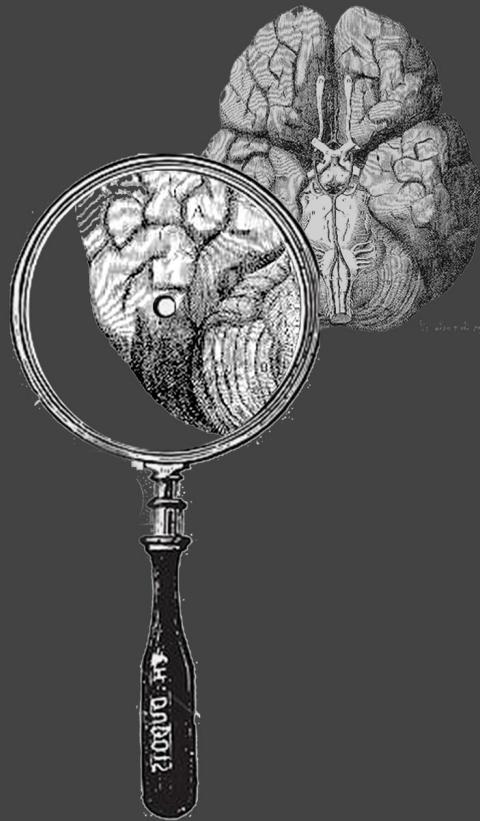

DIAGNOSTICS

DESIGN DEVELOPMENT

$3 + 5 = 8$. But so does $4+4$ and even $1.326547 + 6.673453$
OR: There are many ways to skin a cat



[5.1] Scrubbing Up

Group Urban Framework

*So 'bottom up' displaces 'top down', or does it? We know that bottom up systems display a remarkable ability to innovate in difficult conditions, but top down has the real power to enable. We need both. As these bottom up processes evolve, community rapidly demands the need for some form of governance. Bottom up needs top down, just a better form of top down. It demands that our complex rules are replaced with simple rules. **Our rigidly deterministic object-making models are replaced with condition-making models that lead to more responsive environments.** Restrictive command-and-control practices are replaced with permissive enabling leadership that facilitates a greater level of bottom up activity. The new top-down gives the 'light touch'. The consequence of this is an evolved planning, design and delivery system. With this comes a new social contract between government and community to do the right thing. (Campbell 2014)*

This dissertation intervention forms part of a larger group framework. During March 2014, the urban design group mapped both the physical features of Alaska, as well as its intangible networks. Each group member, focusing on a different network. Noticing the lack of open civic space, or *own ground*, as Webster (2014) called it, the group identified main public nodes within the settlement and designed a framework that aimed to strengthen and enhance these areas as prominent public spaces. Each student's intervention is based on a participatory process with an identified network.

The framework is focused on the main spine of Alaska, Gladstone Seti Avenue, along which the majority of Alaska's commercial activity occurs. Each group member's site is located along this spine with each intervention aiming to act as a catalyst, reinforcing the current activities around the area and encouraging further activity between each public node. The framework is proposed in three stages, rather than one fixed master plan. The phasing allows for the loose fit *condition-making* Campbell (2014) suggests will lead to more responsive environments. Fig 5.1 illustrates the final phase of the framework. The initial two phases focus on upgrading roads and infrastructure, while the last phase sees the group member's individual proposed catalyst projects being realised.

Appendix A contains a detailed explanation of the group's framework, the design process and the critiques of other Mamelodi frameworks from professional firms and previous University of Pretoria Honours students.

PHASE 3

- formalising pedestrian route along river
- legible and formalised pedestrian routes along channel
- create and define public and recreational spaces for encounter
- revive green spines



terraced landscape provides walkways and safe public space

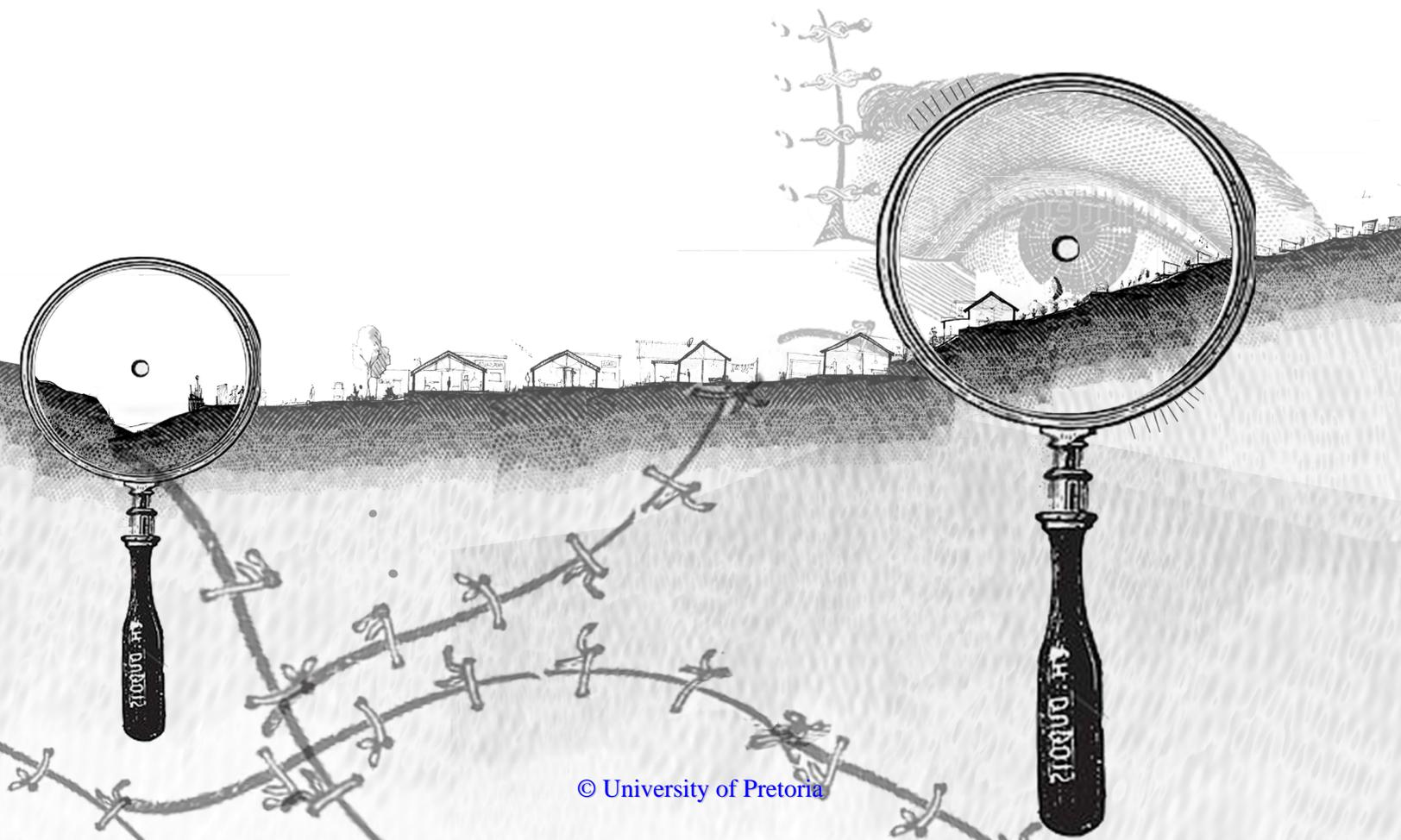
public spaces along main route provide for social encounters

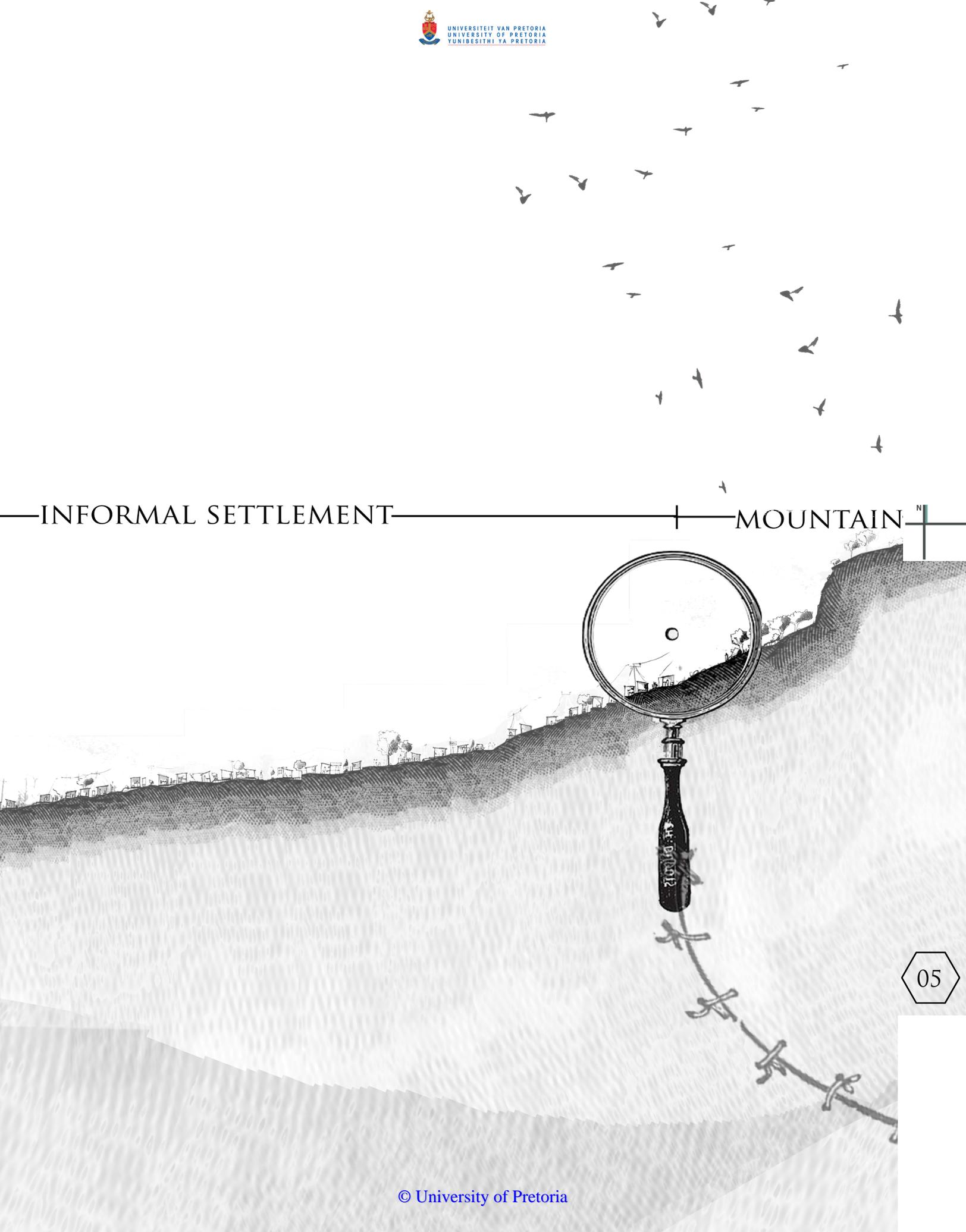
formalising pathways along culvert, connecting smaller walkways

green fingers between housing blocks provide public space and agricultural opportunities

Medium density housing to replace RDPs along the major activity spine

RIVER | RDP PRECINCT





INFORMAL SETTLEMENT

MOUNTAIN



[5.2] Infected Organs

Project Site Selection

The urban framework intention to identify and enhance an existing public node within the settlement, coincides with the project intention to create a facility that defines a public space and is integrated into the community and context. These intentions predominantly drove the site choice process, understanding that an appropriate site would need to be dislocated from the community, but still have signs of civic activity, or the beginnings of a public realm.

The intention to create a facility that is adaptable for future expansion also influenced the site choice. The site would have to be large enough to initially accommodate a small clinic, but would need room for future expansion too.

Three sites were investigated (fig. 5.2):

The bridge-less river; disconnecting the residents from important transport nodes; creating gathering spaces on either landing, as people gather, waiting to cross, or waiting for transport. And at these gathering nodes, spazas and food stalls emerge to cater for those waiting.

The meeting tree; poorly defined, yet well-used public space, divided by an eroded course way of mountain water, constantly running. Showing similar signs of supportive economic activities.

The storm water channel: creating a scar between the RDP development and informal settlement, marking the change in density and grain. Where the channel is informally bridged, where footpaths meet a higher order pedestrian routes, pause nodes for social gatherings can be found. And around



such places of informal gathering, again, spaza shops begin to emerge, extending the public domain. The river site was disregarded, because the open site was situated within the 100 year flood-line. An open site, adjacent to the storm water channel and opposite the river crossing, was decided on as an appropriate site (fig. 5.3). While the site does not directly address the design of a bridge, it does present itself as a landing building, accommodating the gathering that already occurs.

The size of the site is big enough for a clinic sized to support the existing population to be built immediately and still large enough for the clinic to double in size as the population grows. The study of the problems associated with the inflexible CUBPs clinics, proves that this room for growth is paramount when selecting a site. The site at the meeting tree does not have enough space to begin with and any growth of the facility would require the relocation of a number of shacks.

Positioned between the formal RDP housing and the informal settlement, the potential exists for an intervention to mediate between the two dwelling scales, as well as providing an intermediate interface between the public realm that exists on the street and the more private of the housing domains.

Due to the existing major pedestrian route circumventing the site, a number of small gathering nodes have emerged, primarily at intersections. The largest gathering precinct exists at the junction between the pedestrian route and the major vehicular access spine.

The visual and physical accessibility of the site was the tipping point in final site selection. As a public service building, clinics need to be easily recognisable, accessible and prominent within its context. The site, located on a directional change in the main road, is landmarked with a large seringa tree – the largest tree in the general vicinity. While the meeting tree site is visually accessible, it is located half way up the steep mountain and difficult to access physically.

RDP



SITE



INFORMAL SETTLEMENT



River Crossing

**Gladstone Seti
Avenue**

**Storm water
Channel**

05



[5.3] Design Informants

Design Informants

[5.3.1] Urban Framework

The urban framework implementation is proposed in three phases, allowing the initial small scale interventions to create the supporting conditions for the subsequent phase.

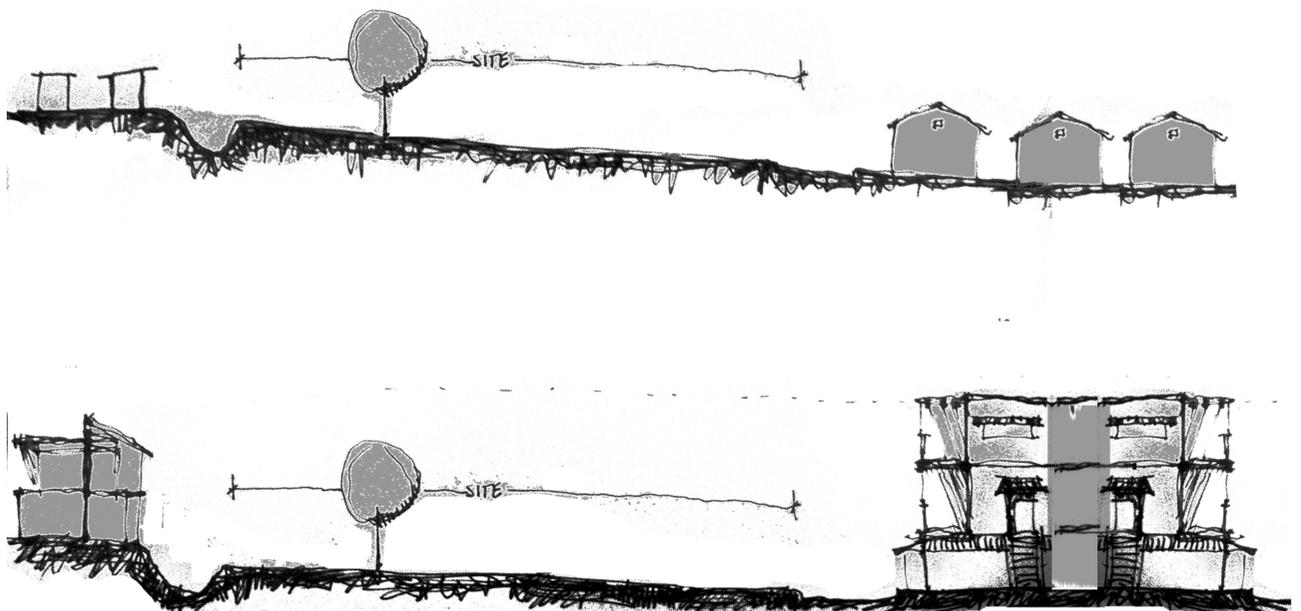
The proposed phasing meant that the design had to be considered as a number of sequential parts, working toward a hypothetical urban density and scale envisioned by the group.

The sketch sections (fig 5.5) show the current and anticipated dwelling scales on either side of the site.

