



# Reconstructing a perspective of time

*A Micro distillery that mediating the balance between tradition and modernity  
in effort to revive the whispers Graaff-Reinet's grape*



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+ *A micro distillery mediating the balance between tradition and modernity  
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# Declaration

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## **Reconstructing a perspective of time**

A micro distillery mediating the balance between tradition and modernity in an effort to revive the whispers of Graaff-Reinet's grapes.

This dissertation is submitted in partial fulfilment of the requirements for the degree M.Arch. (Prof).

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# Abstract

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Nestled within the vast expanse of the Karoo plain, Graaff-Reinet emerges as a fertile oasis, containing a rich historical context, and unveiling a captivating tapestry of stories and narratives etched into the urban fabric. Within this narrative lies a forgotten fragment of time, known as the Withond brandy. It stands as a relic from the era of Graaff-Reinet's vineyards, a tangible link to the past. The unveiling of the forgotten narrative provides an opportunity to extend the narrative of Graaff-Reinet's traditions, whilst introducing a new sense of modernity into the town's enduring 19th-century framework. Considering exploration between traditional and present architecture poses the question: How can the re-engagement of the forgotten narrative of Withond capture the essence of Graaff-Reinet's traditionality whilst contributing to contemporary and functional development?

This project attempts to enter the epoch of the vineyards by reconstructing and tracing the origins and history of the Withond brandy. It aims to seamlessly extend the current narrative by mediating Graaff-Reinet's traditionality while embracing modernity, and by interpreting the essence of the Cape Dutch vernacular architecture rather than imposing itself on the context. The micro distillery, a tribute to Withond's legacy, aims to weave together the polarities that exist within Graaff-Reinet—connecting the threads of its contextual attributes, historical narrative, functional experiences, and a contemporary touch of its architecture.

Keywords : Unveiling, Narratives, Withond, Cape Dutch vernacular architecture, Interpret, Epoch, Mediate, Polarities, Connecting, Modernity,





# Project summary

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- Programme** - Micro distillery offering and experiential interaction with the untold storie of the viticulture of Graaff-Re
- Site Location** - Municipal Swimming pool, Graaff Reinet, Eastern Cape, South Africa.
- Site Description** - The site is located on the North-Western edge of Graaff reinet, within a valley, adjasent to the Sunday River on route towards the Camdeboo National Park
- Theme** - Unveiling a lost perpective of time intorduces the mediate between past and present to aid a community togethernes.
- Theoretical Approach** - Extension upon the narrtives that lies within Graaff-Reinet's facades to approach an attentuative approach.
- Archictectural Approach** - Construction of a Micro distillery that honors the town's heritage and cultural identity, while simultaneously propelling it into a sustainable and innovative future.

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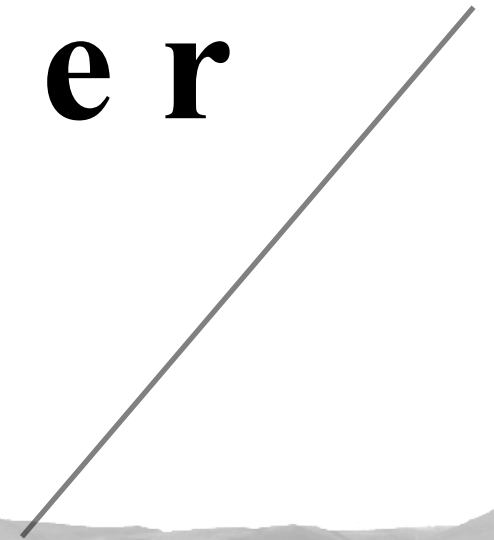
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# Chapter

# 1



# Introduction



# Structural framework

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## Chapter 1

Setting the scene for this dissertation. This part aims to introduce an understanding of what influences the dissertation, signifying an overview of the project.

Grounding

## Chapter 2

Exploring the bounds of the site, investigating the context in which this dissertation is situated. Involving the Macro, Meso and Micro analysis unveiling the significance attribute of the context.

## Chapter 3

An exploration into the theoretical realm, expressing the theoretical approach of this dissertation. This chapter ultimately aims to justify the reason for choosing the programme, site, and suggesting guidelines for the architectural approach.

Exploration

Figure 1:



## Chapter

# 4

Delving into the design development, this chapter showcases how all the attributes gained through the previous explorations come together to supply guidelines that will ultimately aid in developing the design that will be appropriate to the historical context, environment and programme.

## Chapter

# 5

Presenting the final design, accompanied by a reflection of the project's response.

## Chapter

# 6

Investigates the technical aspects that contributes to the constructability of the design.

## Investigation



# 1. Introduction

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Figure 2; Streetscape of Graaff-Reinet (Author, 2023)



## Introducing Rediscovering Graaff-Reinet's forgotten vines

Narratives offer windows into different epochs of time. Through the passage of time, stories weave the narratives of our existence into the very fabric of our surroundings. Many stories are etched into façades and leave traces of history in their wake. Yet, with the passage of time, not all narratives are granted the privilege of preservation. Many narratives are forgotten through translation, fading into obscurity as history. Within the rich tapestry of Graaff-Reinet's history, the essence of viticulture has thus become a forgotten perspective, neglected amidst the town's more prominent tales.

Graaff-Reinet is a town whose story is as layered and complex as the brandy it once produced. Its 19th-century charm paints a portrait of a town frozen in time, preserving the uninterrupted threads of its historical narrative. These narratives offer a glimpse into a different epoch of time, creating a profound connection to its past that resonates in the present.

As we venture into the streetscape of Graaff-Reinet, the vernacular architecture becomes our guide—an expressive narrator of the town's sense of place. It unveils the presence of various layers of time, each interwoven with the stories of the individuals who have moulded and cherished this town across the ages. A different story and time are unveiled on every façade, and within the tapestry of these intertwining layers, the essence of Graaff-Reinet's heritage and identity unfolds.

Yet, within the enchanting façades lies a neglected perspective of the town's narrative—the story of its vineyards. This perspective of a fragment time is hidden within the quiet backstreets of Graaff-Reinet. As one walks amidst the town's narrative, the greatness of viticulture seems absent, echoing the sentiments of Juhani Pallasmaa (2009:32), who, in his work, *Space: place, memory, and imagination: The Temporal Dimension of existential space*, suggests that the narrative appears to be lost in rapid failure of remembrance. As in a town that proudly displays its history, the vineyards emerge as an unexplored perspective amid the other narratives. The memory of this once-thriving industry has been relegated to the annals of neglect, its traces quietly fading away. However, like the subtle notes of a fine wine, the remnants of this forgotten vineyard industry still linger, patiently awaiting rediscovery.



Figure 3: View of Graaff-Reinet indicating site placement on the edge of the town. (Author, 2023)

## + 1.1. Site introduction

### 1.1.1. Graaff-Reinet's state of its current narrative

Through the presence of predominantly 19th Cape Dutch vernacular architecture in Graaff-Reinet's streetscapes presents a historical narrative co-existing with the contemporary narrative in the current state of the town. So much so that one cannot separate the existence of the contemporary narrative when mentioning the historical narrative. Graaff-Reinet's history thus stands as a cornerstone of its culture and tradition that radiates into the contemporary narrative.

Another element portraying significance in the current narrative is the existence of profound history containing nearly 200 registered national monuments. (Frandsen, 2019: online.)

### 1.1.2. Graaff-Reinet vernacular architecture.

Graaff-Reinet's vernacular architecture consists predominantly of Cape Dutch vernacular architecture with its classical attribute of white-washed walls, verandas, thatched roof etc. Graaff-Reinet's residential vernacular plays a twist on the classical Cape Dutch stylistics with the existence of the Karoo flat roof houses. This element is typical in Graaff-Reinet as it is located in the middle of the Karoo with iconic flat plains and absences of rainfall, results in the architecture accordingly adapting from pitched roofs to flat roofs.

### 1.1.3. The proposed site.

Stretching towards the edges of Graaff-Reinet, as seen in Fig.3, the proposed site finds itself at the intersection of the town and the landscape. Situated adjacent to the Sundays River, an old caravan park and the Nqwebe dam at the end of Cradock street, the proposed site finds itself surrounded by a broad expanse of contrasting attributes. The proposed site of the Micro distillery is situated within the old Municipal swimming pool, with few historical significant attribute the adaption of the site can commence with no demolishing restriction resulting in the site being considered the perfect platform to extend upon.

As the proposed site is situated on the boundary of Graaff-Reinet, the situation of the development aims to reimagine Withond's essence, infusing it with contemporary sensibilities in the fluence of the landscape, while preserving the town's traditionality.





Figure 4: Black Acorn vine. (Author, 2023)



Figure 5: Canopy of Black Acorn vine. (Author, 2023)



Figure 6: The Reinet House Museum. (Author, 2023)

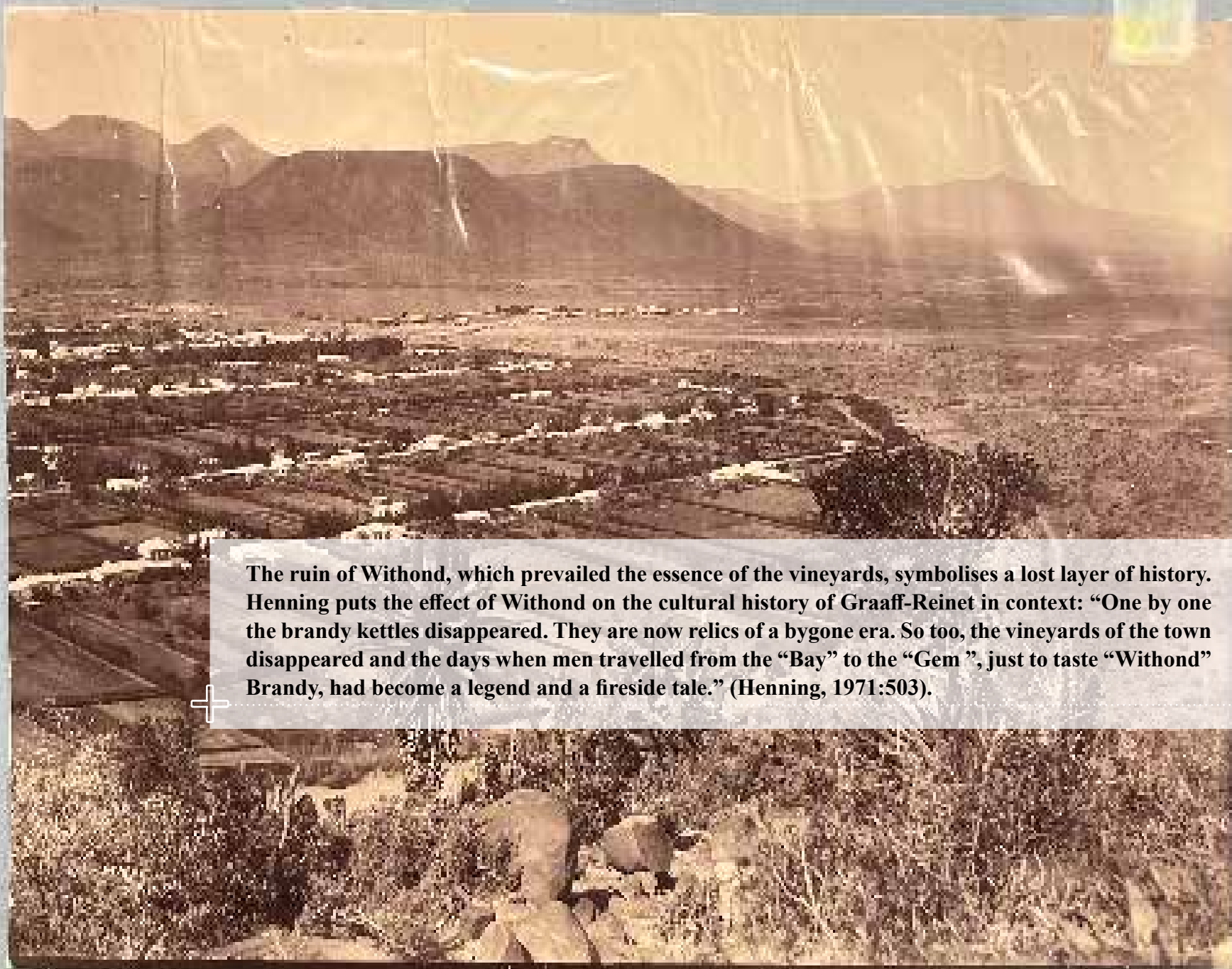
## 1.2. Introducing the program

The establishment of the program unfolds as the narrative progresses. Beginning with the introduction of viticultural history and progressing to the unveiling of the story of the Withond brandy story, the rationale behind the chosen program becomes evident.

### 1.2.1. Viticultural history of Graaff-Reinet

The history of viticulture dates all the way back to the late 1700s, when Graaff-Reinet's economy was thriving through the cultivation of grapes. As the facilitation and cultivation of vineyards were not feasible anywhere nearby, Graaff-Reinet emerged as a fertile oasis in the middle of the semi-desert arid landscape of the Karoo. These vineyards that once sprawled across the town, added a vibrant tapestry of green amidst the Karoo's golden hues. With their legacy etched into the town's very fabric, weaving stories of the prosperity of viticulture that deserve to be rediscovered.

A striking trace from the past continues to captivate our curiosity about the viticulture past, the Black Acorn vine (Fig.4 and 5) is one of these resonates within the presence. Its existence remains shrouded in mystery, yet it proudly claims the title of South Africa's largest and oldest vine (OvP Associates, 2013: 14). The striking presence of this vine sparks contemplation about its once significant role in the town's history, urging us to unveil the story behind its enduring existence. Within the walls of the home of the Black Acorn vines, the Reinet House (Fig.6) , lies a multitude of traces that serve as a testament to the forgotten narrative of the vineyard, offering glimpses into a bygone era. From this historical epoch of the thriving vineyards, the story of the Withond emerges as an untold story in Graaff-Reinet's history.



The ruin of Withond, which prevailed the essence of the vineyards, symbolises a lost layer of history. Henning puts the effect of Withond on the cultural history of Graaff-Reinet in context: “One by one the brandy kettles disappeared. They are now relics of a bygone era. So too, the vineyards of the town disappeared and the days when men travelled from the “Bay” to the “Gem”, just to taste “Withond” Brandy, had become a legend and a fireside tale.” (Henning, 1971:503).

### 1.2.2. Unveiling the story of the Withond

The story of the Withond within the context of Graaff-Reinet's current narrative emerges as an untold story, as within the historical route many stories of the past is portrayed but the story of the Withond stays lurking amongst the shadows. Considering the mystery of the untold stories within Graaff-Reinet, Withond became a catalyst, portraying the neglect of a perspective of time.

The story of Withond brandy is not just a relic of evidence left by the passage of time; it is a window into a unique moment in history. It tells the story of an ordinary man striving to survive in the midst of a crumbling economy. While the vineyards' produce had once been as valuable as gold, a local economic downturn disrupted grape exports in the entire town. This led to the illicit distillation and sale of brandy and wine as a means for distillers to sustain their livelihoods. Thus, the story of Withond was born.

Withond stands as a testament to a bygone era, known far and wide as part of Graaff-Reinet's history, a cherished libation shared by the entire town. Despite its popularity and even though the authorities had tried, the long arm of the law could not reach those responsible. The unreachability of the Withond pot stills was thus a contribution of a community that banded together to protect the production of this cherished brandy.

At the heart of this endeavour lies the enigmatic Withond—a story hidden by the passage of time, waiting to be rediscovered. This project aims to pay homage to the resilience of the community that once protected and safeguarded the Withond tradition in utmost secrecy. Its deep connection to the town is undeniable; its taste and aroma echo the essence of Graaff-Reinet's spirit. Yet, as the world moved forward, this once-thriving connection gradually faded, leaving behind a sense of disconnection with the past.

As the tale of Withond becomes a forgotten perspective of time, fading into the obscurity of Graaff-Reinet's history, the question arises: **how to rekindle this forgotten perspective of time, commemorate the profound impact of the vineyards on Graaff-Reinet's thriving past and celebrate the coming together of a community that withstood the downfall of economic pressure ?**



Figure 8: Black Acorn Vine. (Author, 2023)



### 1.2.3. The proposed program introduction

This dissertation embarks on unveiling the hidden and unearthing the forgotten narrative of Graaff-Reinet, using Withond as the catalyst to engage with the memory of the vineyard. This gap in the significance of the vineyard industry invites a design exploration for re-engagement with the grape's greatness and re-entering the grape spirit into the town by using a revival of the trace of Withond as a way of inclusivity that reveals the historic distilling process, as well as retelling the narrative from the history.

A Distillery specialising in the crafting of the Withond serves as a design proposal for this project, exemplifying the interplay between tradition, modernity, and context in architectural expression. The proposed program will include a micro distillery that not only distils the Withond brandy but acts as an experiential journey unveiling the process to the visitor in an attempt to connect toward the identity of the town.



Figure 9: Exhibition of distilling equipment.



Figure 10: Bottled Withond brandy.



Figure 11: Distillery equipment in the winecellars of the Reinet House.



Figure 12: Art displaying the Withond.

### + 1.3. Research Question

*Referring to going back to what was already present.*

*Showcasing the loss of engagement needed to be acted upon.*

How can the **RE-ENGAGEMENT** of the forgotten narrative of “The Withond brandy” capture the essence of Graaff-Reinet’s traditionality whilst contributing to a fusion of modernity and functional development?

*Not a node of coping but a node of interpreting the essence of what build Graaff-Reinet’s traditions*

*Resonating a moment of mediation between past and present.*



# Chapter 2

# Site Analysis



# 1. Macro site analysis

*The Macro analysis takes us on a investigation through the vast context that surrounds both the site and Graaff-Reinet. In this exploration, we not only position where Graaff-Reinet is situated in the expansive Karoo but also uncover the significance of its location. This process aims unveils the polarities that come together to define its unique identity of Graaff Reinet.*

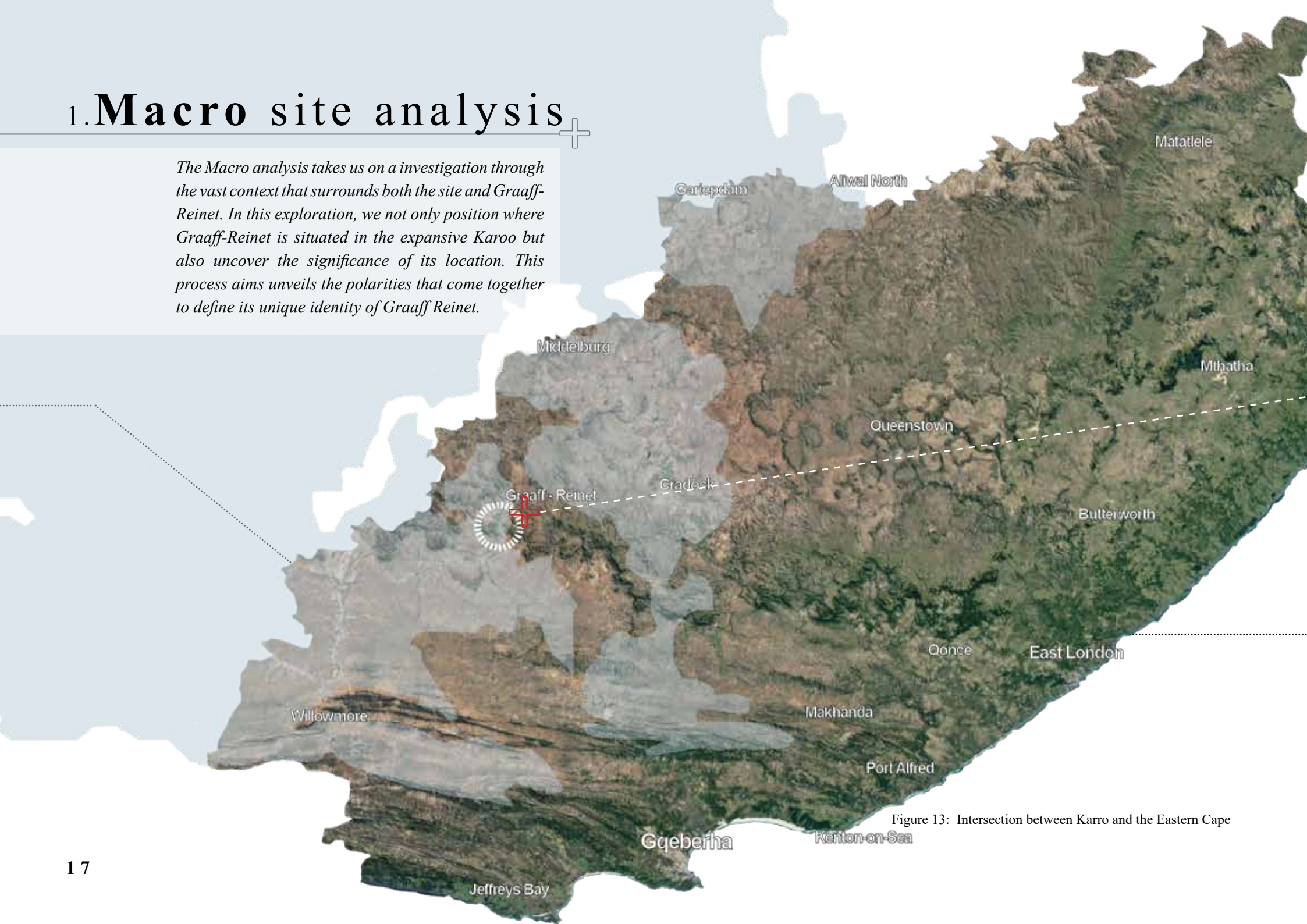


Figure 13: Intersection between Karroo and the Eastern Cape



Figure 14: Sneeu Berg Mountain range (Google earth, 2024) Interpreted by Author



Figure 15: Surrounding Camdeboo National Park (Google earth, 2024) Interpreted by Author

Graaff-Reinet is located at the intersection of the Karoo and the tip of the Eastern Cape province. Distinctive in nature, the Karoo can be portrayed as an area with plains stretching as far as the eye can see, bathed in the embrace of intense light, making it impossible to hide secrets in its midst. Yet, situated within the Karoo, the Sneeu Berg Mountain range towers above the dry, arid plains of the Karoo with the Sundays Rivers settling in the fold of the Sneeu Berg Mountains where it ultimately defines the areas surrounding Graaff-Reinet (Henning, 1917: 13).

R63 to Murraysburg



Nqweba Dam



N9 to Middelburg



Lokasiekop  
Mountain



Graaff Reinet



Camdaboo  
National Park



Driekop Mountain



Spandau Mountain



R57 to Aberdeen



R75 to Port Elizabeth



Sundays River

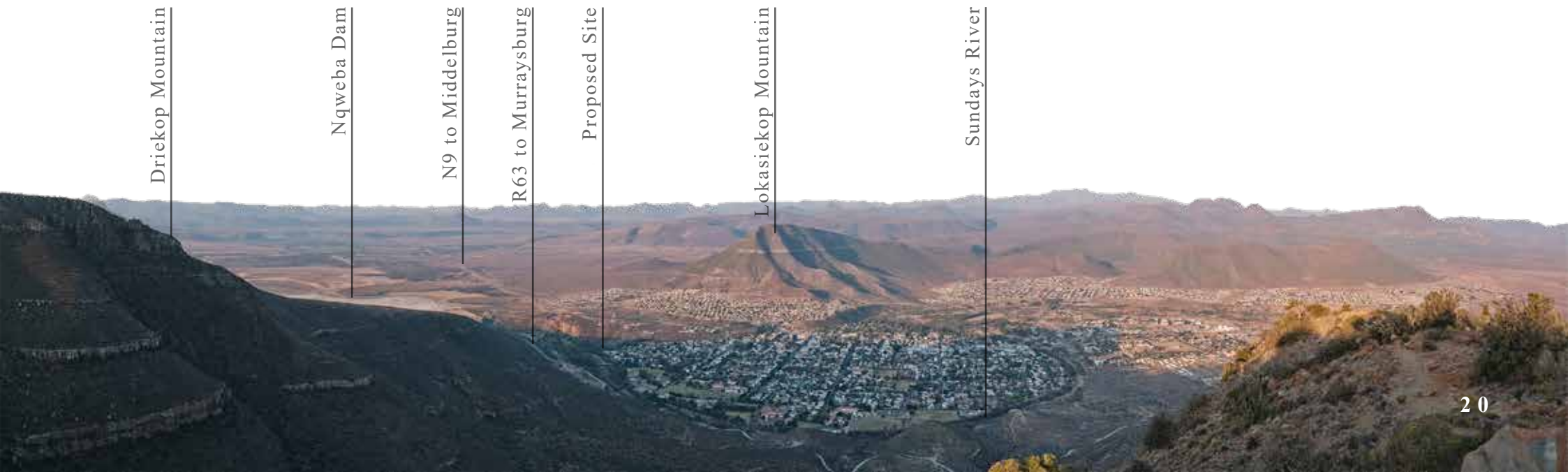


Figure 16: The nestling mountains surrounding Graaff-Reinet. (Google Earth, 2023)

## 1.1 Placement within the Karoo

As Graaff-Reinet finds itself hidden in the plains of the open Karoo landscape, the town has a multitude of attributes that make its placement significant. Firstly, the town is located approximately 250km from Port Elizabeth, lying at the junction of the R63 to Murraysburg, the N9 to Middelburg, the R75 to Port Elizabeth, and the R57 to Aberdeen (Sans Park, 2013:1). The multiple roads passing through Graaff-Reinet makes the town a significant location for travelers to stop. Secondly, the Camdeboo National Park which encapsulates Graaff-Reinet is home to a multitude of activities, and the Valley of Desolation annually attracts more than 100 000 visitors (Sans Park, 2023: online), making Graaff-Reinet a viable location for the new development. Lastly, as Graaff-Reinet finds its place in the bend of the Sundays River, its position in the shadow of three majestic mountains, the Spandau, Lokasiekop, and Driekop, conceals the town from its harsh surroundings and sets it apart from the typical features of a Karoo settlement. Ultimately the nestling of Graaff-Reinet within the Karoo's embrace contributes to the town being known as the "Gem of the Karoo", defying the arid surroundings.

Further through the course of the Dissertation, as the Karoo is an extremely large area, when referring to the Karoo it will most commonly refer to the Camdeboo National Park, as it is a region of the Karoo that directly surrounds Graaff-Reinet, and the statistics are well documented.



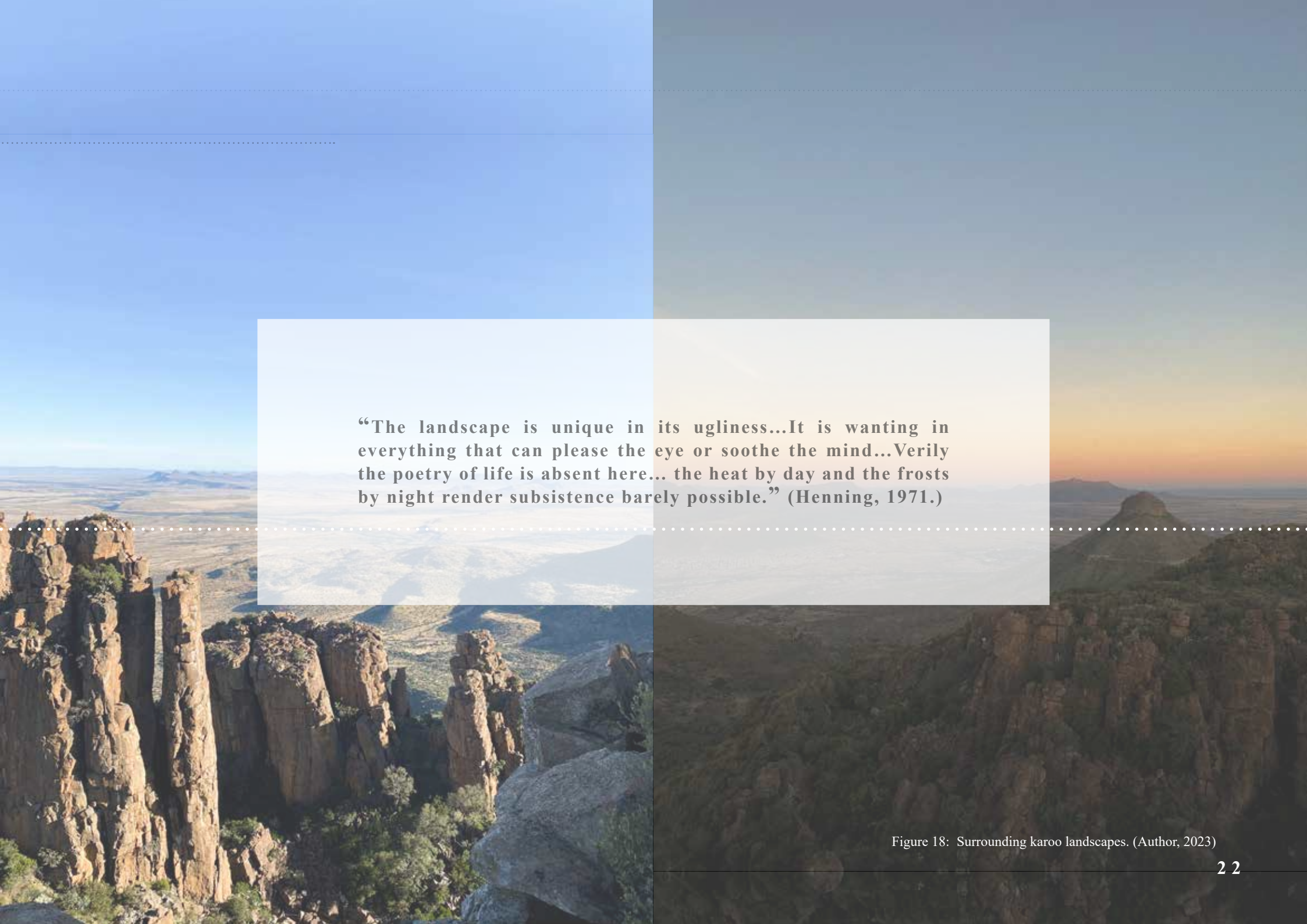
## 1.2 The meandering power of the River



Here within the submission of the three majestic mountains lies Graaff-Reinet. The meandering Sundays River gracefully encircling the town, creating the iconic horseshoe shape of the town whilst radiating a captivating presence. This presence of water is unknown to the arid landscapes of the karoo, standing as a stark contrast supplying an abundance of water to the town. Creating not just a lifeline for the town; it's a lifeline in the truest sense, defying the harsh realities of the Karoo's dry terrain. This constant flow of water doesn't just sustain life in Graaff-Reinet; it enables the town to thrive agriculturally, providing all the essentials needed to conquer the relentless dryness of the region.



