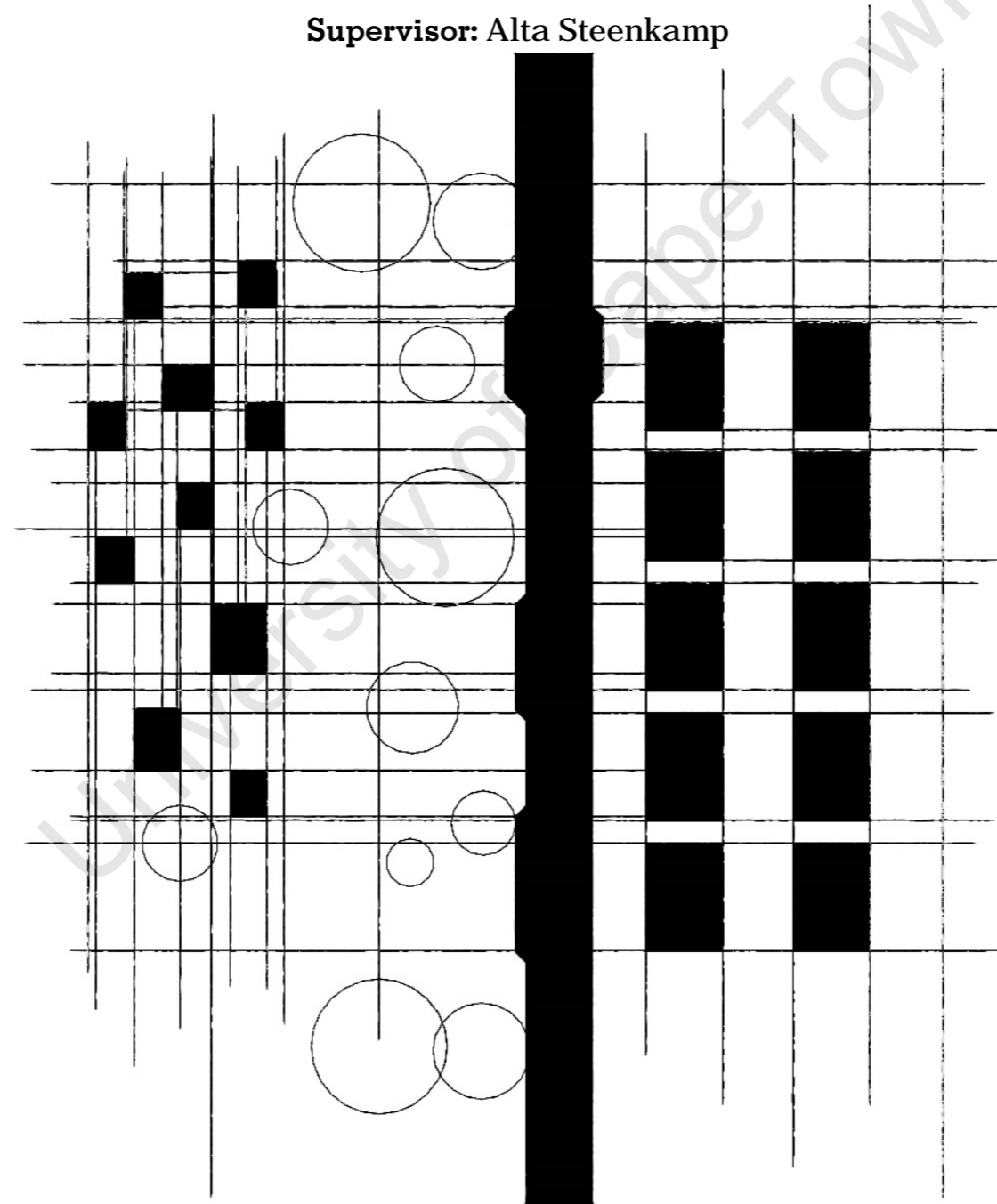


How Can We Live Together?

MASTER OF ARCHITECTURE (PROFESSIONAL)
School of Architecture, Planning and Geomatics
DESIGN DISSERTATION DOCUMENT

Course Code: APG5079W

Supervisor: Alta Steenkamp



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Student Number: RKHRHU001

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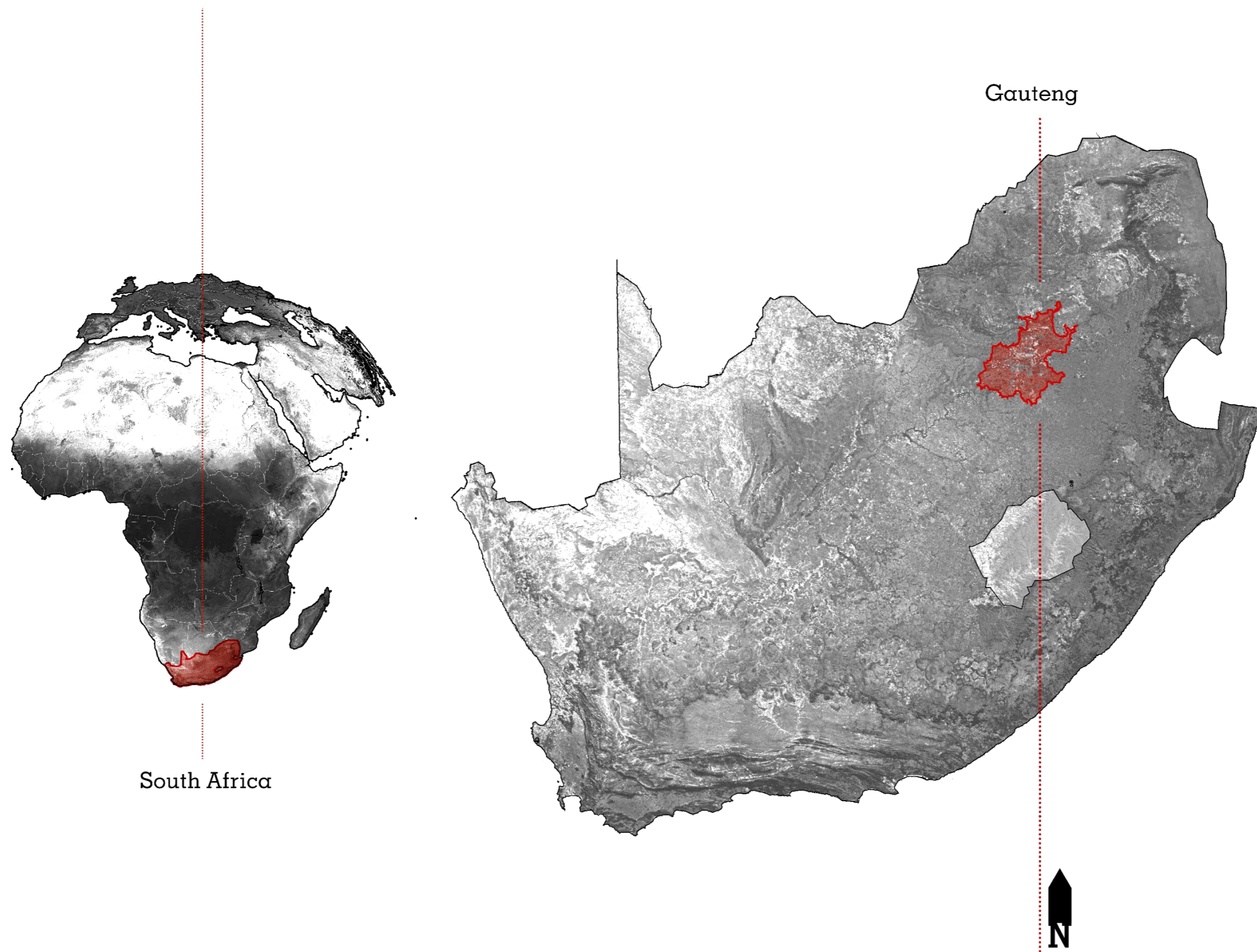


Figure 1: Map of Africa locating South Africa and map of South Africa mapping Gauteng (Author, 2022). Extracted from Google Earth images, (2022).

Introduction

***“Dumelang, Sawubona,
Hola, Heita, Sho, Hello,
Hallo, Aweh, Fede,
Molweni.”***



Figure 2: Photographs of my hands (author's) signalling salutations, from left to right: the Wave, Peace Sign, "Sharp", and "Hang Loose", also known as the "Shaka" sign. "Dumelang, Sawubona, Hola, Heita, Sho, Hello, Hallo, Aweh, Fede, and Molweni" are "Hello" greetings in all the different languages I have been exposed to since staying in Ennerdale and Cape Town. "Dumelang" in Sesotho, "Sawubona" in Zulu, "Hola, Heita, Sho", and "Fede" in black South African slang, "Hallo" in Afrikaans, "Aweh" in coloured slang, and "Molweni" in Xhosa. (Author, 2022).

"How Can We Live Together?" The question bases itself in my hometown called Ennerdale, which is 30 km south of Johannesburg. The area was classified as a "coloured" area during the implementation of a town planning scheme by the Department of Community Development (DOCD) in conjunction with the Group Areas and the Community Development Acts (Lupton, 1993).

That is why I also shift my attention to an informal settlement called Hopefield, also known as "Kapok" near extension 8, in Ennerdale, which is not too far from my parents' house. It has been something I wished to address since my childhood but did not know how to. From our parents telling us to not play with kids from Kapok, to the blackout issues in our extension being blamed on people living in Kapok, the issues at hand point out the division between formal house owners and Kapok residents. How we see them and how they see us. The fact that there is a separative notion makes a clear distinction of how divisive the living environment is. From the time I lived there to the time I moved to Cape Town and then returned to visit made the issues stemming from apartheid more apparent to me. How people find the city inaccessible, how limited resources are, and how the lack of housing and amenities causes conflict within the town.

The idea of racialised spatial planning still determines the division today in terms of social rank (class) in the peripheries of cities in South Africa, particularly townships and non-white (non-European descendants) group areas. The idea of the city being the nexus and the peripheries of the city being the excluded entity of the city prompts a discussion on the commons and what it means for people who occupy the peripheries due to the Group Areas Act. As a consequence of apartheid, many people who are subject to this exclusion are of colour. This realisation is what the divisive elements of apartheid spatial planning enforce, even in post-apartheid South Africa.

The recollection of Ennerdale's history points out the laws set in apartheid South Africa. One may believe that the town was constructed with the "concomitant urban policy reoriented towards the privatisation of working-class housing provision", (Lupton, 1993) this belief is in conjunction with the assumption of coloureds being granted this urban policy. This, however, makes Ennerdale subject to urban racial segregation under the guise of property ownership since this policy naturally occurred as a result of Group Areas Act principles¹ (Lupton, 1993). The principles form part of the systemic concoct of Ennerdale's current issues which are listed and explained below.

Apartheid: is an Afrikaans term meaning "apartness" or "separation". "It was a system of legislation that upheld segregationist policies against non-white citizens of South Africa. After the National Party (NP) gained power in South Africa in 1948, its all-white government immediately began enforcing existing policies of racial segregation" (HISTORY, 2010).

Group Areas Act: was a law administered by the National Party government elected in 1948 using the apartheid policy aimed at placing South Africans of different racial groups in different parts of the country. The aim was to partition systems of development by virtue of race, as a result allowing the National Party "to maintain the status quo of white supremacy", while controlling the labour required for industrial development. While it is mandated that non-white South Africans are allowed to develop the areas in which they were forcefully placed in, the "economic structure of South Africa made that impossible" (Sahistory.Org.Za, 2022).

Community Development Acts: The Community Development Act 3 of 1966 is an act that intends: "to consolidate the law relating to the development of certain areas, the promotion of community development in such areas, the control of the disposal of affected properties, the grant of assistance to persons to acquire or hire immovable property, the establishment for such purposes of a board and the definition of its functions, and matters incidental thereto" (South African Government, 1966).



Figure 3: A collage put together by myself (author) depicting the violent acts of the apartheid regime: on the left is a typical raid in black settlements to remove and displace them elsewhere under the Group Areas Act. On the right is a "CAUTION BEWARE OF NATIVES" sign in a black group area. The "WHITES ONLY - SLEGS BLANKES" is a common sign put up in public spaces by the apartheid government to enforce the law of separation of different races in South Africa as a means to advocate for white supremacy. (Author, 2022). Left image: (Otzen, 2015). Right image: (HISTORY EXTRA, 2021).

Racial Classification: The term “coloured” (“kleurilinge” in Afrikaans) was used to classify a multiracial ethnic group in South Africa with ancestry from the Khoisan, Bantu, European, Austronesian, and Asian ethnic groups. The word was a product of apartheid law, to establish racialisation in South Africa that comprised of four distinct racial groups, namely – coloured, black, white, and Indian/Asian. This was done to establish a racial hierarchy to determine where each group is placed. The San and Khoekhoe (collectively named the Khoisan) and Black South Africans were indigenous to South Africa. The existence of white South Africans (European descendants) was garnered through the colonisation of South Africa by Europeans, thus establishing the dominance and legal governance of South Africa despite blacks being the majority in this country.



Figure 4: A University of the Witwatersrand (Wits) “professor”, Phillip Tobias examines and measures a man in the early 1950s. This form of classification was justified through science. This “science” would distinguish other racial groups as inferior; both physically and mentally to a white Afrikaans person, although no neurological studies were conducted to confirm this. This assessment was determined through mere physical features, further perpetuating the flawed policies of apartheid (Kuljian, 2019).

Socio-Spatial History of Ennerdale

“Kasi, kotas, community”. All of these words are used in the dialectic context of Ennerdale, denoting community, but in different factions of communities based on race and class. To denote the variations within communities, I use the word *faction*. It pertains more to political grouping. This is deliberate in a sense that gives direct perspective on the divisive nature of apartheid, how it shaped relations among non-white citizens, how it shaped their livelihood, and how it tainted their indigeneity.

A sense of community differs naturally under the tutelage of racial classification, which grants and defines social status in South Africa. This occurs due to the socio-economic patterns that were established; such that the working, middle, and upper classes generally consisted of white people, (Bell & McKay, 2011) while coloured and Indian people occupied working to middle-class statuses (Seekings & Nattrass, 2005). Black people, however, were permanently relegated to a working-class status (Bell & McKay, 2011).

This racial hierarchical treatment of citizens also applied to housing them: the quality of housing infrastructure differed depending on the racial hierarchy of South Africans. The fact that the designated areas of habitation provided by the apartheid government to non-white South Africans are spatially disconnected from the city centres, meant that the living conditions were severely compromised, especially for black South Africans. The housing schemes reflected this statement: the houses were treated as temporary schemes as it was considered that black inhabitation of land was temporary and unfavourable. Brick and mortar houses were poorly built as a means to cut housing costs, and also elementary hostels were built for workers near industrial and mining zones (Bollens, 2002).

“Kasi

Kotas

Community”

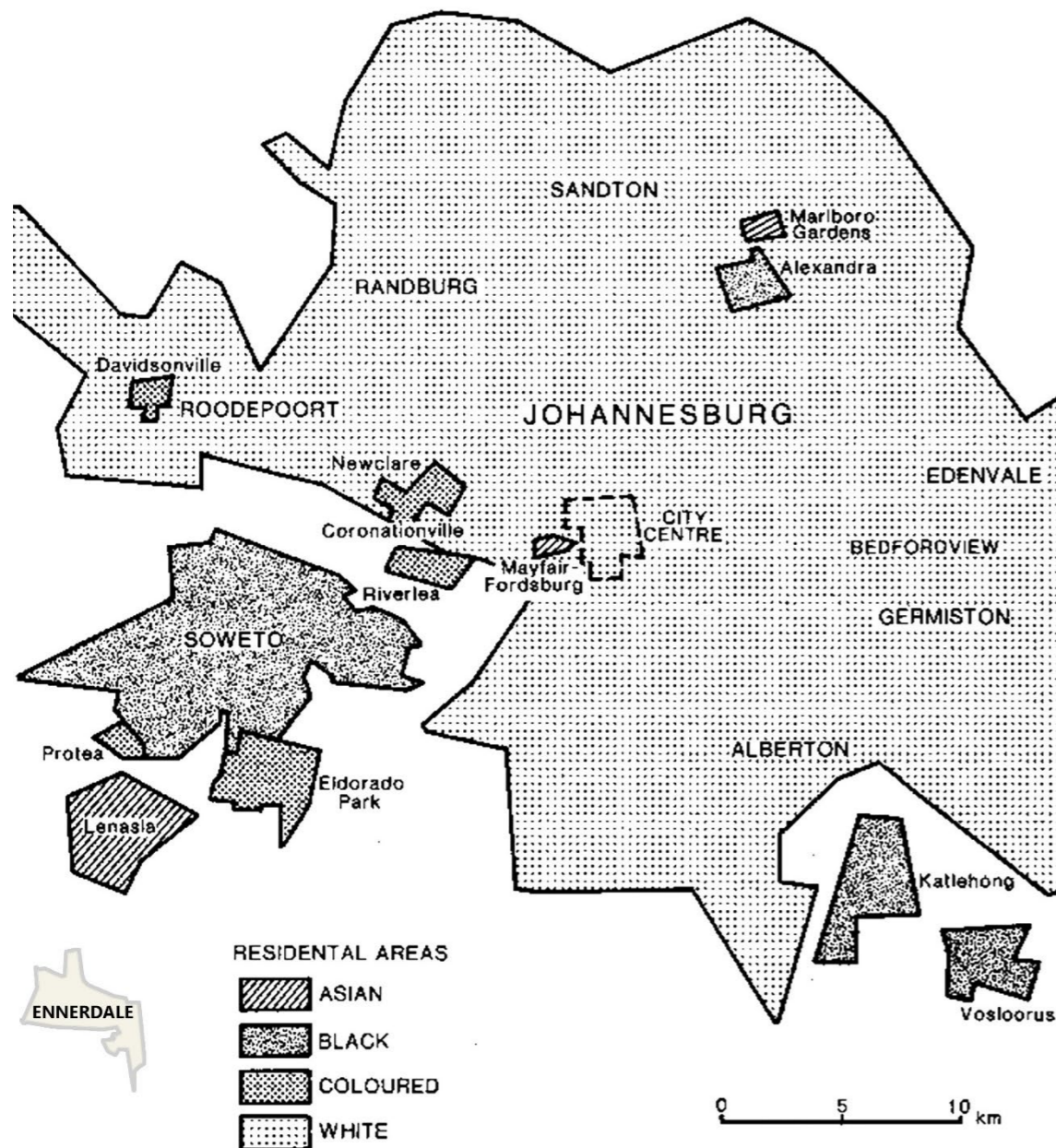


Figure 5: Group Areas Act Map (Bollens, 2002).

Constructing a New “Self-sufficient” Town

The Group Areas Act was passed in 1950 by the National Party government (Sahistory.Org.Za, 2022). Thus accounting for most coloured people in Johannesburg, Gauteng living in townships and suburban clusters further away from the city centre. The principle of division solidifies in constructing an urban form under this act, resulting in a “racially fragmented workforce”, tainted cultural environments, a deficit of resources, and “bureaucratically administered amenities” (Lupton, 1993).

The planning of Ennerdale starting in the 1970s was an attempt at combating these issues with the emphasis on achieving “culture animation, economic self-sufficiency and political autonomy”. It was proposed as a new town which was the only one within the “metropolitan region” (Lupton, 1993).

As seen in figure 5, Ennerdale was not recognised in the Group Areas Act scheme. Before the implementation of the new town as a coloured area, Mid-Ennerdale was classified as a white peri-urban township. This meant that the new implementation of the urban scheme for a coloured community would require the white-owned properties to be expropriated and for white people to be resettled. The properties would eventually be rented to designated coloured families as an emergency housing measure (Lupton, 1993).

For Ennerdale, it meant that the figures from the Department of Community Development (DOCD) would be provided in the form of an index of the accommodation requirements for a typical coloured community (Lupton, 1993). The apartheid government’s widened policy however pronounced that coloured housing schemes would manifest in a form of larger regional complexes (Lupton, 1993).

1974

The distance from the city centre was and still is an issue due to the lack of transport access. The Department of Planning and the Environment (DOPE) implemented the plans to convey an autonomous coloured city in 1974 as a result (Lupton, 1993). The exhaustion of transportation to the central business district (CBD) and the financial pressure on workers' wages, as a result, meant that Ennerdale had to be planned as a self-sufficient new town abundant in light industry (Lupton, 1993).

The project was ambitious but had more than enough financial and bureaucratic support from the Group Areas and Community Development Acts. Seeing that the town is 30 km from the city (see figure 6), the deliberate choice in making this project happen so far away from the city was to establish an exclusive town more than the financial motivations behind that choice. The project would commence due to the cheap price of land, also most of the peripheral areas would be subject to dolomite rock formations which would render the geotechnical investigations very expensive. On top of all the financial burdens of other peripheral areas, the vast land would be owned by the mining industry thus requiring more money to convert into residential zones (Lupton, 1993).

The master plan for Ennerdale thus required a centralised transport system that would feed into the autonomy of its potential economy within the light industry sector. The semi-rural areas prompted the appropriation of space through accessibility and connectivity to the surrounding rural towns. A linear development pattern was planned to make use of the internal transport system that coincided with the induction of the CBD comprised of "grocery shops, sports and clothing shops, cafes, vegetable stores, dry cleaners, dairies, butcheries, beauty salons, pharmacies and a post office" (Lupton, 1993). The aim of achieving cross-communication between the surrounding rural areas was also considered in the implementation of a linear pattern. The already built-up area (Mid-Ennerdale) as seen in figure 6, and the centralisation of the service and CBD zones imply that the additions of the light industry zones are proposed to expand beyond Ennerdale to establish marketable economic opportunity networks with the surrounding areas.

A railway system was proposed too, this was ambitious in that it was aimed at making use of various uses of land. It was intended to connect to surrounding coloured areas, stretching the cultural and economic familiarity with similar towns accommodating coloured communities. This plan was indicative of a successful scheme, provided that the self-sufficiency of the town would contain and confine the influx of coloured families to a specific area, with no reasons to commute or expand elsewhere. The preferable result would be that coloureds would not seek to commute near white declared areas and also to be safeguarded from black declared areas.

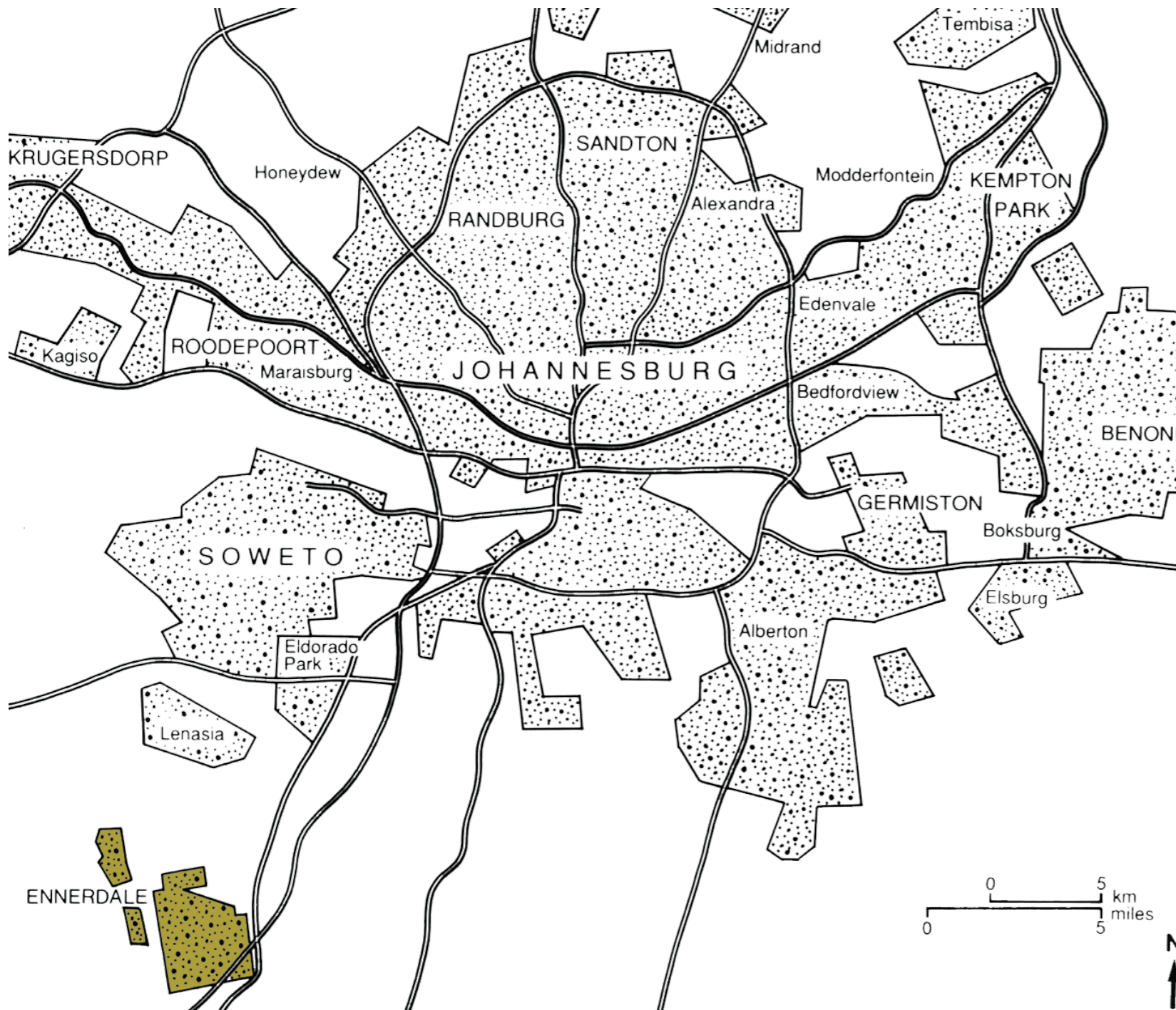


Figure 6: Designated Group Areas (Bell & Mckay, 2011).

