

I would like to thank the following people:

Mr Gary white who made all this possible

Mr Nico Botes

Dr Arthur Barker

Mr Christo van der Westhuizen

Kristen Steynberg

Jen Bradley

Ilze Wessels

Rikus Engelbrecht

Yolandi Viljoen and Jacques Pansegrou for making the early hours of the morning bearable

PROGRAMME: Urban School, Mixed use building

SITE ADDRESS: C/O Paul Kruger and Struben Streets, Pretoria City Centre, South Africa

GPS COORDINATES: 25 deg 44' 32.37" S 28 deg 11' 13.87"E

RESEARCH FIELD: Urbanism, Educational buildings, Mixed use urban buildings,
Urban conditions, Use of existing buildings

KEYWORDS: intervention into existing/ urban building/ edges/ heritage/
interactive space/ Panagos building/ old synagogue/ educational
building/ transitional space/ thresholds/ interfaces/ adaptive reuse

APPROACH: Reuse/ urban/ integrated typology

| PROJECT SUMMARY

Linelle Visagie

Location: Corner of Paul Kruger Street, Pretoria, South Africa

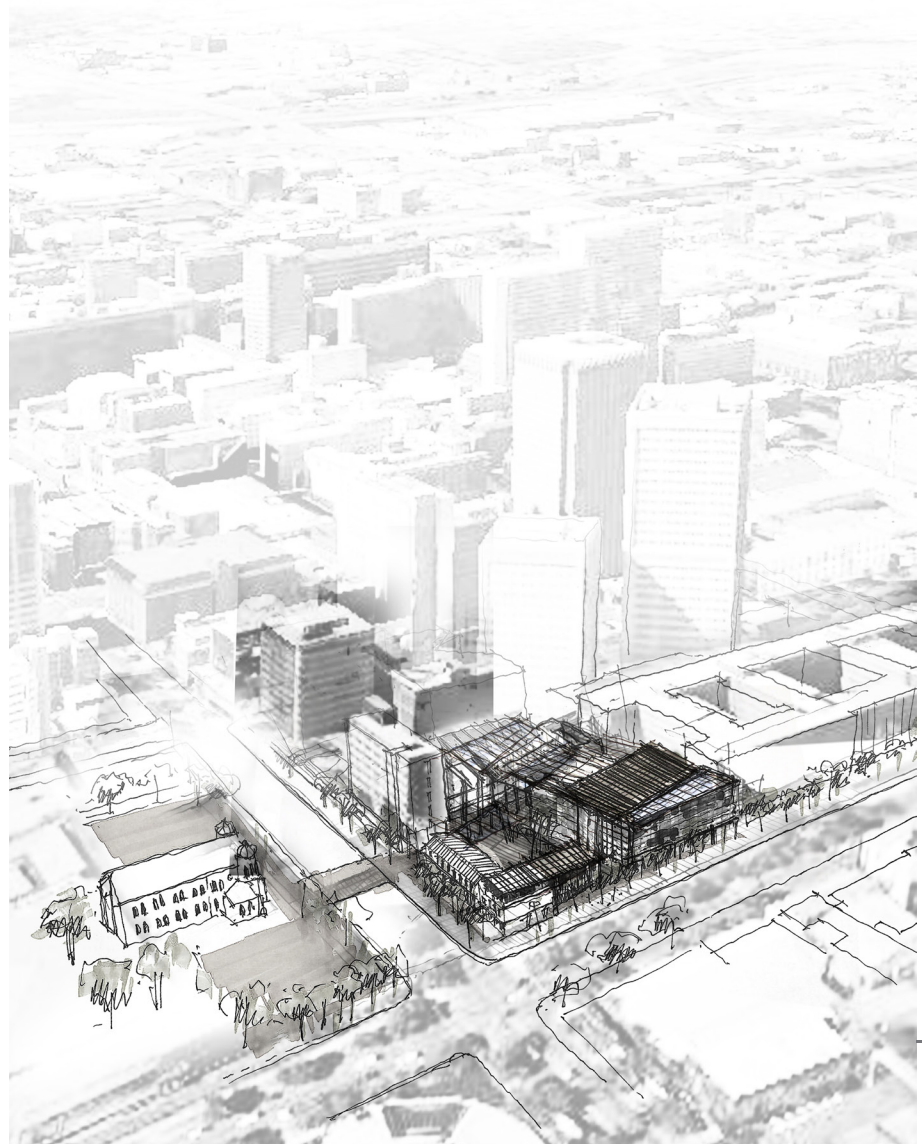
Study Leader: Nico Botes

Year Coordinator: Arthur Barker

Submitted in partial fulfilment for the Degree Masters in Architecture
(Professional) in the faculty of Engineering, Built Environment and
Information Technology, Department of Architecture, University of Pretoria,
South Africa, 2013



an urban **place** of education



I SAMEVATTING

Stedelike ontwerper Jan Gehl (2010:97) argumenteer dat ontwikkelinge in die samelewing, ekonomie en die ontwikkeling van tegnologie geleidelik lei tot die ontstaan van stedelike gebiede en alleen staande geboue op 'n ongekenende skaal. Dus vind n verskuiwing van argitektoniese modelle plaas - van fraai gedetailleerde geboue opgerig in 'n stedelike konteks tot onetiese vinnig opgerigte en individuele werke in ge-idealiseerde omgewings, .

Die wyse waarop die nuwe argitektoniese ingrypings in komplekse stedelike omgewings bekendgestel word, vorm die algehele probleem van die ondersoek. Indikators van 'n konteks toepaslike argitektoniese ingryping kan gevind word in die lee ruimtes van die stad. As gevolg van die ongedefinieerde aard van hierdie ruimtes , bied dit geleenthede vir argitektuur om bestaande prosesse te verbind met die ongeïdentifiseerde , ontluikende prosesse wat in 'n voortdurend veranderende stedelike sentrum plaasvind.

Die doel van die studie is om ontluikende prosesse en behoeftes wat op 'n baie spesifieke terrein voorkom te identifiseer. Die is gewortel in die onontwikkelde ruimtes wat geskep is deur transformasie, met n' katalitiese in plaas van n' strategiese benadering tot herwinning.

Die eind resultaat van die kontekstuele begrip van die terein is in die ontwerp van 'n stedelike omgewing van opvoeding/onderwys wat nie net ontstaan uit bestaande prosesse nie maar ook met ,n sekondere doel om die bestaande stedelike omgewing te verrijk.

Sienende dat die argitektuur van die Pretoria-middestad so dikwels die tussenin ruimtes, oorgange en drumpels ignoreer, word die aansluiting van die gebruiker tot hom/haar omgewing as die belangrikste aspek van die ontwerp beskou.

Deur die oorweging van ongeprogrammeerde en aanvullende ruimtes met dieselfde belang as geprogrammeerde ruimte bestaan die argitektuur nie alleen nie, maar in n simbiotiese verhouding met die omgewing om n werklike kontekstuele ingryping te vorm.

.....

ABSTRACT

How do we introduce new buildings in complex urban environments? Urbanist Jan Gehl (2010:97) argues that rapid developments in building technologies, social and economical sciences have resulted in an unprecedented amount of urban areas transforming into stand alone buildings. This phenomenon describes the shifting focus of architectural ideals from masterfully detailed buildings nested in an urban context to monstrous rapidly-erected 'visionary' districts.

The voids of the city, generally disregarded and under appreciated in the greater context of Pretoria CBD, are taken as the containers of contextually relevant informants which can be extracted and utilised in a contextual response to site. Due to the vague nature of these empty spaces, they provide opportunities for new processes to unfold.

By treating unprogrammed and ancillary space with the same importance as programmed space, the architecture does not stand alone, but exists in a symbiotic relationship with its surroundings, achieving a truly contextual response.

The objective of the thesis is to identify the emergent processes which are occurring on the site on the corner of Paul Kruger and Struben Street - a void rooted in the gaps of existing institutions. Once identified, these processes are then extrapolated and transformed to be utilised as tools for catalytic changes, resisting a strategic approach to regeneration.

The result of the contextual understanding is realised in the design of *an urban place of education*, borrowing from existing processes and providing an enriching layer to the urban environment.

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[Unless otherwise stated, all images are by author]

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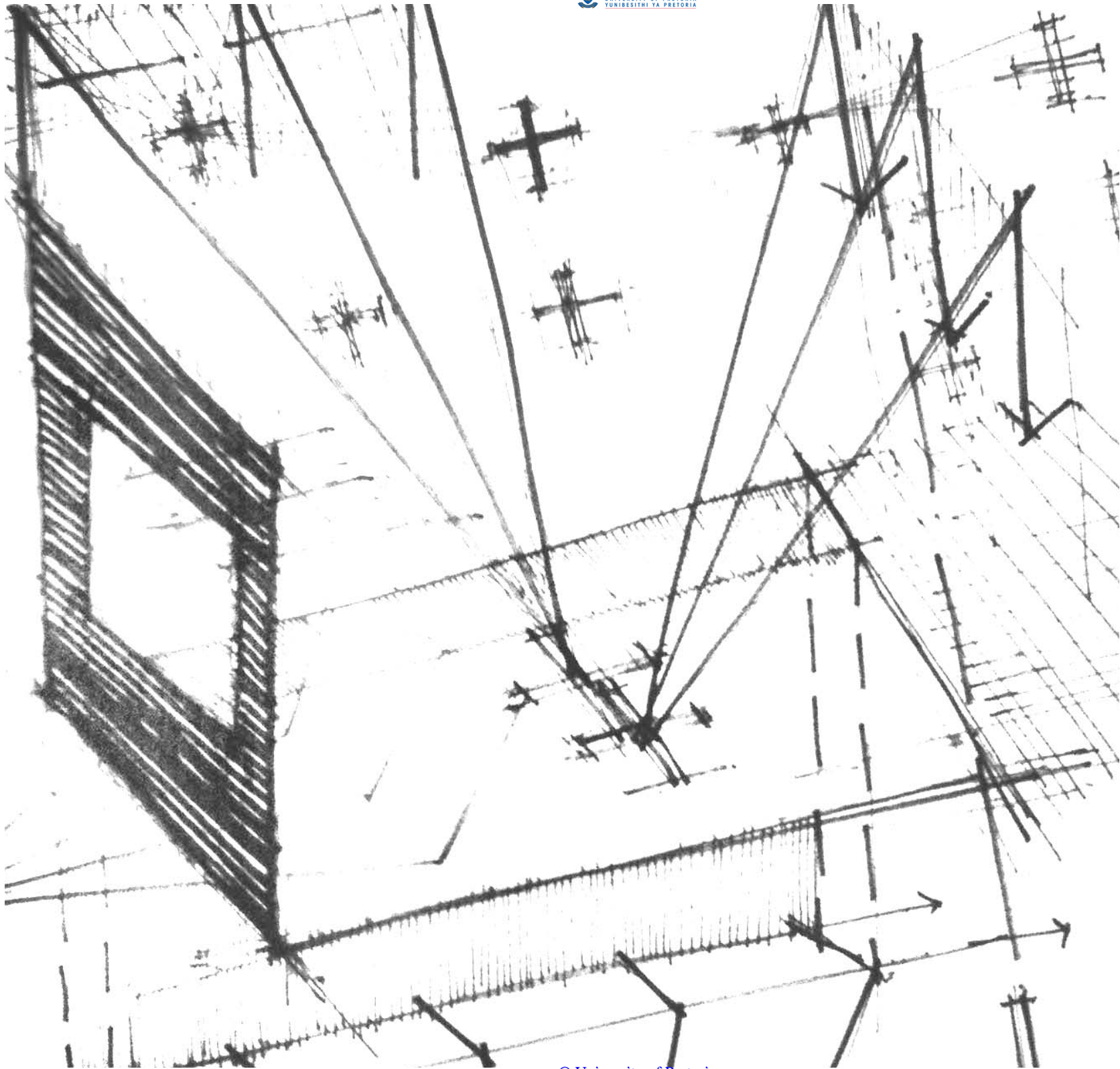
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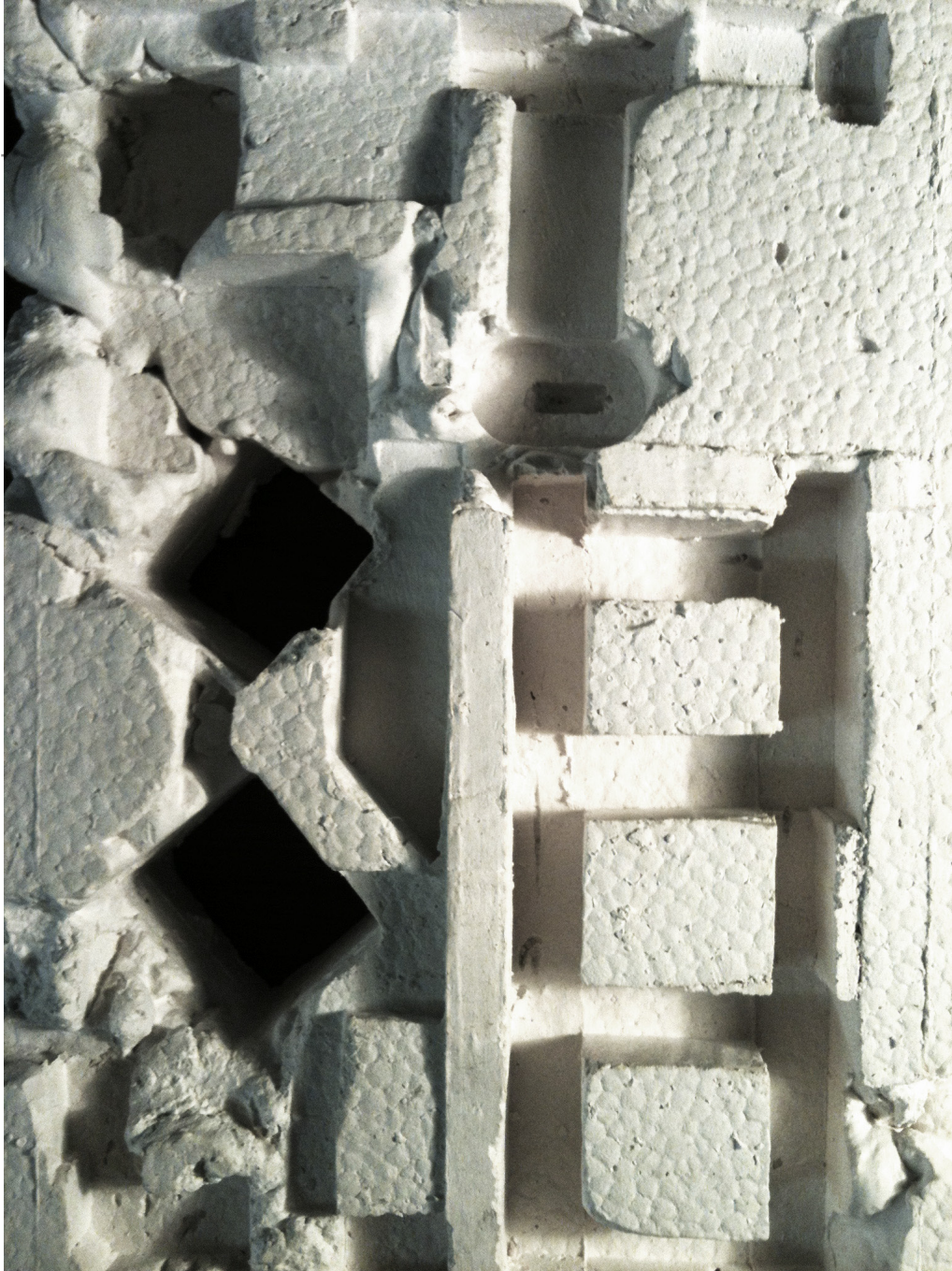


01 | INTRODUCTION

Using the Book

Group Vision

Figure 1.1. Conceptual sketch of a connected environment



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Figure 1.2. Plaster of paris model of negative spaces on site as part of group theoretical approach

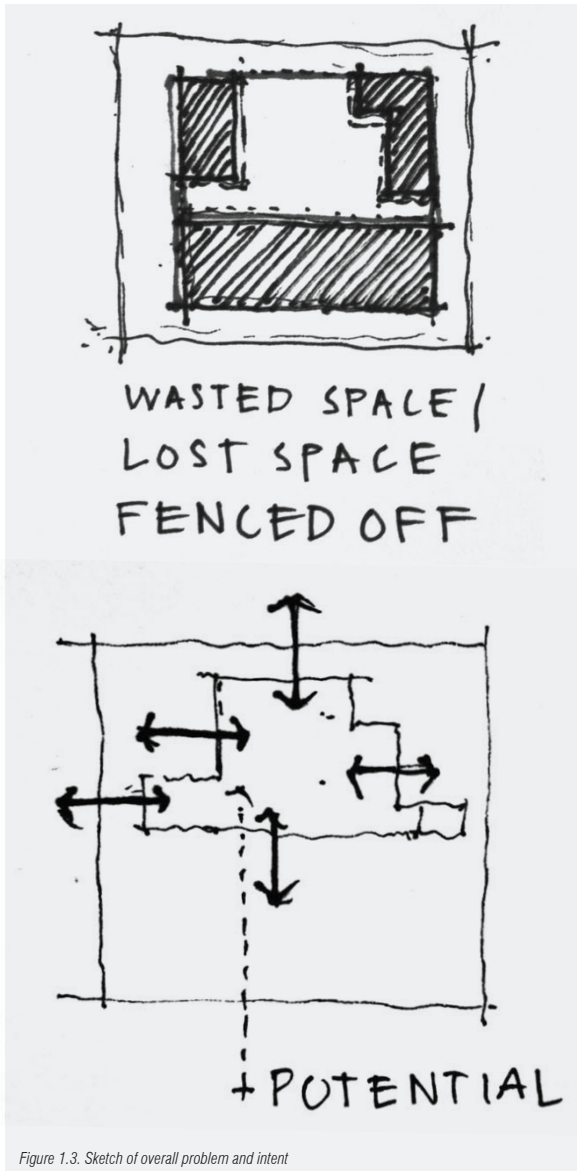


Figure 1.3. Sketch of overall problem and intent

A city is a collage of layered processes, rituals and images constantly in flux. How then, are new buildings introduced to these environments?

The derelict parts of a city centre hold potential in their desertion – this is where voids are created and new emergent potentials arise that point to needs and patterns of living which have been previously unidentified and remain hidden to the unfamiliar eye.

The contemporary urban condition of the Pretoria city centre is in a state of transition as decentralised development pulls the energy from the urban core leaving it inflicted with a range of squandered spaces. Although the transition of urban space is a global occurrence, its conditions and manifestations are context specific. The loss of space, density, activity and diversity can be attributed to the symptoms of modern city development wherein various factors such as design preference for the private automobile, urban sprawl, and the dominance of the private over the public sectors are contributors (Trancik 1986:45).

Stevens and Franck (2007:88) argue that informants towards a contextually appropriate architectural response are found within the lost or wasted spaces of the city as these are often spontaneously occupied by emerging processes. Due to the uncertain nature of these spaces opportunities are

created for architecture to fill the gap between existing and emergent needs.

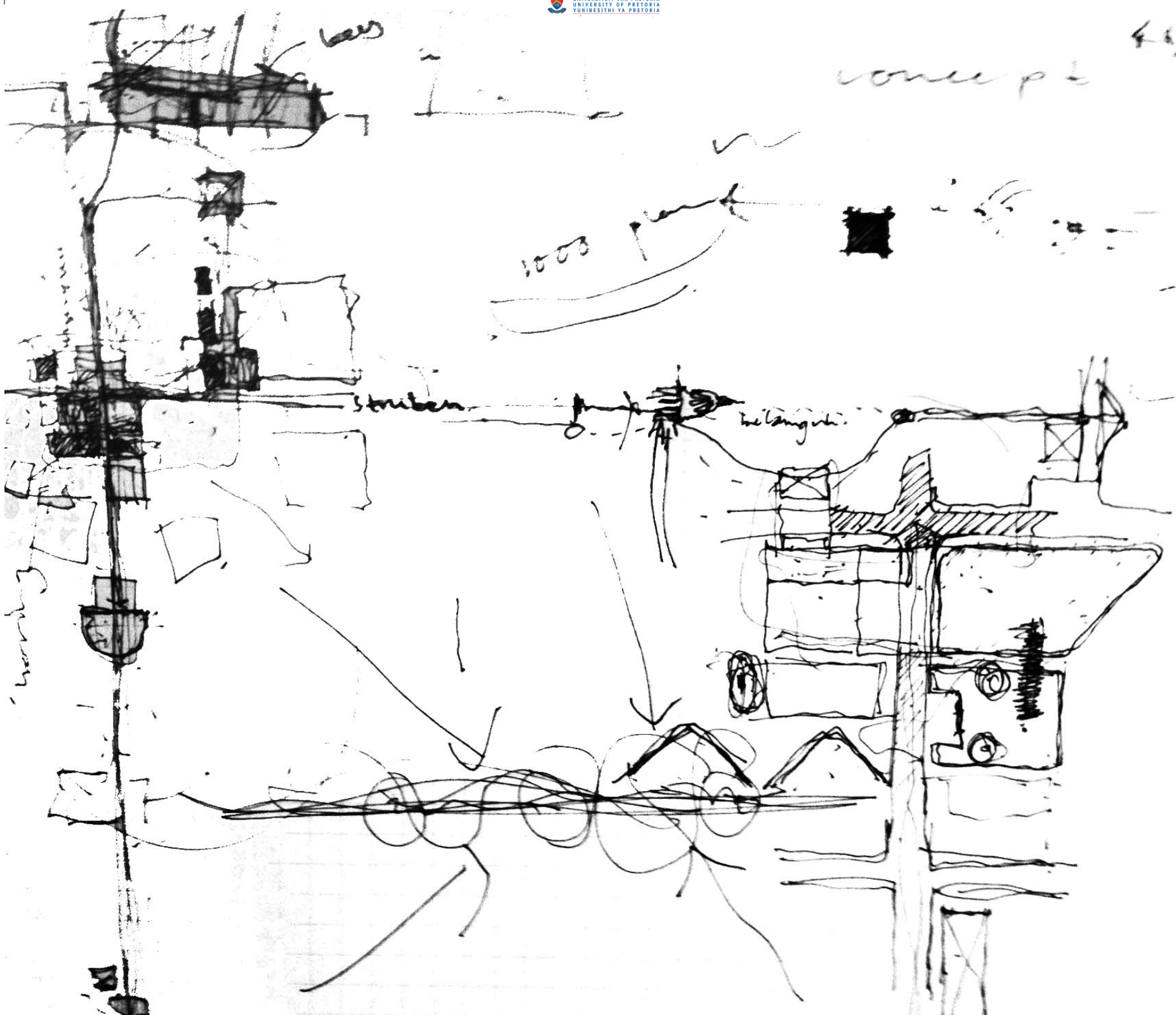
The objective of the study is to identify emergent processes and needs occurring so as to establish an appropriate architectural brief for these needs which is grounded by a contextual understanding. The investigation is thus born from the needs pertaining to a very specific site. Rooted in the gaps created by transformation, it makes use of a catalytic instead of strategic approach to regeneration.

1.1. USING THE BOOK

This book is structured in conjunction with the design process - starting from an overall intention followed by the choice of a site which lead to the architectural brief and appropriate programme. This is believed to be an appropriate way in which to approach the making of an architecture which adds value to its location.

1.2. LEFTOVERS: A GROUP VISION

The project is undertaken as part of a group urban vision pertaining specifically to fences, due to their occurrence in the Pretoria city centre. The formation of the theoretical approach can be found under Appendix 01



02 | CONTEXT

Location

Existing Surroundings

Site Weaknesses

Site Opportunities

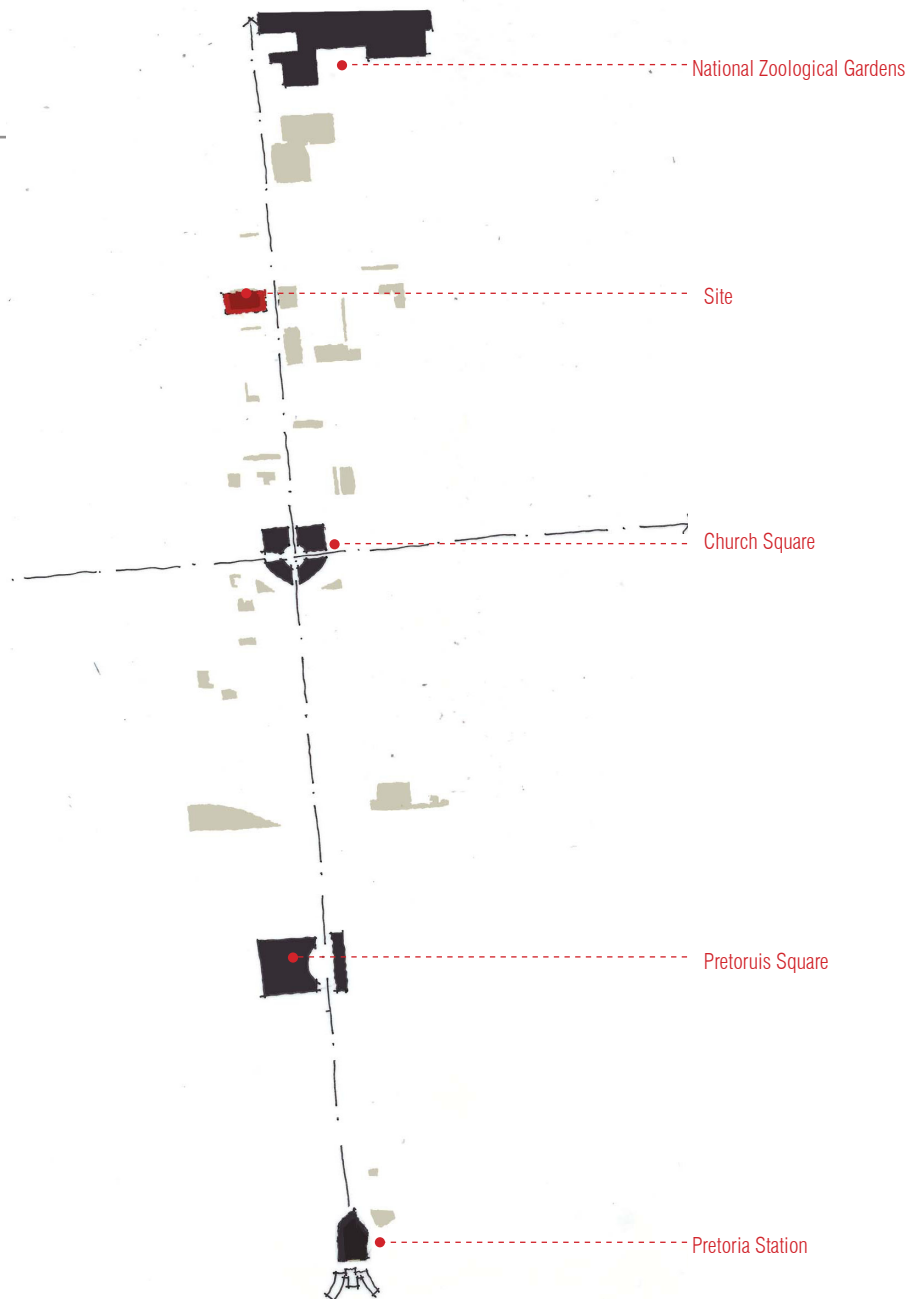
Urban Context

Urban Vision

Figure 2.1. Conceptual sketch concerning the location of the site within the larger urban environment



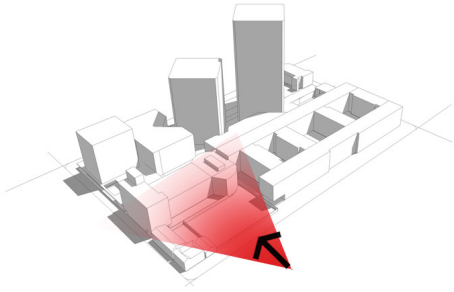
Figure 2.2. Location



2.1. LOCATION

The site, located on the South Eastern corner of Paul Kruger and Struben Street, is an open parking lot surrounded by the old Peugeot workshop (now occupied by the Princess Park College) to the South, the historic Panagos Building to the East and the Department of Transport to the West. The Telkom Towers to the North tower over the site with an imposing scale. The site was chosen due to its potential to serve the buildings which surround it, with the void of activity within its fenced off parking lot standing in contrast to the other somewhat overpopulated spaces.