Figure 17: The influential presence of the Sunday's river. (Google Earth, 2023) Interpretation by Author.



**“The landscape is unique in its ugliness...It is wanting in everything that can please the eye or soothe the mind...Verily the poetry of life is absent here... the heat by day and the frosts by night render subsistence barely possible.” (Henning, 1971.)**

Figure 18: Surrounding karoo landscapes. (Author, 2023)

### 1.3 Climate of Graaff-Reinet

The area’s climate is overall classified as semi-arid with hot summers and short, cold, dry, and windy winters. In the Karoo regions surrounding Graaff-Reinet, the temperature goes to extremes, with temperatures during summers sometimes exceeding 43°, and the winter temperatures dropping below -3°. (Sans Park, 2013:2) Whereas indicated in Fig. 21 Graaff-Reinet’s temperature reaches fewer extremes in summer, with temperatures up to 29°, and winter temperatures falling below -4°.

The change in temperatures is a result of three attributes. Firstly, Graaff-Reinet’s lower altitude of 740m above sea level (Weather and Climate, 2024: online) in comparison to the surrounding Camdeboo Park with an altitude reaching up to 1 480m (Sans Park, 2013:2). Secondly, the 3 Mountains surrounding Graaff-Reinet provides shade and coverage, shielding the town from the severity of the sun. Lastly, the Sundays River surrounding Graaff-Reinet ultimately cools down the intense heat of the Karoo.

In relation to rainfall, both Camdeboo Park and Graaff-Reinet receive 32% of their annual rainfall between February and April. The difference however occurs in the annual rainfall received, with Camdeboo Park receiving 336mm of rainfall (Sans Park, 2013:2) whilst Graaff-Reinet welcomes 512mm of rainfall. (Climate-Data, 2024: online)

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	22.4 °C (72.3) °F	22.2 °C (72) °F	20.5 °C (68.9) °F	17.2 °C (62.9) °F	14.4 °C (57.9) °F	11.2 °C (52.1) °F	10.9 °C (51.6) °F	12.5 °C (54.5) °F	15 °C (59) °F	17.4 °C (63.4) °F	19.2 °C (66.5) °F	21.3 °C (70.4) °F
Min. Temperature °C (°F)	15.5 °C (59.9) °F	15.7 °C (60.3) °F	14.1 °C (57.4) °F	10.8 °C (51.4) °F	8 °C (46.4) °F	4.7 °C (40.5) °F	4.3 °C (39.7) °F	5.3 °C (41.5) °F	7.5 °C (45.5) °F	10 °C (50) °F	11.9 °C (53.4) °F	14.3 °C (57.7) °F
Max. Temperature °C (°F)	29.7 °C (85.5) °F	29.3 °C (84.7) °F	27.4 °C (81.3) °F	24 °C (75.1) °F	21.5 °C (70.6) °F	18.3 °C (65) °F	18.2 °C (64.8) °F	20 °C (68.1) °F	22.7 °C (72.9) °F	25.1 °C (77.2) °F	26.9 °C (80.4) °F	29 °C (84.1) °F
Precipitation / Rainfall mm (in)	74 (2)	66 (2)	66 (2)	37 (1)	19 (0)	18 (0)	18 (0)	24 (0)	29 (1)	45 (1)	56 (2)	60 (2)
Humidity(%)	52%	55%	55%	53%	50%	50%	46%	42%	42%	47%	47%	49%
Rainy days (d)	7	8	7	5	3	3	2	3	3	5	6	6
avg. Sun hours (hours)	10.3	9.6	9.1	8.5	8.4	8.0	8.2	8.7	9.1	9.6	10.2	10.5

Figure 19: Climate table (Climate data, 2024: online)

## 1.4 Vegetation

Figure 23: Graaff-Reinet's streetscapes



Figure 20: Shrublands (Author, 2023)



Figure 21: Succulants (Author, 2023)



Figure 22: Dwarf shrublands (Author, 2023)

Following on the aspect of climate as Karoo is arid sub-desert country – the indigenous vegetation covering the area is namely Shrubland (Fig.22), Succulent thicket (Fig.23) and Dwarf shrubland (Fig.24). As these plants can survive the dry conditions (Sans Park, 2013:2). Looking at Fig.25 it reveals that in the case of Graaff-Reinet you will rarely find the indigenous plants in the streetscape (OvP Associates, 2013: 9), the towns streets are mostly covered by Orange Trees and Oleanders since the 1879's (VASSA, 2004).



Figure 24: Landscape of agricultural greatness.(Reinet House, 2023)



Figure 25: Evidence of Graaff-Reinets greatness of Agriculture (Reinet House Museum,2023)



Figure 26: Neqwebe Dam. (Leisure boating online, n.d: online)



Figure 27: Radiating power of the rivers influences. (Google Earth, 2023)

Figure 28: Ariel view of Graaff Reinet indicating river's flow. (Patrick, 2021: online)

## 1.5 Agricultural flourishings



In the harsh, unforgiving expanse of the Karoo dry plain, where resilient vegetation such as aloes and Karoo bush battle to survive, Graaff-Reinet emerges as a breath of fresh air. This town goes beyond the ordinary, providing all the essentials for a vibrant life. Graaff-Reinet extended its reach into the vast agricultural landscape, venturing into the realms of citrus, orchards, vineyards, and bountiful deciduous fruit groves.

Although the town's primary agricultural focus today centres on sheep and cattle, it's important to remember the time when Graaff-Reinet thrived on the cultivation of the land. Where Brandy, wine, and grapes played a central role in its economy, contributing to nearly 80% of the income of this oasis.

## 1.6 Waters influence on the grid of the Graaf-Reinet



The Sunday's River encircling the town does not only influences its agricultural aspects, it also has a significant influence on Graaff-Reinet's grid-like structured streets. Because of Graaff-Reinet's placement within the Karoo, the management of water resources is essential for the town's sustainable survival, especially considering that the Nqwebe dam that is not situated on the edge of Graaff Reinet was not always present.

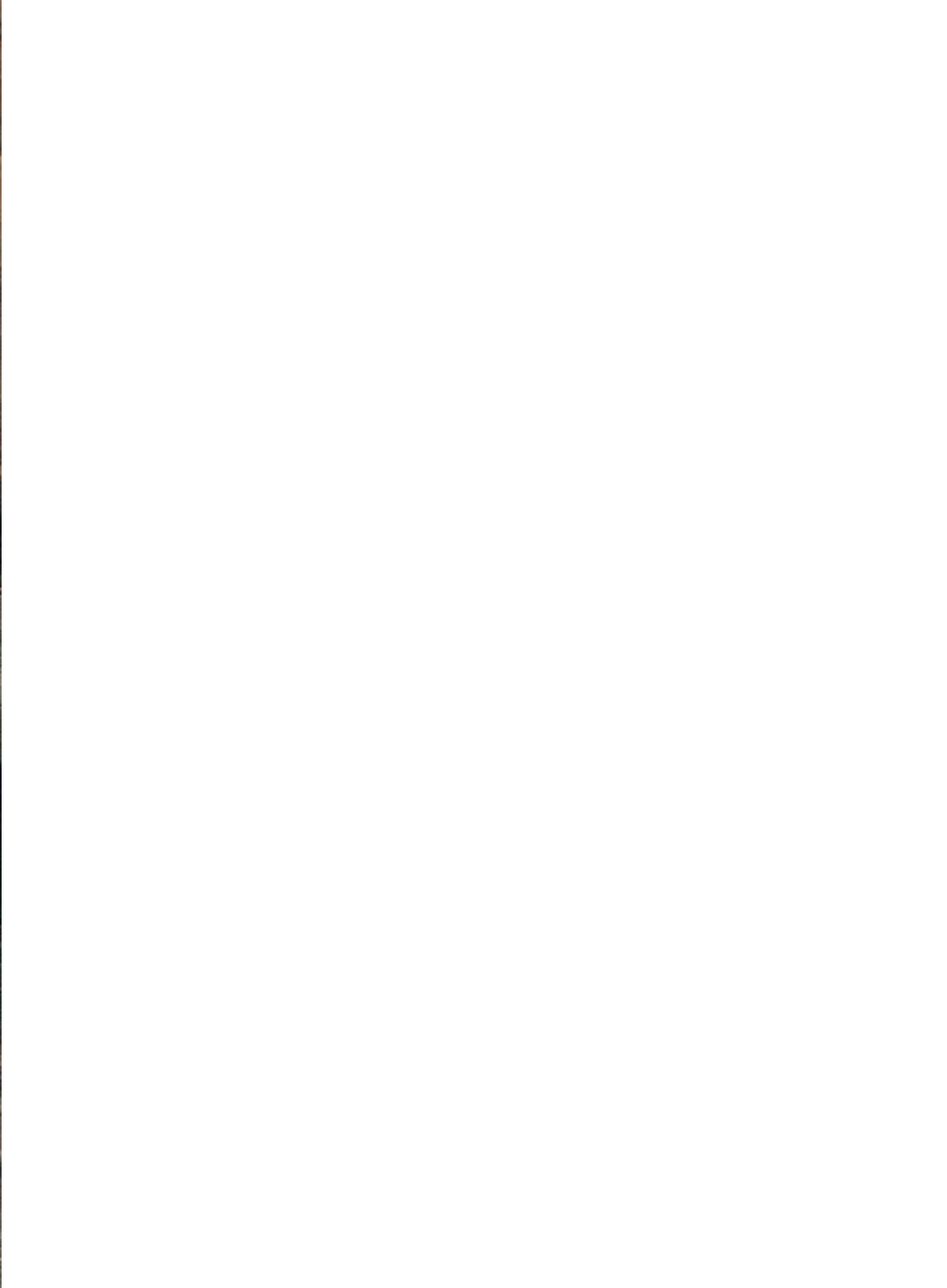
In the absence of the dam, the town had to employ a different method for irrigation. As a result, Andries Stockstörm designed 'leivore,' or in other terms, a channel system, to provide water all through Graaff-Reinet. These 'leivore' or channels lined the street, supplied water directly to most properties by using gravity. The design of these channels played a crucial role in dividing the farms and stands in an attempt to distribute the water equally to all, ultimately shaping the geometrically, ridged layout of the town.

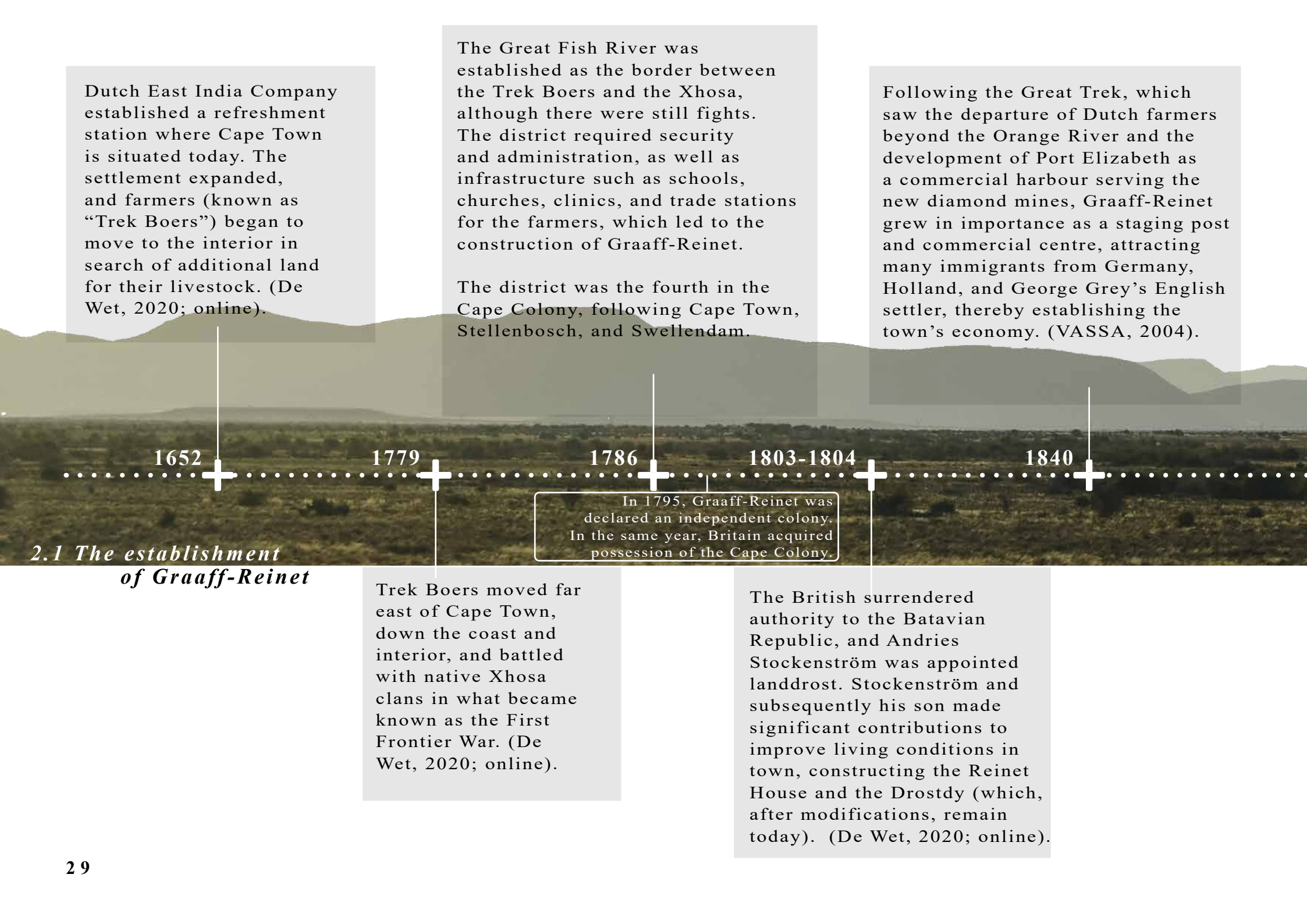
While modern methods of obtaining irrigation water have since superseded the use of 'leivore', the memory of these channels remains significant, reminding us of their role in both the functioning and layout of the town.

## 2.Meso site analysis

*Meso analysis invites us to step into the heart of Graaff-Reinet, guiding our exploration through its urban tapestry until we arrive at our proposed site. The essence of this investigation is to unveil how the rich historical context, with its Cape Dutch vernacular architecture, the enduring agricultural traditions of the town, and the intricate human interactions woven into the fabric of Graaff-Reinet's streets all come together to influence and shape the project. Ultimately aiming to capture and convey the captivating tales held within the streets of Graaff-Reinet in attempt to extend on the street's narrative.*

Figure 29: Corridor within Graaff-Reinet. (Author, 2023)





Dutch East India Company established a refreshment station where Cape Town is situated today. The settlement expanded, and farmers (known as “Trek Boers”) began to move to the interior in search of additional land for their livestock. (De Wet, 2020; online).

The Great Fish River was established as the border between the Trek Boers and the Xhosa, although there were still fights. The district required security and administration, as well as infrastructure such as schools, churches, clinics, and trade stations for the farmers, which led to the construction of Graaff-Reinet. The district was the fourth in the Cape Colony, following Cape Town, Stellenbosch, and Swellendam.

Following the Great Trek, which saw the departure of Dutch farmers beyond the Orange River and the development of Port Elizabeth as a commercial harbour serving the new diamond mines, Graaff-Reinet grew in importance as a staging post and commercial centre, attracting many immigrants from Germany, Holland, and George Grey’s English settler, thereby establishing the town’s economy. (VASSA, 2004).

1652

1779

1786

1803-1804

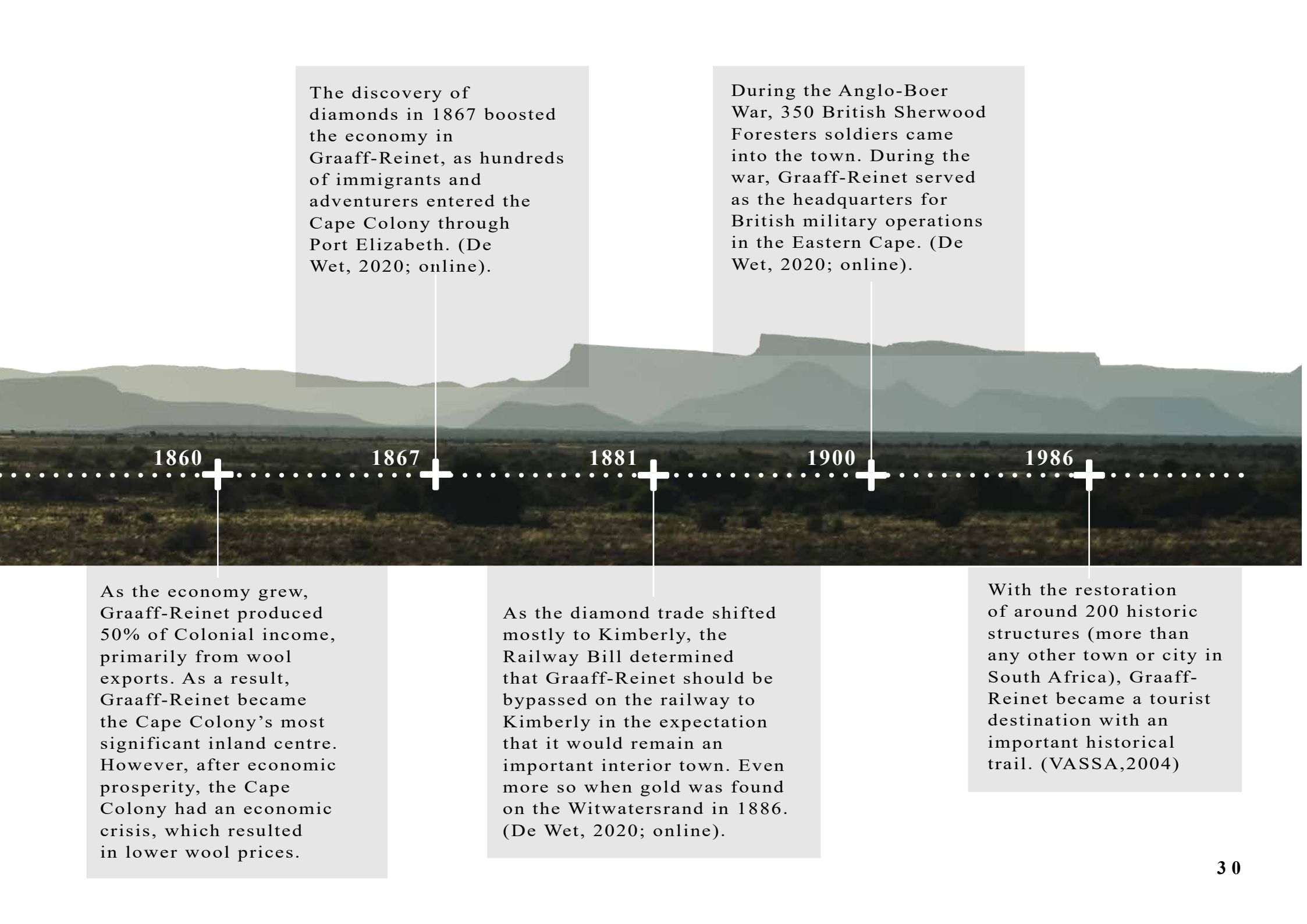
1840

In 1795, Graaff-Reinet was declared an independent colony. In the same year, Britain acquired possession of the Cape Colony.

### 2.1 The establishment of Graaff-Reinet

Trek Boers moved far east of Cape Town, down the coast and interior, and battled with native Xhosa clans in what became known as the First Frontier War. (De Wet, 2020; online).

The British surrendered authority to the Batavian Republic, and Andries Stockenström was appointed landdrost. Stockenström and subsequently his son made significant contributions to improve living conditions in town, constructing the Reinet House and the Drostdy (which, after modifications, remain today). (De Wet, 2020; online).



1860

As the economy grew, Graaff-Reinet produced 50% of Colonial income, primarily from wool exports. As a result, Graaff-Reinet became the Cape Colony's most significant inland centre. However, after economic prosperity, the Cape Colony had an economic crisis, which resulted in lower wool prices.

1867

The discovery of diamonds in 1867 boosted the economy in Graaff-Reinet, as hundreds of immigrants and adventurers entered the Cape Colony through Port Elizabeth. (De Wet, 2020; online).

1881

As the diamond trade shifted mostly to Kimberly, the Railway Bill determined that Graaff-Reinet should be bypassed on the railway to Kimberly in the expectation that it would remain an important interior town. Even more so when gold was found on the Witwatersrand in 1886. (De Wet, 2020; online).

1900

During the Anglo-Boer War, 350 British Sherwood Foresters soldiers came into the town. During the war, Graaff-Reinet served as the headquarters for British military operations in the Eastern Cape. (De Wet, 2020; online).

1986

With the restoration of around 200 historic structures (more than any other town or city in South Africa), Graaff-Reinet became a tourist destination with an important historical trail. (VASSA,2004)

## 2.2 Rigidity unveiling within the towns layout

At first glance, the town's layout vividly reflects the lasting impact of the 19th century. Aside from the gentle, meandering curve of the Sundays River, Graaff-Reinet's streets strictly adhere to a ridged grid system as seen in Fig. 27. But this prominent grid system even though Graaff Reinet is established in 1786, it was not until 1879 that the town had a prominent grid, as the town developed as the following: .

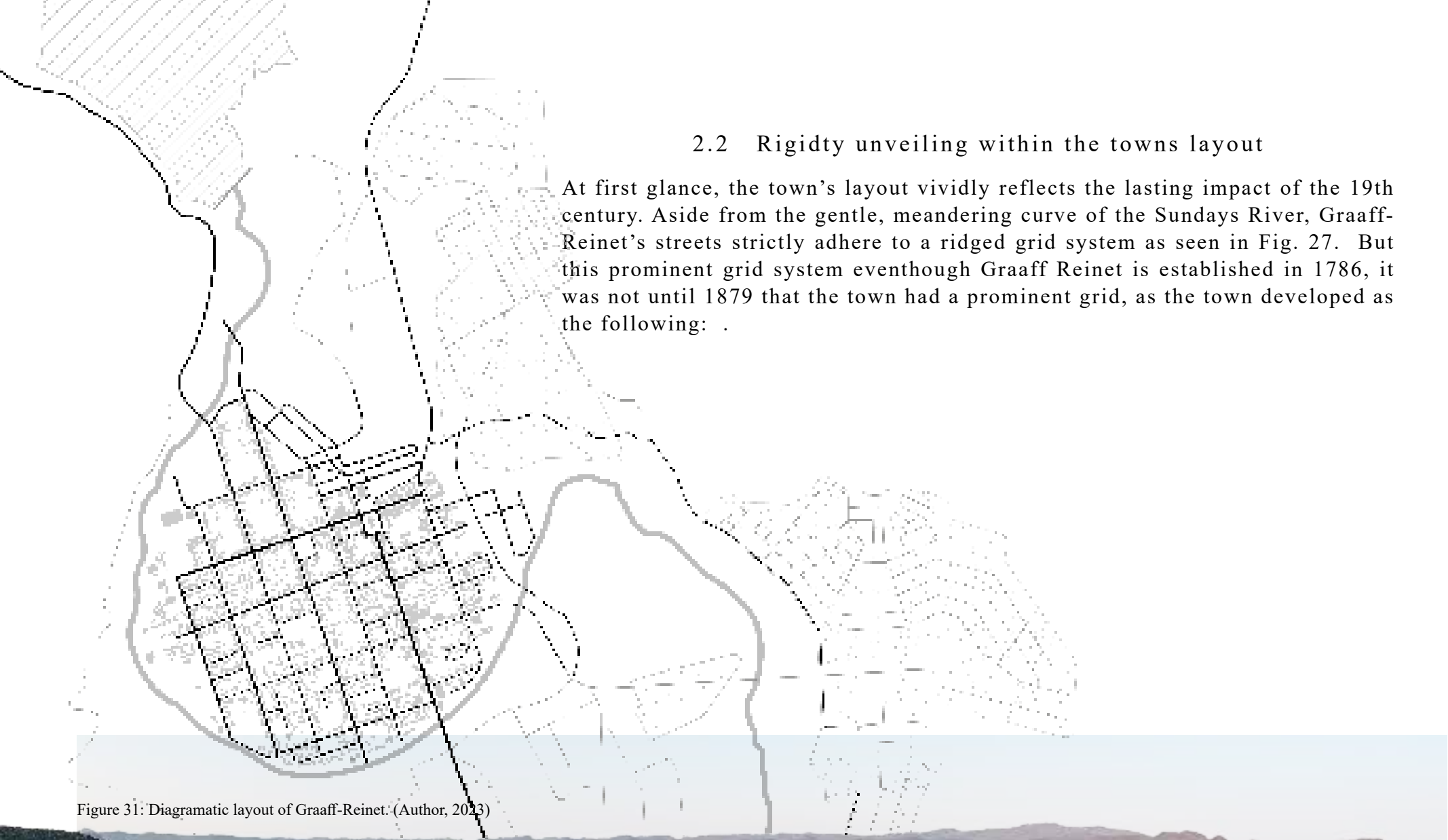


Figure 31: Diagrammatic layout of Graaff-Reinet. (Author, 2023)



Figure 30: Ariel (Patrick, 2021: online)

In 1786, the Drostdy, a jail, public offices, and homesteads were constructed of clay, mud, and reeds. Everything was either handmade or locally grown. (De Wet, 2020; online).

Up until 1797, there were only a few mud huts with poorly built structures; even the gaol was so badly built that prisoners escaped. Dirk Coetzee's original reed and clay farmhouse served as the first Drostdy. (VASSA, 2004).

In 1803, about 20 dwellings were erected in a straight line behind the administrative buildings, the Drostdy and the barracks. (VASSA, 2004).

In 1804, a suitable Drostdy and a new church were constructed. (VASSA, 2004).

In 1812, Graaff-Reinet had just 75 dwellings along Parsonage, Church, and Craddock Streets, and the first citrus trees were planted along the streets. (VASSA, 2004).

1821 - The town at that moment includes over 300 residences, as well as trees, orchards, and vineyards watered by irrigation canals that run along the major streets. (VASSA, 2004).

The establishment of the town's botanical gardens in 1872 is significant not only because it brought Graaff-Reinet into contact with gardens in Cape Town, but also because it encouraged the planting of trees throughout the town; approximately 865 trees were planted in one year, dramatically changing the town's character. Fundraising initiatives for the gardens were also popular social events in town. (VASSA, 2004).

In 1879, the town was planned out in an organised grid form, with residences facing streets lined with orange trees and oleanders, and productive gardens behind. The town is known for its magnificent gardens and irrigation canals that provide water to all plots throughout the day. (VASSA, 2004).

Within these historical developments of Graaff Reinet, a few other traces of the town's origin can be seen in the centralized main axis, the Poort (gateway), the wall, the internalized organization of space, tree verandas along the streets and the interaction of the stoep (veranda).

### 2.3 Centralized axis

Distinguished by its profound significance, the church proudly graces the axis of Graaff Reinet's main entrance. Its imposing presence led to a subtle adjustment in the grid system, a deliberate shift from centre to honour the church's central position along the main axial route.



Figure 32: Diagram indicating axial shift. (Author, 2023)

## 2.4 The ‘Poorte’

As integral components, the town takes consideration of its minor axes, by adopting an approach to emphasize buildings with significance in smaller-scale streets. This arrangement is known as the Poort; being a deliberate choice that creates a dynamic tension between two buildings, each with contrasting functionality. Most prominently in Graaff-Reinet is the deliberate positioning of The Drostdy hoff and The Reinet house (Old Parsonage) at opposite ends of Parsonage Street. This contrast creates thus an interplay between the Drostdy hoff being a Administrative building on the one end and The Reinet house being originally a residential building on the other.



