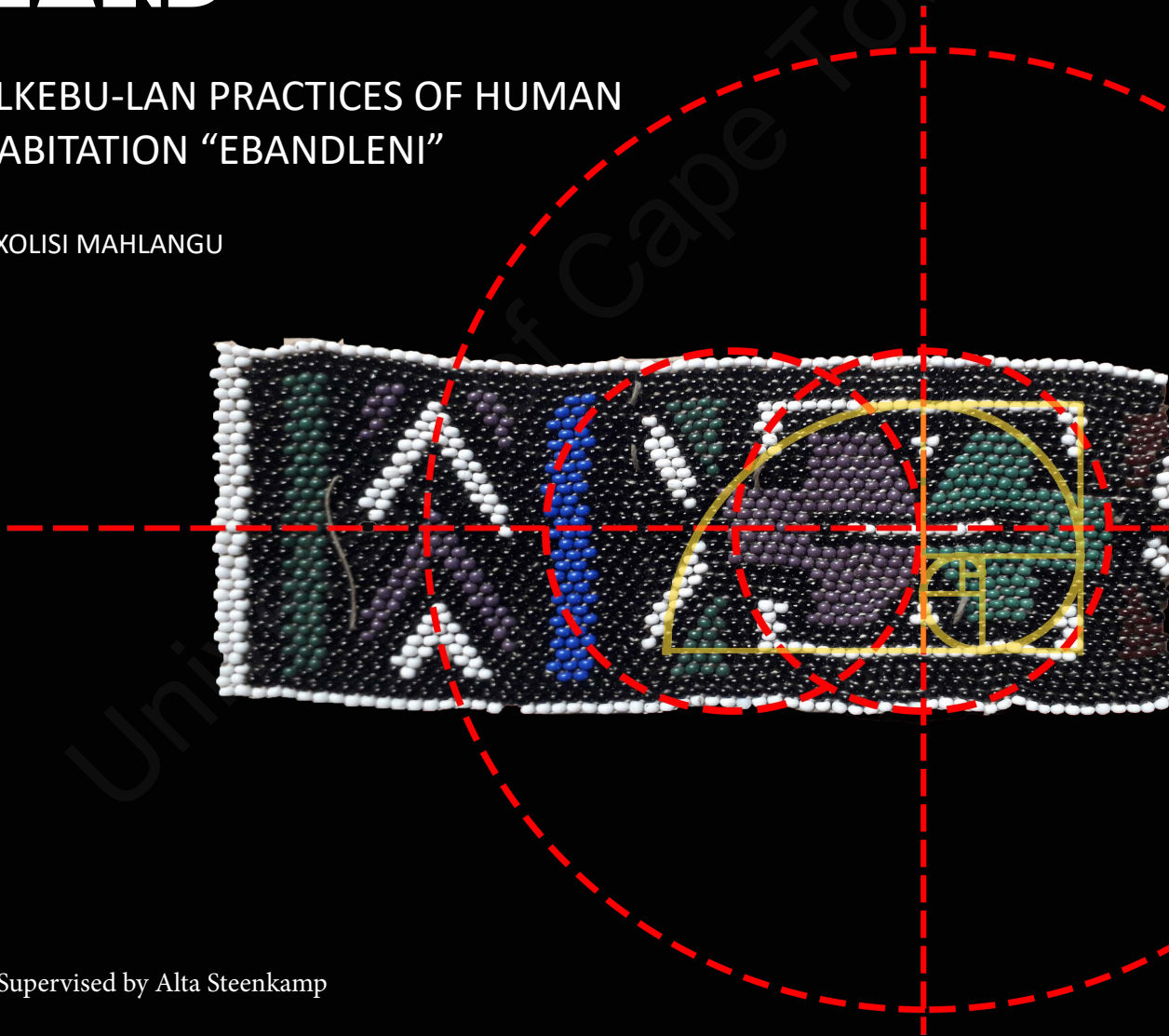


UNVEILING ANCESTRAL LAND

ALKEBU-LAN PRACTICES OF HUMAN
HABITATION "EBANDLENI"

MXOLISI MAHLANGU



Supervised by Alta Steenkamp

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Unveiling Ancestral Land: Alkebu-lan
Practices of Human Habitation
“Ebandleni”

By Mxolisi Mahlangu

Supervised by Alta Steenkamp

This dissertation is presented as part
fulfilment of the degree of Master of
Architecture (Professional) in the
School of Architecture, Planning and
Geomatics, University of Cape Town
Date: 26 October 2023

Cape Town, South Africa, 2023
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ABSTRACT

Our cities can be perceived as palimpsests of sequential historic events that contributed to what the cities have become in the present age. Each event or occurrence produced and brought forth the intangible spirit of the time and place relatively, the aura, which can manifest through the people, culture, identity, or environment. Due to colonization, certain fundamental historical links and clues to who we are at our essence are hidden and distorted to be lost in history, along with them, the aura they possess is subdued. Consequently, what makes up the aura becomes extinct. The languages (mother tongue), the culture, the ways of creating artefacts, the art, the belief systems, the understanding of self and the environment (physically and spiritually), and at the end of it all, yourself.

This dissertation situates itself in the context of the city of Tshwane, as the ancestral land. The settling of the AmaNdebele people pre-colonization is the root at the base of the city's palimpsest that seeks to be unveiled, celebrated, envisioned, and progressed in thought and making in what is an African city in the present day. The historic events that took place on the land saw unfortunate and unprecedented struggles and deterred the progress of a people for decades.

Keywords: African, space, city-centre, culture, decolonisation, urbanism, social architecture, spirituality, reclamation

ACKNOWLEDGEMENTS

I would like to express my appreciation to the following:

My thesis supervisor, Alta Steenkamp, for the insightful input in helping me structure and articulate this body of work, guiding me in expressing and clarifying the intricacies within my research, and helping me identify connections to and in my work that became “eureka moments” in the process.

I would also like to thank Fadly Isaacs for his wisdom, advice, and care since 2022. The effort he generated in his capacity to assist, helped me find my voice and place. He was a part of the crutches I needed to continue with my studies.

To my family for believing in me. To my support system of close friends for the reassurance that this is not incidental. The ones that opened their doors to me when I needed hospitality. They formed part of the crutches I needed to continue with my studies.

Finally, I would like to thank the architects and writers who provided concepts, perspectives, and questions to theorise architecture in my context. They were thought provokers and stimulants.

Thank you for all the positive conversations, investments and confidence in my work.

*To my ancestors and community...
For allowing me to evolve, document,
and tell that which they could not.*

PREFACE

Walking around my home city of Tshwane, I would occasionally spot the AmaNdebele geometric artworks throughout the city appropriated as murals and decorations (figures 1 and 3). Being a descendant of the Ndebele Kingdom, these discoveries around the city had me thinking “Why?”, why is our cultural art everywhere across the city, surely there must be more to this than simply appropriation.

Upon researching, I found out that before the construction of the city, from the early years of the 1610s, the area was inhabited by the Southern Ndebele people, my ancestors, hence the use of art in the city. The City of Tshwane Municipality acknowledges that there ought to be a representation of the area’s pre-colonial inhabitants. But how does one appropriately represent a culture in an urban space?

The city in conversation reveals itself to be fast-paced and densified during weekday peak times when one meanders around in observation. Upon arriving at Church Square the city centre, the perceived space presents a different image and spirit, opposite the time and space we exist in, and with fading paint on the walking strips are absurd inserts of what looks like an attempt at the AmaNdebele paintings styles (figure 2).

Utilizing African principles of spatial ordering and placemaking, this thesis explores practices and teachings of the AmaNdebele to appropriately “theorize” and establish a springboard for ideas concerning the design of an African city core responsive to site, space, time and context.



Figure 1: Ndebele art on the South African State Theatre basement parking walls. Image by Author.



Figure 2: Strips of paint on Church Square walkways. Image by Author.



Figure 3: Ndebele art totem pole on Boom Street. Image by Author.



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GLOSSARY OF TERMS

The terms and phrases appearing in this study are defined as follows:

Alkebu-lan – The oldest and the only word of indigenous origin which has connotations with “mother of mankind” or “garden of Eden”. It has been said to be used by the Nubians, the Ethiopians and others.

AmaNdebele – A cultural group/kingdom of the Nguni people of southern Africa who speak IsiNdebele, part of the larger group of Bantu people.

BaPedi – A cultural group/kingdom of the Nguni people of southern Africa who speak SePedi, part of the Bantu people.

BaSotho – A cultural group/kingdom of the Nguni people of southern Africa who speak Sesotho, part of the Bantu people.

BaTswana – A cultural group/kingdom of the Nguni people of southern Africa who speak Setswana, part of the Bantu people.

Ebandleni – Of a place (Ibandla), a Ndebele term that refers to a space where ceremonial proceedings would be conferred along with any guidance from the elders of a family relating to the event at a specific time. Historically, the space was been occupied by men.

Palimpsest – An object, artefact or space reused or altered over time but still bearing evident remnants of its earlier form.

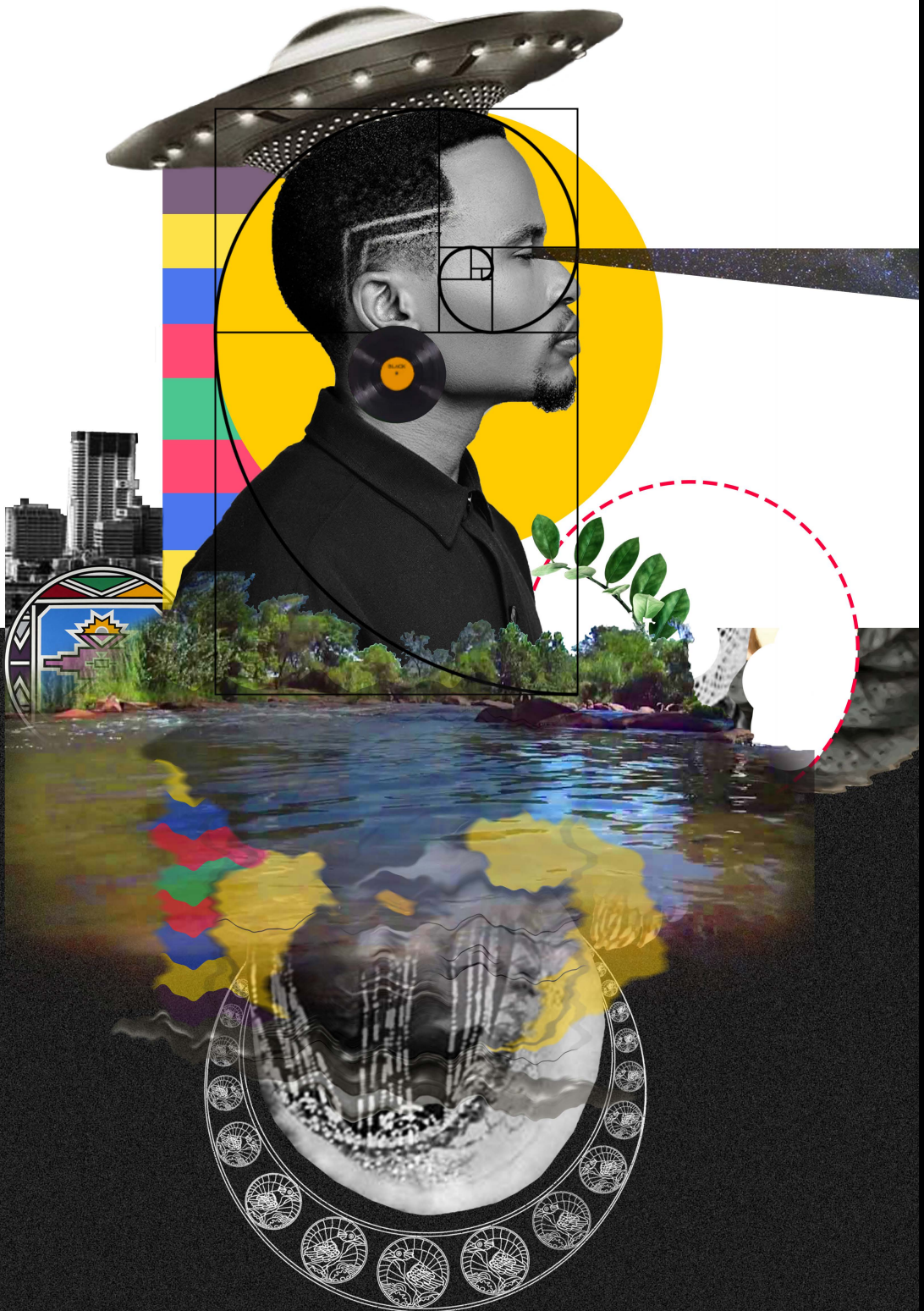
Spirit of a place – the quality of a space that makes it distinct and memorable due to its character or natural setting.

Tshwane – In transforming the names of the cities in South Africa, Tshwane was the assigned term to rename Pretoria. It is the Setswana name for the Apies River that runs across the city.

Ubuntu – A Nguni word for the expression of humanness, kindness and compassion for a fellow in social relations.

Ukuhlonipha – A Nguni word which may be translated as a show of respect and humbleness

V. "3"



PART 01 Introduction

“Until the lion writes his own story, the tale of the hunt will always glorify the hunter.”
– African Proverb

This chapter establishes the argument for the project and sets the position of inquiry. The research focus is nested in thoroughly defining the problem at hand and the queries it instigates from an architectural point of view.

This collage introduces the author’s approach and the redefinition of self through drawing from peculiar channels

INTRODUCTION

One could view our cities as palimpsests of chronological past events. Each event carries with it its spirit of the time and place relatively, the aura, which can manifest through the people, culture, identity, or environment. Due to colonization, certain events and layers of history are buried and distorted to be forgotten, along with them, the aura they bear. Consequently, what makes up the aura vanishes. The languages (mother tongue), the culture, the ways of making, the art, the belief systems, understanding of self and the environment (physically and spiritually), and at the end of it all, yourself.

The act of painting decorative murals of the Ndebele culture across the city as seen today is not sufficient. Processes of unravelling, disputing and interrupting oppressive narratives that propagate colonialist systems should be explicitly motioned. The settling of the Ndebele people pre-colonization is the roots at the base of the palimpsest to be unveiled, celebrated, envisioned and progressed in ways of thinking and space-making in what is an African city.

This thesis aims to argue against the preservation of the heritage site of Church Square in Tshwane, along with the identity, character, history and relationship to the time it carries. The line of reasoning is approached from an architectural perspective observing trends that occur regarding the acknowledgement of the city's history and the everyday abstract nuances.

As a point of inception, the investigation leans into the notion of time and space as representatives of the spatial aura. The act of preserving spaces that are linked to historic national traumas does not only protect tangible objects such as buildings and monuments but the intangible aspects of the historic times are also brought into the present. Aspects such as the belief that one race is superior to the other, or that space was exclusively for a certain group of people. These constant reminders of a painful time in history continue an ideology of dominance and control over a people. New images of our urban spaces need to be unveiled.

Thinking about the use of the term “unveiling”, which means to disclose, display, or allow to appear, by removing a veil or covering, in the context of Church Square, the establishment of the first buildings covered and buried that which was present on the land before the city was set out. Unveiling in South Africa also means the practice of tomb revealing, a remembrance ceremony carried out to celebrate the departed life, and for ancestral appreciation and acknowledgement, not to be confused with worshipping or idolizing them. By unveiling that which was disregarded, the unsung can rise.

Uncovering space through an architectural lens requires a broad understanding of the multiple factors that contribute to the subject matter - the history, socio-political influences, reasoning, and what repercussions it instigates. Our cities are products of past practices of ill-treatment, discrimination, oppression, colonization, forceful removals, and other bitter connotations.

RESEARCH FOCUS

Problem Statement

The problem at hand is the preservation and protection of public space tied to historic oppression and exclusion through the use of power and control in the establishment of the historic church, laws, and state takeover.

This brings forth an inquiry into the memory and feelings carried out by these statues and buildings that make up the public space. Author and historian, Ana Lucia Araujo, highlights that there is a strong link between monumental statues and memory, and they are about the time and space the monuments were created in to support specific agendas of a group, thus the spaces would still be haunted by the spirit of that past (Hurst, 2020). “If the trauma of memory linked to the actions committed by these historical figures outweighs the historical facts, then it calls for the removal of symbols of oppression” (Landman & Makakavhule, 2021, p. 6). While others may argue that the preservation of Church Square’s character is part of their heritage, the act of remembering needs to make sense of the past and carefully recall the significance of those ‘heroes’ and the deeds associated with them.

Sub-questions

The research question lies in the power of architecture as a tool to either control people or undo the trauma associated with it and rewrite a new era through representation.

- What are the influences behind architecture in Africa?
- How do we heal disrupted heritage and space, and what theory is fit for such in the architecture of Africa?
- How do we retain the essence of ourselves and adapt to the present as Africans?
- How do colonial spaces shape the landscape of today?
- How does one or a community identify with space or the material?

Importance of Study

The project is about investigating methods and theories of architectural practice that will support the conceptualization and redesigning of Church Square in Tshwane. The project delves into African spatial planning principles as a way of unveiling ancestral land.

As a call to rethink our architecture and engage deeply with our identity and history worth preserving, this thesis aims to contribute to a body of work that already exists on decolonisation, African architecture, Southern Africa’s urban spatial identity, and indigenous place-making.

The city’s identity is also considered from the lens of a repetitive struggle for change, not only from the historical viewpoint of settlement. This permits a rethinking and careful consideration of executing spaces that are detached from Western notions of ‘architectural significance’ and ‘placemaking’ and looks into reintroducing technologies and ideologies linked to that which is ‘African’ in context, thought and formulation.

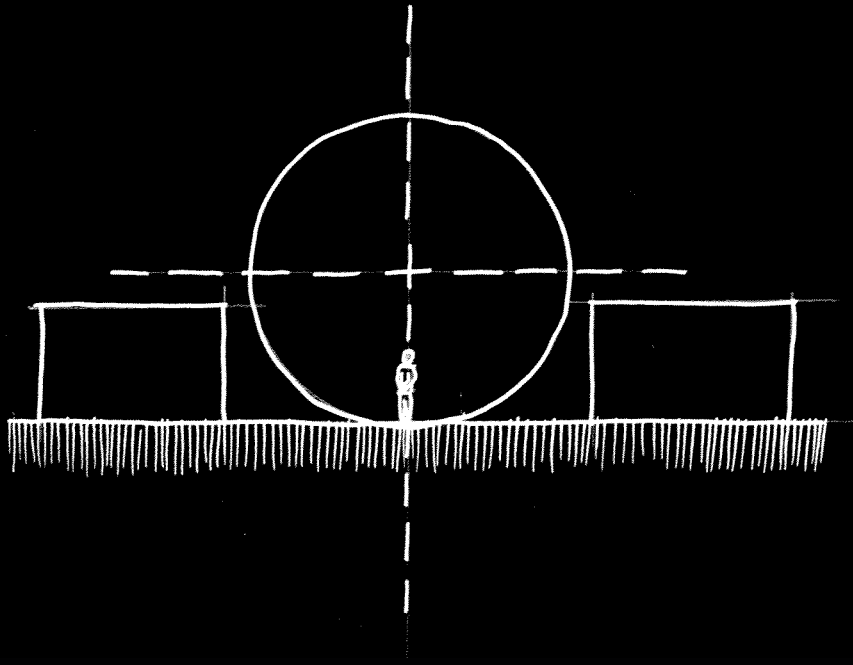
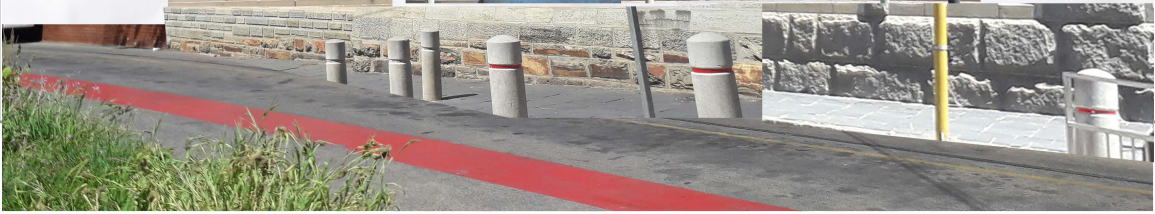


Figure 5: Perceiving Space parti diagram, Author 2023

"Building Character"



SITE INTRODUCTION

The site of this thesis was selected due to its influence on the aura of the city and its suitability to inflict impactful change at an urban scale. It is perceived as an engine of the city from its historic formation as the first constructed space to the current time.

The site is at the centre of the city of Tshwane. As an urban node, the popular streets of the town, WF Nkomo Street (Church Street West), Helen Joseph Street (Church Street East) and Paul Kruger Street, intersect at the transient space. The axes formed by these boulevards also connect urban landmarks such as the Union Buildings, the City Hall and the South African State Theatre.

The square is regarded as the city's historic landmark along with the Union Buildings and the recent Freedom Park Monument at a higher altitude which shares a visual connection to the two historic sites.



Alkebulan - African continent



Gauteng province



Tshwane city

Figure 6: Site locality diagrams (Author, 2023)

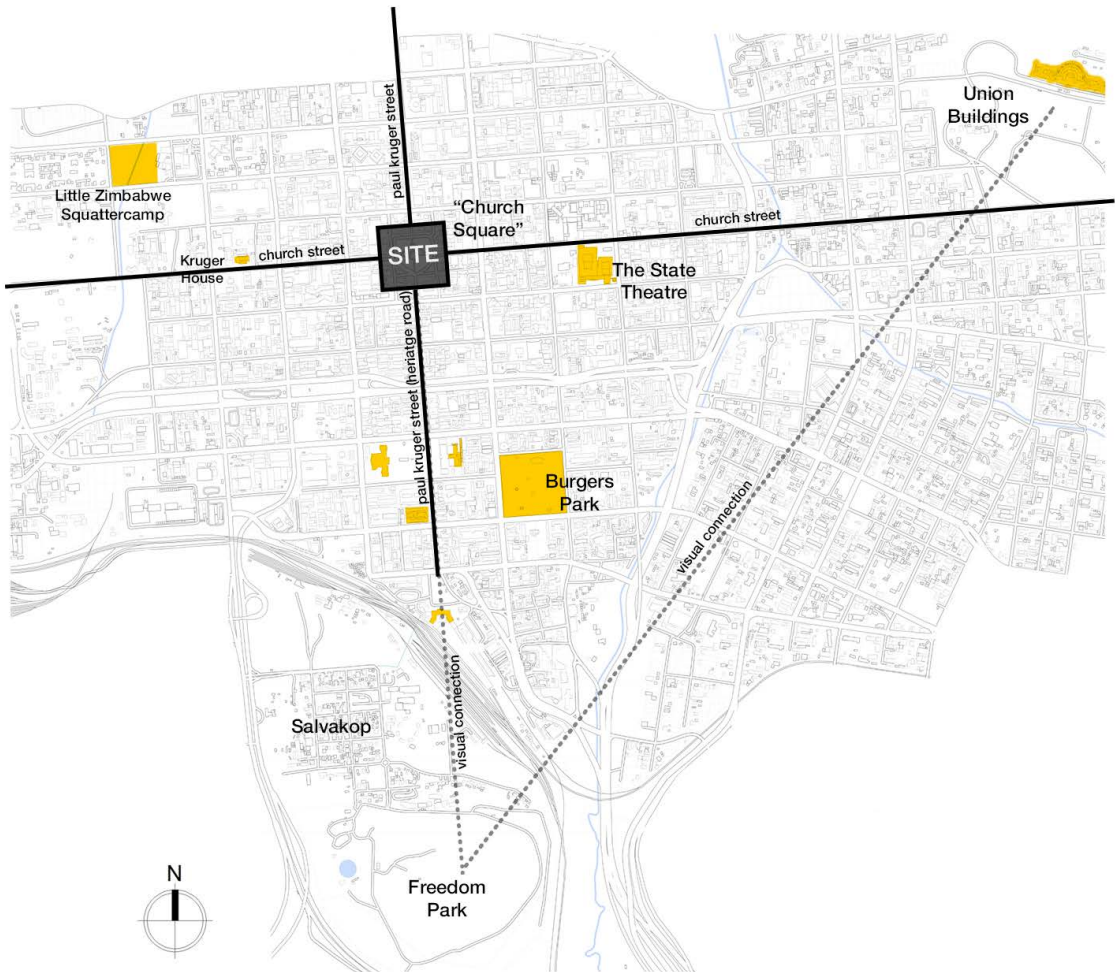


Figure 7: Urban Site locality map (Author, 2023)

Original building names

The square is encompassed by significant buildings in the development of the city, the Ou Raadsaal (Old Council Hall), the old Netherlands Bank, Tudor Chambers, the old South African Reserve Bank, Place of Justice, and the Main Post Office

1. Palace of Justice (1902)
2. Reserve Bank (1930)
3. SA Mutual Insurance Company (1929)
4. Prudential Building Society (1960)
5. Barclays Bank (1930)
6. Tudor Chambers (1904)
7. Rentbel Building (1956)
8. Saambou Building Society (1956)
9. Standard Bank (1934)
10. Old Raadsaal (1891)
11. Netherlands Bank (1897)
12. Café Rich (1905)
13. General Post Office (1910)
14. National Bank and Mint (1892)
15. Bank of Africa (1906)

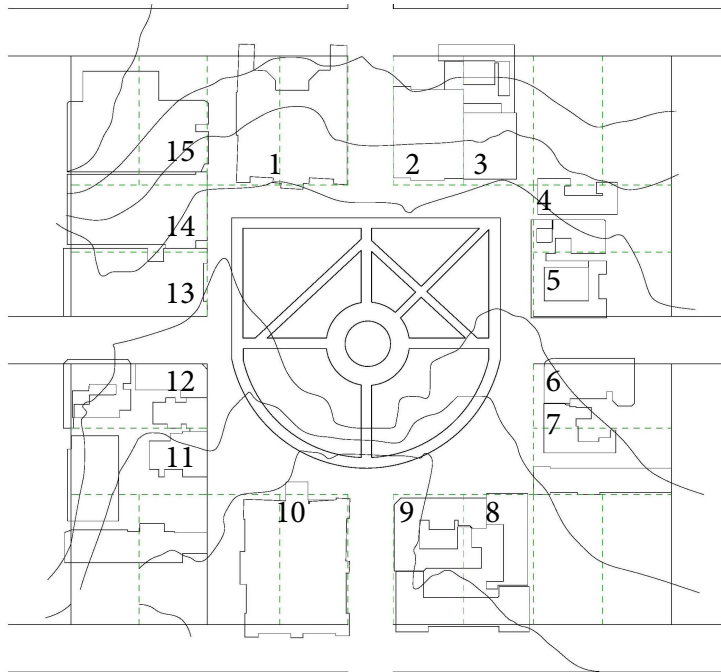


Figure 8: Map of the Church Square site by Author.



Figure 9: Old Council Hall (Ou Raadsaal). Image by Author.



Figure 10: Place of Justice. Image by Author.



Figure 11: Tudor Chambers. Image by Author.



Figure 14: The Netherlands Bank. Image by Author.



Figure 12: Barclays Bank/ Homii apartments. Image by Author.



Figure 15: General post office. Image by Author.



Figure 13: SA Mutual Insurance Company



Figure 16: Cafe Rich. Image by Author.



Figure 17: The old reserve bank. Image by Author.



Figure 18: Aerial view of Church Square during the 2020 lockdown. Retrieved from iStock Getty Images.

PROJECT SUMMARY

Assumptions

It is assumed that any undisclosed functions housed in the existing structures will be relocated and allocated to the outer edge of the square's buildings.

Limitations

Due to the unavailability of the original architectural drawings of some of the buildings around the square and the physical inaccessibility thereof, architectural design assumptions were made regarding the structural and spatial configurations.

Delimitations

As a result of the magnitude of the site of Church Square and time constraints, a fragmentation of the site into phases is highlighted in the urban plan. The focus is then shifted to the first phase as the primary emphasis of the project.

Research Methodology

Qualitative research and urban mapping

Site intuitive reading and photographs were taken during the project-focused site visits from a pedestrian experience. Upon understanding the current conditions and functions, the site and city were then analysed using mapping techniques to aid in informing the design conceptualization.

Historical research

As the location of the project site within the city bears a layered historical context and development to the city, a historical context of the site as a sprout point of the city was conducted. This was also important in realising the limitations and identifying delimitations of the site in investigation.

Literature review and case studies

A literature evaluation was steered and digested to support the argument of the project and reinforce the theoretical anchor on which the proposed architecture in modern Africa could root and nestle itself.

Design Intention

In response to the question of a representation of a culture in an urban space, the core rationale of this dissertation intends to tackle the task of appropriate acknowledgement of 'a people' as an informant of the making and translating of the principles of culture, namely (1) spirituality, (2) spatial planning and (3) lived experience, into architecture.

Programme: Sacred spaces, urban park, café, exhibition centre

Site: 222 Paul Kruger Street, Pretoria Central, Pretoria.

Site Description: The site is located at the centre of the city of Tshwane. As an urban node, it is the intersection point of the popular streets of the town, WF Nkomo Street (Church Street West), Helen Joseph Street (Church Street East) and Paul Kruger Street.

Stakeholders:

City of Tshwane, Tshwane Economic Development Agency, African World Heritage Fund, Private investors

Theoretical Approach: Lead by theories of spatial planning in traditional Ndebele domestic space which allude to the aura and the practical manifestation of culture in the built settings.

unveil

/ʌnˈveɪl/

verb

verb: **unveil**, 3rd person present: **unveils**, past tense: **unveiled**, past participle: **unveiled**, gerund or present participle: **unveiling**

remove a veil or covering from, in particular uncover (a new monument or work of art) as part of a public ceremony.
"the Princess unveiled a plaque"

- show or announce publicly for the first time.
"the Home Secretary has unveiled plans to crack down on crime"

Similar: reveal present disclose divulge make known of make public air



PART 02 Theoretical Investigations

“It is my belief that there is not a singular theory that has the capacity to tell the truth about the African continent or its architecture. It is my hope that we can embrace specificity, detail, patience, and people in any theoretical understanding of architecture in Africa.”

– Francis Kere (2022: p. 203)

This part offers a base construction of the dissertation’s theoretical argument by examining and questioning existing outlooks related to architecture in Africa.

It further emphasizes the need to study the intangible facets of space making and anything associated with the practice.

The black colour as a backdrop to the collage is symbolic of mystery, power, elegance and sophistication, representative of the unknown mystery behind architecture in Southern Africa.

The figures represent reinventing yourself and unveiling transformation. The idea is reinventing self and ways of thinking to intentionally establish thy self in a fabric that is foreign to natives

THEORETICAL FRAMEWORK

To begin, in the context of this thesis, the idea of a theory in designing that which is deemed 'African' is debatable. First, we must ask ourselves what it means to be African. Is it subject to the locality, simply because an object sits within the continent, does it make it African?

Is using the term 'African' in describing our architecture acceptable? Philip Freelon (2022) argues that the label 'African' as a signifier to brand a thought, a method, or an approach is faulty. If one looks at the man-made from prehistoric to the present day, "the notion of defining architecture as 'African' (or not) strikes [him] as unnecessarily confusing" (Freelon, 2022, p. 204). Every community or set of people has belief, life, and 'being' systems that govern their lives. These systems are attempts of man in seeking to understand his existence. The stance that one takes is that maybe 'African Architecture' as a lexicon is ambiguous, but the phrase 'Architecture in Africa' sits appropriately.

Concerning the theory,

This thesis underpins the abstract in its theoretical approach. With regards to that which concerns architecture, a pragmatic approach is necessary, the argument is that the idea of a theory itself could be deemed Western. How do we design cities in Africa using Western ideologies? Are we then not repeating colonialism?

To begin to formulate a theory, one would need first to understand what words the indigenous people used or still use when referring to architecture. As such no theoretical approach is observed historically, it is not written on palimpsests, but it ties itself to the multiple cultures. The cultures are passed down from generation to generation through practical grooming and verbal teachings. This requires us to delve into and understand gender and age dynamics, and social hierarchies in informing culture. Building a home reflected those dynamics and hierarchies "and often the unconscious part of life" (Meuser, 2022, p. 35).

As everything begins in the mind, so does a theory. The theory of architecture in Africa is a system of thought that the people use to connect themselves to divinity, the Source at first, the cosmology, and the spirits. These systems of ideas intended to explain reality formulate the theory. They are the culture. Everything else that follows from the thinking is then practical. The architecture, the living order, cultural practices, and worldly elements. Consequently, the theory and the practical cannot be seen as two separate entities, they are one.

"We don't even possess the terminology to talk about these kinds of new cities. We need to re-evaluate the culture and our language to find words to describe what lies ahead of us."

– Angela Mingas (2022: p. 74)

Concerning culture,

Note that the theory is linked to the culture or cultures. Africa has thousands of spoken languages from multiple cultures. It is impossible to formulate a single theory of architecture in Africa. Every cultural community and its practices bear their theory of architecture. These theories or beliefs are closely related but different at the same time. So, one needs to be considerate and careful in designing in a particular context. Hence the architecture of Africa is site-specific and unique to that landscape, people, culture, climate, and beliefs.

As a result, the thirst for that which is 'African' in architectural design becomes irrelevant. Such usually only consider the stylistic or "African Style" as determined through visual consumption. A redundant fetishization of a culture. This has led to the practices as "simple mimic of African indigenous forms of inhabiting spaces, which stands in opposition to global technological advancements as if these entities are mutually exclusive" (Benimana, 2022, p. 218). Maybe had Africa's progression not been interrupted, the technologies and construction would have advanced to suit our needs today, as that was in its basic form, the function of architecture in Africa.

From within, the External

To understand how to heal a disrupted place, one needs to understand the pre-existing order of life that is bigger than us and that we have to live by it.

The non-Western African way of living is centred around community and the spiritual. These principles are embodied in an African's everyday life and manifest themselves through what he/she builds, utters, creates or practises. "African" spatial practices without considering the spiritual aspects involved with the creation and environment are without a doubt Westernised, colonial teachings. These practices form part of our intangible heritage. The awareness and understanding of one's alignment with the rhythms of life, the environment, and harmonious being with nature. As a buildup of intelligence, these knowledge systems broaden into agricultural practices, environmental sustainability, animal raising, and gathering (Obiora & Emeka, 2015).

Understanding that the human being is more than flesh and bones, it is part of the beliefs and knowledge systems that we are all spirits, entities of energy that are housed in the bodies. With the notion that energy cannot be recreated nor destroyed, it is therefore part of the many beliefs that those who have passed on, the ancestors, are only gone physically, not spiritually.

Heritage

The topic of heritage in the South African context is always a complicated one, bringing forth questions like, whose or what heritage is important, what does that heritage stand for, what aspects are to be celebrated, why should they be celebrated, what memories and emotions do they evoke, what education do they teach? All of this is due to how complex our history is.

Heritage is the work that history does today and is strongly tied to people and identity. Unfortunately, our physical and intangible history has been deterred by European influence. “The notion of orality and oral tradition acts as the main vehicle of the intangible” (van Vuuren, 2008, p. 15). Intergenerational knowledge from the Africans was in the form of “myths, stories, and songs, with the storyteller playing a central role” (Meuser, 2022), usually a family or community elder.

“In Africa, when an old man dies, a library burns down”
(Amadou Hampate Ba, 1962)

South Africa has an ambivalent relationship with its heritage. It wants to retain and preserve the privilege and status yet at the same time be transformative, riding on the notion of a rainbow nation. The architectural symbolism of heritage constructions in South Africa is simply an indication of prestige. The prestige is related to the symbolic economy of the country.

Concerning intangible and tangible heritage, van Vuuren (2008) notes that the two concepts are interconnected and separating the two entities is problematic as this would lead us to understand heritage at a shallow level.

The intangible is that which is unmeasurable and abstract, historic European research coined the lack of written information as a sign of a primitive, illiterate, and uncultured society. I argue that the truth is the opposite, African information was not written but there was nothing primitive or uncultured concerning how life went about. As an example, the act of advanced medical practices like the C-section performed by a tribe in Uganda without Western medicine in 1879 as witnessed by Scottish Medical Anthropologist Robert Felkin, is proof that medical knowledge was a huge part of Africa but never in writing. This was when the procedure was deemed dangerous in Europe because of mother-and-child deaths (Davies, 1959). This completely changes the notion of “primitive African peoples” as we have been taught for years.

Anthropologist Ruth Finnegan (1991) argues that the intangible aspects result from exchanges between a substantial variety of contributors and are not random adoptions like picking up pebbles as you go. Kirschenblatt-Gimblett (2004) advocates for a distinction between repertoire and archive. The repertoire is part of the ritualistic performance. It is critical to be aware of the Western definition of performance and theatre, and the informal African participatory performance such as ritual dances that go hand in hand with the music. These intangibles (rituals) are ceremonial, informal and deemed spiritual. “The performers are carriers, transmitters and bearers of traditions, terms which connote a passive medium or vessel, without choice, intention, or subjectivity” (Kirschenblatt-Gimblett, 2004, p. 58).

PEOPLE

PLACE



"AURA"

HERITAGE? GENIOUS LOCI? CULTURE

WHO AM I? WHO ARE WE?

TANGIBLE

INTANGIBLE

“An aural architect, acting as both artist and social engineer, is therefore someone who selects specific aural attributes of a space based on what is desirable in a particular cultural framework. With skill and knowledge, an aural architect can create a space that induces such feelings as exhilaration, contemplative tranquility, heightened arousal, or a harmonious and mystical connection to the cosmos. An aural architect can create a space that encourages or discourages social cohesion among its inhabitants. In describing the aural attributes of a space, an aural architect uses a language, sometimes ambiguous derived from the values, concepts, symbols, and vocabulary of a particular culture.” - (Blessner and Salter, 2005, p. 5)

Aura

Everything in our reality bears an aura, be it objects, spaces, artefacts, or the time reality exists in. Walter Benjamin juxtaposes art before and post-mechanical production times in the essay “The Work of Art in the Age of Mechanical Reproduction”, it is here where he contends that art that relies on its ability to be reproduced lacked aura, as opposed to works whose value is based on its original genuineness, the one of one kind, such as Leonardo da Vinci’s Last Supper painting, or Donatella Versace’s 2000 green silk chiffon dress. Benjamin explains aura as the “unique existence of the work of art, that bears the mark of the history to which the work has been subject” (Benjamin, 1969, p. 3).

He further describes it as the “here and now of the work of art” that is tied to a specific time and place. He illustrates that if one finds himself in a mountain range on a hot summer day with a breeze in the air felt against the skin in the openness, we can feel the aura of the space there and then. If preserved, such can exude the aura throughout the test of time, be it fashion garments, architecture or art pieces and makings.

What we learn from Walter Benjamin’s writings is that the aura is attached to the artefact, space, or object in its purely unmediated form. It is that which the original has that the replicas, no matter how precise, do not uphold because the original is linked to the times and the space it was formed. This includes our heritage buildings.

In the present day, we tend to value experiences and objects for their ability to be seen by the masses rather than for their unique existence relating to space and time. On the other hand, we deem a city to have inherent value because of its heritage and because of that, it is guarded and protected. Like we would an object such as a generational engagement ring, we hide and protect it, and probably spend time staring at it in a contemplative manner with the fear of loss or damage. Such is due to the aura, you are present and the spirit of place is present.

However, this was tested when I was spending time with my grandmother trying to share quality time with her. I travelled to university with a bead artefact (figure) that we made, the desire was to take a piece of home with me before the academic year started. When I arrived at the university, I found that it no longer felt like I had anticipated, it did not have the same presence as it did in a different space. There was less aura attached to it. Which proved it is subject to the time and space of creation.



Figure 19: Bead artefact by Author.

In architecture, aura or the spirit of place is evoked collectively by the tangible socio-physical attributes such as buildings, landscapes, objects, social characteristics, visual features, people, animals, and sensory information of the place, and the intangible or symbolic attributes such as memories, meanings, values, beliefs, activities, and emotions associated with the place.

The idea of an aura or the loss of aura in the spatial and our culture also manifests in our built spaces. It is tied to tangible buildings and intangible symbolic aspects. One could assert that a city like Tshwane, through the built form at the core, values the past that perpetuated segregation, forceful removals, pain, trauma, and economic handicapping of the non-White dwellers, through symbolism such as statues, and the preservation of heritage buildings and spaces that were built with exclusion and separation in intent and mind.

“It is our knowledge — the things we are sure of — that makes the world go wrong and keeps us from seeing and learning.” – (Lincoln Steffens, 1925)

Perhaps the lack of ‘theory’ concerning aura and the non-western spiritual in space-making is proof that Western ideologies of architecture do not centre around one’s being with the spirit, Source, and the overall union with the universe and landscape. The notion of a theory by academic standards in Africa is irrelevant, perhaps our education system concerning architecture school is still Western.

“Aural architecture designates the properties of a space that can be experienced by listening. An aural architect, acting as both artist and social engineer, is therefore someone who selects specific aural attributes of a space based on what is desirable in a particular cultural framework. With skill and knowledge, an aural architect can create a space that induces such feelings as exhilaration, contemplative tranquility, heightened arousal, or a harmonious and mystical connection to the cosmos. An aural architect can create a space that encourages or discourages social cohesion among its inhabitants.” - (Blessner and Salter, 2006, p. 5)

The spirit of a place

One may suggest that the spirit of a place is created, in the most basic form, through the need for humanity to dwell, create a culture and identify. According to Christian Norberg-Schulz, the 'spirit' of a place is determined by what man chooses to symbolize, visualize, arrange or complement (Norberg-Schulz, 1979). As abstract as it may be, there are spaces where the manifestation of an order has been the goal, spaces where order and force exist evenly and are perceived beforehand.

