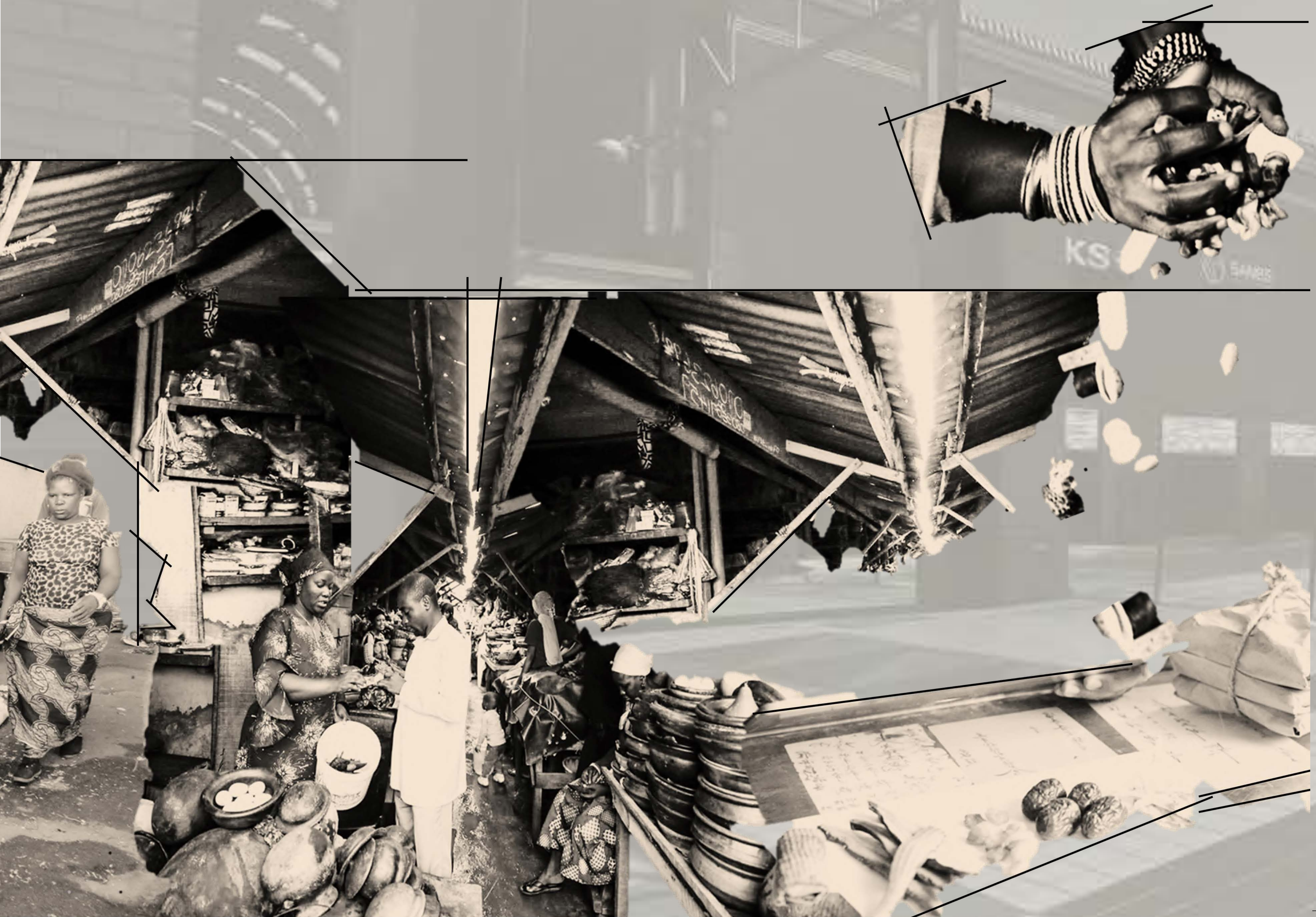


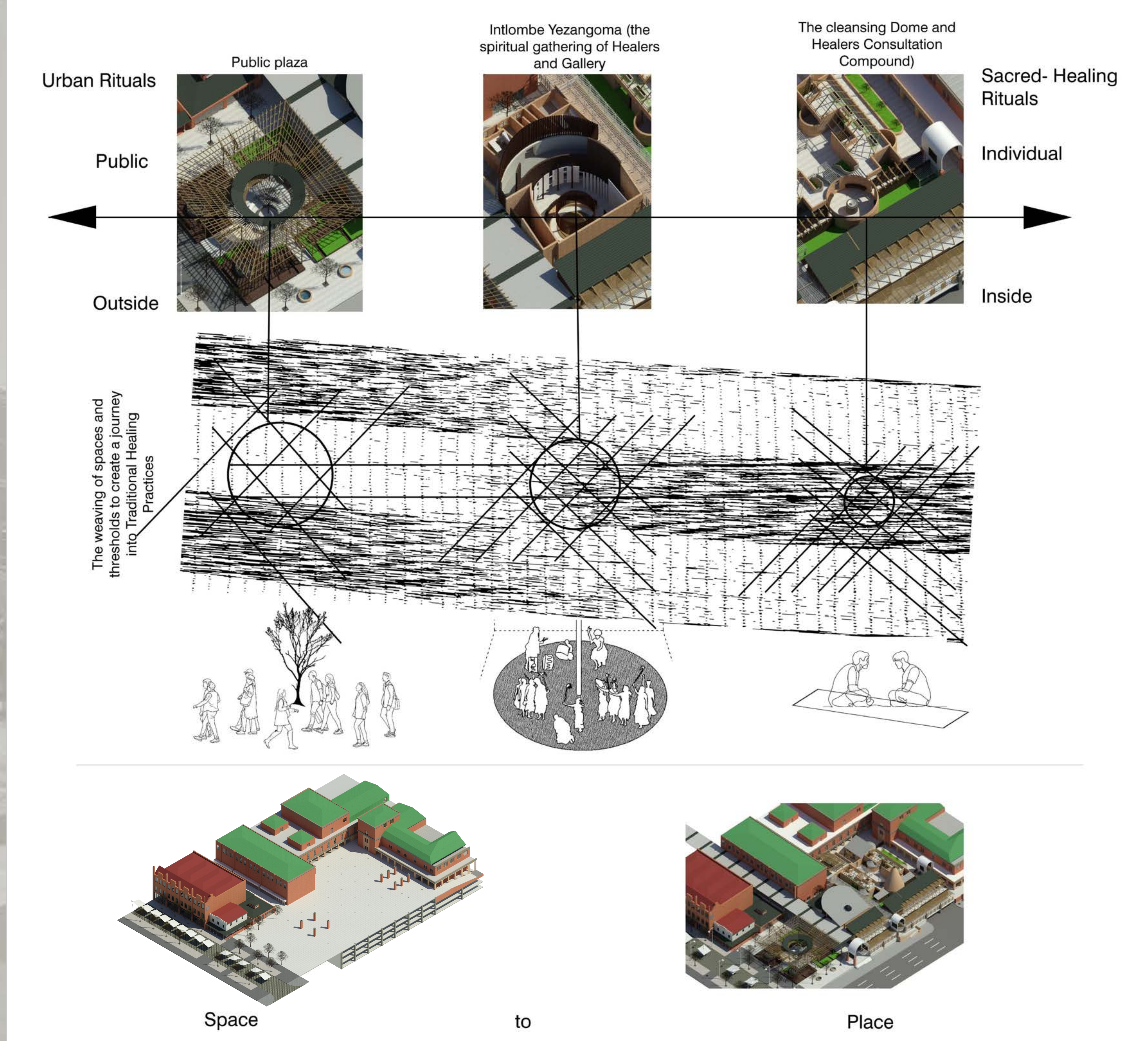
THRESHOLDS TO THE SACRED

The assimilation of indigenous traditional medicine rituals into a dormant urban public space to promote healing and transfer of healing knowledge



Site Location: 340 Helen Joseph and Sisulu Street, Sammy Marks Square, Pretoria Central

Programme: Traditional Medicine Healing Centre and Market



FRAMING THE PROJECT

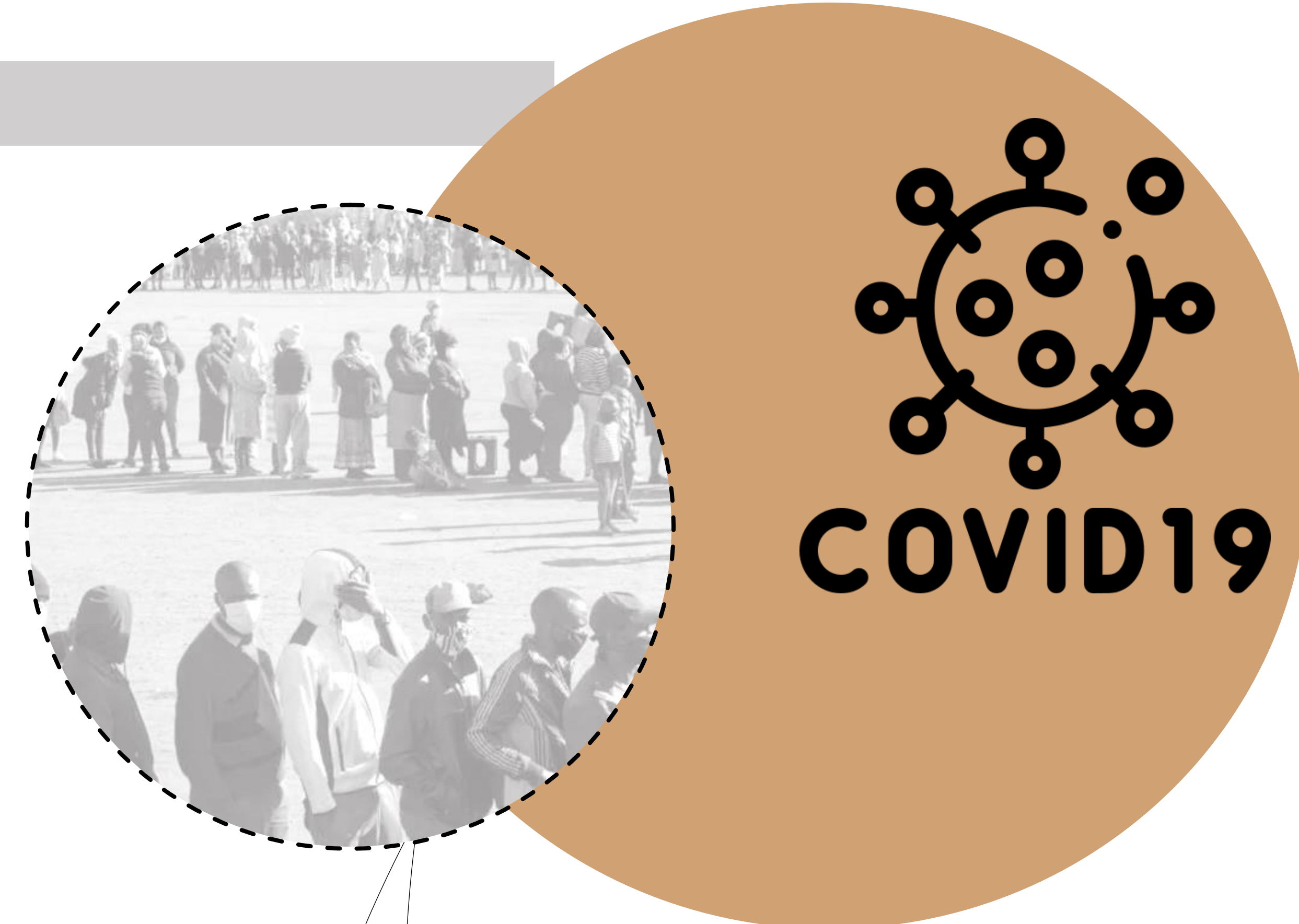
theoretical background

A GLOBAL ISSUE

Healthcare Systems

The COVID-19 pandemic highlighted the necessity for alternative medical practices, to diversify medical provision rather than relying primarily on Biomedicine. Biomedicine is currently the standardised source of treatments globally with little effort geared toward Traditional medicine (Mander, 2019).

China and Japan are on the forefront when it comes to the integration of traditional medicine or herbal remedies into the primary health care system. However, in the African context, traditional medicine is still under documented and remains unintegrated into the healthcare system (WHO, 2023).

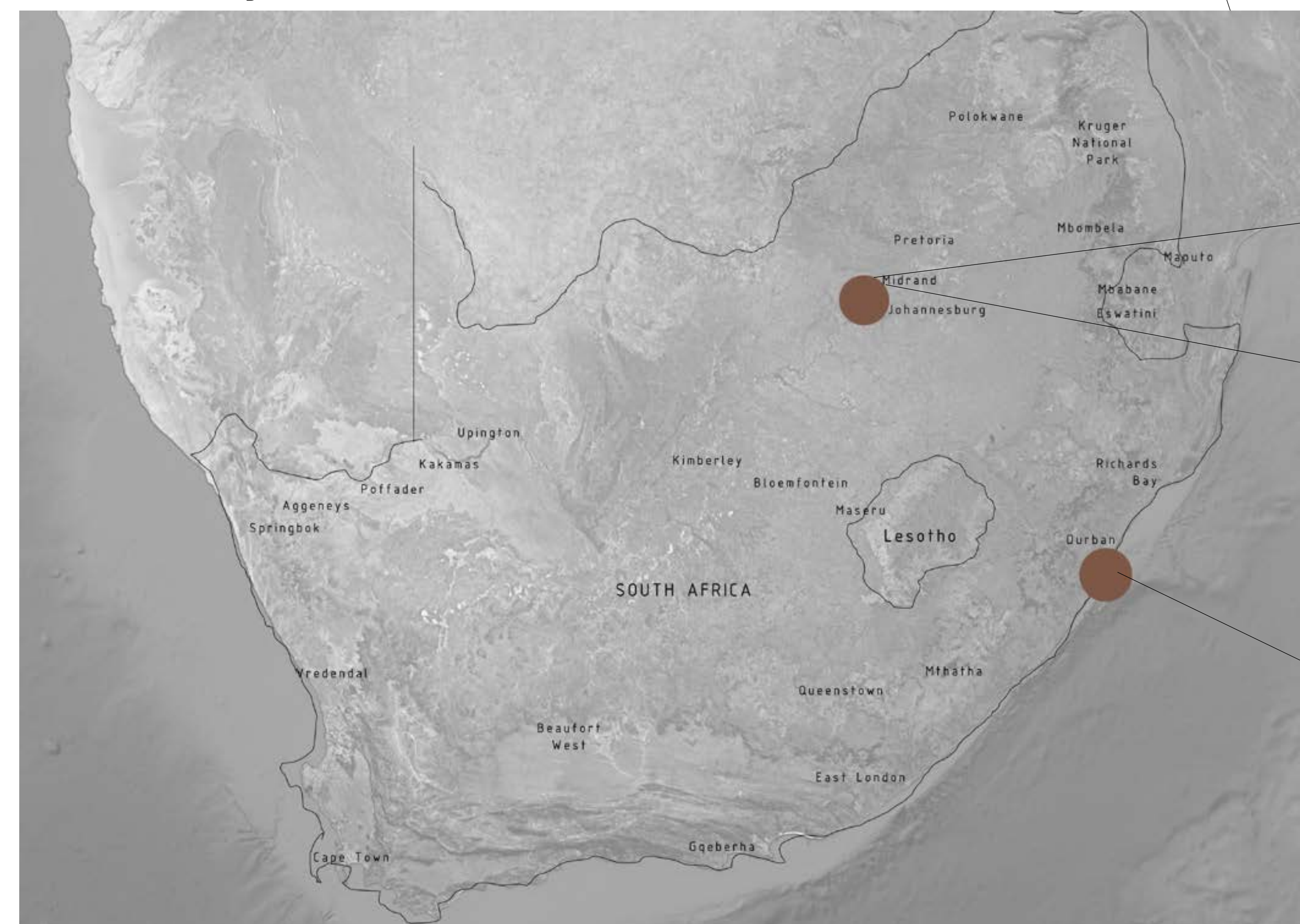


A NATIONAL ISSUE

Conventional South African healthcare facilities struggle to cope with extremely high patient numbers. The failure to meet the basic standards of healthcare, with increasing morbidity and mortality rates, poses a threat to the South African economy. (Booth 2023).

On the other hand there is a dire and urgent need to develop new technologies for traditional medicinal plant harvesting, farming, processing, stabilisation, packaging, dispensing and treatment, as well as a need for assistance and support to be provided to current role players in the industry to address the challenges and opportunities that they face.

A great concern has been raised with regard to their purity or possible contamination either during production, storage or dispensing, which can be through adulteration by chemicals and biological contamination (Van Vuuren et al., 204)



South Africa's largest Traditional Medicine Markets



Kwa Mai-Mai Traditional Market



Faraday Muti Market



Warwick Junction Muti market

WHAT IS TRADITIONAL MEDICINE?

Traditional medicine is an object or substance used in traditional health practice for the diagnosis, treatment or prevention of physical or mental illness; or well-being in human beings; and traditional health practice means the performance of a function, activity, process or service based on traditional philosophy, that includes the utilisation of Traditional Medicine (Mokgobi 2014).

Traditional healing is associated with herbs, remedies and advice from a traditional healer, with a strong spiritual component. For this reason, it is impossible to separate African traditional healing from African spirituality (Richter, 2003). African spirituality encompasses belief and worship to God, and reverence and acknowledgement of ancestors.



WHAT DOES IT ENTAIL?

- Traditional medicine is physically, socially and culturally more available than biomedical treatment (Moshabela, 2008).
- Also, the practice of Traditional Medicine is client centred and personalised, paying due regard to social and spiritual matters that are fundamental to African cultures.
- In addition to healing of the mind, body and spirit, Traditional Healers serve many roles in the community, including counselling, social mediation, cultural education and being custodians of African traditions and customs.



WHO IS INVOLVED IN TRADITIONAL MEDICINE?

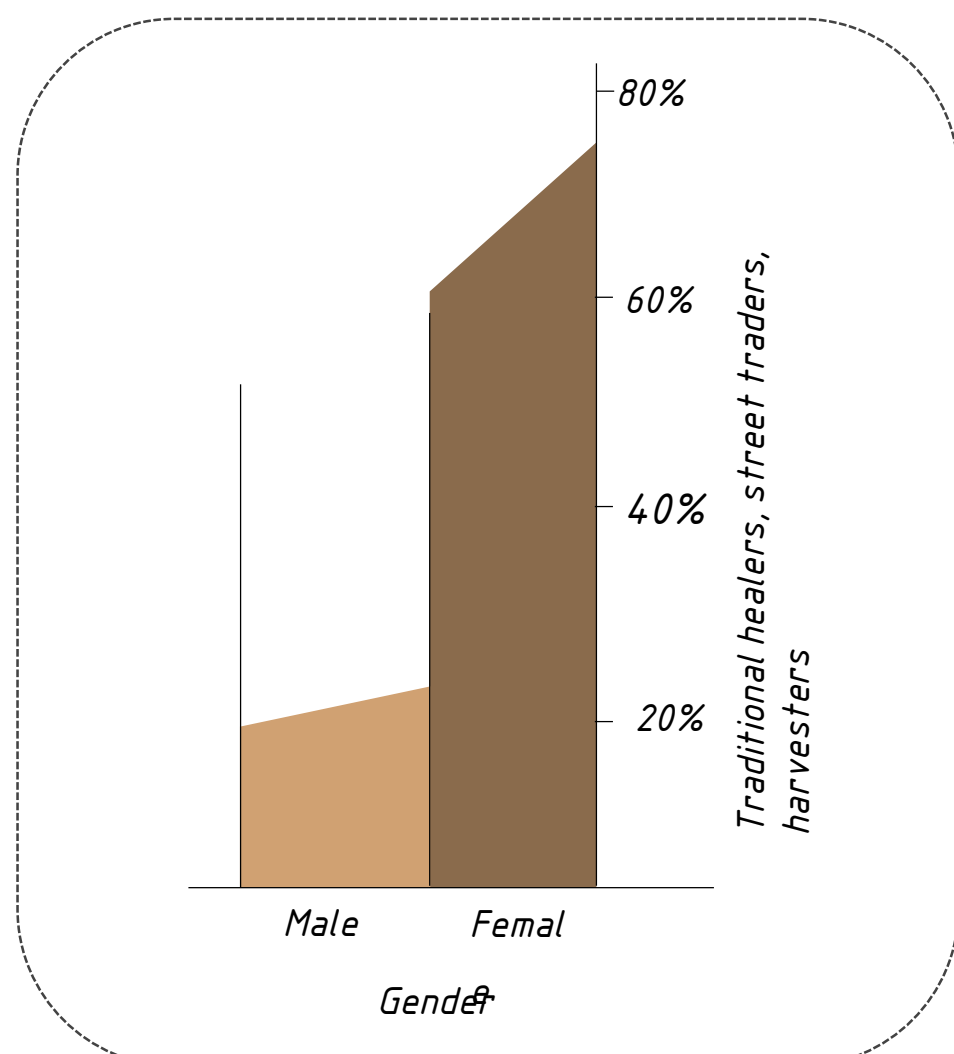
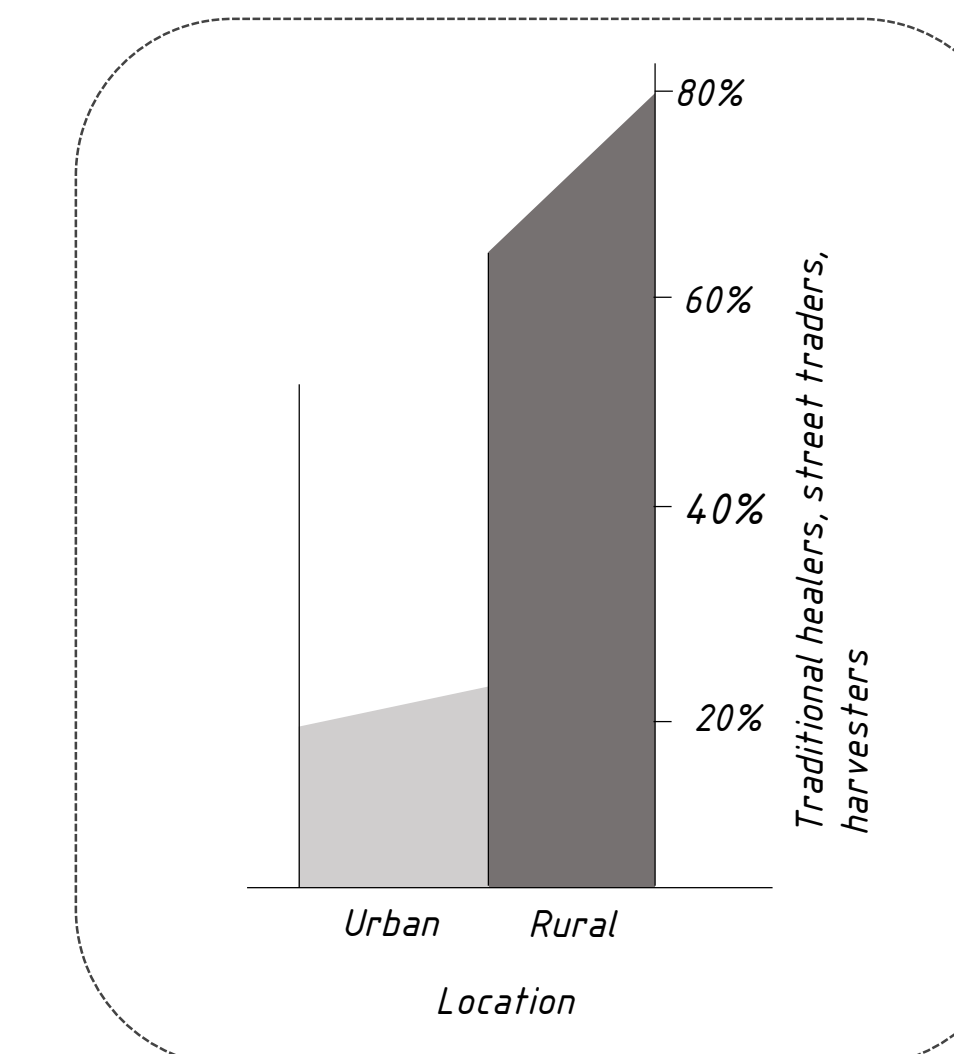
There are two main types of traditional healers within the Nguni, Sotho-Tswana, and Tsonga societies of Southern Africa: and these healers are effectively South African shamans who are highly revered and respected in a society where illness is thought to be caused by spiritual imbalances or through neglect of the ancestors (Semenya, 2014).

Communication with ancestors is facilitated by a Traditional Healer who would also guide on how to specifically communicate depending on the purpose and the ritual that may be required (Edwards, 2011). The sangoma may burn incense (like impepho) or sacrifice animals to please the ancestral spirits. Snuff is also used to communicate with the ancestors through prayer.

THE DIVINER (isangoma) relies primarily on divination for healing purposes and would prescribe healing rituals.

THE HERBALIST (inyanga) concerned mainly with medicines made from plants and animals,

It is estimated that approximately 74% of medicinal plant harvesters, street traders and traditional healers are women, with the remaining 26% of the trade role players being men. Additionally, 80% are rural and 20% are urban.



FRAMING THE PROJECT

theoretical background



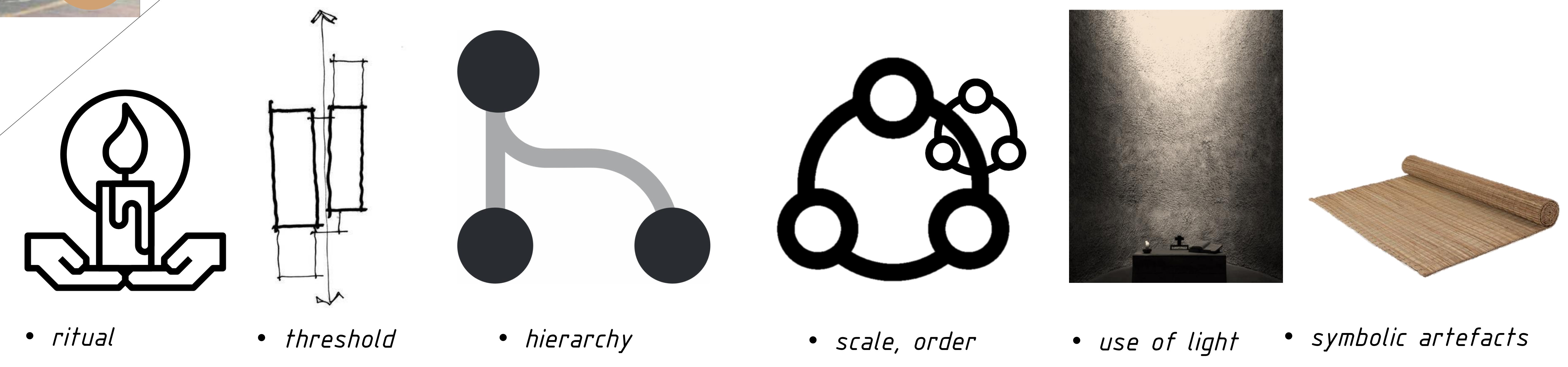
THE STATUS QUO ON TRADITIONAL MEDICINE (MUTIHI) MARKETS

- Most healers still practise in their houses where there is little privacy for patients and their families are exposed to ill people.

- Places such as the *Kwa Mai-Mai Market* were initially designed as horse stables and therefore lack the basics needed for trade and hygiene, such as water, good lighting and ablutions (Mbendana et al, 2019). Due to lack of appropriate spaces, one can find situations such as:

1. Air drying of muthi under shade seen in KwaMai-Mai muthi market.
2. Pre-processing by sun drying of muthi on newspapers and empty bags.
3. Grinding of medicinal plants at KwaMai-Mai using steel/iron/metal "pestle and mortar" at seemly centralised operations and position on side walks

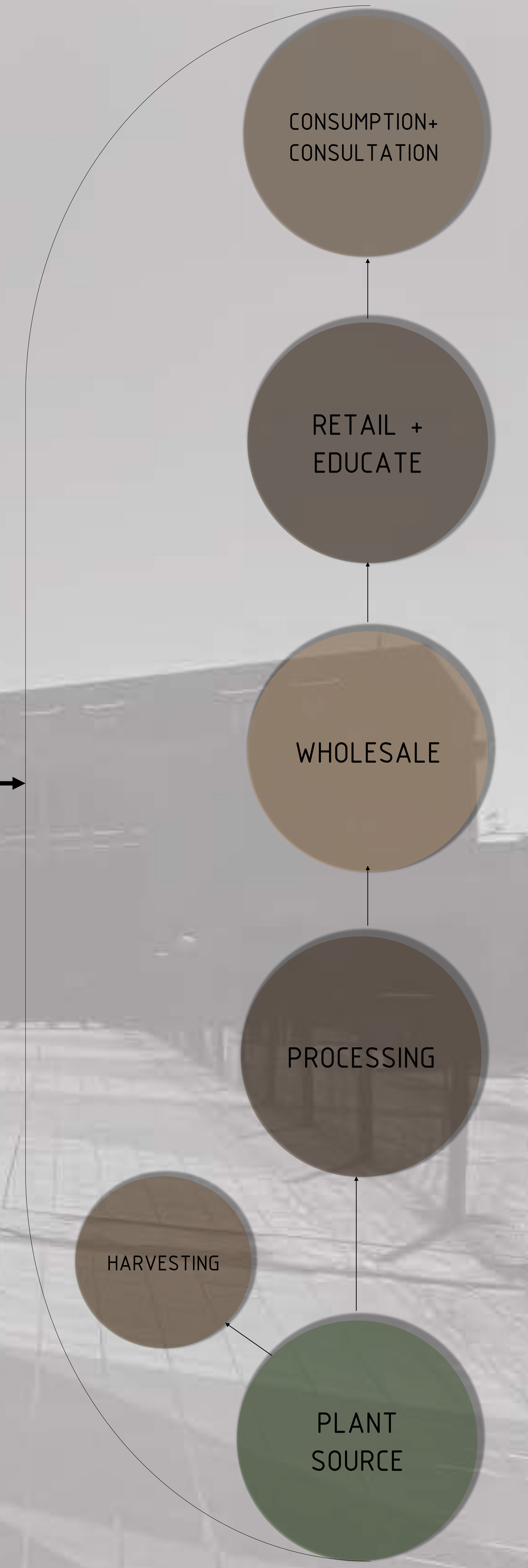
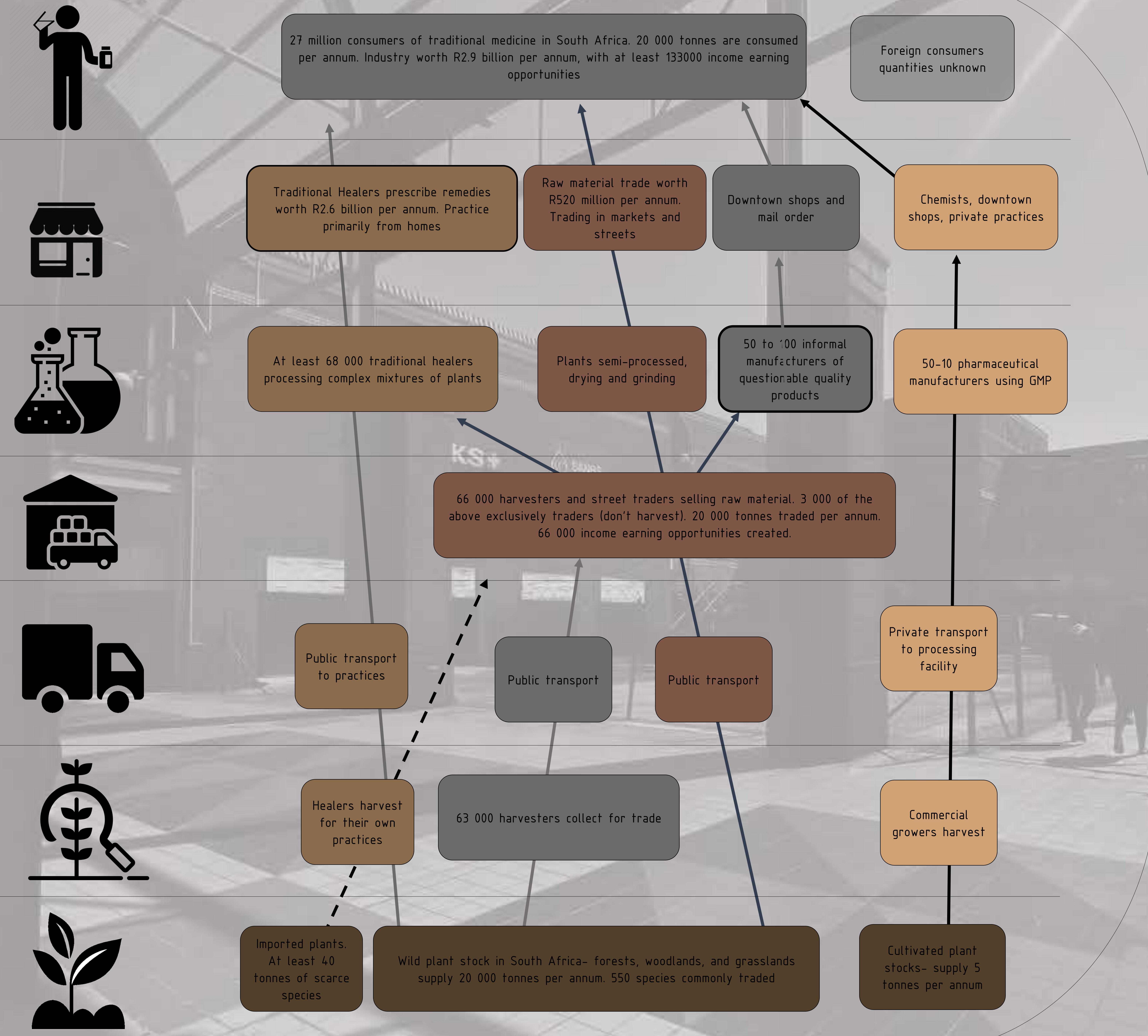
- In addition, the spaces don't reflect African cultural identity through their design and material qualities. These qualities include elements such as:



essential design considerations for the healing experience in traditional health practices

Mbendana D., Mamabolo K., Truter M., Kritzingner Q., Ndhlala A.R. 2019. Practices at herbal (muti) markets in Gauteng, South Africa and their impact on the health of the consumers: A case study of KwaMai-Mai and Marabastad muti markets, South African Journal of Botany, Volume 126., Molebatsi J., Breed C., Stafford G., 2020. Traditional healing in South Africa needs spaces designed for the purpose. [url] : <https://theconversation.com/traditional-healing-in-south-africa-needs-spaces-designed-for-the-purpose-148473>. [Accessed 30 October 2023].

TRADITIONAL MEDICINE - AN ECONOMIC LENS

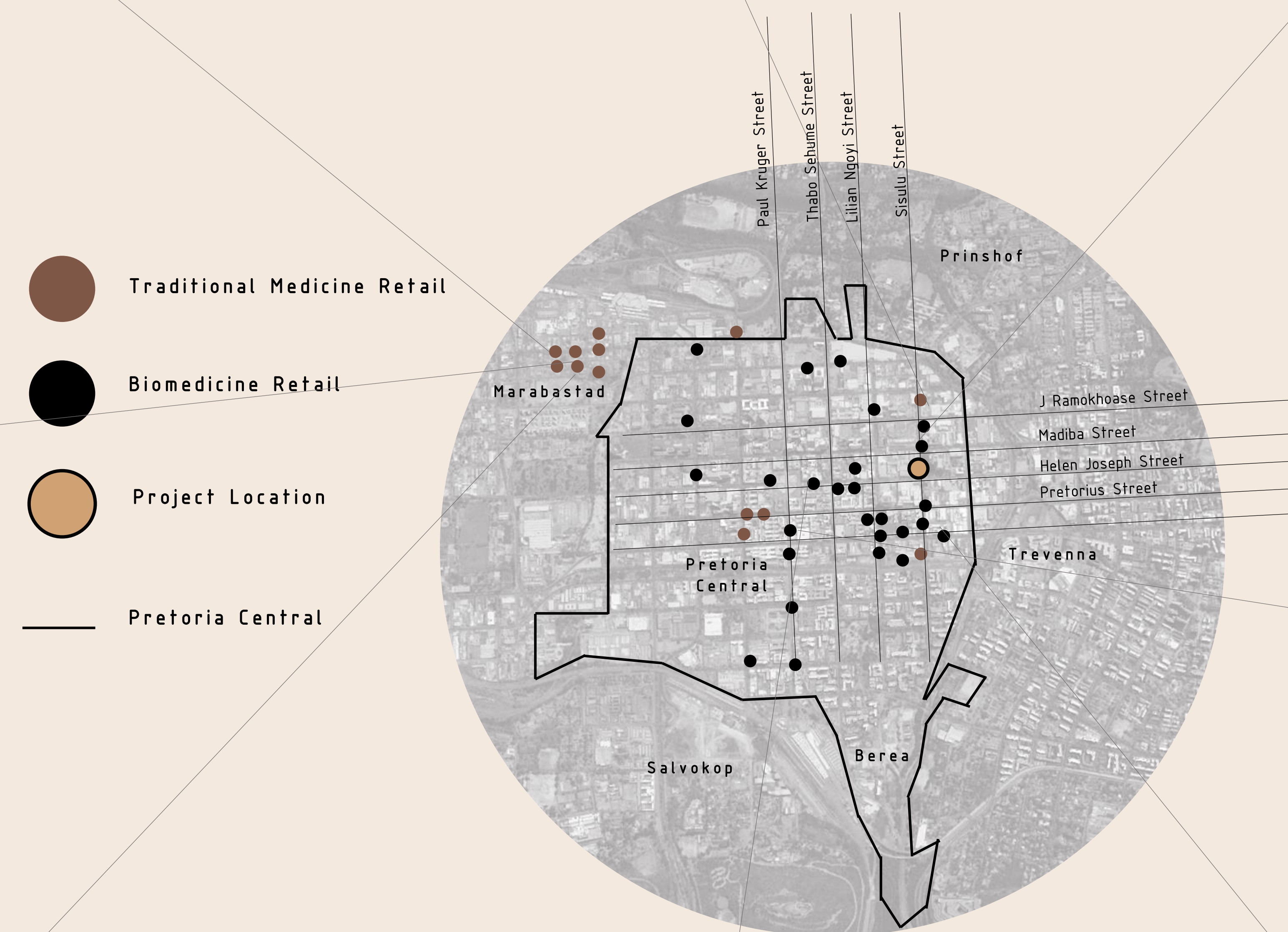


A Model of the South African medicinal plants industry: trade chain (Mander et.al, 2014)

Proposed Urban Central Model

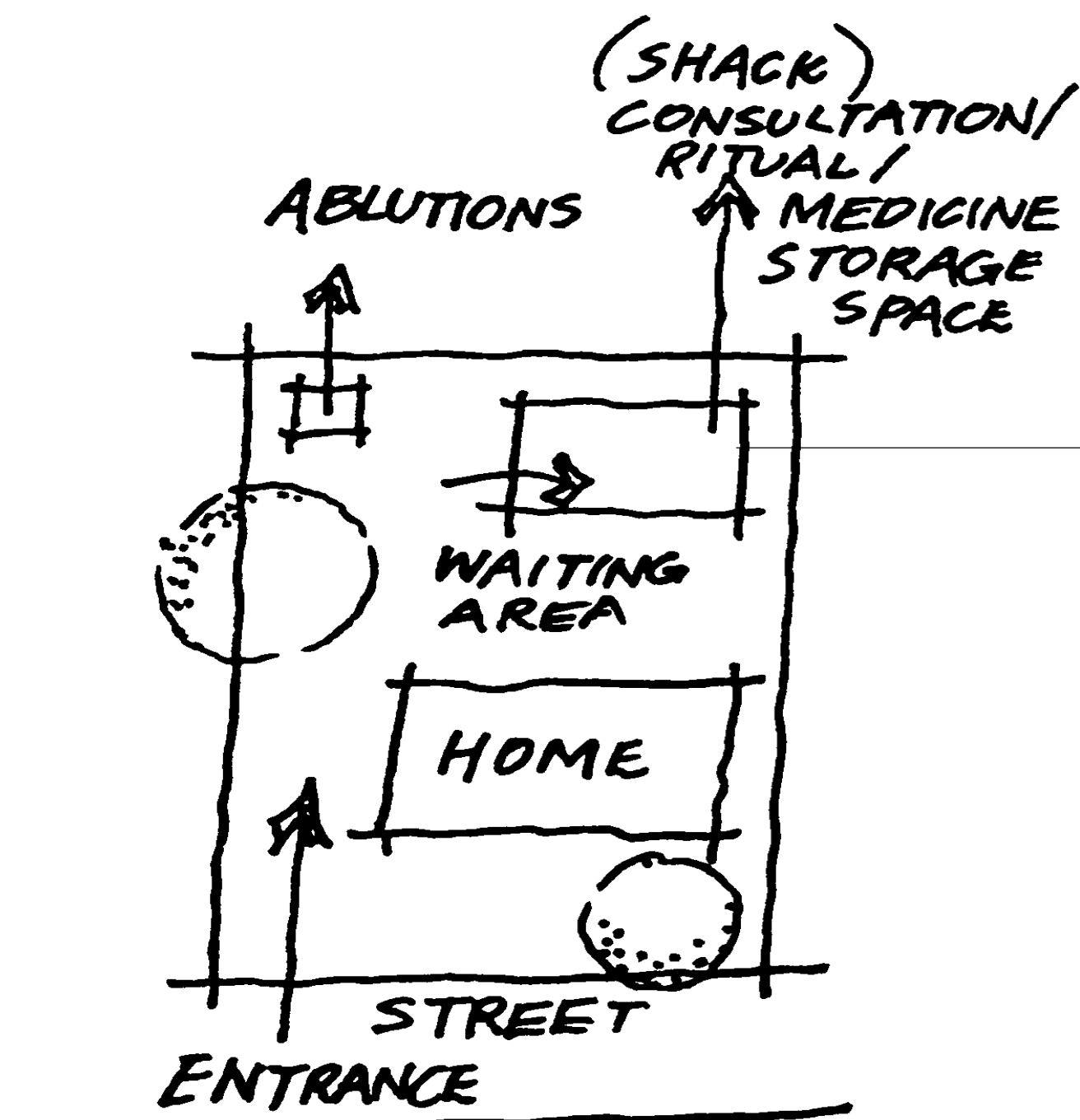
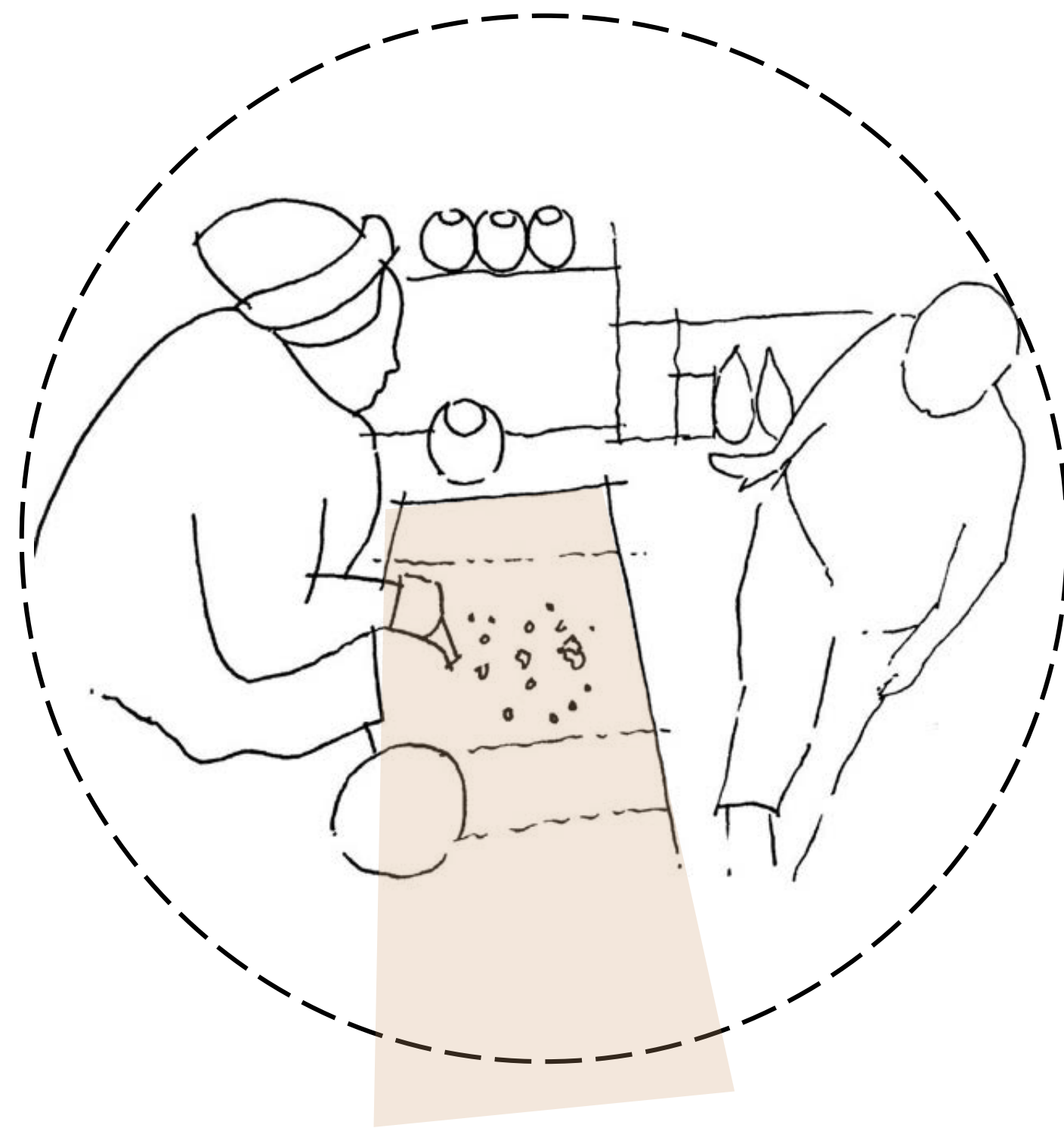
TRADITIONAL MEDICINE - A CONTEXTUAL LENS

Pretoria central and surroundings existing Traditional Medicine Retail and Biomedical outlets

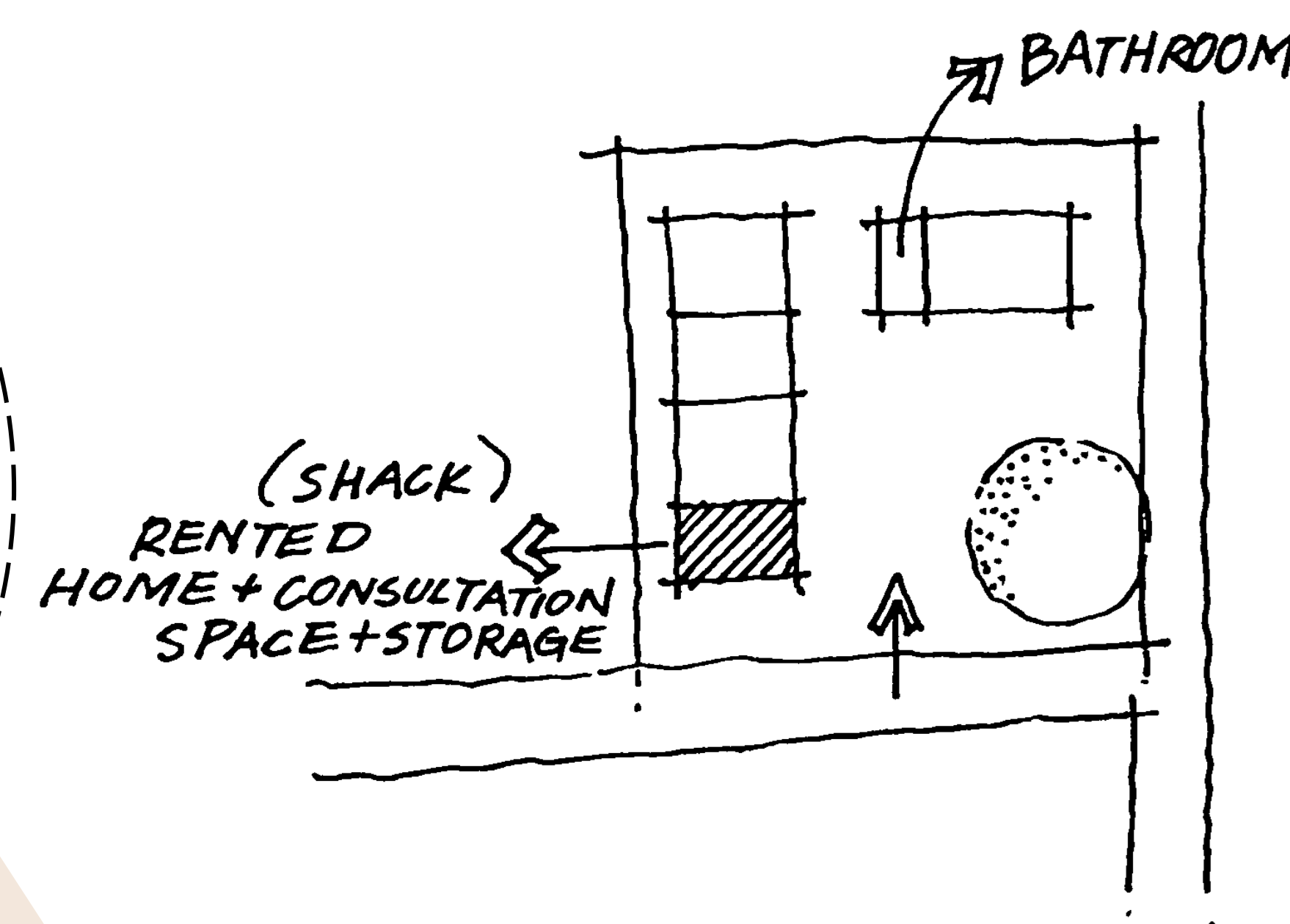


WHAT DOES VISITING A TRADITIONAL HEALER ENCOMPASS?

