



UNIVERSITEIT VAN PRETORIA  
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YUNIBESITHI YA PRETORIA

# x marks the spot

Chris Gey van Pittius  
Study Leader: Nicholas John Clarke



Fig. 1



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# In Appreciation

Ma & Pa vir hul ondersteuning  
Carina and world domination  
Sariena, Le Roux & Michelle  
Absolute lifesaver - Clayton

This document is submitted in fulfilment of part of the requirements  
for the degree of Magister of Architecture (Professional)  
in the Faculty of Engineering, Built Environment and Information  
Technology, University of Pretoria, South Africa. June 2009



3 million +

3 million - 300 000

300 000 - 30 000

30 000 - 100

from the open planes to the warm shelter  
of caves

from nomadic construction to basic  
establishment

Edifice was born



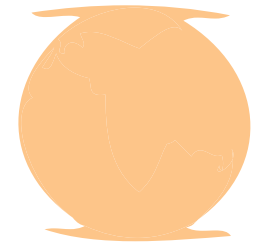
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“Understanding place is understanding 90% of what you’ve got to achieve. And then you’ve got the 10% of understanding the culture, and how that culture works in that place...”

*Glenn Murcutt, 1992*





# Contents

## Part One 14

Defining the Client 15

Defining the Brief 17

The Real world problem 18

The Objective 20

Background information 21

## Part Two 31

Theoretical Outline 32

## Part Three 39

Context analysis 41

The Site 42

Differential Model 53

Physical Context 53

Animate Environment 61

Cultural Environment 66



<b>Part Four</b>	75
Precedents	77
Design Philosophy	84
Behavioural Study	93
3D Exploration	99

<b>Part Five</b>	111
Technical Documentation	113

References	141
List of Figures	142

*As an avid traveller I have been fortunate enough to have seen many different people, places and cultures. This triggered an interest in world history and geography and has taught me to appreciate the significance of archaeology and antiquities. I have visited archaeological sites in countries like China, Italy, Greece, Egypt, Turkey, United Kingdom, Zimbabwe, Portugal and Thailand. These visits will always enrich my understanding of life as we know it today. The human race is an evolving species which is constantly learning through politics, architecture, economics and social issues – to name only a few. I believe strongly that every individual should be exposed to history to broaden their understanding of life.*



# Prologue

It is therefore very important that the facility remains a world-class institution and also aims to broaden its activities and functions to facilitate their accreditations in the international academic community.

The title of this dissertation has a figurative meaning: it refers to fictional tales about the pursuit of hopefuls to find treasure – to find something of precious and mythical value. In tales the X (cross) that marks the spot on a treasure map to riches is always a definitive spot or location (If only this definitive location was a reality in the search for archaeological artefacts and ancient structures; the search for Atlantis and the lost Kruger Millions would be much more effortless.) The X becomes a symbolic reference to the project on campus which incorporates the artefact stores, exhibitions and archaeological department of the University. This arrangement of functions together becomes a specific location that everyone can visit to see antique treasures and understand historical knowledge. Knowledge is even more valuable than the artefacts displayed behind glass panes. The information is something a visitor or student absorbs and becomes the knowledge they take with them when they leave. Therefore the acquisition of knowledge becomes the real treasure. The department on campus will become a monument to the source of knowledge and a basis to all the academic fields at the University of Pretoria

South African history has been extremely biased concept due to the neglect and refusal of identity to the majority of our population. Due to political change and rightful acknowledgment of African culture, academics and the public has rejuvenated its interest and exploration of the diverse indigenous culture. Although it is difficult to track African history, because of the natural way of constructing dwellings and towns together with the lack of written history, a broad study of spoken narrative has prevailed. History and traditions is now largely recorded from oral sources.<sup>1</sup>

Some world famous Archaeological sites, like Mapungubwe were excavated by the University of Pretoria, but this specific site has not become popular among the South African public. Like many countries, South Africa has protected and now embraced these artefacts to highlight differences in local cultures, creating a rich spectrum of identity for its people. To facilitate cultural progress it is necessary for Southern Africans to be exposed to their ancestry and attain historical and cultural knowledge. The result could have far reaching possibilities that would help resolve social unrest between various cultures through a sense of **belonging**.

The Archaeology and Anthropology Department at the University of Pretoria is one of the front-runners in the study field of African history and culture in the country, especially in research relating to key archaeological sites like Mapungubwe and many others spanning from recent history to the 3 million year African Stone Age.

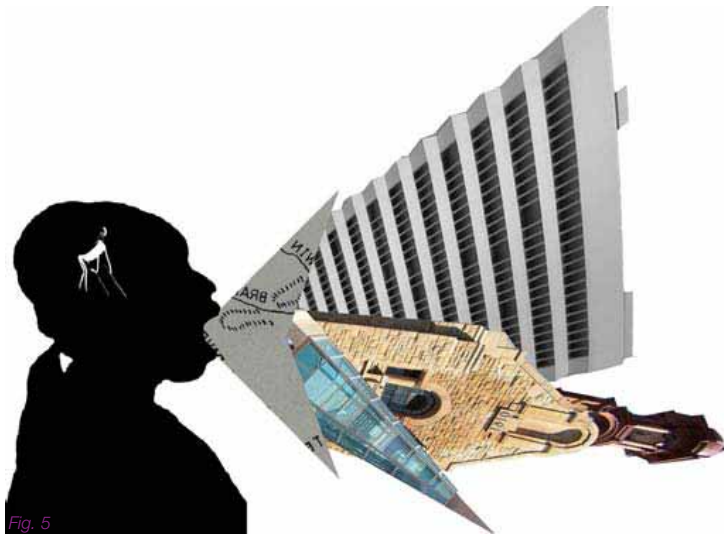


Fig. 5

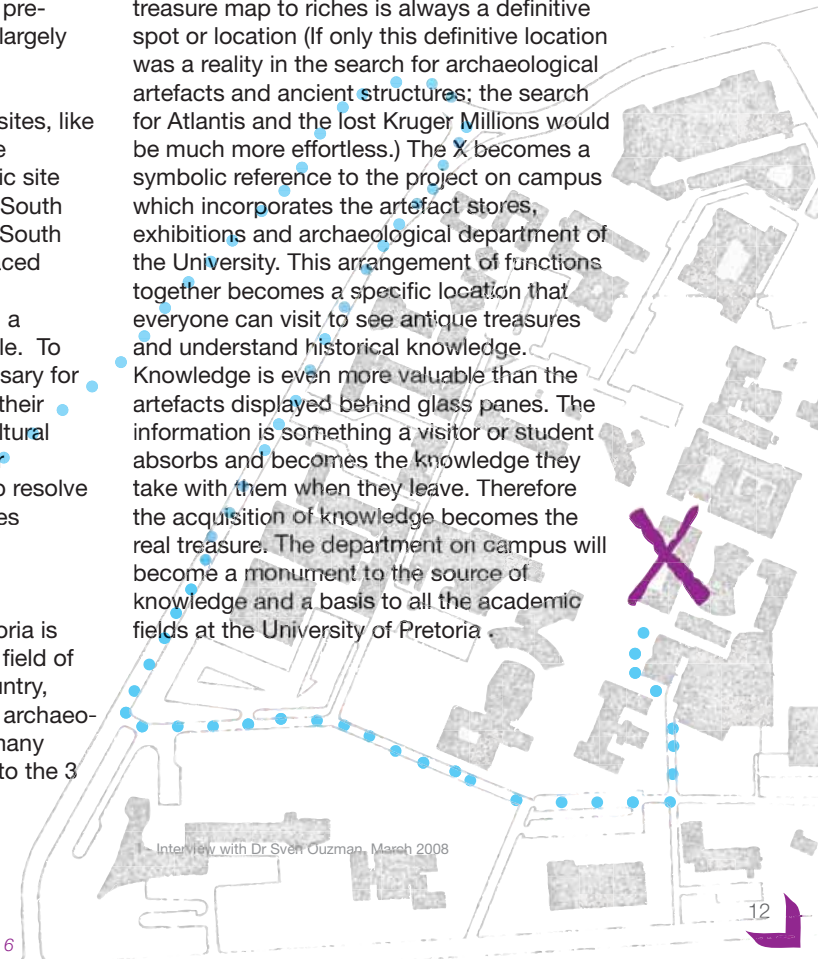
## an-thro-po-lo-gy

The science that deals with the origins, physical and cultural development, biological characteristics, and social customs and beliefs of humankind. The science of humans and their works. The study of the nature and essence of humankind.

## ar-cha-e-lo-gy

The scientific study of historic or prehistoric peoples and their cultures by analysis of their artifacts, inscriptions, monuments, and other such remains, esp. those that have been excavated. The study of antiquity.

Dictionary.com unabridged based on the Random house Dictionary, Random House, 2009.

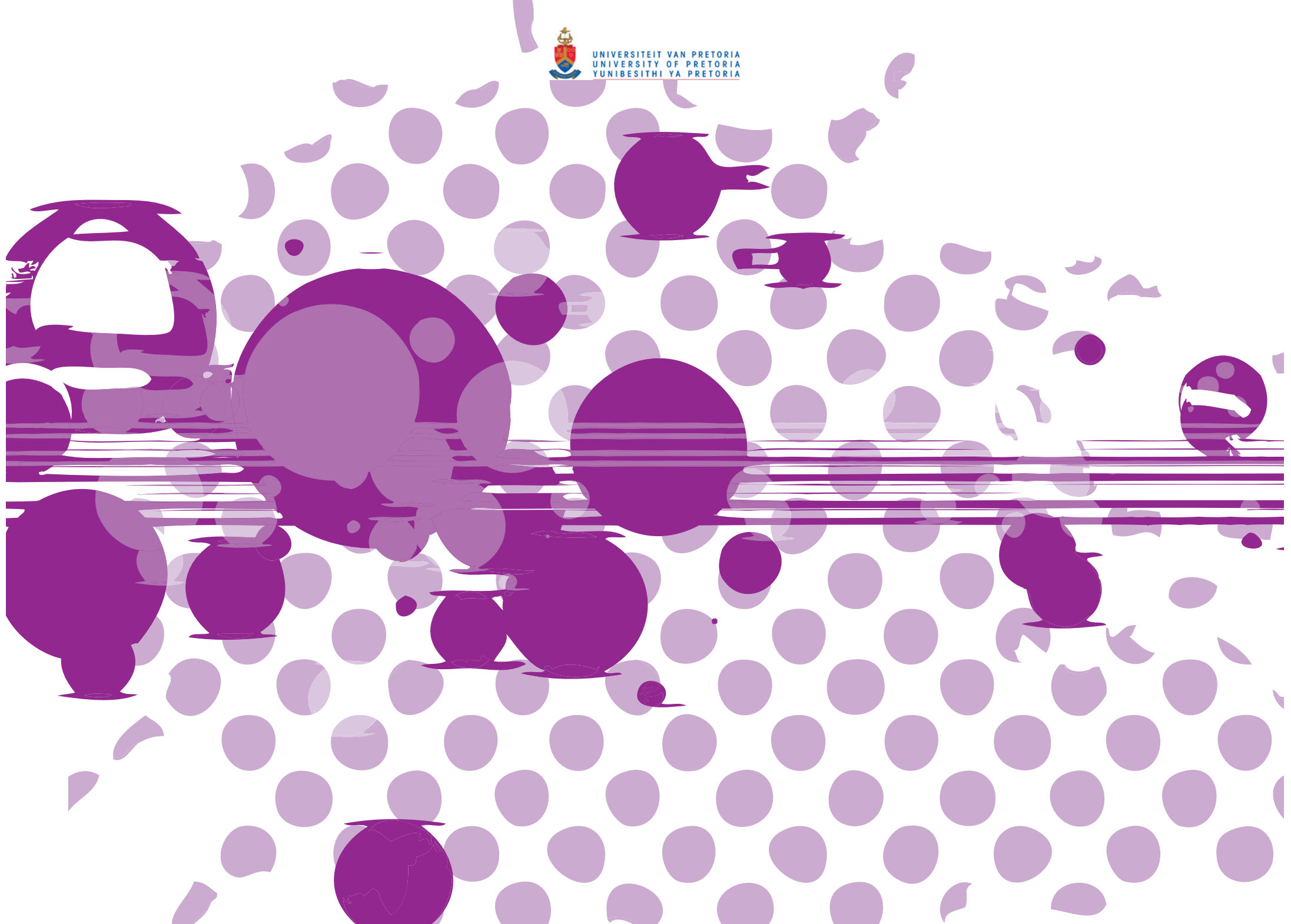


Interview with Dr Sven Ouzman, March 2008

Fig. 6



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part one

the discovery



## Program breakdown and layout requirements

	Description	Number	Size
1	Offices	18	8 - 15m2
2	Store rooms	3	50m2
3	Safe room	1	12m2
4	Analysing laboratories	1	60m2
5	Library, computer and copy room	1	75m2
6	Meeting/Class rooms	2	50m2
7	Tutor rooms	3	15m2
8	Personnel room	1	35m2
9	Personnel toilets (incl. disabled)	Male and Female	10m2
10	Toilets Students	Male and Female	15m2
11	Lift	1	15m2
12	Utilities room	1	32m2
13	Water tank room on surface	1	9m2
14	Small storerooms	2	3m2
15	Research room	1	40m2
16	Auditorium	1	75m2

Fig. 21

## Furniture Size

1	Desk	1	Small
		2	Large
2	Round table	1	Small
		2	Large
3	Shelves	1	Few
		2	Many
4	Cabinets	1	Small
		2	Large
5	Drawers	1	Small
		2	Large
6	Washing Basin	1	Single
		2	Double
7	Photocopier		
8	Desk Chairs		
9	Projector and screen		
10	Sanitary ware	1	Toilets
		2	Urinals
11	Elevated level		

Fig. 22



Fig. 24

Analysis and documentation of artefacts:  
Archaeology, The Comic

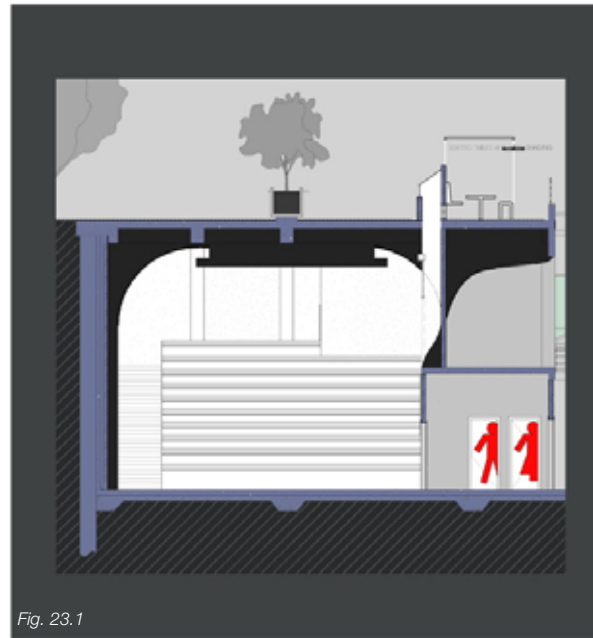
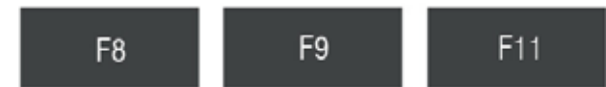


Fig. 23.1

## Auditorium



Notes Natural ventilation Sound system Acoustics

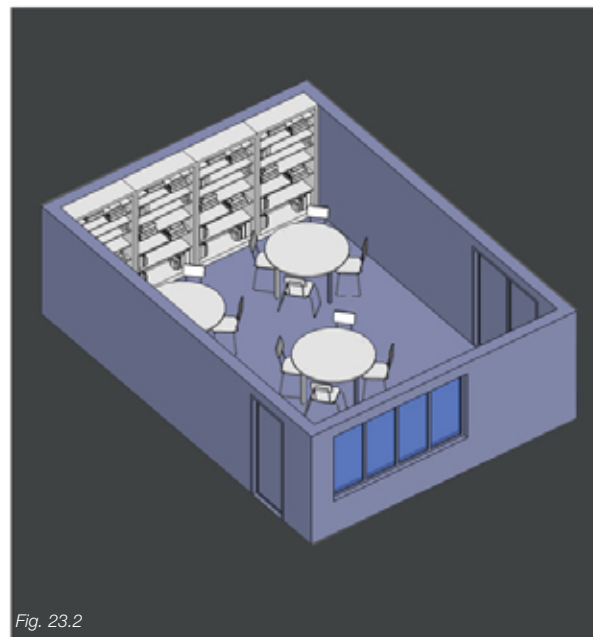


Fig. 23.2

## Research room



Notes Good lighting and ventilation Pin walls

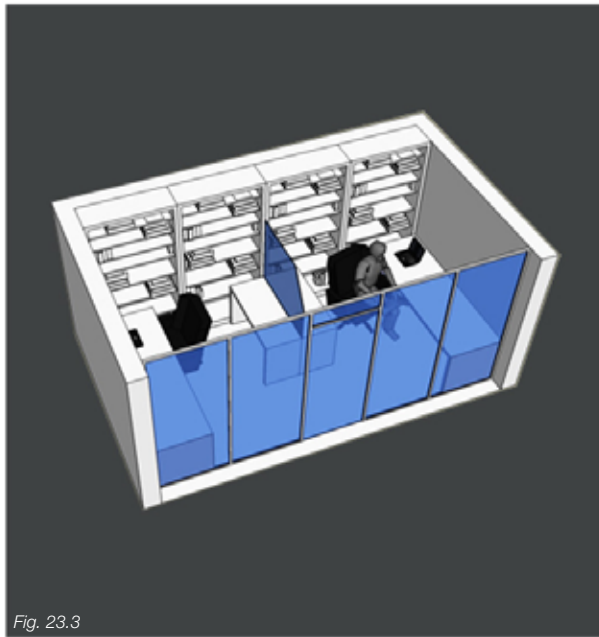


Fig. 23.3

## Department Offices



Notes Deflect Direct Sunlight Good ambient light  
Ventilation system

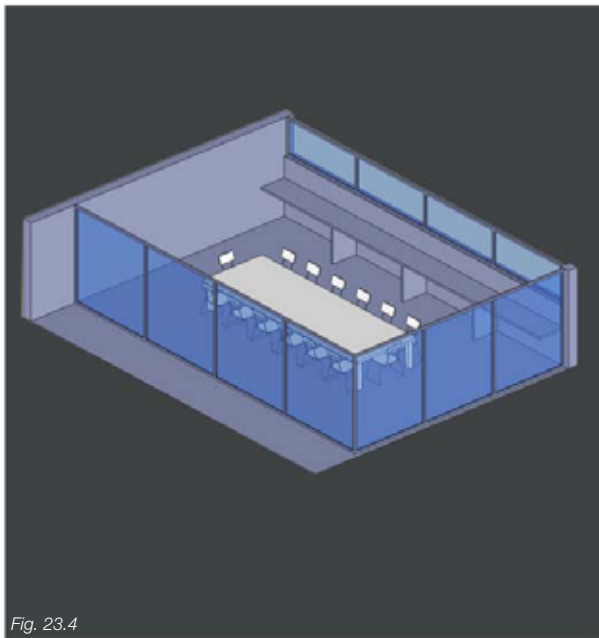
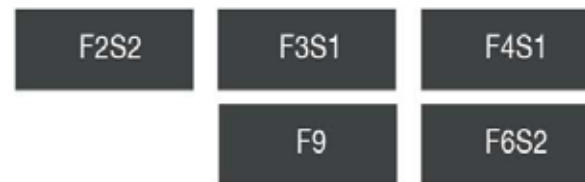
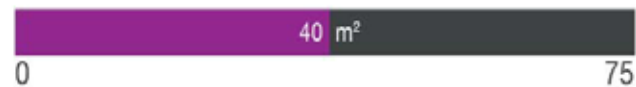


Fig. 23.4

## Staff room



Notes Good lighting and ventilation  
Sound Privacy

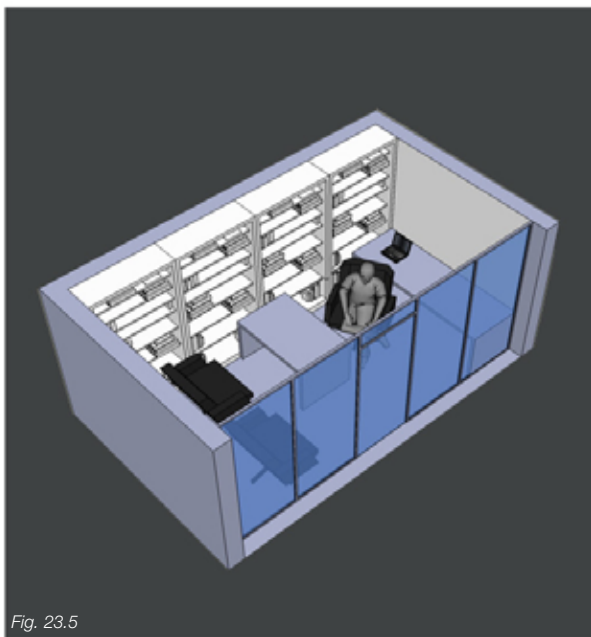


Fig. 23.5

## Department Offices



Notes Deflect Direct Sunlight Good ambient light  
Ventilation system

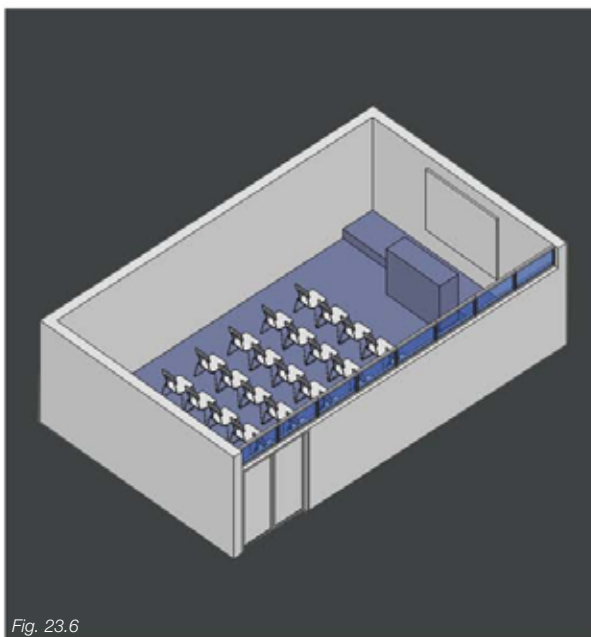


Fig. 23.6

## Class rooms



Notes Pin Walls Good lighting and ventilation  
Privacy

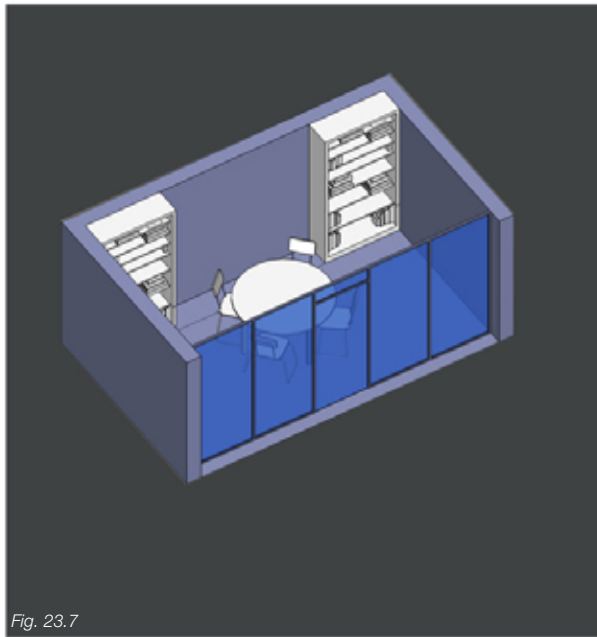


Fig. 23.7

## Tutor room



F2S2 F3S1 F4S1

Notes Good lighting and natural ventilation

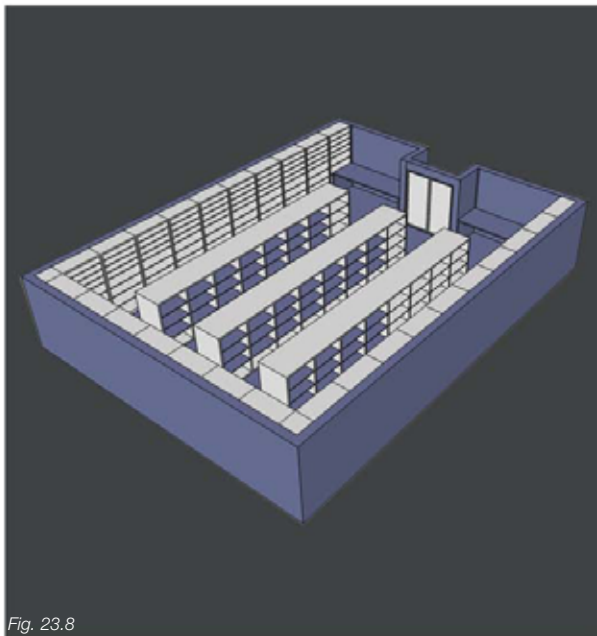


Fig. 23.8

## Artefact Stores



F1S1 F3S2 F4S2  
F5S2

Notes Climate control Security Light control

The Library and Laboratory should be linked with transitional inter-space in between, distinguishing between the sterile laboratory environment and comfortable research environment. This link could create a complete learning process from analysis to research, documenting and publishing findings. The laboratory is where artefacts and soil are cleaned and sorted, forming part of the primary analysis of the objects which are then drawn and photographed, taken to the discussion room and library where it is compared to other samples from literature to determine its origins and meaning, here at the library it will also then be documented on the computers.

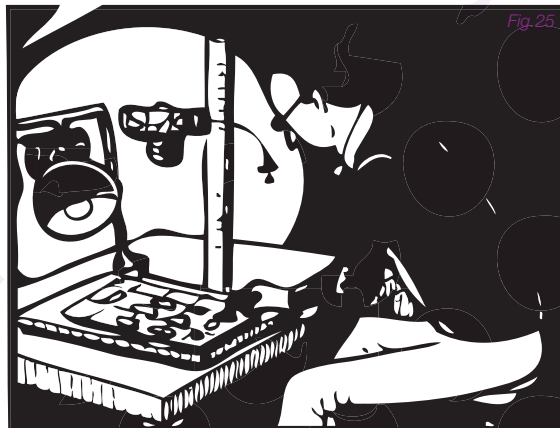


Fig.25

Photographic documentation in Library:  
Archaeology, The Comic



Fig.26

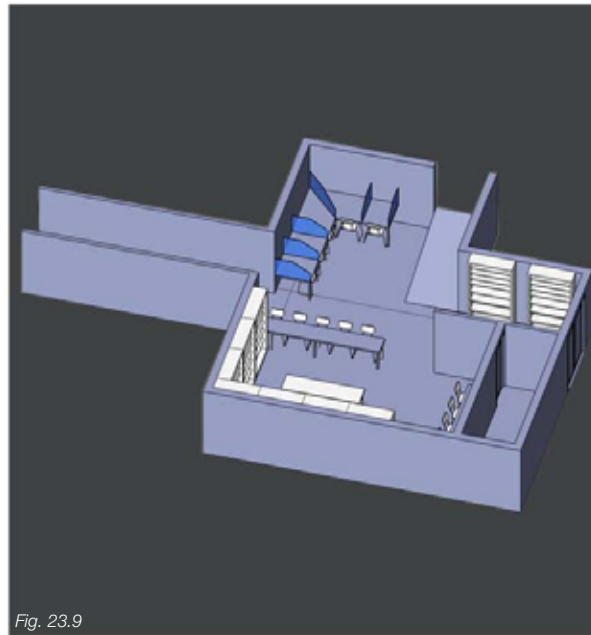


Fig. 23.9

## Library



Notes Calm and quiet  
Security

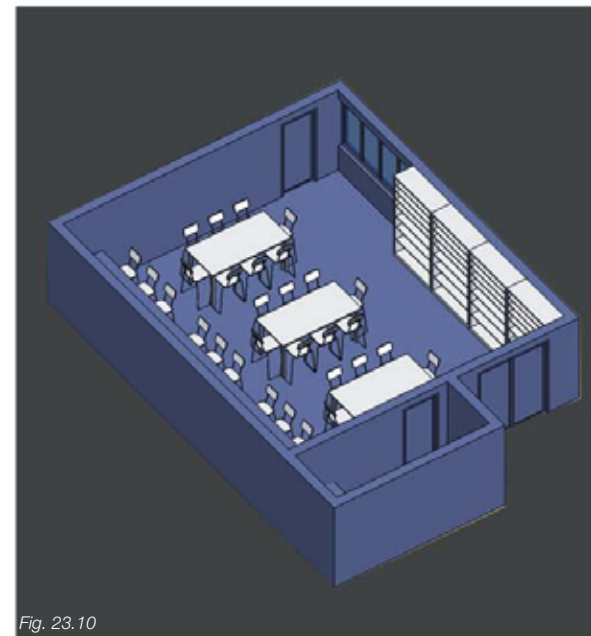
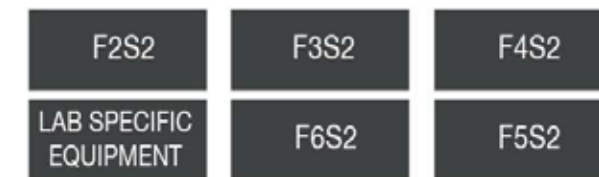


Fig. 23.10

## Laboratory



Notes Good lighting and mechanised ventilation  
Privacy

Fig.19





# Defining the Client

The main client and partial sponsor of the project is the University of Pretoria. The University is also providing the site on which the new project can be built.

- As a prominent research institution, the university is in an internationally acknowledged league of tertiary facilities.
- ***“In its centenary year, the University celebrates its achievements over a hundred years. At the same time, it reflects not only on its past and its current position, but also on its future. This is the time when we, as the centenary generation, must commit towards vigorously pursuing – with passion, resolve and determination – the vision of a truly world-class South African university.”***

Prof Calie Pistorius  
Vice-Chancellor and Principal

The secondary client and user is the Department of Archaeology and Anthropology (within the Faculty of Humanities) in conjunction with Cultural Affairs of the University and the Mapungubwe Museum which is housed in the historic Old Arts building.

*The Mapungubwe museum:*

*The museum serves as a custodian of original artefacts from Mapungubwe and K2 where they are not only exhibited, but carefully managed, researched and conserved. The museum serves as a central point for all information on Mapungubwe. This treasured archaeological museum is a gentle reminder of the tremendous contribution of the University of Pretoria’s role in protecting our heritage. Mapungubwe – it is not only our dream, it is our future. ([www.up.ac.za](http://www.up.ac.za))*

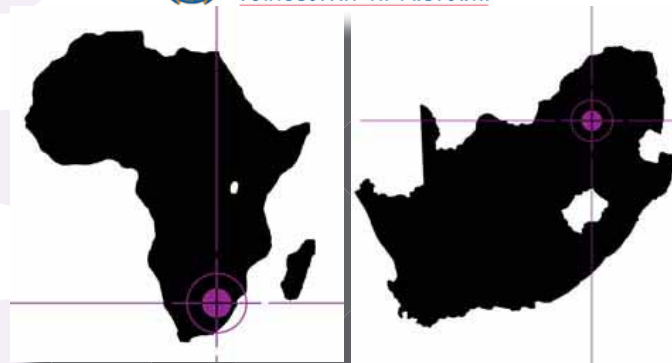
Potential sponsors of this educational and heritage project include Anglo American, Murray and Roberts, Sasol, National Lottery Distribution Trust Fund (NLDTF) and the National Heritage Foundation (NHF).

Together with the department, the current and future students and staff that will be using the departmental facility is also viewed as important as clients. Also included are the users and visitors to the University and the Mapungubwe Museum: local and foreign. Participants in short courses and research modules will form part of the client base as well.



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# Location of the University of Pretoria



Continent: AFRICA  
Hemisphere: SOUTH  
Sea level: 1369m

Fig. 7



Fig. 8



## Defining the Brief

South Africa is a rich landscape of both human origins and of future possibilities. Archaeologists divide this vast history into chronological but sometimes overlapping phases such as the Stone Age, Iron Age, Rock Art, Historical Period, Graffiti and so forth. The ability for us to more creatively understand this history and its interconnections is via similarly creative teaching and training. Such training also impacts directly on graduates' ability to find work in academic archaeology, Cultural Resource Management, Museums, Government and the Heritage sectors.

The key components of such a brief is that the project:

- *Be located on UP property.*
- *Resemble real archaeological landscape.*
- *Include needed facilities.*
- *Program must mirror student and staff activities and movement.*
- *Be incorporated with a museum or exhibition program.<sup>2</sup>*

The museum be able to accommodate groups of up to 60 visitors. Include extensive storage facilities to house the tens of thousands strong archived artefacts. Be easily accessible to UP students and staff as well as visitors.

The museum will be used for educational, tourism, training, academic and research purposes. It will house and conserve original archaeological material of national significance such as gold objects and fragments, copper, iron, ivory. Also tools and decorations made of bone, glass beads, various indigenous beads (such

as ostrich eggshell and land snail shell), Chinese celadon and ceramic ware. (www.up.ac.za)

300 000 people visit the main campus of the University each year to see concerts, academic functions and exhibitions involving its vast collection of art and artefacts.(www.up.ac.za). It is essential to propose a framework designed for the hosting of these visitors – this includes parking, legibility of movement and restaurants.

*In conclusion, the brief calls for a building that will satisfy the need for expansion of current facilities of the Archaeological and Anthropological Department of the University of Pretoria into new functional and efficient facilities. The brief requires a position on campus within the historic precinct as to link up with the current exhibition collections at the museums in the Old Arts Building and the Old Merensky Library building. The new building will conceptually become an intervention inflicted on the historic Old Arts and Old Merensky buildings. Through this methodology the project must express a new identity for the department as well as a new logical social environment.*

2 - Interview and letter with Dr Sven Ouzman, 20 February 2008

## The real world problem

The Department is currently a very isolated body positioned high up in the Humanities building on the 18th floor. It is totally isolated from its lecture halls, stores, archives and exhibition spaces which the staff and students need to be in close proximity of due to the nature of the practicality of the courses and also the sensitive nature of the artefacts. The 'high rise' environment is uninspiring and does not convey the function of these interesting fields. The Department has desperate needs in terms of facilities, work spaces and especially storage.

The envisioned site on main campus, which is a very important visitor precinct, lacks a planned and designed framework that connects the different functions to necessary amenities.

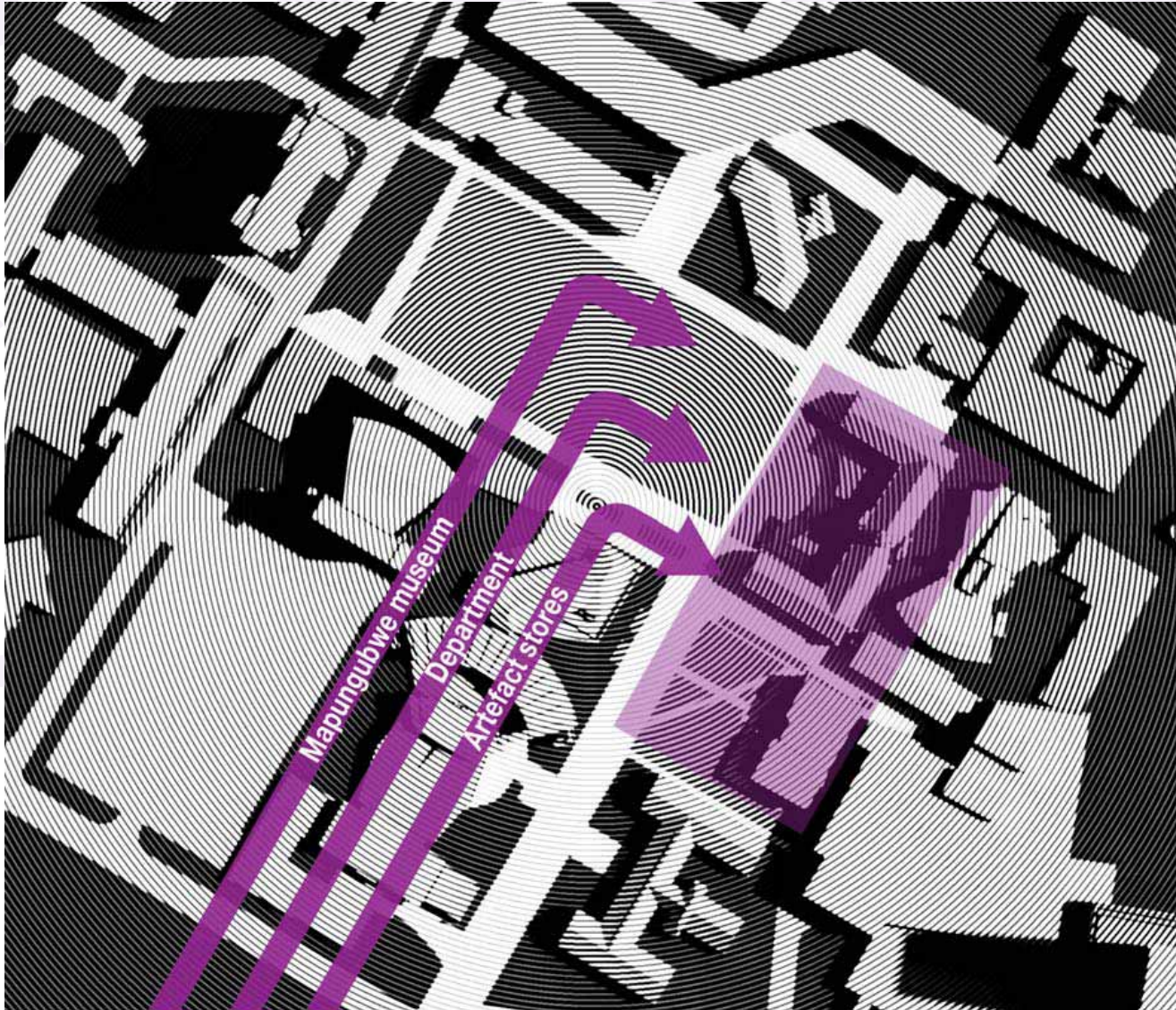


Fig. 9



Fig. 10

# The objective

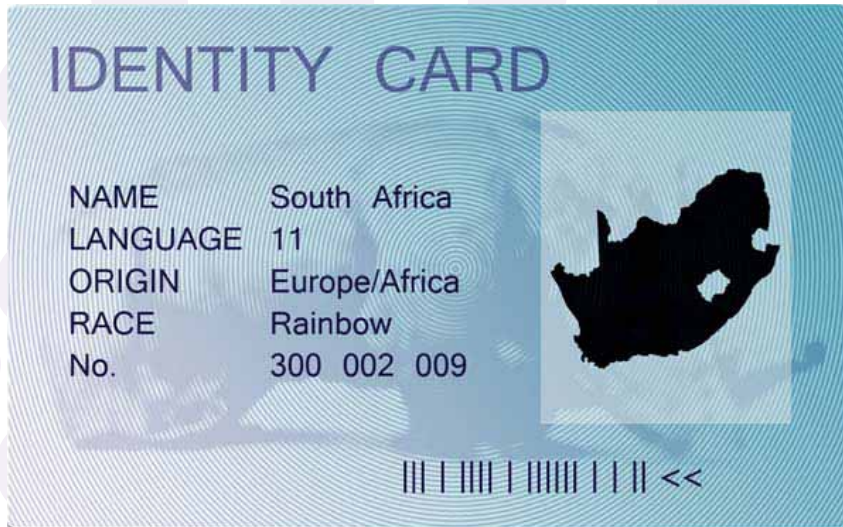


Fig. 11

The ultimate target of the project will be to create a new identity or symbol for South African culture and its future in our country. The structure will become a functional building that is incorporated into the existing historical precinct. Placed in this context it will reawaken interest in history and the passion of investigation and study thereof. The objective is to educate scholars, students and the visiting public on fields of heritage, precious artefacts and willingness to discover and learn especially whilst it supports Southern African history and identity.

