

THE HERITAGE PORTAL

an Experiential Narrative

A rehabilitation project that reawakens mysteries of the past and simultaneously evoke the need to **tell stories about it.**



The Heritage Portal an experiential narrative

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Research fields:

Heritage and cultural landscapes

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The Site

Westfort, Broekscheur 318-Jr, Pretoria

25°44'04.89"S

28°04'43.01"E

The Client

The Heritage Portal

The Programme

Heritage narration as an event

Edited by:

Karlien van Niekerk

Abstract

Hidden in the western outskirts of Pretoria lies the remains of what used to be the protector of the West, known as 'Westfort'. Just before the outbreak of World War II, the fort was dismantled, stripped down for its steel and left to fall into ruin (Van Vollenhoven 1998:25).

This dissertation addresses the ongoing process of ruination and isolation within highly contested continuums of change. By rehabilitating this forgotten ruin, Westfort might awaken mysteries of the past and simultaneously evoke a need to tell stories about it.

The Heritage Portal will act as the mediator in celebrating the continuity of our collective and continuous South African heritage through the experience of narration. The intention of the project is to protect the heritage significance of the Westfort precinct, secure its future value, and introduce continuity through experiential architecture.

KEYWORDS:

Ruination, collective, experiential, rehabilitate, narration, continuity

Samevatting

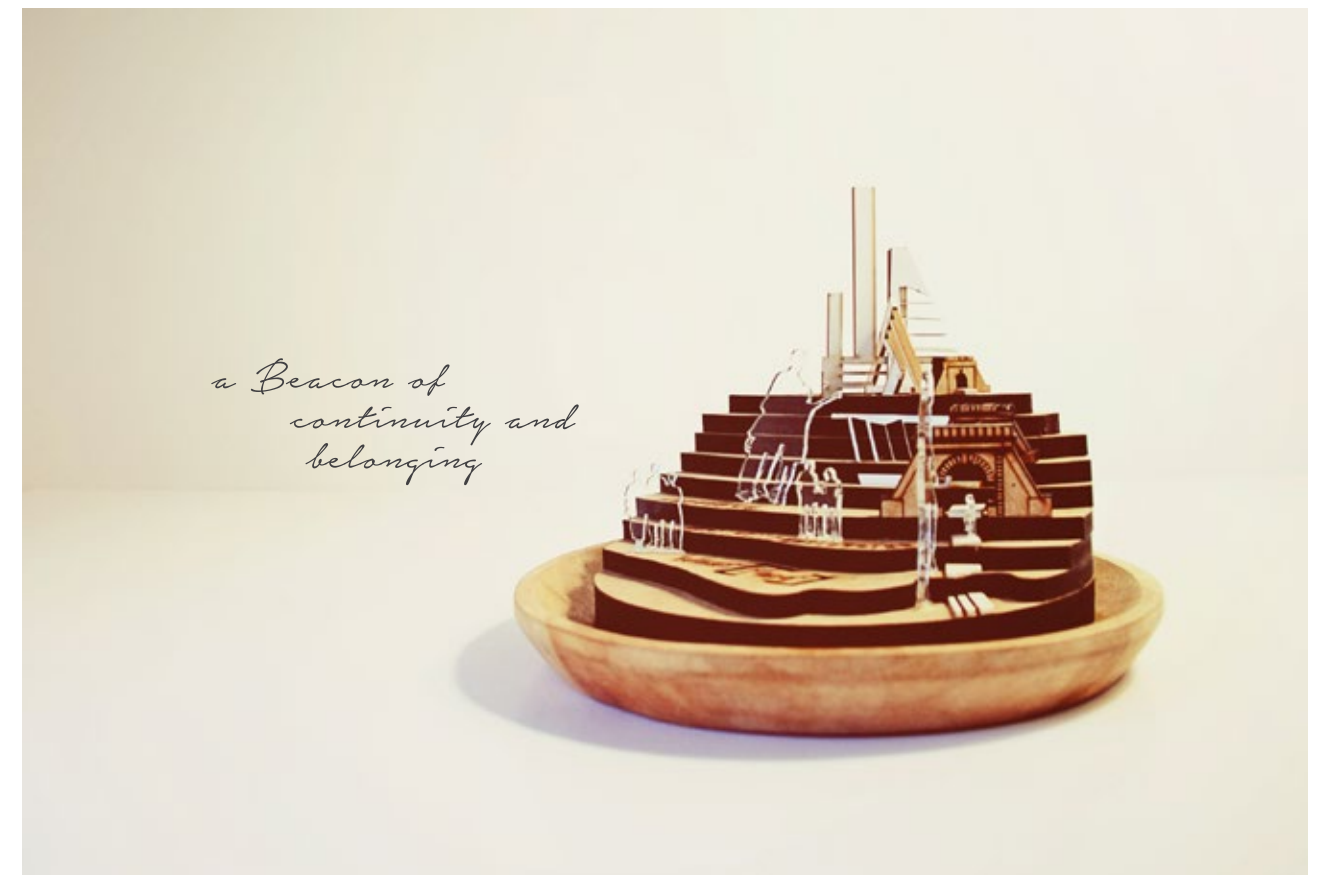
Versteek in die westelike uithoeke van Pretoria is die oorblyfsels van die voormalige bewaarder van die Weste, vandag bekend as 'Westfort'. Kort voor die Tweede Wêreldoorlog uitgebreek het is die fort gedemonteer, gestroop vir sy staal, en aan totale verval oorgelaat (Van Vollenhoven 1998:25).