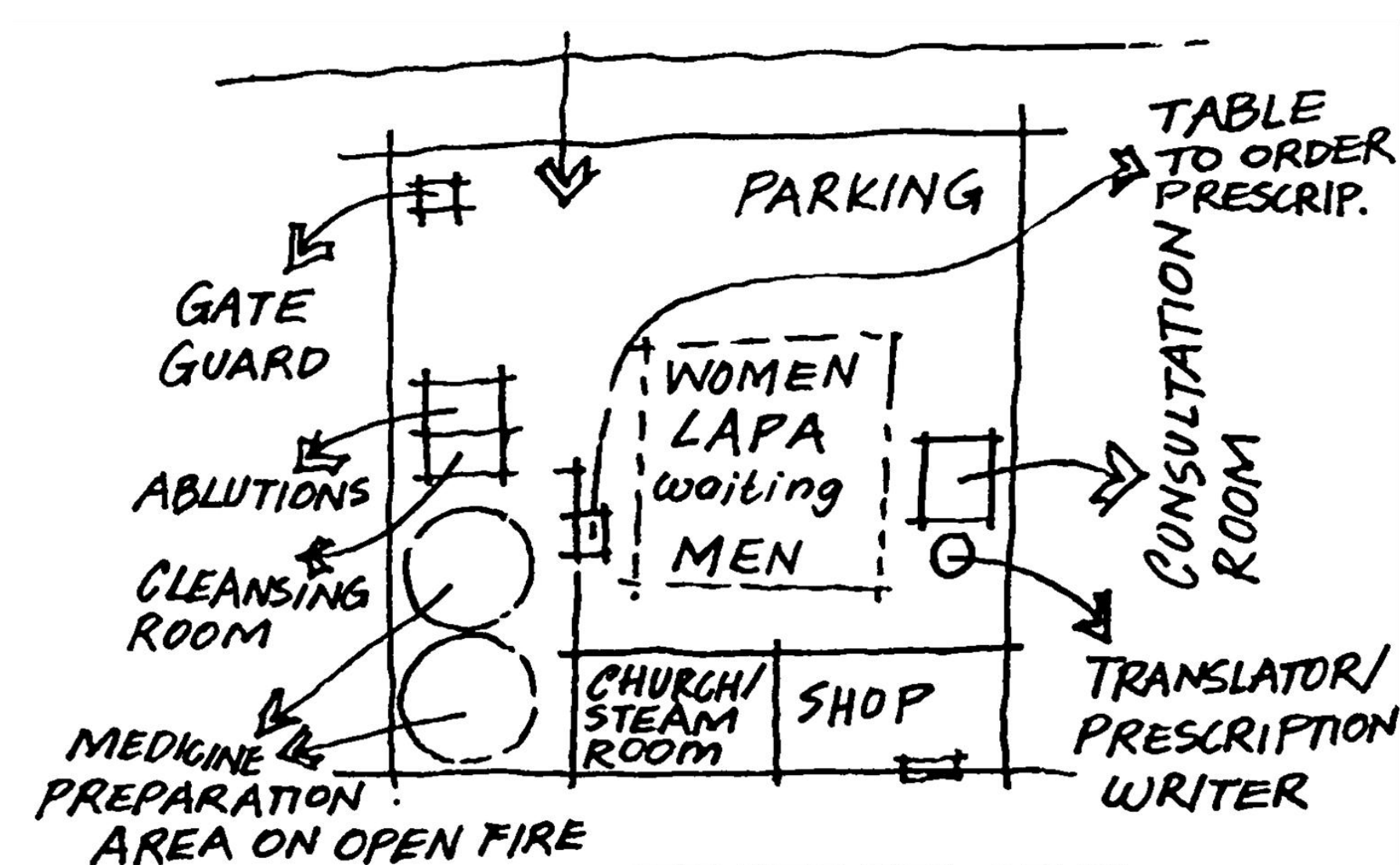
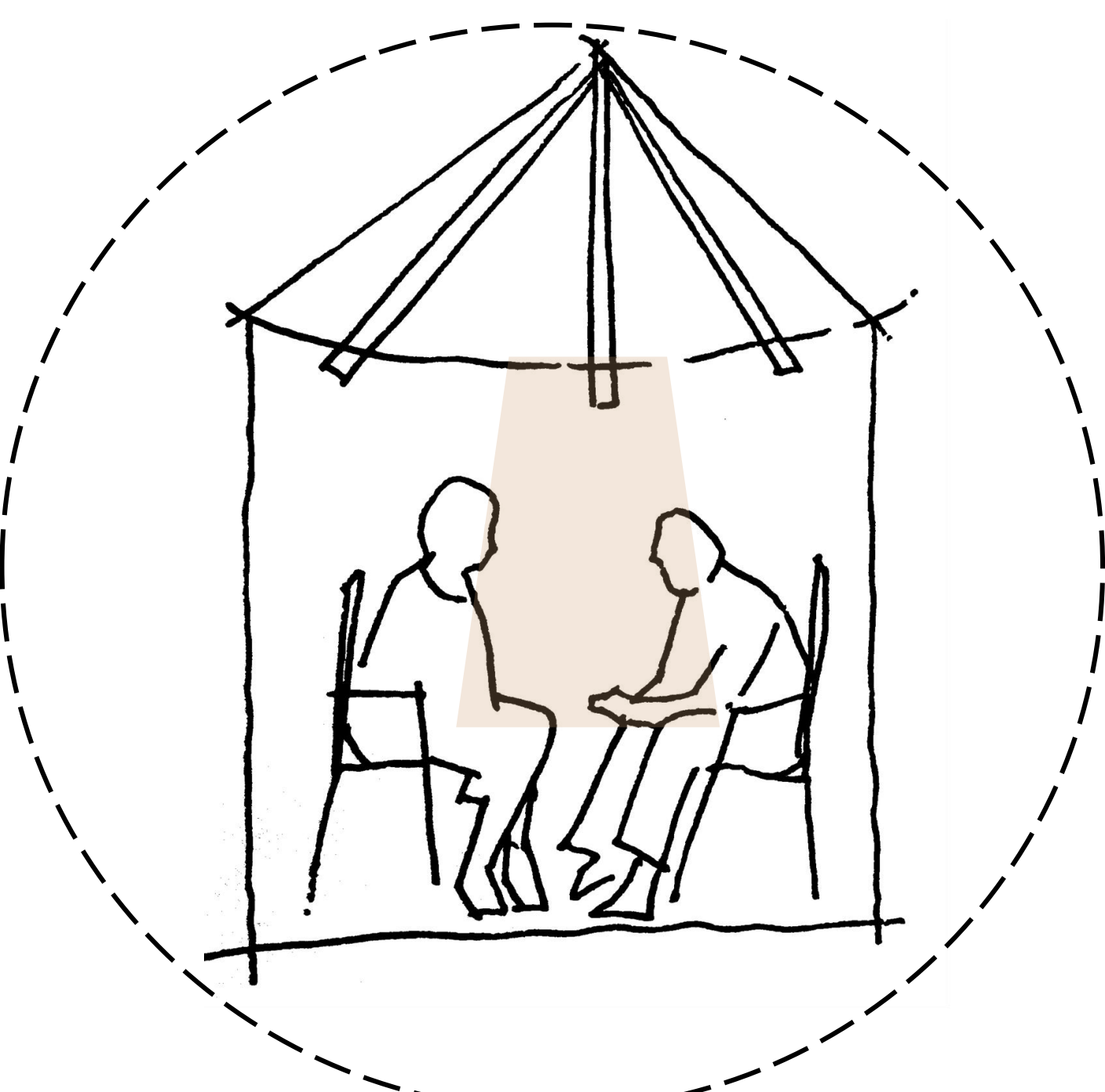
1 CERTIFIED HOME BASED TRADITIONAL HEALER
 Location | Middelburg, Mpumalanga, South Africa
 Gender: Female
 Method of healing: Herbs, Animals



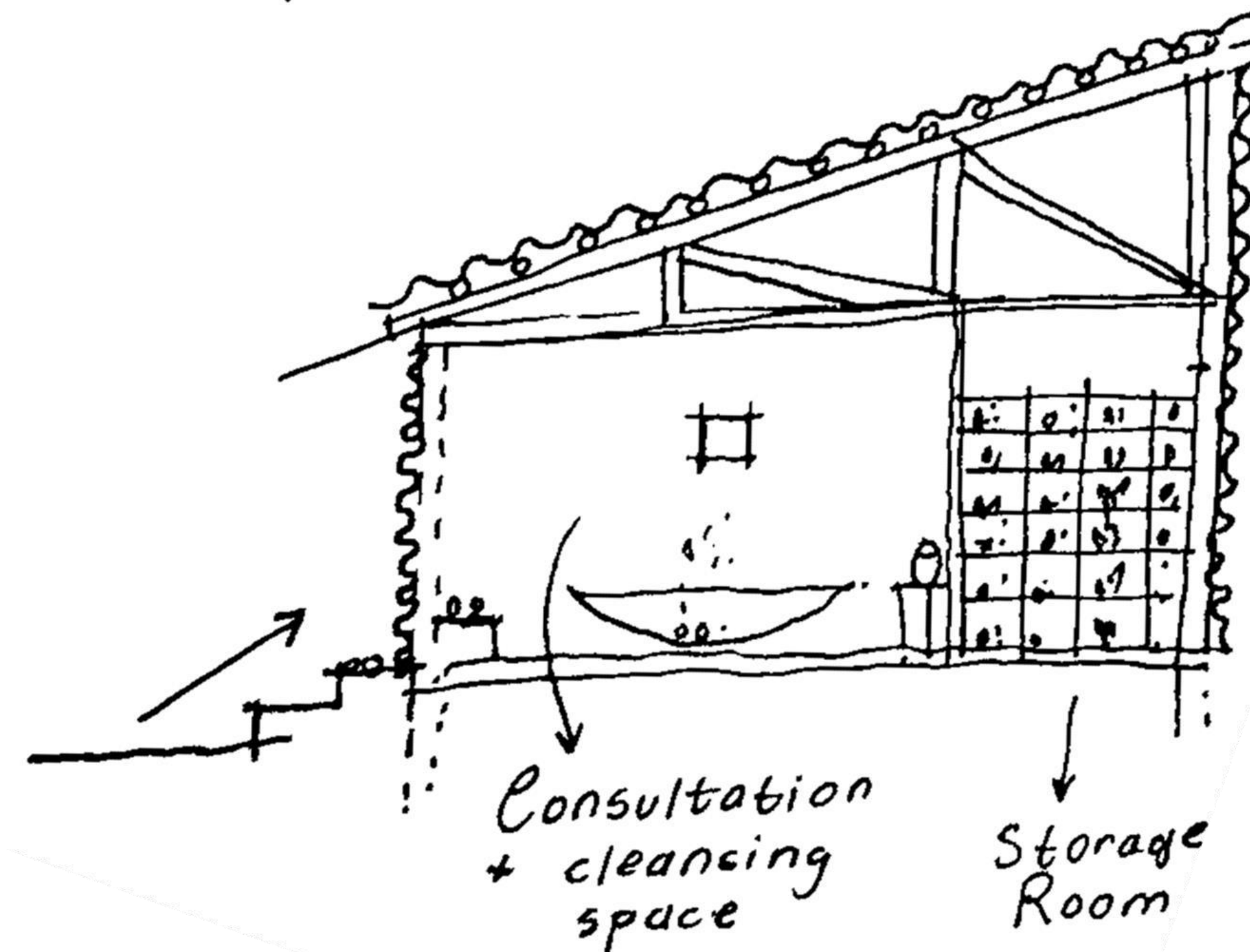
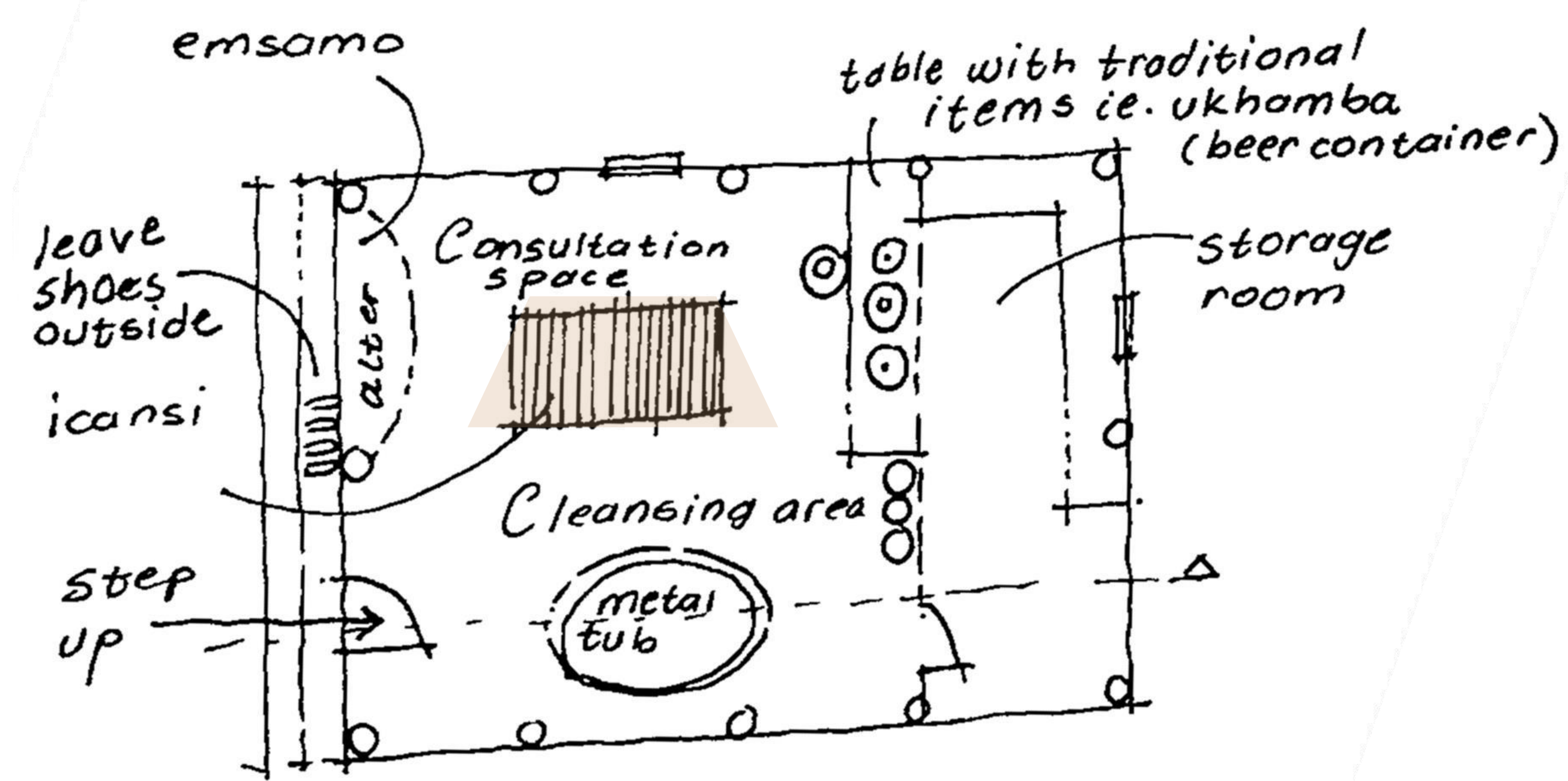
2 ZION HOME BASED TRADITIONAL HEALER
 Location | Middelburg, Mpumalanga, South Africa
 Gender: Male
 Method of healing: Bible, Holy Water, Herbs



3 ZCC CHURCH BASED RELIGIOUS HEALER
 Location | Soshanguve, Gauteng, South Africa
 Gender: Male
 Method of healing: Holy Water, Herbs



THE SPACE



THE RITUAL

- 1 Women before entering the sacred space before entering: take shoes off and leave on outdoor steps

shoulders + arms covered

long dress/skirt to cover knees
- 2 Proceed to sit on grass mat - consultants/healer will first 'phabla' call upon ancestors then guide accordingly.
- 3 She will either provide you with medicine / perform a ritual:
- 4 Cleansing with animal / medicine herbs or a mixture

4 Instruction to perform rituals at home / river... ie. animal slaughter, which can be done at home (preferably)

steam with medicine

water poured on you

plastic cover

4 POSSIBLE TREATMENTS THAT CAN BE ADMINISTERED

Muthis are prepared, and depending on the affliction, a number of purification practices can be administered. Ukuzila (Fasting) is one of the most important things to do in preparing muthi and receiving healing.

CLEANSING - Herbal mixtures are added to bath water/basket. The mixture is then poured over the patient to purify them.

STEAMING (UKUFUTHA) - A blanket/ large plastic is used to cover the patient. Hot rocks or a portable stove may be included to keep the bucket boiling and the patient breathes in the herbal mixture as steam and sweats.

NASALLY - A variety of plants can be taken dried and powdered as snuff or smoke. Some are taken to induce sneezing which may traditionally be believed to aid the expulsion of disease.

ENEMAS - Infusions and some decoctions are commonly administered as enemas as it is believed certain plant extracts are more effective when administered this way.

Heave (phalaza) - A large volume (up to +-2 litres) of a weak, lukewarm herbal infusion is drunk and a process of self-induced heaving occurs to cleanse the system.

SITE LOCATION

'regeneration'

natural process of replacing or restoring what is damaged or missing for a renewed holistic function

The goal is urban regeneration of an unused open public space where there is a recalling of past uses or buried attributes (tangible and intangible) to inspire the creation of a revitalised space.

Finding potential and beauty in an unexpected and often forgotten place (seeing potential in the ordinary or neglected).

SITE INFORMATION

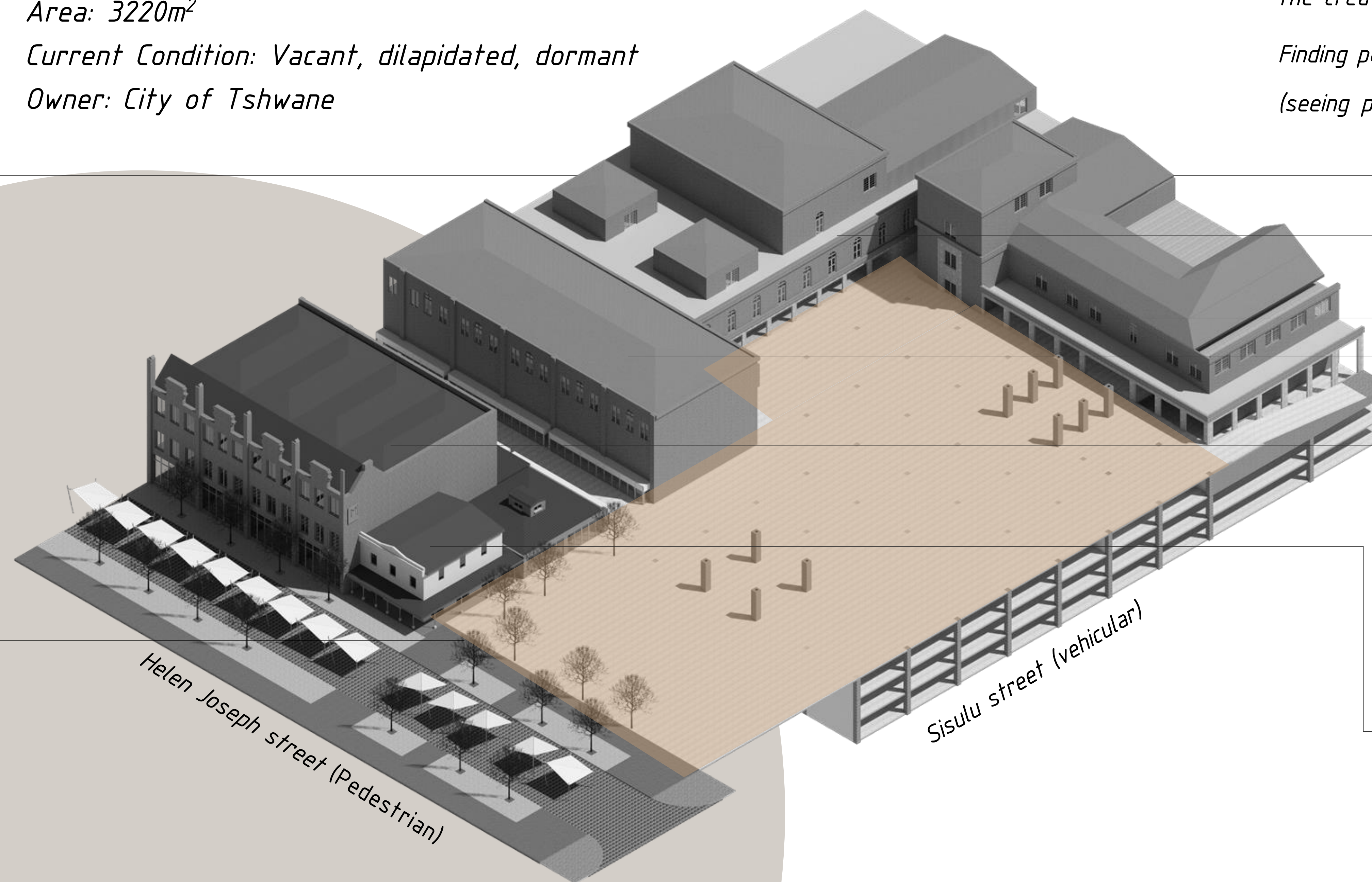
Site location: ERF 3433, 340 Helen Joseph St, Sammy Marks Square, Pretoria Central

Zoning: Business 1

Area: 3220m²

Current Condition: Vacant, dilapidated, dormant

Owner: City of Tshwane



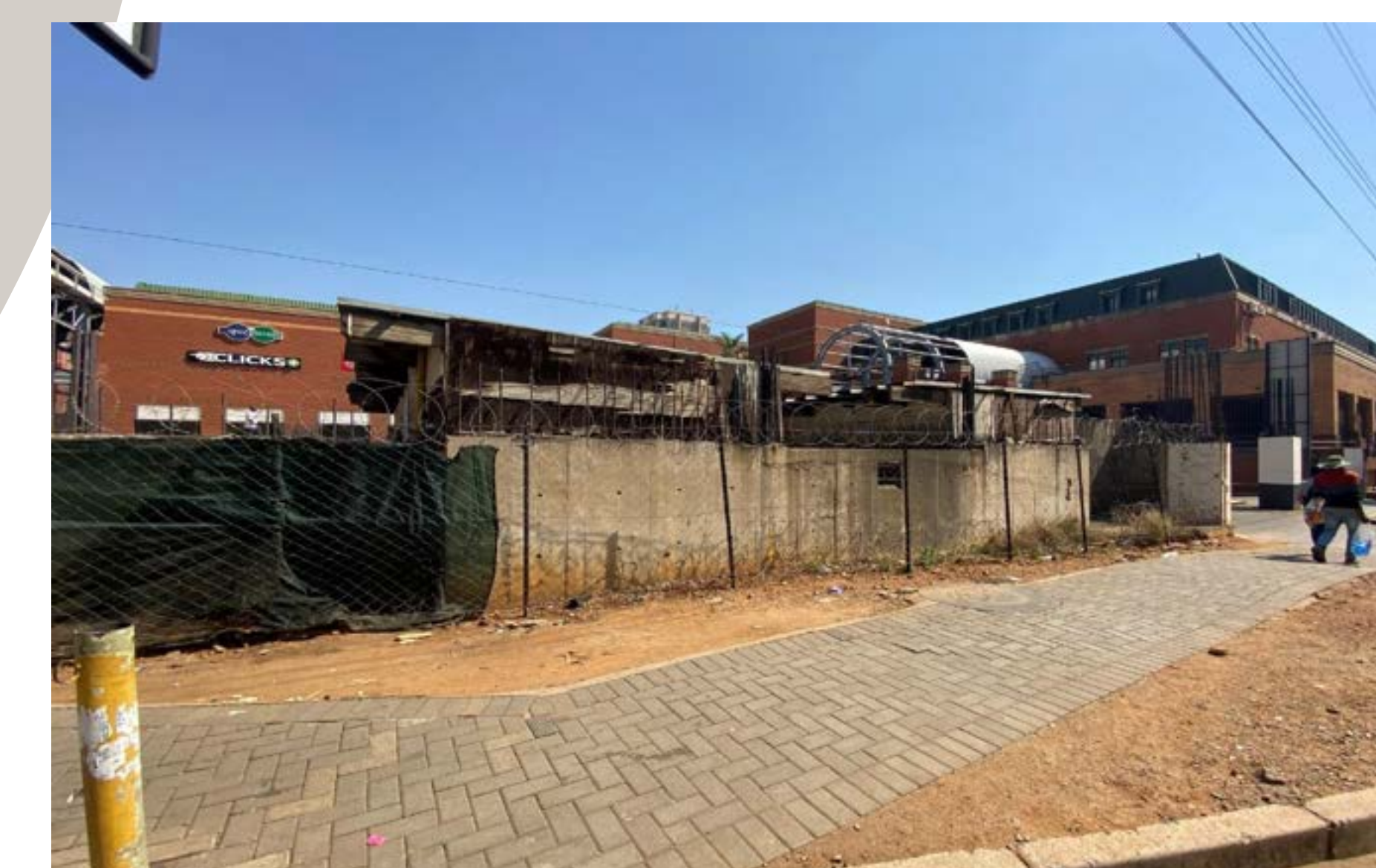
- Es'kia Mphahlele Library- Owned by City of Tshwane
- FF Ribeiro Clinic- Owned by City of Tshwane
- Sammy Marks (Clothing Retail)- Owned by Redefine Properties
- Lewis and Marks Building (Clothing Retail) - Owned by City Property
- Kynoch Building (Restaurants) - Owned by City Property



SITE PHOTOS



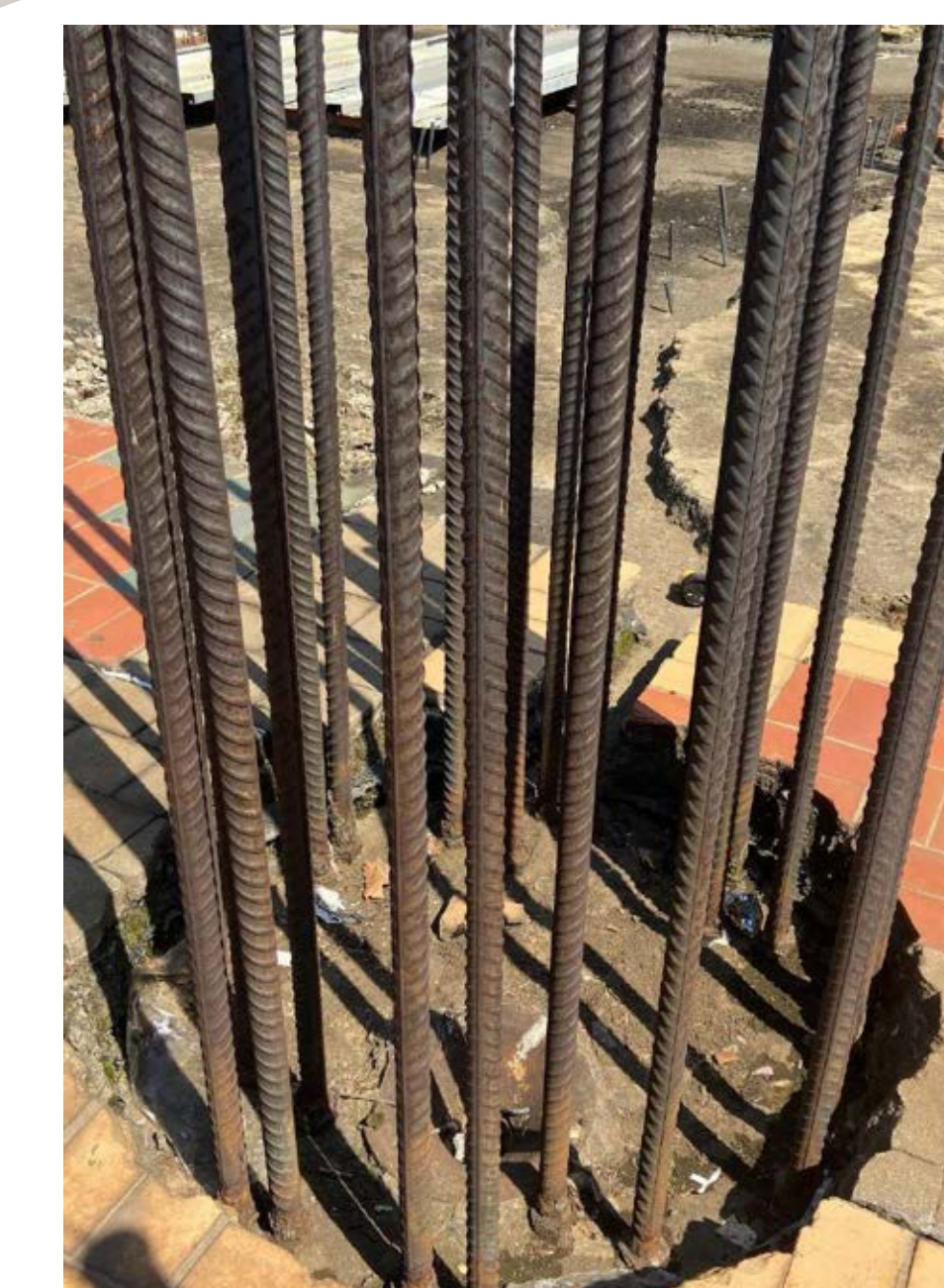
The space viewed from the Southern Entrance



The space viewed from Sisulu Street- Inaccessible edge



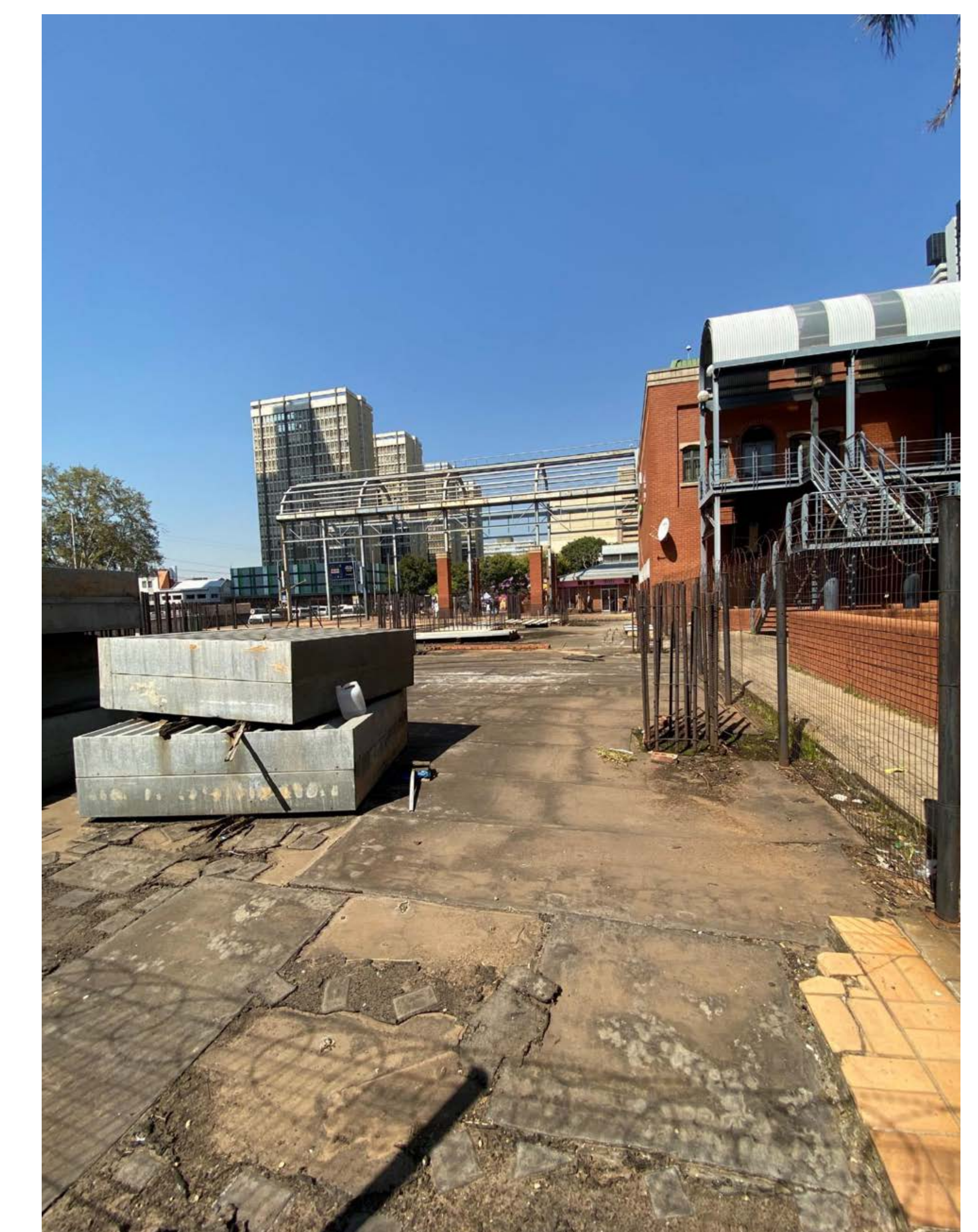
Landing area from ramp access



Structural Remanence of the incomplete Hotel Project



The space viewed from the FF Ribeiro Clinic on the Northern Edge



Structural Remanence of the incomplete Hotel Project



GAUTENG

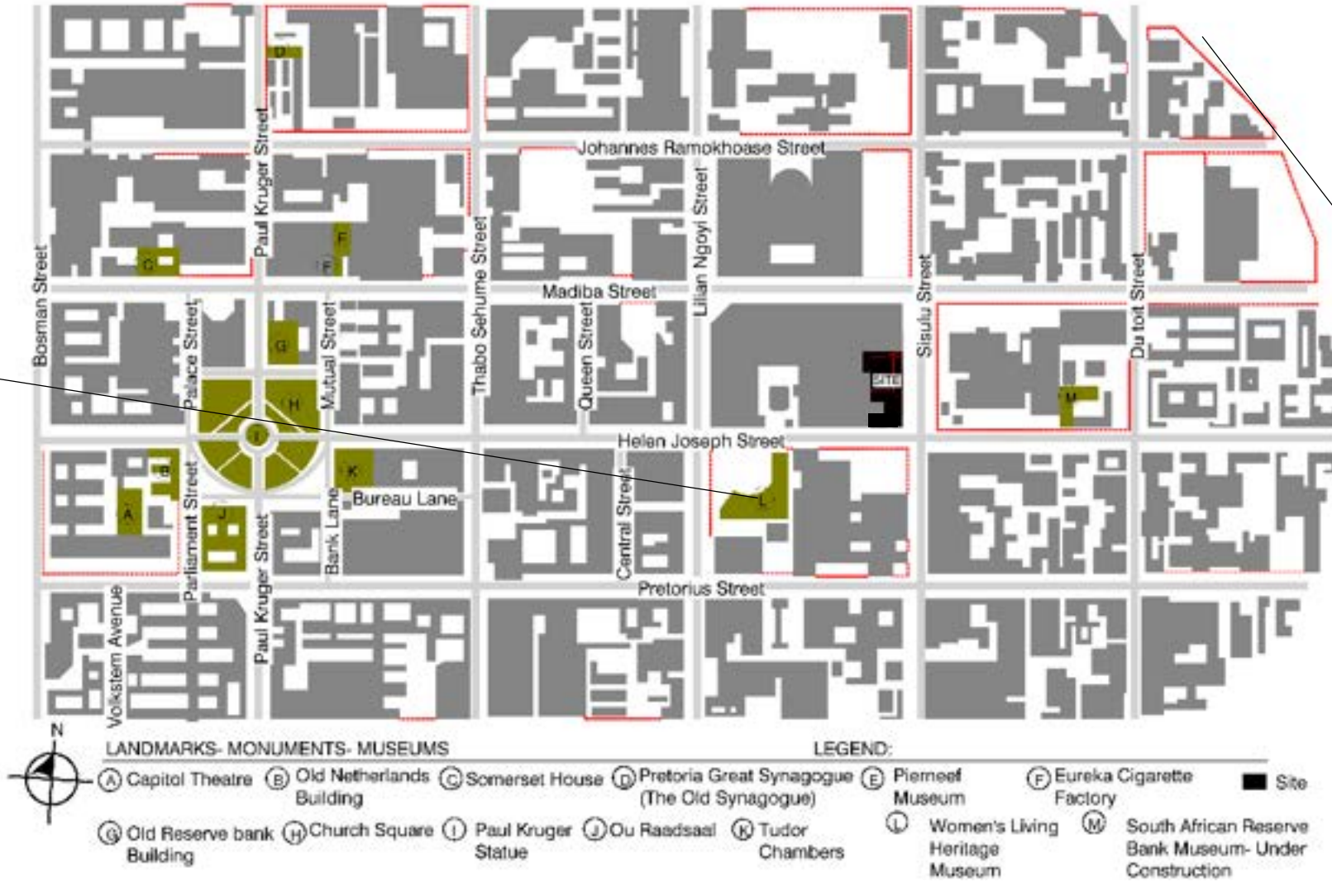
PRETORIA

PRETORIA CENTRAL

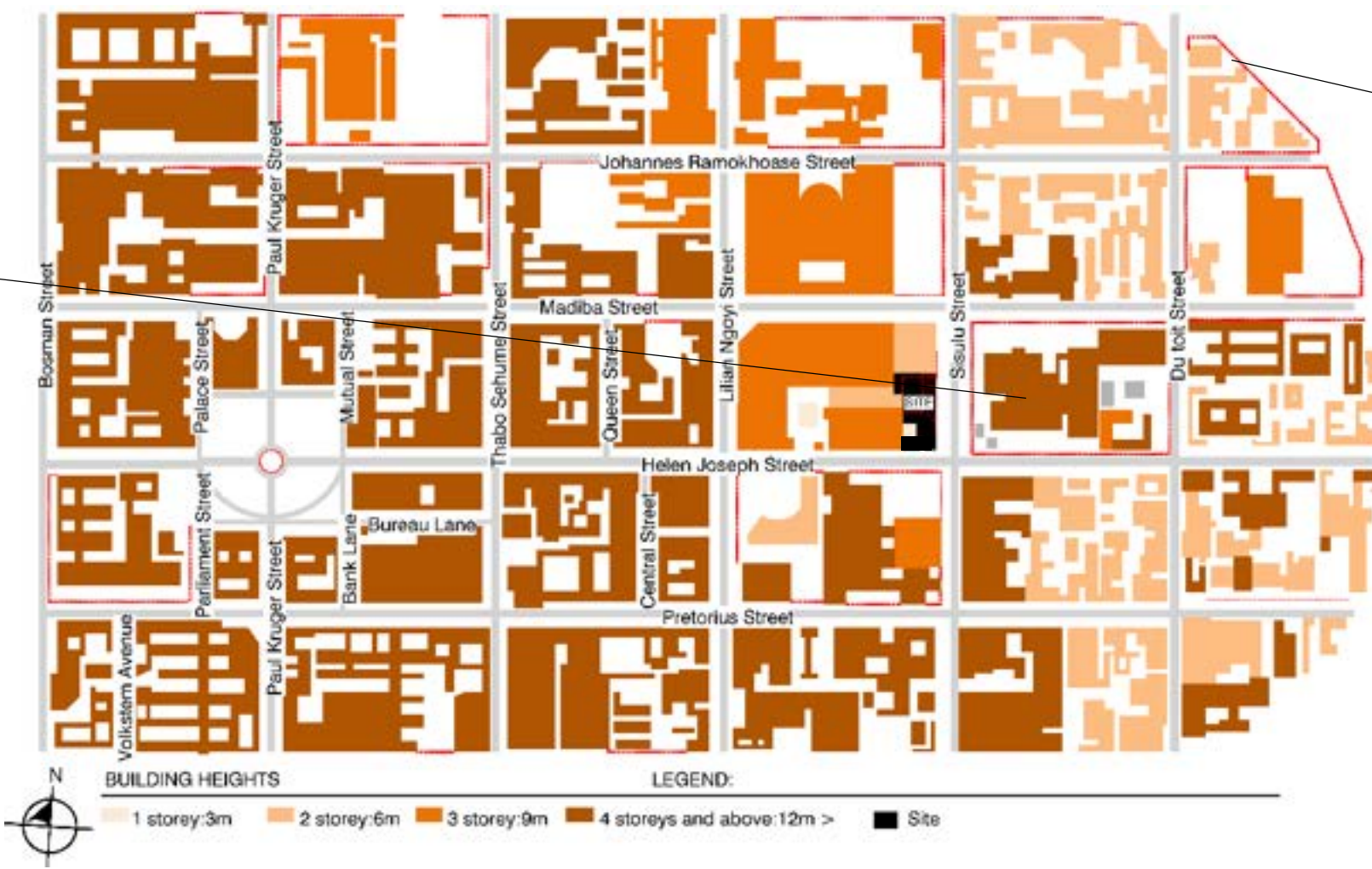
CONTEXTUAL MACRO-ANALYSIS



The western part of the context is rich in history and landmarks which attracts diverse users



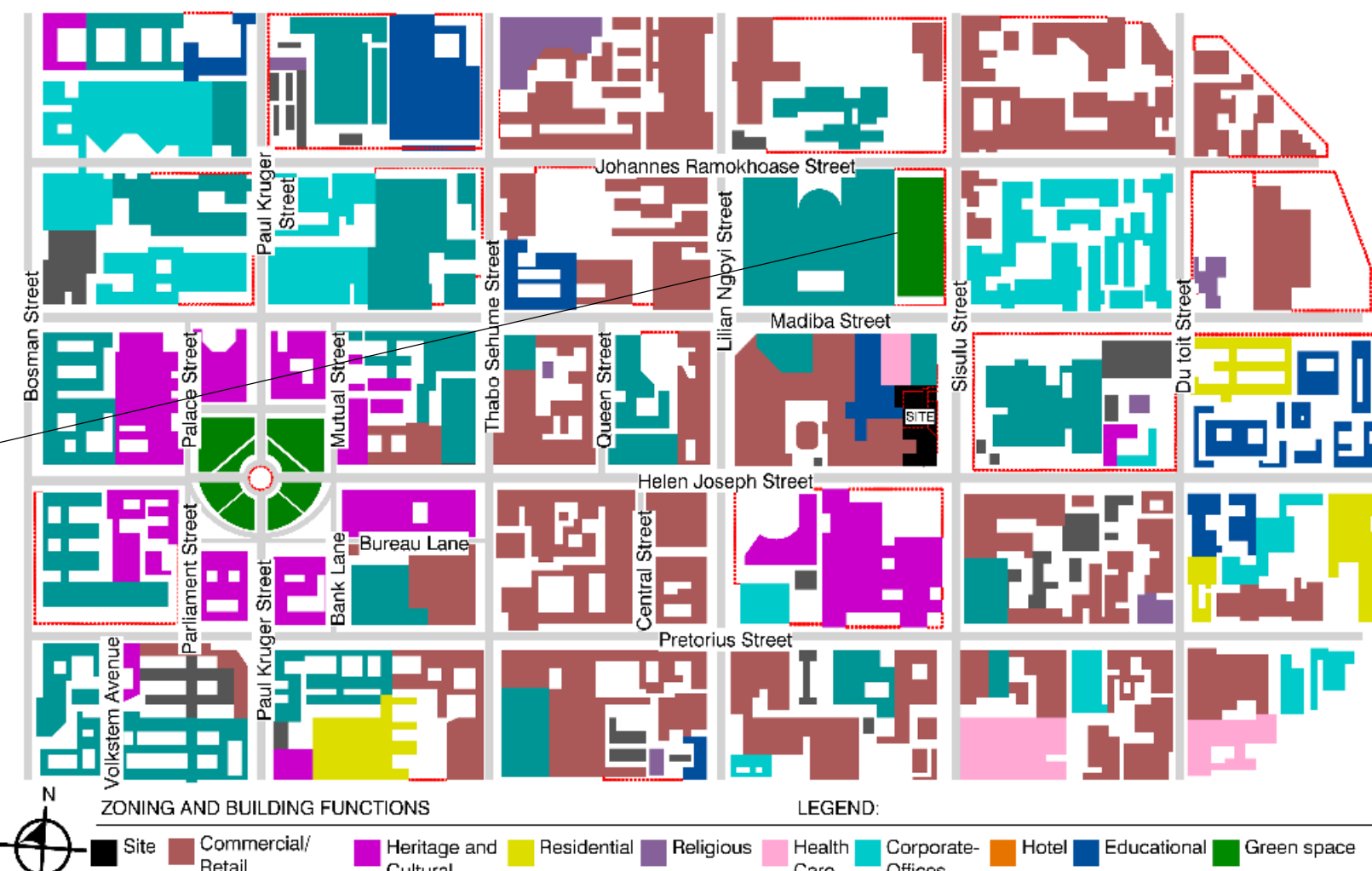
Pretoria Central has a predominance of high-rise buildings, one of the tallest is the South African Reserve bank which sits across the project site



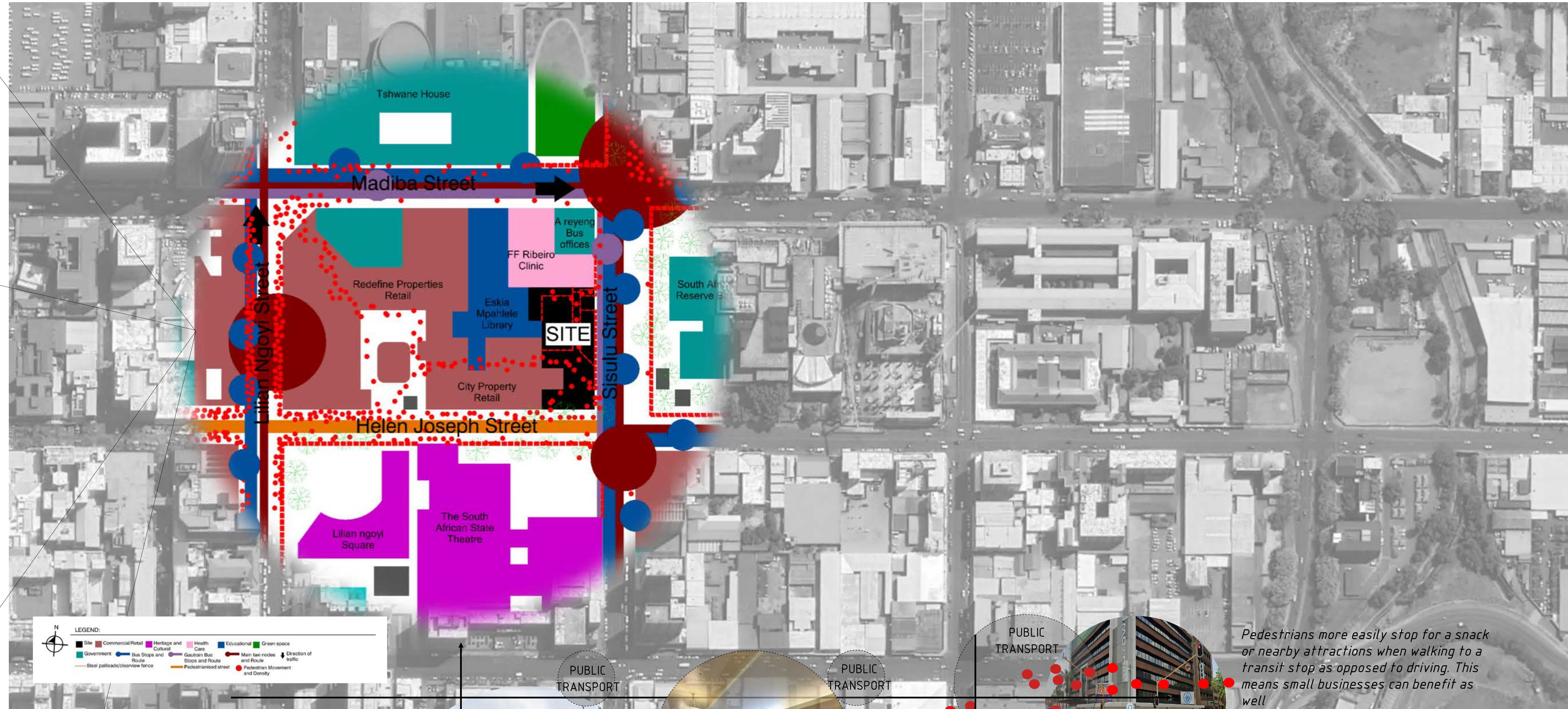
Pedestrians are more concentrated on Lillian Ngoyi street and the pedestrianised portion of Helen Joseph street where a lot of informal vendors are situated



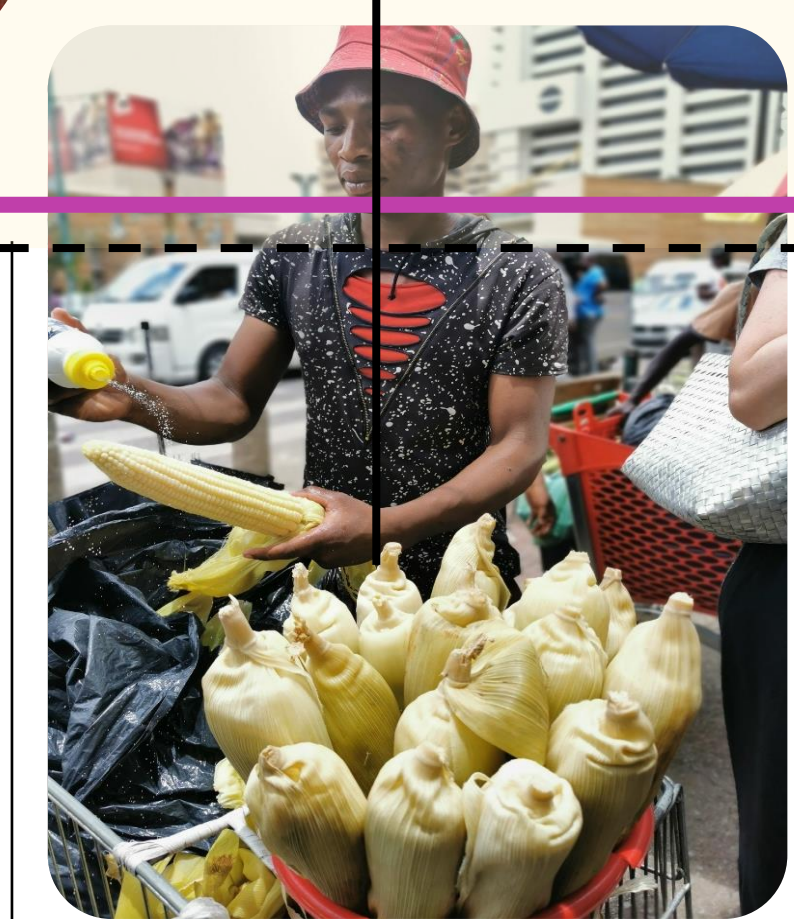
Pretoria Central has a predominance of government buildings and commercial/mixed use buildings mostly housing retail on ground level.