Figure 33: Poort view directed at the Drostdy hoff (Author, 2023)



Figure 34: Poort view directed at the Reinet house (Author, 2023)

## 2.5 The concept of ‘Wall’

Graaff-Reinet presents another distinctive feature—the relationship between a building and the street, in the way its streets are defined by the strategic placement and alignment of its buildings. The boundaries of the streets are carefully articulated by positioning buildings at the edges of the site boundaries, and these structures are almost seamlessly connected, forming a continuous envelope of buildings. This arrangement offers an immersive experience as one navigates the town’s streets.

Furthermore, within the continuation of the ‘wall’, a sense of harmony lies in the repeated lines of the buildings. As the horizontal lines of the stoep (veranda), the ring wall and the flat roof are underlined by simple cornices. The repetition serves to establish consistency in the scale of the structures. This deliberate design choice contributes to Graaff-Reinet’s distinctive architectural charm, making it a place where the streets themselves narrate a compelling story along the façades.

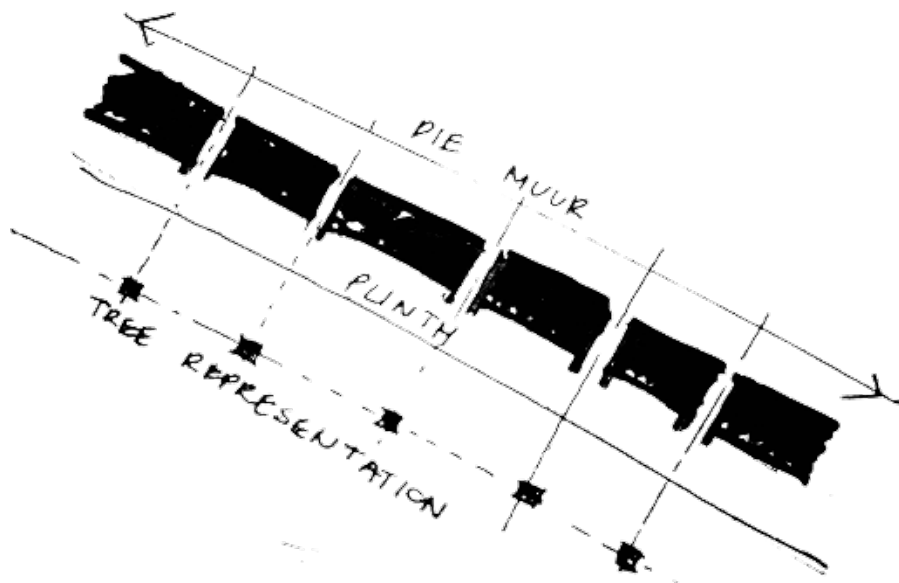


Figure 36: Ariel (Graaff Reinet Tourism, 2023: online)



Figure 35: Visual representation of the wall (Author, 2023)

## 2.6 Internalized spatial organisation

Building upon the foundational concept of walls, where buildings align along the street's edge, the internal layout of Graaff-Reinet's properties reveals a captivating aspect of its heritage. The spaces within these buildings offer a glimpse into a bygone era when each residence cultivated their own land, fostering a strong connection to nature. This design essentially allows the houses to primarily extend backwards from the street, establishing an internalized sense of privacy.

This internalized spatial arrangement forms an essential component of Graaff-Reinet's town layout, where streets are lined by buildings, and internal courtyards are thoughtfully adorned with lush garden spaces. This combination brings to life the town's unique architectural charm that tells its own story of time and place.

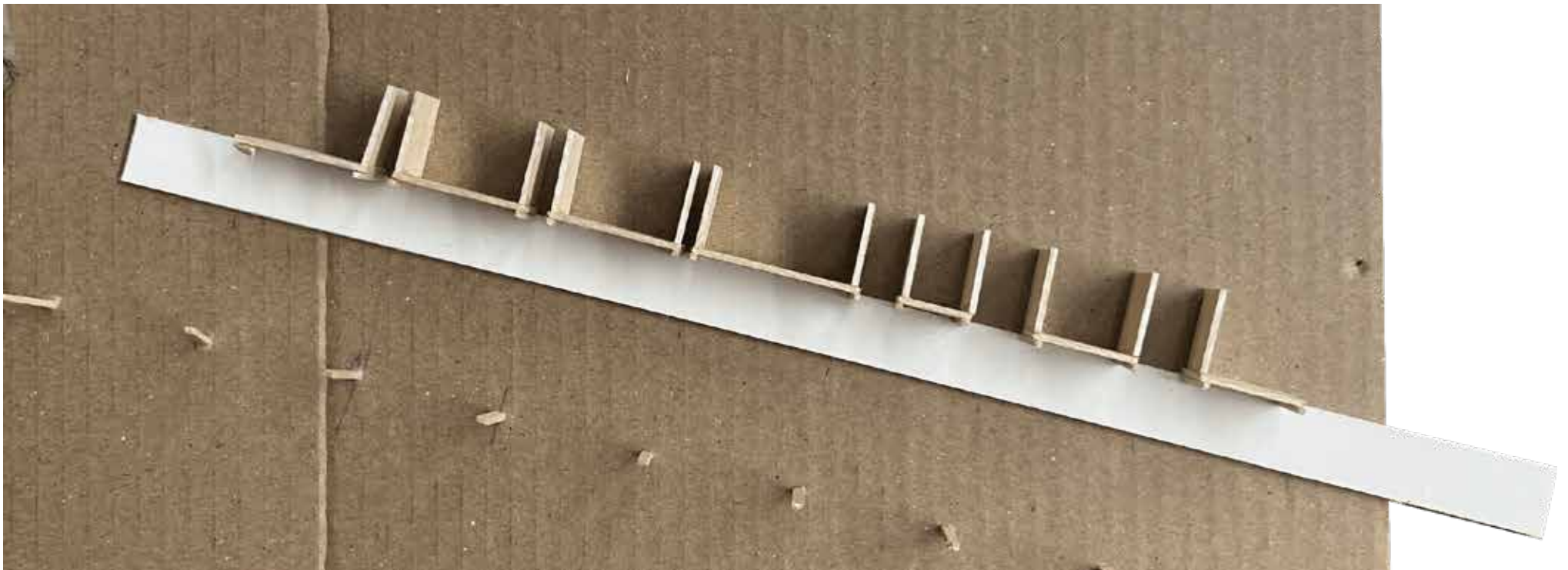


Figure 37: Model representing spatiality.(Author, 2023)

## 2.7 The liminality of the Tree verandas

Within the immersive experience of the streets another distinctive feature:

Going hand-in-hand with the street layout, an avenue of trees enhances Graaff-Reinet's 19th-century charm, extending as a living testament directly from its historical roots. These trees stand tall along the streets, forming an integral part of the streetscape's rhythm, whilst the branches effortlessly frame the façades of the continuous row of buildings.

However, these trees are more than mere observers of history; they are active participants in defining the town's spaces. They create a permeable threshold, marking a subtle transition from the public realm of the street to the more intimate, semi-public world of the stoep. Here, the trees function not only as a physical boundary, but also as a natural canopy, providing refreshing shade for the 'stoepe', creating a serene oasis where history and nature intertwine for residents and visitors alike.



Figure 38: Streets tree verandas of the past (Graaff Reinet Tourism, 2023: online)



Figure 39: Tree Canopy of Graaff-Reinet

## 2.8 The interaction of the Stoep

Amidst the vernacular architecture that defines Graaff-Reinet, the concept of vertical expansion is a rarity, as most of the town's buildings stand proudly as single-story structures. Consequently, the emphasis on horizontal elements becomes a defining characteristic, a theme echoed in the use of the walls, the internal spatial layout, and the harmonious integration with the surrounding trees. All of these factors collectively contribute to a seamless flow of horizontality throughout the town.

The stoep is no exception among these horizontal elements. Serving as a symbol of open, welcoming arms (VASSA, 2014), inviting all who pass by to engage, it becomes more than just a typical feature of Graaff-Reinet's homes. The stoep serves as a transitional space, where the vibrancy of the street spills over, gradually transitioning into the privacy of the homes.

Within the context of the continuous walls that line the streets, the stoep's approach becomes less imposing, as the low boundary wall, which defines the stoep, introduces a rhythmic break that punctuates the harsh streetscape of the wall. This design choice goes beyond aesthetics; it becomes a space that fosters a sense of community, where residents can engage with their neighbours and visitors, thus being an extension of social spaces where the community comes together, a testament to the warm and welcoming spirit of Graaff-Reinet (VASSA, 2014.)

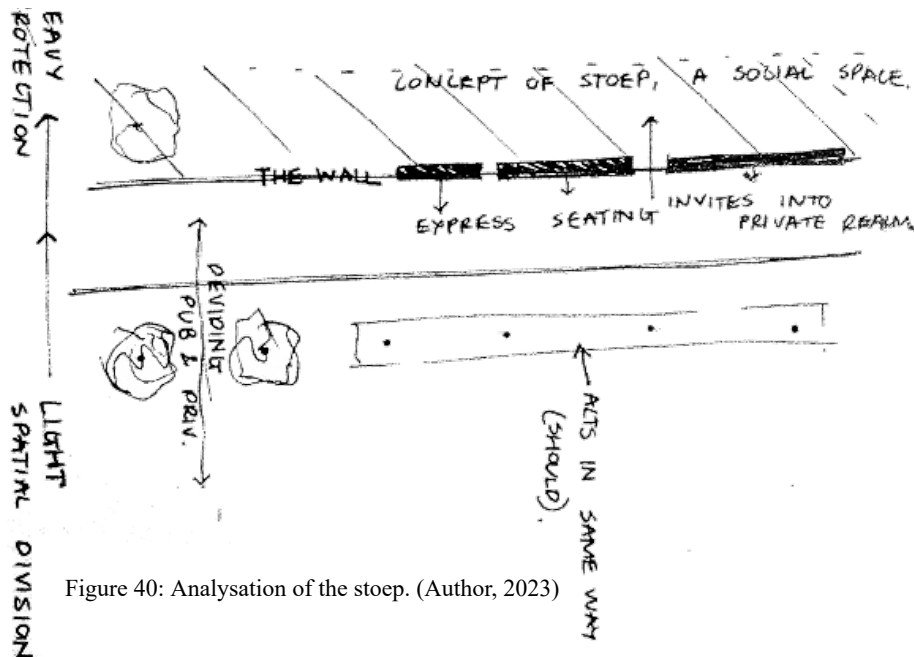


Figure 40: Analysis of the stoep. (Author, 2023)

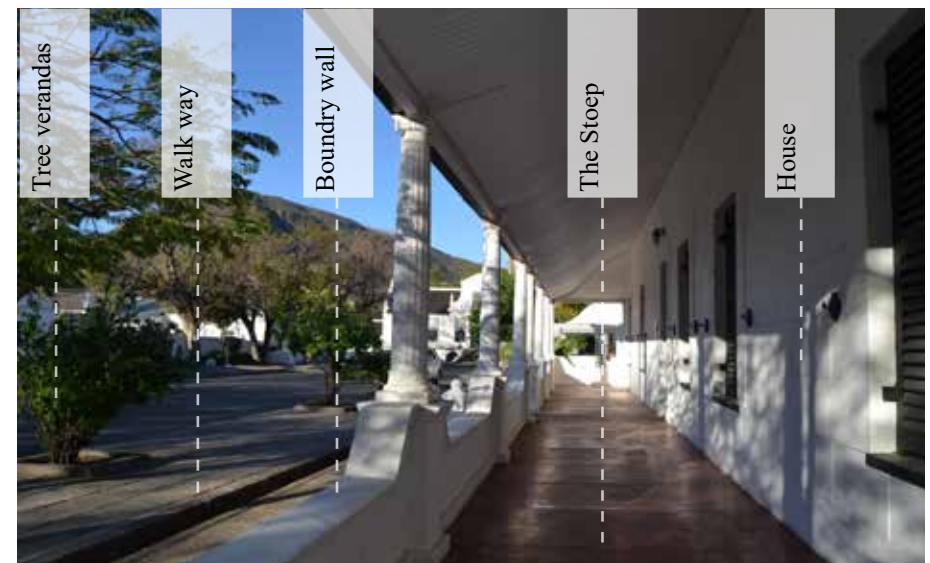
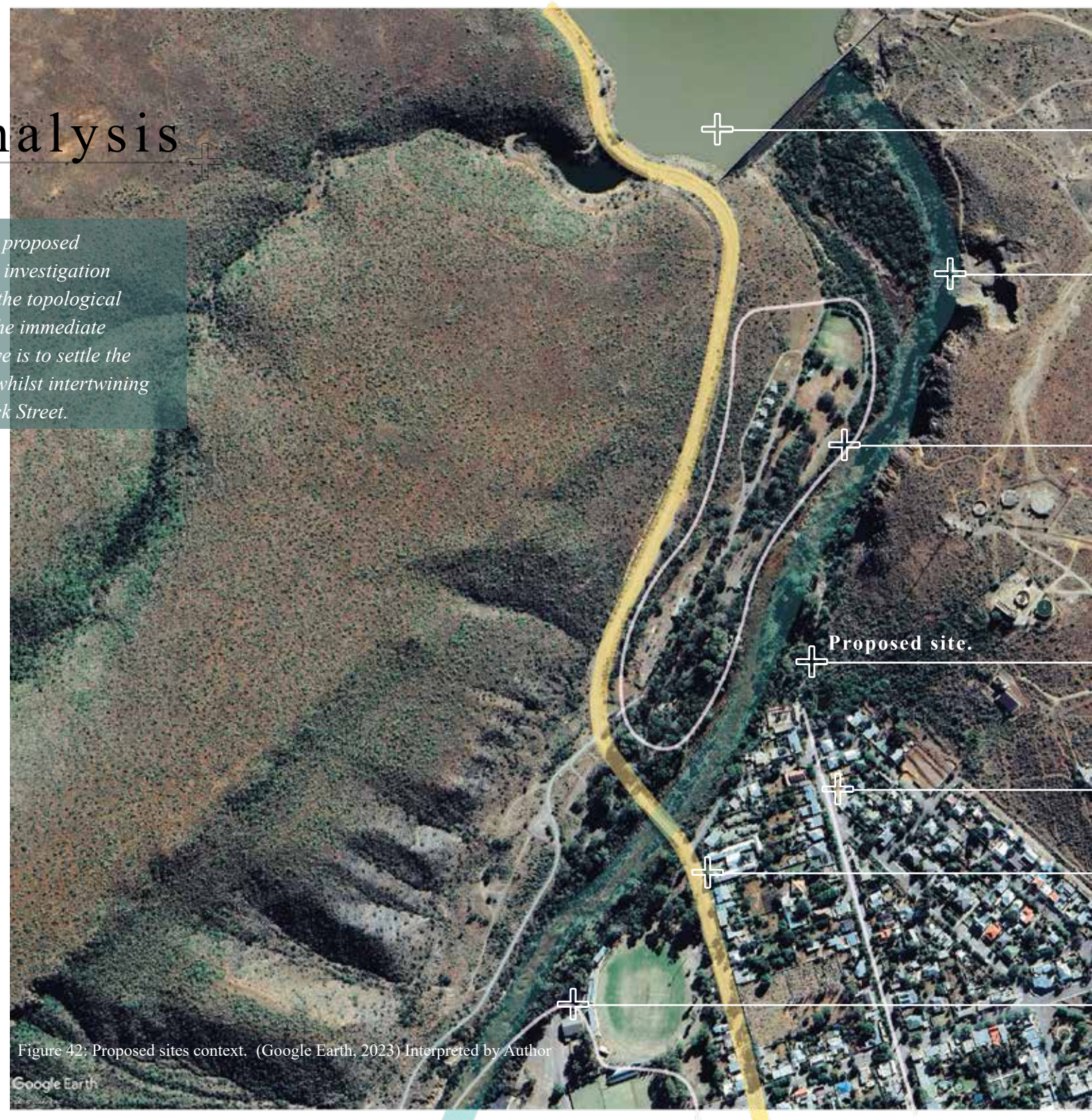


Figure 41: Levels of inter action of the stoep. (Author, 2023)

### 3. **Micro** site analysis

*The Micro analysis explores the proposed site for the micro distillery. This investigation focuses on the consideration of the topological attribute of the site along with the immediate surroundings. The main objective is to settle the design interventions into place whilst intertwining with the narrative along Cradock Street.*





Nqweba Dam



Sundays River



Graaff-Reinet caravaan park



Cradock Street



Road to Camdeboo National Park



Volkskool grounda



### 3.1 Views towards proposed site



Figure 43: Valley in which site is located. (Author, 2023)

Google Earth



Figure 44: Site viewed from the Nqweba Dam. (Author, 2023)



Figure 45: Site viewed from Magazine Hill. (Author, 2023)



Figure 46: Site viewed from bridge over Sundays River. (Author, 2023)

## 3.2 Adjacent building in Cracock St

+ All information below is attained from *A Survey of Buildings in Graaff-Reinet* done by the National Monument Council (Runder, 1989)



Cradock st. 10

This building is three bay Karoo-Cottage with steep and garage extension  
Arch type : Karoo Type

Set for historical preservation as the house is built Pre-1915

Cradock st. 8a & 8b

This building is two attached Karoo type houses of 3 bay each with verandas the right on is set back from street

Arch type : Karoo Type

Set for historical preservation as the house is built Pre-1915



Cradock st. 6

no document is filed for house as it a newer development.



Figure 47: Collage of adjacent building to proposed site in Cradock street. (Author, 2023)

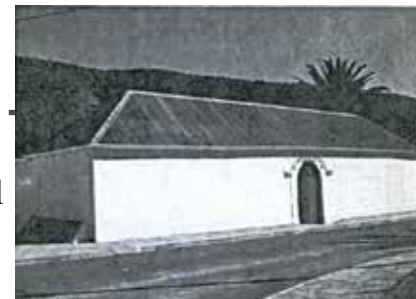
Craddock st. 2&4 is a Long, attached, 2 unit Karoo type, House, set back from street



Arch type : Karoo Type

Set for historical preservation as the house is built Pre-1915

Craddock st. (no number)  
The municipal swimming pool



Arch type : none

This building was recommended for proclamation but rejected

Proposed site





Figure 48: Proposed site. (Google Earth, 2023)

Google Earth

### 3.3 Proposed site +

Engaging with the proposed site for the micro distillery, the site is located on the edge of the town, located on the profound Cradock Street. Cradock Street is also known to be the home of the original Withond distillery, thus locating the distillery on this street aims to extend the narrative.

This site finds itself perched on the town's outskirts, nestled within the iconic Cradock Street. Significantly, Cradock Street is of historical importance as it is the birthplace of the original Withond distillery. Therefore, the decision to place the distillery in this location aligns seamlessly with the central objective of the proposed project.

#### Site Attributes

- Situated on the edge of the town.
- Existing structure
- Site extension into landscape
- Site sloping down towards river



Figure 49: Swimming pool. (Author, 2023)



Figure 50: Interior of existing building. (Author, 2023)



Figure 51: Existing structure. (Author, 2023)



Figure 52: Swimming pool when in use. (Author, 2023)

# Chapter 3



# Theoretical discourse



# Theoretical Discourse

In light of the viticulture's lost perspective within the historical narratives of Graaff-Reinet, there arises a necessity to reintegrate its memory into the contemporary narrative of the town. Through the act of re-engagement, the goal is to unveil how the memory of the lost viticultural perspective can be externalized to fulfil an architectural role.

To externalize the viticultural past, a harmonious integration of the past with the present is essential. This integration aims to find equilibrium within Graaff-Reinet's co-existing historical and contemporary narrative, seeking a balance between architectural interventions (representing the present) and the preservation of memory (representing the past).

Juhani Pallasmaa (2009:17) expresses the importance of the harmony between architecture and memory in his book *Space: place, memory, and imagination: the temporal dimension of existential space*. In this context, he brings forth tools that facilitate the unveiling of the past, as he articulates:

We do not only exist in a spatial and material reality, but we also inhabit cultural, mental, and temporal realities. Our existential and lived reality is a thick, layered, and constantly oscillating condition. Architecture is essentially an art form of **reconciliation** and **mediation** and in addition to **settling us in space** and place, landscapes and buildings articulate our experiences of duration and time between the polarities of past and future. In fact, along with the entire corpus of literature and the arts, landscapes and buildings constitute the most important externalization of human memory. We understand and remember who we are through our constructions, both material and mental. We also judge alien and past cultures through the evidence provided by the architectural structures they have produced. Buildings project epic narratives.

Deriving from this, the core importance of landscape and architecture is to externalise human memory. Reconciliation, mediation and settling in space are three attributes that are used to create architecture that captures the externalisation of memory, essentially unveiling the past.

Figure 53: Sketch representation of Concept 2.

Even though the unveiled memory is not a singular thread but rather a layered narrative, reflecting the complexity inherent in our recollections. In the context of historical narrative, this memory is intricately woven into the very fabric of the landscape and architecture. The places of a memory, holds layer upon layer of memories, connected to the stories of the people who made and used the place. Serving as vessels for shared human experiences and memories, the landscape and architecture provide a platform for people from diverse backgrounds to connect through the narrative. Ultimately, these places serve as reminders of our shared humanity, fostering a connection.

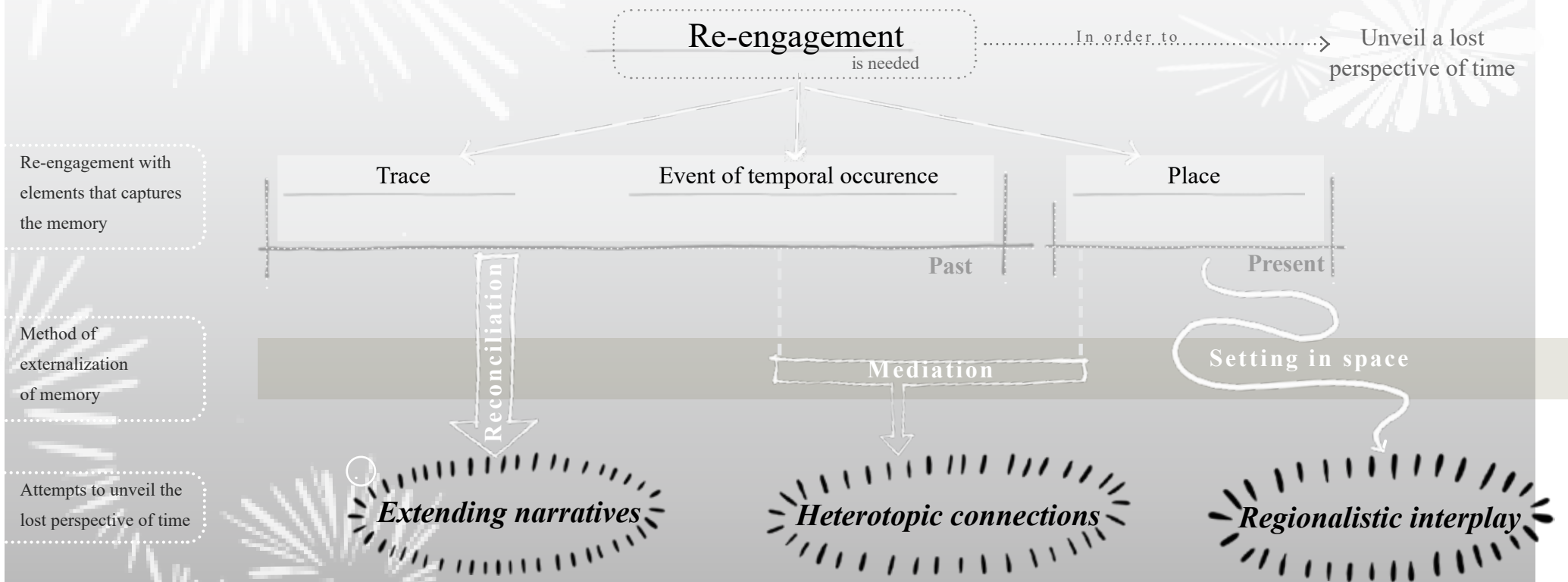
Juhani Pallasmaa's (2009:19) perspective shines a light on the lasting impact of stories. He suggests that the memories of a particular time can be revived through the architectural imprints prevalent during that era, as "All buildings maintain our perception of temporal duration and depth, and they record and suggest cultural and human narratives." Buildings not only serve as physical records, but also as vivid canvases for the narrative. He further emphasises that our understanding of time is not limited to its physical dimension, as "We cannot conceive or remember time as a mere physical dimension; we can only grasp time through its actualizations: the traces, places, and events of temporal occurrence."

The grasp of the epoch is thus better understood by interweaving the tangible and intangible traces. The tangible traces refer to physical structures and their superficial appearance, evoking a connection or recollection of the past. While the intangible traces refer to tangible structures that facilitate the intangible. (Dockrat, 2018: 37) Therefore, its physical structures or traces evoke a certain atmosphere, forging a link to a memory.

In the context of Graaff-Reinet's narrative, the process of actualization translates into the identification and unveiling of relevant attributes. These attributes can be categorized as follows: the "place" represents the present element, while the "trace" and "event of temporal occurrence" encompass elements from the past. To elaborate, events of temporal occurrence are regarded as traces conveyed through the notion of storytelling. The tangible evidence of these traces still prevalent within Graaff-Reinet. Lastly, "place" represents the current context in which the narrative is situated.

In the attempt to re-engage with the lost perspective of Graaff-Reinet's viticulture, the unveiling occurs firstly through Extending Narrative, secondly with Heterotopic connectivity and thirdly through Rationalistic interplay.

Extending narrative acts as the base, recollecting traces from the past justifying the chosen typology, topology, and morphology of the project. Heterotopic connectivity introduces the element of mediation between past and present, connecting the contrasting attributes as the project that extends from traditional towards contemporary. And finally, everything comes together through Rationalistic interplay integrating the prior attributes into the context of the narrative of Graaff-Reinet and the site.



## 1. Extending Narratives



The notion of extending narrative underscores the idea that a modern development should not isolate itself from the historical context in which it unfolds. Rather than opposing the existing historical narrative of Graaff-Reinet, it should embrace and build upon it, seamlessly extending the narrative into the contemporary fabric of the town. By doing so, the development becomes an integral part of the town's evolving narrative, contributing to its rich tapestry rather than disrupting its continuity. This approach ensures a harmonious coexistence of past and present.

The argument of extending narrative forms the base of unveiling the viticulture's forgotten perspective. Engaging in the re-discovering of the traces through the medium of recollection, facilitates the capturing of memories that lie within the traces and events of temporal occurrence. As memories are inherently tied to specific places and events, the history of place is discovered within the unwritten stories etched into the traces of the past.

The traces that are deeply rooted in the context connects the present to the atmospheres of those past moments, thus investigating these traces reveals more about the past status. By recollecting the traces and events, the story of the epoch unveils itself in a way of reviving the past. This revival contributes to the act of storytelling, that extends to connecting a community and individuals through the shared experience of storytelling.

Extending the narrative poses an understanding of the community from different perspective in time in order to merge with the current narrative of place. As the traces of Viticultural heritage is evident all over, when recollection and commemoration of these memories occur, the ability to enter the event of the past is possible.

## **Recollection as an attempt to revive a forgotten narrative**

By recollecting past points of Graaff-Reinet's viticulture, the traces of the past and mostly of the Withond emerge as tangible and intangible attributes, engaging in telling stories and reflecting on the epoch. Acknowledging that the sense of place lies within layered history, it becomes apparent that reconnecting with the past requires a deeper dimension of engagement. This re-engagement thus goes beyond a mere recollection of stories; it delves into the intricate fabric of history, as revealed by the traces and events.

As the setting changes into a modern atmosphere, interpreting traces as events from the past to representational in the present becomes a complex endeavour. It is crucial to approach the past with a sense of commemoration rather than trying to recreate it anew. The present should be embraced as a platform to honour and pay tribute to the significance of our history. In doing so, we can build a bridge between the past and the future, recognizing that Graaff-Reinet's heritage provides valuable insights. Within the context of Graaff-Reinet, this recollection of past layers is unveiled through the investigation of typological, morphological, and topological connections to past viticulture.

### 1.1. Typological



Figure 54: Recollection of traces (Author, 2023)

Typology refers to a category of architectural type. Embracing a typological approach, it serves as a foundation for potential design decisions within the functionalist framework. This exploration involves investigating typological factors that contribute to establishing the program of the project.