A second goal will be to conserve existing buildings and to respectfully link these facilities into the public precinct using solutions for movement, parking, accessibility and amenities. The greater plan being: to generate an experience that will create memories and also admiration for higher education and research.

## Background - Archaeology and Anthropology

Archaeology is the study and excavation of the past - human and nonhuman. Anthropologists learn from these excavations and acknowledge historical mistakes and actions. Subsequently it is applied to modern and future life. Together these fields go hand-in-hand to try and complete the human picture. Designing a new precinct for their use must reflect a future that will become a "created" history. In this vision of the future all must be challenged: the way instruction and education are viewed and delivered.



Fig. 12



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panfuu people

roode

loyalty

WAPUN

# Place of Stone Wisdom

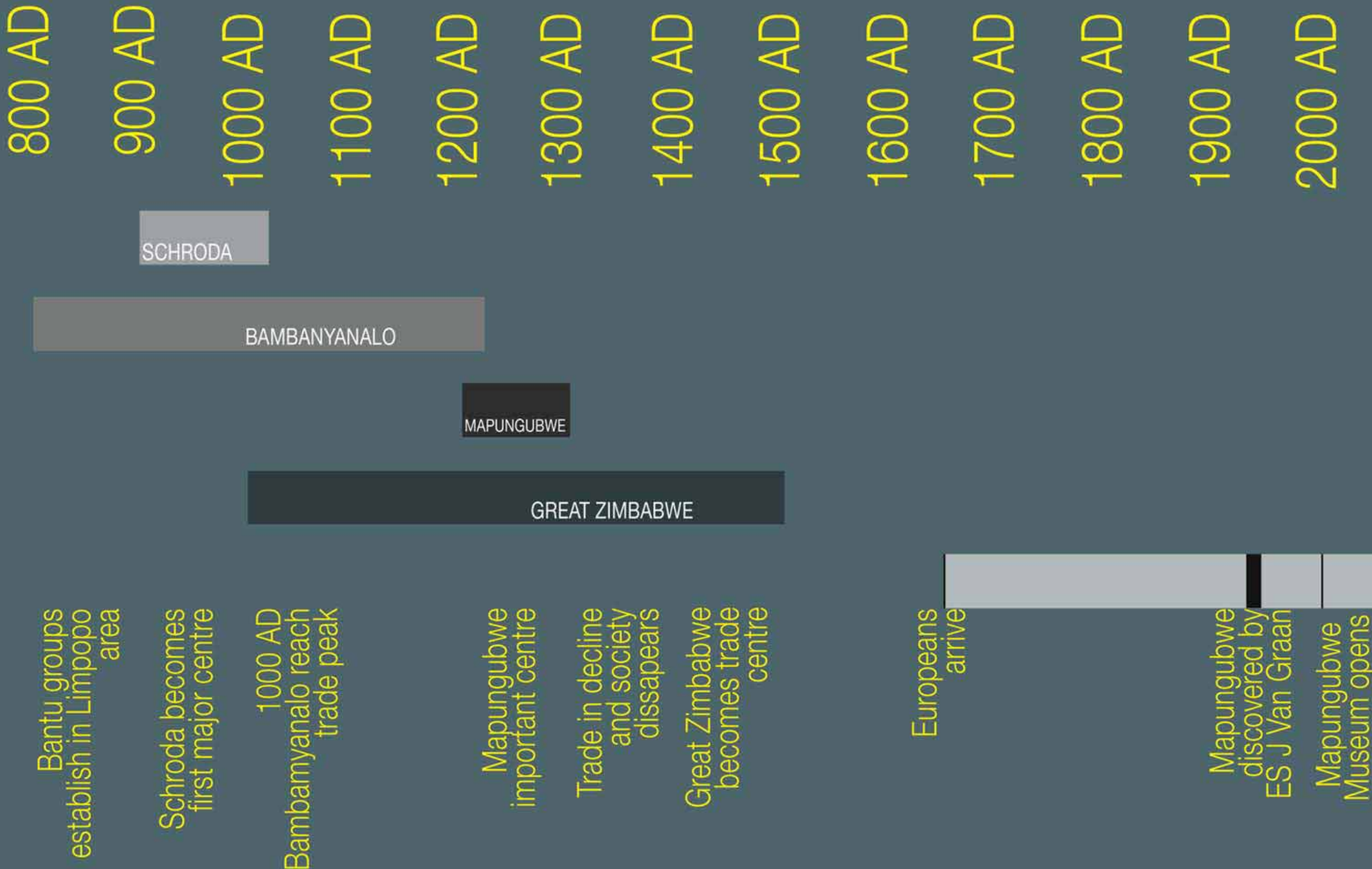
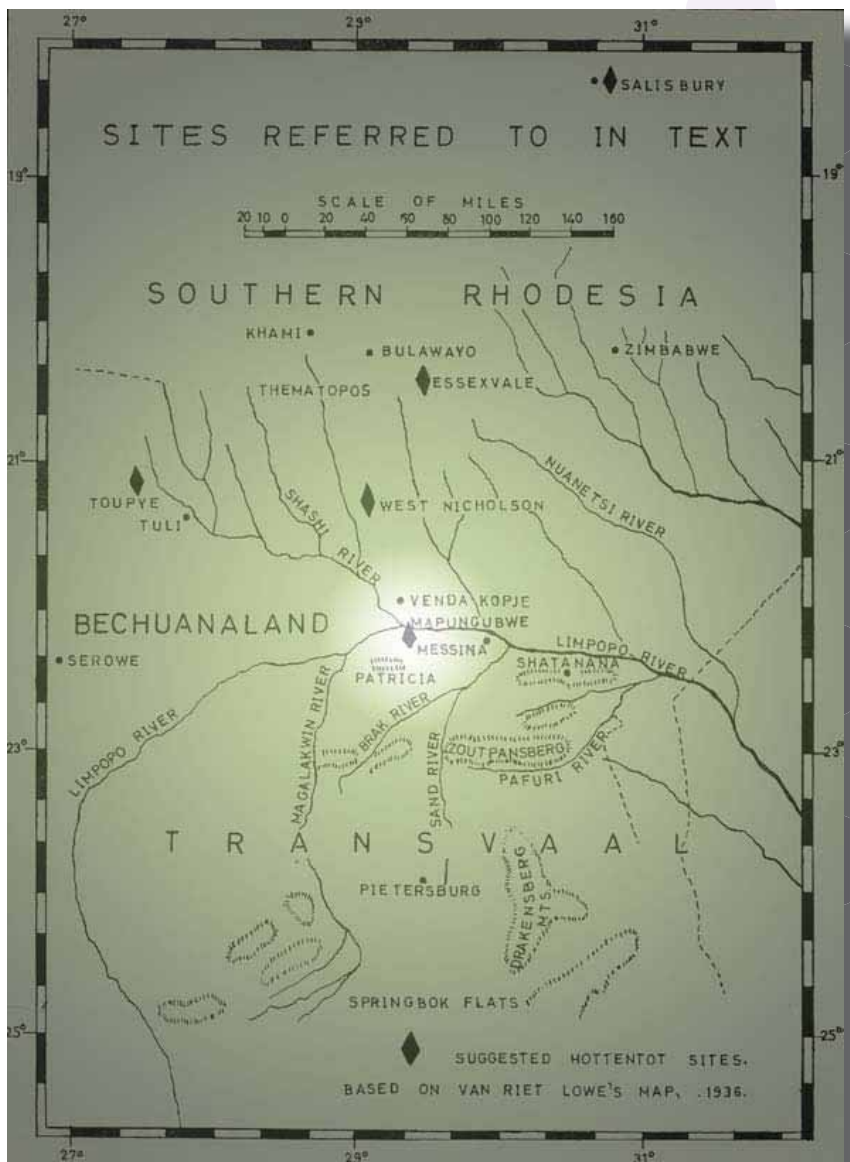


Fig.14 Timeline of Limpopo and Zimbabwe Civilization

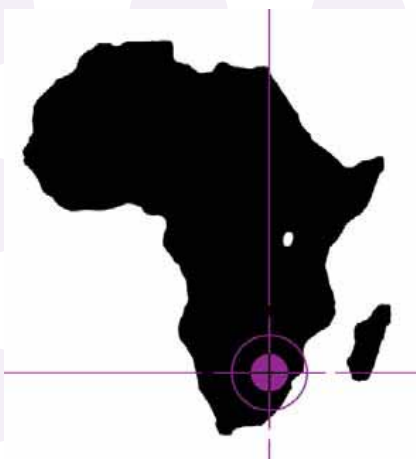


# What and where is Mapungubwe?

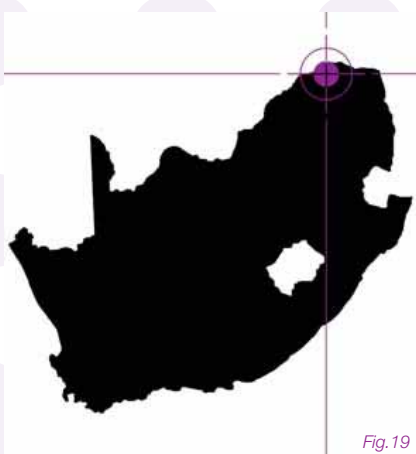


Original handdrawn map, 1936

Fig.18



African continent



Limpopo river

Fig.19



Fig.15

Artefacts found at Limpopo, Mapungubwe site



Fig.16

Local labourer at Mapungubwe site



Fig.17

Image of excavation pit on Mapungubwe Hill



This image shows most of the rectangular space in which the Mapungubwe Museum is found. The museum has good lighting, but hierarchy and importance is unclear. Ceiling material is distracting.

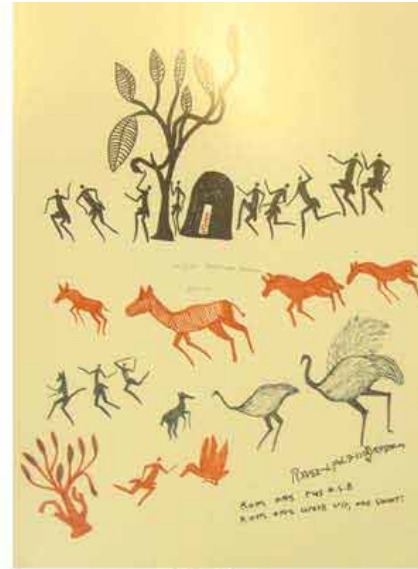


Objects are displayed like jewels in an expensive store. This looks very good, except it seems detached from the rest of the collection. The vessel above is exposed and suspiciously reproduced.

## Mapungubwe Museum



Unattractive holes of missing displays are being restored or studied, but the signage and information boards are unclear and blurry.



Haman factor has not been taken into account when this space was organised. People do not visit this side of museum because it looks boring and uninteresting.

## Stone Age Museum



Uninspiring space - the collection of stone tools and photographs is confusing and pointless. The room is colourless and uncomfortable.





part three

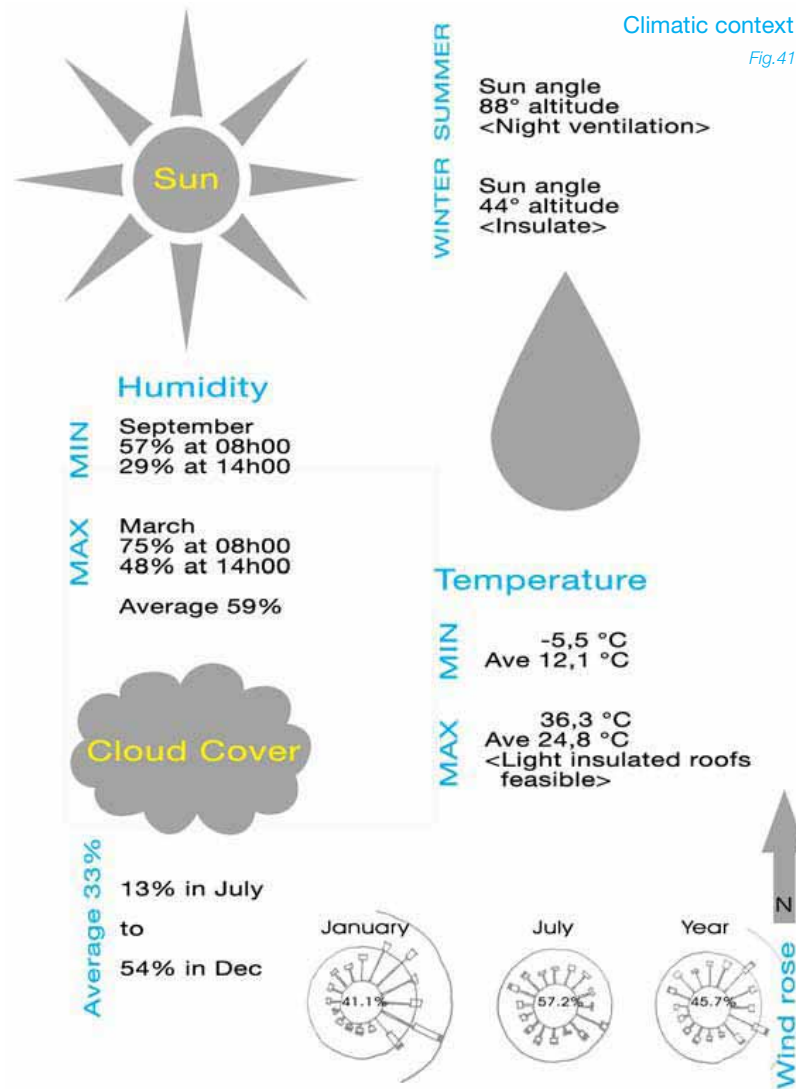
site excavation



# The Differential Model

A differential model, proposed by James J. Gibson, between components of the environment includes these headings: (Lang 1987, 78)

Terrestrial  
Animate  
Cultural



# The Terrestrial Environment

## Buildings in close proximity

Within the historical precinct of campus many historically important buildings are found from different periods of the University's timeline, in the area where the TUC was first started.

This originally limited area is now rich with sensitive structures and proud facades, from many famous architects and styles that stretch from the Neo-Romanesque to Modern designs. These buildings are true jewels of our heritage and of the university's beauty and it is truly the University's treasure.

## 1. Old Arts

Date of Construction: August 1911  
Architect: Percy Eagle  
Style: Cape Dutch and Neo-Romanesque

## 2. Old Merensky

Date of Construction: 15 April 1939  
Architect: Gerhard Moerdyk  
Style: Art Deco, Neo-Classicism, Arts and Crafts, as well as local styles such as Cape Dutch and Regency.

## 3. Club Hall

Date of Construction: 1930 -1936  
Architect: Gerhard Moerdyk  
Style: Neo-Romanesque

## 4. Aula

Date of Construction: 1968  
Architect: Karol Jooste, under Philip Nel

## 5 Marketing services

Date of Construction: 1960  
Bathroom Building.

## 6. Chancellors Building

Date of Construction: 1959 - 1963  
Architects: Meiring Naude and Brian Sandrock

## 7. Theology

Date of Construction: 1951  
Architects: Burg, Lodge and Burg  
Style: Academic Revivalism

## 8. Musion and Amfi-Theatre

Date of Construction: 1960 - 1961  
Architects: Brian Sandrock  
Style: Little Brazilian or Modern Brazilian

## 9. New Meresky Library

Date of Construction: August 1975,  
Architects: Lou, Marais, Marquard and Kuhn

# Physical Context



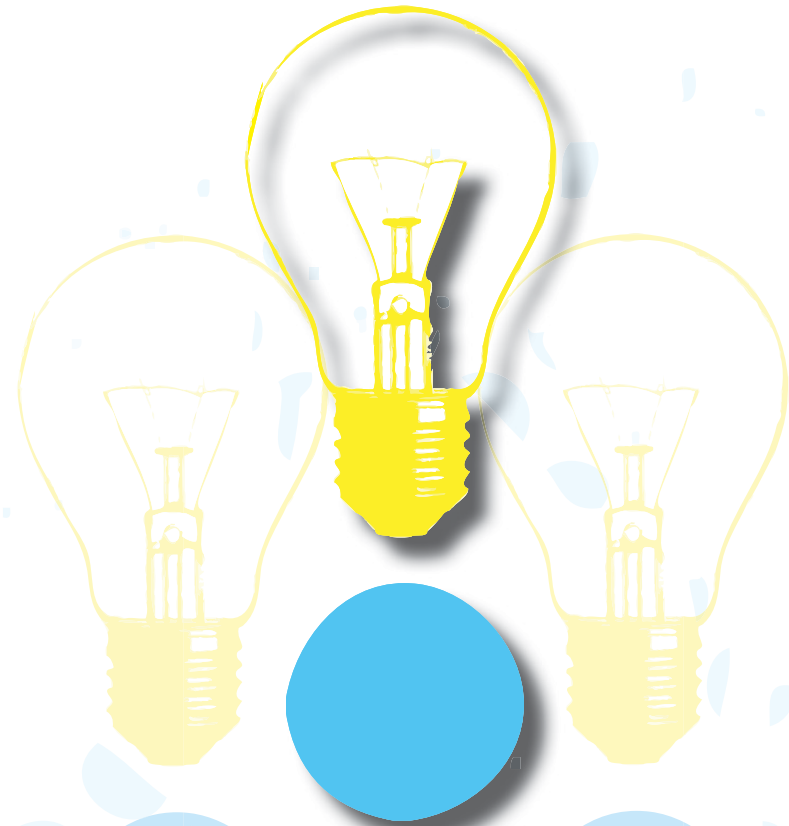


## Cognitive Maps

Urban development is a very large confusing, sometimes monotonous place that is difficult to understand. Subconsciously humans generate a survival mechanism that simplifies the labyrinth of modern society: Cognitive mapping is a mental process where people acquire, code, store, remember and decode information about location and characteristic of the urban environment through which they move. (Lang 1987, 135) Information about a place is remembered either by experience, hearing from someone else or through imagination. This information becomes a guide for structure, appearance, location, uses and values. Thus observing and the understanding of your observation creates a multi-dimensional picture of your surroundings.

### Form

During the 100 year existence of the University, its campus evolved and progressed slowly and is still an ever changing landscape of gardens (edges), squares (nodes), buildings (points), path ways, districts and landmarks (buildings).



# Campus vs Building



## Paths

Student messaging boards in Libri laan



Bridge connecting engineering buildings

## Districts

View of Aula lawn from Mapungubwe Museum entrance



Security desk at Old Arts Building

## Landmarks

Spiral staircase at Marketing building



Main staircase in Musion

## Edges

Southern stone edge of Old Arts building



Arched veranda on upper floor in Old Arts

## Nodes

Outside veranda at Burgundy's restaurant



Information desk at Old Arts



Fig.43



# Sense of place

Character – Sense of place and history  
(CABE 2003)

1. Aula auditorium
2. Conical sky light - University road entrance
3. Cantelever staircase at Chancellor's building
4. Clock tower on Old Arts building
5. Eduardo Villa sculpture
6. Old Merensky facade
7. Graffiti wall on Old Chemistry building
8. Eduardo Villa plaster relief sculptures
9. Tukkie werf bell tower
10. Musion fountatin

# Distinctive buildings and surrounds



# Special spaces



Fig.45

# Natural Features



Fig.46



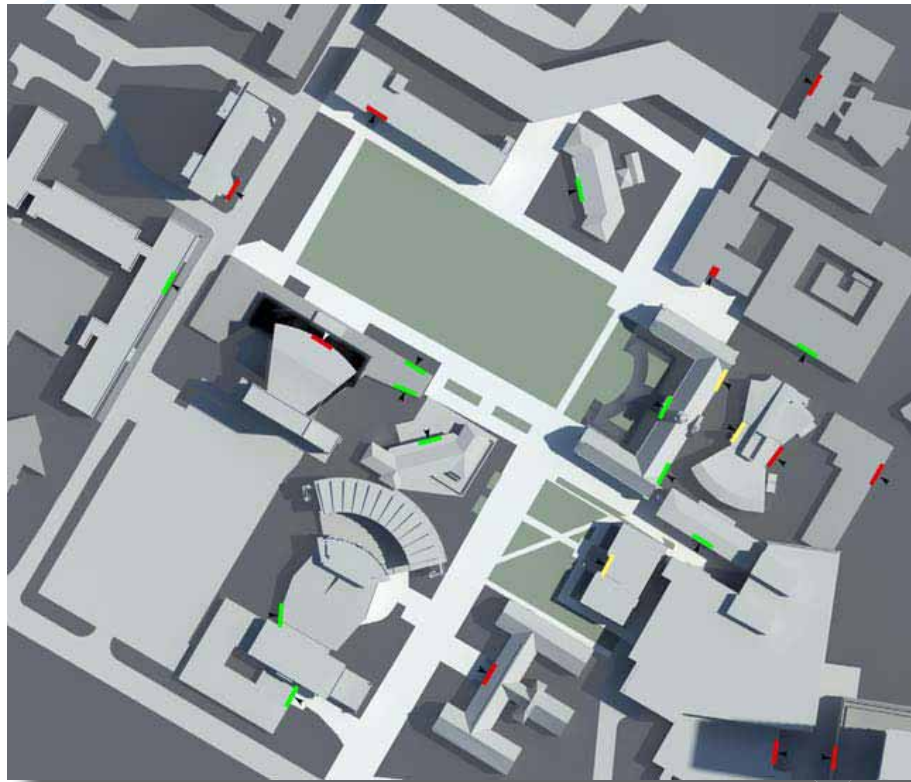
# Topography and Services Contexts

## Water table

Most of the buildings on the campus with basement floors have systems to combat the problems posed by the high water table. In summer months when regular rains increase the height of the water table, buildings like the Old and New Merensky Libraries and the Human Sciences Tower need pumps to remove water from their basements.<sup>3</sup> The water filters through basement and foundation walls throughout the day. Old buildings like the Old Merensky have inadequate waterproofing technology which did not exist 70 years ago, therefore they try to combat severe water damage every summer season. Water collection and water pressure against subsurface structures are serious concerns which need to be addressed.

3 - Interview with Gerhard de Kamper, Eduardo Villa Museum Curator





Points of entry

Fig.48

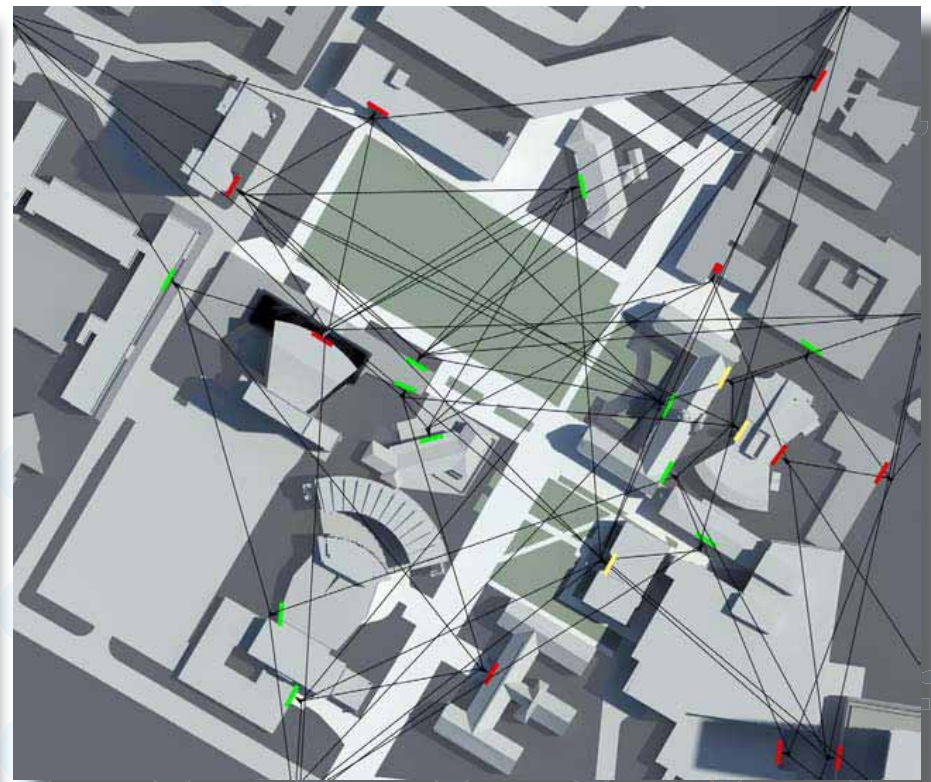


Fig.49

Destination web

Main  
Pedestrian  
Movement

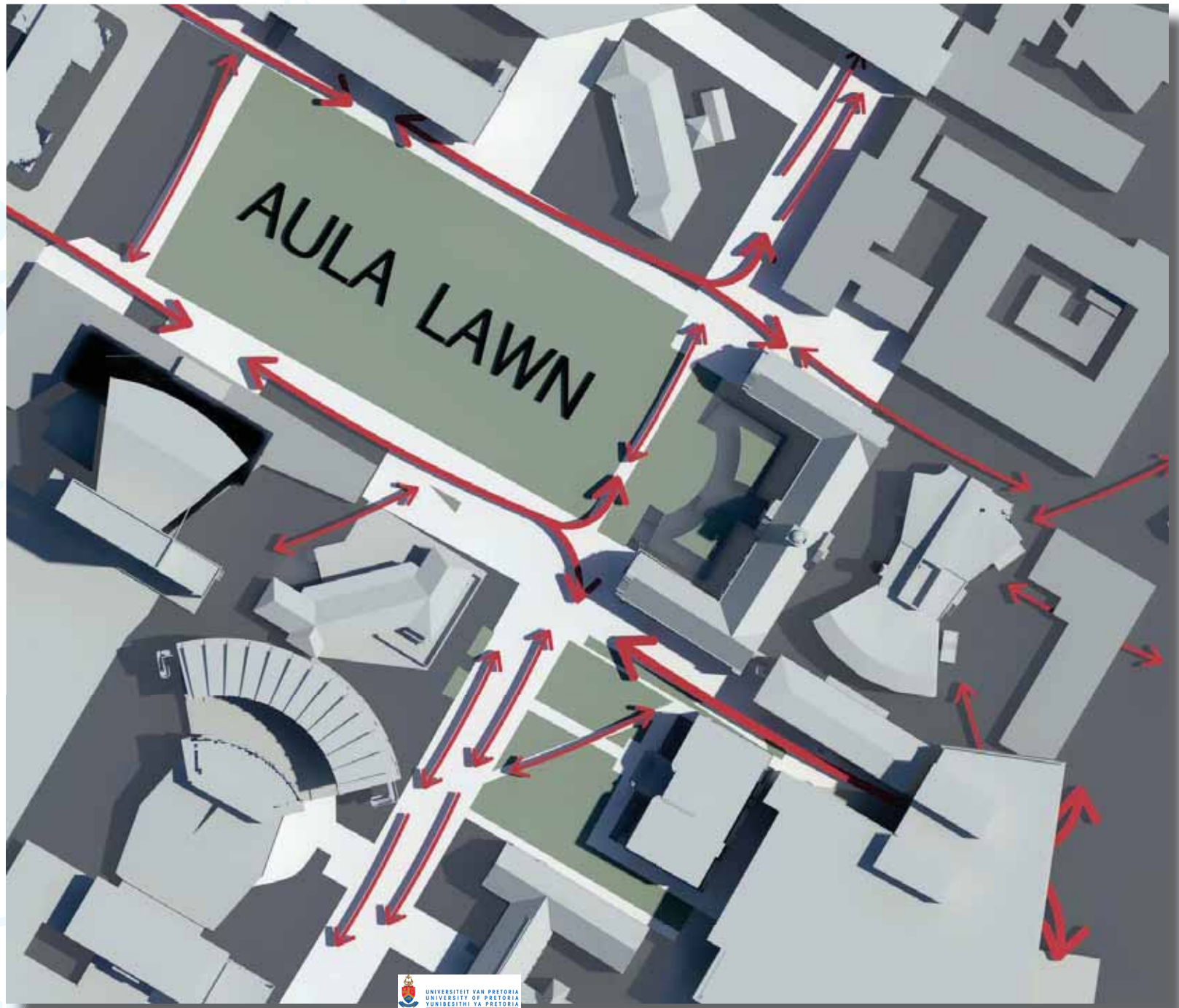
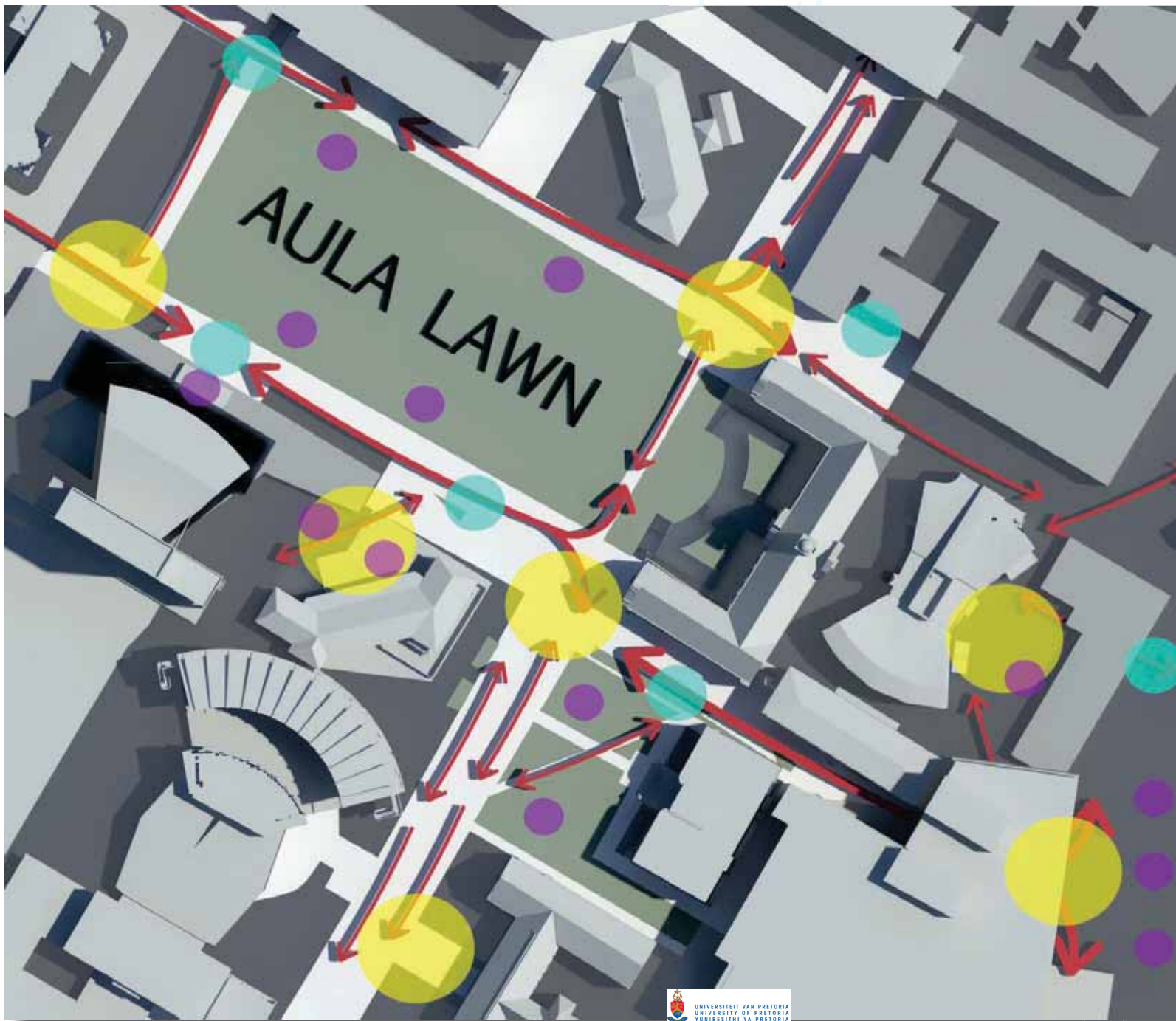


Fig.50

# Student Behaviour Diagram



- Meeting & waiting hubs
- Fast walking
- Conversation & meeting
- Relaxing & studying

# Building Functions

- Restaurant & shops ■
- Administration ■
- Entertainment ■
- Museums ■
- Academic ■

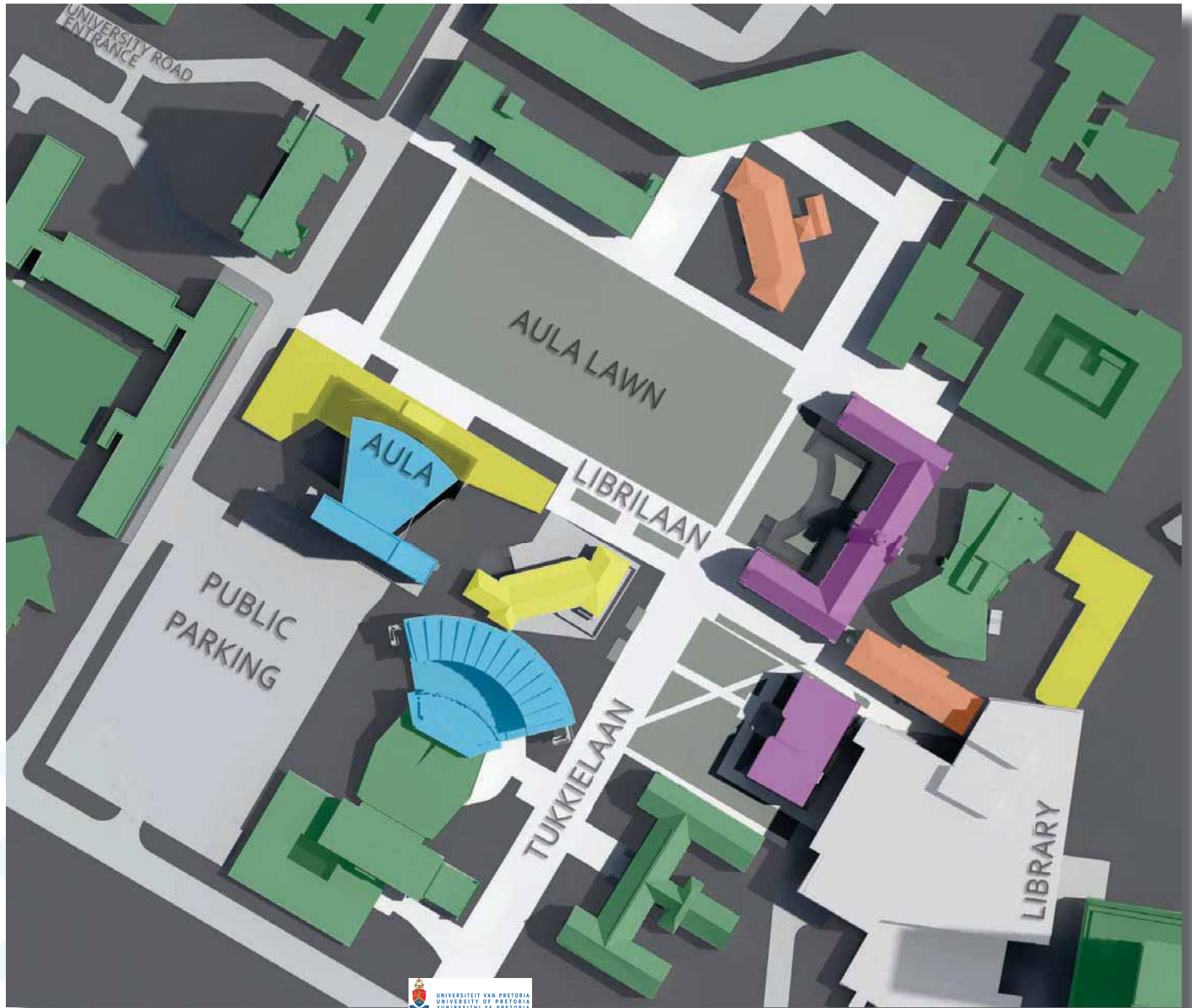


Fig.52

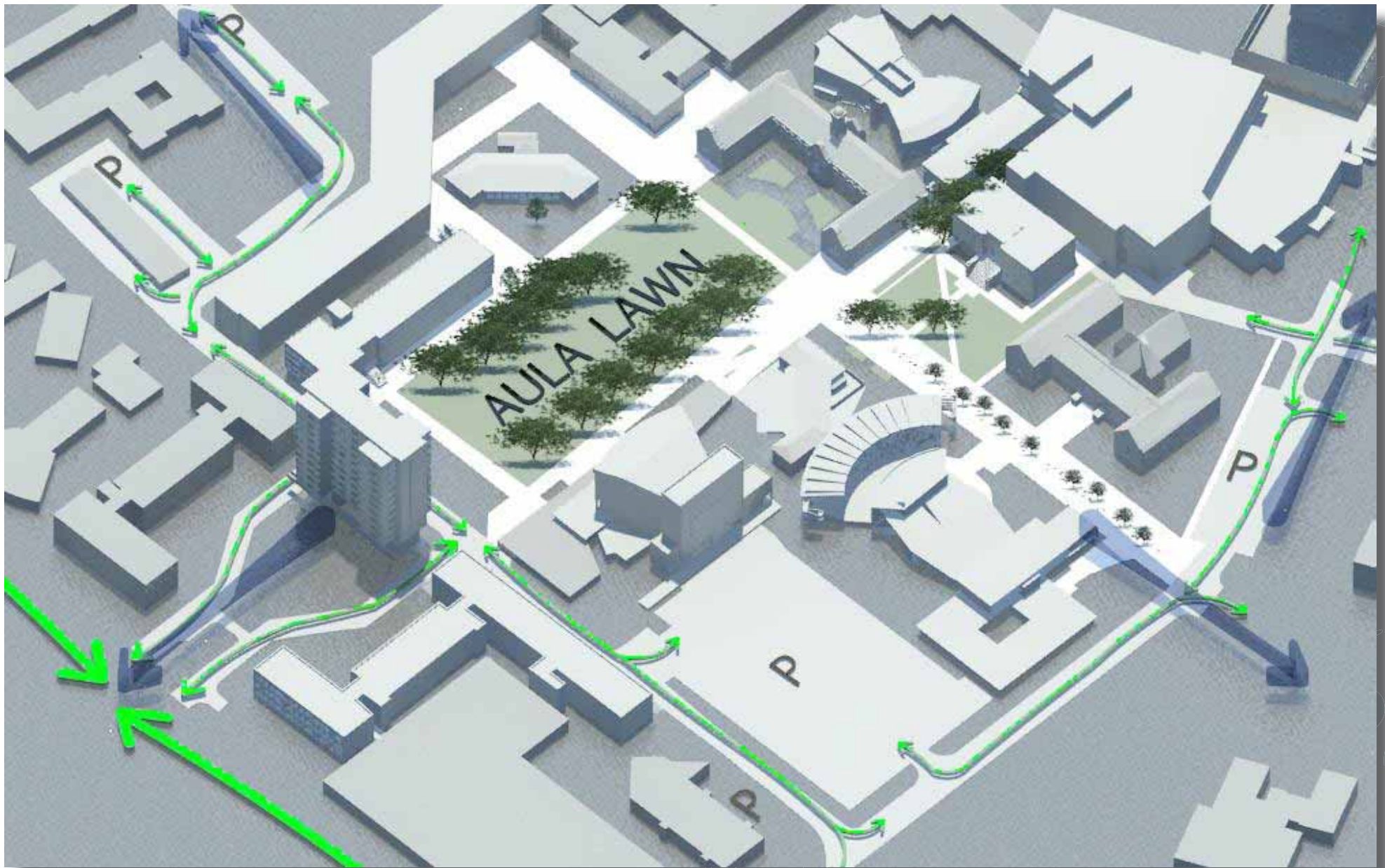


Fig.53

A very long time ago, in 1908 the Transvaal University College was opened in the centre of Pretoria in a delicate little house called the Kya Rosa. In 1910 this Tertiary institution moved to a larger site on the eastern limits of the city and there began the evolution of a first class university located far far away in a picturesque country on the foot of Africa. The purpose was to rival European institutions like the world renowned Oxford University in England.