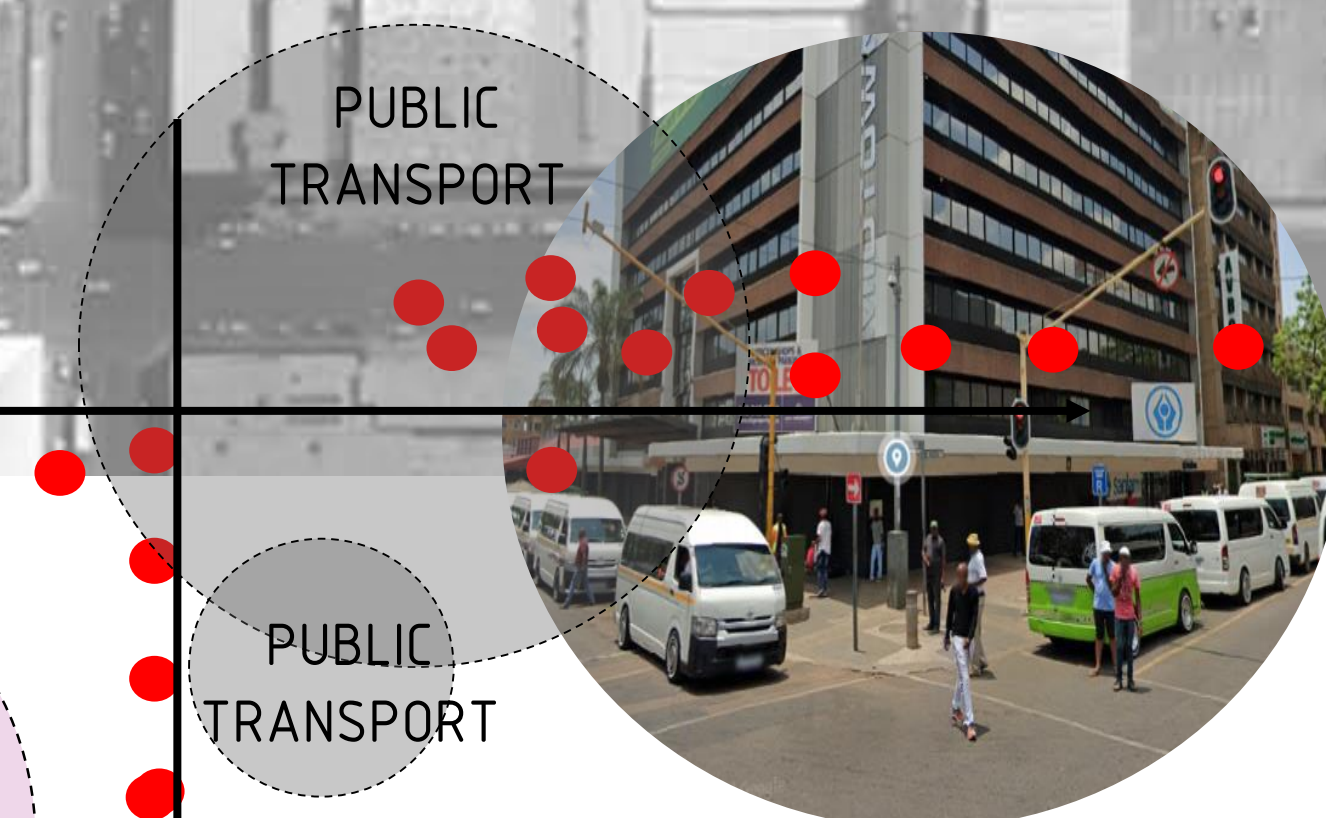
There are diverse modes of public transportation in relation to the site, along Madiba and Sisulu street



Sammy Marks square is the formal trade anchor tenant: Majority of users come for shopping



Opportunity for a mix of informal trade: Currently only merchandise and food being sold, vibrant activity



Pedestrians more easily stop for a snack or nearby attractions when walking to a transit stop as opposed to driving. This means small businesses can benefit as well
Opportunity to attract low income earners who are hurrying through to catch their transport

Primary Public Health care provider, unreliable pharmacy, only biomedicine supplied. Opportunity for a dual healthcare system

Opportunity to open site to the public as it is currently fenced off. This could lead to space activation

Opportunity for the continuation of sharing curated Indigenous cultural and heritage knowledge



Lynch, Kevin. 1960. The Image of the City. Harvard-MIT Joint Center for Urban Studies Series. Cambridge, Mass.: MIT Press. Google Maps. 2023. Pretoria Central. Online [url]: https://www.google.com/maps/place/Pretoria+Central. accessed on 12 July 2023.

URBAN VISION

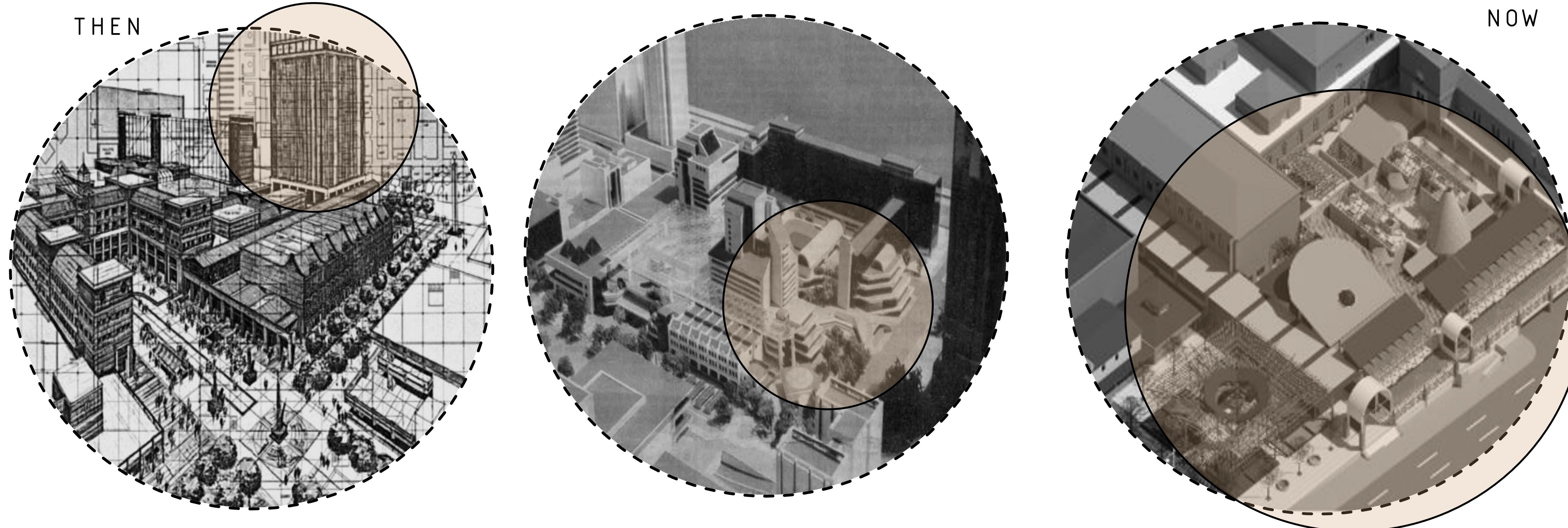
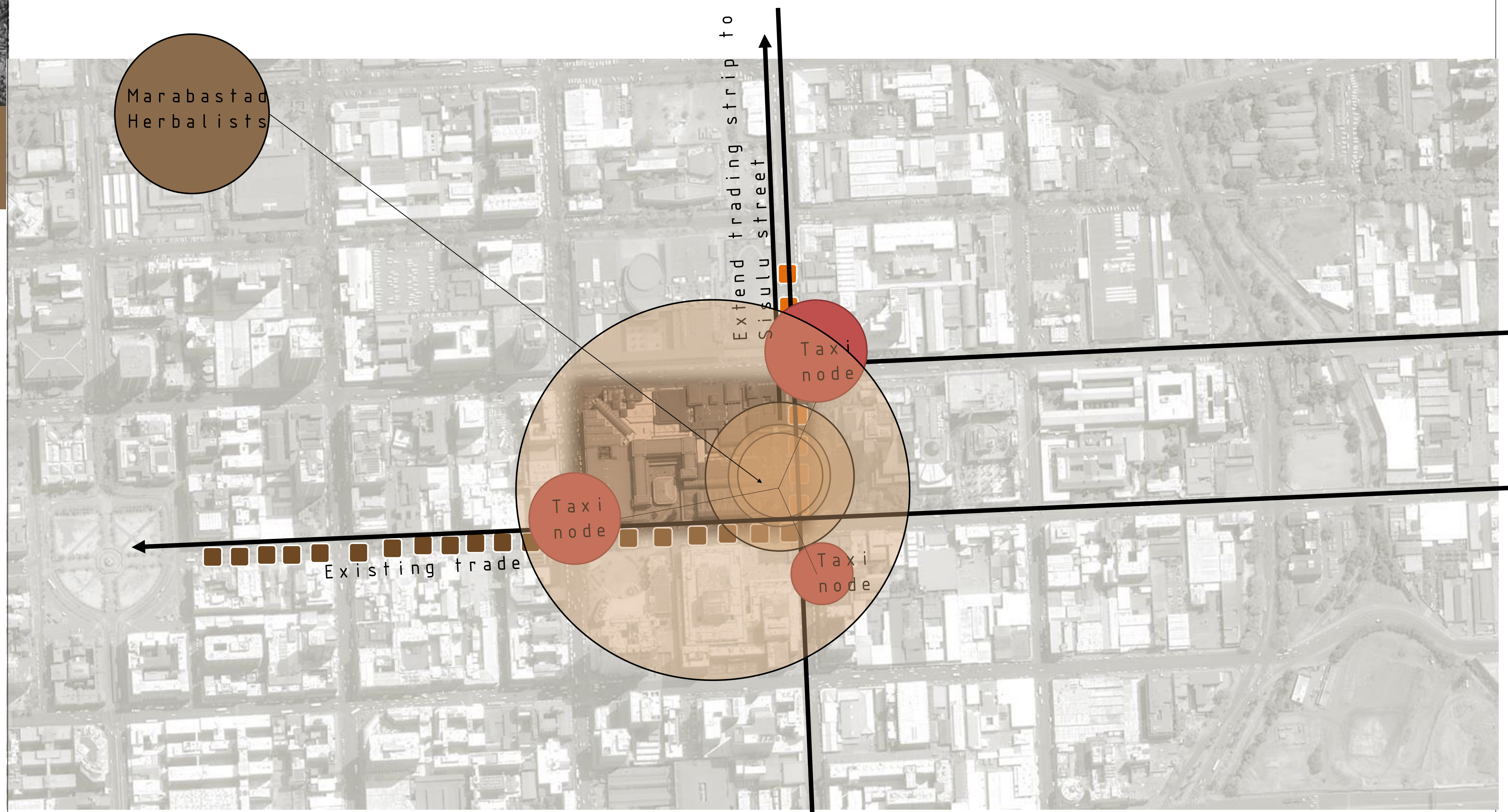


CLINICS AND MAJOR HOSPITALS IN RELATION TO THE SITE

URBAN CONNECTION WITH TRADITIONAL MEDICINE FARM



HOME-BASED RURAL TRADITIONAL HEALERS IN RELATION TO THE SITE



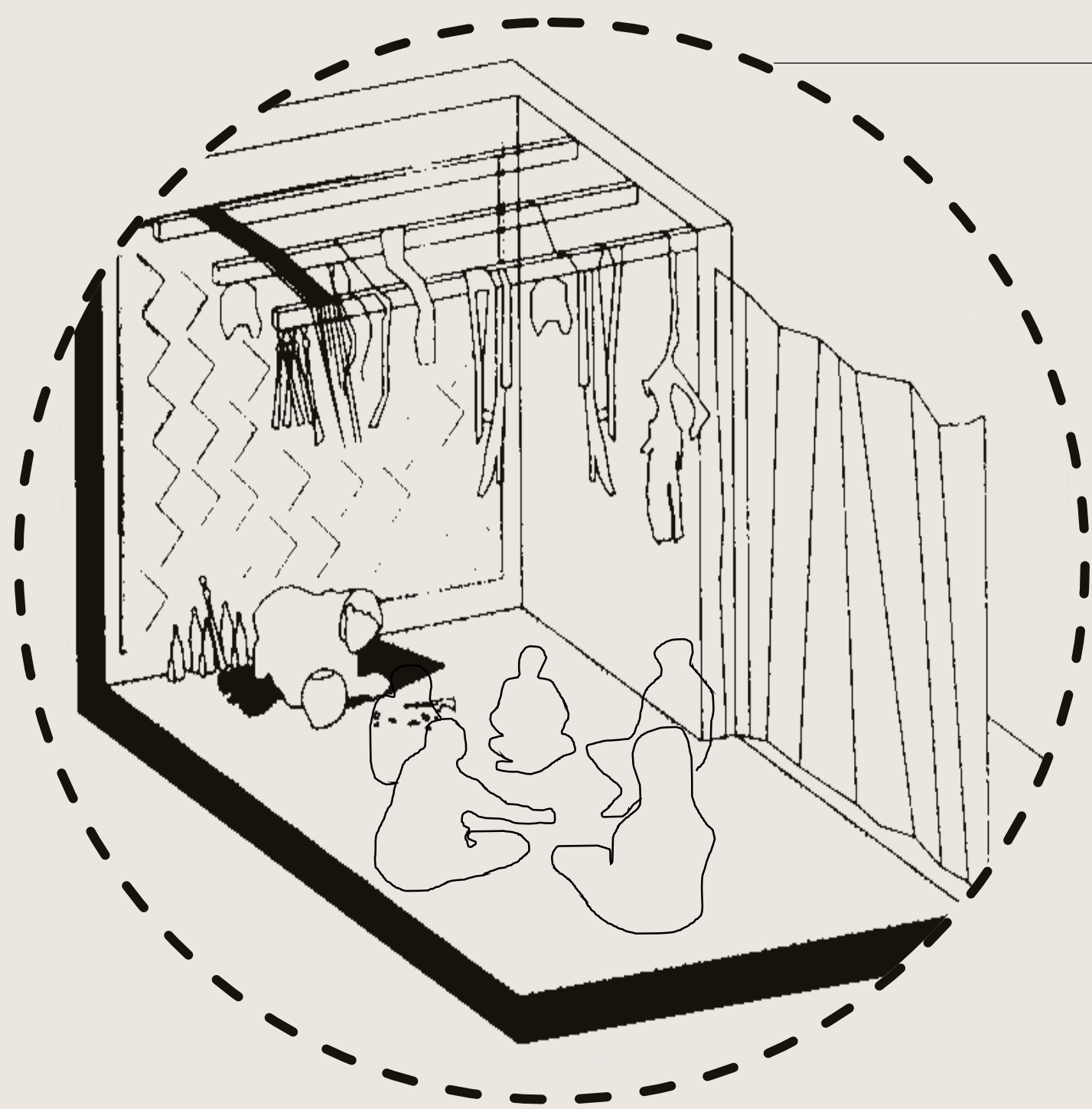
- The Redevelopment of Sammy Marks Square- the development of both public and private financiers amenities
- in a manner that would form a meaningful integration with the broader civic context, including adjacent developments
- In order to create a precinct which would serve as a 'people's' place and an identifiable physical landmark in the heart of Pretoria
- The proposed R500 million Verwoerd Square Rejuvenation Project of 1993 that would incorporate the former president's statue at the corner of what is now Helen Joseph and Sisulu street
- A City Council and Private Sector Developers collaboration

Urban Vision: Activation for Regeneration, tying in existing precinct energies and extending them beyond Sammy Marks Square

SITE MICRO ANALYSIS

The site is well located within the depicted existing programmes which will inform the basis of the new programmatic design approach. Three major aspects: Health Care through the FF Ribeiro Clinic, education through the Eskia Mphahlele Library and retail through the Sammy Marks buildings.

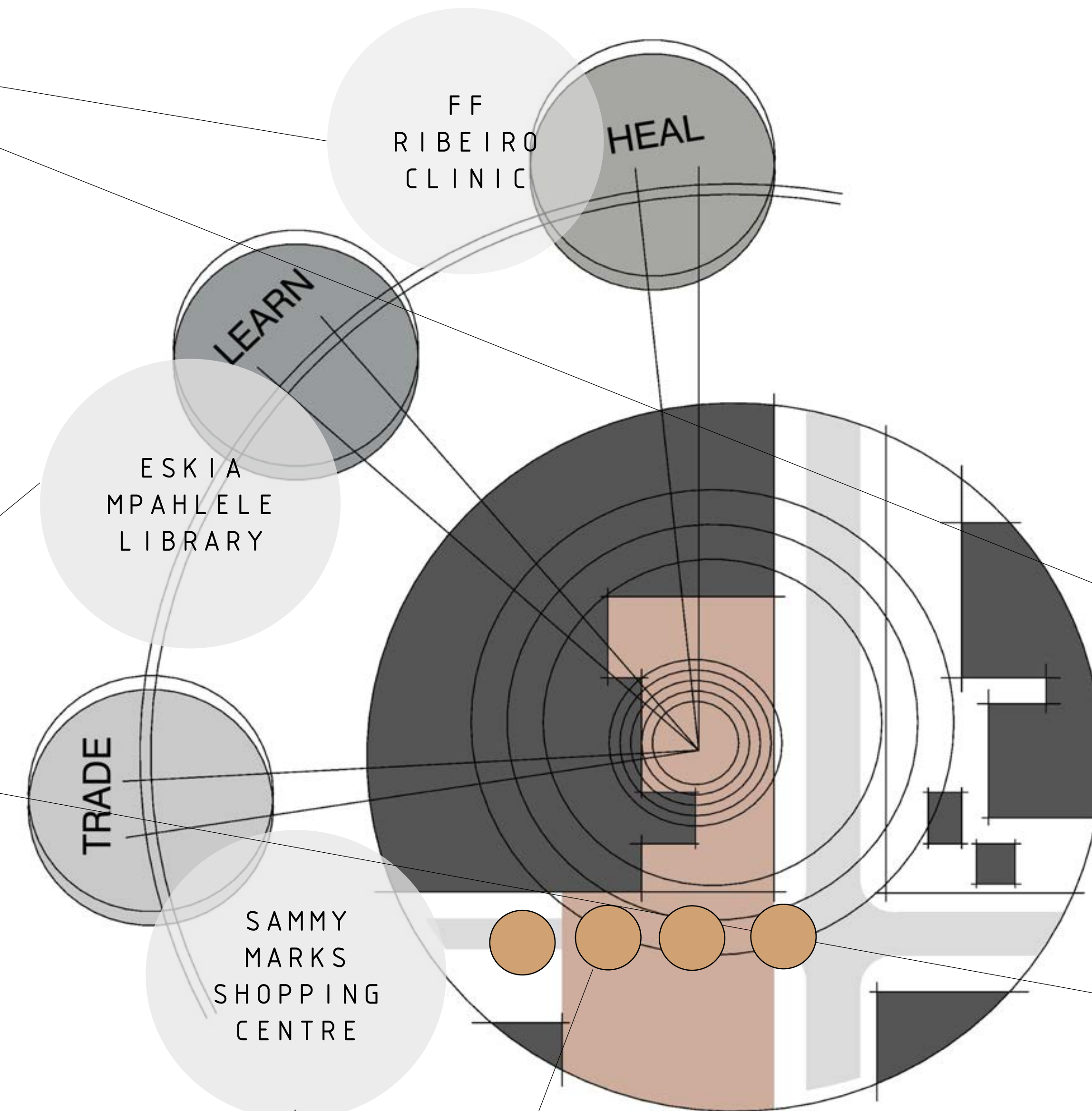
PROGRAMMES



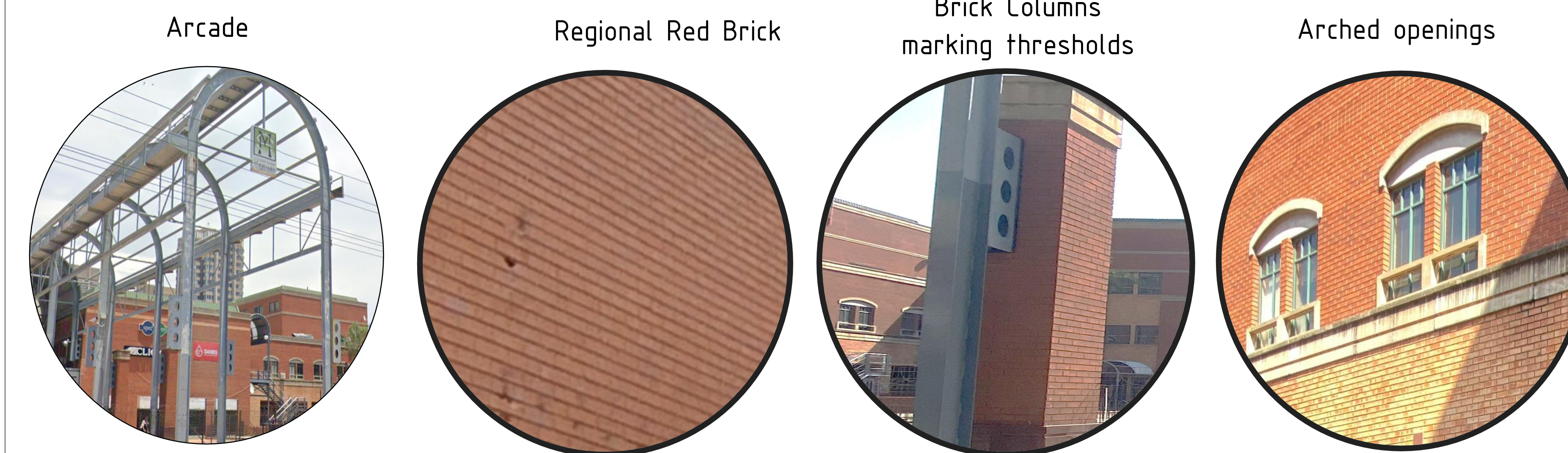
Education through the Eskia Mphahlele Library- The serves the community in accessing information or knowledge as there are not many such facilities with the CBD region, thresholds need legibility

Education through the Eskia Mphahlele Library- The serves the community in accessing information or knowledge as there are not many such facilities with the CBD region, thresholds need legibility

the informal market strip along Helen Joseph, the traders mostly sell accessories and small clothing items whereas moving past Lilian Ngoyi Street one can find vendors selling fruits and vegetables. The new programme can continue this language by introducing traders into the site.

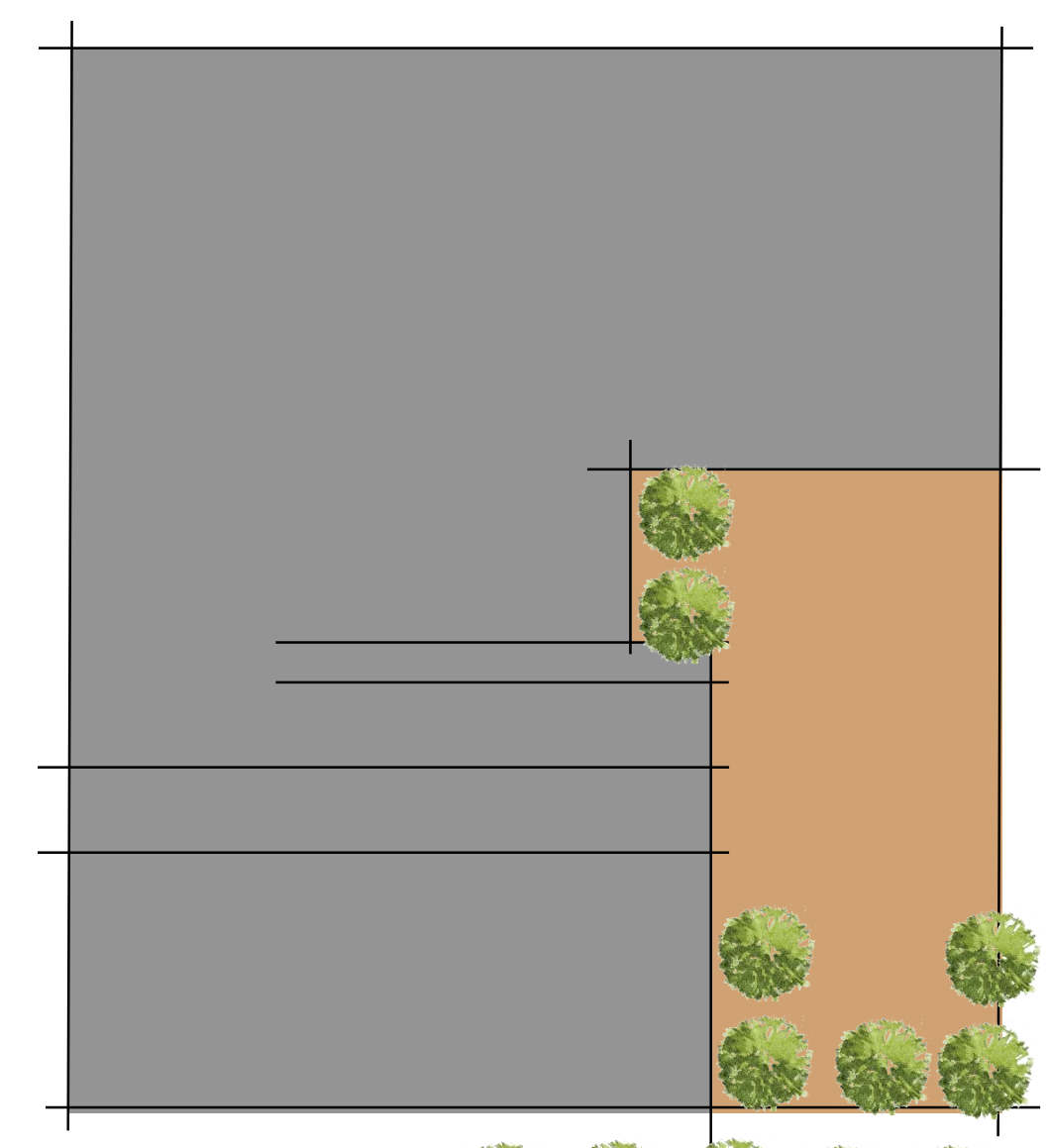
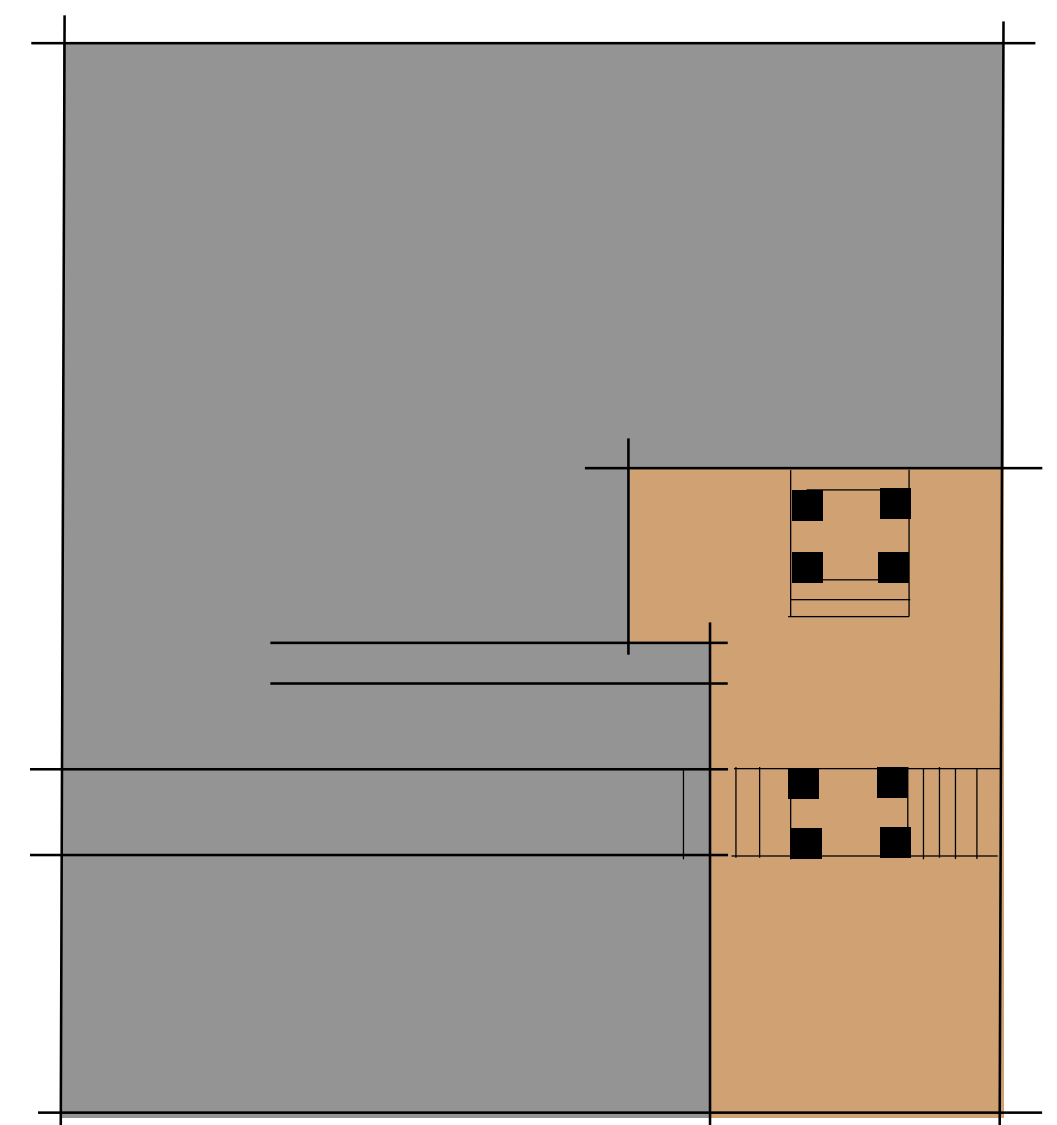
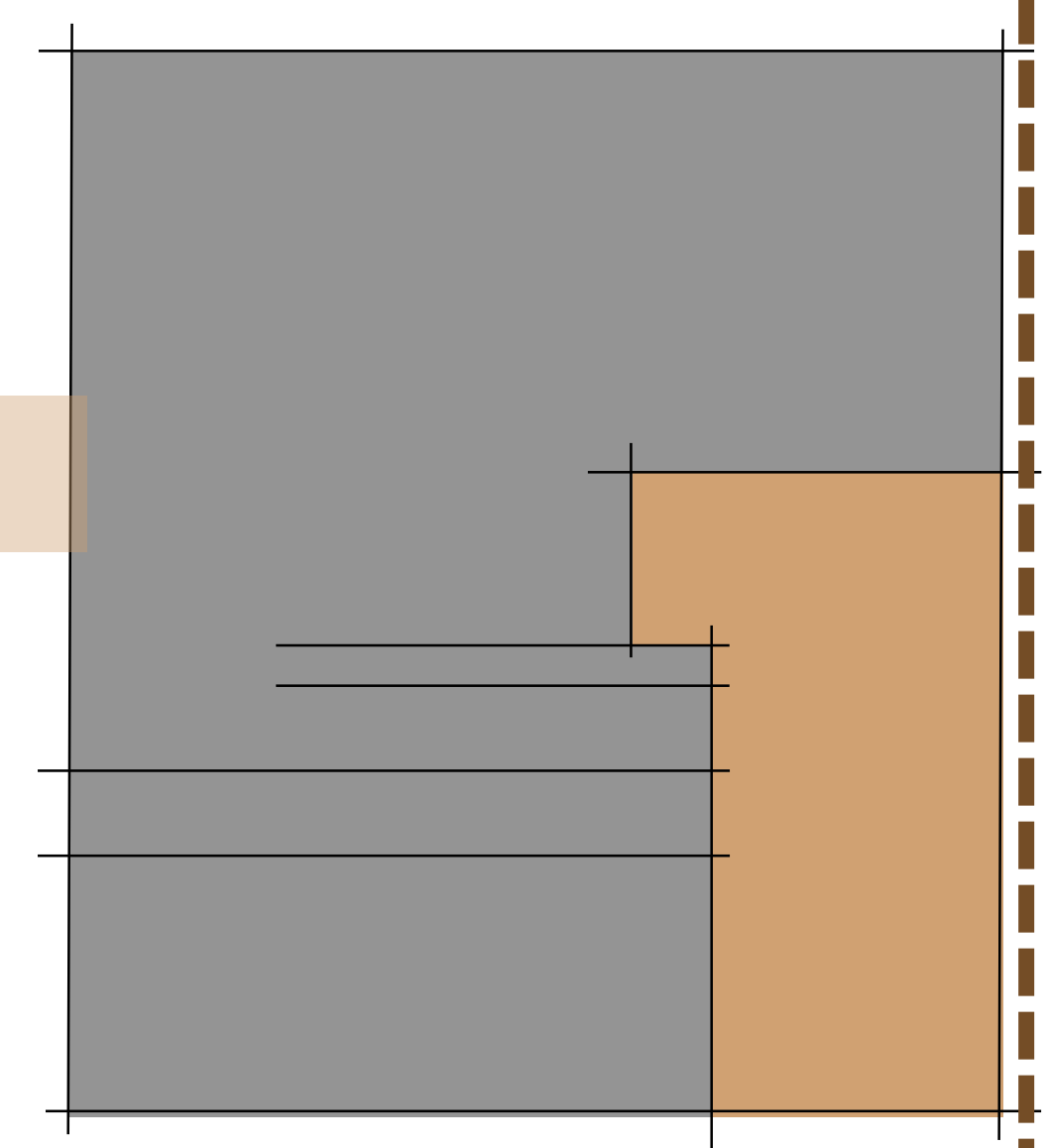
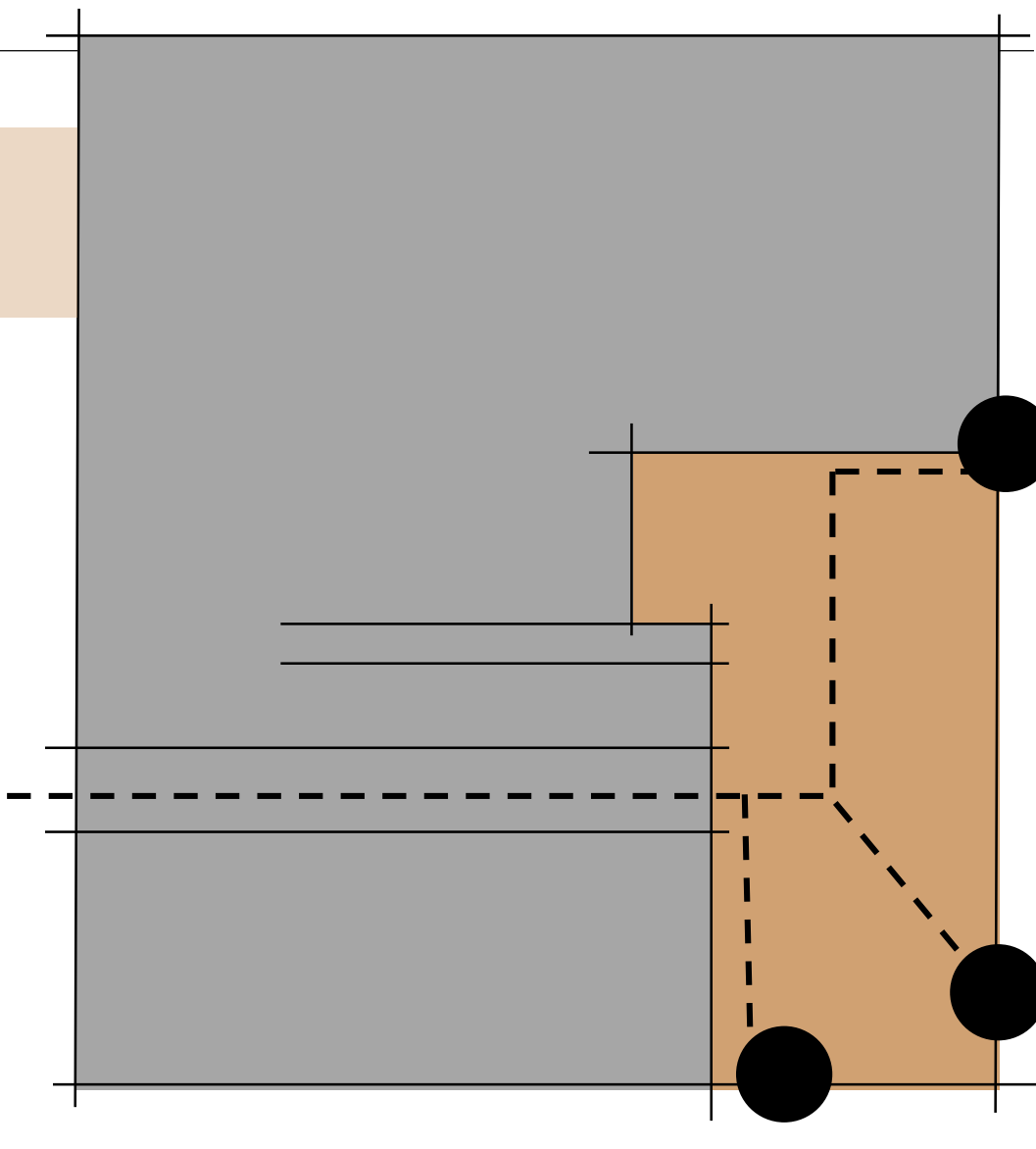
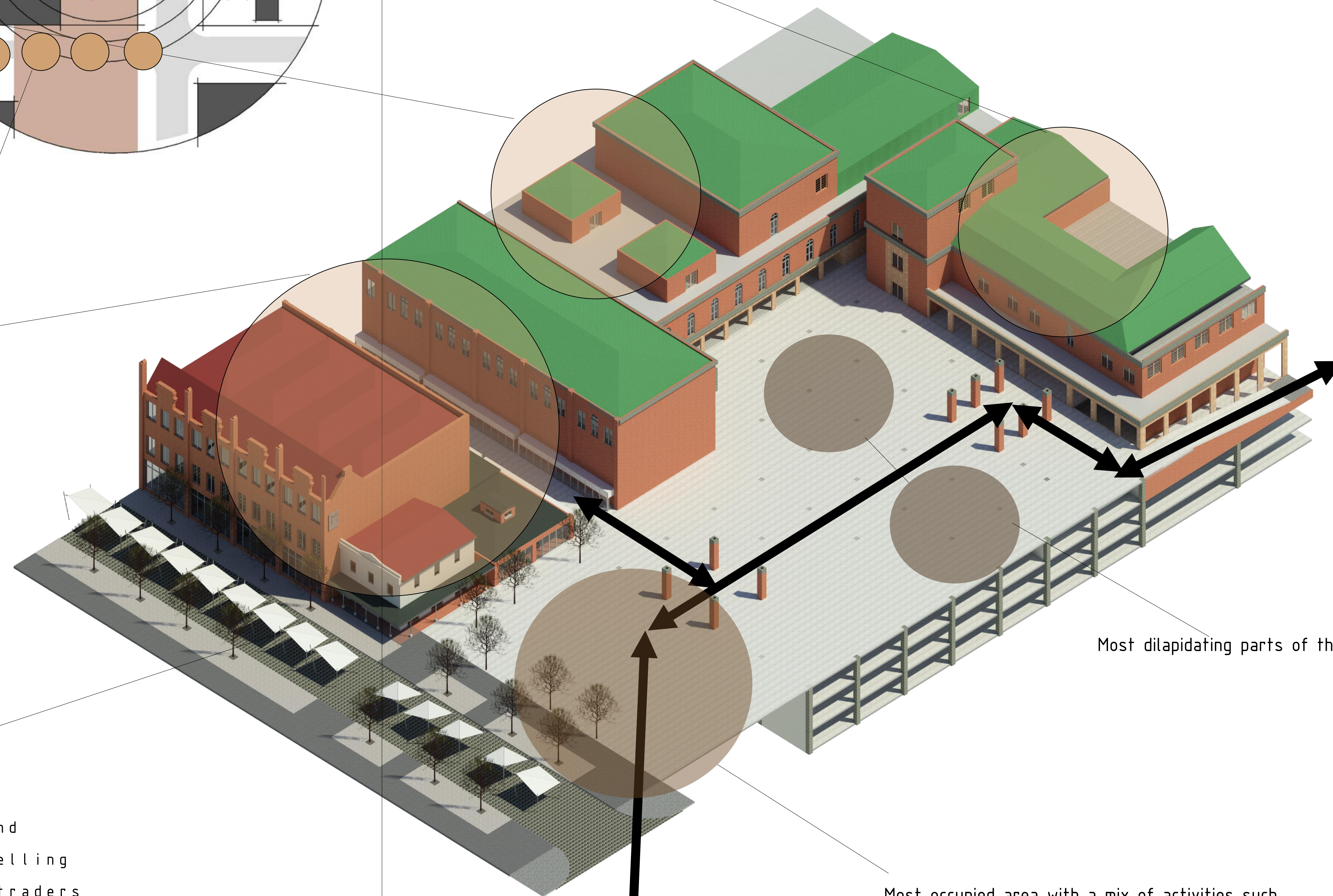


KEY FEATURES/ELEMENTS



ARCHITECTURAL PRINCIPLES

Alignment Symmetry Repetition



FRAMEWORK OF INFORMANTS

Regenerative Design Principles: A design that is informed by an understanding of the inner workings of the ecosystem to, one that regenerates rather than depletes underlying life support systems, displaying socio-economical resilience and being adaptive in addressing contextual issues (Mang and Bill, 2012).

Public space and Place-Making: Three essential characteristics: an active street life, walkability, and affordability. The creation of successful urban public spaces requires the promotion of socially integrated, inclusive, connected, environmentally sustainable, safe, and accessible public places (UN-Habitat, 2018).

How to study public life (Gehl and Svarre, 2013). The aim is to employ qualitative mixed methods of observation learned from DIT

Traditional Medicine cultural practices from public to sacred: (Bignante, 2015).

The Kemet Royal African Calendar: Beginning of re-birth and associated symbols and rituals
The significance of the eastern cardinal point to draw healing energy

Associated seasonal rituals of healing and associated choices of materials (Nsingiza, 2021)

The area around Sisulu Street used to be a vibrant place with a rich cultural diversity which is no longer as prevalent. The project aims to revive the street to restore the active nature of public life where diverse people can meet and exchange cultural knowledge.

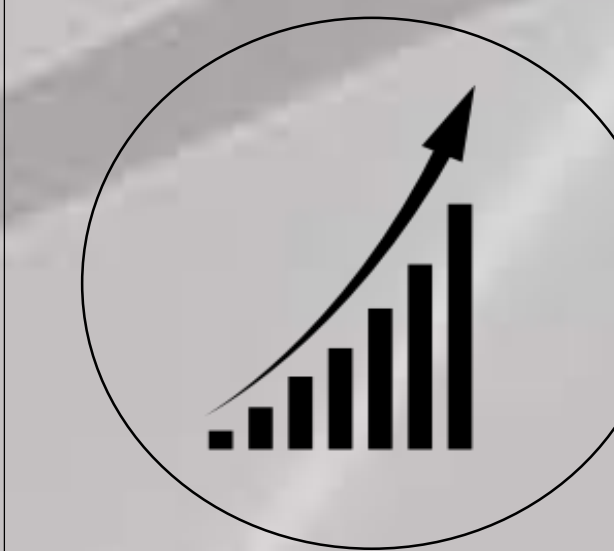
This can be done by identifying existing urban opportunities observing activities, site movement, and spatial-material qualities as proposed by Gehl and Svarre (2013) to assist in integrating the new programme of Traditional medicine healing.

