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# Towards an architecture of inclusivity

## the building edge as the articulated urban connector, encouraging multiplicity and restructuring power relations

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**Fig 01.** The Panagos building as it looked in the past, exact date unknown (The Heritage Portal, N.d.)



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In accordance with Regulation 4(c) of the General Regulations (G.57) for dissertations and theses, I declare that this dissertation, which I hereby submit for the degree Master of Architecture (Professional) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

I further state that no part of my dissertation has already been, or is currently being, submitted for any such degree, diploma or other qualification.

I further declare that this dissertation is substantially my own work. Where reference is made to the works of others, the extent to which that work has been used is indicated and fully acknowledged in the text and list of references.

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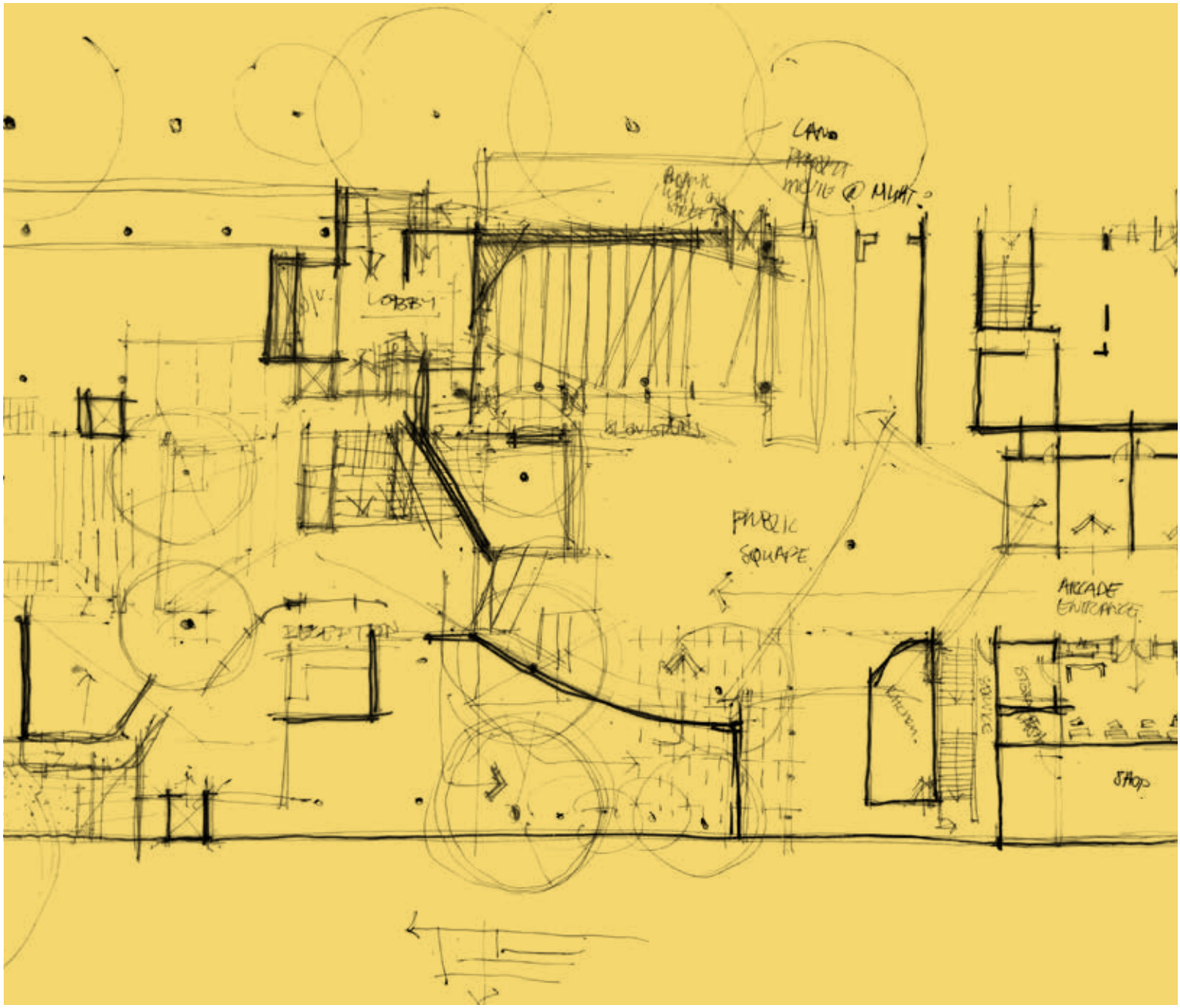


# ABSTRACT

**Fig 02.** Design exploration
(Author, 2022)



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The City of Tshwane's story is intrinsically linked to power, due to its role as the administrative capital. The built form of the city centre reads as a palimpsest of the architectural expression of how socio-spatial relationships have changed over time. Today however the spatial fabric is largely representative of past socio-spatial relationships of control rather than of transformation. These heritage buildings have contested memories associated with them. There is a disjunction between government architecture and the architecture of the everyday. This disjunction directly undermines the current government's desire to make governance more accessible and to provide space for citizens to be participants in creating thriving democratic South African cities, and the capital of Tshwane in particular. This dissertation focuses on how architecture can translate invisible ideologies through built space and form, and investigates how architecture can reflect an attitude of inclusion and transformation. The research question poses: "How can architecture redefine the relationship between government and citizens in the City of Tshwane through introducing a new spatial government typology and succeed in making government more accessible?" A more inclusive architectural typology is explored though a design led investigation into how architecture can redefine relationships between government and citizens; government architecture and the city; and new architectural insertions and contested heritage. Existing heritage, typologies and spatial devices found in the City of Tshwane are reinterpreted to articulate and integrate an architecture of inclusion that simultaneously builds onto the continuum of its history while creating spatial transformation and cohesion with the urban fabric.

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# PROJECT SUMMARY

**Fig 03.** Street traders along the front elevation of the Panagos buildings along Paul Kruger Street (Author, 2022)



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| | |
|---|---|
| RESEARCH FIELD: | Memory, legacy and identity |
| SUPERVISOR: | Prof Arthur Barker |
| COURSE COORDINATOR: | Prof Arthur Barker |
| EDITOR: | Joshua Antonizzi |
| PROJECT LOCATION: | Portion 4 erf 102 and Re of Erf 102 Panagos Building, Struben Street, Pretoria CBD, Pretoria, Gauteng, South Africa |
| GPS COORDINATES: | -25.742368, 28.187435<br>Pretoria Central, 0002 |
| PROGRAMME: | Main: Commision for Gender Equality (CGE), South African Human Rights Commision (SAHRC), SheTrades, SMME<br><br>Sub program: Small and Micro commercial space<br>Public: Main Plaza, restrooms, public courtyards<br>Semi-Public/Semi-Private: Auditorium, Workshops, Training Rooms, Meeting Rooms, Multipurpose events hall<br>Private: Office space, pause spaces, discussion / consultation rooms |
| CLIENT: | Department of Public Works<br>Department of Small Business Development<br>Commission for Gender Equality<br>South African Commission for Human Rights<br>Tshwane Metropolitan Municipality |

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(Google Earth, 2017)



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# 0. PREFACE

**Fig 05.** Durban inner-city outside the Victoria Street Market (Govender-Ypma, 2016)



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# The frame of reference

My awareness and appreciation for the city, for urbanity, for informality, for materials stems largely from my exposure to these types of spaces from a very young age. The inner-city of Durban is ingrained in my spatial understanding. I have had significant exposure to the inner-city of Durban through my mother; I have been visiting the shops and markets in that space for most of my life. The experience has also strengthened my interest in heritage as Durban has a rich legacy of adapted colonial and Art Deco buildings both in the city and in the surrounding neighbourhoods. Memories of the intensity, the thriving bustle, the scents, the sounds – all overlapping and blurring into one complex experience. The markets and shops of the Grey Street precinct, the food being sold by vendors, the street traders selling various assorted goods; all of these build an impression of a vibrant, if slightly chaotic, multicultural city. The energy and complexity of this space has always fascinated me and affirmed my perception of the importance of complexity and agency in inner cities.

**Fig 06.** (below) Warwick Junction in Durban inner-city (Hankinson, 2014)

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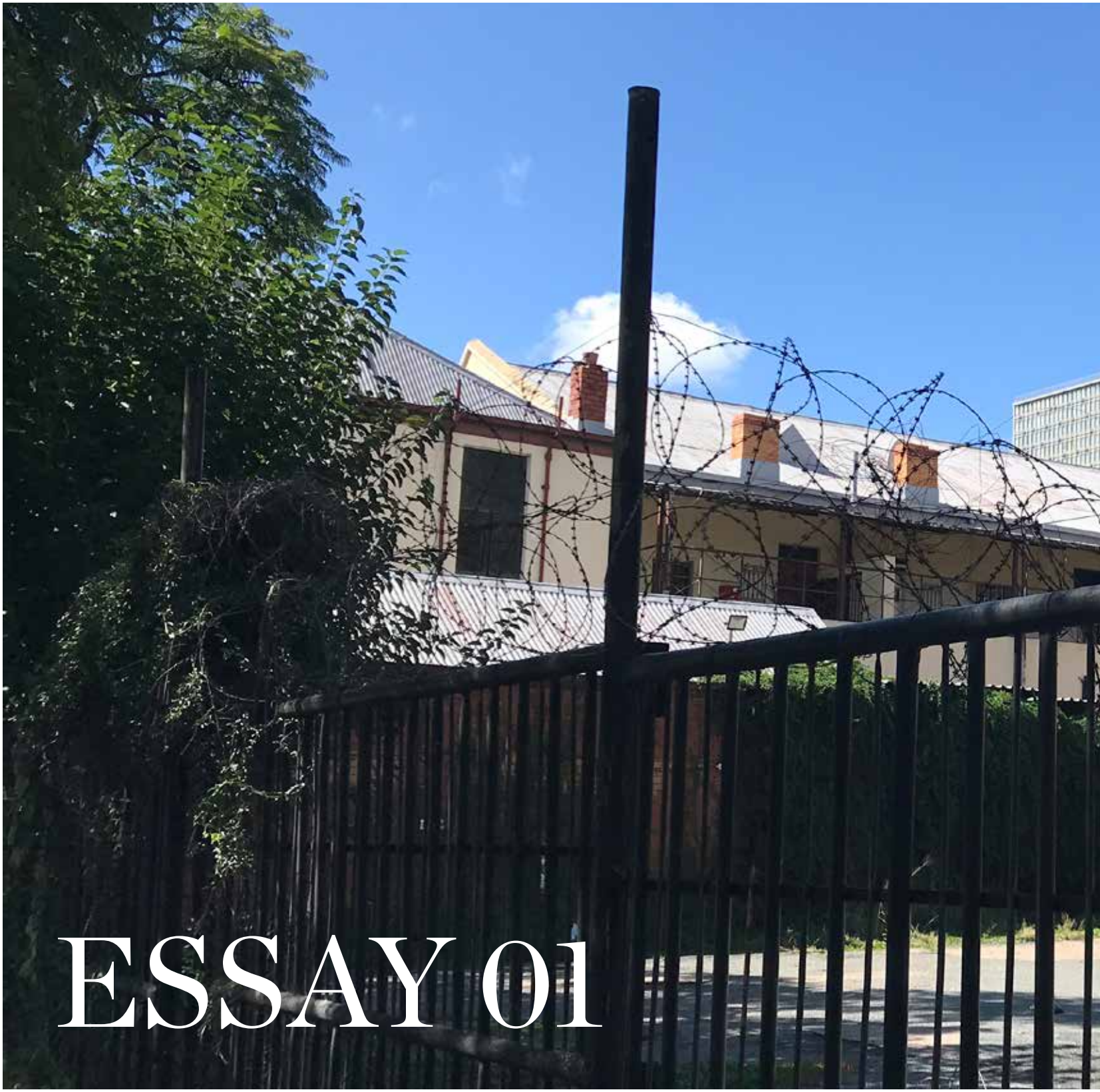

# ESSAY 01

**Fig 07.** View of the site behind the heritage Panagos building (Author, 2022)



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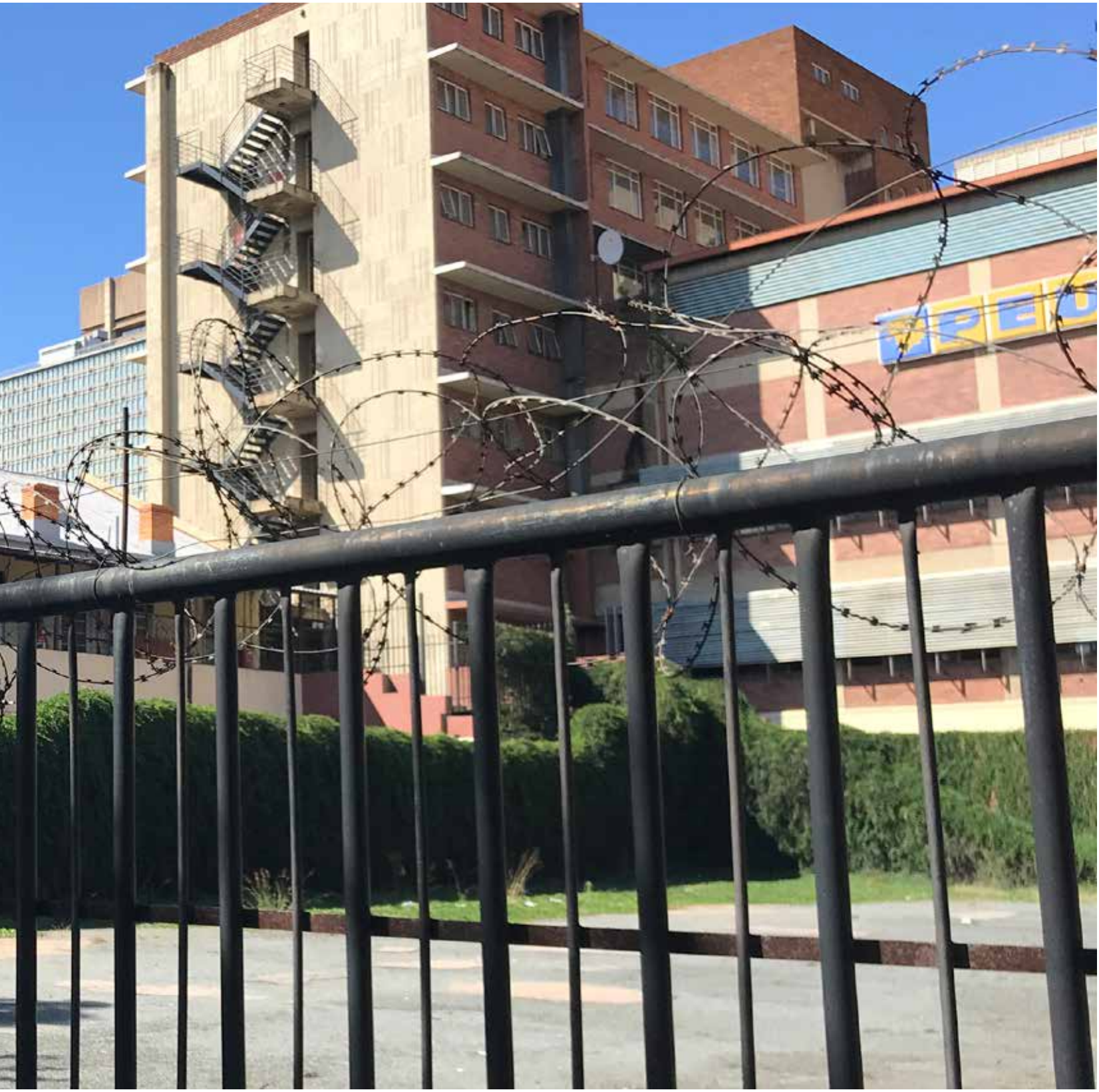

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# 1. INTRODUCTION

**Fig 08.** The Department of Transport alienating building edge (Author, 2022)



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1.1.

# The City of Tshwane

a "revolution that does not produce a new space has not realized its full potential; indeed it has failed in that it has not changed life itself, but has merely changed ideological superstructures, institutions or political apparatuses."
(Lefebvre, 1971: 54)

My experience of the City of Tshwane CBD is one of contrasts. It took me a while to work out exactly what about the city felt different to other South African cities I have visited. It is a city that is interrupted by the towering government buildings that are isolated from the fabric of the everyday. One walks along crowded, vibrant streets only to come across monumental government buildings devoid of any activity. It is almost a city with two personalities that struggle to intersect. One belongs to the people of Tshwane, it belongs to their daily lives and activities, the other belongs to the national identity of the city as the administrative capital of South Africa. This 'personality' of the city detracts from the city experience by failing to positively reinforce the urban realm and the spatial form of the City of Tshwane. Public buildings have the potential to give back to their environment, to be more than their contents and influence and transform cities.

Through this chapter, I explore the relationships between government and people and between power and architecture within the context of the City of Tshwane. This exploration serves to investigate how architecture has the potential to transform these relationships in order to better reflect democratic spatial ideals.

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1. 2.

# Space and the city

Space, place and environment are increasingly important concepts in social and architectural theory (Harvey, 1994). Lefebvre's (1971) book, 'The Production of Space' prompted a major shift in how the term 'space' is considered by relating social relationships and constructions to the productions of physical space (Findley, 2005a; Lefebvre, 1971). Lefebvre (1971) posits that space and place emerge as a reflection of social relationships. Prior to this, the general understanding of space was more temporal.

Geographer and theorist David Harvey took this definition further, considering space as a flow. This understanding space as a flow considers space and socio-spatial relationships in relation to the dimension of time (Findley, 2005a: 5). This relationship, however, is not static. It evolves as society, culture, and the ideals of the day change over time (Harvey, 1994). Urban structures and buildings can become the static representations of these social relationships in moments of time (Findley, 2005a: 5).

Cities, due to their density, are fascinating concentrations of history, multiplicities of culture and complex amalgamations of people (De Villiers 2014). Urban structure and architecture, particularly city centres, read as a palimpsest of the changes in the socio-spatial relationships that have occurred in place over time (Findley, 2005a; Mbhokodo, 2015). These layers show the socio-spatial translations of the evolution of power, society and culture to build form over time and create the image of the city (Clarke & Lourens, 2015; Clarke, Kuipers & Roos, 2020: 151; Mbhokodo, 2015).



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# 2. THE ARGUMENT

**Fig 09.** Photograph sowing the scale difference between heritage and neighbouring buildings (Author,2022)

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## 2. 1. general issue

# A new layer for the City of Tshwane

The current democratic government aspires to make government more accessible to all citizens. They aim to provide spaces for integration, the expression of citizens and to enable people to become partners in the development of a resilient, thriving African city. These goals are intended to address the spatial injustice and problematic relationship between government and citizens in the past. Lefebvre (1971: 54) argues that a "revolution that does not produce a new space has not realized its full potential; indeed it has failed in that it has not changed life itself, but has merely changed ideological superstructures, institutions or political apparatuses." The ideals and intentions for an inclusive, democratic vision are all in place; there remains, however, a lack of successful translation of these ideals spatially.

South Africa is a relatively new democracy. We have only in the last few years moved from a state of control to a state of transformation. The City of Tshwane's story is intrinsically linked to power, serving as the administrative capital in some manner since its foundation in 1860 as the capital of the Zuid-Afrikaansche Republiek (ZAR) (Clarke & Lourens, 2015). The city strongly reflects the history of South Africa and the spatial legacy of the successive power regimes in the country (Clarke & Kuipers, 2015; Mabin, 2015). This complexity and representation of history is concentrated within the inner-city of Tshwane where the city has its origins (Clarke & Kuipers, 2015; Mabin, 2015).

The spatial legacy of past socio-political relationships and, particularly, the spatial expression of the transition of power over time continues to define the city urban structure (De Villiers, 2014). A significant part of the City of Tshwane's historic identity is its position as the administrative capital of South Africa. As such, the greatest presence of government can be found within the city bounds (Mabin, 2015: 29). Each successive power regime since 1860 has left its spatial mark, represented in the palimpsest of architecture and urban form (Clarke & Lourens, 2015). South Africa's society has changed dramatically since the 1994 election, as has the power relation between citizens and government and the relationship between power structures and society. However, as the inner-city still has such a strongly contested spatial legacy from colonial occupation and apartheid, particularly of the power structures of these regimes, the city is crying out for the spatial injustices of the past to be transformed. A new layer of complexity representing the socio-spatial relationships of democracy and an inclusive and free country is required. If the new government is representative of democracy and these new ideals, then the architecture of governance should reflect these relationships of power; the landscape of segregation and spatial injustice must be undone (Findley, 2005a). A new spatial expression of the current progressive democratic ideals, particularly regarding governmental architecture, needs to be investigated.


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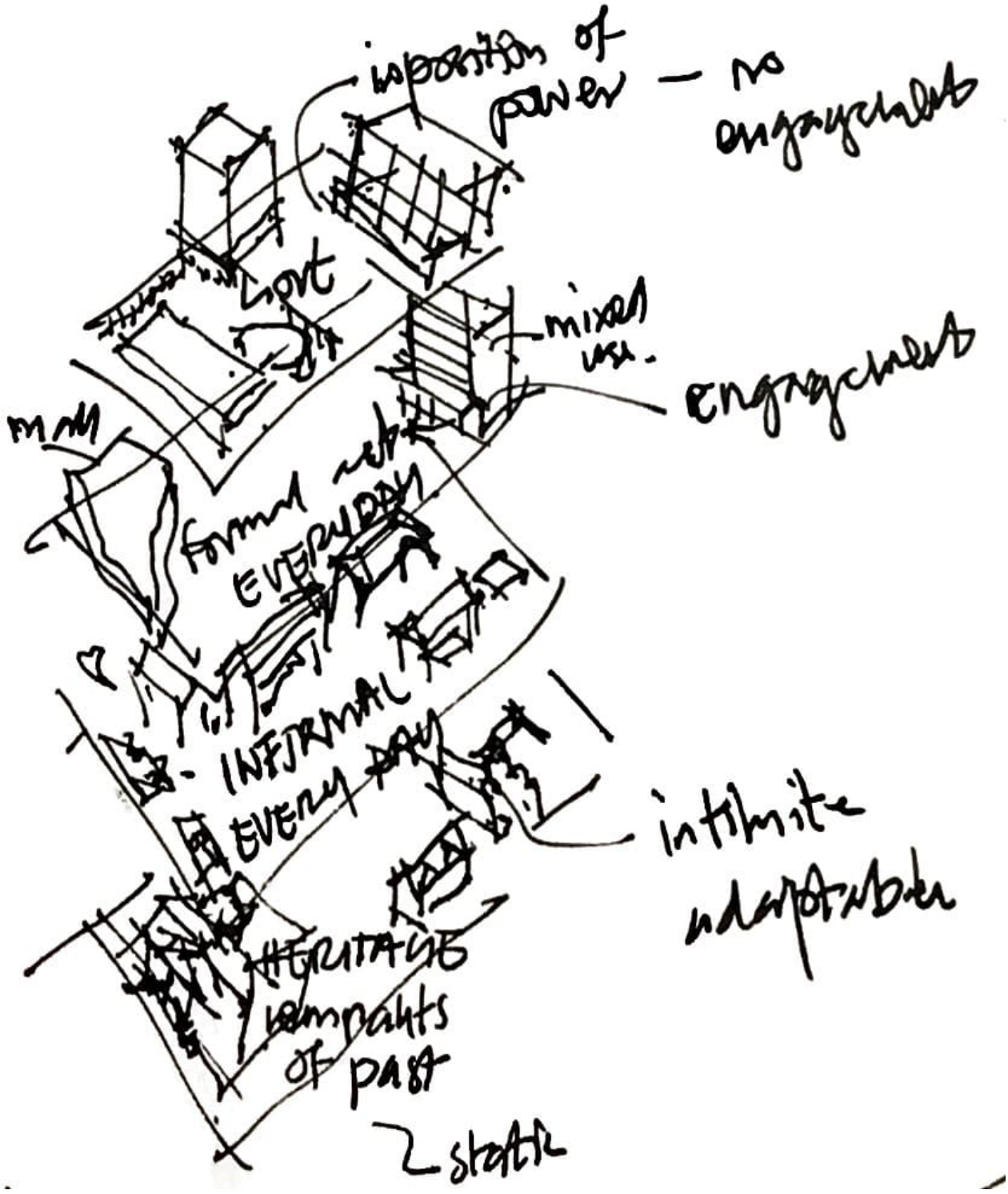


**Fig 10.** The different spheres of activity in the City of Tshwane sit as separate layers that struggle to interact (Author, 2022)

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2.2.

# Building and power: a relational theory

**Fig 11.** A painting of the Bower of Babel (Breugel the Elder, 1564)

As structures of power have such a strong influence on the urban and architectural structure of the City of Tshwane, an investigation into the relationship between power and architecture was required. There is an ancient relationship between space, buildings, and power structures. Findley (2005a) introduces this idea through the analogy of the tower of Babel to illustrate how the act of building gets tied up with power from the very foundation of our imagination of human power. Cities all over the world, and dating back to the beginning of time, house monuments, palaces, governmental centres, corporate headquarters, religious temples, churches and financial institutions that are all reflections of the expression of power through building (Findley, 2005a: 3). Architecture has the power to make visible the unseen cultural, political or religious ideologies through built physical form (Findley, 2005b: 193). This expression of power can be seen at all scales of space and is not restricted to that of a building (Findley, 2005a; Lefebvre, 1971). Power operates spatially through urban structure and architecture enabling space to reflect both justice and injustice (Lefebvre, 1971). Space, and by extension architecture, has the capacity to embody either depending on the socio-spatial relationships that are present at the time (Harvey, 1994; De Villiers, 2014).



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2. 3.

# The history of power in the City of Tshwane

The City of Tshwane's history as a spatial expression of power dates back to the arrival of the Voortrekkers in 1855 – who later established it as the capital of the Zuid-Afrikaansche Republiek (ZAR) in 1860 (Clarke & Lourens, 2015; Mabin, 2015). The ZAR was founded as an expression of independence from the British. Power changed hands in 1910 with the Union of South Africa incorporating the ZAR into their governance. During this period (1910-1961) the city stood as the administrative capital, the seat of National Government for the Union of South Africa, a self-governing territory of the British Empire. The next major transfer of power came in 1948, as the National Party was elected and subsequently declared South Africa an independent republic in 1960, resulting in the formation of the Republic of South Africa. Pretoria served as the seat of government for the National Party during apartheid until 1994 with the end of apartheid and the introduction of a democratically elected government. This was a critical shift in the power structure, where the marginalised majority reclaimed their power and dismantled the power structures that were keeping them disenfranchised. This came with the symbolic transition of Pretoria to the City of Tshwane (Clarke et al., 2020: 148).

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2.4.

# Urban spatial legacy of changing power structures in the City of Tshwane

Each successive transfer of power within South Africa has left a spatial legacy of the social relationships that existed between authority and people, and within society and culture, that can be read in the City of Tshwane (Findley, 2005a: 2).

## Colonial influence

The ZAR imposed the orthogonal city grid that still governs the urban fabric today, with Church Square at the centre of the main axes within the city (Clarke & Lourens, 2015; Clarke & Corten, 2011: 883; Lloyd, 2003: 103). Cities form as an expression of who "society believes itself to be in space and time" (Lloyd, 2003: 105). The settlers imposed a certain rigid interpretation of space and time to the natural environment that contrasted with the urban practices of the indigenous people living there prior to colonial occupation. African urban culture was founded on an understanding of space and time as transient. Urban structures allowed for maximum agency and movement and land ownership was not formalised and belonged to the community (Findley, 2005a: 29). The Boer settlers introduced the idea of private ownership and privatisation of public space resulting in the idea of communally owned space being lost (Findley, 2005a; Lloyd, 2003: 106). During this period, several important heritage buildings, that still exist today, within the historic core of the city were built. These buildings – the Ou Raadsaal, Palace of Justice, and Nederlandsche Bank – stand as lasting remnants of the expression of the power of the ZAR.

When Pretoria was annexed as the administrative capital of the Union of South Africa, further development of buildings and structures of power took place as an expression of the authority and power of the British empire – the most significant being the Union Buildings which still house the seat of government today (Clarke & Corten, 2011; Corten, 2015; Mbhokodo, 2015). During the time of the ZAR, and up until the end of British colonial rule, the city shows classic examples of strategies that demonstrate power spatially, the most predominant of which is that the landscape is adjusted to the extent that it is unrecognisable as foreign from the colonising country (Findley, 2005a: 19; Said, 1994: 226). This is done through the urban grid, the European style of architecture adopted, European building methods and the introduction of foreign plants – all resulting in the imprint of the culture of colonisers on the environment (Findley, 2005a: 19).

Cities form as an expression of who "society believes itself to be in space and time" (Lloyd, 2003: 105)



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## Apartheid influence

Under the apartheid regime, the city structure changed further, with the spatial practices of the previous regimes becoming concretised in legislation. This resulted in the segregation and further displacement of non-white South Africans (Clarke & Corten, 2011; Clarke & Kuipers, 2015; Corten, 2015; Judin, 2021). The National Party, desiring a new architectural expression to show progressive ingenuity, power, and efficiency, chose modernism and the international style which evolved and adapted to context (Judin, 2021: 2). Significant portions of the city were redeveloped to express the dominance of the National Party. The scale of the city changed drastically with the introduction of tall institutional modernist towers. These towers accommodated government administration, banks, and housing, becoming imposing landmarks in the city's skyline (Clarke & Lourens, 2015: 40–41).

## Post 1994

The introduction of democracy has not yet had as significant an impact on the spatiality of the city as the previous power regimes did. A lot of work is still to be done in undoing the segregationist spatial principals that dominate the landscape (Comrie, 2003). The current government has been eager to contribute its own layer to the narrative within the City of Tshwane. However, their contributions remain largely unsuccessful at addressing the spatial legacy of the past and providing an architecture that is reflective of a state of transition rather than that of control. New contributions remain contemporary representations of same spatial patterns. Freedom Park and Tshwane House are both examples of this attempt to readdress these relations. However, these did not successfully create spaces that truly embody democratic ideals.

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| | 1855 - 1880 | 1880 - 1900 |
|---|---|---|
| Historical context | Founding of the town | Historic settling of the town<br>Church in church square<br>small houses, churches, markets<br>annexed by British (1899-1902) |
| Important buildings | | Panagos building (1880-1890)<br>Ou Raadsaal (1892)<br>Transvaal Museum Building (1892)<br>Palace of Justice (1898)<br>Pretoria Synagogue (1898)<br>Jansen House<br>Nederlandse Bank Building (1897)<br>Old Govt Printing WWorks (1895) |

Timeline



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City under British occuation

1900 - 1930

Union Buildings (1913)
Pretoria Station (1910)
Queen Street Mosque (1928)

Town structure solidifying and many prominent civic and new commercial buildings built

1930 - 1950

Pretoria City Hall (1926-1935)

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| Timeline | 1950 - 1970 | 1970 - 1990 |
| --- | --- | --- |
| Historical context | Modernism is embraced in Pretoria,new commercial, residential and government buildings built | High density, large scale late-modern office buildings replace |
| Important buildings | Pretoria Synagogue transformed into a court (1952) | Reserve Bank (1988)<br>State Theatre (1981)<br>Schubert Park (1976)<br>Volkskas Tower (1976)<br>Sammy Marks |



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New democratic government elected - search for a new architectural expression
Influx of new demographic in the inner city

1990 – 2010

Freedom Park (2007)

Extensive informal trade network
CoT 2055 Urban Vision

2010 – 2022

Tshwane House (2017)

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## 2.5. urban issue

# The city is experienced in the in-between, interrupted by the structures of power

The largest change within the inner-city is in how the space is used rather than how it has been reconfigured. This is seen in the drastic change in demographics and the introduction of informal trade in public space as people previously displaced from the urban centre seek economic opportunity. A spatial transformation is still needed.

Urbanity, the character, and experience of the city is inextricably linked to the built fabric of a place. The character of this architecture, and the socio-spatial relationships they collectively create, is what constitutes the image of the city (Porotto, 2015). The city is experienced in the streets, the activity, the society, the culture, and the collective impression of architecture.

The post-apartheid urban realm appears to be retreating further and further from the street, from public space. Increasingly public space, the only space that belongs to the community, is being fenced off and privatised. Sammy Marks Square, Lilian Ngoyi Square, the park in front of the City Hall are just a few examples of where this has happened. Urban public space is now predominantly comprised of the street sidewalk. It is within this zone where individual citizens have the most spatial agency; this is the space that needs to be expanded and reinforced to truly transform the city.

The experience of a vibrant city is interrupted by buildings that act as islands – isolated and removed from public activity. Spatially, government department buildings largely sit removed from the everyday of the city. They are associated with a national perception of the city; aligning with the identity of the city as the administrative capital, but failing to relate to everyday life. The spaces around these structures are devoid of activity as they stand as islands retreating inward and projecting a sphere of power over the space around them. The Re Kgabisa Tshwane Strategic Plan (City of Tshwane, 2005) and the more recent Tshwane 2055 Urban Vision (City of Tshwane, 2013, 2015) outline the plan to increase government presence in the inner-city. These plans outline spatial justice as their primary goal, however the ideals of spatial justice on an urban and architectural scale are lacking a mechanism for realisation (Mbhokodo, 2015; De Villiers, 2014: 16).


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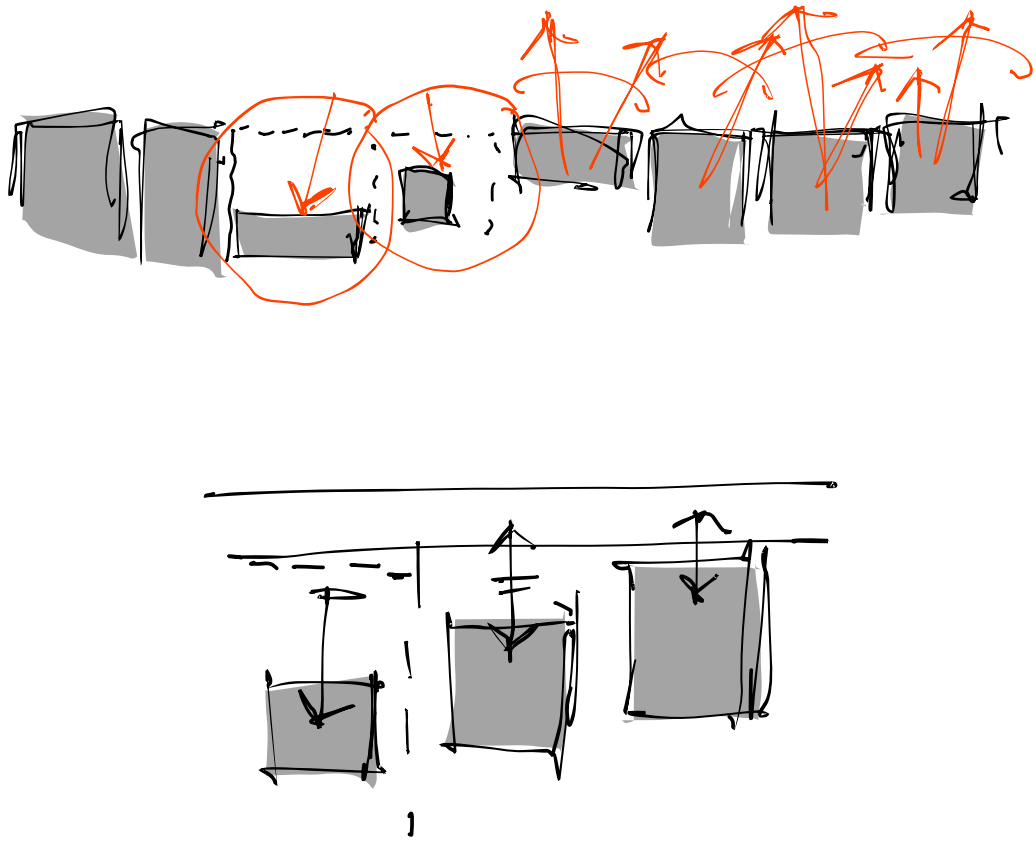

**Fig 12.** Diagram showing activities in the city and buildings are retreating further and further from the city (Author, 2022)

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2.6. architectural issue

# Lack of translation of democratic ideals spatially

## Relationship between government and citizens

The purpose of government is to regulate everyday life; there is a connection directly with the everyday. There is no person who does not have to deal with government in some way in their life. This relationship between the state and citizens has changed since 1994. The state in the past was very much an expression of power and authority over everyone else (particularly non-whites.) At the end of apartheid, there was an important shift from an authoritarian state to a developmental state that is for the people (Frug, 2011; Republic of South Africa, 1996). The introduction of democracy to South Africa in 1994, and the drafting of the new constitution in 1996, introduced an alternative to the hierarchical architecture of governance that is still seen in many democratic government structures. South Africa's constitution is seen to be one of the most inclusive and progressive constitutions in the world. However, the translation of this new relationship has yet to be seen spatially and architecturally.

## Typology of power structure in the City of Tshwane

Government buildings in the City of Tshwane are representative of the ideals and values of the regimes in power over time (Clarke & Lourens, 2015; Clarke et al., 2020; De Villiers, 2014). These buildings, however, are largely exclusionary monuments of power which lack sufficient engagement with the activities of the city. A schism exists between the idealistic democratic intentions and socio-spatial reality of South Africa in the City of Tshwane. There is an 'us vs them' power relationship created through the architectural typologies of governance in the city; these architectural typologies sit removed from the complexity of everyday activities. Government buildings within the City of Tshwane are impenetrable, this is the expression of a state that is one of control.

Government buildings are designed to express power, they are about regulation, compliance, and commanding respect. The implication is that they are to be taken seriously; typologically large in scale to express importance, power, and authority. The scale, architectural edge expression, and accessibility all impact the power relationship between the citizen and the built fabric (Clarke & Kuipers, 2015). Tshwane House was designed to be the new home of the democratic municipal government within the city, the counterpart to the City Hall that was built under British colonialism. The intention was for the building to be inclusive and representative of approachable, transparent governance. The sad reality is that the building is incredibly inaccessible and simply perpetuates the power dynamics of government buildings of the past – possibly in an even harsher manner. The building takes up an entire city block; three urban edges are completely dead and


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Civic

**Fig 13.** Pretoria City Hall (Author, 2022)

Civic

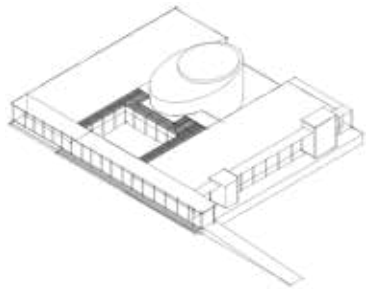
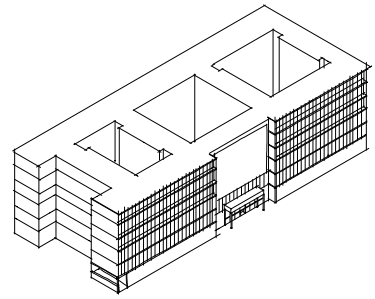
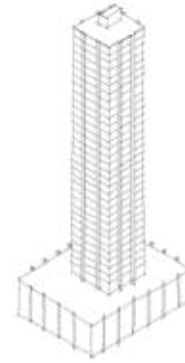


**Fig 14.** Tshwane House, City of Tshwane Headquarters & Council Chamber (Author, 2022)

Administrative



Administrative



the vast entrance portico on the fourth edge is fenced off. This perpetuates a relationship of restricted access rather than being an expression of approachable government.

A new governmental typology that subverts this relationship and expresses the state of transformation, democracy, and an attitude of inclusivity, is necessary.

**Fig 17.** Street elevation of Tshwane House, City of Tshwane Headquarters & Council Chamber (Author, 2022)

**Fig 18.** Struben St elevation of Department of Transport national administrative headquarters (Author, 2022)

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# 3. METHODOLOGY

**Fig 19.** View of the Panagos buildings along Struben street (Author, 2022)



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3.1.

# Research questions

Main question:

**How can architecture redefine the relationship between government and citizens in the City of Tshwane through introducing a new spatial governmental typology and succeed in making government more accessible?**

Sub questions:

What does a democratic architecture within the City of Tshwane look like?

How can new insertions within the inner-city relate to, and reframe, existing heritage to be part of a new narrative of inclusion in a democratic South Africa?

How can a government architecture enable greater spatial agency within the city?

Can architecture assist in making government more approachable and create space for the expression of citizens?

How does one design a public building in a new paradigm that reaches out to the public realm (the city) and is accessible and transparent?

How can government be there without sterilising that which is around them?

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3.2.

# A method for investigating inclusive, democratic architecture

## Approach

The design-led research explored in this dissertation can be situated in an interpretivist paradigm, with a qualitative approach to the research investigation. Due to the investigation into power relationships and their translation to architecture, this dissertation also falls within the critical paradigm (Kivunja & Kuyini, 2017: 26–41).

The research will primarily consist of an in-depth desktop study in conjunction with personal on-site observations. A typological investigation will form part of this research to understand the relationships between power structures and the city, and architecture of the everyday and the city, to gain clues as to how the current governmental typology can be reinvented successfully to relate better to the everyday. Auto-ethnographic methods will be utilized as part of the on-site observational investigation. My process will be recording my personal experience of the site and precedents to interpret what has been written about the site.
The history of the site and ethnographic investigation will be garnered via secondary sources as part of desktop study. Theories and strategies derived from theory and precedents will be applied and tested on the site as part of the development of a new typology. The architectural investigation will be guided by this conceptual framework. The product of the design process, guided by the conceptual framework, will be the eventual design proposal and technical resolution of a new typology of power dynamics within the inner-city of Tshwane that reflects a transparent state of transformation for the people.

## Delimitations

The intervention deals mainly with the interstitial space between the two existing buildings; however, it will include a portion of the interior of the Panagos building. The function of the Department of Transport will remain the same as the new intervention will relate to this existing condition.

## Limitations

I am not a daily user of the inner-city; therefore, I am approaching this as an outsider to the space (not part of that community.)This lens has its strengths and weaknesses.

The investigation of the existing buildings is limited to secondary information available about the site and the existing buildings in question.


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# 4. TOWARDS AN INCLUSIVE ARCHITECTURE

**Fig 20.** Aerial image of the inner-city of Tshwane (Google Earth, 2016)

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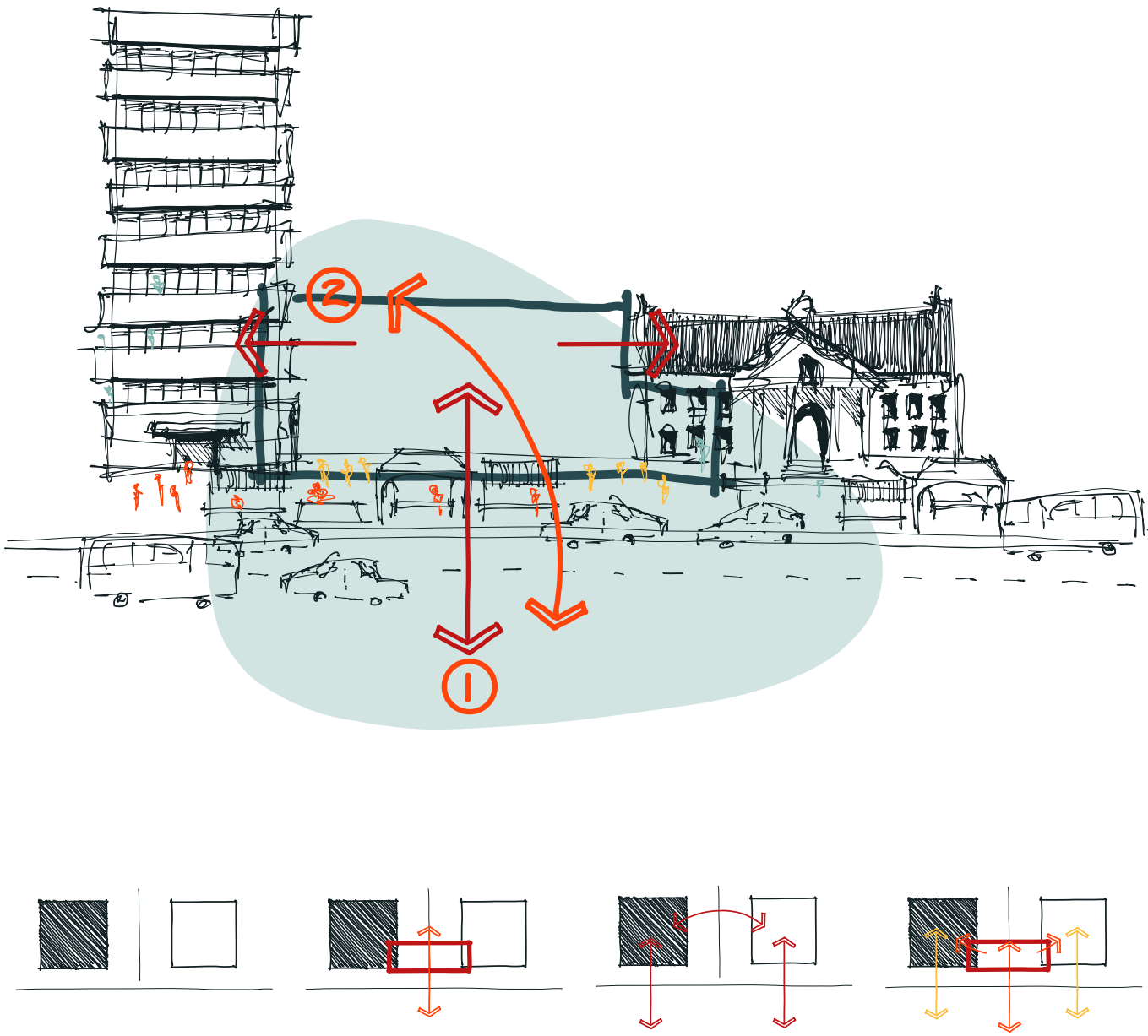


**Fig 21.** Drawing showing the architectural intentions to connect to the city, the past and to create a positive relationship between government and citizens (Author, 2022)


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4.1.

# Statement of approach to architecture

The intention of the exploration of this dissertation is to develop a new typology for government buildings that redefines the relationship between power and people within the context of South Africa. The exploration will be focused on understanding the current typologies and spatial strategies of power that exist within the city that reflect past relationships to power and develop a strategy for subverting these exclusionary attitudes of relation.

## Agency and the subversion of hierarchical power relationships

A key strategy power employs to impact space is that of the restriction of agency. Individual agency was controlled and restricted during apartheid. Findley (2005a: 3), poses that "the potential of agency is powerful." Power structures of dominance operate to control agency. This was a legacy of colonial occupation and apartheid.

Prior to colonial occupation, the social construction of space and time allowed for transient movement patterns with land seen as a resource for the community rather than privately owned (Findley, 2005a; Harvey, 1994). This allowed for a totally different sense of spatial agency experienced by residents in South Africa. It is possible to speculate that the socio-spatial practice of informal traders is the closest we get to this sense of agency within the inner-city. Traders follow opportunity, are adaptable according to trend and reside in the public/ communal realm of the street. It is worth considering that it may be possible to learn from this and perhaps translate some of the ideals of these spatial practices to architecture.

## The possibility of the edge

Thresholds provide a prelude for perception of architecture and space (Boettger, 2015: 10). Too few buildings in the City of Tshwane capitalise on how the articulation of the in-between can allow for more dynamic and inclusive civic/ public architecture. The edge of the building, and the interstitial space within the city that it creates, has the power to fundamentally shape the relationship that architecture (and its internal program) has with the street and the city beyond (Gehl, 2011). The interstitial threshold city space is where urban dwelling arguably takes place in a way that does not require you to be invited to participate; the space belongs to everyone. This is the zone where individual power and agency is the least controlled.

The outside of your building becomes the inside of the city. In striving to achieve spatial justice at an urban level, new architecture needs to be cognisant of this power that it wields.

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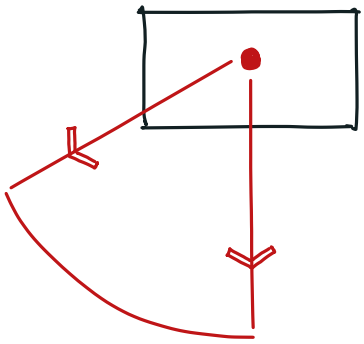

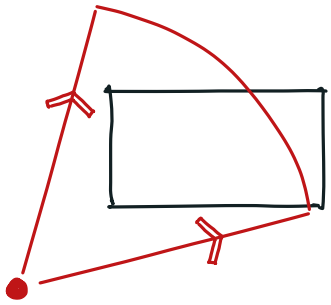

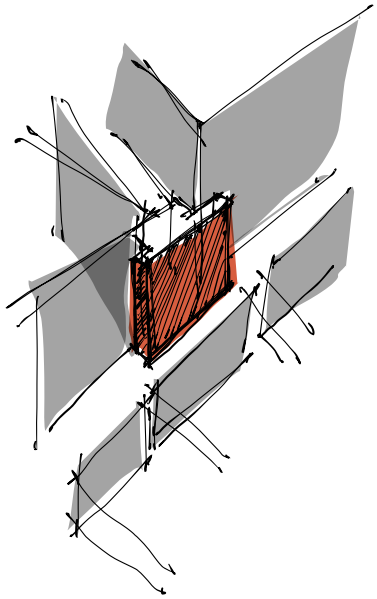

## Heritage and contested memory

The purpose of the investigation is to develop a new, inclusive typology of inclusivity for an architecture of governance. It is impossible to do this without understanding that any new typology will be residing in an existing and contested urban fabric (Corten, 2015; Mbhokodo, 2015). Cities are meant to be dynamic; the requirements of buildings and spaces shift and adapt over time as needs change (Stone, 2019).

The City of Tshwane has an inherited built fabric, the memory of which the new government typology will contribute to, negotiate, and transform, to work towards a new cohesive narrative within the inner-city.

It is critical to understand where we came from to understand and fully appreciate where we are now (Leibowitz, 2008). Clarke et al. (2020: 151), proposes a pluralisation of our contested past and the reframing of the heritage spaces within the inner-city as a strategy for spatial justice that expresses democracy.

**Fig 22.** (top left) Public experienced from inside (Author, 2022)

**Fig 23.** (middle left) Private experienced from outside (Author, 2022)

**Fig 24.** The outside of buildings are the inside of the city (Author, 2022)



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4.2.

# Locating a site for investigation

## Site criteria

In selecting a site, there were several criteria that needed to be met to fully test the intentions of this dissertation. I was looking for a site that was representative of the complexity of the city and that held representations of the past (preferably from more than one point in time), while offering an opportunity to add a new layer in dialogue with this complexity to start building an expression of the time we are in now.

Multiple layers of history from different era's of architecture is first prize scenario.

There were three sites that, through mapping of the inner-city, held potential.

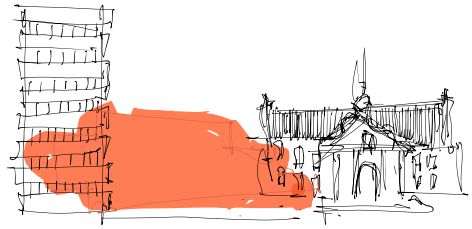

**Fig 25.** First prize scenario: colonial and modernist styles present in site context. (Author, 2022)

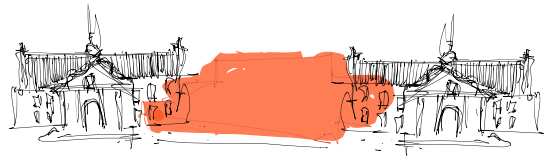

**Fig 26.** Colonial present in site context (Author, 2022)

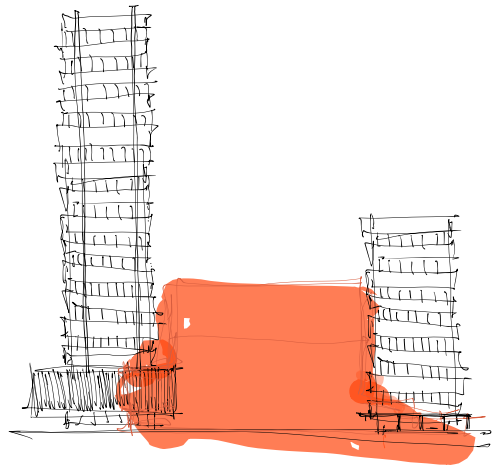

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**Fig 28.** (Apple Maps, 2022)

**Fig 29.** (Apple Maps, 2022)

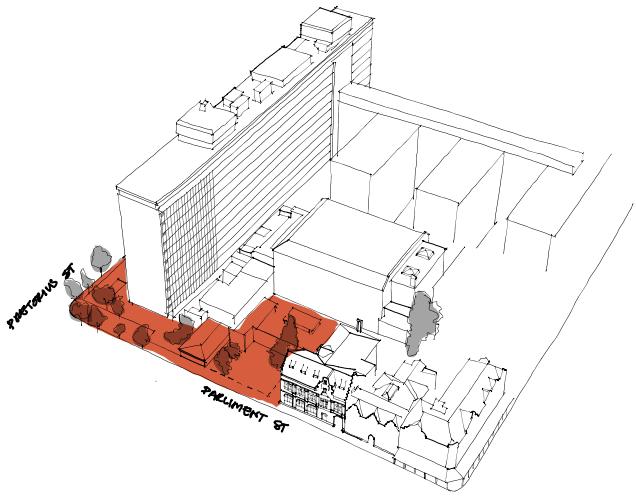


**Fig 30.** (Author, 2022)

## Context

TPA (1963), Nederlandsche Bank (1897), Capital Theatre, Church Square, Ou Raadsaal, Palace of Justice, Cafe Riche

## Potential

Located on Church square- critical to Pretoria identity. In relation to layered history of different regimes (expressions of power and identity). Can insert and merge to create new layered identity.

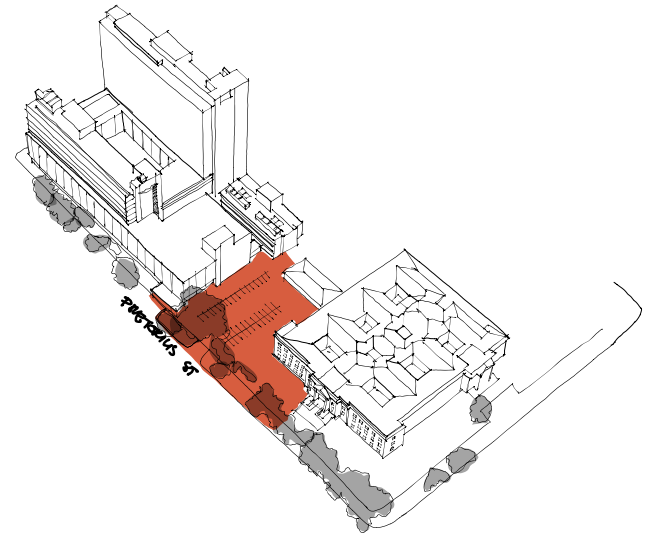


**Fig 31.** (Author, 2022)

## Context

Magistrates Court (1941-2) Pretoria Central Police Station, South African Police Service, Department of Social Development Human Sciences Research Council

## Potential

Between to civic buildings- interesting potential to see how to activate sites around civic/ governance programs. Active program but little engagement- what could be pared with these programs to encourage more engagement. Mediate the need for private zones and potential for some public engagement?


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**Fig 32.** (Apple Maps, 2022)

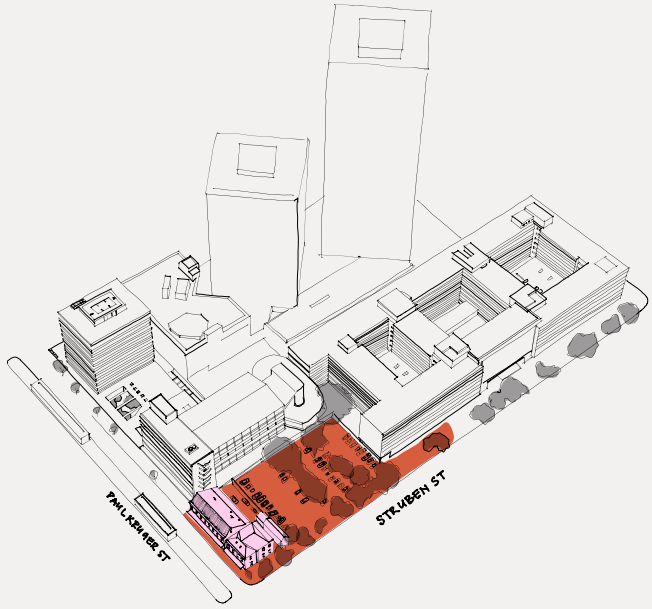


**Fig 33.** (Author, 2022)

## Context

Panagos Building (1880), Department of Transport, Government printing works, Department of Correctional Services, National War College, Christian School

## Potential

Large site mediating heritage and very different scales. Located along governmental boulevard in Tshwane 2055 plan. Heritage building is being appropriated- there is a layer of informal present to work with. Located next to government department building. Two street edges to work with.

**Fig 34.** (top right) Street traders along edge of heritage building(Author, 2022)

**Fig 35.** (middle right) Store room inserted into the inbetween the two heritage buildings that make up the Panagos building (Author, 2022)

**Fig 36.** (bottom right) Detail view of timber doors and facade condition (Author, 2022)

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## Site justifications and intentions

The third site I investigated, situated on the corner of Paul Kruger St and Struben St, between the Panagos building and the Forum building which houses the Department of Transport, offered the best potential for investigating the aims of this dissertation. As such, it will be the location of the design investigation.

The site was chosen for its rich potential for exploring a new inclusive typology of civic building that is the spatial reflection of democratic ideals and is intrinsically connected to history, memory, and place.

In adding a new layer to the narrative of the city, the intention is to re-frame the existing, contested heritage of the city to include it in a new narrative of democracy and inclusivity. The intervention will need to respond to both narratives of the existing heritage Panagos buildings and the surrounding modernist and contemporary government buildings, reconciling them within a new narrative of an inclusive City of Tshwane.

general opportunities
Given the current government's aspiration to address the spatial injustice within the City of Tshwane, and to create a thriving African capital city, this site has enormous potential to be a catalytic project in beginning to realise what these aspirations might mean spatially. Given the presence of buildings from the ZAR and apartheid eras, this site provides the possibility of exploring how a new expression can be developed in dialogue with remnants of the City of Tshwane's contested past to create a cohesive future urban fabric. The dominance of governmental programs in and around the site make it the perfect location to test how this government typology might reflect a newer inclusive socio-spatial relationship.

urban opportunities
The site is located along the northern axis of the inner-city which has been proposed as the governmental boulevard in the Tshwane 2055 Vision for the revitalisation of the city. Within this plan, the site has been selected for redevelopment as, currently, it has very low density and a large amount of undeveloped space which are critical resources within the city centre. Its position along such a significant axis within the city provides a good location to develop a new typology for accessible, democratic public buildings.

architectural opportunities
The heritage buildings are a remnant of an entirely different urban structure and have been engulfed by their larger neighbours. This stark contrast in scale is an interesting architectural issue to resolve – looking at how to incorporate these heritage buildings into the current urban fabric so that they retain their integrity and contribute to the richness of the city while satisfying the need for densification in this portion of the city. Government and public buildings need to reinforce the public realm within the city, particularly along these major city axes, which will be explored through the development of a new urban architectural expression.


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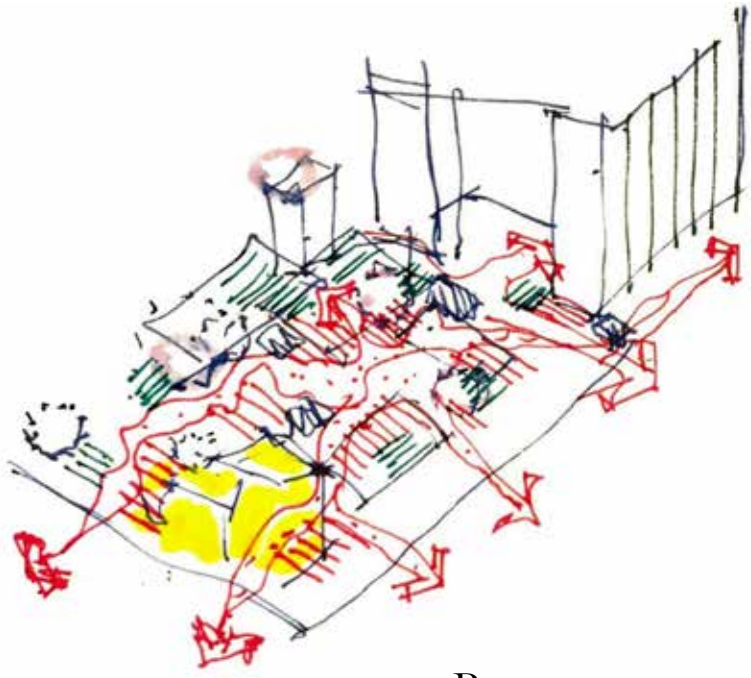

**Fig 37.** Drawing architecture weaving itself into it's context (Author, 2022)

## Programme postulation

Investigating a new governmental typology as a means through which architecture can redefine the relationship between government and the everyday in the city requires a programme that is related to government functions in some manner. Current typologies of government functions can be defined as either civic or administrative. The largest issue is the lack of engagement of both typologies with everyday activities within the City of Tshwane.

Introducing a new typology, which is essentially a threshold to government and acts as an interface between both realms of activity, that belongs to both government and citizens equally will be explored in the design. Programming will need to reflect a greater sense of spatial agency in the current typology of government building through the creation of public space that is freely accessible to everyone; expanding the zone of spatial agency from the street into the site. The focus of will be on the social interaction and interface possibilities between the programmes. Further investigation into the exact nature of the programmes is outlined in Essay 2.

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# 5. CONCLUSION

**Fig 38.** View of Panagos buildings on corner of Paul Kruger and Struben St (Google St View, 2017)



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The post-apartheid City of Tshwane is full of opportunity and complexity; made up of many different layers of socio-spatial expression. The potential lies in how to bring the different realms of activity within the city together – specifically the government functions and the activities of the everyday. By transforming the contested urban fabric to address the spatial injustices of the past, and reconciling two different 'personalities' of Tshwane, one could begin to forge a cohesive and inclusive democratic city. The role architecture plays in this transformation will be explored in the chapters that follow, focusing on a design investigation that subverts the existing socio-spatial power relationships in Tshwane.

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**Fig 39.** View of the Panagos Buildings and site from Struben St (Author, 2022)



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# 6. SITE SITUATION

**Fig 40.** The Department of Transport alienating building edge (Author, 2022)



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6.1.

# Introduction

City – Building
City – Human
Building – Building
Building – Human
Human – Human

The necessity of exploring a new layer that represents the present socio-spatial relationships and aspirations of the present has been proven as critical to the development of the city of Tshwane. In order to do this, a clear understanding of the past layers and the present conditions was necessary to explore a design solution that is contextually relevant. This was achieved through an understanding of site history and the heritage narrative of the site, followed by an investigative site analysis. A deep investigation of the site conditions was undertaken to inform an approach, concept, and programme that is deeply integrated into its context. This, along with the intentions, informed the programme and initial conceptual and spatial investigations.

A theoretical matrix was generated through the investigation of different theoretical approaches that considered these interfaces from an inclusive, human-centred position at different scales. The focus of the design investigation was to learn from the context, existing typologies, and traditional spatial devices and reinterpret them to develop a new expression of an architecture of inclusion.

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## 6. 2. Macro Context

# Locating the project

The selected site is located within the northern portion of the inner-city of Tshwane. Situated along Paul Kruger St on the northern axis of the city, two blocks north of Church Square. The site is on the cusp of the highly dense city centre and the lower scale of the northern most blocks of the city centre. The close proximity to the historic centre of the city and the location of significant heritage landmarks make the site ripe with opportunity.

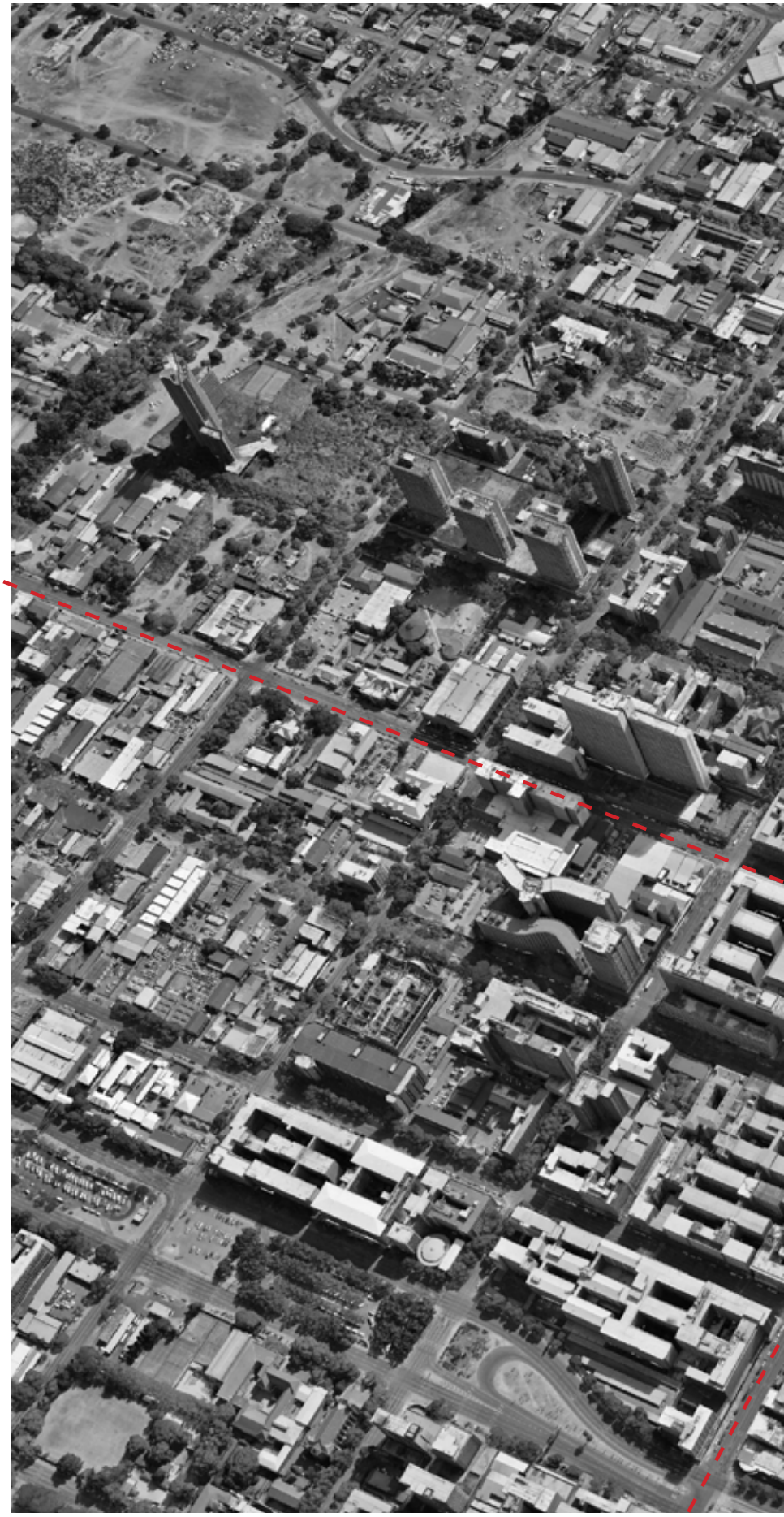

**Fig 41.** (Author, 2022)



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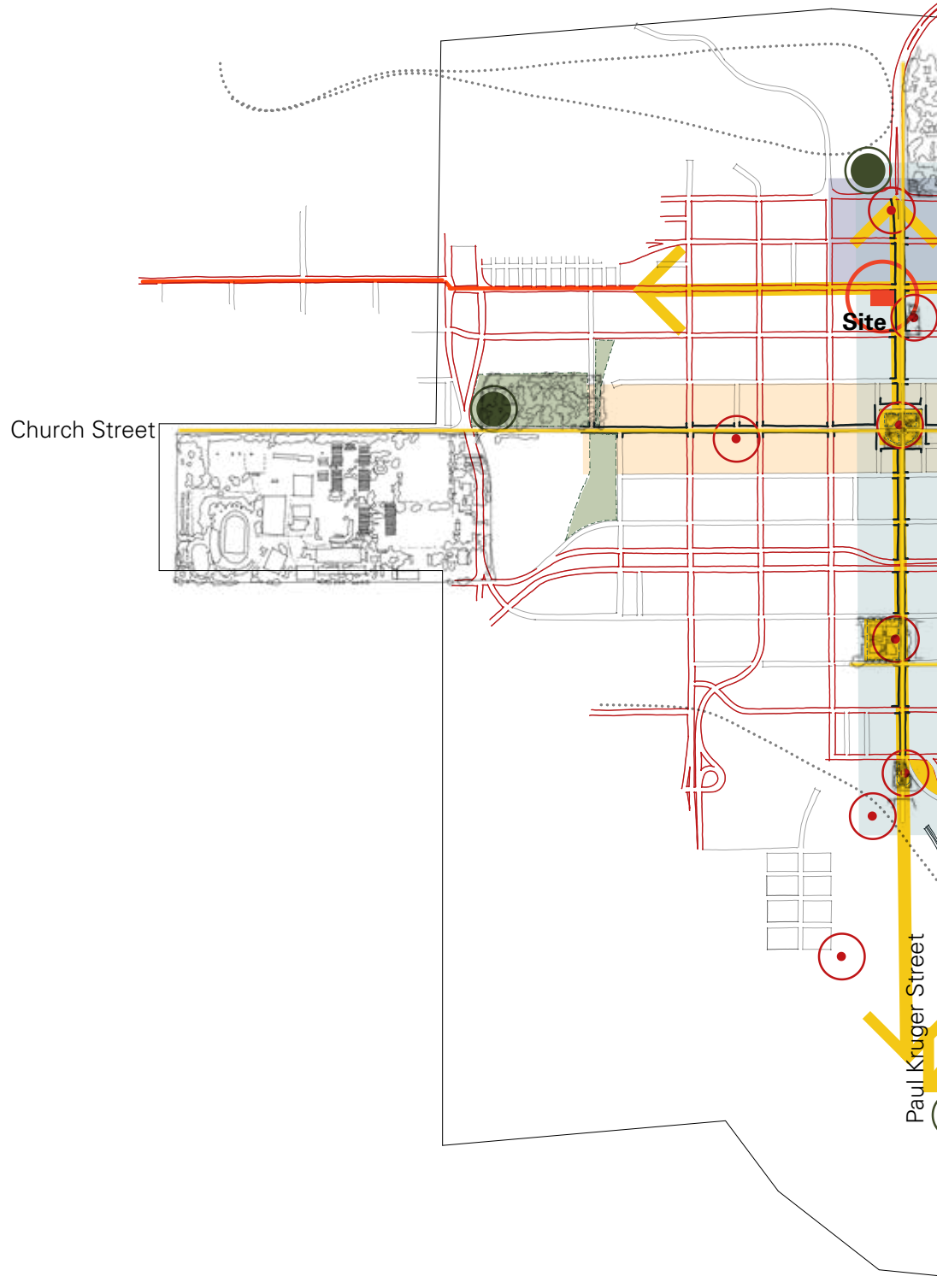
# 2055 Urban Vision

The site is along the newly proposed Governmental Boulevard as outlined in the CoT 2055 Urban Vision (City of Tshwane, 2015: 29–40). It has been highlighted as a potential site for development due to the open space and low density towards the Northern Gateway Node. Heritage presence was recognized as an issue rather than a potential for richness in the plan.



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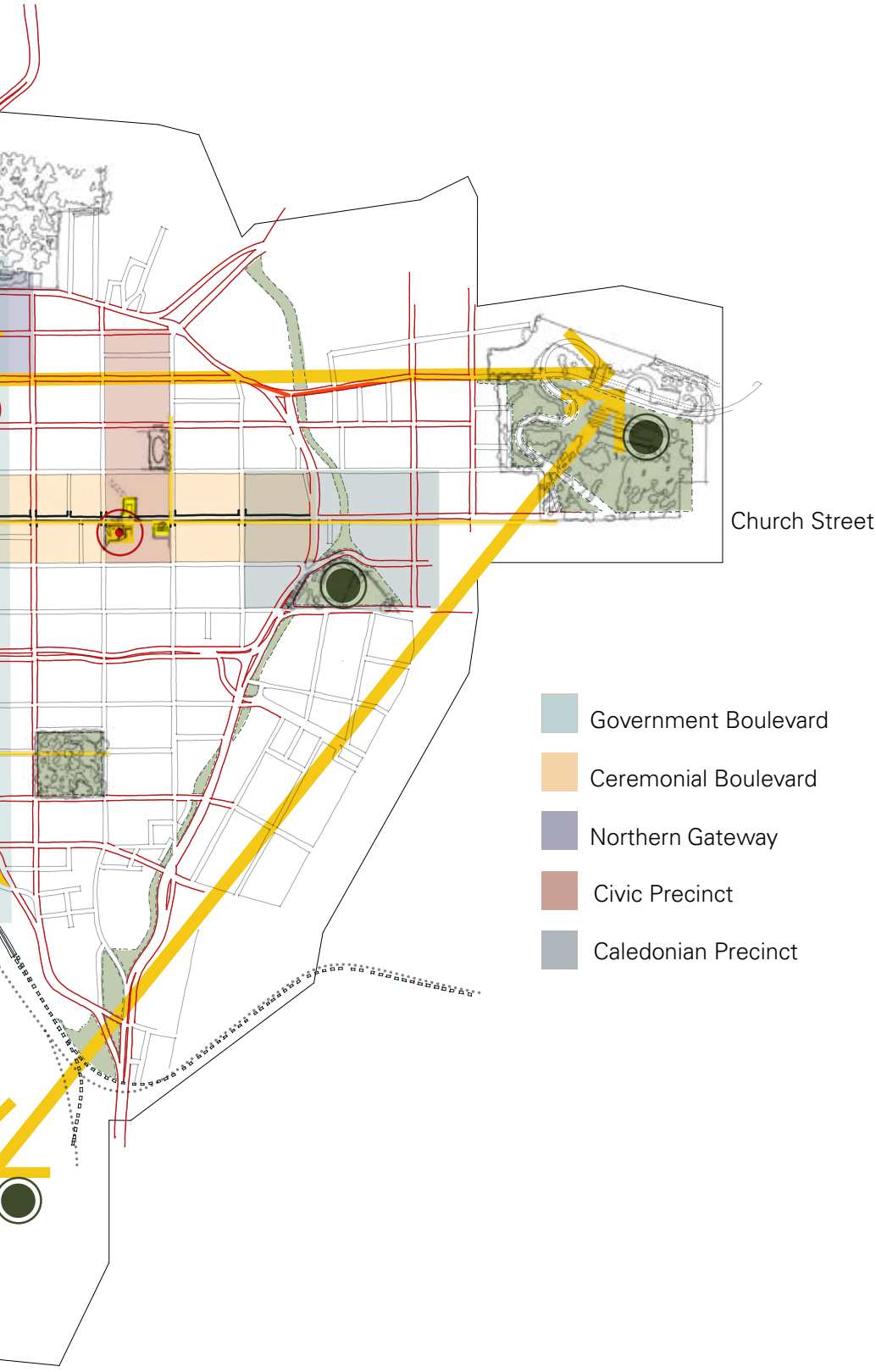


"A Capital City Core must also reflect the presence of government in its spatial structure and image to present the face of government and the values of government such as democracy and active citizen participation." (City of Tshwane, 2015: 25)

**Fig 43.** 2055 CoT Urban Vision adapted from Government Estate Development Framework (Author, 2022)

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# Family of public spaces

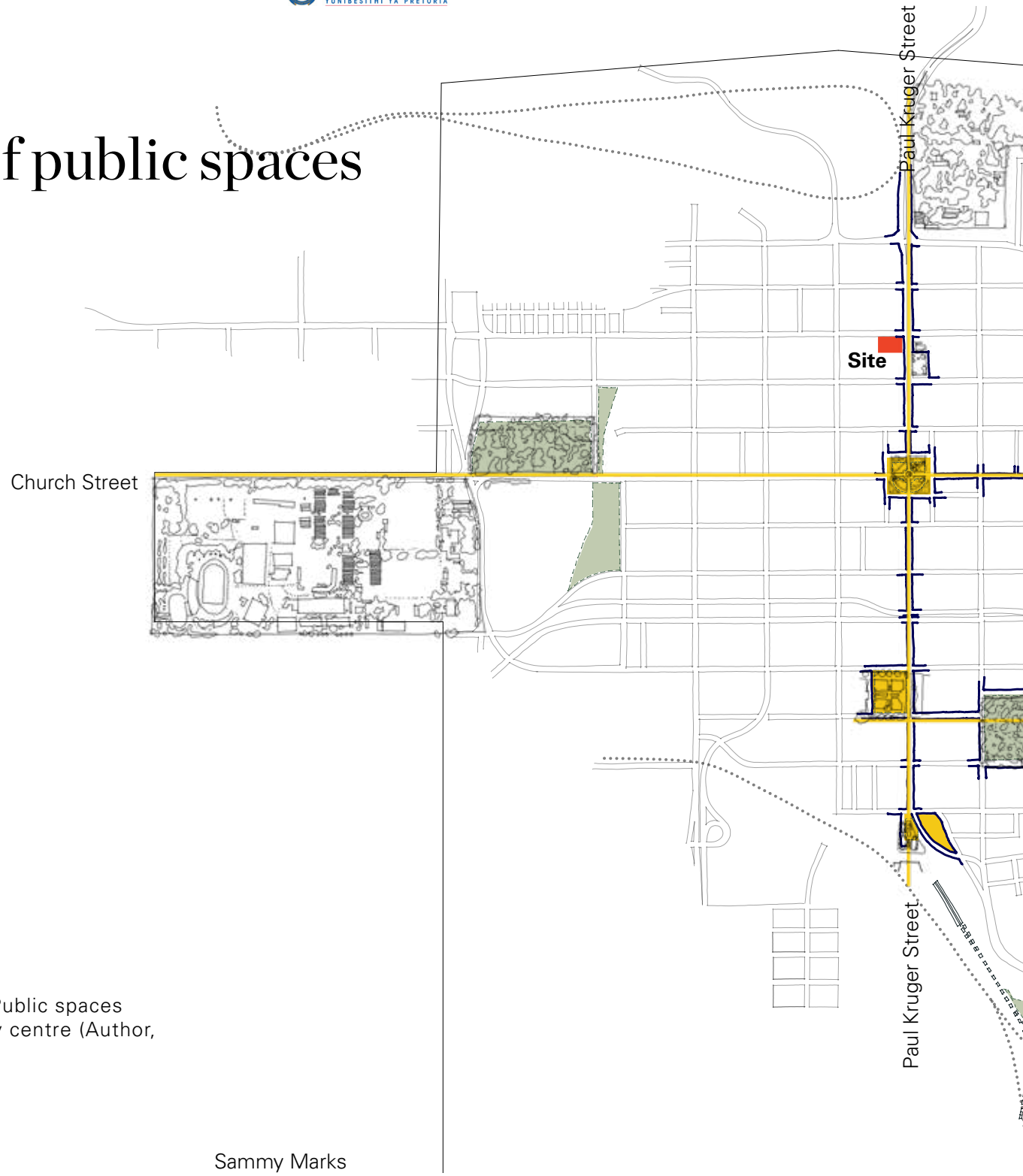
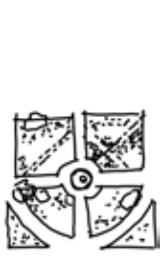



**Fig 44.** (below) Public spaces located in the city centre (Author, 2022)

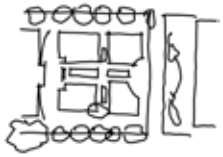

Church Square

Station Square

Sammy Marks Square
Lillian Ngoyi Square

State Theatre

Tshwane House


City Hall

Caledonia Stadium



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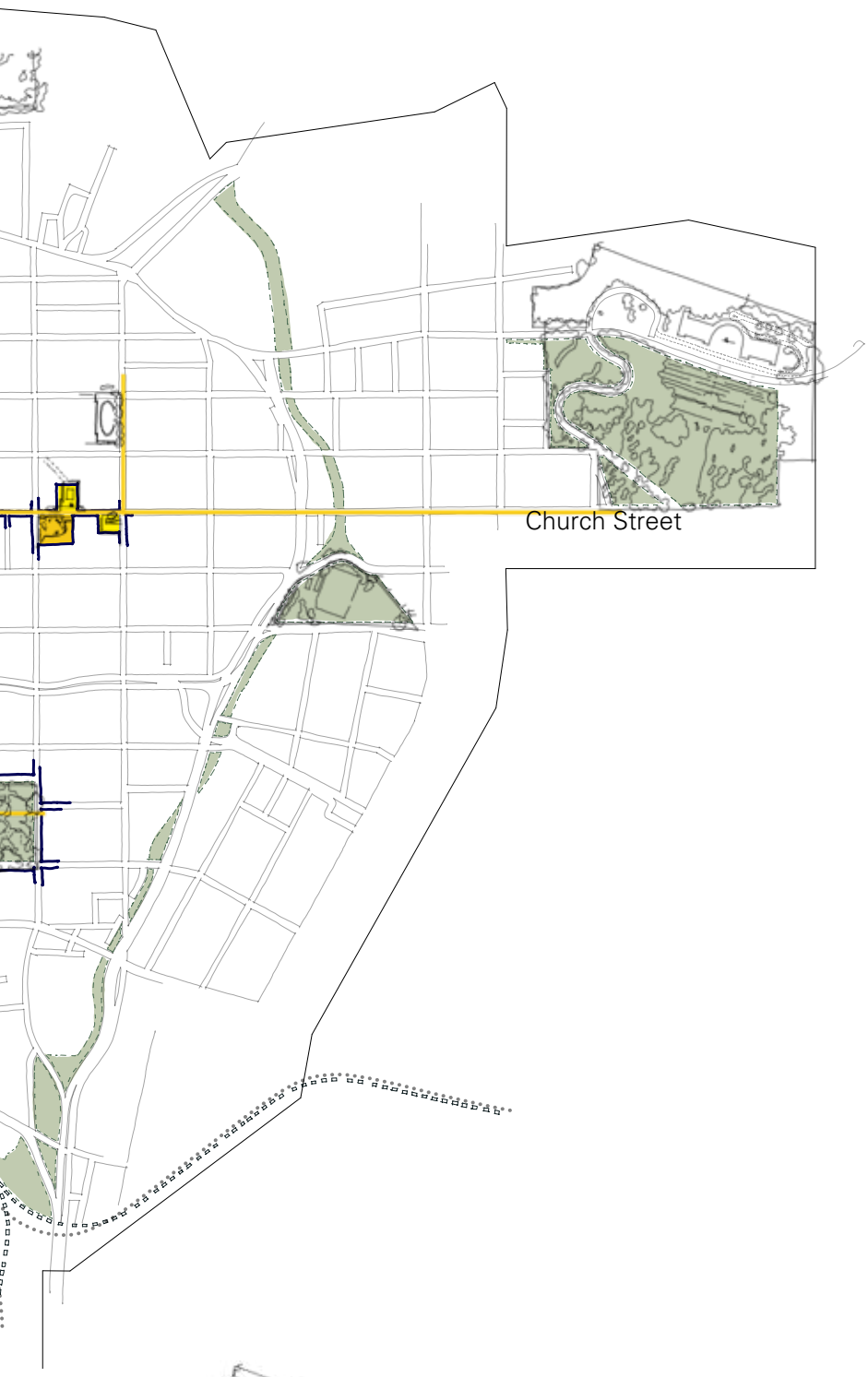


There is an existing family of public spaces which all have their own identities and spatial characteristics. These are predominantly large civic spaces, commemorative squares or parks. The type of public space that is lacking is an 'urban living room'.