### 1.2 Morphological

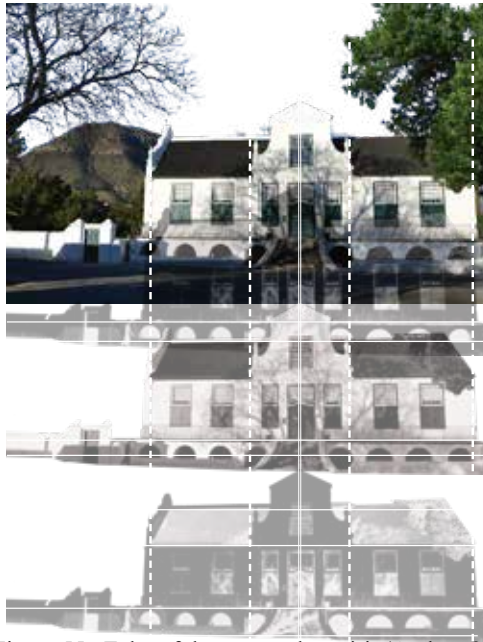


Figure 55: Echo of the vernacular spirit (Author, 2023)

Morphology refers to the architectural intervention used in shaping the design. It involves the structure of an architectural form and its formation in response to various conditions, with a specific focus on the relationship of the form to the existing structures in the Graaff-Reinet.

### 1.3. Topological



Figure 56: Contrasting landscape (Author, 2023)

Topology is not merely the form, shape or the texture of a building; it encapsulates how architecture connects with both its site and context. Referring specifically to the relationship between architecture and landscape, showcasing how the design evolves harmoniously with the natural surroundings and contextual attributes of the site.



Figure 57: Black Acorn vines canopy. (Author, 2023)W



Figure 58: Distillation traces as Reinet House. (Author, 2023)



Figure 59: Vineyards present where volkskool is situated today. (Reinet House Museum, 2023)



Figure 60: View down Cradock streets. (Author, 2023)

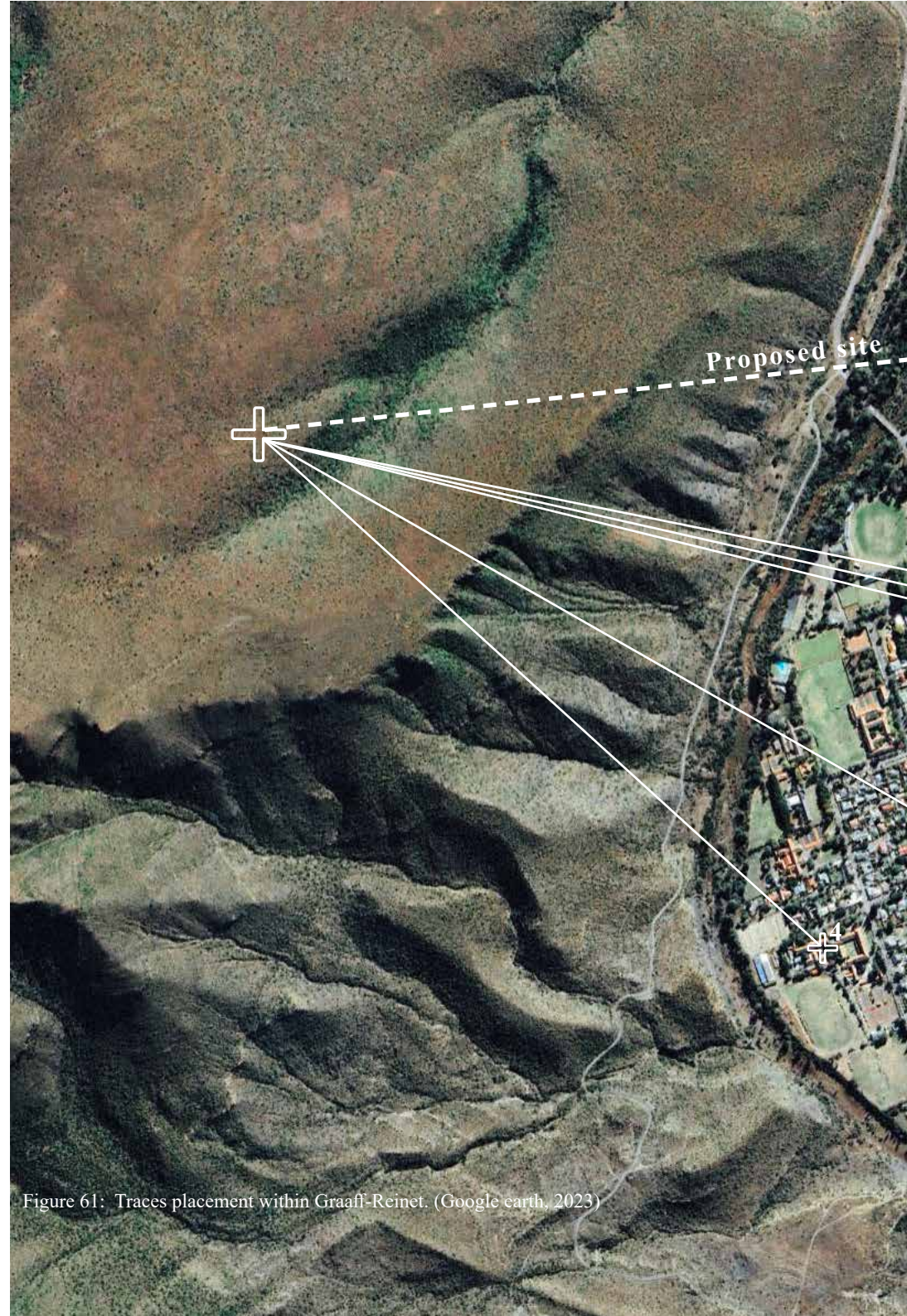


Figure 61: Traces placement within Graaff-Reinet. (Google earth, 2023)



## 1.1. Traces of viticulture's typological past that resonates in the present.

The first approach of unveiling Typological attributes is the recollection of traces appealing to the presence of viticulture, and the entering the event of temporal occurrence. These fragments of traces play a vital role in shaping the perceived viticultural identity within Graaff-Reinet. The events are portrayed through the stories that have been told and, the traces of the viticultural elements that resonate throughout Graaff-Reinet.

a. The **FIRST** section of the typological recollection is the traces that resonates the essence of viticulture. These attribute presents attempt to justify the appropriateness to the programs aim to extend the narrative within the town. Fig.49-52 shows the multiconnection as follows:

1. The Black Acorn vine existence echoing the ability of Graaff-Reinet to produce flourishing vineyards.
2. The Withond original pot still. Hiding under the bushes in the backyard of the Reinet house, showcasing the distillation method of the time.
3. The exhibition of the distillation equipment together with the picture of the pristine vineyards of the 1900's at the Reinet house.
4. The Volkskool campus, representing the previous location of the vineyards in Graaff-Reinet, but presently represents as an element of the vineyard's absence.
5. Cradock Streets high wall showcasing the past distilleries playground. The high walls is representative previous distilleries using high wall to hide the activities that happened behind the boundaries.

These multitude of recollected traces prevails the impact viticultural activities once had on Graaff-Reinet. Even though the interaction of these elements is not significant in today's narrative of Graaff-Reinet, the greatness it once had echoes through the ages.

a. The **SECOND** element that reveals the essence of Viticulture is the telling of the tale of the Withond.

The story, as told by A de V. Minnaar in *The Story of the Withond*, unveils a sense of mystery and trickery as evidenced in the game between authority and community. As Withond was illegally distilled, the police tried their best to shut the operation down. However, the distillers used the assistance of the community to keep the Withond distillery a mystery, and the distillation continued despite the police being aware of it. The distilling of Withond was only visible to the distillers and the customers while being hidden from the police, only leaving the evidence of the vineyards and the pot stills exposed to all. This created an interplay between exposing and hiding elements of the Withond distilling versus that of the viticulture thus revealing an interplay of visible perception

This element of visibility versus accessibility adds depth to the programme of the proposed project, as it establishes a connection with the historic stories through the re-establishment of a distillery. The recollection extends beyond its basic functionality of merely being a distillery, by incorporating the interplay of visible perception and recollecting this interplay of exposure versus hidden aims to create an experiential journey that unveils the intricate processes by portraying glimpses into the distillery before full engagement thereof, allowing the dwellers to be active participants in the experience.

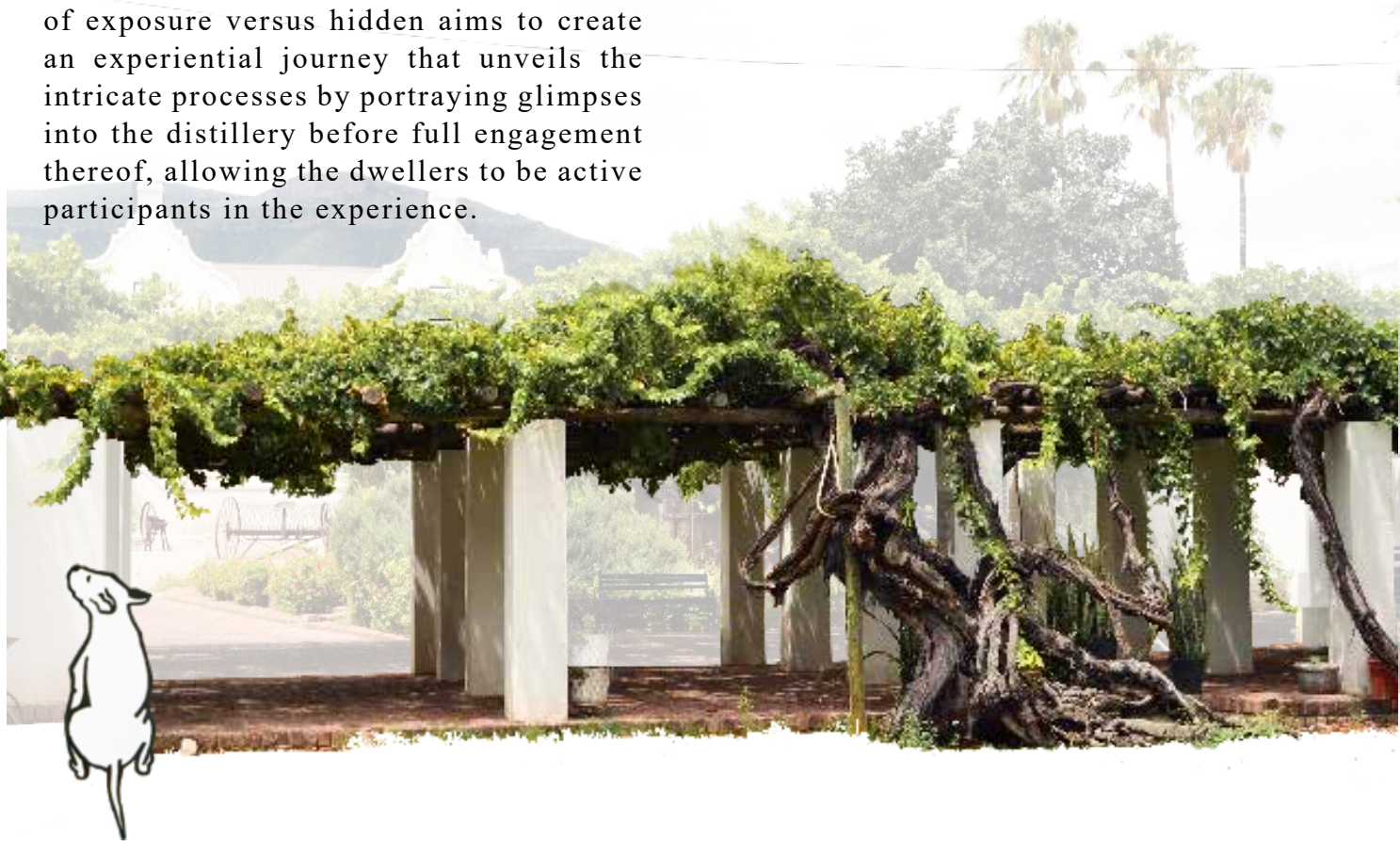


Figure 62: The vines and the Withond (Author, 2023)

## 1.2. Morphological traces of the past that resonates in defining Graaff Reinet's character.

The second approach of a recollection with the quintessential essence of Graaff-Reinet's architectural interventions, and morphological traces channelled through an exploration of the town's vernacular architecture. The vernacular architecture stands as a cornerstone of Graaff-Reinet's identity, offering a window into the 19th century's alluring charm within the streetscapes. The vernacular architecture of Graaff-Reinet is predominantly 19th century Cape Dutch vernacular, portraying the typical stylistic of the style. This architectural attribute contributes a sense of timelessness in the streetscape, evoking a atmosphere of history frozen in its most evocative moments

The façades of the streetscape offer a portal into the tangible traces of the past, unveiling the past narratives being etched in the facades by history. Yet, to express this essence of Graaff-Reinet's architectural impact, it is important to engage not only with the tangible aspects of the vernacular, but also with its intangible spirit, which is express through the atmphere that tangible objects resonate. The tangible attribute lies within a surface-level connection with the vernacular heritage, whilst the intangible attribute is only unveiled within an immersive encounter with its spatial organization that pays homage to its spirit.

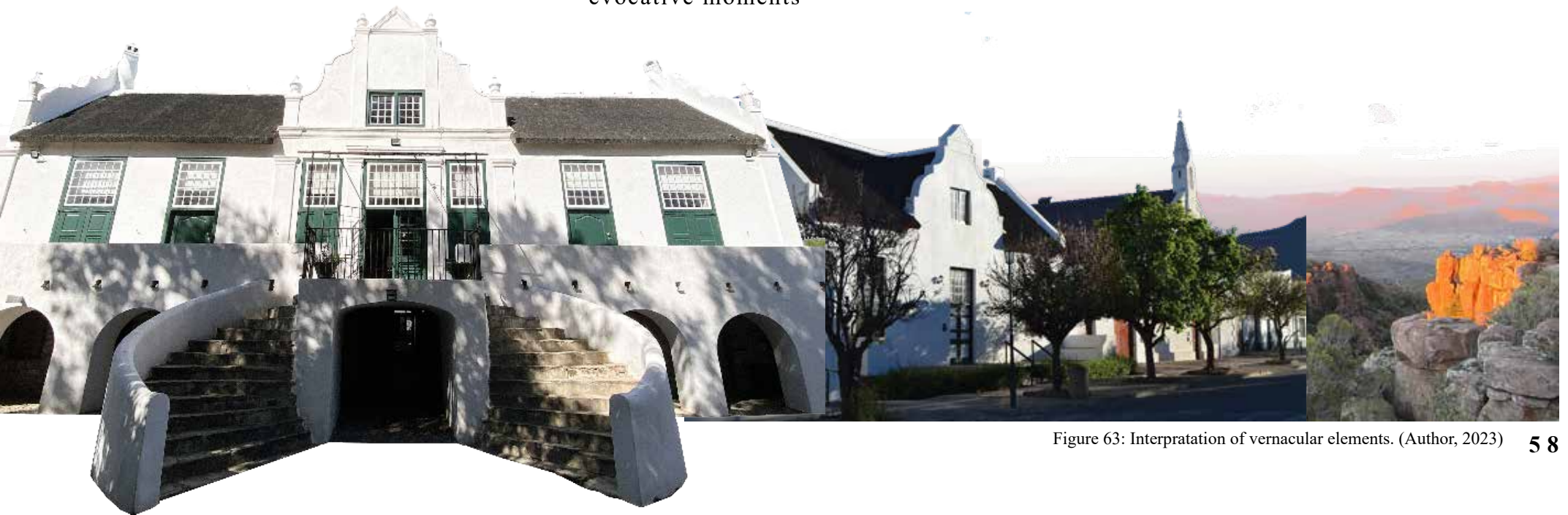


Figure 63: Interpretation of vernacular elements. (Author, 2023)

a. Tangible attributes

The tangible attributes are unveiled in an analysis of the façades or superficial engagement of the built forms in Graaff-Reinet. As vernacular architecture is a collection of locally available materials and techniques of the specific era of the 19th century the tangible elements most predominantly is present in the basic materials available from that fragment of time, which can be seen in Fig.26, include: white plaster walls, stone, clay, thatched roofs, timber trusses and beams, wooden louvres and basic elements of construction. (Other element are further discussed in Chapter 4) These tangible trace gives a glimpse into understanding of Graaff-Reinet’s architectural heritage, recollecting the essence of the place from a past perspective.



Figure 64: Superficial vernacular elements. (Author, 2023)



Figure 65: Spatial attribute of 'the Wall'. (Author, 2023)

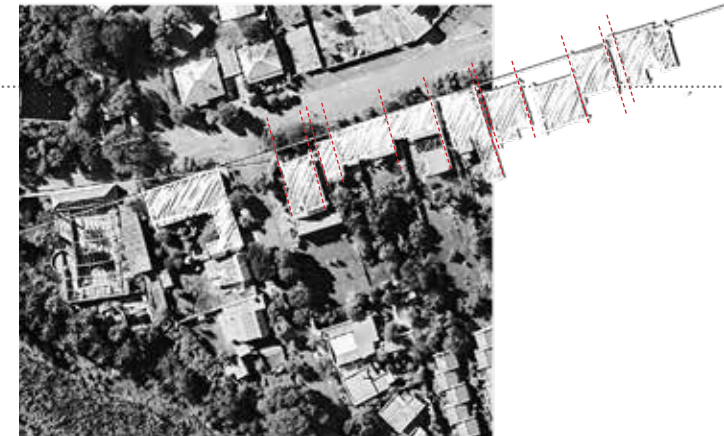


Figure 66: Buildings on the street bounds. (Author, 2023)

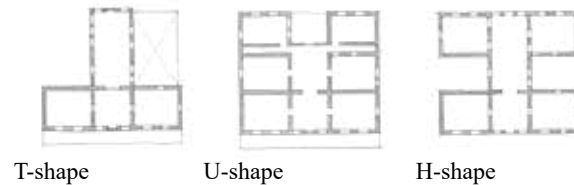


Figure 67: Alphabetic floorplan. (Author, 2023)

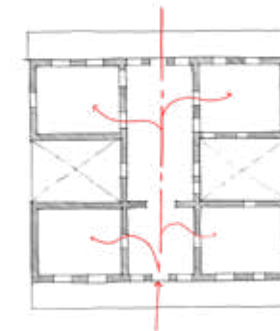
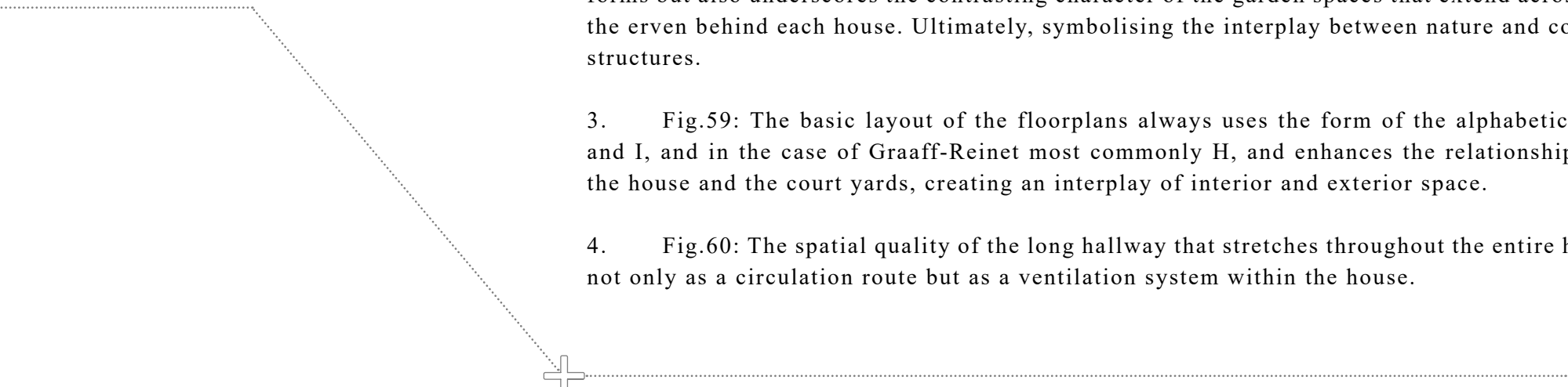


Figure 68: Spatial attribute of hallway. (Author, 2023)

## b. Intangible attributes

The intangible attributes are present within the spatial layouts of the house, as they are basic physical interventions that create an atmospheric presence towards the spaces. These elements include:

1. Fig.57: Houses are built in close conjunction, adjacent to each other, creating a sense of a wall along the street front. This ridged element thus emphasises the freedom of the spatial organisation beyond the façades.
2. Fig.58: Placement of the houses on the street edges forms a spatial recollection, resembling a continuous wall along the streetscape. This not only fosters a cohesive experience among the built forms but also underscores the contrasting character of the garden spaces that extend across most of the erven behind each house. Ultimately, symbolising the interplay between nature and constructed structures.
3. Fig.59: The basic layout of the floorplans always uses the form of the alphabetic letters U and I, and in the case of Graaff-Reinet most commonly H, and enhances the relationship between the house and the court yards, creating an interplay of interior and exterior space.
4. Fig.60: The spatial quality of the long hallway that stretches throughout the entire house acts not only as a circulation route but as a ventilation system within the house.



The recognition of the morphological attributes of Graaff-Reinet's vernacular spatial organization and materiality serves as a profound element in recollecting the historical presence within its built forms. As these elements stand as an enduring testament to the town's historical narrative and identity. To successfully extend into the contemporary narrative while respecting Graaff-Reinet's heritage, it is crucial to build upon these historical attributes within a new architectural development.

### 1.3. Topological displacement fostering a sense of connectivity

In light of the topological context of the proposed site that extend past the urban context of Graaff-Reinet, questions arise regarding the viability of the shift. As we transition from an urban, Karoo-like topology within Graaff-Reinet to a more landscape-oriented valley setting at the edge of the town, the site composes a stark contrast. The contemplation arises: Is this spatial shift a viable option? Can the extension of the viticultural narrative unfold within the embrace of Graaff-Reinet's own narrative? These inquiries, pregnant with possibility, beckon us to navigate the interplay between architectural intention and contextual resonance, thereby forging a symbiosis that resonates through history, place, and narrative.

In extending the narrative of the town, one should consider the fact that the viticulture narrative has disappeared once before, so why would it not disappear again?

Selecting a new site encapsulates the concept noted by Juhani Pallasmaa in *Slowness and remembering: speed and forgetting*, wherein he posits “There is a secret bond between slowness and memory, between speed and forgetting... the degree of slowness is directly proportional to the intensity of memory: the degree of speed is directly proportional to the intensity of forgetting.” (2009:32)

Interpreting the urbanised expanse as a realm characterised by speed, and contrasting it with the slowness of the landscape, the idea contributes to the absence of viticulture as a result of the speed by which the town is forgetting this narrative. Within this paradigm, the rapid failure of remembrance contributed to the disappearance of the viticultural history, as the pace of urbanisation eclipsed the preservation of this narrative. The vineyards that once graced Plasket Street were simply superseded by the school's development, vanishing before their absence could be fully acknowledged.



Figure 70: Historical overview of Graaff-Reinet showing the presence of the vineyards (Reinet House, 2023)



Figure 71: Current overview of Graaff-Reinet showing the absence of the vineyards (Reference)

As the selected site for the project is situated at the edge of the town, the withdrawal from the bustling heart of the town creates a sense of slowness on the site. This slowness of the landscape offers the dwellers an opportunity to immerse themselves in the past, aligning with the gradual unfolding of memories. Allowing the past to be experienced in harmony with the slowness of remembrance, results in a more profound embodiment of the collective experience that counteracts the rapid failure of remembrance. This placement of the site poses a contrast to the typical Graaff-Reinet terrain, providing mediation between the polarities of the site.



Figure 72: Polarities of site placement on the edge of Graaff-Reinet. (Your Neighbourhood, 2023: online)

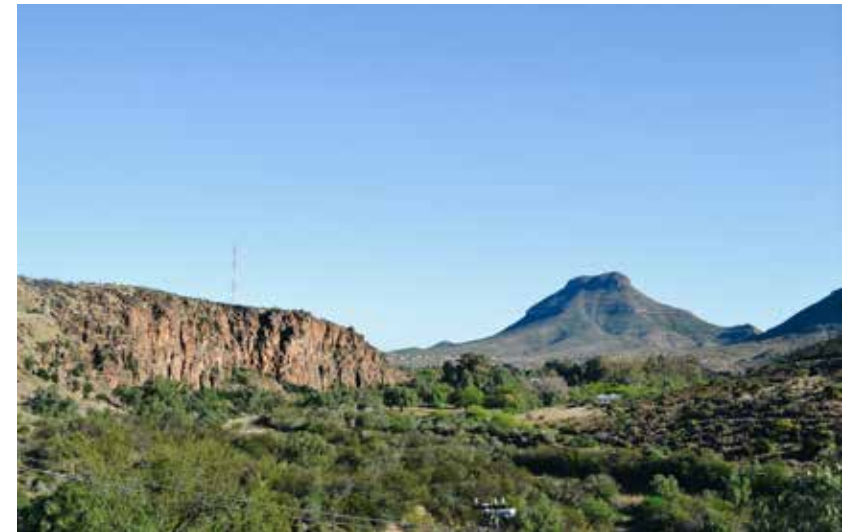


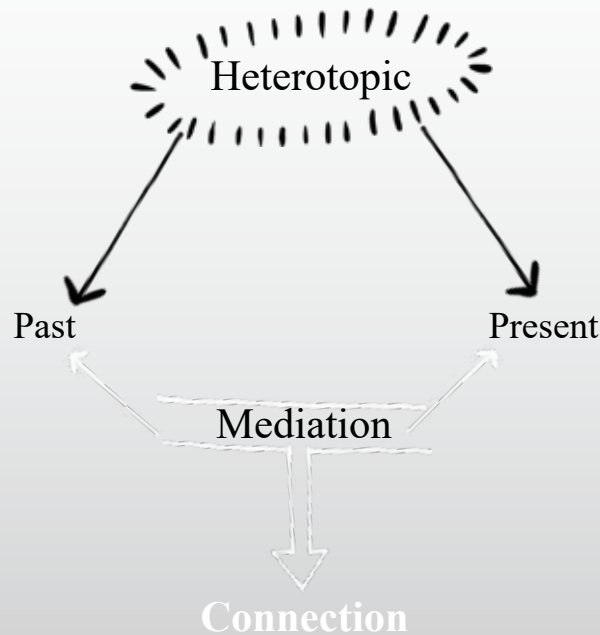
Figure 73: Valley in which site is situated. (Author, 2023)

## conclusion

Recollection thus prevails the tangible and intangible elements of the past that still pose as a stepping stone to connect to the past in order to extend the current “frozen in time” appeal of Graaff-Reinet. But as the project is a contemporary intervention, one needs to acknowledge how this development will mediate the past into the present context.

## 2. Heterotopic connection

Mediation as an attempt to revive a forgotten narrative.



In this second notion of re-engagement with the lost perspective of time, mediation serves as a medium to bridge the polarities between past and present. Building on the previous argument of extending the narrative, the attribute of the past is unveiled, forming the foundation upon which the narrative extends. When aiming to extend upon the narrative, one must acknowledge the contrasting difference between the past and the present to sustain a mediation. The past in the context of Graaff-Reinet represents the town's traditionality, as the Cape Dutch traditions used in the current narration contain so much of its history. The coherence in built form contributes to the town's uniform identity, as the past becomes both an integral part and a stepping stone upon which the town continues to build. While the present, thus introduces a contemporary development, contributing to a new element coexisting with the historical narrative of the town. Ultimately, the aspect of coexisting traditions and contemporary elements poses a strong sense of disconnection arising from how these will be able to co-exist.

Constructing a newly built form within a historically rich context poses a problem as a modern development. As the perception of modern architecture is often perceived as a futuristic potential development, linking the quality of architectural creations with a disconnection from the past. (Hyon-Sob, 2009:10). As modern architecture is considered a type of universal architecture that is often removed from context and association with tradition. However, with the contemporary development aiming to mediate between past and present takes on the approach of architectural modernity. Modernity is thus the implementation where contemporary development allows for the use of progressed technologies whilst still attaining the experiential connection towards the historical and contextual attributes of the space. (Barker, 2015) This consideration of modernity goes beyond surface-level interaction and takes into consideration the multiple layers of architecture in relation to nature, fostering a sense of heterotopic connectivity between the past & present.

The concept of heterotopia is best explained by Michel Foucault(1984:3), where he defines heterotopia as “counter-sites” existing outside ordinary space and time yet carrying real and profound significance. One can understand this concept by drawing parallels between heterotopias and the example of a ship—isolated from the rest of the world, yet intrinsically connected to it. Thus, the essence of heterotopic connection stems from the polarities present, as most contrasting aspects are isolated in definition but connected within the context of Graaff-Reinet. The history of viticulture presents itself in such a way, that its fragment of history is not profoundly expressed within the context of Graaff-Reinet, but it still has a significant connection to the town through historical attributes.

In the proposed project, the heterotopic connection has multiple existence but is most evident in the interplay between modernity and tradition. As the polarities within the contemporary architectural intervention aim to capture the soul of Graaff-Reinet, the interpretation and implementation of the vernacular contribute to mediation between these entities. By embracing the heterotopic nature of the context and its historical narratives, the connection seeks to intertwine the polarities to facilitate an architectural intervention that celebrates the past while embracing the unfolding spirit of the present.