Hierdie verhandeling spreek die eindelose proses van ruinasie en isolasie in hoogs bestrede tye van verandering aan. Deur hierdie verlate ruïne te rehabiliteer, kan Westfort moontlik raaisels van die verlede ontbloot en terselfde tyd 'n behoefte skep om stories daaroor te vertel.

Die Erfenisportaal sal as bemiddelaar optree in die viering van ons gemeenskaplike en deurlopende Suid-Afrikaanse erfenis deur middel van vertelling. Die intensie van die projek is om die geskiedkundige belang van Westfort te beskerm, om sy toekomstige waarde te bevorder, en om kontinuiteit deur die ervaring van argitektuur bekend te stel.

KERNWOORDE:

Ruinasie, kollektiewe, ervaring, rehabiliteer, vertelling, kontinuiteit



Thank you

My person, my husband,
for inspiring me to make the most
of life. I am in awe of your endless
love and support.

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Barker, for their endless commit-
ment in a difficult year.

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for their support and investment in
my growth as an architect.

My loving family and friends
who walked this journey with me.

My heavenly Father,
for blessing me with the gift and
responsibility of creativity.

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CHAPTER ONE INTRODUCTION

1.1// PROPOSED CONTEXT

Hidden in the western outskirts of Pretoria lies Fort Daspoortrand, which was later renamed by the British as Westfort (Van Vollenhoven 1998:25). This majestic fort was built in 1898 and forms part of a larger family of military fortifications that was established on the surrounding ridges of Pretoria, in order to protect and resist the unwelcome British forces from both the north and south (Saggacci 2015:40).

Also hidden and just a stone's throw away from the old fort, remnants of the original Westfort Leper Institution are still intact at the foot of the Witwatersberg ridge. Established in 1886 as the former Daspoort Hospital, this site proved its flexibility in response to the immediate needs of greater society. In 1902, the site was programmed to accommodate the Pretoria Leper Asylum, later renamed the Westfort Leper Institution, as a segregated and self-sustaining community for those who were cursed with this incurable disease (Breed & Grünewald 2013:54).

Just before the outbreak of World War II, the fort was dismantled, stripped down for its steel and left to fall into ruin. In 1997, long after the realization that leprosy was not contagious, the institution was closed down and has since become home to roughly 5 000 informal settlers who illegally occupy the buildings, and have taken ownership of the site as well as its heritage fabric (Grünewald 2012:16).

Given the state of the current built fabric of both the fort and the institution, there is no question that it is in desperate need of attention. Not only is the fort vulnerable to both vandalism and natural processes of decay, but it remains hidden and forgotten, which is detrimental to its historical memory and heritage value (Van Vollenhoven 1998:25).

Being part of a network of the fortification endeavour, Fort West is unique (compared to its counterparts) as it was designed by French contractors with a different approach to the design. This fort was bigger, more elaborate in its details, structure and materiality, and faced both north and south to protect the western portals of Pretoria.

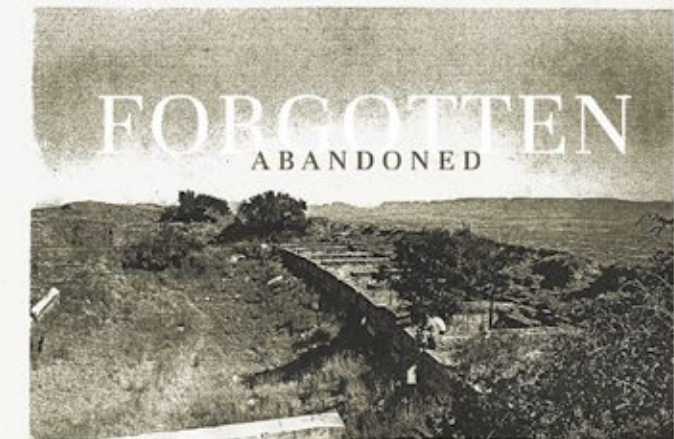
Sharing only a name, the fort and the institution were never intended to be affiliated, but will hereafter be referred to as the 'Westfort precinct'. Today they are both associated with a sensitive and forgotten historical past which is slowly disappearing in the abandoned landscape of Pretoria West.

According to a heritage survey on the historical value of the leprosy institution, Naudé (2012:2) states that the site is of exceptional cultural significance as an institution which was the only one of its kind in South Africa. It is also recommended that the Westfort precinct be considered as a single entity and re-purposed accordingly.

Archaeologists, heritage specialists and other patrons have advocated for the restoration of Westfort Leper Institution as well as the adjoining fort as part of the city's unique history, and recommend that it should be preserved as a place of remembrance (Delpont 2015:43).