**Fig 45.** (left) Family of public spaces and their locations within the city centre (Author, 2022)

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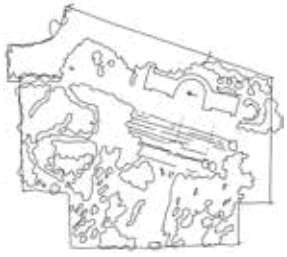

Union
Buildings

Heroes
Acre

National
Zoological
Gardens

Showgrounds

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# Existing land-use

The existing land use distribution in and around the site is largely dominated by national government administration functions. The next most common programme would be commercial, although not at the engaging scale of shop-fronts that create activity; the commercial activity is largely dominated by car dealerships, concentrated along Struben St, with a few shop-fronts along Paul Kruger St. There are a few schools and colleges in the area, Princess Park College is situated directly adjacent to the site to the south. There are also several car parks (this being the current programme of the site itself.) The mix of programme within the context allows for very little urban interface and activation of the urban realm. A programme that has a strong connection to the city, succeeds in inviting people in and being a catalytic activity generator is needed.

**Fig 46.** Existing land-use map (Author, 2022)



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1. Panagos Building
2. Department of Transport
3. Education
4. Government Printing Works
5. Department of Correctional Services
6. Telkom West Towers
7. Pretoria Synagogue
8. Motor Sales
9. National War College
10. SITA
11. National Library
12. Department of Basic Education
13. Jansen House
14. Department of Health
15. Ford Auto Dealer

- Education
- Civic
- Office
- Government
- Residential
- Commercial
- Museum
- Vacant

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# Interface

The edge interface analysis, which looked at edge conditions, the concentration of activity and where entrances to buildings are (and how public these entrances are) revealed that the buildings to a large extent function in the same way as the city block does.

There are minimal portions of active street interface, and the city block is largely impenetrable to the average citizen. The public realm does not extend beyond the property boundary and is confined to the pavement.

There is a strong correlation to be found between the presence of active edges, the concentration of activity and the vibrancy of the public realm within the block. Where there are shopfronts, or where the building edge reaches out to engage with the street, there is an immediate increase in the quality of the street and the level of positive activity.

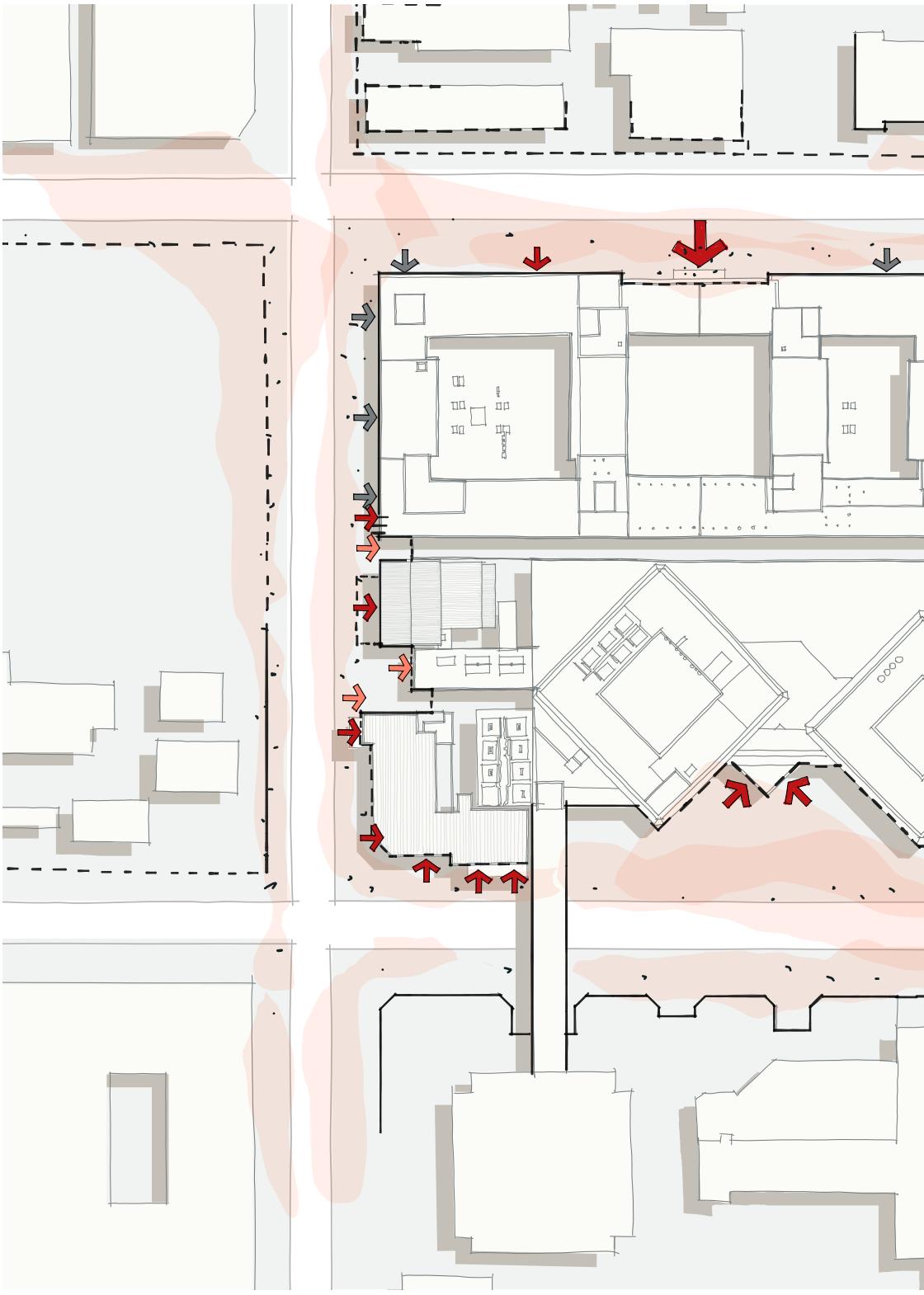

**Fig 47.** Activity intensity and entrances around the site (Author, 2022)



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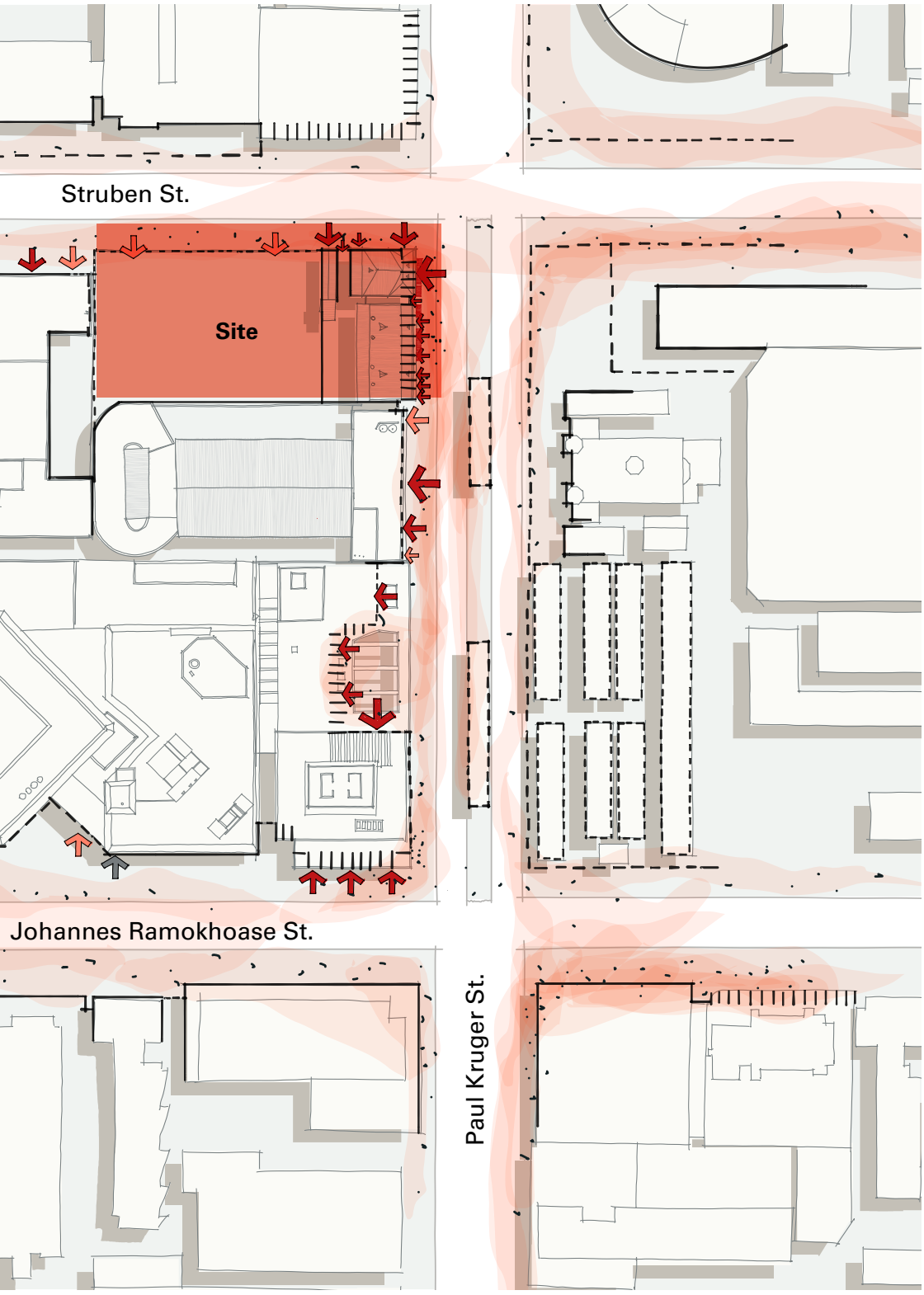


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# Movement

The site sits at the intersection of two main transport arteries within the inner city. The predominant vehicular route lies along Paul Kruger St., the major north-south axis within the city. This connects the site closely with the centre/ heart of the city.This major road is a two-way road. The surrounding streets are one-way traffic directed and do not allow as flexible an access to the site itself or the surroundings. This illustrates how, in the current condition, there is what appears to be a separation between different activity realms on the street.The activities and people operate adjacent but seldom interact.

The location of the BRT transport station, which is directly across from the site along Paul Kruger St., brings in increased foot traffic around the site. However, there is nothing to hold them there or to persuade them to linger. This slight increase in traffic has attracted informal traders along the pavement opposite the station. However, the pavement which has been narrowed to accommodate the station on the road median has impaired the quality of the pavement and thus the public space along this stretch of street. This will need to be improved if Paul Kruger St. is to be a successful major axis within the city that attracts activity.

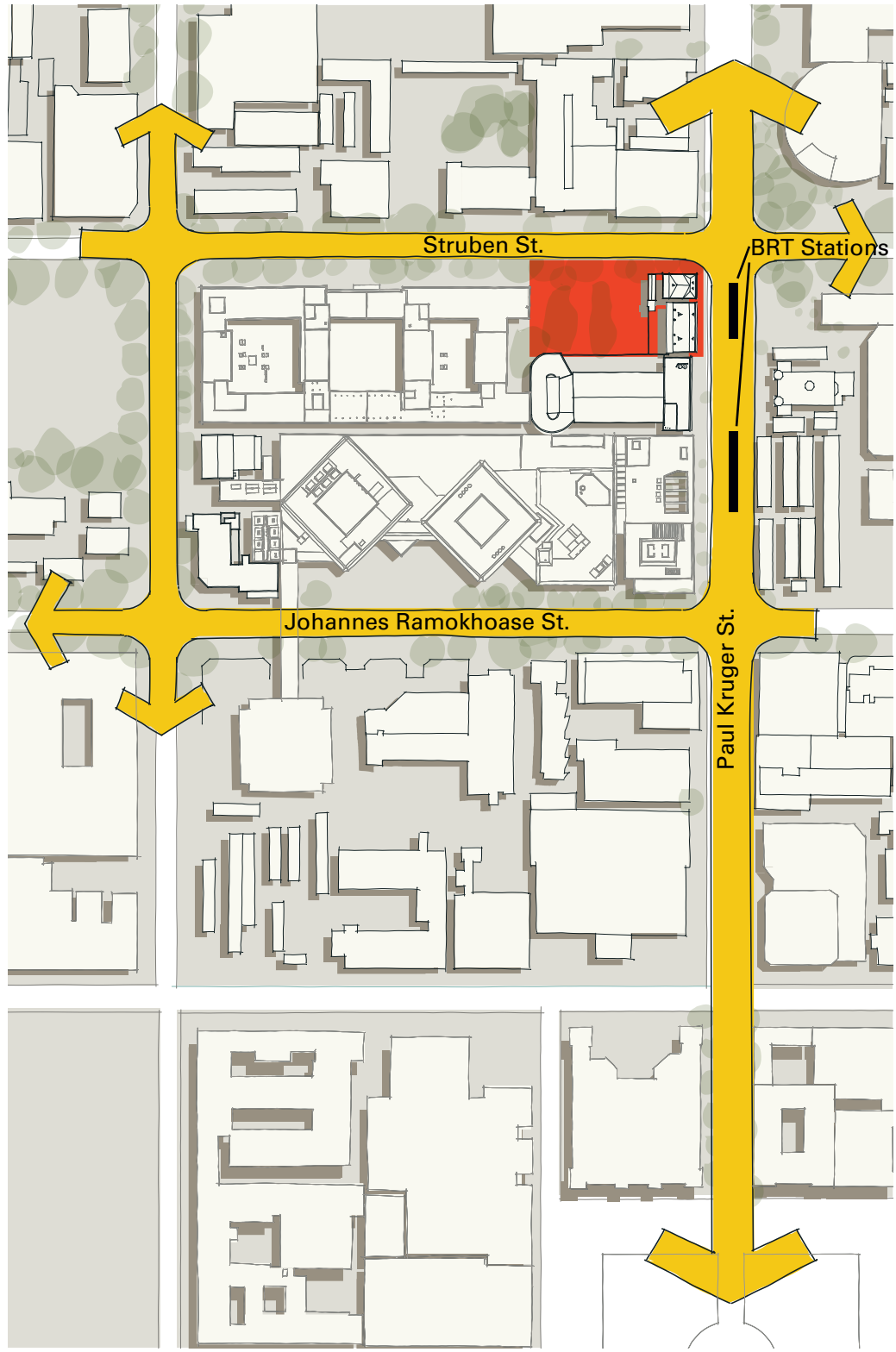


**Fig 48.** Vehicular movement (Author, 2022)



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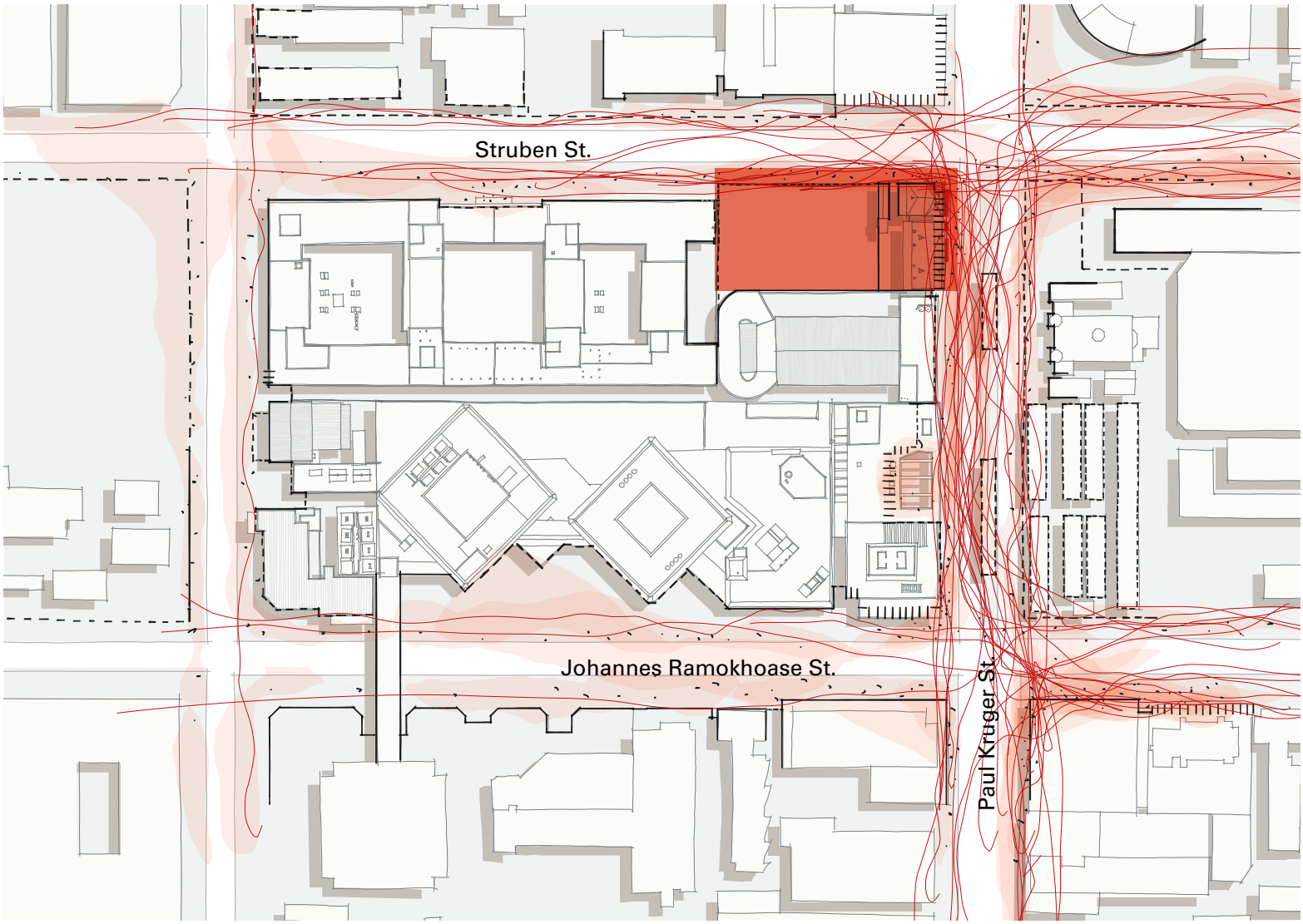


**Fig 49.** Pedestrian movement routes and intensity (Author, 2022)

The pedestrian movement is predominantly concentrated along Paul Kruger St. and, to a certain extent, along Struben St and Johannes Ramokhoase St. from the west where there is taxi activity along the road adjacent to the National Library.

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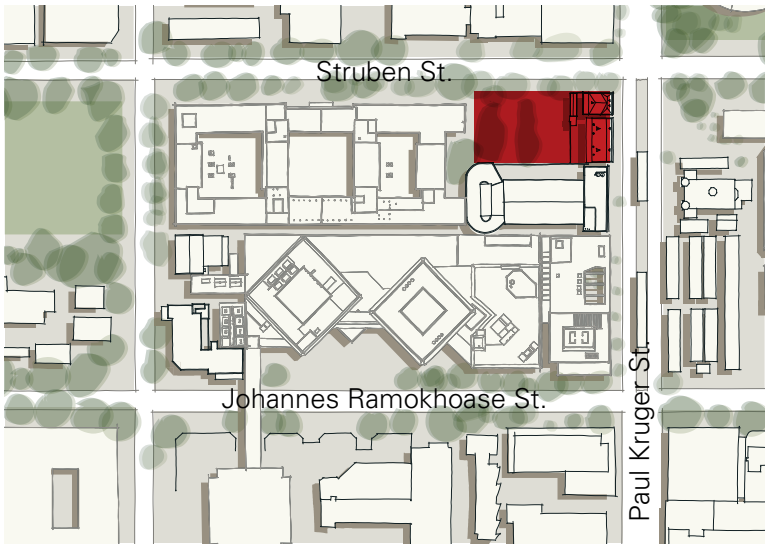
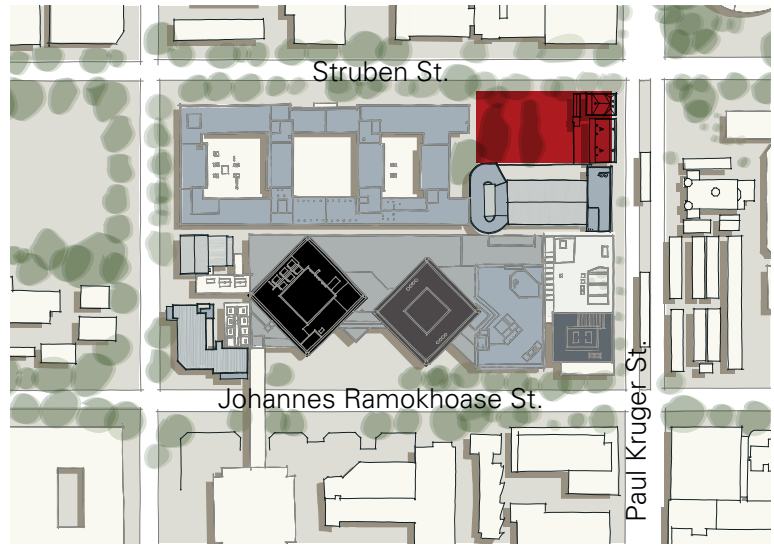



## Green infrastructure

The green infrastructure is limited with this area of the city. Trees lining the east-west roads are well established and help successfully soften and define the urban edges. The landscaping along Paul Kruger St was removed to accommodate the widening of the road for the central median where the BRT stations are located. This can be reintroduced carefully to create a more humane public axis. The site itself contains several trees that should be preserved.

**Fig 50.** Diagram showing location of existing green infrastructure (Author, 2022)




## Height Density

The site holds quite dramatic contrasts in building scale, ranging from the Telkom Towers which reach 22+ stories to the Panagos Buildings on the site which are two stories tall (City of Tshwane, 2015: 45).

**Fig 51.** Light to dark shading of buildings indicates the scale of buildings from small to very tall (Author, 2022)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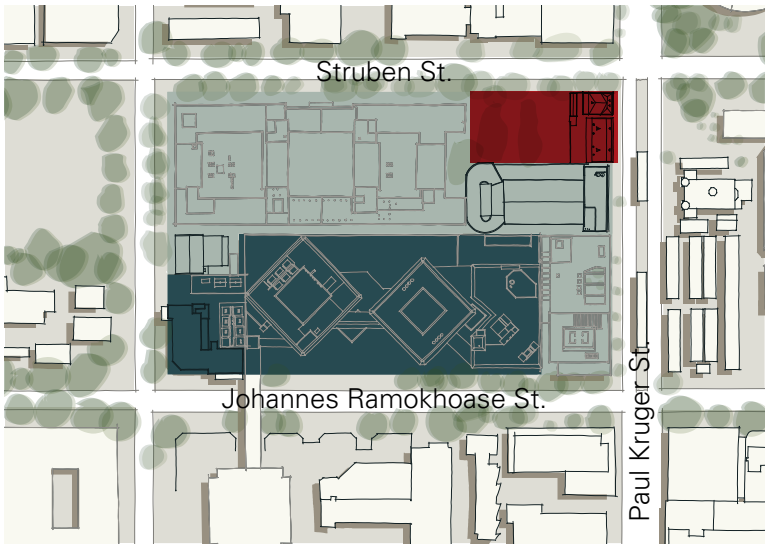
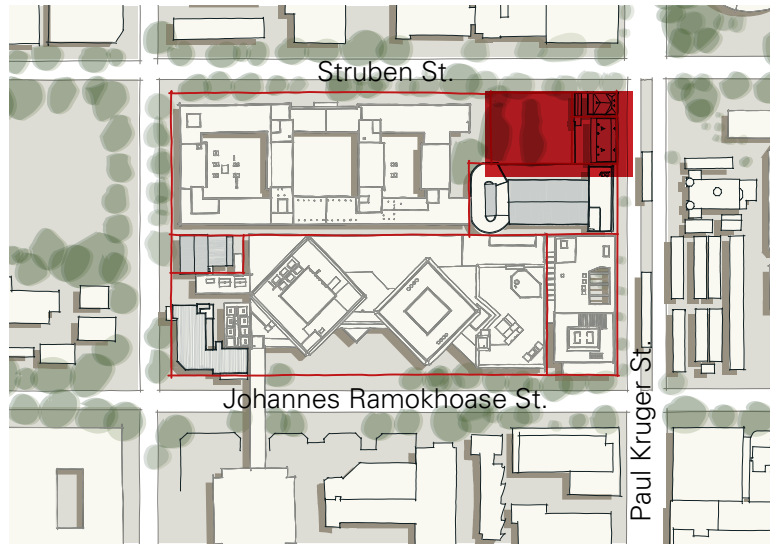



## Ownership

Ownership is split between private land ownership (represented in dark green) and parastatal ownership (represented in grey green) (City of Tshwane, 2015: 45).

**Fig 52.** Diagram indicating the distribution of landownership (Author, 2022)




## Erf Boundaries

The erf boundaries from the Tshwane cadastral information shows how many buildings build right up to the property line. This achieves a more direct relationship with the street, especially paired with activated street frontages.

**Fig 53.** Diagram indicating the boundatries of land portions on and around the site (Author, 2022)

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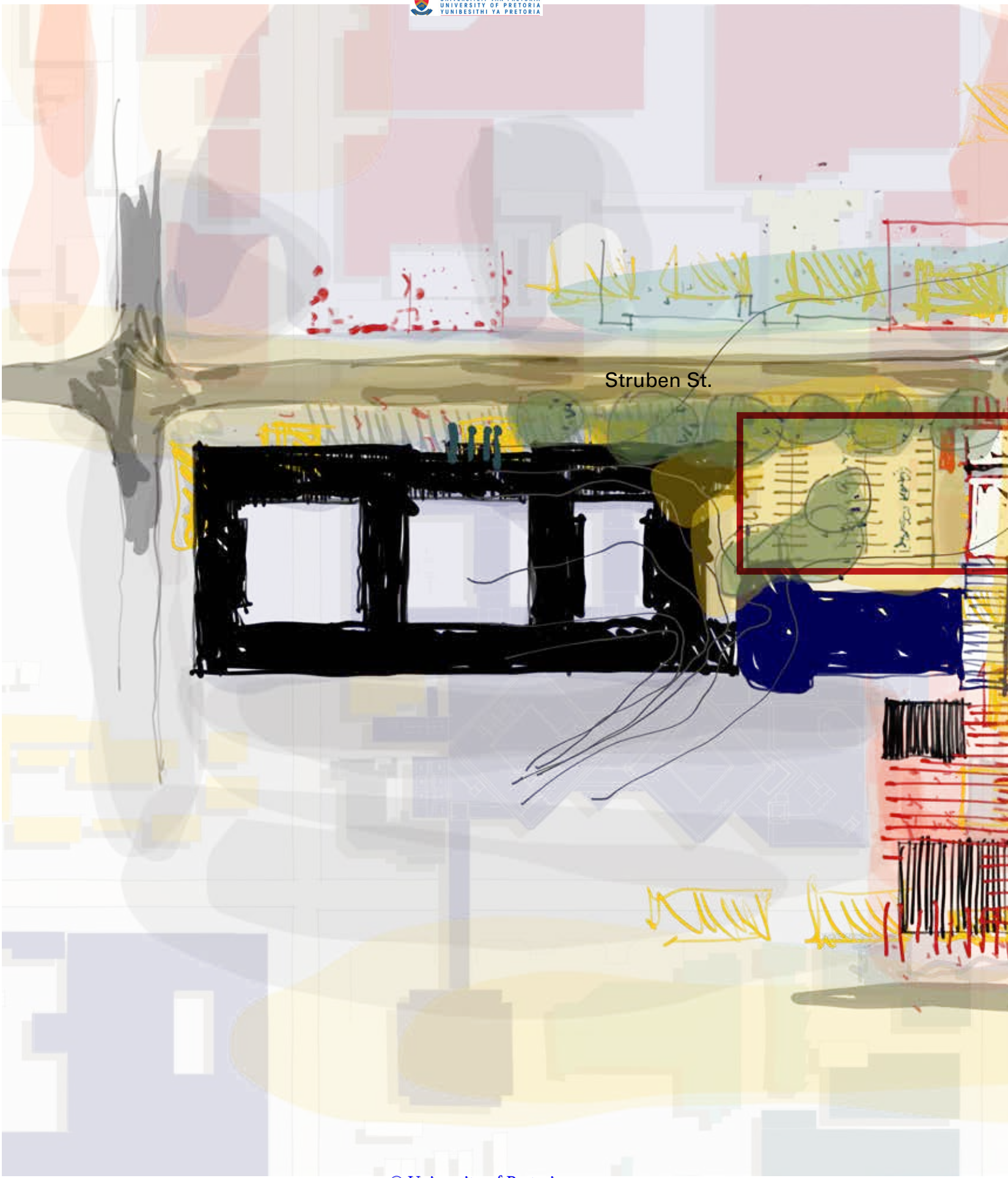



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# Analysis interpreted

Once I had completed the formal site analysis, I went through an exercise of translating this information graphically in a way that would help to generate an architectural response. This diagram (Fig 52.) illustrates this gestural interpretation of the site analysis layered over each other to create an impression of the site and context to respond to. This revealed the extent to which the government administration buildings dominate their context. They are largely responsible for shaping the urban environment in this portion of the city. These national government administration department buildings tend to have very little interaction with the city and the space around them is devoid of activity due to this poor interface.

The architectural typologies of these administration buildings are also quite insular and dominating in scale. The urban fabric along the northern edge of Struben St also requires reinforcement as the programmes and architectural form do not have a strong and engaging street presence.

The corner of the site and the heritage buildings have enormous potential to influence this northern portion of Paul Kruger St and the major north-south axis.

**Fig 54.** Consolidated analysis diagram (Author, 2022)

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## 6. 3. Micro Context

# Site Situation

The site includes two existing buildings that represent two very different points in time and illustrates how architecture's attitude of relation to the city changed dramatically. The interesting potential lies in how adding a new layer between them could result in changing how they relate to their context and each other. The two buildings are both part of a narrative of occupation within the inner-city. The Panagos building being part of the narrative of the first settlers in the inner-city, not directly linked to power, however they are an expression of possession of land in setting up an independent ZAR. The modernist Forum building, which lies adjacent to the site to the west, relates to the language of control of the apartheid regime. The style of the building is representative of the language of expression chosen by the National Party to express their power.

There is an open carpark directly behind the two buildings that borders the Forum building which houses the Department of Transport. The Forum building is in the modernist international style and can be dated back to around the 1960's based on aerial photographs of the inner-city. It is a typical example of the typology of impersonal government administration building. The building does not feel monumental, necessarily, but rather bureaucratic and cold – institutional and impersonal.

The heritage significance of each of the existing buildings is detailed as part of the heritage analysis in Section 4.6

The project aims to connect or respond to the frontage of the Forum Building to the left of the open plot also fronting Paul Kruger St.

**Fig 55.** (left) Aerial view of the site extent: shown in orange, existing heritage Panagos buildings in pink. (Author, 2022)



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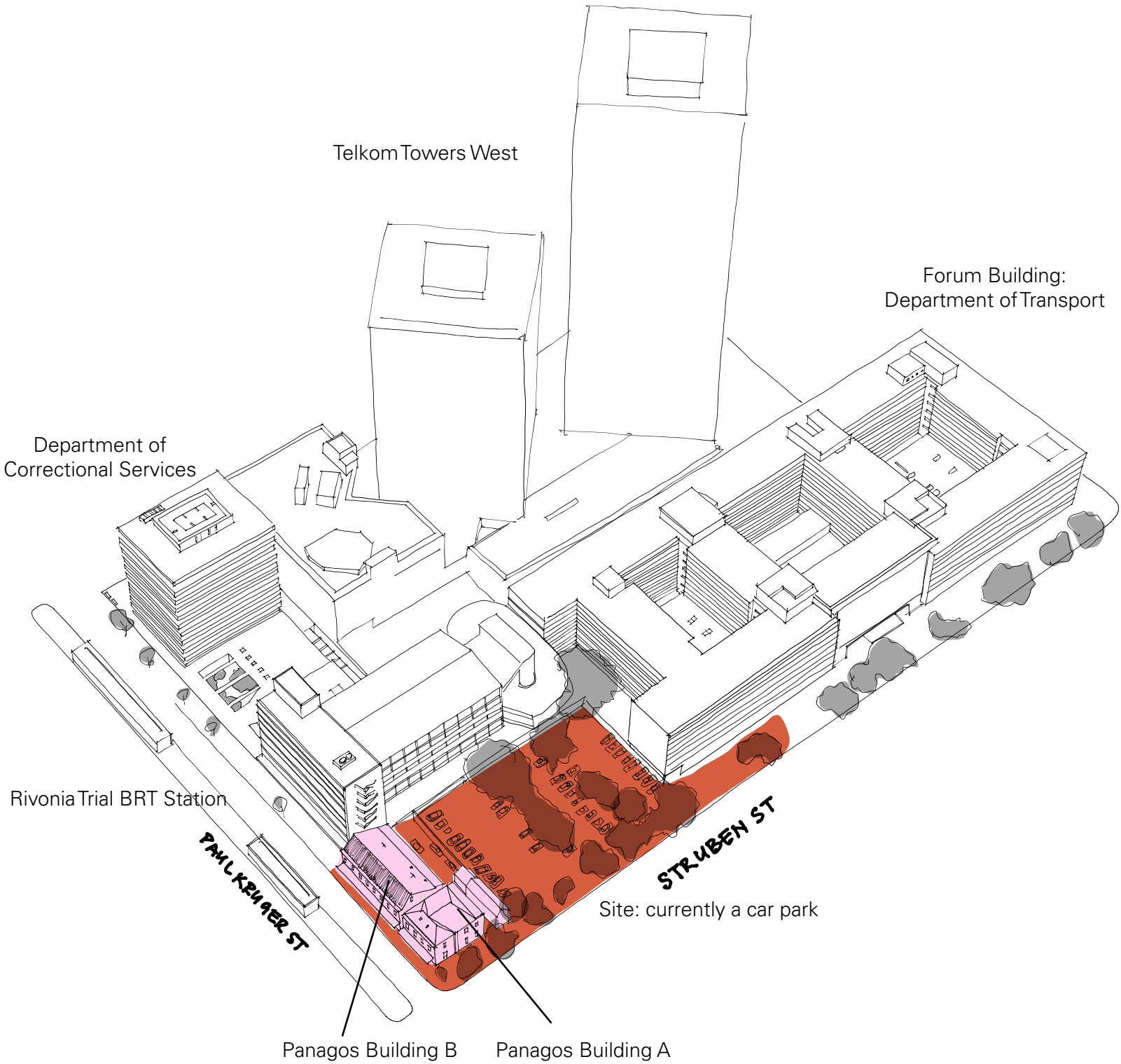


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## 6. 4. Heritage

# Story of place

### Situating place within greater narrative

While the site has not been written about extensively, the historic development of the site can be extrapolated from the history of the city development itself, archived historic city maps and aerial photographs. These sources illustrate how the site, and the Panagos heritage buildings, have been part of the city's history almost since the foundation of Pretoria. Located two blocks north of Church Square, the historic centre of the city, the site is located within one of the very first city blocks that would have been laid out. The Panagos buildings were constructed during the 1880s, not long after the first settlers arrived in Fountains Valley in the 1840s. Over time, the nature of the inner-city shifted from small-scale residential and pastoral land to predominantly government and commercial activities. With this transition came a dramatic shift in the scale and architectural typologies found in the city. The Panagos buildings are the remnants of a previous era within the city – when this site would have had a low-scale, residential character. These buildings, due to their mixed-use nature, have been surprisingly resilient despite being engulfed by their larger neighbours.

The Panagos building is actually two buildings that sit adjacent to one another and front Paul Kruger St, previously Market St. The buildings date back to the 1880s, with the official construction date differing slightly in different accounts – suggesting that the buildings were constructed over time (Meiring, 1980: 44; The Heritage Portal, 2018). The buildings were built as shops on the ground floor and residential accommodation above. The buildings are remnants of the everyday architecture from the ZAR. The buildings were designed in such a way that the street facades read as one continuous facade despite them differing in their structure (Hart, 2018: 11). The northern corner building is constructed with a first floor made up of timber joists supported on steel beams. In contrast, the larger building to the south has a concrete first floor slab construction. This structural difference suggests that the northern building was constructed first. The uniqueness of these buildings is that they were designed as mixed-use buildings with retail situated on the ground floor and residential accommodation above (Hart, 2018: 12; The Heritage Portal, 2018). The corner building was originally a general store, built by general dealer Hendrik Zagt, of Dutch descent. The buildings were bought by Cristoe Panagos between 1920 and 1930. They acquired their name from the Panagos family – which were the owners until quite recently. The properties are now owned by the Methodist Church of South Africa and the upper floor of the corner building functions as a church.

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**Fig 56.** Photograph of the Panagos Buildings, date unknown (The Heritage Portal, N.d.)

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Panagos Buildings

Site + Context History

Timeline

Historical context

Important city buildings

1855 – 1880

Founding of the town

Property part of M.W. Pretorius Estate (-1860)
Land ownership passed to H.J. Shoeman (1861)

1880 – 1900

Historic settling of the town
Church in church square
small houses, churches, mar
annexed by British (1899-190

Buildings built by merchant
(1880- 1897) constructed ov
Building occupied by British
military hospital store (circa

Panagos building (1880-189
Ou Raadsaal (1892)
Transvaal Museum Building
Palace of Justice (1898)
Pretoria Synagogue (1898)
Jansen House
Nederlandse Bank Building
Old Govt Printing WWorks (

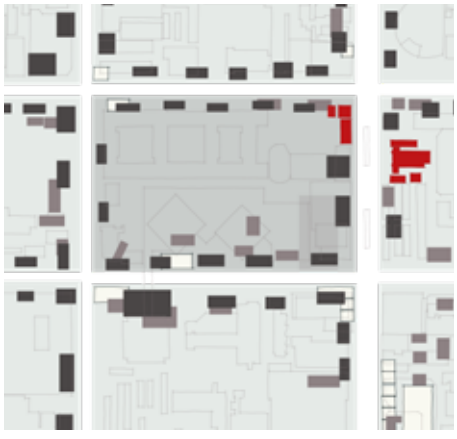

**Fig 57.** Original context (Author, 2022)



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0)

(1892)

(1897)
1895)

rkets
02)

Union Buildings (1913)
Pretoria Station (1910)
Queen Street Mosque (1928)

City under British occuation

Pretoria City Hall (1926-1935)

Town structure solidifying and many prominent civic and new commercial buildings built

## 1900 - 1930

## 1930 - 1950

Hendrik Zagt
er time.
Military for
1900)

Ownership passes to Mr Hollebrands (1916)
Erf 102/C Bought by Cristoe Panagos 1920
Erf 102/R Bought by Cristoe Panagos (1930)

**Fig 58.** (The Heritage Portal, N.d.)

Alterations completed by V.S. Rees-Poole (1940)
Alterations completed by V.S. Rees-Poole (1946)
Alteration by unknown architect (1955)

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## Panagos Buildings

## Site + Context History

## Timeline

### 1950 - 1970

**Historical context**

Modernism is embraced in Pretoria,new commercial, residential and government buildings built

**Important city buildings**

Pretoria Synagogue transformed into a court (1952)

### 1970 - 1990

**Historical context**

High density, large scale late-modern office buildings replace

**Important city buildings**

Reserve Bank (1988)
State Theatre (1981)
Schubert Park (1976)
Volkskas Tower (1976)
Sammy Marks

Pretoria Synagogue transformed into a court (1952)

Telkom West Towers built
Department of Health

**Fig 59.** Before the widening of Paul Kruer St (Ashworth, 2008)



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Freedom Park (2007)

New democratic government elected - search for a new architectural expression
Influx of new demographic in the inner city

1990 – 2010

National Library Panagos Buildings ownership is transfered to Methodist Church

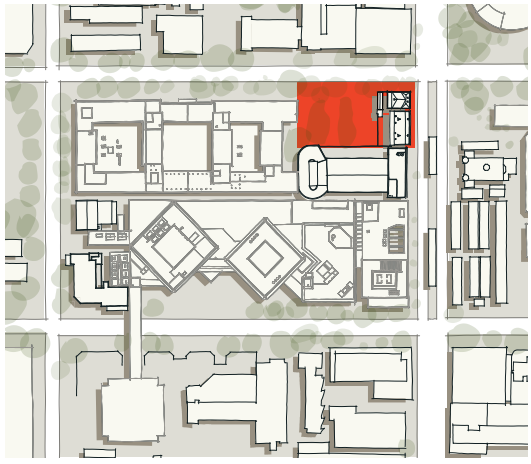

**Fig 61.** Current context (Author, 2022)

Tshwane House (2017)

Extensive informal trade network
CoT 2055 Urban Vision

2010 – 2022

BRT route built, necessitating pavement to be narrowed.
Department of Basic Education constructed

**Fig 60.** Trees removed and pavement cut short (Google Street View, 2019)

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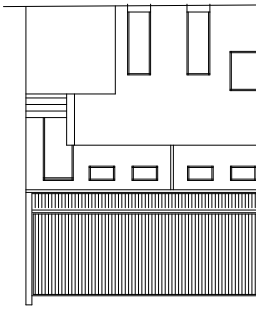
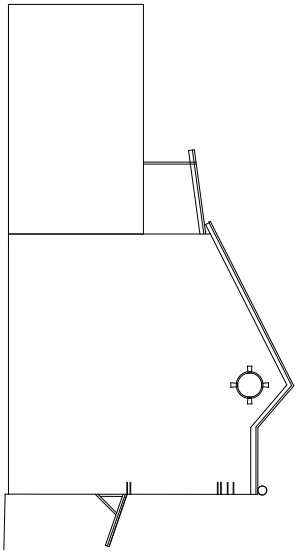
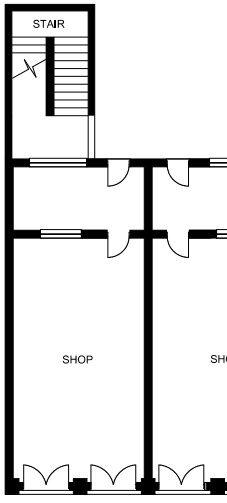
# Panagos building integrated heritage value

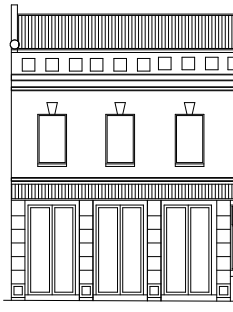
Hart Architects conducted a Heritage Impact Assessment of the Panagos Buildings for the current owners who desire to expand on it. The findings were published on the Heritage Portal (The Heritage Portal, 2018). It was based on this report that I evaluated the value and significance of the heritage on the existing site. Hart (2018; The Heritage Portal, 2018) identified three key categories of significance that determine the value of these buildings.

**Fig 62.** (right) Existing drawings of Panagos buildings (Author, 2022 adapted from Eardley, 2007:32-35 and Hart, 2018: 12)







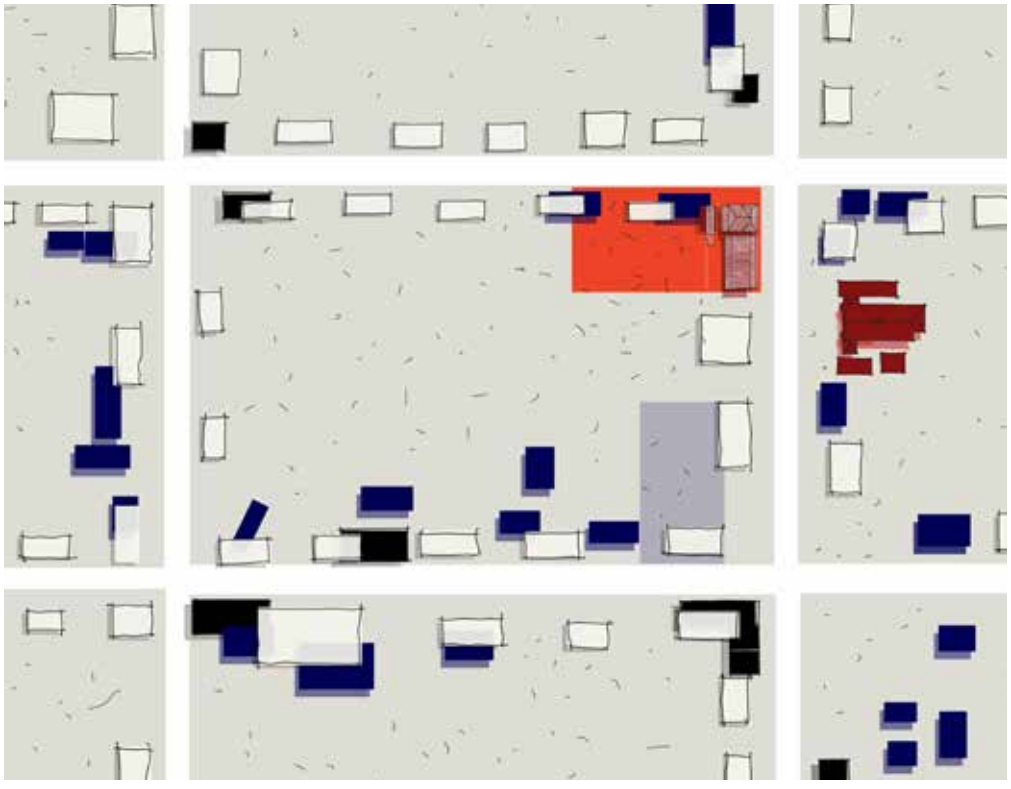


**Fig 63.** (above) Original site and context circa 1880-1900 (Author, 2022)



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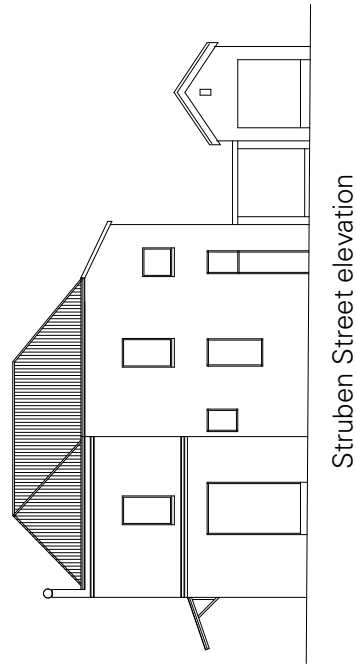
Paul Kruger elevation



Struben Street elevation

## Historical significance

The historical significance of the buildings can be found in their representation of a way of life for the early Pretoria settlers. Additional significance can be seen in the fact that architect V.S. Rees Poole (1883-1965) designed the renovations to the building in 1946 and 1949 respectively. Of highest significance, however, is their mixed-use typology; the building to the north is the oldest commercial building still in use within the City of Tshwane (Hart, 2018: 12)

## Architectural significance

The historic shop-home typology is of great architectural significance, built in a simplified Neo Classical style (Hart, 2018: 11). The northern building originally belonged to a general dealer resulting in the typology of a shop on the ground floor and residence above evolving from a way of life. The architectural style and expression are also of significant within the Pretoria context.

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Cultural significance

The prominent location of the buildings on the corner of Paul Kruger St., which is on an axis with both Church Square and Struben Street, which aligns to the Union Buildings, gives it symbolic significance. It is situated within a precinct that has a rich heritage presence, particularly as it is located across the street from the Pretoria Synagogue where the Treason Trial (1956-1961) and Rivonia Trial (1963-1964) took place.

The Synagogue has been highlighted in the latest 2055 Tshwane Vision (City of Tshwane, 2013) as an underutilised important historical landmark that will be restored and made a destination point along the proposed Government Boulevard. There is also a proposal for a public square (Synagogue Square) to be built adjacent to the Synagogue.

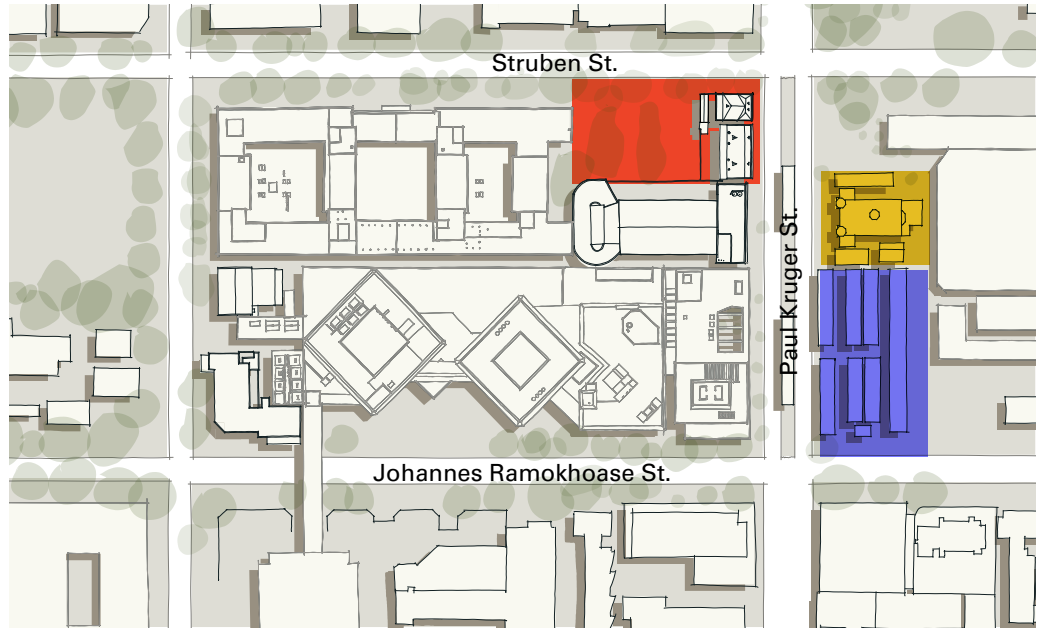


**Fig 64.** (Above) Current context, site highlighted in orange and synagogue highlighted in yellow. Location of proposed new Synagogue Square in blue (Author, 2022)

**Fig 65.** (Left) View of Pretoria Synagogue from in front of the Panagos buildings along Paul Kruger St (Author, 2022)



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**Fig 66.** Panagos Buildong B elevation along Paul Kruger St (Author, 2022)

**Fig 67.** Panagos Buildong A elevation along Paul Kruger St (Author, 2022)

**Fig 68.** Closeup of timber door and facade details (Author, 2022)

**Fig 69.** Panagos Building A north elevation along Struben St (Author, 2022)

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**Fig 70.** West elevation of Panagos Buildings (Author, 2022)

**Fig 71.** Site: Empty parking lot behind the Panagos Buildings (Author, 2022)

**Fig 72.** View of site from Struben St (Author, 2022)

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**Fig 73.** Facade of Department of Transport north elevation along Struben St (Author, 2022)

**Fig 74.** Department of Transport north elevation along Struben St (Author, 2022)

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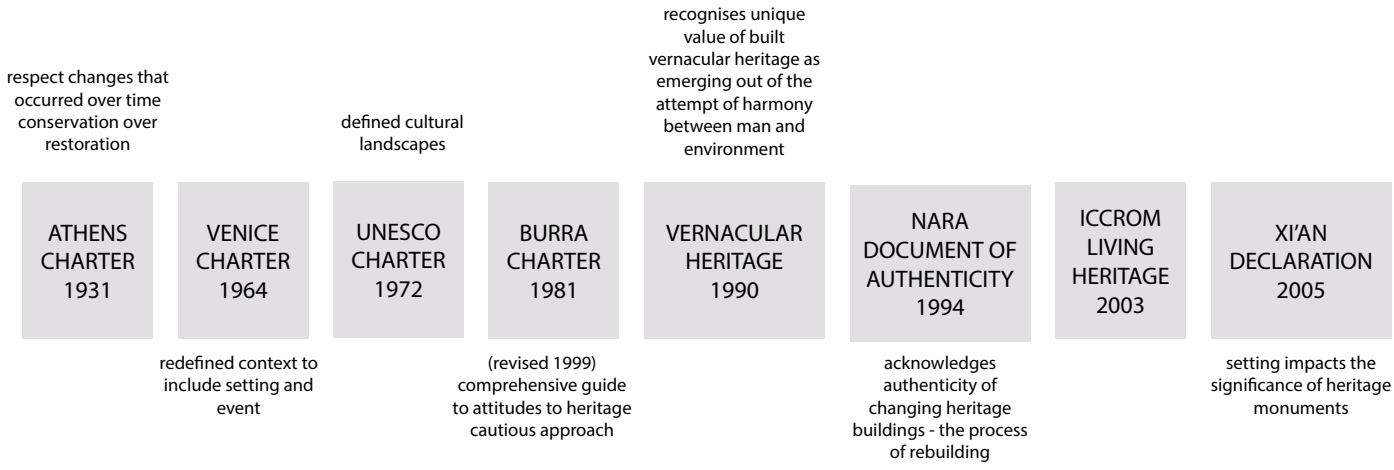
# An approach to heritage

The recommendation in Plekke and Geboue (Le Roux, 1991: 65)is for the buildings to be preserved and be given national monument status.

I agree and disagree with this recommendation. The very strength of these buildings has been their continued use and contribution to the city. They have already undergone a number of renovations as they have adapted to new tenants and programs. To memorialise the buildings would freeze them in time, they need to continue to contribute to the urban fabric of the city through their continued participation in everyday activity. This is why they survived the development around them. So the question became how to preserve cultural heritage without memorialising the buildings. Another very important question is how to deal with the contested nature of their heritage. They are after all a remnant of the origins of colonial occupation in Pretoria and their preservation is a something that needs to be considered carefully. That they have value is undeniable but acknowledging their value doesn't necessarily dictate how they must be approached. The determination of the value of heritage is not an objective action, it is heavily influenced by the politics and culture of the time (Barker, 2020). Current heritage discourse and approaches in South Africa closely follow the Burra Charter which is the most comprehensive charter that exists. One of the most significant edicts of the charter is to do as much as is necessary but as little as possible; it is a cautious approach. There have been many heritage charters since (see Fig ?) that have added to the definition of heritage and provided further guidelines and definitions as to how to approach heritage. This attitude discourages dramatic adaptions of heritage for the fear that it will diminish their historic value.

Clarke, Kuipers & Roos (2019) pose that "dealing with the history of a place is not about the past, but about the future, projected from the present. Adaptive reuse as strategy remains challenging in the South African context, where the past has bequeathed the present with a contested and burdened heritage." Adaptive re-use is however a powerful mechanism for re-storying heritage so that it can represent multiple narritives and become a valuable participant in the future resilience of the City of Tshwane. Demolishing something old to rebuild new is not as powerful as subverting something old that isn't portraying a particular problematic expression and reinterpreting the story that it tells – this is what I am trying to do with my intervention





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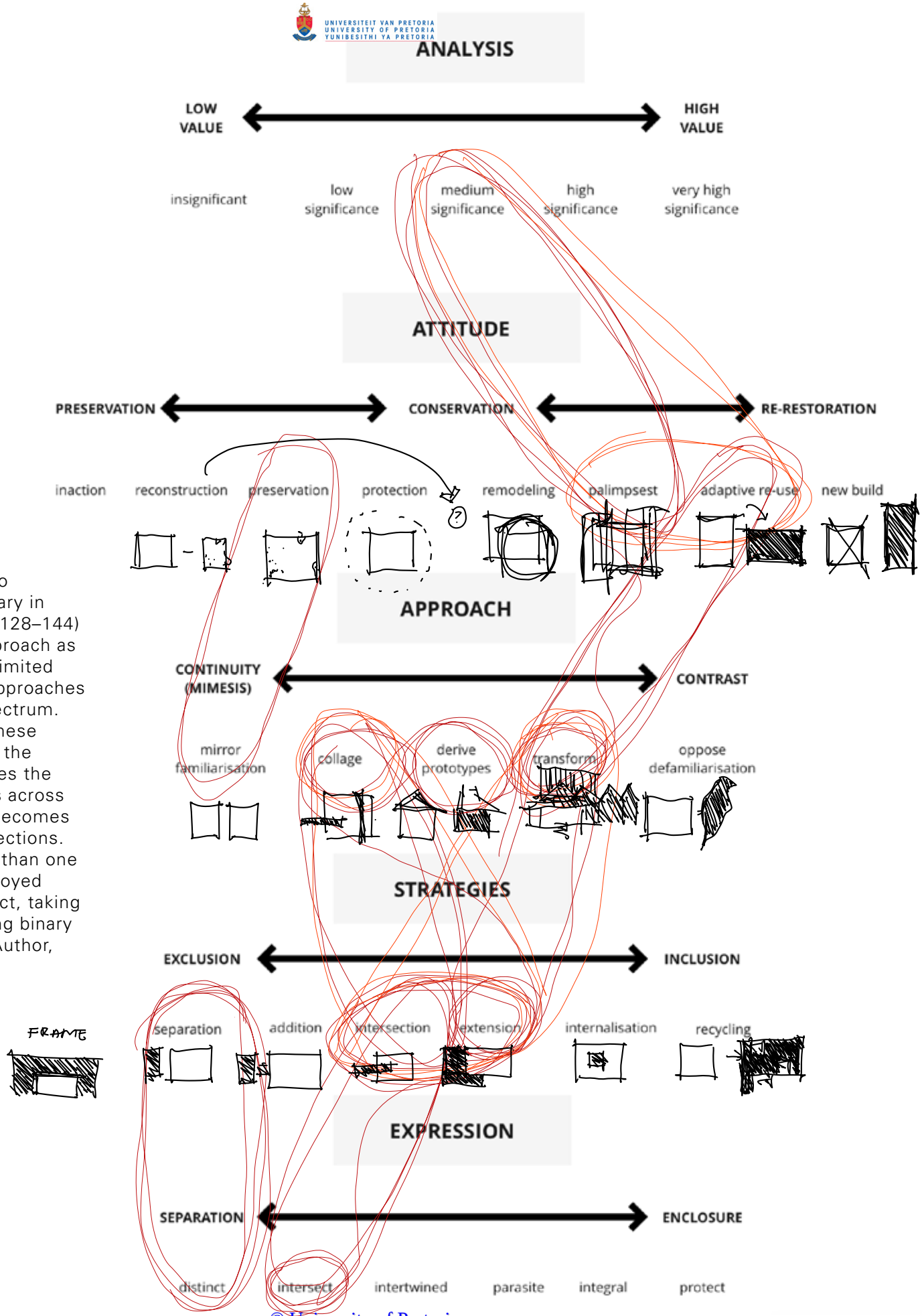


**Fig 75.** Approaches to heritage are often binary in nature. Barker (2020: 128–144) proposes a scaled approach as an alternative to this limited approach, exploring approaches and attitudes on a spectrum. This diagram shows these scales as is set out in the article but also explores the possible interrelations across spectrums so that it becomes a spectrum in two directions. It explores how more than one approach can be employed within the same project, taking the intention of limiting binary approaches further. (Author, 2022)

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6. 6.

# Typological Study

The site analysis revealed that certain buildings around the selected site achieve a better relationship to the street and encourage interaction and an openness compared to other buildings (shown in activity and entrance diagram fig?). To better understand how this interaction is achieved, a typological study was conducted to understand the strategies that are found in different typologies that influence the success of positive urban interaction within the city fabric.

Select typologies that exist within the City of Tshwane were identified and their relational interfaces were analysed in an effort to better understand the existing spatial relationships that the new intervention would be responding to. The governmental (civic and administrative) were based off of real-life examples within the city centre that are representative of typologies. The residential, mixed-use and informal typological analyses are not based off one particular building but a combination of a number of buildings that can be found condensed into one representative typology to assess.

## Civic

Civic architecture is intended to have a more interactive relationship with the public realm within the city. The functions contained within civic buildings are more public in nature despite the typologies being relatively inaccessible. They are placed on plinths and removed from the public realm with secured entrances that do not allow interaction.

City Hall (1926-1935): This building, at the time of its construction, was probably incredibly successful. It creates the right gestures by framing public space in front of it. However, this is now fenced off and an unresponsive edge that turns the buildings functions inwards. The plinth that it is placed on does create an impression of importance and power.

Tshwane House (2017): A contemporary municipal government civic building, Tshwane House is the current democratic government's attempt to create a new face for local government within the city. The building is supposed to serve as the new democratic headquarters of the City of Tshwane (Building & Decor, 2022). The reality is experienced as a three-metre-tall wall on three sides of the city block, a fenced off landscaped area that is inaccessible and the urban veranda and entrance courtyard, which is intended to be a welcoming urban edge, has been fenced just above the steps and so is devoid of activity and creates an exclusionary space.

## Administrative

Government administration buildings essentially exist as an office tower typology within the inner-city. These buildings house national government department administrative head offices. The edge conditions are characterised by a single entrance that does not fully engage with the street and long stark stretches of blank façade along significant street edges. The typologies are insular and disengaged from the everyday of the city; their functions internalised with no outward interaction. There is an abrupt, uncomfortable transition from a very public condition to a very private one with no mediation between the two spatial territories.

Forum Building, Department of Transport (estimated date 1950-1965): Situated to the north of Church Square, along Struben St, the government administration building was built in the modernist style sometime between 1950 and 1965 – when modernism was the architectural expression of choice for the National Party during apartheid.

Civitas Building, Department of Health (1971): Government administration building built originally in 1971 with significant alterations made to the façade and an additional tower constructed around 2007. The alterations were made by the current democratic government and the building is more exclusionary today


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in democratic South Africa than at the time of its original construction. The 31 stories are a dominating monument within the city centre, a classic interpretation of power in architecture.

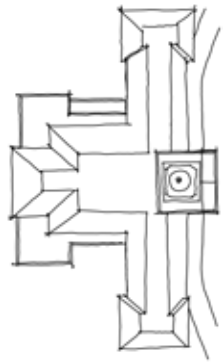
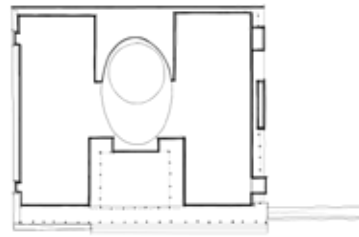
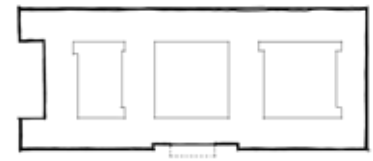
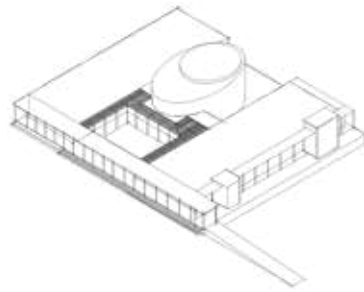
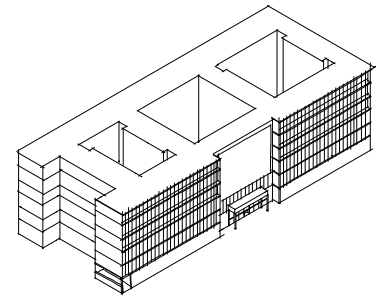
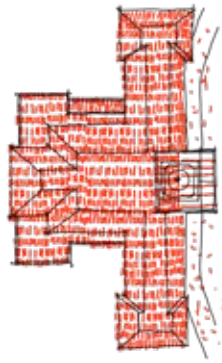
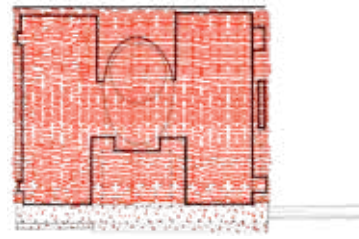
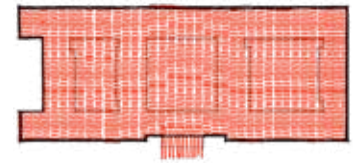
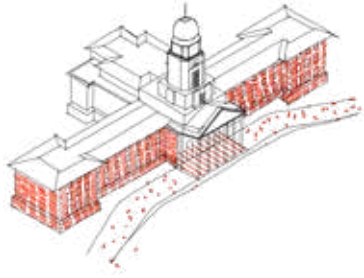
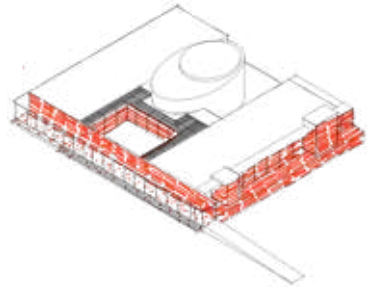
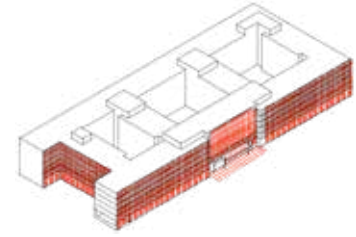
Government buildings are impenetrable, civic or administrative, although the administrative typology is more exclusionary than the civic typologies present. These typologies are expressions of an attitude of control, the question is how to subvert this language and develop a typology that expresses the state of transformation and democracy

Public

Private & inaccessible

Semi-private

In-between / reaching out

| Civic | Civic | Administrative |
|---|---|---|
|  |  |  |
| |  |  |
|  |  |  |
|  |  |  |
| Pretoria City Hall | Tshwane House | Forum Building Department of Transport |

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| Administrative | Residential Apartment | Residential House | Mixed Use |
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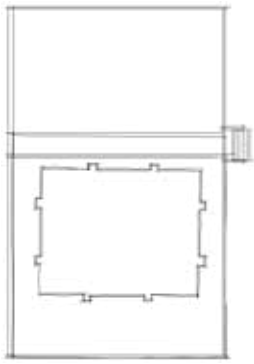
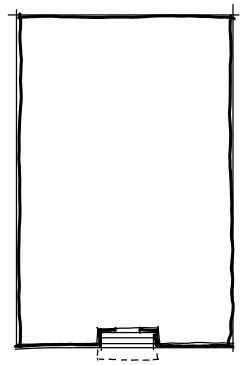
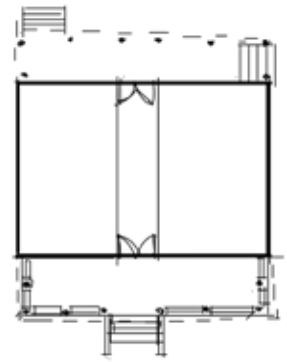
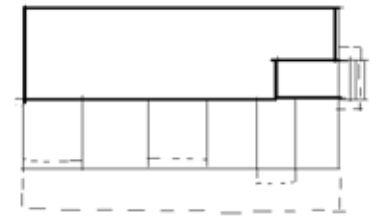
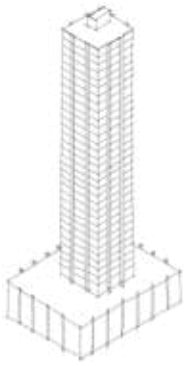
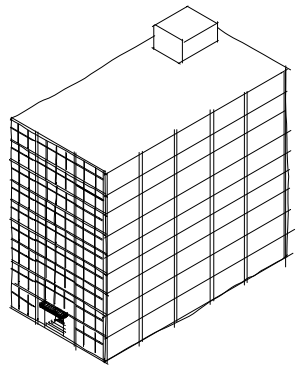
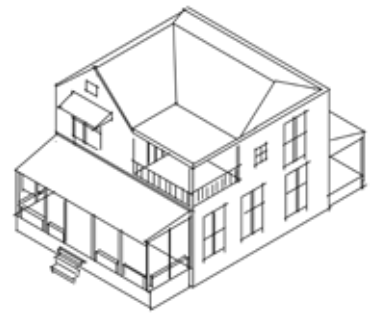
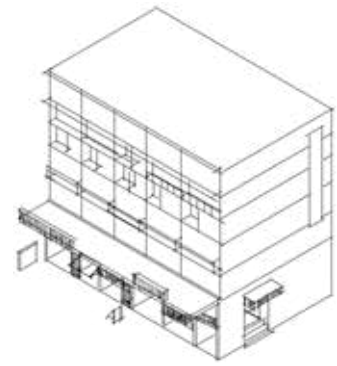
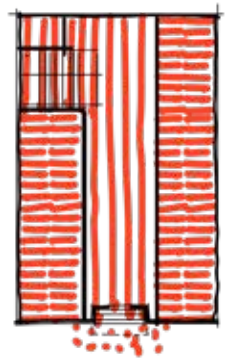
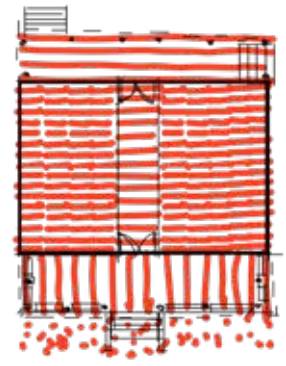
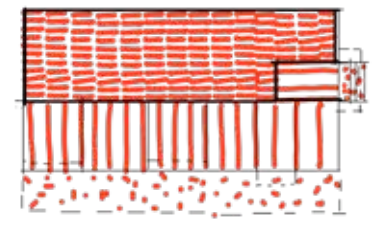
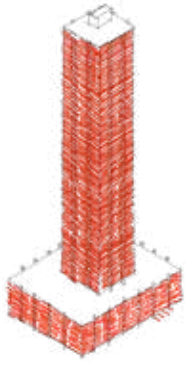
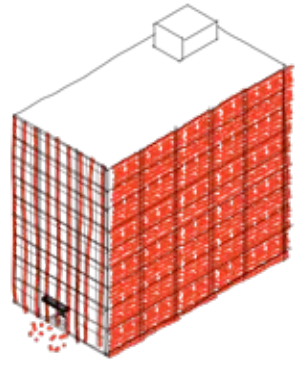
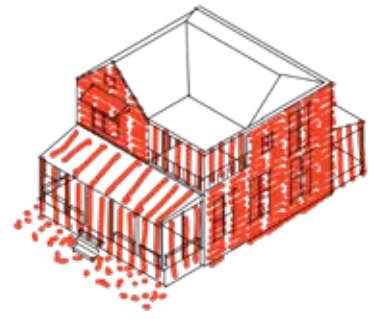
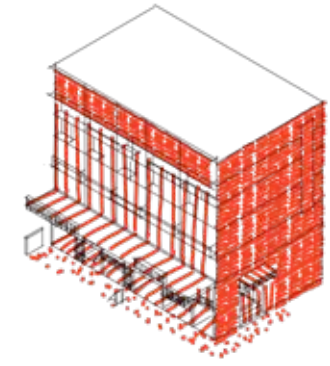
|  |  |  |  |
|  |  |  |  |
| |  |  |  |
|  |  |  |  |
| Civitas Building Department of Health | Typical apartment block | Typical residential house | Typical example of residential and shops on ground floor |



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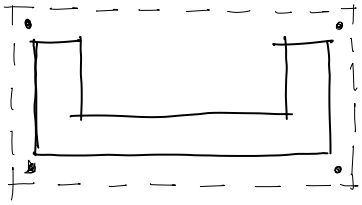
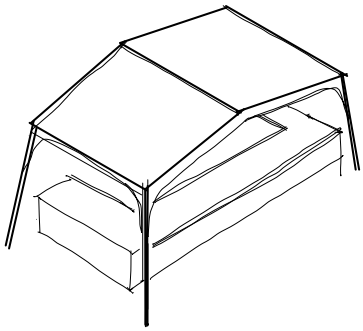
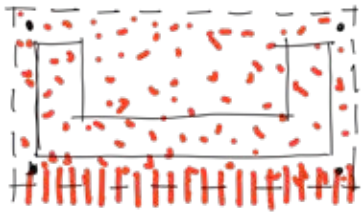
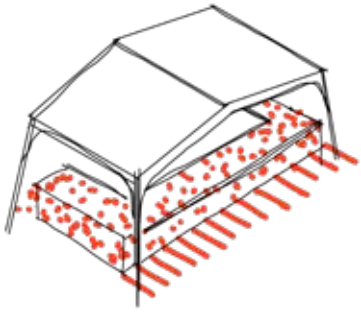
## Informal









Informal trading stall

I looked at other typologies within the city briefly to gain clues as to how other spatial typologies interface with the city.

## Residential

Residential apartment block: This typology is largely less intimidating and has more engagement with the city. The public realm extends to the entrance area where people can meet or have incidental social exchanges.

Residential house: An older, freestanding house typology with a veranda is typical in the City of Tshwane. This typology is friendlier to its neighbours and the street; the veranda acting as the mediating zone between public and private.

## Mixed Use

A mixed-use typology engages directly with the street and the public realm, reinforcing and activating the street and, by extension, the city through an active façade interface. Accessibility extends beyond the boundary line, drawing people in rather than past, creating moments to interact.

