

# THE REVELATORY LANDSCAPE:

*ARCHIVING MEMORY THROUGH INDIGENOUS NARRATIVE AND COSMOLOGY*

*Mapula Jessica Maponya  
2018*

# THE REVELATORY LANDSCAPE:

*ARCHIVING MEMORY THROUGH INDIGENOUS NARRATIVE AND COSMOLOGY*

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MPNMAP001

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Submitted in partial fulfilment of the Master of Landscape  
Architecture Degree

120 Credits

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Cape Town, South Africa  
November 2018

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Koko Mologadi - My Namesake.  
Robala ka Khutšo.



Thesis Abstract

## Abstract

The Khoi-Khoi's indigenous astronomical beliefs are associated with themes of time, religion and belonging. These values were manifested structurally and spiritually on the topographic landscape of Cape Town nearly 1000 years ago. Today - this landscape is merely longed for as it exclusively celebrates Colonial historical accounts. Through societal perception, nomenclature and function – this one-sided narrative is repeatedly retold while the indigenous narrative is buried and unfamiliar to many. To reveal this neglected story - this dissertation studies the physiological and historical landscape where these two societies and their varying methods of interacting with landscape through astronomy, and ideals as societies collided and subsequently birthed divide and conquer in South Africa. By unearthing and possibly memorialising overlooked indigenous heritage through excavation and archaeological design intervention – this project studies the role of Cape Town's topographic landscape in defining cultural identity. It juxtaposes these two cultures' relationships with this landscape and highlights the value and necessity of reclaiming cultural landscapes in urban contexts where indigenous narratives have been completely ignored/eradicated and reduced to myth. The site used as the tool to exhume and eventually archive this indigenous history is located on a golf course south-west of the confluence of the Black and Liesbeek river in Observatory, Cape Town. This confluence was a significant route used by the Khoi-Khoi tribe pre-colonization as a migratory route and periodic settlement zone. Both the dissertation subject and site selection were heavily informed by navigational routes used by the Dutch, British and Indigenous Societies to interact with land and additionally the vulnerability of the site in question. It is currently under development threat which one could deem as unsuitable considering that the site is an ecologically sensitive piece of land that is home to unique fauna and flora – including an endangered bird community. Of equal importance is the sites divisive political history which has permanently impacted economic and social equality post the Khoi and Dutch War(s) as well as the segregational systems that followed that moment. Could addressing the same site that established socio-political divide in South Africa be utilized to negotiate identity, memory and cultural productivity?



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# 1

The Design Study

## *Background*

Because the research findings were mostly oral based narratives and tales – the design study to follow takes the format of a storyboard to explain and illustrate historical information. The readings on the historic practice of Astronomy in the Cape Town region led me to the South African Astronomical Observatory: the oldest of its kind in Southern Africa – which is loaded with history that exclusively elaborates on colonial interactions and studies of the sky.

This exclusivity of cultural recognition seemed to remain constant the more I investigated theme in the city. Proceeding with the colonial narrative led the study to topographic sites including Signal Hill, Table Mountain and Lions Head – all of which have overlapping colonial history (namely that of the Dutch, British and Portuguese) between periods 1500 - 1820.

I further investigated Indigenous Astronomy and found that those same sites that were identified by the colonists as sites for controlling ships and negotiating time were used by the Khoi and San for similar and additional reasons namely: to gaze and engage in astronomical phenomena, to feed cattle and as a beacon or indicator of relativity. However – this information and data would be classified as speculative research as it has not been confirmed yet and is based on findings of Independent Archaeologists and Historians.

Through the Western Cape Legislative Khoisan Council – I found a community-based group that is currently under the process of Land Reform and Reclaiming Indigenous artefacts that have either been shipped to colonial lands or are inappropriately stored by the South African Government. The hope is that this project will catalyse this reclamation process and shed light on the importance of recording indigenous oral histories.

**SIGNAL HILL**  
REPURPOSING HERITAGE

SITE 2



**TRANSUMANCE**  
STRONG RELATIONSHIP WITH CATTLE. USED IT FOR TRANSPORT, MILK AND SOCIAL STATUS - WOULD MIGRATE WEST WITH TO FIND GREEN PASTURES FOR FEEDING DURING DRY SUMMER MONTHS.

**THE STRADDLER**  
USING SIGNAL HILL AS A WATCHTOWER FOR THREAT AND OCCASIONALLY COLLECTING FOOD FROM ABOVE THE COAST IN THE FORM OF MUSCLES AND BULBS

KHOI/SAN  
FEEDING CATTLE

DUTCH/BRITISH  
REFRESHMENT STATION



A COMPARATIVE STUDY

**SPACE WITHIN PLACE**

ASTRONOMY & INDIGENOUS HERITAGE IN POST COLONIAL ENVIRONMENTS

**TABLE BAY**  
REPURPOSING HERITAGE

SITE 3



**ARRIVING SHIPS**  
TABLE BAY WAS USED AS THE MAIN POINT OF ENTRY TO THE CITY OF CAPE TOWN, THE NATIVES OBSERVED THIS FROM SIGNAL HILL



**KAROO**  
INDICATORS OF RITUAL PRACTICE IN THE KAROO.

**SITE OF POSSIBLE INTERVENTION**  
WETLAND REGION ABOVE SAAO - THE RIVER CONFLUENCE

**SETTLEMENT PATTERNS**  
SETTLEMENTS HAD CIRCULAR CONFIGURATIONS WITH HIERARCHICAL SIGNIFICANCE. THE LEADER OF THE TRIBE WOULD FACE THE RISING SUN IN THE EAST AND THE CATTLE WOULD BE PLACED IN THE CENTER



**SAAO**  
CONSTRUCTED BY BRITISH IN 1829



**STRUCTURE AS ASTRONOMY**  
THE SAAO AS A STRUCTURE IN THE LANDSCAPE OF THE SAAO



**LANDSCAPE AS ASTRONOMY**  
CHALLENGING LAND AS A STRUCTURE FOR ARIEL, DEPENDING ON SEASON, CONCEPT OF THE RIVER GIVES THE SITE A SENSE OF PLACE



**SOUTH AFRICAN ASTRONOMICAL OBSERVATORY**

REPURPOSING HERITAGE

SITE 4

**DIRECTIONALITY AND SITE CHOICE**  
ORIENTATION PLAYED A KEY ROLE



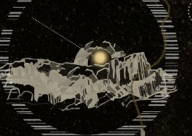
**WINTER SOLSTICE**  
JUNE 21ST



**SPRING/AUTUMN EQUINOX**  
20 MARCH + 22/23 SEPTEMBER



**WINTER SOLSTICE**  
BRITISH TRAVELER WITH MAPPOUS SOUTHEN HEMISPHERE STARS - THEY CONSTRUCTED THE FIRST OBSERVATORY



**SPRING/AUTUMN EQUINOX**  
BRITISH TRAVELER WITH MAPPOUS SOUTHEN HEMISPHERE STARS - THEY CONSTRUCTED THE FIRST OBSERVATORY

**LIONS HEAD**  
PRIMITIVE ASTRONOMY AS LANDSCAPE

SITE 1

**MACLEARS BEACON**  
HIGHEST PEAK ON TABLE MOUNTAIN

**"TEMPLE SITES"**  
REMARKS OF TEMPLE SITES ALONG MOUNTAIN TOP

**BACKGROUND**  
The early stories of the Khoi (Khoena) people are not recorded in writing, instead, they are oral narratives that have been passed down over the years through storytelling. When colonial settlement began in Southern Africa, there was a geographic dispersion in the Khoikhoi groups. The Namaqua group moved towards the Namibia region, the Korana towards North Eastern South Africa along the Orange River, while the Gonaqua group spread towards the Eastern Cape - intermingling with the Xhosa. However, the largest concentration of this group remained in the Table Mountain area and are referred to as the Cape Khoikhoi or Cape Peninsula Khoikhoi. This is the main group that the study focuses on as they were the first indigenous group to interact with Dutch settlers whose occupation altered the native, authentic, rituals and practices of indigenous people in South Africa - probably forever. (Smith, 1984)

The Khoikhoi group have occupied South Western Africa for centuries and were the first pastoralists of Southern Africa. During their time there, they encountered a number of European sailors including the earliest recorded interaction with the Portuguese who sailed the Cape Coast in the early 1480's.

**INTERACTIONS WITH LANDSCAPE**  
The Khoikhoi encourage independent wayfinding from a very young age. This involved navigating through space using clumps of bushes, rocks and trees to orientate oneself. They were transhumant pastoralists, thus they had an intrinsic relationship and understanding of the landscape and depended on it. Movement path of the sun to progress across the land. They migrated regularly according to season change as it affected crop and water access for their cattle. To accommodate the hassle of frequent relocation, they had portable housing, which was light and easy to carry and mount onto cattle for transportation. They used rock marks to construct their huts and there neighbours as facing to protect themselves and cattle from nearby threats. The number of healthy cattle was their main source of pride and an indicator of economic and social status. The lifespan of the cattle was also used to measure time, as their cattle was very dear to them. A respectful relationship was maintained. (Phyllis, 2009)

**EARLY INTERACTIONS WITH ASTRONOMY**  
According to Magnus 1980, Remnants of indigenous observations exist today in parts of the Western Cape which are mostly carved out of rock or arranged and piled to specific orientations and directions that indicate an understanding of cosmology. Most notably in the Karoo and on Lions Head. These sites are described by Brommink as temples or observatories where indigenous groups (if not specified which tribe(s) observe the change in seasons or astronomical phenomena. This was considered ritualistic and celebratory. Their connection with the landscape is further strengthened by this. The sites on Lions head are used to observe the winter and equinox solstices both facing SW and NW respectively. There are also narratives that exist that aren't site specific in Khoi/San history. According to Alcock 2013 - the Moon was used as a calendrical device. When women were pregnant, the appearance of the new moon was used as a method to mark the gestational period. When the full moon appeared, it was considered significant - tribes would gather around circles and dance and sing in celebration of the light.

**INDIGENOUS HISTORY**  
ASTRONOMY IN CAPE TOWN

**THE DESIGN STUDY**

**BACKGROUND**  
The Dutch East India Company led by Jan van Riebeeck arrived in the Cape of Table Bay in 1652. The intention of their arrival was to establish a refreshment station - consisting of fresh foods for sailors travelling seas for trade. This did not go as expected as they encountered the indigenous Khoikhoi who had different intentions with their cattle. Although there was some grazing land in the Cape Peninsula region near Table Bay, this land was quite sterile because of the geology. In the upper regions - where the Liesbeek and Black River are located today - there was pretty grazing land and fresh water. This land was directly heavily used by the Khoi and this is where tensions arose. Watchtowers and defence lines were constructed by the Dutch to demarcate their self-proclaimed portions of the land. To some extent, the Dutch would need to have a comprehensive understanding of the moon and tides to successfully sail the Cape coast. Although astronomy by the Dutch in the Cape is not well recorded, it can be assumed that some basic knowledge of the phenomenon, and how it affected navigation existed.

**SITES IN QUESTION**  
Having conducted a parallel research of both the Dutch and Khoi - these sites linking both in terms of practising astronomy and landscape ritual use - each for different reasons.

- 1. **The Table Bay Harbour**  
Khoi/San - Used as a place to collect food in the form of muscles and bulbs  
Dutch/British - Used as a harbour and mark the first landing point of both the Dutch and British.
- 2. **Lions Head/Signal Hill**  
Khoi/San - Signal hill was used for its high topography to view incoming European threat in the ocean  
Dutch/British - Used as a beacon to view astronomical phenomena. They associated high topography with power and sacred activity.  
Dutch/British - In 1836, a time ball was set up at the Cape Town observatory to keep track of time for ships arriving at Table Bay harbour. It was not visible to ships in the harbour, so a second time ball was erected on Signal Hill to relay the precise moment of 1pm Cape Mean Time. (Warner, 1993)
- 3. **South African Astronomical Observatory and Surrounding Wetland Landscape**  
Khoi/San - this site was used as grazing land for cattle and a camping ground. There was an established relationship between people and the river.  
Dutch/British - the Dutch used this land for agricultural farming and eventually developed in the estuary area draining from this site. The British erected an observatory on this site as a monitoring system for ships that were coming inland out of Table Bay during trade. Including the slave trade.

**THE POETRY IN RIVER CONFLUENCES**  
The Khoi used the fertile valley between the Liesbeek and Black river confluences as camping ground and grassy fields for crops. The Dutch used it for agricultural land to feed sailors and enhance the refreshment station they intended in the Cape. Archaeologists argue that this river confluence is a likely point of contact between the Dutch and Khoi as it was highly contested land for both. Today it remains the only site of direct Khoikhoi history that hasn't been developed on or altered. (Smith 1984).

**SIGNIFICANCE TO LANDSCAPE ARCHITECTURE**  
North of the SAAO lies an important region which is mostly wetland. It is often documented as the likely place of confrontation between the Dutch and Khoi because of its proximity to the harbour as well as its resource rich characteristics. Today it remains the only unchanged and undeveloped surviving site that marks Khoi heritage and interaction. It is also orientated North East from the highest part of Table Mountain - Makers Beacon - which is considered sacred and a possible Cremation/Burial site since remains of the Khoi are very rare. (Brommink, 1981)

This site is of clear cultural heritage significance in terms of racial and spatial development and has recently been recognized by the IBA National Heritage Resources Act as significant. It is currently under threat because of five reasons - the first being an issue brought about through urban intervention by the Dutch and British which includes the construction of the Liesbeek river and disturbances along the estuary and Salt River - the site is undergoing flooding issues and is under developmental threat as the River Club plans to introduce urban development to the site. It is also the only site where Moraea Aristata, a rare and endangered plant species occurs which should be preserved.

**CONSTRAINTS**  
Because indigenous history is very difficult to gather - most of the work regarding specific site interaction and rituals is speculative information that has not been scientifically validated as yet. Thus this study will tend towards a New Age approach with deductions and projections towards the future rather than a historical focus.

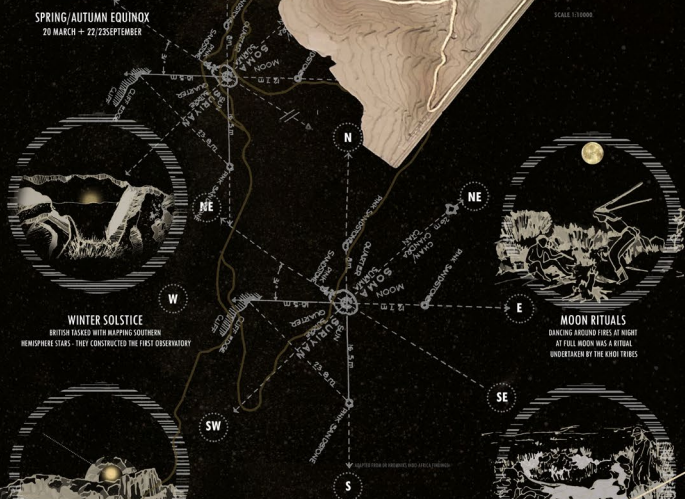
**BACKGROUND**  
The Dutch East India Company led by Jan van Riebeeck arrived in the Cape of Table Bay in 1652. The intention of their arrival was to establish a refreshment station - consisting of fresh foods for sailors travelling seas for trade. This did not go as expected as they encountered the indigenous Khoikhoi who had different intentions with their cattle. Although there was some grazing land in the Cape Peninsula region near Table Bay, this land was quite sterile because of the geology. In the upper regions - where the Liesbeek and Black River are located today - there was pretty grazing land and fresh water. This land was directly heavily used by the Khoi and this is where tensions arose. Watchtowers and defence lines were constructed by the Dutch to demarcate their self-proclaimed portions of the land. To some extent, the Dutch would need to have a comprehensive understanding of the moon and tides to successfully sail the Cape coast. Although astronomy by the Dutch in the Cape is not well recorded, it can be assumed that some basic knowledge of the phenomenon, and how it affected navigation existed.

The British changed this in the 1700s with the Ball, de la Collie being the first astronomer in Cape Town, tasked by the British government to measure stars of the southern hemisphere, something that hadn't been done before. This is also a time when photography pioneered studies of Astronomy.

**EARLY INTERACTIONS WITH ASTRONOMY**  
Modern astronomy in South Africa begins with ships - and their habit of colliding with the South African coastline. To counteract this issue, the British erected the first major astronomical observatory in the Southern Hemisphere.

**THE STUDY GOING FORWARD**  
My design intention is therefore to use this indigenous perspective of landscape as a new lens to design for marginalized communities who have different perceptions and expectations of beauty in landscape than their western counterparts. It will almost consist of studying how people used the landscape back then - how they use the landscape today and as a result designing a space that recognizes indigenous history - but is optimistic about an indigenous future landscape. There are also scientific and practical ways that astronomy can be used to understand and structure a landscape. This is through the tidal relationship that sites have with the moon and gravity as well as geometrical principles associated with orientation and spatial hierarchy.

**AREA SUSCEPTIBLE TO FLOODING**



# 2

The Dissertation :  
Context and Research

“Humans became *really* human only when they started counting the stars in the sky” - **Publius Vergilius Maro**

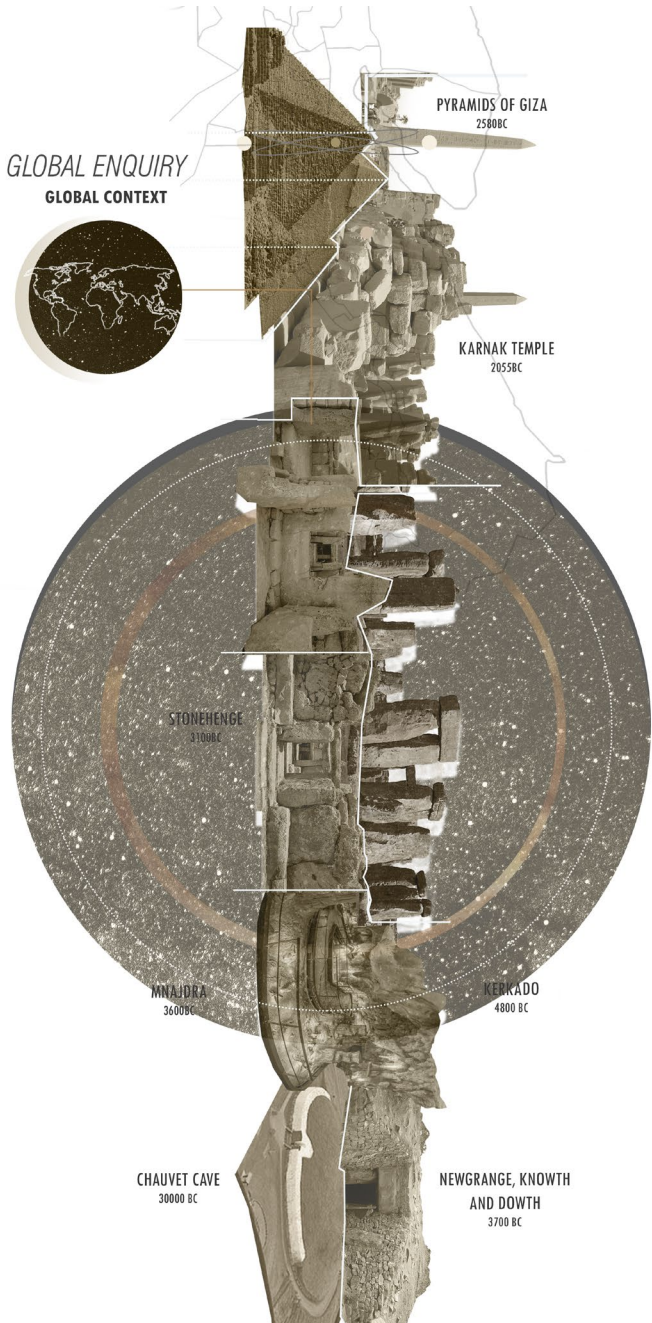
## *Introduction*

“Today, most of us go about our lives without looking at the sky. In ancient times – this was not the case. People looked towards the sky for cues about their existence, position and role within the larger cosmos and daily life. One thing that’s true is – the sky that we see today and the sky that existed millions of years ago are not the same. Pollution in the form of light, dust and air has reduced our perception of what was once a densely populated sky with the brightest stars.” (Magli, 2015)

With the dawn of Colonization in South Africa in the last 600 years, there has been immense loss to indigenous knowledge and intuitive relationships with land which detail spiritual and tangible interactions with the landscape. The understanding and application of lessons from these relationships lack in the contemporary practice of landscape architecture and has somewhat affected the understanding of sense of self and place. To further this argument - this section studies various ancient methods of understanding/querying one’s position in the landscape or on earth with a focus on Ethnoastronomy.