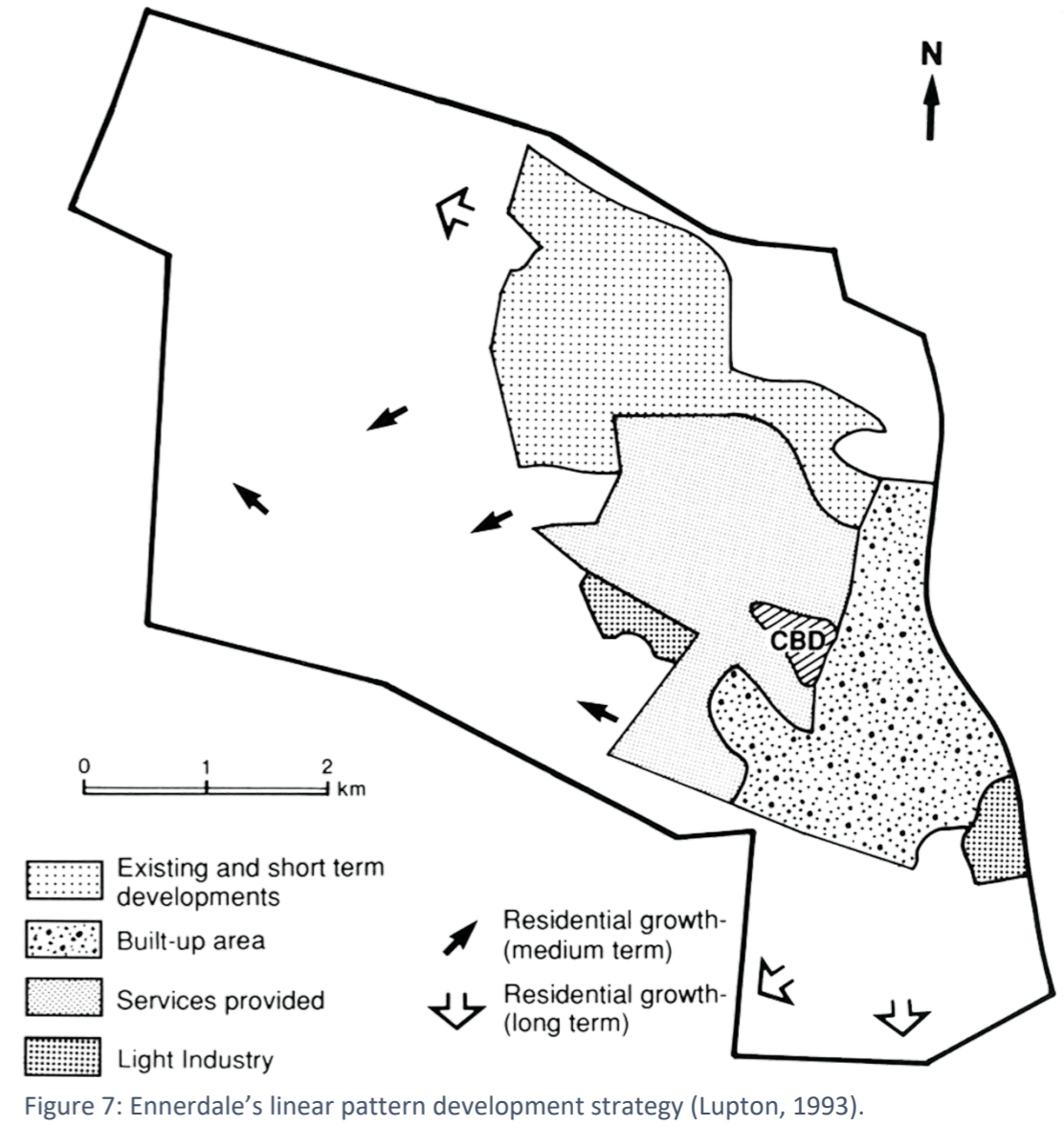


Figure 7: Ennerdale's linear pattern development strategy (Lupton, 1993).

1979

Phase 1 of the development was initiated and construction began in 1979. 100 economic houses were built in extension 1, later on, 300 more economic and 426 sub-economic housing units were built as it was projected that a total of 826 families would occupy extension 1 by 1980. Phase 2 of the development was initiated in extensions 2 and 3, to which a total of 1,250 families would be expected to be housed by 1980. By 1988 a total of 14,176 housing units were projected (figure 8) (Lupton, 1993).

Extension	Housing units constructed	Period of construction
1	826	work in progress
2	750	1979–1980
3	500	1979–1980
4	2 500–3 000	1980–1984
5	2 500	1980–1984
6	3 100	1985–1987
7	2 500	1988–1989
Town centre	2 500	1984–1988
Total:	14 176	

Source: (CAD: DOCD. B [6/2/2/E24])

Figure 8: Table showing housing units constructed from 1979 to 1988 in each Ennerdale extension (Lupton, 1993).

The 2,133 hectares of the new town housing 14,176 families (Lupton, 1993) solicited an acclamation to change the conditions associated with a coloured community under the Group Areas Act. The idea of public space or shared space was not proposed or even determined. According to the developers, the branding and logic behind this change aimed to create “*cultural animation*” for the induction of a new “*type*” of coloured urban dweller (Lupton, 1993). The introduction of Mediterranean-style houses (figure 9), as opposed to three-storey flats, typically present in coloured communities, along with the commission of landscape architects was just to enhance the “*appearance of the township*” (Lupton, 1993).



Figure 9: Ennerdale’s housing typology in the development phase 1 (BRITISH PATHÉ, video clip screenshot, 2022).

1980

On the 9th of April 1980, Ennerdale was officially opened by State President Marais Viljoen in the newly constructed modern civic centre (Lupton, 1993). In his address, he presented an *"opportunity"* to residents that entailed that they may develop the community of Ennerdale. He also stated that this may be *"accepted or rejected"*, encouraging residents and potential residents of Ennerdale to make a *"decision"* to invest in the future developments of Ennerdale, even in the stringent law realities of apartheid South Africa.

This changed the new town scheme drastically, in a sense that economic and political changes resulted in a housing backlog. The interest rates on bonds increased to a rate of 20% wherein only 30% of houses were built and sold (Lupton, 1993). This escalation would commence with the increase of the population too. The propositions of amenities in a form of the CBD never materialised thus the undercapitalised small business sector of Ennerdale had a shortfall of labour-intensive production. Therefore, black people occupying squatter camps in nearby areas were employed in small factories to deviate from more expensive labour (employment of coloured working-class citizens) (Lupton, 1993).

This failure was also attributed to the government withdrawing from working-class housing (Lupton, 1993). It was not by choice that the apartheid government decided to initiate such projects; it was only due to the increasing compromise of the country's state due to apartheid policies and abroad pressure that would further exacerbate the economic crisis.

1994 - Now

The result was a privatised housing community for the working class by 1994, which also marked the end of apartheid active laws when the president of the African National Congress (ANC) Nelson Mandela was elected president. This saw a lot of black South Africans moving into Ennerdale as the area was no longer declared a coloured area. Informal settlements like Finetown and Hopefield (Kapok) began growing, and was occupied by mostly black South Africans. Finetown is situated along the periphery, and Kapok is situated just outside extension 8 (figure 10). The value of houses by then had depreciated due to the lack of amenities, distance from the city centre, and the growth of informal settlements along the peripheries of Ennerdale. Hence the influx of black working-class citizens into the town. The town's shifted urban character to that of a dormant town, with an exception of religious institutions which increased from the initial stages of Ennerdale's construction, explaining the prevalence of Christianity in the town.

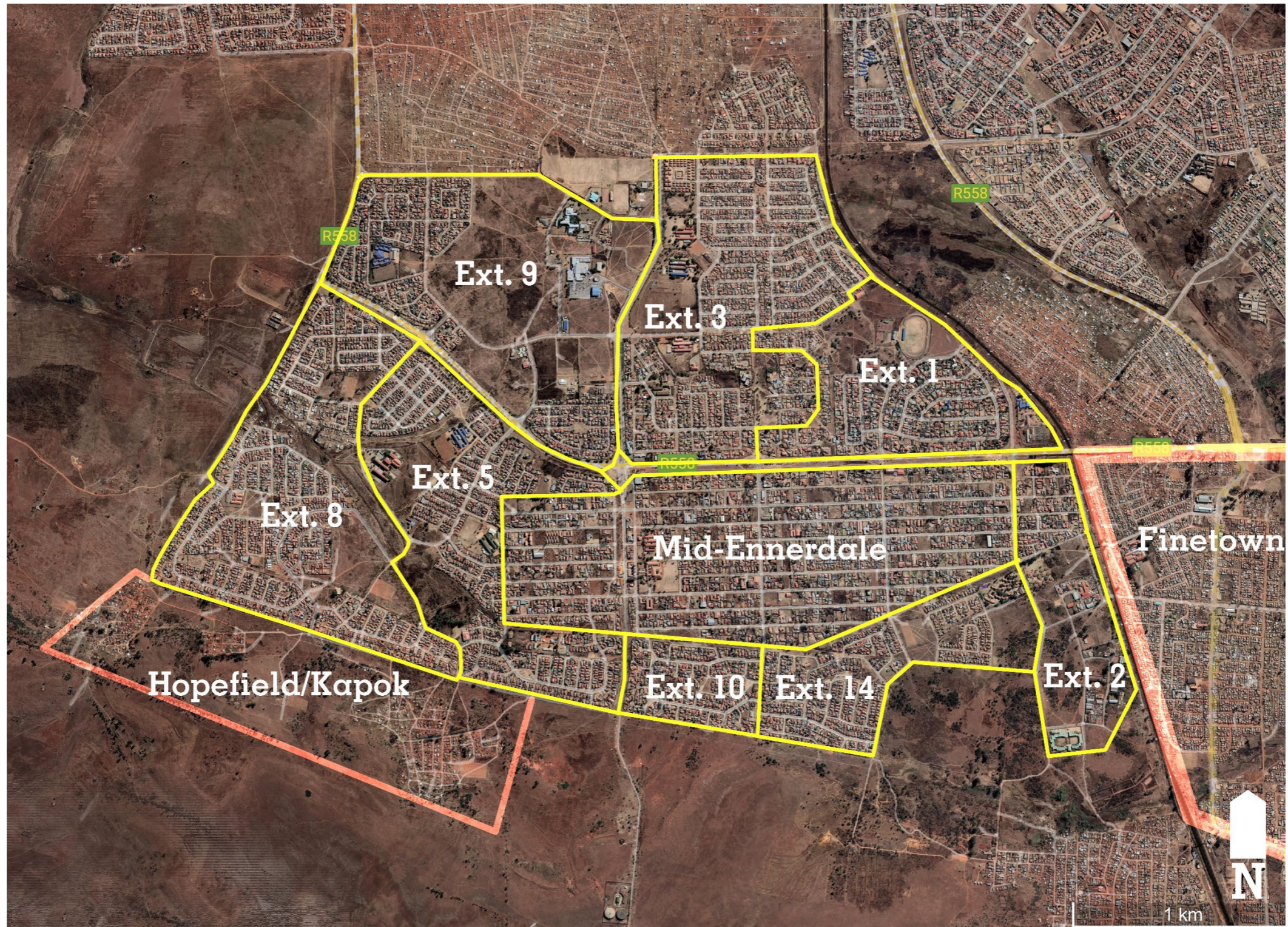


Figure 10: Current map of Ennerdale (Author, 2022). Extracted from Google Earth images, (2022).



Figure 11: A collage depicting the conflict between people living in informal and formal settlements (Author, 2022). Top left: Photograph of a protest in Finetown (DAILY MAVERICK, 2017). Top right: Photograph of a protest in Ennerdale (Sowetan LIVE, 2018). Bottom left: Photograph of Finetown (Tripadvisor, 2009). Bottom right: Photograph of Ennerdale (Property 24, 2022).

What The Issues Are

Exclusion

Exclusion:

One experiences it in various senses; that of the city, the distance from Ennerdale to the city renders residents of Ennerdale excluded from it.

The Narrative:

With the pressure of unemployment, service delivery deficits, and a lack of infrastructural development, comes criminal activity. This leads to tensions formed between informal and formal settlement residents due to the narratives which develop over time.

Housing Inadequacy:

There has been a backlog of reportedly 2,6 million houses in South Africa since 1994 (Thukwana, 2020). Prior to that, people of colour were displaced under apartheid legislation. Consequently, many people are unable to own a home despite it being a basic human right.

Lack of Sustained Energy:

The increase of informal settlements means that there would be more illegal electrical connections occurring. The existing infrastructure cannot accommodate this as the settlements grow.

The Narrative

Housing Inadequacy

Lack of Sustained Energy

Exclusion

Ennerdale and Soweto are two areas in the township housing bracket to which I have been exposed. I was born in Soweto but spent the majority of my life in Ennerdale, a suburb of Johannesburg. During the holidays, I used to go to my grandparents' house in Soweto and then return to Ennerdale once the schools reopened. Through this, I am able to observe distinct dynamics in living situations, with many parallels between the two. The issue boils down to access to the CBD and population expansion in the surrounding areas.

Access

The biggest problem is the cost of commuting to work, and if one decides to relocate to the city, the rentals are considered expensive. In some portions of the CBD, there is currently a lot of crime and bad living conditions where it would be considered more affordable. Maintaining a job in the CBD becomes difficult due to the fact that it is further from the CBD and has two entrance points (30 km via N1 and 41 km via R550).

To get to work every day throughout my practical year in 2019, I had to travel all the way to Fourways, which was 56.7 km distant from Ennerdale. Due to the higher cost of taxis (4 taxi journeys per day = R78), I had to rely on buses (2 bus travels per day = R60), which were safer and less time-consuming than taxi rides.

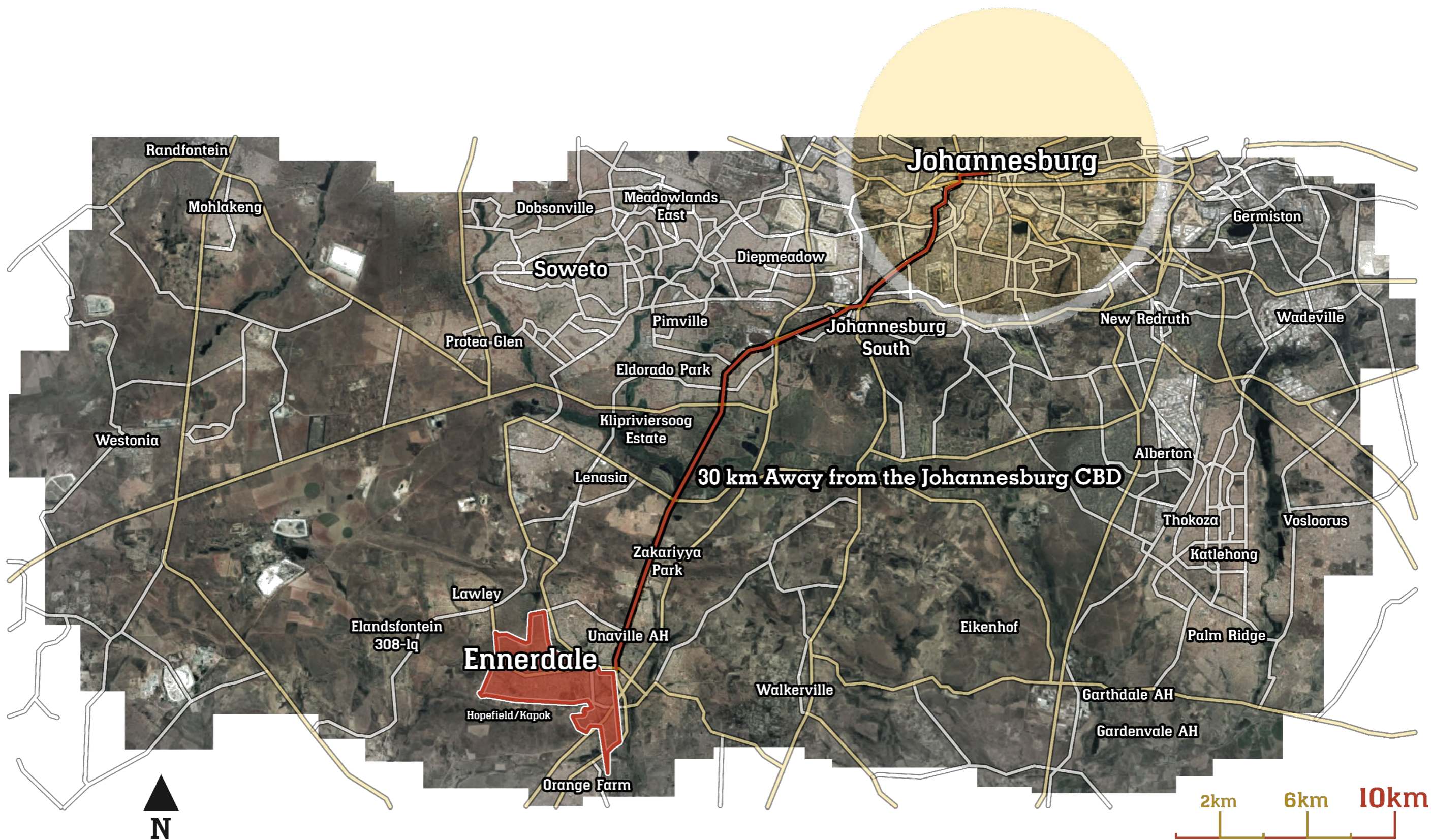
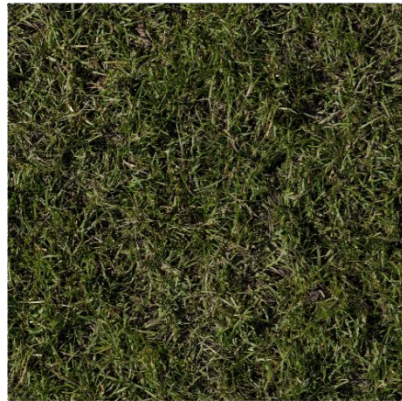


Figure 12: Map showing distance from Ennerdale to the Johannesburg CBD (Author, 2022). Extracted from Google Earth images, (2022).

Shared Resource



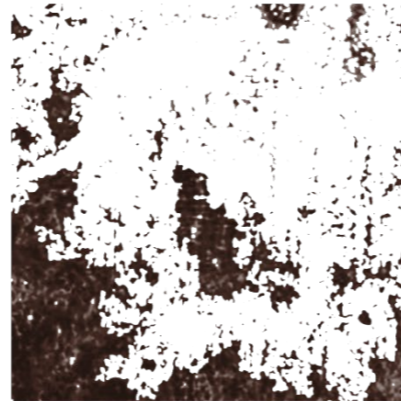
No Capacity

Sustainable Use



Maximum Capacity

Depleted Resource



Excess

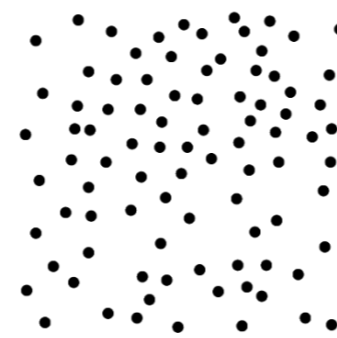
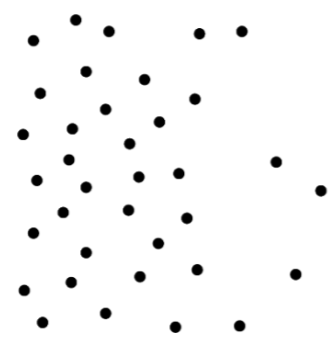


Figure 13: A diagram showing the stages the commons , the establishment, administration, and exploitation (Author, 2022).

What It Means for the Commons

The commons consists of all shared publics; the natural, such as air, oceans and wildlife, and the created, such as public spaces, scientific advancements, and creative works. It is an old concept that proposes that the idea of wealth belonging to all to some extent as to preserve or sustain it for generations².

The commons is a shared resource and shall be shared equally amongst all inhabitants of the commons. But colonialism has shifted the affairs of power regarding the commons to more public mandated laws to allocated resources of the commons to one particular entity of the commons. This resulted in people being excluded from resources and common practices of the city. Today it is said to be eradicated but the intragenerational inequity of the allocation of resources still remains due to the idea of tradition.

In David Harvey's *"The Future of the Commons"*, Harvey argues that *"not all forms of the commons are open access"*, and that they are *"regulated, policed, and even privately managed in the form of business-improvement districts"* (Harvey, 2011). This is where the distinguishment of intra-and intergenerational sustainability becomes important, especially in the context of spatial justice. The extent to which spatial justice may act is intragenerational. This is said through a critical lens; spatial justice has no institution. Institution fuels tradition and tradition sustain what the consensus is. Although sustainability could form some relativity to spatial justice, one has to be able to signify what the injustices are.

Spatial Justice

In Amartya Sen's "Amartya Sen on Justice and Injustice - The Amartya Sen Interviews", Sen states that an idealistic approach to spatial justice may not suffice in this case (Sen, 2011). The idea that there should be an expected outcome of an ideal just city does not address all its injustices, even in mandating spatial justice. Rather, to identify the injustices we can understand that injustice obtained institution through tradition. Although systems harbouring injustice are no longer accepted in society, the idea of its tradition still stands and therefore, processes of injustice maintain power and prevalence.

Tradition reinforces consensus to a point of successful execution in its systems. Such is evident in colonialism. This still remains in a form of artefacts (symbolism), law, city planning and economy. That is why the idea of spatial justice should have an element of action grounded in customary advancements of ultimately eradicating injustices in the city.

"The Spatial Justice of the Commons" by Rocco points to generational intent to solidify a just city that can evolve in many generations to come. Intragenerational sustainability of spatial justice relates to the current generation that aims to challenge injustice and further theorise the idea of spatial justice through discern of injustice in a form or eradication, reformation and reinstating a new tradition. This can ultimately position itself into intergenerational sustainability to further solidify the subsequent tradition of spatial justice.

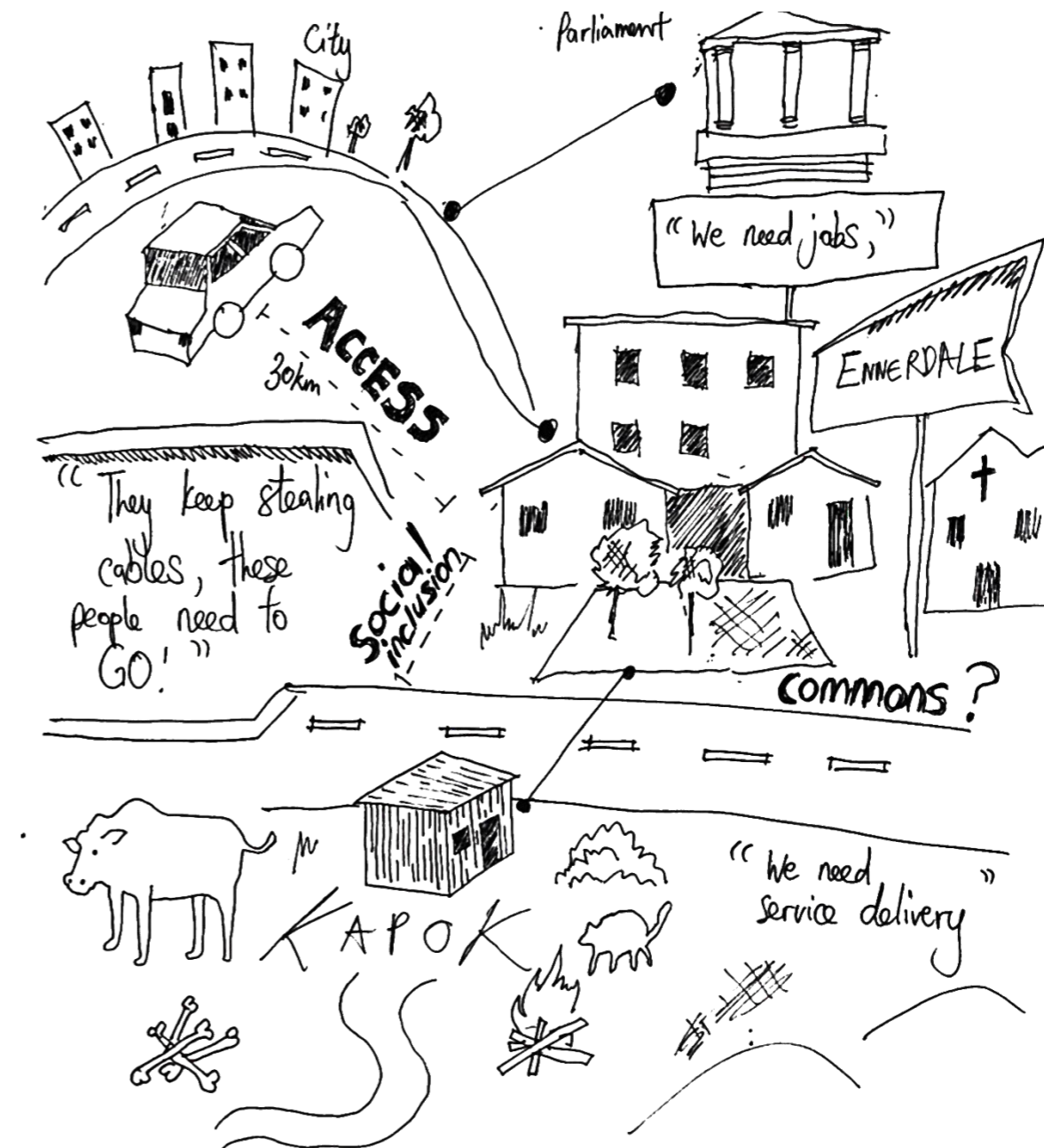


Figure 14: A sketch representing spatial injustice and the peripheral realities of Ennerdale (Author, 2022).

Tradition Harbours Exclusion

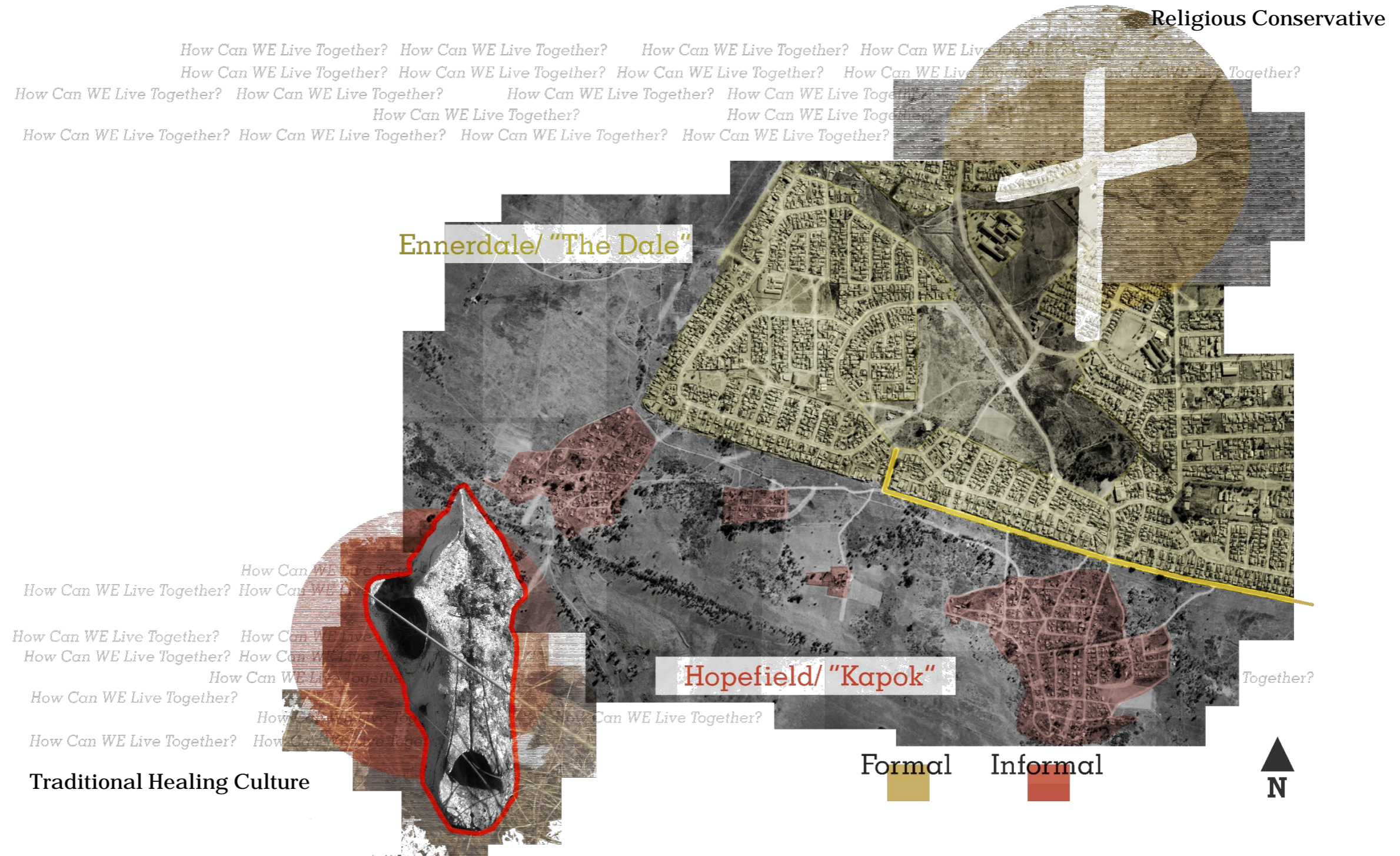
The point I want to make with the aforementioned is that the discern for difference can develop one's sense of community. Which is why I want to challenge the idea of how the people of Kapok are perceived. The demonisation of the people stems from the divisions created in apartheid, since Ennerdale has a large number of churches, to a point that some are not recognised due to their informal nature. On the other hand, Kapok has traditional practices which are often demonised. These practices contain traditional healing pertaining to ancestry, craft, and non-Western medicine. Imagine the idea of culture, something that is important to you, something that speaks to who you are, something you truly believe been demonised. The issues are far deeper than housing or infrastructure; therefore I aim to explore the idea of changing narrative which demonises Kapok's traditional practices.