## Informal

Informal traders' stalls are the most accessible typology. They are approachable from any side and are positioned to have the strongest interface with urban dwellers, inviting people to pause and engage.

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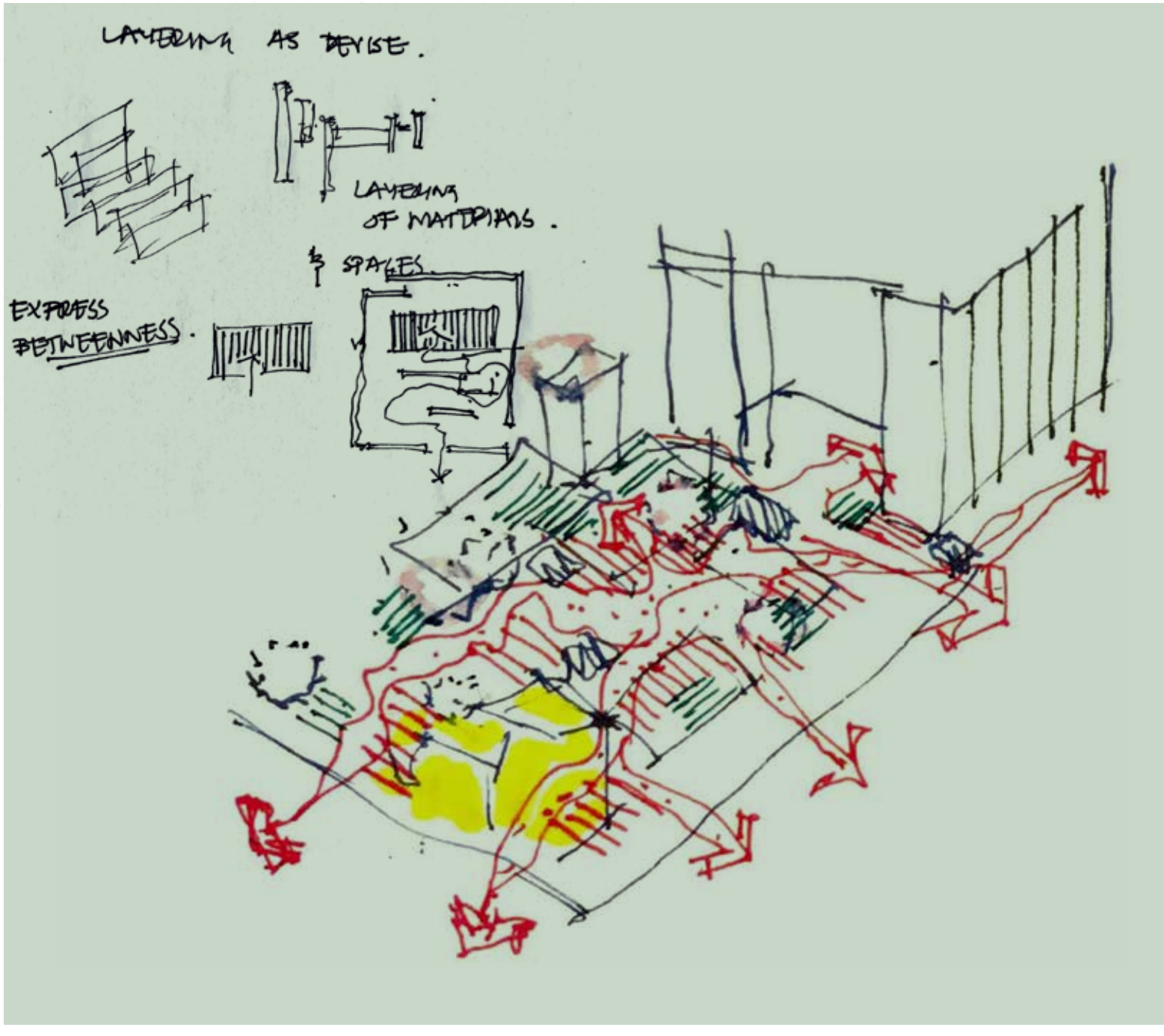


# 7. DESIGN INITIATION

**Fig 76.** Design explorations
(Author, 2022)



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7.1.

# Intentions

The aim of this investigation is to explore an architecture of inclusivity. The intention of the project came down to a very specific goal: to redefine socio-spatial relationships at different scales to reflect democratic and inclusive ideals. The focus and intention of the design investigation surrounds how architecture can redefine the relationships between government and citizens, between government civic buildings and the city and between new architecture and heritage and contested memory in the city centre.

GOVERNMENT AND CITIZENS

GOVERNMENT BUILDINGS AND THE CITY

CONTESTED HERITAGE/ MEMORY AND NEW INSERTIONS

"We, the people of South Africa,
Recognise the injustices of our past;
Honour those who suffered for justice and freedom in our land;
Respect those who have worked to build and develop our country; and
Believe that South Africa belongs to all who live in it, united in our diversity.
We therefore, through our freely elected representatives, adopt this Constitution as the supreme law of the Republic so as to
Heal the divisions of the past and establish a society based on democratic values, social justice and fundamental human rights;
Lay the foundations for a democratic and open society in which government is based on the will of the people and every citizen is equally protected by law;
Improve the quality of life of all citizens and free the potential of each person; and
Build a united and democratic South Africa able to take its rightful place as a sovereign state in the family of nations.
May God protect our people.
Nkosi Sikelel' iAfrika. Morena boloka setjhaba sa heso.
God seën Suid-Afrika. God bless South Africa.
Mudzimu fhatutshedza Afurika. Hosi katekisa Afrika."

(Republic of South Africa, 1996)

**Fig 77.** Plan exploration, exploring the in-between (Author, 2022)

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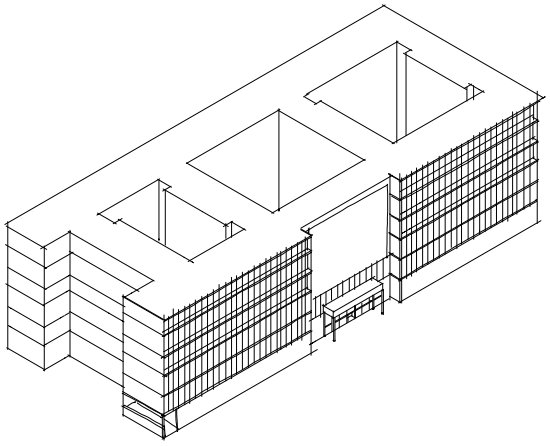
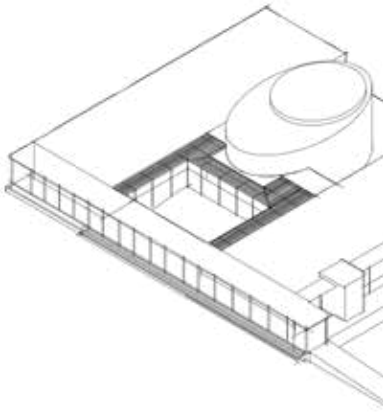
GOVERNMENT AND CITIZENS



GOVERNME
BUILDINGS AN
CITY



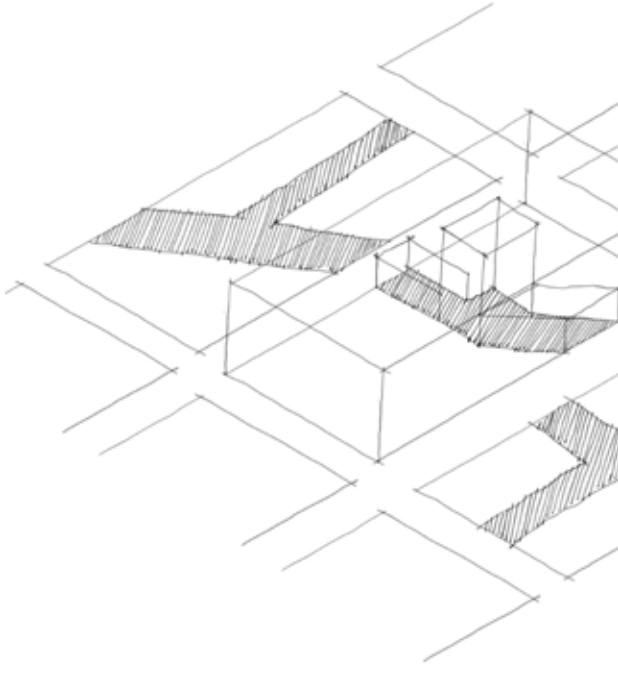


**Fig 78.** Intentions diagram showing the socio-spatial relationships that will be redefined (Author, 2022)



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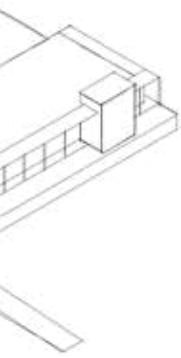
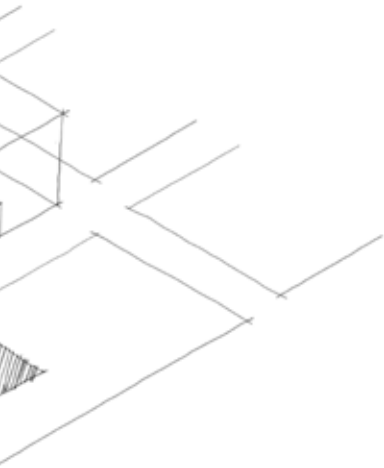
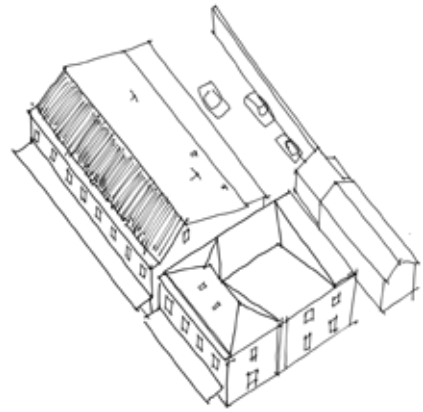
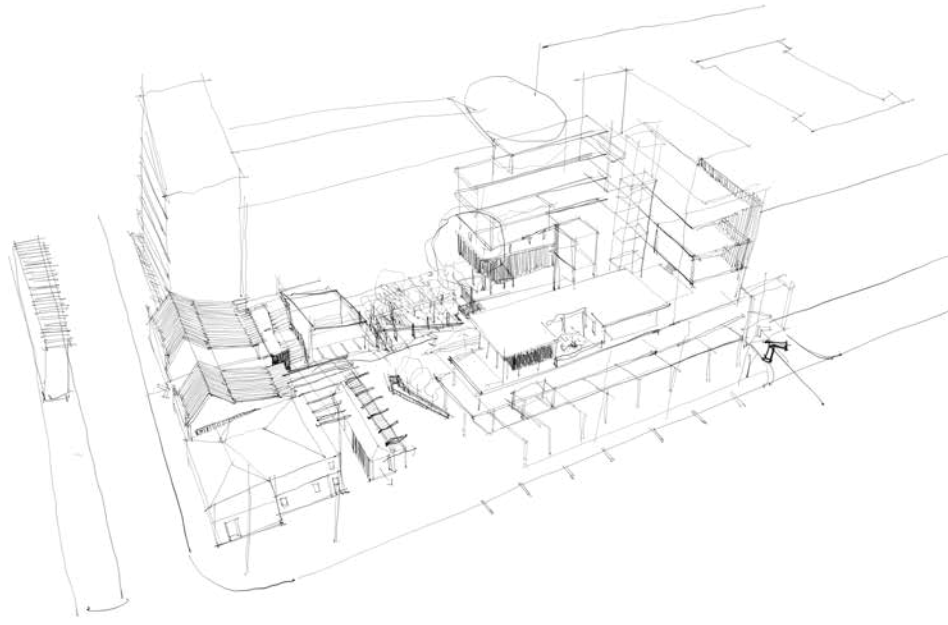




# CONTESTED HERITAGE/ MEMORY AND NEW INSERTIONS





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## 7.2. Initial response to context

# Spatial investigations

The initial spatial explorations predated the formulation of a concept. The diagrams represent the intuitive responses to the challenges and opportunities that the site presents in conjunction with the theoretical spatial investigation.

The focus of these explorations was to look at the edge, how to start intuitively responding to the massing and scale of the surrounding context which holds dramatic contrasts. Contrasts in character in architecture, programme, and scale – with the Panagos buildings being a mere two stories tall and surrounded by massive modernist blocks that range between 6-22 stories tall. The fact that their street presence is not totally overshadowed is a testament to their interactive facades designed to be good human scale interfaces of small shopfronts – remnants of the original market of Pretoria during the ZAR. Ways of dividing up the site and using the massing configuration to draw people into the site were tested and intuitively explored. It is an interesting part of my design process upon reflection; it is a to-and-fro between research and input from external sources (site, theory, and precedent) and then intuitive explorations that try to internalise the lesson learnt through research; a cyclical process that evolves the design. At this point of the process, the programme, while loosely defined, is not concretised as of yet. This point is also where the opportunities and intentions began to be translated to potential spatial strategies.

These initial explorations look at connections to the city, breaking open the solidity of the existing typology in an effort to make a more accessible or porous building. They do not explore the full intentions that were developed after a more intensive investigation into theory and precedent. They are still rather naïve and do not address attitude to heritage clearly enough – however, they do start to suggest possibilities for dealing with heritage.

From these initial spatial explorations, select drivers of the spatial form were identified and explored as separate elements. These became the focused generators of spatial form. The precedents I studied also served to generate both the final programme and give inspiration to how the spatial form could evolve.

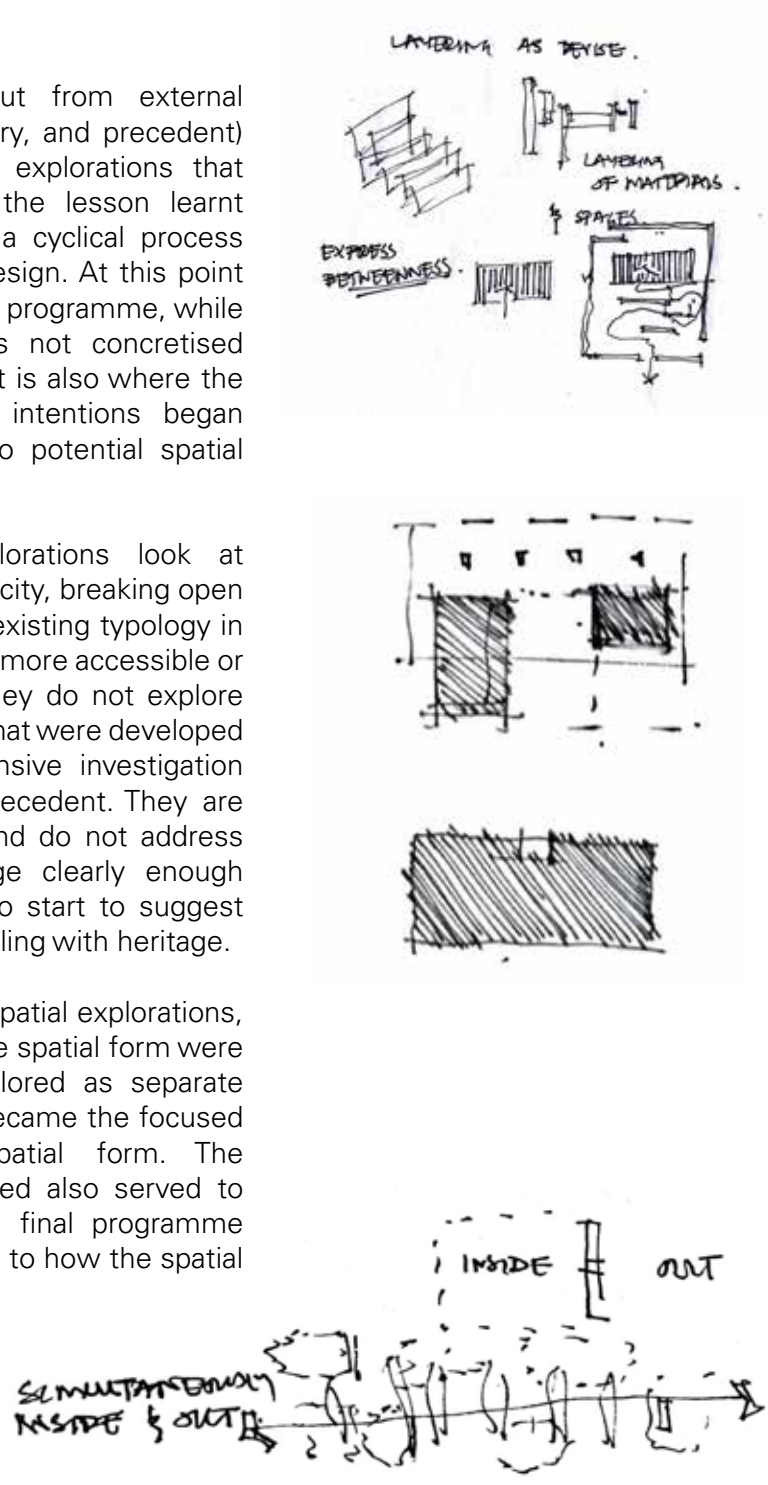


**Fig 79.** Spatial explorations (Author, 2022)



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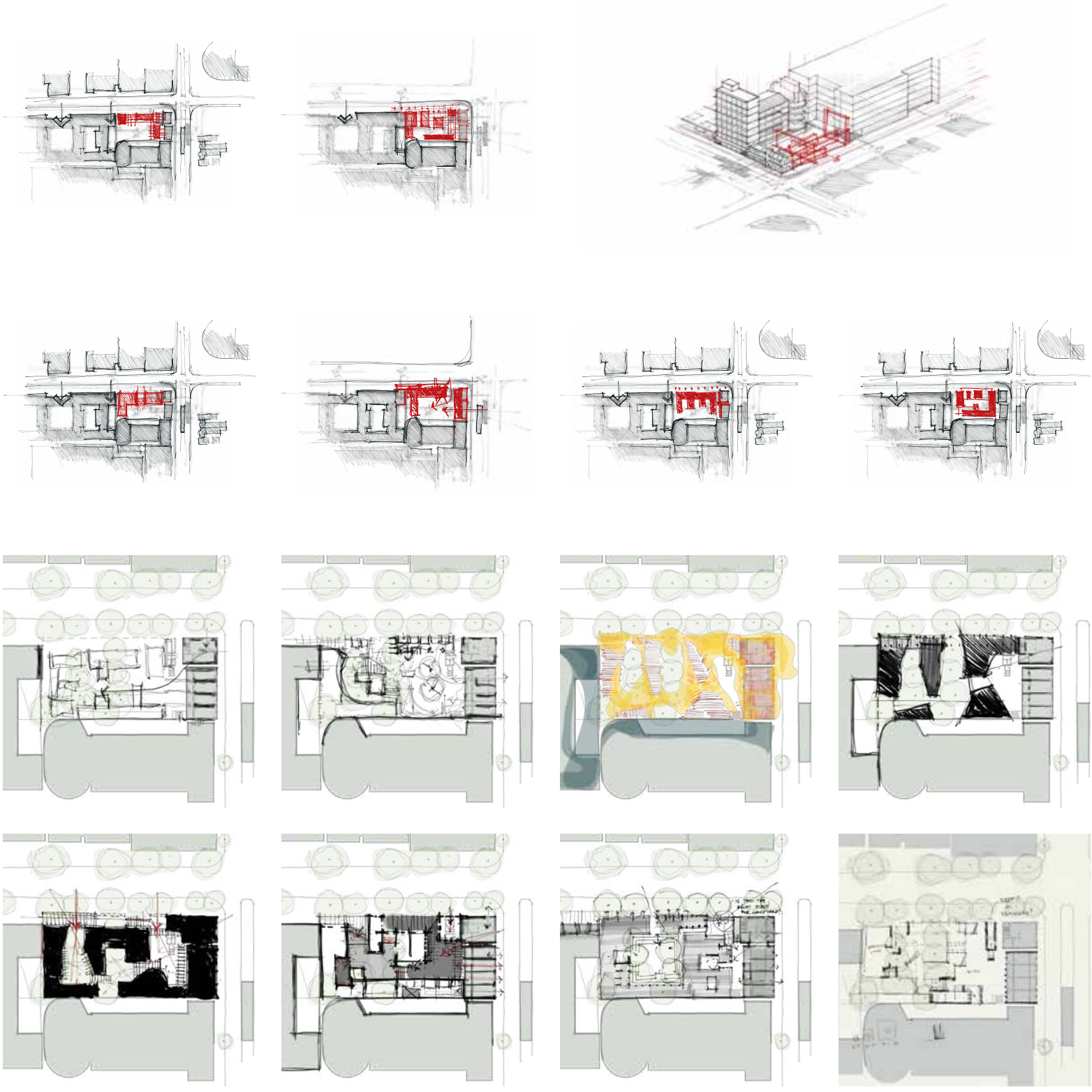

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## 7.3 Precedent

# South African Constitutional Court

spatial organisation, democratic architecture in south africa

Architect:
Design Workshop and Urban Solutions

Location:
Hillbrow, Johannesburg

Situated in Hillbrow, Johannesburg, Constitutional Hill was an important step in reimagining what an architecture for a transformative state – that is transparent, open and accessible within a newly democratic South Africa – looks like. This building was among the first to navigate the balance between ensuring there is the required gravitas that commands respect, as fitting the function, while creating space that counters the traditional intimidating nature of government buildings (Law-Viljoen & Buckland, 2006: 31). The Constitutional Court was designed to represent the aspirations of our society and reflect democracy, freedom, and the hope of a unified nation.

The building creates public space that is welcoming to anyone and the portions of the building that frame this public space invite people inside. The foyer opens to the main public space and provides a gateway to the court within. The extensive use of South African artwork celebrates the nation's diverse identity; the architecture is literally crafted by the citizens of South Africa. It creates a connection between the city, people and the constitution, the building acting as a collection of different parts with internal streets and arcades connecting the different functions to each other and to the outside.

Incorporating part of the Awaiting Trial Block, old is indistinguishable from new. Bricks from the demolished Awaiting Trial Block are reused, as are several old prison doors. This incorporation gives new meaning to the trauma associated with the site's original role as a prison complex. Materials exist as solids that frame voids, space and light. The materials of brick, steel, timber, and glass were chosen for their haptic quality and for how light interacts with their surface to animate pace (Law-Viljoen & Buckland, 2006: 119).

"[T]he constitutional court is an invitation to newness and change"- Thenjwe Mtintso

(Law-Viljoen & Buckland, 2006: 28)



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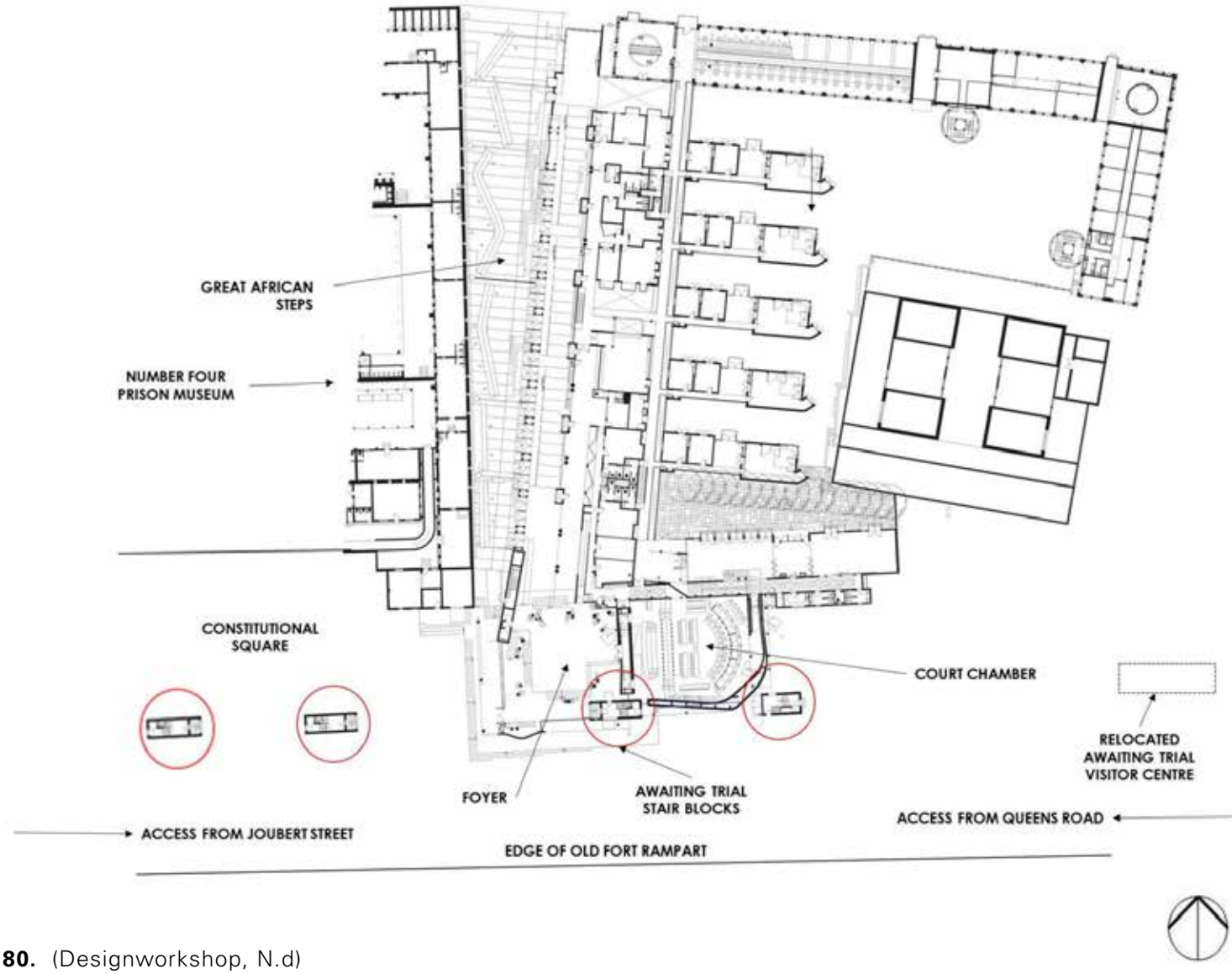


**Fig 80.** (Designworkshop, N.d)

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# Krushi Bawan

programme, spatial organisation

Architect:
Studio Lotus

Location:
Odisha, India

Studio Lotus' Krushi Bawan for the Department of Agriculture and Farmers in Odisha, India, reimagines the relationship a government building can have with citizens. The building transcends the traditional government administration typology of a closed office morphology by integrating community engagement and education programmes with governmental functions. This subverts the usual power relation found within these spaces (Arquitecturaviva, 2018). The ground floor houses flexible educational and community spaces with the administrative functions distributed on the upper levels. The ground floor is completely public every day of the week and acts as an extension of the public realm. An open and porous organisation of space, programmes are punctuated with courtyards and social spaces that connect the programmes together (ArchDaily, 2018; Arquitecturaviva, 2018). Like the Constitutional Court, the building integrates local artwork into its structure/ morphology, illustrating how government can foster local craftsmanship.

**Fig 82.** (Studio Lotus, N.d)



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**Fig 83.** (Andre J. Fanthome, 2018)

**Fig 84.** (Andre J. Fanthome, 2018)

**Fig 85.** (Andre J. Fanthome, 2018)

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# Miami Perez Art Museum

spatial organisation, approachable monument

Architect:
Hertzog & de Meuron

Location:
Miami

The Perez Miami Art Museum, designed by Hertzog & de Meuron, is part of a larger waterfront redevelopment scheme (Arquitecturaviva, 2006). The museum takes on a new social role in the community and the design is intended to reinforce the urban fabric within Miami.

The building is essentially designed as a veranda, with the museum and galley spaces slotted into the free-flowing internal space (Arquitecturaviva, 2006; ArchDaily, 2013). The canopy extends outwards to the surrounding context, making the building feel as though it extends far beyond its boundaries, drawing people within and providing a place for social encounters. The canopy is further articulated by timber screening that softens the edges of the overhang.

The scale of the museum is rather monumental, with vast volumes in between the gallery boxes. The use of hanging landscaping that fills and softens these voids allows the building to feel approachable, rather than intimidating, despite the scale.

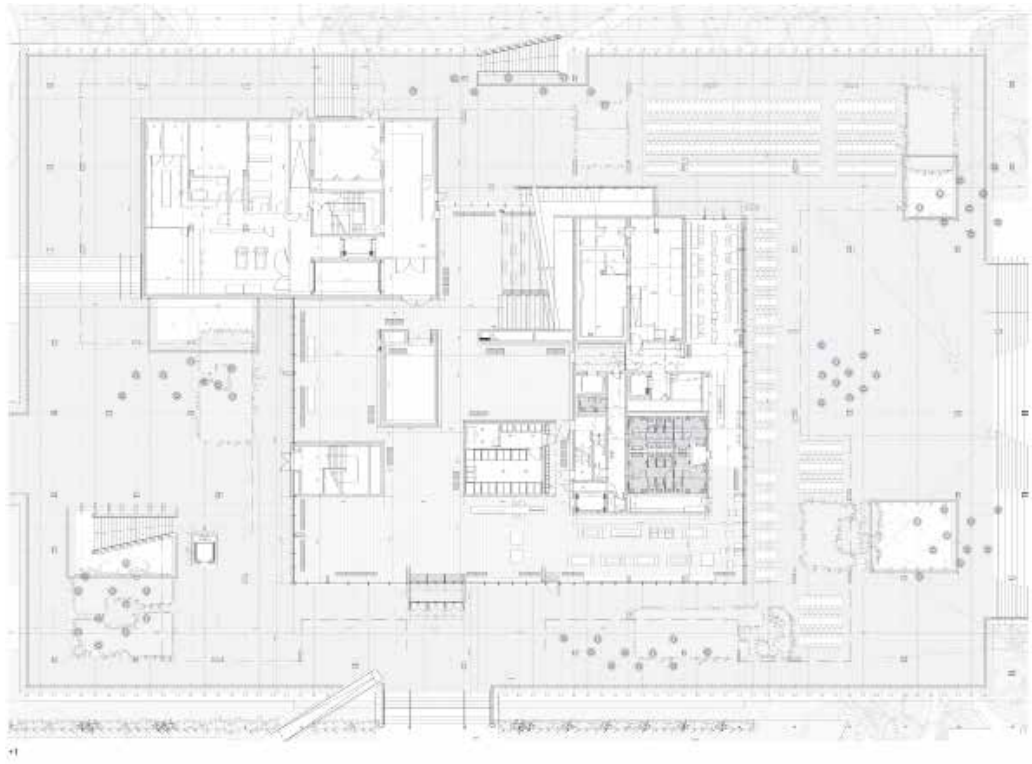

**Fig 86.** (Herzog & de Meuron, 2013)



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**Fig 87.** (Iwan Baan, 2013)

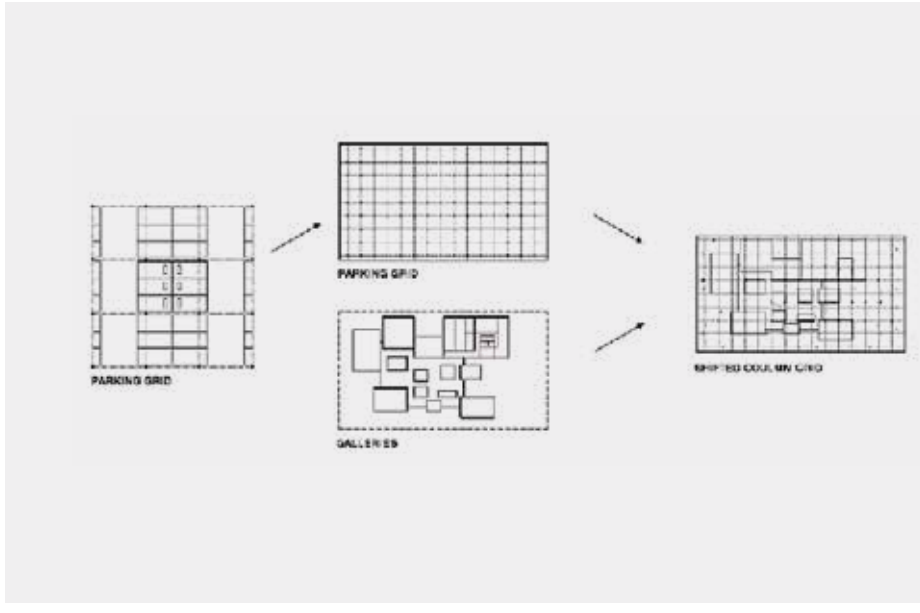


**Fig 88.** (Herzog & de Meuron, 2013)

**Fig 89.** (Iwan Baan, 2013)

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## 7. 4. Programme

# A place for engagement

"Government Estate will make government accessible to all citizens, through the concentration of government functions within a high intensity and density environment and provide spaces for the expression of citizens."

(City of Tshwane, 2015)

The analysis of the existing programmes in the surrounding context and the aspirations of the architecture and the Tshwane 2055 plan strongly informed the proposed programme for this new type of interface between government and citizens. The Government Estate Development Framework (City of Tshwane, 2015) lays out very strong, aspirational goals for the relationship between government and citizens within the City of Tshwane in its capacity as the Administrative Capital City. The question became how to translate these ideals to reality? Typical government administrative head offices do not have very much interaction with the public. The programme needed to be able to mediate between government and citizens (the everyday in the city;) the combination of programmes is to be the public relations of the government in the inner-city.

Clues as to what this mix might be were derived from the analysis of existing land uses and how the building could relate to both governmental functions in the vicinity as well as enrich the everyday.

Through my research, I discovered that there are several national government departments that have educational, training, and upliftment mandates. These initiatives have the potential to be incredibly important contributions that government makes towards transformation in South Africa. However, they do not have a dedicated space from which to operate that belongs as much to the people as it does to the government. The initiatives, undertaken by the Department of Small Business Development, the Human Rights Commission and the Commission for Gender Equality, were selected because of their compatibility with the symbolic value of the site and its context and their possible relation to the small businesses that exist in the area. The programme becomes the platform through which these departments and the public can engage on equal ground. The head offices of these departments are housed elsewhere – this is to be a centre for training and open democratic engagement.


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## Program Intentions

Make government accessible to the citizen

The mediation between government and the public

Focused on the social interaction possibilities between programs.

## Program Approach

Government building

Mixed use to counter the insular nature and to embrace the existing contradictions of the site programs already in existence.

Private will be broken up and interspersed with semi-public and public rather than sitting separate and removed

## Client

Department of Public Works

Department of Small Business Development

Commission for Gender Equality

South African Commission for Human Rights

Tshwane Metropolitan Municipality

"In 2055, the City of Tshwane is livable resilient and inclusive whose citizens enjoy a high quality of life, have access to social, economic and enhanced political freedoms and where citizens are partners in the development of the African Capital City of excellence."

(City of Tshwane, 2015)

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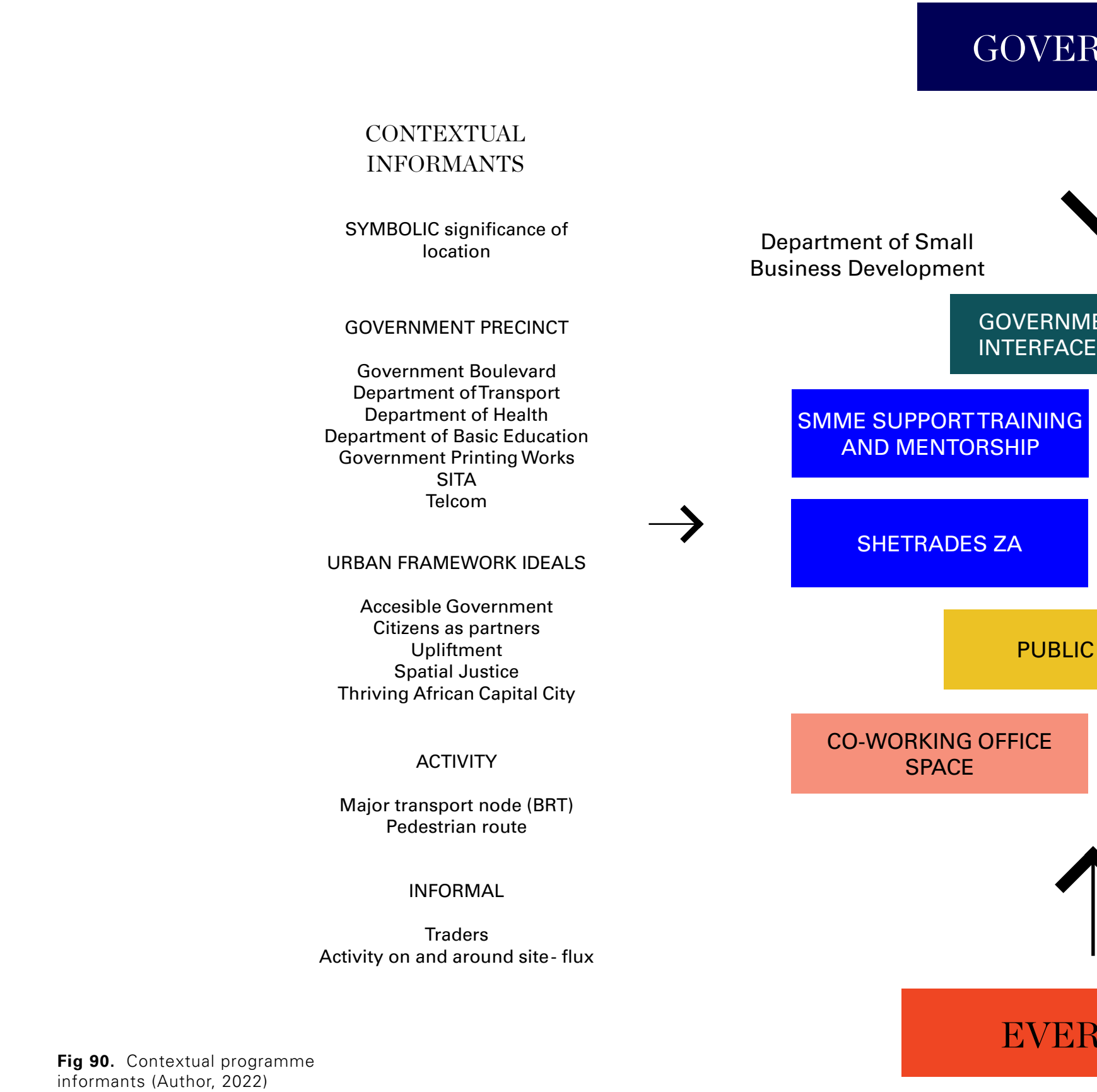


**Fig 90.** Contextual programme informants (Author, 2022)



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RNMENT

SA Constitution
Chapter 9 Institution

ENT-PUBLIC
PLATFORM

SAHRC EDUCATIONAL
OFFICES AND TRAINING

CGE EDUCATIONAL
OFFICES AND TRAINING

SPACE

MICRO & SMALL
COMMERCIAL
SPACE

RYDAY

## CONTEXTUAL INFORMANTS

### LINK TO HERITAGE

Panagos Building
Heritage Significance
Synagogue
Jansen House

### SYNAGOGUE

Museum
New Public Square

### CITY LINK

Government boulevard - City Axis
Network of public spaces

### EDUCATION

National Library
Princess Park College
National War College

### COMMERCIAL

Takeaway food outlets
Liquor store
Car dealerships
Spaza shops
Herbalist

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The Commission for Gender Equality (CGE) has a number of mandates, predominantly related to the investigations of gender-based issues. They also, however, have an educational mandate where they run workshops and training on issues regarding gender equality – an issue that is incredibly important in South Africa. The South African Human Rights Commission (SAHRC) runs similar training programmes. Both organisations also have significant interactions with the public; meeting with representatives and NGO organisations that work with similar goals in mind. The programme will accommodate space for these collaborations to take place.

Department of Small Business Development has two programmes that were selected as part of the programme; these are SheTradesZA and the SMME Support Plan. SheTradesZA is connected to the international ICT SheTrades initiative that works globally to achieve economic empowerment for women. The SMME Support Plan offers support to small, medium, and micro enterprises in growing their businesses through networking opportunities, business skills training and mentorship programmes.

Circulatory function
The in-between that has programmatic ambiguity and circulation is an important part of the programme as it is within this space that programmatic ambiguity exists and incidental social encounters are possible (Hertzberger, 1991: 32–40).

Psychological function
The building needs to aid in the social cohesion between government and the city and create positive spaces for the facilitation of training. The fostering of positive social encounters and the use of extensive greenery introduced to the site to create a space that positively impacts the psychological state of the people facilitating the workshops within the building. The better the work environment of the training facilitators and government employees, the better they are able to serve citizens and facilitate positive engagement with government training and education programmes.

Main Programme:
CGE, SAHRC, SheTrades, SMME

Sub program:
Small and Micro commercial space

Public:
Public courtyard, restrooms, public courtyards

Semi-Public/Semi-Private: Auditorium, Workshops, Training Rooms, Meeting Rooms, Multipurpose events hall

Private: Office space, pause spaces, discussion / consultation rooms


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## (CGE) Commission for Gender Equality

Education training on gender related issues
Workshops and seminaars
Working with NGO's to spread awareness on gender based issues

## (SAHRC) South African Commission Human Rights Commission

Educational training and workshops on human rights infringements

## SheTradesZA

Entrepreneur and business
mentorship programmes
Advise and work with government to develop better legislation and policy to empower women - this is could intersects with the goals of the CGE
Workshops and training programs
Meet and greet with potential investors
Connection to trade fairs
Hosting B2B meetings which work to connect business to potential clients/buyers/investors.

## SMME Support Plan

Start-up support training
Entrepreneur and business mentorship programs
Mentorship programmes
Workshops and training programs

## Public Space

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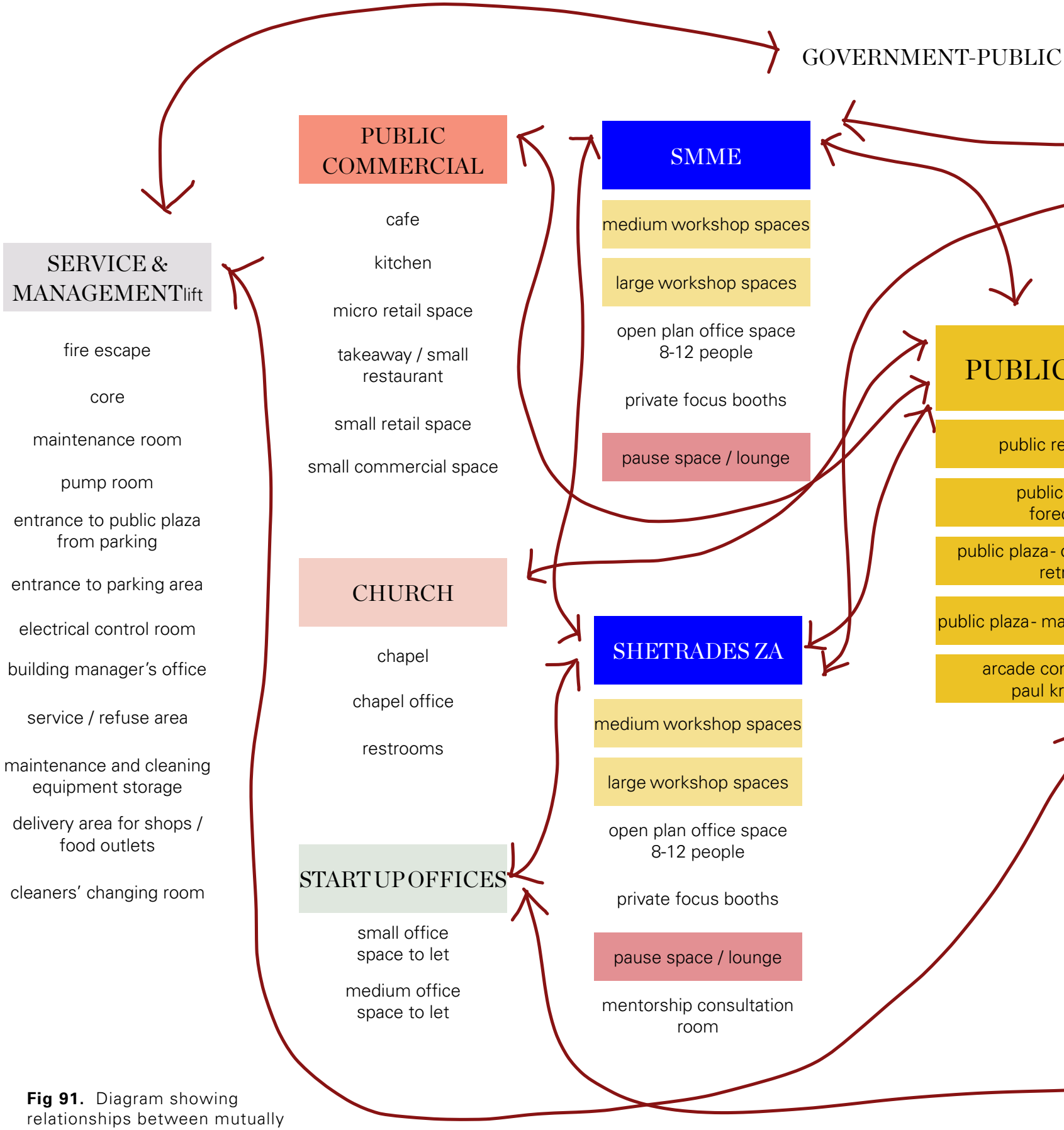


**Fig 91.** Diagram showing relationships between mutually supportive mixed-use programme (Author, 2022)



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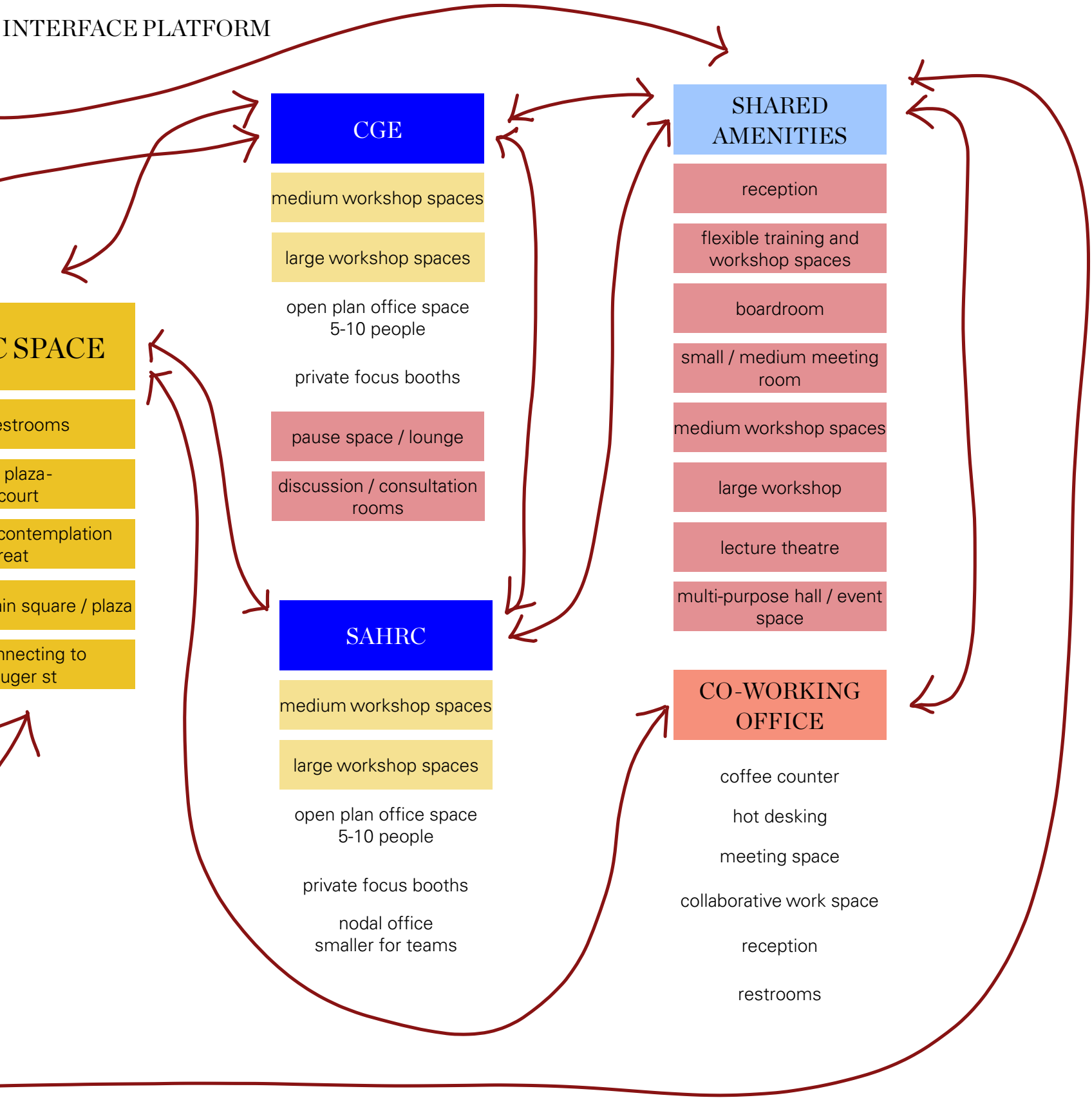
# INTERFACE PLATFORM

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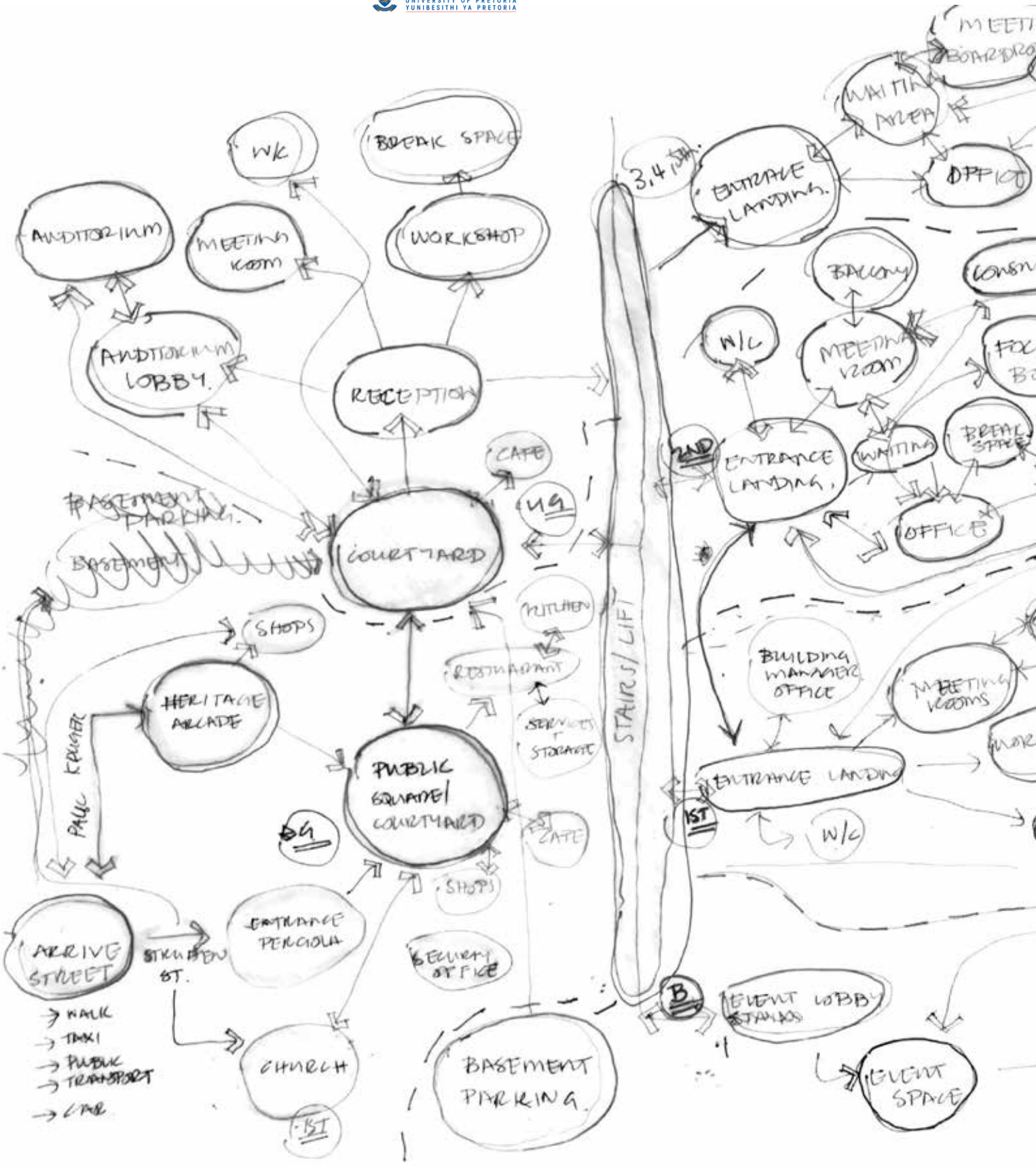


**Fig 92.** Diagram showing hierarchy and routes through the building (Author, 2022)



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The building provides a variety of scales of interface that all work towards redefining the relationship between government and citizens.

## User Profiles

User profiles were identified and their imagined routines and interactions with the building and the programmes were mapped to highlight the most important spaces of encounter (see next page).

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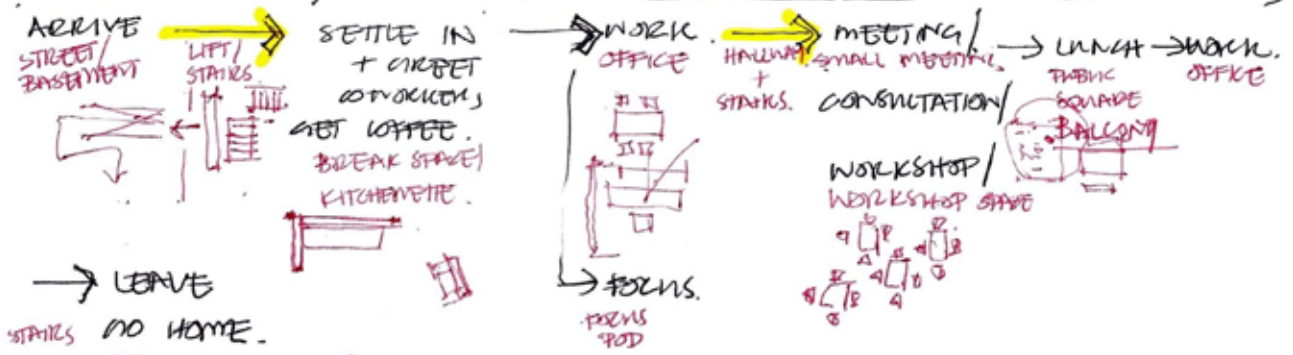
GOVERNMENT WORKER / IT SUPPORT / DEVELOPMENT FACILITATOR / OFFICE WORKER (NGO OR OTHER)



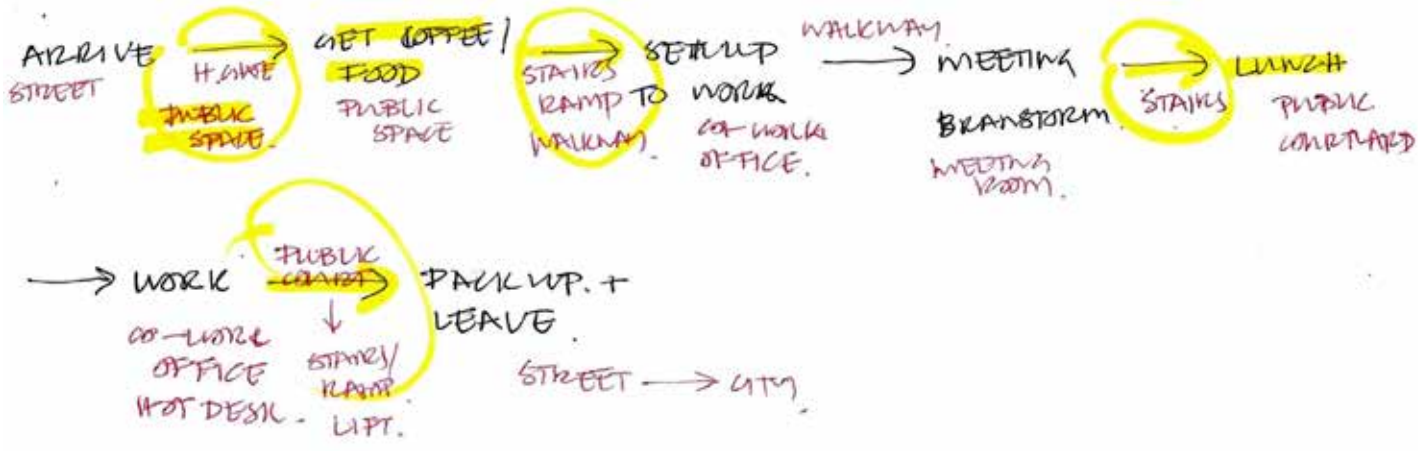

WORKSHOP / TRAINING ATTENDANT / PARTICIPANT.

BUSINESS OWNER.

→ CLEAN UP → LOCK UP + LEAVE.

STREET → CITY.

CO-WORKING



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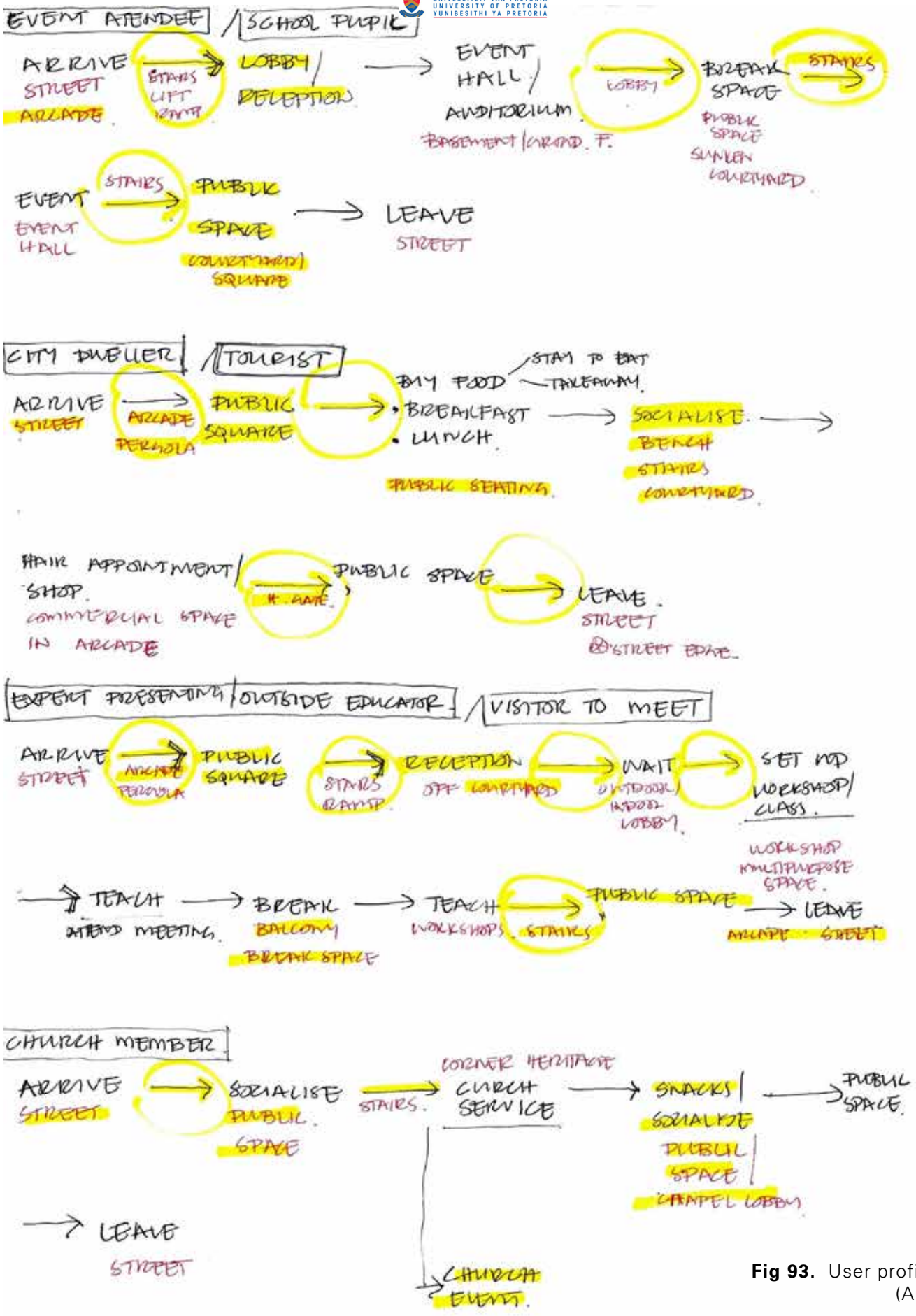


**Fig 93.** User profile diagrams (Author, 2022)

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## 7.5. Architectural interpretation of theory

# Inclusive spatial articulation

SOCIAL A

It became clear in the site investigation and typological analysis that a mode for space making that generates inclusive architecture is necessary. The articulation of the programme also requires careful consideration, a way of creating inclusive space for the various programmes of the building was required. I developed a theoretical matrix of spatial theories that each explore a component of addressing interfaces at different scales. These would serve to inform my design concept and provide guidance for evaluating whether design decisions achieved the intentions of redefining relationships.

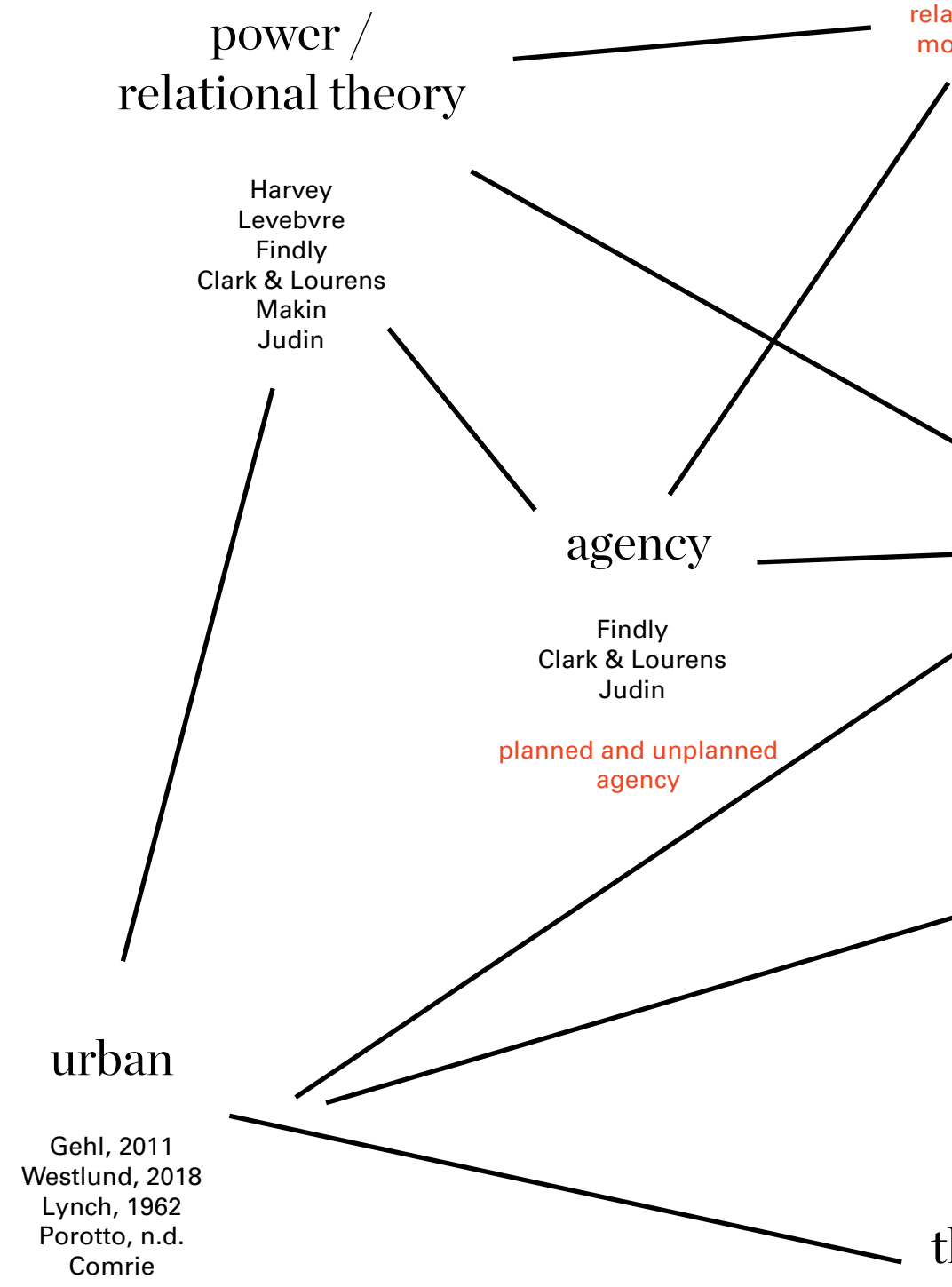


**Fig 94.** Theoretical matrix (Author, 2022)



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# ARCHITECTURE

Hertzberger

all about human
tionships and creating
oments for encounters

## phenomenology

Pallasma
Zumthor

imagining and design ing
for human situations and
experiences

## human centred

Gehl
Hertzberger
Alexander

how we treat / approach it
is related to power

## heritage

Judin
Barker
Otero Pailos
Stone

adaptive re-use as a means
for intergration

## he in-between

Hertzberger

he power of the graded
threshold and interface

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# Power and Hierarchy

Informant:
The monumental nature and insular morphology of the existing government civic and administration buildings reflect a past relationship between power, space, and people. . There are key spatial devices that are employed in architecture to portray power (Findley, 2005b: 193). These typologies have created an exclusive sphere around each of the government buildings in city centre.

Theory:
Findley (2005b: 193) speaks about how there are certain distinct strategies/ devices that are employed to translate power in architecture: centring, axis, scale, size, realm of control and symmetry. It is interesting to take each of these and turn them on their head – what would be the result if they are subverted directly – spatially would that produce architecture/ space that is inclusive and approachable? This was tested in context as spatial explorations. So much about power is to make the human feel small/ in awe within a space. Bringing things down to a human centred frame counters this power dynamic.

A beautiful example of how this can be created within existing monumental space is by making space for the human in conjunction with the grandiose architecture (Hertzberger, 1991, 2016).

Intentions:
Elevation, through the use of plinths and grand entrance staircases, is a typical spatial device that the colonial civic/ governmental buildings employ. As a subversion of this, public space and an urban 'stoep' were explored. The use of levels to indicate importance and the degree of publicness became increasingly important. Rather than the most important space being raised to literally make it appear important, the most important social space is at ground level and is a direct extension of the street and the public realm. This levelling of the main collective space indicates its accessibility, resulting in there being no barrier that needs to be passed to access this space. The public realm simply flows from the street to penetrate the urban block and draw the user in. It serves as an invitation to engage. Hierarchically, the emphasis is placed on the collective and public space rather than the exclusive private space. The private programme needs to frame and support/ reinforce the vibrancy of the public realm.

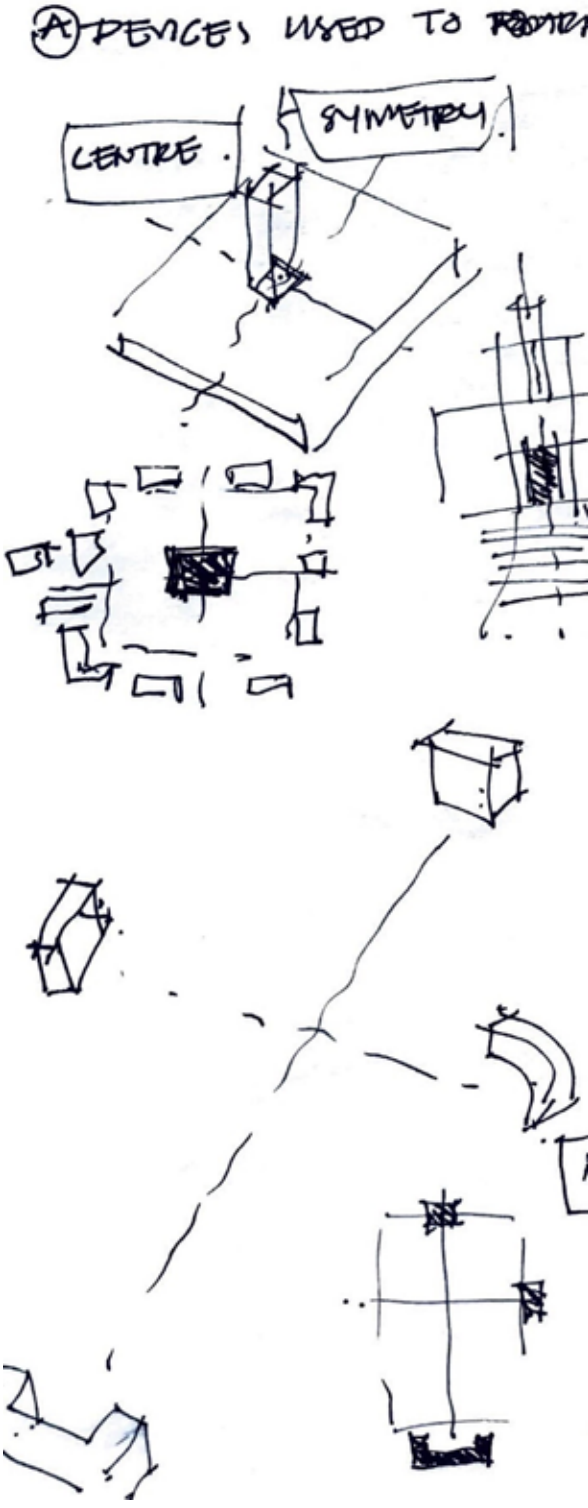


**Fig 95.** Exploring how power is expressed through architecture (Author, 2022)


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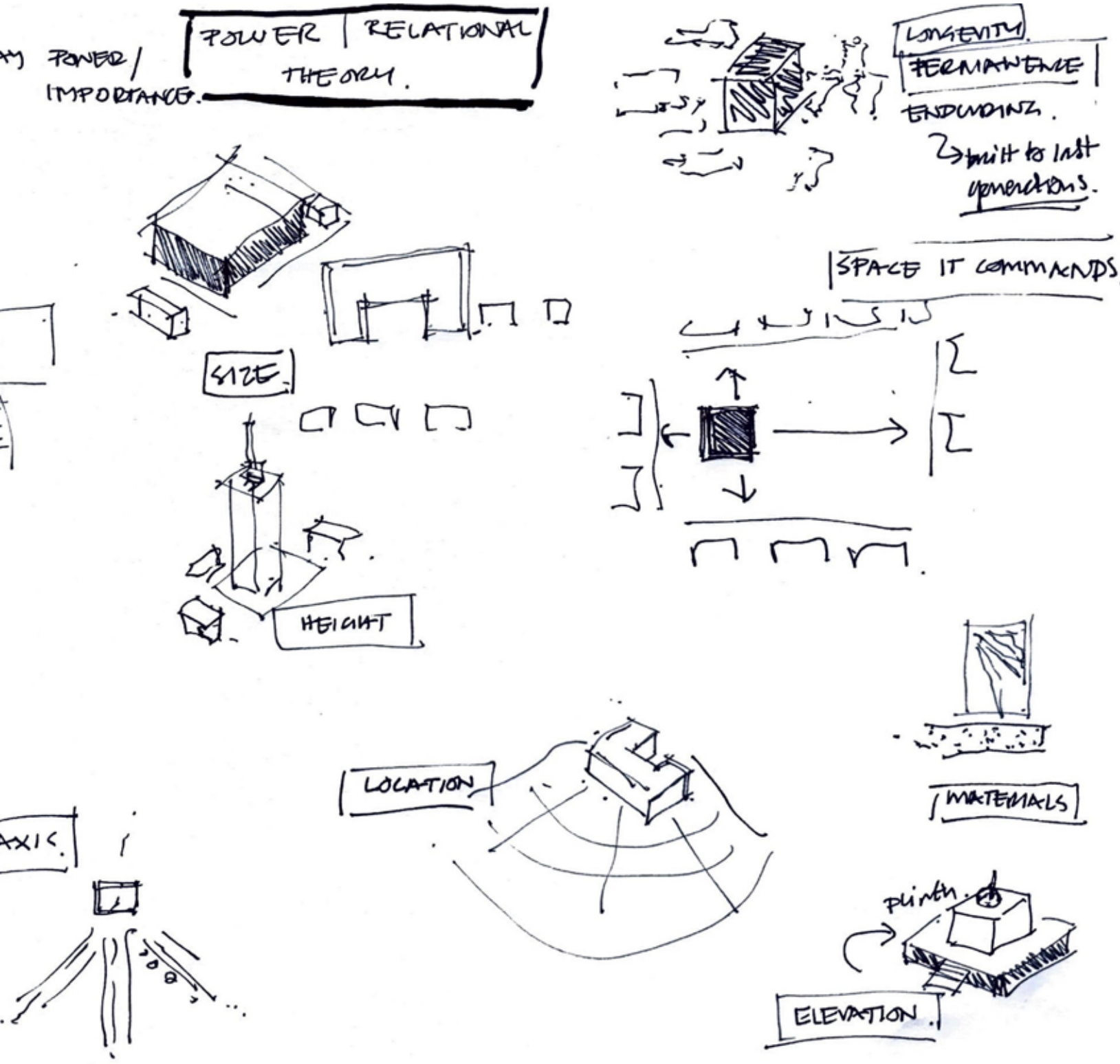


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## SOCIAL / COLLECTIVE SPACE

Informant: There is less tangible financial return on generous urban space and collective in-between space within buildings. Therefore, these spaces and their potential to transform the experience of the whole are often neglected.

Herman Hertzberger's design philosophy is centred around creating moments within architecture/ space where human interaction can take place. His goal is to humanise space and provide moments/ space for connection that facilitate community (Hertzberger, 1991, 2016).

Intentions: Levels within the massing itself are also utilised as devices for connection rather than each floor acting as a totally independent level. Hertzberger utilises the split level in a number of his buildings as a way of creating multi-stories that act as extensions of one continuous space rather than separate entities stacked on top of each other. The modernists utilised the ramp as an expression of continuous space as an interpretation of the Greek promenade. Hertzberger chooses the circulation and split levels to encourage moments of incidental interaction and engagement within large buildings. Ramps that are continuous do not provide quite the same opportunity to pause and interact as the spatial suggestion is movement rather than pause.