Three Traditional Healer personal encounters and spatial experiences

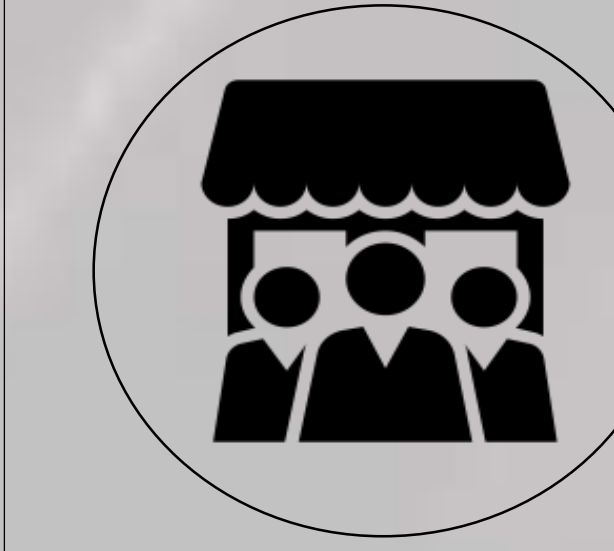
The scale and extrusion of the building should be appropriate for the context, where applicable, explore verticality to maximise natural lighting and cross-ventilation due to contextual constraints.

There should be a provision for smaller public gathering spaces and spaces are to be organised in terms of the level of publicness on site.

The structure is to explore materials that allow for the permeability of light while maintaining structural longevity.



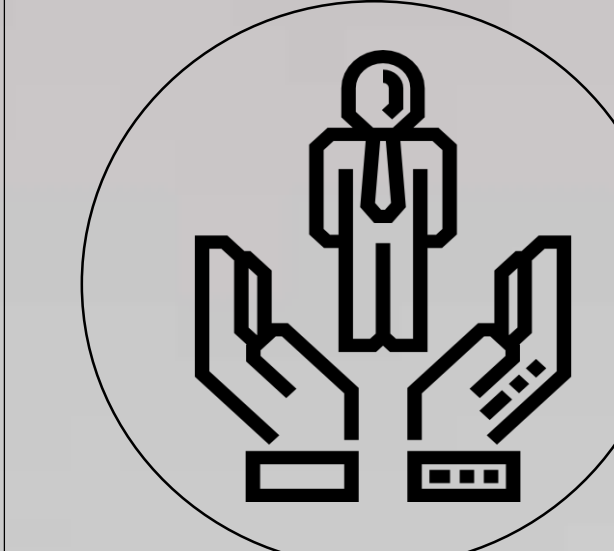
A City that facilitates economic growth and job creation



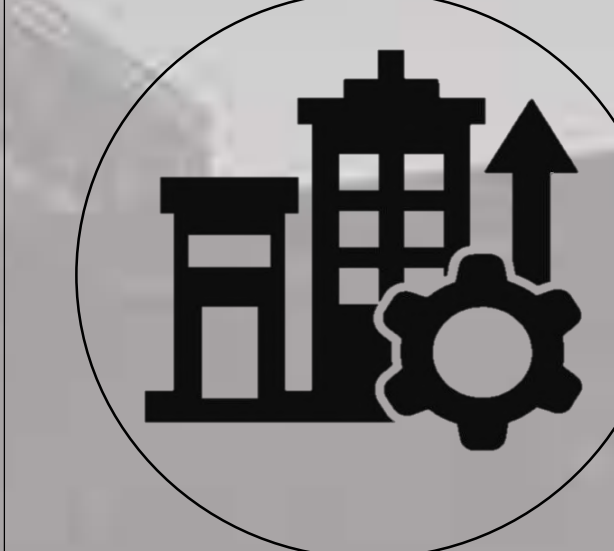
Attracting investment and encouraging growth by making it easy to do business in Tshwane



Revitalising and supporting Tshwane entrepreneurs



Empowering individuals to take advantage of opportunities

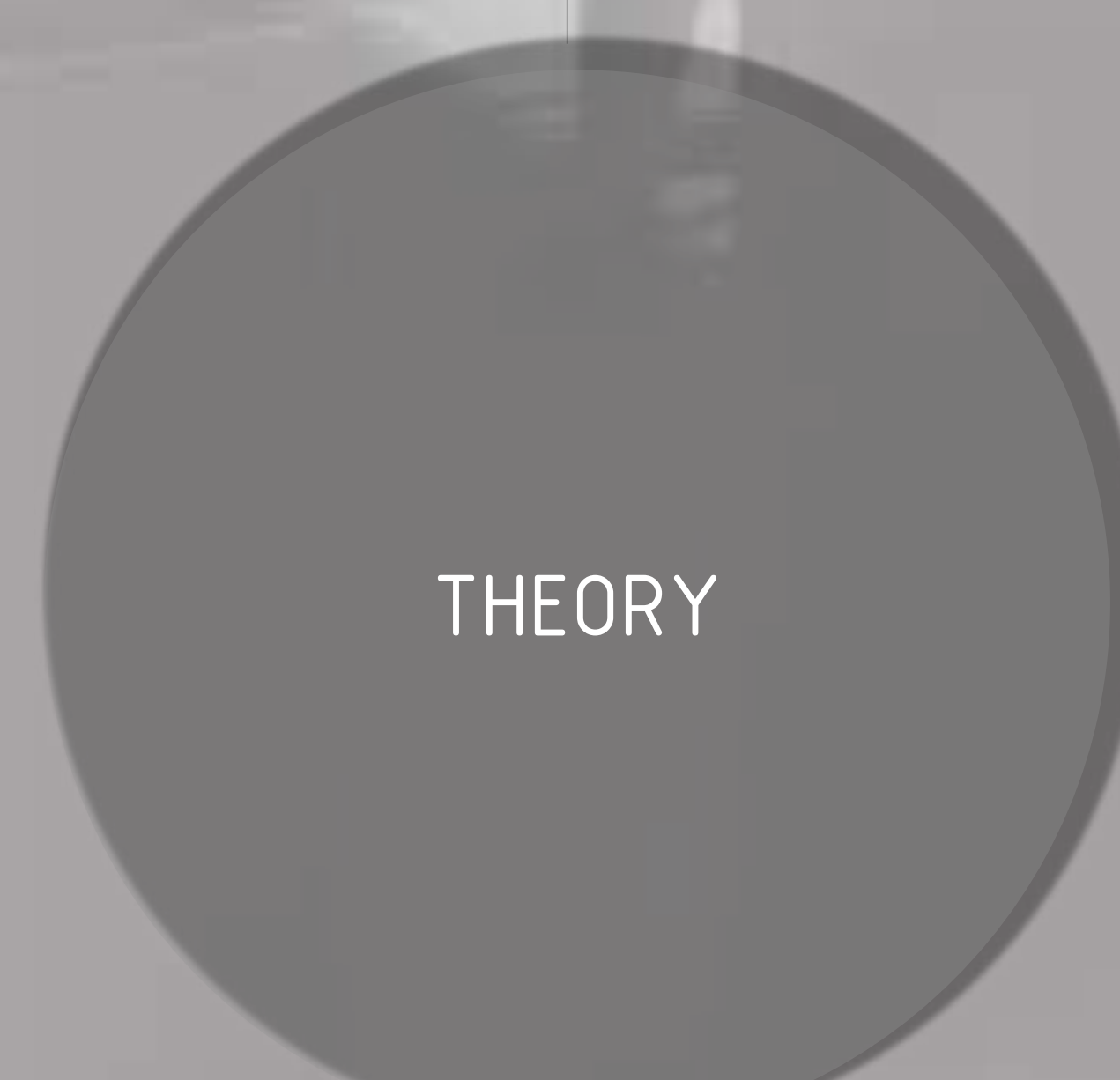


Infrastructure-led growth to catalyse and revitalise existing nodal economies and fight urban decay



Encouraging tourism and recreation

In each community and neighbourhood, sacred sites must be identified as consecrated ground. A series of nested precincts, each marked by a gateway, each one more progressively more private, and more sacred than the last, the innermost a final sanctum that can only be reached by passing through all of the outer ones (ibid).



- Edge Condition
- Historical Typology-Monumentality
- Dormant Urban Pockets
- Climate
- Public Transport Nodes
- Informal Retail Thoroughfare

- Three Traditional Healer personal encounters and spatial experiences
- The Zion traditional healer
- The Certified traditional healer (Isangoma)
- The ZCC Healer

- Faraday Muti Markets
- Phong Kham Yhct Traditional Clinic
- Nest We Grow
- Watersheds
- Outreach Foundation Community Centre
- Indigenous traditional homesteads and places of prayer

- STRATEGIC DEVELOPMENT PILLARS OF THE CITY OF TSHWANE

PROJECT INTENTIONS: TRADITIONAL MEDICINE HEALING CENTRE AND MARKET

Integrate the cultivation, education and retail of traditional medicine into the existing urban fabric as an alternative and accessible resource in the face of economic struggles and health vulnerabilities

Debunking misconceptions about traditional treatments as a common medical practice by providing curated education about the subject

Create a platform that maximizes the importance and use of traditional medicine methods to eventually work with the existing public clinic

To actively contribute to the urban and architectural development of Pretoria Central

Empower those who deal with traditional medicine socially and economically

A programme with the potential to create impact beyond its immediate context



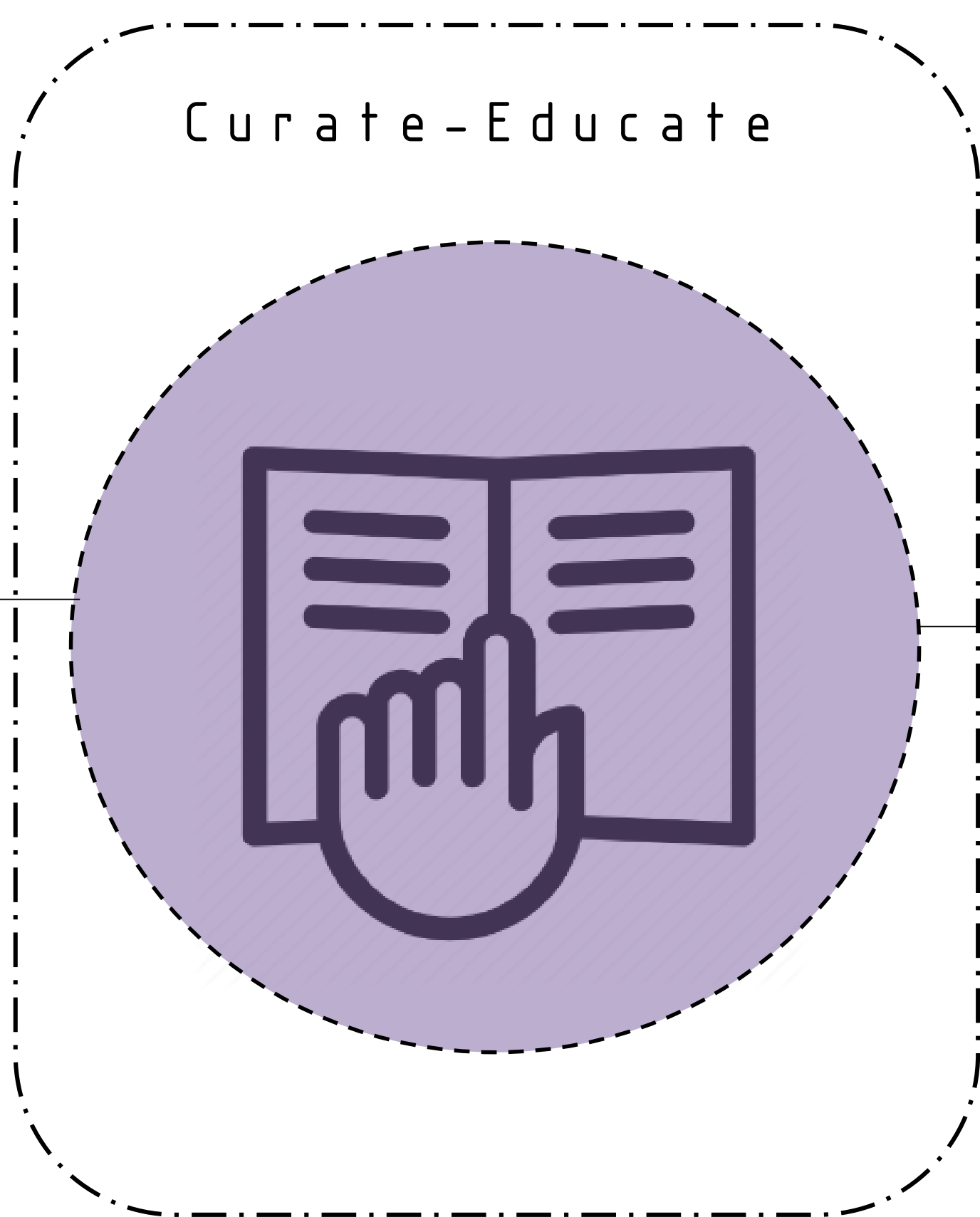
Cultivate (Small scale intervention)



Process and Preserve



Curate-Educate



Trade



1.1 PROJECT FOCUS AND DESCRIPTION

Rapid infrastructure projects, such as roadways and large-scale city blocks within Pretoria Central, serve the sole purpose of mobility and flow of vehicles, with little attention or integration to location and the people that occupy it. Due to a lack of urban integration throughout its execution, the urban fabric became disjointed, resulting in dead edges, restricting mobility in space, and isolating public areas (Jordaan, 1987). The remaining spaces around the infrastructural layer are lost and forgotten, contributing little to the urban environment (Trancik, 1986).

The architectural issue investigates the potential relationships between building, people and infrastructure, and the role architecture and the associated programmes have as regenerative devices to connect and activate the current barriers of lost and disconnected spaces caused by urbanisation. The intention of the design is to address the issues of thresholds and lost degrading space within the public realm.

Through contextual studies, there was a clear lack of traditional medicine in Pretoria Central (see Figure 1), with western pharmacies and health care systems being more predominant. There is a need to integrate it in an environment where the urban dweller can have access to it as 80% of Africans rely on this resource (Booth, 2023). Introducing the programme in the chosen site can potentially regenerate it so that it can serve a meaningful purpose to the urban environment.

1.2 ARCHITECTURAL QUESTION

How can architecture support traditional medicine and cultural practices in the urban environment?

1.3 ARCHITECTURAL OBJECTIVES

The aim of this project is create place within a non-place environment by adding a series of spatial layers and thresholds to the existing lost and forgotten space. The new building and spaces should address the current movement and flows of people by creating a legible link between place and space with the end goal of activating the public space that encourages public participation.

THE TRANSFER OF TRADITIONAL KNOWLEDGE

How is traditional knowledge transferred and subsequently healing knowledge?

It is mainly transmitted verbally (by word of mouth) across generations, typically from elder to younger, and through cultural rites. Indigenous groups frequently view this knowledge holistically, with each component deeply interconnected and serving as the cornerstone of a group's identity and how they are perceived by others.

Theory

View of Knowledge and forms of learning and teaching

Indigenous education is often sacred, done together and involves a spiritual component. It is Holistic and stored orally, which means interaction with people is at its core.

-One learns through ritual, experience, storytelling and often evidenced by life experiences.

Principles

The assimilation of indigenous traditional medicine rituals into a dormant urban public space to promote healing and transfer of healing knowledge

Spatial Experience: Informative/ Enlightening

The knowledge of indigenous medicine may be widely dispersed or acquired by those who work as Traditional Healers or in other specialized healing roles. Three elements—their personal convictions, the results of their deeds, and the community's beliefs—validate the function of the healer. When a culture rejects the claims of indigenous medicine, there are often three groups of people who continue to use it: those who were raised in the tradition and are born into it, those who are brought up in it and become lifelong believers, and others who are just momentary converts who utilize it during difficult times.

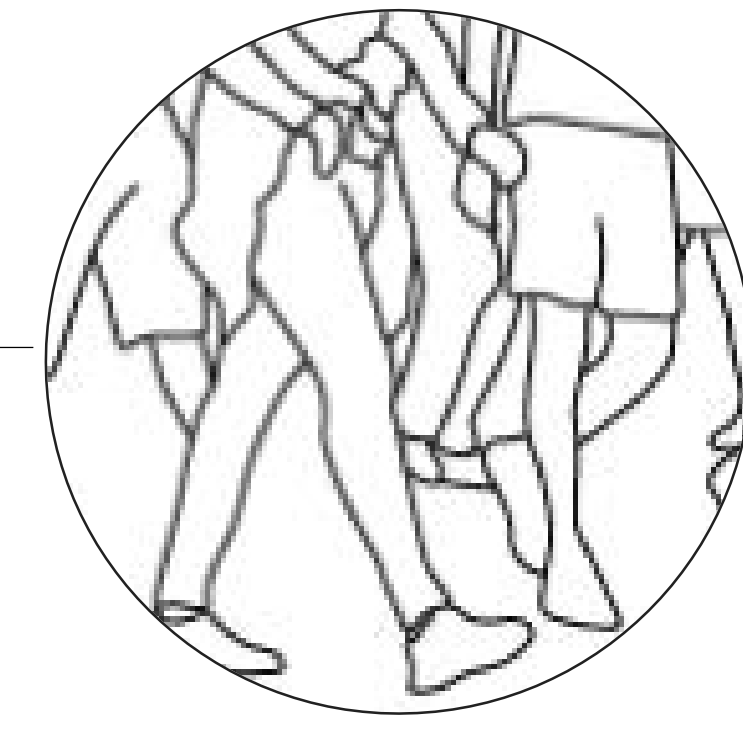
Indigenous ways of preparing herbs

Workshops/ participatory learning



USERS

USER PROFILES - CLIENT AND STAKEHOLDERS



Daily commuters/Community

These organisations aim to regulate training and the authentication of traditional healers practicing in South Africa. They also focus on various workshops, training and teaching to gather and spread knowledge around various treatments and procedures. They seek to develop Indigenous knowledge systems surrounding traditional health.



Organisations
 The Traditional Healers Organisation
 Southern African Traditional Healers Council
 The Association of Traditional Healers of Southern Africa
 The Congress of Traditional Healers of South Africa
 The African Dingaka Association
 The African Skilled Herbalists Association



Participating tourists or visitors



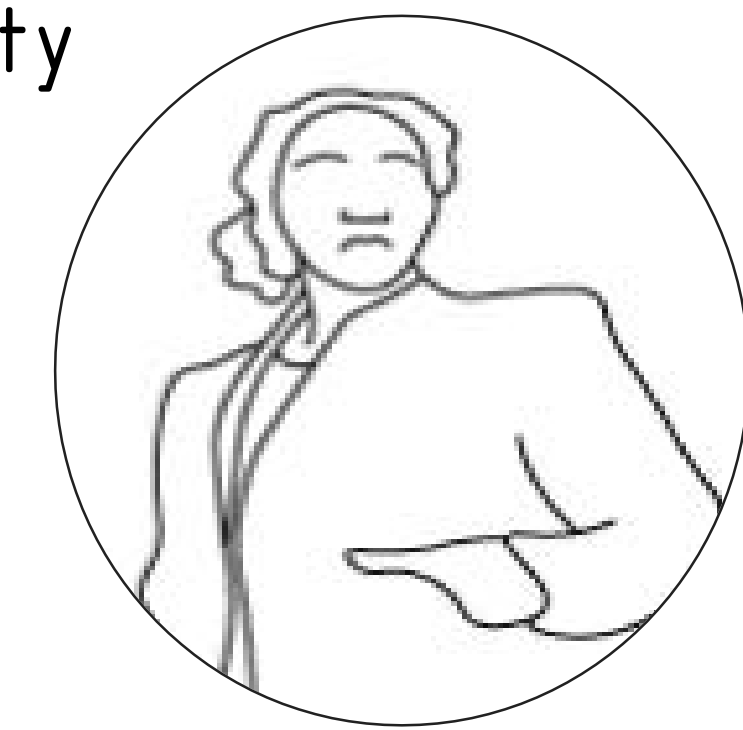
Traditional Medicine Traders/Herbalists



Traditional Healers

CLIENT AND STAKEHOLDERS

The City of Tshwane Metropolitan Municipality
 World Health Organization
 National Department of Health
 Traditional Medicine Cultivators/Healers
 The community of Pretoria Central
 Redefine properties
 City Property



Nurses and Doctors from clinics and hospitals- to collaborate on healing methods



Mothong African Heritage
 collaborative events- sustainable ways of farming herbs

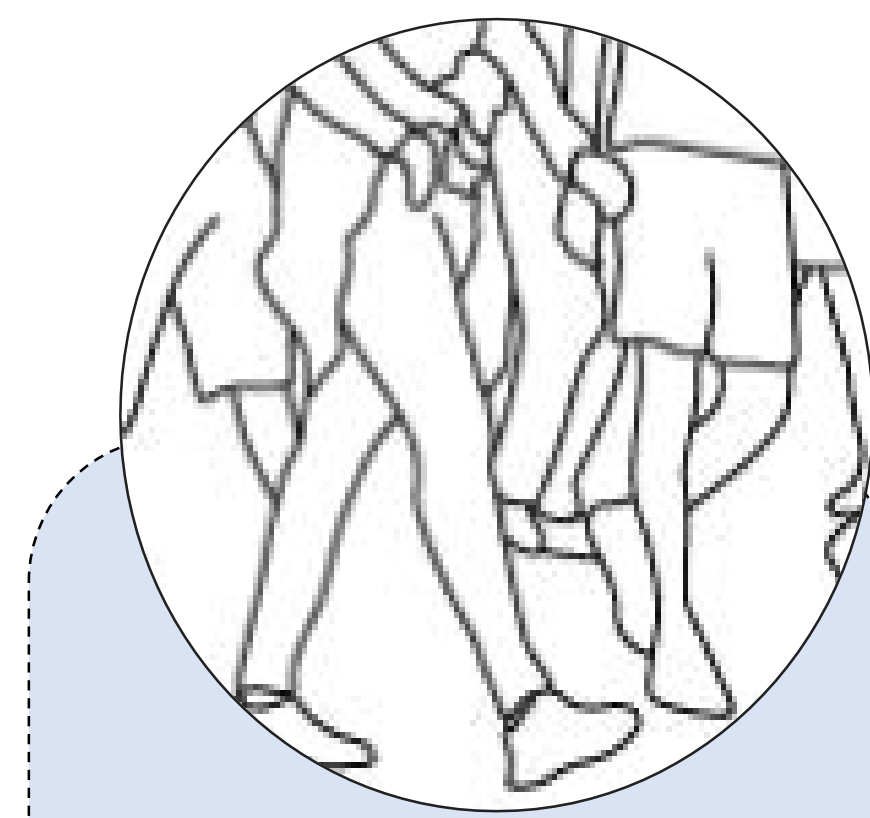
PROGRAMME AND USERS

Functionality:
the program intends to make use of the processes existing on site, and contribute new programs that will encourage the development of the site and surrounding context.

Methods of preparation

- Crushed
- Squeezed
- Powdered
- Pounded
- Concocted
- Extracted with cold water
- Decocted
- Warmed
- Smoked
- Extracted by boiling stem
- Enclosed in a piece of clothe

PROGRAMME AND USERS



Public space for social gathering, celebration and collaborating

Sell and introduce traditional medicine products/herbs into the urban environment



Sell and introduce traditional medicine products/herbs into the urban environment

Resource centre/meeting offices for traditional healer organisations
Intlombe: Dance to heal and gather through ceremony meetings



LINK WITH ESKIA MPHABLELE LIBRARY

Organize exhibitions, workshops, to educate and disseminate knowledge of traditional medicine.



LINK WITH ESKIA MPHABLELE LIBRARY

Organize traditional healer consultation and treatment of acute conditions

Organize traditional healer consultation and treatment of acute conditions

Organize traditional healer consultation and treatment of acute conditions

Organize traditional healer consultation and treatment of acute conditions



Process traditional medicinal plants i.e. simmering process and package hygienically



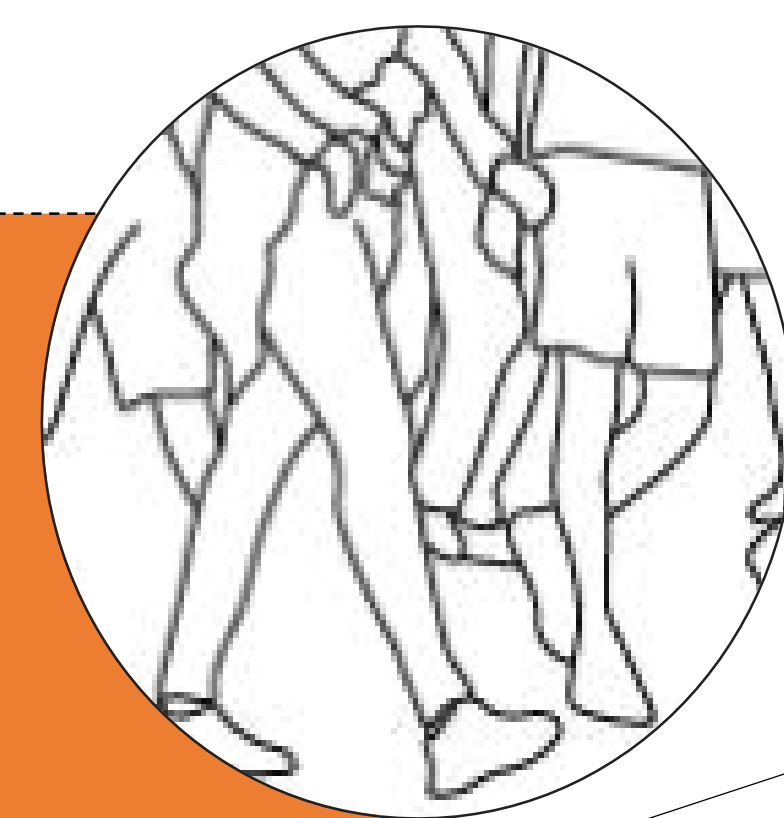
Plant and preserve traditional medicinal plants

LINK WITH FF RIBEIRO CLINIC

African traditional Healing spaces

- Connection between inside an outside
- Cleansing through ritual
- Dark candlelit space
- Smell of plants, incense, animal skins
- Entrance is significant
- Dance to heal and gather through ceremony meetings
- Screens and Layering important

traditional Rituals have associated attires and items that need to be purchased



The most commonly traded medicinal plants in South Africa are listed below along with their traditional uses:

Buchu – Urinary tract infections; skin infections; sexually transmitted infections; fever; respiratory tract infections; high blood pressure; gastrointestinal complaints.

Bitter aloe – Skin infections; skin inflammation; minor burns.

African wormwood – Respiratory tract infections; diabetes, urinary tract disorders.

Honeybush – Cough; gastrointestinal issues; menopausal symptoms.

Devil's claw – Inflammation; arthritis; pain.

Hoodia – Appetite suppressant.

African potato – Arthritis; diabetes; urinary tract disorders; tuberculosis; prostate disorders.

Fever tea – Respiratory tract infections; fever; headaches.

African geranium – Respiratory tract infections.
Milk bush – Pain; ulcers; skin conditions.

Rooibos – Inflammation; high cholesterol; high blood pressure.

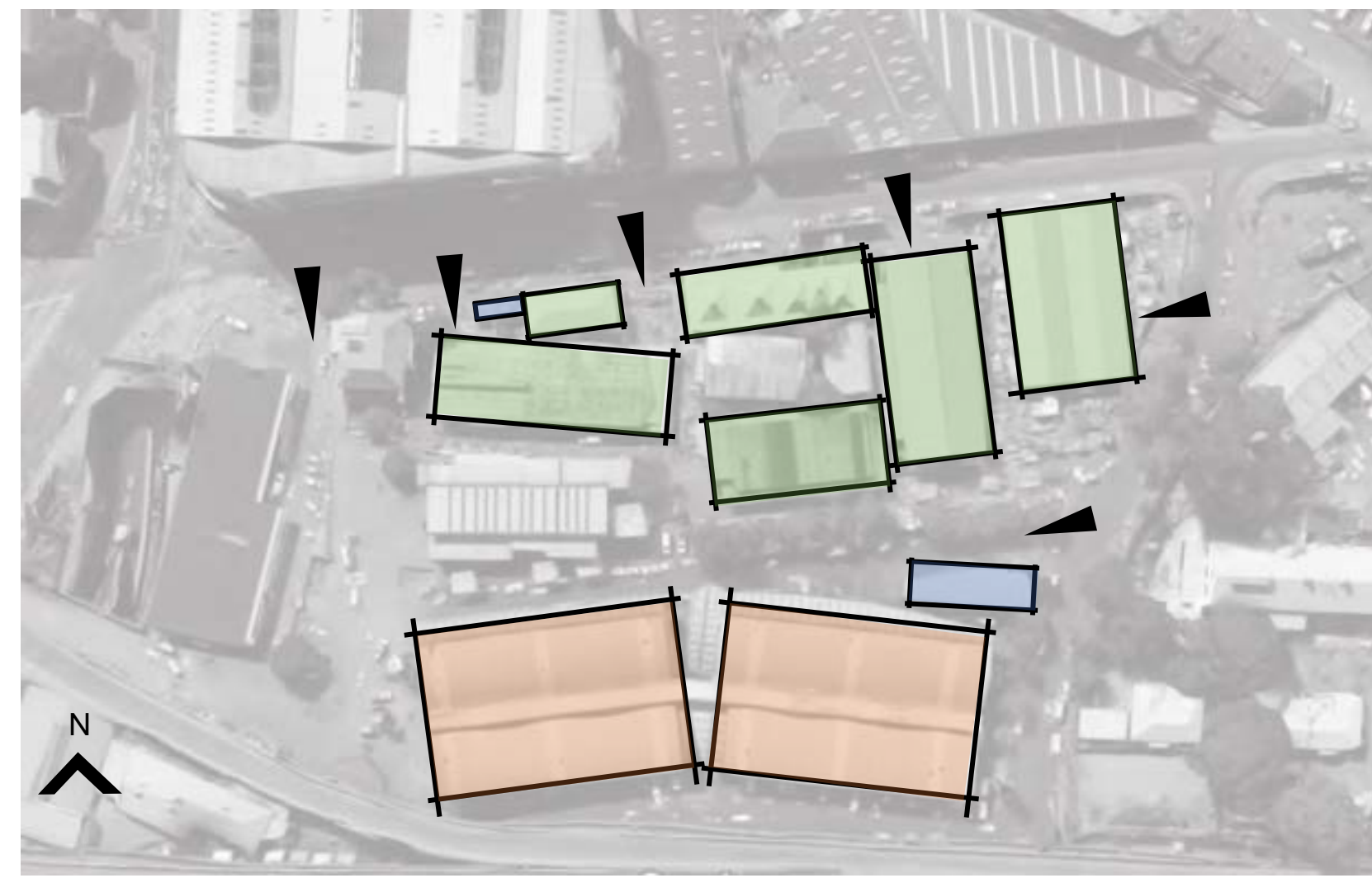
PRECEDENT STUDIES

FARADAY TAXI MARKET

Location | Johannesburg, South Africa
 Architect | Albonico, Sack and Mzmar Architects and Urban Designers and MMA | 2006

It is placed in an urban context and was designed to reinvigorate beyond its surroundings. Trading activity is associated with the taxi industry and is linked to the commercial and transport precinct. It is shaping the environment evident in how informal trade has extended beyond that of its original boundaries.

1



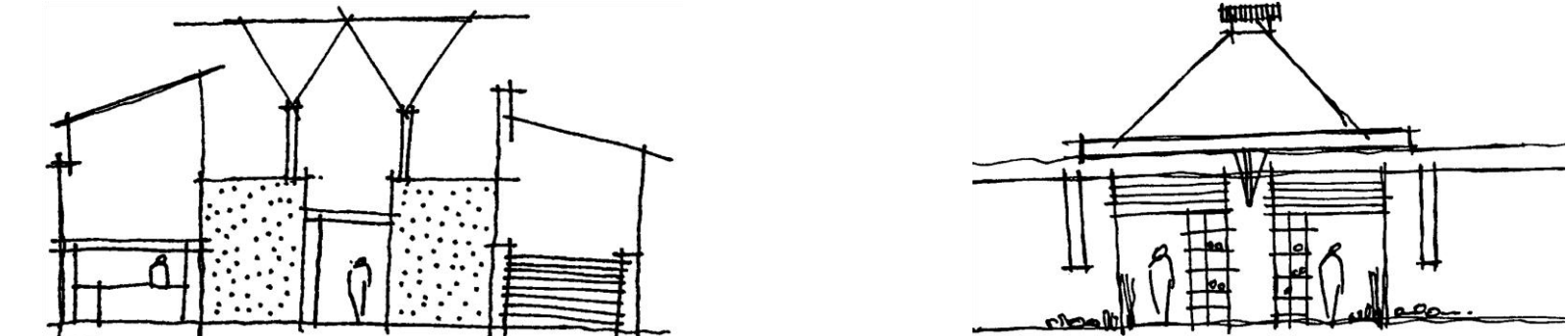
Traditional Medicine Markets, Ablutions, Faraday Taxi Rank, Main entry points

- The interaction between the public consumer/commuter and product
- A combination of existing and new structures together with a series of functions
- Administration and storage are housed in two refurbished buildings, while other structures have been converted to accommodate "multi-traders" who amount to the majority of the market's occupants
- These structures range from small lockable stalls, to larger enclosed and lockable sheds, to a space which is, apart from a roof structure, predominantly open
- A variety of additional facilities include a railway station forecourt, ablutions, offices and formal shops as well as numerous gathering spaces
- The intervention was designed to house a trading industry, yet consciously accommodating for adaptability and the opportunity to change
- The manner in which the Faraday Market is shaping the environment is pertinent which shows the influence of the market and how informal trade has extended beyond that of its original boundaries
- the shops are found in one place and the spirit in that place simulates that of a community set up. There is a spirit of humanity, which is usually observed when a herbalist refers a client to the next shop using the shop numbers as reference, in the event where the herbalist is out of stock or does not have the herb of clients interest. Humanity, in this context prescribes individual and community behaviours that promote harmony, peace and reconciliation at the community level.

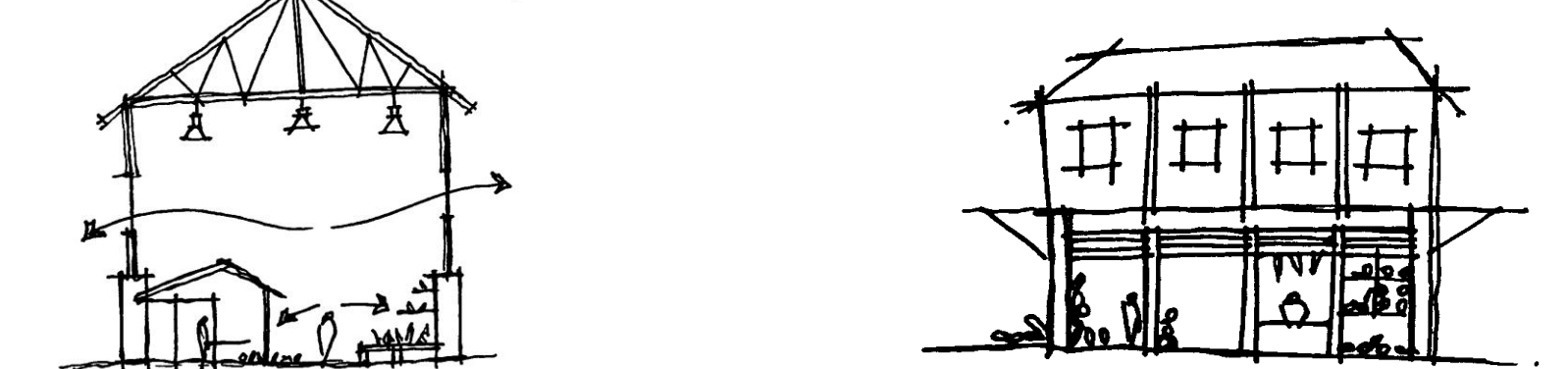


Key ideas: CONTEXT, PROGRAMME, BUILDING TYPOLOGY

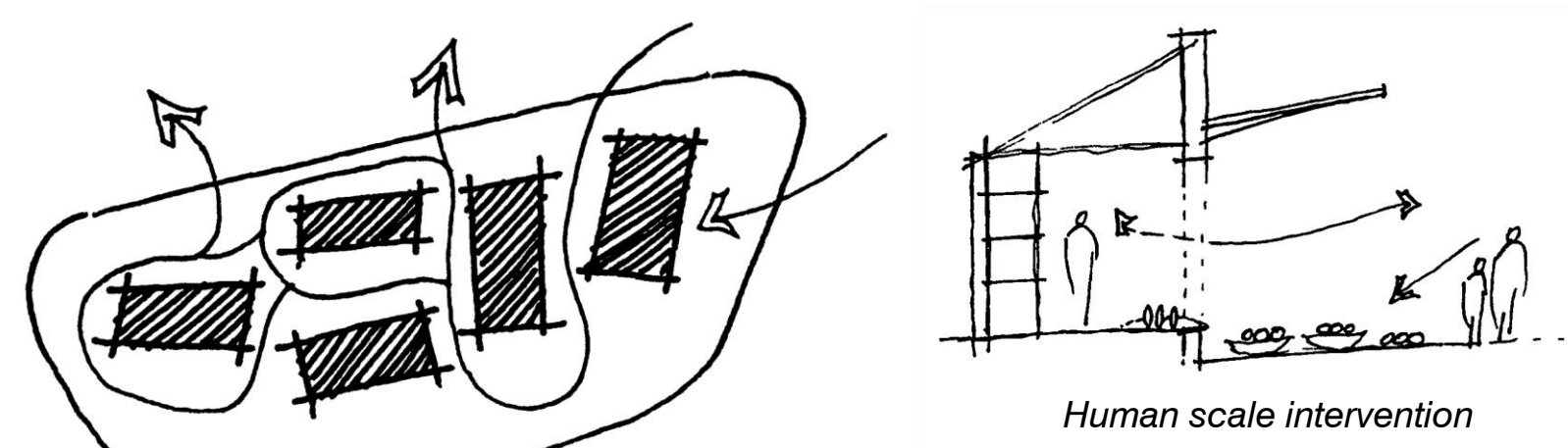
LOCATION CLOSE TO PUBLIC TRANSPORT



Incorporating the diversity of South African traditional medicine in an urban environment, Different kinds of markets/retail functioning together



Warehouse structure as envelope for trading stalls, Mixed-use building with retail on ground



Pedestrianised environment within an urban setting, Human scale intervention

PHONG KIAM TRUC TRADITIONAL CLINIC

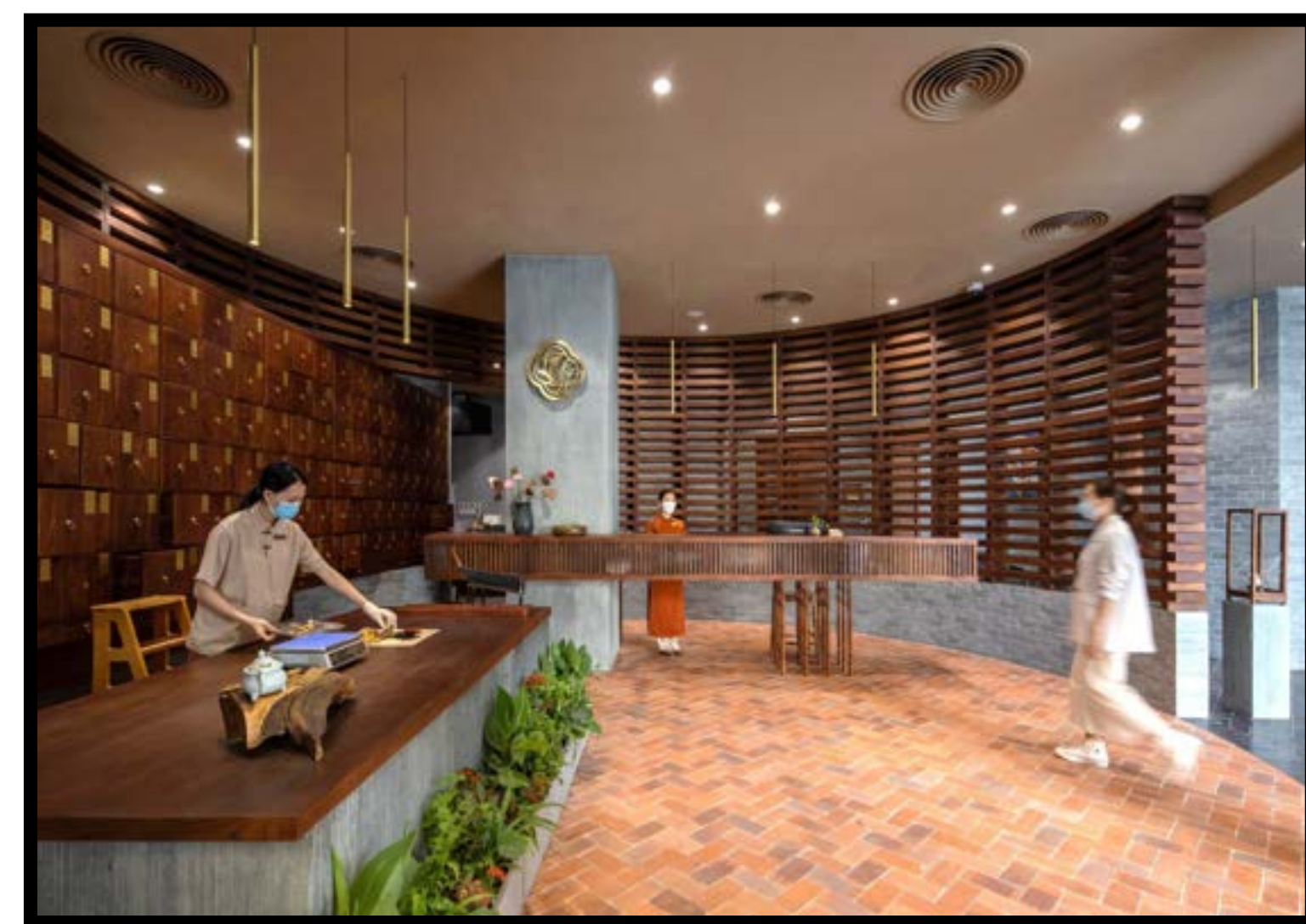
Location | Hanoi, Vietnam
 Architect | DDO architects / Mai Lan Chi Obutlovicova, Nguyen Duc Trung | 2022

According to the Vietnamese belief, to effectively cure an ailment, a patient must be treated both physically and mentally, therefore the spatial design seeks inspiration from the tranquillity of traditional Vietnamese architecture

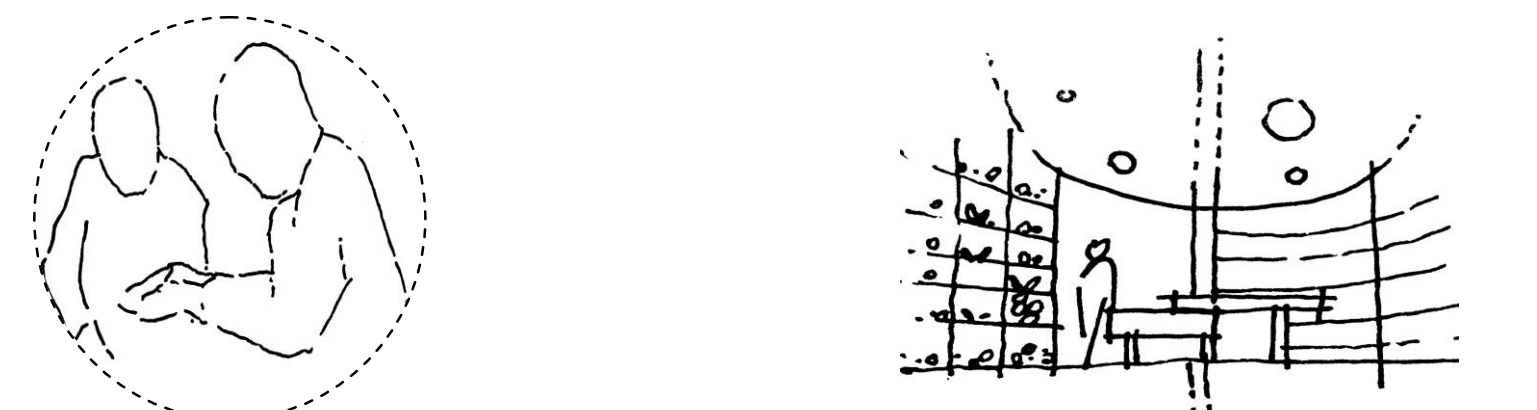
2



- The Traditional Clinic aims to preserve and augment the positive values of traditional medicine
- There is the reception area serving as the information hub, spreading knowledge of traditional medicine to the public and reassuring patients to trust in the methods of traditional medicine
- The reception is located in the building's main hall adjacent to one of the busiest traffic routes of the urban area.
- It has a specialized clinical space on the 7th floor of the building
- The design is oriented around the utilisation of natural and traditional materials, such as ceramic tiling, natural rock and wood
- Combined to bring about a welcoming feeling and a sense of warmth calling on people to experience and discover
- The elegant curve not only divides each function, but also highlights the image of the traditional pharmacist, carefully concocting each dose of medicine in front of the wall of cabinets, containing over 110 different herbs



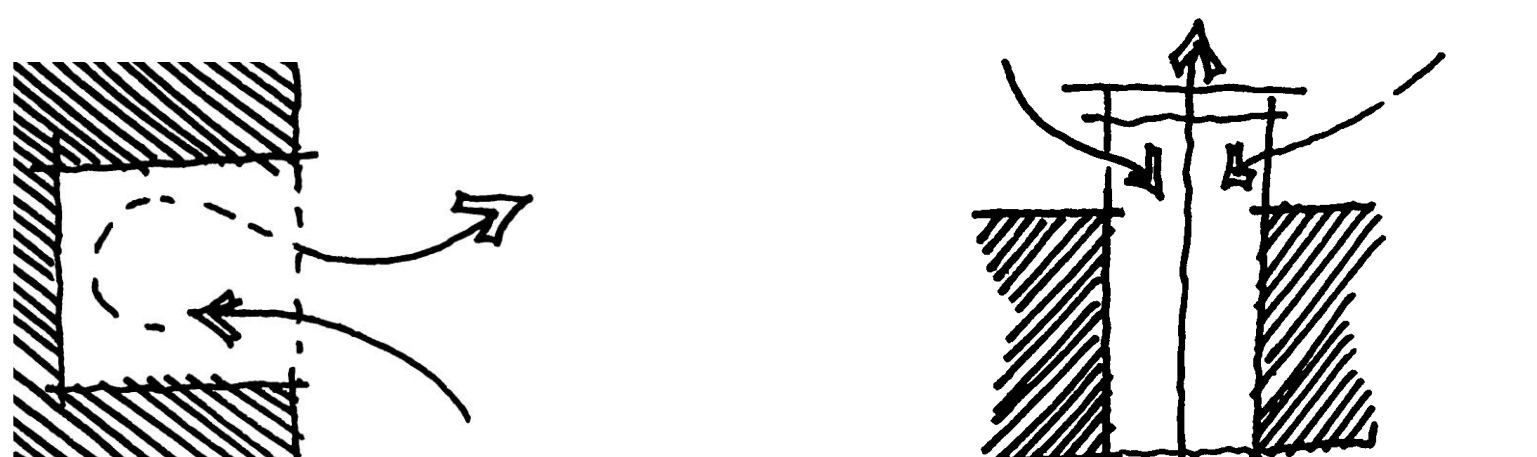
Key ideas: SPATIAL, PROGRAMME



Human to human interaction, Information and display platforms concerning traditional medicine



Using local materials to invoke the senses, Public to private placement of spaces demarcated by a centralised space



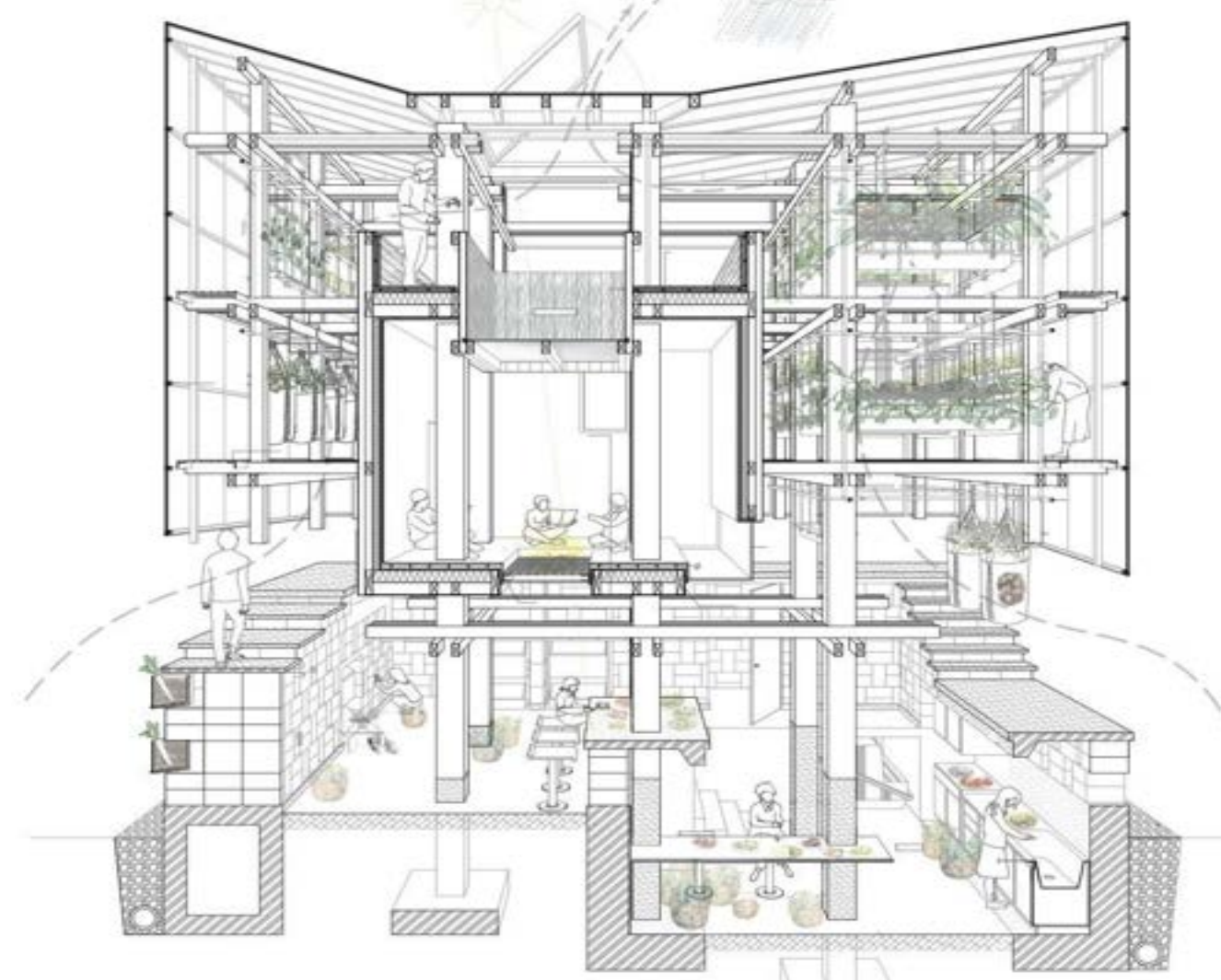
Integration into an in-between urban space, Exploring verticality to maximise spaces

NEST WE GROW

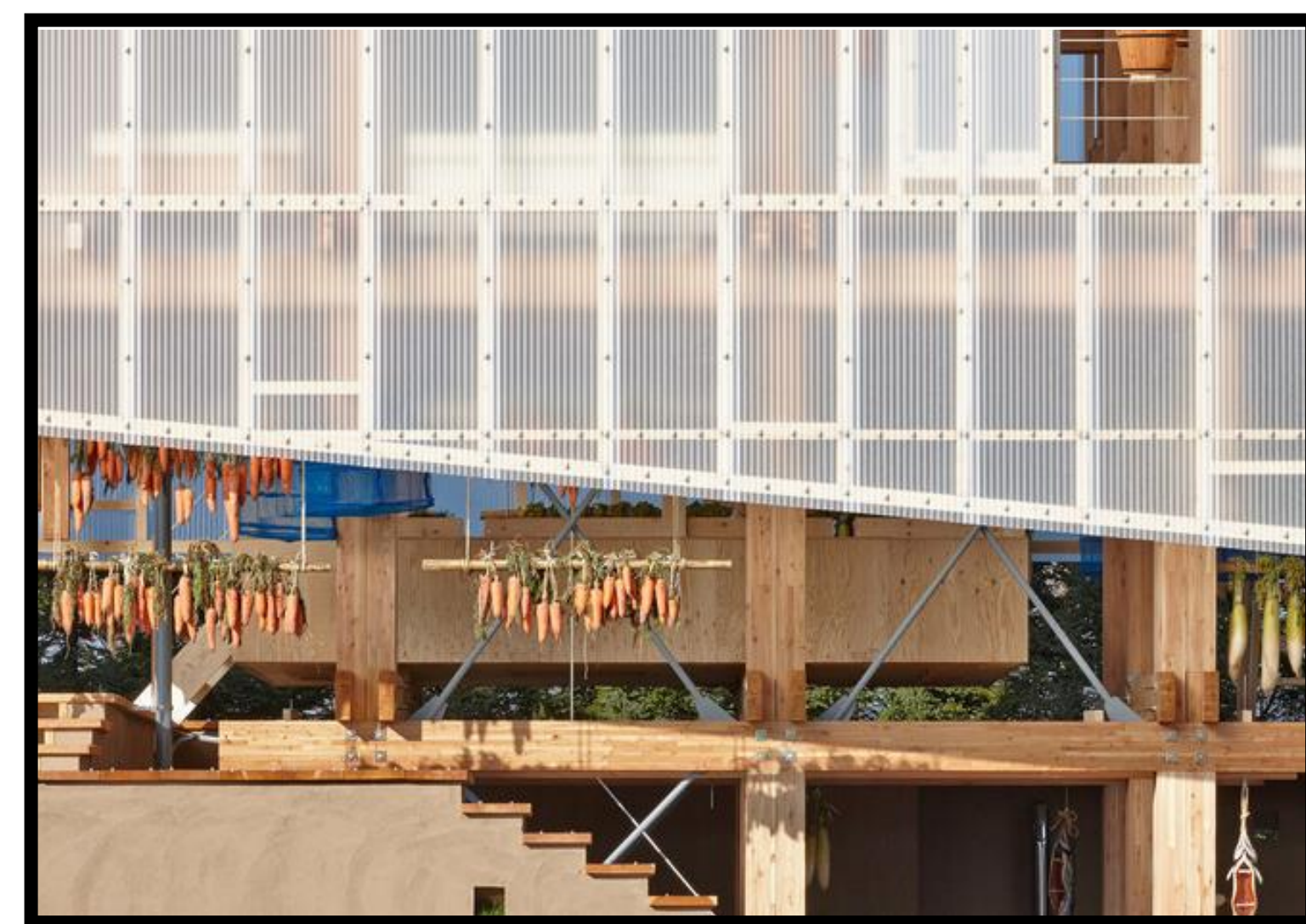
Location | Takinoue, Japan
 Architect | College of Environmental Design UC Berkeley, Kengo Kuma & Associates | 2014

It is an open, public structure with the main intent of bringing people in the community together to store, prepare and enjoy local foods in the setting of Hokkaido, Japan.

