

Rhodes

[Re]Discovering the Grasslands

A visitor and community centre for Rhodes and the new Grasslands National Park in the highlands of the Eastern Cape

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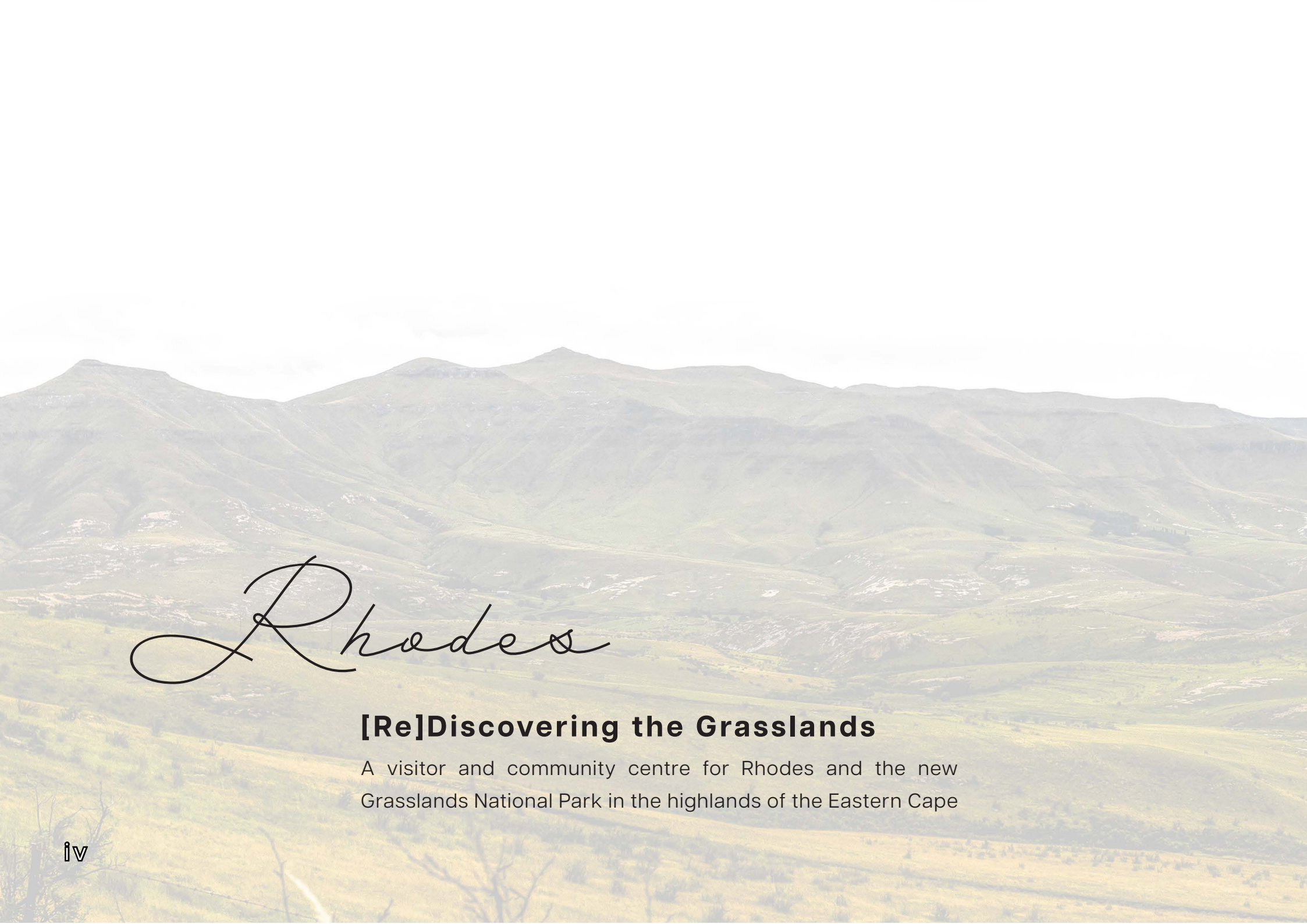

Rhodes

[Re]Discovering the Grasslands

A visitor and community centre for Rhodes and the new Grasslands National Park in the highlands of the Eastern Cape

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Declaration of original authorship

The work contained in this dissertation has not been previously submitted at this or any other institution of higher education. To the best of my knowledge, this dissertation does not contain material that has been previously published or written by another person except where due reference is made.

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I want to thank Prof. J. Smit, P. Smit, M. Bitzer, and K. du Preez for guiding and advising me throughout the process.

The Reeders family of Rhodes for their invaluable help with the site.

My amazing friends in the orange cubicle for always being there for me.

My parents, Johan and Retha Schoeman, for their unwavering support and love right from the start, which made it possible for me to chase my dreams.



Abstract

Visitor centres within a specific landscape are conceived as powerful communicative tools, facilitating users' immersive experience in a distinct contextual setting. In the context of the village of Rhodes, which foresees a forthcoming increase in tourism, the village currently lacks the necessary infrastructure to accommodate and educate visitors about its unique environment. Regrettably, many local visitor centres often fall short of authentically capturing the essence of the landscape and its surrounding context through their architectural design, resulting in inauthentic reproductions of assumed vernacular architecture. This study explores multifaceted themes, including temporality, permanence, ecotourism, and critical regionalism, with its primary objective being the identification and subsequent integration of site-specific nuances into the architectural framework. This integration aims to effectively harmonise the design within the encompassing landscape while recognising and embracing the local inhabitants of the valley. The inception of the visitor centre's design can be traced back to an analysis of the natural environment, serving as the foundation for a range of conceptual explorations. These explorations were further enriched by precedent studies and firmly rooted within theoretical investigations. This design endeavour challenges conventional perceptions of an appropriate visitor centre. Instead of resisting its historical presence within the Victorian village, it aspires to deeply assimilate itself into the natural surroundings, ultimately aligning and coexisting with the landscape and the local population rather than opposing it.

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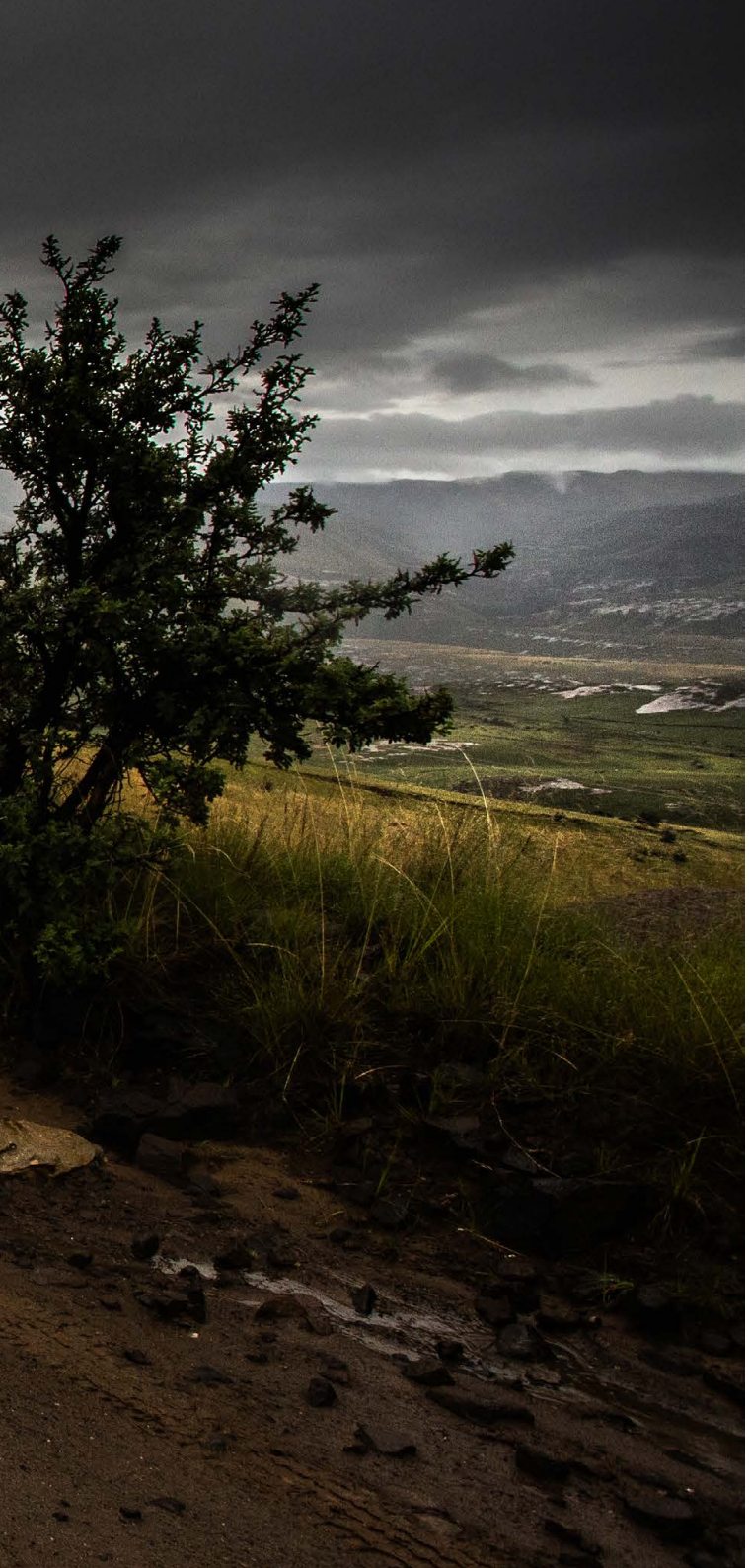
Chapter 1



1. Grounding

1.1 Introduction

1.2 Problem Statement

1.3 Aims

1.4 Research Question

1.5 Client

1.6 Users

Fig 1: The dirt road to Rhodes (Author, 2023)



Introduction

The development of a new Eastern Cape grassland park in the upper eastern cape highlands is underway. The park aims to conserve the rich biodiversity of the grasslands and the areas under the Eastern Cape Drakensberg Strategic Water Source Area.

At the foot of the mountains on which the park will be located is the small, remote village of Rhodes. The village is known for its picturesque natural surroundings, rich history, historic charm, and close-knit community.

The proposed scheme would be situated on the outskirt of the small village, on a small hill which overlooks the valley. The site is important to the local community as it houses the first school built in Rhodes—a revival-style sandstone building designed by the partners of Sir Herbert Baker. The building has been declared a national monument and currently serves as holiday accommodation.

The proposed design project would serve as a visitors' centre for the new park; however, due to the remote nature of the park, visitors alone would not be sufficient to allow for such a scheme. Thus, the project would also serve as a community and skills transfer centre for the local community. The proposal aims to address some of the needs of the visitors and community, which the village currently lacks.

Problem Statement

The community of Rhodes is preparing for an increase in eco-tourism in the area. If the whole community could benefit from the increased activity it would be more sustainable over the long term

Aims

This thesis seeks to employ architecture to cultivate a mutually advantageous relationship between humanity and the natural world. Its primary aim is to serve as a conduit for showcasing the pristine natural environment of Rhodes and the Grasslands National Park, thereby fostering a deeper connection with this environment and, in turn, motivating individuals to safeguard the fragile natural environment.

The proposed visitors and community centre will designed to harmonize with the existing functions of the village while addressing the current deficiencies in available services. Envisioned as a gateway for both village and national park visitors, this initiative is expected to generate funding to preserve the region's natural environment. Furthermore, the project is intended to empower and educate local residents, thus enhancing their quality of life.

Research Question

How can an architectural project facilitate an inclusive environment for the local community and visitors, thereby cultivating an enhanced awareness for the landscape?

Client

The Grasslands National Park is being established by the South African National Parks (SANParks) in partnership with the World Wide Fund for Nature (WWF) and other government and non-government partners.

Many of these areas are inadequately protected and under pressure. Those areas are not formally protected but are in private or communal hands.

The declaration of the national park on private and communal land is voluntary, involving willing landowners and SANParks. The landowners retain ownership and the rights to their land, and SANParks and its partners will work with the landowners to protect the biodiversity on the land.

Community engagement between the partners and the local community is thus critical to ensure the park's success.

The proposed scheme, the same as with the Grasslands Park, will be a partnership between the above mentioned partners of the Grasslands Park and the local community of Rhodes.



Fig 2: The South African National Parks, SANParks (SANParks, 2023: Online)



Fig 3: The World Wide Fund for Nature, WWF (WWF, 2023: Online).

Users



Local Residents

The community centre provides a gathering place for residents of the village and the informal settlement of Zakhele, 1km West of the project site, offering a range of services and activities to meet their needs, from skills development workshops, a library, medical facilities and a space in which to exhibit and sell local crafts and produce. The social spaces are also meant to be utilised by locals for meetings, gatherings, and community events. There is a significant wealth disparity between local inhabitants in the village and on farms and the informal settlement resident.



Seasonal users/ visitors

Visitors visit Rhodes village or the new park during different times of the year for various reasons such as hiking, biking, bird watching, hunting, 4x4 routes, snow activities, village festivals, or just to escape to the quiet village. The typical visitor to Rhodes is upper-middle-class people who love nature and adventure. Depending on the season, the amount and type of visitors the village will receive differs.



Staff

The staff consist of mainly local residents that are employed for the management and maintenance of the centre, as well as educators empowering the local population through the workshops, park rangers who maintain and patrol the park, and medical health professionals and veterinarians from larger nearby towns could also use the centre on a weekly basis which serve the local community.

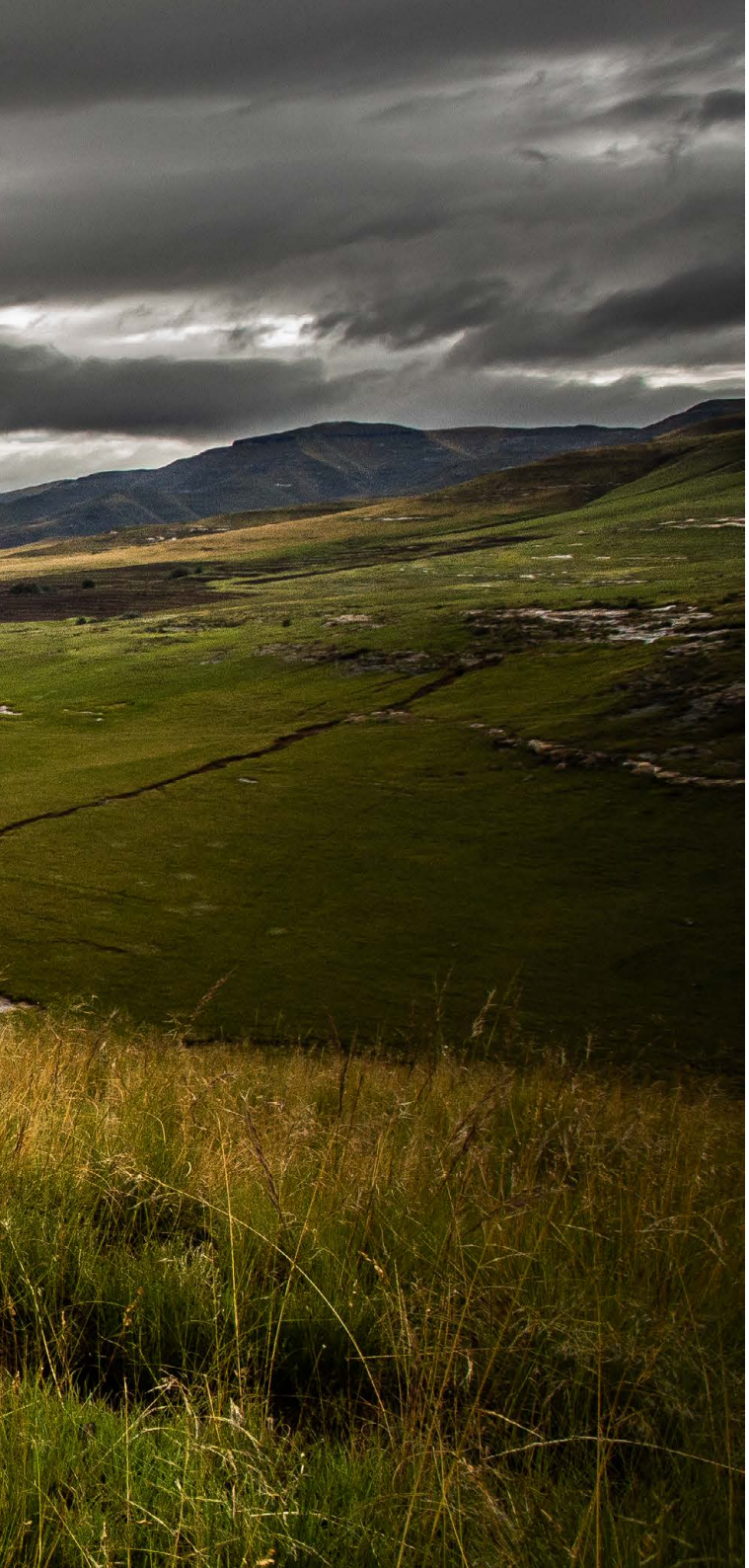


Researchers

Semi-permanent users which make use of the research facilities provided by the centre for environmental and agricultural studies to explore the local ecosystem, biodiversity, and water quality. The research would aim to investigate the impact of human activities on the specific environment and the state of natural resources to develop conservation strategies to ensure sustainable use. These users include university students, researchers and non-profit organisations.



Chapter 2



2. Understanding Rhodes

2.1 History

2.2 Macro Analysis
- Location
- Climate
- Population
- Activities

2.3 Messo Analysis
- Rhodes village
- Zakhele
- Building Styles
- Vegetation

2.4 Micro Analysis
- Site History
- Terrain
- Vegetation
- Buildings

2.5 Conservation Strategy

Fig 4: The view down the valley with Rhodes in the distance (Author, 2023).

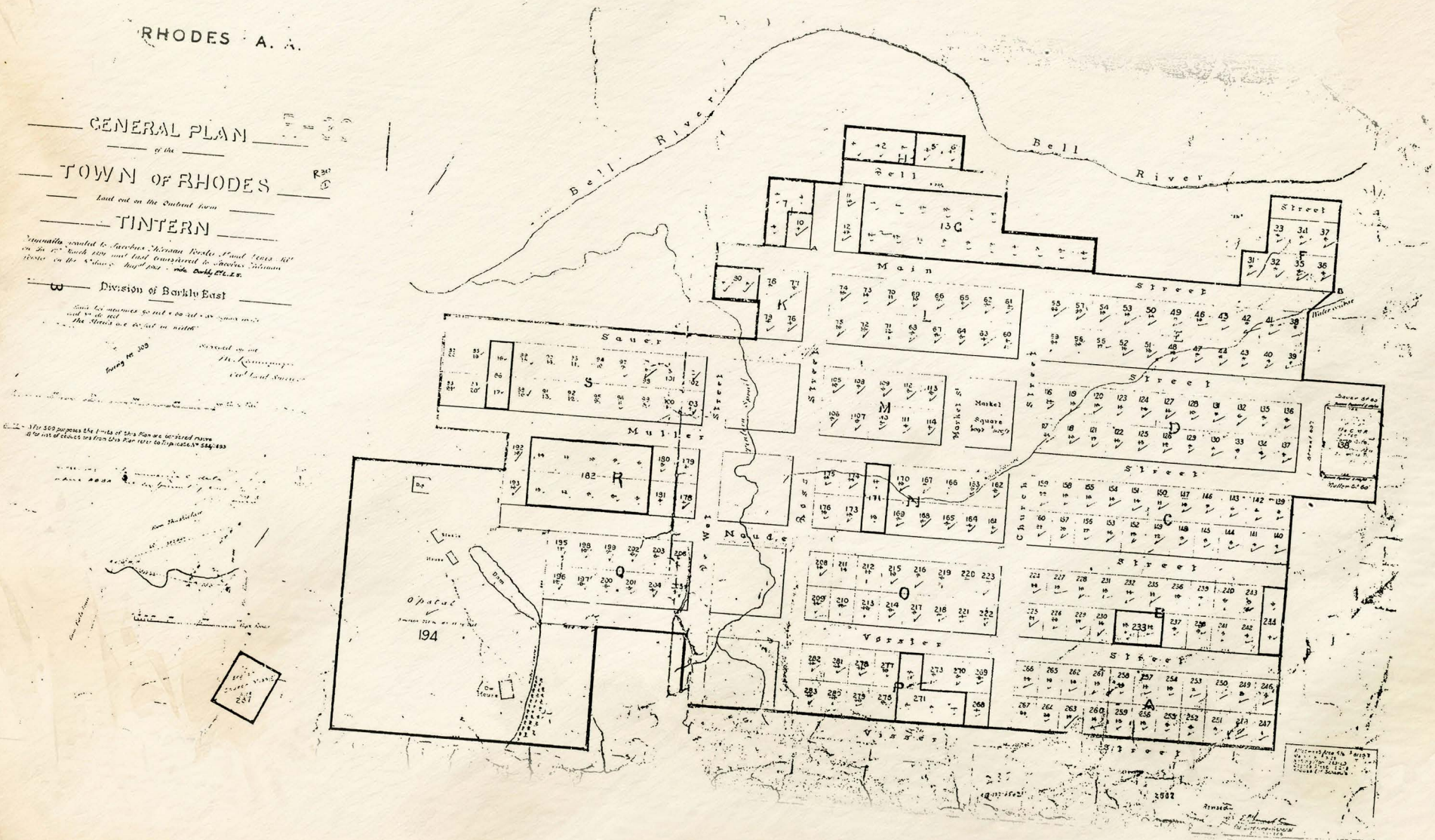


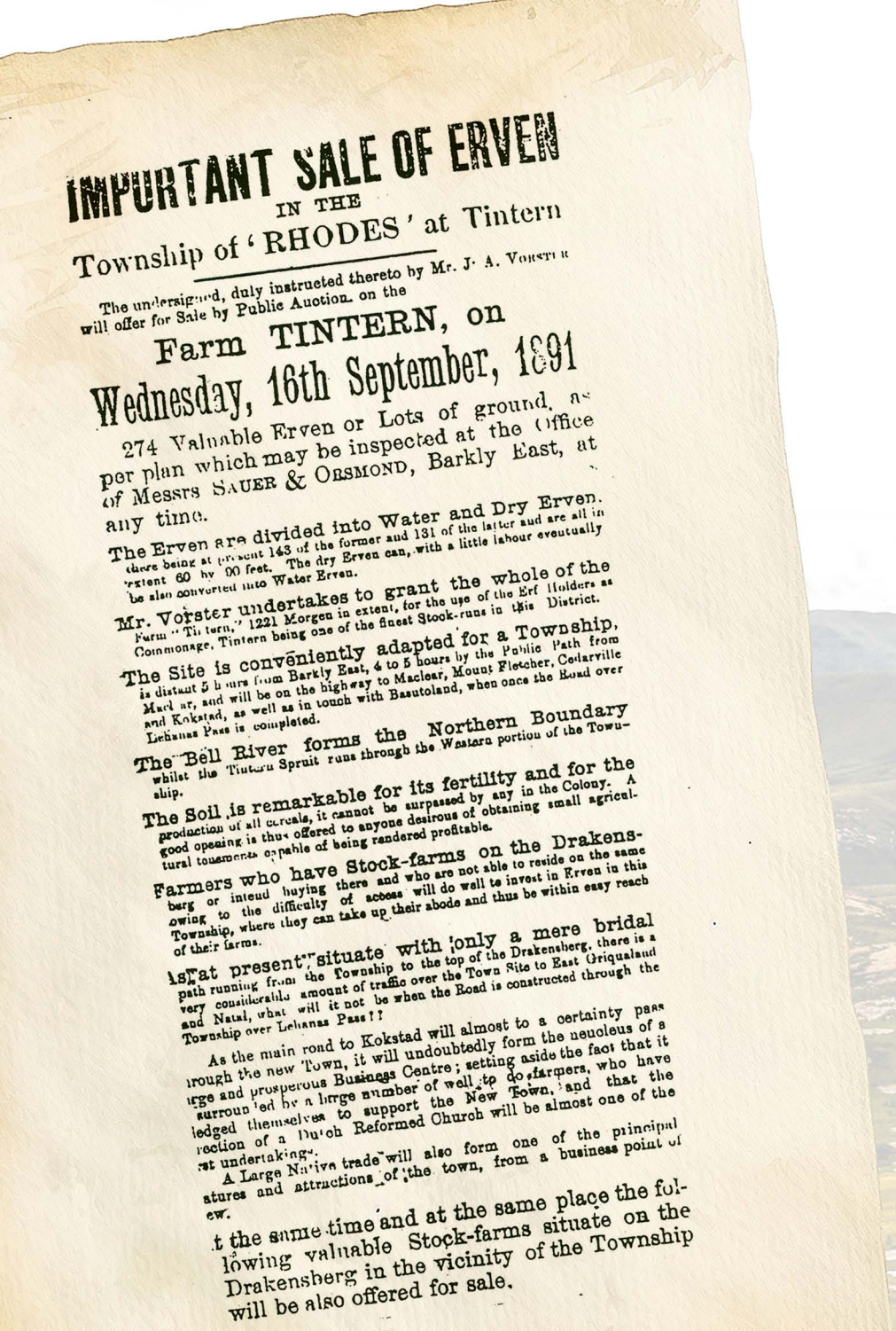
Fig 5: The original layout of plots for the village in 1893 (Peters, 1998).

Fig 6: (Right) A Cape Town newspaper extract advertising plots of land for sale in Rhodes in 1891 (Peters, 1998).

History

The history of Rhodes village can be traced back to the 1880s when the first settlers arrived in the region. Prior to their arrival, the area was inhabited by members of the San tribe, who led a seasonal migratory lifestyle. The settlers acquired land through a hire purchase arrangement with the Cape Colonial government. The layout of the farms was meticulously planned by Joseph and Richard Orphen, Irish immigrants who gave these farms Irish names (Walker, 2006: Online).

Rhodes village found its roots on the land of Mr. Jim Vorster, who agreed to its establishment under the condition that 100 plots were sold, and the village be named after Cecil John Rhodes, the Prime Minister of the Cape at that time. On September 16, 1891, the village was officially founded. The remaining portion of the farm became the commonage, serving as grazing land for residents' sheep and cattle. It was situated in the heart of a thriving farming community and laid out in a grid pattern, with furrows lining the streets and a graveyard located outside the village in adherence to Dutch traditions (Walker, 2006: Online).



IMPORTANT SALE OF ERVEN
IN THE
Township of 'RHODES' at Tintern

The undersigned, duly instructed thereto by Mr. J. A. Vorster, will offer for Sale by Public Auction on the

Farm TINTERN, on
Wednesday, 16th September, 1891

274 Valuable Erven or Lots of ground, as per plan which may be inspected at the Office of Messrs SAUER & ORSMOND, Barkly East, at any time.

The Erven are divided into Water and Dry Erven, there being at present 143 of the former and 131 of the latter and are all in extent 60 by 90 feet. The dry Erven can, with a little labour eventually be also converted into Water Erven.

Mr. Vorster undertakes to grant the whole of the Farm "Tintern," 1221 Morgen in extent, for the use of the Erf Holders as Commonage, Tintern being one of the finest Stock-runs in this District.

The Site is conveniently adapted for a Township, is distant 5 hours from Barkly East, 4 to 5 hours by the Public Path from Maclear, and will be on the highway to Maclear, Mount Fletcher, Cedarville and Kokstad, as well as in touch with Basutoland, when once the Road over Lehanas Pass is completed.

The Bell River forms the Northern Boundary whilst the Tintern Spruit runs through the Western portion of the Township.

The Soil is remarkable for its fertility and for the production of all cereals, it cannot be surpassed by any in the Colony. A good opening is thus offered to anyone desirous of obtaining small agricultural tenements capable of being rendered profitable.

Farmers who have Stock-farms on the Drakensberg or intend buying there and who are not able to reside on the same owing to the difficulty of access will do well to invest in Erven in this Township, where they can take up their abode and thus be within easy reach of their farms.

As at present situate with only a mere bridal path running from the Township to the top of the Drakensberg, there is a very considerable amount of traffic over the Town Site to East Griqualand and Natal, what will it not be when the Road is constructed through the Township over Lehanas Pass!?

As the main road to Kokstad will almost to a certainty pass through the new Town, it will undoubtedly form the nucleus of a large and prosperous Business Centre; setting aside the fact that it is surrounded by a large number of well to do farmers, who have pledged themselves to support the New Town, and that the erection of a Dutch Reformed Church will be almost one of the first undertakings.

A Large Native trade will also form one of the principal features and attractions of the town, from a business point of view.

At the same time and at the same place the following valuable Stock-farms situate on the Drakensberg in the vicinity of the Township will be also offered for sale.



Fig 7: Joseph Orphen, the surveyor who laid out the plots (S2A3, 2020: Online)



Fig 8: Cecil John Rhodes after who the village was named (Ilbusca, 2019: Online)

In September 1894, residents and plot owners united to petition the government to declare Rhodes as a village under the Village Management Act of 1881. This effort led to Rhodes being proclaimed a township with municipal rights in 1897. The Dutch Reformed Church played a pivotal role in the village's history, with its cornerstone laid on June 15, 1892. In the village's early years, the church council governed it. Subsequently, the first rectory was constructed in 1899, followed by the first church hall in 1914. At that time, the population was estimated to range between 250 and 300 residents. The Courtroom and post office were completed in 1898 at the intersection of Church and Naude Street. During the Boer War, the village witnessed 29 invasions. Construction of the Naude's Nek pass began in 1895 but faced delays due to heavy snowfall and the war, finally being completed in 1905 (Walker, 2006: Online).

In 1904, a village management board was elected, taking over administrative duties from the church committee. The village's expansion moved gradually uphill from the Bell River toward the south, with the oldest part of the village centered around the main road. In 1909, the main road was relocated to tree-lined Muller Street. The Gideon Naude Bridge, spanning the donga in the village, was erected in 1936 (Walker, 2006: Online).

Initially, education in the village occurred in farm schools and later in various houses. In 1916, the need for an official school building was recognized, and after several years, the first official school building was constructed in 1924. The village experienced its heyday between the 1910s and 1940s, during which the police station was established in 1938. In the 1960s, the village attained municipal status, but in 1979, it relinquished this status and became part of the former Drakensberg District Municipality, now known as the Joe Gqabi District Municipality (Walker, 2006: Online).

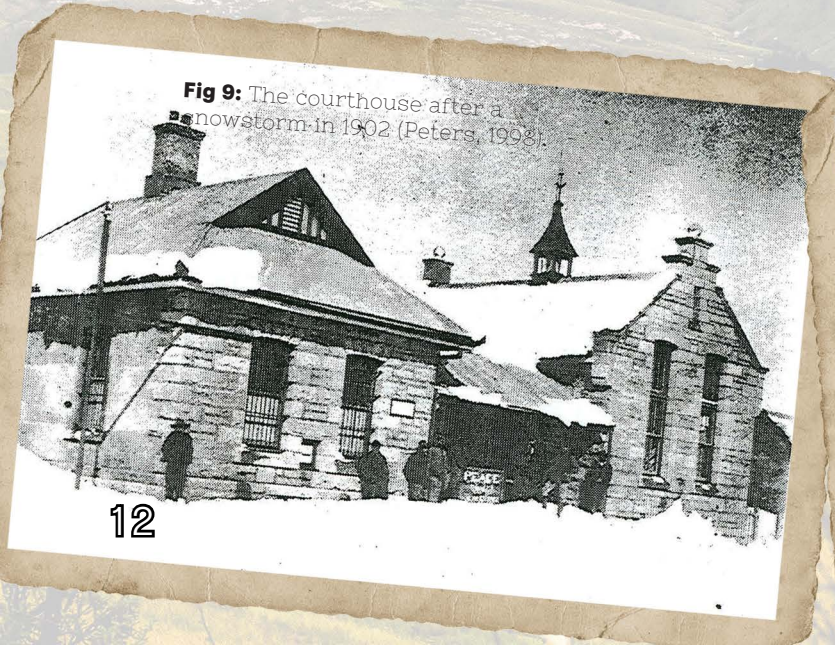


Fig 9: The courthouse after a snowstorm in 1902 (Peters, 1998).



Fig 10: Soldiers in the snow in 1902 (Peters, 1998).



Fig 11: An Army camp covered in snow in 1902 (Peters, 1998).

The 1970s marked an era when the village attracted "hippies" seeking an alternative lifestyle away from the pressures of modern society. Their arrival, marked by unconventional living, stirred resistance and skepticism from the local inhabitants and farmers, leading to controversies and tensions within the community. Despite the initial lack of acceptance, the hippies left a lasting impact on the village, particularly through their artistic crafts, which have become a significant tourist attraction in the area.

With the decline of the hippie era, Rhodes village transitioned into a tourism destination. Its scenic landscapes, rich heritage, and adventure activities lured nature enthusiasts and city dwellers seeking respite from urban life. The establishment of Tiffindell Ski Resort, South Africa's only snow ski resort, further enhanced the village's allure. However, rising property prices made it unaffordable for many locals, contributing to a decline in permanent residents in recent years (Walker, 2006: Online).

In a bid to preserve the village's character and ambiance, it was declared a Conservation Area through Government Gazette no. 18152 on July 25, 1997 (Walker, 2006: Online).



Fig 14: a large sign welcoming visitors into present day Rhodes (Author, 2023).



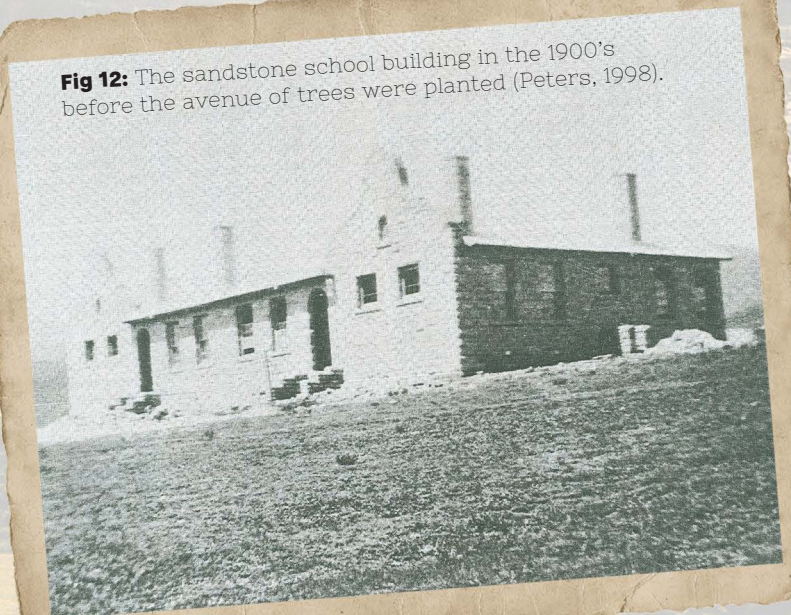


Fig 12: The sandstone school building in the 1900's before the avenue of trees were planted (Peters, 1998).

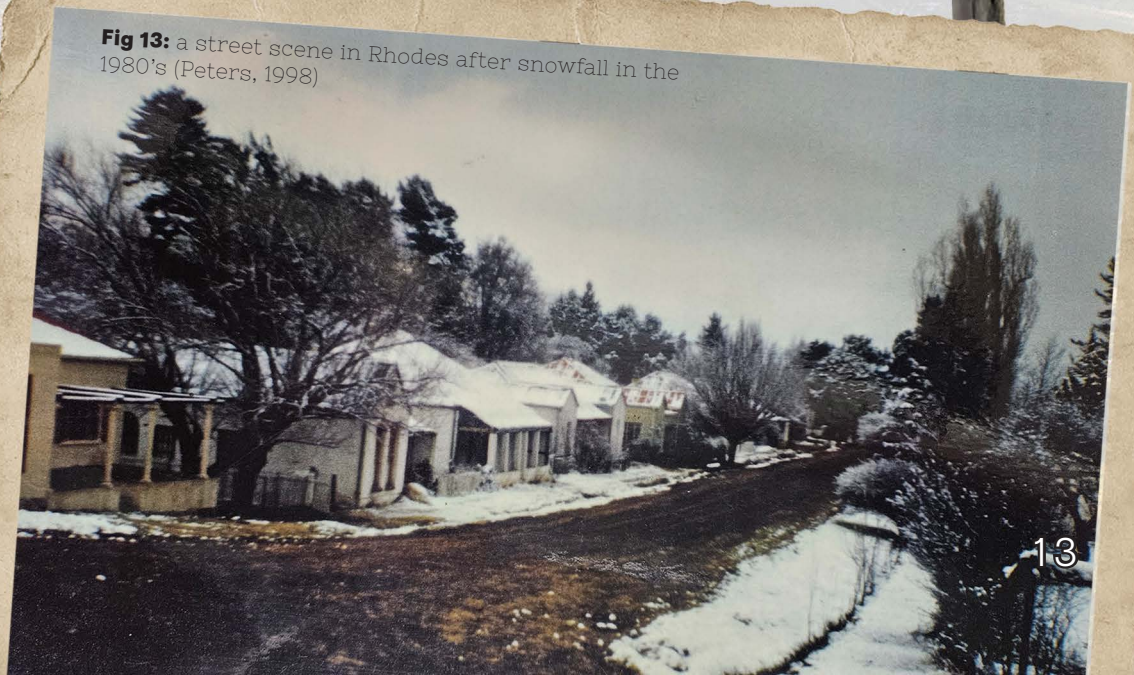


Fig 13: a street scene in Rhodes after snowfall in the 1980's (Peters, 1998)

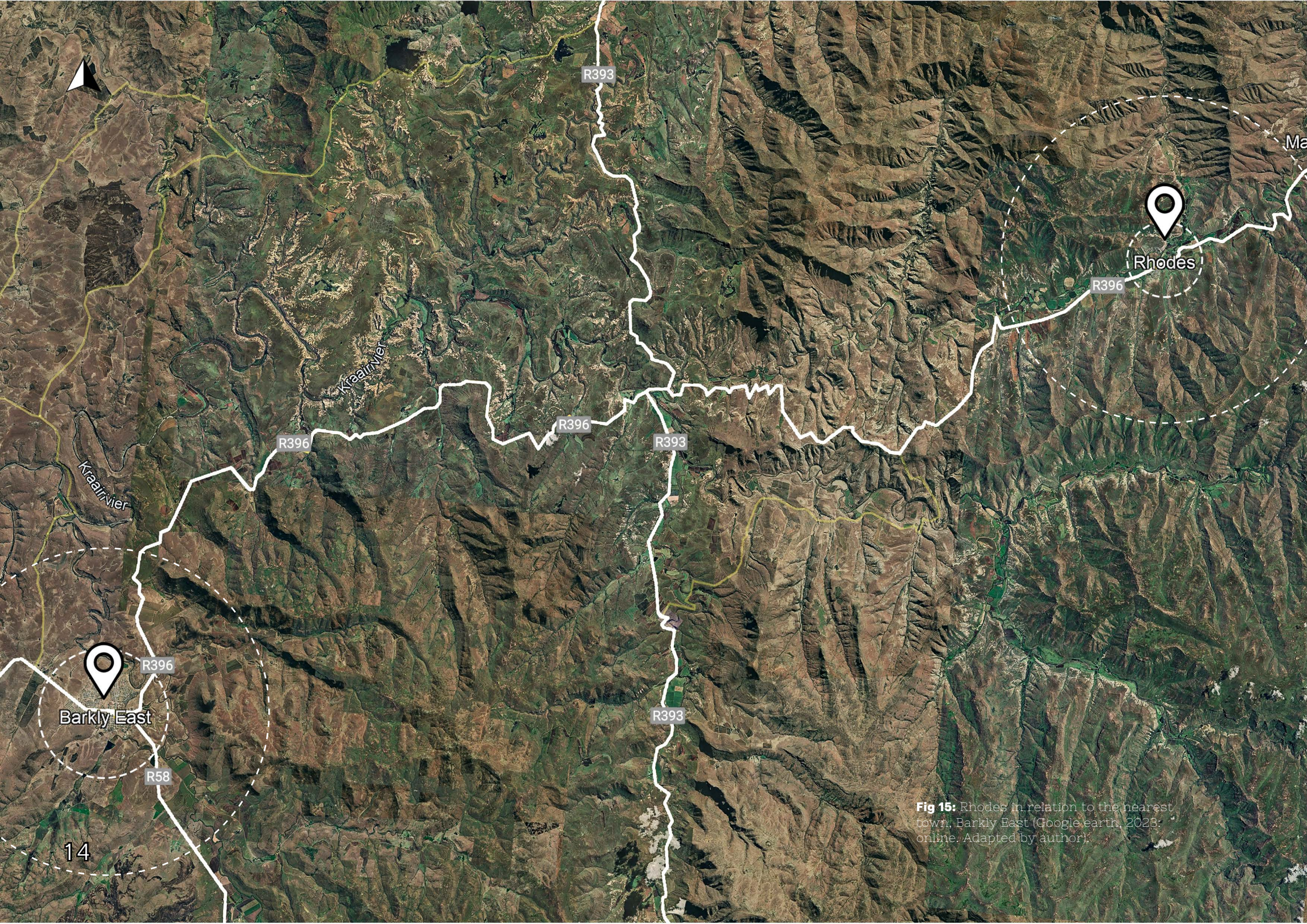


Fig 15: Rhodes in relation to the nearest town, Barkly East (Google earth, 2023: online. Adapted by author).

Macro Analysis
The Valley

Location

Nestled deep within the Eastern Cape Highlands, one can discover the enchanting village of Rhodes. Situated within the Eastern Cape Highlands, near the southernmost tip of the imposing Drakensberg mountain range, within the administrative jurisdiction of Barkly East, Rhodes boasts an elevation of 1,832 meters above sea level. It is precisely 16 kilometers to the south of the Mountain Kingdom of Lesotho. The village is ensconced amidst the towns of Maclear, Ugie, and Elliot, located below the escarpment, with Barkly East positioned above this geographical divide. Accessible via a poorly maintained gravel road, this route spans a distance of 60 kilometers or more than an hour's drive from Barkly East, the nearest urban center. Negotiating this challenging road demands careful and cautious driving, given its narrow and winding nature.

Rhodes serves as a serene sanctuary for urban dwellers seeking respite from the urban sprawl, providing a haven for a modest community of residents and farmers. Established in 1891, this village, characterized by its Victorian-era architecture, is enveloped by unspoiled rivers and awe-inspiring mountain vistas. Notably, in 1997, Rhodes received official recognition as a conservation area, further underscoring its dedication to preserving its natural beauty and historical heritage (Walker, 2006: Online).



Fig 16: Rhodes within the context of South Africa (Author, 2023).



Fig 17: Rhodes within the context of the Eastern Cape (Author, 2023).



Fig 18: Snow covered landscapes are a frequent sight during winter months, which can result in many areas of the valley being unreachable, even with very capable off road vehicles(Mohamed, 2019: Online).

Climate

The climate during the summer months in the valley is characterised by moderate to warm days with cool nights. Frequent large thunderstorms occur, contributing to the lush greenery of the surroundings. The average annual precipitation is approximately 600mm. However, the heavy rainfall in summer can lead to challenging road conditions, and certain areas of the valley may even become disconnected from the road systems due to overflowing rivers and streams, which may cause low bridges to be impassable. (SA Places, n.d.: online)

In contrast, winter conditions are harsh, featuring freezing weather and frequent snowfall. Interestingly, snowfall has been recorded every month of the year in the village. Winter temperatures can plummet as low as -18 degrees, an unfamiliar occurrence to many South Africans (SA Places, n.d.: online). These snowfall events and extreme cold temperatures also impact the road to Rhodes and hinder building works during the winter months.

The average summer temperatures hover around 20°C, while the average winter temperature is around 3°C. Rainfall primarily occurs during summer, although some years experience dry winters (Peters, 1987: 29). This climatic pattern creates distinct seasonal variations affecting the local environment and infrastructure.

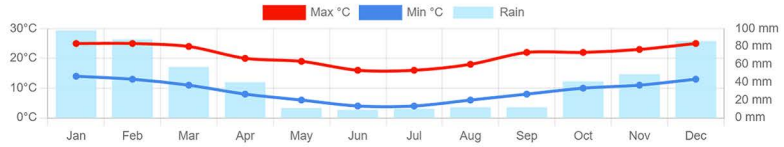


Fig 19: The average monthly min and max temperatures of the village. The large difference in temperatures between summer and winter results in different experiences in the village deepening on the time of year. (Besttimetovisit, 2023: Online)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Day temp. (°C)	25	25	24	20	19	16	16	18	22	22	23	25
Night temp. (°C)	14	13	11	8	6	4	4	6	8	10	11	13

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Precipitation (mm)	98	88	57	40	11	9	10	12	12	41	49	86
Days with rain	25	21	19	13	7	5	5	5	7	15	17	25
Dry days	6	7	12	17	24	25	26	26	23	16	13	6

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sun hours per day	10	10	9	7	7	7	7	7	9	11	11	10
Wind force (Bft)	2	2	2	2	2	2	2	2	2	2	2	2
UV-Index	5	5	5	4	3	3	3	4	4	5	5	5

Fig 20: The average climatic conditions within the village. Weather conditions can be unexpected within the village and one always has to be prepared for whatever nature has in store (Besttimetovisit, 2023: Online).



Fig 21: Children playing in the dirt road leading into the village is a common sight (Author, 2023).

Population

According to the 2011 National Census, the village is home to 696 permanent residents, with 73 inhabitants residing within its original layout. Additionally, there are 623 residents living in the informal settlement of Zakhele, situated on the southwestern slopes of the hill overlooking the village (Frith, 2011: online). Unfortunately, information regarding the number of inhabitants residing on farms and smaller parcels of land in the valley is currently unavailable.

Within the valley, the majority of the population, over 90%, are of African descent, while the remaining residents are of Caucasian origin. The prevalence of Xhosa as the primary language among the inhabitants is attributed mainly to the village's proximity to the Xhosa homelands. However, a small number of residents identify as Sotho or Afrikaans first-language speakers(Frith, 2011: online).

The original part of the village experiences a low permanent residency rate due to most property owners utilising their homes as holiday residences and renting them out as tourist accommodations when not in use. Consequently, the village often appears desolate when there is a lack of tourist influx(Peters, 1987: 13).

Notably, most of the land surrounding the village is owned by the local farming community, who predominantly engage in sheep and cattle farming. As a result, the primary source of income in the village is derived from the sale of these animals or the byproducts generated from their farming activities. However, in recent times, the farming community has faced mounting pressures, leading many families to sell off their farms and relocate to more favourable agricultural areas. Existing farmers often purchase the vacated land, resulting in individual farmers' ownership of multiple farms and leaving numerous farmhouses unoccupied (Peters, 1987: 13).



Fig 22: Local inhabitants of Rhodes taking a break within the tree lined Muller Street (Author, 2023).

Activities

Hunting and Fishing:

The valley offers exceptional fly-fishing opportunities in its pristine, rock-based highland streams. These rivers and streams are home to wild spawning rainbow and brown trout, making Rhodes a haven for anglers. With over 300 km of Africa's most unspoiled wild trout waters, the area is a paradise for fly-fishing enthusiasts. Furthermore, Greywing Francolin wing shooting expeditions are a highly sought-after attraction, drawing adventure seekers to the rugged mountain terrains surrounding Rhodes (Linecasters, n.d.: Online).

Hiking and Bike Trails:

Rhodes hosts the annual Rhodes Run, a 52km trail running event that traverses some of South Africa's most picturesque yet challenging trails. With limited entries, this exclusive, invitation-only race often tests runners' endurance in snow conditions (SA Venues, 2009: Online). Additionally, the valley offers various hiking trails suitable for hikers of all skill levels. The Eastern Cape Highlands Camino is a four-day hiking trip between Barkly East and Rhodes. For biking enthusiasts, several designated bike trails are available in the area. Alpine Swift Trails, an athletic training facility for sportspeople, also offers specialised high-altitude training in the valley (Rhodes Info Centre, 2023: Online).

4x4 Routes:

Adventure seekers can indulge in the eight-passes 4x4 route, renowned among off-road enthusiasts. This route, suitable for vehicles and motorbikes, provides a thrilling off-road driving experience while showcasing breathtaking mountain views from some of the country's highest mountain passes. These eight mountain passes connect the areas of Wartrail/New England with Barkly East, Rhodes, and Lady Grey (SA Venues, 2009: Online).



Fig 23: The valley offers a plethora of activities for nature enthusiasts. (RhodesInfo, 2023: Online)

Snow Skiing:

Rhodes attracts tourists year-round, with the winter months offering the expectation of snowfall. The Tiffendell Ski Resort, located 20km North of Rhodes on Ben McDhui, was once a prominent tourist attraction. It relied heavily on tourists as the only ski resort on South African soil, situated on the mountains above the village near the Lesotho border (SA Places, n.d.: Online). However, challenges during the COVID-19 pandemic resulted in the resort's closure and sale. The resort is expected to reopen and operate again in the future.

Rock Paintings:

The district boasts a remarkable collection of rock art sites, many close to the village. Visitors can explore these ancient works of art on various walking tours (Rhodes Info Centre, 2023: Online). The high quality of these artworks has attracted the attention from renowned artists like Walter Batiss and archaeologists such as David Lewis-Williams (Bidstone cottages, n.d.: Online).

Tenahead Mountain Lodge:

Situated in the mountainous terrain above the village, Tenahead Mountain Lodge and Spa stands as an exquisite 5-star establishment. Positioned at an elevation of 2500 meters above sea level, it proudly holds the distinction of being the highest mountain lodge in South Africa. Meticulously designed and thoughtfully placed, the lodge seamlessly blends into the surrounding mountain landscape. Its allure draws numerous visitors to the area, seeking an escape into the majestic mountains or making it a destination for a day trip (River Hotels, 2023: Online).

Flora and Fauna:

The valley and mountains encompass a rich array of plant species, with many being unique to the area. During the summer months, these special plants adorn the lush green landscape with vibrant bursts of color, creating a breathtaking sight. In celebration of this natural splendor, various open garden events are organized, accompanied by insightful wildflower talks and guided walks led by experts from the region. Moreover, the area serves as a haven for diverse bird species, attracting birdwatchers from far and wide who seek to admire and observe these avian inhabitants (Rhodes Info Centre, 2023: Online).