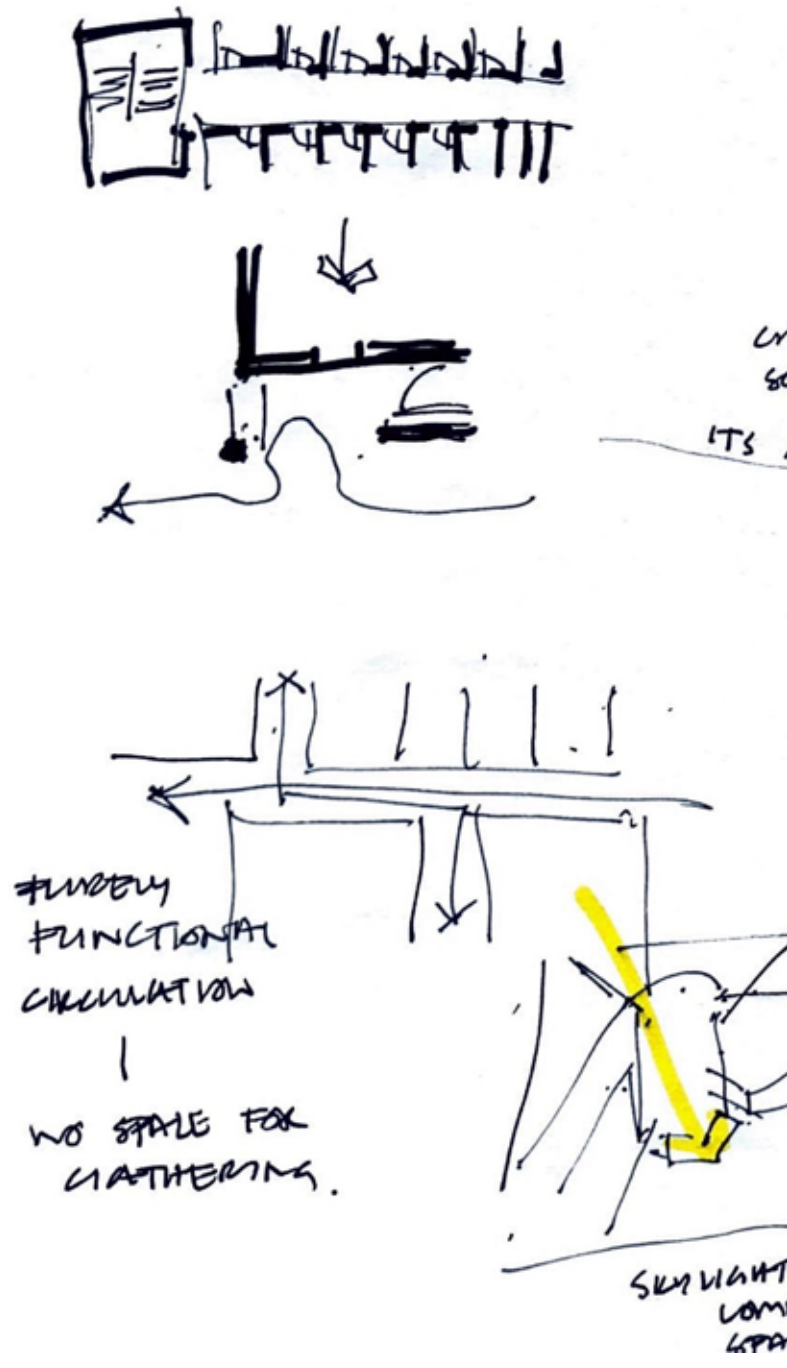


**Fig 96.** Diagrams testing how to spatially create collective space and foster human engagement (Author, 2022)



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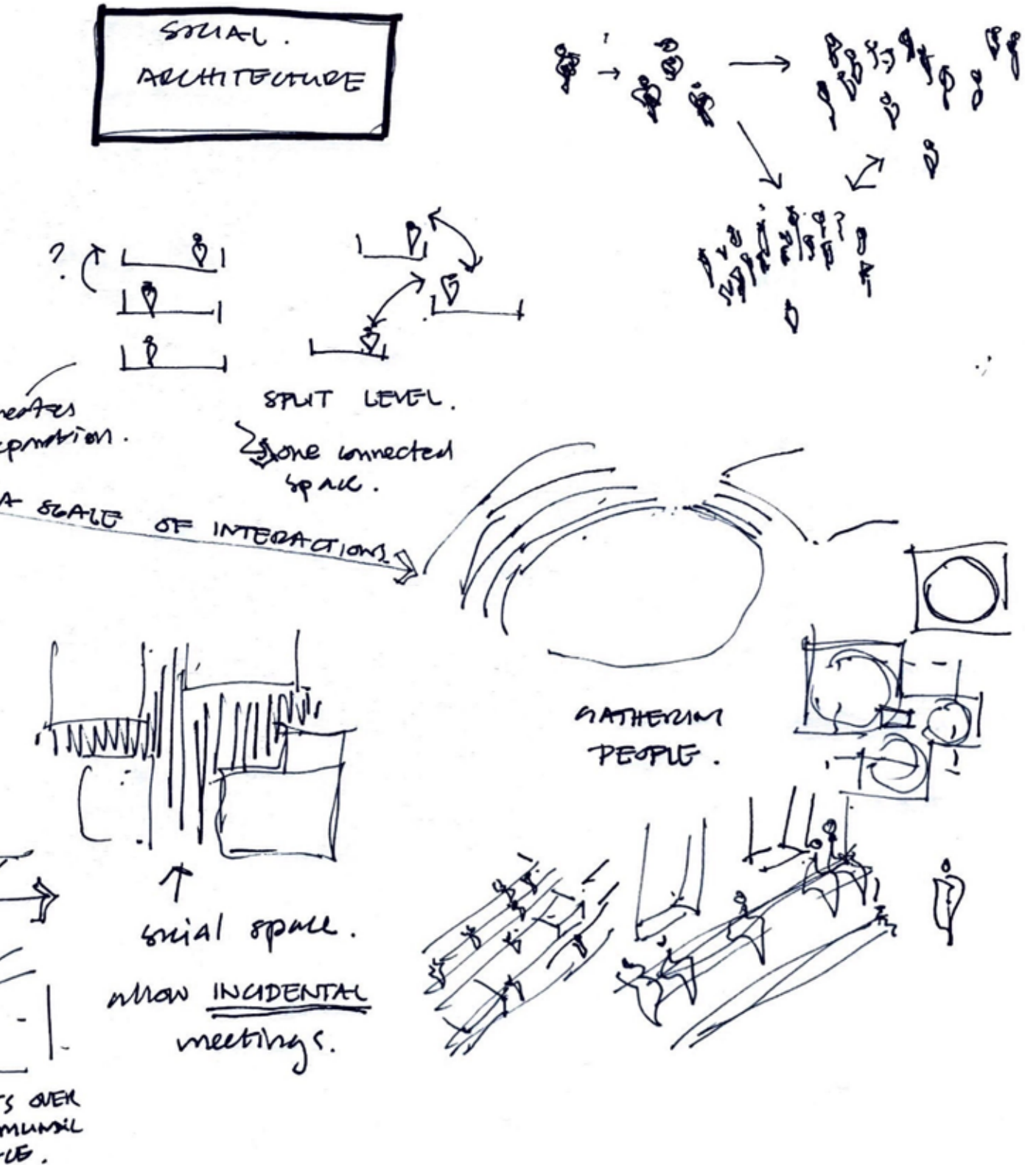


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## PHENOMENOLOGY

Informant:
Space and how it impacts you and your senses is what you remember (Pallasmaa, 2012; Zumthor & Pallasmaa, 2018). Space can be organised in such a way as to encourage interaction but if the sensory experience of that space is not considered then that space will be uncomfortable and won't serve its purpose.

Theory:
Pallasma speaks about the embodied experience of space as moments experienced physically within space (Pallasmaa, 2012). To design with the human experience in mind is to create haptic moments that curate how a space impacts the body and soul. Peter Zumthor uses haptics to craft atmospheres within his buildings, how the senses are manipulated to create an emotive response to space (Zumthor & Pallasmaa, 2018).

Intentions: Use materiality, space and light to create a softer approachable government typology. The building is crafted, has evidence that people have been involved in its making

**Fig 97.** (Author, 2022)


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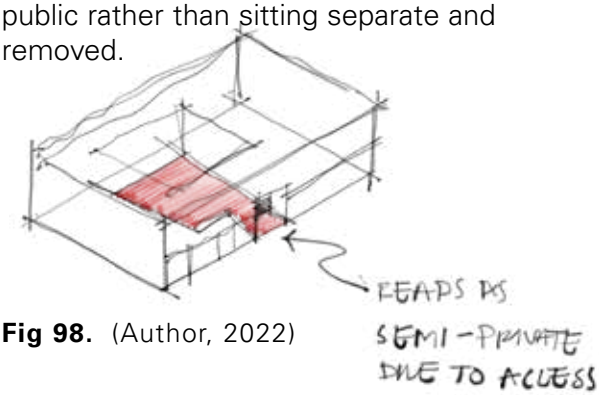
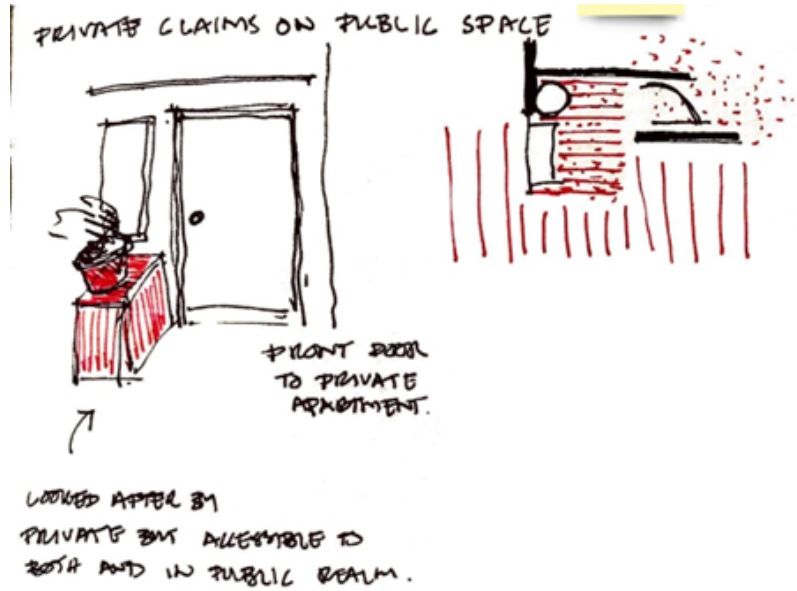
## PUBLIC/ PRIVATE

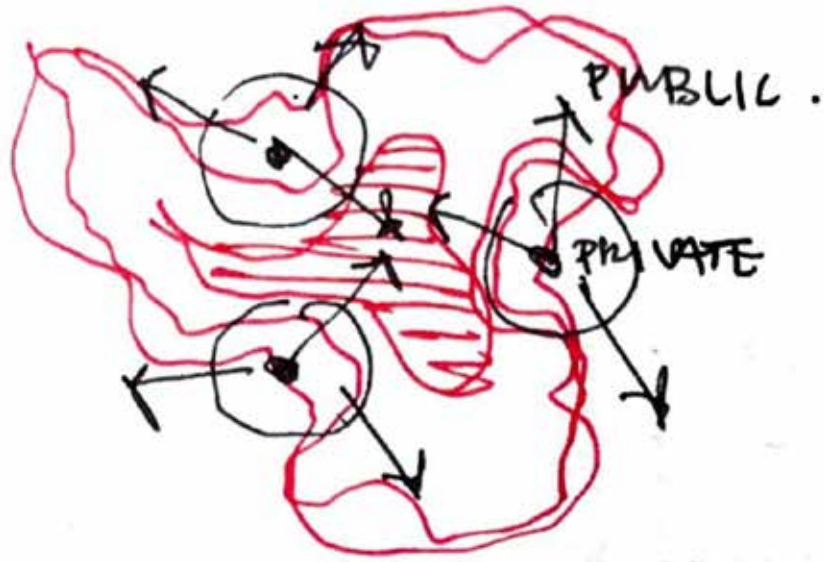
Informant:
The typical government typology, as investigated previously in section 6.6, indicates how the public realm stops at the fence or the front door. There is little 'publicness' to be found in these typologies. Even the civic examples like Tshwane House, which was intended to be a public building that represents the accessibility of local government in the City of Tshwane, is exclusionary and access ends at the fence line across the stairs. This entirely defeats the purpose of the urban gesture of the entrance stairs being an extension of the urban public realm. Architecture in South Africa rarely employs a gradation between public and private space. The transition is abrupt and uncomfortable.

Theory:
Hertzberger (1991: 40) poses a solution to this stark division between spaces with different territorial claims. In his book, "Lessons for students in Architecture" (Hertzberger, 1991: 32–44), Hertzberger explores the idea of private claims on public space, public claims on private space and how this can break the barrier between these zones.

Intentions:
Private will be broken up and interspersed with semi-public and public rather than sitting separate and removed.



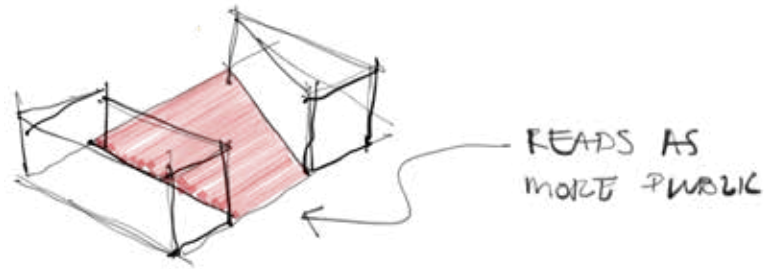




**Fig 98.** (Author, 2022)



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## THE IN-BETWEEN

Informants:
In-between space is difficult to define and as it is space that is deliberately ambiguous in nature, it is space that doesn't bring direct money in because you can't sell it or rent it out, however it still has enormous social value. Due to this, the potential and value of in-between space is often not prioritised (Hertzberger, 1991: 35).

Theory:
Thresholds, and a defined in-between, hold the potential to mediate between two different spaces with different ownership claims (public-private) (Hertzberger, 1991: 32). The dual nature of in-between means that the space can simultaneously belong to two worlds and provide cohesion and connection between them rather than abrupt demarcation. The informal in-between allows for organic and spontaneous collaboration and the potential for new ideas to be discussed. There are numerous spatial devices that can be utilized to articulate the in-between.

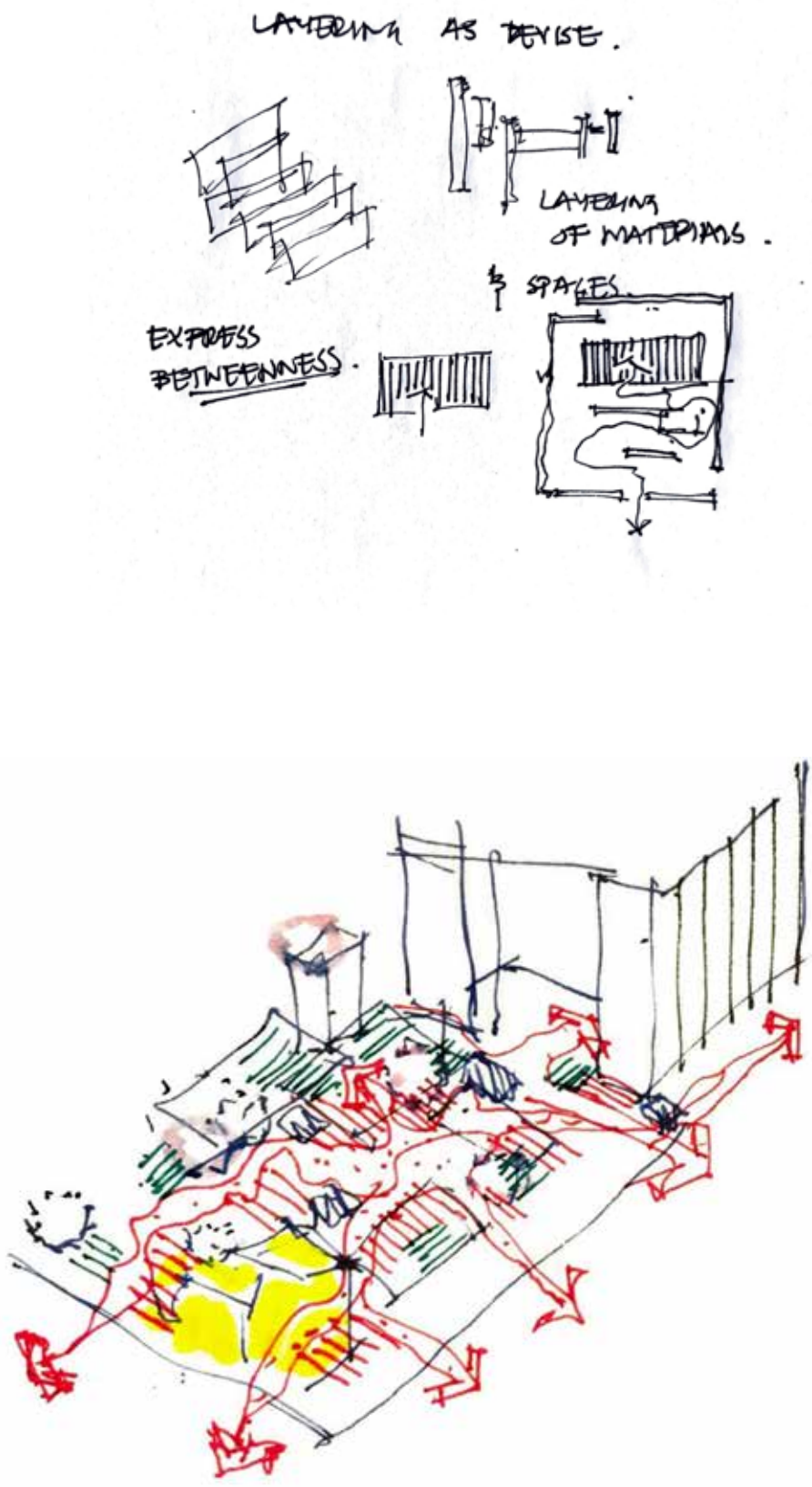


**Fig 99.** (Author, 2022)

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Informant:
The public realm, and therefore the realm of agency, is predominantly limited to the street. There is an existing family of public spaces in the inner-city but there needs to be an expansion to this network.

Intention:
Public buildings can become an extension of the public realm, contributing to the family of public spaces that exist in the city. This is a new contribution that government buildings can make to the inner-city of Tshwane.

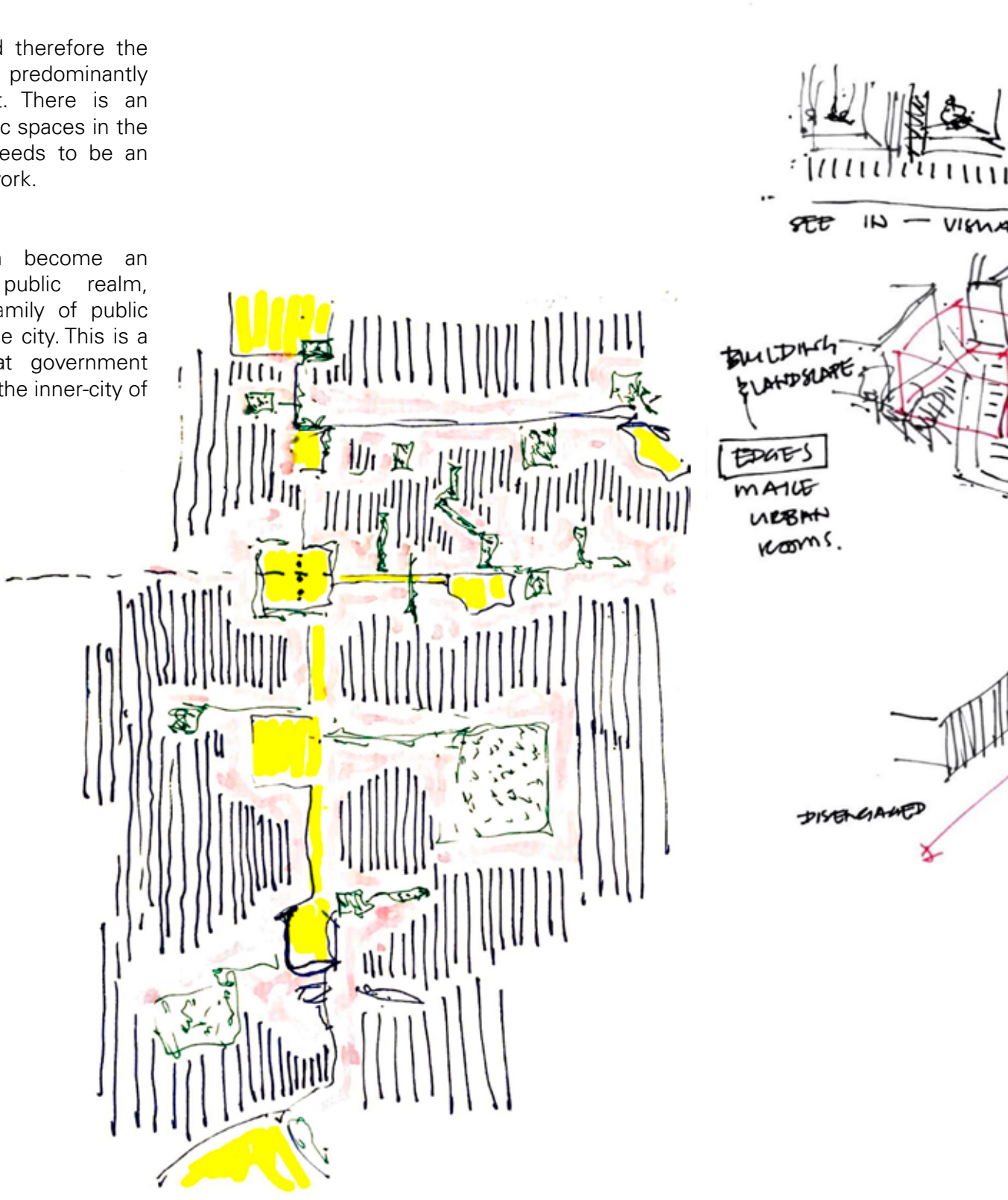


**Fig 100.** (Author, 2022)



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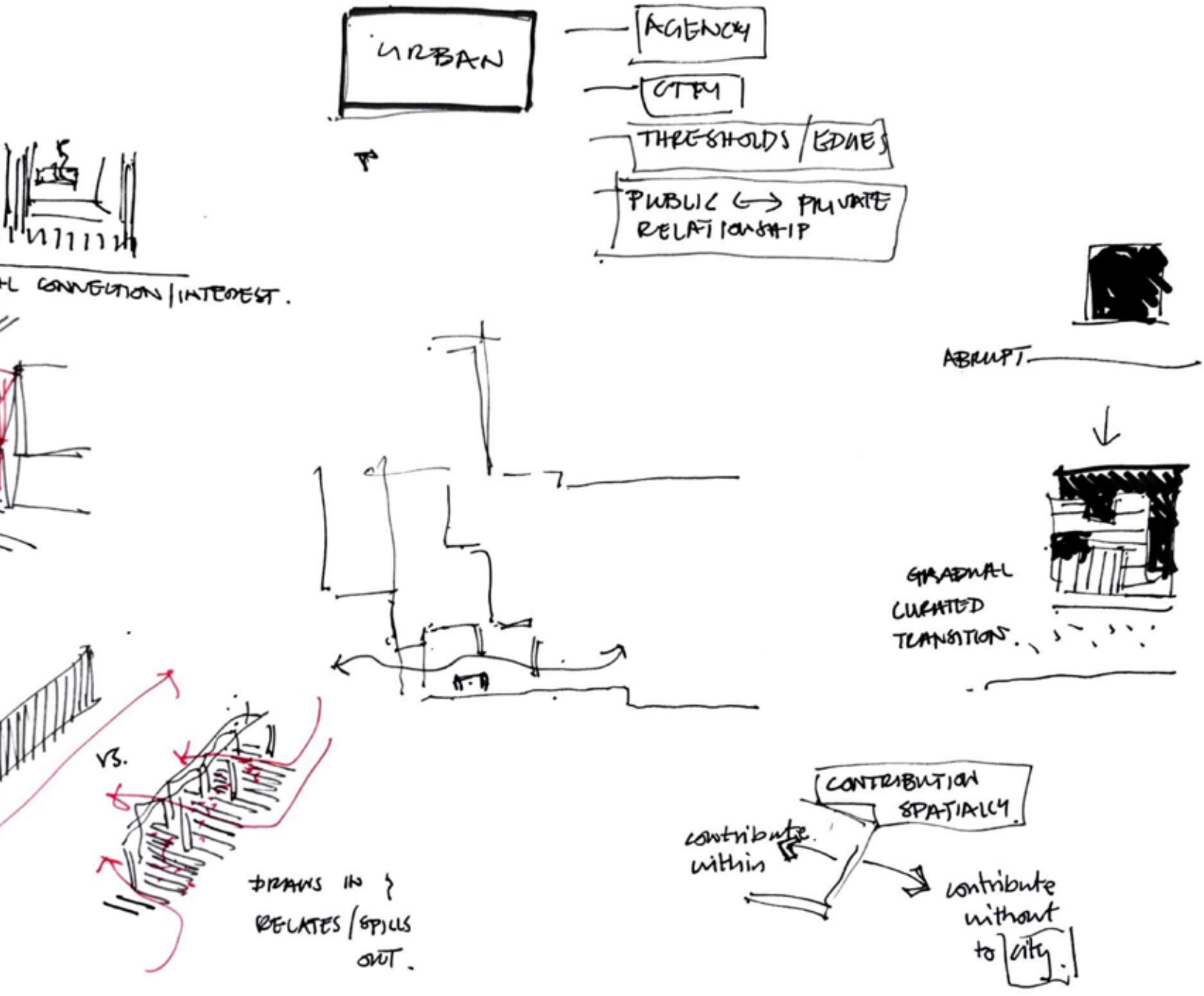


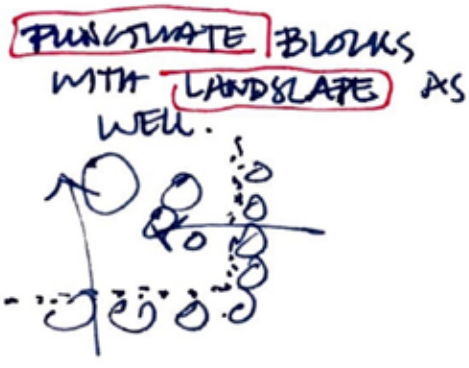


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## SECURITY

Informant:
The failure of the developmental state is the huge security risks that have arisen as a result of massive inequality – we are more unequal now than we have ever been before. The irony is that colonial architecture, while representing the state of control and power, connects better to the city than the new architecture that is meant to express the state of transformation (City Hall vs Tshwane House analysis). The fence typology that dominates South African architecture is a barrier to supporting integration and fostering positive relationships between people and architecture.

Intentions:
The idea is not necessarily to try to formalise the informal, as this leads to a measure of control, rather can architecture provide the space for the unprogrammed to meet and interact with the formal in an integrated manner? How can we make use of this in-between space and learn from how people enact living there to allow for more agency in public/ civic buildings? Use the building itself as the layering device to control access to the more private areas.

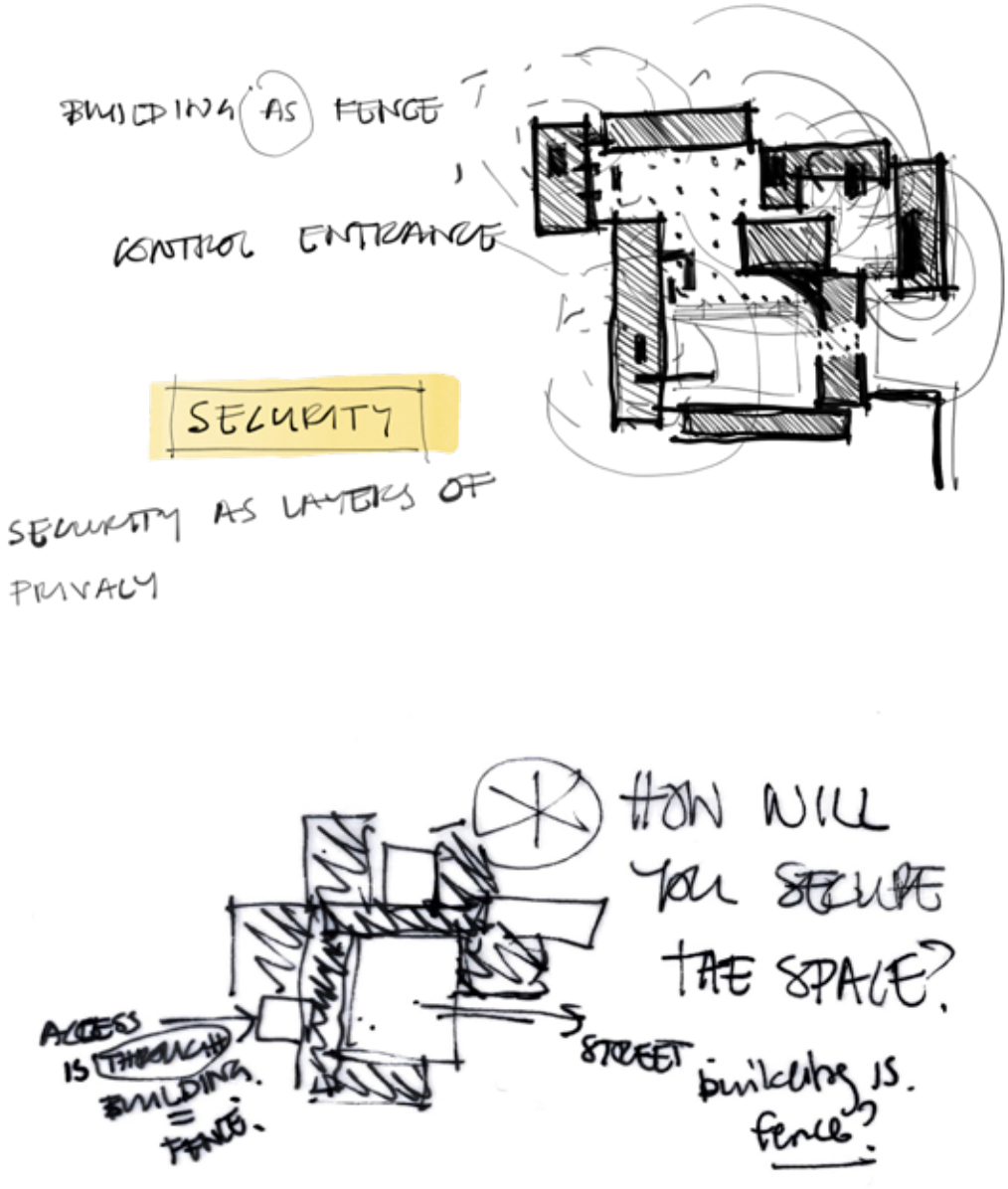


**Fig 101.** (Author, 2022)


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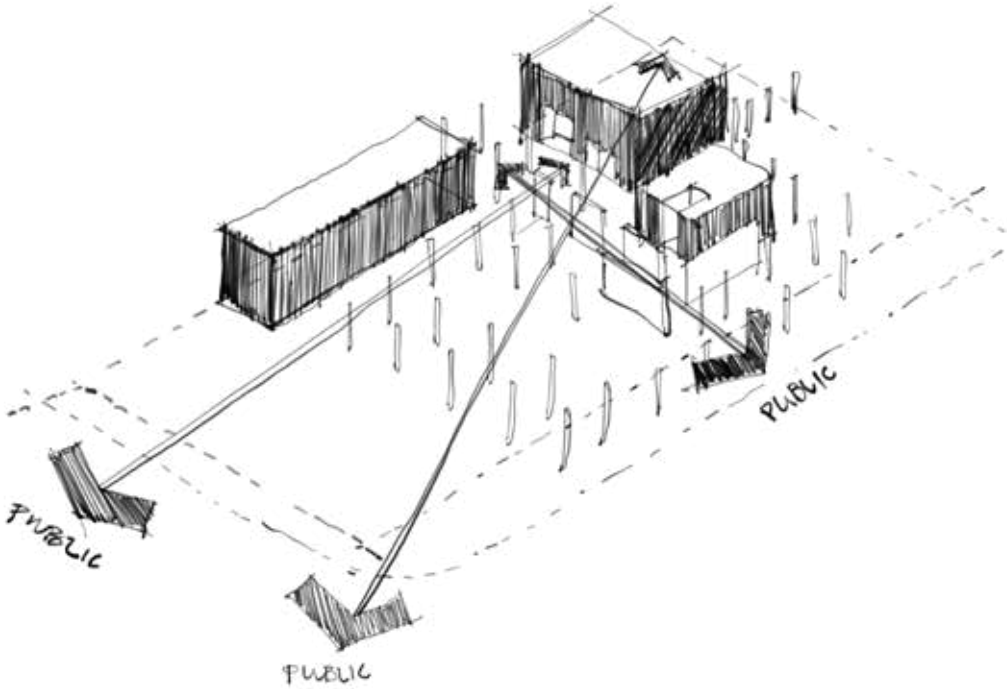
## INTERFACES

Informant:
The current typical government typology has an unfriendly or intimidating interface with the everyday of the city. The outside of your building becomes the inside of the city. Private buildings are experienced from the outside looking in while public buildings are experienced from the inside looking out.

Intentions:
Public buildings become an extension of the public realm, contributing to the family of public spaces that exist in the city. To create an attitude of urban generosity in the interface between the city and the building and in the interfaces within the building itself. These sketches illustrate different ways that the building edge can 'greet' the city in a welcoming manner.



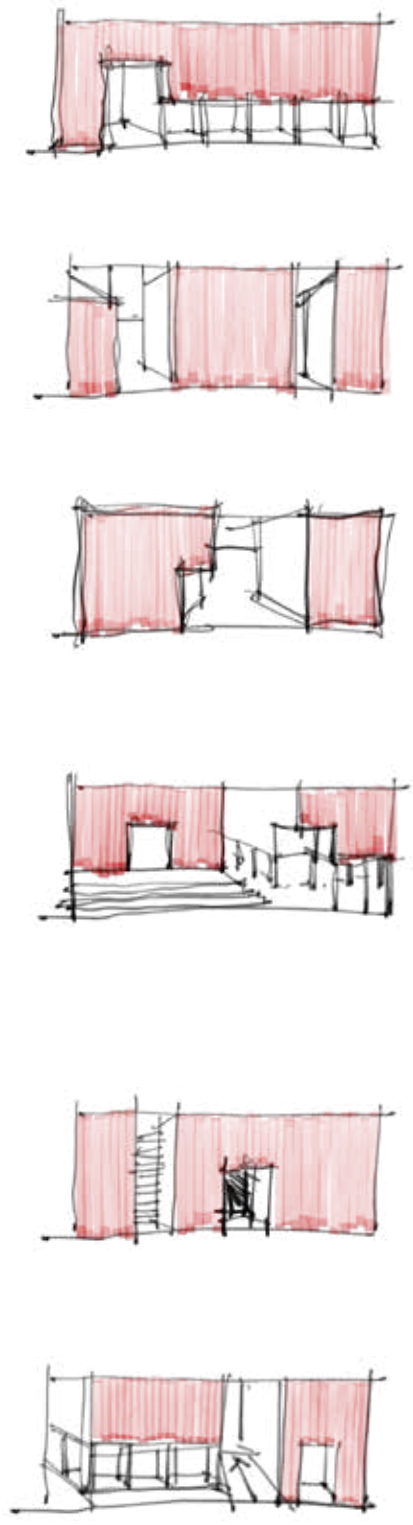



**Fig 102.** (Author, 2022)

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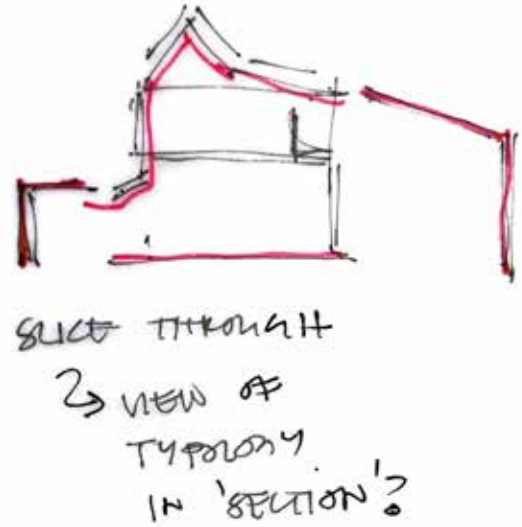
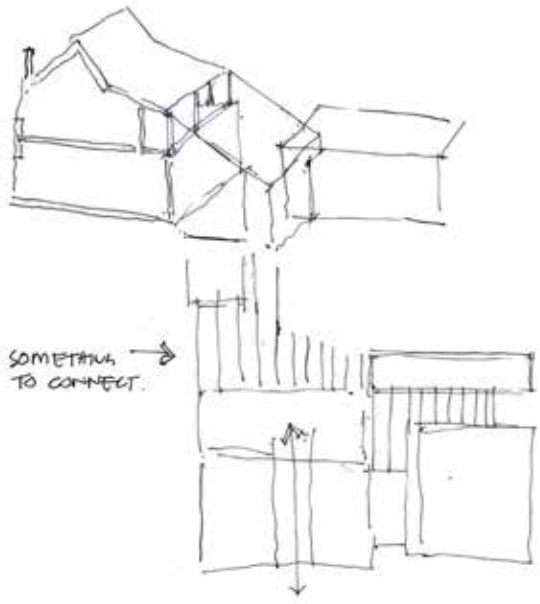
## HERITAGE

Informant:
Earlier in this essay, section 6.5, I explored how adaptive re-use is a powerful way of reframing contested heritage and pluralising their meaning. This doesn't, however, give guidance as to how to do this. Does one simply insert a new programme? What are the possible architectural strategies that can reframe the perception of existing heritage?

Intentions:
The intention is to simultaneously respect and reinvigorate/ reincorporate the buildings' connection and role in the city as part of one coherent narrative.



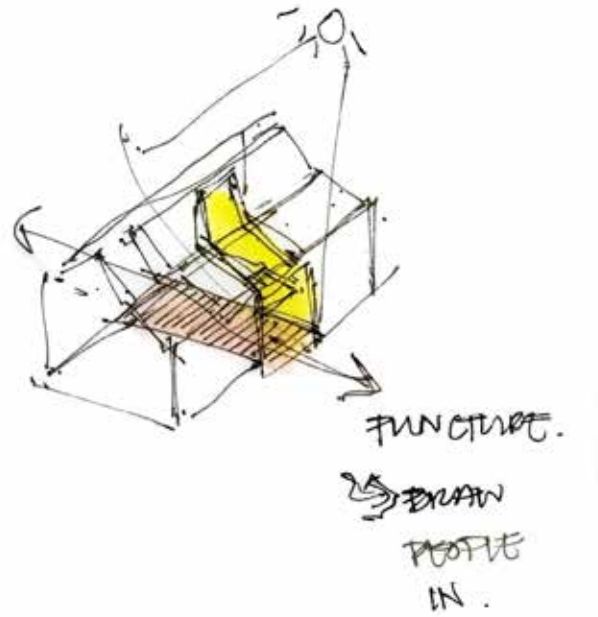




**Fig 103.** (Author, 2022)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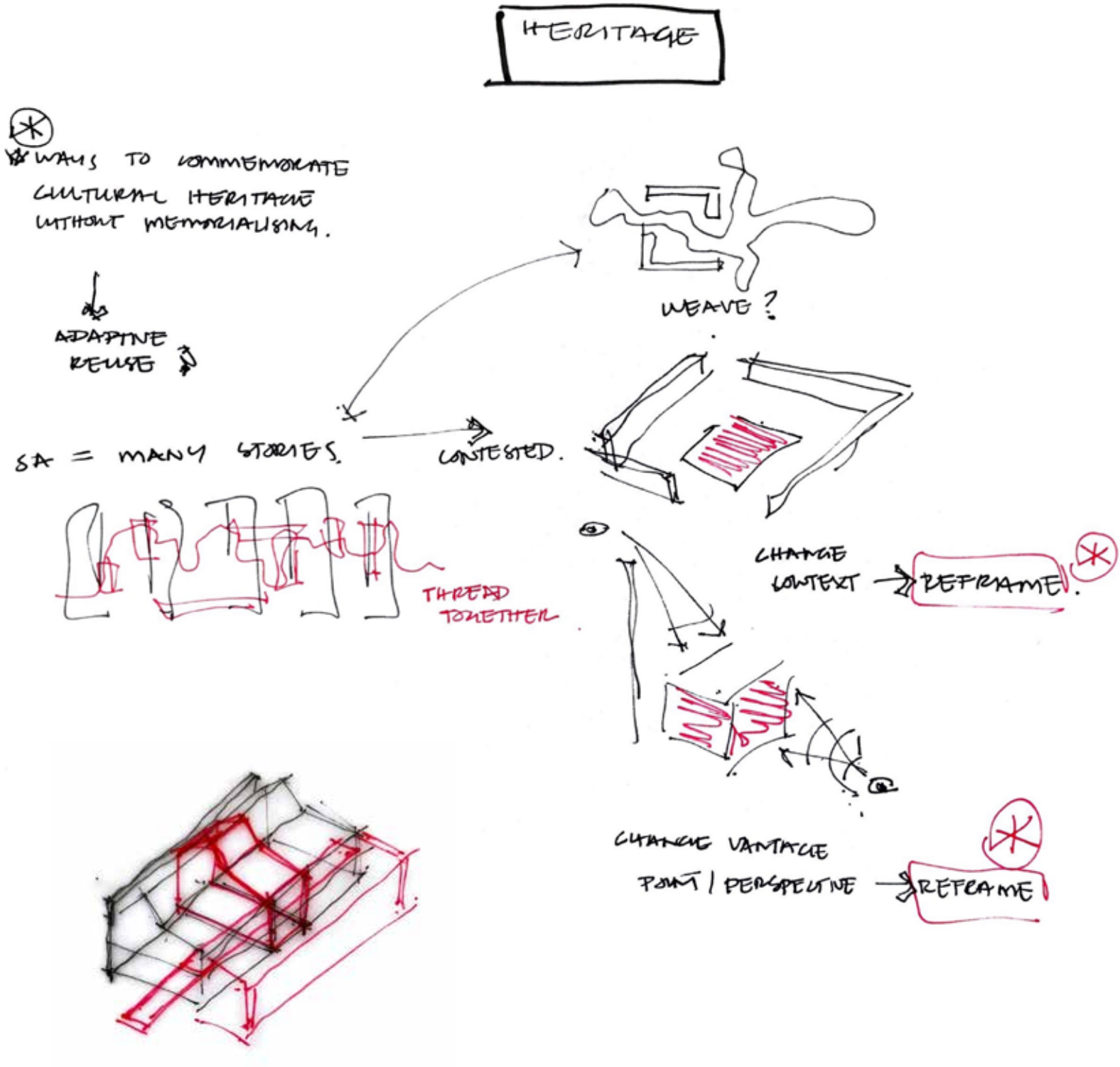


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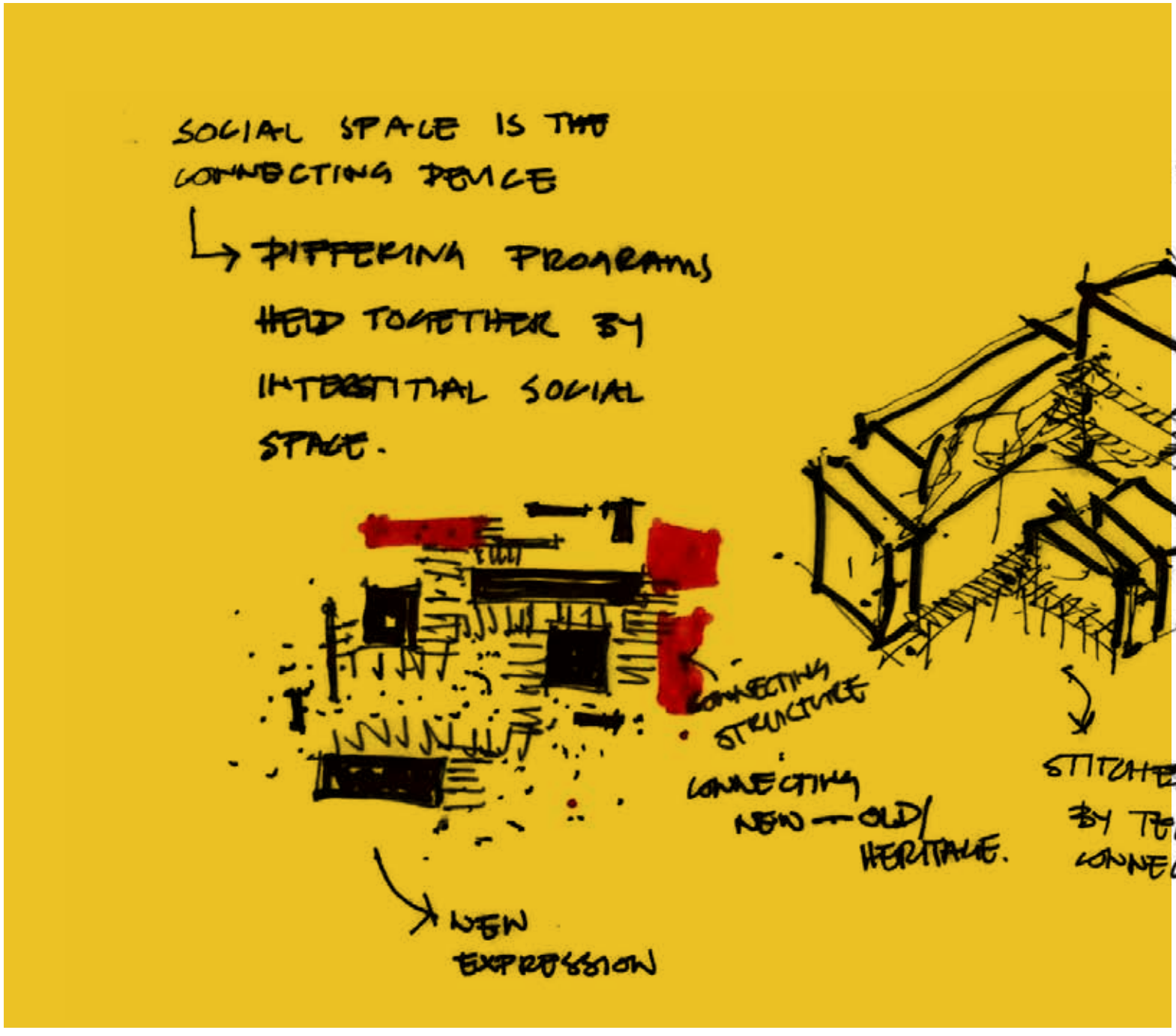


# 8. CONCEPT DEVELOPMENT

**Fig 104.** Initial concept diagram (Author, 2022)



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## 8.1. Concept

# Initial concept

The conceptual exploration was directly informed by the intentions of redefining socio-spatial relationships, the programme requirements, precedent studies, and the theoretical matrix.

The most important intention for the design is how to make what is usually an institutional space feel welcoming and approachable, centred around tactile human experience.

A new architectural language is introduced for the new programs, distinct from the heritage Panagos Buildings and the modernist Forum Building. Programs, architectural styles and the site are stitched together by the social interstitial space which has a light tectonic expression – lightly touching each architecture but weaving them together to create a connected whole. The circulation spaces and a series of pergolas connect the old and new together, weaving in-between all the programs. The new architecture has a completely distinct style and spatiality, contrasting the past and all the elements are stitched together with a lightweight

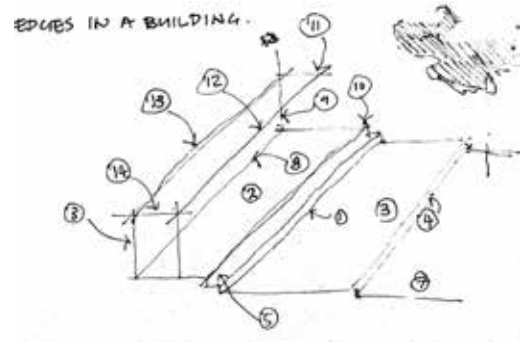


**Fig 107.** (Author, 2022)

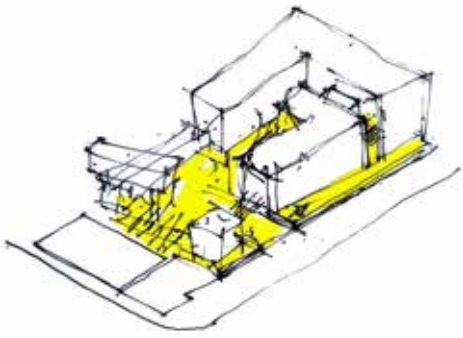

**Fig 105.** (Author, 2022)

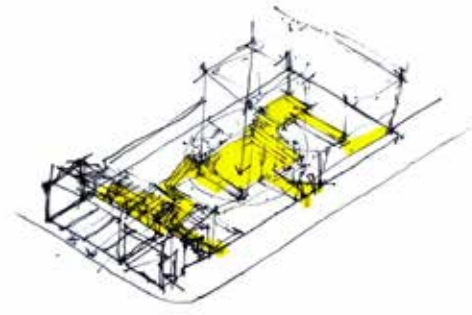

**Fig 106.** (Author, 2022)

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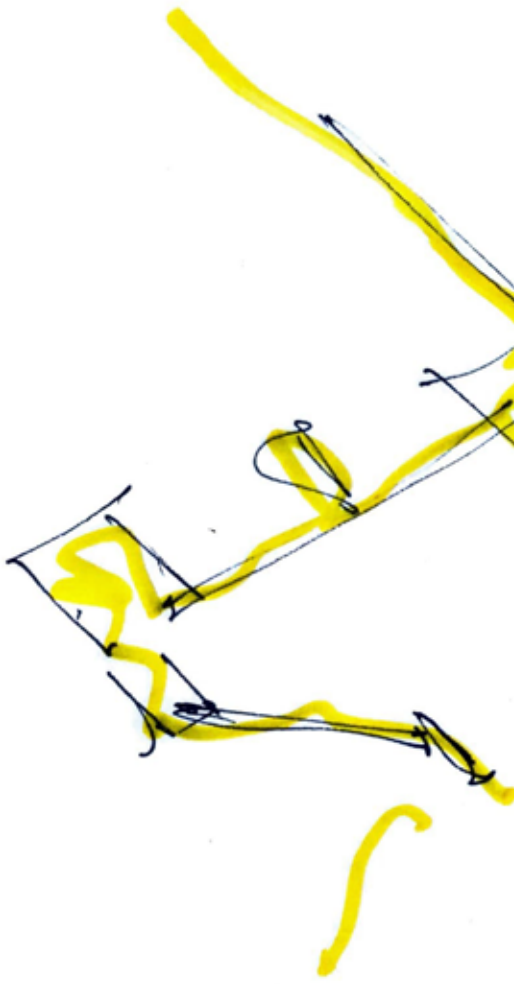
## 8. 2. Concept

# Concept development

The previous concept didn't fully express how power dynamics are challenged within the building and did not incorporate the heritage buildings into the project sufficiently. Nor did it address an attitude to how people interface with the building. There was an articulation of the in-between and connecting to context but nothing to guide the variation of the internal programmes that take place within the project.

A reinterpretation of point, line, and plane, to articulate the intimacy and publicness of a space. Open space is articulated as a graded spatial experience, from exposed to fully enclosed, to articulate the variety of types of engagement that take place within the building.

The analysis of various typologies within Tshwane revealed that what is lacking the most in governmental typologies is how they interface with their environments and the people they serve. It also revealed that there currently isn't a model of government building that simultaneously belongs to government and citizens and thus making government truly accessible. The City of Tshwane have stated that citizen participation and approachable governance are the primary goals of creating a governmental boulevard along Paul Kruger St. However, what the typological analysis revealed is that a spatial typology that transforms the interface between government and people does not yet exist. The analysis of how domestic and mixed-use typologies interact give insight into how government buildings could be more inclusive, democratic spaces. Primarily, it is through the creation of in-between space that bridges the sharp divide in programmes that people are welcomed in from the public realm. Translating the personal, intimate welcoming spatial experience to a larger institutional function is a key part of the concept.





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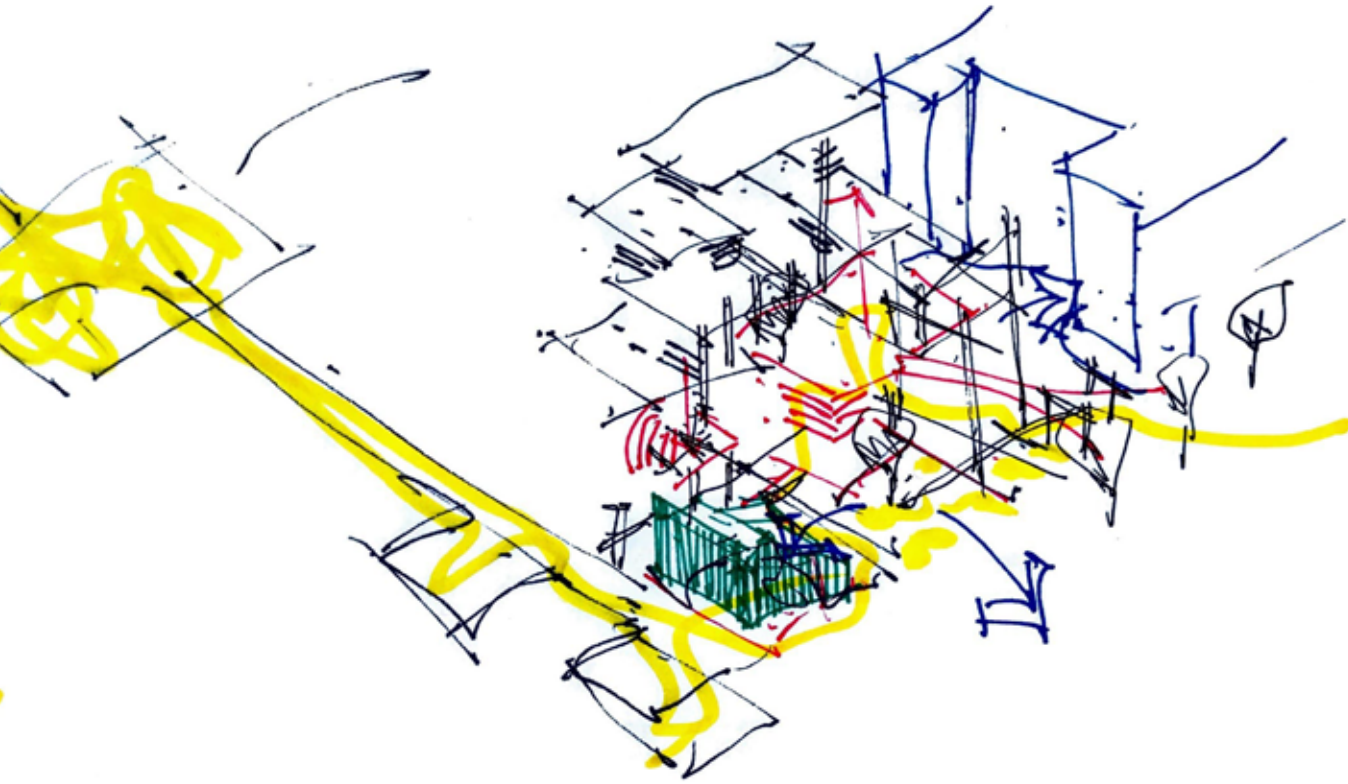

**Fig 108.** Urban concept exploration(Author, 2022)

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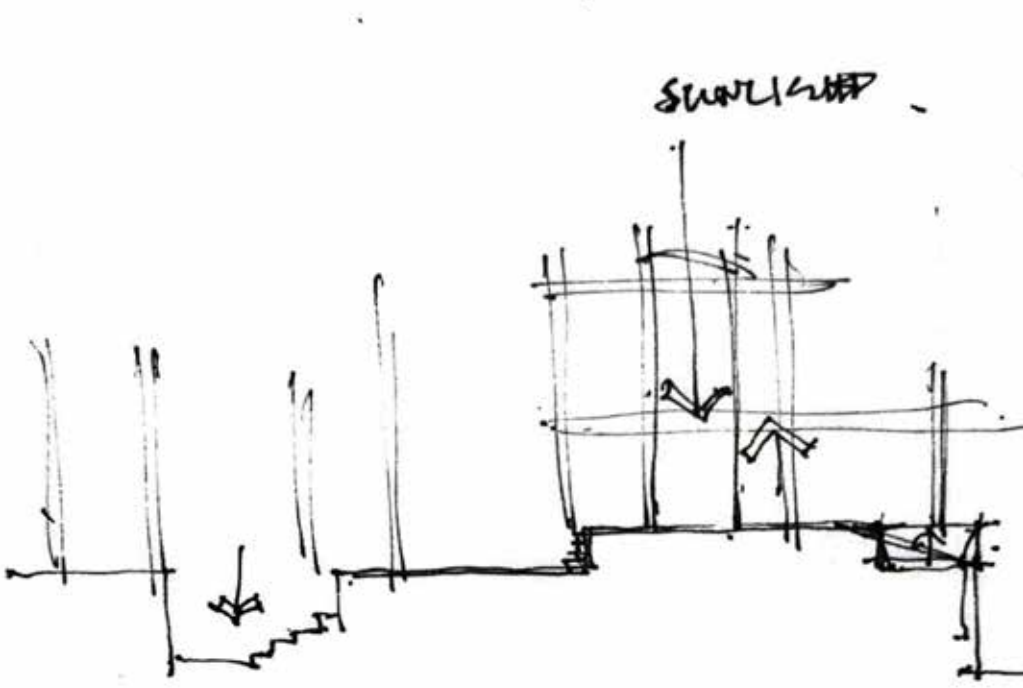
The concept is that the building serves as a series of spatial interfaces, subverting the traditional power dynamic that exists between government and citizens. It achieves this by connecting/ mediating the people and government, heritage/ contested memory, and the site and the city. The public realm is drawn into the site itself from the street – extending the network of public spaces and providing a new character of public space in the city.



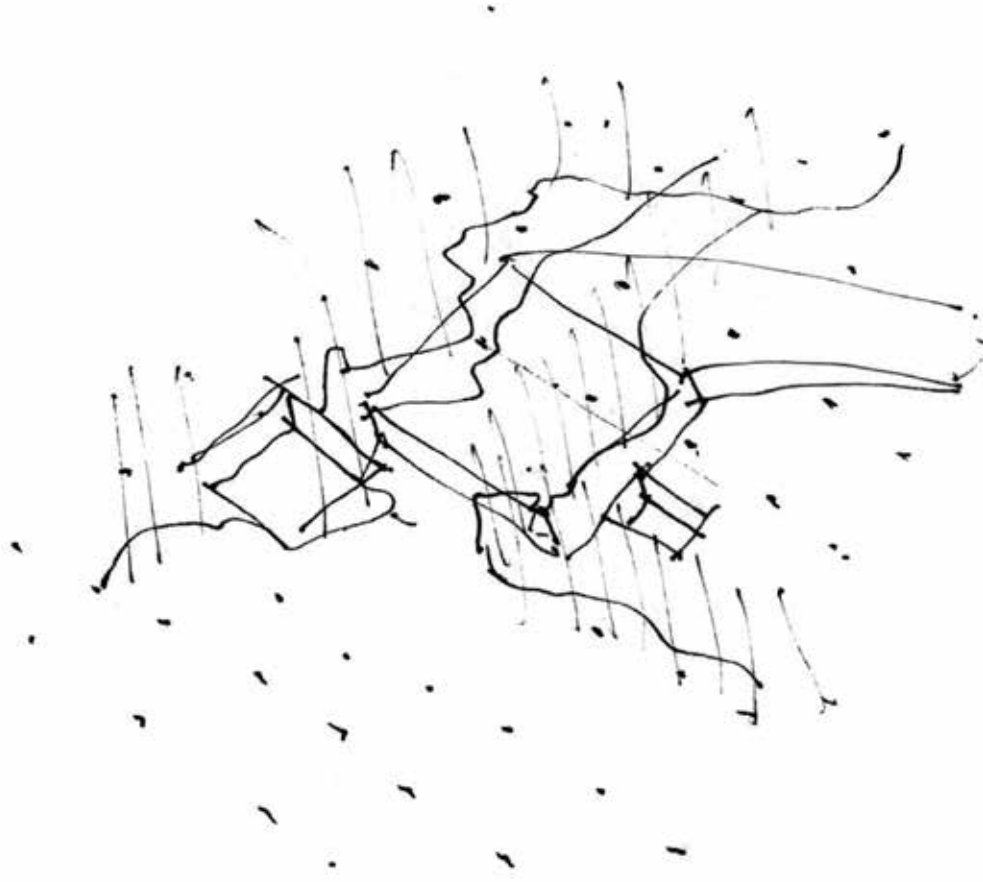



**Fig 109.** Concept diagram (Author, 2022)

**Fig 110.** (right) Unpacking layered concept (Author, 2022)



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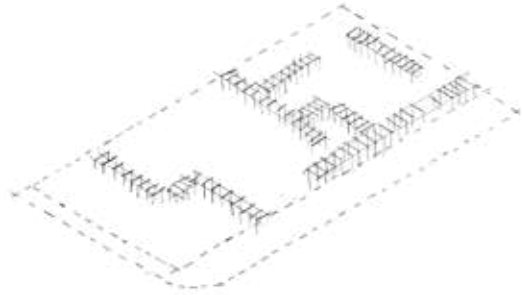
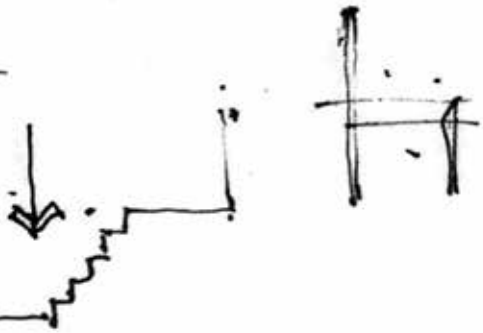
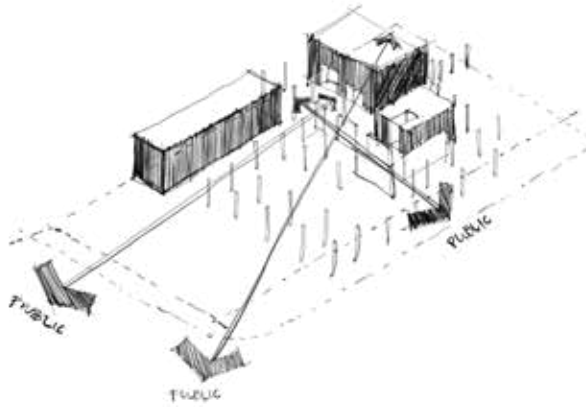
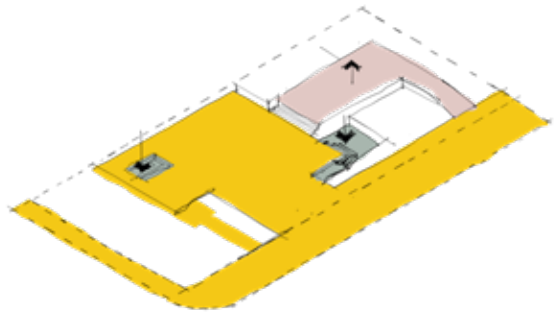


inbetween
connects

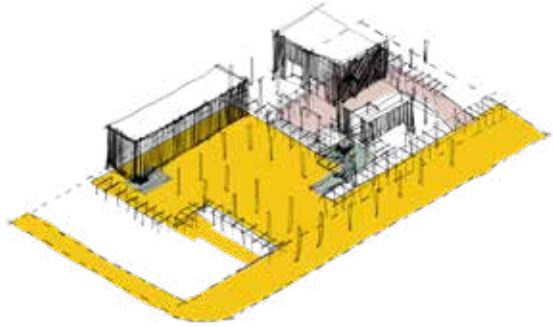





enclosure,
permeability, &
engagement



courtyards &
platforms



synthesis

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# SYNTHESIS

**Fig 111.** View of the site behind the heritage Panagos building (Author, 2022)



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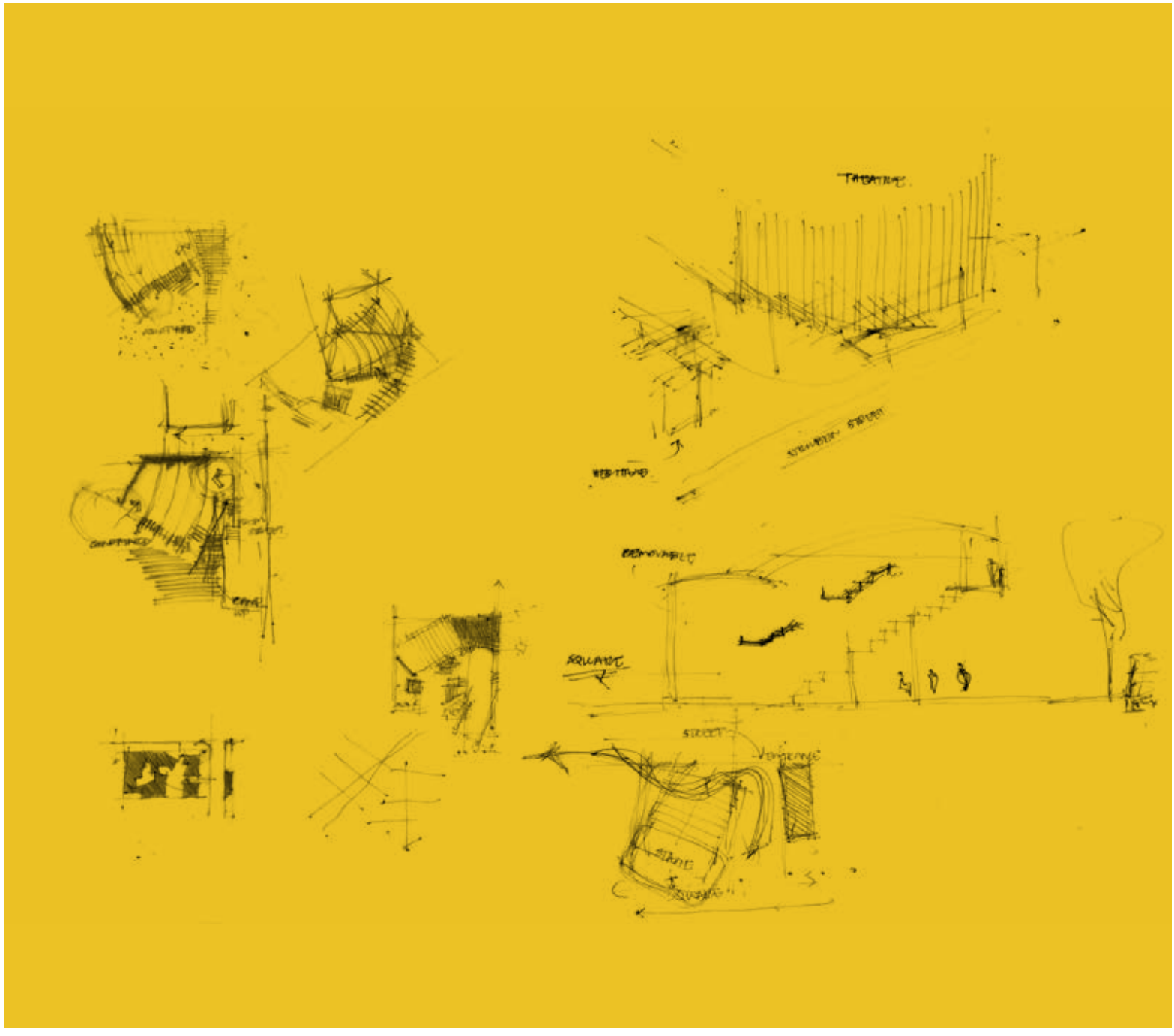

# 9. ARCHITECTURE OF INCLUSION

**Fig 112.** Design explorations
(Author, 2022)



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9.1.

# Introduction

The in-depth investigation of the site and the conceptual intentions and possibilities were directly translated and tested in a series of design and technological iterations.

The development of a new typology of government – citizen engagement is the most important intention of the design explorations.

This chapter focuses on what the spatial expression of democracy could be and the contribution that architecture can make in shifting the relationships of power existing within the City of Tshwane and South Africa.

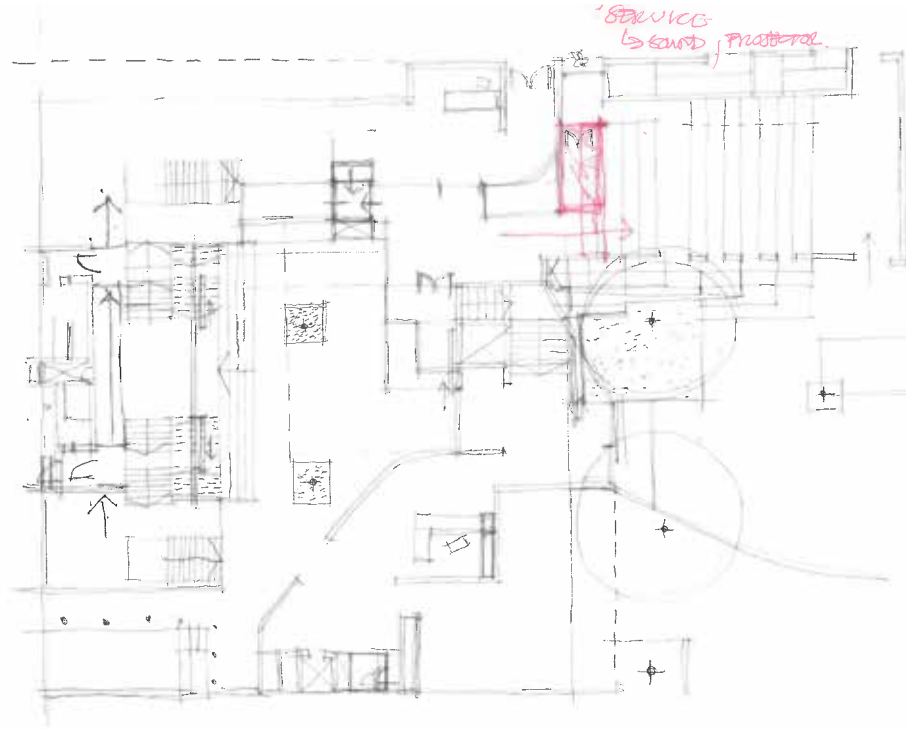

**Fig 113.** Plan exploration, exploring the in-between (Author, 2022)

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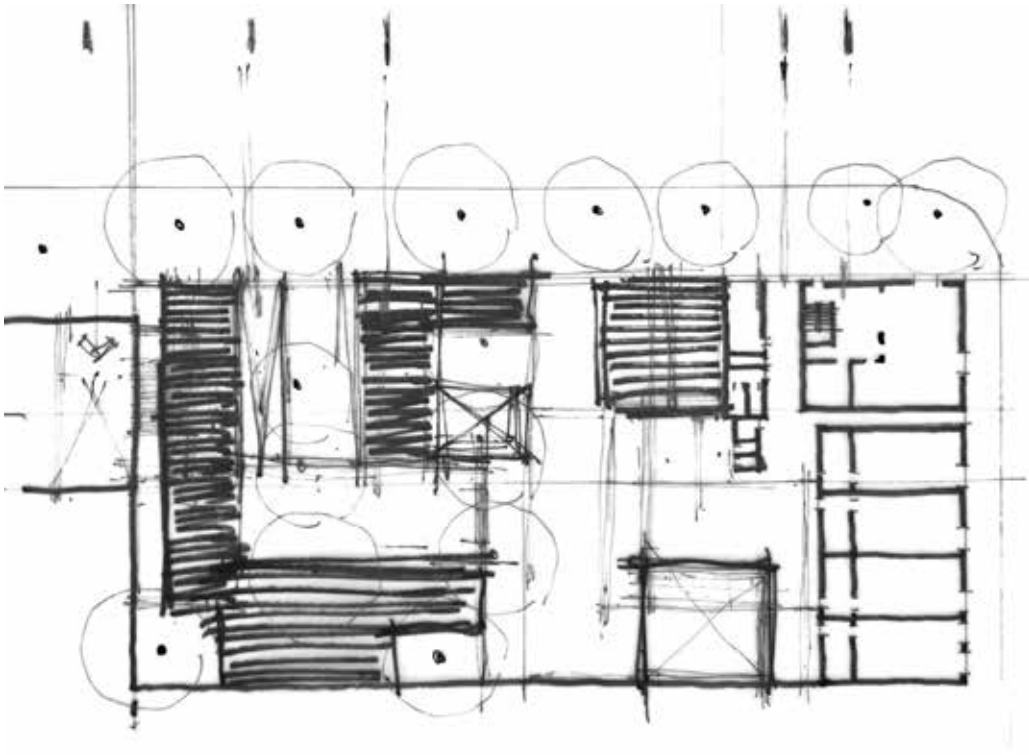
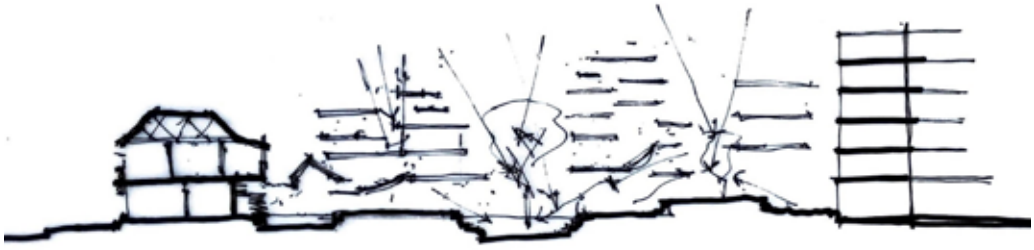
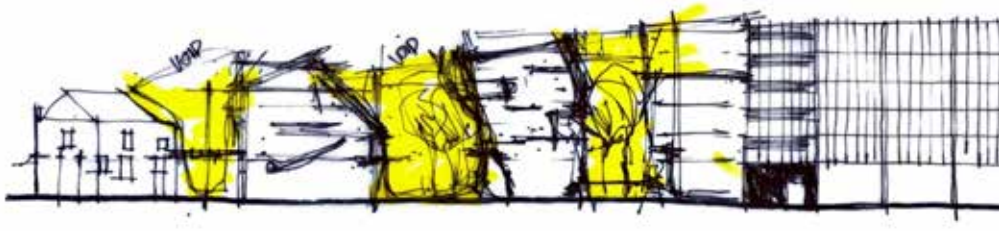
9. 2.

# Iteration 01







The first iteration explores the idea of two courtyards that grade the transition from street – public living room – semi-public courtyard – building. Two entrances that activate each street frontage. One ramps up slowly from the street to the upper courtyard level. This enables continuous movement from the street to the upper courtyard. The approach from the public courtyard is via steps, in this position there is a more gradual transition from the public courtyard and the private one.

The main public space is located just behind (to the west of) the Panagos Buildings. This allows the heritage buildings to have space to 'breathe.' By not building right on top of them, their scale and integrity are respected. It also incorporates their less public west facades and creates activation both on the street and the public courtyard.

Critique:
By leaving the heritage buildings relatively untouched they lack integration with the rest of the project and don't fulfil the intentions for the overall scheme. A means for how to conserve, but incorporate, the existing heritage buildings needed investigation.

**Fig 114.** (top left) Iteration 01 (Author, 2022)

**Fig 115.** (middle left) Sectional exploration (Author, 2022)

**Fig 116.** (bottom left) Sectional exploration, testing how to ensure that each courtyard is filled with light (Author, 2022)



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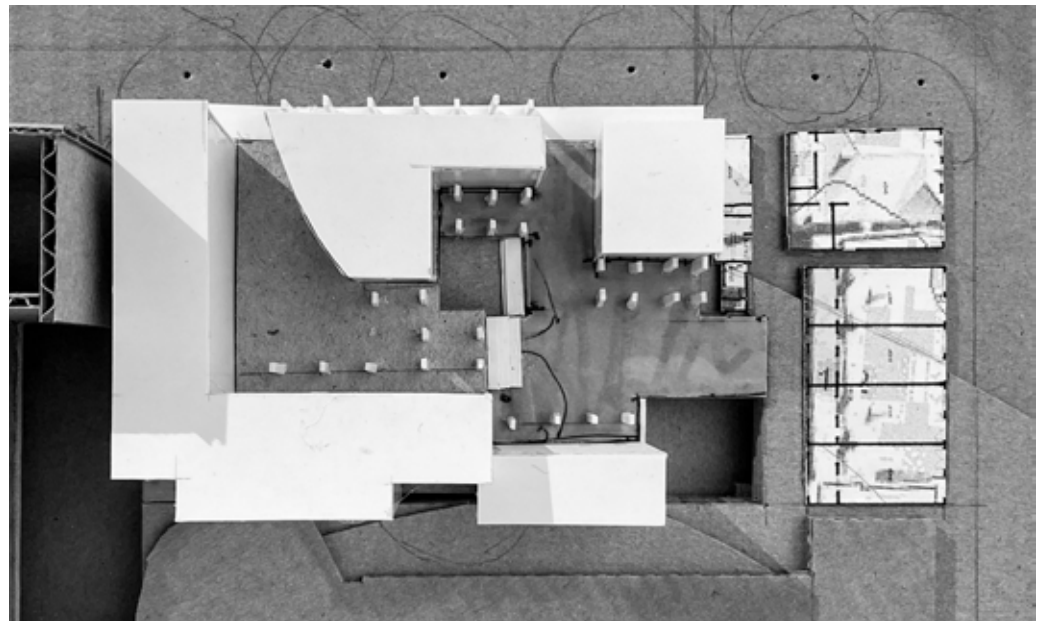
A third sunken courtyard that offers a different vantage point of the heritage buildings was introduced. There are many ways to reassess how a heritage building is perceived – alteration of perception without actual alteration of the buildings themselves.



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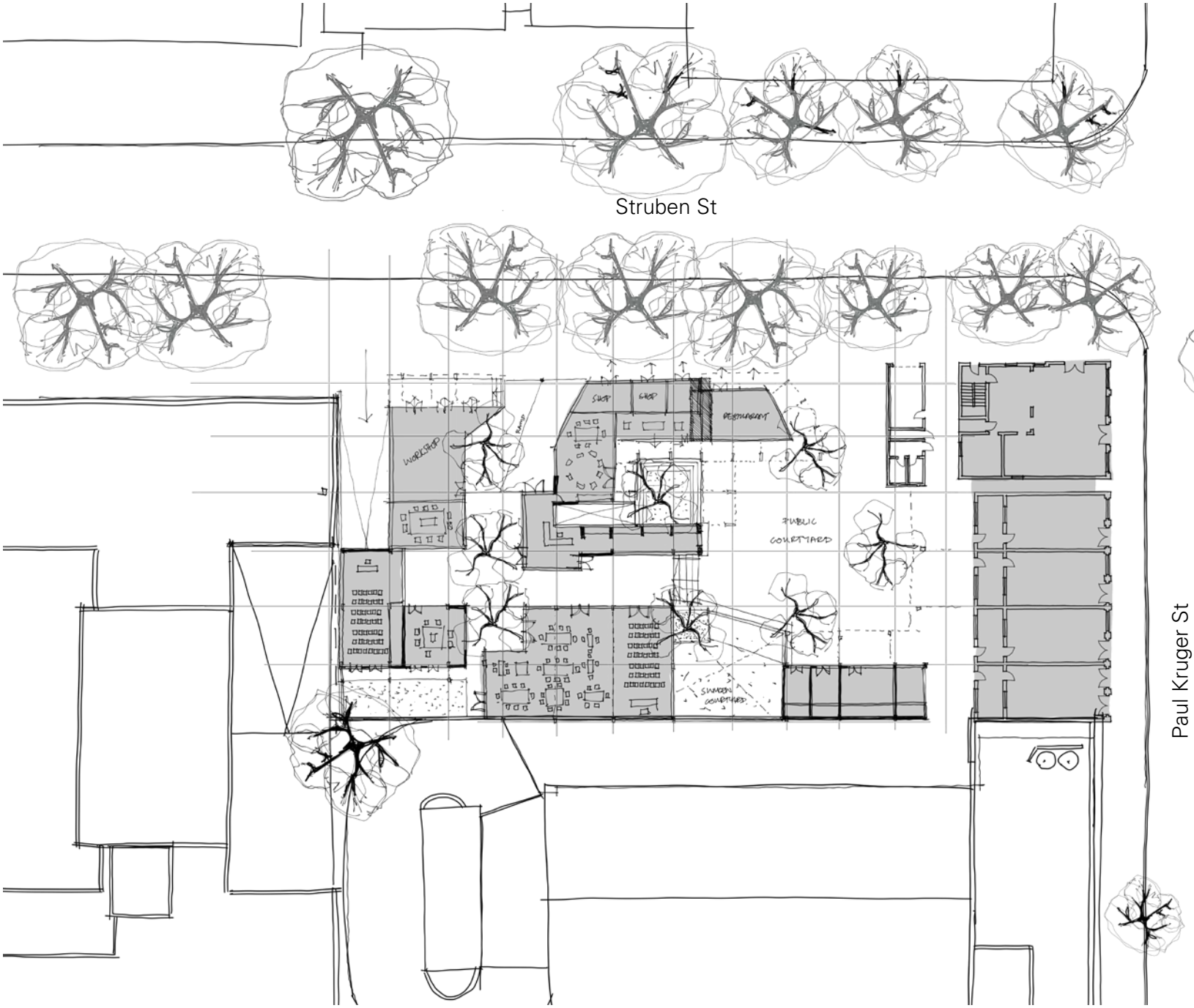
9. 3.