How people live, why people live, what drives people to live, and when people live. The understanding of each other's traditions, what can be done to make your, our traditions understood from a basis of coexistence and not segregation. It is intuitive in a setting that harbours cross-cultural relativity for communication to diversify. It is then that one who is in a multicultural setting, tends to fall into a mode of tradition that stems from cultural proscriptions. This idealises conflict among different cultures whether or not they infringe upon other cultures in the context of a multiracial township in South Africa. Conservatism can be understood from a reactionary cause stipulated by ideology and social privilege or an aversion to societal changes (Andreasson, 2014).

In Ennerdale, Christianity is the dominant entity, with each extension containing either a formal or informal church. Whereas informal settlements contain most of the traditional healing culture. Traditional healers are often called "**Sangomas**", and most churches are in opposition to any association with such. My mother who is a Sangoma would go to Kapok often to pray and perform her ceremonies. In Kapok there would be spaces in which one could perform ceremonies and traditions. These would be in mountainous terrains, backyards, or near wetlands. Cattle would be herded and sometimes be herded as far as the formal extensions. The slaughtering of cattle is done often in the ceremonies, and it is done mostly in black cultures. This is one of the many ways in which the idea of communicating with ancestors is administered.

While this fulfils conservatism in both its understandings; the social and reactionary ideal to cultural practice in Kapok, and the aversion to those practices in a religious sense in the formal extensions, I challenge the conflict. The challenge is a prompt, what if the act in which one is demonised of doing is the same act that could aid in fixing some of the issues you face in your community? Maybe it is a provocation; enlisting discern for difference towards the idea of culturally inclusive spaces.

26.4101° S, 27.8370° E



26.4101° S, 27.8370° E

Figure 15: A mapping exercise of the overview of the case study. It was part of the first Archi.Maki exercise for the academic year. The Skull (slaughtering of cattle) and the Cross (Christianity) represent different cultural standings for Ennerdale and Kapok (Author, 2022). Extracted from Google Earth images, (2022).

The Narrative

I spent equal time in extension 8 and Kapok as a child, going to Madrasa, playing soccer, eating chicken feet, smoking weed, flying kites, climbing trees, etc. It is a place I felt the most connected to, hence I want to challenge the idea of how the people of kapok are perceived.

Kapok has seen names that *stick/sting*, names to compartmentalise the area as the “other”. Names like *“tsotsi, vuilpop, dakaboy, baloyi, feeding scheme laaities”* are extremely offensive to say the least. They are prevalent in the community, streets, sporting events, and schools. Growing up they seemed normal to say and hear.

This narrative follows form in a way that sees any resident of an informal settlement become subject to the narrative, and therefore not find it easy to integrate within communities outside of the settlements they occupy.

The names are explored to further understand the problematic powers they hold, how one may be subject to exclusionary realities, how the problems shrouding Ennerdale end up being blamed on Kapok residents, and how they further enforce destructive conflict amongst the people in Ennerdale.

“Tsotsi --- Vuilpop --- Dakaboy --- Baloyi --- Feeding Scheme Laaities”

“Tsotsi --- Vuilpop --- Dakaboy --- Baloyi --- Feeding Scheme Laaities”

“Tsotsi --- Vuilpop --- Dakaboy --- Baloyi --- Feeding Scheme Laaities”

“Tsotsi --- Vuilpop --- Dakaboy --- Baloyi --- Feeding Scheme Laaities”

“Tsotsi, Vuilpop, Dakaboy, Baloyi.”



Figure 16: An image of the middle finger and a backdrop of the “names that stick” denoting the narrative (Author, 2022).

Tsotsi

“*Tsotsi*”, pronounced “*tss-ot-see*” is a South African slang word describing a person who is a criminal, rogue, and mischievous³. It is commonly associated with black thugs and gang members. The word originated in Lesotho in the 1940s as a Sotho alteration of a zoot suit. In a historical sense, the word described a youthful black gangster inhibiting a unique and distinguishable Sotho language and flamboyant outfit⁴.

Today, the idea of a tsotsi is associated with township culture, hence the general description of a tsotsi relates to urban crimes and street thug culture. The idea that it is used to describe a black thug in the townships means that it became easier to draw deductions between cable theft activity and Kapok, seeing that most residents in Kapok are black. As a result the criminal activities causing Ennerdale extensions are often blamed on Kapok by mere demographical context and illegal electrical connections.

Vuilpop

“*Vuilpop*”, pronounced “*fael-pop*” is a South African slang word describing a person who is dumb, uncivilised, dirty, rude, a failure, and shady. It can sometimes be used to playfully tease someone⁵. I have witnessed this word been used in school to directed to children who live in informal settlements. Before illegal electrical connections were established in Kapok, the use of heat energy was used through paraffin and firewood. This resulted in their clothes having a smoky or paraffin odour, this was normal but not entirely unpleasant because of the understanding that paraffin and firewood was the only main source of heat energy used for cooking and heating homes.

Their use of energy is deemed unsafe to the degree of comparisons drawn by formal house owners to informal settlement dwellers. This is further enforced through parenting, such that some formal house owners would tell their children not to play with children residing in informal settlements.

Dakaboy

“*Dakaboy*” (also spelled “*dugga*” or “*daggaboy*”), pronounced “*dug-ah-bouy*” is a South African slang word describing a person who works as a manual labourer, particularly in construction (mixing cement or concrete without machinery). The “*daka*” in “*dakaboy*” means “mud” in Isixhosa and Isizulu. The word is also used to describe solitary older male buffalos⁶.

Within Kapok, many people are skilled in manual labour, especially with farming. As a result, many are hired in Ennerdale extension to work. These skills are needed clearly, but are often downplayed by the idea that Kapok is an informal settlement and that these skills are only associated with poverty, thus, people who possess them are often looked down upon.

These skills to me, give me clues to ultimately find a solution-based mentality in fixing most problems we are faced with in Ennerdale as well as its informal peripheries.

Baloyi

“*Baloyi*”, pronounced “*bah-loh-yee*” is a South African word used to describe people who are practitioners and who engage in witchcraft. It is also a prominent Sotho and Tswana clan name meaning “*practitioners of magic or witchcraft*” (LEXICO, 2022).

Kapok is rich in vegetation and vast traditional practices, particularly in farming, “*sangoma*” and “*inyanga*” or “*ngaka*” culture. In Ennerdale there is an overwhelmingly large number of Christians and churches. As a result, traditional healers are demonised and are often deemed as witches. This sees conflict within the existence of religious beliefs and traditional African beliefs, despite the fact that traditional healers can have religious beliefs as well. This sees many traditional healers been subject to names like “*baloyi*” as a loose term to demonise them, this is due to the widespread output from the media depicting them as witches.

“Kunini Sihlala Emjondolo?!”



Figure 17: A photograph of Kapok (Author photograph, 2022).

Housing Inadequacy

The decision to displace people of colour during apartheid was intentionally made to deny them access to urban resources. I have personally witnessed my family members and friends attempt to resolve this issue without success. Lack of adaptability also contributes to the problem. One's space must be able to adapt to their changing needs and desires. In post-apartheid housing this is still a problem, as the Reconstruction and Development Program (RDP); a socio-economic policy framework implemented by the ANC government has not been able to manage the crisis completely, as there are still many people without homes and many limitations on transformation within the housing system. In my frequent visits back home, I have observed that the trend of adding backrooms to government-subsidised housing has helped households to have more space for growing families and to generate income by renting out the backrooms to those in need of housing. Because of the lack of further development within those houses, it is limited in its use.

In Kapok, although, there has not been any indication of development in the settlement, the future development of the settlement does not need to run into the same problem. Adaptable architecture provides the most immediate solution to resolve this. Since apartheid, there has been no vigour in addressing this issue. Even today, apartheid footprints reside in many forms; there are still hostels, permanent housing and apartments that were used as a barrier between white and black South Africans. Based on how these were put in place: to ensure that the oppressed were not allowed access to most parts of South Africa, where they were placed and what resulted from it, the space for transformation is limited due to its definitive nature.

“Kunini sihlala enjondolo?!”, from Isizulu translates to; *“how long do we have to live in shacks?!”*. These are the words of *“Khataza”*, a man I interviewed residing in Kapok. He asked me to list him as *“Khataza”* during my process of preparing some aliases to use instead of his real name during the interview I would subsequently have with him. He recalls moving into the settlement at a young age in 1993. Before he moved to Kapok, he resided in Soweto.

His friend notified him about Ennerdale and the vacant land which was, and still is known as “Ontevreden 309 IQ”, but most popularly known as “Hopefield” or “Kapok”. According to Khataza, the area was zoned as farmlands with the intent to preserve the animals and plants found there. He claims it is still zoned that way despite it being an informal settlement. He also mentions that the zoning is the reason behind people not getting government subsidised housing in Kapok, even in its establishment as a settlement and its growth since 1993⁷.

“All we see is people living, moving around, and playing. We party, we drink together...it is a community, they should see! We have been living here for a long time now, it is about time we get proper houses built. How long do we have to live in shacks”, he says. While discussing the many possible ways in which one could develop Kapok, I could realise the vast potential Kapok has in achieving adaptable housing, as opposed to RDP housing schemes which seem to follow the same typology throughout South Africa.



Figure 18: A sketch of Khataza in front of his home (Author, 2022).

Dwellings

In a Formal Setting

The idea of having the house extended or having an additional dwelling behind the house is mostly to improve its liveable quality. Lack of space, light, proper ventilation, circulation and fire escapes are the main things found in these houses. The council restrictions, finite housing and demarcation walls cause these problems. In Ennerdale the norm in living arrangements is dependant of self-sustenance, many people use their houses to generate income in the form of running tuck shops, internet cafes, rooms to rent, barber shops, and so on. In these arrangements, one most likely has to extend the house or build a backroom. The plot sizes on average are as much as 300-400m² and the houses at 50m² (figure 19).

Despite the poor provision of houses, the problem at hand is that the unemployment rate is high. The immediate occupation of vacant land has many people living in extremely poor conditions. If one looks at areas in Ennerdale like Kapok, Finetown, Lawley, and Lakeview, one can see how the population has grown and how people are occupying informal settlements as a result since lodging requests for subsidy housing since the year 2000. The government has attempted to provide houses in the RDP programme but the standard of houses are deemed poor. The requirement to acquire such a house is deemed unreasonable too since it is subsidised and the South African rand has highly diminished in value. This prompts more people to build themselves shacks since most people do not qualify for subsidy housing. One may argue that it is then that potential is abundant, but privatisation and even state intervention has no priority on social existence.

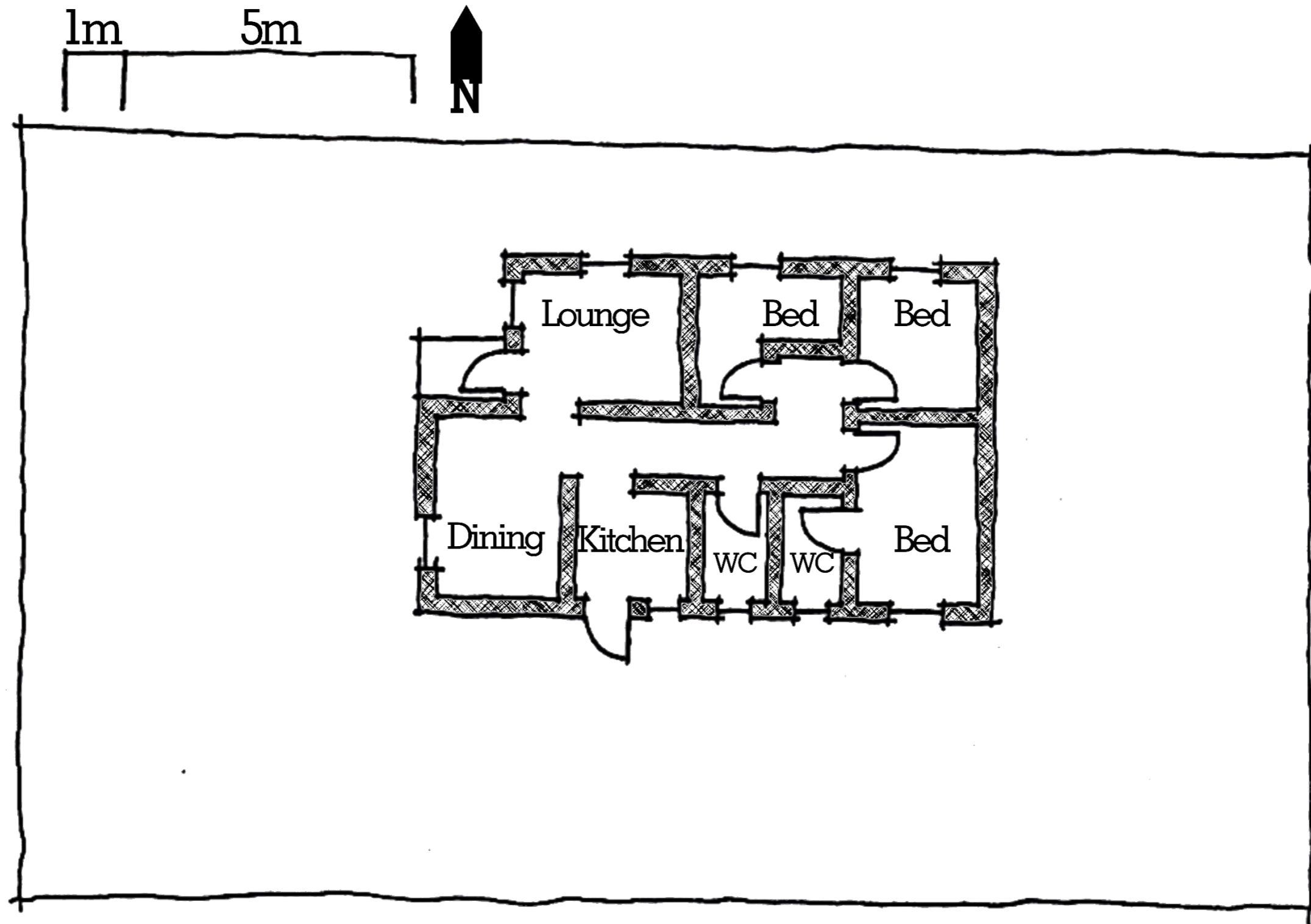


Figure 19: My parent's house before backroom additions and extensions, it is an example of a typical house in extension 8 (Author, 2022).

Backrooms

In their already existing houses, as time goes by, people gather enough funds to build more rooms that are detached from the house but is regarded as an extension of the house to achieve more rentable area. The council restrictions, however, on top of having the house as finite in its nature pose a serious problem for more housing potential. The common result of it is a 2-3 meter distance between the backrooms and the main house, and as a result, there is lack of sunlight in the backrooms. The outside ablution facility is demolished and the one for the backrooms is used instead, the walkable space is 1.5 meters away from the demarcation wall within the boundary line, which cannot be less than 1.2 meters in height. In most plots this is the only mode of escape. There is a garage or carport usually, which takes up the space for another exit (figure 20).

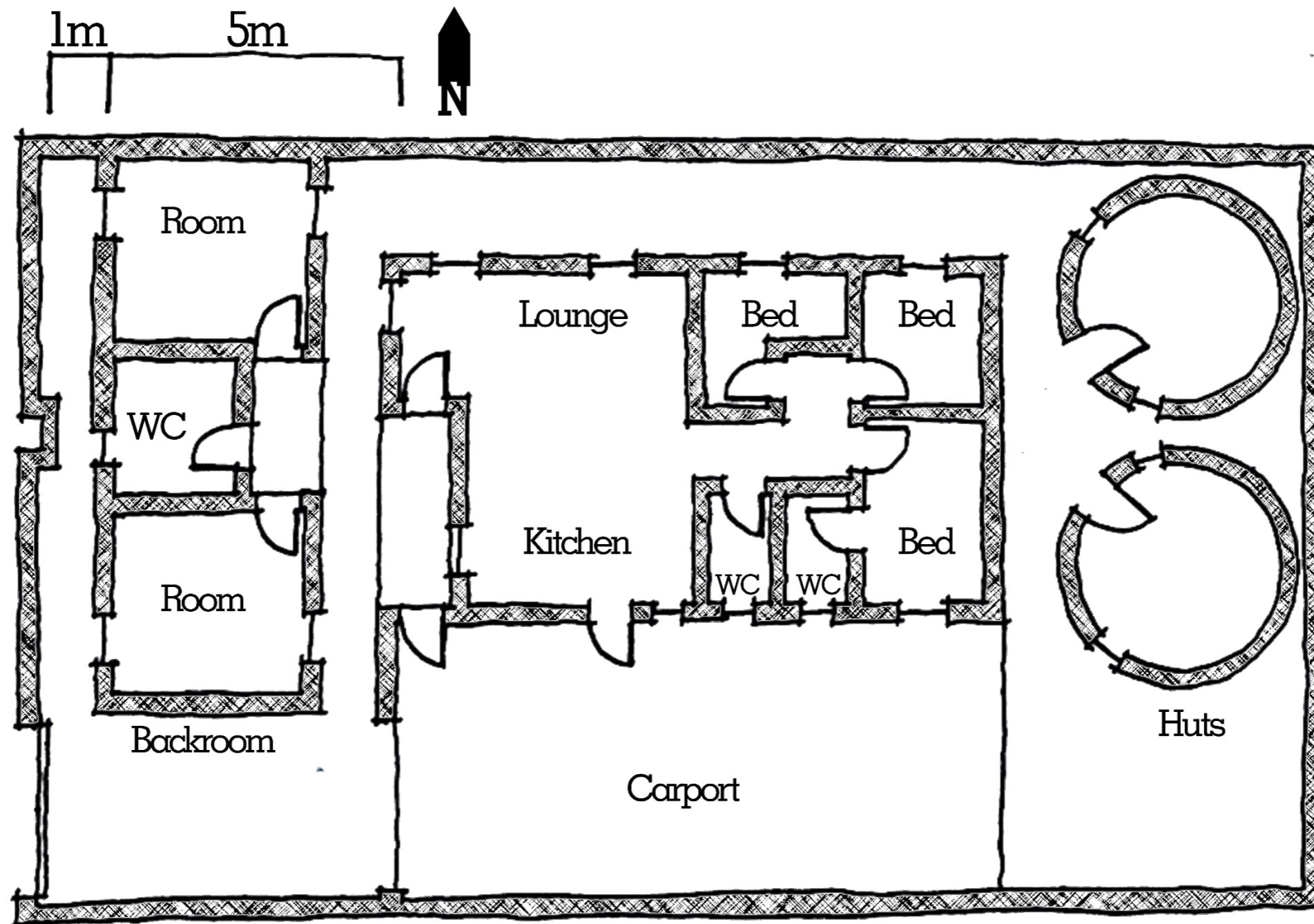


Figure 20: My parent's house after backroom additions and extensions (Author,2022).

In an Informal Setting

The area is vast and usually ample. The average plot sizes range from 500 - 750m² depending on the yard practices which include, slaughtering cattle, farming, gardening.

The potential for developmental growth is abundant, such that the practices which usually occur are normalised within the community of Kapok. The majority, if not all residents of Kapok call for brick houses while they maintain the same practices and even some materials like corrugated steel sheets, timber structures, and areas in which practices occur within the plots.

The problem lies with the growth of families and the difficulty in which one could extend their shack. It would mean that one would need to break it down before extending, therefore meaning that they would have to restart the construction process from scratch.

In figure 21, home 1 contains garden and farming project areas numbered 4. An additional shack is added (2) as an extension of shack 1. It is clear that many options to govern one's space is available and it would be preferred that it remains that way after formal housing developments. In home 3 the plot size does not allow for such growth but could be limited to the shack's extension. Presumably, the yard is used as a social space or slaughtering space as I have witness many times during my visits in Kapok. It is clear to me that the house can be an extension of the person occupying it, even with his or her practices. This means that one can accommodate a growing family, the practices that comes with each household, and the visual and physical access to the public.

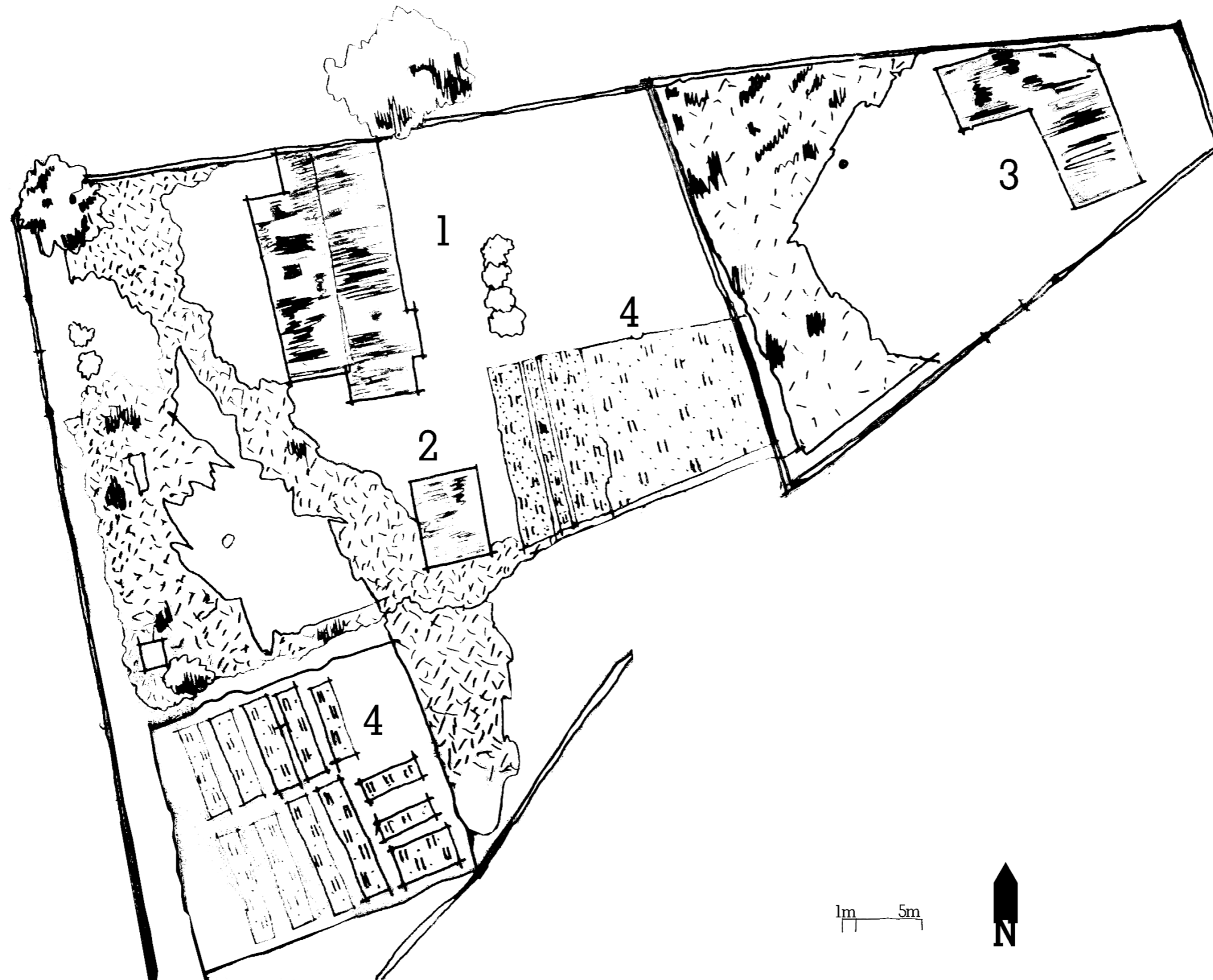


Figure 21: Typical layouts of Kapok dwellings (Author, 2022).



Figure 22: A typical night in Ennerdale during power outages (Author, 2022).

Lack of Sustained Energy

In the light of all the issues in this country, Ennerdale is more than often shrouded in darkness, if it is not loadshedding, best believe it is a stolen cable, and best believe that people in the informal settlement are often blamed for it. This is due to the idea of western modernity being still in effect, not only due to its infrastructural dominance but due to its institutional success with race as the forebearer of its planning, for the purpose of separating the native from the invasive. This is done to solidify the violent underpinning of its administration. Now it remains, but in a guise of a classist view of society wherein the lower-class citizen is associated with criminal intent, and in the case of South Africa, often associated with either black and coloured citizens. In Ennerdale this realisation manifests in the idea that informality can only be linked to the lower-class, and that formality solicits a safer space devoid of crime. The fact that the government has not since intended to aid in providing basic services means that most of the infrastructure became decrepit.

Counternarrative

Adaptable Housing

Community Building

Alternative Energy

The Intention

To assess what the solutions are to the aforementioned issues, one has to look at the why. Why is important to alleviate or attend to?

The intention is thus structured as followed:

Shining Light on the Counternarrative:

The positive aspects of the everyday life in Ennerdale. What are the qualities? And how could they be accommodated architecturally?

Implementing Adaptable Housing :

Looking at how people live within households in relation to community, hence the idea of adaptable housing to encourage a housing system that speaks to the residents of Kapok.

Community Building with the Inclusion of Cultural Pedagogy:

With farming and informal retail at the forefront of public activity in Kapok, comes the idea of a public centre that accommodates such activities. These could blur the boundaries between informal and formal spatial qualities to solicit an inclusive community.

Alternative Energy Implementation:

This sets to exist as a stand-alone system that could provide Kapok with electrical energy despite the blackout issues that currently exist in Ennerdale.

Shining Light on the Counternarrative

There are social clues between extension 8 and Kapok that could inform spatial qualities that are beneficial to both areas. The everyday public life sees a familiarity of each community. The clear distinction of that familiarity is the use of space caters for the growth of family and business expansion. This is due to urgency, with unemployment rates increasing and the difficulty of accessing the city.

To shine light on the counternarrative involves the activities employed in both extension 8 and Kapok. These activities may appear to be informal in both cases but the idea that the spatial qualities of each may provide a sense of community in both informal and formal spheres, prompts the reasoning for a counternarrative. As one observes the shared issues in both informal and formal spheres, one could understand that the boundaries between the two should be blurred.

Extension 8



Figure 23: Map showing Kapok and extension 8's urban layout (Author, 2022). Extracted from Google Earth images, (2022).

Extension 8

Social Clues

The social clues I picked up on site mostly involves the street edge. This is important in adapting and understanding the mode of social activity in extension 8. Seeing that it is common among extension 8 residents, it could provide a deeper understanding of what could manifest in the future development of Kapok and ultimately Ennerdale as a whole.

The immediate realisation of this starts on a threshold level, children could be found playing in the streets during the weekdays after school. The occasional multiplier of that is hosting social events such as parties on the pavement by means of a parked car blaring music on the weekends (figure 24).