This intricate dance of contrasts breathes life into the project, creating a vibrant tapestry where the past and the present, the structured and the free-flowing, and the vernacular and the modern intertwine. It is within these contrasting elements that the project establishes its identity, celebrating both the rich heritage of Graaff-Reinet and architectural innovation. Ultimately aiming for a harmonious coexistence through heterotopic connection, the justification of the chosen site attempts to embrace the connection of polarities.



Figure 74: Graaff-Reinet within the vast expanse of the Karoo.  
(Author, 2023)



Figure 75: Polarities between rigidity of Graaff Reinet  
and Freedom of landscape (Author, 2023)

Presence of heterotopic connection withing proposed context.

The proposed site consists of a multitude of polarities, intricately contrasting into its very essence, manifesting in multiple levels of contrasts that define the site's unique character. The site consists of 3 different levels of contrast (each being investigated in the site analysis), which are expressed as heterotopic connections.

1. The first level of contrast is visible as we traverse the vast expanse of the dry plains of the Karoo, where Graaff-Reinet appears as a great contrast towards typical Karoo town. Standing an oasis of fertility amidst the arid landscape, the presence of water can be seen from afar. (Fig. 66)
2. Zooming into context within Graaff-Reinet, the town's rigid layout and historical charm offer a delightful contrast to the proposed site's freedom of landscape. (Fig.67)
3. As we venture from topological attributes the morphological Cape Dutch vernacular architecture of the town poses a great contrast towards a new architectural intervention. Yet, we step into the realm of architectural modernity with the proposal of a new intervention to converse harmoniously, merging the traditional and the contemporary into an expressive symphony of design.



#### conclusion

As the heterotopic connection of the site is unveiled, the justification of the chosen site is expressed. The theoretical discourse transcends from recollecting traces in extending narrative and mediating connections in Heterotopic connection towards emplacing the element onto the site in an attempt to achieve a project that is settling into space in regionalistic interplay.

### 3. Regionalist interplay

Settling in space as an attempt to revive a forgotten narrative.

In a final attempt to unveil the narrative of the viticulture's lost perspective, the endeavour to settle in space the attribution from the previous two arguments that focused on the narrative of the town and bridged the project with a harmonious blend of modernity and tradition comes in play. As the regionalist interplay pivots towards the attribution's emplacement with the physical context. Ultimately this notion of re-engagement delves into how the project is harmoniously integrated, ultimately settling into space and place.

#### 3.1. Understanding regionalism.

In understanding the approach of regionalistic interplay one should first understand the concept of regionalism. This term is best described by Author Barker (2015:19) in his article of extending architectural regionalism, where he argues: "...to respond regionally in architecture, an immediate understanding forms and appreciation of the qualities of place and its relationship to socio-cultural practices is necessary." To be able to appreciate the qualities one should first fully understand attributes that make up the contextual and cultural understanding. This is aided through the previous 2 arguments where firstly extending narrative unveils the cultural relation of program attributes and secondly, heterotopic interplay unveils the contextual.

Only when this understanding is achieved, we can use this as a base to create a regionalistic appropriate approach, as: "Regional architecture response to culture through an interpretation of traditional build form, but also to social concerns through a reinterpretation of vary ways of living."

In the context of the proposed design, the way of “responding to culture through an interpretation of the traditional build form translates into the interplay with Graaff-Reinet’s topological and morphological attributes that reveal the identity of the towns and the cultural stories in etched in the facades expressing the element of narrative. Whilst the response to “the social concerns through a re-interpretation of various ways of living” is unveiled within the recollection of the traces of the lost perspective of the viticulture expressing an element of narrative.

As regionalism is reactionary in nature, it responds to the polarities and attributes through the intricate interplay between the physical landscape, architecture and the narratives it holds. Aiming for a cohesive approach through the act of settings in space, the merging of architectural and natural evokes a sense of a narrative unfolding into re-engagement with the viticulture’s lost perspective.

### 3.2. Settling in space through an Attenuative approach:

As in the last attempt of re-engaging with the viticulture's the lost perspective, the focus turns towards settling it into space. Here, the interplay between vernacular attributes and regionalist tendencies becomes crucial in achieving an appropriate design. Regionalism, act as a guiding principle, carefully considers the context in which it operates, seamlessly extending the new architectural form, not only into the current narrative, but also into the physical surroundings. It does not impose itself, but rather becomes an embedded part of the space.

Regionalism in essence, considers the context of the new build form to seamlessly extended the into the narrative as well as the context, as it is not imposed but settles in spaces. An attenuative approach is thus essential as it understands circumstances to interprets and mediate polarities effectively. Specifically in relation to Graaff-Reinet's vernacular architecture the attenuative approach does not replicate the vernacular attribute but rather transforms the vernacular principles to suit the conditions.

This process of interpretation can abstract the architecture to such an extent that historic continuity is lost. However, an attenuative approach is used to seek mediation between the approaches of the extreme poles. A simple approach to technology emulates that of the old and fosters an effective response in the present. The attenuative design approaches recognise the restraints of the vernacular while contextualising the attitudes to suit the new intervened functionality, technology, and climatic response. This approach, layered within the merging of functional and vernacular abilities, fosters an interplay between the extroverted landscape and the unveiling tendencies of the introverted nature of the vernacular. In conclusion, the implementation of these important approach principles becomes a design solution that strikes a harmonious balance and unveils the forgotten perspective of time

To approach the attenuative design, Gabriël Fagan's proposed three ways in which the relationship between modernity and tradition can manifest Firstly, through the thoughtful use of space; secondly, through a minimalistic approach to structure and materials; and thirdly, through a responsive design attuned to the local climate. These elements he mentions thus mediates between the first argument of extending narratives & the second argument of heterotopic connections to aid the settling in place of the design.

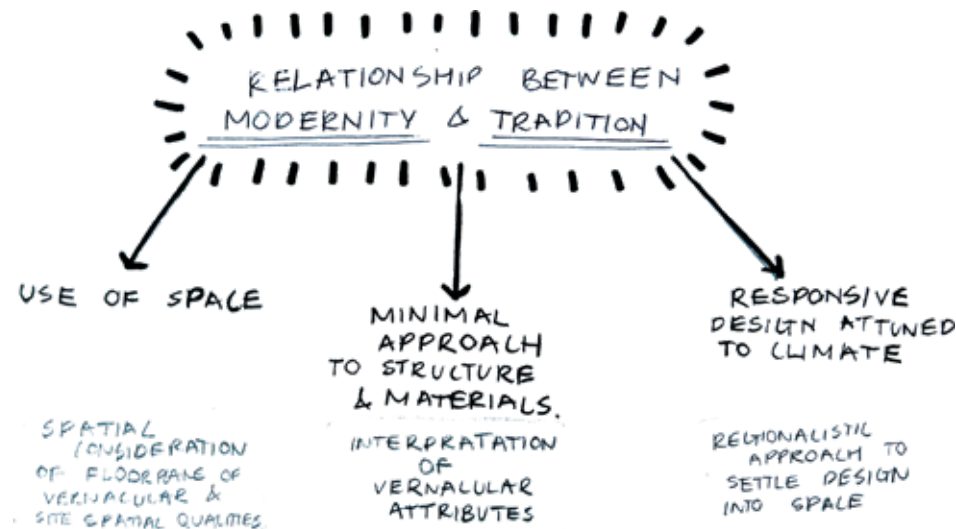


Figure 76: Diagram illustrating Gawie Fagan's approach towards an attenuative design. (Author, 2023)

## Precedent study 01+

Isivivane, Freedom Park - *a garden of remembrance*

Architect : **MMA Architects, Mashabane Rose  
and GAPP Architects**

Location : **Tshwane, Pretoria, South Africa**

Project year : **2006**



### Attributes gained

- The element of an attenuative design contribute to the connection to the sense of place.
- Using phenological attribute of history instead of directly reinterpreting it.



Figure 77: Designs embedded nature. (Vosloo, 2020)



Figure 78: Designs embedded nature. (Vosloo, 2020)

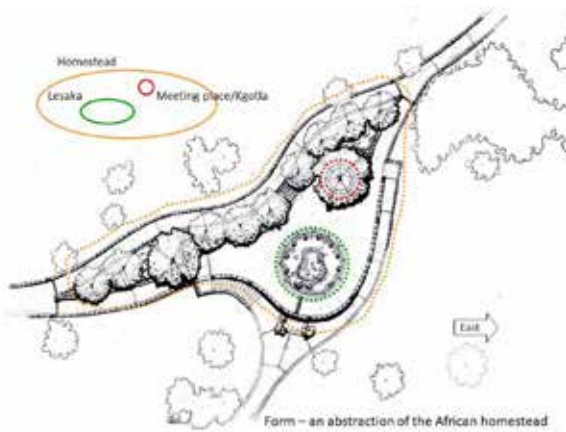


Figure 79: Spatial organisation. (Vosloo, 2020)

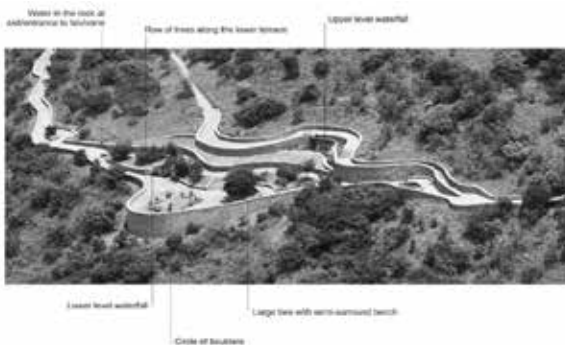


Figure 80: Material attributions. (Vosloo, 2020)

*Isivivane* is a project of commemoration placed within Freedom Park. Known as a Garden of remembrance the design aims to be socially, culturally, and environmentally responsive, in order to aid visitors with an experience that evokes a connection to the identity of the place attempting to resonate a collective meaning within.

The visitor's experience and perception of the *Isivivane* is based on phenomenological interpretation and landscape narrative. The experience and perception of the *Isivivane* influence the design together with its landscape-appropriate features that evoke a response to identifying a place, all contributing to the individual and collective meaning of commemoration.

Constructing a place of remembrance, the designer uses a concept of innovative indigenous knowledge systems, interpreting traditional construction methods. Yet there is an acknowledgement that a direct approach towards traditional methods is not suitable, the project rather interprets history and moves towards the future to create the approach of traditional intervention and transform it towards a representation of the experience.

The design creates a sense of place by deriving from an appropriate combination of narrative and standard design principles and using the embedded stories through representation of metaphors. The project achieves this through using the *Isivivane*'s form, materiality and organising principles.

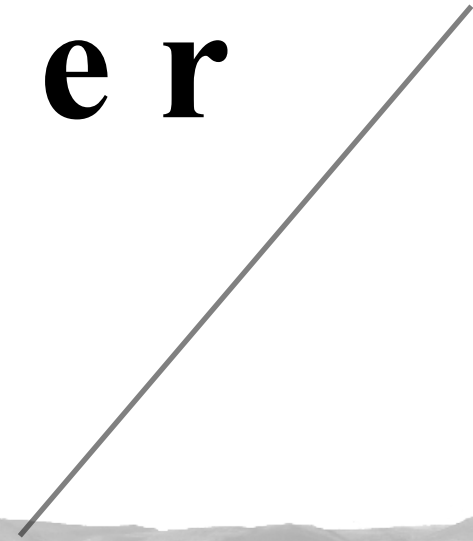
Within the use of *Isivivane*'s form, the layout used the spatial organization of a traditional homestead (Fig. 71) to construct the layout of the design together with adapting it to the topography of the site. Contributing to the essence of evoking the experience of a homestead without being representative of a homestead.

The use of *Isivivane*'s materiality can be seen through the extensive use of stone, water and the limited use of indigenous plant materials. All the elements are intricately embedded into the landscape whilst all symbolise metaphors (Fig. 72).

Resulting in a space of commemoration that is closely intertwined with the identity of an individual and the attributes of the landscape, resulting in a space of connection and a sense of place through these experiences. (Vosloo, 2020)

# Chapter

# 4



# Design Development



# 1. Conceptual development



Figure 81: Though stone. (Author, 2023)

Figure 82: Background - Valley touch stone represent. (Author, 2023)

## 1.1 Touchstone analysis

*The touchstone explores the relation of Graaff-Reinet's story of the Withond towards the relation of the essence of the proposed design, specifically towards the approach of the program.*

The essence of the touchstone expresses the sense of unveiling the hidden. As the story is not commonly known within the heritage route of Graaff-Reinet, the touchstone unveils the presence of the story's history. Using the story of the Withond to inspire the design approach, it attempts to extend the historical narrative of viticulture into the current narrative of storytelling that is portrayed in Graaff-Reinet.

The essence of unveiling in specific relation to the story itself deals with the element of being hidden and exposed. Because of the illegal nature of the distilling of the Withond, the distillers needed to keep the distilleries hidden, using measures such as:

1. Hiding the barrels in the banks of the Sundays River.
2. The use of height walls covering the site's boundary.
3. In an effort to keep the distillery out of the reach of the law, distillers made use of the community to look out for and warn of approaching police.

The touchstone expresses these through the following elements:

- + The stepped plaster blocks represent the valley that the site is located in.
- + The copper cylinders express through materiality the copper potstills used to distill brandy and through placement the hiding of the barrels in the sand banks of the Sundays River.

To fully comprehend the further expression of the touchstone, as it cannot be seen in the photographs, there was a helper underneath the table pumping water through the pipes of the touchstone. This mysterious movement of water through the touchstone expressed the sense of mystery that the story of the Withond carries, as well as physically symbolizing the flow of the distillery process. The placement of the pipes moving in and out of the mountain demonstrates the attributes of exposure and hiding of certain elements.

The reasoning behind choosing a person to do it instead of a pump system contributed to the factor of community assistance. Just as the community helped the Withond to remain hidden, the manual pump portrayed that same sense of a community bound by shared experience. Ultimately, portraying the sense of the Withond as a way to connect.

## 1.2 Concepts analysis



*The concepts are visual representations of theoretical attributes. The conceptualisation of the theoretical idea consists of a three-part exploration that provides a foundation for the concepts to be translated into architectural approaches.*

Concept 1. The first concept derives from the extending of narratives, focusing on the historical narrative within the landscape that echoes the past.

Concept 2. The second concept addresses heterotopic connections, building on the acknowledgment of differences in the present to foster a sense of connection between the disconnected phenomena of modernity and tradition.

Concept 3. The third concept establishes that when the previous two concepts are linked, harmony exists between the layered narratives of the past and present within the context of the site.

The ultimate objective of the concepts is to establish connections between the essence of the site, the new proposed design, and Graaff-Reinet's historical presence in order to aid design development.

## Concept 1 +

### Dialogue between Narrative and Landscape

Concept 1 expresses the layered narrative that is held within the landscape of Graaff-Reinet.

The layered Perspex represents the narratives of Graaff-Reinet's past, and when viewed from above one can see that these narratives have influence upon each other. This visualisation of layered narratives thus represent the current narrative of Graaff-Reinet, as the current narrative is layered with history that resonates in the present. As it is within this narrative of historical artifacts that the narrative can be extended into the modern realm with the new development. The key towards this is to approach a design that acknowledges the past in order to extend into the present.

The design aim focus on The corporation of the the story of the Withond – which is done through the program dealing with the distilling as well as the visitors experience, connection the user. As well as to create a building that integrates with the vernacular architecture of the town.

In essence, Concept 1 embodies the interwoven connection between the natural and the constructed, inviting visitors and inhabitants alike to immerse themselves in an experiential journey. It is within this dialogue between narrative and landscape that the essence of Graaff-Reinet's identity is unveiled, a captivating tale of unity.

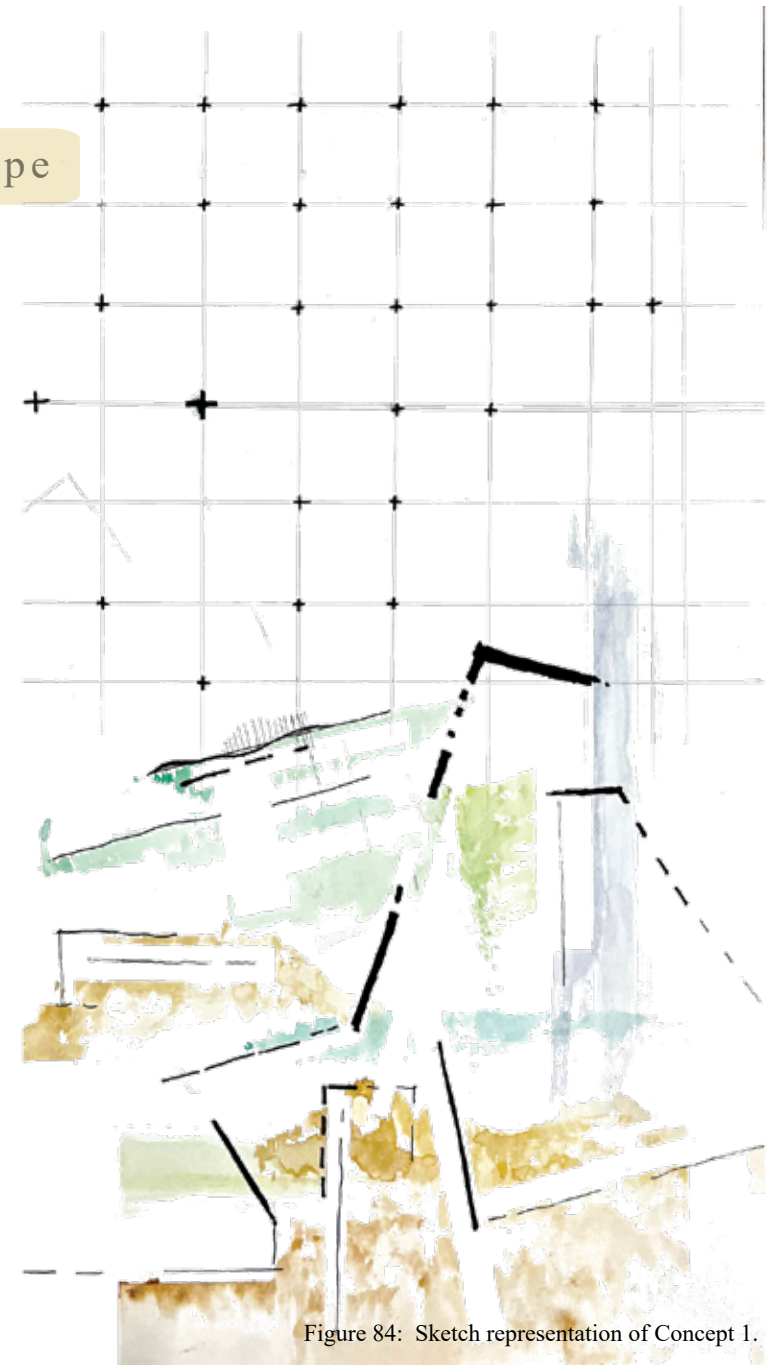


Figure 84: Sketch representation of Concept 1.

## Concept 2

### Bridging an Imbalanced Past

Concept 2 represents the heterotopic connection that is present within the project. Represented as 2 entities balancing each other the concept expressed the idea contrasting element creates a balance connectivity. Central to this concept is the quest for balance, achieved through the harmony of these juxtaposing entities. The concept delves into how the historical prevalent environment profoundly influences a contemporary architectural outcome.

The historical prevalence is captured in the vernacular architecture, Concept 2 focuses on the architectural interplay between the embedded presence of the Cape Dutch and the imposing legacy of modern architecture. It is within this exploration of contrasting elements that the concept seeks to unveil the evolving expression of design development.

When approaching the design aim, it is important to understand the elements of architectural history of Graaff-Reinet that is represented within its vernacular attributes and the elements of a contemporary design containing modern construction method. The design proposal thus extends into the an approach of using the vernacular approaches in a new development. But this can only be successfully established through linking with concept 1, bring us to Concept 3.

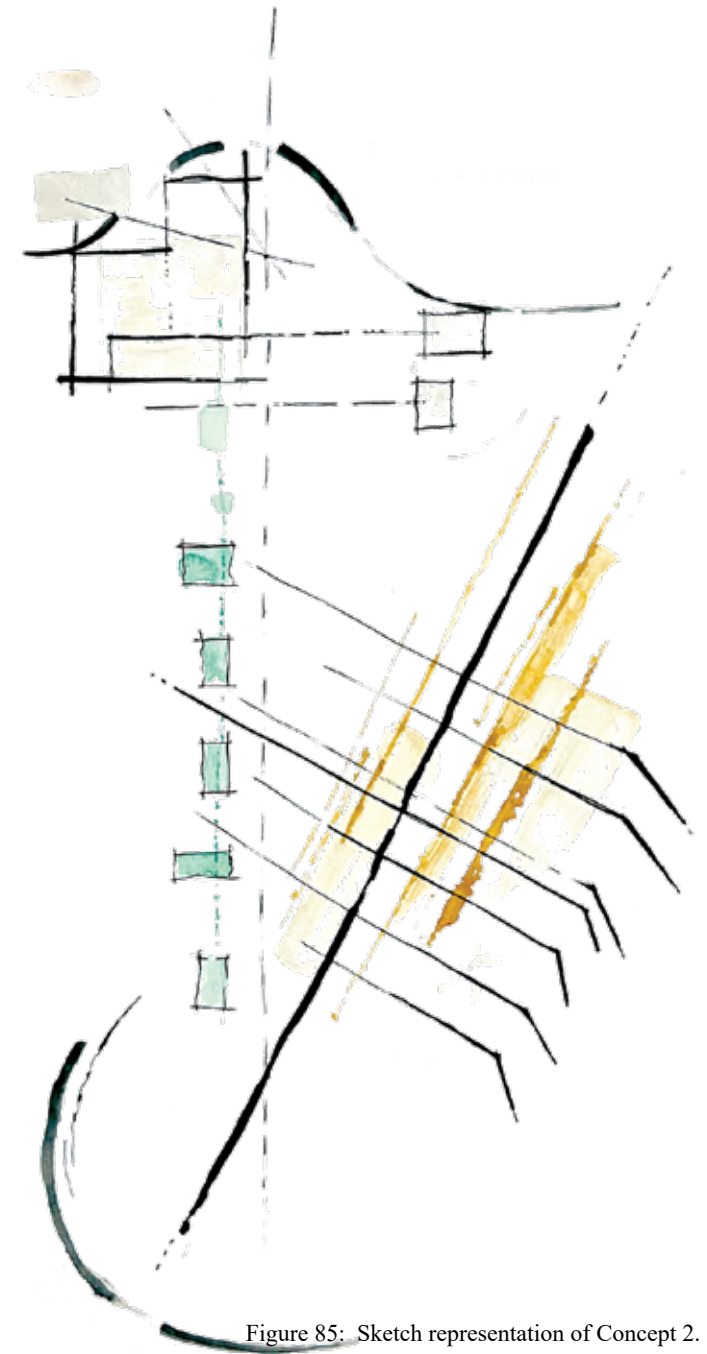


Figure 85: Sketch representation of Concept 2.

## Concept 3 +

### Unveiling the spirit of space

Concept 3 focuses on the establishment of the architectural approach. Bringing together the element of layeredness that resonates in the present (Concept 1) & the element of connection toward the past.

The model on its own does not represent connectivity as the element a schattered but when overalayed onto Concepts 1 and 2 the connection between the two concepts becomes apparent. This narrative finds form and expression in a design that bridges the gap between the past and the present, infusing the architectural canvas with the essence of both eras. The design thus aims to investigate what the experience of the vernacular attribute are and to adapt them to an appropriate design approach towards the site and the design development.

In essence, Concept 3 breathes new life into the past, forging a path of unity and continuity between the different architectural languages that have shaped Graaff-Reinet's identity. The design becomes a testament as the echoes of the past resonate through the evolving structures that gracefully embrace the site's heritage while still paying homage to the enduring vernacular essence of the town.



Figure 86: Sketch representation of Concept 3.

## 2. Establishment of Accommodation list

*In this part of the design development the accommodation lists attributes are investigated. Establishing the size and flow of the distilling and the appropriate amount and sizes of equipment together with investigating the additional services to provide a distillery that is functional and has an experiential journey for the visitor.*

### + 2.1 Establishment of the distillery

#### **AA**

*Absolute alcohol, which is the pure alcohol that is present in the brandy before dilution.*

#### **Must**

*substance that remains after the liquid is removed from the pressed & crushed grapes.*

#### **Brouillis**

*the form of raw spirits*

When establishing the distillery's size, it's imperative to consider its economic viability. South African law provides regulations for different types of distilleries. National distillers are required to produce a minimum of 2 000 000 litres AA annually. Micro distillers may not exceed 2 000 000 litres AA, which roughly translates to 5,900,000 bottles per year. Craft distilleries have a more limited annual production cap, set at 200 000 litres AA. (Distillique, 2022: online)

Considering that this project is a new development, the creation of a national distiller is not a feasible option due to the substantial production requirements. Conversely, opting solely for a craft distillery does not align with the rationale for a new architectural development. Therefore, the most economically and functionally viable choice is to establish a micro-distillery

## + 2.2 Equipment required

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To meet the requirements of the brandy distillery as a micro distiller, which must not exceed 2,000,000 litres annually, the aim for this project is a minimum production capacity of 1,000,000 litres of Absolute Alcohol (AA) per year. (Distillique, 2022: online)

To break it down:

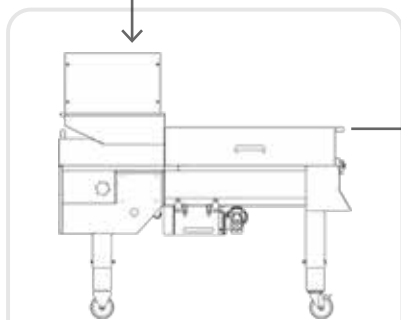
- + 1,000,000 liters of AA per year: This means we'll produce 1,000,000 litres of Absolute Alcohol each year.
- + In a 4.5:1 ratio of low wine to brandy: To achieve this, we'll need 4,500,000 liters of low wine.
- + This necessitates 375,000 liters of wine to be fermented per month: Given that the fermentation process follows a roughly 2-week cycle (allowing for 2 cycles per month), each cycle will require a fermentation section with a capacity of 187,500 liters.
- + If using 30,000-liter fermentation tanks, a minimum of 7 tanks is required.
- + 1,000,000 liters represent 43% of the alcohol/volume in the finished product: The remaining 57% of the product is water. This means we'll need approximately 1,400,000 liters of water. Note that this calculation excludes water for washing, cleaning, and filtering.
- + 2,800,000 bottles per year, equivalent to 233,333 bottles per month. This is the volume of brandy we'll be producing annually, broken down into monthly production.