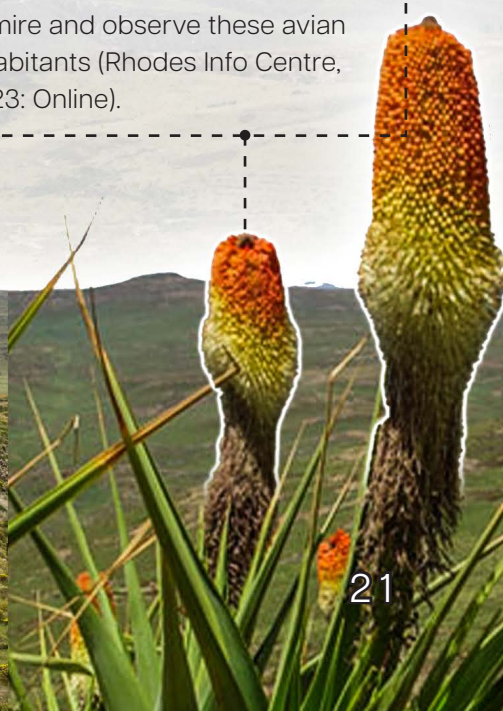




Fig 24: Rhodes village and the neighbouring settlement of Zakhele (Google earth, 2023: online. Adapted by author)

Messo Analysis

The settlements



Fig 26: The village emblem used on the documents of the village tourist agency.

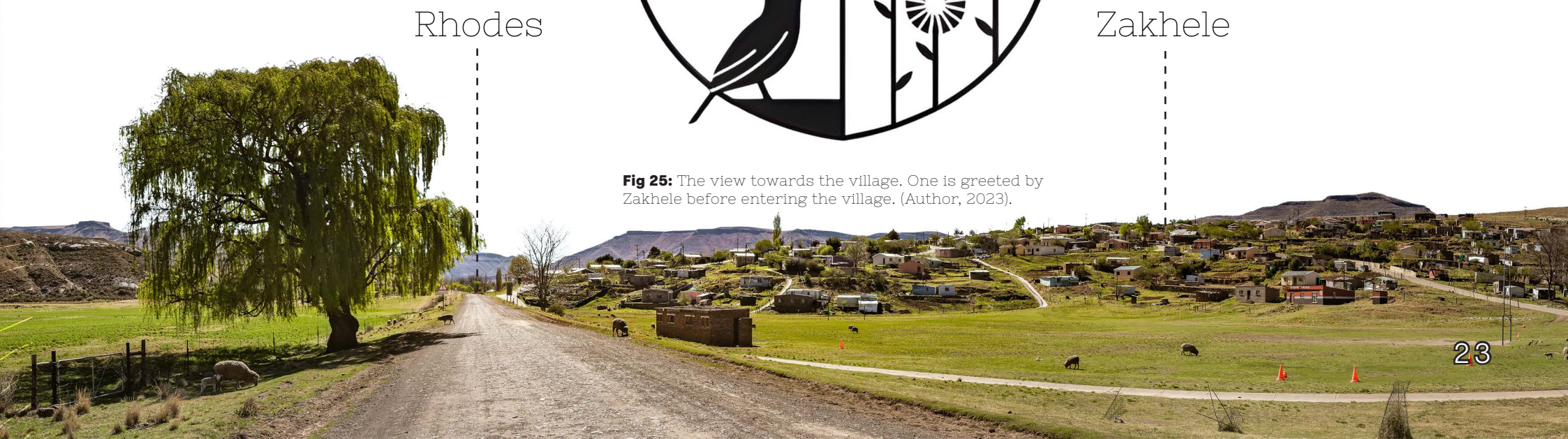


Fig 25: The view towards the village. One is greeted by Zakhele before entering the village. (Author, 2023).



Fig 27: The strict layout of the village is clearly visible to this day (Google earth, 2023: online. Adapted by author).

Rhodes Village

The development of the village has been characterised by a restrained approach, primarily due to the strict preservation of the grid layout upon which the town is founded. This preservation has been necessitated by farmland boundaries that limit the expansion of urban sprawl (Peters, 1998: 29).

Upon entering the village from the western edge of Muller Street, visitors are not met with an elaborate entrance but rather a few small road signs advertising tourist accommodations and activities. From here, the village emerges, with Zakhele's houses and the tree-lined streets coming into view. The central axis of Muller Street leads directly into the village. However, it abruptly ends at the local police station , a rather unremarkable building that contrasts with the surrounding local context, thus causing a sense of alienation from the village . To exit the village on the eastern side, one must change onto Naude's neck road before moving onto Main Street which leads out of the town and eventually ascending into the mountains.

Another significant axis within the village is Church Street, which runs from the Bell River in the South and ascends the gradient, ultimately leading to the sloped southern site of the village where the sandstone school building is located. This particular site has been chosen for the current project. Along this axis, one encounters the Dutch Reformed Church and the Post and Magistrate's Office, both pivotal buildings in the village, constructed of the same sandstone material as the school building at the end of this axis.

The village's development has been marked by a balanced approach, carefully preserving the integrity of its grid layout while allowing for a more organic layout in the informal settlement of Zakhele. The entrance to the village may be understated, but the tree-lined streets and essential buildings along the central axis of Muller Street contribute to its unique charm.



Fig 29: There is a lighthearted and creative presence within the formal Victorian village. (Author, 2023).



Fig 28: Only after one has passed the settlement of Zakhele the village of Rhodes reveals itself (Author, 2023).

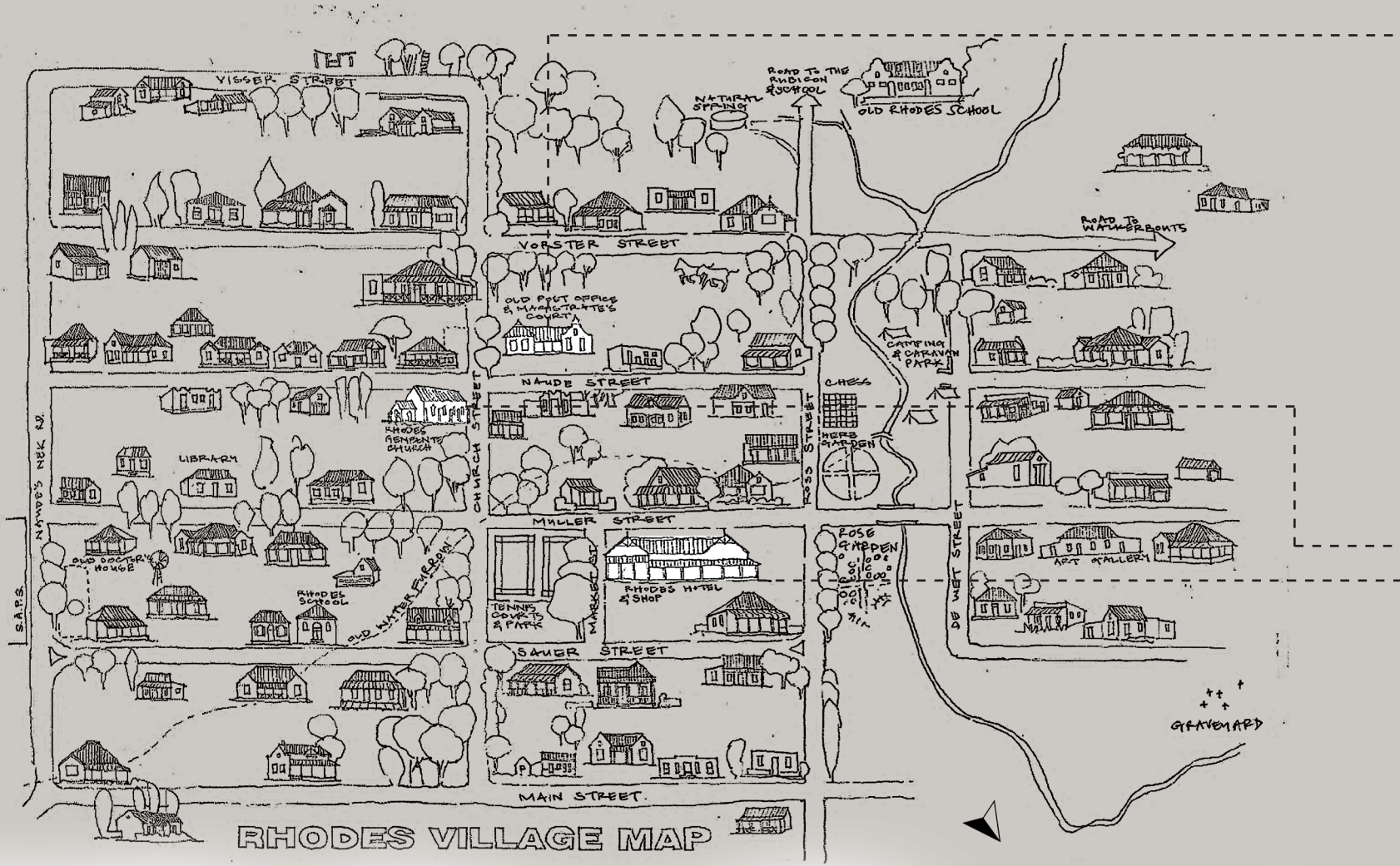


Fig 30: A hand drawn map of the current built structures within the village. (McCully, 2019: Online)





Fig 31: The Rhodes hotel has recently been restored to its former glory. (Author, 2023)

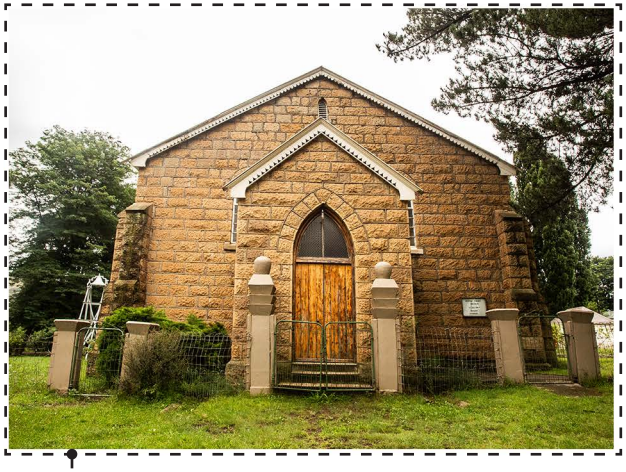


Fig 32: The Dutch reformed Church is still in used by the local religious community (Author, 2023).



Fig 33: The Post office and magistrates Court, standing vacant, is located opposite the church. (Author, 2023).



Fig 34: Only after one has passed the settlement of Zakhele the village of Rhodes reveals itself (Author, 2023).



Fig 35: The layout of Zakhele is informal and guided by the contours (Google earth, 2023: online. Adapted by author)

Zakhele

The township located on the south-western edge of the village bears the name Zakhele, which translates to 'self-help' (Peters, 1998: 22). While the exact establishment date of Zakhele remains uncertain, references to its existence can be traced back to as early as 1917 in the records of the Village Management Board (Peters, 1998: 16). Over time, Zakhele has experienced considerably faster growth compared to the original village of Rhodes. The majority of houses in Zakhele have been constructed using bricks, mud, and some stone, with additional concrete brick structures manufactured on demand by residents along the banks of the Bell River.

A notable juxtaposition arises between the township of Zakhele and the original village of Rhodes. Unlike the village's strict governance and adherence to regulations, Zakhele's brick-paved roads exhibit signs of modern activities and interventions, contributing to a discernible difference between the two areas. Moreover, the absence of tree-lined lanes in Zakhele accentuates its relatively bare appearance compared to the village. The layout of the settlement in Zakhele is characterized by a more organic and less formal structure, largely influenced by the natural slope of the landscape.

As a crucial visual component in the overall setting of the town, the development of Zakhele necessitates careful attention to prevent its expansion from disrupting the rural and tranquil character of Rhodes. Preserving the town's serene atmosphere is paramount, and therefore, a thoughtful approach should be taken in managing the growth and visual impact of the township.



Fig 37: There is a clear contrast between the layout of Rhodes and that of the settlement of Zakhele (Author, 2023).

Fig 36: The settlement of Zakhele is scattered with plain houses and few trees, much different to the village of Rhodes with its tree lined streets and Victorian houses (Author, 2023).



Building Styles

The organization of plots of land within the village was such that houses served as buffers, with private activities such as agricultural work directed towards the rear, while a more refined public facade faced the street. The close proximity to the street allowed residents to sit within the privacy of their stoep while still maintaining the ability to observe and interact with passersby in the street. The village exhibits a diverse array of architectural styles, with the most prominent examples including Victorian cottages, karoohuisies, and rural vernacular structures. The majority of the houses in the village, except for a few newer additions, are single-story structures, emphasizing a strong horizontal orientation. The streets are wide, and the plots of land are long and narrow, adorned with abundant plants and foliage. As a result, due to the vast scale of the natural environment, the village appears nestled beneath the large trees when viewed from a distance. (Peters, 1987: 51).

Victorian houses in the village feature double-pitched or hipped corrugated iron roofs, complemented by verandas. Notably, Victorian cottages exhibit delicate timber balustrades and ornamentation, in contrast to the cast iron adornments more commonly found in larger city centers. The choice of timber was driven by the challenges of transporting heavy cast iron materials to this rural location. Large timber sash windows characterize the facades of these cottages (Peters, 1987: 51).



Fig 38: a Victorian house in Naude Street (Author, 2023).

Rhodes karoohuisies are easily identifiable within the village, distinguished by their rectangular plans, mono-pitched roofs, and parapet walls. Exhibiting Georgian influences, these karoohuisies maintain a lack of ornamentation and showcase precise proportions between the architectural elements. The facades are adorned with spacious wooden sash windows and wooden front doors, artfully puncturing the thick walls (Peters, 1987: 51).

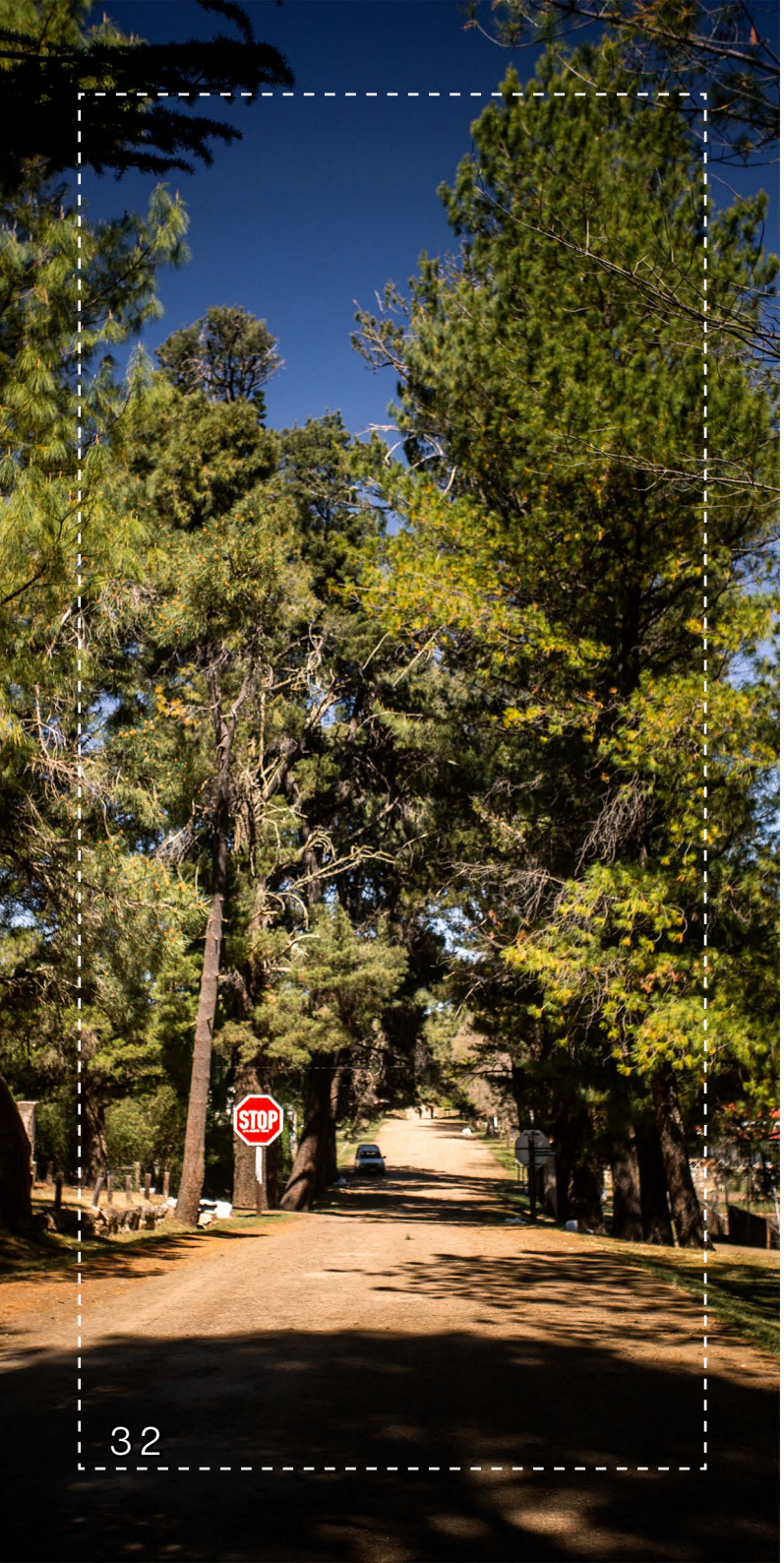


Fig 39: a Rhodes karoohuisie in Main Street (Author, 2023).

Rural vernacular architecture in the village embraces simplicity, featuring rectangular plans with double-pitched roofs. Many of these structures once served as barns, some positioned lengthwise along the street with the gable facing the long side, while others have the gable situated on the short end, facing the street. Functionality takes precedence over ornamentation in these buildings, reflected in the unadorned gables (Peters, 1987: 73).



Fig 40: a Rural Vernacular inspired house in Naude Street (Author, 2023).



Vegetation

Apart from its buildings, the village of Rhodes stands out in the valley due to its lush tree population. Situated above the natural tree line in South Africa, the village does not host large indigenous trees. Instead, it is graced with well-established exotic tree species, which play a pivotal role in creating the distinctive atmosphere for which Rhodes is renowned. These trees are highly cherished within the village and are protected by various regulations (Rhodes Aesthetics Committee, 2022: 15). However, with many trees reaching their life expectancy, there is a concerted effort to plant new trees to ensure a smooth transition between the declining and newly growing ones. A recommended approach is to plant new trees in avenues of the same species, thereby preserving the original planting concept and ensuring visual continuity.

The village boasts a variety of tree species that are commonly found, such as Lombardy poplars, Arizona cypresses, insignis pines, pussy willows, weeping willows, Himalayan or Indian cedars, pin oaks, and silver birch trees (Peters, 1987: 29- 34). Additionally, a grove of grey poplar trees can be found in the donga one must cross to reach the school. These trees serve as an interface between the town and the conifers found on the school site. Despite being exotic, these trees have adapted perfectly to the area of Rhodes due to their frost resistance and drought tolerance (Peters, 1998: 30 - 34).

Furthermore, large cottage-style gardens are abundant throughout the village, adorning the surroundings of houses and filling empty spaces with delicate flowers. The presence of flowering plants adds a burst of vibrant color to the village, which is further enhanced by the contrasting backdrop of the numerous trees. In particular, flowering fruit trees, such as apple, cherry, and pear trees, thrive prolifically in the village.

These trees are highly valued and protected, with a dedicated focus on planting new trees to maintain the village's arboreal legacy. The abundant presence of cottage-style gardens and flowering plants adds to the visual appeal, further complementing the allure of Rhodes as a picturesque and inviting destination

Fig 41: Muller Street is lined with avenues of large Insignia Pine Trees (Author, 2023).



Fig 42: Indigenous Kniphofia flowers, locally known as 'Red hot pokers' or 'Vuurpyle' are abundant within the valley and village gardens. (Author, 2023).



Fig 43: The village rose garden features various different rose varieties which thrive in the harsh environment of Rhodes (Author, 2023).


Village towards the North
Grey Poplar trees
Pedestrian access
1828m
Two lanes Insignis Pine Trees
Donga
Footpath leading to the school
1832m
View towards the mountains
Zakhele towards the West
Terraces with stone retaining walls
Arizona Cypress Trees planted in 1937
Spiral aloe collection
HERITAGE
Traces of a formal garden
Village commonage
Sandstone School building built in 1924
Double garage built in the 1980's
NEW
Donga
NEW
NEW
Cottage built in 1980's
Access road to the site
Restaurant built in the 1980's
Vehicular accesss
Flattened area to accomodate a marquee tent for large events
1854m
Themeda triandra grassveld
Hiking trail
Village commonage
1851m

Micro Analysis
The site

Timeline : Site History

1916	The local school committee proposes a new school be built
1917	The site south of the village is identified as a suitable site for the new school
1918	The site was given to the village by the government to build the school
1924	Construction of the new school is complete
1928	The school consist of Standards 1 to 8, 112 students, four teachers
1937	The avenue of Insignis Pine and Arizona Cypress trees leading up to the school is planted
1947	30 -40 students, and three teachers remains, teaching up to standard 8
1948	Closed down standards seven and eight classes
1967	Only One teacher and 20 students remain
1974	The school closed down
1980	Used as a base by the defence force
1985	Bought by the Rheeders family and converted into holiday accommodation
1985	New restaurant, double garage and cottage built
1986	Sandstone school building declared a national monument

Fig 44: (Left) The site of the project is located towards the South of the village of Rhodes (Google earth, 2023: online. Adapted by author).

Fig 45: (Right) A timeline of activities on the site in the past century (Author, 2023).



Fig 46: The large Insignia Pine trees dwarf the sandstone school building perched on the top of the hill. (Author, 2023).

Terrain

The erf indicated as "Rhodes educational site" in old documents, is located towards the South of the village on a small hill which overlooks the village. Acquired by the village in 1916, the site is 32 000 square metres with a 20m fall from the South to the North. The gradient is at its steepest in the North East corner of the site which might prove challenging for any built structures to be erected in that area. South of the original school building the gradient is much less and a large flat area is present between the original building and the new additions before the slope returns and gradually increases up the mountain. Pedestrian access to the site is from the northern point of the site, with a walkway between 2 lanes large of Insignis Pine trees up the hill to large terraces with stone retaining walls in front of the North façade of the building. They are constructed from river rocks in the area. They are essential to the design and landscaping of the site. This is the route local school children took each morning to school. Vehicular access to the site is from the West of the site by driving through the village's common grazing space.

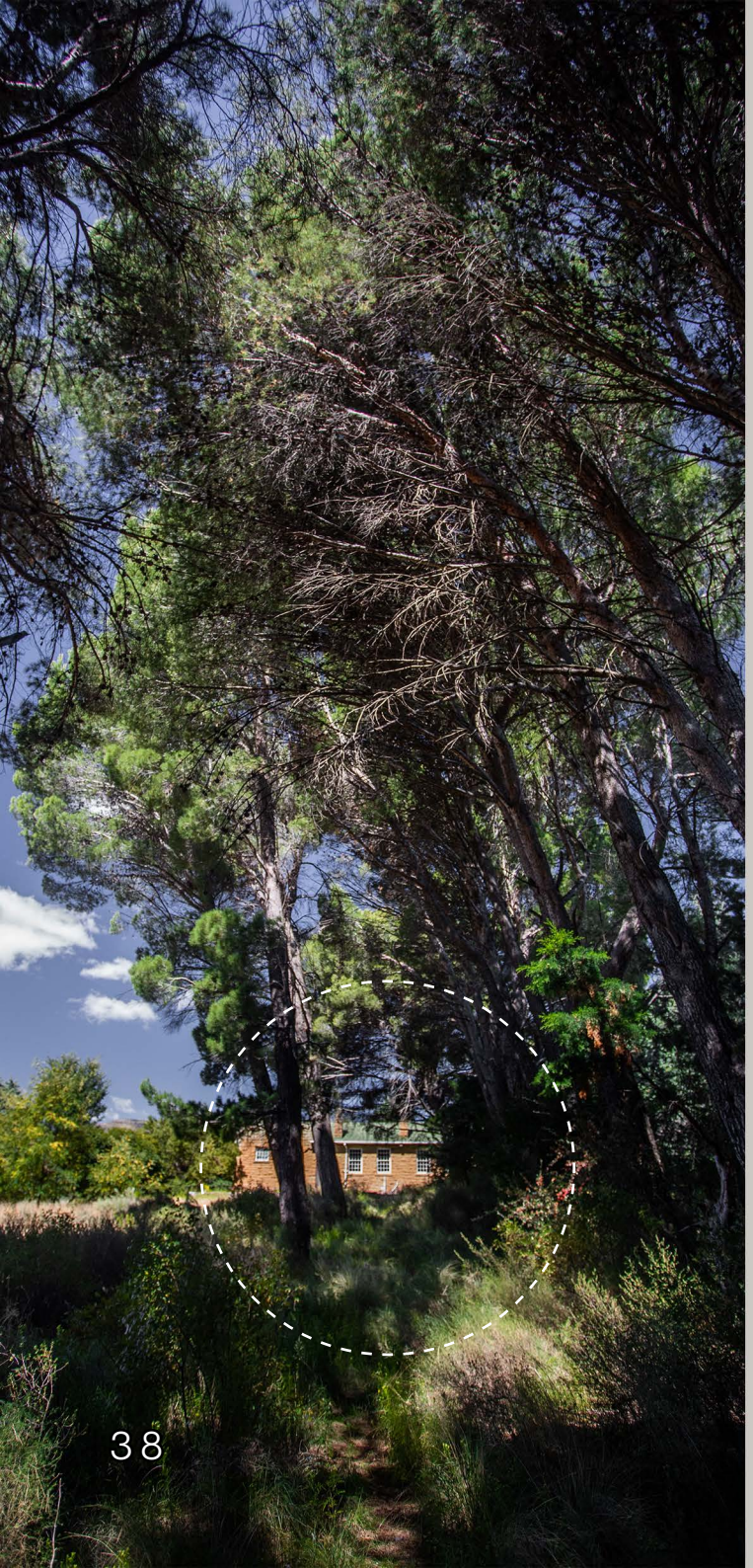






Fig 48: (Below) The school building is perched on the hill South of the village in a position of power overlooking the settlement. (Peters, 1987: Adapted by author).

Fig 47: (Above) The large stone terraces North of the sandstone school building are an essential part of the design of the existing school. (Author, 2023).



Vegetation

One of the most prominent features on the site is the grand avenue of towering Insignis pine trees, which begins at the northern entry point and leads uphill to the front of the school. Many of these trees have reached near maturity, and some are leaning at angles that suggest they may be approaching the end of their lifespan. However, uncertainty remains regarding the original spacing between the trees, as a larger opening between certain trees possibly indicates that some have already died.

In the northwestern corner of the site, there is an abundance of Arizona cypress trees, historical records indicating that both the pine and cypress trees were planted in 1937 (Peters, 1987, 33). Suckers from the Arizona cypress and insignis pine trees have proliferated throughout the site, giving rise to dense, bushy areas that conceal the original trees amidst their younger counterparts. Additionally, other varieties of trees, such as Weeping willows and acacia mop head trees, are present on-site. However, they are not indicated on early plans and documents about the site, thus lacking the same historical significance as the previously mentioned trees.

Notably, a large expanse of Themeda Triandra grassland, commonly known as Rooigras, is situated in the southern portion of the site. This grassland, characterized by its distinct reddish hue, adds further natural diversity to the site.

Fig 49: The view up the footpath which was used by students while the school was still functioning (Author, 2023).

Fig 50: Themeda Triandra, Rooigras, is abundant on the site. (Author, 2023).

In front of the northern facade of the building, the owners who acquired the site in the 1980s have diligently cultivated a remarkable collection of the highly sought-after spiral aloes, specifically Aloe Polyphylla. This species holds the distinction of being the national plant of the Kingdom of Lesotho and is native to the surrounding mountains of the village. The spiral aloes are highly prized and admired by plant enthusiasts, and their survival is reliant on cooler climates that mimic their original habitat.

In conclusion, the site's noteworthy features encompass a magnificent avenue of Insignis pine trees leading to the school's front, accompanied by an abundance of Arizona cypress trees. Additionally, the presence of Weeping willows and acacia mop head trees adds to the site's botanical diversity. The expansive Themeda Triandra grassland contributes to the natural landscape of the southern portion. Furthermore, the dedicated cultivation of the celebrated spiral aloes by the site's owners exemplifies their commitment to preserving and enhancing the site's natural charm.

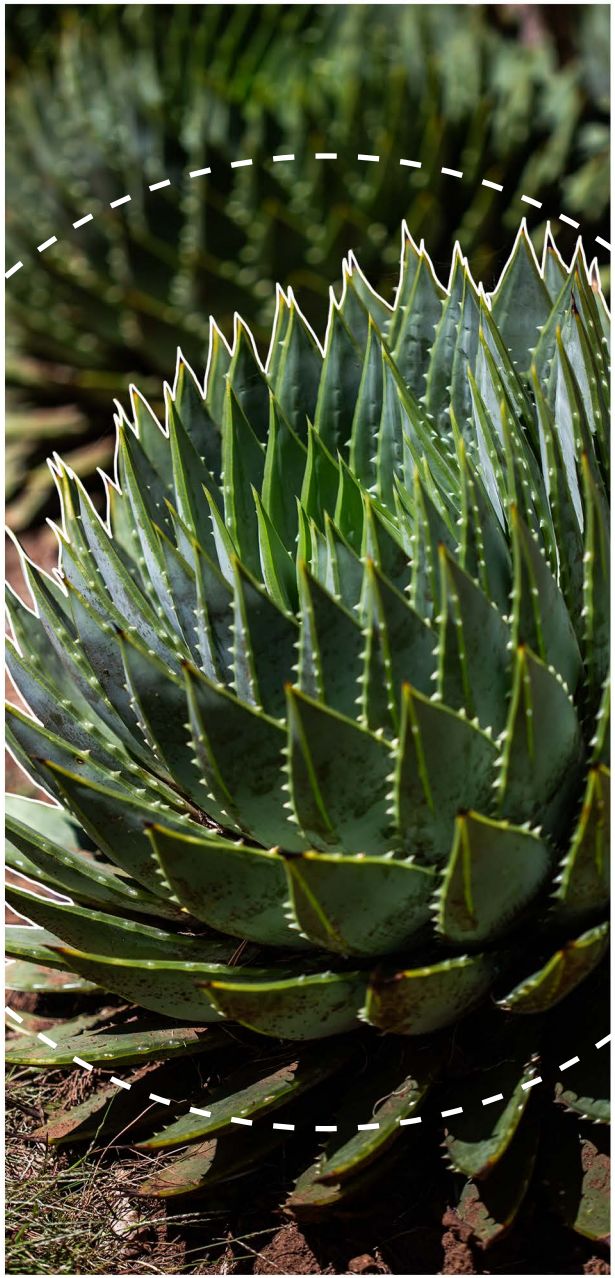


Fig 51: One of the Spiral Aloe's in the collection (Author, 2023).



Fig 52: The large collection of Aloe Polyphylla in front of the Northen facade of the building which many plant collector envy. (Author, 2023).

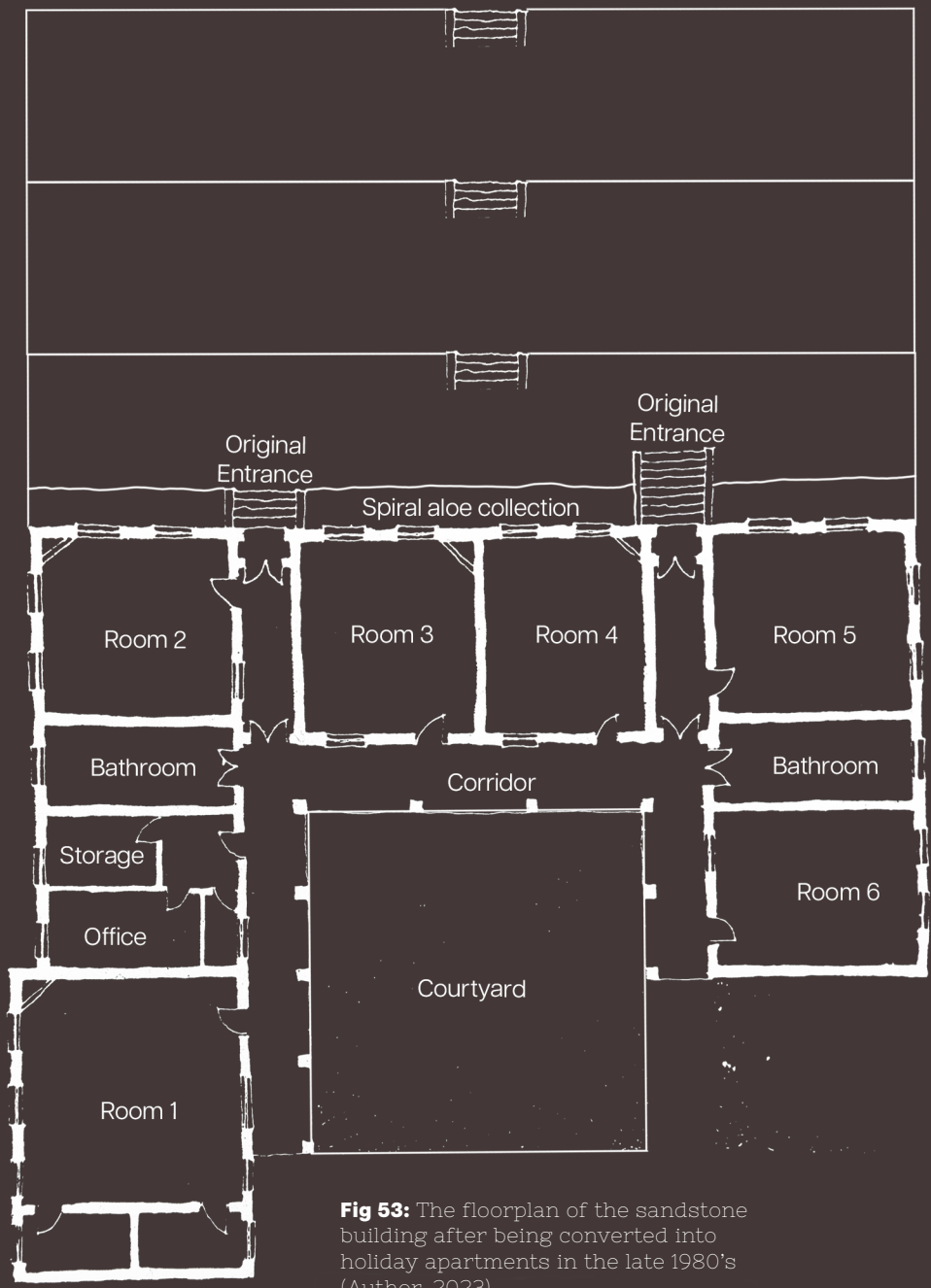


Fig 53: The floorplan of the sandstone building after being converted into holiday apartments in the late 1980's (Author, 2023).



Fig 54: The Gables are a Sandstone Baroque Cape Dutch Revival style. (Peters, 1987).

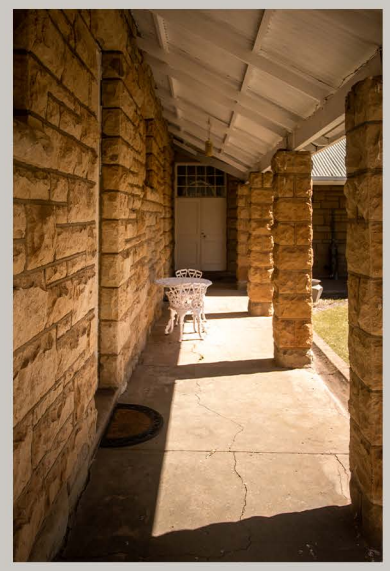
Buildings

Completed in 1924, the sandstone building was originally erected as the village's inaugural official school facility. Its U-shaped design, featuring prominent gables on both ends of the front facade, encompassed six classrooms, administrative space, and separate male and female ablution areas. This arrangement created a sheltered courtyard space towards the southern section of the building, enclosed by a walkway topped with a corrugated steel roof, connecting all the classrooms (SAHRA, 2012: Online). The building fulfilled its educational role until 1974, when the declining number of children in the village rendered the school unsustainable. Subsequently, the defense force briefly occupied the premises before it was ultimately purchased by a local farmer and his wife, who transformed it into a holiday accommodation that remains operational to this day(Peters, 1987: 9) .

Despite persistent rumors attributing the school building's design to renowned architect Sir Herbert Baker, such claims have been proven inaccurate due to Baker's departure from the country in 1913 (Peters, 1987: 87). Moreover, the building's architectural elements deviate from Baker's typical style, including the flatter gables, insufficiently projecting side wings, and a lack of double and shallow windows characteristic of Baker's works. Instead, it is more likely that Architect H Siemerink, working for the Public Works Department, was the actual designer of the school building. Siemerink had prior experience collaborating with Sir Herbert Baker on the Union Buildings during his tenure at the Pretoria public works department before relocating to Port Elizabeth to continue his career (Peters, 1998: 15).



Fig 55: The stately Northern facade of the school building has become an important visual from the village . (Author, 2023).



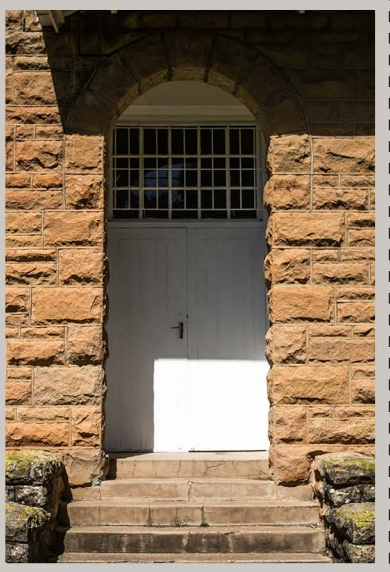
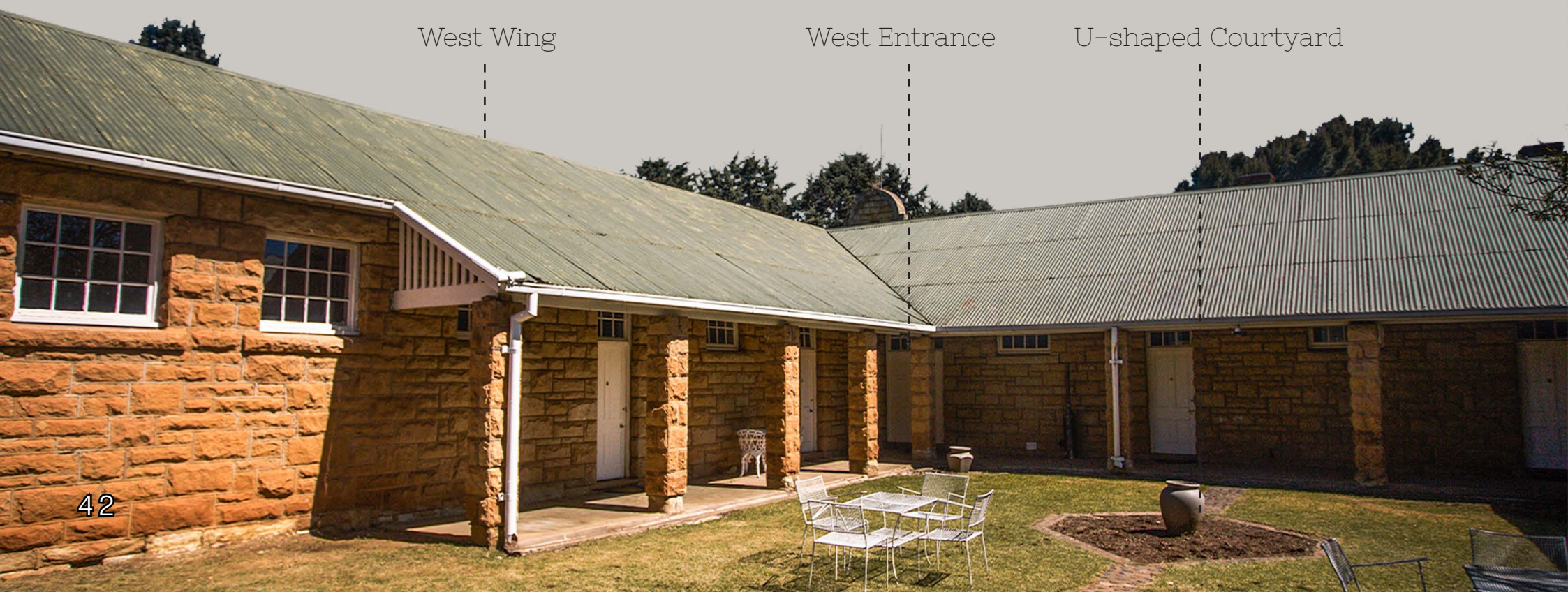


Fig 56: (Far left) The stoep connects all the different spaces of the building and is an important feature which needs to be retained (Author, 2023).

Fig 57: (Left) The Eastern entrance on the Northern facade of the building welcomed students every morning. (Author, 2023).

Fig 58: The Western wing, connected to the rest of the building by the stoep, has an extension added, breaking the symmetrical floorplan the building initially had (Author, 2023).

Constructed of durable sandstone, akin to the Dutch Reformed Church and Post Office/Courthouse within the village, the building exudes solidity and historic charm. Arched entrances on the front facade lead to the rear courtyards. The western wing underwent extension in later years. Beyond its architectural significance, the building's prominent position on a hill overlooking the town imparts an acropolis-like aura to the village. The building is strategically linked with an avenue of trees running along the axis of Church Street, further enhancing its relationship with the town.



As the village has been designated a conservation area, the building has earned the distinction of being a heritage resource, recognized by SAHRA (South African Heritage Resources Agency) (SAHRA, 2012: Online). However, newer additions made by subsequent owners towards the southern section of the site, such as a restaurant, cottage, and garages, do not hold historical value and appear incongruous on the site. While the restaurant operates on selective dates, the cottage serves as onsite storage access, and the garages have been repurposed as a wool-weaving workshop.

The sandstone building bears historical and architectural significance. Given its heritage status, the building has been preserved as a valuable legacy of the village's past, while certain newer additions on site, although practical, lack historical relevance and harmony with the site's original character

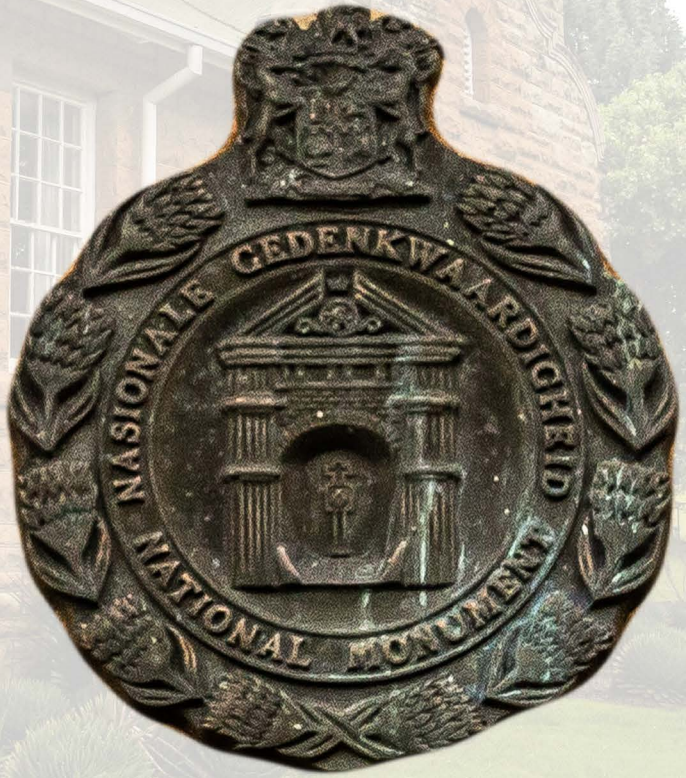


Fig 59: The building is classified as a national monument. SAHRA code - 9/2/007/0007 (Author, 2023)



Fig 60: The restaurant added in later years still caters to the public on specific days. (Author, 2023)



Fig 61: The cottage, east of the restaurant is currently uninhabited and used as storage. (Author, 2023)



Fig 62: The double garages has been converted to house a wool processing facility of a small local business. (Author, 2023)



Fig 63: a Conservation strategy is important to ensure historical features and the ambiance of the site is correctly addressed. (Author, 2023)

Conservation Strategy

Rhodes Village is renowned for its profound cultural and heritage significance, necessitating deliberate consideration when embarking on regional projects. Numerous governing bodies and regulatory frameworks exist to assess structural appropriateness and provide directives for engaging with heritage structures. An amalgamation of these diverse guidelines culminates in the creation of a comprehensive and site-specific resource. One such exemplar is the Rhodes Village design guidelines for homeowners, conceived by the Rhodes Aesthetics Committee in 2022.

This document's overarching objective is to facilitate homeowners in the village in their endeavors to design and erect new structures while concurrently ensuring that any alterations or new constructions seamlessly integrate with the established village aesthetics. By steadfastly adhering to these guidelines, homeowners can incorporate heritage elements that distinctly characterize Rhodes, thereby preserving the village's prevailing character and architectural proportions.

Notably, Point 16 within these guidelines, in alignment with the Conservation Principles delineated by the South African Heritage Resources Agency, permits contemporary design, alterations, and additions within historical settings. This allowance is contingent on the stringent stipulation that these interventions must not compromise the historical and architectural fabric or disrupt the existing scale and character.

The Rhodes Aesthetics Committee plays a pivotal role in overseeing the village's compliance with these guidelines, exercising strict governance over permissible activities within the community. While these regulations may appear to be restrictive, they emanate from a genuine concern for safeguarding the village's distinctive character. Nevertheless, it is essential to acknowledge that, on occasion, these regulations have inadvertently led to the emergence of imitative Victorian-style buildings that do not enrich the area's heritage value.

The ensuing guidelines have been delineated with the overarching aim of ensuring that any modifications and new additions to the site of the proposed project effectively preserve the historical essence of both the site and the village. Simultaneously, they aim to prevent any sense of detachment from the contextual fabric while permitting the integration of contemporary interventions



Proportions

Rhodes Village's preservation of its historical charm is achieved through size restrictions on construction. This fosters an architectural landscape of interconnected, smaller buildings. These measures sustain a cohesive, intimate ambiance, safeguarding architectural heritage.

Existing buildings

The site includes several structures: the original sandstone school building, a restaurant, a double garage, and a cottage. Except for the school building, the new buildings, added in the 1980s with no historical significance, may be demolished. Any mention of the "existing building" refers exclusively to the sandstone school structure. Due to limited local materials and the need for imports, recycling materials from demolished buildings is crucial in constructing the new facility.

Additions

In accordance with Rhodes Heritage guidelines, the village restricts site coverage to 50%, encompassing houses, garages, outbuildings, and carports. Although this requirement may not directly apply due to site size, minimizing coverage remains crucial for functionality and minimal impact. Additions in front of the sandstone school building's northern side must be minimal, preserving views from the village. New additions will respect the existing structure's shape and proportions, primarily placed southward to avoid compromising its visual integrity and distinctive gables. Acknowledging the original building's purpose, new additions should consider the presence of Zakhele, an adjacent informal settlement, integrating their needs and perspectives for an inclusive development that respects the village's socio-cultural fabric.

Fig 64: a very small amount of the total site area is built structures (Google earth, 2023: online. Adapted by author).

Height

Extensions to the old school building must not exceed 3 meters in height above the existing structure's tallest point, unless an additional story is added. This restriction aims to minimize visual impact, preserving the original gable's iconic view and maintaining aesthetic harmony. Village guidelines specify a 6.5-meter maximum height for structures, but this doesn't apply here, as the existing building already exceeds this limit.

Axis

The original school building holds a central and significant position within the village. It marks the terminus of a crucial axis known as Church Street, which links the three most prominent heritage structures in the vicinity: the Dutch Reformed Church, the Magistrates and Post Office, and the school building itself, perched prominently on the hill.

Recognizing the paramount importance of this axis, it becomes imperative to integrate its historical significance into the design of any new structures. This conscious effort ensures the continuity and preservation of the village's rich architectural heritage. It's important to note that this axis primarily serves the village and does not extend to the neighbouring informal settlement. To address this distinction, a secondary axis should be introduced in the new design. This secondary axis would acknowledge and accommodate residents from Zakhele, who are set to play a significant role in the proposed project. This inclusive approach respects and integrates the diverse socio-cultural fabric of the village

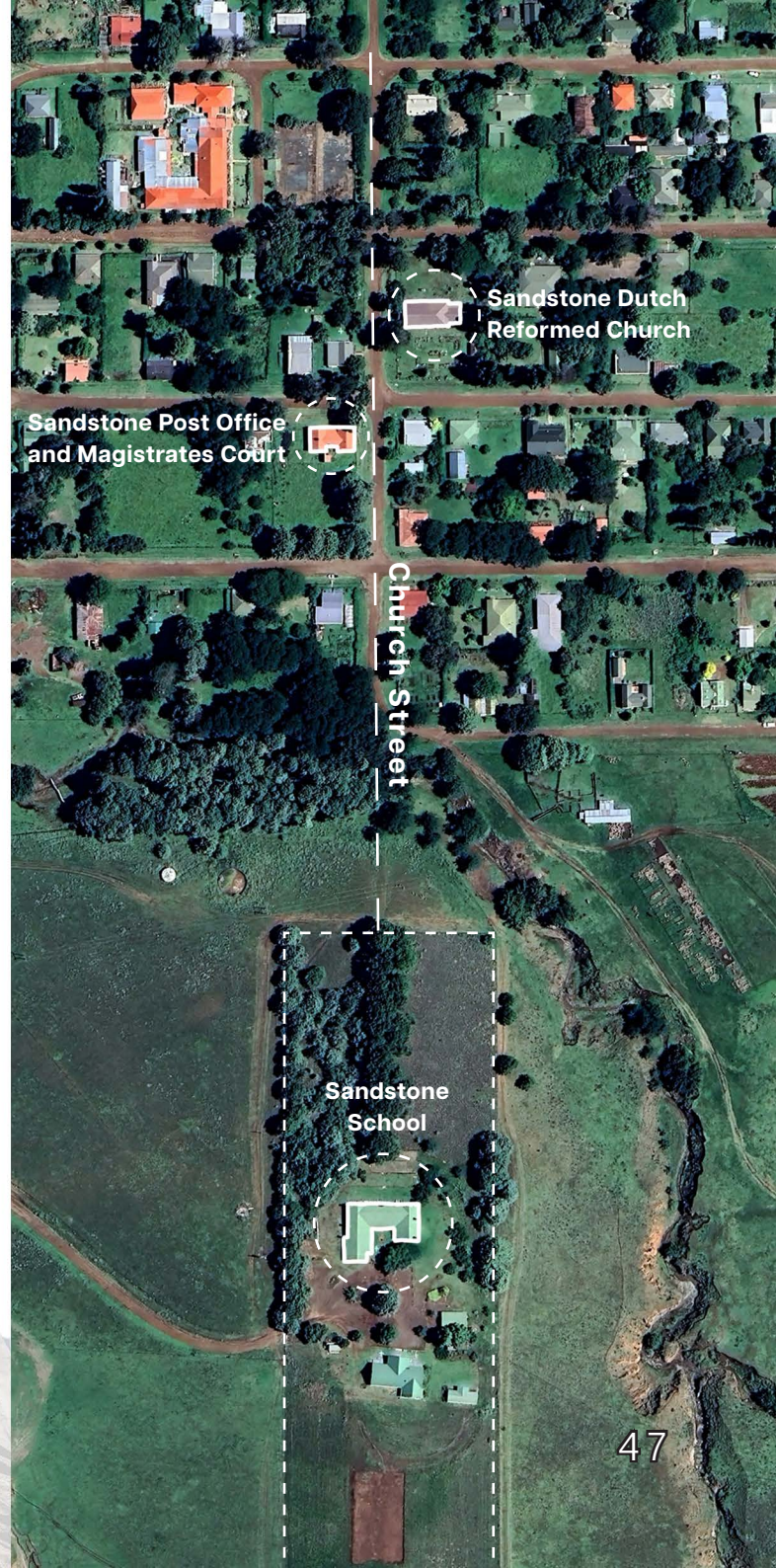


Fig 65: Church Street connects the three historic sandstone buildings in the village (Google earth, 2023: online. Adapted by author).

