

COASTAL BLUR

A fish market and community forum conceptualised
on the netting of liminal negotiation in Kalk Bay Harbour

Elandré Steenberg
2015052414



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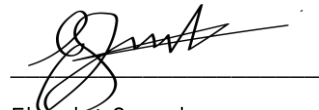


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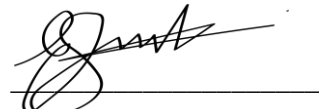


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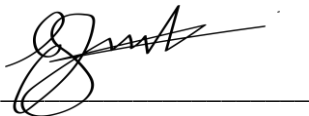


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Abstract

The following research investigates how the liminal negotiation of space can spatially net the phenomenon of thresholds, time and transition space between land and sea at the coast of Kalk Bay.

Coastal communities such as Kalk Bay have much more to offer than quaint shops and pretty boats. These communities subconsciously act as nets that negotiate the liminal conversations between land and sea.

Over the years, small-scale fisheries have suffered a great deal with the modernisation of fishing technology which inevitably caused the deterioration and fragmentation of small-scale fishing community culture. In order to preserve this coastal culture, an architectural intervention can be conceptualised on the premise of encouraging economic, social, and ecological development and activity.

The thesis presents research on how to adopt critical regionalism in architecture in a way that celebrates and sensitively 'nets' a place for gathering for Kalk Bay's fishing community and visitors. The research question for the study is as follows:

How can the act of liminal negotiation conceptualize a fish market and community forum which mitigates the transitional space between land and sea in order to reconcile the social fabric of Kalk Bay with the commercial edges of the harbour?

The theoretical premise of place and time assists in revealing how Kalk Bay finds itself embodying what Edward Relph coins as 'placelessness' in its fragmented state (Najafi & Shariff, 2011: online). The loss of identity could be counteracted by spatially acknowledging the palimpsest of thresholds that resembled the deterioration and fragmentation the site had endured.

This helped defamiliarise local culture and environmental aspects to reveal new understandings of old ways of life. These approaches of spatial netting are implemented to achieve a contextual, cultural, and regional-specific design that aims to blur the liminal between land and sea.

Keywords: Placelessness, Thresholds, Liminal, Time, Kalk Bay

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CHAPTER 1
INTRODUCTION



Figure 1.1: Photograph of Zay – Yaan (Author, 2022).

1.1 | Introduction

Embracing contextual heritage – to create an architecture for the future, we need to look to the past. On first impressions, it could be easy to envision a space as how you would like it to be perceived. However, this is where the problem arises. Suppose we are too quick to come up with a resolution, without properly engaging and researching a space. In that case, an architecture that neglects the cultural identity of its contextual surroundings could be born from it. Furthermore, soon we will notice the space we first envisioned start to embody what Edward Relph coins as 'placeness' (Najafi & Shariff, 2011: online). Thus, we need to become spatial listeners and actively engage with a site to reveal what it wants to be and not what we want to perceive it to be.

This thesis takes place in the setting of Kalk Bay harbour. Kalk Bay, located in the Western Cape, South Africa, is geographically part of the foot slopes of Trappies Kop mountain and embodies a rich fishing culture. The fishing community is critical to Kalk Bay's history, and continues to be, as traditions are passed down to the next generation, as has been done for centuries. However, the site has endured multiple changes in a short period, thus losing its identity. The history of the site is explored further in chapter 2.

As mentioned, Kalk Bay has a rich fishing history in which the fishing boats provide an essential backdrop. These colourful vessels have been passed down from generation to generation, with the oldest boat, Violet Glen (built in 1924), still being used today. The fish caught for the day is auctioned in the fish market. The canopy structure of the market has suffered a great deal of rust due to a quick response to provide a means of shelter. However, the true problem lies in the commercialisation of coastal communities. Small-scale fishing communities suffer greatly as they struggle to keep up with their commercial competitors. Noticing that it is two different types of fishing identities, it should be treated as such.

In response to the identified problem, this thesis aims to contribute to the site with an architectural response that is both sensitive and true to the cultural identity of Kalk Bay. As such, an architectural language should be created that nets both the historical and present identities to form a more true sense of place.



Figure 1.2: Photograph of boat in harbour (Author, 2022).

1.2 | Client

Kalk Bay Point harbour is one of 12 small fisheries along the coast of the Western Cape. The Department of Agriculture, Forestry and Fisheries defines these harbours as places where the exploitation of marine living resources on a full-time, part-time or seasonal basis is done to ensure food and livelihood security. These fisheries play an important role in creating job opportunities and providing food security for many people. However, the fishermen struggle to support their families due to a lack of fish, which originates from commercial fisheries obtaining a larger quota to catch fish compared to small-scale fisheries. In 2014 the government set aside a large sum of money to upgrade small-scale harbours of the Western Cape. The initiative aims to create more employment through urban upgrading and support of small-scale fishers, which would improve food security and provide an opportunity to the youth.

The client, the Department of Agriculture, Forestry and Fisheries, aims to incorporate Operation Phakisa, an initiative of the South African Government. Operation Phakisa was designed to resolve issues relating to critical development. These issues are highlighted in the National Development Plan (NDP) 2030, including poverty, unemployment, and inequality. The methodology of the operation focuses on including horizontal leadership to collaborate in:

- Detailed problem analysis;
- Priority setting;
- Intervention planning; and
- Delivery

(Operation Phakisa, n.a.: online).



Figure 1.3: Logo of client (National Government of South Africa, n.a.: online).



Figure 1.4: Logo of Operation Phakisa (Global Africa Network, 2017: online).



1.3 | Brief

The client's proposal for the project is to adaptively reuse Kalk Bay Point and transform it into a place that encourages social engagement whilst responding sensitively to the site. The existing program includes a dock, drydock, fish market, and a restaurant. The architectural intention includes proposing:

- a readapted fish market;
- a community hall;
- workshops;
- classrooms;
- an exhibition hall;
- administrative offices; and
- a micro-enterprise area.

However, the client proposes demolishing the existing buildings as it does not resonate with the feeling of the place. A heritage impact assessment will be done to see the possibility thereof. The Burra Charter will guide the conservation and management of culturally significant places. In addition, the client proposes to create a program where a percentage of the profits will act as a commission for the local fishing community.

Figure 1.5: Fish quay (Author, 2022).

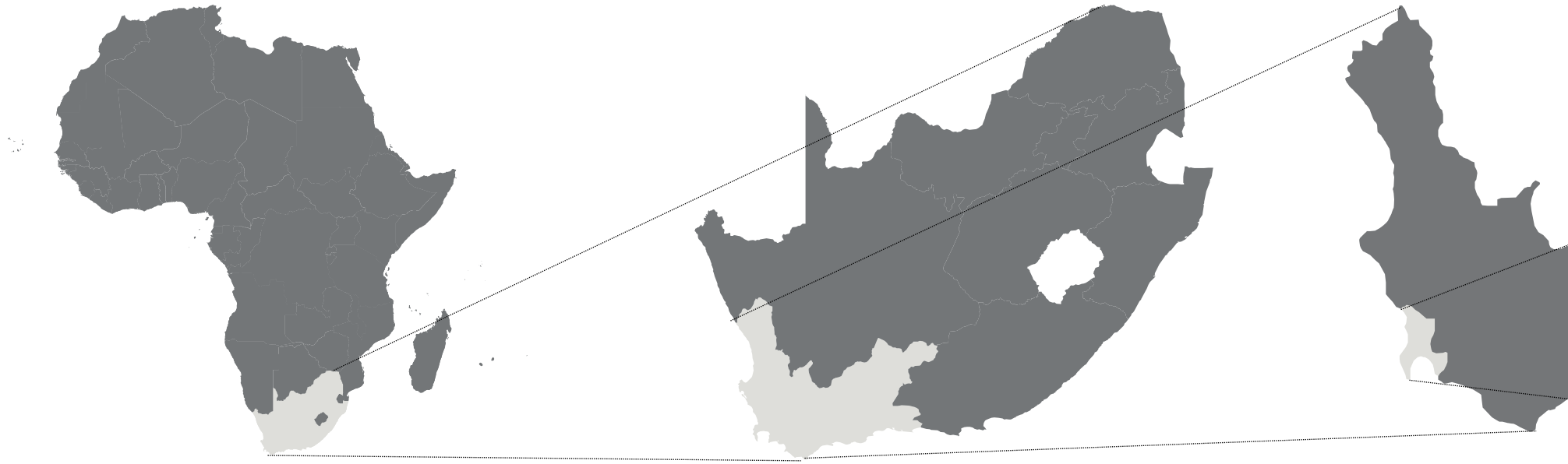


Figure 1.6: Africa (Author, 2022).

Figure 1.7: South Africa (Author, 2022).

Figure 1.8: Western Cape (Author, 2022).

1.4 | Town Profile

The town of Kalk Bay is a fishing village on the coast of False Bay, South Africa. It forms part of Cape Town as a suburb and lies in the liminal between the sea and Trappies Kop mountain. The railway connects Cape Town and Simon's Town, passing through Kalk Bay and other surrounding coastal towns.

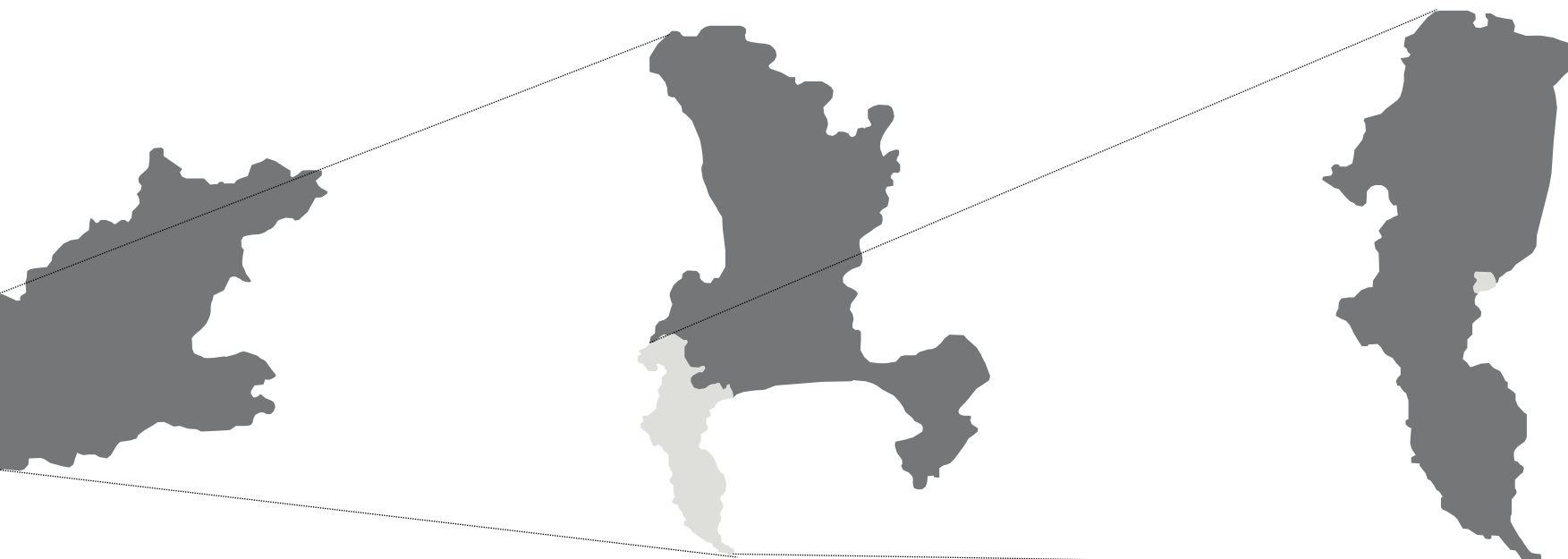


Figure 1.9: Cape Town (Author, 2022).

Figure 1.10: Cape Peninsula (Author, 2022).

In contradiction, to being part of Cape Town, the pace of the town is different. There is a peaceful atmosphere whilst the fishermen ply the waters each morning. This famous town reflects a rich cosmopolitan heritage and fishing history.

1.5 | Problem Statement

By including coastal culture in architecture, could it provide a framework where the users could be influenced and made aware of the contextual identity to reconcile the lived realities with the commercial identity and phenomenon?

Architecture can reflect and capture the shared strengths of a community, thus reinforcing identities of the insider and moving curiosity in the visitor or outsider. The inclusion of collective beliefs, the traditions, and aspirations of a society, reinforces society's respect and drives design decisions. Thus, the question follows:

How can the act of liminal negotiation conceptualise a fish market and community forum which mitigates the transitional space between land and sea in order to reconcile the social fabric of Kalk Bay with the commercial edges of the harbour?



Figure 1.11: Boat coming in to dock (Author, 2022).

CHAPTER 2

UNDERSTANDING THE SITE



Figure 2.1: Photograph of Alma Lucie (Author, 2022).

2.1 | The Story of Kalk Bay Point

Kalk Bay Point, located in the Western Cape, forms part of the geographical part of the foot slopes of Trappies Kop mountain and continues beneath the waves emerging as the offshore reef located some distance behind the breakwater. It is an ancient sea terrace standing about 6m above mean sea level and exposed to wave and wind forces. However, the north side forms a relatively sheltered sandy cove that is Kalk Bay's reason for being (Gasson, 2002: online).

Currently, the more significant part of the Point is vacant: the southern Point is occupied the house "By-the-Sea", which gained heritage value; while the harbour breakwater; jetty; slipways; parking area; and buildings all occupy land that was reclaimed along its north shore between 1913-1919. However, it was not always vacant, as just before 1920, the land was fragmented into various oddly shaped erf's with different owners. At the moment, the ownership of the Point is split into four parties: "By-the-Sea" is privately owned; the claimed harbour land and infrastructure along the north shore belong to the Cape Provincial Government; the rail corridor along the western boundary belongs to the SA Rail Commuter Corporation, and the central open land since 1935 belonged to the Municipality of Cape Town, and its successors in title (Gasson, 2002: online).

Today a portion of the area that makes up the Point serves as a parking area for visitors to the harbour. The remainder is open land through which a formal pedestrian path has been built. It serves as a public open space used by people for walking, whale watching and picnicking and accommodates the overflow of day visitors from the harbour beach during peak season. Currently, the presence of litter, broken bottles and human waste degrade the visitor's experience of this area.

The Point is a potentially attractive vantage point offering excellent views of False Bay and the mountains. It is a landmark easily visible from Boyes Drive and the mountainside hiking trails, as well as from many private homes and businesses between Main Road and Boyes Drive. It forms one of Kalk Bay's key visual markers and contributes significantly to the "sense of place".

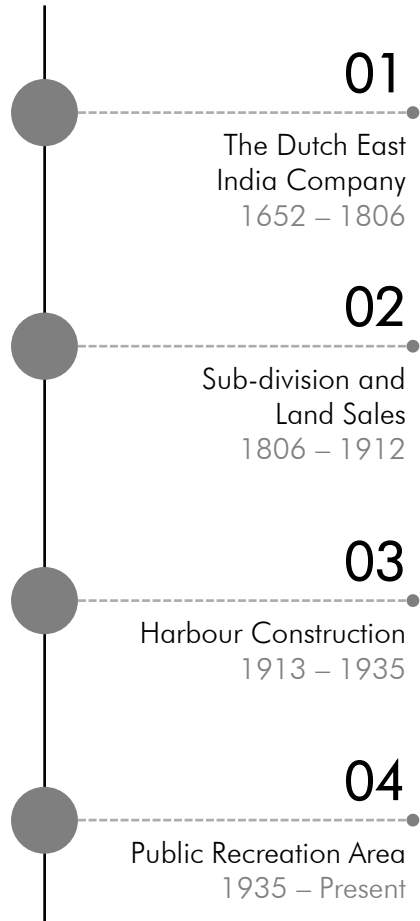
The adjacent harbour and fish quay are used predominantly by professional fishermen for the mooring of boats and landing of fish. The traditional boats, fishing methods and the auctioning of the catch contribute significantly to the character of Kalk Bay, which is becoming increasingly popular as a recreational and tourist destination (Malan & Hart, 2001: online).



Figure 2.2: Understanding Kalk Bay (CapeFarmMapper, 2022: online. adapted by author).

2.2 | Timeline

Kalk Bay Point, over the years, has accumulated a rich history, and the community regards it as a place of considerable heritage significance. For the purpose of the dissertation, the essay will look at the history of occupation of the Point and its significance. It will be broken down into four eras in which traces left could be seen as moments of transition could be identified.



Era 1: The Dutch East India Company 1652 – 1806

Era 1 covers the period when the Dutch East India Company was the property owner of Kalk Bay until 1806. Lime burning and fishing traditions were carried over to the local community from the 1760s. Additionally, from 1743 Kalk Bay became a transshipment point for trading goods brought from Table Bay by ox-wagon, when Simon's Bay was the winter harbour for the Dutch fleets (Gasson, 2002: online). In this era, it could already be seen how the importance of fishing became essential as it carried through to today.

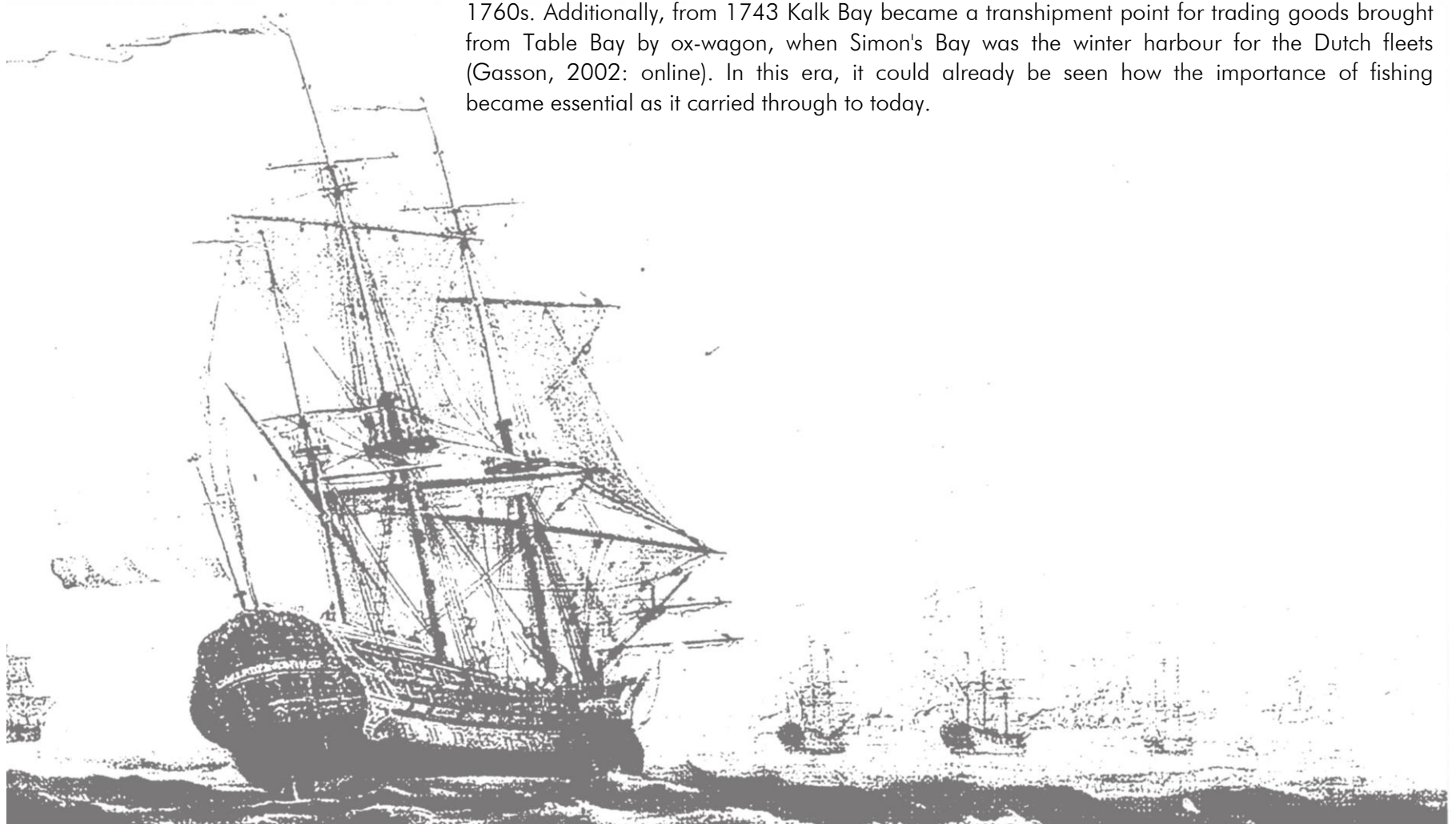


Figure 2.3: Image of Dutch East India Company (DEIC) (SAHO, n.a.: online).

Era 2: Sub-division and Land Sales 1806 – 1912

This was a pinnacle era as the Imperial Government started allowing sub-division and land sale to numerous parties. It resulted in the Point's fragmentation, as it was divided into nine land parcels, each with various buildings, by 1912 (Gasson, 2002: online). Figure 2.6 showcases the conditions just before harbour construction began in 1913. Key elements that are showcased include residential buildings hosting prime locations near the sea; a bungalow and shed made from galvanised sheeting near the railway line; brick cottages that could host 60 people along the railway boundary; the powerhouse; the fish store connected by a railway that stretches down the seaside where the fish were delivered; the fish cleaning slab; concrete walkway stretching out eastwards onto the rocks (Gasson, 2002: online).

This notion of sub-divisions could be used to architecturally respond in a fragmented manner as it would embody the site's historical context.



Figure 2.4: The Point in 1980: Row of cottages near rail line (Gasson, 2002: online).

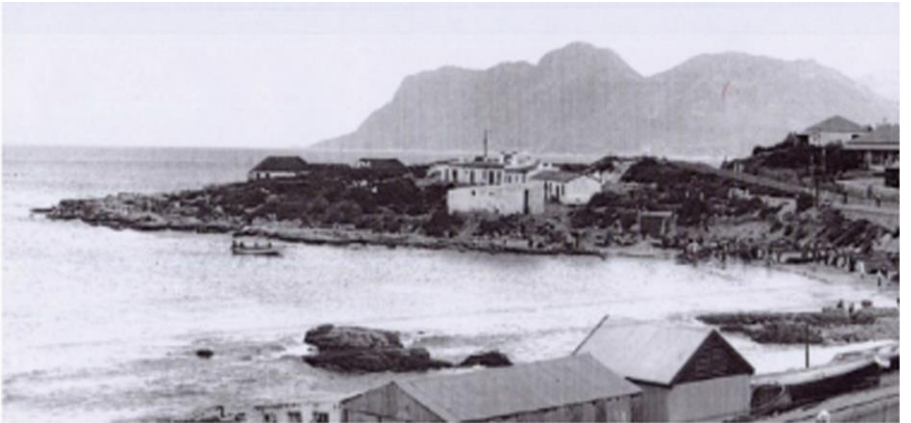


Figure 2.5: The Point in 1900: cottage roofs altered (Gasson, 2002: online).

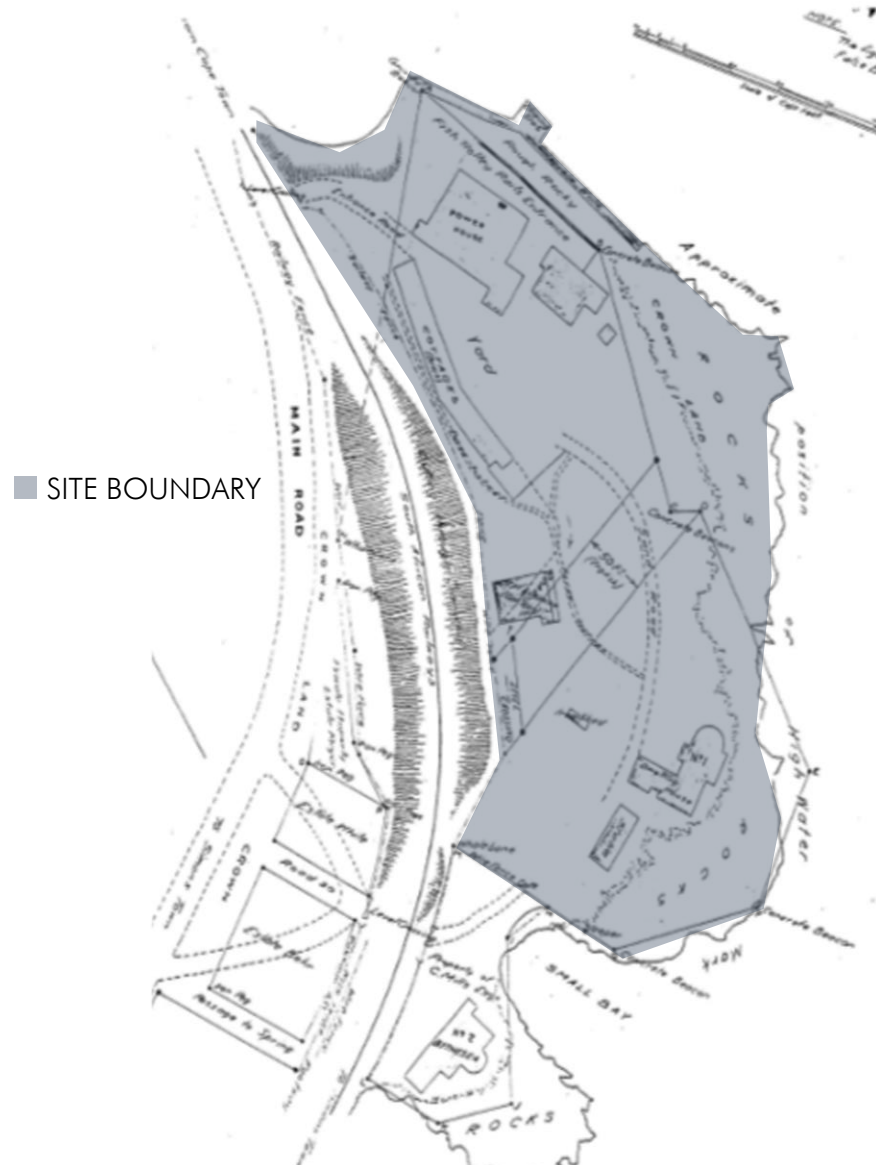


Figure 2.6: Development of the Point in 1912 (Gasson, 2002: online).

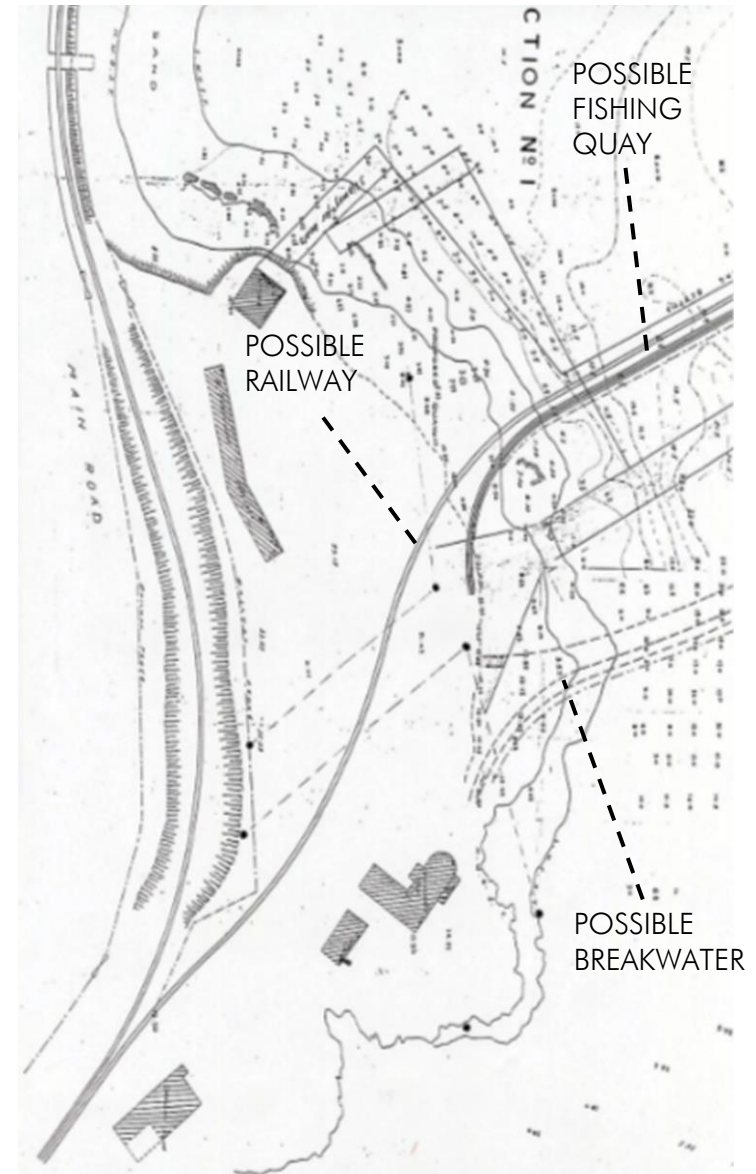


Figure 2.7: Possible configurations for the breakwater and fishing quay, rail spur (Gasson, 2002: online).

Era 3: Harbour Construction 1913 – 1919, and up to 1935

The railways and Harbours Administration occupies 2,5 acres (effectively the whole of the Point) from the Kalk Bay Fish and Land Co. (in liquidation) for the duration of the construction period. The first shovel of sand was turned on 5 March 1913 to prepare the site to receive the necessary equipment. Figure 2.8 (dated 1913) shows a sizeable fenced-off construction yard on either side of the rail spur. (Gasson, 2002: online).

A later plan (Figure 2.9) shows that the galvanised iron bungalow became a harbour bungalow, in fact, the residence of the Engineer-in-Charge, and was moved closer to the rail line. The plan (dated 1919) also shows the extent of the newly reclaimed land beyond the established property lines and the positions of the café, cubicles, bait house, and coffee stall, which today is known as Kalkie's. Kalkie's is positioned more or less on top of the old fish cleaning slab. Steps are shown connecting the Approach Road into the harbour down to Fishery Beach. Irvin and Johnson, known as I&J at the time, were the owners of most of the Point inside the established property lines. They bought the land in 1916 from the Kalk Bay Fish and Land Company and owned it until 1923 (Gasson, 2002: online).

Figure 2.14 (dated 1926) depict numerous points of interest. Firstly, it shows the outline of an "old ruin" building within the fenced-off construction yard. Second, it indicates that the brick cottages near the railway fence were no longer being used as dwellings but were now storage space. Third, His Majesty's Customs has a control gate at the junction of the breakwater, and the fish landing quay as Kalk Bay had been declared a minor port of the Union on 21 June 1917. Finally, the prominent cold storage building and fish curing shed remained. By this time, however, ownership of the Point had changed again. In 1923 it was bought from I & J by the African Lands and Hotels Ltd. This plan fell away when they purchased the Majestic Hostel around 1928 (Gasson, 2002: online).

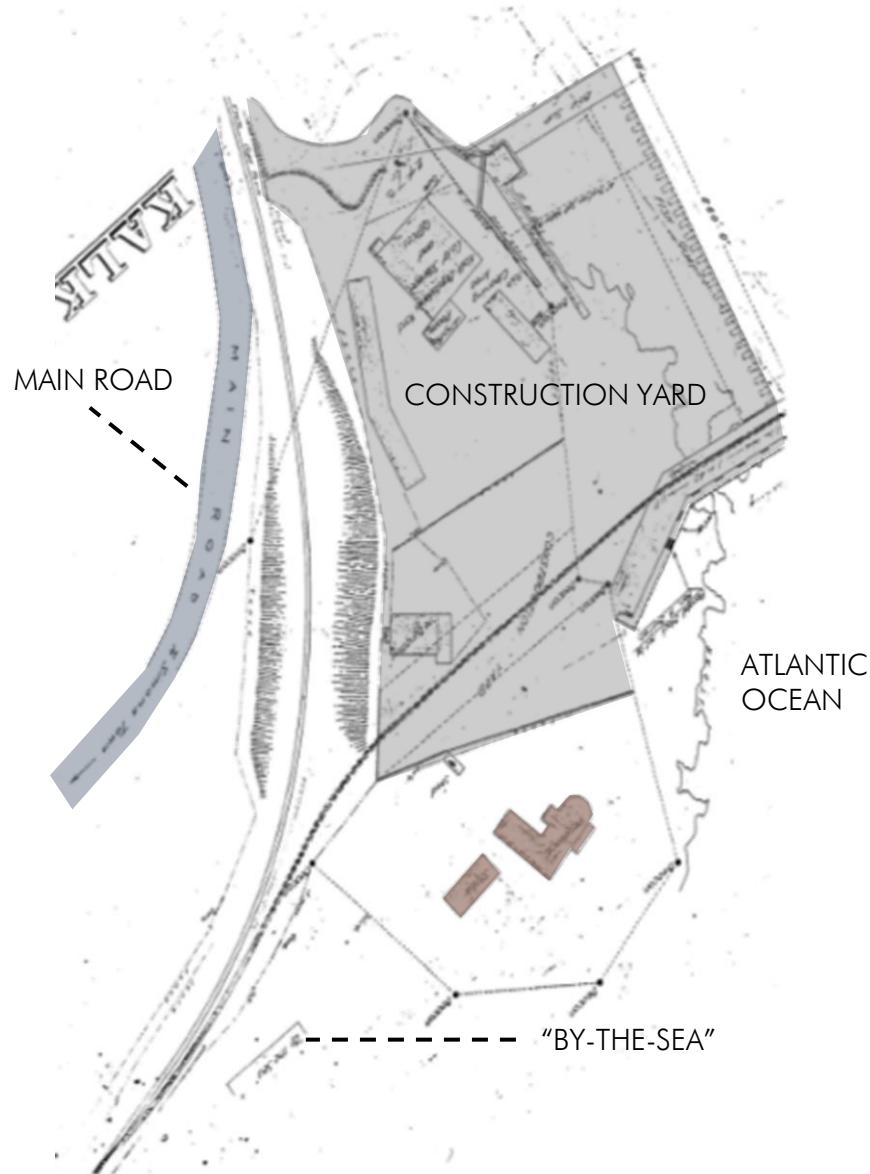


Figure 2.8: Plan of construction yard and other elements (Gasson, 2002: online).