## 2.3 The distillation process

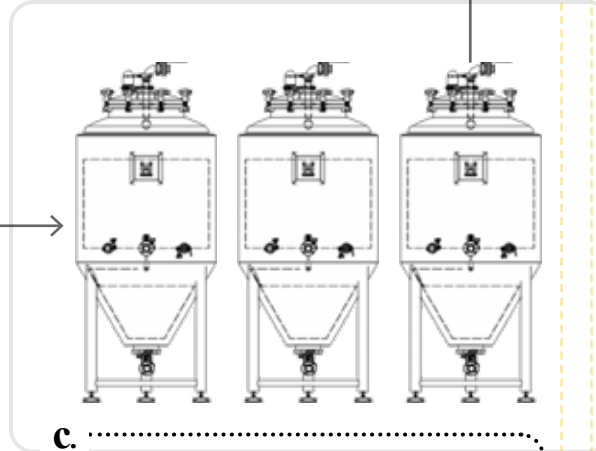
*Moving from the receiving of the grape towards the distribution of the finished product, the distillery process is a linear process*



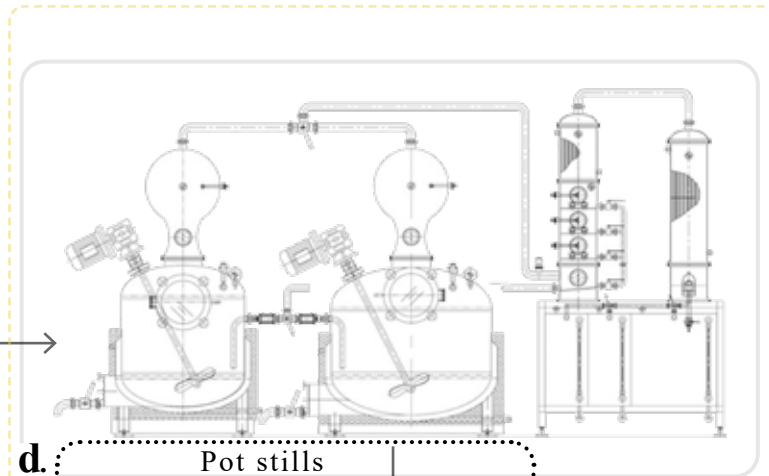
**a.** Grapes are received and prepped



**b.** **Grape destemming & crusher**  
This process turns the grape into a must and liquid.



**c.** **Fermentation**

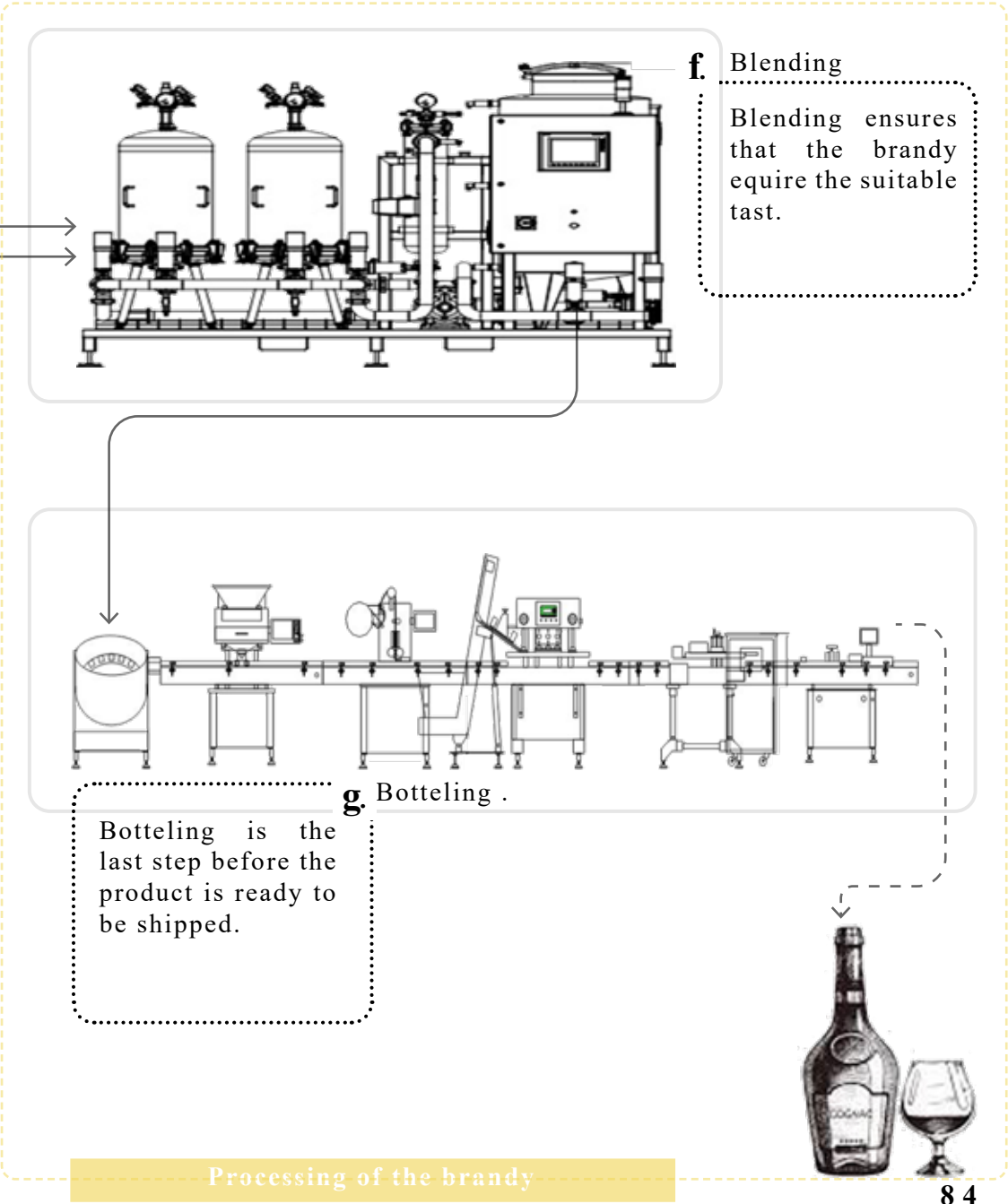
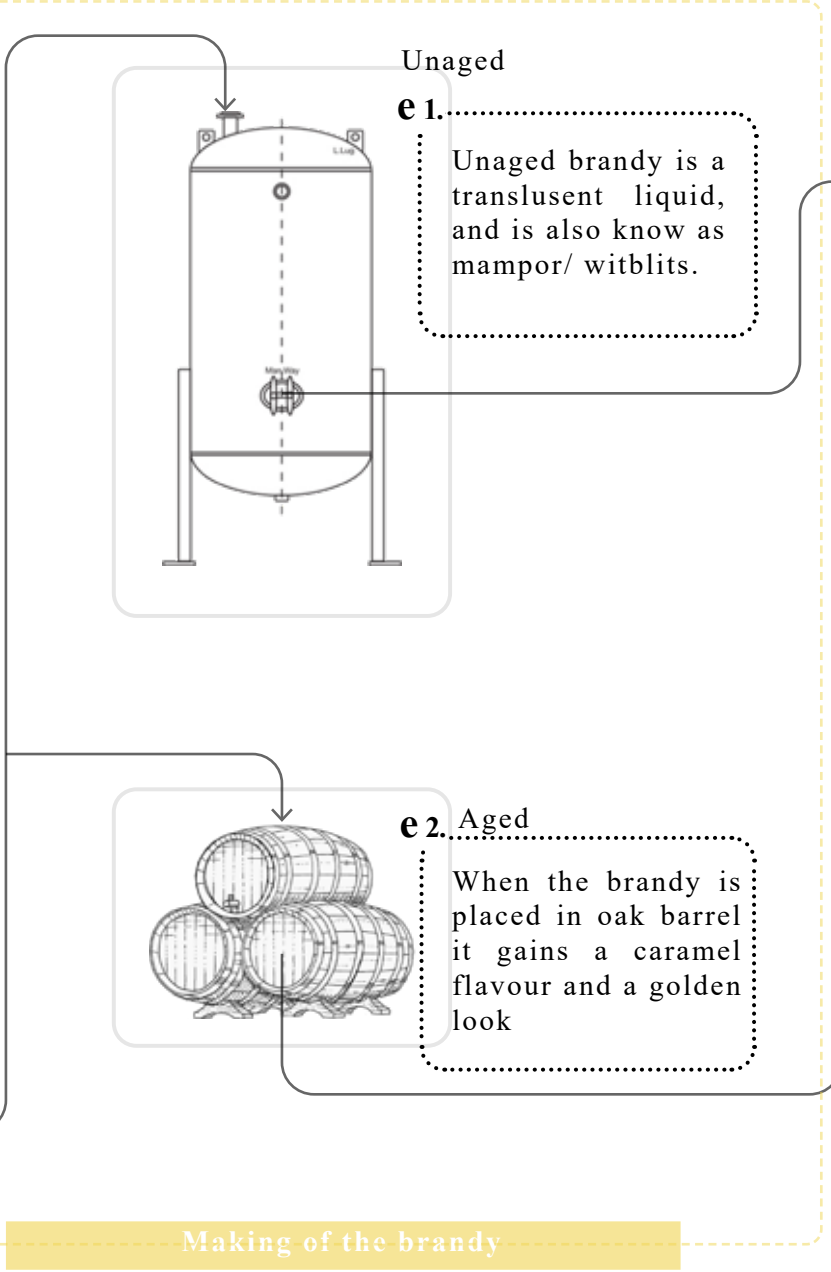


**d.** **Pot stills**  
The distillation process makes use of a traditional double distillation method to ensure the classic taste of the withind.

**d 1.** First distillation

**d 2.** Second distillation

Processing of the grapes



*This distillery will focus on making multiple attributes of brandy which include the unaged classic Withond, and a wooded variation.*

### **b. Grape destemming & crusher**

In this process, the grape stalks are meticulously removed, and the grapes are subsequently crushed and pressed to extract the must from the liquid. Approximately 80% of the total must is then directed to the fermentation tanks.

The timeframe from the grape delivery to the destemming and crushing stages, as well as the transfer to the fermentation tanks, must be executed swiftly to ensure the production of the highest quality product.

### **c. Fermentation**

The must is fermented by a yeast fermentation to produce the wine-base for the brandy also known as a low wine.

The Fermentation continues for up to 2 weeks. And produces a low wine with a base alcohol of 10%.

### **d. Pot stills:**

In our pursuit to revive the Withond, we employ a classic double distillation technique. This method infuses our brandy with a unique character and depth, achieved through blending of various wines, heads, tails, brouillis, and seconds, each with its own distinctive qualities. When compared to the fermentation process, distillation is a much faster affair. Each distillation session typically spans a mere 4 to 8 hours. This efficiency opens the door to the potential for conducting multiple distillations within a single day.

#### **d 1. First Distillation:**

The first distillation, a mixture of 10% alcohol/volume low wine (min 90%) and head & tails (max 10%) from previous distillations is distilled to produce a brouillis with an alcohol/volume content of 60 to 70%

#### **d 2. Second Distillation:**

The second distillation involves a mixture of four distinct fractions: the head, tails, seconds, and brouillis. These are then distilled to produce stillages with an alcohol/volume content of 70% to 80%. The stillages are further separated into the Heart, containing brandy with a 70% alcohol/volume content, and the Secondes, with a 30% alcohol/volume content, which serves a different purpose in the next distillation process.

*At this stage this stage the brandy can be moved to storage which is an unwooded brandy that is the classic Withond, or it can proceed into the aging process.*

### **e 1. Unaged:**

At this stage, the 'heart' of the brandy is placed into a stage container. Here, the mixture must undergo a period of rest before entering the blending & bottling stages. However, it's important to note that since this brandy does not undergo the traditional aging process, the resulting product retains a transparent, water-like appearance. This distinctive characteristic was a significant factor in the naming of the Withond.

### **e 2. Aging:**

The 'heart' of the brandy is transferred into the aging stage, where the brandy undergoes a transformative process, acquiring the brandy to gain its depth of flavour. In this phase, the distilled brandy is poured into 500 litre barrels, which serve as the aging vessels for either the 3-year and 5-year. Additionally, larger 5 000 litre casks are used, particularly suited for brandies that require lengthier maturation periods.

### **f. Blending:**

The blending stage represents the last step in crafting the brandy. It involves combining distillations from various barrels to achieve the desired flavour profile. Water is also added to precisely dilute the blend to the preferred alcohol percentage. This particular process results in a consistent and high quality brandy.

### **g. Bottling:**

In the bottling phase, the fully matured brandy is elegantly prepared for its journey to consumers. It is delicately poured into bottles, labelled, and stored, awaiting shipment or sale.

## 2.4 Precedent study 02

### Law Winery

Architect : BAR Architects  
 Location : Paso Robles, California,  
 United States  
 Project year : 2014

#### + Attributes gained

- The division of the visitors experience and the production of the wine, while establishing points of connection to engage visitor with the process

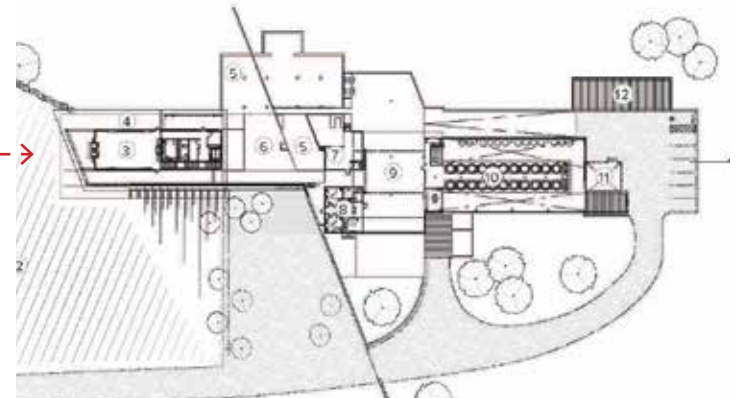


Figure 87: Ground floorplan. (Archdaily, 2015: online)

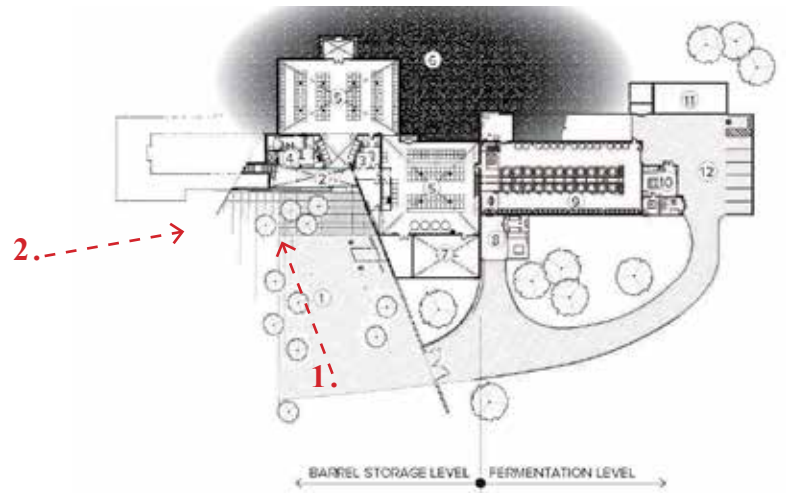


Figure 88: Basement floorplan. (Archdaily, 2015: online)



Figure 89: View from basement (Archdaily, 2015: online)

Figure 90: View towards basement (Archdaily, 2015: online)



Figure 91: View of ground floor. (Archdaily, 2015: online)

Law winery is a winery that facilitates the production of wine as well as a visitors experience of the winery. The design is integrated with the site as the building curves into the sloping landscape, creating a multi-story floorplan (Fig.21&22) that is accessible from the terrain on both basement (as seen in Fig.23 &24) and ground floor (as seen on Fig.25). (BAR Architects, 2014: online)

The design significant is its approach towards connections between the visitors experience and the production of wine. As seen on Fig.26 the winery has a separate circulation for the wine production and the Visitors experience, with a connection between the two circulations to provide the visitors with an experience and overview of the wine production without the viewer accessing the space.

Gaining from this precedent the attribute of designing a circulation for the visitor and an process for the distillery but with connections between the two routs to supply a gaze into the production provide the visitor with a significant experience.

- | Wine Processing (Red; Whites Similar)           | Visitor's Experience                              |
|---|---|
| 1 Grapes received and sorted                    | 1 Arrival from autocourt                          |
| 2 Grapes dumped directly into fermentors        | 2 Initial view of barrel storage                  |
| 3 Juice separated from solids with basket press | 3 Visitors climb stairs to arrive at tasting room |
| 4 Wine gravity flows to oak barrels for aging   | 4 View of surrounding estate vineyards            |
| 5 Blending of wine                              | 5 View of grape receiving and fermentation areas  |
| 6 Final packaging using mobile bottling line    | 6 Outdoor hospitality garden                      |

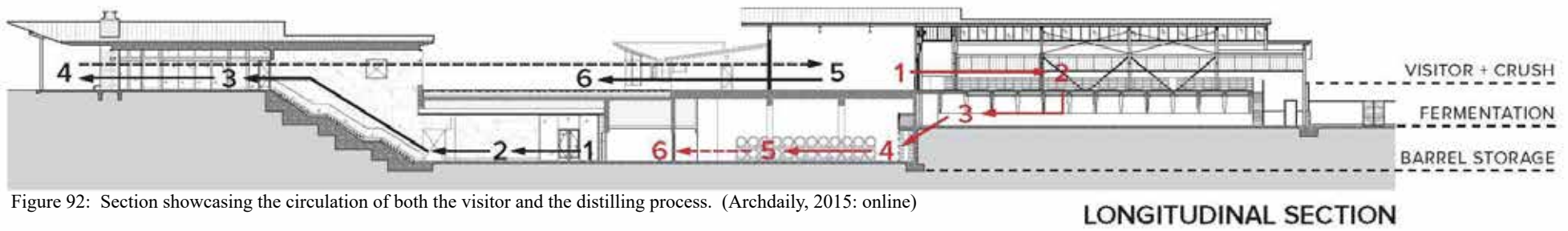


Figure 92: Section showcasing the circulation of both the visitor and the distilling process. (Archdaily, 2015: online)



Figure 93: Overview of winery embedded in the slope. (Archdaily, 2015: online)

## 2.5 Program development

The proposed project is the creation of a micro-distillery- visitors' centre that accommodates all aspects of a functional micro-distillery together with an educational experience that unveils the lost history of viticulture. The programme aims to build on Graaff-Reinet's historical route to extend the current narrative of the town whilst reviving the once ruined Withond brandy as a notion to rediscover Graaff-Reinet's lost vineyard history.

The experience gained through the program is meant to unveil the art of distilling brandy in order to reiterate the perspective of the vineyards. The visitors experience becomes a captivating journey, revealing the essence the process of distillation. The visitor centre and distillery celebrate the intertwined histories of the town and the vineyards, offering visitors a unique and immersive experience.

The process of distillation serves as a gateway to the forgotten past, where tales of flourishing vineyards and the art of crafting fine spirits come alive once more, allowing the visitor entry to the event of distillation thereby becoming part of an architectural narrative that embraces both heritage and innovation and developing a greater appreciation. The project unfolds as a testament to the enduring spirit of Graaff-Reinet, where the echoes of Withond and the vineyards resonate with every visitor, inspiring a newfound appreciation for the town's hidden stories.

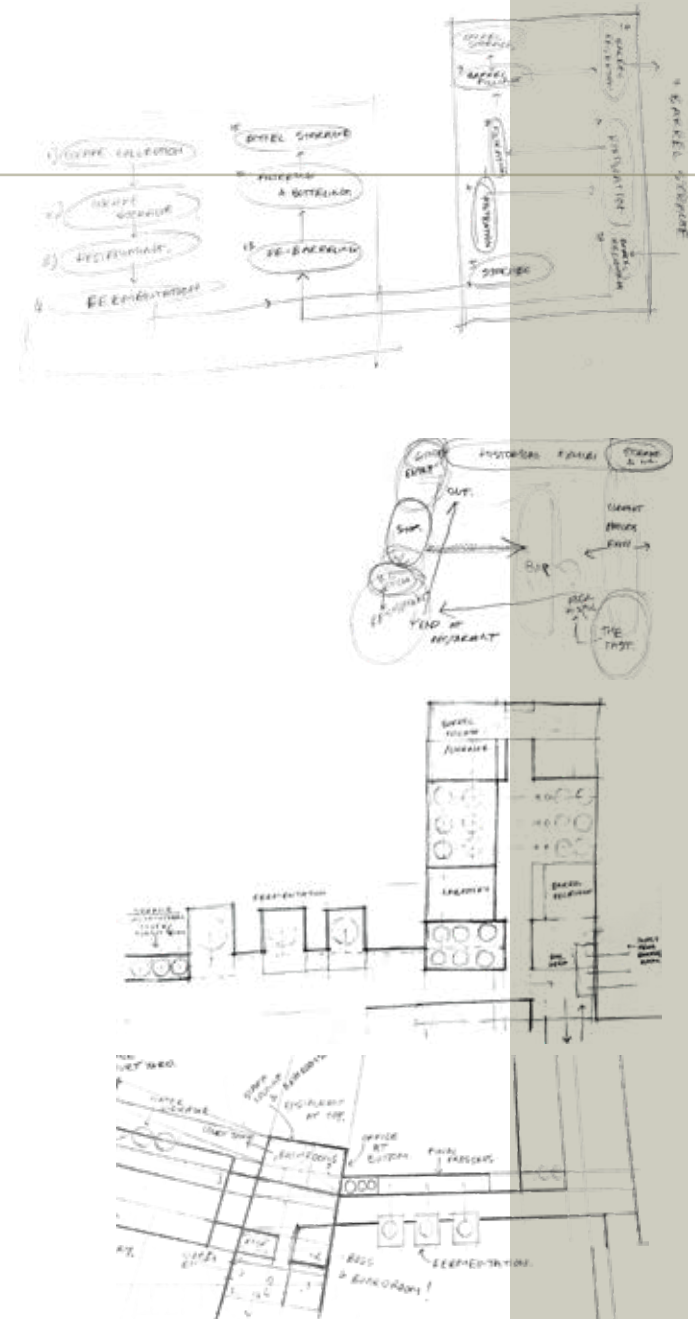


Figure 94: Gaze into distillery development. (Author, 2023)



Figure 95: Black Acorn vine in Graaff-Reinet. (Author, 2023)

## Accommodation list<sup>+</sup>

### Visitors experience

- Reception
- Shop
- Historical exhibition of distillery attribute
- Gallery walk adjacent to the distillery with an outlook over the Sundays river
- Bar overlooking distillery
- Barrel rooms overlooking vineyards
- Demonstrave vineyards
- Restaurant
- Ablusions

### Distillery

- Grape drop-off zone
- Service yard
- Grape processing station
- Offices
- Pump rooms
- Locker rooms
- Ablusions
- Staff room
- Kitchenette
- Office reception
- Boardroom
- Water storage
- Fermentation corridor
- Labrotory
- Equipment storage
- Filtration room
- Barrel storage
- Age zone
- Distillery containing potstills
- Secquurity
- Bottle storage
- Bottling zone
- Product pick-up zone

# 3. Organisation of Spatial Layout+

## 3.1 The extention from the streetscape towards landscape

### Approach 1

This design approach extends upon the concept of the wall (orange), incorporates the H-floorplan (blue) whilst allowing spaces for courtyards and connections towards nature (white). Even though it uses most of the attributes needed, the massing is spaces too far away for an functional distillery and does not extend into the landscape properly as it creates a back wall towards the landscape (red).

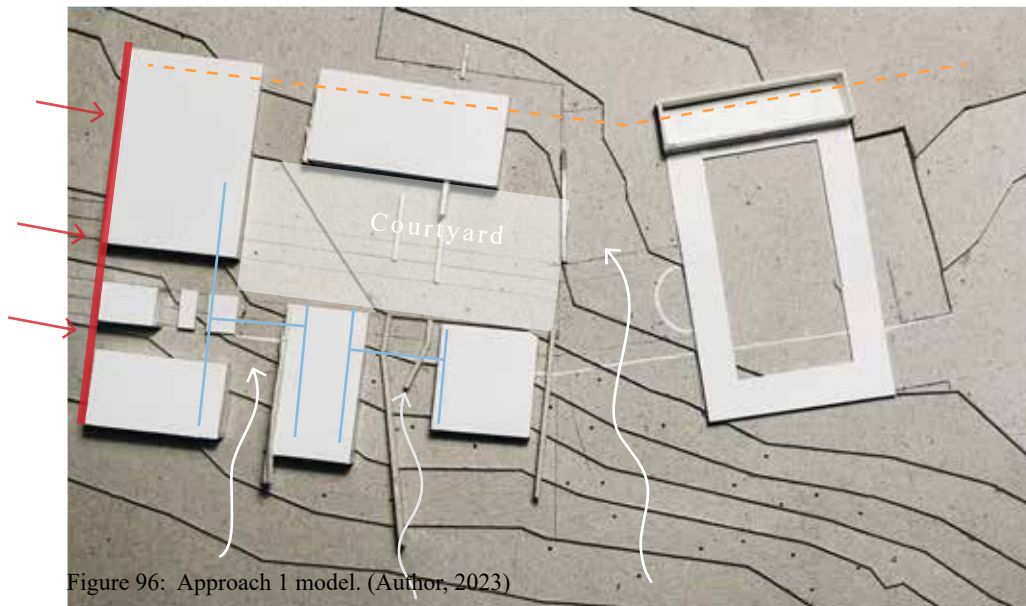


Figure 96: Approach 1 model. (Author, 2023)

### Approach 2

This design approach misses extends upon the concept of the wall (orange), incorporates the H-floorplan (blue) whilst allowing spaces for courtyards and connections towards nature (white). But, the massing is not fluent as the mass in the middle is oddly placed in the between the masses on the edges and does not extend into the landscape properly as it creates a back wall towards the landscape (red).

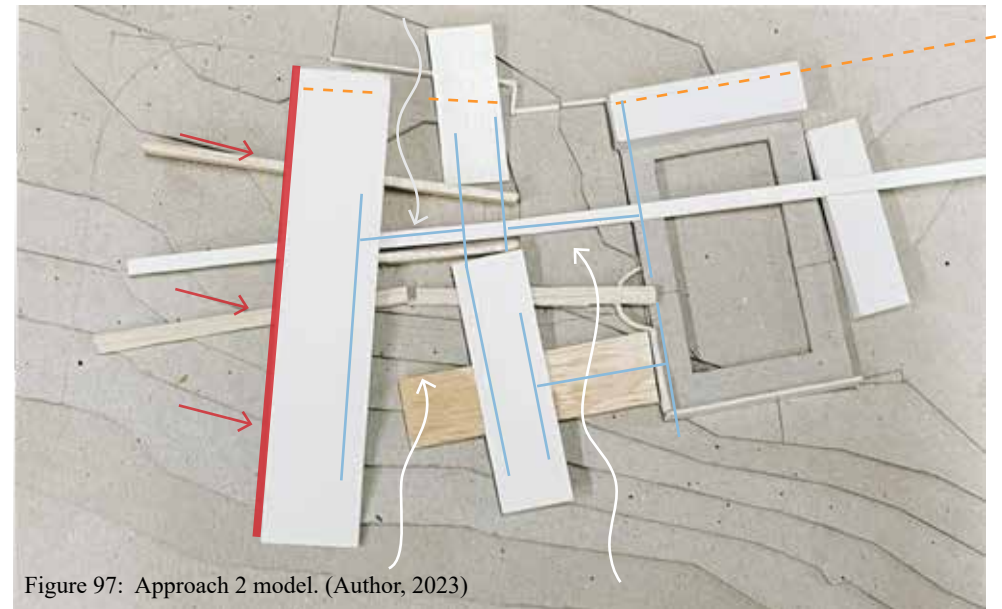


Figure 97: Approach 2 model. (Author, 2023)

In order to fully extend upon the narrative of the town the design needs to accomplish the following:

1. Fit into the concept of the wall, aligning with the adjacent building to create a seamless flow
2. Incorporate the characteristics of a H-form floorplan which has a long stream of circulation and has an harmonies approach towards nature through the incorporation of courtyards.
3. Any new facades must correlate to the symmetrical approach of traditional facades.

### Approach 3

This third design approach becomes a cleaner approach, as the masses are simple almost as if they were meant to be. It misses extends upon the concept of the wall (orange), incorporates the H-floorplan (blue) whilst allowing spaces for courtyards and connections towards nature (white). As the walkways extend into the landscape it creates a connection towards the landscape (red).

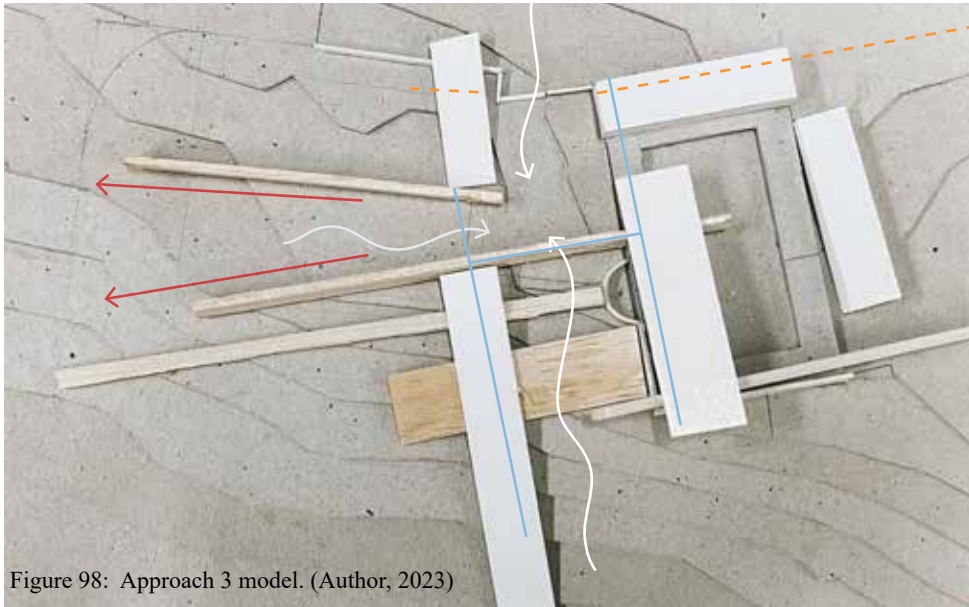


Figure 98: Approach 3 model. (Author, 2023)

### Approach 4

The fourth design approach ticks all the boxes necessary for the successful extension of the narrative. It extends upon the concept of the wall (orange), incorporates the H-floorplan (blue) whilst allowing spaces for courtyards and connections towards nature (white). The massing is spaces close together for optimality for an functional distillery and not only does the walkways extend into the landscape, the massing does as well fostering a connection towards the landscape (red).