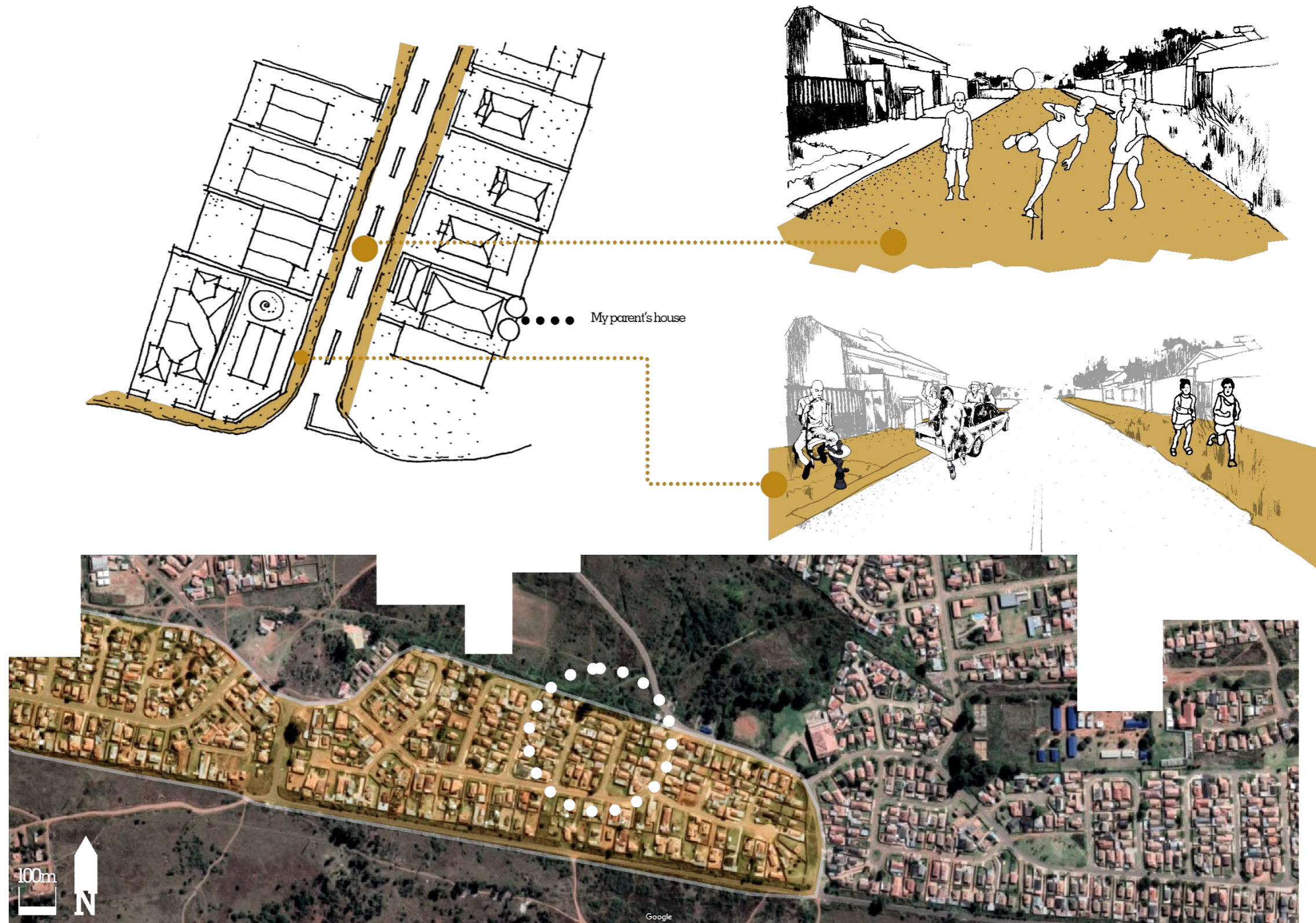


Figure 24: Maps and illustrations showing the everyday life in my kotas (Author, 2022). Maps extracted from Google Earth Images, (2022).

Extension 8

Nearby Services

There are a few services and amenities found near extension 8 that are otherwise not found in Kapok. More can be found in other extensions. In figure 25, there is points 1-4 that most Kapok residents use. These include, 1. Khotso House, which is a boiler-making workshop. This is where some of the skills required for development are acquired. 2. Is a shopping centre that is mostly accessed by both Kapok and extension 8 residents. It has a formal holding for retail but it is limited due to its size, so most people end up shopping for groceries in areas like extension 3 to 9 which are at a greater distance from Kapok. 3. Is Saint George Primary School and 4. Is Redemption Centre International, a church in extension 5.

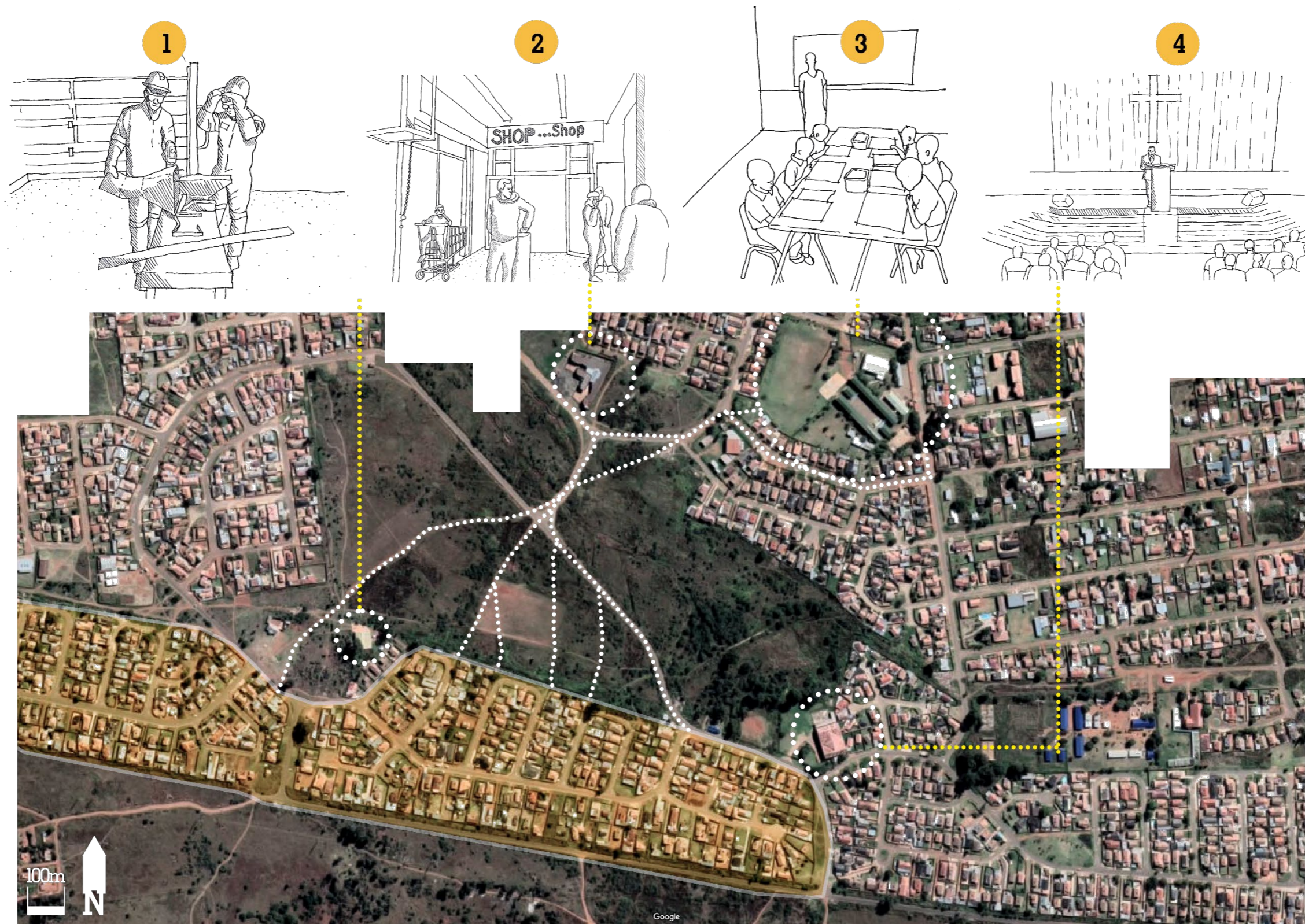


Figure 25: Map and illustrations showing the services and amenities in extension 8 (Author, 2022). Maps extracted from Google Earth Images, (2022).

Kapok

Social Clues

In Kapok the vast land sees a lot of farming opportunity, the majority of residents either have vegetable gardens or cattle or both. Children are usually found playing soccer on the field, most homes experience traditional practices such as slaughtering of cattle, ceremonial events, and social activities such as drinking, picnics, and storytelling by elders of the community. These are usually present in fenced yards under a tree which is visually accessible from the street.

Furthermore traditional healing practices are performed near areas where medicinal vegetation could be found. This coincides with cattle herding for either farming or ceremonial purposes.

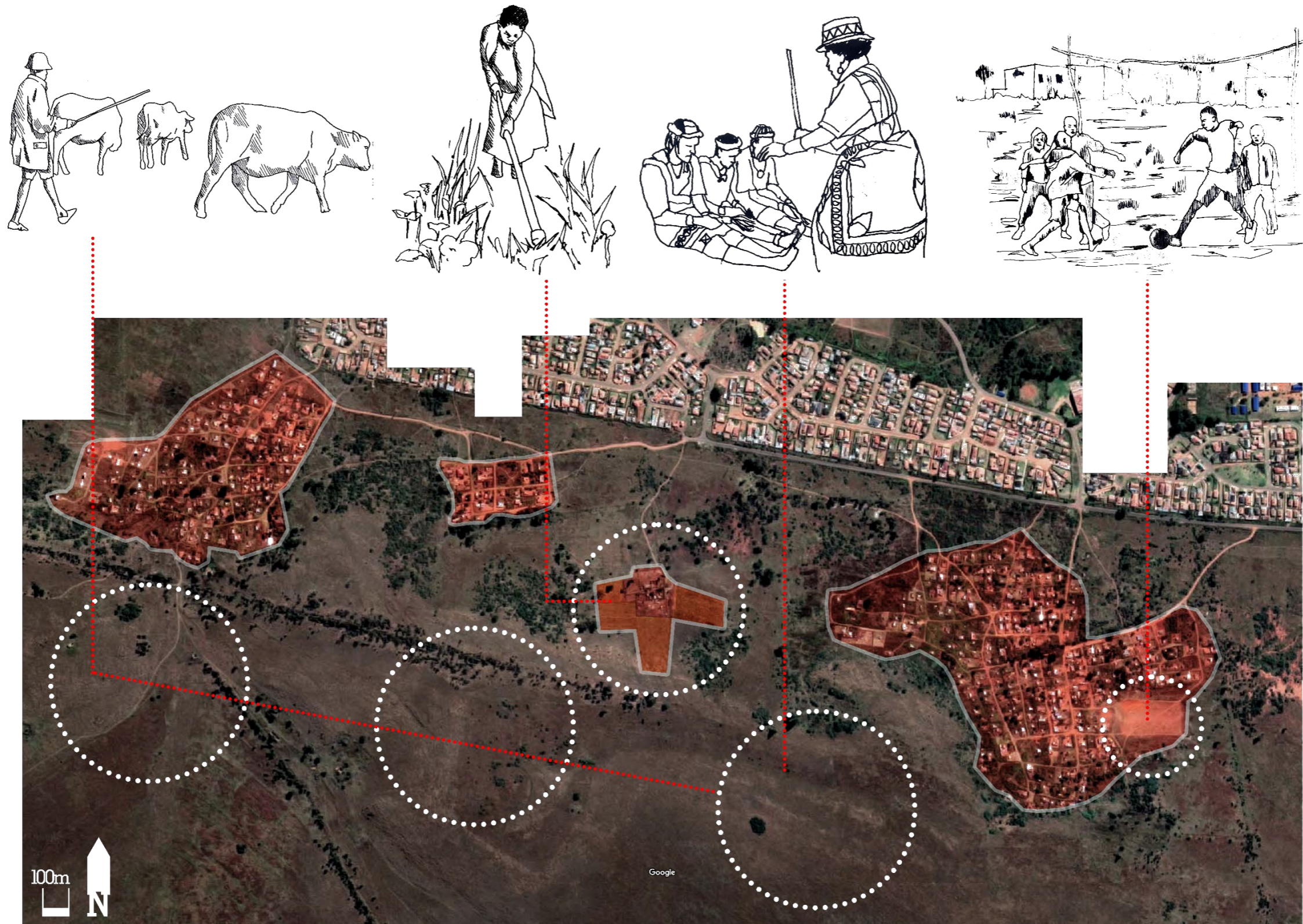


Figure 26: Map and illustrations showing the everyday life in Kapok (Author, 2022). Maps extracted from Google Earth Images, (2022).

Kapok

Agriculture Within Households

The assessment of Kapok revealed that there is prominence in using each household's space for self-empowerment. The range of plot sizes and land has allowed for many residents of Kapok to either make use of additional residential space, food gardening, retail, and cattle herding (figure 27).

1. This side of Kapok is densified with mostly food gardens and retail dwelling extensions. The area is fully populated and contains less cultivated land.
2. Is mostly densified with residential use. This contains medium to low density with less cultivated land.
3. Is mostly densified with cultivated land and livestock space. This area has the lowest density in Kapok.
4. Is mostly densified by retail spaces, and cultivated land. This is the most densified area of Kapok.

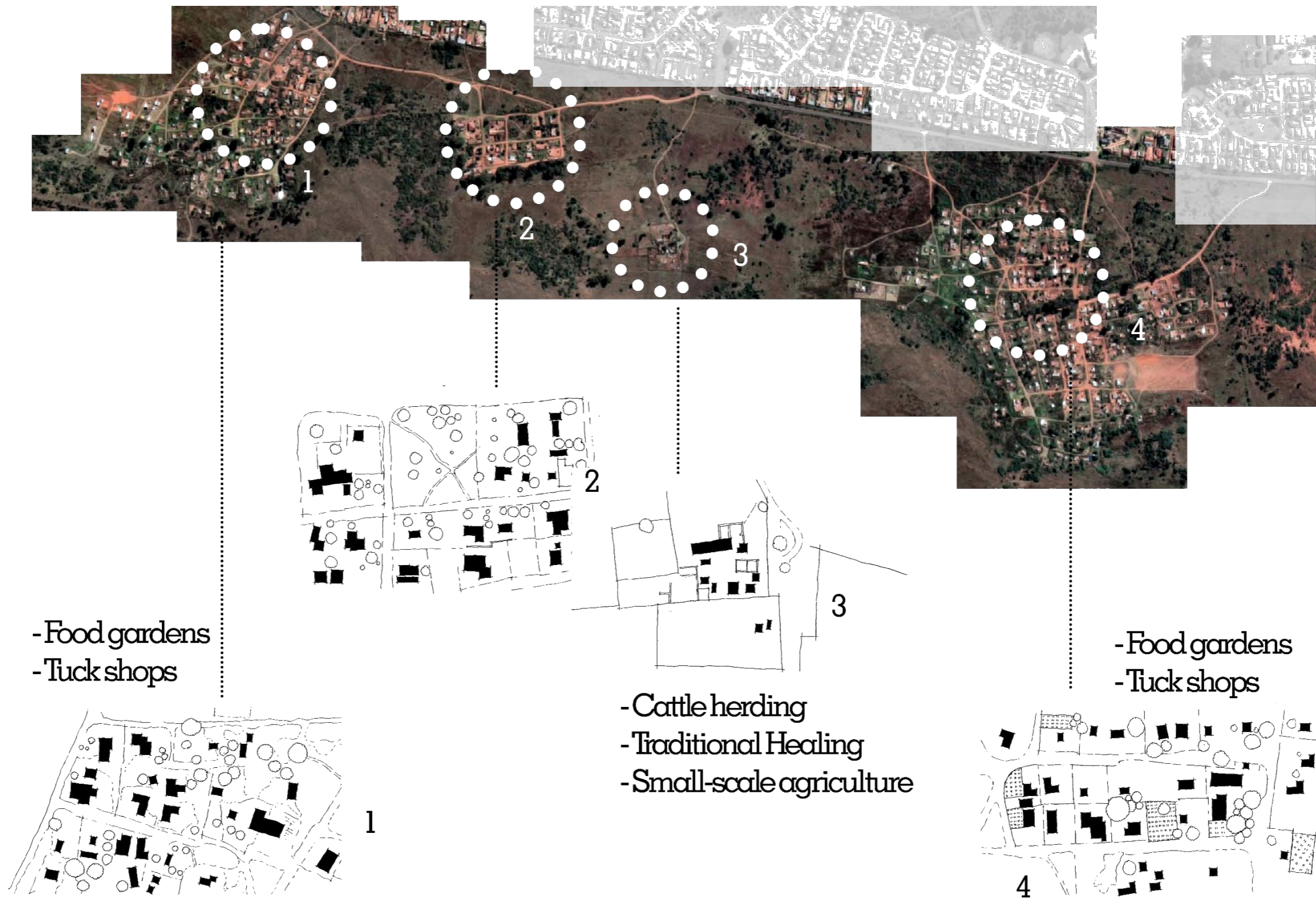


Figure 27: Map showing agricultural areas in Kapok (Author, 2022). Maps extracted from Google Earth Images, (2022)

Community Building

From what I have observed in both Ennerdale extension 8 and Kapok is that there is social clues one could pick up and identify them as important design considerations moving forward. This prompts an inclusion of spaces allocated for such activities in Kapok. These events usually draw people from Kapok and nearby extensions. This realisation also prompted an idea in which the boundaries between informal and formal could be blurred, therefore encouraging culturally hybridised communities.

The manifestation of the counternarrative to the aforementioned narrative relies on the idea of community building, to create a sense of familiarity with the built form that accommodates the everyday activities of both communities; extension 8 and Kapok. Hence, the proposition is to initiate the chaos between the two. Chaos being the bridging factor between two separate communities which share the same core issues. In understanding what is observed on a daily basis, the idea is then catered around complementing what exists to bridge the proposed movement between spaces in informal and formal communities to create a counternarrative. So how could it possibly be done?



Figure 28: Map diagram showing the interplay between desire lines and grids linking both Kapok and extension 8 (Author, 2022).

Archi.Maki 01

How do we Develop our *kasi*?

The key idea assesses the form, space, and life of the settlements; between the formal and informal. How both are separated by a street and how these two parts of the town can synergise to solicit a greater sense of community, given the shared issues amongst both cases.

In doing so, to establish a sense of chaos between buildings by making use of the assessment of what is divisive or exclusive. This idea is represented by grid lines following the built form, to form kind of a puzzle between the buildings to establish an idea of shared public space, but also assess what the limitations of adaptable housing are currently, what could manifest, and what could possibly synergise both the formal and informal. The idea of a multicultural existence may not be facilitated by infrastructure, but it could be explored through the idea of space in time; how the idea of life between buildings differs but also play a part in experiencing a space in many different ways and through many different lenses to understand many different ways of life and traditions.

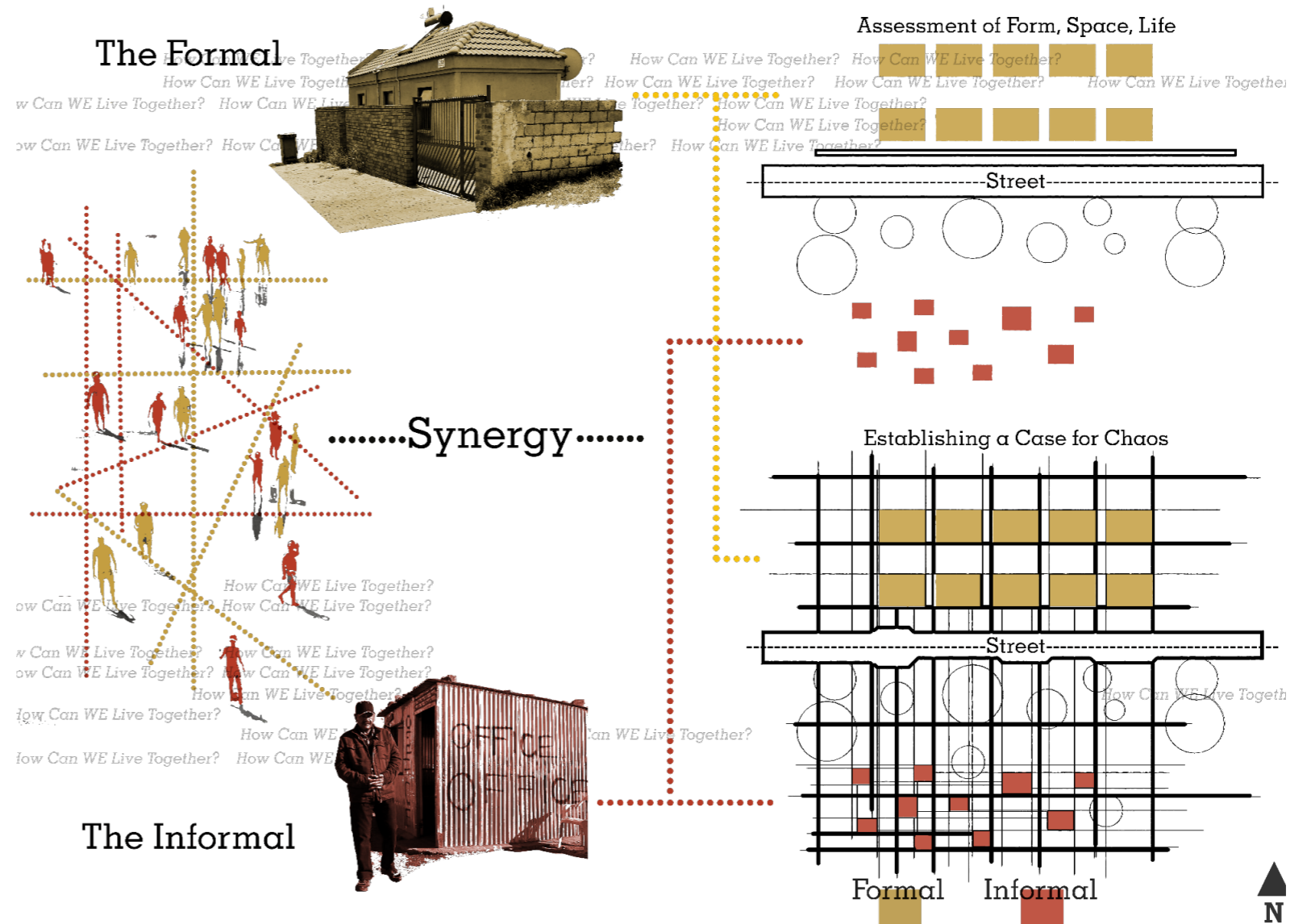


Figure 29: Diagrams explaining the assessment of form, space, life and the establishment of a case of chaos in the spaces between the formal and informal. It is taken from the first Archi.Maki exercise of the academic year (Author, 2022).

Conceptual Framework and Program Structure

Contains four points of inquiry, the traditional, the necessary, the energy, and the perception.

The Traditional

Involves the implementation of an agricultural workshop and an agricultural expansion field, as requested by the residents of Kapok. The workshop will aim to improve upon the farming skill set available in Kapok, in addition to that, a farm will run in an indicated area on site. The aim for this project will be to create a localised system that can allow for the harvesting of crops for retail markets, a nursery and livestock farming for the maintenance of traditional healing practices. In addition to that, a traditional healing centre will be included to allow for traditional ceremonies. The traditional healing centre will also aim to educate people in Ennerdale who may benefit from traditional healing on the traditional healing methods employed by the healers. This will aim to shift the narrative on the use of traditional healing and medicine. People who may be sceptical about traditional healing methods will have the opportunity to learn about the benefits of medicinal plants, divinity, and the cycle of traditional healing involved to re-establish a culturally responsive community. The accumulation of interventions results in the manifestation of a community centre.

The Necessary

Involves a construction workshop as part of the community centre. This will make use of the existing construction skillset found in Kapok. The use of existing materials within the dwellings could be repurposed to fulfil an adaptable housing scheme.

The Perception

Is the resulting factor between the Traditional and the Necessary; having food garden expansion within each household, to have medicinal crops harvested for medical and pedagogical use, and achieve adaptable housing with a hybridised materiality schedule containing local materials from the dwelling construction that is prevalent in Kapok. The addition of requested materials such as brick, concrete, timber will aim to achieve an architectural language suited for the area. The ultimate result is that of changing how Kapok residents are perceived.

Long Term - The Energy

As the agricultural and livestock farming practice grows over time, a biogas power generation system will be implemented within Kapok. This alternative energy method, as suggested by local farmers and skilled electricians will make use of organic waste from the workshop and farm to generate electricity and organic fertilizers.

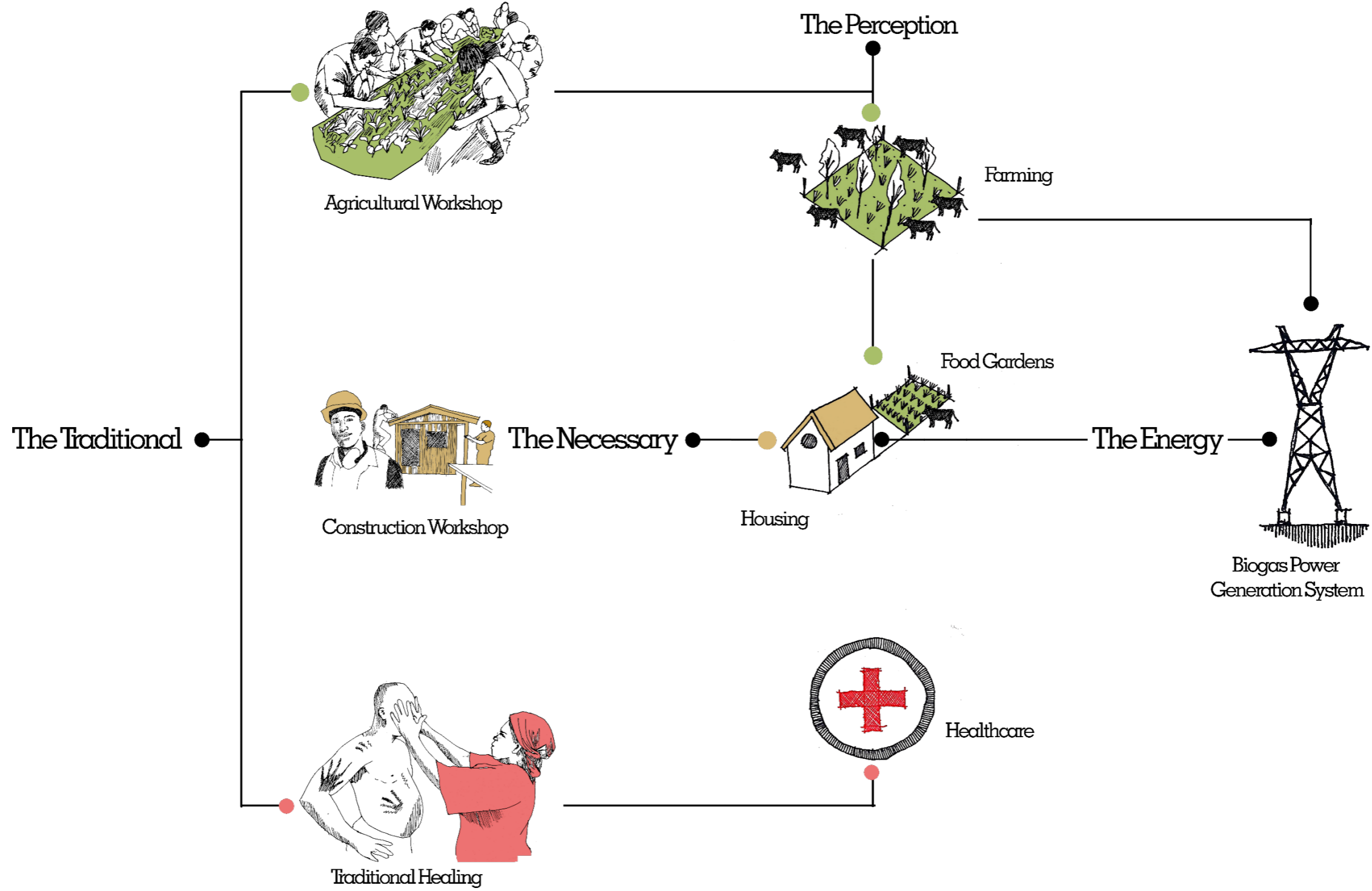


Figure 30: Conceptual Framework and Program Structure diagram (Author, 2022).