ARCHIVE  
KYA ROSA 1908



Prof. M. C. Botha, Rektor van die Universiteit, Pretoria, afgeneem nadat hy verlede Saterdag een van die hoekstene van die gebou vier chemie gelê het. Sitende, van links na regs: Mr. J. Broystonbach, registrateur van U.P.; prof. S. P. Engelbrecht, dr. H. J. van der Bijl en mr. G. Moerdyk, die argitek.

On this new site, the construction of the first building on the new campus began in 1910 and it was to be the Chemistry Building.



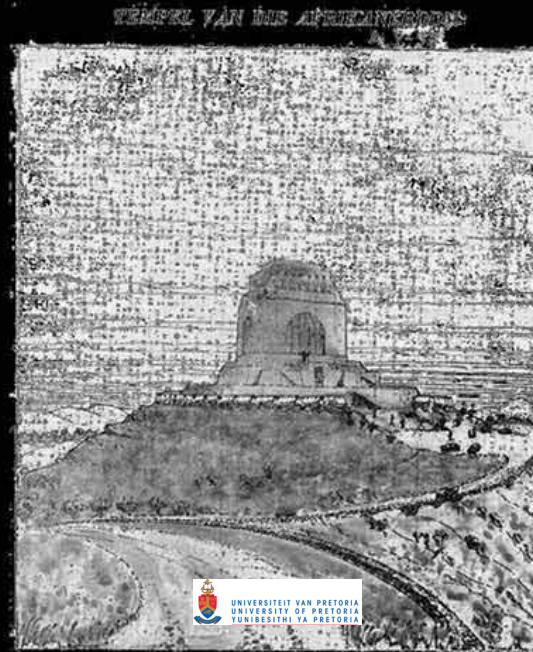
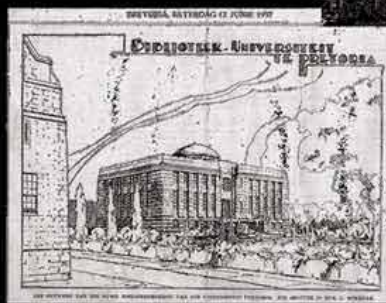
ARCHIVE  
OLD ARTS BUILDING 1911

During construction, a second building project was started, the Arts Building. This building would be much more stately and important structure and would become the landmark of the institution under its own independent people and to the defiance of the European pessimists. It was completed before the Chemistry Building was finished and became the first functioning edifice of the newly formed TUC.

During this prosperous time many buildings were built around the Old Arts including the Mernsky Library which was designed by Afrikaner architectural icon Gerhard Moerdyk. The building was a beautiful addition to the campus (with its surprising African motifs) and had strong ties with Afrikaner traditions due to the direct link to the Voortrekker Monument.



G. Moerdyk.

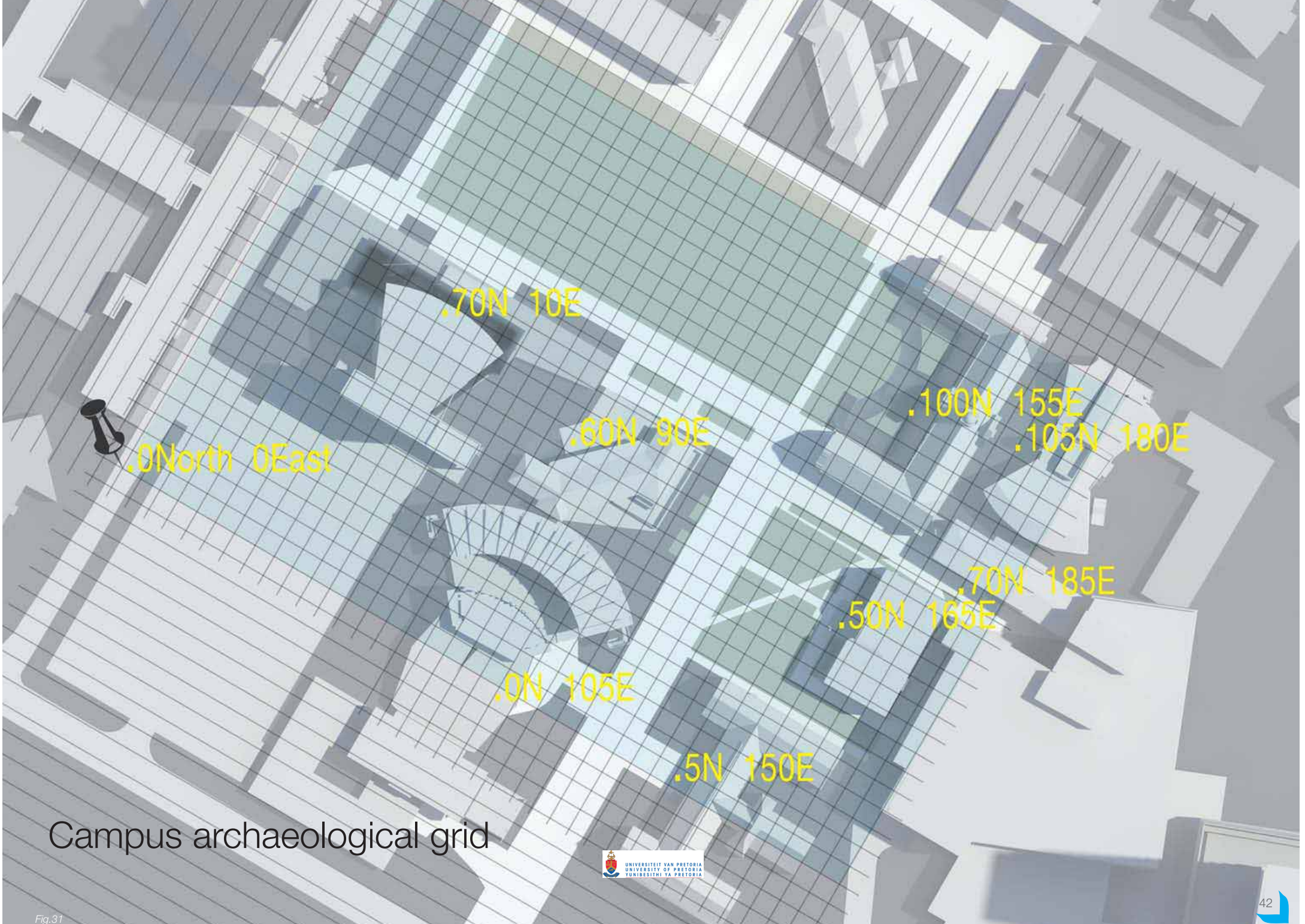


UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA

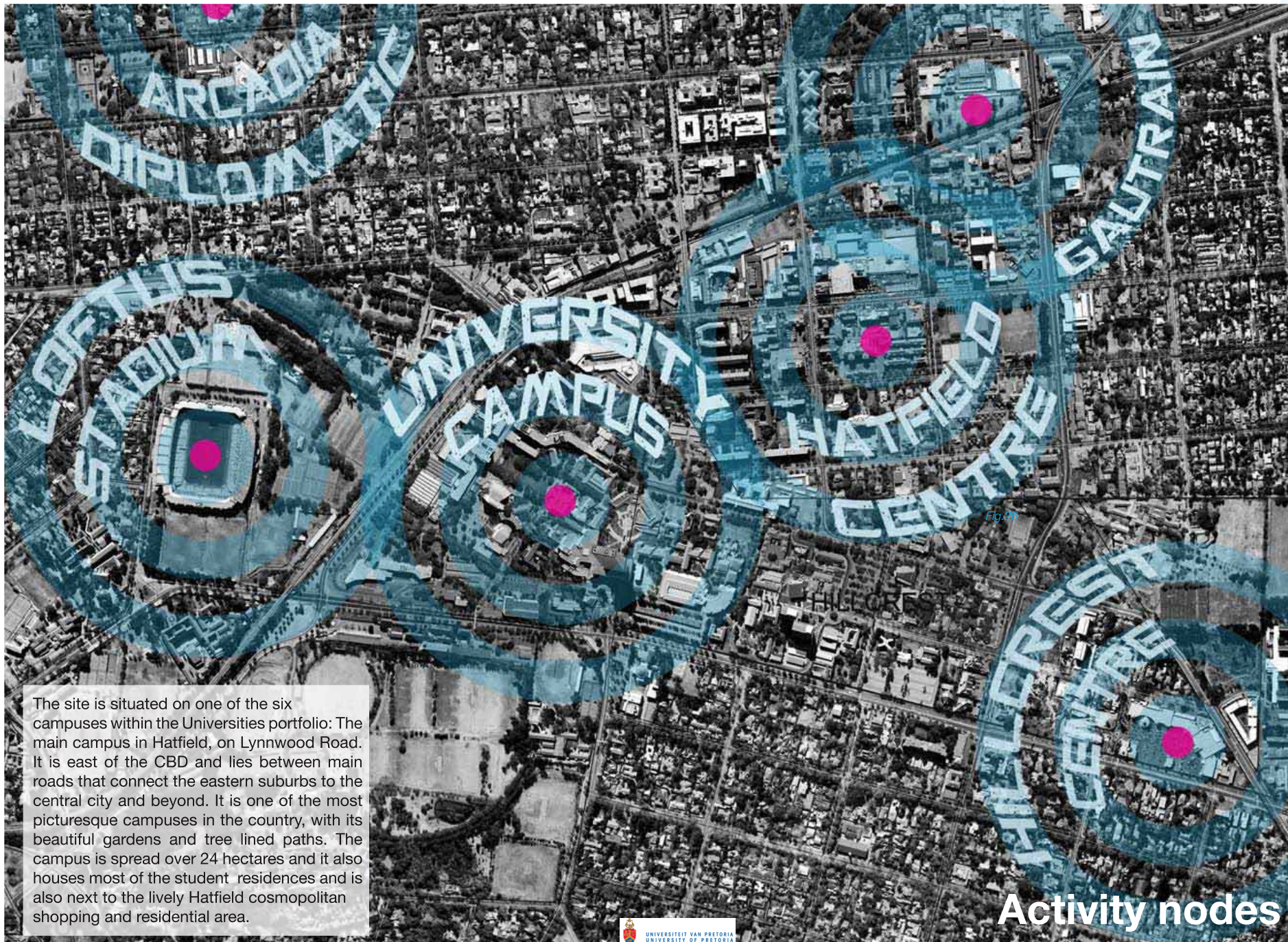


ARCHIVE  
MAINCAMPUS 1960

Many years past and the far far away picturesque African country evolved into an economic and political giant. Now these buildings have found themselves almost a hundred years older and in an alien world. Very little remains of the generation of people who commissioned, designed and constructed them and sadly today's people do not fully understand their existence. Being stone monuments to a forgotten ideal it has become the perfect time for us to explore and to excavate!



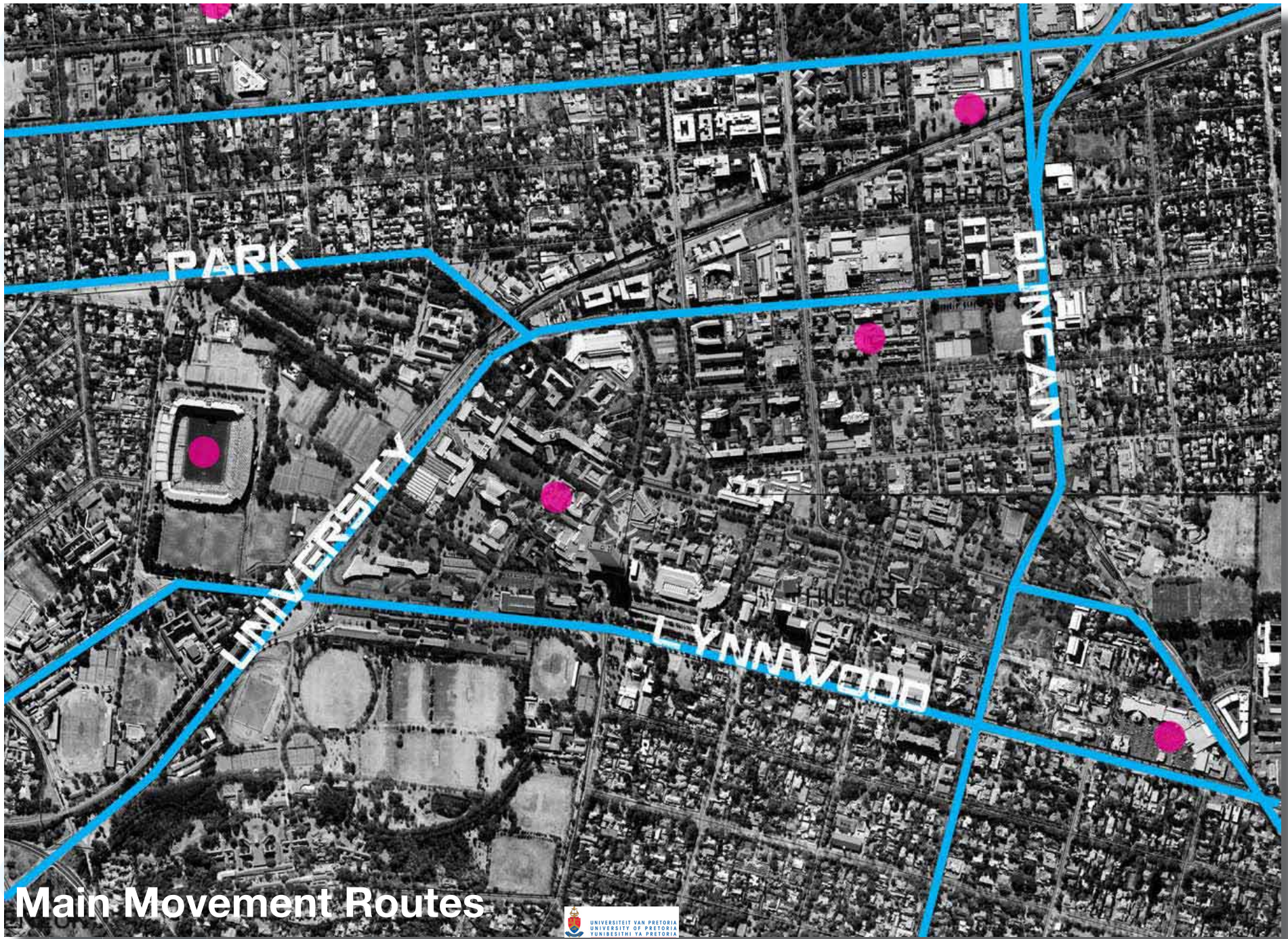
Campus archaeological grid



The site is situated on one of the six campuses within the Universities portfolio: The main campus in Hatfield, on Lynnwood Road. It is east of the CBD and lies between main roads that connect the eastern suburbs to the central city and beyond. It is one of the most picturesque campuses in the country, with its beautiful gardens and tree lined paths. The campus is spread over 24 hectares and it also houses most of the student residences and is also next to the lively Hatfield cosmopolitan shopping and residential area.



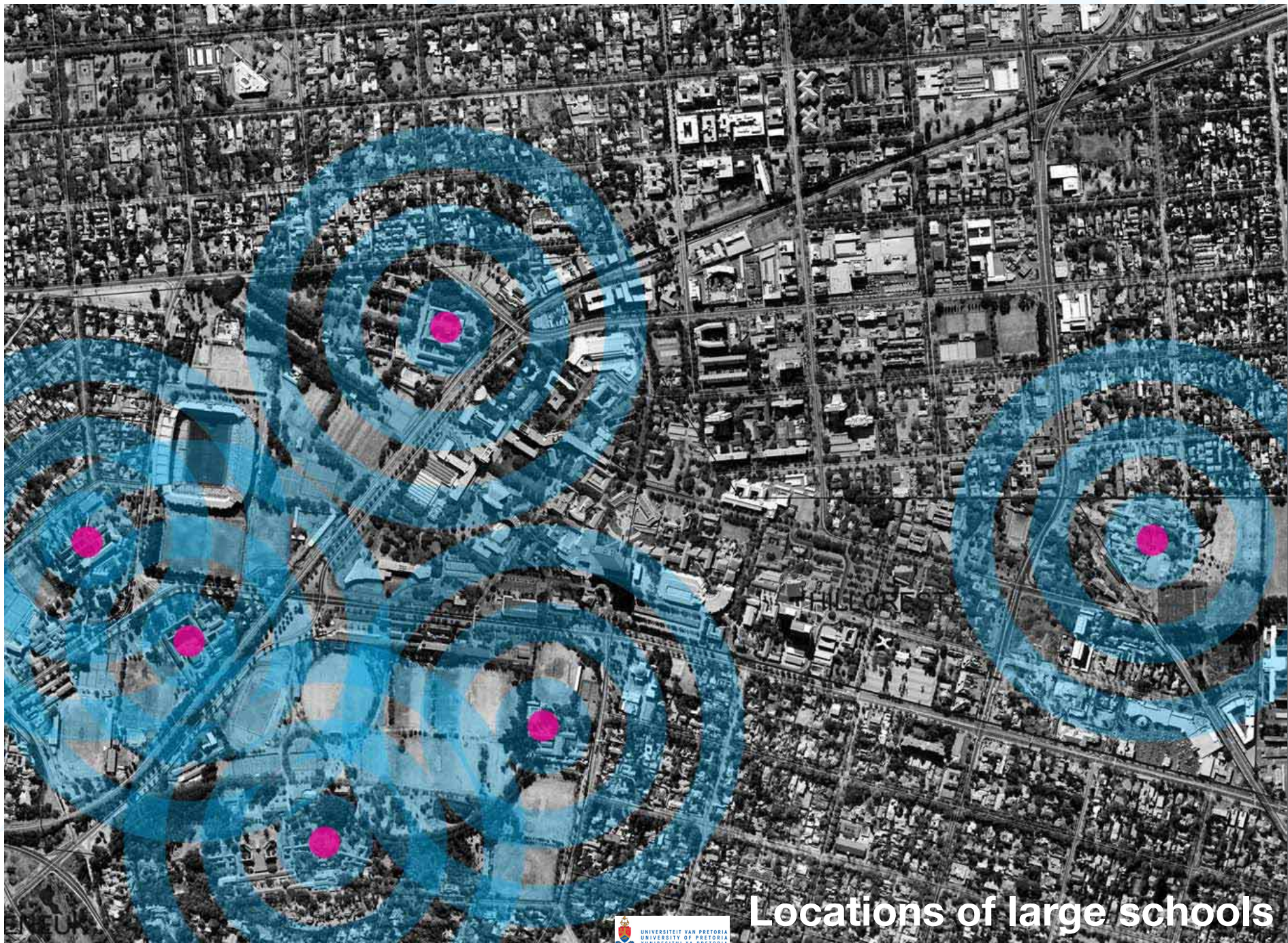
Activity nodes



**Main Movement Routes**



Fig.33



Locations of large schools

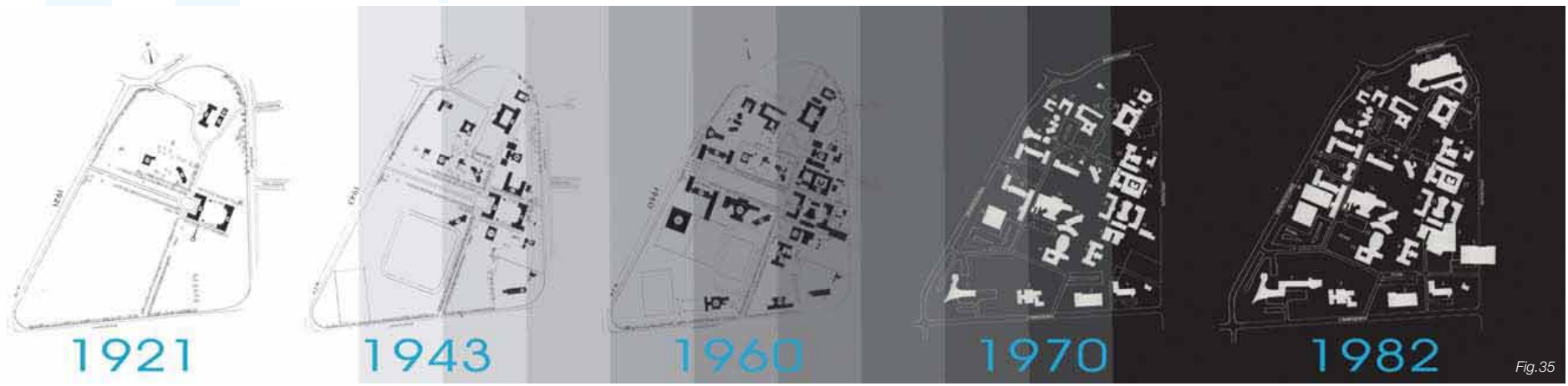


Fig.35

Campus development in 60 years



Fig.36

They do not have to be ornaments they can actually be used

The University's aim is to reawaken the seemingly sleeping giants, Old Arts and Old Merensky. A plan to renew interest and activity in these old buildings are to be set in place. These spaces can be functional and not merely ornamental.

Campus is a well functioning urban system, in fact it is bordering on idyllic perfection. This is because of its controlled growth and early thorough planning and therefore it is actually seen as an island within a greater urban sprawl.

It is an island where pedestrians rule in an idyllic green forest where restaurants and shop districts provide social opportunities for its visitors.

Campus is divided into areas of different study fields, like engineering, arts and economics. These find themselves in very distinctive districts within campus limits and there is an almost playful competition between the districts.

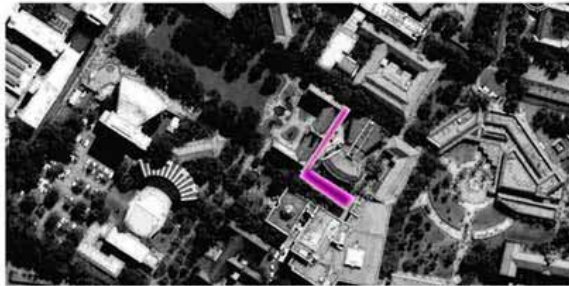
Within these districts the distinctive architectural buildings are not mere objects within campus space – as it may have started to be – but the buildings have become the conveyors of space and the fabric of the campus structure.

# UP Island

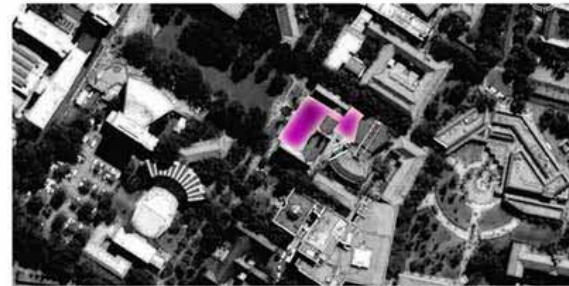




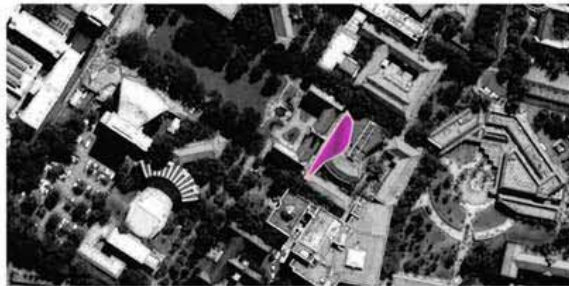
## From above to the depths below



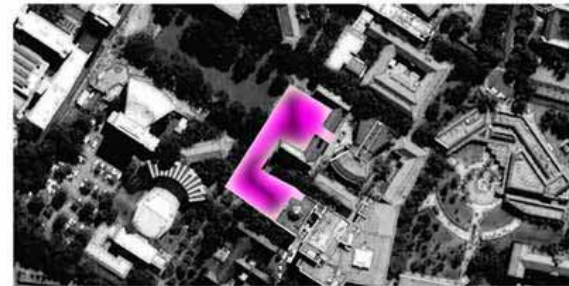
Thin skin building along Old Arts including neighboring Marketing building - Facade and modernist building have to much significance.



Structure which penetrate Old Arts from east and moves through building to front courtyard and ultimately below ground surface - building to delicate and important to puncture.



Infill structure in space between Old Arts and Chancellors building - light and ventilation problems and awkward shape and foot-print.



To protect visual experience of facades project is best suited to be out of sight and below surface. Connecting Old Arts and Old Merensky through sub terrainean structure.

Through a process of elimination, numerous locations were considered but ultimately the best location is one which is submerged.

Fig.38

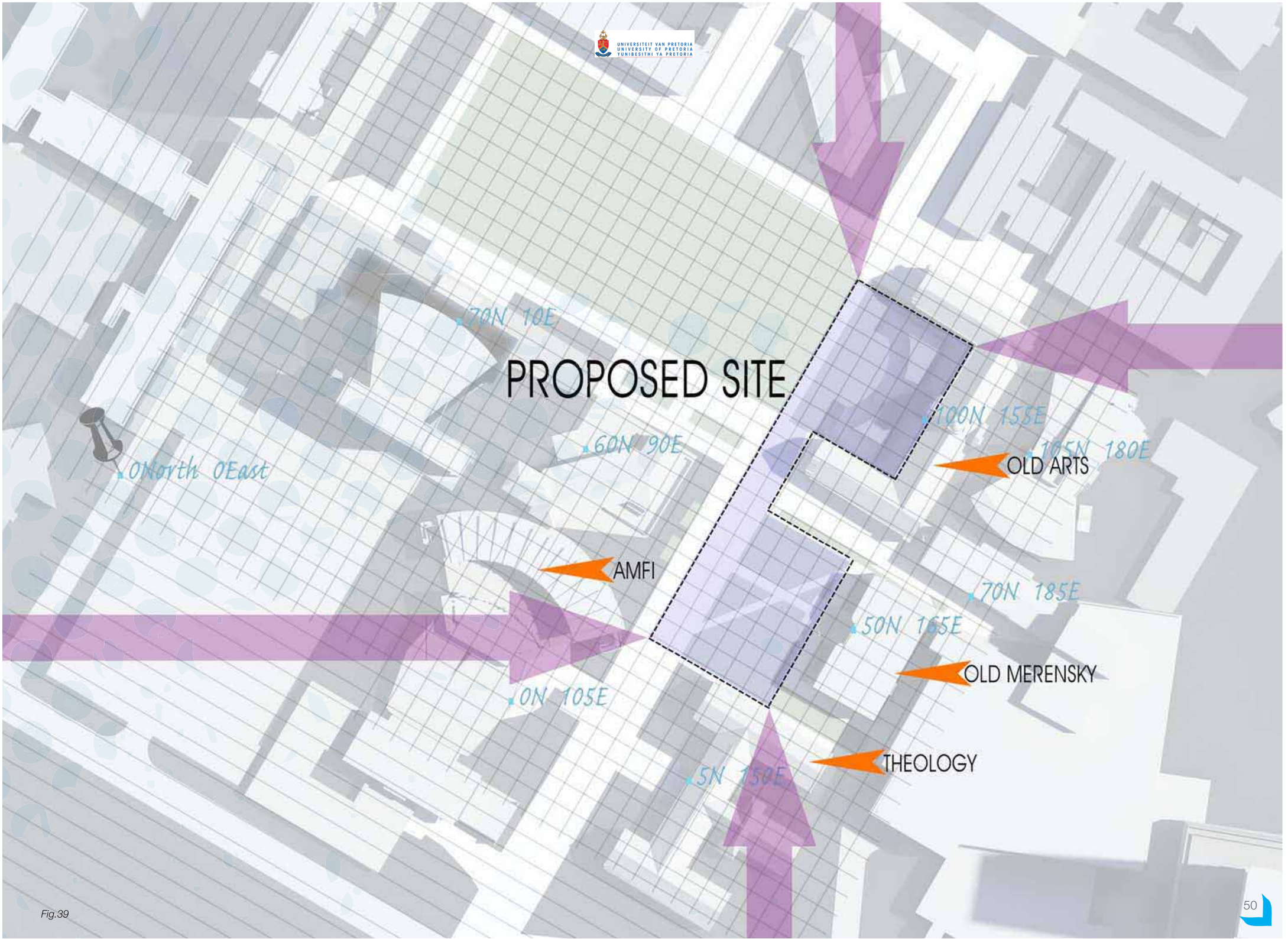


Fig.39

Campus is divided into areas of different study fields, like engineering, arts and economics. These study fields find themselves in very distinctive districts within campus limits and there is an almost playful competition between the districts.

Engineering

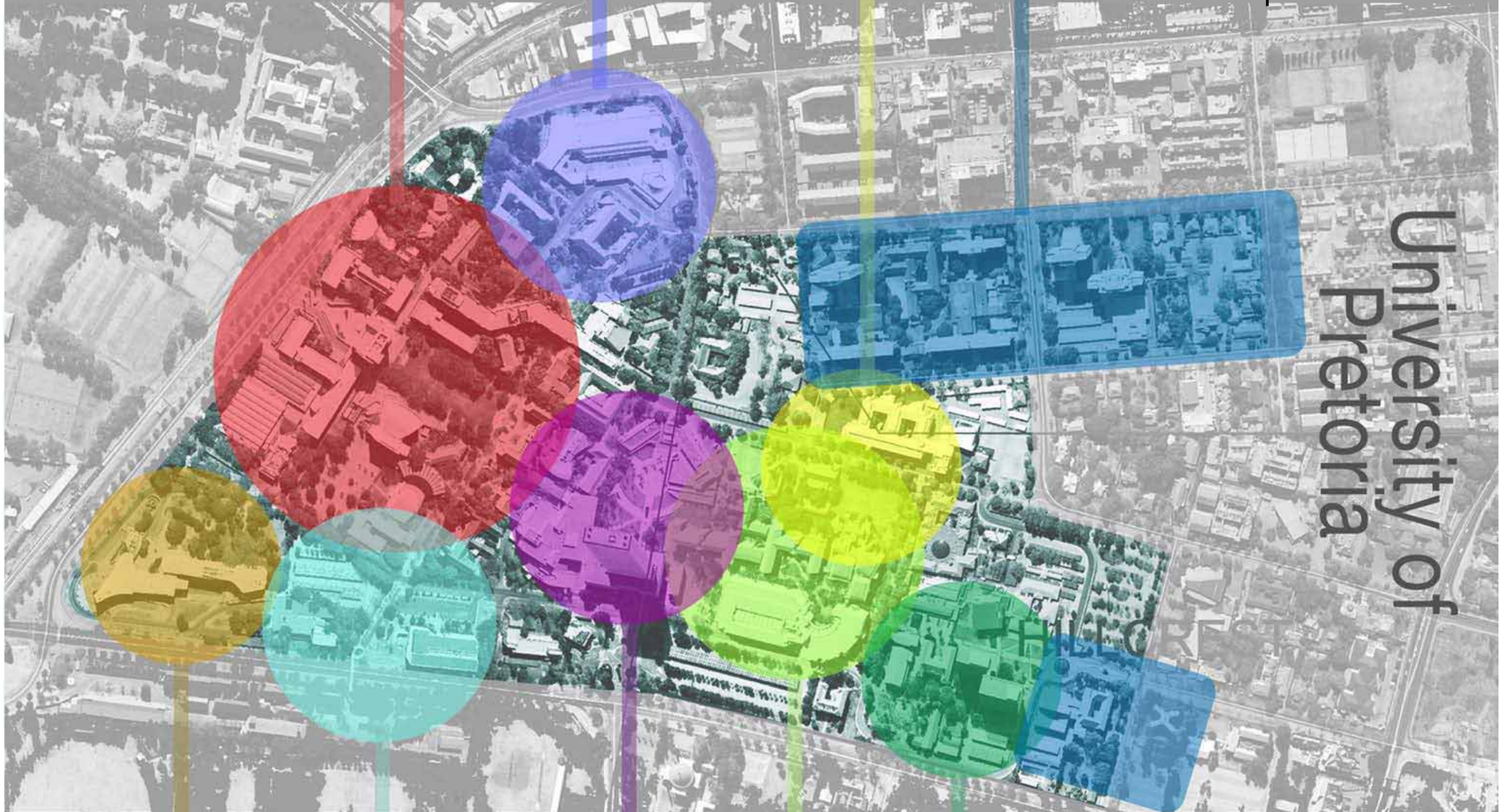
IT

Law

Residences

# Campus Districts

# University of Pretoria



Admin

Arts

Human Sciences

Economics

Agriculture

# The Cultural Environment

## *Legislative Context*

### *NHRA Regulations*

*No. 25 of 1999: National Heritage Resources Act, 1999*

### *Section 32: Heritage objects*

*No. 13. No person may destroy, damage, disfigure or alter any heritage object, or disperse any collection which is listed in Part II of the register, without permit issued by SAHRA.*

*No. 17. No person may carry out any work of restoration or repair of a heritage object, listed in Part II of the register of heritage objects, without a permit issued by a duly authorised representative of SAHRA.*

*No. 18. On application by the owner or custodian of a heritage object listed in Part II of the register of heritage objects, SAHRA may at its discretion assist in funding any restoration or repair work undertaken by a restoration or repair craftsman approved by SAHRA.*

### *Section 34(1)*

*No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.*

# Conservation - Burra Charter

*Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records that are important as tangible expressions of identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about whom we are and the part that has formed us and the local landscape. They are irreplaceable and precious. (Burra Charter)*

The Burra Charter is a guide for the conservation and management of places of cultural significance. It was compiled in Australia in an attempt to heighten awareness of conservation and responsibility concerning places of cultural value.

1. The first step is to discuss and understand the cultural significance of the place from the different cultural point of views. To also justify these views of significance.
2. The second step is to develop a policy on the management of the place.
3. The final step is to manage the place of significance in a responsible and respectable way set by the policy.

## Cultural Significance

The Old Arts building was the first building to be completed on campus in 1911 and it housed all of the functions needed at that time. The neighbouring building, Old Merensky Library, falls into the same significant category as the Old Arts, but only

the Old Arts building will be discussed.

During most of the 100 year existence of the Old Arts Building it was within a dramatic political context. In a white societal context the building was seen as a symbol of humble beginnings and a corner stone to education and modern civilisation in the Transvaal. It was built in Neo-Romanesque European architecture by people from European based education.

In a black African context it was seen as an overwhelming building, even beautiful, but not understood. It became a misunderstood white icon, because of its alien occupation in an African environment. Although it will be argued that the area was not inhabited by any tribal group and the aim of the building and the development around it was to create a world class European institution in a new city. Over the years, the building lost its function and became purely a monument to progress and now a democratic community. It is without a doubt the heart of campus and the main symbol of the University. It currently houses museums and the archive which symbolically turned the essential structure into much more – It is seen as a house of memory and history. It has embraced the changes in South Africa and houses the Mapungubwe Museum which is a landmark to a prominent ancient black society which developed the corner stone of African history, knowledge and progress.

The Old Arts Building is a symbol of 'the place of dreams'. Young people come to the university to study fields of their interest; they enjoy friendships and become adults. Ideologies are formed, and protesting and

debates are encouraged. When people leave the university to continue with their lives and will remember the university and their youth with many images of student life, but the image of the prominent Old Arts Building will always be remembered as it is a tangible memory and beacon.

Almost as an unwritten rule every student that graduates at the end of their studies must take a picture, wearing their academic wear and with their parents on either side (smiling as widely as they can), on the Aula lawn in front of the Old Arts. This picture has nearly become the most important evidence that the student has actually 'done it'!

The University strives to become an institution that encourages change and innovation within our country. The Old Arts has become a symbol of hope that young South Africans entering the world will make a difference socially and economically.

## Justification of significance

The physical appearance of the large stone structure and the engraved detail is a sign of importance and wealth. Together with the extensive lanes of trees and gardens that once connected it axially with the Union Buildings, the great importance of this building is exemplified.

The Old Arts has been on many magazine covers and material advertising and show casing the University.

In conclusion, although the Old Merensky building is not seen as such a great social significance, it is still a very large cultural landmark that has lost much of its charm

due to the weak nature of its current function. People just walk by and acknowledges its strange beauty. Never the less it is just as important a structure as the Old Arts and is therefore crucial that the original facades and aesthetics be maintained. Adaptation of its use will greatly improve its significance and if it the time came for architectural intervention and addition it will then be important to respect the aesthetic and image of these great buildings.

