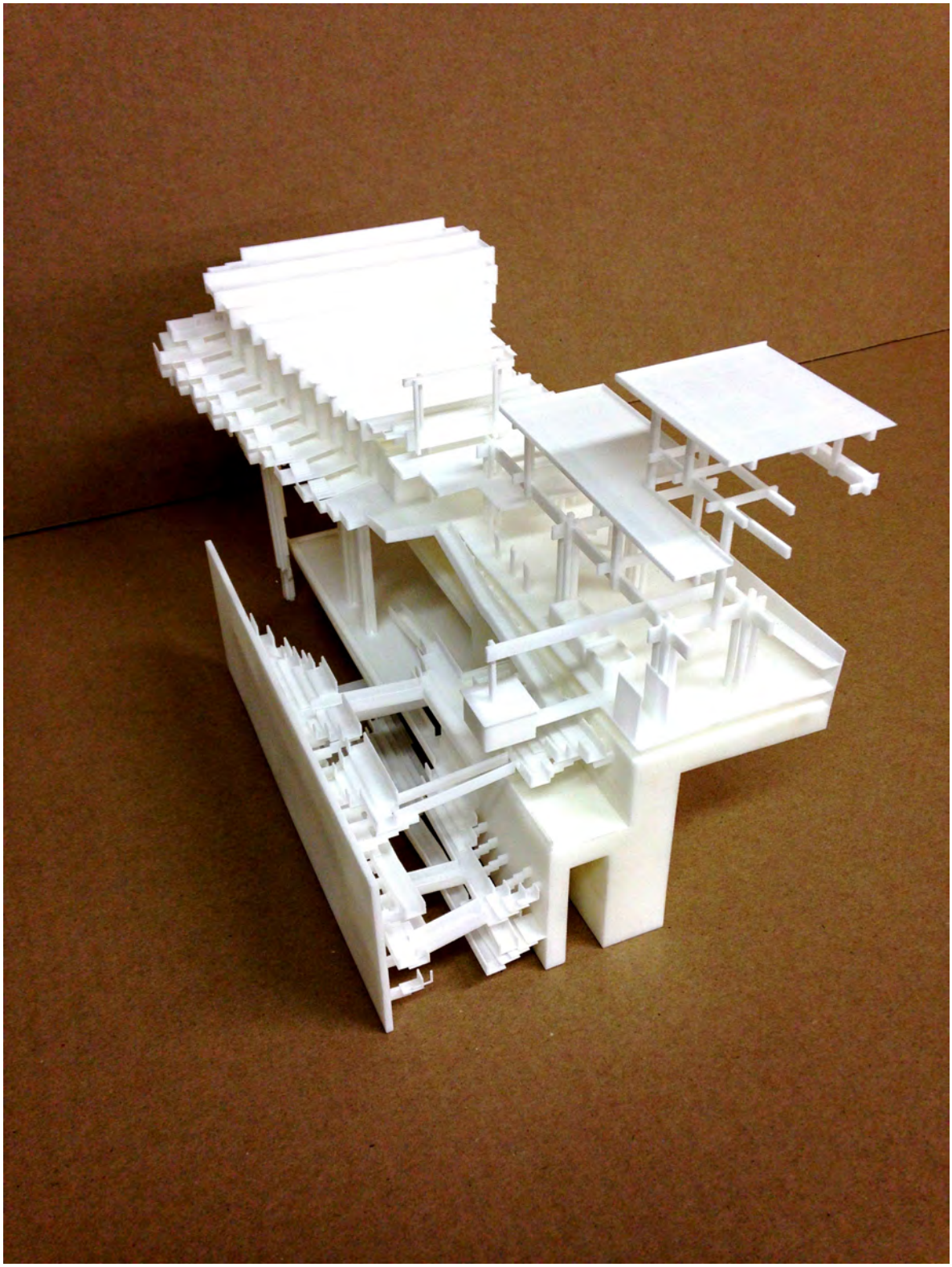
© University of Pretoria



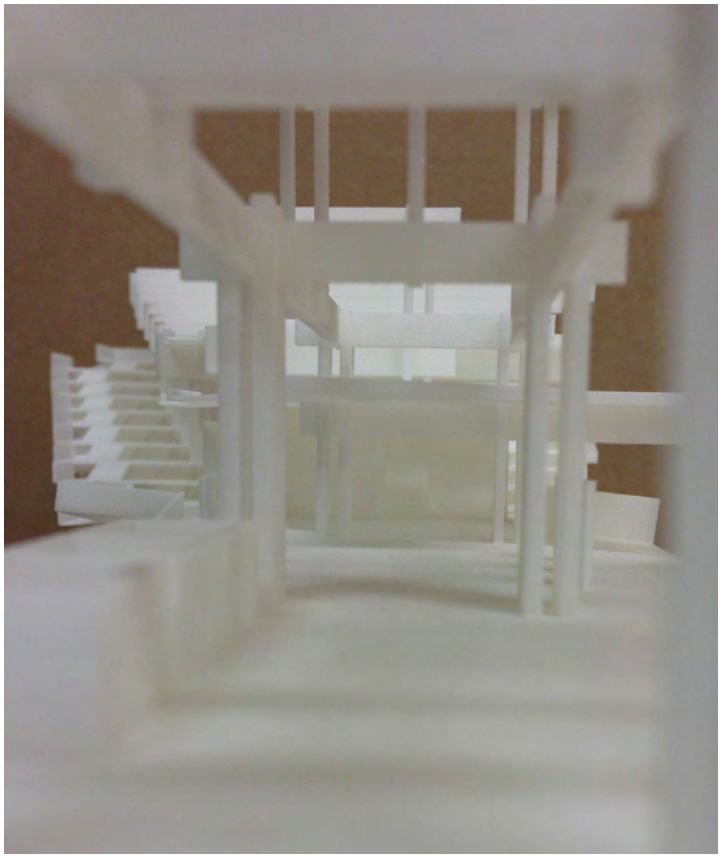


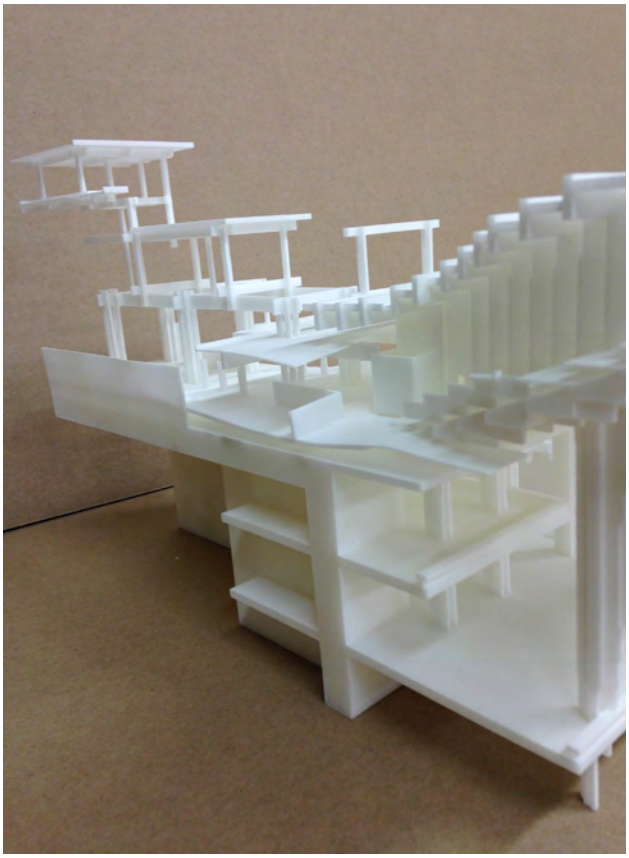


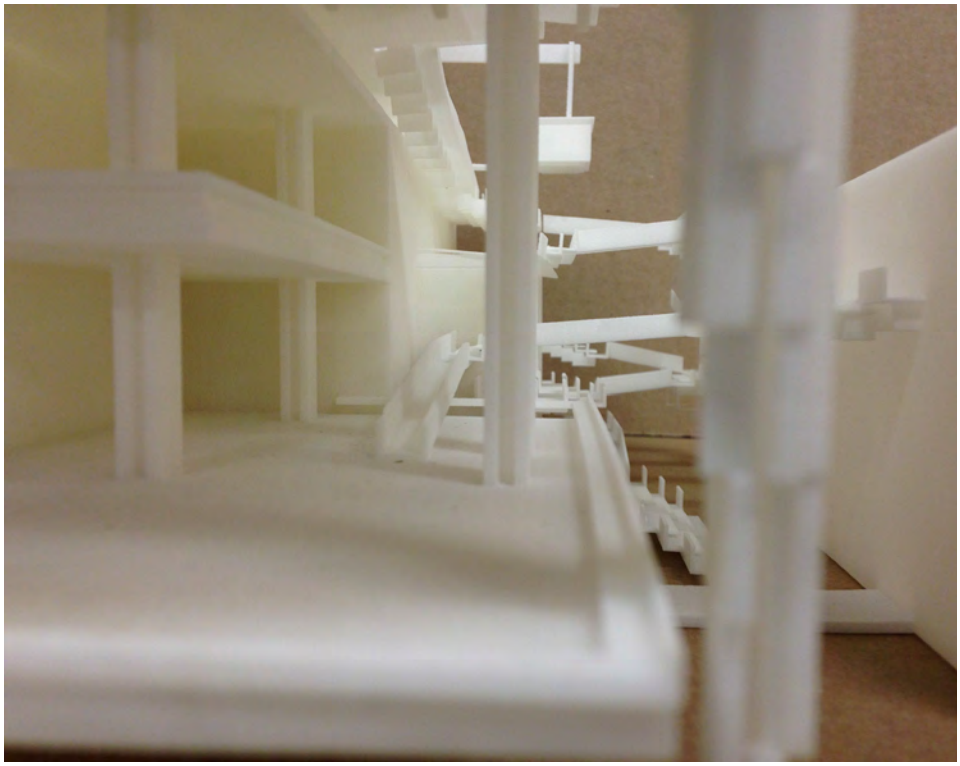
© University of Pretoria



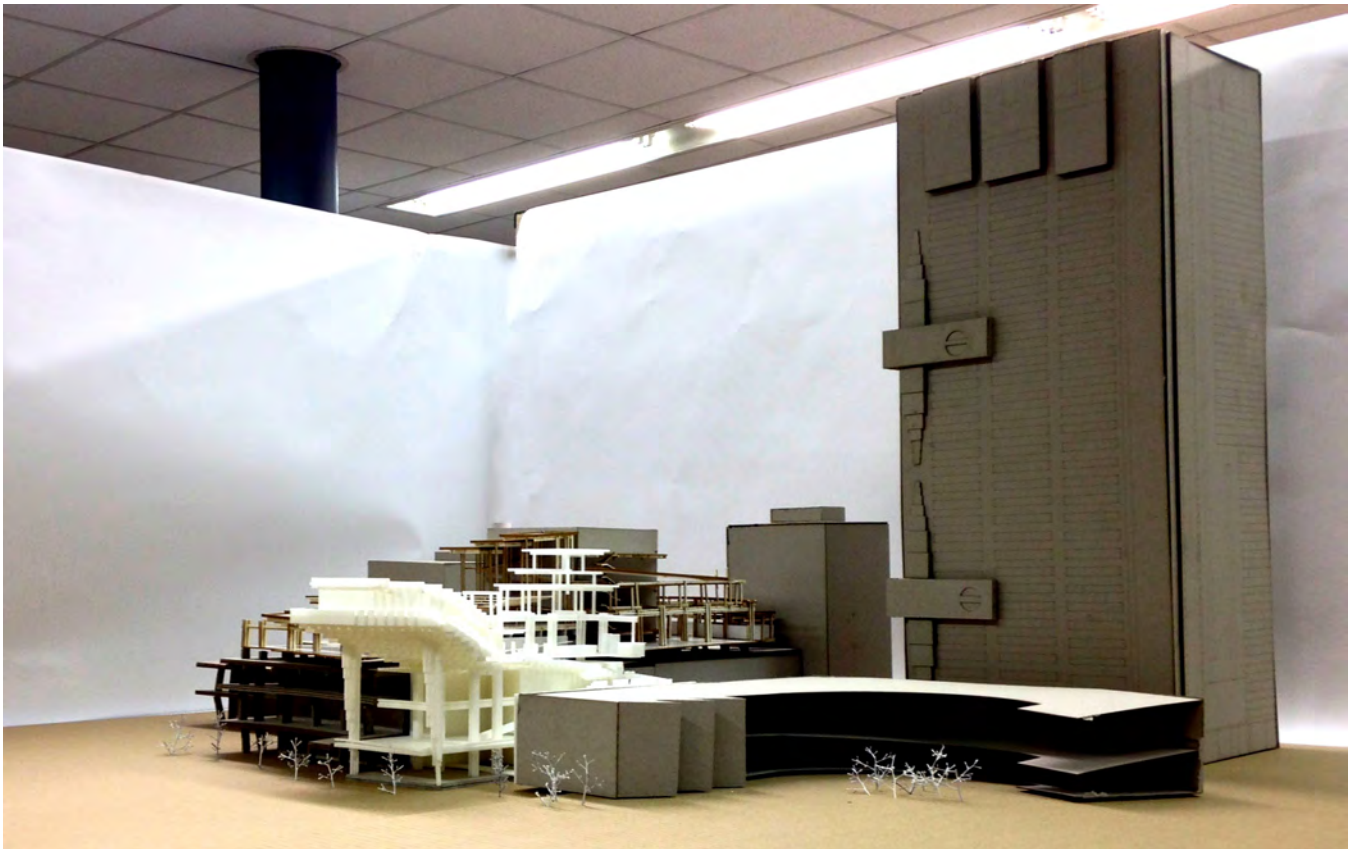
© University of Pretoria







© University of Pretoria



© University of Pretoria

Conclusion Beginning