Figure 2.3. Nodes along Paul Kruger route



Admin block - Peugeot building

Workshop area where Princess Park College is situated- Peugeot building

Parking Lot

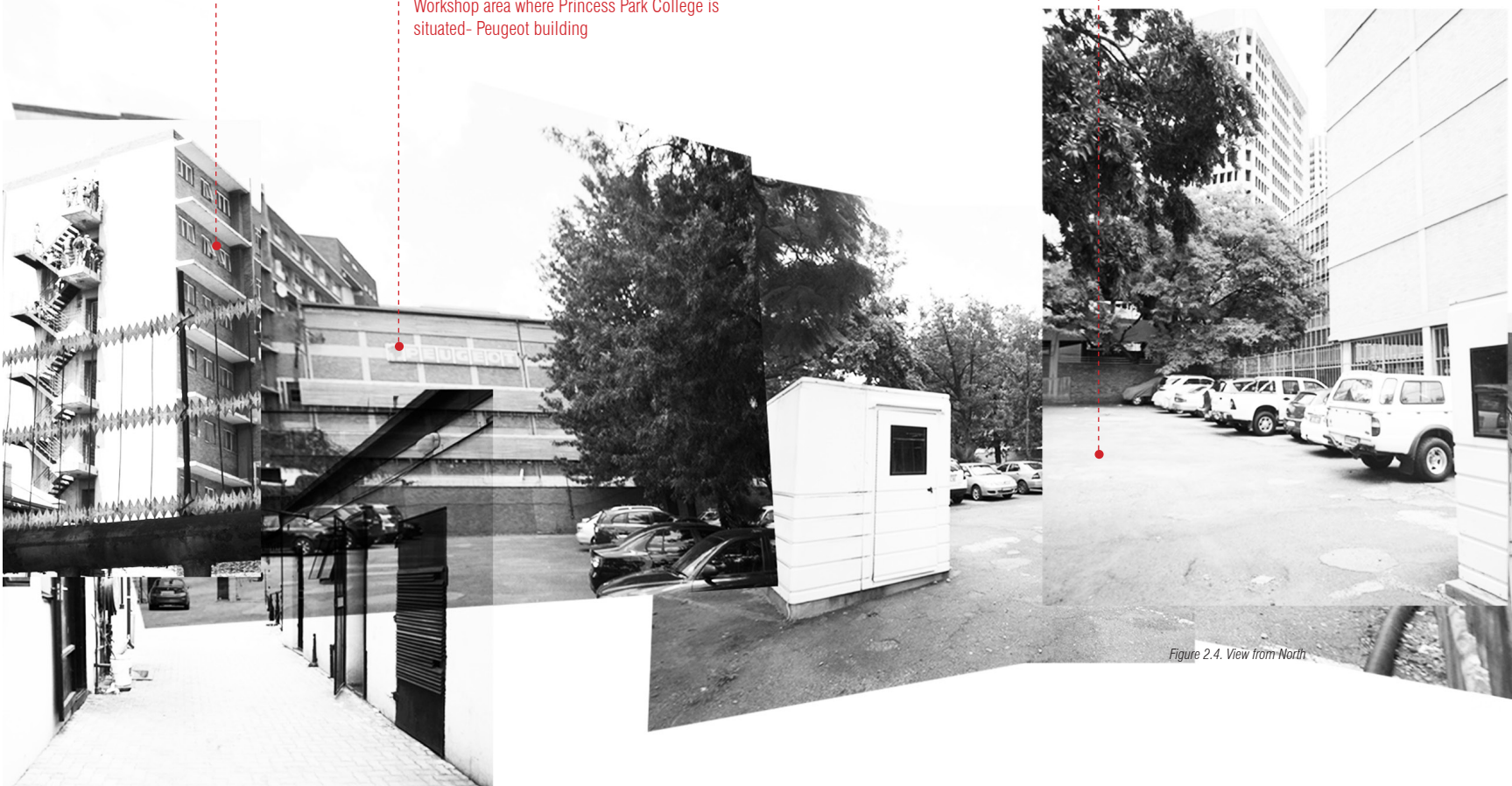
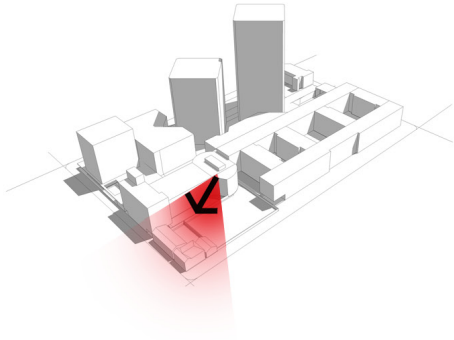


Figure 2.4. View from North



4 Storey vehicular ramp of the Peugeot Building

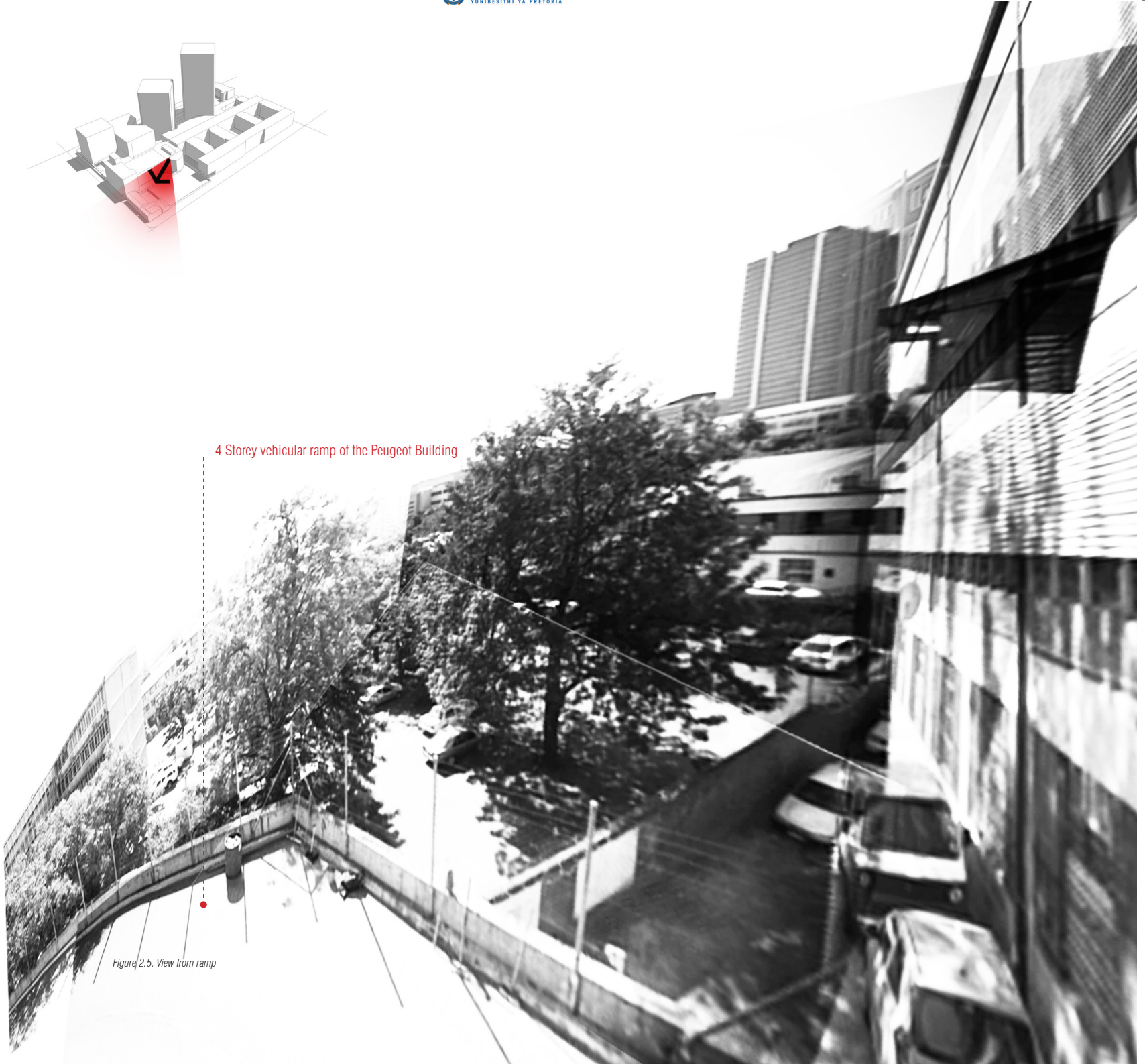


Figure 2.5. View from ramp

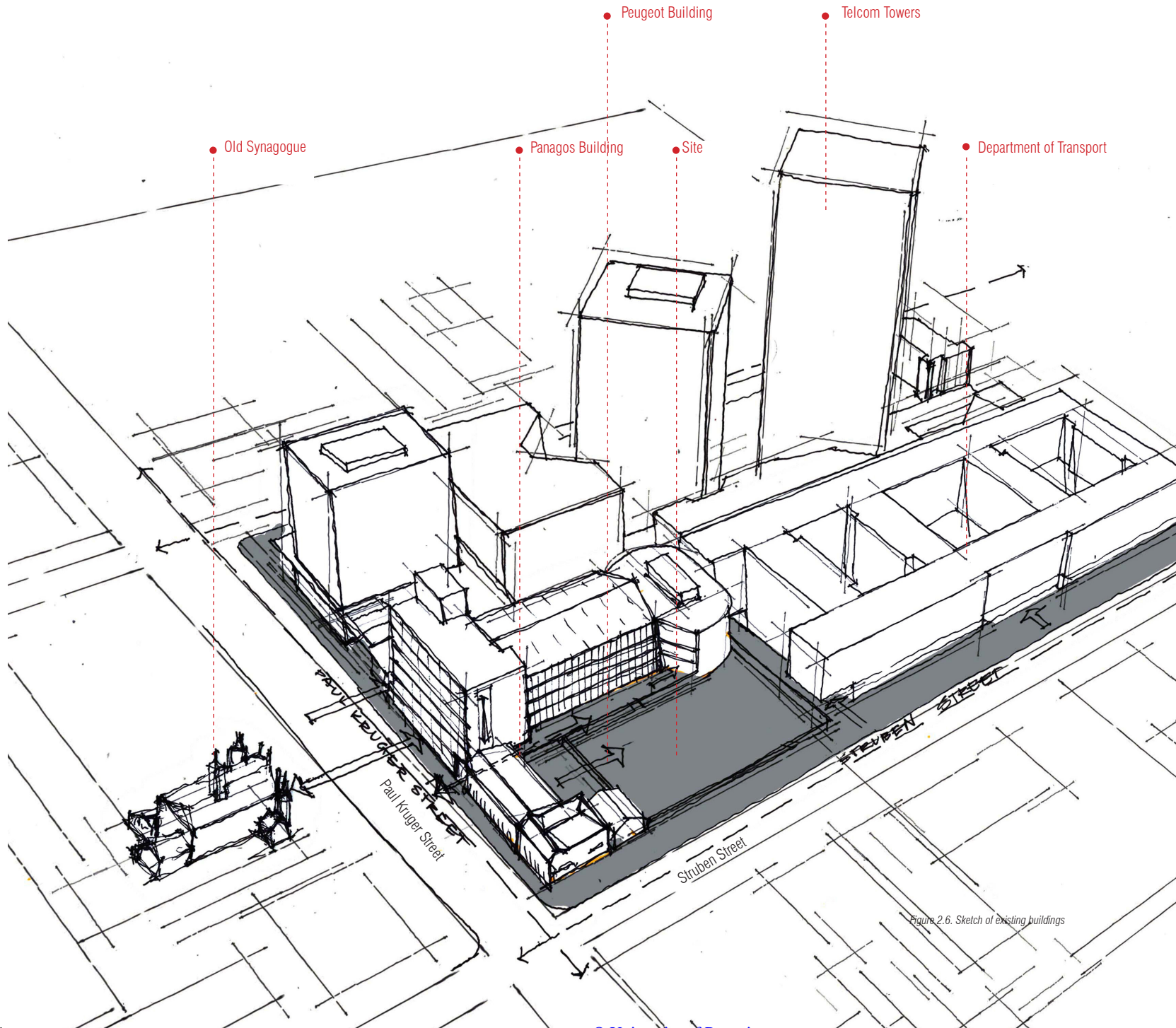


Figure 2.6. Sketch of existing buildings

2.2. EXISTING SURROUNDINGS

Peugeot Building

An old Peugeot workshop is located directly South of the site. It originally functioned as a motor workshop; it is now used for the parking of private vehicles, a church, and to house the Princess Park Private College as well as an FET college. Its construction comprises of a simple column and slab arrangements with brick infill, and it remains structurally sound. The building could be divided into three parts namely the street facing block of eight storeys designed primarily as office space, the workshop area of four storeys with 3 to 4 meter floor heights, and the vehicular ramp connecting these four storeys. The ramp is a very strong element on site and hosts important views of the surrounding context. While the building itself is populated, the adjacent spaces stand empty. A narrow, poorly lit alley between the Princess Park College and the adjacent mixed use building to the South is the only outdoor space available to users.

The Panagos Building

The double story Panagos Building suggests a finer urban grain that precedes the modern buildings, found more frequently today, which simultaneously compete for and waste open space. The building is one of the oldest mixed-use buildings still remaining in the city centre. Originally owned by the Panagos family, its ground floor was used for commercial

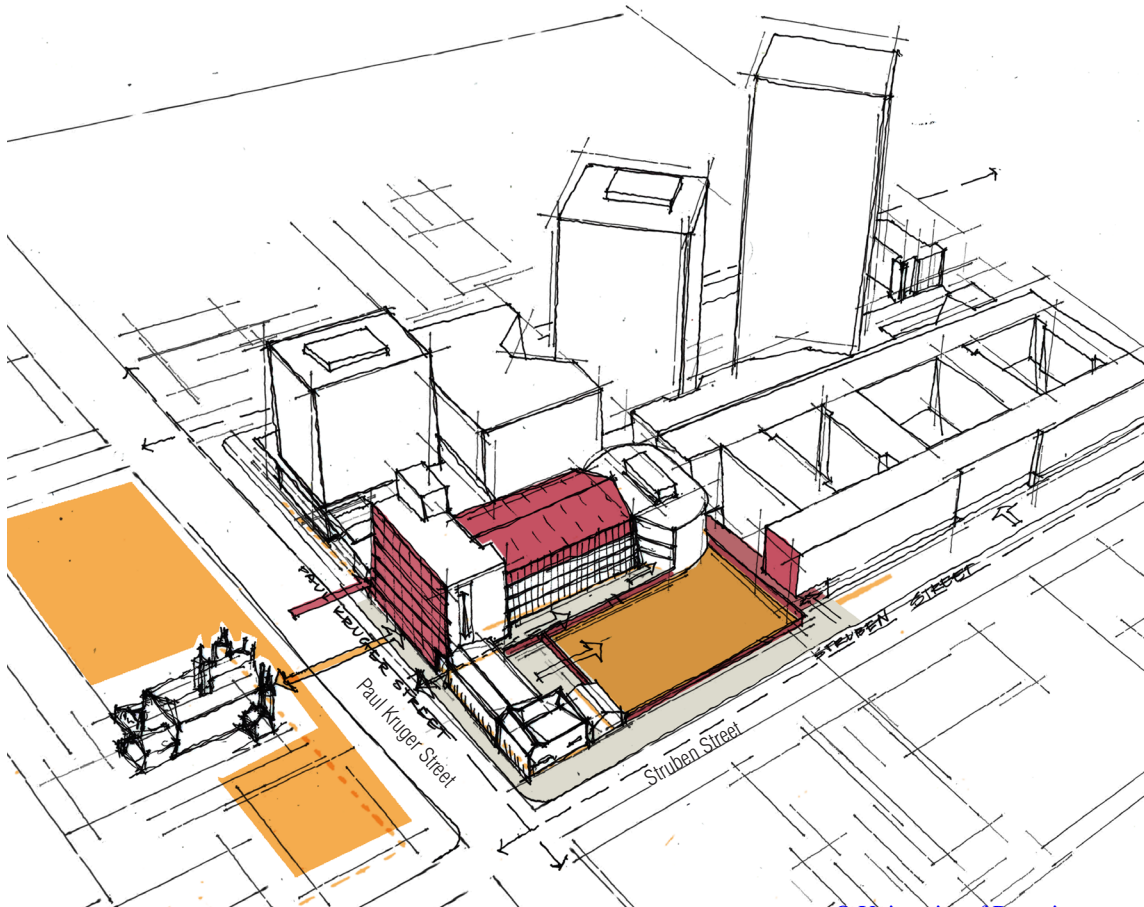
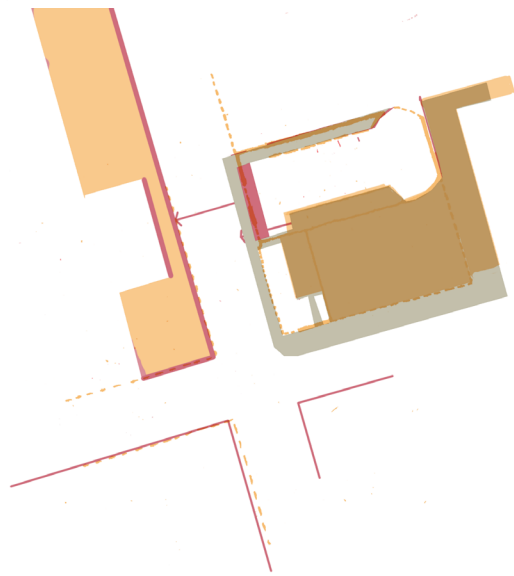
activity, including a cycling shop, with living units on the first floor (Le Roux 1992:23). In defining the North Eastern corner of the city block it achieves the creation of a more pleasant street edge. It currently houses various small businesses comprising of a restaurant on ground floor while the first floor is now occupied by offices.

The Old Synagogue

Across Paul Kruger Street, the Old Synagogue is fenced off and surrounded by parking. The building is vacant and no indication of its future use has been made clear by the Department of Public Works. The building is of great heritage value due to its age and status as a landmark within the Jewish community. This significance is further intensified through the palimpsest of later becoming the courthouse where Nelson Mandela and, later, Steve Biko were tried during the Rivonia trials (Le Roux 1992:23).

The Department of Transport

The Department of Transport takes up the remainder of the street edge towards the West of the site. It contains three courtyards, which are mostly inaccessible to the public, and its entrance faces North toward Struben Street. The rest of its edges are dull and disengaging, aggravated by the windows on ground floor which are painted white, thus eliminating any previous possibility of interaction between users and the public.



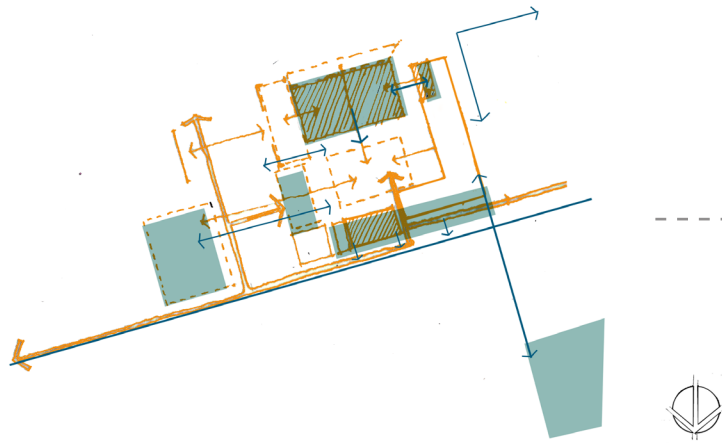
2.3. SITE WEAKNESSES

The lack of well functioning transitional spaces is the most prominent problem of the site and relates closely to the edge conditions of the city block. Street edges are generally monotonous and poorly defined to the North, while the only interactive edge is found on the corner of the Panagos Building.

Although the open site itself is completely fenced off offering parking to a few private vehicles, the adjacent Princess Park College is in need of spill out space as the only outdoor area scholars are able to use is a narrow, poorly lit alley to the South.

The Panagos Building and the Old Synagogue across Paul Kruger Street signify a historic character of place, which is undermined and overpowered by large modernist buildings as well as the widening and increase in vehicular speed of adjacent roads. Poor mediation occurs between extremes: old and new, inside and outside, private and public. The Old Peugeot Garage does not respond in any way to the Old Synagogue across the road, which remains vacant.

Figure 2.7. Sketch of site weaknesses



2.4. SITE OPPORTUNITIES

The Location of the site along Paul Kruger Street makes it possible for an architectural intervention to draw energy from this prominent and historic route, especially with the future **Bus Rapid Transport (BRT)** station to be situated directly in front of the site. (Malan 2013)

The site contains a diverse range of materials, users and functions including a church, school, various small businesses, offices and public buildings. This offers opportunities for various activities and users to support each other economically.

Large trees are found along the street edges as well as on the site itself. The site is within close **proximity** to the National Library and the Eersterust Primary school which could potentially share and support the Princess Park College programmatically as they already share its sports grounds.

The open parking lot can provide possible open space and linkages to serve existing buildings and to provide access into the city block.

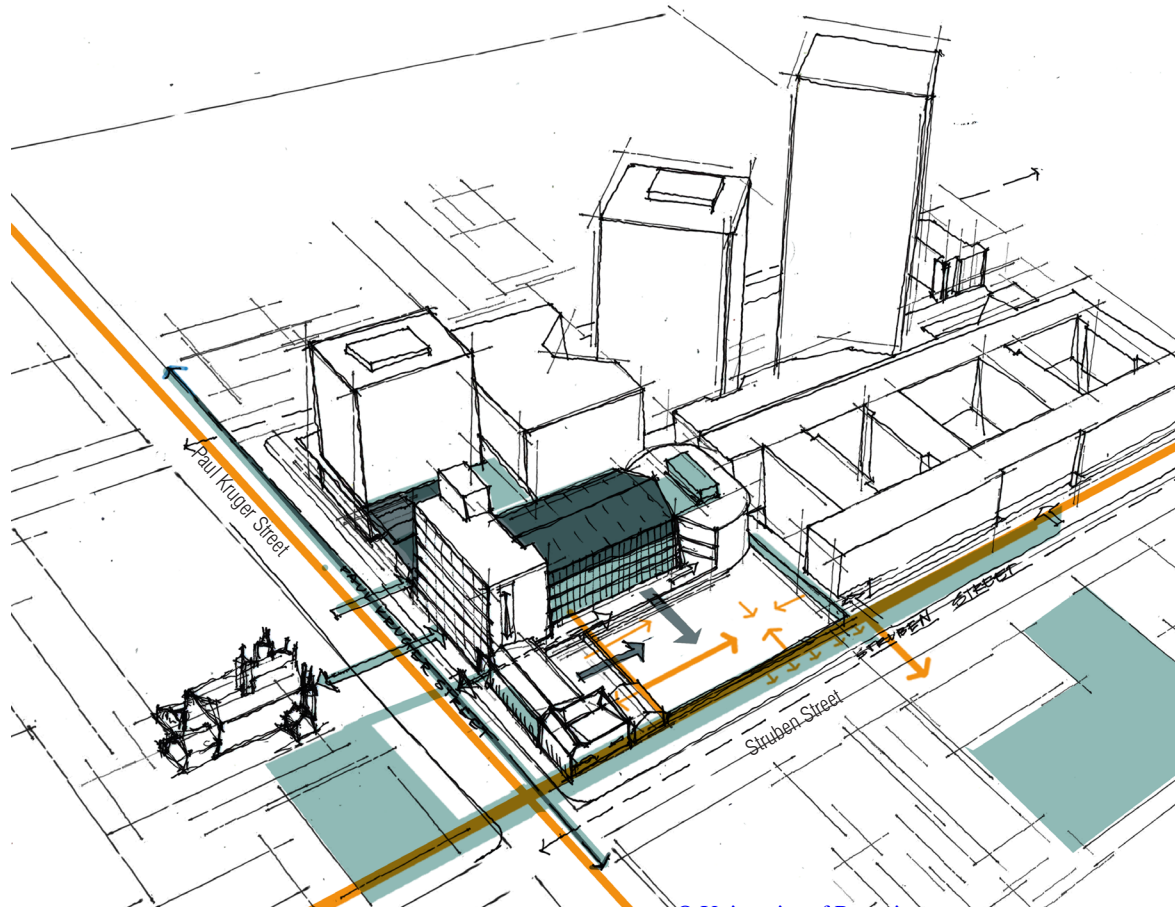


Figure 2.8. Sketch of site opportunities



department of basic education

south african war college

national library

princess park college

target high school

eersterust primary school

christian progressive school

little people pretoria

Figure 2.9. Mapping of academic institutions

2.5. URBAN CONTEXT

Struben Street marks a change in the physical and perceptive character between the North and South at its crossing with Paul Kruger Street.

While the urban character of the city South of Struben Street is of a larger scale and of a more defined character, the urban fabric notably **degrades** to the North of it. Struben Street is an axis running east toward the Union Buildings and is also allocated as a BRT bus route with stations along it. It is flanked by various governmental and institutional places such as the new National Library and the Department of Education. These large buildings stand in contrast to a range of small erven reminiscent of a finer urban grain which existed there in the past. It is characterised with fast moving traffic, many poorly defined edges and an essentially unfriendly street to pedestrian traffic.

Mapping of the area was divided into two parts, the first studied more objective qualities including **pedestrian and vehicular movement, street edges, the location of lost space and heritage sites** on the route from church square to the National Zoological Gardens. This serves in understanding the physical characteristics of the area surrounding and influencing the site.

The second part of the mapping recorded **intuitive responses** toward the more immediate area around the site. These



- urban asset
- urban void

Figure 2.10. Mapping of urban assets and voids

aspects are recorded subjectively, through a different media, indicating qualities not as easily defined. Six studies were recorded namely **light, volume, energy, views, transitional spaces, and accessibility.**

The mapping gave indication to a somewhat obvious but extremely important relationship which is poorly considered: that of the relationship between pedestrian comfort and street edge condition. This condition is also one of the main problems identified specifically to the existing buildings on site. The edge is the space between building and city, an important but mostly overlooked condition, especially in Pretoria.

Jan Gehl (2010:240) highlights the importance of edges in the attractiveness and functionality of cities naming it the ground floor condition. A dull ground floor robs the area of casual pedestrians, removes life from the streets and increases the feeling of insecurity especially at night, while an active ground floor promotes the opposite (Gehl2010:240).

This condition is evident along Paul Kruger Street becoming worse as one moves North. A general feeling of insecurity is heightened especially after the crossing of Struben Street.

.....







-  monotonous edge
-  interactive edge
-  pedestrian intensity
-  crossing

Figure 2.11. Mapping of pedestrian intensity and edges

2.6. URBAN VISION

Kevin Lynch (1970:72) defines a node as a strategic focus point within the city usually found at a junction of paths, a concentration of some sort or a break in transportation. These can be large or small squares, or linear areas. The criterion of size does not define a node but rather the perceptual quality of the **place** and the way in which the city user experiences it.

The site is intended to form part of a **node** along Paul Kruger Street between Church Square and the National Zoological Gardens, **strengthening the route** by the addition of a destination between the two places, as the route between the Zoological Gardens and Church Square feels too long and monotonous due to the lack of active ground floor mediation to offer value and richness to the pedestrian.

Lynch (1970:43) explains that it is a characteristic of an urban node that the user's attention is heightened, as decisions are often made at junctions. While a strong physical form of the environment is not necessary in order to create a node, it significantly strengthens the impact it would have on the user and create a lasting visual impression. It is therefore important for the node to offer legibility to the user: **"Above all, if the environment is visibly organised and sharply identified, then the city citizen can inform it with his own meanings and connections. Then it will become a true place, memorable and unmistakable"**.



- BRT station
- BRT route
- - - 5min walk (400m radius)