Walls

The Rhodes committee's guidelines offer several wall construction options, such as plastered or bagged brick, exposed red clay brick, corrugated iron, and stone. Regarding stone, local sourcing is essential, either through earth collection or cutting from nearby boulders. Round river rocks from the area should be avoided, and the chosen stone should align with the prevailing stonework seen throughout the village.

Considering Rhodes' diverse climate conditions, ranging from intense heat to extreme cold, it becomes imperative to take insulation measures. Brick walls should have a minimum thickness of 300mm, incorporating a cavity for appropriate insulation. It's noteworthy that the school building's existing exterior walls measure 500mm in thickness, featuring exposed sandstone externally and plastered and painted internally.

While interior walls may be modified or removed for better spatial flow, it remains crucial to acknowledge these changes in the new design to ensure a sense of continuity and coherence.

In the local context, weathered or rusted corrugated metal is a common sight and symbolizes the rural South African landscape. Therefore, it may be employed, alongside more contemporary options like cor-ten steel.



Fig 66: The school building's walls feature intricate and precise sandstone patterns(Author, 2023).

Fences

Fences serve to ensure privacy, security, and deter farm animals from entering. Village and district standards recommend farm-style fences with diamond mesh on wooden poles or steel droppers, along with matching farm gates. Barbed wire fencing is also allowed. These choices align with local practices and are labor-friendly. Additionally, hedges are suitable for enclosing specific areas, following the village's common use of this approach.

Fig 67: The site and commonage West of the site is fenced off with barbed steel wire fencing. (Author, 2023).



Landscaping

Driveways should prioritize natural surfaces such as grass, gravel, flat stone, and permeable paving, with asphalt prohibited to maintain the village's character.

Existing stone terraces on the northern side, situated between the tree-lined lane to the school and the northern facade of the original building, require careful integration. While some parts may need repair or replacement, preserving their essence is crucial. New terraces on other areas of the site should seamlessly blend into the landscape to avoid creating stark boundaries between built structures and nature.



Fig 68: Existing terraces are important features of the site and needs to be repaired and incorperated into the new design (Author, 2023).

Floors

The original school building employed Oregon pine floorboards, which, over time, lost their appeal due to floor polish application. Recently, all floors have been sanded and refinished to restore their natural characteristics. Whenever feasible, retaining these original floors is recommended. Salvaged wood can also be repurposed and incorporated into the new building structure.



Fig 69: The Oregon Pine floors have been restored to their former glory (Author, 2023).

Existing Building facades

The northern facade of the sandstone building, adorned with Sandstone Baroque Cape Dutch Revival gables at each end, must remain unaltered due to its significance as a symbol within the village.

Regarding the facades of the existing sandstone school building, excluding the main northern front facade, alterations are permissible if they improve the overall structure's experience. The school's architectural design focused on internal lighting, limiting outward views from interior windows. Consequently, window sizes can be adjusted to respectfully enhance interior views.

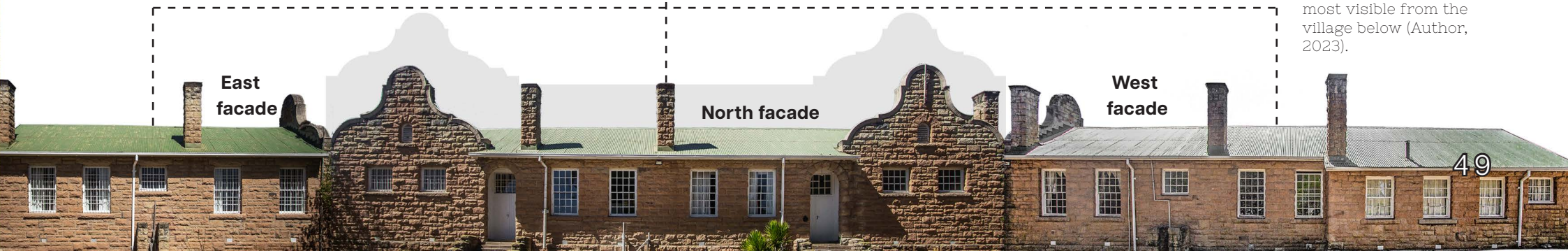


Fig 70: The existing building facades most visible from the village below (Author, 2023).

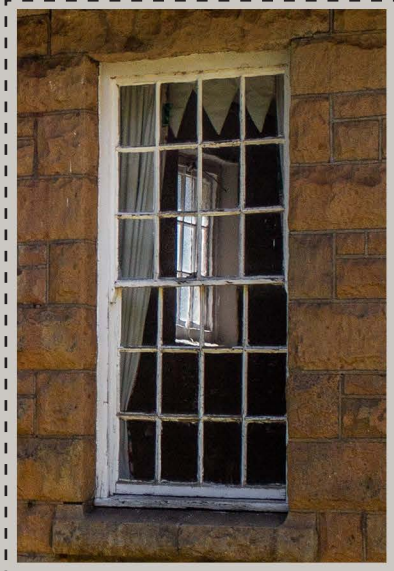


Fig 71: Many of the original windows have been damaged by the elements and needs repair or replacement (Author, 2023).

Windows

The original square-pane wooden sash windows of the school building have deteriorated with age and weathering, rendering many irreparable. When replacing windows, it is essential to select new ones that harmonize with the building's character and replicate the shape and style of the original windows. It's advisable to opt for smaller glass panes to facilitate transportation to the site given the challenging road conditions.

Roof structure

The existing roof structure, in satisfactory condition and original, can be preserved as is or exposed to reveal the interior roof design, with the condition of incorporating proper insulation. The roof's height offers the potential for adding a first-floor mezzanine level in most parts of the school building.

Stoep

The stoep, a culturally significant feature in South African homes, formed the circulation route in the school's courtyard. It comprised concrete paving with roof extensions supported by substantial sandstone columns. Preserving this stoep is crucial as it serves as a unifying element connecting various areas of the building.

Fig 72: The stoep is an essential part of the school building and has to be retained (Author, 2023).

Doors

All doors in the current structure are well-maintained, white-painted wooden doors. If these doors are relocated from their original positions, they should undergo refurbishment and repurposing in the new design.

Vegetation

Trees hold significant aesthetic and cultural value within the village, offering beauty, shade, and visual appeal. Given the village's high-altitude location above the natural South African tree line, the presence of large indigenous trees is limited. However, there is an abundance of drought and frost-tolerant exotic trees within the village and on the site.

Government regulations, specifically Government Notice 1074 of 1997, 3.1(c), require individuals to obtain permits from the Local Authority before removing trees from private property. Additionally, 4(d) specifies that removing trees from public areas necessitates a permit from the National Monuments Council (now SAHRA).

The lane featuring insignis pine and Arizona cypress trees on the site holds great significance and should not be removed unless they pose a threat due to deterioration. If trees must be removed, they should be replaced. Mop-head acacia trees, though non-indigenous and younger, may be removed if their ornamental nature poses risks due to multiple offshoots.

The site is home to a notable collection of spiral aloes (aloe polyphylla), the national plants of Lesotho and highly coveted by collectors. If removal is necessary, careful accommodation in the new design should be ensured.

Landscaped gardens on the site should predominantly feature indigenous plants. Any exotic plant species chosen should hold significance to the village or thrive in local gardens, enhancing their beauty. Given the village's reputation for exceptional gardens, meticulous attention to garden layout within the scheme is paramount.

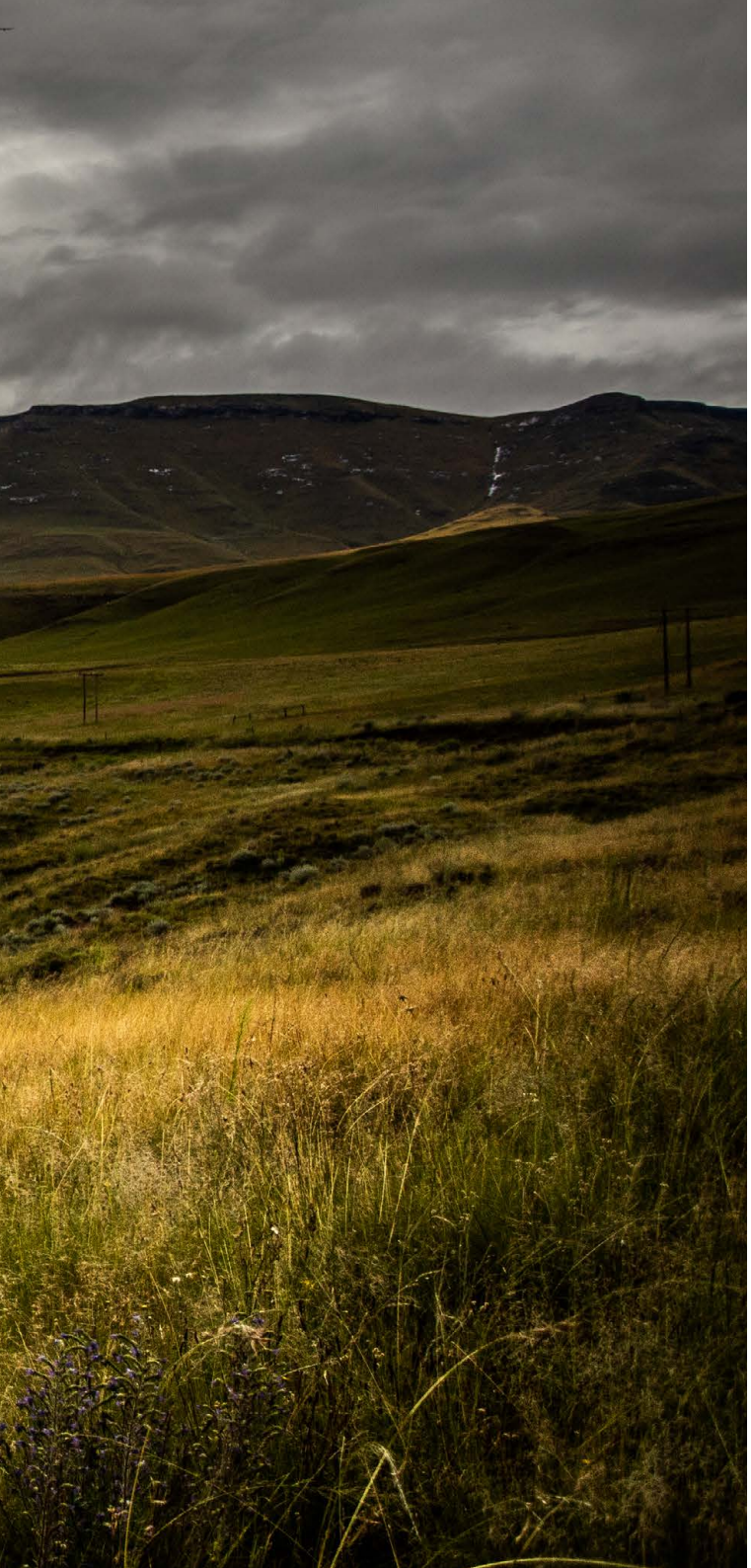
Fig 74: The remarkable crown of one of the spiral aloes found on site (Author, 2023).



Fig 73: Most of the exterior doors are still in good condition (Author, 2023).



Chapter 3



3. Conceptual Framework

3.1 Introduction

3.2 Touchstone

3.3 Concepts

The perennial
Down to Earth
The Anachronism

Fig 75: The Bell River, one of the main natural features within the valley (Author, 2023).



Fig 76: The touchstone reveals the layers of the landscape (Author, 2023).

Touchstone

Rhodes is an old-world time capsule within the ever-so-fast developing modern world. A place where handshakes are law and kindness is key. The main structures, anchor points within the landscape, are made from the place for the place, a careful balance between rooting itself in the context without overpowering the pre-existing natural orders. This balance is what helps to keep harmony.

Within the landscape, thousands of years of narratives are buried between the layers of sediment of years long gone, with constant natural erosion slowly revealing more with every passing season.

Within the layers, one will find the narratives of Rhodes, the narratives of the people, the indigenous, the pioneers, settlers, the modern-day nomad, and the stories of those still to come. One will find the narratives of the place, the echoes of the mountains and murmuring of the grass, the call of the birds and the bleating of flocks of sheep. One will find the narratives of the produce, the products of this natural environment, merino wool, natural oils and art from the landscape. These different narratives form the picture of Rhodes. They are hidden in plain sight from the unknown traveler.

Key role players within the landscape bind the valley together. The church is a point of spiritual experience; the hotel forms relationships; the gallery is a place to appreciate the creativity of the people from the village, the settlement of Zakhele, greeting visitors as they near the village, breathing life and movement into an otherwise quiet valley . The scheme aims to be, as such, a key role player anchoring the village even more, creating a space which educates and empowers the locals and the visitor. These role players, all within the same context, with the same people, work in harmony, not overpowering or dominating each other, but rather fulfilling whatever the other is lacking to meet the needs of the people. These role players, rooted within the different narratives, are all delicately connected.

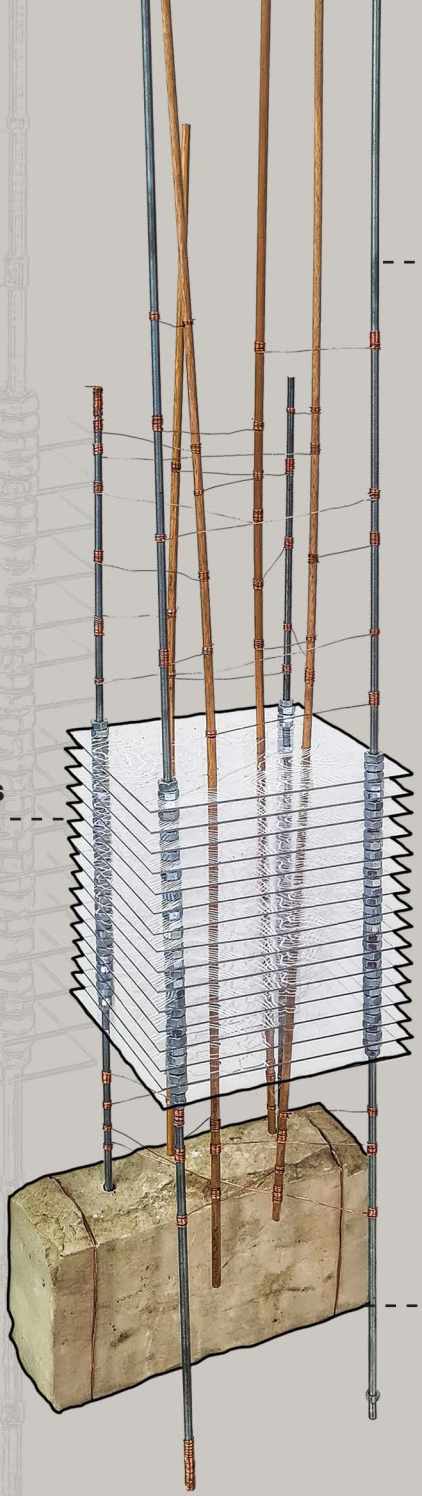
In essence, the project needs to be one of these role players within the village, meeting the needs of people longing for information and knowledge, cooperating with the other role players in the village to address and reveal the site-specific narratives of the people, place and produce.



Layers of **narratives**

Fig 77: The layers of narratives is expressed in the layers of the Perspex, marked with the site's graceful contours, each layer revealing more than the one below (Author, 2023).

Interconnected roleplayers



Rooted within the site

Fig 78: The Touchstone, a encapsulation of the essence of Rhodes (Author, 2023).

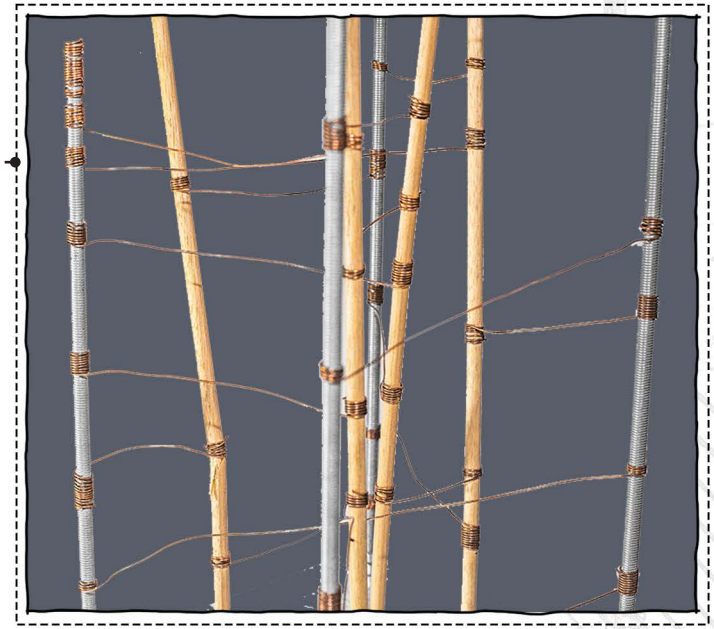


Fig 80: The dowels piercing through the layers of narratives represent the interconnected role players; rooted in the narratives, they also help root the narratives themselves. Not crossing paths but delicately connected through the stories of the place represented through the delicate copper wire connections (Author, 2023).

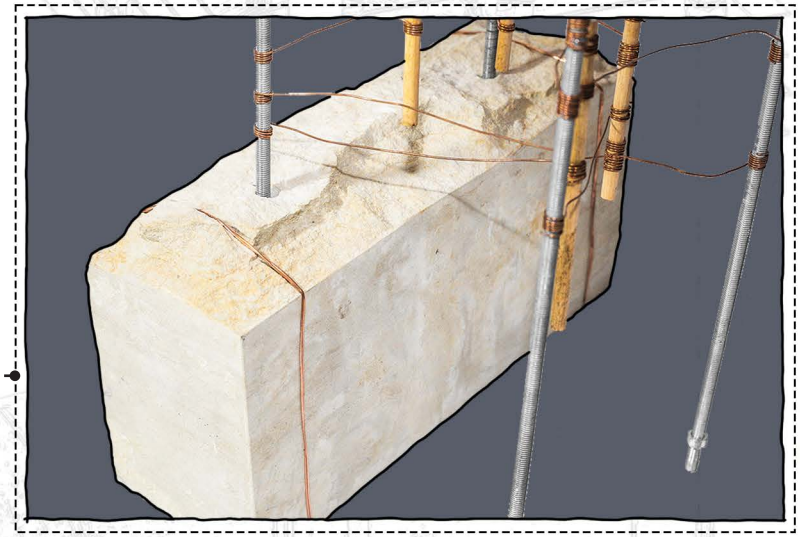
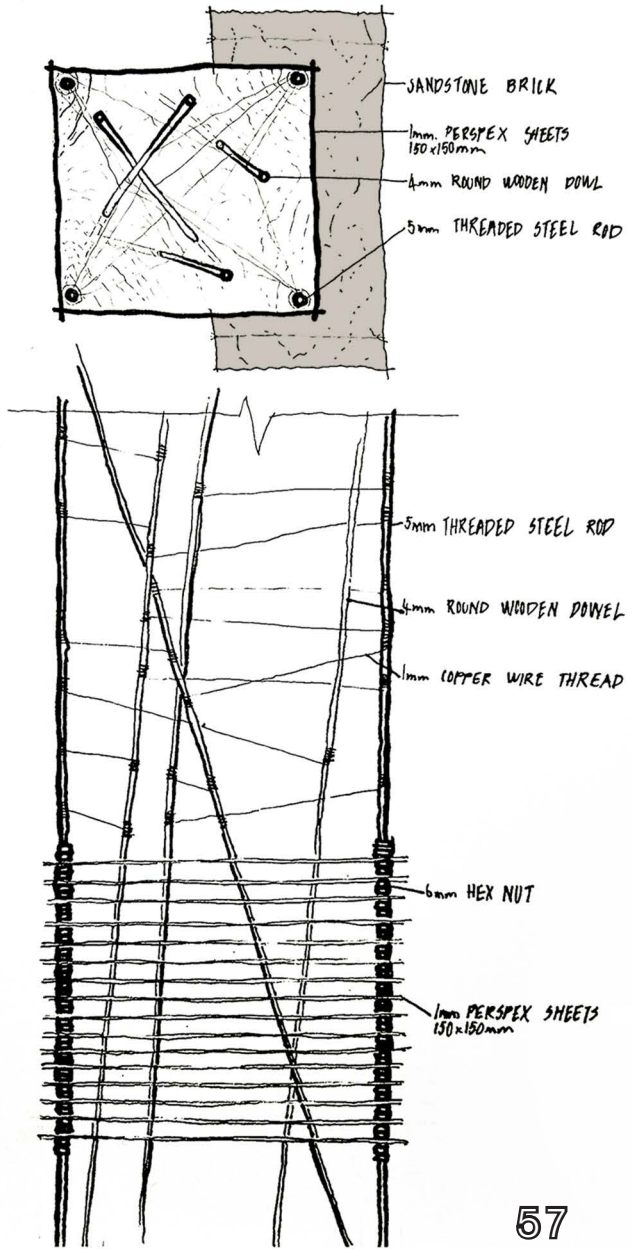


Fig 79: The sandstone represents the site; it must maintain the balance not to overpower existing conditions while maintaining its presence (Author, 2023).

Fig 81: The structure of the touchstone (Author, 2023).



Concept 1

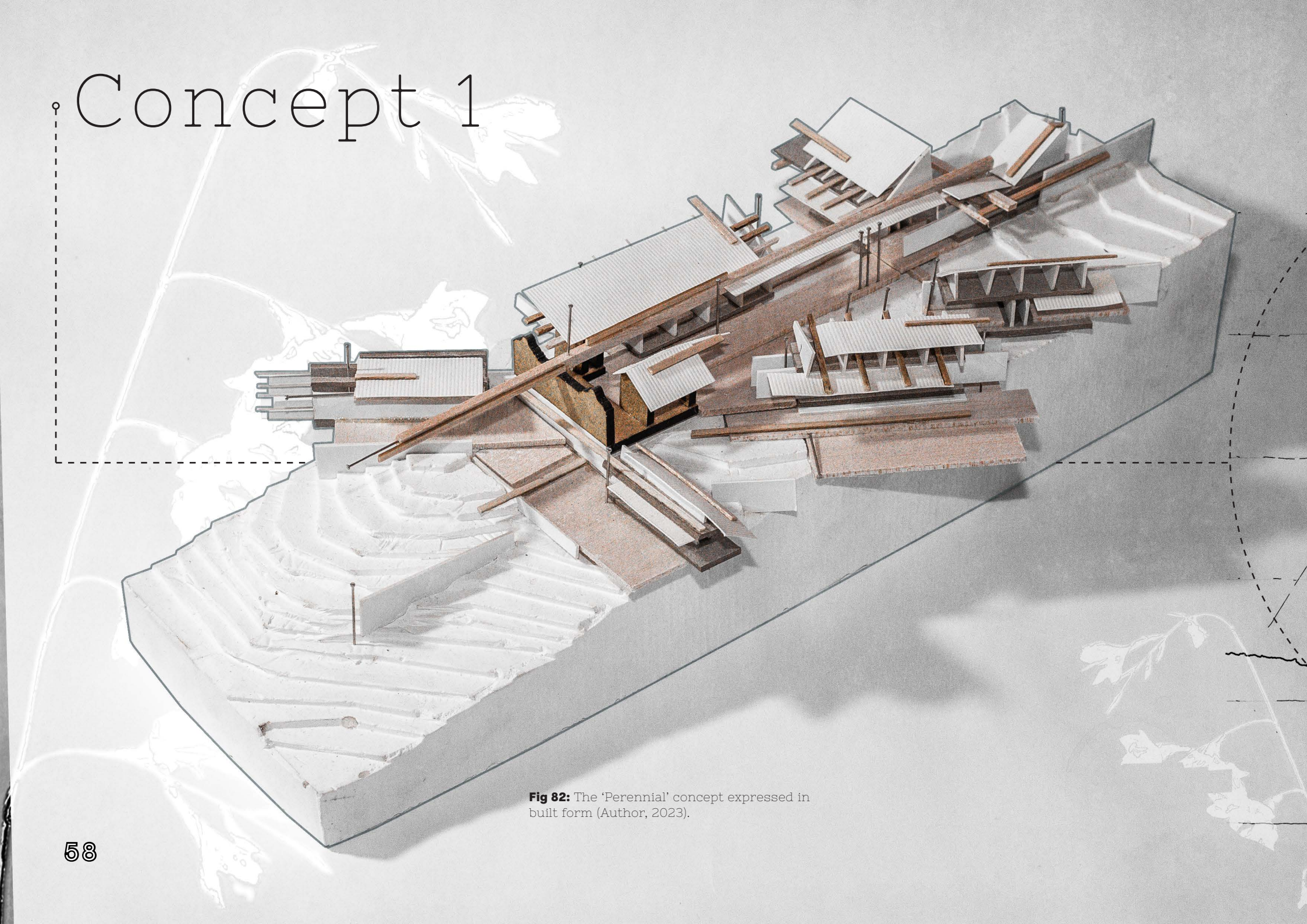


Fig 82: The ‘Perennial’ concept expressed in built form (Author, 2023).



Fig 83: The 'Perennial' concept encapsulates the notions of life and death, temporality and permanence, within nature, and within built structures (Author, 2023).

The Perennial

Indigenous perennial plants are abundant in Rhodes, disappearing in the colder months and re-emerging in spring, filling the landscape with colour.

The ideas of temporality and permanence are strongly present within Rhodes's context. Perennial plants live for multiple growing seasons and typically die back to the ground during winter, only to re-emerge from the ground in the spring. This cycle of growth, death, and rebirth is a fundamental aspect of the temporality of perennial plants. On the other hand, permanence refers to the perennial plant's enduring nature over time. While the individual plant may die back each year, the species continues to exist and evolve. Perennial plants have adapted to survive in a particular environment and have developed unique characteristics that allow them to persist over time.

The functioning of the village changes according to the seasons, and so should the building. Becoming a seasonally adaptive perennial structure, rooted deep within the site's context. Minimising its footprint times when visitors avoid the village and containing itself while still alive to allow for an explosion of growth and change once the visitors arrive.

The architecture needs to embody the temporality of the new growth, tectonic structures made up of branches, leaves and flowers anchored to the thick, fleshy stereotomic overwintering structures such as the roots, bulbs or tubers, structures of permanence. This design should anchor itself in the connections between temporality and permanence, a structure which is not static but changes over time due to weathering, use and climate while still being able to endure the test of time.

Concept 2

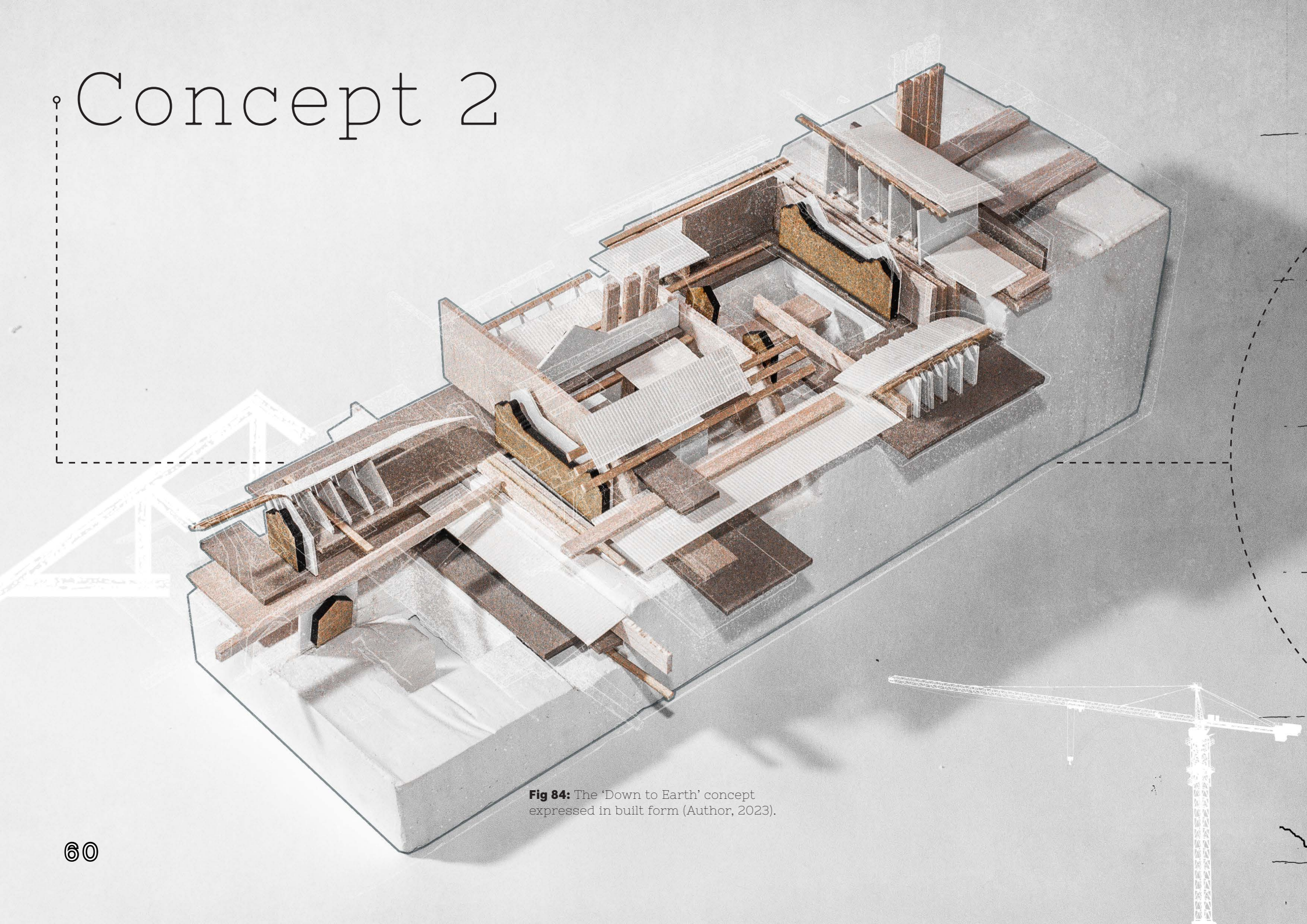


Fig 84: The 'Down to Earth' concept expressed in built form (Author, 2023).

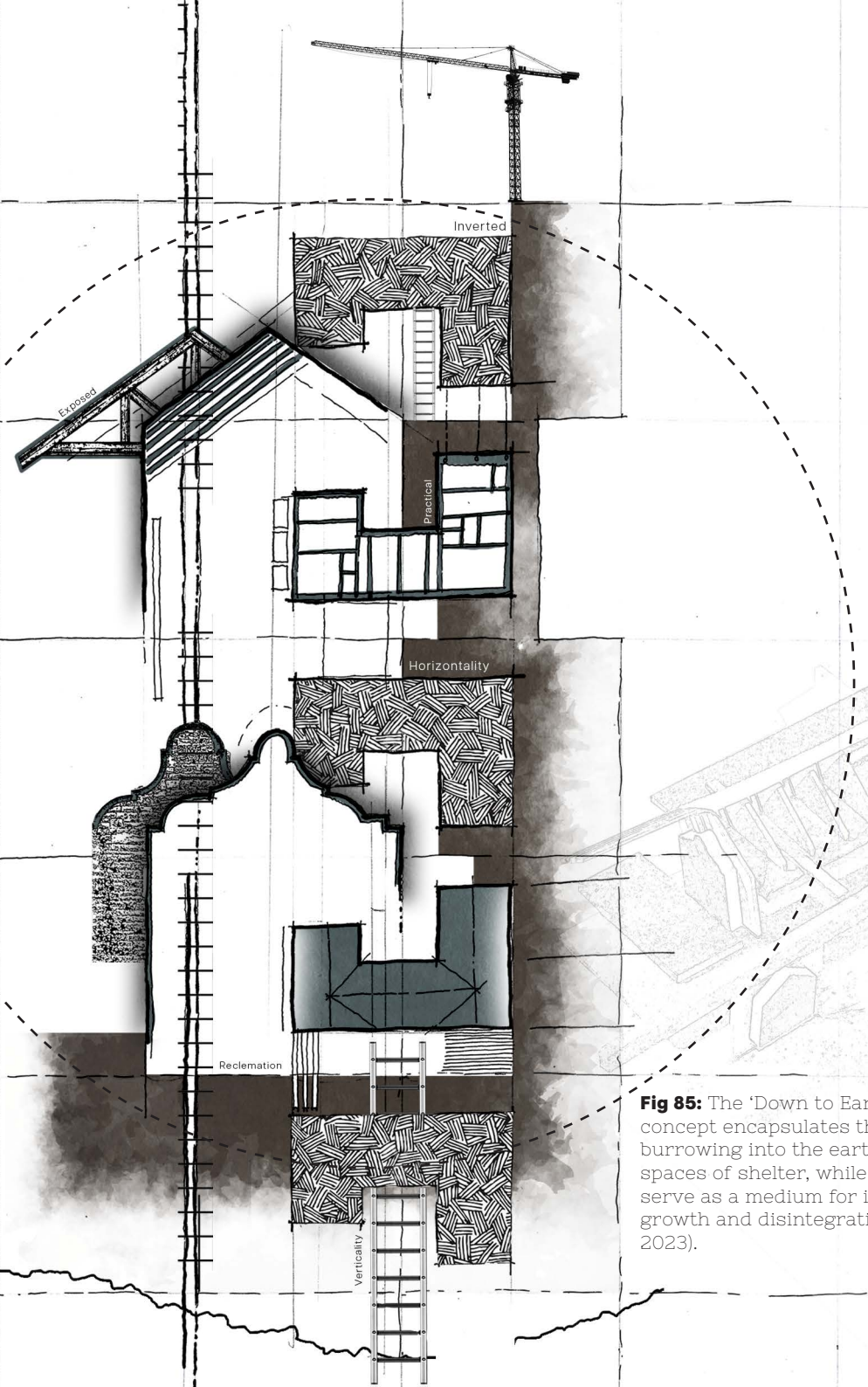


Fig 85: The 'Down to Earth' concept encapsulates the notions burrowing into the earth to form spaces of shelter, while it also serve as a medium for inception, growth and disintegration (Author, 2023).

Down to Earth

It means something is without illusions or pretension; it is practical and, realistic, humble. It can also be interpreted literally as going down into the earth.

The earth is the source of all life and sustenance. Being down to earth or grounded provides a solid base for knowledge, beliefs and arguments. It is required for critical thinking and rationality and ensures that ideas, actions and beliefs are firmly rooted.

We, as humans, are dependent on the natural world. We use the earth for shelter and protection, It is a space which represents stability, security and permanence, and upon passing, we will return to the earth from which we came. By being buried in the ground, legacy and honour are preserved, allowing us to become part of the landscape of the natural world, and through stories and traditions passed on through generations, memories are allowed to live on.

Through structural expression, a humble building can emerge without illusions or pretensions, projecting the truth of the structure as opposed to Victorian ornamentation.

This concept aims to inspire architecture, rooted within the context, buried within the earth, honouring and preserving the legacy of the past without any pretensions, allowing for the reclamation of the architecture by the site.

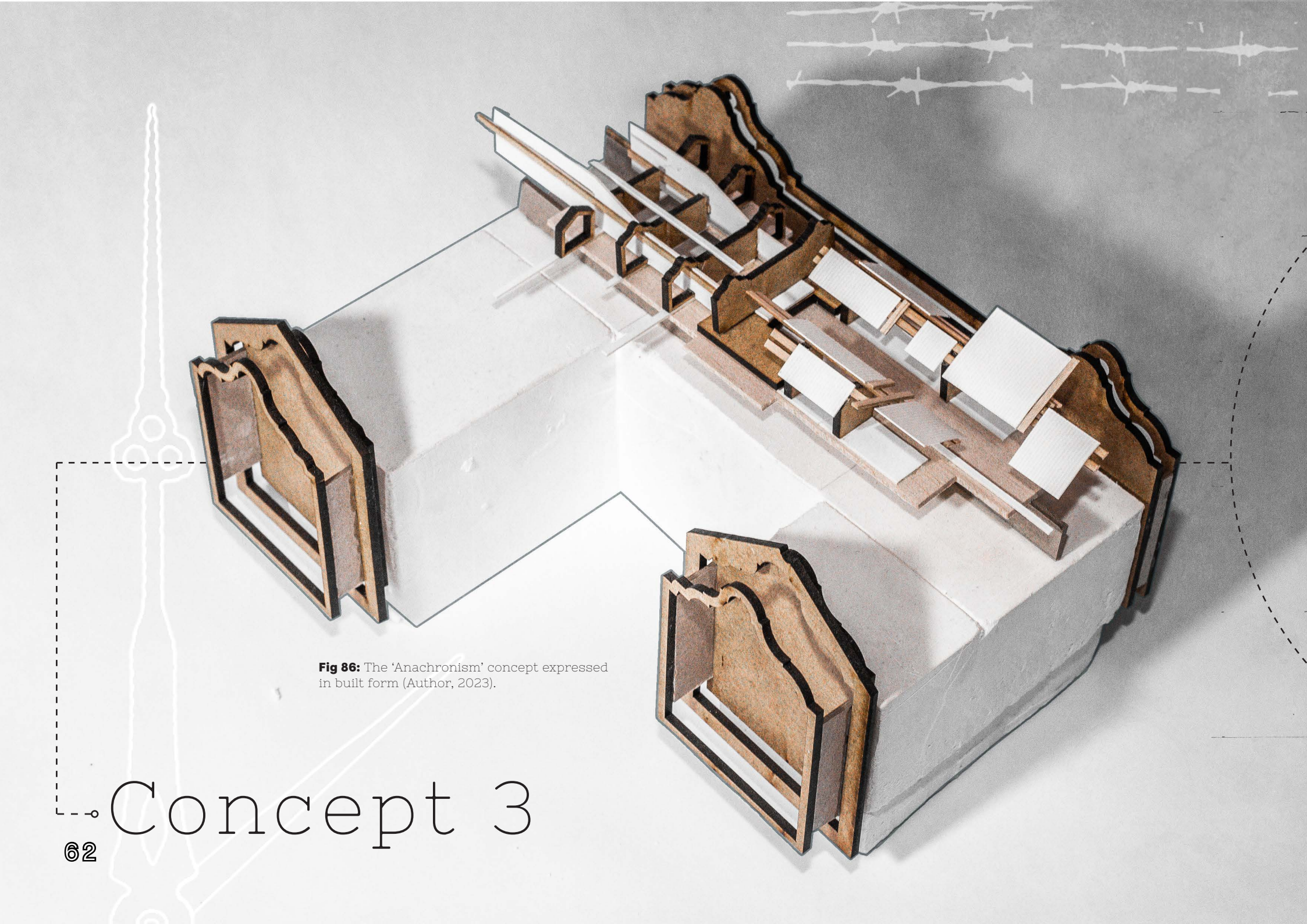


Fig 86: The ‘Anachronism’ concept expressed in built form (Author, 2023).

Concept 3

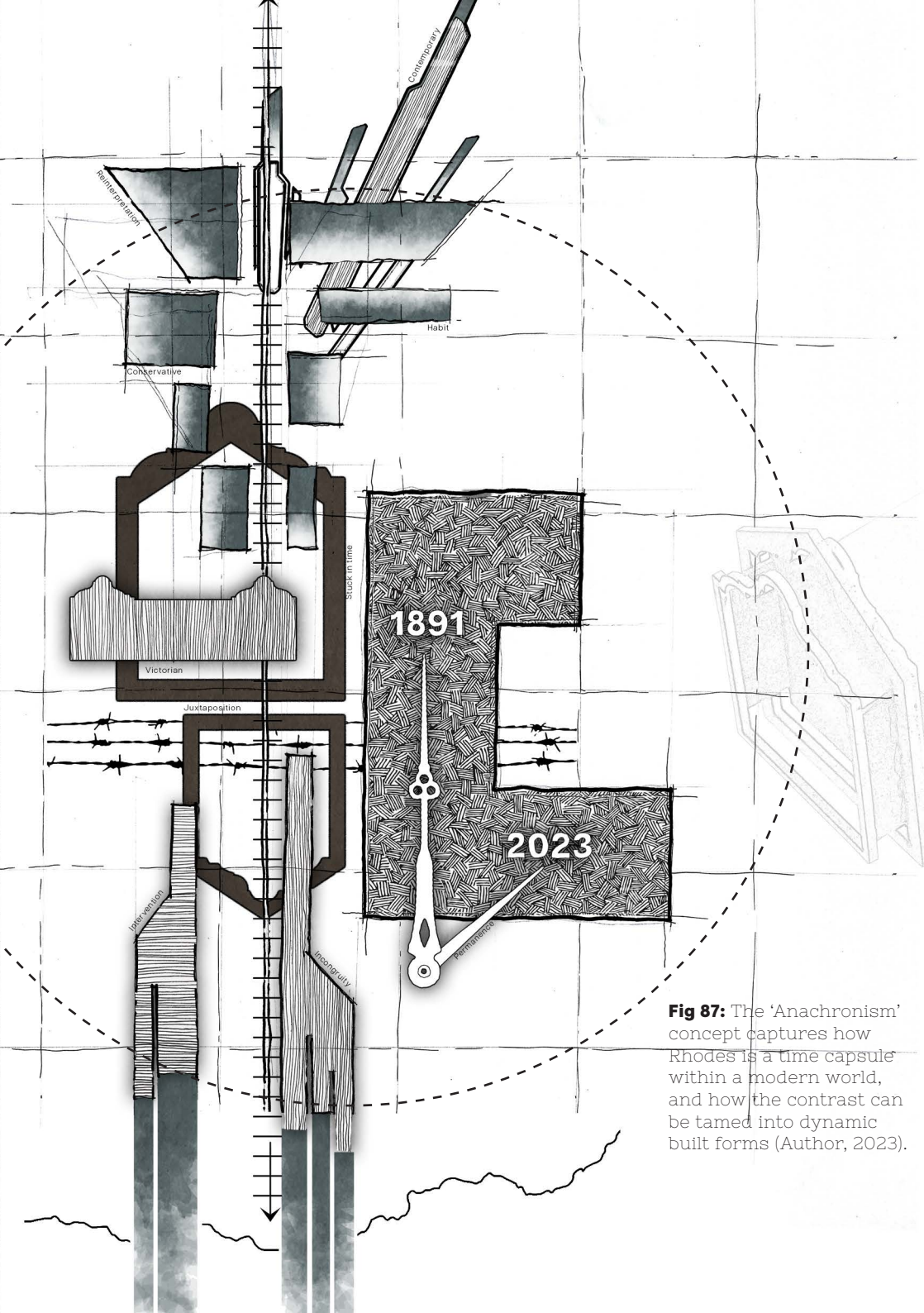


Fig 87: The 'Anachronism' concept captures how Rhodes is a time capsule within a modern world, and how the contrast can be tamed into dynamic built forms (Author, 2023).

The Anachronism

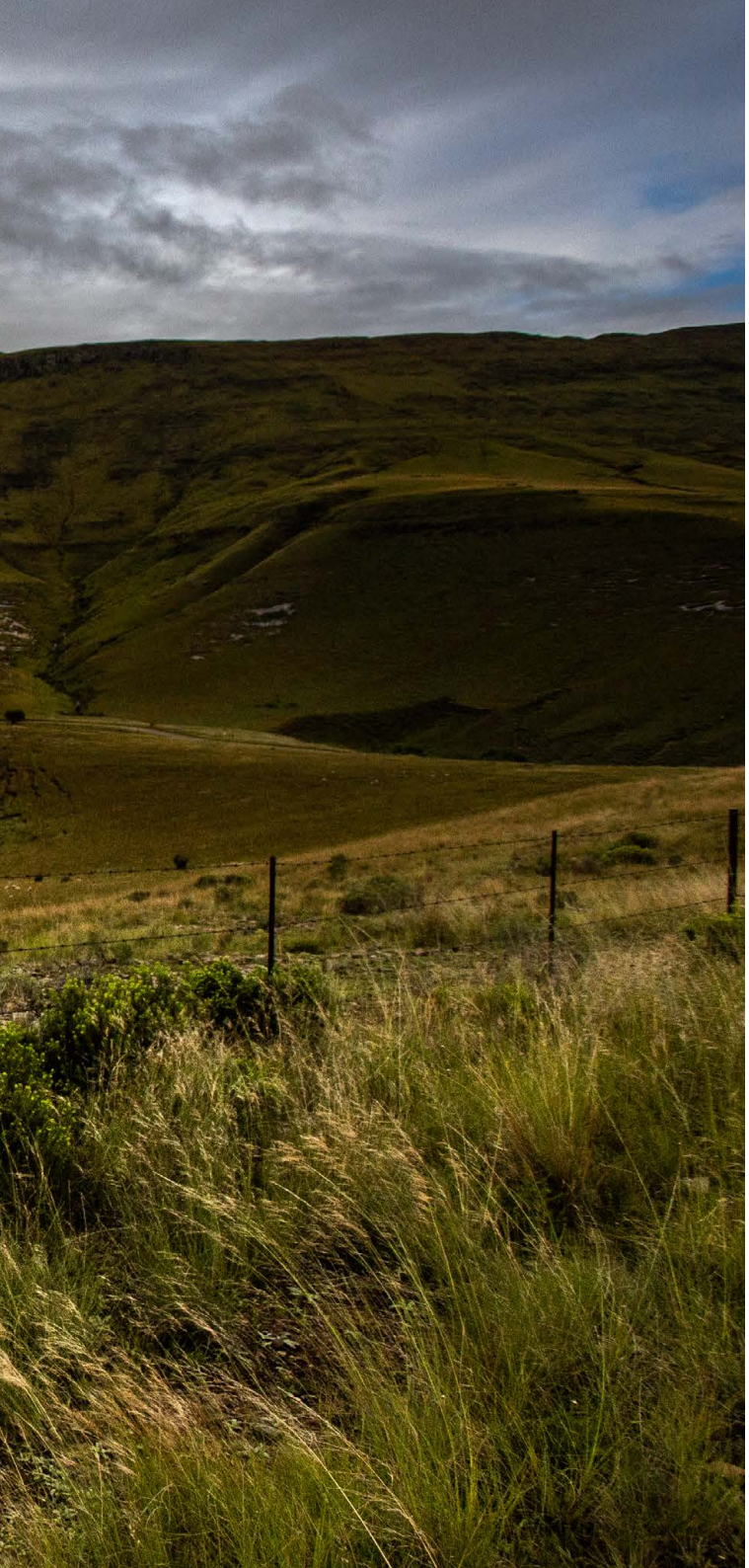
The village of Rhodes is a Victorian time capsule within a contemporary world, an anachronism. However, the project would be an anachronism, within an anachronism, a contemporary intervention within a Victorian time capsule.

How can the existing narratives be interpreted and adapted to the contemporary world to form a better connection between communities?

Dynamic tension can be generated through adaptive reuse inserting modern narratives within these anachronistic spaces, leading to the reinvigoration of the old structures. The aim is not necessarily to imitate or replicate historic architecture but to create a dialogue between the past and present. Acknowledging the different historical periods can create a more inclusive vision of the past, present and future. The anachronism needs to be approached sensitively as it also serves to preserve local culture and traditions, creating a sense of continuity between the past and present. It is a valued part of the collage of Rhodes that is emerging



Chapter 4



4. Theoretical Discourse

4.1 Introduction

4.2 Permanent Temporality

4.3 Eco Tourism

4.4 Critical Regionalism

4.5 Conclusion

Fig 88: The valley is a harmonious combination of natural landscape and agricultural fields (Author, 2023).

Introduction

Growing up near Rhodes, my awareness of the distinct seasonal changes in the local landscape has fueled my fascination with the evolving relationship between humanity and nature. This relationship involves adapting to and coexisting with these cyclical changes, revealing the intricate interplay of temporality and permanence. Temporality refers to the perpetual shifts that endure as integral facets of our delicate environment. This exploration extends across the entire region, shaping and defining our presence within this dynamic space.

The theme of ecotourism is investigated to refine this overarching concept within the context of human-nature interaction. Ecotourism's significance lies in fostering a harmonious connection between people and the environment, mitigating potential harm to the ecosystem caused by tourism. It engages with nature's enduring temporality while safeguarding it for future generations.

However, this type of exploration does not always include an architectural dimension, which is where Critical Regionalism comes into play. Critical Regionalism shares fundamental principles with temporality, permanence, and ecotourism. It provides a framework through which architecture can convey these ideas, allowing visitors to experience and engage with them in a physical way.

The concepts of temporality and permanence are crucial in ecotourism and Critical Regionalism. While Critical Regionalism acknowledges the evolving nature of cultures and landscapes and aims to create enduring architectural designs, whereas ecotourism immerses visitors in the temporal aspects of natural environments, emphasising their dynamic changes. However, both schools of thought share a commitment to balancing the temporal and permanent aspects of a region, contributing to a harmonious coexistence of changing and enduring elements.

Permanent Temporality

Eco Tourism

Critical Regionalism

Permanent Temporality

As mortal beings, humans have long been captivated by the notion of permanence and our capacity to transcend the relentless passage of time. Even after our existence concludes, this fascination with leaving a lasting mark has driven architects to infuse profound meaning into their structures. Evident in numerous architectural works striving for timelessness, this pursuit traces its roots to the fundamental historical role of architecture: to provide shelter, protection, and refuge from the vulnerabilities of human mortality and the inescapable march of time. In this endeavour, architecture often presents as a static, permanent refuge, aiming to replace existence's ever-changing, temporal nature. However, despite its best efforts, architecture cannot entirely shield us from the effects of time's passage (Harries, 1982: 60).