# Iteration 02



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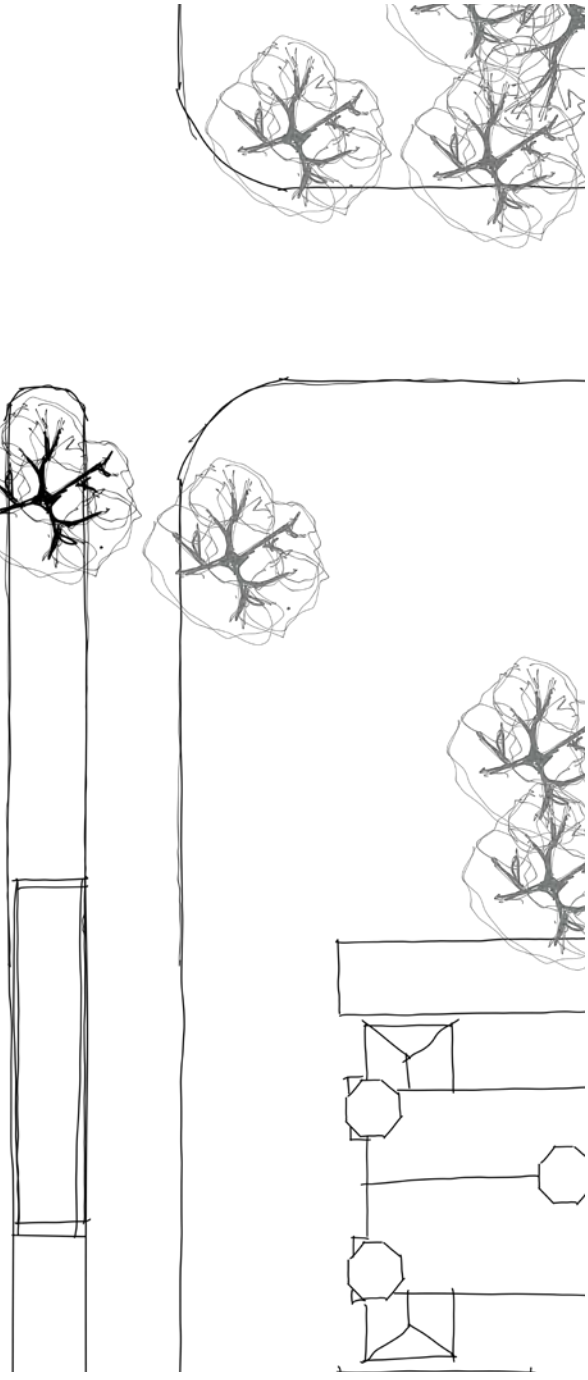

**Fig 119.** Ground floor plan of iteration 02 (Author, 2022)

In the first iteration the sunken courtyard is too close to the existing buildings and still leaves the heritage buildings untouched and separate from the scheme. Building right up against the heritage service building overshadows the building completely. The massing towards the west and south edges is too monotonous and it can be argued that they are too late-modern and simply repeating the modernist administration building typology.

This iteration explored moving the sunken courtyard further away from the existing heritage buildings and breaking up the massing of the building to create more variation in the interstitial space.

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9. 4.

# Plan and sectional explorations

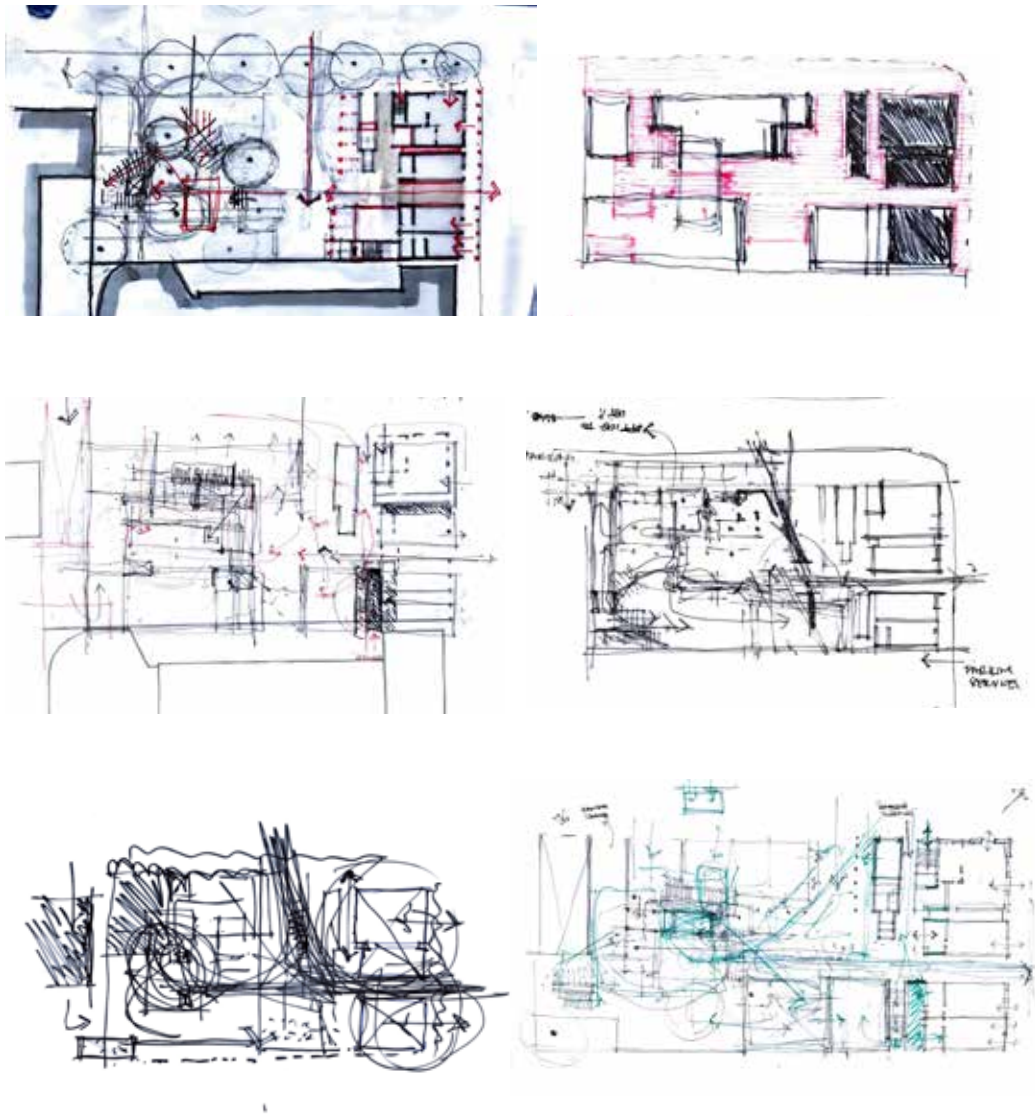

**Fig 120.** (this page) Ground floor plan explorations (Author, 2022)

The plan iterations shown in figure 99, are quick intuitive explorations of the flow of movement and journey from the street to the interior of the building and how that might influence the massing and positioning of successive threshold into the site.

Section 1 (Fig 100)
A purely intuitive spatial exploration of how vertical connections can be achieved within spaces. The section also tested a possible blurring between the interior and exterior to further connect the building to its context that the interstitial spaces where incidental social encounters are possible. There were several key lessons to take from this exploration but ultimately having so many split levels creates complications in terms of accessibility which is incredibly important in a public building such as this.

Sections 2 & 3 (Fig. 101 & 102)
These sections explored the possibilities of how the new building can reach out and touch the existing heritage buildings so that they are incorporated into the activity of the site and don't sit as removed objects. The sectional explorations also explore how the articulation of the roofs of the heritage buildings can be brought into the language of the interior of the new building. The different levels of courtyards and the interstitial spaces are connected vertically and are explored as extensions of each other.



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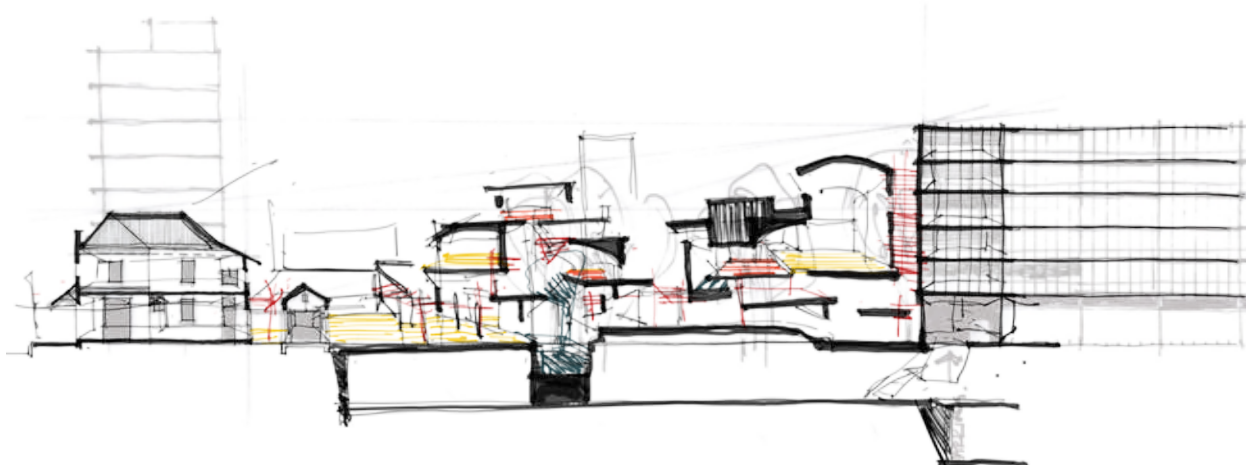

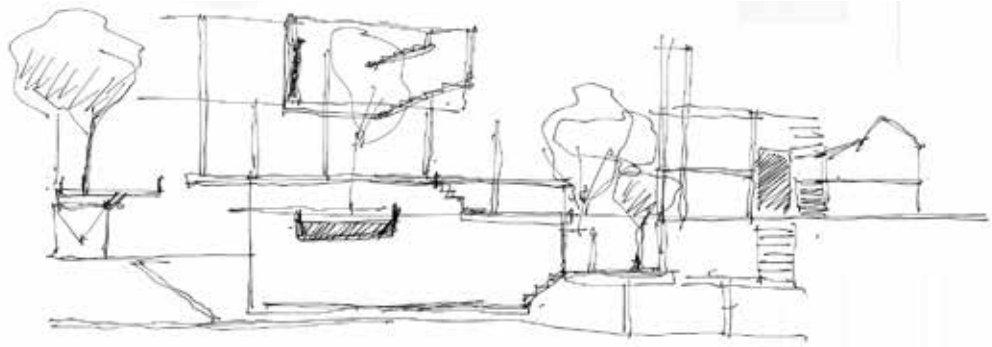

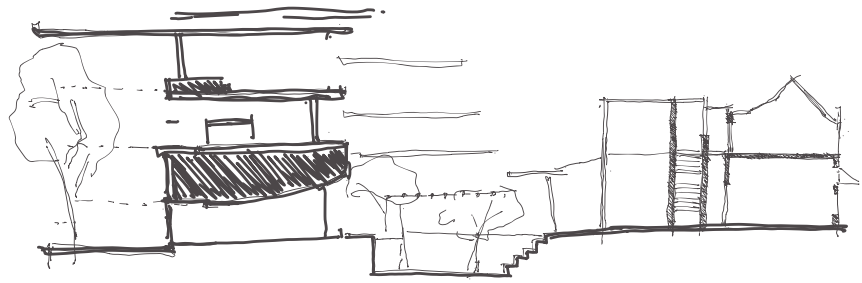

**Fig 121.** (top) long section exploration (Author, 2022)

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The previous iterations showed the necessity of developing an attitude for dealing with the various edges of the building as each edge has a very different relationship with the context. These sections show the intentions for different zones and edges of the building to help guide design decisions about their detailed articulation.

Yellow: The most public edges that need to draw people in and have strong interactions with the city.
Orange: Slightly more removed from the street but too have a strong relationship with the public and communal spaces within the site and building.
Pink: Spaces that have a more internal relationship and create connection and cohesion within the more private spaces within the building.
Blue: The architecture that mediates between the heritage buildings and the new building – a bridge if you will.
Red: The northern edge, which needs to have a push and pull relationship to the street, offering both connection and privacy simultaneously.
Grey: The southern boundary edge which looks onto the neighbouring multistorey parking garage. This edge needs to bring in light but has limited views out to the city. The neighbouring building has a blank façade so there is little interaction to be had on this edge.

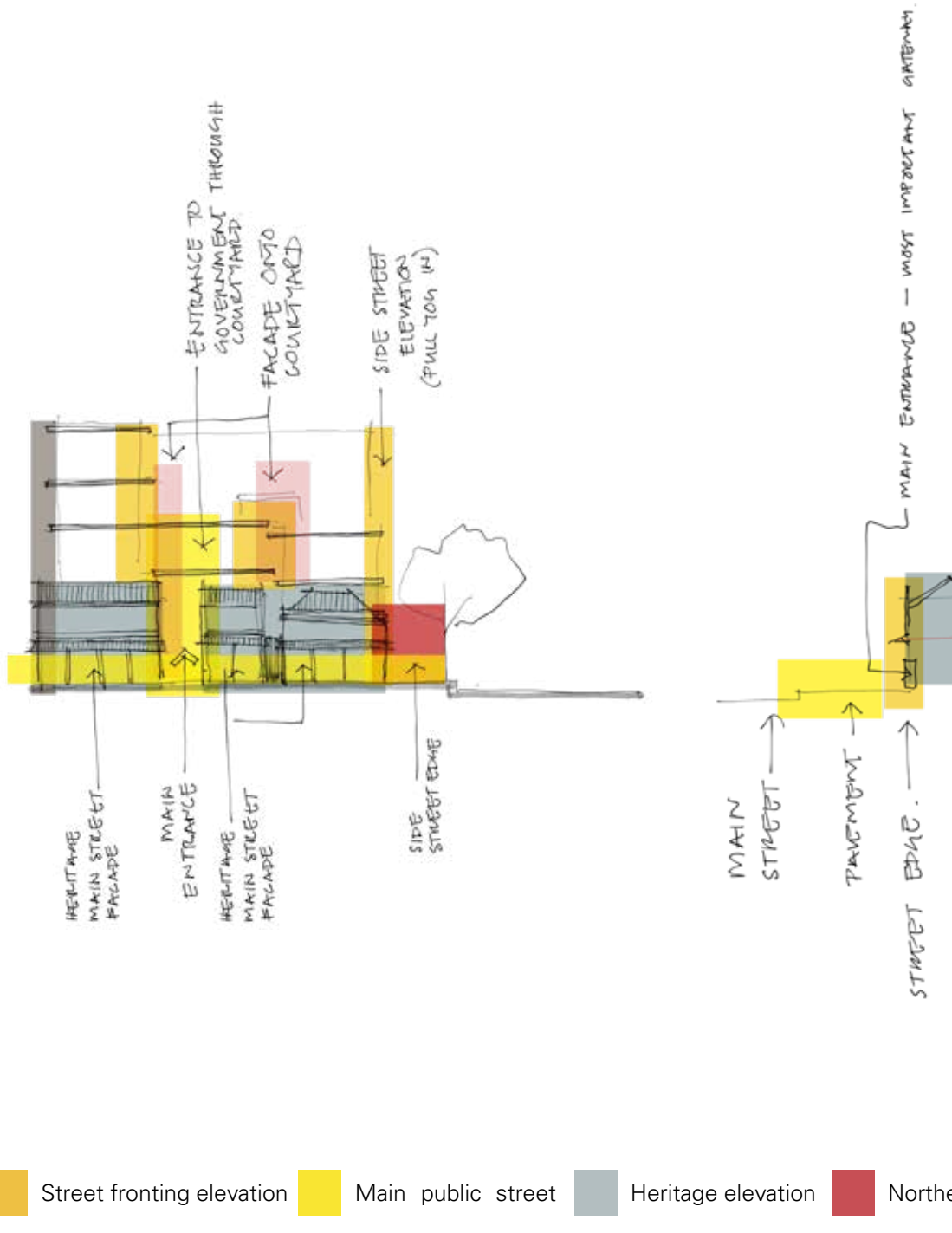


**Fig 124.** Edge characteristic intentions (Author, 2022)


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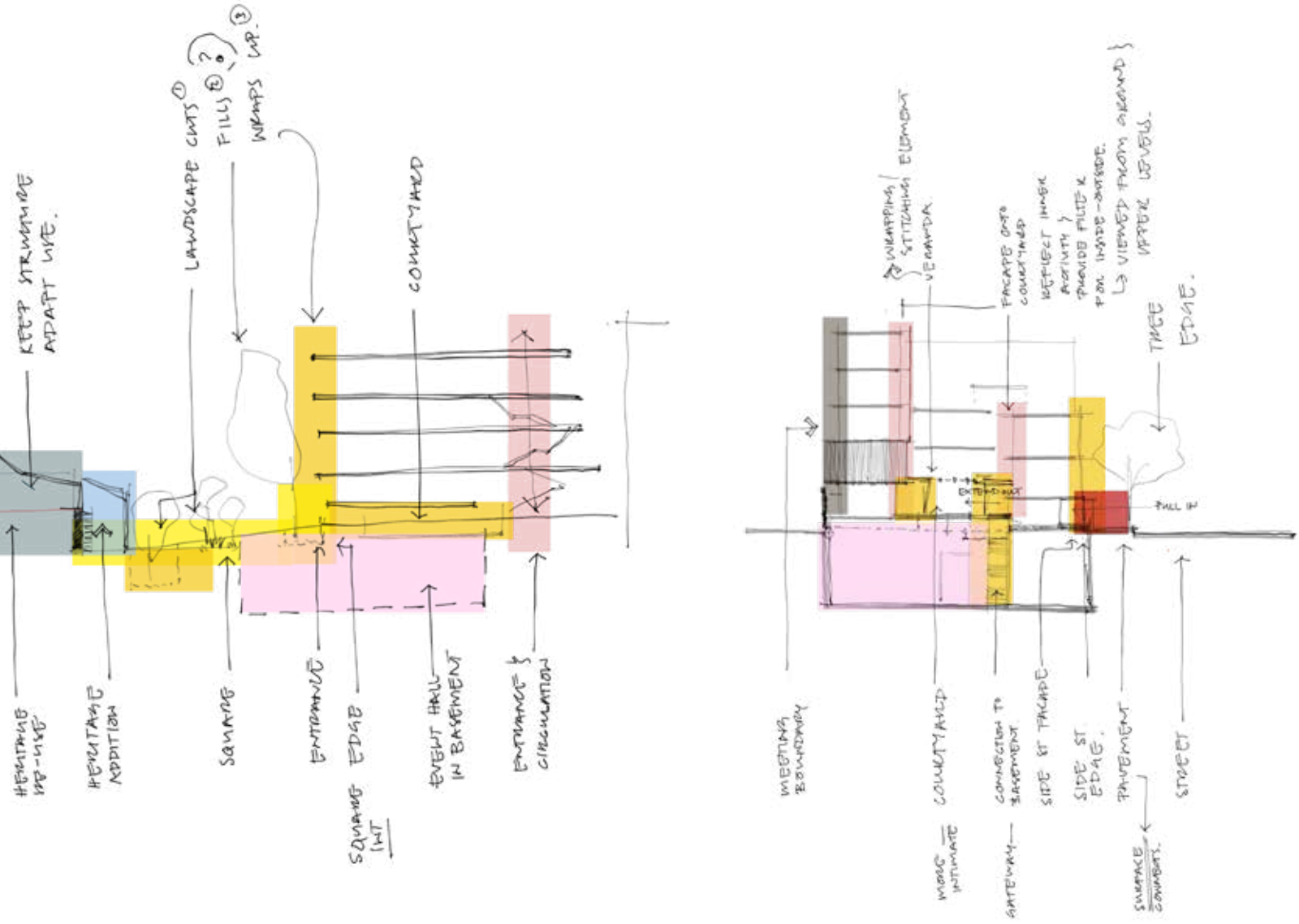


ern street edge | Internal elevation | Basement | Mediating heritage | Southern facade

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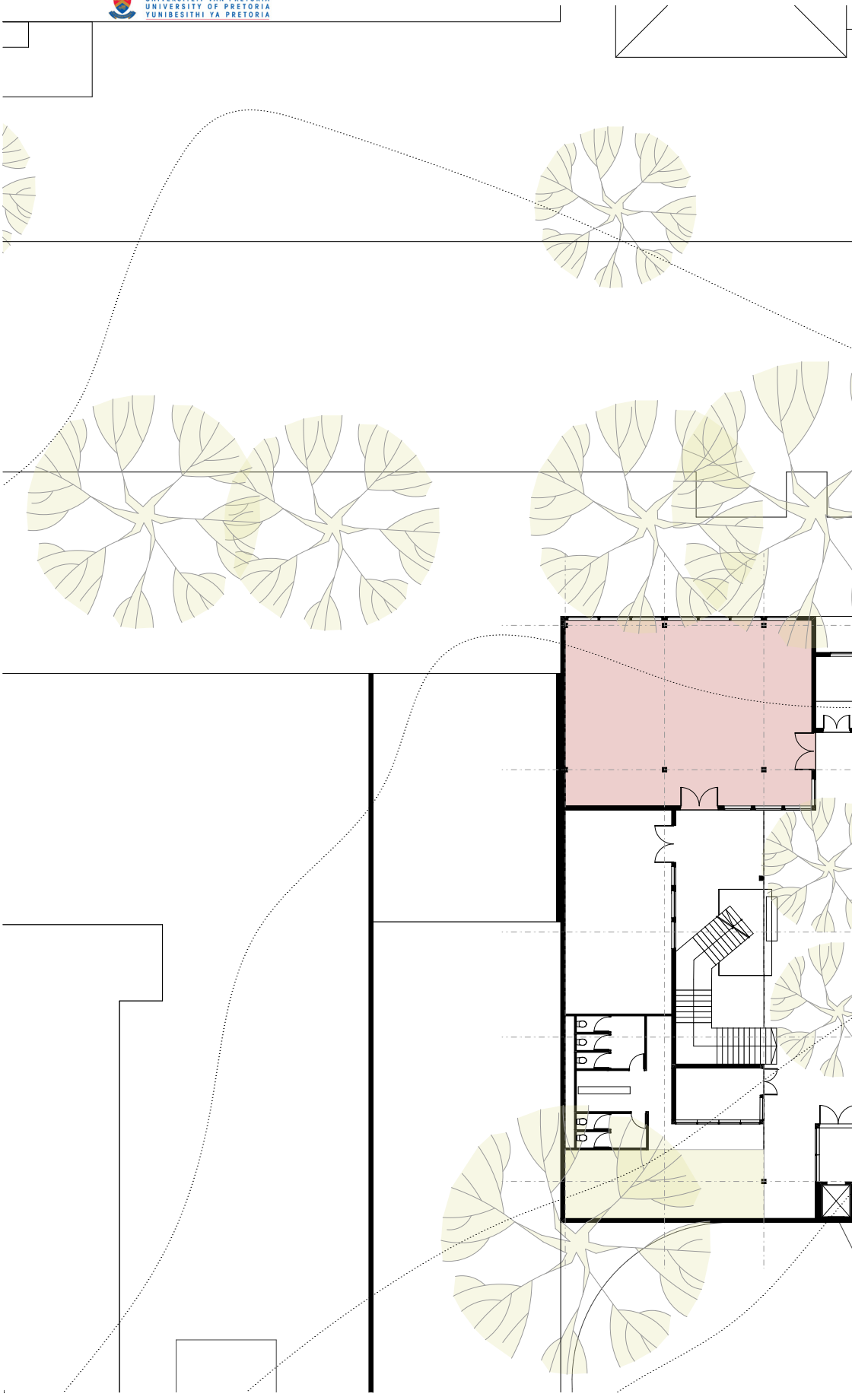
9. 5.

# Iteration 03

The previous iteration had a separate entrance to the basement parking which occupied an excessive amount of space. The neighbouring building to the west is also a government building, housing the Department of Transport, and has a basement parking level which is accessed right next to the western edge of my site. Iteration 03 explored consolidating the basements of the two properties – the basement was extended underneath the site and it is proposed that they share an entrance to share infrastructure.

This basement only accommodates the individuals who work in the building. In the vicinity, there are two other public parking facilities as well as a public transport BRT station directly opposite the eastern edge of the site along Paul Kruger St. People visiting the building to engage with the various programmes will therefore make use of these facilities.

The massing is more open to the courtyard and is broken up more to allow for more interstitial space. The sunken courtyard is moved further away to give more space for the heritage buildings to breathe.



Ground Floor Plan

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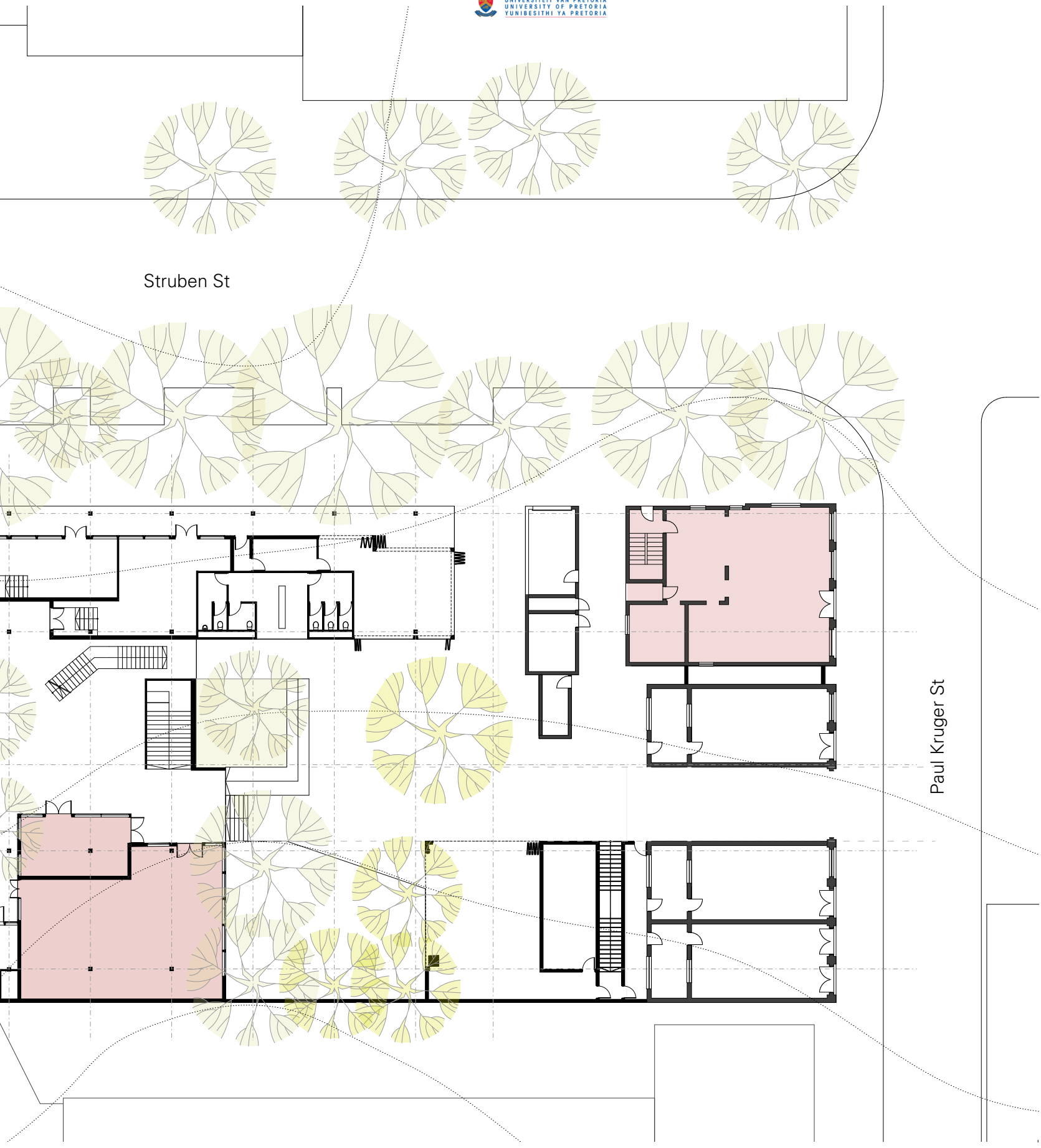


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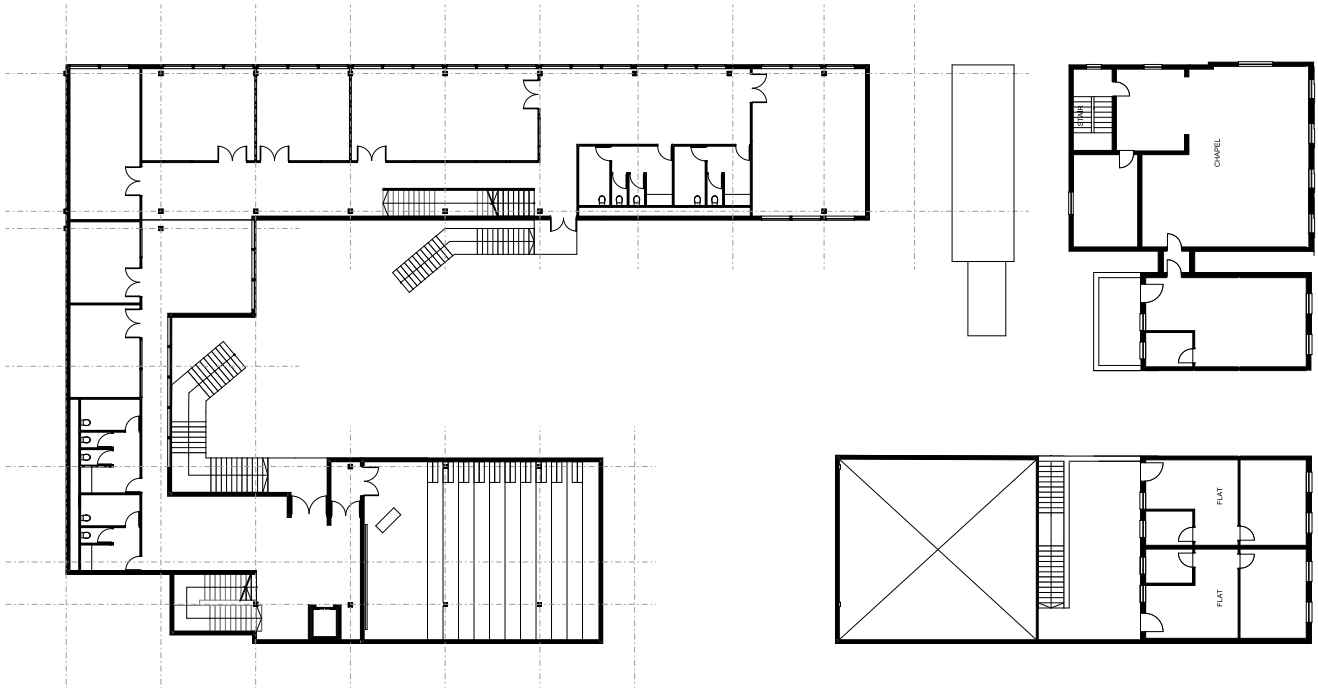
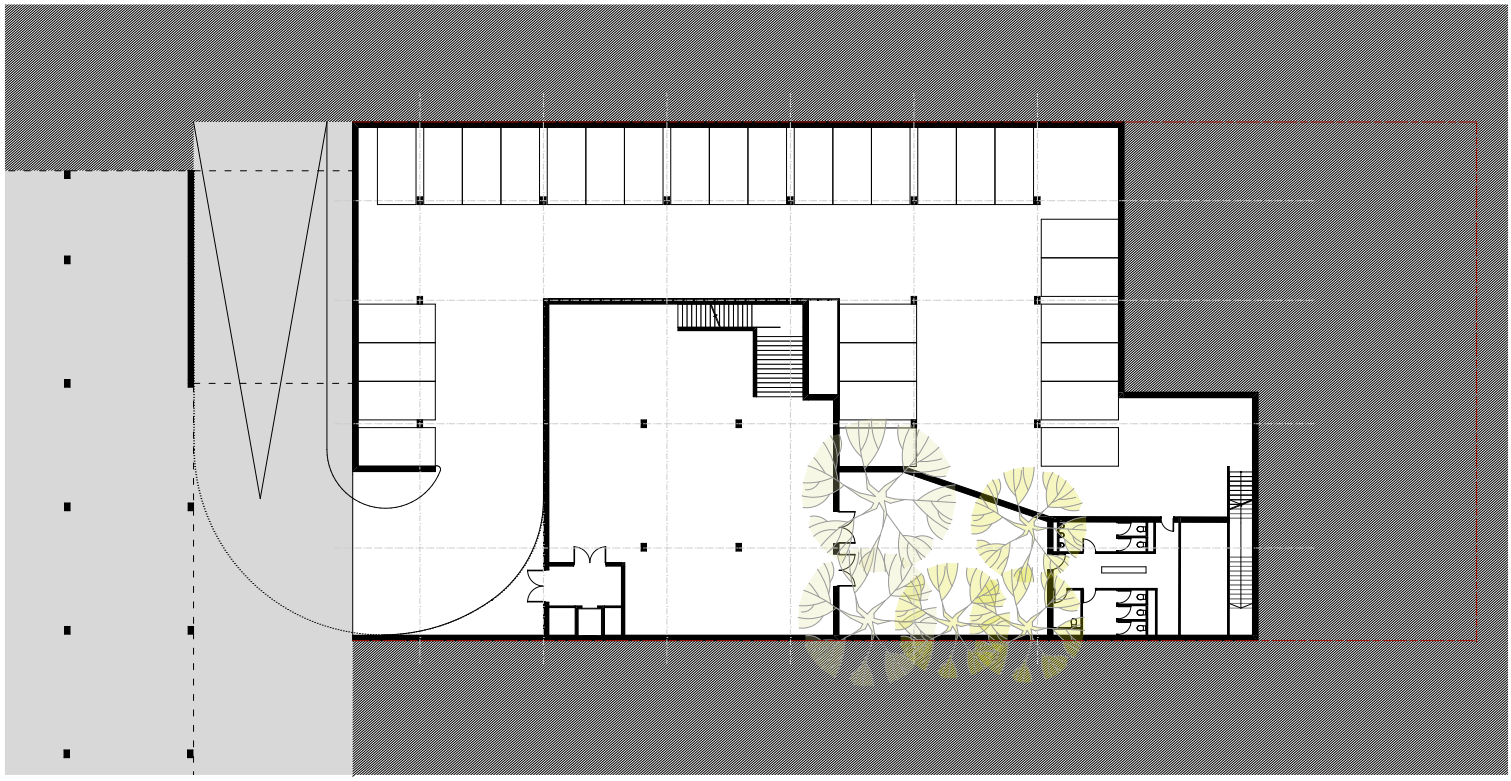



First Floor Plan



Basement Floor Plan



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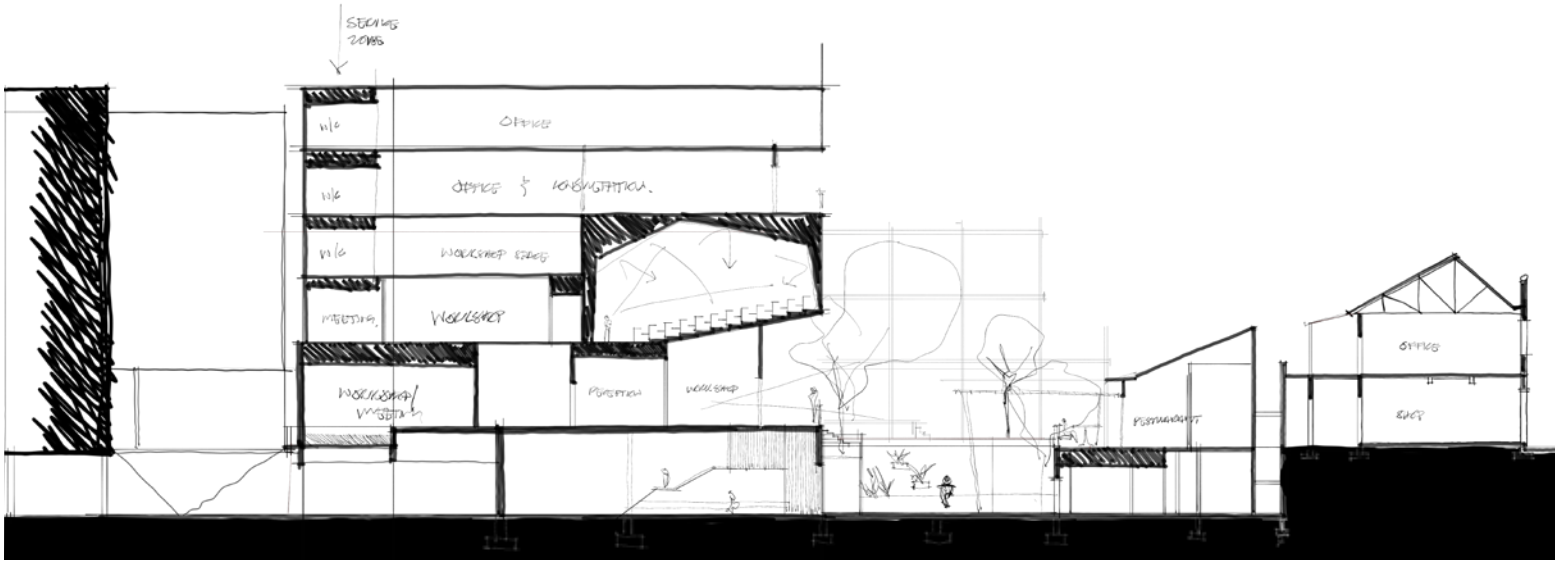

**Fig 125.** Sectional exploration of iteration 03 (Author, 2022)

The facade of building B is made of four repetitive bays. In its original form, each bay was an independent shop and living unit stacked on top of each other. A connection between Paul Kruger St. and the inner public courtyard needed to be created. Otherwise, the public space sits removed from the main axis in the city. Puncturing through the existing building – essentially removing one bay – allows for the creation of an arcade between the main street and the public interior. This action makes use of the arcade typology that exists already within the city centre. It also allows for the interior of the existing buildings to be understood from a different perspective, the urban resident can experience the typology almost in section, through the new arcade that is created.

The edges should be completely glazed so this idea of experiencing the interaction in 'section' is emphasized.

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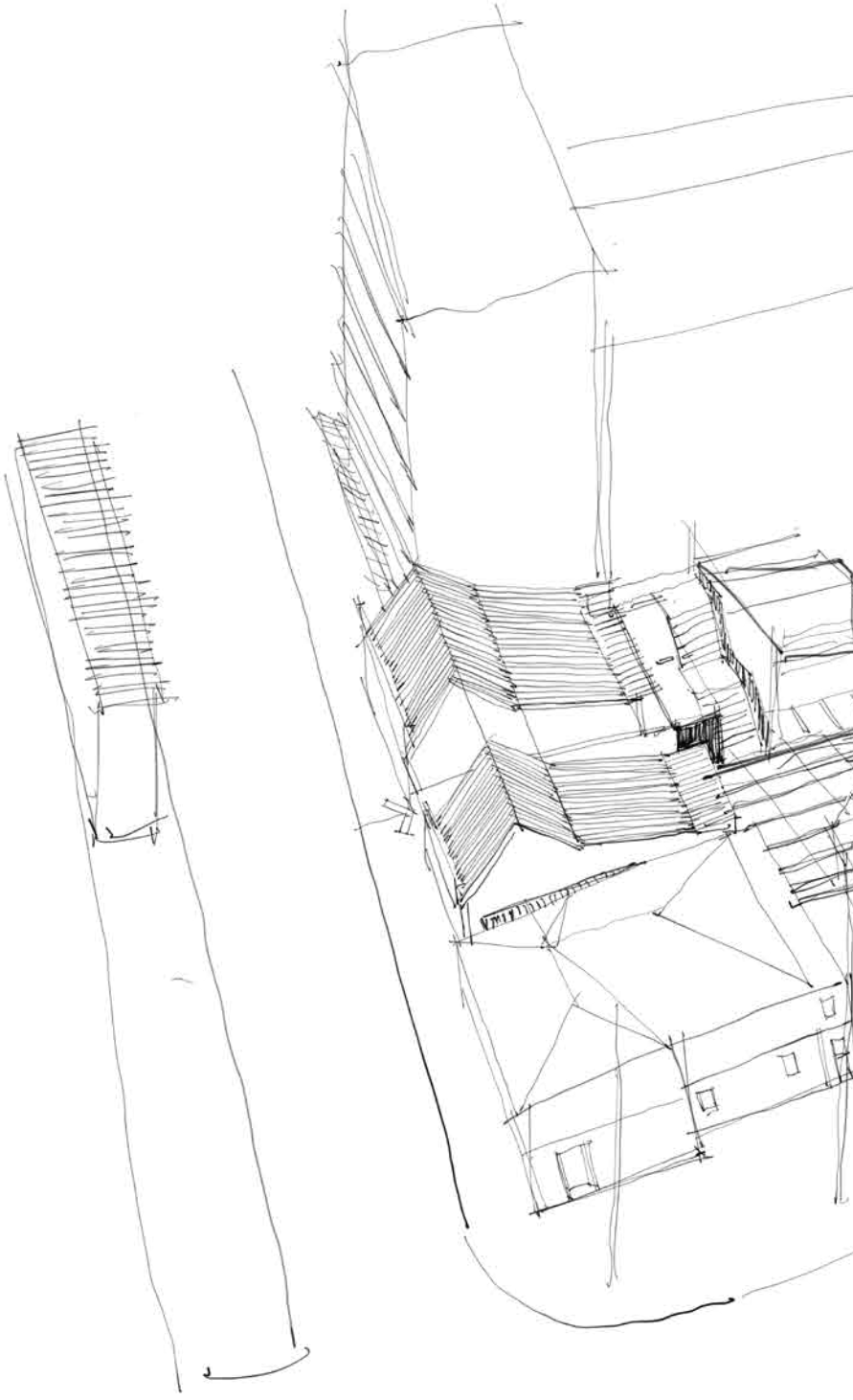



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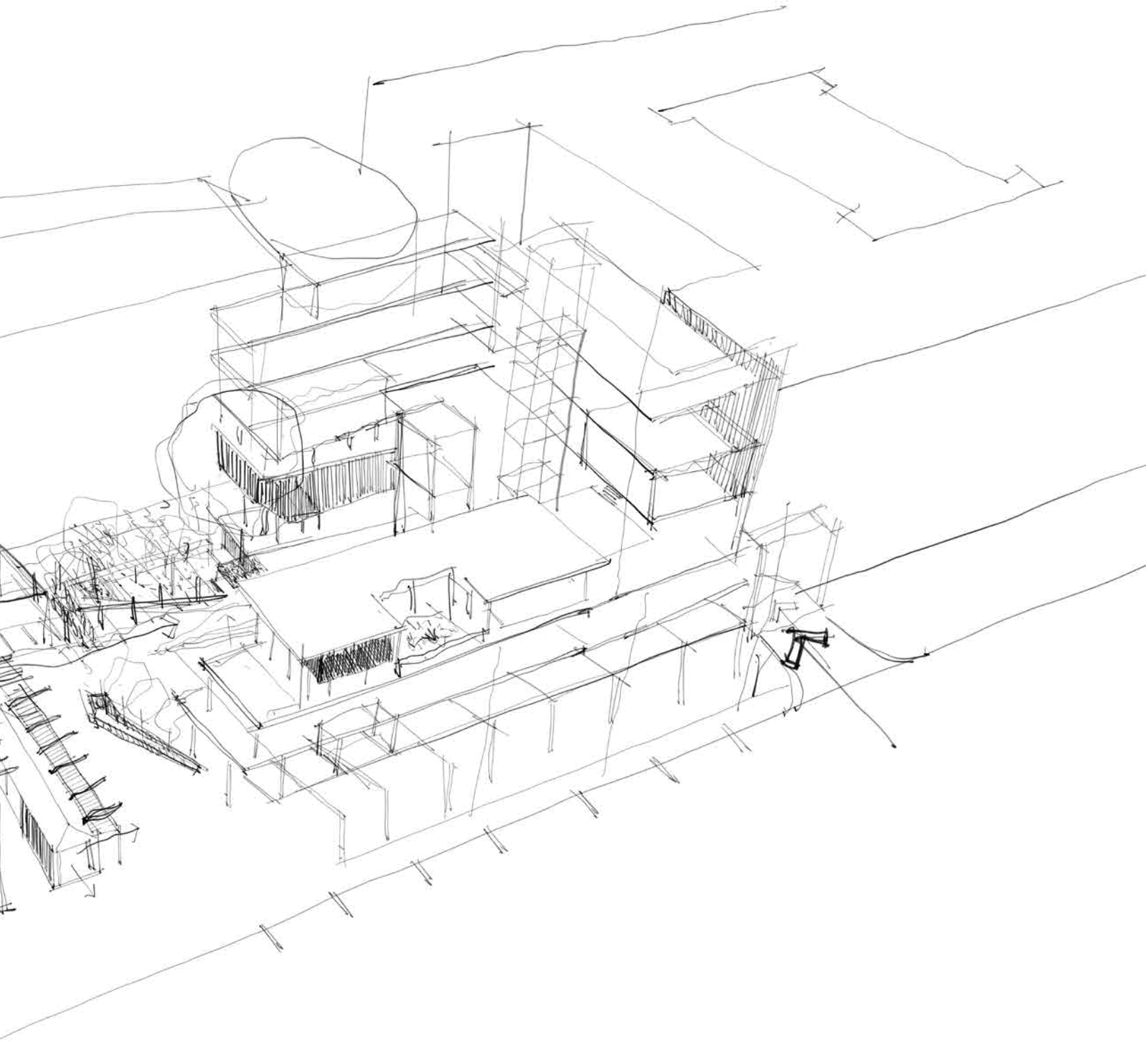

**Fig 126.** Perspective exploration of iteration 03 (Author, 2022)

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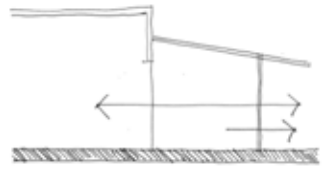
9.6.

# Spatial devices

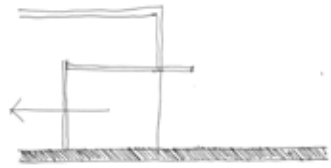
There are several spatial devices that are employed in the design, derived from the theoretical matrix and the conceptual intentions. However, there was a lack of control or coherency for how they come together and how they can be manipulated to influence the experience of space. Further investigation into these devices and how they can be employed to craft the range of interfaces necessary to meet the intentions of the project.

## Veranda

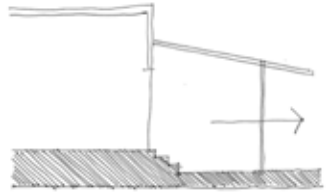
Verandas are particularly powerful spatial devices that articulate the in-between and threshold spaces. They define spatially ambiguous zones that allow for the spaces to belong as much to the interior as to the exterior of a space. They provide a gradual transition and facilitate more graded relationships between inside-outside and public-private (Hertzberger, 1991: 12, 32). It is a spatial device that is utilised by so many cultures – known by many names but they all essentially play the same role: otla, porch, stoep, stoop, patio, stoa...



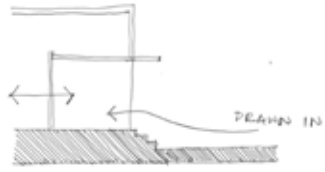
mediating
public / private



pulls in



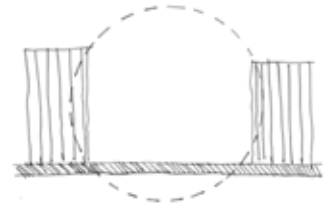
extension
of outside-
reaches out



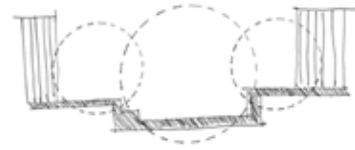

pulls in
belongs to inside

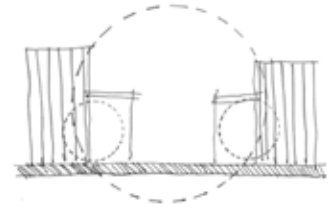
## Courtyard

(Alexander, Ishikawa & Silverstein, 1977: 562)

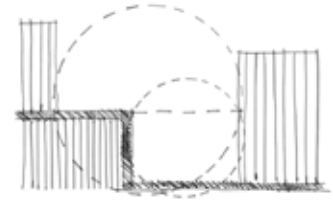


outdoor room

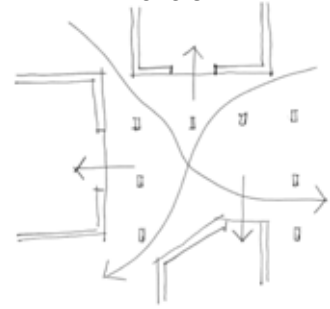




inside / outside
connection



connects across
levels





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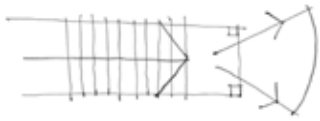
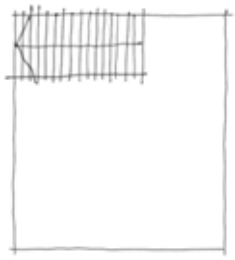
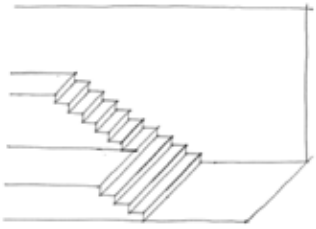
## Stair

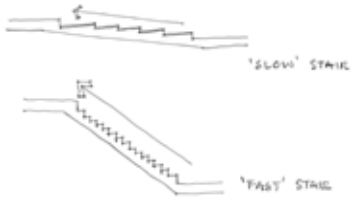


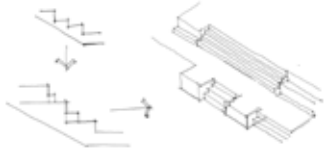
frame views
sense of arrival



stair frames
space





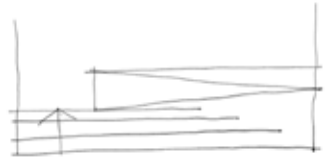
habitable stair

step = platform
or seat

## Ramp/ Stramp

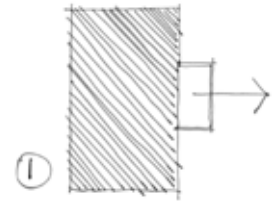
continuous
movement

spaces feel like
extensions of
each other

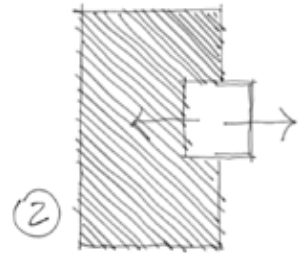


merge of
continuous
and direct
movement

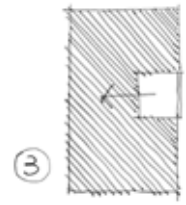
## Balcony




reaches out




inbetween




pulls in

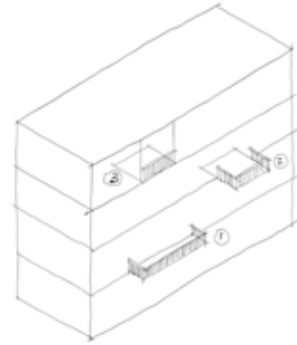


**Fig 127.** Spatial devices diagrams (Author, 2022)

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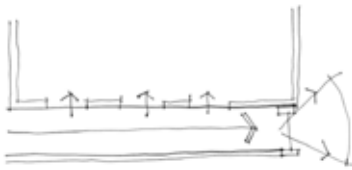
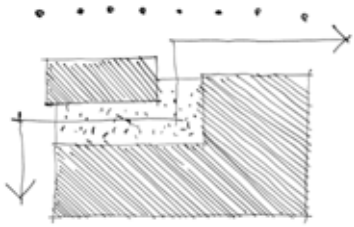
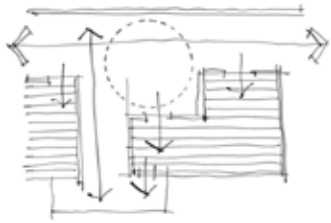
## Walkway/ passage



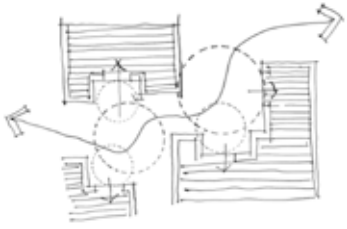
frames view



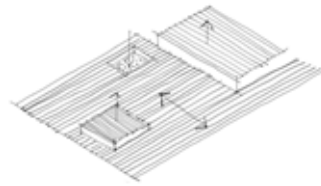
connects inside
& outside



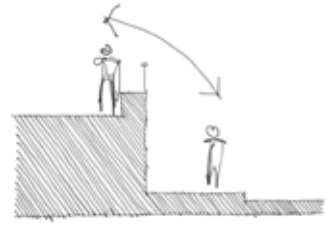
walkways
become rooms



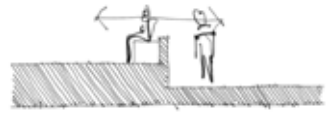
## Platform



implies
hierarchy



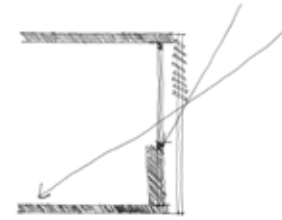
connected
but separate



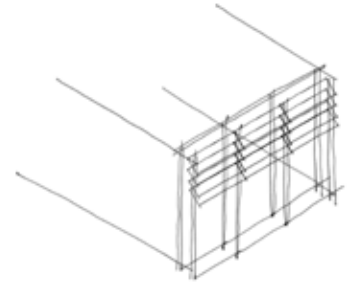
direct
relationship

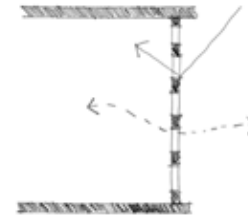
## Screen

There is a tradition of louvred screens and brick screens within Tshwane. Drive through the inner-city and one comes across so many examples of this spatial device on buildings, particularly used in the modernist architecture that is concentrated in the city. Developed as a climatic control devise, the screen also adds dimension, texture and interest to facades. It can create privacy or a filter between the interior and the exterior.



solar protection





solar protection,
light diffusion &
privacy

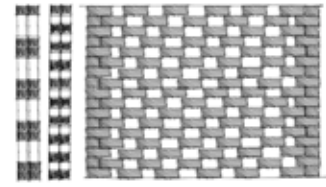


**Fig 128.** Spatial devices diagrams (Author, 2022)



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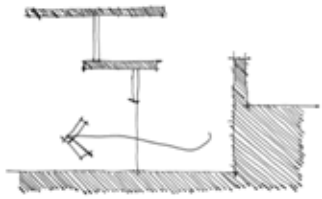
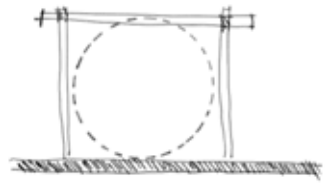
## Overhead plane

distinguishes space



pulls in

## Pergola

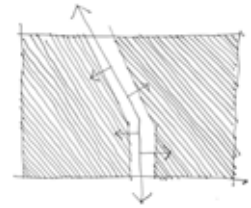


demarcate space without enclosure

indicate direction of movement

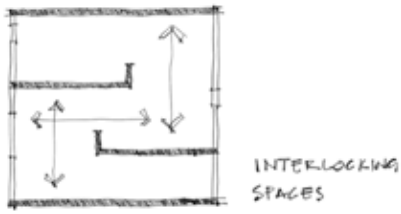
## Arcade

Pretoria's city blocks are unusually large in comparison to other cities, both within South Africa and internationally. The large block perimeters mean that there is less street interface and therefore less public space just by the nature of how the city is laid out. Arcade typologies are a mechanism for extending this public realm into the city block, puncturing the private zone and breaking down the disconnection that can exist between the two spaces. (Alexander, Ishikawa & Silverstein, 1977: 581)



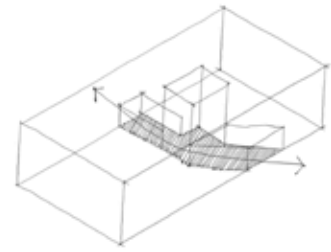
an invitation

## Interlocking spaces

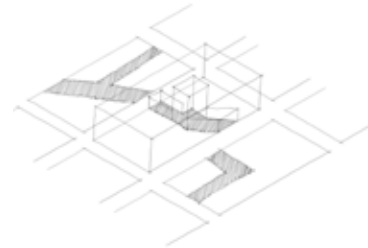



interconnected interior vertically

provide shade



covered street



connection between city blocks

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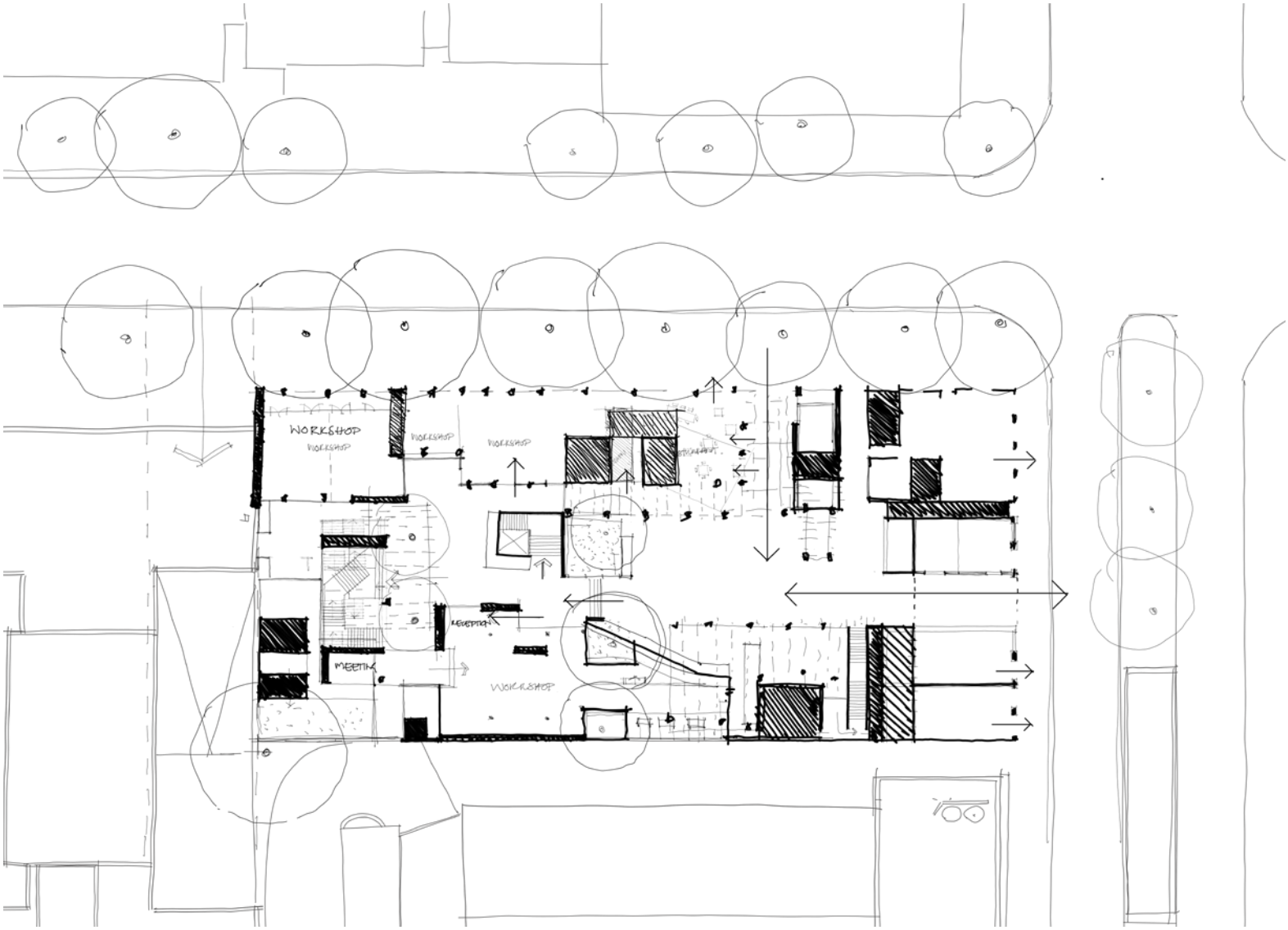
9.7.

# Iteration 05




Ground Floor Plan

The design concept plays on the idea of an interface between line, plane and mass – a reinterpretation of the existing spatiality on, and surrounding, the site. This iteration looked at reinforcing that idea of free, open plan, collective, or public spaces contrasted with more solid spaces of retreat, or service zones which are more private in nature. The solid parts of plan illustrate this idea.



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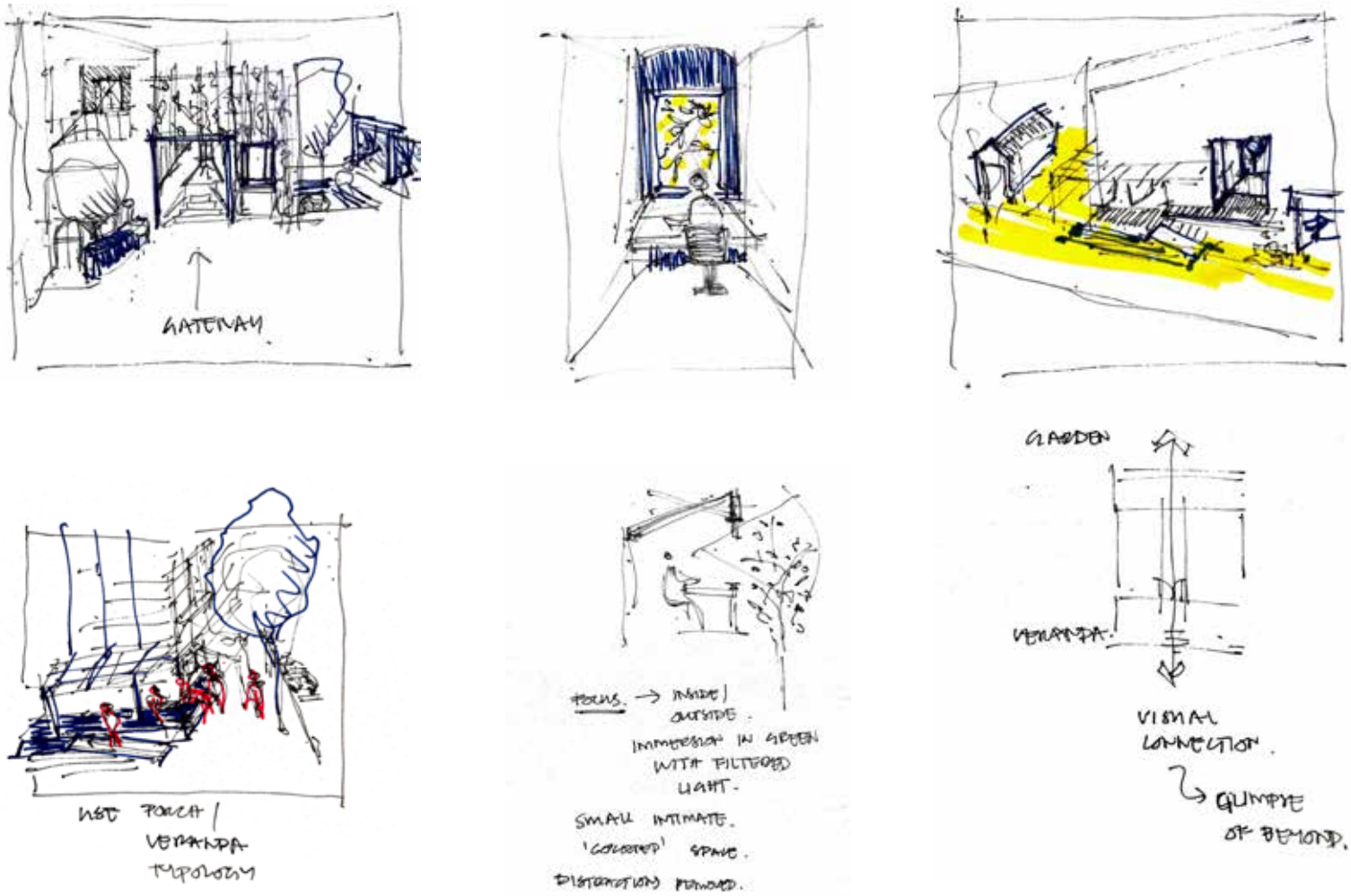


**Fig 129.** Vignette explorations to test the atmosphere of the design (Author, 2022)

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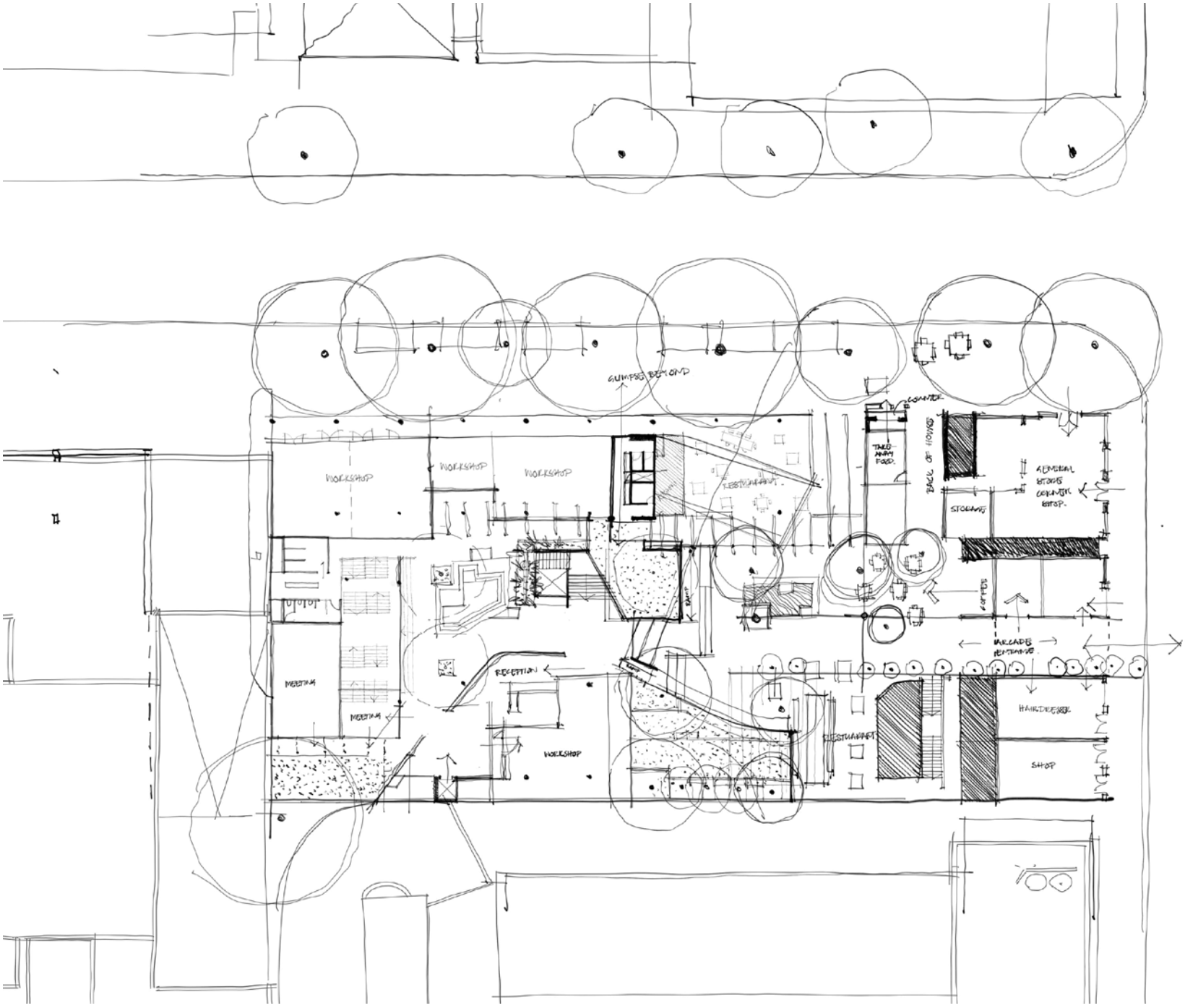
9.8.

# Iteration 06




Ground Floor Plan



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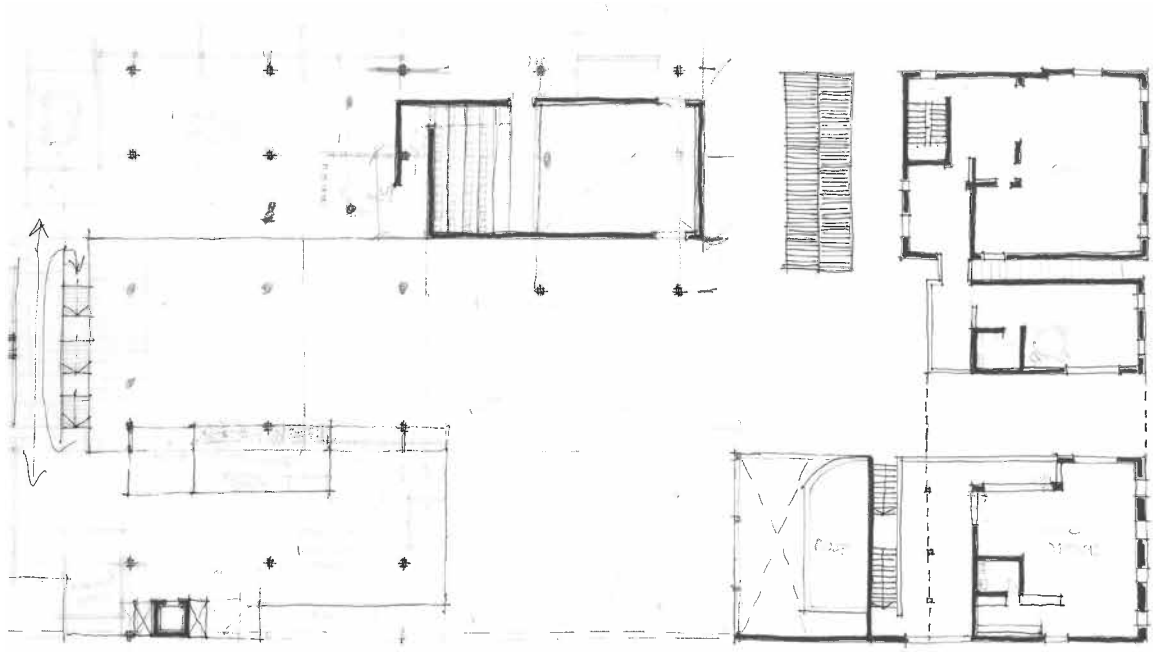

First Floor Plan

Iteration 06 explores breaking the rigid cartesian rationality of the previous iterations. The incorporation of fluidity within the plan reinforces the articulation of the in-between collective spaces spatially rather than the plan reading as pure zoning of function.

Movement routes and user progression through the site from public to private informed the placement of fluid morphing of the plan.