The main driver in this detrimental process of ruination is perhaps the pressures of a changing society. In order to rehabilitate or reprogramme our heritage fabric it is critical to first determine its heritage value. This valuation should consider our collective heritage but, more importantly, the future value of this rich heritage precinct.

Figure 1.1: Collage of historical photographs of Westfort as a ruin (Van Vollenhoven:1998:45)



1.1



1.2

1.2// THE RESEARCH PROBLEM

It is argued in this dissertation that, with the progression of time, the function of heritage fabric changes and, with that, its inherent value.

Given the stark conditions of this significant cultural landscape, it is as if Westfort has ceased to exist. Its intention to protect was no longer valued by society and since then, left alarming traces of ruination and isolation. As emphasized by the heritage impact assessment, the Westfort precinct is vulnerable to both developmental pressures and its current illegal inhabitants who have taken ownership of the site in the fight for survival (Naudé 2012:2).

1.3// THE RESEARCH QUESTION

How can Westfort be rehabilitated in order to protect its heritage significance, secure its future value, and introduce continuity through the experiential interpretation of our collective South African heritage?

1.4// RESEARCH INTENTIONS

In light of the problem statement and research question, this dissertation will briefly reflect on the following theoretical premises in order to identify an appropriate architectural response.

Heritage perspectives

There is no question that Westfort is in desperate need of attention in securing its future value. It is often assumed that the authorities of the City of Tshwane Metropolitan Municipality are to blame for the ruination and negligence concerning heritage artefacts, but perhaps the real issue originates from a difference in heritage perspectives.

Inherent value is greatly determined by the perspective and interpretation of our collective heritage; yet, our current South African society still tends to contest and segregate heritage according to cultural DNA, which leads to exemption from protecting the greater whole (Clarke & Kuipers 2015:14).

The identity of place

The differences in our cultural identities are highly influential in understanding the identity of place. Architect and theorist Neal Leach (2002:3) believes that one way of establishing a desired image of place is to first understand how people identify with their environment.

Leach (2002:3) further argues that this identification process is not a fixed condition but rather an active, shared process which is motivated by a need to belong. It is therefore valuable to first ensure a sense of belonging and continuity within our multicultural context that is not detrimental to the authenticity of place.

Heritage management

If the inherent value of our South African heritage artefacts is to a great extent determined by our collective society, it is then critical to reflect on the different valuation criteria. Alois Riegl's essay on the formulation of values-based preservation is worthy for its method of interpreting the value of neglected heritage artefacts (Lamprakos 2014:426).

Both the fort and the institution are valued for their unique contribution to South African heritage, and conform to heritage legislation such as the 1999 National Heritage Resources Act (Act No. 25 of 1999) which serves to protect and preserve our cultural heritage.

Experiential potential

It is suggested in this dissertation that in many conservation projects, often the existing or new architectural fabric becomes static or outdated and should rather resonate with a more holistic objective: preserving and designing for our collective and continuous heritage.

As a critique on heritage conservation approaches, there is still a need for celebrating the experiential qualities of a place which greatly influence its future value. The ideal is that the architectural intervention should allow for a more holistic and engaging experience that respects the historical value but also anticipates change.

Heritage narration

The ongoing contestation and documentation of South African heritage is part of the transformation process in building the nation. The art of storytelling and testimony is valued for its capacity to enable and encourage equal participation in this transformative process (Wieder 2004:23).

In order to include all South Africans in a participatory process of narration, it is critical to consider different methods of narration to ensure continuity, and potentially secure the future value of our collective heritage.

Figure 1.2: Photograph of the entry portal at Westfort taken in 1987 (Van Volenhoven:1998)

1.5//
RESEARCH
METHODOLOGY

In order to address the proposed research intentions, the following methods will be utilized to develop the appropriate architectural response.

Historical overview

To analyse the current fragility of both the fort and the institution, it is critical to first research its original intent and design to understand its heritage significance. A collection of photographs and documents from the National Archives of South Africa (NASA) and the Sammy Marks collection will allow for a visual understanding of the historical context of the buildings and their development over time. Publications and newspaper articles will inform on the public concerns and responses to the ruination of the Westfort precinct.

Site interpretation

Local archaeologist, Professor Anton van Vollenhoven, will be consulted for his valuable and meticulous research and insights on Westfort. A series of site visits will inspire the imagined future condition of the Westfort precinct and its contribution to our collective heritage.

Theoretical exploration

In support of the research question, the following theoretical premises related to collective heritage will be discussed: heritage perspectives, identity of place, heritage management, the experiential potential of heritage projects, and heritage narration.

Precedents

A selection of case studies will be discussed to support both a tangible and intangible understanding of the requirements throughout the design process.