Figure 2.12. Bus routes and walking distances



- pedestrian route
- public space
- spatial boundary

Figure 2.13. Urban intent

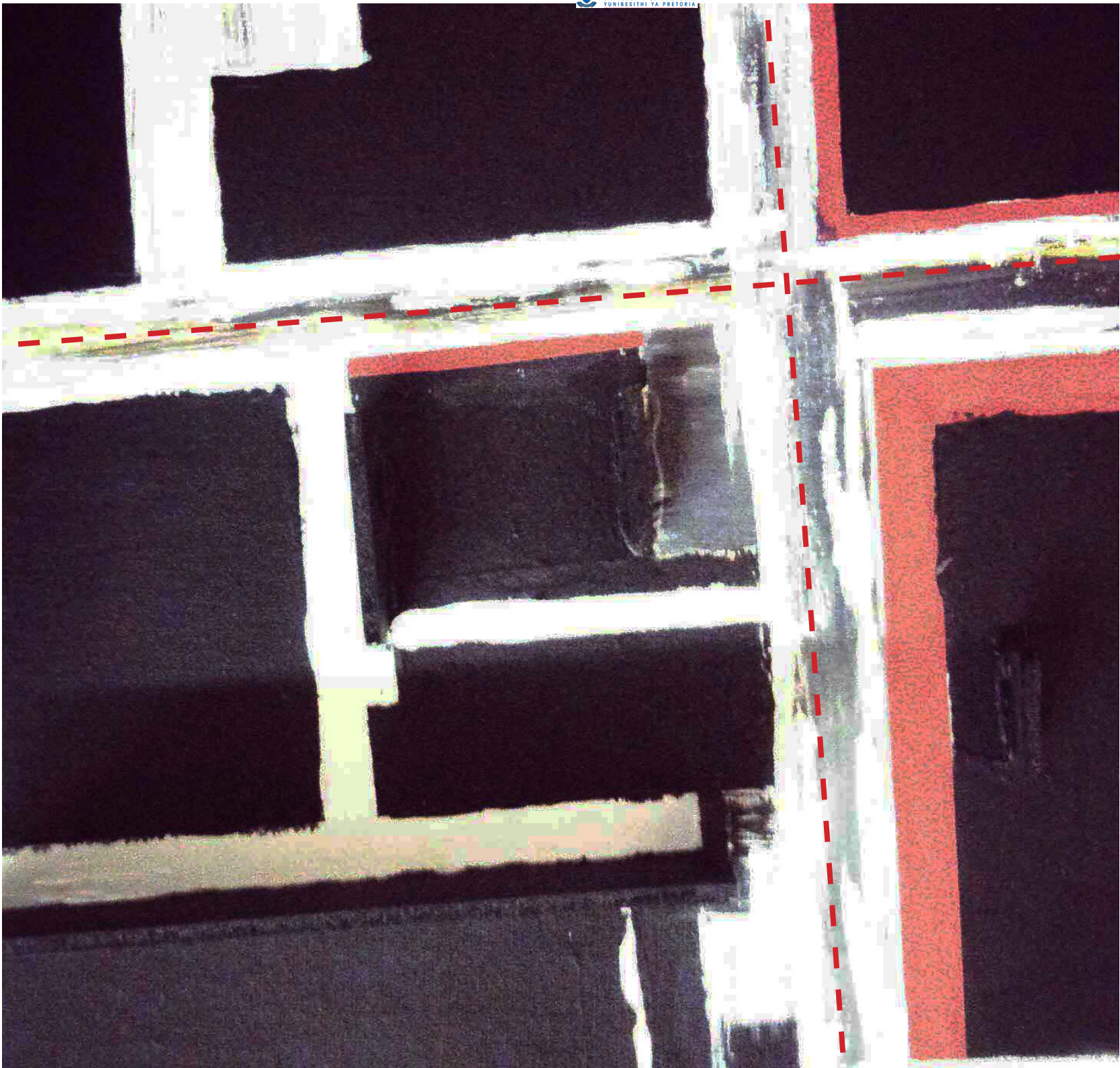


Figure 2.14. Photo of model exploring access

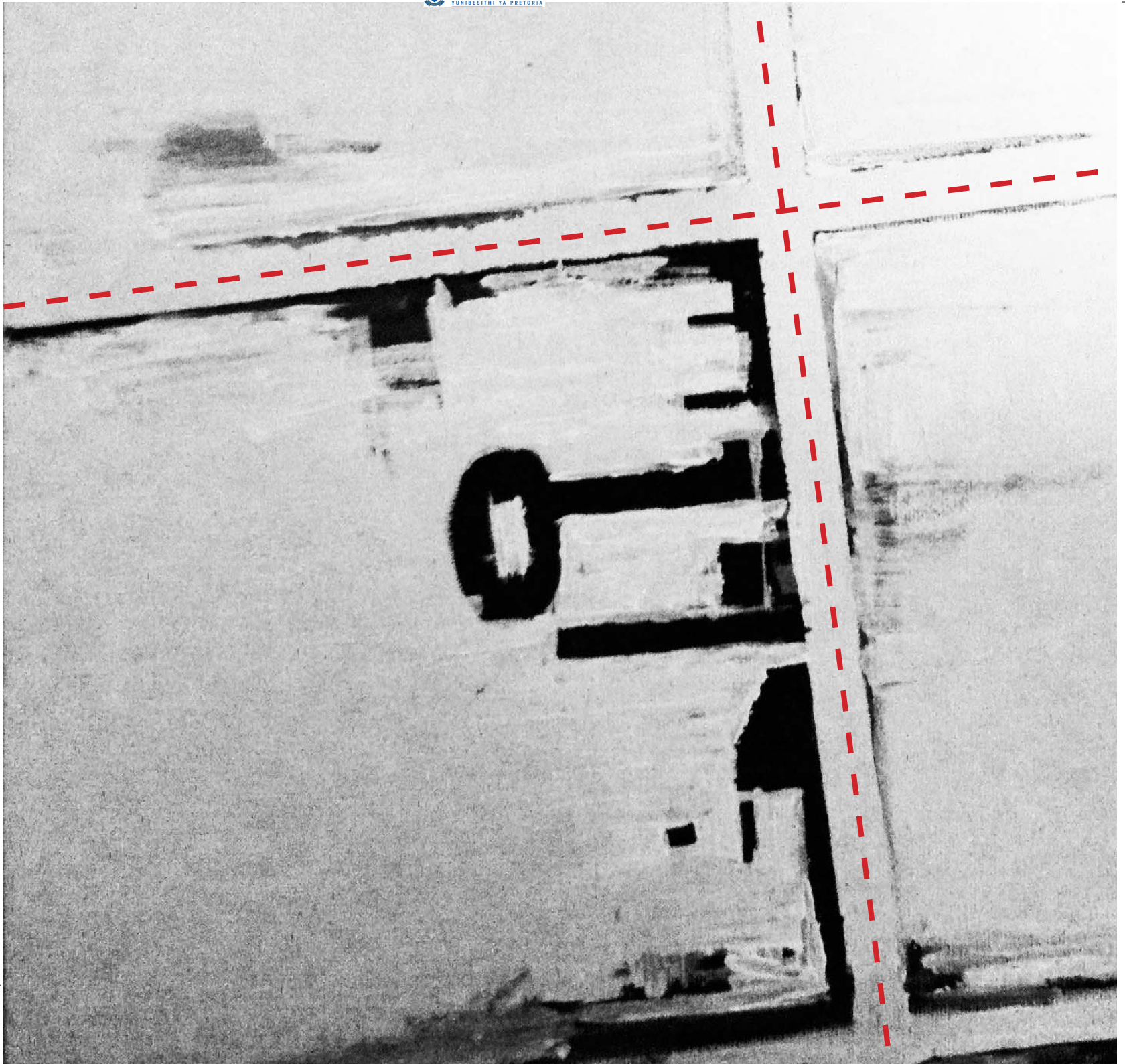


Figure 2.15. Photo of model exploring unprogrammed space

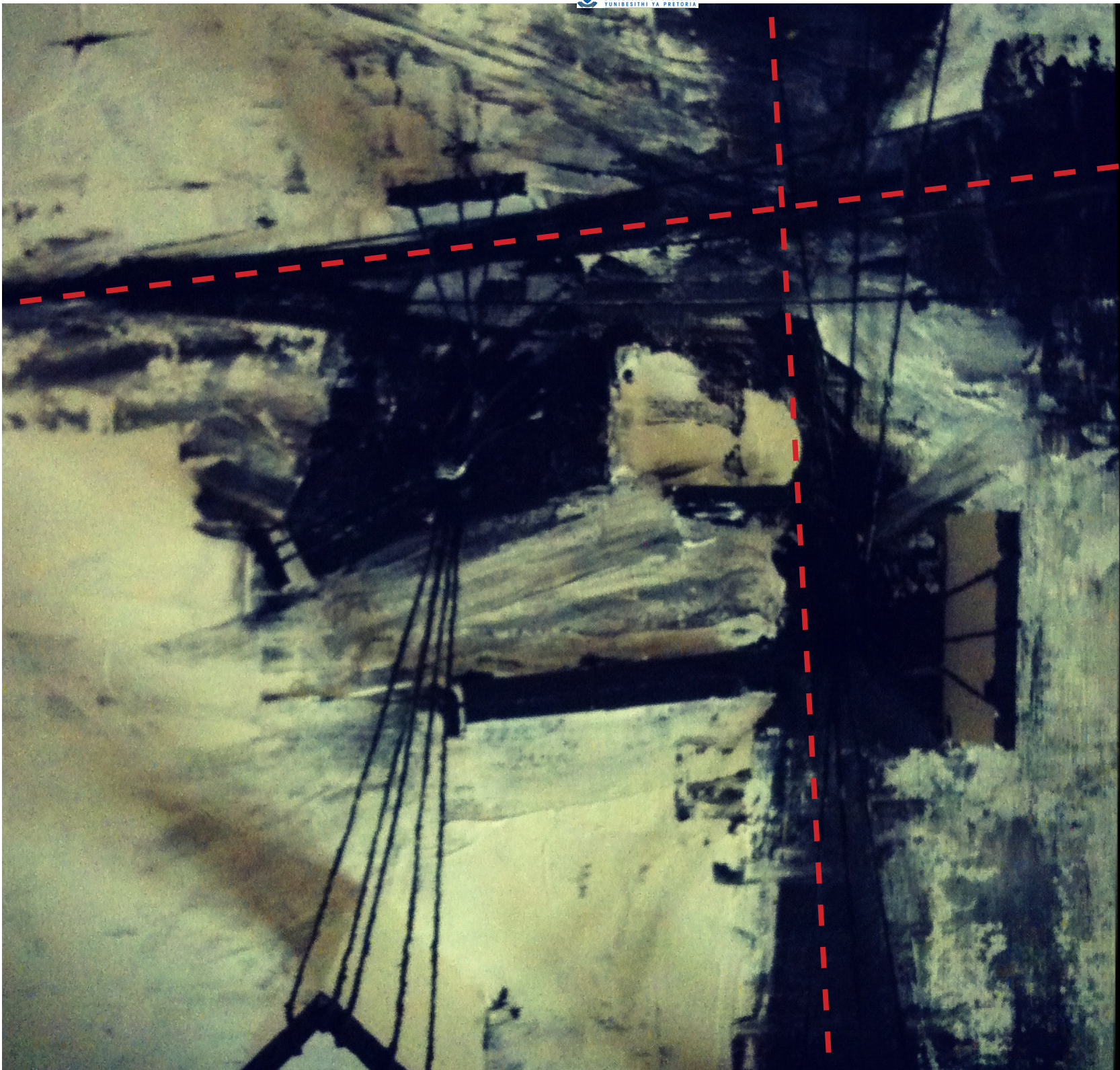


Figure 2.16. Photo of model exploring views



Figure 2.17. Photo of model exploring light

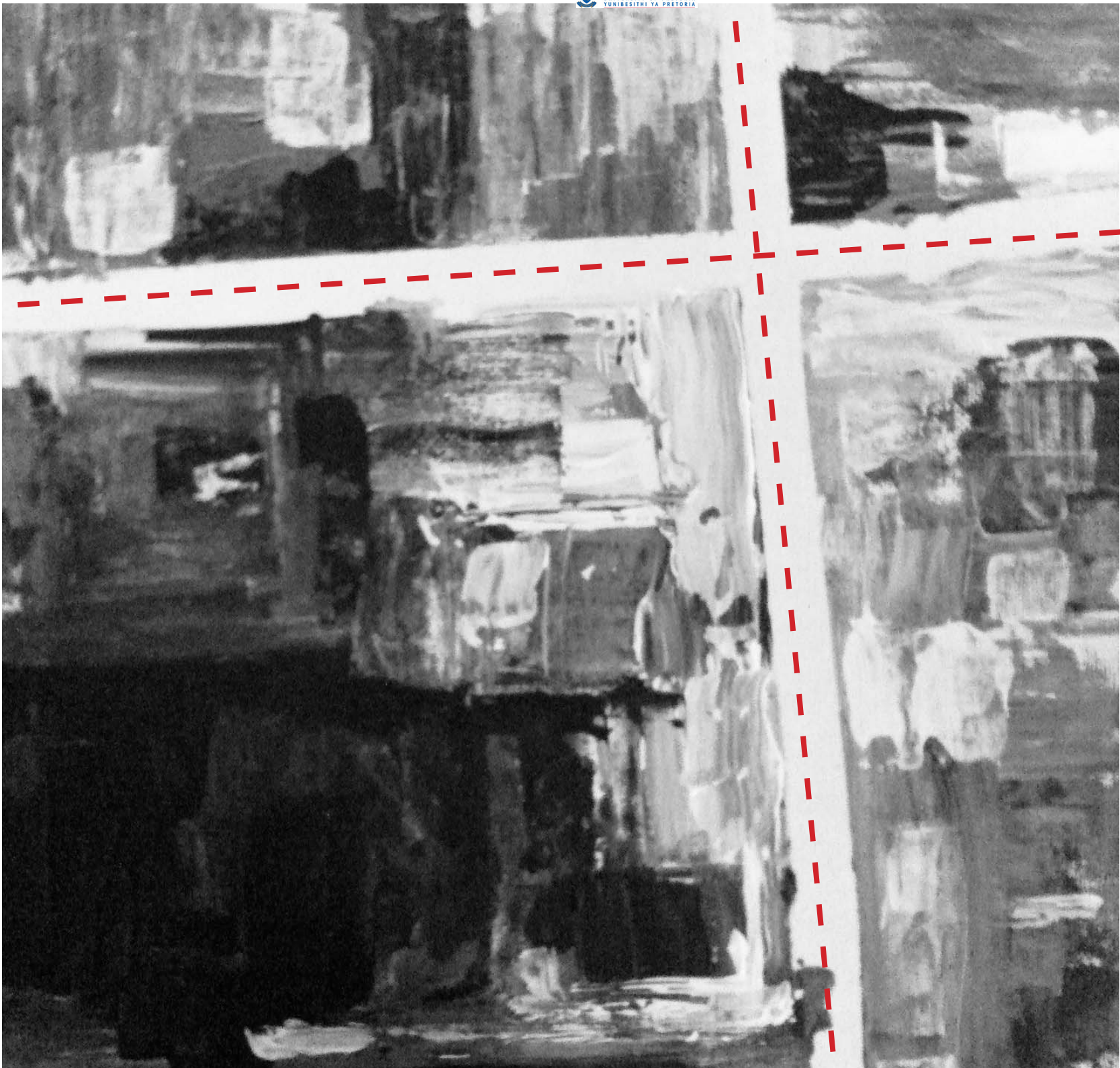
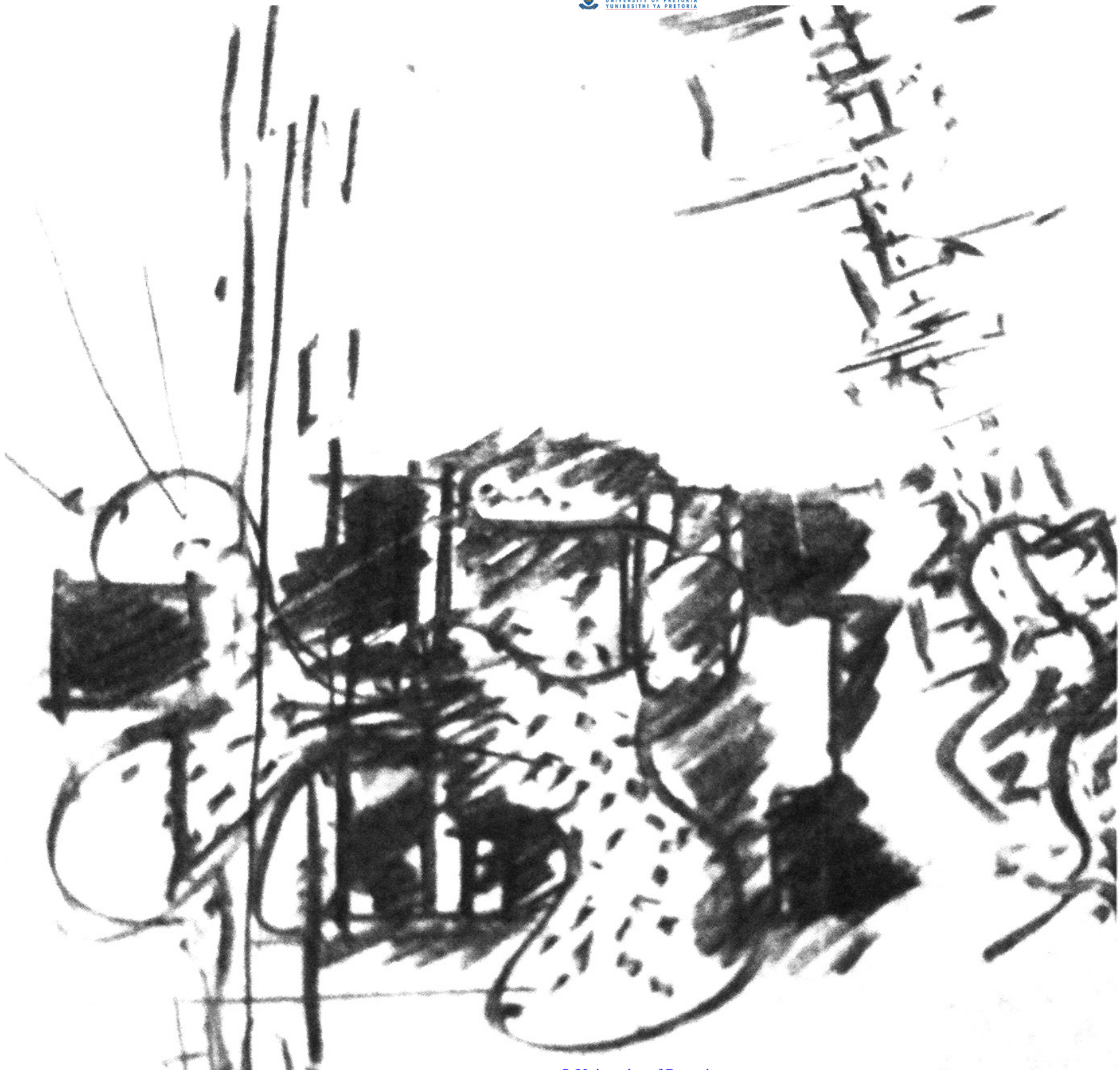


Figure 2.18. Photo of model exploring volume



Figure 2.19. Photo of model exploring edge conditions



03 | PROGRAMME

Theoretical Formation

Educational Spaces

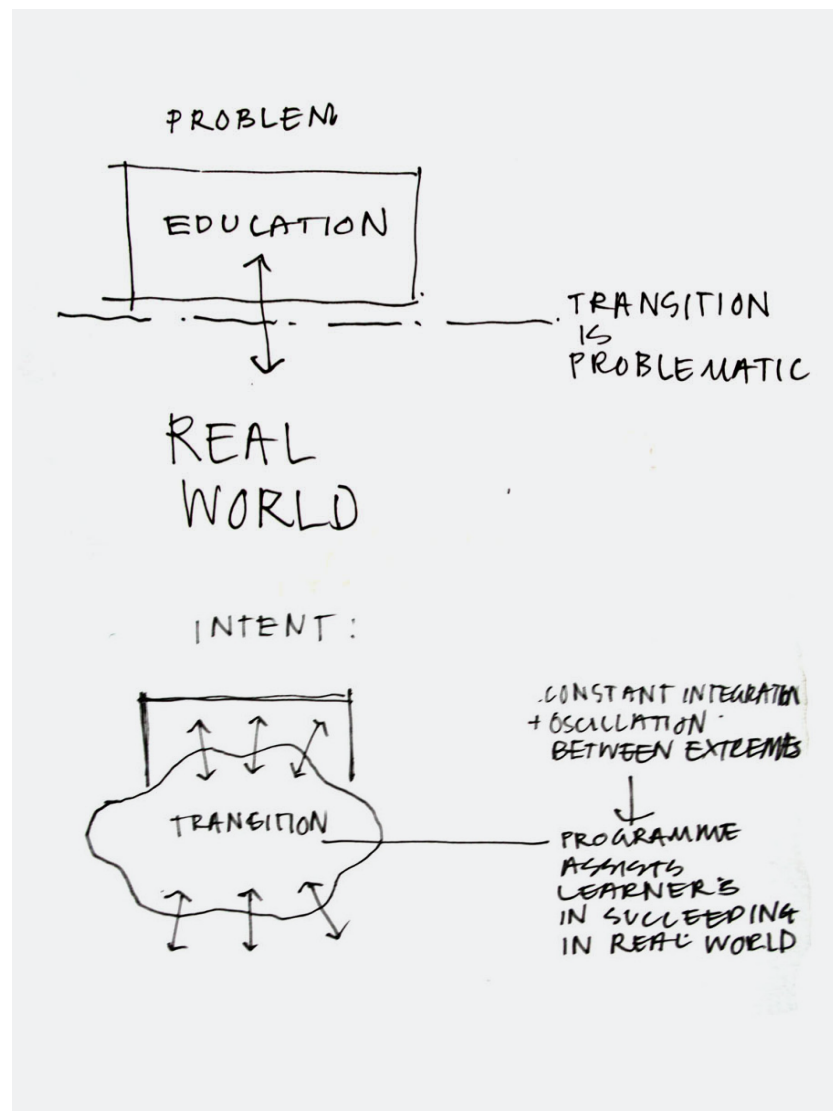
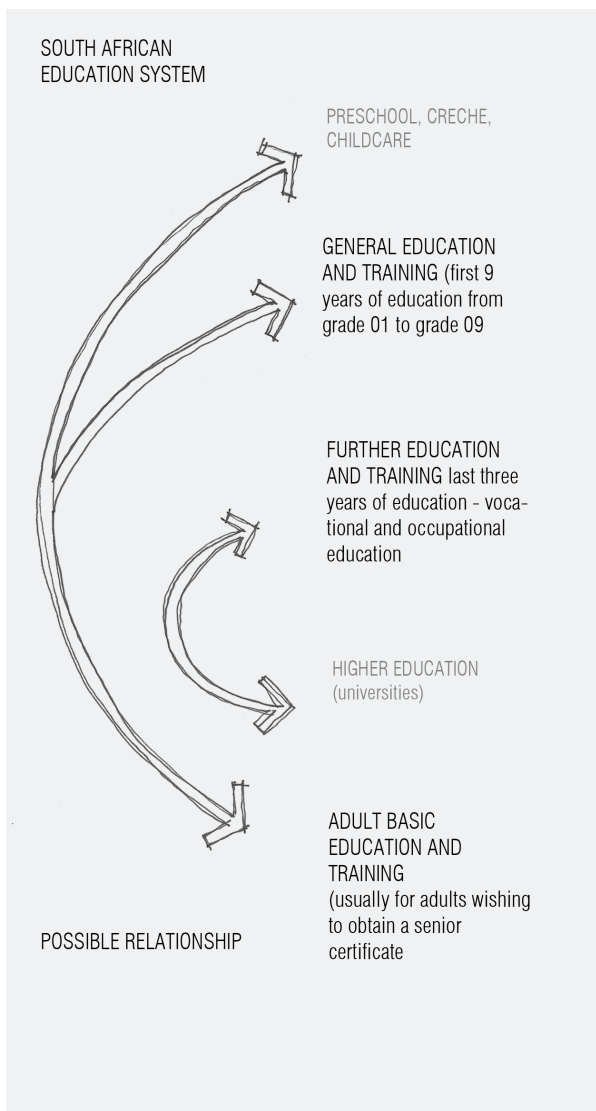
Precedent - Potteries Thinkbelt

Programmatic Formation

Programmatic Concept

Figure 3.1. Conceptual sketch of programmatic intent

MARCH 2013



3.1. THEORETICAL FORMATION

The programme is determined by the needs and existing activities found on and around the site.

New programmes are introduced in order to connect the existing activities, or to promote a collaborative process as the existing programmes have the potential to strengthen each other. Furthermore the introduction of a new programme attempts to add another layer to the current programmes, and through that add **diversity** to the urban activities of the city centre of Pretoria.

The approach to programme is born from the study and understanding of the context. A brief is defined in terms of the emergent needs of the city found in its wasted spaces. The Old Peugeot Workshop is currently occupied by a private college and serves only the very basic needs of the users - providing classrooms and offices. The interior spaces, however, are not suited to the new programme as they were designed to be motor vehicle workshops. There is no recreational space wherein learners can take breaks or wait for transport.

A vast amount of similar **private colleges and schools occupy existing buildings** in the inner city, many of them fall under the category of FET colleges, which provide intermediate education for learners in the transition between high school and

tertiary education. An evident need exists in preparing learners to adapt or be prepared to apply their skills within the real world or within the next level of education. This emergent need is very interesting as it requires a new architectural typology serving the unique requirements of a contemporary learning space in the Pretoria city centre.

A teacher centric model of school planning is disintegrating, new settings for students and a reversal in educational focus is emerging. An understanding of what truly deep learning requires leaves it up to the architect to establish an appropriate design brief. To question base assumptions, to challenge, guide and lead development process in order for schools developed by intensely collaborative partnership embracing community and students to emerge (Leonard, R)

Rem Koolhaas (1994:67) considers programme as an integral theme of architectural design, able to “edit function and human activities” using it to introduce **unexpected functions** into room programmes. While Bernard Tschumi (2006:23) states that the architectural programme is a list of required utilities which indicates their relations but suggests neither their combination nor their proportion. Departures from formal discourse and renewed concerns for architectural events have taken an imaginary programmatic mode. Alternatively typological studies

Figure 3.2. Education system in South Africa
Figure 3.3. Programmatic problem and intent

MARCH 2013

PEDAGOGIC ACTIVITY

- DELIVERY
passive learning
formal
focussed attention

- INDIVIDUAL STUDY
semi formal
focussed attention
solitary

- APPLYING
one to one exchange
active learning
informal

- CREATING
distributed attention
active learning
product driven

- COMMUNICATING
informal
dispersed knowledge
interpretation
coincidental

- DECISION MAKING
passive and active
strategy generation
decision making

STATUS

- present in existing classrooms

- no provision, takes place at private residences of learners or at public libraries and or internet cafe's

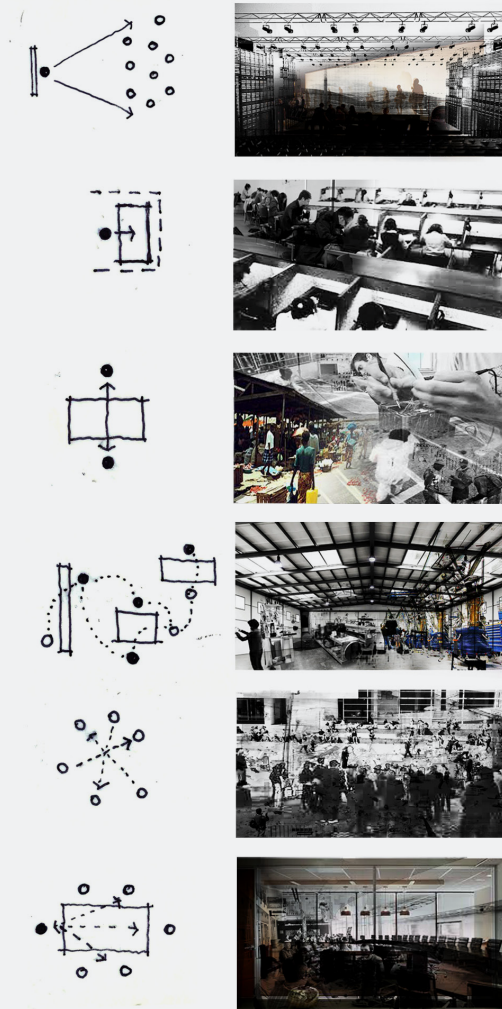
- no provision

- no provision

- no provision

- no provision

SPATIAL ARRANGEMENT



have begun to discuss the critical affect of ideal building types that were historically born of function but were later displaced into new programmes alien to their original purpose. These concern for events, ceremonies and programmes suggest a “possible distance vis a vis both modernist orthodoxy and historic revival.”

This notion is of interest as it is a way of celebrating informal processes in a context where unplanned activities within the urban environment are mostly overlooked. Programmed space is often exclusive while a **layering of programme is multifaceted and promotes unexpected activities**, thus allowing the use of the city for change and individual interpretation. The intention of introducing new and extending existing programmes is to promote coexistence and invite new reactions to the unpredictable events. Difference is negotiated and space is flexible, as choice is at risk when design is too defined. Multiple programmes and events offer an indeterminate set of unexpected outcomes and promote ideas and strategies to take preference over formal and visual activity. This allows the urban dweller to creatively adapt and imagine.

3.2. EDUCATIONAL SPACES

In a lecture concerning the emerging international trends in school planning and design, Kenn Fisher (2007:1-33) raises the

importance of community involvement, the promotion of individualised learning and the creation of settings for innovative teaching in educational architecture. Educational reforms are limited by prevailing industrial school system with teaching and learning spaces from a historical period. Students remain isolated at desk which creates little opportunity for developing social and communicative skills required for relating to others and solving problems in the real world. Thus team teaching designs that recognise discrete pedagogical settings within flexible learning environments should be considered. Fisher draws attention to a range of pedagogic activities which exist, namely: **directive, collaborative, applied, communicative, and decision making as explained in Figure 3.4.**

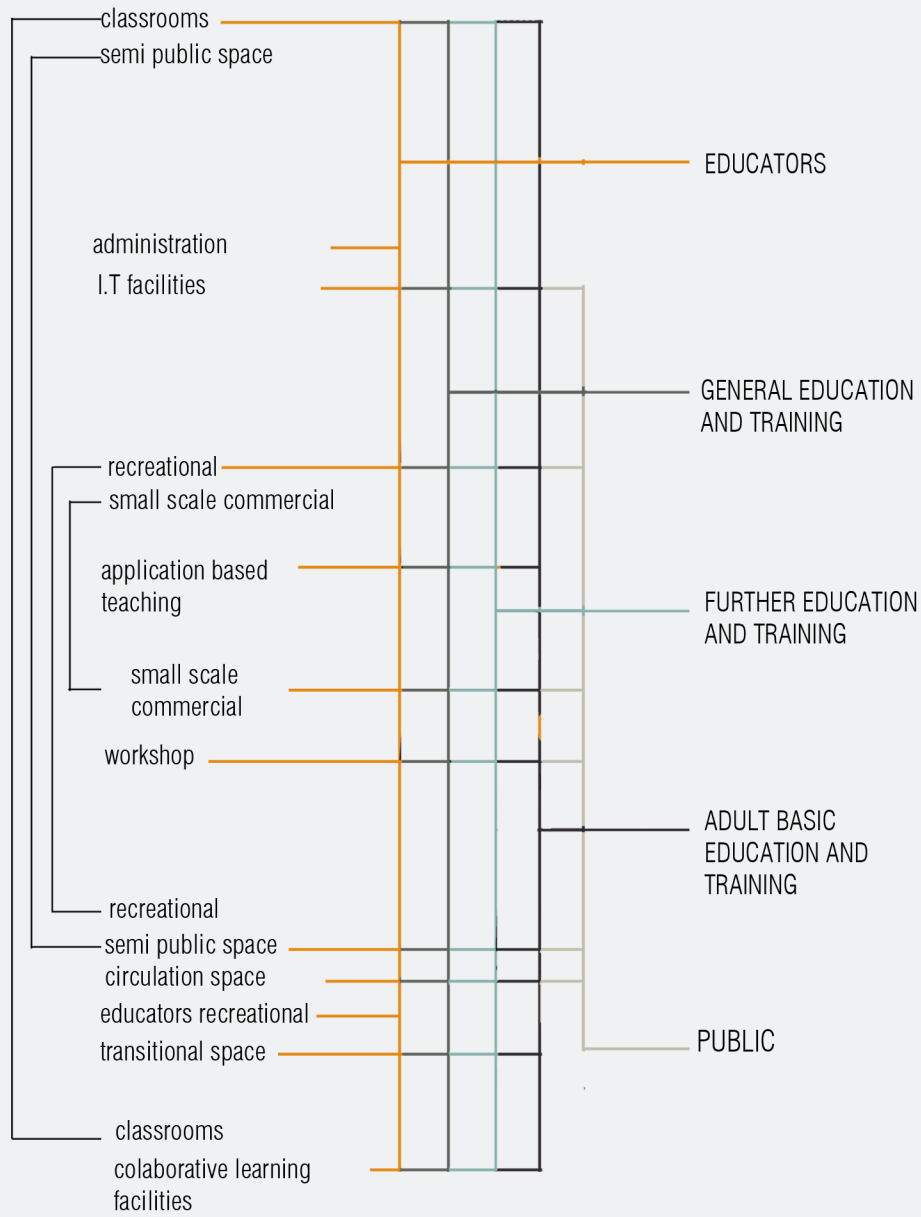
Professional school planning is most often negated by colleges and schools recently housed within the city centre, therefore various pedagogic activities are scarcely accounted for. It is generally the case that those pedagogic activities happening outside of the classroom are considered to be of less importance.

Collaboration is however achieved outside of classroom spaces and can be extended through pedagogical practice in team teaching. Lake Tuggeranong College serves here as a programmatic example of an educational institution which is acknowledges ancillary pedagogic

Figure 3.4. Pedagogic activities and relative spatial arrangement adapted from Fisher 2007

PROGRAMME

USER



APRIL 2013

Figure 3.5. Possible collaboration within the education system

processes. It is fully integrated with its community and includes theatre, drama, dance, art, ceramics and photography facilities, Studios and media facilities, a Gymnasium, solar vehicle workshops, student lounge canteen and table tennis – many of which are also available to and used by the community (Fisher 2007:9).

The college opts for flexible learning centres based on collaborative learning concepts, aiming at individual learning plans with multiple entry points and pathways fostered by teacher and student interests. An interdisciplinary approach to curriculum design becomes a transformation of the traditional ‘industrial age teacher-centred egg crate classroom model’ for schooling (Fisher 2007:34).