Astronomy is a powerful branch of study that has the potential to open our eyes to infinite possibility. Further – it could inform the perception of scale and can re-establish our place and role in the larger cosmos. At a time like this – where society relies on land and nature and the resources they provide, understanding the sky, stars and the bigger cosmos could better equip us for ongoing issues such as climate change and resource dependency. Early cultures such as the local Khoi-Khoi identified celestial objects with the gods and took their motions over the sky as predictions of what was to come. A sense of humility and belonging between man and nature culminated from this relationship which this project seeks to reclaim.

**GLOBAL ENQUIRY**  
**GLOBAL CONTEXT**



**DUTCH/BRITISH COLONIAL ENQUIRY**  
**AFRICAN CONTEXT**



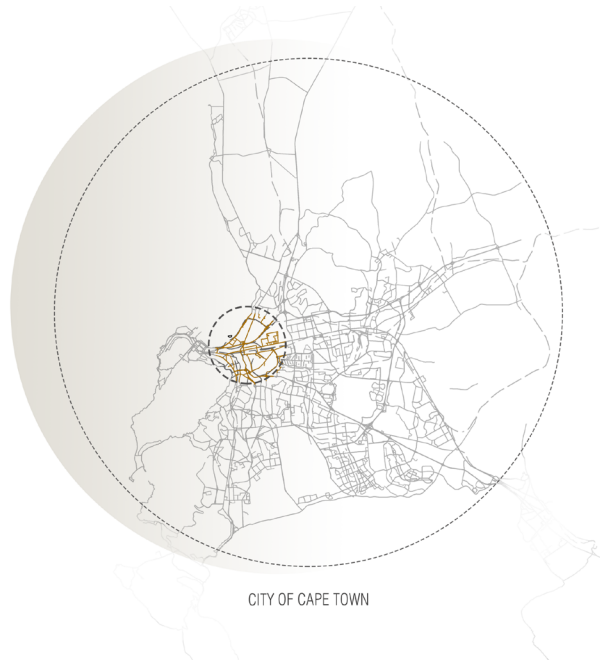
**KHOISAN ENQUIRY**  
**SOUTHERN AFRICAN COSMOLOGY**



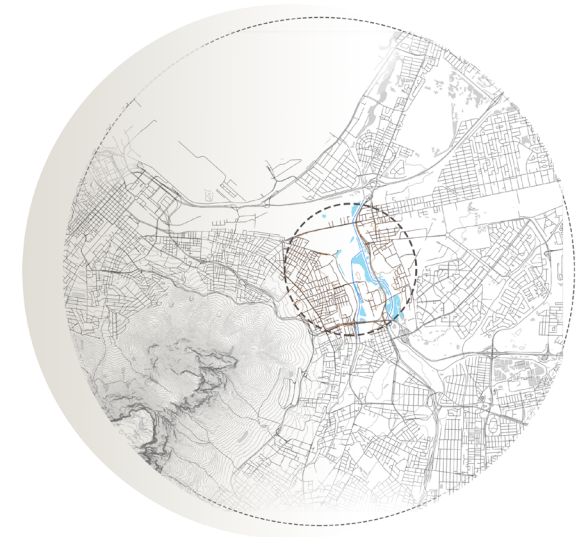
*(Authors own 2018)*



WESTERN CAPE



CITY OF CAPE TOWN



LIESBEEK CORRIDOR

## *Background*

The Dutch East India Company led by Jan van Riebeeck arrived in Cape at Table Bay in 1652. The intention of their arrival was establishing a refreshment station — consisting of fresh foods for sailors travelling seas for trade. This did not go as expected as they encountered the indigenous Khoi-Khoi who had different intentions with their cattle and resources. Although there was some grazing land in the Cape Peninsula region near table bay, this land was quite sterile because of the geology. In the upper regions —where the Liesbeek and Black river are located today — there was plenty grazing land and fresh water. This land was already heavily used by the Khoi and this is where tensions arose.

Watchtowers and defence lines were constructed by the Dutch to demarcate their self-proclaimed portions of the land. To an extent, the Dutch would need to have a comprehensive understanding of the moon and tides to successfully sail the cape coast. Although astronomy by the Dutch in the Cape is not well recorded, it can be assumed that some basic knowledge of the phenomena and how it affected navigation existed.

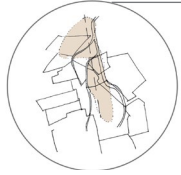
The British changed this in the 1700's with Nicholas de la Caille being the first astronomer in Cape Town, tasked by the British government to measure stars of the southern hemisphere. Something that had never been done before. This is also a time when photography pioneered studies of Astronomy.

## *Interactions with landscapes*

North of the SAAO lies an important region which is mostly wetland. It is often documented as the likely place of confrontation between the Dutch and Khoi because of its proximity to the harbour as well as its resource rich characteristics. Today it remains the only unchanged and undeveloped surviving site that marks Khoi heritage and livelihood. It is also orientated North East from the highest peak of Table Mountain — Maclears Beacon — which is considered sacred and a possible Cremation/Burial site since remains of the Khoi are very rare. (Hromnik, 1981)

The Dutch used this site for agricultural land to feed sailors and enhance the refreshment station they intended in the Cape.





# comparative study : understanding the **colonial** and pre-colonial landscape

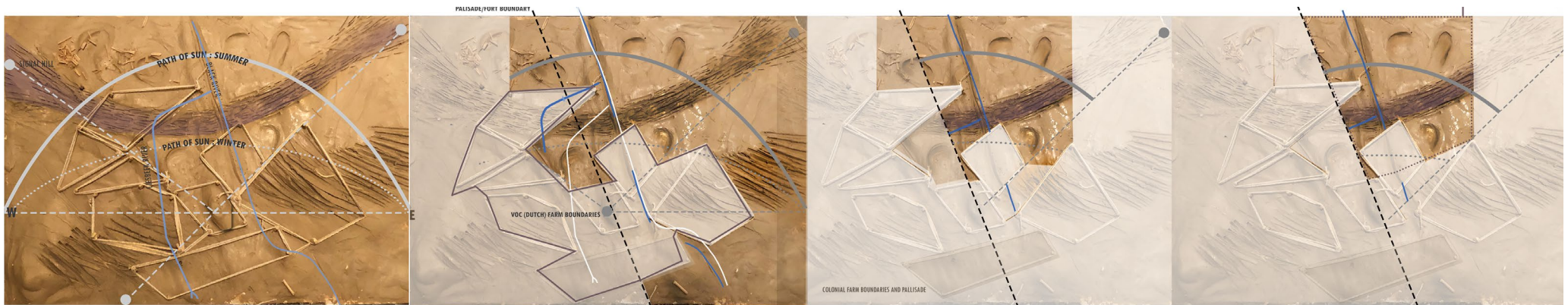
*the physiological imprint of the colonial occupation highlighting zones of importance on the site.*

section through the site



*(Adapted from Warner, 1997)*

using clay to understand the retraction of land



## *Background*

The Khoikhoi group have occupied South Western Africa for centuries and were the first pastoralists of Southern Africa. During their time there, they encountered a number of European sailors including the earliest recorded interaction with the Portuguese who sailed the Cape Coast in the early 1400's.

The early stories of the Khoi (Quena) people are not recorded in writing. Instead, they are oral narratives that have been passed down over the years through storytelling. When colonial settlement began in Southern Africa, there was a geographic dispersion within the Khoikhoi groups. The Namaqua group moved towards the Namibia region, the Korana towards North Eastern South Africa along the Orange River, while the Gonaqua group spread towards the Eastern Cape - intermingling with the Xhosa Tribe. However, the largest concentration of this group remained in the Cape and are referred to as the Cape Khoikhoi or Cape Peninsula Khoikhoi. This is the main group that the study focuses on as they were the first indigenous group to interact with Dutch settlers.

## *Interactions with landscapes*

The Khoikhoi encourage independent wayfinding from a very young age. This involved navigating through space using clumps of bushes, rocks and trees to orientate oneself. They were transhumant pastoralists, thus they had an intrinsic relationship and understanding of the landscape and depended on the movement path of the sun to progress across the land. They migrated regularly according to season change as it affected crop and water access for their cattle.

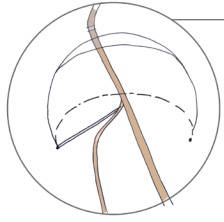
To accommodate the hassle of frequent relocation, they had portable housing, which was light and easy to carry and mount onto cattle for transportation. They used reed mats to construct their huts and thorn branches as fencing to protect themselves and cattle from nearby threats. The number of healthy cattle was their main source of pride and an indicator of economic and social status. The lifespan of the cattle was also used to measure time, as their cattle was very dear to them. A respectful relationship was maintained with the land and cattle (Parton, 2003)

## **the khoi-khoi story** *founding the narratives*

### *Temple Sites on topographic landscape*

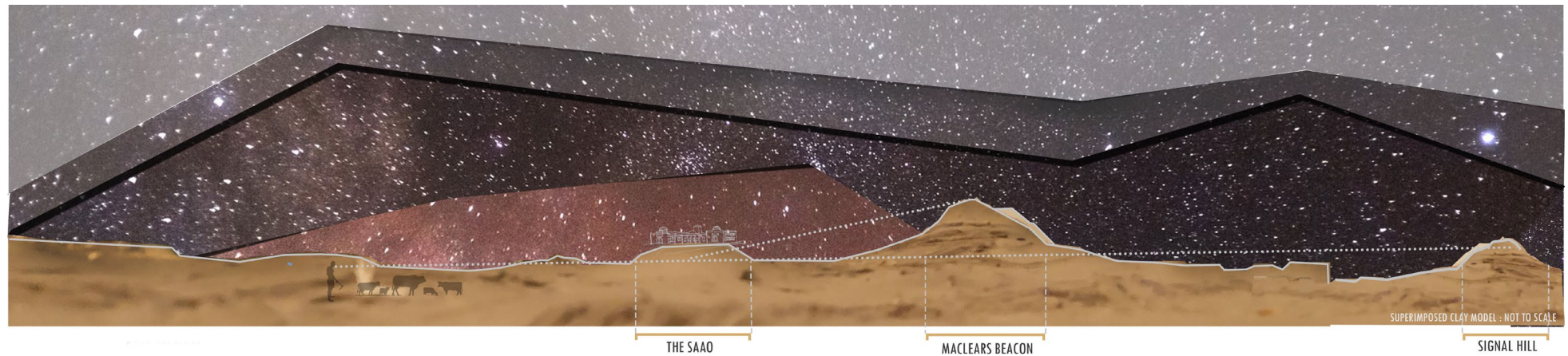
According to Hromnik, 1990: Remnants of Indigenous observatories exist today in parts of the Western Cape which are mostly carved out of rock or arranged and piled to specific orientations and directions that indicate an understanding of cosmology by societies of the past. Most notably in the Karoo and on Lions Head. These sites are described by Hromnik as temples or observatories where Indigenous groups (it isn't specified which tribe/s) observe the change in seasons or astronomical phenomena. This was considered ritualistic and celebratory.

Their connection with the landscape is further strengthened by this. The sites on Lion's Head are used to observe the winter and equinox solstices both facing SW and NW respectively. There are also narratives that exist that aren't site specific in Khoi/San history. According to Alcock, 2013 — the Moon was used as a calendrical device. When women were pregnant, the appearance of the new moon was used as a method to mark the gestational period. When the full moon appeared, it was considered significant — tribes would gather around circles and dance and sing in celebration of the light.



# comparative study : understanding the colonial and **pre-colonial** landscape

*the physiological imprint of the khoi-khoi occupation and highlighting zones of importance on the site.*



Having conducted a parallel research of both the Dutch + British and Khoi - three sites linking these civilizations in terms of practicing astronomy and landscape ritual arise - each for different reasons.

## 1. The Table Bay Harbour

1.1) Khoi/San — Used as a place to collect food in the form of muscles and plant bulbs

1.2) Dutch/British — Used as a harbour and marks the first landing point of both the Dutch and British.

## 2. Lions Head/Signal Hill

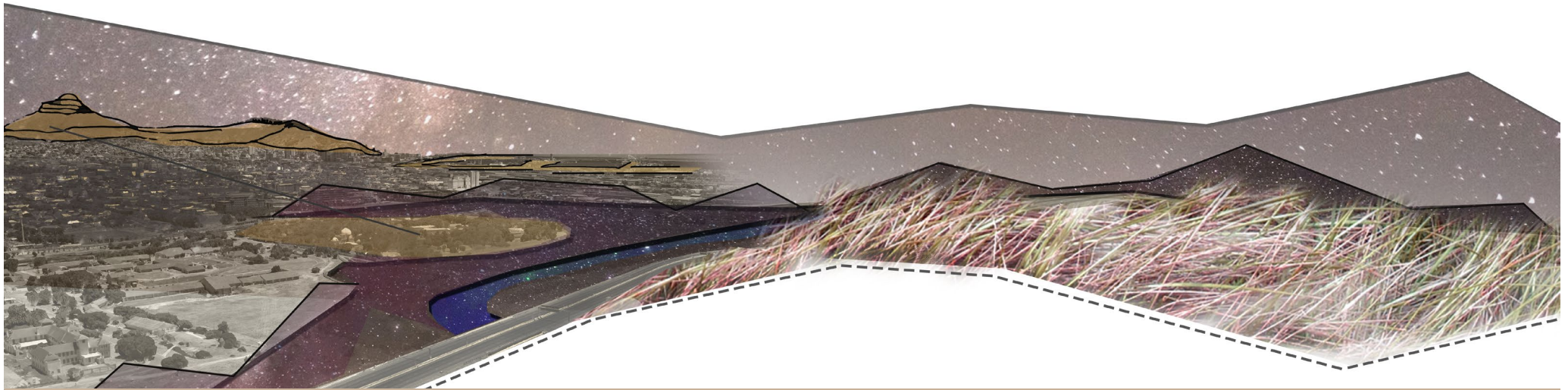
2.1) Khoi/San — Signal hill was used for its high altitude to view oncoming European threat in the ocean while Lions head was used as a beacon to view astronomical phenomena. They associated high topography with Gods and sacred activity.

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## 3. South African Astronomical Observatory and Surrounding Wet Landscape

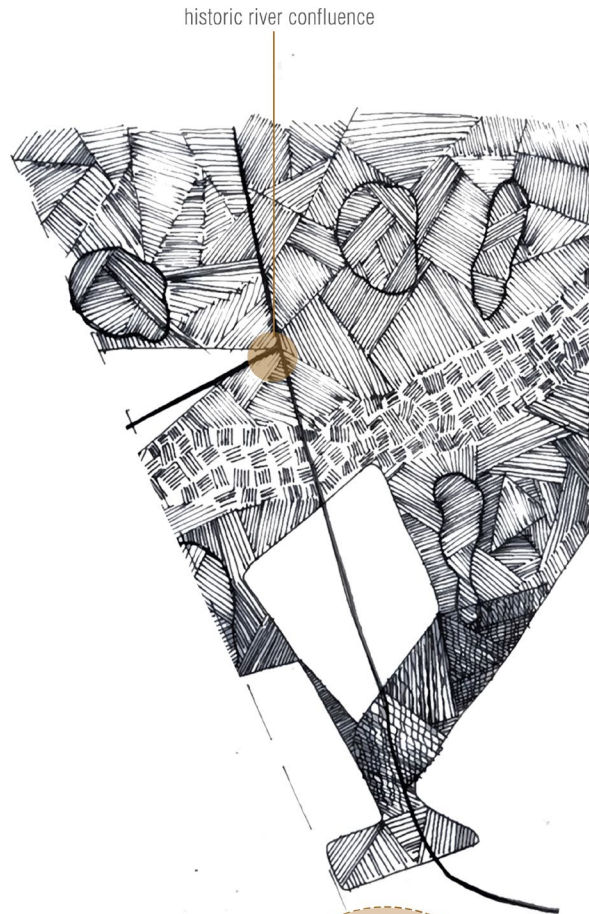
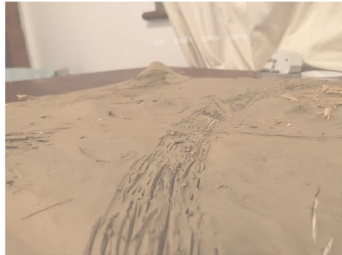
3.1) Khoi/San — This site was used as grazing land for cattle and a camping site which strengthened the relationship between people and the river.

3.2) Dutch/British — the Dutch used this land for agriculture. The British used it as a way to visually connect with the harbour and further astronomical studies in the southern hemisphere given the sites elevation, low cloud cover and central positioning.