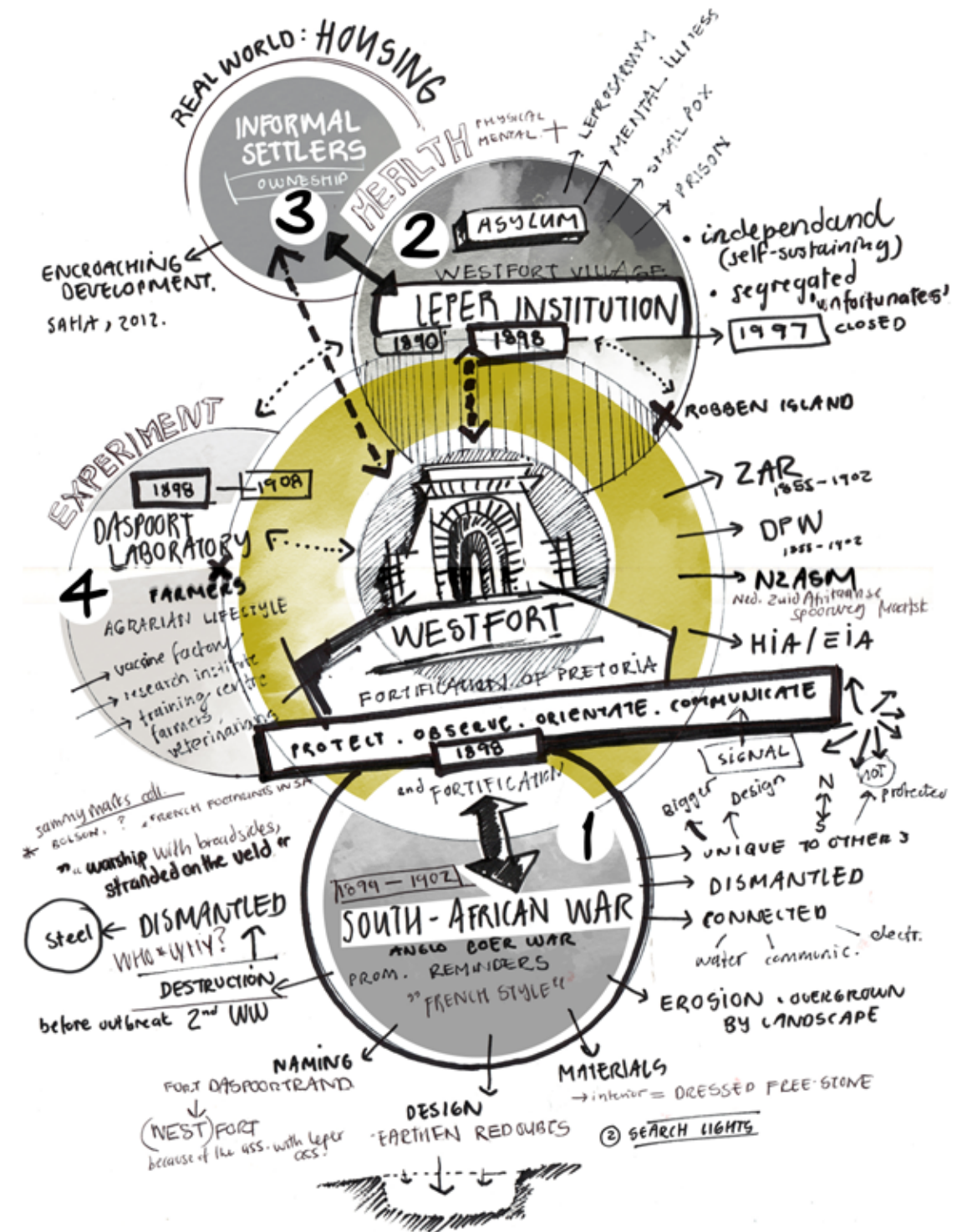
Design methodology

Kafle (2011:191) describes *hermeneutic phenomenology* as a research methodology that translates the individual interpretation of a particular experience into a collective interpretation of the event. This methodology for interpretation will therefore be used as a guideline to translate information into an architectural representation that speaks to the collective.

1.6//
LIMITATIONS AND
ASSUMPTIONS

Although the entire Westfort precinct will be included and considered as one holistic entity, the design focus will be on the fort itself to illustrate the best response to the research problem.

It is assumed that the current occupants of Westfort Village identify themselves as an established community and claim ownership of the historical built fabric in fear of eviction by Tshwane Metro. Although the fort has not been declared a national heritage monument, it remains under the protection of the heritage act (see Annexure), and any intervention should be motivated accordingly.



1.3

Figure 1.3: Collage of site interpretation (Author:2016)

CHAPTER TWO CONTEXT



2.1// THE FORTIFICATION OF THE CAPITAL CITY

As Pretoria was the capital city of the former ZAR Government (1852-1902), its fortification was a critical project in a final attempt to retain control over the former Transvaal. One of the major drivers in the annexation of the province was the discovery of gold in 1886 (Van Vollenhoven 1998:2).

Pretoria was established in 1855 and its central location was valued by both the British and the Boers, resulting in a ceaseless battle for supremacy. Due to its natural topography, the surrounding ridges were utilized as elevated vantage points and strategic locations to protect the entry portals and railway routes into the city (Van Vollenhoven 1998:2-24). It is also important to note the contextual value of the surrounding ridges that connect a series of historical artefacts across South Africa.