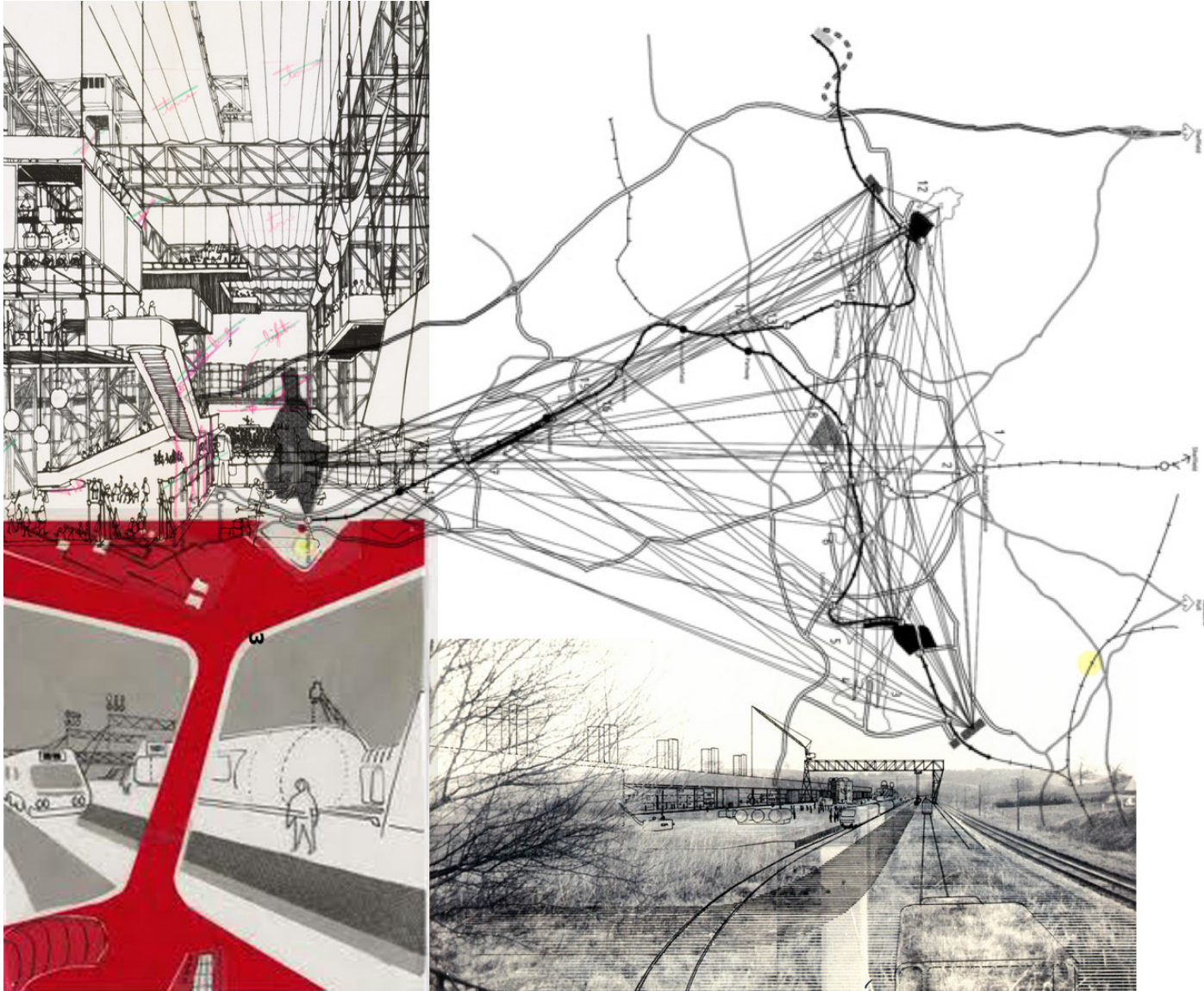
The programme of the intervention follows to be an extension of the college and school existing on site. It aims to widen the range of educational activities available and extend the times during which the building is used. The inclusion of collaborative, communicative, interactive and application-based activities will be available not only to the students of the college but also extend to integrate the public. This will transform the place into an inclusive space for both learning and social interaction. Connecting users and functions will somewhat force and encourage people to interact and support each other, thus creating a dynamic socio-educational environment.

The potential of city life as a self reinforcing process underscores the importance of careful urban planning that concentrates and breathes life into new urban areas. Good habits, daily routines, good space and critical mass are prerequisites for processes in which small events can blossom. Once the process is underway it is very much a positive spiral in which one plus one can quickly become more than three (Gehl 2010:65).

Through the addition of collaborative study rooms, workshops, and creative spaces, as well as sufficient transitional spaces that connect all these interests to the public, collaborative activities can be encouraged, and the current nature of the urban school can be examined and improved.

Programmes not usually associated with schools strengthen the significance of the place and offers many opportunities for interaction and connection. The public, school, church and small businesses are supported by one another and their close proximity to one another creates the space for new urban combinations to emerge.

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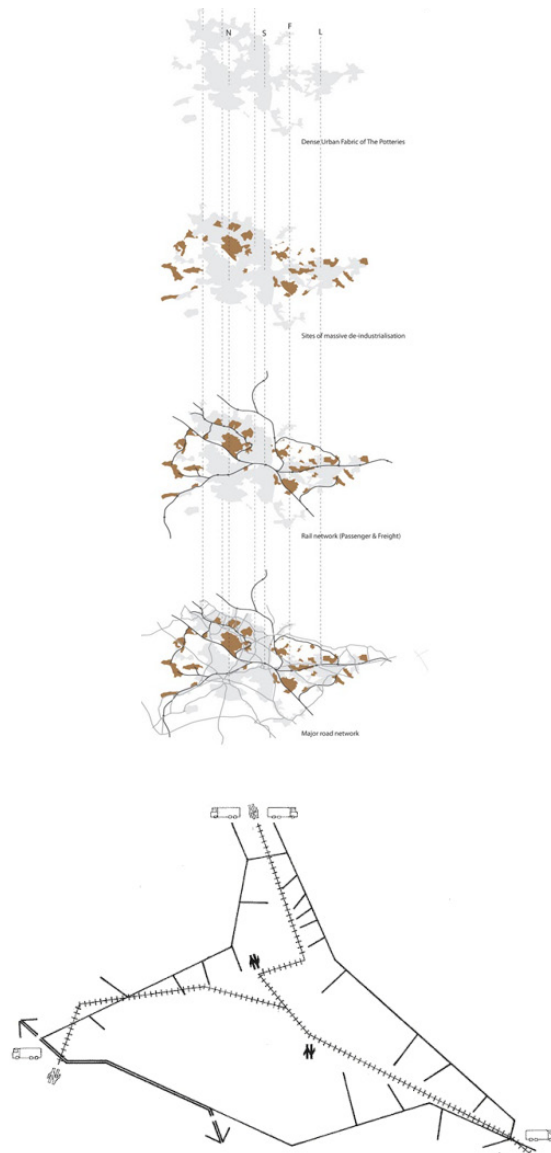


Figure 3.6. Cedric Price: Potteries Thinkbelt

3.3. POTTERIES THINKBELT, STAFFORDSHIRE, ENGLAND, 1965, ARCHITECT: CEDRIC PRICE.

The traditional educational campus is no longer serving the contemporary needs of city dwellers, as it is important to **integrate educational facilities into the inner city urban fabric** and not on the peripheries. Cedric Price's design for the Potteries Thinkbelt is a precedent which shares a similar motive. Price's critique of traditional educational establishments include the fact that they are of an overly classist orientation, where attending university becomes a sign of privilege emphasised by the anti-utilitarian orientation of university campuses. The project makes use of lost spaces around a railway to become educational spaces accommodating emergent programmes defined by emerging educational needs. The outcome is an undetermined, flexible infrastructure of vast scale placed tightly within the existing urban fabric (Levin 2013:46).

The project was never completed, but the thinking behind the proposal shares the same values in its focus on emerging needs. Furthermore, the proposal for the Potteries Thinkbelt is integrated with a railway system, not occupying a single campus but spread across a range of connected spaces. Similarly the proposal for this design thesis relies on connections and is designed as an integrated part of a cycling system suggested to connect users to different parts of the inner city of Pretoria.

3.4. PROGRAMMATIC FORMATION

Classrooms within the existing building

The existing classrooms of the Princess Park College will be rearranged in order to seclude and connect them where it is deemed appropriate. The primary and secondary schools are separated by level and security control. While learners of certain age groups need to be separated, connections are permitted and spaces are shared simply by being used at different time periods by different groups. Classrooms for younger children need to be of a more permanent nature acting as a safe and private space, whereas older learners need more flexible learning environments.

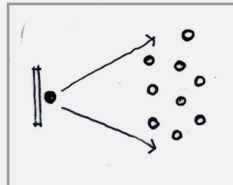
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FET college lecture rooms within the existing building

The educational spaces which serve the FET College will continue to be housed in the administrative block of the Peugeot building but gathering, waiting and social spaces need to serve and work in connection with these classrooms. The lecture rooms are small and adaptive and can easily be used for collaborative learning processes.

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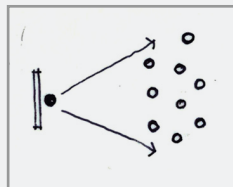
ACTIVITIES



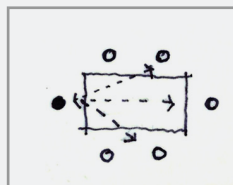
Delivery



Communicative

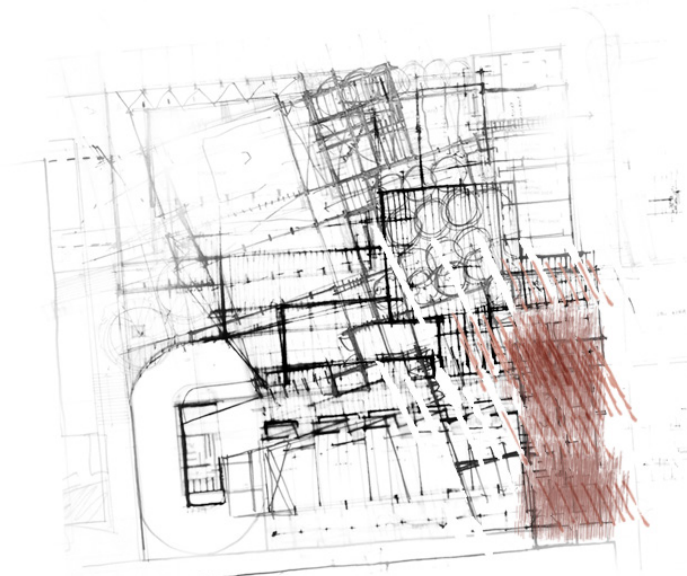
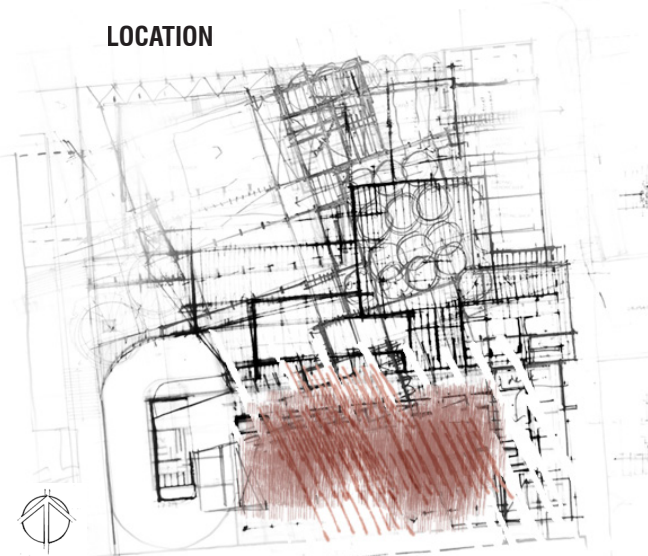


Delivery



Decision making

LOCATION



Cycling Centre

Due to the BRT Station to be situated directly in front of the college (Malan 2013), an opportunity arises to provide bus users with a secondary mode of transport with which to travel around the city. The introduction of a cycling centre will relate to the history of the Panagos Building which once served as a bicycle shop. The intention is to provide storage space, workshops and a commercial outlet that will strengthen and support the use of cycling as an alternative means of transport within the city. Cycling will also be beneficial to the students at the Princess Park College, connecting them with nearby facilities such as the sports grounds at the Eersterust Primary School.

.....

Collaborative Study rooms

The intention is to provide educational space that is flexible and available to a wider range of users, working in collaboration with the school and activating the institution at alternate times of day and year.

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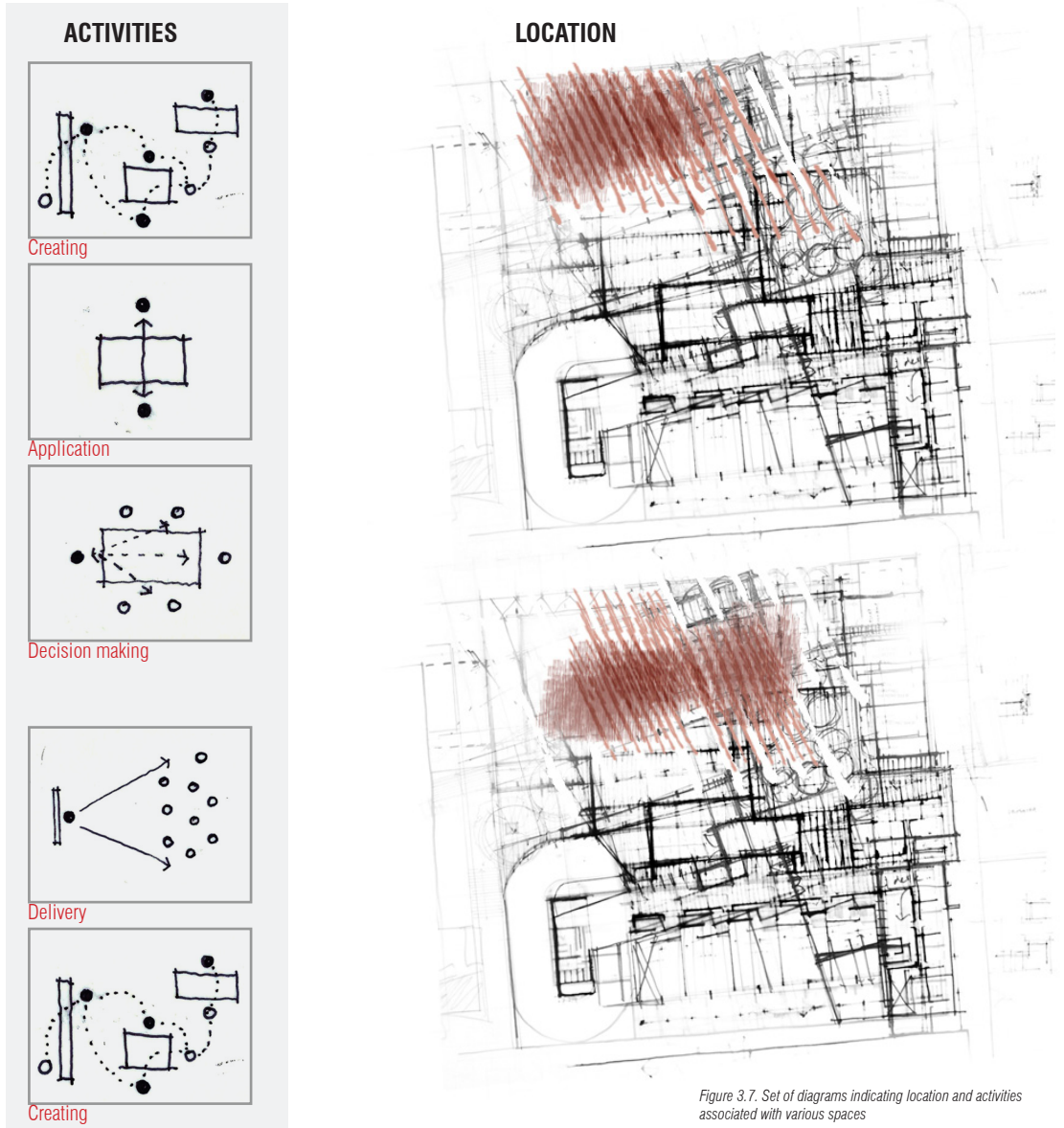


Figure 3.7. Set of diagrams indicating location and activities associated with various spaces

Auditorium and church in existing building

The ground floor of the Peugeot Building is occupied by a religious institution, there is an existing need for a functioning auditorium to serve the users, which can be shared with the school as assembly space.

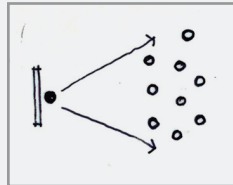
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Administrative offices

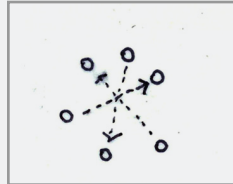
Admin offices are to be housed in the office area of the old Peugeot building with alterations done to enhance the ingress of natural light and ventilation. The users will include educators of both the Princess Park College and the FET college.

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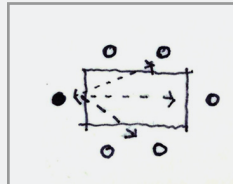
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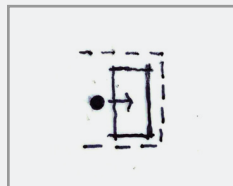
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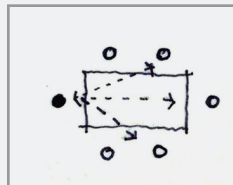
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Decision making

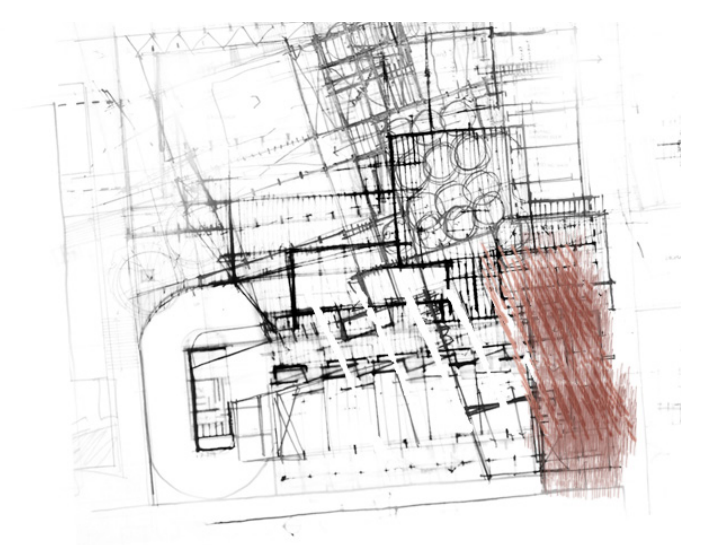
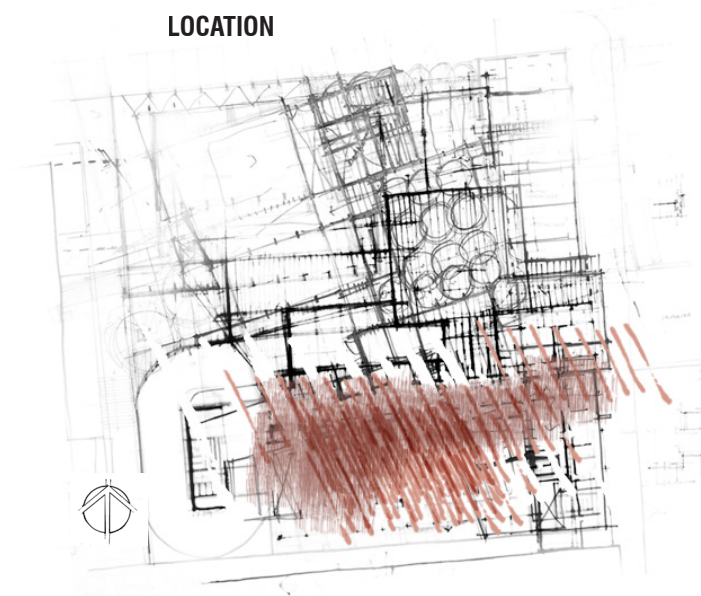


Individual



Decision making

LOCATION



Ball Court and Recreational area

The top floor of the Peugeot workshop is to be converted to a ball court and social space where learners, especially younger grades, are able to use during breaks. The ball court will be available to all ages of learners using the building, but at different allocated times. The top floor of the workshop area holds the advantage that it is within visible range of the top floors of the administrative block and therefore under passive surveillance, while offering valuable view to the surrounding context.

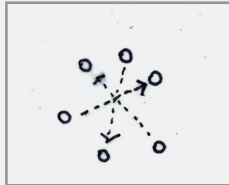
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Public and Retail space

The combination of the various parts of the school is strengthened and at the same time is supported by public space and retail space available to the public, ensuring a collaboration and interaction between various city dwellers, as well as to create a place that is open and connected to its surroundings. In addition, small businesses offer the opportunity of entrepreneurial and business training which is especially suited to older learners

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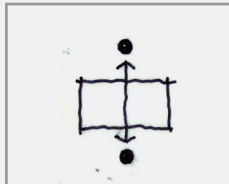
ACTIVITIES



Communicative



Communicative



Application

LOCATION

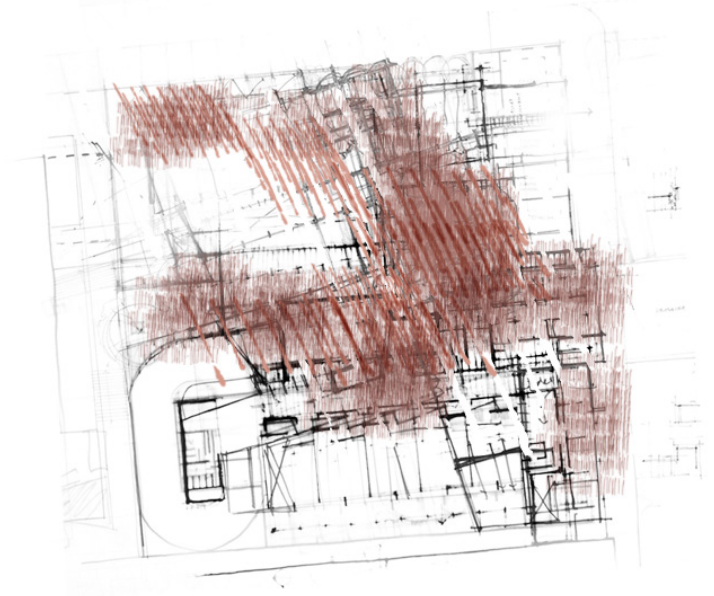
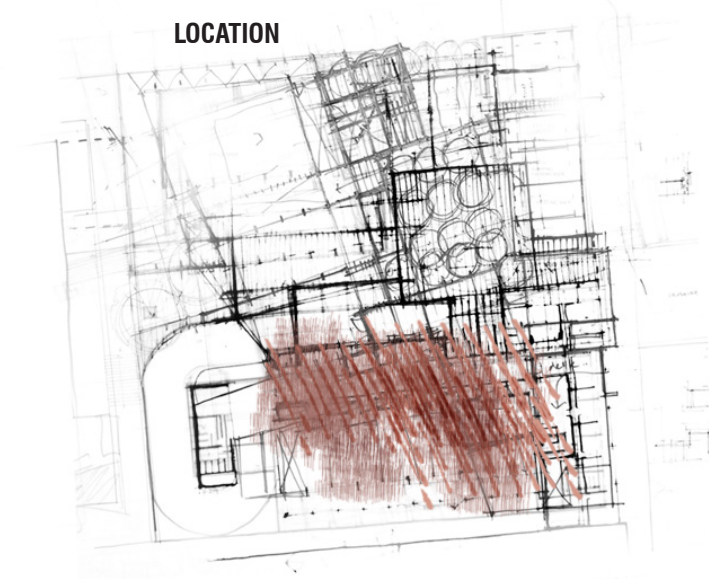
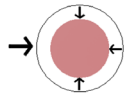
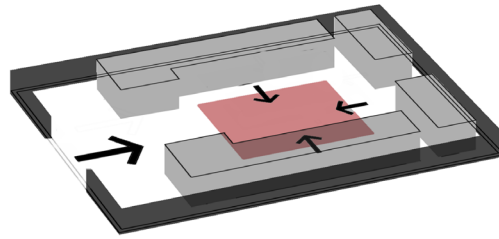


Figure 3.8. Set of diagrams indicating location and activities associated with various spaces

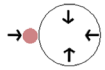


Exclusive
Inward focused
Large Open space

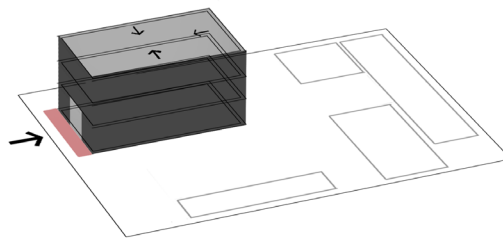


TYPICAL SCHOOL

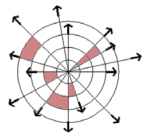
MAY 2013



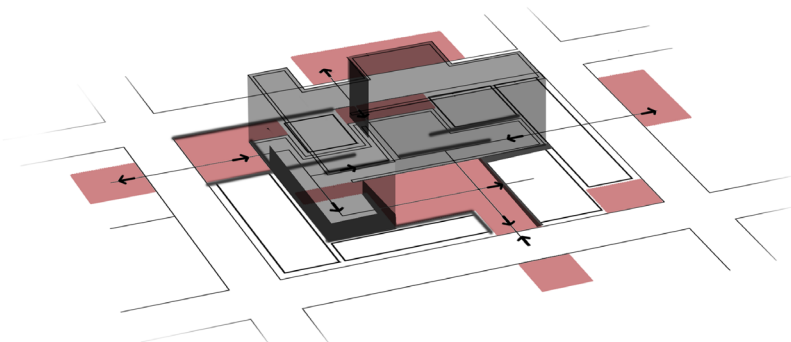
Exclusive
Inward focused
No Open space



TYPICAL URBAN SCHOOL IN EXISTING BUILDING



Inclusive
Intergated to context
Shares open spce with surrounding



INTEGRATED TYPOLOGY

Figure 3.9. Programmatic Concept

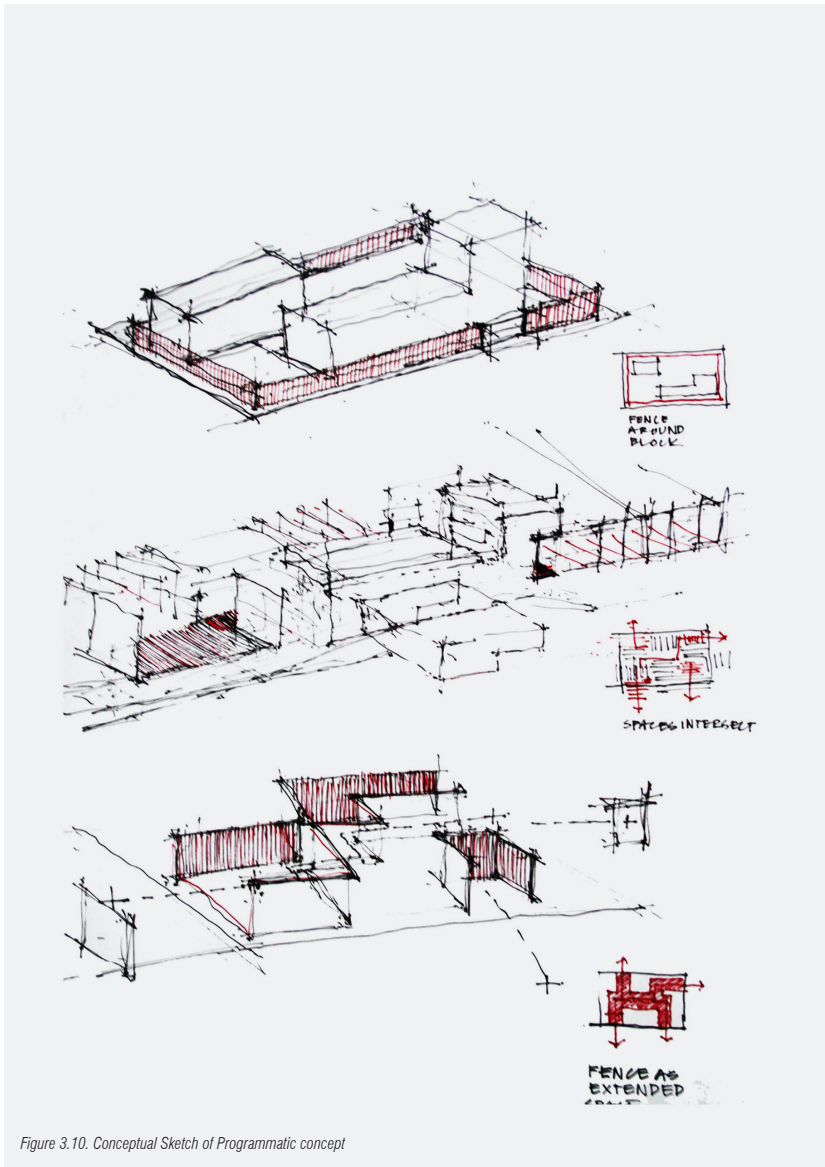
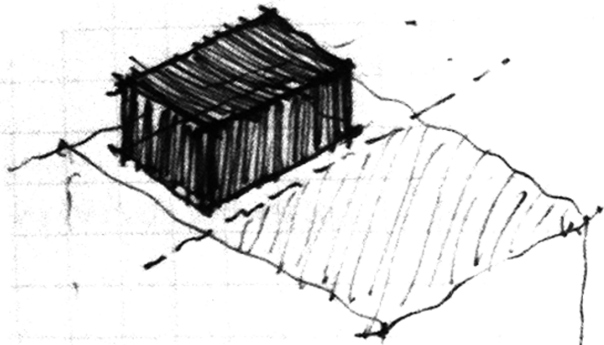


Figure 3.10. Conceptual Sketch of Programmatic concept

3.5. PROGRAMMATIC CONCEPT

The programmatic concept is formed around the question of the urban school typology as it is perceived in the minds of most South Africans. The traditional typology is easily recognisable as campus-like, with large open spaces, but fenced off from the community. A school situated in the inner city, in an existing building, is perceived to be of a lower standard even though it has the potential to aid in creating a good urban building with the possibility of attracting a large number of people to the city centre. The concept looks at the inner city school typology as it occurs in Pretoria, as well as the characteristics of a traditional school ground. It then combines the positive aspects of both to make for a layered, well functioning urban place of education.

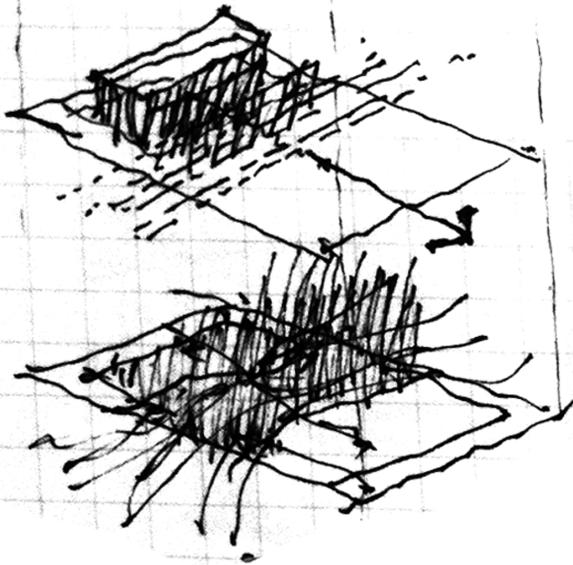


2 spaces in contrast
2 parts in contrast separated
by fence.



fixed, known, interior, private, programmed
threshold, inbetween, fence.

+ loose, unprogrammed, uncontained
open exterior public.



deepen, extend, extrapolated
threshold / fence

04 | THEORETICAL INVESTIGATION/CONCEPT

Disconnection and in-between

Thresholds and Transitions

Inhabitable Interfaces

Edges and Urban Principles

Fences

Concept

Figure.4.1. Conceptual sketch of the architectural intent





Figure.4.2. Photo-montage of disconnected nature of the site



MARCH 2013

4.1. DISCONNECTION AND IN-BETWEEN

The main architectural problem which is addressed by this dissertation is the overall state of disconnection occurring in the Pretoria city centre.

The disconnection manifests itself throughout the physical and metaphysical condition at various scales. Various means of connection exist whether through architectural devices or social configurations. These aspects are what guided the conceptual approach to the design.

The following architectural or social aspects form part of the current general state of disconnection of the city:

- Man is not connected to the notion of place. “The place is the concrete manifestation of man’s dwelling and his identity depends on his belonging to places” (Norberg Schulz 1980:6)
- Precincts are located far away from each other, a result of the dispersed city. Current transport provisions do not successfully connect the urban dweller to his various destinations.
- Most of the buildings in the immediate context are inward focussed. They offer no connection to the street, creating monotonous edges on street level.