A Framework to Guide the Idea of Community Building

The aforementioned points of inquiry, the traditional, the necessary, the energy, and the perception are assessed and employed solely on the exploration of the case of Kapok. This is in relation to similar issues faced by both formal and informal areas.

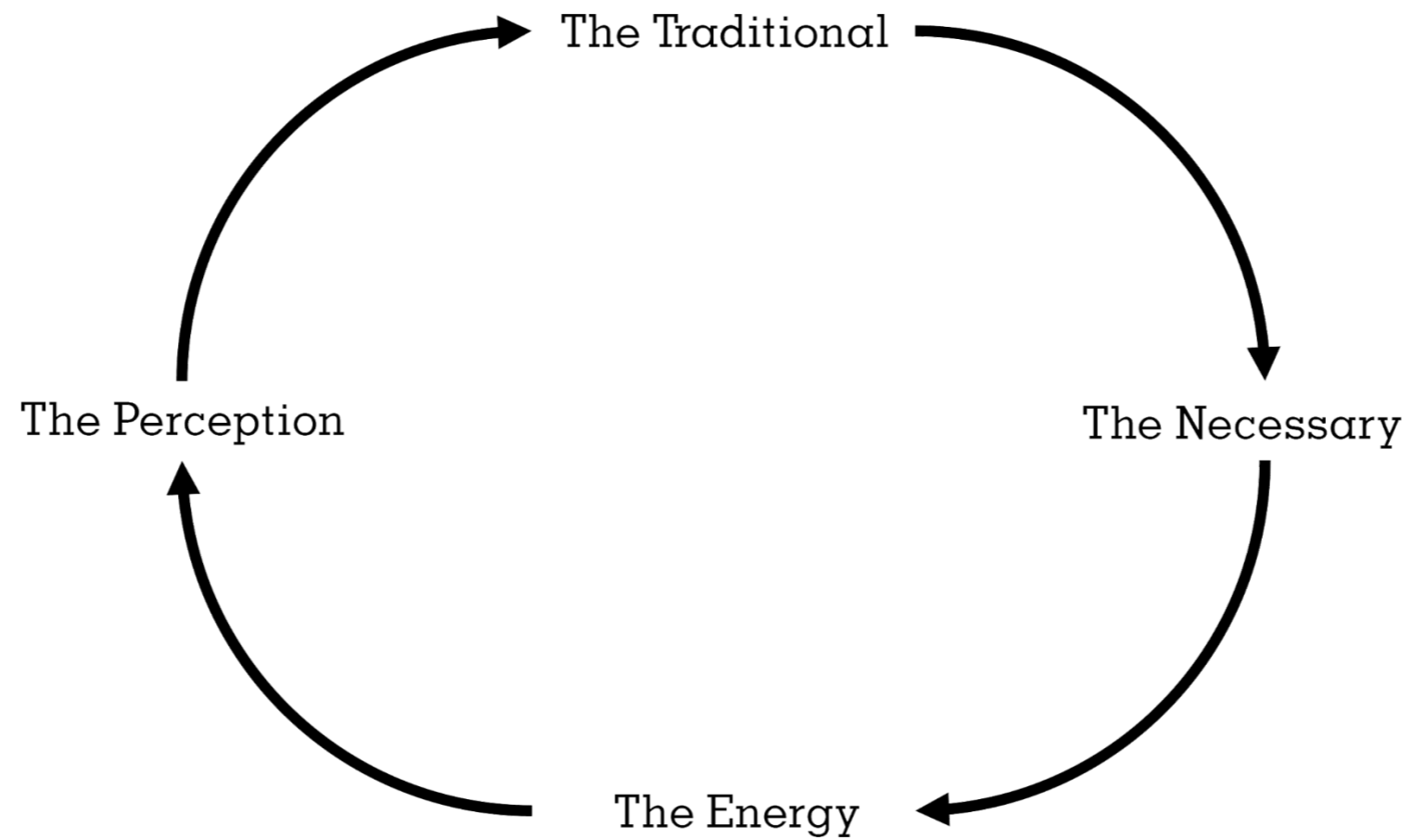


Figure 31: The 4 points of inquiry in a framework to guide the idea of community building. It acts as a cyclical concept that enforces the self-sufficient use of space out of necessity, reformation, and collective living (Author, 2022).

The Conceptual Framework and Program Structure Aims

1. Encourage the existing acts of farming and slaughtering for the purpose of ceremony and ultimately biomass harvesting
2. Provide a culturally inclusive space
3. Economically empower residents
4. Solicit a sense of pride, place, community, and identity
5. Achieve future developments of alternative electrical energy sources to link with the existing power station to ultimately sustain electrical energy.

The Traditional

For decades, Henri Lefebvre's effort created a corpus of work that tried to reprioritize the basic importance of space in the experience and practice of social existence. His claim that there is a "*politics of space*", in which he poses a challenge to the planning and design of the built environment by emphasising the importance of understanding the complex of factors involved in "*the production of space*." Lefebvre's approach, as well as his insistence for a "*right to the city*," illustrates the essential emphasis he places on the behaviours, meanings, and values involved with the inhabitation and use of ordinary social spaces (Zieleniec, 2018).

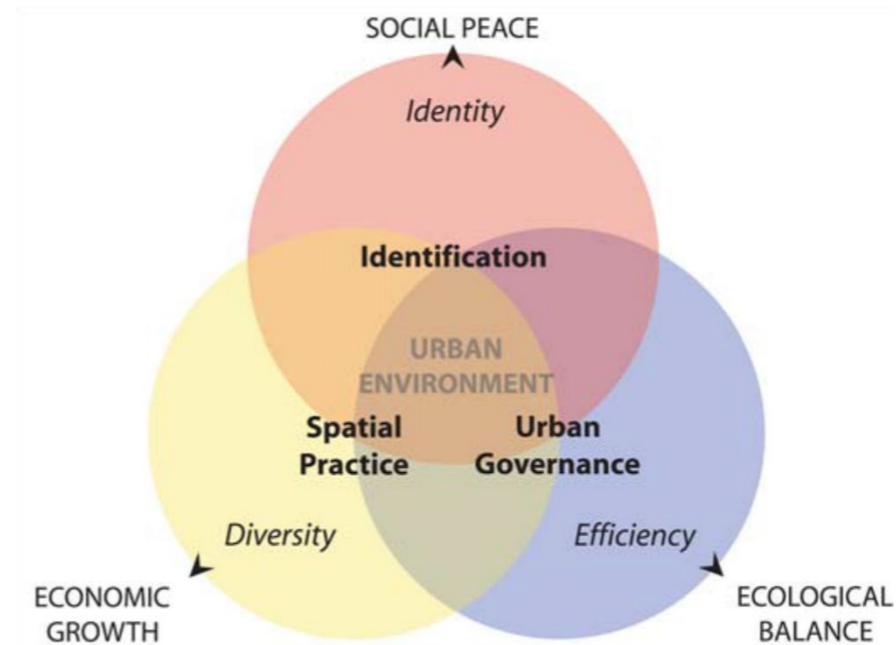


Figure 32: The Production of Urban Qualities (Wiedmann & Salama, 2012).

This can ultimately solicit the production of urban qualities (Wiedmann & Salama, 2012) within the excluded entities of the urban sphere. This is in line with the production of urban development, the difference enlisted within it provides the Third Space where identity can be sustained. Spatial practice is then practised openly under the traditions garnered urban governance. The regulation of the commons, as well as the existing discrepancies can be addressed; hence it becomes a public urban environment (figure 32).

Farming as a System

To make use of outputs from farming, the administration of it should be maintained through a system that allows the user, the producer and the produce to exist cyclically. **“A farm is a unique agroecosystem: a combination of physical and biological resources such as land forms, soil, water, plants (wild plants, trees, crops) and animals (wild and domestic)”** (Reijntjes, Haverkort & Bayer, 1992). Thus ensuring that the system continues one can repurpose either inputs, outputs or losses (figure 33). In Kapok, the idea of farming is not commercialised in a sense that any residual outputs from farming activities could be exchanged to maintain inputs. For the agricultural workshop and agricultural expansion, urban farming could provide an outlet to not only maintain farming activities, but also expand it.

Capital could be maintained with the potential farm system. But the issues of loss could come in a form of erosion, nutrient depletion, animal mortality, etc (Reijntjes, Haverkort & Bayer, 1992). This could be prevented by making use of incremental organic additions that may arise in a form of the workshop. The use of training could allow one to expand upon the knowledge to create continuity in both public and private agricultural practices. This is contrary to seasonal and short-term systems. From the interviews with local farmers in Kapok, they had expressed the issues of heavy loss within their agricultural ecosystems and had to travel as far as Orange Farm (14,4 km) and Walkerville (18,9), two areas thriving with agricultural farming to get more aids for their farms.

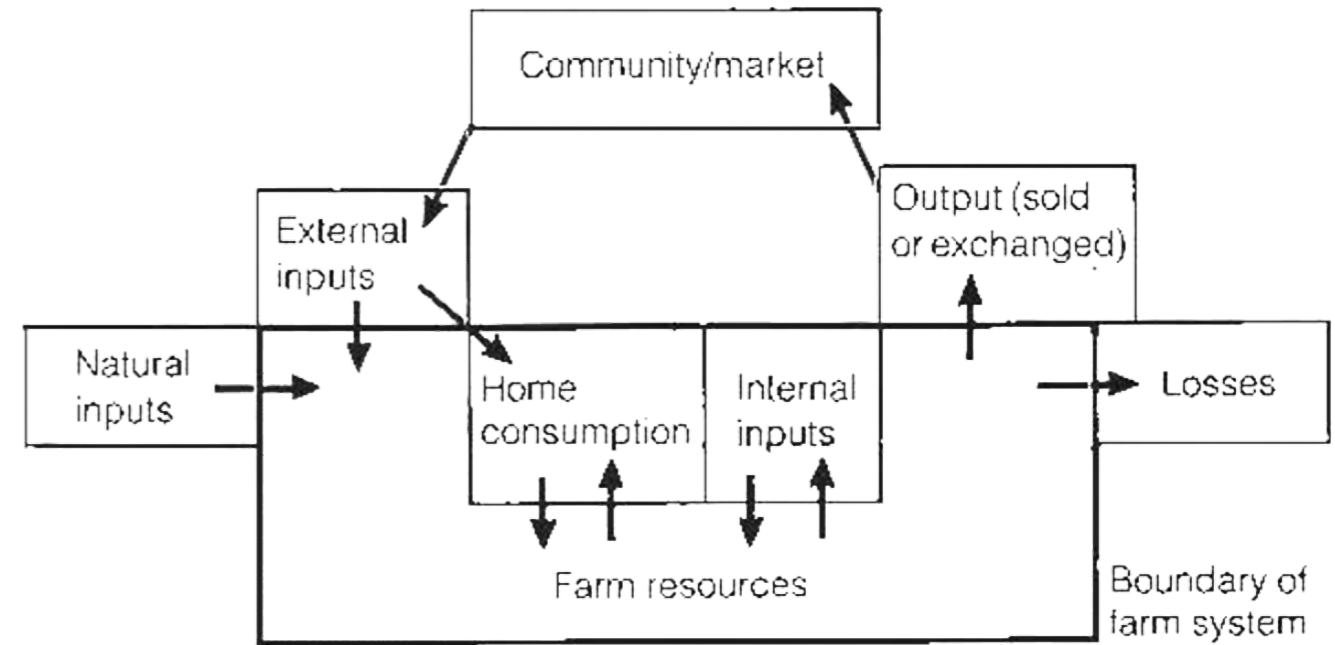


Figure 33: A diagram showing the intended farming system for the Cultural Centre’s urban farm in Kapok (Reijntjes, Haverkort & Bayer, 1992).

Ecosystems

The prevalence of forestry and woodlands in Kapok provides an opportunity to engage farming for future retention. Making use of an agroforestry system will alleviate the issues of heavy loss with farming crops. Agroforestry makes use of natural ecosystems. The combination of rising and surface-level vegetation creates a practical regulatory water system to reduce erosion. The soil cover improvement may be achieved by introducing perennial species to enforce complimentary soil distribution amongst all crops (Reijntjes, Haverkort & Bayer, 1992) (figure 34).

Waste Management and Composting

To further improve upon soil cover conditions, the ploughing methods could prove to be laborious. It is simpler when there is ample labour and water available but it would require a hands-on approach to maintain. The idea of an ecosystem means that the natural processes are left to occur but having waste as part of the equation could prove that realisation inadequate. The solution to this is to recycle the organic matter to use for other agricultural activities such as biogas production, fertilisation and ploughing. One method that could apply to the management of waste and composting in Kapok is to employ in situ composting and ploughing using termites (Reijntjes, Haverkort & Bayer, 1992). To attract termites, manure is deposited in the soil to not only plough but to harvest water reserves using catchment basins to conserve water and soil to increase crop yield per unit of land area (figure 35).

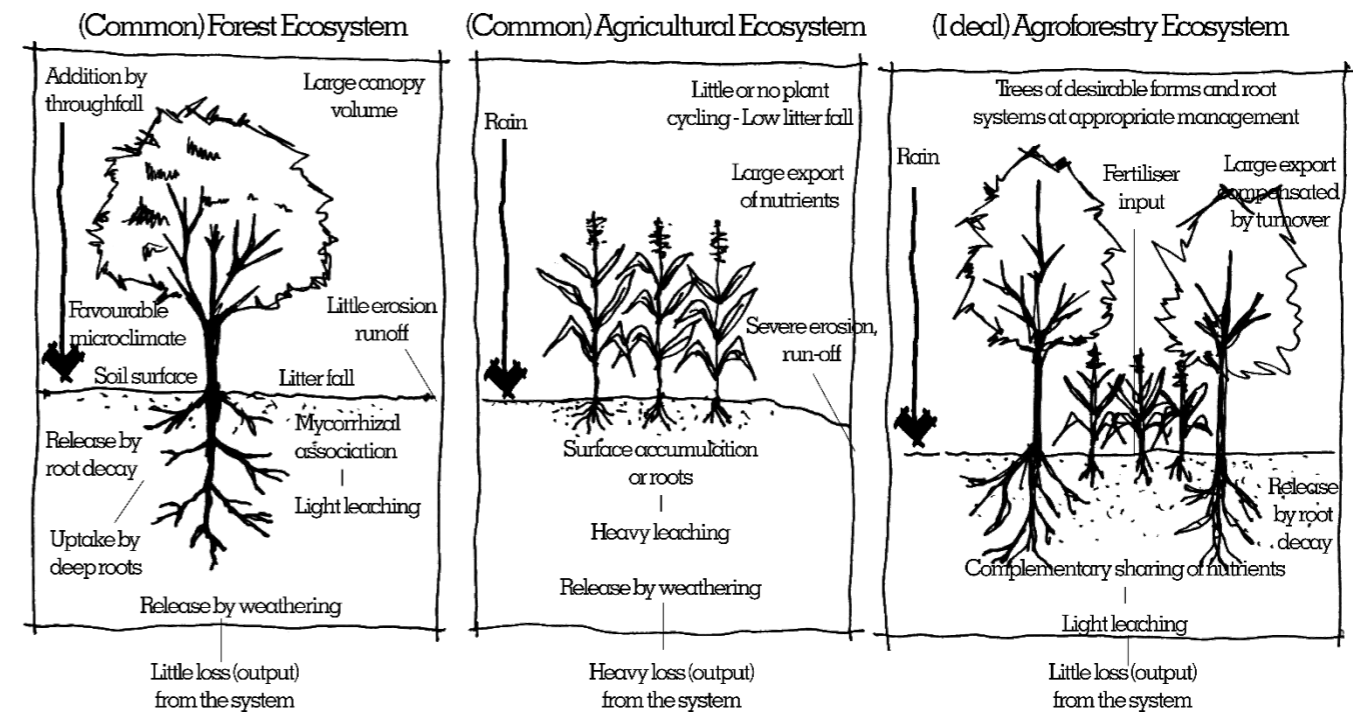


Figure 34: Diagram of different ecosystems (Author, 2022). Extracted from (Reijntjes, Haverkort & Bayer, 1992).

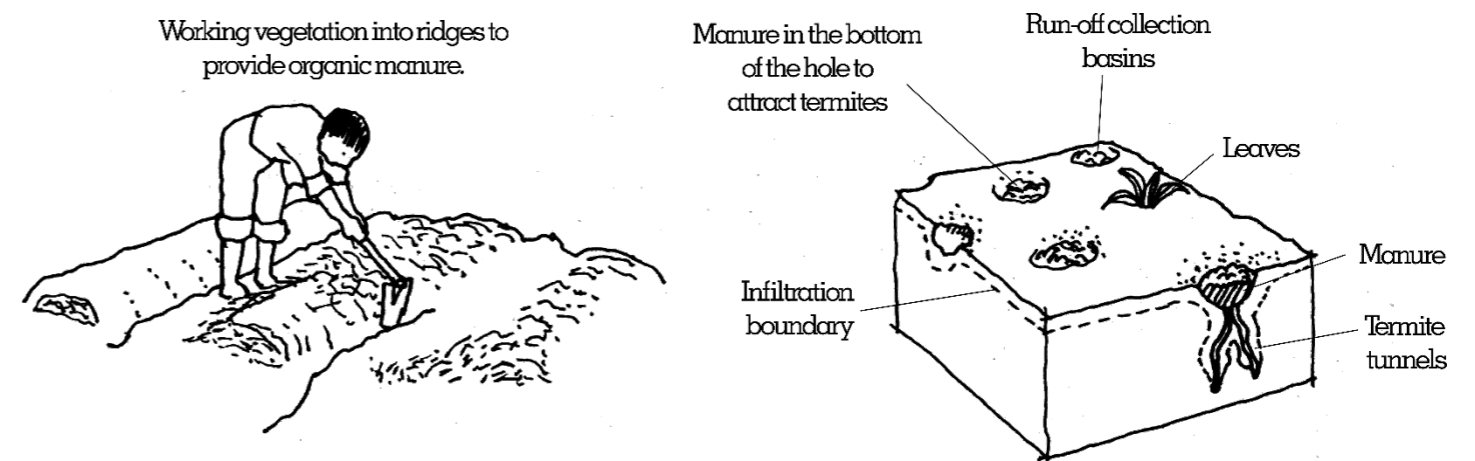


Figure 35: Waste Management and Composting (Author, 2022) Extracted from (Reijntjes, Haverkort & Bayer, 1992).

Traditional Healing

In a traditional healing sense, the integration of crops and livestock is important to not only conserve ceremonial activities, but to only do so for the subsistence of food generation. Diversifying livestock is just as important as doing so for crops. A range of species such as ruminants, pigs, and poultry are required fulfil both farming and traditional healing practices. This can ensure that a wider range of feed resources are fully utilised thus providing different products (eggs, milk, fertilisers, and meat). To have medicinal crops harvested means that the diversification of livestock is extremely necessary to include.

What it Means for Conservation

Upon visiting site, the issue was that the medicinal vegetation required for sangomas were either inaccessible or that they are at a deficit. I had to go on a walk to find out where they are located and what their uses were. I met and interviewed "*Fihlani*" who was kind enough to accompany me and help me locate some of them. The conservation process according to Fihlani is to employ a harvesting system to use near the dwellings as opposed to the hills beyond the settlement.

Requirements

In another interview with "*Kubu*", the program for the Traditional Healing Centre was finalised. She expressed the following requirements for the centre for sangomas: 1. an agricultural plot to harvest medicinal vegetation, 2. a sacred place for prayer, ceremony and sacrifice, 3. and a divinity shrine.

Medicinal Plants Found on Site

During my walk with Fihlani, an inventory of medicine was created. The following plants were found:

1. Giant alepidea (*alepidea amatymbica*), local name: "**lesoko**", is used to treat flu symptoms by crushing and boiling to drink when cool. It is also used for clear evil spirits from one's dwelling by either spitting or spraying.
2. Lion's spore (*euphorbia clavarioides*), local name: "**sehloko**", is used to treat stomach disorders and leprosy.
3. Fever bush (*dicoma anomala*), local name: "**hloenya**", is used to treat wounded livestock, gall sickness in cows, as well as coughs, dysentery and toothaches in humans.
4. Milkwort (*xysmalobium undulatum*), local name: "**pohotshehele**", is used to treat headaches, colic and dysentery.
5. Golden everlasting (*helichrysum aureonitens*), local name: "**mpepo**", is used as incense to induce trances and to summon divinity.

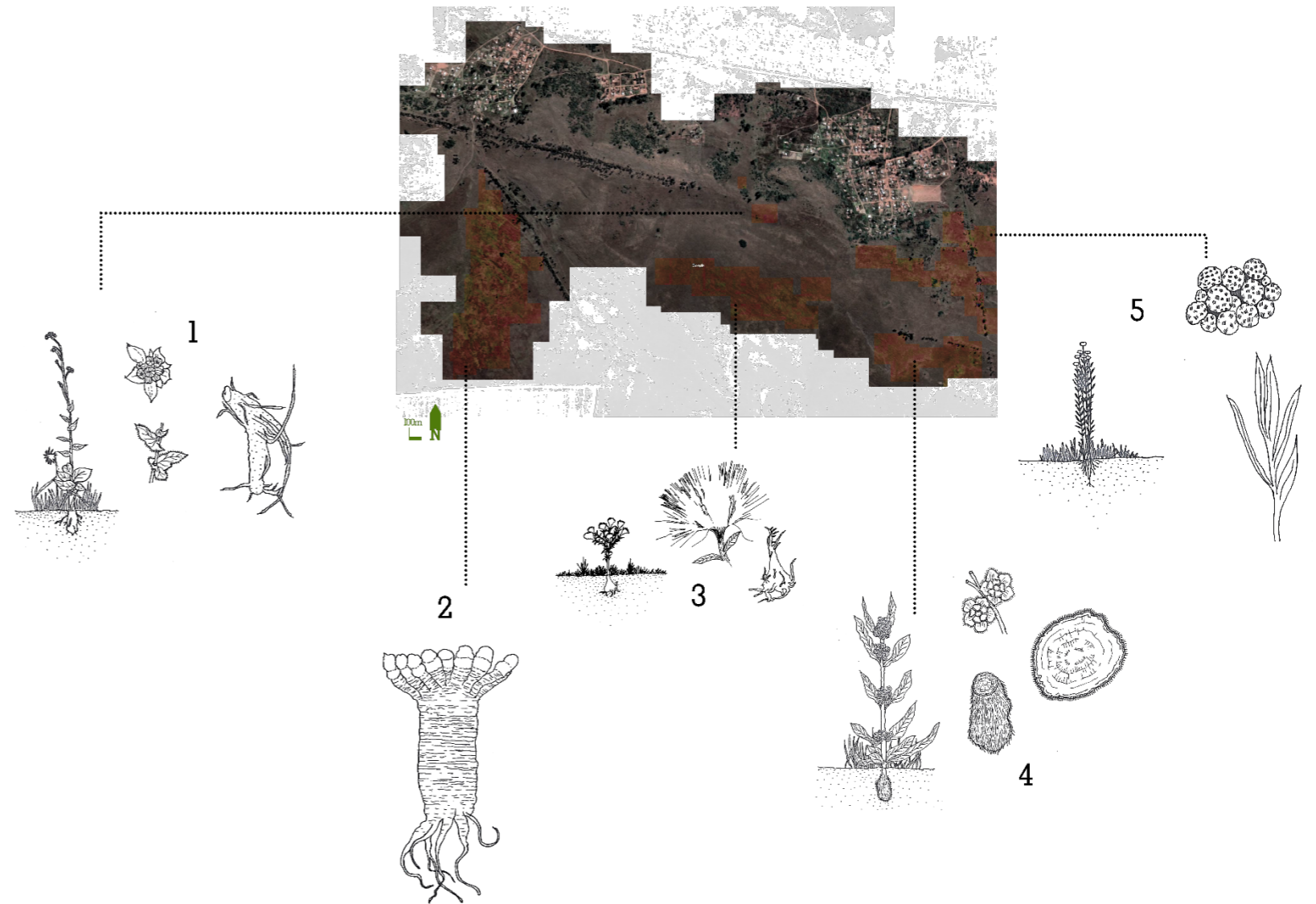


Figure 36: Image showing medicinal plants found on site (Author, 2022).

The Necessary – Adaptable Housing

Urgency vs Agency

In extension 8 a sense of urgency is required due to safety, economic pressure and family growth. This results in stoeps and thresholds being compromised due to demarcation walls, and the squeezing of dwellings due to backrooms.

In Kapok however, this should not be the case. Agency should govern the spatial qualities of one's home. To remove the idea of detached dwellings, the urge to add space for retail (tuck shops) or additional rooms should synthesize with the main dwelling. How one demarcates their space in conjunction with others is in relation to a synthetic approach to communal living. The public spaces are therefore encouraged through passive surveillance and easy access. The houses are formed around the understanding of these demarcations where there is unforced engagement and the privacy of one's household are preservable.

The erf sizes should be allocated with consideration to these additions. This way in the grand scheme of things, the house could allow for future developments.

The idea of having adaptable housing in an area that lacks resources to incubate financial income means that one who would acquire such a house could have the space to generate income and contribute to the community's economy. The government subsidy housing schemes could use these propositions to further aid in fixing the housing crisis by means of incremental processes. I want to make a case for each of the aforementioned to have a further discussion on how we can be inclusive in the communities affected and how we can also set the platform for further communal growth. The idea of adaptability done through incrementalism would determine successful integration amongst residents in a shared environment. In Kapok, considering the size of each household and the activities that coincide with them, one can fully implement the aforementioned and still have the opportunity for more additions.

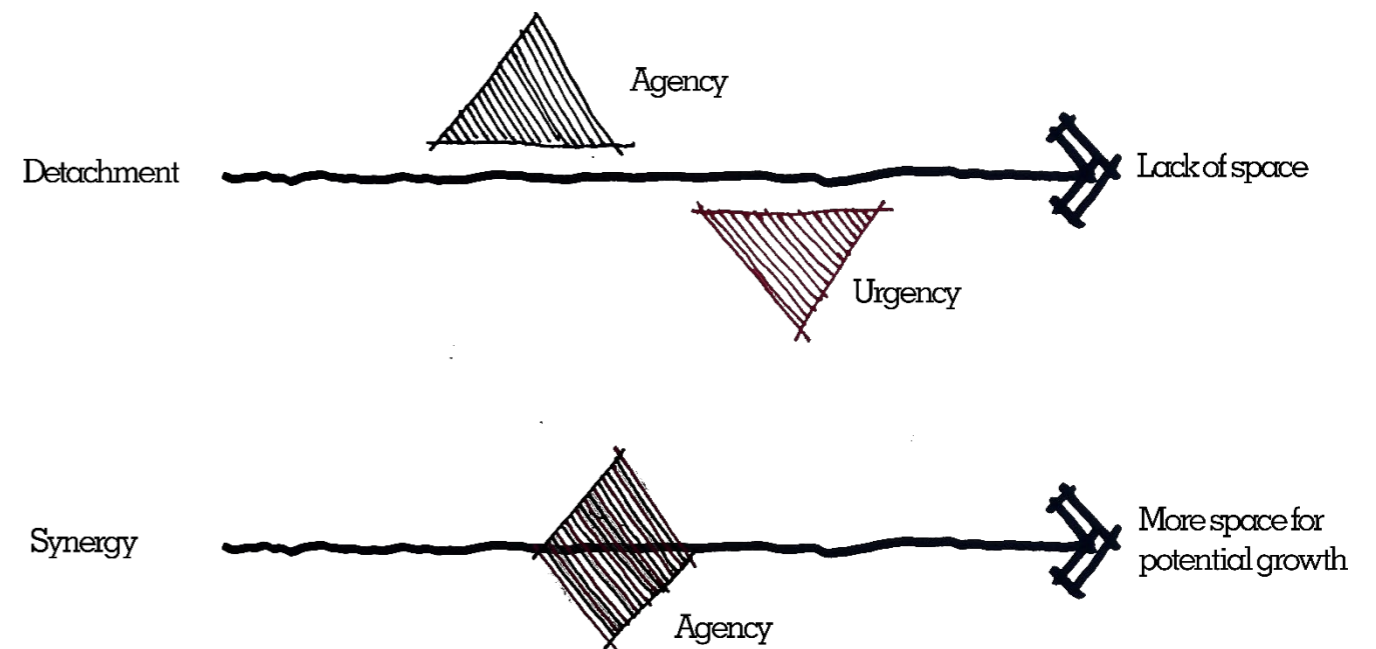


Figure 37: Agency vs Urgency (Author, 2022)..