In vernacular architecture, the spirit formulates itself through the closeness of the man-made to the environment and the source, a result of beings seeking to understand and respect the environment around them. Contrary to that, in urban (Western) architecture, it is beings asserting permanence to the environment to an extent that the location responds with climatic disasters and hazards as a warning to alert us of our out-of-tune living with it. We are not "friends" with a particular environment, we do not identify with it.

Our "Western" spirit of place in Africa is therefore artificial, out of touch with our identity but a remnant of authority assertion. Silva (2015) argues that there is not a single approach that can define the validity of the spirit or feeling of a place that can constitute the preservation of its heritage. He further notes that "a sense of serenity, community, historicity and sacrality" defines the spirit of a place to the dwellers of the World Heritage Town of Bhaktapur in Nepal.

As specific as this may be to the town of Bhaktapur, these sentiments are shared in most of the global south cities. However, one could make a case that the intentions of the space-making, including the act of authoritarian symbolism, and the evoked sense of power and control can be amplifiers to the 'spirit and feeling' of a place. That which was made like that yesterday will still sustain that today unless altered, modified or changed entirely.

Silva (2015) further injects the view that a spirit of place could be "defined in a manner that directly links it with the concept of the cultural significance of historic places, how it is understood by a community and with heritage conservation goals and development needs of that place" (Silva, 2015, p. 1). In the context of Tshwané's Church Square, the conservatives justify the preservation of the heritage buildings as part of their cultural heritage mainly because of their aesthetic.

One could argue that the reason behind this justification is the awareness of the significance of the historic site in the separation of the nation, the gaining of privileges, and ultimately the symbol of power over the other. As such, "aesthetics" are the reasoning driver for the preservation. Unless unaware, this justification highlights the silent acknowledgement of what is wrong, yet siding with it because it is beneficial to you, or you remain unaffected.

According to Saranphat Wongput's research findings on the spirit of a place in religious heritage sites, "the system of 'Spirit of Place' consists of four significant fundamentals: Place, People, intangible components and tangible components" (Wongput, 2016). All these aspects are necessary for facilitating a balance. As a method of research, a case study of Lamphun, Thailand was used.

In the case of Tshwane, the argument is that these components conflict. The city and its people want to evolve, but the aura of the tangible and intangible is still colonial. The people's ideologies are no longer those the place was intended for historically. The buildings and crafts are subject to values and memories of the past wickedness.

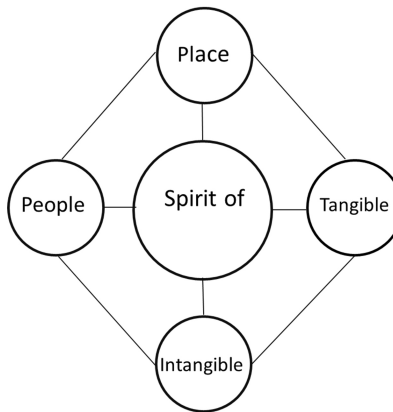


Figure 20: Author's adaption of Wongput's research findings

The ritual of art and creativity in the spatial

The thirst for Ndebele designs in the West is ironic, given their historic use as a resistance to colonialism.

Art, like any other artefact, subjects itself to time and space. In the interest of this study, the art in conversation is the Ndebele geometric designs. This art is strongly tied to rituals and the practice of construction.

African people express culture through art, the motifs, and paintings of the AmaNdebele and BaSotho, organising musical sounds into sequences of pitch and rhythms, and the BaTswana and BaPedi dances which involve the expressive, evocative, and poetic movement of the body (Nkambule, 2015). Dr Sechaba Maape (2015) engages that art and various place-making rituals are inherent systems that a community practices as a way to facilitate different identities and perceptions of a dynamic environment for understanding.

Often accompanied in the ritual of the arts, is a state of trance as experienced by the participants or practitioners. Thus linking music, dance, and visual arts to the spiritual. Such practices have dedicated attires and space. The state of altered consciousness (hypnosis) on the body in religious or cultural experiences of healing, is described by Walter Freeman (2003) as that which can create a “bias of being healed; having a spiritually empowered experience; and the perception of personal transformation” (Maape, 2015). A state which later transitions from

excitement to inconsistent melancholy ranging from shock, ecstasy or high. Maape (2015) describes this experience as a usual occurrence during ritual practices when one is in a state of trance.

This liminality that is encountered during rituals presents an opportunity to grasp our strength to draw peripheries of meaning and identity. This allows for creativity and transformation of the people to occur (Maape, 2015). As such, the process of creativity in constructing self, meaning, reality and living environment has far richer source. It comes to mind as no surprise that these elements deemed intangible heritage are so well connected that they are all present during rituals and cultural customs, the singing, the dancing and the palpable.

It is not unusual that when one thinks of the AmaNdebele people they simultaneously reflect on the traditional artwork and beadwork. Which form an integral part of the culture. The practice of painting the walls is ritualistic and it has been performed by women historically. This act saw a generational teaching and participation opportunity for their daughters. It is said that a well-painted home with straight and balanced lines is a sign of a good woman in the home.

“The young may not know where life will take them, but this art is ingrained in their culture. My art has evolved from a cultural tradition of finishing the house to where I am now.” – (Mahlangu, 2019)

Dr Esther Mahlangu took this ritual act of painting to a commercial level by switching mediums from the house wall to an art canvas. However, the change did not take away the ritual of the art for her. She still wears the traditional ritual attire when performing the art and treats the act as a ritual of expression.



Figure 21: Dr Esther Mahlangu painting with a chicken feather



Figure 22: Esther Mahlangu, 2020 artwork

As the women performed the art on the walls, by understanding the dichotomy between woman and man, that both are equal yet different biologically, the construction or making of a home would see participatory activity from the two. The man was responsible for what was considered structural and heavy or difficult, and the woman would aid in the mixing of mortar and finish the floors with cow dung and the walls with art without any interference from the man.

The art on the walls would be altered to communicate a sense of time and events. In an instance of a wedding in the family, the art communicated such. In the events of initiation of the young into adulthood, the art conveyed such etc. Historically, the art was completed using earthen tones until the availability of a variety of paint pigments (see figures).

The ritual of painting warrants the woman as the custodian of the homestead, it is her world and how she projects herself. She takes up space and commands her place in the homestead.

In modern trends globally, art is detached from rituals, it is no longer valued for its distinctive existence, but rather for its ability to be reproduced, exploited and made available to a large community of consumers. This has led to the interest of the Western eye consumption and appropriation of the AmaNdebele art. Thus it has no meaning in the present, and modern art worldwide is rather made for short-attention-span intake.

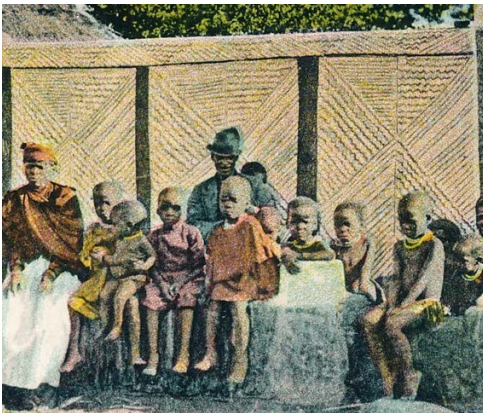


Figure 23: Close-up of the earliest record of Ndebele wall art from a postcard from the 1900s. Image by Franco Frescura.



Figure 24: Ndebele woman painting a wall. Retrieved from The Creators Project.

ARCHITECTURE AND THE TEXTILE ART

A form of style that was briefly disrupted is how we chose to cover our bodies. Throughout history, there has been a link between what we wear and what shelters us, the material, tones and the method of making. The use of animal skin to cover our bodies and simultaneously construct a shelter to protect us is a nomadic approach to adaption and flexibility. Understanding that migration and a quest for suitable environments to settle were major influences in the ephemerality of architecture and living. The manner and method in which these materials were put together architecturally is a replica of how they were fixed onto the human body. The animal skin wraps around the human body, the animal skin also wraps around the structural skeleton. It creates a language of making.

Not to argue that this is where we should look as an attempt to recognise the links between the two to inform design today but rather to note the similarities and specifically take note of the transformation over the years before colonisation. When societies think of 'African' structures in the present, they think of primitive mud walls and thatch roof constructions. Such is misguided, it is as if progress would have not occurred over the years without colonial influence.

An example of uncolonized progress in architecture is the advancement of the AmaNdebele homesteads from hives to the popular rondavel constructions, and later

into the planning which took the shape of a square with new construction methods. This transformation occurred in the traditional attires as well.

Godfrey Semper (1803-1879), a German theorist and architect, believed that "fashion and architecture spring from the same human impulses". In his theory of *bekleidung*, a German word for clothing, he describes how the "creative arts, which originated from human needs like shelter and clothing" all relate to the idea of craft.

Clothing and shelter were made by the same craftsperson. The weaver. He highlights that in his German language, the terminology is also used when speaking of buildings or clothing and they often share heritage (Semper, 1860).

Architects such as Frank Lloyd Wright also thought of architecture as the design of clothes. He compared building materials such as bricks to fabric and juxtaposed his famous creation the Robie House made from bricks, with the weaving of clothes. The placement and pattern of the bricks mimicked the sewing of fabric and its threads. The use of clean straight lines revealed itself in the garments as well.

It could be justified that the link between the two disciplines takes its inception primarily in architecture rather than fashion. . Pouria Mohammad Karimi and Cyrus Bavar note

that “architectural works inspired by fashion lead to a new and different result in both disciplines, which are more fluid and vibrant and have a greater artistic expression, while the fashion design inspired by architecture is more systematic, structural, and technical” (Karimi & Bavar, 2018, p. 234). The technical, systematic, and structural in most African modes of attire are not evident, however, the need to cover one’s body came second to sheltering the whole. The point that Karimi & Bavar make could be disagreed with based on the context and ideologies of the people. Cultural attires are more expressive today, yet shelter was and is primary.

Conversely, I concur with Karimi & Bavar (2018) stating that self-expression in architecture and fashion is a common phenomenon, it is “from personal ideas, social problems and cultural identity” (Karimi & Bavar, 2018, p. 234).

Semper expanded his theory into the archetypal hut to prove his model. To do this he studied different nations through comparison. He noted that wattle dwellings were prioritized. Although pointing out that some locals would walk around naked, they were not without dwellings. Thus, the conclusion he compiled was that protecting the room from the weather was primary and the protection of the body was secondary. As a result, textiles were first used for architecture and only for clothing afterwards.

What we learn from Semper is that the protection of the body is intricately a clue to the origins of our structures. Although

entirely separate, the ritual of crafting a home as an artefact is tied to the making of small-scale artefacts such as garments.

Considering the Ndebele women’s ritual attires, the links between the spatial and the attires can be established. The identity marking to the homestead wall spills over to the ritual attires through the traditional marriage blanket (ingubo), beads (imincamo), beaded aprons (itjorholo, isiphephethu, umaphotho), and the brass rings (iindzila) on the ankles, neck, and wrists (figures 18 - 21).

This goes from the colours used, the geometrics, and the motifs, to the affinity of the architectural space to the human body. Such as the home being divided into two, the feminine and the masculine.

The emphasis of the attire on the woman is seen as a sign of respecting the female body as it is more than just flesh, but a spiritual entity that bears, nurtures, and delivers life on earth, the woman - (womb)man. Hence, academic researchers’ disrespectful and derogatory historical images illustrate the girls’ bodies as more clothed than the boys. Similarly, the back of the house is usually a sacred, protected space of the family separated by a physical low boundary wall or an intangible boundary. Thus, it is considered feminine. The frontal space or entrance is deemed open, public, accessible and ‘out there’ connoting it to the masculine, although visually dominated heavily by the feminine practice of the art.

Unfortunately, the art and image of the women's ritual attires have been a discourse in the academic space from foreign commentary, as such, the writings are biased in favour of their agendas with the works. Consequentially, this has led to their image being packaged as a commodity to be exploited.



Figure 25: Drawing of the marriage attire on a woman by Author, 2023.



Figure 26: lindzila, brass rings worn on the neck.



Figure 27: Ingubo, the marriage blanket



Figure 28: Itjorholo, beaded apron

Concerning space in the African context, Dr Emmanuel Nathi Nkambule writes, that it is encompassed by characteristics like the “asset of detached pavilions that define outdoor space; spaces between buildings are treated as important public space; changes of level define thresholds of entry and ritualise movement; and open-ended multi-use spaces contrast with specific intimate spaces” (Nkambule, 2015, p. 38). Such practices in the architecture are evident as well in the AmaNdebele homes.

“Memories of childhood homes contain the secrets of our origin, and fantasies of future homes allow us to imagine perfect fulfilment.” –(Julia Gallagher, 2022)

With Gottfried Semper’s theory, the use of words from his native German language to define the architectural space saw him draw attention to the etymological connection between the German words *zaun* and *saum* (fence and hem) to accentuate the thought of architecture’s textile origin.

The use of the spatial fabric term *wand* (wall) comes from the expression *gewand* (garment). Thus, he formulated a basis for his theory where the *wand* (wall) is a space-defining threshold between the outdoors and the indoors, and it functions as a canvas of expression, decoration, and physical protection.

The aesthetic of the craft and the necessity for comfort and protection are more parallels in architecture and textile art. The act of ‘decorating’ that which you live in also transfers itself into ritual in a way of decorating the face, the creation of the art of the masks, and visual artistic expression on the body. Semper (1803-1879) notes that the enactment of ‘decorating’ in Sub-Saharan Africa was exceptionally developed.

MODERN TECHNOLOGIES

This technical segment of the paper seeks to find, through case studies, theoretical approaches explored in the preceding segment. The design intents and ways of making are discussed to influence a new perspective on how African works of architecture can be initiated and carried through.

This section further attempts to understand the “here and now” of the works by interpreting the information from an aural point of view. By studying works of public use, symbolism and cultural representation, it is hoped that the narratives can be learned and contextualised in the project’s progression.

From Thinking to Practicality

The technology and construction decisions of the architecture in Africa were and are still driven by pragmatism, the recognition of a problem and the will to solve it rationally. Architect Phil Mashabane iterates that “academic researchers have been, and still are, bent on making the world believe that African architecture, as seen from their perspectives, features only poor and primitive methods of construction, in the past, the use of indigenous materials was informed by their properties, which met the needs and cultural and poetic aspirations of Africans” (Mashabane, 2022, p. 95).

Rationally, the use of the materials depends on their availability in the context and robustness in sustaining structural aims. Such is seen through the use of Ingodo (wooden posts) to support loads and other materials.

Cultural anthropologist Thomas Huffman (1944-2022) uncovered the learnings of archaeologists about two villages with confirmation of iron forging in the Broederstroom area, west of Tshwane pre-colony. Culturally, the technology of iron smelting was compared to childbirth by the Bantu-speaking people, a sacred and ritualistic process and the forging process was seen as raising a child (Huffman, 2010). As a result, smelting was performed in a secluded environment and forging was in the homestead’s open, public centre. The iron

ore was forged into tools for everyday use; however, no evidence of structural utilization has been discovered thus far.

One may also add that the use of metals can also be seen on the Ndebele women’s garments for the ankles, neck, and wrists (iindzila). Historically, these garments were made of heavy metals, and as such body defects were manifesting. Thus today, the iindzila are made of a lightweight material.

Perhaps the people did not arrive at the idea that the mineral discovered can aid in that deemed as an extension of themselves in constructed space yet, or as Austen & Headrick stated, “even when Africans were exposed to the technologies of supposedly more advanced societies, they had material and cultural reasons for not adopting most of them” (Austen & Headrick, 1983, p. 175).

This notion of relating iron processing to beliefs and life practices was also common among other African cultures such as the Oromo people of Ethiopia and north of Kenya. Similarly, they compared the final stages of smelting to childbirth. In this model, Prof Temesgen Burka writes, “In relation to this, the fire is symbolizing death and life, fire being both destructive and productive and in another level of meaning, the smith/smelter occupies a liminal position as an agent of production and destruction” (Burka, 2017, p. 121).

A lot of materials could be claimed as indigenous to Africa, including those we debate as 'industrial' or 'Western' in the contemporary architecture space. With that in mind, the notion that architecture in Africa should be made of traditional timber and mud bricks with thatch to top it off is misleading at most if we are to truly reclaim our identity and practices and move towards narrating our story in this world.

Mahmoud Keldi (2022) thinks that reducing architecture in Africa to 'local material' and 'self-build' is common today, "On a continent where most of the raw materials used to build modern buildings are found, 'mud brick' is not the only valid solution" (Keldi, 2022, p. 197).

Proceeding with the study, modern-day case studies that push the envelope are explored. The selection of these case studies is for theorising only, to observe from the outside and look in, and solely to comment on the technology. By no means are they treated as precedents.



Figure 29: Future Africa Campus. Image retrieved from tipconsortium.net.

- 1 - Housing
- 2 - Research commons
- 3 - Dining hall
- 4 - Conference centre

Future Africa campus

Architects: Earth World Architects

Location: Tshwane, South Africa

Year of completion: 2018

The campus is studied as an urban space. The selection of the case study intends to express the physical space as perceived. The choice is influenced by a reminiscent memory of a visit to the campus and how one perceived and interpreted it upon arrival and experience.

The design of the campus complex is highly expressive of materials and construction methods. The design resolutions the architects came up with are specific to the project and the challenges they faced. Throughout the construction phase, the ease

of assemblage was the driving thought process and the flexibility in the making was explored by using prefabricated components were favoured along with encouraging low-skill labour.

As coined by the architects, “Afri-tech” as a technology concept embraces traditional construction and joinery methods as opposed to minimal contemporary global trends. It is the arrangement of “high-level design processes with local resources and skills” (EwArch, 2017).



Figure 30: Future Africa Campus Conference Facility. Image by Author



Figure 31: Future Africa Campus Conference Facility. Image from Earthworld Architects

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Figure 32: Housing units passage. Image by Author.



Figure 33: Models of the housing units composition by the architects.



Figure 34: Campus housing units. Image by Author.

The research commons utilize the courtyard design strategy as a way of ventilating and bringing light into the wider open spaces. The use of the timber material extensively is intended to bring warm textures and a link to the natural landscape that the campus is situated on.



Figure 35: Campus research commons entrance. Image by Author.



Figure 36: Campus research commons entrance. Image by Author.



Figure 37: Campus research commons courtyard. Image by Author.

The technology of the structure in the dining hall and conference centre explores the use of plywood material as a portal frame. The frames are fixed together using purpose-made 10mm thick mild steel fins. The pieces of the portals are bolted together once in place.

In this fashion, the structural aspects in the making of the buildings are treated as more than a skeleton of the building, they are celebrated and become integrated into the overall aesthetic.

The designers sought to articulate services in the dining hall in a discreet manner, as such, major wiring and piping are enclosed by the plywood panels that make up the fabric of the interior space from the floor to the roof.



Figure 38: Diagram of the structural portal composition for the dining hall.

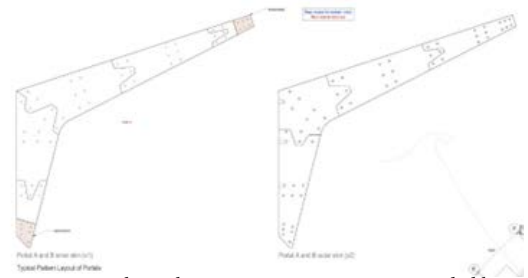


Figure 39: Portal Puzzle Pieces Layout. Drawing provided by the architects



Figure 40: Dinning hall interior. Image by Author.

The large structural plywood components were redesigned in such a way that can be handled by the non-skilled labour on the project. The portal frame supports were fragmented into pieces that can be easily handled and assembled in construction by one or two members to reduce the need for mechanical aid in the making.

The design of the frames also promoted fixing methods that are easy to execute in the components compilation and the structural meeting to the floor and the roof.

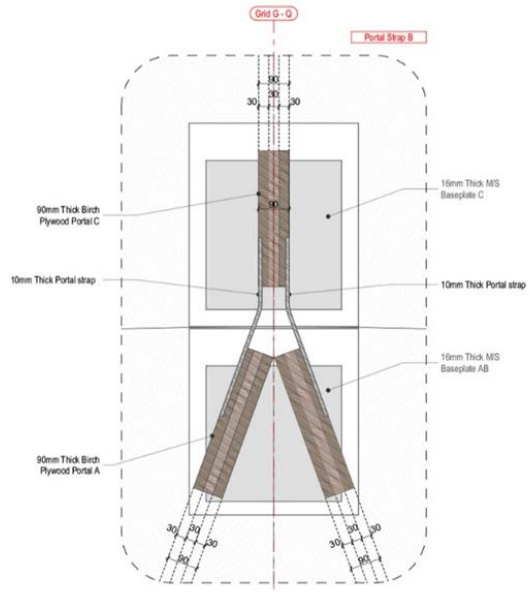


Figure 41: Portal frame strap detail. Drawing provided by the architects.

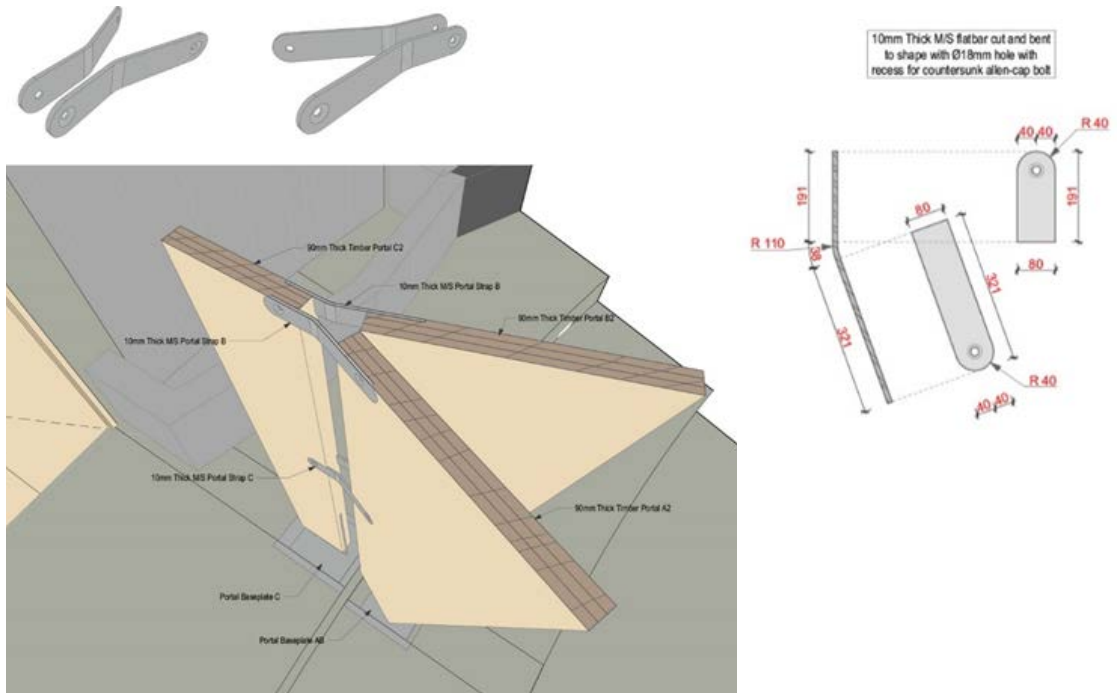


Figure 42: Portal frame strap cut view. Drawing provided by the architects.

The roofs are predominantly comprised of concrete flat surfaces and timber rafters, purlins and metal sheets on the bulk of the slanted roof surfaces. They are completed with zinc standing seam roof sheeting fixed to timber boarding that is fixed to the structure with anti-slip and waterproofing membrane.

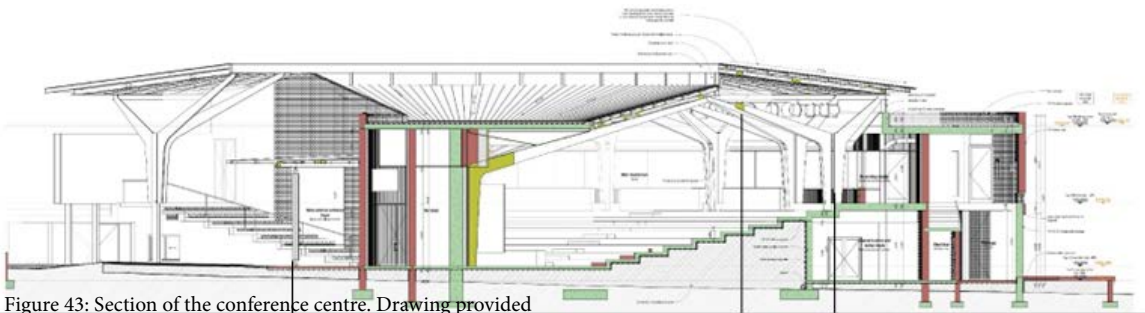


Figure 43: Section of the conference centre. Drawing provided by the architects.

The timber column footings and headers meet the horizontal surfaces through mild steel custom-made fins and plates.



Figure 44: Timber column footing.

The plywood portal frames connect to the roof members through hand fixed fins that are purposefully exposed.



Figure 45: Plywood portal frames in the conference centre.

The floors consist of poured concrete as a durable solution. The portal frames are joined with mild steel to the floor.



Figure 46: Plywood portal frames footing.

The aura and spirit of the place

The campus took into consideration the aura of the natural landscape as it existed before construction and tried to bring it into the campus as a whole, from conception to the final touches on the buildings and outdoor spaces.

The presence of what was before is strongly perceivable in and around the campus.

The design of the landscape and choice of materials, vegetation and natural elements to incorporate in the process were intended to bring forth the essence and aura of the space. The gardens host indigenous plants that can be used for studies by the campus users.



Figure 49: Aerial view of the campus. Image retrieved from top-rated.online.

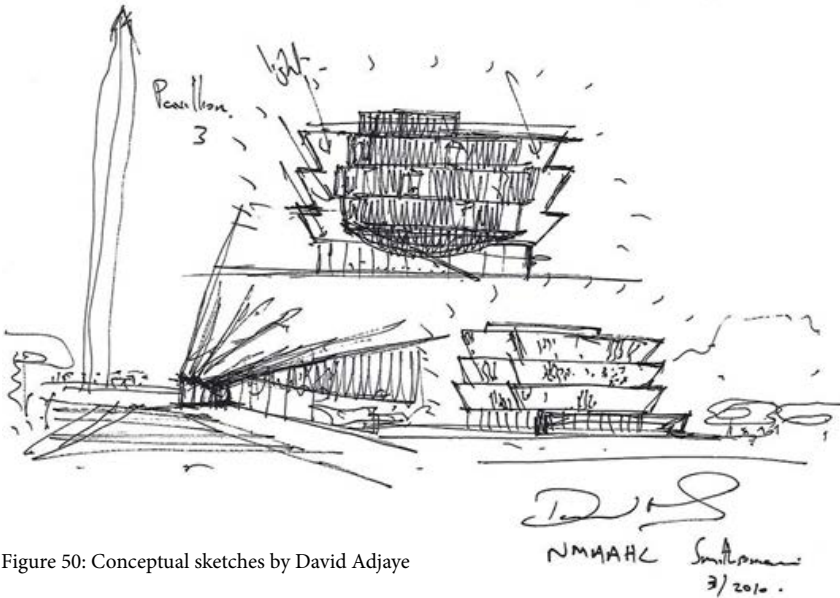


Figure 50: Conceptual sketches by David Adjaye

Smithsonian National Museum of African American History and Culture

Architects: Adjaye Associates, the Freelon Group, SmithGroup
Location: Washington D.C., USA
Year of completion: 2018

The selection of this case study is an attempt in seeking to understand the documentation of the unseen in the spatial. How do we capture a memory and create an aura of time in the spatial in a way that puts the user in the experience?

The project architect David Adjaye describes the project as a 'memorial, monumental and a museum'. The building does not only hold content, but it is a representative building as well. The objective was to find a balance

between a structure that does not assert symbolism dogmatically but stands out in the context of Washington D.C. neoclassical architecture.

The intent was to narrate the stories the museum encapsulates on the exterior upon arrival, interior articulation and in the experience offered. This led to seeing the building as an artefact of expression itself.

The architect sought inspiration from the plywood material. He went on to test its use on structural frames. The whole idea rested on prefabrication and how technology can encourage the growth of small business participation. The technology was thought of like puzzle pieces, designed, cut and drilled offsite to be assembled onsite.



Figure 51: Museum reflective space. Image retrieved from [dezeen.com](https://www.dezeen.com)

The building takes its form from the Yoruba caryatid crown/corona. The pattern cast into the bronze-coloured steel panels was designed to evoke and honour the ornamental ironwork in southern cities such as Charleston and New Orleans that was forged by slaves of African ancestry.

The screen panel design is abstracted into geometric lines as a means to simplify the organic nature of the ornaments. With a variety of opacities between 65% and 90%, four types of panels were produced. These panels also act as solar shading. Energy analysis software was used to determine the suitable placement of each type of panel.

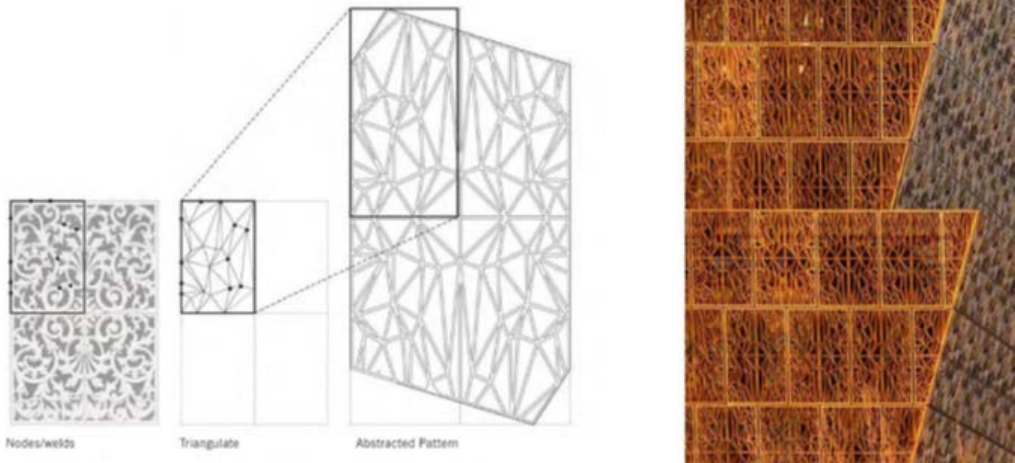


Figure 52: Screen pattern detail. Drawing by architects.



Figure 53: National museum of African American history & culture – David Adjaye Architecture. Image retrieved from dezeen.com

A bulk of the museum's program is situated underground. The basement of the structure houses historic artefacts from the slavery years and no natural lighting permeates the exhibition spaces, leaving a dark ambience in the space.

The ground floor hall consisting of the arrival space and a cafeteria instantly reveals the interior spatial arrangement of the structure as open, free and unrestricted. This space provides views to all the floors above the ground plane as well as below the open space. This symbolism signifies the start of a journey as one arrives in the building.

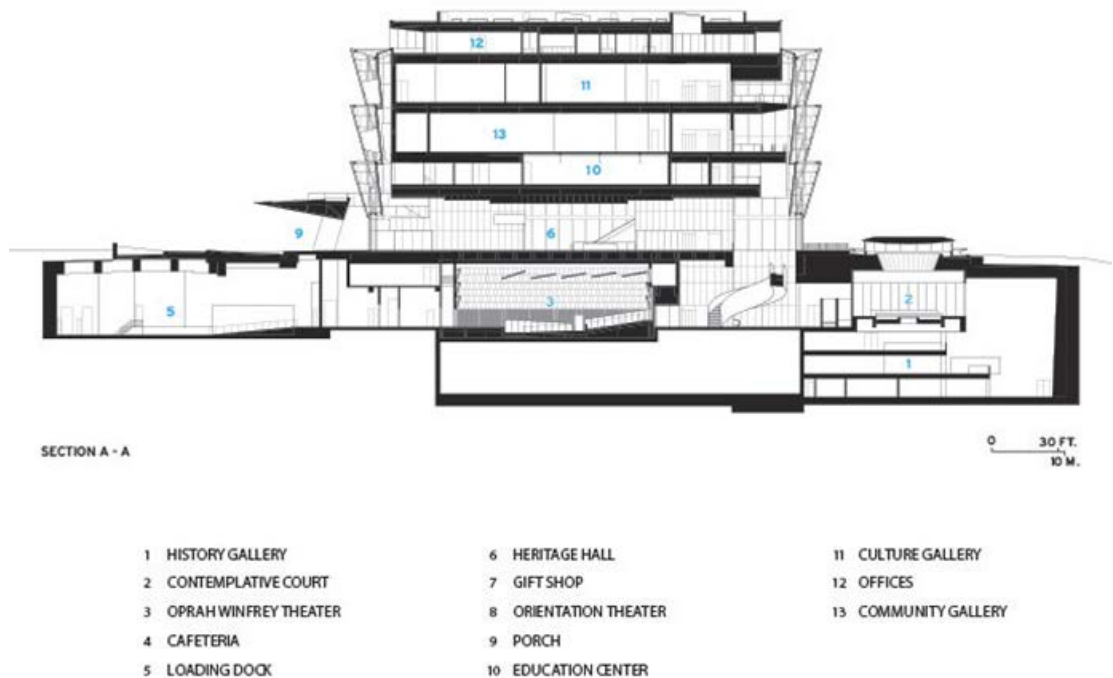


Figure 54: Section of the museum. Retrieved from Oje Asekham.

The skin is held in place using aluminium outriggers. All steel members are fixed via welding and bolted to the slab edges.

The interior skin of the building is comprised of a glass curtain wall system as a way to naturally light up the exhibition spaces meant to receive an extensive amount of light that is filtered by the solar screens.



Figure 55: Construction phase of the building, image courtesy of The Smithsonian Institution and NMAAHC

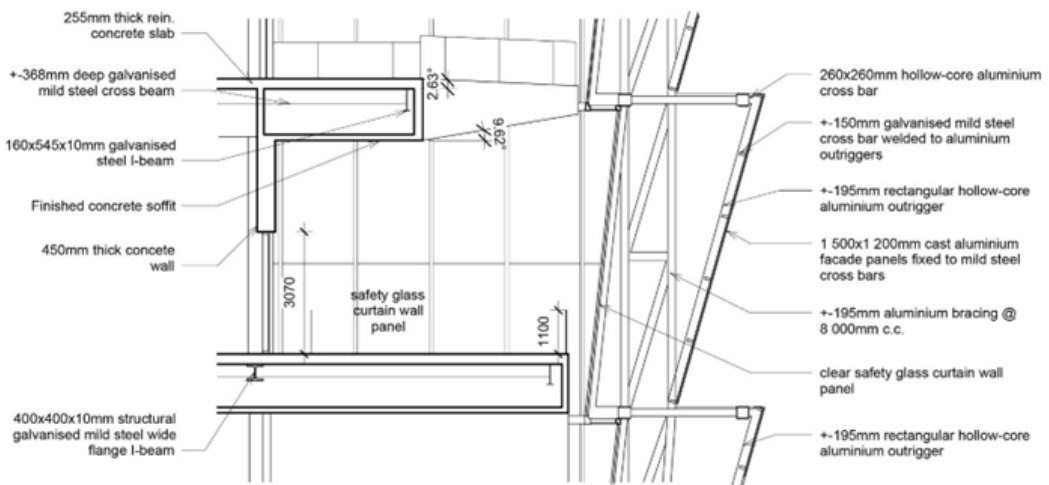


Figure 56: Detail drawing of the building's edge. Drawing by Author, 2023.

The structure uses a combination of steel and concrete supports throughout. The floors are comprised of +-255mm poured concrete which is supported by mild steel beams.

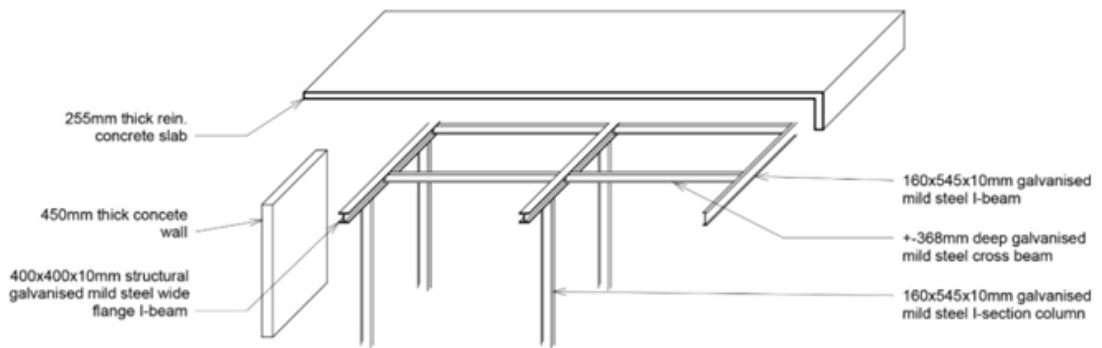


Figure 57: Exploded 3D detail of the structural composition. Drawing by Author, 2023.

The aura and spirit of the place

The space is configured in such a way that upon arrival, guests are encouraged to start the museum tour from the dark basement exhibition which houses the dark history of slavery in America. Natural light narrowly ushers in as one gradually makes their way up from the dark spaces to the upper floors, which house content on pop culture, sports, music, and art. This spatial articulation plays on the perceiver's emotions with the spirit of the time the museum artefacts communicate, it intends to not only exhibit but to encapsulate the space and time that the events of slavery and the struggles faced then occurred, reinterpreting them as dark times and events.

This creates a dialectical aura within a single building progressively shifting between the floor levels. One that is sad, dark, and emotional, and one that is light, celebratory, and positive.

The dark history of the American slave events is deliberately situated underneath the ground to signify a past to be buried but not forgotten. The exhibitions on the upper levels with naturally light spaces symbolize a brighter future as they tell stories of the great achievements of the descendants of slaves.



Figure 58: National museum of African-American history and cultures. Image by Alan Karchmer



Figure 59: Serpentine Pavilion. Image retrieved from Design Curial. By Johnny Tucker.

The Serpentine Pavilion

Architects: Kere Architecture

Location: London, UK

Year of completion: 2017

Footprint size: 330m²

This project forms part of the selected case studies because it attempted to encapsulate and interpret the traditional domestic space aura into a modern space and work of construction.

Inspired by the idea of how a baobab tree is used as a gathering place in his village of Gando, Burkina Faso, Francis Kere set out to bring the intangible concepts behind the use of a tree to a foreign territory.

The intention was to design a pavilion/public artefact facilitating a sense of community and connection to nature in the meeting space.

The roof canopy is designed as a water catchment device through the pavilion's centre. The water is circulated underneath the floor over time to gradually disperse as irrigation to the park site (Serpentine Galleries, 2017).

The steel roof canopy mimics the overarching shading of the baobab tree, allowing piercings of sunlight into the space while preventing rain through the use of transparent polycarbonate sheeting.



Figure 60: Serpentine Pavilion Aerial image. Image retrieved from Kerearchitecture.com. By Iwan Baan.



Figure 61: Serpentine Pavilion internal space. Image retrieved from Kerearchitecture.com. By Iwan Baan

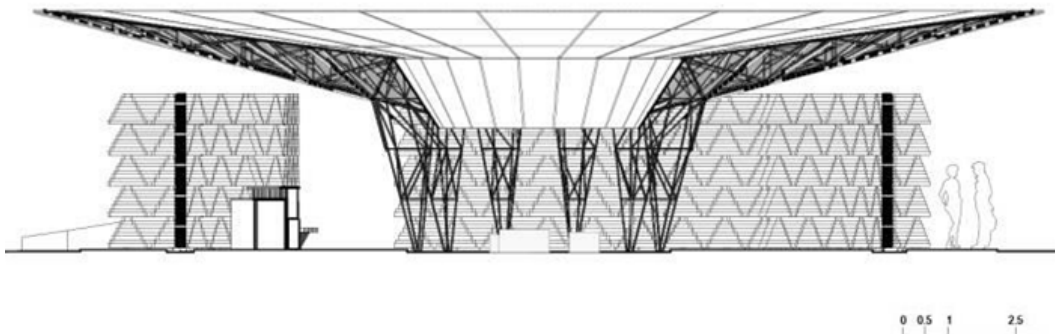


Figure 62: Serpentine Pavilion Section. Image retrieved from Kerearchitecture.com

Structure and materials (retrieved from the official 2017 press pack):

- The Pavilion consists of 4 modular timber walls and a steel truss roof structure with timber brise soleil (sunshade) ceiling panels and polycarbonate sheet weather protection.
- The wall system consists of 520 triangular modules made of stacked 75x200mm timber members of variable lengths.
- The steel roof structure consists of 2 567 linear meters of 25x25mm and 40x25mm hollow square tube.
- The brise soleil ceiling consists of 420 panels made of 20x40mm timber members with 40mm centres.
- The Pavilion sits on a platform of poured concrete with drainage channels underneath all four walls and in the central courtyard.
- Four entrances provide direct routes from the interior to the exterior of the Pavilion.