Juhani Pallasmaa, in "The Eyes of the Skin: Architecture and the Senses" (2012: 34), argues that much of contemporary architecture has fixated on creating visually striking, instantly persuasive structures that, in the process, lose depth and sincerity, reducing themselves to mere two-dimensional figures within their spatial context. Pallasmaa attributes this shallowness to the diminished materiality of modern construction materials. Unlike natural materials such as stone, brick, and wood, which bear the capacity to reveal their age, origins, and the history of human use, modern machine-made materials lack this intrinsic connection to the continuum of time. The wear and tear that enriches traditional materials' temporal dimension is absent. This lack of connection with the passage of time is particularly pronounced in materials like smooth glass and enamelled metals, which obscure their material essence and age, fostering a sense of detachment from the tangible realities of matter and craftsmanship, projecting an illusion of unreality. Buildings constructed from such materials often eschew the acknowledgement of time's erosion, striving for an ageless perfection and sidestepping the ageing process, consequently depriving themselves of the authenticity conferred by matter and construction. Pallasmaa posits that this aversion to acknowledging the inevitable and psychologically significant process of ageing is rooted in our profound mortal fear of death.



Fig 89: The Sandstone building has allowed time to leave its marks on the stones from which it is constructed. Despite aging, the building has remained a constant within a landscape experiencing frequent large seasonal changes (Author, 2023).

The natural order dictates that all elements exposed to the elements will deteriorate over time, and this deterioration can be perceived as nature's rightful claim on the human-made, a return of the artificial to the natural world from which it originated (Mostafavi & Leatherbarrow, 1993: 112).

Human endeavours have been devoted to erasing traces of time, erosion, and nature from their lives and architecture. In "On Weathering: A Life of Buildings in Time" (1993: 112), Mostafavi and Leatherbarrow challenge the conventional notion that these natural processes are inherently detrimental. They illuminate the potential contributions of these processes to the built environment. These natural processes offer the prospect of shaping architecture that adapts and evolves with its environment and context, responding to changing seasons and defying the unrealistic demands of timeless perfection imposed by society. It is precisely this authenticity, characterised by the imperfections wrought by time that humans find most valuable.

Rather than harbouring apprehension towards inevitable change and decay, these processes allow architects to engage with natural elements as design tools. By embracing the imperfections introduced by time and nature, architects form a collaborative bond with the natural environment, crafting structures uniquely attuned to their surroundings. The architect's role does not culminate with the completion of a building; instead, it persists through time, with the building evolving as it weathers.

Signs of weathering on the surface of a constructed structure are regarded as environmental features by Mostafavi and Leatherbarrow (1993: 64), as they serve as indicators of how weather conditions have evolved over time. As time inscribes itself upon the architectural canvas, it fortifies the building's connection to its past and future by documenting the natural changes it has undergone.

This defiance of our preconceived notions of finality and completeness reveals that these ongoing processes never indeed conclude; they endure, eternally reconstructing and changing. A naturally changing surface possesses a tangible quality that transforms while adeptly adapting a structure to suit its surroundings. The concept of change, as brought about by the effects of weathering, mirrors a form of rejuvenation through gradual wear and tear, even though weathering is often viewed through a negative lens despite its capacity to reshape a structure (Jacobsen, 2019: 19).



Fig 90: Time and erosion is the final designers of any structure. Long after this ruin of a farmhouse has been constructed, the original designer long gone, time is still constantly changing and reworking the ruins, forming new character and stories within a once bustling built form (Author, 2022).

Within the environment, layers of meaning intricately interweave themselves into the landscape. This complex tapestry of significance emerges from the Earth's natural processes as traces etch themselves persistently onto the surface layers of the land. Whether shaped by human intervention or natural forces, these layers are repositories of concealed historical conditions, providing profound insights into the interactions between preceding generations and their environment (Jacobsen, 2019: 19).

The intrinsic impermanence of natural processes, such as weathering, is a testament to this phenomenon, where surfaces consistently change due to shifting seasons or the emergence and fading of marks over time. Consequently, we can describe the characteristics of weathering as nature's overt influence, enabling an imperfect yet organic, ever-evolving state that conveys the passage of time through its layers (Jacobsen, 2019: 24).

Architecture, as it exists within the domain of time, serves as a vessel for materialising narratives and experiences deeply intertwined with the temporal dimension. It constructs physical spaces and facilitates our engagement with the time continuum. Architecture encapsulates both permanence and temporality, symbolising the coexistence of resistance and acceptance in the face of the relentless flow of time. Just as time remains in perpetual motion, everything within its sphere is subject to transformation. Time reveals change, and within the realm of architecture, it metamorphoses into notions of enduring permanence and fleeting temporality (Meyer, 2022: 86).

Mountain streams, gushing forth during summer rainstorms, carving through ravines toward the river in the valley, may dry up, awaiting the next thunderstorm. The sun may appear fleeting from behind the mountains, only to disappear again early in the afternoon. Fragile wildflowers paint the landscape with their vibrant hues during spring and summer, only to withdraw during the colder months. All these elements convey a profound sense of temporality within this delicate landscape.

Nevertheless, amidst this transience, the sandstone school building, perched atop the hill and overlooking the village below, symbolises permanence. The trees on its site reach ever higher toward the heavens, and the flowers and grasses change through the decades, but the structure of the building remains unaltered—a constant presence in the village since its construction.



Fig 91: The valley in which the site is located was once a flat surface, eroded by millions of years to reveal the hidden layers of past lives within the landscape (Author, 2023).



Fig 92: Humans have an innate desire to root themselves within time. Architecture allows us to inhabitate space, a sheltered space within the continuum of time. (Author, 2020).

We are continually surrounded by the effects of passing time, whether in the form of the permanent or the temporary. Nevertheless, how does architecture enable our bodies to perceive time through built structures?

Pallasmaa articulates, "We have a mental need to grasp that we are rooted in the continuity of time, and in the man-made world, it is the task of architecture to facilitate this experience. Architecture domesticates limitless space and enables us to inhabit it, but it should likewise domesticate endless time and enable us to inhabit the continuum of time" (2012: 35).

Pallasmaa underscores the profound connection between human beings and their experience of time within the architectural context. He argues that, as individuals, we possess an innate psychological drive to comprehend and establish a connection with the ongoing flow of time. This sense of temporal continuity is crucial for our sense of identity, understanding our historical place, and feeling rooted in a broader context. He asserts that architecture plays a crucial role in fulfilling this need. On one hand, architecture is responsible for organising and defining physical space, allowing us to live comfortably and meaningfully. Buildings create boundaries, shelter, and environments where we carry out our daily lives. This is the aspect of "domesticating limitless space."

Furthermore, Pallasmaa extends this concept by proposing that architecture should delve into our relationship with time. He contends that architecture should provide physical shelter and facilitate our temporal experience. It should enable us to connect with the time continuum, fostering our comprehension of the past, present, and future as an interconnected narrative.

Visiting monuments of the past, as Pallasmaa asserts, allows us to grasp the idea of encapsulated time, where “in the greatest of buildings, time stands firmly still.” These places act as temporal reflections, with their architectural style serving as a marker of the era they represent. Historic sites possess the remarkable ability to transport us to bygone times. Preserving, conserving, and repurposing these historic locations necessitate meticulously considering how time and change impact them.

This concept imposes an imperative on architecture to transcend its utilitarian function as mere structures; it should be purposefully designed to evoke a sense of historical context and continuity. Buildings must serve as conduits for us to feel rooted in time, fostering a profound connection to our cultural heritage and our role within the ongoing narrative of history. In this manner, architecture caters to our physical requirements and fulfills our psychological and emotional need for a meaningful relationship with time and our environment.

By harmonising inhabited spaces with the element of time, architecture assumes the role of a touchstone for human memory—a fixed reference point for recollecting encounters embedded within the dimensions of space and time. Within this framework, memory emerges as a suitable lens to effectively explore the elusive elements that influence human perception of space. Our recollections of spaces intricately intertwine with the atmospheres, emotions, fragrances, and sounds associated with them (Sarin, n.d.: online).

Where buildings are intentionally designed to allow the passage of time to reveal its effects on the structure, the building is still invariably perceived and experienced as a static entity within the domain of time. It represents a form of permanence amidst the ever-so-fragile temporal existence. In contrast, the landscaping within this context is indispensable in shaping how one perceives the passage of time within the valley.

From its inception, a designed landscape undergoes continual transformation, influenced by human activity, care, and natural processes. Landscapes exhibit dynamism, propelled by processes such as plant growth, water flow, weathering, and human and wildlife interaction. Much like buildings, landscapes demand ongoing maintenance, which can either reveal the passage of time through processes like growth, maturation, ageing, and decay or strive to maintain the space in a perpetual state.

Architectural materials must be thoughtfully incorporated into the landscape to facilitate the complete integration of the scheme into its environment, enabling it to serve as a framework through which individuals experience time. This integration should blur the boundaries between architecture and the natural landscape to the extent that the building becomes an integral part of the seasonal and long-term natural cycles, thereby undergoing stages of growth, maturation, ageing, and eventual decline (Simon, 2023: 2).



Fig 93: Despite showing traces of time, architecture is perceived and experienced as a static entity within the domain of time. It represents a form of permanence amidst the ever-so-fragile temporal existence(Author, 2021).

Eco Tourism

The concepts of permanence and temporality become evident to us mortals when we observe nature. In nature, we witness constant temporal changes, yet these changes themselves possess a certain permanence as they occur year after year. We are drawn to these natural places because of the enduring beauty of these ecosystems, which have developed long before our existence. We find solace in their constancy amidst our rapidly evolving modern world. At the same time, we also appreciate the delicate temporal shifts—migrations, seasons, temperature fluctuations—often concealed within modern architecture, which seeks to limit the impact of time's passage.

However, despite the seeming permanence of these natural landscapes, the rate at which we explore, develop, and exploit them has led to irreparable losses. It is, therefore, of utmost importance that our approach to nature and our interactions with and appreciation of it are carried out with the utmost care, ensuring that these landscapes can be preserved for future generations to admire.

Rhodes is in one of South Africa's most pristine natural landscapes, having endured through generations due to minimal and thoughtful human interventions. We must handle this area with great care and respect, to maintain the untouched beauty it offers, which many cherish.



Fig 94: Rhodes is one of South Africa's most pristine landscapes, luring many visitors. The area must be approached with much care to not disturb the temporal changes within the landscape which can ultimately affect the permanence of the valley as a natural ecosystem (Author, 2023).

The concepts of permanence and temporality are deeply intertwined with ecotourism, which involves exploring and appreciating enduring natural environments while recognising the temporal changes and vulnerabilities inherent to these ecosystems. Responsible and sustainable ecotourism practices aim to strike a delicate balance, promoting preserving these environments for future generations while allowing tourists to experience their unique beauty and ecological significance.

Karen Ziffer, a specialist in conservation, defines ecotourism as the following:

> A form of tourism inspired primarily by the natural history of an area. including its indigenous cultures. The ecotourist visits relatively undeveloped areas in the spirit of appreciation, participation, and sensitivity. The ecotourist practices a non-consumptive use of wildlife and natural resources and contributes to the visited area through labour or financial means aimed at directly benefiting the conservation of the site and the economic well-being of the local residents. The visit should strengthen the ecotourist's appreciation and dedication to conservation issues in general, and to the specific needs of the locale. Ecotourism also implies a managed approach by the host country or region which commits itself to establishing and maintaining the sites with the participation of local residents marketing them appropriately. enforcing regulations and using the proceeds of the enterprise to fund the area's land management as well as community development (1989, 12).

Ecotourism is recognised as one of the fastest-growing sectors of the tourist industry (Sarhan, et al., 2016). TIES, the International Ecotourism Society, describes ecotourism as responsible travel to natural areas that conserve environmental resources and develop the local inhabitants' well-being. Sustainability is the central aspect of ecotourism which sets it apart from other segments in the tourism industry (TIES, 2019: Online). Although the idea of ecotourism has been floating around for many decades only recently it has gained as much traction. Tourism must be economically viable, ecologically sensitive, and culturally appropriate for it to be considered ecotourism.



Fig 95: Tenahead lodge, located in the mountains above Rhodes has grounded itself within the natural enviroment. Blending into the landscape to not take away from it, but rather compliment it. It is relient on the natural beauty of the landscape its placed in and thus reduces its effect on the enviroment to a minimum to ensure it does not bite the hand which feeds it. (River Hotels, 2023: Online).

The relationship between tourism and conservation can be polarised into positive and negative aspects. From a conservationist view, tourism threatens wildlife and natural resources, and in the long run, like many other industries, contributes to environmental destruction if not managed carefully. On the other hand, researchers claim that ecotourism is the only form of sustainable tourism as the main emphasis lies in appreciating and conserving the natural environment. Ecotourism implies that the reason for engagement with the natural environment is based on innate appreciation and educational purposes rather than a setting for superficial or thrill-seeking encounters (Mahravan, 2012: 26). Undoubtedly, any form of tourism, including ecotourism, will influence natural conservation. This need not be destructive, it could, with good management even lead to a more robust community.

The natural environment is one of the crucial factors in determining if a place is an attractive travel destination; however, most of the tourism in natural areas takes place in natural landscapes, which are very sensitive to change, and any physical interactions will inevitably lead to it physically changing.

The impacts of tourism can be separated into two types, resulting from the impact of the physically built structures such as roads, buildings, etc. and the impacts resulting from the tourists themselves. Despite the type, the impacts of tourism on nature conservation are the result of conscious actions taken by visitors. However, these impacts are often unintentional and frequently overlooked consequences of tourism (Mahravan, 2012: 27).

Due to strict environmental policies and guidelines, the village of Rhodes has significantly reduced its footprint on the natural environment, compared to any other similar sized rural village in the country. The village greatly emphasises protecting the natural environment, and visitors are made aware of that.



Fig 96: The Rhodes hotel has always been an essential part of tourism within the valley. The hotel can minimize its effects on the environment as much as possible , but unfortunalty cannot change the effect of the tourist, which makes use of it services, on the natural environment of the valley. (Author, 2023).

Unfortunately, architects have little control over how users use a space and the impact they leave behind. We can guide users and facilitate behaviour, but it is ultimately up to the ethical standing of each user in the future. Architects can however contribute significantly to positive ecotourism. By incorporating ecological ideas and practices into the planning process the environmental impact of tourist initiatives can be reduced. Architects can contribute to ecotourism by consciously developing buildings and infrastructure that use renewable energy sources such as solar or wind power to lessen a building's reliance on electricity generated from fossil fuels. Implementing energy-efficient design principles, such as passive cooling and heating methods, suitable insulation, and ventilation, will reduce energy consumption, and using sustainable materials and construction methods can lessen the environmental impact of their designs. By employing low-impact construction techniques, maintaining already-existing vegetation, and putting strategies in place to lessen the effects of tourism-related activities on local wildlife and flora, architects can aid in developing buildings that cause the least amount of harm to natural habitats, preserve biodiversity, and keep ecosystems in balance.

Architecture has the ability to promote education and awareness through the design of visitors and interpretive centres, which informs visitors about the value of conservation and sustainable practices. These buildings allow visitors to learn about the value of protecting natural resources, local ecosystems, and cultural history. Promoting and advancing ecotourism can help to ensure that tourism activities are conducted in a manner that respects and protects the environment and strengthens communities

Fig 97: This sign welcomes visitors entering the village. Local inhabitants realize the importance of sustainable tourism and preserving the natural environment and attempts to instill the same principles on tourist visiting the area. (Author, 2023).



Critical Regionalism

Adopting a Critical Regionalist approach to architecture is advantageous to ensure the success of ecotourism and enhance the protection of the fragile natural environment. A mutual commitment to sustainability, local context, and the improvement of the overall visitor experience marks the association between ecotourism and Critical Regionalism. Both emphasise eco-friendly practices, utilisation of indigenous materials, and reverence for cultural heritage. These ideologies prioritise harmonious integration with the natural surroundings, human-centric design, and safeguarding cultural and environmental legacies. In essence, they align in their devotion to preserving diverse global landscapes and cultures.

Prominent architect and historian, Kenneth Frampton defines critical regionalism as an architectural approach consciously rooted in a specific region or territory. This approach preserves the progressive elements of universal and modern architecture while actively resisting the homogenising influence of a global, generic architectural style (Frampton, 2007: 375).

Critical Regionalism aims to conceptualise an architectural response that counters the prevailing universality and the loss of cultural identity often associated with the contemporary era. It accomplishes this by critically examining and understanding the unique characteristics of the region in question. It is important to note that Critical Regionalism does not seek to establish a rigid methodology but rather encourages a way of thinking that enables an architectural response deeply rooted in the region's identity (Szacka & Patteeuw, 2019: Online).

A central principle of Critical Regionalism is its advocacy for an architectural approach that celebrates the inherent qualities of the natural environment. Instead of imposing architectural forms onto the existing topography, it seeks to establish a harmonious relationship between the built environment and innovative architectural structures. This involves incorporating local interpretations of space, boundaries, public areas, and private domains. Critical Regionalism goes beyond a superficial blending of indigenous and global elements; it aspires to integrate attributes like local lighting conditions and craftsmanship into contemporary architectural frameworks. Moreover, it strongly emphasises sensory experiences, particularly the sense of touch, thereby accentuating the experiential significance of a place. Critical Regionalism necessitates a sustained level of critical self-awareness (Frampton, 1983: 16-29).

Frampton's concept of critical regionalism asserts that any architectural project adhering to this approach should be intimately tied to its specific location. It should not exist as an isolated structure devoid of meaningful connections to its surroundings. In other words, the project should be custom-tailored to its site, such as the valley of Rhodes, and should not be easily transferable to a different region. The architectural style employed should embrace vernacular elements, forging a strong link between the constructed form and its context. Frampton underscores this objective and maintains that critical regionalism represents a highly responsive approach to both cultural and regional architectures. It involves reimagining indigenous elements rather than incorporating them in a direct or superficial manner (Frampton, 1983: 16-29).

Alexander Tzonis and Liane Lefaivre describe critical regionalism as a collective concern for a sense of place and the utilisation of regional design elements (1990: 485). The term "regionalism" implies a profound understanding of place or a specific area, closely linked to the concept of genius loci, as discussed by Norberg Schulz. It suggests that architecture should respond to the spirit of the context in which it exists (Architabanerjee, 2016: Online). To distinguish Critical Regionalism from mere regionalism, which tends to nostalgically replicate local traditions, Tzonis and Lefaivre advocate for the incorporation of the modern method of defamiliarisation. This entails the creation of distinct spaces that celebrate individual cultures without disregarding original traditions. This process elevates regionalism beyond a simple adherence to tradition by identifying unique regional elements, defamiliarising them, and reinterpreting them meaningfully. This approach encourages architects to reinterpret regional design elements from a fresh perspective, creating spaces that celebrate individual cultures while critically reevaluating original traditions. Critical Regionalism thus offers a modern and innovative reinterpretation of individualistic architectural styles that enhance and enrich the established heritage of the region. By extracting unique regional elements from the culture's identity in a modern manner, Critical Regionalism strikes a balance between regional culture and universal civilisation.

Fig 98: The strict village building guidelines leads to all new buildings constructed in the village to adopt the same style as centuries ago, resulting in new structures which superficially tries to replicate the past. These structures although contributing to the distinct ambiance of the village relies on the feelings evoked by nostalgia and is not critically analyzed to identify what would truly be appropriate in the unique environment. (Author, 2023).



Frampton cautions against conflating Critical Regionalism with mere regionalism, as the latter often leads to architecture that uncritically reproduces nostalgic elements. Frampton emphasises this distinction in his essay "Ten Points on an Architecture of Regionalism: A Provisional Polemic," highlighting that Critical Regionalism is not confined to a specific style but varies from place to place. It recognises each locale's unique elements and nuances and rejects adopting a predetermined style. Critical Regionalism engages with specific environmental conditions and cultural contexts rather than replicating existing regional architectural forms. (Frampton, 1983: 16-29).It is not limited to imitating Victorian buildings found in the village of Rhodes or replicating new structures to mimic the existing school building. The design should respond to the local climate and be site-specific, addressing the conditions of Rhodes.

Frampton further elaborates on the concept of tectonics, emphasising its pivotal role in architectural expression. In point 7 of his essay, Ten Points on an Architecture of Regionalism: A Provisional Polemic, he contends that concealing a building's joints and structural elements diminishes its expressive potential, rendering its architectural significance obsolete (Frampton, 2007: 383). Instead, tectonics should be approached as an art form, elevating elements such as materiality, joinery, structure, construction, and detailing to an artistic level. This transformation is achieved through the infusion of energy, artistry, invention, and intention to highlight significant joints, material intersections, or force transfers.

Moreover, in point 8 of his essay, Frampton explores the relationship between architecture and nature, highlighting their intrinsic interconnectedness (Frampton, 2007: 383). He argues that modern technologies, such as air conditioners and artificial lighting, can sever the connection between architecture and its natural context, resulting in isolated environments detached from specific places and cultures. This notion of an isolated environment ties back to the previously discussed concepts of temporality and permanence, particularly the human apprehension of the unavoidable passage of time. To counteract this, architecture should strike a balance between advanced, universal technologies and region-specific, climate-responsive design. While modern technology offers comfort and control, a Critical Regionalist approach calls for a more balanced approach that harmonises technological advancements with architectural designs that respect and respond to the natural world and local climate conditions.



Fig 99: The closest example of architecture attempting to engaging in critical regionalism within the context of Rhodes is Tenahead mountain lodge. The lodge took cues from the Victorian architecture in the village, but modernized it while incorporating natural stone and other materials from the environment which allows it to blend into the landscape. Large windows allows the user to be immersed into the natural landscape while being sheltered (River Hotels, 2023: Online).

Conclusion

The architectural identity of the Rhodes region has been thoughtfully curated over the years. Despite not being the most closely intertwined with nature, the village has nurtured a profound appreciation for the natural environment. This appreciation is rooted in the concepts of temporality and permanence, which have solidified the notion of time's passage and the means to inhabit and express time through architecture. Instead of averting the effects of erosion and patina, the approach here is to embrace them, aligning with the natural cycles of nature. Ecotourism guides how to engage with nature sensitively, enabling individuals to experience its magnificence without causing harm, thereby promoting preservation and conservation for its sustained existence. Critical regionalism, on the other hand, empowers architecture to establish a deeper and more contextually fitting connection with the environment. It functions as a bridge between Rhodes' world, its natural surroundings, inhabitants, products, and the world of the tourist.

This investigative process informs the design phase, identifying elements to be considered and integrated into the proposed design to ensure its appropriateness within the village of Rhodes.



Fig 100: The landscape in which Rhodes finds itself is fragile, but ruthless. The new scheme needs to incorporate the above-mentioned theories and principles to ensure the architecture appropriately roots itself within the context of Rhodes. (Author, 2023).



Chapter 5



5. Precedents

5.1 Coromandel Estate Manor House

5.2 Tibet Namchabawa Visitor Centre

5.3 Horizon House

5.4 Acton House: (Re)Barn

5.5 Loughloughan Barn

5.6 Witklipfontein Eco Lodge

Fig 101: The Northern facade of the school building is a important sight in the village and needs to be carefully addressed (Author, 2023).

Coromandel Manor House

Architect: **Marco Zanuso**

Location: **Lydenburg, South Africa**

Year: **1975**

Coromandel manor house is a large family house rising from the veldt like a narrow ledge of stone. Stretching over 240m the various stereotomic stone walls running into the landscape leads into various threshold spaces which eventually leads to the heart of the home. The house is sunken into the landscape, clad with stone from boulders on the farm and a local quarry. Plant growth has overtaken the structure, hiding it in plain sight in the landscape. The design and material led to a building which feels modern and ancient at the same time (Architizer, 2016: Online).

Application to design

Multiple parallel linear axis form the backbone of the structure. Puncturing the walls to form perpendicular social spaces binds the multiple corridors into one large structure.

The different corridors create small intimate spaces each with their own privacy while keeping the scheme compact

The Materials used allows for the structure to blend into the landscape in time by providing a canvas fro plant growth to take over

Fig 102: Coromandel estate manor house seen from above (van Helsdingen, 2016: Online)



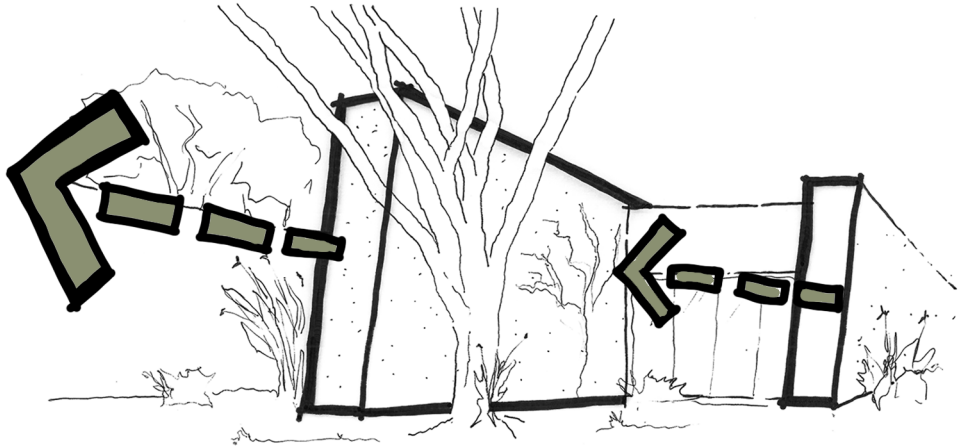


Fig 103: The walls emerge from the earth as stone fins cutting through the landscape, enclosing spaces and guiding movement. (author, 2023)

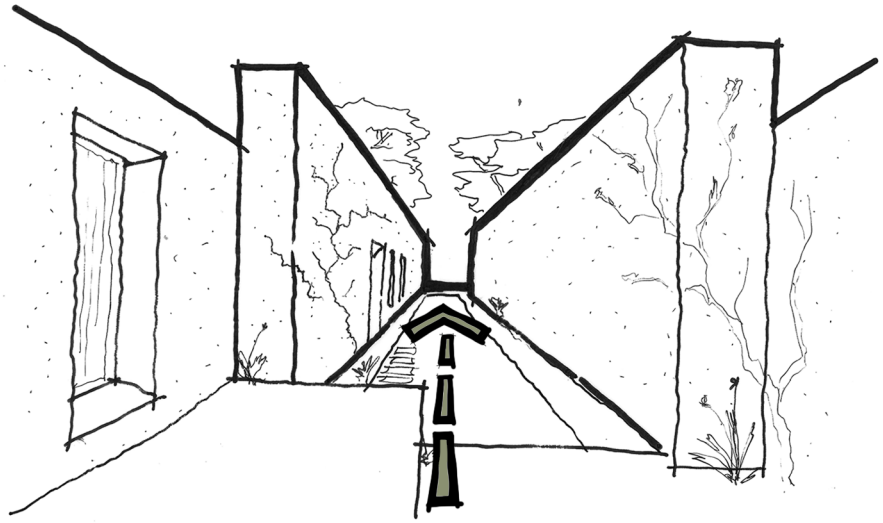
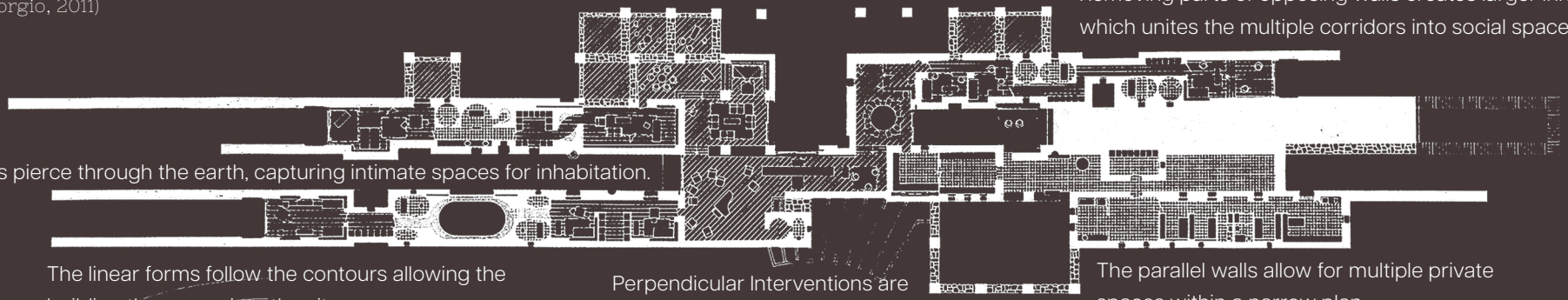


Fig 104: The walls form intimate spaces which guides the user outwards. Showing a glimpse of the landscape while still being sheltered. (author, 2023)

Fig 105: Floorplan of coromandel estate manor house (De Giorgio, 2011)



Tibet Namchabawa Visitor Centre

Architect: **standardarchitecture**

Location: **Linzhi, Tibet**

Year: **2008**

Tibet Namchabawa Visitor Centre is a visitor/community centre located in a very rural context. The intricate program caters for visitors, local inhabitants, and workers in the tourism industry. Inspired by rocks extending out from the mountains the building tucks itself into the site. Constructed from locally sourced stone the building camouflages itself in plain sight (standardarchitecture, 2020: Online).

Application to design

The building program accommodates the locals and visitors, ensuring the building will always be in use.

The materiality is from the surrounding environment, capturing the colors and textures of the surrounding landscape.

Enveloping the formal linear design in a more organic shape derived from the landscape forms a more appropriate link to the landscape

The roof structure over the main social space is punctured with multiple skylights, illuminating what would otherwise be a dark cave like space.

Fig 106: The view on arrival of Tibet Namchabawa Visitor Centre (standardarchitecture, 2008: Online)



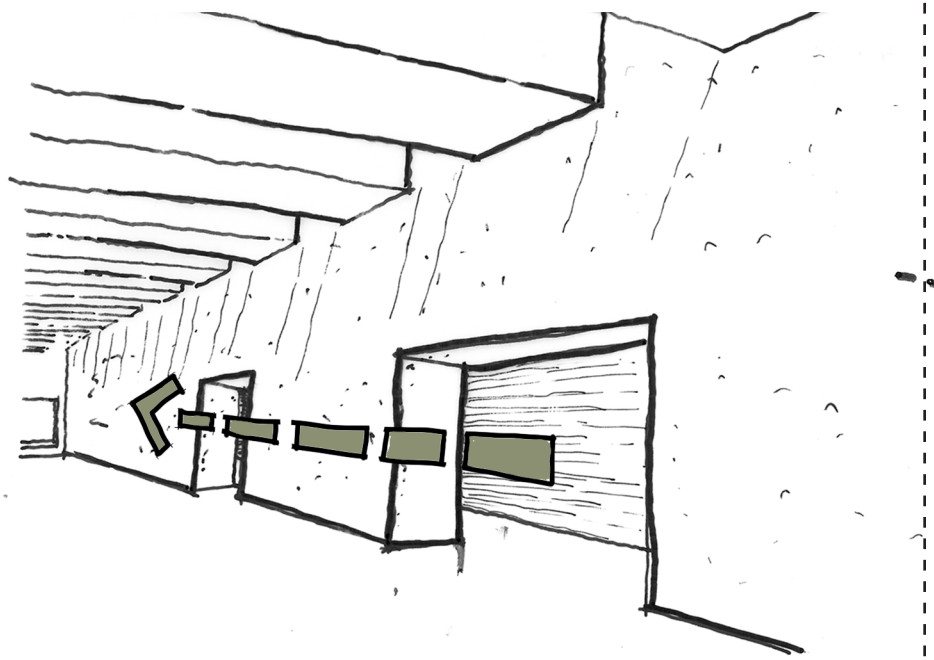


Fig 107: The long corridors frame viewpoints of the landscape. Narrow rectangular skylights on the roofs allows for slits of light which illuminates the dark spaces. (author, 2023)

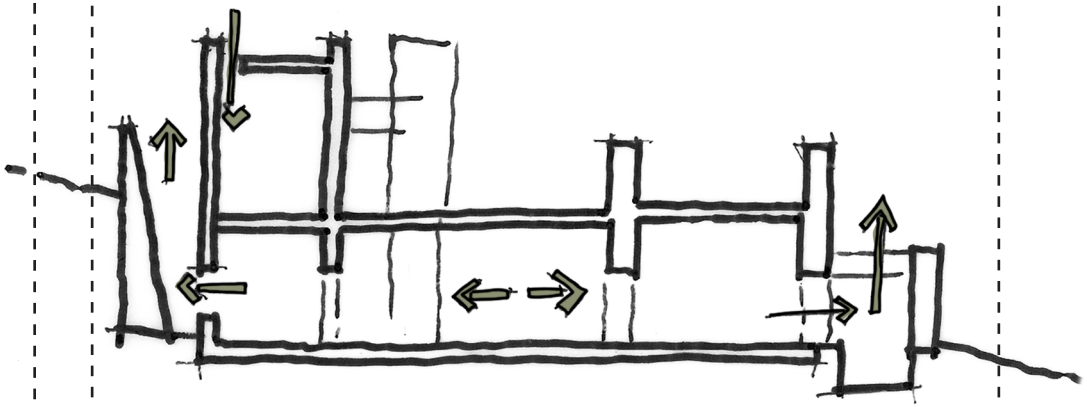
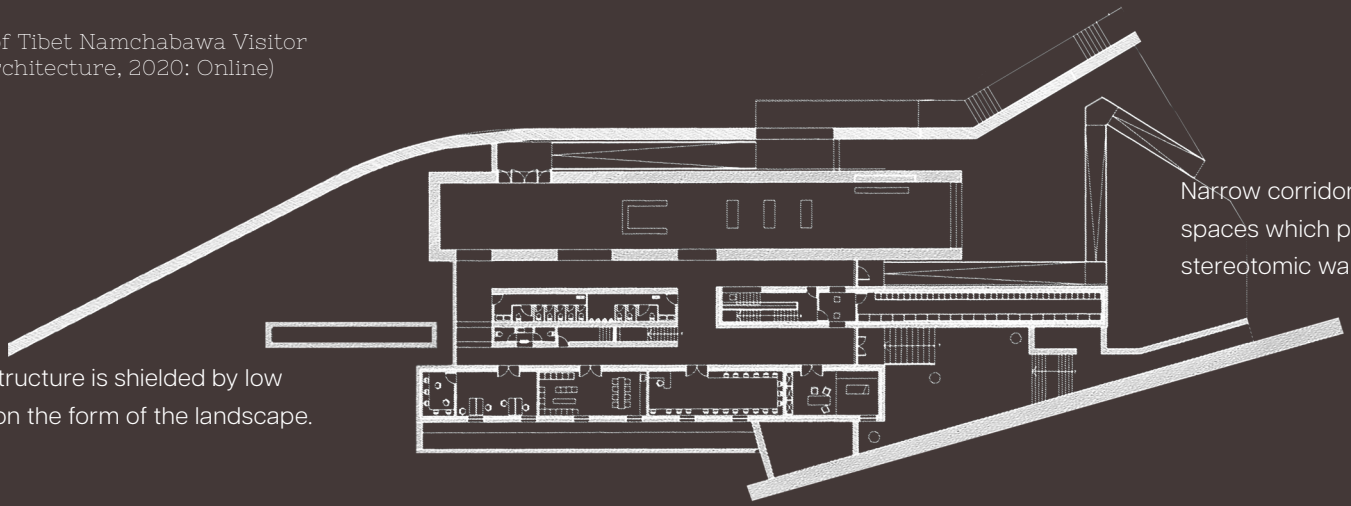


Fig 108: Puncturing the stereotomic walls creates a flow through the otherwise narrow spaces. Openings guide the eyes horizontal or vertical (author, 2023)

Fig 109: Floorplan of Tibet Namchabawa Visitor Centre (standardarchitecture, 2020: Online)



The formal linear structure is shielded by low walls which takes on the form of the landscape.

Narrow corridors are united by social spaces which penetrates through the stereotomic walls.

Horizon House

Architect: **RCR Arquitectes**

Location: **La Vall de Bianya, Spain**

Year: **2007**

Rural house is a large home which lies on the edge of an embankment. The main axis connects the landscape above and below the embankment while the perpendicular axis mimics cracks formed in the earth by water running down a slope. The whole house is buried into the escarpment, either 1.5m or 3m underground depending on the privacy levels of the spaces (RCR Arquitectes, 2011: Online) .

Application to design

The design anchored by a main axis interrupted by smaller perpendicular axis create pockets for living spaces.

Positioning on the slope creates dramatic views from the one side while the other is tucked into the landscape, sheltered from the elements while framing the view.

The corten steel material used age with time, capturing the passing of time and allow the building to become an organism within the landscape.

Fig 110: The house hanging over the escarpment, seen from below. (Mayer 2007:Online)



By sinking the building into the ground the floor plans flow uninterrupted into the lowered courtyard areas.

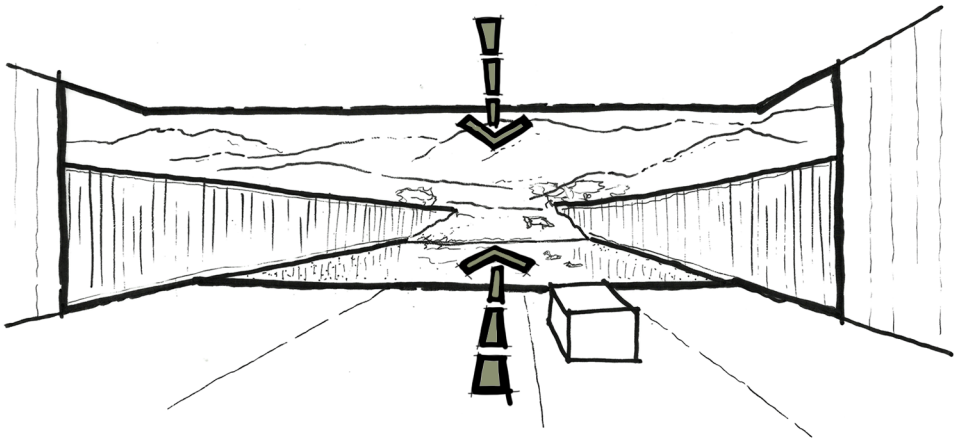


Fig 111: The spaces built around the perpendicular axis frame the landscape with a large overhang, being buried and by the corten steel retaining walls. (author, 2023)

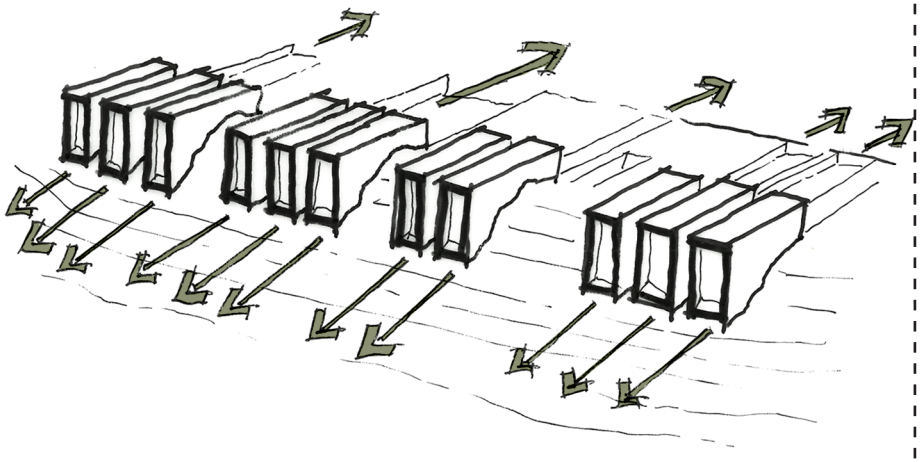
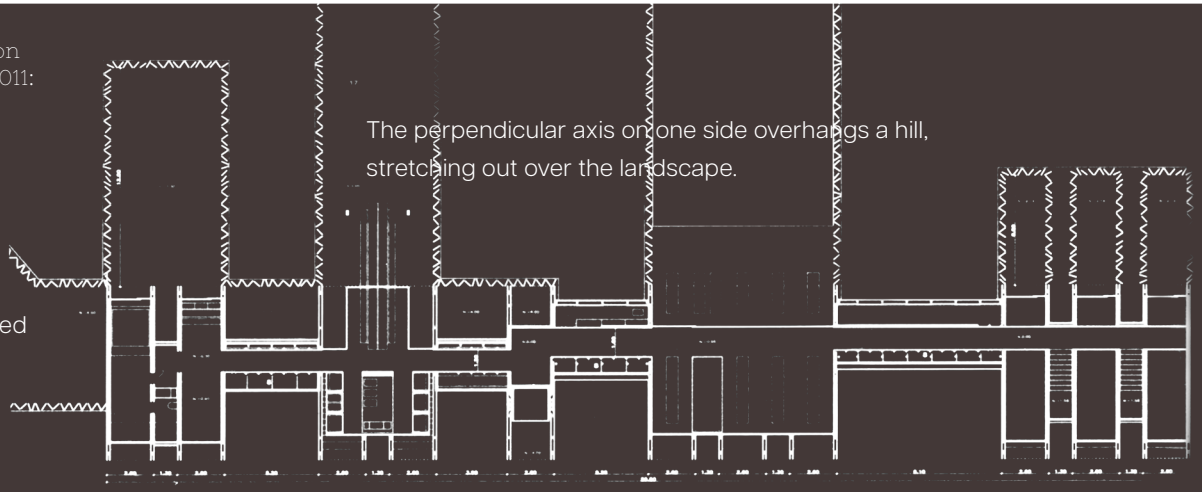


Fig 112: Situated on a hills edge, there is a stark contrast between the parts which overhang and those which are buried into the hillside.(author, 2023)

Fig 113: Floorplan of horizon house (RCR Arquitectes, 2011: Online)

The perpendicular axis on one side overhangs a hill, stretching out over the landscape.



One elevation of the building carves outdoor living spaces into the landscape, framing the views while providing shelter and privacy.

The whole structure is buried within the hills with only the diagonal smaller axis emerging from the earth.

A strong main axis is interrupted by various smaller perpendicular axis which form living spaces.

Acton House: (Re)Barn

Architects: **Circa Morris-Nunn Architects**

Location: **Hobart, Tasmania**

Year: **2016**

The original manor house was erected in the 1830s. The objective in designing these new extensions was to capture the essence of the traditional outbuildings found on site. The new additions were built using materials salvaged, specifically wooden beams and large stones from a condemned 1820 barn situated on the site. This incorporation of reused materials imparts an authentic quality that references back to the dwelling's original heritage.

Elevating the corrugated roof, and introducing clerestory windows between the upper wall and the roof's lower edge creates the illusion of the historically significant expansive roof appearing to hover above the substantial stone walls anchoring the structure to its surroundings (Circa Morris-Nunn Architects, 2016: online).

Application to design:

Raising the roof away from the walls allows each element to be articulated, lightening the visual presence of the structure. The design ensures privacy while allowing natural light to enter.

The repurposed stone for the new additions are in a more informal and rustic stacking pattern, in contrast to the precise and orderly stone bonds of the manor house. This design approach establishes a connection with the original structure while acknowledging the humble origins of the new additions as former outbuilding.

The informal landscaping stands in juxtaposition to the formal character of the historic colonial homestead. This contrast fosters a more approachable design aesthetic, in harmony with the natural surroundings.

Fig 114: The additions gracefully blends the salvaged and the contemporary materials into a striking built structure (Samson, 2016: Online).



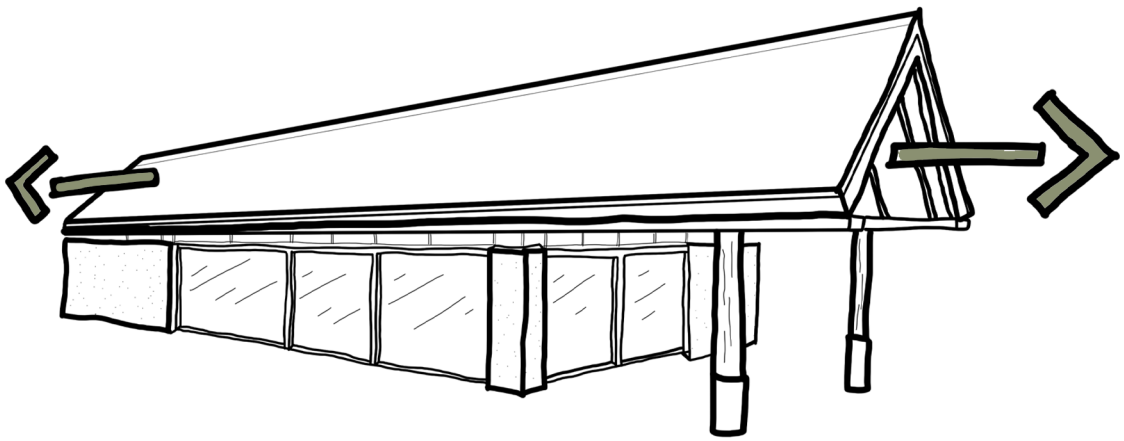


Fig 115: The large roof appears to float above the heavy walls. It stretches past the stone walls, providing shade to the exterior area below the overhang (author: 2023).

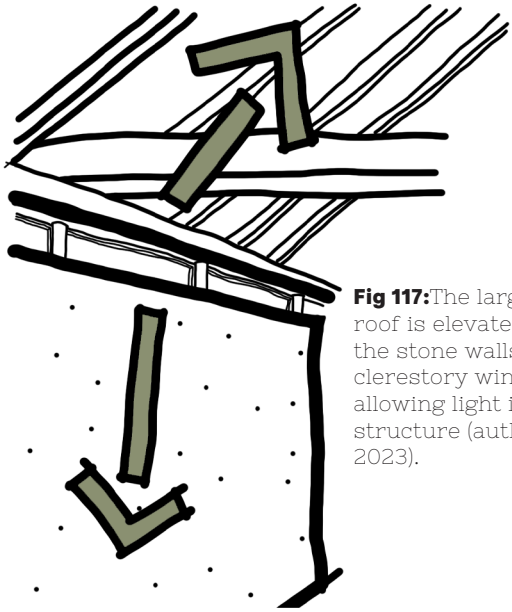


Fig 117: The large roof is elevated from the stone walls with clerestory windows allowing light into the structure (author: 2023).

Fig 116: The new additions and the informal landscaping creates a more approachable facade to the existing manor house (Samson, 2016: Online).

Loughloughan Barn

Architects: **McGarry-Moon Architects**

Location: **Broughshane, United kingdom**

Year: **2013**

This adaptive reuse project transformed a small and dilapidated single-level shed into a two-story dwelling. The resulting house has a distinctive character without resorting to a mere replication of historical architectural styles. Preservation of the existing stone structure was important, establishing a harmonious relationship between the old and the new. The design of the dwelling sought to integrate modern technologies with traditional building techniques. This design aimed to create a rural architecture suitable for the 21st century, rather than simply adhering to past methods and aesthetics (McGarry-Moon Architects, 2013: online).

Application to design:

The original stone structure connects to the new additions which emerge from the sturdy existing stone walls, giving the impression that the new elements have nestled themselves within the existing structure.

The contrast between the new steel cladding and the aged stone walls establishes a dialogue between the old and the new.

The balcony overhang re-imagines the concept of a gable within its specific context, extending toward the surrounding landscape. Supported by the existing stone walls, this new overhang firmly grounds the modern additions in their historical context.

The walls of the new additions are thinner than the robust historic stone walls, making it easy to distinguish between the old and the new elements.

Fig 118: The new additions sensitively integrates into the existing stone walls, resulting in a dynamic design appropriate for the 21st century(Currie, 2013: Online).



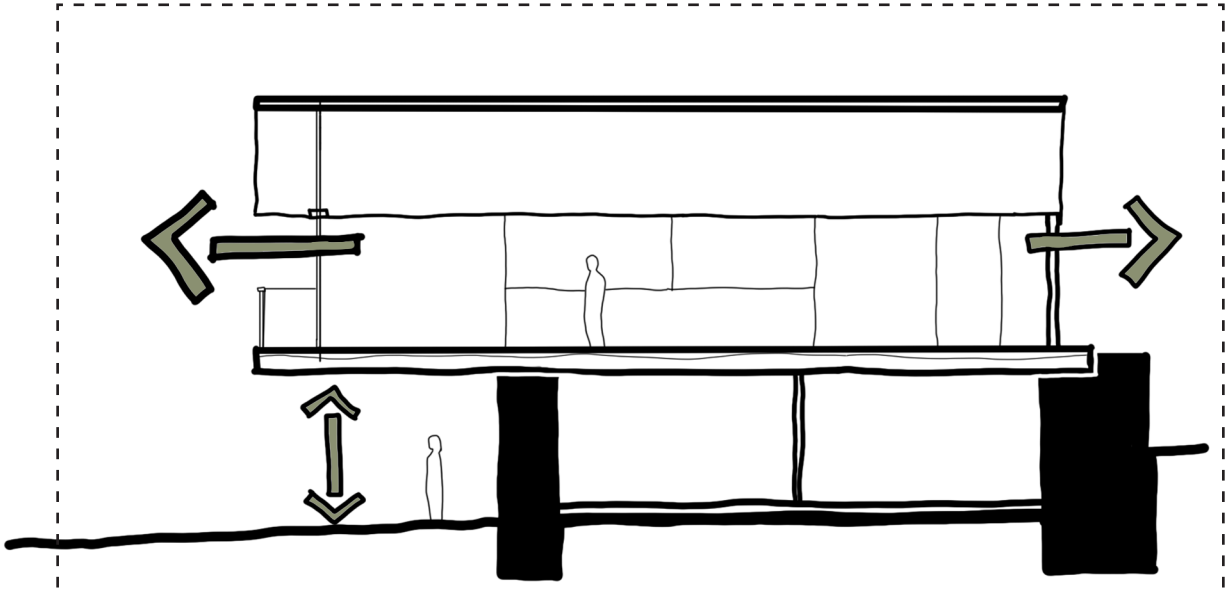


Fig 120: The new 1st floor addition cantilevers past the existing stone walls. which it is supported by. The stone walls thus ground the new additions to the site (author: 2023).