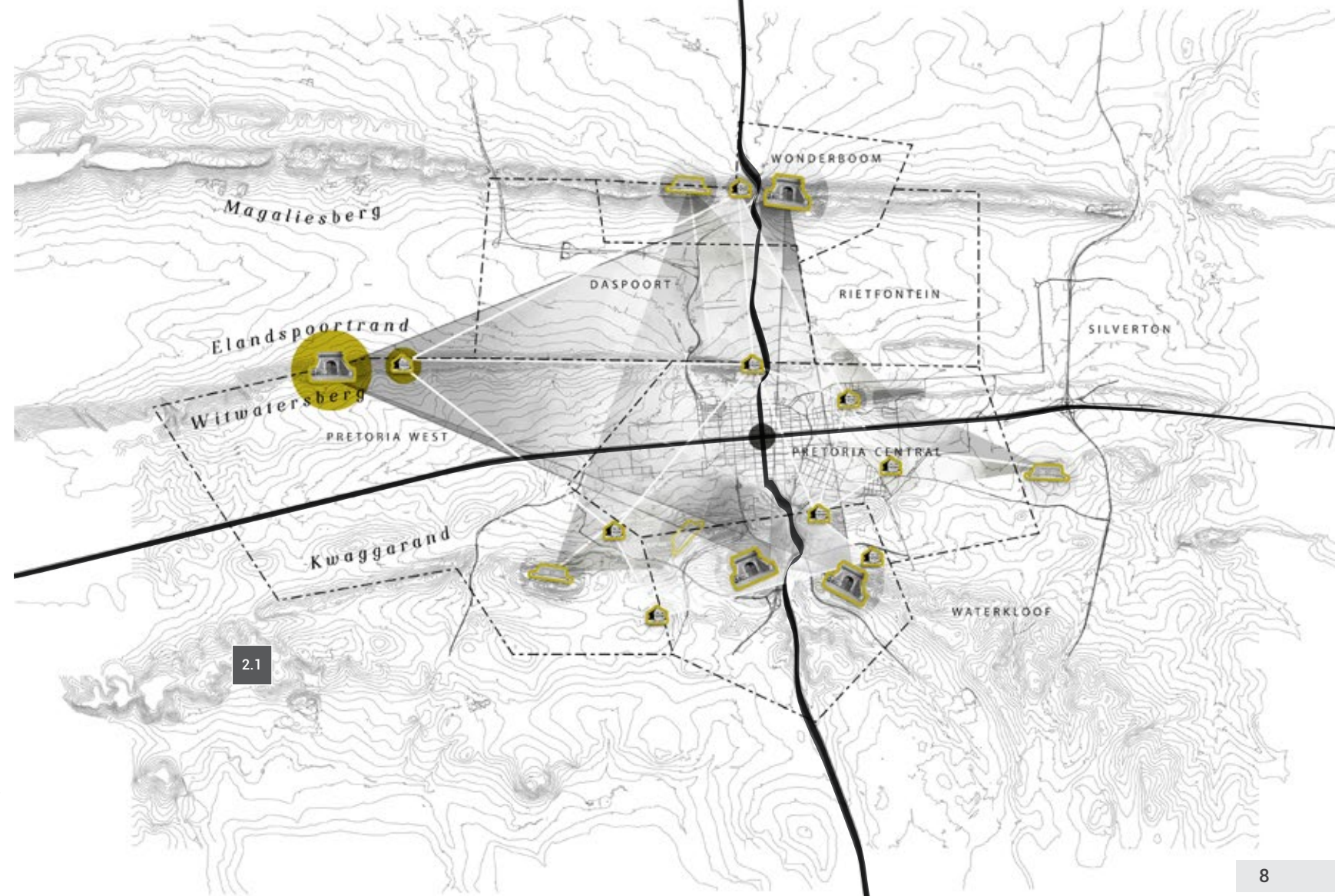
As a result of this ongoing conflict between the British and the Boers, the fortification project was a continuous process. Both opposing forces contributed to it over three consecutive periods between 1880 and 1902. During the period of the first fortification (1880-1881), British forces occupied Pretoria and were responsible for the construction of a number of blockhouses and three forts, namely Fort Royal, Fort Tullichewan and Fort Commeline. According to Van Vollenhoven (1998:12-40) a total of eleven fortifications were erected during this period, but unfortunately most were destroyed in the intense struggle to regain control.

The Jameson Raid (1895-1896) largely contributed to the second fortification period, when the Boer Republic was forced to reconsider its defence strategies. Taking advantage of the elevated vantage points on the ridges, four independent forts had been constructed by 1898 on the surrounding peripheries (see Figure 4). These are Fort Wonderboompoort (northern portal), Fort Schanskop, Fort Klapperkop (southern portal) and what was then known as Fort Daspoortrand (western portal), later renamed by the British as Fort West.

As a result of a disagreement between the ruling authorities of the time, the design and construction of Fort Daspoortrand was assigned to a French firm called Schneider and Co., whilst the other three were built by a German contractor, Heinrich C. Werner (Bolsmann 2008:208).