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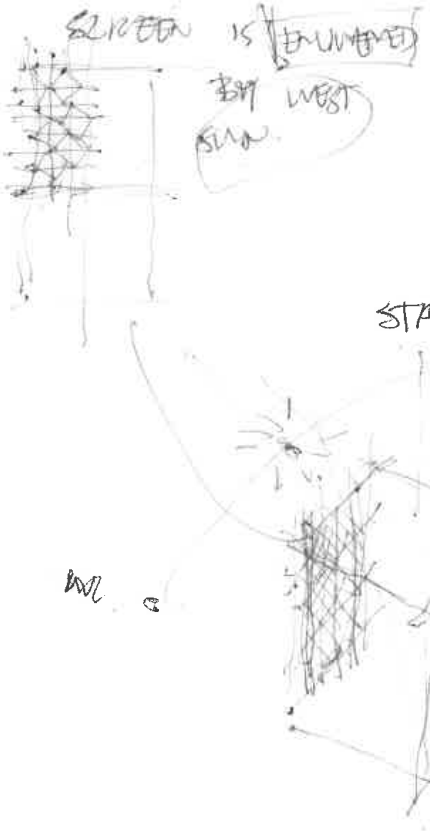


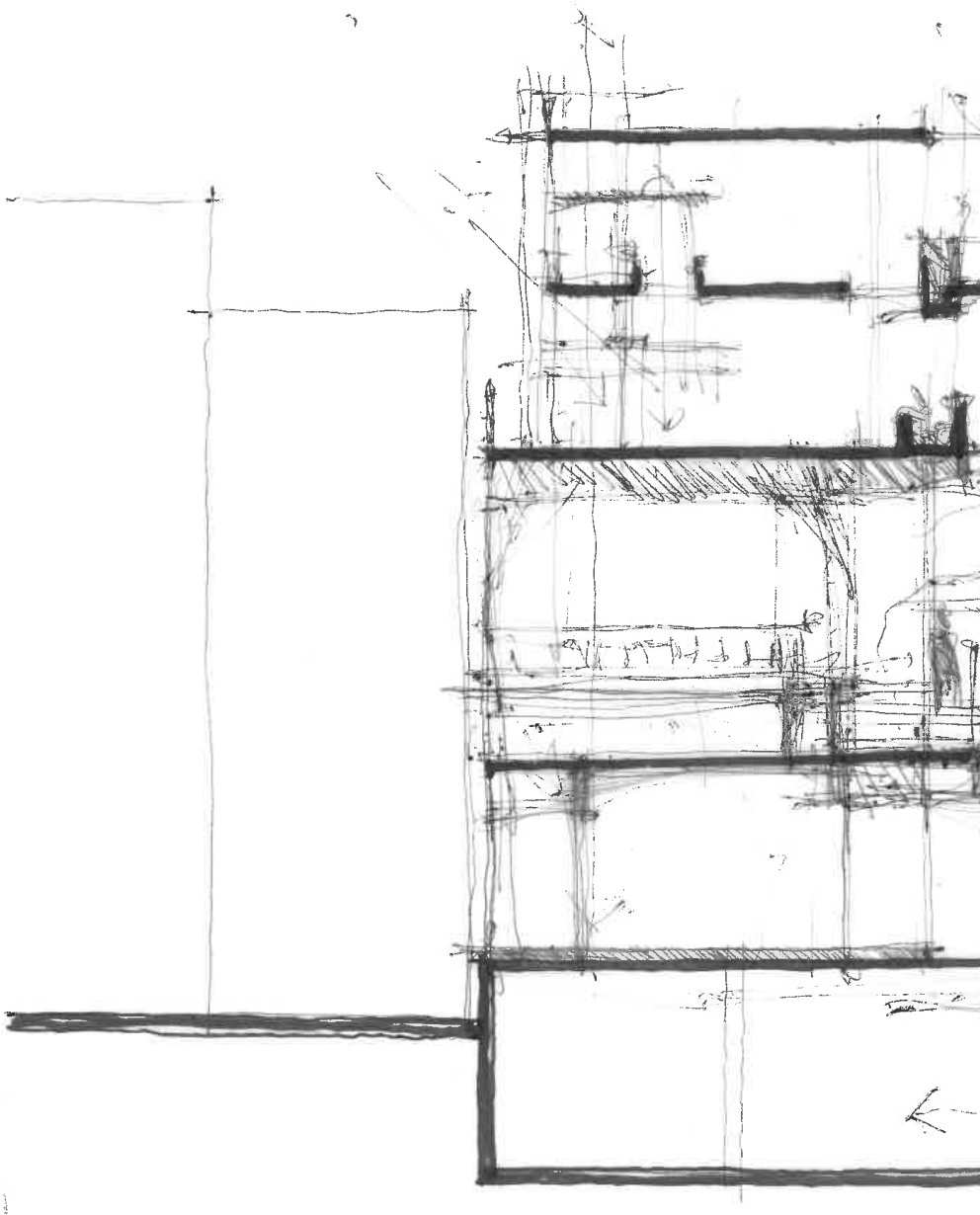



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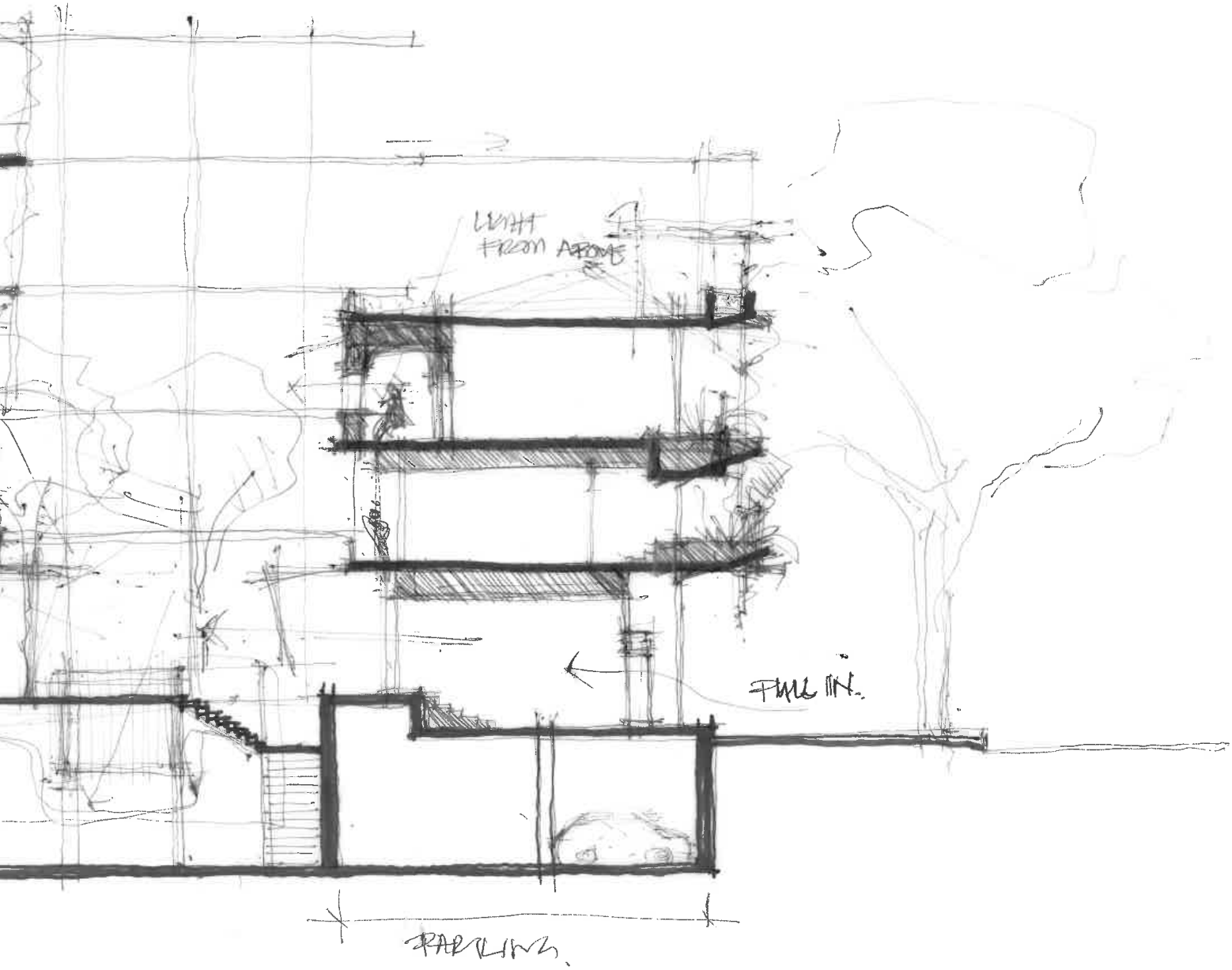


**Fig 130.** Section exploration through the upper courtyard and the repationship between inside and outside (Author, 2022)

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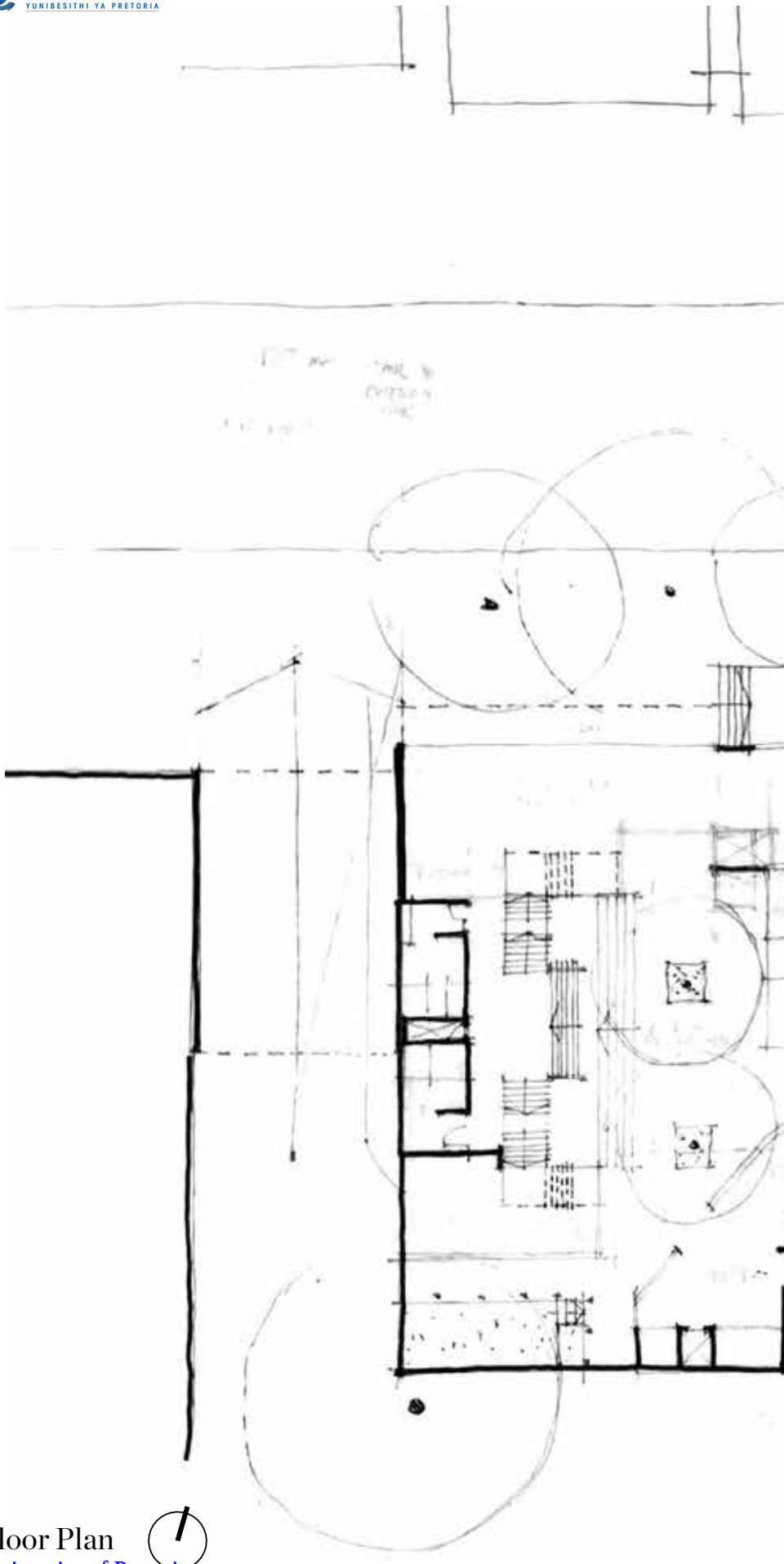
9.9.

# Iteration 07

The previous iteration had the auditorium space located on the first floor. This positioning resulted in the auditorium space becoming mono-functional and removed from the public realm. In this position, the design doesn't maximise the possibilities for how the spatial articulation of the auditorium can contribute to the space-making of the ground floor.

Functionally repositioning it on the ground floor allows for the space to further articulate the northern facade and be more publicly accessible.

The central staircase is exaggerated in scale as it becomes the space that connects the two wings (north and south) of the building. This offers the possibility that at every half landing the user is offered a vista over the entire site and the city beyond including heritage landmarks. From this vantage point, the Pretoria Synagogue ,where the Rivonia and Treason Trials took place, would also be in view.



Ground Floor Plan

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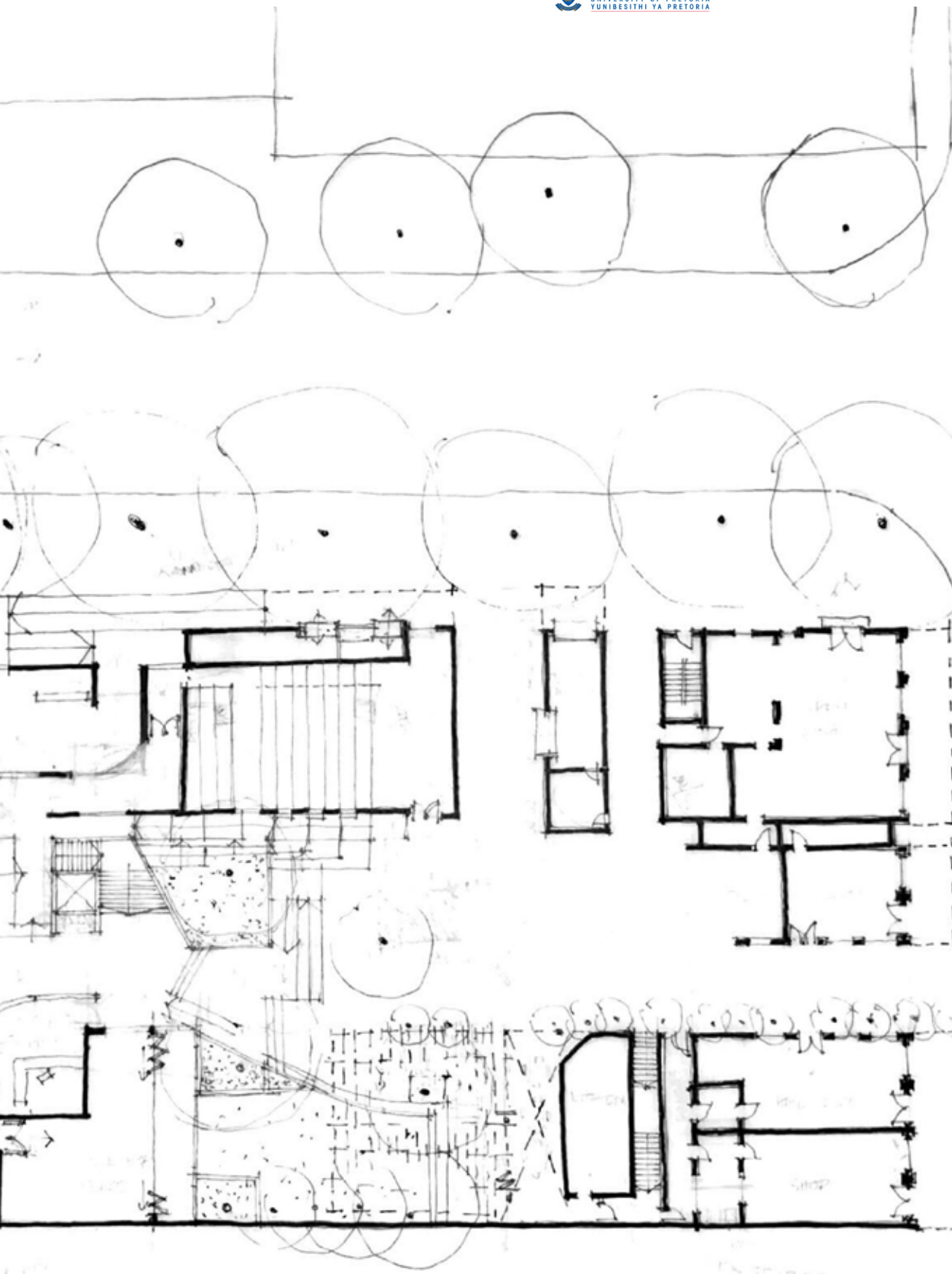

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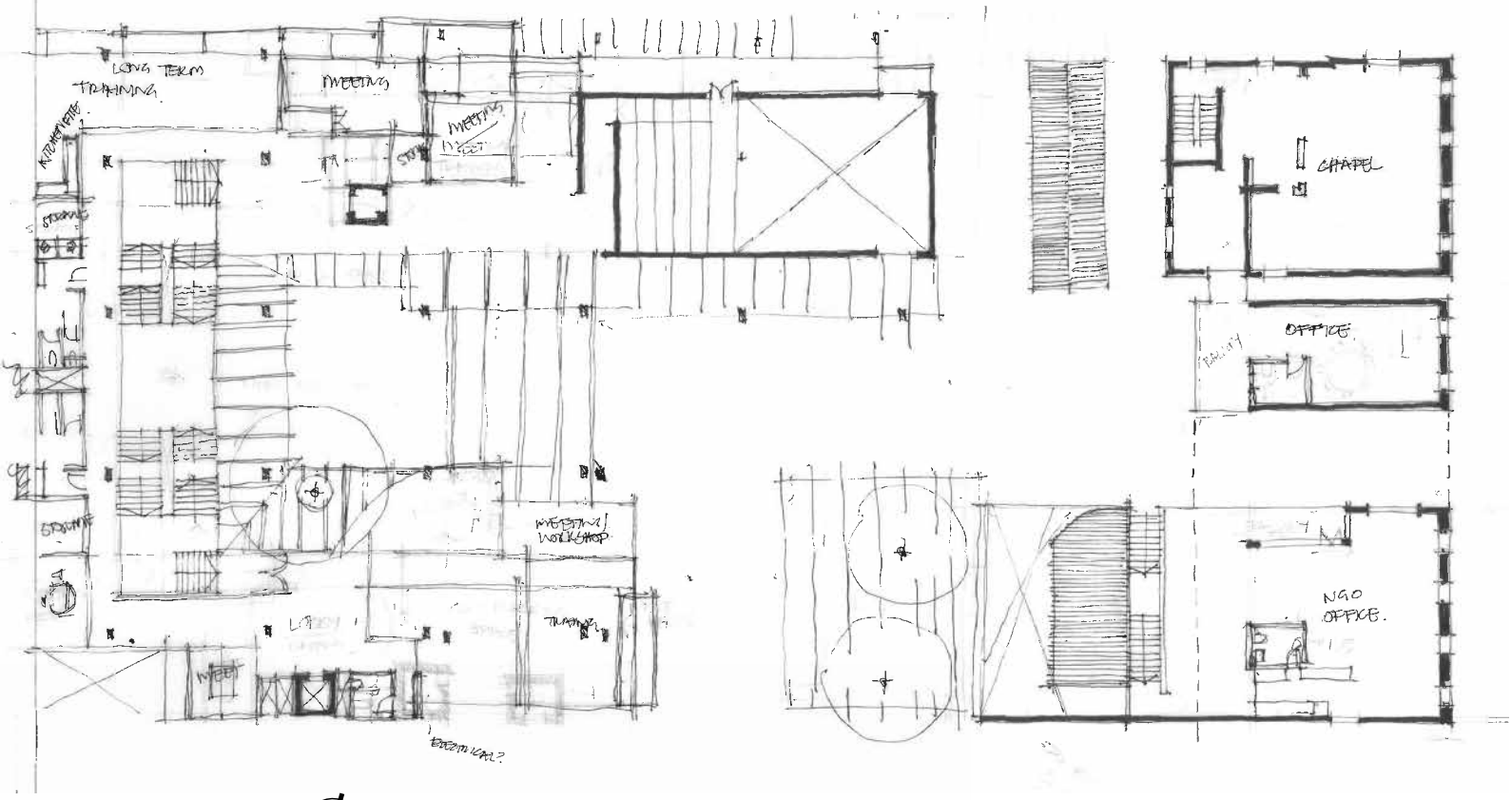
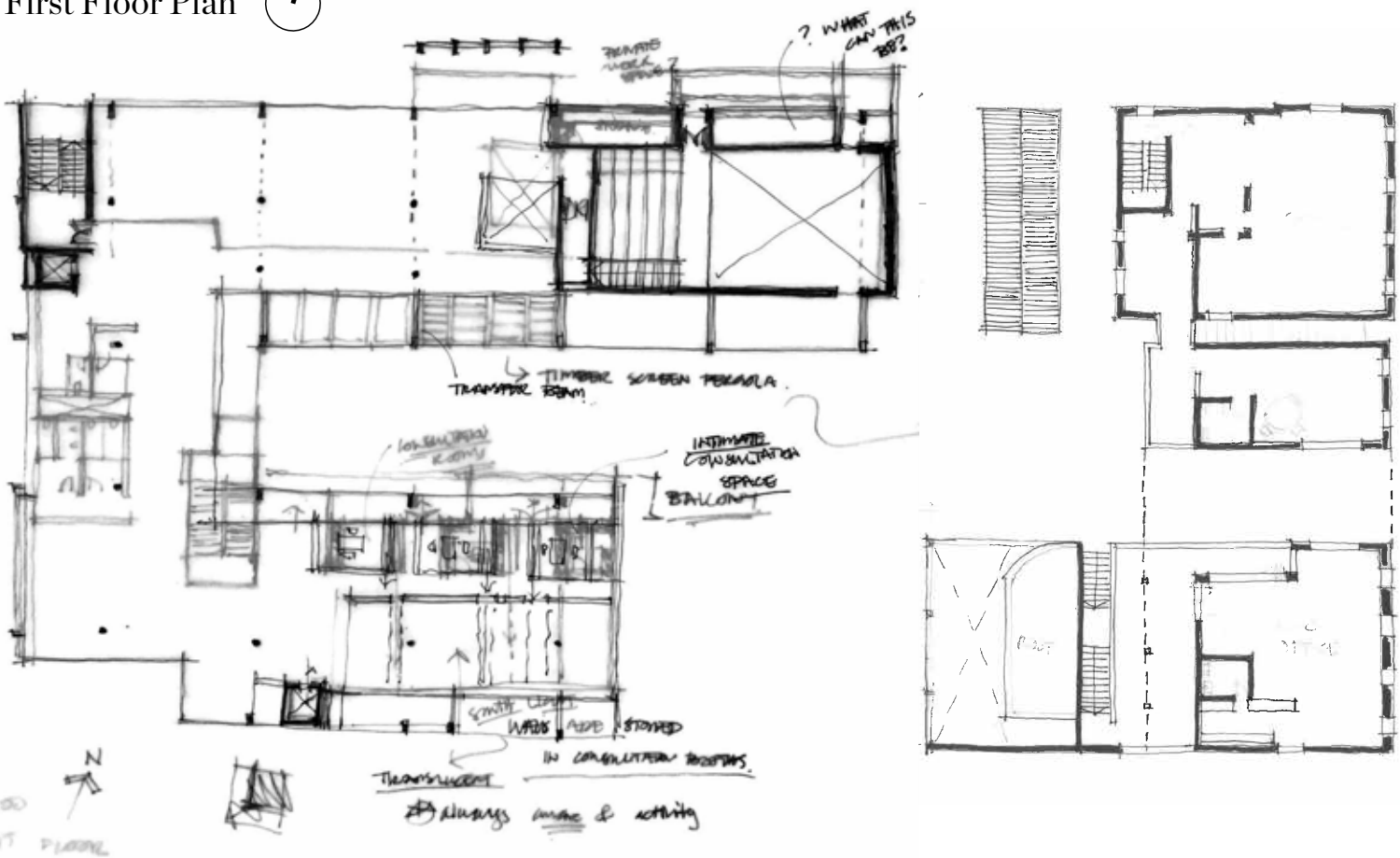



First Floor Plan




Alternate First Floor Plan



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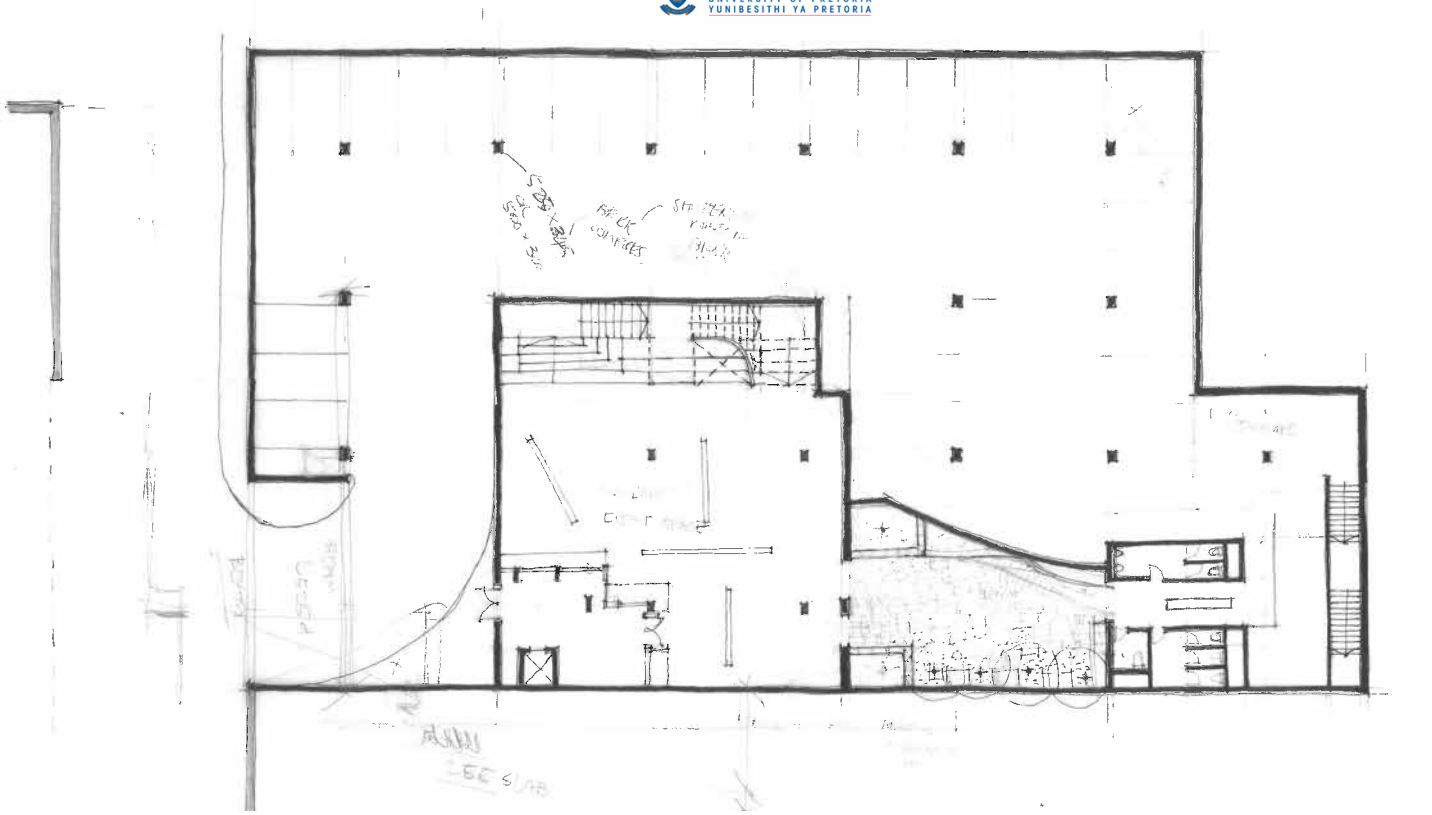

Basement Floor Plan

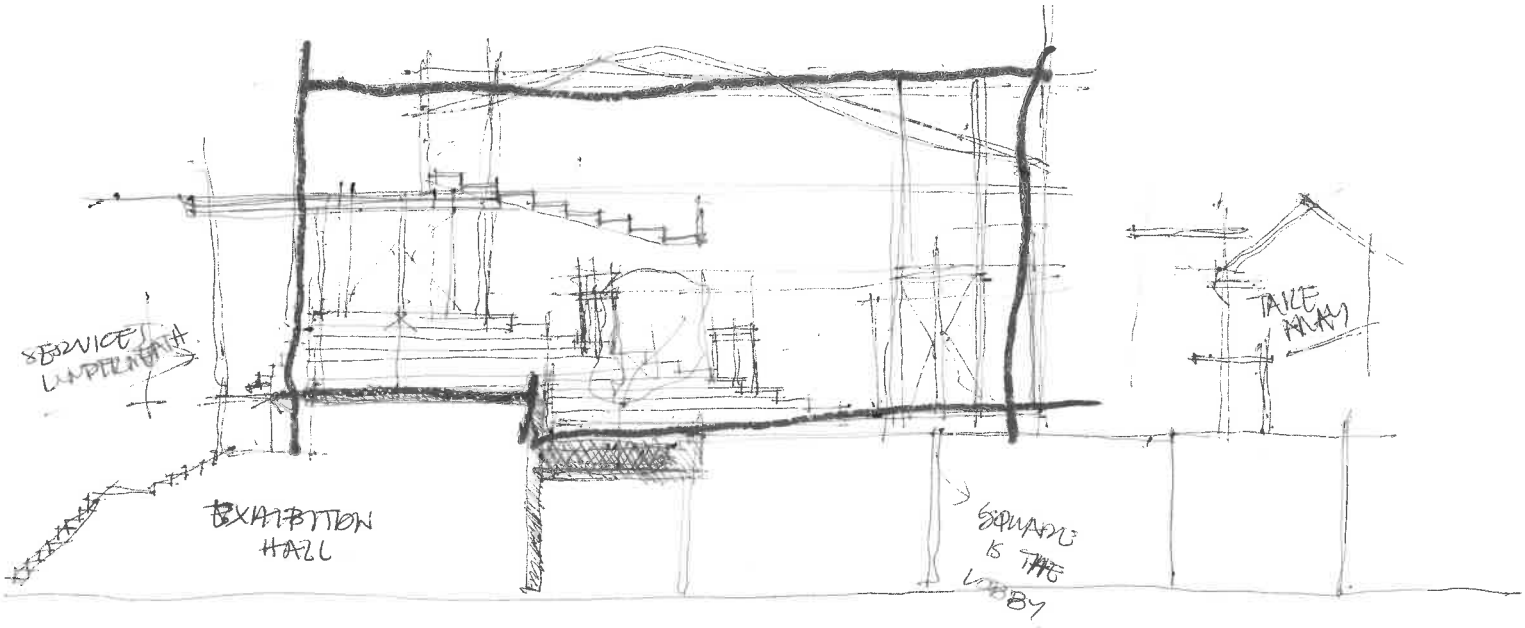


**Fig 131.** Vingette explorations to test the atmosphere of the design (Author, 2022)

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9. 10.

# Iteration 08

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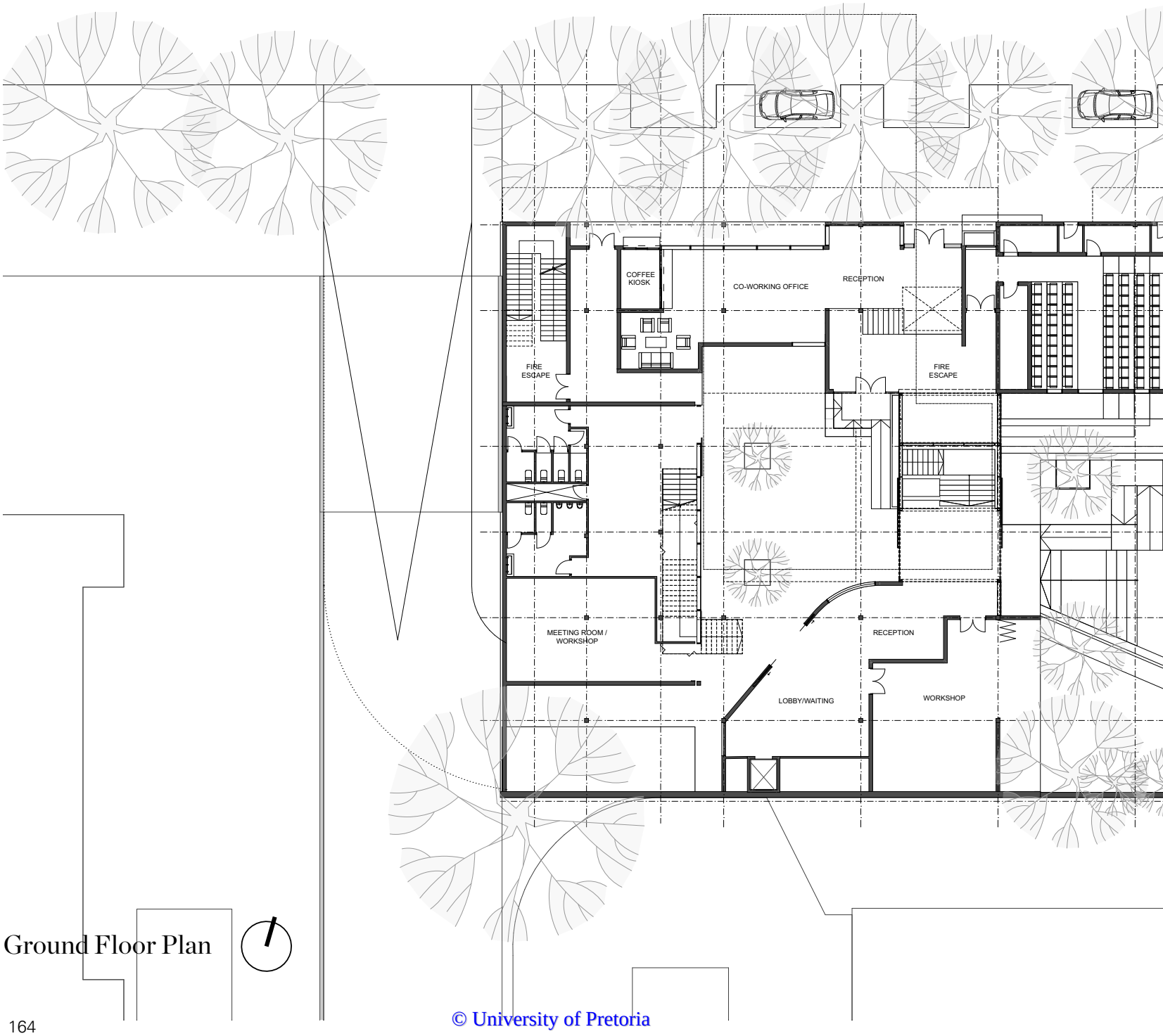


Ground Floor Plan



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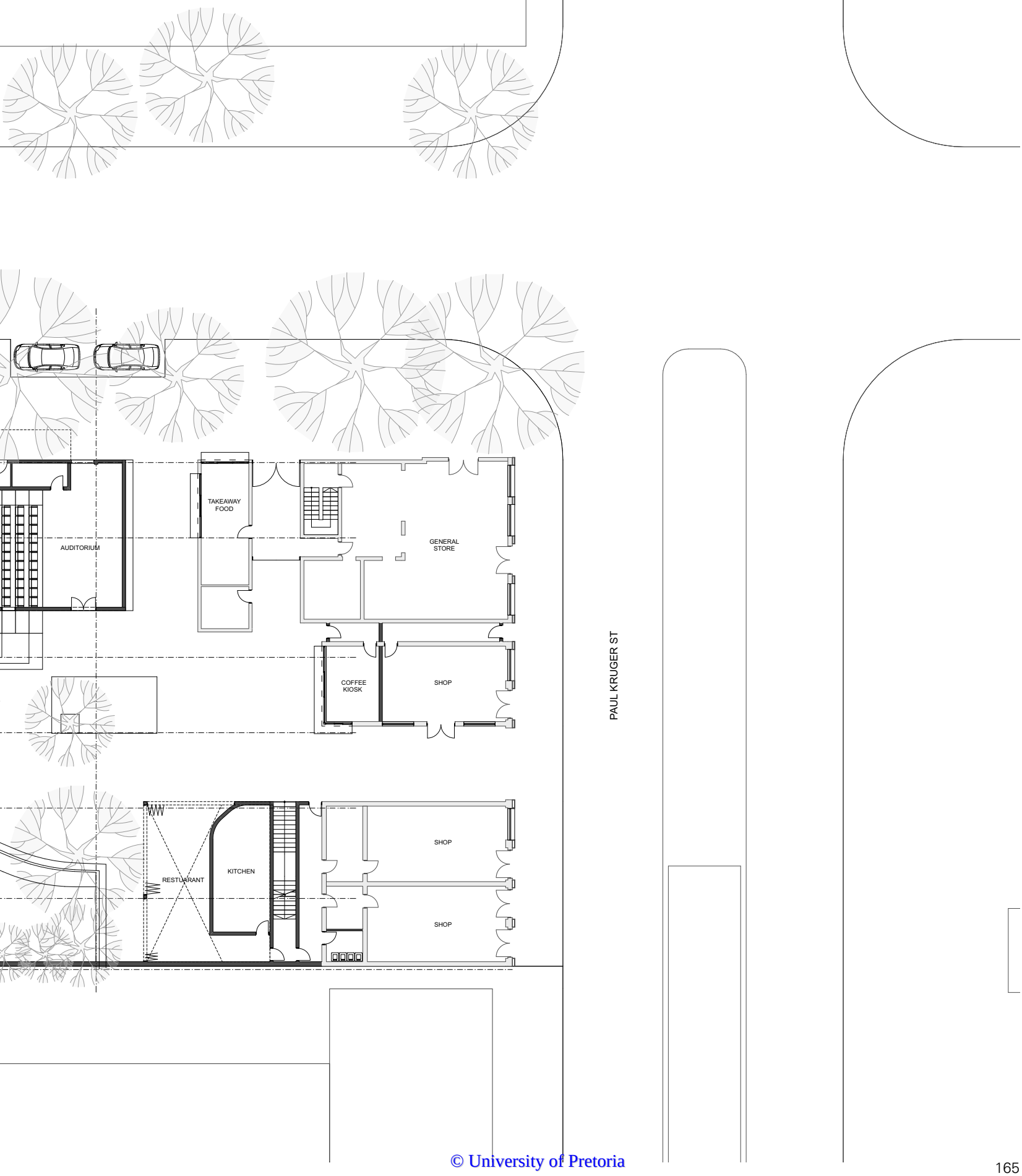


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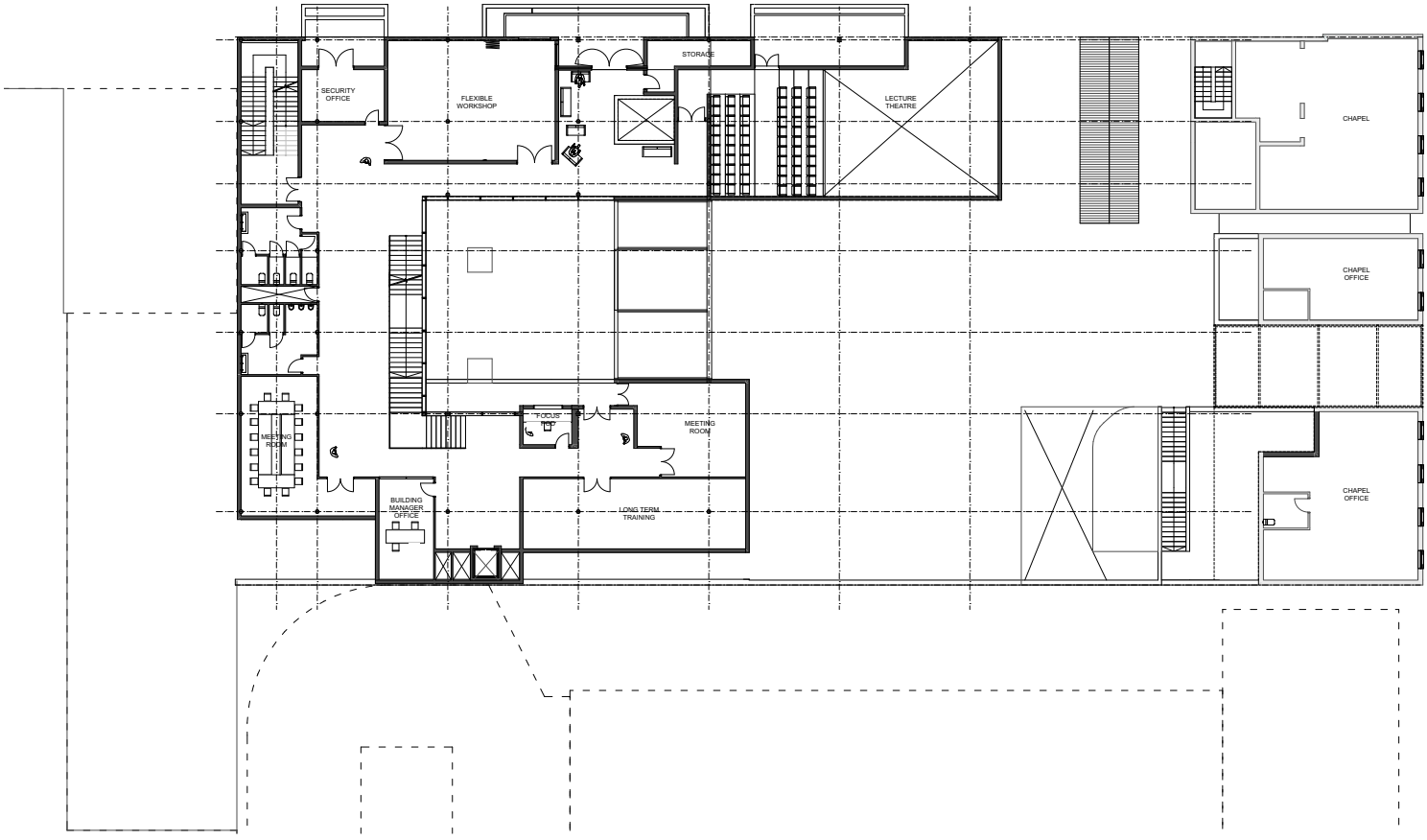


First Floor Plan



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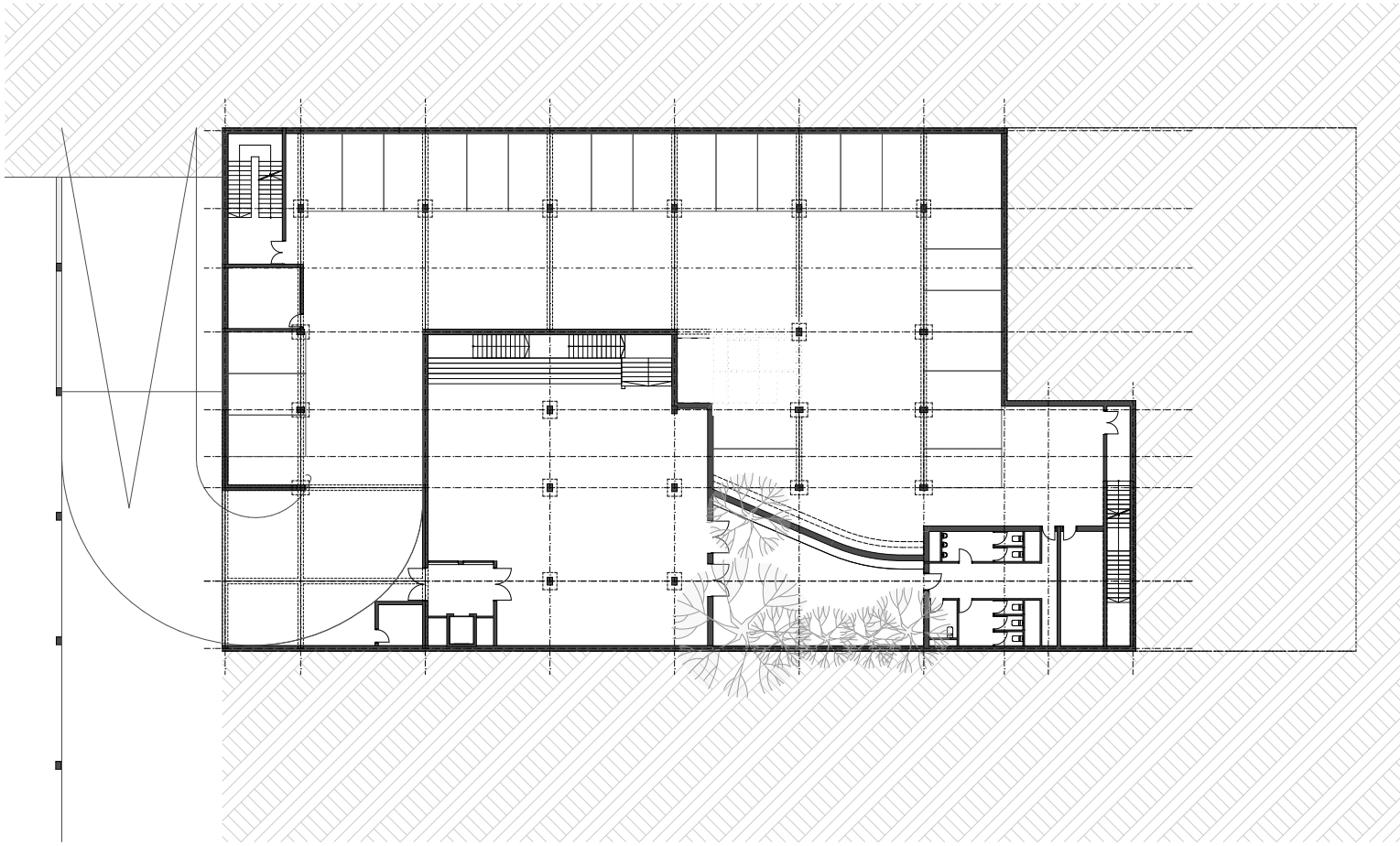

Basement Floor Plan

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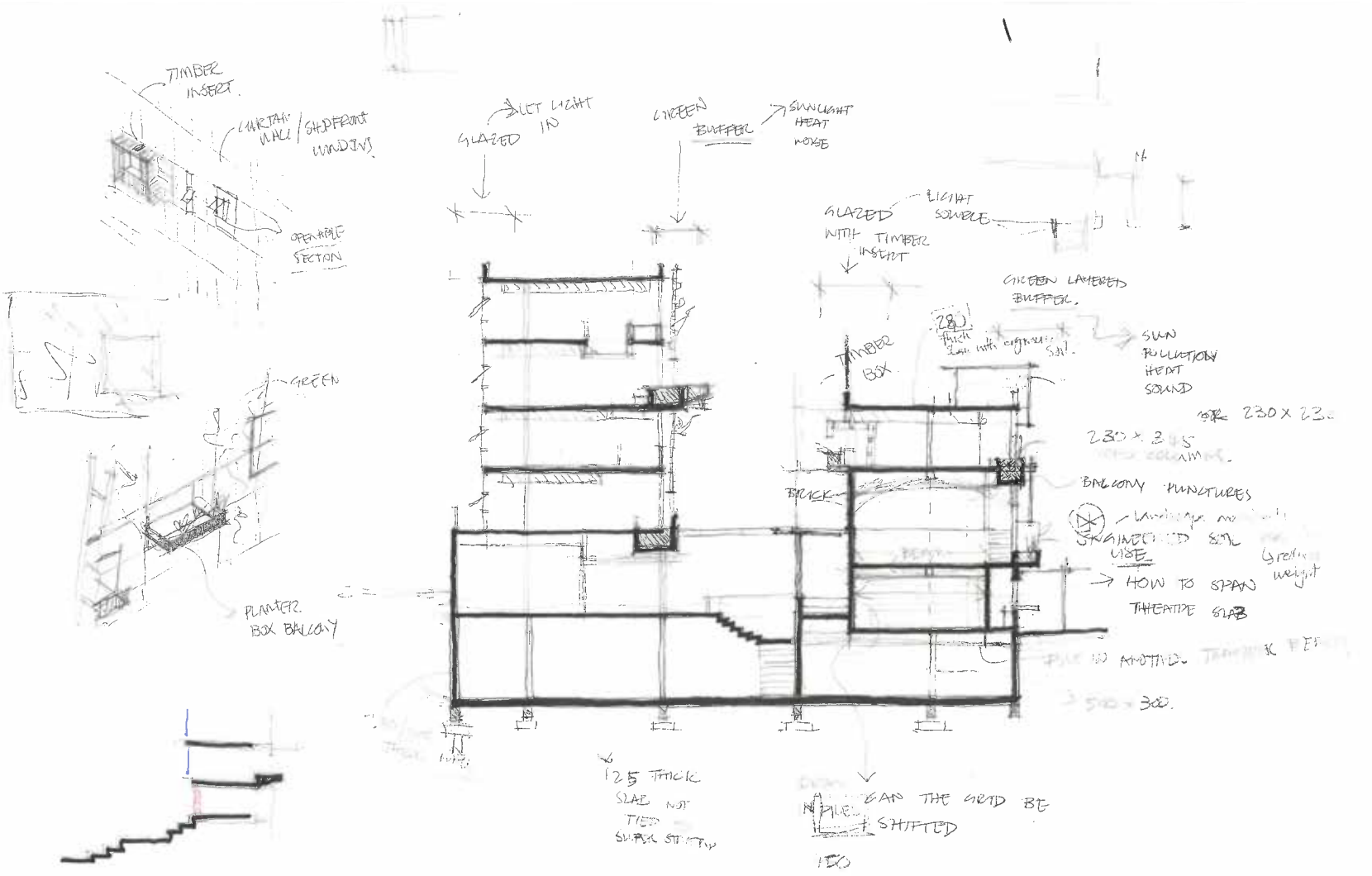


**Fig 132.** Section exploration of the central courtyard and facade treatment (Author, 2022)



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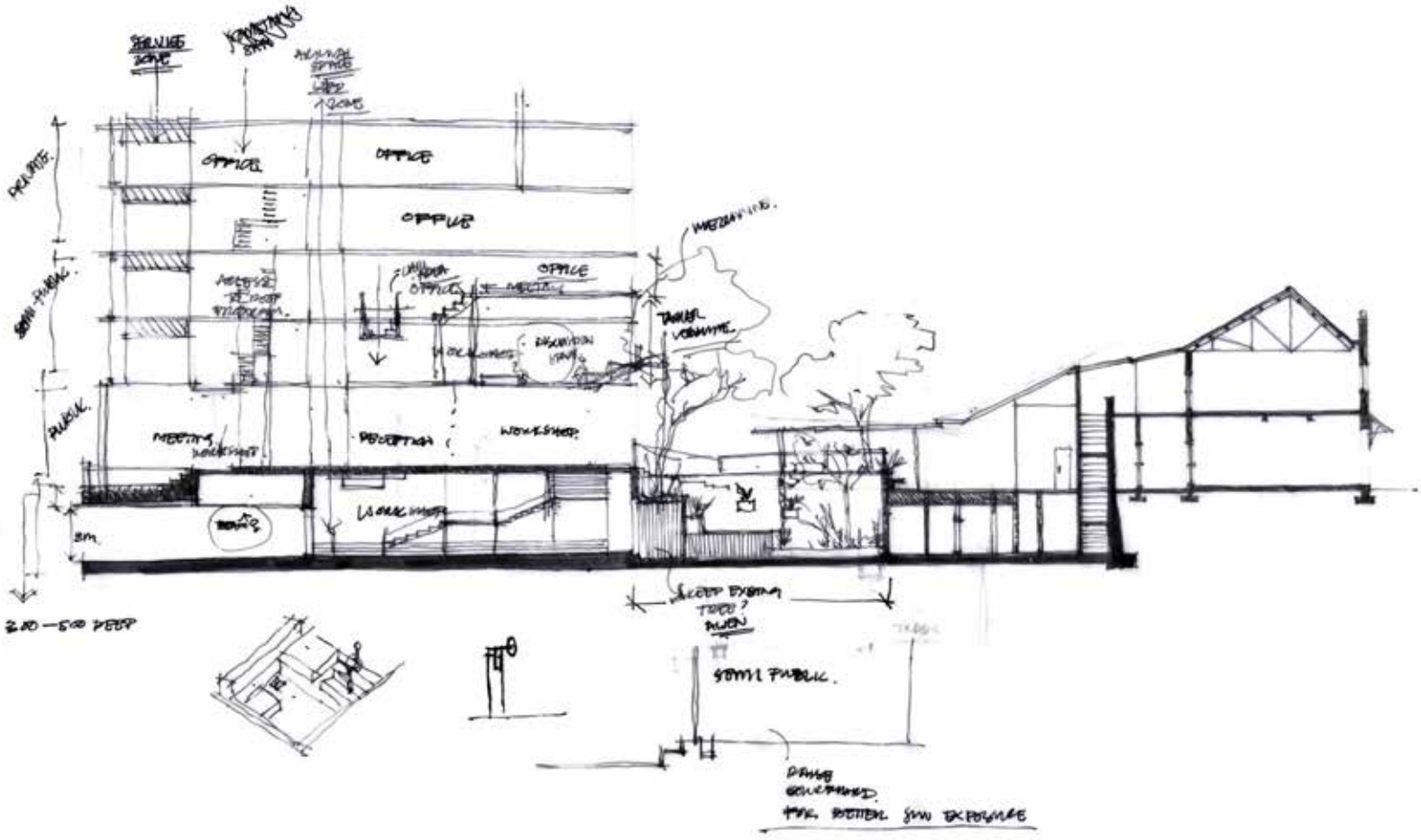


**Fig 133.** Section exploration of the connection between heritage, new build and the various courtyard levels (Author, 2022)

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9.11.

# Final design

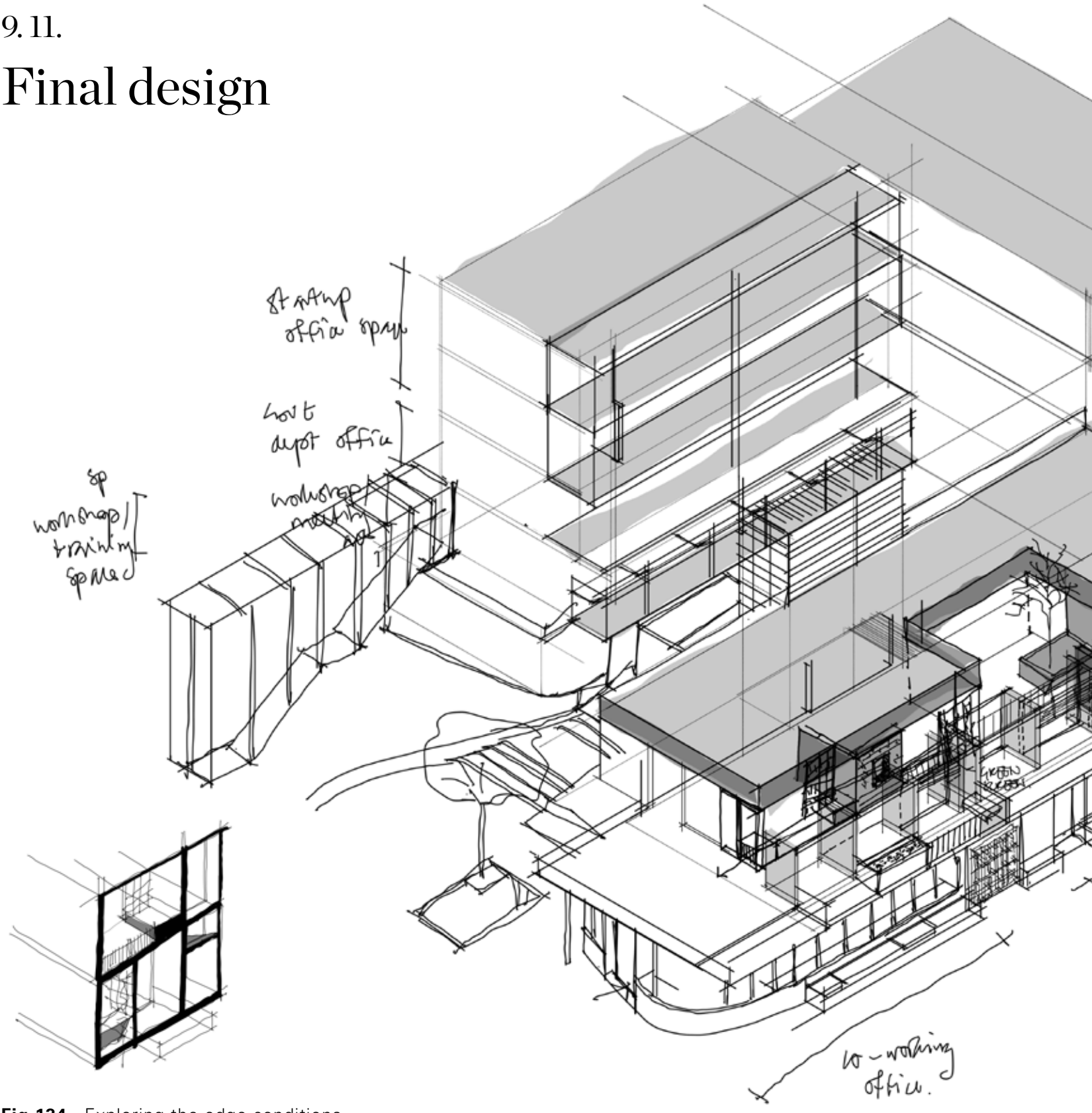


**Fig 134.** Exploring the edge conditions - how the building can interact with the city (Author, 2022)



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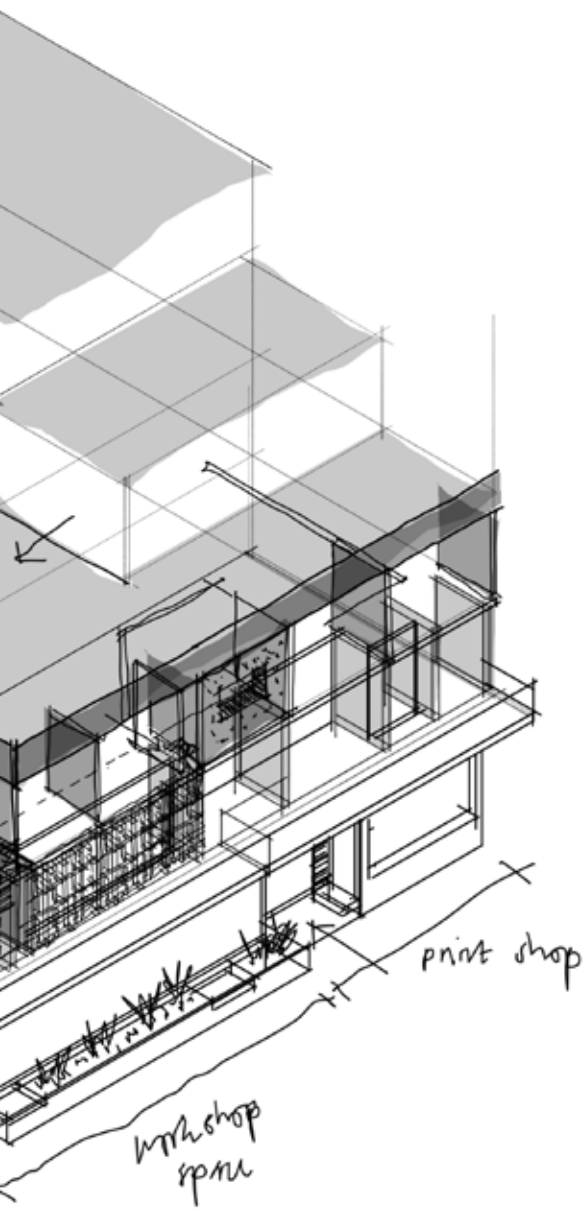


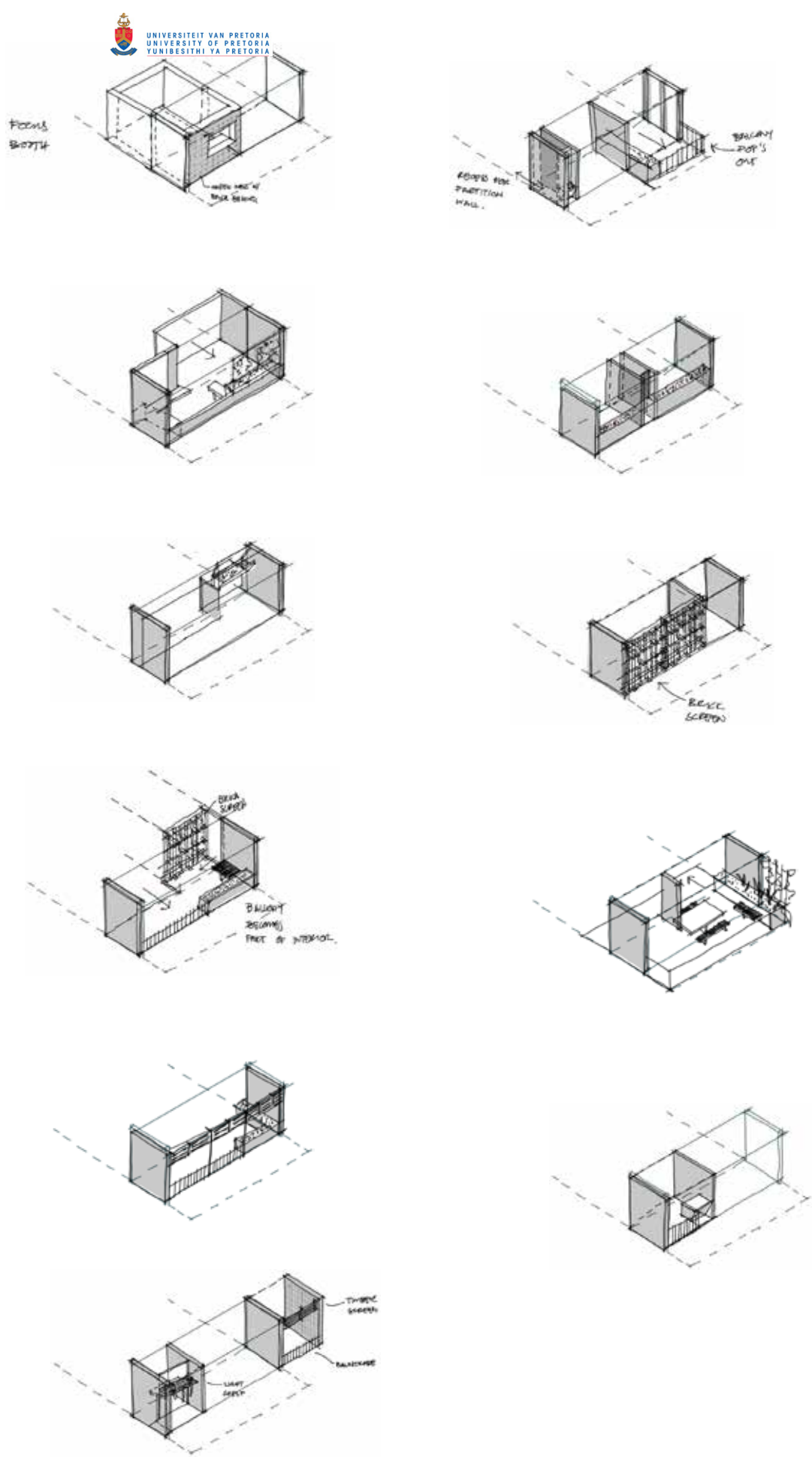

**Fig 135.** (right) North facade kit of parts (Author, 2022)

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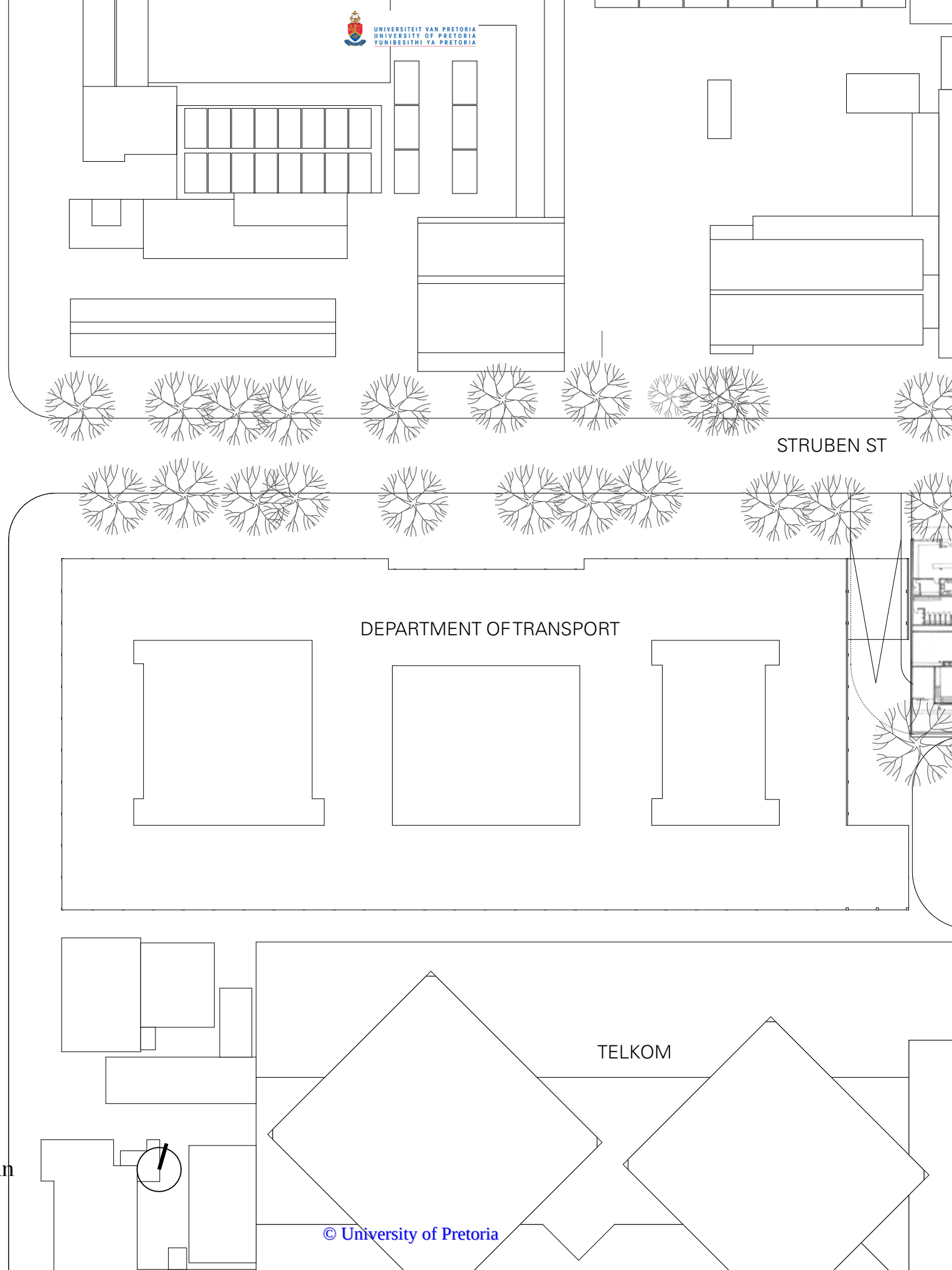


Site Plan



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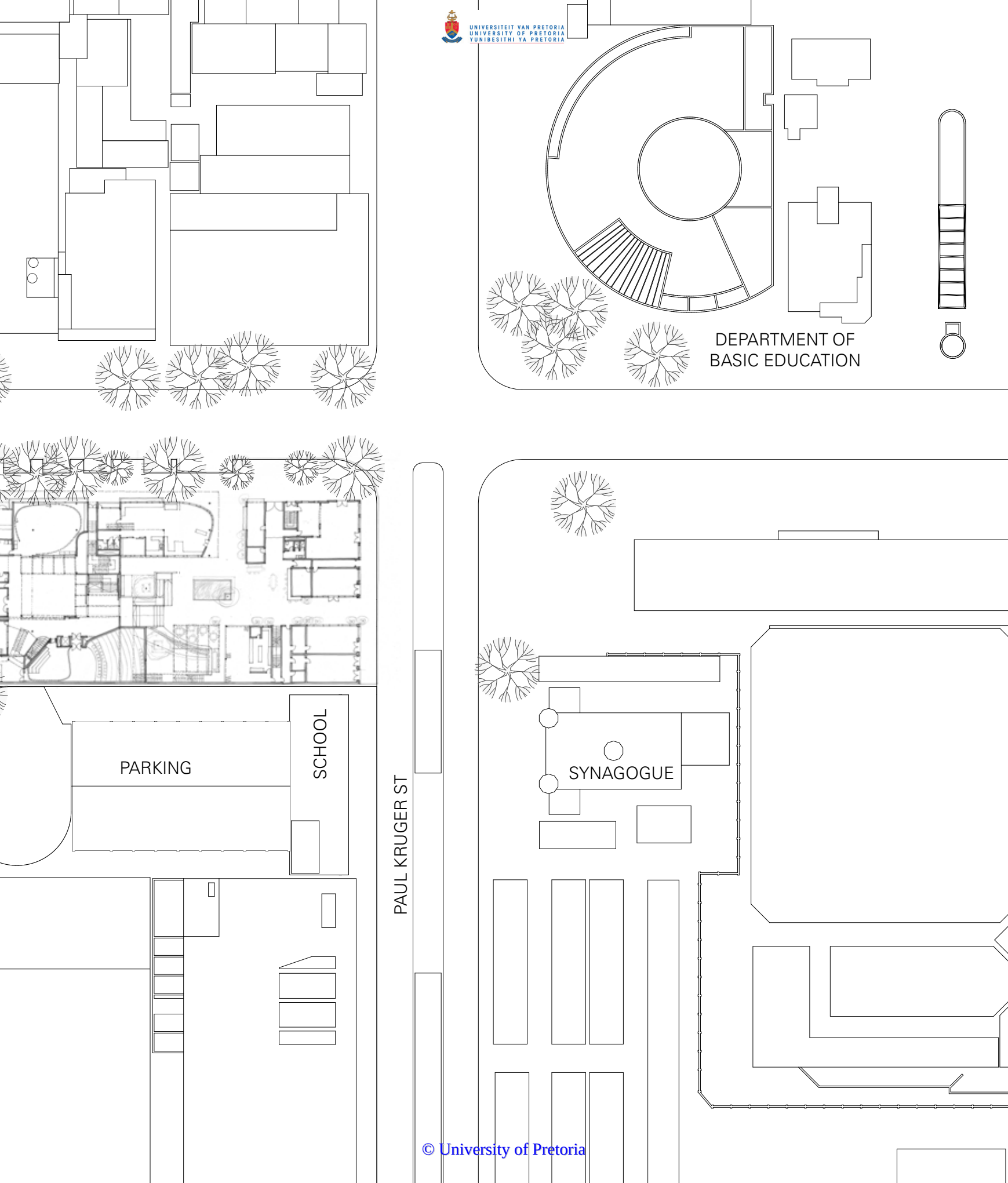


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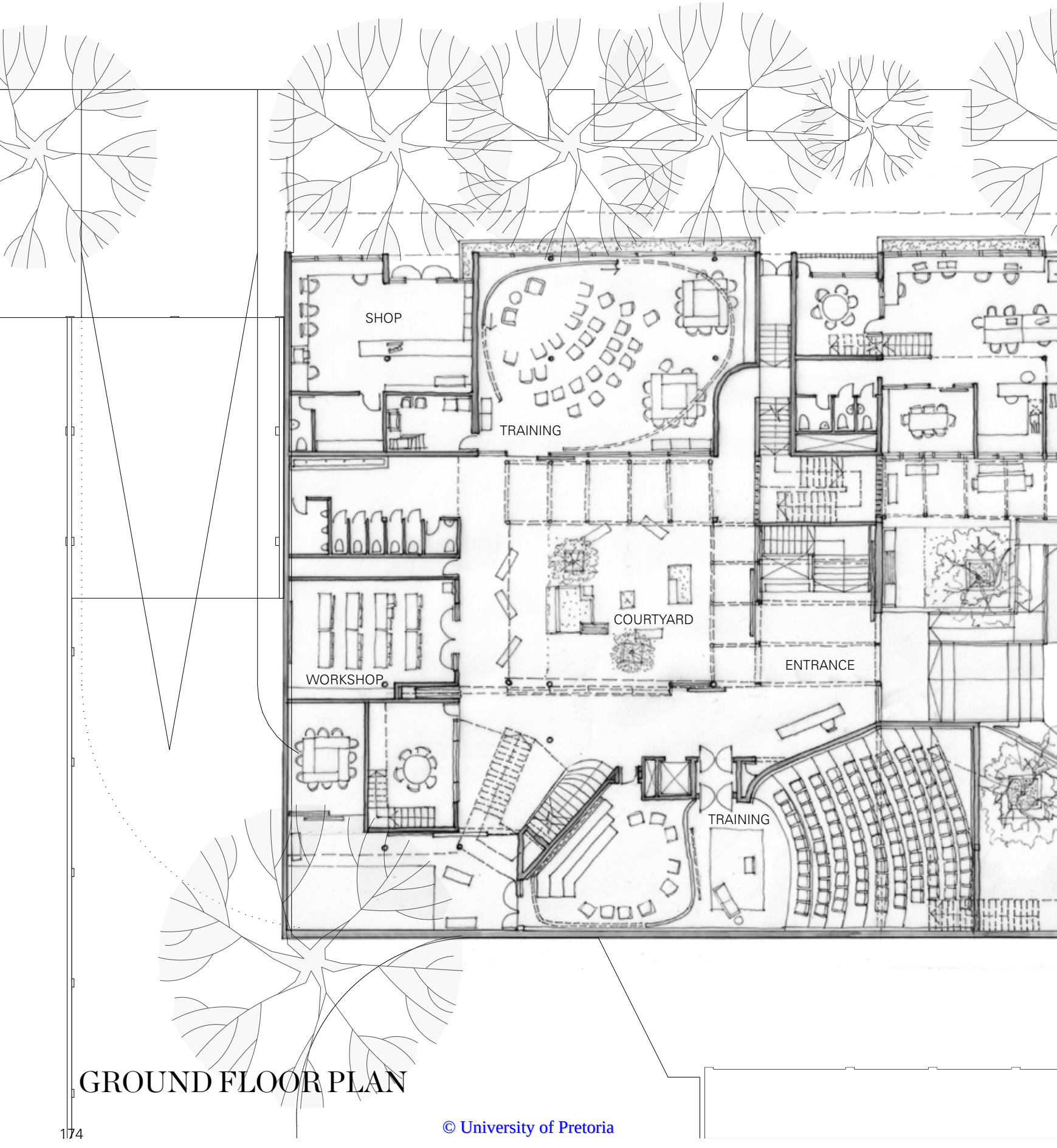


# GROUND FLOOR PLAN



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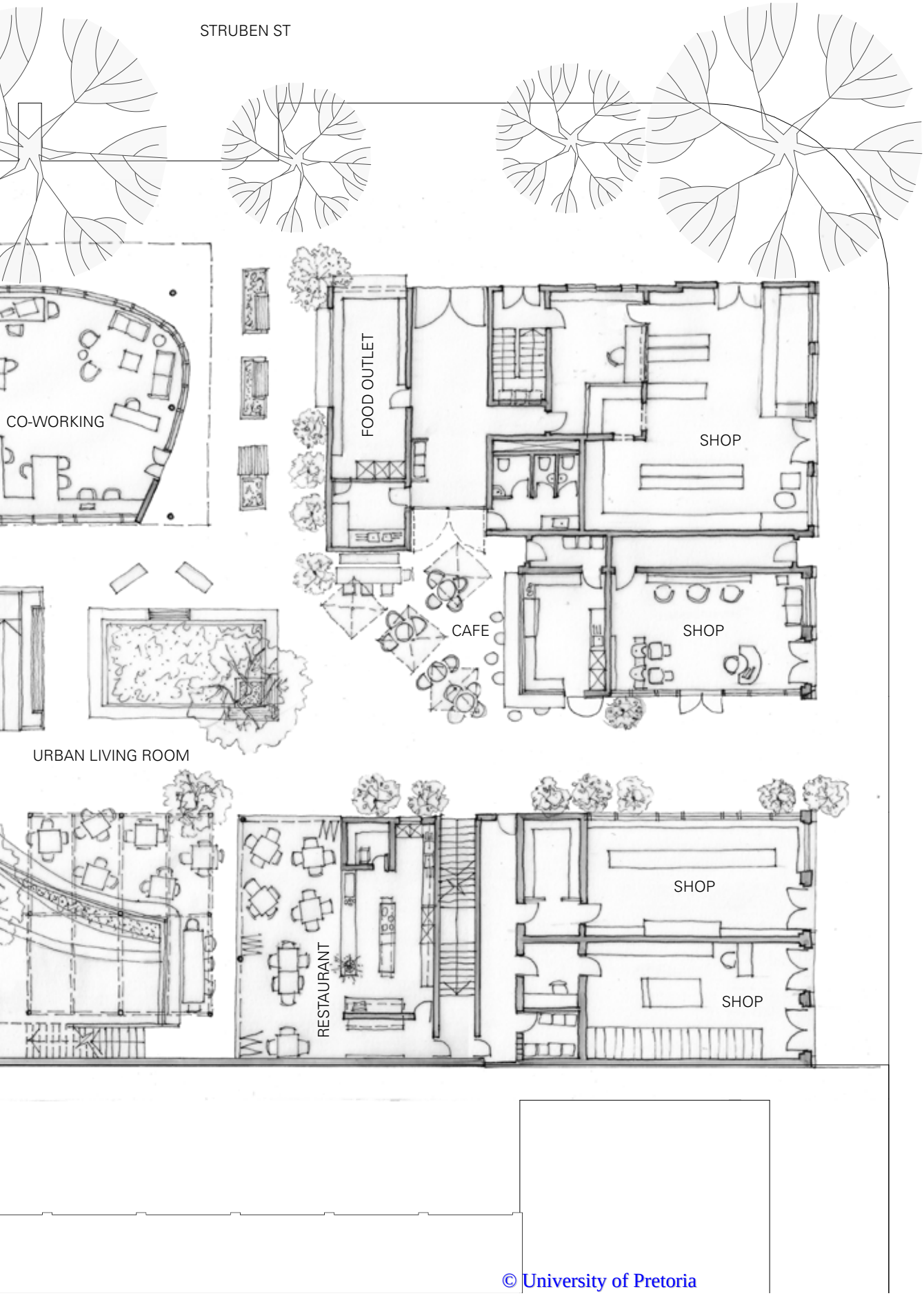


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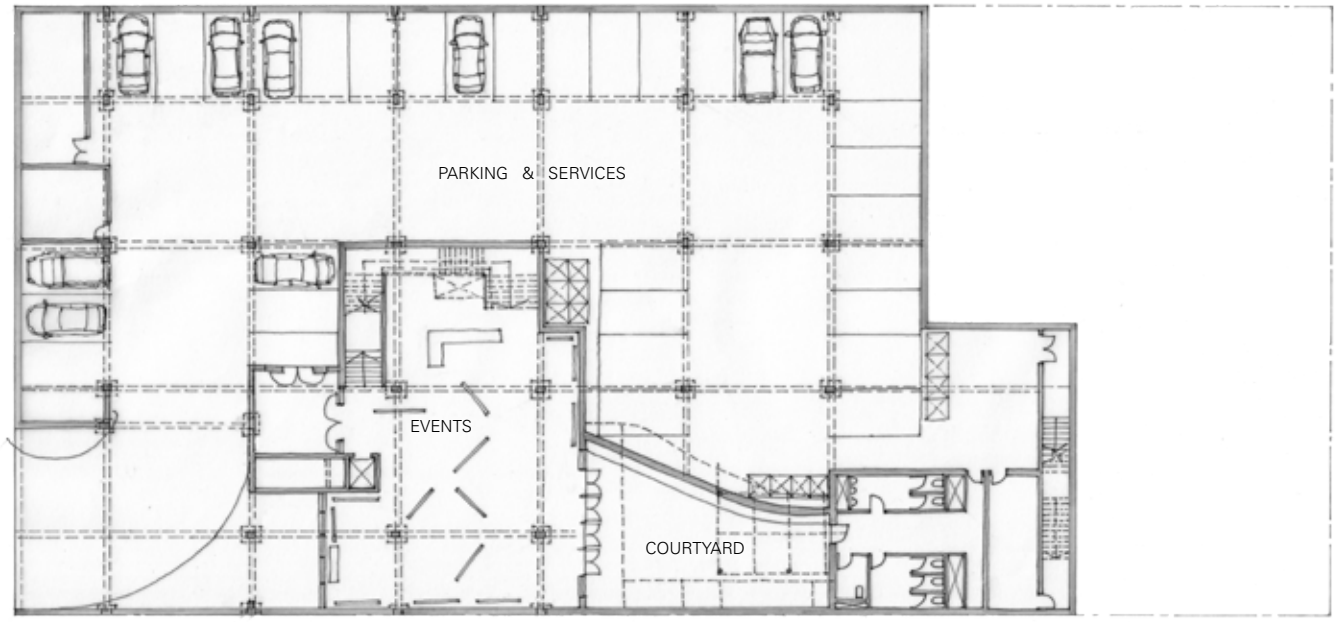
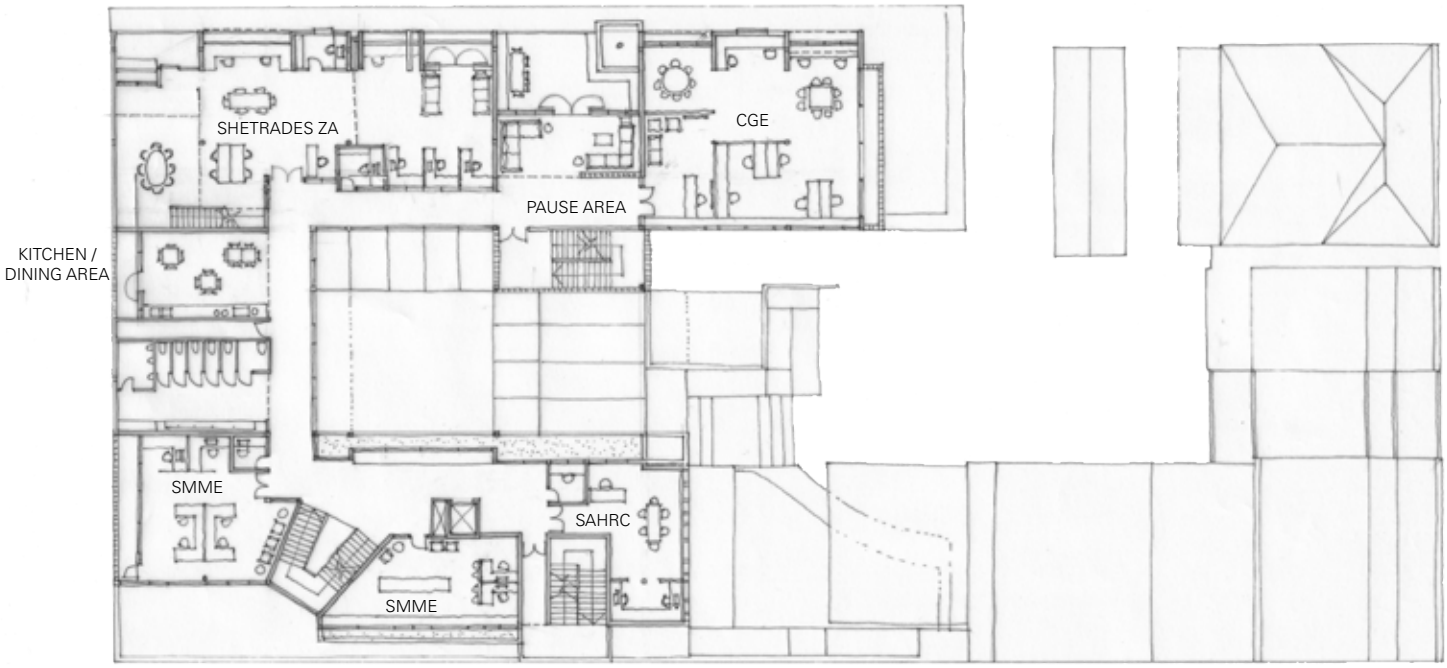