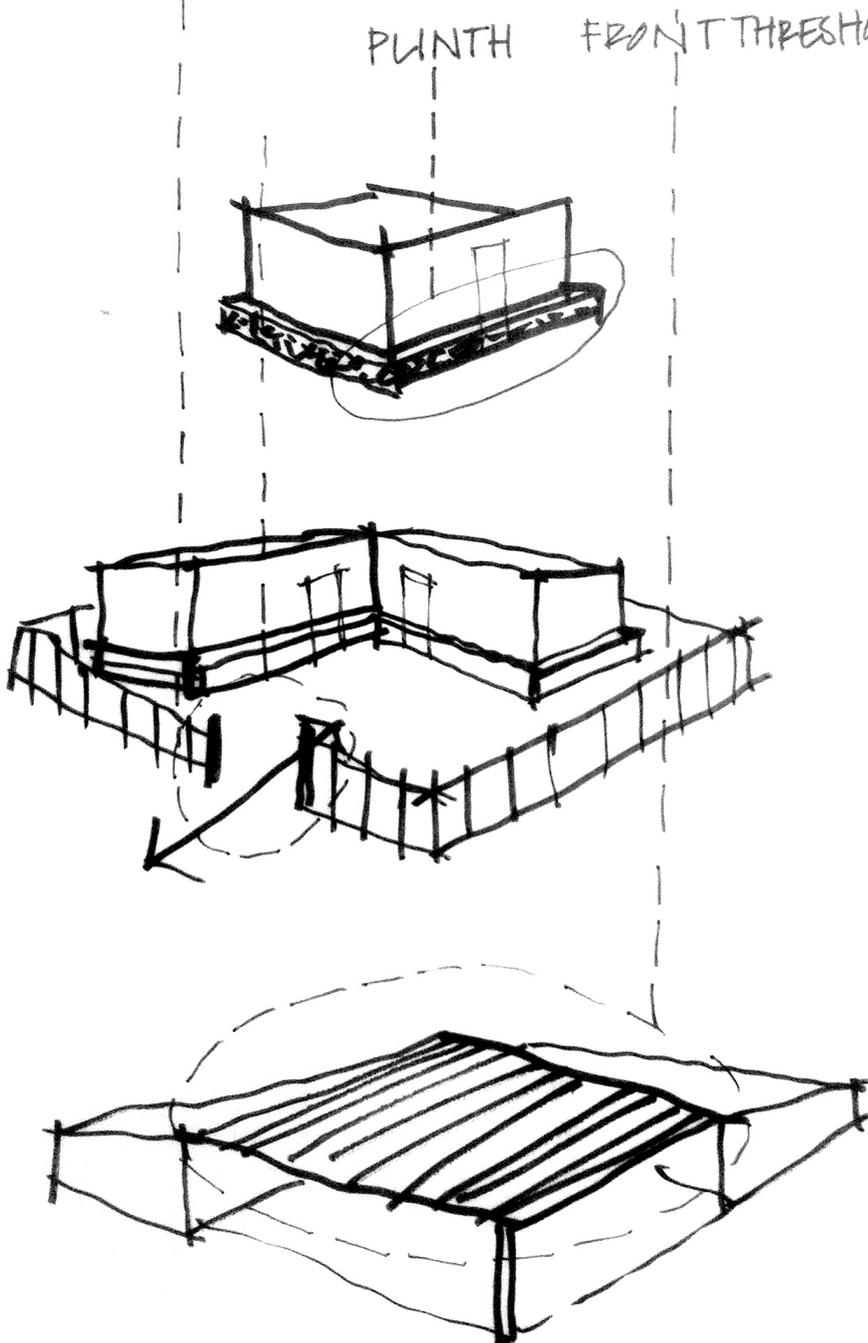
The three story residential walk ups, lining Gladstone Seti Avenue, had the greatest consequence for the design. Only working toward a proposed density and responding to a future urban scale, could result in an overpowering building, should the proposed vision never be realised. Conversely, if one is to only respond to the current scale, then should the proposed 3 storey walk ups be realised and the settlement scale increase, the public scale of the intervention would be lost.

The suggested phasing implementation of the urban framework reinforces the project intention to create an intervention which is able to adapt and morph with the changes in context.

The urban framework intention to identify and enhance existing public spaces, informs the location of the public interface intended by the design.



ENTRANCE THRESHOLD



[5.3.2] Current Building Typologies

Previously the context of the context was discussed and the evolution of the shacks was analysed (refer back to page.). As seen in figure 5.6, the sequencing of thresholds and layering of space, from public to private informs the site layout and the differentiation between the enhanced public realm and the private clinic, on one scale, and then informs the transition between waiting spaces and consultation rooms on a smaller scale.

[5.3.3] Physical Site

The site was unpacked diagrammatically and understood in terms of the social and physical site informants and what consequences they would have on the design layout and resolution.

The site is well located within the settlement, in that many major pedestrian arterials leading to other parts of the settlement stem from the pedestrian walkway that runs along the site. It became evident that where two paths crossed pause nodes were established; in the form of a spaza shop, informal taxi point or just general gathering nodes (fig. 5.8). The largest point of pause is located on the western corner of the site. Here people wait for taxis that take them across the river and little shops surround it. The constant flux of activity was identified as an existing public space, lending itself to successful upgrading in accordance with the urban framework proposal. The public spills out of that informal space up along the northern edge - lending itself to the public interface edge. The residential edges to the north and east lend themselves to quieter, less public edges of a building. Service edges that allow for a smooth transition of scale from the low rise residential, to a higher scale, appropriate for a public building.

The desire lines were also considered. The passage through the site indicated that a transversable building could have a greater influence of public who not actually visiting the clinic.

The slope of the site will inform the layout of the site as well as the form. The natural ventilation systems will need to take the slope and its associated air movements into account (fig. 5.7)



[5.3.4] Program

The program - a hybrid clinic - plays an important role in informing the site. The western component of the design has a number of functions that are largely service orientated. While the dissertation challenges the current design practices of medical facilities, and seeks to improve patient experience, there are certain programmatic requirements - such as x-ray facilities- that need to adhere to stand design guidelines.

[5.3.5] Participation Drawings

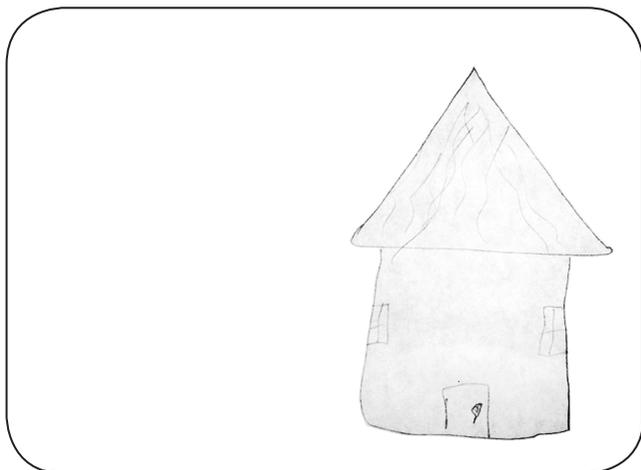
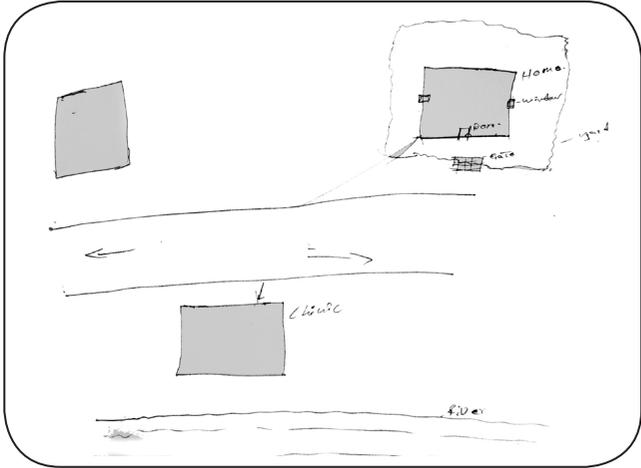
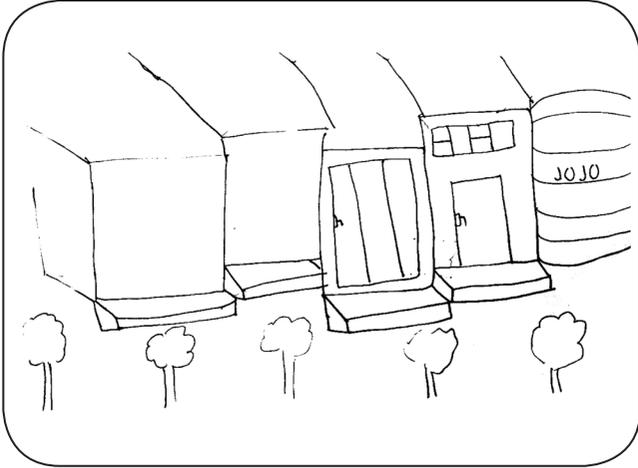
Having established connections with a few traditional practitioners and community leaders interested in the project, participants were then engaged in a participatory drawing exercise. A discussion with participants introduced them to the topic of healthcare and questions were raised about what the current problems surrounding clinics they experience and what components of it they enjoyed. Participants were also asked if they visited traditional healers. After the discussion, the participant was asked if they would like to draw their ideal clinic. The intention of the exercise was to gain a visual understanding of how clinics were perceived and what component they would like to be improved upon.

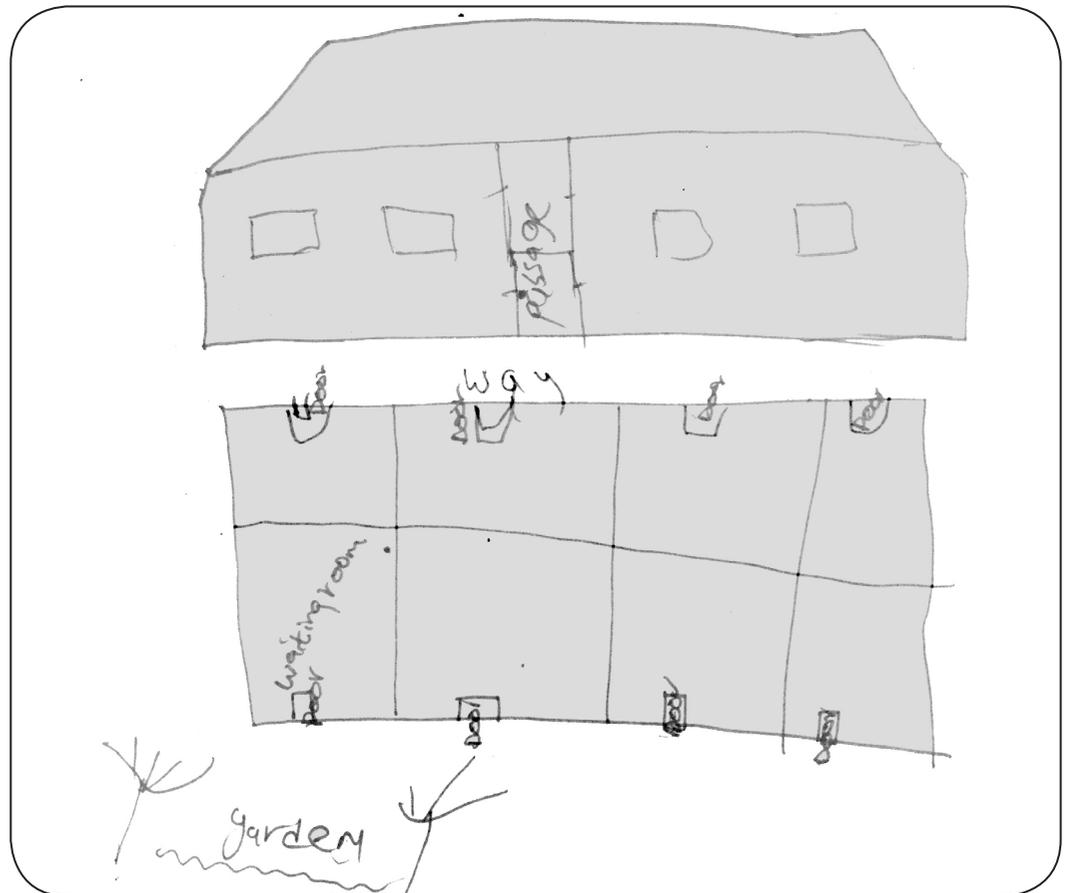
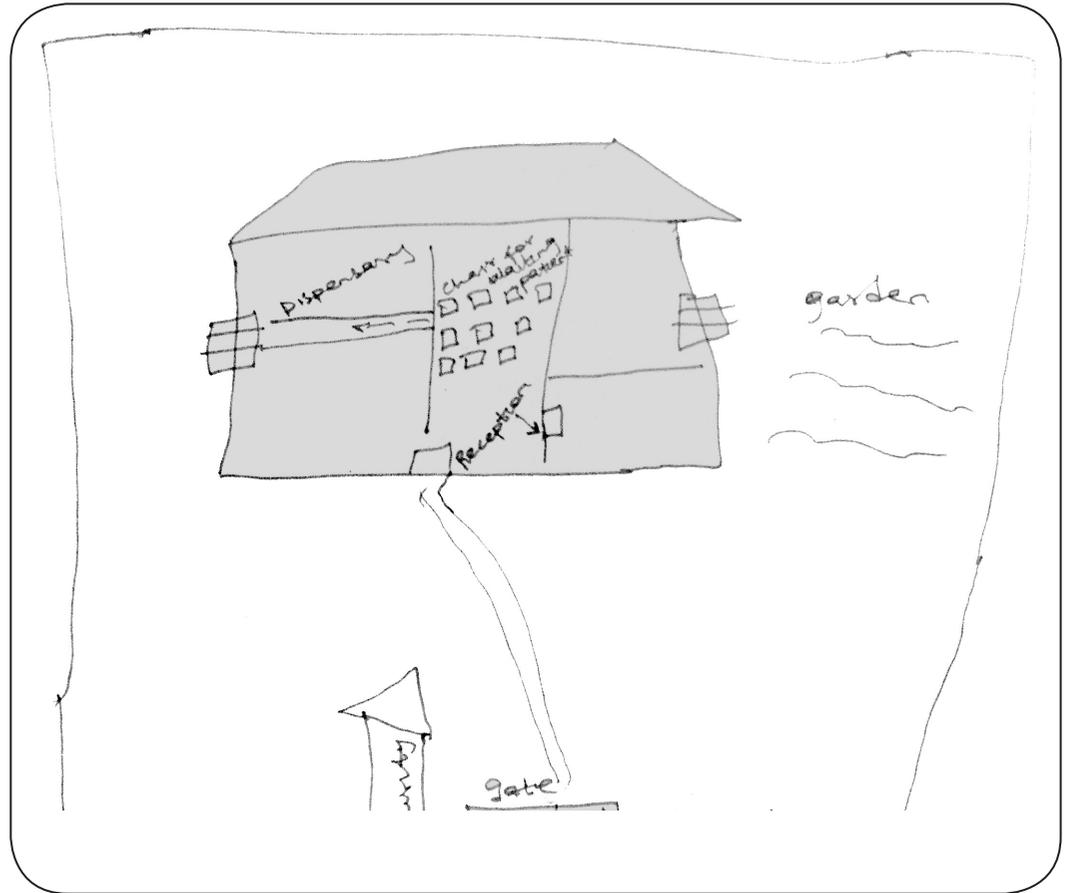
Figs. 5.9 - 5.11 were completed by residents, Fig. 5.12 by traditional healers and fig. 5.13-5.14 by community health-post nurses.

The illustrations illuminate the range of perspectives and emphasis on differing elements of a clinic. The nurses, for example, drew the internal spaces in far more detail than the residents (patients) did.

Fig. 5.15 was enthusiastically completed by a section leader, who clearly expressed – both verbally and graphically – that patients would have to go to a western doctor first, before being referred to a traditional practitioner. In his drawing, the traditional practitioners' buildings, while inferior to the scale of the western clinic, are included within the property boundary line and thus seen as an important part of his ideal clinic. (With reference to Context of the context – the cultural understanding of Pedi kraals, acknowledges that elements within the settlement boundary are considered important and to be safe-guarded by the community.)

The participatory drawing exercise, while it may not act as an explicit design informant, does play a role in the process. The hybrid clinic programme already fulfils many of the patients' desires to have the two practices combined in one facility, but the drawings offer insight into how community members envision the combining of the two.







[5.4] Design Evolution

3 + 5 = 8. But so does 4+4 and even 1.326547 + 6.673453

OR: There are many ways to skin a cat

There are a number of ways to get to the same answer. The (intended) answer in this project is known, one just has to find the most appropriate way of getting there. The answer being a healthcare facility that reflects and responds to its context, is adaptable, patient centric and salutogenic. An inclusive public facility that promotes health; the state of physical, mental and social well-being.