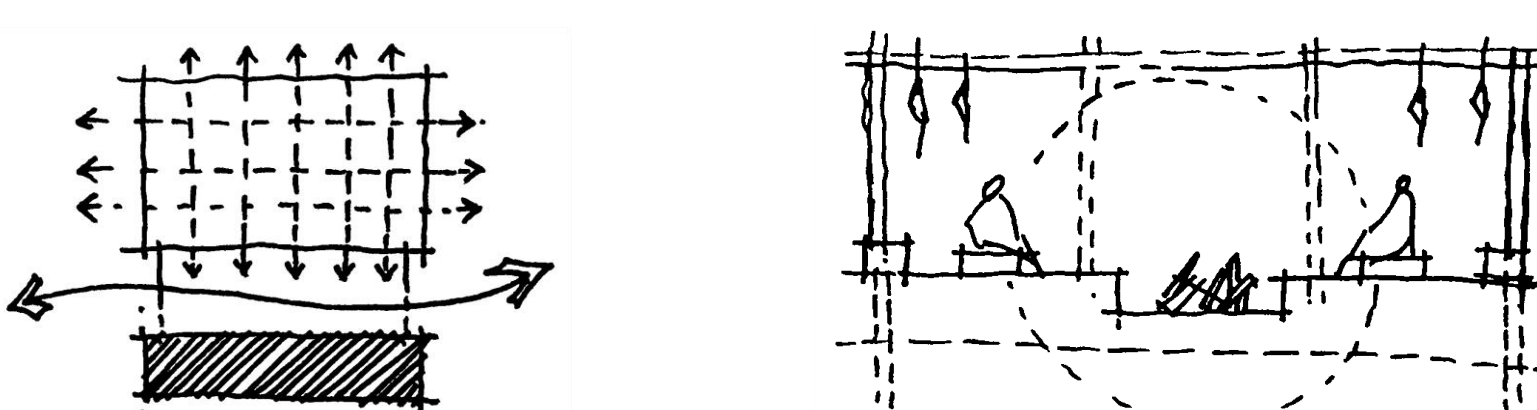
3



- Introduction of renewable building techniques (heavy timber construction) 'transnational technology' in a new environment of Japan
- The wood frame structure mimics the vertical spatial experience of a Japanese larch forest from which food is hung to grow and dry.
- A tea platform in the middle of the structure creates a gathering space where the community can visually and physically enjoy food around a sunken fireplace.
- Local foods make up the elevation of the Nest as people see the food forest floating above the landform.
- The wall at the base of the building, in addition to creating a micro topography, helps to block the prevailing northwest winter wind.
- The Nest takes advantage of the transparent plastic corrugated sheets on the facade and roof, allowing light in for the plants, and heating the space during colder months, extending the usability of the Nest
- Sliding panels in the facade and roof open to facilitate air movement through the structure during the summer and warmer parts of the day. The tea platform sits up into the Nest, keeping it in the warm air created by the skin during the colder months, and in a cross ventilated area during the warm summer months.



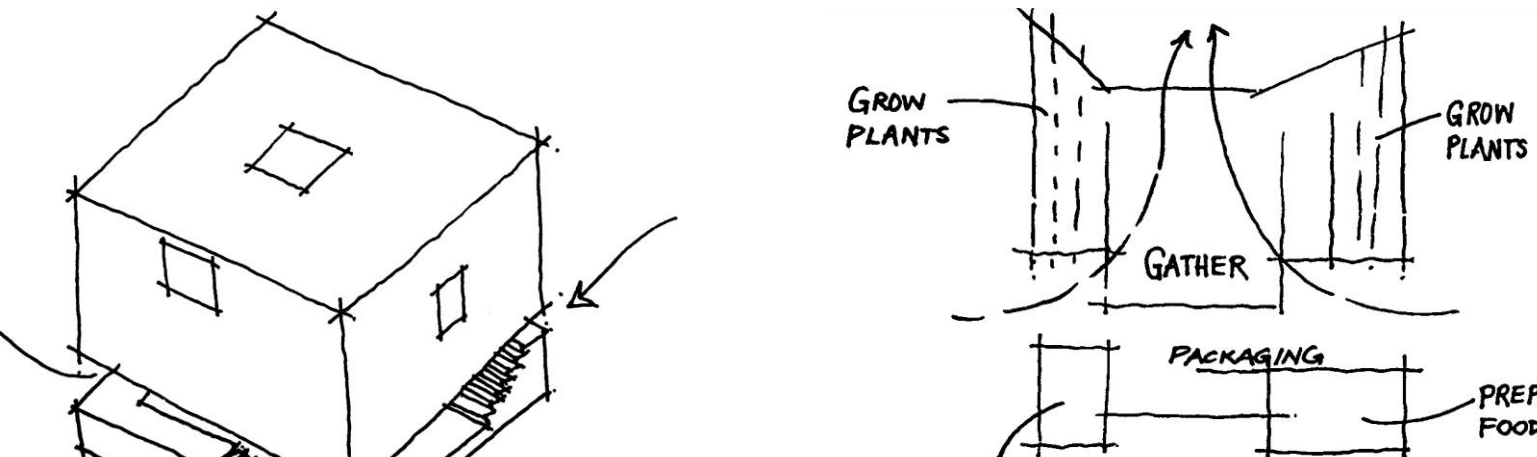
Key ideas: STRUCTURE AND ORGANISATION



Cross ventilation and translucency, Centralised gathering space



Circular circulation, Incorporating interactive hanging planters



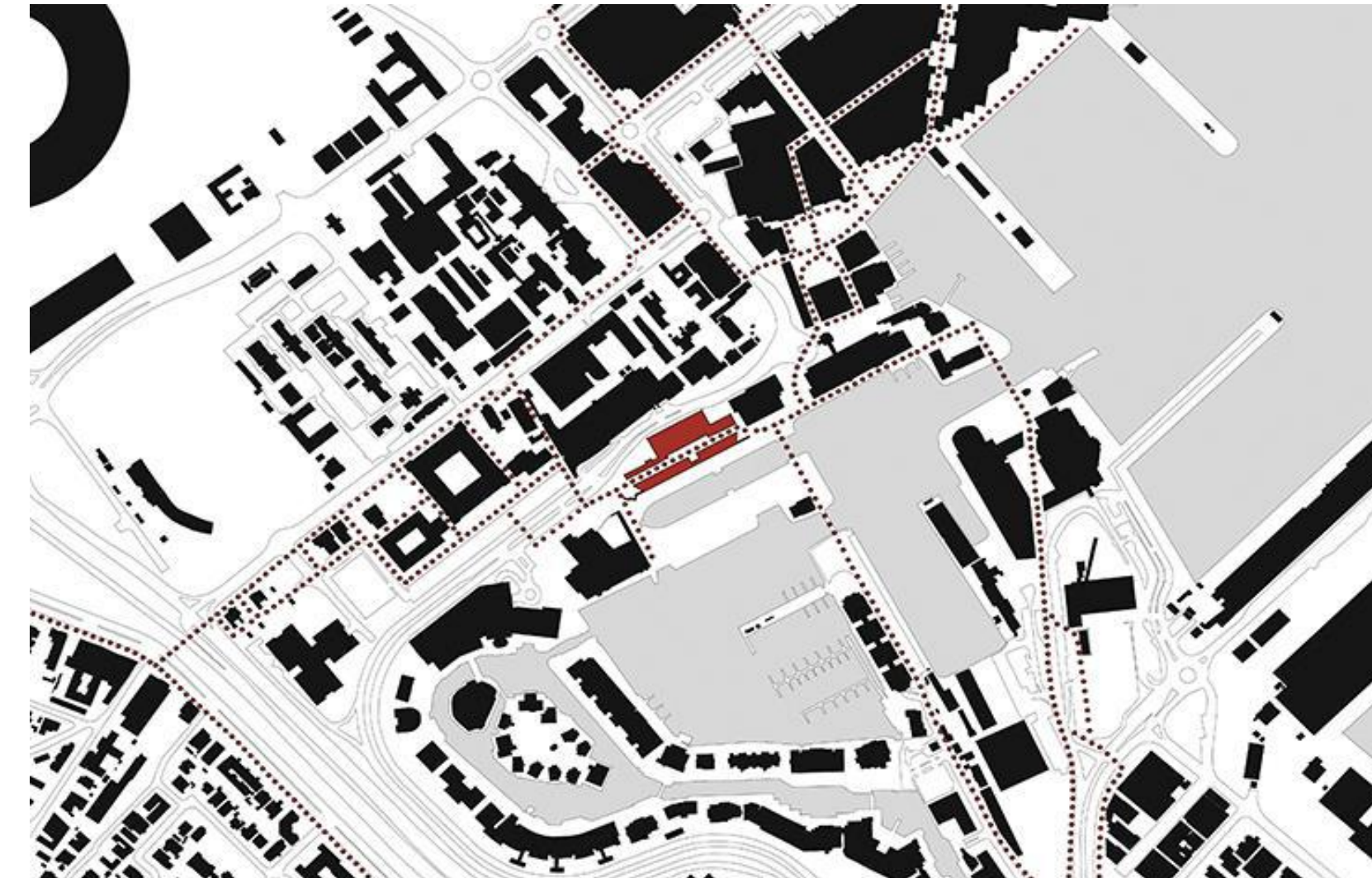
Monolithic base structure with a light superstructure, Placement of functions

WATERSHEDS

Location | Waterfront, Cape Town, South Africa
 Architect | Wolff Architects | 2015

The Watershed development has encompassed the repurposing of an old industrial shed, called Workshop 17 in Cape Town's V&A Waterfront

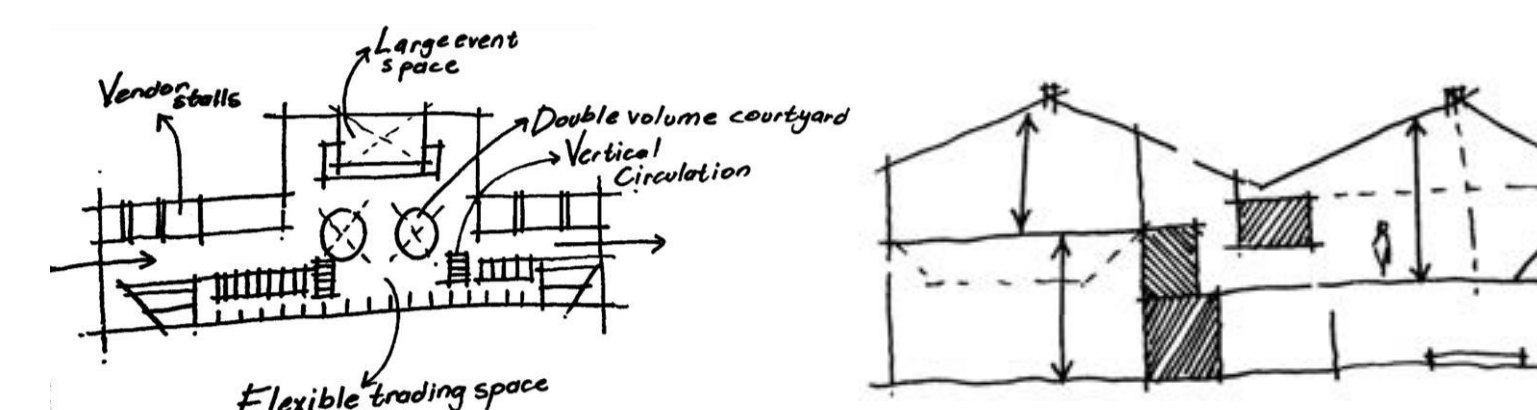
4



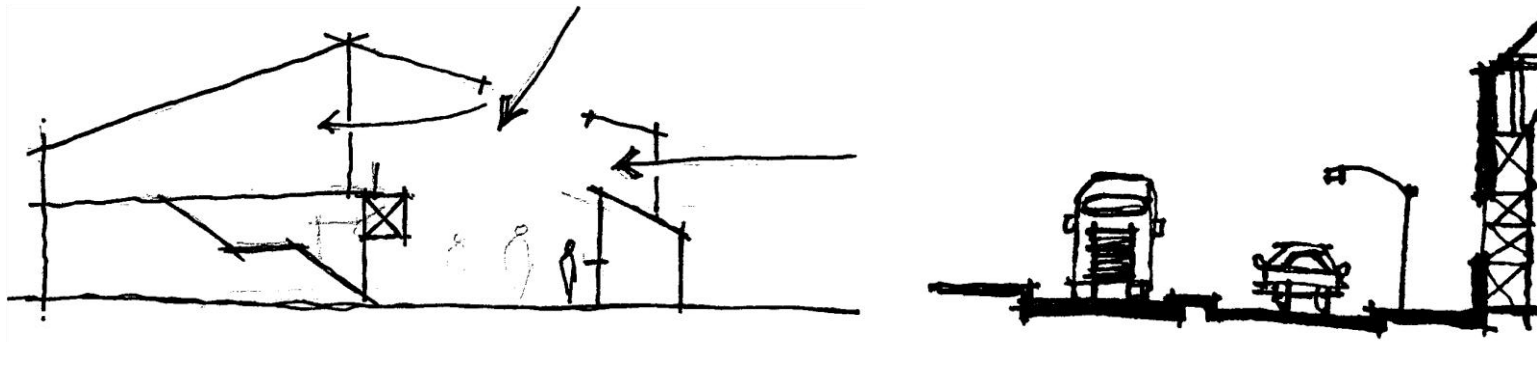
- The aim of the project was to increase the intensity and diversity of human interactions in the city
- To achieve this, a market, an exhibition venue, some rentable office spaces and green spaces were added to the program and these were concentrated along a street which connects to a larger urban network.
- Perpendicular to the street, a 50 x 50m steel floor hovers over the market with huge openings in the floor that makes interaction between the levels possible
- The top floor is a series of mezzanines which are open to the main suspended floor and to keep the focus on the street rather than the individual stalls, they were designed for the tenants to customise and transform as they want.
- A reciprocity is set up architecturally between the small businesses in the market and the developing businesses in the incubator. For each to watch the activities of the other daily, is educational and stimulating.
- The business incubator is defined architecturally, not by facades that communicate an appearance, but rather by the suspended floor that makes opportunity below it.
- This floor also becomes the interphase for social interaction within an institution that focuses on innovation; a cafe in the centre of the business incubator becomes a social hub for the institution. Socialisation is seen as central to the exchange of ideas and making contact with new people.



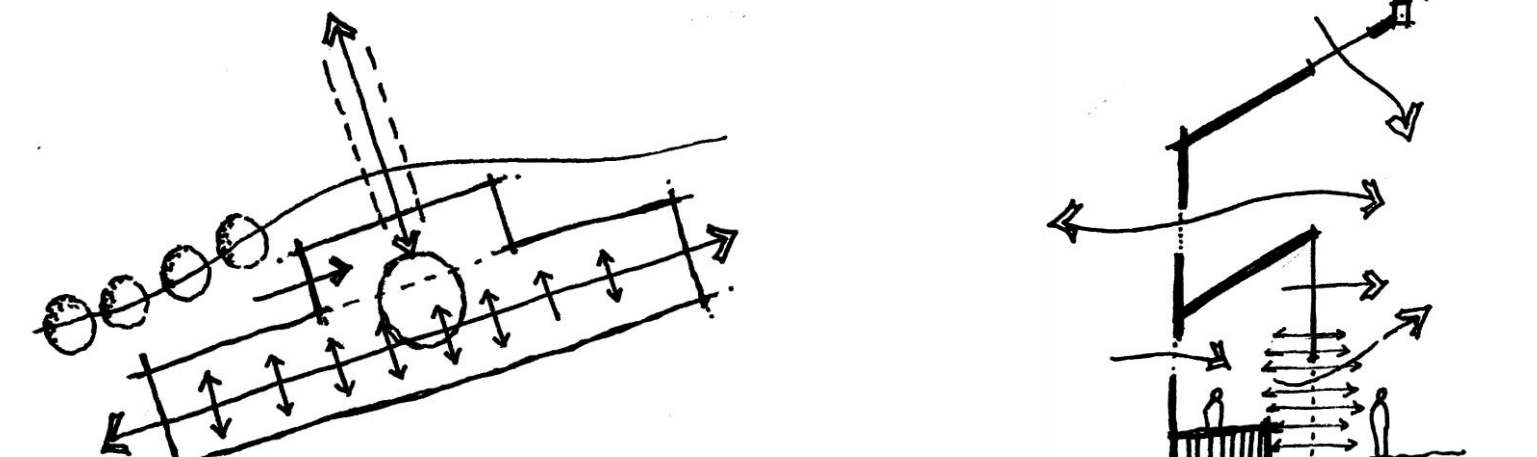
Key ideas: SPATIAL TYPOLOGY



Spatial placement, Scale, perception of intimacy and openness, Natural lighting and ventilation



Street edge with pedestrian platform, Circulation and access



Vendor stall scale and interaction, natural lighting and ventilation

OUTREACH FOUNDATION COMMUNITY CENTRE

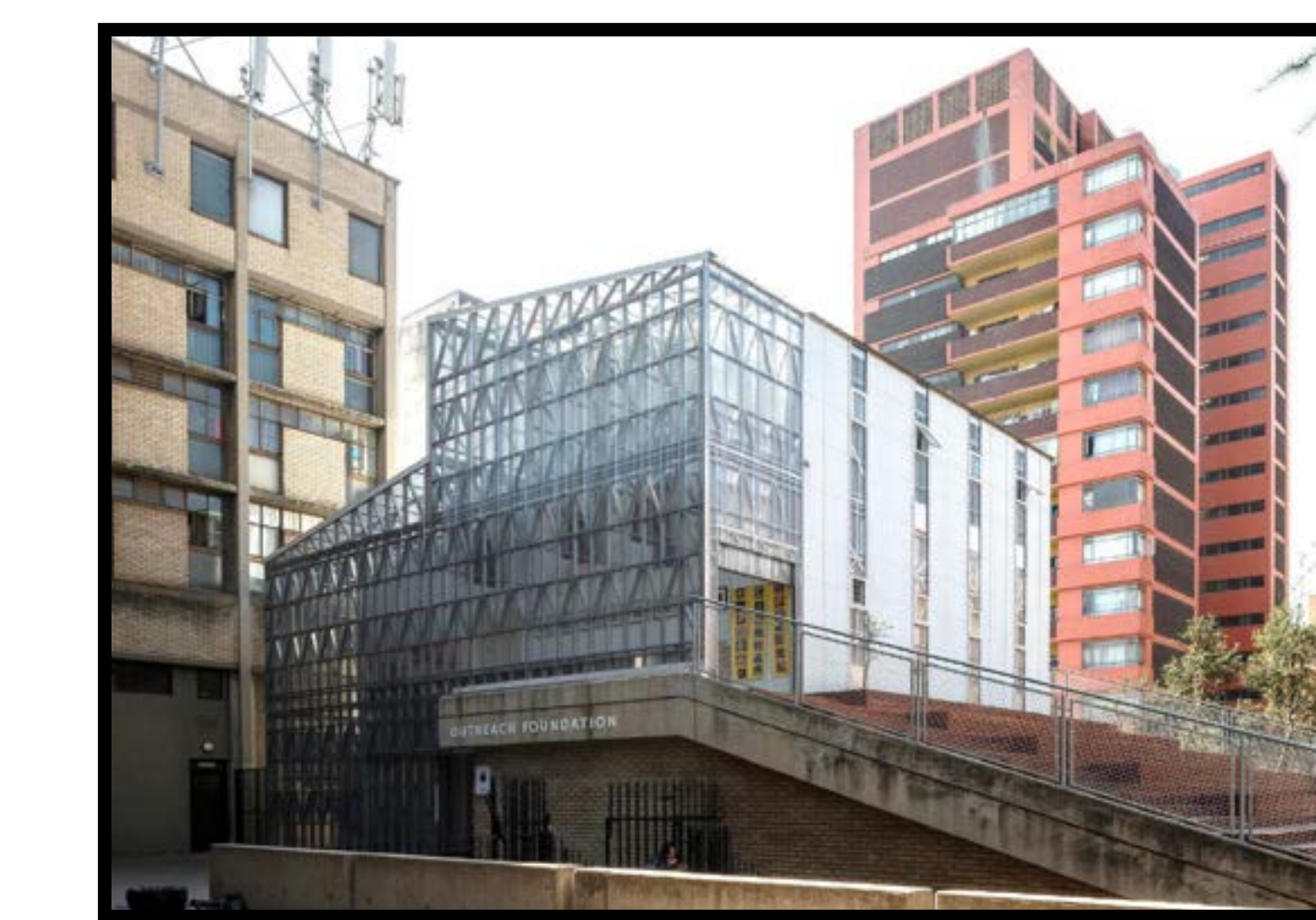
Location | Johannesburg, South Africa
 Architect | Local Studio | 2015

One of the first new social infrastructure projects to be built in Hillbrow since the 1970's. It is situated within the broader Hillbrow Lutheran Church/ Friedenskirche precinct, a site given to the Lutheran church by Paul Kruger at the turn of the century. The actual building site is the staggered rooftop of an unfinished community hall built as part of the German Consulate in the 1970's.

5



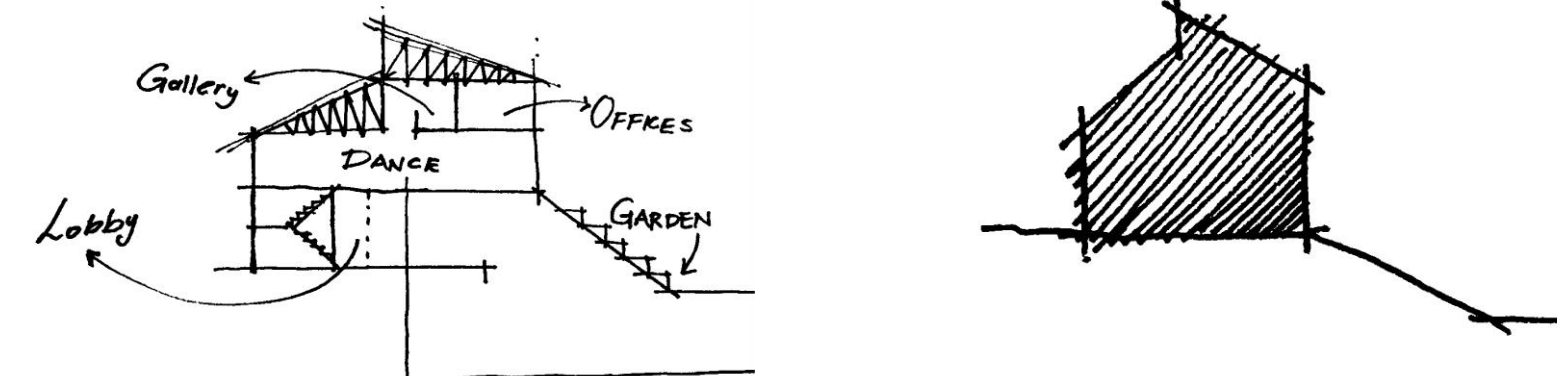
- The building houses 3 primary functions: a computer centre on the ground floor, a dance studio on the first floor, and offices and meeting areas at second floor.
- These functions are collected within an angular volume draped over the two levels of the site.
- The building also presents its primary function, which is the dance studio, to Twist Street through a 12 metre window.
- The building is in and of itself a small piece of urban design, and houses a vertical street (in the form of an open staircase), which leads users from a central courtyard to the public roof garden.
- This roof garden, which was partially funded by housing companies in the area, complements the building and forms a platform from which users of the centre can interact with the city below.
- The form of the building is minimal and entirely governed by the programmes housed in it.
- However, the choice of white corrugated steel and clear corrugated polycarbonate as cladding materials abstract the building's image and clearly establish it as a new addition to this part of the city.



Key ideas: CONTEXTUAL TYPOLOGY



choice of white corrugated steel and clear corrugated polycarbonate as cladding materials, Permeable facade on shaded edge



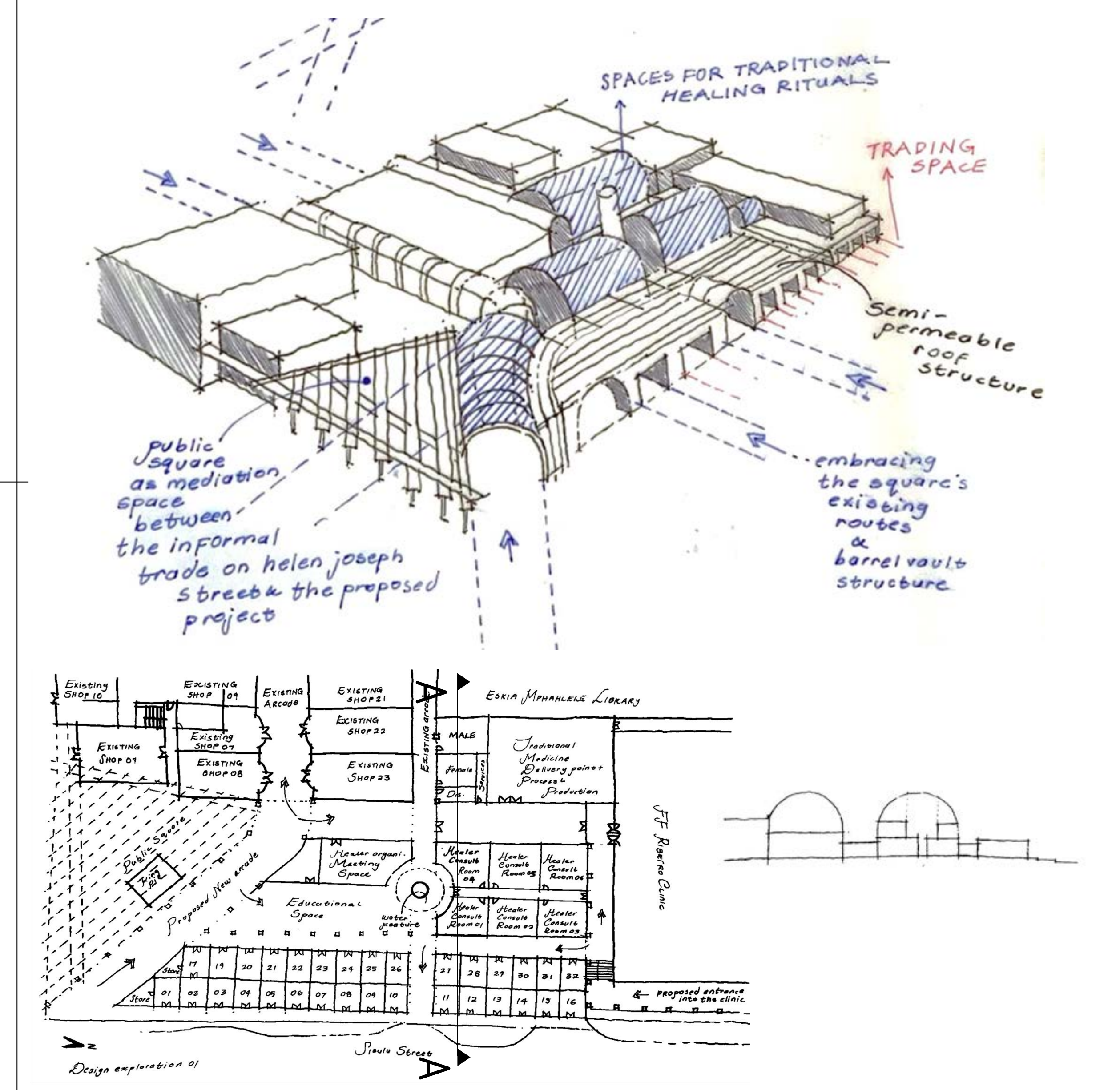
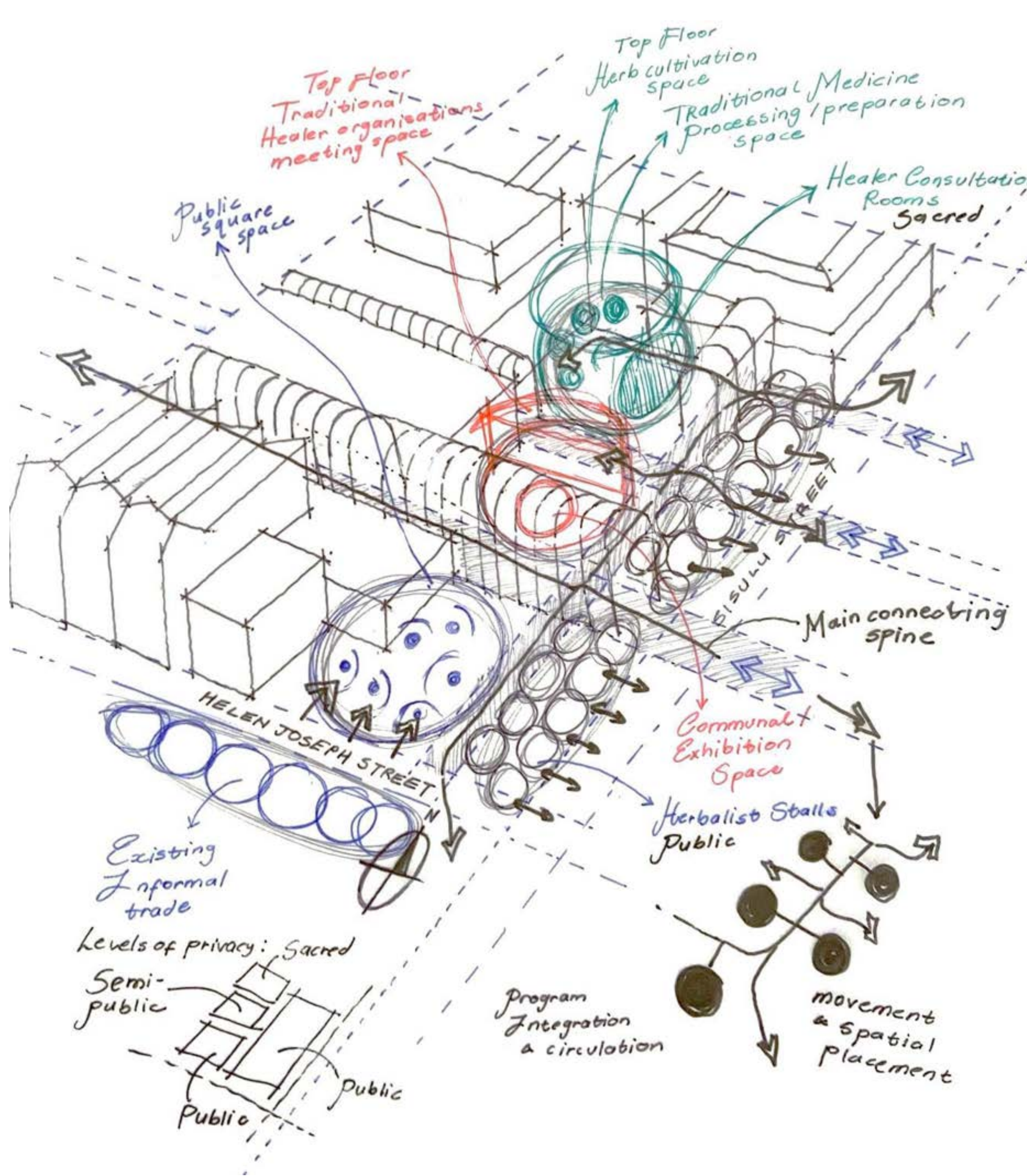
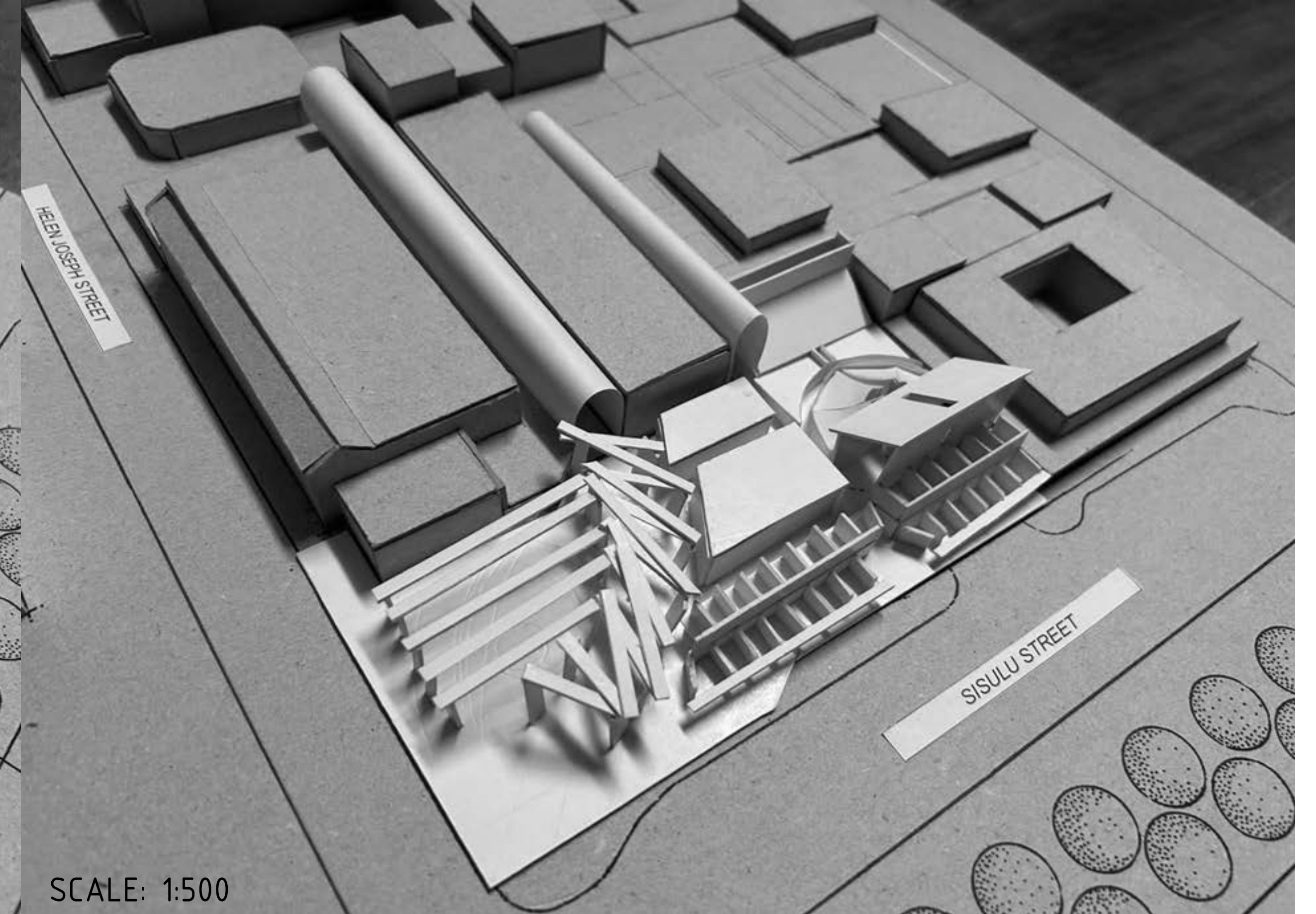
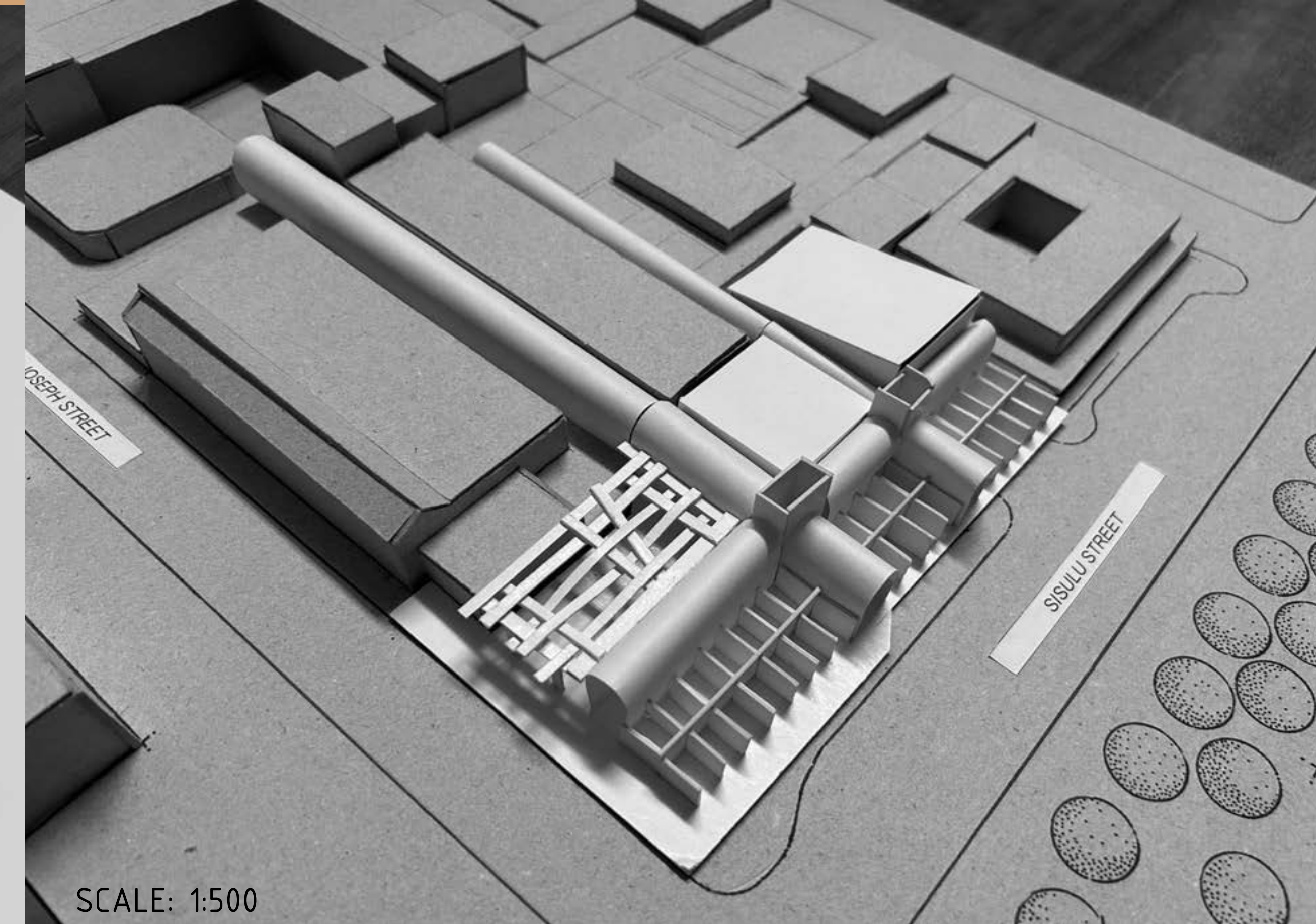
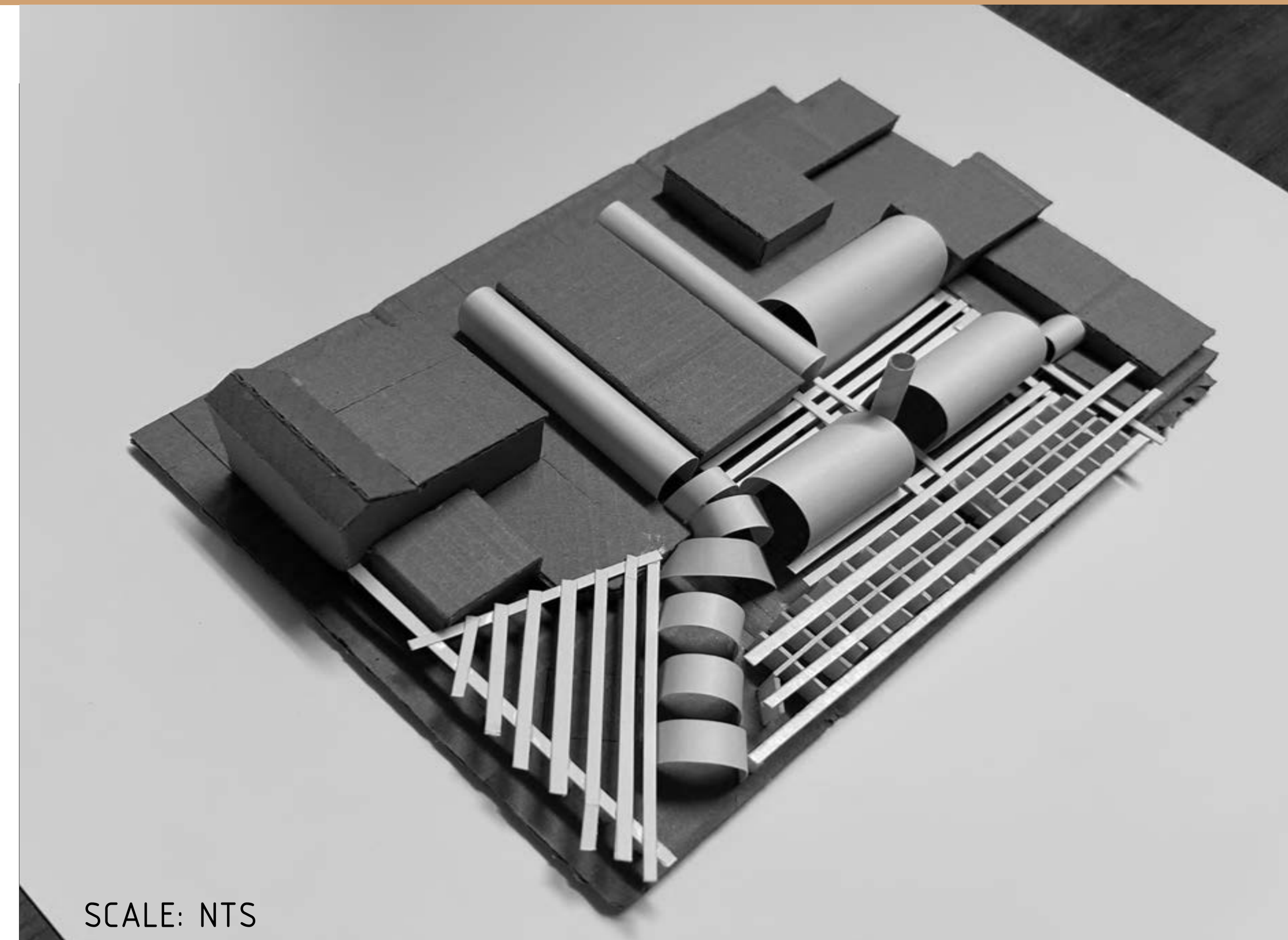
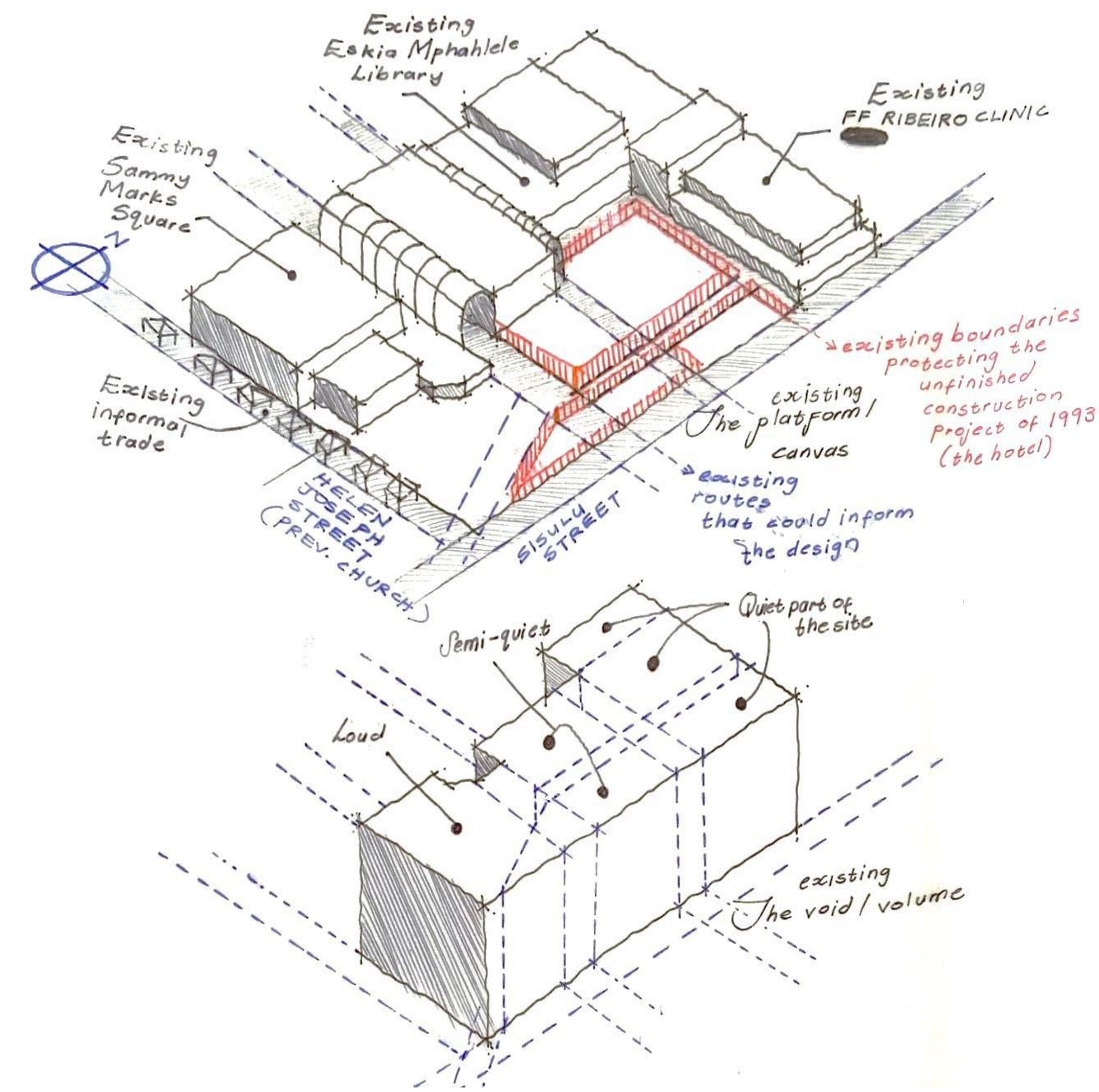
Spatial arrangement, Terraced public garden leading to building