In 1900 the British reclaimed Pretoria for the second time and constructed additional forts in a third fortification attempt. With the vulnerability of the railway connections across the country, the British implemented the blockhouse system to ensure an indestructible stronghold. Due to their size, these blockhouses could easily be constructed along the railway routes and at important road crossings and, according to Van Vollenhoven (1998:177), amount to a total of 8000.

Figure 2.1: Historical map of the capital city indicating the fortification process and the position of Westfort (Author:2016)



2 Fort Klapperkop
1898



Figure 2.4: Fort Klapperkop after construction (Van Vollenhoven:1996)

2016



Figure 2.5: Fort Klapperkop today (Author:2016)

3 Fort Wonderboompoort
1898



Figure 2.6: Fort Wonderboompoort after construction (Van Vollenhoven:1996)

2016



Figure 2.7: Fort Wonderboompoort today (Author:2016)

2 Fort Schanskop
1898



Figure 2.2: Fort Schanskop after construction (Van Vollenhoven:1996)



Figure 2.3: Fort Schanskop today (Author:2016)



Figure 2.8: Current map of Tshwane indicating the position of Westfort in relation to its counterparts (Author:2016)

4 Fort Daspoortrand (Fort West)

1989

1987



Figure 2.9: Fort Daspoortrand after construction (Van Vollenhoven:1996)



Figure 2.10: Fort Daspoortrand in ruination (Van Vollenhoven:1996)

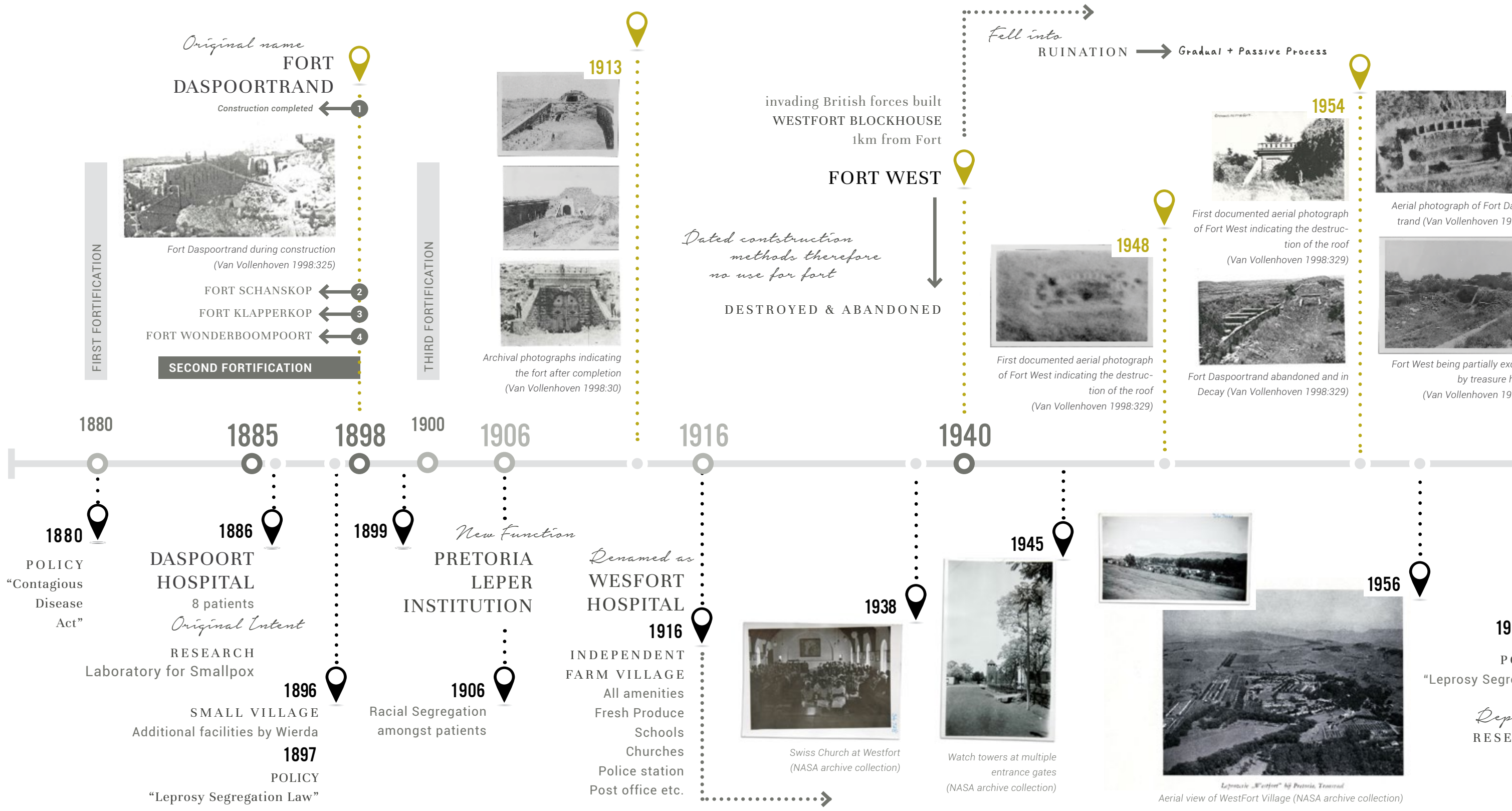
Figure 2.11: Current map of Tshwane indicating the position of Westfort in relation to its counterparts (Author:2016)