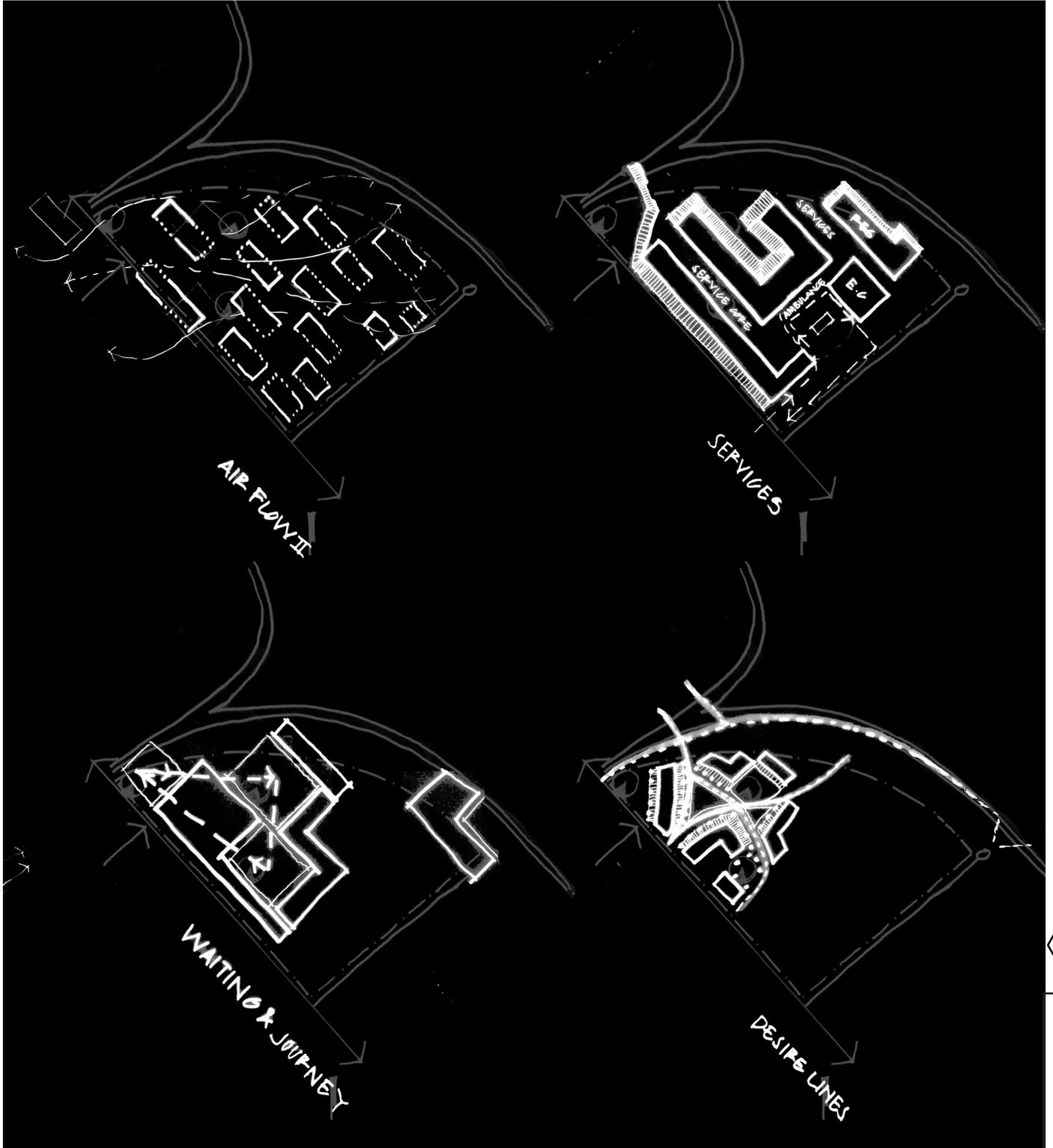
[5.4.1] General Site Layout Development

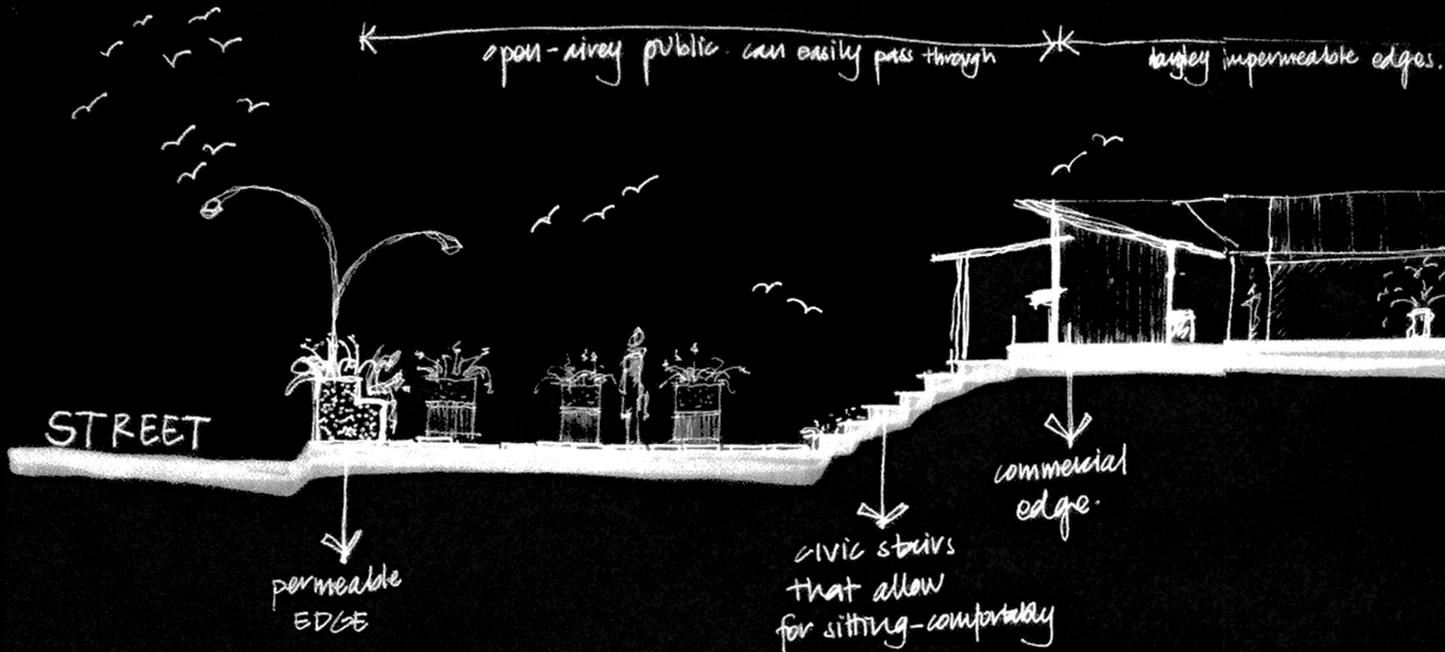
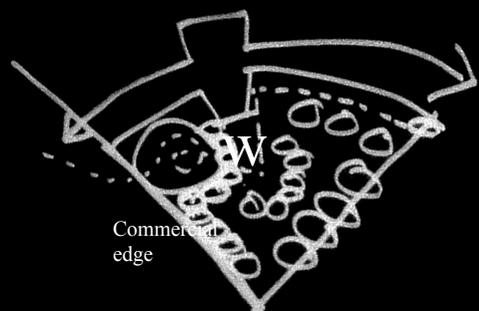
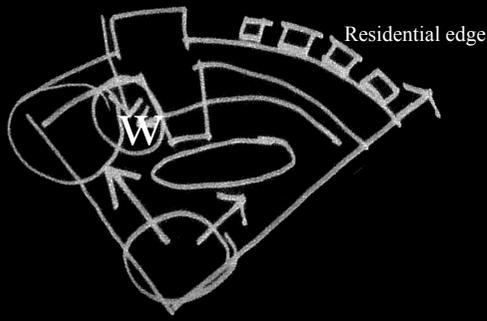
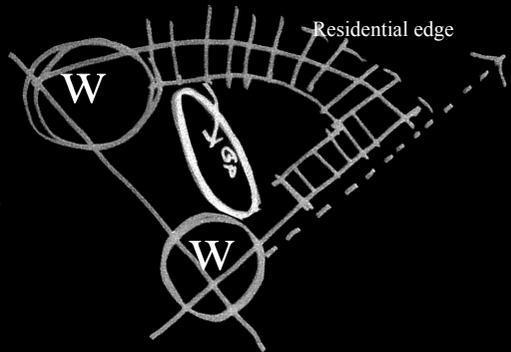
Having gained an understanding of design informants, a site layout was designed and iterated to form an appropriate response to all the informants. The initial process involved sketching basic plan layouts, based on a single design driver (figs. 5.16-19). For example; figure 5.18 is a plan generated by the various waiting spaces and the journey from one to another.

These simple diagrams of isolated informants, coupled with the site informants (fig. 5.8) were used to develop an initial site layout. The desire lines solution (fig. 5.19) and journey solution (fig. 5.18) became two of the more influential diagrams, as they responded to two of the key project intentions; acknowledge and enhance what is present, and improve the patient experience.

Figures 5.20 - 5.28 demonstrate the site design development. Balancing the project intentions of defining an open public space, with strict spatial requirements introduced by the clinic program, introduced a number of complications. For instance; positioning the emergency entrance and ambulance stop, so that would not interrupt a pedestrian arterial.

The position of the main public arrivals on the North West corner remains constant throughout the development of the site, due to its existing activity. The process explores how each edge could be addressed. The final diagram (fig. 5.27) is simplified. The clinic building defines the waiting area, the South Western edge responds to the existing commercial activity, the North Eastern edge responds to the existing residential condition and the South Eastern edge is a service edge, with ambulance access. The progression from the existing public domain, to the semi-public waiting area is expressed in the section (fig. 5.28). The sketch section designed in accordance with the site development, demonstrates the change in spatiality and scale as one would move from the open public space on street level, through the primary waiting space and into the more private consultation rooms. The spatial progression of the section was an interpretation of the progression from public to private space as observed in the current household layouts within the context (refer back).





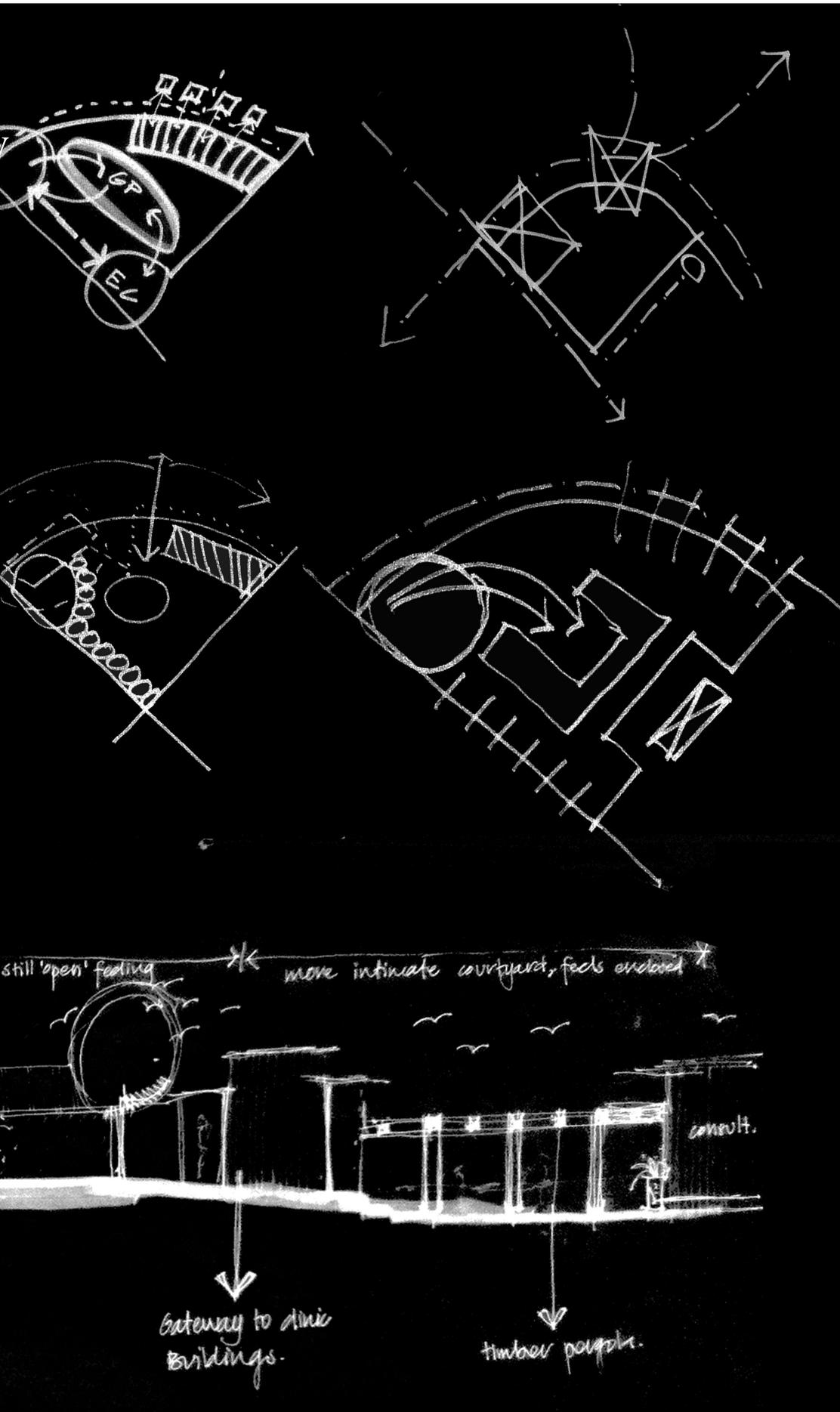


Figure 5.20

The site closes itself to the street and opens itself onto the existing pedestrian pathway. Two existing gathering nodes are developed as waiting spaces

Figure 5.21

Two public spaces on either corner feed the clinic. The residential edge responds to the context.

Figure 5.22

The southern corner is proposed as the Emergency Centre

Figure 5.23

Ambulance access routes into the settlement and to Mamelodi are explored. The Emergency Centre is proposed on the Northern edge

Figure 5.24

The Southern corner is explored as the main arrivals, with the clinic in the middle and Emergency Centre still on the Northern Edge.

Figure 5.25

The buildings as individual units are explored. The South Western road edge is recognised as a commercial edge, responding to the Urban Framework.

Figure 5.26

The desire lines are acknowledged and secondary entrance into the waiting space is introduced

Figure 5.27

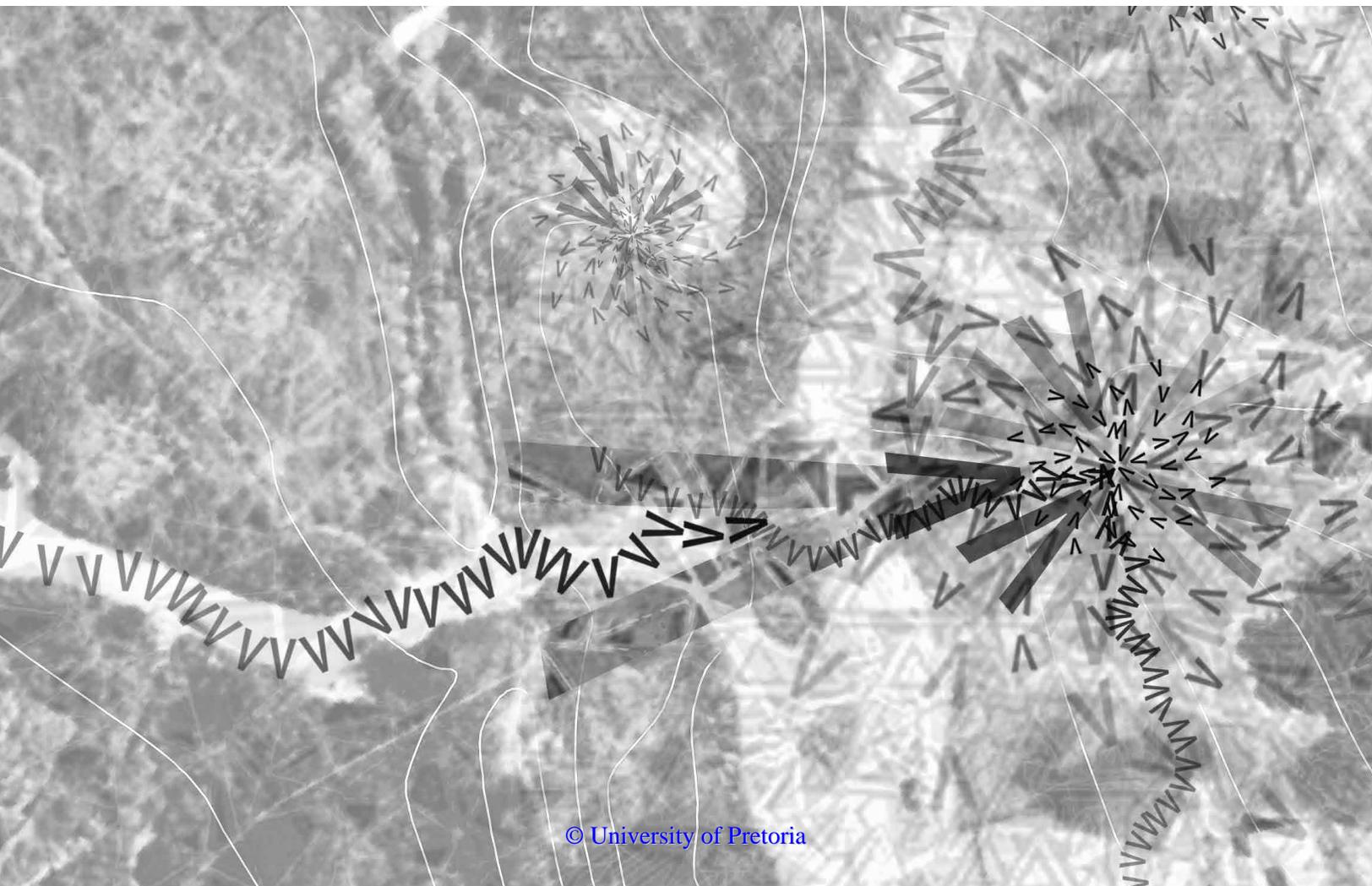
The section illustrates the progression from public, through semi-public and into private space across the site.

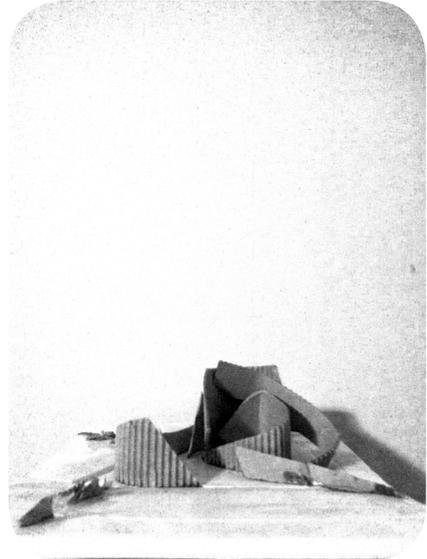
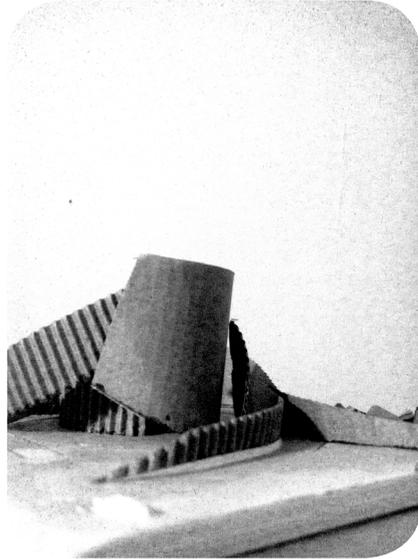
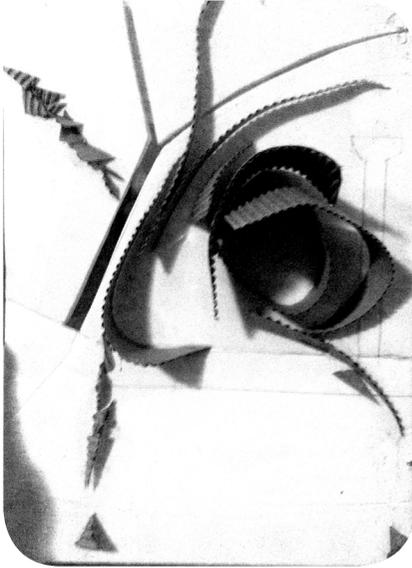
[5.4.2] Initial Concept

Disperse

Initially, following the masters' conceptual development workshop (run by D. Brandt), the notion of dispersion was used as a conceptual driver. Stemming from the idea of dispersing the waiting patients, dispersing the contaminated air and then working as a catalyst intervention, spreading health and healing throughout the settlement.

A conceptual model (figs. 5.29-5.31) was built with an understanding of the informants, but focussed on the desire lines and dispersion of air. The model demonstrates how people can move through the space, without having to go right in. The building extends itself beyond the boundaries of the site, reaching into the community, indicative of the intention to create a connection between building and context. The spiraling nature of the plan draws people in, allowing them to experience the space, before exiting elsewhere. The multiple entrances allow for a variety of different activities to occur within - consultation spaces, pharmacies, traditional practitioners - while allowing patients a sense of privacy. The model was accompanied by a conceptual plan, indicating the spread of influence (fig. 5.32).





DISPERTION



[5.4.3] Conceptual Evolution

The initial concept was both inappropriate in scale and form, for the site and especially programme. The underlying principles of an open building with movement route through it and the dispersion of health and air were kept in future iterations.

The concept evolved through focusing on the programme and the consideration of how to introduce traditional practitioners into the facility. This led to including two additional conceptual notions; stitch and merge.

Three diagrams expressing the various relationships were established before being translated into sketch plans. The site layout was used to manipulate the diagrams into sketch plans. The plans also consider the other various design informants.