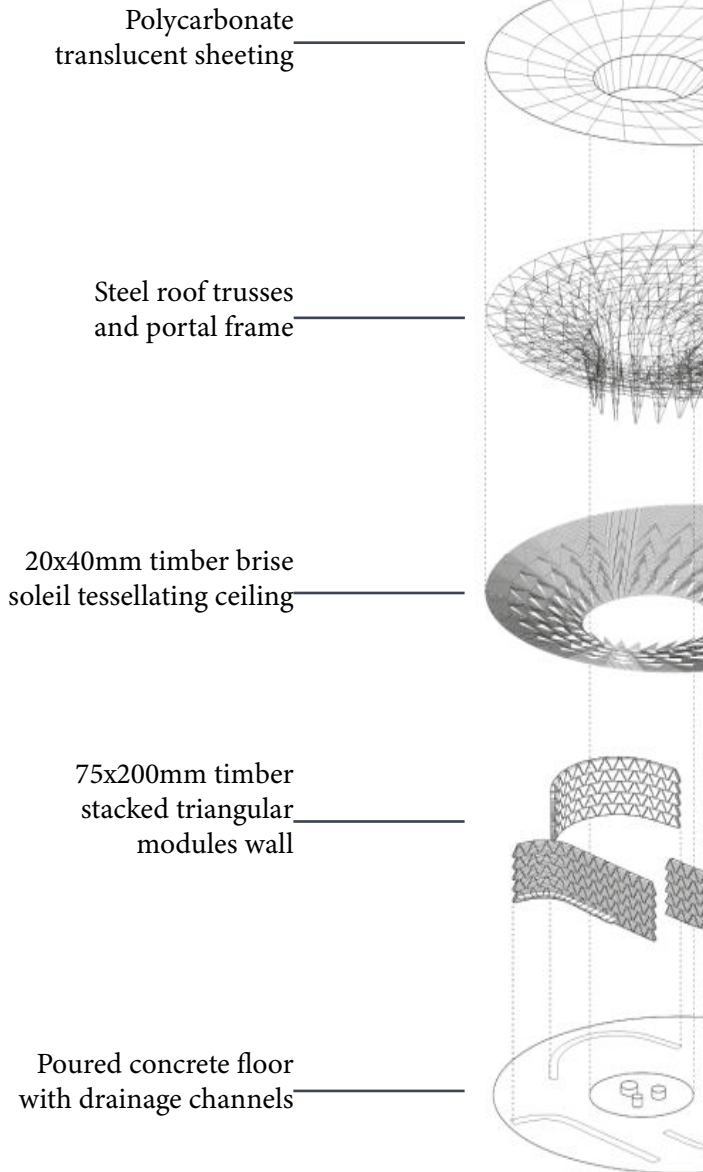
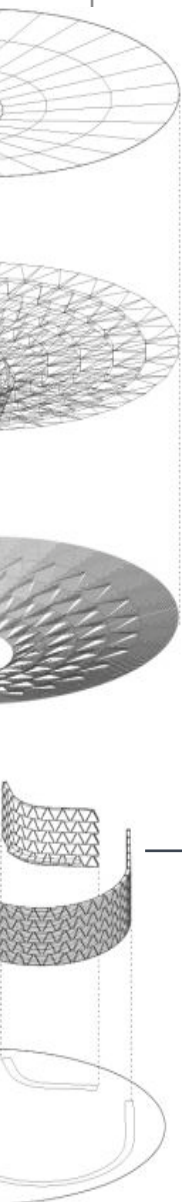
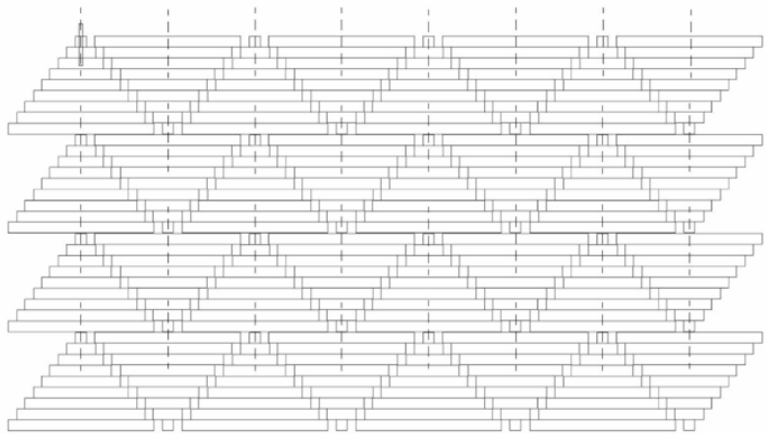


Figure 63: Exploded axonometry of the Serpentine Pavilion
Kerearchitecture.com



The timber wall system is connected using 150mm deep steel dowels from top to bottom for stability. Local ways of constructing a wall were prioritized to accommodate carpenters and bricklayers in the context and to also alleviate the process of assemblage and disassembly.

The rows of triangular modules of timber sit on a 20mm thick timber platform that is curved to the arc of the walls. The 3,000 mm high walls meet the concrete ground neatly through the connection system of the structure.



The triangular modules consist of prefab wooden blocks that are joined together and coloured in blue as a way to pay homage to the blue garments that the women of Gando would wear (Kere Architecture, 2017).

The minor triangular gaps through the walls feed light into the space and permit a visual connection between the outside and the inside. Kere detached the walls from the canopy to easily circulate air in and out of the structure, while simultaneously creating free movement and multiple openings. The ‘freeness’ and permeability of the pavilion could be seen as symbolic of how the tree has no boundaries or enclosures to contain what is on the ground.

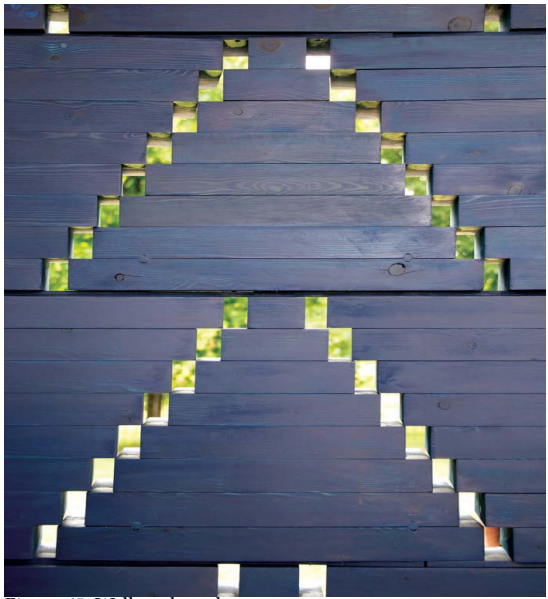


Figure 65: Wall upclose shot

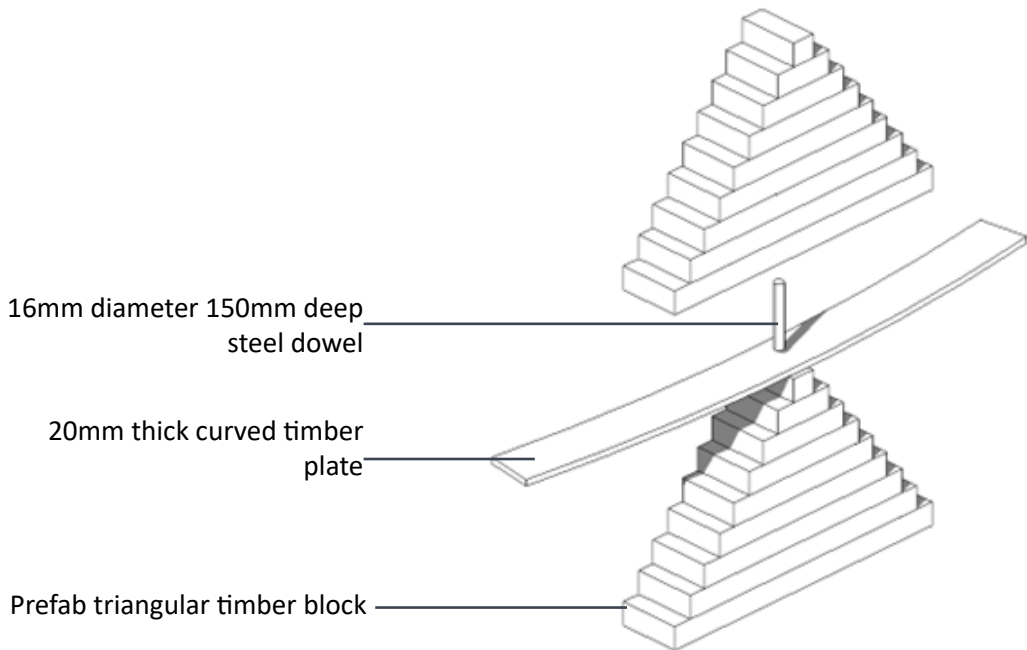


Figure 66: Triangular timber module composition. Drawing by Author.

The aura and spirit of the place

This design intended to capture the idea of the use of a baobab tree in Kere's village with that, the ethereal perceptions behind the use of the tree. The designed space is envisioned as a domestic space occupied informally. The spirit of togetherness is what drives the project. Although the target was to bring a concept from Gando to the foreign landscape, the idea is still subject to the space and time of the original idea or use of space. As such, the concept of togetherness under a baobab tree is of subjective perception.

What Kere sees and feels with the design may be different to what the foreign land dwellers perceive or experience from the structure.

After all, design and architecture as a practice are subjective. Perhaps one perceives the pavilion as successful in carrying out the spirit intended because of familiarity with the 'under the tree shade' occurrences in African communities continentally.



Figure 67: Serpentine pavilion picture 2017. Image retrieved from Design Crucial.

CHAPTER CONCLUSION

Aura manifests through the buildings or artefact faces and street characters. The 'spirit' in the technology of the artefacts could be tied to the manifestation of 'collectiveness' in the practice of putting together a building. The collaborative efforts and unification of a community to create a space together for everyone involved as opposed to advancing agendas of a single group privilege encompass the spirit of the time.

The technology curated ties in with the theory argued, that the unseen and intangible attributes within ourselves (the culture) manifest initially on the historic spatial planning with the selection of materials and configuration following. In the present time, the spaces are modernized globally but due to multiple factors, the materials and methods are still linked to the indigenous in the less urbanized environments.

What we learn from the subject of intangible attributes in informing the design of space is that there is no single approach or point of entry in informing architecture that is true to who we are as Africans. The lesson is understanding the cultures and values of the communities as informants to what we make. Key attributes such as *ukuhlonipha* and *ubuntu* are akin to the spirit of community and respect; respect for yourself, respect for your neighbors, and the environment. These are subtle drivers in the process of making and living.

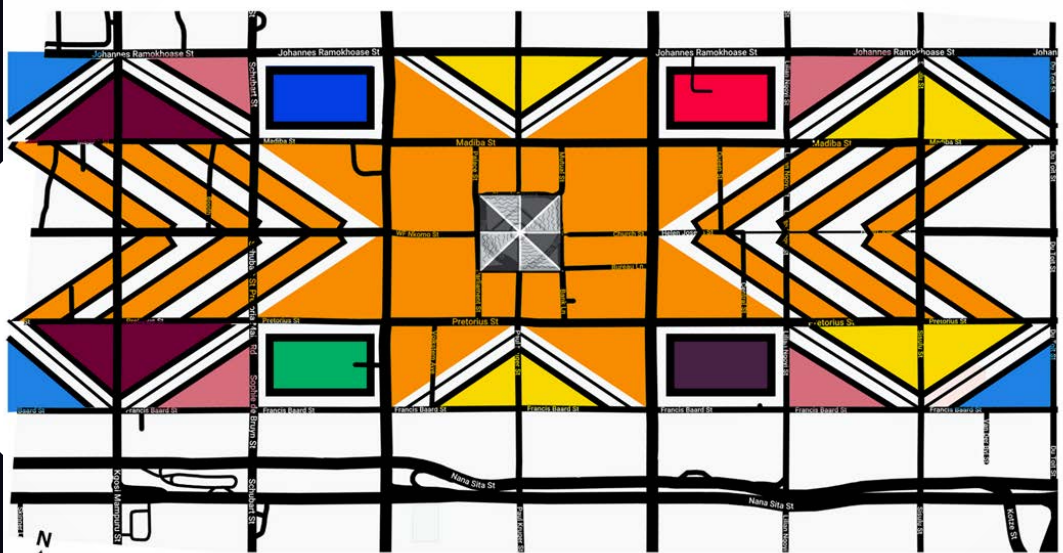
In understanding the informants, meaningful symbolism and appropriate interpretations are executed. The Kere case study exhibits this in how the pavilion is an embodiment of the people, spirit, and process in the making. The spirit, be it in the people or process is fundamental in the creation, as spaces we create are extensions of ourselves.

“Any building system that facilitates the awareness of the 'spirit', is in fact, in the objective of bringing forth or highlighting the self, not by rejecting matter but manifesting it in matter, at various levels and in multiple forms.”

Summary of findings

The key lessons from “Part 02: Theoretical Investigations” are as follows;

1. There is no distinction between the theory and the practice in the architecture of Africa.
2. The non-Western African way of space making is centred around community and the spiritual. Hence space is perceived through more than the tangible.
3. The use of art and geometry goes far beyond decoration or aesthetic, it is embedded in meaning and culture through spatial planning, body protection, and ritual.
4. The protection of the body is intricately a clue to the origins of our structures.
5. Treating the culture of a people as a theoretical foundation and precedent to understanding space making is key.
6. Traditional space consists of detached pavilions that define outdoor space; change in levels defines thresholds of entry; and specific private spaces contrast with open multi-use spaces.



PART 03 The City Centre

“African architecture is ultimately very specific. It has a precise power and influence that organises more than a billion people and contributes to their psyche, identity, and way of inhabiting cities.”

– Sir David Adjaye (2022: p. 200)

This part documents the tale of the land from prehistoric times to the present to understand the context in which the site sits.

With a focus on the core development of the site in question throughout history, the analysis of the city of Tshwane will be done at various scales to generate guidelines and design generators.

The AmaNdebele geometric abstract art style on the left abstractly maps density around the square. The orange illustrates the direction of the compressed traffic towards the square, which then reaches a point of release upon arrival at the square. The map also uses geometric art to highlight the symmetry and balance of the city center.

HISTORIC CONTEXT

Before the construction of the city, around the 1610s the area was inhabited by the Southern Ndebele people, the ancestors. Until 1847 when a group of disaffected Dutch farmers from the Cape arrived and the order of life was disturbed. The Dutch proceeded to establish farms as the location was suitable for farming with close access to the Apies River.

In 1883 the AmaNdebele tribal lands were confiscated and the leader, Chief Nyambele, was arrested and sentenced to life imprisonment as a punishment for fighting for his people's land. The native AmaNdebele of the land were starved as their livestock was looted and settlements were disrupted. These events led to the enslavement of the people to work on the Boer farms. An exercise of power and control. That was followed by the establishment of laws that protect what was stolen outside the existence of laws. Which makes it impossible to legally get back what was stolen illegally historically.

This use of power and law was later carried out in establishing the city's square as it is presently. After the Anglo-Boer war in 1902, the Roman-Dutch law as enforced in South Africa was authorized as the universal law of the new colony with the capacity for legislative modification.

Timeline

- 1610 – Arrival of the AmaNdebele
- 1822 – Arrival of Mzilikazi who had wars with the natives
- 1847 – Chief Mabhogo is visited by groups of disaffected Dutch farmers from the Cape (the Voortrekkers)
- 1852 – The Sand River Convention is signed, freeing the Boer farmers. The “Zuid Afrikaanse Republic (ZAR) is established.
- 1854 – Reverend Dirk van der Hoff requests that a Church be built.
- 1855 – The Boers declare their two farms a town and establish Pretoria, named after Andries Pretorius.
- 1857 – The first mud church is built, designed by Devereux, Devereux and Skinner, A.F. du Toit commences the layout of Pretoria, drawing up the authoritative straight line road soon to be known as Church Street.
- 1860 – Pretoria is declared the capital of ZAR, the Transvaal Civil War starts.
- 1864 – Civil war ends, Boers instigate war against AmaNdebele and the tribal lands are confiscated.
- 1866 – First Randsaal construction is completed.
- 1883 – Chief Nyambele is trialed for insurrection and imprisoned for life.
- 1900 – The AmaNdebele are marginalised and used as labour on the Boer farms.

The old plan of Pretoria from 1878 illustrates the Roman grid-type of city layout and natural features such as the Apies River and northern mountains.

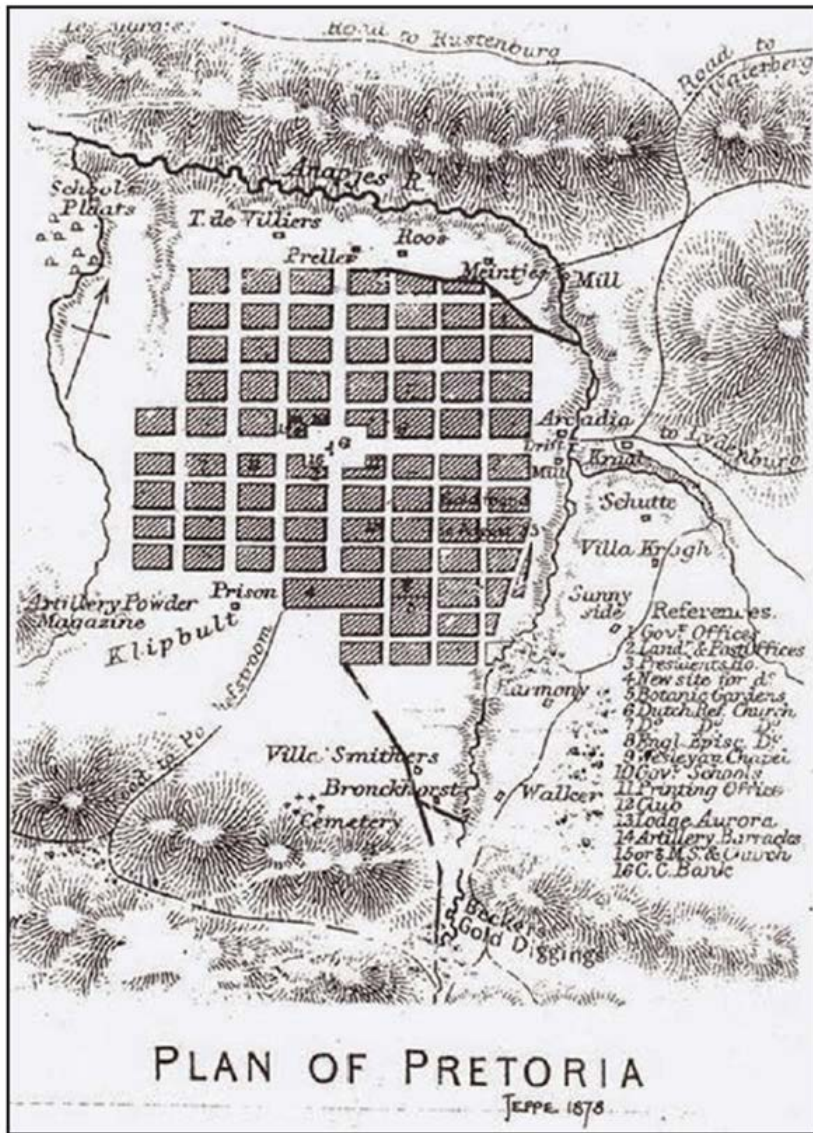
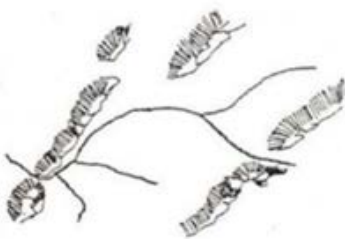
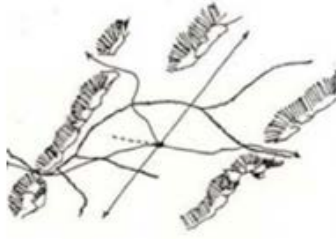


Figure 68: Old plan of Pretoria from 1878 post the church development at the centre.
Retrieved from SAHO.org

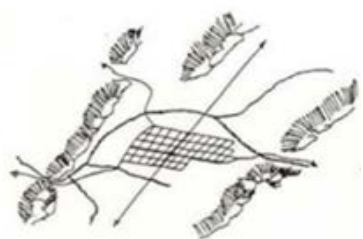
HISTORIC DEVELOPMENT OF THE CITY



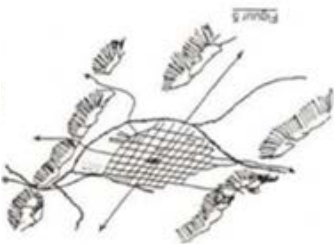
1. Topography with the Apies River path



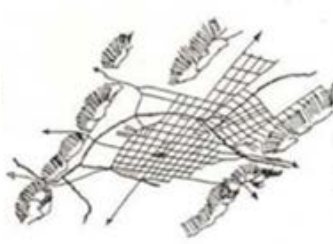
2. Church Street drawn out



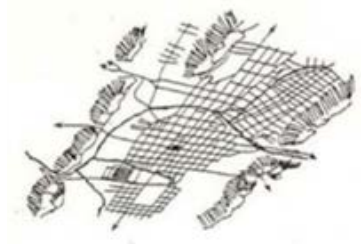
3. Roman grid demarcated on topography



4. Grid expansion



5. Pretoria East developed



6. Grid expansion to living suburbs

HISTORIC DEVELOPMENT OF THE SQUARE

Church Square developed over time from a single church building site (see figures) to a cluster of state-owned buildings with the square open. The first church building was completed in 1857 out of mud and a thatch roof with gables.

1857



Figure 69: Church Square picture with the first gabled thatch roof church taken around 1868 from the west. Retrieved from Behrens 1962:24 by Van der Vyver EY.

1881

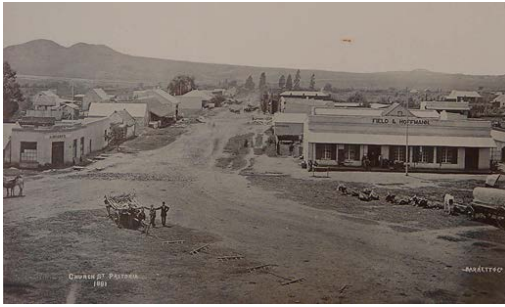


Figure 70: Church street, Pretoria, in 1881. Image by J. Barnett (1861-1897)

1905



Figure 73: Church street, Pretoria, in 1881. Image by from Van der Vyver EY.

1889



Figure 71: The Second colonial Neo-Gothic Church during Nachtmal, circa 1889 (retrieved from the public domain <https://www.facebook.com> by Van der Vyver EY)

1905



Figure 74: The pedestal for the statue of Paul Kruger with the Palace of Justice in the background on the right. (retrieved from [https://fr.wikipedia.org/wiki/Statue_de_Paul_Kruger_\(Pretoria\)](https://fr.wikipedia.org/wiki/Statue_de_Paul_Kruger_(Pretoria)) by Van der Vyver EY).

1904



Figure 72: Church Square during Paul Kruger's memorial service, 16 December 1904. (Rosa Swanepoel collection). by Van der Vyver EY.

1906



Figure 75: The Marks fountain in the centre of Church Square in 1906. (Rosa Swanepoel collection).

1920



Figure 76: Church Square around 1920, (Rosa Swanepoel collection) from Van der Vyver EY.

1929



Figure 77: The second fountain in the centre of Church Square around 1929, with the southern entrance to the right in the background. From Van der Vyver EY.

1970



Figure 78: Statue of Paul Kruger and Four Boer Krygers, Photograph taken in 1970, (Allen 1971: 36), from Van der Vyver EY.

THE MODEL CITY

The city of Tshwane, or Pretoria as formerly known has seen changes in government over time, with each government asserting its dominance over it. The apartheid government excluded “non-Europeans” from the city physically, politically, economically, and socially through spatial planning by forcing the Black communities to the peripheries of the city, predominately to the north and west. Indian communities were moved to the west, coined as ‘bazaars’ and the Coloured or mixed communities were moved to the far east (Christie, 2009). This rendered the city an inaccessible space for “non-white” citizens.

The public squares, parks, imposing buildings, monuments, statues and landmarks located in the city serve as state representations of different regimes.

Unfortunately, due to backlogs of infrastructure problems to be solved and the incompetence of the new government, the decaying quality of the city centre is neglected and no plan of action is in motion in these democratic times to transform the city. The capital city is without a doubt compromised by increasing issues of urban decay, imbalances, and the lack of appropriate urban identity.

Additionally, the city is characterised by neglect, and lack of maintenance, contributing to the negative image of the city.



Figure 79: Church Square arial view

A population density map from 2001 by Datalens shows the geographical legacy of Apartheid. Each dot represents 25 people. This segregation has gotten worse since then.

“The reuse of buildings is regarded as an essential step towards urban regeneration as old buildings which are vacant or underutilised deteriorate over time or are inhabited illegally, ultimately increasing crime and weakening the image or appeal of urban areas. As such, there is a need to renovate underutilised buildings or sites in the city and provide them with necessary programmes to serve the needs of the city.” (Gerber, 2019: p. 54)

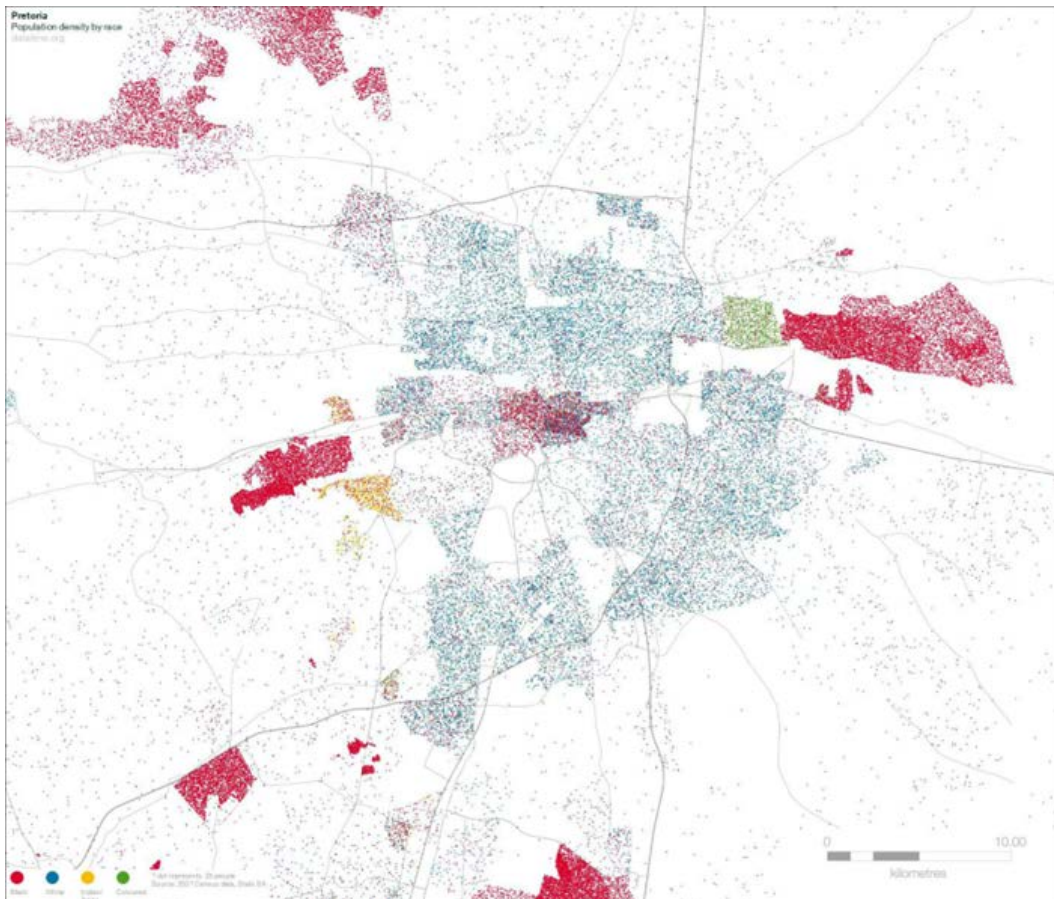


Figure 80: A map of Pretoria's population density by race based on the 2001 census (Datalens)

SITE ANALYSIS

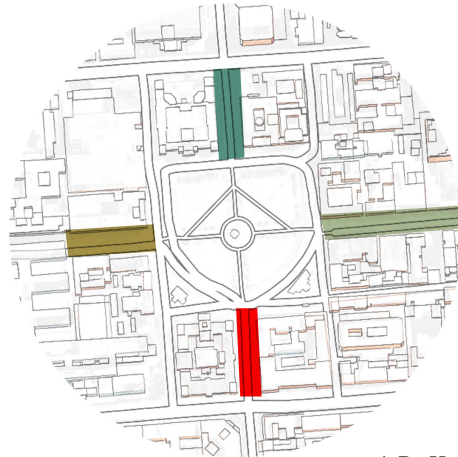
Site Magnitude



173.3m

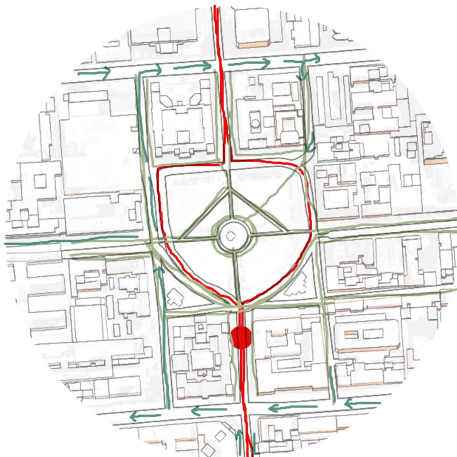
159.8m

Site Edge Street Activity



- Informal trading
- Inactive
- Parking
- A Re Yeng Bus Station

Movement



- A Re Yeng bus route
- Pedestrian
- Vehicular

Building Accessibility



- Semi-private property
- Public Facility
- Inaccessible

Building Use



1. Unutilized
2. Unutilized
3. Unutilized
4. Private apartment units
5. Commercial property/shop
6. Commercial property/shop
7. Educational facility
8. Unutilized
9. Unutilized
10. Unutilized/Corner Store
11. Commercial/Post Office
12. Unutilized

CLIMATE STUDY

Typical annual wind direction in Pretoria

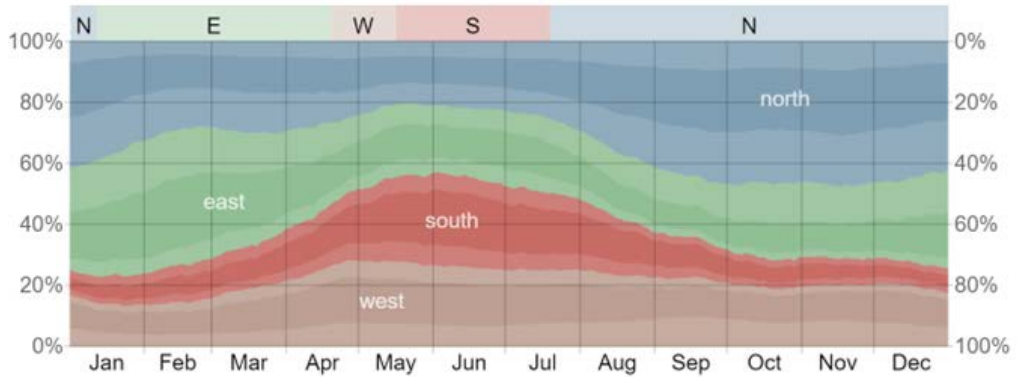


Figure 81: Sourced from weatherspark.com

Average wind speeds in Pretoria

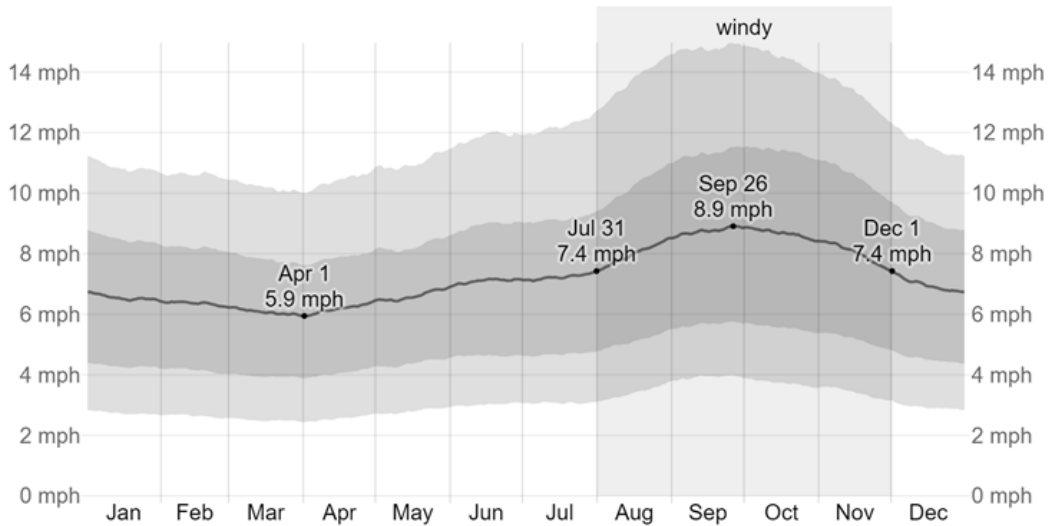


Figure 82: Sourced from weatherspark.com

Average monthly rainfall in Pretoria

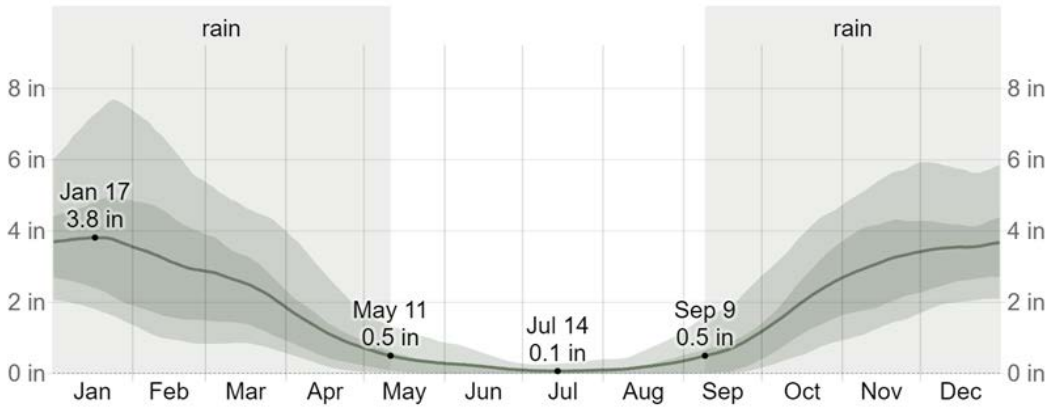


Figure 83: Sourced from weatherspark.com

Average annual high and low temperatures in Pretoria

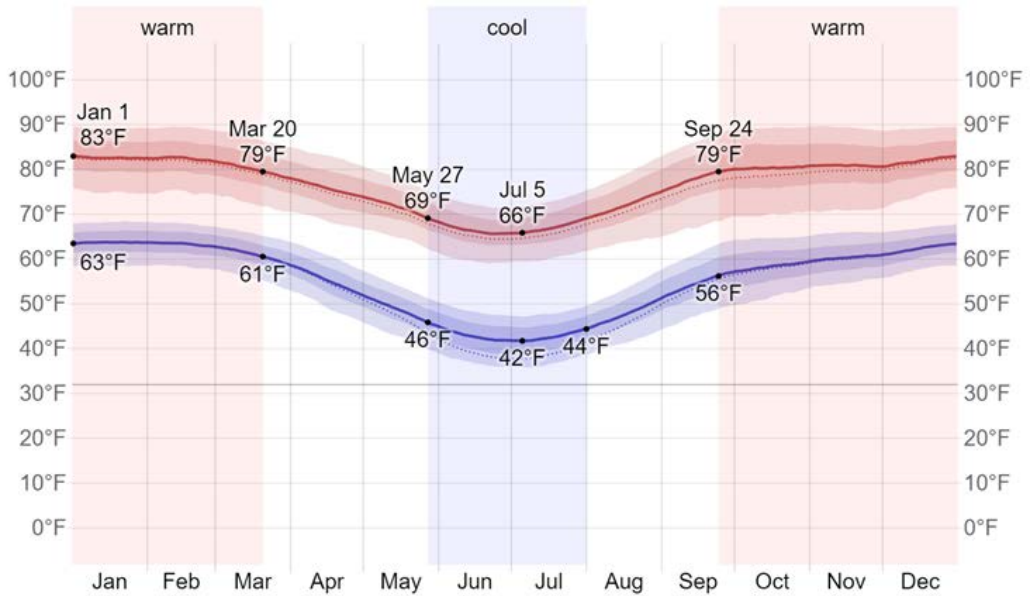


Figure 84: Sourced from weatherspark.com

Annual sun movement study of Pretoria

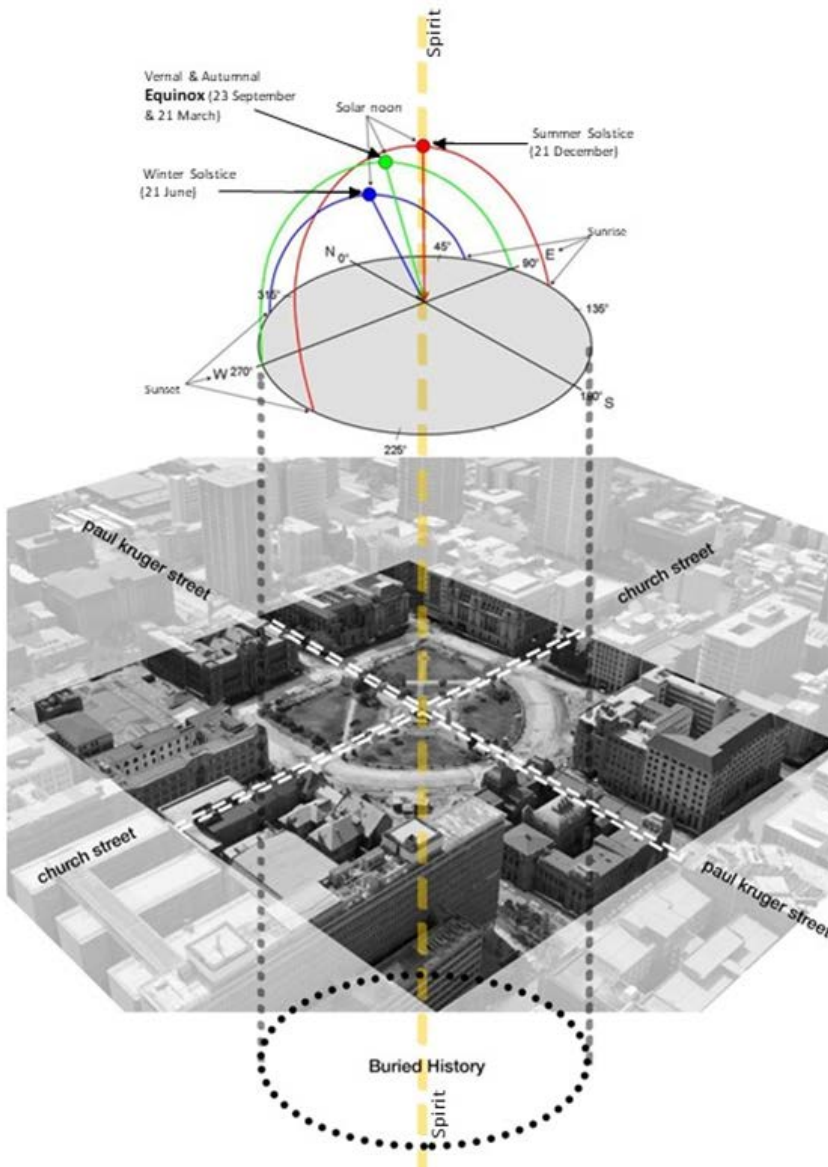


Figure 85: Sun study diagram by Author

SITE CONDITIONS



Figure 86: Church Square image by Author



Figure 87: Church Square image by Author



Figure 88: Church Square images by Author

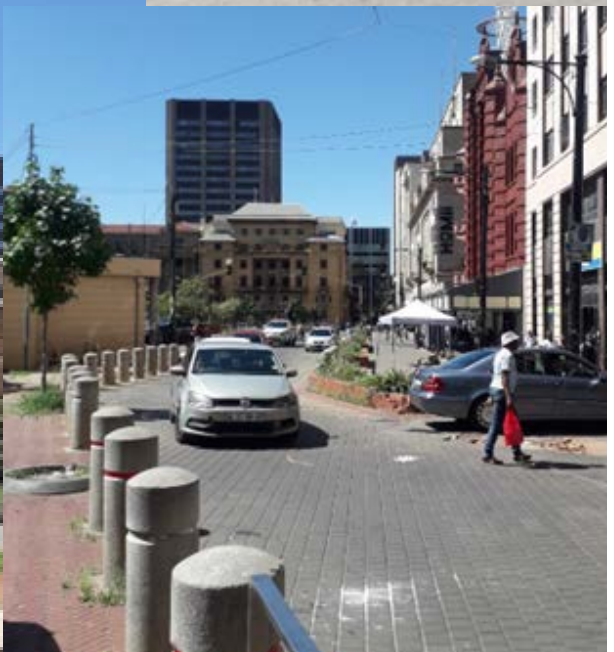




Figure 89: Abstract model by Author

Illustrating the city square as a palimpsest consisting of the topography and the city's Roman grid. A flexible space changing over time sparking questions of self-identity and meaning in the present time. Consistent at the centre throughout the layers is the spirit.

unveil

/ˈn̩ˈveɪl/

verb

verb **unveil**, 3rd person present **unveils**, past tense **unveiled**, past participle **unveiled**, gerund or present participle **unveiling**

remove a **veil** or covering from, in particular **uncover** (a new **monument** or work of art) as part of a public ceremony

"the Princess unveiled a plaque"

- show or announce publicly for the first time
- "the Home Secretary has unveiled plans to crack down on crime"

Similar: reveal present disclose divulge make known make public air



PART 04 Users & Programme

*“The recognition of the authenticity residing in tribal customs is a quintessential part of any interpretation of African architecture.”
– Phil Mashabane (2022: p. 94)*

This part of the dissertation investigates and establishes the everyday users of the space and conceptualizes the programme towards the design vision.