# BASEMENT

Event space| Parking, | Services




# SECOND FLOOR

Organisation offices



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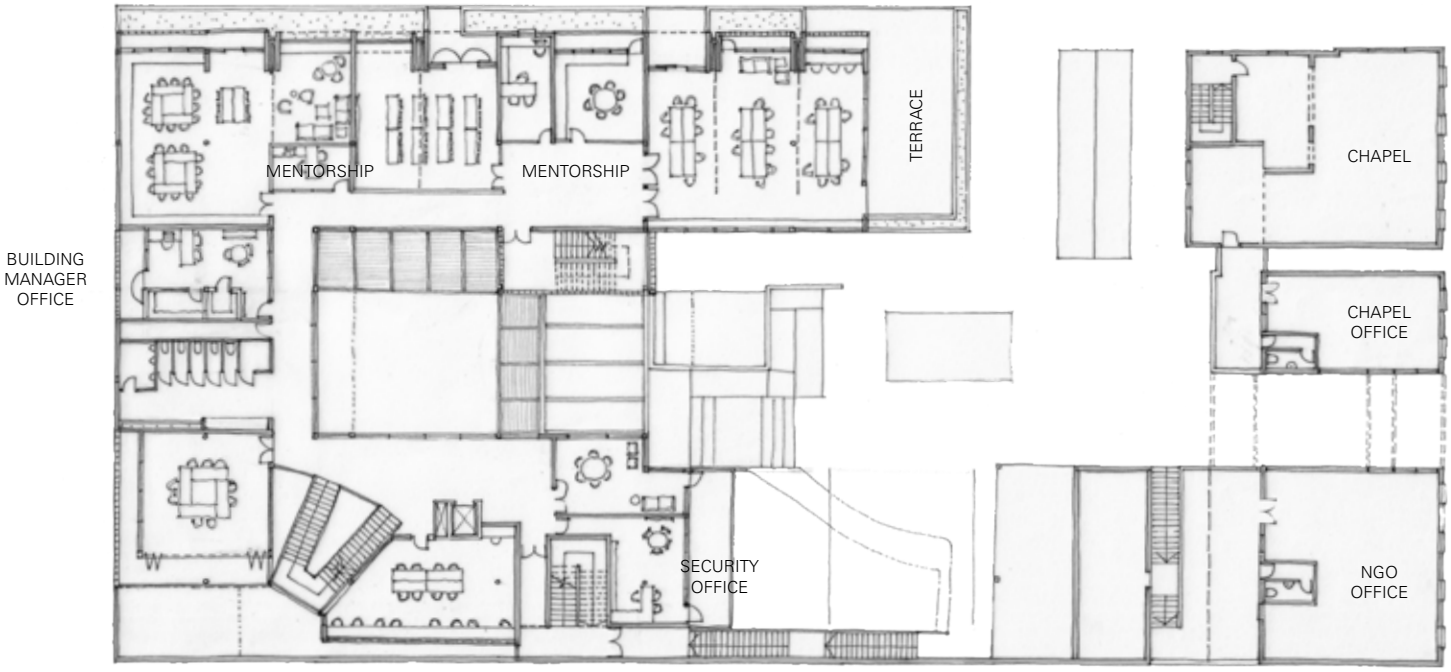
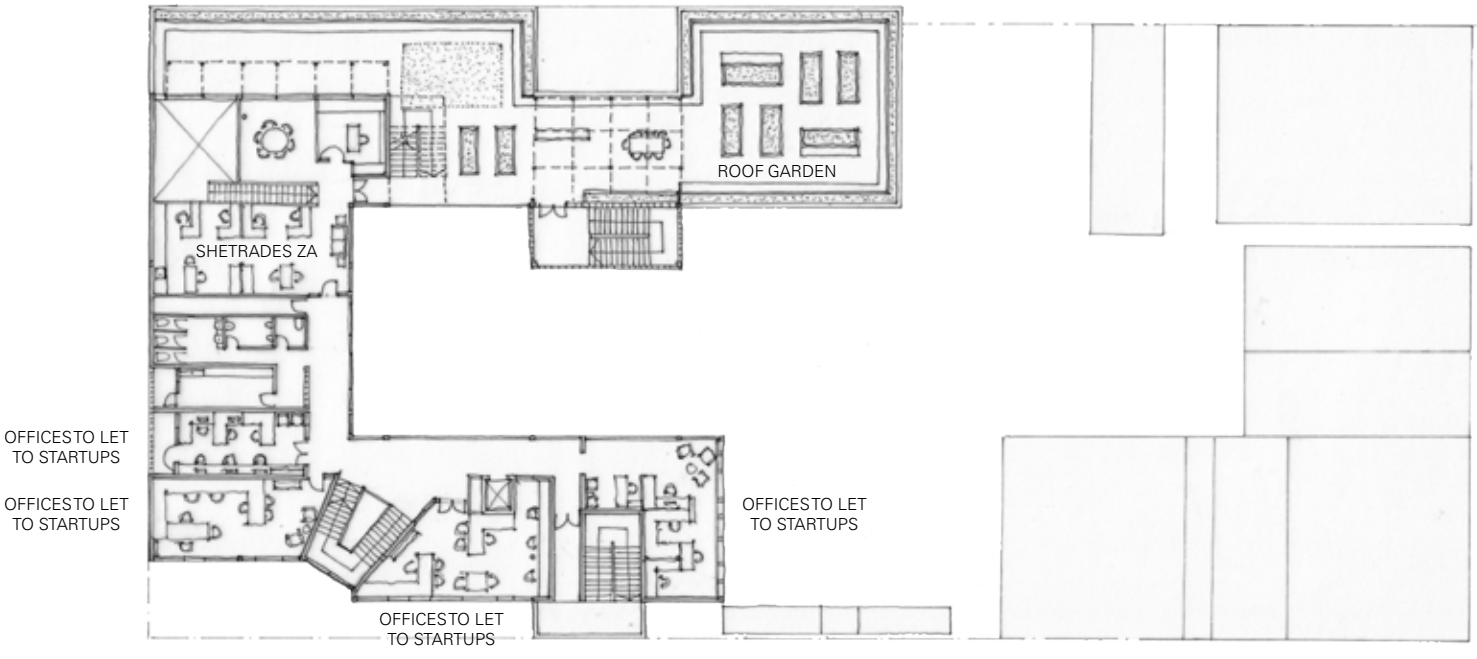



# FIRST FLOOR

**Shared training | Mentorship | Workshop | Meeting spaces**




# THIRD FLOOR

**Rentable offices for start-up businesses**

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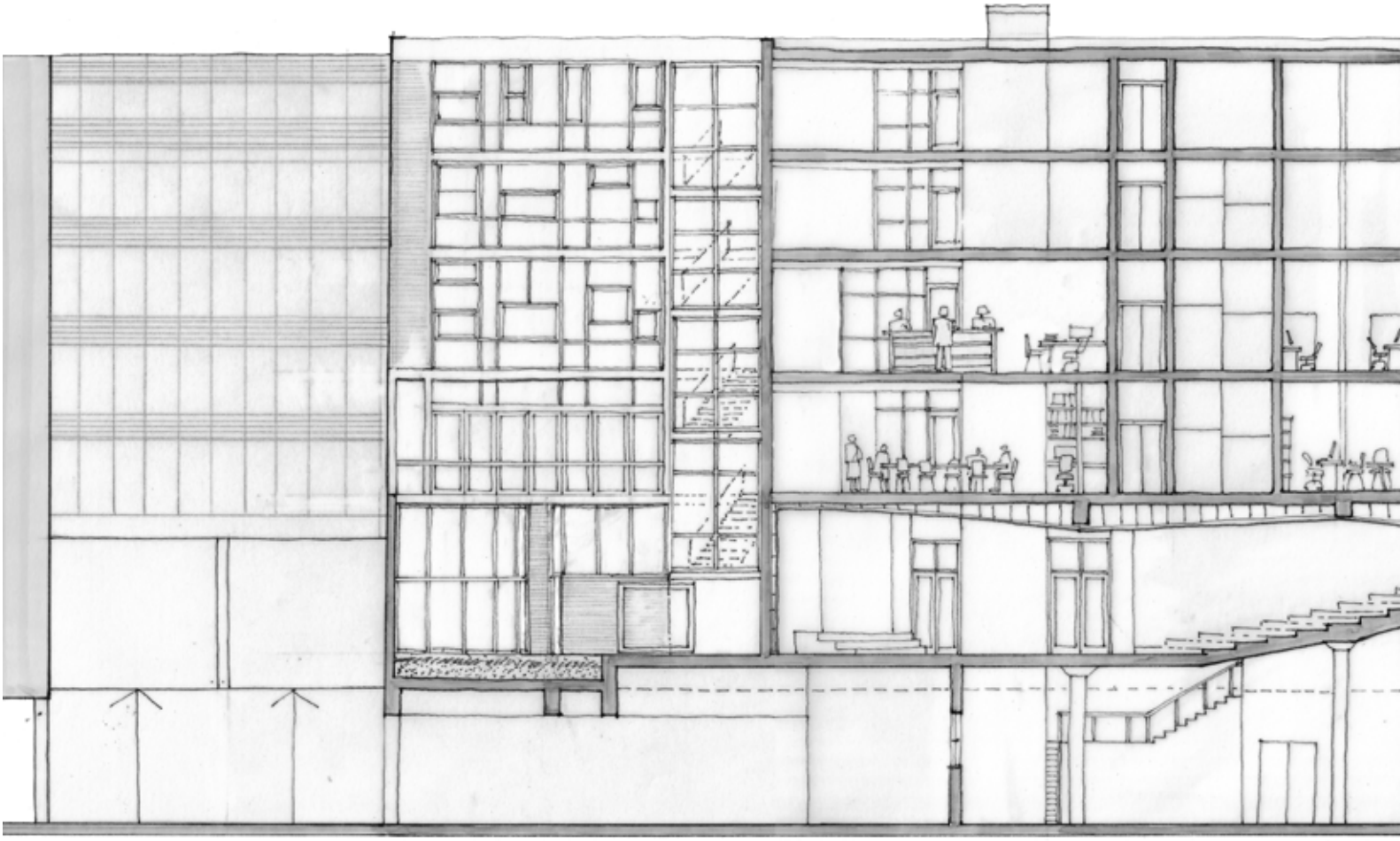

SECTION 01



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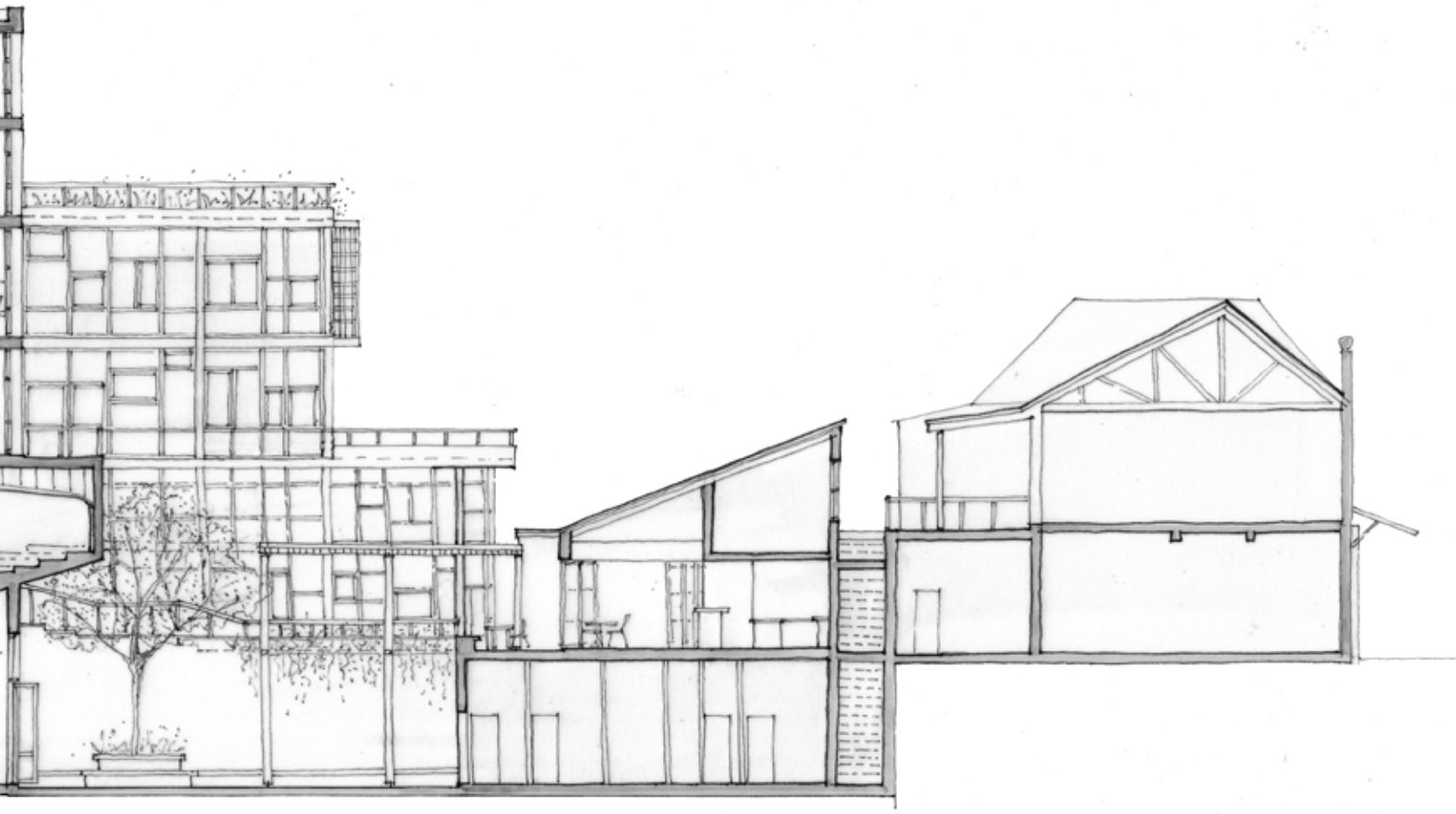

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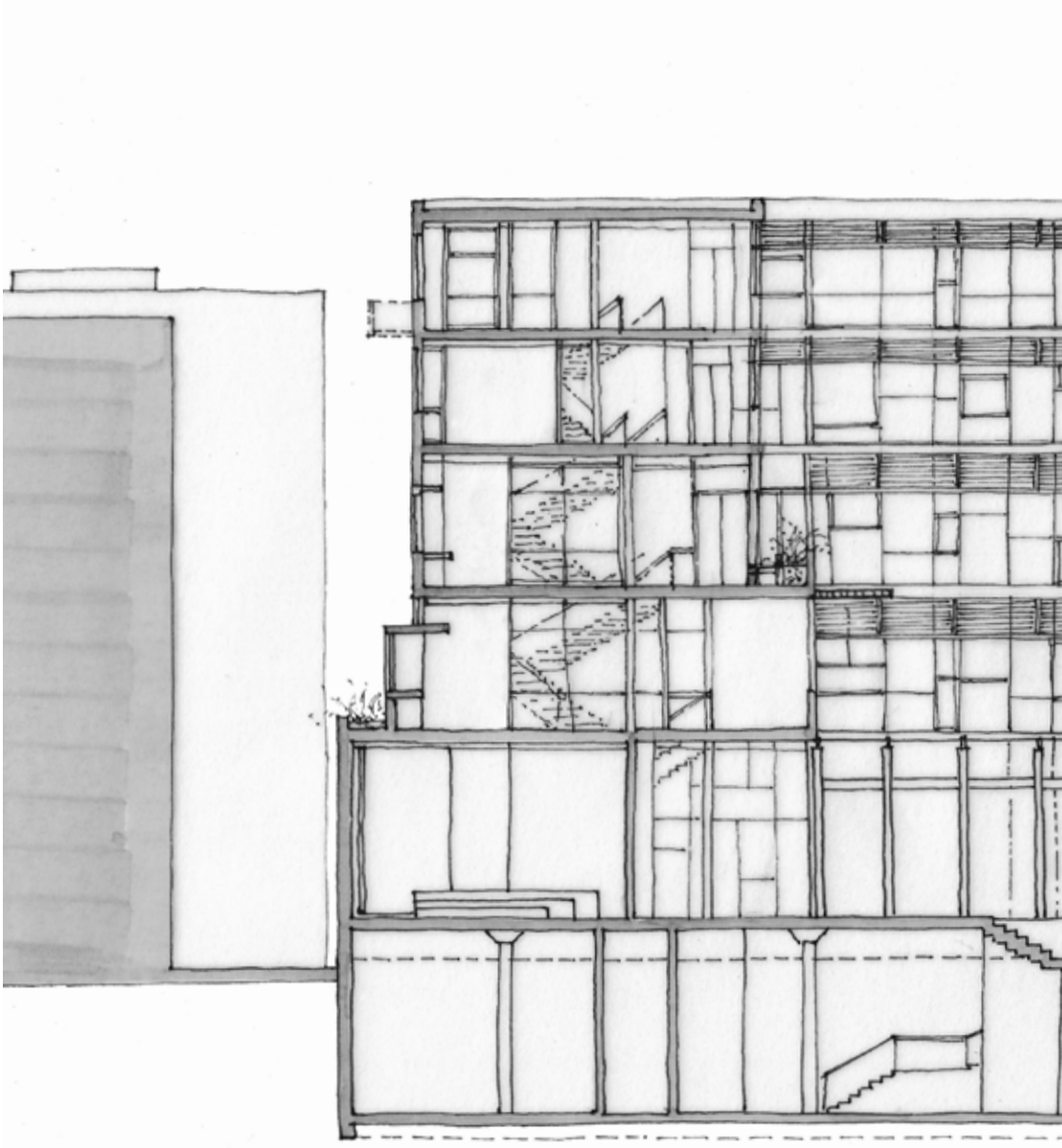

# SECTION 02



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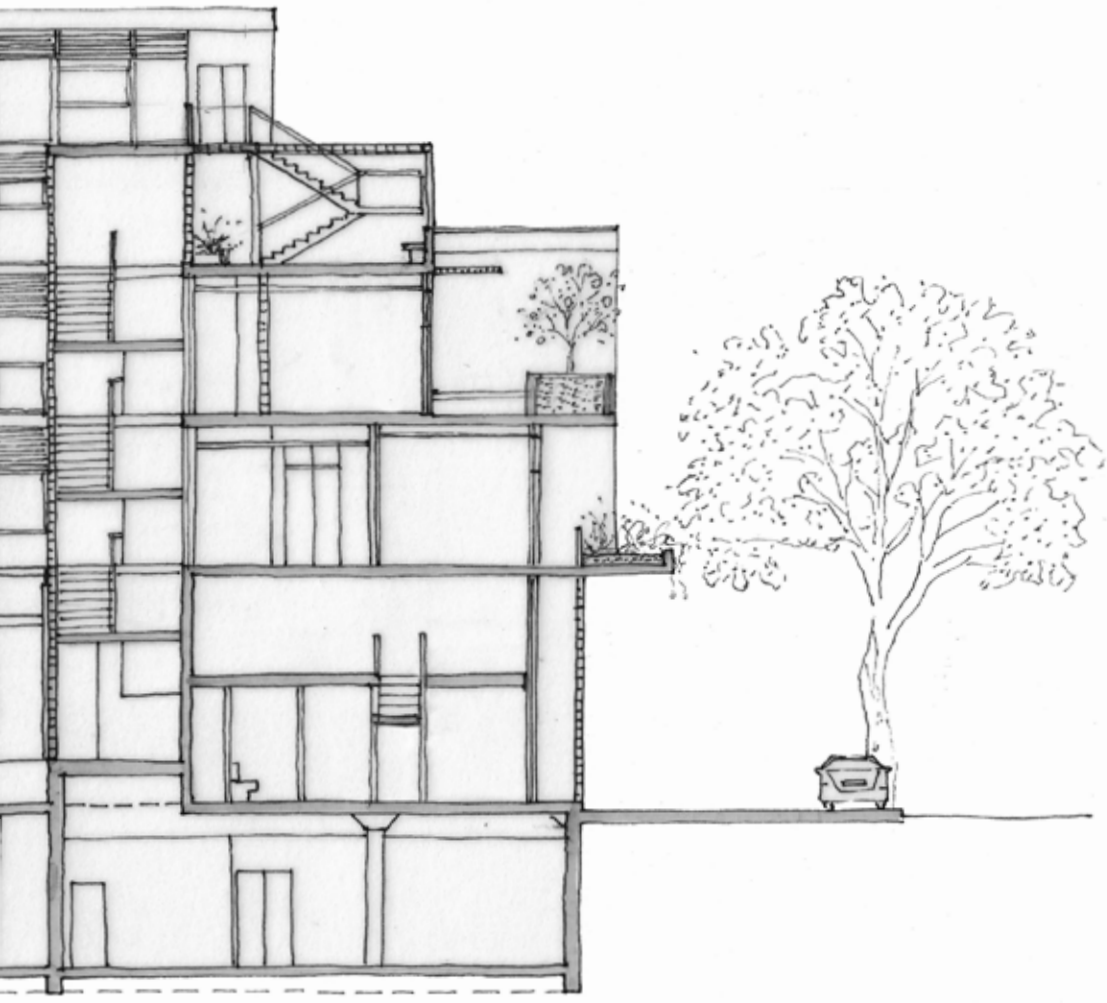

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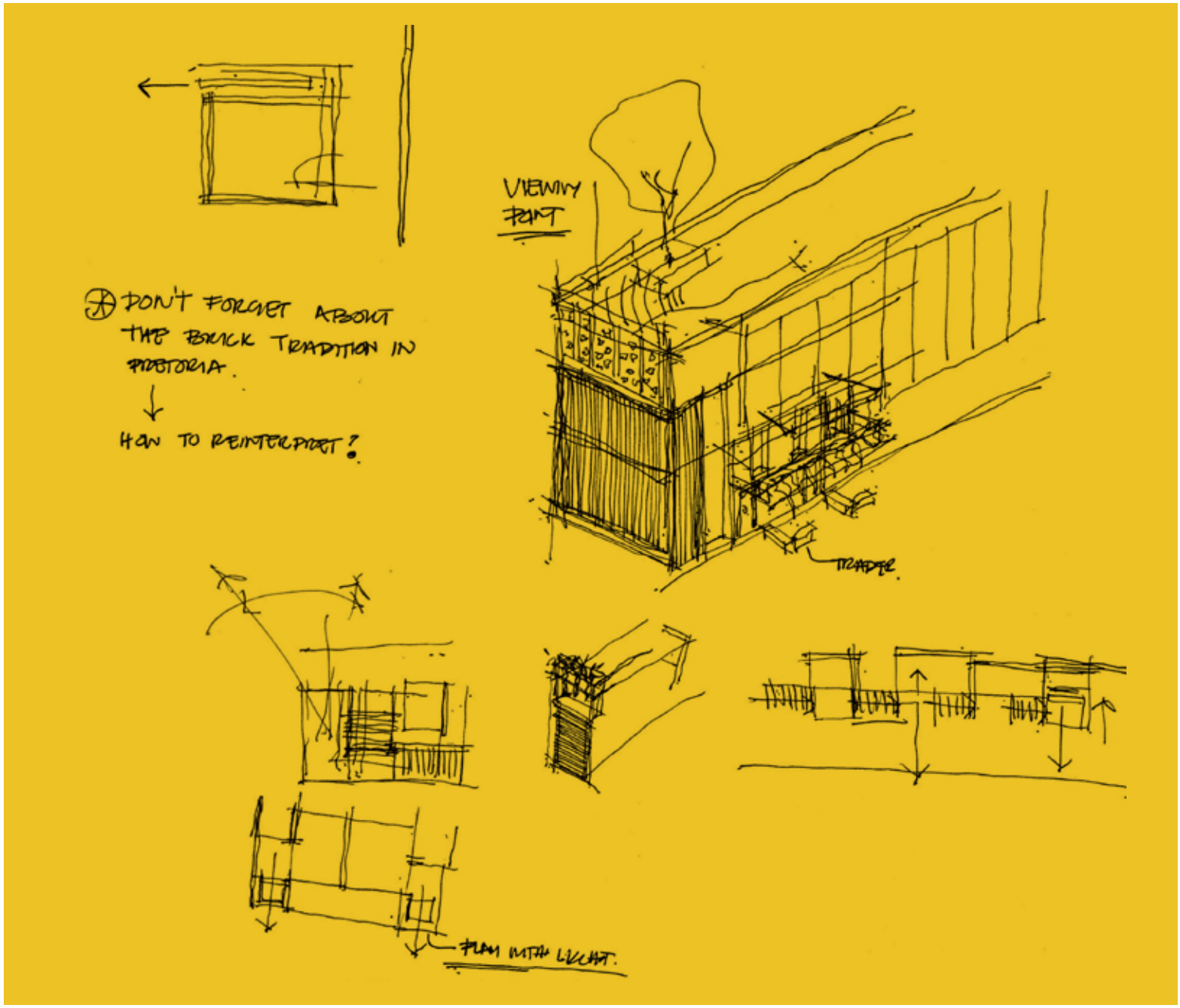


# 10. TECTONIC EXPRESSION OF INCLUSION

**Fig 136.** (above) Material explorations of the planted balconies (Author, 2022)



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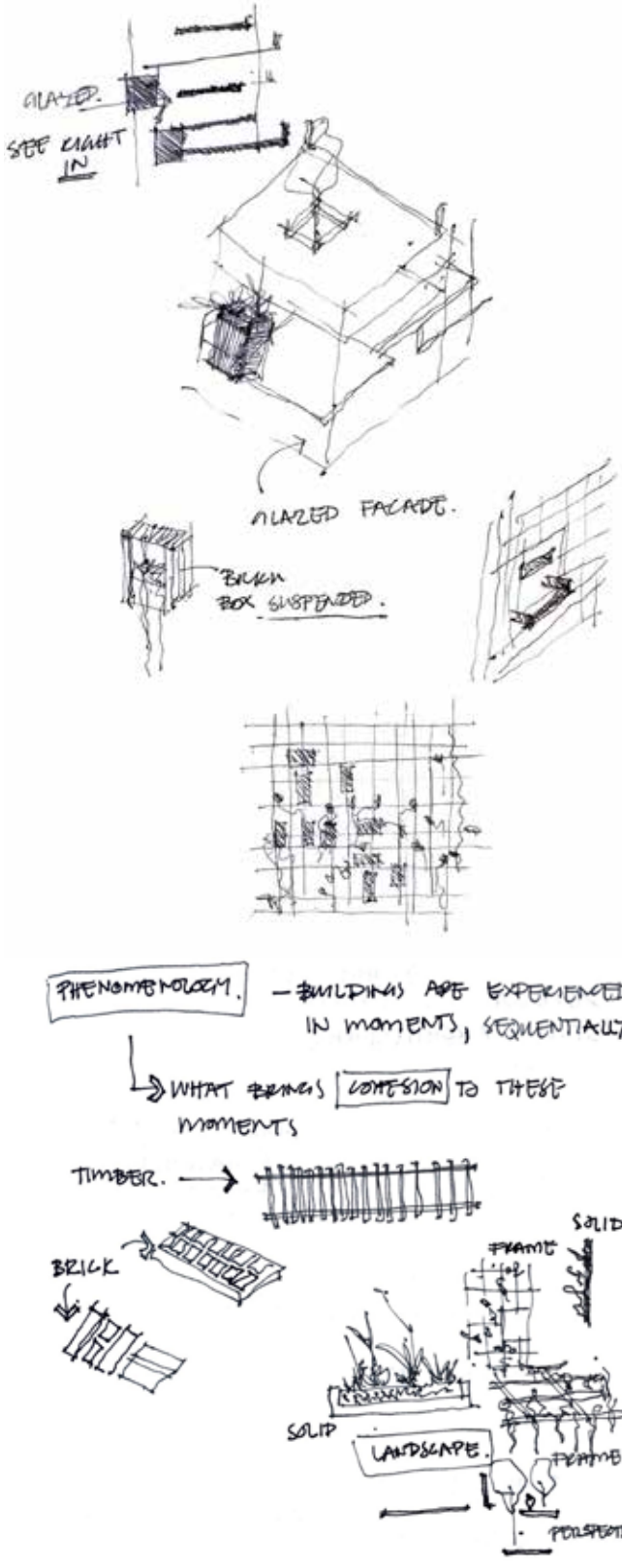
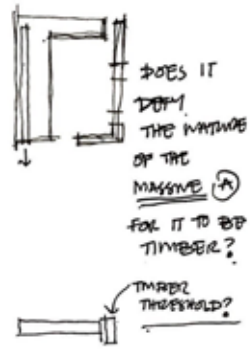
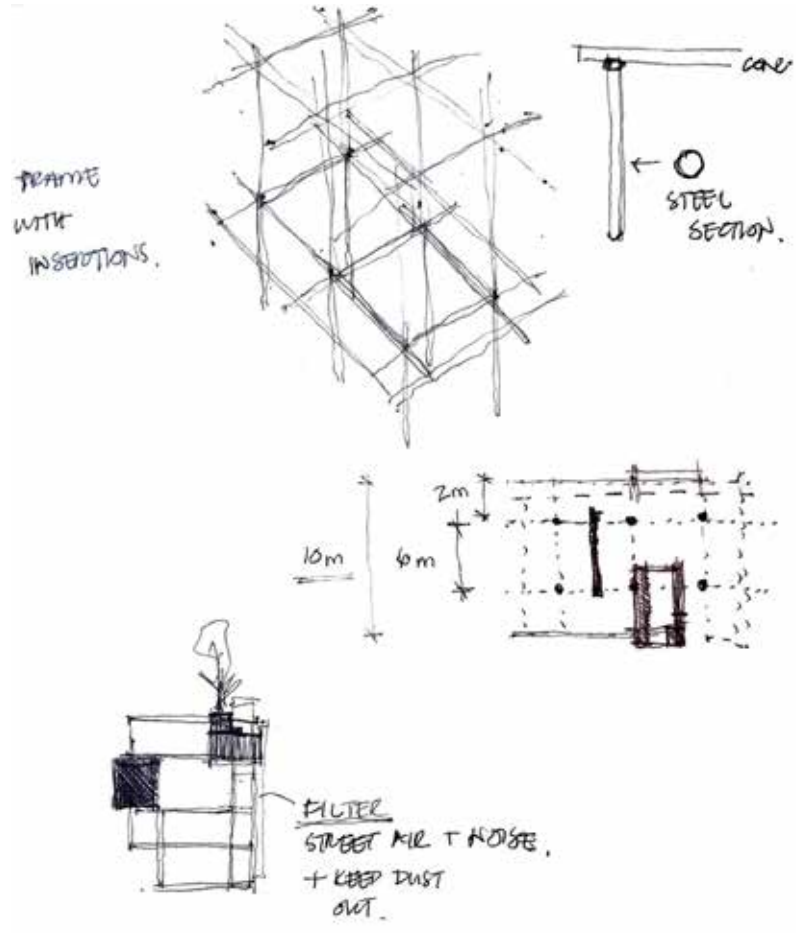
10. 1.

# Tectonic intentions




The intention of this dissertation to explore what an architecture of inclusivity looks like – how to craft democratic space that is welcoming and subverts the traditional power relations between government and citizens. The tectonics and materiality are huge factors influencing how space is experienced. Crafting a building that employs phenomenological strategies for creating a space that is softer, more welcoming and the antithesis of a cold institutional typology.

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10. 2.

# Tectoic informants and concept

The technical concept is an extension of the design concept, the technology is an expression of the interfaces between the existing technological typologies of the surroundings and the programs held within the project. Technology will be used to both fit the building into its surroundings to create cohesion in the city and to transform the typological expression of existing government buildings and precincts.

The technology was derived through morphing and reinterpreting the existing tectonic typologies of the surrounding context. What is derived is an interpretation of the context as point, line, and mass, which translates into the structural system utilised.

The form of the Panagos buildings is reinterpreted as both mass and void in the frame structure - inserting into the freer, open minimal structure allowed by the reinterpretation of the modernist column and slab system.

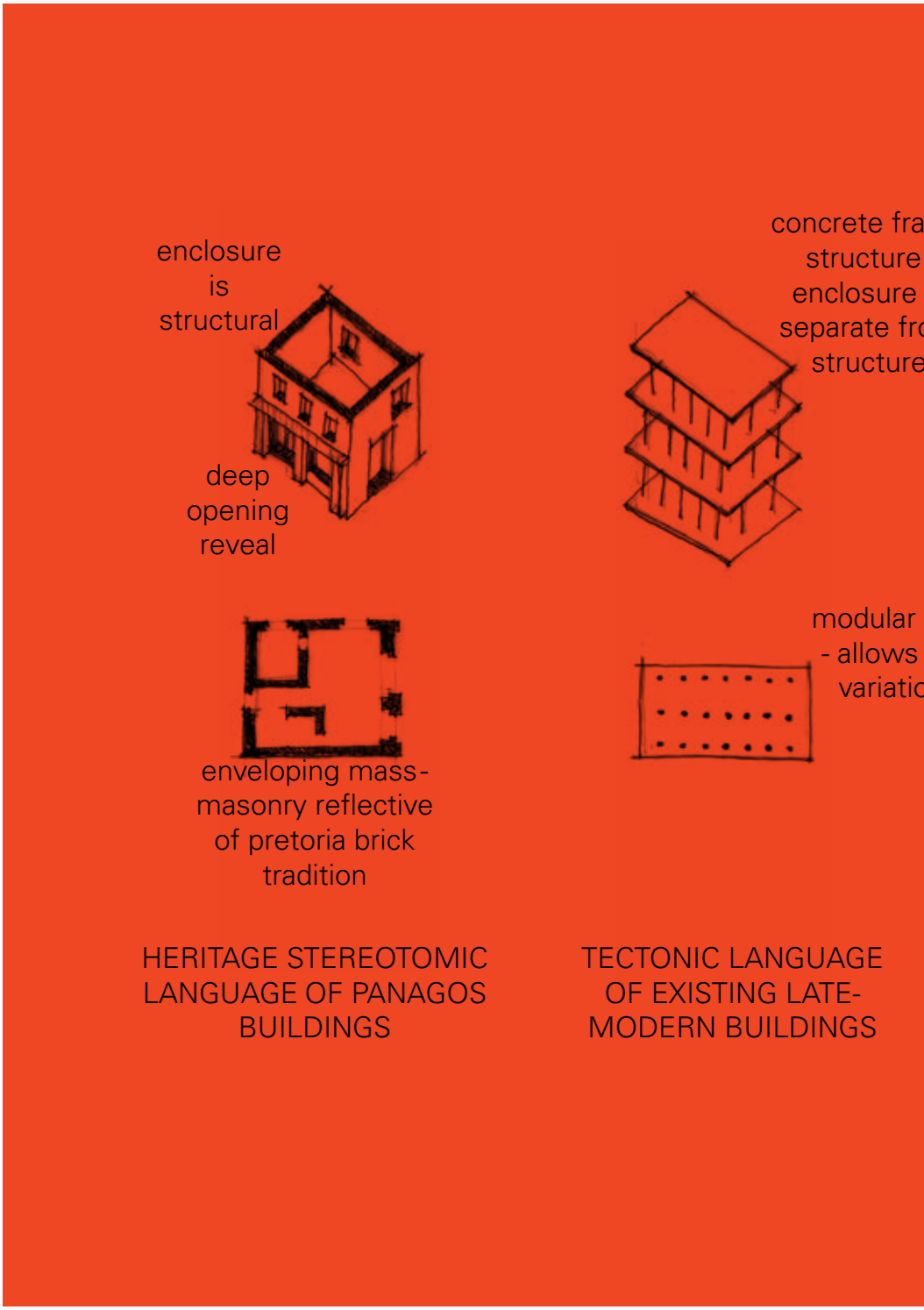


**Fig 137.** Diagram showing how the tectonic concept is drawn from existing technologies of the surrounding context (Author, 2022)



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me
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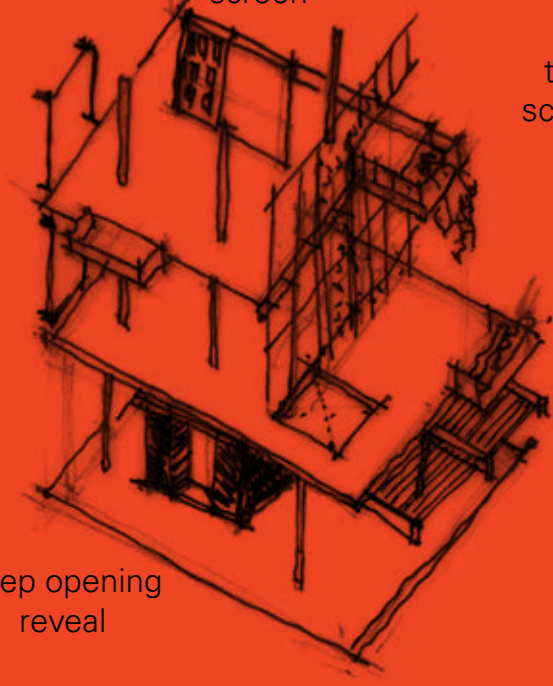
grid
for
on

brick
screen

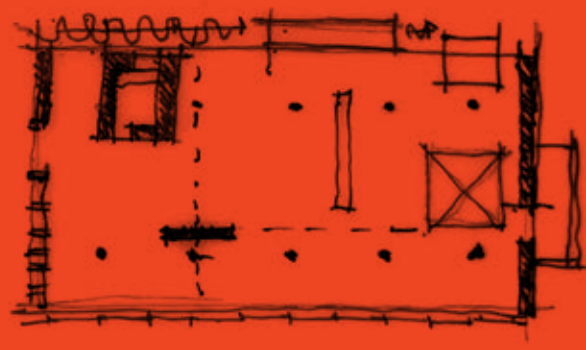
timber pergolas and
screens reinterpret the
louvre tradition

concrete
structural frame
with insertions



deep opening
reveal

mass and void reinterpret
the spatiality of panagos
buildings



TECHNOLOGY IS THE
INTERFACE BETWEEN, AND
RE-INTERPRETATION OF,
EXISTING TECHNOLOGIES

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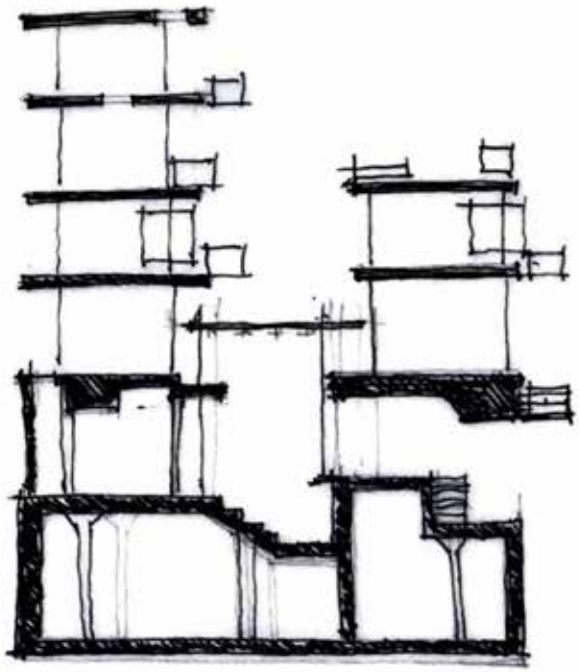
10. 3.

# Structural system



FRAME ARTICULATION

The structural system references the concrete frame and infill typology within the City of Tshwane. The primary structure is a concrete column and slab system. The infill is a reinterpretation of the older heritage and modernist Pretoria masonry traditions, with lightweight brick and timber screens, and pergolas introducing a new layer of expression. The structural concrete frame comprises columns and a two-way spanning slab. The shift in the column grid in the northern wing of the building because the most efficient parking module interfered with the design on upper levels, is accommodated by transfer beams that pick up the loads of the shifted columns down into the basement columns.

The structural engineer advised that pile foundations would be the most appropriate option for a building of this scale. The basement structure differs slightly from the upper levels with mushroom columns to eliminate punching shear, and beams taking the increased load of the upper floors. The surface bed slab in the basement is not tied to the columns as the loads

**Fig 138.** (above & right) Diagram showingthe attitude to structure and infill (Author, 2022)



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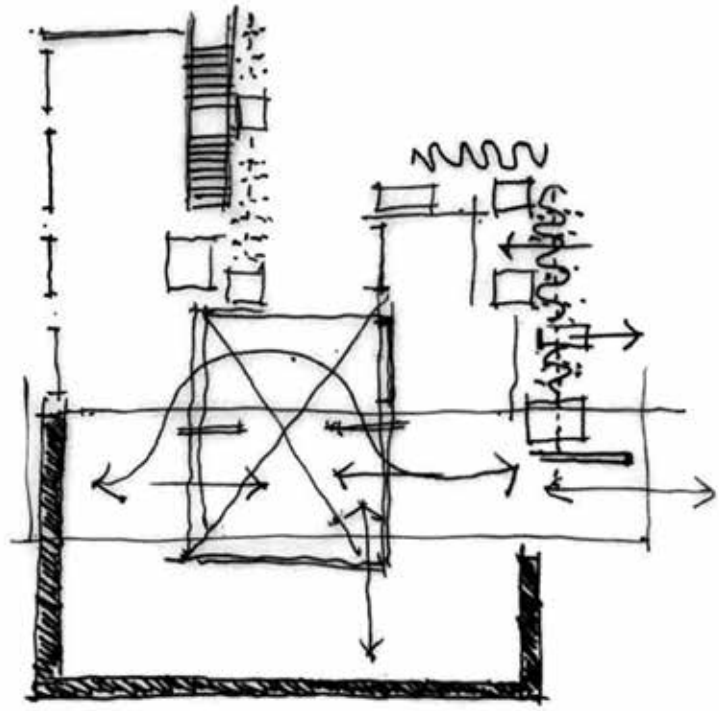
are distributed straight to the piles mitigating the need for a very thick slab there. The basement retaining walls also rest on pile foundations and have two different constructions. Where the basement is right up against the boundary, typical excavation is not possible without disturbing the foundations of the neighbouring buildings. In this instance (southern basement wall) and where the basement wall is close the existing heritage buildings (eastern basement walls) a soil nailing and gunite method is proposed in place of traditional excavation.

The infill structure consists of non-structural brickwork and steel and timber screens. The brick infill is tied to and closely related to the concrete frame whereas the steel pergolas and screens are articulated as separate elements that touch the building and the ground lightly. This is to reinforce the contrasting expression of heavy to light with the lightest technology (steel) quite literally touching lightly.



THE LANGUAGE OF INFILL

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10.4.

# Material intentions

This is a public building so robustness is an important consideration, particularly when considering the materials. The balance between robust technology and materials, while trying to create warm, welcoming, and accessible spaces is a fine line, but is important for informing a new narrative of the South African city.

## Tectonics and materiality of the existing

There is a very distinct material palette found in the surrounding context. The use of aluminium screens is found extensively in the late-modern examples.

The use of brick is also significant and there is a strong tradition of masonry within Tshwane that needs to be acknowledged. Masonry is utilised in both the modernist (Forum Building) and colonial (Panagos Buildings) architecture of the neighbouring buildings.

EXISTING CITY MATERIALS

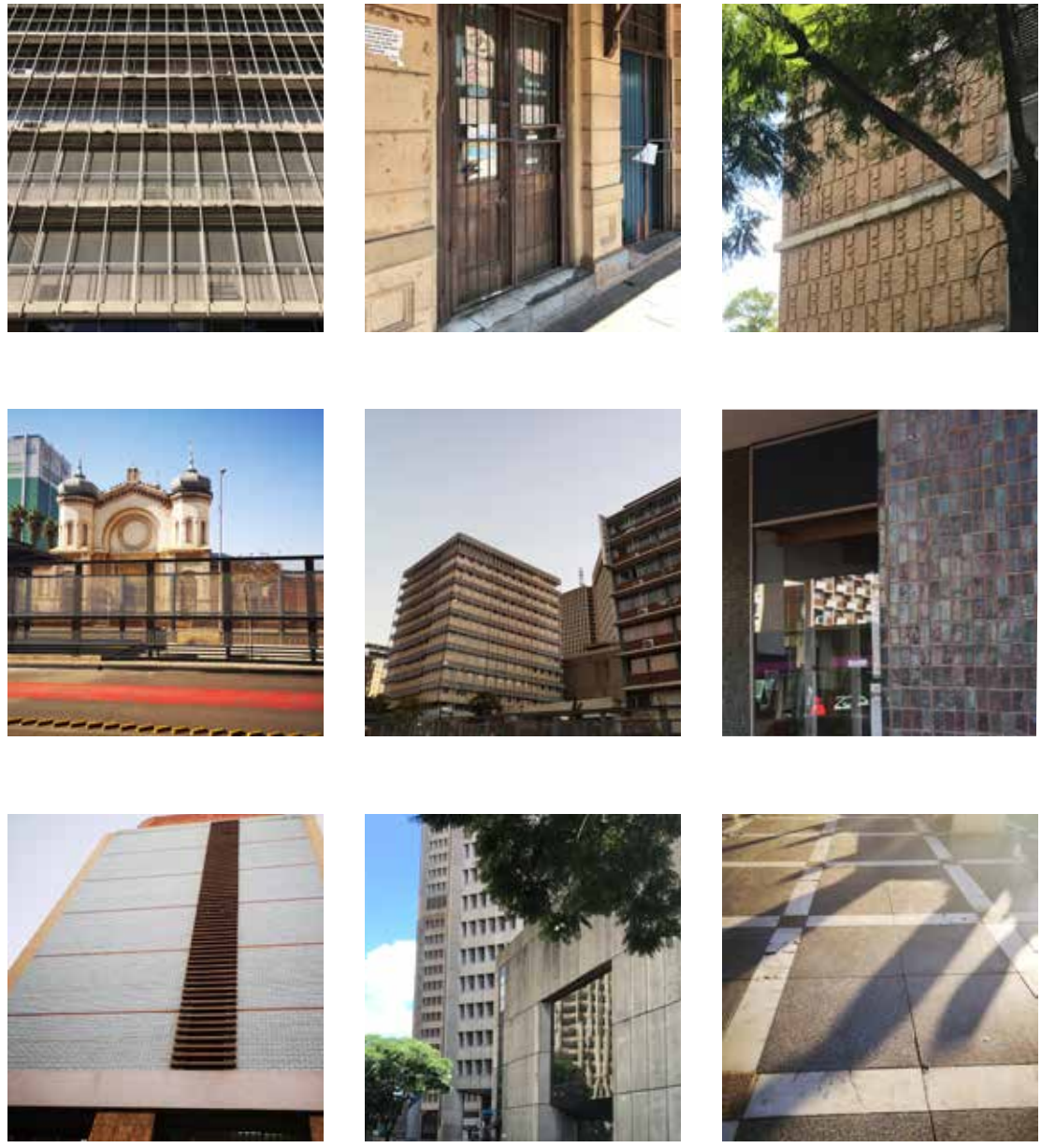

**Fig 139.** Existing materials found in the immediate context (Author, 2022)



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The use of glazed brick and mosaic tiles can also be found extensively within the context.

The use of heavy concrete structures - most notably in the Telkom Towers that looms over the city block to the south of the site – is dominant in the area.

The use of glazed brick and mosaic tiles can also be found extensively within the context.

There is also a prominance of heavy concrete structures- most notibly in the Telkom Towers that tower over the city block to the south of the site.

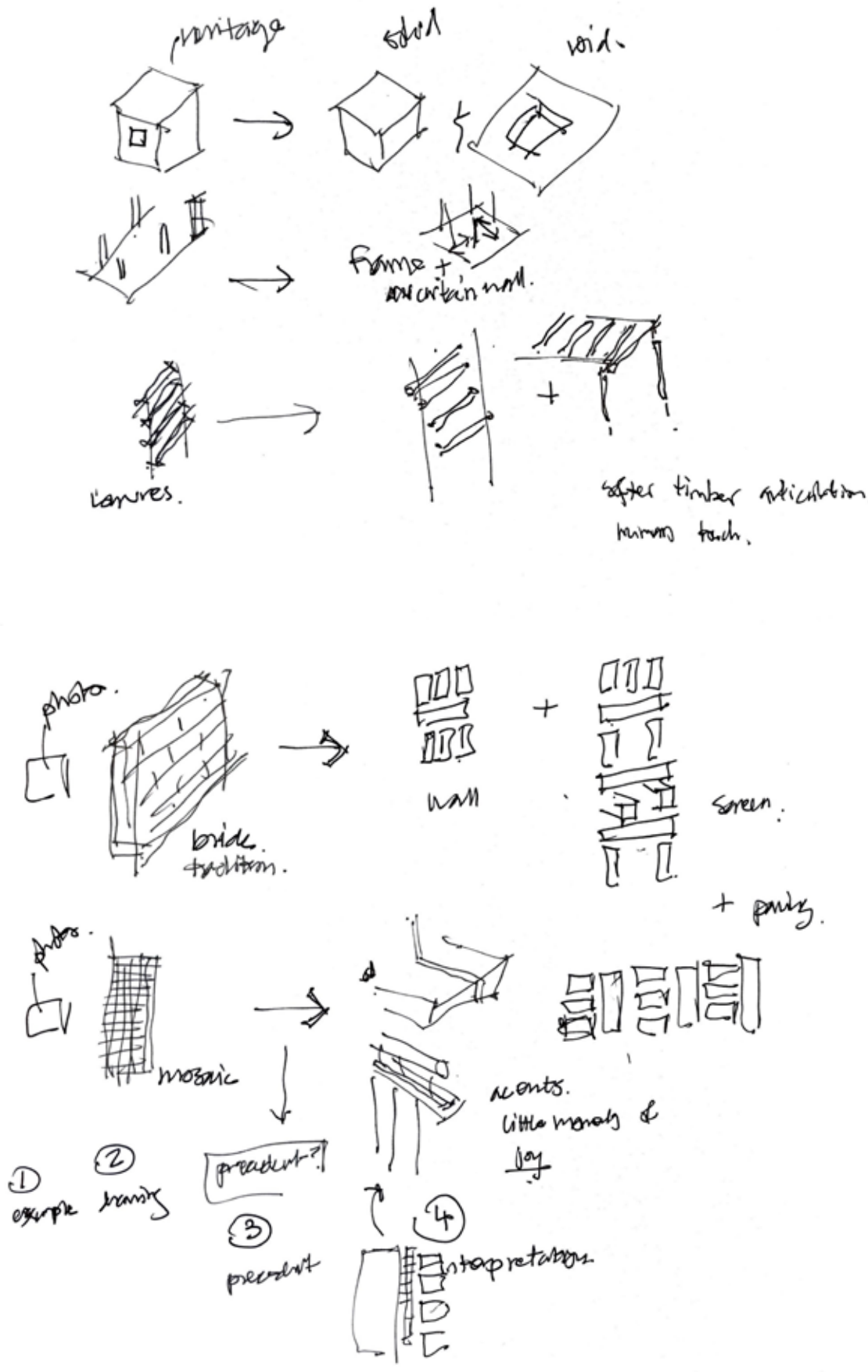


**Fig 140.** Exploring how to translate the contextual materiality (Author, 2022)

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ENVELOPE

BRICK TRADITION

LOUVRE TRADITIO

EXISTING SITE & CONTEXT

PRECEDENT

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ON

## MOSAIC & GLAXED BRICK

## CONCRETE

## GLAZING

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## Reinterpreting the existing

The intention is to reinterpret the existing materials in a way that articulates an attitude of inclusion. The proposed approach to materiality is phenomenological; the expression of each material is tactile and inviting – injecting a warmth to the project. This serves to directly counter the usual clinical institutional feeling that characterises many government administrative buildings. The proposed carefully crafted materiality is all about creating a humane and hopefully delightful human experience.

Brick traditions are acknowledged through the use of face brick for walls and screens, incorporating texture and decorative bonding techniques.

The aluminium screen facade tradition found in modernist architecture is reinterpreted as timber screens which lend softness and warmth.

The heavy concrete as found in the Telkom towers is reinterpreted as concrete with exposed aggregate, both rough and smooth polished to create visually interesting and tactile surfaces.

PROPOSED PALETTE

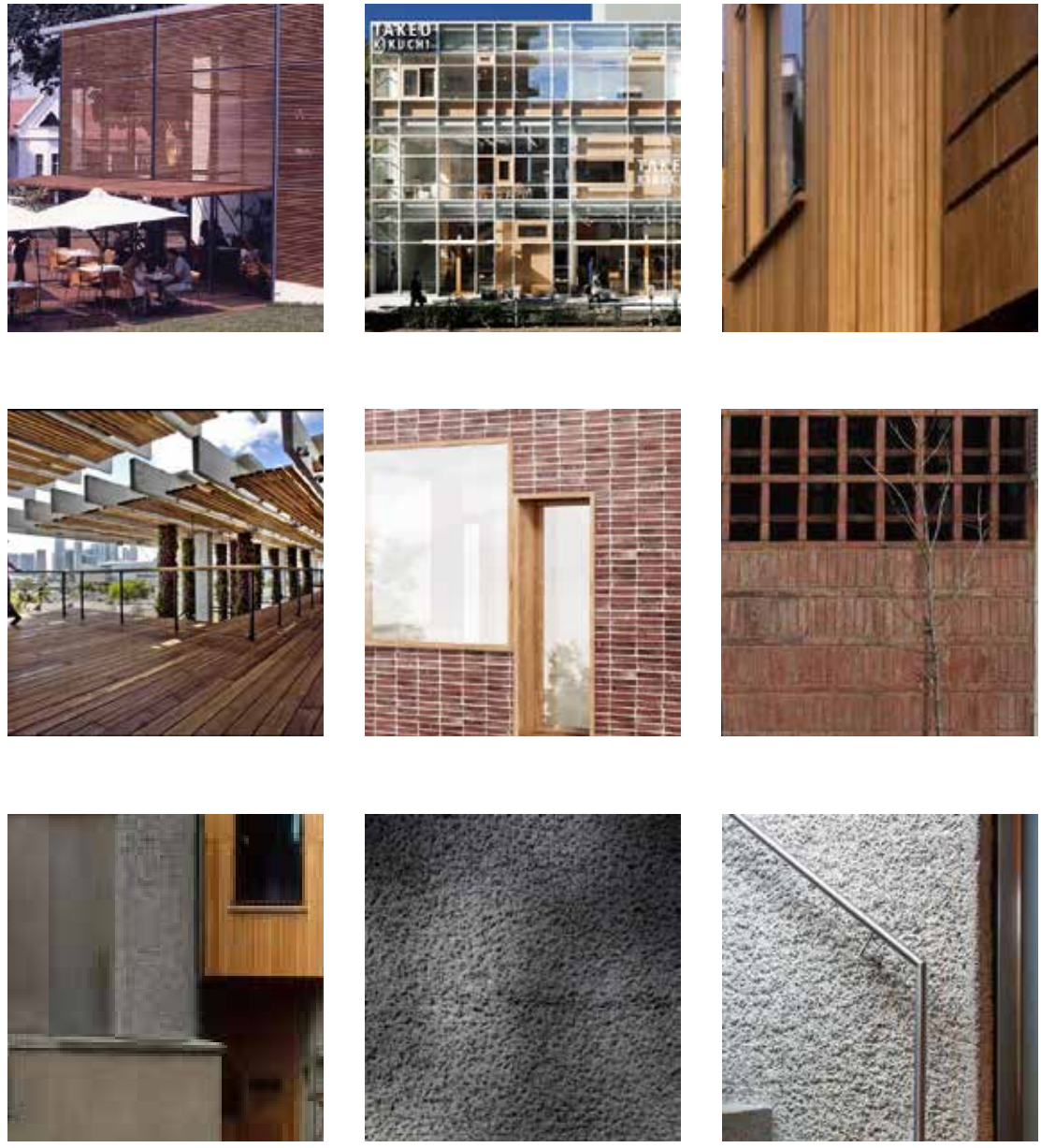

**Fig 141.** Selection of proposed materials (Author, 2022)



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10.5. Technical explorations

# Technical section exploration

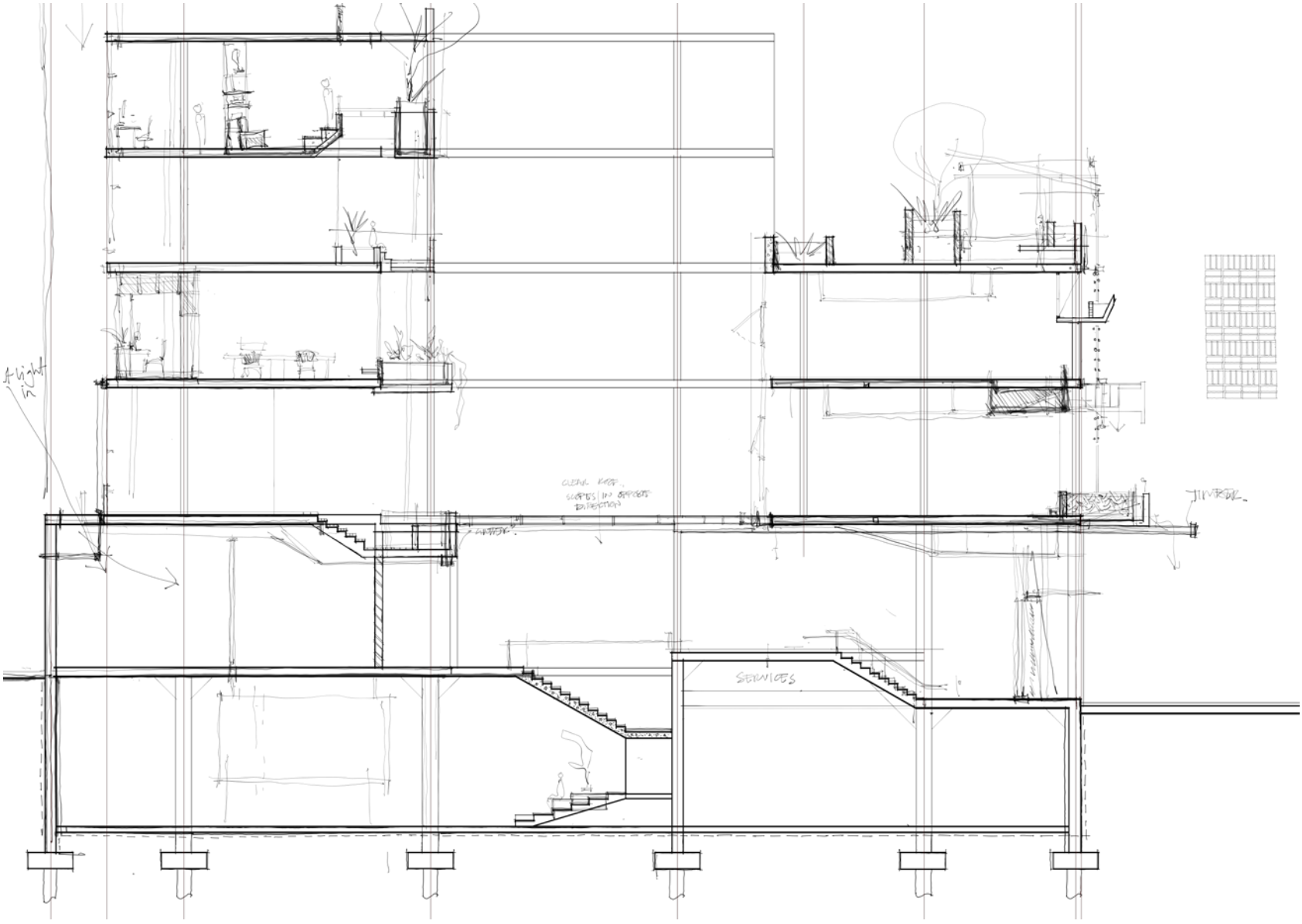


**Fig 142.** Exploration of the technical 1:50 section (Author, 2022)

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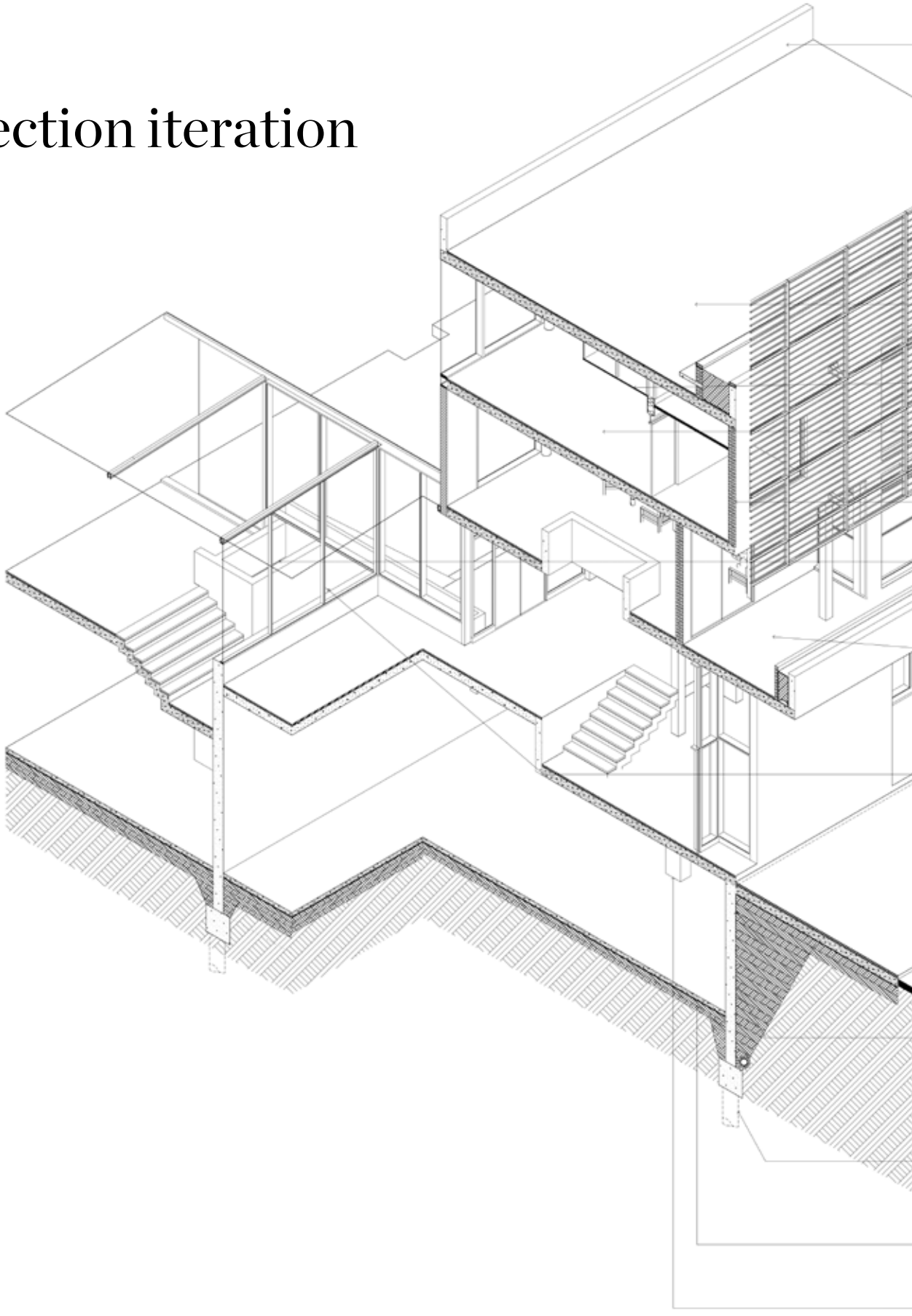
# Technical section iteration



1:20 @ A0



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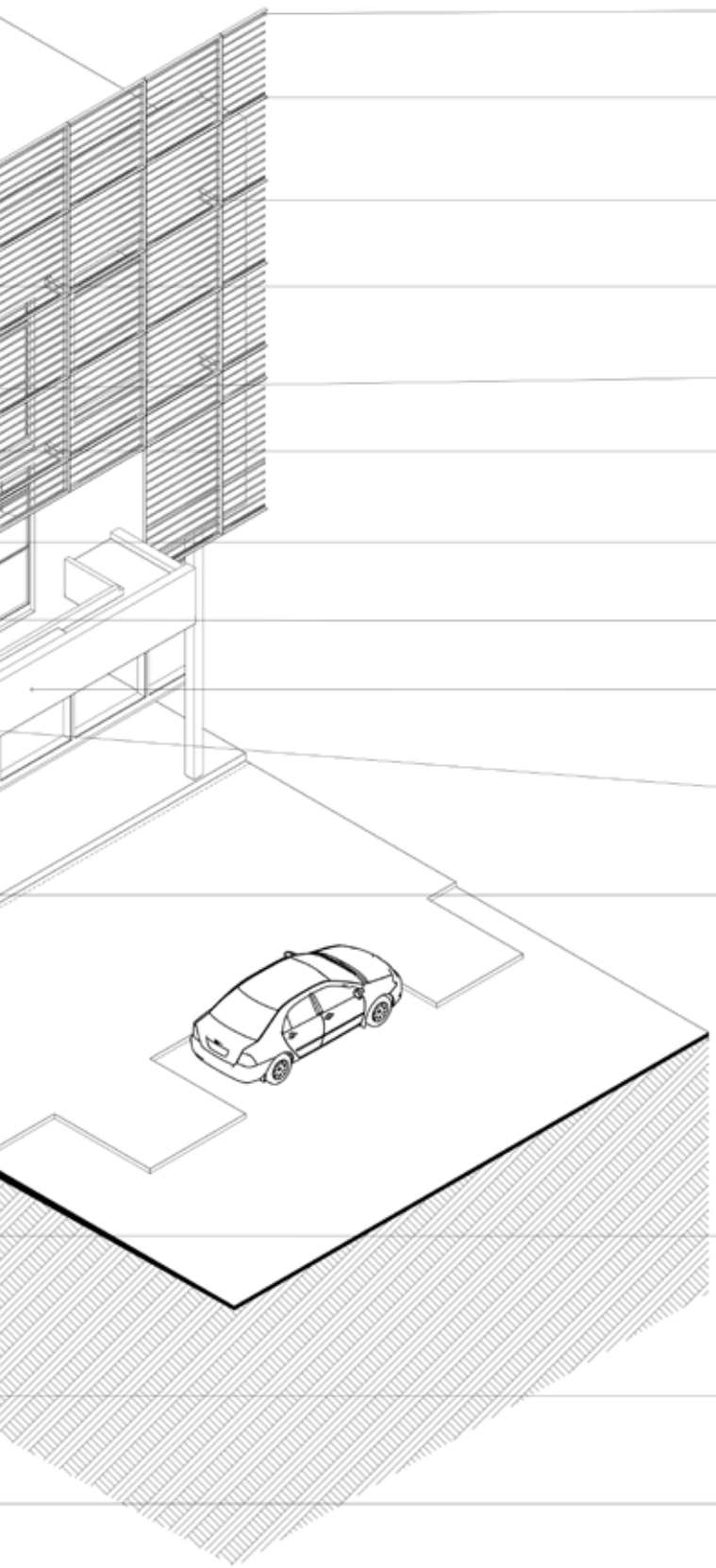

76 x76mm galvanised mild steel angle screen subframe

20mm x 2000mm Timber lath fixed to 76 x76mm mild steel angle subframe

76 x76mm galvanised mild steel angle screen subframe

180 x 90 IPE mild steel section, welded to 200 x 200 mild steel base plate, (galvanised after welding) chemically anchored to the concrete slabs at 4m intervals

280mm Reinforced concrete roof slab cast in situ, with inslation, torch on waterproofing finished with 50mm clay ties sitting on spacers to allow water to flow at a min fall of 1:30 towards the Hydrain fulbore

Gypsum board suspended ceiling with insulation for services along circulation routes

255mm thick reinforced concrete two-way flat slab spanning between 230x230mm concrete columns

250 clay face-brick cavity wall with insulation board

8mm Clear glass roof supported on 200x80 glavanised mild steel RHS portal frame

220mm Concrete balcony planter box with layers of waterproofing and geotextile as per detail

50mm thick face brick tile floor finish, interspersed with terrazzo/ceramic? floor tiles with expansion joints every 3m sitting on a 25mm layer of cement sand screed to fall min 1:50 to Hydrain balcony gutter

Aluminium curtain wall with timber window frameinserts for opening sections.