2.11



2.11 **Figure 2.12:** Locality map of Westfort situated on the western edge of Pretoria (Author:2016)



WESTFORT PRECINCT
HISTORICAL TIMELINE

ION → Gradual + Passive Process

1948
First documented aerial photograph of Fort West indicating the destruction of the roof (Van Vollenhoven 1998:329)

1954
Fort Daspoortrand abandoned and in Decay (Van Vollenhoven 1998:329)

1956
Aerial view of WestFort Village (NASA archive collection)

1968
Aerial photograph of Fort Daspoortrand (Van Vollenhoven 1998:330)

1975
Fort West being partially excavated by treasure hunters (Van Vollenhoven 1998:330)

1980
Sister Alfonsa with leper patients visiting the old Fort (NASA archive collection)

1987
Entrance gateway with steel doors still intact (Van Vollenhoven 1998:315)

1989
Excavation of entrance and passages (Van Vollenhoven 1998:315)

1997
Multiple artefacts found during excavation (Van Vollenhoven 1998:315)

2016
Fort West eroding away today as a forgotten ruin (Author 2016)

1977
POLICY
"Leprosy Segregation Law"
Repelled by RESEARCH

1985
Medical advancement
CLOSED DOWN
ABANDONED
Fall into RUINATION
Rapid Process

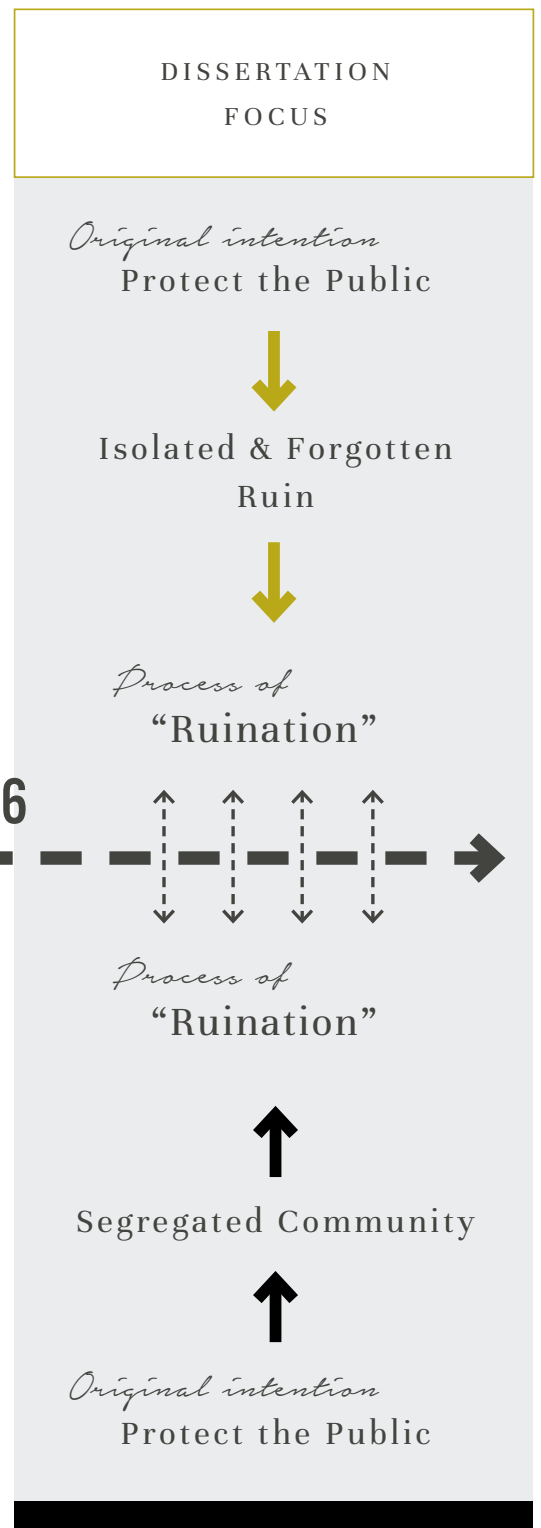
1985
Treating patients (NASA archive collection)

1985
Octagonal Church at entrance gate (NASA archive collection)

1985
Wedding ceremony (NASA archive collection)

1985
Patients in front of chronic section lying in the sun for treatment (NASA archive collection)

1997
Westfort Village today (Author 2016)



WESTFORT PRECINCT
HISTORICAL TIMELINE (continue)

2.2// THE WESTFORT PRECINCT

As mentioned earlier, the former Fort Daspoortrand was assigned to a French firm and only later renamed by the British invaders as Fort West. The German engineers as well as the German community were highly disgruntled due to its "French style" and its different approach to the design, spatial configuration and finishes (Bolsmann 2008:209).