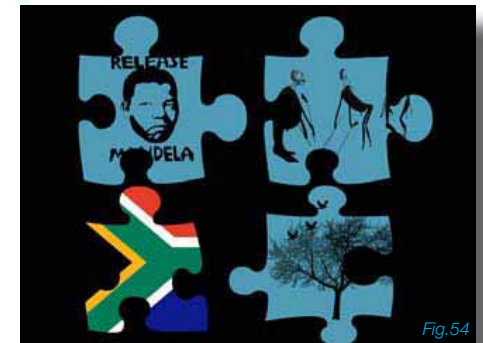


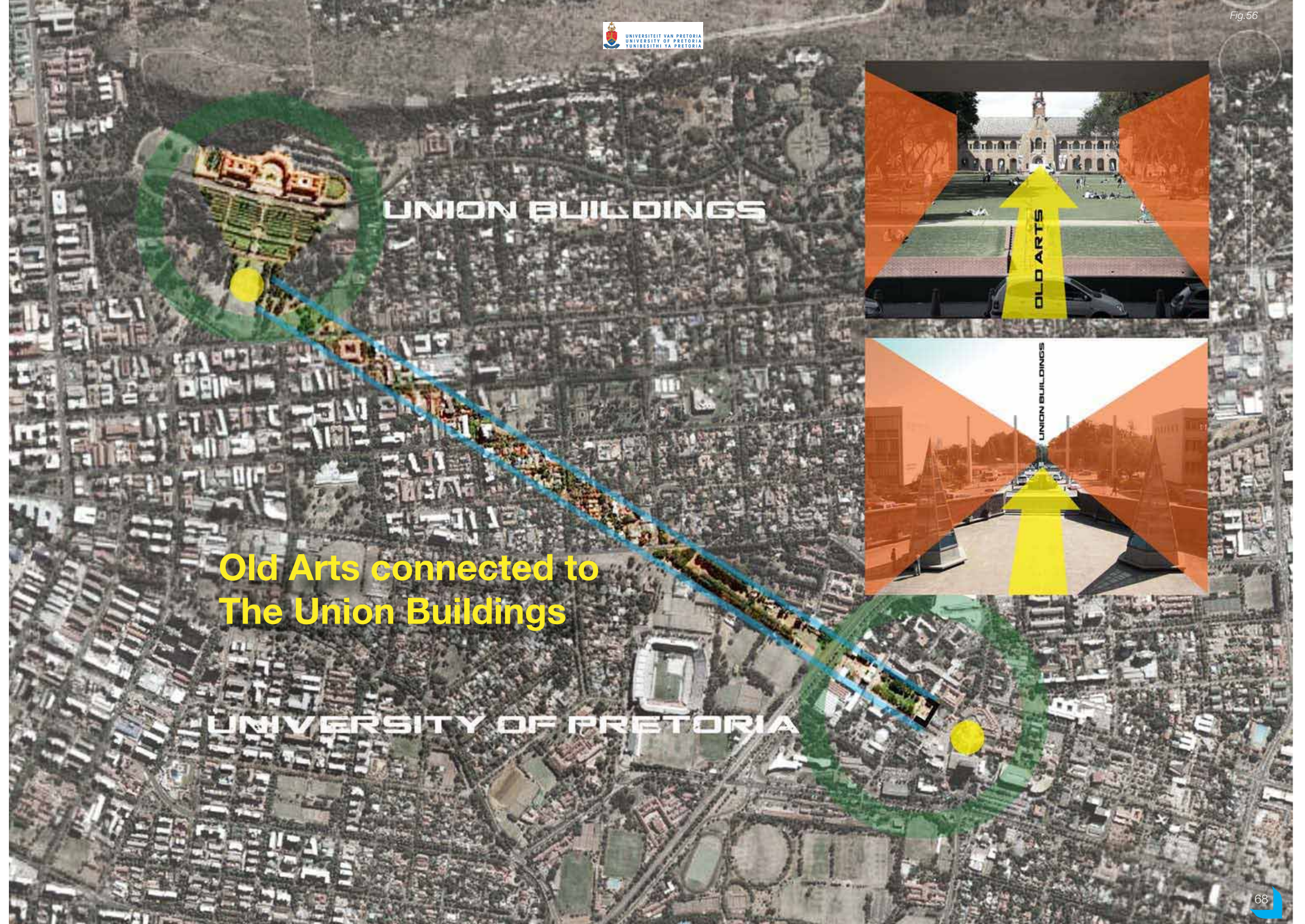
Fig. 54

The Puzzle of South African History



Fig. 55

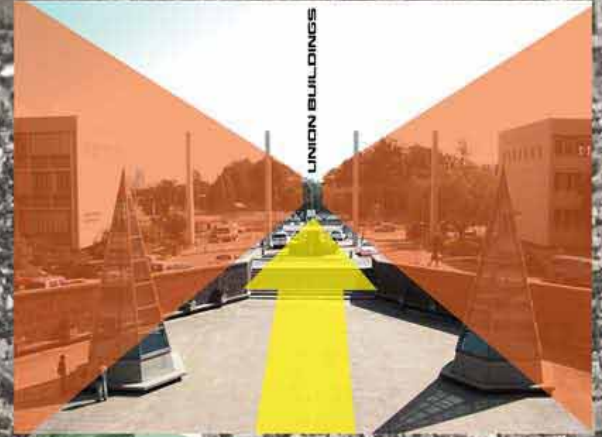
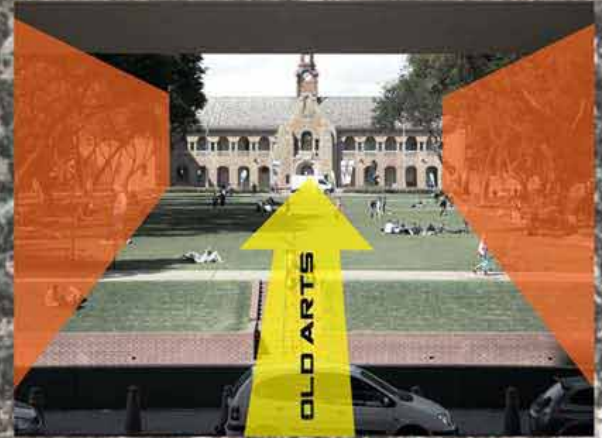
"Smile you've done it!"



UNION BUILDINGS

Old Arts connected to  
The Union Buildings

UNIVERSITY OF PRETORIA



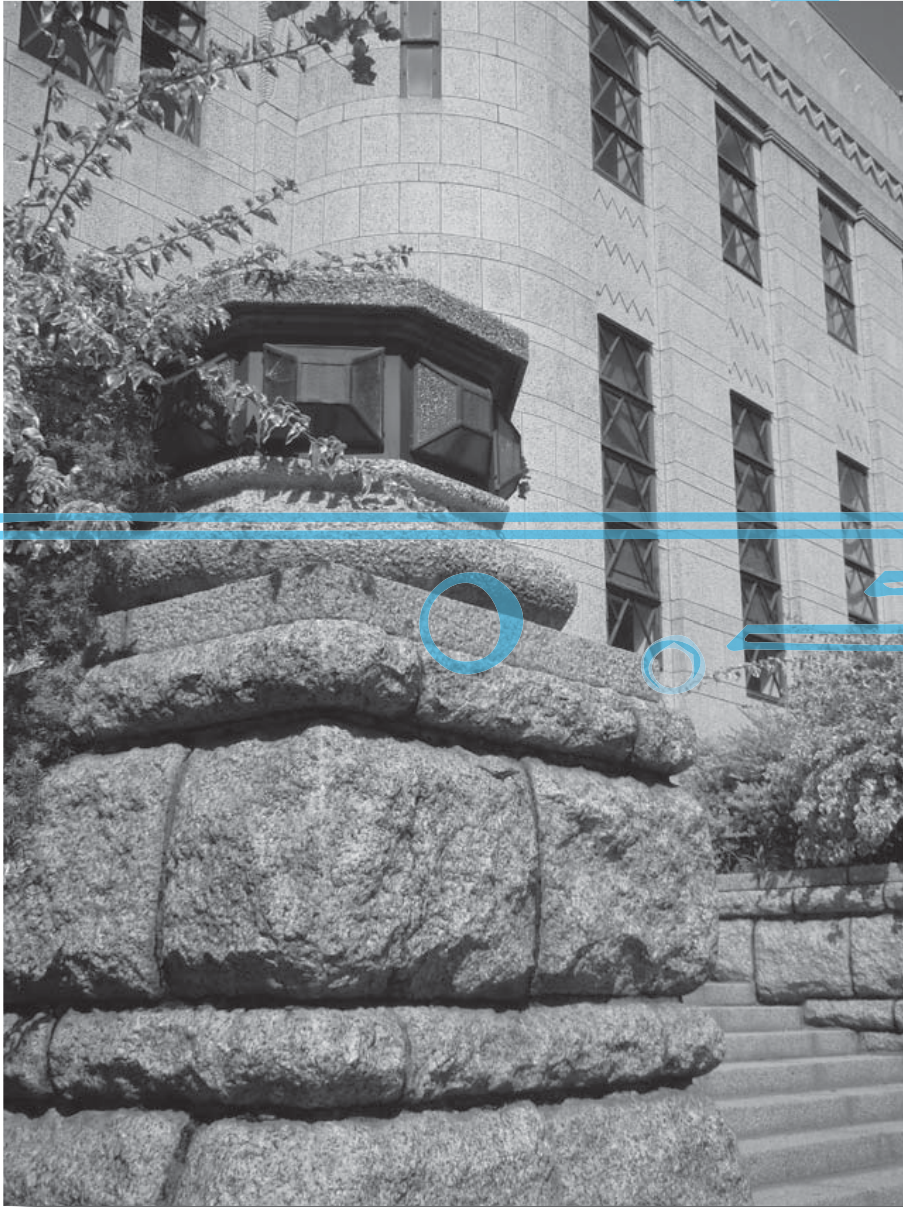


Fig.57



Fig.58



Places of cultural significance reflect the diversity of our communities, telling us about whom we are and the part that has formed us and the local landscape. They are irreplaceable and precious. (Burra Charter)

# Political Context

Archaeology is the recovery, documentation and analysis of artefacts. These artefacts are used to complete the history of humanity. Artefacts don't have to be categorised as only objects it can be architecture and landscape as well.

After recovering the artefacts, documentation and analysis is carried out to explain the development of human culture, history, evolution and also human behaviour and ecology. During this recovery process many questions will be asked and some of these questions will probably never be answered. Therefore most of the information or documentation done after the analysis is mostly assumed by the excavator and this is why it is crucial that the interpretation of the archaeologist is understood within his or her context or agenda. Archaeology is thus all but objective and pure; it is influenced by large factors like social, economical, ecological and political aspects.

## Politics and archaeology

*Archaeology is where the present and past meet. The interpretation of the past has many influencing factors. Who is doing the analysis and for what reasons?*

*Archaeology's concern with tangible remains lends it an immediacy and credibility unique among human sciences. Its patent attachment to pressing issues of identity and possession of post imperial hegemony and of ethnic cleansing, the retention or restitution – of land and bones with artefact – that embroil 1st and 3rd world states, mainstream and minority people. (David Lowenthal 2002,62)*

The core process of digging and excavating is not just a description of findings. It is also an interpretation, but if interpretation begins at excavating, so too must politics.

Interpretation is always subject to conflicting perspectives. These findings and interpretation thereof should never be taken as definitive. Findings can influence cultural history of a community or society in a positive or negative manner. This passion laden process of archaeology to find evidence of one's roots can have local and universal effects. This process can be used to separate you from others, for example in times of economic or political crisis, archaeology can be used to show that one belongs to some community, to claim a culture as personal and to show similarities between the past is and the present.

Colonial attitudes regarding the ownership of artefacts, and the belief that scientific attempts should overrule all other claims for advantage or local knowledge, is destroying the legacy of archaeological meaning. In Egypt people see their archaeological gems as a means of great profit; this opens the door for Western involvement in excavation and writing of findings in Egypt. In the past this involvement was tied to ownership and meant that whatever was found could be kept by the finder and could then be exported to their country.

It is argued that the local Egyptians have no interest in their heritage and in fact disrespect it by vandalising most Egyptian monuments. These artefacts are then sold to western individuals and illegally taken out of the country. There is absolutely no control

exercised with regard to the safety of their heritage. To view any of the monuments a tourist must pay an entrance fee, but this money is not used to further restore or excavate these monuments, it goes straight into the government's hands.\*

Obviously religion plays a large role in this case, because the majority of the population is Islamic and feels that the Egyptian history contradicts their own beliefs.

In a South African context Mapungubwe can be taken as an example. The local community was not included in the discovery process of this site, and during Apartheid years it was even further hidden by the socialist government. If you were to ask any person on the street if they knew what Mapungubwe is they will not have any inkling, as it was not included in the school curriculum. The discovery of this very important African city should be shared with relevant communities to spark a sense of belonging and interest to their origins, especially after an extended period of social discrimination.

The tourism industry historically has provided opportunities for some countries to present crafted images of a certain history or past. Such images can be burdened with conflicting claims, hurtful memories, or fantasy nostalgia. Relatively new institutions like UNESCO World Heritage Commission can create politically charged local situations in their attempt to preserve cultures on a global scale.

Some may argue that heritage history is necessarily distorted because of the

predominant emphasis on visualization, on presenting visitors with an array of artefacts, including buildings, and then trying to visualise the patterns of life that would have emerged around them. This is an essentially "artefactual" history, in which an entire array of social experiences are necessarily ignored or trivialised, both in the past and in the present. (Urry 1990.56-7) Therefore it is crucial that an anthropological view also be understood. This view then becomes much more important than the 'artefactual' image most visitors receive. Through this understanding of human life and social behaviour it will be much easier to relate to a historical society than through ruined buildings. It is very important that individuals also realise that they can carry more than one social identity and belonging.

\*Interview with Ayesha Omar, Egyptian Archaeologist, 2005

# The Four Pillars



Fig.59

Iconic golden rhino found at Mapungubwe



Fig.60

Nazi propoganda

From my research I have found that there are four main important aspects of archaeological politics, I call them the four pillars of politics, namely; *Interpretation, Identity, Ownership and Propaganda.*

Interpretation begins with the excavator or archaeologist analysing his finds. This is the first step in the process of creating history, the first step to piecing together a puzzle of the past. It has been said that interpretation starts at the trowel's edge and so does politics. Interpretation is dependent on the archaeologist's background and views, in some cases the political environment has a strong grip on the process of archaeology too.

Identity is the search by states or groups to discover information about their history. Identity is to my opinion the biggest and most important factor in archaeological politics, because this is a more personal way to define who and what people are. Identity is a very broad notion in that evolution and religion need answers of which only history can give. In a South African context, like I've said before, it is the search for history and belonging by the black population, to which a history was denied by an oppressive government. The same can be said of the Jews in the Nazi era.

The University of Pretoria is currently in possession of the Golden Rhino found at Mapungubwe. It was taken away from its origins and put on display as a reward to the University for finding it. Although a new museum has been designed by Peter Rich and is currently under construction, the University and the Curator of the Mapungubwe Museum (Sian Tiley-Nel)<sup>4</sup> is reluctant to return the artefacts due to exhibit security and standards.<sup>5</sup>

Some day the Golden Rhino will return to the "Place of Stone Wisdom" where it belongs.



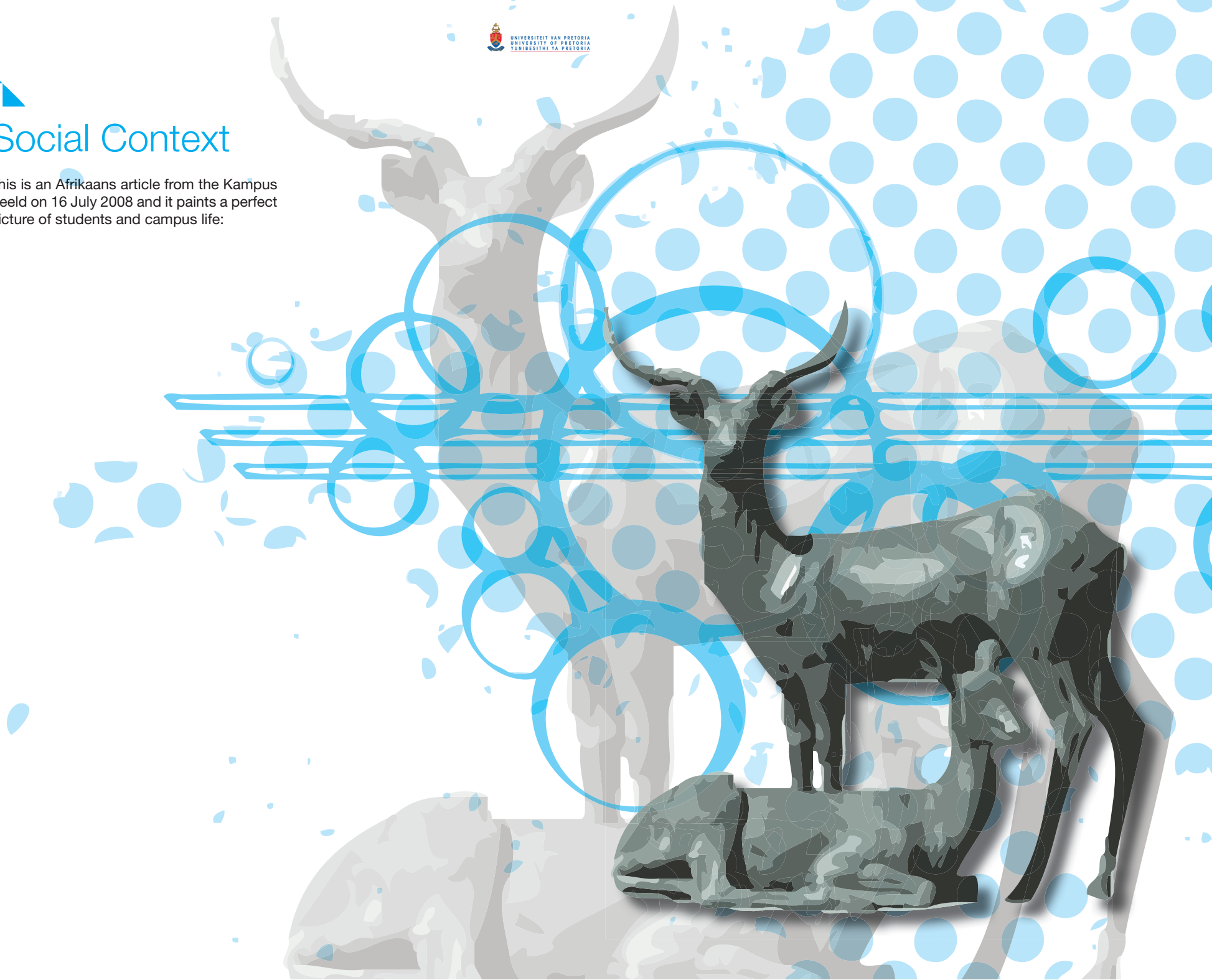
Fig.61

4 - Interview with Sian Tiley-Nel, March 2008  
5 - Opinion of Author



## Social Context

This is an Afrikaans article from the Kampus Beeld on 16 July 2008 and it paints a perfect picture of students and campus life:

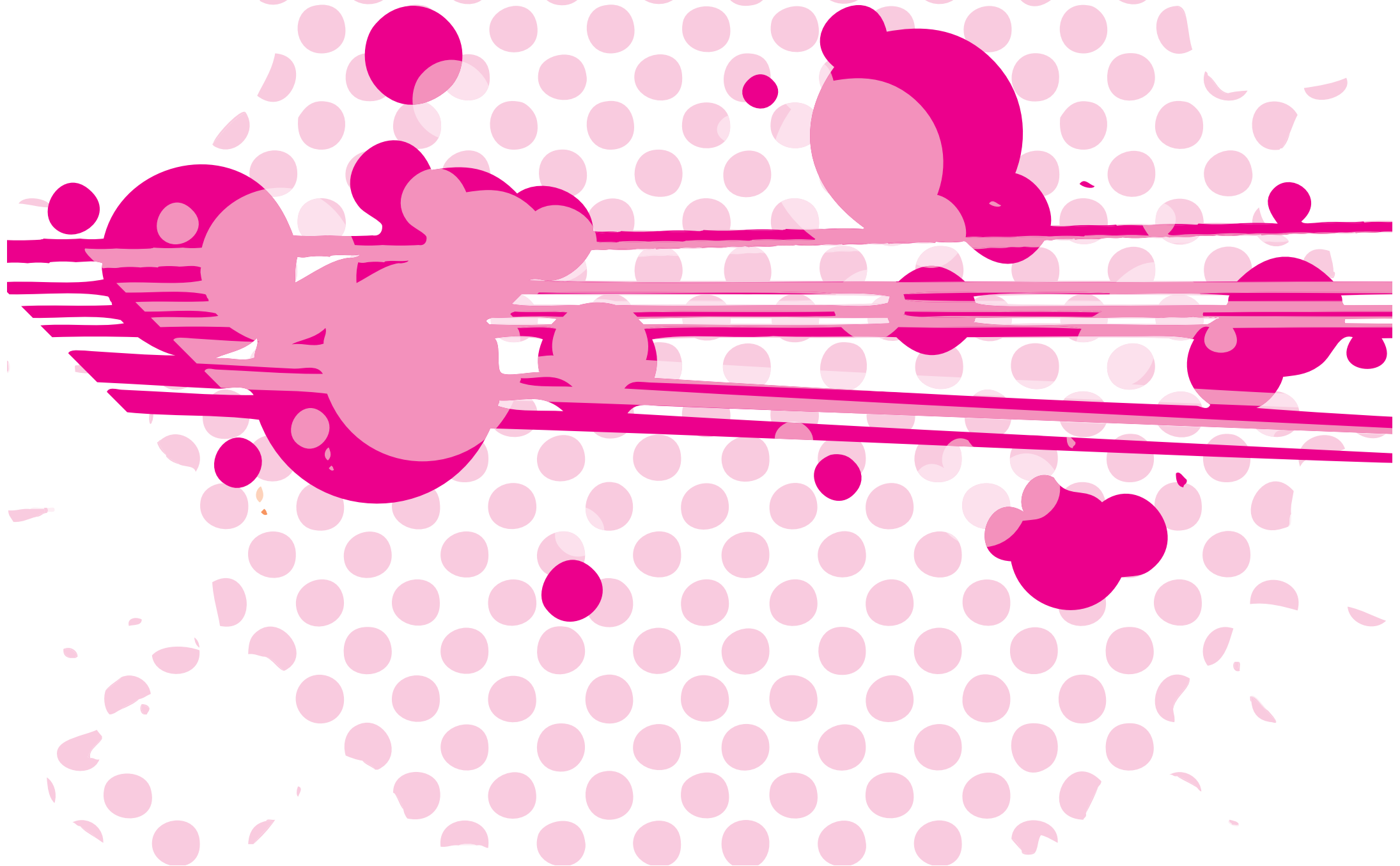


### *Die tien dinge maak van jou 'n Tukkietjie, deur Inge Wasserman*

*Jy is net, as j gelukkig is, vir sowat vier kosbare jare op kampus. Maar net omdat jy hier geswot het, beteken nie dat jy 'n Tukkietjie in murg en been is nie. Hier is tien 'rites of passage' wat elke Tukkietjie moet deurgaans om as 'n ware Tukkietjie beskou te word.*

- 1. Swem op 'n snikhete dag in die fontein voor die OU Lettere gebou. Hou net 'n oog oop sekuriteit!*
- 2. Laat die koppe draai en die asemers snak deur iets wilds, speels en 'way out' kampus toe te dra.*
- 3. Wees vir oulaas 'n kind. Gaan kaalvoet kampus toe en word een met moeder natuur.*
- 4. Die legende lui dat jy nie 'n student van Tuks is as jy nie op die bokkie voor die Ou lettere gebou gery het nie. Hou weer eens 'n oog oop vir veiligheidswagte!*
- 5. Verf op die graffiti-muur. Al is dit net 'n klein handtekening.*
- 6. Besoek iets op kampus wat vir jou onbekend is, soos die Mapungubwe Museum, Scienza of die kamera Obskura. Wie weet, jy mag dalk net iets leer.*
- 7. Maak kennis met 'n vreemdeling. 'Smile. It confuses people.'*
- 8. Dros die hele dag se klasse vir 'n fliek-marathon by die Aula.*
- 9. Skrikkeljaar gebeur net een keer in vier jaar. Dames, gebruik die geleentheid en vra die man van jou drome uit op 'n romantiese aand.*
- 10. Maak seker 'n jakarandablommetjie val op jou kop voor die eksamens.*







part two  
project preparation



# Theoretical Outline

## Anti-building - Pro architecture

*Anthropologic study is “an understanding of other cultures and value systems and how they work; a critical awareness of the importance of social context in shaping thought and action; and recognition of one’s own ethnocentricity and the limits and boundaries of one’s own culture; an understanding of how societies are organised and what that means to people. In a word, a grasp of what it means to be human, to have culture and to live in different kinds of society.”*

*(Cris Shore – “Anthropology’s identity crisis”)*

In the late 20th century anthropologists began to introspectively assess their own study-field and came to the conclusion that it is becoming outdated in terms of modern society and the extreme speed at which the world is changing. Movement to broaden their field of understanding human nature by reaching into other fields of modern life, including architectural theory, was started. After all; within human culture the most evident facilitator is space and the creation thereof.

The world has become a very different place due to extreme population growth and a melting pot of cultures and societies into an emerging global culture. This culture has been described by Clair Melhuish, who is an architectural writer in London, as people hiding in private, inward-looking world of the nuclear family, with no roots and no past, smug, half-cultures and narrow in outlook. During the Modern Movement, a paradigm was created that wiped the basis of creative thought clear of past thinking, aesthetics

and culture to create a ‘new’ pure life.

*“Although the idea of a social programme was central to the modern movement itself, it was a utopian ideal of sweeping away and replacing existing communities, cultural practices and regional identities determined by climatic and topographical conditions, rather than understand and building upon them.” (Melhuish)*

Due to this Movement identity was lost and architects realised that although it was important to be freed from historical styles and mindset, it has now become even more important for humans to find identity and culture within their own modern context. It is still vital that throughout our evolution into a global culture, progression should not be confused with altering and recreation of our own culture; but more to progression within fields of technology and understanding, this within the uniqueness of our own being.

Progression today has become obsessed with economics: Every technological advance made today is directly linked to capital and the growth thereof. Marc Augé, the director of Studies at the Ecole des Hautes-Etudes en Sciences Sociales in Paris, said that for example; by means of satellites, the conquest of space seems today more dedicated to the planet’s technological and economical management than that to exploring the unknown.

Without space technology instant bank transfers and video conferencing would not be able to take place at such ‘necessary’ speeds. Other technologies like cell phones have not simplified our lives, in fact it has done the exact opposite; humans have be-

come busier than ever and are now able to do banking, messaging and long distance communication whilst using the rest room... but in appreciation to all ‘that’ it has to be said that this has raised the problematic question of “Who am I?”. The slow demise of self exploration and progress, and fast development of superficial substance has caused this question to be raised. The crisis of the Identity is born!

*Now the study of anthropology has shifted its focus: “clearly there is no reason why anthropology, the study of social institutions and cultural value systems, should stop in a pre-modern age. Indeed the rise of multi-culturalism, globalism, and tourism in the late 20th century has raised many new and fascinating anthropological issues.” (Melhuish)*

In our current world and especially our own context, South Africa, spaces like motorways, supermarkets, airport lounges, shopping centres are anonymous, sterile environments which appear to be empty of cultural content. Given that they have become fundamental to the contemporary urban and inter-urban infrastructure, they demand an architectural response, (Melhuish).

For example; In a ordinary store within a shopping centre there are two parallel worlds lived and experienced from two different groups. Firstly the group that works there, which has a connection to the space through their everyday life and livelihood. They have a belonging and meaningful function in the store. Secondly the group of individuals that paired or solitarily move through the space brows-



## The Museum

The world has become a place of images and display. These images create an abstract understanding that we have become familiar with and perceive as being our relation to the rest of the world. People across the globe have become part of the same culture in terms of visually connecting to different places and things through the current obsession with displayed content that we find ourselves relating to. (Auge 1996) This could also be said of lost African culture: Without the need to see the cultures themselves we are content in experiencing their way of life through imagery and diagrams. It becomes virtual places and people, which we do not belong to.

A museum is a place you might visit once or twice, but the visitors never become connected or emotionally attached to that space by any means. The visitor does not belong to that space and the space and purpose of the museum is in fact designed to 'transport' the visitor to another realm of history and imagination.

With this understanding, a designer can embrace the fact of non-space and design it in that manner.

## The Mapungubwe Museum

The museum is a series of chambers that lead the visitor in a linear progression through five main cavities that represent specific ways of communication of information and emotion. The journey is very personal and is not an interactive experience.

1. The first chamber, being the introductory chamber, contains images and text showing where Mapungubwe and K2 are and what they were. This background information is to prepare the visitor for the two chambers that follow. This room becomes a departure from current attachment towards past narrative.
2. The second chamber is a chamber designed to feel and look like a cave like structure of pods in which the visitor can go and stand alone to listen to specific sound directed devices that convey oral accounts of the life and existence of Mapungubwe. This second chamber connects the visitor to virtual people that may have lived there. The purpose of the chamber is to partially disorientate the visitor and heighten their state of awareness.

3. The third chamber is a larger room with rows of benches lined in front of a large screen that visually transports the visitor to the city of Mapungubwe and show a visual account of the life and workings of the community that inhabited the area. This chamber connects the visitor to the surroundings and environment of the Limpopo hills.

4. The fourth chamber is the largest room which is lined with light boxes filled with artefacts from the excavations of the ruins and it also includes artefacts from other South African excavations like rock art and spear heads. The artefacts confirm all information heard and seen through the journey.

5. The fifth and final chamber is a winding space designed in a manner to make the visitor participate in self reflection concerning their own identity and roots. It forces the visitor to 'let go' of the ghosts of Mapungubwe and then to return to their own being.

The museum then ends and progresses into the Department of Archaeology and Anthropology where they move through the Department and out by means of a ramp to campus level.

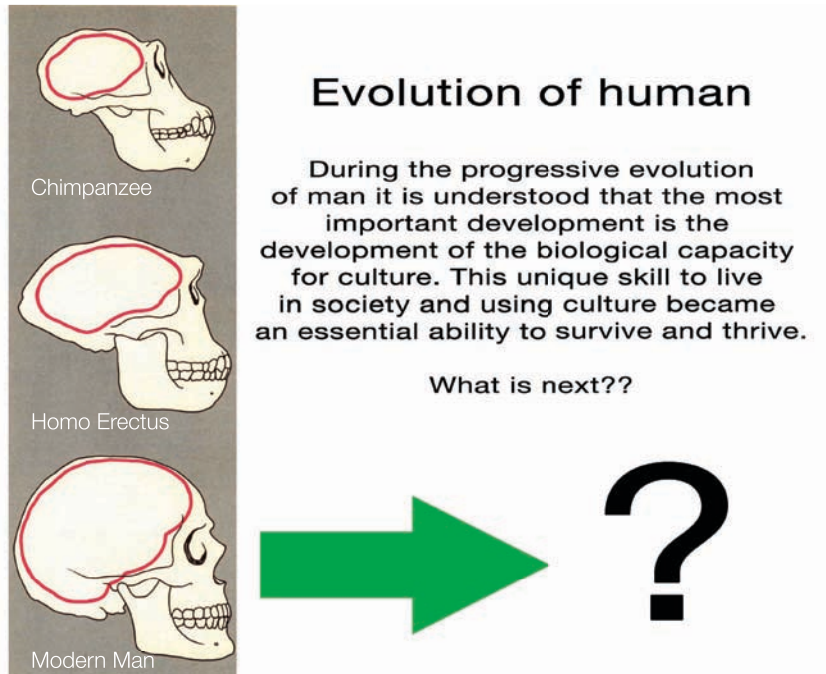


Fig.27

ing and maybe buying an item, this group has no connection to the space and this becomes a place of non-belonging. In the full sense of the word, a place is a space where relationships are self-evident and inter-recognition is maximal, and where each person knows where he and others belong. (Augé) Thus the place is a non-space within which they only appear briefly on their way to other non-spaces.

The task at hand is for the architect to create the space in such a way that it becomes an experience and place of belonging, to put the visitor in a place of familiarity and comfort, to encourage social interaction and thought. Shopping, driving and walking have become a tremendously mindless task, which is a tragedy because of the overwhelming amount of hours we spend on each of those tasks each day.

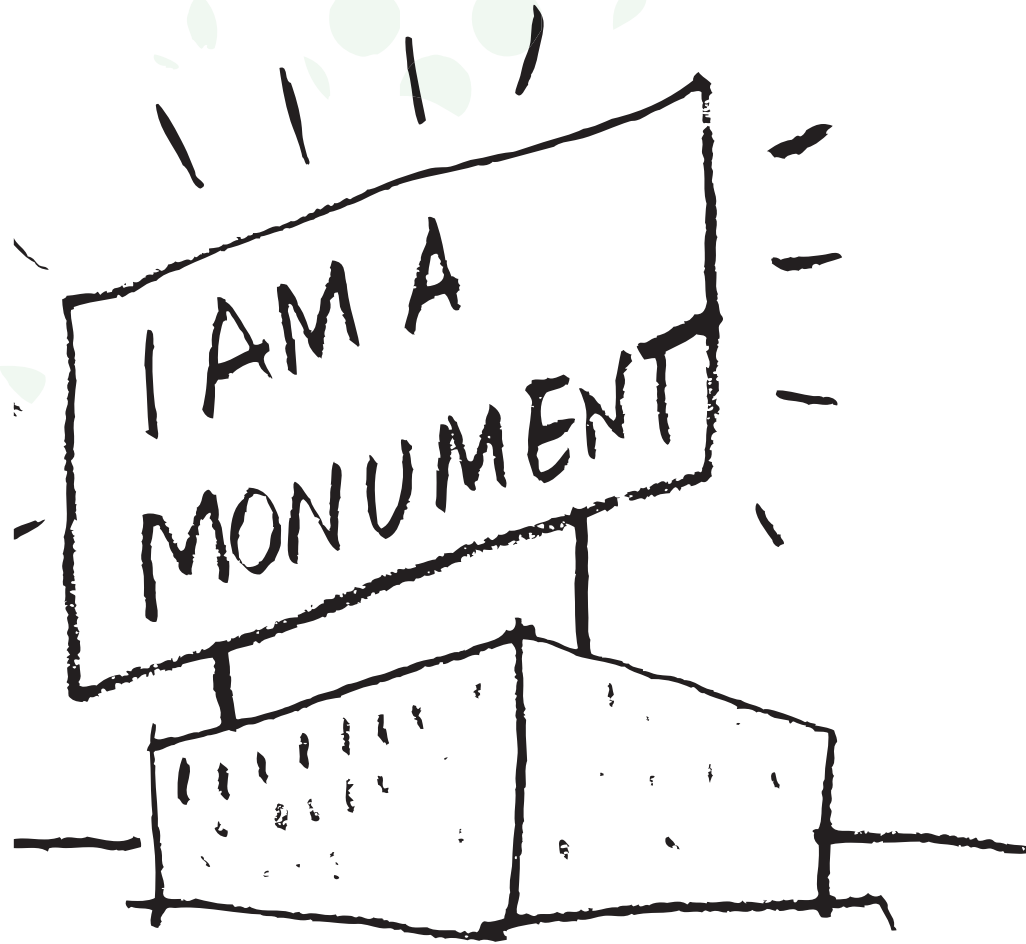
The problem is evidently within the understanding of the word "Progression". "Progression" is not only the advancement in economical and technological concepts and products; this is something entirely different to "Progression" as a human being. It almost seems that the opinion of many theorists is directing towards the human race needing to stop and look back at anthropological history and remind themselves what is essential to being a human. With this understanding to be able to fully be in control of the creation of space and social environments in the most humanistic way. Through this understanding a respectful attitude to nature and the origins of human life will also be embraced. "Progressive" space and place is not about what you see, hear or have; but about the understanding, enrichment of knowledge and belonging.

The problem is seemingly simple: According to Peter Jones when people build structures for themselves, as they still doing in very rural areas, there is no difficulty

accommodating or reflecting their beliefs and values within their building: it is almost an automatic instinct and the traditional building process strongly encourages it. As a society became more complex, users are finding it increasingly more difficult to make their own habitations by legal, professional, technological and financial pressures. People entrust architects to design and build them the perfect house, no matter what the budget, they expect it to be home – but the ego's of many architects have become so overwhelming because of the tasks entrusted to them of doing such an important act of 'creation of space, life and being', that it is has become acceptable for the architect to convince a client of reducing the program from necessities in promotion of aesthetics. Has architecture lost sight of the core principle and function of spacial creation?

*"The dependence of the clan structure of the Bororo people in Brazil on their circular village, and the social disintegration reported by Claude Levi-Strauss after missionaries compelled them to adopt a grid-plan instead, shows that the village layout was no mere symbol of the social order but its principle mnemonic. Knowing where they lived helped to define who they were. Architecture set the frame for social life. People still 'belong' to a house, a college, a club, a church, a pub: the building is identified with the group." (Jones) .*

# Anti-building



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# Pro-Architecture

It is the people that use the space and their purpose of belonging that makes a pub a pub. It is not the archetypical design or even the actual structure itself. A circle on the ground could become a gathering space for socialising intoxicated men. That circular boundary facilitates the activity that is known to happen in a pub. It is not essential to the building to facilitate this activity – therefore architects have to realise that understandably the space within a pub would need standard equipment, but is not otherwise limited to any boundaries. Place is not created through style or aesthetics, but with the understanding of belonging and identity.

This theory is very much leaning toward a negative 'Anti Structure' point of view...

Through this the point is being made that admittedly structure is as much part of our being human as is breathing, without it we would not have survived and would not have evolved to the point that this dissertation could be written.

On the opposite page is a drawing by Robert Venturi showing his theory on current architecture. He is trying to communicate through this picture that modern 'economically obsessed' culture has forgotten to create buildings for people. Thus, it is important to note that my point of view is aimed at the notion of Anti-building and Pro-Architecture. Architecture is after all the art of creating spaces, and these spaces should become narratives of activity and guide the structure to become a symbol of function. The building in the picture is only a box with no symbolic form, and the sign acts as a label: it neglects its whole purpose.



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Peter Brundell Jones, who is a Professor of Architecture at the University of Sheffield, has a simple view on places and of human behaviour within those places:

Buildings frame human activities by acting as an elaborate stage in an opera for the repeated actions that we call rituals.

In everyday life, society uses the word ritual for what happens in dull and scripted spaces like in a bicycle shed. But when it comes to anthropological study, there is NO simple distinction; repeated behaviour and ordered behaviour is everywhere and always has meaning as this is crucial parts of human life. These behavioural patterns are what shape thought and progression. Social processes of a respected and decorated cathedral, for example, are much more elaborated, but that does not mean that there is not any ritual associated with the bicycle shed (it does not reduce the importance of the ritual in the shed). People also come and go from both the cathedral and shed at fixed times, wear special clothes and use special equipment. In fact, if the users were to be cycle-race professionals, the ritual may be very elaborate.