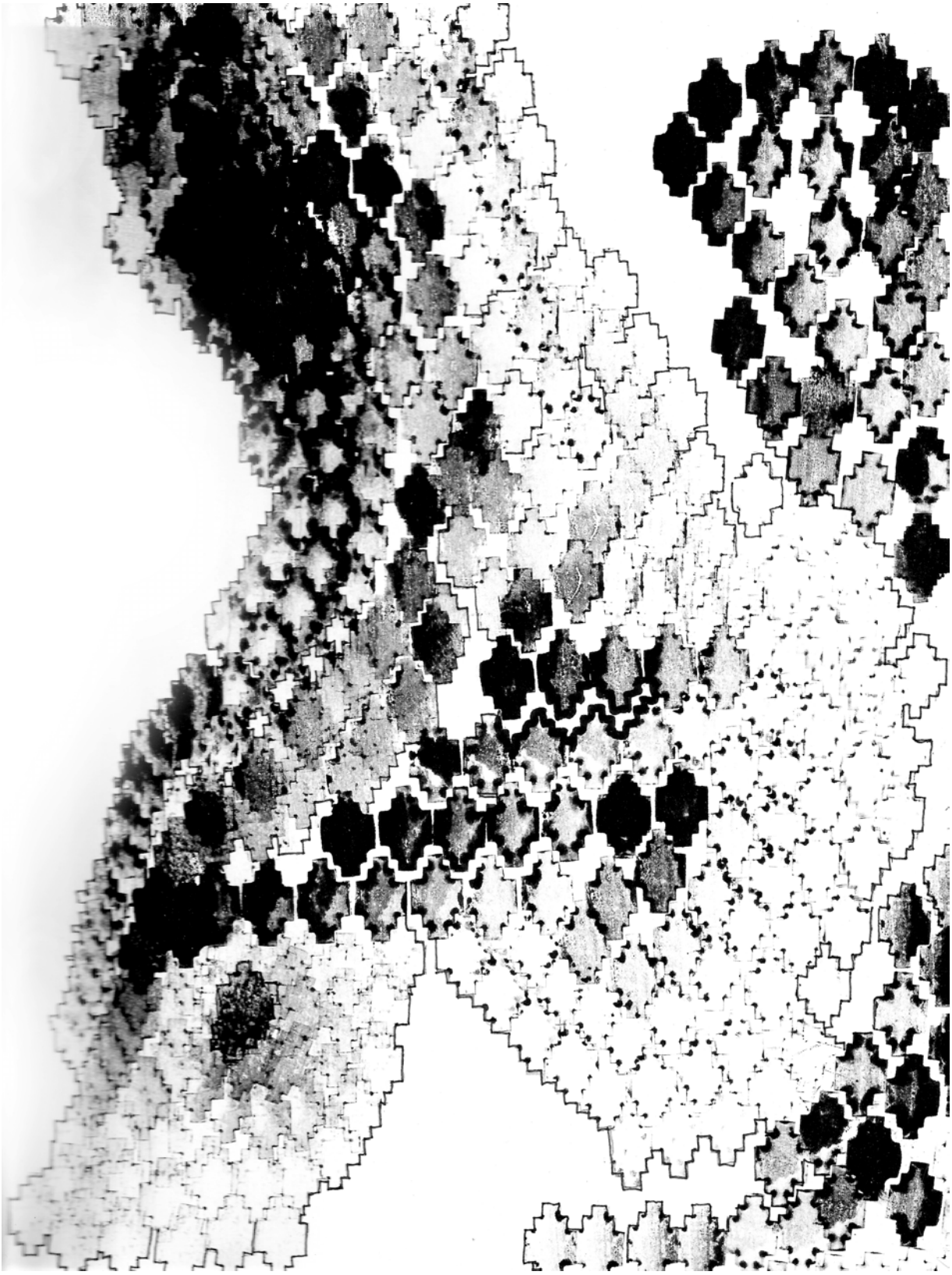
The aesthetic essentially changes dependent on the scope or scale of perspective. Much like the idea of a fractal, which is derived from repeating elements. These elements are likewise perceived differently at different scales. Through a methodology: miming the original language is, extrapolate its meaning, and then mutate and dissolve it into its built context.

This premise allows the architecture to disintegrate into contextual insignificance, which is evident in isolation and significant as an understandable vernacular. In this microscopic view it dissolves into the context and loses it's intrinsic meaning. This design feature of repetition of the architectural base elements in a simple process, over and over in an ongoing feedback cycle. There is a reverence of the original language indigenous and endemic to the site, as well as being self-referential across dissimilar scales simultaneously.

In this way, an endeavour at a plausible golden mean or a 'juste milieu' between an architecture that is contextually iconic and iconically contextual.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

References List and Bibliography

Architects, G.F.O.R., 2008. Deleuze and Guattari for Architects,

Baudrillard, J., 1994. Simulacra and Simulation, University of Michigan Press.

Boullée, E.-L., 1976. Architecture, Essay on Art. Boullée & Visionary Architecture.

Brandt, C. & Kracht, M., Syntax , Semantics and Pragmatics in Communication. , pp.195–202.