The Perception



Figure 38: Nolli Map of Kapok and extension 8 (Author, 2022).

Site

The chosen site would need the activation of the street defining the boundary between Kapok and extension 8. The two access points (1 & 2) will make for an opportunity to solicit a community building scheme that will make use of the sum of parts that make up a self-sustaining community.

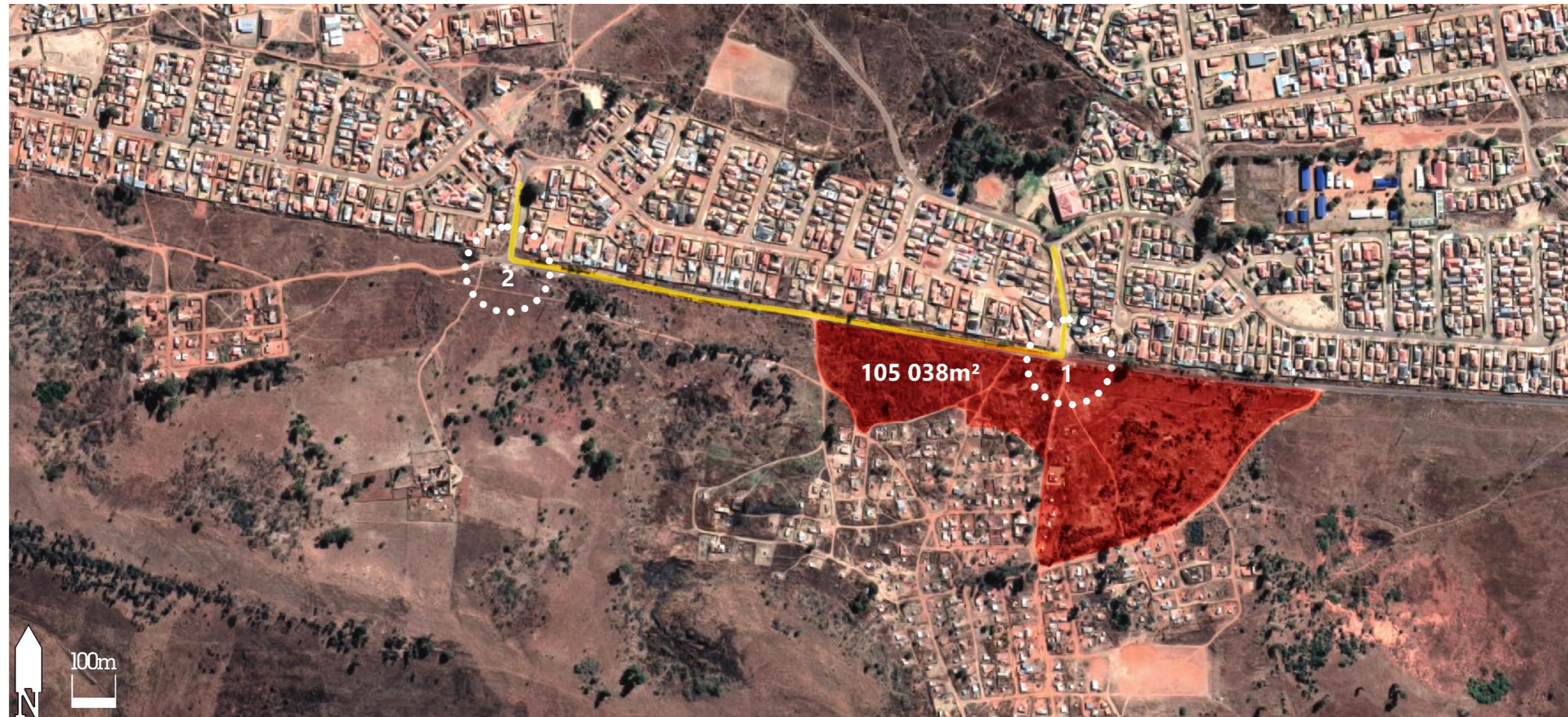


Figure 39: Map showing the two access points to Kapok (Author, 2022). Maps extracted from Google Earth Images, (2022).

The Perception applies to the theory of **“Assemblage”**. The publics and the commons should make up the network in which cross-communication, interpersonal relationships, and pride within communities are achieved.

Assemblage Theory

The concept materialised substantially in **“A Thousand Plateaus”** (Deleuze & Guattari, 1987) by Gilles Deleuze and Felix Guattari in 1987. As Kim Dovey explains it in **“Assembling Architecture”**; *“the concept of ‘assemblage’ is translated from the French ‘agencement’ meaning ‘layout’, ‘arrangement’ or ‘alignment’ – both a dynamic process and a socio-spatial formation. While there are always debates over translation, this seems the best English word with its mix of noun/verb, stability/change, structure/agency. The French word, however, also connotes the notion of ‘alignment’ indicating that the various parts of an assemblage are not simply connected but share a certain direction and synergy”* (Dovey, 2013).

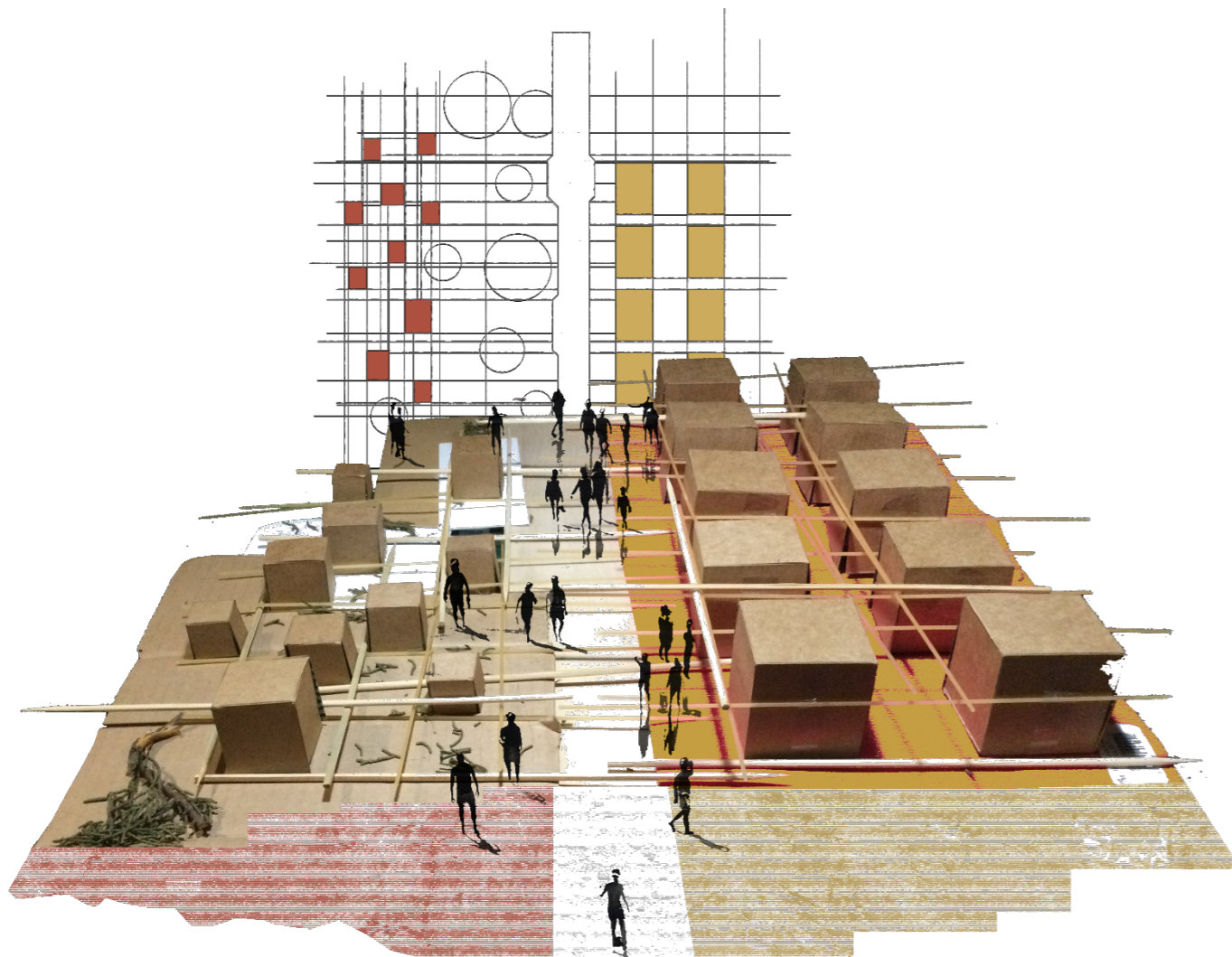


Figure 40: The Third Space from Archi.Maki 01, a modelling exercise (Author, 2022).

What the assemblage theory means is that the idea of architectural intervention in the application of the assemblage theory manifests itself as an action (verb), that action performs a sum of parts that make up a whole (noun) which is the intention of the architectural intervention. The makeup of power in the practice of architecture in this sense means that it can base itself in either empowering or giving rise to controlling others. In this case, the use is responsive to existing power in the makings of empowering the downtrodden through socio-spatial assemblages. The attribution of action drives what the necessary is, which is product. The instability will solicit a transformative approach in matters of the periphery (smaller entities), and right to the city (global entities). And the structure as is will be subject to reformation to achieve agency, towards a commons.

The interconnection between function and identity through assemblage aims to identify the actions between them to achieve a whole emerging from them, hence providing a **“Third Space”**. A Third Space accredits cultural hybridity with the absence of presumed hierarchical structure. Homi Bhabha describes The Third Space as a space in which transformation can occur and the coexistence of difference, in identity and culture is attainable. It may not be physical but the actions of and in space can give rise to an emergent whole (sum of parts).

“The theoretical recognition of the split-space of enunciation may open the way to conceptualising an international culture, based not on the exoticism of multiculturalism or the diversity of cultures, but on the inscription and articulation of culture’s hybridity. It is the in-between space that carries the burden of the meaning of culture, and by exploring this Third Space, we may elude the politics of polarity and emerge as the others of ourselves (Bhabha, 1994).”

Street Edge

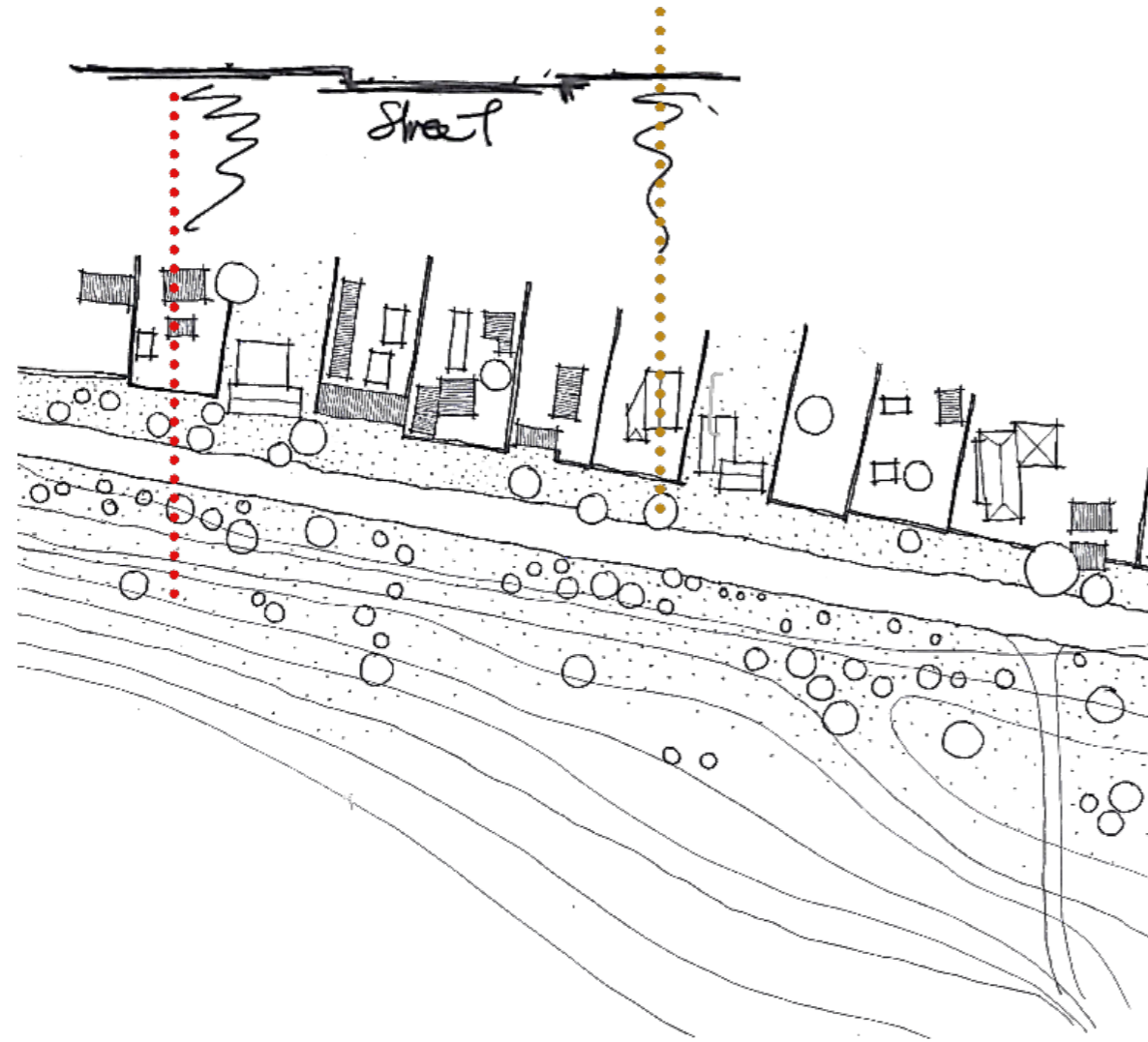
Threshold Absence

One issue of access is approach. The bushy terrain along the street edge makes for a less than inviting space, one would be fearful by the idea of entering a space devoid of activity. Figure 40 shows extension 8 having most dwellings facing away from Kapok, thus removing the option of visual access, thus rendering passive surveillance absent.

Fragmentation

To begin the phase of intervention, the street is fragmented to 1. Pedestrianize the street and 2. To create a threshold between the Cultural Centre and the street. The sense of chaos is accommodated by this notion. This allows for the expansion of farm market-related activities along the street edge of each side, namely Kapok and extension 8.

Seeking the Threshold



Fragmenting the Street Edge

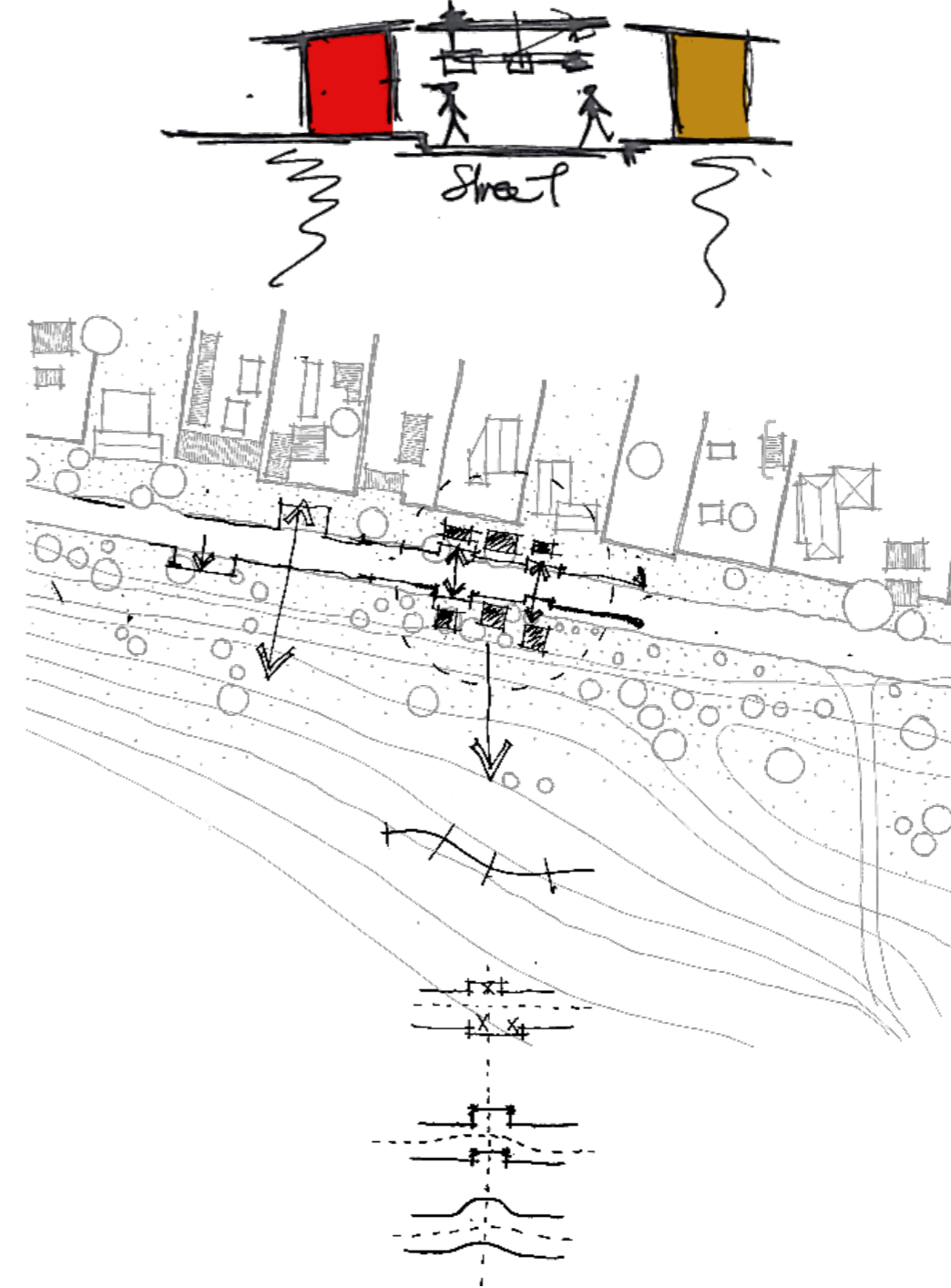


Figure 41: Diagrams establishing thresholds on site (Author, 2022).

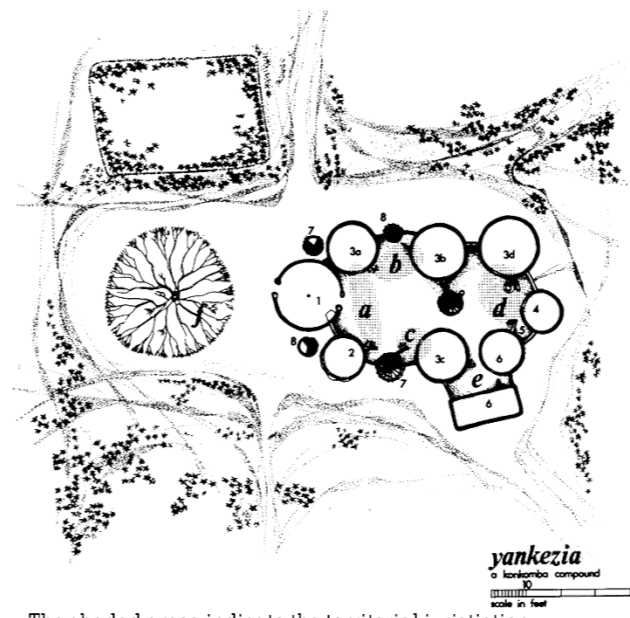
Creating a Village

Precedent - Village Studies

Sociograms

To aid in further understanding the use of connective space, I look at the 1969 Konkomba Compound in Ghana. This village creates the disposition of each dwelling or compound to reflect the relationship between residents, which extends to the homestead by virtue of agricultural practice as well as cultural connections (Prussin, 1974). The spatial layout enables the use of a single court to engage residents through relativity; one's hierarchical position dissipates within the bounds of the court despite rank or class. This could be attributed to the fact that growth is always expected within the village.

1. The identifiable hierarchy is indicated through size of compounds and proximity/ openness to other compounds. The outdoor public areas and its proximity to certain compounds imply public use and the tightness smaller scale implies more private use.
2. By extension, the location of family compounds and homesteads on the landscape form nucleated (private) or dispersed (public to semi-public) settlements. It acts as a sociogram of the groups that have already established community and occupation.
3. The disposition of units reflect both relationships with between residents and relationships between the physiography. The kinetic quality means: growth of compounds as the as the community grows by the addition of new, enclosed, or clearly demarcated extensions in space.



The shaded areas indicate the territorial jurisdiction of each of the four compounds (3a-3d), and the alphabetical sequence (a-e) indicates the growth of the residential complex in space and time.

KEY:

Compounds		Shared space access	
Public		Semi-public to Private	
Future development		Territorial Jurisdiction	

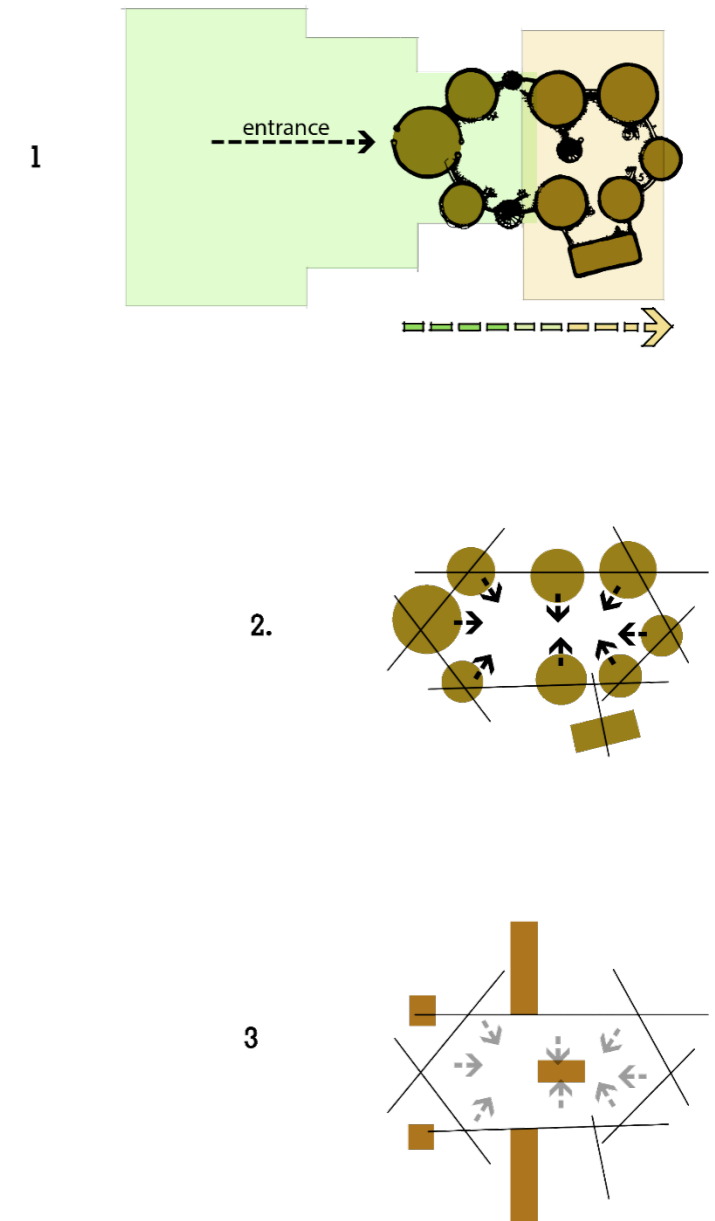


Figure 42: The Konkomba Compound (Author, 2022). Extracted from (Prussin, 1974).

Creating a Village

Precedent - Village Studies

Thresholds

Another example is a traditional village layout from Botswana. 1. The general building layouts make use of traditional Tswana dwellings linked to self-subsistence in a form of additional housing for growing families or tenants. Both in principle and materiality. 2. This is attributed by a larger plot and thresholds that can allow traditional concepts to dominate the use of space. 3. Through the use of space the heart of the dwelling; the inner courtyard, *"Lolwapa"* creates a generous frontage that is enclosed by a low mud wall (Larsson, 1992). It acts as a living room where small children play, visitors are received, meals are taken and where fires are made for social gatherings.

Much of the social functions of the settlement change through time. The staggered form creating thresholds for each dwelling denote the direction of social functions to emphasise either involvement to egress from the community. In practice, it enforces intimacy engendered by space

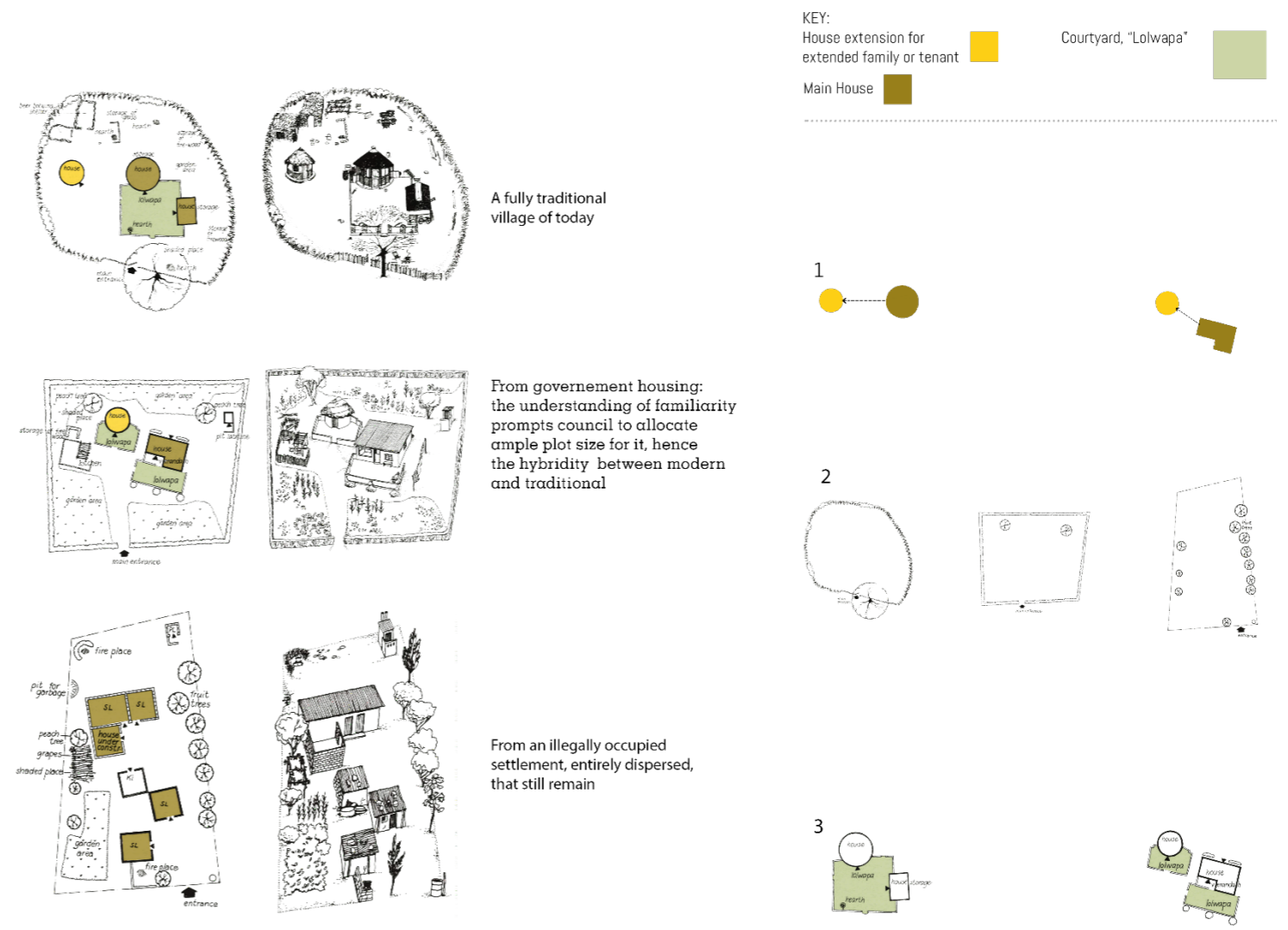


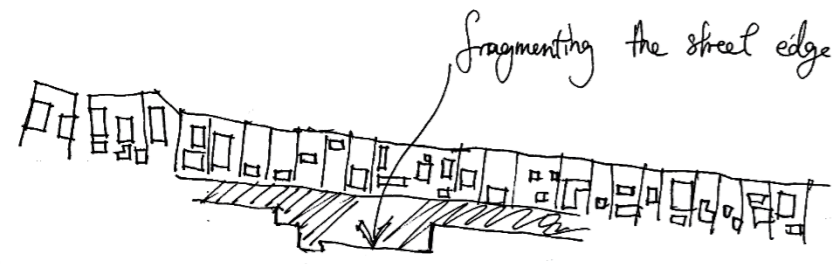
Figure 43: Villages of Botswana (Author, 2022). Extracted from (Larsson, 1992).