350mm Reinforced concrete retaining wall sitting 800 x 800 concrete pile cap at every 8m

450 Ø Concrete pile foundation

125mm Reinfored concrete surface bed sitting on a layer of blinding sand and compacted soil

300x500mm off shutter Reinforced concrete columns cast in stu with 900x1100x80mm concrete column cap sitting on a 800 x 800 pile cap

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# Basement courtyard exploration

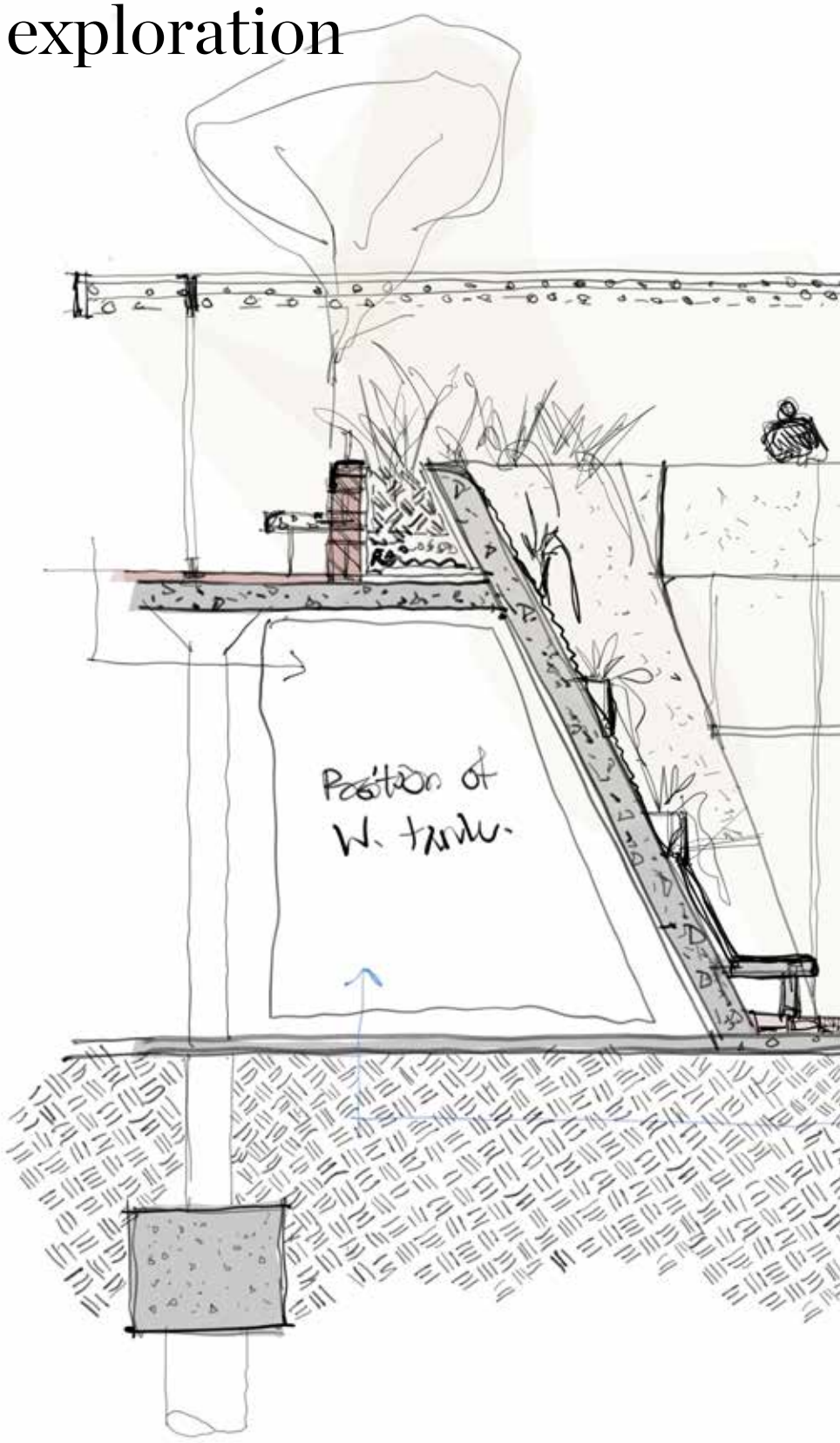


**Fig 143.** Exploration of relationship between lower and upper courtyards and material expression (Author, 2022)



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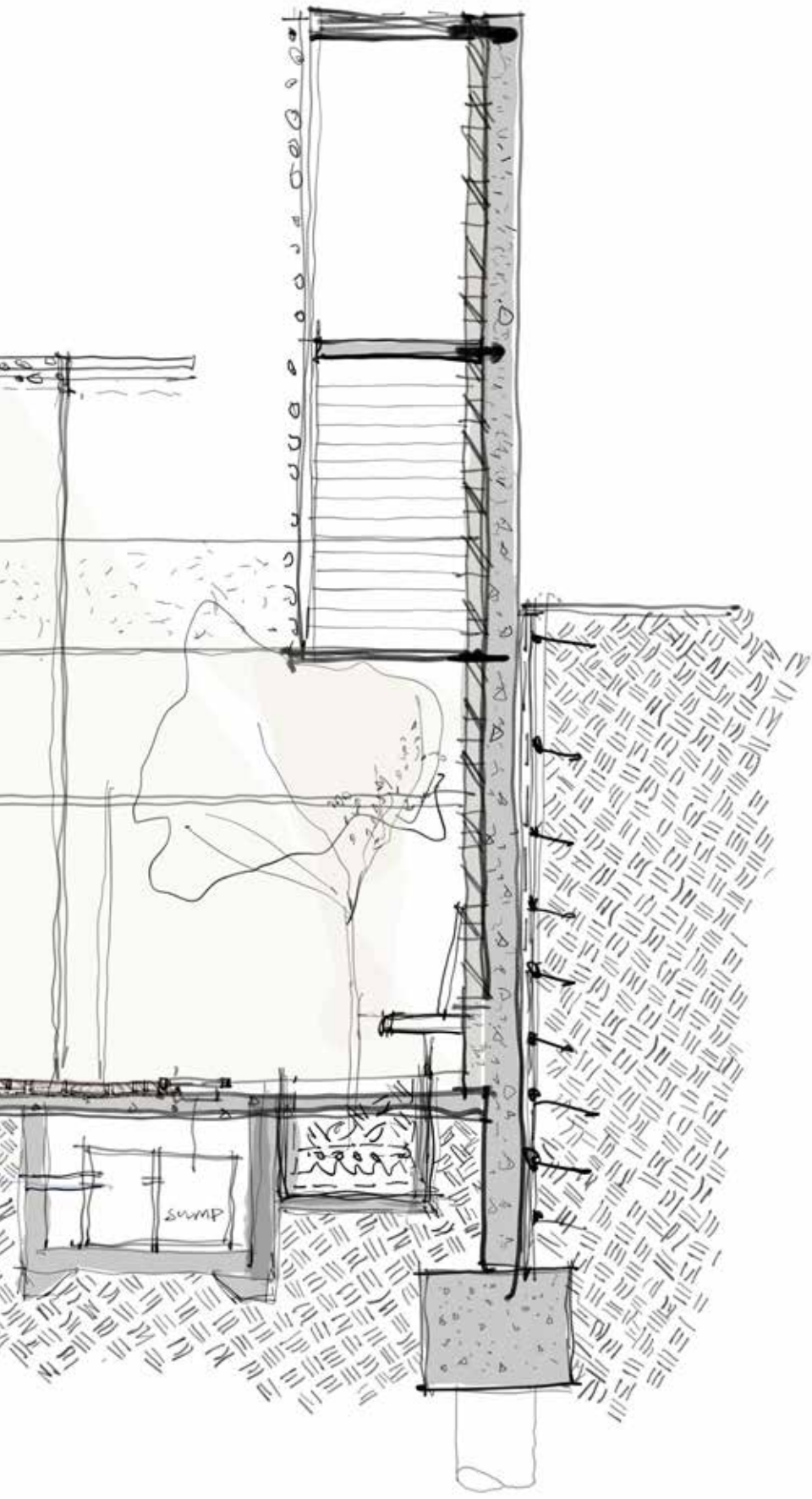


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# Detail explorations

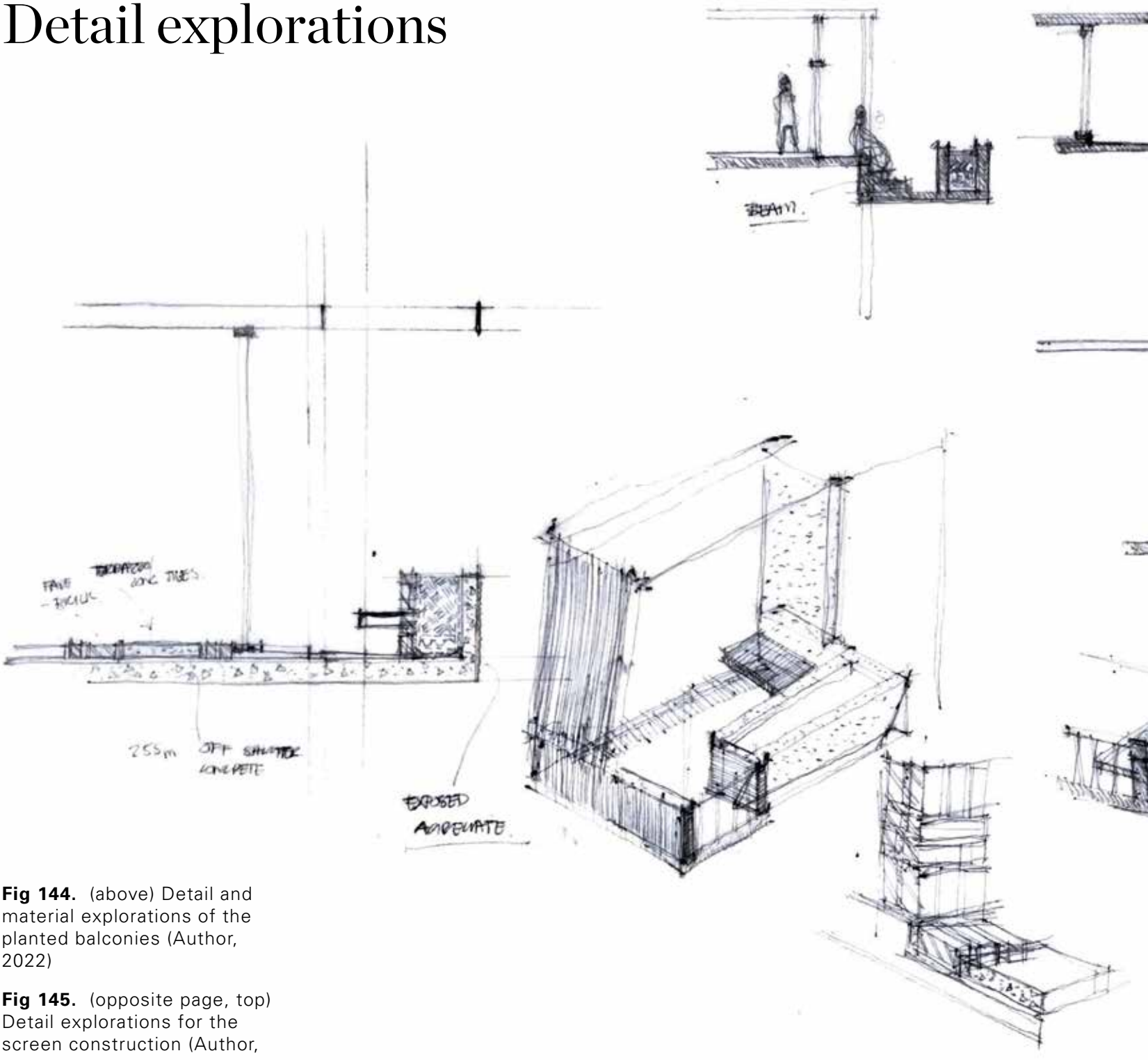


**Fig 144.** (above) Detail and material explorations of the planted balconies (Author, 2022)

**Fig 145.** (opposite page, top) Detail explorations for the screen construction (Author,

**Fig 146.** (opposite page, bottom) Detail explorations of how the screen is fixed to the facade (Author, 2022)



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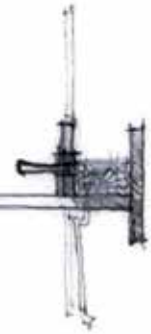

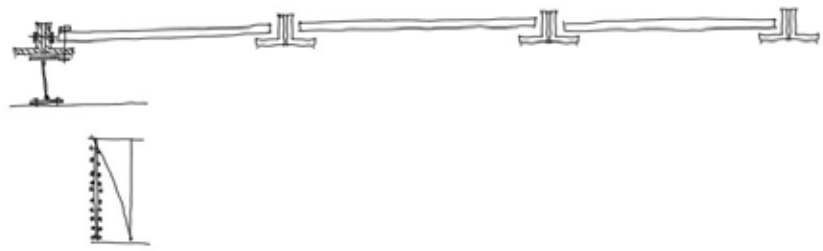

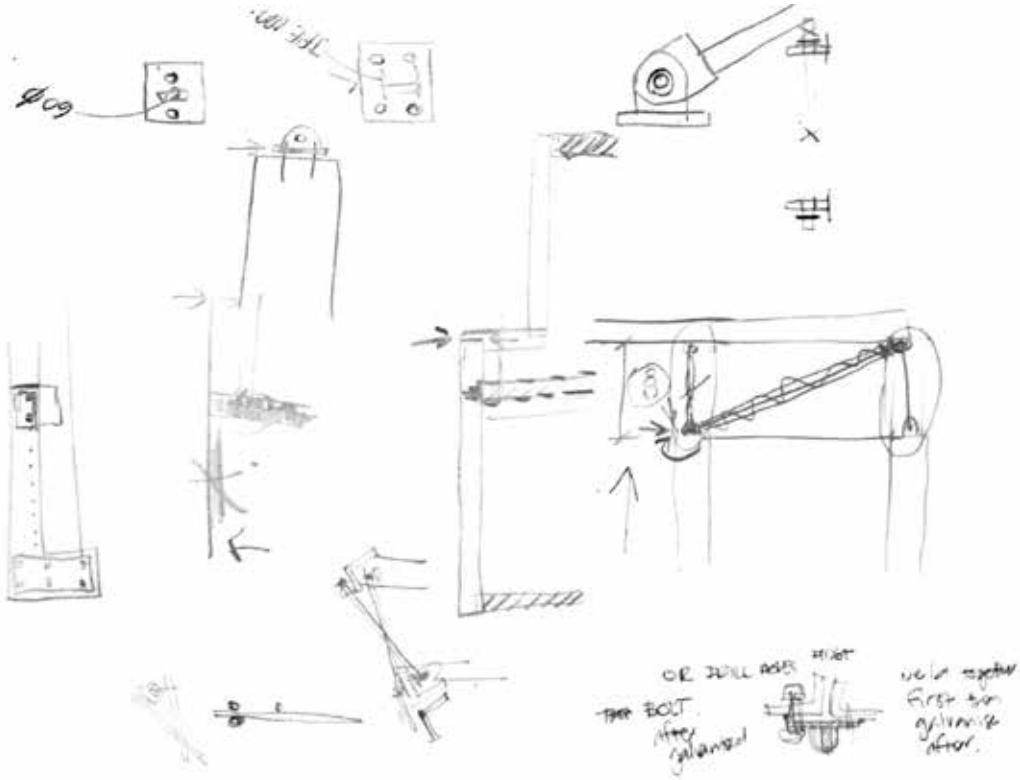


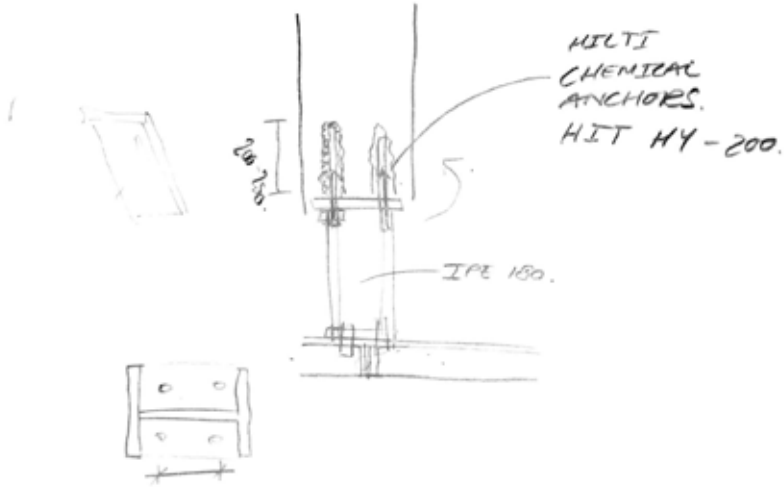


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# Detail explorations

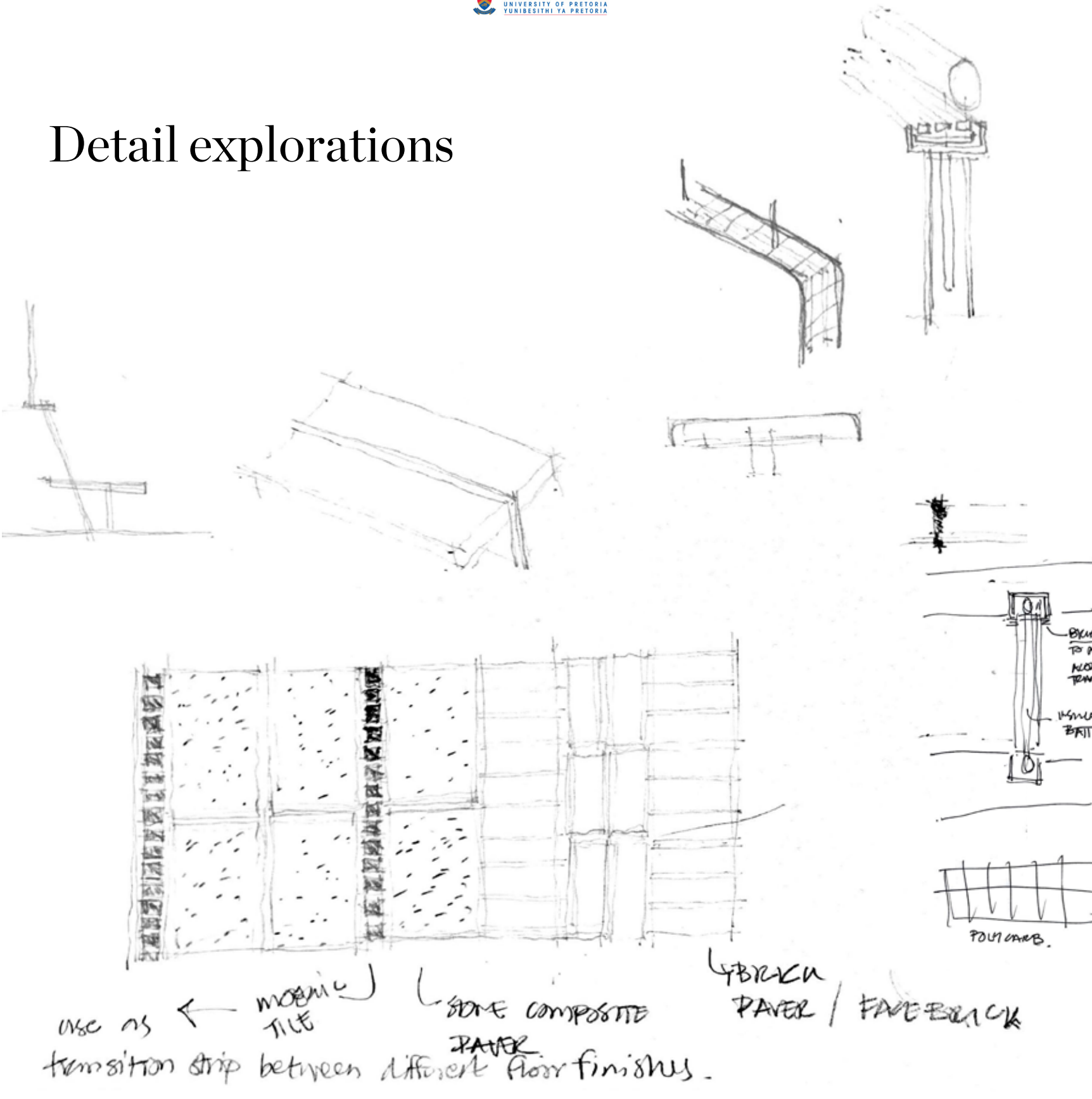


**Fig 147.** (Author, 2022)



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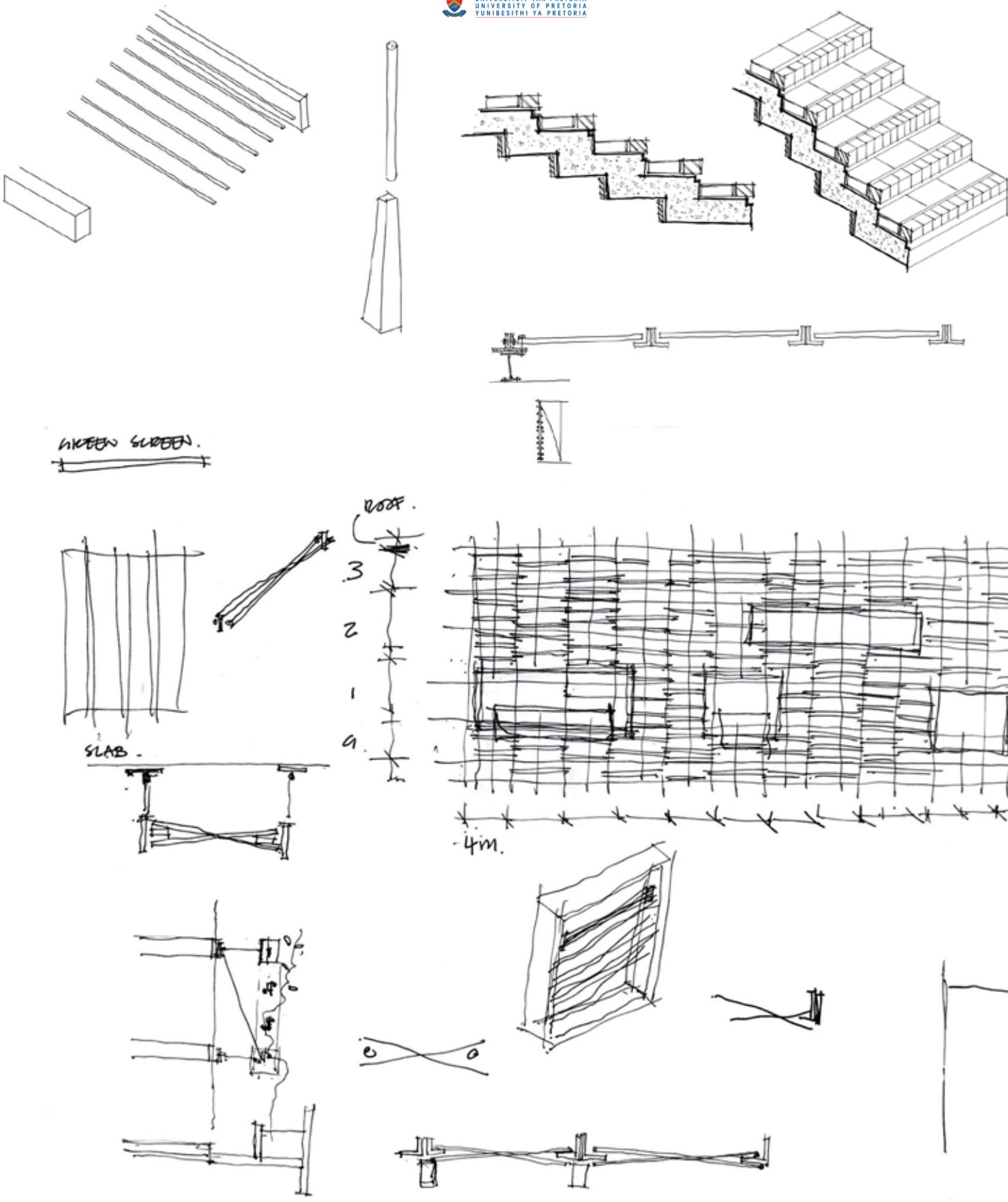


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# 10.6. Technical resolution

## Technical Section



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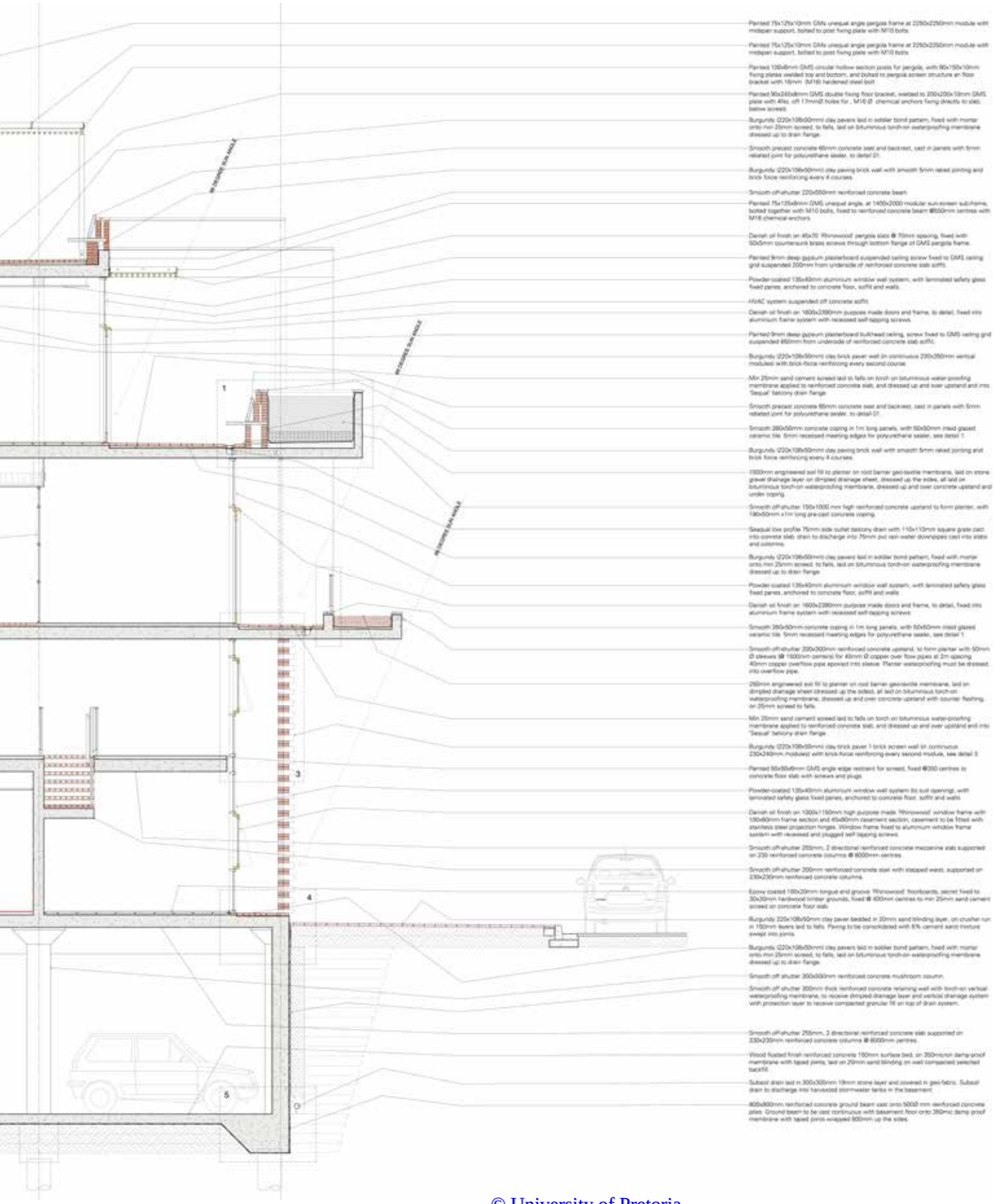

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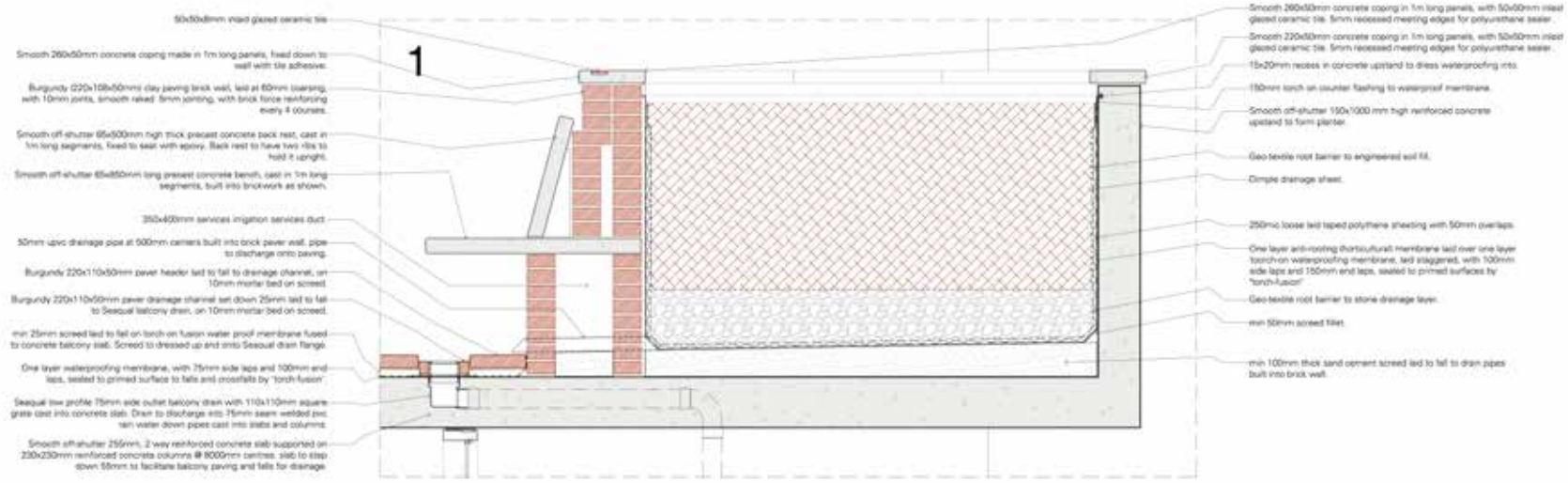
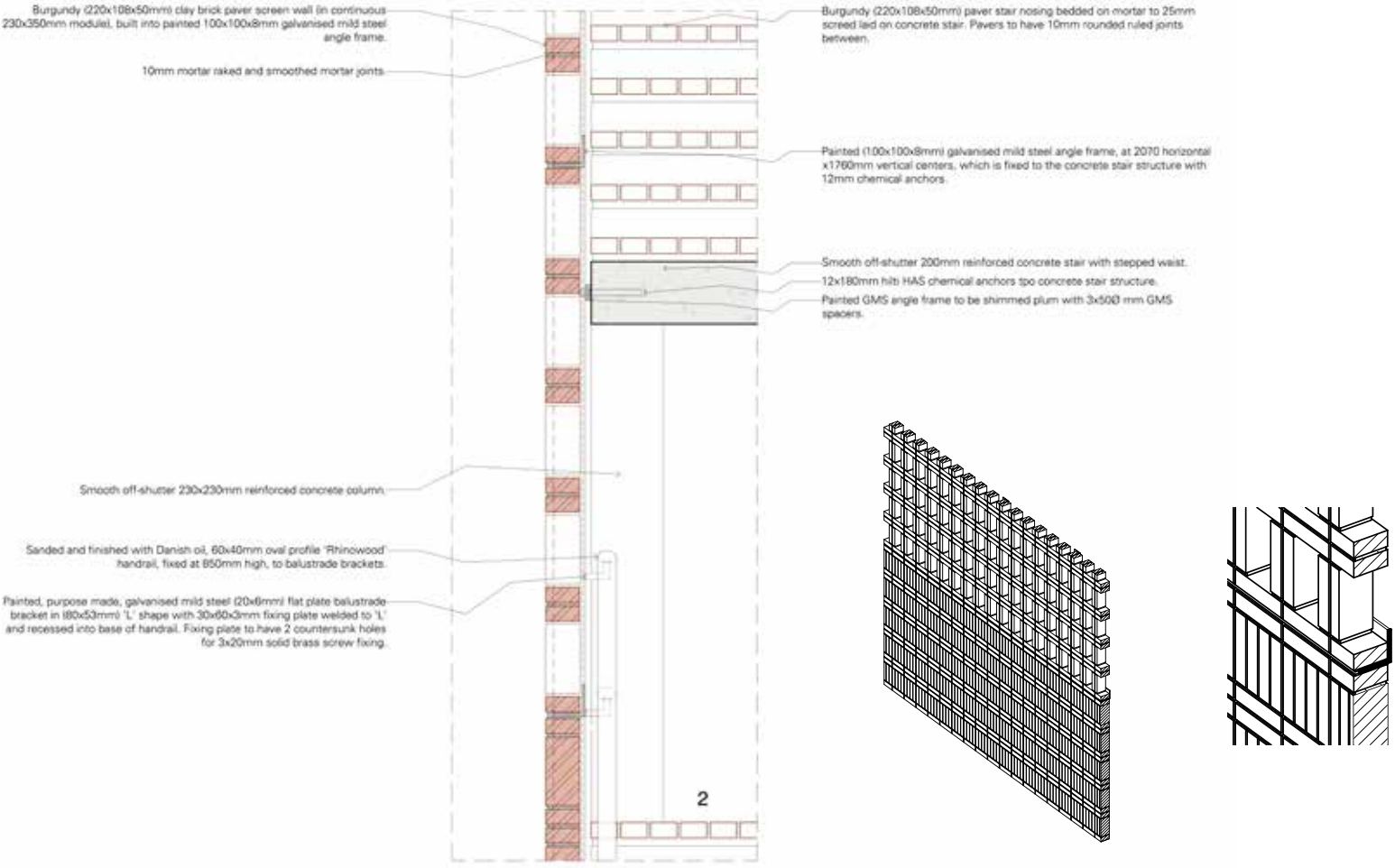



DETAIL 1: PLANTER BOX AND SEAT




DETIAL 2: BRICK SCREEN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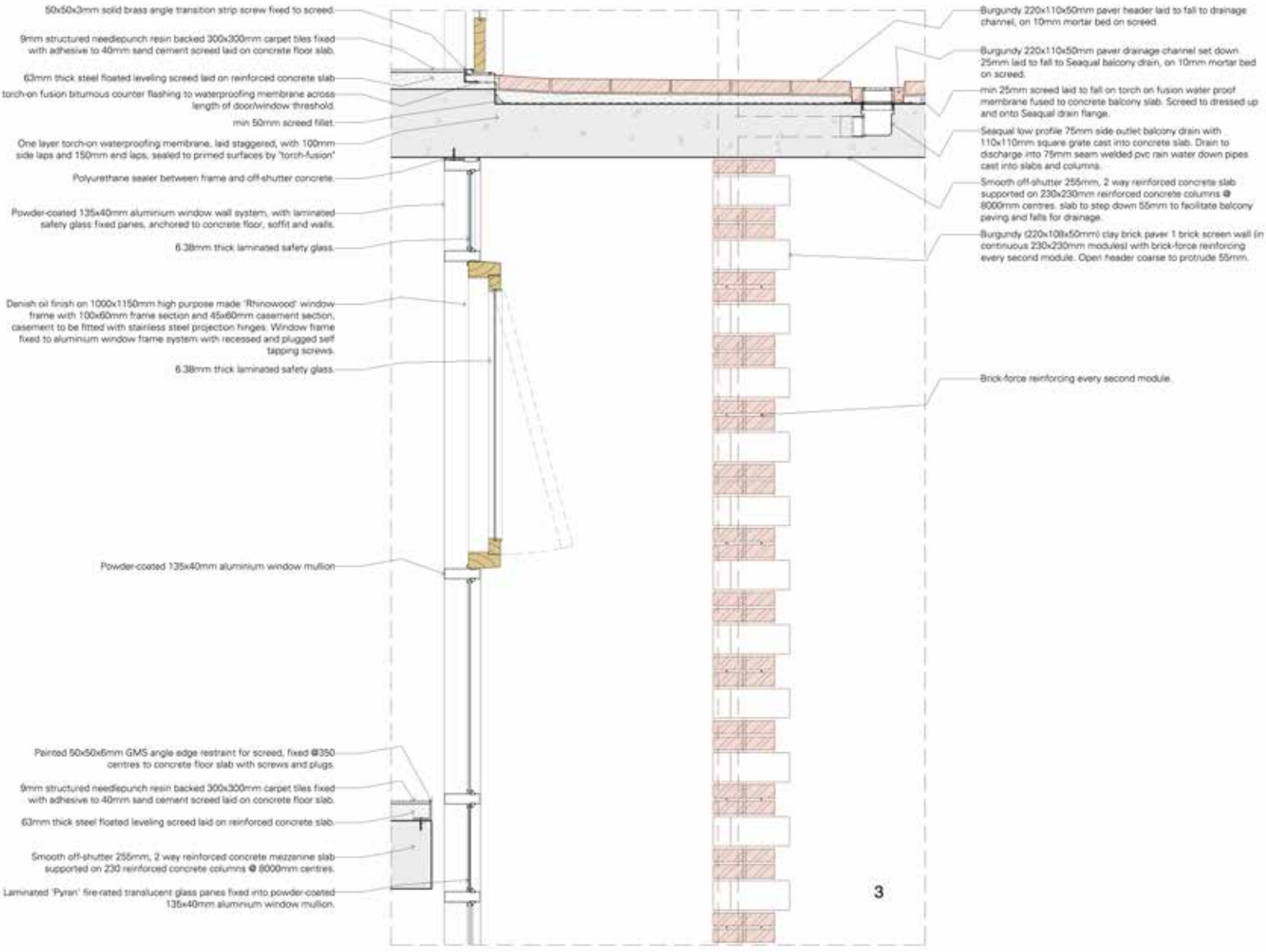


DETIAL 3: BRICK SCREEN AND TIMBER OPENING SECTION IN ALUMINIUM FRAME

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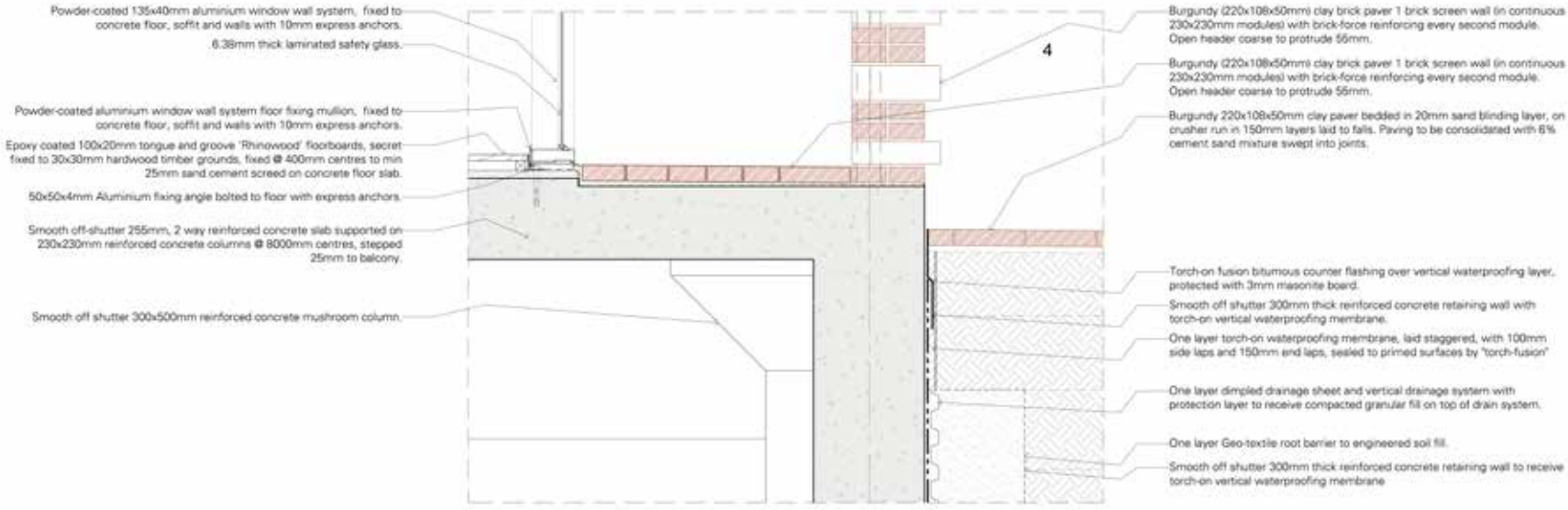


DETAIL 4: THRESHOLD

DETIAL 5: BASEMENT RETAINING WALL AND FOUNDATION


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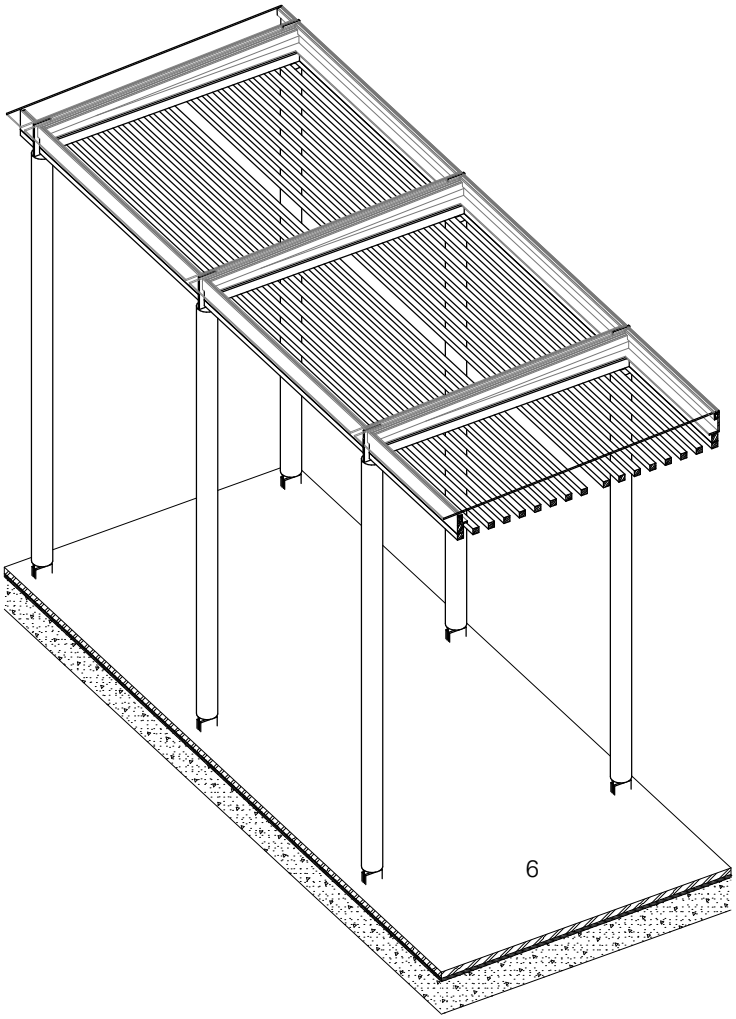
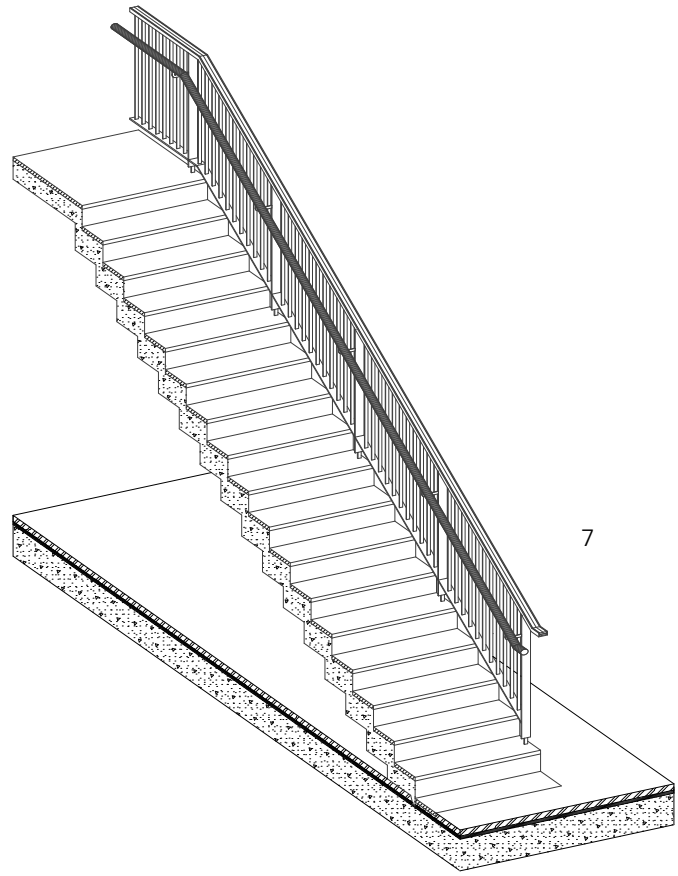



DETIAL 6: COURTYARD PERGOLA




DETIAL 7: STAIR FINISH AND BALUSTRADE

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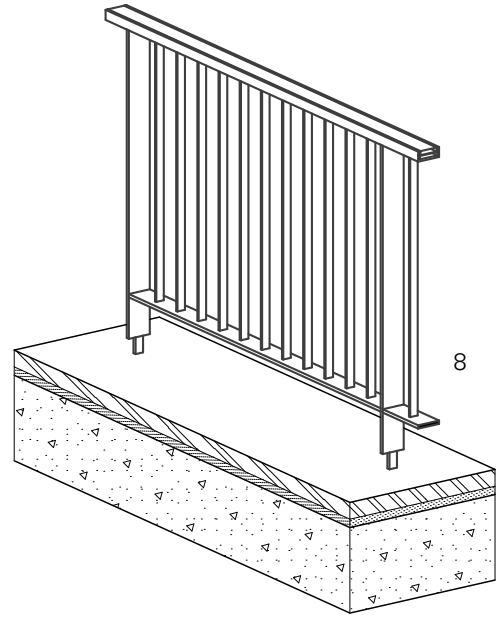
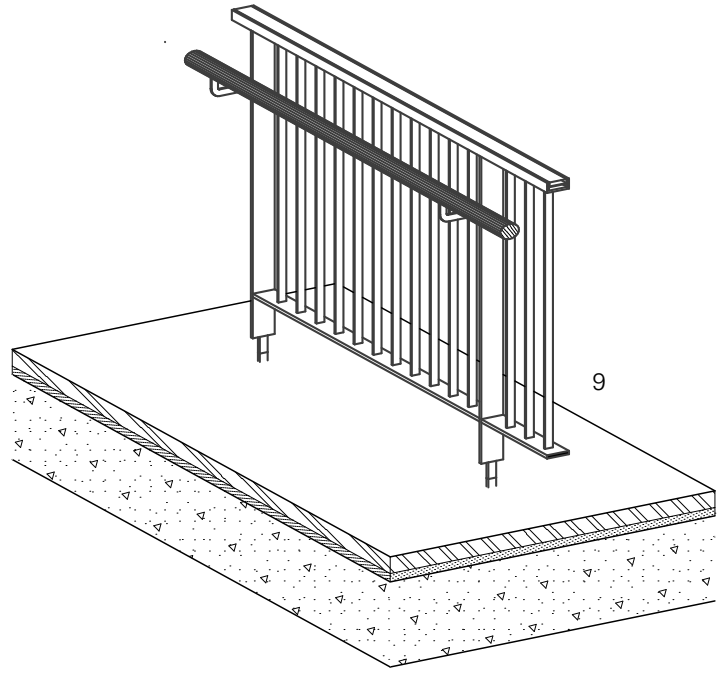
The pergolas and timber screens were designed using a system of repeated modules and types with different interpretations throughout the project, creating coherence to the design but also using the tectonics to create variation.

The brick screens adopt a similar approach, the module of the screens, using clay paving bricks allows for many opportunities for variation in the screens and solid masonry walls with an irregular brick course.

The idea is that the same repeated material and modules (both in the timber screens and the clay brickwork) can create multiple spatial articulations.




DETIAL 8: BALUSTRADE




DETIAL 9: BALUSTRADE AND HANDRAIL



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## 10.7. Services

# Water Strategy

There is extensive planting throughout the scheme, both on the roof terraces and the balcony planters which will require irrigation. This is in addition to the water demand for the restrooms that accommodate the occupants of the building. To mitigate the costs of running the building by reducing the buildings dependency on municipal water and to mitigate the environmental impact of the building, a rainwater harvesting strategy was devised to utilise the surface runoff from the roofs, courtyards and planted areas. The collection and reuse of the rainwater also serves to reduce the pressure that surface runoff places on the city's stormwater system during the summer rainy season and limits the amount of water that will need to be drawn from the municipal water supply during the dryer winter months during which the planting will require increased irrigation.

The water will be collected from roofs and courtyards at various levels and brought to central collection tanks in the basement before being pumped and distributed back through the building. I explored the idea of having the water tanks on the roof to allow for gravity to aid with the water pressure but since I will have to be collecting water from the basement and ground floor level as well a pump system would still have been necessary to get the water to the tank and the tank would have had to be on a tower to get the desired pressure. The proposed most efficient way of collecting and redistributing is to let gravity get the water to the collection and storage point and then use a pump system to distribute the water.

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## 10.8. Environmental strategy

# Daylighting

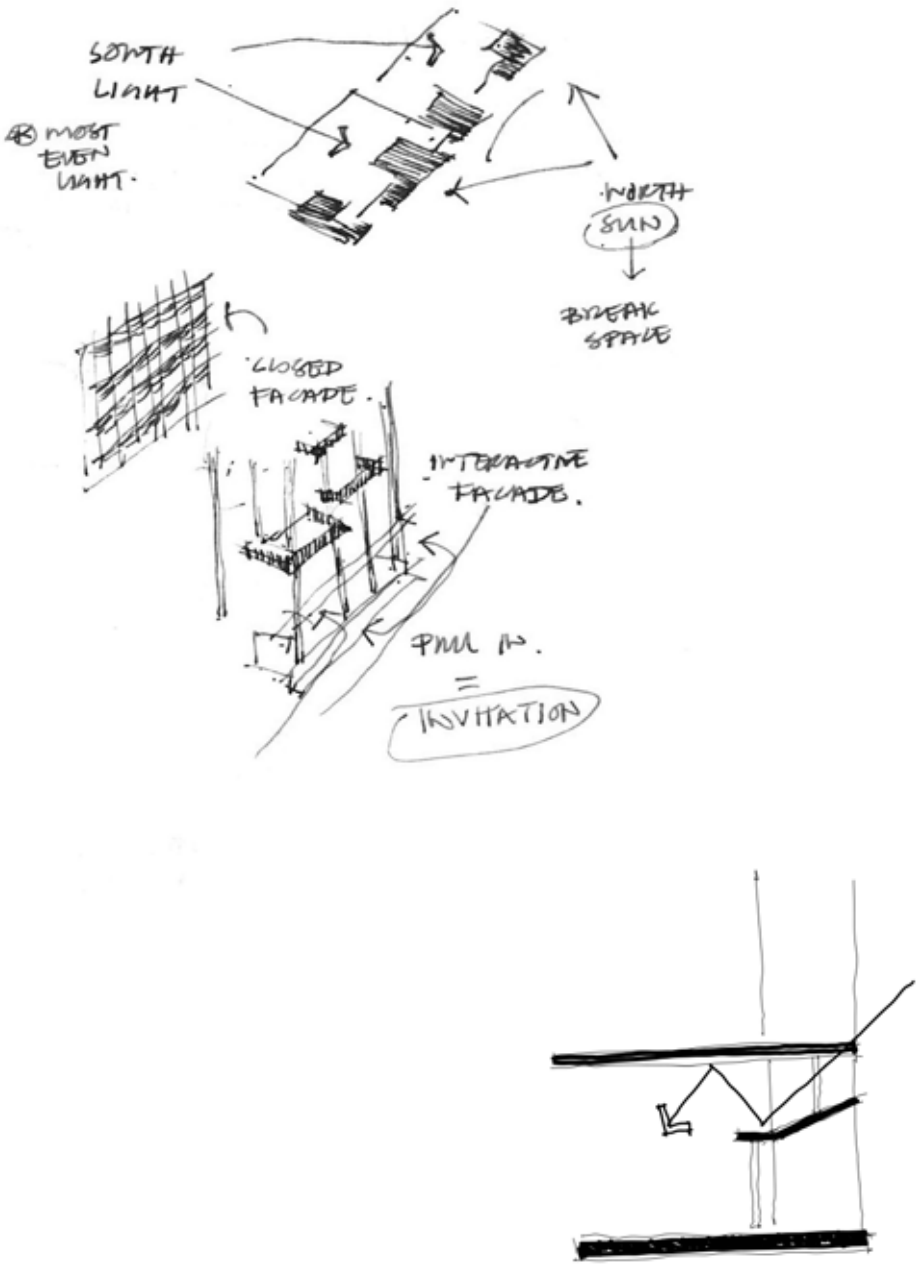


**Fig 148.** Exploring how to maximise daylight exposure (Author, 2022)

The quality of natural light and connection to outside or natural elements have a significant influence on the perception and physiological response to the interior of a space. Institutional buildings call to mind endless corridors and confined work cubicles lit with harsh artificial light with little connection to the outside or natural elements. Human beings are biophilic creatures by nature. A key strategy to countering the soulless nature of institutional spaces is to design spaces with phenomenological principles in mind. Incorporating natural light, views and connection to greenery, the feel of warm sunlight into the experience of the building makes spaces that are more humane and stimulating (Alexander, Ishikawa & Silverstein, 1977: 690; Hedge & Nou, 2018: 1). Studies have shown that access to natural light reduces eyestrain, fatigue, risk of headaches, increased focus, worker well-being, and satisfaction (Hedge & Nou, 2018: 1,11). In designing a space where at time difficult or intense training is taking place, where mitigating fatigue and increasing well-being improves the success of the programs, daylighting


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strategies are incredibly important. Every space within the building is designed to maximise connection to nature and natural light.

The orientation of the site maximises long north and south exposure allowing for optimal natural southern light and access to northern sun during winter on the ground and upper levels of the building. The space that has the least exposure to daylighting is the basement event space and the restrooms off sunken courtyard due to limited edges through which to introduce natural light. It is for this reason that the space selected for iteration is the basement level. The positioning of the sunken courtyard to the south of the public courtyard on ground level allows for maximum exposure to northern sun in winter and southern light so that it never feels like a dingy hidden space but rather an outdoor space of retreat that is still connected to the main public space on the ground level. This courtyard can also be utilised to bring light into the interior basement spaces. The possibilities of this are explored in the iterations and the quality of daylighting in each iteration will be evaluated using Sefaira modelling software.

First iteration, increased glazing along east façade and the auditorium raked seating allows for raised overhand and therefore more access to light.

Second iteration makes use of light wells, clerestories and light shelves to try and get the light to penetrate deeper into the spaces (Ching & Shapiro, 2014: 99).

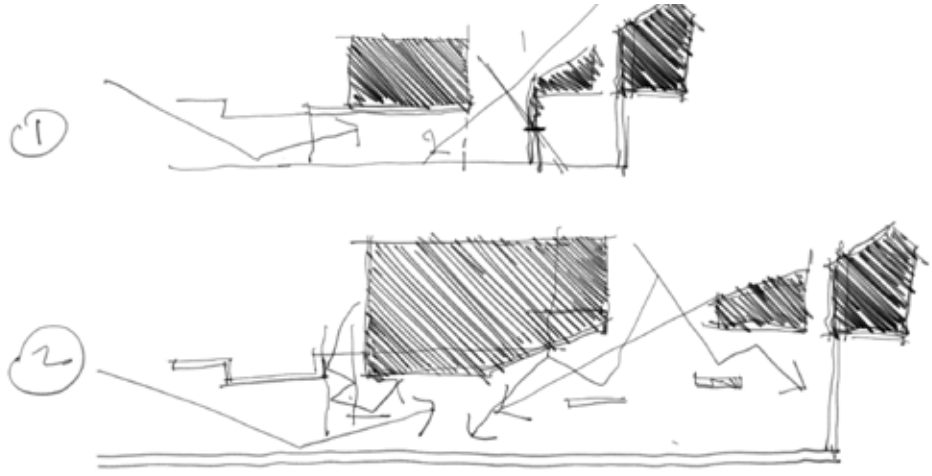


**Fig 149.** Exploring how to get daylight into the basement (Author, 2022)

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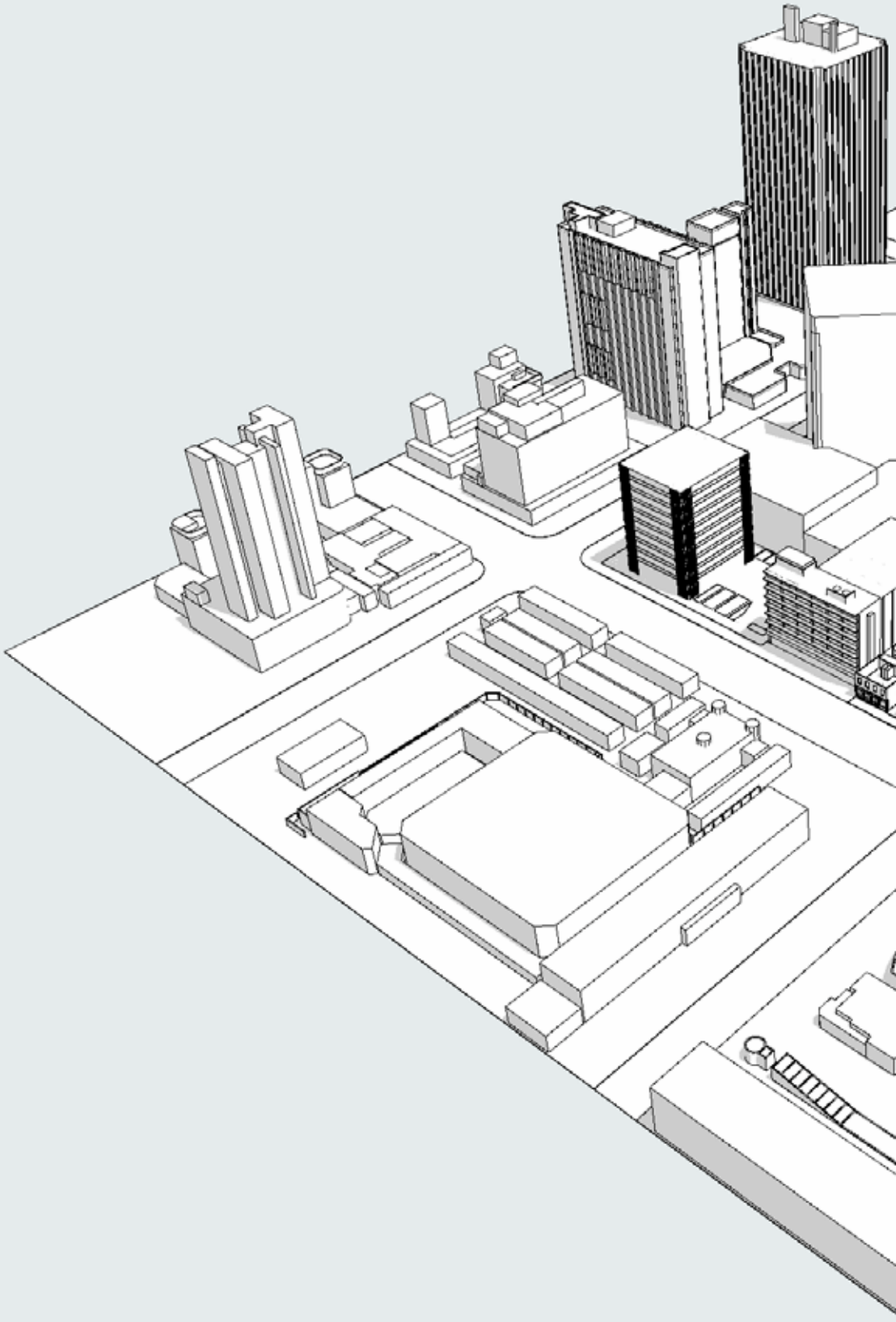
10.9. Design in context

# 3D Perspective





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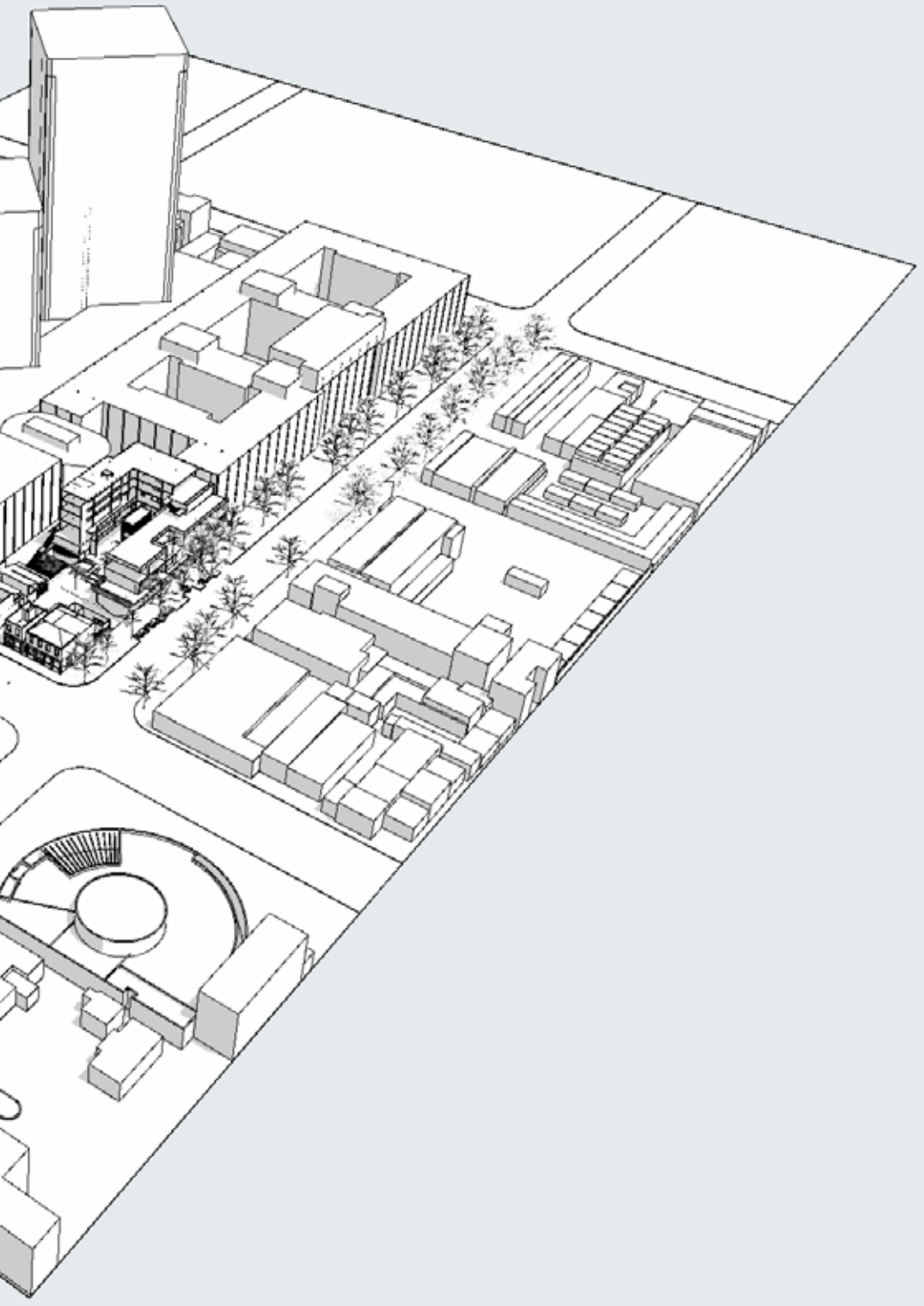

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# Perspectives

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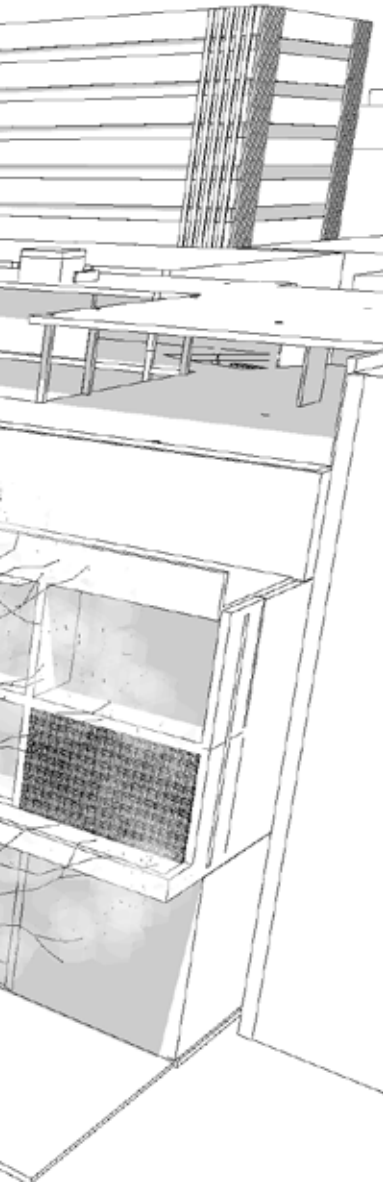

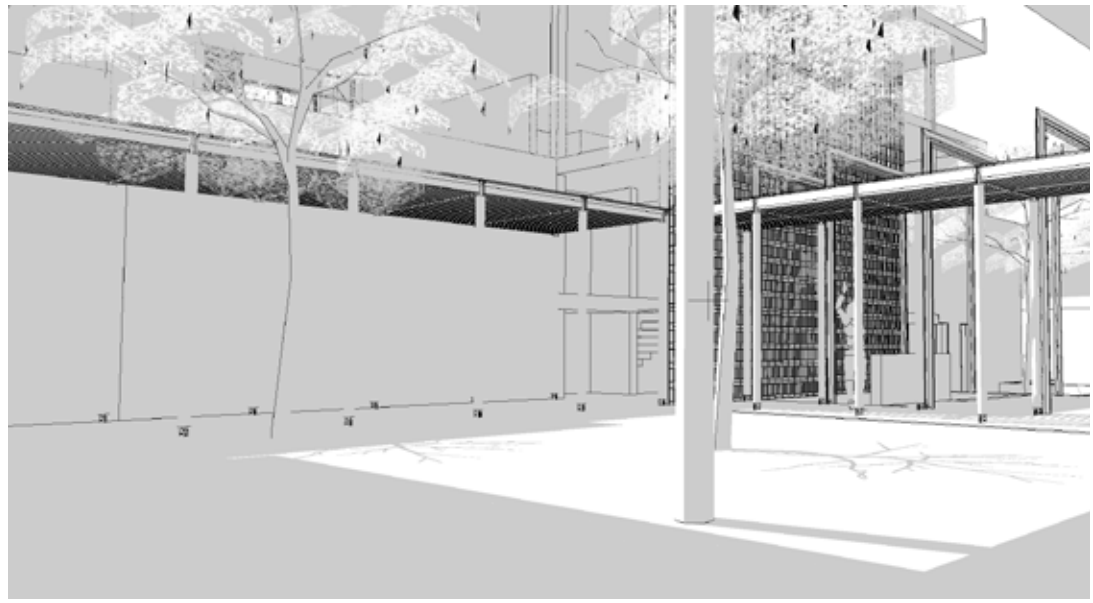

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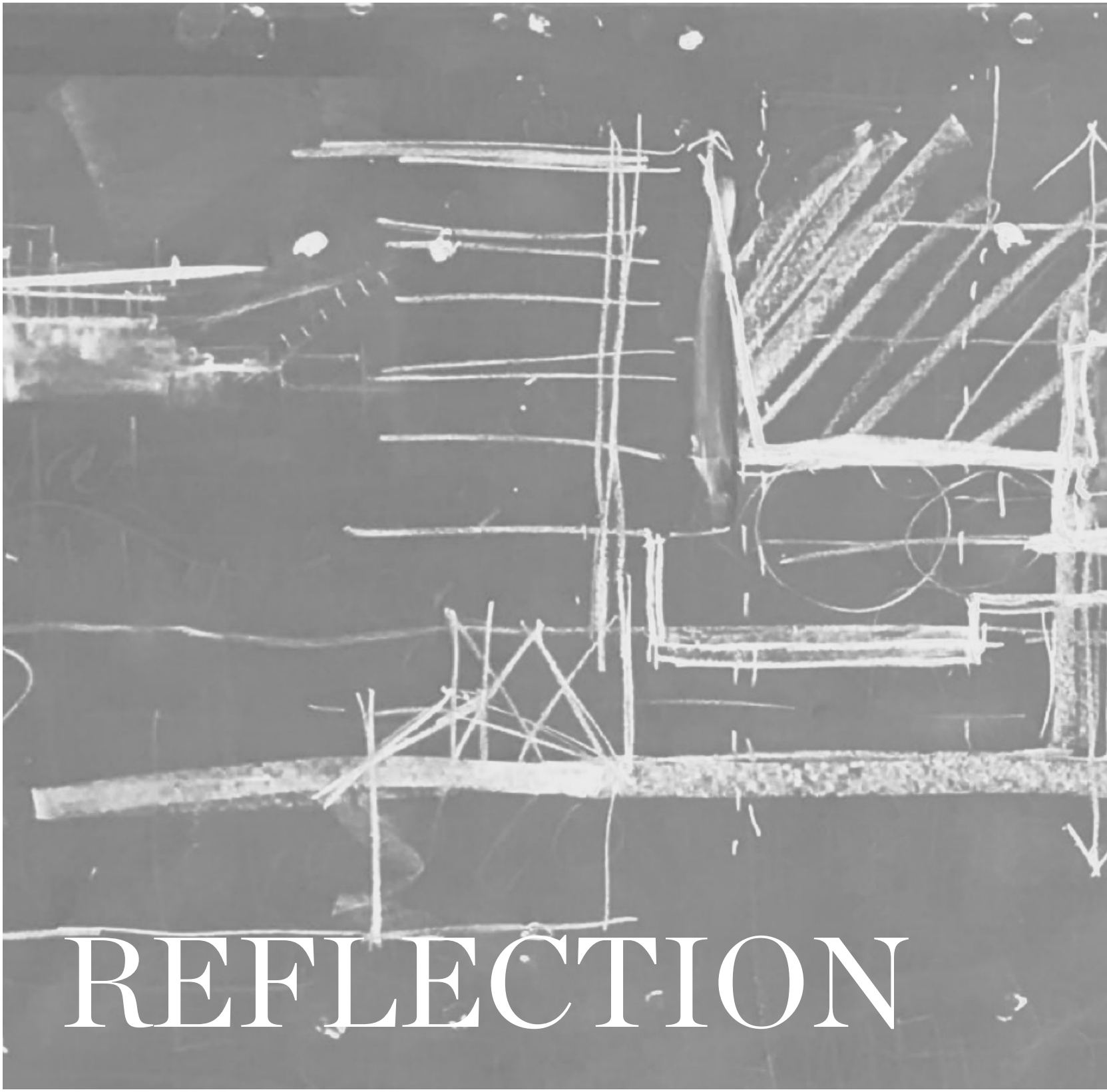


**Fig 150.** (Author, 2022)



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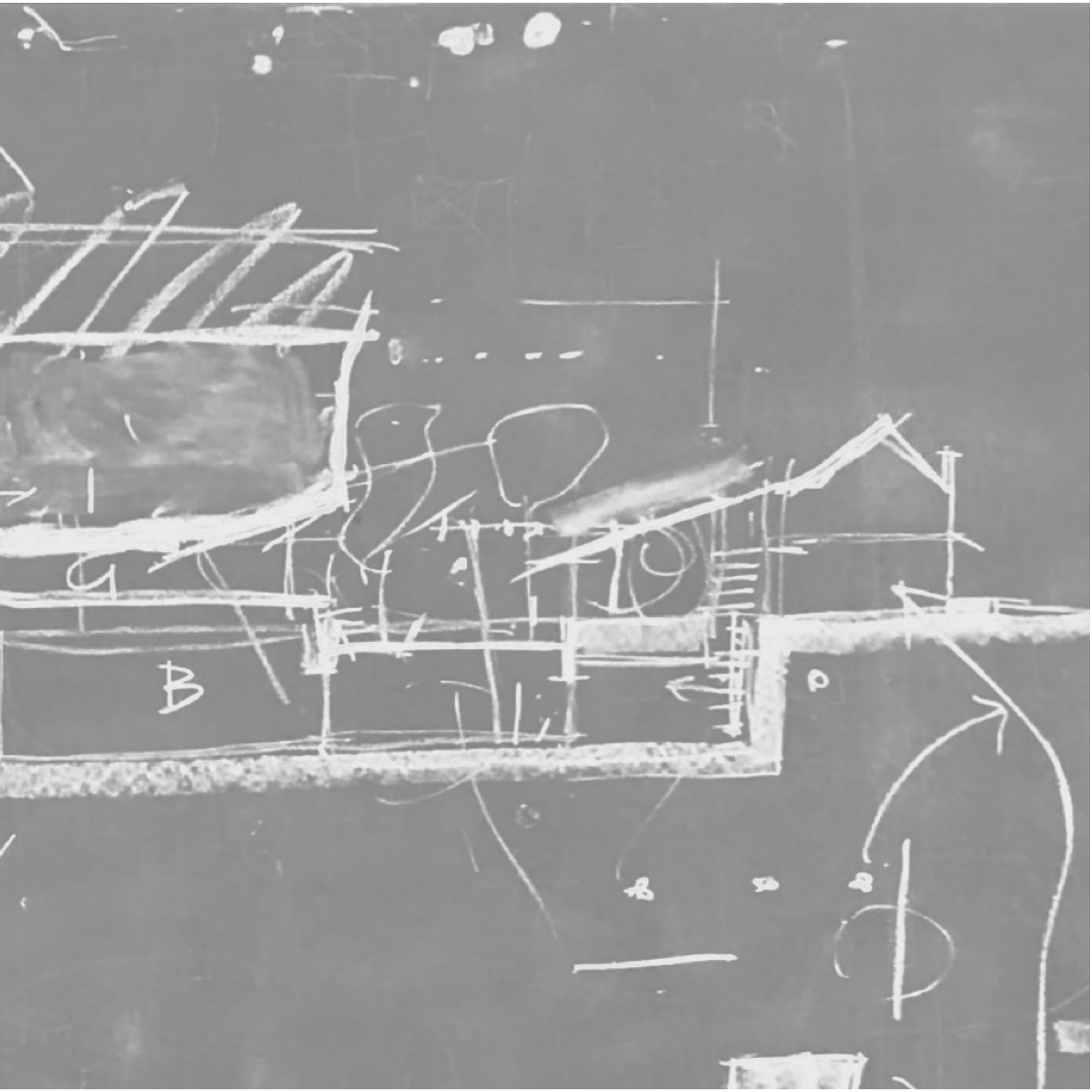


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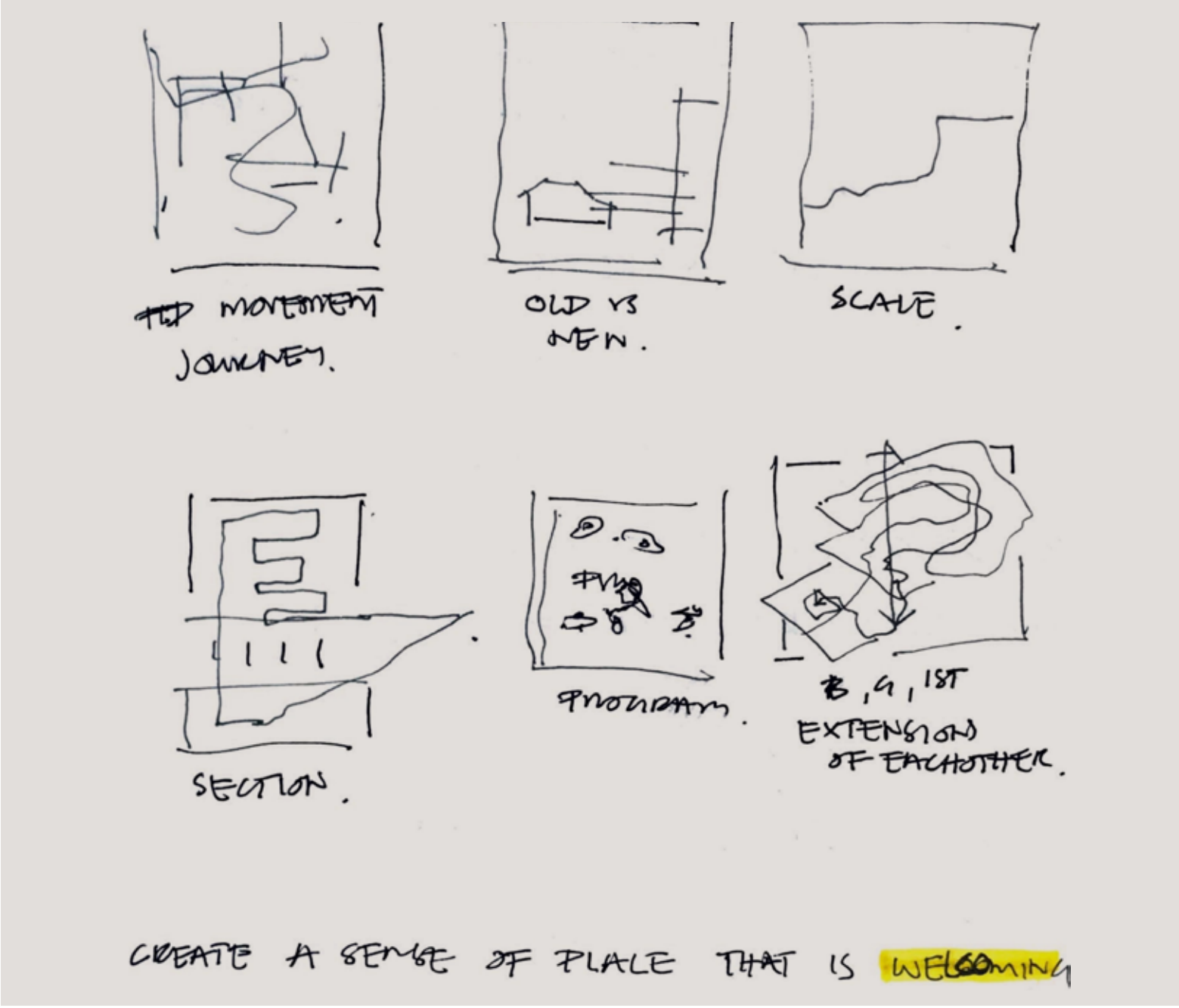


# 11. LOOKING BACK AND FORWARDS

**Fig 151.** (Author, 2022)



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This dissertation evolved out of my increasing interest in how architecture influences the relationships between people in space and with space. Architecture can create places of welcome and vibrant complexity where agency is encouraged. Conversely, architecture can also create places that are the embodiment of power and might and, ultimately, exclusion. Whether architects are intentional about it or not, building is an act of power or an act of agency.

This year has made me interrogate what the role of the architect is in our current landscape. What is the responsibility of the architectural profession in the state of transformation the country is experiencing? The premise of this dissertation is that much still needs to be done to translate the ideological transformation of democracy to a spatial transformation. As built environment professionals, it is our responsibility to articulate this spatial translation and make real the aspirations of democracy and transformation in space. We are one of the most unequal societies in the world, the profession needs to be cognisant of how the act of building can either reinforce this inequality and disconnection, or work towards creating connection and spaces where people can meet on equal ground. Where resources are scarce and public spending is political and scrutinised, state architecture has a responsibility to be more than one thing: perform its necessary function as well as contribute to the greater whole. This is what I have tried to explore in my design-led research investigation this year.

The question I set out to explore at the beginning of this year was: How can architecture redefine the relationship between government and citizens in the City of Tshwane through introducing a new spatial governmental typology and succeed in making government more accessible?

It is not possible to test whether I have succeeded in answering this question in a real world situation, so I have tried to evaluate the approach I took and whether that resulted in a product that is different (an improvement) to the circumstance I was critiquing. I would say that the eventual design outcome is vastly different to the initial government typologies that I was responding to. My intention was never to reinvent the wheel when it came to creating a new typology or type of interface between government and citizens. Through the design research process, typological analyses, and the investigation into specific spatial devices, I was able to ascertain existing spatial conditions that create the positive modes of social encounter the project set out to foster. The strategy used familiar spatial devices – spaces that would not feel alien to the city but that successfully countered the exclusionary nature of most government buildings. The building ends up being a new mode of exchange between government and citizens and reinforces an inclusive spatial narrative. At the same time, it stiches cohesively into its context in a way that feels approachable. The project evolved as a cyclical process of research and then intuitive design interpreting the research – coming up short and prompting more research and then furthering the design. An interesting outcome

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was the realisation that the making of space that fosters positive social encounters drew strongly from the intimate residential typologies and translated them to an institutional scale. The veranda, the courtyard, the arrangement, and scale of rooms found in residential architecture have many spatial lessons inherent in them.

A problem I wrestled with in the development of this project was the fact that a successful workshop can take place under a tree or in a garage, while an unsuccessful workshop can occur in a beautifully designed space. You could say that it's not actually necessary to have a beautifully designed space because it comes down to the facilitator and how the workshop, training or mentorship is run. The question became, what is it that makes the difference? Could architecture have a positive influence on these types of engagement or is the entire premise moot? However, connection to nature, the connection to other people in a way that feels nurturing, can change how people feel in space and positively influence engagement around difficult issues. Having the space being purpose-designed and nurturing has a massive influence on the facilitators and how they are motivated; directly influencing their engagement with students and workshop attendees. The research showed that the in-between spaces in the building have the most influence on the interpersonal connections between departments and different groups of people. Having spaces that nurture positive group relationships can only improve the perception of engagement with government. The building adopting this attitude in the public spaces that it creates as a way of giving back to citizens and the city is a major contribution the building makes beyond itself. This, in itself, is contrary to the typical government spatial typology – instead of detracting from the context they are positively reinforcing it. This indicates the role that government infrastructure could be making – and yet isn't – currently. That is the contribution I would like this dissertation to make to the discourse of architecture within South Africa.

When I reflect on how I approached answering the questions I set out for myself at the initiation of this dissertation, I realise I have almost reversed the process of learning that one goes through in architecture school. In first year, you start with first principles of design, looking at Form, Space and Order and then slowly learning how to put the principles together into coherent designs. The process I took was a reversal of this. I started by looking at typologies that exist in the city, then looked at theory and precedent that could give me clues as to how to counteract the critiques that I had of government typologies. This led me to a deeper investigation back into the first principles of design, looking at how spatial devices can be used to craft the kinds of spaces outlined in the theoretical matrix I engaged with. The lessons of spatial devices were then put together using the theoretical matrix which led to a new typology of interaction between government and citizens. I ended where I began my investigation. It is this process and the evolution of the design process that I think is the main contribution to architectural thinking I have attempted to make this year. A way of using familiar, tried-and-tested


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spatial devices, and the way they are put together, has the power to change socio-spatial relationships.

The approach to this project is not limited to the specific programmes housed inside but can rather be applied as an approach to a way of space-making that is inclusive, regardless of the function of the building. This specific building is also flexible enough in its spatial variation that in 10, 20 or 50 years the programmes housed inside could vary dramatically; evolving as needs evolve. The principal of prioritising the in-between, the building's participation in the everyday and positively contributing to the city fabric endures.

This project is just the start of this thematic exploration in my career. The question of how to spatially translate the ideals of inclusion, and agency, to create spaces of equal ground where people can feel heard and where people can feel like they can take something useful away from the encounter, are questions I think I will be trying to resolve for a long time.

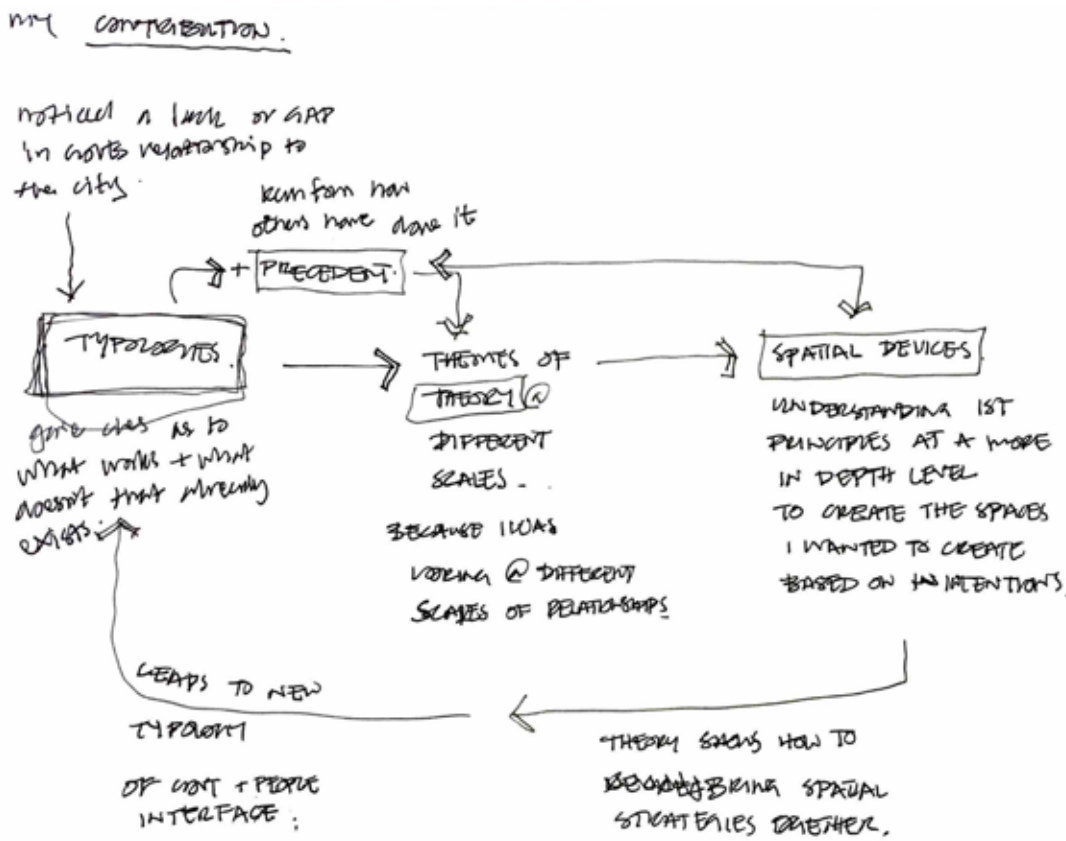


**Fig 152.** Design and thinking prcess diagram (Author, 2022)

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**Fig 153.** View of site buildings along Struben St (Google St View, 2017)



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