- Educational institutions operate in isolation, without enjoying possible use of social and recreational spaces in the city.

If the intention of the architecture is to reinstate a condition of connectedness, then the space in between, or the interface, the separating element, is of importance. The in-between may include transitional spaces, thresholds, fence, interfaces and edges and these are thus the focus of the architecture. In other words, the spaces considered ancillary, unprogrammed or informal are given attention, as it is precisely these spaces which have been overlooked and compromised in the exiting state of architecture.

The disconnected state also exists programmatically, where FET colleges stand as proof that there is a need for educational activities to be more connected to real world processes of economy and survival. Thus the programmatic configuration of the architecture also exists in an in-between state.

.....

4.2. THRESHOLDS AND TRANSITIONS

“A threshold is a piece of wood or stone place beneath a door or an entrance. Whether a simple step or a grand and highly articulated space or series of spaces, the threshold is an architectural element with deep social and emotional significance. It is a transition zone that marks the passage between outside and inside, the beginning of ‘dwelling’, in the terms of Martin Heidegger. It is where one crosses the boundary into a ‘place cleared for settlement’, where settlement ‘begins its presencing’. According to

Figure.4.3. Conceptual model illustrating deep transitions into space



MARCH 2013



Figure.4.4. Conceptual model illustrating deep transitions into space

Figure.4.5. Ice model investigating movement of transitional space. Cochrane, M. 2010

Heidegger, the threshold is a place in the most basic sense in that it is a highly defined 'location'. There is a directional bias associated with the threshold, namely that of moving from a less bounded to a more private, contained space, an idea of entering." (Porter 2004:61)

Transitional space is the place within which one can explore changes in one's life, an environment within which those people wanting to initiate change or are going through change can take time to understand and experiment. "A place where boundaries dissolve a little and we stand there, on the threshold, getting ourselves ready to move across the limits of what we were into what we are to be" (Green 2013:29)

In her thesis for the Bartlett School of Architecture Maya Cochrane (Cochrane 2010:24) strives to recognise the threshold as a space within itself, celebrating it as transitional zone activated, located and entered by the act of movement. These unique places which emphasise the in-between offer the possibility of informal construction, observation, interaction, exchange, and reflection. Threshold and boundaries in our physical environment are transitional spaces activated by crossing them. The act of moving between two states brings in the notion of time "space is what there would be if there could be a distinction. Time is what would be if there could be an oscillation"

Oscillation refers to the frequent and constant moving between two thresholds and is measured by the frequency of moving between thresholds from one state to another. The threshold is the in-between space activated by the act of transition and architecture exists in a unique state of being

between two states. (Cochrane 2010:234-241)

In order to introduce successful transitions between opposites the way in which thresholds and transitional spaces are conceived needs to be carefully considered.

Stevens (Frank & Stevens 2007: 1-33) argues that the threshold is where space loosens and a range of movements, perceptions and social encounters are made possible. Social categories and rules are blurred and sudden exposure to new stimuli new possibilities anonymity and risk occurs. Usually designed as a control mechanism, thresholds actually hold the potential to become more. The threshold is comparable to the intermediate stage in rituals of progression from one social status to another referred to as liminality, a state temporarily suspended or inverted.

Liminal space is often associated to everyday leisure but in the context of the Pretoria city centre it often involves daily survival activities, taking place within the unprogrammed space used for an excess of re-appropriated space. But empty or lost spaces alone do not serve liminal activities well, showing no progress of urban space use. Unprogrammed space needs to be populated and designed.

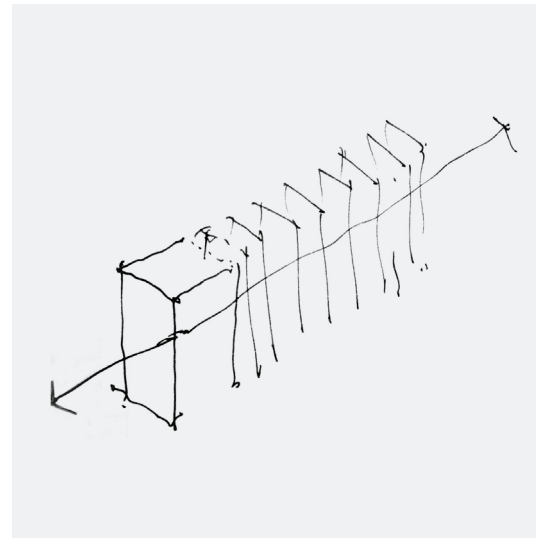


Figure.4.6. Models Illustrating Inhabitable Interfaces. Crus, M, 2005
Figure.4.7. Sketch illustrating an extended interface

4.3. INHABITABLE INTERFACES

Crus (2009:12) states that modern architecture aimed for the use and design of empty spaces unrestricted by mass and matter. As a result walls or the physical substance of architecture has been thought of as space dividers or organisers, disregarding the interactive potential of what he refers to as inhabitable interfaces. An interface is the point where the organisations of two systems' subjects meet and interact - a common boundary.

In computing it is a means of communicating between the computer and the user. Interfaces are however not a purely digital phenomena but can be understood as physical constructs. Their peripheral location allow the character of these spaces to be considered as intrinsically socio-fugal (they drive away from social interaction). But if kept in mind the performative and magic potential of inhabitable interfaces one could argue the opposite as socio-petal - promoting individual engagement and social interaction in the liminal substance of architecture.

Architecture predating the modern movement offers aspects to consider - including thickening of walls and the façade as a container. Thus the masking of intimate life is understood as both voyeuristic and haptic experience. Spiritual immersion onto spatial and ornamental

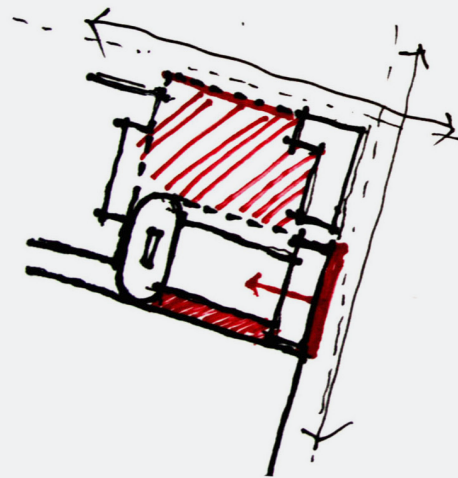
depth of nooks, niches, alcoves in sacred spaces has, however, been lost with the interface becoming a mere spatial divider. Inhabitable interfaces form part of a history that promotes the reciprocating engagement of body and architecture.

In modern architecture, the body interacts with increasingly artificial and environmentally controlled spaces and the dressing of buildings are reduced to capsules or suits. But the inhabitation of media facades is to be considered according to Crus (2005:65). He adopts a "wallist" approach in which there lies a shift from a space-centric to a wall-centric understanding of architecture.

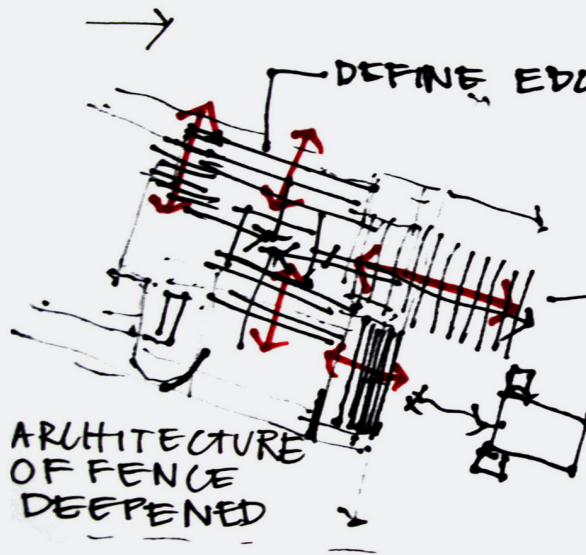
Inhabitable interfaces include conditions that generate an intensive experience as well as a haptic awareness of surrounding space. The aim is thus to create a wall condition that prompts new forms of architectural embodiments, an expanded boundary in which notion of being inhabitable is a catalyst of both individual activity and social performance while at the same time creating a receptacle of a projected life that is vital to our sense of intimacy in a more pleasurable dominion of architecture (Crus 2005:68).

.....

FEBRUARY 2013



- FENCES A CHARACTERISTIC OF LOST SPACE
- PART SEPARATED BY BOUNDARY / THRESHOLD THIN + MONOTONOUS
- CREATES ALIENATING URBAN ENVIRONMENT NOT FRIENDLY TO HUMAN SCALE



ARCHITECTURE OF FENCE DEEPEDED

DEFINE EDGE

ARCHITECTURE THAT FITS IN + APPROPRIATES GAP.

ALLOW PERMEABILITY

PROVIDE APPROPRIATE TRANSITION BETWEEN EXTREMITIES



Figure.4.8. Site Problems and intentions

4.4. EDGES AND URBAN PRINCIPLES

Jan Gehl (2010:21) states that a street which provides views and access onto a wide variety of activities makes for a rich urban life. "Cities must provide good conditions for people to walk stand sit watch listen talk". It has been explained that the edge conditions of the city blocks under investigation do not promote a successful urban condition. Thus the edges of the architecture, especially the outward facing edges relating to the streets will contrast the majority of modern architecture within the city centre. The edges of city limit the visual field and define individual spaces making a vital contribution to spatial experience and to awareness of individual space as place (Gehl2010:75).

However, complete openness and connection is not an appropriate response, clarifying territories and affiliations are crucial for contact with others and protecting the private sphere. Semi-private and semi-public transitions increase the likelihood of contact from zone to zone, where residents gain opportunity to regulate contacts and protect private life. A well-proportioned transition zone can keep events at a comfortable arm's length" (Gehl 2010:103)

Gehl's urban theory include further principles which are relevant even to the African city, Developments in society, economy, and building technology have gradually resulted in urban areas and stand-alone buildings on an unprecedented scale which can be

attributed to greater wealth, greater size of erven, structures, commissions, construction tempo, and technology. This is evident in the dominating scale of the Peugeot building, the Department of Transport building, and the Telkom towers in contrast to the much older Jewish synagogue and Panagos building which are evident of a more intuitive, intricate and interactive urban condition. This signifies a shift of architectural ideals from elaborately detailed buildings erected in an urban context to spectacular individual works large visions and large thinking (Gehl 2010:79).

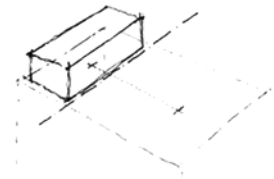
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4.5. FENCES

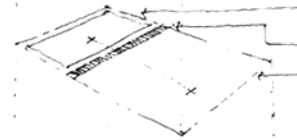
The architectural concept is partly born from the group approach to fences (Appendix 01) as a characteristic of lost space within the Pretoria city centre and the identification of the problem of edges through urban mapping. The fence has been divided into various types including: scale as fence, hostility as fence, signage as fence, and level as fence referring to the more conceptual ideas of fence but not excluding the physical fence itself.

In essence the fence includes all elements separating one element, whether physical or abstract, from another. A significant problem identified on site is the stark transition between such elements: inside-outside, public-private, programmed-unprogrammed, defined-undefined. This is a problem because it creates an alienating and illegible urban environment while promoting a state of disconnection.

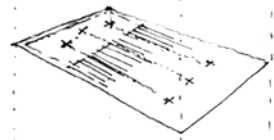
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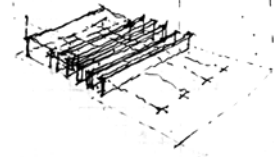
opposites separated by fence,
boundary, threshold or wall



defined, programmed, fixed,
interior, private, closed



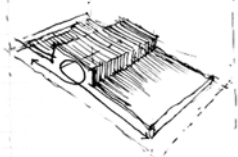
loose, undefined, exterior,
public, open



inbetween extends and deepens



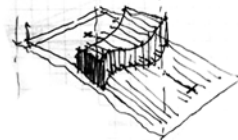
opposites overlap and integrates,
connection is created



inbetween becomes focus of
intervention



constant oscillation emphasises
transitional space

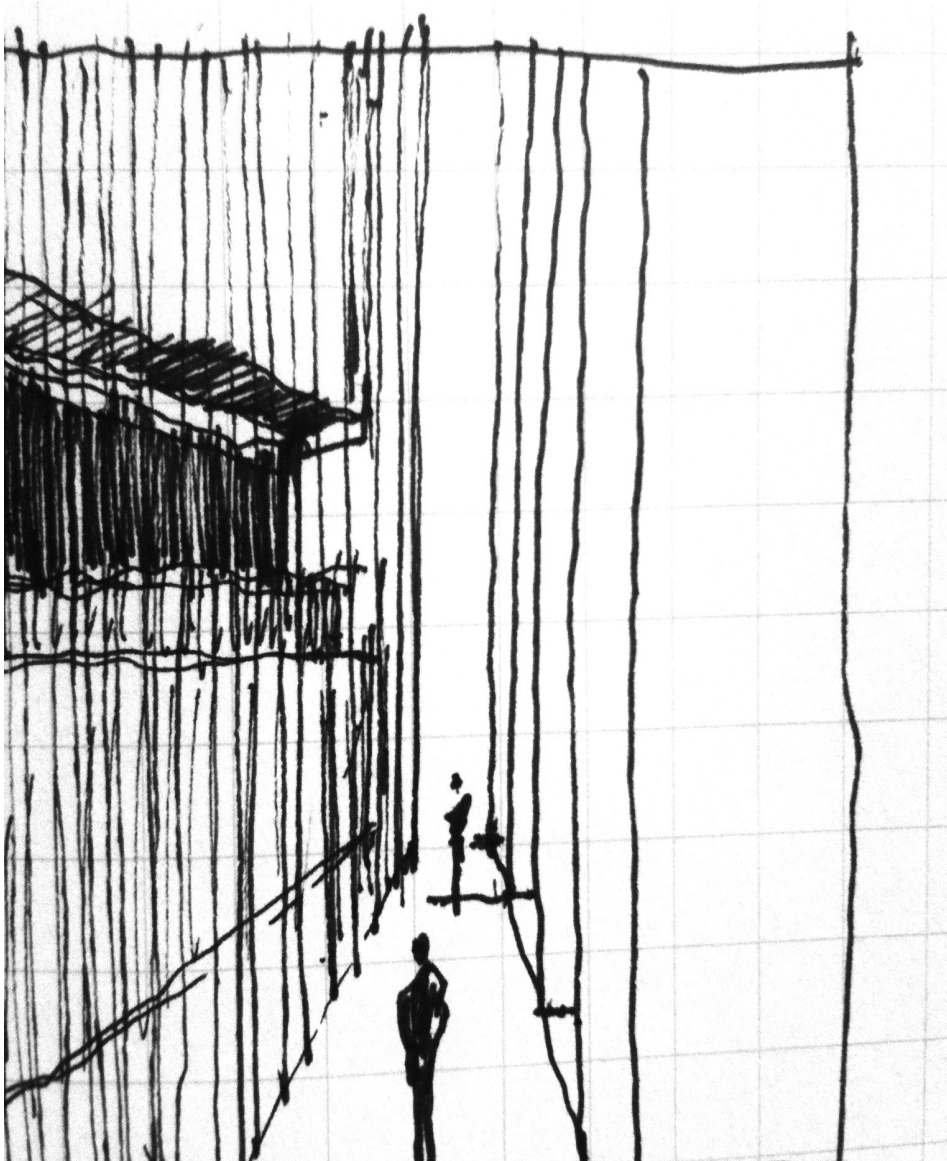


spaces extend and flow into an-
other

the fence becomes the
architecture

Figure.4.9. Architectural concept
Figure.4.10. Spatial sketch of in-between space

APRIL 2013

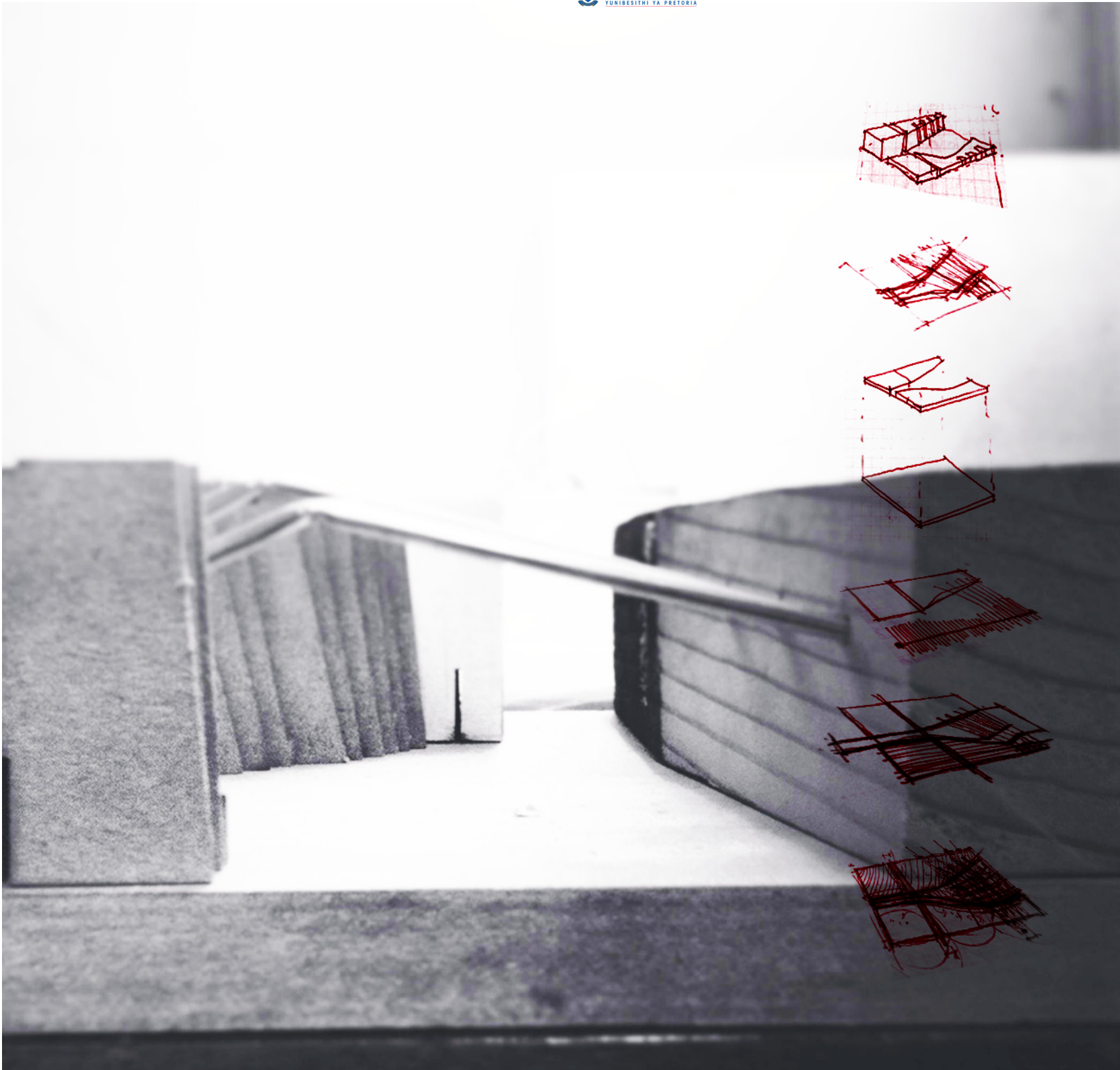


4.6. CONCEPT

The boundaries, thresholds and transitional spaces become the most significant architectural area of intervention, they currently exist as very thin spaces on the chosen site, but have the potential to be meaningful to the urban dweller. This is especially evident in the buildings completed during the modernist movement, such as the Peugeot, and Department of Transport buildings. The condition is furthermore made worse by the alteration of the edges and transitional zones of these buildings on ground floor. In an attempt to improve their security, out of a response to safety within the inner city, the affect has ironically heightened the feeling of insecurity experienced in the area.

The intention is to deepen the fence, interface, or threshold depending on where it is located in order to provide the desired transition between extremities. Due to the South African climate people are more likely to spend time outdoors and therefore the desire for outdoor spaces in which to dwell are high, yet available outdoor space in the context of the site is harsh and the mediation between interior and exterior is often lacking. Interior spaces around the site have a poor connection with the exterior or public realm. The result is a confusing urban environment, making it uncomfortable to the user. The parts separated by the fence thus become intersected and layered, providing a meaningful transition. The unique spaces that define the in-between are emphasised where the possibility of users to interact, to observe, and to behave informally is provided.

APRIL 2013



MARCH 2013

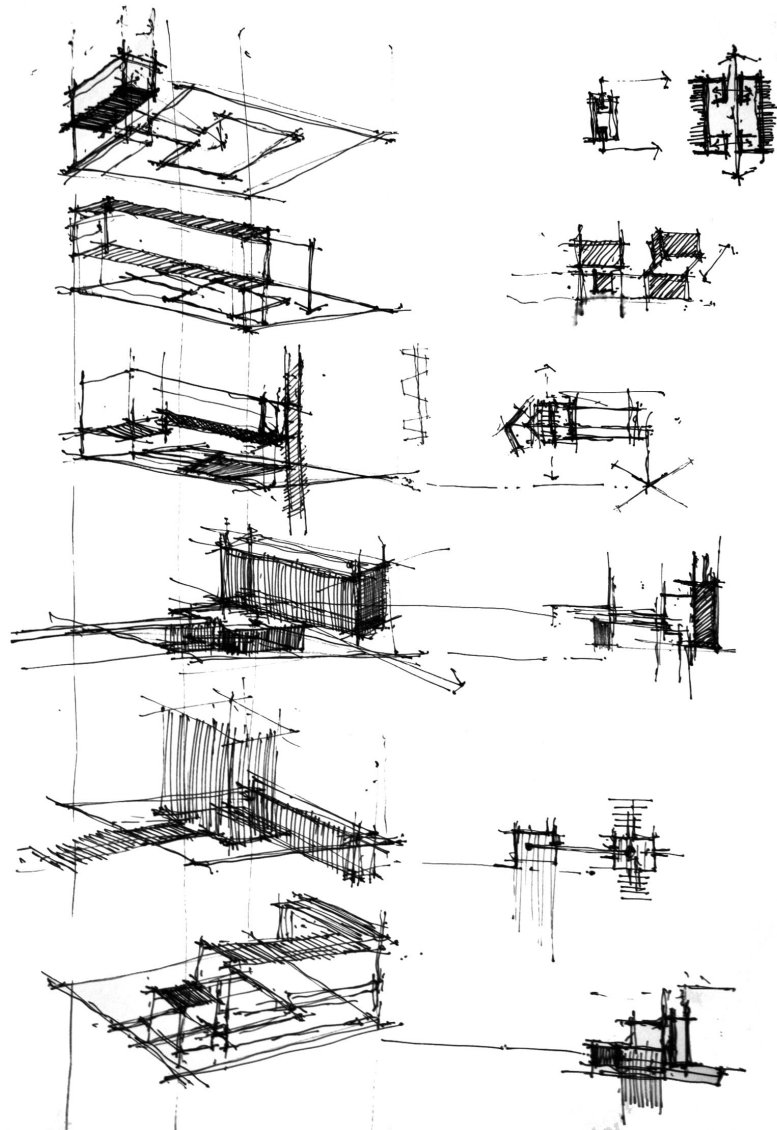
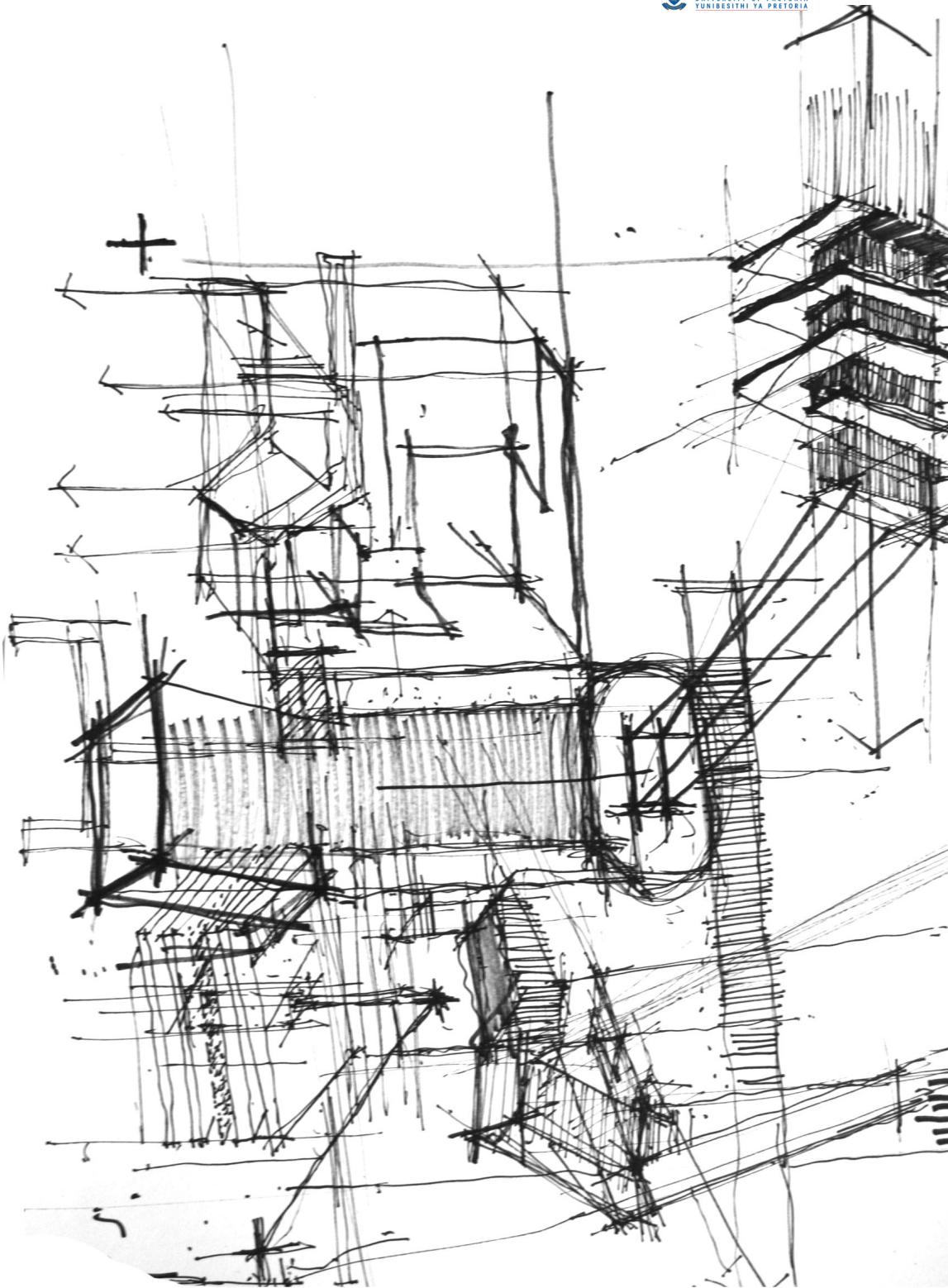


Figure.4.11. Model of Architectural concept
Figure.4.12. Sketches of planning and design of
concept model



05 | DESIGN DEVELOPMENT

Process

Precedents

Circulation

Scale and Form

Structure of intervention

Edge Conditions and Interfaces

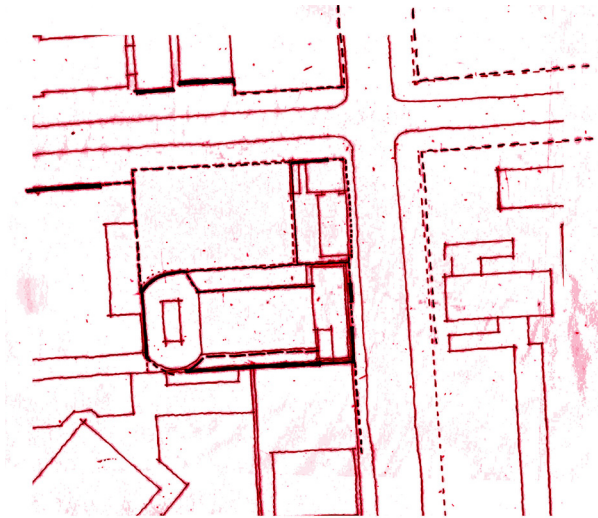
Response to Peugeot Building

Response to Panagos Building

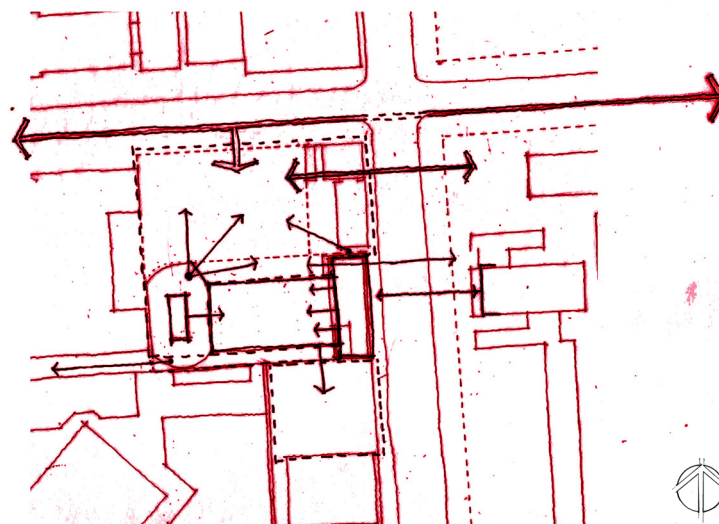
Response to Department of Transport

Figure 5.1. Conceptual sketch concerning vertical connections and level separations

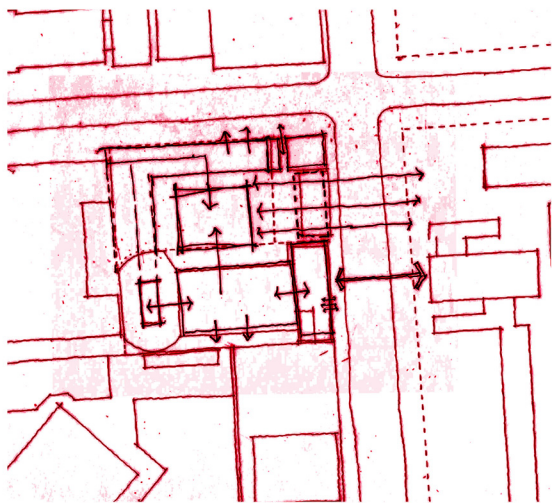
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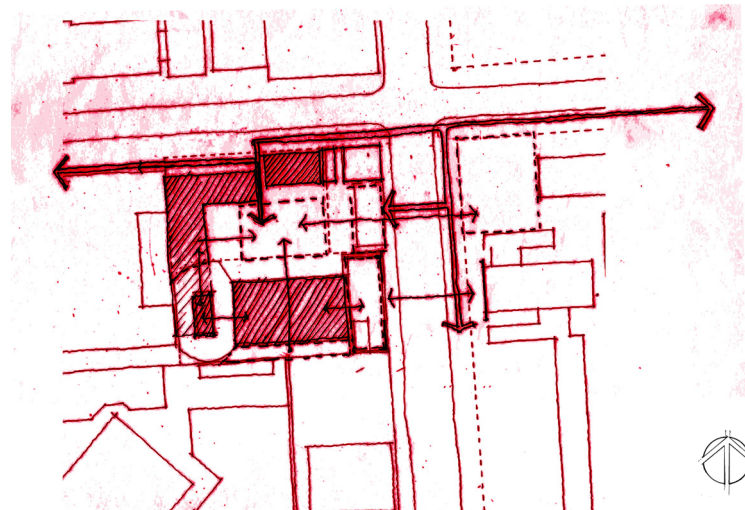
Existing State of urban edges



Possible connections and movement



Intention of edges to relate and connect to adjacent space



Built form situated around connections

5.1. PROCESS

The design was initiated through an exploration of models in order to determine the most appropriate location of built form in terms of its relationship with the surrounding buildings and with regards to the creation of a semi-public internal space which is shared by all users of the buildings surrounding it. As the intervention is to work in conjunction with the existing buildings both physically and programmatically the scale and placement, especially in relation to open spaces and edges, are important.