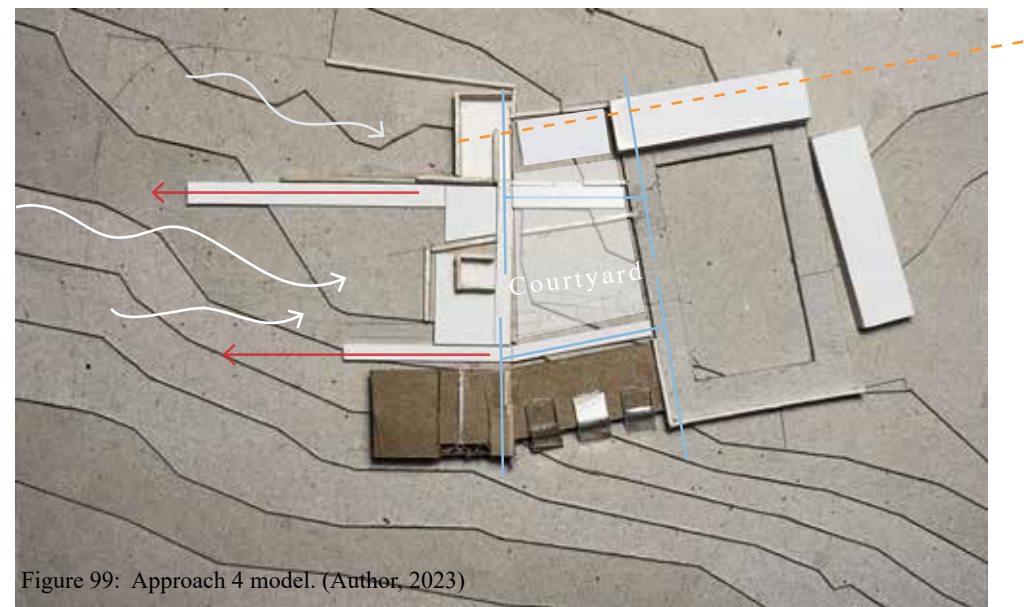


Figure 99: Approach 4 model. (Author, 2023)

## 3.2 Interpretation of the stoep - vertical circulation

*Step 1 : approaches the extension from the streetscape*

The stoep is divided into six sections: the street, trees, sidewalk, erf wall, stoep and house, with each serving the purpose of transitioning from the public realm of the street to the privacy of the house.

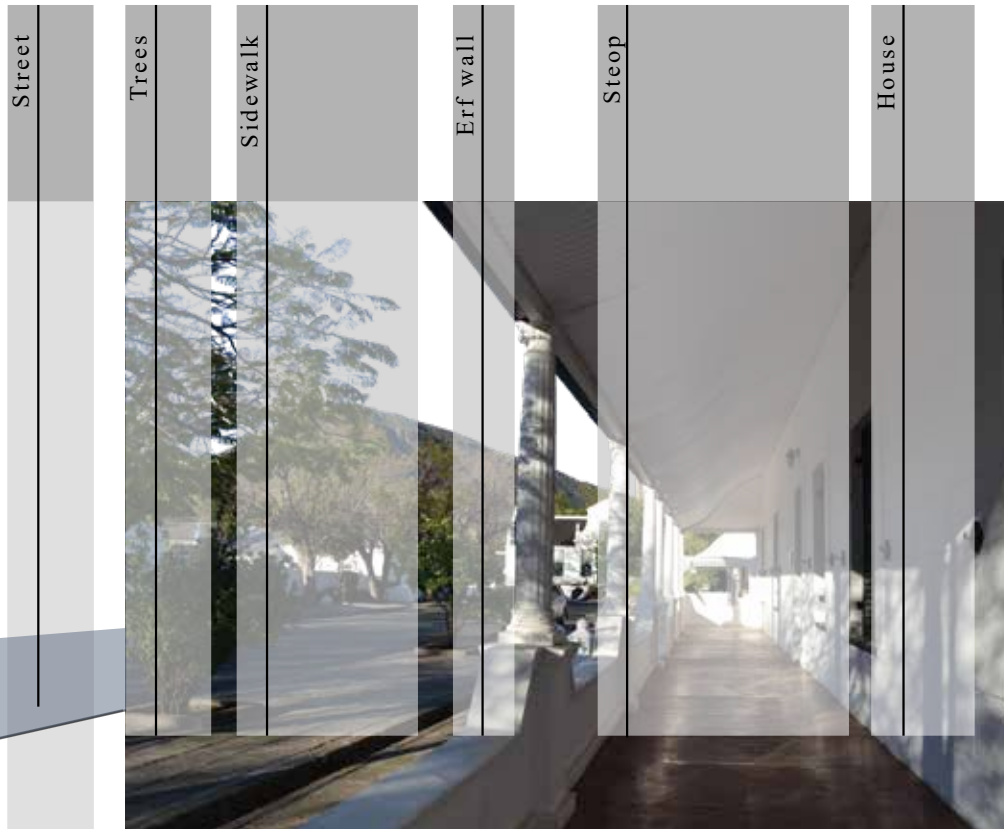


Figure 100: Zoning of the stoep. (Author, 2023)

1. + The street is a public space where individuals can move without restriction.
1. + The trees serve as a buffer between the public realm of the street and the semi-public realm of the sidewalk. The trees thus form a visual barrier, providing privacy for the sidewalk and the house.
2. + The sidewalk is the semi-public realm, where one can interact with the stoep but not engage with it as the erf wall divides the spaces.
3. + The erf wall acts as division between the semi public realm of the side walk and the semi-private realm of the stoep.
4. + The stoep is considered a semi-public realm since one must pass through the barrier of the erf wall to enter the semi-public area of the house owner.
5. + The House is thus the private realm as when an once an individual enters, the individual is completely immersed in the house owner's space.

The interpretation of the stoep thus establishes a public-private zoning with transitional borders.

To interpret this element of zoning within the context of the distillery. The public is defined as the street; in this context, the area surrounding the building is public access before entering the building. The sidewalk, which is semi-public, is viewed as a spaces primarily used by visitors. The semi-private space known as the stoep is seen as the space where you engage with the distillery without fully emerging within the distillery, whereas the private space known as the house is seen as the distillery because it can only be accessed through a homeowner and, in the context of the distillery, only as a worker or with a tour guide.

The levels of interaction are used on a vertical and horizontal plane within vertical spatial planning, with the horizontal plane engaged from the street itself and the vertical plane engaged from the street's extension with the parking lot.

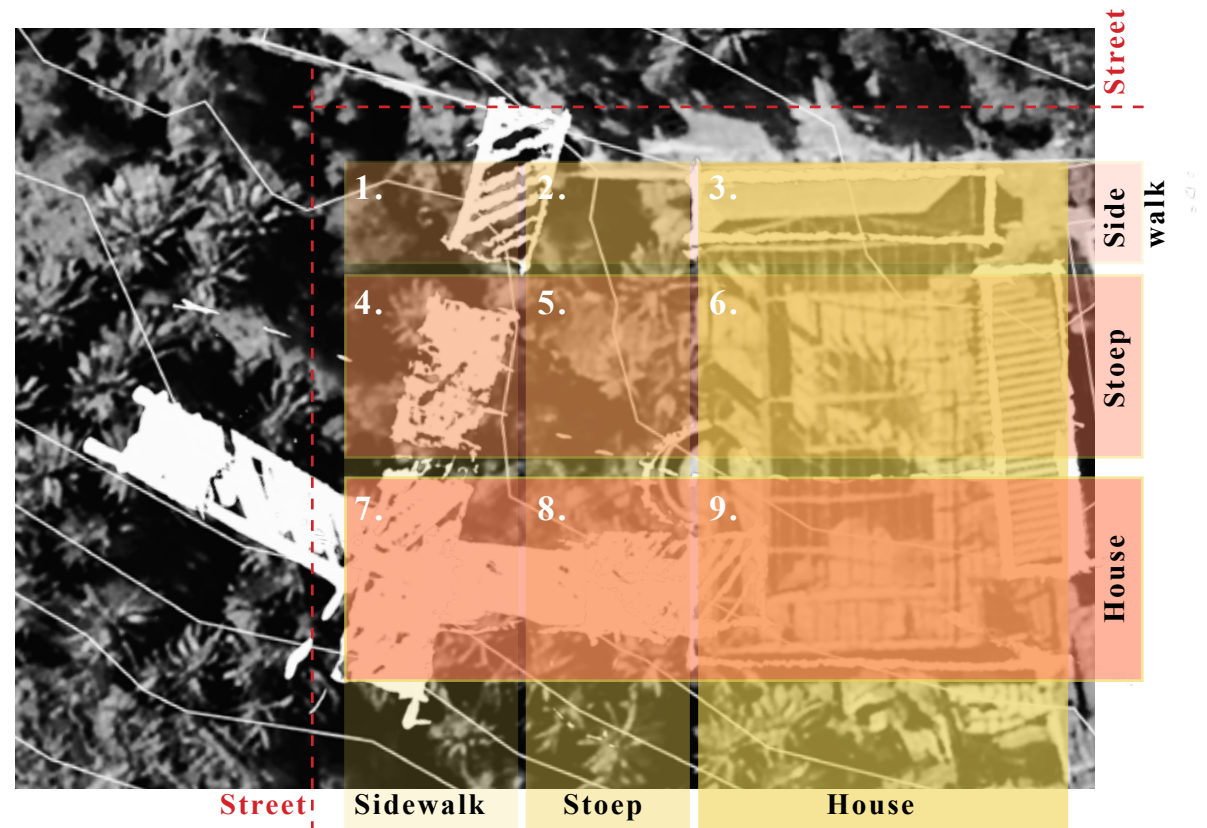


Figure 101: Zoning of the stoep with in context on the horizontal and vertical plane. (Author, 2023)

Referring to Fig. the spatial layout can thus be divided in the following suitable functions for it accompanied public-private rating:

- |   |  |  |
|---|--|--|
| <p><b>1. Semi-public</b></p> <ul style="list-style-type: none"> <li>- Entrance/Reception area</li> </ul>  | <p><b>4. Semi-private, semi-public</b></p> <ul style="list-style-type: none"> <li>- Shop and bathrooms, which is services directly available to public</li> </ul>                            | <p><b>7. Private, semi-public</b></p> <ul style="list-style-type: none"> <li>- Restaurant area that is open to visitors once they are fully emerged into the building.</li> </ul>                        |
| <p><b>2. Semi-public, semi-private</b></p> <ul style="list-style-type: none"> <li>- Exhibition area, unveiling the plot of the distillery without physically engaging with the distillery.</li> </ul> | <p><b>5. Semi-private</b></p> <ul style="list-style-type: none"> <li>- Interactive vineyard, with a walk through one can see all aspects of building, without entering the spaces</li> </ul> | <p><b>8. Private, semi-private</b></p> <ul style="list-style-type: none"> <li>- A space where all aspects of the buildings can be seen but can only be access when fully emerger in building.</li> </ul> |
| <p><b>3. Semi-public, private</b></p> <ul style="list-style-type: none"> <li>- Services available to public such bathrooms and to private such as offices</li> </ul>                                  | <p><b>6. Semi-private, private</b></p> <ul style="list-style-type: none"> <li>- Public spaces for visitors with an overview into the distillery</li> </ul>                                   | <p><b>9. Private</b></p> <ul style="list-style-type: none"> <li>- Distillery, only accessible to staff.</li> </ul>   |



# Chapter 5

# Design synthesis



# 1. Final design proposal +





# 1.1 Final design placement <sup>+</sup>

within the context of Graaff-Reinet





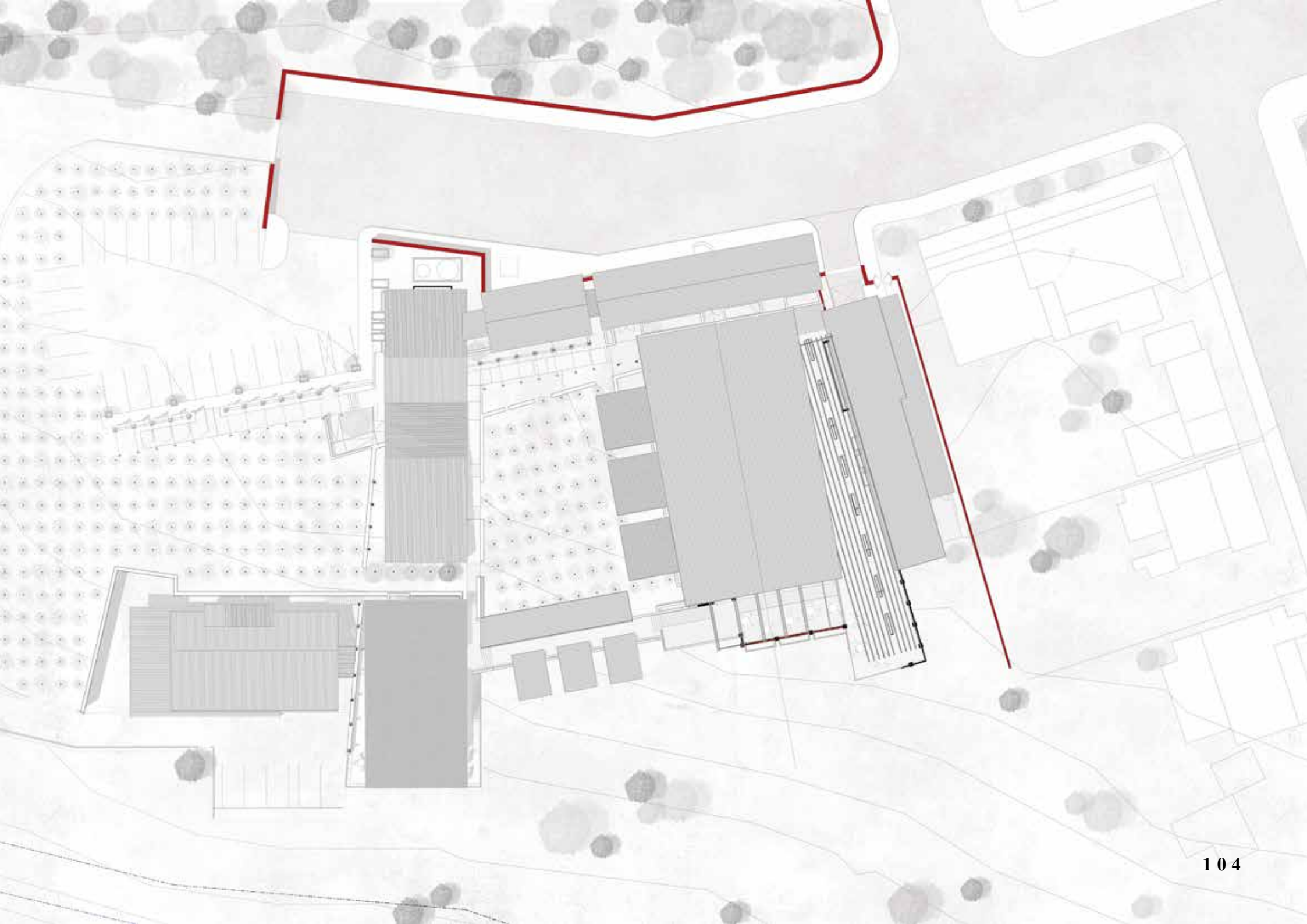
Design within context of Graaff Reinet +





## 1.2 Site plan





## 1.3 Ground floorplan

### Reception

1. Reception
2. Retail shop
3. Retail Storage
4. Public restroom

### Restaurant

5. Dining
6. Kitchen
7. Kitchen storage
8. Serves yard

### Exhibitions

9. Historic exhibition
10. Modern Exhibitions
11. Demonstrative Vineyards
12. Gallery walk
13. Public restroom
14. Guides Office
15. Storage

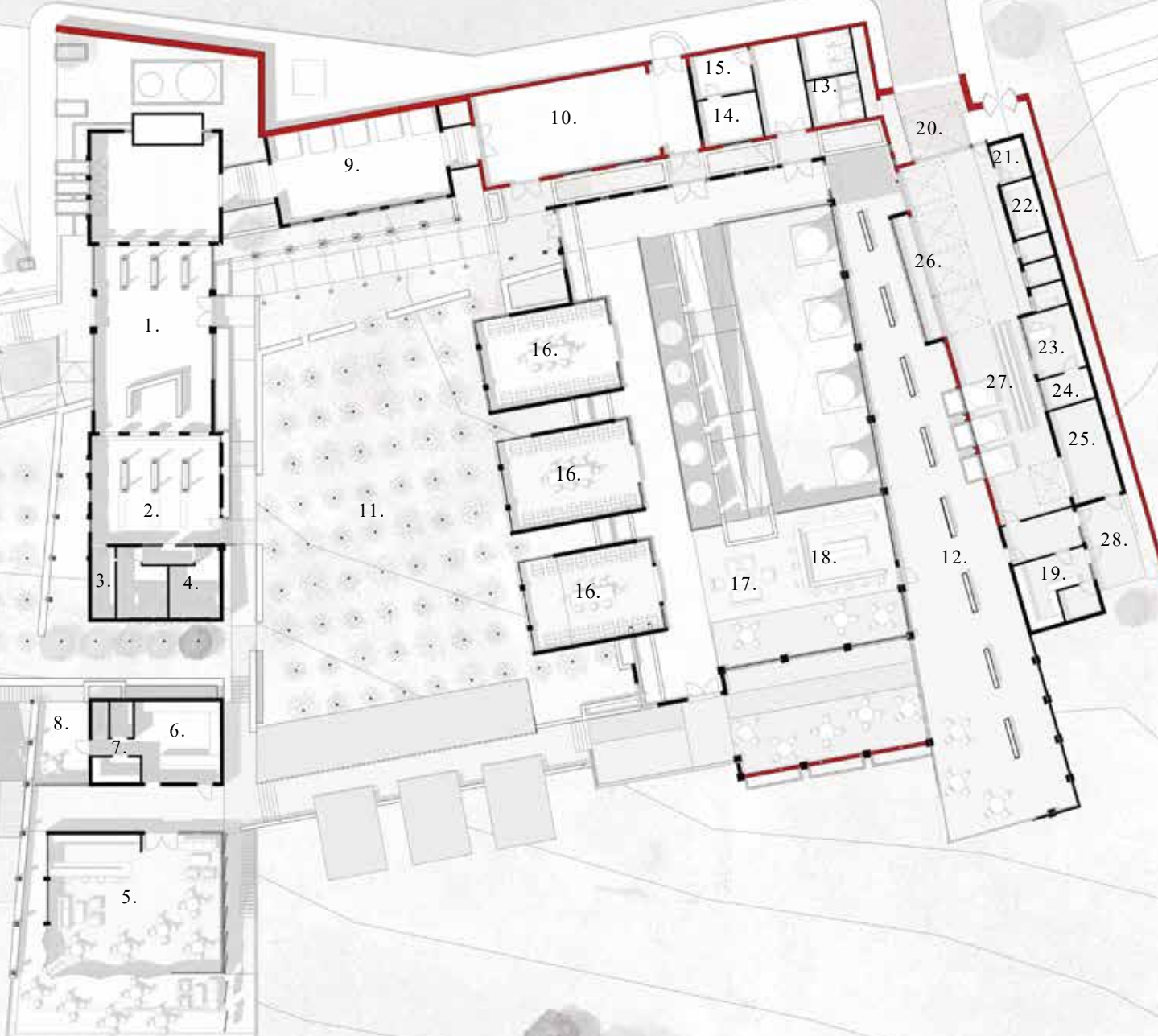
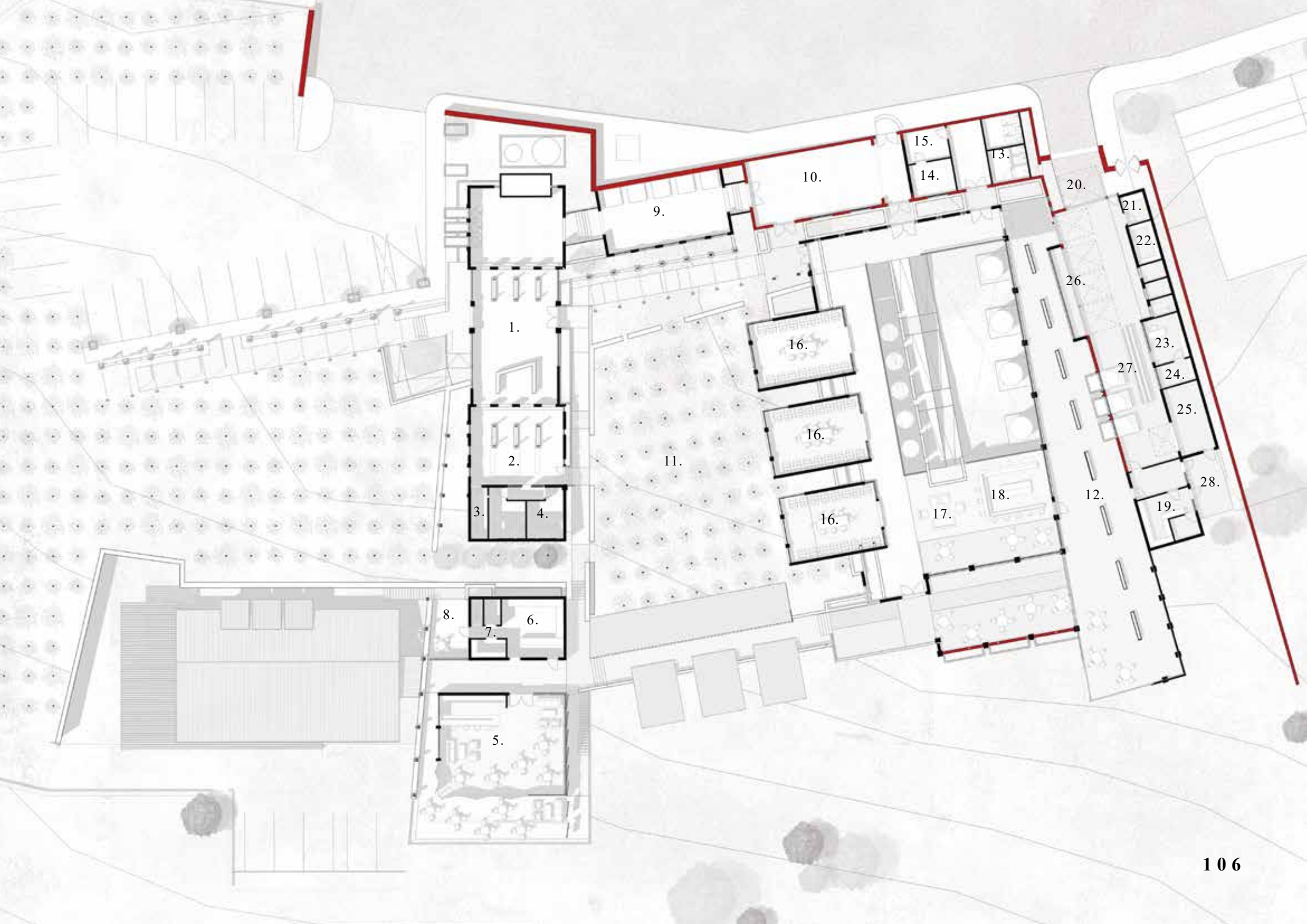
### Barrel House & Bar

16. Barrel/Tasting rooms
17. Bar Tasting area
18. Bar
19. Bar Services

### Departure Warehouse

20. Loading zone
21. Security
22. Staff facilities
23. Control room
24. Pump room
25. Storage
26. Bottle Storage
27. Bottling station
28. Watse





## 1.4 Basement floorplan

### Arrival warehouse

1. Loading bay
2. Service yard
3. Security
4. Equipment storage
5. Grape storage
6. Water storage
7. Grape destemming
8. Staff bathroom & lockers
9. Control room

### Staff Facilities

10. Reception
11. Boardroom / Meeting
12. Kitchenet / Staff Lounge
13. Bathroom
14. Offices
15. Main office

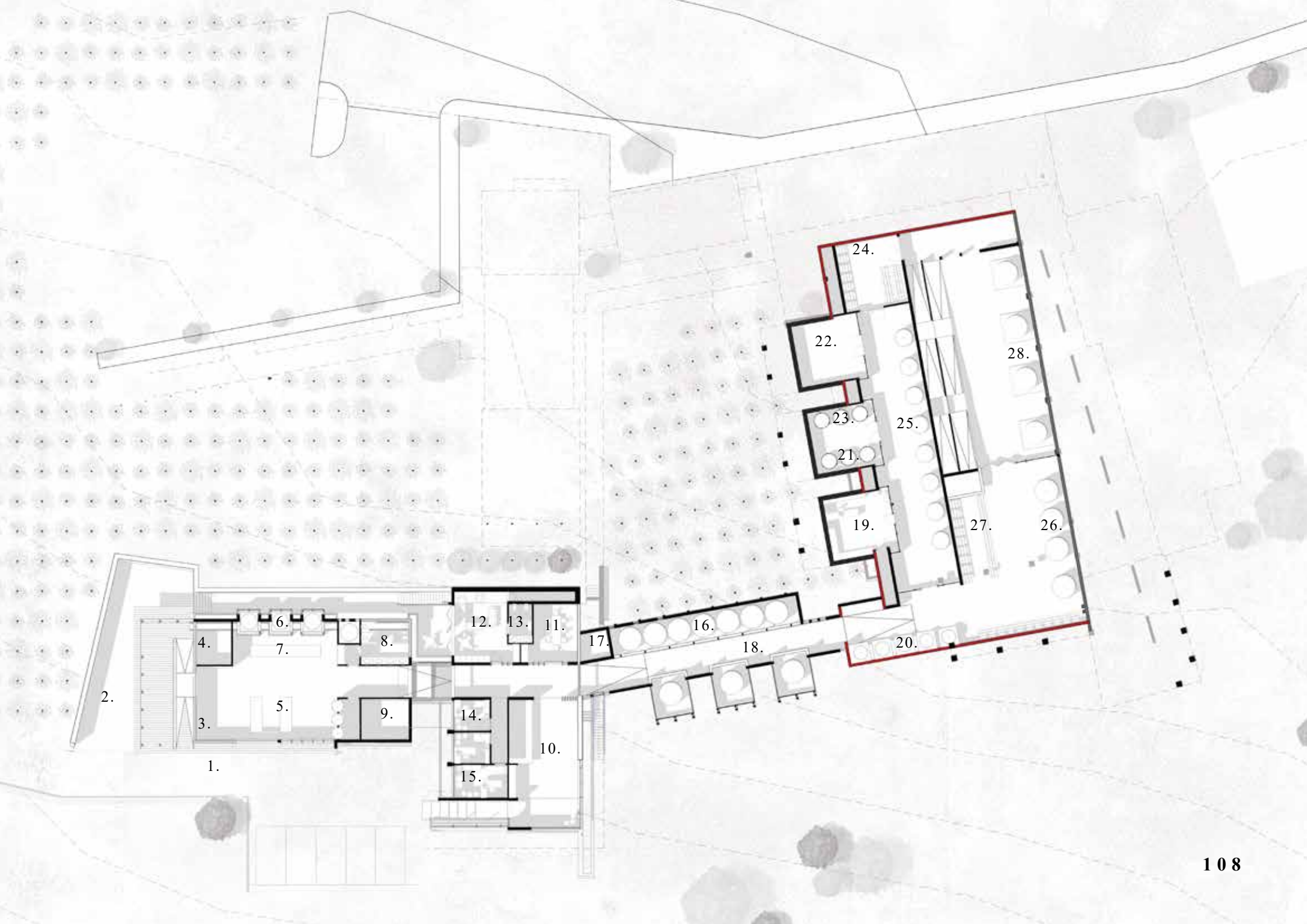
### Fermentation corridor

16. Fermentation tanks
17. Storage tanks
18. Circulation

### 9. Distillation station

19. Control room / Labrotory
20. Pump system
21. Heads & tails storage
22. Equipment storage
23. Water storage
24. Barrel storage
25. Blending/ Filtration tanks
26. Brandy (unaged) storage
27. Barrel aging zone/ Cellars
- 29.28. Pot stills

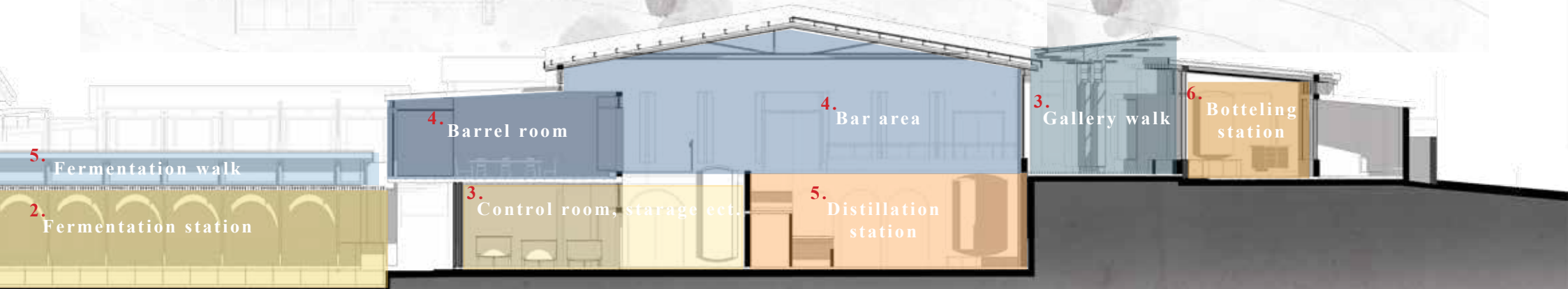




# 1.5 Flow of functions Visitors experience



# Distillery process



## 1.6 Points of connection + between distillery and visitory



1. Exhibition area connecting with vineyards and historical artifacts of distilling
2. Exposed walkway viewing into fermentation pods
3. Gallery walk viewing into distillery



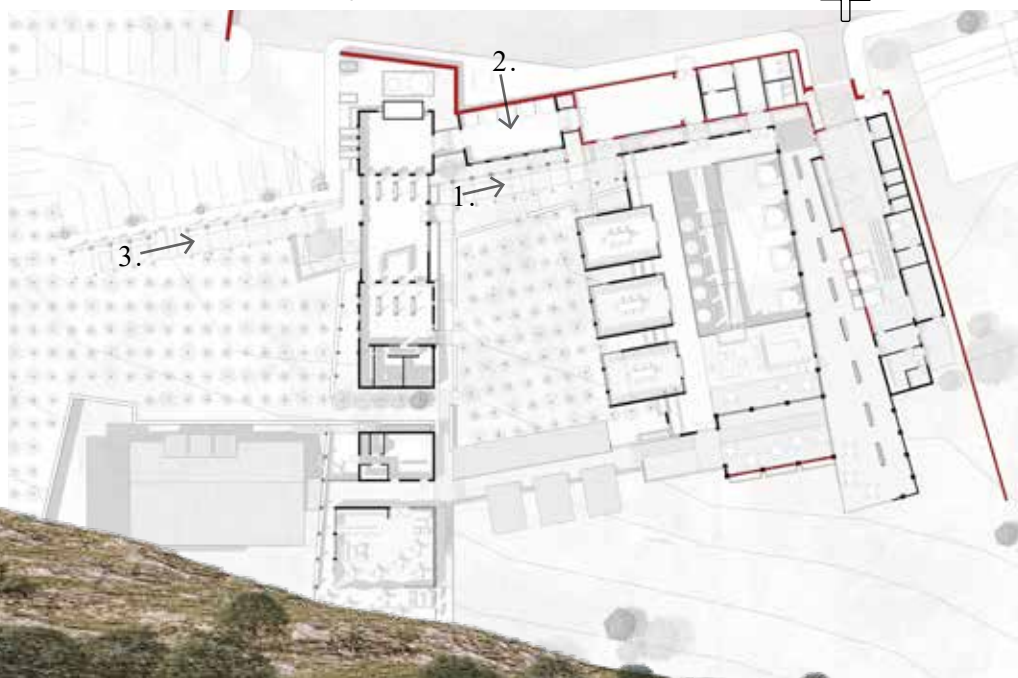


## 1.7 Approaching the entrance





# 1.8 Harmony with nature +





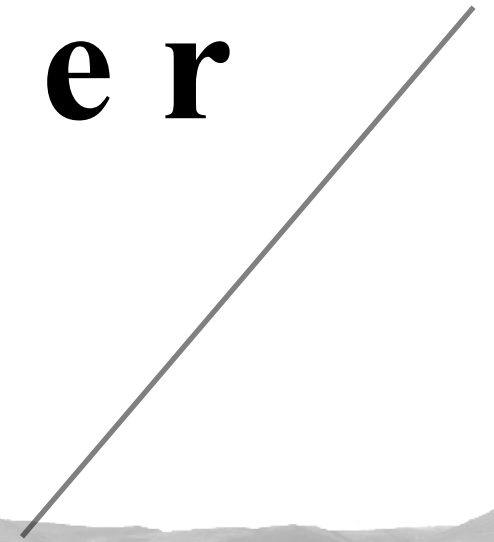
## 1.9 Views from Sundays River+





# Chapter

# 6



# Technical Report



# Technical Report

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This construction process is a dynamic interplay between tradition and modernity. It takes inspiration from Graaff-Reinet's rich vernacular heritage, breathing new life into these architectural traditions through the integration with current construction methods.