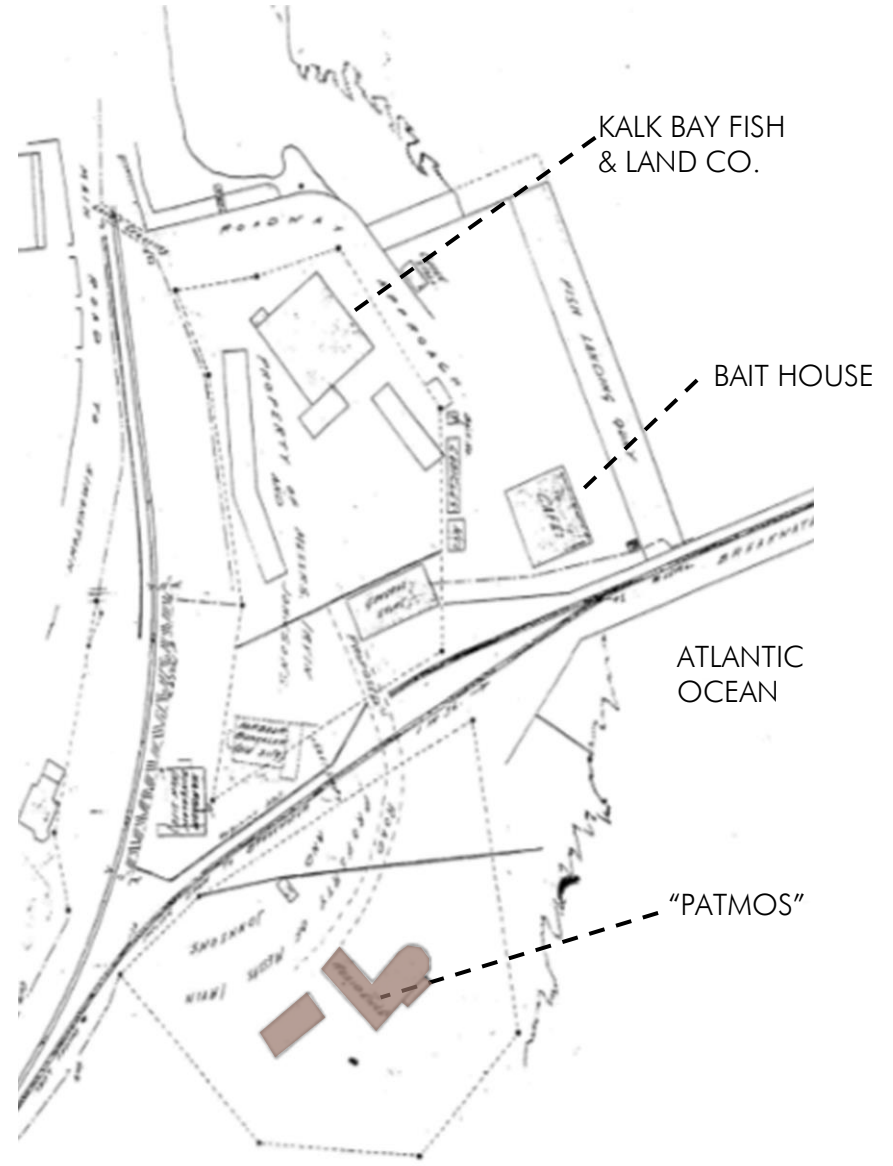


Figure 2.9: Plan of new harbour buildings (Gasson, 2002: online).

Consequently, the Point was advertised for sale in 1932 as Point Township. The township consisted of 12 perimeter plots fed by a cul-de-sac road across the Point's centre. However, the sale did not go through. At this time, the City Council wanted the land as a public recreation ground for "people of colour", so both parties agreed that the ALH sell the land. In this way, the Point passed to the Council in 1935 and has remained municipal land ever since (Gasson, 2002: online).

In 1929 "By-the-Sea" was rebuilt as a double-storey Victorian-style residence. "Patmos" had been demolished earlier, but the nearby stable had been modernised by adding windows and a double-pitch corrugated iron roof. On a plan dated 13/1/1938 (Fig.2.11), only the outlines of walls are shown once the row of brick cottages had stood next to the railway line and the cold storage shed. It is presumed that the Municipality demolished these sometime during the mid-1930s (Gasson, 2002: online).

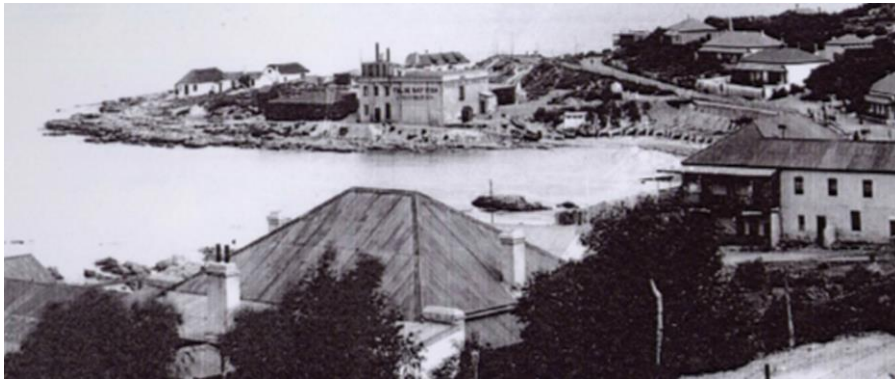


Figure 2.10: The Point in 1910: Kalk Bay Fish & Land Co. building prominent (Gasson, 2002: online).



Figure 2.11: The Point in 1933: fish plant, powerhouse and cottagers demolished; "Patmos" demolished; "stable" remodelled; "By-the-Sea" rebuilt to a double storey; railway doubled (Gasson, 2002: online).



Figure 2.12: "Patmos" and "Stable" in 1910 (Gasson, 2002: online).



Figure 2.13: "By-the-Sea" in 1900 (Gasson, 2002: online).

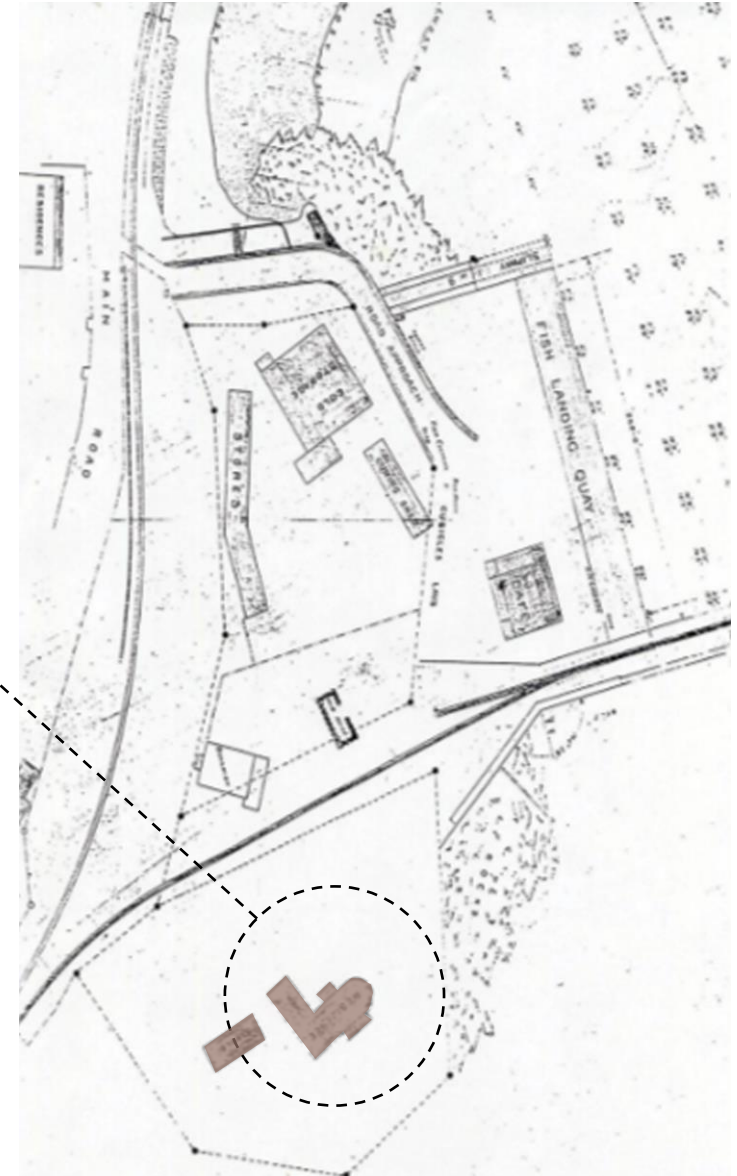


Figure 2.14: Plan identifying the old ruin of "Patmos" (Gasson, 2002: online).

Era 4: Public Recreation Area 1935 – Present

In 1946 the Fisheries Development Corporation made an application for a portion of the Point land. They saw a blunt contrast between the vacant municipal land and the inside of the harbour property; therefore, they proposed to build a modern cold storage, ice-making plant, fish stall, and rest cubicles for fishermen. Development continued and caused the removal of the last traces of the former occupation of the Point.

In 1990s a programme was envisioned for the upgrading of Kalk Bay. It was proposed that one-third of the land would remain open space, and the remainder would be open for development, for parking and business, as well as a community-based enterprise. Accordingly, the Point was rezoned from Public Open Space to Subdivisional Area.

To date a curvilinear gravel walkway was constructed to emphasise the open space; seating benches were supplied; tarred parking area alongside the railway fence, where the old brick cottages stood. A newly adapted public recreation area is proposed in this thesis based on liminal negotiations.

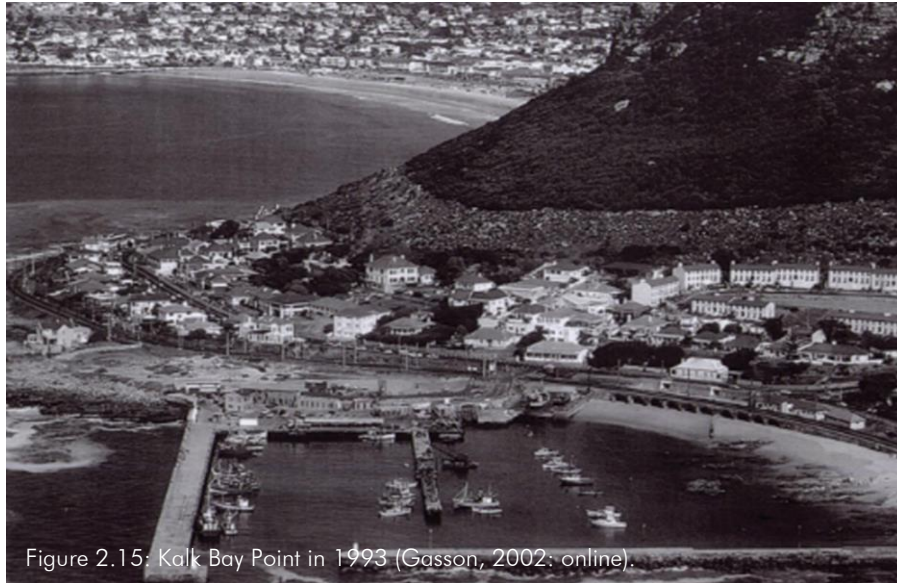


Figure 2.15: Kalk Bay Point in 1993 (Gasson, 2002: online).



Figure 2.16: Existing buildings on site (Author, 2022).

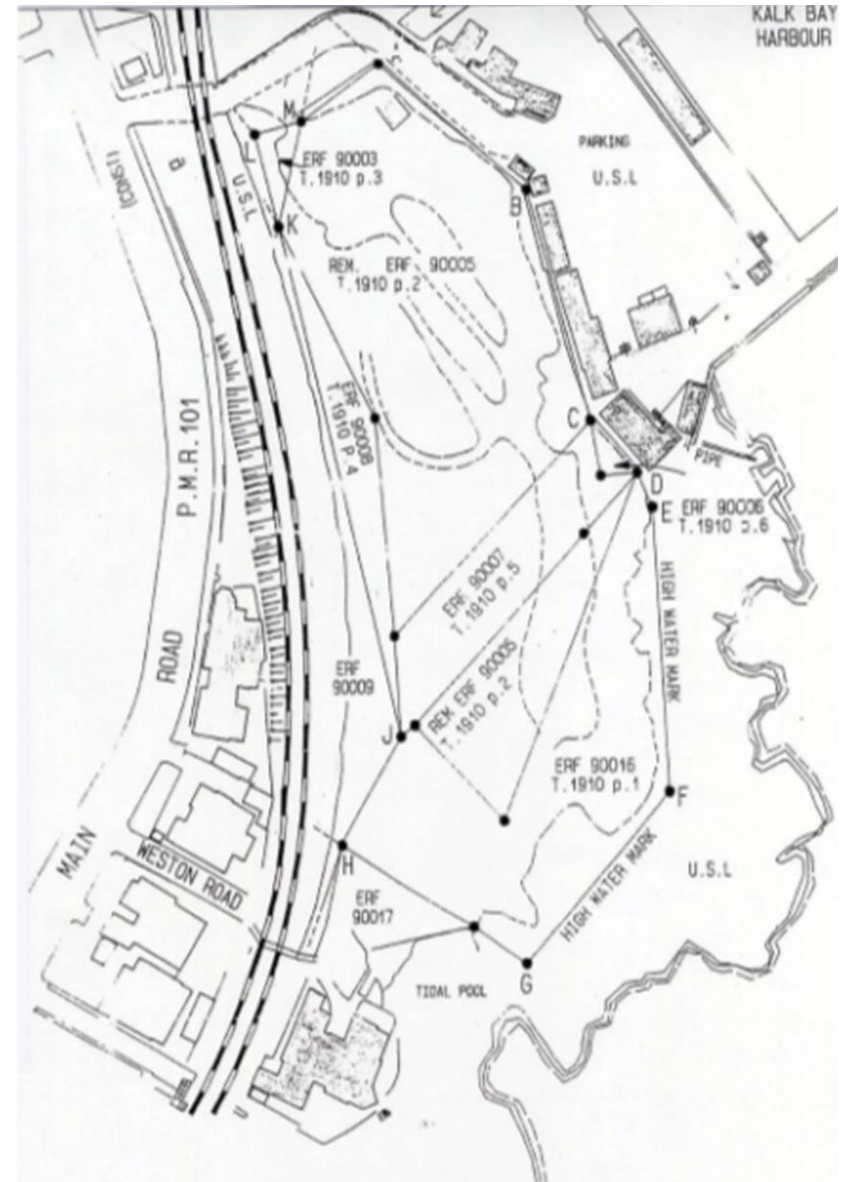


Figure 2.17: Contemporary plan of Kalk Bay Point (Gasson, 2002).

2.3 | Heritage impact assessment

Considering the rich history of the site from chapter 2.2, a heritage impact assessment report is made to assess what findings have an impact on the site and what, if possible, developments and redevelopments could be made. The heritage impact assessment report made by Antonia and Tim revealed that:

2.3.1 | Structures

A physical inspection of the study area revealed very little surface evidence of previous buildings in the northeast portion of the site, as this had been subject to past impacts and levelling for the construction of a parking area.

The house 'Patmos' remains and its associated outbuilding was located on the site's southern portion. These take the form of foundations and concrete floor surfaces.

Heavy stone foundations of an as yet un-identified structure were identified very close to the eastern shore of the Point. Examining available historical photographs and diagrams has not presented an opportunity to identify the find securely. This may be the remains of an early building, which was demolished before the final years of the 19th century. A block of dressed stone covered in lime plaster is testimony to a previously existing historic building.

2.3.2 | Pre-colonial material

Fragments of shellfish, which could very quickly be the remains of midden material, are scattered throughout the site. However, none of this appears to be in-situ and therefore worth formal archaeological sampling. The study has shown that besides the fact that shell middens may have been used as a source of lime, the Point has been subject to severe impacts in the earlier part of this century. It is unlikely that any material will have survived, although it is possible that remnants could lie buried under some of the sand drifts on the site.



Figure 2.18: Railway at entrance of site (Author, 2022).



Figure 2.19: "By-the-Sea" (Author, 2022).

2.3.3 | Impacts

Redevelopment of the site will not create physical impacts on any above-surface heritage sites on the Point. However, if redevelopment of the entrance to the harbour, the fish quay, and cubicles is envisaged, planning approval will have to be sought from the South African Heritage Resources Agency as the structures and precinct is over 60 years old and therefore protected.

There is a slight possibility that buried pre-colonial and colonial period archaeological material may be impacted during construction activities on the north half of the site.

There is a high probability that known colonial period archaeological sites will be impacted if the southern half of the Point is developed.

The prolonged intermittent historical use of the point area, its visual prominence from the surrounding coastline, Boyes Drive and the local business and residential areas imparts an essential quality to the Point - a historical landscape with a unique "sense of place" within the local community. Of all the potential impacts that could take place on the Point, we believe that impacts on the visual integrity and meaning of the area are potentially the most significant. Construction of excessive bulk and poor planning concerning the visual aspects of the site (already compromised by the enlarged restaurant) will have a significant negative impact.

Kalk Bay Harbour is a "working harbour" with a fishing tradition over 200 years old. How the fishing is done, the landing and auctioning of the fish have changed very little. A significant proportion of the wooden boats themselves are over 50 years old. Although not stated as such, the harbour has all the qualities of a living museum. It continues to attract people who come to the harbour to enjoy the experience and purchase fish off the boats. The working character of the harbour can be irrevocably changed by altering the physical environment - a blatant thrust towards tourism, upmarket residential housing and shopping can potentially trivialise the "experience of the place" (Malan & Hart, 2001: online).

The Point, despite attempts to position benches and create a walkway, is neglected, dirty and poorly secured. A positive by-product of redevelopment would be making the area safer, cleaner and more acceptable for general recreational activities.

Impacts continued

The history of Kalk Bay, although evident in the many photographs of the area that decorate the interior of a number of local businesses, is not formally publicly displayed. It is encouraged that the designation of a small exhibition area (or community museum) within any new development so that the history of the precinct and its community can be revealed to the public through an arrangement of images and artefacts. Themes could include the history of the Point, the community, the fishing industry and the local marine ecology (Malan & Hart, 2001: online).

2.3.4 | Recommendations

Northern area: physical impacts on heritage material on the northern part of the Point are minimal. As a precautionary measure, an archaeologist should be appointed to inspect foundation and service excavations bi-weekly. A contingency fund of R30 000 (ex vat) should be set aside should rescue any archaeology or ad hoc excavation be required in the event of unforeseen finds being made (Malan & Hart, 2001: online).

Harbour entrance and fish quay: insensitive alteration of the fish quay area and entrance to the harbour will impact the "sense of place" of the area, for which a SAHRA permit will be required to alter or demolish (Malan & Hart, 2001: online).

Southern area: the southern portion of the site contains the archaeology of several historic structures. Ideally, this area should be conserved as Public Open Space, conserving the sub-surface archaeological remains. Suppose the development of this area is envisaged. In that case, a series of trial excavations undertaken by an archaeologist accredited by the CRM section of the Southern African Association of Archaeologists is recommended (Malan & Hart, 2001: online).

In conclusion, it is evident that the Point contributes to the identity and meaning of the harbour and is therefore of particular local significance. This will present the planning of any future development with a particular challenge in terms of balancing the requirements of redevelopment with the need to conserve the tradition and ambience of Kalk Bay Harbour - an important heritage site on the Cape Peninsula.



Figure 2.20: *Scuppy* coming in to dock (Author, 2022).

2.4 | Contextual Heritage Considerations

The view of heritage is never static and has the trend to adapt and expand its scope over time. Meaning that over a few years, new buildings are brought into the category of old buildings and could attain the stamp of becoming a heritage building. However, certain acts, such as ‘The Burra Charter’ control heritage places’ conservation by basic principles and procedures. Accordingly, ‘The Burra Charter’ will be applied to assess the historical value of Kalk Bay Point.

The Burra Charter

To better understand the application of ‘The Burra Charter’, this document will first investigate what it is and what it tries to achieve. Essentially, ‘The Burra Charter’ acts as a document that guides the conservation and management of a culturally significant place (Burra Charter: 2013). The chapter was developed to conserve culturally rich places because it is seen that these places enrich the user’s lives and provide a meaning of connection to their community and environment. The conservation of these places protects the identity of the place, preserving past narratives for future generations to come.

Key articles that will be considered which were relevant in assessing the greater heritage context of Kalk Bay Point include: conservation and management, cautious approach, use, setting, location, contents, and participation.

2.4.1 | Conservation and management

This article deals with the importance that culturally significant places should be conserved. It should be conserved and managed to protect these places from becoming at risk of being destroyed (Burra Charter: 2013).



Figure 2.21: Fish being cleaned (Author, 2022).



Figure 2.22: Fish sold in the market (Author, 2022).

2.4.2 | Cautious approach

The cautious approach principle highlights that conservation should respect the existing fabric, use, associations, and meanings. Consequently, the Burra Charter requests that when changes are made, it should not change to the extent that it is not recognisable anymore (Burra Charter: 2013). The adaptations should speak the same architectural language as that of the existing.

2.4.3 | Use

This principle aims to conserve when a place has a culturally significant use; the use thereof should be kept (Burra Charter: 2013). When change is brought up and the use thereof changes with it, the relevance and identity of that place is lost.

2.4.4 | Setting

The conservation of setting principle requires that any new construction or demolition work should not form the cultural significance of the place. The setting refers to the immediate and extended environment (Burra Charter: 2013).

2.4.5 | Location

The location principle speaks of the significance of the physical site; in other words, if the building were relocated, the significance would be lost. If the building or object should be moved, it should be moved to an appropriate site (Burra Charter: 2013).

2.4.6 | Contents

If there are objects found on site, the removal thereof would be inappropriate unless the sole purpose is to ensure preservation (Burra Charter: 2013).

2.4.7 | Participation

Where there is the users' participation on the site where significant associations and meanings are made, conservation is important (Burra Charter: 2013). However, this type of conservation could still be achieved if physical changes were made to the place, but the function thereof needs to remain.

2.5 | Application of 'The Burra Charter'

The site finds itself in a historic and culturally rich harbour. Kalk Bay became a cosmopolitan hub as a vast group of different people reached the port. Many found the place attractive due to the abundant fresh water and fish. The surrounding context accommodates heritage buildings: The Olympia, The Dutch Reformed Church and Pastorie, The Pooter's Shop, The Mosque, Strathmore, and the 'By-the-Sea' that uses the harbour as an entrance to the property.

The focus on Kalk Bay Harbour resembles a mixture of styles that were relevant to the era. However, the original Cape Dutch style was lost in time and was built over. As a result, not a lot on the site is heritage protected. The only protected elements were mentioned in the recommendations of the heritage impact assessment report. A cautious approach should be made to conserve the sense of place. However, I would argue that the site now has lost its sense of place and propose demolishing the existing structures to accommodate the new architectural intent that embodies the identity of the place. The cultural significant use of the site is to function as a harbour and fish market, and thus will need to be kept.

Building techniques and skills will be used to reflect the cultural significance of the setting. Moreover, if there were to find any cultural significant contents on-site during the process, they will be appropriately handled and preserved. In essence, everything related to the cultural significance and identity of the place will be considered in the design process for preservation and awareness.



Figure 2.23: Outside perspective of the harbour (Author, 2022).

2.6 | Coastal Injustice

Looking at the context of South Africa, it is clear that it is a victim of spatial injustice, as places were developed under discriminating against and marginalising based on class, race, and gender. Accordingly, this chapter aims to understand what the existing conditions uphold, if there is any heritage value to uphold, and what can be done to alter this space to make is more spatially just. I believe architecture should reflect and capture the shared strengths of a community, thus reinforcing pride in individuals and creating curiosity in visitors. The inclusion of beliefs, traditions, and aspirations of a society, reinforces society's respect and drives design decisions in creating spatially just environments.

This section is concerned with understanding the theories behind spatial justice and how it could be used as a theoretical lens to interpret the existing site conditions and discern what alterations could be implemented in splace where these values are not applied. According to Edward Soja, an American self-described urbanist, a noted postmodern political geographer, and urban theorist on the planning faculty at UCLA, spatial justice involves “the fair and equitable distribution in space of socially valued resources and opportunities to use them” (Botha, 2020: 32). In this socio-spatial relation, it is understood that space shapes social relations similar to how social relations shape space. In order to understand the context of the space, ‘The Burra Charter’ was used to analyse the existing conditions and the heritage value thereof.

Spatial justice refers to the impartial and equitable distribution of social space and the opportunity to engage with it. It however, does not substitute social, economic, or other forms of justice, it rather becomes a lens to interpret the critical spatial perspective (Botha, 2020: 3). In the past planning legislation aimed to promote racial inequality, segregation, and unsustainable settlement patterns, but spatial justice intends to rectify this.

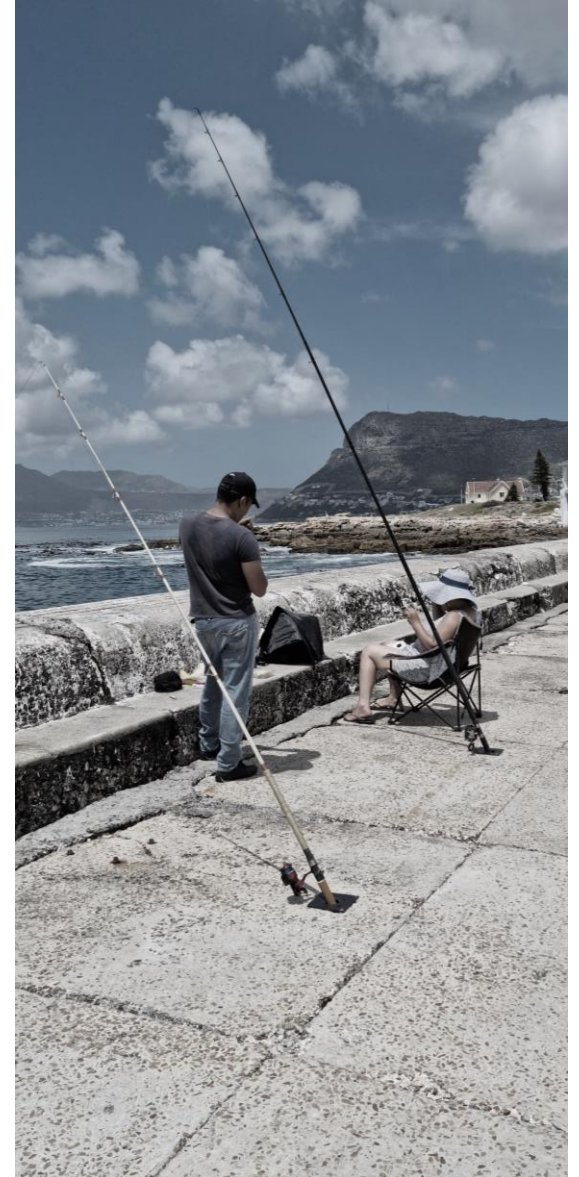


Figure 2.24: Visitors fishing from fish quay (Author, 2022).

The way we preserve space is a crucial dimension as it reflects social facts and influences social relations accordingly. Hence, understanding the relationship between space and society becomes fundamental to understanding social injustices and identifying ways to address them. The concept of spatial justice is viewed in achieving it as being realised and visible in space. Accordingly, it cannot be realized in an abstract manner, as social relations are lived in a particular space and time (Botha, 2020: 5). It can be said that space is socially formed and can thus be socially reformed.

Critical spatial thinking can be seen containing three key principles: ontological spatiality of being, the social production of spatiality, and the socio-spatial dialect (Botha, 2020: 6). Taking these principles in consideration, one could see that space shapes social relations equally to how social relations shape space. Again, it could be then seen that spatial justices project the fair and equitable distribution of socially valued space. In the context of Kalk Bay it is seen as protecting man from the ocean and protecting the ocean from man.



Figure 2.25: Art sold on site (Author, 2022).

2.7 | Site considerations and analysis of prefigured site

The prefigured site refers to the place as it is now, and the ques suggests what the place wants to be. The following site analysis consists out of three phases which informed design choices: a macro analysis which will consider the more extensive condition Kalk Bay and its relation to other small-scale fisheries; a mezzo analysis which considers the condition of external surround conditions may have on the site; and lastly, a micro analysis looking at the site condition of the harbour and the possibilities it provides for design development.

2.7.1 | Macro analysis – contextual condition

Although on pedestrians' perspective the urban condition feels like a grid. It is however, the opposite, as the roads follow the contours and the buildings would the attach to them to create an illusion of a grid. In this organic type of city planning, public spaces become the points of orientation, which are the harbour and the train station. These two entities are situated at the ends of the town. Accordingly, this relates to the theoretical approach of creating a liminal space, where the lived space between these entities becomes the liminal (figure: 2.25).

As previously mentioned, Kalk Bay harbour is one of 12 small-scale fisheries along the coast of the Western Cape (figure: 2.25)

In Kalk Bay, multiple modes of transport are used which includes walking, public and private motor vehicles, trains, and boats. The roads could become quite congested at times, but a sense of spatial justice was given by providing a promenade for pedestrian traffic and activity.



Figure 2.27: Dutch Reformed Church built in 1876 (SA-V, 2016: online).



Figure 2.28: The Olympia Café built in 1906 (Haig, 2015: online).



Figure 2.29: Strathmore built in 1906 (Author, 2022).

Figure 2.26: Liminal space created between two entities (red) and heritage buildings (CapeFarmMapper, 2022: online. adapted by author).

Small-scale fisheries

As previously mentioned, Kalk Bay harbour is one of 12 small-scale fisheries along the coast of the Western Cape.

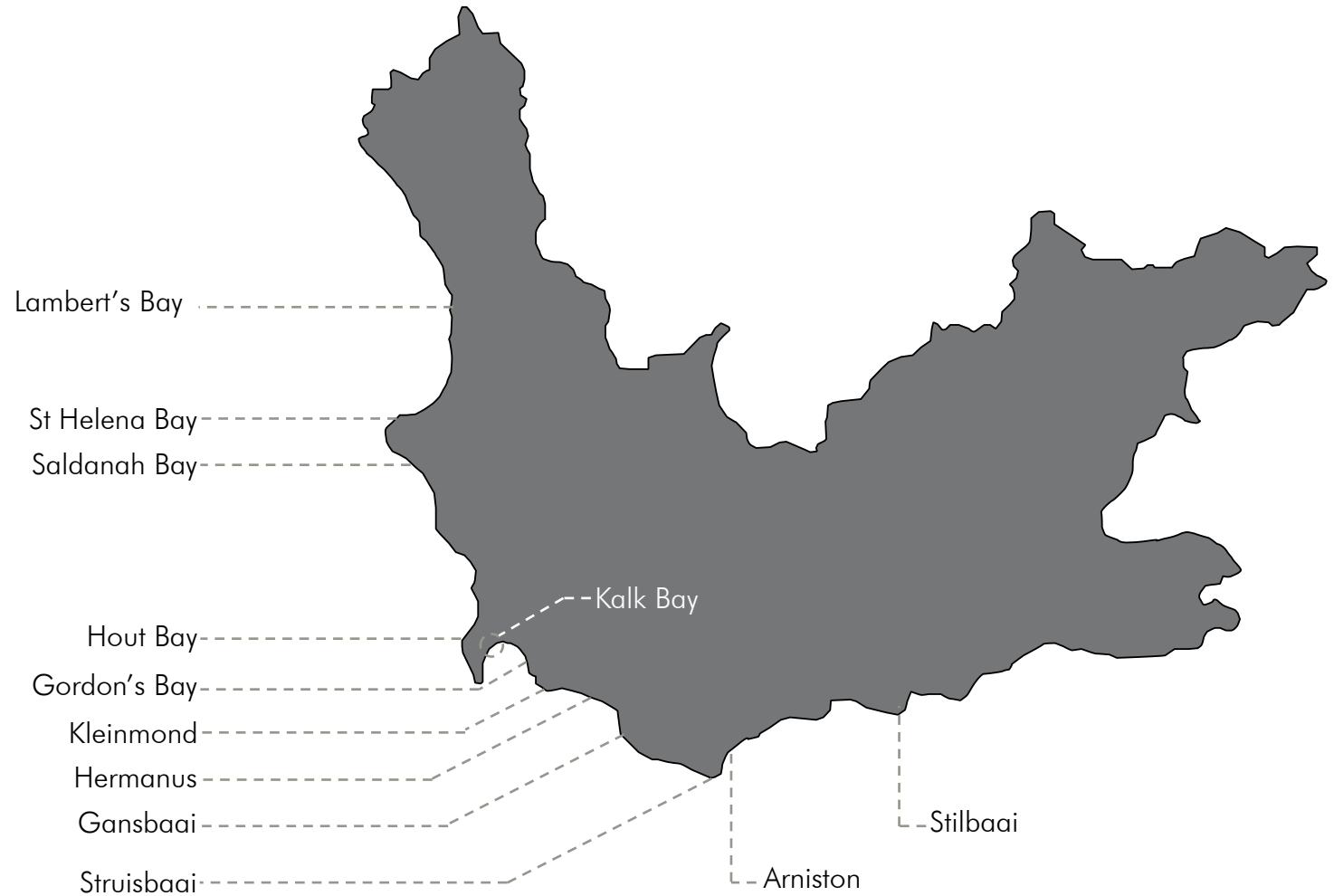


Figure 2.30: Small-scale fisheries in the Western Cape (Author, 2022).

2.7.2 | Mezzo analysis – surrounding site conditions

As previously mentioned, Kalk Bay finds itself in a space that is influenced by external forces such as weather, views, and spatial conditions.

In figure: 2.31, the open public space is highlighted. However, upon closer look, the more significant section of the open space is occupied by parking, enabling social injustice to prevail. Accordingly, the design should still encourage these spaces to be designed for pedestrian use and could act as a means to net together a fragmented design where the liminal will live.

In figure: 2.32, views are an essential element that contributes to the sense of place and would influence the design. Accordingly, the morphology of the plan and building will be influenced to capture and frame these moments in the landscape. On plan, the buildings could mimic the contours by automatically having the longer façades facing and framing these moments. Whilst, the morphology of the building, could be shaped to encourage directional views and movement to these types of spaces.

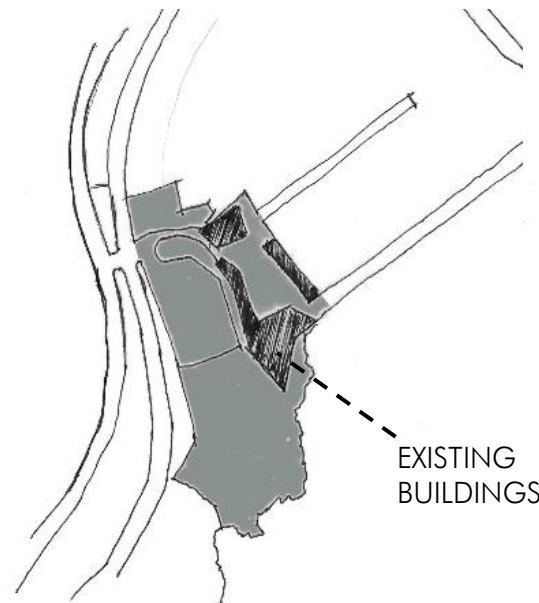


Figure 2.31: Open space (Author, 2022).