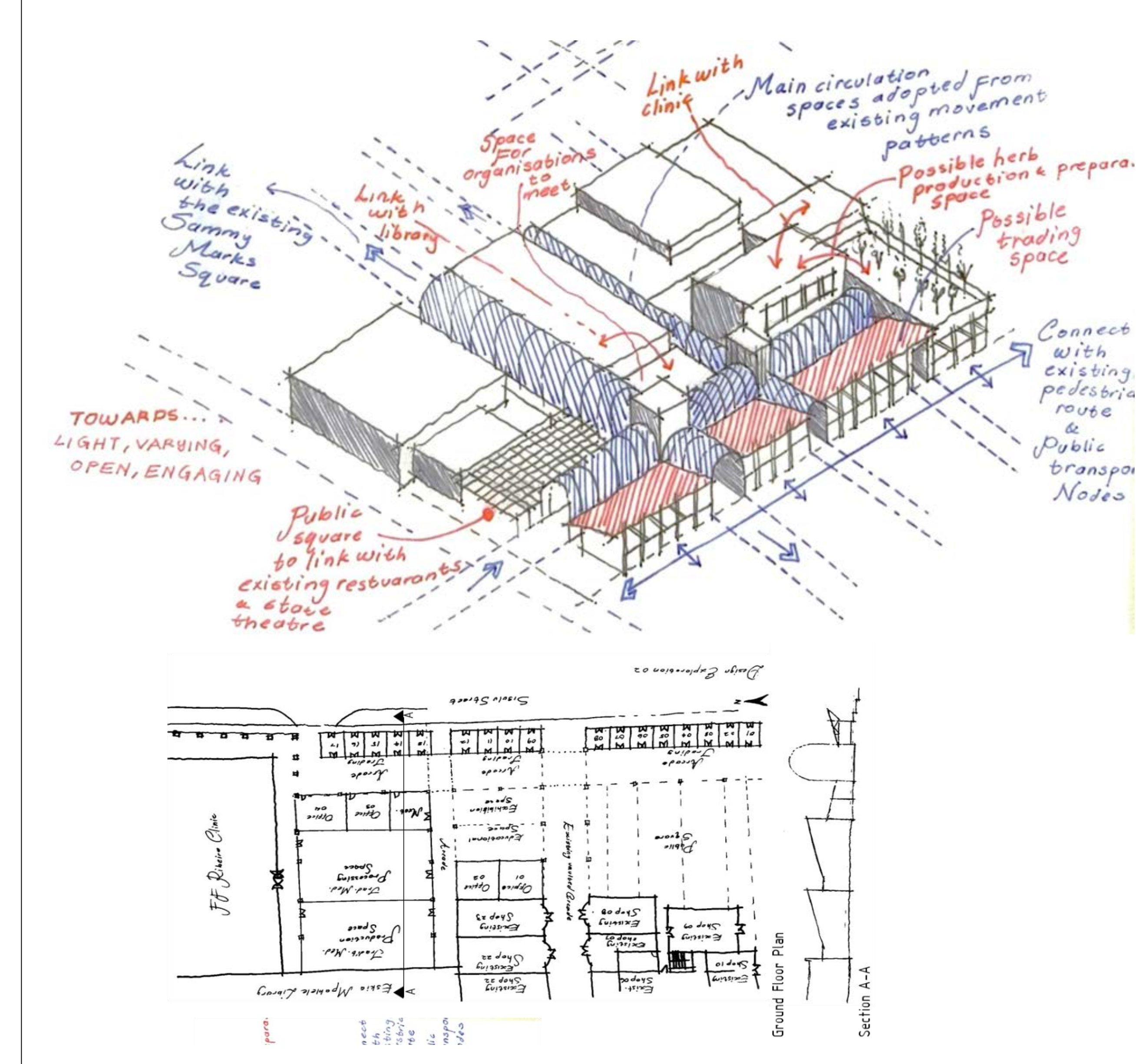
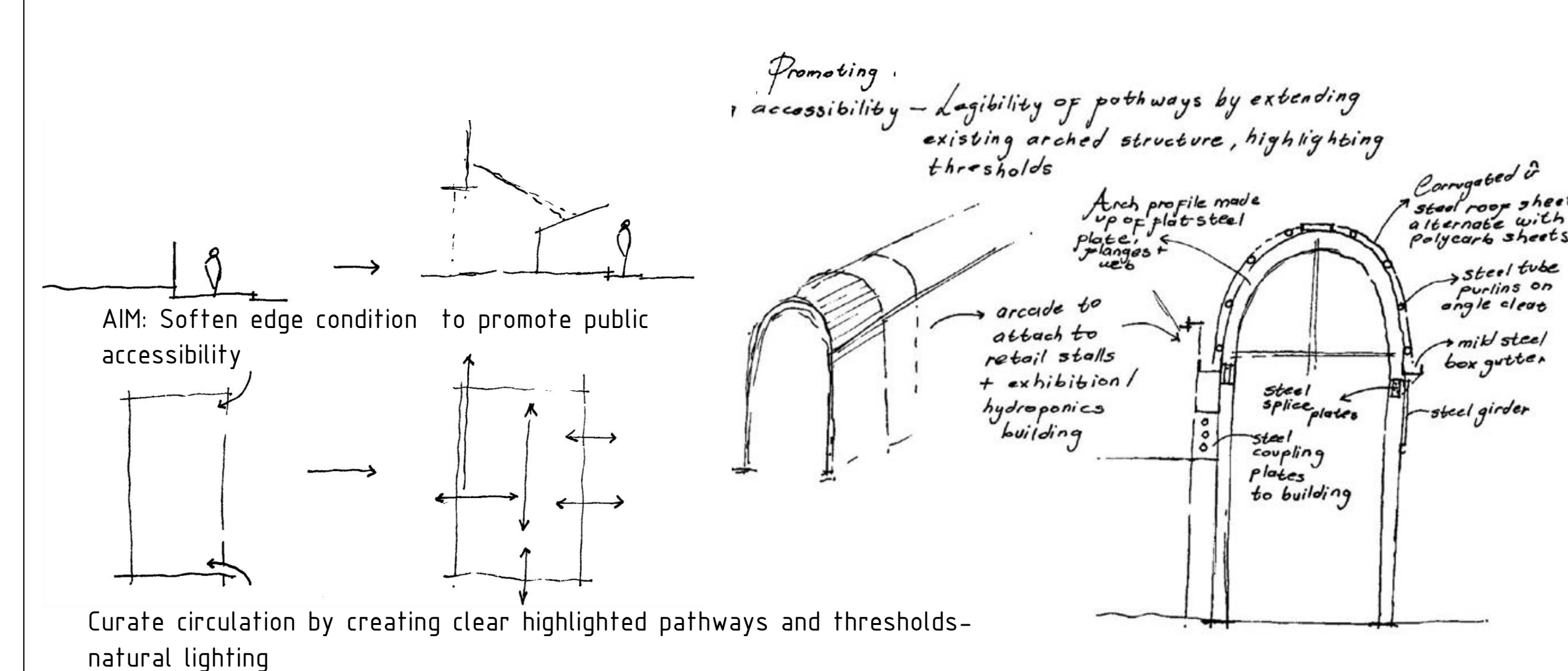
building as a small piece of urban design, Scale

DESIGN DEVELOPMENT: ITERATIVE PROCESS

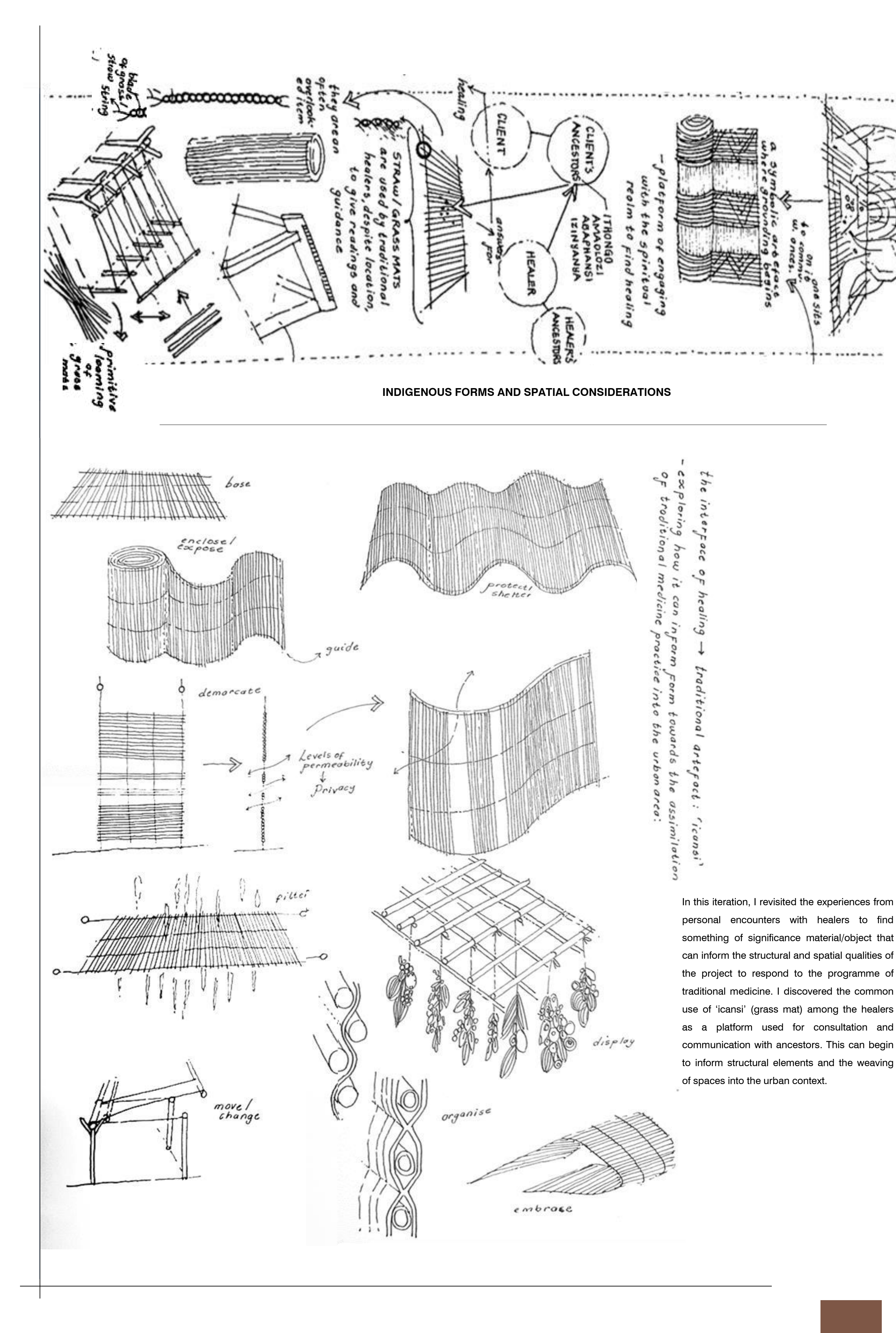
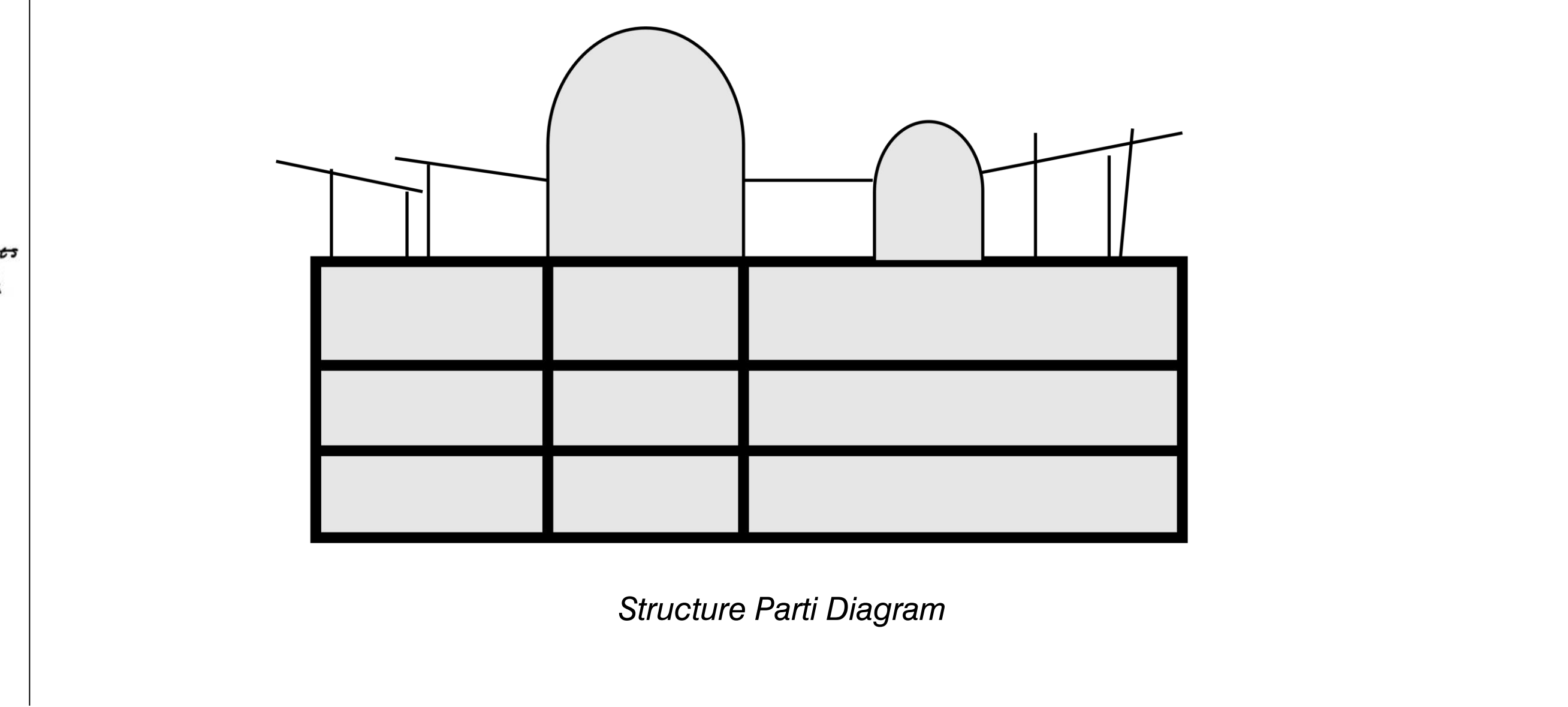
What kind of architecture is required to support traditional medicine cultural practices within the urban environment?



In this iteration, the design development was influenced by the existing pathways on site with spaces forming around them. The curation of circulation by creating clear highlighted pathways and thresholds- natural lighting



In this iteration, the project explores creating indoor streets to create transitions between public to more sacred spaces while keeping to the existing main entrances and routes.





Specification

F50 INSITU CONCRETE CONSTRUCTION
F50.1313 Insitu concrete ground bearing floor
 1. Size: 75 mm
 2. Finish: Smooth + fair finish

F50.1712 External concrete steps - Grano finish
 1. Size: 1500mm wide x 300mm treads x 175mm risers
 2. Concrete finishes:
 i) Treads and risers: to receive Grano finish.
 3. Support structure: Insitu concrete frame and floor slabs.
 4. Formwork: Resin faced plywood.
 i) Permanent formwork: Not required.
 ii) Patterned formwork liners: Not required.
 iii) Requirement: Formwork to be rigid and braced to prevent "kicking".
 5. Concrete and Reinforcement to Engineer's specification.

H10 BRICKWORK
H10.1125.1 Clay fair faced brick wall barrel vaulted
 1. Size: 220mm x 110mm x 75mm
 2. Finish: Travertine face brick masonry
 3. Joint: flush joint finish steel
 4. Profile: Arch
 5. Course: soldier bond course

H10.1125.2 Clay fair faced brick wall
 1. Size: 220mm x 110mm x 75mm
 2. Finish: Travertine face brick masonry
 3. Joint: flush joint finish steel
 4. Course: soldier bond course

H10.1125.3 Clay fair faced brick wall with openings
 1. Size: 220mm x 110mm x 75mm
 2. Finish: Hollow Travertine face brick masonry
 3. Joint: flush joint finish steel
 4. Course: Overlapped brick course as per the architects drawing in alternating angles of (135, 90 and 45 degrees)

L10 CARPENTRY
L10.100 Timber Purlins
 1. Size: 50mmx76mm
 2. Finish: Unfinished

L10: 101 Timber Trusses
 1. Size: 114mmx38mm
 2. Finish: Unfinished

L10: 102 Timber Brandering
 1. Size: 38mmx38mm
 2. Finish: Unfinished

Institution
THE UNIVERSITY OF PRETORIA- DEPARTMENT OF ARCHITECTURE

Programme/Course
MProf. Arch- CPD 810: Technical Integration

Name
Nombuso Mnguni

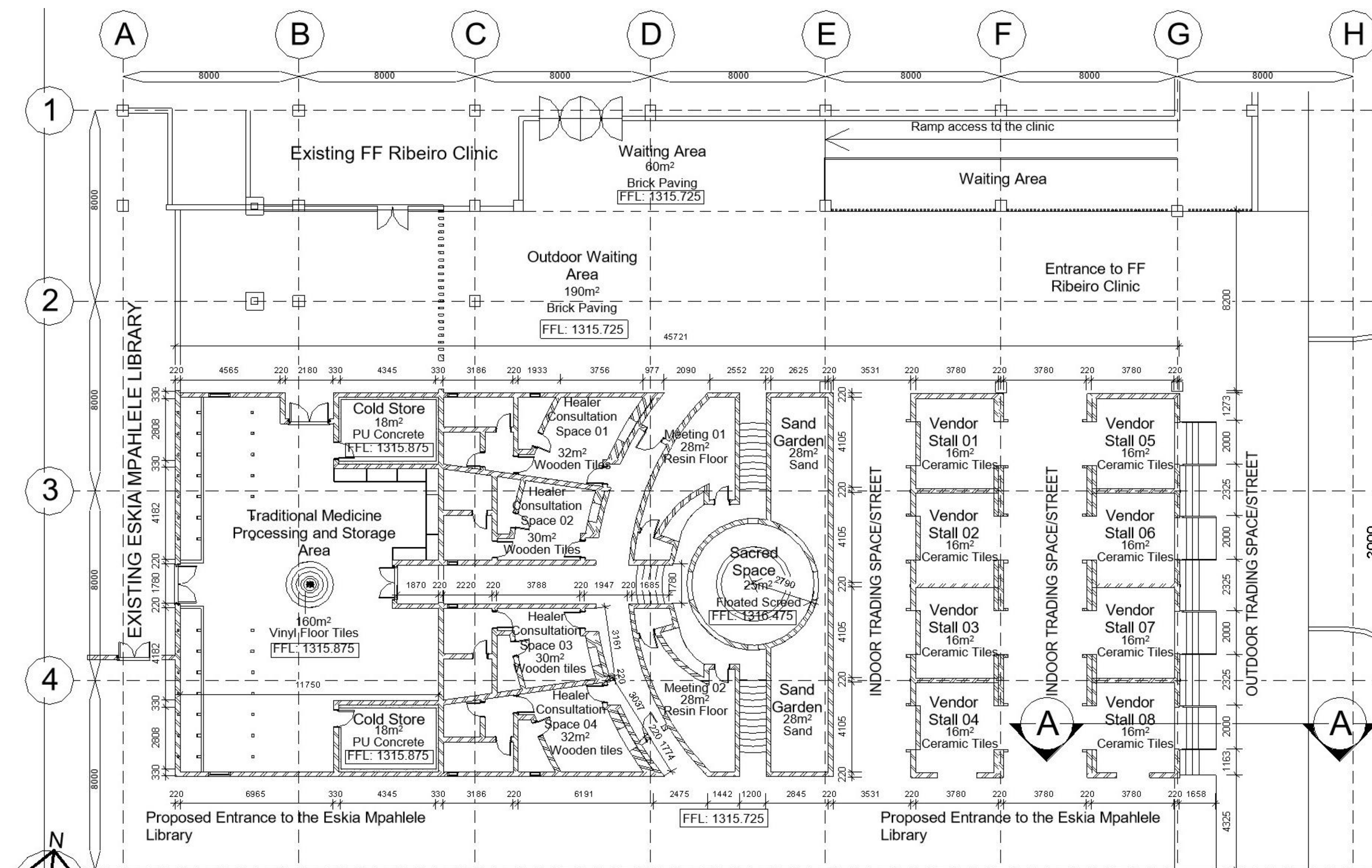
Student Number
12100910

Project name
The cultural practice of indigenous traditional medicine as a regenerative tool for an urban public space
 Location
 Erf 3357- Portion 5, 340 Helen Joseph St, Pretoria Central, Pretoria, 0001

Drawing names
Site Plan, East Elevation, Plan Detail, Section Detail 1, Detail 1

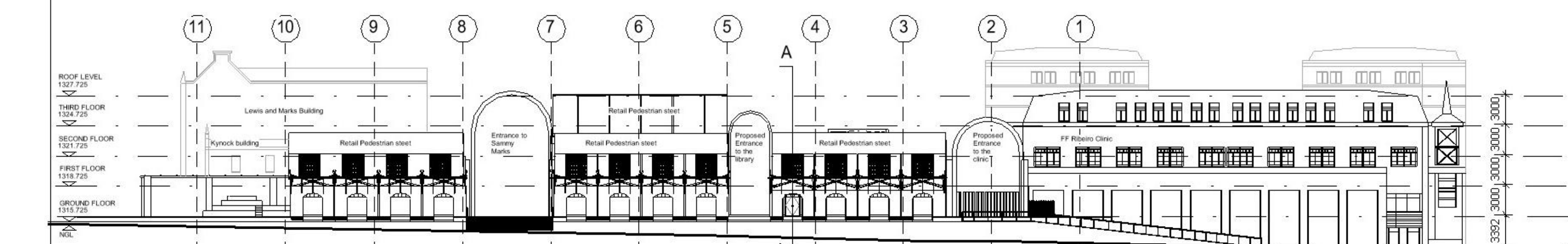
Submission date
07/09/23
 Scale
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Sheet number
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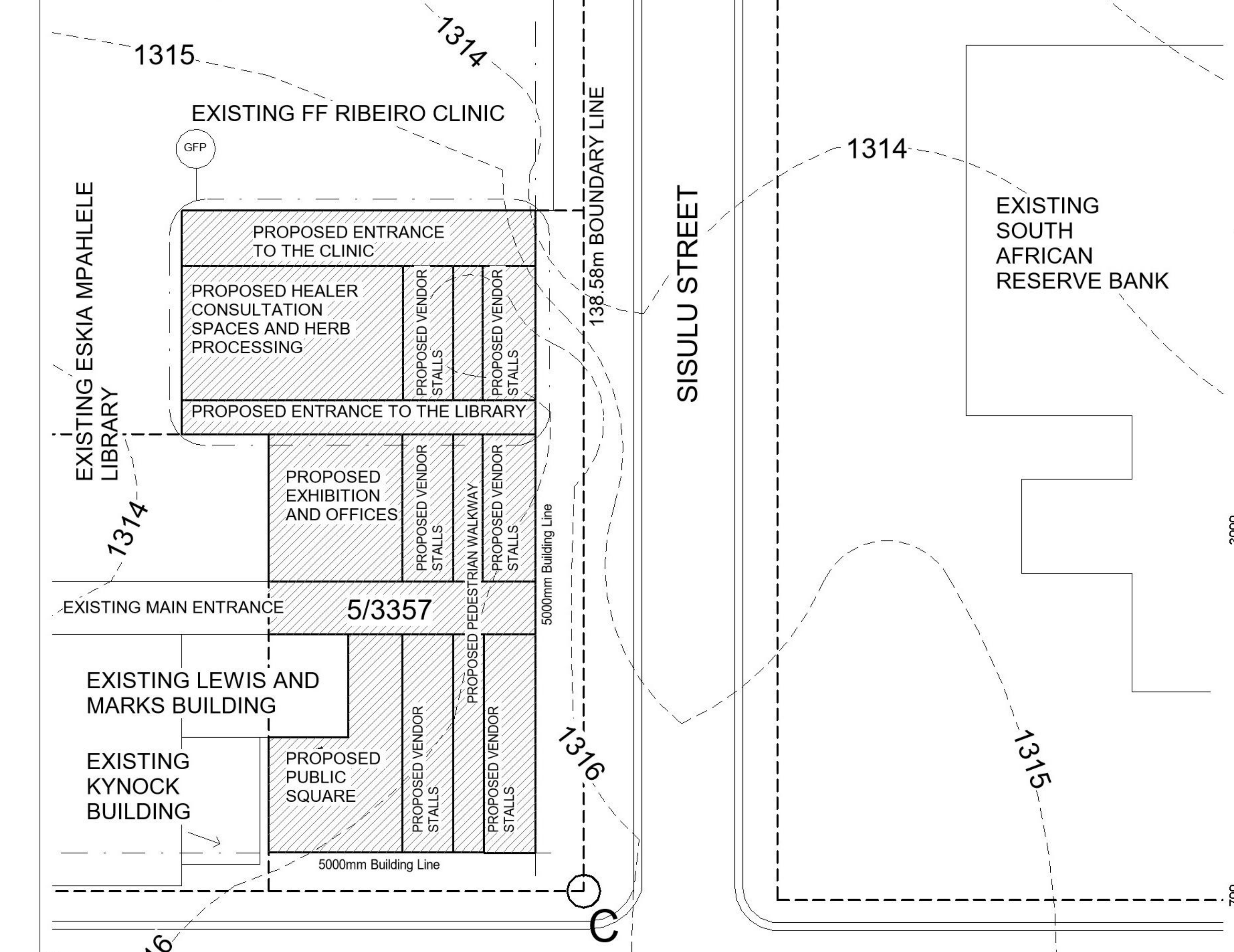
Ground Floor Plan

SCALE 1:200



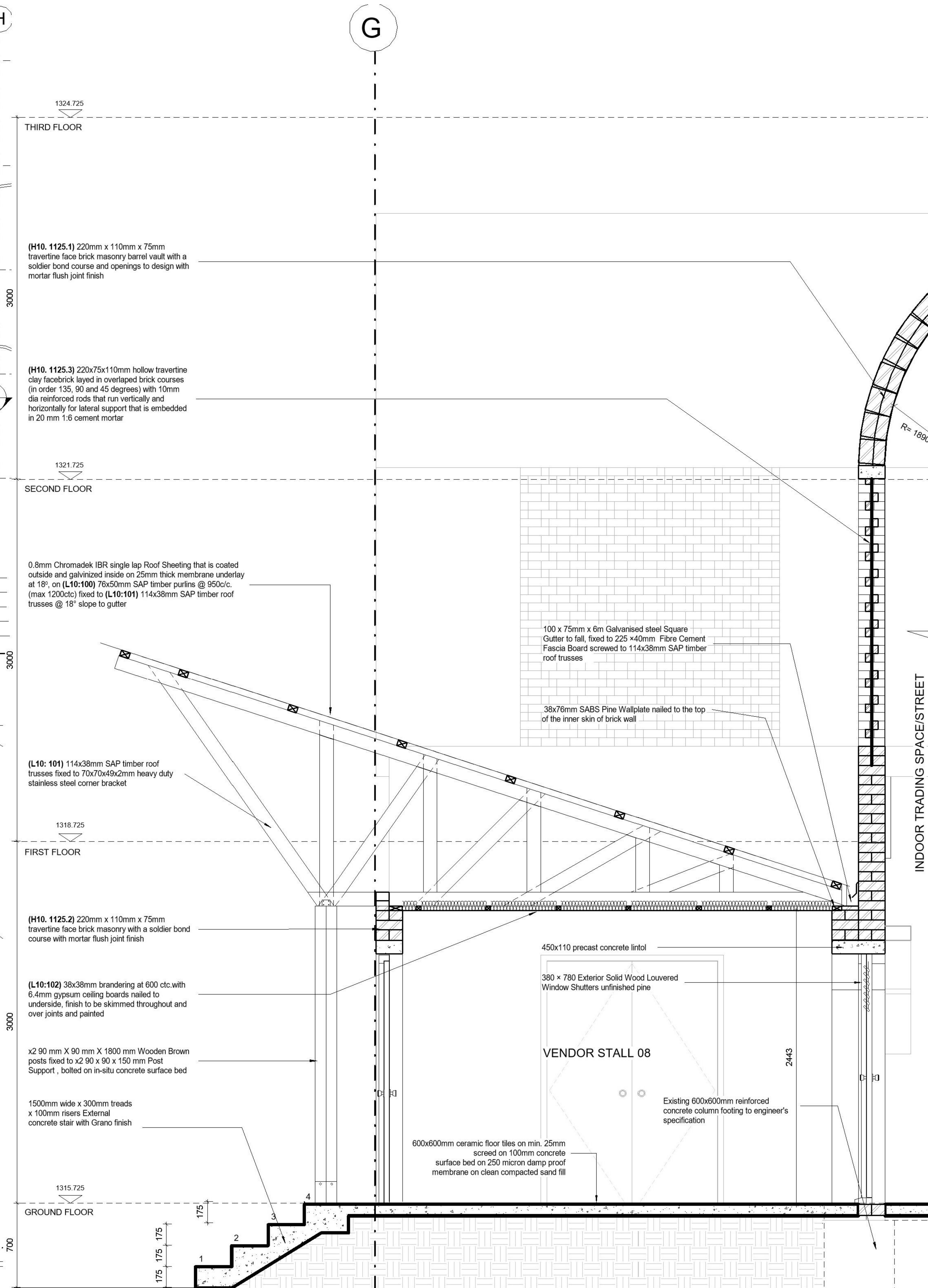
Site East Elevation

SCALE 1:500



Site Plan

SCALE 1:500



Section Detail

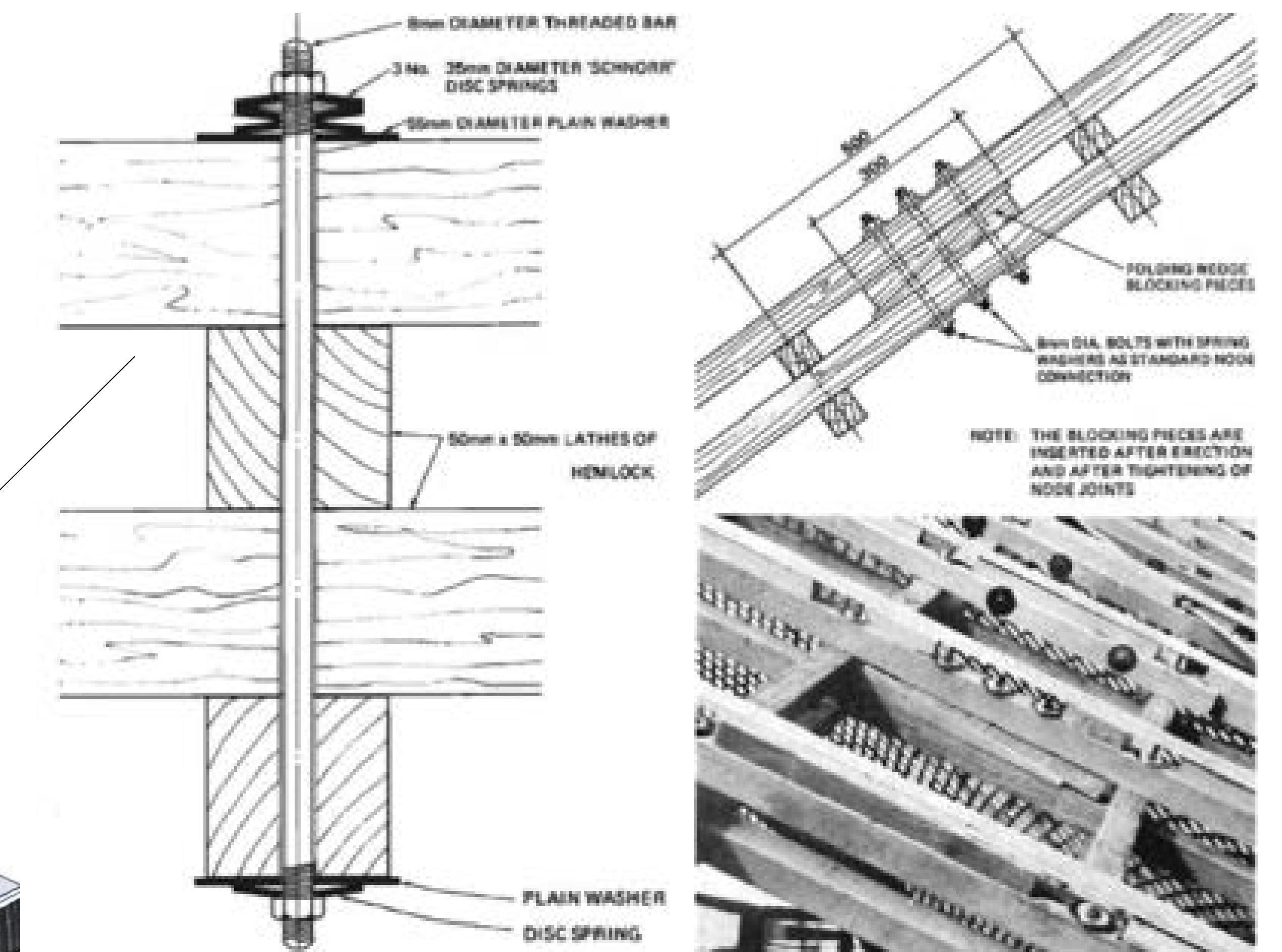
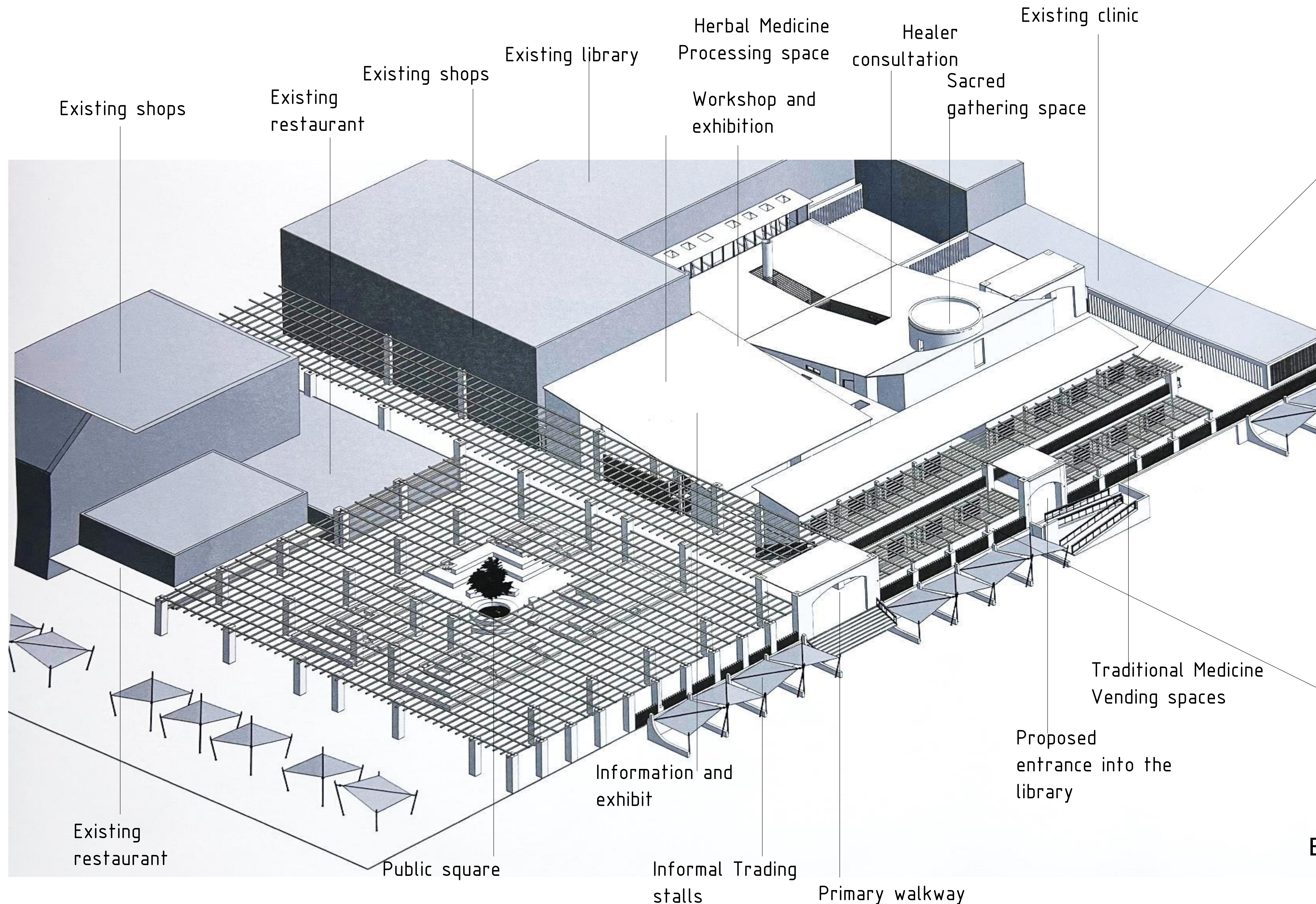
SCALE 1:20

DESIGN DEVELOPMENT: technical integration

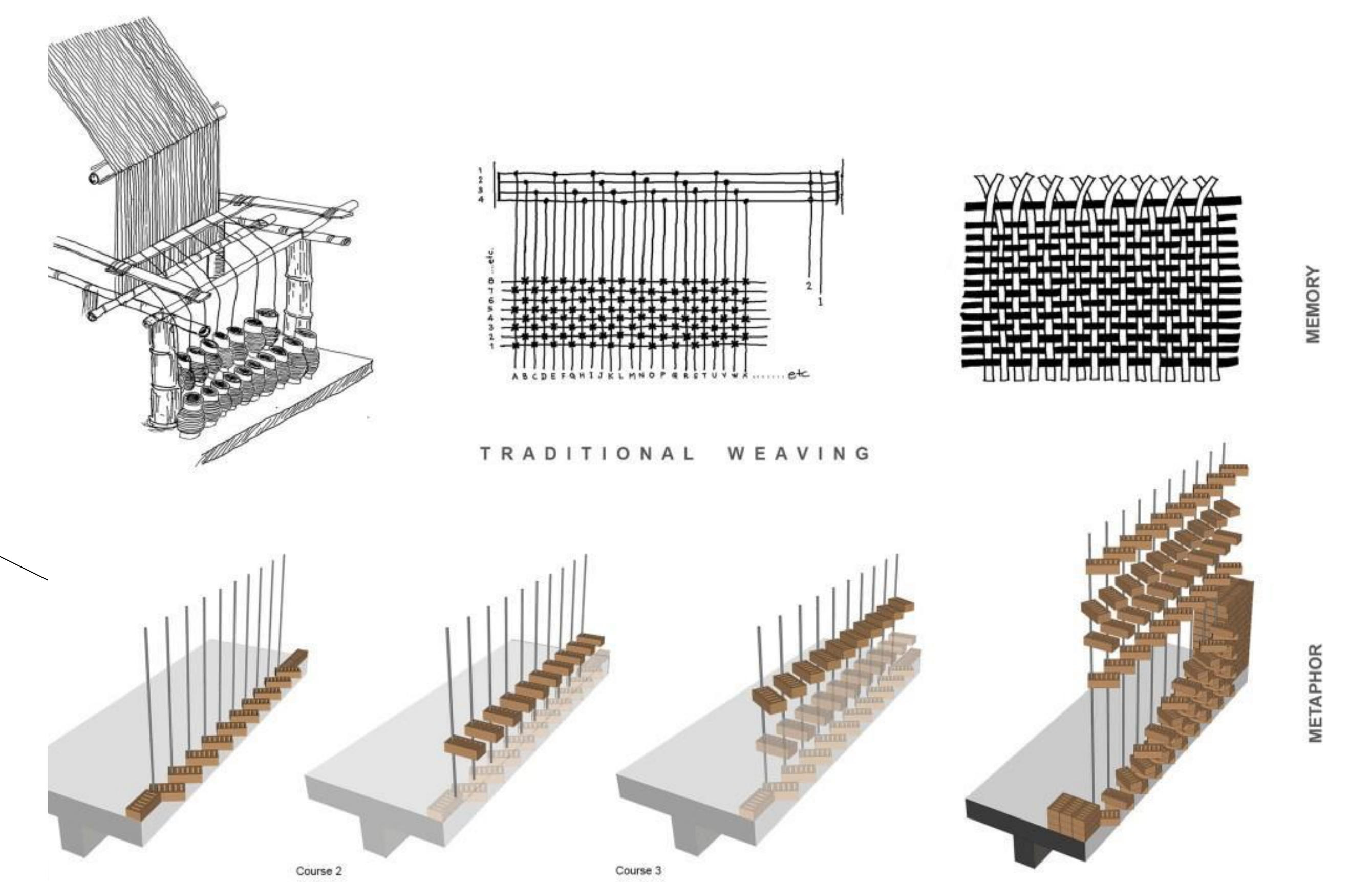
DESIGN DEVELOPMENT: ITERATIVE PROCESS

3.6 DESIGN ITERATION 6- TECHNICAL DETAIL INTEGRATION

The existing site sits on reinforced basement parking and therefore design decisions in this iteration had to consider the existing structure for the proposed spaces to be properly supported within the existing column grid.



Timber laths shading system



Brick woven balustrades for walkways

BUILDING PERFORMANCE

CONTINUING PRACTICE DEVELOPMENT 810- UNIT 4

TECHNICAL INTEGRATION- 02 BUILDING PERFORMANCE ASSESSMENT TOWARD DESIGN RESOLUTION

assessment indicators/metrics/measures and performance framework introduction

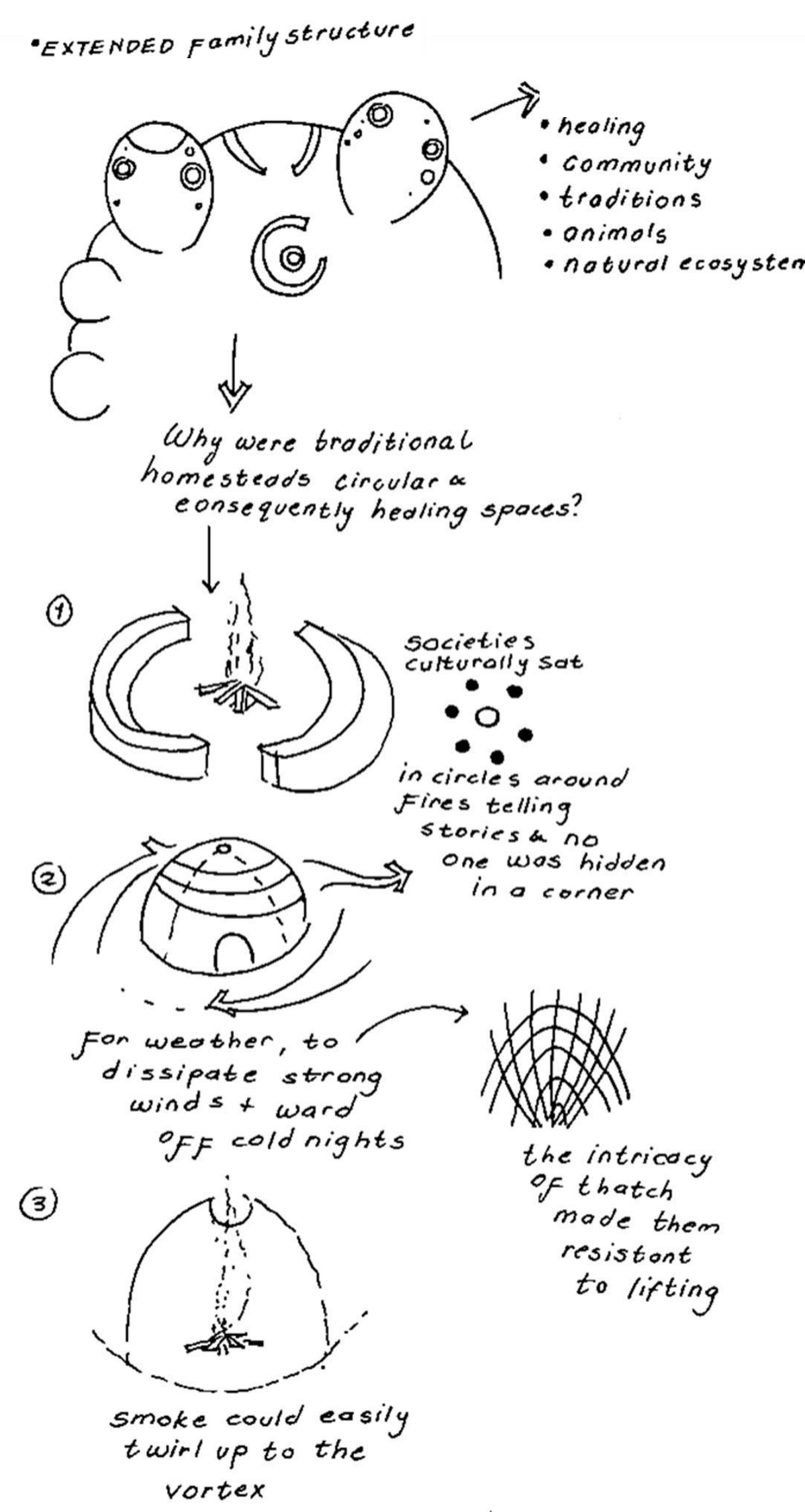
performance framework introduction

identifying and using appropriate knowledge sources to consider the performance of the design project or component of the design

The assessment framework or criteria used to assess the performance of the design. This must include a rationale for the choice of criteria, the portion of the design (or the whole design) that will be assessed, and how this links to the existing project.