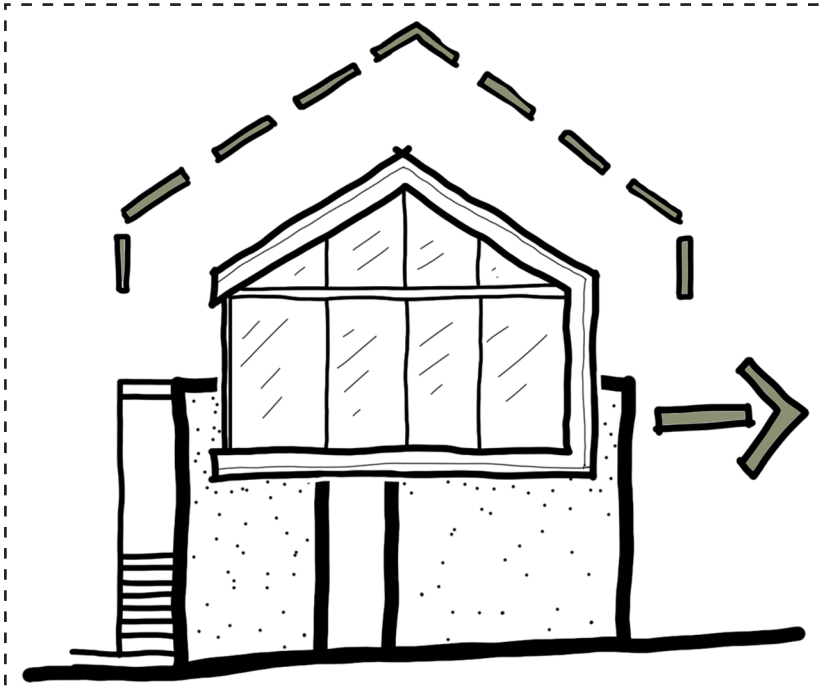
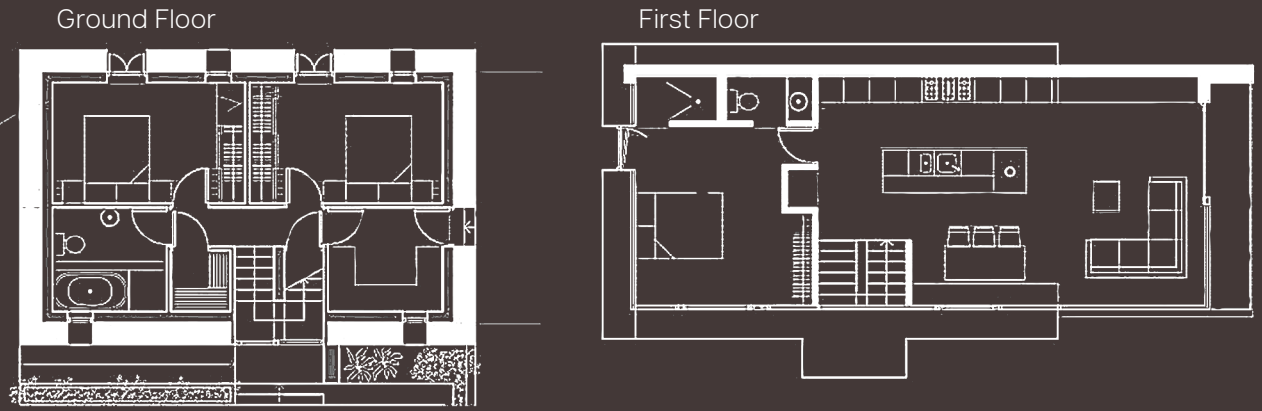


Fig 121: The new 1st floor addition re-imagines what a gable is within the historical context of the site (author: 2023).

Fig 119: The walls in the new addition are thinner than the existing stone walls, making the difference between old and new more clear (McGarry-Moon Architects, 2013; Online).



Witklipfontein Eco Lodge

Architects: **GLH Architects**

Location: **Vredefort, South Africa**

Year: **2018**

The lodge has been meticulously designed to seamlessly integrate with its natural surroundings. This design is a combination of vernacular building techniques and contemporary architectural elements. Inside, the panoramic views effectively blur the line between the interior spaces and the natural environment. The Free State region is characterized by large temperature fluctuations, thus the concept of thermal mass is employed to stabilize temperatures throughout the year, rather than relying on mechanical air conditioning. This is achieved through the utilization of thick stone walls, earth walls, and a green roof (GLH Architects, 2020: Online).

Application to design:

The rear facade of the building seamlessly blends into the landscape. This reduces the visual impact of the structure on the natural surroundings.

The incorporation of thermal mass serves as an effective technique for regulating the temperature variations prevalent in the region.

Local materials and vernacular building techniques incorporated into the design in a contemporary manner, further enhances the building's harmony with its natural and cultural context.

The prominent guiding walls serves to direct occupants towards the carefully framed views formed by the architecture.

Informal landscaping, utilizing plants and materials indigenous to the immediate context, blurs the boundary between the constructed structure and the natural landscape, fostering a sense of unity and continuity

Fig 122: The lodge blends into the natural landscape, reducing the visual weight of the building in the natural surroundings (Huyberechts, 2018: Online).



Fig 123: By submerging a portion of the site under the ground and backfilling behind it, the boundary between building and nature is eliminated (Huyberechts, 2018: Online).

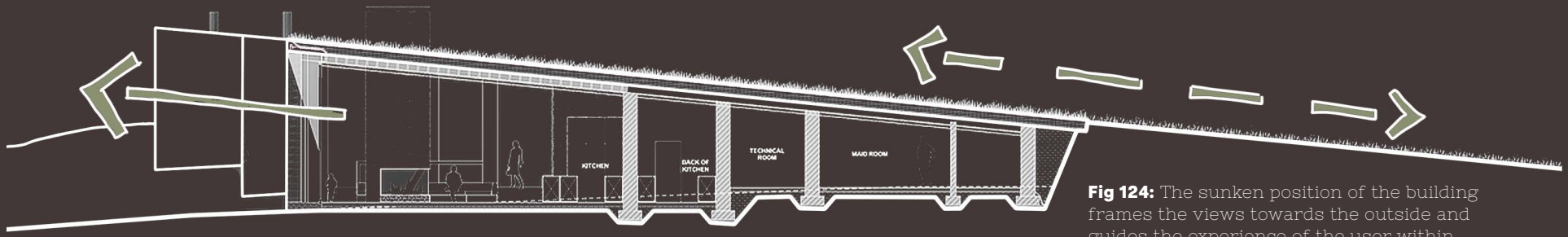


Fig 124: The sunken position of the building frames the views towards the outside and guides the experience of the user within. (Huyberechts, 2018: Online).



Chapter 6



6. Design Development

6.1 Project Brief

6.2 Building Program

6.3 Design Development

Fig 125: To preserve the historic value of the school, the Northern facade will be preserved as in, and minimal changes, to enhance the interior experience, will be made of the other facades (Author: 2023).

Project Brief

The proposed project entails the establishment of a visitors and community center for the village of Rhodes, located within the vicinity of the new Grasslands National Park in the highlands of the Eastern Cape. Given the unique context of the project and the prevailing socio-political conditions, the mere provision of a visitors' center would not suffice. To ensure the full acceptance and support of the local inhabitants, it is imperative that they are actively engaged in the project and derive tangible benefits from it. Consequently, the concept of a community center has been integrated into the project.

The project serves the needs of visitors by offering various exhibition areas showcasing the splendor of the local environment, a gallery and gift store featuring artworks and products crafted by local artisans. These facilities are situated in the northern section of the site, within the repurposed heritage building. A key focal point of the scheme is the restaurant, located just south of the heritage building, strategically designed to provide carefully orchestrated views of the eastern mountains from its interior. The restaurant is connected to a kitchen that caters to both the restaurant and, if necessary, the community hall. Importantly, the restaurant's sourcing of produce primarily relies on locally grown or valley-produced items.

In addition to catering to visitors, the design extends its benefits to the local community by providing space for various social activities. A library with physical reading materials, computer access, and internet connectivity offers a gateway to the broader world for community members who may not otherwise have access to such resources. A spacious community hall serves as a venue for community gatherings, complemented by a separate lounge area and a sunken courtyard.

Recognizing the challenges associated with limited access to medical services due to the village's remote location and transportation constraints for certain residents, the project includes a small medical facility positioned toward the east. This facility accommodates doctors, a dentist, and a therapist who visit the region on a weekly basis, thereby addressing a critical need for many lower-income residents. It is closely linked to the administrative section of the scheme, which caters to the staff responsible for overseeing the buildings operations.

To empower the local community, a significant portion of the design is allocated to workshop spaces. These spaces enable the project to actively contribute to the enhancement of skills and, consequently, the living conditions of local inhabitants. The village is home to numerous artistic and small-scale business initiatives. Formerly, the site housed garages that served as the base for a small wool processing facility employing local women. The workshop spaces are deliberately designed to be adaptable, capable of accommodating a range of functions or skills. This flexibility allows for the workshops to evolve to meet changing needs, thereby empowering local residents with diverse skills. Moreover, the gallery in the visitors' section of the site serves as a platform for the sale of craft and products created by local artisans to tourists.

The southernmost portion of the building is dedicated to the staff who will serve the new national park. This section provides space for park rangers, including offices, lounge areas, ablution facilities, garages, and workshop spaces for vehicles and machinery. Adjacent to the park rangers' area, the research section is located, designed to accommodate scientists and researchers visiting the area. This section features office space, a research laboratory, and controlled storage space.

Various landscaped areas within the project will house a diverse array of indigenous and, to a limited extent, exotic plant species that are distinctive to the region. The landscaping of the long, narrow courtyard is intricately subdivided using varying levels and planted zones, resulting in the formation of distinct spatial pockets within this expansive area.

Building Program

Building Staff

Admin	
Visitors' reception	45m²
Office reception	20 m²
Office	10 m²
Office	12 m²
Open workspace	32 m²
Boardroom	14 m²
Medical facilities	
Reception	30 m²
Office 1	16 m²
Office 2	16 m²
Dentist	16 m²
Therapy	24 m²
Ablution	40 m²
Boardroom	20 m²
Break room	14 m²
Storage	8 m²
Building maintenance	
Solar equipment	9 m²
Garden equipment	25 m²

Park Staff

Rangers	
Garages	75 m²
Storage	10 m²
Office	16 m²
Vet office	15 m²
Vet storage	15 m²
Ablution	12 m²
Open workspace	28 m²
Break room	15 m²
Lockers	12 m²
Scientist	
Office space	30 m²
Ablution	9 m²
Kitchenette	3 m²
Lab	57 m²
Cold storage	6 m²
Storage	6 m²

Visitors

Visitors experience	
Exhibition area 1	70 m²
Exhibition area 2	95 m²
Gallery/Gift store	110 m²
Storage	13 m²
Restaurant	
Ground Floor	90 m²
Lounge area	45 m²
First Floor	130m²
Outdoor seating	90 m²
Kitchen	
Food prep	65 m²
Staff and ablution	20 m²
Cold storage	7 m²
Dry storage	20 m²
Service yard	15 m²

Locals

Library	**75m²**
Community Hall	
Hall	140m²
Lounge area	30 m²
Public Ablution	35 m²
Storage	14 m²
Workshops	
Workshop 1	95 m²
Workshop 2	80 m²
Workshop 3	50 m²
Ablution	20 m²
Lockers	20 m²
Storage	5 m²
Office	40 m²

Design Development

The primary design inspiration stemmed from the Coromandel Manor house, resulting in a long and narrow architectural layout that extended into the surrounding landscape. The main axis from the village to the south was incorporated into the design, leading to the creation of two new axes originating from the primary entrances on the northern facade.

This initial phase was characterized by the prominent use of stereotomic stone walls, strategically punctured to facilitate larger inhabitable spaces. Various investigations were conducted to align and compose these central guiding walls. The mass of the new design was placed towards the South of th heritage building, connecting to its rear elevations. This was done to preserver the view of the heritage building when viewed from in the village.

In recognition of the site's new purpose and the local community's presence to the west, an additional axis was introduced, deviating from the initially rigid formal lines. This new angled axis played a crucial role in distinguishing between the old and new elements on the site while still acknowledging the strong axis along Church Street, albeit reconfigured to account for other elements within the valley.

Visitors areas, which were public was designated towards the Northern parts of the new additions with the design gradually becoming more private as one moved towards the south, which was focused on the local residents and building staff.

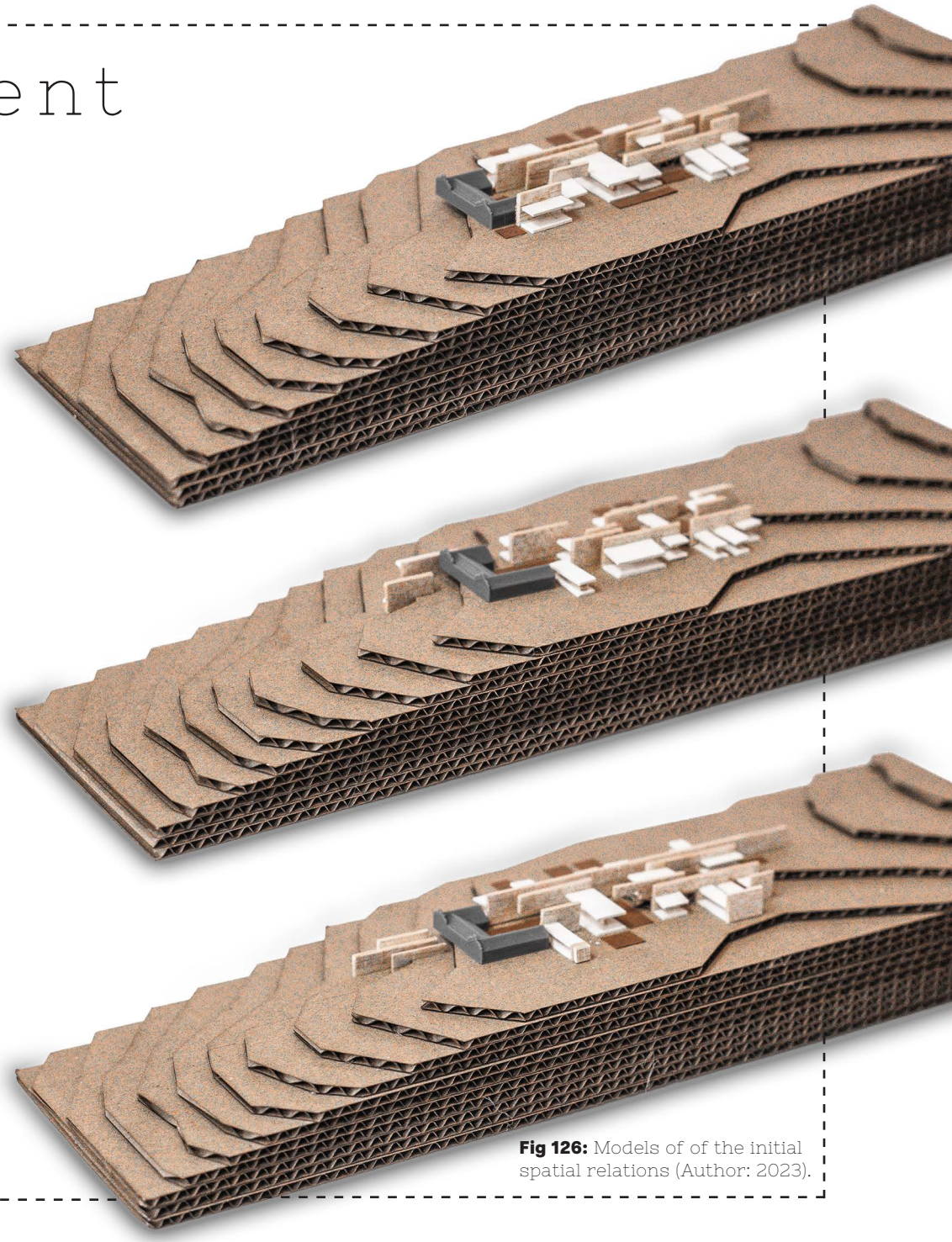


Fig 126: Models of of the initial spatial relations (Author: 2023).

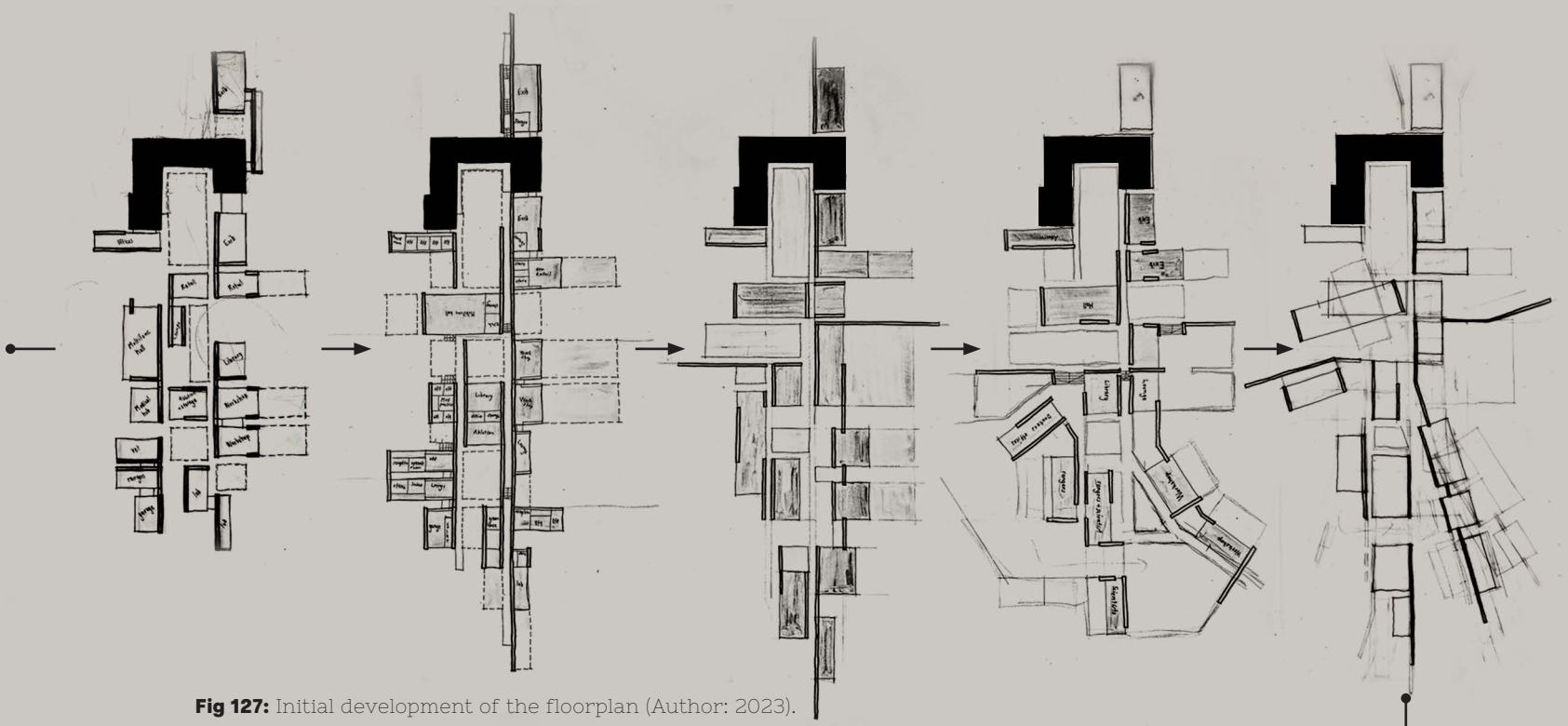


Fig 127: Initial development of the floorplan (Author: 2023).

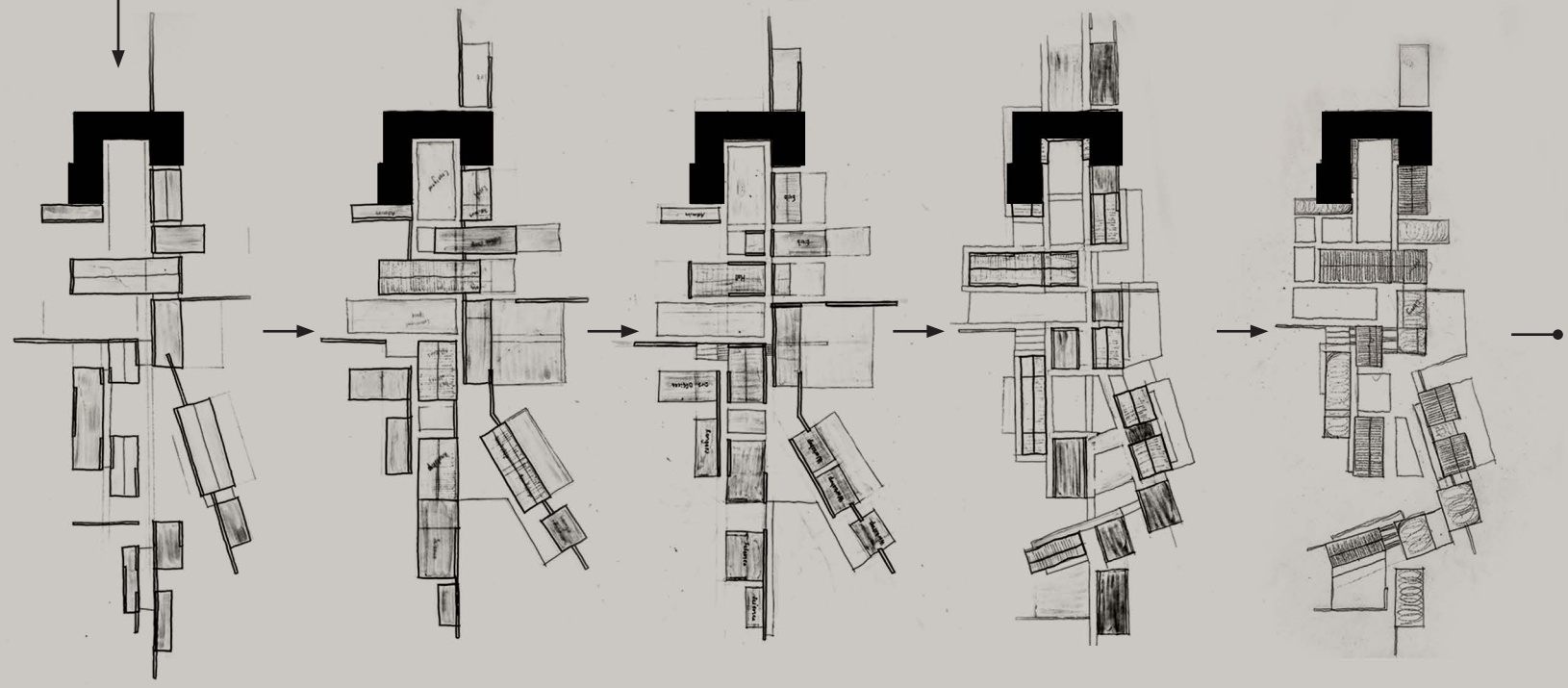




Fig 128: Earlier explorations used the Eastern entrance of the Northen facade as the main entrance (Author: 2023).

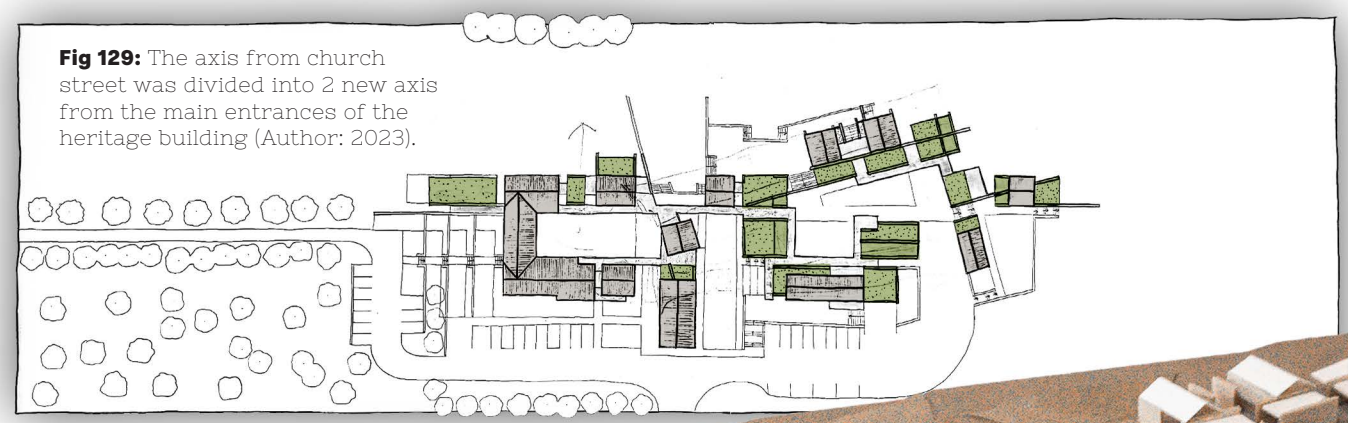


Fig 129: The axis from church street was divided into 2 new axis from the main entrances of the heritage building (Author: 2023).

As the design evolved, the emphasis on the extensive stereotomic walls stretching from north to south gradually diminished. These walls were introduced into multiple areas, often in different orientations, leading to a reduced celebration of the axis. An extensive addition was considered to the north of the site, positioned in front of the northern facade ,submerged below ground level to preserve views from the village. It did not integrate well and circulation was difficult. It was subsequently removed. New east-west axis were introduced to acknowledge the presence of the community to the west, and these axis served to separate various courtyard spaces created by the long linear axis extending from north to south. This axis introduced moments of pause, unfortunately diminishing the significance of the axis itself, indicating direction but failing to celebrate it adequately. Additionally, explorations of hipped roofs and various gable interpretations were undertaken to connect with the existing typology of the site.



Fig 130: Earlier design explorations separated the various courtyards from each other with built forms (Author: 2023).

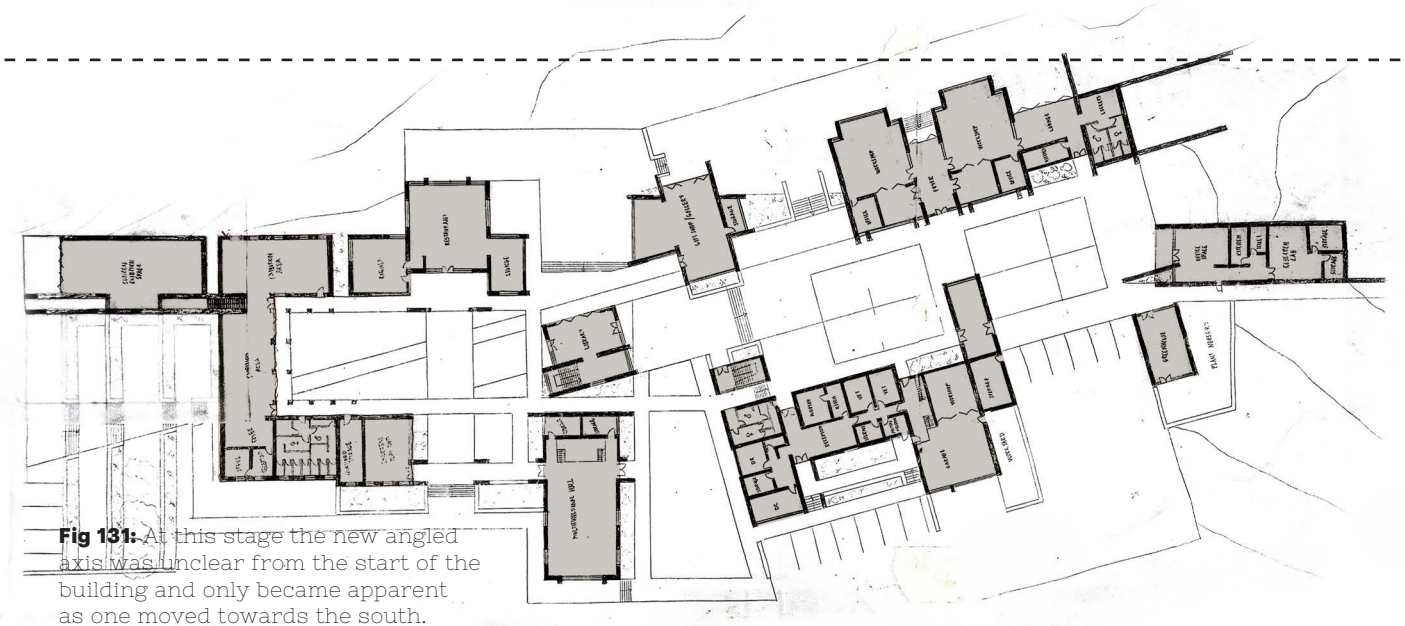


Fig 131: At this stage the new angled axis was unclear from the start of the building and only became apparent as one moved towards the south. (Author: 2023).

Community workshop spaces were located towards the west, while medical facilities and administrative functions were situated towards the east. Despite the intention to use the various courtyards to unite different parts of the design, they appeared as mere infill spaces within the structure, rather than purposefully designed areas around which the design was meant to revolve. These different spaces for visitors and locals, inspired by the Horizon House, were nestled into the landscape and interconnected by lengthy walkways. The inclusion of green roofs aimed to seamlessly integrate the structure into its natural surroundings when viewed from higher altitudes. Notably, the new angled axis was not introduced immediately from the heritage structure but became evident when progressing toward the south, where new structures began. Consequently, the axis lacked a firm grounding within the site.

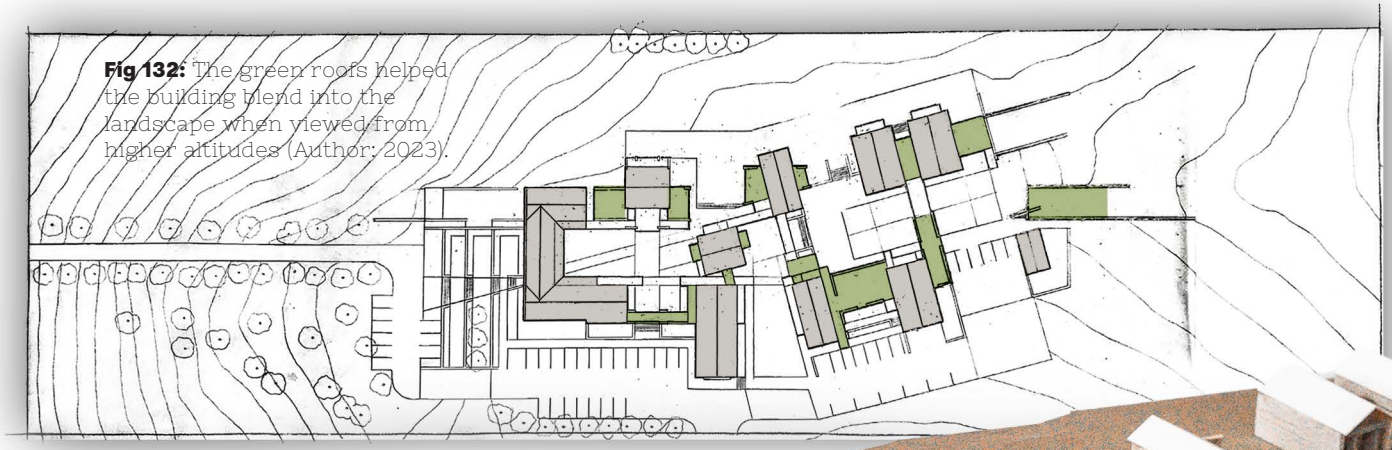


Fig 132: The green roofs helped the building blend into the landscape when viewed from higher altitudes (Author: 2023).

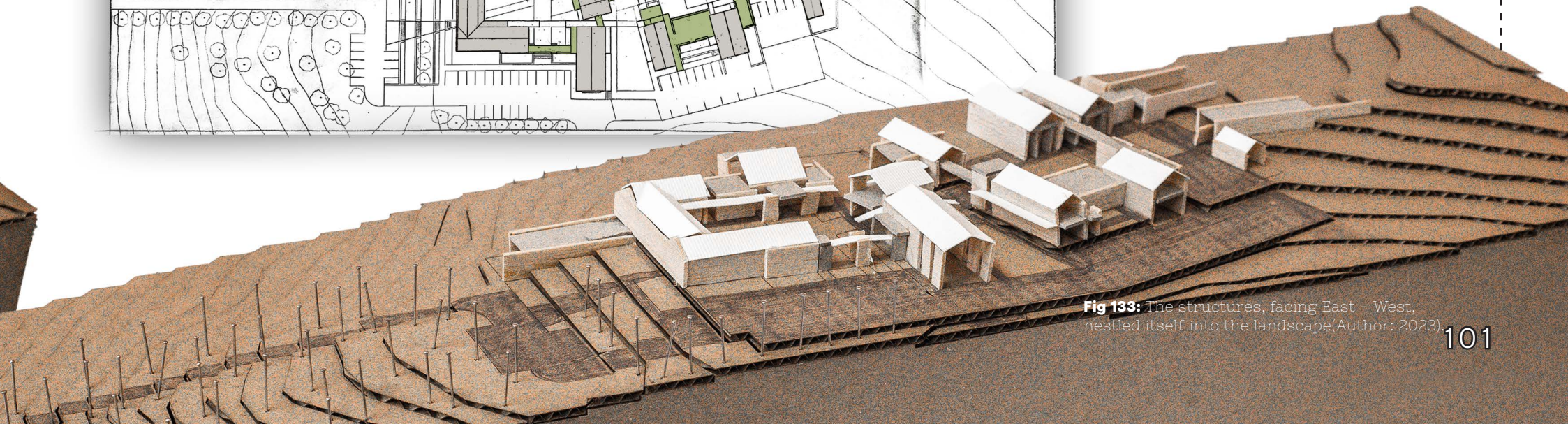


Fig 133: The structures, facing East - West, nestled itself into the landscape(Author: 2023).



Fig 134: Floorplan progress: The new, long, narrow courtyard helped to emphasize the angled axis (Author: 2023).

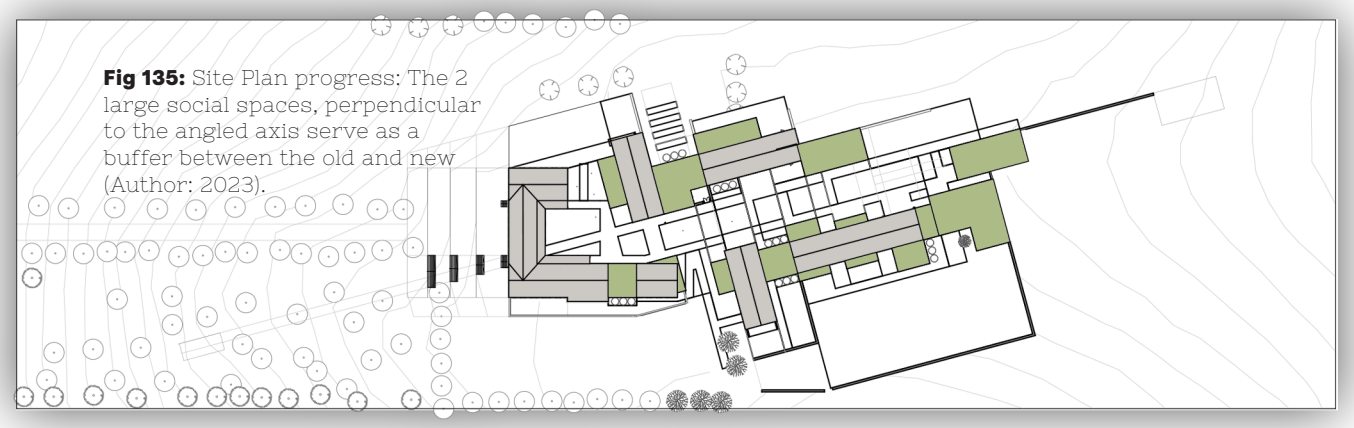


Fig 135: Site Plan progress: The 2 large social spaces, perpendicular to the angled axis serve as a buffer between the old and new (Author: 2023).

To enhance overall circulation and balance within the design, significant revisions were implemented. The new angled axis was established as the primary orientation line for the newer additions, extending from the entrance of the existing heritage building to the southernmost part of the site, ultimately connecting viewing platform, which connected to a hiking route leading into the mountains. An extension of the angled axis was also introduced towards the north in the form of a raised viewing platform.

Most new additions were aligned with this axis, effectively delineating the boundary between the existing and the new developments on the site.

Workshops were relocated to the west for improved accessibility, while previously west-oriented services were moved to the east. Two large social spaces were positioned perpendicular to the angled axis, serving as buffers between the old and new elements. The interruptions within the expansive interior courtyards were eliminated to create one continuous open space, divided by varying levels and pathways.

In terms of materials, efforts were made to blend the new structures with the existing ones by using natural sandstone from the area and corrugated steel sheeting. However, the elevations at this stage still required critical analysis, as they conveyed a more postmodern townhouse complex aesthetic rather than a visitor center designed to seamlessly integrate into the surrounding context.



Fig 137: 3D progress: The community Hall serves as a buffer between old and new(Author: 2023).



Fig 139: 3D Progress: The restaurant appeared postmodern and inauthentic (Author: 2023).



Fig 138: 3D progress: The library appeared as an angled concrete box tucked into the stone building (Author: 2023).



Fig 140: 3D progress: Workshops were moved to the Western edge (Author: 2023).



Fig 136: 3D model of the design during the design process(Author: 2023).

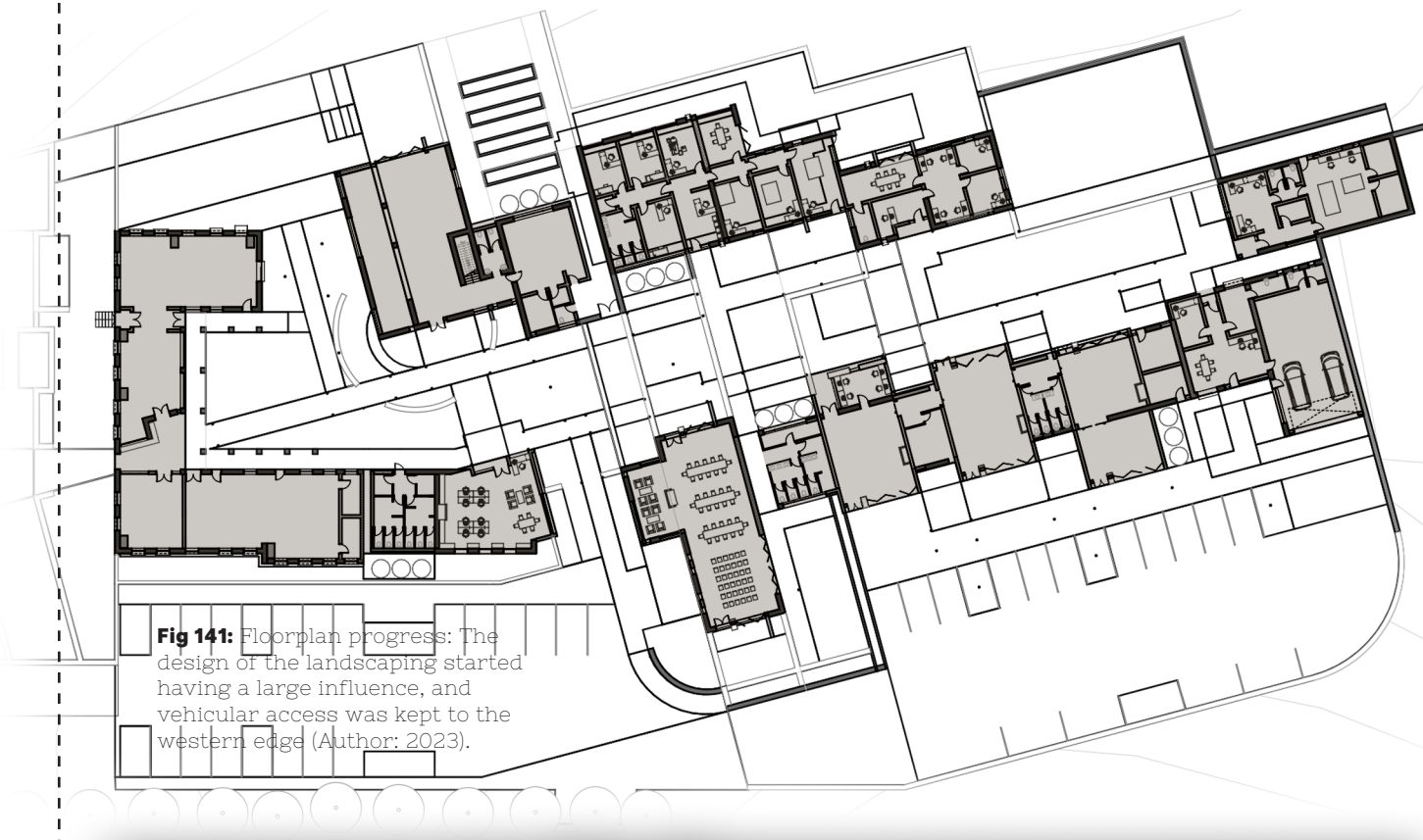


Fig 141: Floorplan progress: The design of the landscaping started having a large influence, and vehicular access was kept to the western edge (Author: 2023).



Fig 142: Site Plan progress: The Southern portion of the building was sunken into the ground to merge the building with the landscape (Author: 2023).

Landscaping played a vital role in grounding the design within the landscape. Vehicle movement and parking were restricted to the western edge of the site to preserve the carefully choreographed views toward the east.

A more contemporary approach was adopted for the materiality and composition of the facades. Roofs were designed to encase the building, resulting in a rural barn typology. While the roots of this design were recognizable, it placed undue emphasis on the roof structures, detracting from the significance of the substantial stone walls, and although contemporary , felt to out of touch with the context.

The thick stone walls had, to some extent, lost their prominence due to their frequent and haphazard placement.

The southern portion of the site, inspired by Witklipfontein Eco Lodge and Tibet Namchabawa Visitor Centre, was sunken into the ground, allowing the building to merge with the landscape as it approached the mountains.

The restaurant became a central focal point, featuring a second floor that extended beyond the ground floor, a design element influenced by the Loughloughan Barn.





Fig 143: 3D Progress: The community Hall(Author: 2023).



Fig 145: 3D Progress: A more contemporary restaurant inspired by the Loughloughan Barn(Author: 2023).



Fig 144: 3D progress: Library to the left and community to the hall(Author: 2023).



Fig 146: 3D progress: The steel cladded rural barn typology weighed down the design (Author: 2023).

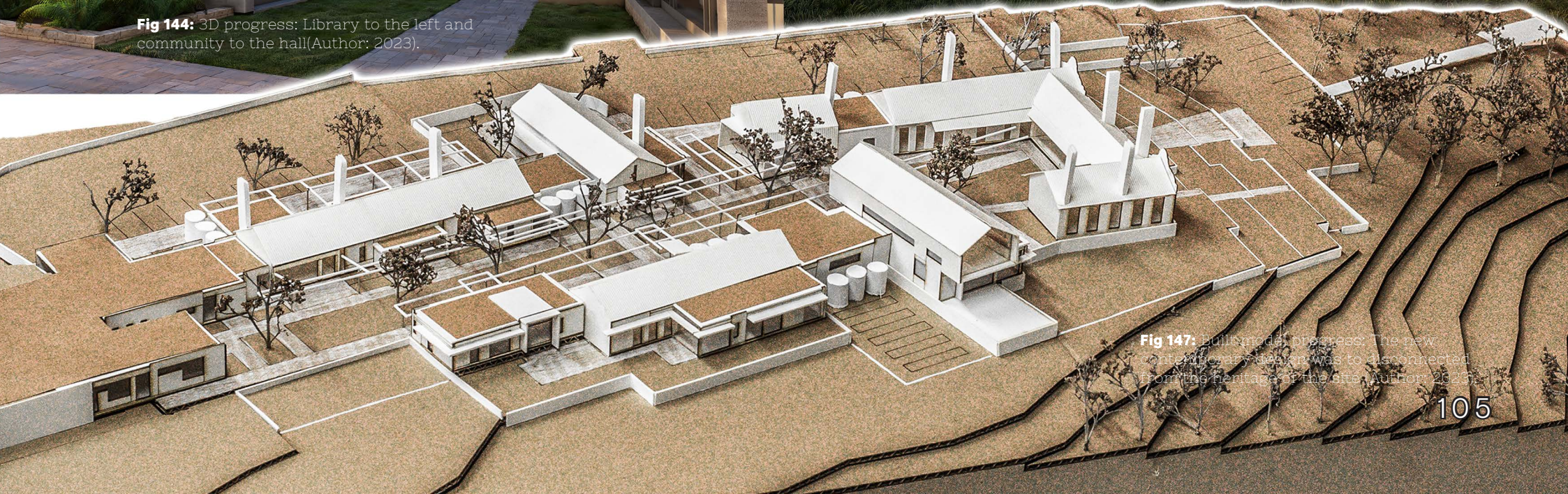


Fig 147: Built model progress: The new contemporary design was to disconnected from the heritage of the site. Author: 2023).

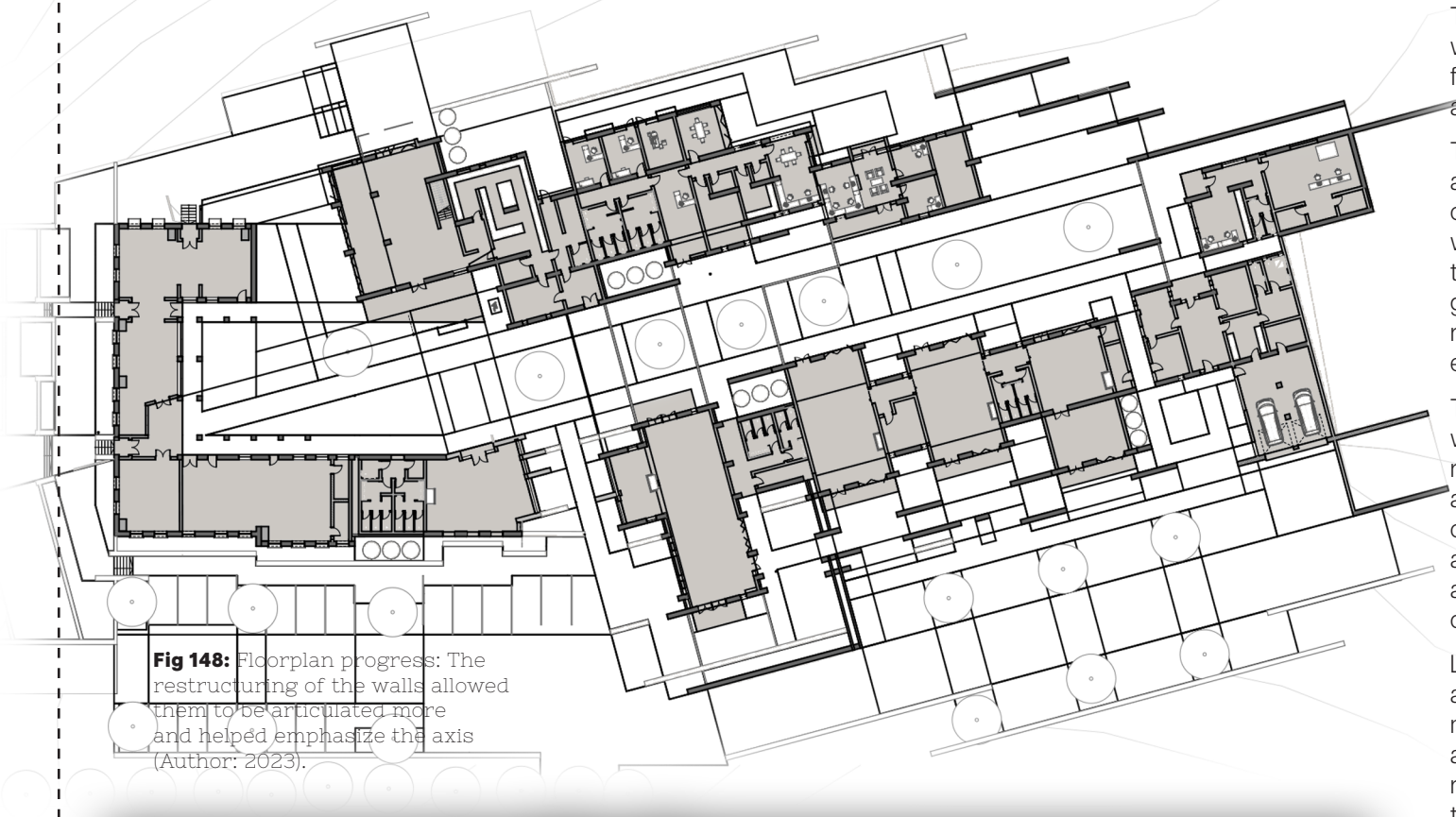


Fig 148: Floorplan progress: The restructuring of the walls allowed them to be articulated more and helped emphasize the axis (Author: 2023).

To restore the significance of the stone walls, they were restructured to span only from north to south, reinforcing the primary axis along these directions.

The redesign of the barn building addressed the challenge of the heavy cladded roof structures by replacing them with tectonic roof structures elevated from the stone walls. This adjustment allowed for greater articulation of both the walls and roof, aligning them more closely with the existing roofs found on the site.

The materiality of the new additions was distinct from the existing structure, replacing the sandstone blocks with a more informal stacked stone, which contributed to a natural and informal appearance compared to the precise and formal large sandstone blocks of the original structure.

Landscaping was also revised to create a seamless connection between the natural and built environments, promoting a harmonious blend rather than the bold raised terraces that had previously made the design stand out conspicuously within the site

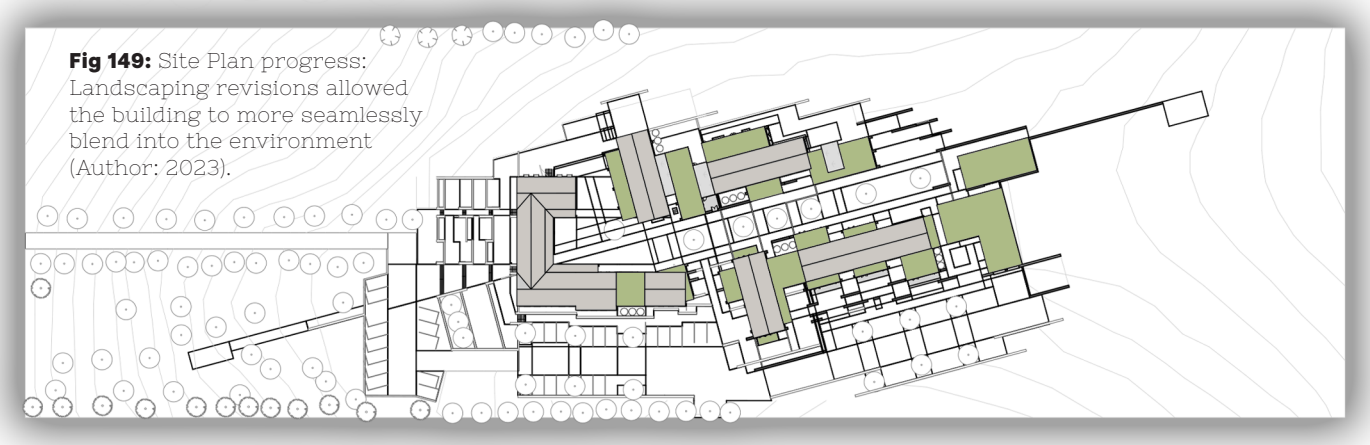


Fig 149: Site Plan progress: Landscaping revisions allowed the building to more seamlessly blend into the environment (Author: 2023).