It must also be understood that even a lack of repeated structure is significant, for non-structure contrasts meaningful with structure. The freedom everyday and ceremonial ritual is easily explained using the example of meals- breakfast, lunch and dinner. They have different meanings in human individual existence and provide an order for the day. Ceremonial meals mark anniversaries and birthdays, this contrast with eating a Crunchy chocolate bar on campus; but this is still a more important ritual than eating a dry piece of bread.

In conclusion Clair Melhuish said is best: without debate, deliberation and outrage, Architecture would not thrive -

*"All the same, the purists will doubtless be quick to condemn the way in which the term 'anthropological' is used and understood in this context as being imprecise and even dangerous. But perhaps one should accept that life itself is unclear and full of risks – and it is that arena, not the rational, logical world of academic discourse, that architecture takes its place."*

old arts

Proposal for the new  
Mapungubwe Museum -  
this forms part of the visitor  
framework of the project

1 INFORMATION CHAMBER

2 ORAL CHAMBER

3 VISUAL CHAMBER

OFFICES AND LABORATORY

4 ARTEFACT CHAMBER

5 REFLECTION CHAMBER

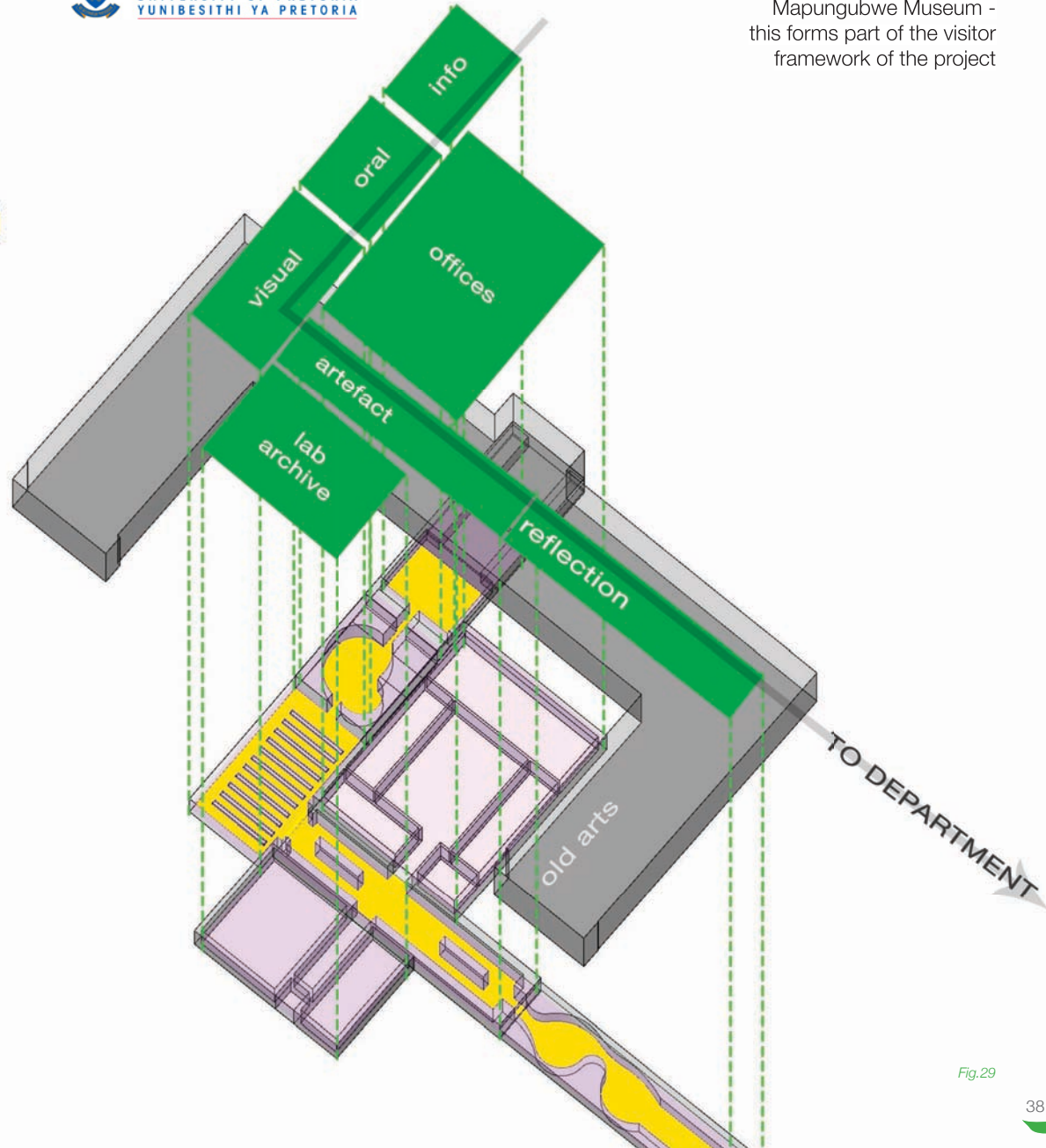
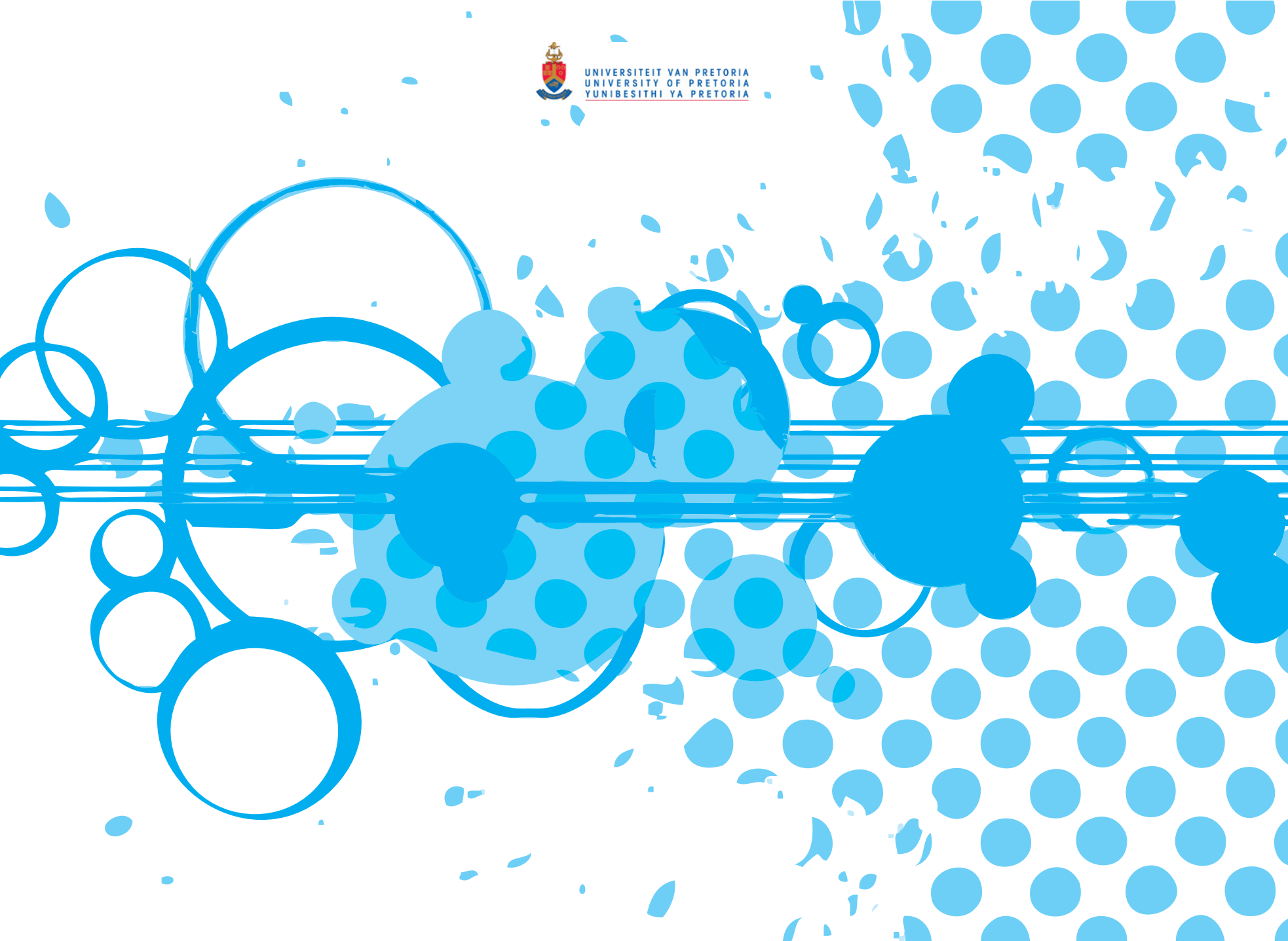


Fig.29



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part four  
analysis of finds

# South African Precedents

Engineering tower basement



Engineering tower basement



Humanities sublevels



Humanities sublevels



South African Institute of Infectious Disease and Molecular Medicine, University of Cape Town - Link Building (Fagan 2005/2006)

The appointed firm was Gabriel Fagan Architects. Their brief was to connect the three research buildings in the Institute's complex with a central symbolic building.

This building facilitates dialogue between researchers and serves as a central orientation point for visitors and students.

The main objective was to link the buildings with a contrasting contemporary building which must connect delicately to the historic structures. The transparency of the protruding cylinder of the link building is such a contrast to the solid mass of the neo-classical buildings that it takes on a higher importance in the hierarchy of the complex. It becomes the obvious point of entry.

The cafeteria was placed centrally in the main movement paths to encourage interaction and communication

A feeling of community was created by the fact that people can move up the light steel stairs and look into the previous exterior windows of the old laboratories of each level.

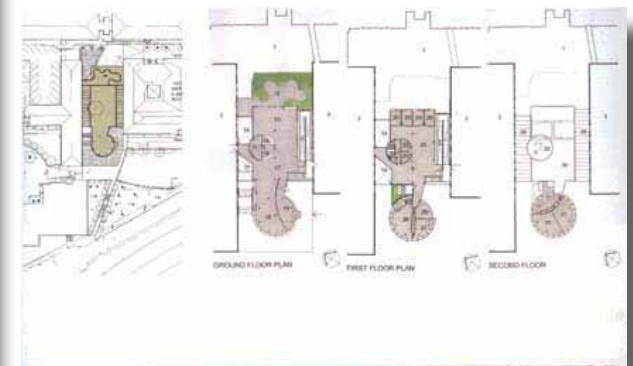


Fig.66

Origin Museum, University of Witwatersrand,  
Johannesburg



Landmark signage

Museum + department



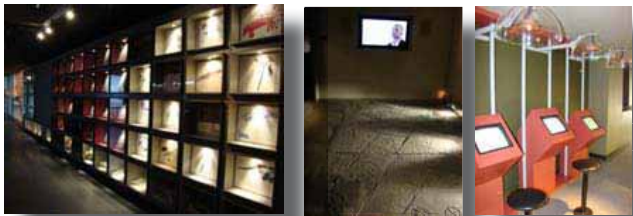
Replicas displayed

Large projection room



Human movement

Visual installation



Display wall

Audio & visual communication

Fig.67

Cradle of Humankind

- Maropeng and Sterkfontein caves.



Fig.68



# International Precidents

## Tower



## Retreat



## Cave

- The three sacred archetypes:
1. Earth - Retreat
  2. Water - Cave
  3. Air - Tower

### The House of spirituality, Spain (1975)

In the brief Emilio Ambasz was told by his clients to create a chic country house on their farm near Seville in the Sierra Morena. It is called the Casa de Retiro Espiritual and the design won the Progressive Architecture Award in 1980. (The Ultimate house on the Landscape).

Ambasz sought to go back to the origins of architecture: the result is a building that seem to stand for the pure essence thereof. (Buchanan) It is a fusion of expressing the relationship between nature and architecture. In the carefully choreographed sequence of experiences Ambasz has achieved a relation with the universal elements: Sun, sky, stars, wind, earth and water. This relation generates a communication to the immaterial essence of the spiritual power of one's soul. The building is smooth and soft white and is reminiscent of trouble free Mediterranean architecture.

Ambasz has realised the premise of his design by constructing the house in an idyllic arcadia – as a kind of Andalusian dream – within which it is precisely and poetically placed in relation to the surrounding landscape views as well as the solar and celestial constants, drawing both landscape and ambient elements into a relationship with itself, and it with them. (Buchanan)

The building has two main parts: The entrance tower, which is a landmark and has an almost sculptural function. And the house which itself retreats into the ground

Fig.69

# My personal view pertaining to architectural design and philosophy

Architectural Model exhibit  
Pompidou Centre, Paris



Fig.88



Fig.90

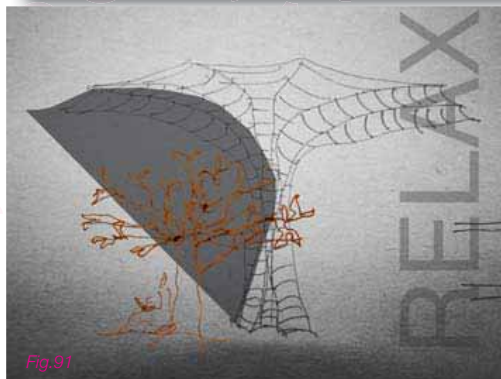


Fig.91

Social behaviour in cool space under tree



Fig.89



Fig.92

Fragment of activity being excavated

## Place of dwelling vs Building

### Place of dwelling

A dwelling is a description of a system of spaces and non-spaces or an organisation of places that facilitates human behaviour. It is associated with architectural fabric, but is not controlled by it as it is purely a series of places which together form a habitat or cave in which dwelling occurs. A habitat could be expressed in an architectural manner of which the expression is controlled by the architect or builder.

*Dwelling is a humanistic act which is exercised in a defined space – it is essentially human behaviour. A dwelling is a place where a person belongs and where he or she finds 'home'/shelter or a social connection. It is a habitat for being, a vehicle for the telling of stories, a canvas for relaying societal myths a stage for the theatre of everyday life. (Frederick 2007, 84)*

A dwelling has these characteristics:

- Systematic Spaces and non-spaces
- Facilitates dwelling
- Belonging
- Emotional reaction

This reaction is based on cognitive brain function. It is completely connected to a human's feelings: Joy, hate, sorrow, love, happiness, fear etc. It is defined by one's soul and being. It is not tangible or clear, but personal.

It is irrational and creative.

## Building

A building is a human constructed structure that becomes a static place that contains spaces and non-spaces. A building is very dependent on its designers and engineers to be a tough and effective structure.

“A proper building is responsible to universal knowledge and is wholly honest in the expression of its functions and materials.”  
(Frederick 2007, 84)

A building has these characteristics:

- Accessible
- Functional
- Safe/Secure
- Sustainable
- Cost effective
- Aesthetic
- Productive
- Historic

These characteristics are seen as the ingredients to a successful Whole Building.  
(Prowler 2008)

A building is created on the reaction of sensation.

This reaction is based on experience and human awareness. The reaction is stimulated by the senses by physical nerves in your body.

This reaction is the most basic core of human nature as this awareness set one's mind on the real necessities of requirements.

It is rational and is the manner which prehistoric civilisations constructed their environments.



Lloyd's of London - Richard Rogers



Fig.93



Fig.94 Fig.95

Pompidou, Paris

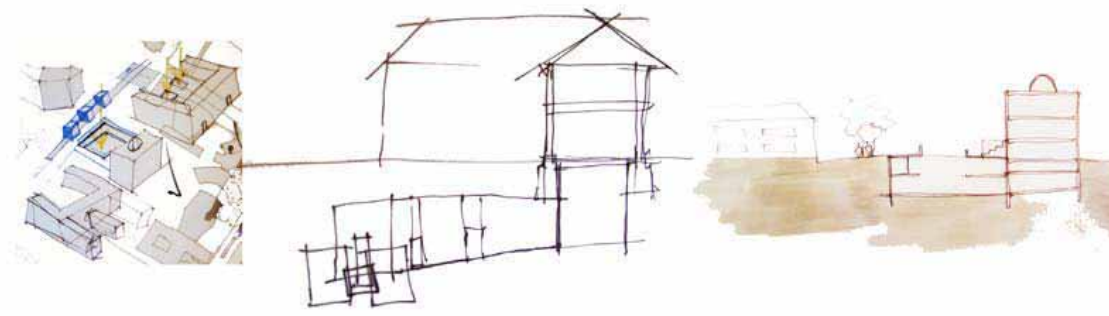


Fig.96

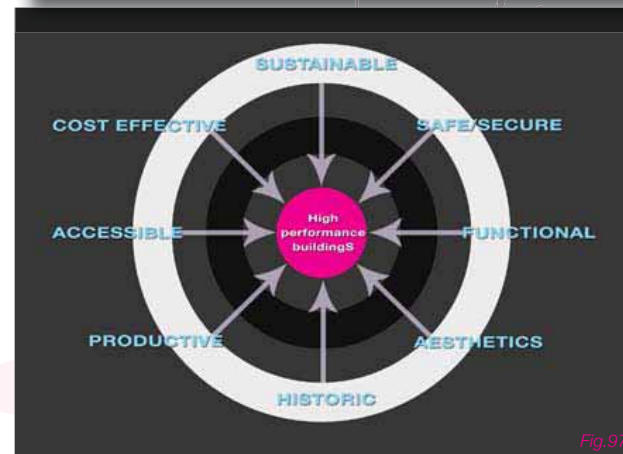


Fig.97

In reaction to increasingly emotional architectural solutions which seemingly excite our lives today – it has been decided to submerge the building into the ground, releasing it from ideas of building and iconic aesthetics. The purpose is to focus mainly on the use and function of the building and how the program should be organized to function successfully.

The structure must become a cave and not a building, bringing it closer to the ideal of dwelling. It must be hidden and should not become another iconic edificial expression on Campus.

Despite these views on architectural theory it is also a very logical and sensible solution to 'bury' a building:

- It minimises its impact on surrounding buildings and landscape.
- Heating and cooling costs can be largely reduced due to lack of exposed facades: energy efficiency. It reduces effects of noise and even vibration.
- With the limited access points around a subterranean building it becomes more secure against vandals, thieves and terrorists.
- Maintenance costs are reduced significantly due to less external surfaces that have to be repainted or cleaned due to weathering.
- Most importantly is the fact that it creates or preserves open spaces in dense areas. (Hall 2008)

*"Like trees, cities have roots. The spaces, materialities, imaginaries, experiences and processes of cities delve deep into subterranean world as well as towering vertically into the sky. At a time when underground spaces are being bombed by terrorists, networked by infrastructure operators, colonised by the military, excavated ever-more deeply by engineers and planners, and stalked intensively by a whole range of fictional narratives, archaeologists, historians, subterranean explorers and tourist guides. It is time for the urban subterranean to emerge as more than an esoteric interest within urban studies... and the potential for constructing a more symmetrical view of the relations between the surface and the sub-surface ."* (Graham 2005)

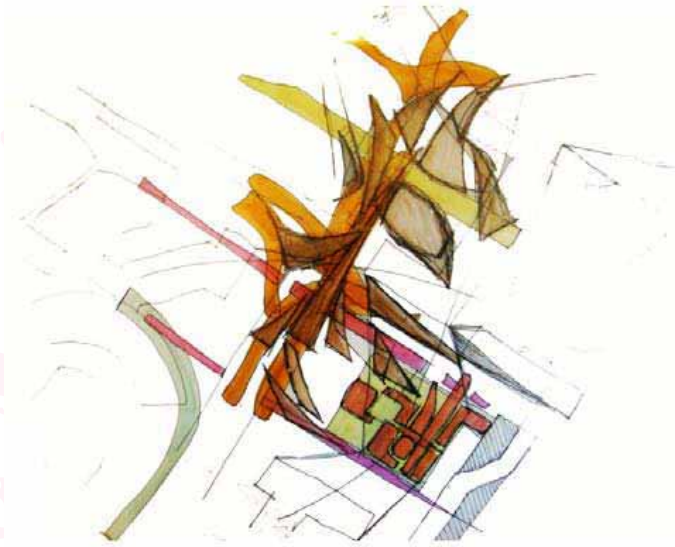
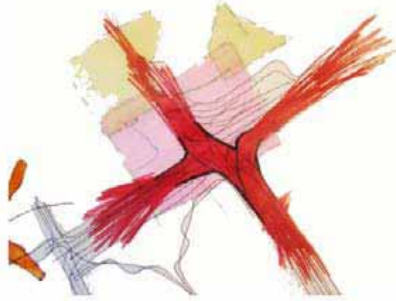


Fig.98

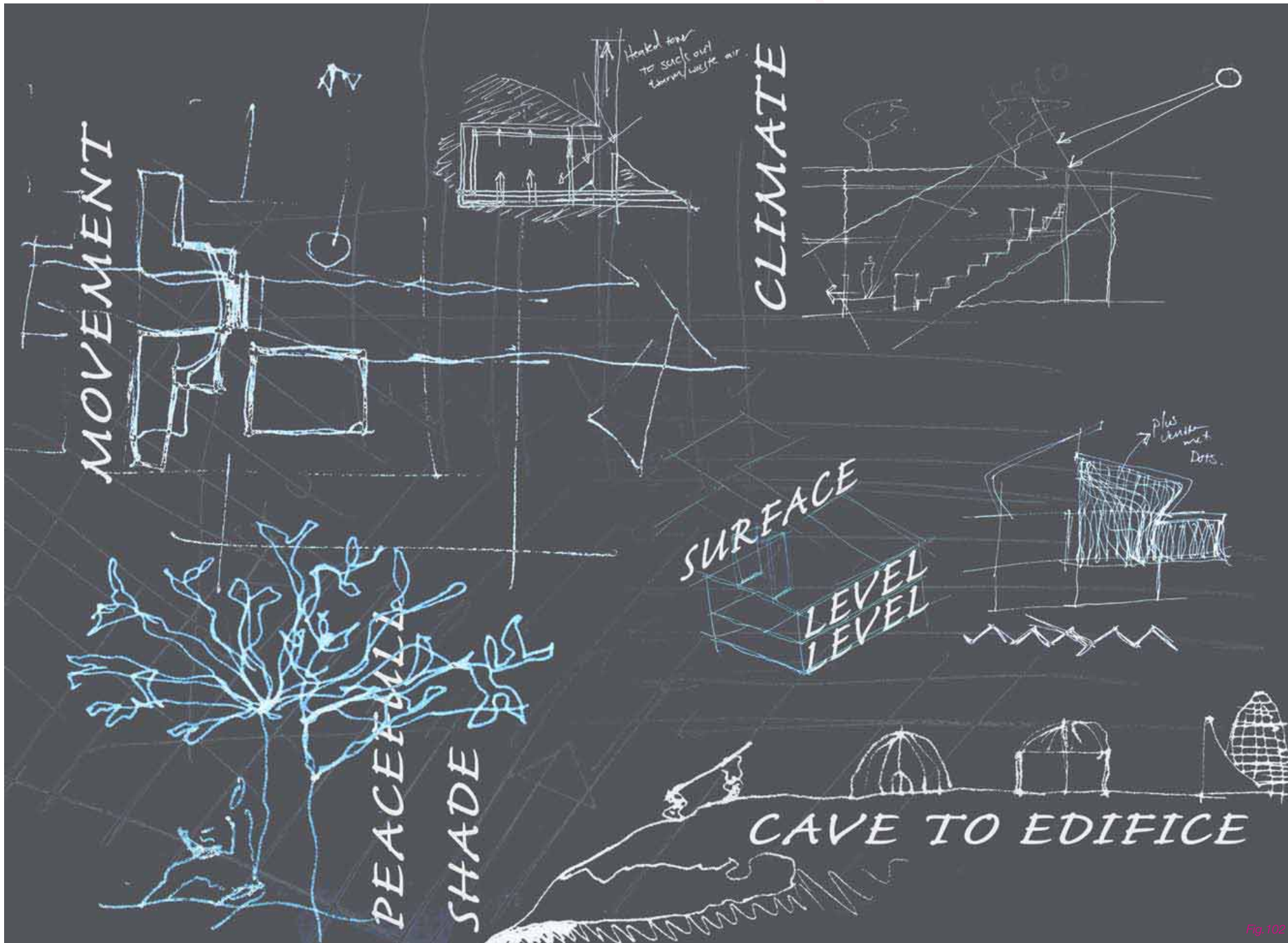


Fig.102

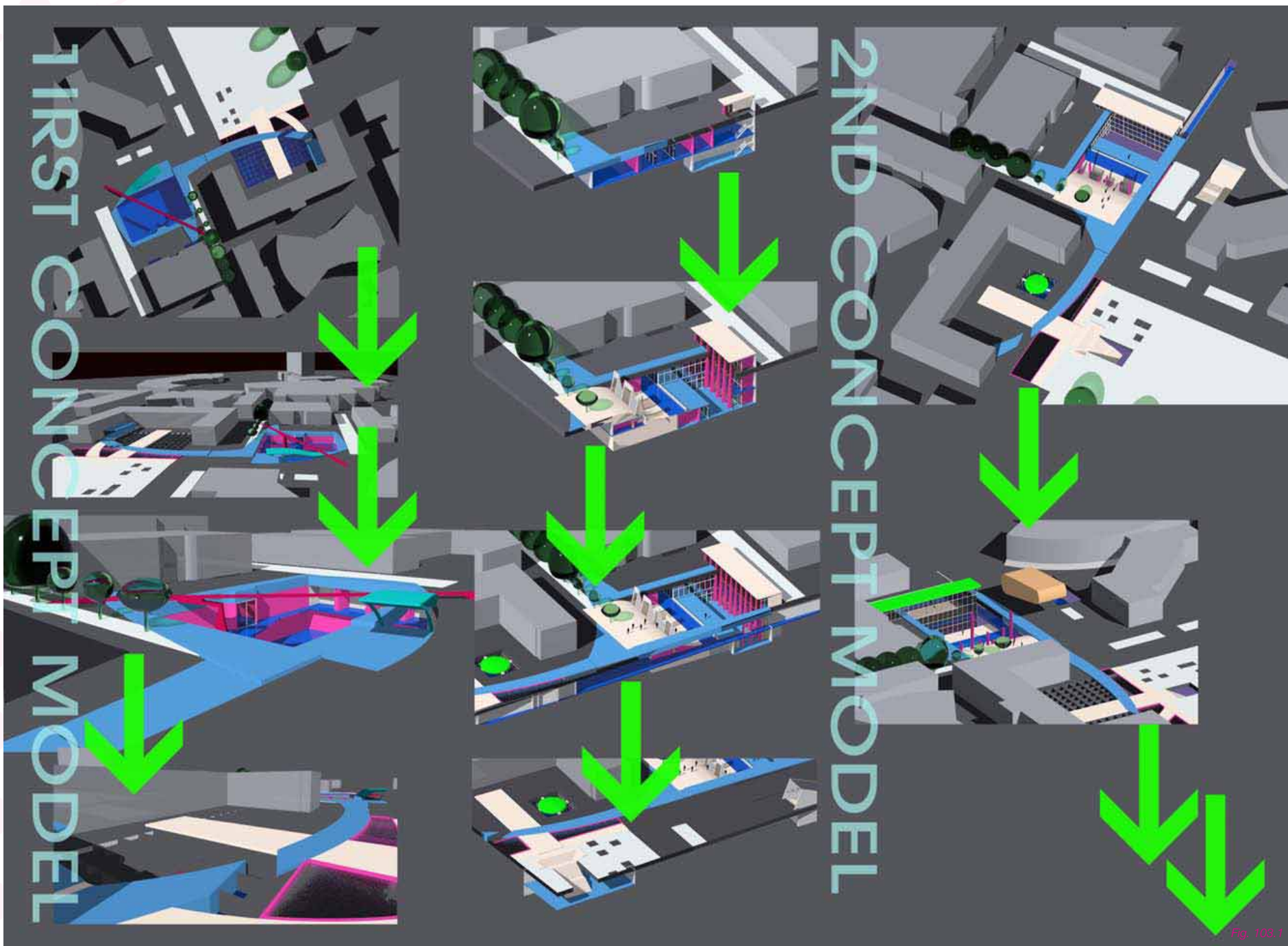


Fig. 103.1

# Behavioural Study

## On campus students are doing the following actions:

- Sitting in a class or lecture.
- Meeting with a lecturer or tutor
- Doing research/studying in the library or study rooms
- Waiting for the next class to begin
- Visiting friends
- Having a break
- Most of the day on campus is spent waiting around or having lunch/snack breaks or stealing smoke breaks between classes.

## Boukunde as an example of belonging

- In the Boukunde Building on campus, the Department of Architecture is housed. On each level in the building studios can be found. These studios are allocated to the different academic years and disciplines and are perfect examples of solutions to ideal behaviour-supportive spaces:
- These spaces are allocated to the students and become their 'home' for the year.
- It becomes their central point of reference to their environment on campus.
- It is a space of relaxing, working and pressure – all at the same time. It is a classroom at times, but is still remains a personal space for the students.
- Someone trying to find a student will always start looking in their studio.
- The student has his/her own corner where they have their own belong-

ings and personalised surroundings.

- The studios are used to sleep, eat, study and socialise in.
- It becomes the student's home on campus, a place of belonging.
- The studio atmosphere is supportive and creates a sense of community.

## Examples of other study field groups:

- Engineers can find each other at the Steers, underneath the Aula, or on the steps in front of the Aula. They also meet up in the IT labs to work between classes.
- In the project the goal is to create spaces like the studios in Boukunde: to create places of belonging for the students of the new Archaeology and Anthropology Department. These spaces will not be part of the program and will not even be evident to a visitor, but will be shaped by behaviour and the directing of the behaviour.
- The main concept is to divide the building into two levels which separate the junior students and the senior students. Each will then have its own courtyard/outside space which becomes an outer-room with seating and shading where students will relax, socialise and discuss projects. Archaeology 'studios' in the open air – this also becomes symbolic as archaeologists work in the outside for a majority of their career.

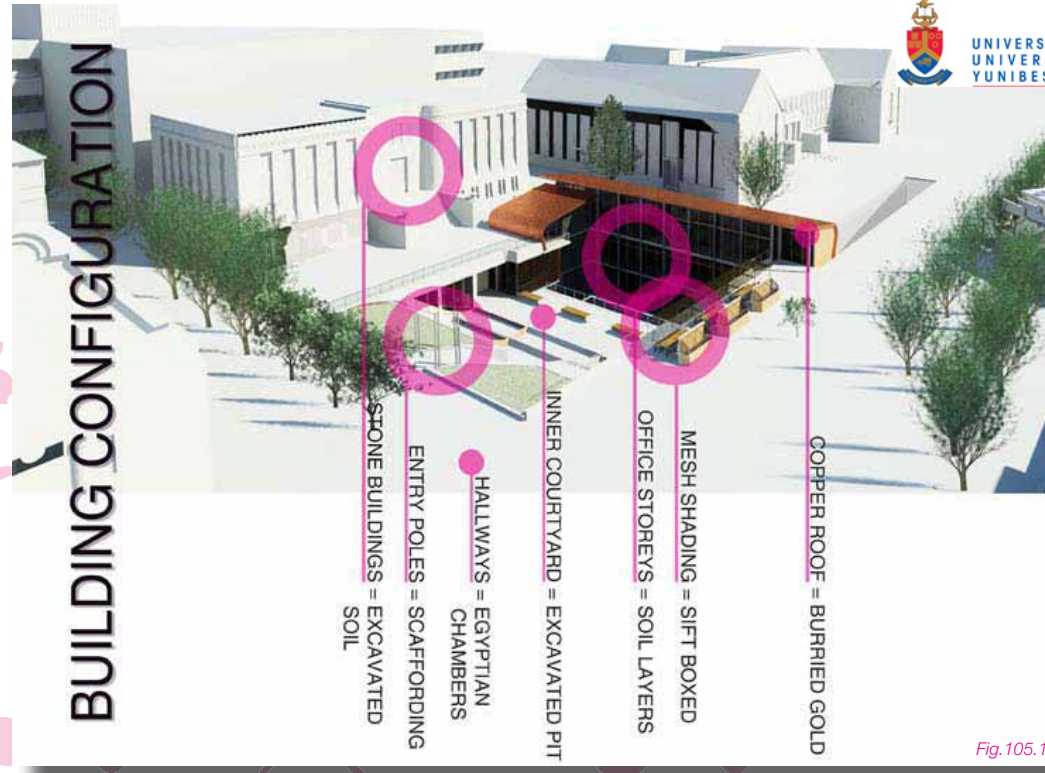


Fig.105.1

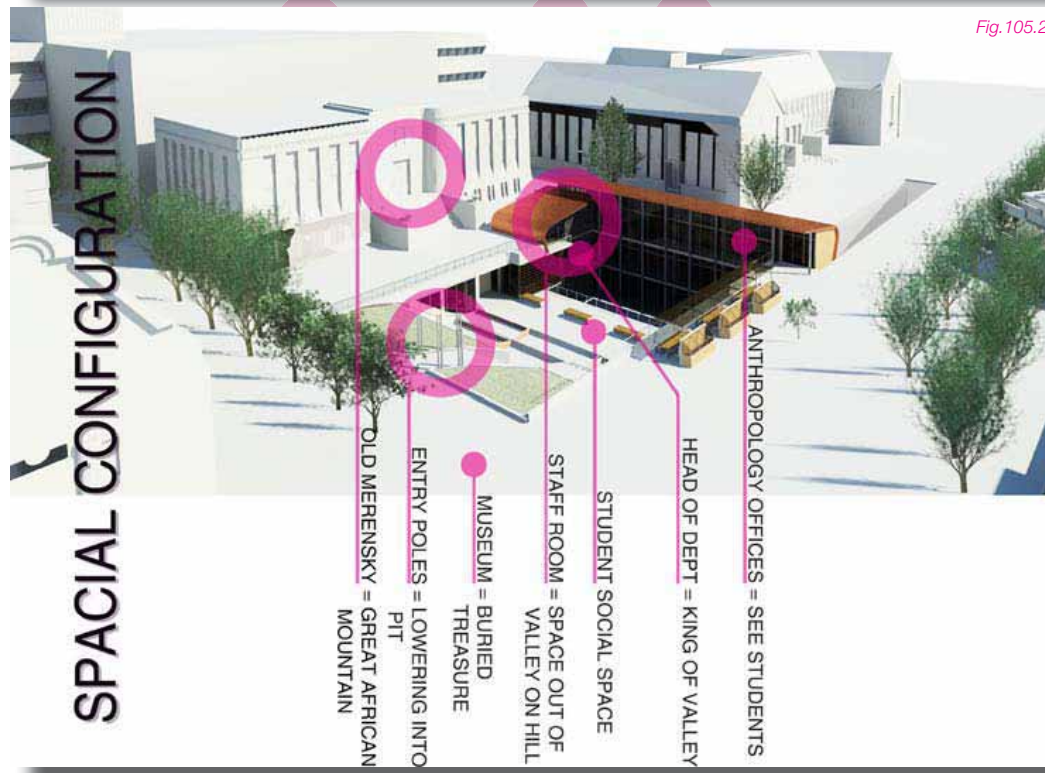


Fig.105.2



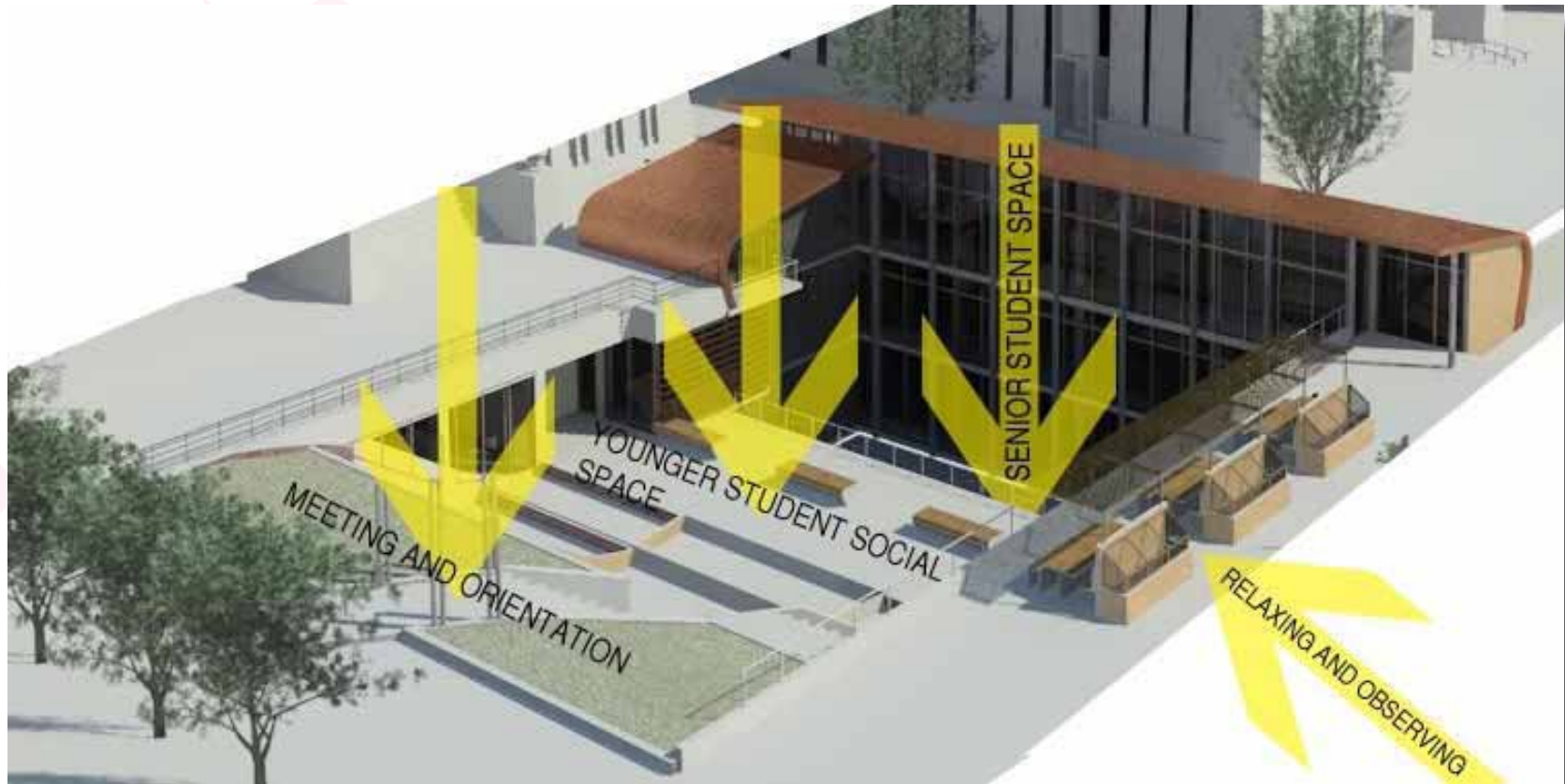
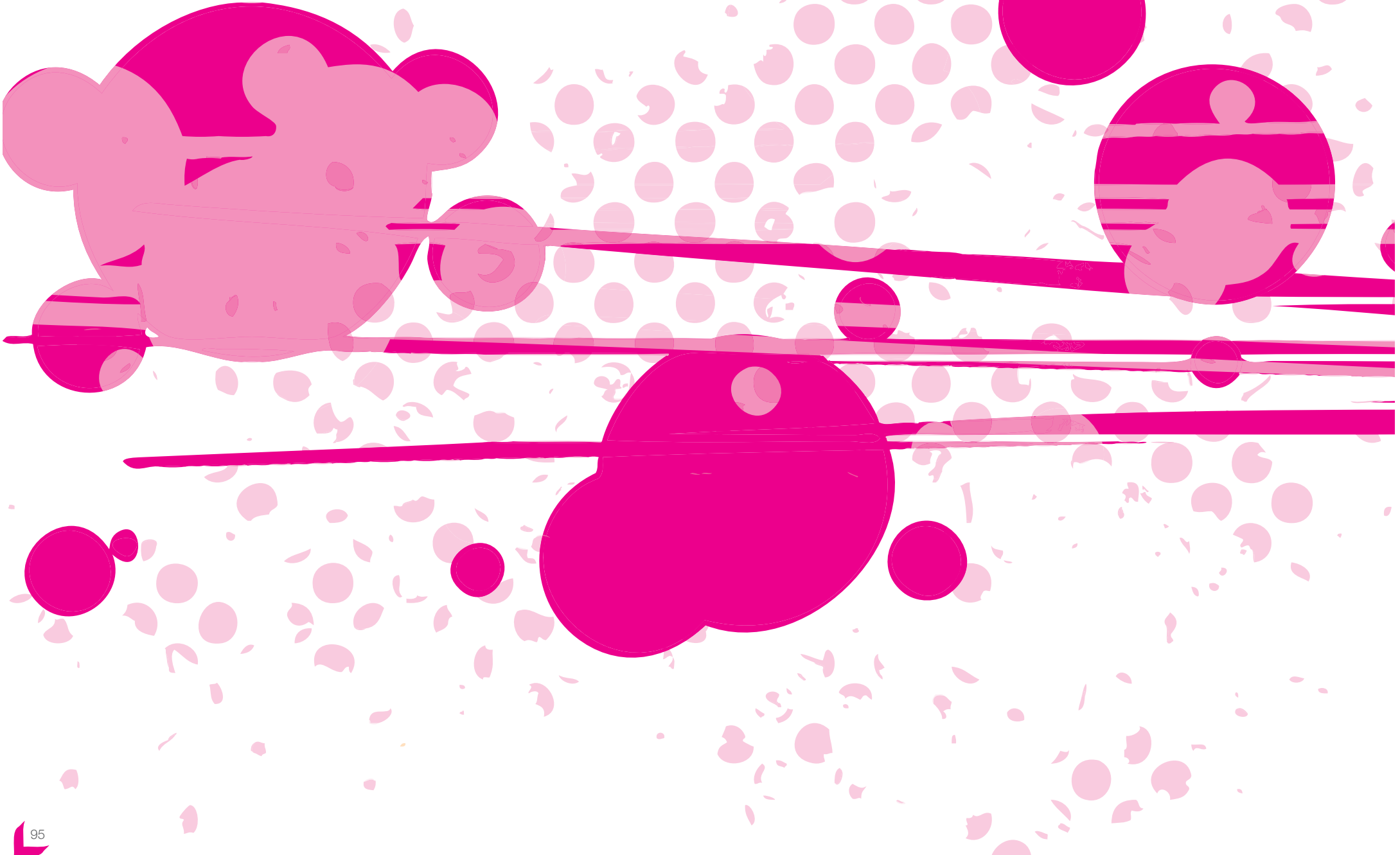



Fig. 103.2





“If you can’t explain your ideas to your grandmother in terms that she understands, you don’t know your subject well enough.”