# moulding and capturing 'the crossing'

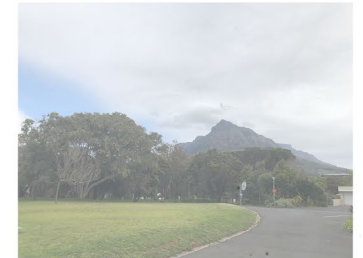
*using clay and photography to reimagine intangible qualities of landscape*



the historic terrain



the contemporary terrain

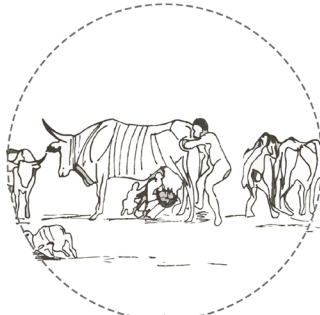




**MOON RITUALS**  
DANCING AROUND FIRES AT NIGHT AT FULL MOON WAS A RITUAL



**STRANDLOPPER**  
LOOKING OUT TOWARDS COASTLINE TO DETECT THREAT



**MIGRATION OF KHOI**  
IN SEARCH OF FRESH



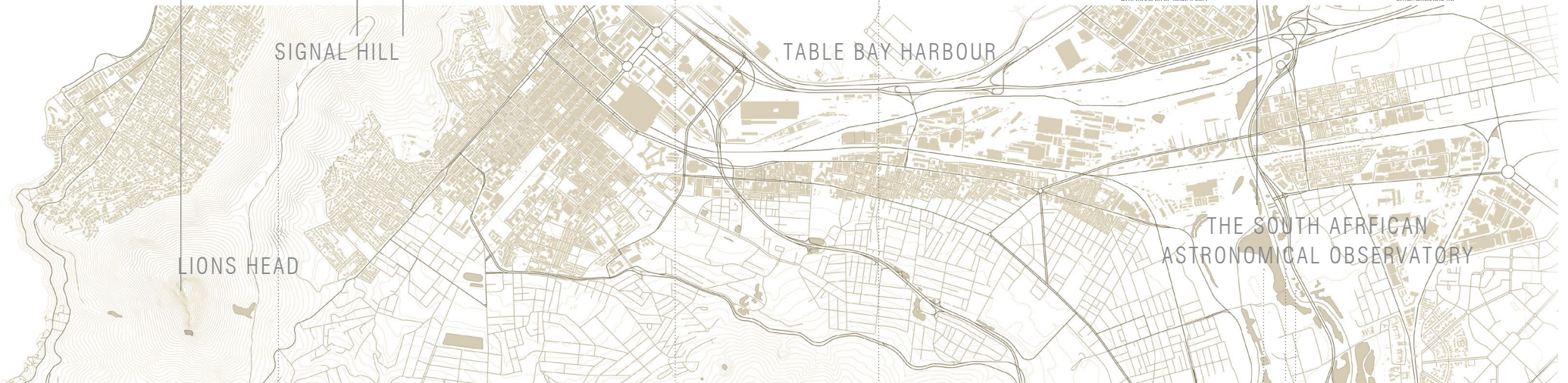
**LANDSCAPE AS ASTRONOMY**  
GRAZING LAND AND CAMPING GROUND FOR KHOI,



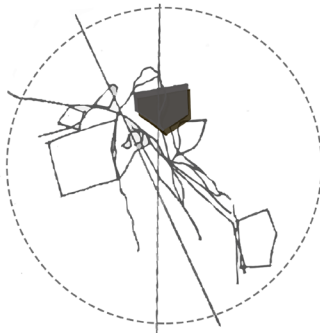
**SETTLEMENTS**  
HAD CIRCULAR CONFIGURATIONS WITH HUBS AND RAYS AT CROSSROADS



**"TEMPLE SITES"**  
REMNANTS OF TEMPLE SITES AROUND MOUNTAIN TOP



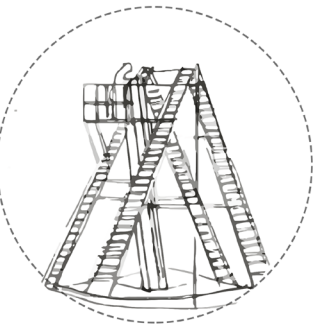
**DIRECTIONALITY AND SITE CHOICE**  
ORIENTATION PLAYED A KEY ROLE



**ARRIVING SHIPS**  
TABLE BAY WAS USED AS THE MAIN POINT OF ENTRY TO THE CITY OF CAPE TOWN.



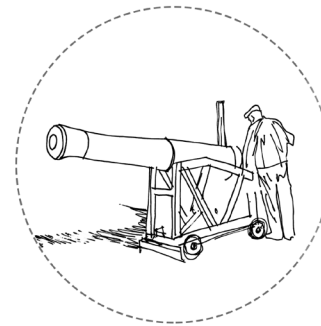
**STRUCTURE AS ASTRONOMY**  
FIRST CONSTRUCTED TELESCOPE AT THE SAAO



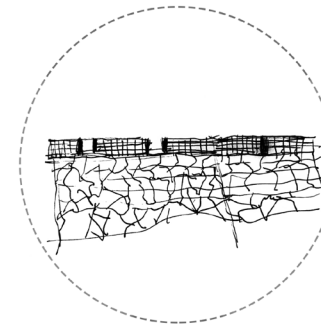
**SAAO**  
CONSTRUCTED BY BRITISH IN 1820.



**TIME INDICATION**  
BY WAY OF A NOON GUN AND TIMEBALL - THE BRITISH WERE ABLE TO KEEP TRACK OF SHIP ACTIVITY.

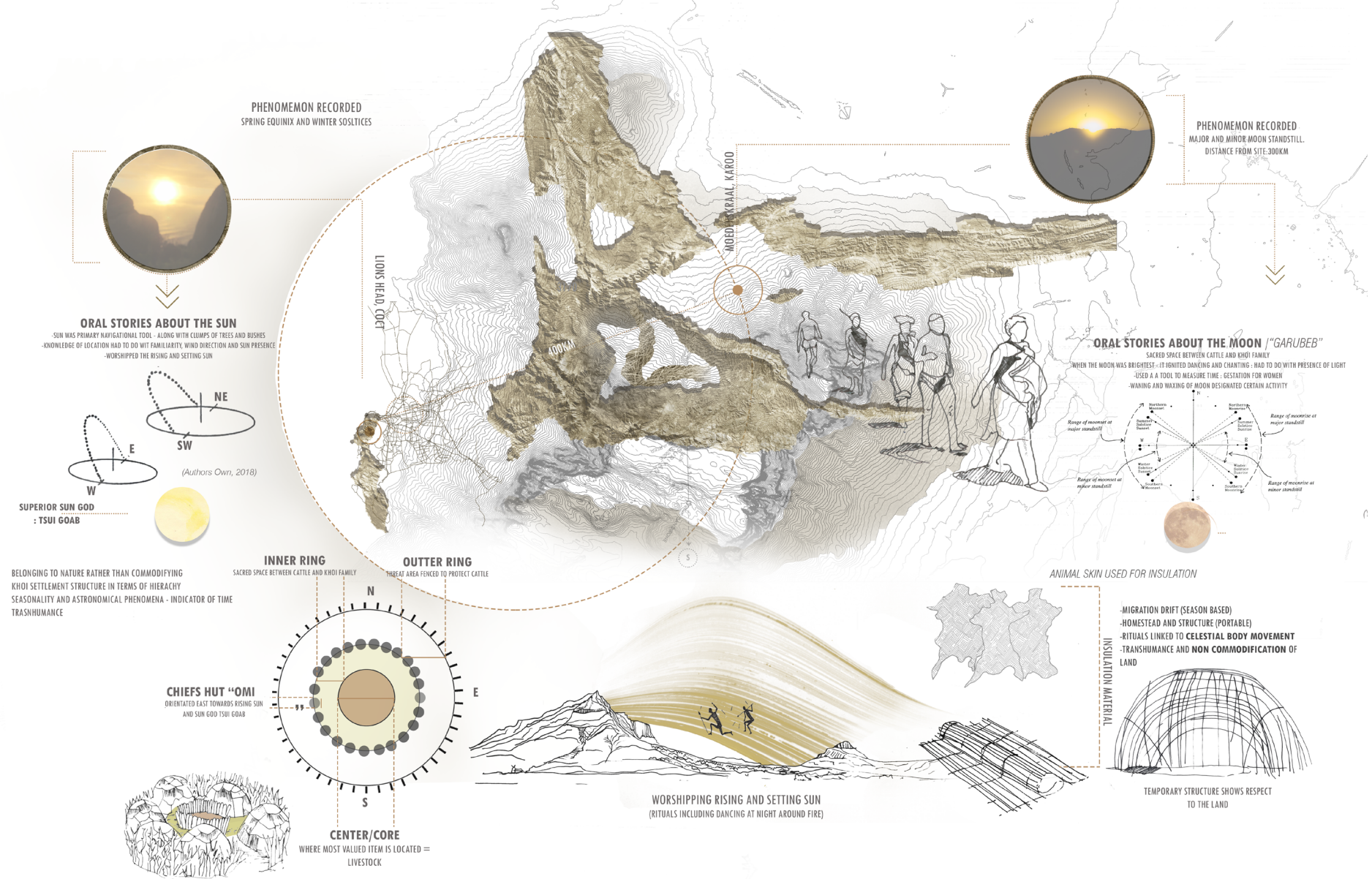


**FORT WALL**  
SEPERATION DEVICE



# khoisan cosmology and ideas of land and landscape

navigating the landscape using topography and celestial bodies

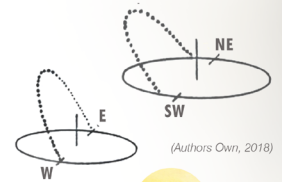


PHENOMENON RECORDED  
SPRING EQUINIX AND WINTER SOLSTICES



**ORAL STORIES ABOUT THE SUN**

-SUN WAS PRIMARY NAVIGATIONAL TOOL - ALONG WITH CLUMPS OF TREES AND BUSHES  
-KNOWLEDGE OF LOCATION HAD TO DO WITH FAMILIARITY, WIND DIRECTION AND SUN PRESENCE  
-WORSHIPPED THE RISING AND SETTING SUN



**SUPERIOR SUN GOD : TSUI GOAB**

BELONGING TO NATURE RATHER THAN COMMODIFYING  
KHOI SETTLEMENT STRUCTURE IN TERMS OF HIERARCHY  
SEASONALITY AND ASTRONOMICAL PHENOMENA - INDICATOR OF TIME  
TRANSUMANCE

**INNER RING**

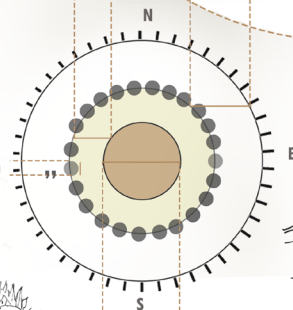
SACRED SPACE BETWEEN CATTLE AND KHOI FAMILY

**OUTTER RING**

THREAT AREA FENCED TO PROTECT CATTLE

**CHIEFS HUT "OMI"**

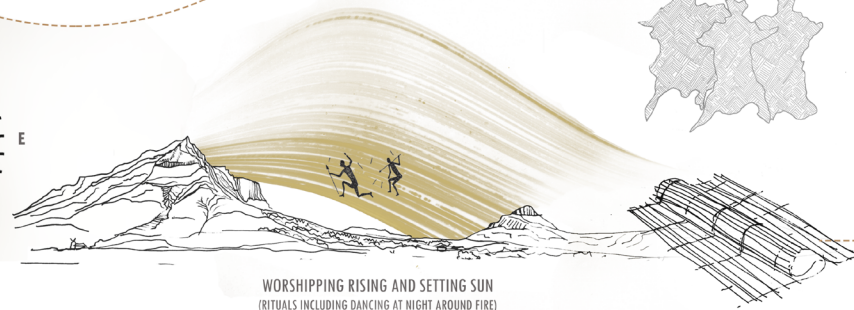
ORIENTATED EAST TOWARDS RISING SUN AND SUN GOD TSUI GOAB



**CENTER/CORE**

WHERE MOST VALUED ITEM IS LOCATED = LIVESTOCK

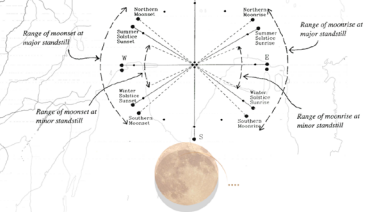
WORSHIPPING RISING AND SETTING SUN  
(RITUALS INCLUDING DANCING AT NIGHT AROUND FIRE)



PHENOMENON RECORDED:  
MAJOR AND MINOR MOON STANDSTILL.  
DISTANCE FROM SITE: 300KM

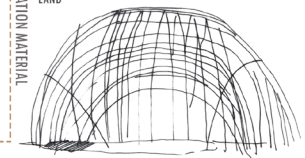
**ORAL STORIES ABOUT THE MOON "GARUBEB"**

SACRED SPACE BETWEEN CATTLE AND KHOI FAMILY  
WHEN THE MOON WAS BRIGHTEST - IT IGNITED DANCING AND CHANTING - HAD TO DO WITH PRESENCE OF LIGHT  
USED A TOOL TO MEASURE TIME: GESTATION FOR WOMEN  
-WANING AND WAXING OF MOON DESIGNATED CERTAIN ACTIVITY



ANIMAL SKIN USED FOR INSULATION

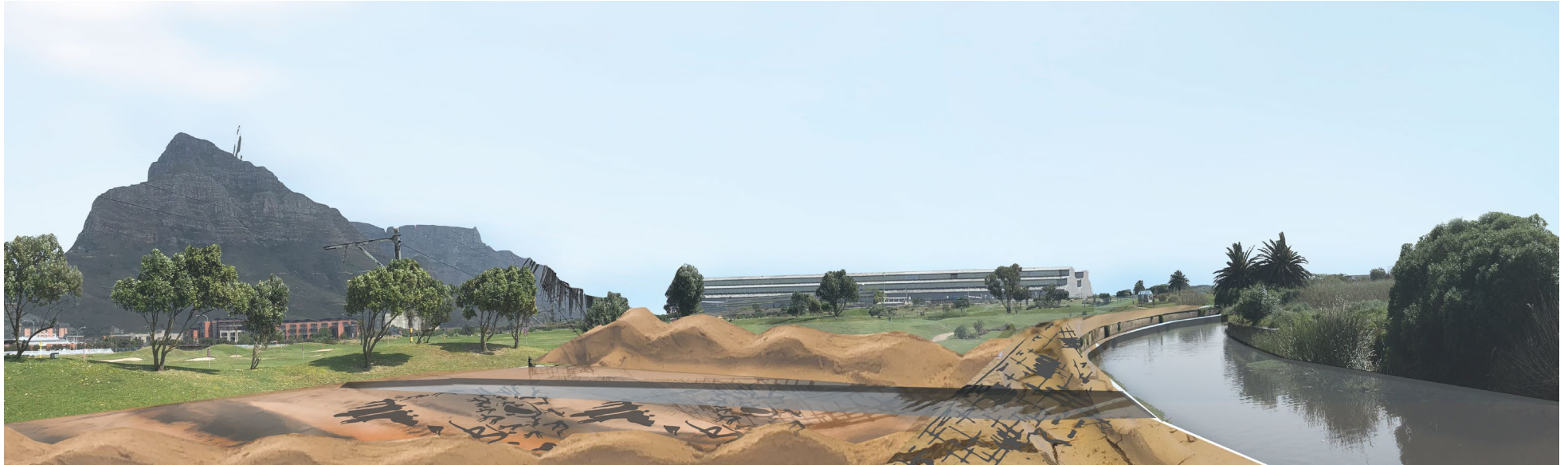
-MIGRATION DRIFT (SEASON BASED)  
-HOMESTEAD AND STRUCTURE (PORTABLE)  
-RITUALS LINKED TO CELESTIAL BODY MOVEMENT  
-TRANSUMANCE AND NON COMMODIFICATION OF LAND



TEMPORARY STRUCTURE SHOWS RESPECT TO THE LAND

## the current urban landscape

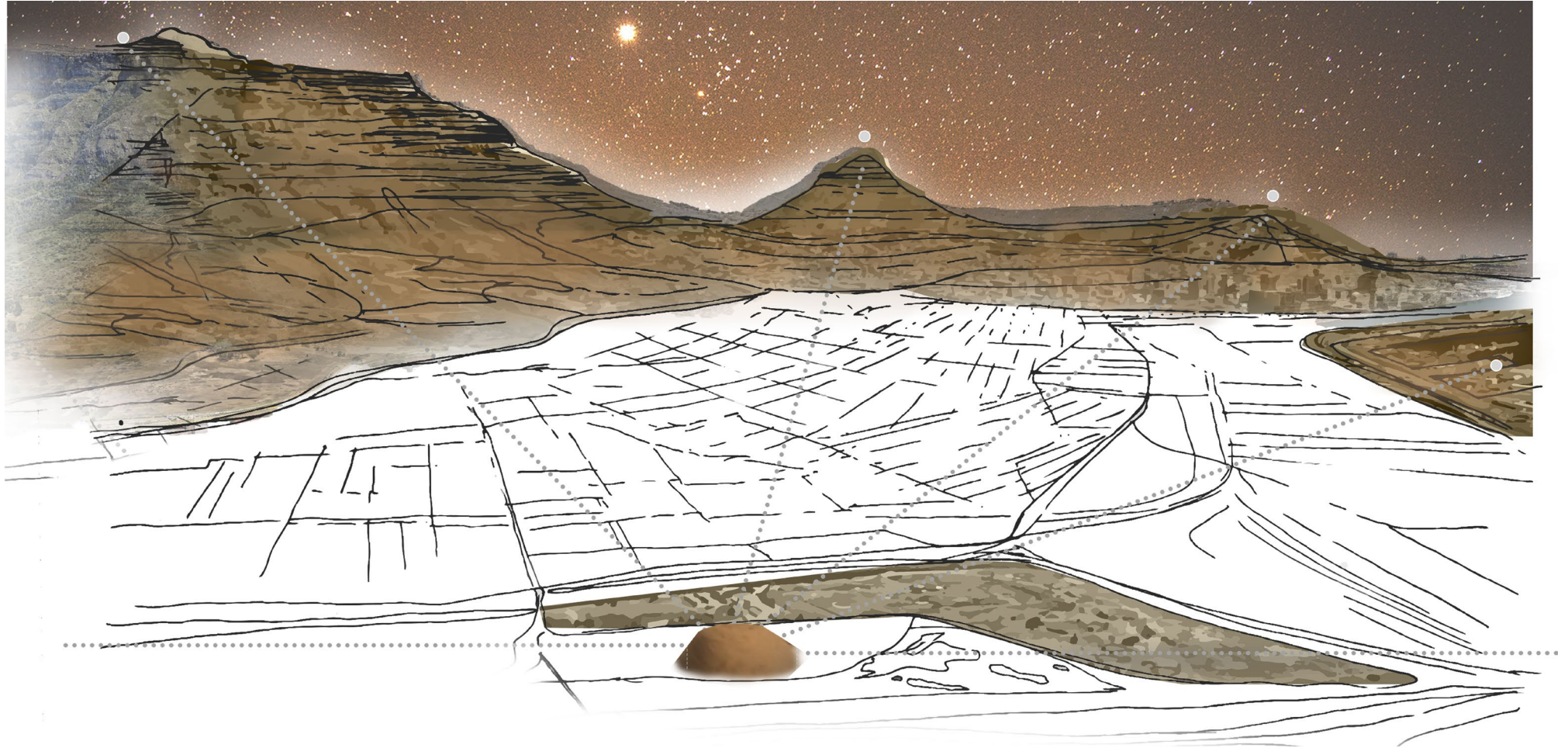
*overlaying the indigenous narrative onto the contemporary landscape*



How do we overlay all these intangible and tangible qualities of this rich historical landscape with the current identity of the site which is a golf course and recreational center?

## the projected future landscape

*a vision : reclaiming the indigenous narrative through spatial intervention*



### *The Design Moving Forward*

The design intention is therefore to use this indigenous perspective of landscape as a new lense to structure space(s) for marginalized communities who have different perceptions and expectations of memory and beauty in landscape than their western counterparts. This will require an analysis of how people used the landscape in the past- how they use the landscape today and as a result - designing a space that recognizes indigenous history and is optimistic about an indigenous future landscape. There are also scientific and practical ways that astronomy can be used to understand and structure a landscape. This is through the tidal relationship that sites have with the moon and gravity as well as geometrical principles associated with orientation and spatial hierachy.

This site is of clear cultural heritage significance in terms of racial and spatial development and has recently been recognized by the NHRA (National Heritage Resources Act) as significant. It is currently under threat because of two reasons — the first being an issue brought about through urban intervention by the Dutch and British which includes the canalisation of the Liesbeek river and disturbances along the estuary and Salt River -the site is undergoing flooding issues and is under developmental threat as the River Club plans to introduce urban development to the site. It is also the only site where *Moraea Aristate*, a rare and endangered plant species occurs which should be preserved.

### *Constraints*

Because indigenous history is very difficult to gather - most of the work regarding specific site interaction and rituals is speculative information that has not been scientifically validated as yet. Thus this study will tend towards a New Age approach with *revelatory* deductions and projections towards the future rather than a historical focus.

# [ 3 ]

The Dissertation :  
The Socio-Political Context

*A contested piece of land*

The TRUP Precinct, and the chosen site specifically are probably the most contested pieces of land in Cape Town right now. Given the outcome of the research - it could easily be described as the territory that birthed segregational governance in South Africa. It's role as a devisive tool survived both colonial occupations up until apartheid - and remnants of these ideologies lie in the site itself as it was a means of seperation and also using the site as a buffer that literally seperated black from white.

**'LAND EXPROPRIATION TO HAVE NEGATIVE IMPACT ON KHOI COMMUNITY'**

Chief Cornelius Kok of the Griqua Traditional Council says land expropriation without compensation will have a negative impact on the Khoi community.