Fig 150: 3D Progress: The new roof design, raised above the walls of the community hall, better articulates both elements (Author: 2023).



Fig 152: 3D Progress: The reworked restaurant facades was a more appropriate response to the existing heritage building (Author: 2023).

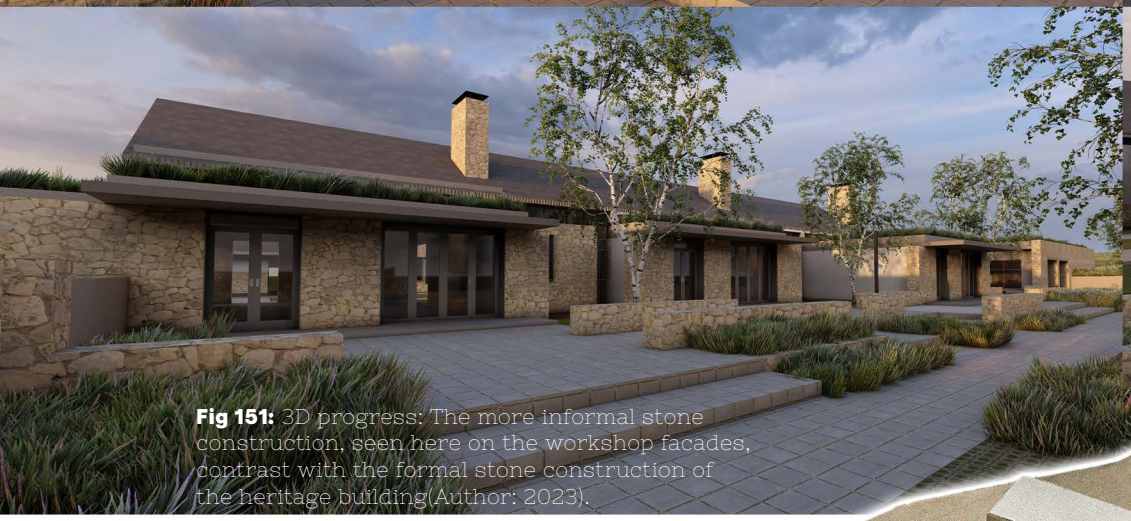


Fig 151: 3D progress: The more informal stone construction, seen here on the workshop facades, contrast with the formal stone construction of the heritage building(Author: 2023).

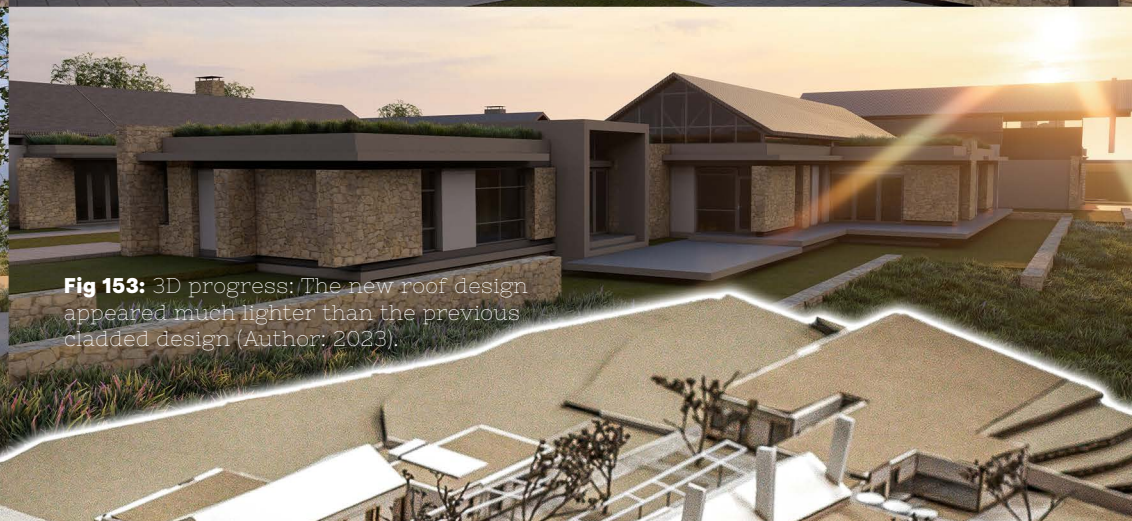


Fig 153: 3D progress: The new roof design appeared much lighter than the previous cladded design (Author: 2023).

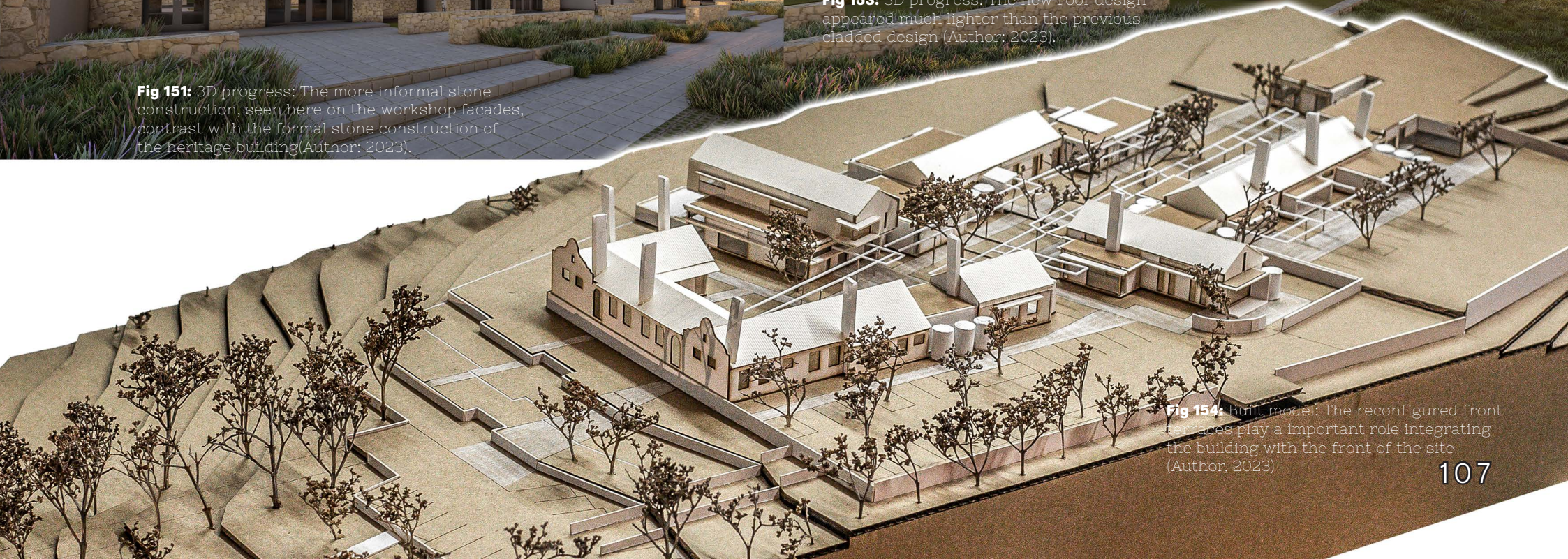


Fig 154: Built model: The reconfigured front facades play a important role integrating the building with the front of the site (Author, 2023)



Chapter 7



7. Final Design

***As of time of book hand-in**

Fig 155: New and existing in harmony (Author, 2023).

Context Plan



Fig 156: The Site in relation to the village and Zakhele (Author, 2023).



Fig 157: The site, on the hill south of the village (Author, 2023).

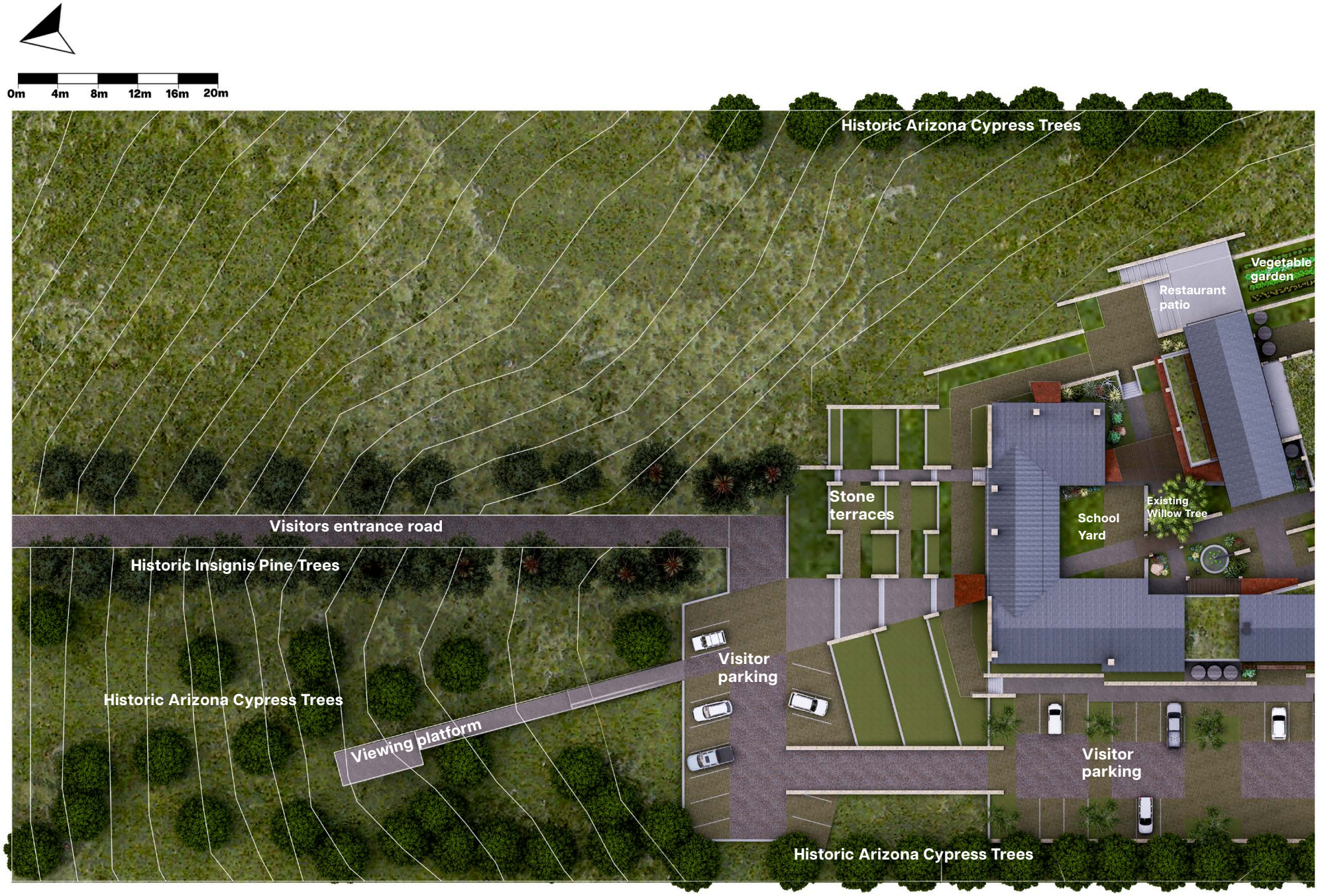


Fig 158: Site Plan (Author, 2023).


Viewing platform
Existing Arizona Cypress Tree
Themeda Triandra Grassveld
Staff parking
Visitors and staff parking
West Site Entrance

Site Plan

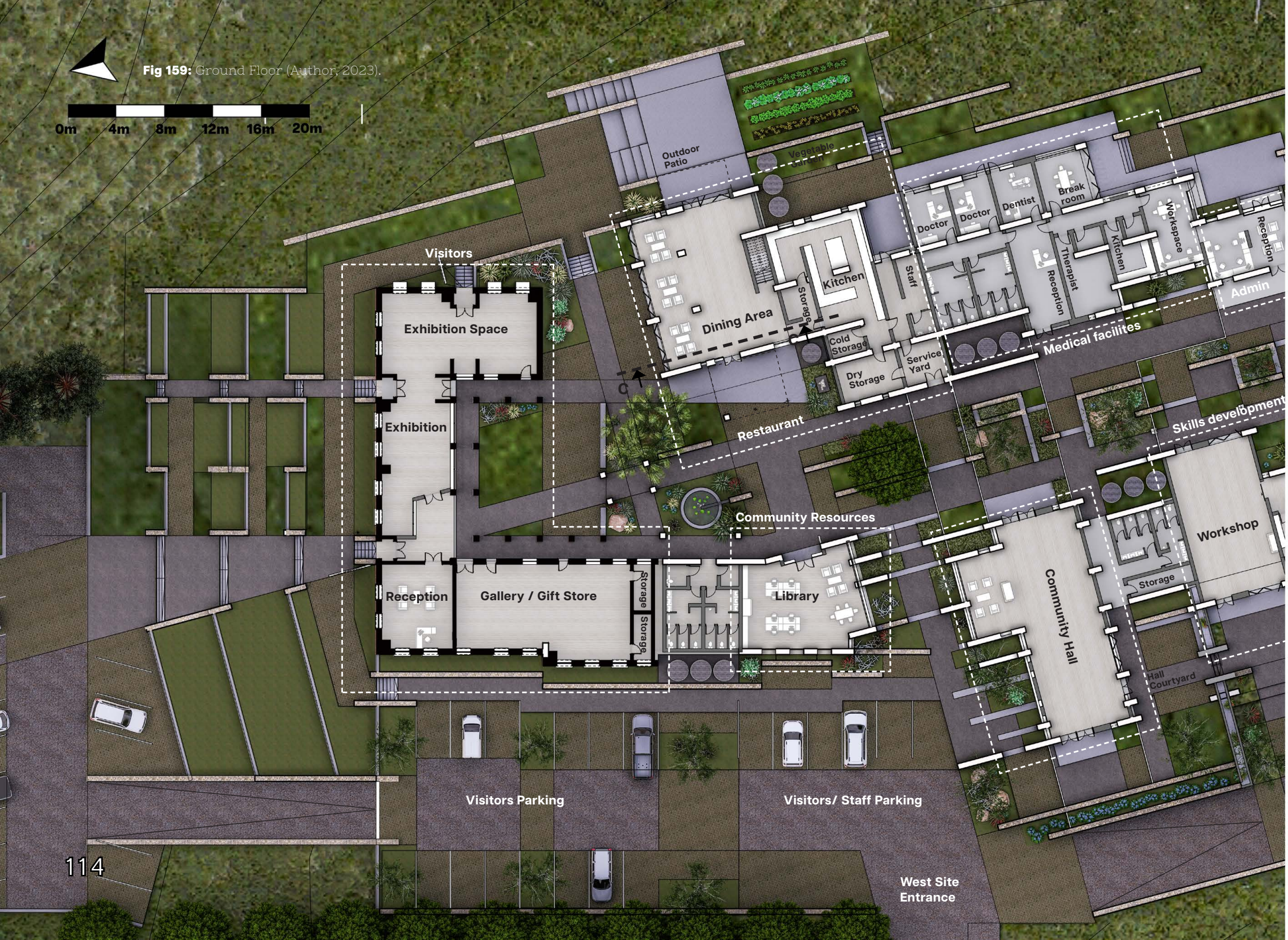


Fig 159: Ground Floor (Author, 2023).



Ground Floor



Fig 160: First Floor (Author, 2023).



First Floor



Fig 161: East Elevation, parallel to the new axis and new additions. (Author, 2023).



East Elevation



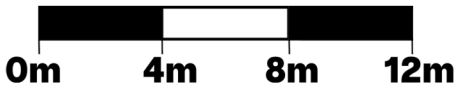
Fig 162: West Elevation, parallel to the Old axis and Existing heritage building (Author, 2023).



West Elevation



Fig 163: North Elevation, the existing heritage building with the new additions peeking from the back (Author, 2023).



North Elevation



Fig 165: The west facade is framed by the entrances to the workshops (Author, 2023).



Fig 166: The old and new in harmony (Author, 2023).



Fig 164: The restaurant and courtyard (Author, 2023).



Fig 167: Walkways bind together different areas (Author, 2023).



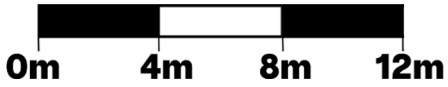


Fig 168: West Elevation of the workshops and community hall, parallel with the new axis (Author, 2023).

West Elevation (West Wing)



Fig 169: Restaurant section(Author, 2023).



Fig 170: Retaining walls blend the scheme into the landscape (Author, 2023).



Fig 171: Workshop section (Author, 2023).



Fig 172: Walkways bind together different areas (Author, 2023).



Fig 173: West Elevation of the restaurant, kitchen, medical facility and admin block, parallel with the new axis (Author, 2023).

West Elevation (East Wing)

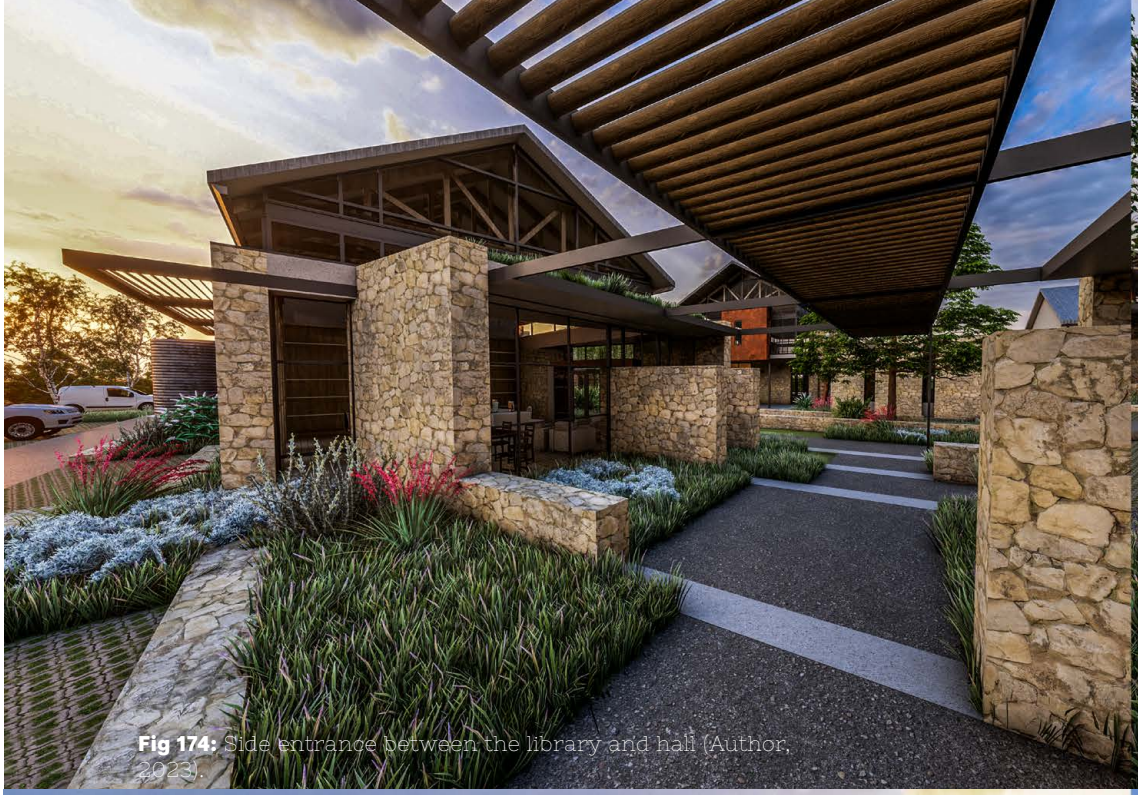


Fig 174: Side entrance between the library and hall (Author, 2023).



Fig 175: Community Hall (Author, 2023).



Fig 177: The East wing consists of the clinic, admin block and restaurant (Author, 2023).



Fig 176: Towards the south the building fades into the landscape (Author, 2023).



Fig 178: Section AA, cutting West to East through the workshop spaces and admin block (Author, 2023).

Section AA

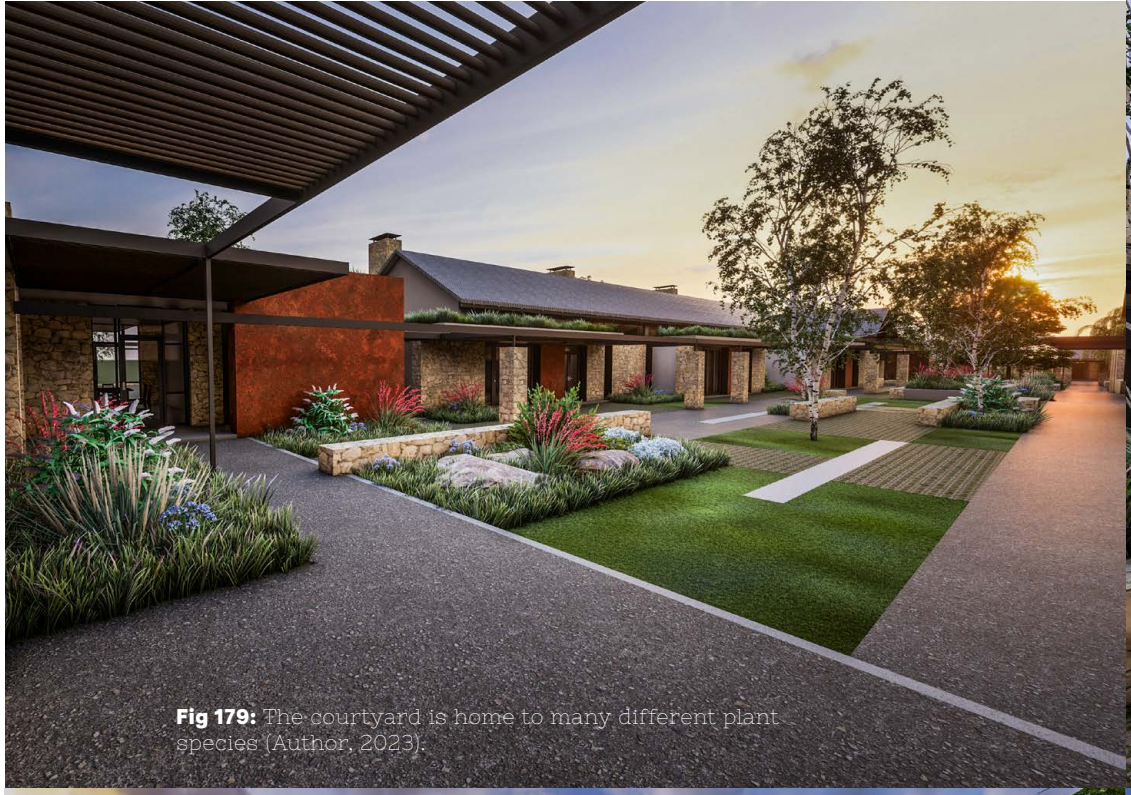


Fig 179: The courtyard is home to many different plant species (Author, 2023).

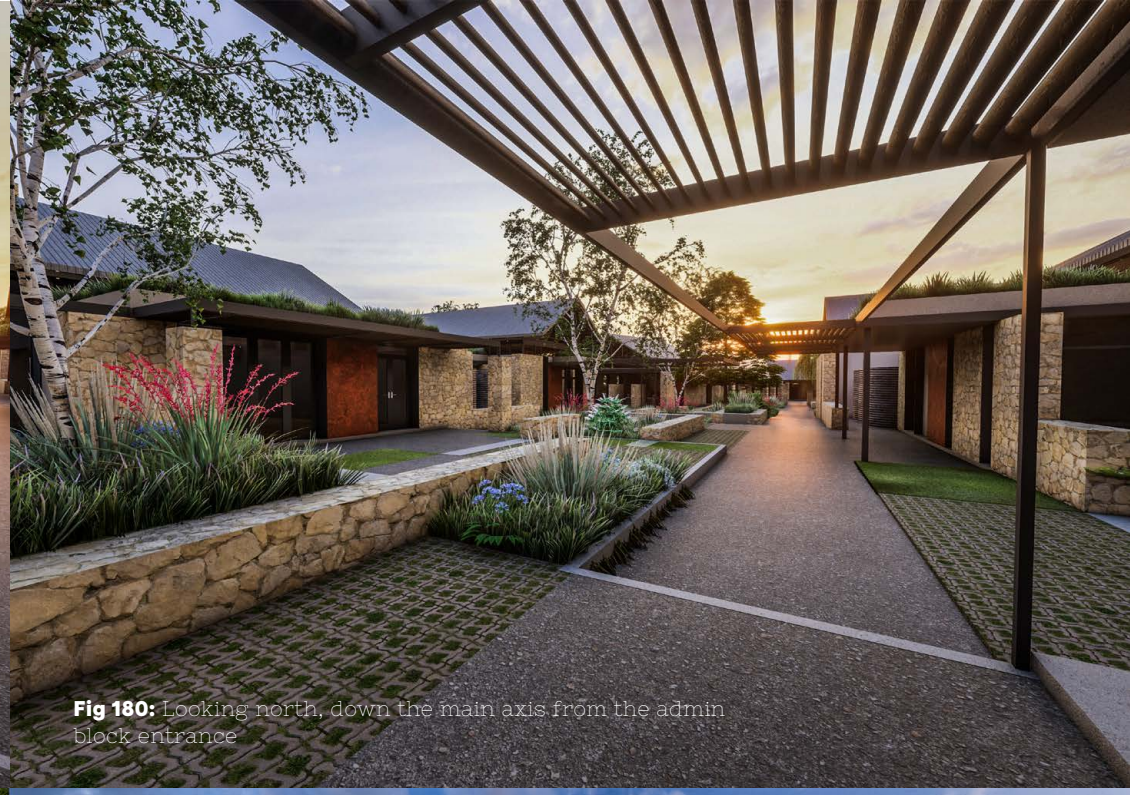


Fig 180: Looking north, down the main axis from the admin block entrance



Fig 182: The restaurant forms the main focal point of the scheme (Author, 2023).



Fig 181: The restaurant is the only double level part of the building (Author, 2023).



Chapter 8



8. Final Design

***As of time of final presentation**

***Graphics in this chapter consists of the final presentation posters, drawings thus not to scale.**

Fig 183: New and existing in harmony (Author, 2023).

Rhodes

[Re]Discovering the Grasslands

A visitor and community centre for Rhodes and the new Grasslands National Park in the highlands of the Eastern Cape

Visitor centres within a specific landscape are conceived as powerful communicative tools, facilitating users' immersive experience in a distinct contextual setting. In the context of the village of Rhodes, which foresees a forthcoming increase in tourism, the village currently lacks the necessary infrastructure to accommodate and educate visitors about its unique environment. Regrettably, many local visitor centres often fall short of authentically capturing the essence of the landscape and its surrounding context through their architectural design, resulting in inauthentic reproductions of assumed vernacular architecture. This study explores multifaceted themes, including temporality, permanence, ecotourism, and critical regionalism, with its primary objective being the identification and subsequent integration of site-specific nuances into the architectural framework. This integration aims to effectively harmonise the design within the encompassing landscape while recognising and embracing the local inhabitants of the valley. The inception of the visitor centre's design can be traced back to an analysis of the natural environment, serving as the foundation for a range of conceptual explorations. These explorations were further enriched by precedent studies and firmly rooted within theoretical investigations. This design endeavour challenges conventional perceptions of an appropriate visitor centre. Instead of resisting its historical presence within the Victorian village, it aspires to deeply assimilate itself into the natural surroundings, ultimately aligning and coexisting with the landscape and the local population rather than opposing it.

Clients

- SANPARKS
- WWF (South Africa)
- The village of Rhodes



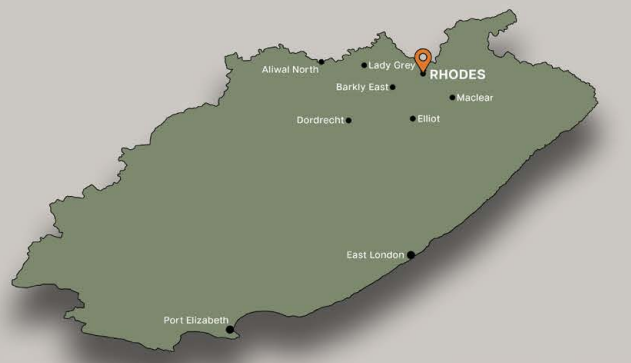




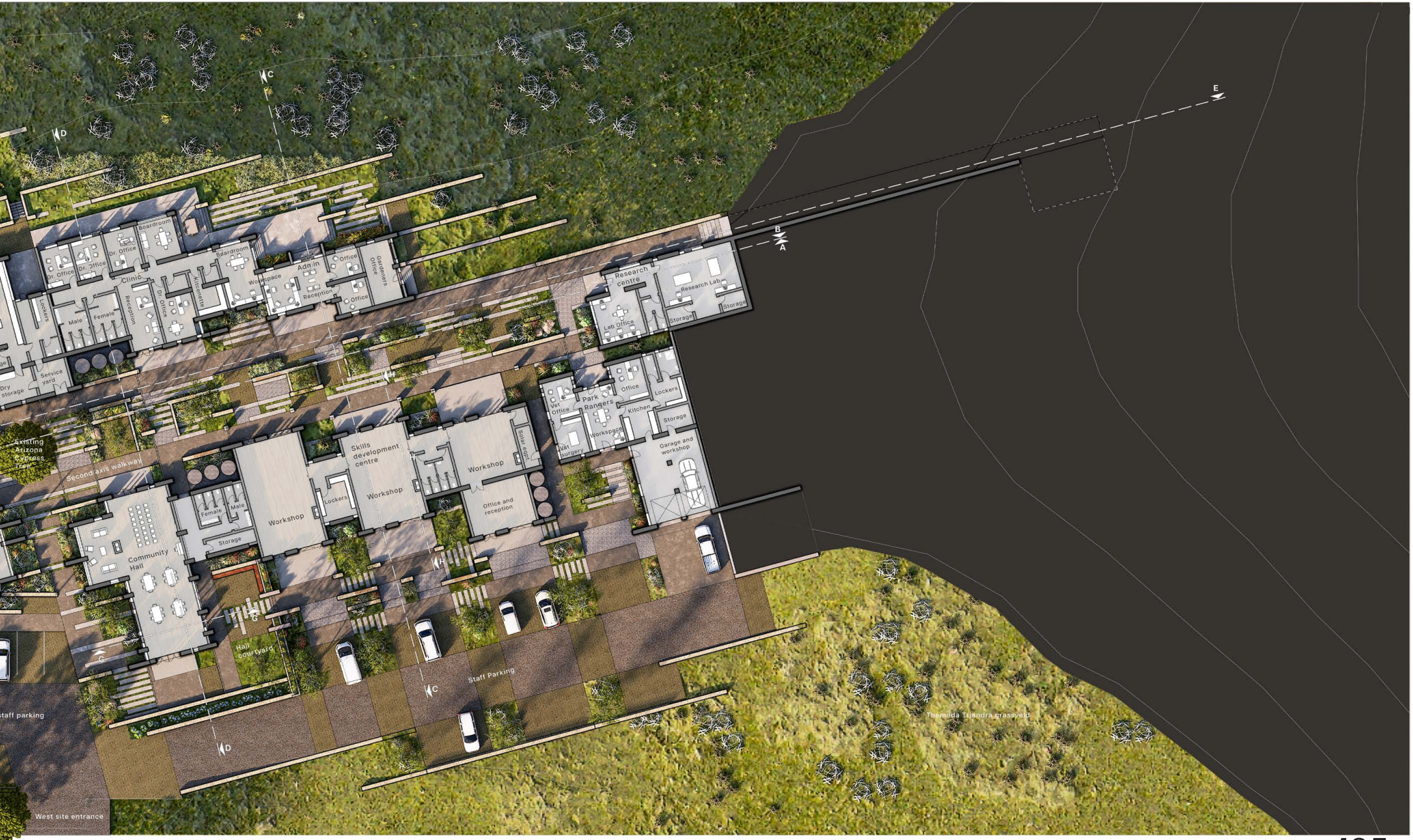
Fig 184: Cover poster, not to scale (Author, 2023).



Fig 186: Locality plan of Rhodes and Zakhele (Author, 2023).



Fig 186: Ground Floor poster, not to scale (Author, 2023).



Boardroom
Dr. Office
Clinic
Kitchenette
Workspace
Admin
Office
Gardeners Office
Reception
Lockers
Male
Female
Service yard
Dry storage
Research centre
Research Lab
Storage
Lab Office
Park Rangers
Vet Office
Vet surgery
Kitchen
Garage and workshop
Existing Arizona Cypress Trees
Second axis walkway
Skills development centre
Workshop
Solar eqpt
Office and reception
Community Hall
Hall courtyard
Staff Parking
Staff parking
West site entrance
Themeda Triandra grassveld



Fig 187: First Floor poster, not to scale (Author, 2023).


Clinic
Building grimm
Research centre
Viewing platform
Park Staff Offices
Existing Arizona Cypress Tree
Second axis walkway
Skills development centre
Community Hall
Hall courtyard
Staff Parking
staff parking
West site entrance
Tbemeda Triandra grassveld
A
B
C
D
E
F
G
H



Fig 188: Building elevations poster, not to scale (Author, 2023).


all
Skills development centre
Park staff offices
Kitchen
Restaurant
Visitors centre (Existing building)

Building Program

Building Staff

Admin

Visitors' reception	45m²
Office reception	20 m²
Office	10 m²
Office	12 m²
Open workspace	32 m²
Boardroom	14 m²

Medical facilities

Reception	30 m²
Office 1	16 m²
Office 2	16 m²
Dentist	16 m²
Therapy	24 m²
Ablution	40 m²
Boardroom	20 m²
Break room	14 m²
Storage	8 m²

Building maintenance

Solar equipment	9 m²
Garden equipment	25 m²

Park Staff

Rangers

Garages	75 m²
Storage	10 m²
Office	16 m²
Vet office	15 m²
Vet storage	15 m²
Ablution	12 m²
Open workspace	28 m²
Break room	15 m²
Lockers	12 m²

Scientist

Office space	30 m²
Ablution	9 m²
Kitchenette	3 m²
Lab	57 m²
Cold storage	6 m²
Storage	6 m²

Visitors

Visitors experience

Exhibition area 1	70 m²
Exhibition area 2	95 m²
Gallery/Gift store	110 m²
Storage	13 m²

Restaurant

Ground Floor	90 m²
Lounge area	45 m²
First Floor	130m²
Outdoor seating	90 m²

Kitchen

Food prep	65 m²
Staff and ablution	20 m²
Cold storage	7 m²
Dry storage	20 m²
Service yard	15 m²

Locals

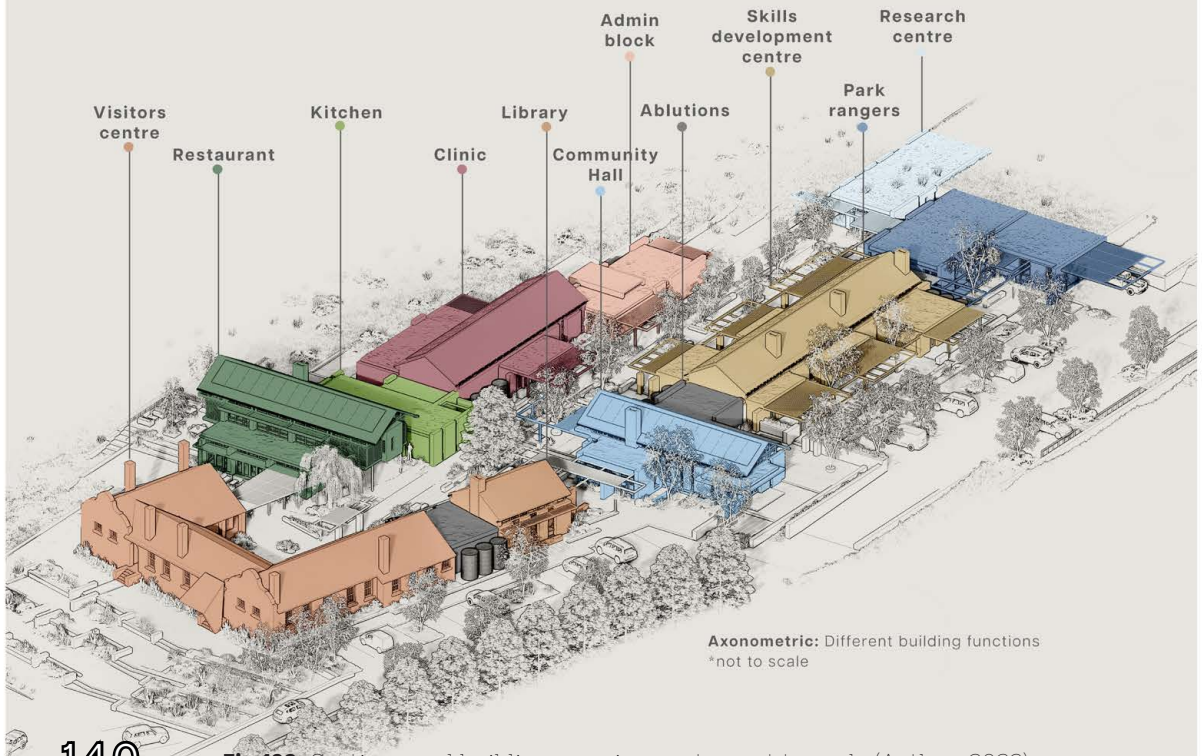
Library	**75m²**

Community Hall

Hall	140m²
Lounge area	30 m²
Public Ablution	35 m²
Storage	14 m²

Workshops

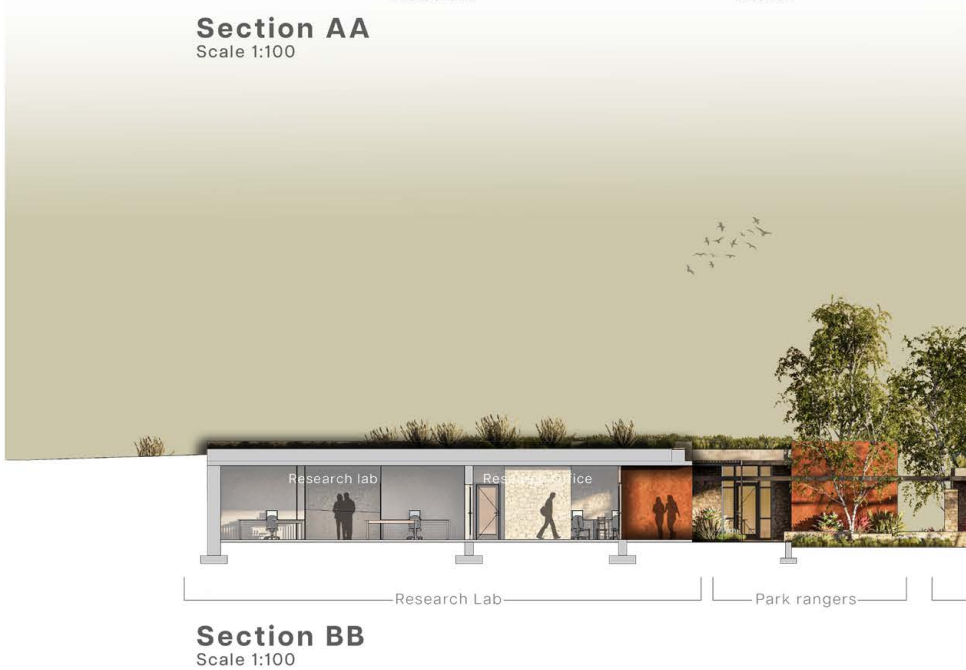
Workshop 1	95 m²
Workshop 2	80 m²
Workshop 3	50 m²
Ablution	20 m²
Lockers	20 m²
Storage	5 m²
Office	40 m²



Axonometric: Different building functions
*not to scale



Section AA
Scale 1:100



Section BB
Scale 1:100

Fig 189: Sections and building massing poster, not to scale (Author, 2023).

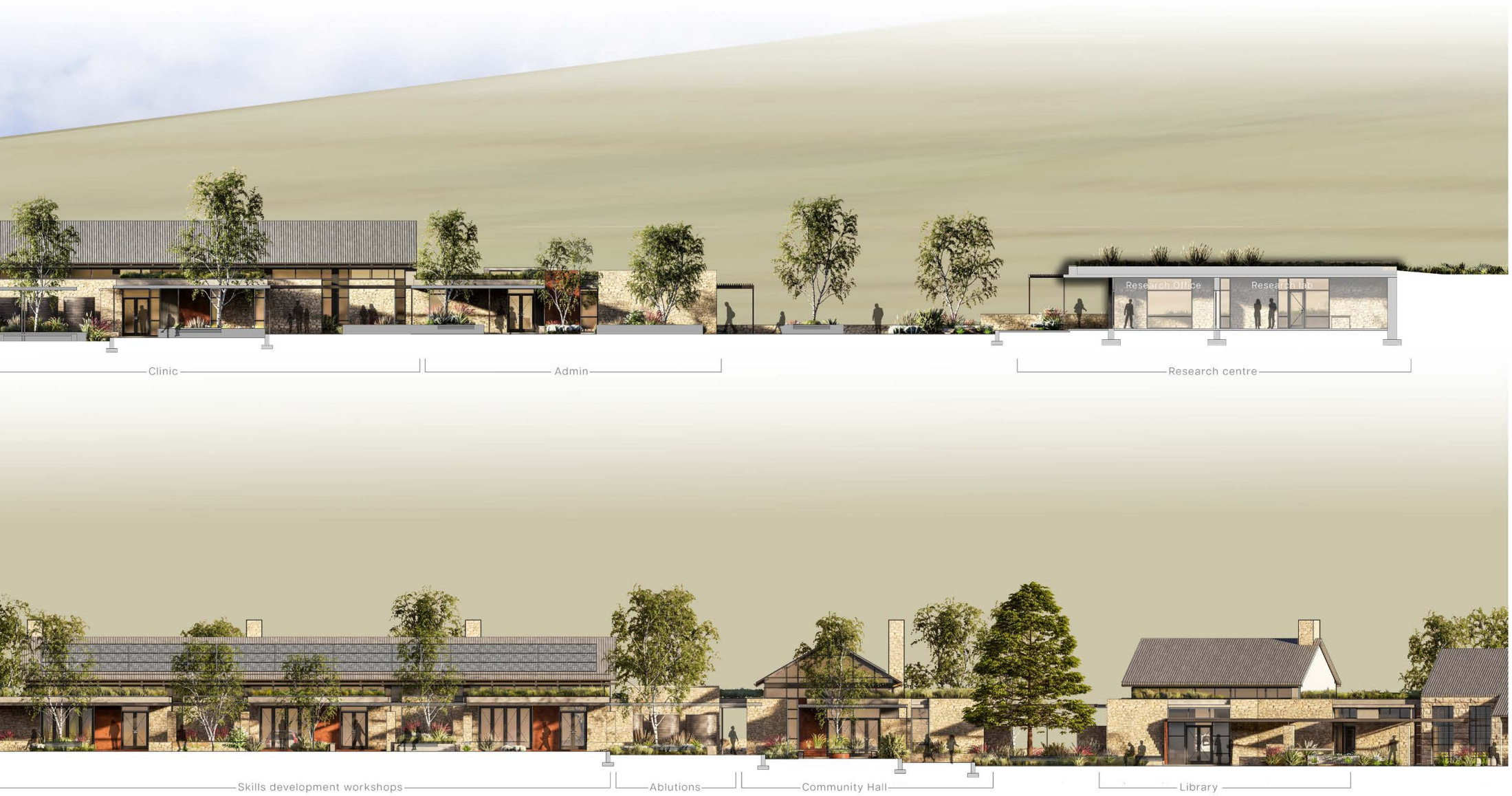

Research Office
Research lab
Clinic
Admin
Research centre
Skills development workshops
Ablutions
Community Hall
Library



Fig 190: Sections poster, not to scale (Author, 2023).



Section DD
Scale 1:100





Fig 191:
Landscaping and precedents poster , not to scale (Author, 2023).

PRECEDENTS

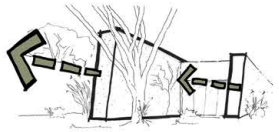
Coromandel Manor House

Architect: **Marco Zanuso**
Location: **Lydenburg, South Africa**
Year: **1975**

Coromandel manor house is a large family house rising from the veldt like a narrow ledge of stone. Stretching over 240m the various stereotomic stone walls running into the landscape leads into various threshold spaces which eventually leads to the heart of the home. The house is sunken into the landscape, clad with stone from boulders on the farm and a local quarry. Plant growth has overtaken the structure, hiding it in plain sight in the landscape. The design and material led to a building which feels modern and ancient at the same time (Architizer, 2016: Online).

Application to design
Multiple parallel linear axis form the backbone of the structure. Puncturing the walls to form perpendicular social spaces binds the multiple corridors into one large structure.
The different corridors create small intimate spaces each with their own privacy while keeping the scheme compact
The Materials used allows for the structure to blend into the landscape in time by providing a canvas fro plant growth to take over


The new additions and the informal landscaping creates a more approachable facade to the existing manor house (Samson, 2016: Online).


The walls emerge from the earth as stone fins cutting through the landscape, enclosing spaces and guiding movement. (author, 2023)


The walls form intimate spaces which guides the user outwards. Showing a glimpse of the landscape while still being sheltered. (author, 2023)


Floorplan of coromandel estate manor house (De Giorgio, 2011)

Loughloughan Barn

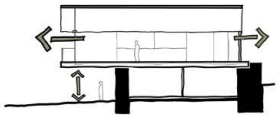
Architects: **McGarry-Moon Architects**
Location: **Broughshane, United kingdom**
Year: **2013**

This adaptive reuse project transformed a small and dilapidated single-level shed into a two-story dwelling. The resulting house has a distinctive character without resorting to a mere replication of historical architectural styles. Preservation of the existing stone structure was important, establishing a harmonious relationship between the old and the new. The design of the dwelling sought to integrate modern technologies with traditional building techniques. This design aimed to create a rural architecture suitable for the 21st century, rather than simply adhering to past methods and aesthetics (McGarry-Moon Architects, 2013: online).

Application to design:
The original stone structure connects to the new additions which emerge from the sturdy existing stone walls, giving the impression that the new elements have nestled themselves within the existing structure.
The contrast between the new steel cladding and the aged stone walls establishes a dialogue between the old and the new.
The balcony overhang re-imagines the concept of a gable within its specific context, extending toward the surrounding landscape. Supported by the existing stone walls, this new overhang firmly grounds the modern additions in their historical context.
The walls of the new additions are thinner than the robust historic stone walls, making it easy to distinguish between the old and the new elements.

The new additions sensitively integrates into the existing stone walls, resulting in a dynamic design appropriate for the 21st century(Currie, 2013: Online).




The new 1st floor addition cantilevers past the existing stone walls, which it is supported by. The stone walls thus ground the new additions to the site (author: 2023).


The new 1st floor addition re-imagines what a gable is within the historical context of the site (author: 2023).


The walls in the new addition are thinner than the existing stone walls, making the difference between old and new more clear (McGarry-Moon Architects, 2013: Online).

Horizon House

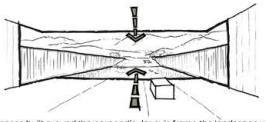
Architect: **RCR Arquitectes**
Location: **La Vall de Bianya, Spain**
Year: **2007**

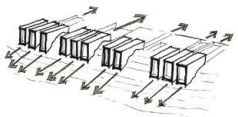
Rural house is a large home which lies on the edge of an embankment. The main axis connects the landscape above and below the embankment while the perpendicular axis mimics cracks formed in the earth by water running down a slope. The whole house is buried into the escarpment, either 1.5m or 3m underground depending on the privacy levels of the spaces (RCR Arquitectes, 2011: Online) .

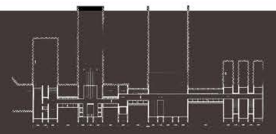
Application to design
The design anchored by a main axis interrupted by smaller perpendicular axis create pockets for living spaces.
Positioning on the slope creates dramatic views from the one side while the other is tucked into the landscape, sheltered from the elements while framing the view.
The corten steel material used age with time, capturing the passing of time and allow the building to become an organism within the landscape.

The house hanging over the escarpment, seen from below. (Mayer 2007:Online)




The spaces built around the perpendicular axis frame the landscape with a large overhang, being buried and by the corten steel retaining walls. (author, 2023)


Situated on a hills edge, there is a stark contrast between the parts which overhang and those which are buried into the hillside.(author, 2023)


Floorplan of horizon house (RCR Arquitectes, 2011: Online)

Loughloughan Barn

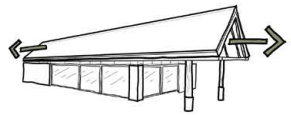
Architects: **McGarry-Moon Architects**
Location: **Broughshane, United kingdom**
Year: **2013**

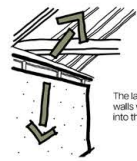
The original manor house was erected in the 1830s. The objective in designing these new extensions was to capture the essence of the traditional outbuildings found on site. The new additions were built using materials salvaged, specifically wooden beams and large stones from a condemned 1820 barn situated on the site. This incorporation of reused materials imparts an authentic quality that references back to the dwelling's original heritage.
Elevating the corrugated roof, and introducing clerestory windows between the upper wall and the roof's lower edge creates the illusion of the historically significant expansive roof appearing to hover above the substantial stone walls anchoring the structure to its surroundings (Circa Morris-Nunn Architects, 2016: online).

Application to design:
Raising the roof away from the walls allows each element to be articulated, lightening the visual presence of the structure. The design ensures privacy while allowing natural light to enter.
The repurposed stone for the new additions are in a more informal and rustic stacking pattern, in contrast to the precise and orderly stone bonds of the manor house. This design approach establishes a connection with the original structure while acknowledging the humble origins of the new additions as former outbuilding.
The informal landscaping stands in juxtaposition to the formal character of the historic colonial homestead. This contrast fosters a more approachable design aesthetic, in harmony with the natural surroundings.

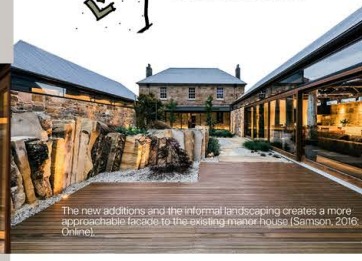
The additions gracefully blends the salvaged and the contemporary materials into a striking built structure (Samson, 2016: Online).






The large roof appears to float above the heavy walls. It stretches past the stone walls, providing shade to the exterior area below the overhang (author: 2023).

The large roof is elevated from the stone walls with clerestory windows allowing light into the structure (author: 2023).


The new additions and the informal landscaping creates a more approachable facade to the existing manor house (Samson, 2016: Online).