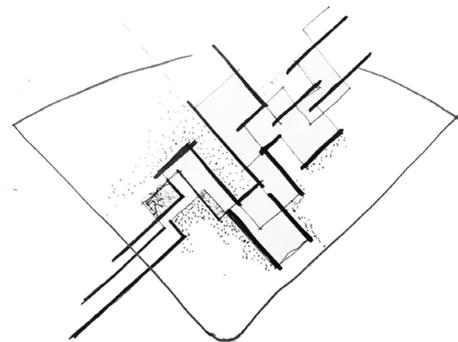
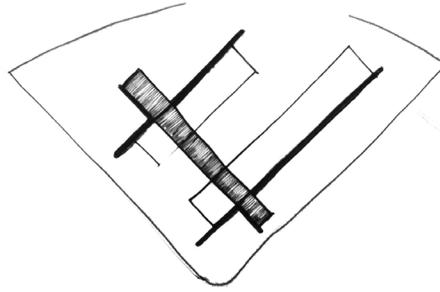
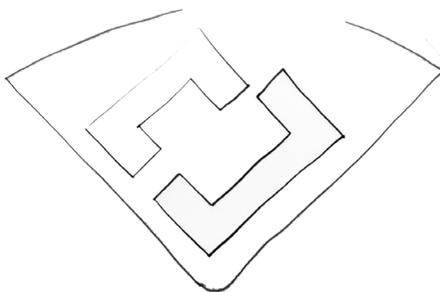
DISPERSE



STITCH



MERGE

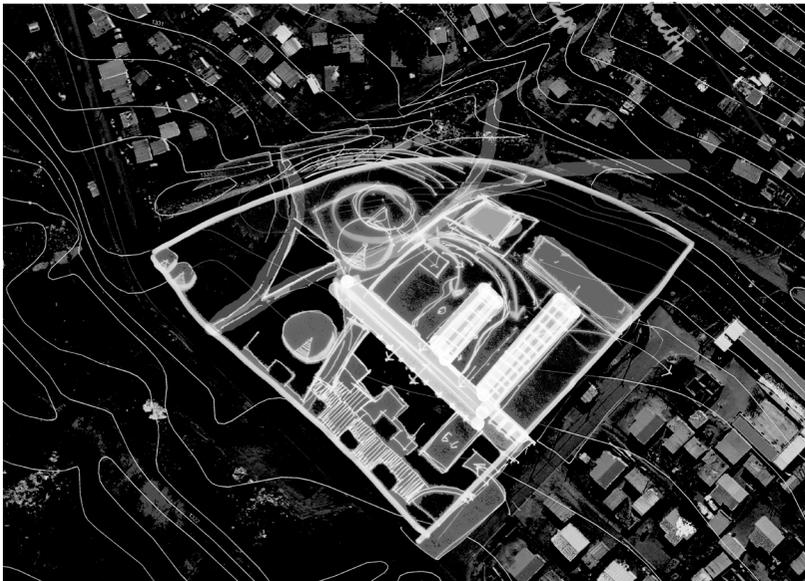




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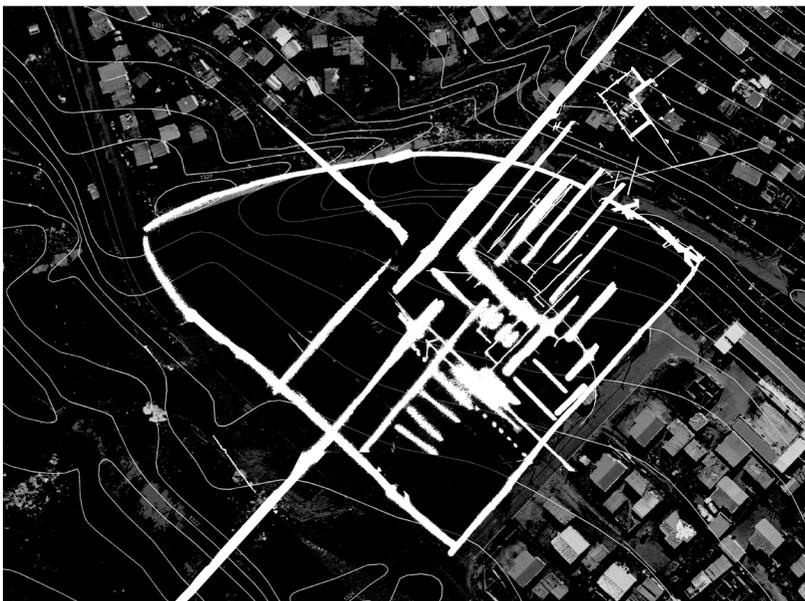
The two practices are separate by an open waiting space, situated along the pedestrian movement route.

The waiting space is intended for both sets of patients. In this scenario, waiting patients will be able to distinguish which practice others are visiting.



STITCH

Here again, there is an open waiting space off the pedestrian movement route. However, both practices are now in the same facility, but separate buildings. The two buildings are 'stitched' together by a shared exit route. The entrance design allows patients more privacy from others, in which practice they are going to.



MERGE

This design conceptual scenario completely merges the two practices, in a design that is more about the experience of moving through the building, then it is of the buildings themselves. The multiple entrances allow for complete patient privacy.

[5.4.4] Collaboration

The STITCH scenario was developed into a simple mass model and used as the focus point for the first design collaboration meeting with the community healthcare workers. The members of the group of traditional healers could unfortunately, not make it. The inclusion of the traditional practitioners was met with mixed feedback. Initially, it was believed that this was due to the group being biased toward western medicine, because they were trained by nurses, however, it was divulged, that going to a traditional healer is a personal thing. And that people are ashamed to be seen going to a traditional practitioner, because it shows weakness.

This had a significant impact on how the design developed later.

The engagement process was difficult and members were not very willing to offer opinions or alternatives, which could have been a symptom of the large group size. The questions that were raised, tended to be pragmatic and not spatial; how many consultation rooms are there, where are the toilets?

When asked, most of the participants agreed that the forecourt public square was necessary and liked the size, position and the fact that there would be comfortable waiting spaces before the clinic opened in the mornings.

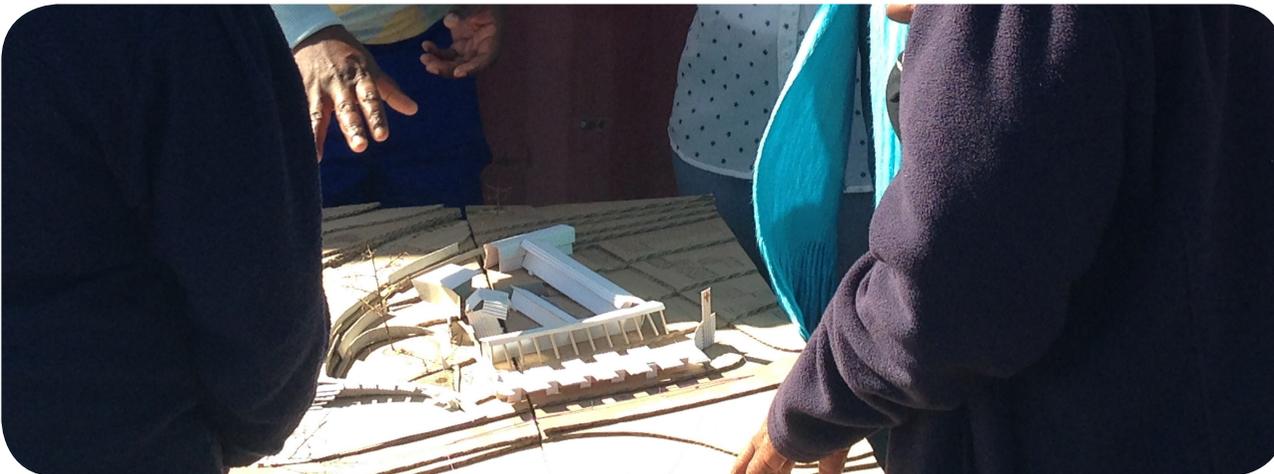
After realising that the model was not fixed, (name), Alaska's Community Committee's health and safety representative, stepped forward and began dismantling parts of the model. He also added more consultation rooms, away from the others, specifically for TB patients.

The process, while insightful, was largely hindered by a miscommunication. The meeting had been arranged with sister Naledi, the head nurse of the ward 10 community healthcare worker, and while the theoretical nature of the project had been explained to her in Pedi, the message had not filtered down the ranks of nurses and CHCW.

A number of the other nurses got very upset when they discovered that they would not actually be getting an actual clinic.

It was unfortunate, but the ethical decision to cease design collaboration was made in order to avoid further disappointments.





[5.4.5] Detail Plan Development

Following on from the participatory session with the community health care workers, the design moved toward fully integrating traditional and western practitioners. The *merge* scenario met most of the designs intentions and was established as the strongest concept, moving forward with the design development.

As earlier discussed (see Context: Injections and Incense), the medical fraternity of South Africa has been split between western and traditional modes of healing since the arrival of the colonists in the cape. And despite the legalisation of traditional healing that came with the democratic society in 1994, the disciplines remain separated in space, and philosophies.

The dissertation proposes that it would be beneficial to the overall health of a community to bring together the two disparate disciplines in one facility. However, it is understood that design has the power to express importance; to subordinate one space over another, through spatial hierarchies. Hierarchies in social structures are an intricate part of any culture's history and are often clearly expressed through architecture and the layering of space.

To proceed to the King's Hut in a Zulu Kraal, one must walk up hill, pass through the entrance gates, past the gate keepers, through the central cattle Kraal to arrive at the King's door. To enter, one must crouch, almost crawl, though the opening. Through the journey, a clear transition through a hierarchy of space is experienced. And the King's hut, is undeniably the most important structure in the Kraal – expressed through its position and scale relative to other dwellings. In its most un-adulterated form, architecture is used as a device to express power and dominance.

The layering of space, entrance sequence, and series of events experienced at a western clinic, differ from those of a traditional practitioner (FIG x&y).

With the overriding intention of healing coupled with the intention to merge the two opposing programs, both programmatically and spatially, spatial hierarchy becomes dangerous territory. The success of the intervention could be compromised by giving spatial priority to one programme over the other.

Aldo van Eyck, a Dutch Structuralist from the Modernist era, was concerned with reconciling opposites, constantly applying himself to the exploration of and relationships between polarities, such as past and present, classic and modern, archaic and avant-garde, constancy and change, simplicity and complexity, the organic and geometric. Van Eyck believed that preserving the dialectics of opposing factions was a necessary condition for the development of a genuinely contemporary architecture (Strauven 2007). He became interested with the fundamental idea of relativity;

Relativity implies that the world cannot have inherent hierarchical structure, all viewpoints are equal, and every place is entitled to be regarded as a centre. But far from being a chaos of unrelated fragments this polycentric reality has a complex coherence in which things, though autonomous, are linked through purely reciprocal relations; a coherence in which these relations are as important as the things themselves
(Strauven, 2007).

Van Eyck was constantly evolving different forms of non-hierarchical order, to manifest the concept of relativity in his architecture. Signature compositional techniques of the architect were to set up shifting frames of reference, mark out equivalent vantage points and relativise the conventional spatial hierarchy by establishing eccentric centres and symmetries (Strauven, 2007).

Van Eyck's iconic Amsterdam Municipal Orphanage (fig. 5.45) is a manifestation of his centrifugal theory, stemming from the notion of relativity. The settlement, which reconciles opposites, fans out centrifugally in all directions from the Piazza; it is the fixed point from which decentralisation is developed and delineated (Strauven, 2007). The structure is both a house and city, compact and polycentric, single and diverse, clear and complex, static and dynamic, contemporary and traditional. The western and traditional practices form the polarities of this argument, and the Amsterdam Orphanage offers a number of lessons on how to marry the two – without one dominating the other and without losing a sense of coherence and sense of place. Hierarchy, while used to express degrees of importance, is also a tool for understanding and reading space. Without hierarchy, coherence and usability can be compromised. The legibility and coherence of a healthcare facility is of particular importance, as the majority of visitors are ill and potentially weak. Disorientation caused by multiple turns and inaccessible spaces, can further compound anxiety and frustration in patients. The architectural devices must therefore be employed to define and emphasise movement routes in contrast to congregational pause spaces, allowing visitors to effortlessly orientate themselves within and around the building.

Van Eyck makes use of a grid to establish axes and set up centres and then, through the slight adjustment of particular elements, counters these centre just about everywhere else (fig.5.46). For example, the focus of the interior court is a circular seat and two lamps, which are located four metres off the geometric centre of the court (labelled A), resulting in the piazza not dominating as the centre of the entire settlement. From this piazza, the rest of the settlement fans out centrifugally in all directions. No distinct axes radiate from the piazza, rather it merely provides the initial impulse for the two main internal circulation routes to provide access to the housing units (Strauven, 2007).

A key design tool employed by Van Eyck to deconstruct hierarchy, is the repetitive use of the same spatial configuration. The interlocking housing units, separating various age groups, are one of two identical plans, however they are diagonally offset from one another in the plan of the building, creating the zigzagging circulation routes, rather than monotonous axial passageways. Their cohesion lies largely in the centrifugal movement of which they form part (Strauven, 2007).

From figure 5.45, an axonometric view of the orphanage, the coherence can be seen despite the lack of distinct hierarchy. In this view, the piazza presents itself as the dominant element. But on the human scale, the lack of long extending axes, diminishes its prominence. The entrance is expressed through the use of a large wall, perpendicular to the admin block, rather than increasing the size of the opening.

The domes one sees in figure 5.45 mark the communal space within the housing units. While they give a sense of spatial hierarchy to each unit, they are all equally sized and so do not dominate over one another in the entirety of the building.

From Van Eyck's design, one learns that while it is possible to create a balanced, non-hierarchical building, it is important to use architectural devices that still allow for the user to read and understand the building, ensuring a sense of coherence, rather than complete confusion, which could be rendered from the dismantling of spatial hierarchy.





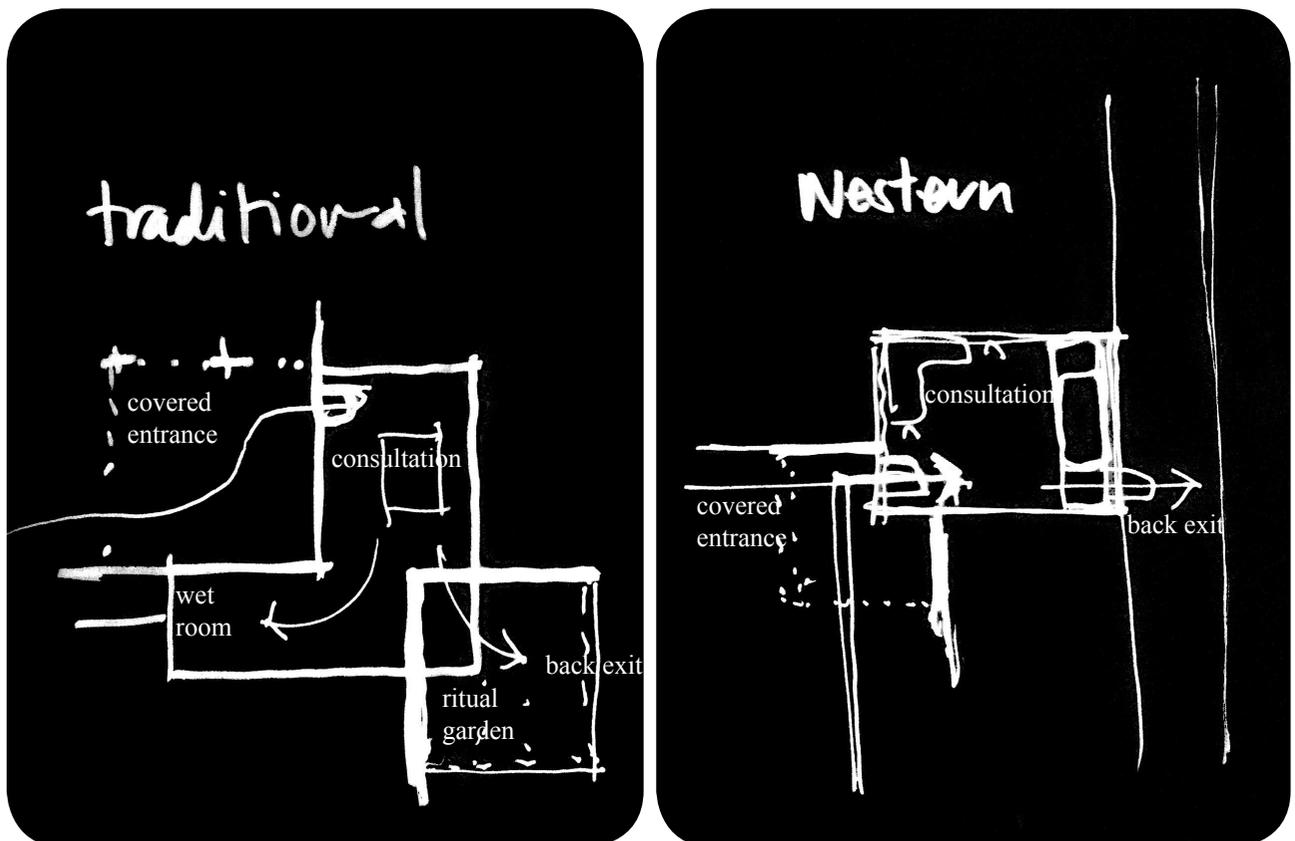
The understanding of van Eyck's methods to deconstruct hierarchies led to the exploration of the two consultation room layouts (fig. 5.47) and the configurations (fig. 5.48) that they could be assembled into.