The placement of the new building **defines the Northern street edge** while creating an inner square shared by the three buildings. The scale and character of the square is more intimate and protected in comparison to other public spaces along Paul Kruger Street. This square is accessible from both Paul Kruger and Struben streets. Hierarchically it thus becomes the most important interactive transitional space. Entrances into the square are not placed directly across from one another in order to promote slower movement through it, but all users are encouraged by the design of surrounding spaces to enter the square, in order to promote interaction between users.

A progression of space leads from the square to the more specifically programmed spaces within the buildings, ensuring a slower progression from public to private space. The spaces around the square are

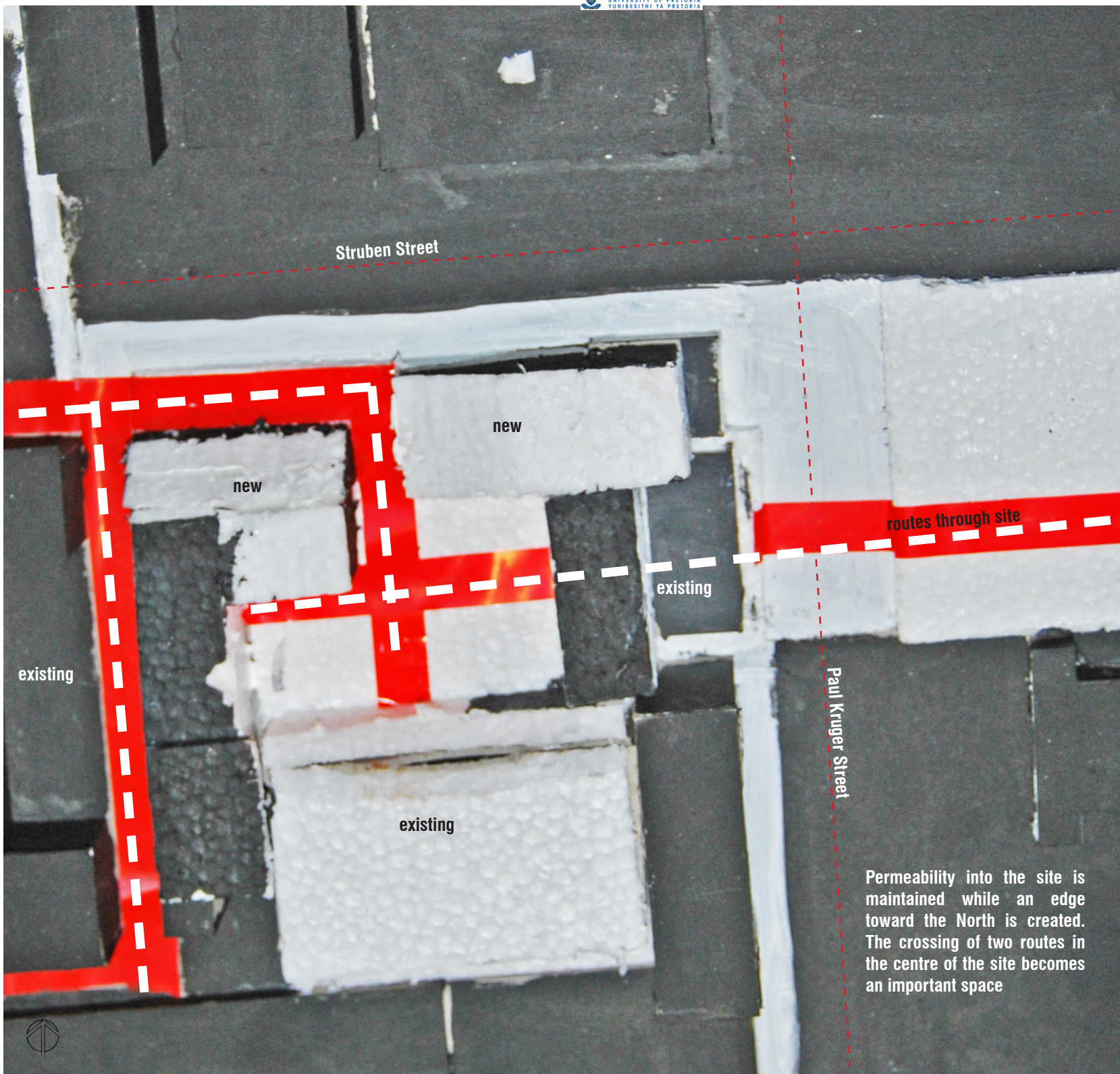
intended to have a **visual connection** to it in order to make different users aware of each other's activities to make for a well connected environment.

The new building is orientated along a grid which is based on but juxtaposed from that of the Peugeot Building. This allows the Northern edge to pull back from the Panagos Building which is located closer to the street, towards the Department of Transport Building which is pulled back according to new building lines. The juxtaposition also makes the new intervention apparent while forming in-between spaces which increase in scale from private to public. Spaces in which the two grids meet are of importance and are designed accordingly.

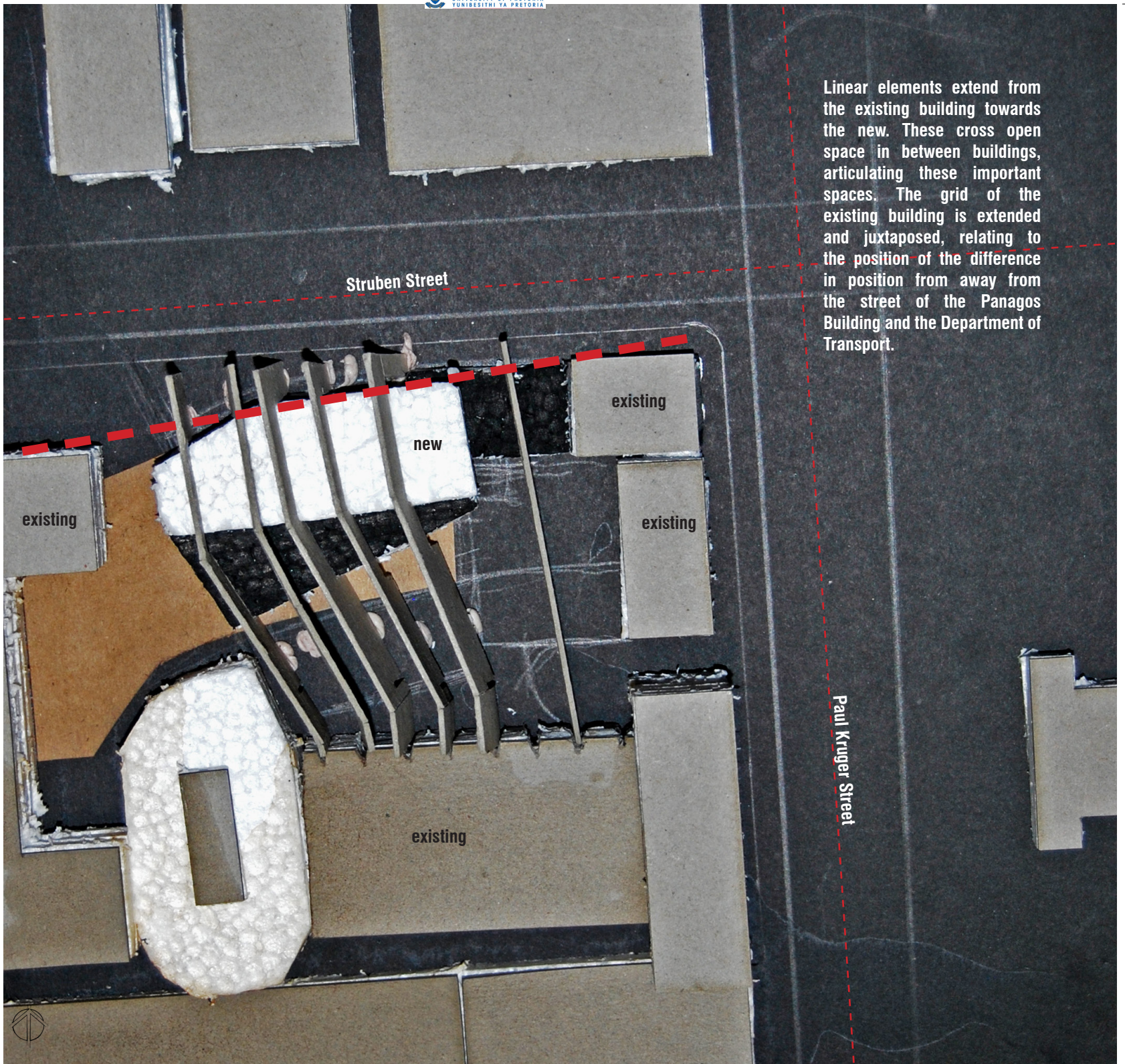
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Figure 5.2. Design Generators

Figure 5.3. Photo's of design development models (next page)



Permeability into the site is maintained while an edge toward the North is created. The crossing of two routes in the centre of the site becomes an important space



Linear elements extend from the existing building towards the new. These cross open space in between buildings, articulating these important spaces. The grid of the existing building is extended and juxtaposed, relating to the position of the difference in position from away from the street of the Panagos Building and the Department of Transport.

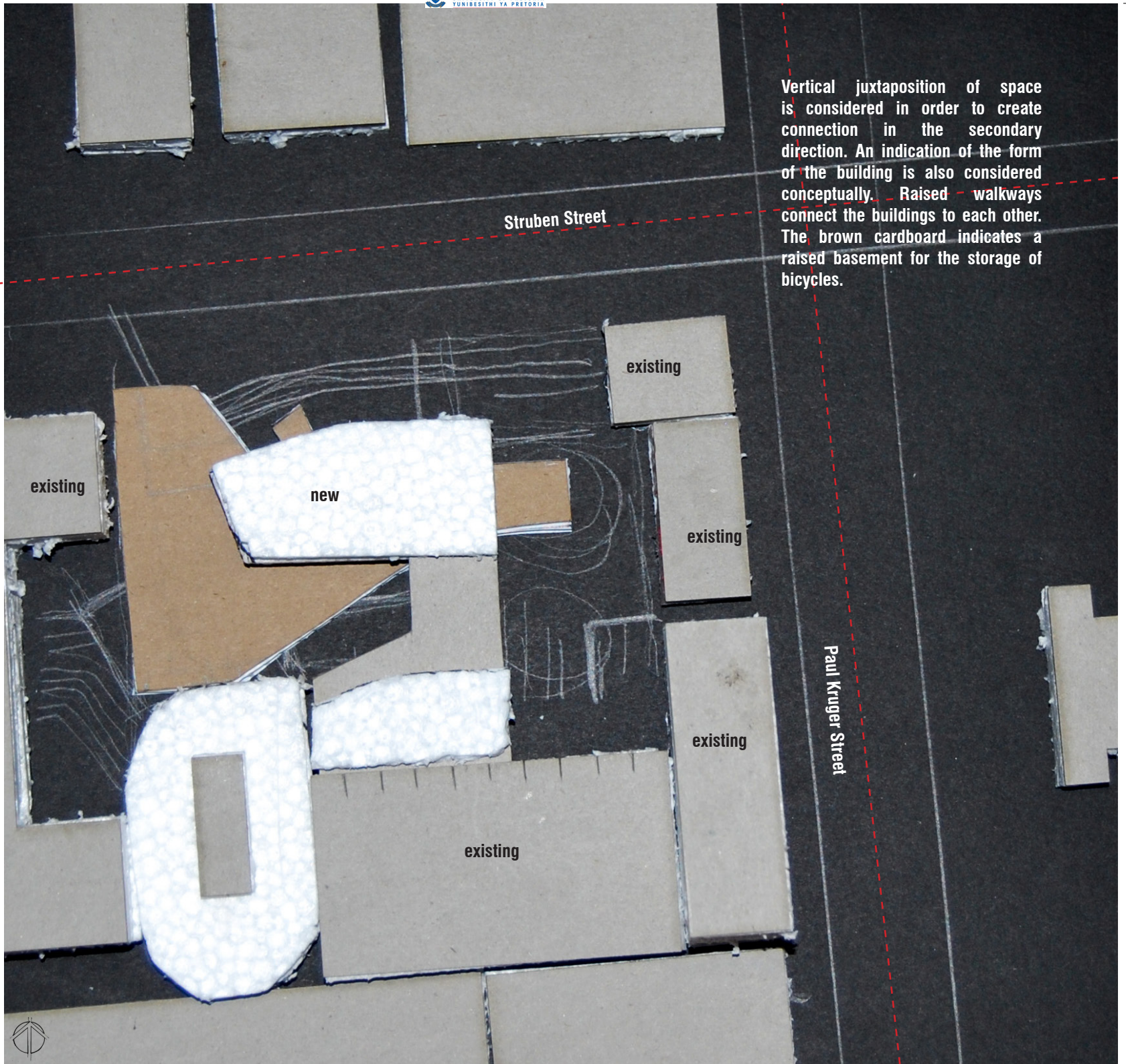


A versatility of permeable versus transparent interfaces make up the design. This model shows solid edges, where they are placed and where they are intended to be broken. The Northern facade of the Peugeot building most importantly is fragmented for a connection and response to the semi-public spaces adjacent to it.

Struben Street

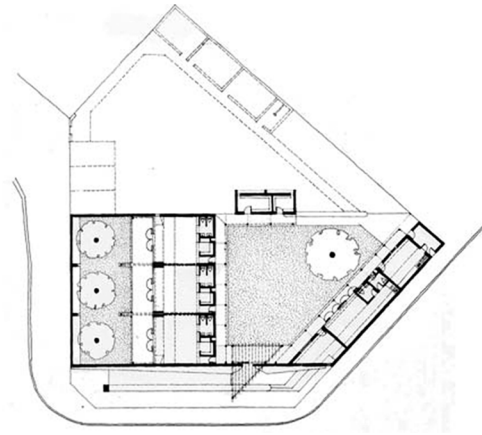
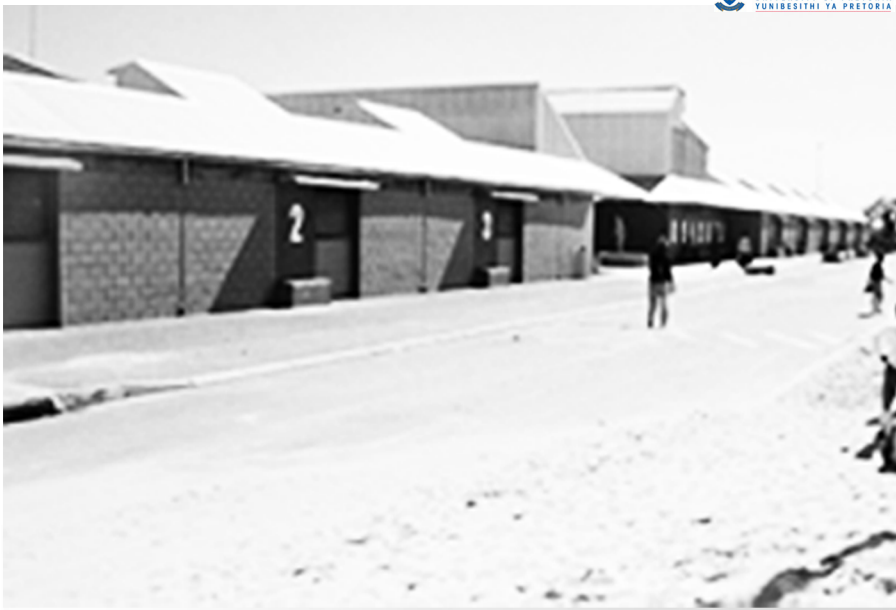
existing

Paul Kruger Street



Vertical juxtaposition of space is considered in order to create connection in the secondary direction. An indication of the form of the building is also considered conceptually. Raised walkways connect the buildings to each other. The brown cardboard indicates a raised basement for the storage of bicycles.





5.2. DELFT DAY-CARE CENTRES, DELFT, CAPE TOWN, SOUTH AFRICA, 2002 ARCHITECT: JO NOERO.

Spatial layering creates a set of spaces which mediate between the street and private spaces of the day-care centres. These spaces are partially lined with seats. **The footprints of the buildings are organised around central courtyards** to create subsidiary outdoor spaces and a hierarchy of different spatial experiences commencing at street level. Access ascends from the side perpendicular to the street with low walls and seating to create a linear gathering space. The threshold is further extended by pergolas while the footprints of buildings exploit edge conditions. (Joubert 2009:34-37)

5.3. ST CYPRIANS SCHOOL ADDITIONS, CAPE TOWN, SOUTH AFRICA, 2009, ARCHITECT: JO NOERO ARCHITECTS

Archaic spaces, as described by Aldo Rossi, include works of architecture that possess the greatest capacity to adjust to new and different uses. They are characterised by the greatest geometric precision, such as the coliseum wherein the basic order and structure does not need to change in order to be progressive. Archaic space has a strong sense of platonic geometry therefore the **indeterminate spaces** of the school are designed using archaic geometries using order to create versatility.

Many school spaces are only utilitarian

in nature, with the consequence that creative engagement of children in their use of space is shut out because of the singularity of use. Such spaces don't allow for multiple uses. At the St Cyprians school the **third space becomes part of the larger spatial network with no specific purpose beside creative spatial use.** (Noero 2007)

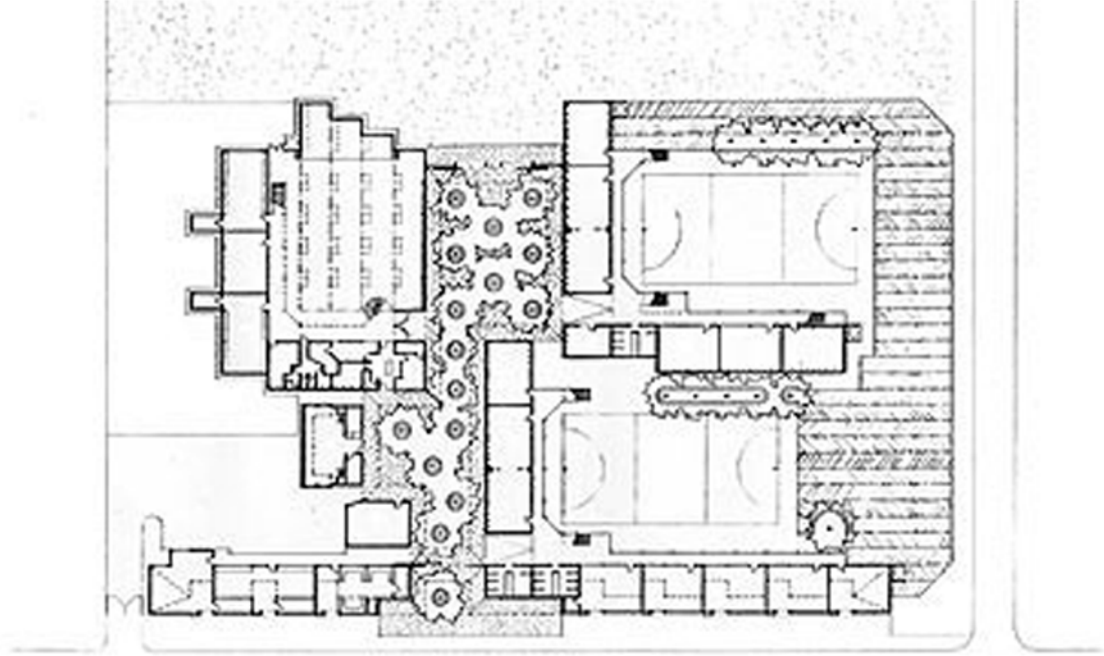
5.4. USASAZO SECONDARY SCHOOL, KHAYELITSHA, CAPE TOWN, SOUTH AFRICA, 2004, ARCHITECT: JO NOERO ARCHITECTS

The primary school is **located on the periphery** of its site in order to create a continuous street and commercial edge if future buildings were to follow suit. The commercial street edge is incorporated with the school to promote **entrepreneurial learning** with classes including vehicle maintenance, appliance repair and home economics.

Programmatically the school includes classrooms, a computer laboratory, a library, administration offices, a hall and ball courts. Circulation is mostly sheltered by canopies to incorporate exterior spaces in the school.

The buildings surround three courtyards, the first acting as an **extension of the street** occasionally used by the wider community. These courtyards offer containment and promote social interaction within the school and community. The tectonics are designed in such a way so as to require little maintenance and resist abuse. (Noero 2013)

Figure 5.4. Jo Noero: Delft Daycare Centres.



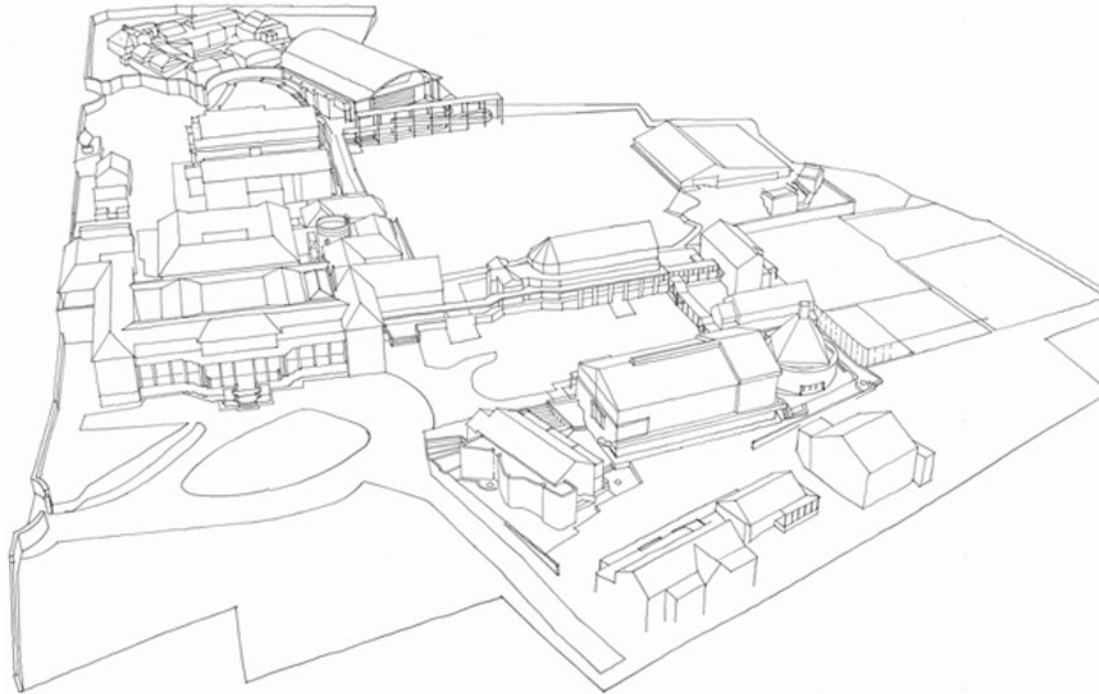
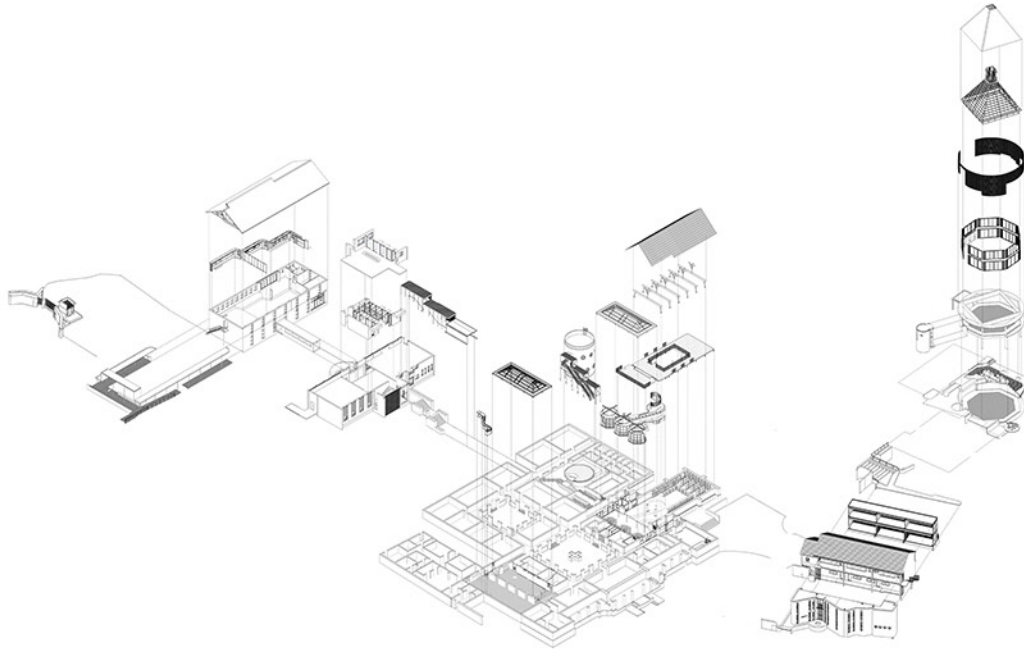
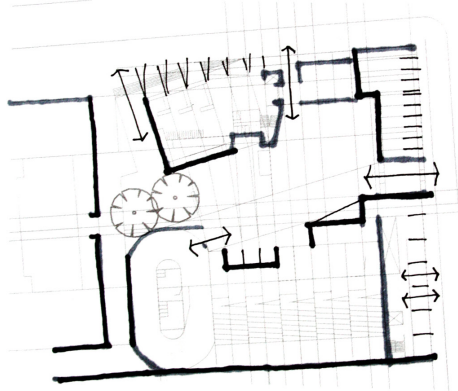


Figure 5.5. Jo Noero: St Cyprians School additions.

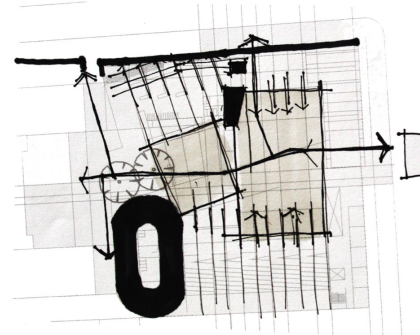
Figure 5.6. Jo Noero: Usasazo Secondary School.

MARCH 2013

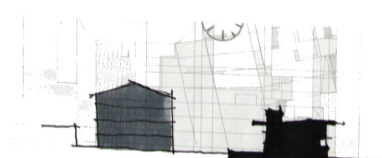
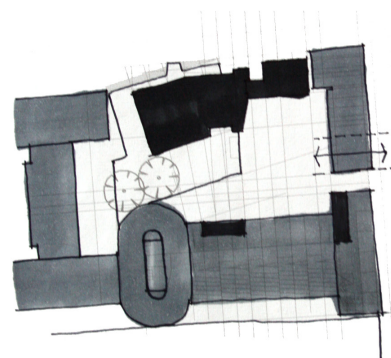
Edges



Intentions



Existing/New



Transition between private/public

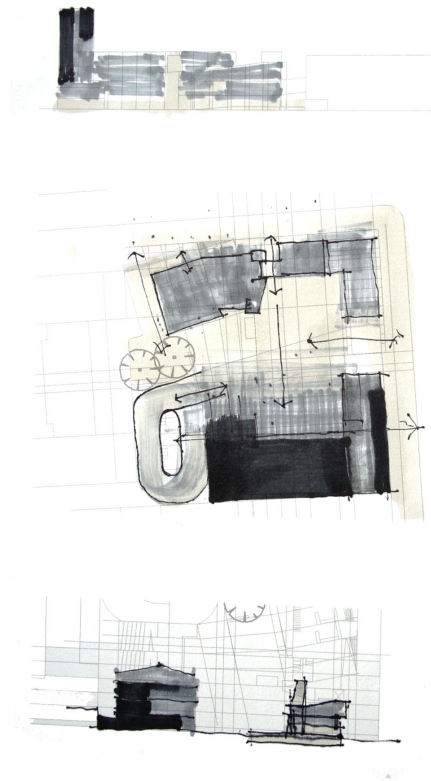


Figure 5.7. Explanatory diagrams: April 2013

5.5. CIRCULATION SPACES

Circulation spaces especially staircases connecting levels of the new building are transitional spaces regarded as highly important in the intervention due to their ability to provide connection. Thus they are conceived in the same way as the existing ramp of the Peugeot Building, meaning that they are designed not as spaces promoting fast movement, but spaces which can offer valuable views to the surroundings, as spaces where users can move slowly, sit, and interact.