Brandt, P.A., 2010. The mental architecture of meaning: A view from cognitive semiotics. Revista Digital de Tecnologias Cognitivas, 2, pp.25–36.

Breu, F., Guggenbichler, S. & Wollmann, J., 2008. The Dissertation An Architecture Student's Handbook

Chomsky, N., 2013. Title : Hidden Power and Built Form : The Politics Behind the Architecture. , 3(3), pp.1–17.

Clarke, N.J. & Corten, J.A.M., 2011. Regenerating pretoria's historical core. , pp.881–892.

Eliade, M. & Trask, W.R., 1959. Cosmos and history: the myth of the eternal return. The Bollingen Library.

Eliot, T.S., The Wasteland . About the author.

Fold, T., 2000. Diagrams of Interface , or , Deleuze and Gauttari ' s Legacy to Architects. , (September), pp.1–23.

Forster, M.N., 2012. Kant's Philosophy of Language ? Tijdschrift voor Filosofie,

Jencks, C., 1969. Semiology and Architecture. , pp.43–45.
Kahn, L.I., 2014a. Of Boullée and Kahn , and the Spirit of the Sublime. , 21(1), pp.61–69.

Leone, G., 2006a. Robert Venturi and Denise Scott Brown ' s Confrontation with with Postmodernity Robert Venturi and Denise Scott Brown ' s Confrontation with.

Malthus, T.R., 1798. An essay on the principle of population, as it affects the future improvement of society. Contemporary Sociology, 2(3), p.340.

Massumi, B., 1995. The Autonomy of Affect Brian Massumi Cultural Critique,
No. 31, The Politics of Systems and Environments, Part II. (Autumn, 1995), pp. 83-109. Politics, (31), pp.83–109. Available at: http://www.ncbi.nlm.nih.gov/pubmed/21997878.

© University of Pretoria

Maurer, D., Pathman, T. & Mondloch, C.J., 2006. The shape of boudas: sound-shape correspondences in toddlers and adults. Developmental Science, 9(3), pp.316–322.

Mondrian, P. & Jaffe, H.L.C., 1985. Piet Mondrian, Barry N. Abrams, Incorporated. Available at: https://books.google.co.za/books?id=l6ZQnQEACAAJ.

Montello, D.R., 2014. Spatial Cognition and Architectural Space: Research Perspectives. Architectural Design, 84(5), pp.74–79.

de Morentin, J.M., 2001. Semiotics of the Edges: Notes on Semiotic Methodology. , p.298.

Name, L. et al., 2014. No Title No Title. Igarss 2014, (1), pp.1–5.

Noble, J., Collections électroniques de l ' INHA.

Pallasmaa, J., Empathic Imagination. Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki, pp.80–85.

Pérez-Gómez, A., 1997. Hermeneutics as Architectural Discourse. …-Land-International J. Archit. …, pp.1–11. Available at: http://courses.arch.ntua.gr/fsr/141771/Gomez_hermeneutics.pdf.

Raffel, S., 2010. Deleuze & Guattari,

Ramachandran, S. & Hubbard, E.M., 2001. Perception , Thought and Language.

Schalk, M., 2014. The Architecture of Metabolism. Inventing a Culture of Resilience. Arts, 3(2), pp.279–297
Spence, R., 1996. Architectural Theory,

Stone, E.D., 1969. The Museum of Modern Art v . , pp.1964–1969.

Street, P. & Centre, A., 2008. Cecil Skotnes A Private View. , (September).

Venturi, R., Brown, D.S. & Izenour, S., 1977. Learning form Las Vegas.

Visse, R., Conference, K. & October, A., 2011. Kandinsky and the Spiritual Task
of the Artist Today Rick Visse r ' s Keynote Conference Address. , pp.1–13.

Zealand, N. & Steen, A.P., 2013. of Architectural Historians , Jencks ' s Semiological History. , 1.

© University of Pretoria