The construction process serves as a bridge between the site's unique characteristics and the modern technical preservation of the town's vernacular architecture. This approaches the reinterpreting of traditional elements to align with modern construction techniques and adapting them to suit the specific site conditions. By honouring the vernacular qualities of Graaff-Reinet and fusing them with modern construction methods, a harmonious coexistence is achieved. The process of synthesis enables the development of modern built environments that pay homage to the town's historical identity, while also pushing it forward into an embedded and functional development.

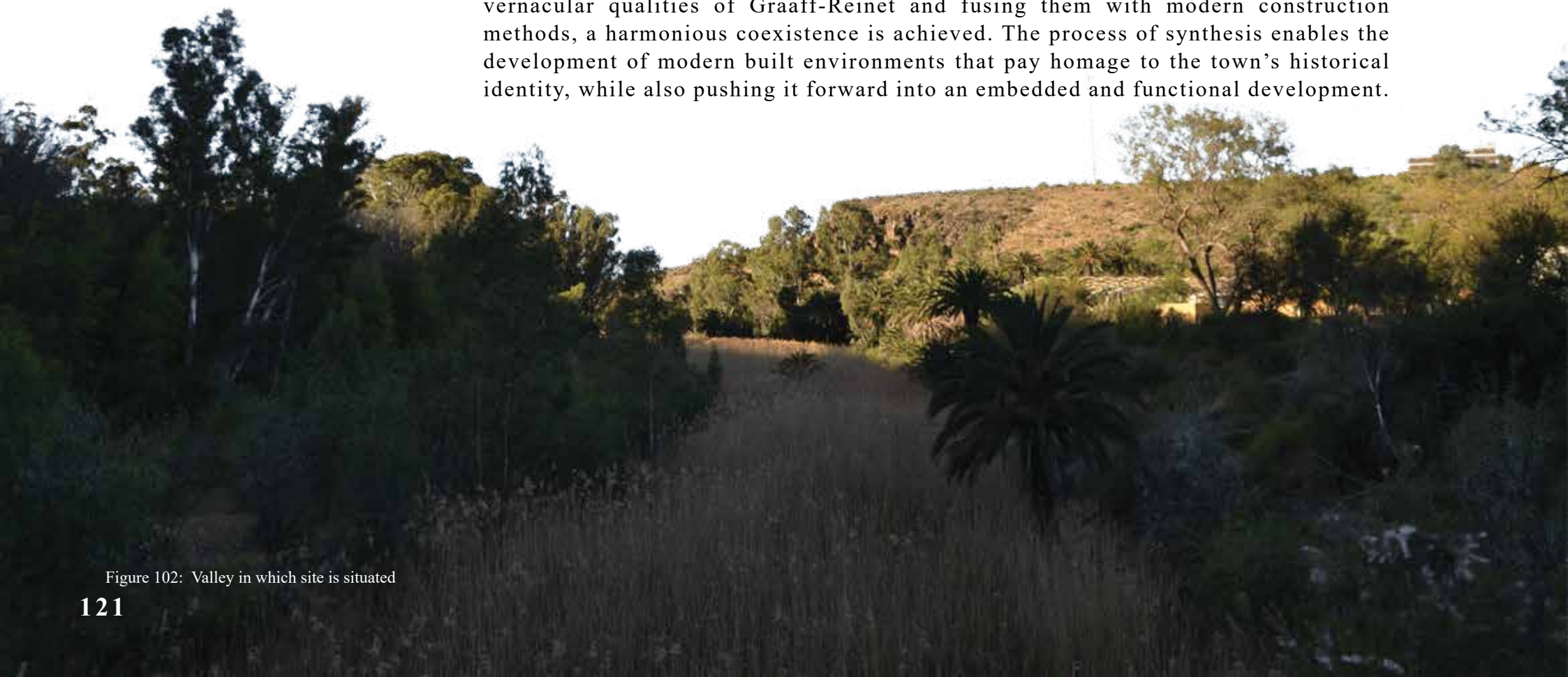


Figure 102: Valley in which site is situated

# 1. Environment & Micro-Climate

The design is inherently intertwined with its surrounding environment, making the environment a foundational aspect of the construction synthesis to extend upon. The environmental attributes present are mainly the extension of the existing structure and settling within the topology of the site.

## 1.1 Topography

The site, located on the edge of Graaff-Reinet, is situated within a small valley adjacent to the river leading from the Nweqba dam. The fall on the site has an overall difference of 9m from the street level towards the river. The site's decline is very different from the usual flat streets of Graaff-Reinet. This presents an opportunity to work with the slope and incorporate it into the project's design. It also offers a chance to reinterpret the vernacular qualities into a new topology.

It is important to establish a balance between the natural and built environment as the site must reconcile the polarities of the compact nature of the streetscape and the openness of the land site. Therefore, the building not only extends from its existing structure into the landscape but also incorporates the landscape through vineyards into its form.



Figure 103: Embedded in the slope (Author, 2023)



Figure 104: Infiltration of the vineyards (Author, 2023)

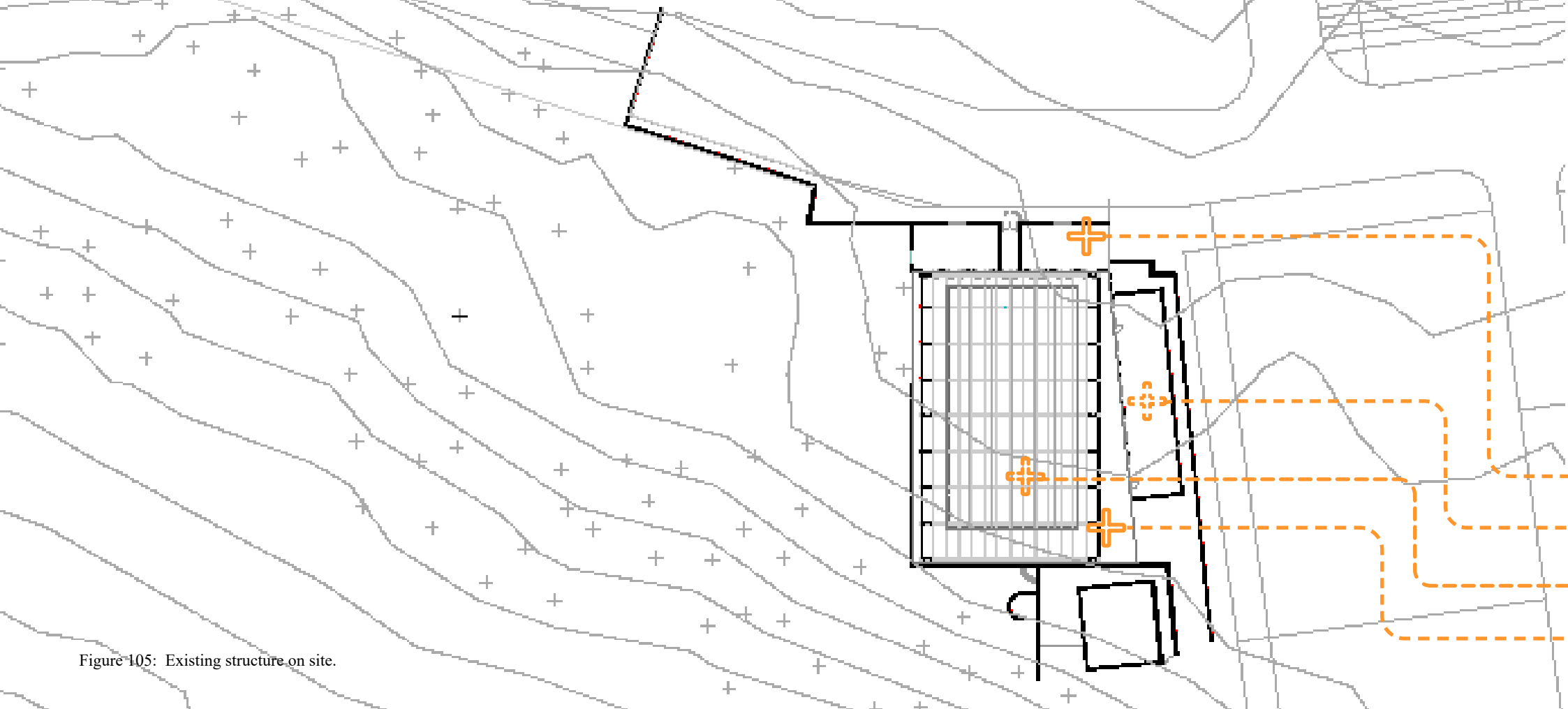


Figure 105: Existing structure on site.



Figure 106: Entrance buildings



Figure 107: Swimming pool in its glory.



Figure 108: Current state of structure as viewed from entrance



Figure 109: Current state of structure as viewed from edge of site

## 1.2 Existing structure

The structure prominent on the site is the out-of-function Municipal swimming pool. Since the existing buildings on the site have no historical significance, there are no legal restrictions regarding their preservation or alteration of the structure. However, the concept of extending narratives emphasizes extending and building upon what is already present, not rewriting. Therefore, it was essential to include the swimming pool complex. The swimming pool complex consists of:

- an entrance building of 6x25m
- an ablution block of 6x25m
- a swimming pool of 17 x 32m
- and a steel structure over the swimming pool with a span of 22,5m spaced at cc 4,5 m.



Figure 110: Proposed development (Author, 2023)

## 2. Form & Function

The structure of the building is partitioned into distinct levels, each defined by its functions: the lower part is dedicated to the distillery, while the upper portion is designed to enhance the visitor's experience. These divisions extend beyond their functions and materialize in the architectural approaches themselves.

In the lower distillery section, the design takes cues from Graaff-Reinet's rich history. This approaches the traditional form of building upon slated stones and compressed clay, providing a dark solid base embedded within the site. Embracing the materiality, harmonizing with the natural landscape through the use of stone-veneered walls, blending seamlessly with the terrain and mirroring the embedded nature of the distilling story within the town.

Conversely, the upper section of the building takes on a different character, focusing on providing an engaging experience and encouraging visitors to immerse themselves in the unfolding distillation narrative. Here, the architectural elements seek to establish a connection with the local vernacular. The choice of materials embraces the local vernacular, drawing from the tradition of white-plastered walls and wooden structures that allow the building to connect to the narrative of the town whilst paying homage to the local architectural traditions. Ultimately this approach is not only in harmony with the historical context but also reflects the desire to minimize the building's impact on the surroundings.

The interplay between these two architectural approaches not only distinguishes the building's functional areas but also underscores a profound respect for Graaff-Reinet's heritage while embracing a modern, user-centred design approach.



Figure 111: Displaying the split in materials and function (Author, 2023)

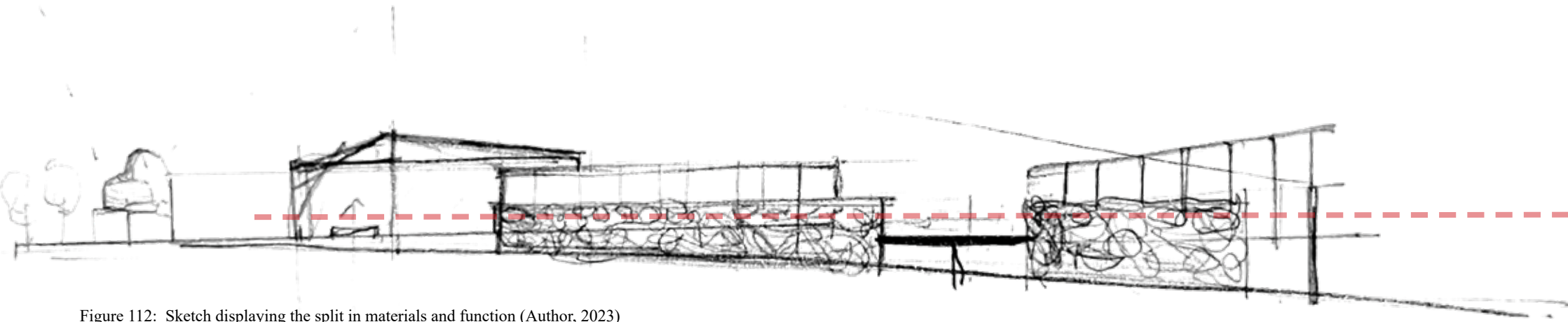


Figure 112: Sketch displaying the split in materials and function (Author, 2023)

### 3. Construction Touchstone+

*The touchstone explores the Neo vernacular Tectonics of Graaff-Reinet  
Through the contrasting polarities of tectonics and stereotomics the relationship between new and innovation is expressed. Whilst creating a balance between the masses.*



Figure 113: Construction touchstone (Author, 2023)

The construction touchstone not only considers the fundamental aspects of form and function but delves deeply into the adaptation of vernacular elements that resonate with the context of Graaff-Reinet. Central to this approach is the concept of the “stoep,” a fundamental feature of Graaff-Reinet’s architecture known for its versatile and communal nature.

The stoep is not merely a physical structure but a vital space where social interactions, storytelling, and community bonding occur. It serves as an extension of the building, connecting the indoors with the outdoors, and offering a space for relaxation, gatherings, and observation.

In the design process, the stoep becomes a focal point, and its various levels of interaction are carefully considered. The aim is to create a seamless transition between the built environment and the natural surroundings, offering inhabitants and visitors a multifaceted experience.

The construction touchstone not only seeks to replicate the aesthetics of the vernacular but also aims to capture the essence of the stoep as a place of connection, continuity, and shared moments. This approach enriches the architectural narrative, bridging the gap between tradition and modernity, and ensuring that the building resonates with the spirit of Graaff-Reinet.



Trees

Expressing the rigidity of tradition - acting as grid to move through



The Truss

Tectonic interpreting vernacular - acting as a expression of innovation



The Erf-Muur

Steriotomic expressing vernacular - acting division between spaces



The Plint

Emerging from the earth - acting as an extention

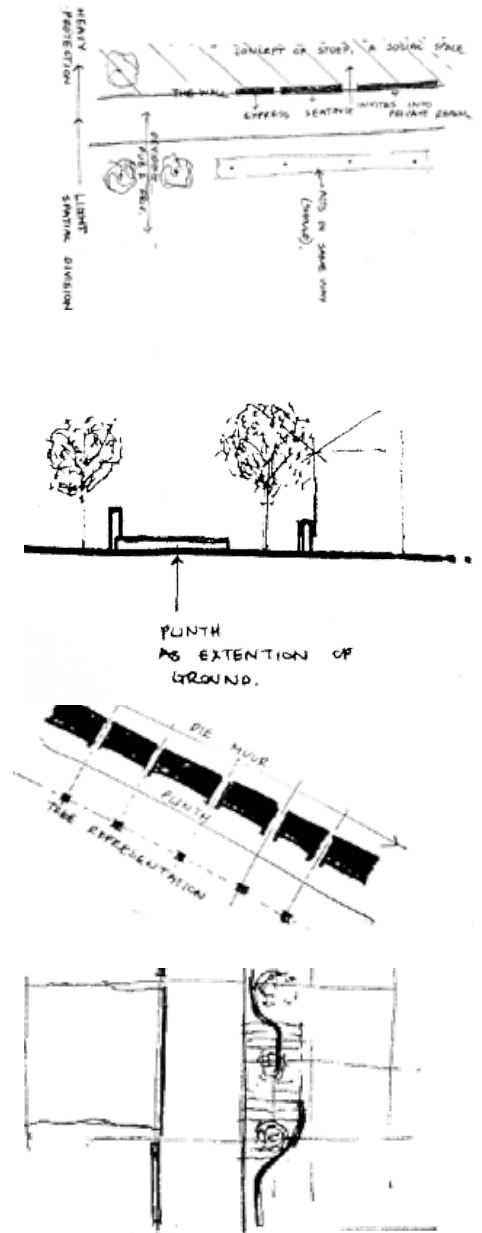


Figure 114: Investigation of Construction touchstone (Author, 2023)

## 4. Site planning & landscaping

### 4.1 Parking and vehicle access:

The main parking is situated as an extension of the street into the site, 21 parking and 2 differently abled parking are integrated amongst the vineyards and further 6 parking is situated along the streetscape. Secondly, there is an access-controlled entrance for staff and deliveries, leading the truck to the warehouse for deliveries at the service yard and allocated staff parking adjacent to the office entrance. As the space along the river bank is very restricted, there is a 3-point turning space for the delivery trucks to return to the road. Lastly, there is a pick-up/drop-off zone at the second warehouse for the distribution of the finished brandy and the arrival of the staff.

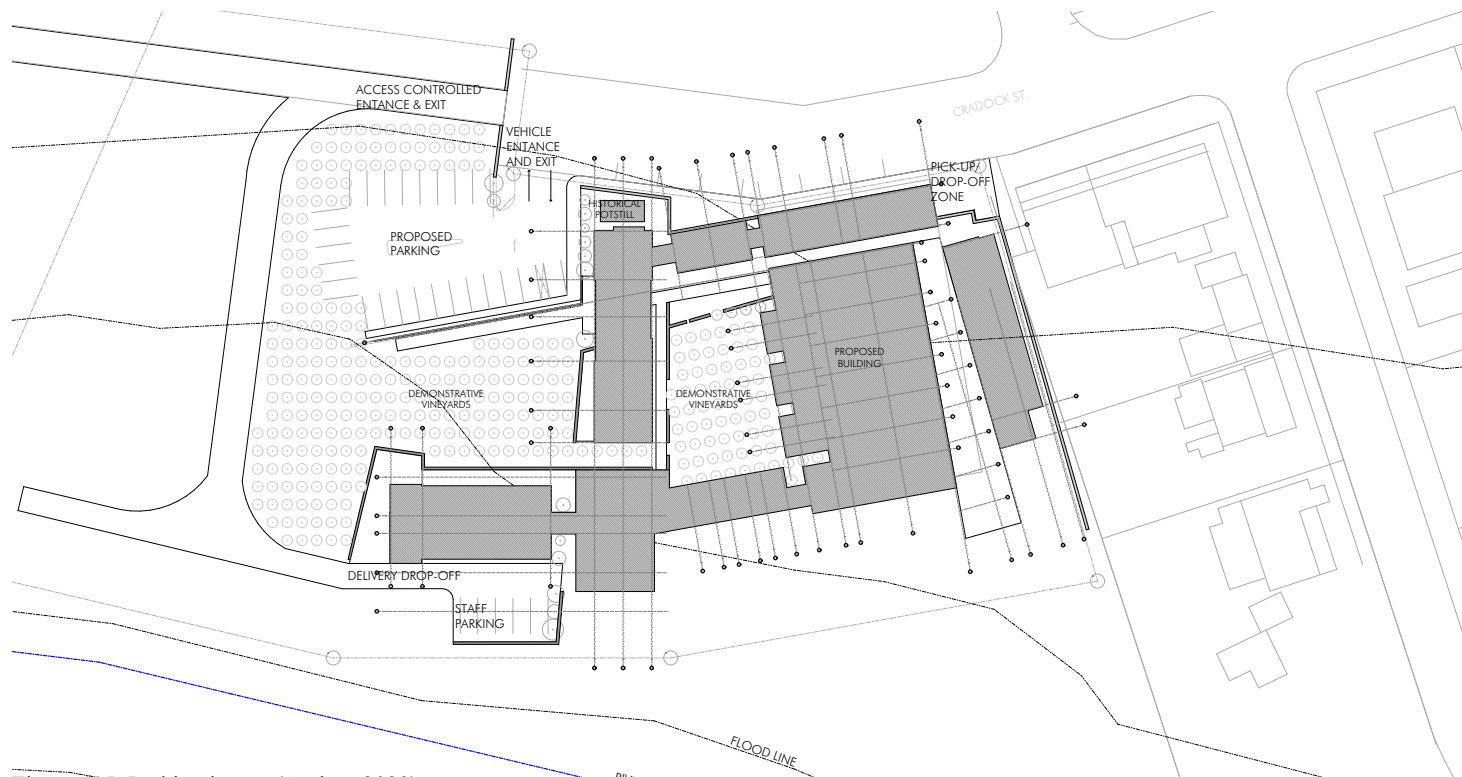


Figure T15: Parking layout (Author, 2023)

#### 4.2 Stormwater :

In the context of the building's position within the sloping site, effective stormwater management is of the essence. The vineyards play a crucial role as an integral component of site planning, providing not only an atmospheric attribute but also a functional attribute as a stormwater management system, utilizing the stormwater for vineyard irrigation, transforming what could be a challenge into a sustainable solution.

If the volume of stormwater exceeds the vineyard's capacity, it flows into the strategically positioned stormwater gutters hidden behind the stone-veneered walls. These gutters redirect the excess water to an exterior grape courtyard, where it is collected for future use. This stored water extends to be used for various purposes, including general irrigation for the vineyards, the initial washing of the grapes upon arrival, and general cleaning within the grape courtyard and warehouse.

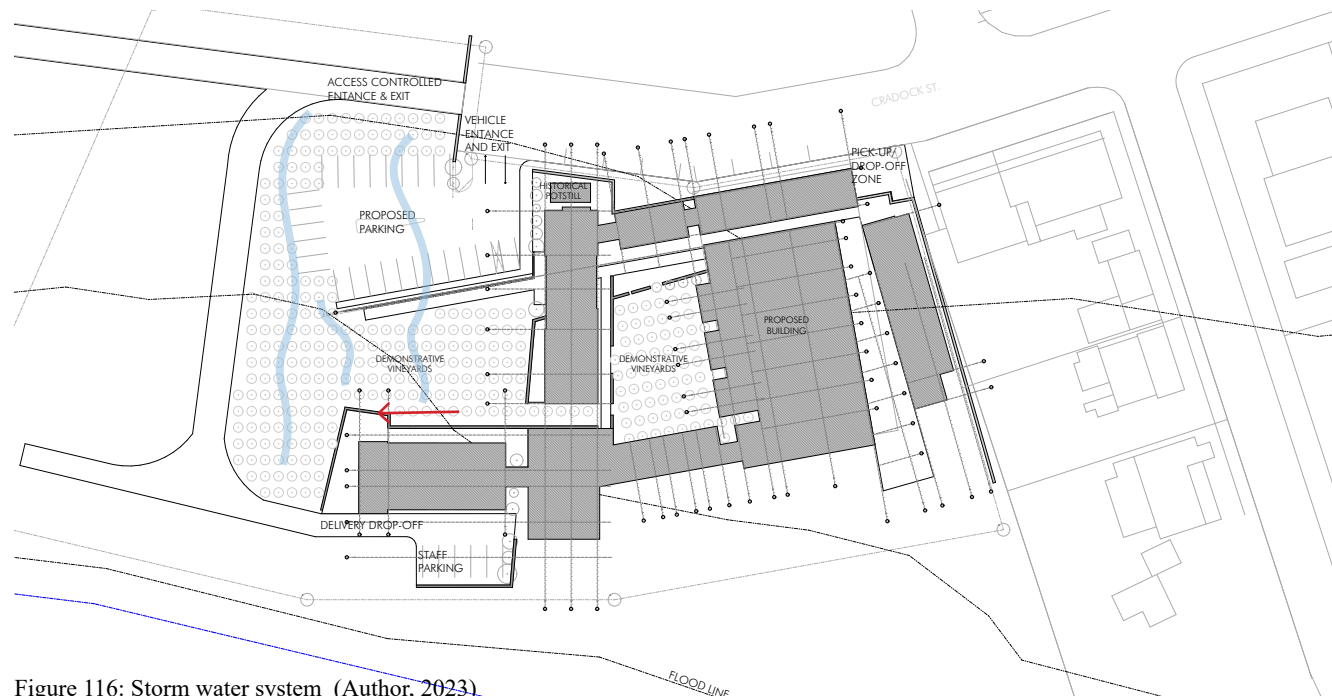


Figure 116: Storm water system (Author, 2023).

## 5. Structural detailing

### Foundation

Considering the location of the site, which is allocated adjacent to the Sundays River and has an abundance of trees, a Pile foundation would be best suited for the load-bearing main structures of the development. The foundation's base is located 600mm deep and consists of a 600x200mm reinforced concrete pad with a long and slender concrete pole that stretches to deeper soil with more load-bearing capacity. To support the concrete deck of the walkways and free-standing erf walls located in the landscape, a 600x200mm reinforced concrete Strip foundation is cast. Whereas in the basement a Raft foundation is used to distribute the load evenly over the 35,5 x17m basement surface and has 600x300mm reinforced concrete edge beams.

### Flooring

The interior flooring consists of an 85mm or suspended 170mm reinforced concrete floor slab cast in situ with different spaces having different finishes. Most of the interior spaces are finished with treated timber board finish. The warehouses & distillery are finished with a polished finish for durability and sanitation, while the kitchen and bathrooms have tiled floors.

The exterior space's floor consists of 50mm thick brick pavers laid on top of a sand surface bed. Exterior spaces such as the gallery walk require more efficient drainage. It is located between two buildings and makes use of a concrete deck. A 50mm screed is poured to fall towards the 200x200mm concrete gutters

### Walls & Beam structure

The primary structure will consist of 220mm and 110mm load-bearing walls used throughout the building. Stone veneer is applied to walls at the lower levels of the building and landscaping to give the appearance of stone walls without the high cost. The only beam structure that is used is the existing structure of the steel roof within the distillery where the structure spans across the width of the swimming pool and is centred at 4500mm across the length of the swimming pool.

### Roofing

Throughout the entirety of the building, Klip-lock Chromadeck sheeting is used for several reasons. Firstly, it is chosen due to the relatively low range of the roof pitch, which spans from 3 to 15 degrees. Additionally, this choice offers the opportunity to achieve a colour representation reminiscent of the classic thatch roofs traditionally found in Graaff Reinet. Further in the development, the roof structure is characterized by an exposed truss system, serving to reveal the structural elements prominently across the entire building.



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