*Frederick 2007, 48*

# Symbolism

## Symbolic meaning

Using symbolic meaning in design and architecture starts recognition by the user, consciously or subconsciously. It contributes to the users' environment and their feelings. It is very important that symbolic meaning and recognition in the built environment offer people the sense of belonging to a certain place. (Lang 1987, 203)

Architecture should be an expression of life and purpose. It is much more enjoyable if architecture becomes 'fun' for the designer, especially while designing a specific building like a Department for Archaeology and Anthropology – which is filled with symbolic meaning and imagery.

In the diagram the triangular relationship between the Symbol, Referent and Thought is shown. The Symbol represents the result of a cognitive process whereby an object acquires a connotation beyond its ordinary use. (Lang 1987, 204) The Referent is the object, which could be a material artefact, which conveys an expression or emotion that the designer is using to communicate to the user. The Thought or signified is the user or person whom perceives the object and connects the representation to a personal emotion or understanding. (Lang 1987, 204)

These headings are variables of symbolic arrangements identified by Lang:

1. Building Configuration
2. Spatial Configurations
3. Materials

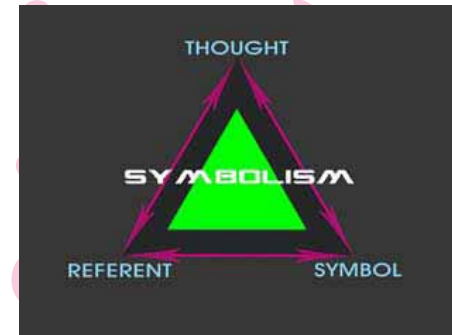


Fig.104.1



Fig.104.2

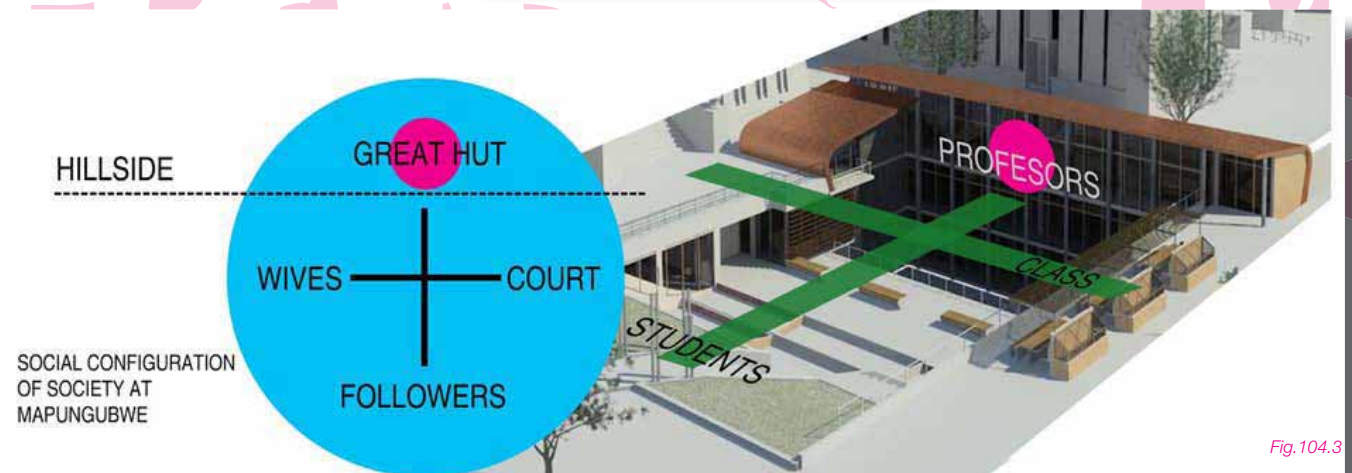


Fig.104.3

# 3-Dimensional exploration

Symmetry - axis



Fig. 106



Fig. 107



Fig. 108



Fig. 109



Fig.110



Fig.111

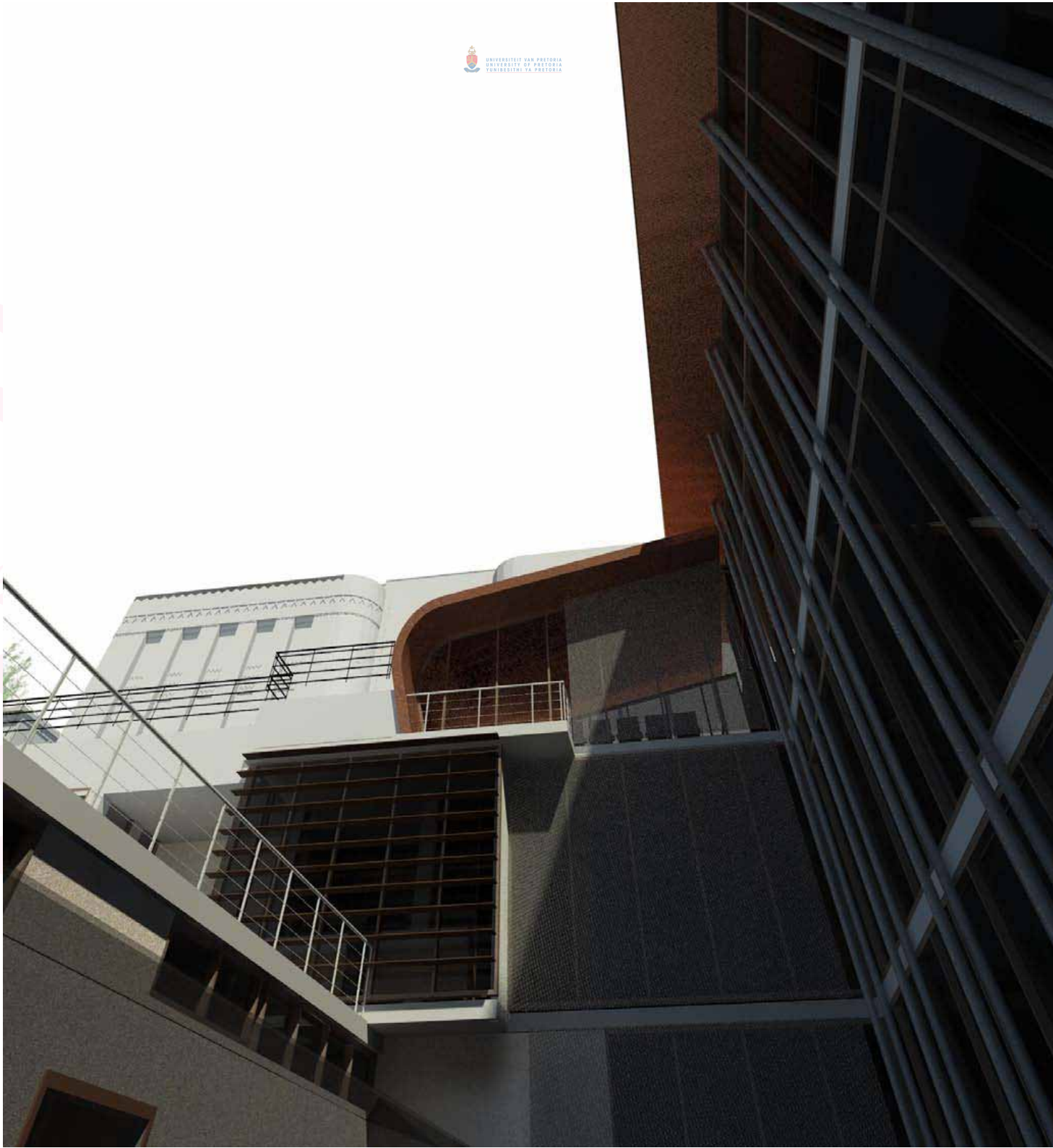
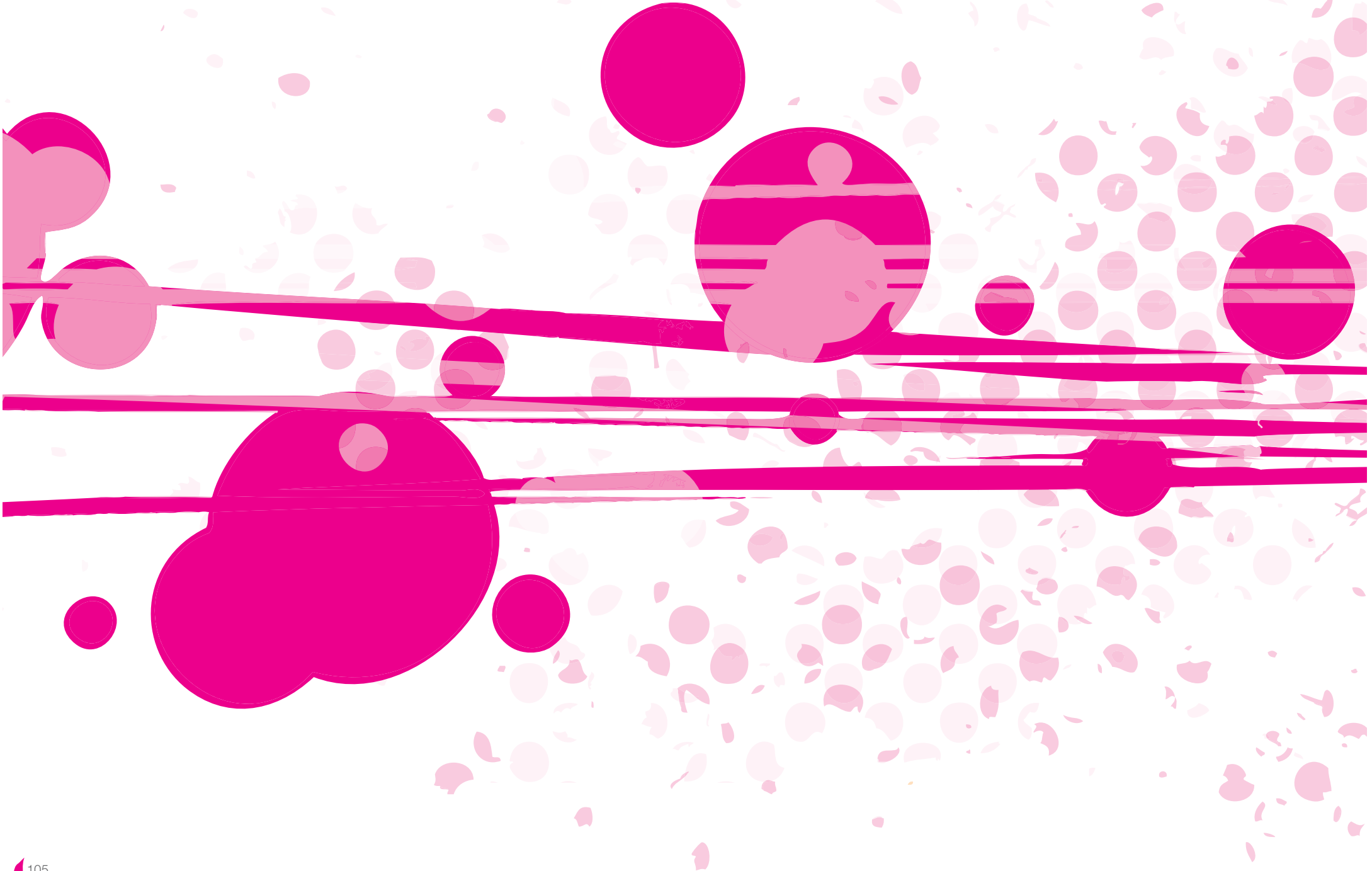




Fig.112





“On the ground surface, often monotonous, repetitive, and apparently blank, offering very little to the stranger, yet underneath, lies a fertile seed-bed of all sorts of unexpected cultural activities and manifestations.”

*Clair Melhuish*

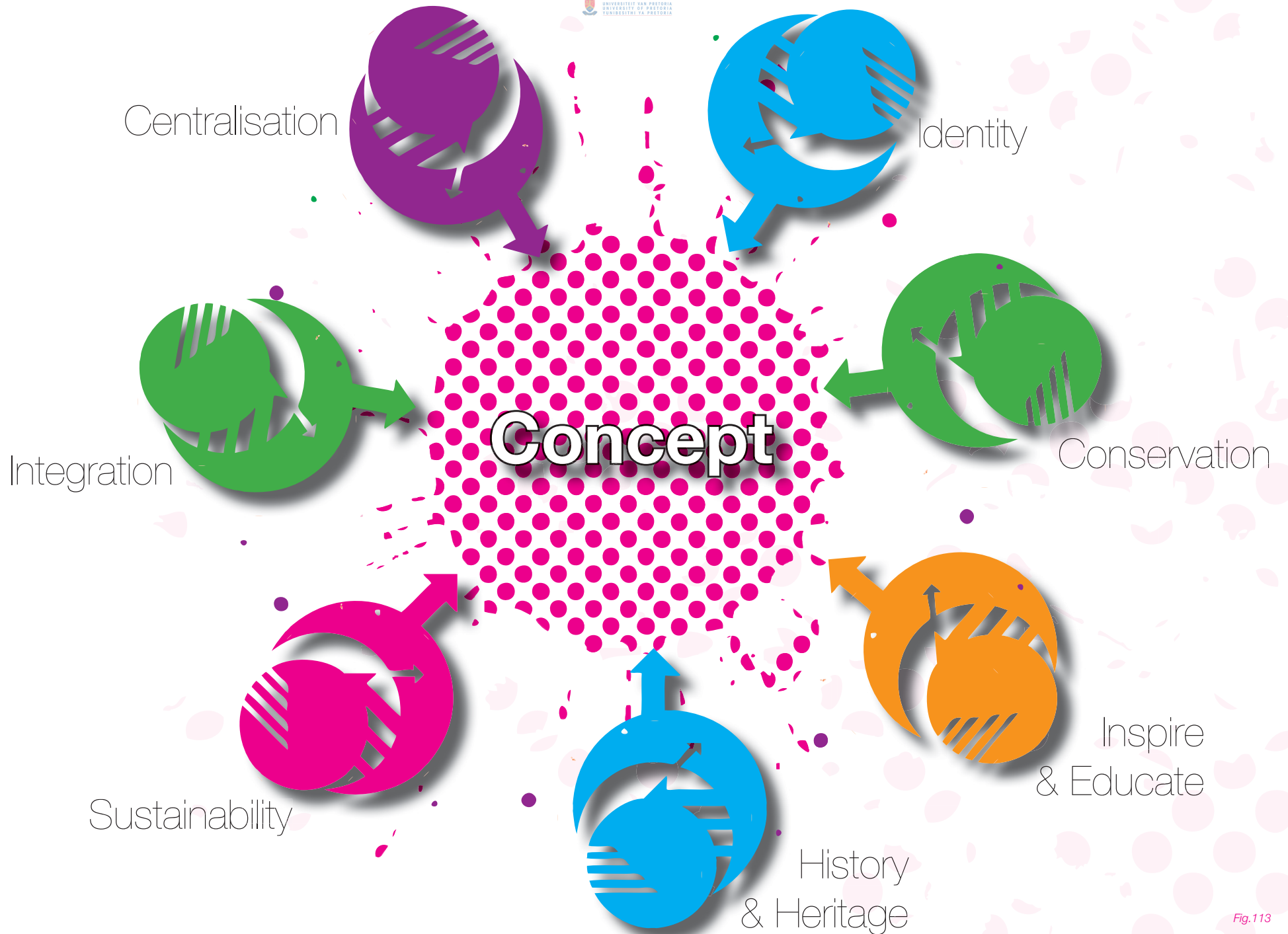


Fig.113

# UP VISITOR



# Capital Campaign

The Capital Campaign is a new endeavour the University is proposing for the management of the large collections of artefacts, art and sculptures it has displayed all over campus or in storage. The value of these objects are estimated to be in the multiple millions and need to be protected. Most of the valuable objects are not on display due to security and conservation concerns.

The Campaign is still in concept phase and specific details are still unclear. (At the time of interview with Sian Tiley-Nel and Gerhard de Kamper)

The proposal is to identify a site on University grounds, preferably in a more accessible and open space.

To this point a site on the LC de Villiers sports grounds have been proposed.

On this new site a new building will be erected which will then contain most of the University's collections of art and historic artefacts. It will also house all of the different curators and conservationists offices and other specific space requirements.

There will also be sufficient storage facilities for all objects not displayed.

The building will become a large integrated museum with amenities and group education facilities.<sup>6</sup>

## Compare Project concepts:

Centralisation: not good  
Integration: good  
History and heritage: good/not good  
Inspire and educate: good/not good  
Conservation: not good  
Sustainability: good  
Identity: not good

The project sounds tempting because of the architectural possibilities of such an iconic building on such a natural landscape, but the fact of the matter is that most of the art and objects, that make campus such a beautiful place and the buildings so special, inspire hundreds of young people every day without them, or the curators, apparently realising it. The art and museums on campus make it an accessible asset which is rich and enjoyable.

6 - Interview with Gerhard de Kamper and Sian Tiley-Nel



part five

documentation of finds





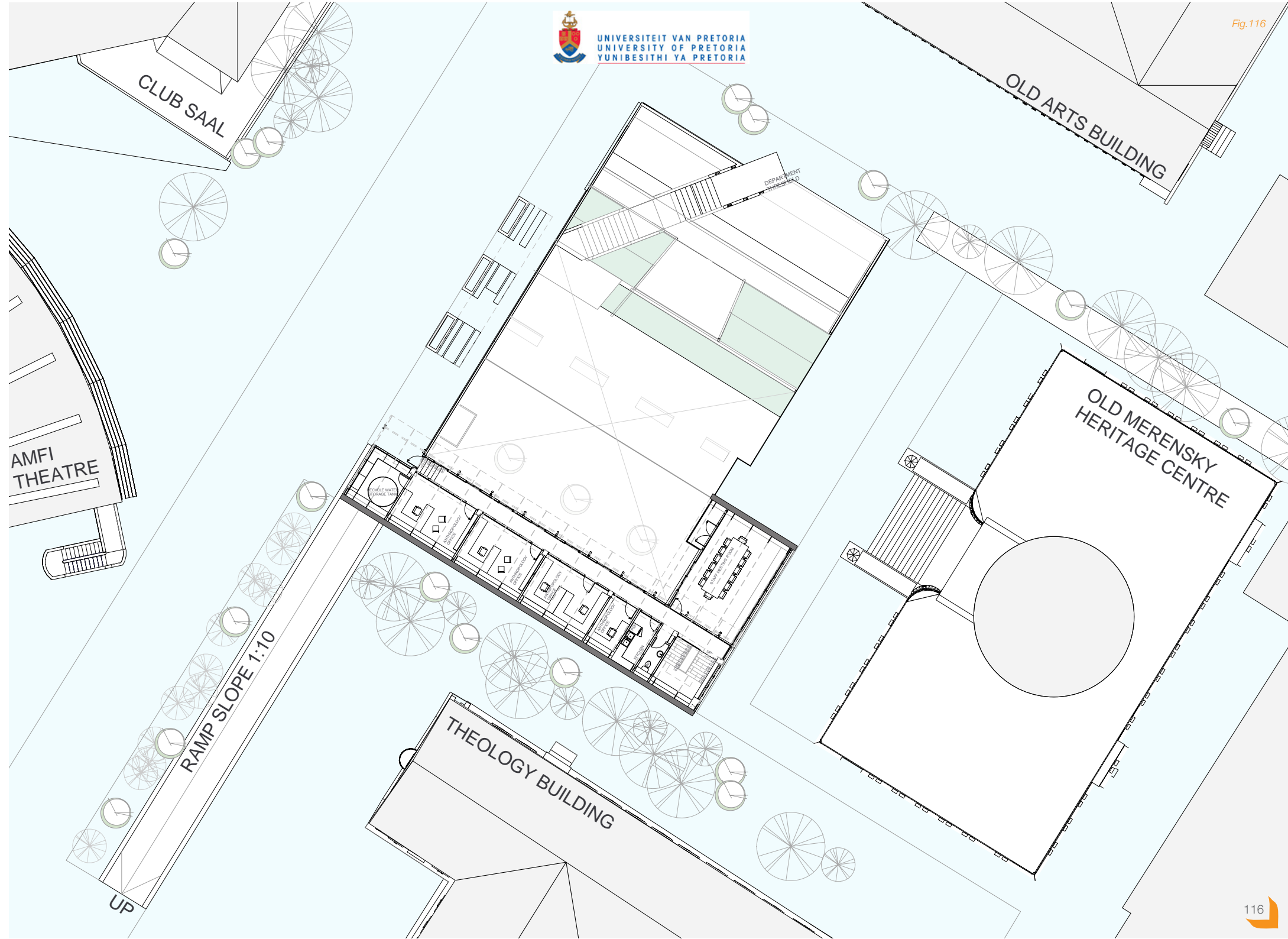
# Technical Documentation

Site Plan



Fig.115

Level G  
1 : 250



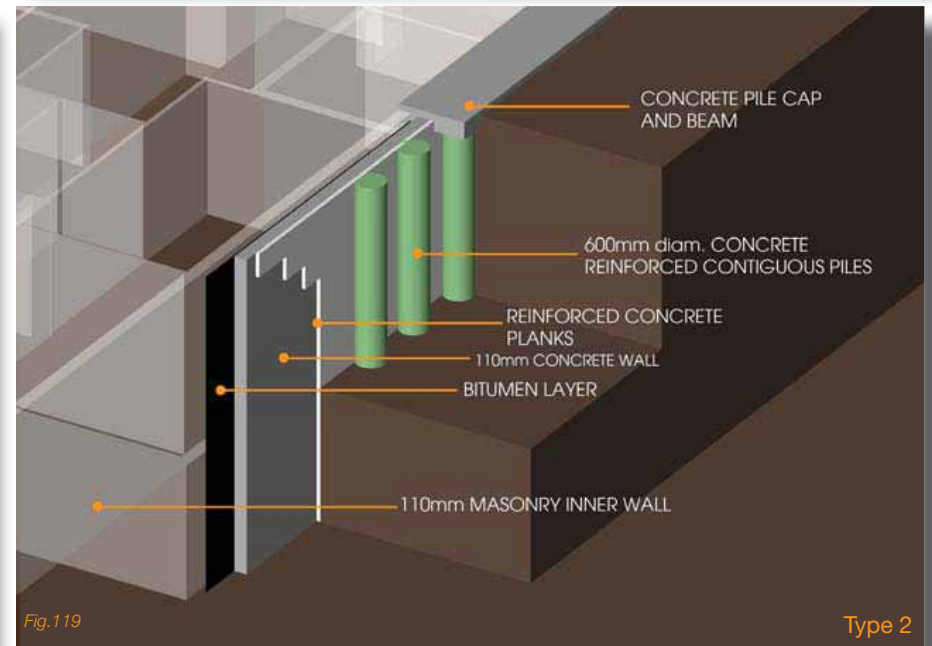
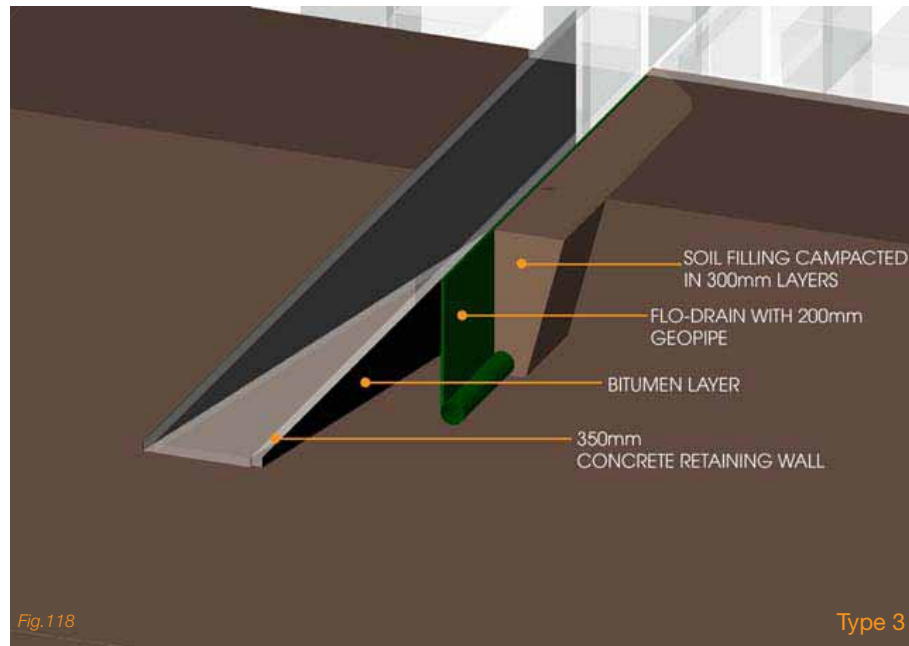
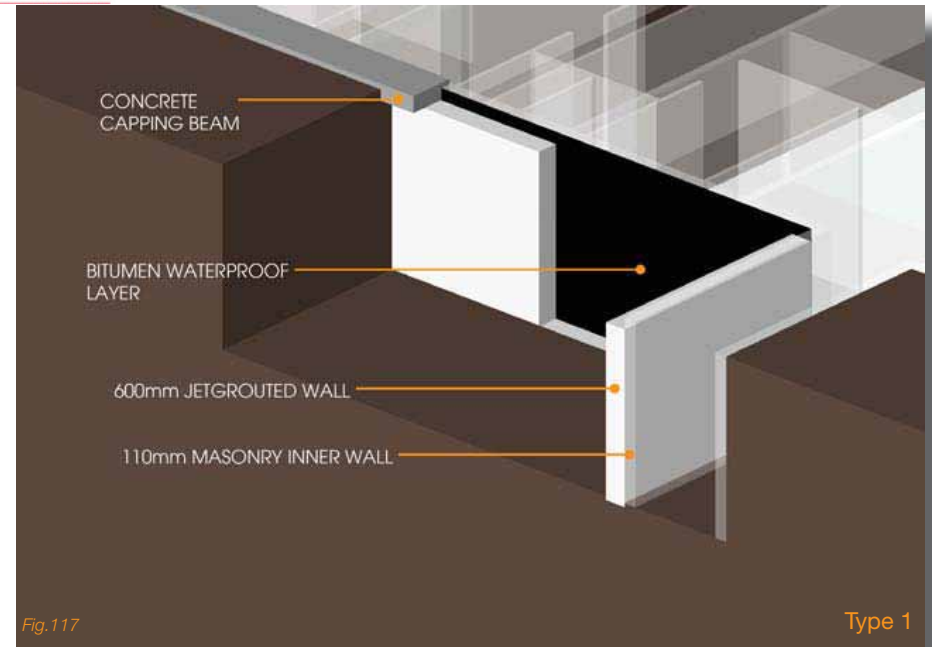
# Foundation

## Foundations

Type 1  
Jet grouting

Type 2  
Piles+cavity

Type 3  
Flow-drain



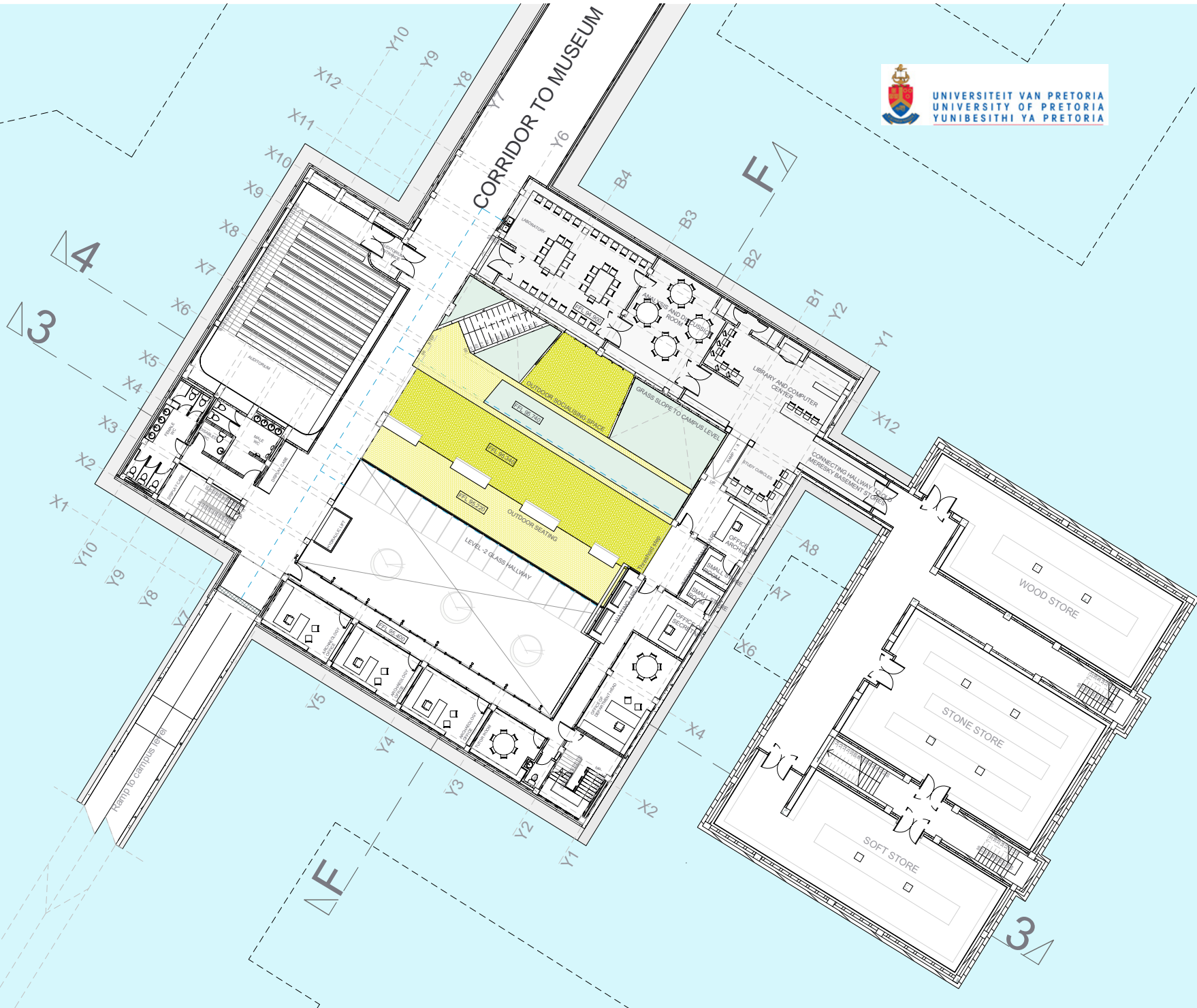


Fig.120

# Structure

- Base
- Columns
- Floors
- Walls
- Facades
- Roofs
- Gardens

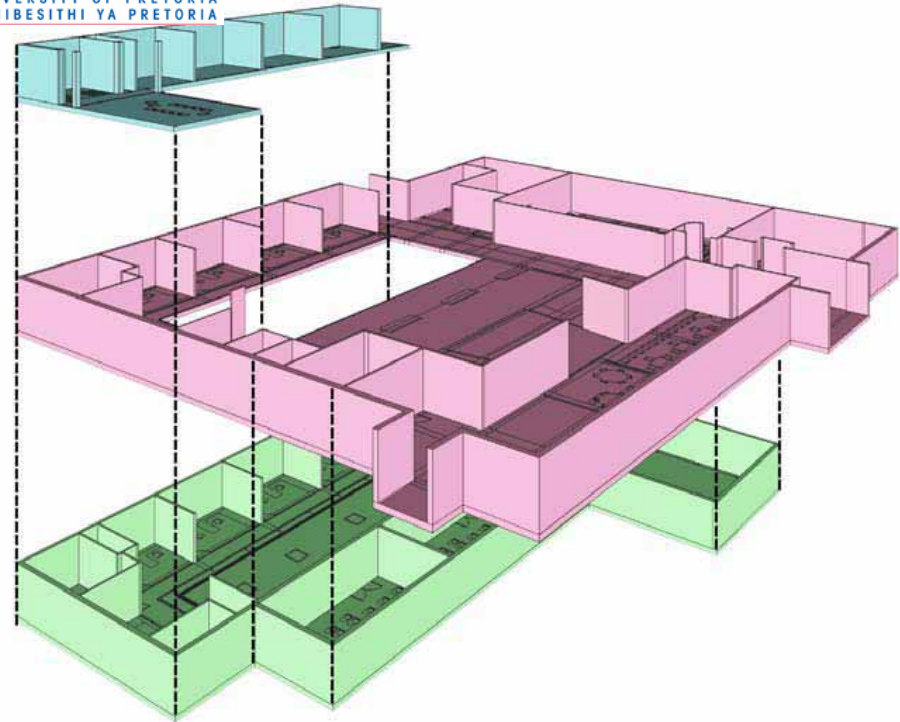


Fig.121

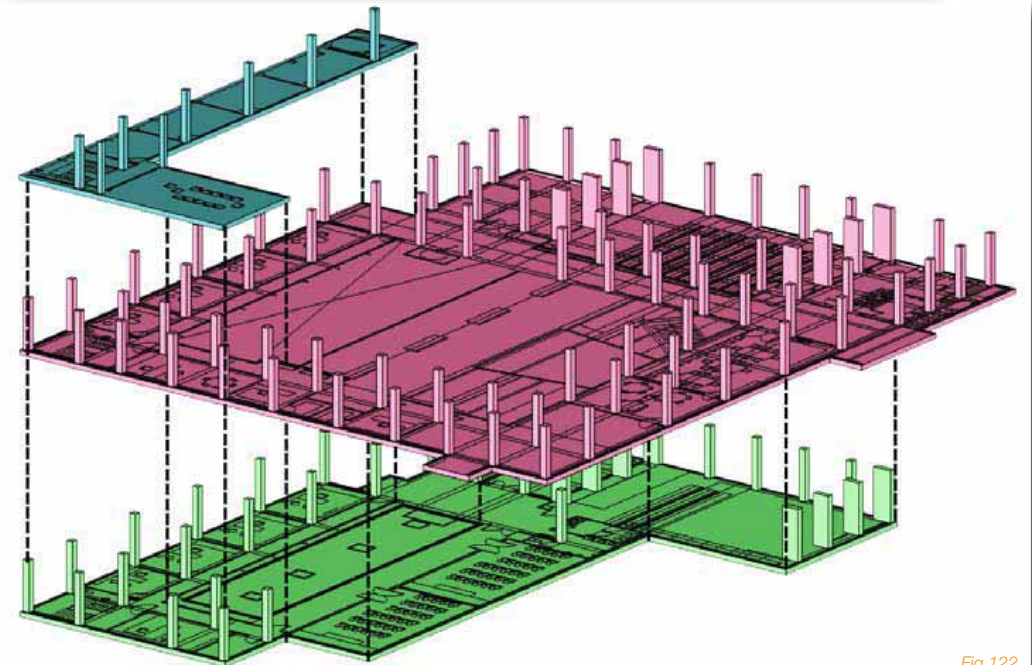
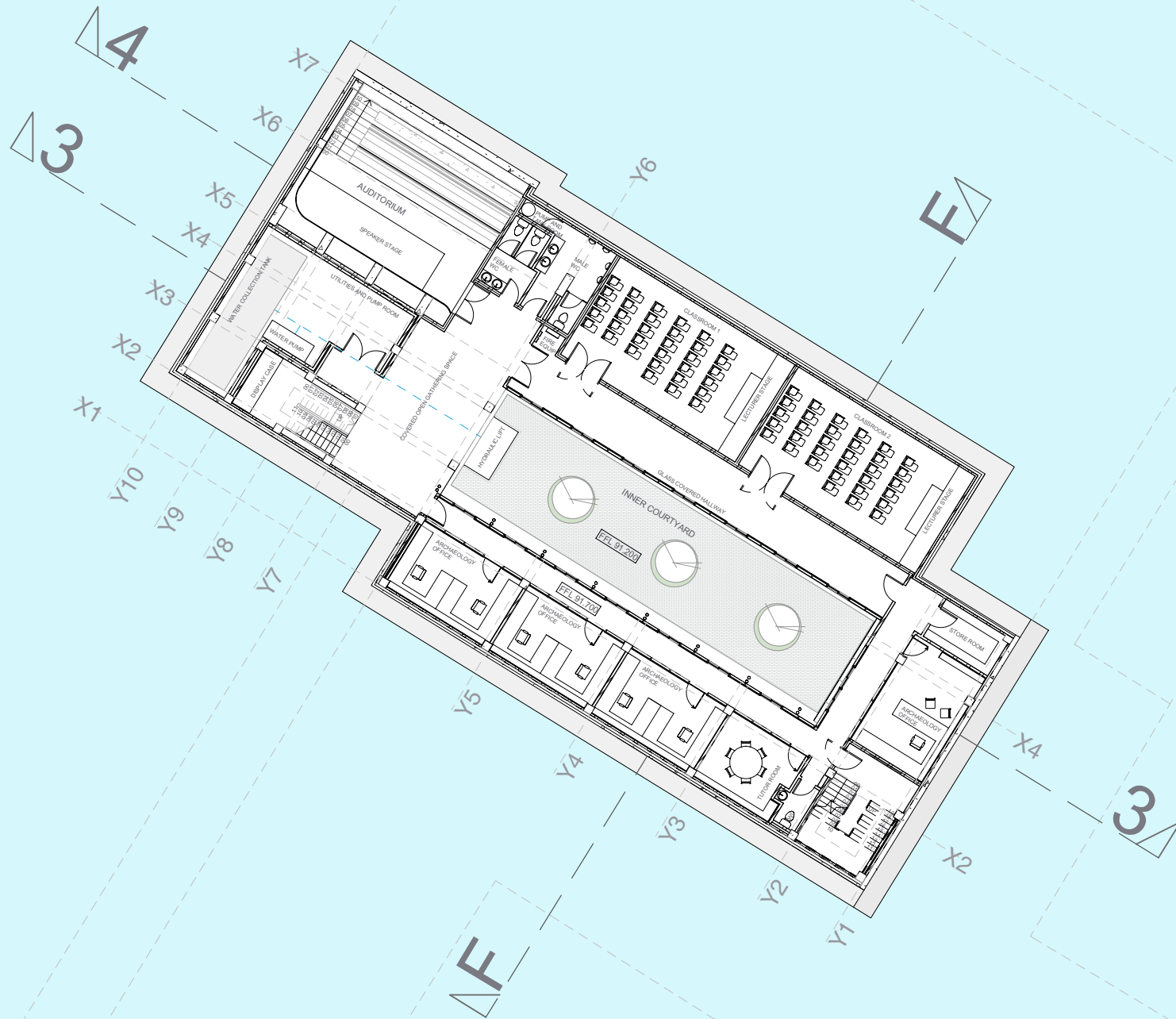