VARIOUS USERS OF THE SITE

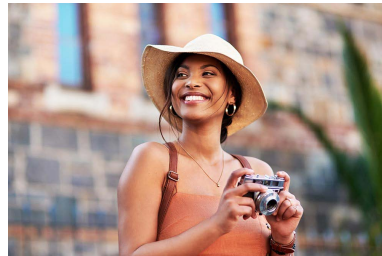
Commuters

The site acts as a point of transition and interchange through the City of Tshwane Bus Service located at the southern edge of the square. This group of people consists of residents, tourists, business individuals and entrepreneurs who pass through frequently and rarely spend time at the square.



Tourists

As one of the key spaces to visit around the city, the square often sees instances of visitors throughout the year. These users are in search of information and guides regarding the city and sightseeing.



Youth

Because the area is one of the few green spaces in the city, young people are synonymous with the square as a meeting point, a place of relaxation, and at times events and group activities.



Informal traders

The growing number of informal traders on the edges of the square and in the city walkways is a reflection of the country's economic status, indicative of a lack of employment and opportunities to acquire skills and education. It is therefore paramount for one to seek means to feed themselves and their families. Due to regulations that prohibit hawkers at the square, most of the traders are clustered from the threshold between the outer square and Church Street (Helen Joseph St.)



Residents

These consist of the dwellers on the northeast side of the square as the buildings that make up the street edge are private-owned rental apartments. These users have no green spaces besides the square.



Workers

The city's workers usually occupy the shaded spaces during lunch times. The space acts as a social or reflective space for the everyday worker during the day.



PROGRAMME FORMULATION

The program leans towards social architecture, informed by the people, activities and place. This precinct of activities aims to re-establish a community-based city that is inclusive instead of one that was built based on exclusion.

The programme would then entail rethinking the city as we know it, tearing down what does not work and assessing our ever-changing dynamic fabric of activities in the city today as Africans.

It is a call to observe and learn from patterns in the city that are defined by the political, social, economic and cultural contrasts.

This will allow the formulation of a space where the heritage would be linked to an aura that does not exude a painful time in our history and values everyday lived experiences.

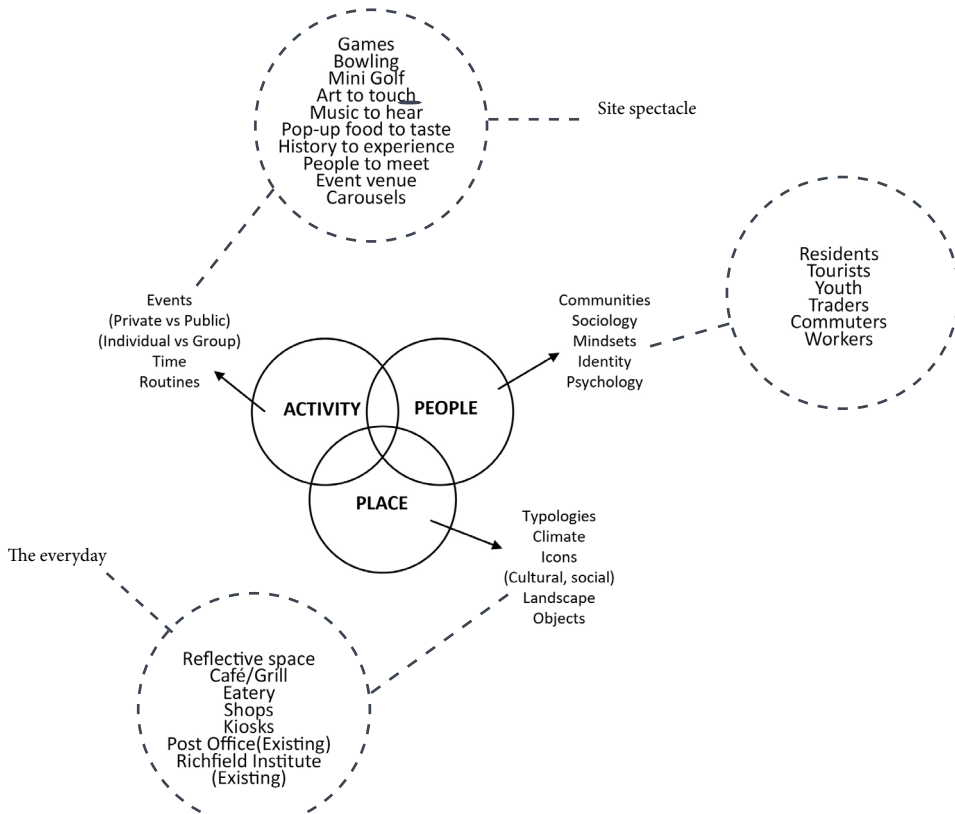


Figure 90: Programme diagram

URBAN AMENITIES

For the public space to operate successfully, nuance amenities need to be considered for the convenience of the ordinary users.



Flea Markets, Food Vendors



Free WiFi



Phone Charging areas



Public Ablution Facilities



Waste disposal/Recycling



Extended evening use of public spaces through lighting



Information Centre



Green areas and shade



Movable urban furniture to allow flexible use of space

PROGRAMMATIC OUTLINE AND ACCOMMODATION LIST

The Everyday

Post Office(Existing)
Richfield Institute (Existing)
Place to rest
Games
Bowling
Mini Golf
Eatery
Shops
Kiosks
Resident Café/Grill
Meeting spots

The Spectacle

Art to touch
Music to hear
Pop-up food to taste
Free movie evenings
History to experience
Fitness classes
Event venue
Carousels

The Sacred

Contemplation space
Exhibition space

Because of the magnitude of the square and its variety of uses as a public space, the programme is fragmented into 3 focuses. The everyday, the spectacle and the sacred.

ACCOMMODATION LIST

Information center
ablution facilities
charging ports
waiting area
Public restrooms
Contemplation space

Cafe
kitchen
ablution facilities
delivery/receiving
bar
seating
order takeout

Exhibition space
foyer
reception
ablution facilities
open space(exhibition)
meeting room
lecture hall

Performance space
locker rooms
open space
kitchenette

Notes on the programme

CENTRAL

- INCLUSIVE REPRESENTATION
- MEETING POINT
- MULTI-USE
- HISTORY TYPE TO BE PRESERVED
- EVENT VENUE/CENTER
- ADAPTABLE, DYNAMIC PROGRAMME
- WHAT IS MONUMENTAL?
- MARKETS ON THE EDGES
- GLOBAL CONNECTION?
- SHOULD BEINGS BE MONUMENTALIZED?
- A RESTING PLACE
- SOCIAL CAPITAL
- COMMUTING SPOT
- PARTICIPATION

Existing

THE EVERYDAY - Post office, Education (PC training), Games, Bowling, Mini-golf, Shop & Eat, kiosks, Resident Cafe/Grill.

THE SPECTACLE - Power of Joy (fun things to do in the space) Idea behind the concept is that places where people have a variety of things to do in the space

THE SPIRITUAL - Capturing the aura from senses

place to rest out to brunch meet to hear stand to eat listening to exp. people to meet walking around party

like first-year ex

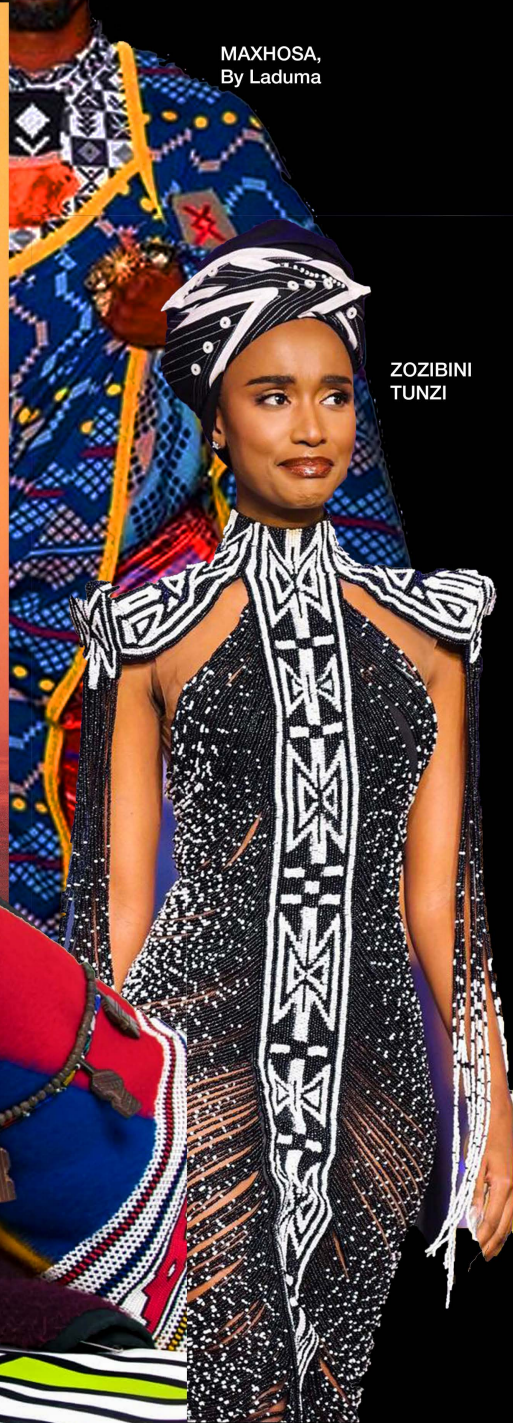
design for all age groups, kids corner, chess tables, ramp up dining carousel?

The Everyday

According to Henri Lefebvre, the everyday implies real life, the here and now. Similar to conceiving an aura as the here and now of works and spaces. This suggests it is how we use, view or locate nourishment, public and private space, and the neighbouring context.



BLACK
COFFEE



MAXHOSA,
By Laduma

ZOZIBINI
TUNZI

ESTHER
MAHLANGU

PART 05 Conceptual Approach & Design Development

“In order to design buildings with a sensuous connection to life, one must think in a way that goes far beyond form and construction.”
- Peter Zumthor

Part five continues to discuss the theoretical approaches through the design project and further elaborates on the overall cultural and architectural themes.

DESIGN INTENTION

In response to the question of a representation of a culture in an urban space, the core rationale of this dissertation intends to tackle the task of appropriate acknowledgement of 'a people' as an informant of the making and translating of the principles of culture, namely (1) spirituality, (2) spatial planning and (3) lived experience, into architecture.

Summary of findings

The key lessons from “Part 02: Theoretical Investigations” are as follows;

1. There is no distinction between the theory and the practice in the architecture of Africa.
2. The non-Western African way of space making is centred around community and the spiritual. Hence space is perceived through more than the tangible.
3. The use of art and geometry goes far beyond decoration or aesthetic, it is embedded in meaning and culture through spatial planning, body protection, and ritual.
4. The protection of the body is intricately a clue to the origins of our structures.
5. Treating the culture of a people as a theoretical foundation and precedent to understanding space making is key.
6. Traditional space consists of detached pavilions that define outdoor space; change in levels defines thresholds of entry; and specific private spaces contrast with open multi-use spaces.

CONCEPTUAL FRAMEWORK

- 1. From within; the intangible, to the external; the tangible**
2. The ritual of art and creativity in the spatial, the making
3. Architecture and textile art, the material as perceived

1. From within; the intangible, to the external; the tangible

It is almost careless to try to learn the way of African spatial practices without considering the spiritual aspects of the making. This forms part of the intangible heritage.

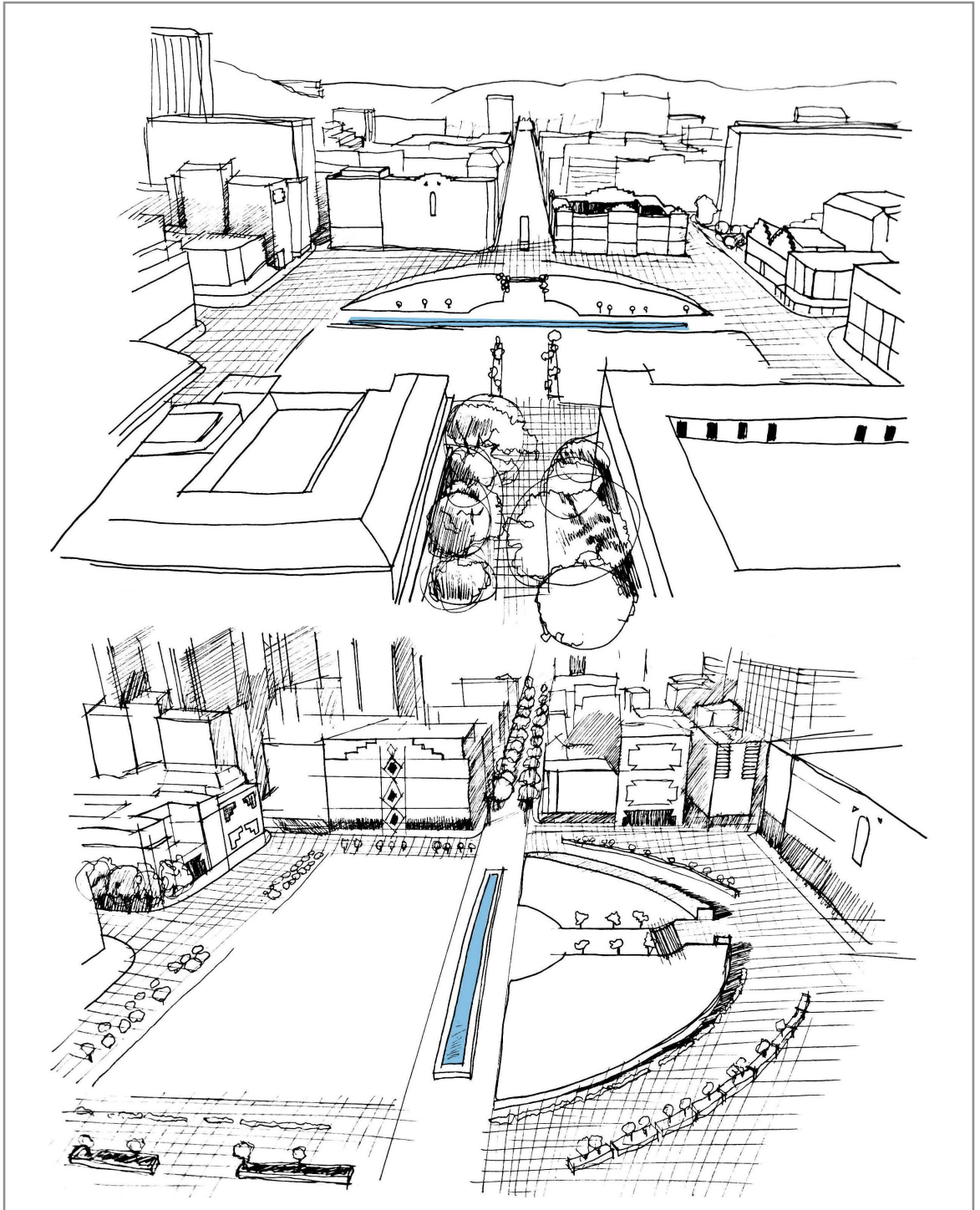
The Apies River is an integral part of settling in the ancestral land, the water did not only serve as a means to drink, wash and maintain crops. It is understood as a source of life, both physically and spiritually. It is an element for ritual practices such as praying and connecting to the ancestors in the spiritual realm.





The centralization of still water plays with the notion of the Apies River as being an important historic settlement element in Tshwane. Being at the core of an African city, the water can be compared to the historic centralization of cattle as protected capital in homesteads and a valuable form of life that is linked to African rituals, ceremonies, and spiritual practices of place.

The still waters at the square instead of a monumental figure would be appropriate in an African city as it is not considered a part of any African culture to monumentalize a man. We are all spirits, and we are equal to the eye of the cosmos.



“When tracing the history of the modern African city, the narrative of vernacular evolution is disrupted by the colonial project. In understanding the shift between these established and imposed systems, the household becomes a critical space within the city.” (Adjaye, 2022: p. 200)

Traditionally, the back of the house is usually a sacred, protected space of the family separated by a physical low boundary wall or an intangible boundary. It is of divine value and also carries the spiritual space of a home as it is used for prayer. This speaks to the affinity of the spatial planning of a home to gender.

The back of the house, as a space is considered female. This section, which includes the house, symbolizes a female and private domain for taking care of children, preparing food and housekeeping. As a result, no guests were allowed in the space. The frontal space or entrance is deemed open, public, accessible and ‘out there’ connoting it to the masculine, although visually dominated heavily by the feminine practice of the art.

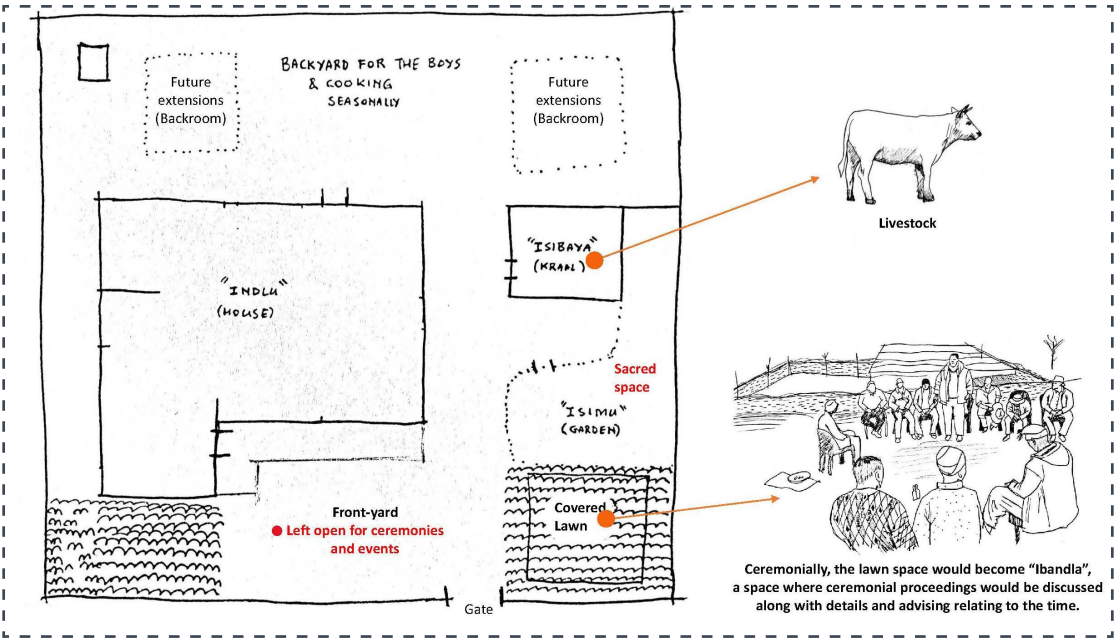
The architectural artefact illustrated as “Kwa Msiza traditional Ndebele homestead” predates apartheid and bears planning that precedes colonialism, it has a rich history concerning the tangible and intangible of an African home. The planning is then compared with one’s childhood home for similarities.

“A theory of an Afro-Imaginary begins with analyses of the spatial practices in an African city to uncover and discover how history and memory, as well as imaginations and dreams of the future, inform social and spatial patterns of everyday life. Such analyses take the form of mappings and drawings that reveal the unique and radical ways that Africans negotiate space, reinterpret building uses, and, on a daily basis, re-imagine concepts of architectural functions in a post-colonial environment.” - Mario Gooden

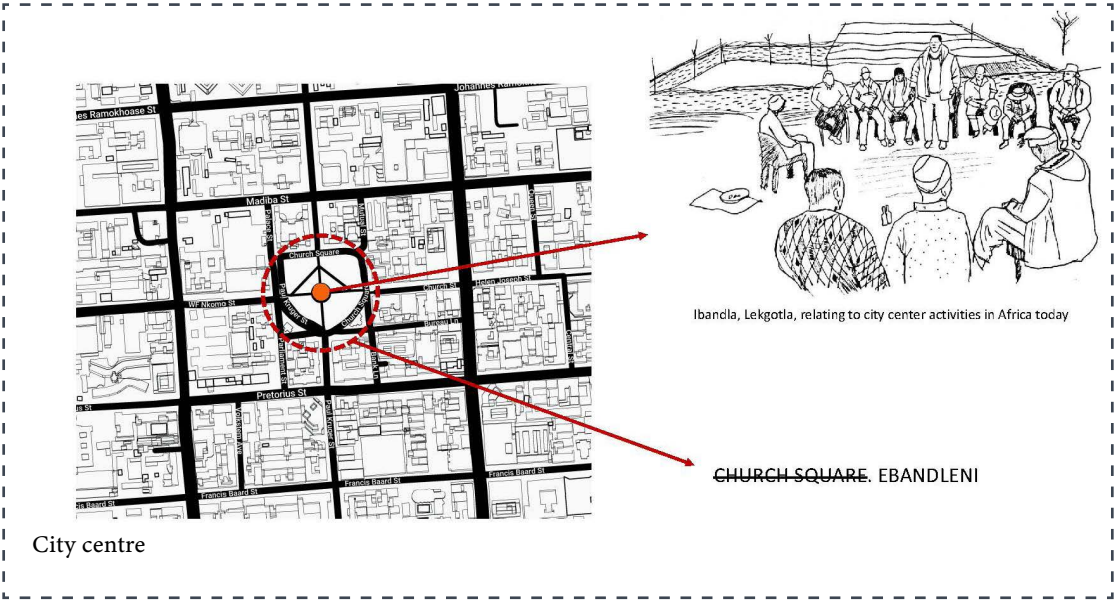
In the childhood home, the front yard would typically be left open for ceremonies and events such as weddings, cultural practices such as dances, celebrations, and funeral services when a family member has passed on. During such events, cooking took place at the back of the house, because the kitchen would not be feasible for the number of people in the yard at that time, neighbours would also join in and offer their condolences or service in the spirit of Ubuntu.

During ceremonies the space between public space and private space would become “*Ibandla*”, a space where ceremonial proceedings and guidance would be carried out from the elders.

Currently, the Church Square city centre exhibits similar functions and spatial treatment from its users as that of the *Ibandla* and front domestic space.



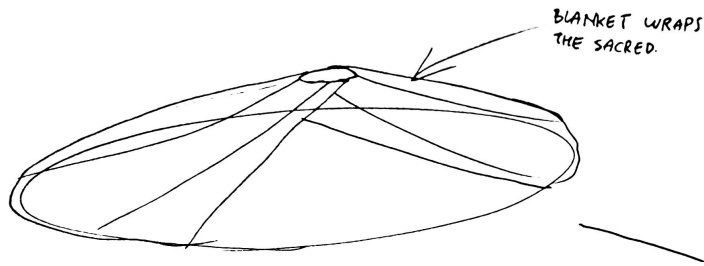
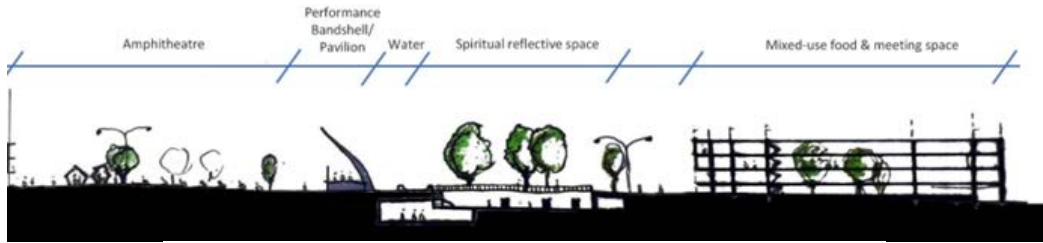
Childhood home



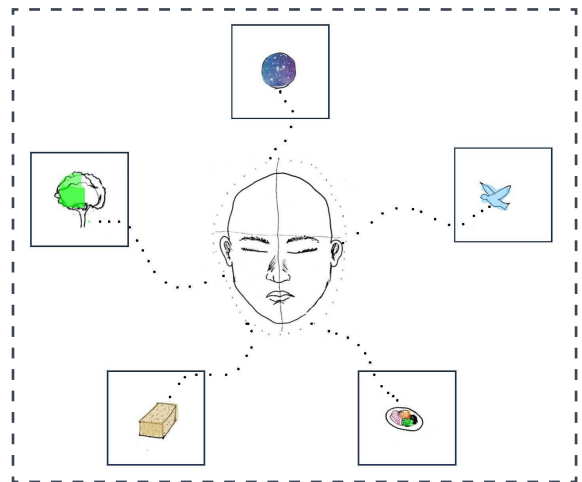
In African spirituality, women are more spiritually inclined, intuitive and in tune with the spiritual world than men, that is why most mediums (Sangomas) that receive the ancestral calling are women. It makes sense that the feminine, sacred spaces are associated with the spiritual and are protected parts of a home with more gravitas.

The proposed spiritual reflective space programme would be best suited secluded from the exposed square and covered symbolically in the underground. Playing with the notion of the people of the land rooted and grounded in spirituality primarily, and protected as a sacred entity.

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The design of the sacred space and the public square are intended to enhance the aura of the space through what one immediately feels when interacting with the space. The smell of the food sold, the mood created by the colours and textures you see, the feeling of a space that does not monumentalize a man but an ideology of a gathering domestic space for everyone. The type of indigenous trees planted and the smell they exude are important. The play with the scent would create a sense of place, a spirit of the time when one is present at the square. An aura unique to the place.



CONCEPTUAL FRAMEWORK

1. From within; the intangible, to the external; the tangible
2. The ritual of art and creativity in the spatial, the making
3. Architecture and textile art, the material as perceived

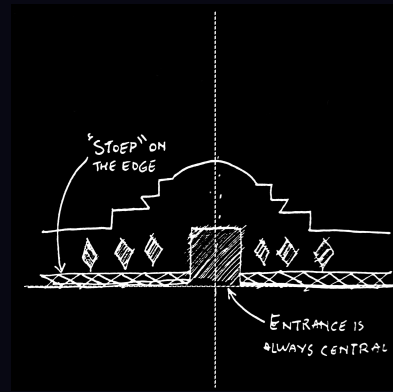
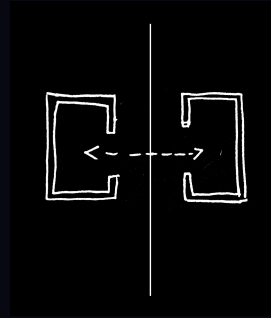
2. The ritual of art and creativity in the spatial, the making

Duality...

Similar to the making of Ndzundza-Ndebele artwork, the juxtaposition of light and dark, the composition of left and right, addition and subtraction, the spatial planning lends this approach to the art on the beard work, fashion and façade ornamentation. The spaces exhibit a pattern of alternating exposed space with built form.

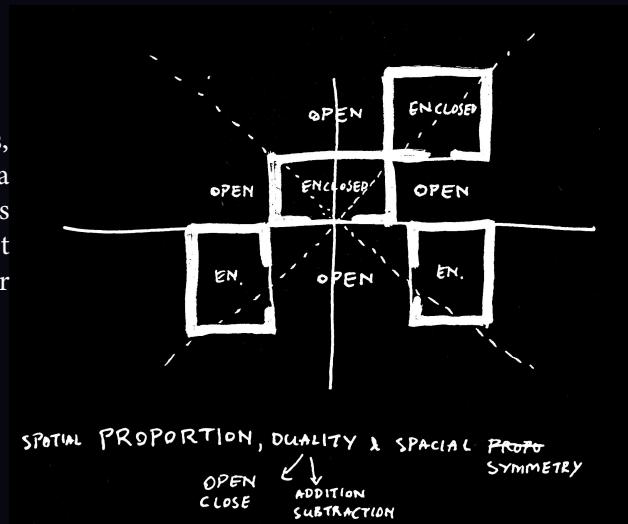
Symmetry...

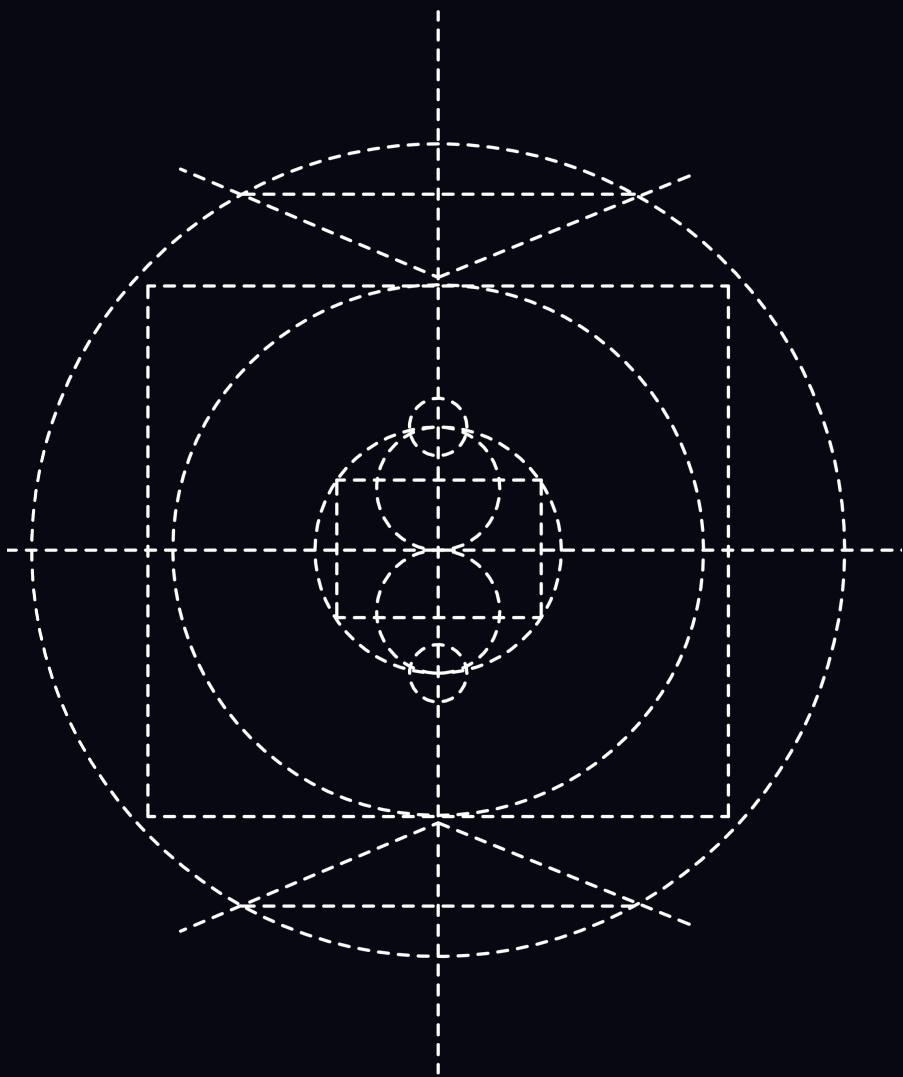
Bi-lateral and cross-axial symmetry configure the rest of the spaces into balanced and proportionate duplicates.



Devine Proportion...

Although the spaces are different sizes, they are derivatives of the same formula and proportion. This creates harmonious proportions that imitate nature's perfect ratio that is seen in vegetation and other creations.



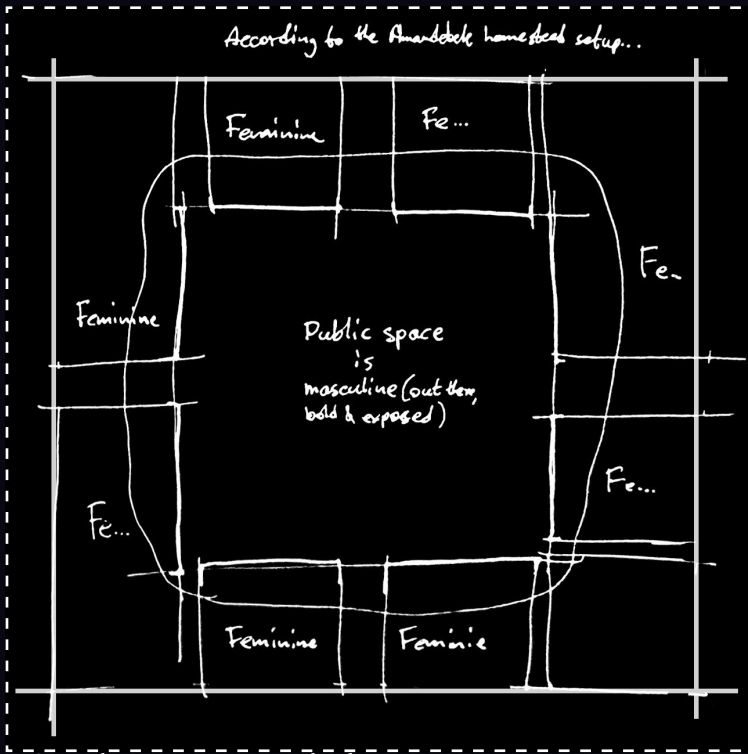


CONCEPTUAL FRAMEWORK

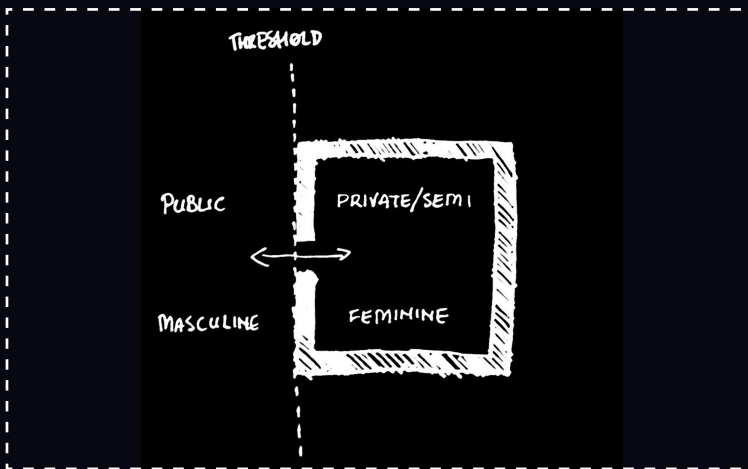
1. From within; the intangible, to the external; the tangible
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Taking the design influence of seeing space as a dichotomy of masculine and feminine. Public space is regarded masculine, exposed, bold and out there. The building interiors are then feminine, sacred, protected and private. The affinity of the architectural space to the human body is apparent in the fashion garments too. The beaded blanket (ingubo) which wraps a sacred body is a rich symbolic artefact of meaning spiritually and architecturally.



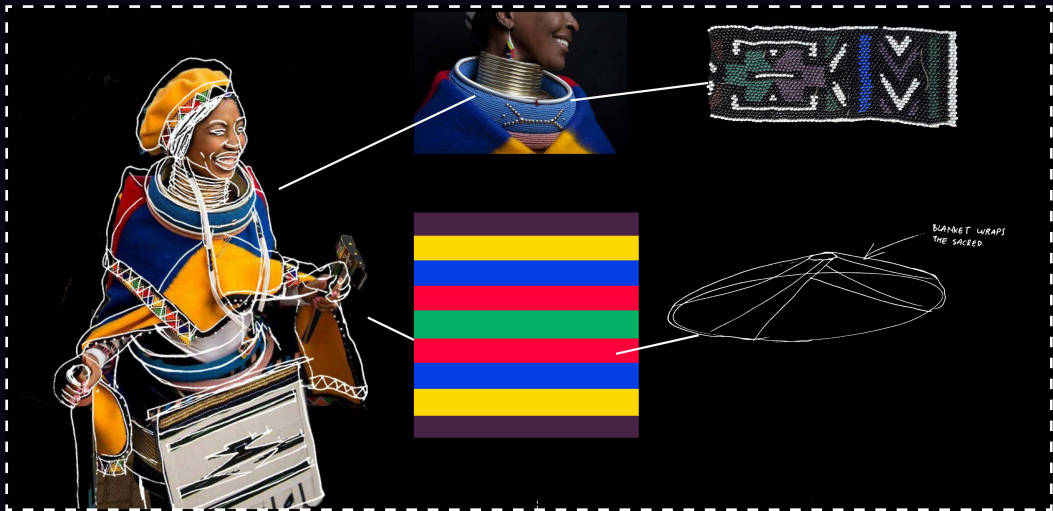
Seeing the city center site as gendered space



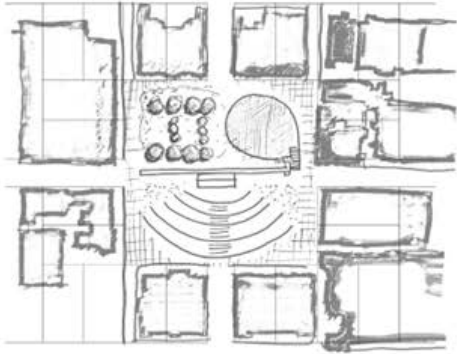
Threshold Spaces: Relationship between the inside and outside

Seeing the textile and its properties and form as an idea to treat the materials, forms, textures and crafting of the architectural space.

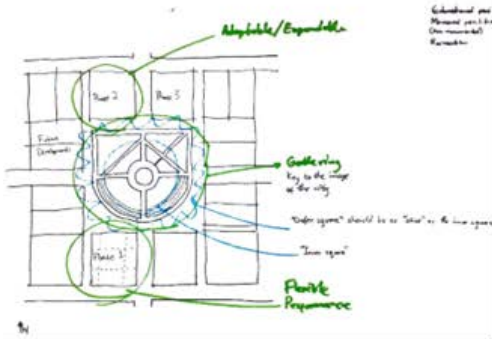
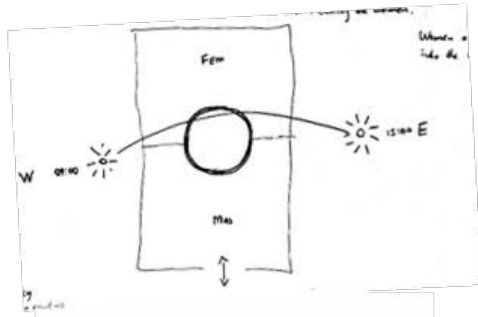
The beaded blanket (ingubo) which wraps a sacred body could symbolize meaning architecturally by wrapping a sacred space that is connoted to the feminine space as an act of covering.



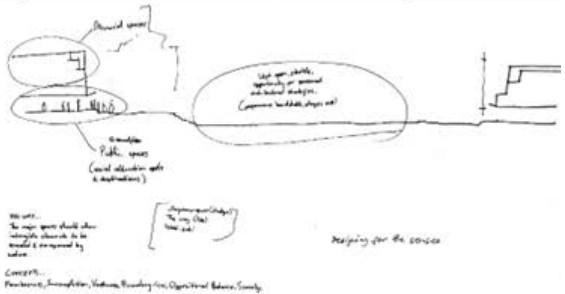
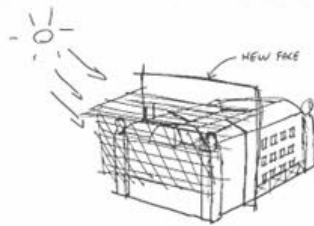
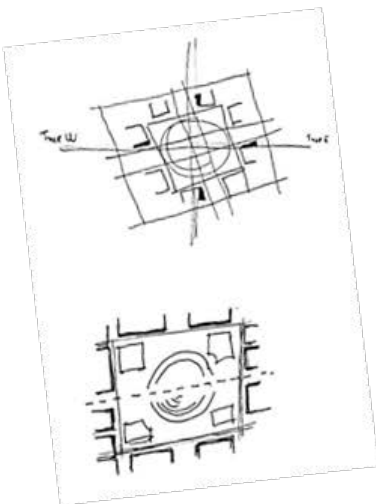
EARLY CONCEPTUAL EXPLORATIONS



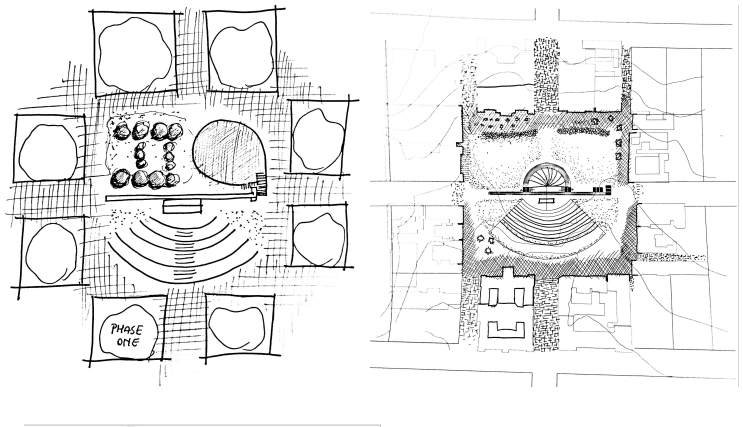
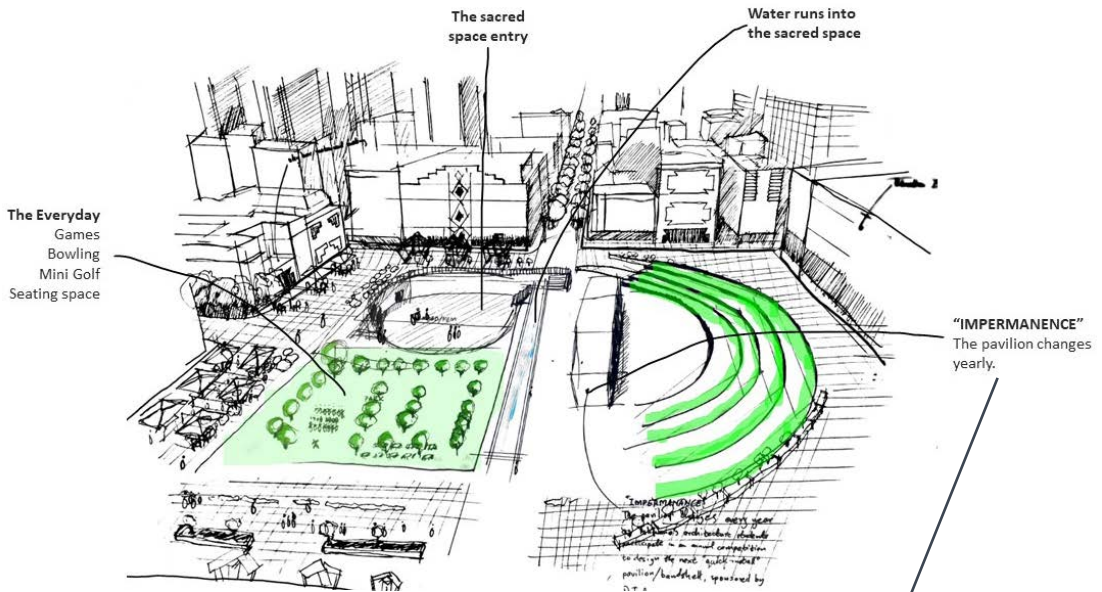
THE SUN'S PATH BECOMES A DESIGN INFORMANT TO DRAW AN AXIS FROM. QUALITY AND SYMMETRY CONSTRUCT THEMSELVES FROM HERE.