■ NATIONAL

**Khoi chief Melvin Arendse criticises the state's slow pace of land reform**

05 DECEMBER 2016 - 20:13 by APHIWE DEKLERK

**We want bones of our ancestors back from Europe, says Khoi chief**

2017-03-10 17:31

Jenni Evans, News24

THE KHOI-SAN IDENTITY CRISIS (PART 3)

**Will the land ever be returned, and dignity restored?**

By Angelo Louw • 20 September 2018

**Departments appeal Trup protection**

**'Khoi and the San are the original owners of this land'**

OPINION / 6 MARCH 2018, 4:00PM / FADIEL ADAMS

*(Public response to site developments and identity crisis in the City of Cape Town)*

# the site that birthed divide and conquer as we know it

*a divided landscape*

**FORMALITY**

THE "BETTER" SIDE - ECONOMIC AND SOCIAL INCLINE

**C1300-1500**  
THE KHOI KHOI ARE ESTABLISHED AS THE BIGGEST POWER IN SOUTH WESTERN CAPE

**1510**  
ALTERCATION WITH PORTUGUESE AT SALT RIVER

**1590'S**  
TEMPORARY INTERACTION WITH DUTCH AND BRITISH - TRADE OF COPPER, IRON AND MARIJUANA

**1591**  
BARTERING OF SHEEP

**1631**  
CHIEF OF KHOI-KHOI EXPEDITED TO BATAVIA

**1652**  
JAN VAN RIEBEEK SETS STATION - TRIES TRADING WITH KHOI FOR CATTLE (GORIQUA)

**1673**  
SECOND DUTCH-KHOI WAR WHERE DUTCH TAKE 1800 CATTLE FROM KHOI

**1677**  
THIRD WAR - ALMOST ALL KHOI LAND IS TAKEN

**1690**  
FARMERS WOULD TREK OVER KHOI LAND BURN SETTLEMENTS AND STEAL CATTLE

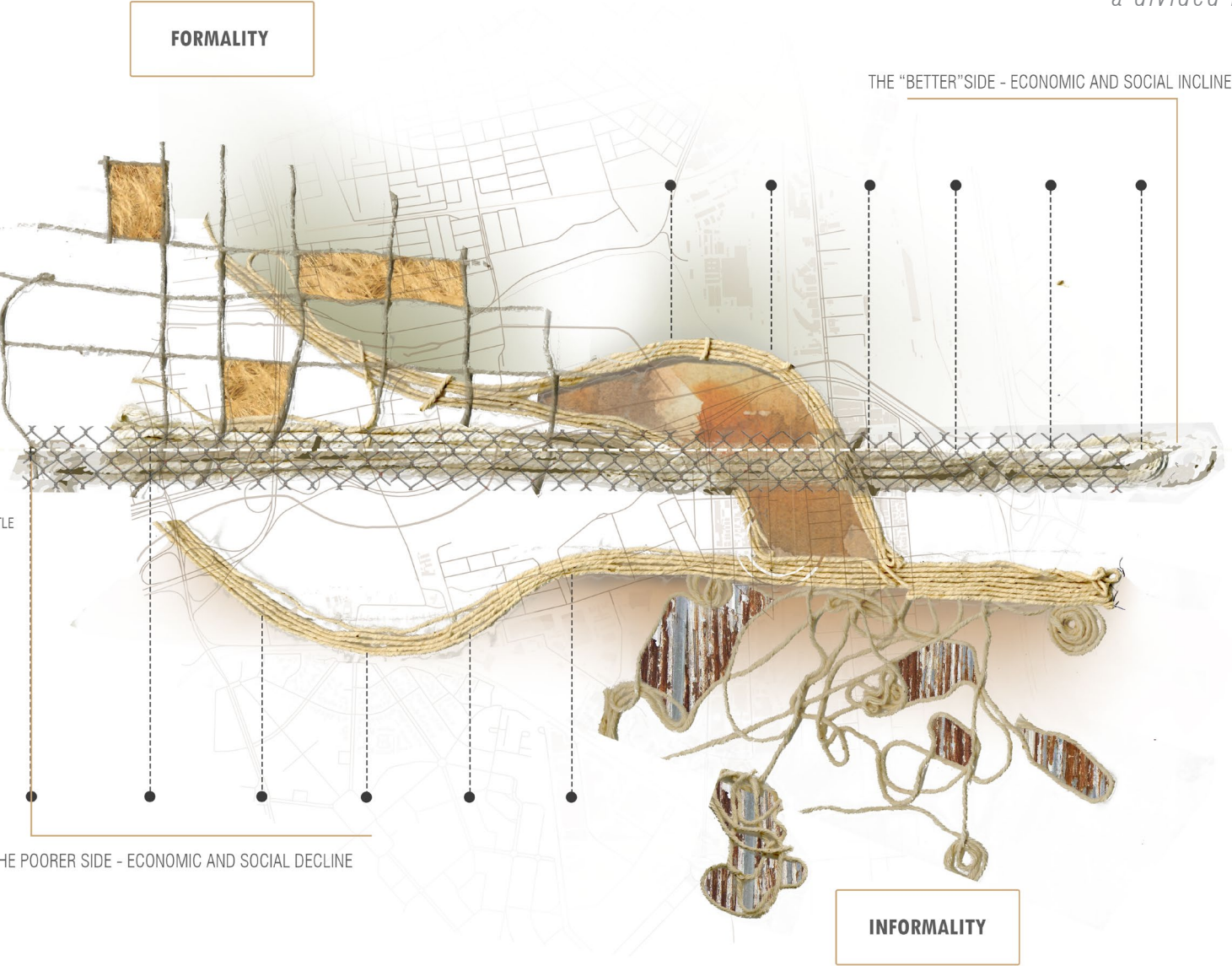
**1700'S**  
KHOI SUFFER ECONOMIC DECLINE

**1713**  
SMALLPOX WIPES OUT REMAINING POPULATION

**1838**  
END OF SLAVERY

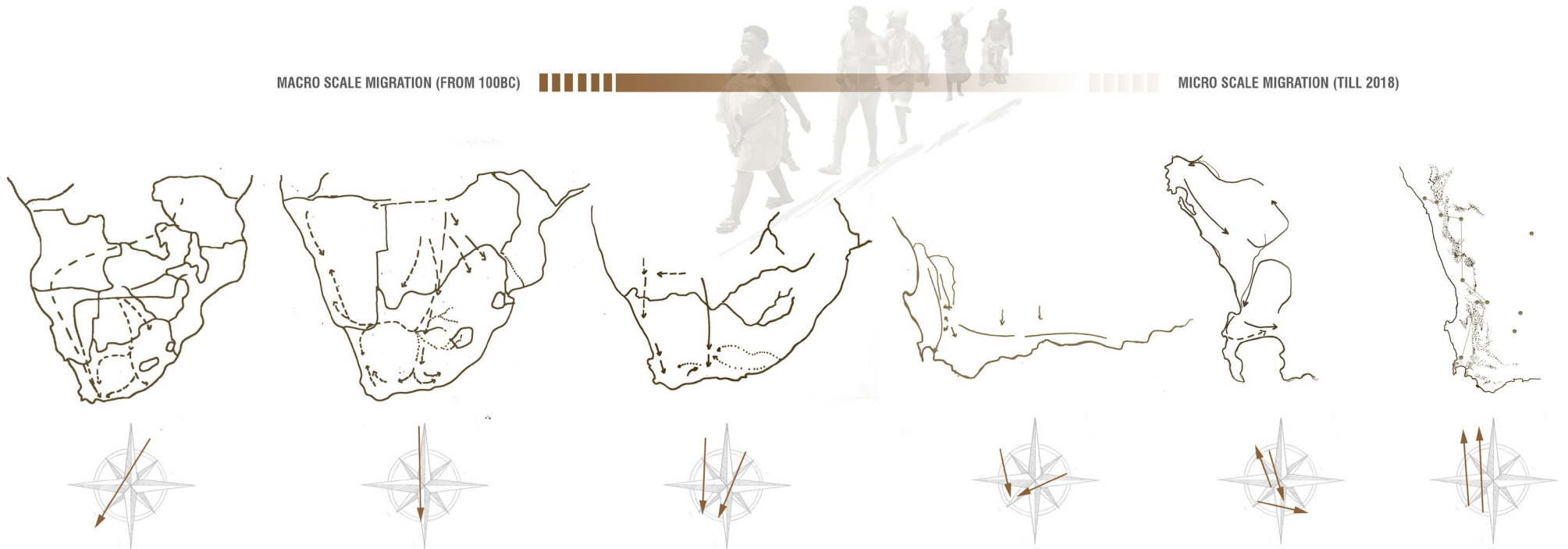
THE POORER SIDE - ECONOMIC AND SOCIAL DECLINE

**INFORMALITY**



# the migratory patterns of the khoi-khoi through time

*transhuman navigation*



*(Investigating migration and movement through southern africa and its effects on settlement and navigation)*

Livestock farming, as with the Khoi cultures from the past - is still prevalent in the informal clusters within Cape Town. However with the rate of urbanization and the need for proximity to the cities for the purposes of making a living - maintaining this livestock culture and simultaneously juggling a contemporary lifestyle is becoming impossible.

Legislation in the form of by-laws and exorbitant fees for contraventions passed by the city results in farmers being unable to graze livestock in their neighbourhoods. Issues such as noise, destruction and lack of permits are what justifies this legislation at the moment. Having very limited options, farmers are left with no choice but to auction their commodities off to sustain an urban lifestyle that isn't their ideal. These avid farmers are usually located in peri-urban regions - and they consider livestock keeping as a way of life rather than a means of making a living solely. They are greatly affected by these new laws and the changing environment. Recent droughts and poor water quality is resulting in communities reluctantly parting ways with their cattle.

The site of proposed intervention has immense potential to act as a catalyst that normalizes livestock grazing in urban contexts - not only because of its rich history in the practice of farming but because of its abundance in natural resources. The only issue is that development has left the land completely degraded - but with strategic systematic design - it can function as a space that celebrates ancient and current cultures in a spiritual and practical way.

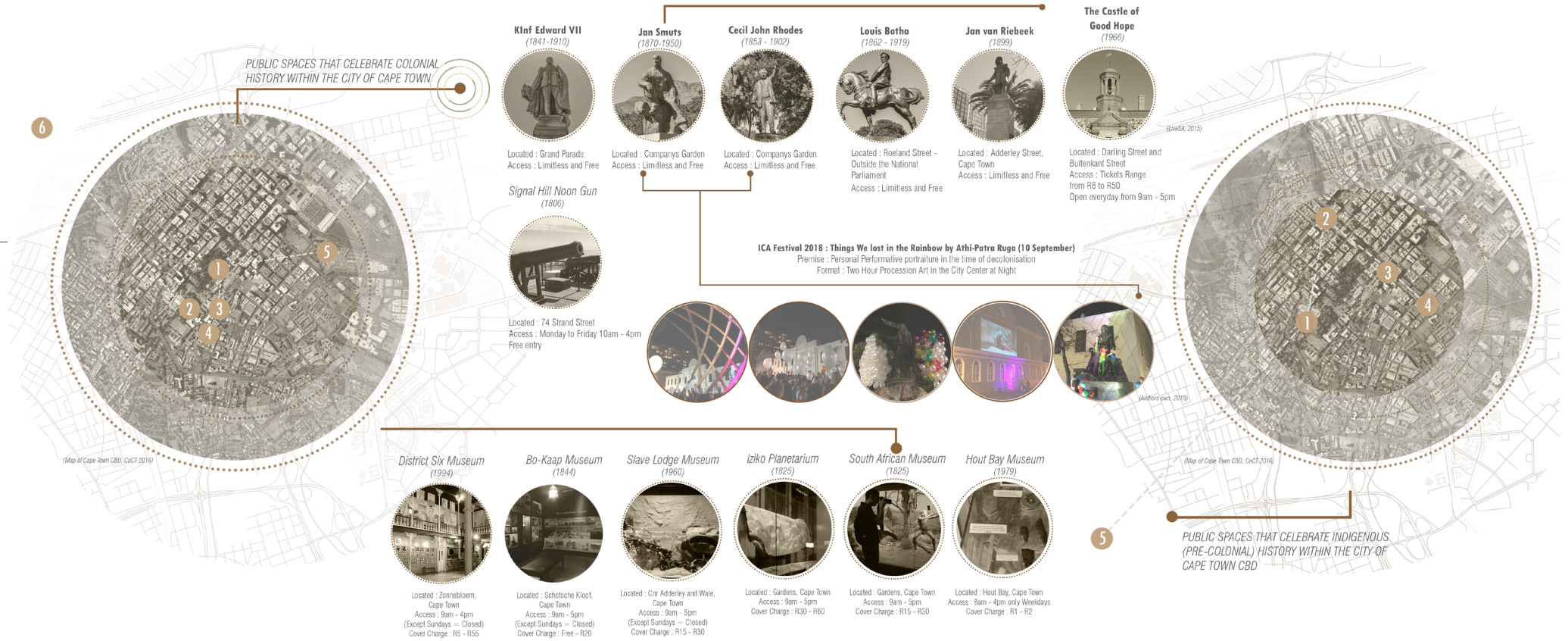
An Ideal design situation at least for now - Would be to design a cultural heritage precinct that is non-prescriptive in its use. It should be completely accessible for members of the public and of course, at no charge.

With informal settlements being strategically located on the outskirts of the city because of segregational governance in the early 1900's - it has created an issue of distance for people coming to the city - costing more than it should considering that the majority of people in these areas are earning minimum wages. As a method to engage people with their identity and stories of the past - it would be ideal for them to visit a space that facilitates and encourages themes of identity and culture. Unfortunately of the very few places that do celebrate Indigenous Culture - they are located a great distance from the band of informal settlements in the east. So over and above funding transport to get to these spaces they would also need to pay cover charges and be cognisant of opening and closing times.



# documentation of public commemorative spaces in the cbd

*studying identity and heritage in a post colonial city*



To investigate the language of historical portrayal in the city - I took on a desktop and an on foot study around the Cape Town CBD visiting various public spaces and museums - likely places of finding memorialised artefacts. I noticed that colonial historiography was both prominent and imposing in its display - not only in everyday architecture but in outdoor public spaces such as public parks and through signage. Indigenous narratives were found mostly in closed environments that are subject to a museum setting along with a cover charge for viewing and engagement and have a marxist association in terms of representation. Tools, engraved rocks, clothing and other archaeological findings are the types of items I found. I would argue that these items and the setting that these items are placed in is not an accurate depiction of Khoi and San culture.

#### *Decolonizing Public Memorial Space*

Since museums in South Africa and Cape Town specifically were constructed during the colonial and apartheid period they obviously reflected the colonial mindset-including their then oppressive and divisive leadership. The Call to Close The Ethnography Hall at the Iziko museum had to do with members of the Khoi and San Community protesting that this installation wasn't a fair display of a deep and spiritual culture. (iziko.org.za)

With the dawn of Colonization in the last 600 years, there has been immense loss to indigenous knowledge that details spiritual and tangible interactions with the landscape. The aim of the dissertation is to unearth this hidden/omitted historical archive through understanding the way in which following celestial bodies in the landscape has influenced the shaping of indigenous narrative.

#### *How do we negotiate indigenous memory in these colonial spaces?*

The visited museums that incorporate a majority of indigenous culture displays seem to have multiple things in common. 90% of them require a cover charge for entry and are only open at certain times of the day and week. This is counterproductive to the dispersion and accessibility of essential indigenous knowledge because the cultures being celebrated in these spaces are of those that fall under the lowest earning, and highest unemployed groups. How can they go? Who are these contained spaces aimed at really?

The target market seems to be tourists rather than local people. Shouldn't our art and cultural education institutions aim to continually teach and engage the indigenous culture diaspora? If natives can't access these spaces - what is the point?

Additionally - upon arrival in these spaces - there is no real user engagement with indigenous history besides photo taking and reading.

Khoi and San tribes discuss and share thought and stories in the form of dialogue and oral story telling. These museums do not respond to this way of life and contributes to the loss of knowledge. A sense of physical engagement is necessary, including of many if not all of the human senses

#### *Conclusions*

From this exercise which included a personal engagement with colonial and indigenous memorial spaces within the CBD - it is clear that a step forward to designing a space that commemorates San/Khoi and Indigenous identity as a whole is necessary and the ideal place to do this would be the landscape - since the civilizations way of life is centred around the necessity of embedding oneself and understanding the landscape

The idea is to transcend towards a landscape of the future by understanding and learning concepts of the past and our ancestors in order to facilitate non static decolonial spaces that represent the population and their values as a society. Reshaping black identity and how we imagine time and represent freedom is necessary in a time where inequality in many forms exists in our society.