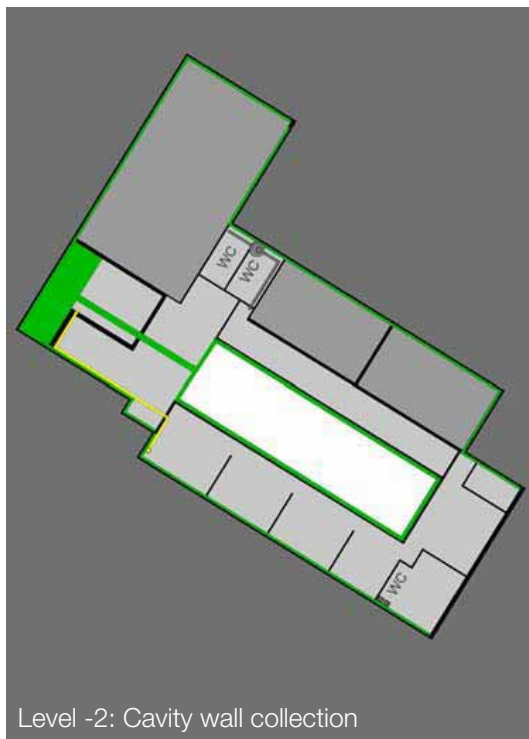
Fig.122

# Level -2 1 : 250

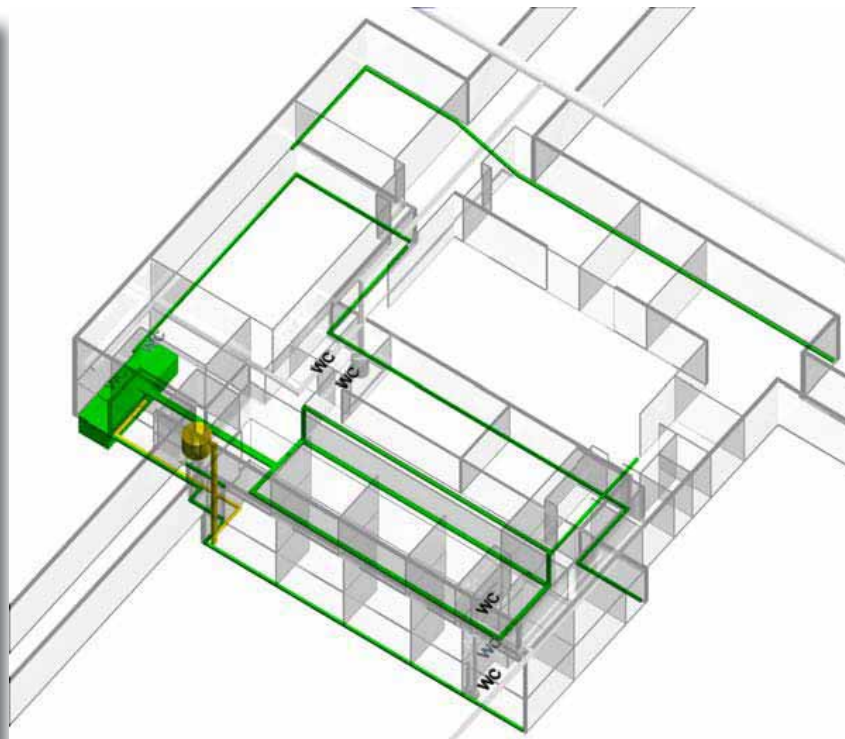


# Water System

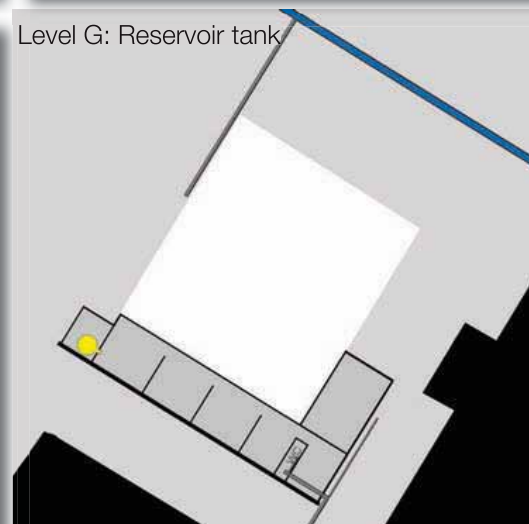
## Ground and storm water system



Level -2: Cavity wall collection

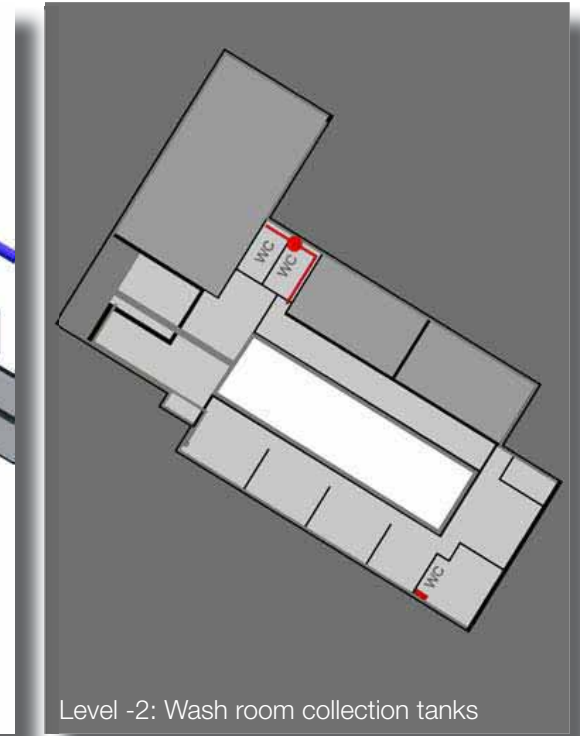
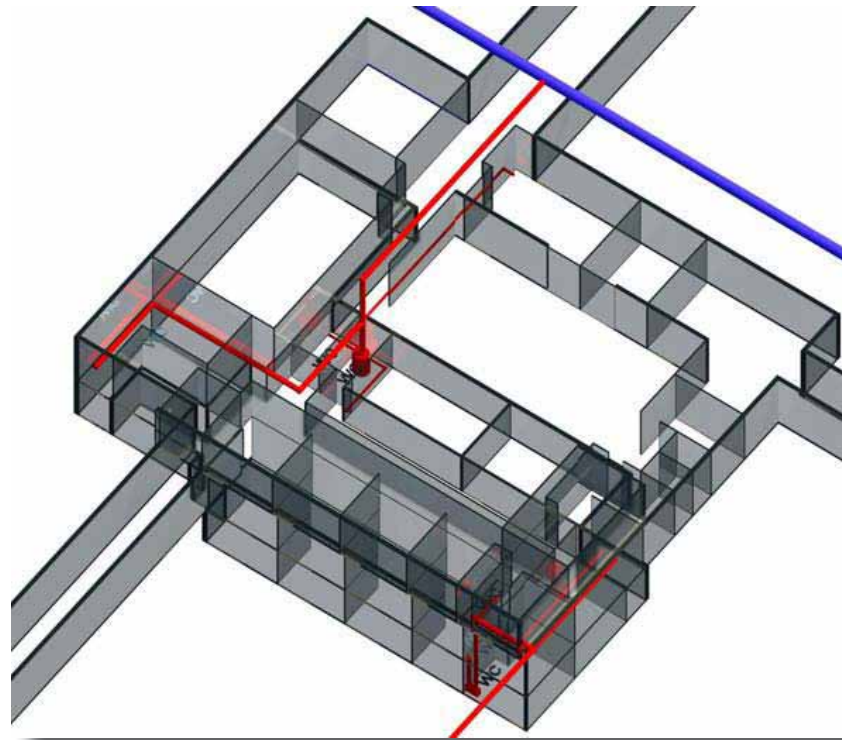


Level -1: Storm and ground water collection



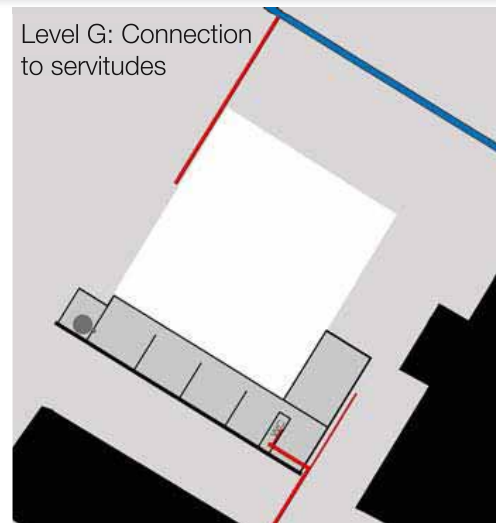
Level G: Reservoir tank

Fig.124



Level -2: Wash room collection tanks

Fig.125

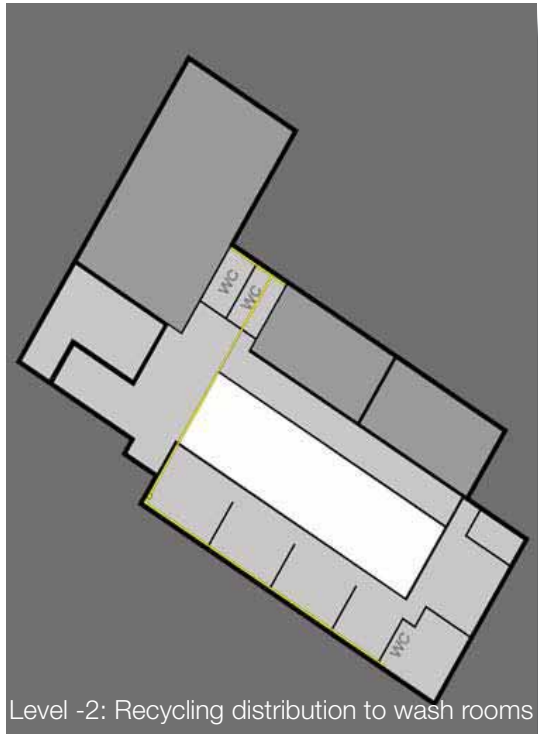


Level G: Connection to servitudes



Level -1: Sewage collection

# Water recycling system



Level -2: Recycling distribution to wash rooms

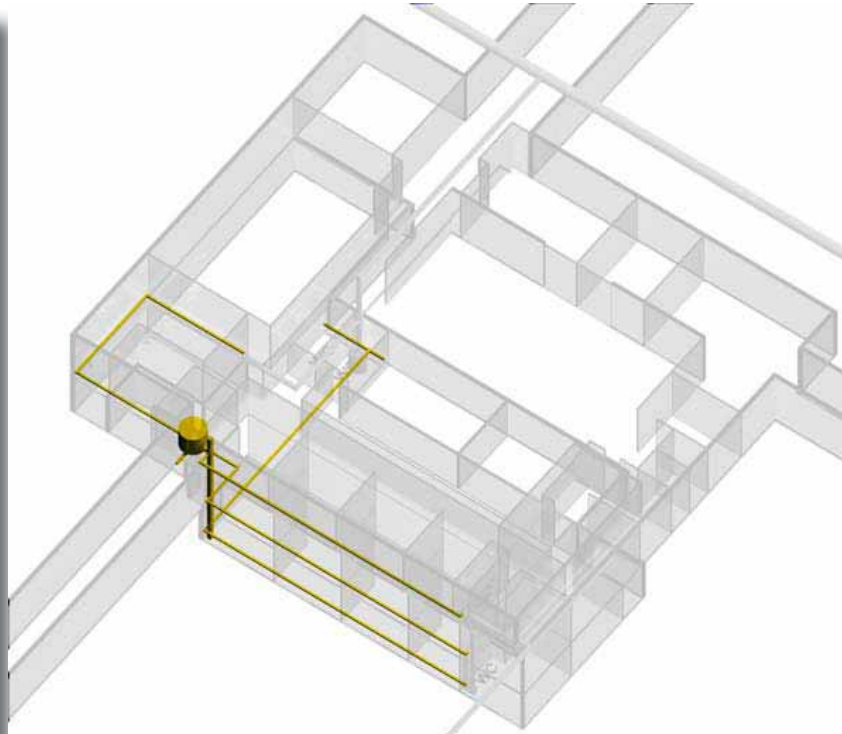
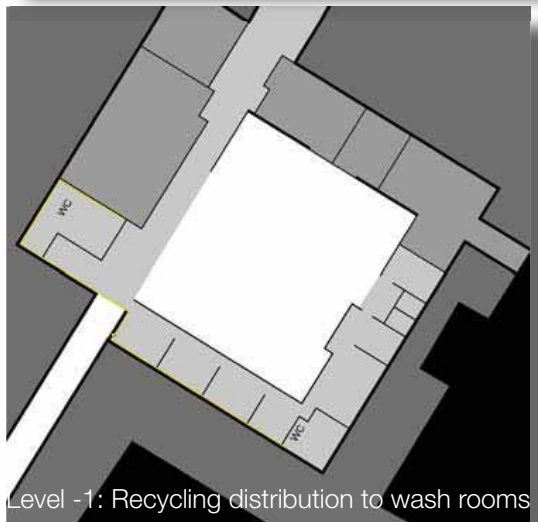
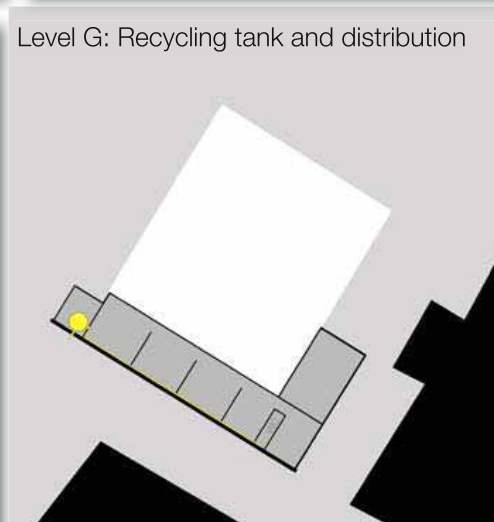


Fig.126

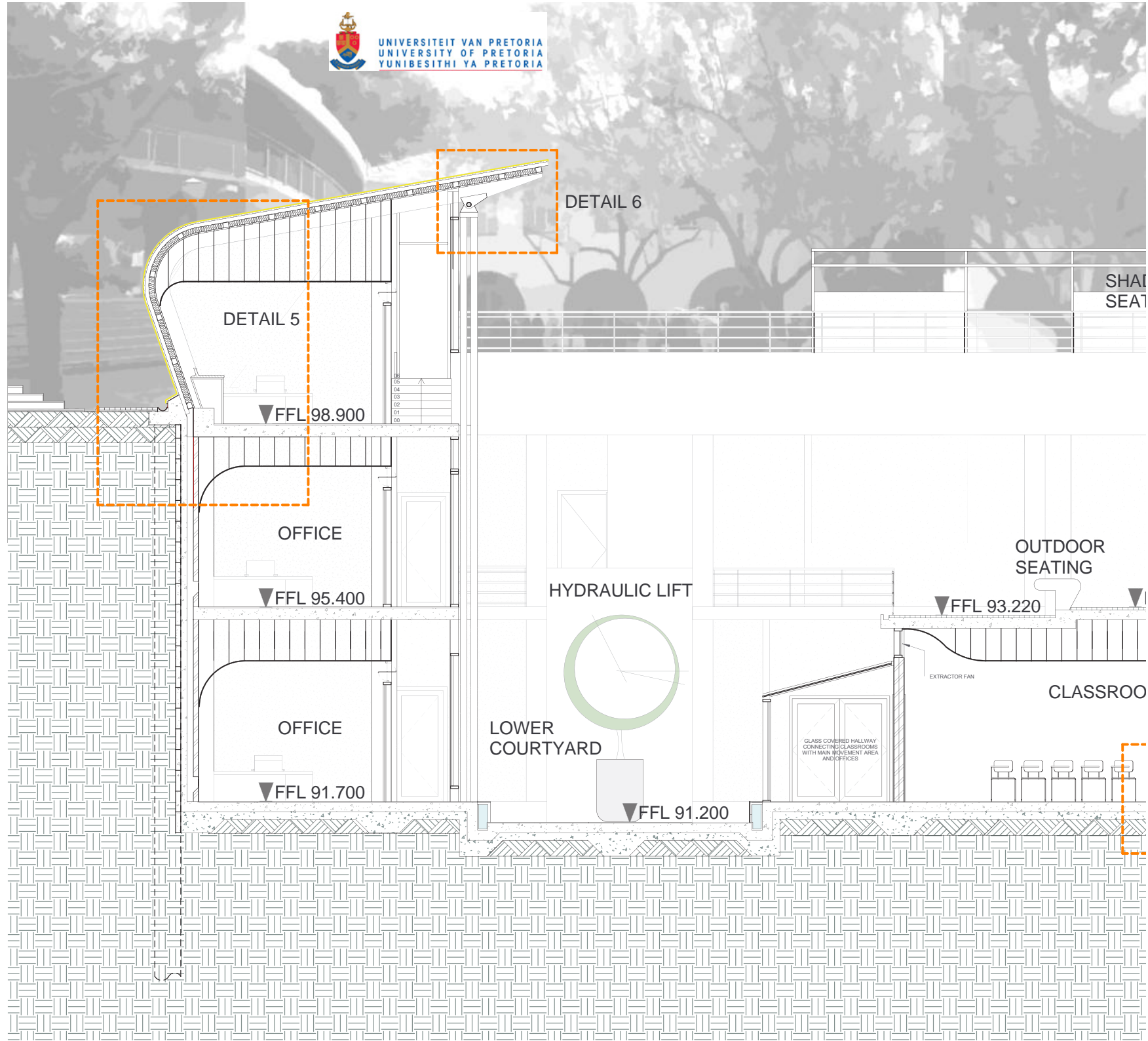


Level -1: Recycling distribution to wash rooms



Level G: Recycling tank and distribution

Section F - F  
1 : 100





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TING		

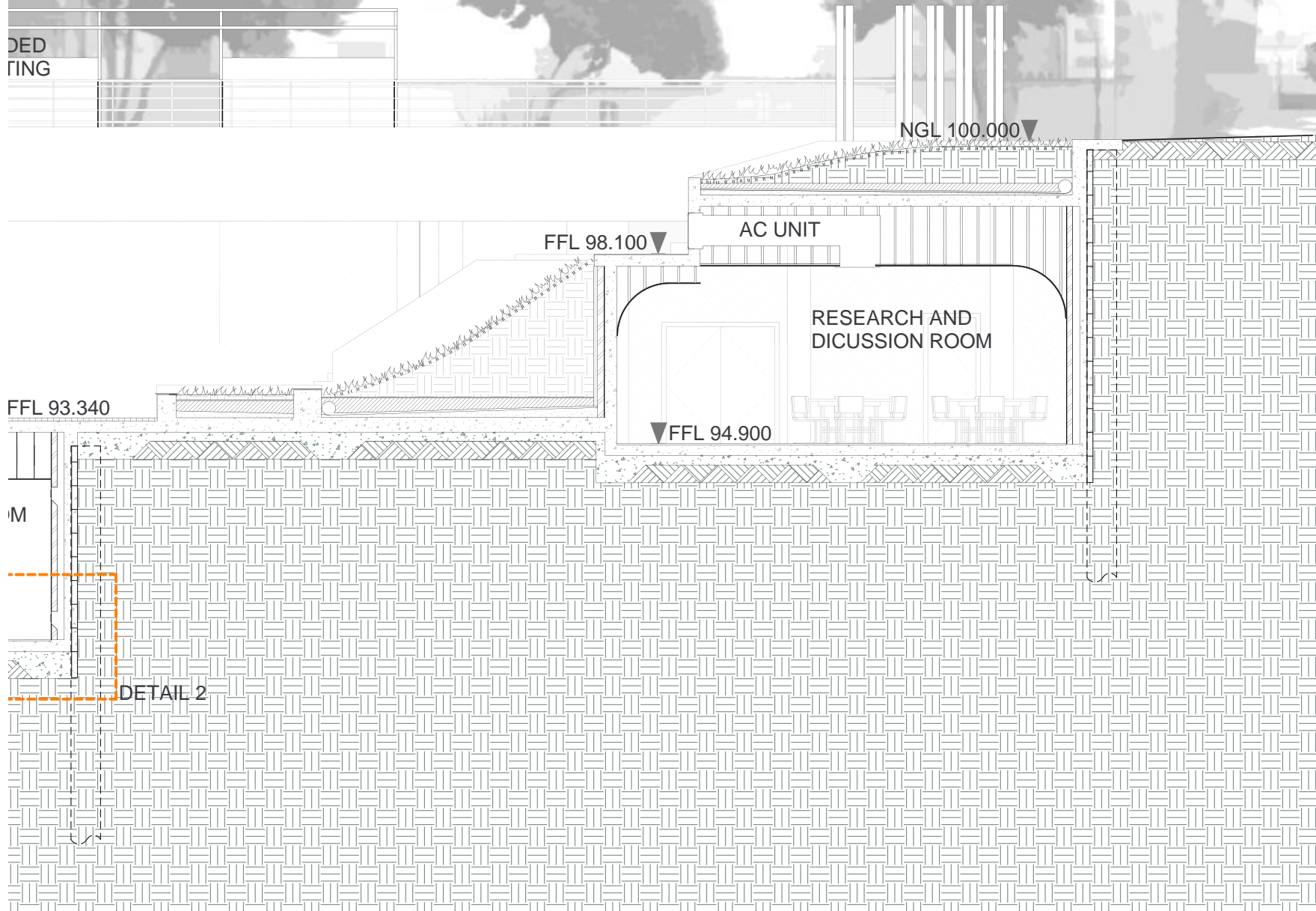
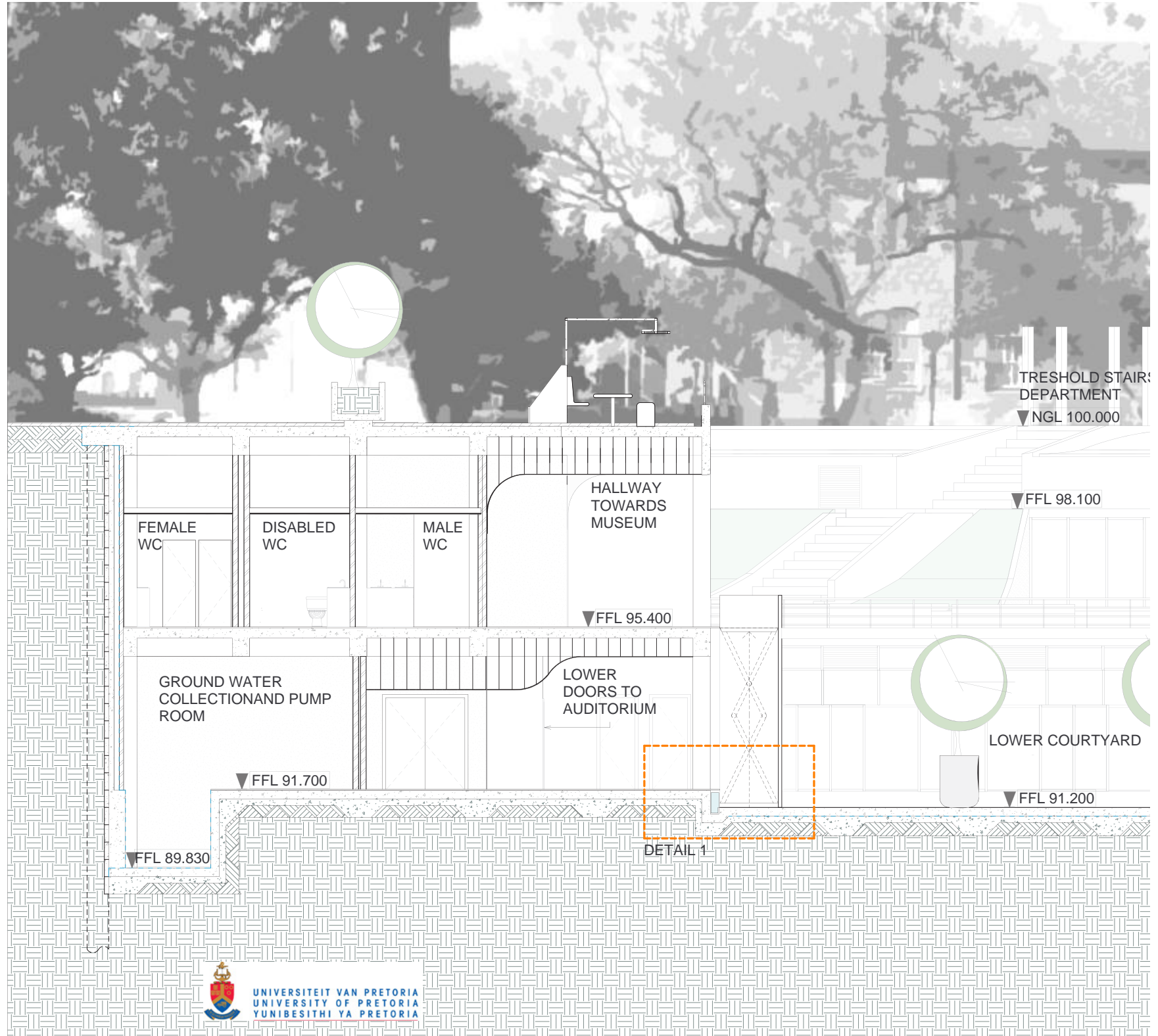


Fig.127

Section 3 - 3  
1 : 100



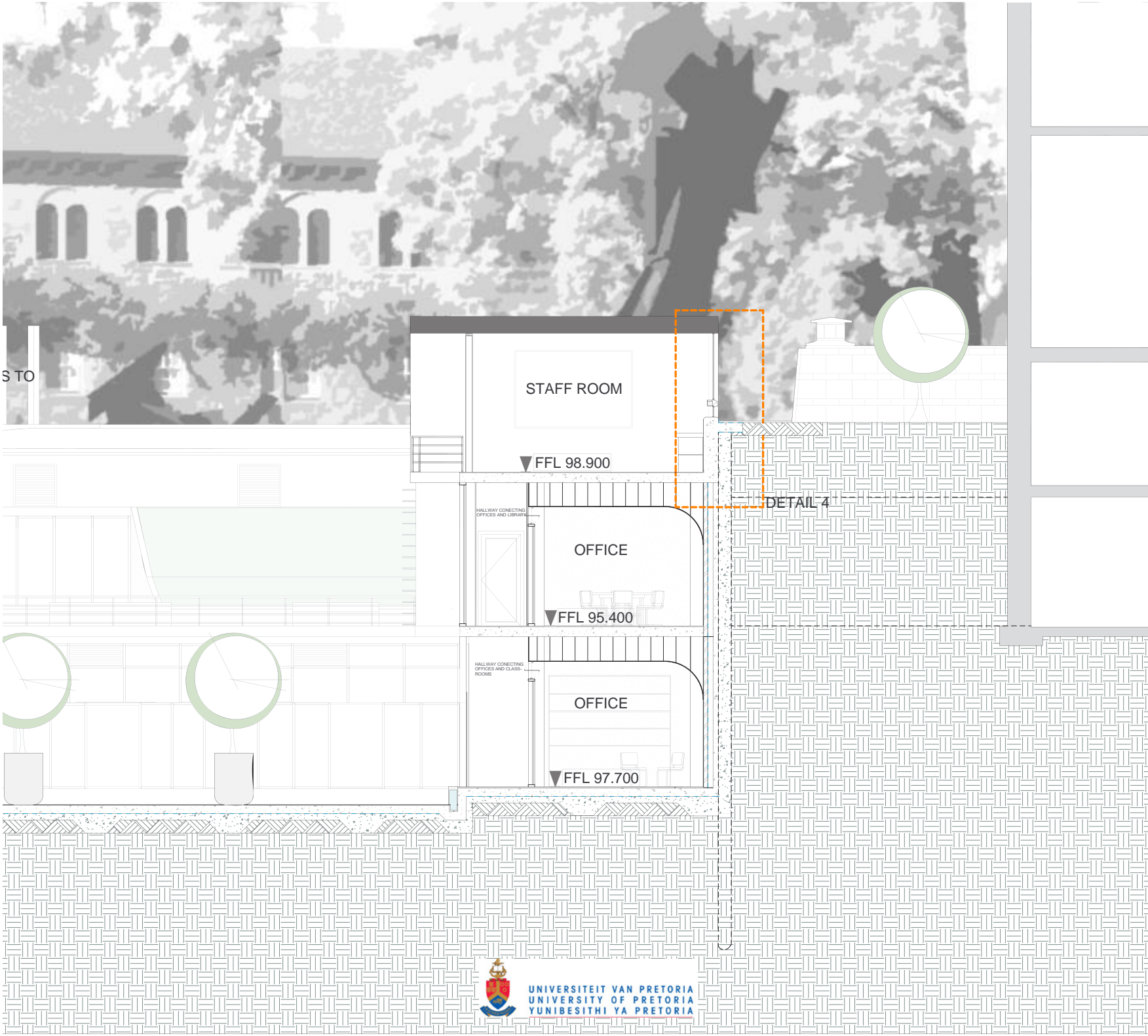


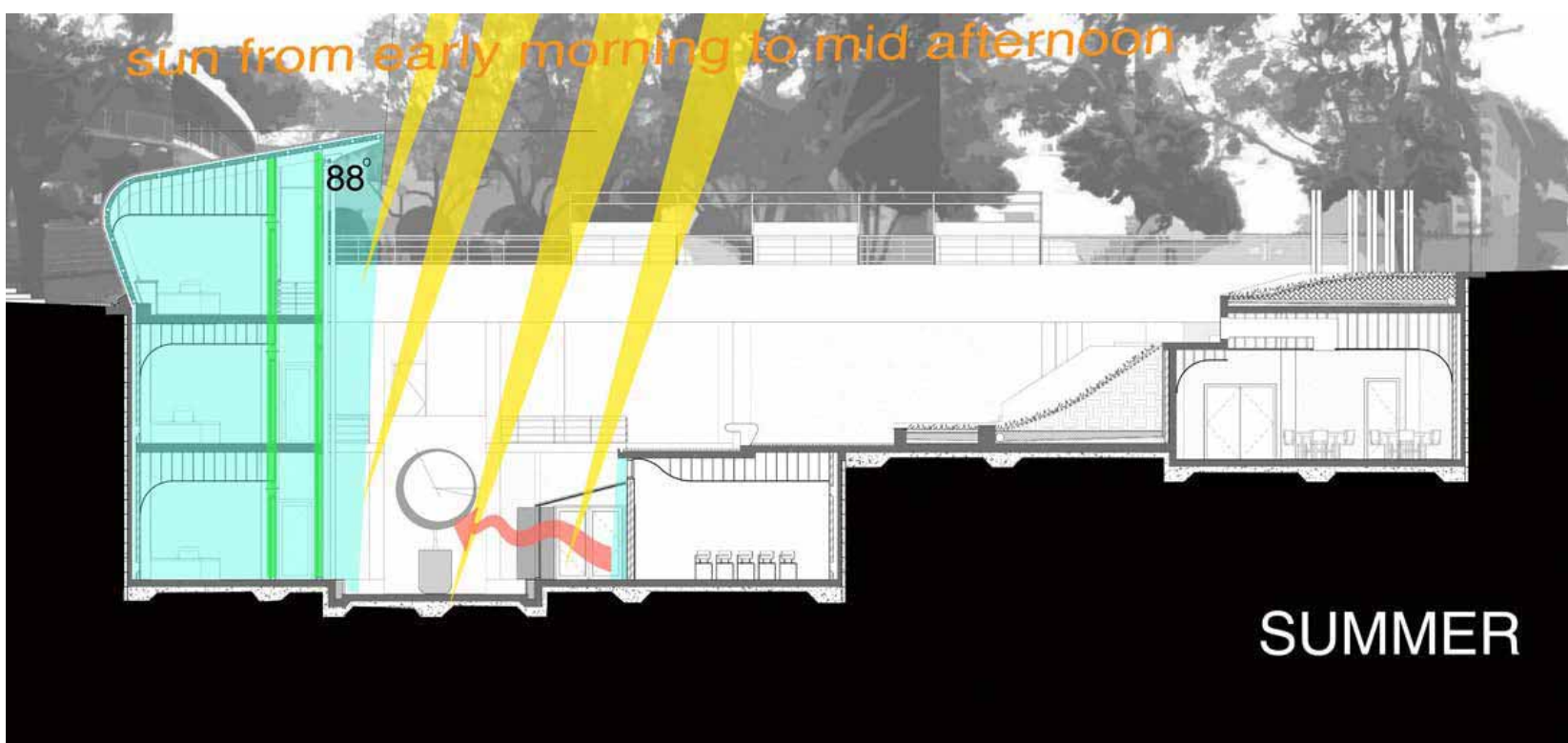
Fig.128



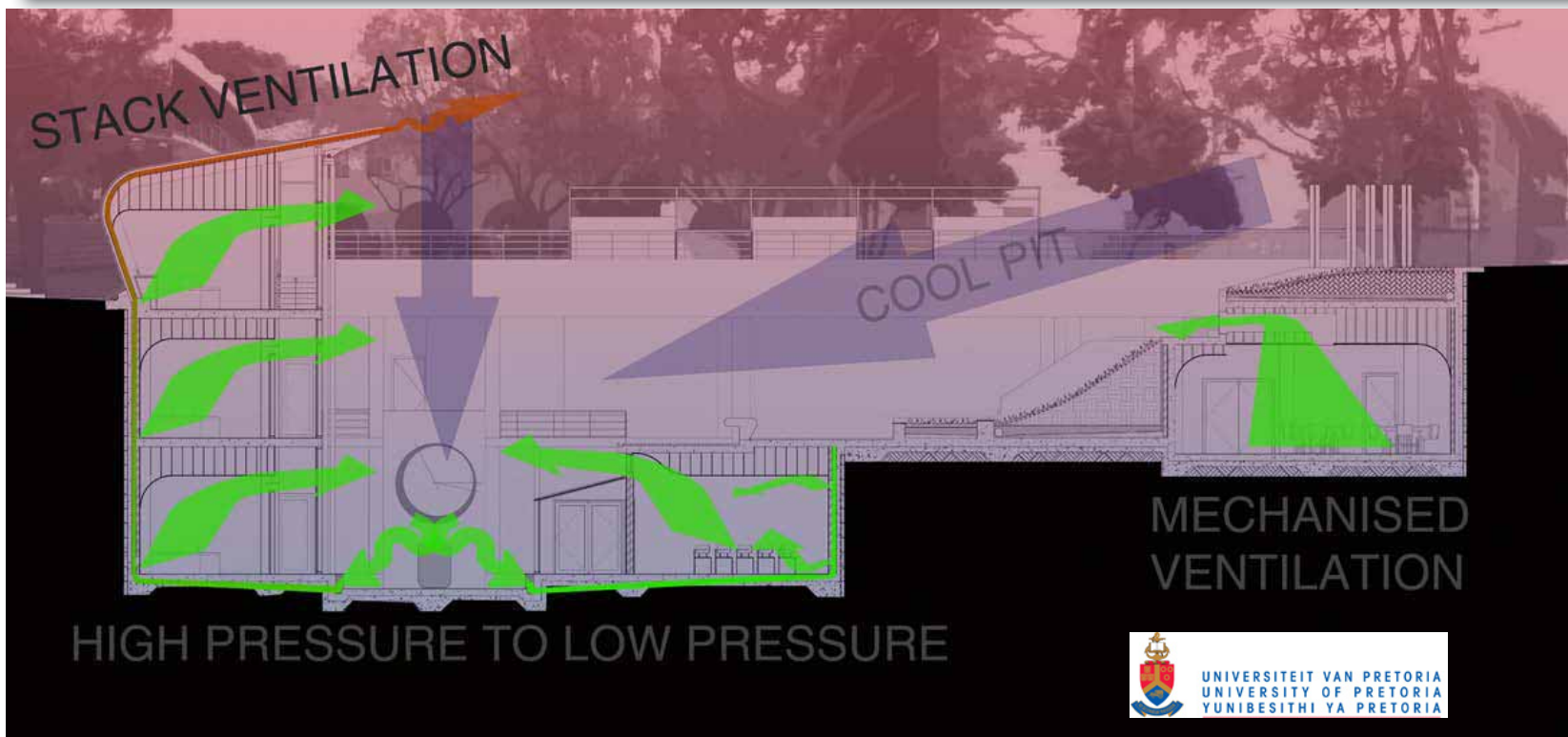
Winter incidents and heating  
 Fig.129



Earth as an insulator  
 Fig.130

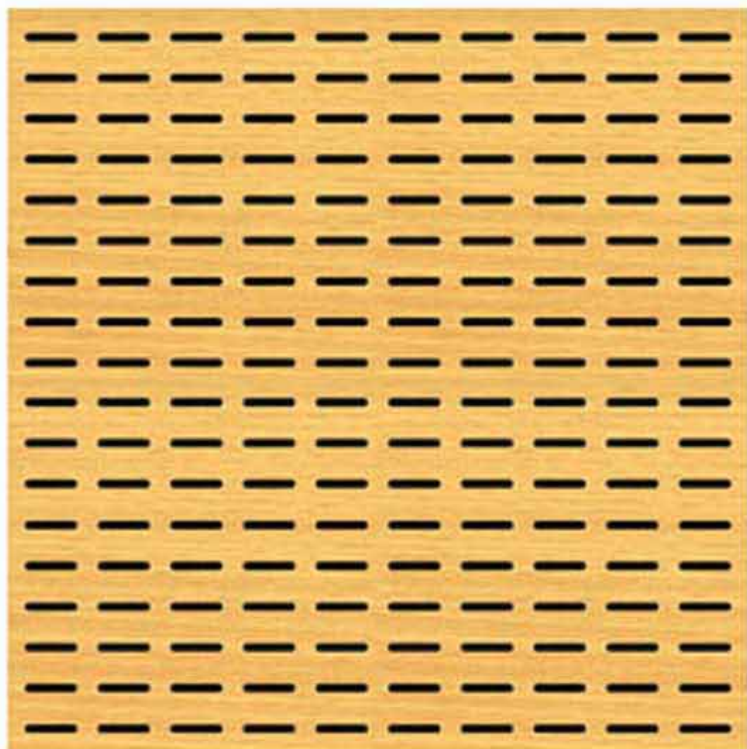


Summer incidents and cooling  
Fig.131

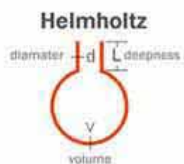
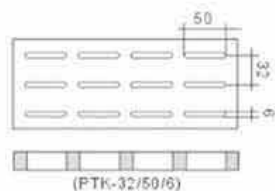