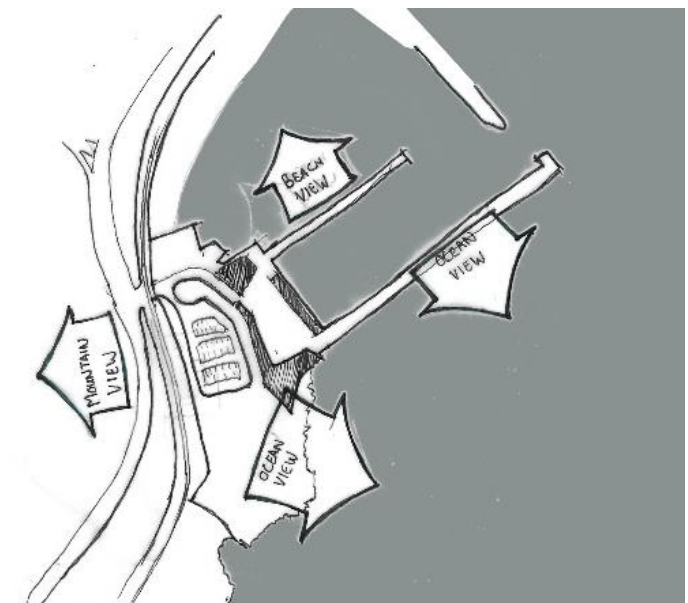


Figure 2.32: Views (Author, 2022).

In figure: 2.33, the wind direction is highlighted. The winds are pretty strong against the coastline of Kalk Bay, which could influence the design. The design could then possibly be fragmented to act as a windbreaking device. Acknowledging the strong winds, it could be captured in the building as a means of an active climatic device, cooling and heating the interior accordingly.

In figure: 2.34, it could be seen that there is only one entrance for the public to the site. Accordingly, traffic control becomes essential to avoid congestion. Two parking points are also highlighted. However, to prevent the site from becoming a parking zone and to uphold the heritage value of the site, pedestrian movement will be of higher importance. Accordingly, parking at the lower level could be heavily reduced, and parking on the upper level could be spread out to enable more pedestrian flow over the site. .

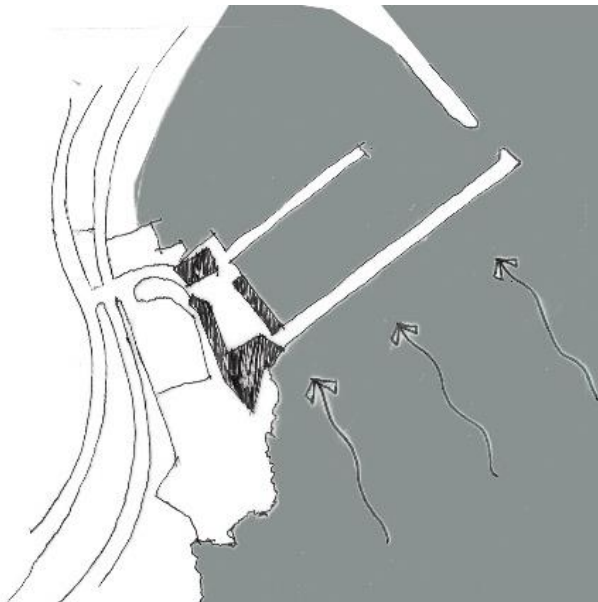


Figure 2.33: Wind direction (Author, 2022).

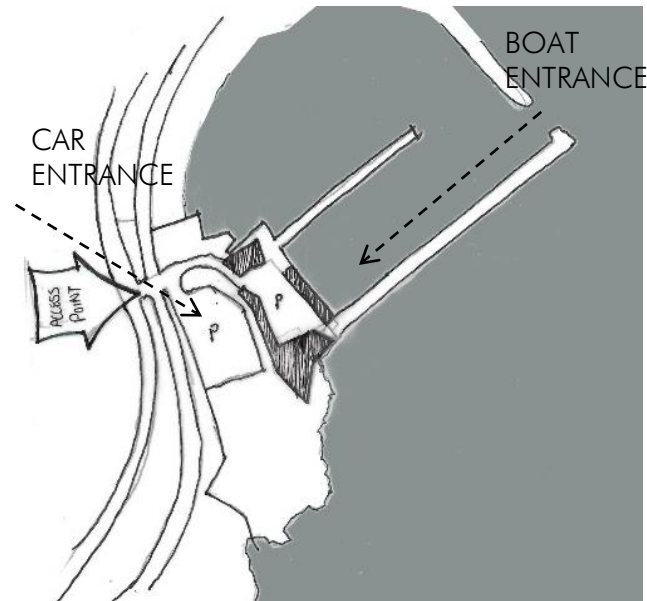


Figure 2.34: Access point and parking (Author, 2022).

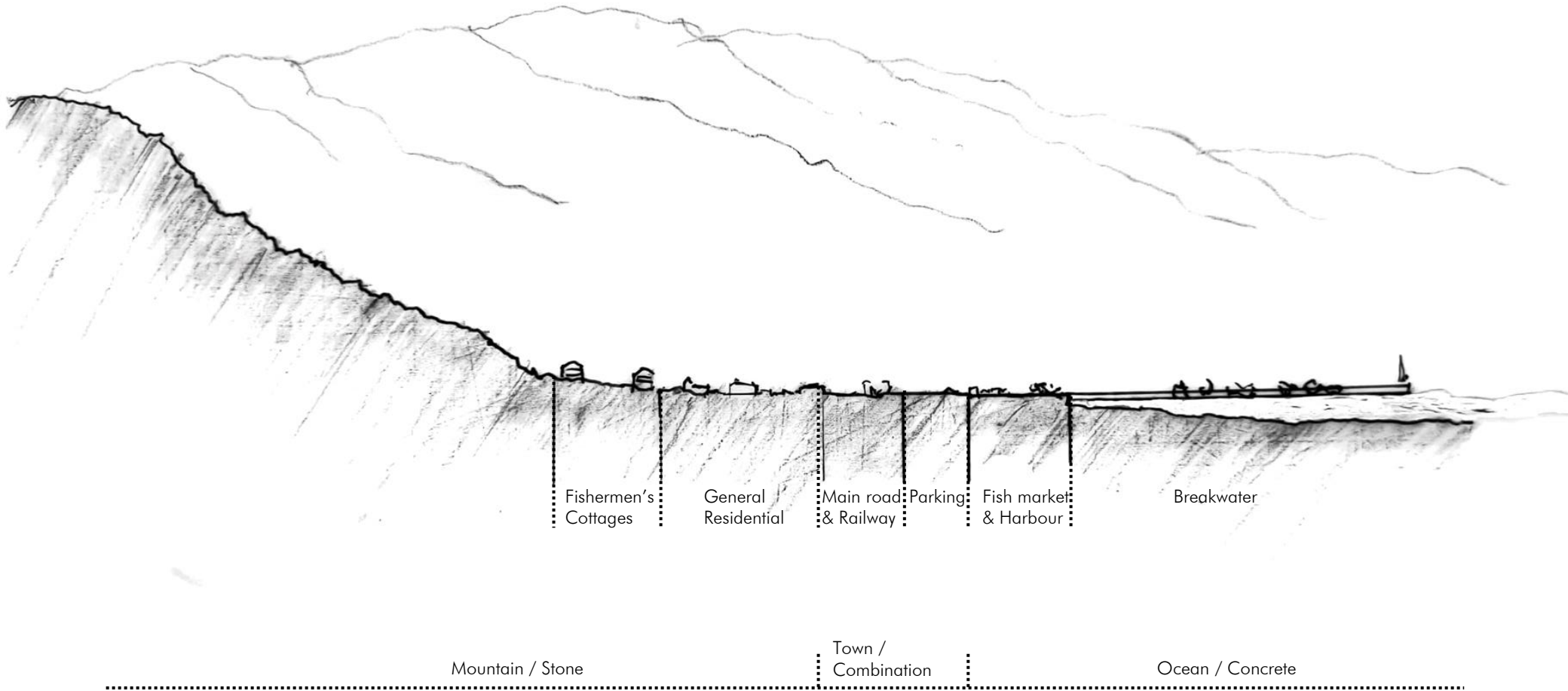


Figure 2.35: Section through terrain and material changes (Author, 2022).

Sun Study

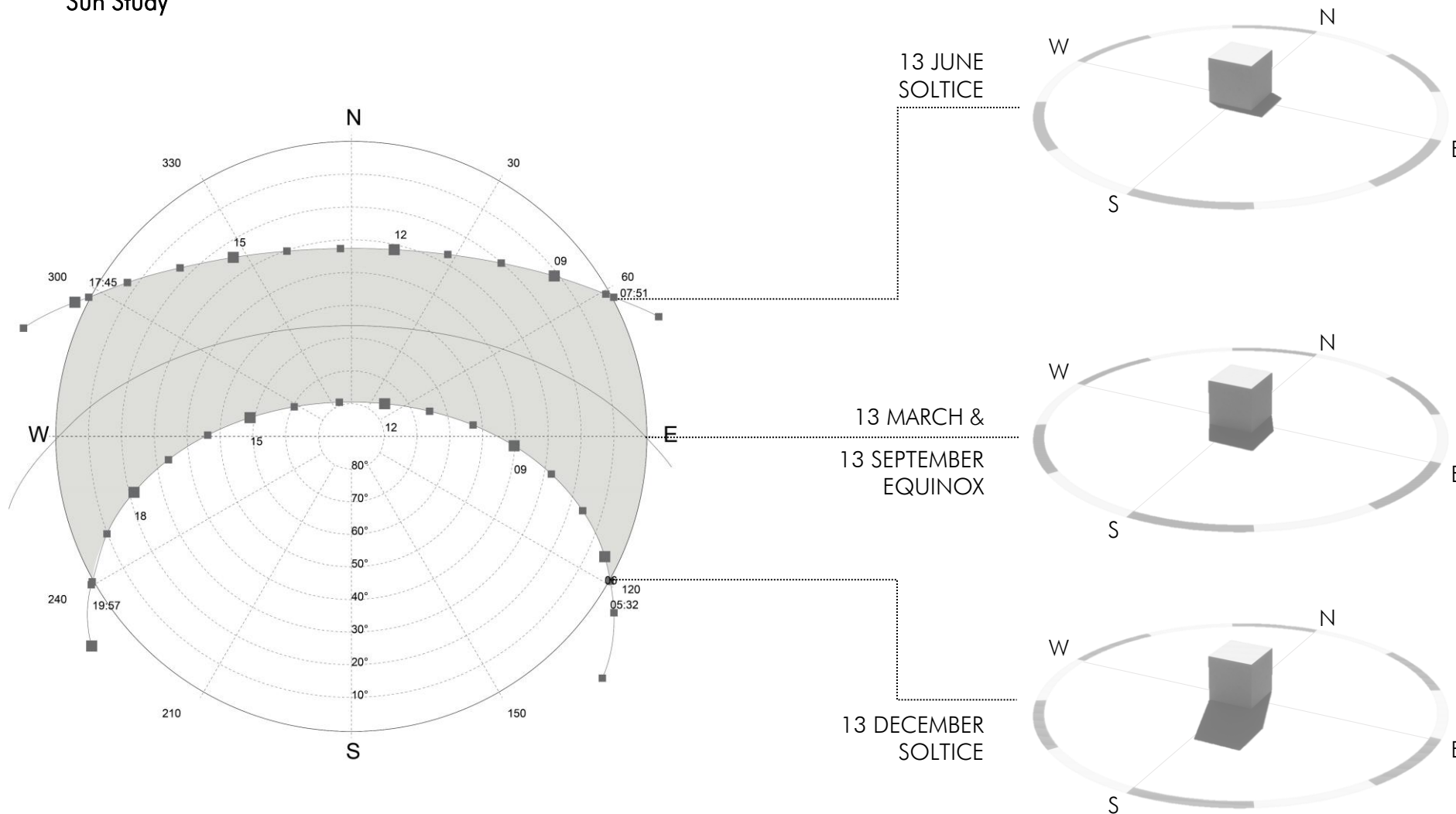


Figure 2.36: Sun study done based on 14:00 (Author, 2022).



Figure 2.37: Tide range study (Author, 2022).

2.7.3 | Micro analysis – site conditions

The size of the harbour is large, but to break up this vastness of space, there are upper and lower levels. On the lower level, the most life happens, as this is where the boats come to dock, fish get sold, and people eat at the restaurant. In contrast, the upper area is quiet as it only occupies a parking lot and a small fynbos area with accommodating paths. In addition, in trying better to understand the transitional zone between land and sea, another threshold between upper and lower is found. The design intent could also address this by creating a relationship where these entities start to dialogue.



Figure 2.38: Beacons on site (Author, 2022).



Figure 2.39: Entrance to site (Author, 2022).

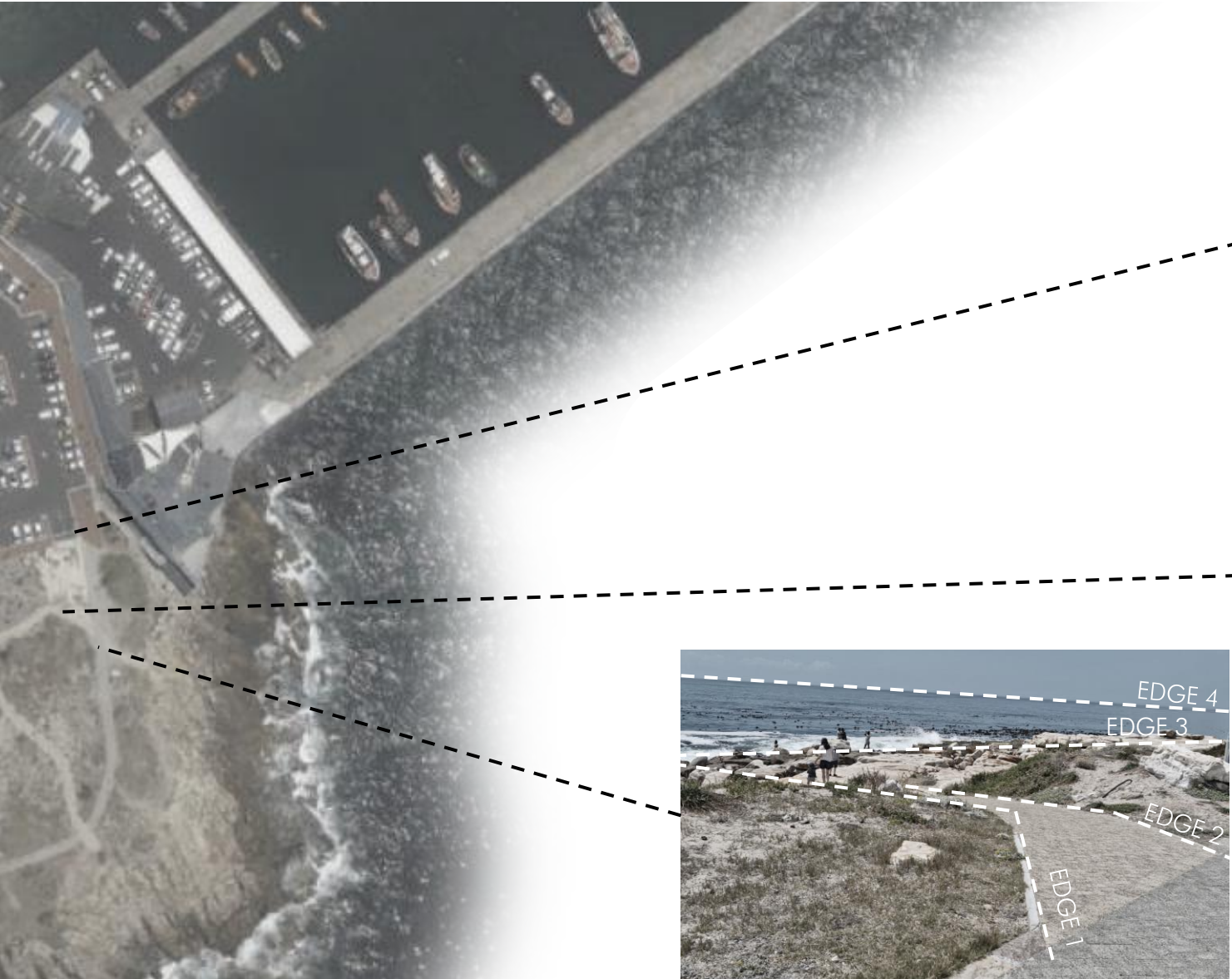


Figure 2.40: Site (CapeFarmMapper, 2022: online).



Figure 2.42: Path (Author, 2022).



Figure 2.41: Level changes (Author, 2022).

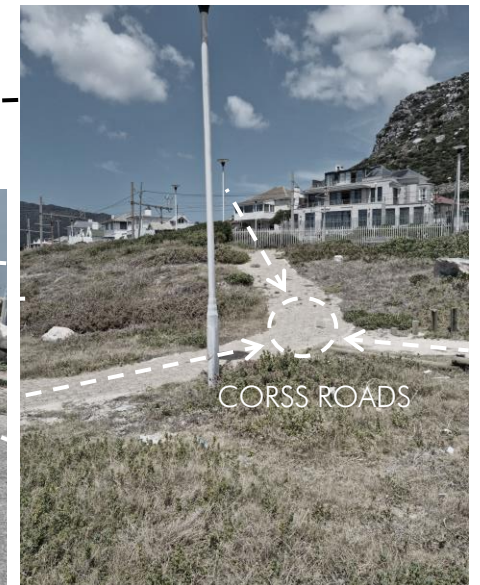


Figure 2.43: Walkways (Author, 2022).

CHAPTER 3
SPATIAL GENERATORS



Figure 3.1: Photograph of Mellissa – Kelly (Author, 2022).

3.1 | Touchstone

The site: Kalk Bay Point becomes the point where land and sea meet, where two natural bodies meet to create a liminal threshold. The liminal is an in-between condition which embodies characteristics of the in-between whilst simultaneously having the power to separate and be distinct from the two entities, land and sea. However, this liminal space is everchanging as the tide changes. Accordingly, the influence of time becomes evident, as it creates a buffer zone between land and sea. The goal is to create a space that would marry two opposite entities in unison by playing with a give and take; old and new; light and heavy.

The touchstone is a physical representation capturing the essence of the project. It represents a balancing act where the architectural intention counters the wrecking ship, the wrecking ship that is Kalk Bay Point. It is a neglected commercial setting that steered away from focusing on the rejuvenation of the under-stressed small-scale fishing community. Accordingly, the neglect can be seen in the dematerialising of the touchstone. The touchstone embodies the problem represented on site, while the following concepts aim to rectify this issue:

- Path
- Time
- Beacon



Figure 3.2: Photo of Violet Glen (Author, 2022).

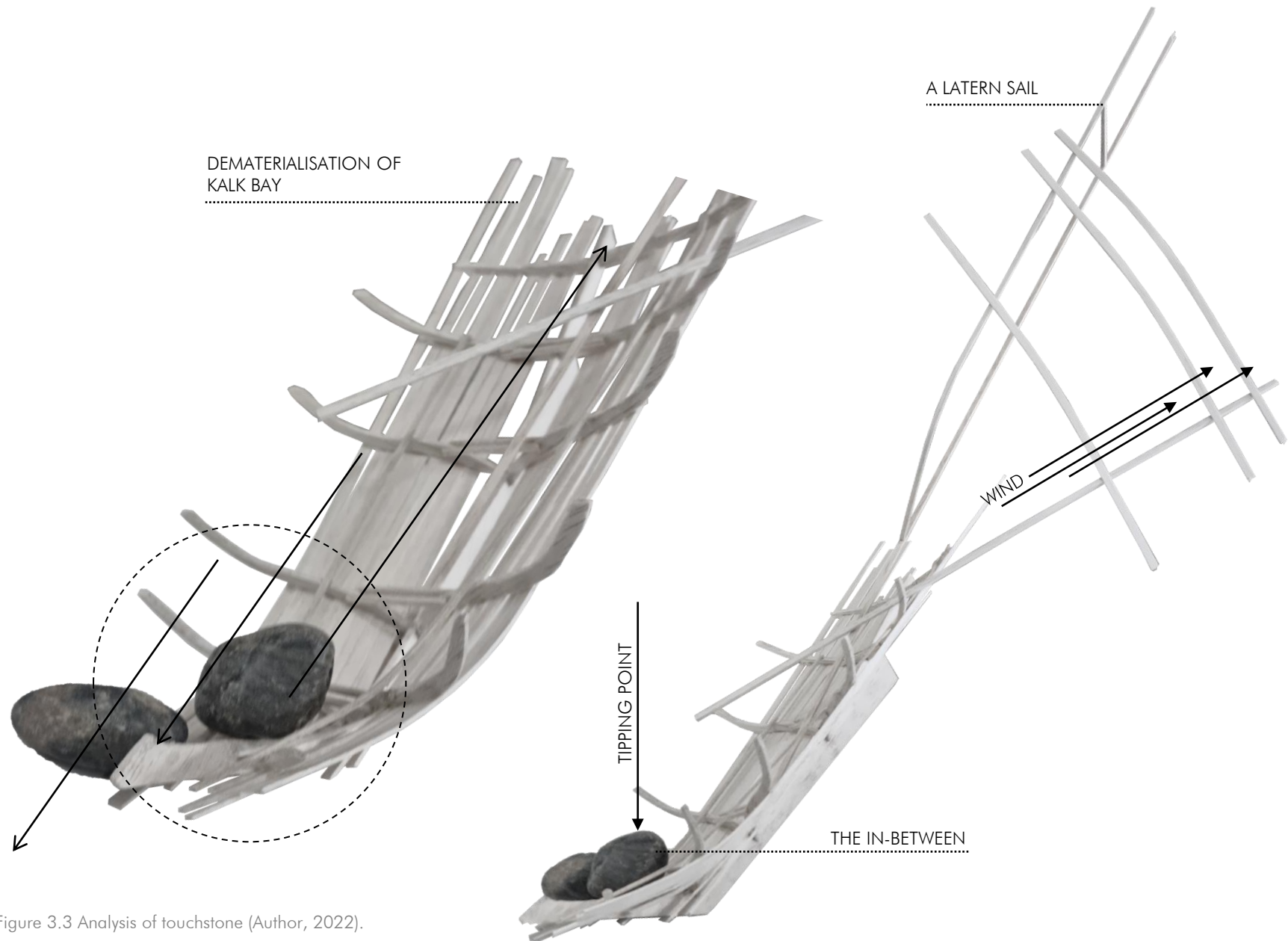


Figure 3.3 Analysis of touchstone (Author, 2022).

3.2.1 | Concept 1: Transition

This first concept, Transition, embodies a rite of passage, as it links with how these fishermen are rooted or attached to their homes up in the mountain. They start their journey by venturing down the cobblestone road that starts wide and narrows and finally opens up again at the harbour entrance, where they venture out to sea. Accordingly, a series of thresholds are formed by where it starts heavy, and along this route, it starts to dematerialise as it transitions toward the sea. Architecturally this concept invokes a notion that the building becomes a path. Along this path, this visitor is introduced to a series of thresholds that start to blur as it progresses and dematerialises into the sea. Spatial provocations such as thresholds, path, blur, connection, separation and dematerialisation are introduced.

Keywords:

| | |
|--------------------------|--|
| Path | - Creates movement and points of rest within the space |
| Blur | - Overlaps of elements to make transitions not felt |
| Connection | - Establishing elements that have a dialogue with each other |
| Separation | - Points of disconnect |
| Dematerialisation | - Materials transition towards a fragmented state |

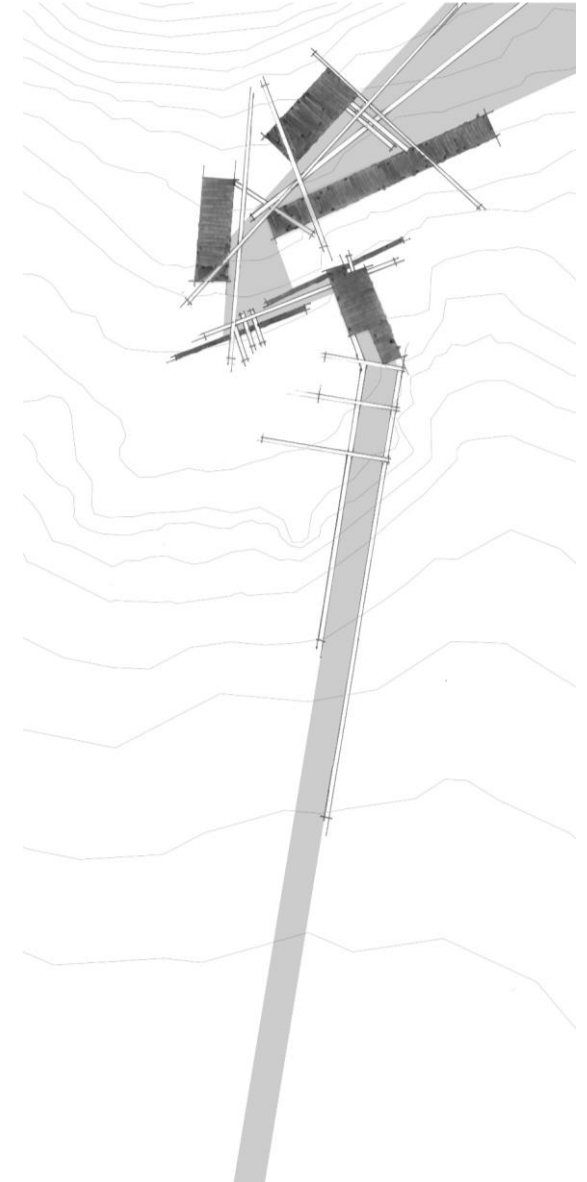


Figure 3.4: Sketch interpretation of Transition (Author, 2022).

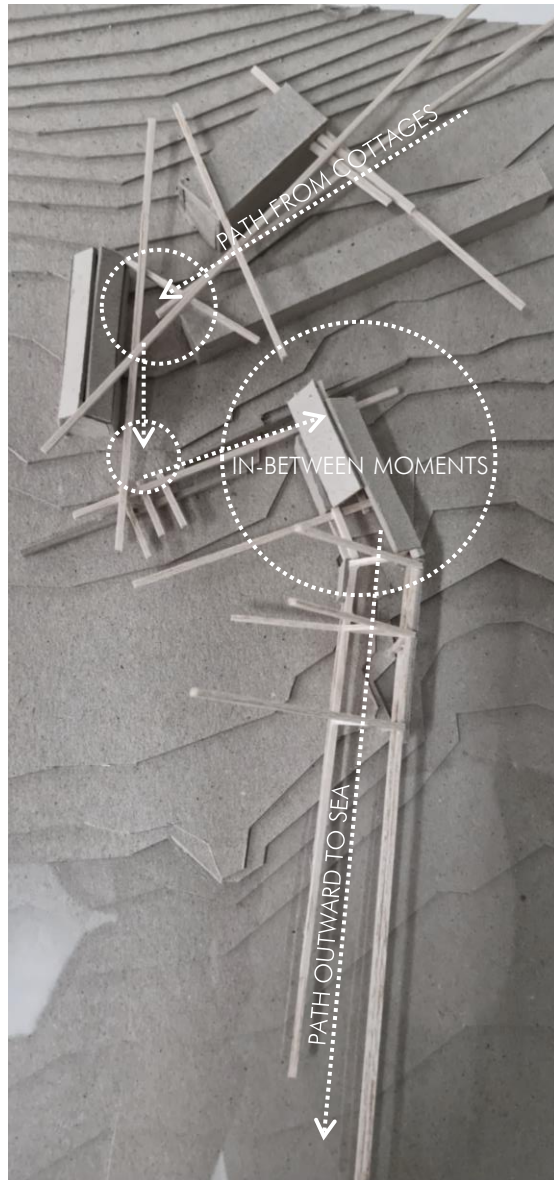


Figure 3.5 Analysis of Transition 1 (Author, 2022).

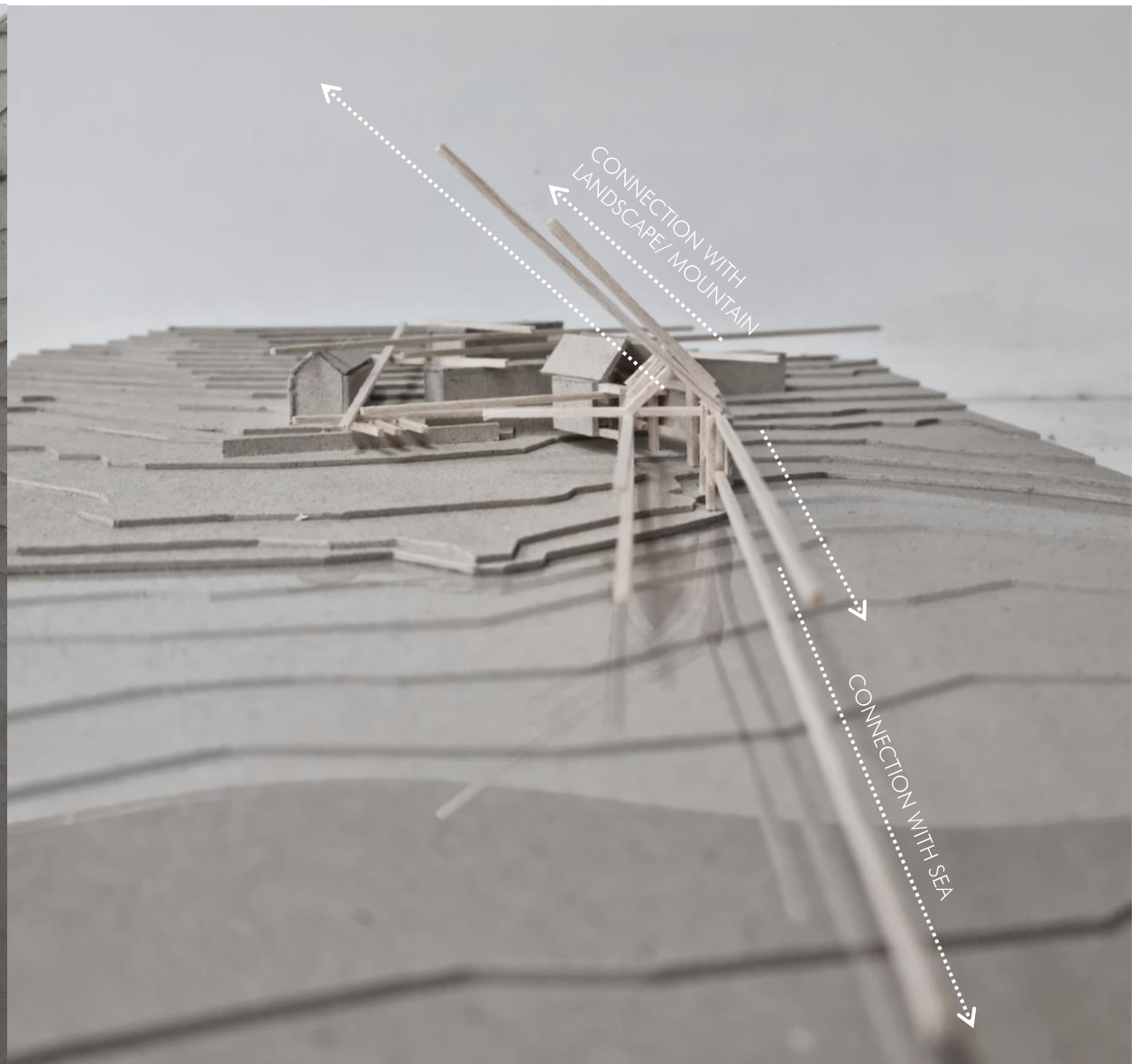


Figure 3.6 Analysis of Transition 2 (Author, 2022).

3.2.2 | Concept 2: Time

The second concept, Time, is introduced as it becomes an essential element for the fishermen, as it relates to when they can go out to sea, as when the tide is low, it cripples them to go out. As such, it creates the notion of how time becomes a barrier that is not always permeable. However, there are two ways how we can visually perceive time. The first is a visual perception. By looking out at sea, we cannot determine whether or not it is high tide. Accordingly, we look at our surroundings to see an indication of change. Architecturally this could be explored by introducing channels that would cut into the land mass, creating different height levels in which the tide height could be seen. Another means of exploring time to be visually seen is with the play of light by creating controlling devices that would allow light to filter into a space that would act as a sundial. This second way to perceive time is through spatial experience, where time, space and matter can fuse to create architecture for deep human experiences. This is where the notion of 'slow space' is introduced, where time stands still as it breaks away from the chronological concept of time. Architecturally this is seen when there is a break-away moment from the linear notion of a mundane space to a moment where the space allows the user to experience a significant event, as such the play of scale becomes essential, as well as the use of light. Spatial provocations that are introduced are Filter, Marker and Slow Space

Keywords:

| | |
|-------------------|---|
| Filter | - Controlling devices of movement, - light, - views |
| Marker | - Visual elements to perceive time (tide) |
| Slow Space | - Moments of pause and reflection |

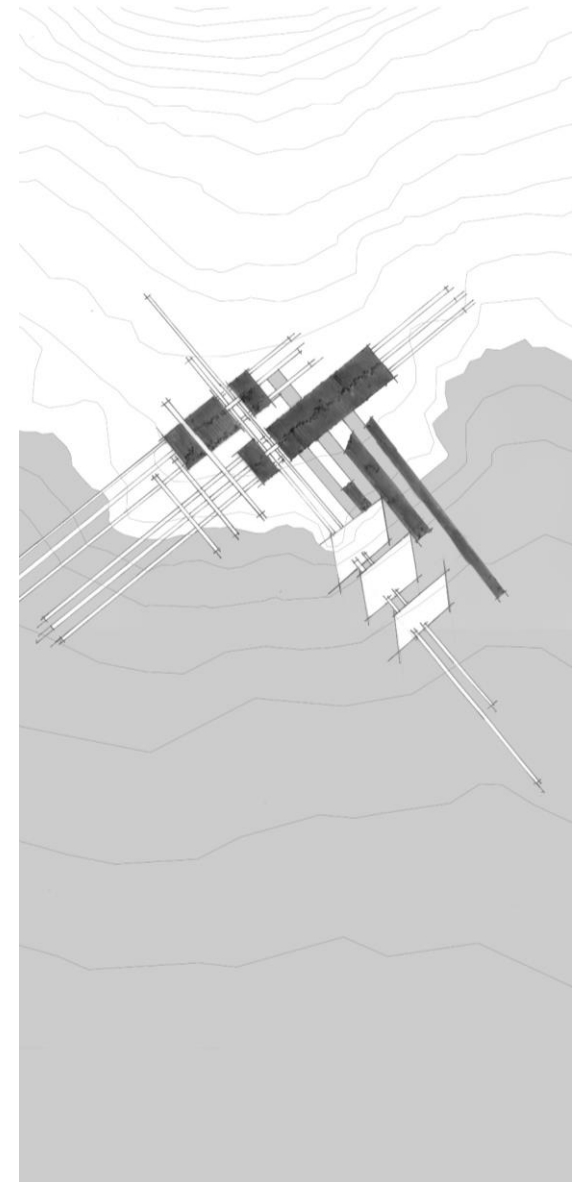


Figure 3.7: Sketch interpretation of Time (Author, 2022).