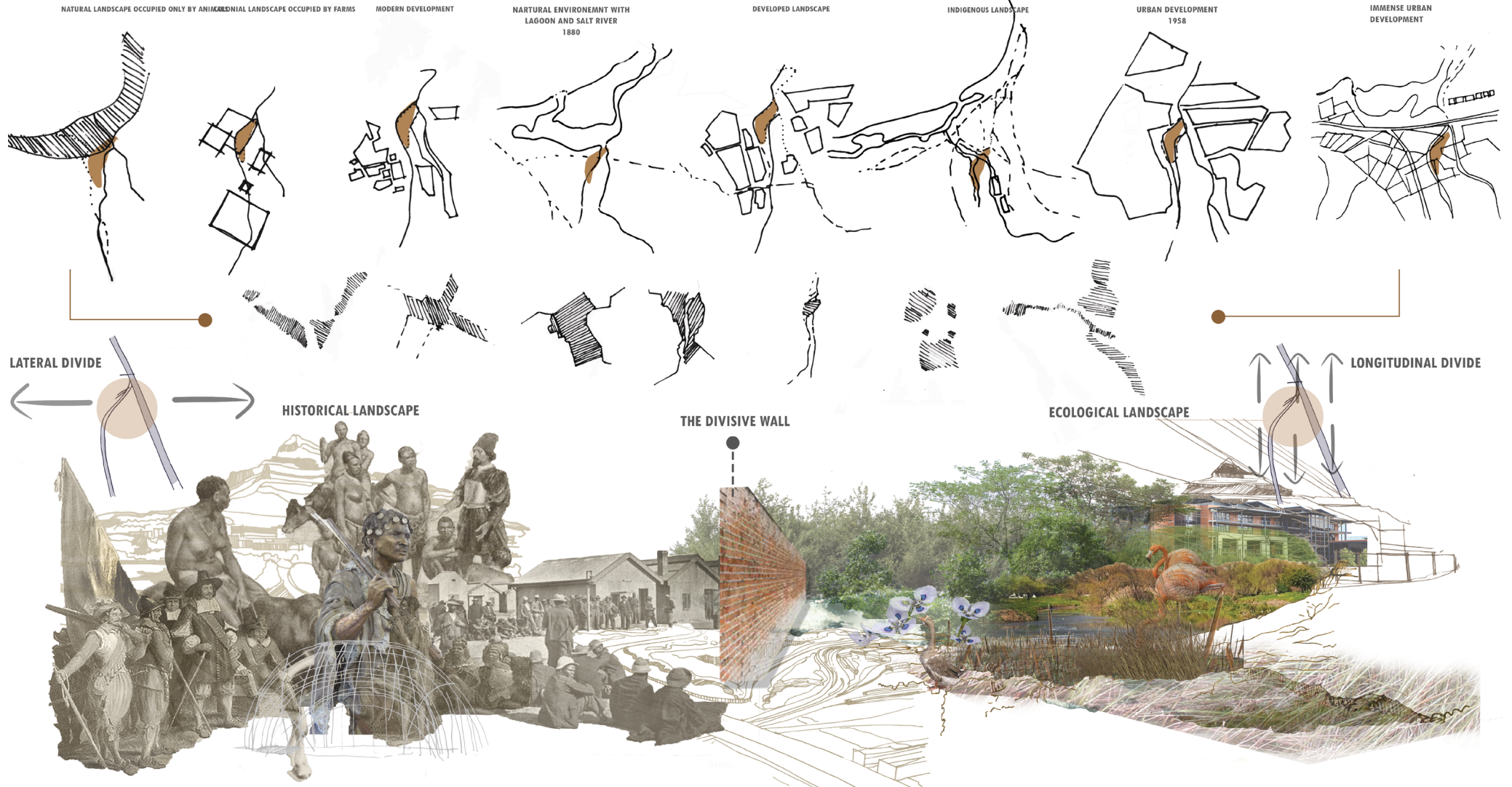


# 4

The Dissertation :  
The Site Physiology

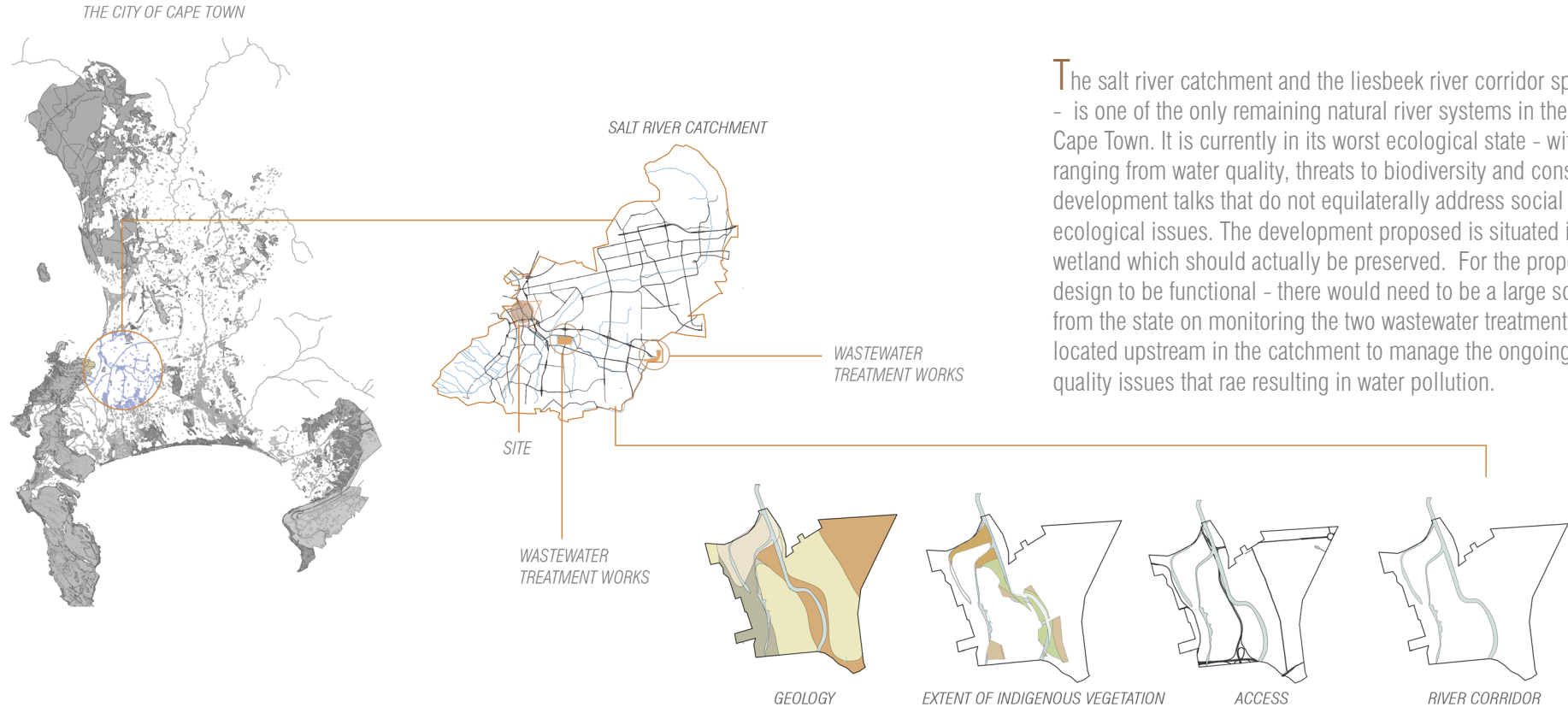
# the site physiology and colliding historical and ecological landscape

*the evolving landscape :lateral and longitudinal divide*



## the sites ecological state

*recognizing the ecological state of the site*

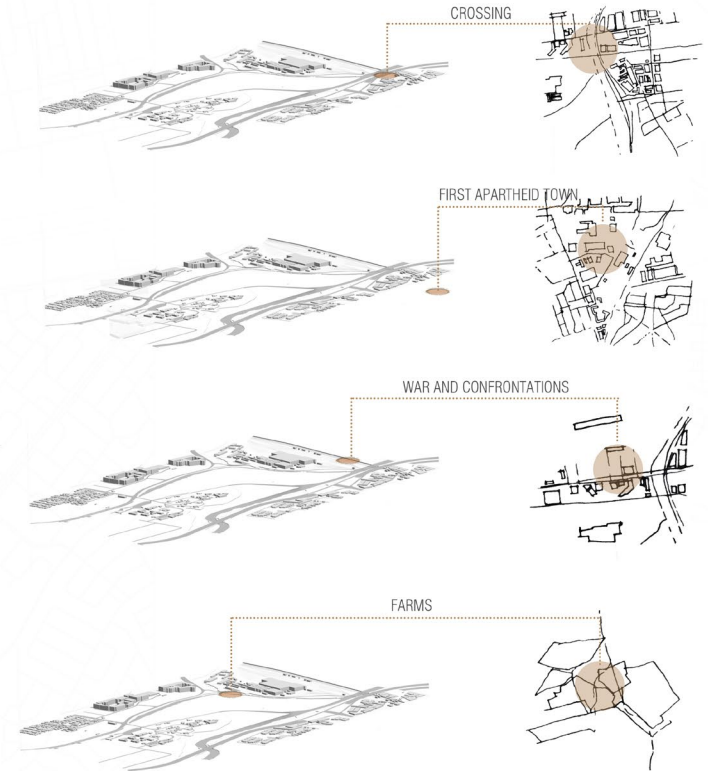
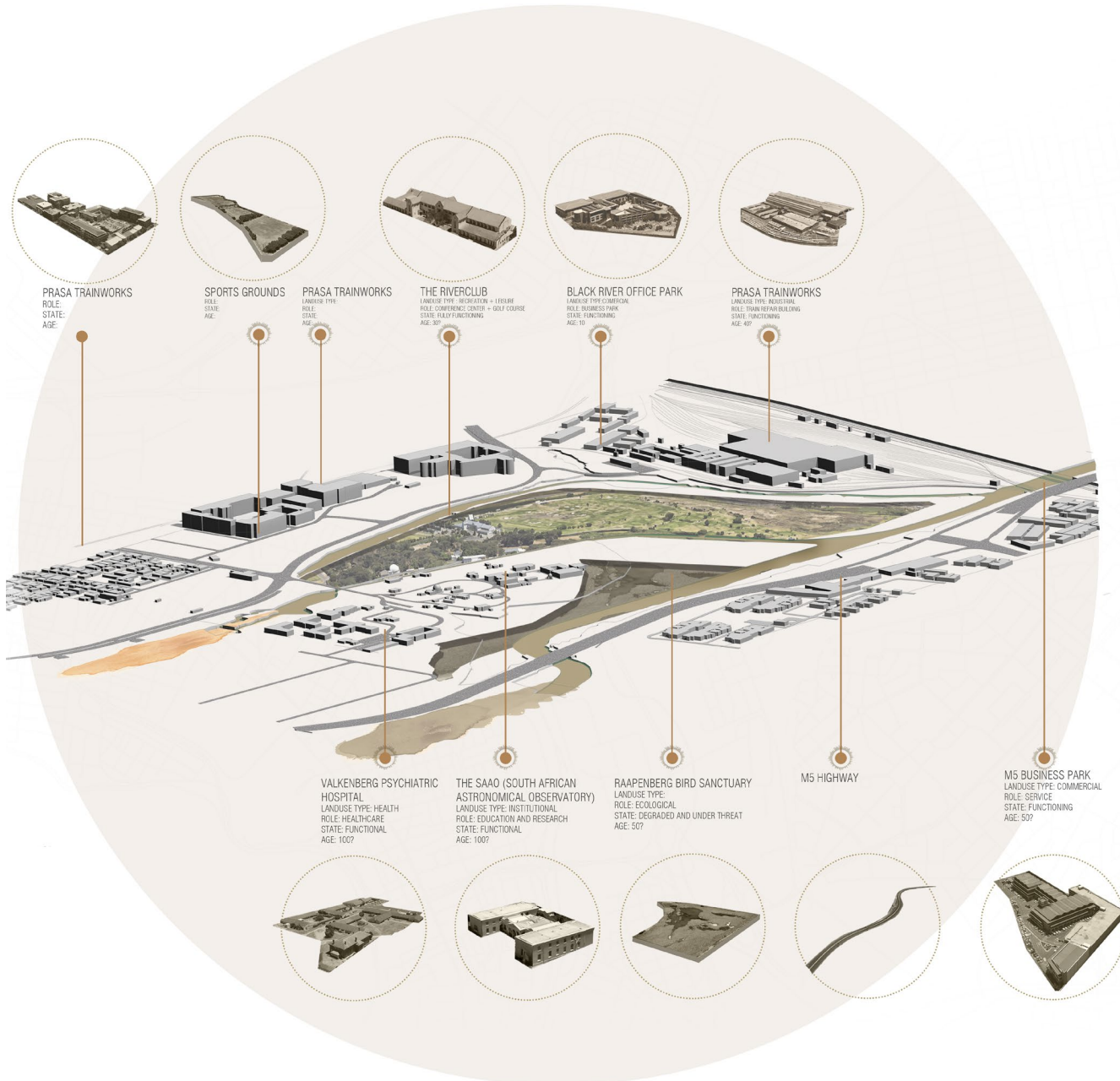


The salt river catchment and the liesbeek river corridor specifically - is one of the only remaining natural river systems in the city of Cape Town. It is currently in its worst ecological state - with issues ranging from water quality, threats to biodiversity and constant development talks that do not equilaterally address social and ecological issues. The development proposed is situated in a wetland which should actually be preserved. For the proposed design to be functional - there would need to be a large scale focus from the state on monitoring the two wastewater treatment works located upstream in the catchment to manage the ongoing water quality issues that are resulting in water pollution.

“Situating within the Core Region of the Greater Cape Floristic region, as part of the Fynbos biome the study area has elements of both the West Coast Renosterveld bioregion and the Southwest Fynbos bioregion, both bioregions display high numbers of highly threatened species. Only two areas within the site have been identified as Critical Biodiversity areas, each being mapped as Irreplaceable Consolidation Sites, with large parts mapped as ‘protected in perpetuity’, these have signed Biodiversity Agreements with Cape Nature. The site has a long history of disturbance and consequently there is very little natural vegetation in good condition, with dominantly disturbed remnant habitats.” - (*Co Designing a True Park*, 2017)

# a historically layered site

*exhuming the historical layers*





# the divisive site as a mediator

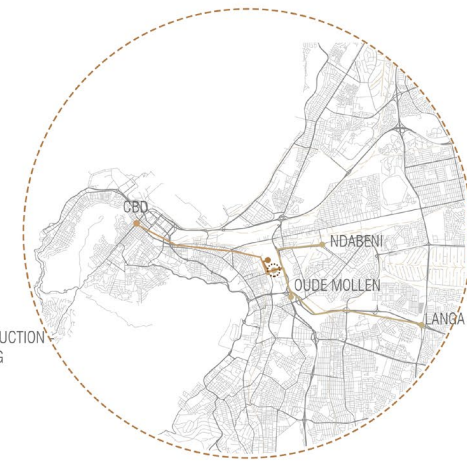
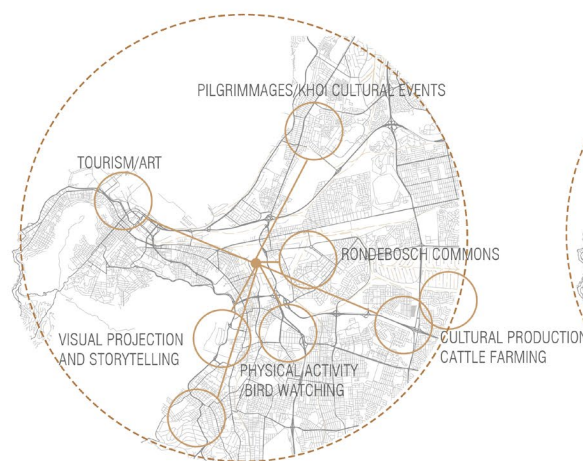
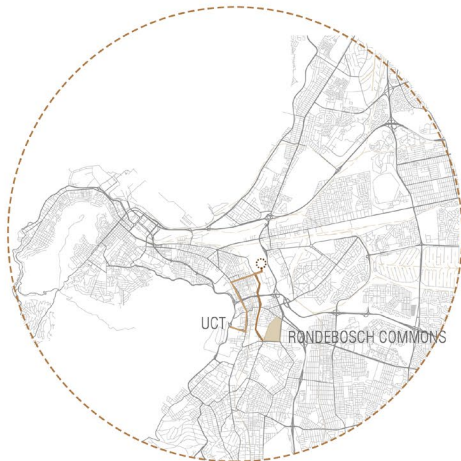
*using a connecting route to commemorate heritage*



Linking Existing Green Areas

Possible Program

Accommodating Cultural Production



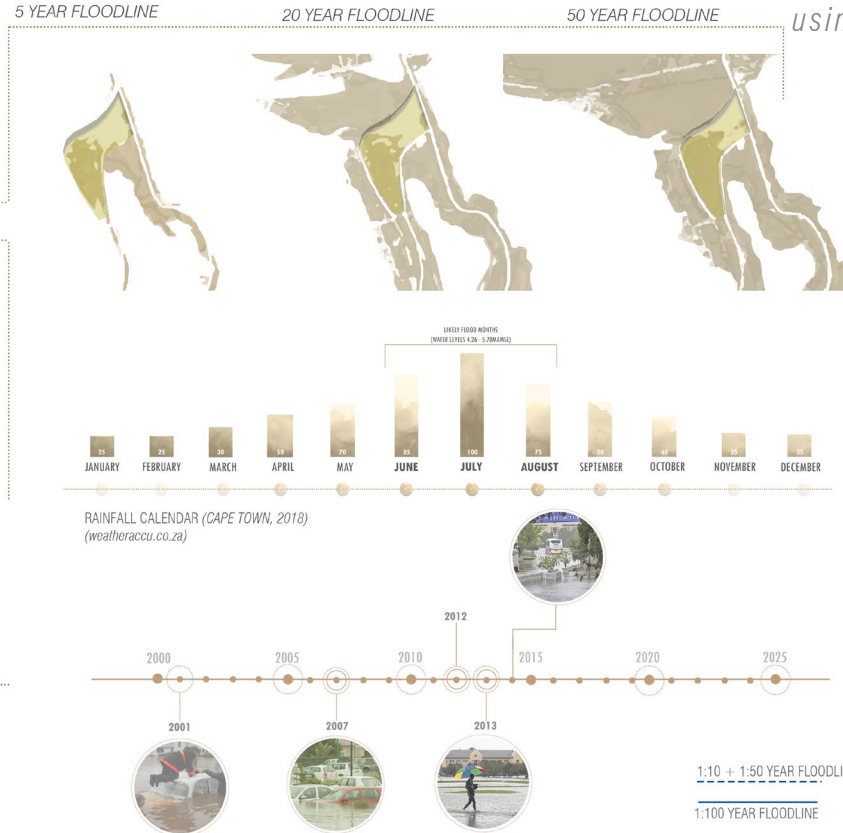
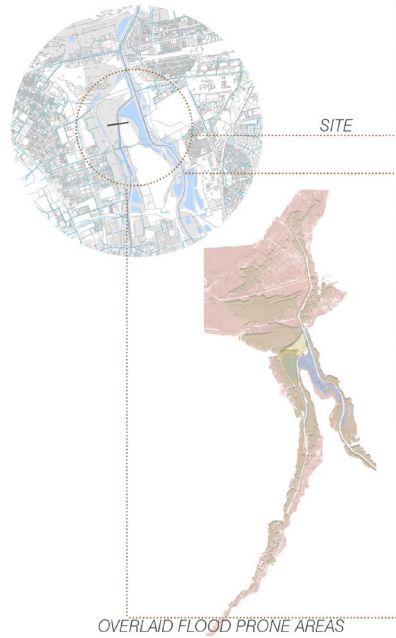
# 5

The Dissertation :  
The Temporality of Site

# the temporal qualities of the site

*using landscape as the element to curate memory*

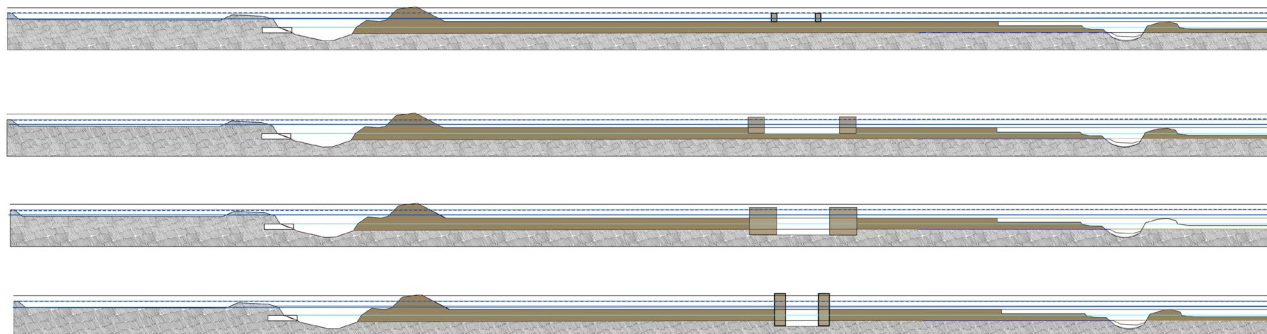
## FLOODING



## Temporality

The site has potential for seasonal use. Apart from being located in a seasonal wetland - the site is home to nocturnal migratory birds, winter rainfall and this character can be utilized as a catalyst to commemorate a transhuman society that respected the landscape in its temporality and its ephemeral quality and not commodifying it by any means.