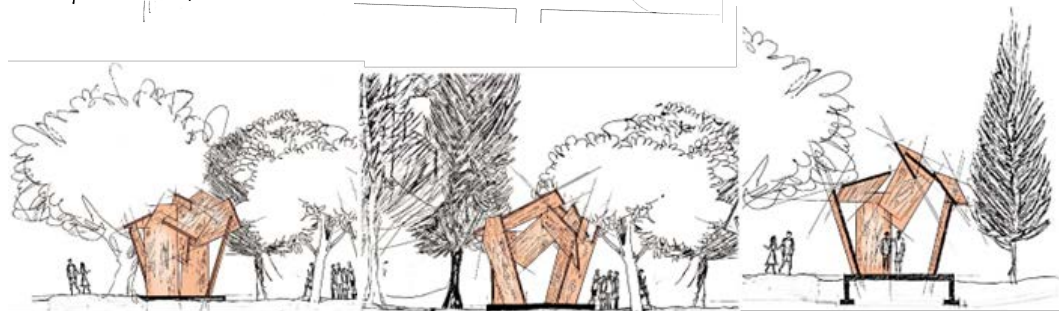
Calculated per floor plan for the (one room) Plan number



CONCEPTS:
 Performance, Accessibility, Volume, Boundary Use, Operational Balance, Security



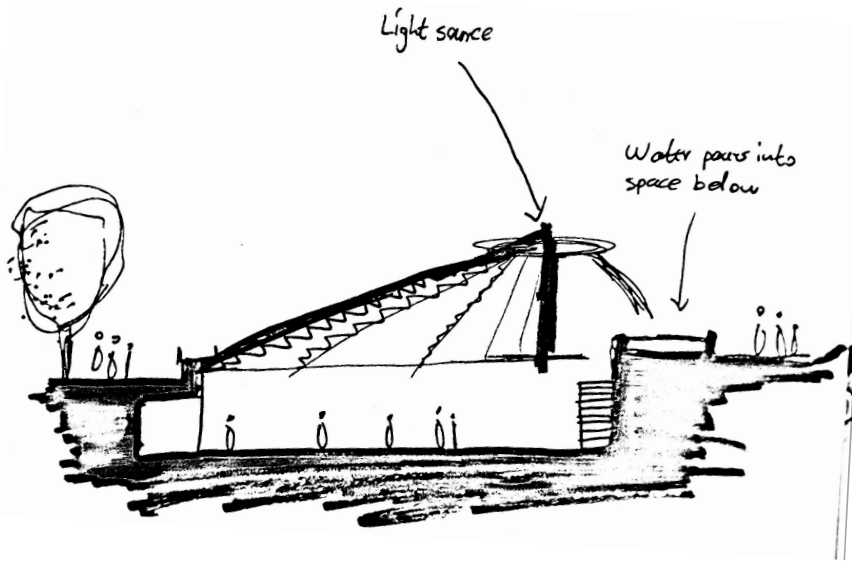
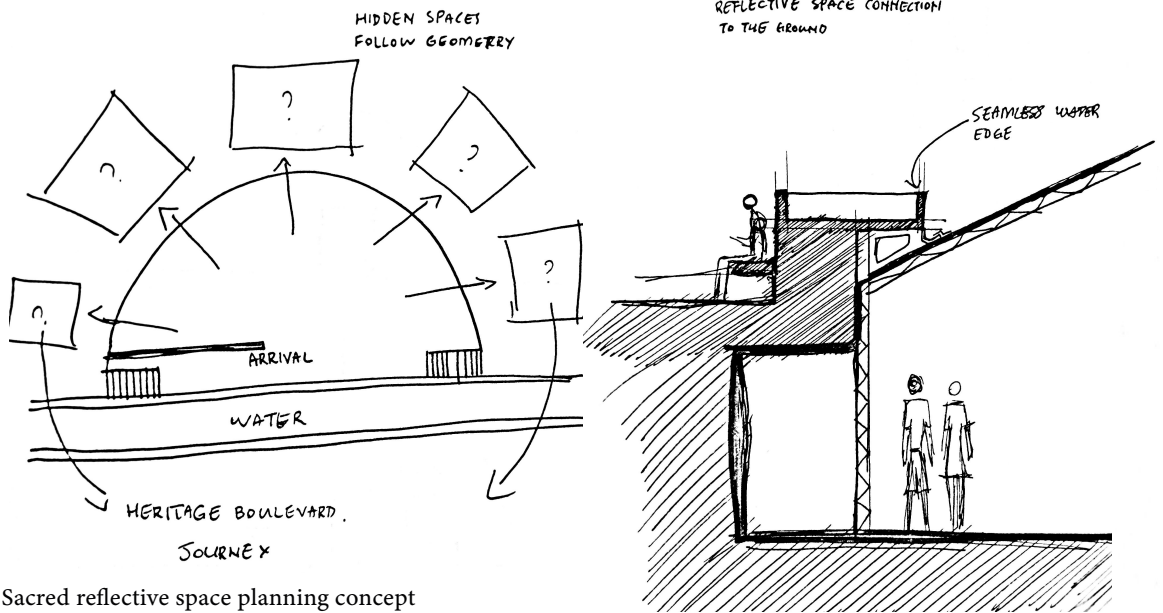
The pavilion changes every year as Tshwane's architecture students participate in an annual competition to design the next quick-install pavilion/bandshell.



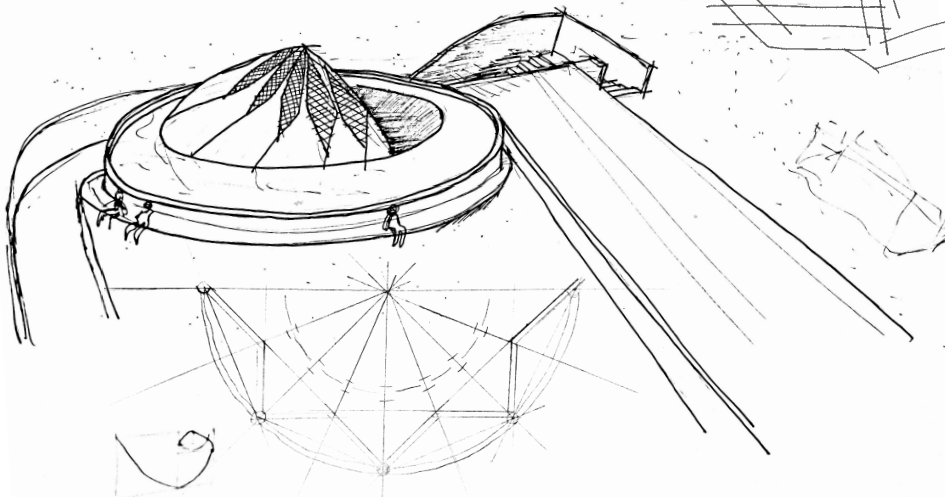
SQUARE KIOSKS/ PAVILION IDEA

The kiosks on the site are designed to be flexible and diverse, forming part of the identity of the square. When not used by traders, they become sculptural art pieces in the square's backdrop. The idea uses a reciprocal construction technique easy to assemble and disable.

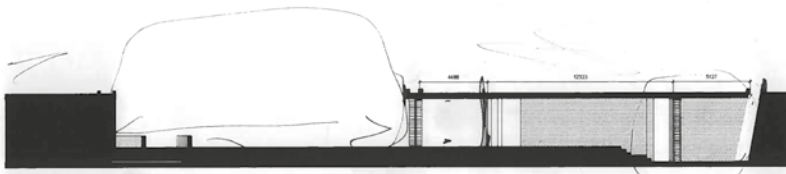
EARLY CONCEPTUAL EXPLORATIONS



THE JOURNEY THROUGH THE SACRED SPACE
BEGINS WITH THE SOUND OF WATER FLOWING,
MEANT TO FILTER EVERYTHING AROUND YOU



The sacred space's primary structural materials are steel and concrete. The edge of the covered space fades away as the water runs down from the infinity ring of water. This would create an illusion of a floating structure as the water seamlessly flows into the space below.

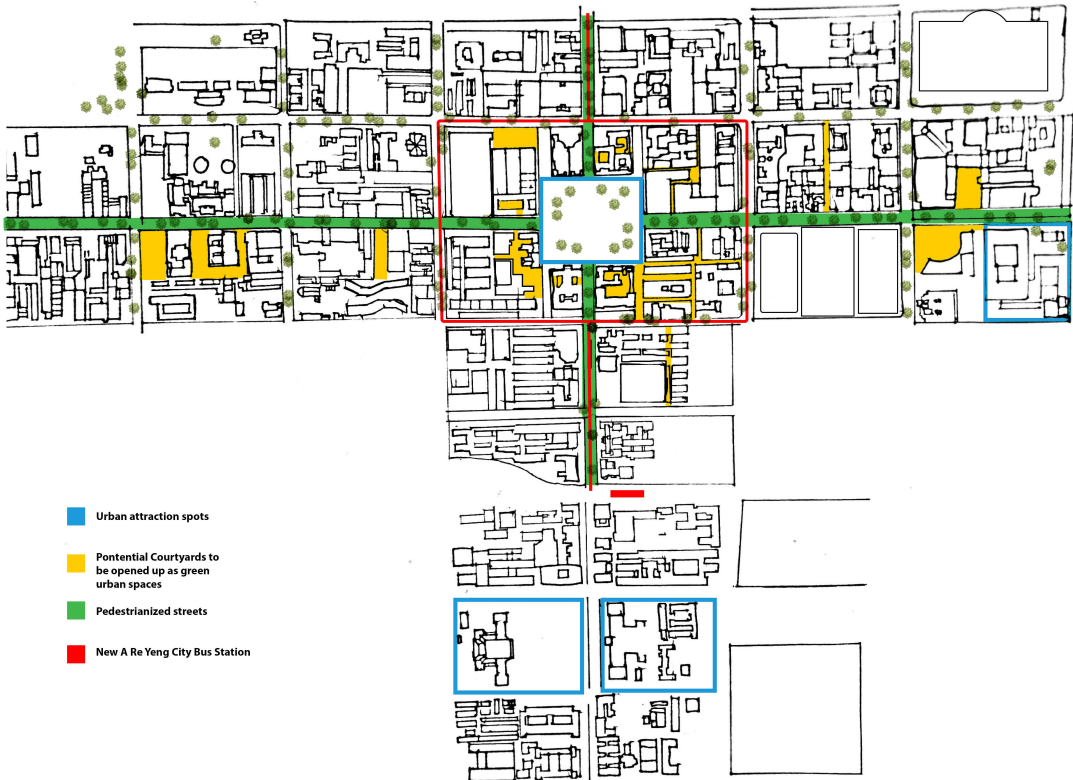


SITE RESPONSE

Macro

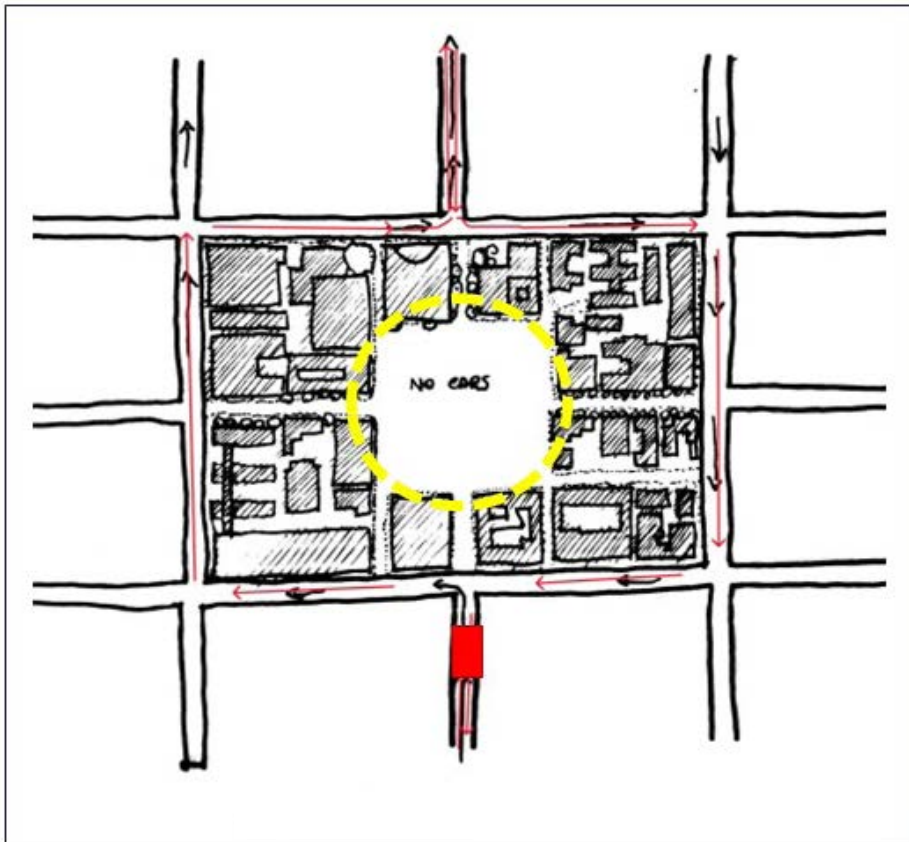
The major streets (Church st & Paul Kruger st) are to be pedestrianized fostering a walkable city centre designed with people in mind.

Existing courtyards around the city to be opened up and used publicly as urban green spaces of rest and habitation.



Micro

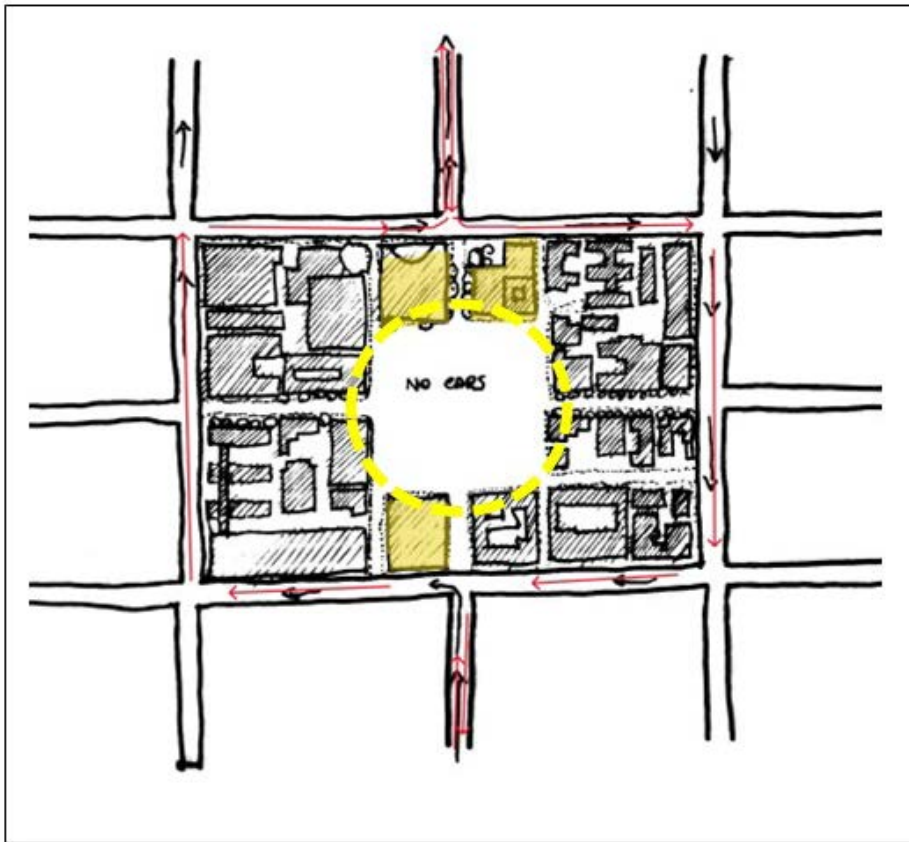
The square is to be given back to the users through a convivial pedestrianized urban environment in Tshwane Central. The existing A Re Yeng bus station is moved a street away to redirect the travel path out of the square.




Movement

 New Bus Station

Due to the scale and scope of the site, the project is fragmented into three phases. As the main focus of development, the first phase of the project also entails redesigning the existing buildings.



First Phase

 Buildings to be adapted and repurposed



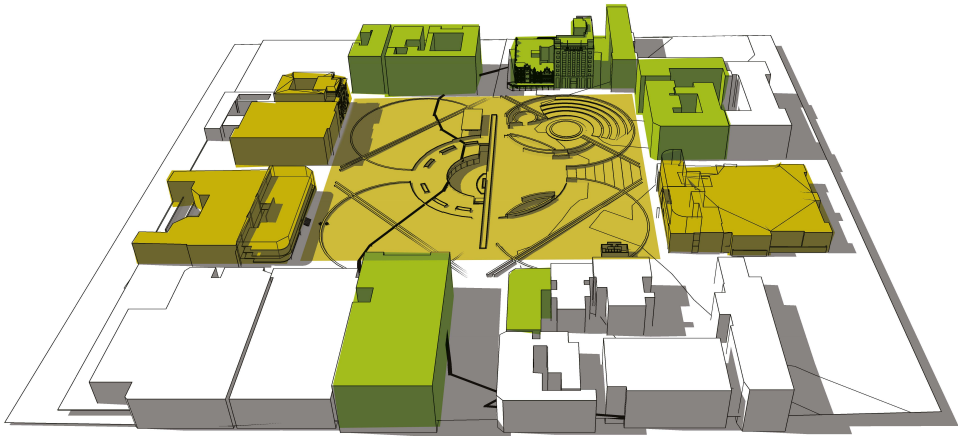
1st Phase



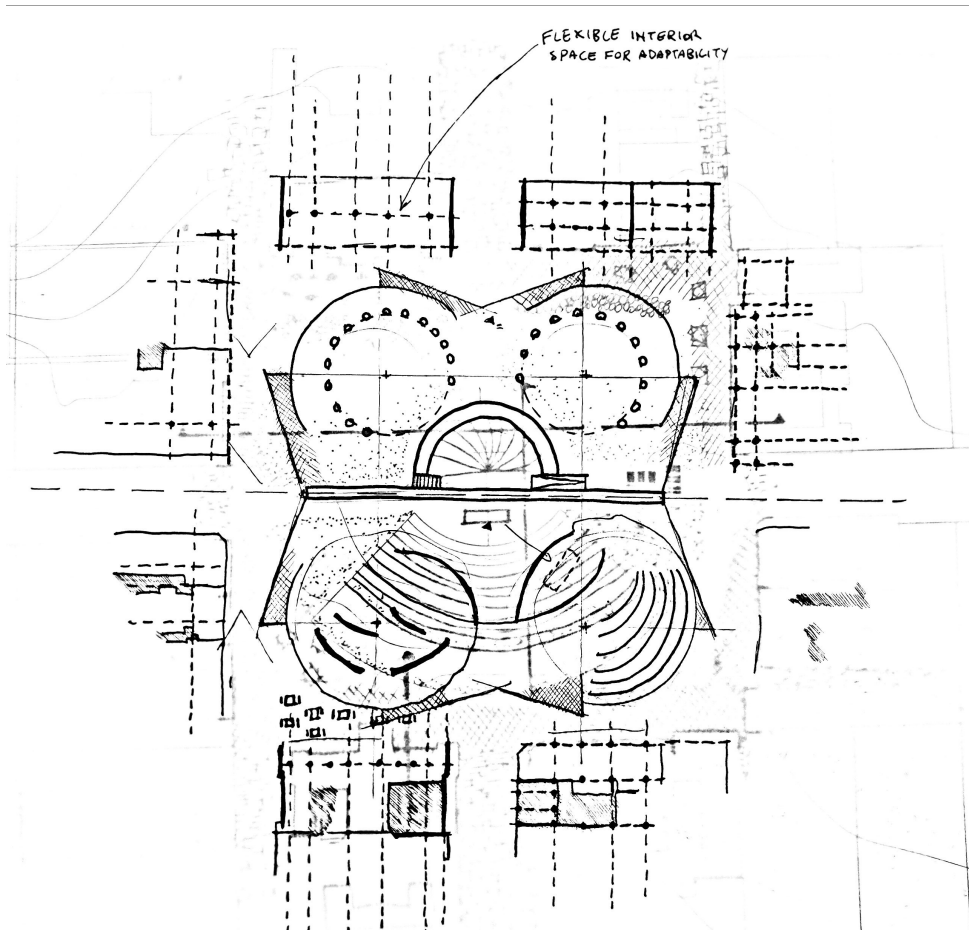
2nd Phase



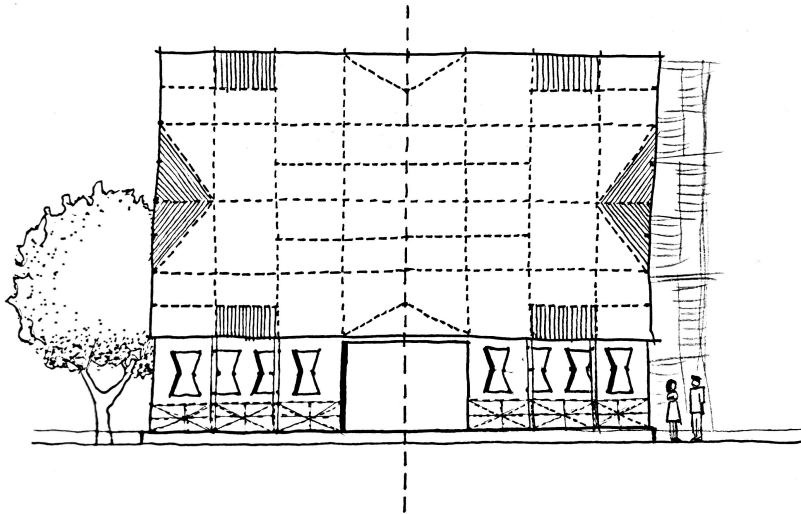
3rd Phase



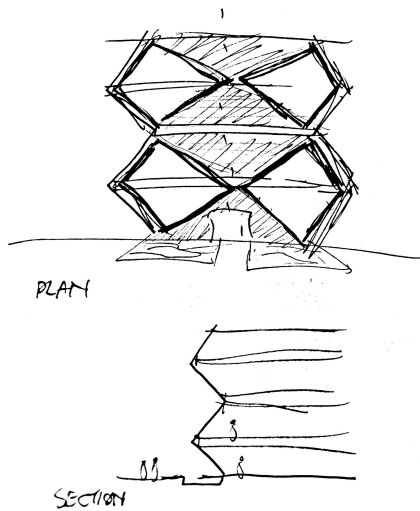
DESIGN DEVELOPMENT



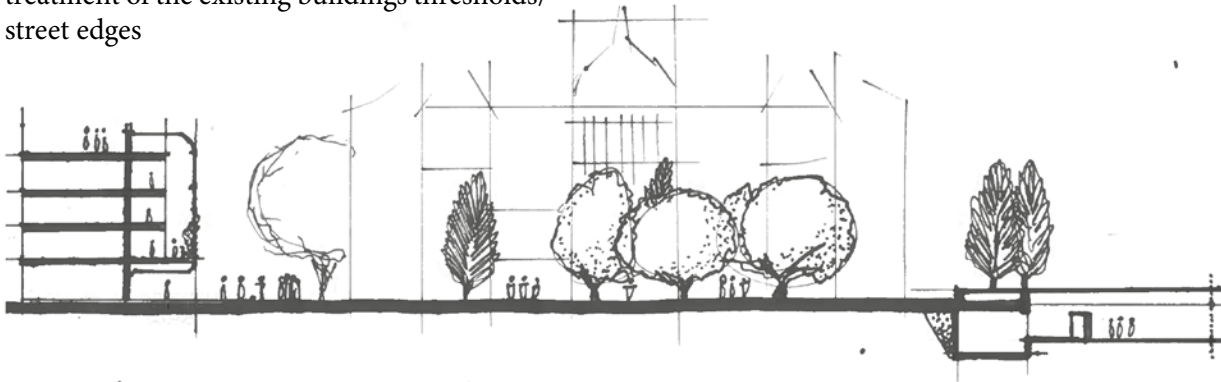
The layout of the square borrows from the concepts of symmetry, duality, and geometric balance.



The design principles also manifest on the design of the building skins

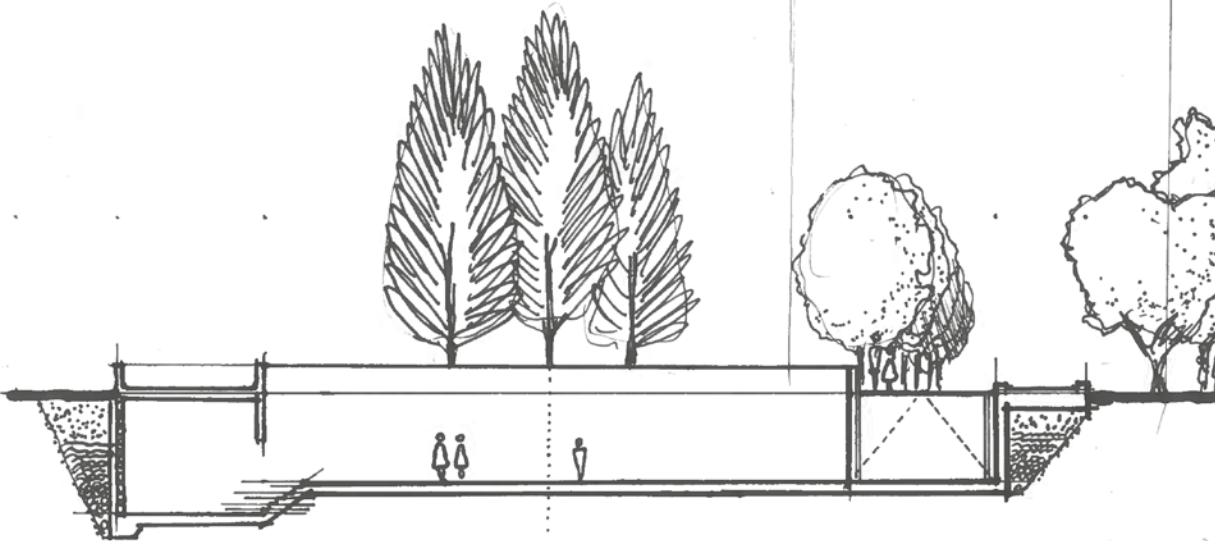


Site longitudinal section exploring the situating of the new sacred space and the treatment of the existing buildings thresholds/ street edges

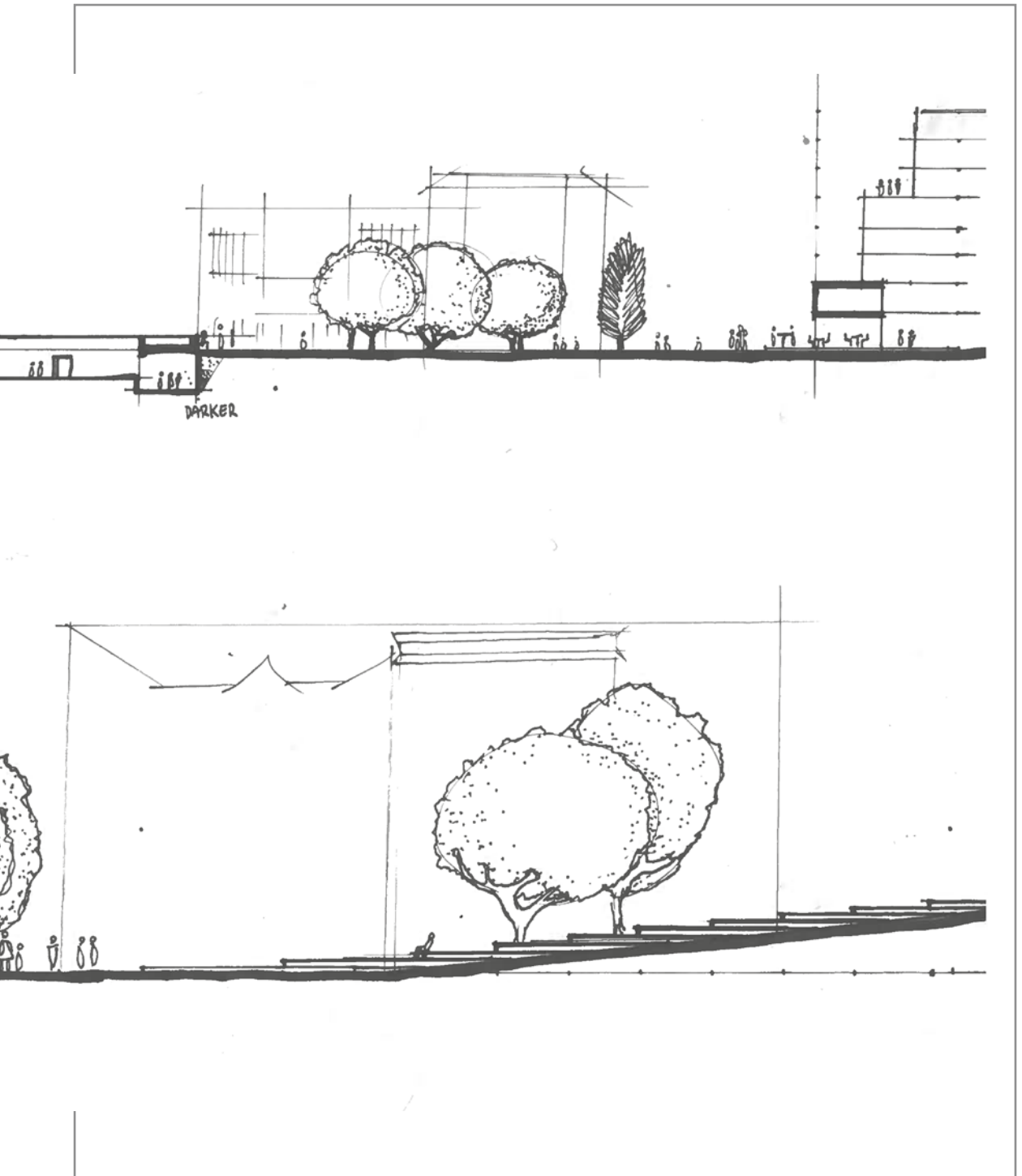


1:500

The sacred space explores changes in levels to manipulate the external noise, lighting, and gravitas of the spatial significance and quality

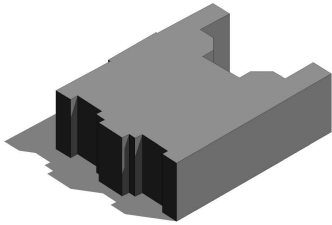


1:200

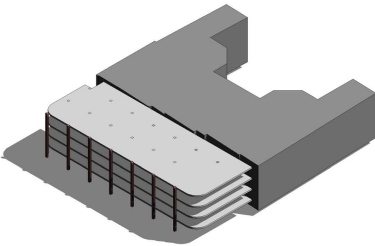


Spatial

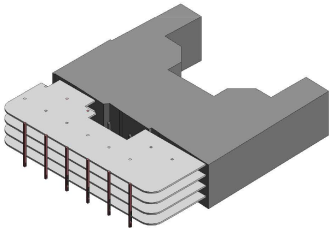
Typical adaption of existing structures



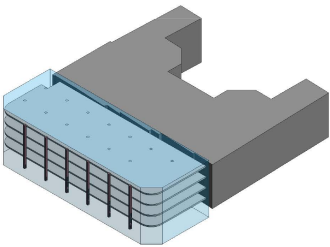
EXISTING MASS



STRUCTURAL REVEAL

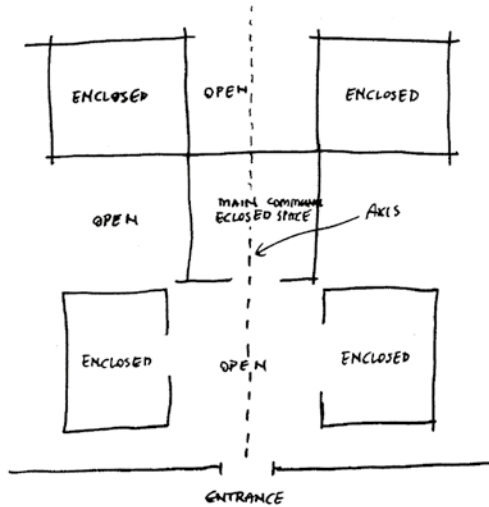


COURTYARD INCISIONS

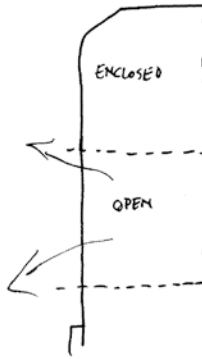
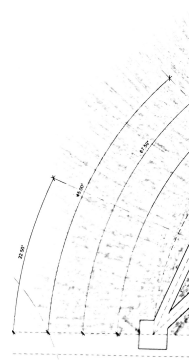
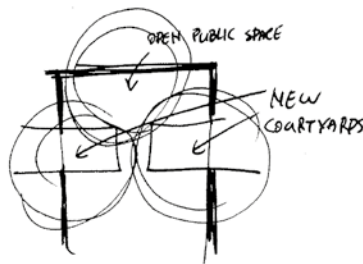


NEW SKIN

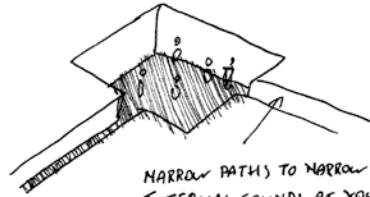
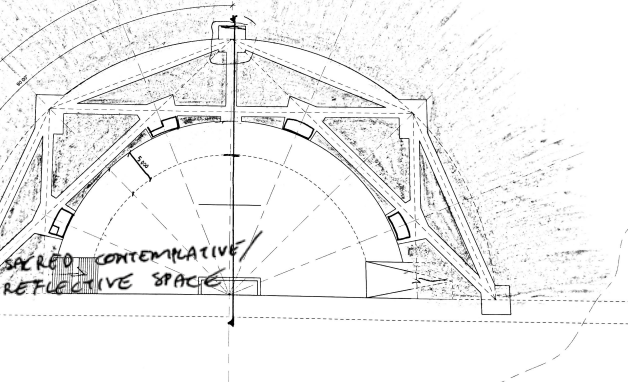
The internal layouts of the buildings are readapted and organised via the juxtapositioning of light and dark, addition and subtraction, and the composition of left and right established by the invisible axis line of the entry. This produces a chessboard-like set up of contrasting spaces.



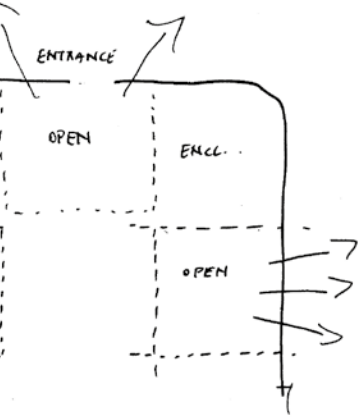
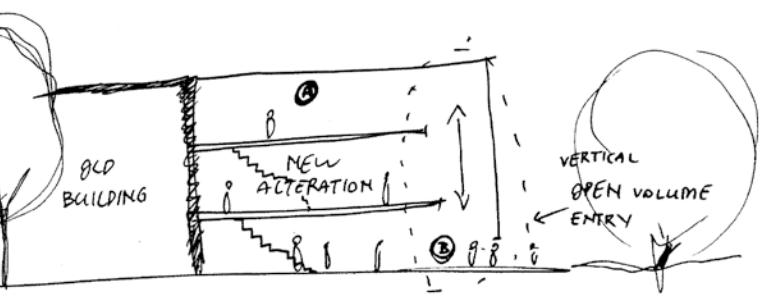
Home spatial planning



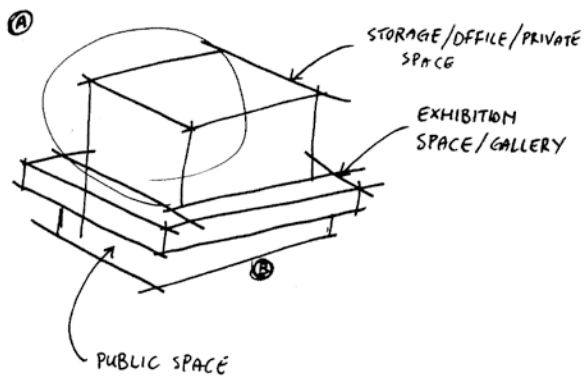
OLD



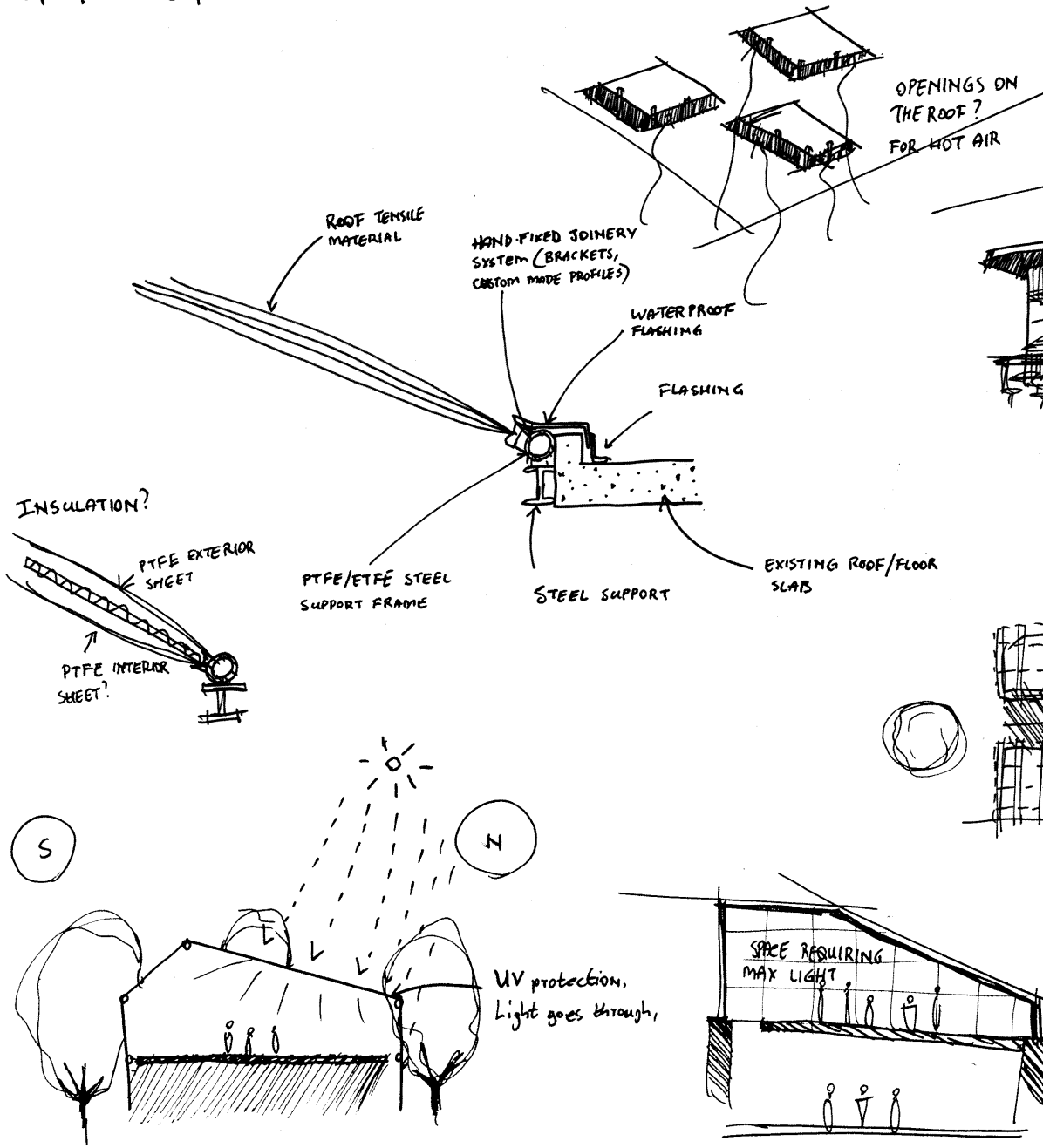
NARROW PATHS TO NARROW EXTERNAL SOUNDS AS YOU NAVIGATE THE SPACE TO A MORE OPEN & WIDER ROOM WHERE THE SOUNDS DISAPPEAR.