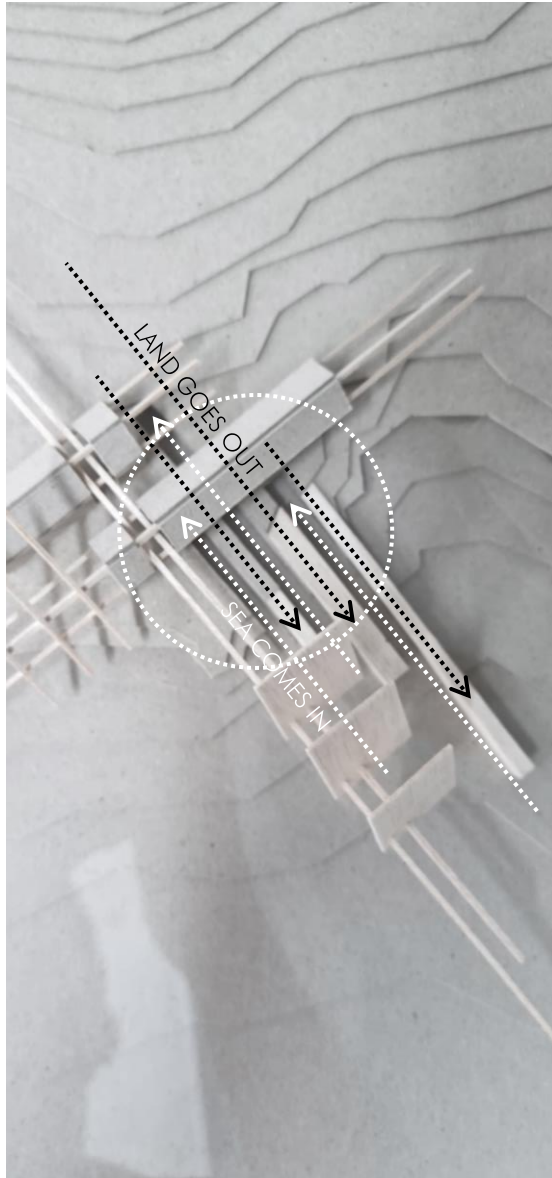


Figure 3.8 Analysis of Time 1 (Author, 2022).

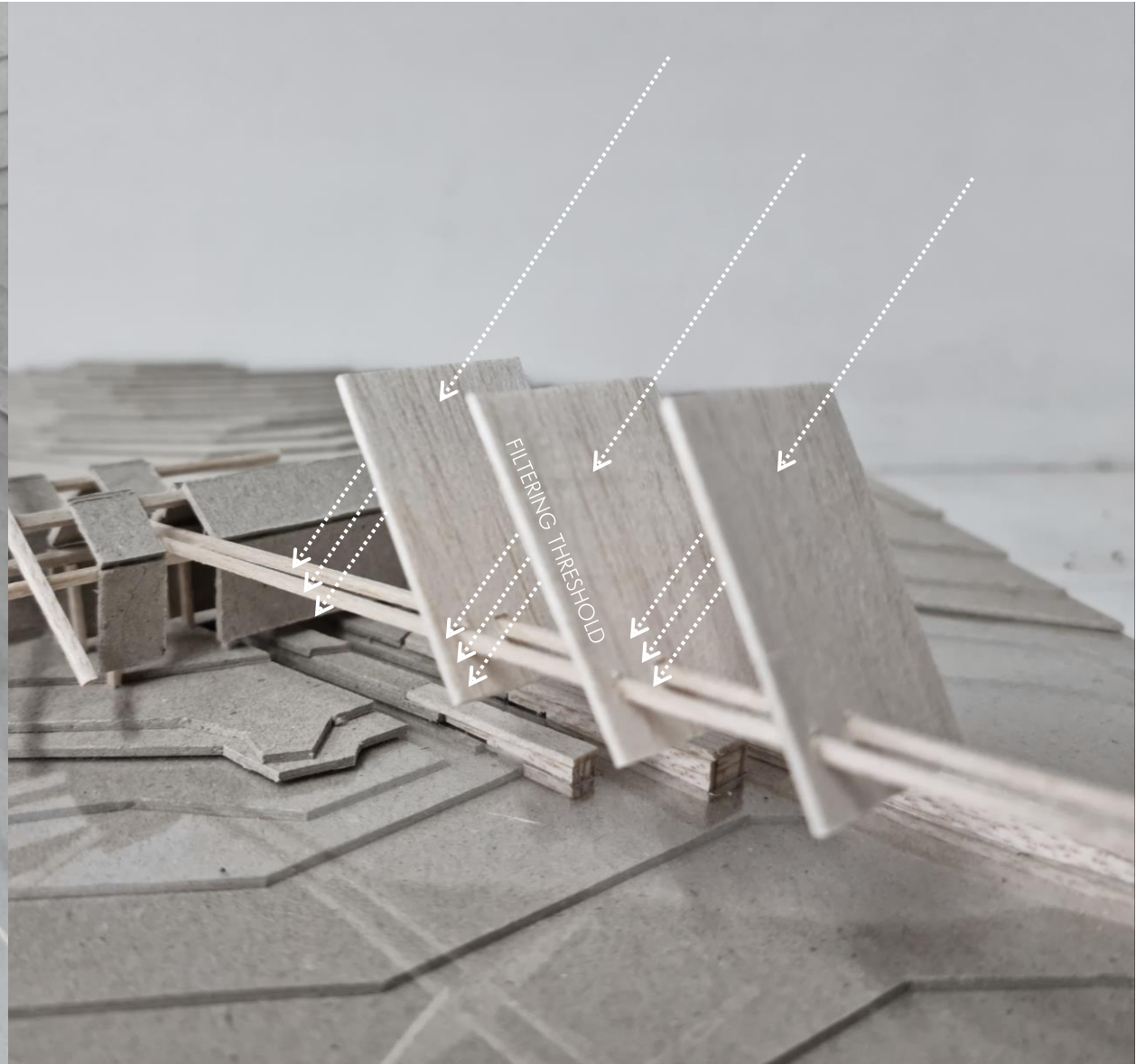


Figure 3.9 Analysis of Time 2 (Author, 2022).

3.2.3 | Concept 3: Beacon

The third and last concept explores the notion of a beacon. However, not in the sense that it becomes a tower element that is being introduced but instead in the way that a central meeting point is created. This relates to the site in the manor where although the fishermen are going out to sea, they need to return to bring back the fish to support their families. However, this is also a tourist attraction site. As such, there becomes a moment where the fishermen and tourists meet at a central meeting point, which becomes the fish market. Architecturally this is seen where bodies or masses are introduced and reach out toward each other.

Additionally, the in-between becomes essential as it becomes the datum that ties these bodies together in harmony. As such, a play on give and take is explored. Spatial provocations are Orientation, Meeting Point and Depart – Arrival

Keywords:

| | |
|-------------------------|---|
| Orientation | - Point of hierarchy or elements that guide |
| Meeting Point | - Spill out points of gathering |
| Depart – Arrival | - A give and take in materials (heavy vs light) |

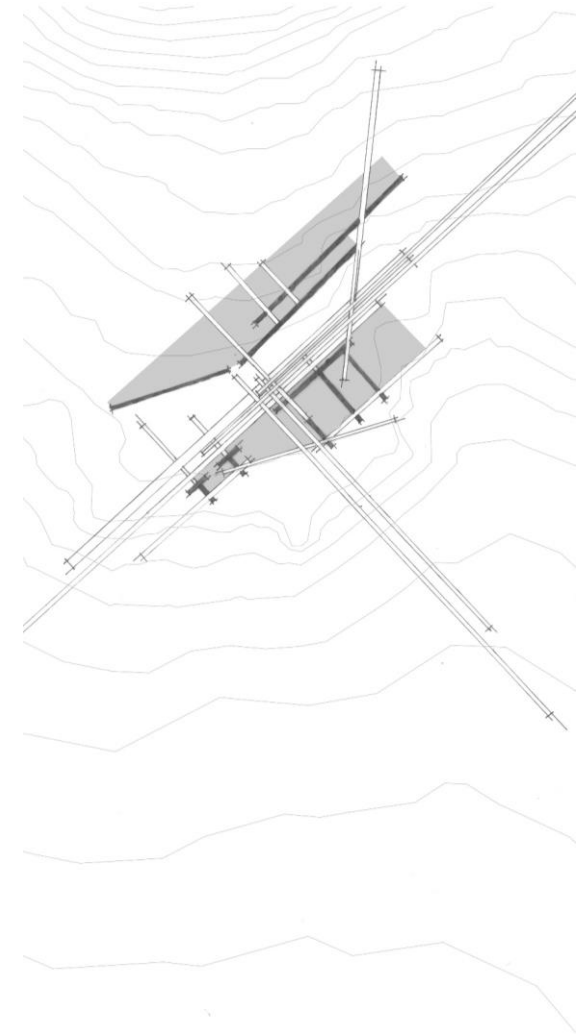


Figure 3.10: Sketch interpretation of Beacon (Author, 2022).

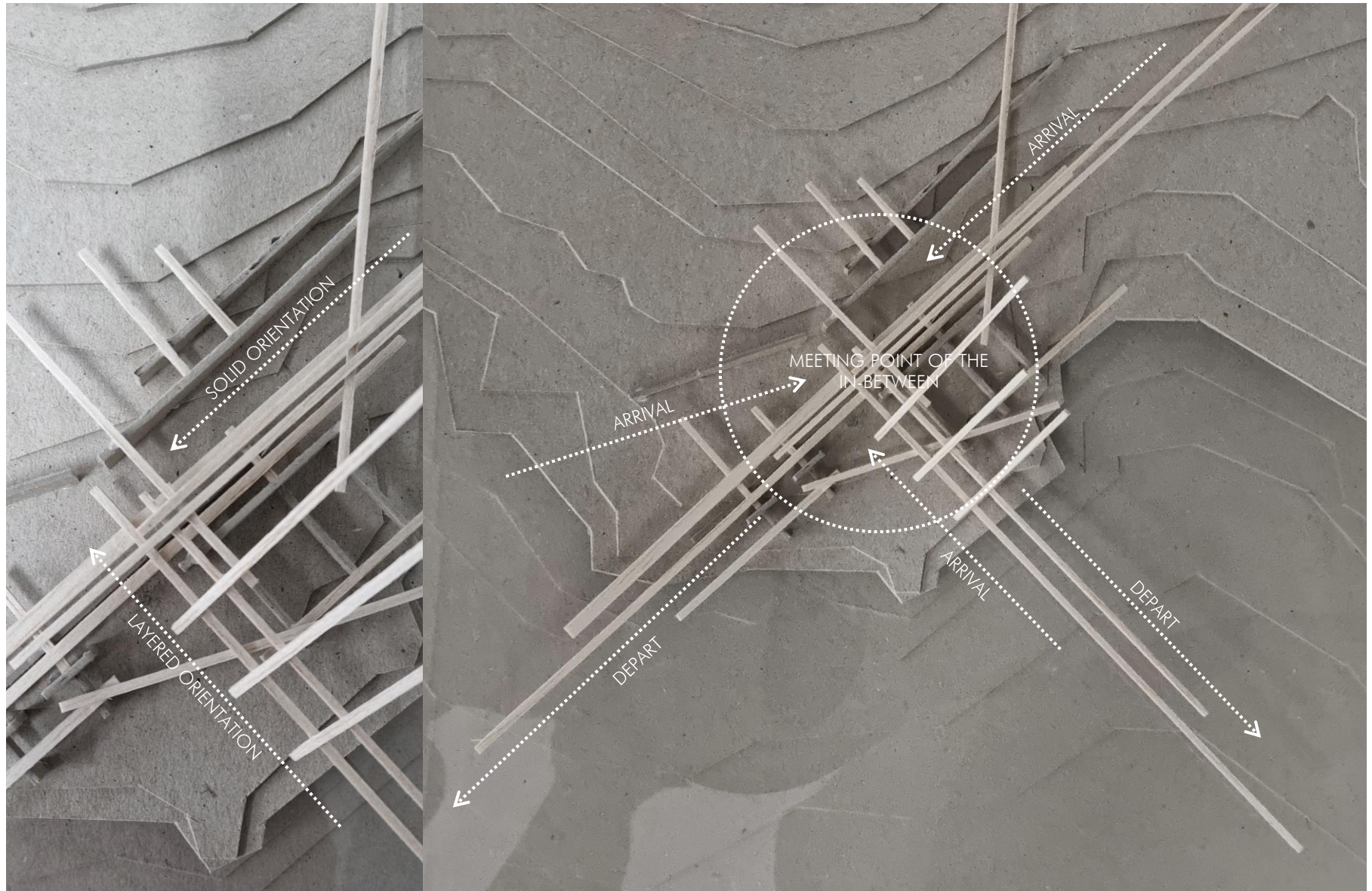


Figure 3.11 Analysis of Beacon 1 (Author, 2022).

Figure 3.12 Analysis of Beacon 2 (Author, 2022).

CHAPTER 4
THEORETICAL DISCOURSE



Figure 4.1: Photograph of Sudwest (Author, 2022).

4.1 | Introduction

The study is approached from a phenomenological view as the study of structures of consciousness experienced from the first-person point of view. People identify differently through different terrains (land & sea). Accordingly, it explores how the lived experiences of the individuals could identify through which thresholds they transition as it could define how a space could be shaped. The focus of the study will be placed on the site of Kalk Bay Harbour. However, the negotiation between transitioning and threshold; between land and sea, becomes essential for the research of the project.

Kalk Bay finds itself in a series of definite edges where separation of spaces is apparent, and the transition between these spaces is immediate and hard. From the mountain four clear zones could be identified which transitions from residential, to civil, to industrial, and finally to the sea. Currently, the transition between land and sea in the harbour is definite, as the fish market creates a hard edge that fails to mitigate these two entities. The theoretical discourse aims to answer the research question which is: How can the act of liminal negotiation conceptualise a fish market which mitigates the transitional space between land and sea in order to reconcile the social fabric of Kalk Bay with the commercial edges of the harbour?

Kalk Bay has become a very fragmented space as it has lost track of its origin as it changed over the years. I would then argue that Kalk Bay has become 'placeness' in a sense and must be anchored back into its origin to reveal its more true identity. This essay is structured to identify why Kalk Bay has lost its placeness by first identifying what place is. This entails identifying critical aspects of what is lost in transition and why it became fragmented. The paper will then examine what thresholds were created between these fragmented spaces and how the transition between these places could be manipulated. Aspects that would be considered is how can the overlaying of elements blur the transitions between these spaces to make an integrated whole. Time would also be considered in how it could influence these transitional moments as the tide becomes a determining factor for when the fisherman could venture out to sea.



Figure 4.2: Illustration of man transitioning from land to sea (Author, 2022).

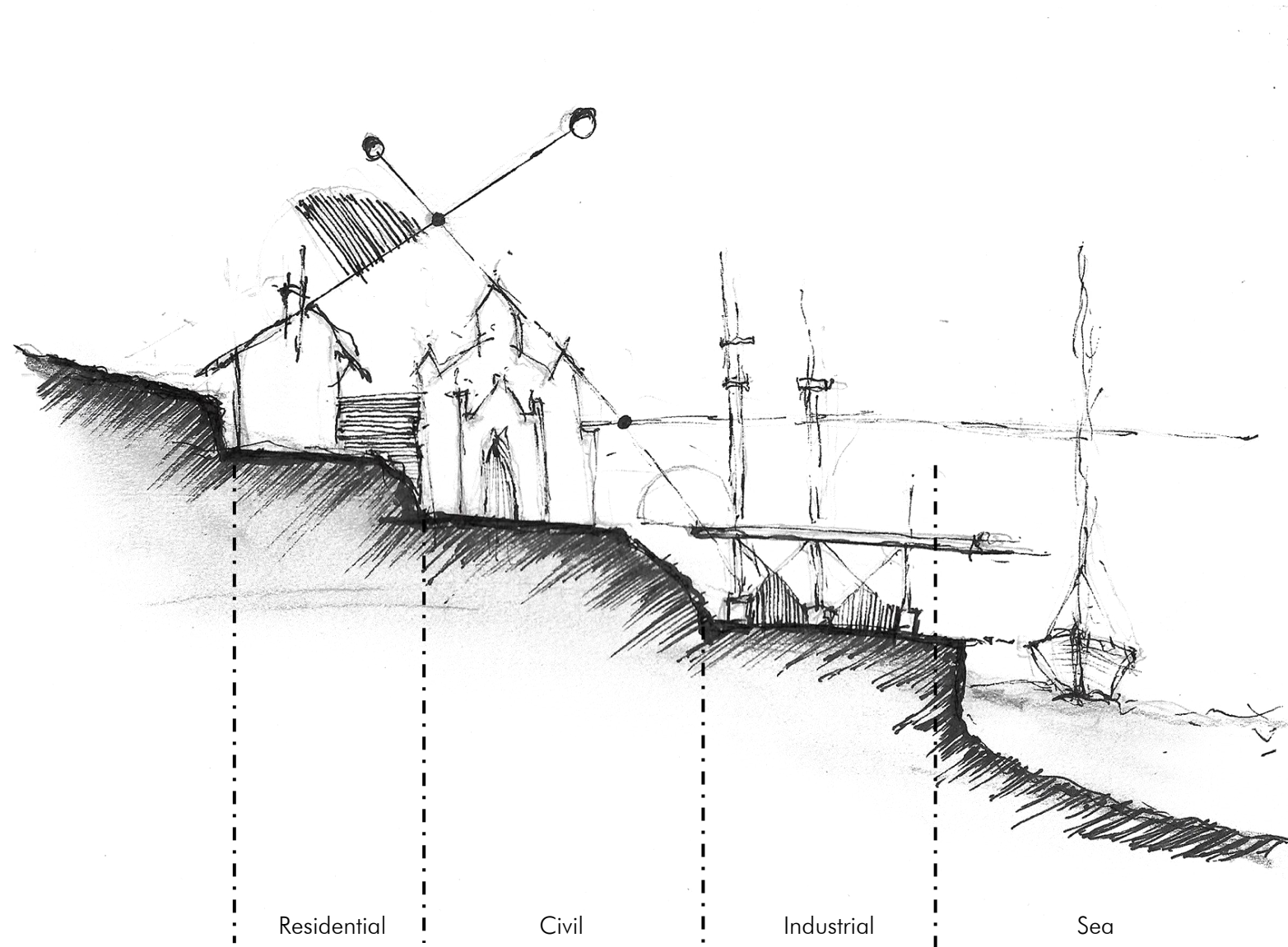


Figure 4.3: Four clear zones identified (Author, 2022).

4.2 | Defining Coastal Terrain: Theory of place

Generally, there have been many definitions for the term 'place.' In contrast to 'space,' it expresses a definite connection between a person and a particular setting (Najafi & Shariff, 2011: online). This means place exists when a particular space is embedded with meanings and values by its users. Places play a crucial role in a person's existence. However, it is important to note that each place has its unique character or sense of place, which the users experience. Accordingly, to reveal this sense of place, the architect needs to become a "place listener" to unveil the identity and sense of place to respond suitably. If the response were to be successful, the user would experience a level of integration with the environment that is unique and will consequently form an attachment to the place.

Najafi and Shariff argue that places still struggle to embody meaning due to the fast growth of population and changes in people's lifestyles, and the development of technological advances in contemporary societies. Accordingly, people are exposed to a sense of 'placelessness' (Najafi & Shariff, 2011: online). Relph explains that 'placelessness' refers to a particular space that does not embody a distinctive personality or a sense of place (Seamon & Sowers, 2008: online). He further states that designers who disregard the meanings people attach to place are not conserving authentic places, but making inauthentic ones (Gustafson, 2001: online).

Through the lens of the phenomenology of place, Manzo (2003) explained that the most essential element in perception is experience. Further, Gussow asserts this statement and elaborates that experience has the ability to transition any particular environment into a place (Manzo, 2003: online). This resonates with Najafi and Shariff state that the users' experience creates a sense of place. The notion of 'existential space' comes to mind, as Norbeg Schultz explains that place is formed as a result of space with the addition of character. He further explains that the existential purpose of architecture is to change a space into a place. Accordingly, architects consciously discern what meanings are present in the environment while still focusing on the physical attributes of the environment (Najafi & Shariff, 2011: online).

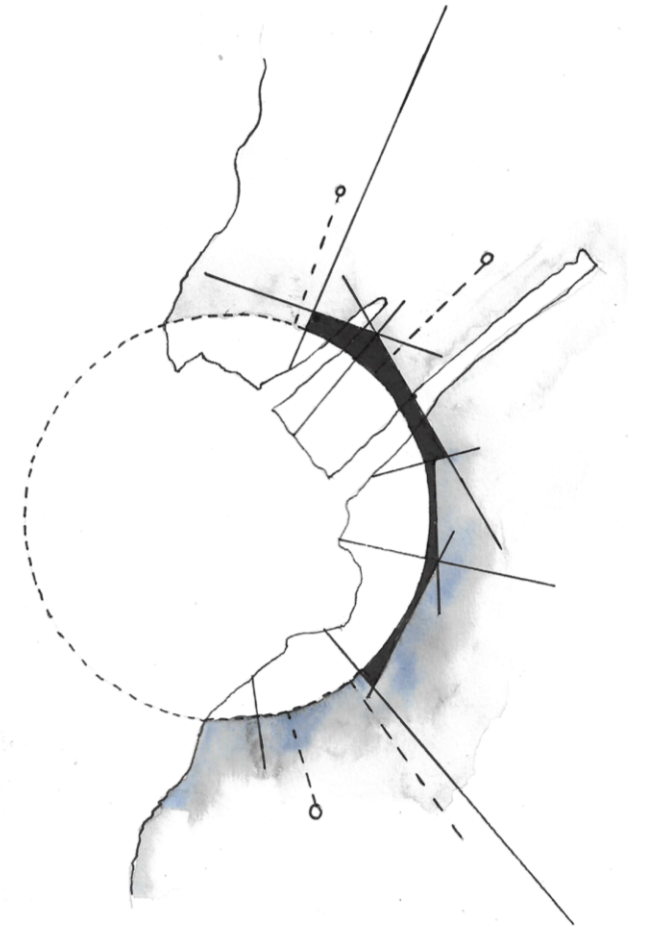


Figure 4.4: Illustration of "placelessness"
(Author, 2022).

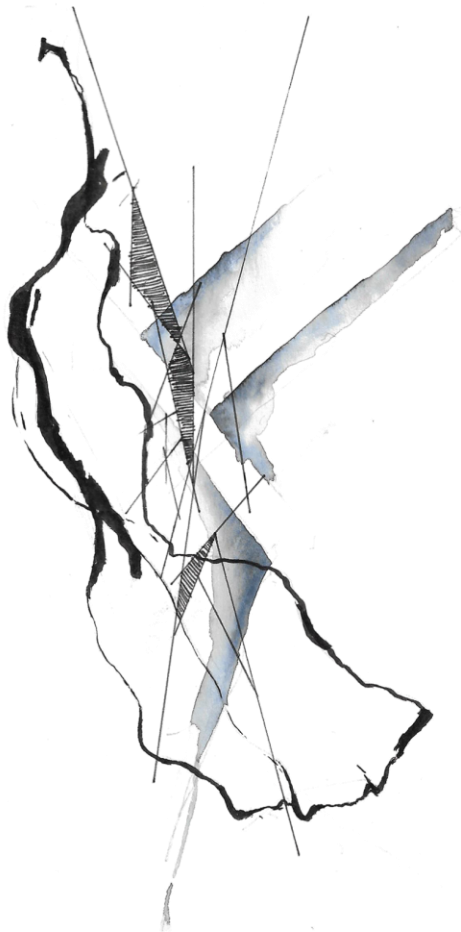


Figure 4.5: Illustration of palimpsest
(Author, 2022).

As discussed in chapter 2, Kalk Bay has experienced many changes over a short period of time. It lost its authentic identity with all the alterations, adaptations and demolition of old relevant structures. Accordingly, it adopted a commercialised identity which could be placed in other locations without changing the sense of place. This becomes an issue as the local inhabitants lose their sense of place and no longer resonate with it. In essence, I would argue that Kalk Bay has fallen victim to 'placelessness' due to a palimpsest of different styles that, in the end, never truly resonated with the identity of the place. Kalk Bay struggles to embody meaning attributable to the fast-developing harbour to accommodate the users' needs. Accordingly, I suggest a clean slate to start from new. However, this time trying to actually listen to the voice of the site (being its historical time and present time voice).

To contribute to the idea of 'placelessness', Martin Heidegger's *The Question Concerning Technology* (1954) argues that how things are set out today on earth is succumbed to permanent requisition and planned ordering. Ultimately results in a place that lost sight of its organic poiesis, as we are put in a state where it becomes more difficult to tune in and listen to the sing of the site, which he refers to in his course on Heraclitus as the "song of the earth" (Gevorkyan, 2021: online). This statement refers to the palimpsest that occurred on site where buildings were built and destroyed and built upon again to reveal a perceived vision of an external voice. I believe that this perceived vision they thought was the most appropriate response was incorrect as they forced a vision and were not in dialogue with the sense of place. However, acknowledging the palimpsest achieved on-site, the notion of thresholds comes to fruition with all the layering of perceived visions. Between all these layers, it could be argued that the thresholds were shaped with the progression of time. Transitioning through each threshold, a new envisioned time of the present was created with the past still evident but not reimaged, only carried through with no new interpretation of the present time influencing it. Accordingly, only layers of thresholds were created.

4.3 | The Phenomenon of Thresholds

A threshold is defined to have many meanings. Walter Benjamin, a German philosopher, notes that a threshold must be sensibly discerned from the boundary. This threshold becomes a zone, where one transitions from one space to another, or it is the level at which something starts to happen or has an effect. In essence, it could be seen that the threshold is the thing that one has to transition through to enter another space or a state of being. Seeing that a threshold is used to transition from one space to the next, it also has an element of separation or connection between different spaces. Accordingly, a problem arises: how can it be possible to apply these different meanings of threshold in architecture?

It is important to note that a clear distinction between threshold and boundary needs to be made. According to Cambridge Dictionary, a boundary is defined as "a real or imagined line that marks the edge or limit of something." Separation becomes the clear link between these words. However, 'boundary' becomes a hard, definite line, whereas the threshold becomes a transition zone (Alakavuk, 2018: online). As such, it could be understood that these perceptions are always interlinked with each other because each day, we unknowingly transition several spatial boundaries as we move from one space to the next. Thresholds as a phenomenon thrive on spatial ambivalence as it tends to open up space and organise transitions but could at the same time be misinterpreted as a boundary or a barrier. According to Boettger, a space delimited by thresholds and space-defining elements can be termed a threshold space. Threshold space is seen as a preface to perceive the actual architectural space (Boettger, 2014: 10). However, I disagree with this notion, as architectural space is not limited to functional space, but rather all space that had an architectural intervention, inside or out. However, he states that threshold space is experienced in what lies in the past, present, and future. This is seen as a lived space of what yet has to come (Boettger, 2014: 10).

According to Georg Simmel's article *Brücke und Tür* (1909), only people have the ability to connect and separate things found in nature. Considering removing two things from its natural state, it could be seen as separate; subconsciously, we already connected them, as we have perceived what lies between them (Simmel, 1909: online). Accordingly, it could be seen that things should first be separated before they can be connected.

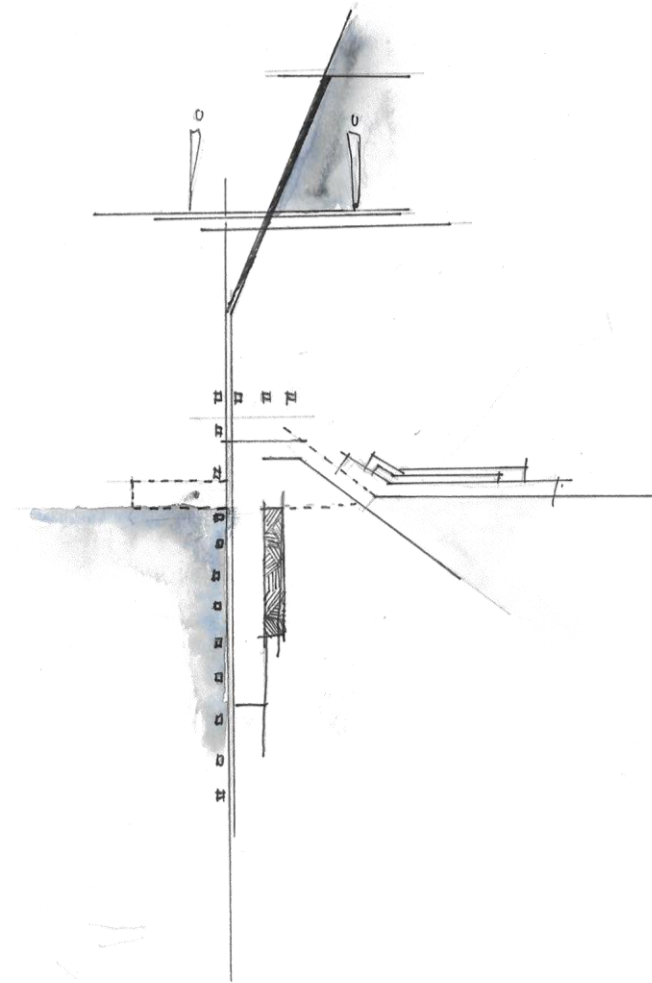


Figure 4.6: Interpretation of thresholds (Author, 2022).

In Kalk Bay's condition, multiple thresholds could be seen, both physical and non-physical. Considering the ritualised path the fishermen journey each day, they start in their cottages up on the footslopes of Trappies Kop mountain, and walk down narrow cobblestone pathways consisting of ramps and stairways. When they reach the bottom of the footslopes, they are greeted by two modes of transitional thresholds: a highway of fast-moving cars and the old railway hosting people visiting Kalk Bay and moving by to their environment of work. Over the railway, the fishermen enter the harbour.

However, an existing crossroad is introduced, with the upper area hosting a large parking area and a fynbos area. On the other hand, a ramp circulates down to a lower level where more parking bays are situated (here, it could be noticed that the main transport for land is starting to take over the area of vessels that mitigate land and sea). Before the fishermen could venture and transition out to sea, they first needed to transition through the threshold of the fish market. It is the heart of the operation as this threshold becomes the zone where two different ways of life come to fruition with each other—the entity of the fishermen and the entity of the visiting population. In essence, the meeting point of the people-of-the-sea and the people-of-the-land. Analysing the ritualised path the fishermen take, the smaller in-between thresholds become more apparent. However, the threshold between land and sea is a bit harder to determine, as it is not a definite edge but rather a zone. It becomes a zone as the tide constantly moves, shifting the line of determination. I would argue this zone becomes a liminal space through which the user has to transition.

4.4 | The Liminal as Transitional Space

In the book, *The Rites of Passage* (1960), under the understanding of Arnold van Gennep, a Dutch–German–French ethnographer and folklorist, transition and change pave the way for the concept of liminality. The liminal becomes the space where the user is at its most vulnerable and easily influenced (Seale, 2016: online). Accordingly, liminality is understood as the transitional moment or threshold between two fixed states. However, in architecture, the liminal space is seen as the condition of the in-between of two contradictory spaces that inhabit a position at the edge or on both sides of the threshold. Liminal spaces only exist when two definite opposing conditions are identified and have the ability to let a person transition from one to another (Foley, 2012: 4). To consider a few examples include; indoor-outdoor, public-private, industrial-residential, and land-sea, which this project focuses on.

Considering Lisa Hsieh in *Inhabiting Identity* (2004), these liminal spaces identified could be seen as 'in-between' spaces, as she states that "something which exists or occurs as an indefinite and unsettled place, between two extremes" (Hsieh, 2004: 35-40). Liminality embodies a certain uniqueness in having the quality or ability to have something that intervenes between these opposing conditions. Accordingly, it offers a unique spatial quality of ambiguity, as it inhabits a space simultaneously in its own specific typology but dependant on the conditions between which it exists. These liminal spaces occur on the threshold where people transition from one condition to the other. Accordingly, they are seen as places of osmosis where diverse identities seem to exist and have inter-dependence (Foley, 2012: 4).

However, Seale, an award-winning author, argues that liminal space is not limited to immediate transitions. It can exist for an extended period rather than just moving from one room to another (Seale, 2016: online). As this space becomes where the user is influenced the most, the user is confronted by their identity which can cause them to question their very own beliefs and practices (Seale, 2016: online). This reveals the power of liminal space as it embodies the potential to transform the user as they transition through it. In essence, experiencing the liminal establishes a discontinuity and dissociation from the familiar and hints the participant to question their surroundings. In this state of heightened awareness of the individual, the threshold between the distinct conditions is revealed, which is achieved through the cinematics of the space. The way we move through space is linked with our perception. The cinematics of space is an illusionary

perception made of partial and fragmented elements. Providing a sequence and montage of these fragmented elements or spaces creates a total and continuous perception of the sense of place. The cinematics of the space exists in the composition of the in-between, which is a series of overlapping moments that works harmoniously together (Foley, 2012: 5). Accordingly, to better experience the sense of place, the design of the project should embody fragmentation with transitional moments of the in-between. In this in-between space, the user will experience the liminal and ultimately link the broken, fragmented perception to form a harmonious whole.

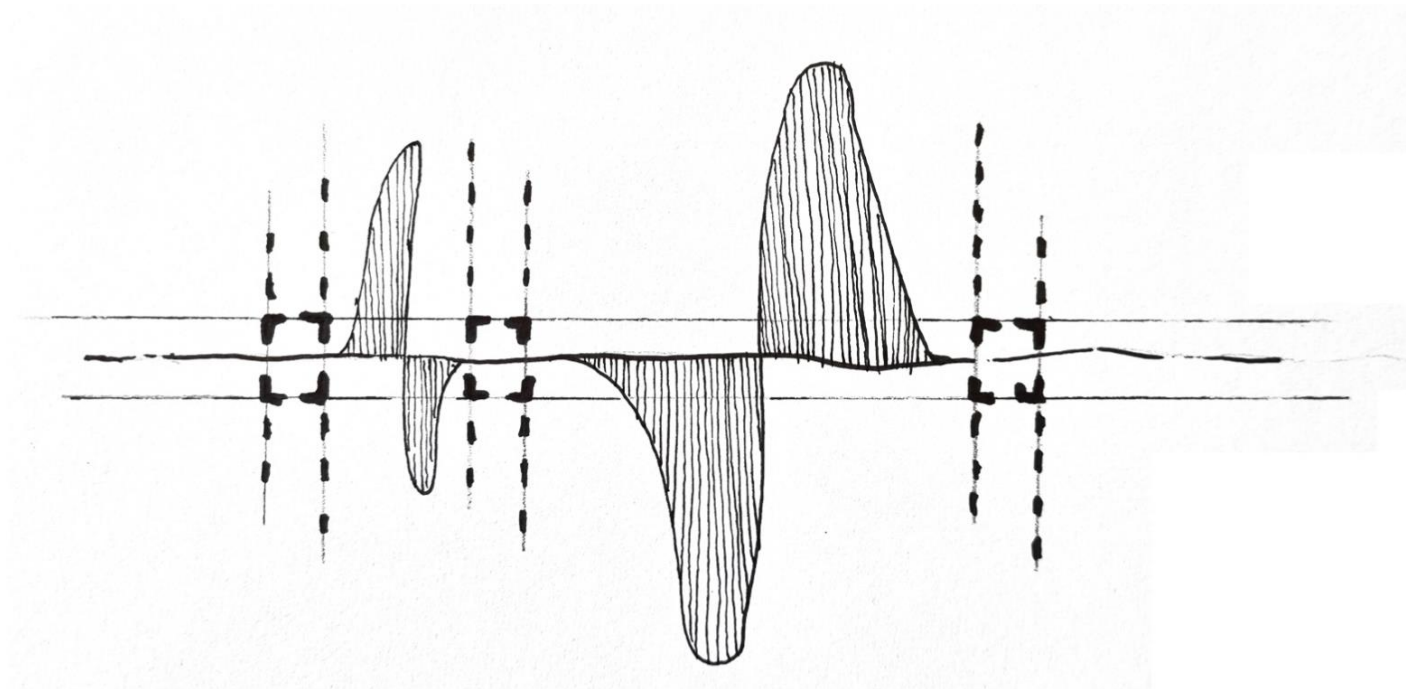


Figure 4.7: Transitioning through the liminal (Author, 2022).