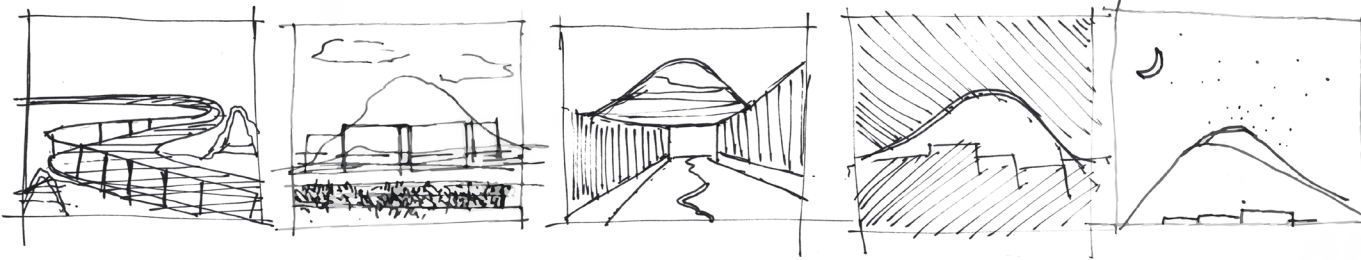
## SECTIONS SHOWING FLOODLINES RELATIVE TO SITE



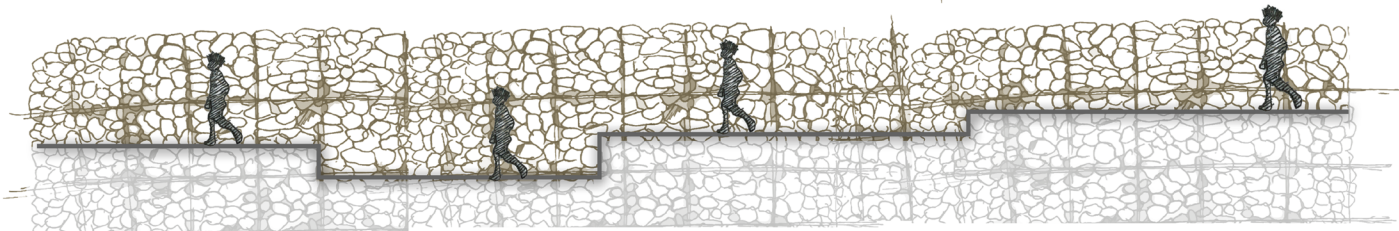
# making intangible memory tangible

*temporal quality of landscape*

## WORKING WITH SUBMERSION AND ELEVATION

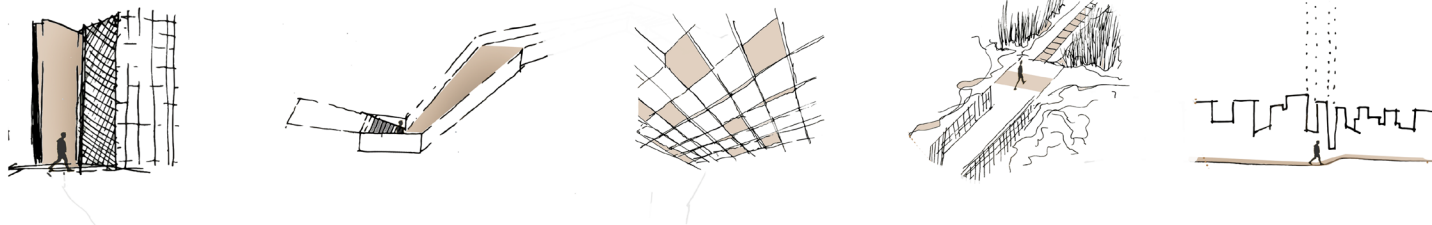


## USING EXCAVATED MATERIAL TO SUBMERGE USER



## USING MATERIALITY TO EVOKE EMOTION

(Adapted from Walter, 2006)



## MIGRATORY BIRDS AS CATALYSTS FOR A SEASONAL LANDSCAPE



GREATER FLAMINGO



GREATER PAINTED SNIPE



CASPIAN TERN



SACRED IBIS



EGYPTIAN GEESE



LESSER FLAMINGO



GREATER FLAMINGO



CHESTNUT BANDED PLOVER

## *Discussions on Anti-Monumentalism*

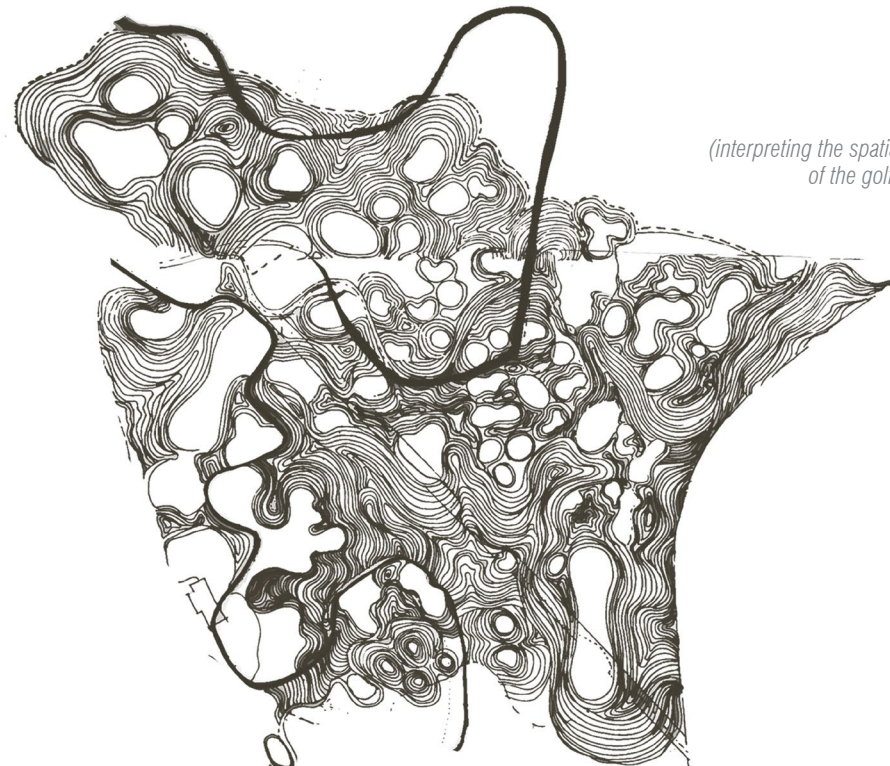
Anti-memorials are usually designed on the basis of recognizing darker events as opposed to monuments which glorify and celebrate a person, event or ideology. The idea is to design a space that recognises the suffering victims of conflict or simply put - "telling the other side of the story" which is a prevailing issue of the site at hand.

To manifest this idea - manipulation of form, time and duration are methods that can enhance the idea. Absence instead of presence. "With dynamic monuments designed to erode, or eventually to be destroyed through visitor interaction, the work's temporary, changing nature is meant to help it endure longer in memory." (Stevens et al, 2012)

# the construction process

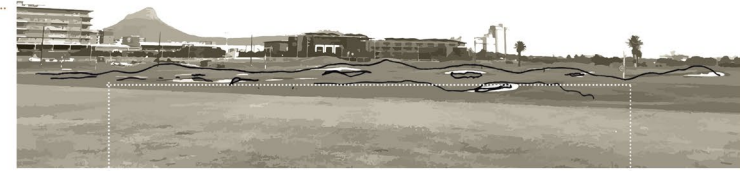
harvesting material from the golf course

The site has undergone immense modification in terms of function and topology. Acknowledging events as early as prehistoric geological transitions, it has been submerged as part of the ocean, then functioned as a direct link to marine life by way of a lagoon and estuary - to being subjected to urban intervention by way of farming activity proposed by colonialism, filling, the construction of sports grounds as well as various other activities. The site today functions mainly as a golf course and conference center as well as a bird sanctuary that is under threat because of polluted water and decreasing ecological conservation status. The idea regarding the construction of the design involves harvesting as much material that exists on site presently as a way to execute the immense layering - both tangibly and intangibly on site.



(interpreting the spatial quality of the golf course)

HARVESTING MATERIAL IN SITU



PANORAMA AA



Kikuyu Lawn - 127189m2



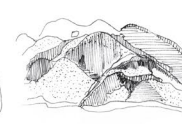
Golf Course Mounds - 109960m3



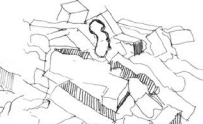
Parking Lot Material - 143646m2



Concrete Pieces



Ash



Clay Brick Walls



Plastic and Rubble



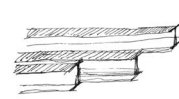
Lawn



Asphalt Pieces



Paving Pieces



Rusted Metal Pieces



OPTION 1 - EXCAVATIONS FOR WETLAND AND DECANALIZING - FIND REMAINS/ARCHAEOLOGICAL TOOLS = CONSTRUCTION STOPS

OPTION 2 - EXCAVATIONS FOR WETLAND AND DECANALIZING - CLEAR OUT INFILL FROM GOLF COURSE - EXCAVATE INTO GROUND FOR ROUTE - USE MATERIAL FOR WALL CONSTRUCTION - ALLOW WETLAND TO NATURALIZE AND STABILIZE - ALLOW PUBLIC ENTRY AND USE

## Available Material

Rubble Material from golf course mounds : consisting of brick, ash, concrete pieces, rock and soil.

Fill Material gathered from digging out remembrance route - will include mostly sandy soil and bedrock - should the excavations go that deep.

### 1. Decanalising Liesbeek river

2.1 Clear out and harvest golf course mounds - rubble and lawn

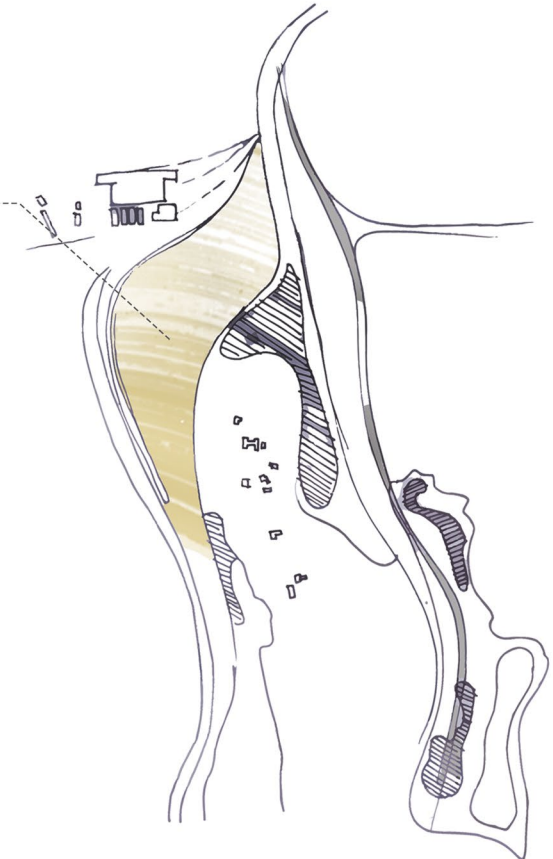
2. Digging Out Archaeological Site Before anything to see if there are remains - collect remains proceed to dig out wetland.

### 3. Digging out Routes

4. Constructing walls using rubble material to make a new form of brick using technology from Khoi hut as way to arrange and pack rubble.



(imagery from google earth,2018)

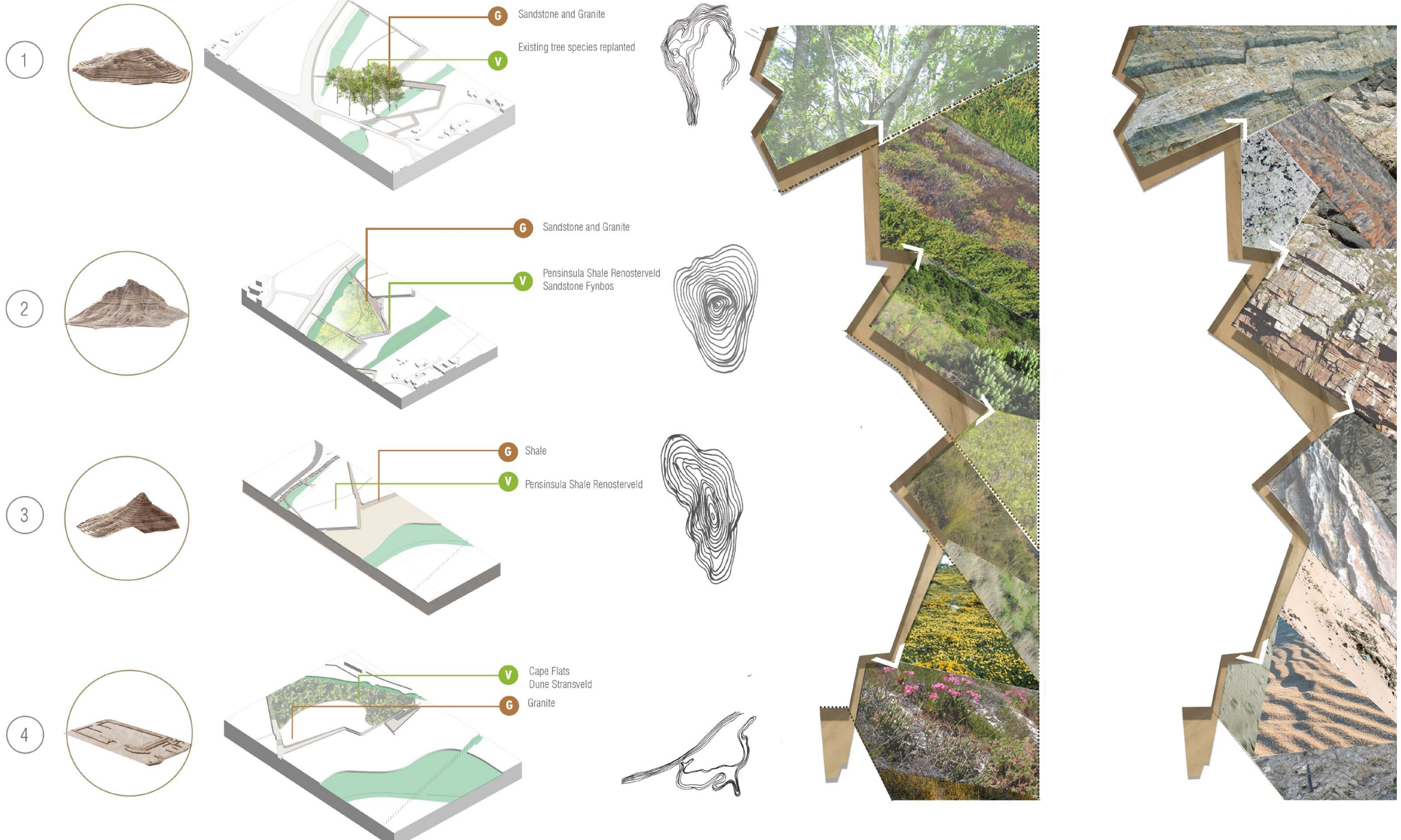


# 6

The Dissertation :  
The Design

# making intangible memory tangible

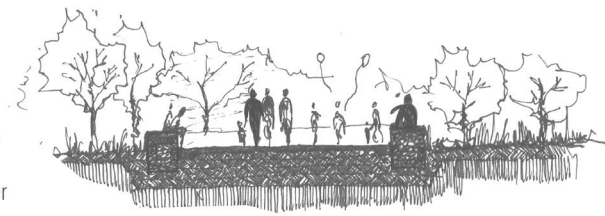
*vegetation and materiality concept*



1

*The First Arm - Maclears Beacon*

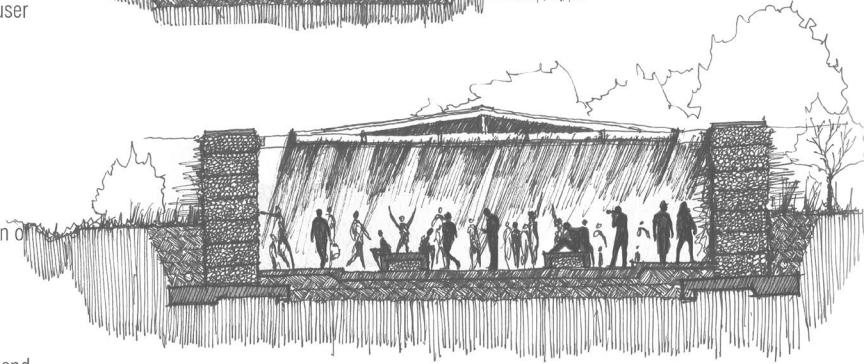
Low walls covered with tall dense vegetation to mimic clouds that cover the highest peak on table mountain. The idea is to immerse the user in this religious landscape and encourage a sense of inferiority and humility



2

*The Second Arm - Lions Head*

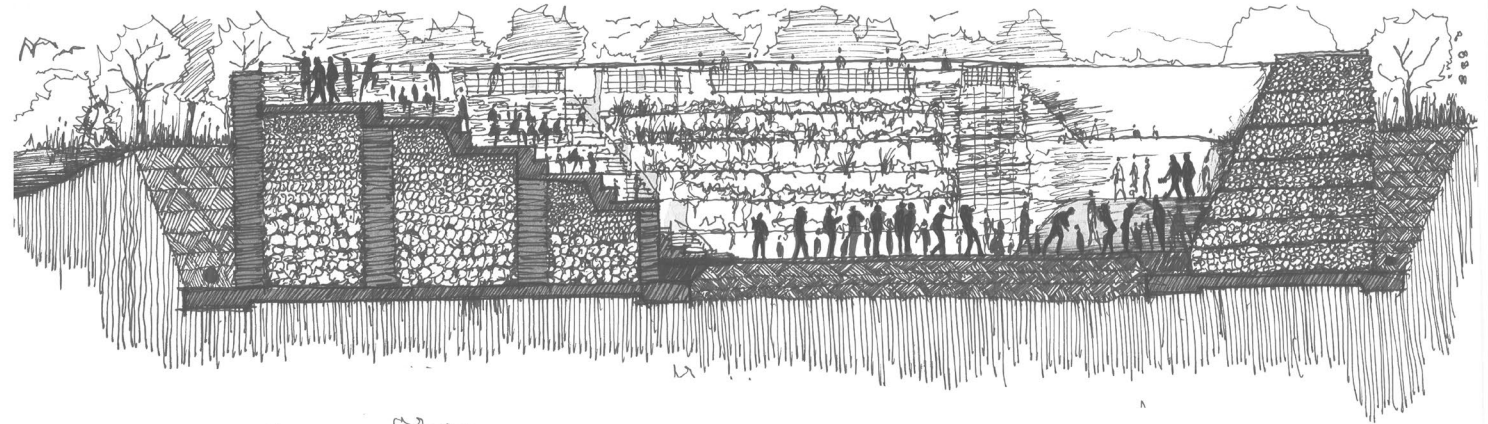
This arm emphasizes the indigenous function of this mountain peak which was to observe season change through various landscape observatories. The idea is to use light and shadow to capture the essence of this peak. This light and shadow emphasizes the night and day quality of the site.