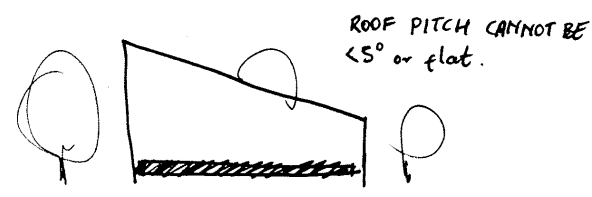
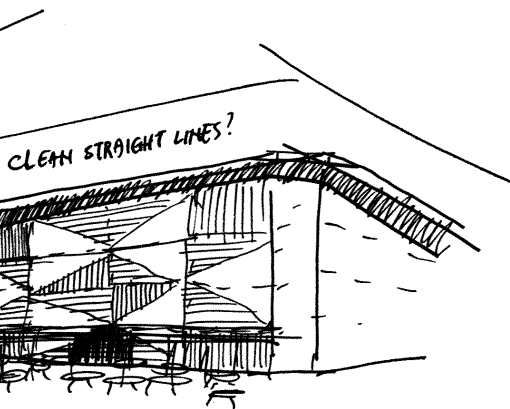


Council Building

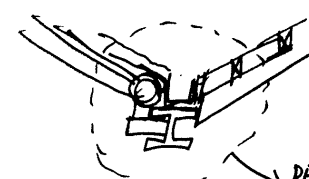


Roof form exploration



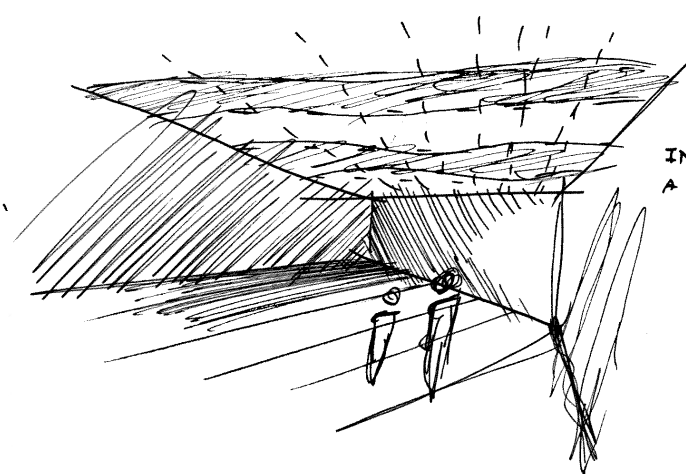
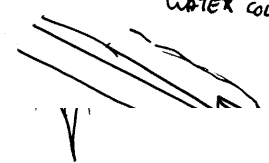
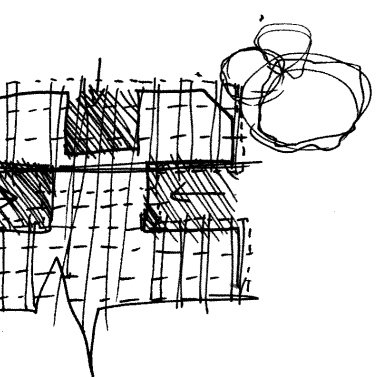


MEETING OF EXISTING ROOF AND NEW ROOF?

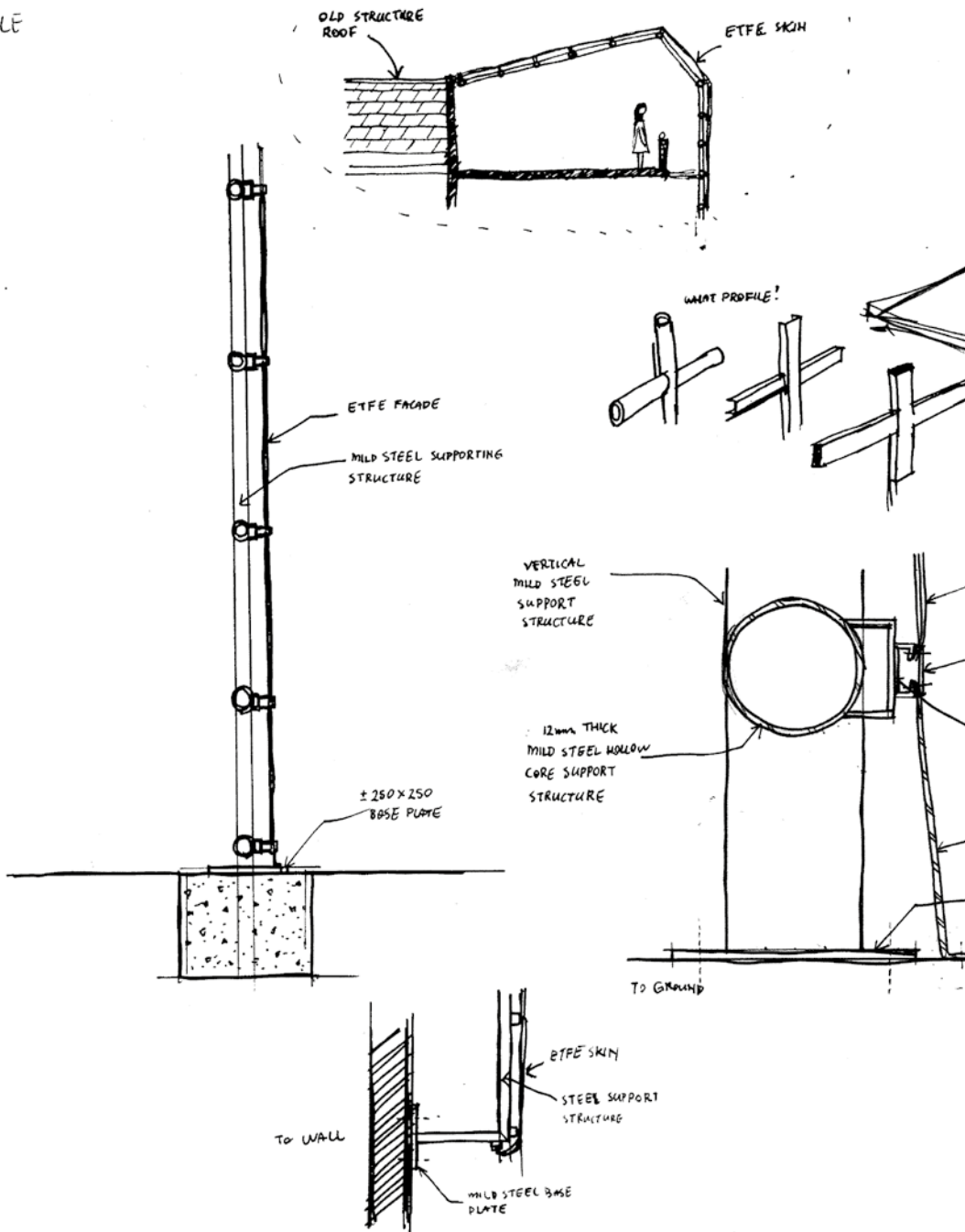


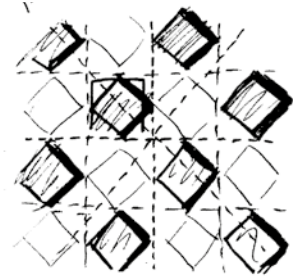
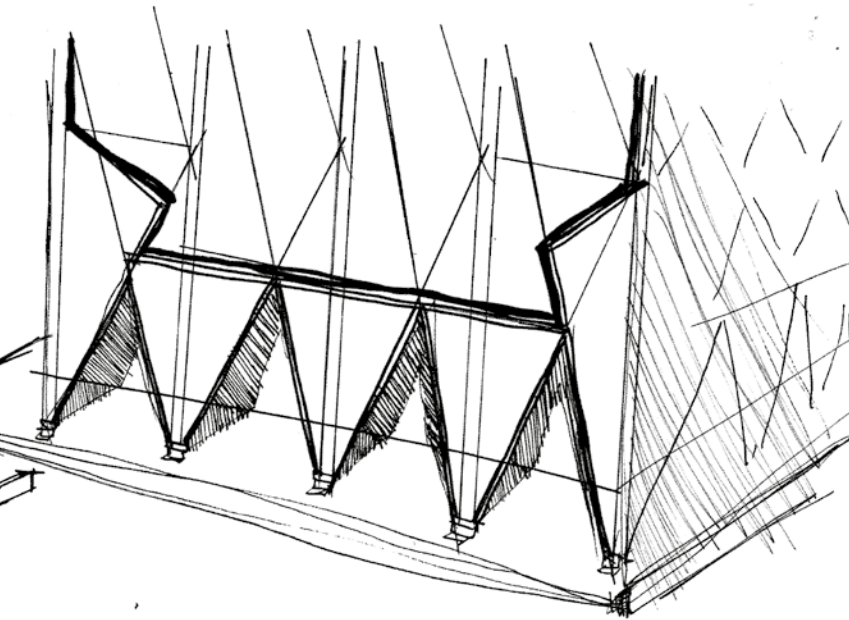
WATER COLLECTION

DETAIL
WATER COLLECTION!

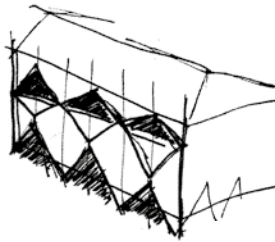


THE ISSUE OF THE SKIN
TEXTILE





DUALITY ON THE FACE



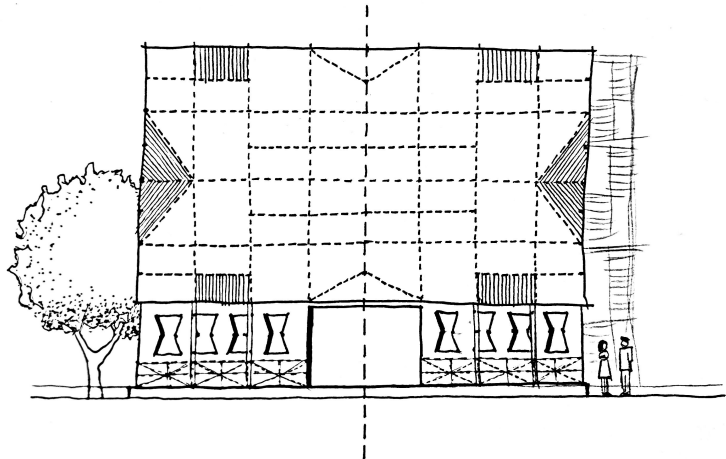
0,2mm THICK
ETFE FACADE

EXTRUDED STEEL
CLAMPING PLATE

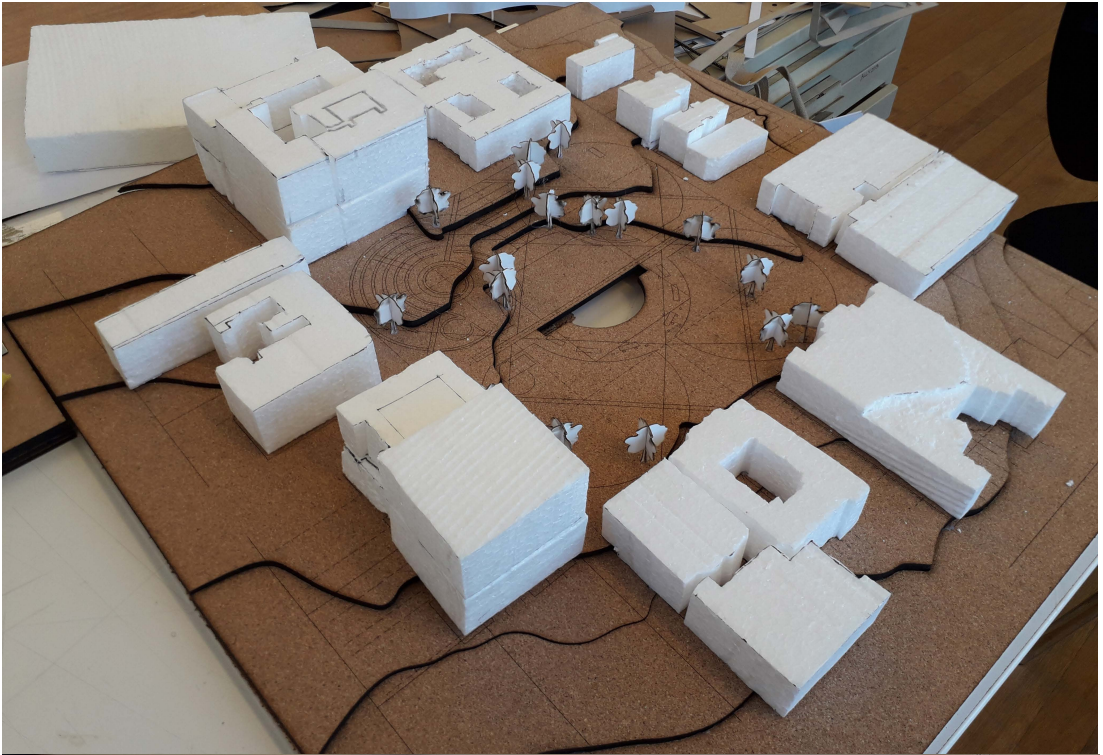
EXTRUDED STEEL
RETAINING PROFILE

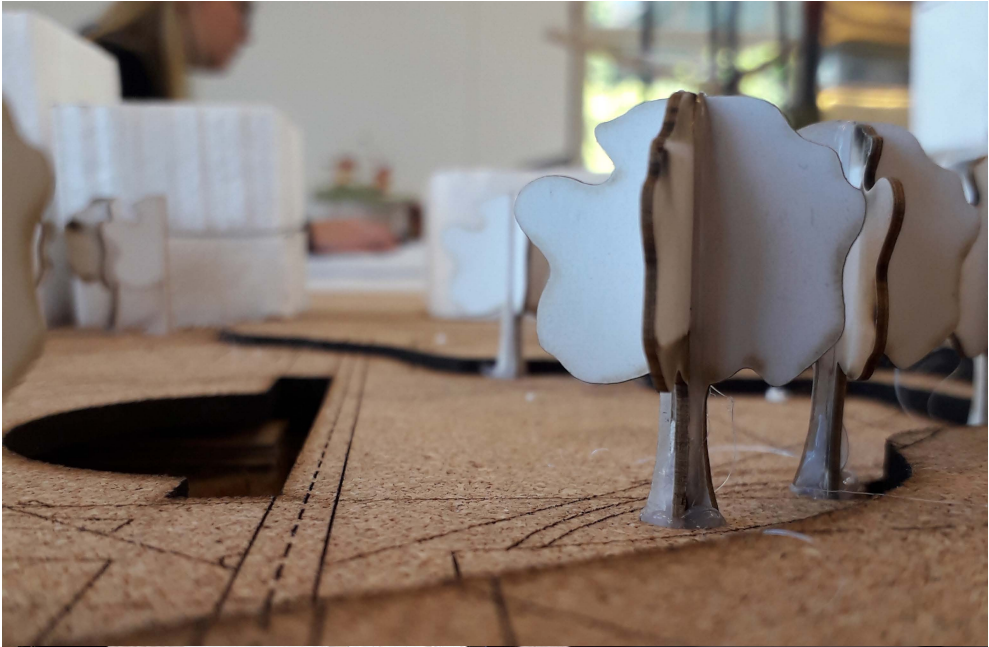
METAL FLASHING

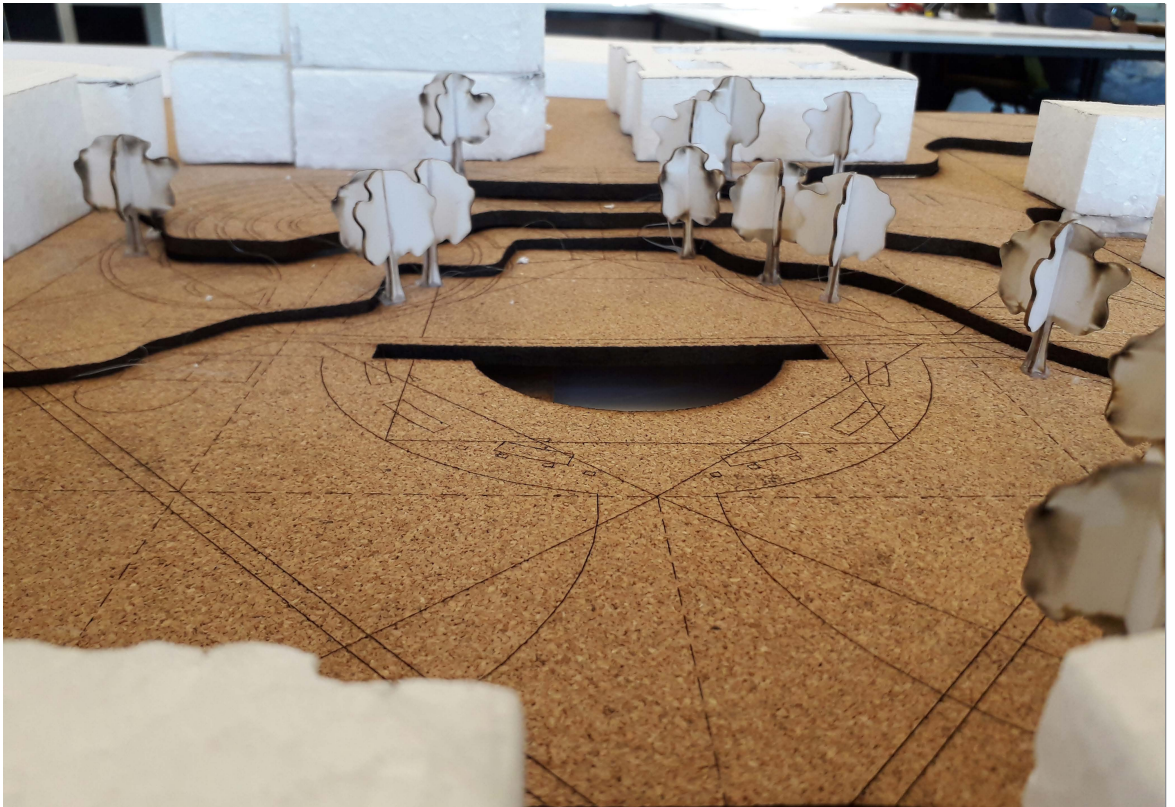
MILD STEEL
BASE PLATE
FIXED TO FOOTING
VIA ANCHORING



Massing model pictures







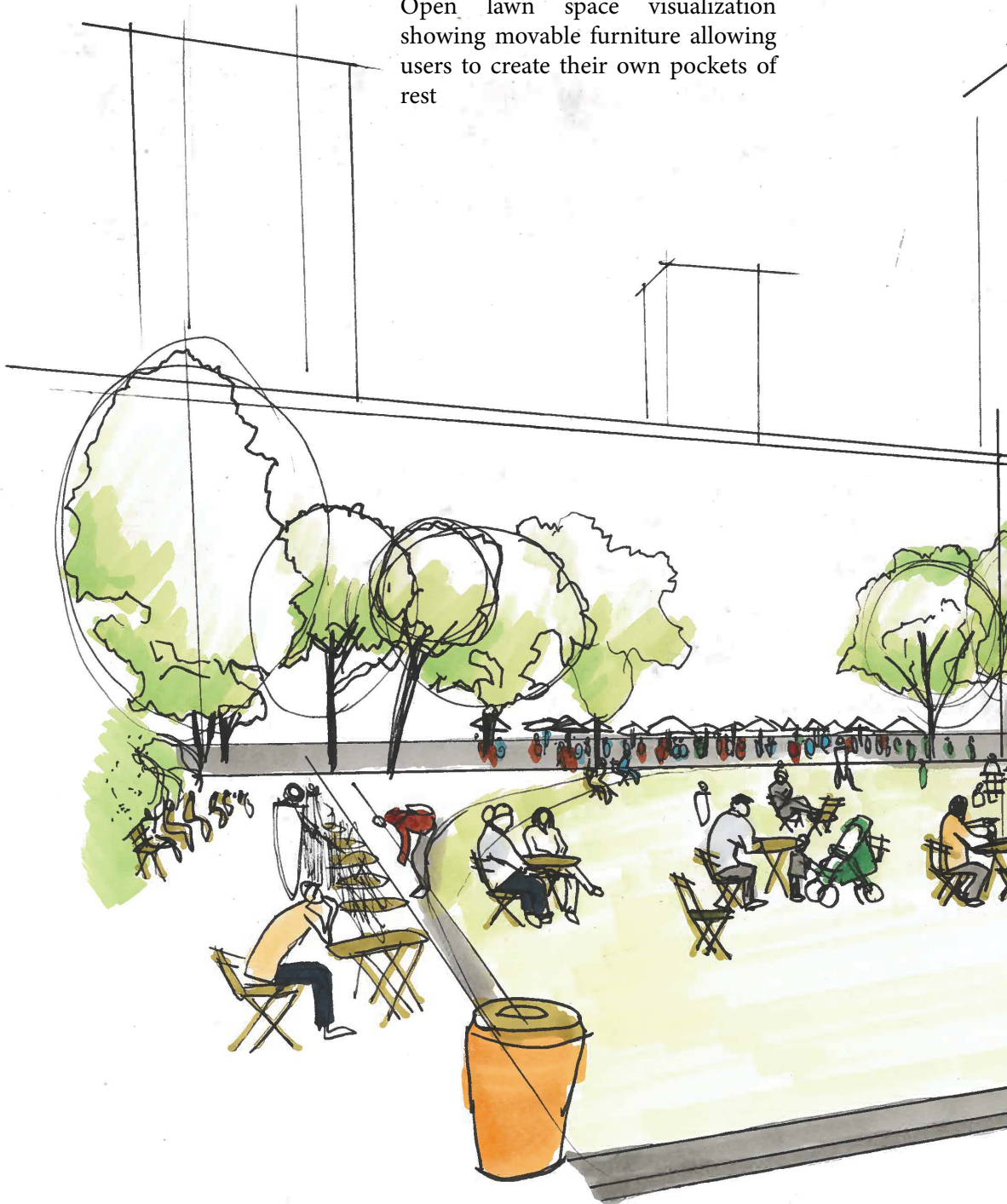


Board games space
visualization



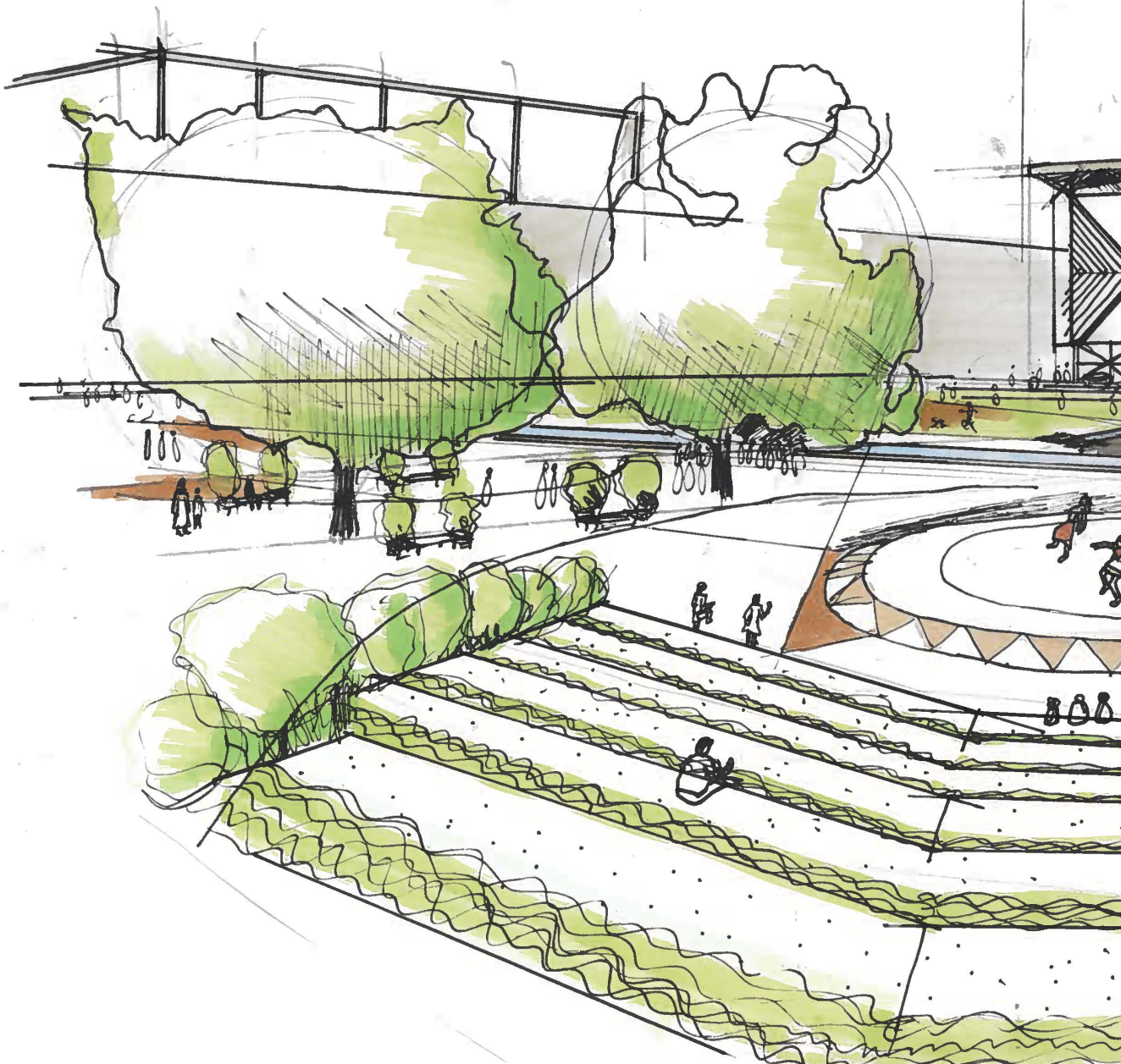


Open lawn space visualization
showing movable furniture allowing
users to create their own pockets of
rest



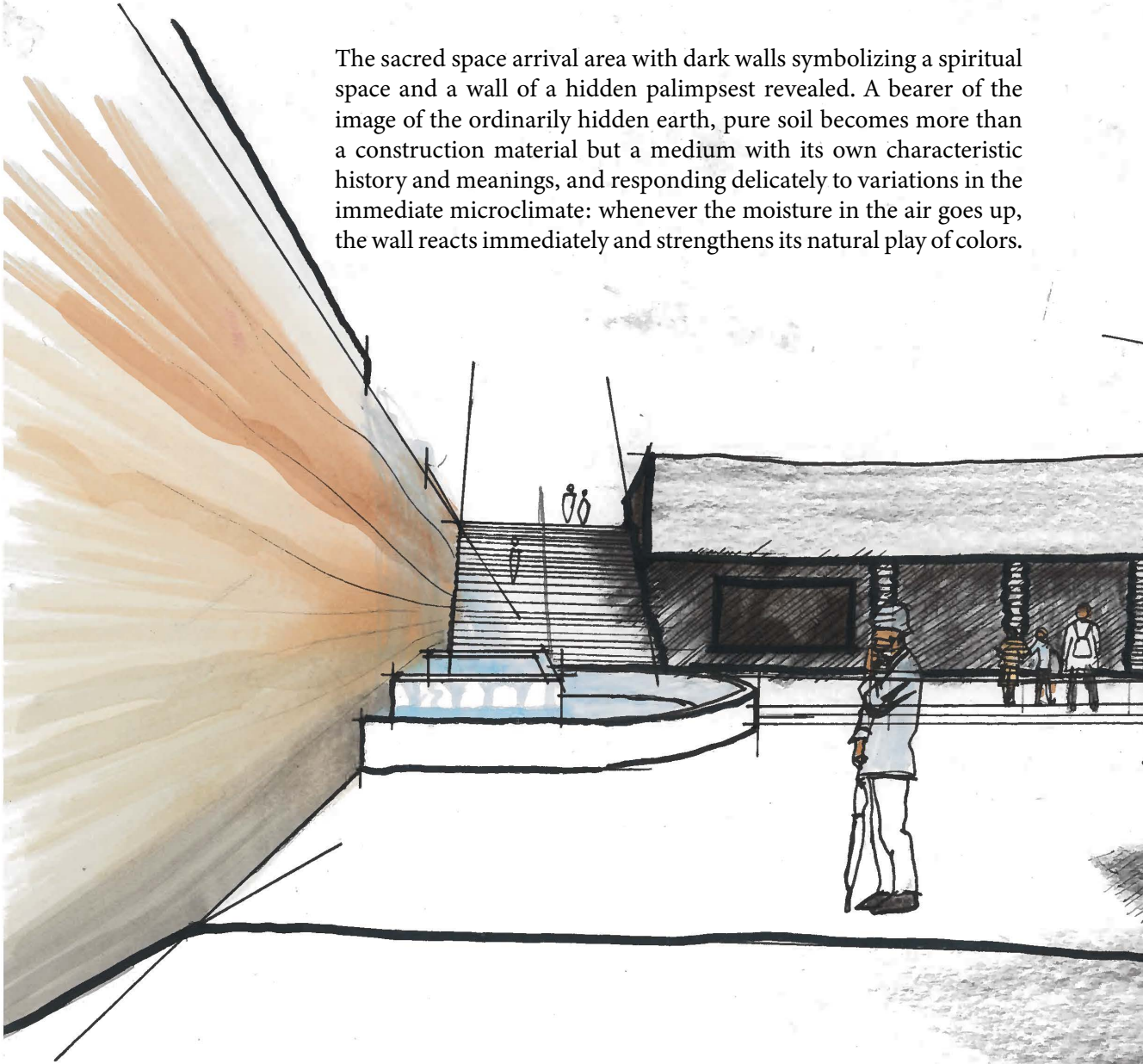


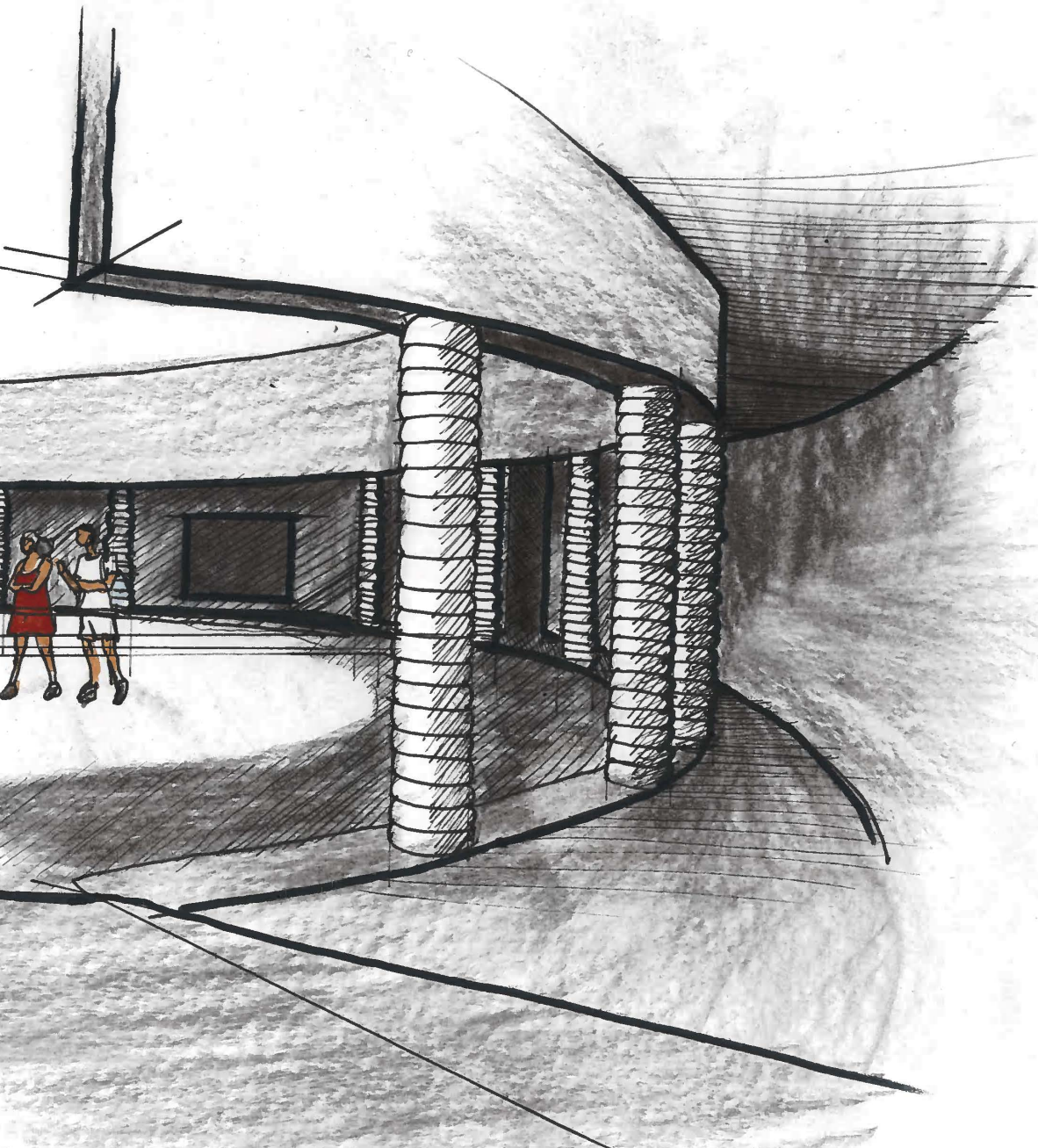
Amphitheatre performance space
visualization without a pavilion



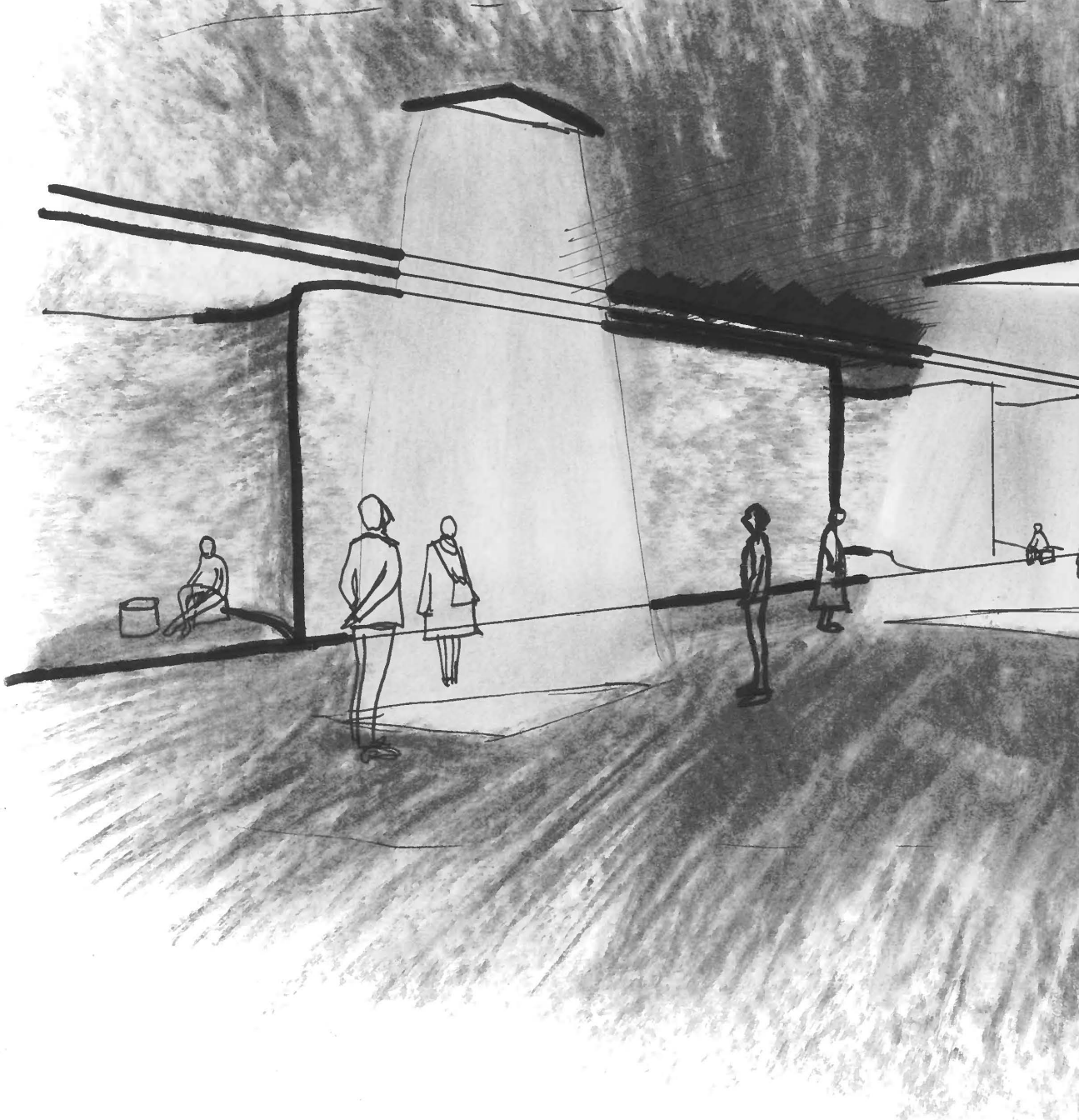


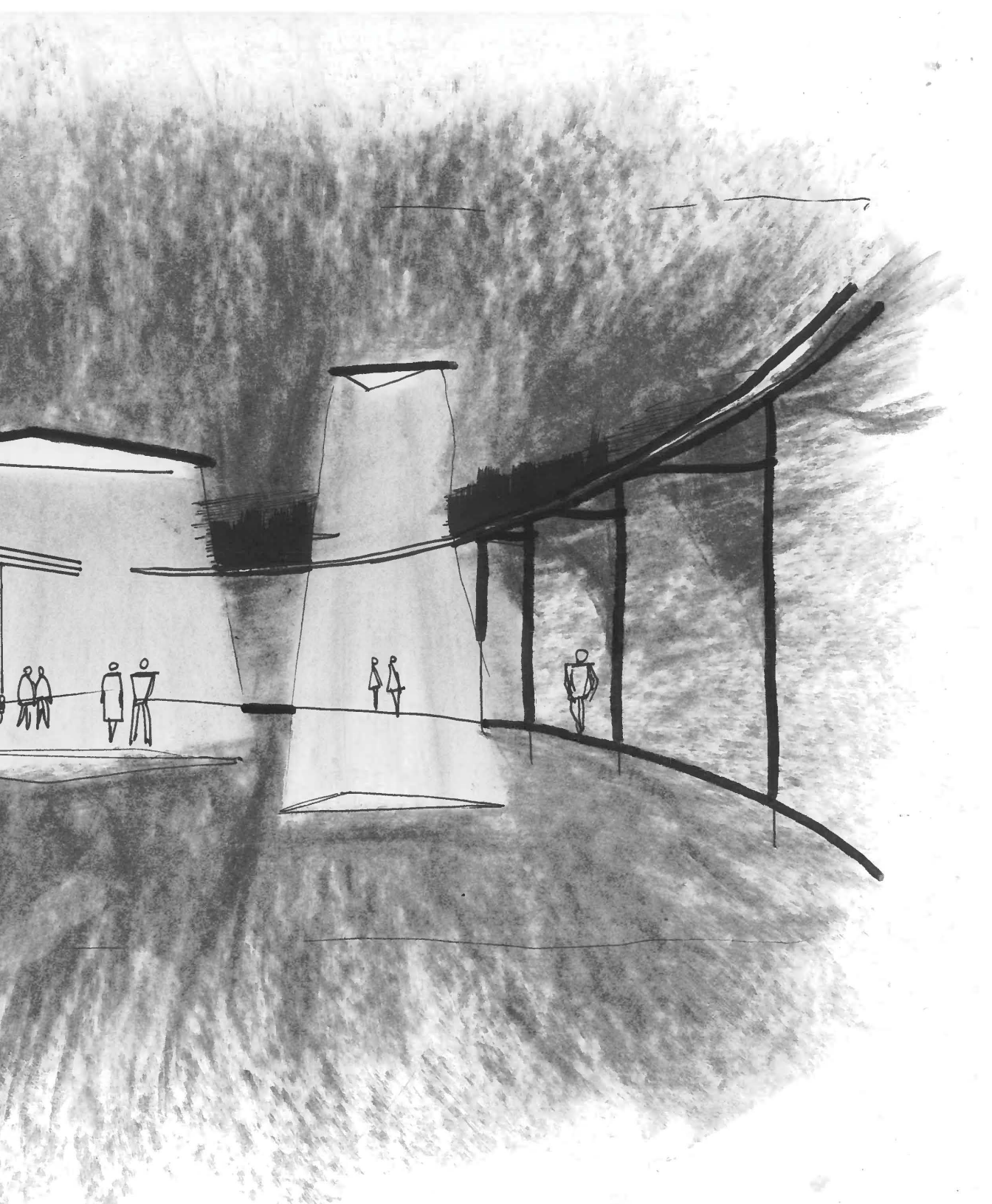
The sacred space arrival area with dark walls symbolizing a spiritual space and a wall of a hidden palimpsest revealed. A bearer of the image of the ordinarily hidden earth, pure soil becomes more than a construction material but a medium with its own characteristic history and meanings, and responding delicately to variations in the immediate microclimate: whenever the moisture in the air goes up, the wall reacts immediately and strengthens its natural play of colors.