4.5 | Criticism of the In-between

In the book of Marc Auge, *Non-Place: An Introduction to Supermodernity* (2009: 77), he highlights that the in-between spaces create the idea of 'non-place' and identifies these spaces as for example airports, markets as it is associated with mobility.

"If a place can be defined as relational, historical and concerned with identity, then a space which cannot be defined as relational historical or concerned with identity will be a non-place."

This statement mentioned above seems to identify his distinction between place and non-place. This could be why he would identify the in-between as 'non-place', as it is not easy to determine whether these in-between spaces are one entity or another. However, George Teyssot, in *Mapping the Threshold: A theory of Design and Interface* (2008: 8), investigates the idea of the in-between as a threshold.

"Passage and peristyle, pranos and portal, entry and vestibule triumphal arch, sacred and profane: These lines do not create a boundary but an in-between, a space in the middle. The form of the threshold, as temporal and spatial figure, is that of the 'between-the-two', of the medium that opens between two things."

In this statement, he tries to identify the boundaries between two definite conditions. However, he points out that there is not a boundary, but rather a transitional zone, because a boundary is defined as "a line that cannot be crossed." The transitional moment between land and sea at the coast could become a boundary. However, this boundary becomes a transitional zone based on seasonal tides. Accordingly, the notion of time becomes essential to mitigate this transitional zone.



Figure 4.8: Identifying the in-between (Author, 2022).

4.6.1 | The Narration of Time in Space

We are all slaves to the vessel of time. The vessel commands, measures us, forces us to plan, organise, and arrange. In essence, the sense of time going by is an aspect of human experience (Wickerson, 2017: 1). The experience of time and the sense of continuity and change has mental importance in architecture. Juhani Pallasmaa, in *The Embodied Image* (2011), argues that we beings do not only live in space and place, we also inhabit time (Pallasmaa, 2011: 78). However, the sociologist Norbert Elias believes time could only be measured by social invention. In *An Essay on Time* (2007), he suggests that time could not be sensed by any haptic senses (Elias, 2007: 3-4). In *Zur Phänomenologie des inneren Zeitbewusstseins* (1893 -1917) (2007) Edmund Husserl argues that time becomes the physical measurement of change. We would then, in essence, sense something is different by referring between memory, presence, and anticipation (Husserl, 1966: 13). In literature, it is easy to identify the narration of time, for example, in phrases such as 'two hours later', 'the whole evening', 'the short cold winter', and so on. However, an author does not require to employ a specific temporal marker to point out the passage of time; it inescapably continues to move. The notion of narrative time then comes to fruition. In *Time and Narrative* (1984), Paul Ricoeur discusses time in narrative. Proposing that "time becomes human to the extent that it is articulated through a narrative mode, and narrative attains its full meaning when it becomes a condition of temporal experience" (Ricoeur, 1984: 52).

In *The Magic Mountain* (1996), the narrator suggests that space may have as powerful an effect on individual experience and development as time. This temporal experience in space relates to the liminal where the user is emplaced in the space of heightened awareness and easily influenced, as mentioned in chapter 4.4. In architecture, these spaces could be designed to manipulate the experience of time. In an empty, unarticulated space, the mind is unable to sense time (Wickerson, 2017: 21). As there are no moments of transition between elements, the narration also ends, meaning time is slowed down and eventually stops. Arguably the opposite could also be said. In the case where a clear transition between elements could be noticed, the transition of time then also becomes apparent, and the more transitions/articulations occur, the more time could be sped up.



Figure 4.9: Transition of materiality from solid to light (Author, 2022).



The question then is how can the design narrate time at the edge (edge of land, edge of the sea, edge of the present)? Looking at the harbour, the sea becomes the measurement of time (height of tide). However, looking out at sea, it becomes nearly impossible to determine the height of the tide. Accordingly, we look at the surrounding elements to give an indication of a change in the tide. Taking a breakwater wall into consideration, it would still be difficult to see change if it were to be only a flat, unarticulated surface. However, introducing an element such as a tyre, which protects the boat from slamming into the wall, creates a texture and a time measurement device.

4.6.2 | Casting a Net between Historical Time and Present Time

Architecture provides a source for life and culture to be expressed in, to the extent that it defies time (Frampton, 1995: 27). In *Time, History and Architecture* (2018), Gevork Hartoonian explains that it is now an accepted truth that when a piece of art which is constructed in the past is perceived and interpreted differently in the present time, as he explains that the past cannot fully understood as it happened in that moment. Visual perceptions could be traced, but it lacks the actual atmosphere and expressions in details. Accordingly, dialect between visibility and absence is captured (Hartoonian, 2018: 2).

Historical time investigates and re-presents each particular aspect of the past to accommodate a border understanding. It witnesses collectively shared destinies and embodies the time when history is being made and witnessed. For buildings to embody time, Hartoonian suggests, which I agree with, that they should not only disclose their own historical time but reveal present temporality. It should then be up to the architect to design a building, a silent witness, speak in words. The spoken words should engage with a historical unfolding wherein the event is not reducible to a factual experience but rather understood in its totality as a process (Hartoonian, 2018: 1).

In essence, this project aims to embody the historical narrative by creating a contemporary architectural language inspired by the existing fisherman's cottages and the past Cape Dutch style housing constructed in Era 1 mentioned in chapter 2. The project is then essentially trying to cast a net between historical time and present time.

In a moment of reflection, the present merges with the past. However, the distinction between the old and the new does not disappear. The redemptive power of the past rather emerges out of the surface of the new, revealing the hidden truth of the historical time sunken beneath.

4.6.3 | Timeless at Sea

History is never static but dynamic. The historian, in this sense, the architect, must be in close contact with contemporary conceptions. Only when experiencing the spirit of their own time, will he/she be able to notice the echoes of the past previously overlooked. Architects have previously tried to develop timeless architecture by imitating other periods. It was then soon discovered that these buildings then became lifeless masses of stone. They failed to understand that history is a process, not a repository of unchanging facts. This process is a 'pattern of living and changing attitudes and interpretations.' In *Space, Time and Architecture: The Growth of a New Tradition*, Giedion argues that when we look back at history, we should not look for a pattern that is easily discernible to all comers but rather look deeper into where the object is transformed to the spectator's contemporary setting (Giedion, 2009: 5).

The historian that detaches themselves from life write irrelevant history. However, they cannot detach themselves, as they, too, stand in the stream. The historian, like anybody else, is the creature of their time and draws from its powers and weaknesses. In contemporary times we consciously look at the past from the view of the present, enabling a more profound and broader dimension of present time to discern what important aspects of the past are still relevant and vital. This notion then emphasises continuity, not imitation (Giedion, 2009: 6-7).

Timeless designs are not forced and are designed with the intent to endure time. This could be seen not being implemented in the current state of the harbour. Buildings are seen layered on each other as a need for an additional function came to be—accordingly, a palimpsest of commercialisation is seen in Kalk Bay Harbour. Referring to *Falling Water* by Frank Lloyd Wright, it is hard to feel that it could be placed in another location. The building achieves a visceral feeling of admiration and appropriateness. In *The Timeless Way of Building*, Christopher Alexander identified this quality as organic and originating from a deeper-rooted



Figure 4.10: Timeless existing fisherman cottage (Author, 2022).



Figure 4.11: Timeless new sculptural building (Author, 2022).

place (Alexander, 1979: 112). In essence, it could be said that a timeless design has a strong sense of place, which is instructed by historical context, present existing conditions, materiality, and the connection it forms with its surrounding landscape.

In *Thinking Architecture*, Peter Zumthor describes how buildings find a way to fit in their surroundings to the extent that they become part thereof (Zumthor, 1988: 17). They appear to anchor themselves in the ground and be part of the surroundings, essentially the new additions form a dialogue with the existing conditions.

To be timeless as sea, the design should not only appear to live in harmony with its surroundings but also respond to it. Time should be celebrated through the expression of structure and the transformative response it has through weathering. Concrete, stone, timber, and metal. These materials start to weather and transform, settling into their place within their surrounding landscape. Concrete and stone roughen, stain, crack and chip. The timber starts to lose its darker colour. And metal rusts exponentially closer to the coast. Accordingly, a timeless design should acknowledge and encourage this to be part of the design.

As previously mentioned, the architecture should also acknowledge traditional precedents. But it should respect it and not imitate it. The vernacular should give cues, where it may be the history, local culture, or use of materials. The connection formed with the history of its place creates an authentic design that transcends time by netting the past, present and future.

4.7 | Mapping of Rituals in Kalk Bay

The act of fishing among the fishermen of Kalk Bay is a multi-layered activity. It provides a source of income and a means of sustaining life. However, there is something more to the act of casting a line in hopes of catching a fish. This phenomenon is deeply rooted in the culture of the Kalk Bay fishermen, as the knowledge and skills are passed down from generation to generation. Each family also possesses a boat they built by hand that is passed to the next generation.

4.7.1 | Phenomenon of Fishing

Kalk Bay Harbour is regarded as one of the oldest harbours in the country, according to Joao Simoes, who has been crewing on Kalk Bay line fish boats for more than 22 years (Gosling, 2014: online). Fishing has been a large part of the Kalk Bay community for a long time and has sprouted many rituals. In an interview with one of the local fish cleaners, Ferial Davids, it was easy to hear the passion and importance fishing is to the community. However, due to more significant commercial fisheries, the culture of Kalk Bay slowly started to rot away. The government at the time did not easily give fishing licences to small-scale fishermen. Accordingly, taking away their right to fish and their right to their culture. Davids said in the past, foreigners were astonished when they saw the fish piled up and thought trawlers had caught it, but it was not; it was caught with a line. However, nowadays, they are lucky to catch ten fish a day because the commercial fisheries can get there faster. Davids said it is getting better with more awareness brought to the industry.

For the fishermen of Kalk Bay, fishing is more than a way of being. It is their lively hood. Each morning they would wake up early, between 3 and 4 o'clock and then scream out through their window to their neighbours to hear if they are also going to fish. They would then start their journey up on the footslopes of Trappies Kop Mountain from their fishermen's cottages and venture down narrow pathways to the harbour where the vast open sea would greet them. While the captain is preparing to start the boat, the rest of the crew is busy preparing the lines and crayfish net cages. All this whilst they are talking about the good times and hardships. After their long day on the sea, they are greeted by Davids, who wait for the fish they brought to be cleaned. At this point, many visitors have already arrived at the harbour to see what catch has been brought in. After Davids and her team cleaned the fish, the sale starts, and the highest bid takes



Figure 4.12: Fisherman (Author, 2022).



Figure 4.13: Violet Glen docked (Author, 2022).

the fish. Davids would also gut and leave to dry on the cross bracing of the canopy. Fish that were not sold on the day would then be sold to local restaurants or stored in the cold room. When they see the market become quiet, the clean-up process begins, and they return home where more fish is prepared for dinner before the whole ritual starts the following morning again.

4.7.2 | The Phenomenon of Boat Docking and Setting Sail

The boats are the lifeblood of their fishing livelihood. Simoes speaks of the cultural value of these old wooden boats and that they should be declared a heritage site on their own (Gosling, 2014: online). The oldest boat in the harbour, Violet Glen, which still functions as a daily fishing boat, was built by hand in 1924. This speaks of the timelessness of the craft. These wooden scuppies (what the local fishermen call them) were not always motorised, as they started with oar-propelled, and later spritsails and jibs were added to enable them to be sailed. Concurrently, this is where the problem lies between the scuppies and commercial fishing boats. As the commercial boats are far faster, enabling them to get fish quicker, leaving little left for the scuppies to scavenge.

Although built on land, the boat spends most of its time in the water. Moreover, even though it is built to go out to sea, it could never truly stay there, as it will require maintenance, and the fishermen it carries will need to return home to care for their families. Accordingly, the notion of going out for a purpose but then having to return becomes visible. Return to sender. It ultimately, in essence, becomes the mitigating factor between land and sea, enabling beings to transfer through the indefinite threshold.

Acknowledging the cultural importance of these vessels, there is also something to be said about the act of docking and setting sail. For when a boat is docked, it becomes stationary and static in a sense. It becomes heavy and concretises itself with the land. If a boat were to set sail, it becomes quite the opposite. It becomes dynamic and light, losing all attachments it has with the land, and is at mercy to the sea. This notion could be explored in architecture with a play of light and heavy tectonics, enabling the building to become the vessel that blurs the threshold between land and sea.

4.8 | Conclusion

In the argument an attempt is made to examine how the act of liminal negotiation can conceptualise a fish market that mitigates the transitional space between land and sea to reconcile the social fabric of Kalk Bay with the commercial edges of the harbour. The research question was first dissected into fragmented parts to attempt the answer of the whole. The essay first questioned what space is defined to be to understand what is happening on the site. After an analysis, it was understood that Kalk Bay embodies 'placelessness' due to continuous development for a commercialised setting and demolishing the embedded identity of place. In the analysis, a palimpsest was discovered of thresholds that resembled the change the site had endured. Acknowledging the thresholds, the notion of the in-between and liminality came to be. The readings of Seale revealed the power of the liminal space, in which the user enters a heightened awareness state where they are easily manipulated as they transition between realms.

It became evident that the narration and negotiation of these transitional spaces became essential. Noticing that the threshold between land and sea is ever-changing and adapts in accordance with the tide, the notion of time was revealed. Time has a powerful effect on the individual's experience as much as space does. However, space could be manipulated to make time a visual perception, enabling the user to guide as they transition through the narrative the architecture provides.

History and time are invariably interlinked. Historical time investigates and re-presents each particular aspect of the past to accommodate a border understanding. However, the building should not only disclose its own historical time but reveal its present temporality. In essence, it should try to cast a net between historical time and present time to reveal a deeper-rooted sense of place. A timeless architecture would then be revealed, bringing the notion of continuity and not imitation. This becomes a more true response to place as it inhabits the memory of place, the vernacular, and considers the influence of the mapped rituals.

In Conclusion, considering the above, if the architect understands the nature of the site and sees the social construct's cultural importance. They will gain insight to respond architecturally in a sensitive manner fitting to its context and inhabitants. However, more important for the purpose of the research question, it will reveal a tangible threshold that negotiates the transitional moment between land and sea and attempts to reconcile Kalk Bay's social fabric with the harbour's commercial edges.

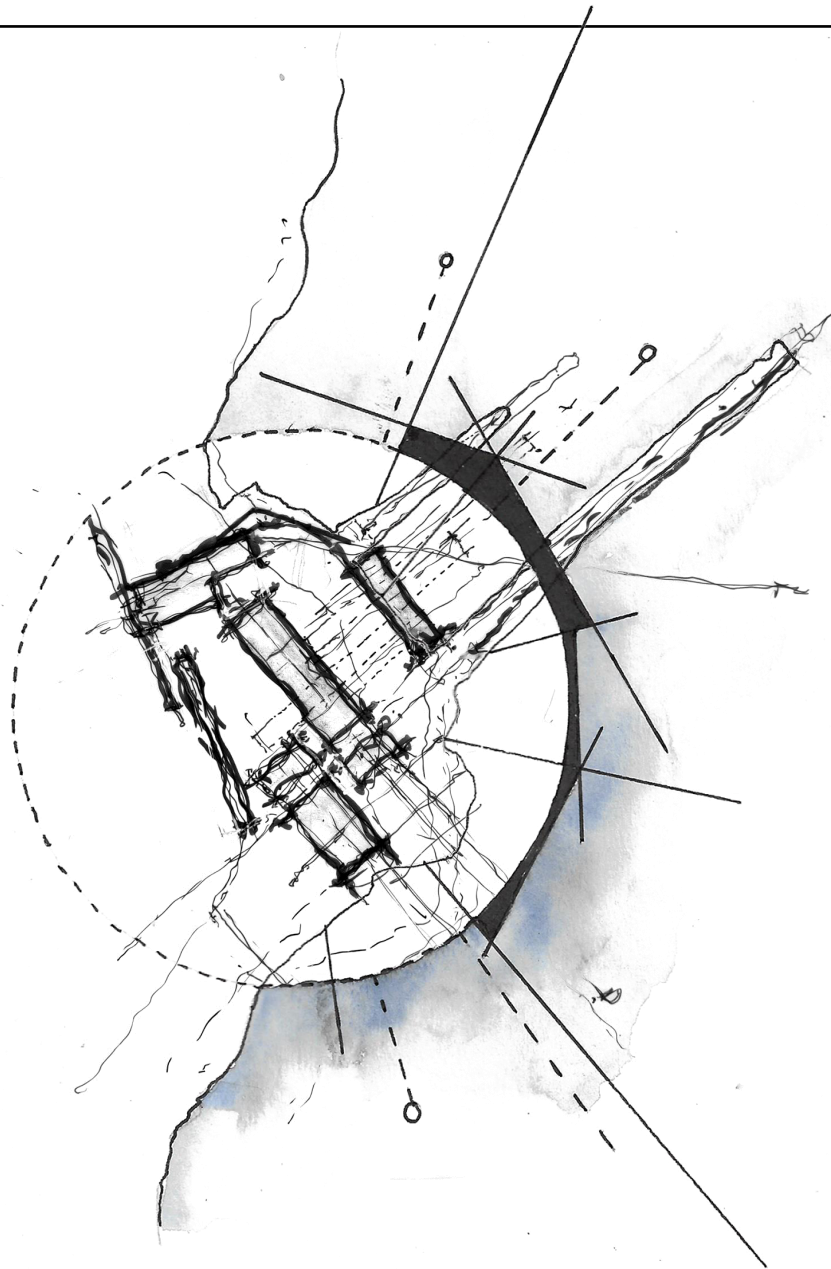


Figure 4.14: Redefining place (Author, 2022).

CHAPTER 5
PRECEDENT STUDIES



Figure 5.1: Photograph of Suider Stêr (Author, 2022).

5.1 | Fish Market in Bergen

Location: Bergen, Norway
Architects: Eder Biesel Arkitekter
Completed: 2012

5.1.1 | Site Planning

The site planning consists of the bay, market place, and the historic urban edge. The market functions as the in-between that mitigates the other two entities which could also be seen as land and sea. Parking is found across the road. However, there is no hierarchical entrance which the users must circulate through. Meaning that the building can be approached from multiple sides. The hard edge of the pier is designed to accommodate steamboats arriving in the bay (Sánchez, 2013: online). However, I would argue that the integration of land is sea is unsuccessful in that regard as it struggles to accommodate defining how the fish is delivered to the site from boat.

5.1.2 | Form

The choice of form and materials was determined through the aim to create a contemporary fish market, that would at the same time would speak to its surroundings. This means that the building form is manipulated to capture certain views and form direct links between historical elements. The concept of a floating structure also enabled to create a clear link between the historical buildings and the bay.

5.1.3 | Function

The Bergen fish market consists of three sections. On the basement floor there are areas used for refrigeration of the fish. On the ground floor, there is a fish market, an area where fish are sold. This area is a semi-open area and also has a very homogeneous distribution. On the 1st floor, there is a restaurant and an information centre. The development in section starts with basement as private and transitions to a public ground floor and semi-public with the restaurant and information centre.



Figure 5.2: Perspective (Sánchez, 2013: online).



Figure 5.3: Connection with sea (Sánchez, 2013: online).



Figure 5.4: Location plan (Sánchez, 2013: online).

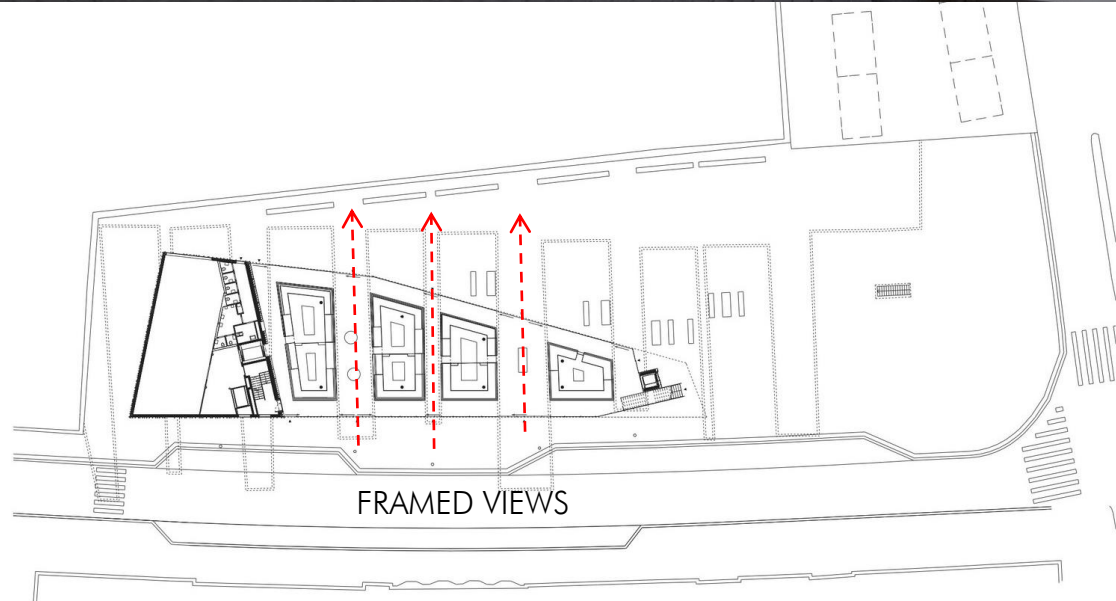


Figure 5.5: Floor plan (Sánchez, 2013: online, adapted by author).

5.1.4 | Contextual Response

The building attempts to blend in with the historical contexts whilst still creating a contemporary image for a market place. However, it was also important to experience the urban context around the historic bay, as such maintaining lines of sight from the road to the sea as well as the lines of site to the landmarks crossing the property became an essential cue in designing the project. The fish market still manages to bring focus to the historic facades even though it has a moderate height.

5.1.5 | Climatic Response

The aim of the project's design was not to design an interior space for the fish market but rather a climatizing protection device. Thus, the floating construction of the information centre and restaurant would act as the roof for the marketplace. Another means of responding to the climate was using a flexible glass façade that protects against wind and weather. However, it is possible to open up the façade on hot days to create natural ventilation to cool down the space.

5.1.6 | Structure

The structure consists of a fully braced steel structure that weighs 110 ton and a concrete basement (NAVIC, 2013: online). The structure is clad with timber with the exterior colour scheme was inspired by Bergen's traditional colour palette of ochre, white, and dark red wood.

5.1.7 | Materiality

The project is compiled variety of materials that is suited to history and context of the site. For the market place's surface, a mixture of granite and timber was used in reference of the historical significance of the site (Sánchez, 2013: online). These wooden lines are also used to demarcate spaces where market tents could be assembled. However, the market structure comprises of steel, glass, and timber elements.



Figure 5.6: Context responds (Sánchez, 2013: online).



Figure 5.7: Materiality response (Sánchez, 2013: online).

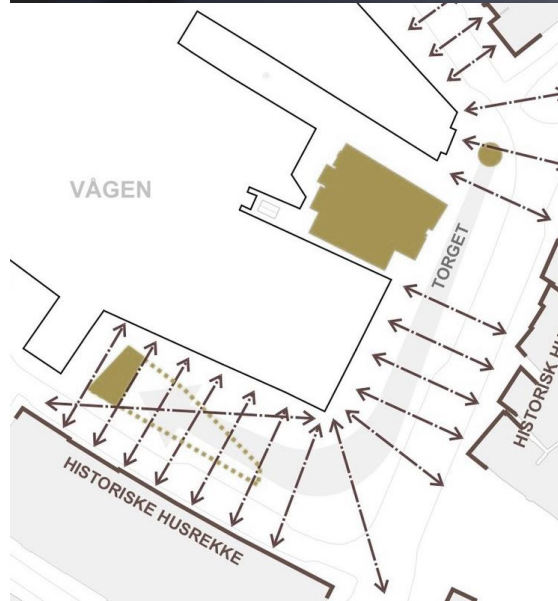


Figure 5.8: Design cues (Sánchez, 2013: online).

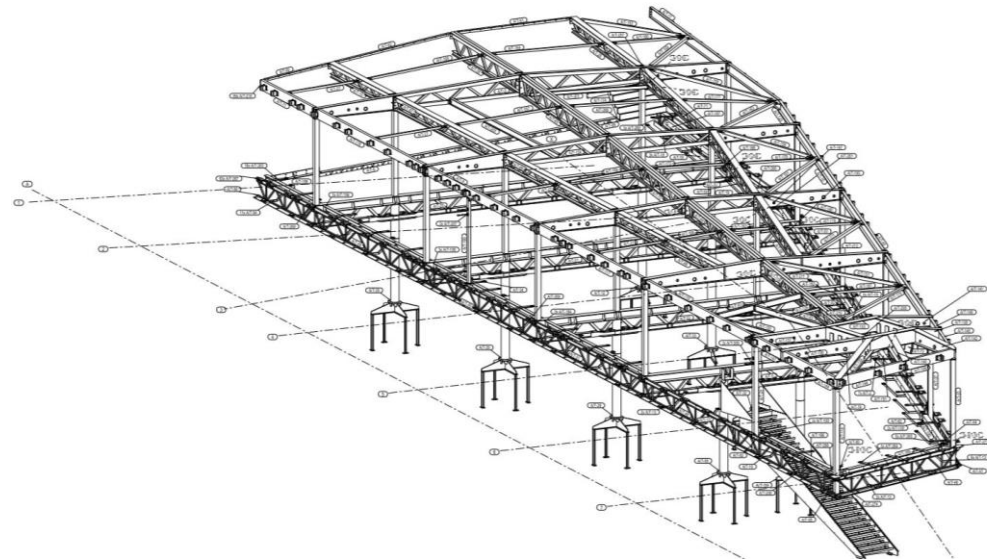


Figure 5.9: Structure (Sánchez, 2013: online).

5.1.8 | Hygiene

This contemporary fish market is open to the public throughout the year. Accordingly, it requires a certain level of convenience and hygiene. This was achieved by designing a permanent structure that has the proper facilities to keep the handling of the fish hygienically. There is also a separation between the public and staff by means of display units with ice. This entails that the fish can only be handled by the staff before purchase by the client. Additionally, these display units utilise ice to keep the fish cold and fresh.

The fish market can be closed off from environment climatic conditions as it covered by the first-floor restaurant. However, it has the opportunity to open up on hot days for natural ventilation.

5.1.9 | Lessons Learned

- Framing views
- Contextual integration
- Outlining heritage sites
- Relationship between public and private realms
- Hygiene considerations



Figure 5.10: Fish on display (Sánchez, 2013: online).

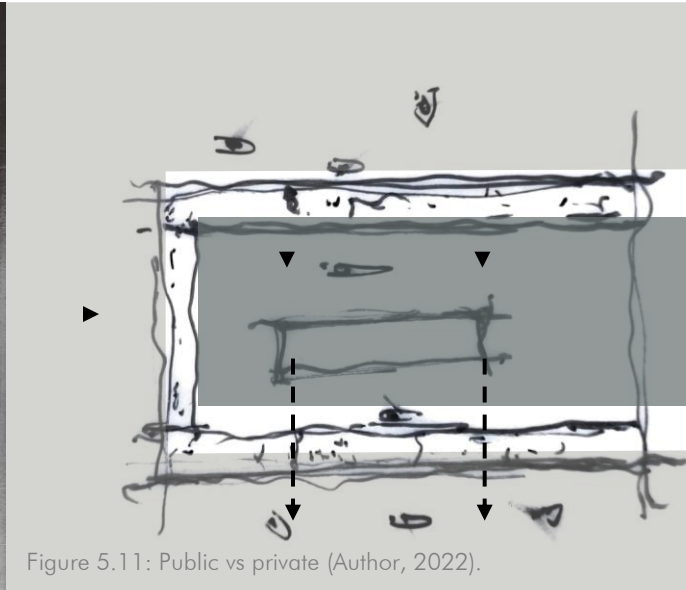


Figure 5.11: Public vs private (Author, 2022).

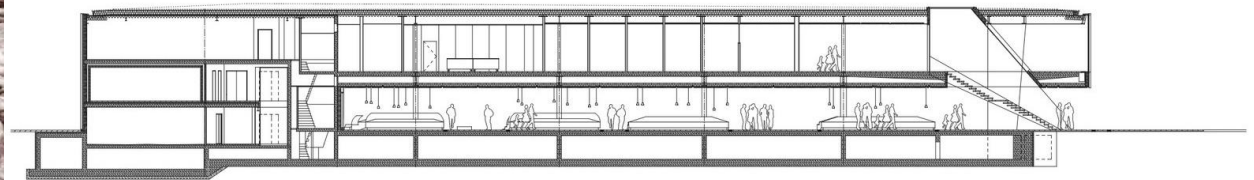


Figure 5.12: Section through market (Sánchez, 2013: online).

5.2 | Battery Park

Location: Cape Town, South Africa

Architects: dhk Architects

Completed: 2018

5.2.1 | Site Planning

The project consist of an upper and an lower area, similar to this thesis. It accommodates and park and a skatepark above; below parking, offices, café, and shops. The project aims to bridge two entities which is the office block across the water and the park, thus creating a liminal space in-between. Battery Park creates a seamless connection with the channel that runs through the two entities.

5.2.2 | Form

The choice of form and materials was determined through the aim of blending in with the landscape, whilst responding to the ruin of the fort that used to be there which is reimagined in the gabion retaining wall. in the park area path are carved between the fynbos area; however pockets of seating are provided which starts to fragment the path.

5.2.3 | Lessons Learned

- Integration with landscape
- Connection formed with water cannel on pedestrian level
- Fragmented path
- Layering of materials

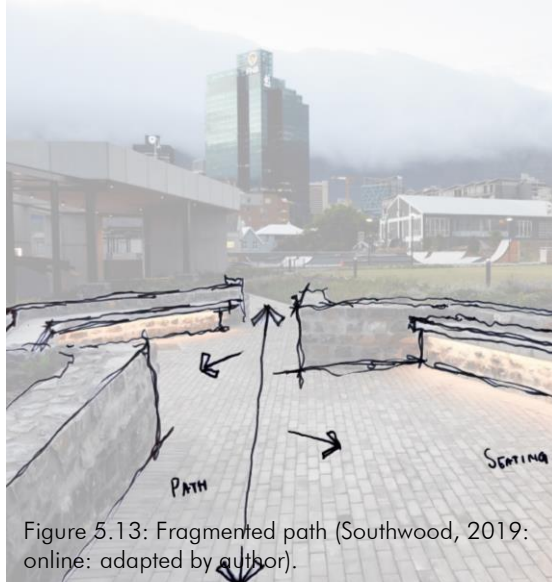


Figure 5.13: Fragmented path (Southwood, 2019: online: adapted by author).



Figure 5.14: Response with landscape (Southwood, 2019: online: adapted by author).

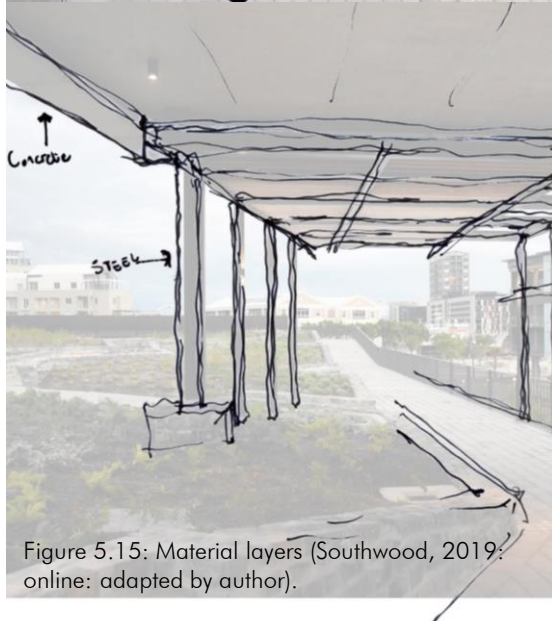


Figure 5.15: Material layers (Southwood, 2019: online: adapted by author).



Figure 5.16: Overview of park (Southwood, 2019: online).

5.3 | Hout Bay Library

Location: Hout Bay, South Africa
Architects: Roelof S UYTENBOGAARDT
Completed: 1989

5.3.1 | Morphology

The architect in this project was able to create a contemporary architectural language for the time for Cape Dutch style. The use of thick whitewash walls are apparent in the design. However, what he was able to achieve with the timber construction makes the spatial quality dynamic.

5.3.2 | Lessons Learned

- Use of thick walls
- Chimney reimagined
- Use of timber to bring scale down
- Timber truss detailing showing how to “cast a net” structurally
- Window detailing
- Steel connection detailing

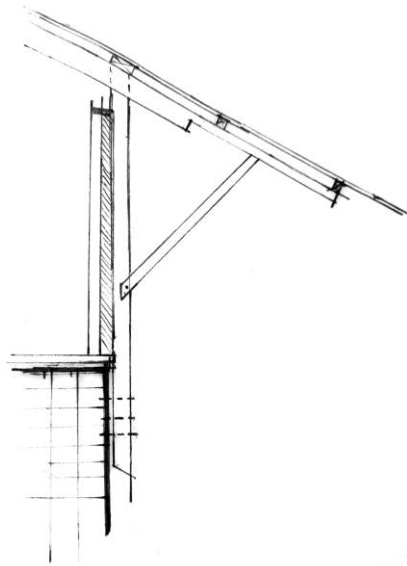


Figure 5.19: Window detail (Author, 2022).

Figure 5.20: Hierarchy (Harris, 2011: online).

CHAPTER 6
BRIEF DEVELOPMENT



Figure 6.1: Photograph of DTC3587B (Author, 2022).

6.1 | Brief Development

Kalk Bay harbour is identified as a place that host many forms of local identities. It houses a diverse spectrum of economic role players: the site is host to a small-scale fishery, a restaurant, informal trading, and artisans. Fishing boats bring their harvest to market where it is processed to be sold to the public or businesses. In the market the fish cleaners negotiate the sale of the harvest and acts as the agents who sell the fish to the general public, whilst the fishermen would conduct deals with local businesses.

Within the framework of harbour redevelopment, the design investigation is inspired by the small-scale fishing and the strong links formed with the identity of the Kalk Bay.

This has bearing on two aims of the design:

- The opportunity for the general public to be more involved with and bring awareness to the small-scale fisheries.
- The opportunity to redevelop the site which incorporates the culture and identity of Kalk Bay and its people.

To make the project more fundable, operation Phakisa is introduced in chapter 1. It is an initiative of the South African Government which is designed to resolve issues relating to critical development. These issues are highlighted in the National Development Plan (NDP) 2030, including poverty, unemployment, and inequality. Key sectors they look at is employment, urban upgrades, food security, and youth development.