5.6. SCALE AND FORM

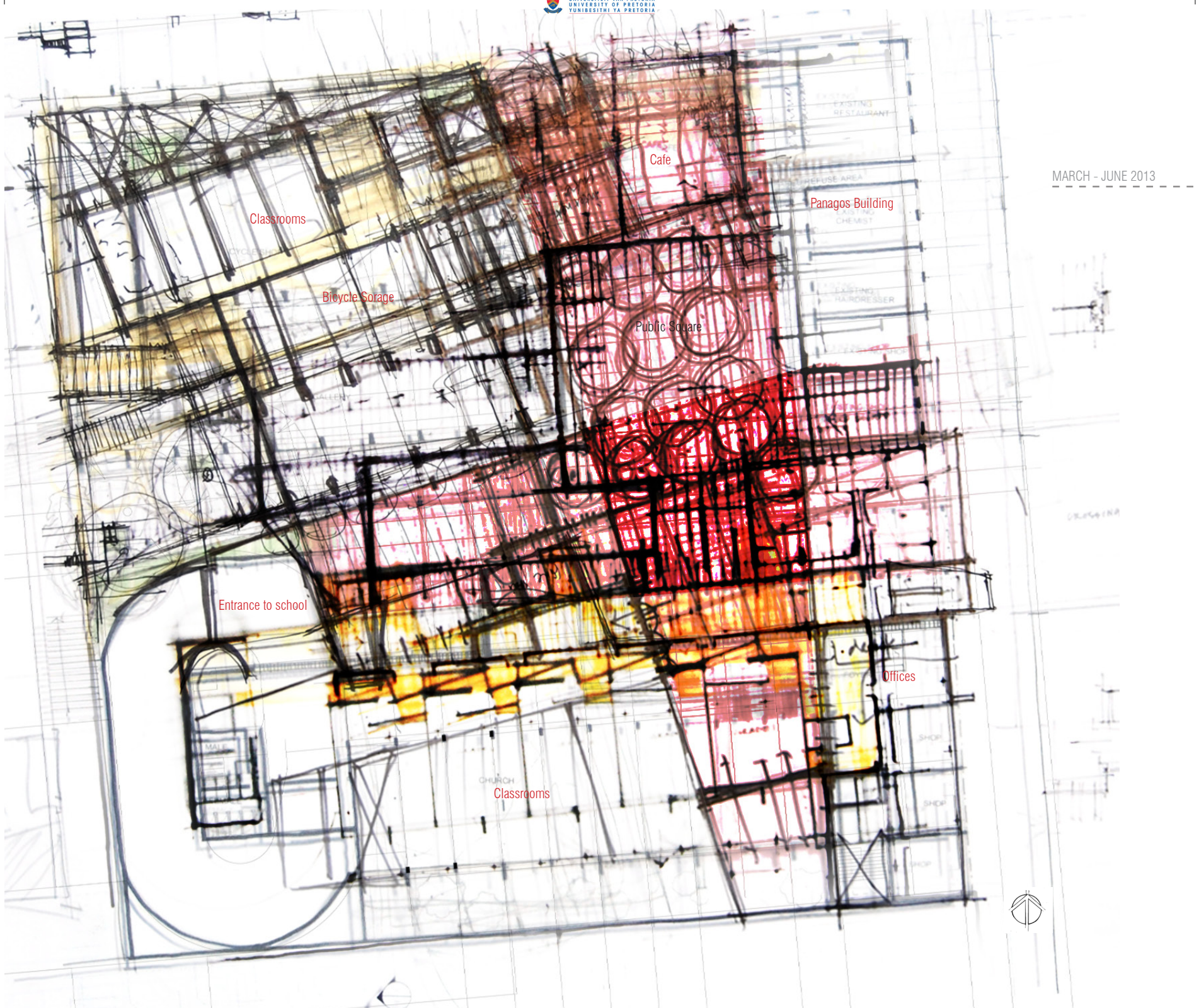
The scale of the new building responds to the surrounding buildings and attempts to mediate between them. This is especially important on the Northern edge where the intricate scale of the Panagos Building stands in contrast with the 6 storey Department of Transport building. Similarly the form is derived from the context in order to respond as an urban intervention.

5.7. STRUCTURE OF INTERVENTION

The new building which houses the pedagogic activities which are missing within the existing school and expands on the programme of the school to act as a space which is shared by learners of the school as well as members of the public who wish to enrol in classes. The intention is to create a building in which anyone, regardless of age, can use to learn a skill. The ground floor of the intervention houses the most public activities, including an internet café, a cafeteria and small retail spaces opening up onto the internal square.

The first floor contains a workshop which serves the bicycle shop and both these spaces open up onto a storage area for bicycles towards the south. The workshop area is, however, a multipurpose space also available to be used for pedagogic activities of creating - where woodwork, art, and sculpture can be done. The first floor extends over the café to connect with the first floor of the Panagos Building where the music school is situated. The connection between the two is a covered roof space looking out onto the square as well as Struben Street.

The second and third floor of the new building houses flexible learning spaces as well as space for private study. These spaces serve the purpose of collaborative



MARCH - JUNE 2013

Classrooms

Bicycle Storage

Cafe

Public Square

Panagos Building

Entrance to school

Offices

Classrooms

FEBRUARY 2013

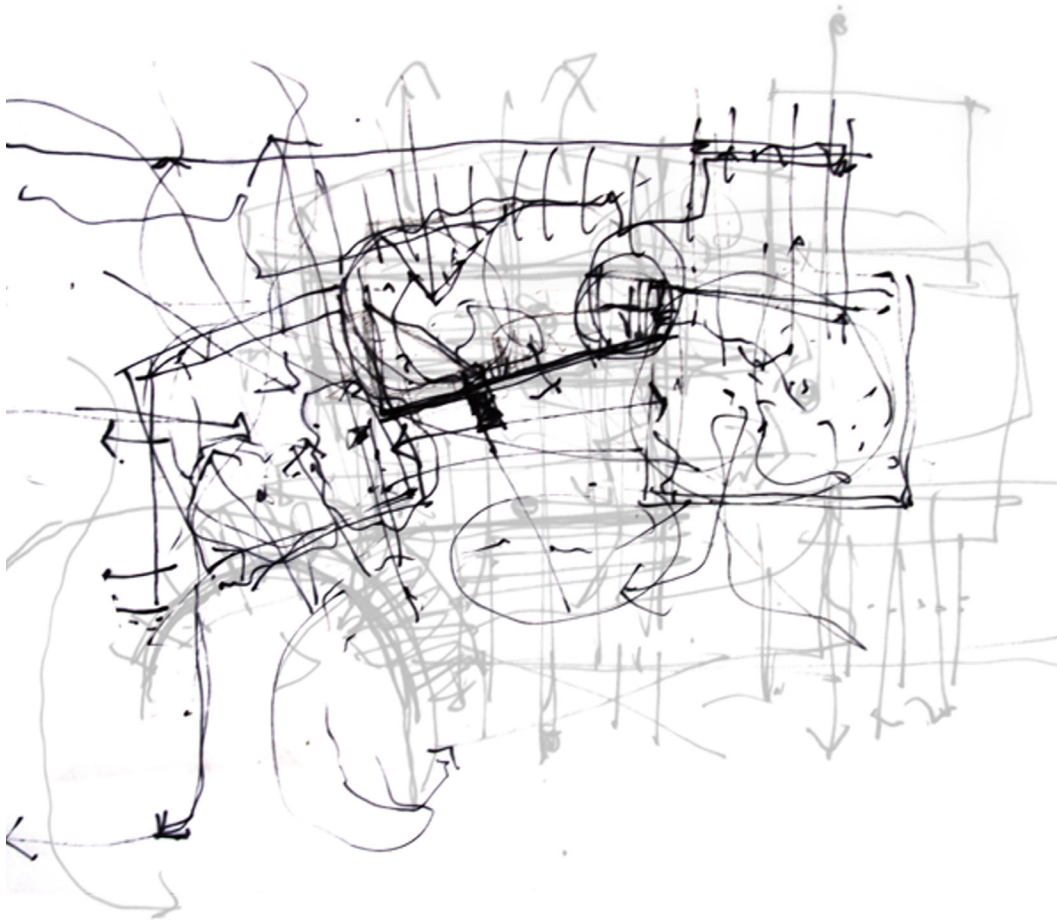


Figure 5.8. Layering of sketch plans, February 2013 - June 2013
Figure 5.9. Plan Intent April 2013

studies, including the pedagogic activities of decision making, communication, and delivery. These spaces will be available to all users and additionally to offer adult classes at night, allowing the complex to be activated during the times when the school and college are inactive.

A triple volume connects the various levels of the building as it is regarded very important that users be made aware of each other's movement and activity to promote them learning from each other through interaction, without compromising the acoustic and privacy qualities that learning spaces require.

JUNE 2013

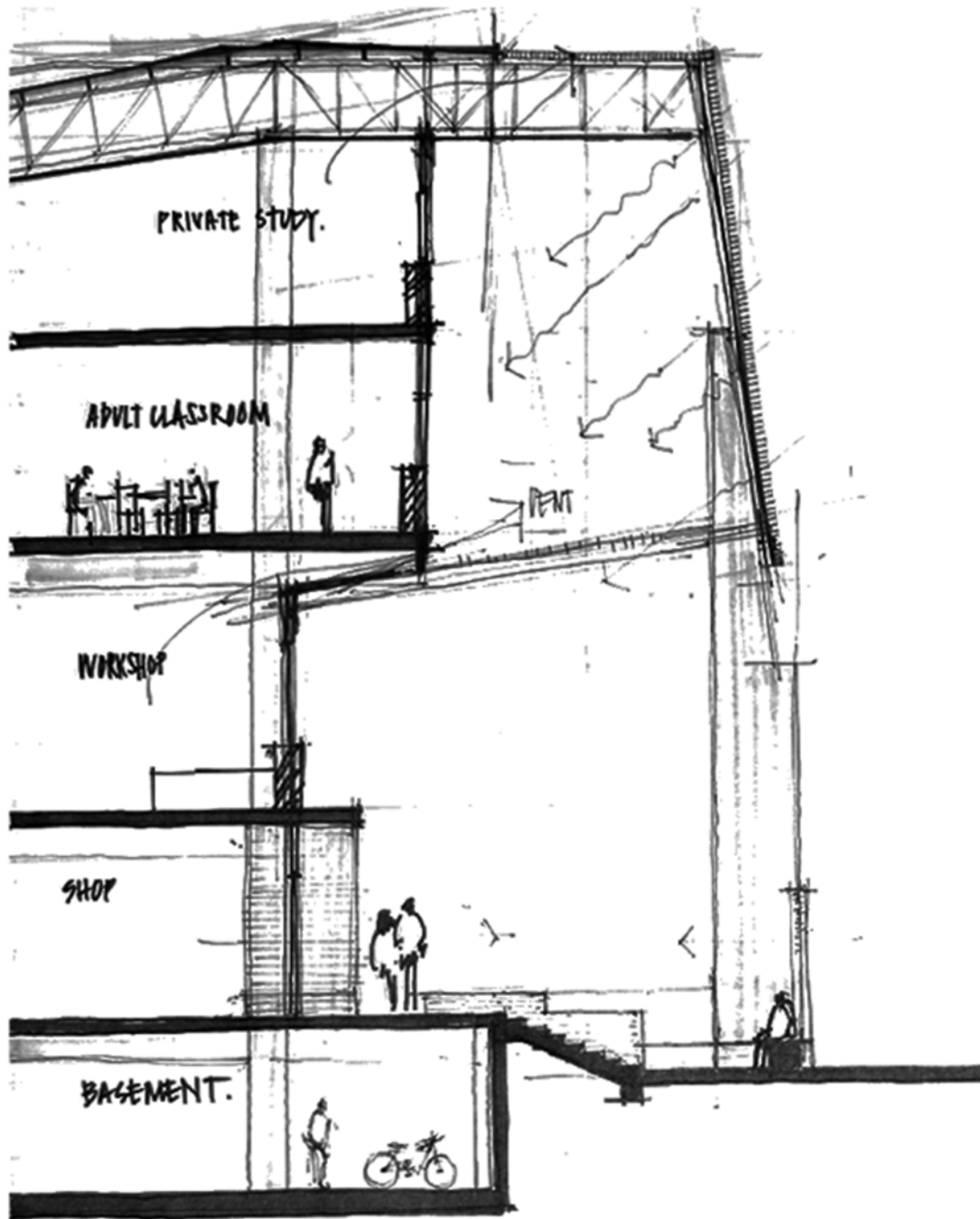


Figure 5.10. Sketch design, northern edge in section:
June 2013

5.8. EDGE CONDITIONS AND INTERFACES

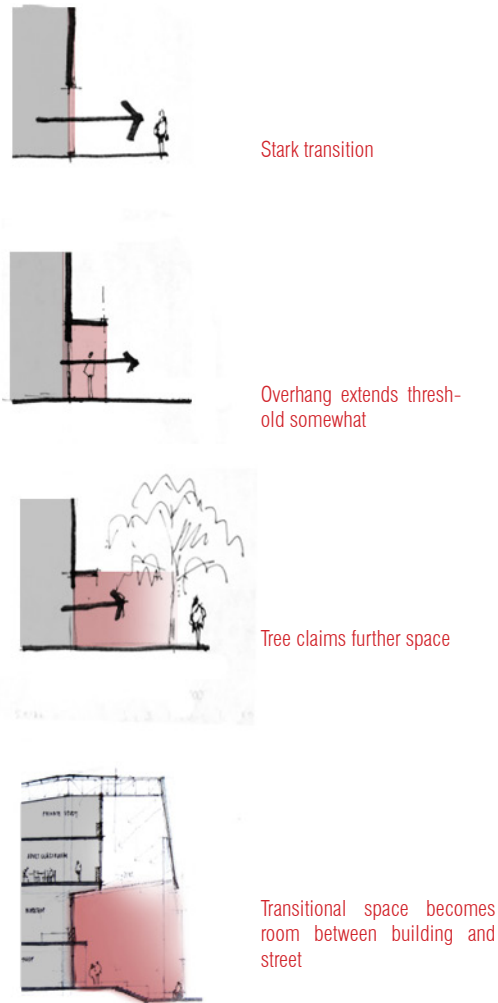


Figure 5.11. Diagram comparing various street edge conditions on site

The Northern edge is the most important in the hierarchy of edges established in the intervention. The intention for this edge is to be deepened to provide spill out space on street level. This edge also attempts to mediate between the position of the Panagos Building and the positioning of the Department of Transport Building, which sits back considerably from the street. But simply pulling back the footprint the new structure results in the definition of the street to be compromised, thus the intention is to pull back the footprint of the building while extending the skin of the building over to maintain a continued line. This deepens the threshold in a similar way to an overhang. The screen maintains the street definition and urban presence of the building, but opens up on pedestrian level to reveal a permeable building. At the same time the screen provides environmental protection and claims unprogrammed spaces for users to sit and observe urban performances.

5.9. RESPONSE TO PANAGOS BUILDING

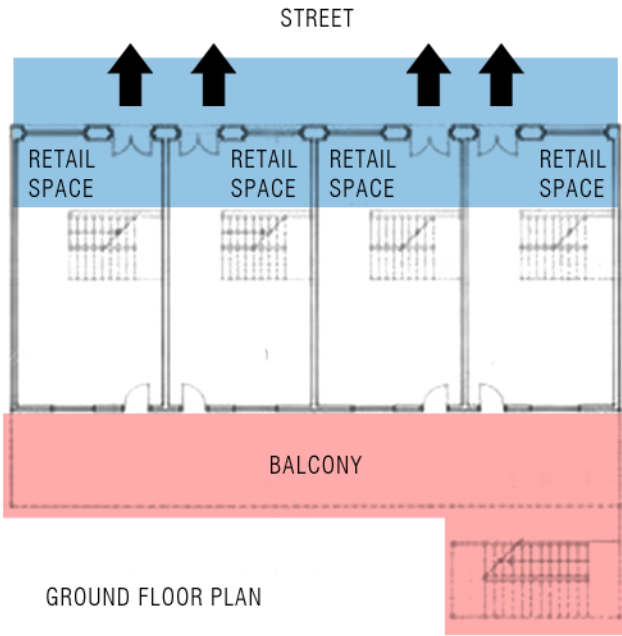
History

Built in the 1890's, the Panagos Building was originally owned by Hendrik Zacht and is one of the oldest existing mixed use buildings in the Pretoria City Centre. In 1927 the building was bought by Mr Christoe Panagos, after whom it is named. The Northern part of building on the corner of Paul Kruger and Struben Street was only erected later on the foundations of the house of Marthinus Theuns Wessels. It was built in the same style as the Panagos Building and the two parts today are regarded as one building even though they are separated by a service alley. The trees which stand in front of the building today are the same trees which stood in the front garden of Marthinus Theuns Wessels. (Unknown: Die Panagos Gebou)

Description

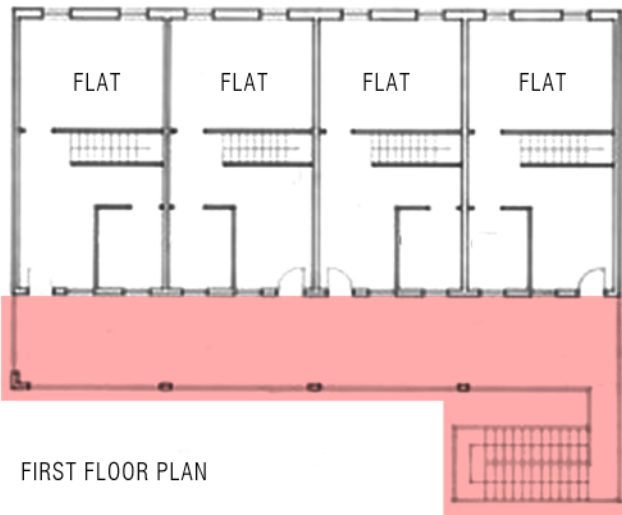
The buildings are comprised of lower floor retail spaces with residential flats on the upper floor suited to a merchant live/work lifestyle. A public street front, with upper level surveillance toward street level, is contrasted by a more private balcony and service spaces at the back of the building.

The architecture of the building is not necessarily a great achievement, but the typology and its inherent cultural significance is of importance as it signifies a specific way in which merchants lived in the



Well functioning street edge with small retail spaces responding to street

Back of building poorly functioning with most of original structure lost. Original timber staircase replaced by concrete staircase



Original residential floor usnused today or used as small offices

Balcony serving residential area in poor condition

city. The building is also one of the oldest buildings within the city centre that is still in use and retains most of its original function

Features contributing to the architectural significance:

- Pragmatic detailing
- Simple architrave designed doors on street level
- Large windows at shop front
- Square embossed pilasters
- Corrugated overhang on street façade with well detailed timber supports
- Two levels split by bold cornice
- Decorative pediment with bosses sits in front of the corrugated steel roof to separate visually, creating a specific rhythm on the street facade
- Top windows enclosed by plastered jamb above window frame
- Gable dormer windows on roof only for visual effect do not function as windows currently
- Timber floors, timber ceilings, timber roof trusses.
- Internal circulation staircase linking two levels
- Balcony to back, with timber staircase has been lost/ compromised and needs to be restored as integral part of the typology
- Finishes need to be restored

Significance:

Due to the Panagos Building's age, being older than 60 years, it is protected under Section 34(i) of the National Heritage Resources Act (25 of 1999). Paul Kruger Street, which was known as Market Street

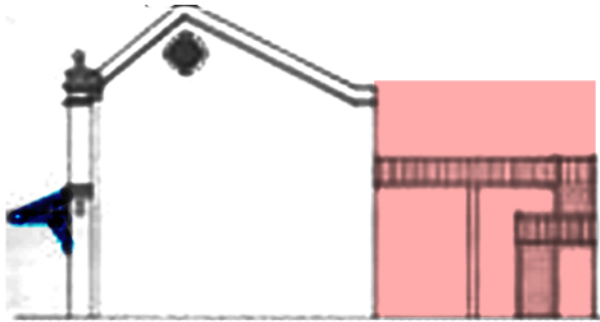
during this era, was a significant street where marches and celebrations took place (figure 01). The buildings along this street responded to the street creating a positive urbanism. Today many of these buildings have been demolished or altered in a way which does not create a similar urban condition. Thus the Panagos Building is significant as part of the memory and finer urban grain around Paul Kruger Street.

The Panagos Building also signifies a cultural trend specific to the city of Pretoria and is a remaining example of the live-work buildings of small scale merchants living in the city in the period during which the building originated. It is one of a few and oldest remaining examples of the typology. The building has large windows and doors serving the shop fronts toward street level, offering vertical façade articulation which makes walking distances seem shorter.

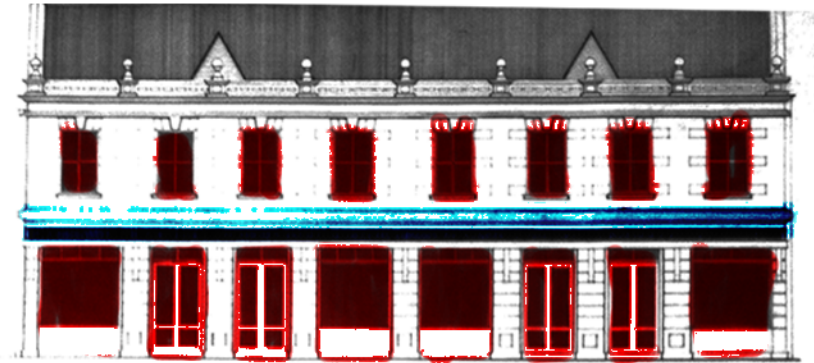
The top floor of the building is designed as the living quarters of the building and has smaller windows toward the street to ensure more privacy. The living quarters open towards a balcony offering residents a semi private outdoor space to enjoy away from street level. Thus the back of the building on top floor shares the significance of the street front of the building on ground floor.

The aesthetics of the building are somewhat significant in their regard for symmetry and rhythm, showing a high regard for façade design. The building itself is not of great architectural significance, but the social and cultural significance

Figure 5.12. Plan analysis of Panagos building

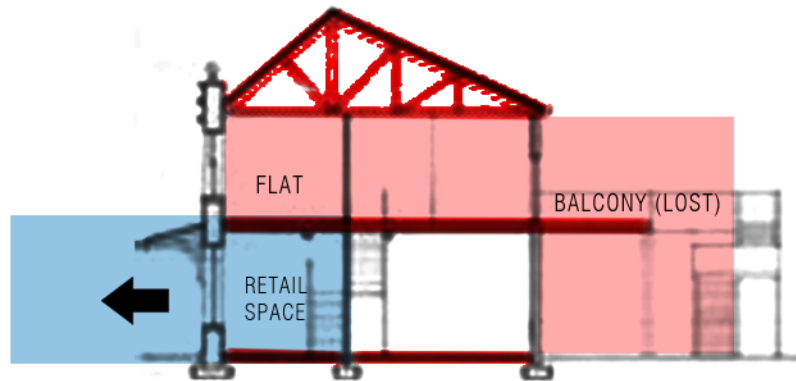


TYPICAL SIDE ELEVATION



- Finishes on elevation in poor condition, opportunity exists to be restored
- Sheet metal overhang between two levels on elevation responds well to human scale and offers a small transitional space before the building is entered

STREET ELEVATION



- Unused, dead space contrasting the original intent of the architecture
- Timber floor and ceilings in poor condition
- Roof trusses and sheeting leaks and needs to be addressed

TYPICAL CROSS SECTION

pertaining to a specific lifestyle within the city centre takes preference.

Thus the importance in the community, or pattern of South African history regarding the merchant lifestyle in Pretoria c.1900 and the strong or special association with a particular community or cultural group for social or cultural reasons are what makes the Panagos Building significant

Opportunities and Obligations

While the street front and retail spaces still function well today, the upper level and back of building has been severely compromised through poorly erected fences and wall to separate the building from large parking spaces and neighbouring buildings built much later. These structures show a disregard for the typology of the Panagos Building. Most of the finishes as well as the timber flooring in the building need to be restored. Opportunity exists in reprogramming the upper level of the building to occupy it with current needs of the urban user while not compromising the typological intention of the architecture. The northern part of the Panagos Building which was added later on to mimic the original building does not share the aesthetic value of the southern part. Its roof also does not carry as much significance as the older part. The northern façade does not contain the symmetrical detailing of the eastern façade and does not respond as well to the street as the eastern façade does.

Intervention

The Panagos building is thus touched lightly by the intervention. The top floor of the building will house the **music school** of the college, as smaller spaces are appropriate to the programme and the sounds serve in attracting people into the internal square. Due to the timber construction of the floors within the Panagos building, the floors will have to be altered for acoustic reasons. The top floor is thus kept inward focussed, in line with the original intention of the typology. The occupation of the ground floor is kept the same with small retailers focused towards the street. An advantage of the design of the building is that it allows for these shops to open towards the back of the building which will offer the chance of permeability to the internal square. The restaurant housed in the northern part of the building will serve a new café on the northern edge of the site, offering expansion of the business. As the northern part of the building was built as an imitation of the original Panagos building, the roof and northern façade of it does not share the same significance making opportunity for intervention in order to create some height on the corner and to integrate the northern façade of the building with the façade of the new building.

Figure 5.13. Section and Elevation analysis of Panagos building

JUNE 2013

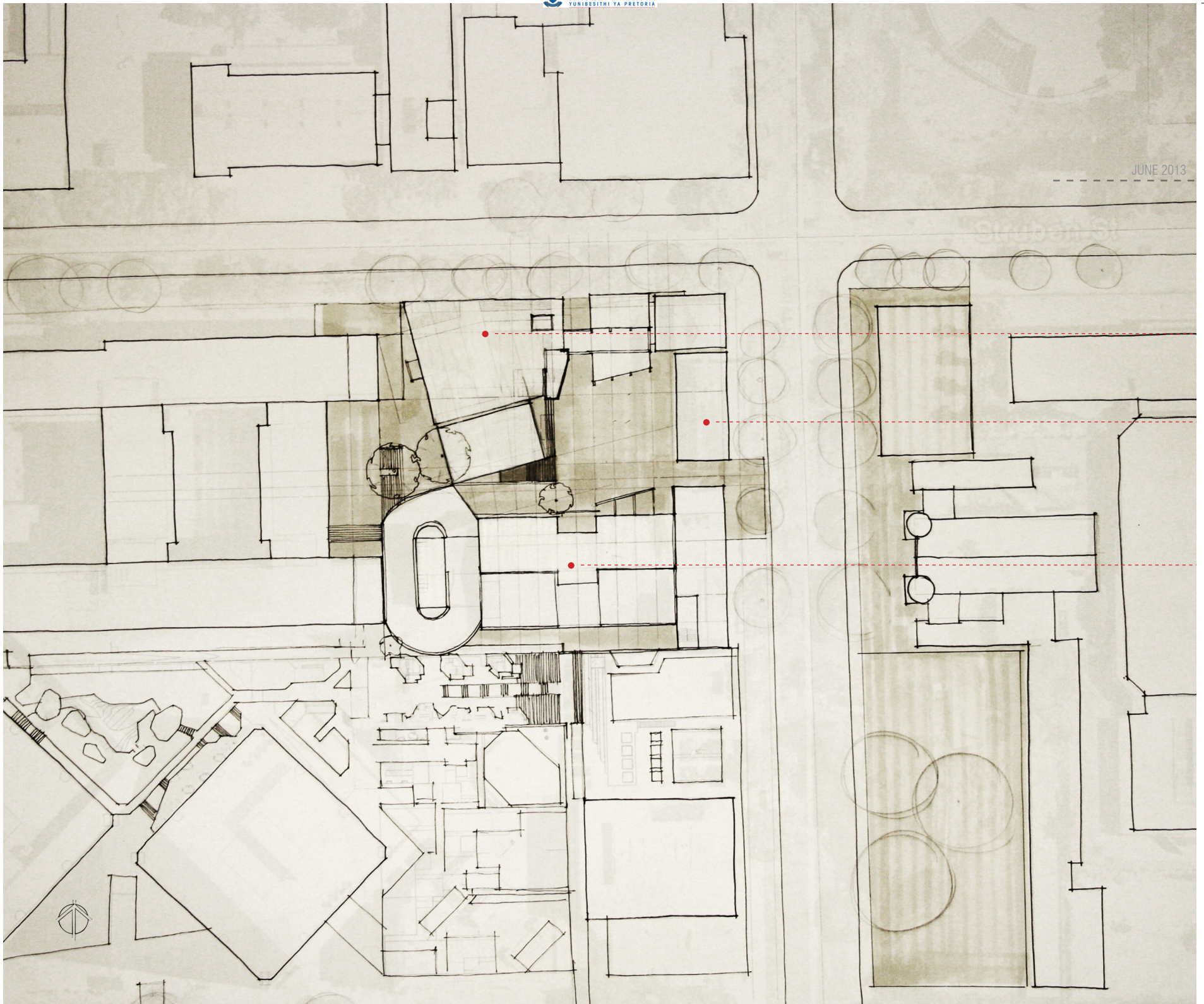




Figure 5.14. Site Plan: June 2013

5.10. RESPONSE TO PEUGEOT BUILDING

The conceptual approach to the connection between the intervention and the existing Peugeot Building was to push flexible unprogrammed spaces in and the pull programmatic spaces from it in order to ensure a connection with the intervention. The intervention also takes place vertically - a perceptual connection between levels is intended to create a building that functions as a whole. The structure of the Peugeot Building is comprised of a simple column and slab configuration. The building can be divided into three parts for the purpose of the intervention as follows:

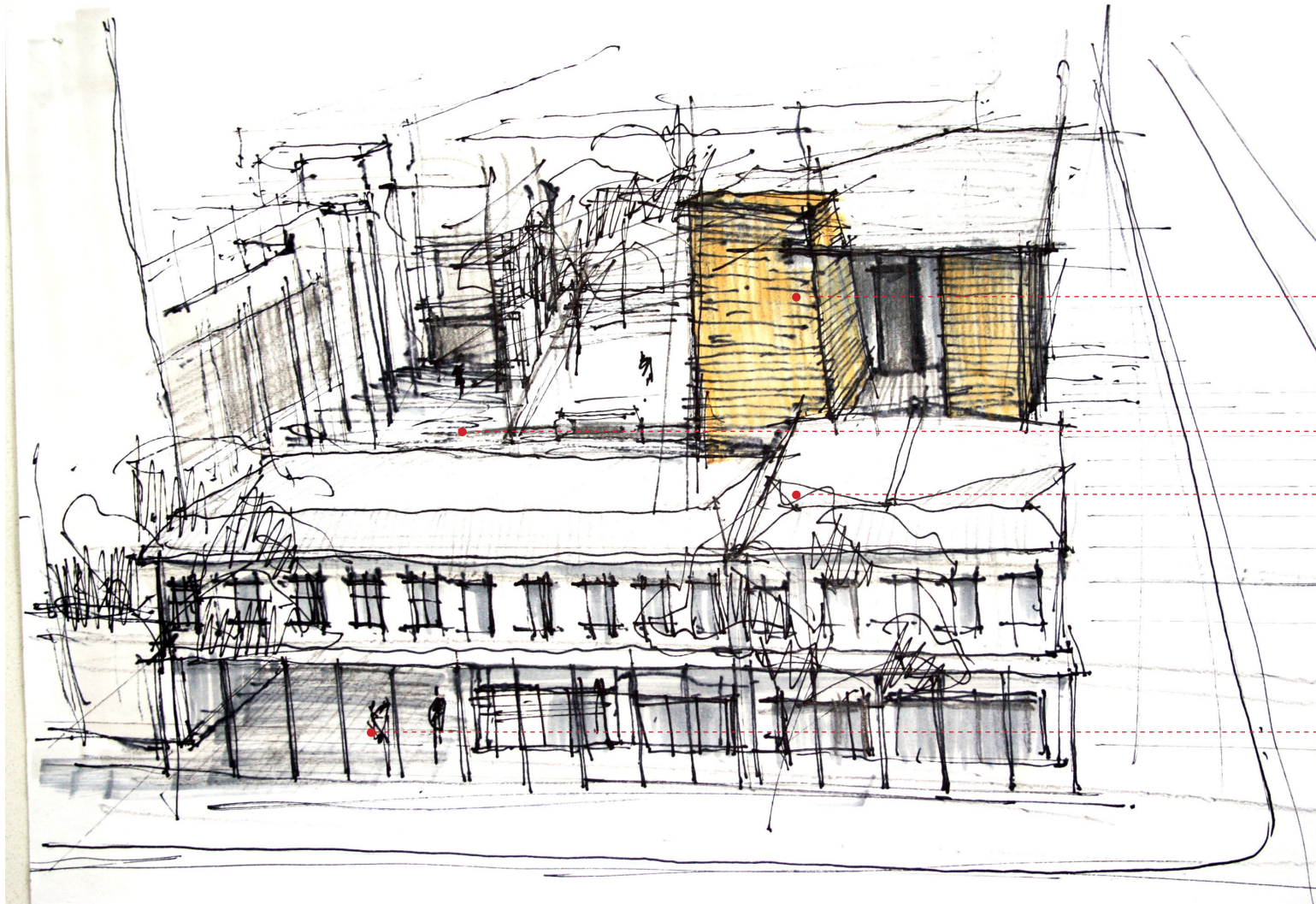
The Admin block which faces Paul Kruger Street consists of eight storeys served by a lift and staircase in the South Eastern corner. Office spaces in this part are divided with brick infill walls and a central passage allows for circulation, opening up on the Northern façade to an external fire staircase. The admin block will continue to be used by the FET College, but floors corresponding to the school will be allocated to educators, containing offices and meeting spaces for the teachers of the school. The fire staircase is moved from the Northern façade into the interior of the admin block in order to create an unobstructed entrance to the square and to enable security control to the staircase.