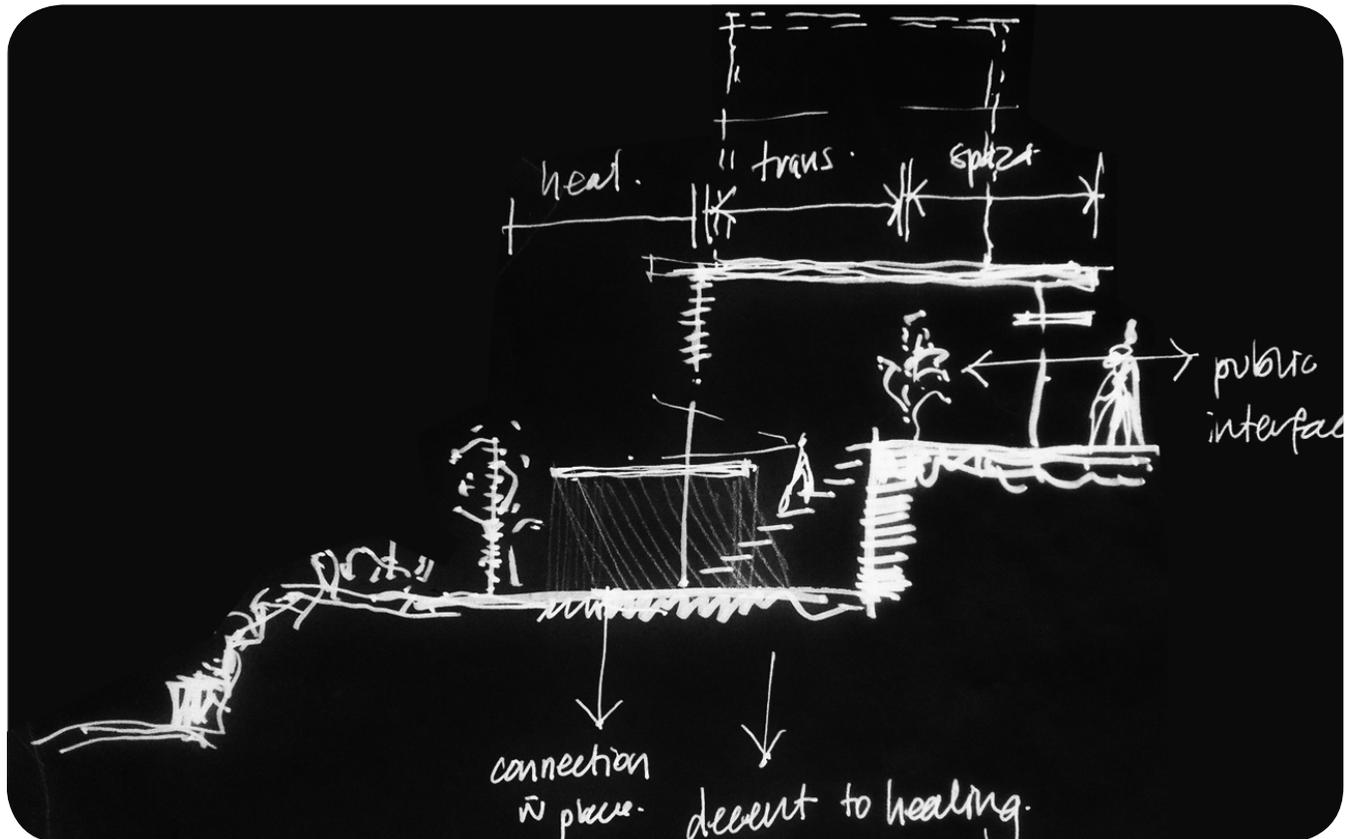
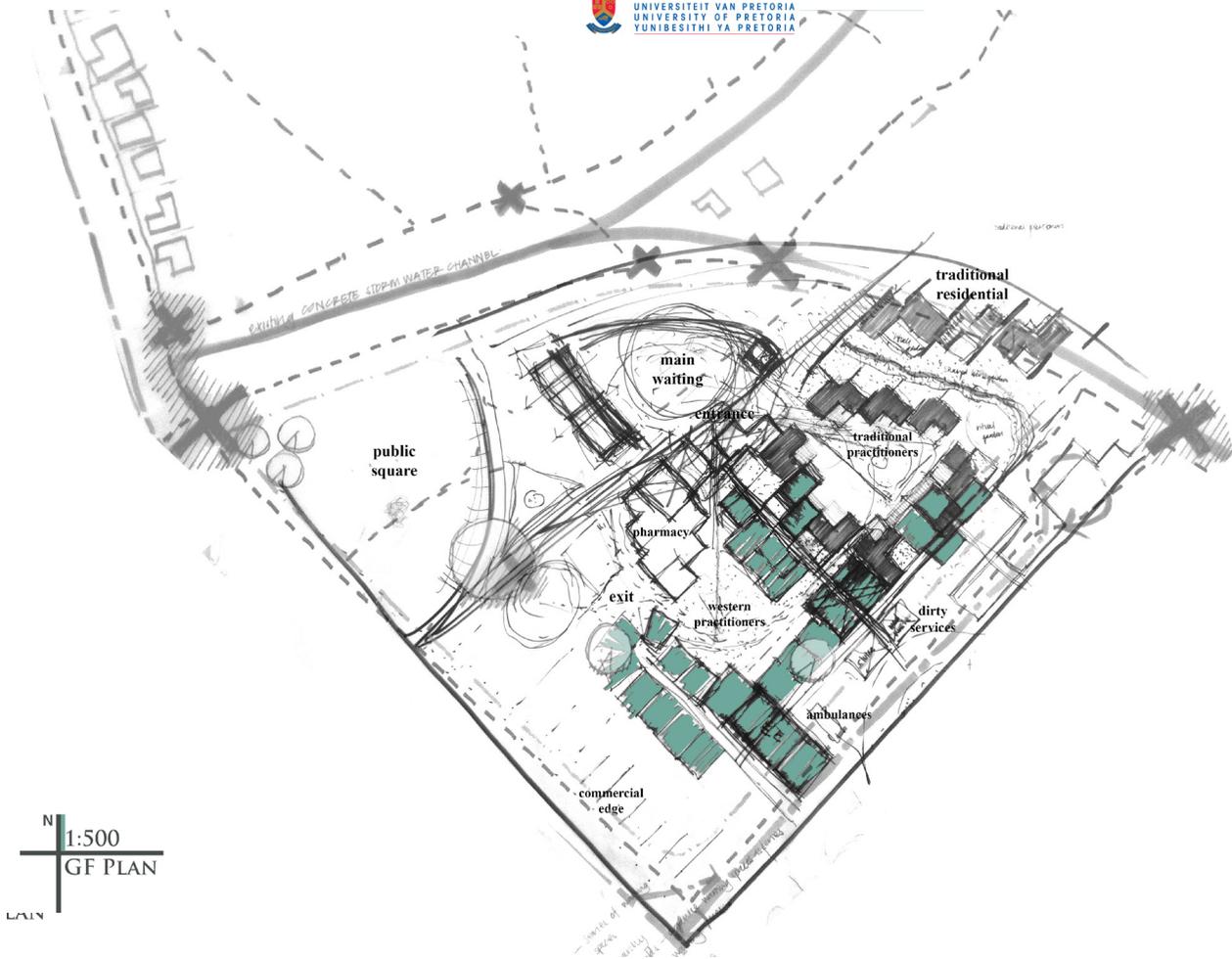
Retaining the progression from the public square to the open waiting space under the tree, the clinic reception was made to face onto the square. The design allowed patients for both practitioners to approach the reception at the same point and then move through separate entrances, based on which practitioner they were going to see.

The traditional practitioners were predominately located on the north east and the western practitioners on the south east. Between the two, adjoining traditional and western consultation spaces were proposed, allowing for two practitioners to work in close proximity.

The pharmacy was located at the exit, opening back onto the public entrance square. This exit point, meant that patients from the traditional healers would have to pass past the western practitioners, stopping for a referral if necessary.

Private traditional consultation spaces were proposed on the north eastern edge of the site. The units (fig. 5.49), consisting of shop fronts on the road level and consultation spaces below, allowed for patients to see traditional practitioners in a far more private setting.







existing CONCRETE STORM WATER CHANNEL

public square

com
e

N
1:500
GF PLAN

322

1324



traditional extensions

traditional residential

main waiting

entrance

traditional practitioners

nhval garden

pharmacy

exit

western practitioners

dirty services

ambulances

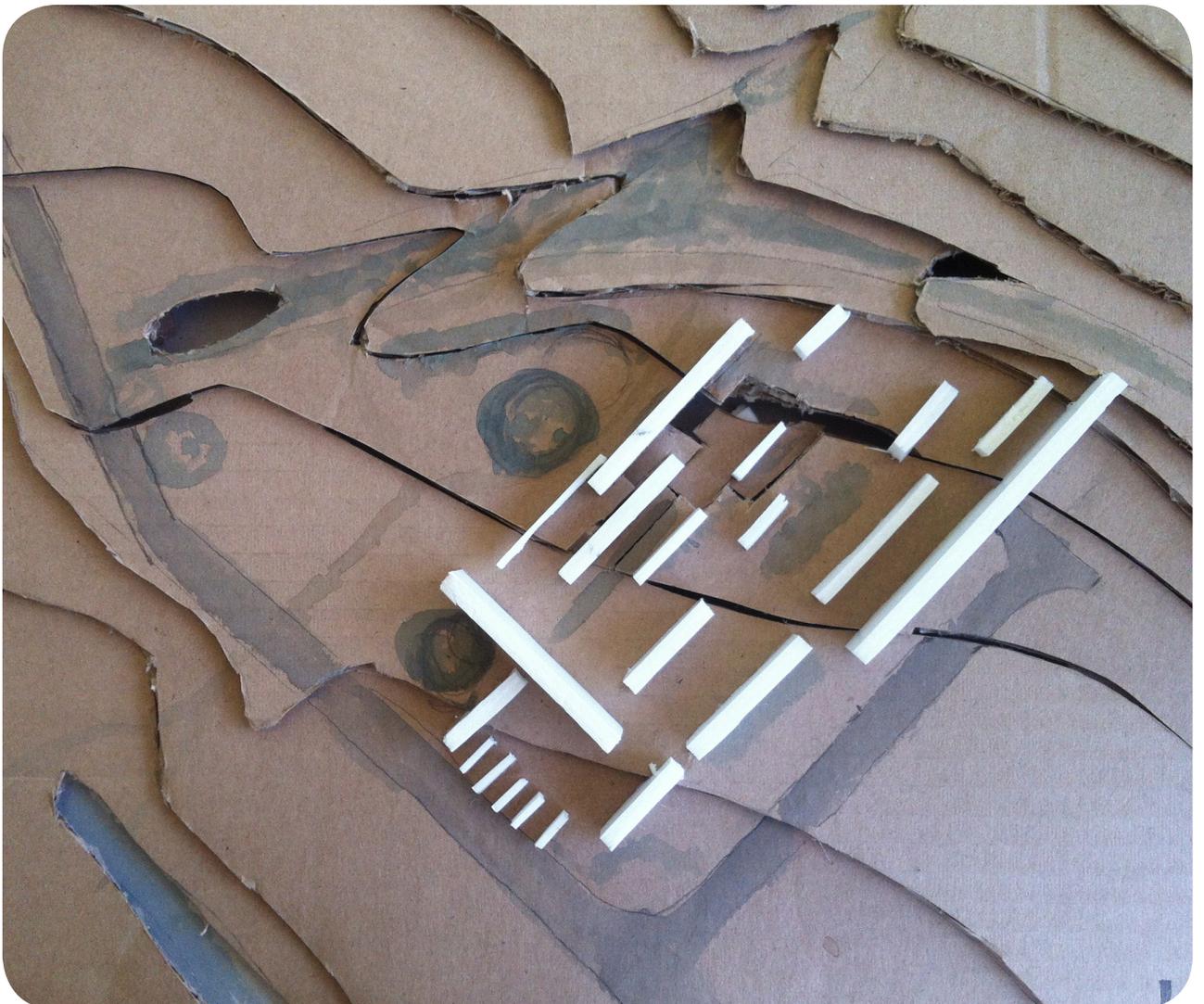
commercial edge

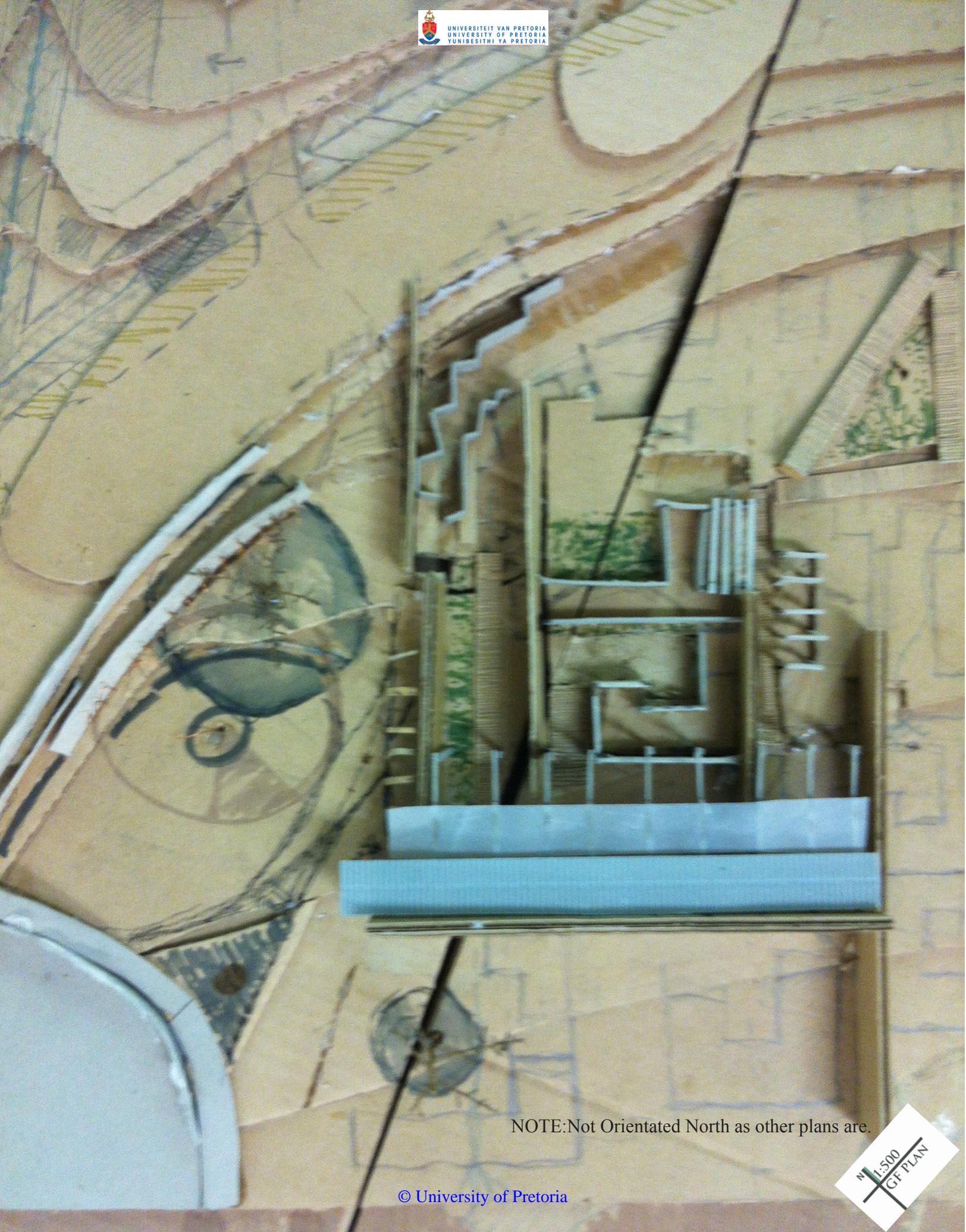
private waiting
private waiting
private waiting

In plan (fig. 5.48), the two practices read as two very distinct, separate parts; despite having a single entrance for both practices. In addition, the intention to afford patients' dignity through more private waiting areas was not achieved in this solution. The sub-waiting spaces were too large.

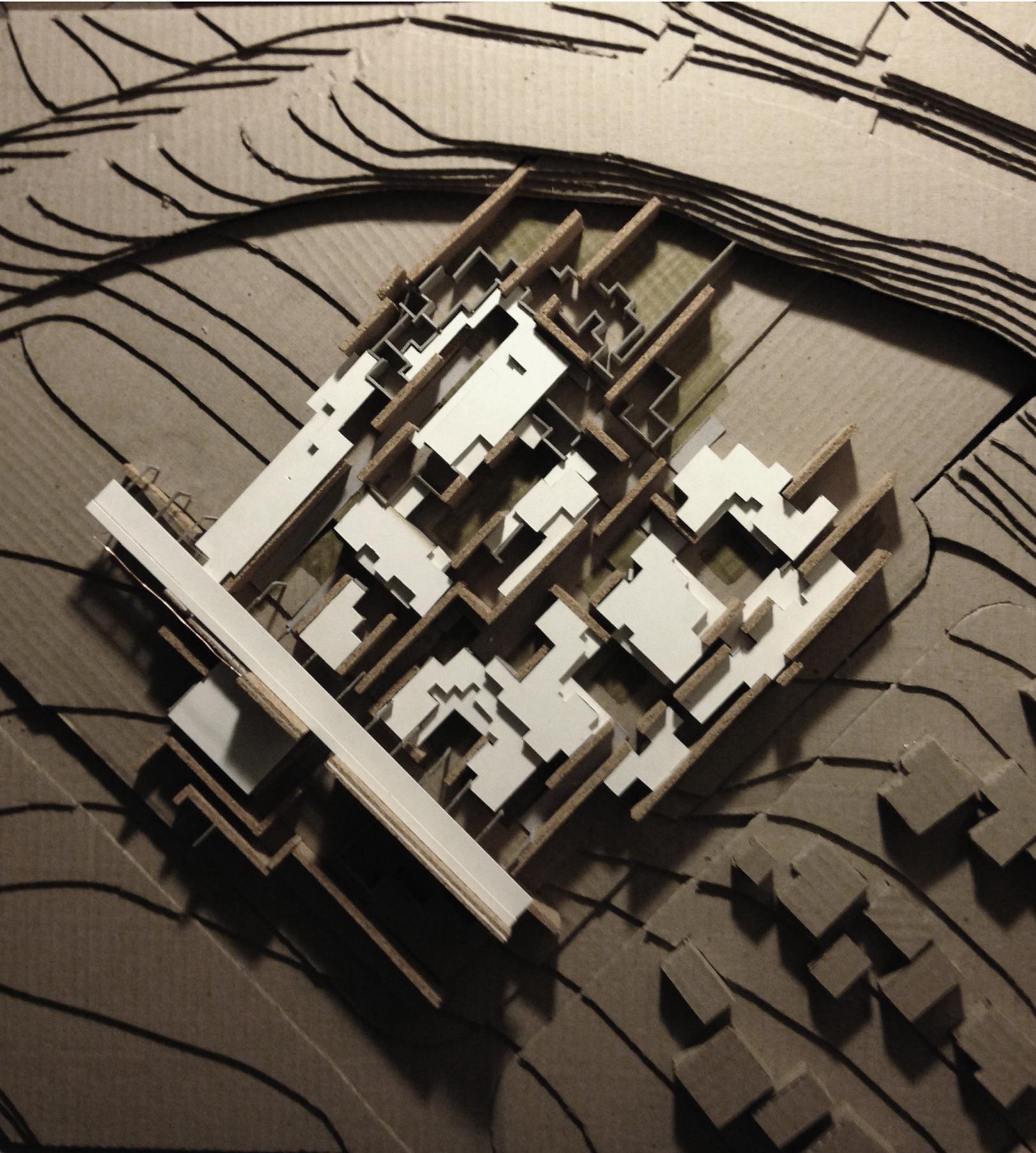
In order to achieve a similar hierarchy of waiting spaces as observed in the Van Guard Clinic (refer back), the concept of *dispersion* was reintroduced and used to disassemble the waiting spaces, making them smaller and more intimate. The extended movement routes from waiting space to waiting space, introduced the axial stone walls, which become a characteristic design feature. The notion of *stitch* was used to inform the connection of the modern roof to the contextual stone walls. The walls, emerging from the site are representative of the derivative approach in creating a building informed by bottom up construction methods. The walls reference the layer of permanence seen in the stone plinths throughout the context. The lightweight steel structure and roofs are indicative of the insertion approach of typical clinic design. However, these roofs express their dependence on, and respect for the context, rather than inconsideration for surroundings. Figures 5.52-5.58 demonstrate the development of the plan from a conceptual diagram, to a roof plan and eventually to a detailed floor plan. Fig 5.59 illustrates the section development and relationship of roof and walls.