Functions that would then be considered for the design:

- Workshops to create crayfish nets including the weaving of the rope.
- Hygiene upgrades for the fish processing stall.
- Classrooms for youth development pertaining knowledge of marine ecology.
- Community hall for gatherings relating to local food security and community issues.

Theoretically the project investigates the thresholds between land and sea. As such, it gives the opportunity to create a channel that is brought into the land to create a dialogue between land and sea.

6.2 | Diagram of Fish Handling Process

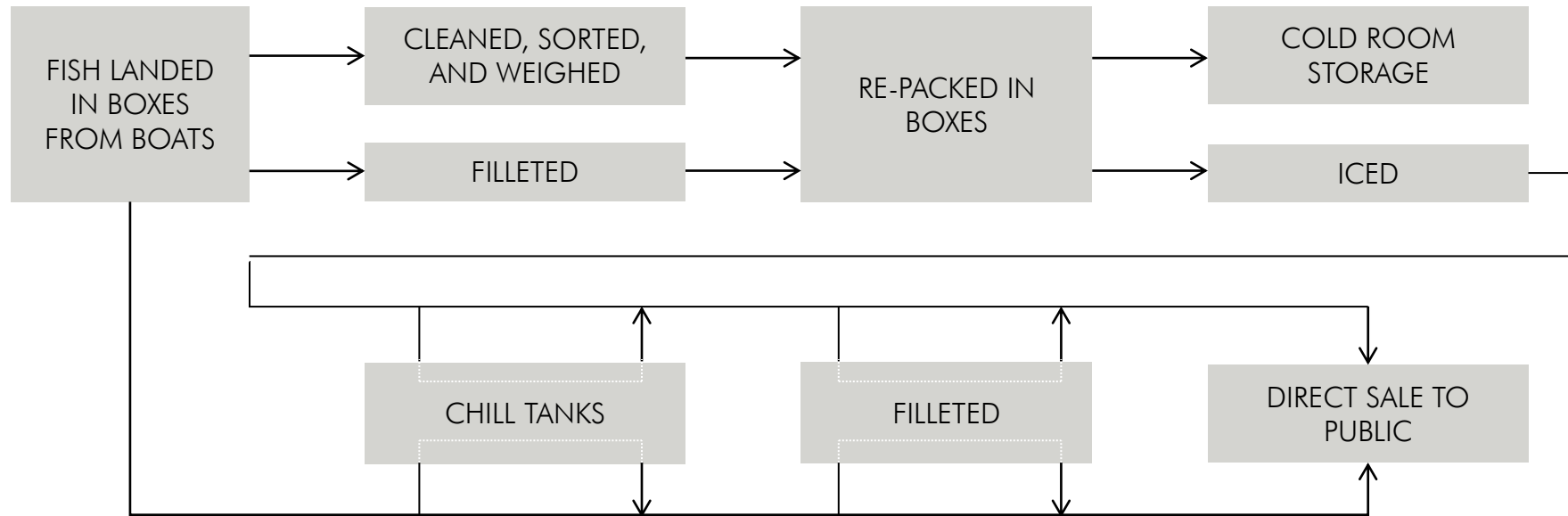


Figure 6.2: Diagram of fish handling process (Author, 2022).



Figure 6.3: Fish for sale at the market (Author, 2022).

6.3 | Space Diagram

The following diagrams display the initial process that established the function of the harbour, disregarding theory and practical orientations. These quantities indicate estimated figures of both percentages and floor coverage to kick-start the design process, mass and layout of the project. The area sizes were determined by the quantity of fish being handled and number of people who would visit the harbour (60 – 80 people).

| | |
|------------------|---------------------|
| ■ RESTAURANT | – 439m ² |
| ■ YOUTH DEV. | – 506m ² |
| ■ ADMIN | – 334m ² |
| ■ FISH MARKET | – 411m ² |
| ■ GALLERY | – 275m ² |
| ■ TRADING | – 219m ² |
| ■ COMMUNITY HALL | – 325m ² |
| ■ DRY DOCK | – 194m ² |
| | <hr/> |
| | 2 703m ² |



Figure 6.4: Pie chart of percentages (Author, 2022).

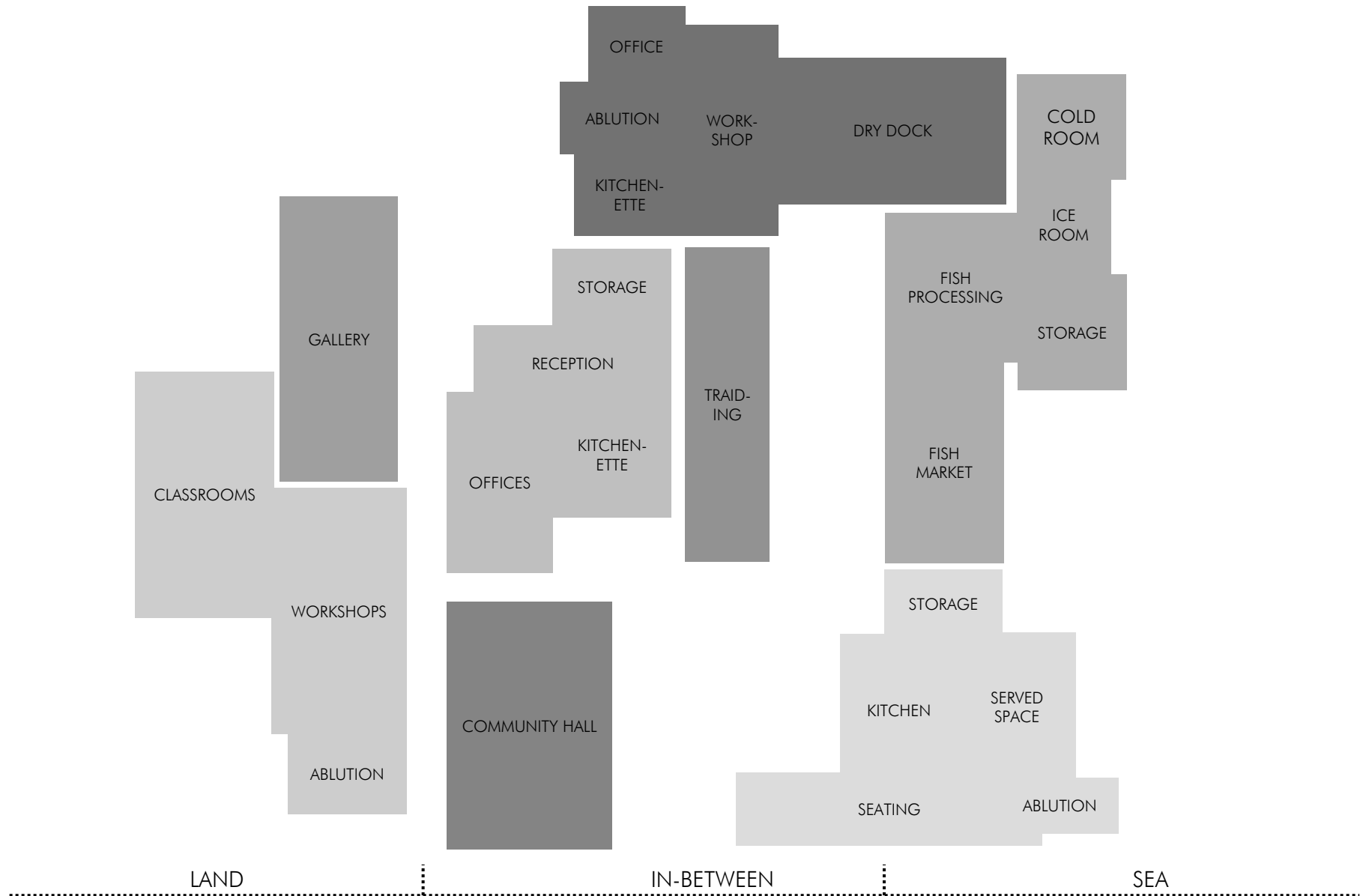


Figure 6.5: Organised area and functions (Author, 2022).

CHAPTER 7
DESIGN DEVELOPMENT



Figure 7.1: Photograph of LT 10 (Author, 2022).

7.1 | Harbour Reactive Layout

The first attempt to developed a design resulted in a approach that tried to incorporate existing conditions without altering the existing functions on site. This attempt did not regard any theoretical stance or conceptual though, it was a pure response to the form giving of the site.

The following design elements were disregarded in this early stages of the development process:

- Morphology of the historic urban fabric
- Spatial layout
- How the in-between forms spaces
- Implications of contours

The following design elements are visible in the final design resolution:

- The relationship between the upper and lower area regarded as one space.



Figure 7.2: Design plan of attempt one (Author, 2022).



Figure 7.3: Model of first attempt (Author, 2022).

7.2 | Linear Layout

The second iteration resulted in a more conceptual approach of path, provided by a mixture of concept 1 and concept 2. Regardless of the scale and spatial barriers between the structure and site, a path was designed to make a connection with the fishermen cottages and pierce the gap between land and sea.

The following design elements were disregarded in the development process:

- Morphology of the historic urban fabric
- Existing structures on site
- Functional layouts
- Structural limitations of materiality

The following design elements are visible in the final design resolution:

- The linear walkway between buildings which becomes a path.
- A portion of the composition.
- The idea that the water cuts in the land.

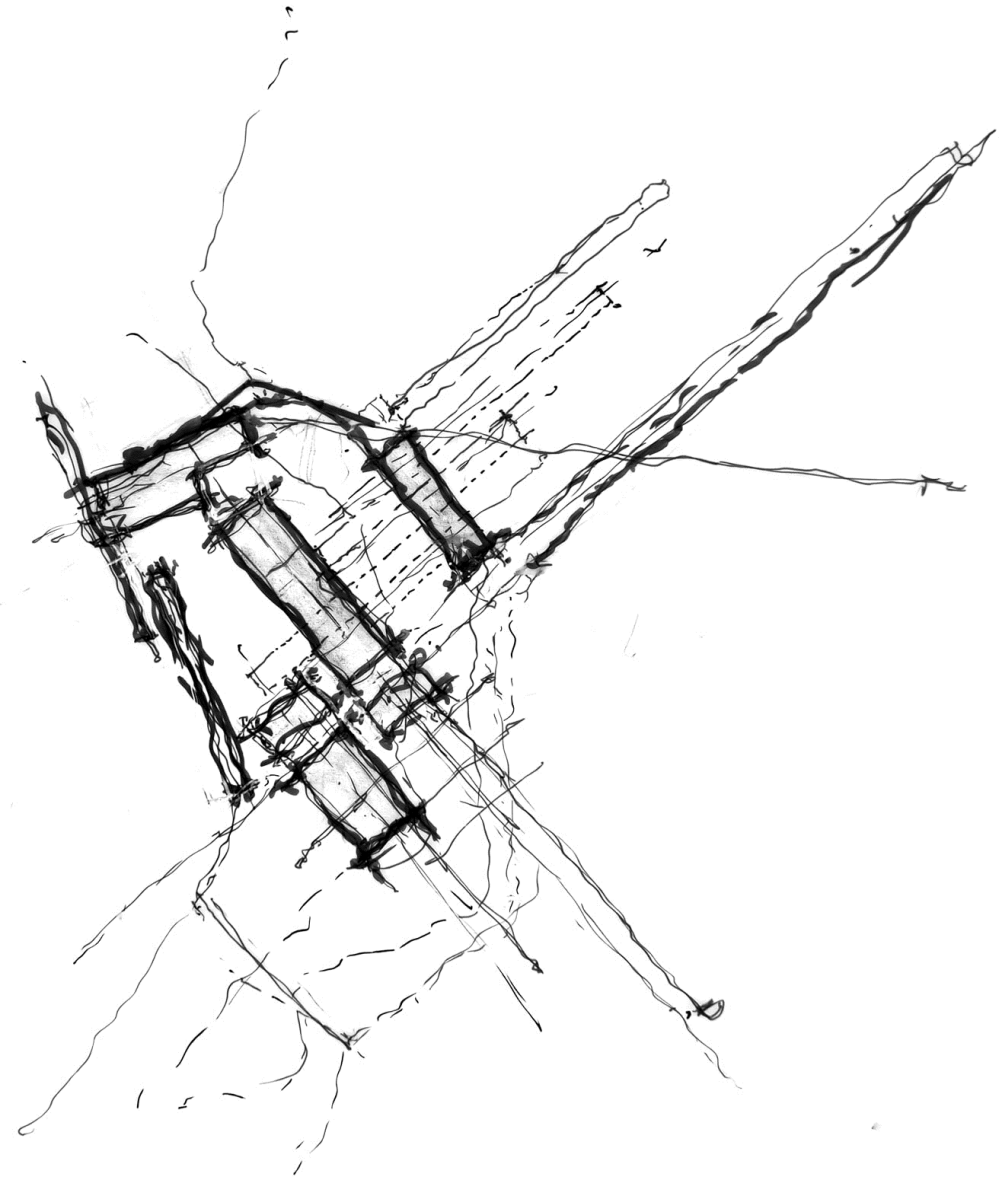


Figure 7.4: Conceptual plan (Author, 2022).



Figure 7.5: Massing layout of the third attempt (Author, 2022).

7.3 | Fragmented Layout

The third attempt resulted into a more fragmented layout, allowing the buildings to interact with the contour form giving of the site.

The following design elements were disregarded in the development process:

- Morphology of the historic urban fabric
- Functional layouts
- Structural limitations of materiality

The following design elements are visible in the final design resolution:

- The in-between spaces formed between building masses.
- A portion of the composition.
- Water channel allowing a boat to enter the site resulting in a poetic understanding of catching fish.

7.4 | Layered Orientations

In this stage of the design process, a more structurally integrated morphology was investigated in order to arrive at a layered configuration. At this stage, the section silhouette would be used to gather sun light and act as an active climatic device to ventilate the space and act as an articulated element. The silhouette of the section is inspired by the theoretical stance of having a roof that embodies the idea of a boat that docks and set sails. Essentially a play on light and heavy structure and a point of departure and arrival.

The construction of the roof and window detailing was inspired by the detailing of Roelof Uytendogaardt Hout Bay library mentioned in Chapter 5.3. The use of timber would then relate to the poetic understanding of the metamorphosis of the *scuppy*.

At this stage of the design process scale is introduced through the of site sections. The notion of the in-between once again becomes clear within the plan.

The following design elements were disregarded in the development process:

- Structural limitations of materiality
- Light chambers are not true to the vernacular architecture of Kalk Bay.

The following design elements are visible in the final design resolution:

- The perpendicular integration between structures and voids.
- The use of light chambers becomes a major typology which addresses the topology and morphology of the structure.

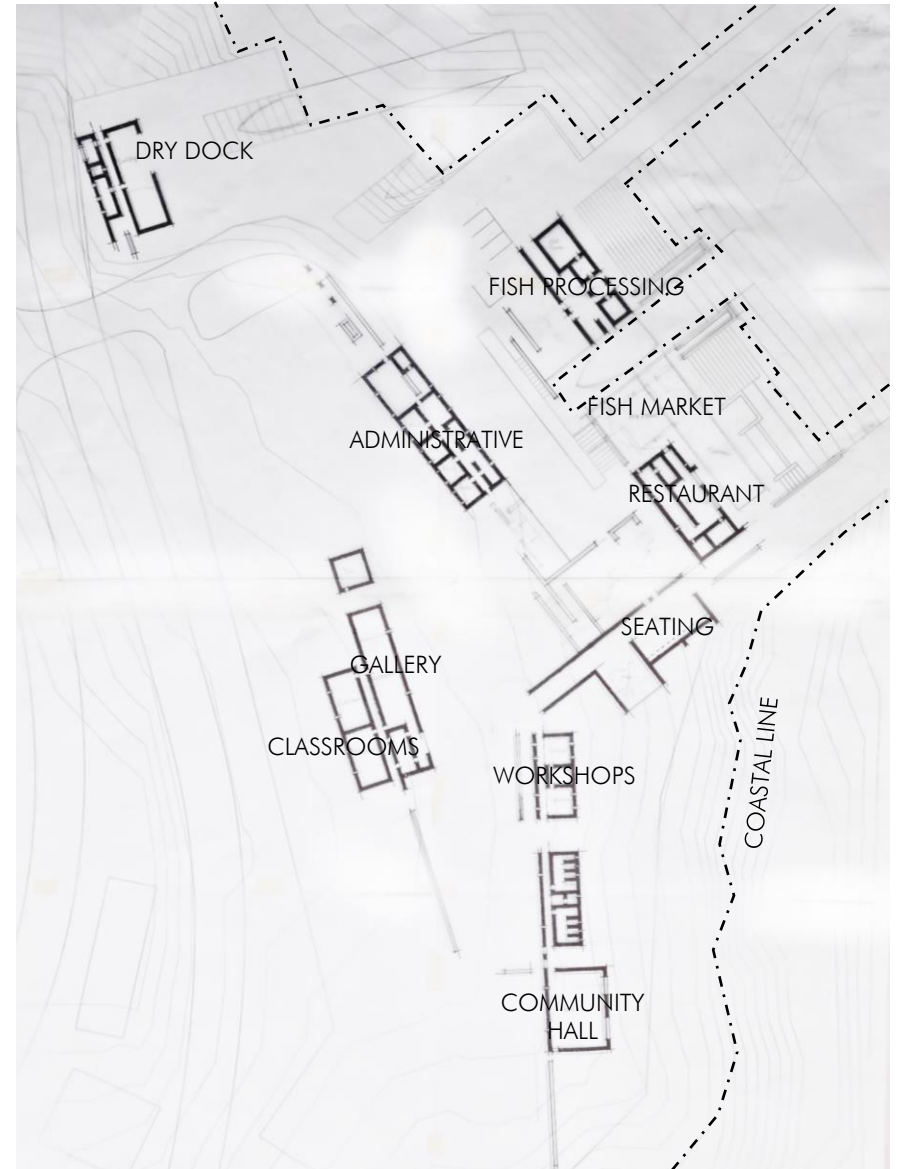


Figure 7.6: Plan of layered orientations (Author, 2022).

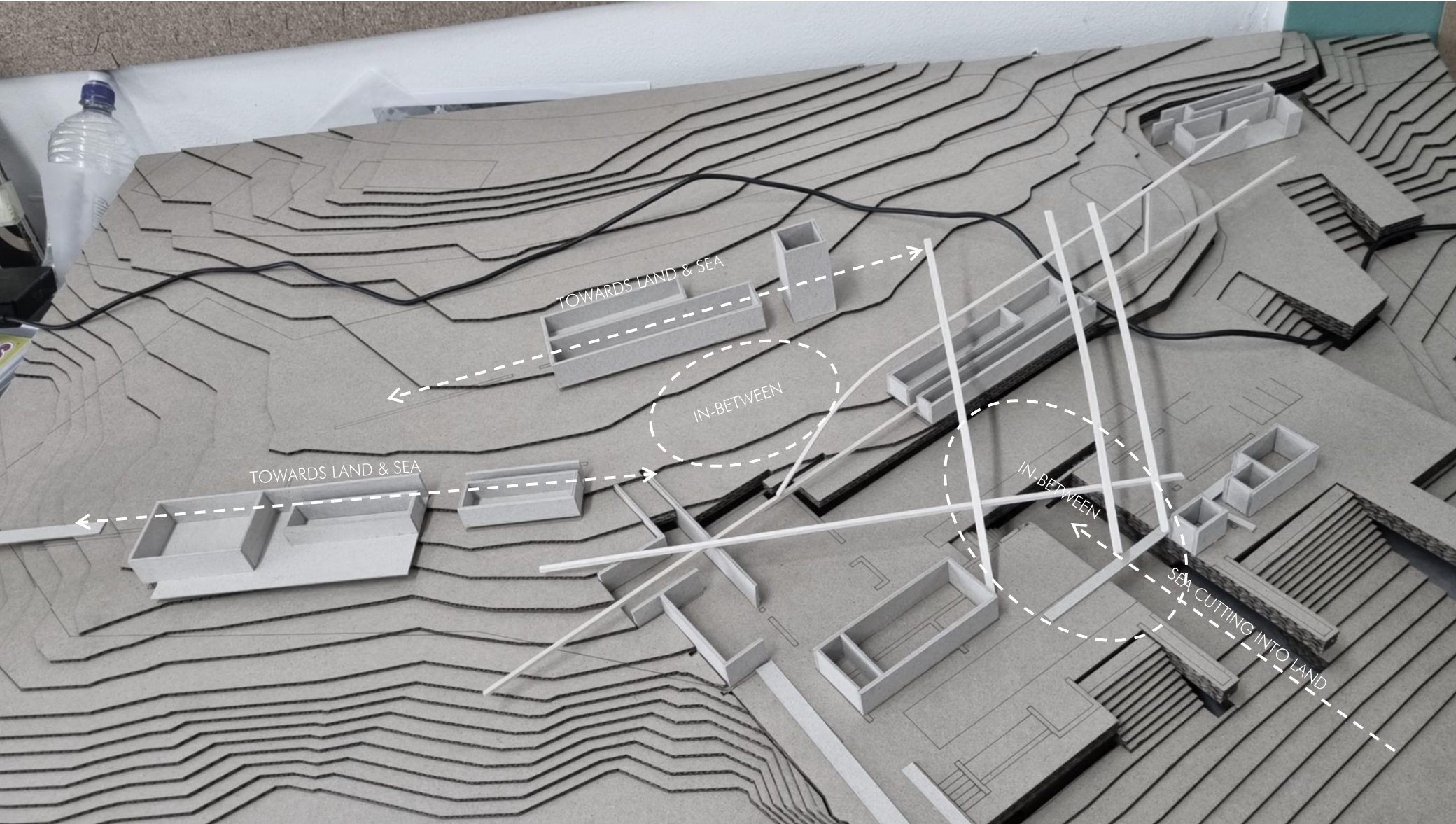


Figure 7.8: Model of layered orientations (Author, 2022).

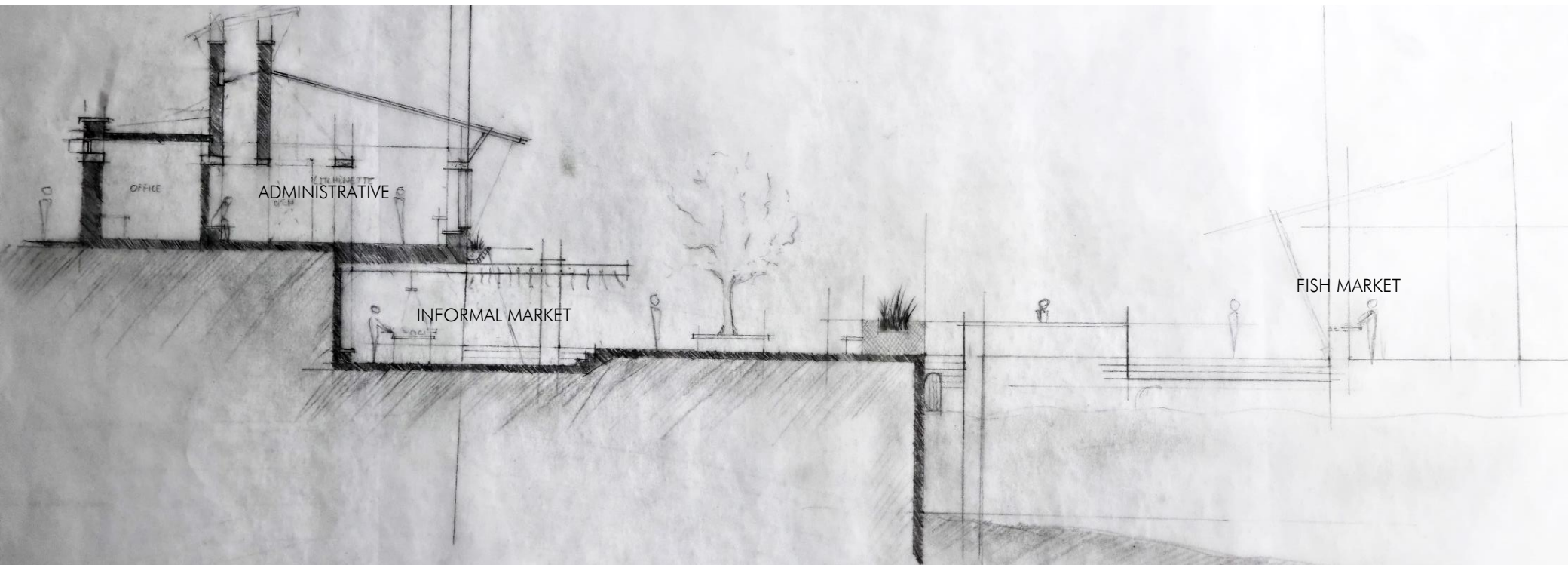


Figure 7.9: Section through administrative building and docking area (Author, 2022).

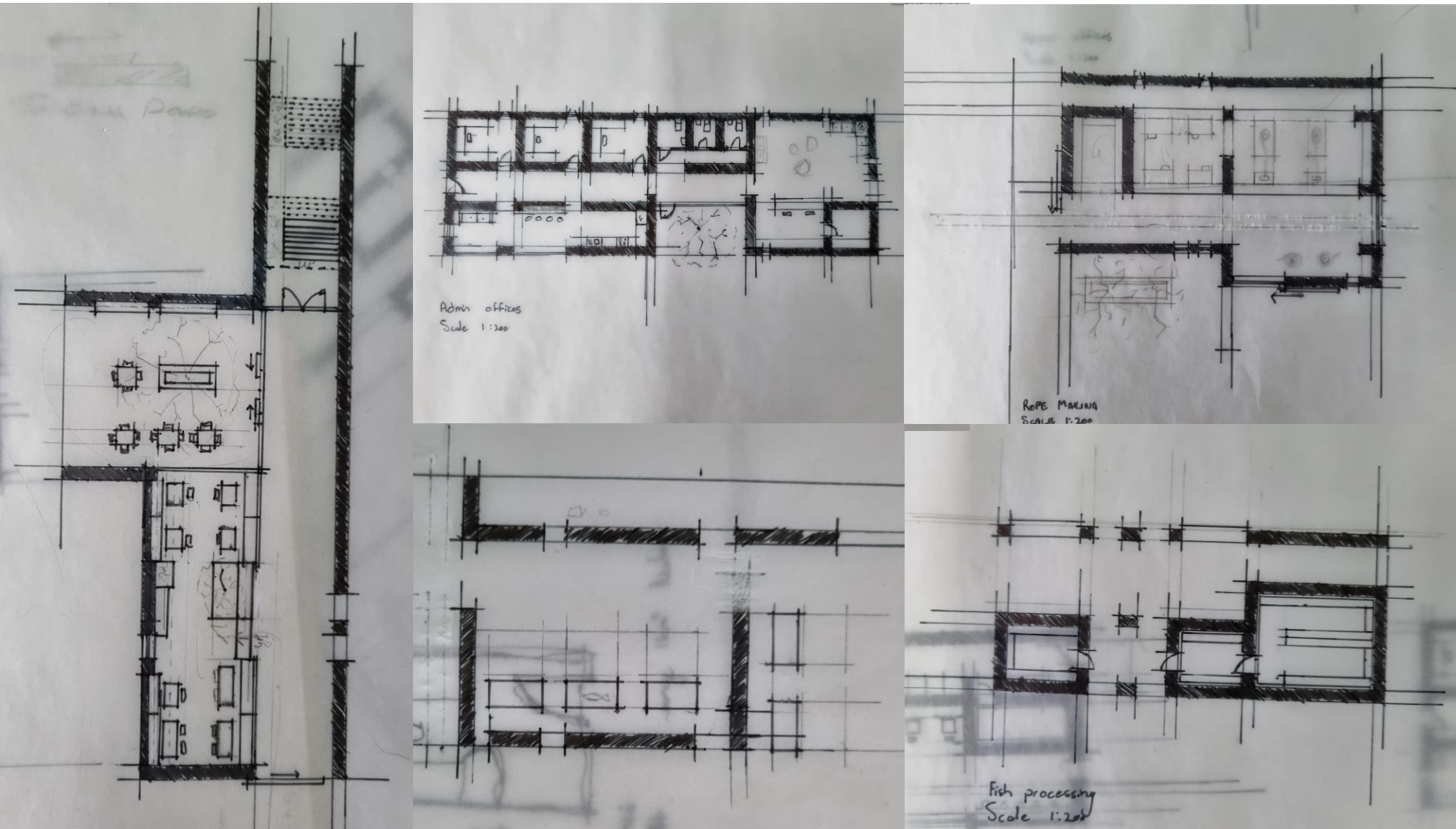


Figure 7.10: Spatial layout exercise (Author, 2022).

CHAPTER 8
DESIGN PROPOSAL



Figure 8.1: Photograph of Violet Glen (Author, 2022).



Figure: 8.2 (Author: 2022).
PERSPECTIVE OF KALK BAY HARBOUR FROM SOUTH EAST

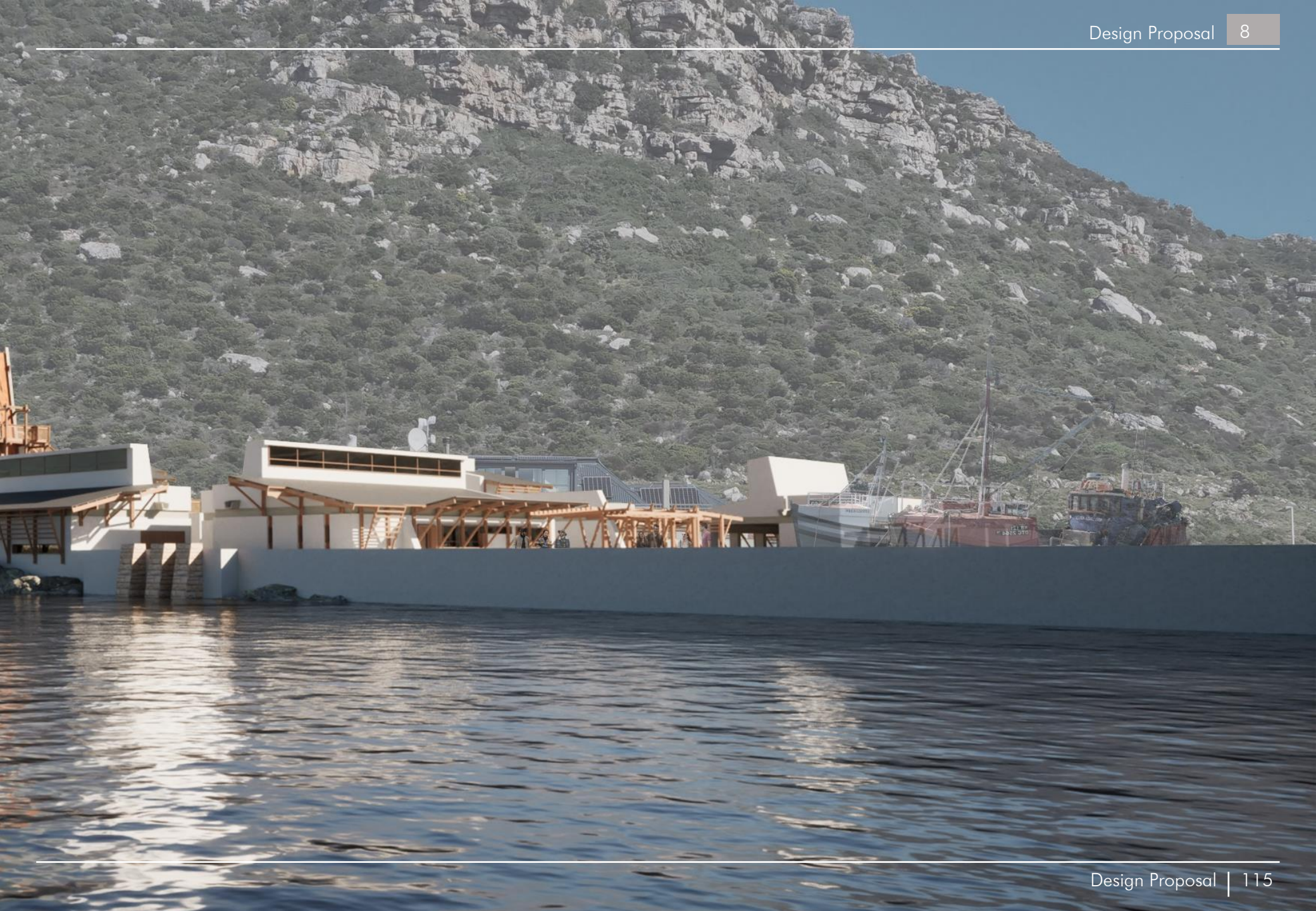




Figure: 8.3 (Author: 2022).

LOCALITY PLAN

- 1. Trappies Kop mountain
- 2. Fisherman's cottages
- 3. Design proposal
- 4. "By-the-Sea"





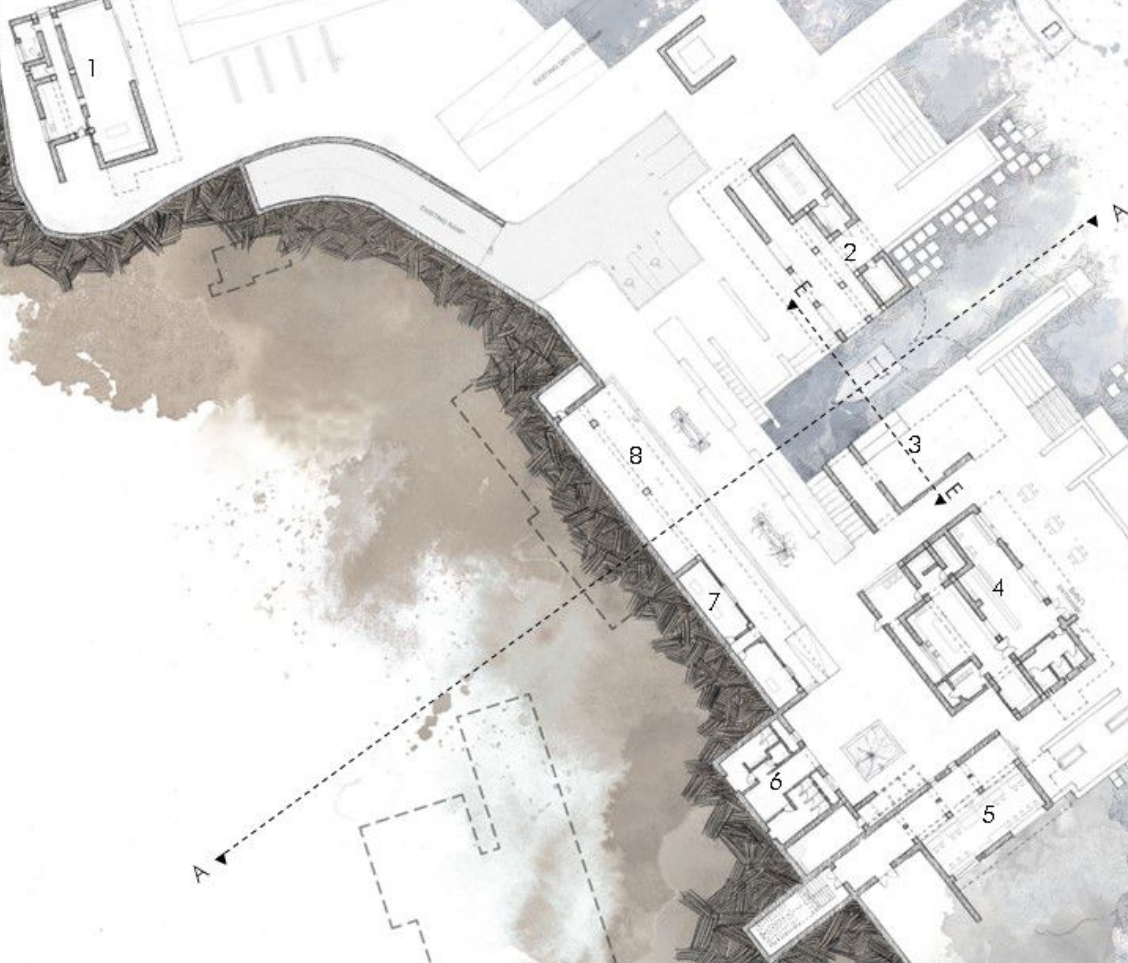
Figure: 8.4 (Author: 2022).