Applying the Village

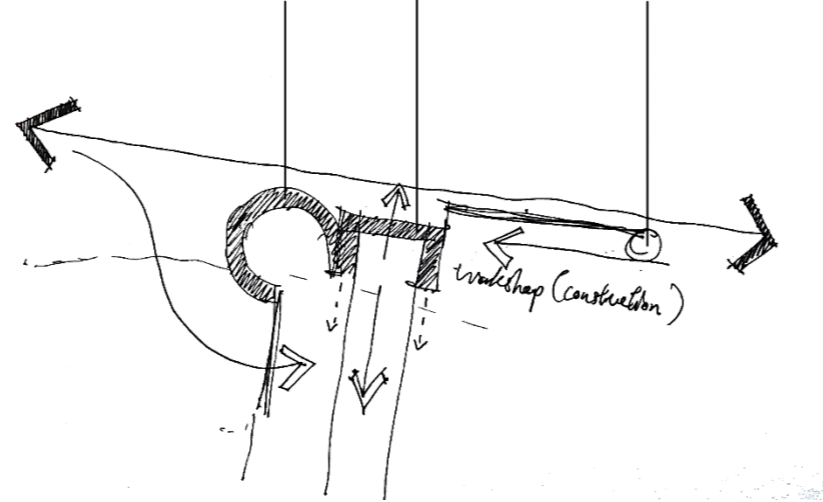
Preliminary Sketches and Concept Development

The stages include fragmenting the street edge, to form a plaza front along the street. The form conforms to pull potential users from the street node, the spine is open to market stalls and social activities. The anchor is the point of entry, it engages the public with an opening to frame the views of Kapok's terrain. The hold is a space for gathering, it aims to shift potential users to optional uses of space through visual access of both the anchor and pull points. Lastly, the extraction breaks each point into a sum of spaces for permeability.

Fragmenting the Street



Hold Anchor Pull



Extraction

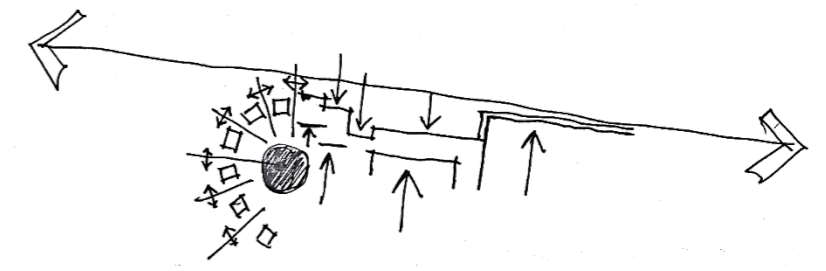
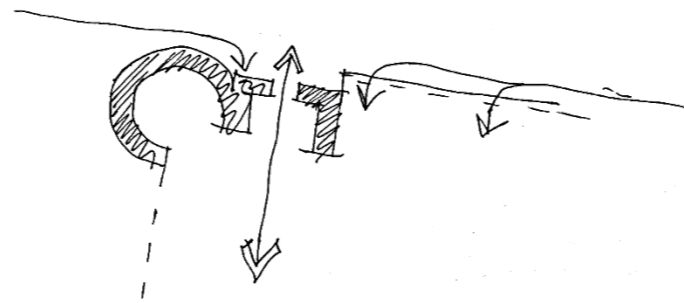
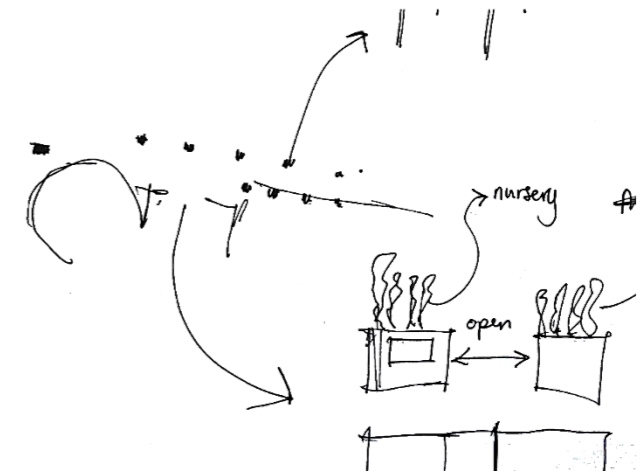


Figure 44: Preliminary sketches and concept development (Author, 2022).

Additive and Subtractive Forms

The scheme employs additive and subtractive forms to engage the idea of the relationships between indoor and outdoor spaces. The complete mass aims to address the desire lines leading to extension 8 from Kapok where it is extracted to an additive form which represents the indoor spaces. This form follows the street fragmentation and the subtractive form represents the outdoor spaces which coincide with the fragmented street edge to achieve the threshold quality required to address the bridge between formal and informal qualities. These are not only subjected to the hold spaces but they run across the pull, anchor and hold spaces thus forming a composition that encompasses the approach from Kapok and extension 8 by forming a synergy between the two.

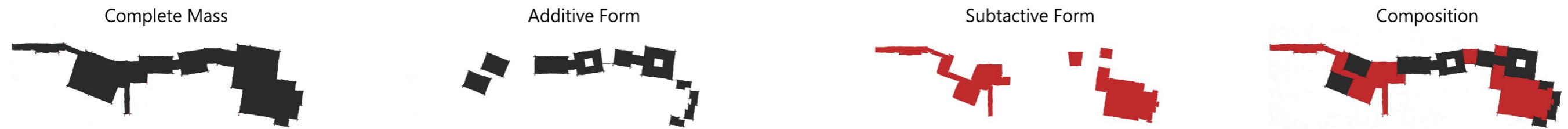


Figure 45: Additive and Subtractive Forms, (Author, 2022).

Composition - Plan



Figure 46: Plan of the community centre (Author, 2022).

Program

Hold

Traditional Healing Centre

The centre will contain two main components, namely, the “Nxalo” and “Ndumba”. A Nxalo is an outdoor sacred space for prayer, sacrifice to summon divinity. It is characterised by a flat plane demarcated with rocks. It is also a place of ceremony that may be open to the public. The rituals performed are based on the divine messages received by traditional healers. It is a circular flat plane with rocks placed around it. Occasional sacrificial ceremonies in a form of livestock slaughtering for meat and ingredients are performed. A fire is made in the middle for trance-like dances depending on divine messages received by sangomas (figure 44).

A Ndumba is a divinity shrine usually occupied by one traditional healer. It is characterised by a dome hut structure. It is a consultation room, as well as fortune telling. It is a place that plays a vital role in sustaining connection with divinity. It is also a place where patients are given medicinal herbs or herbal mixtures to cure any ailments they might have. It usually comes in a form of a hut with a thatched pitch roof (figure 45).

The Nxalo Process

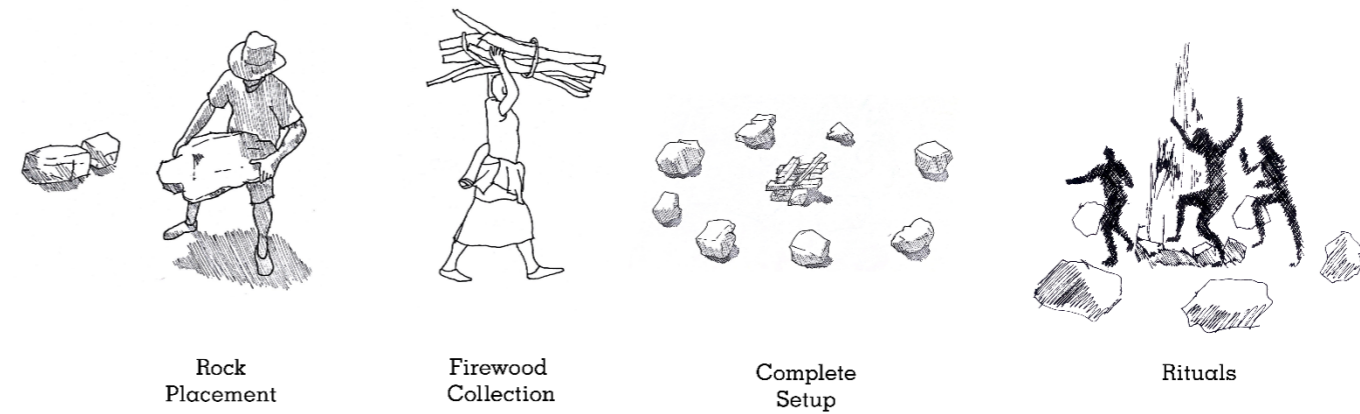


Figure 47: The Nxalo process (Author, 2022).

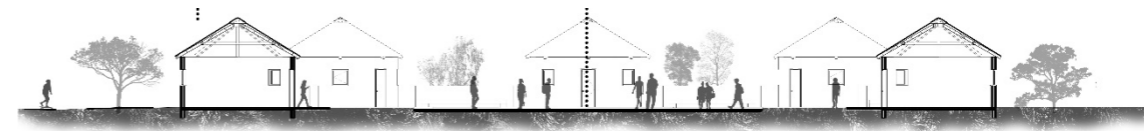


Figure 48: Section through the Nxalo and Ndumba.

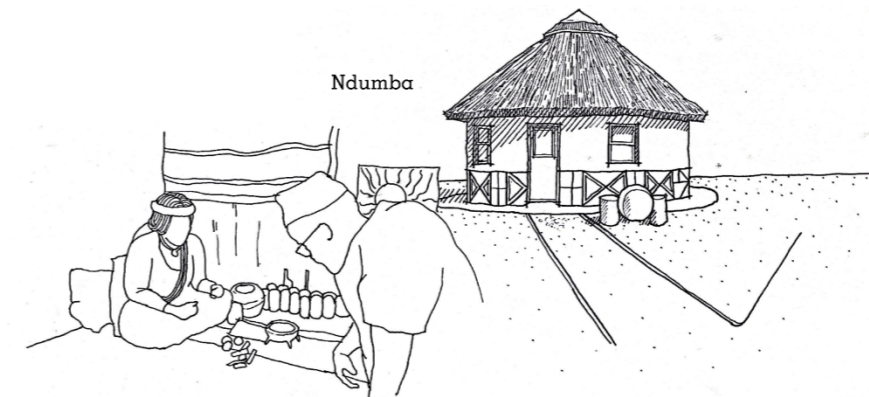
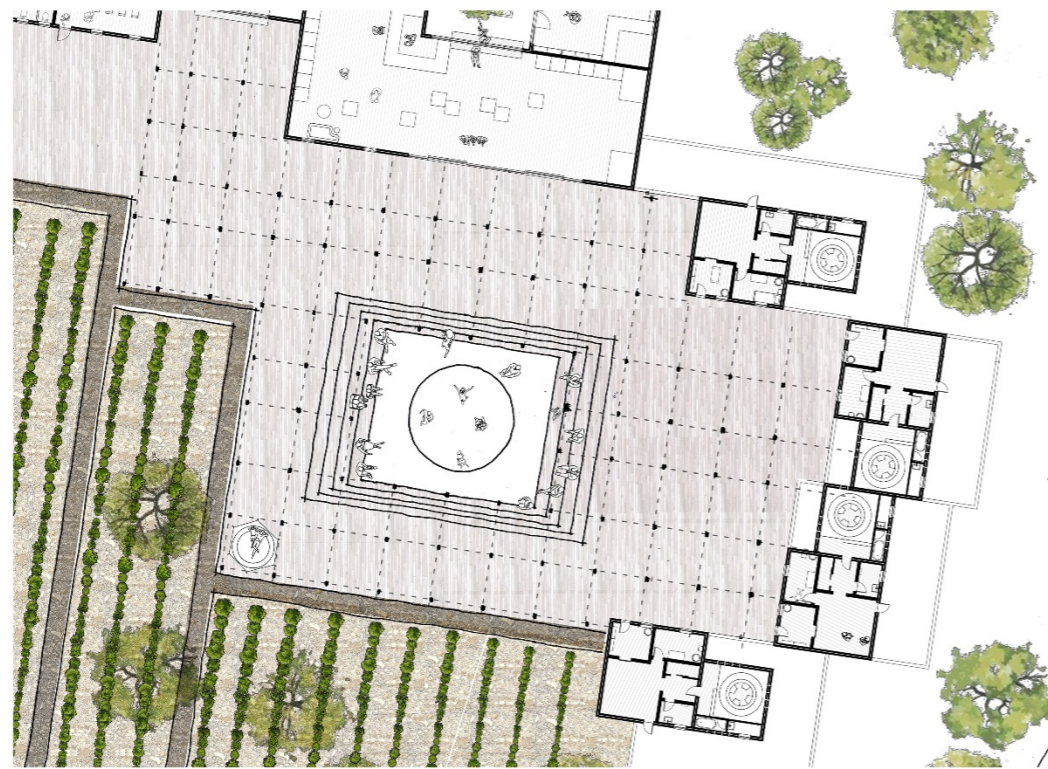
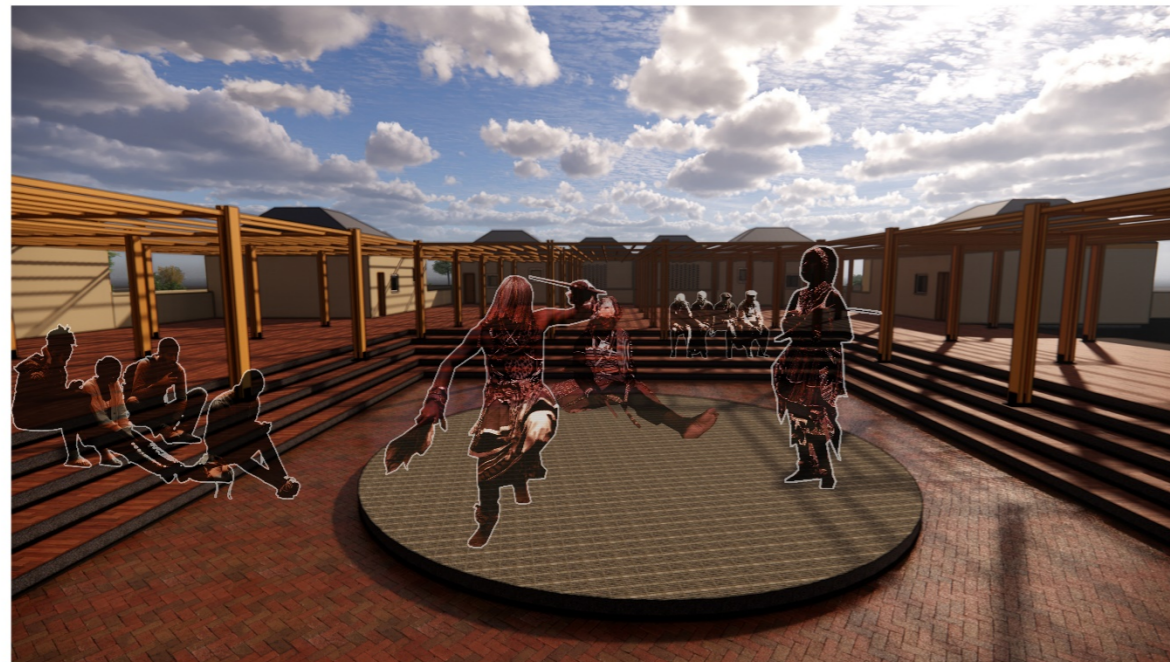


Figure 49: Ndumba hut (Author, 2022).

Ndumba and Nxalo



Nxalo



Ndumba

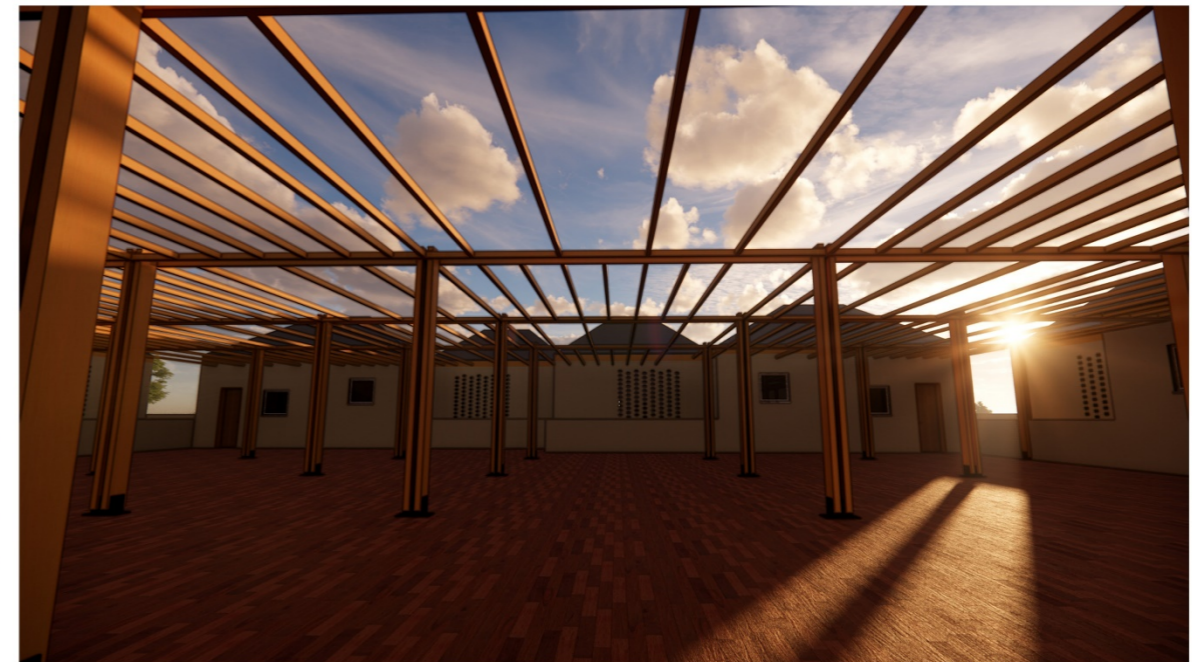
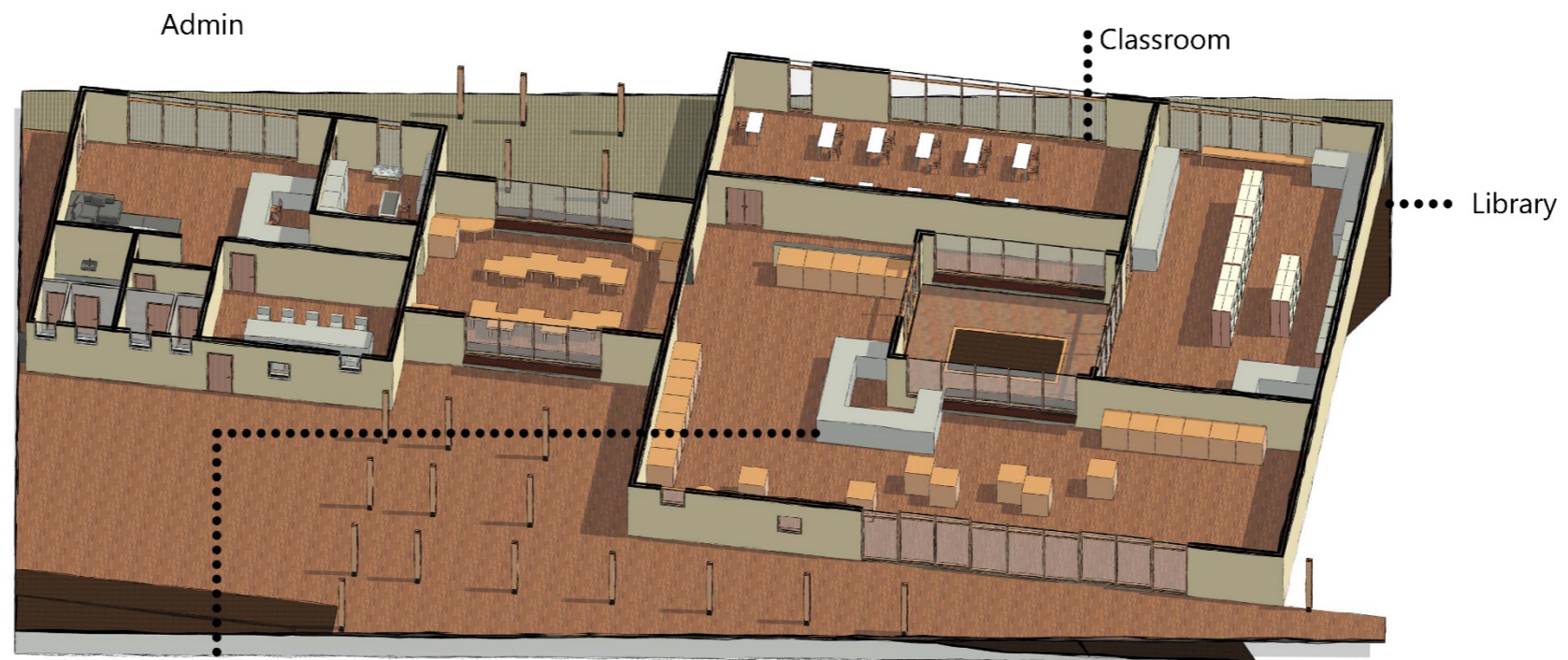


Figure 50: The Ndumba and Nxalo (Author, 2022).

Traditional Healing Centre



People will have the opportunity to learn about the benefits of medicinal plants, divinity, and the cycle of traditional healing involved.

Exhibition

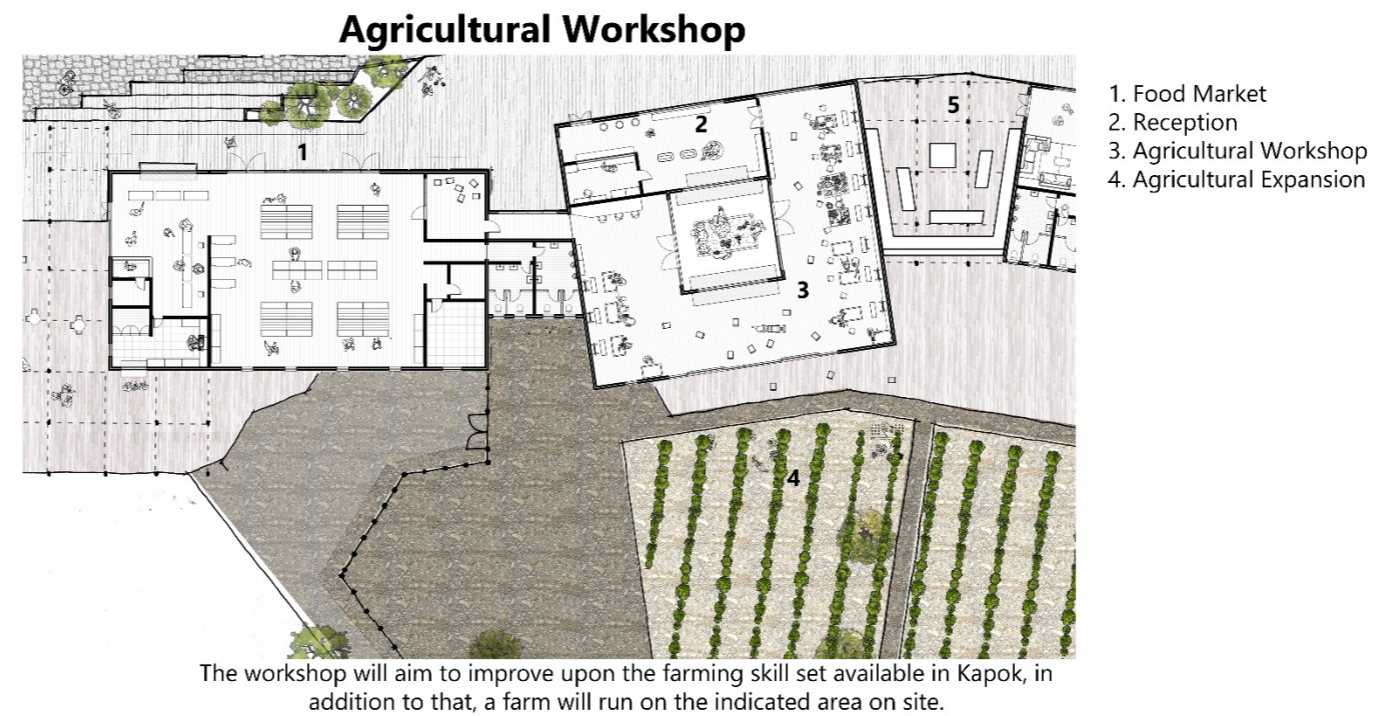


Figure 51: Traditional Healing Centre (Author, 2022).

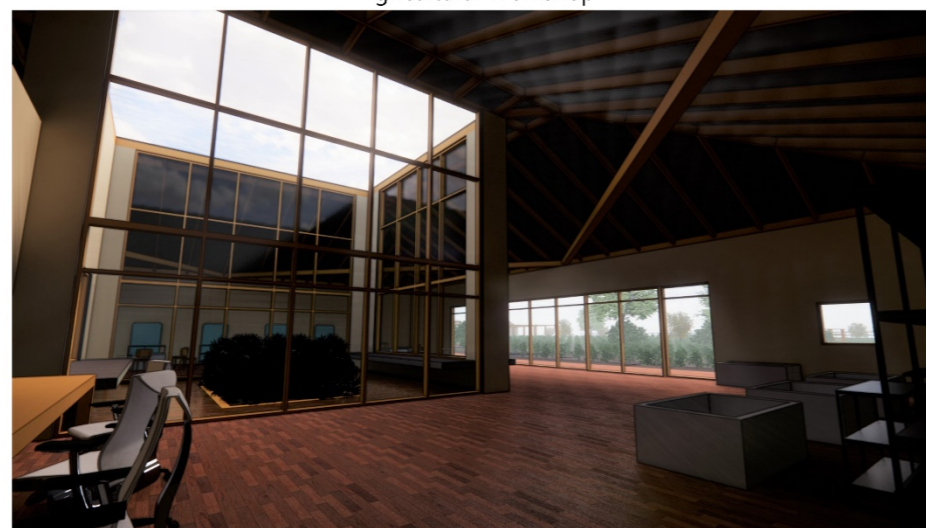
Anchor

Agricultural Workshop

The skillset included and improved upon, the agricultural workshop lies in the allocated agricultural expansion field where the skills learned, observed and tested in the workshop is applied and the output extracted from it is transferred to the food market space to fulfil the self-sufficient use of not only skillset but the spaces around the workshop.