The design development crit with externals, is understood as critical top-down collaborative session and a turning point for the design.





NOTE: Not Orientated North as other plans are.



An appropriate scale and sensitivity to the context had been achieved (fig.5.61), however the design (fig.5.60) had become hugely complicated, rather than complex. It had successfully deconstructed the hierarchy, but not achieved a sense of coherence.

The session brought to light a number of logistical design flaws and emphasised that the design needed to be simplified, for both the patients and the staff.

The intention to merge the traditional and western practices had been achieved, and the salutogenic design principles of patient privacy and the inclusion of a healing landscape, were realised in the plan. The manipulation of the standard consultation rooms (fig. 5.47) around central waiting courtyards, enabled the design to express similar thresholds and spatial layering as that observed in the settlement (fig. 5.6). The focus on creating the thresholds, healing spaces and merging the traditional and western practitioners, had resulted in a salutogenic *heavy* design.

The pathogenic principles of clinic design had been lost, and as a result, the plan became illegible and confusing. A maze, just not an internal one! The large stone walls, which had been introduced as defining and way-finding devices, became fragmented and no longer the dominant, monolithic structures intended. The sections in figure 5.59 illustrates the illegibility in the space stripped of hierarchy.

In addition, while this plan accommodated 20 western consultation rooms and 16 traditional healing spaces, it is inadaptable.

Following the crit, the design was revisited at a diagrammatic level. The simplification of the design back into a diagram (fig) resulted in the number of entrances being reduced to one side of the



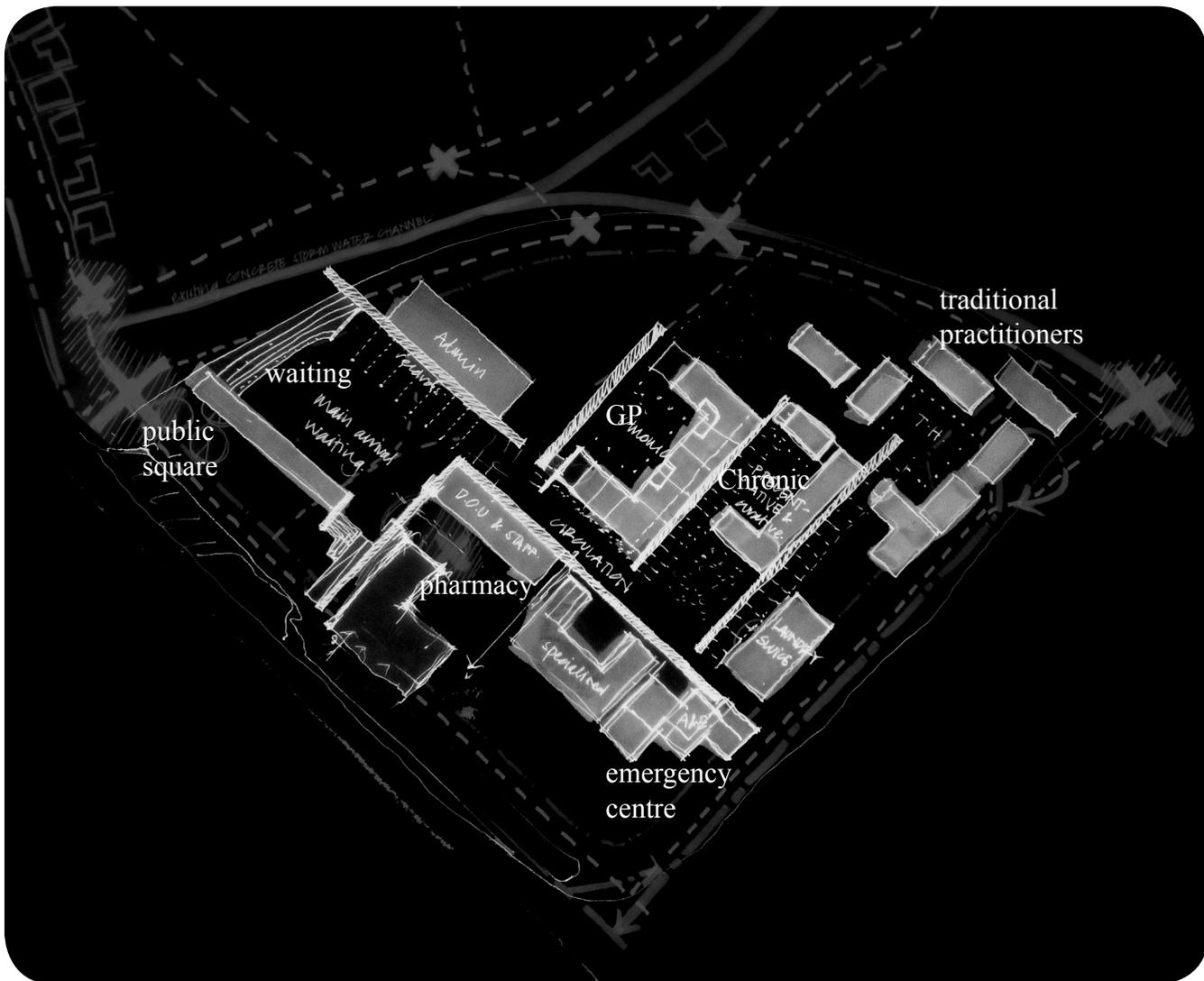
side and the reception holding the waiting space between it and the trading stalls. Entrance into the building would still occur along the long axis and break off into various waiting spaces. The consultation spaces' footprints were simplified and in doing so, the circulation routes clarified and made more legible.

The three original concepts were then used to rearrange the consultation spaces. The western practitioner units were merged together, while the traditional practitioners were given individual units - dispersed in the landscape. The circulation routes and defining walls were understood as the stitching elements.

The simplification of the design and change in orientation of the reception desk drastically reduced the public space which would serve as the pre-opening hours waiting space. This plan, shifted and



manipulated a number of time to make everything fit, had moved so far away from the original intentions. The building, at this point in the design process, would now only serve to fix people who were already ill - a purely pathogenic approach. The project intentions to create a salutogenic, responsive building, had been completely lost in this design. Another critical top-down consultation with Peta de Jager (an architect and healthcare specialist with the CSIR) occurred at this point. The design was criticized for no longer challenging the orig-



inal issues raised. The design did not define a significant public space, and the majority of the site focused on pathogenic curing, rather than instilling preventative health practices into the general public. The building had become insular within its context, one of the issues the project was trying to remedy.

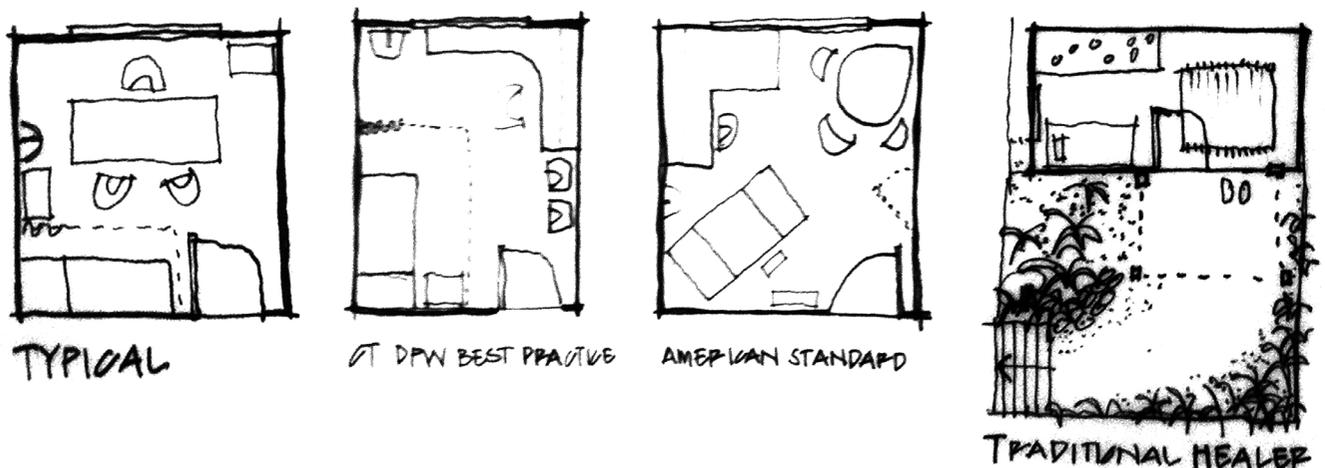
The consultation is considered a tipping point in the design process.

The consultation saw the site being divided almost in two, half serving the community and the other, the clinic itself (fig.5.70). It was also at this point, that the traditional healers were removed from the clinic itself. The decision was not purely driven by spatial constraints, but also from revising the theory supporting the methodology and intervention. The traditional practitioners are influential within their position in the community. If they were left in place, decentralised, their spread of influence would be far greater. Their decentralised network currently works, and centralising it, could cause it to lose partial strength.

The inclusion of a multi-purpose hall meant that the design could be useful after hours - it could be used for physical training classes, as a homework centre, basic health training centre or on weekends as an events hall, for religious ceremonies or private events. Inside the clinic, the consultation spaces were still focused around outdoor waiting courtyards. However, their layout was carefully considered and designed for optimising both patient experience and patient flow.

The historical consultation room layout, the Cape Town Department of Public Works (CT.DPW) best practice layout, an American case study layout and the traditional practitioner’s layout were analysed according to the relationship set up between practitioner and patient and their patient experience.

The CT.DPW best practice layout (fig. 5.65) removes the desk between the practitioner and patient and in doing so, lessens the confrontational nature of the consultation. The bed is still located in the corner of the room and views out are not a design consideration. The American case study (fig. 5.6), further breaks down the confrontation, by seating the practitioner and patient around a circular table, deconstructing the typical hierarchy created in a doctor’s consultation room. The bed is positioned diagonally in the corner, facing large windows. The typical examination bed is also replaced by an upright dentist’s chair, allowing the patient to see out of the windows, into planted courtyards.



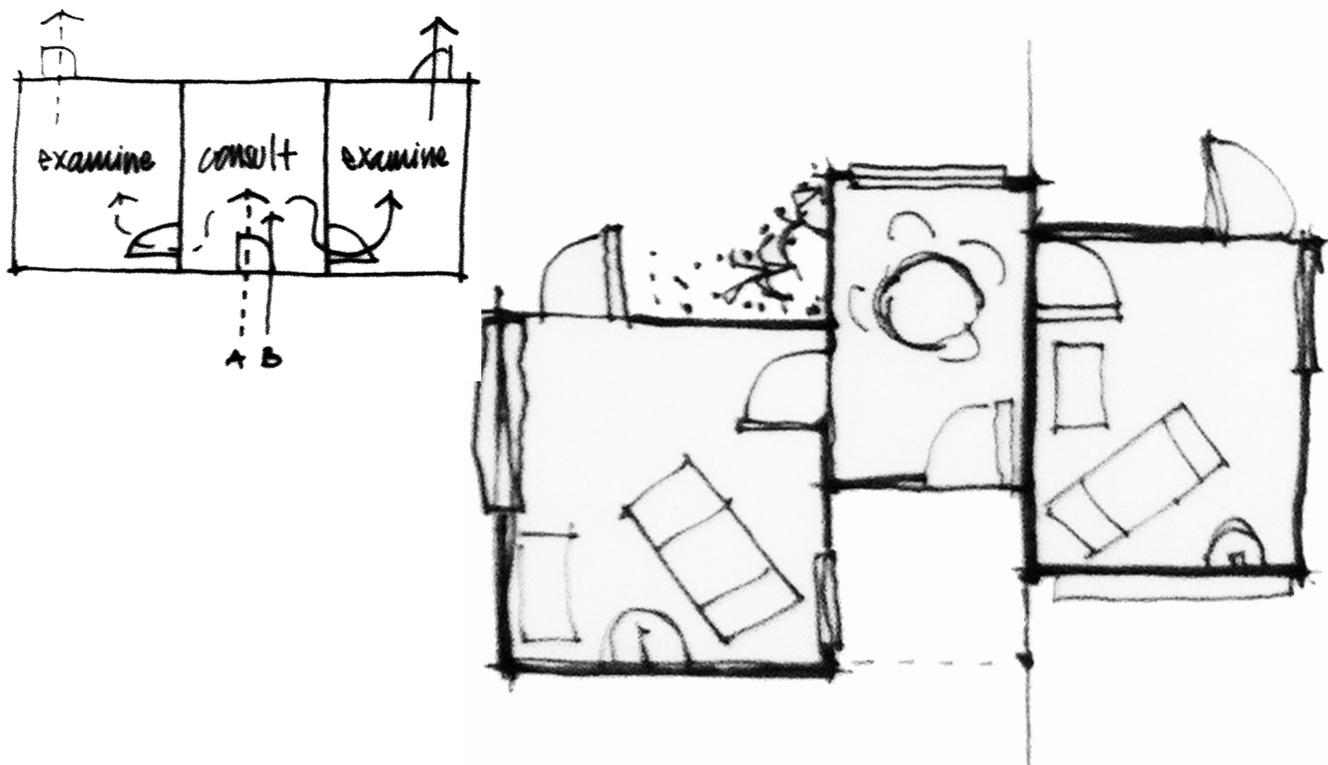
Finally, the relationship of inside and outside of the traditional practitioner's spaces were analysed (fig. 5.67). The threshold and ritual space created by the covered entrance, where both the patient and practitioner remove their shoes, is an important device, signally a transition from a semi-public space into a sacred space. While the consultation rooms of the healthcare facility are not considered *scared*, the softening of threshold between the public waiting spaces and the private realm of the consultation room, could enhance the patients sense of privacy and patient dignity. Finally, the typical understanding of patient movement from public waiting spaces to private consultation spaces was compared to the model which allows one consultation space, two examination rooms (fig. 5.68). This allows a practitioner to consult patient A and lead them into the examination room to change. While patient A is changing, the practitioner has the chance to consult with patient B. And while patient B is changing, the practitioner is able to examine patient A. This layout reduces wasted time.

The analysis and understanding of the benefits of each layout, coupled with the salutogenic design principles previously established (refer back), and the understanding of contextual thresholds and spatial evolution (fig. 5.6), were used as design guidelines in producing the final typical consultation layout (fig. 5.69).

The layout has a central consultation room with a round table and large window. The examination rooms are off-set from the consultation rooms, so that, externally, they form a deep, covered entrance threshold to the consultation room. The examination rooms also have a back door, that allows patients to exit the examination room, without having to return back through the waiting space - indicative of the journey from illness to healing, previous explored in design iterations (refer back).

The positioning of the beds in the corner, as the American case study, allows patients views out of the room. This configuration allows the walls facing the waiting courtyard to be free of windows, offering the patient privacy within the examination room.

The typical layout was then manipulated to fit the building foot print and in exchange, the footprint was adjusted to ensure the integrity of the layout was kept.



The TB consultation spaces were, however, treated differently.

The Indus hospital was used as a precedent study. The TB consultation spaces at the hospital are completely open air (fig. 5.71). The design does not allow much patient privacy, apart from the curtain that can be drawn around the consultation bed, but it does allow for maximum natural ventilation of the spaces. This mitigates the possibility of various strains of TB merging.

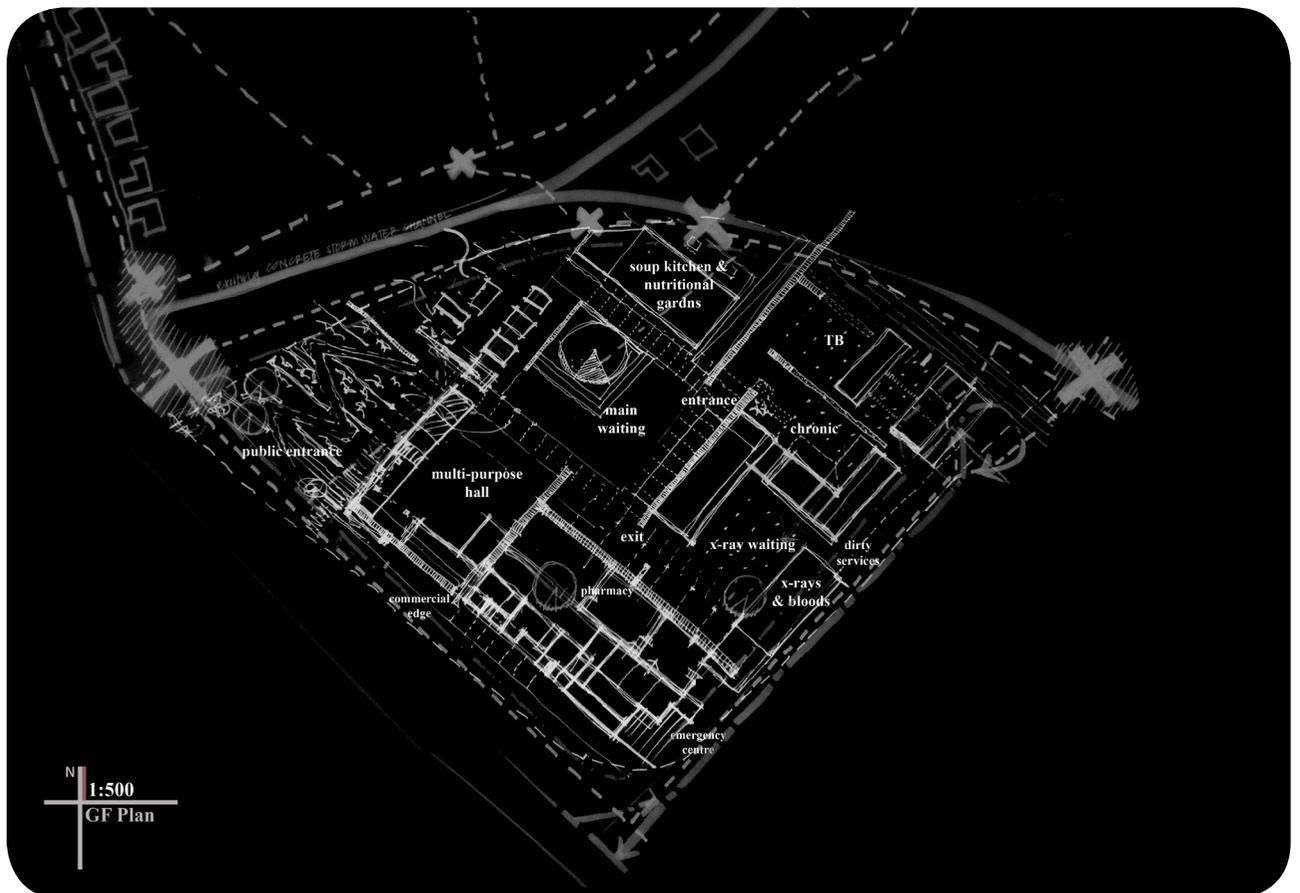
The roof of the design also expresses and enhances the natural movement of air.