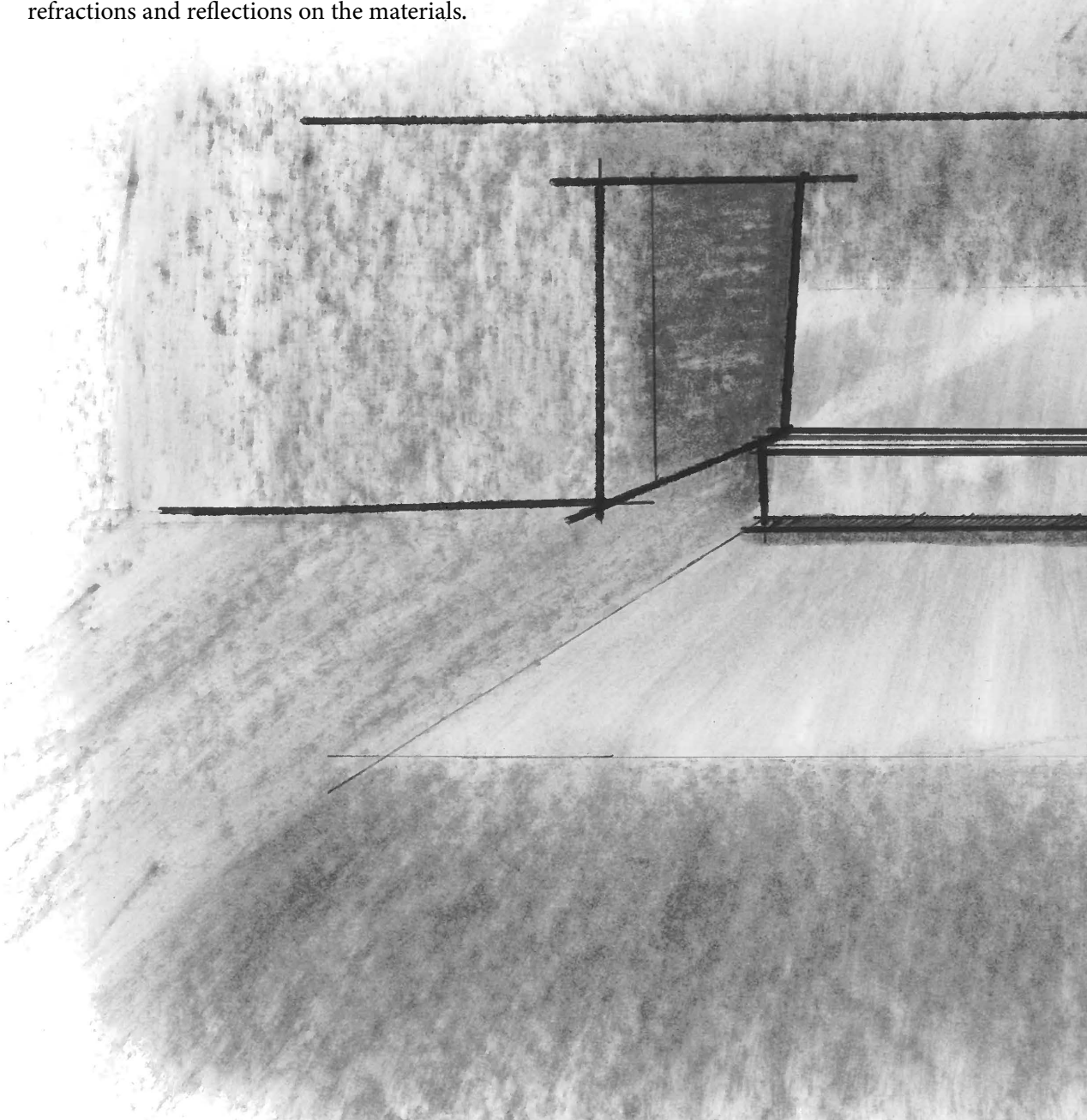
The sacred space circulation and roof incisions with piercing atmospheric light

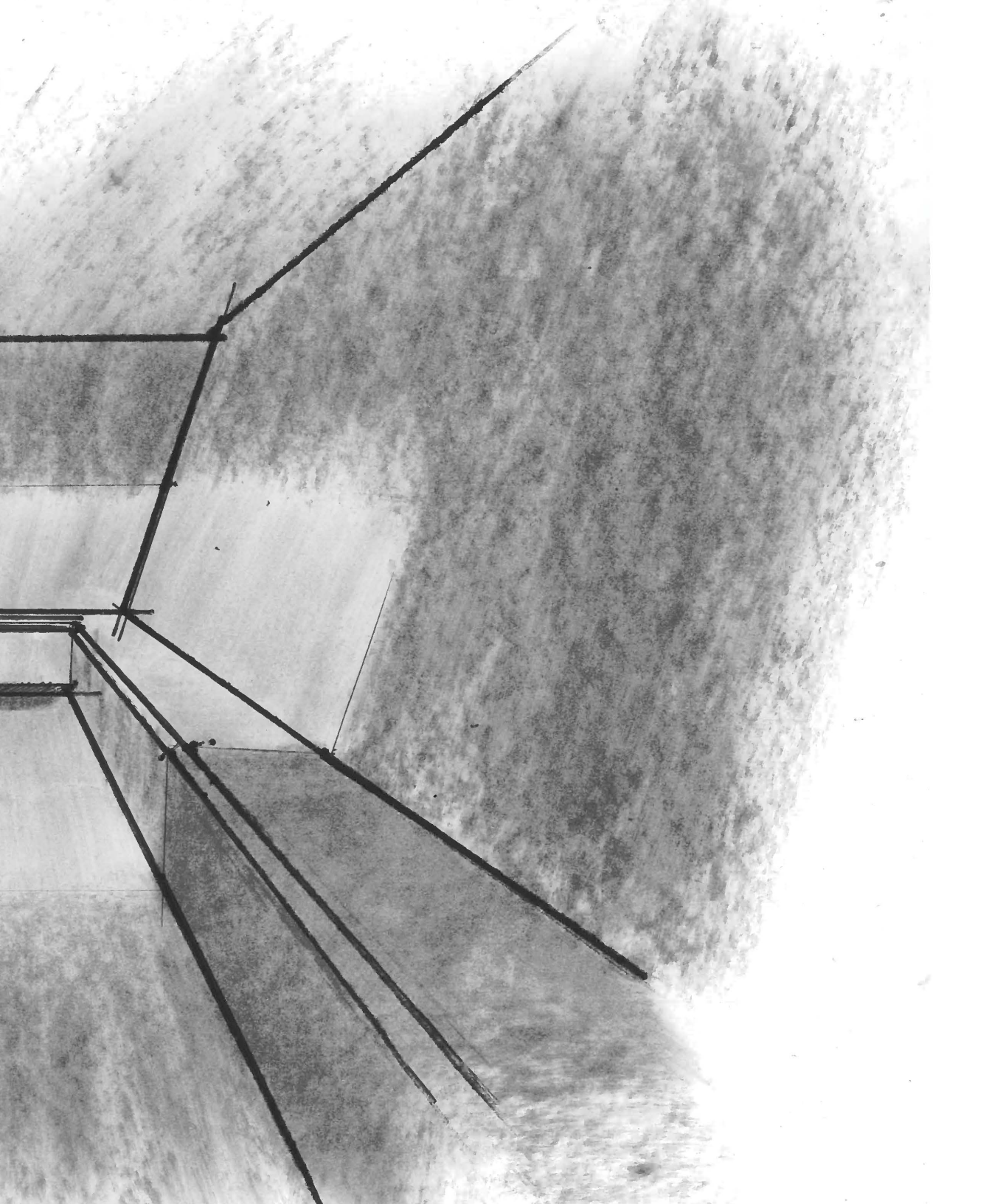




Reflective spaces in the sacred space contrast the narrow paths with spacious volumetric atmospheres that stimulate a sense of release as one enters from a compressive linear path build up.

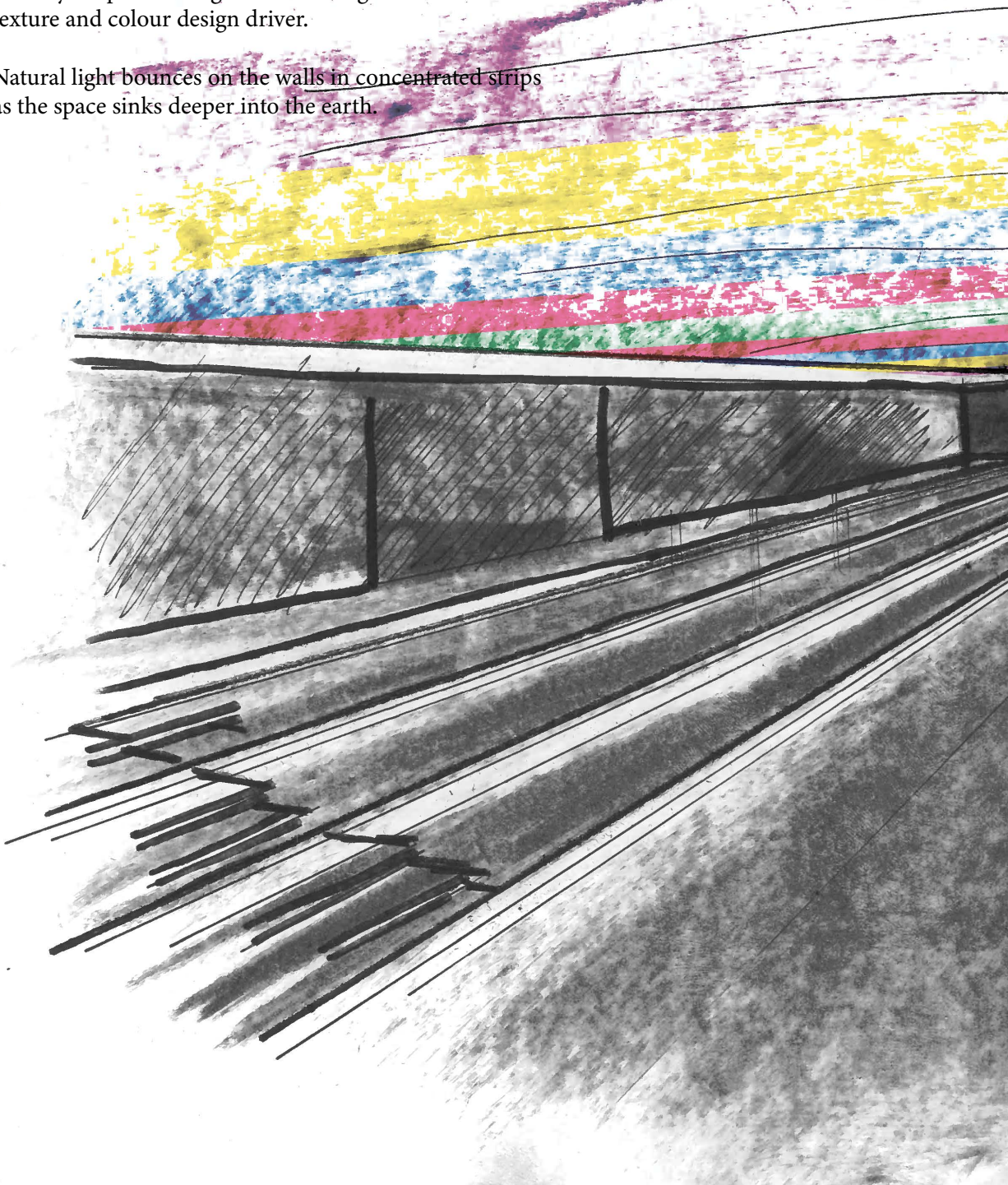
The sizes play with sound and light as spaces become wider enabling more quieter environments and generously lit spaces through light refractions and reflections on the materials.

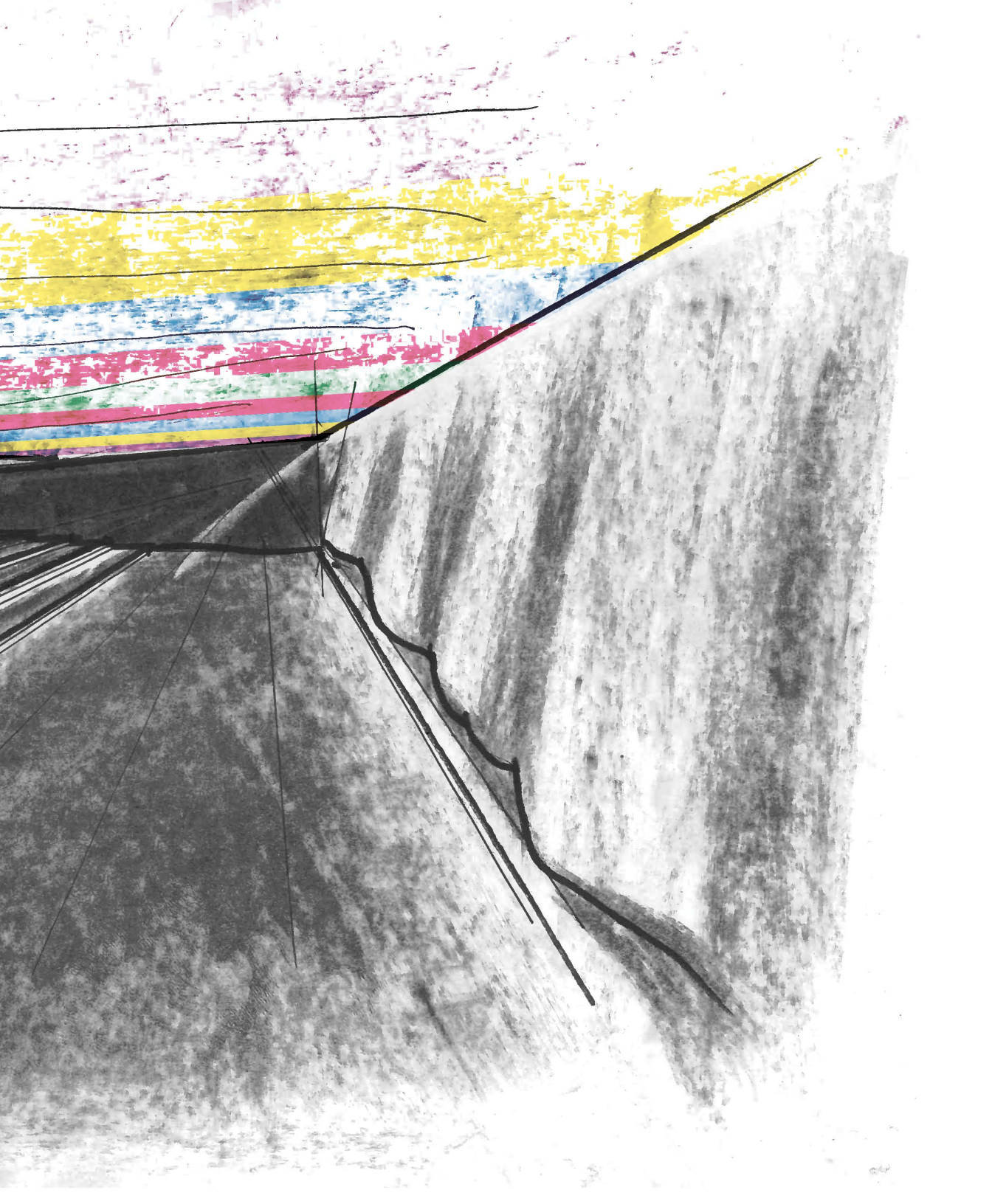




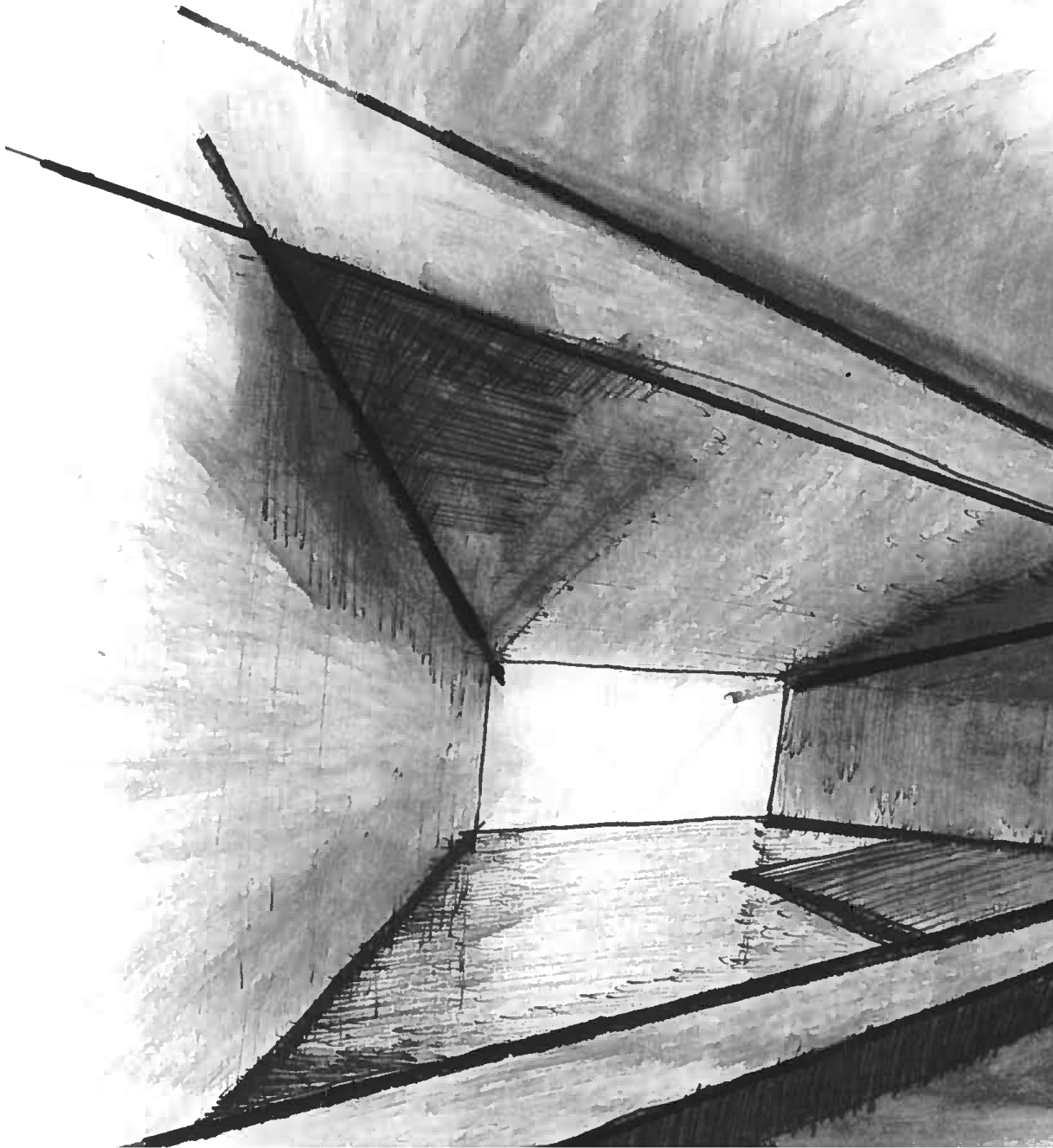
The form of the materials symbolize the covering of a sacred space or body of space through materializing the Ndebele blanket as a soft texture and colour design driver.

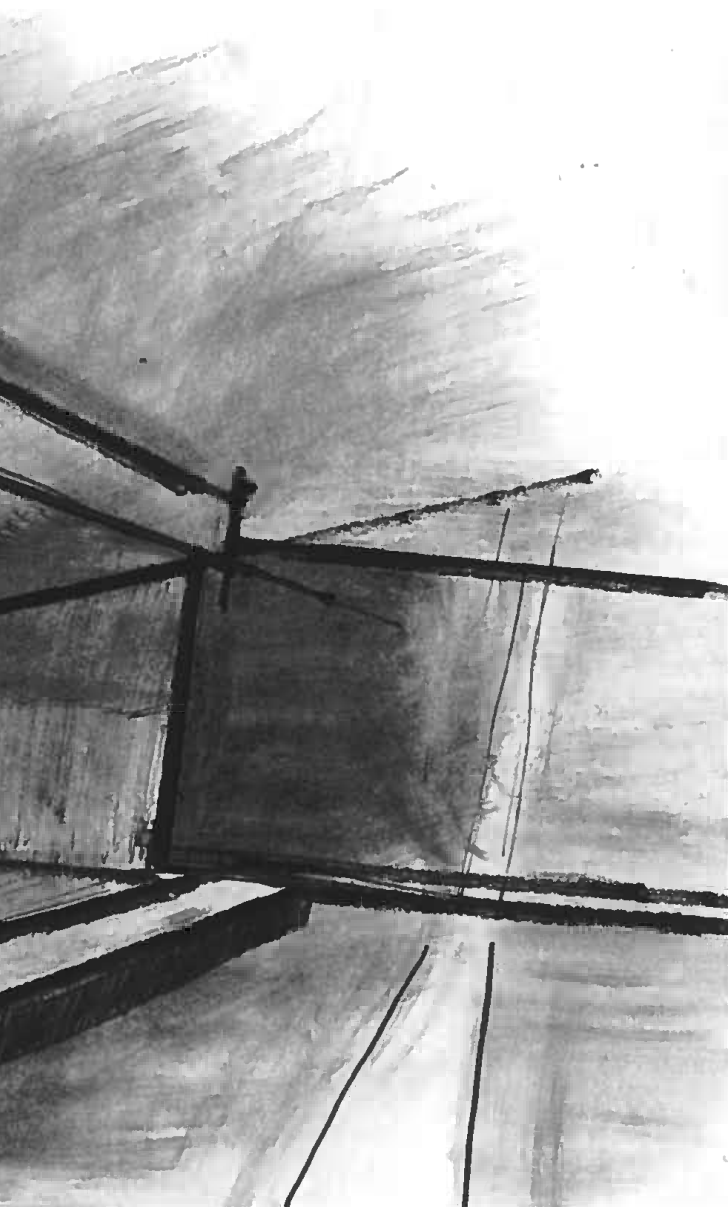
Natural light bounces on the walls in concentrated strips as the space sinks deeper into the earth.



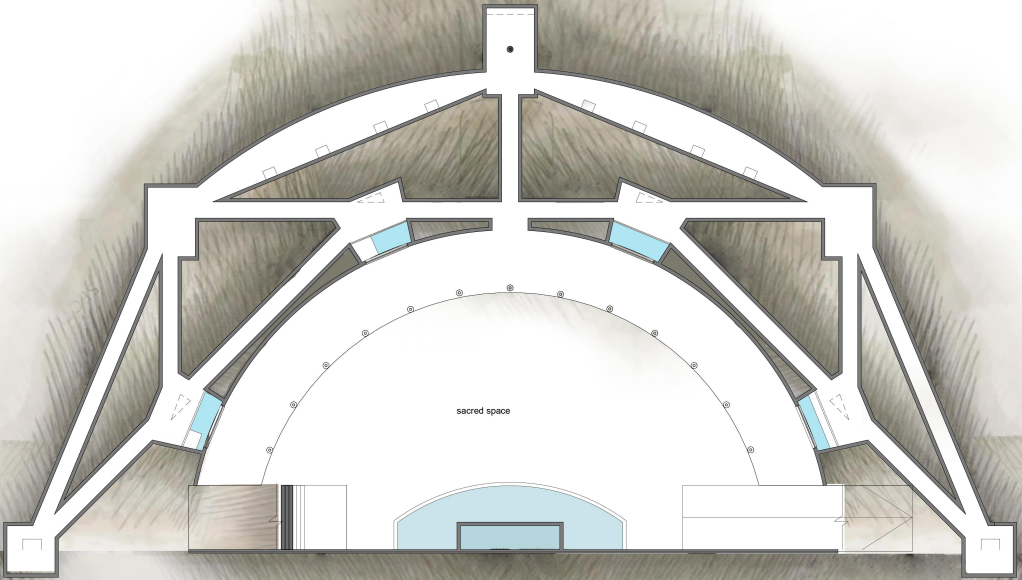


The high up in level, arrival area facing reflective spaces are lit through framed wall incisions which feature water ponds as calming agents and light reflectors

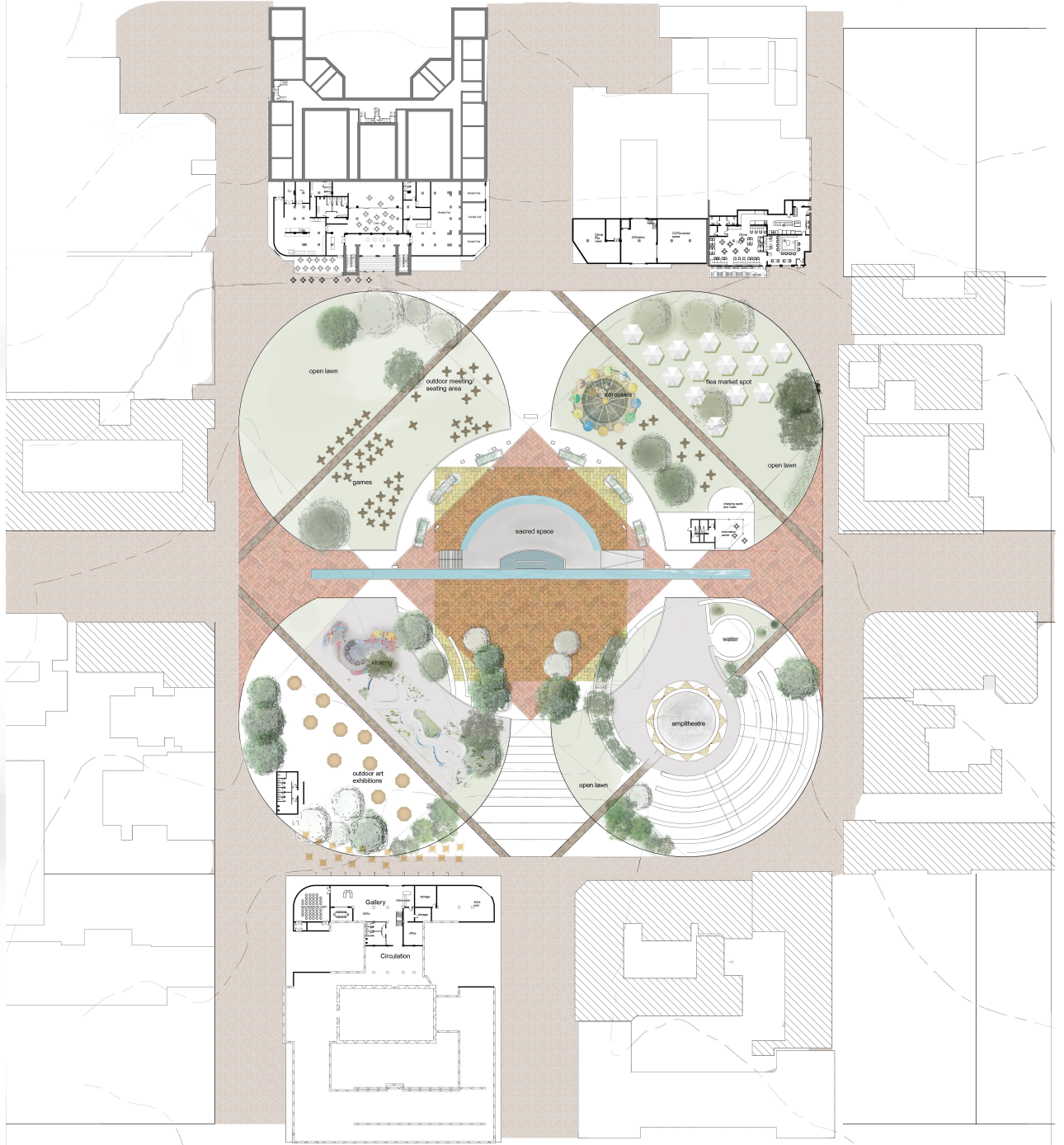




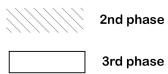
Sacred space plan



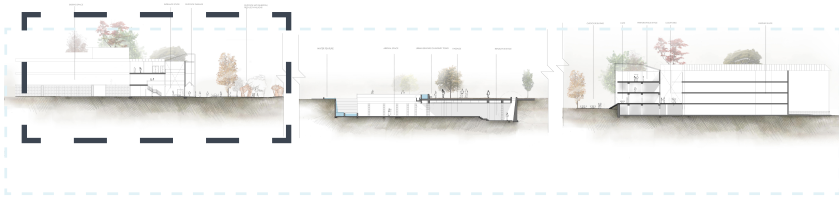
Urban master plan



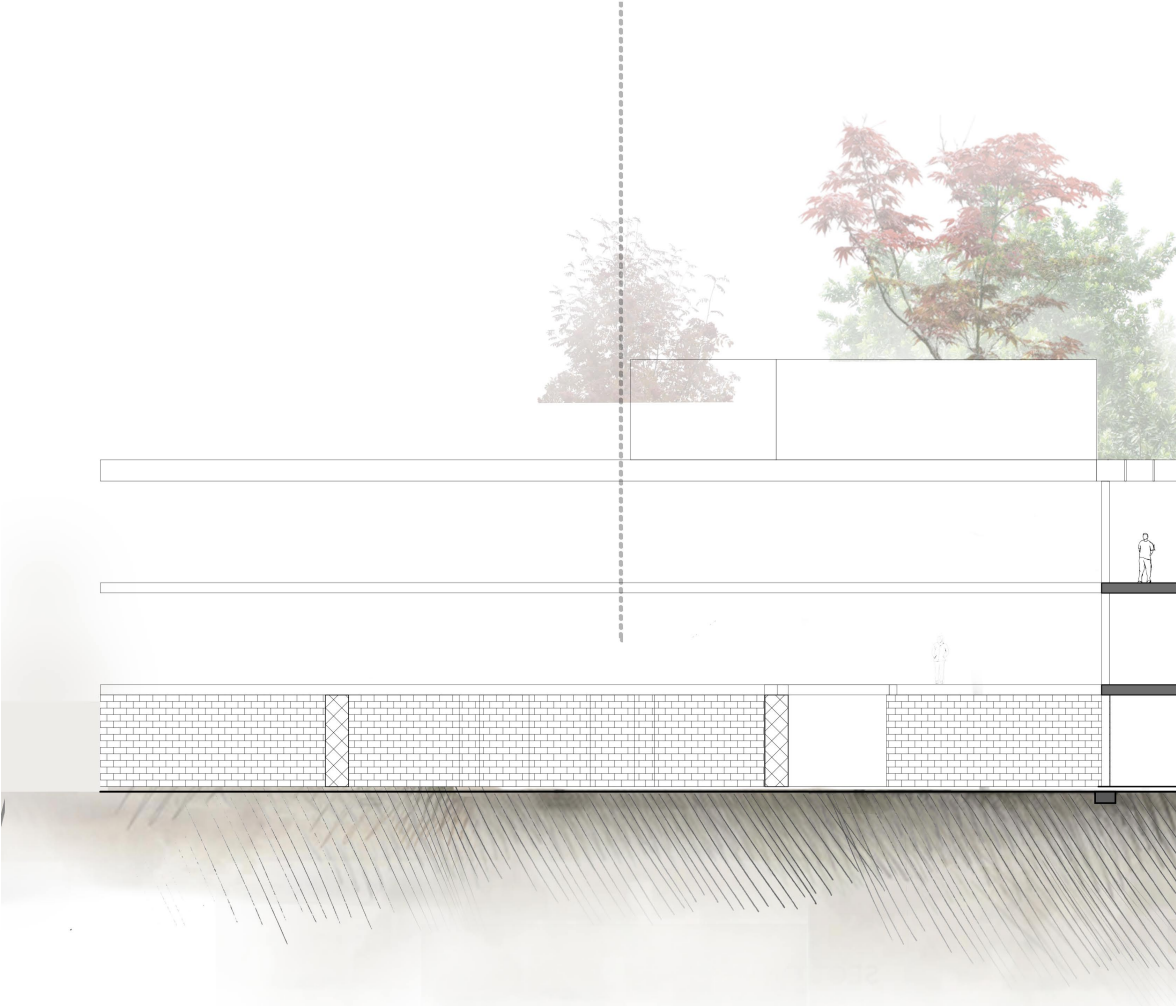
MASTER PLAN
1:500



Sections



EXISTING SPACE



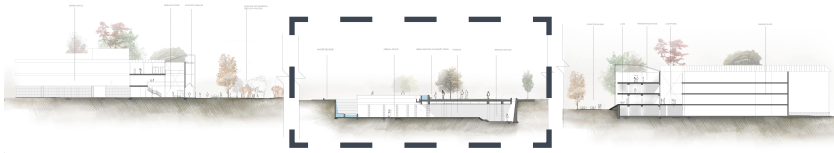
Old Council Hall building

ENTRANCE FOYER

OUTDOOR PASSAGE

OUTDOOR ART EXHIBITION/
FREE-USE PAVILLIONS

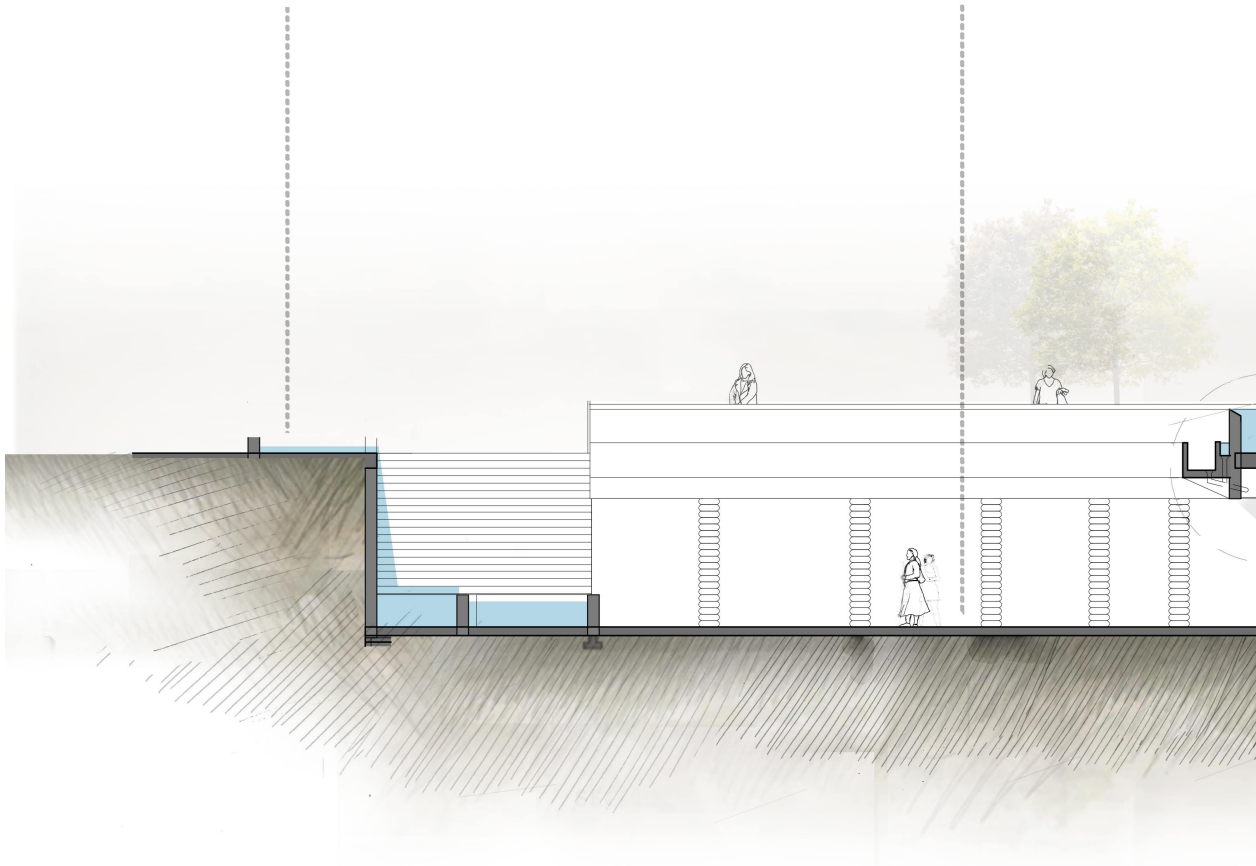




WATER FEATURE

ARRIVAL SPACE

URBAN

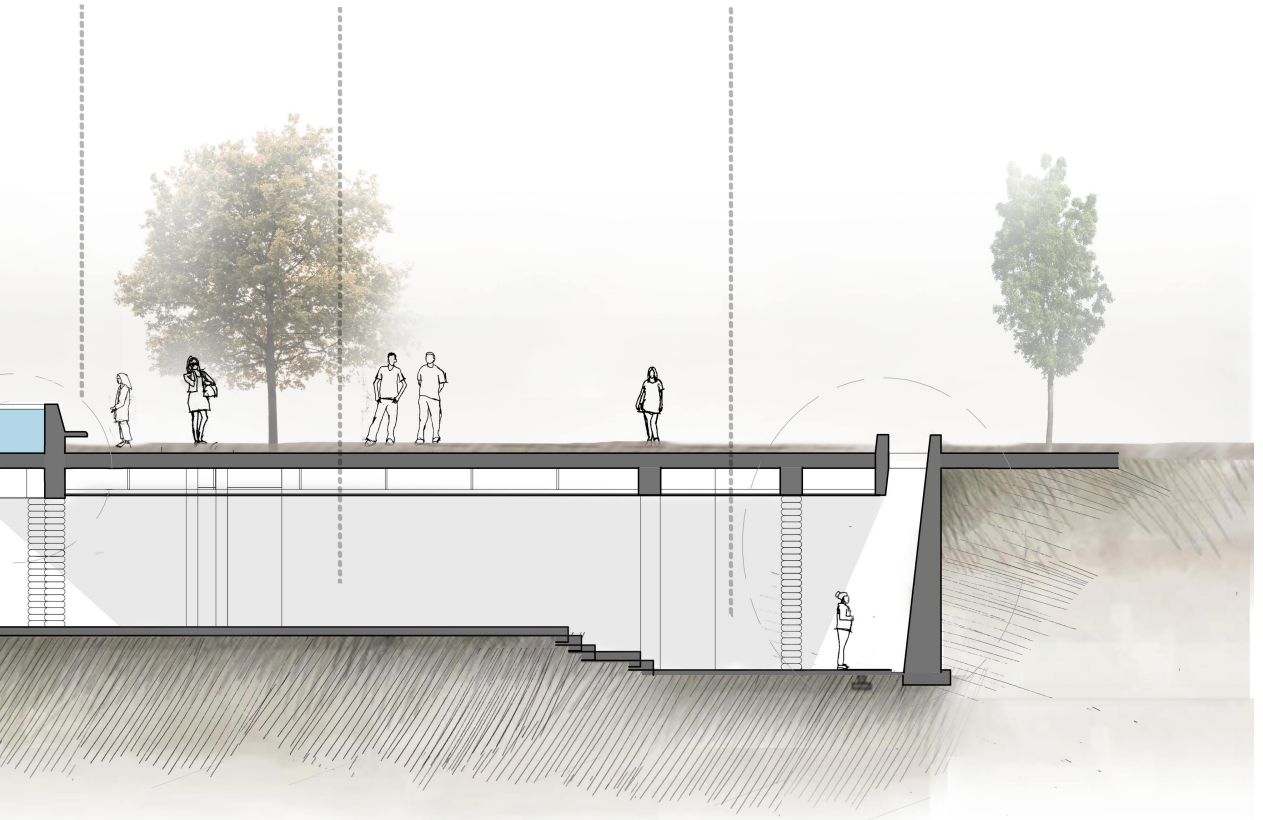


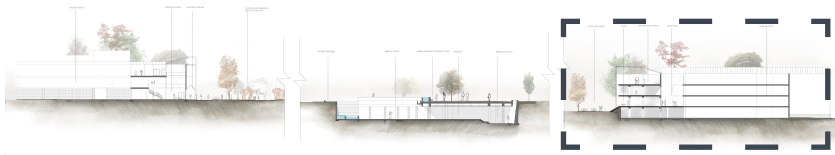
Sacred space

SEATING ON INFINITY POND

PASSAGE

REFLECTIVE SPACE



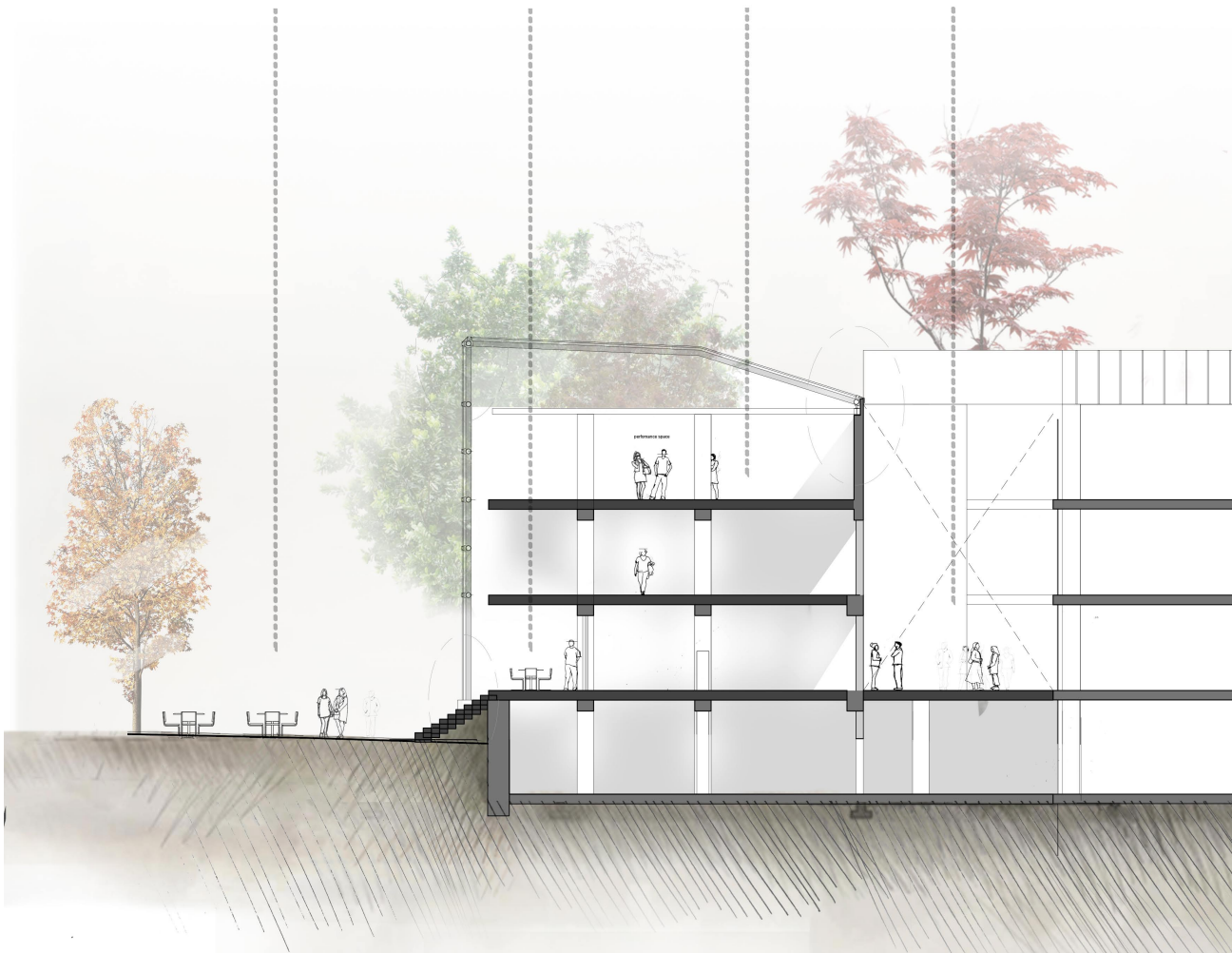


OUTDOOR SEATING

CAFE

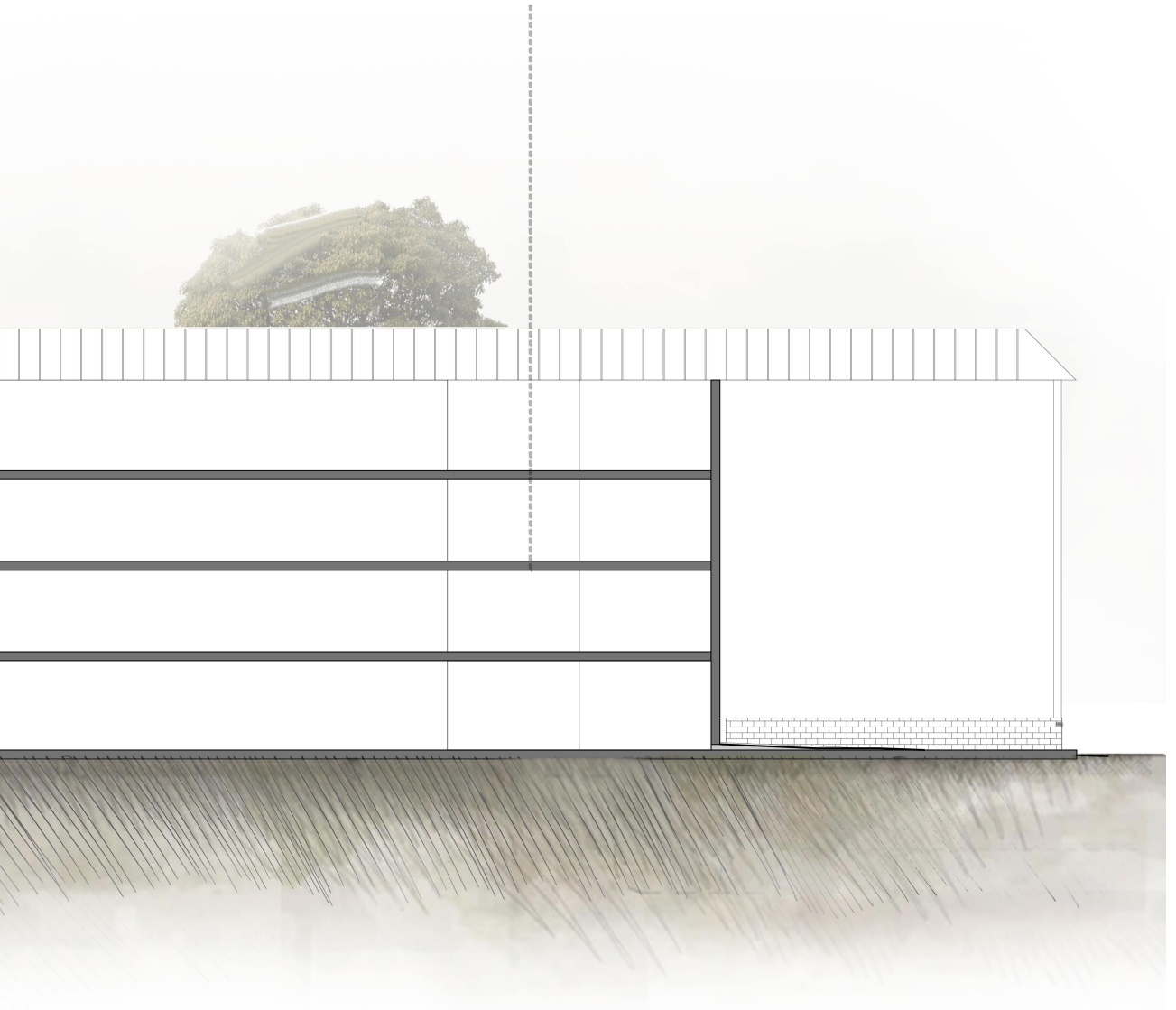
PERFORMANCE SPACE

COURTYARD



The Palace of Justice building

EXISTING SPACE





BLACK
COFFEE



MAXHOSA,
By Laduma

ZOZIBINI
TUNZI

ESTHER
MAHLANGU

PART 06 Technology

“Today it is common to reduce African architecture to the search for ‘local materials’ by promoting earth buildings and self-build projects as a response to the search for an architectural model for identity, region, or climate. On a continent where most of the raw materials used to build modern buildings are found, ‘mud brick’ is not the only valid solution.”