Agricultural Workshop



Agricultural Expansion



Figure 52: The Agricultural Workshop (Author, 2022).

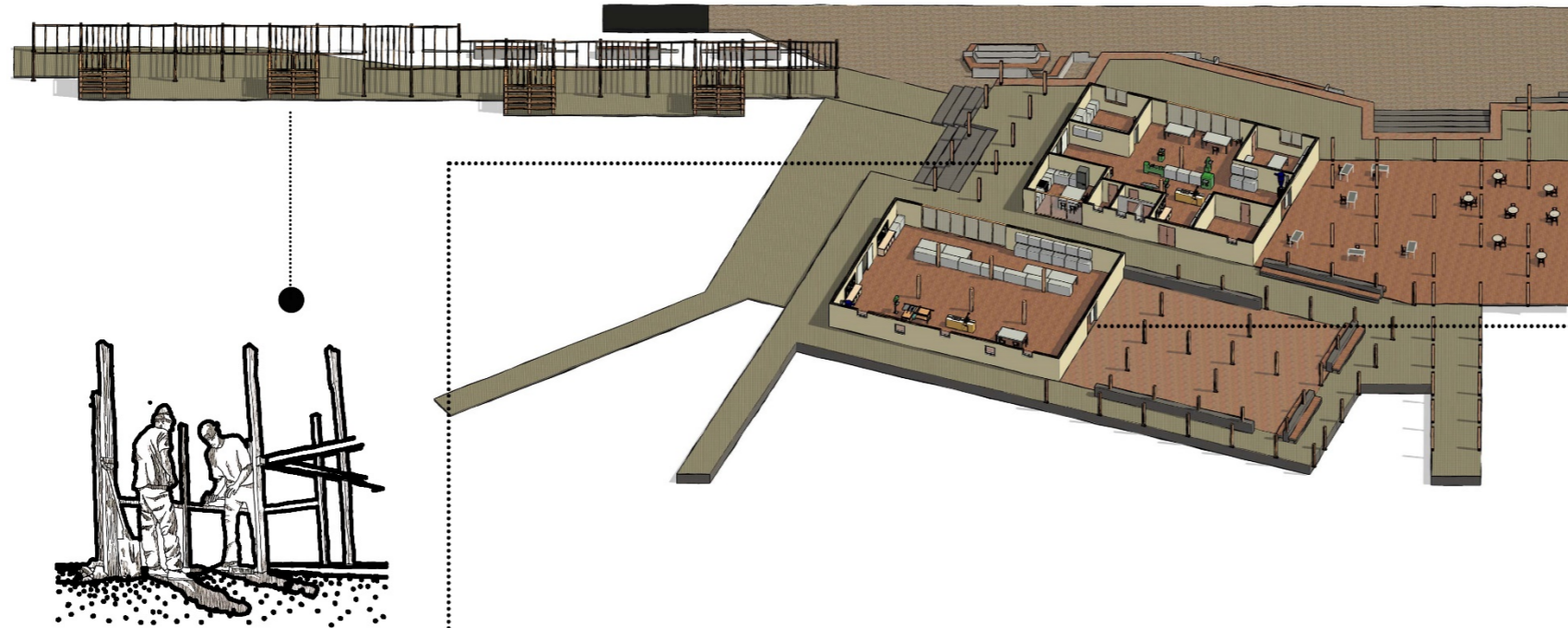
Pull

Construction Workshop

The construction workshop is subject to further growth as more houses get built around Kapok. The workshop will make use of adaptable housing construction methods to cater for every housing need. This idea was brought up during the course of interviews. In one of the interviews I had the opportunity to learn the method used to construct a typical dwelling in Kapok, thus the ultimate goal will involve reusing the existing materials found for each household; to assess, disassemble, treat, reassemble and then retrofit the corrugated metal wall structures into the brick structure proposed during the design enquiry.

The idea was suggested to me by "*Bongz*", a skilled construction worker who also specialises in electrical work. This is a low-cost method due to the recycling of materials. The blend of conventional and informality makes for a flexible house to construct, as well as opportunities to test all suitable possibilities for each resident. This point fulfils the idea of one being able to project their personality in their space, and exercising their practices to solicit agency within their own space. This removes any confinement of finite housing that plagues government subsidised housing.

Construction Workshop



The workshop acts as an incubator in housing Kapok residents.

Material repurposing and Frame-making spaces are open to any housing or market stall requirement.

Material Repurposing



Frame-making



Figure 53: The Construction Workshop (Author, 2022).

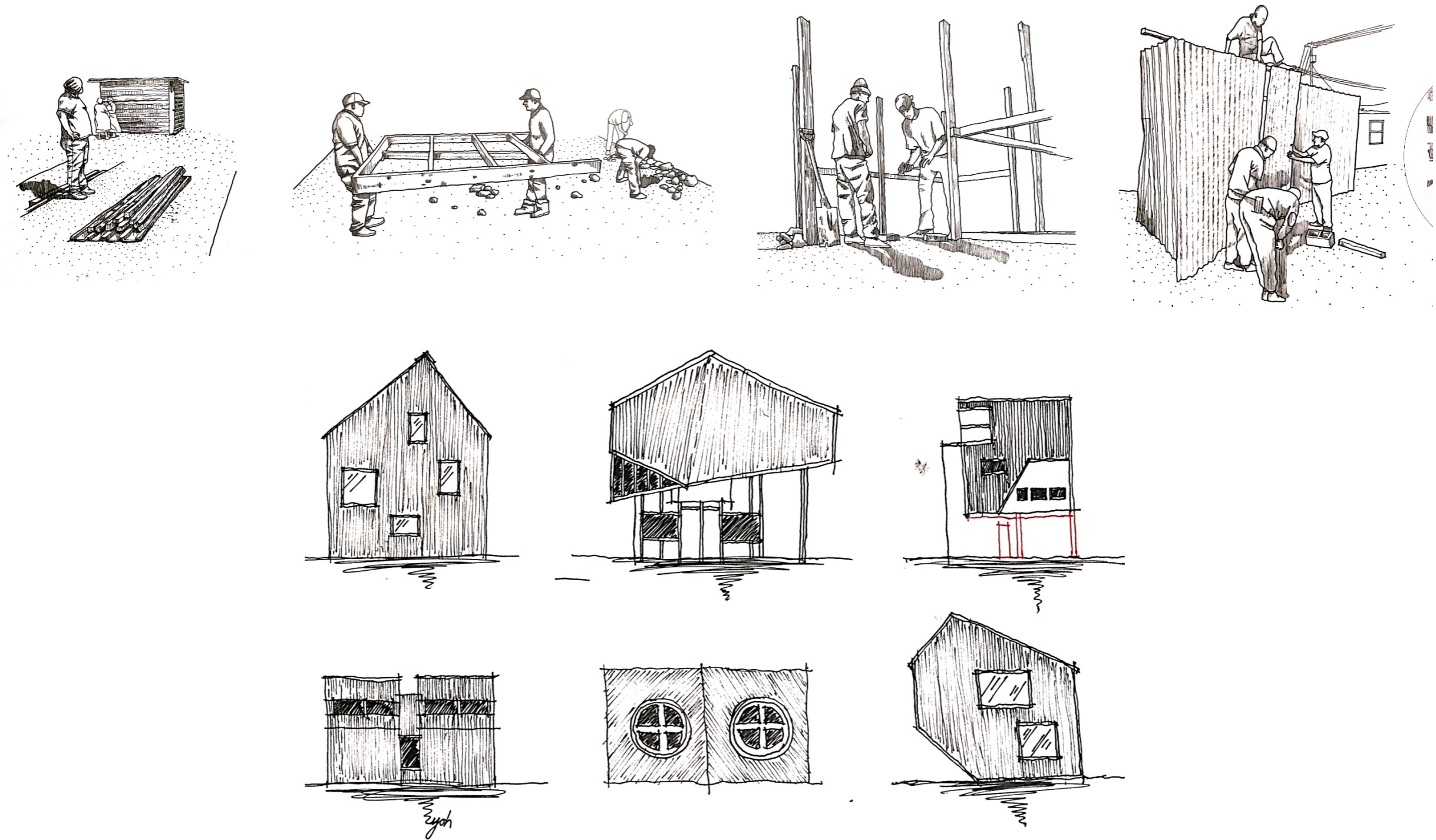


Figure 54: Illustrations of the housing fabrication process (Author, 2022).

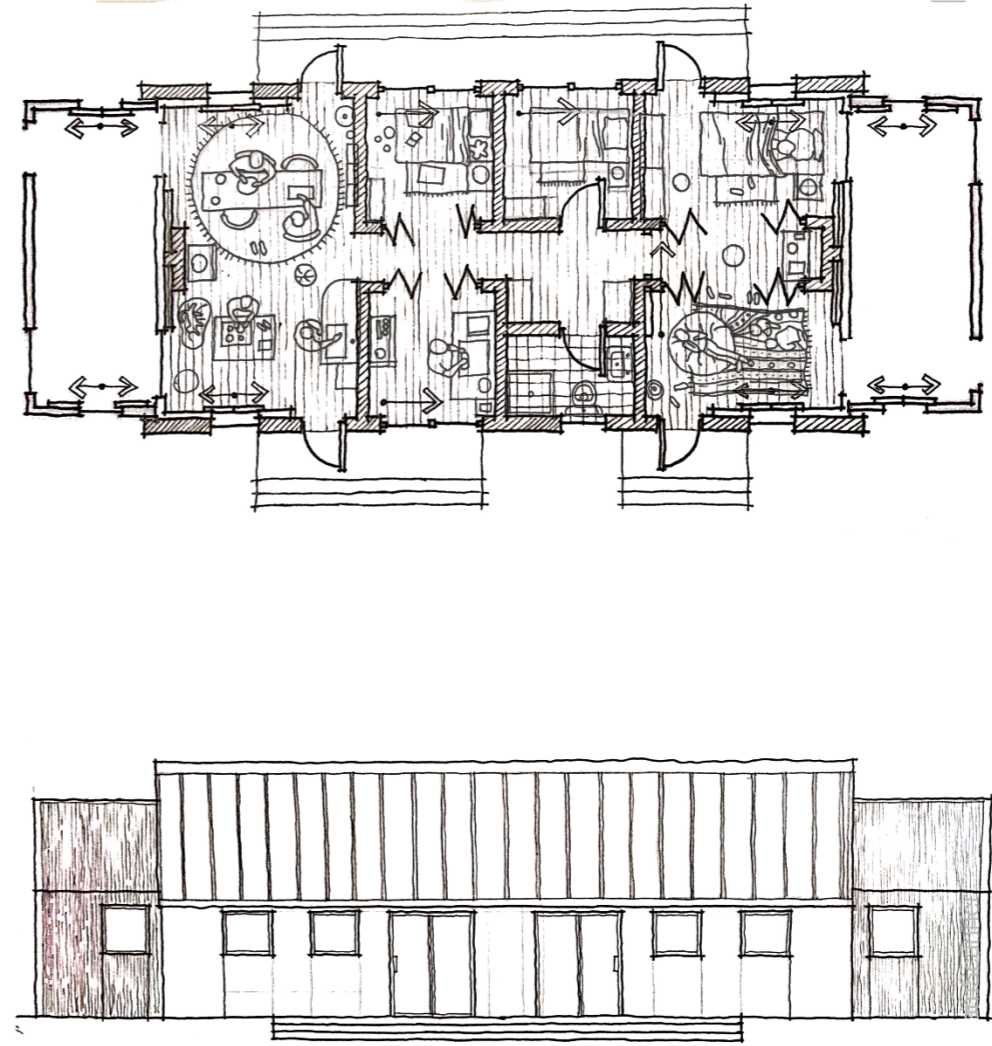
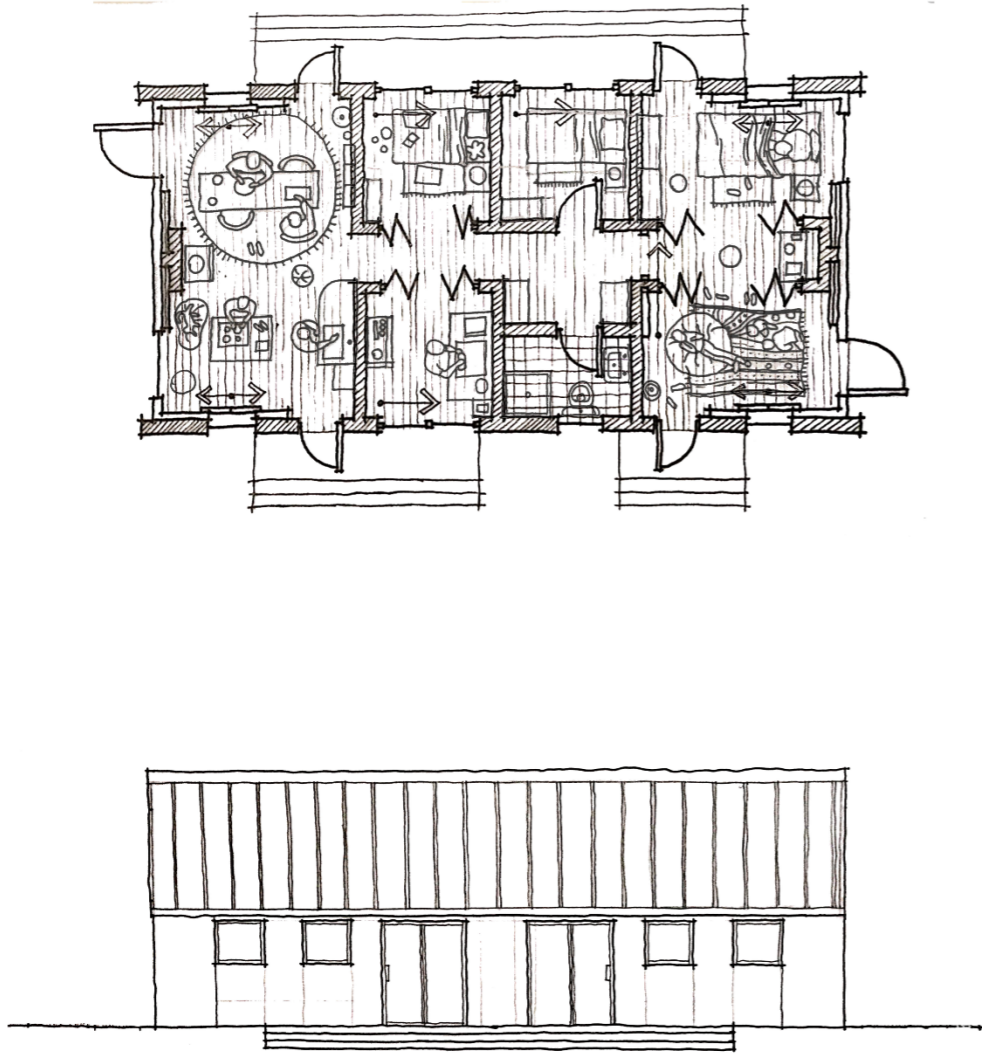
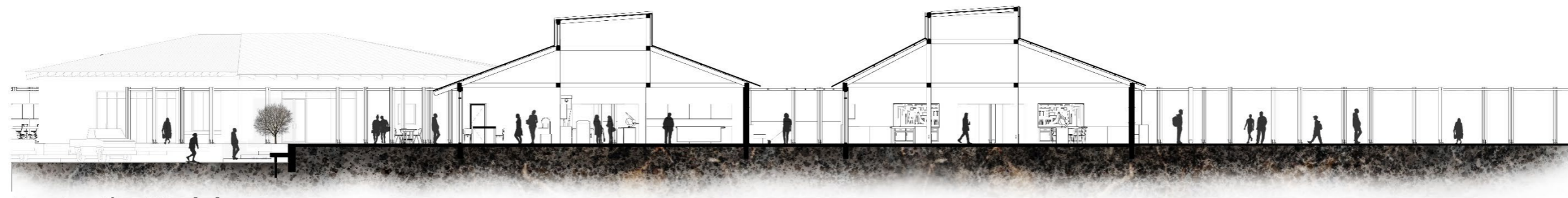


Figure 55: A typology of one instance of the housing fabrication process (Author, 2022).

Sections



Construction Workshops



Agricultural Workshop



Traditional Healing Centre

Figure 56: Sections emphasising the generosity of volume and light in each space while its compositional quality gives a sense of familiarity in relation to each other and the idea of hierarchy, what the form indicates of the space despite the transparency involved throughout the building via curtain walls, the roof volume and skylight positions. With each building presenting a different function, the light entering each space is synthesised by the composition of skylight position, volume in relation to the amount of people who can fit the space and the relationship between indoor and outdoor, ground and sky, and people in place (Author, 2022).



Figure 57: Current site plan showing the 1 & 2. Pull, 3-5. Anchor, 6-11. Hold (Author, 2022).



Figure 58: Render of plaza space and approach (Author, 2022).

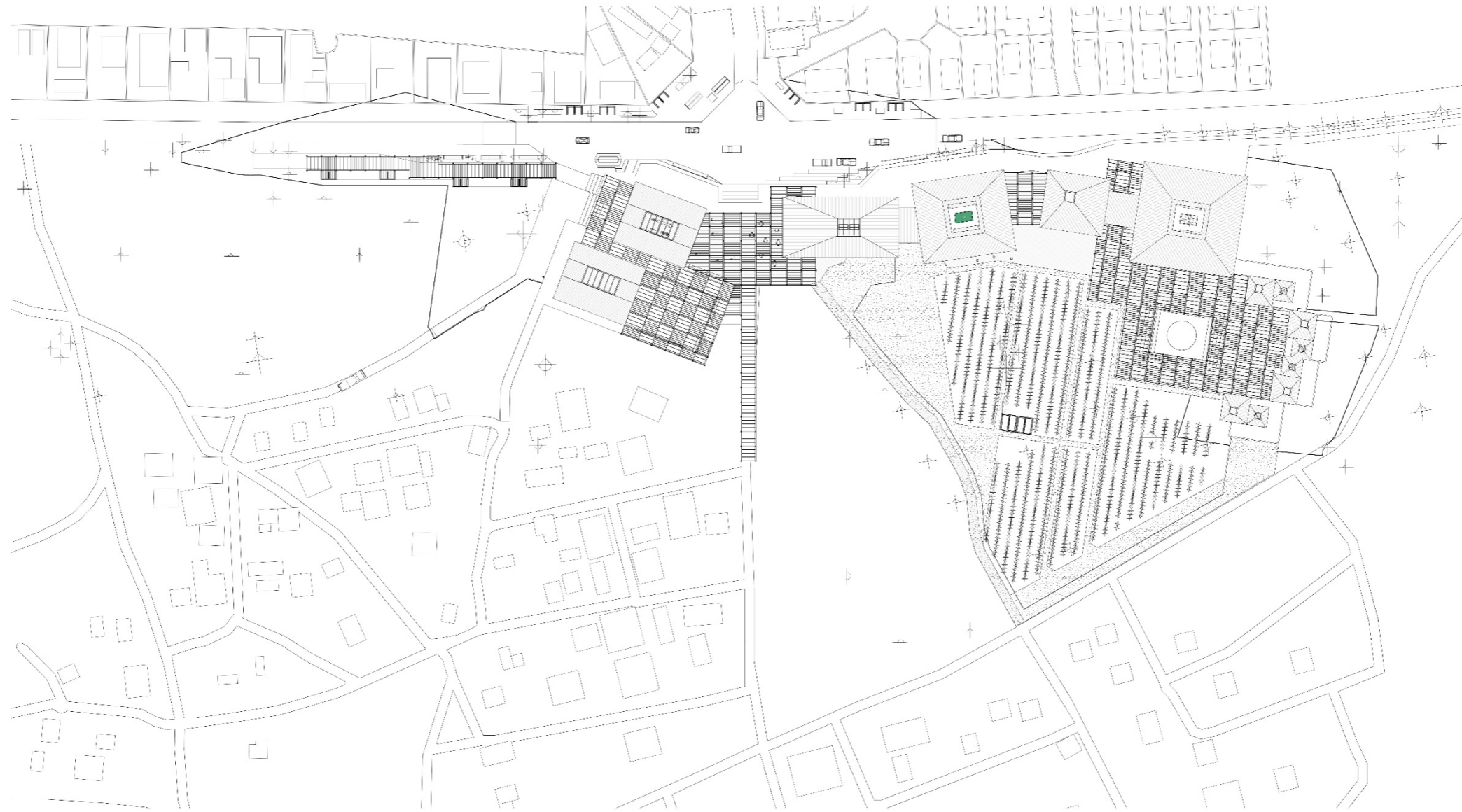


Figure 59: Site Plan (Author, 2022).

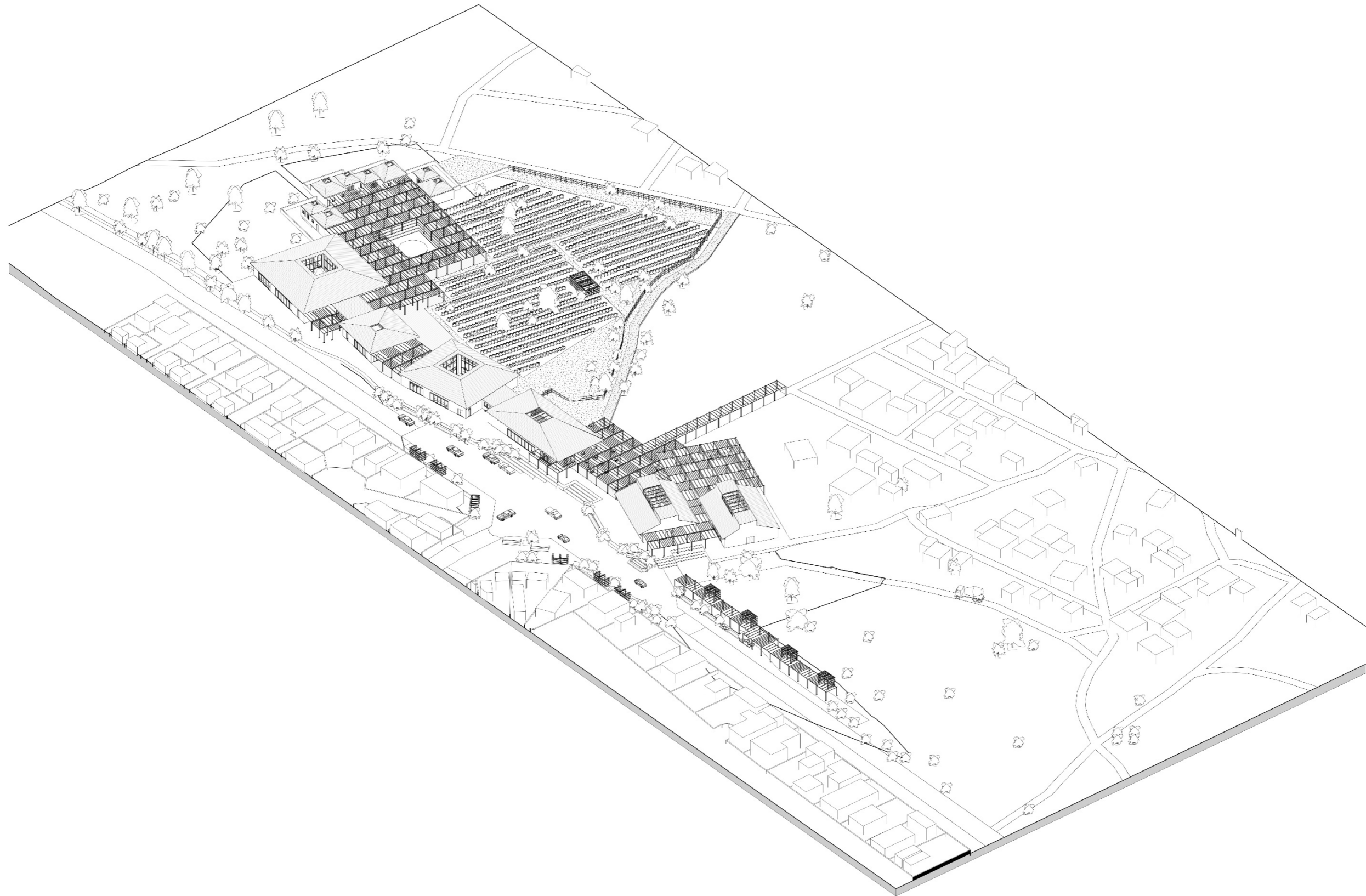


Figure 60: An axonometric drawing of the Community Centre (Author, 2022).

Conclusion

The outcome of this research gave me insight into the making and preservation of spatial qualities informed by communal identity. The understanding of identity applied practically in relation to hybridised design making, self-sufficiency, and agency aims to embody the user who occupies it. In serving the user, through the purpose of healing, trade, public cultural events, community facilitation and engagement is directly responsive to an ideal integrative space that aims to serve the memory of a cohesive community. This occurs while developing spaces that offer the agency and empowerment within a community.

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ETHICS APPLICATION FORM

Please Note:

Any person planning to undertake research in the Faculty of Engineering and the Built Environment (EBE) at the University of Cape Town is required to complete this form **before** collecting or analysing data. The objective of submitting this application *prior* to embarking on research is to ensure that the highest ethical standards in research, conducted under the auspices of the EBE Faculty, are met. Please ensure that you have read, and understood the **EBE Ethics in Research Handbook** (available from the UCT EBE, Research Ethics website) prior to completing this application form: <http://www.ebe.uct.ac.za/ebe/research/ethics1>

APPLICANT'S DETAILS		
Name of principal researcher, student or external applicant	Rhulani Rashid Rikhotso	
Department	Architecture and Planning	
Preferred email address of applicant:	rkhrhu001@myuct.ac.za	
If Student	Your Degree: e.g., MSc, PhD, etc.	MArch Prof. Master of Architecture (Professional)
	Credit Value of Research: e.g., 60/120/180/360 etc.	180
	Name of Supervisor (if supervised):	Alta Steenkamp
If this is a researchcontract, indicate the source of funding/sponsorship		
Project Title	Evoking Adaptable Housing in South Africa	

I hereby undertake to carry out my research in such a way that:

- there is no apparent legal objection to the nature or the method of research; and
- the research will not compromise staff or students or the other responsibilities of the University;
- the stated objective will be achieved, and the findings will have a high degree of validity;
- limitations and alternative interpretations will be considered;
- the findings could be subject to peer review and publicly available; and
- I will comply with the conventions of copyright and avoid any practice that would constitute plagiarism.

APPLICATION BY	Full name	Signature	Date
Principal Researcher/ Student/External applicant	Rhulani Rashid Rikhotso	Signed by candidate	21 Feb 2022
SUPPORTED BY	Full name	Signature	Date
Supervisor (where applicable)	Alta Steenkamp	Signed by candidate	22 Feb 2022

APPROVED BY	Full name	Signature	Date
HOD (or delegated nominee) Final authority for all applicants who have answered NO to all questions in Section 1; and for all Undergraduate research (Including Honours).		Signed by candidate	
Chair: Faculty EIR Committee For applicants other than undergraduate students who have answered YES to any of the questions in Section 1.	Prof. H. von Blottnitz		15/04/2022