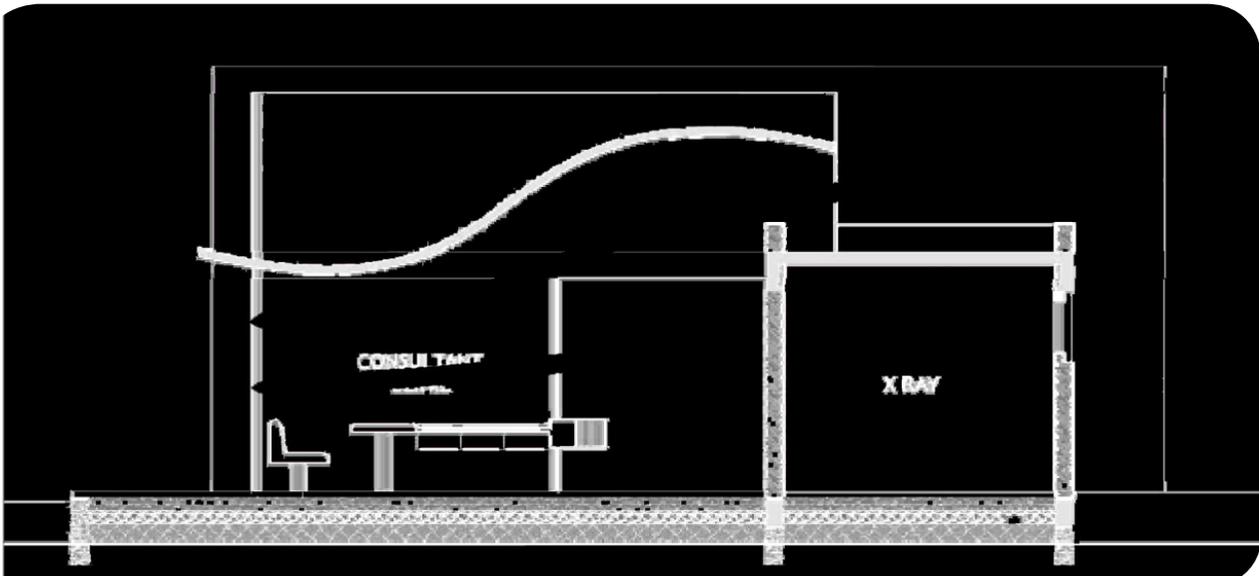
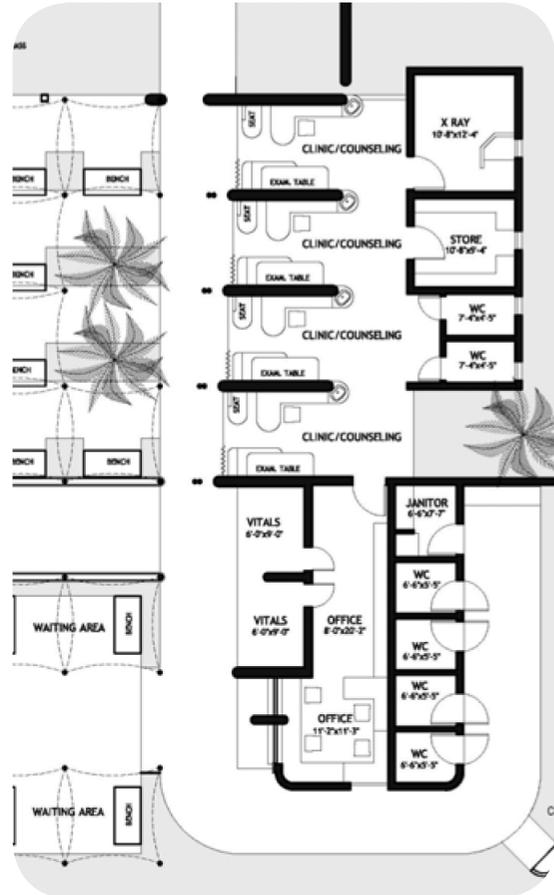
The case study was used to inform the TB section. The waiting space was divided into two by the vitals checking area. Patients would be able to move through the space, and exit out of the back of the consultation spaces, without having to return the way they came.

In addition, the roof was manipulated to increase air flow through the space.

The form also allowed the building to address a human scale within the waiting spaces and then step the clinic boundary at a suitable public scale.

The final top-down design engagement was the final design exam, before moving the project into technification.







GROUND FLOOR PLAN
EXISTING

CONCRETE STORM WATER CHANNEL

public entrance

N
1:500
GF Plan



entrance

agency centre



The design was criticised for being tentative toward the northern edges, resulting in the intention to have a positive impact on the public domain not fully being realised.

The comments and criticism lead to the realisation, that the design had focused so much on how it was influenced by the surroundings, that little attention had been paid to how the design itself, would in turn, have a positive influence on the greater settlement. The catalytic aspect of the design was still missing.

The proportion of the open public and community spaces in relation to the clinic was also criticised for being too big. It was suggested that earlier iteration, where the public space was smaller be revisited. This suggestion was not taken. The proportion of public to private imitates that of the traditional practitioners' layouts. The large open, community space also allows for a variety of the functions to happen outside of the clinic, in a more relaxed space. Such as groups of children having their inoculations done under the large tree, the theory being to not create negative associations with the clinic.

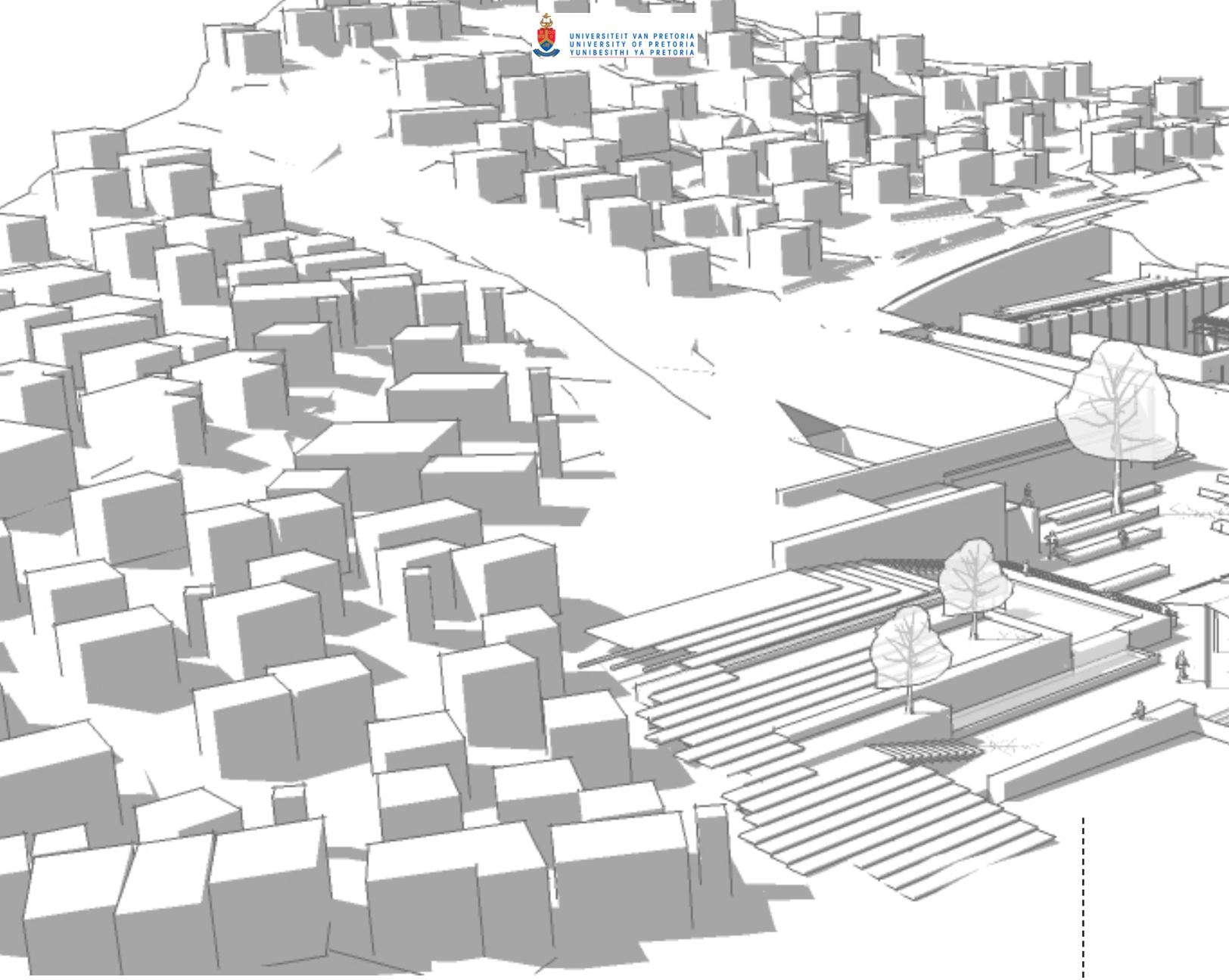
The proportion also expresses the salutogenic design approach. Allowing healthier lifestyle principles to be engendered into the community, rather than an unsustainable reliance on curative methodology.

The design, now balanced between in salutogenic and pathogenic accommodation, realises all of the intentions to an extent.

The building is a product of its context, it defines a public space and allows for community activities outside of the clinic's scope, to occur on the property. Patients are central to the design and the layout has been iterated and refined to ensure that patients can move freely and easily through the space. The waiting spaces are designed as opened courtyards (with sheltered areas), to ensure that inter-patient transmission of air-borne disease does not occur. The consultation spaces - in particular the TB units - are designed for maximum natural ventilation of those spaces.

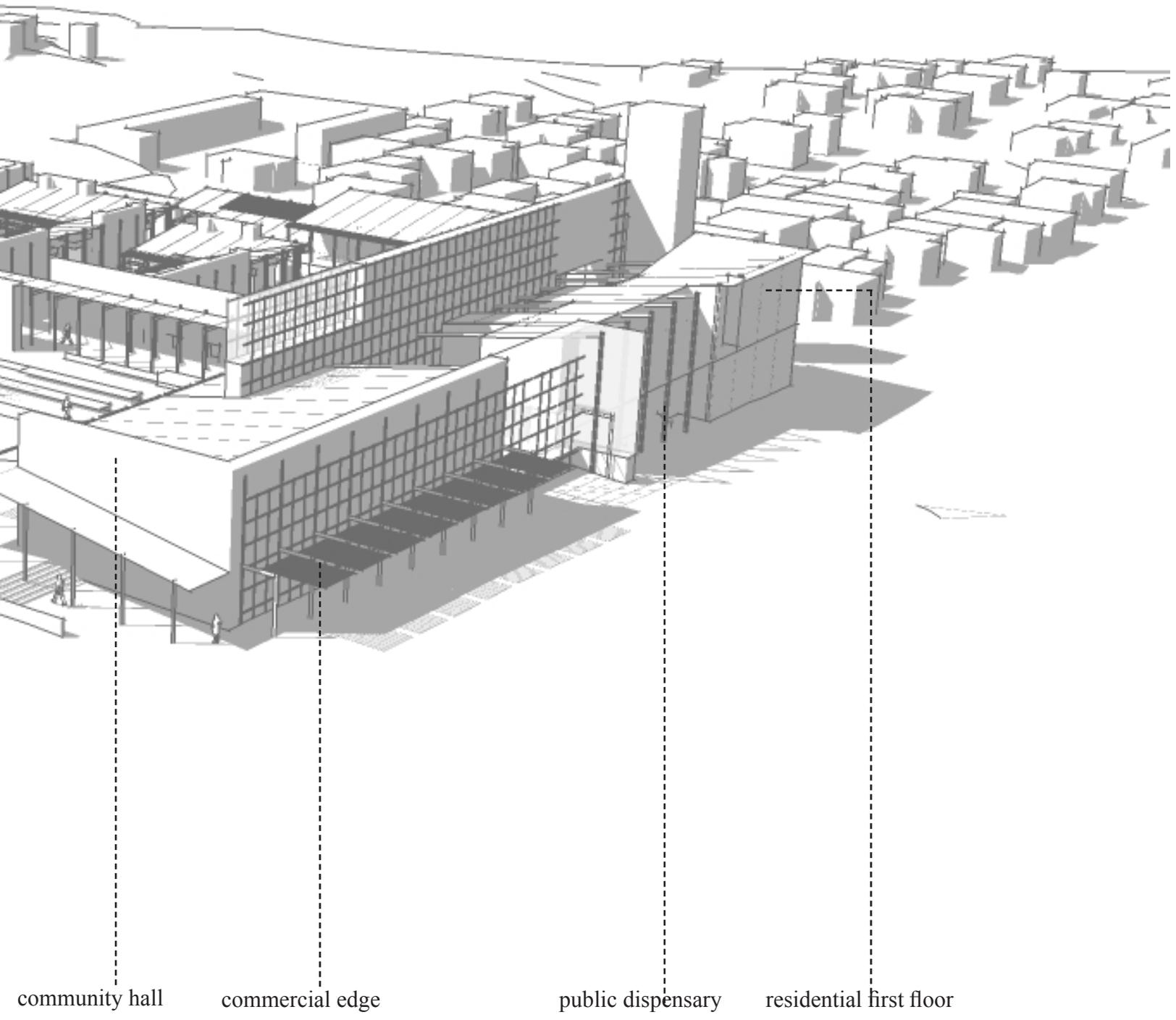
And finally, the simplicity of the design and simplified, modular foot prints of the consultation space allow for future adaptability.

(The following perspectives of the design are current perspective, including changes made according to the technical refinement process)