Tibet Namchabawa Visitor Centre

Architect: **standardarchitecture**
Location: **Linzhi, Tibet**
Year: **2008**

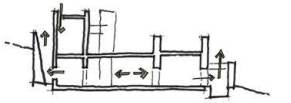
Tibet Namchabawa Visitor Centre is a visitor/community centre located in a very rural context. The intricate program caters for visitors, local inhabitants, and workers in the tourism industry. Inspired by rocks extending out from the mountains the building tucks itself into the site. Constructed from locally sourced stone the building camouflages itself in plain sight (standardarchitecture, 2020: Online).

Application to design
The building program accommodates the locals and visitors, ensuring the building will always be in use.
The materiality is from the surrounding environment, capturing the colors and textures of the surrounding landscape.
Enveloping the formal linear design in a more organic shape derived from the landscape forms a more appropriate link to the landscape. The roof structure over the main social space is punctured with multiple skylights, illuminating what would otherwise be a dark cave like space.

The view on arrival of Tibet Namchabawa Visitor Centre (standardarchitecture, 2008: Online)




The long corridors frame viewpoints of the landscape. Narrow rectangular skylights on the roofs allows for slits of light which illuminates the dark spaces. (author, 2023)


Puncturing the stereotomic walls creates a flow through the otherwise narrow spaces. Openings guide the eyes horizontal or vertical (author, 2023)


Floorplan of Tibet Namchabawa Visitor Centre (standardarchitecture, 2020: Online)

Witklipfontein Eco Lodge

Architects: **GLH Architects**
Location: **Vredefort, South Africa**
Year: **2018**

The lodge has been meticulously designed to seamlessly integrate with its natural surroundings. This design is a combination of vernacular building techniques and contemporary architectural elements. Inside, the panoramic views effectively blur the line between the interior spaces and the natural environment. The Free State region is characterized by large temperature fluctuations, thus the concept of thermal mass is employed to stabilize temperatures throughout the year, rather than relying on mechanical air conditioning. This is achieved through the utilization of thick stone walls, earth walls, and a green roof (GLH Architects, 2020: Online).

Application to design:
The rear facade of the building seamlessly blends into the landscape. This reduces the visual impact of the structure on the natural surroundings.
The incorporation of thermal mass serves as an effective technique for regulating the temperature variations prevalent in the region.
Local materials and vernacular building techniques incorporated into the design in a contemporary manner, further enhances the building's harmony with its natural and cultural context.
The prominent guiding walls serves to direct occupants towards the carefully framed views formed by the architecture.
Informal landscaping, utilizing plants and materials indigenous to the immediate context, blurs the boundary between the constructed structure and the natural landscape, fostering a sense of unity and continuity

The lodge blends into the natural landscape, reducing the visual weight of the building in the natural surroundings (Huyberechts, 2018: Online).




By submerging a portion of the site under the grounds and backfilling behind it, the boundary between building and nature is eliminated (Huyberechts, 2018: Online).


The sunken position of the building frames the views towards the outside and guides the experience of the user within. (Huyberechts, 2018: Online).

Sectional Perspective FF: Restaurant

Scale 1:50

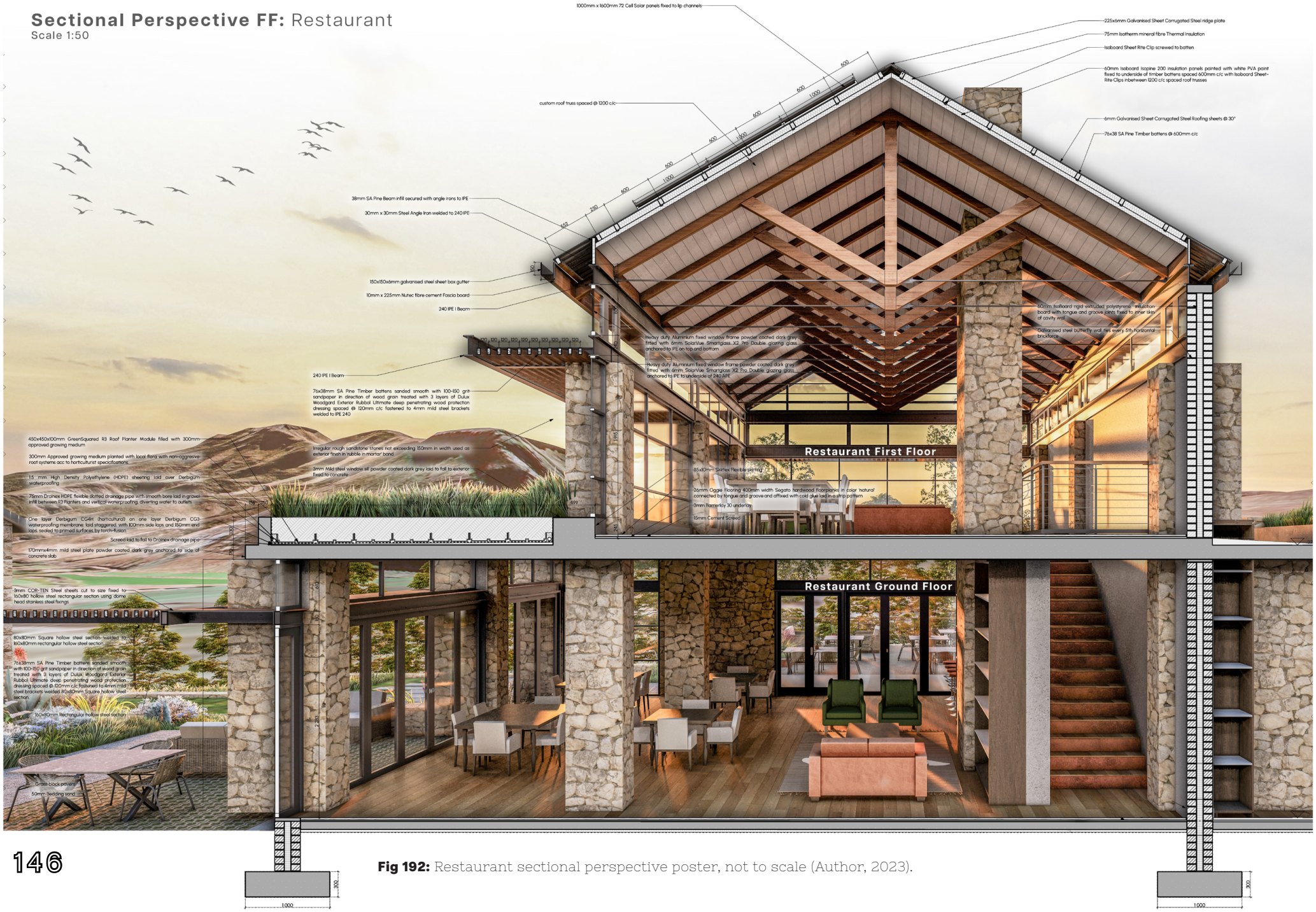


Fig 192: Restaurant sectional perspective poster, not to scale (Author, 2023).



Sectional Perspective GG: Community Hall
Scale 1:50



Sectional Perspective HH: Workshop
Scale 1:50

Fig 193: Sectional perspectives poster, not to scale (Author, 2023).



Fig 194: Main render poster 1, birds eye view (Author, 2023).



Fig 195: Main render poster 2, Restaurant and terraces (Author, 2023).



Fig 196: Main render poster 3, restaurant and courtyard (Author, 2023).



Fig 197: Main render poster 4, Eastern wing (Author, 2023)



Fig 198: Restaurant and courtyard (Author, 2023).



Fig 199: Old building with new entrance on eastern facade (Author, 2023).



Fig 200: Community Hall (Author, 2023).



Fig 201: Side entrance between library and hall (Author, 2023).

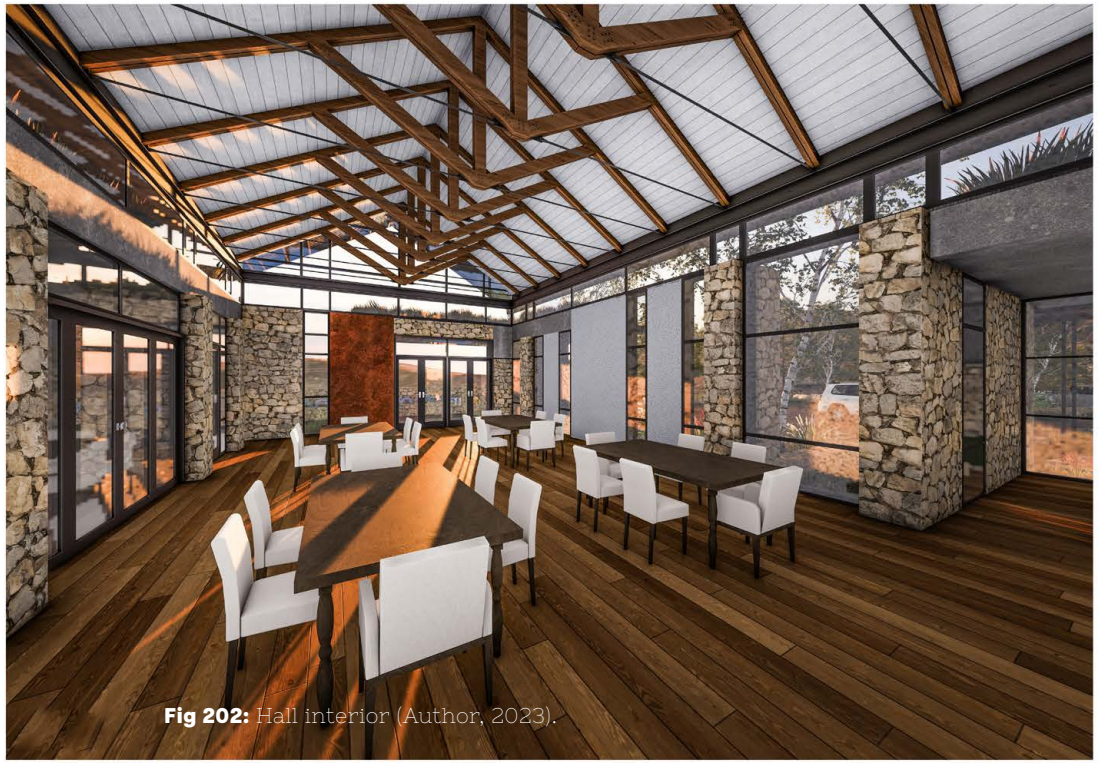


Fig 202: Hall interior (Author, 2023).



Fig 204: Restaurant first floor interior (Author, 2023).

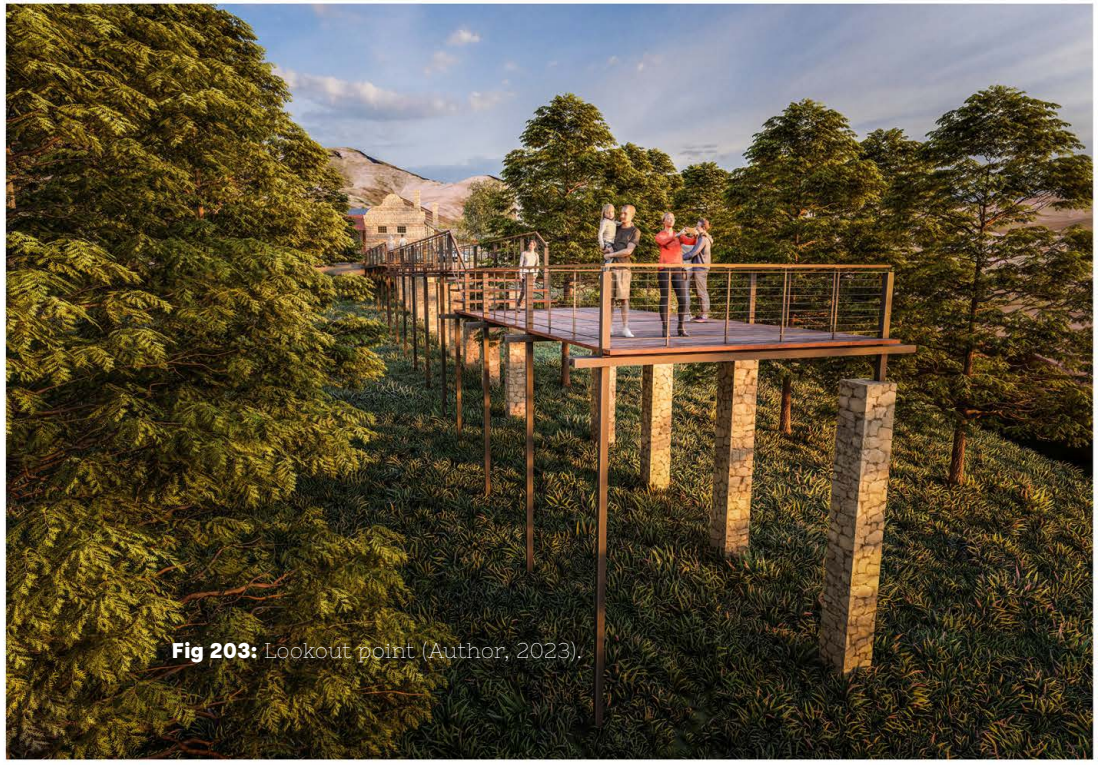


Fig 203: Lookout point (Author, 2023).



Fig 205: Lookout point (Author, 2023).



Fig 206: Western wing workshops (Author, 2023).



Fig 207: Western wing workshops (Author, 2023).



Fig 208: Workshops and courtyard(Author, 2023).



Fig 209: Research lab and rangers offices (Author, 2023).



Fig 210: [illegible]



Fig 212: The [illegible]



Fig 211: The project during winter times (Author, 2023).



Fig 213: The project during winter times (Author, 2023).



Chapter 9



9. Technical Report

8.1 Construction Touchstone

8.2 Heritage and conservation

8.3 Accessibility

8.4 Parking

8.5 Landscape Integration

8.6 Building structure

8.7 Building services

Fig 214: Close up of the gable of the existing building (Author, 2023).

Construction touchstone

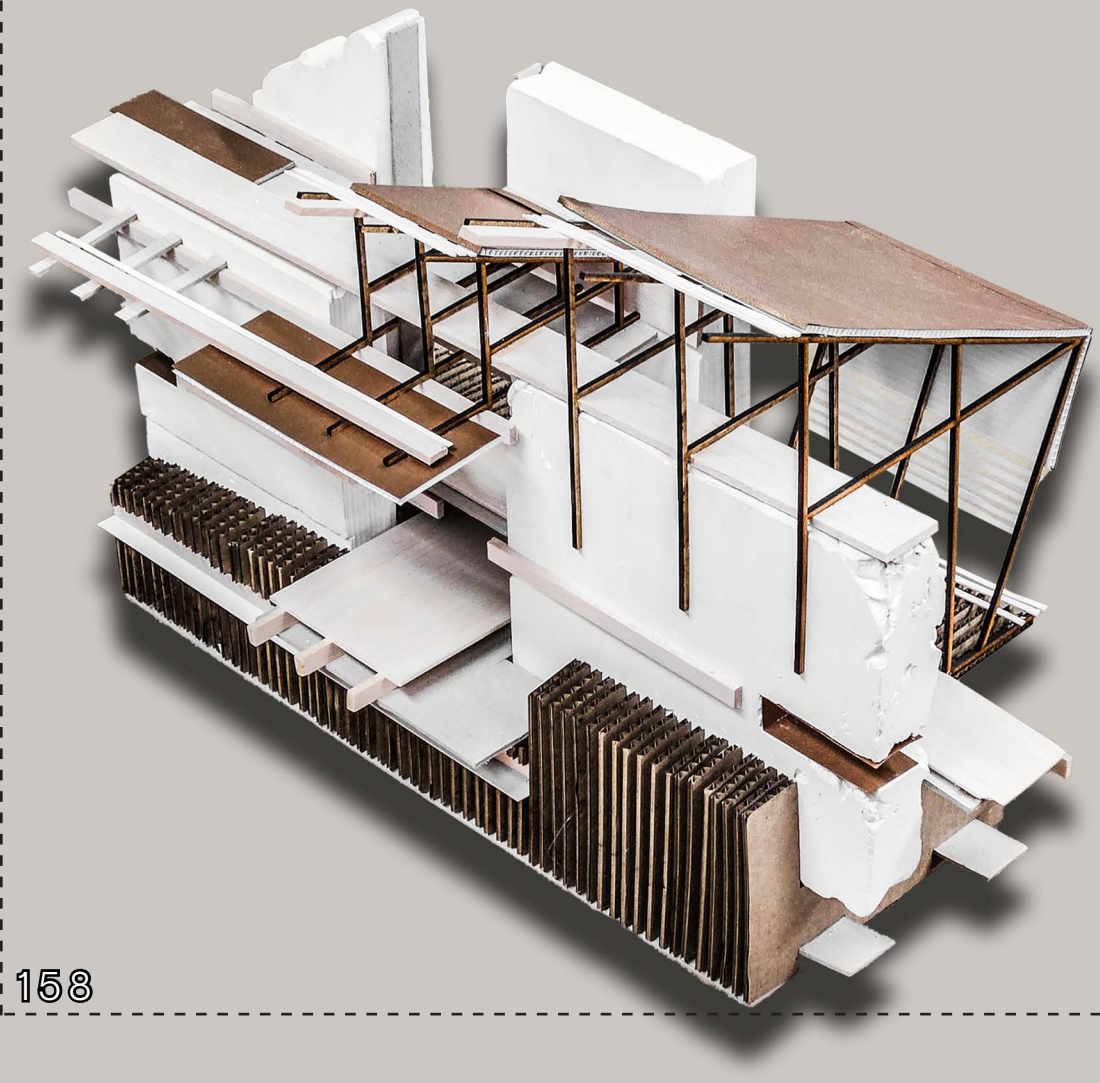




Fig 215: Initial roof designs were single plane roofs, this however felt out of place as the local architecture made use of hipped or gable roofs (Author, 2023).

Fig 216: Thick stone walls in the construction were inspired by the 500mm thicks stone walls of the existing building. The thickness of the walls were especially clear when passing through doorways (Author, 2023).



Fig 217: The strong contrast between light and heavy elements, the stereotomic vs the tectonic was evident from the first explorations. Light, fragile roof structures hovering over heavy, rooted stone walls. (Author, 2023).

The construction touchstone served as the initial investigative phase in the project's development. It found its inspiration in established architectural precedents and sought to identify elements that would be most fitting for the specific site and its surrounding context. From the start there is a clear juxtaposition of light and heavy elements, as well as the interplay between tectonic and stereotomic characteristics. The roof structures, comprising slender corten steel panels, are gracefully supported by an intricate steel framework, delicately resting upon the robust stone walls hewn from the indigenous rock. Within the landscape, vestiges of antiquated structures and ruins are dispersed, and the presence of rust is a pervasive sight, whether stemming from aged roofs or discarded farm equipment. The corten steel panels themselves are destined to evolve, serving as visual markers of the inexorable passage of time.

While stone construction can be observed in the village, particularly in its main historic buildings, more recent additions have tended to deviate from this tradition. However, the project's design determined that the use of substantial stone walls was far more harmonious with the surrounding context than alternatives such as plastered or brick-faced walls. Consequently, this principle was integrated into the design, with the substantial stone walls built to create recesses for habitation. These recesses emulate the topographical features of the valley, concealing additional farm settlements behind each corner.

The ultimate construction outcome represents a departure from the initial exploratory phase. Nevertheless, the fundamental concepts and ideas that underpinned the project have been retained, transformed, and refined to achieve the final result

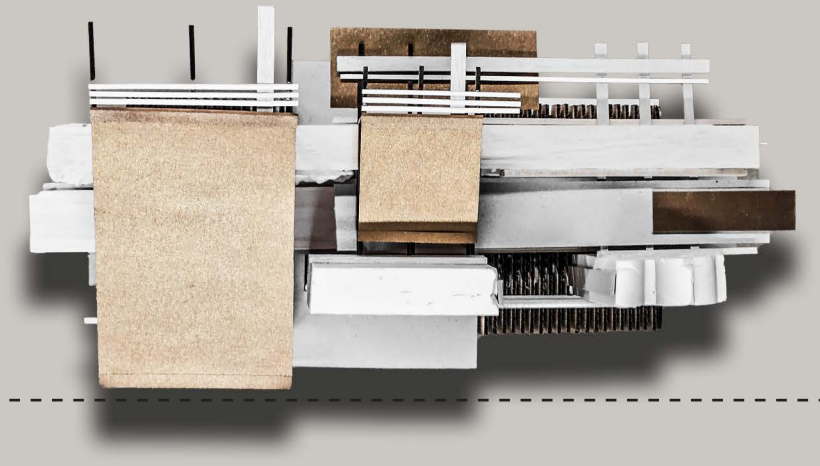


Fig 218: Initial forms were very rigid and linear, similar to the layout of the village, but this changed as the design developed. (Author, 2023).

Heritage and Conservation:

The extensions for the library and ablutions, situated to the south of the western wing of the original building, are thoughtfully designed to create the illusion of a connection to the old heritage structure, even though they remain physically separate. The old and new structures are separated by a shaft, enclosed and ventilated on both sides. The deliberate decision to maintain a gap between the new and old buildings is rooted in the understanding that the existing building and its foundations have already settled. Attempting a direct connection could risk movement in the soil between the old and new sections, potentially resulting in structural cracks and separation.

The deteriorated wooden frames in the original building have been replaced with new wooden windows that adhere to the exact specifications. On the eastern and western facades of the building, the window openings were enlarged by removing the existing windows and stone sills, allowing for adjustments to the wall structure. These alterations lowered the windows from their previous height down to floor level. The new windows within these enlarged openings are enclosed in steel casings, concealing any marks left behind from cutting into the sandstone walls. Furthermore, the original wooden floors within the existing building have undergone refinishing and necessary repairs, while the original ceilings were carefully repaired and retained.



Fig 219: The new additions are highlighted with white, the existing sandstone building is highlighted dark grey. The new additions are tucked behind the historical structure (Author, 2023).

Accessibility

Given the remote location of the village and the potential challenges posed by inclement weather, such as heavy summer rainfall or snowy winter conditions, it is important to acknowledge that the site may experience periodic inaccessibility to standard or non-off-road vehicles throughout the year. This is a characteristic of the area, and residents have adapted to these conditions. This reality also influences the construction schedule, as weather conditions must be closely monitored to ensure that road conditions permit the delivery of construction materials. Winter weather, in particular, will significantly impact the construction schedule, necessitating a focus on building during the more favourable summer months.

Access to the site can be obtained from either the existing gravel road to the west or the new road from the north, which links to the axis of Church Street in the village. The latter road follows the path used by schoolchildren when the school was operational and serves as the primary route for visitors. The existing gravel road accommodates two-way traffic flows, functioning as an exit for visitors from the new road to the north and as an entrance and exit for residents, staff, and service delivery vehicles.

Parking

Parking spaces are strategically positioned mainly to the west of the site, at the terminus of the new road from the axis of Church Street, leading towards the building. Additionally, parking areas are situated on the north and south sides of the existing gravel road entrance on the site's western side. Parking to the north of the front building façade is designated for visitors and seamlessly blends into the existing terraced landscape on the site. Further to the south, a ramp guides vehicles, leading to additional parking spaces for visitors and staff on the western side of the building. The parking layout is designed to create an informal atmosphere, with trees and landscaping interspersed between parking spaces to soften the overall appearance and avoid stark open spaces.

To the south of the entrance on the site's western side, another parking area is raised on a terrace reserved for staff and local residents who utilise the facility's amenities. This area is more private and not accessible to visitors.

Fig 220: All Parking is located towards the West of the site. Parking becomes more private the more south one moves. (Author, 2023).



Landscape integration

Scale

The overall footprint of the building is larger than it appears, primarily due to the southern portions of the structure being partially sunken into the site, with green roofs ensuring a harmonious integration with the surrounding environment. The building has been thoughtfully divided into smaller segments, seamlessly interconnected to better conform to the prevailing scale of buildings within the village to mitigate the visual impact of a large, imposing structure that would not align with the existing context.

Landscaping

Landscaping plays a significant role in seamlessly integrating the new structures into the surrounding landscape. The elongated and narrow interior courtyard created by the new additions is divided into distinct areas through variations in elevation and subtle interventions like low walls, seating arrangements, different ground coverings and garden spaces. These elements delineate the expansive courtyard into different "garden rooms," each with a different layout and plant selection. Landscaping in these areas incorporates sandstone, mirroring the material used in the building's construction. These spaces are planted with indigenous and acclimatised exotic plants characteristic of the area. The new trees planted are Betula pendula, commonly known as silver birch. They do well in the environment of the valley and are fast growing. This has led to them becoming widely planted within the village. Conversely, landscaping in the scheme's exterior areas is less intensive than the courtyards. These spaces consist of terraces supported by sandstone retaining walls, featuring a more natural and informal selection of plantings that seamlessly blend with the existing natural vegetation. Towards the north of the building, the existing terraces have undergone reconstruction; sandstone retaining walls have created indented and extruded formations that form various distinct spaces within these expansive open terraces.

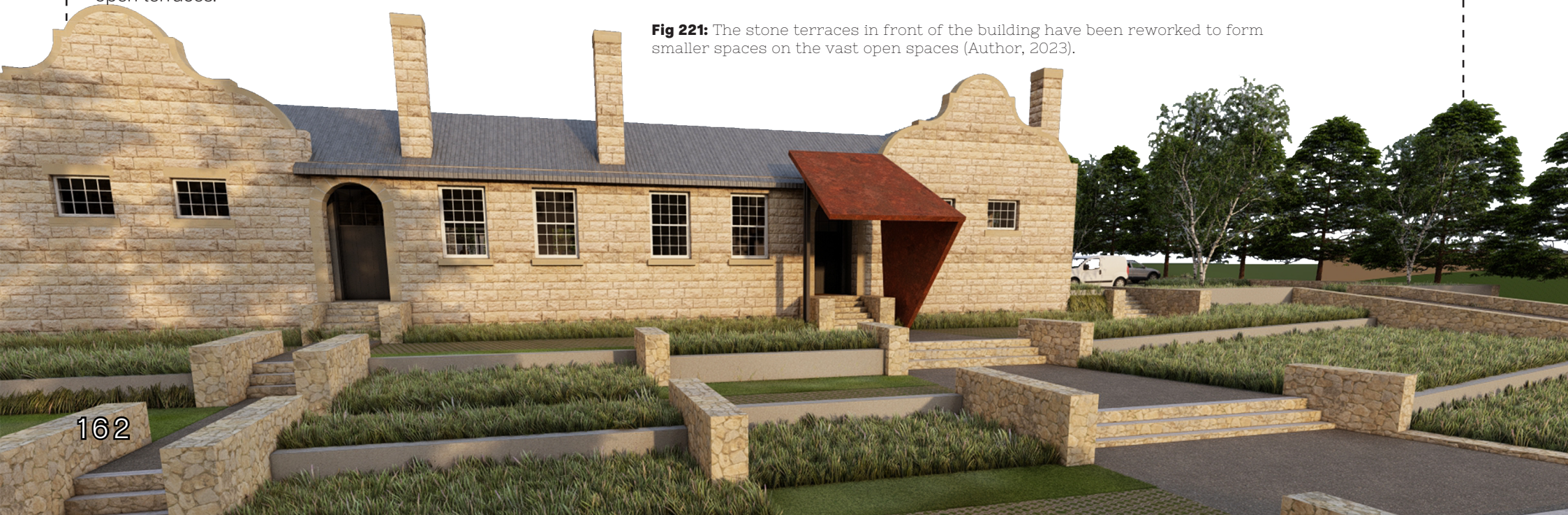


Fig 221: The stone terraces in front of the building have been reworked to form smaller spaces on the vast open spaces (Author, 2023).



Fig 222: Landscaping towards the exterior of the site is more natural and strategically placed retaining walls aid in the structure blending into the environment (Author, 2023).



Fig 223: The green roofs towards the south of the building hides the science lab and rangers offices, creating the illusion that the building footprint is smaller than it actually is when viewed from above (Author, 2023).



Fig 224: The long narrow courtyard has been divided into multiple smaller pockets through the landscaping(Author, 2023).

Building Structure

Green Roofs:

The green roof system incorporates Green Squared's R3 Planter modular system. This system is installed atop a 255mm reinforced concrete roof slab, sealed with a single layer of Derbigum CG4H (horticultural) and one layer of Derbigum CG3 waterproofing membrane. A 1.5 mm High-Density Polyethylene sheeting is laid over the Derbigum waterproofing to provide an additional layer of protection. Water drainage from the roof system is facilitated through 75mm Drainex HDPE flexible slotted drainage pipes.

The R3 planter system comprises modular planter units measuring 455mm x 455m x 100mm, each weighing 20kg when filled and saturated. A growing medium with a depth of 300mm is employed, considering environmental conditions and plant selection. This system is particularly advantageous due to its ease of installation and maintenance.

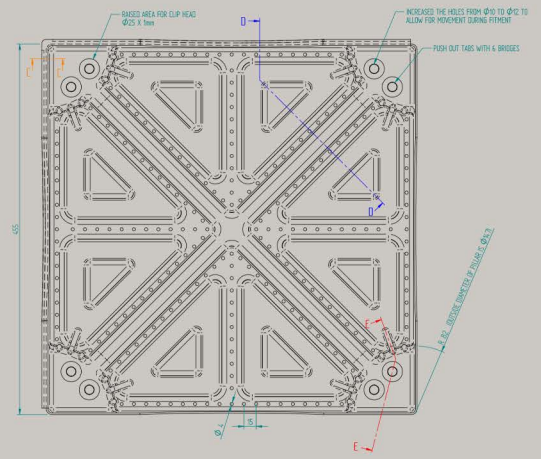
The green roof is planted with indigenous plant species from the local area, specifically chosen for their non-aggressive root systems.





Fig 226: Using this system is quicker and easier than conventional green roof systems.(Greensquared, 2023: Online).





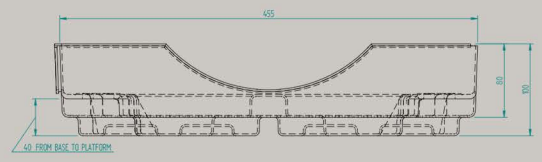


Fig 225: The structure of the greensquared R3 Planter boxed (Greensquared, 2023: Online).



Fig 227: Green roofs allow the building to blend better into the natural environment and helps reduce visual impact of the building on the site (Author, 2023).

Corrugated Steel Roofs:

Corrugated steel roof sheeting reigns supreme as the most prevalent roofing material in the region, owing to its widespread availability, ease of handling, and structural resilience. Local suppliers readily stock these materials, making engaging local labour in the construction process feasible. Moreover, corrugated steel has become integral to the South African rural landscape. Its incorporation seamlessly blends with the village's context, paying homage to the existing school's roof, the Victorian-era houses within the village, and the numerous farm sheds dotting the valley.

Certain sections of the building feature pitched corrugated steel roofs, specifically above the new library extensions, the community hall, the workshops, the restaurant, and the clinic.

6mm Galvanised Sheet Corrugated Steel Roofing sheets are fixed to 76x38mm SA Pine timber battens secured to the rafters. Roof trusses are uniformly spaced at 1200mm intervals, with a distinction between truss types: "Truss Type 1" is used when the trusses are intentionally exposed, while "Truss Type 2" is used for situations where trusses are concealed. Timber battens are spaced 600mm apart to accommodate insulation when "Truss Type 1" is used. 60mm Isoboard Isopine 200 insulation panels, coated with white PVA paint, are attached to the underside of the timber battens, ensuring insulation between each roof truss. An additional layer of 75mm Isotherm mineral fibre Thermal Insulation is placed between the Isoboard and the steel roof sheeting, offering enhanced insulation properties and soundproofing qualities. For "Truss Type 2," where trusses remain concealed, 38x38mm timber battens are attached beneath the tie beam of the truss. 75mm Isotherm mineral fibre Thermal Insulation is laid on 60mm Isoboard Isopine 200 insulation panels are fixed to the battens.



Fig 228: Main areas of the scheme is highlighted emphasized through the corrugated steel roofs. It matches the roofs of houses within the village (Author, 2023).

Fig 229: Infill Isoboard insulation is installed when truss type 1 is employed and the trusses are exposed. (Author, 2023).



Fig 230: Truss type 2 (Author, 2023).

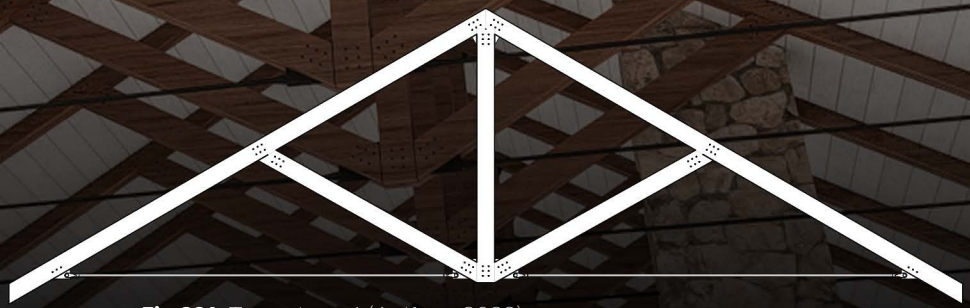


Fig 231: Truss type 1 (Author, 2023).

Floors:

Ground floors consist of 100mm reinforced concrete floor slabs cast in situ. Spaces such as the workshops and garages consist of power-floated concrete floors. All other interior sections of the building, except the ablution areas and kitchen, are finished with engineered hardwood floors. Ground floor slabs are insulated with a 30mm IsoBoard insulation board laid on the DPM under the reinforced concrete beds.

The hardwood floors are from Oggie Hardwood Flooring, specifically utilising planks from the Segato Range, rustic grade, in the color 'natural.' These planks measure 2550mm in length, 400mm in width, and 26mm in thickness, consisting of a 6mm top layer atop a 20mm backing. The Segato floor planks come prefinished, featuring skip-sawn textures and multiple coats of WOCA Denmark commercial-grade oil to ensure a scratch-resistant, easy-to-maintain finish. They will be arranged in a strip pattern and installed atop a self-levelling screed poured over the concrete slab.

A protective plastic roll of Barrierlay 30, a 3mm rubber underlay combination with a 300-micron moisture membrane, is positioned between the screed and the floor planks. This helps to mitigate unevenness and provide a degree of sound absorption and insulation. The planks are connected through the tongue and groove mechanism, employing cold glue for adhesion.



Fig 233: Oggie flooring engineered hardwood floorplanks from the Segato range in the color 'Natural' (Oggieflooring, 2023: Online)

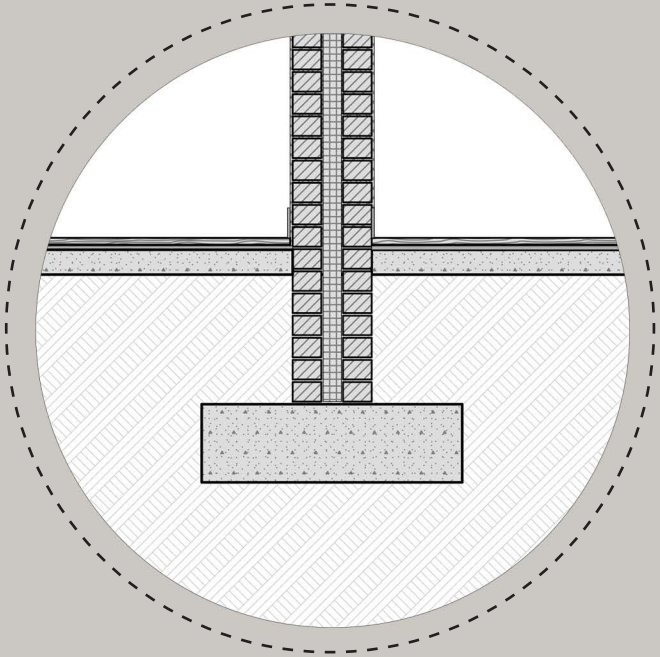


Fig 232: The wooden floors are laid upon a 100m thick concrete bed (Author, 2023).



Fig 234: The hardwood floors create a rich warm ambiance and matches the existing oregan pine floorboards in the existing building (Author, 2023).

Walls:

Sandstone stands as the primary construction material in this project. Notably, the original school building, Dutch Reformed Church, and the village post office all share a lineage of being constructed from sandstone sourced locally. The abandoned sandstone quarries have been reused, harnessing the skills of local labourers. This approach effectively addressed the logistical hurdles of transporting massive quantities of sandstone from distant regions. Simultaneously, it provided a livelihood for the local population and taught them valuable skills that extend beyond the project's completion. The project relies on standard-sized concrete bricks sourced from reputable local brick producers for brickwork.

Two distinct wall types play a prominent role in the architectural design of the scheme: 300mm walls and 500mm walls. The 300mm walls comprise a double brick construction with an 80mm insulated cavity filled with 60mm Isoboard rigid insulation boards, either plastered and painted or finished with a concrete surface.

The 500mm walls extend parallel to the newly introduced axis from North to South. These walls share the same construction method as the 300mm walls, with two layers of 110mm bricks and an 80mm cavity. Additionally, they incorporate an extra layer of 100mm on each side of the 300mm walls, consisting of irregular rough sandstone stones from the local quarries not exceeding 150mm in width.

For service areas, such as public ablution facilities, 110mm brick walls are plastered and painted.

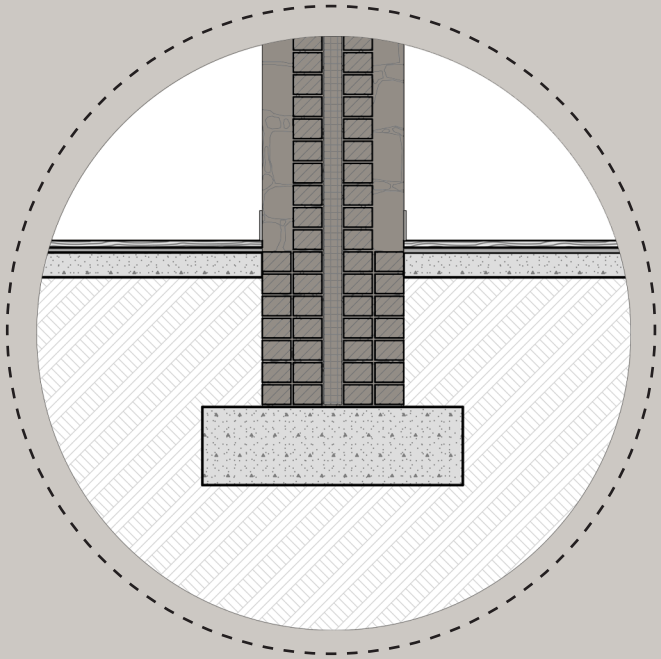


Fig 235: 500mm thick stone walls (Author, 2023).

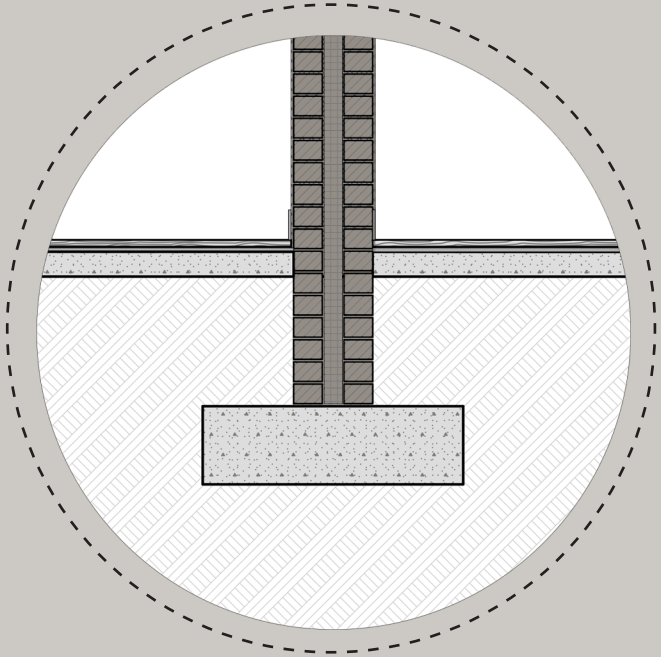


Fig 236: 300mm brick walls plastered and painted(Author, 2023).





Fig 237: 500mm stone walls, the same thickness as the walls of the existing building forms the main backbone of the structure, stretching only North to South. 300mm walls are used when walls are from east to west and 100mm walls are only used in the configuration of ablutions (Author, 2023).

Doors and Windows:

Doors and windows are fabricated from aluminium and powder-coated with a dark grey finish, featuring double-glazed glass to ensure adequate insulation, particularly during harsh winter conditions. Windows and doors within the 500mm thick sandstone walls are completed with mild steel casings, powder-coated dark grey, to conceal any marks from cutting the sandstone to accommodate openings.

The challenging winter weather conditions necessitate insulation for the buildings. 6mm SolarVue Smartglass X2 Pro Double glazing glass is used to minimise heat loss and enhance thermal efficiency. However, given the arduous road conditions leading to the site, glass panes were kept as small as possible. This decision mitigated transportation challenges, as larger panes carried a higher risk of cracking or breaking during transit.

Screening:

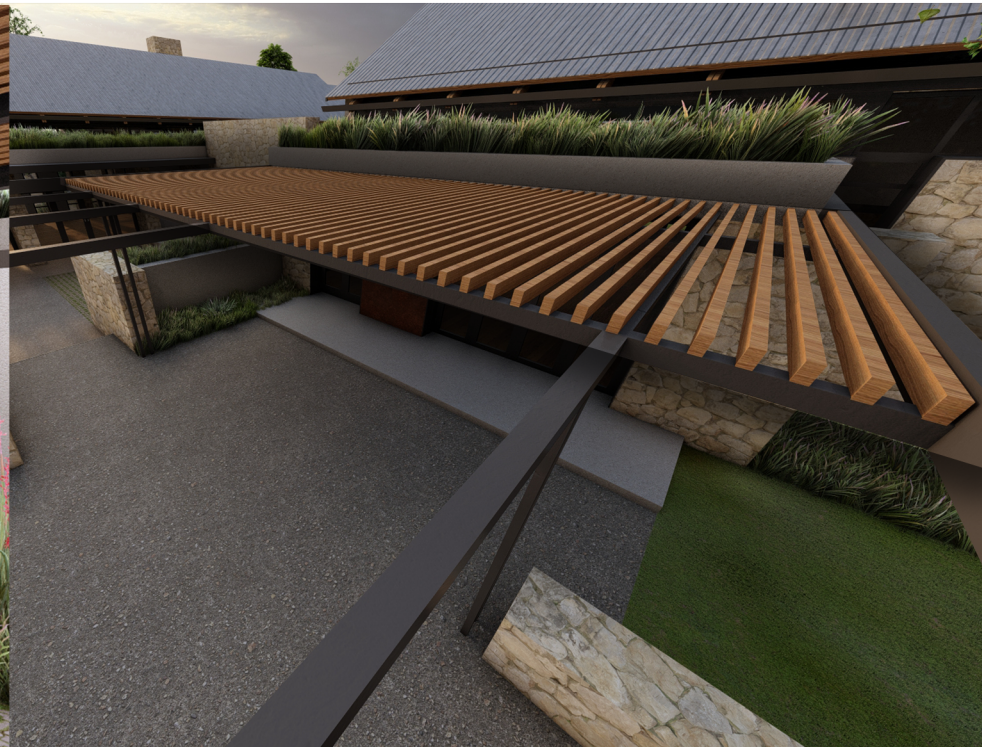
Timber screens adorn the entrances of certain sections of the building. These screens are constructed using 76x38mm SA Pine Timber battens. They are oriented vertically, sand ed smooth with 100-150 grit sandpaper, following the wood grain direction. To ensure durability and longevity, these timber battens are treated with three layers of Dulux Woodgard Exterior Rubbol Ultimate deep-penetrating wood protection.

The spacing between these battens is 120mm and fixed to the structure using 40mm mild steel brackets welded to 80x80mm Square hollow steel sections. The exterior frames of the screens are constructed using 160x80mm rectangular hollow steel sections.

Fig 238: All windows and doors of the new additions are dark grey powder coated aluminum frames with double glazing glass (Author, 2023).



Fig 239: The timber screens shades entrances of the building (Author, 2023).



Entrance structures:

Corten steel structures demarcate the existing western main entrance of the building and the new entrance on the eastern side of the existing building. These structures are built from 80x80mm square steel tube sections, which are welded together on-site to create a robust support system.

To form the exterior of the structures, 3mm Corten steel sheets are carefully cut to fit and are fixed to the steel sections. This attachment is executed using dome head stainless steel fixings.

Fireplaces

The new building additions feature fireplaces to address heating needs during colder months. The new fireplaces are equipped with Krakti Arke 95 closed combustion insert fireplaces. This fireplace model has a heat output of 16.5 kW, enough to adequately heat the spaces in which it is located. The chimney flues comprise of walls that are 220mm thick, single layer of brick and a single layer of sandstone. The firebox is installed 500mm above the floor level, with a space left beneath it to store firewood. The fireplace firebox measures 102 × 47.1 × 62.4 cm, with a flue pipe diameter of 200mm. Single-layer flue pipes are securely fastened with brackets to the interior of the brick and stone chimney flue, ultimately terminating with a steel storm cowl that facilitates the ventilation of the fireplace.

Fig 240: The corten structures highlight the main entrances of the existing building, giving a glimpse of the contemporary building behind the existing structure (Author, 2023).



Fig 241: Fireplaces play a large role in the existing building and was thus also incorporated into the new additions (Author, 2023).



Building Services

Solar Power:

Solar power serves a dual purpose: it ensures continuous operation of the building during load shedding while reducing its dependence on Eskom electricity during non-load shedding periods. No solar panels were added to the roof of the original school building. The solar panels utilised are 1000x1600mm and consist of 60 cells. These panels are strategically positioned on the northern and eastern faces of the roofs on which they are installed. Specifically, the restaurant is equipped with 39 panels, the clinic with 42 panels, the hall with 39 panels, and the workshops with 57 panels. This totals 177 panels, with 78 facing north and 99 facing east. The batteries and other essential infrastructure required for the solar systems are accommodated within a small storage room between the workshops and the offices of the park rangers or within a small enclosure between the restaurant and the kitchen.

Sewage Disposal:

To accommodate the increased sewage produced by the new facilities, the existing sewage system—a septic tank located on the site's western edge— has undergone an upgrade.



Fig 242: Solar power allows the building to gain a level of independence from the power grid while also being a more eco friendly approach (Author, 2023).

Rainwater Harvesting and Stormwater:

Rainwater harvesting systems secure a reserve of water for both garden irrigation and building services, thereby reducing the strain on local water systems. Rainwater from the pitched corrugated steel roofs is collected in 150x150x150mm gutters, channelling the water into corrugated steel rainwater tanks provided by RainQueen SA. These round steel tanks, standing at a height of 2.2 meters with a diameter of 1.7 meters, have a substantial capacity of 5000 litres. Handcrafted locally and made to order, these tanks are known for their robustness due to their corrugated construction. Moreover, they are fireproof and resistant to deterioration when exposed to sunlight, a significant advantage over plastic-based water tanks. The choice of steel water tanks aligns seamlessly with the character of the Rhodes area and complements the prevalent use of corrugated steel materials throughout the district. Any excess rainwater is directed into a stormwater system comprising multiple channels encircling the building. This stormwater system will discharge into the nearby mountain stream to the northeast of the site, eventually contributing to the flow of the Bell River north of the village.



Fig 243: Rainwater from the corrugated steel roofs are collected and diverted into steel water tanks to be used for irrigation and ablutions. (Author, 2023)



Chapter 10



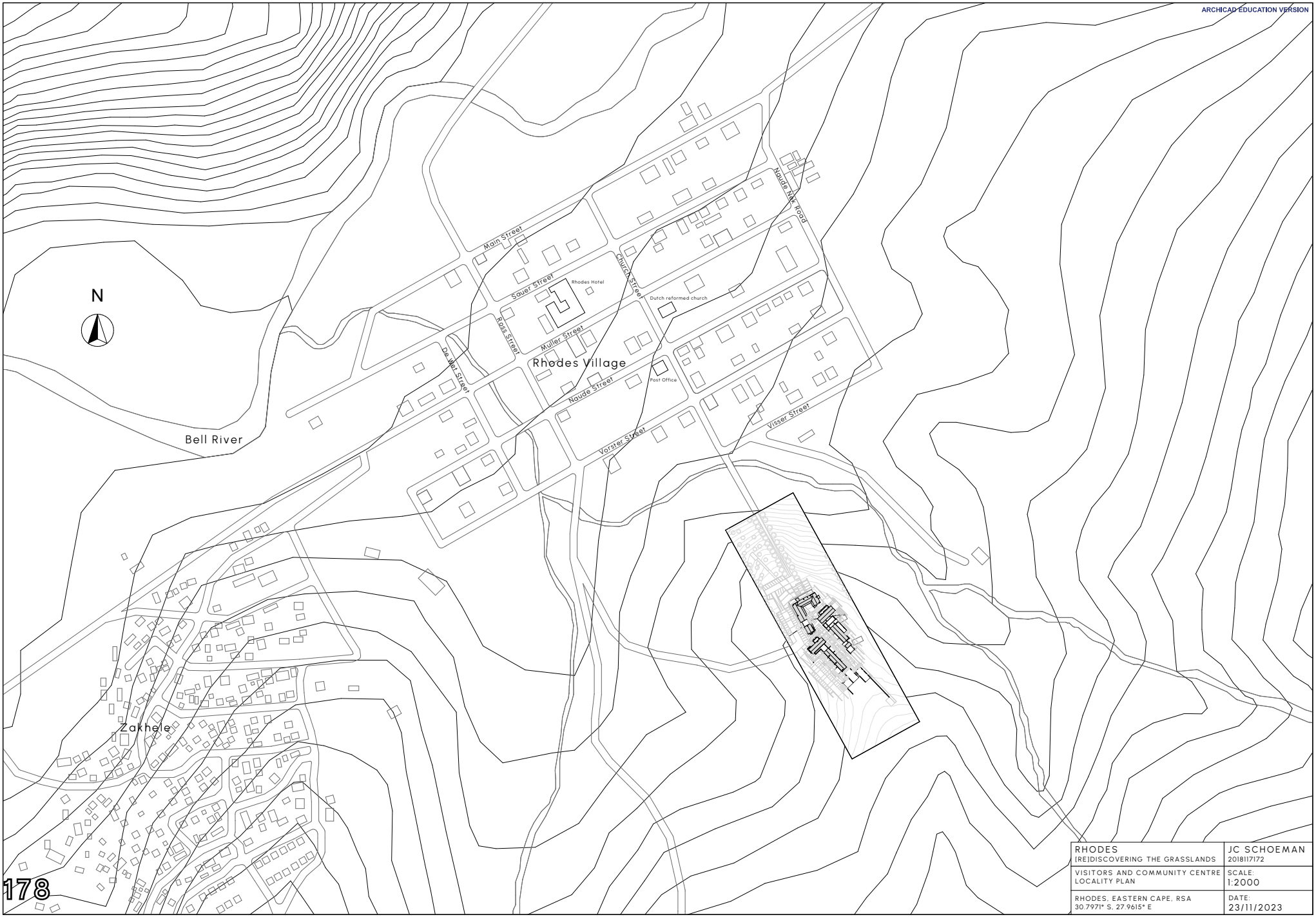
10. Technical Drawings

***As of time of final presentation**

***Graphics in this chapter consists of the final presentation technical drawings, drawings thus not to scale.**

Fig 244: Close up of the gable of the existing building (Author, 2023).