# SlotPanel system by Geetai

The panels are veneered with natural Red Cherry finish and will be installed in the 600 x 600 x 18mm size

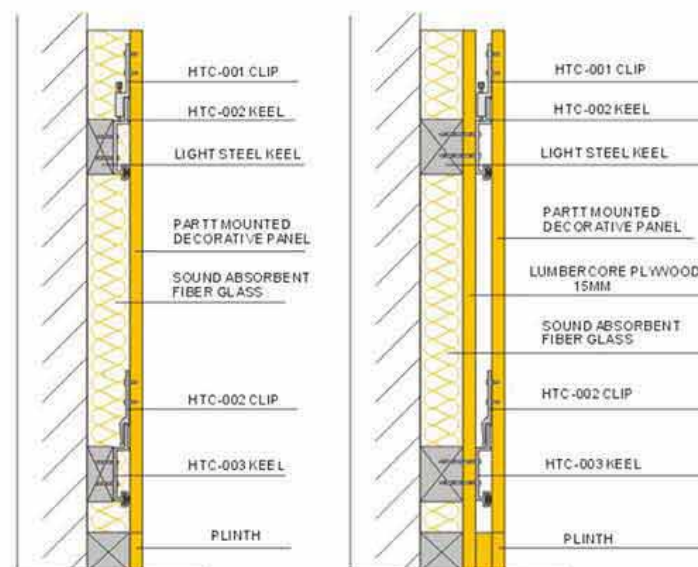
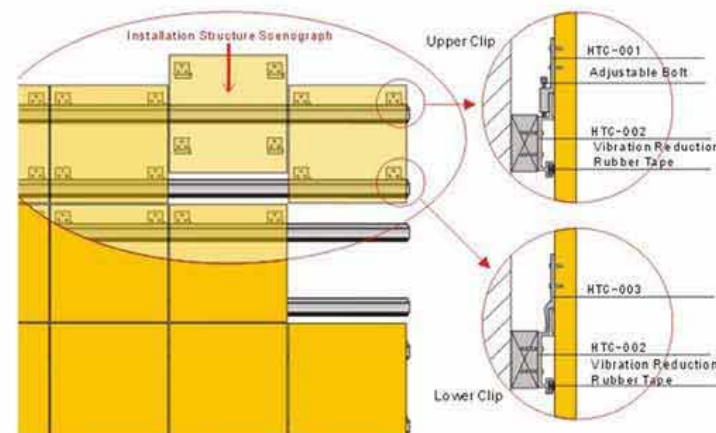
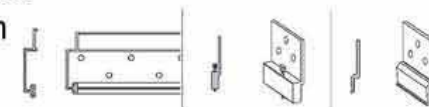


Acouloc felt is used in the cases where sound must be absorbed. It is glued to the back of the panels.



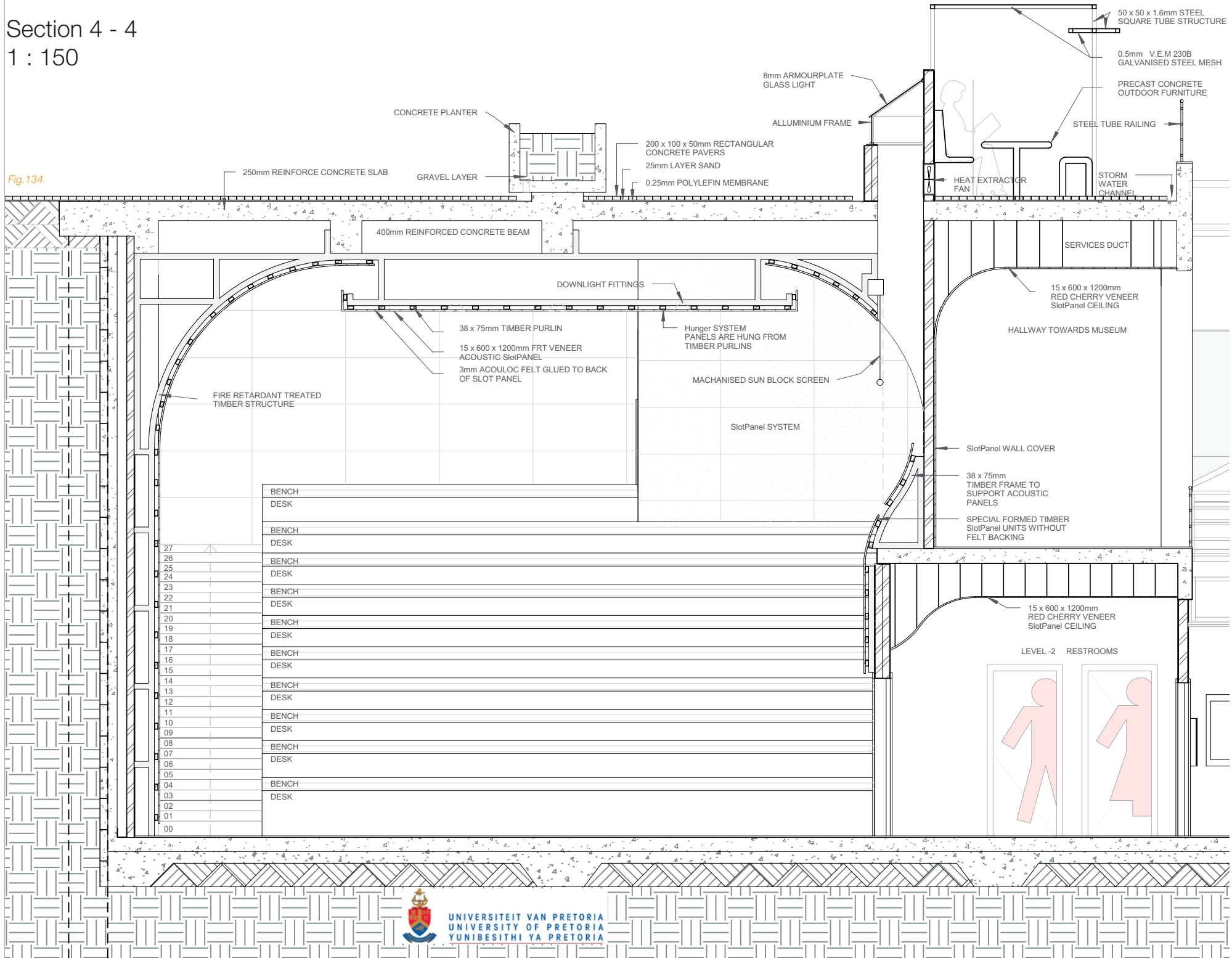
Profile of panel: based on Helmholtz diagram

Below is images and diagrams of how the panels are secured using the HungerTec system



Section 4 - 4  
1 : 150

Fig.134





TablLift  
DSL - 20 - 144  
Max load 10 people  
35 seconds to reach height of levels

Fig.135

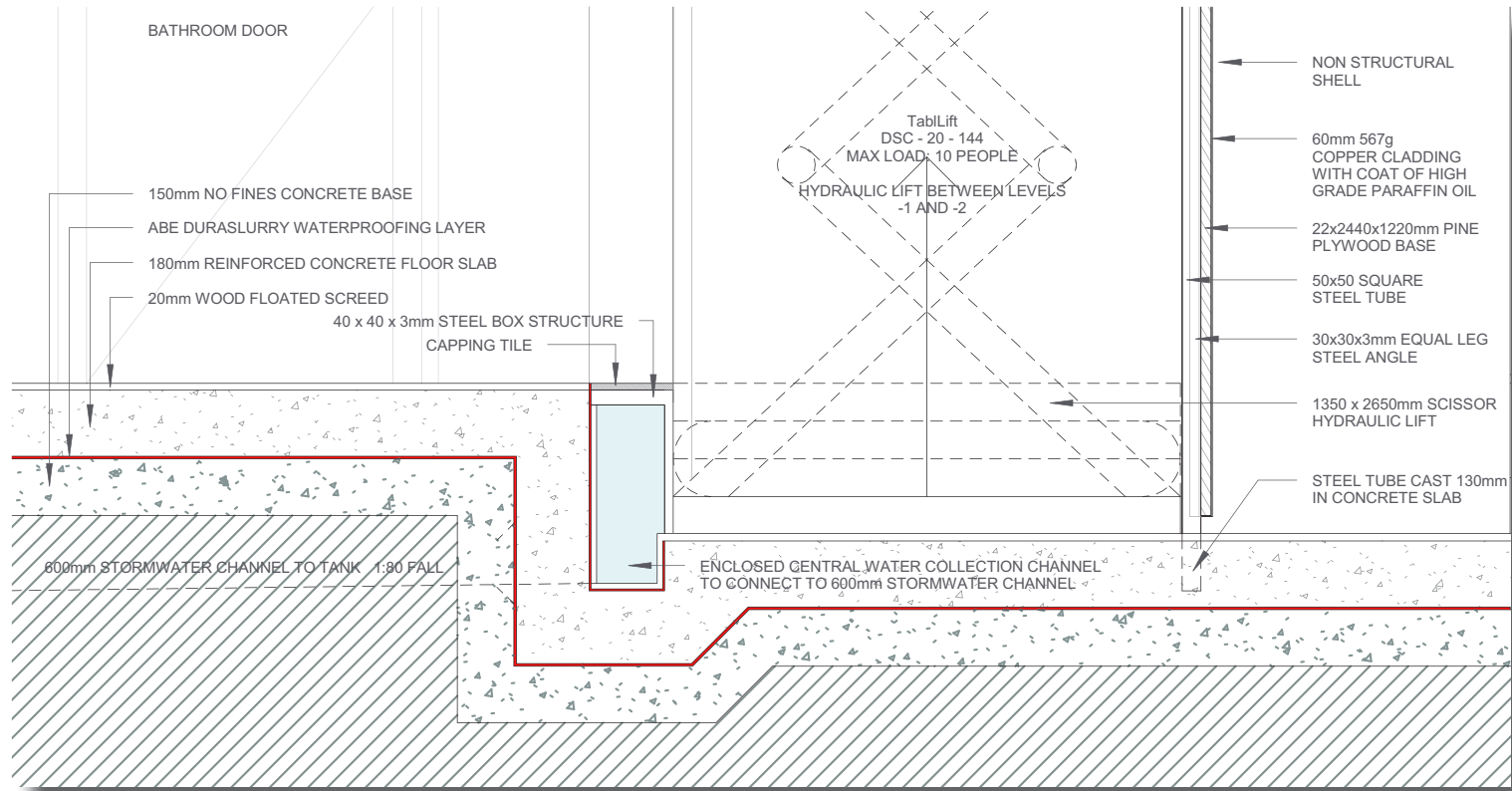
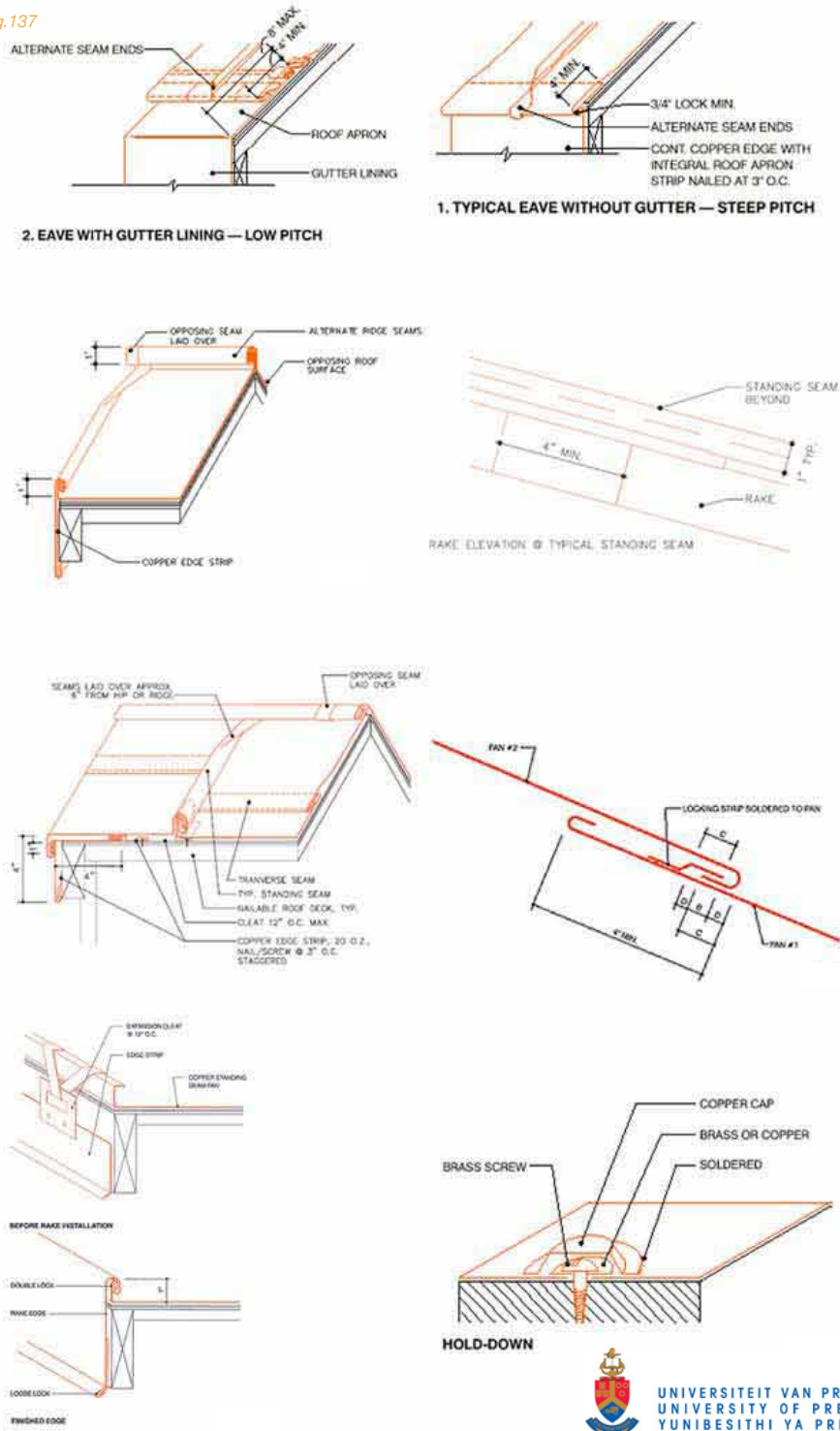


Fig.136

Detail 1  
1 : 5

Fig.137



# Copper roofing

60mm 567g copper sheets are used to cover the fire retardant treated plywood base. The sheets are finished with a high grade paraffin oil to slow the discolouring of the copper.

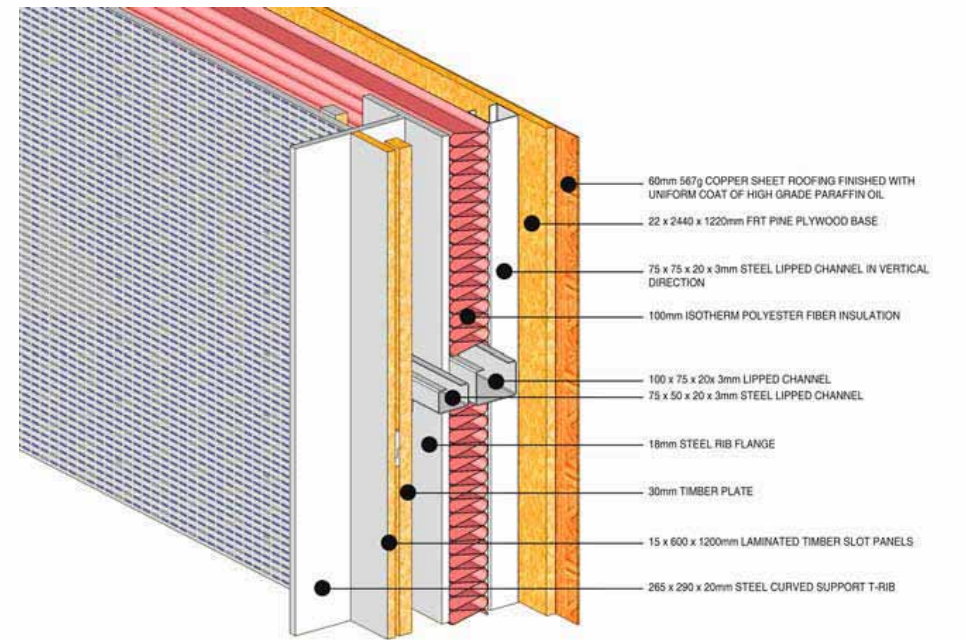
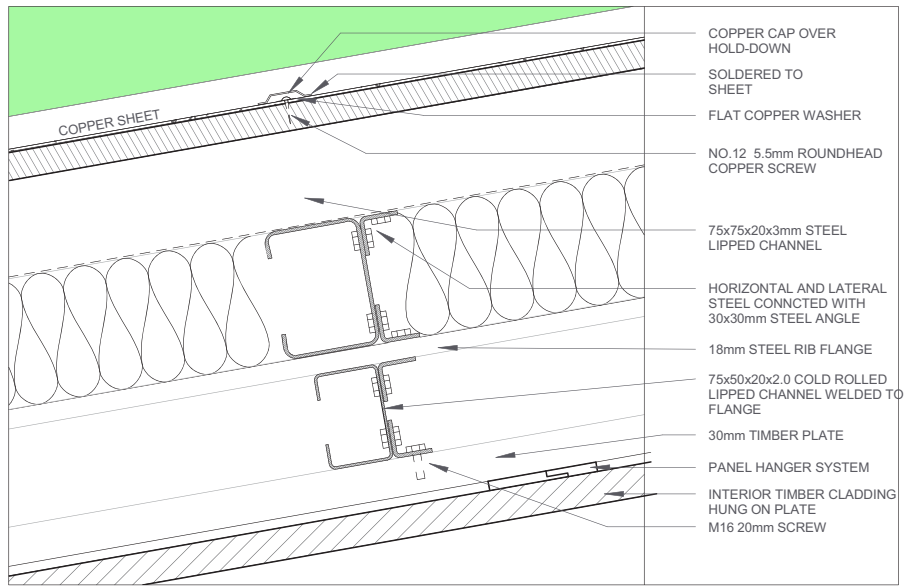


Fig.139



Detail 3  
1 : 5

Fig.140

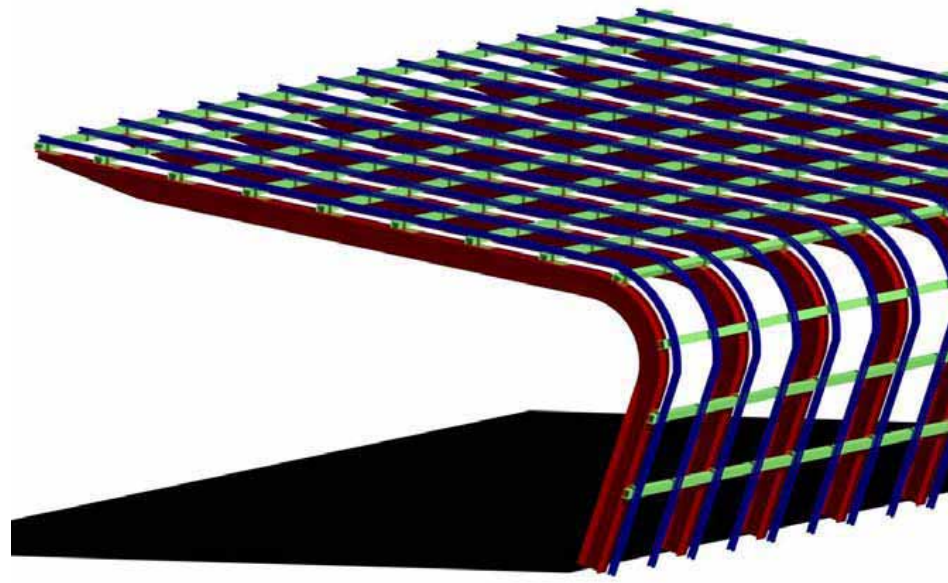


Fig.138

3 dim



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
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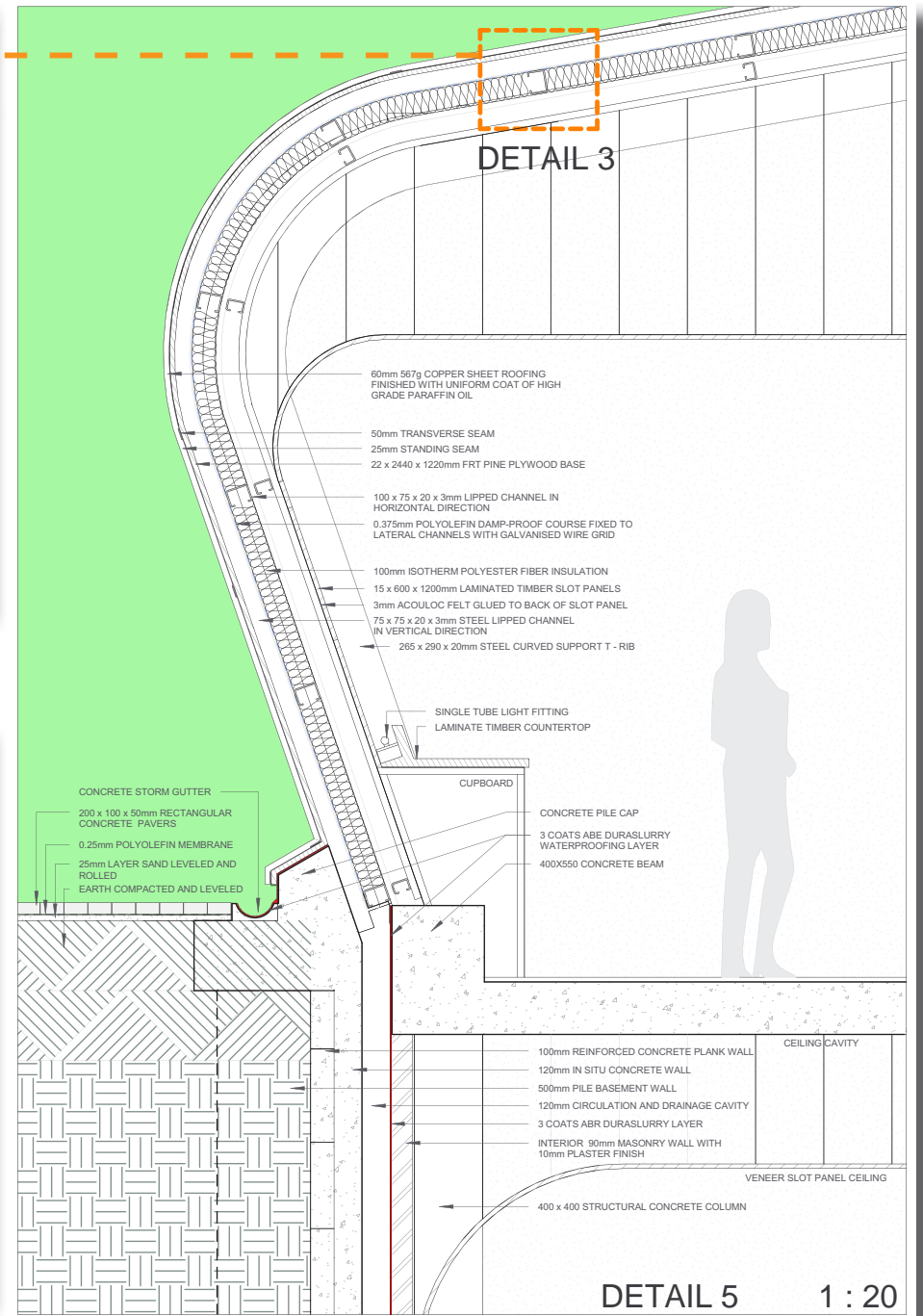
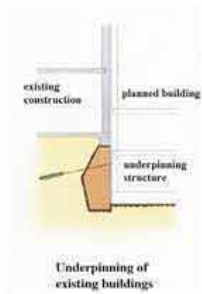
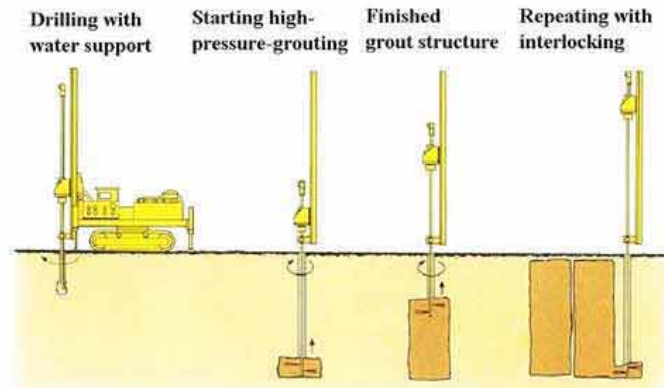


Fig.141



Execution of a jet grout body

A pipe is drilled into the soil by driller to a depth of 12m. From this depth it will start to saturate the soil with a concrete mix and this then causes the soil to solidify and harden.

In the image on the right is a diagram of how this system is used in cases of extreme proximity.

## Jet Grouting

The ground between the new department and the Old Meresky is stabilized and secured by solidifying a layer of soil on the excavation edge. This will minimise vibration and soil movement between the old building and the construction site.

Detail 4  
1 : 20

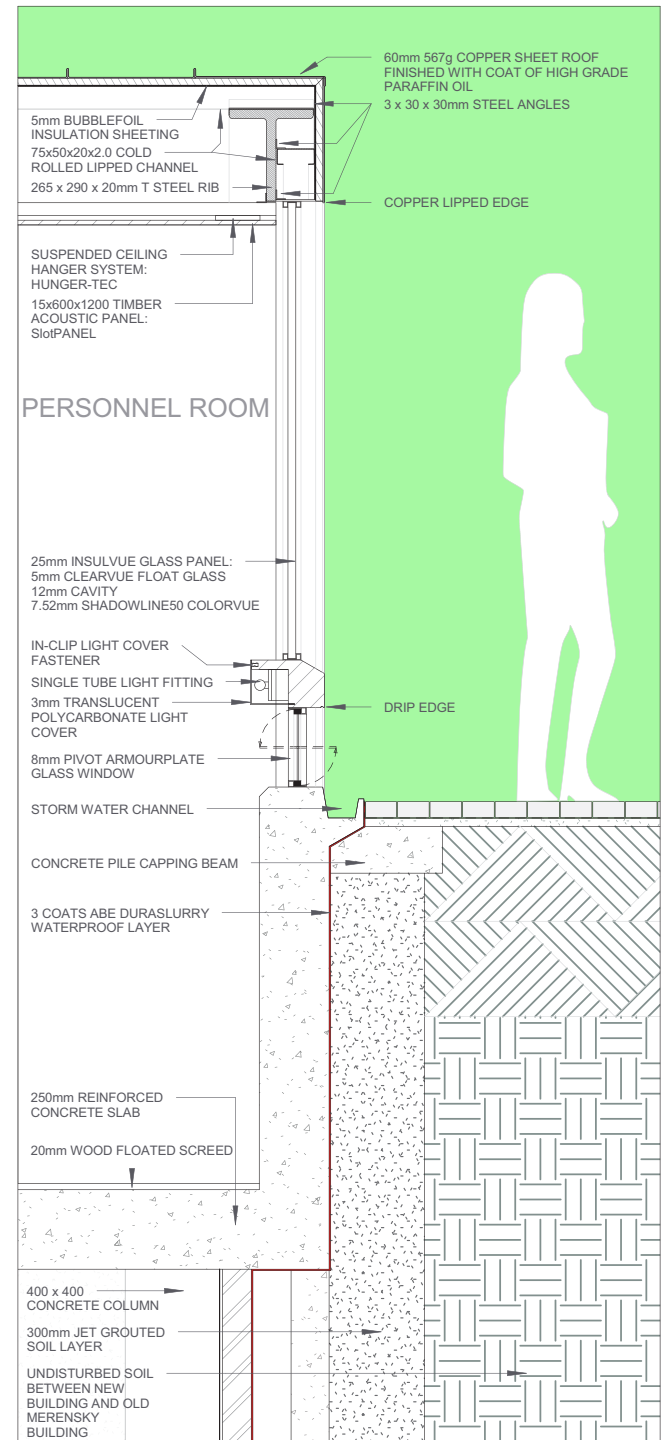
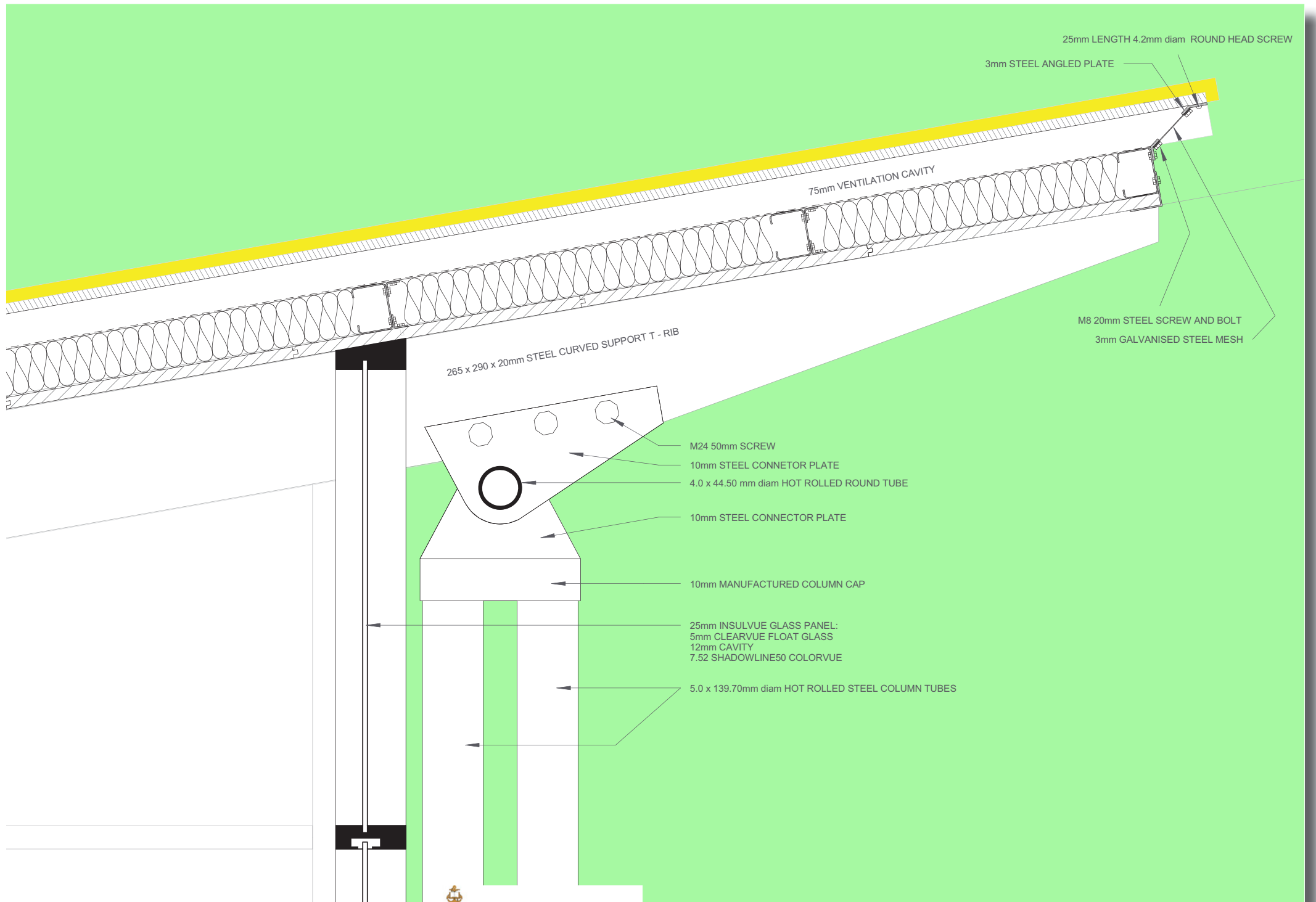


Fig.143



Detail 2  
1 : 20

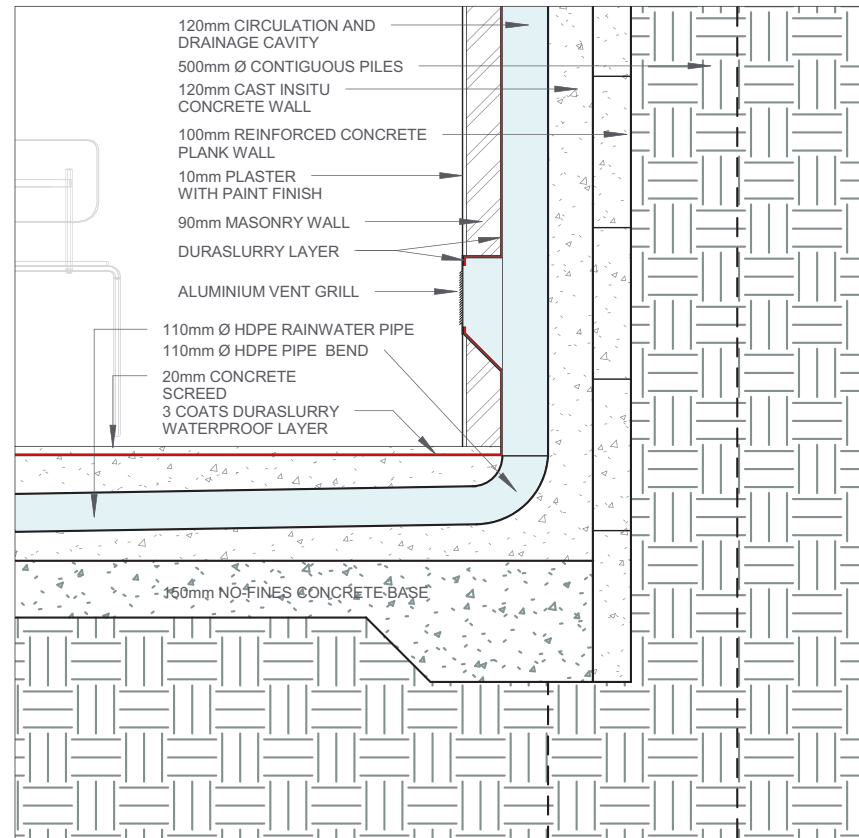


Fig.145



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  - 3) Offices
  - 4) Staff room
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48. Entrance points diagram, Author
49. Web of destinations and movement, by Author
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54. Puzzle Art work, created by Author
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57. Photo of Old Merensky, taken by Author
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59. Image of Golden Rhino, <http://www.arthrob.co.za/00oct/images/musuku01a.jpg> (2007)
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61. Image of American propaganda, [http://www.healthbolt.net/wp-content/uploads/2007/06/propaganda\\_quiet.jpg](http://www.healthbolt.net/wp-content/uploads/2007/06/propaganda_quiet.jpg) (2007)
62. Photo of basement of Engineering1 tower, taken by Author
63. Photo of basement of Engineering1 tower, taken by Author
64. Photo of basement of Human Sciences tower, taken by Author
65. Photo of basement of Human Sciences tower, taken by Author
66. Link Building images (Fagan, 2005/2006)
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108. 3D rendering: courtyard/slope, Author
109. 3D rendering:inside courtyard, Author
110. 3D rendering: view from inside top floor, Author
111. 3D rendering: down entry stairs, Author
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113. Keyword diagram, by Author
114. Visitor framework diagram, by Author
115. Rendering of Site plan, Author
116. Drawing: Level G, Author
117. Basement construction: Jet Grouting, Author.
118. Basement construction: Flow drain, Author.
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120. Drawing: Level -1, Author
121. 3D of walls, Author
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