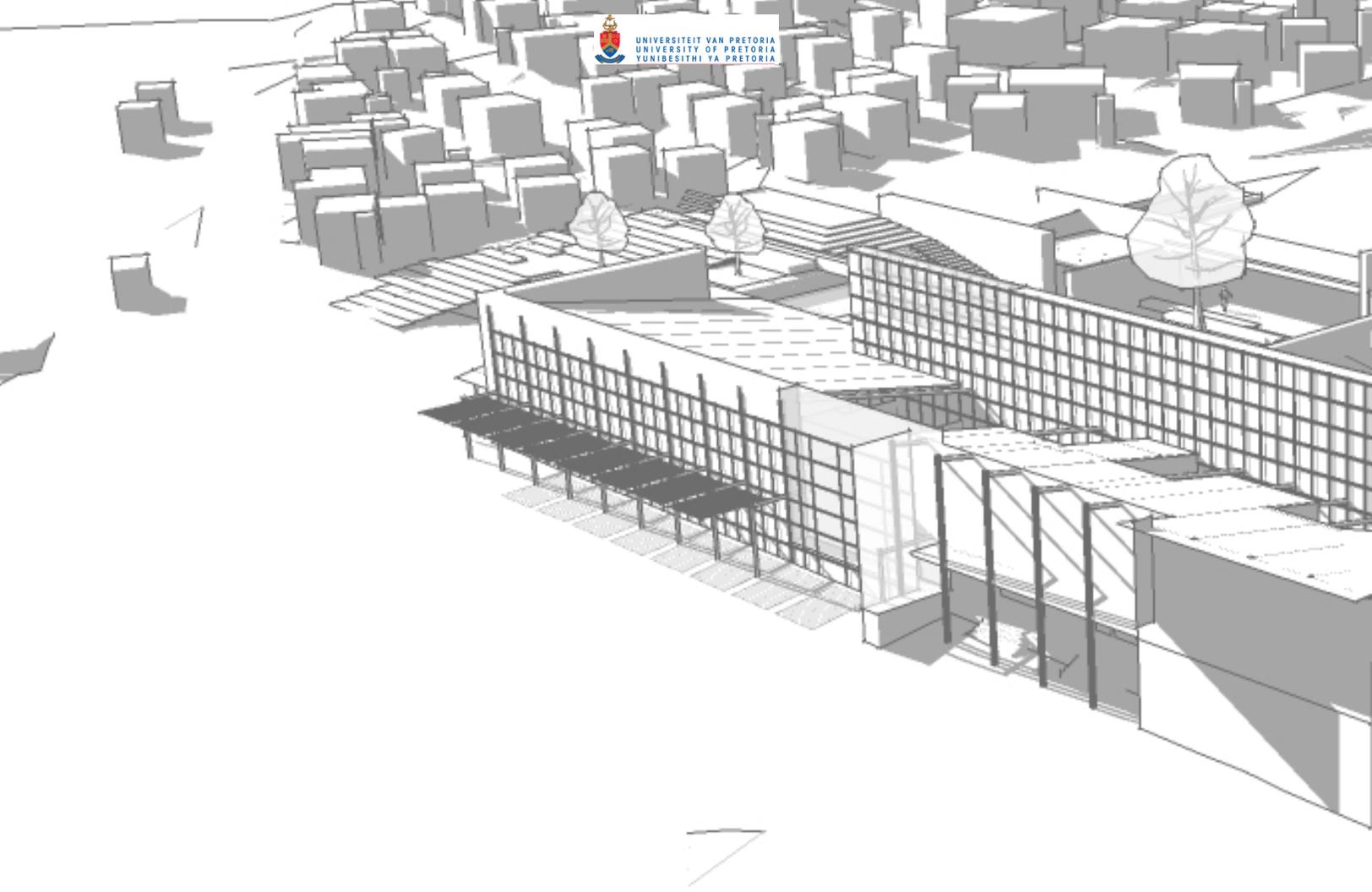
Perspective looking East

drop and go

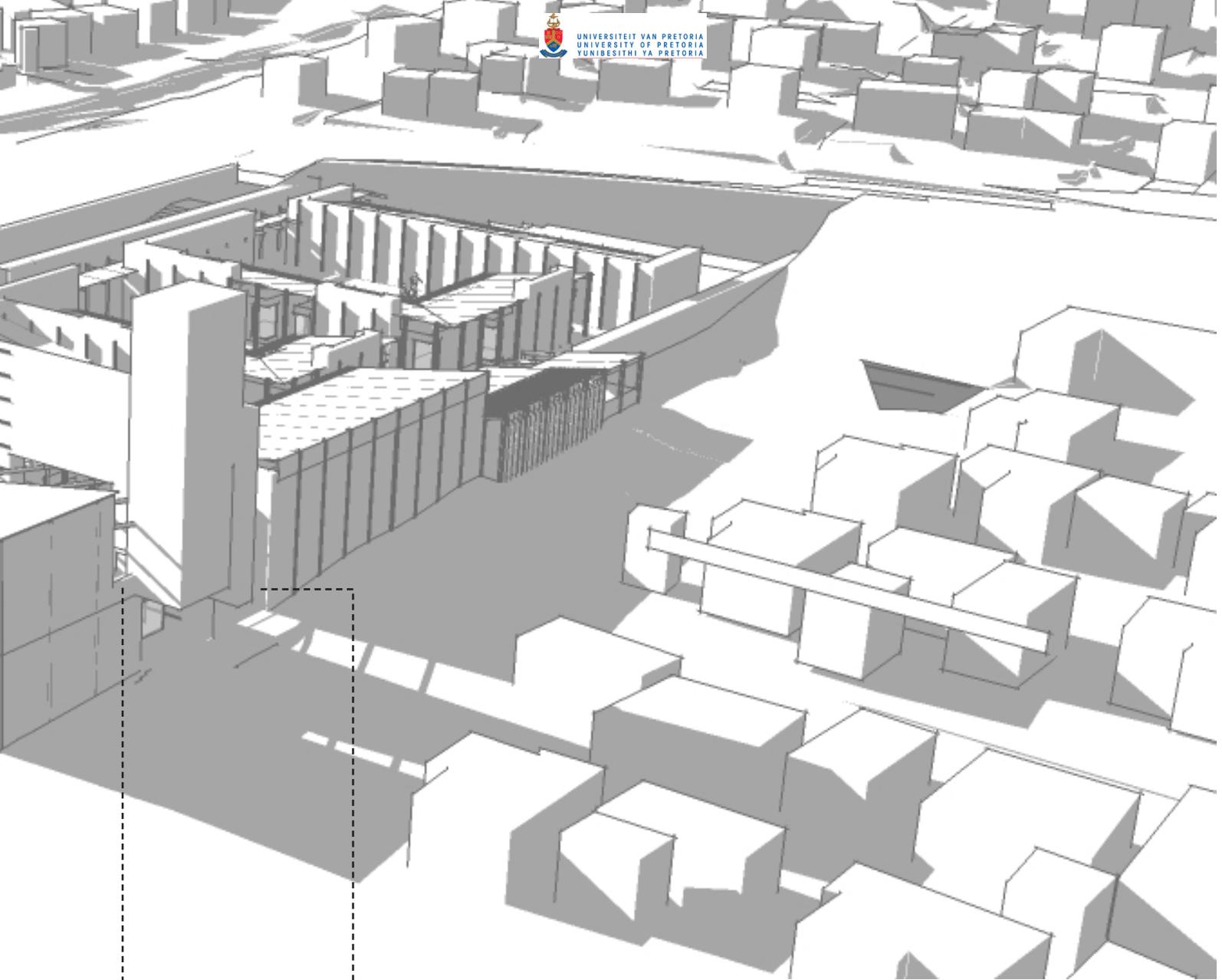


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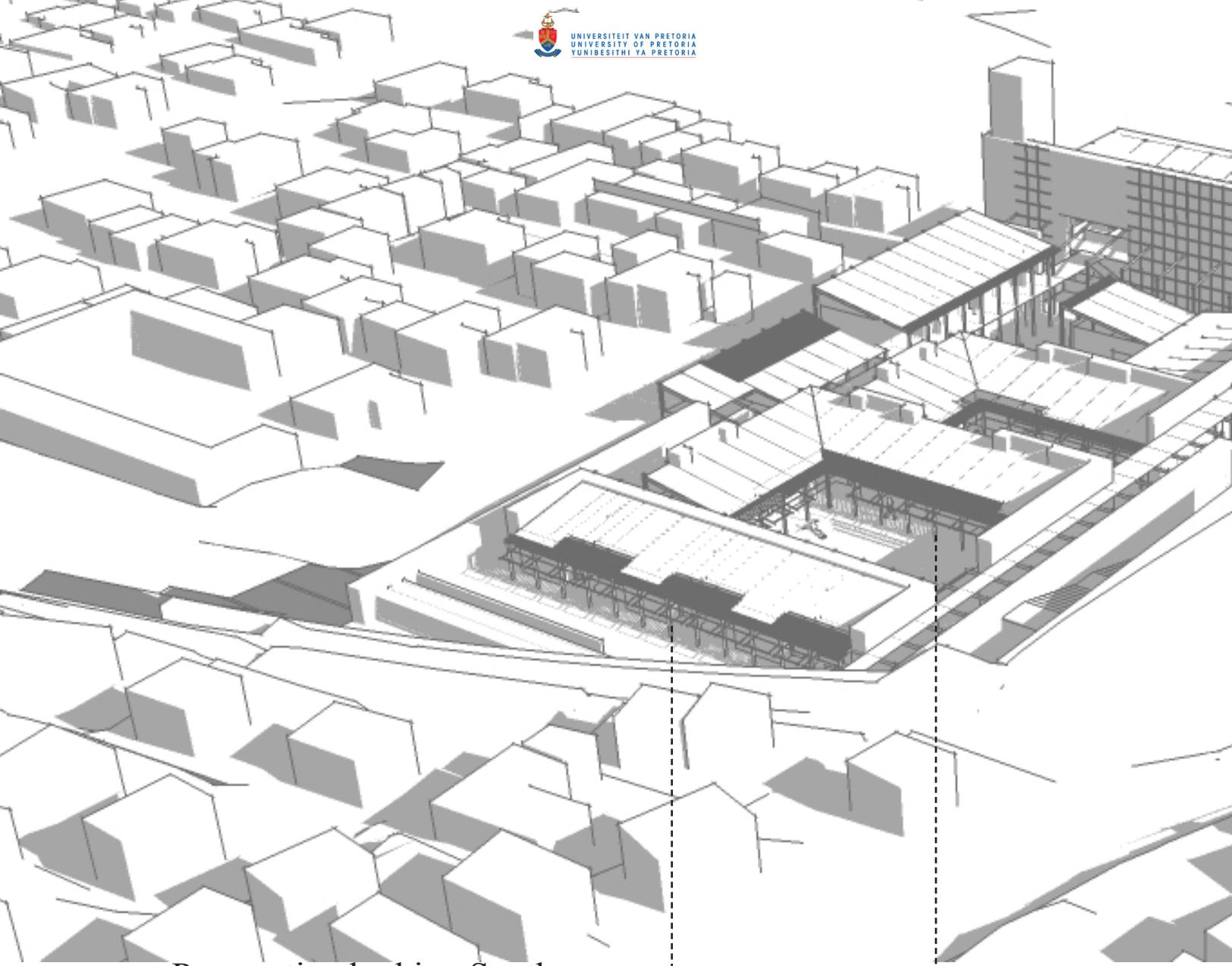
Perspective looking North



emergency entrance

ambulance collection
point

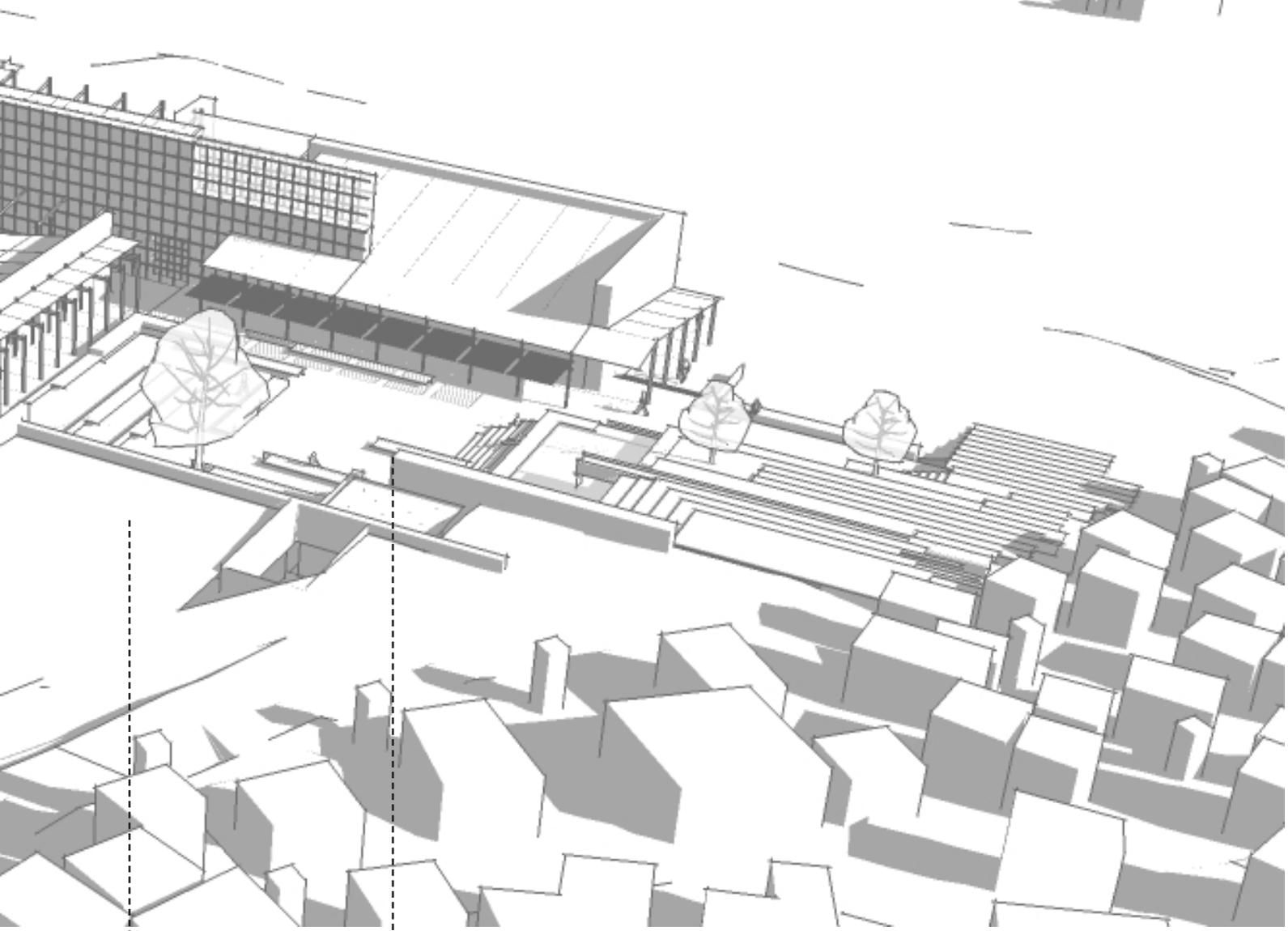
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Perspective looking South

TB consultation

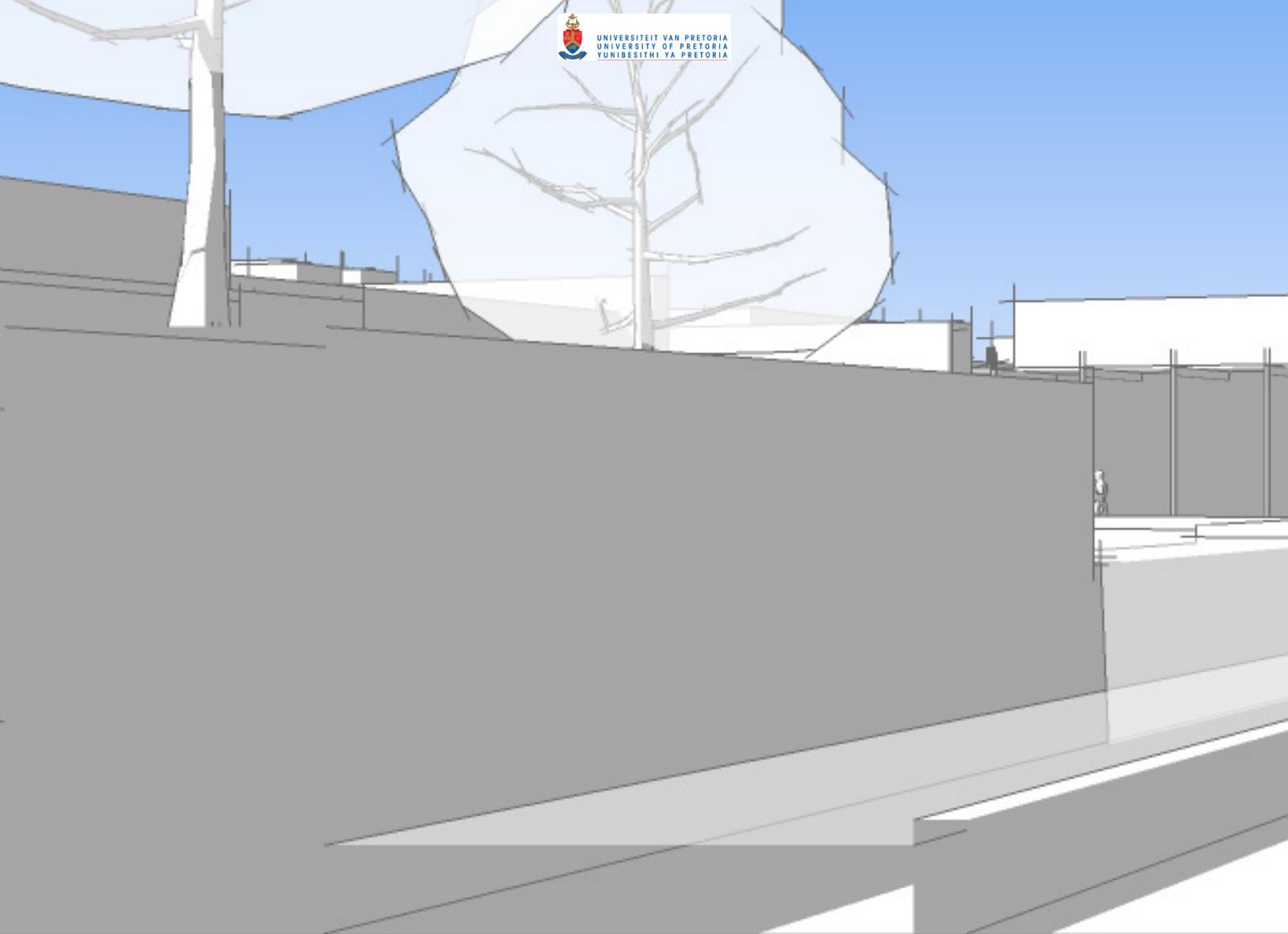
Chronic & GP

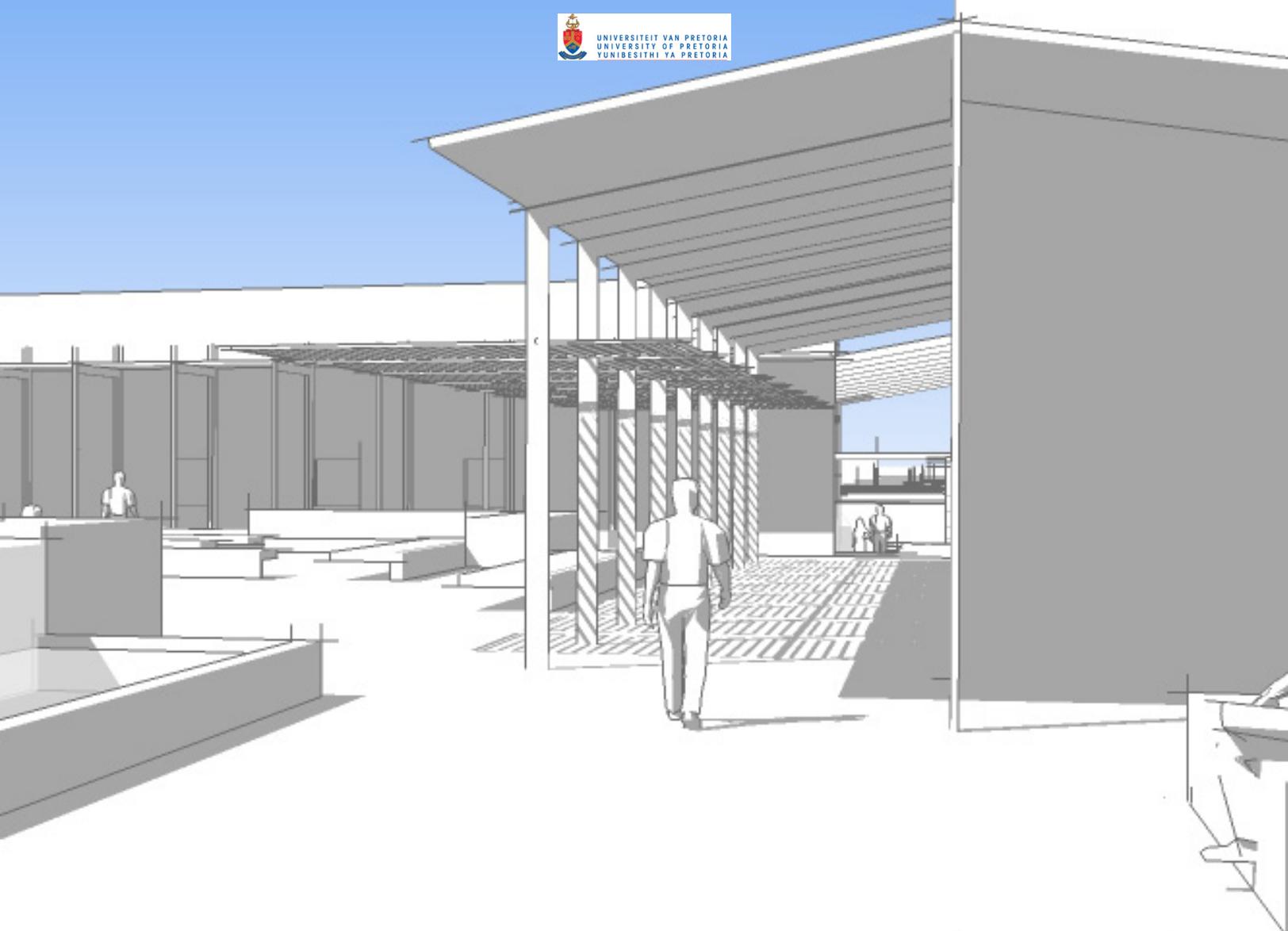


community vegetable
gardens

public square

05





05