ARCHICAD EDUCATION VERSION



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RHODES, EASTERN CAPE, RSA 30.7971° S, 27.9615° E	DATE: 23/11/2023

ARCHICAD EDUCATION VERSION



SITE PLAN
SCALE 1:500

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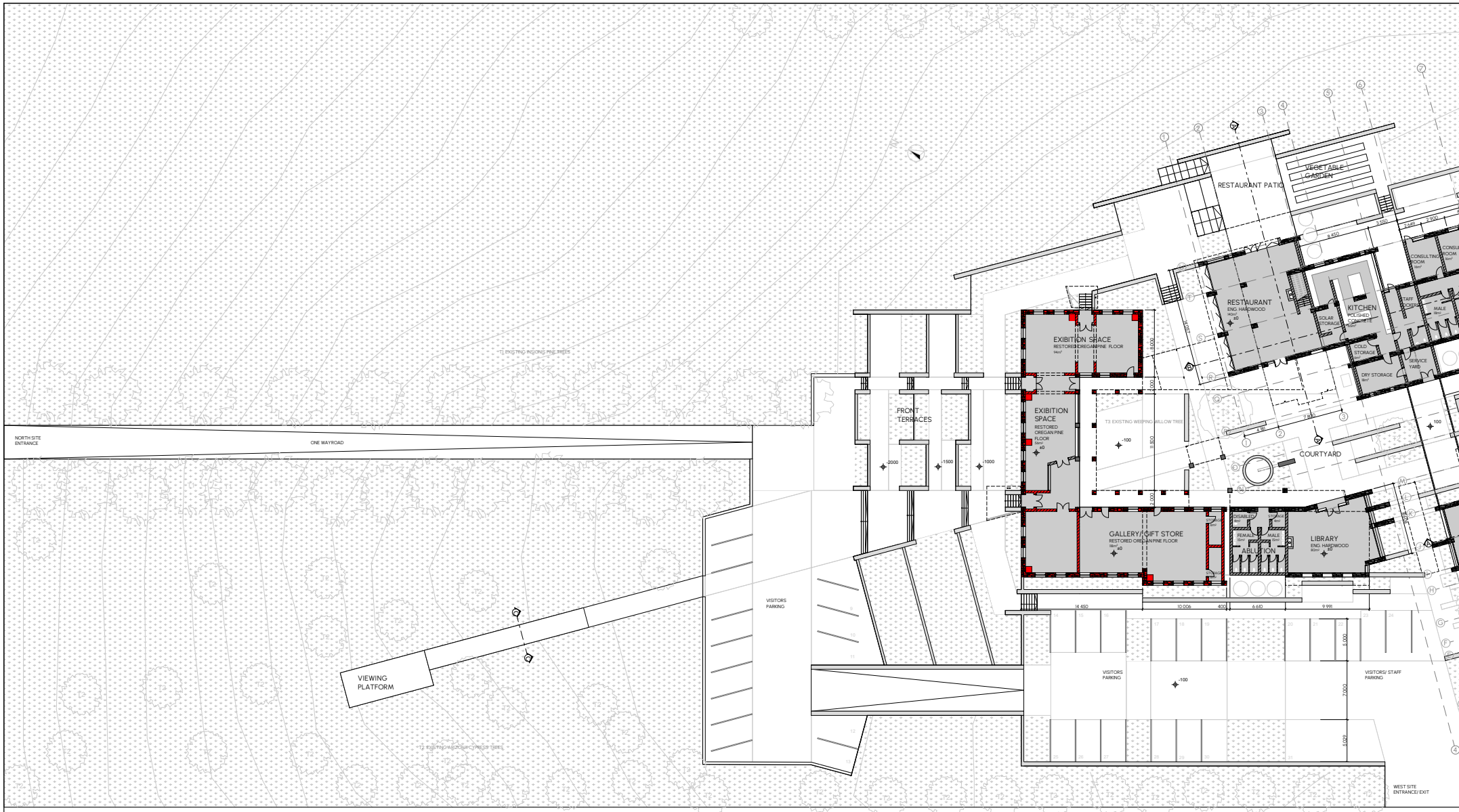
VISITORS AND COMMUNITY CENTRE SITE PLAN	SCALE: 1:500
RHODES, EASTERN CAPE, RSA 30.7971° S, 27.9615° E	DATE: 27/10/2023



GROUND FLOOR
SCALE 1:200

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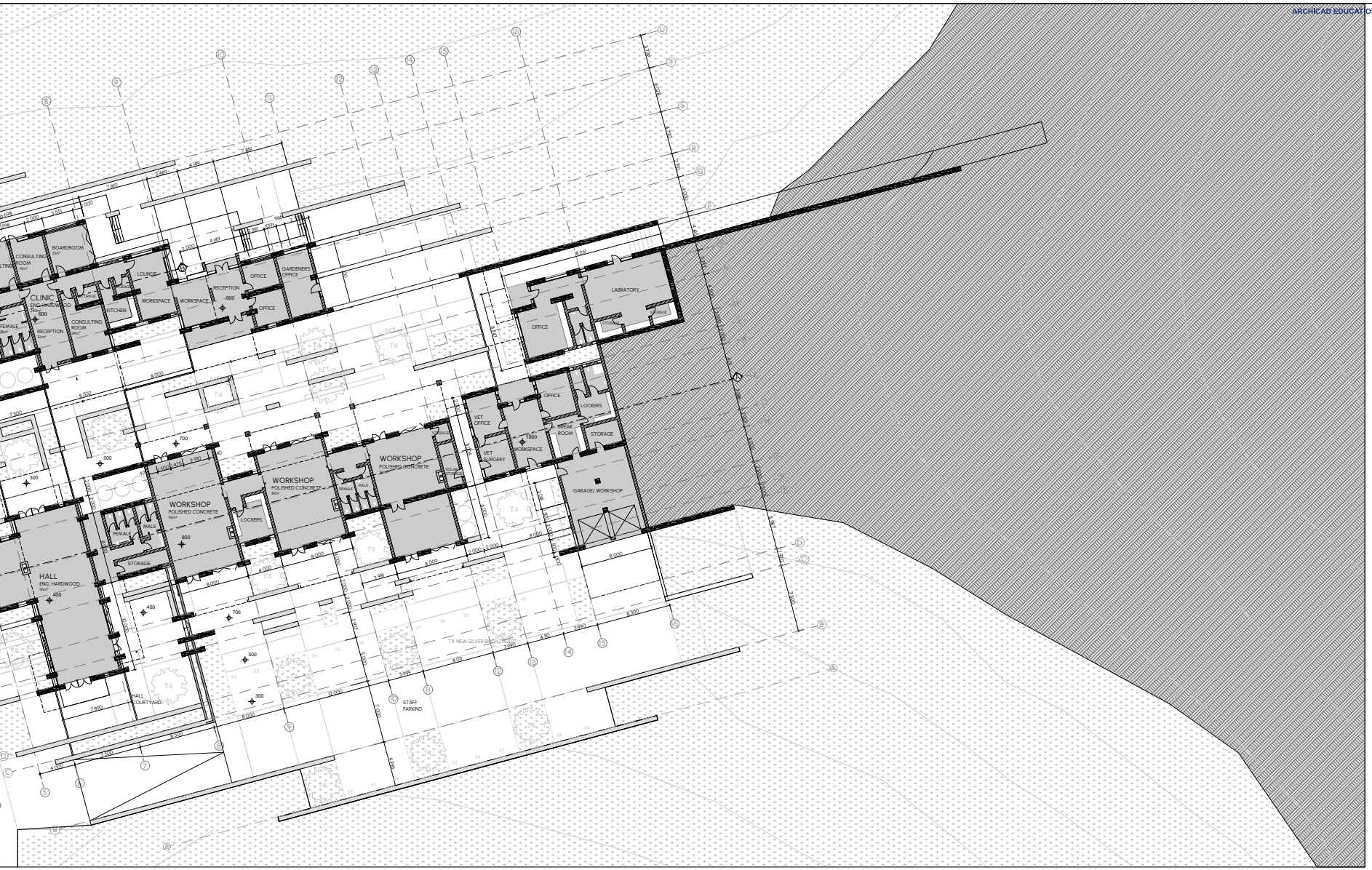

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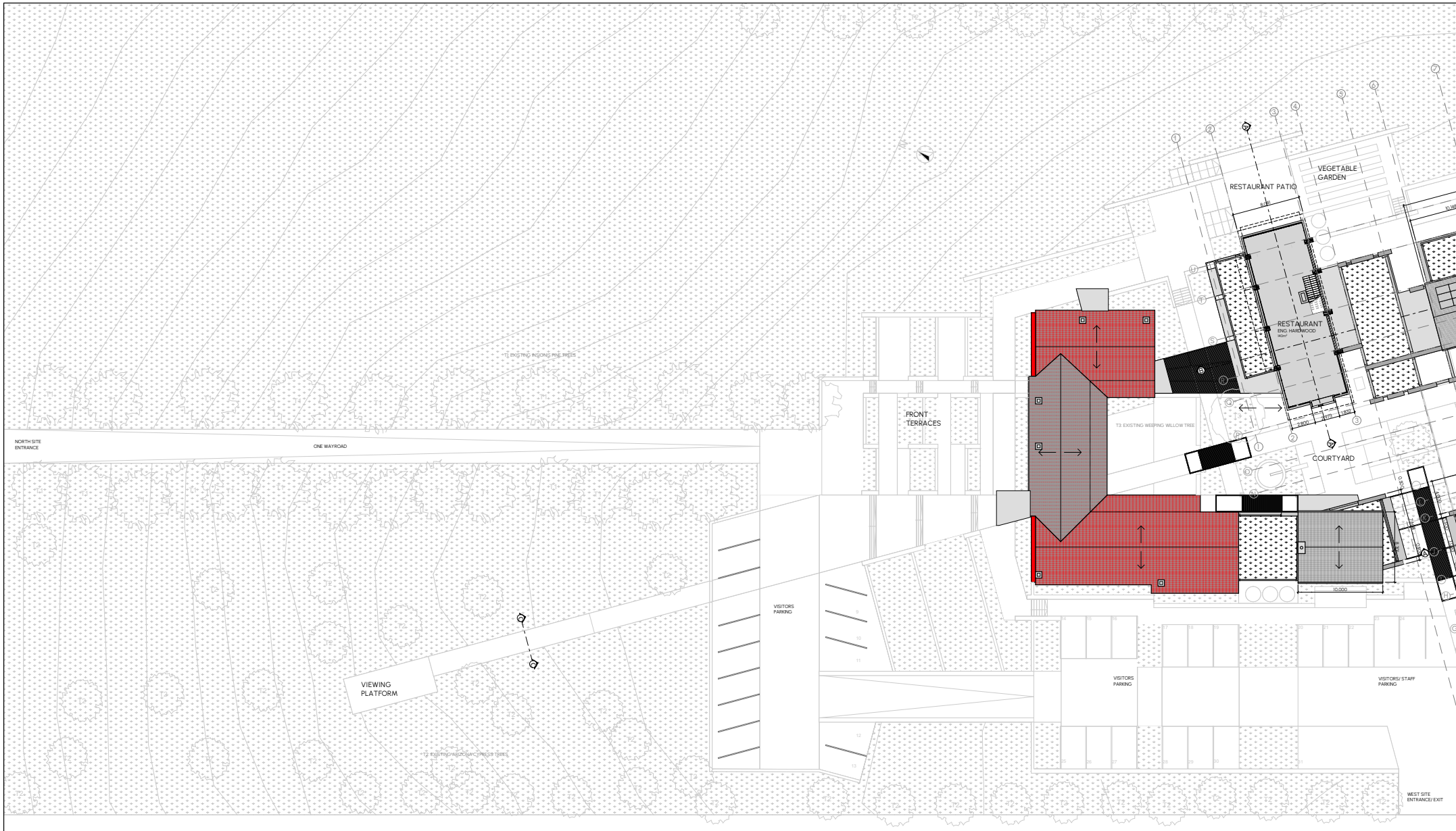

FIRST FLOOR
SCALE 1:200

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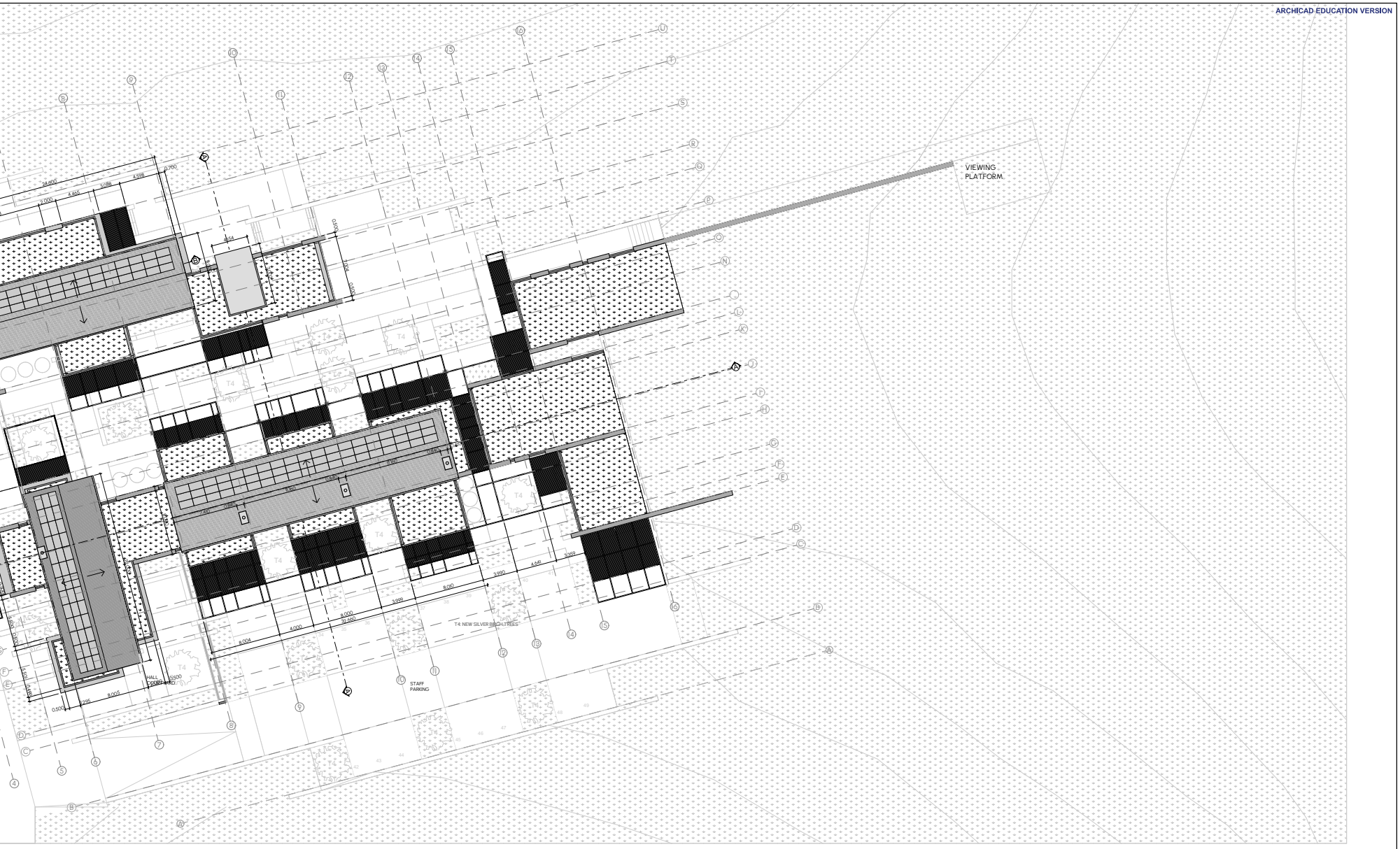

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VISITORS AND COMMUNITY CENTRE WEST WING	SCALE: 1:100, 1:20
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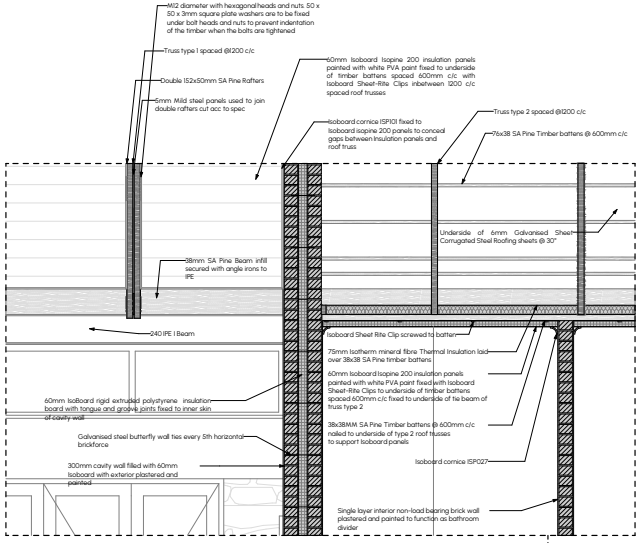

DETAIL SECTION AA1

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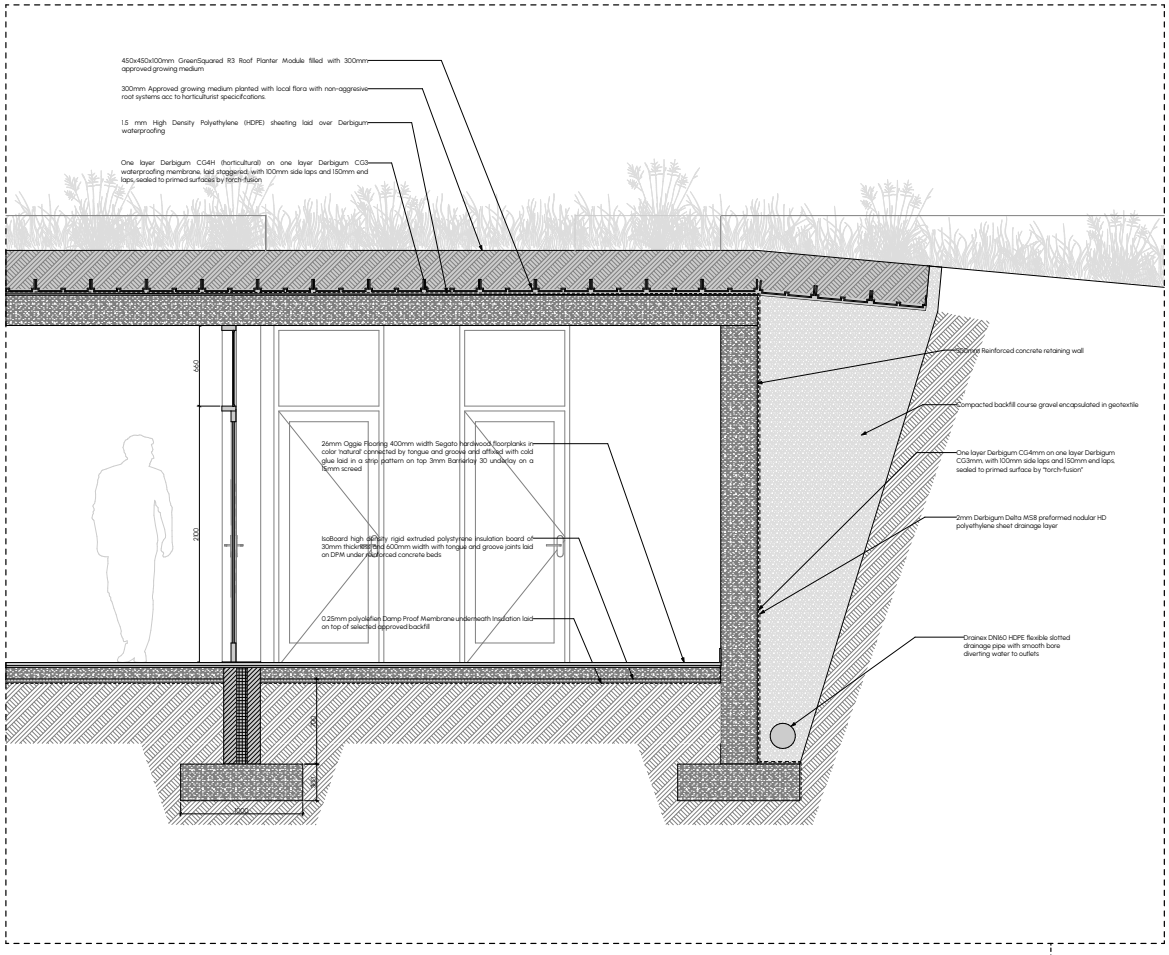
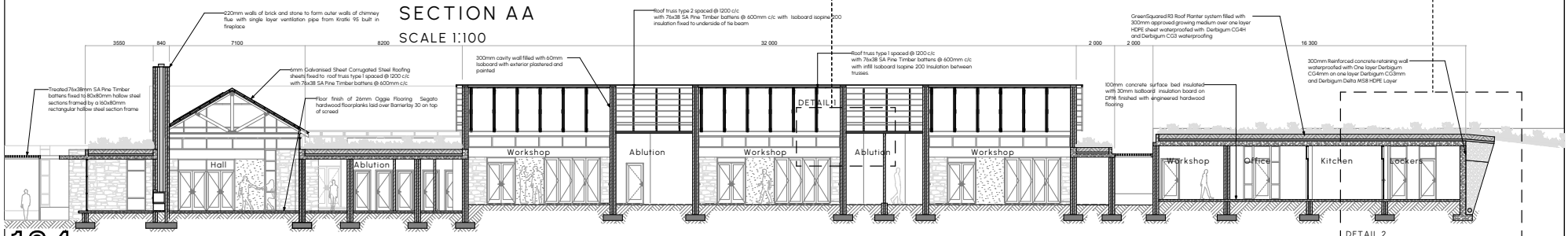


DETAIL SECTION AA2

SCALE 1:20

SECTION AA

SCALE 1:100



ARCHICAD EDUCATION VERSION

GREEN ROOF STRUCTURE EXPLODED

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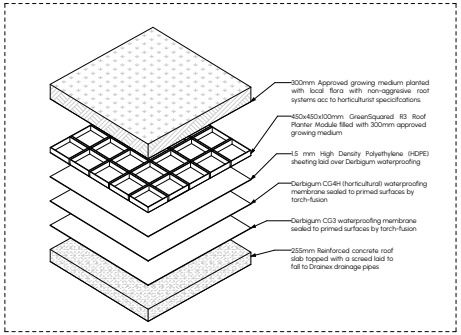

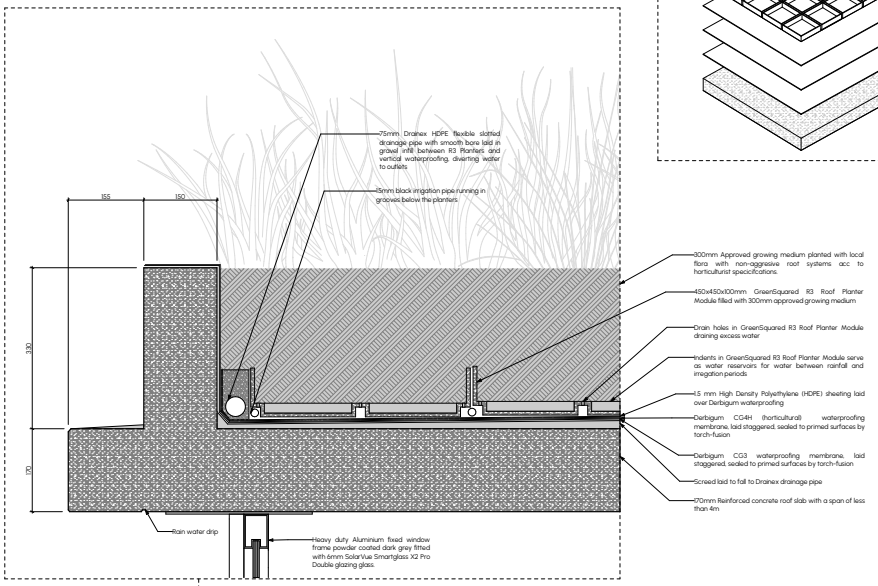

DETAIL SECTION BB1

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PERGOLA STRUCTURE

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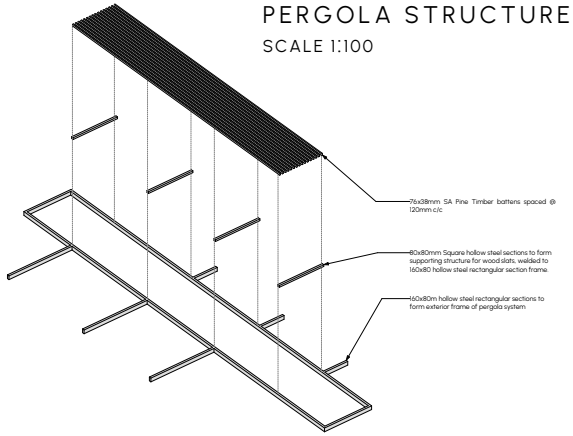

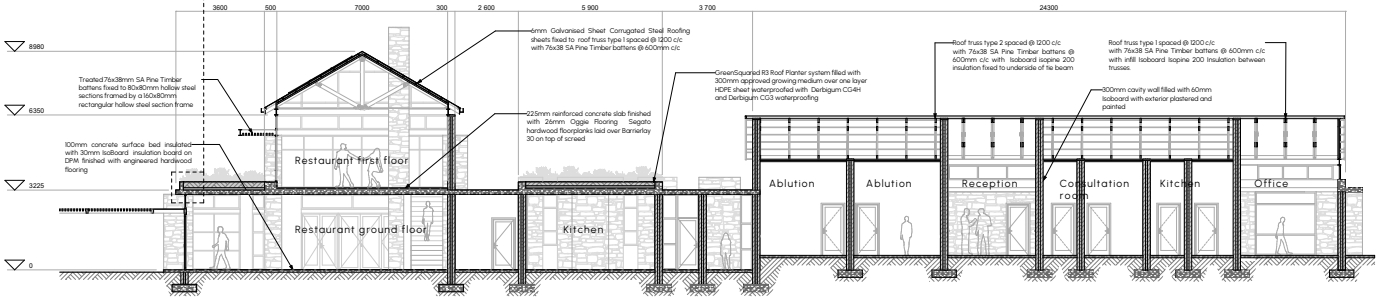

SECTION BB

SCALE 1:100

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RHODES, EASTERN CAPE, RSA 30.7971° S, 27.9615° E	DATE: 23/11/2

RHODES (RE)DISCOVERING THE GRASSLANDS	JC SCHOEMAN 2018117172
VISITORS AND COMMUNITY CENTRE RESTAURANT DETAIL SECTION	SCALE: 1:20
RHODES, EASTERN CAPE, RSA 30.7971° S, 27.9615° E	DATE: 23/11/2023

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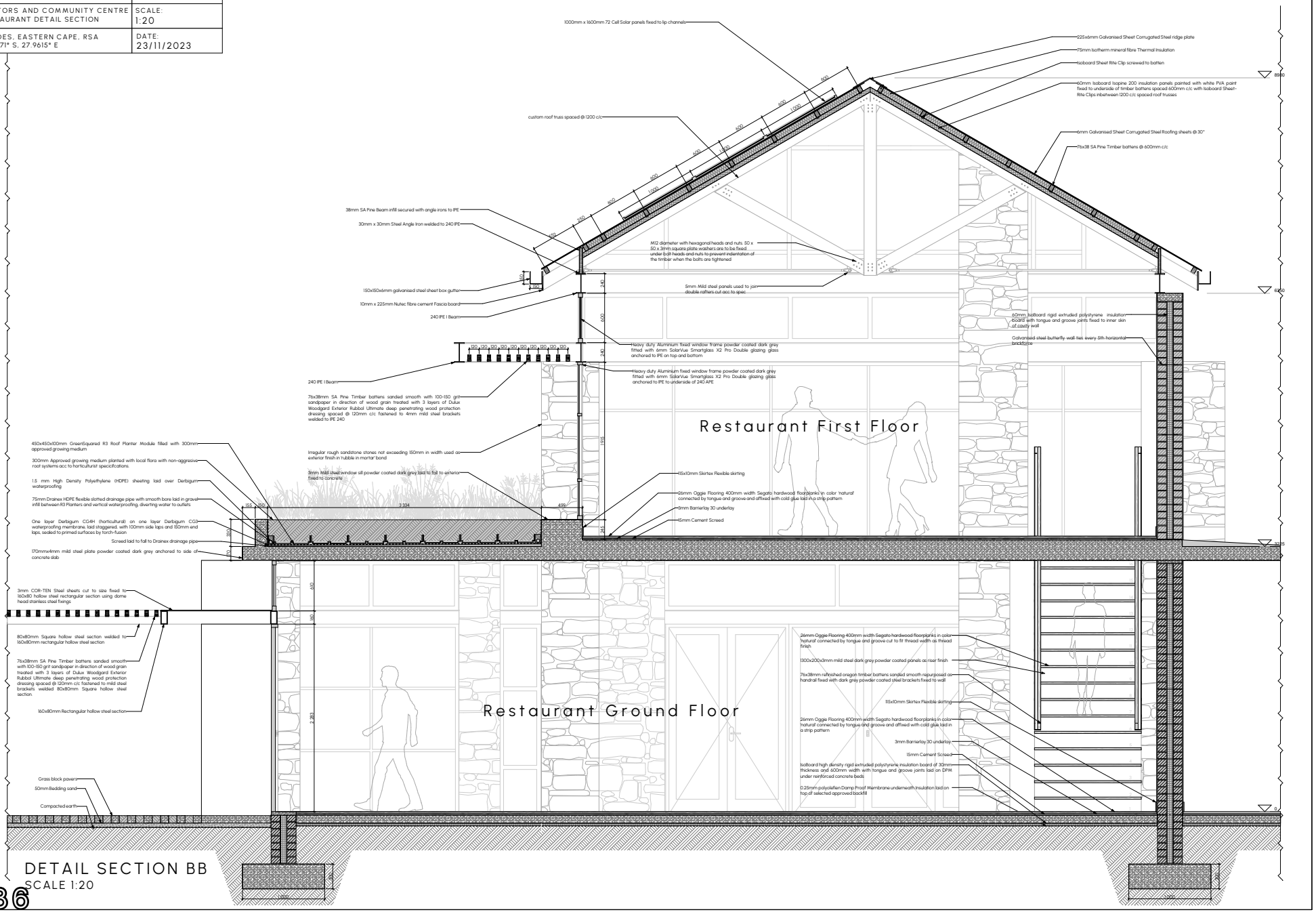

DETAIL SECTION BB
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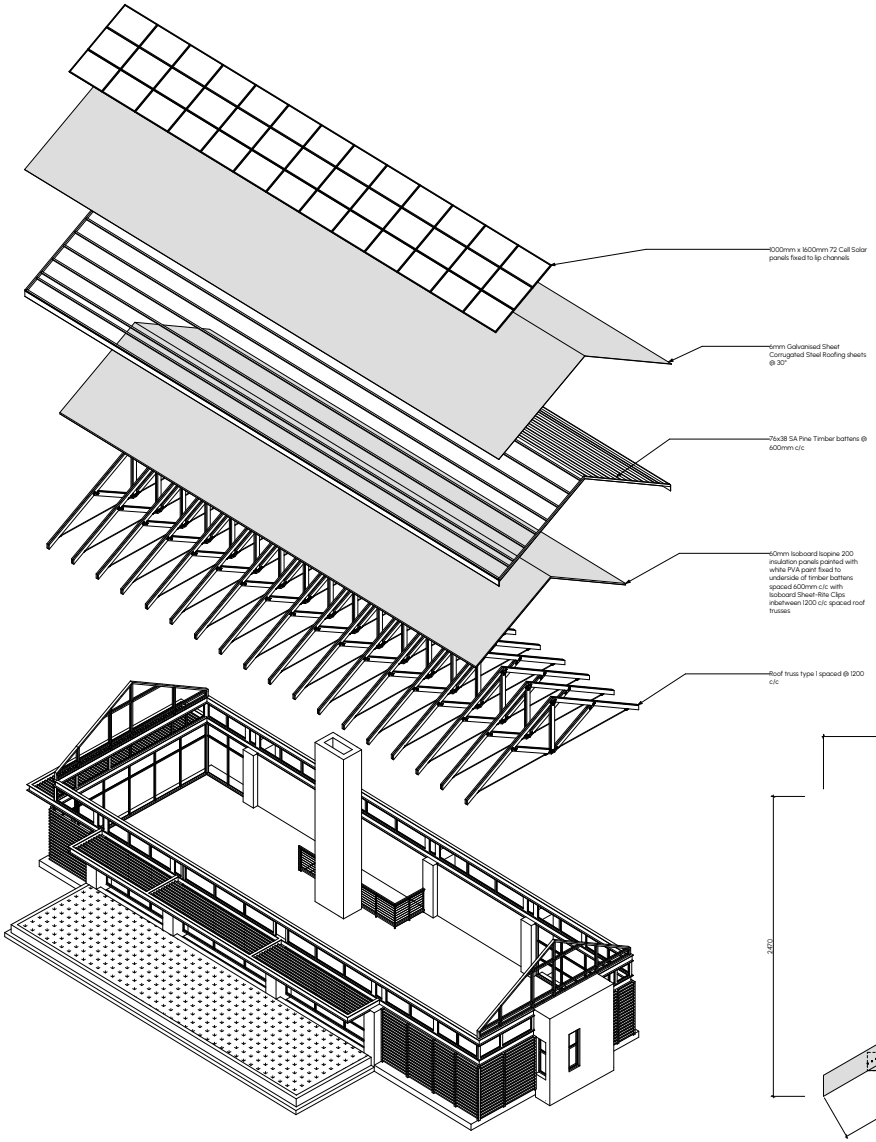
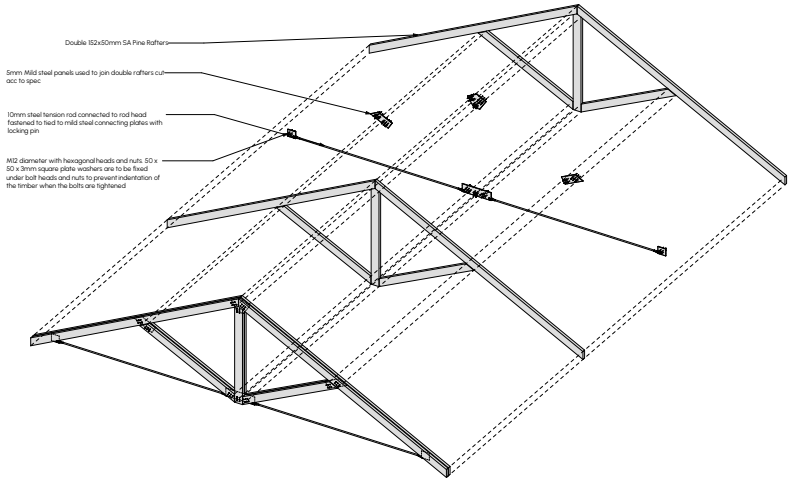


EXPLODED AXO RESTAURANT ROOF STRUCTURE

SCALE 1:100



TRUSS TYPE 1 ASSEMBLY

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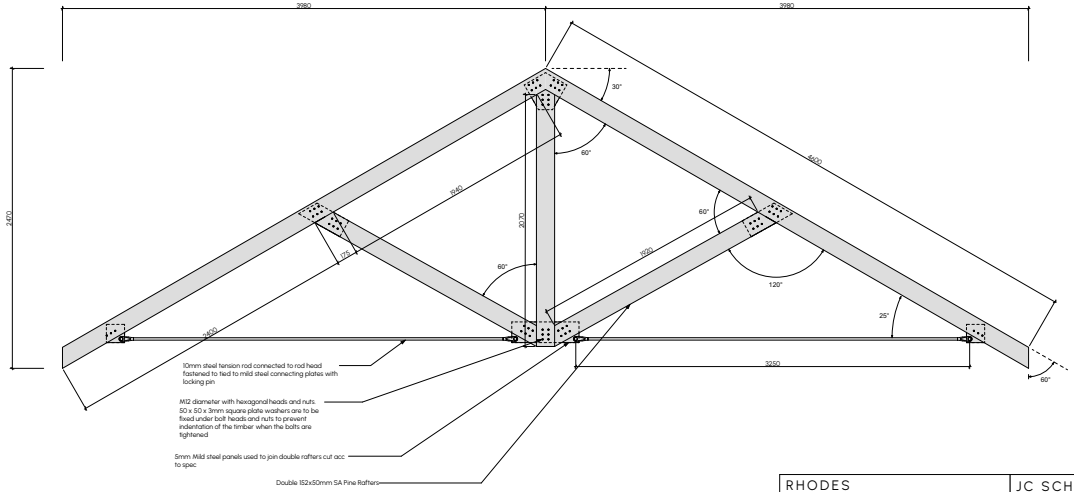

TRUSS TYPE 1

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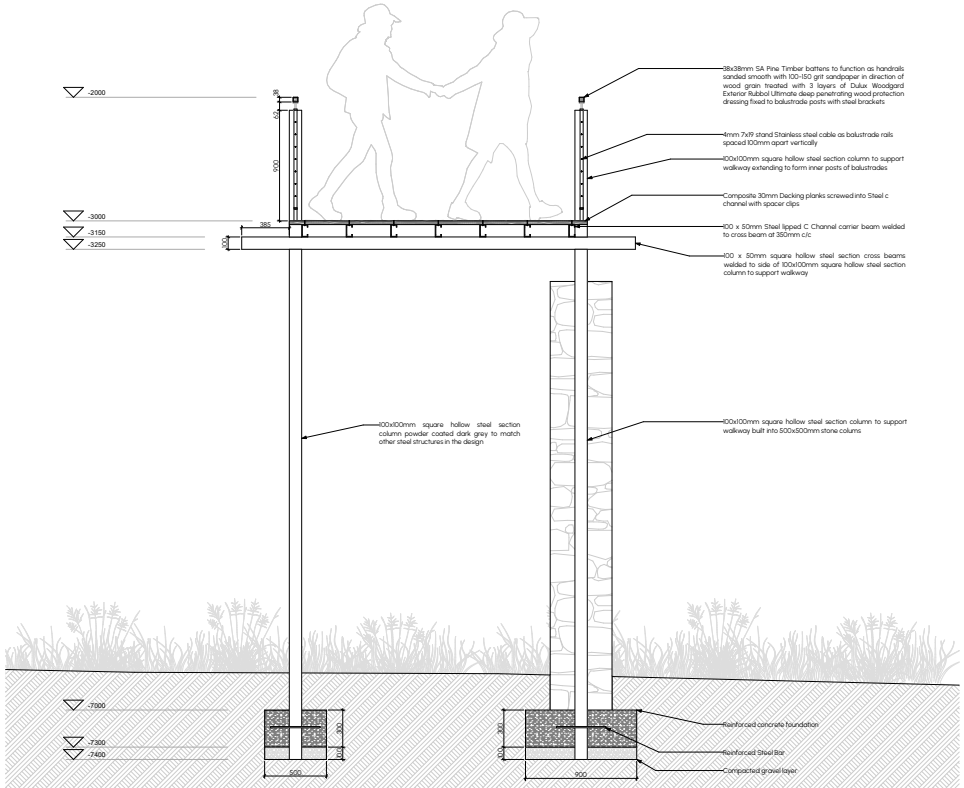

WALKWAY SECTION CC

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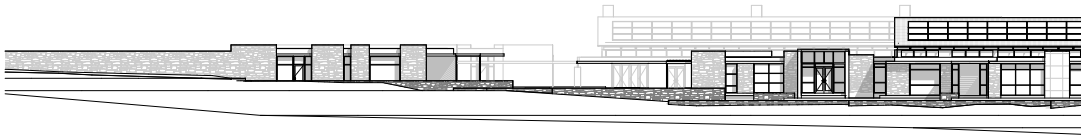

EAST ELEVATION

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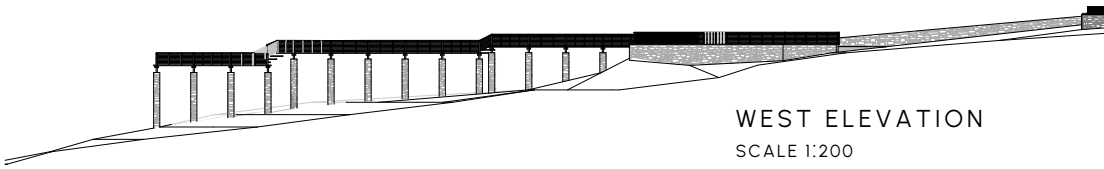

WEST ELEVATION

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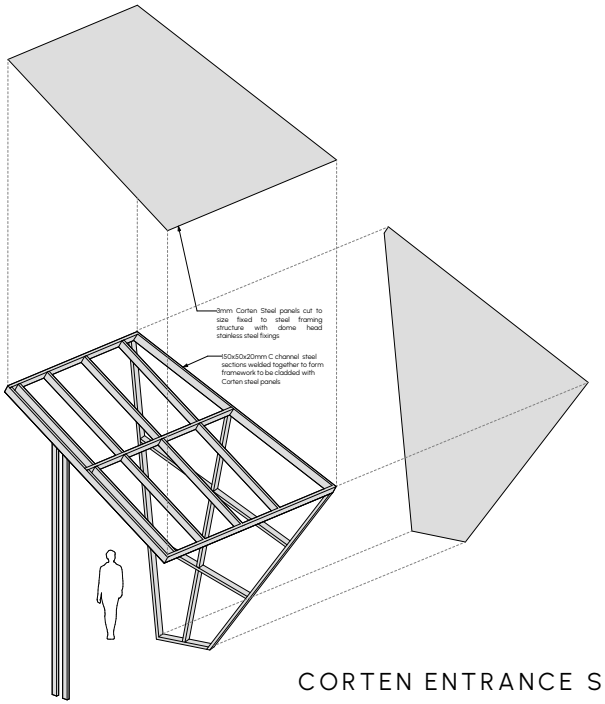

CORTEN ENTRANCE STRUCTURE

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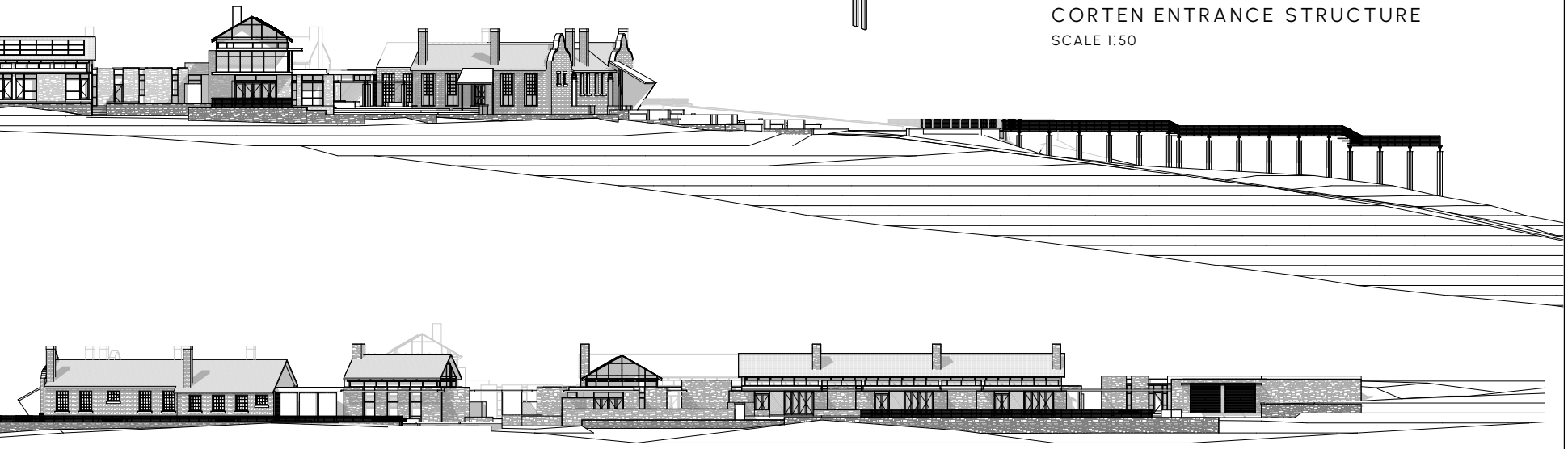

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VISITORS AND COMMUNITY CENTRE ELEVATIONS AND WALKWAY	SCALE: 1:200
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Chapter 11



11. Conclusion

9.1 Conclusion

9.2 Reflection

9.3 References

Fig 245: Rhodes, the gateway to the Eastern Cape highlands (Author, 2023).

Conclusion

The dissertation delved into the design of a visitors and community centre for the village of Rhodes and the proposed Grasslands National Park, aiming to establish an inclusive environment catering to both the local community and visitors, focusing on nurturing an appreciation for the natural surroundings.

A comprehensive exploration of the region revealed the unique attributes and subtle nuances nestled amid the mountains. This endeavour provided a profound understanding of the historical and cultural context of the location, thereby guiding the identification of deficiencies and necessary elements for the project's contextual appropriateness.

The research examined theoretical concepts such as temporality, permanence, ecotourism, and critical regionalism, intending to unravel the region's intangible essence. This analysis informed the approach to create architecture harmoniously integrated into the landscape.

The design process evolved through multiple stages, marked by a continual critical evaluation of the relationship between the new structure and the existing context. Initial responses were characterized by their forcefulness and disconnection from the environment. However, a more sensitive and respectful approach emerged over time, aligning the project with the site and its environmental context.

The resultant building is an extension of the village and considers the adjacent informal settlement. It reinterprets the historical architectural language of the village, respecting its heritage while adapting it to a contemporary framework befitting the 21st century and the prevailing environmental conditions. The design incorporates natural materials from the local area and commonly available materials in the village, allowing the building to mature and evolve alongside the landscape, thus permitting the passage of time to imbue the structure with its narratives.

The extensive site analysis, theoretical discourse, and precedent studies significantly informed the protracted design process, culminating in an appropriate architectural solution for the village of Rhodes and the Grasslands National Park. This design empowers the local population and captures the intricacies of the environment, ultimately fostering a heightened appreciation for the natural surroundings.

Reflection

My inspiration for this project originated from a profound appreciation for nature. Having spent my formative years on a farm in Barkly East, I have continually observed the temporal shifts within the natural environment throughout my life. Consequently, when selecting a topic for my thesis, it was imperative to me that it be intertwined with the natural surroundings and the inhabitants of the region that have helped shape me as a person. This approach aimed to illuminate the intricate characteristics often overlooked when continuously exposed to the same landscape.

My conservative disposition toward history, coupled with a reluctance to disturb existing structures that hold significant historical and cultural value within the village, compelled me to undertake a rigorous self-examination. This process involved setting aside nostalgia for bygone eras and critically evaluating what would be contextually suitable for the site within our contemporary age.

The project may not exude bold and overtly modern trends or rely heavily on the latest technological advancements. However, I firmly believe what I have conceived is intrinsically well-suited for the site and the village. If it were to be built, I believe that the local community would warmly embrace and appreciate it.

I take great pride in my accomplishments during this year and throughout my years of study. Each project in my educational journey has expanded my knowledge and fueled my ambition to explore and evolve as an architect. While I recognize that I still have ample time to make a lasting impact in the world, I am eagerly anticipating what the future holds.

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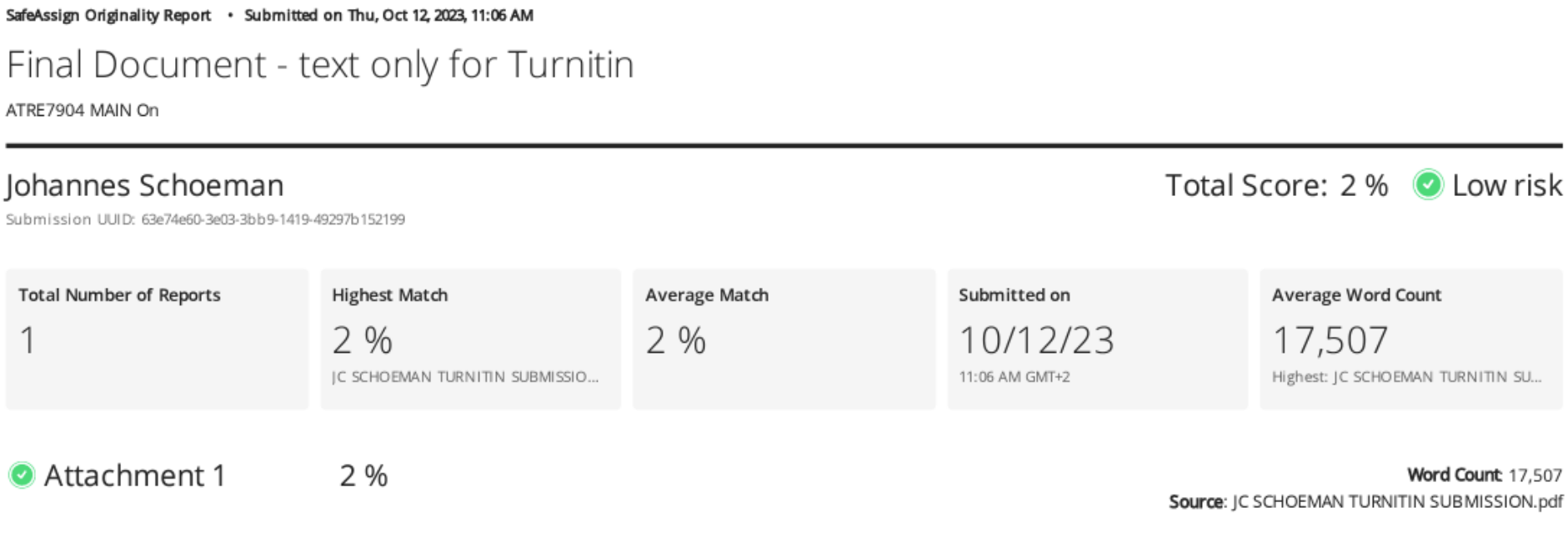

Fig 246: Turnitin plagiarism report (Turnitin, 2023: Online).