- (Mahmoud Keldi, 2022, p. 196)

This chapter will establish the techne of the project through an exploration of the theoretical concepts set out and radically translate the lessons into technical permeation.

TECHNICAL APPROACH

The technical approach consequently developed as a response to the act of *unveiling ancestral land*, learning from historic methods of composing structures and graduating the concepts into the present. The way of African construction demonstrates the abilities to adapt, hand-craft, preserve the essence of rituals in architecture, celebrate, play and extend the participation to any abled being. This is essentially demonstrative of a society that adapts to unique circumstances to survive.

As a result, the tectonic language of the square development intends to communicate the raw quality of the city, from its inception to the ever-transforming, ephemeral-in-activity, and dynamic space through reclaiming indigenous raw resources.

MATERIALITY



"Materiality model"
Author, 2023

A product of iron ore, steel, in this project, is adopted and perceived as an ancestral natural material.

Reclaiming material that is typically regarded as industrial and changing the perspective around it. By exploring the form beyond rigid formal uses, implications of the body can be connoted.

When we look at the core of its atoms and what it is made of, it is not different from a flower. One's attention and thoughts are immediately brought to something organic and from nature.

With a high potential of anchoring the technology of the structures, a dialogue between the concepts and the act of celebrating *ancestral land* can formulate. To think ahead, we must explore the creative use of raw materials beyond their use for manufacturing tools historically.

PTFE as a material concept connoting to architecture and the textile art of covering



PTFE (polytetrafluoroethylene)

Coated fibreglass membranes composed of a woven glass-fibre base cloth, pre-coated with a silicon layer to prevent moisture absorption, and then coated with liquid PTFE. This process produces a membrane fabric which has low water vapour permeability and excellent UV, anti-adhesive and light translucency properties.

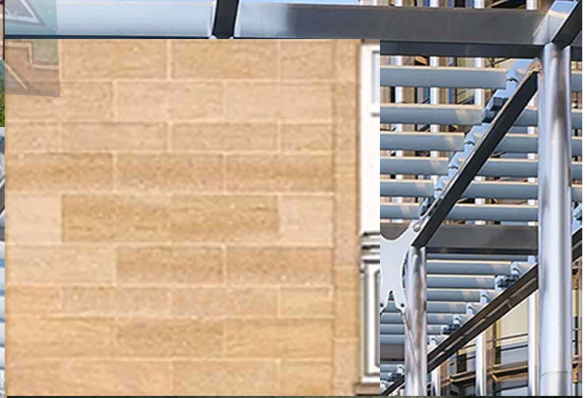
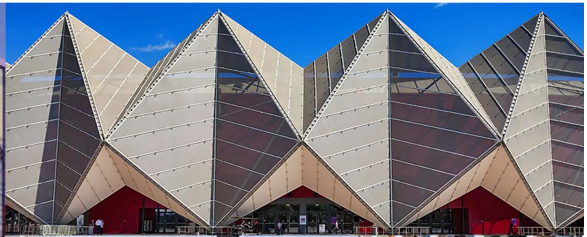
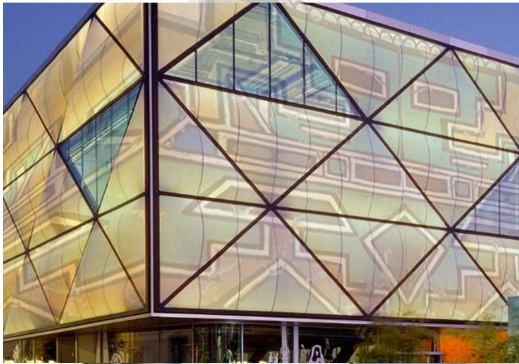
Properties:

- Flexible
- Fire-resistant fiberglass mesh,
- Durable
- Low maintenance (Self-cleaning)
- Translucent
- Sound Absorbing
- Helps to reduce the Urban Heat Island effect absorbed

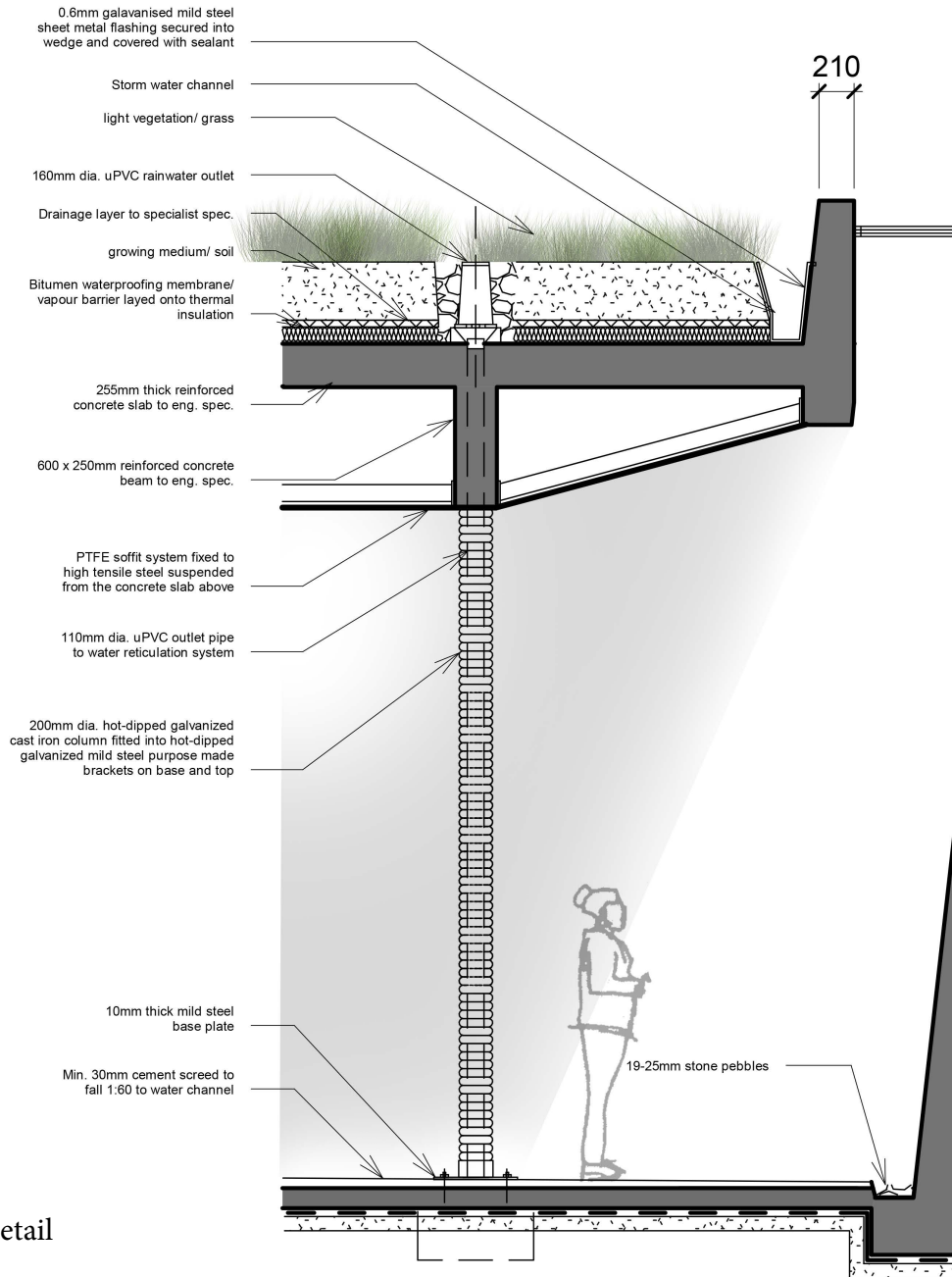
Ideal Applications:

- Membrane Roofing:
- Shade Structures & Awnings
- Facades & Interiors

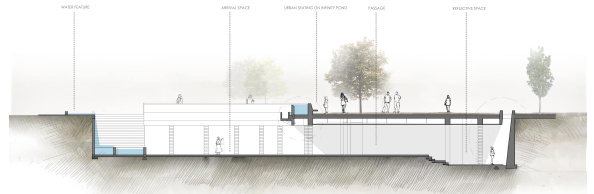
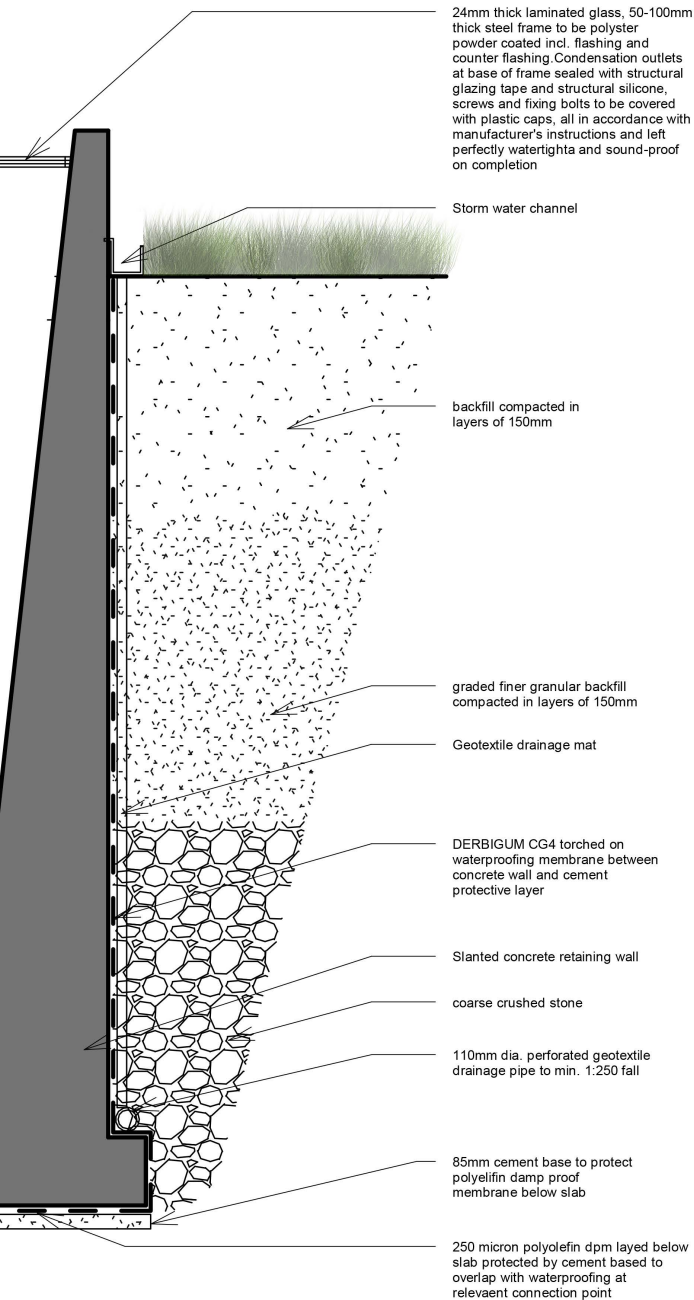
Secondary materials

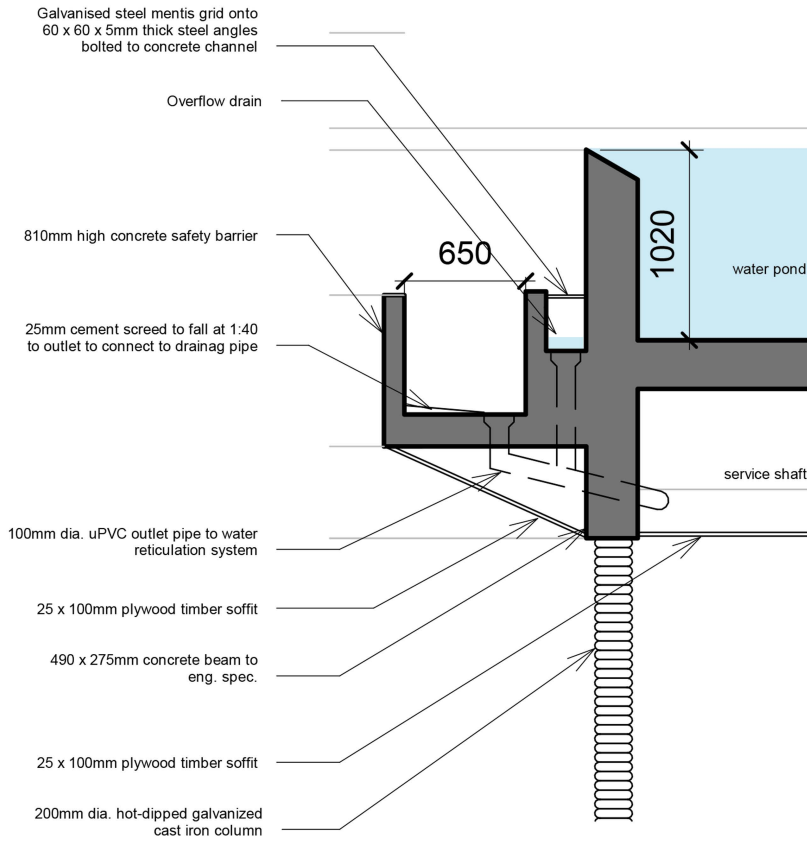


DETAILING

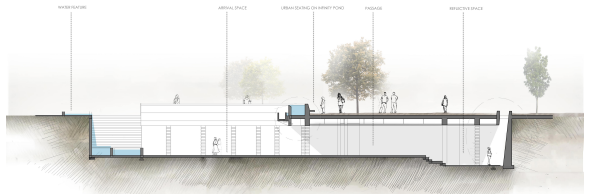
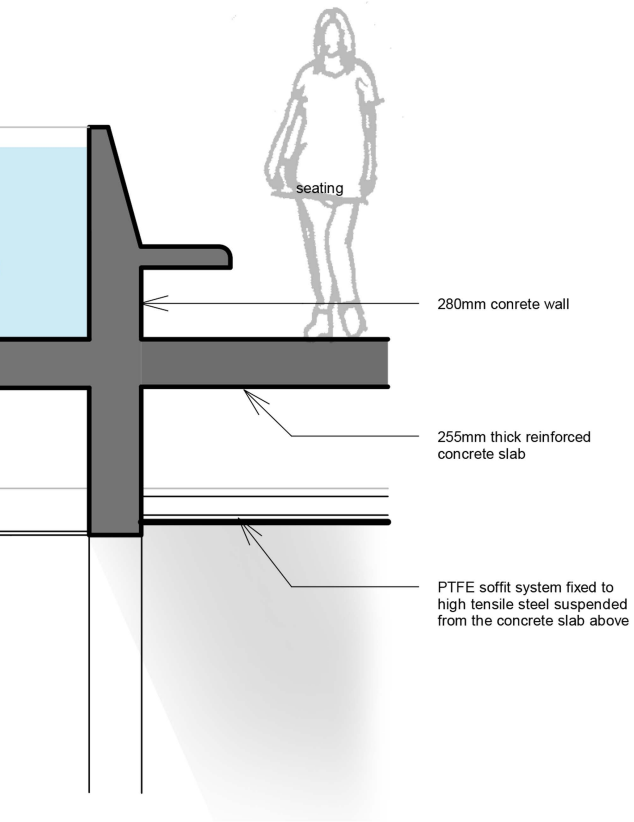


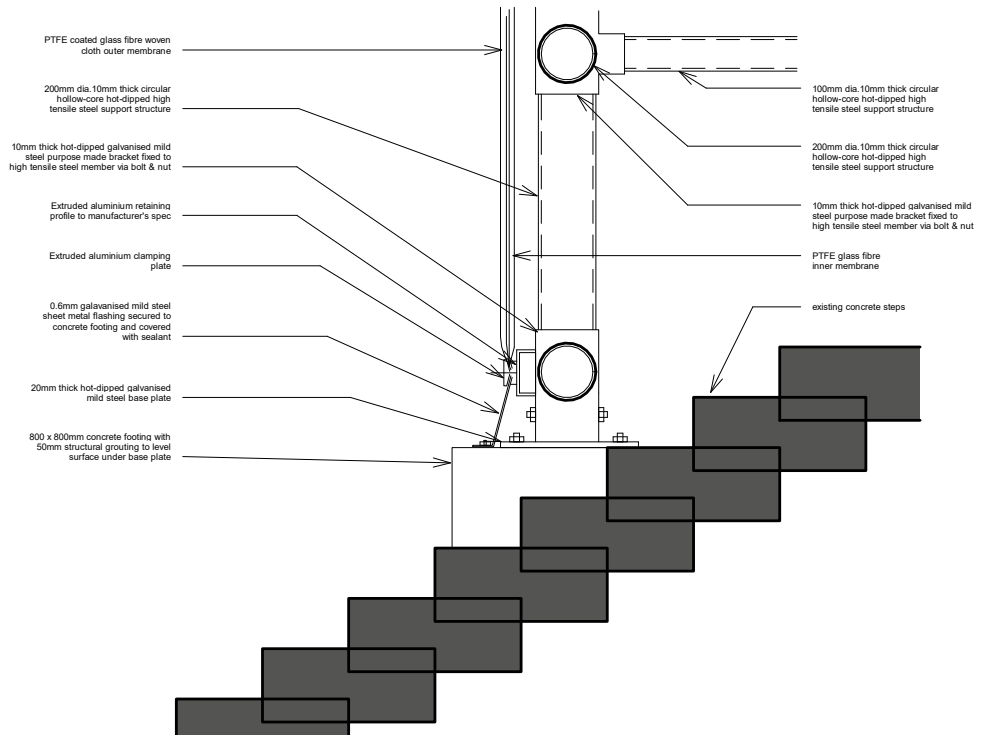
Sacred space edge detail



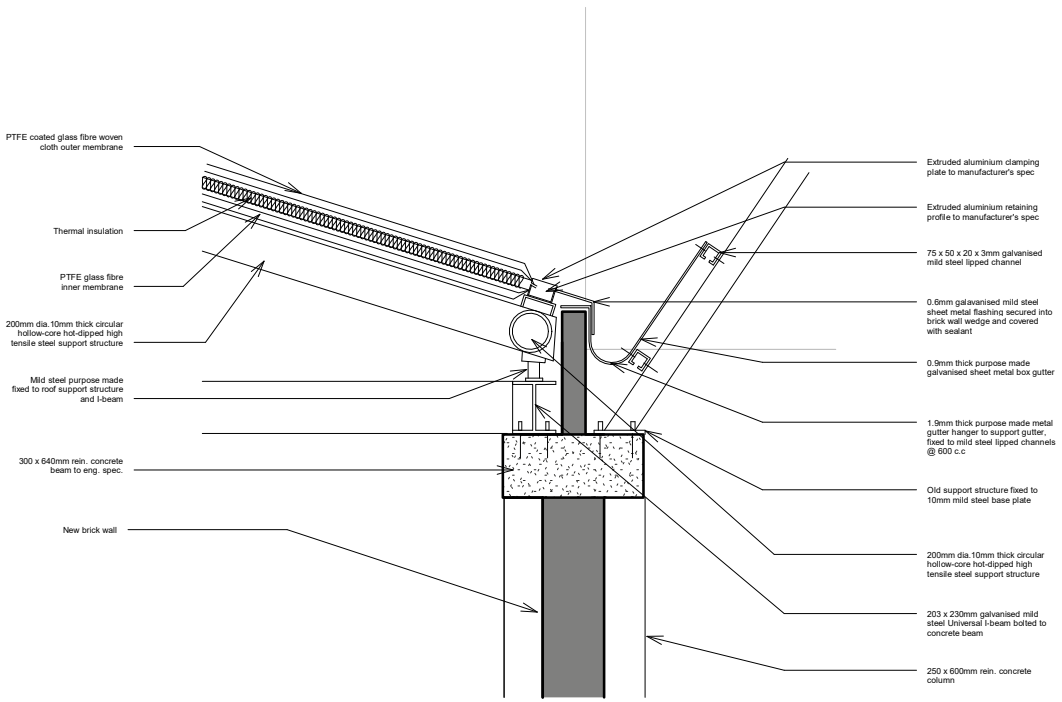


Sacred space infinity water edge detail





New PTFE Building skin footing detail



PTFE Membrane to existing roof meeting detail

PART **07** Conclusion

CONCLUSION

Representing a culture is more than replicating the art on the walls, it's about forming a spirit of the place, an aura, and this aura is created by all the facets that make the culture. These include the affinity of space to that which is not architectural but divine and complex in nature. Rudimentary readings of such lead to recreation without understanding the "why" behind every aspect. As such, the materiality, the sensory, the symbolism, the poetics of the space, and how it all comes together becomes contradictory or conflicted.

When approached with correct intentions, spaces can be defined as spiritual. The making of the architecture can bring the abstract into concrete representational works imbued with spirit and meaning.

These intangible attributes are proof that the approach or point of entry in informing architecture that is for Africans cannot be a "one-fits-all" blueprint that is duplicated in every region to inform the design of space. Such is how the historic homogeneous African cities came about. It is crucial, especially today, to understand the dynamic cultures and communities as the design drivers for the architecture.

As spaces that we make become extensions of ourselves, the primary existence of the spirit, be it in the people, processes or environment, is fundamental in the creation.



"AFRICAN" CONTINENT | ALKEBU-LAN



GAUTENG PROVINCE



TSHWANE CITY



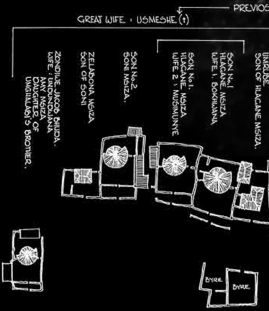
PEOPLE

- Material
- Alone
- Control
- Accumulate
- Guilt



HERITAGE? GENIOUS LOCI? CULTURE

TANGIBLE

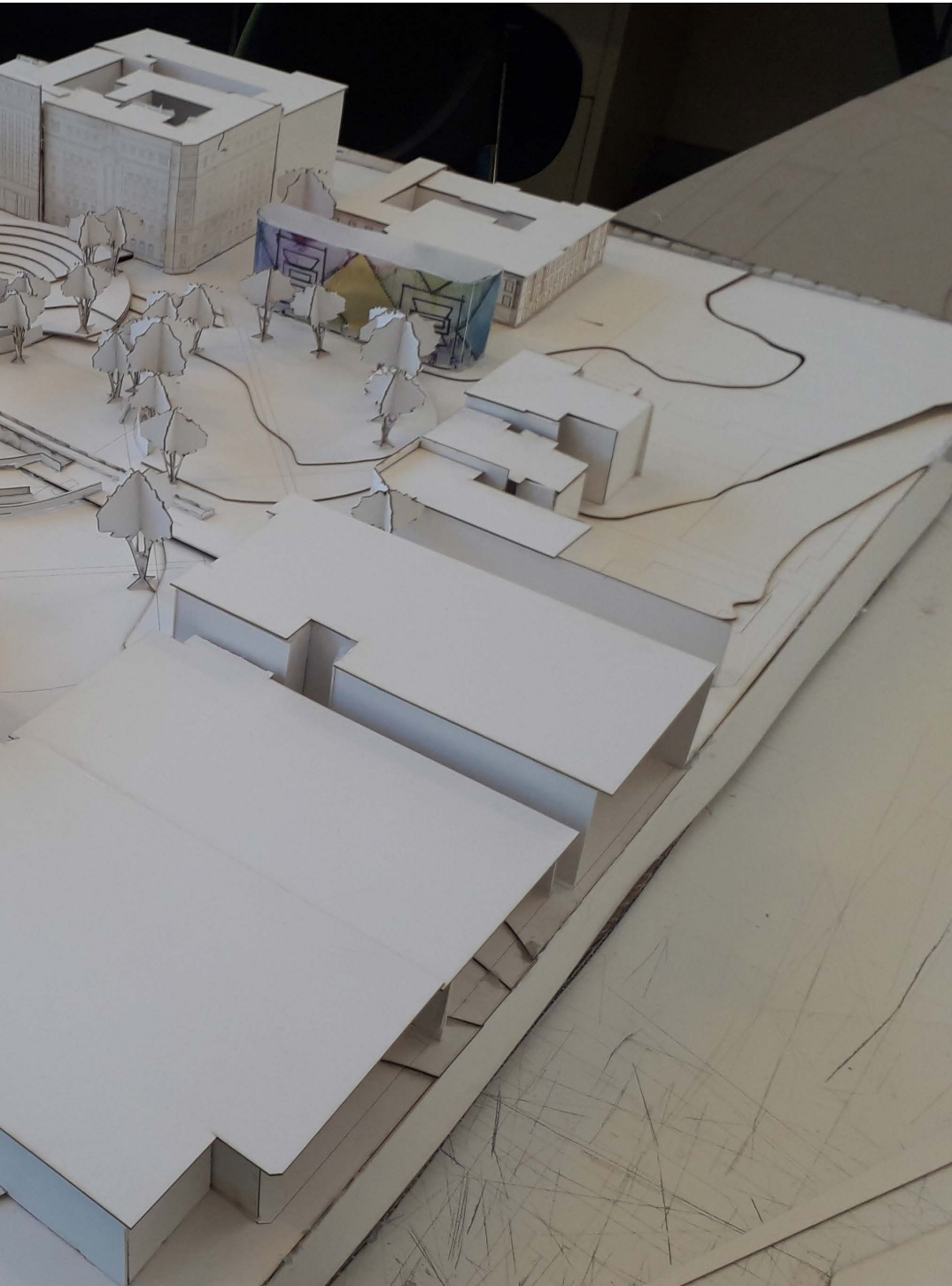


FINAL DESIGN MODEL















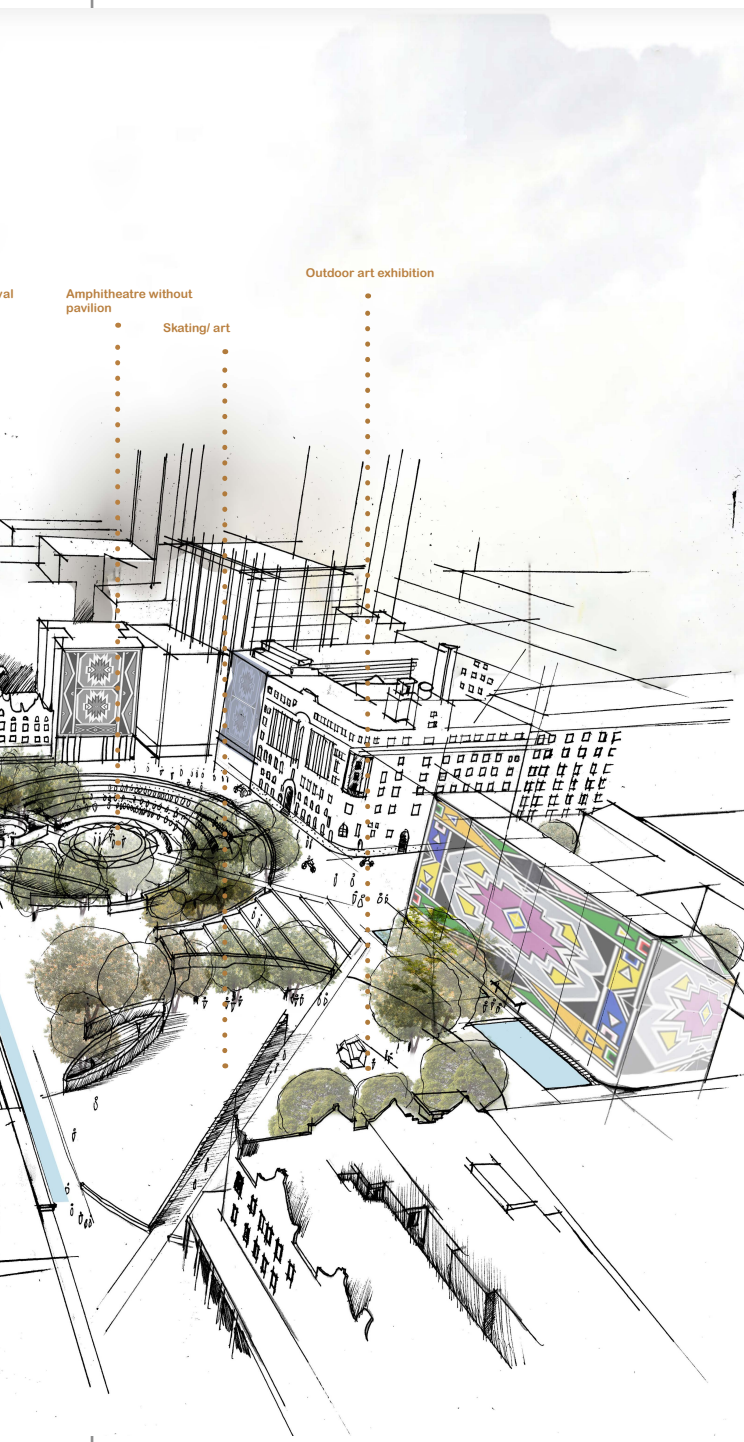
Open lawn space

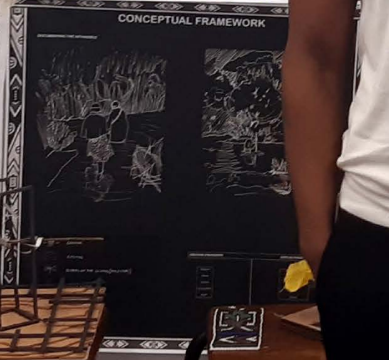
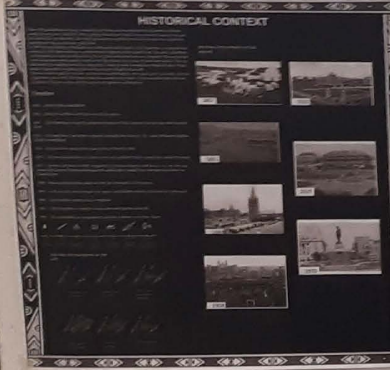
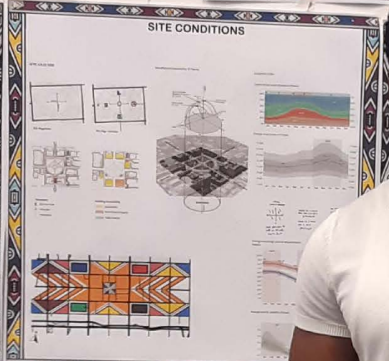
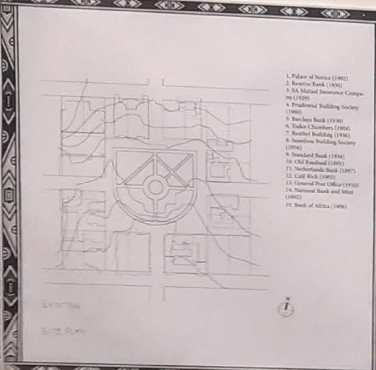
Flea market area

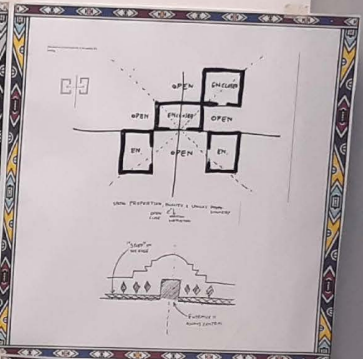
Outdoor meeting/
seating/
games

Information center

Sacred space arrival



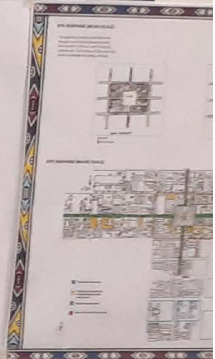




MATERIALITY

Materiality section featuring a photograph of a large, illuminated, dome-like structure, a photograph of stone or concrete blocks, and a technical diagram of a dome structure.

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Design Development section featuring a legend with icons for various elements like people, trees, and furniture, and a list of text descriptions.





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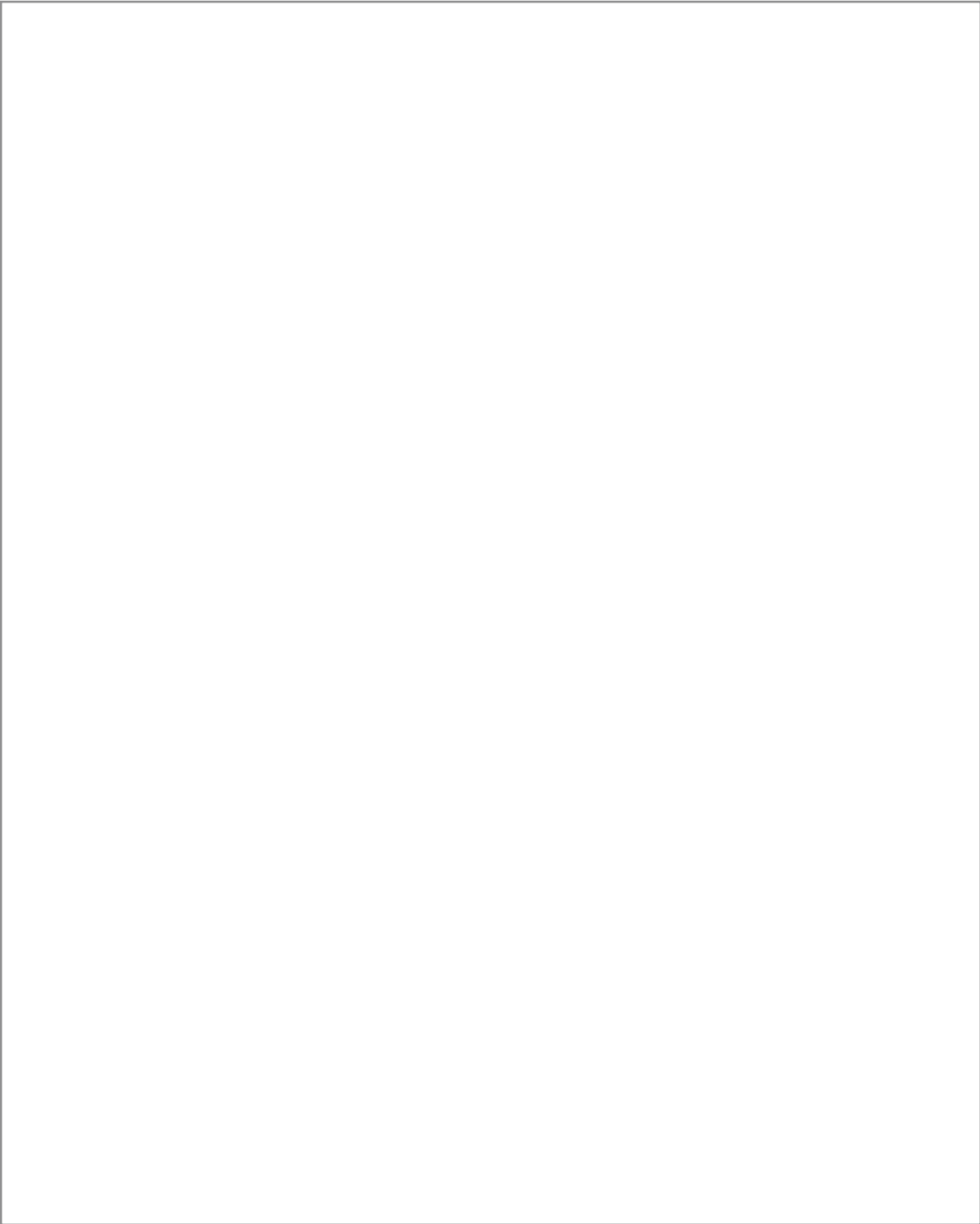
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PRE-SCREENING QUESTIONNAIRE OUTCOME LETTER

STU-EBE-2023-PSQ000669

2023/09/14

Dear Kenneth Mahlangu,

Your Ethics pre-screening questionnaire (PSQ) has been evaluated by your departmental ethics representative. Based on the information supplied in your PSQ, it has been determined that you do not need to make a full ethics application for the research project in question.

You may proceed with your research project titled:

Unveiling Ancestral Land

Please note that should aspect(s) of your current project change, you should submit a new PSQ in order to determine whether the changed aspects increase the ethical risks of your project. It may be the case that project changes could require a full ethics application and review process.

Regards,

Faculty Research Ethics Committee