3

*The Third Arm - Signal Hill*

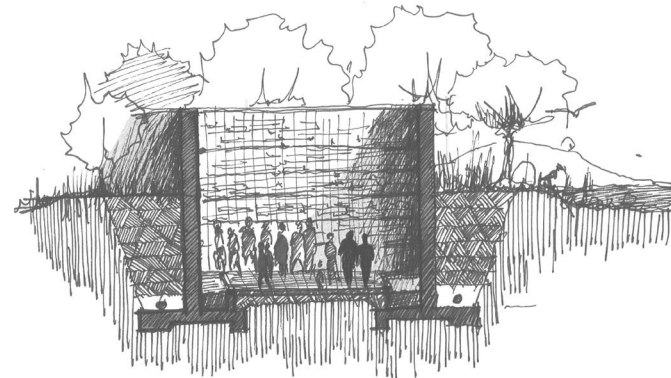
While the user is continually buried in the ground, this arm retells the transhuman relationship that the Khoi had with signal hill which was for cattle feeding. It uses water and reflective walls to capture the temporality and dynamic way in which site is used



4

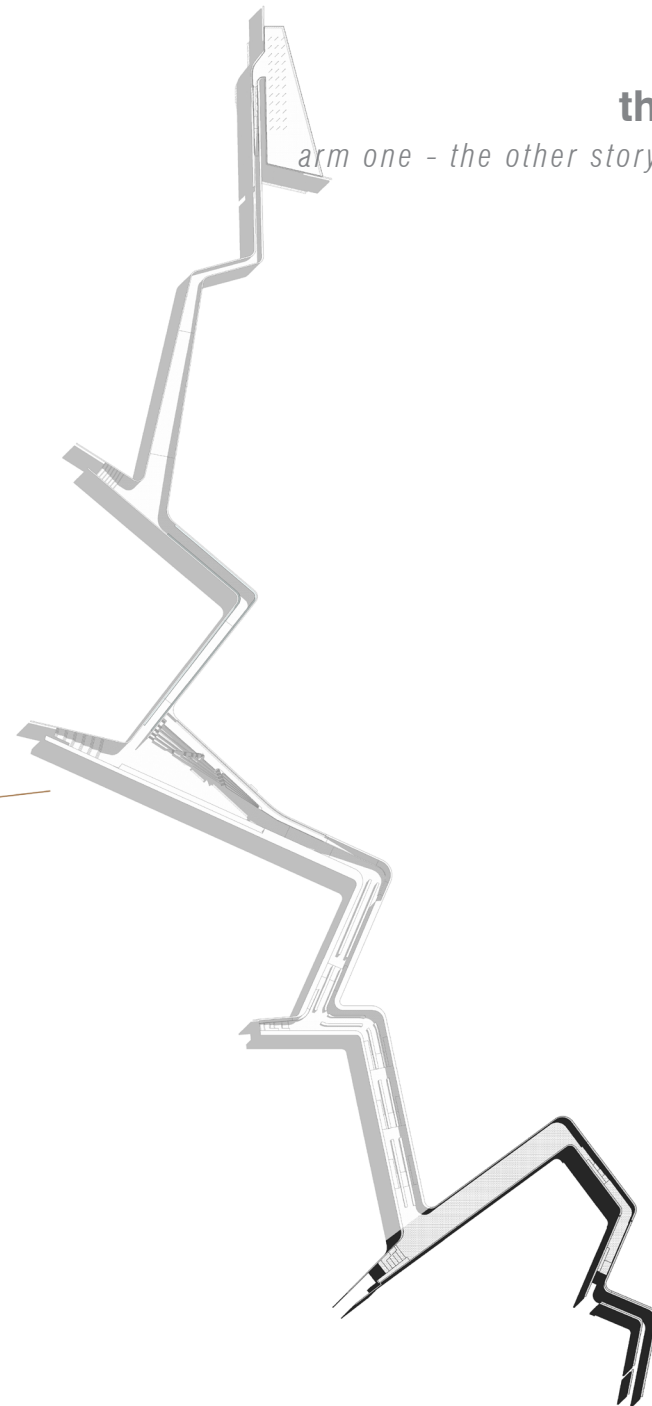
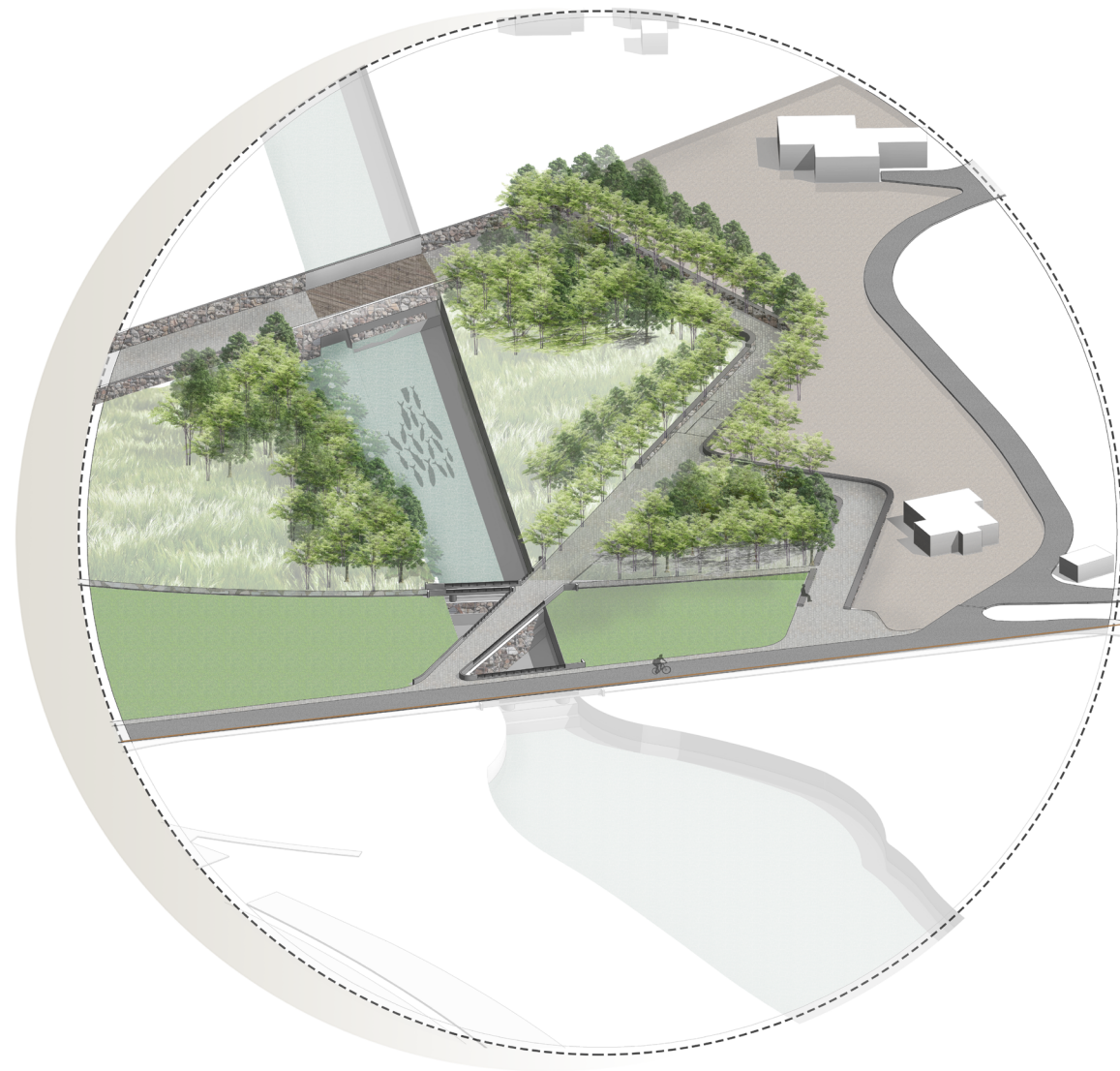
*The Fourth Arm - Table Bay*

The user starts to gradually elevate towards ground level and has a visual connection with the harbour once atop the site. It establishes the closest connection with the sky for viewing purposes at night.

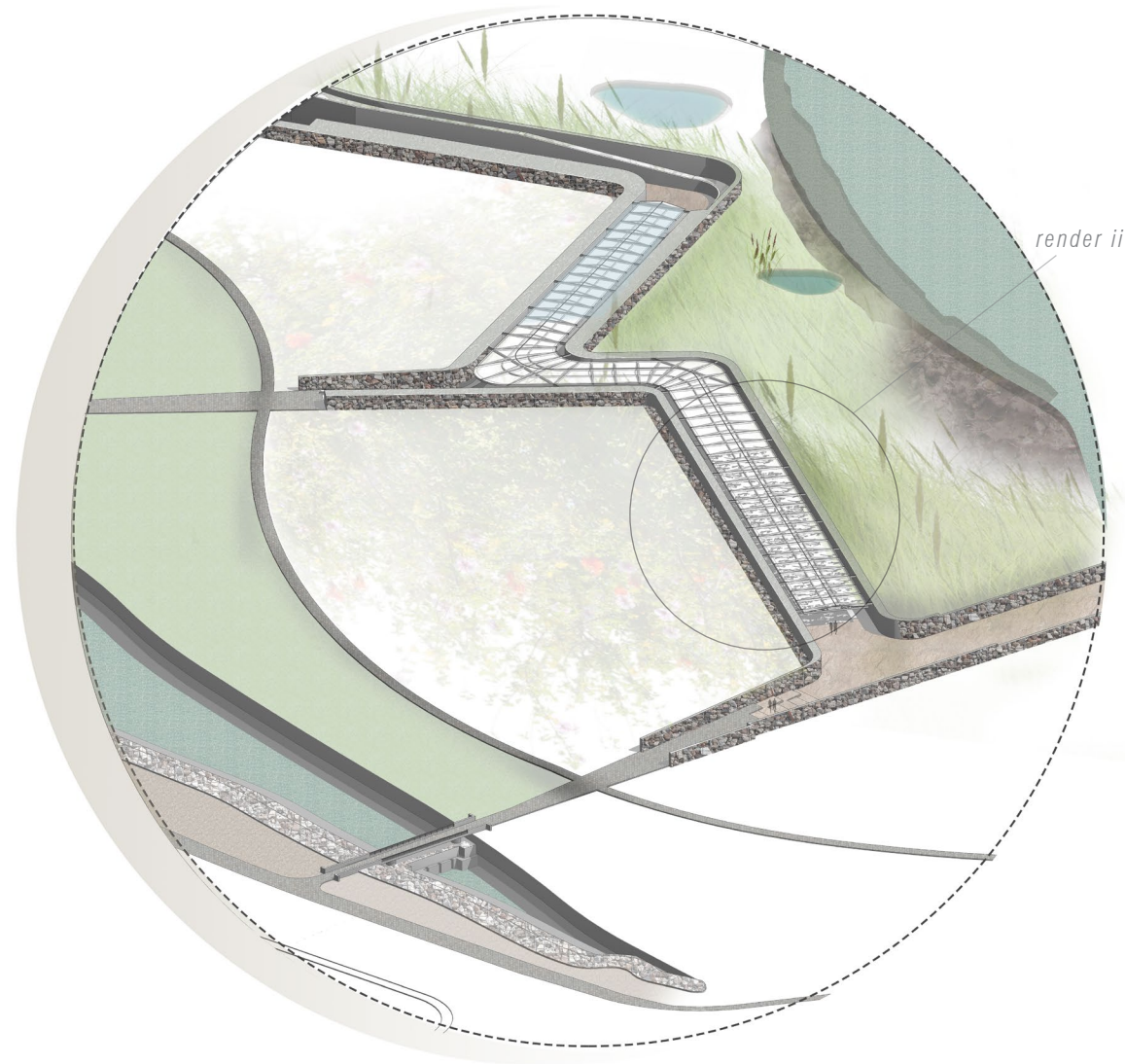


# the arm strategy

*arm one - the other story of maclears beacon*

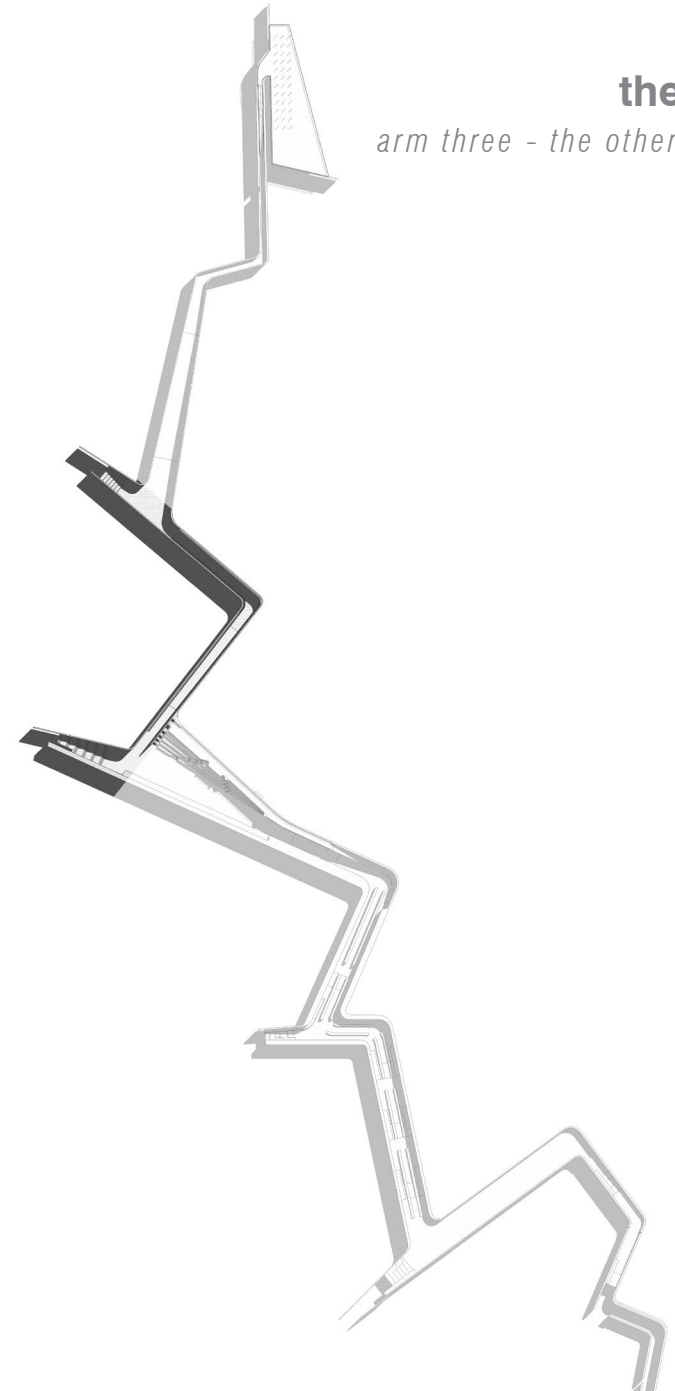
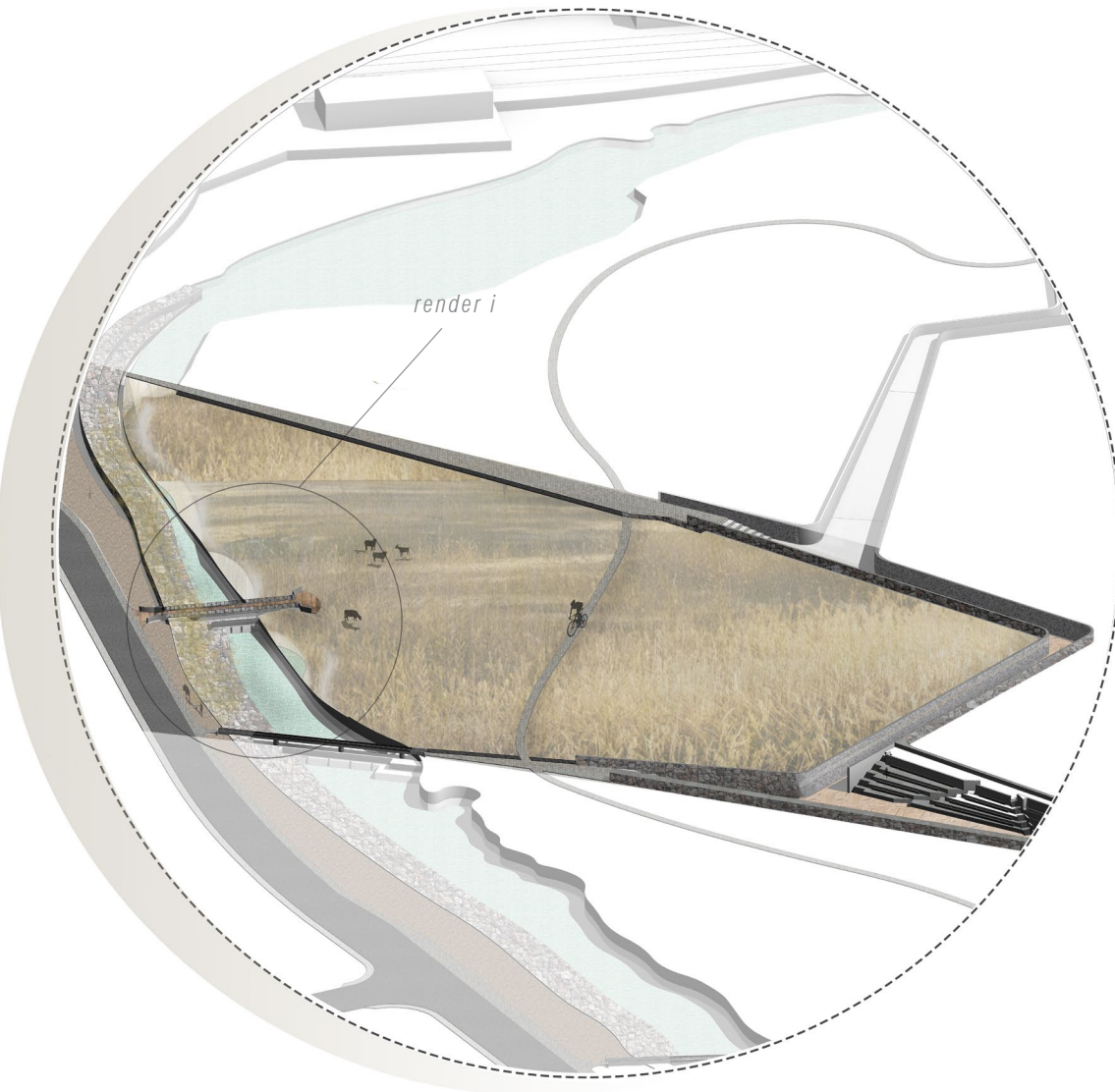