THE PROJECT IN THE CONTEXT OF BUILDING PERFORMANCE

- In implementing a project aimed at assimilating indigenous traditional healing practices into the urban modern built environment, there inevitably needs to be an understanding of indigenous spatial qualities and building practices that can be learned from history and/or current projects to carry out a grounded design resolution
- Much like vernacular architecture, indigenous traditional homesteads encompassed the following principles (Moscoso-Garcia and Quesada-Molina, 2023):
 - Traditional building techniques and crafts are used
 - Traditionally established building types and forms that have been in use for a long time
 - Environmental and climate-responsive features
 - Features that are adaptable to social and communal use
 - Use of locally sourced materials that prioritise function over aesthetics
- A deep understanding of the context through (Moscoso-Garcia and Quesada-Molina, 2023):
 - Site context and topography - the site and its existing conditions influence the design since they explain the suitable usage of the place.
 - Orientation** - The building should be oriented in a way that promotes good ventilation and thermal comfort.
 - Shading** - The achievement of thermal comfort covers sun path and shade patterns analysis, which ultimately influences day lighting.
 - Cross ventilation** is required to regulate humidity and heat, especially in hot and humid areas.



PASSIVE DESIGN STRATEGIES

DAYLIGHTING: The overall energy savings for most buildings that use daylighting range from 15 to 40%. Although energy savings and sustainability may be the primary reasons for choosing daylighting (Altan et al. 2016), they can also have an impact on employee and client productivity and satisfaction.

CROSS VENTILATION- This natural kind of ventilation is completely free and will keep a building cool. There are no mechanics or electronics to maintain, and excess moisture and heat may be prevented from accumulating in ceiling spaces (Altan et al. 2016).

assessment measures

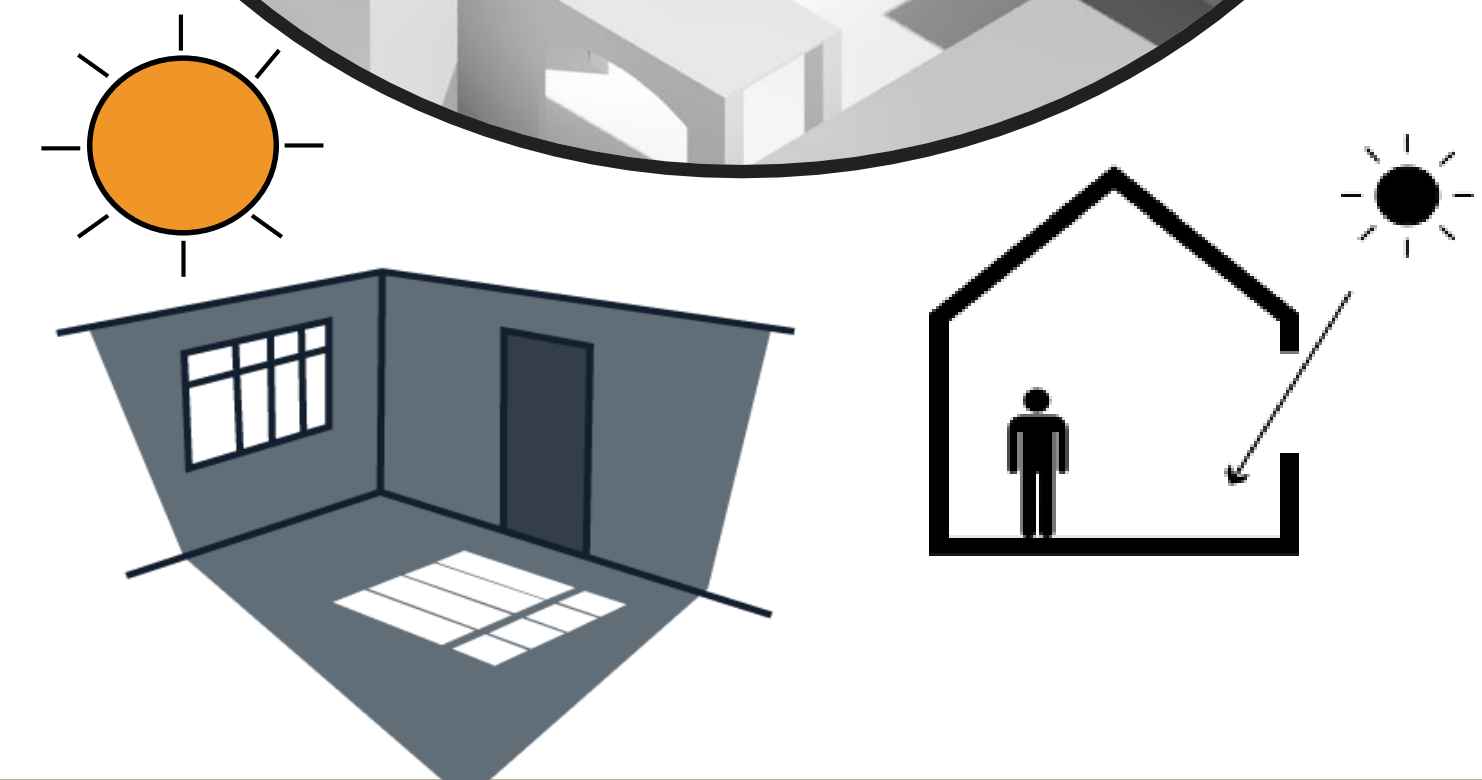
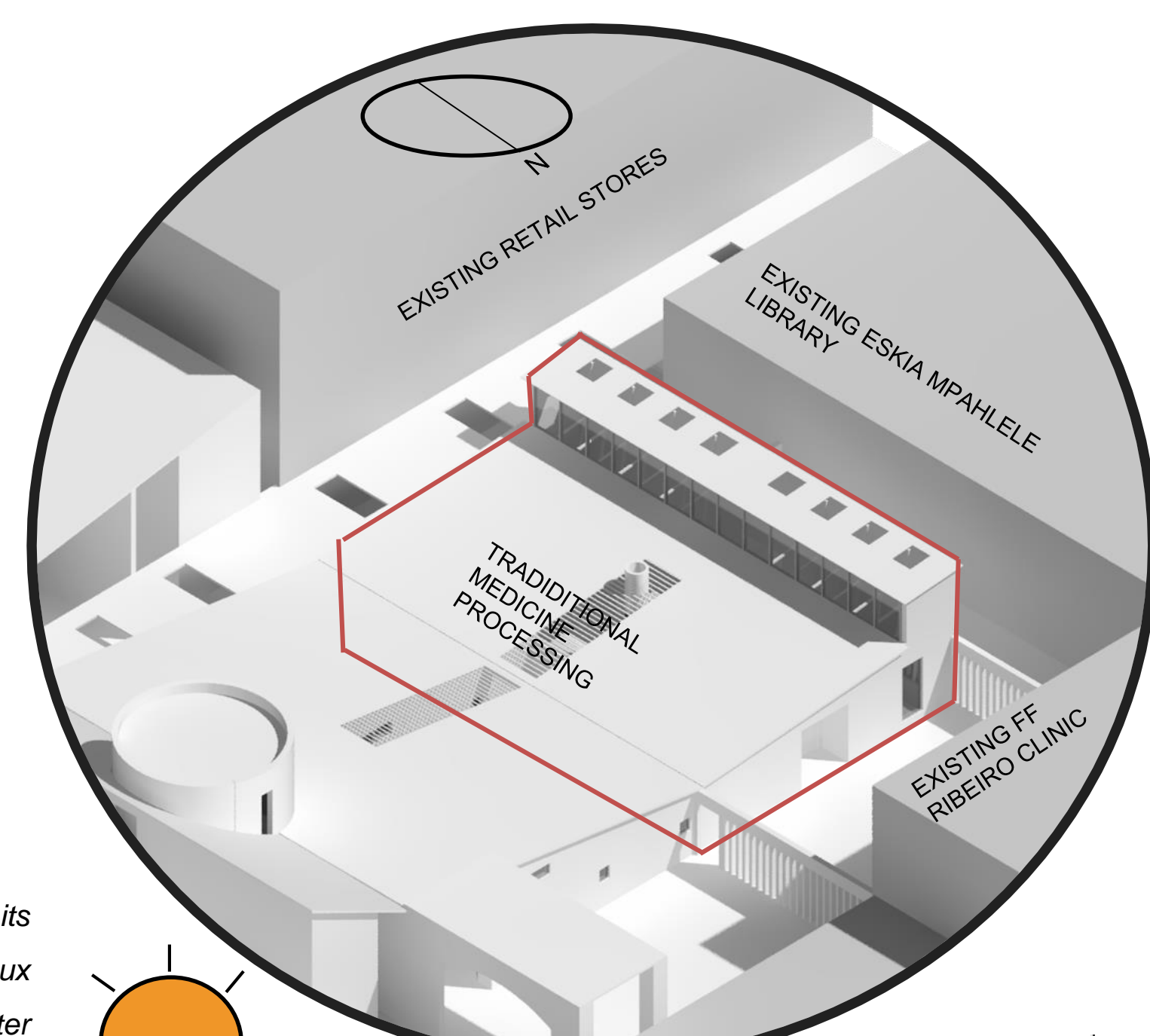
DAYLIGHT CALCULATIONS AND MEASUREMENTS

ILLUMINANCE

The amount of light that reaches a surface is measured by its brightness. Usually, it is stated in terms of lux (lm/m²). Lux meters can be used to assess illumination levels, or computer simulations using reputable and validated software can be used to estimate levels of illumination (Nabil and Mardaljevic, 2005). The majority of performance indicators now use illumination as a measure of light to evaluate whether daylight is available indoors.

The recommended level in the workshop areas where detailed work is done is between 500 and 700 LUX.

These are two important factors for user comfort that can be explored in a space where people will be occupying the space for majority of the day. For this particular exploration, daylighting will be explored in the **traditional medicine processing space**, which is located in an area surrounded by existing multi-storey buildings which could potentially impact how well daylighting can be optimally achieved.



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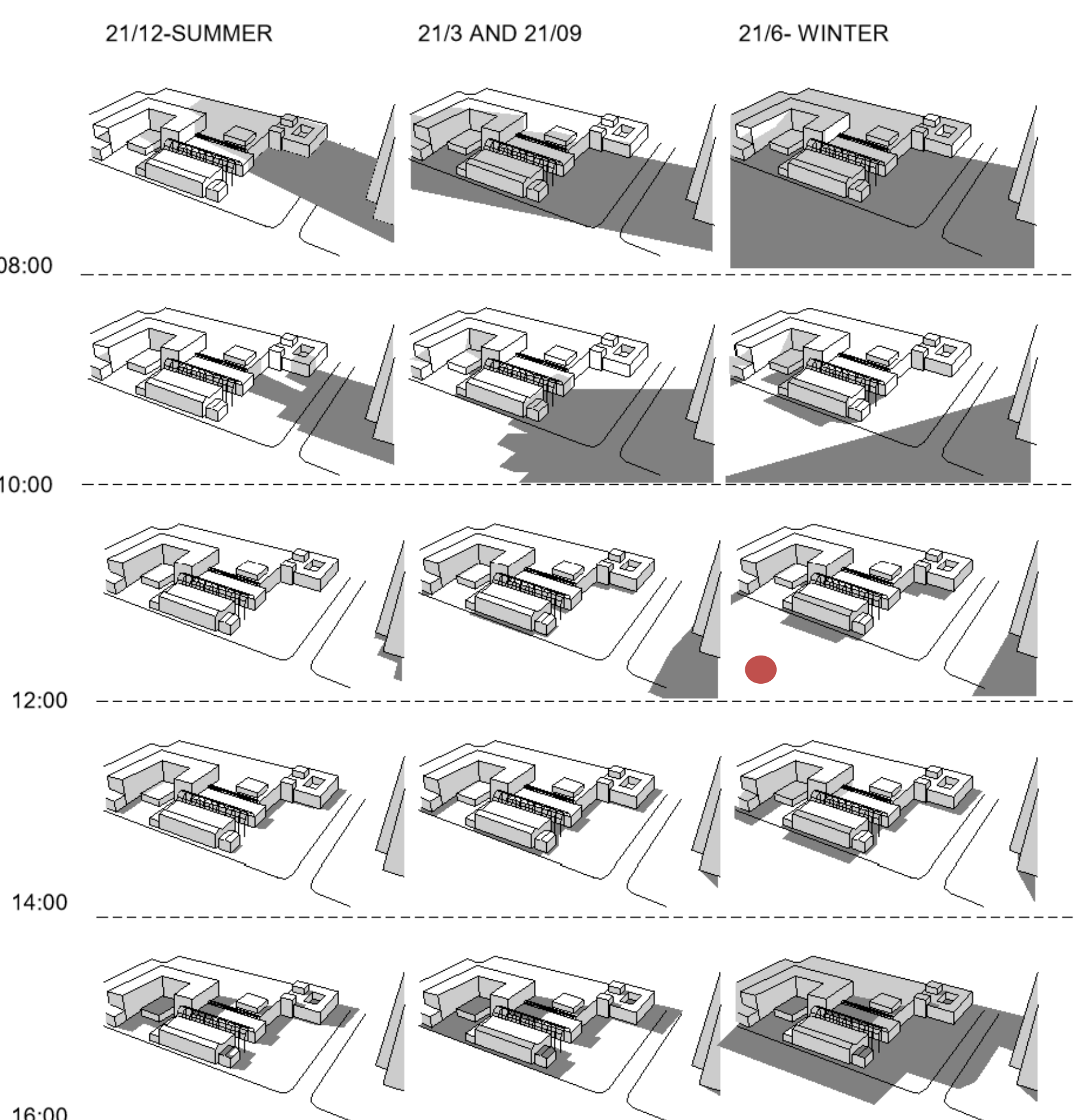
DAYLIGHT FACTOR

The daylight factor (DF) is a measure of daylight availability that compares the amount of unobstructed daylight available outside under cloudy sky circumstances to the amount of daylight available within a room (on a work plane) expressed as a percentage (Hopkins, 1963). According to Anderson et al. (2012), the following important construction characteristics control the amount and distribution of the daylight factor in a space:

- The facade and roof windows' dimensions, distribution, placement, and transmission characteristics.
- The dimensions and arrangement of the room.
- The exterior and interior surfaces' capacity for reflection.
- The extent to which sky visibility is obstructed by outside constructions.

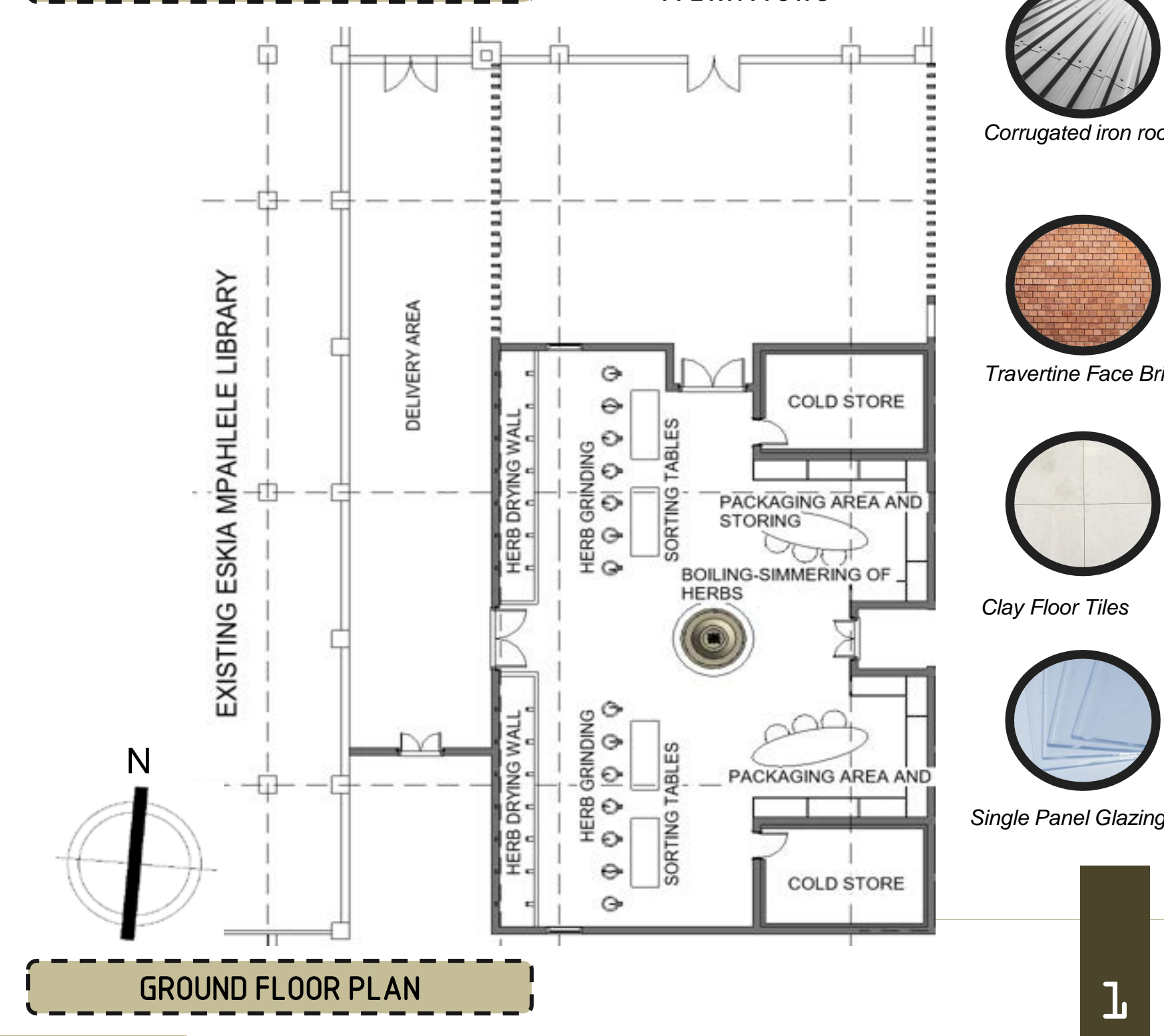
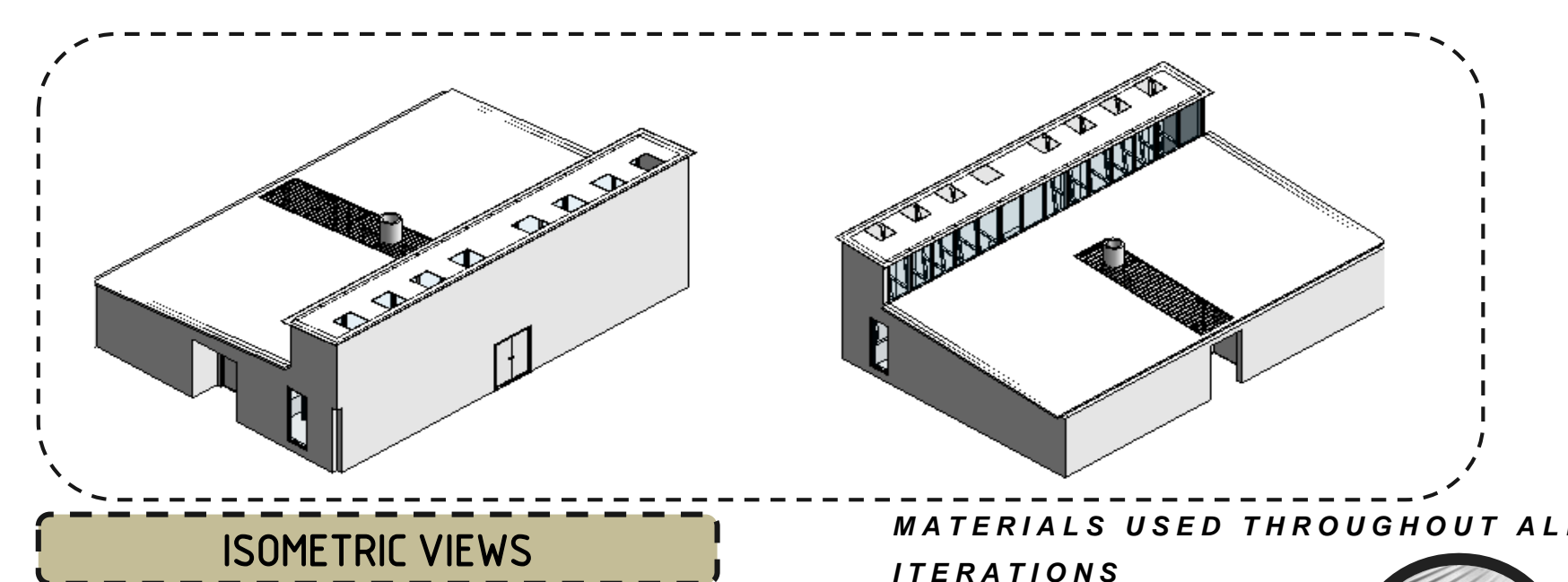
More daylight is available in the space the higher the DF. Even though a room has an average DF of 2% or higher, electric lighting could still be required in order to carry out visual work. When the average DF is 5% or higher, a space will appear intensely day lit; in this scenario, electric lighting is probably not going to be utilized during the day (The Low Energy Architecture Research Unit, 2004).

SHADOW STUDY: LOCATION: 340 Helen Joseph St, Pretoria Central, Pretoria, 0001



A shadow study of the site was done on Revit by specifying both the location of the site (Pretoria Central, South Africa) and the date and time (changing seasons) to see how it is affected by nearby buildings and on which days will the space require optimal daylighting measures.

THE BASE CASE: TRADITIONAL MEDICINE PROCESSING SPACE

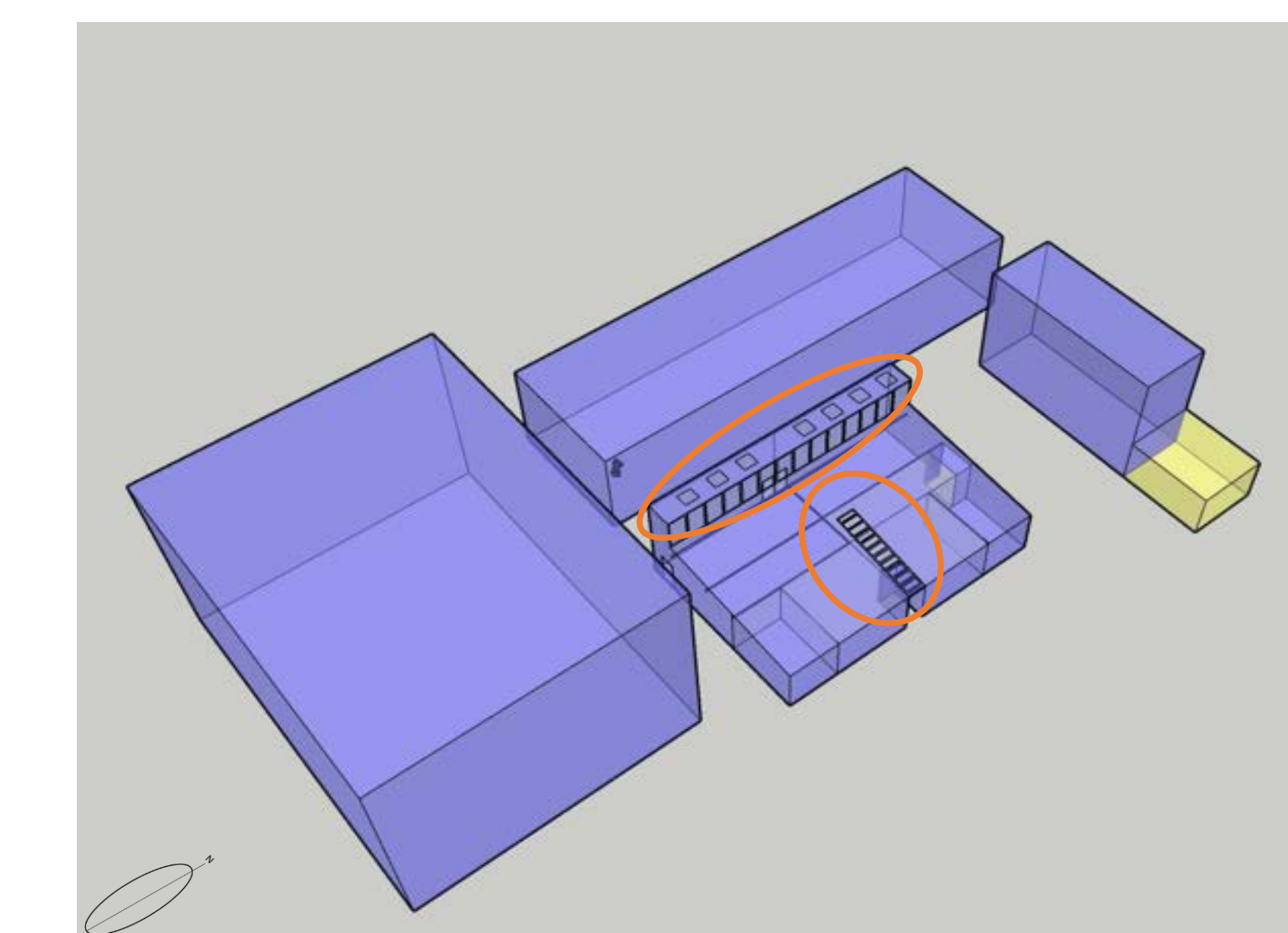


CONTINUING PRACTICE DEVELOPMENT 810- UNIT 4

TECHNICAL INTEGRATION- 02 BUILDING PERFORMANCE ASSESSMENT TOWARD DESIGN RESOLUTION

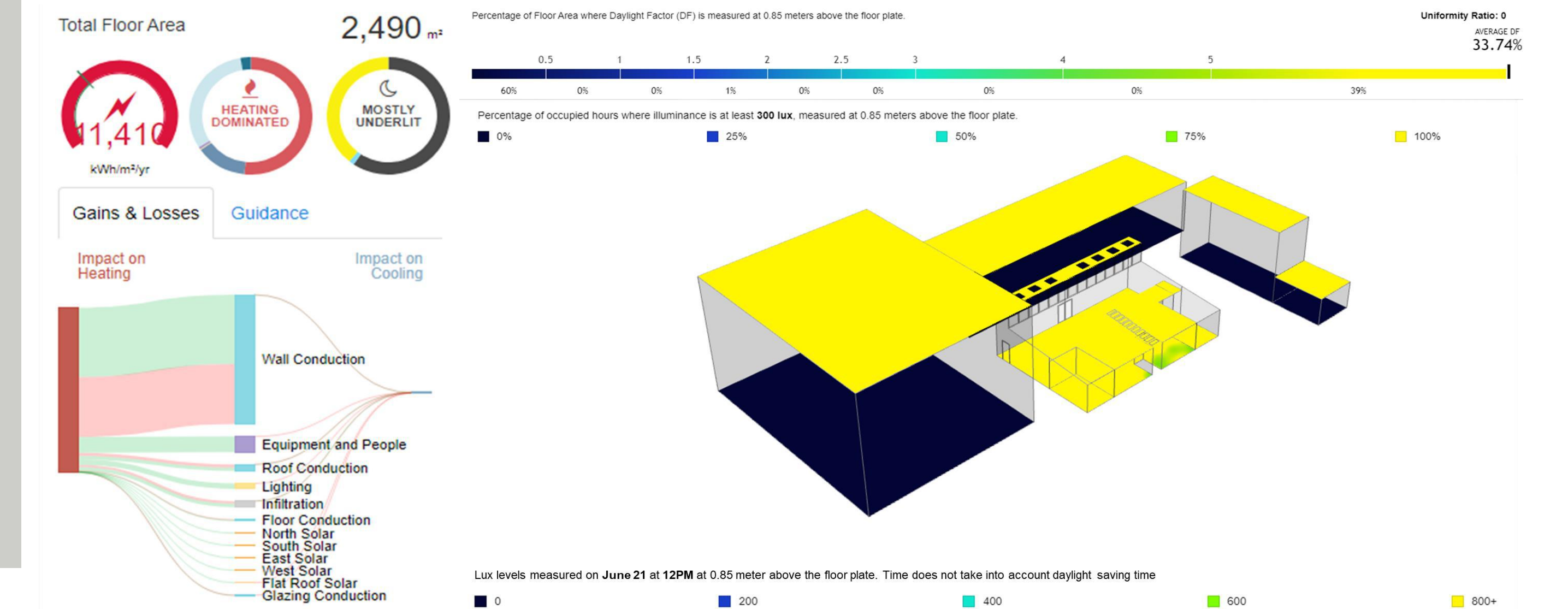
iterations, and design decisions taken, performance assessment (findings discussed in the word document) and final design solution

performance assessment and iteration 1

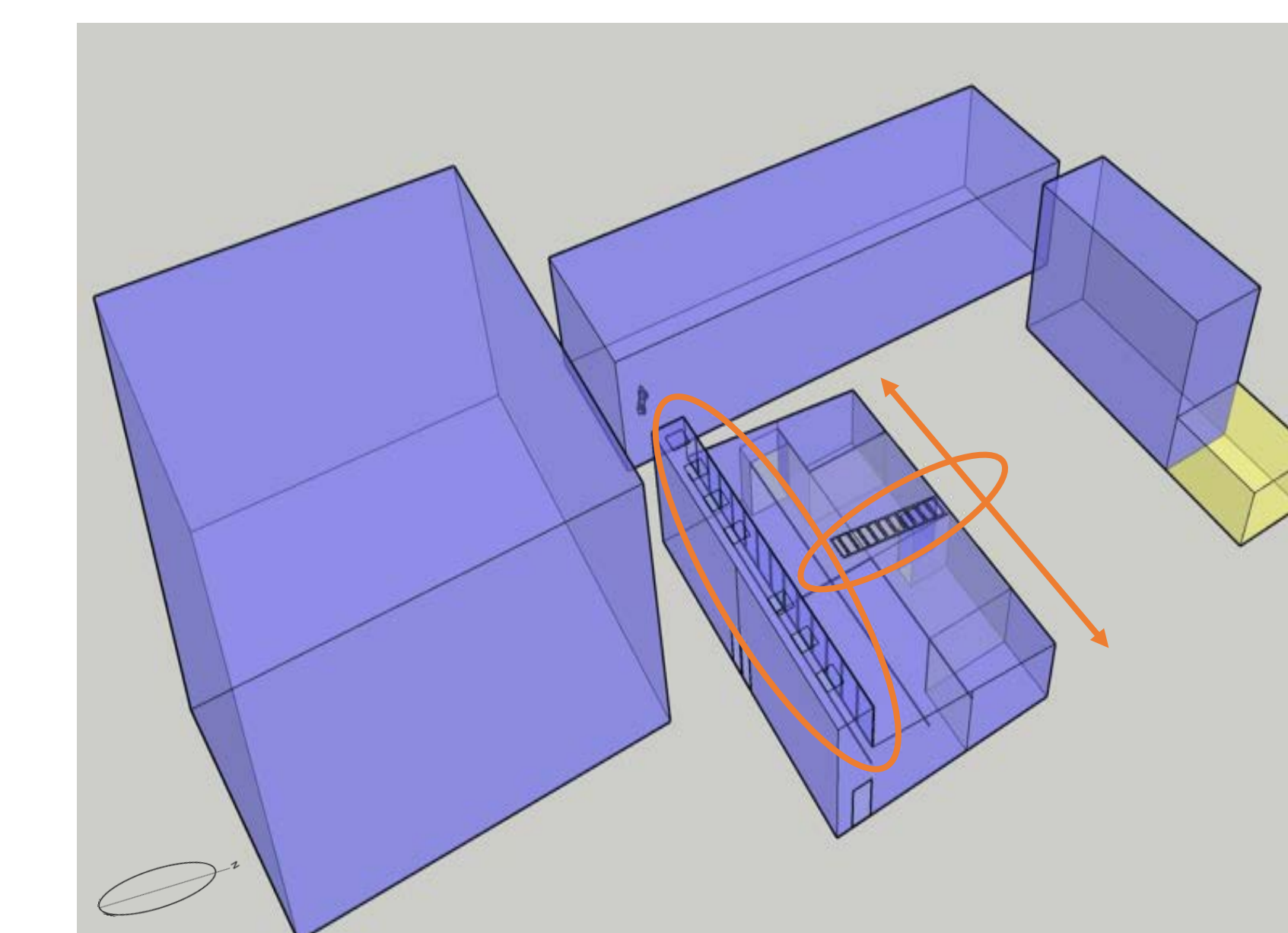


DESIGN DECISIONS TAKEN:

Passive skylights are used for admitting daylight from above, this allows daylight into the room through openings in the roof and high clerestory windows to capture daylighting in a space surrounded by tall buildings.

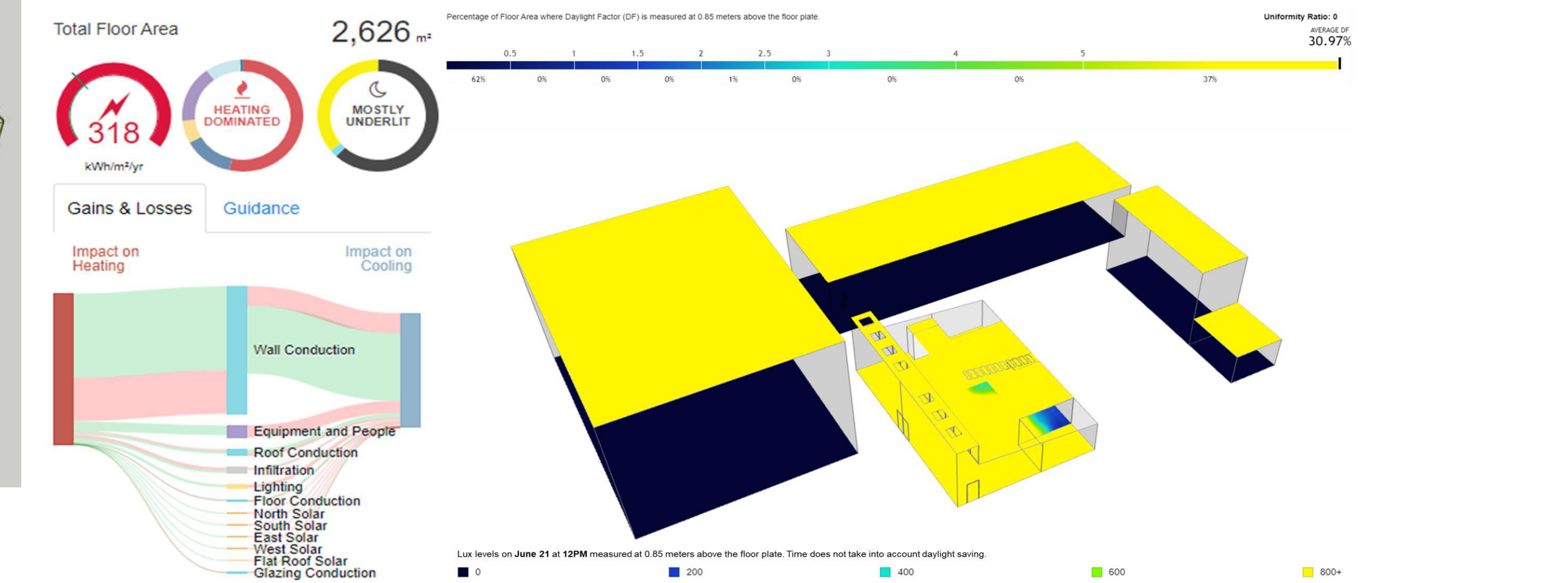


performance assessment and iteration 2

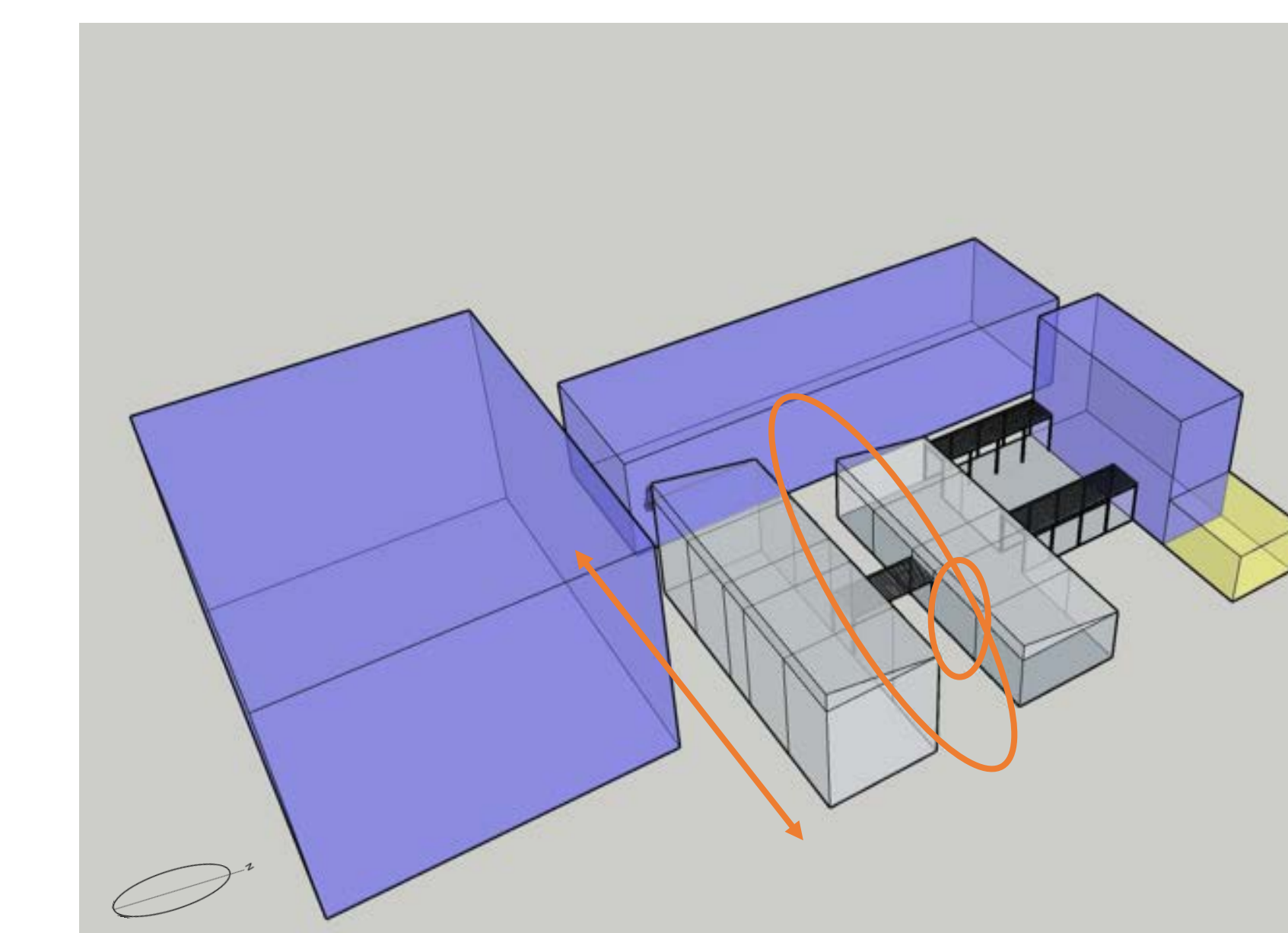


DESIGN DECISIONS TAKEN:

Passive skylights are used for admitting daylight from above, this allows daylight into the room through openings in the roof and high clerestory windows to capture daylighting in a space surrounded by tall buildings. For thermal comfort, buildings should usually be oriented east-west rather than north-south in the Pretoria region. This orientation allows the building to harness daylight and control glare along the long faces of the building. It also minimizes glare from the rising or setting sun.

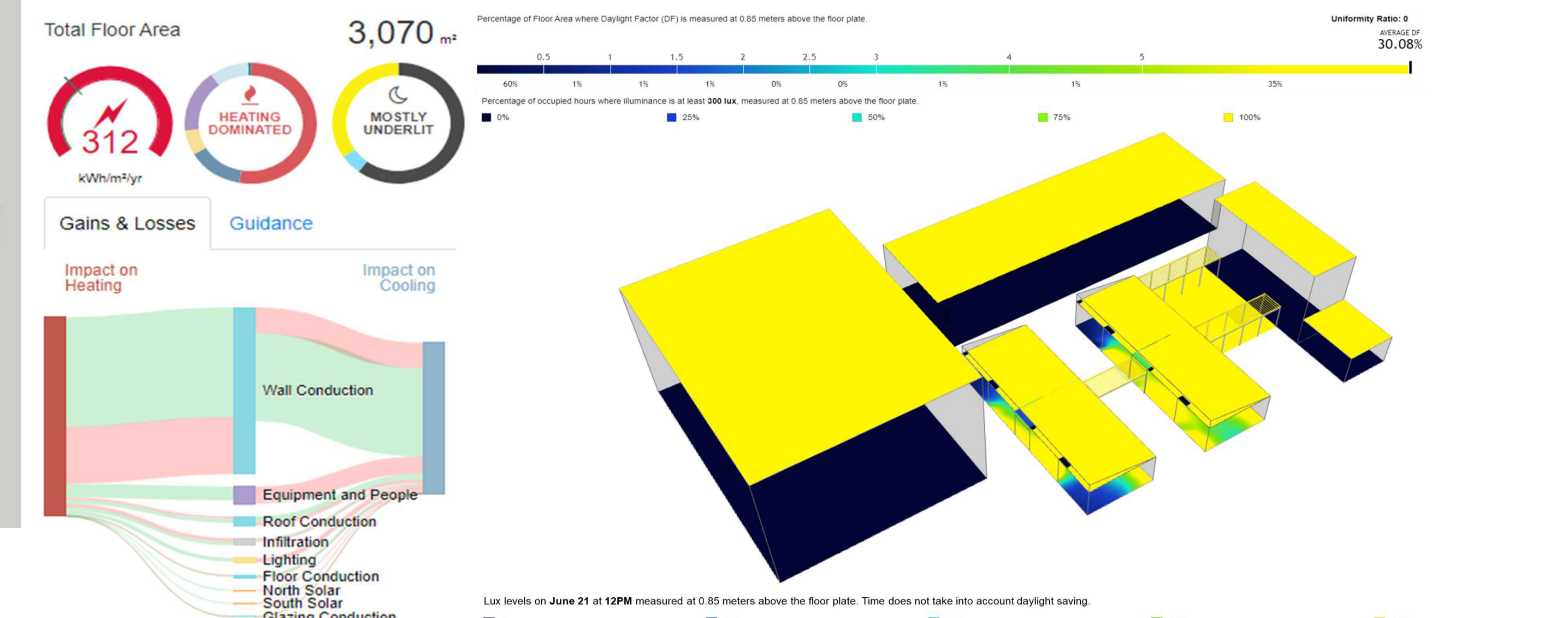


performance assessment and iteration 3

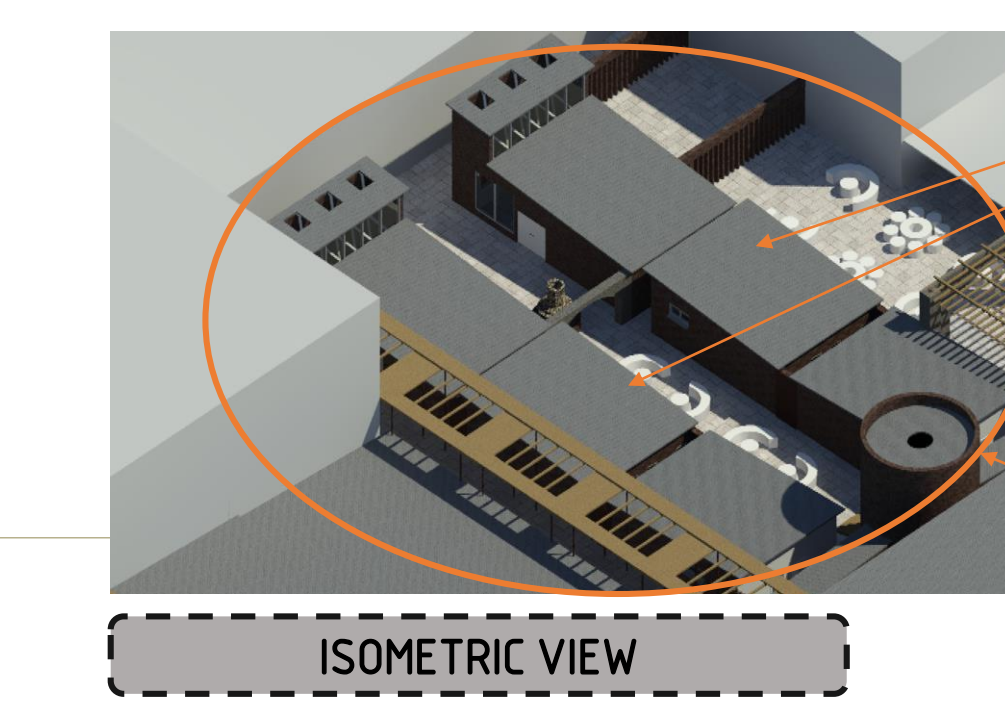


DESIGN DECISIONS TAKEN:

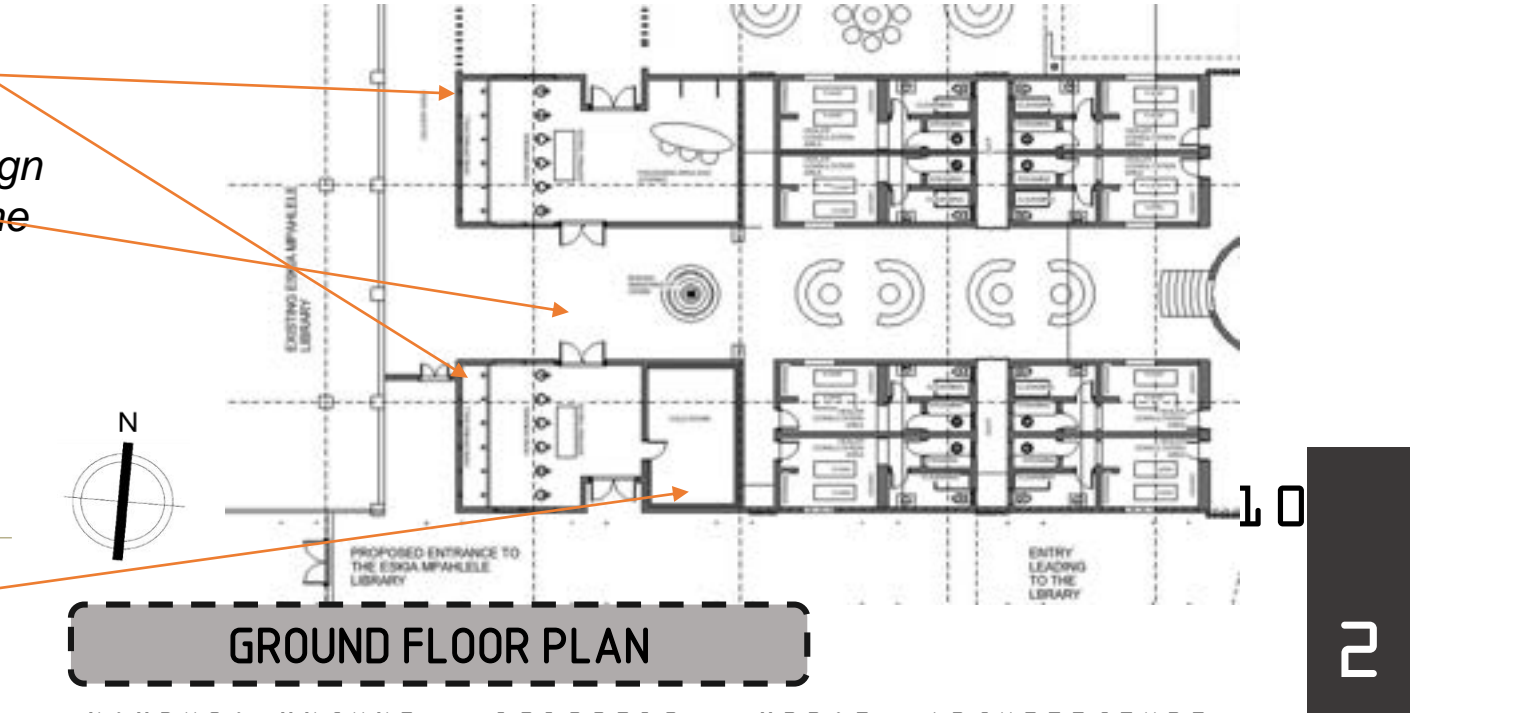
Building oriented east-west rather than north-south with a courtyard in between. The courtyard provides natural light (daylighting) in the building. The courtyard also induces natural ventilation which is an important aspect in passive design that also has energy saving benefits. Incorporating glazed door openings to maximise natural lighting and ventilation.