SITE PLAN

0 50 100 150 200 250

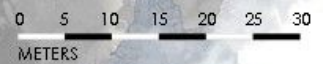
METERS

1. Fisherman's cottages
2. Boat Workshop
3. Drydock
4. Security office
5. Parking
6. Administrative building
7. Gallery
8. Workshops
9. Community Hall
10. Fish processing
11. Fish take-away
12. Seating



- 1. Boat workshop
- 2. Fish processing
- 3. Fish market
- 4. Fish Take-away
- 5. Seating
- 6. Ablutions
- 7. Fisherman's storage
- 8. Informal market

Figure 8.5 (Author, 2022).
LOWER FLOOR PLAN



- 1. Security office
- 2. Administrative building
- 3. Tower
- 4. Gallery
- 5. Classrooms
- 6. Workshops
- 7. Ablutions
- 8. Community hall

Figure 8.6 (Author: 2022).
UPPER FLOOR PLAN



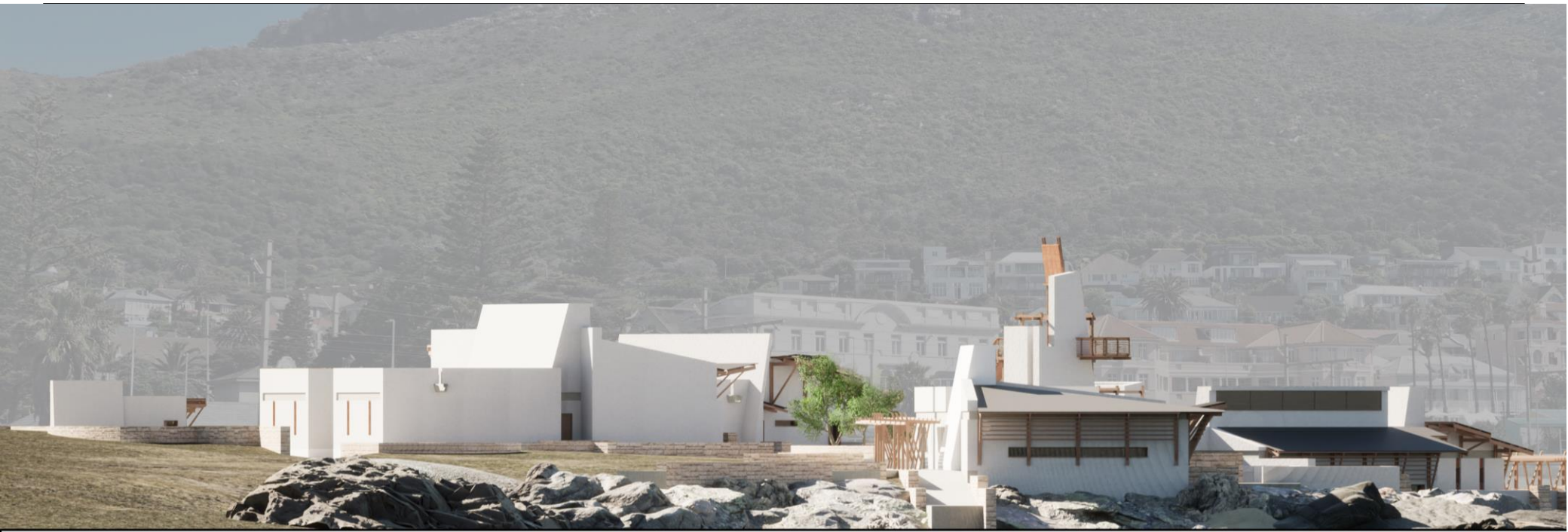


Figure: 8.7 (Author: 2022).
NORTH ELEVATION





Figure: 8.8 (Author: 2022).
SOUTH ELEVATION





Figure: 8.9 (Author: 2022).

EAST ELEVATION



Figure: 8.10 (Author: 2022).

WEST ELEVATION







Figure: 8.11 (Author: 2022).
PERSPECTIVE OF FISH DELIVERY AREA

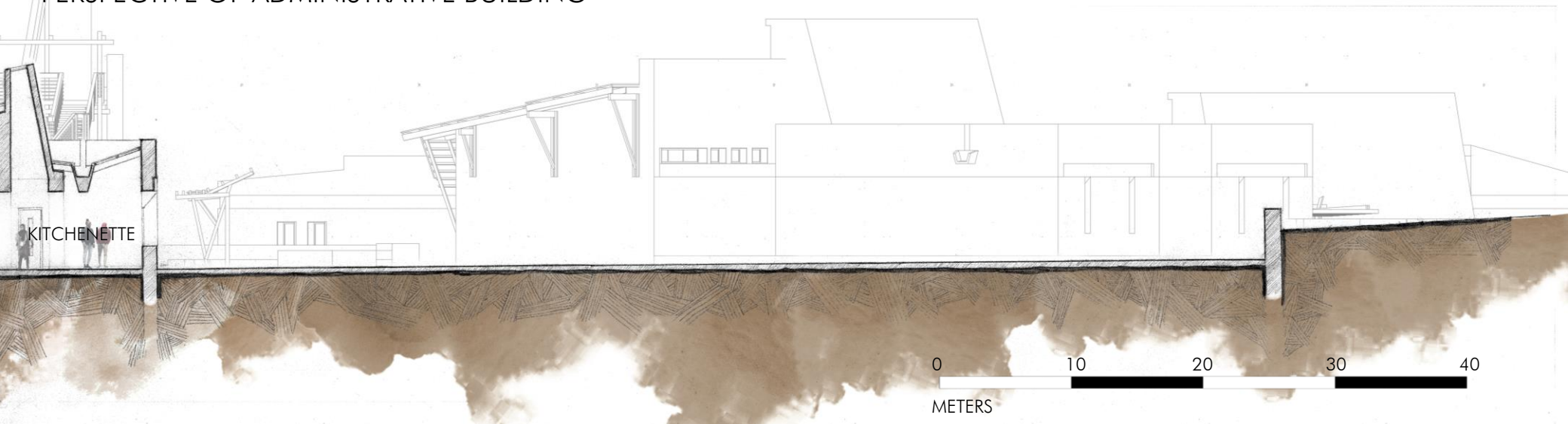


Figure: 8.12 (Author: 2022).
SECTION A-A



Figure; 8.13 (Author: 2022).

PERSPECTIVE OF ADMINISTRATIVE BUILDING



KITCHENETTE

0 10 20 30 40
METERS



Figure: 8.14 (Author: 2022).
PERSPECTIVE OF COMMUNITY HALL



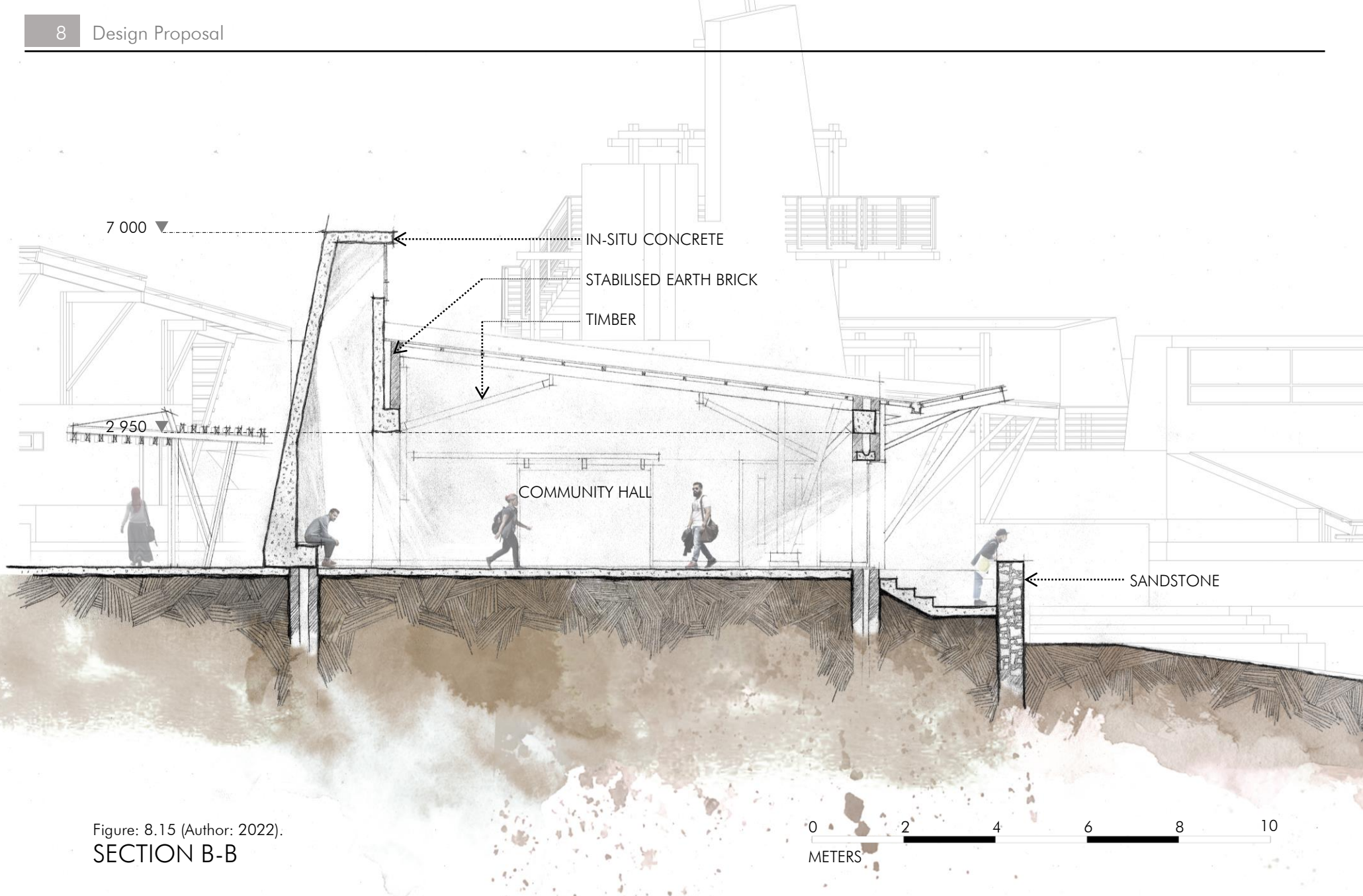


Figure: 8.15 (Author: 2022).
SECTION B-B



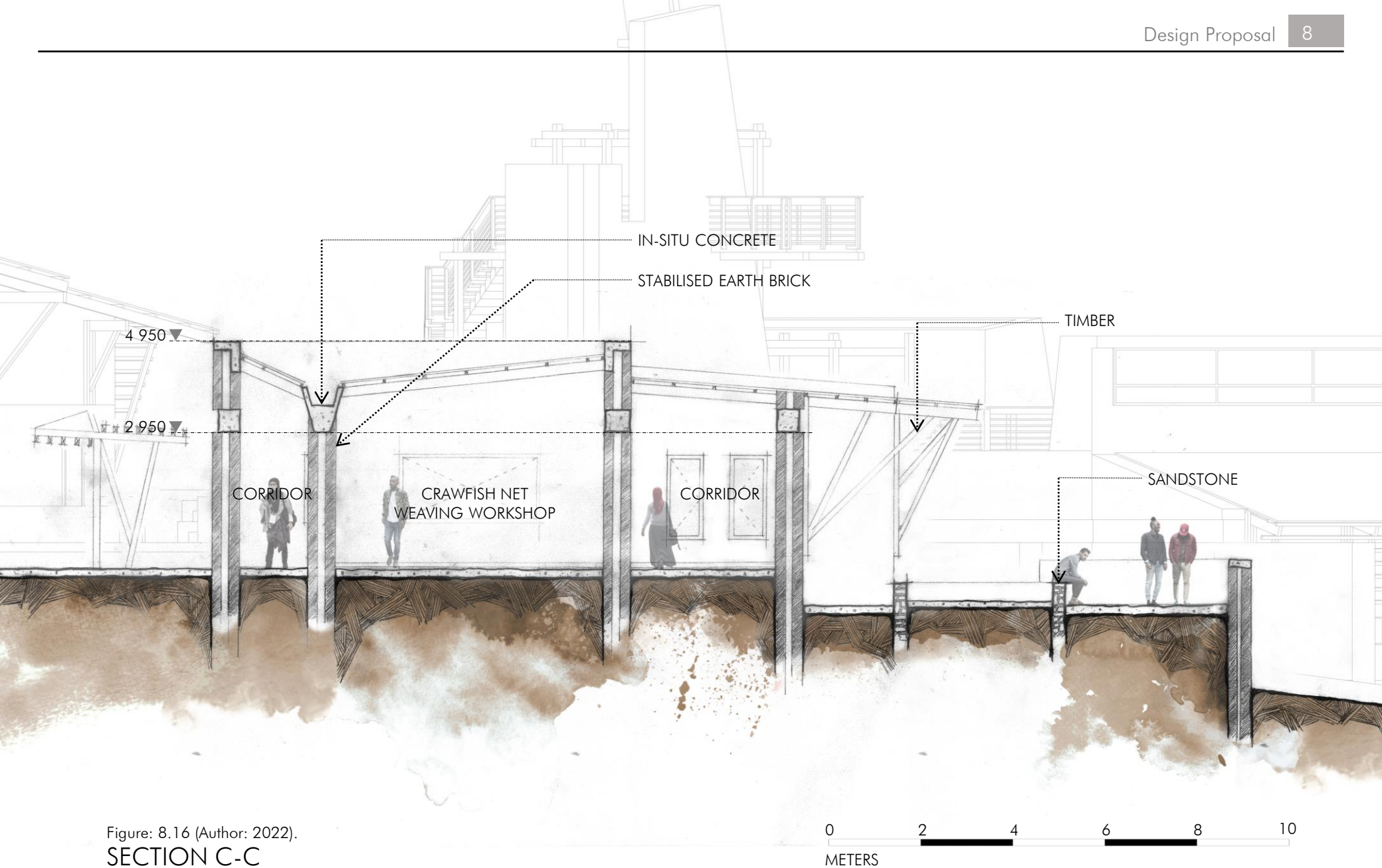


Figure: 8.16 (Author: 2022).
SECTION C-C



Figure: 8.17 (Author: 2022).
PERSPECTIVE OF GALLERY

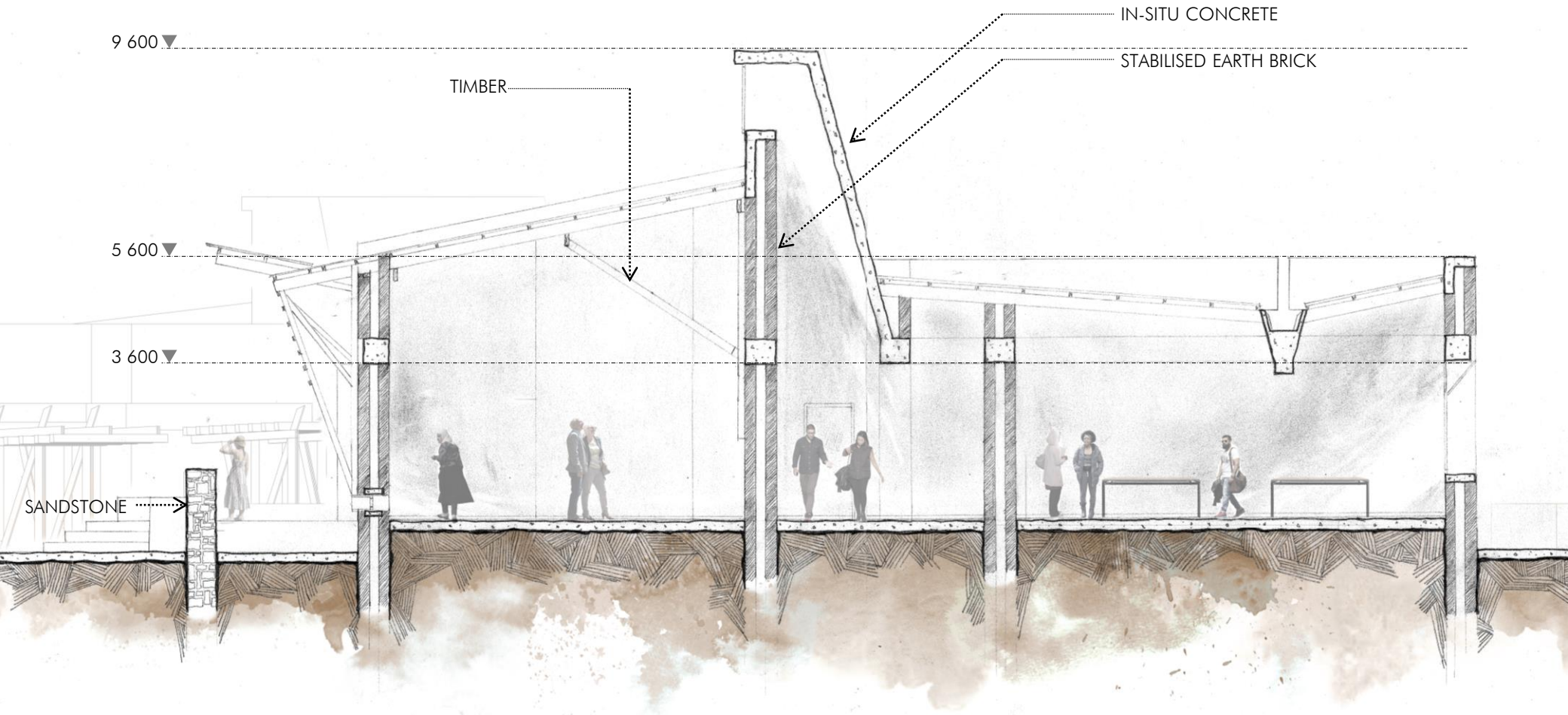


Figure: 8.18 (Author: 2022).
SECTION D-D





Figure: 8.19 (Author: 2022).
PERSPECTIVE OF FISH MARKET

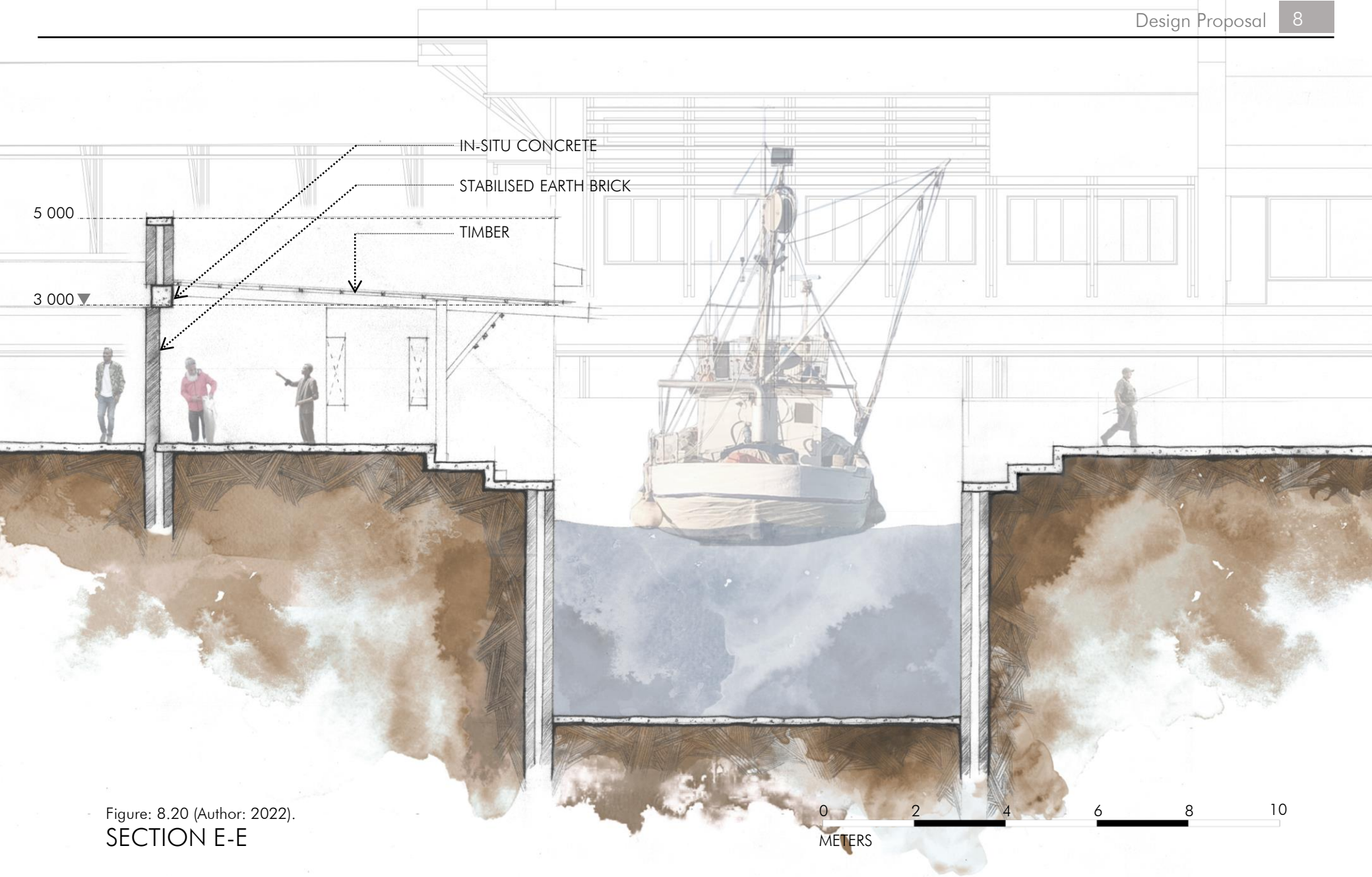


Figure 8.20 (Author: 2022).
SECTION E-E



Figure: 8.21 (Author: 2022).
PERSPECTIVE OF TIDE MEASURING BOXES FROM THE EAST





Figure: 8.22 (Author: 2022).

PERSPECTIVE FROM SOUTH EAST TOWARDS SOUTH WEST





Figure: 8.23 (Author: 2022).
PERSPECTIVE OF COURTYARD NEAR GALLERY





Figure: 8.24 (Author: 2022).
PERSPECTIVE OF TOWER



Figure: 8.25 (Author: 2022).
PERSPECTIVE OF WESTERN FAÇADE OF WORKSHOPS



Figure 8.26: Photograph of whole model (Author, 2022).



Figure 8.27: Photograph of fish market (Author, 2022).



Figure 8.28: Photograph of lower level courtyard (Author, 2022).



Figure 8.29: Photograph of lower level courtyard with tower in background (Author, 2022).



Figure 8.30: Photograph of community hall (Author, 2022).



Figure 8.31: Photograph of time-sensitive dolosse (Author, 2022).

CHAPTER 9
TECHNICAL INVESTIGATION



Figure 9.1: Photograph of Little Pearl (Author, 2022).

In this section, the investigation is a cumulation of all the previous chapters' explorations, interpretations and development. It was done towards a design that amalgamates function, structure and theory to create a Fish Market and Community Forum.

9.1 | Topography

The site forms part of the geographical part of the foot slopes of Trappies Kop mountain and continues beneath the waves emerging as the offshore reef located some distance behind the breakwater. It is an ancient sea terrace standing about 6m above mean sea level and exposed to wave and wind forces. The site has two levels, an upper level and a lower level, which greatly impacted the design's form-giving and function layout. It allowed the community forum to function on the upper level and the fish market on the lower level. The layout of the contours also heavily influences the orientation of the fragmented design to manifest a more sensitive approach.

9.2 | Vegetation

In the harbour of Kalk Bay, Peninsula Sandstone Fynbos predominately occupies the area of rock outcrops that mitigates the edge between land and sea on the southern point. The preservation of the Peninsula Sandstone Fynbos and the use of the rock outcrops to stabilise the foundations became important for the project as the acknowledgement of the site conditions is essential to respond sensitively.



Figure 9.2: Photograph of vegetation (Author, 2022).

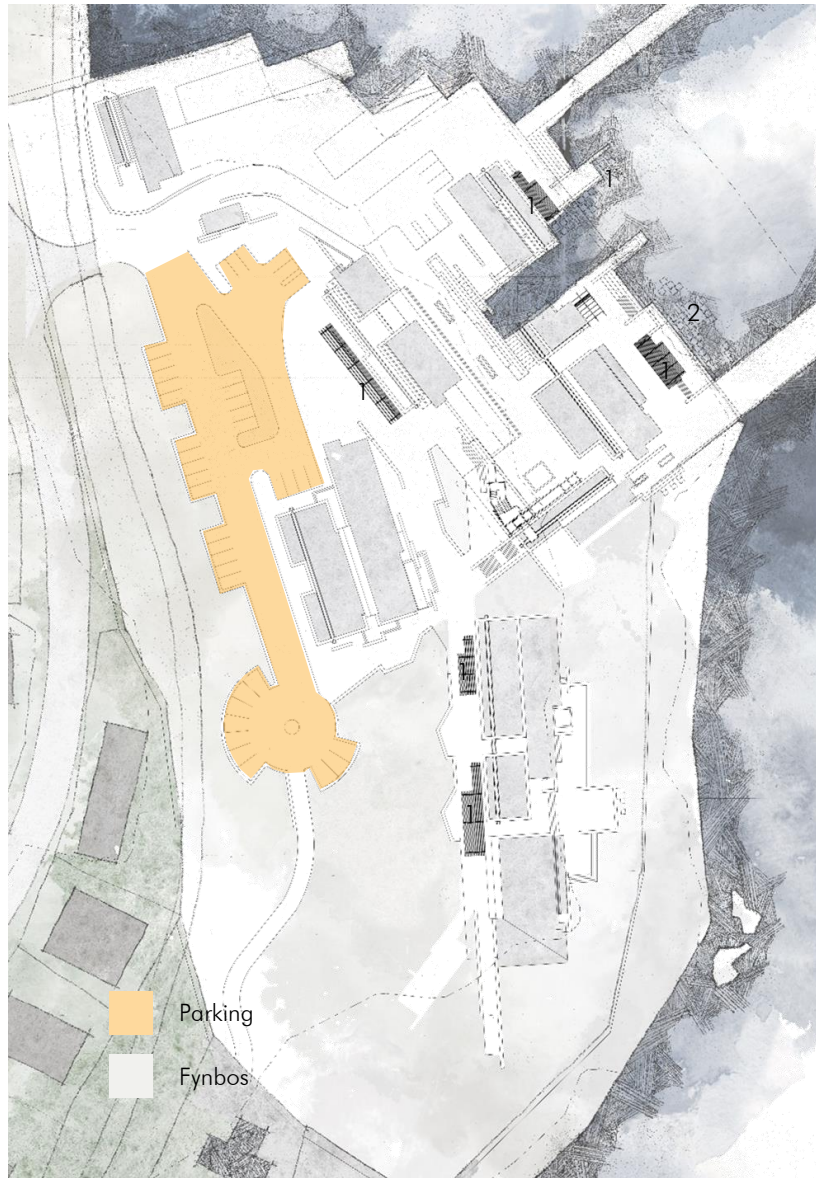


Figure 9.3: Plan of site planning (Author, 2022).

9.3 | Site Planning

Parking

The 46 parking bays are located to the west, close to the site's entrance and sits between the edge of the railway and the proposed buildings. The parking is on an existing tared road where visitors usually park at the harbour. The more significant part of the existing parking bays at the lower was removed to make place for more pedestrian activity. Universal parking bays are located on both the upper and lower levels close to pathways leading to the entrance. A delivery bay is located on the lower level for easy transportation of goods to the restaurant. A security boom is introduced to control traffic and not have congestion on the lower level and to encourage pedestrian movement.

Landscaping

Landscaping forms a large part of the scheme as it acts as the mitigating element between buildings and, more importantly, between land and sea. Low sandstone walls are used to create edges where visitors move between whilst still having a visual connection that lies beyond the wall. Some of these walls are also used as public seating.

Light timber pergola structures (1) are used to emphasise an entrance and act as a shading device. A relationship between the sandstone walls and timber pergolas is formed. The walls represent the heaviness of the land, and the pergolas the lightness of the sea.

In the east, on the edge where the boats come to dock, sculptural elements are introduced to identify the change of time in the tide. Different heights of the boxes are used to identify these changes. These boxes are made of concrete, and some are clad in mild steel to create the opportunity to encourage the growth of the fish ecosystem (2).

9.4 | Horizontal and Vertical Circulation

Circulation is integral to the scheme's design as it nets the fragmented spaces together. The circulation is seen as a path of the in-between. The visitor is at their most vulnerable state, as mentioned in chapter 4.4 on this path.

The narrative of the circulation:

1. The visitor walks from the western parking towards a crossroads to either venture to the fish market or the community forum. However, the tower that could be seen from land or sea draws the visitor to the site. In accordance, it becomes the element that draws man from land and sea to a centralised meeting point.
2. If the visitor chooses to venture to the fish market, they will be given a choice to walk down the fisherman's path, which goes down the existing ramp; or go down the stairs close to the tower.
3. On the fisherman's path, the visitor becomes aware of the ritualised fishing process as they are then shown how the fish is processed directly from the sea to the end, where it is bought to be eaten.
4. The visitor could then venture out on either of the two fish quays, where they could see the historical boats that caught the catch of the day being sold in the fish market.
5. Visitors who choose to visit the community forum are greeted at the beginning by the end through a gallery. The gallery becomes the space where the rope and crayfish nets are displayed and sold amongst other art currently sold on-site by local artists.

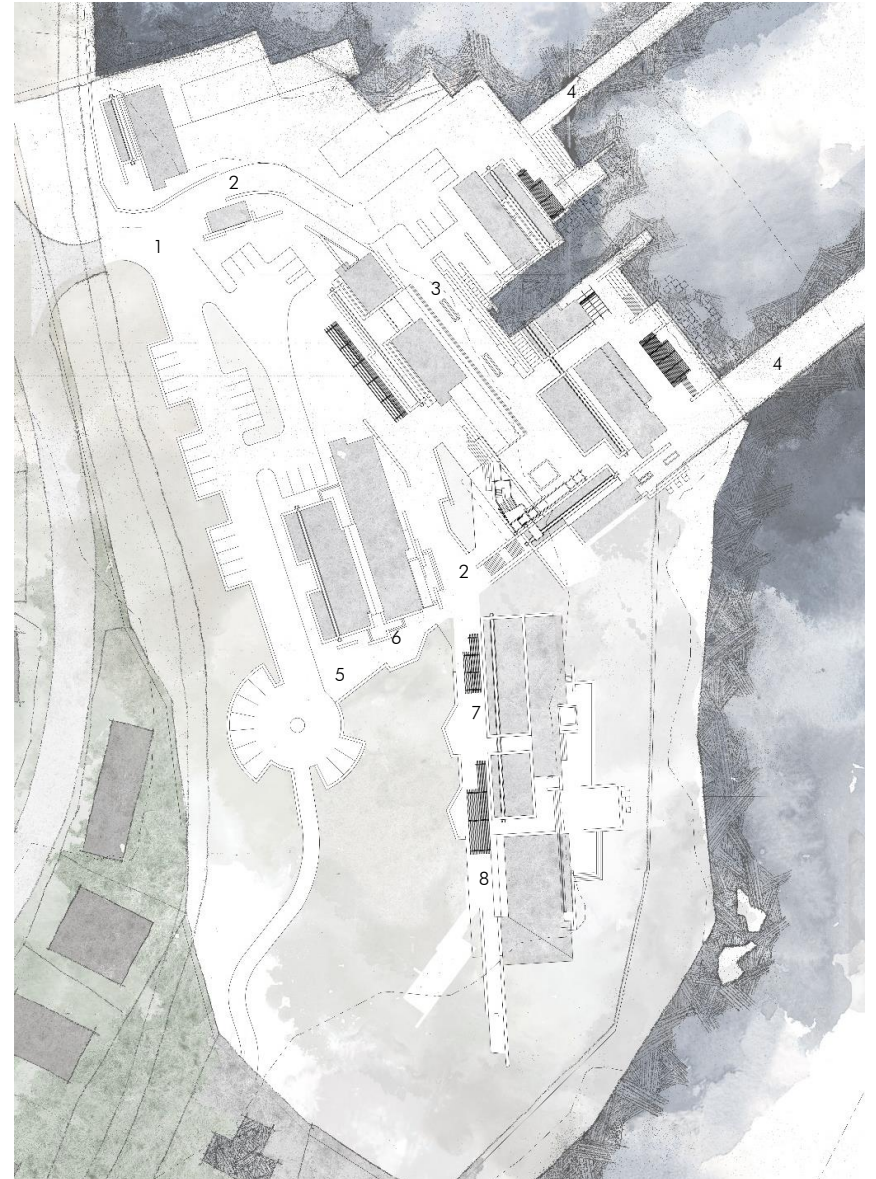


Figure 9.4: Plan of circulation routes (Author, 2022).

6. Next to the gallery, classrooms are used to educate the local youth on the ocean's ecosystem and how to preserve it and give lectures on career opportunities. These classrooms could also be rented out for an additional income, where a percentage would be given to the local small-scale fishing community.
7. On the path to the south beyond the tower, the visitor is greeted by a workshop area where the ropes and crayfish nets are woven, which can be viewed.
8. Finally, on the southern edge, the community hall lies as a meeting space that could be rented out for other functions unrelated to community gatherings.