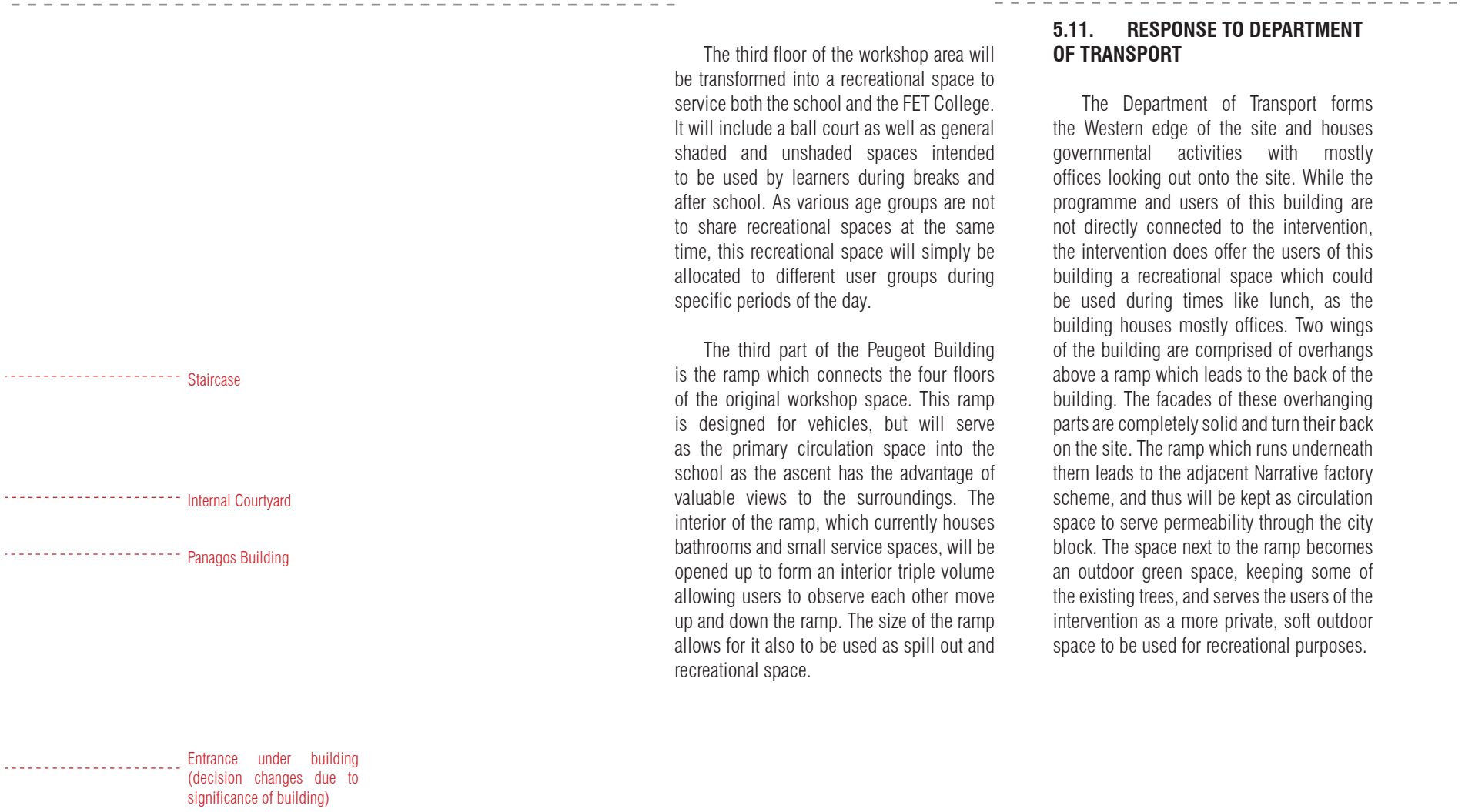
The second part of the building consists

of four storeys situated behind the admin block previously used as the workshop area of the building. This becomes the part of the building which receives the most interventions. The ground floor of this part, which is currently used by a Christian church, is converted into an auditorium to be used both by the church and the school, as the space can accommodate both programmes at their respective times of the week. The auditorium opens up to the square providing it with the necessary spill out space for gatherings of large groups of people. Towards its Southern edge the alley, between the Peugeot Building and the small retail spaces adjacent to the building, will be used as a private outdoor spaces flanking the auditorium.

The first and second floor of the workshop area will be used for the princess park college classrooms. The first floor will house classrooms for the primary school with grades 1 to 7, while the second floor will house the classrooms serving the high school section of the college with grades 8 to 12. The configurations of the classrooms are done in order to create small social spaces in between them to be used while waiting for classes. As the floor to ceiling heights are excessive in this part of the building, due to its intended programme as a motor vehicle workshop, ceilings and floor finishes are introduced in the classrooms to create more intimate educational spaces, but also to enable services and acoustic management in the interior.

APRIL 2013





The third floor of the workshop area will be transformed into a recreational space to service both the school and the FET College. It will include a ball court as well as general shaded and unshaded spaces intended to be used by learners during breaks and after school. As various age groups are not to share recreational spaces at the same time, this recreational space will simply be allocated to different user groups during specific periods of the day.

The third part of the Peugeot Building is the ramp which connects the four floors of the original workshop space. This ramp is designed for vehicles, but will serve as the primary circulation space into the school as the ascent has the advantage of valuable views to the surroundings. The interior of the ramp, which currently houses bathrooms and small service spaces, will be opened up to form an interior triple volume allowing users to observe each other move up and down the ramp. The size of the ramp allows for it also to be used as spill out and recreational space.

5.11. RESPONSE TO DEPARTMENT OF TRANSPORT

The Department of Transport forms the Western edge of the site and houses governmental activities with mostly offices looking out onto the site. While the programme and users of this building are not directly connected to the intervention, the intervention does offer the users of this building a recreational space which could be used during times like lunch, as the building houses mostly offices. Two wings of the building are comprised of overhangs above a ramp which leads to the back of the building. The facades of these overhanging parts are completely solid and turn their back on the site. The ramp which runs underneath them leads to the adjacent Narrative factory scheme, and thus will be kept as circulation space to serve permeability through the city block. The space next to the ramp becomes an outdoor green space, keeping some of the existing trees, and serves the users of the intervention as a more private, soft outdoor space to be used for recreational purposes.

Figure 5.15. Site Plan: June 2013

MARCH 2013

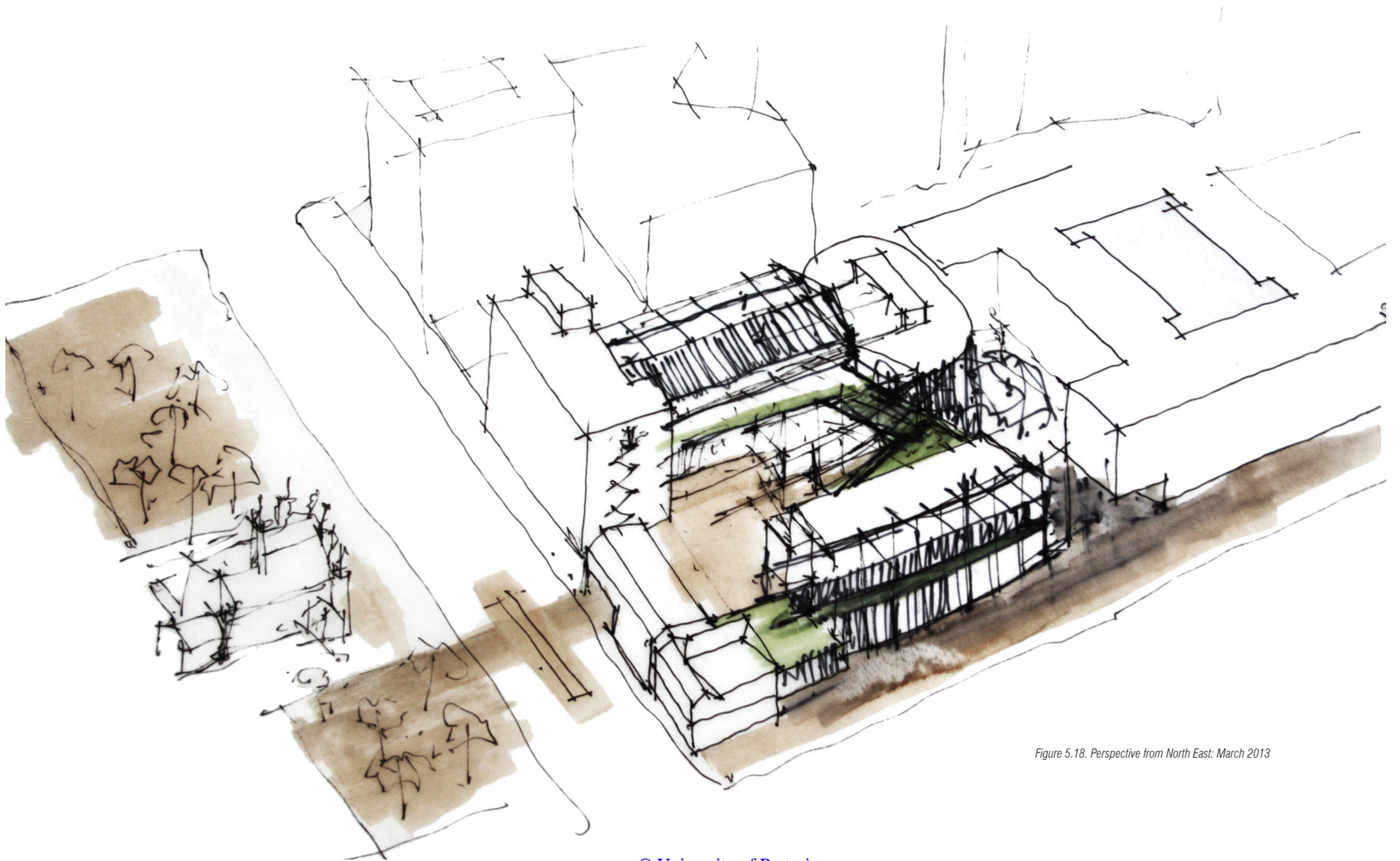


Figure 5.18. Perspective from North East: March 2013

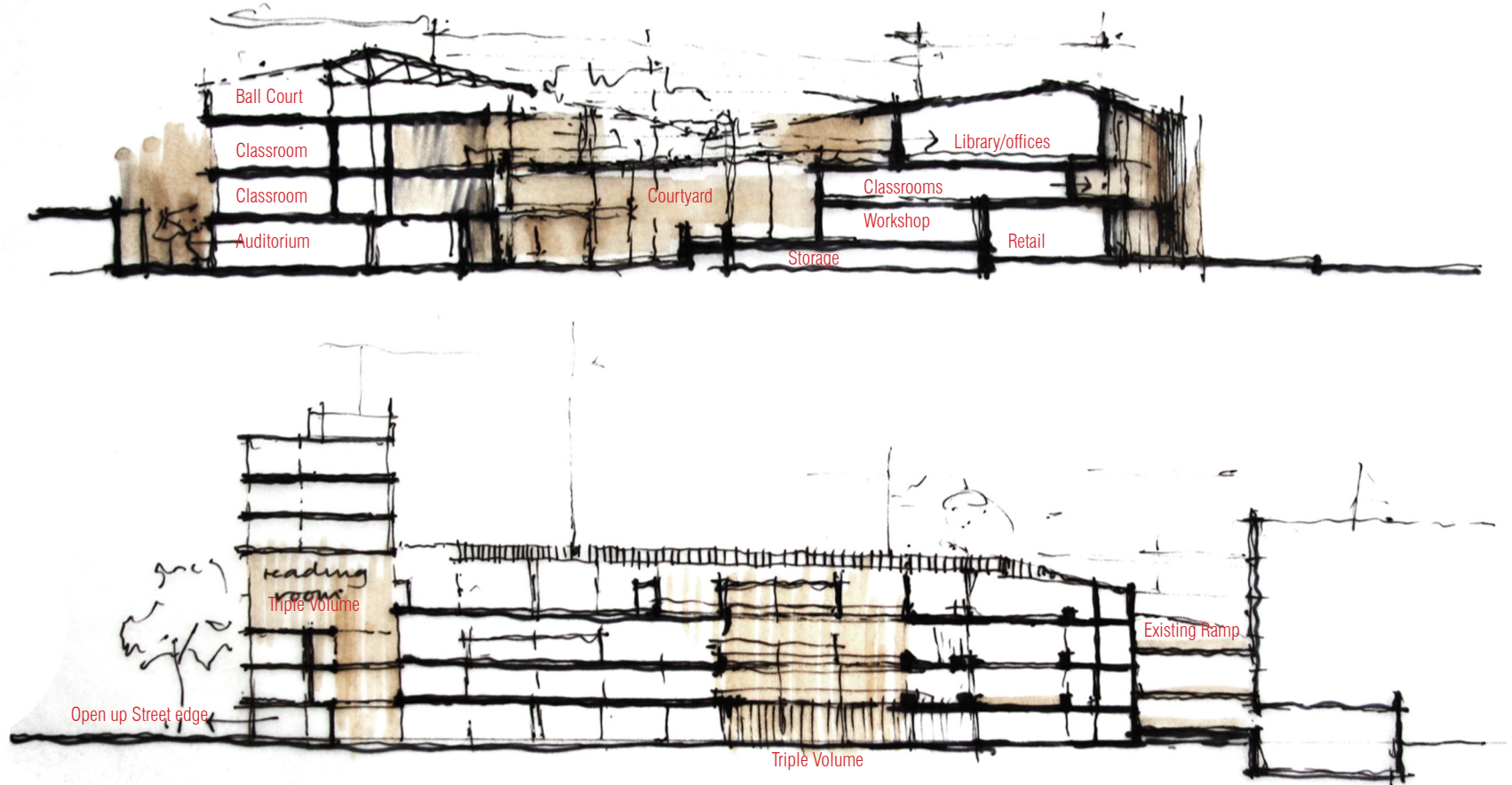


Figure 5.21. Plans and Sections: March 2013

APRIL 2013

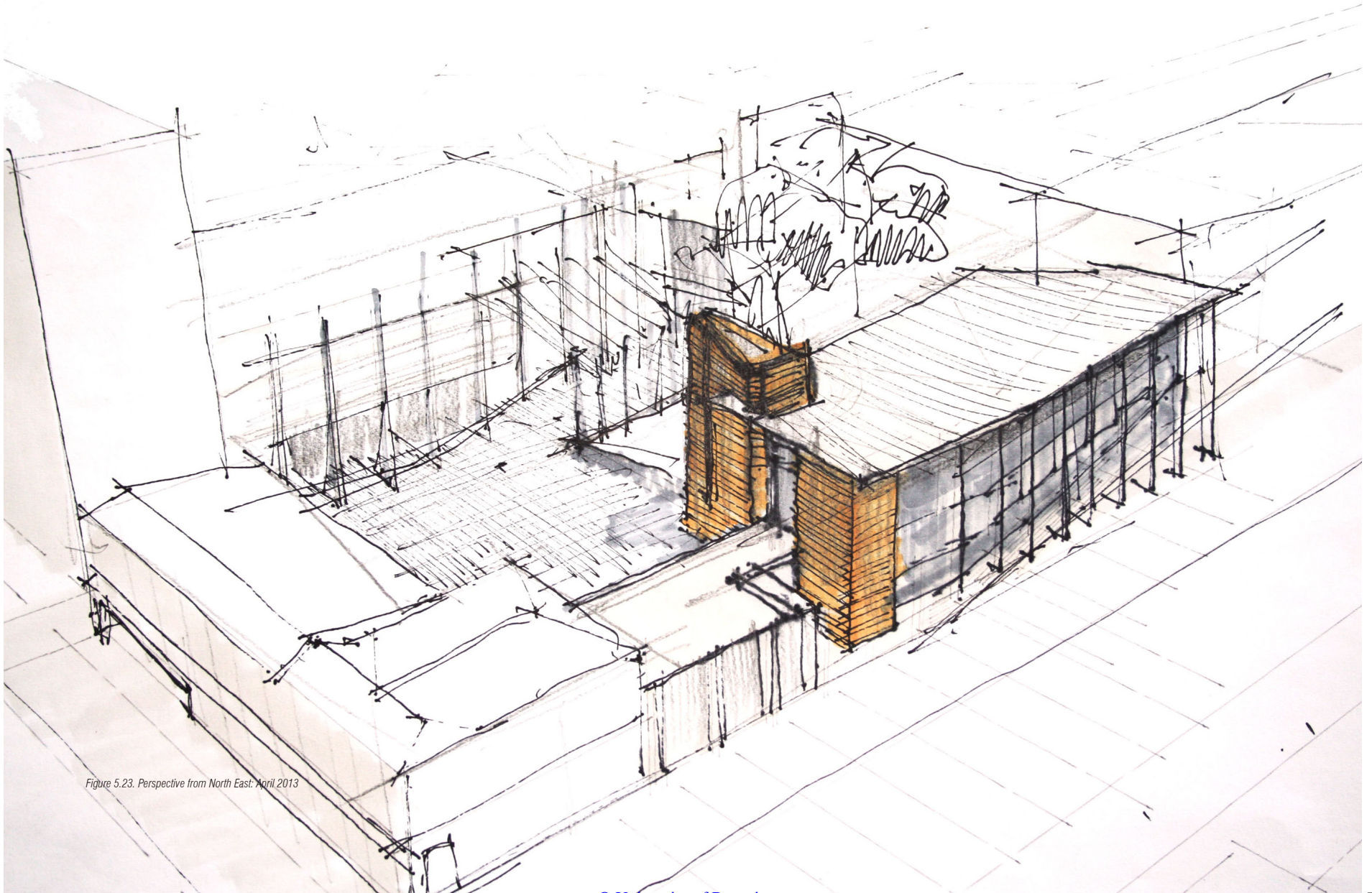


Figure 5.23. Perspective from North East: April 2013

APRIL 2013



Figure 5.24. Perspective of interior courtyard: April 2013

JULY 2013





Figure 5.25. Perspective sketch from of inner courtyard:
June 2013

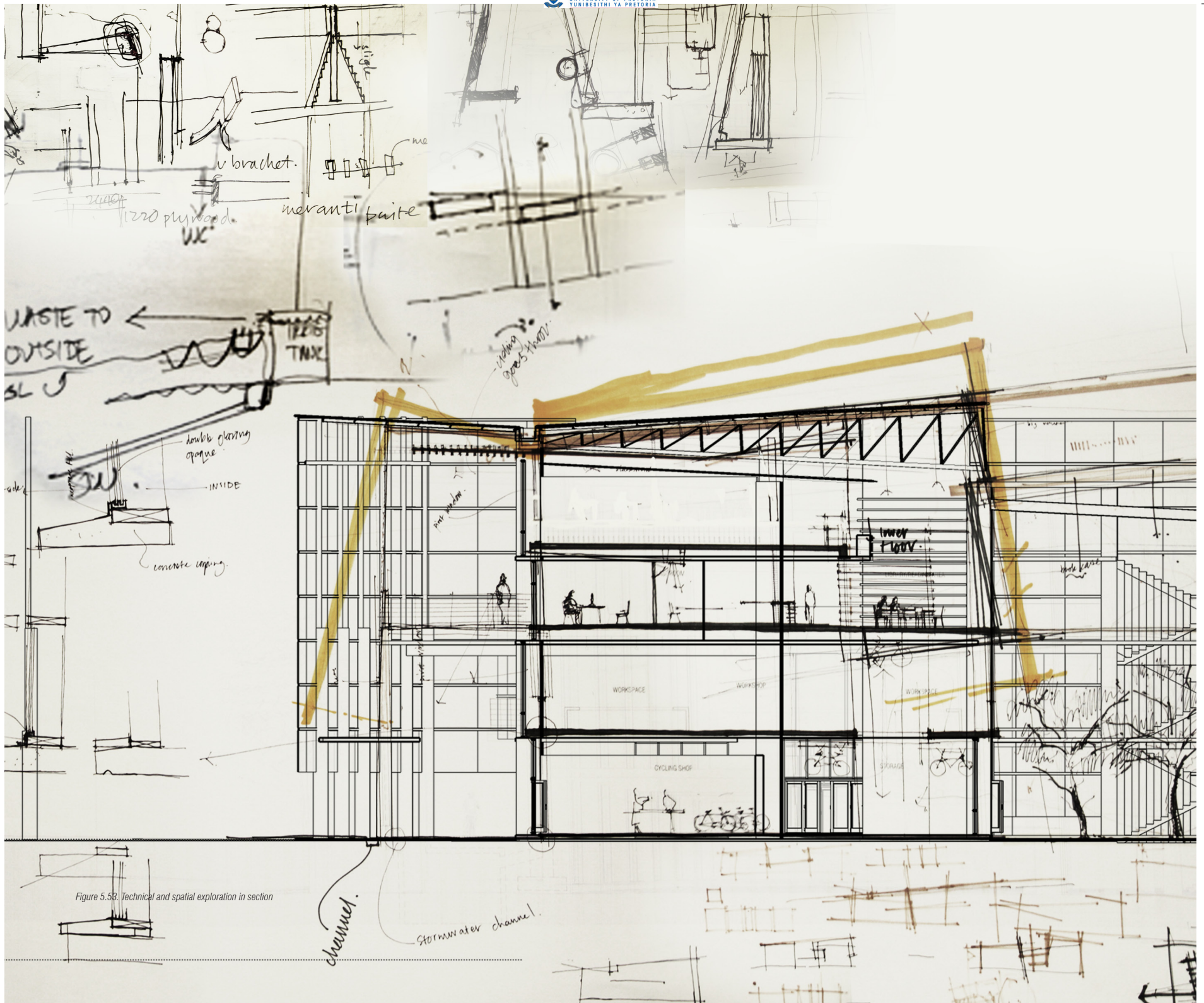
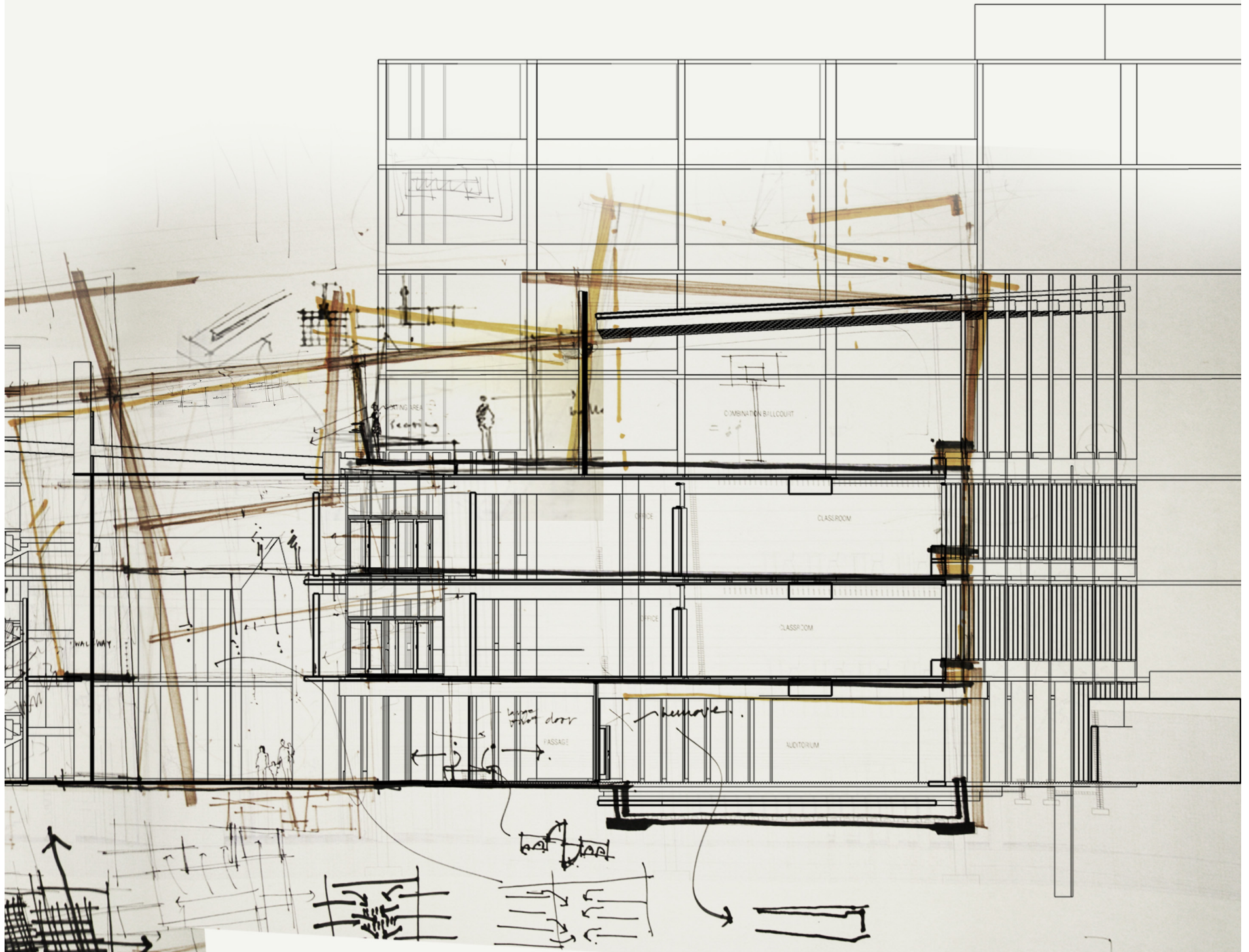
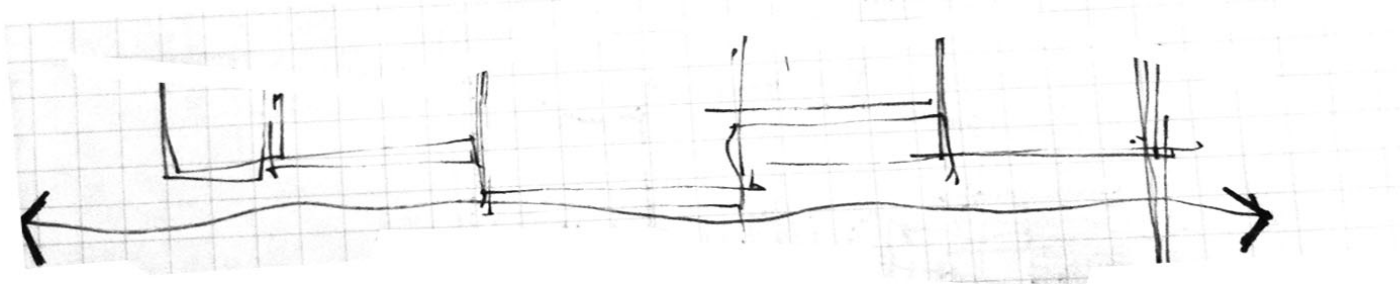
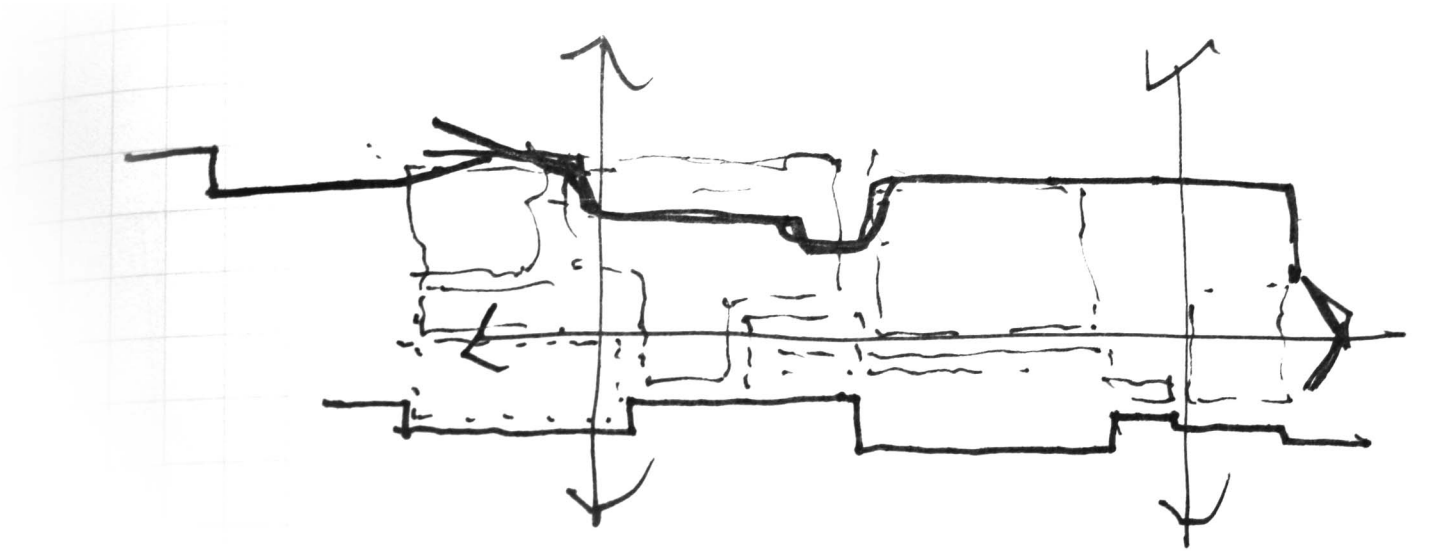


Figure 5.53. Technical and spatial exploration in section





06

TECHNICAL INVESTIGATION AND DESIGN RESOLUTION

Technical Concept

Precedents

Materials

Structure

Ventilation Strategy

Water Harvesting

Design Resolution

Model Photos

Figure 6.1. Conceptual sketches of technical approach