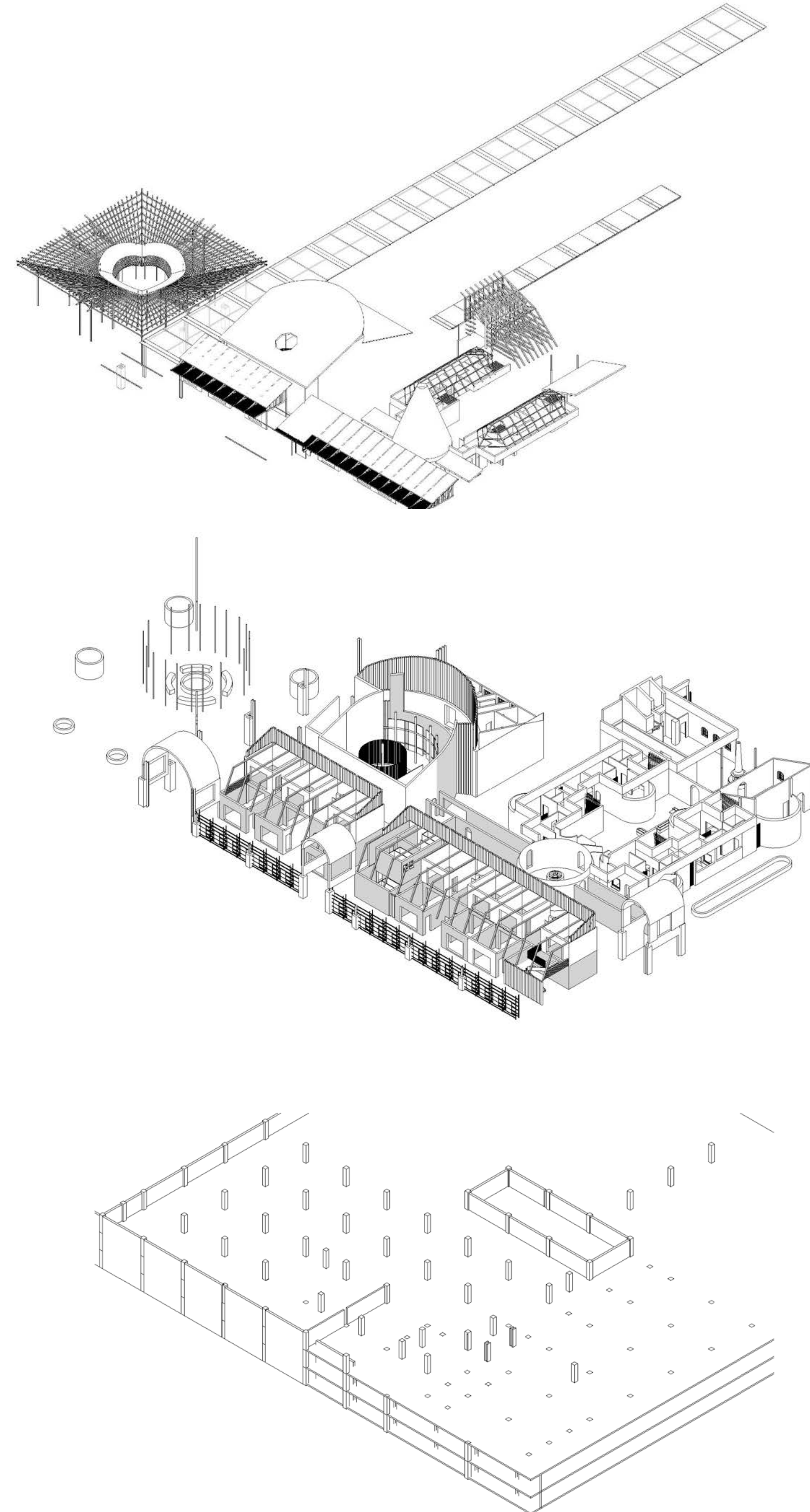
the final design resolution



- Building oriented east-west rather than north-south
- The courtyard also induces natural ventilation which is an important aspect in passive design that also has energy saving benefits. The courtyard provides natural light (daylighting) in the building
- Incorporating glazed door openings to maximise natural lighting and ventilation.
- This contributed to the final design by adding an open but controlled space for traditional medicine preparation and healer consultation spaces
- It also aided in locating cold storage on areas of the building that had low lux levels



TECHNICAL DEVELOPMENT



TERTIARY STRUCTURE

SECONDARY STRUCTURE

PRIMARY STRUCTURE

9

10

11

(H10.1125.1) 220mm x 110mm x 75mm travertine face brick masonry barrel vault with a soldier bond course and openings to design with mortar flush joint finish

0.8mm Chromadek IBR single lap Roof Sheeting that is coated outside and galvanized inside on 25mm thick membrane underlay at 18° on (L10-100) 76x50mm SAP timber purlins @ 950c/c. (max 1200c/c) fixed to (L10-101) 114x38mm SAP timber roof trusses @ 15° slope to gutter

(L10-101) 114x38mm SAP timber roof trusses fixed to 70x70x49x2mm heavy duty stainless steel corner bracket

(L10-102) 38x38mm bracking at 600 c/c with 6.4mm gypsum ceiling boards nailed to underside, finish to be skimmed throughout and over joints and painted

600x600mm ceramic floor tiles on min. 25mm screed on 100mm concrete surface bed on 250 micron damp proof membrane on clean compacted sand fill

50x150mm saligna timber shading structure treated with CCA and finished with linseed oil, fixed to masonry

(H10.1125.3) 220x75x110mm hollow travertine clay facebrick laid in overlapped brick courses (in order 135, 90 and 45 degrees) with 10mm dia reinforced rods that run vertically and horizontally for lateral support that is embedded in 20 mm 1:6 cement mortar

Indoor Traditional Medicine Trading Street

600x600mm ceramic floor tiles on min. 25mm screed on 100mm concrete surface bed on 250 micron damp proof membrane on clean compacted sand fill

Existing 600x600mm reinforced concrete column footing to engineer's specification

600x600mm ceramic floor tiles on min. 25mm screed on 100mm concrete surface bed on 250 micron damp proof membrane on clean compacted sand fill

38x76mm SABS Pine Wallplate nailed to the top of the inner skin of brick wall

100 x 75mm x 6m Galvanised steel Square Gutter to fall, fixed to 225 x 40mm Fibre Cement Fascia Board screwed to 114x38mm SAP timber roof trusses

(H10.1125.2) 220mm x 110mm x 75mm travertine face brick masonry with a soldier bond course with mortar flush joint finish

500 x 2000 Exterior Solid Wood Louvered Window Shutters finished pine

450x110 precast concrete lintel

500 x 2000 Exterior Solid Wood Louvered Window Shutters finished pine

Lath weaving on 50x150mm saligna timber shading structure treated with CCA and finished with linseed oil, fixed to masonry

450x110 precast concrete lintel

1550x900mm straw mat screwed to 50x50mm wooden trellis frame at 1000mm intervals

Outdoor Traditional Medicine Trading Street

1324.725 THIRD FLOOR

1321.725 SECOND FLOOR

1318.725 FIRST FLOOR

1315.725 GROUND FLOOR

Contemplation and Cleansing Dome

Herbalist Trading Stall 17

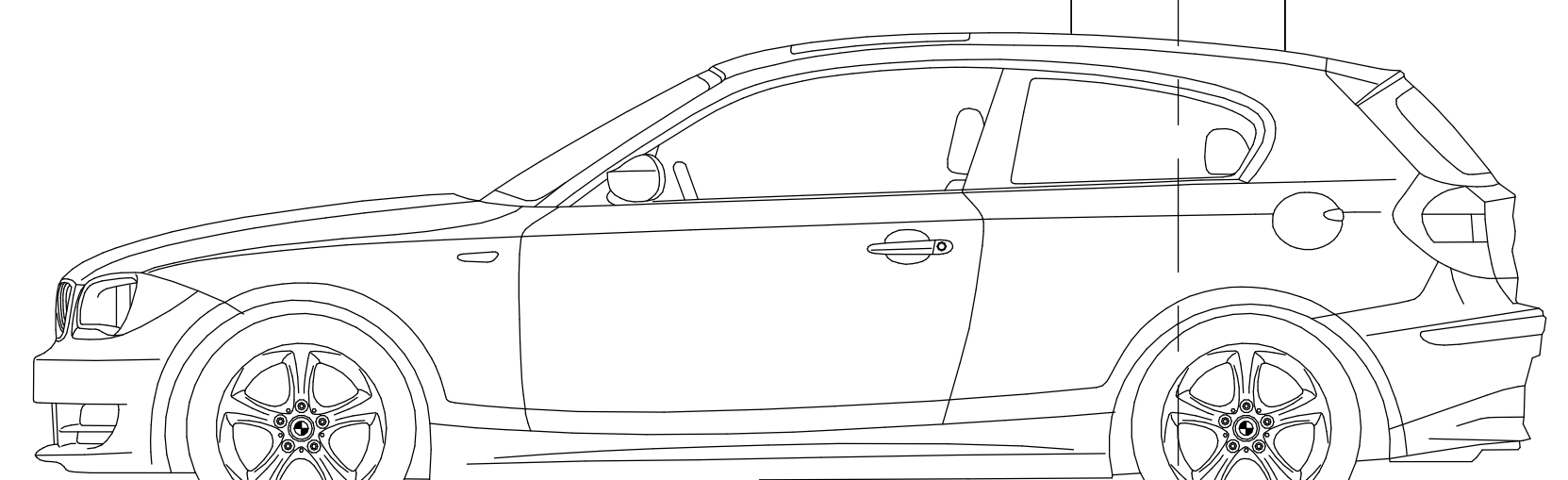
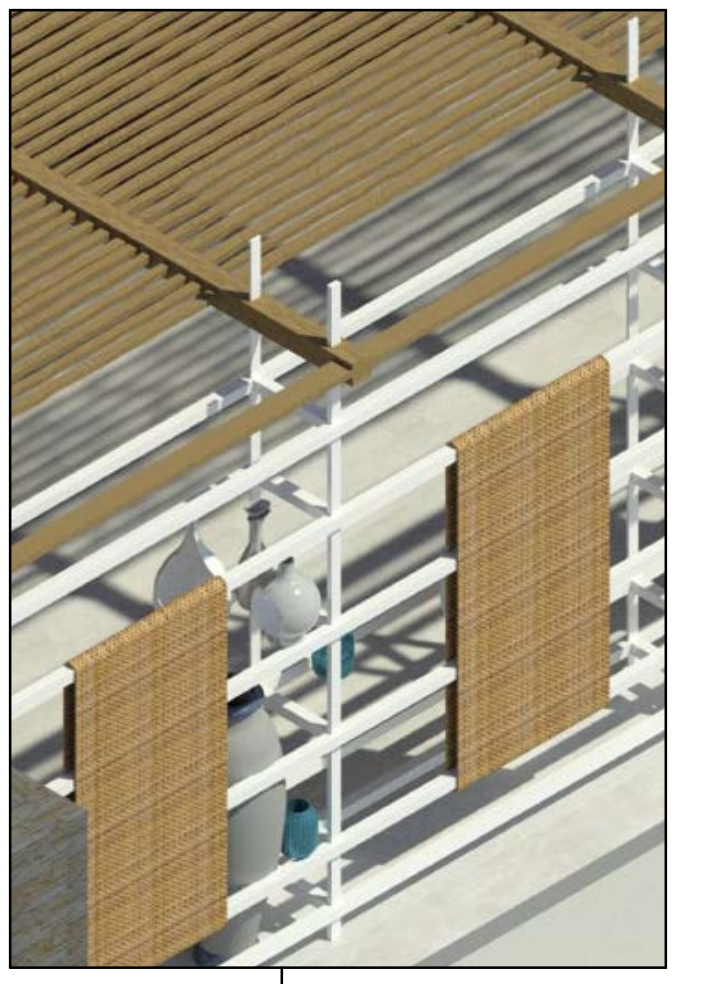
Outdoor Traditional Medicine Trading Street

Herbalist Trading Stall 06

Herbalist Trading Stall 10

2500x2800mm 3 panel Bi-Fold Door

Outdoor Traditional Medicine Trading Street



Existing Basement Parking

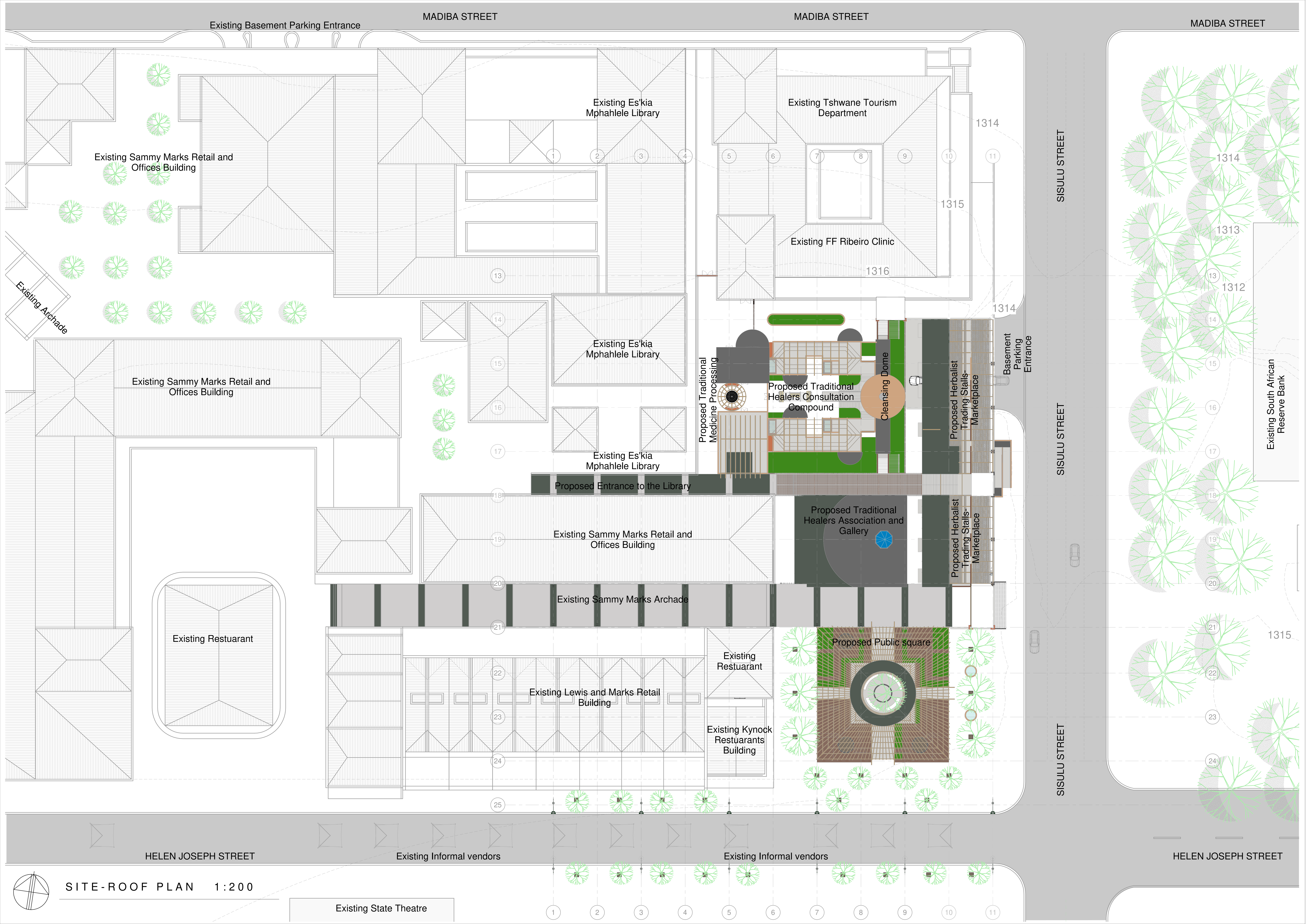
Existing Basement Parking

Existing Basement Parking

Existing Basement Parking

Existing Basement Parking Entrance

Existing Basement Parking Entrance



Existing Basement Parking Entrance

MADIBA STREET

MADIBA STREET

MADIBA STREET

Existing Es'kia Mphahlele Library

Existing Tshwane Tourism Department

1314

Existing Sammy Marks Retail and Offices Building

Existing FF Ribeiro Clinic

1315

Existing Archade

1314

Existing Es'kia Mphahlele Library

Proposed Traditional Medicine Processing

Proposed Traditional Healers Consultation Compound

Cleansing Dome

Proposed Herbalist Trading Stalls-Marketplace

Basement Parking Entrance

Existing Sammy Marks Retail and Offices Building

Existing Es'kia Mphahlele Library

Proposed Entrance to the Library

Proposed Traditional Healers Association and Gallery

Proposed Herbalist Trading Stalls-Marketplace

Existing Restuarant

Existing Sammy Marks Archade

Existing Sammy Marks Retail and Offices Building

Proposed Public square

Existing Restuarant

Existing Lewis and Marks Retail Building

Existing Kynock Restuarants Building

Existing South African Reserve Bank

HELEN JOSEPH STREET

Existing Informal vendors

Existing Informal vendors

HELEN JOSEPH STREET

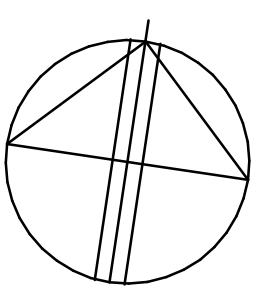
SISULU STREET

SISULU STREET

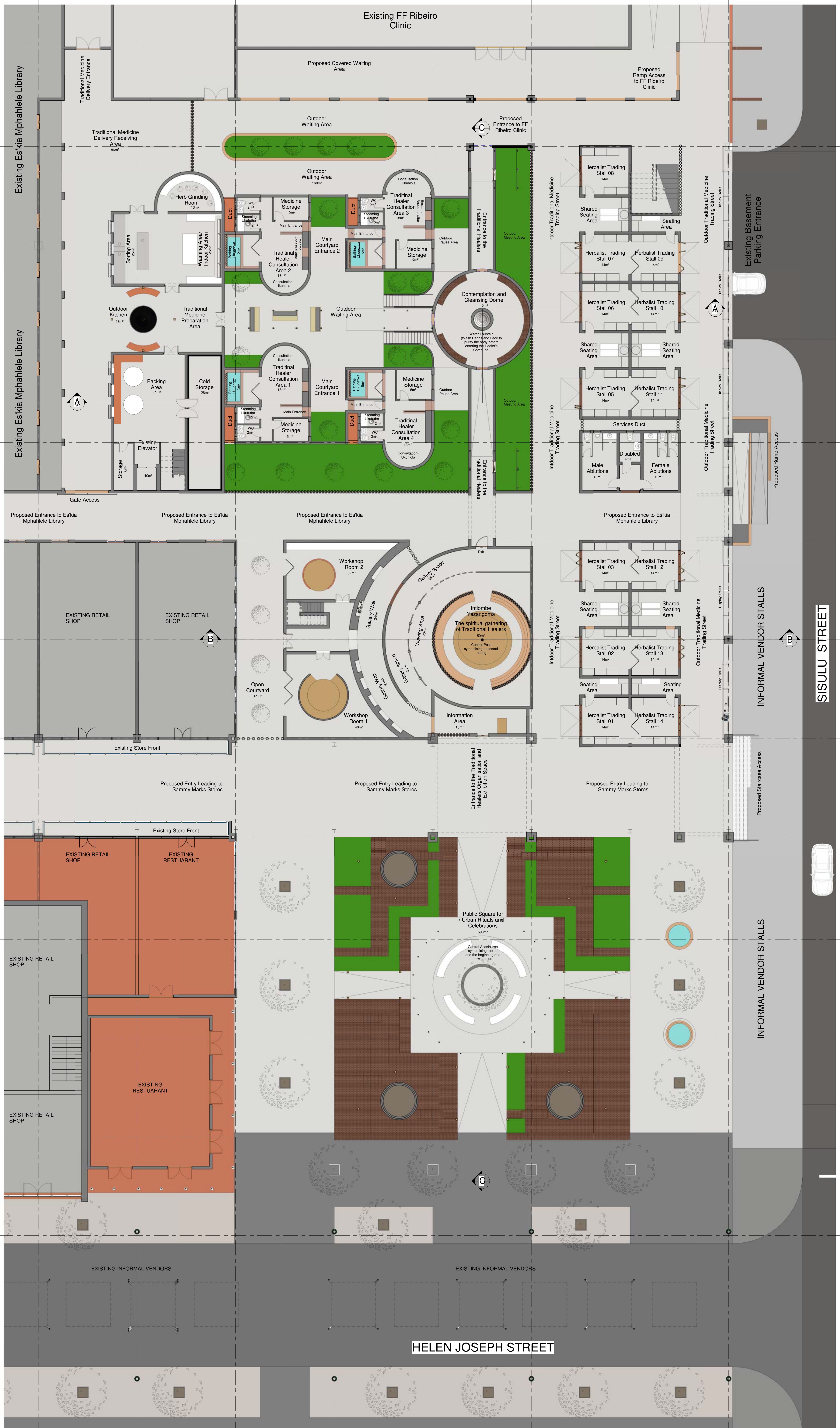
SISULU STREET

SITE-ROOF PLAN 1:200

Existing State Theatre

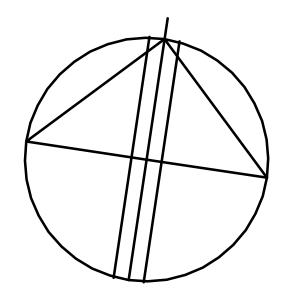


1 2 3 4 5 6 7 8 9 10 11



HELEN JOSEPH STREET

SISULU STREET



4 5 6 7 8 9 10 11

13 Existing FF Ribeiro Clinic

14

15 Traditional Healer Herb Garden Area 81m²

16 Contemplation and Cleansing Dome 49m² Double Volume

17 Herb Drying Area 88m² Elevator Access

18 Trading Street/ Deck (Miscellaneous Traditional Medicine)

19 EXISTING RETAIL SHOP

20 Kichenette 11m² Office 01 13m² Office 02 13m² Boardroom 20m² Intombe Yezangoma The spiritual gathering of Traditional Healers 60m² Double Volume

21 Public Square for Urban Rituals and Celebrations 50m²

22 EXISTING RETAIL SHOP

23 EXISTING RESTUARANT

24 EXISTING RETAIL SHOP

25

Existing Es'kia Mphahlele Library

Existing Es'kia Mphahlele Library

Proposed Entrance to Es'kia Mphahlele Library

EXISTING RETAIL SHOP

EXISTING RETAIL SHOP

Existing Sammy Marks Retail Corridor

Proposed Entry Leading to Sammy Marks Stores

Proposed Entry Leading to Sammy Marks Stores

Proposed Entry Leading to Sammy Marks Stores

EXISTING RETAIL SHOP

EXISTING RESTUARANT

EXISTING RETAIL SHOP

Existing FF Ribeiro Clinic

Traditional Healer Herb Garden Area 81m²

Traditional Healer Herb Garden Area 81m²

Herb Drying Area 88m²

Elevator Access

Trading Street/ Deck (Miscellaneous Traditional Medicine)

Trading Street/ Deck (Miscellaneous Traditional Medicine)

Herbalist Trading Stall 15 14m²

Shared Seating Area

Herbalist Trading Stall 16 14m²

Herbalist Trading Stall 17 14m²

Shared Seating Area

Herbalist Trading Stall 18 14m²

Duct

Male 10m²

Female 10m²

Herbalist Trading Stall 19 14m²

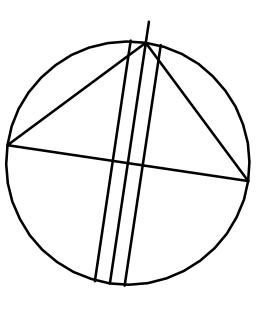
Shared Seating Area

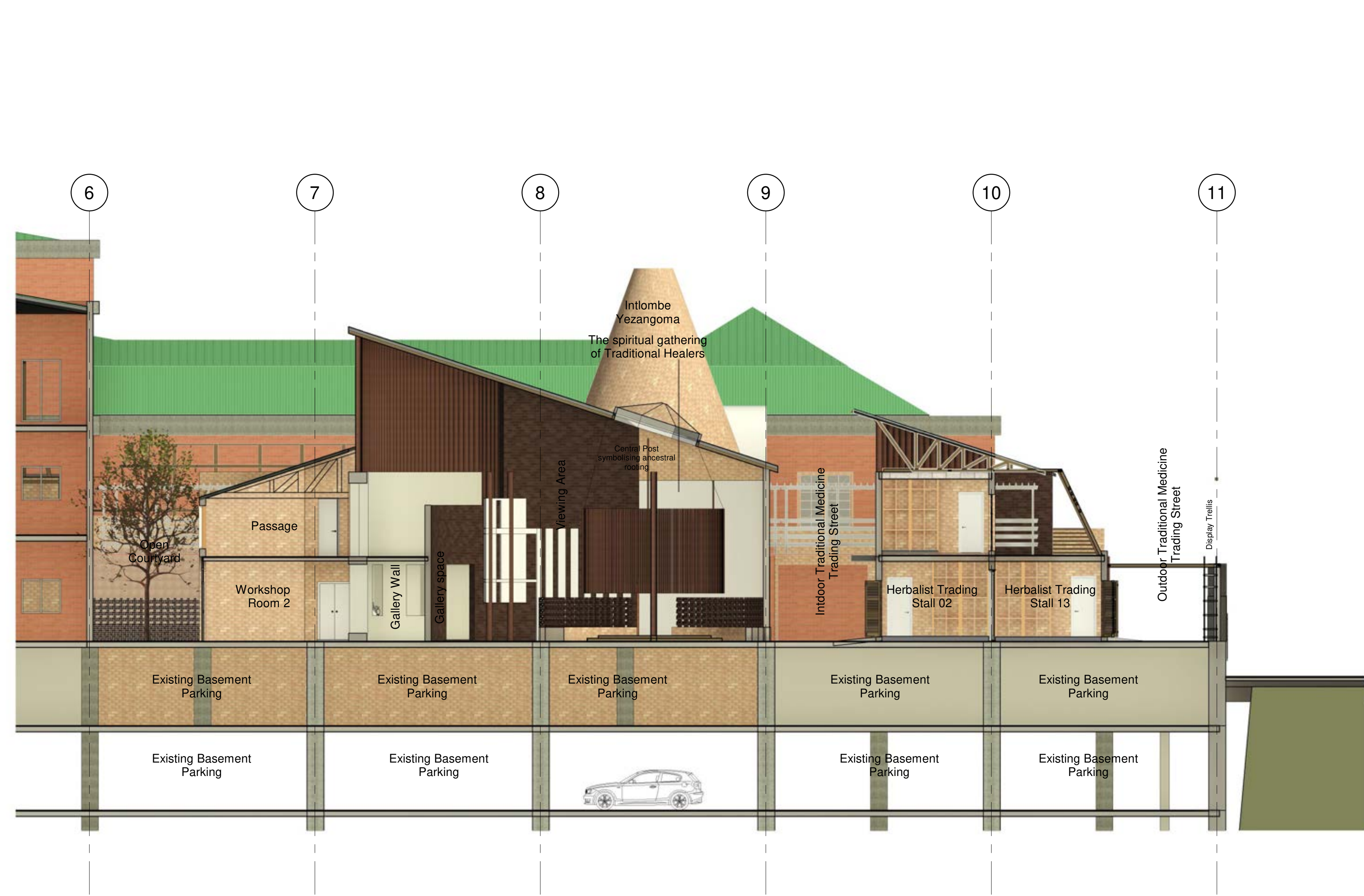
Herbalist Trading Stall 20 14m²

Seating Area

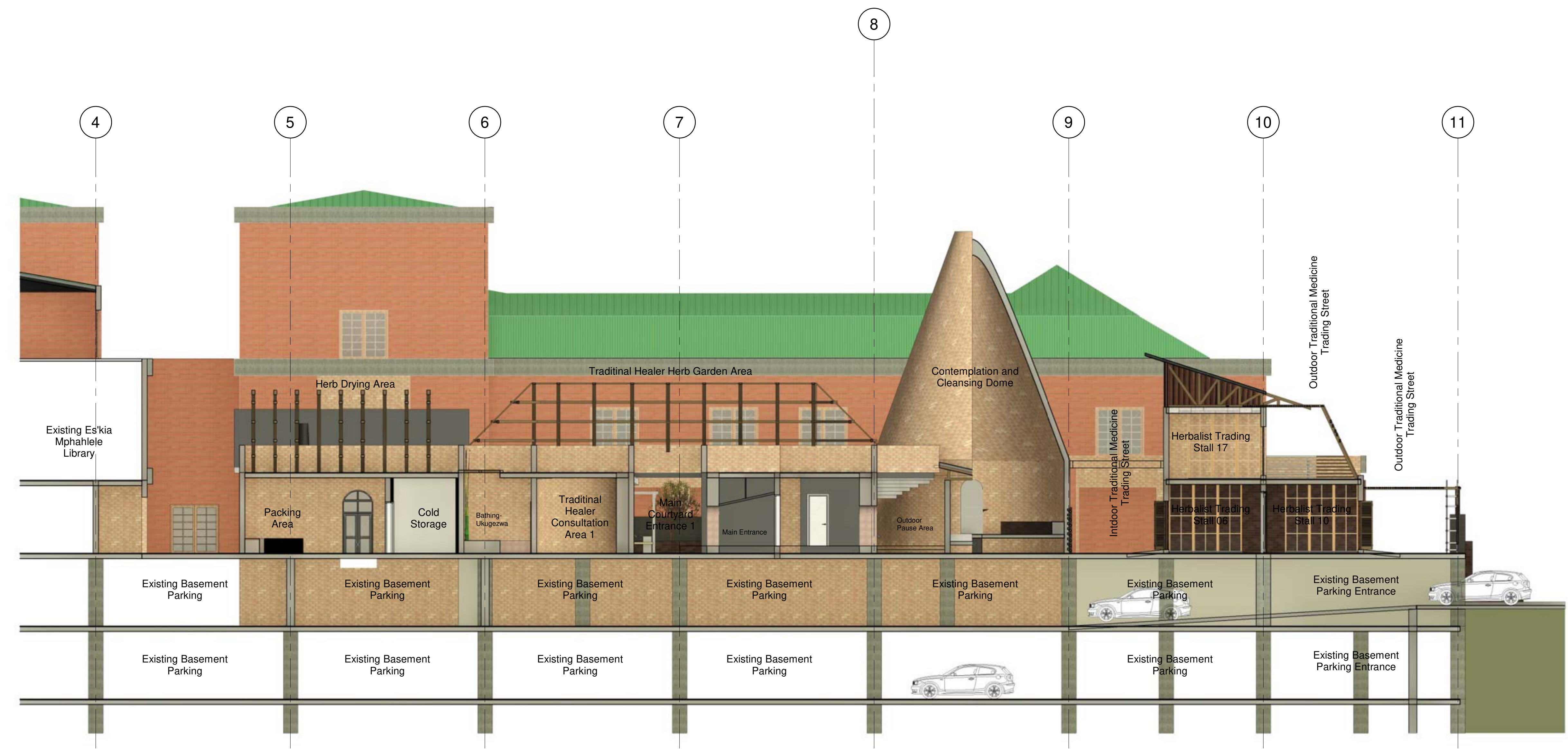
Herbalist Trading Stall 21 14m²

FIRST FLOOR PLAN 1:100

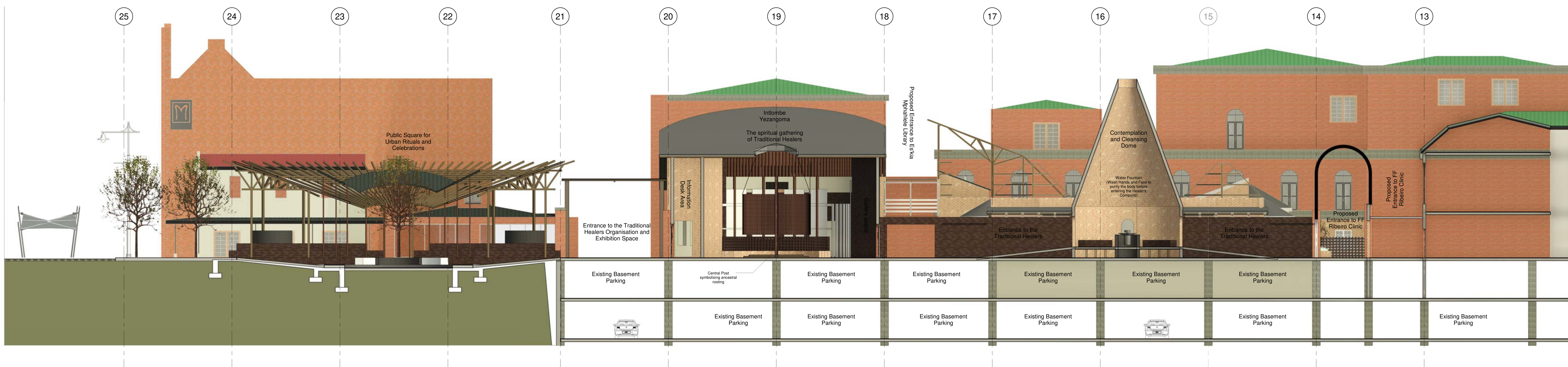




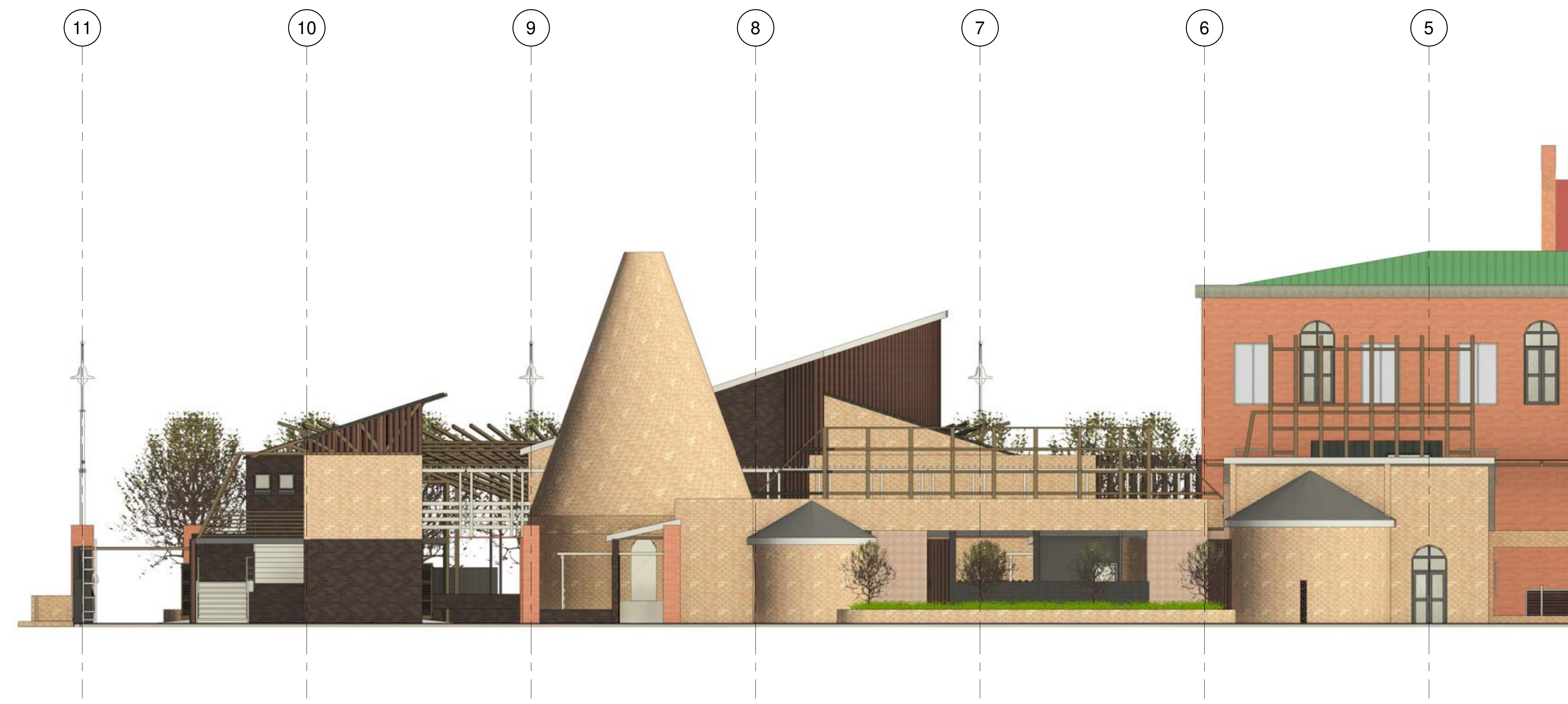
SECTION A-A 1:100



SECTION B-B 1:100



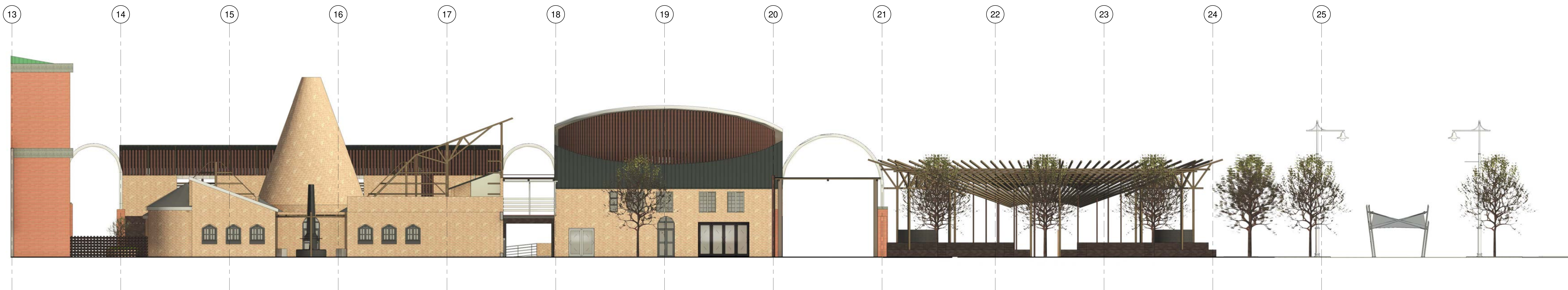
SECTION C-C 1:100



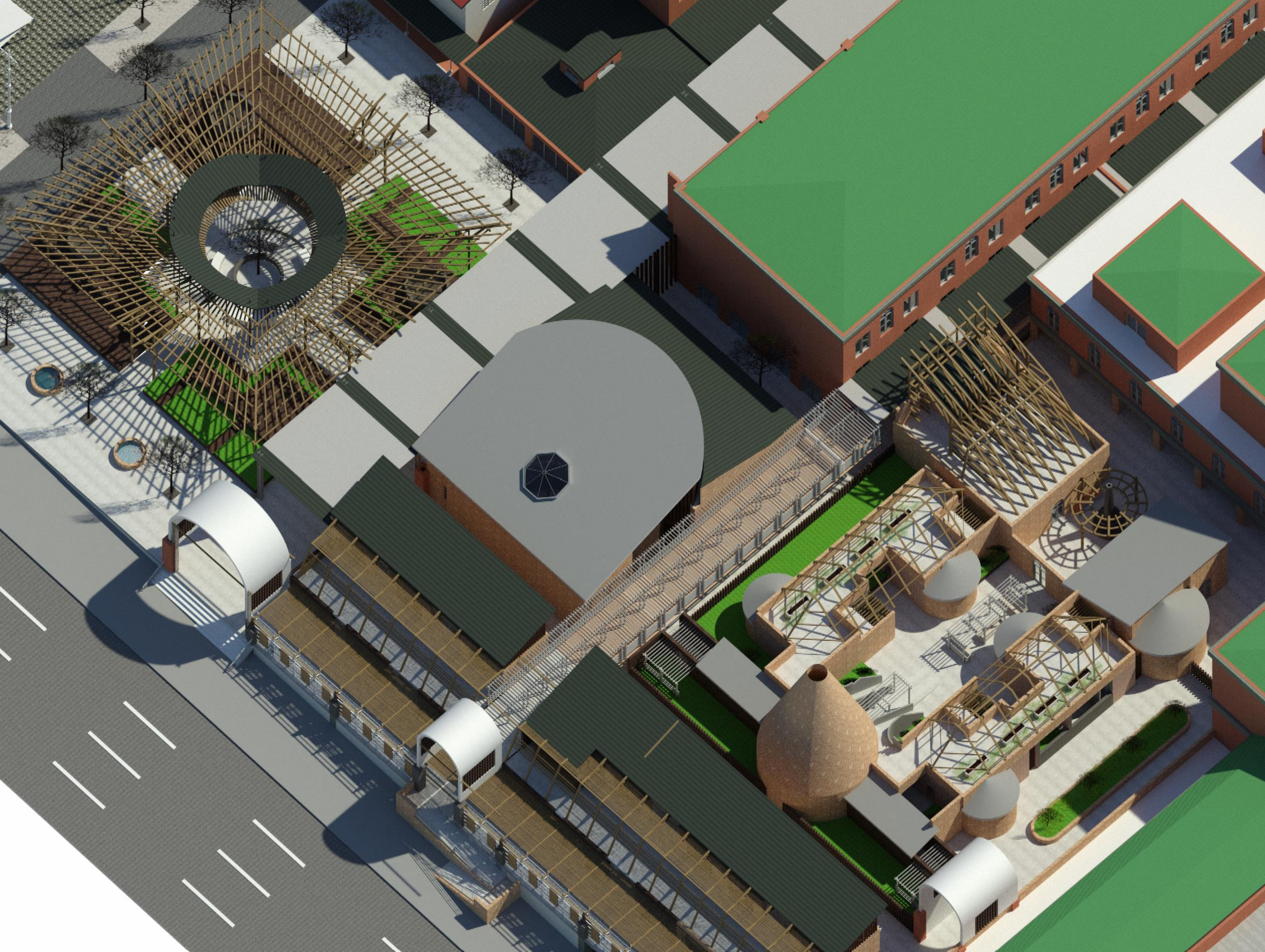
NORTH ELEVATION 1:100



SOUTH ELEVATION 1:100

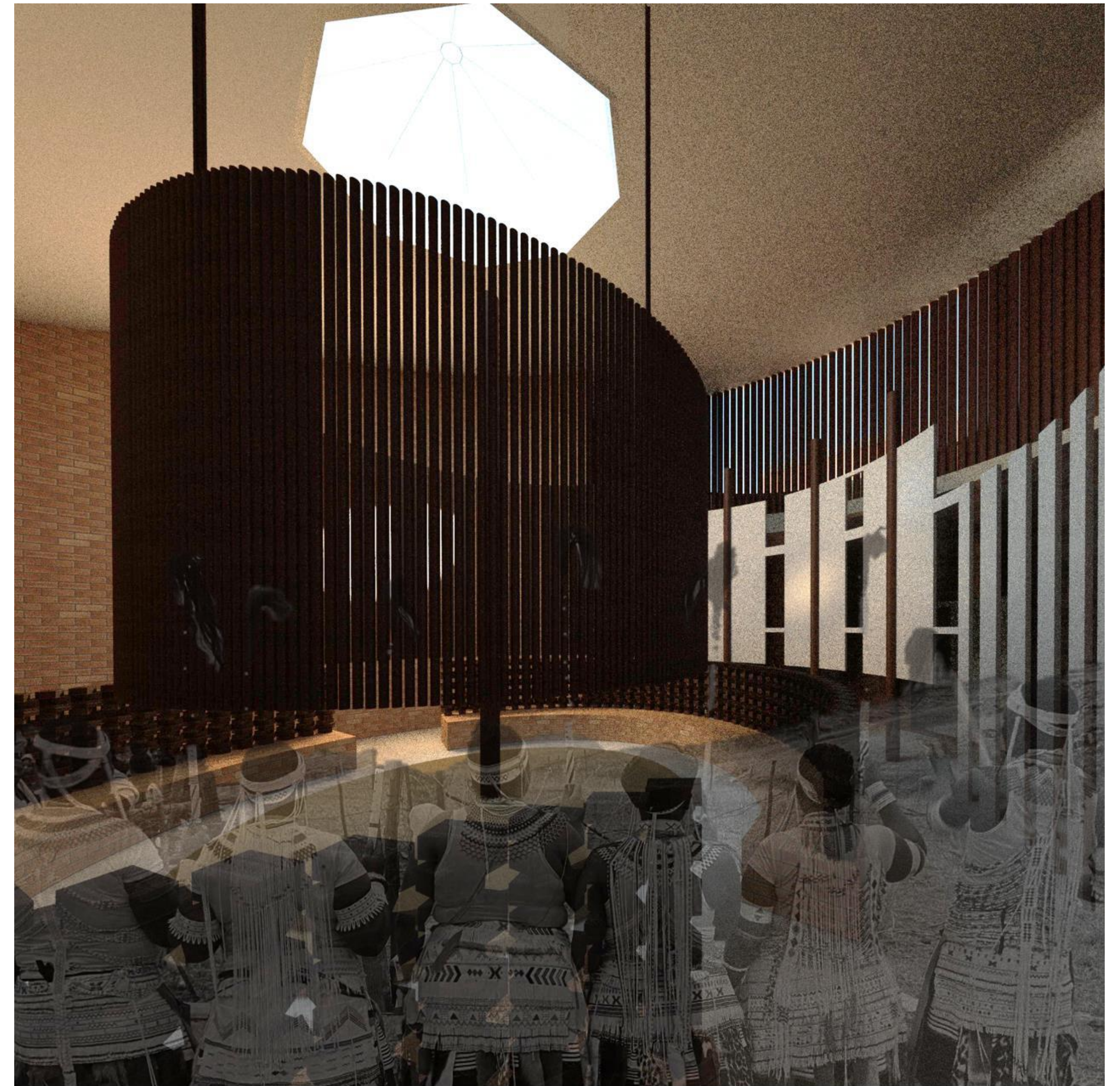


WEST ELEVATION 1:100





Public Plaza with Central Symbolic Acacia tree



Intlombe Yezangoma (the spiritual gathering and dancing of Traditional Healers) and Gallery