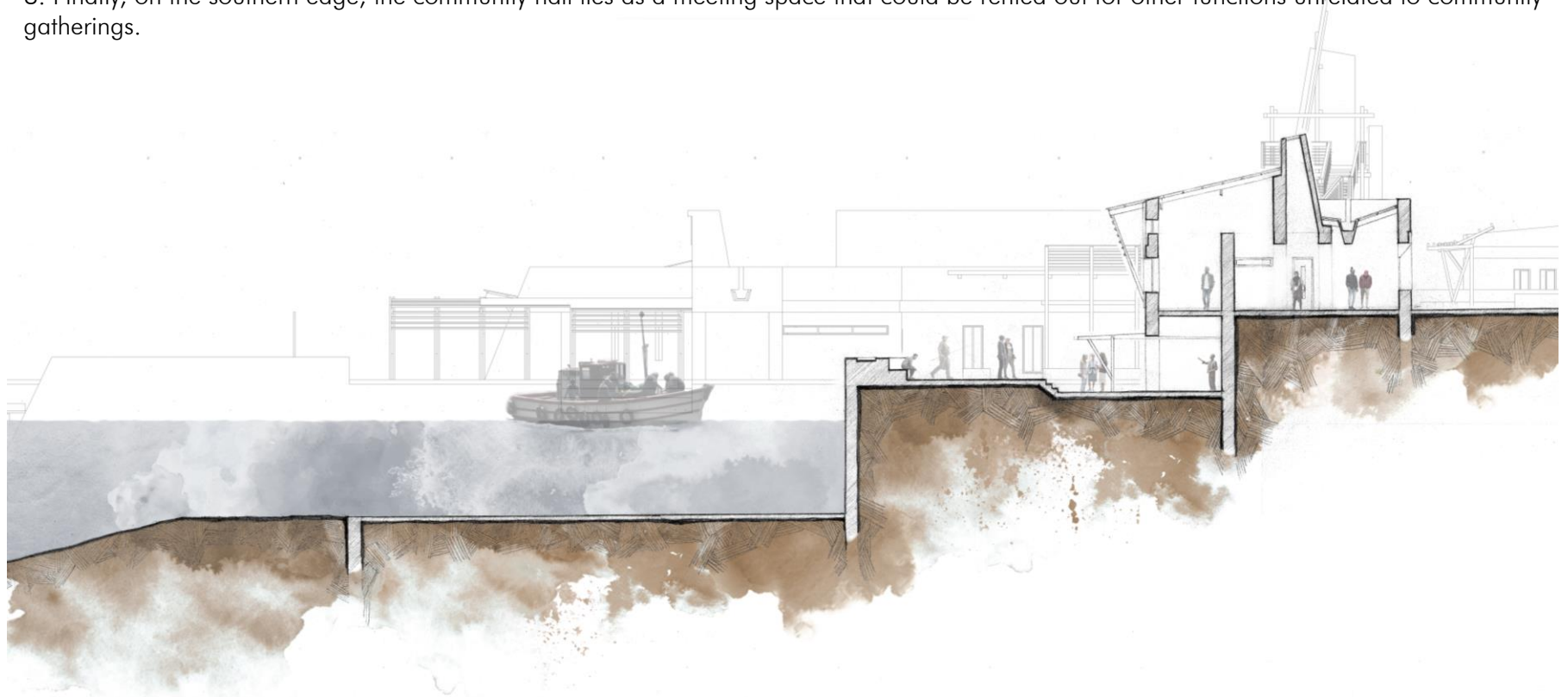


Figure 9.5: Section showing relationship between the upper and lower levels (Author, 2022).

9.5 | Material available

Alternative materials available near Kalk Bay that were considered dictated design decisions:

Earth brick:

The choice of earth brick and not a conventional material, such as masonry bricks, was influenced by the historical contexts of the site where Cape Dutch architecture was used as well as for the insulation properties of the material. Using the earth brick creates job creation opportunities for the community, which is much needed. Earth will be sourced near Trappies Kop mountain and be dimensioned to 300x200x100mm, and in certain areas where connections are made for openings, 100x200x100mm earth bricks are created. The mixture will be stabilised with lime and cement.

Concrete:

Concrete is used throughout the whole construction of the harbour, but in this scheme, concrete would only be used for its structural and plasticity characteristics. All concrete elements will be cast in-situ and only be used where needed to reduce the building's carbon footprint.



Figure 9.6: Earth brick material (Whiteghost.ink, 2011: online).



Figure 9.7: In-situ concrete (Baakaew, 2019: online).

Sandstone:

The use of sandstone is in response to contextual conditions. In the town, sandstone is used to demarcate the site's edge of the owner. In the scheme, low sandstone walls are used to define a path but not as a boundary, as the visitor could easily transition through the space as they please.

Timber:

The choice of timber instead of steel was simple. It could be seen that all steel elements on site are rotting away and creates unsanitary conditions for the fish to be processed and sold. Using locally sourced timber also created an opportunity to create an intricate structural system that would otherwise be less complex. However, austenitic stainless steel will be used for connection details as a means of articulation between materiality.



Figure 9.8: Sandstone use in town (Author, 2022).



Figure 9.9: Rust of current structure on site (Author, 2022).



Figure 9.10: Timber material (Cape Lumber, n.a.: online).

9. 6 | Structural system

All buildings on site use the same type of construction and materiality to construct a coherent architectural language that becomes sensitive to the vernacular and could be easily constructed to create the opportunity for community engagement.

Foundations:

The foundations make use of in-situ concrete strip footing attached to the sandstone beneath the earth for a more stabilised connection and to utilise the site's conditions. A 600mm masonry brick foundation cavity wall is used to carry the 600mm stabilised earth brick above ground for waterproofing purposes. This cavity masonry wall consists of a double 110mm wythe and a 160mm cavity.

Floor:

The interior floor is made of 100mm reinforced in-situ concrete floor slabs with a meranti floor finish to capture the feel of walking on a boat's deck. The exterior ramps and walkways are made of concrete with a coarse texture for slip resistance.

Walls and structural columns:

The tectonics of the walls are made out of 600mm thick earth brick walls that act as an infill for the 600x600mm concrete columns and 600x500mm concrete ring beam. The 600mm earth brick wall consists of a 300x200x100mm stabilised earth brick with a 200mm cavity. In-situ concrete is used for copping. The column spacing does not use a grid for coherent spacing, as columns are used where structurally needed. Double-glazed glass windows with meranti frames allow for natural light to seep in and from the east and west, whilst the west openings are kept to a minimum for climatic conditions. On the ring beam, an in-situ concrete gutter is used and spouts the rainwater out at the side of the building.

Roof

228x76mm treated timber rafters are used for the roof structure and are supported by the concrete ring beam and timber purlins that run down the walls of the building. The angles of the roofs differ but are never below 7°. 114x50mm purlins are attached to the rafters spaced at 900mm c/c with 100 + 50mm thick insulation between 38x38mm battens. 30mm thick tongue & groove Isoboard is used for the ceiling. 0,6mm Klip-tite™ steel roof sheeting charcoal colourbond is used.

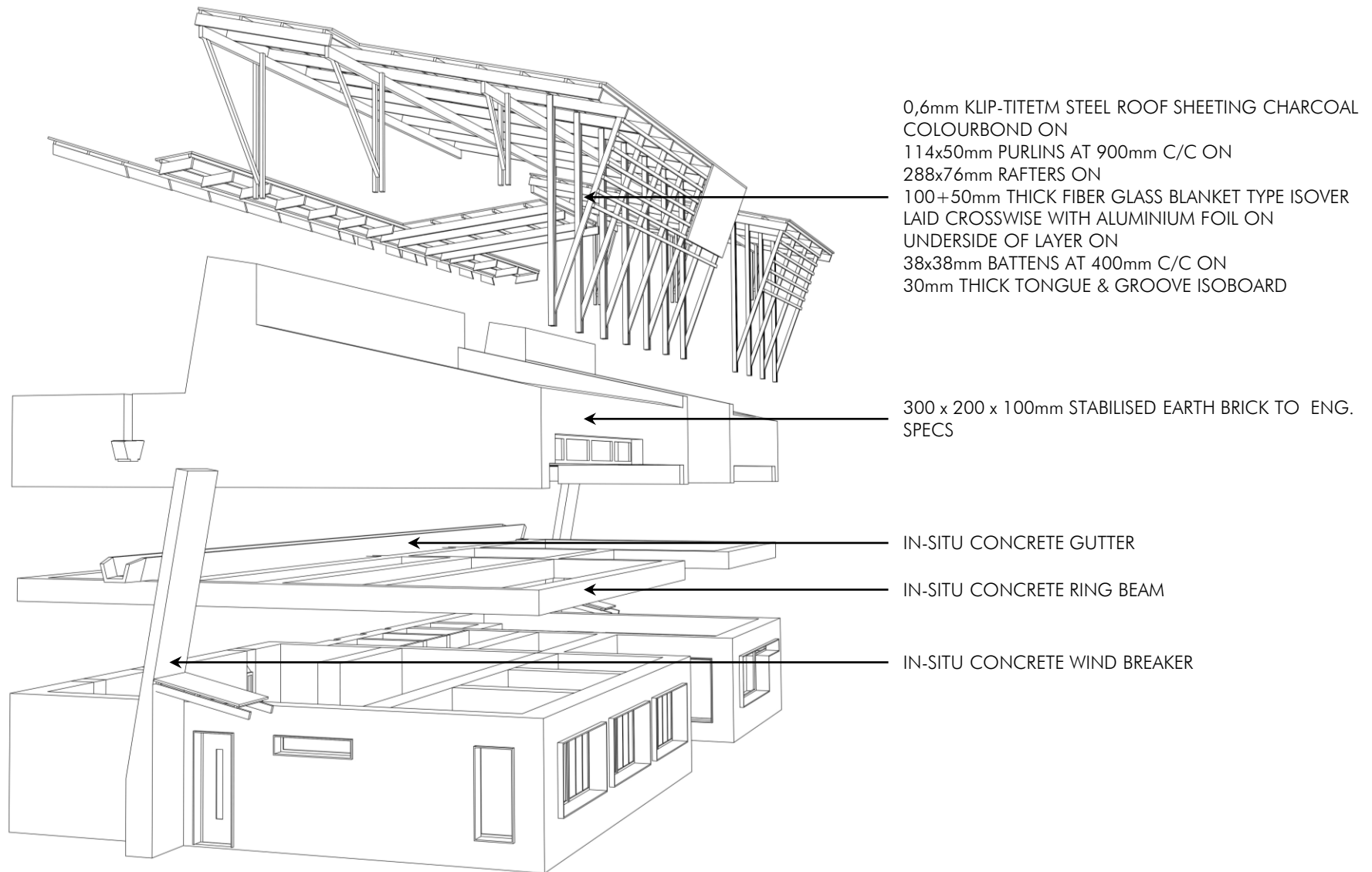


Figure 9.11: Composition of structure (Author, 2022).

9.7 | Passive design strategy

Passive design solutions are used in each building to increase the effective energy use to minimise the amount of active cooling and lighting.

The **orientation** of the buildings is north and east to allow in natural controlled light. Light shafts are used in each building to bring in natural light and minimise the use of artificial light. Atmospheric conditions are created with these light shafts and would introduce natural light in spaces that would otherwise not get as much natural light.

Materiality contributes to the passive design strategy. Stabilised earth brick walls act as a good thermal mass, and a wide cavity makes an excellent thermal break that naturally regulates the building's temperature.

Cross ventilation through the use of light shafts naturally ventilates each space. The cooling and heating of each space could be controlled by the ventilated skylight of the light shaft.

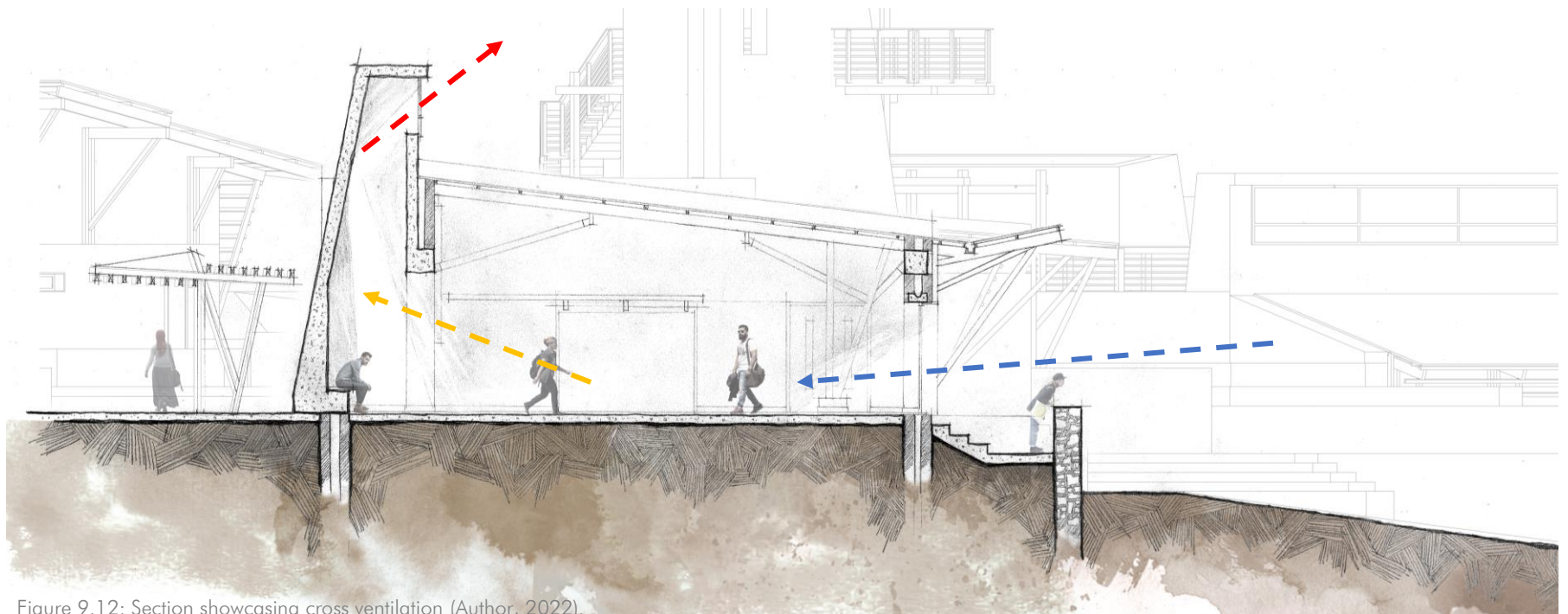


Figure 9.12: Section showcasing cross ventilation (Author, 2022).



Figure 9.13: Plan of building services (Author, 2022).

9.8 | Building services

Solar power:

Municipal electricity is mainly used to power the site, but solar power is used to assist in powering the project and to give power in electrical outages. 17000x1000mm north-facing solar panels are used on each building. The batteries for the solar system are located in the lower level's storage for easy access when needed.

Sewage disposal:

A municipal connection is used to dispose of sewage and pumped to the connection point near the entrance.

Greywater system:

A greywater system is used to irrigate the landscape. The system is located in the storage room on the lower level and pumps where needed. The grey water is stored in a Jojo tank, and the overflow is connected to the municipal sewage line.

CHAPTER 10

Conclusion



Figure 10.1: Photograph of deteriorating boat (Author, 2022).

10.1 | Conclusion

The explorations and interpretations done through the document answered the research question:

How can the act of liminal negotiation conceptualise a fish market and community forum which mitigates the transitional space between land and sea in order to reconcile the social fabric of Kalk Bay with the commercial edges of the harbour?

Noticing the state in which Kalk Bay finds itself embodying 'placelessness' in the present, it quickly made it clear that the site is in a liminal space. This is seen through its struggling to grasp its true identity while trying to rot away its present commercialised identity. However, delving deeper into the theory of liminality and time, a response came to be that resonated with a deeper sense of place. This was achieved by identifying the site as a liminal state that negotiates two different entities, land and sea. The land is seen as a heavy mass, and the sea a light structure. Accordingly, an architecture has been created that nets the historical and present times into one identity. It is anchoring itself between land and sea while reconciling the social fabric of Kalk bay with the commercial edges of the harbour.

10.2 | Reflection

Upon reflection through this dissertation, I have learned that I too have fallen victim to give initial response that did not resonate with the identity of the place. This could be seen in chapter 7.1. However, allowing myself to listen to external voices and identifying key contextual consideration a more sensitive approach was achieved. This resulted in a deeper understanding of place which ultimately created a deeper sense of place through the architecture being created.



Figure 10.2: Photograph of fish hanging to dry (Author, 2022).

CHAPTER 11
TECHNICAL DOCUMENTATION



Figure 11.1: Photograph of BOY JOHAN (Author, 2022).



LOCALITY PLAN
SCALE: 1:2000



SITE PLAN
SCALE: 1:500

ARCHICAD EDUCATION VERSION

Zoning Regulations
Part 2: Open Space Zoning 2: Public open space
(Items 99 - 153)

The OSZ zoning provides for active and passive recreational areas or public land, as well as protection of sensitive and heritage areas including wetlands, riparian, watercourses, wetlands and the coastline. It is intended to recognize the interests of the general public for access to and preservation of public open space.

99 Use of the property

The following use restrictions apply to property in this zoning:
(a) Primary uses are public open space, environmental conservation use, minor freestanding base telecommunication station and minor rooftop base telecommunication station.
(b) Consent uses are environmental facilities, tourist facilities, city service telecommunication station, freestanding base telecommunication station and turbine infrastructure, cultural and social ceremonies, urban agriculture, informal trading, harvesting of natural resources and air and underground rights.

100 Development rules

The following development rules apply:
(a) The City may require a site development plan for a primary use, and shall require a site development plan for a consent use application.
(b) The site development plan as approved by the City shall constitute the development rules for a primary use if applicable, and a consent use.
(c) The provisions for a site development plan in Item 123 shall apply.

101 Construction and deposit of materials

No person shall:
(a) Construct a private crossing, bridge or culvert onto, under or across a public open space;
(b) An agreement defining the extent of rights, time period, compensation, ownership and maintenance obligations relating to the property is concluded between the parties concerned and is approved by the City.
(c) A servitude in respect of the air or underground rights is registered in the Deeds Office.
(d) A site development plan is submitted to the City's informal trading factor.

102 Air and underground rights

The City may approve a consent use for air or underground rights if:
(a) Such consent use does not compromise the intended primary use of the land;
(b) An agreement defining the extent of rights, time period, compensation, ownership and maintenance obligations relating to the property is concluded between the parties concerned and is approved by the City.

103 Informal trading

Informal trading shall only be permitted on sites designated for informal trading in terms of the City's informal trading factor.

Part 1: Utility Zoning (U7)

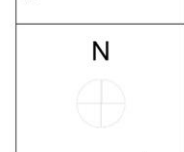
(Items 80 - 81)

The U7 zoning provides for utility services such as electrical substations and water reservoirs, which may be supplied by a municipal government or private agency, and makes provision for government or authority uses, such as prisons and military bases, that are not covered by another use or zoning category.

98 Use of the property

The following use restrictions apply to property in this zoning:
(a) Primary uses are utility service, authority use, rooftop base telecommunication station, freestanding base telecommunication station and minor rooftop base telecommunication station and minor rooftop base telecommunication station.
(b) Consent uses are cemetery, informal trading, formal partner, ceremonies, urban agriculture, airport, wind turbine infrastructure and helicopter landing pad.

ALL RAMPS TO BE CONSTRUCTED TO RATIO 1:12



| DRAWING NAME: | SCALE: |
|-----------------|---------------------|
| A101 SITE PLAN | 1:200 |
| A102 FLOOR PLAN | 1:100 |
| A103 ROOF PLAN | 1:200 |
| A201 ELEVATIONS | 1:100 |
| A402 SECTIONS | 1:50 1:20 1:5 |

Project Site
**Main Road, Kalk Bay Harbour,
Kalk Bay, Cape Town, 7975**

Use
FISH MARKET & COMMUNITY FORUM



Client
agriculture, forestry & fisheries
Department of Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

Drawn by
Estelle Steenberg Date
27 October 2022

Student number
201902414

Drawing Name
SITE PLAN

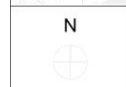
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Layout ID
A101



UPPER FLOOR PLAN
SCALE: 1:500

UPPER FLOOR PLAN
SCALE: 1:100



| DRAWING NAME | SCALE |
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| A102 FLOOR PLAN | 1:100 |
| A103 ROOF PLAN | 1:200 |
| A201 ELEVATIONS | 1:100 |
| A402 SECTIONS | 1:50 1:20 1:5 |

Project title
**Main Road, Kalk Bay Harbour,
Kalk Bay, Cape Town, 7975**

Client
FISH MARKET & COMMUNITY FORUM



Drawn by
Pratik Moolchand

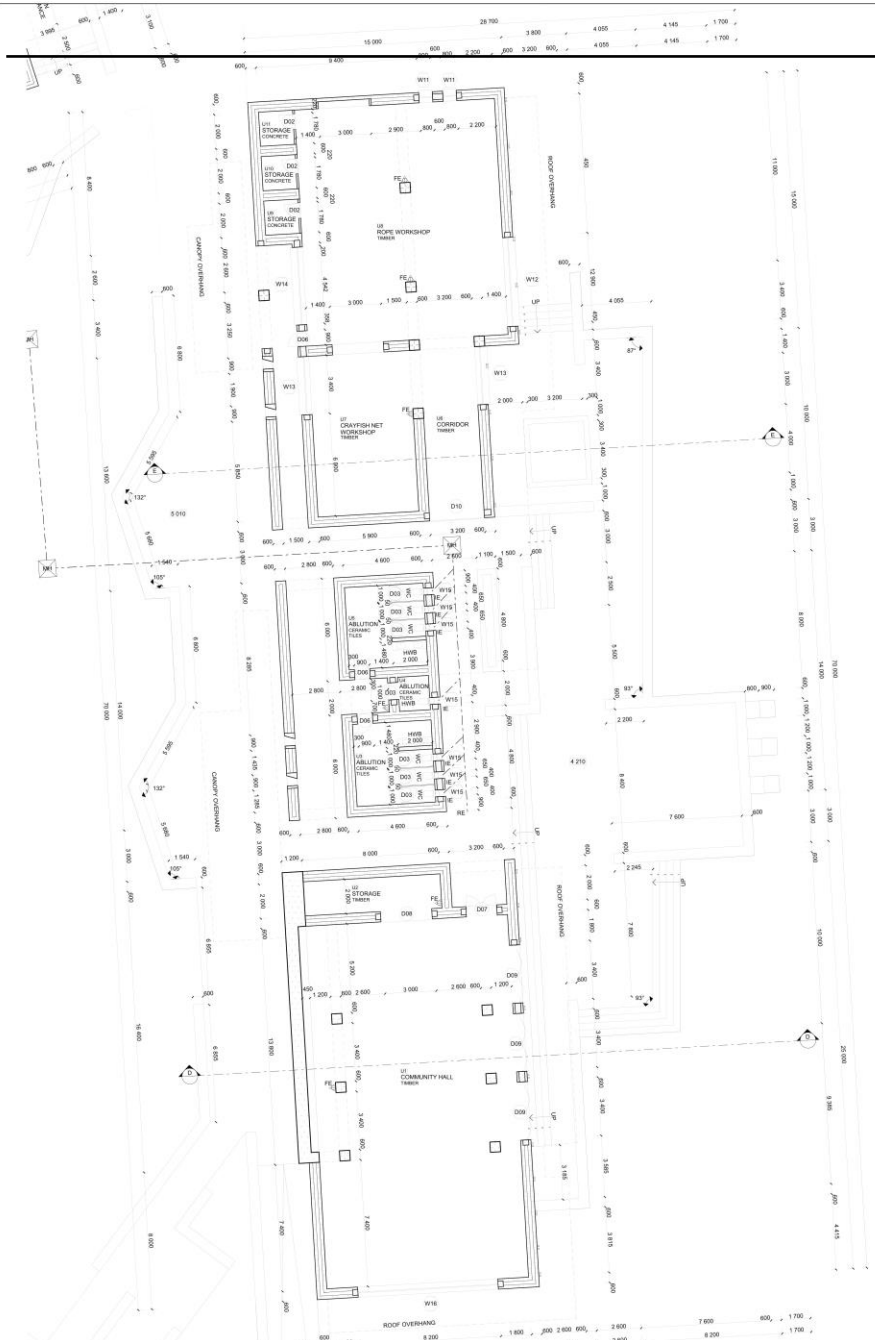
Checked by
Pratik Moolchand

Project number
17-Dickson-002

Drawing name
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Drawing scale
1:100

Layer ID
A102



UPPER FLOOR PLAN
SCALE: 1:100



| DRAWING NAME: | SCALE: |
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| A102 FLOOR PLAN | 1:100 |
| A103 ROOF PLAN | 1:200 |
| A201 ELEVATIONS | 1:100 |
| A402 SECTIONS | 1:50 1:25 1:5 |

Projectfile
Main Road, Kalk Bay Harbour,
Kalk Bay, Cape Town, 7975

FISH MARKET & COMMUNITY FORUM



| | | | |
|-----------------|-----------------|---------------|-----------------|
| Client No: | 1000 | Sheet | 37 of 38 |
| Project Name: | Market Building | Project No.: | 17-000000-000 |
| Client Name: | Market Building | Project Name: | Market Building |
| Client Address: | 1000 | Project No.: | 17-000000-000 |
| Client ID: | 1000 | Project Name: | Market Building |
| Client Ref: | 1000 | Project No.: | 17-000000-000 |

UPPER FLOOR PLAN
SCALE: 1:100



ROCK OUTCROP

OCEAN

OCEAN



| DRAWING NAME | SCALE |
|-----------------|---------------------|
| A101 SITE PLAN | 1:200 |
| A102 FLOOR PLAN | 1:100 |
| A103 ROOF PLAN | 1:200 |
| A201 ELEVATIONS | 1:100 |
| A402 SECTIONS | 1:50 1:20 1:5 |

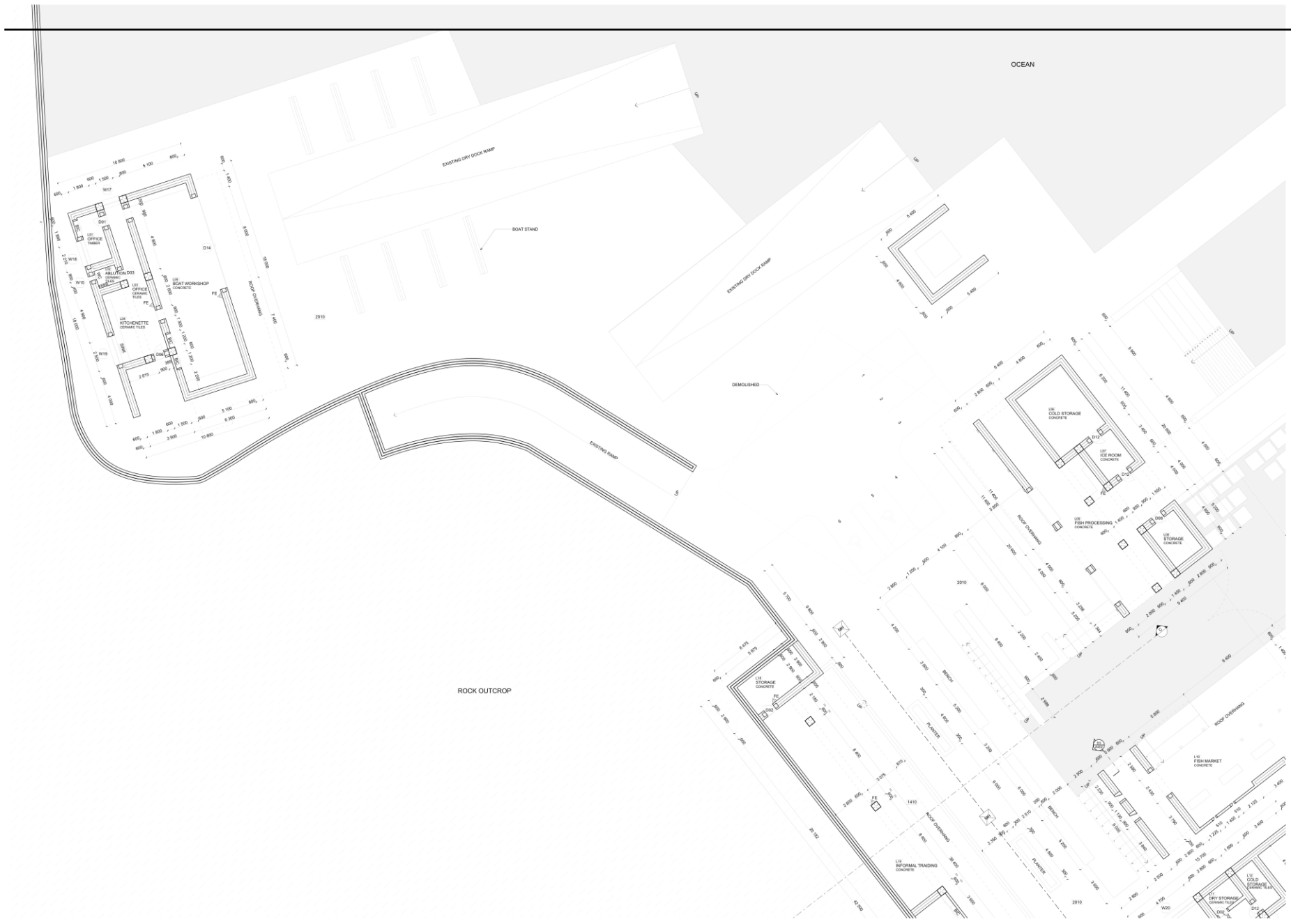
Projectfile
**Main Road, Kalk Bay Harbour,
 Kalk Bay, Cape Town, 7975**

010
**FISH MARKET & COMMUNITY
 FORUM**



Drawn by: **Heidi Moolenaar** Date: **27 October 2022**
 Detail number: **01000001**
 Drawing name: **FLOOR PLAN**

LOWER FLOOR PLAN
 SCALE: 1:100



| DRAWING NAME | SCALE |
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| A402 SECTIONS | 1:50 1:20 1:5 |

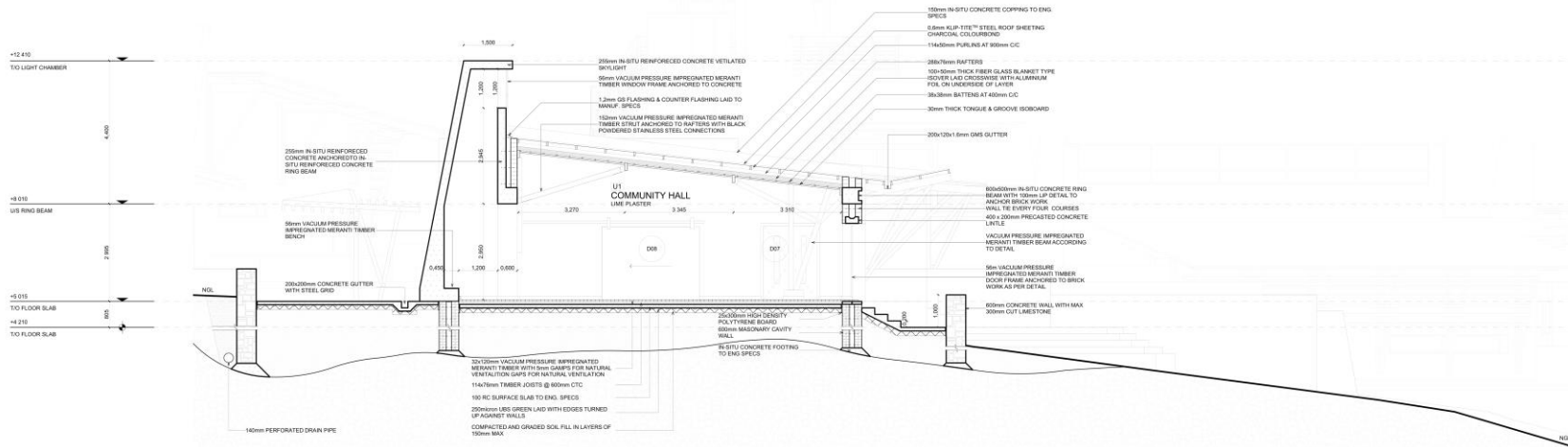
Projectfile:
Main Road, Kalk Bay Harbour,
Kalk Bay, Cape Town, 7975

Project:
FISH MARKET & COMMUNITY FORUM

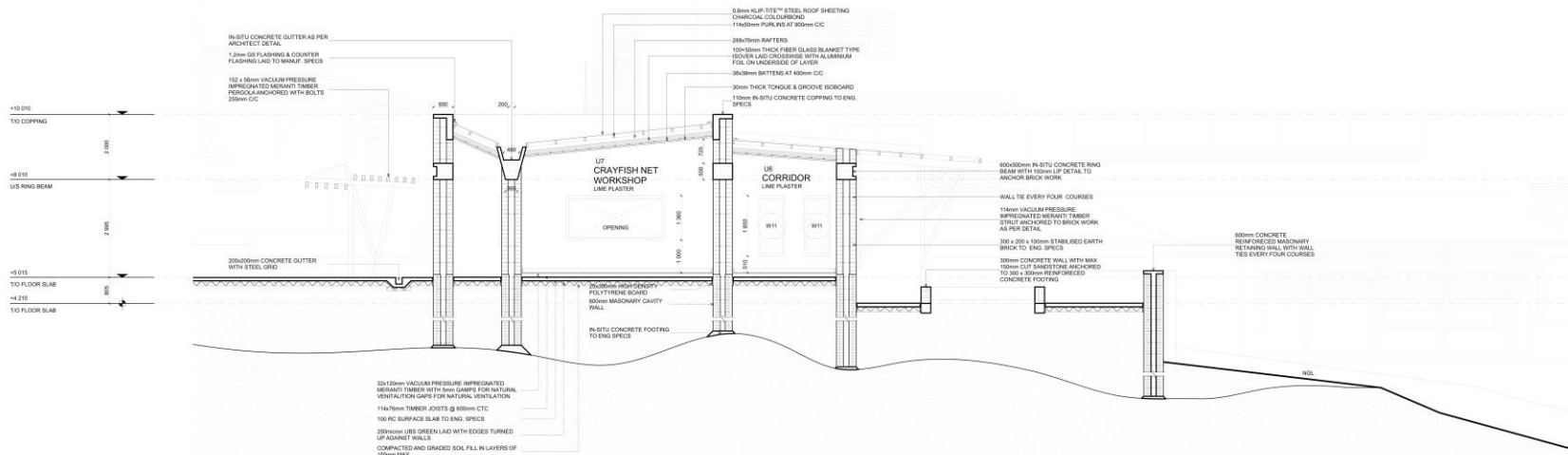


Drawn by: **Patrick Moolenaar** Date: **27 October 2012**
 Detail number: **01000001**
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LOWER FLOOR PLAN
SCALE: 1:100



SECTION D-D
SCALE: 1:50



SECTION E-E
SCALE: 1:50

| DRAWING NAME | SCALE |
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| A101 SITE PLAN | 1:200 |
| A102 FLOOR PLAN | 1:200 |
| A103 ROOF PLAN | 1:200 |
| A201 ELEVATIONS | 1:100 |
| A402 SECTIONS | 1:50 1:20 1:5 |

Project Name
Main Road, Kalk Bay Harbour,
Kalk Bay, Cape Town, 7975

FISH MARKET & COMMUNITY FORUM



Client Name
Project Meeting
31 October 2022

Drawn by
Checked by
1:50

Project ID
A402

CHAPTER 12

FIGURE LIST



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CHAPTER 13

WORKS CITED



Figure 13.1: Photograph of Ivy Doreen (Author, 2022).

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