**the arm strategy**  
*arm two - the other story of lions head*

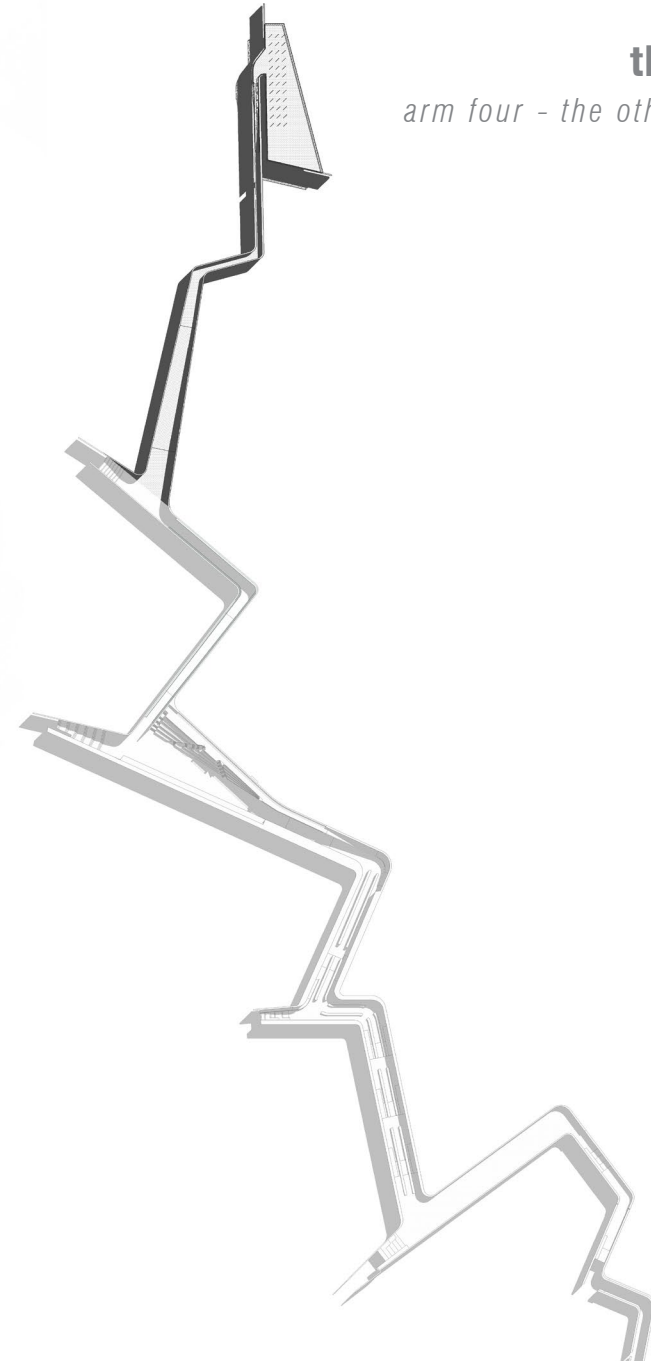
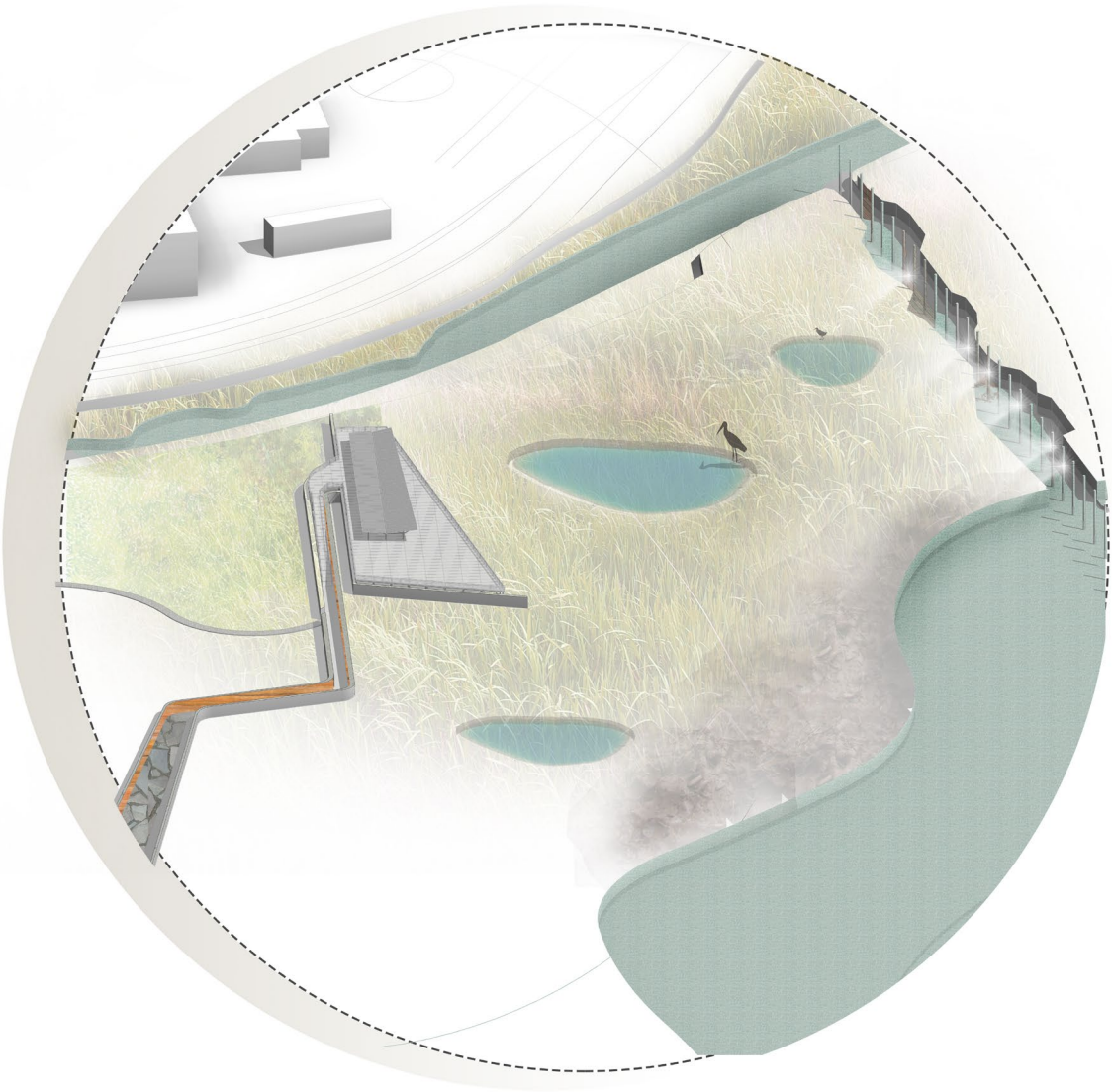


# the arm strategy

*arm three - the other story of signal hill*



**the arm strategy**  
*arm four - the other story of signal hill*





400mm

400mm

light poles

viewing platform

indigenous vegetated wetland

south africa astronomical observatory

grass terraces

public greenfield

400mm

400mm

livestock entry and exit bridge

cattle grazing

gabion terraces - stormwater treatment

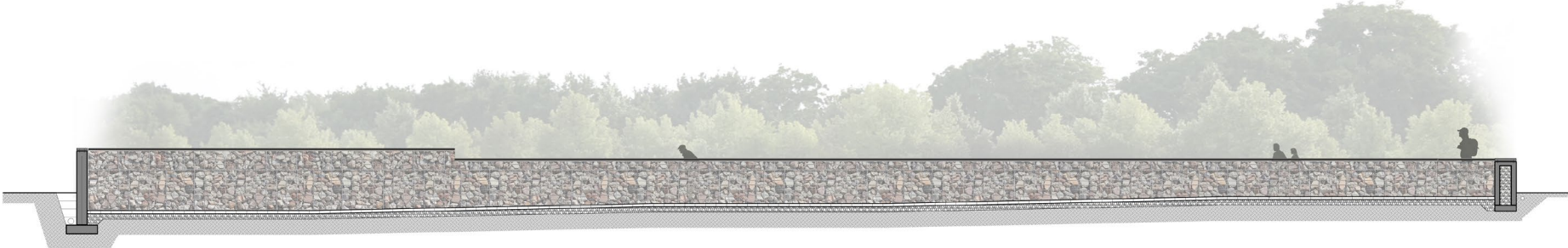
livestock entry and exit bridge

livestock pathway

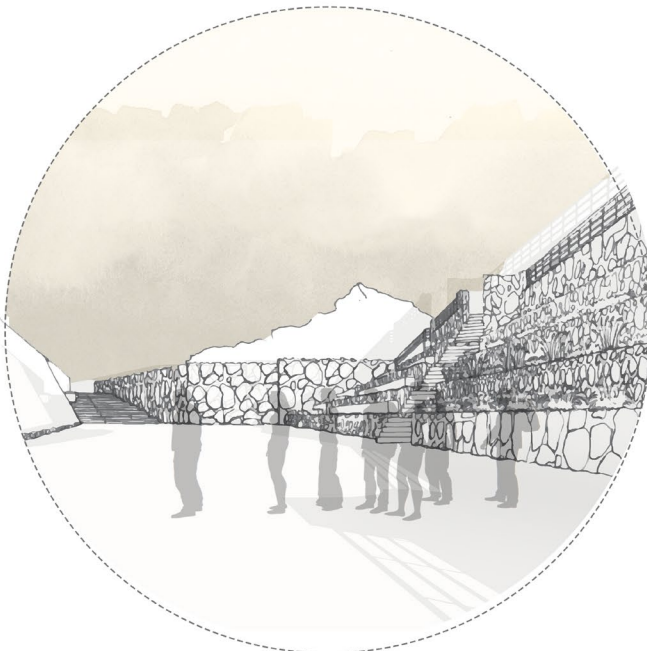
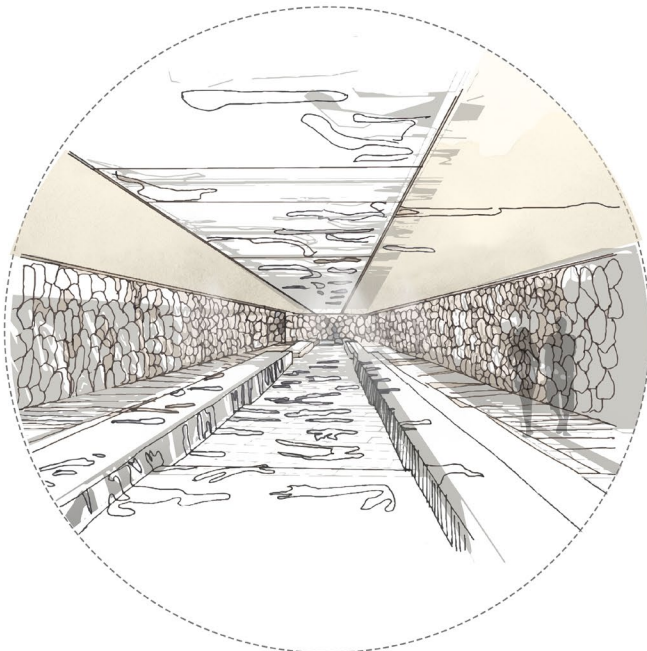
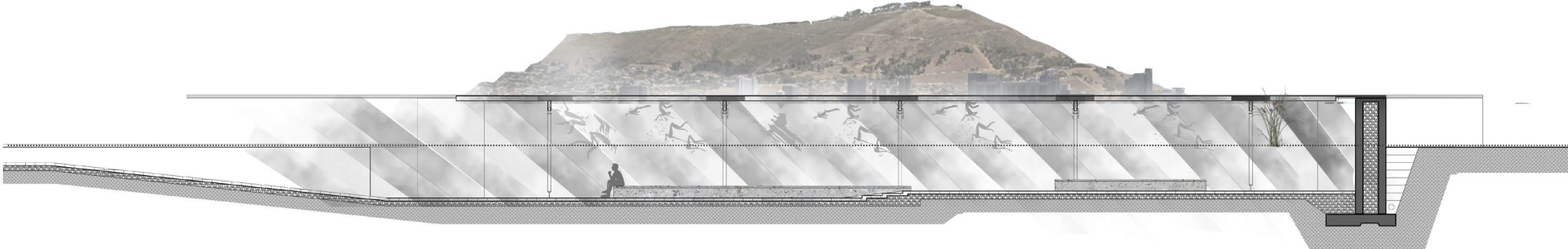
400mm

sketch plan (not to scale)

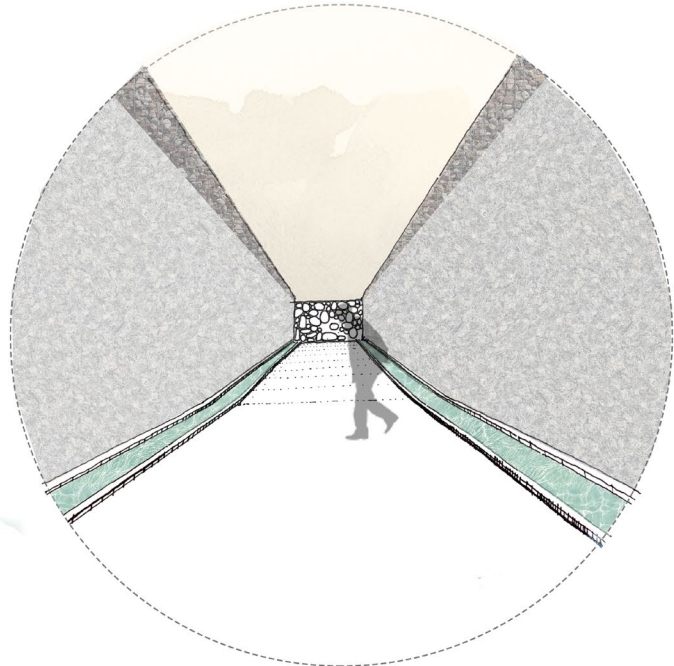
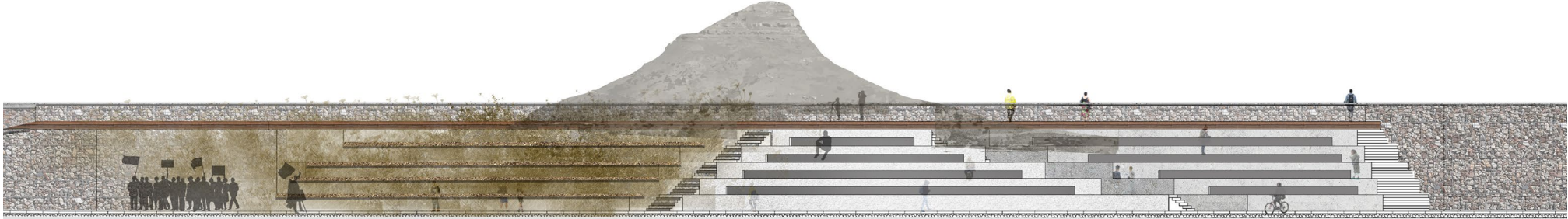
**arm one**  
*the spatial experience*



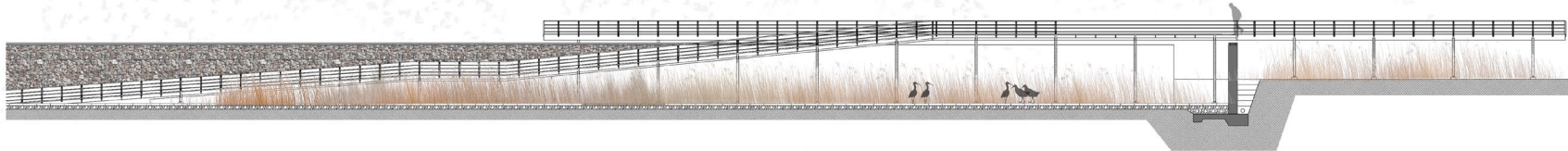
**arm two**  
*the spatial experience*

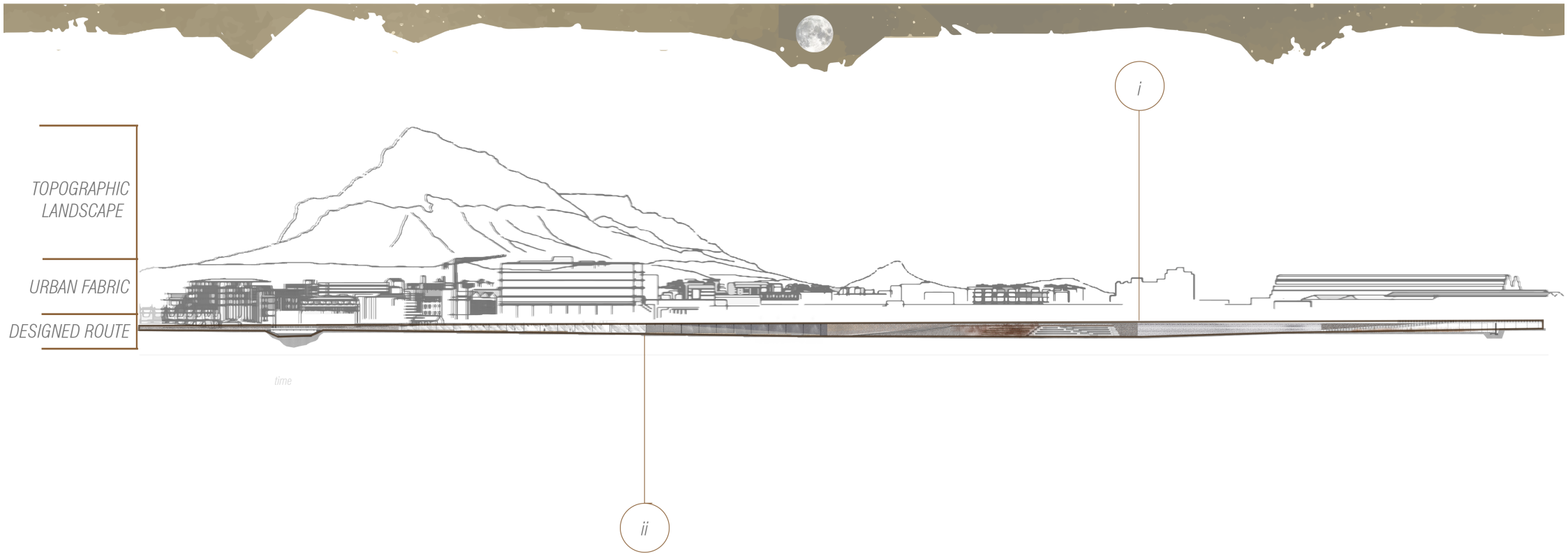


**arm three**  
*the spatial experience*

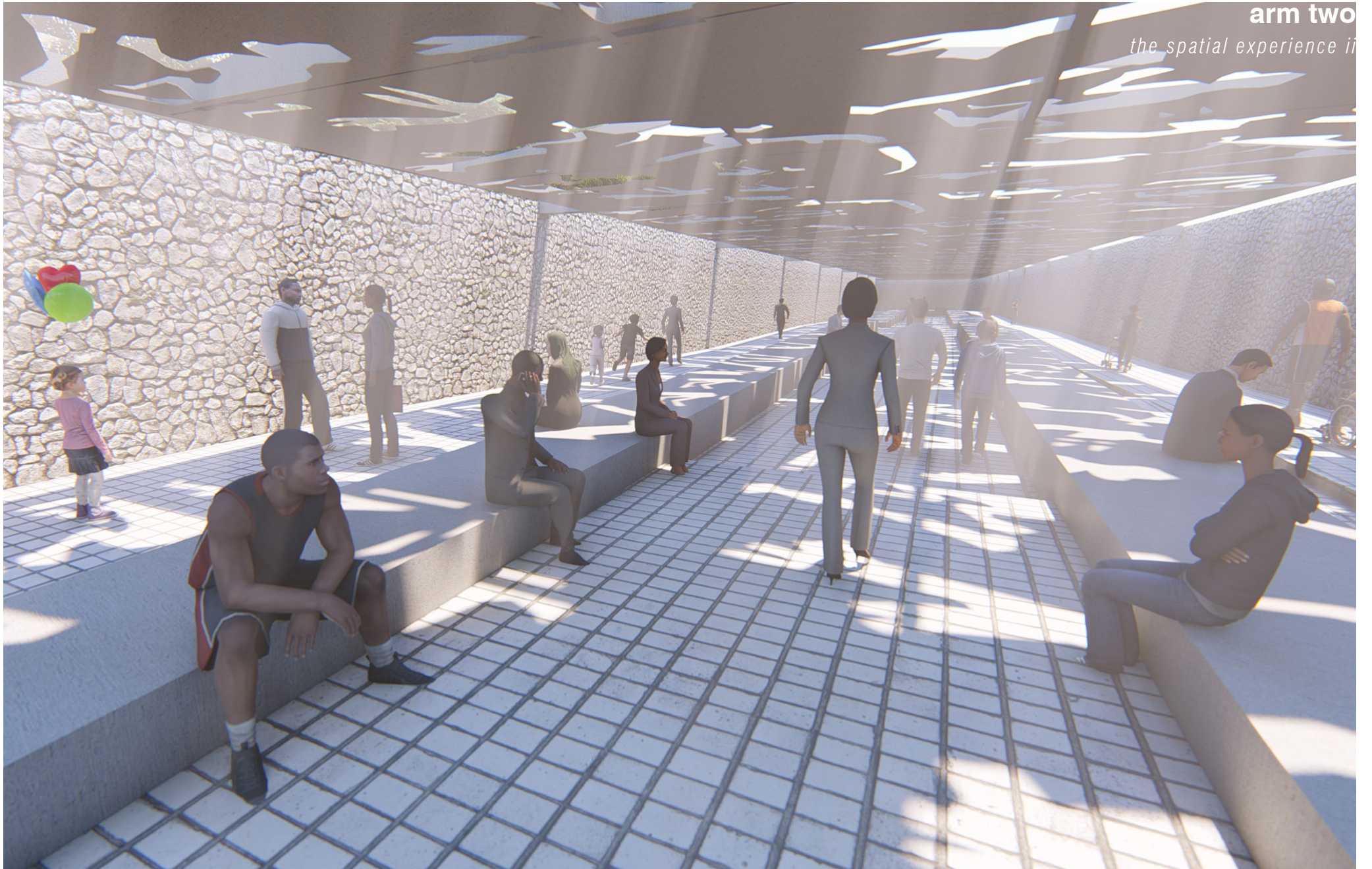


**arm four**  
*the spatial experience*









# 7

The Dissertation :  
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