This fort was the biggest of them all, hexagonal in shape, facing both north and south, with electrical hoists to support two magazines powered by tangle oil engines. With multiple tunnels, all the rooms were connected to each other and arranged around the central courtyard. Two dynamo engines were positioned to power sophisticated search lights, and a telephone line connected to the central telegraph office meant that it operated in conjunction with the other three forts.

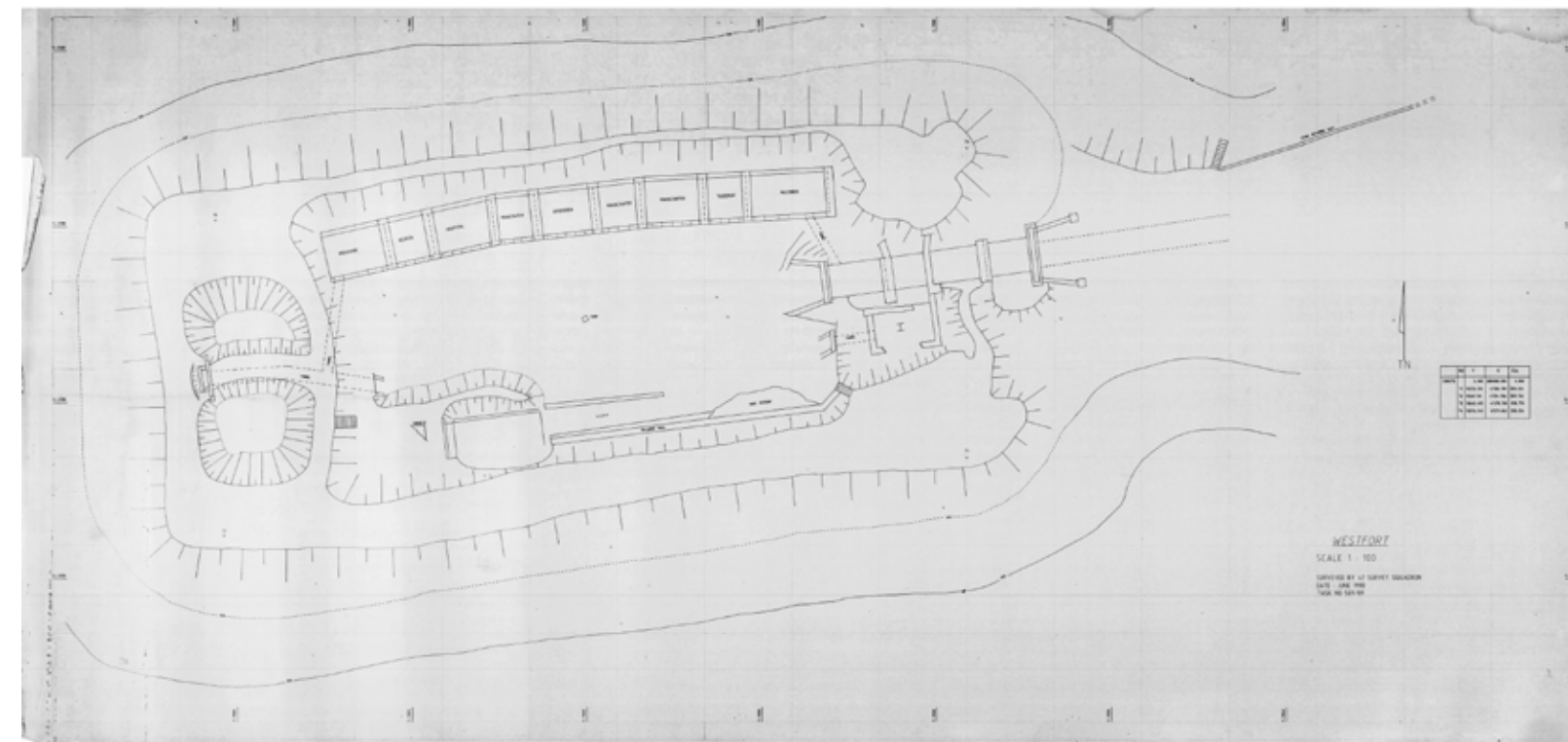
All the facades were executed in 'dressed free-stone' with meticulous attention to the lettering work. The imprinted detail and extravagant entrance portal was by far the most impressive and imposing compared to all the other forts (Van Vollenhoven 1998:98). The elongated entrance portal was signified by its five arches and had a double set of steel doors and a waiting room to ensure its safety.

Although highly sophisticated, sumptuous and unique in comparison to its counterparts, Bolsmann (2008:209) argues:

**... it was considered
'a warship with broadsides,
stranded in the veld'**

Only in 1898 when the construction of the fort was completed, was it realised that these fortifications were designed as earthen redoubts with underground bombproof rooms based on the requirements of the ammunition of that time. Given the rapid advances in ammunition technology, it was realised that the fort was outdated even before it was finished, and would not be able to withstand a bombardment with current or future explosives. As impressive as it was, not a single shot was ever fired from the fort during the war (Bolsmann 2008:210).

According to Van Vollenhoven (1998:118), in 1905 the fort was considered as a possible future prison, but after inspection it was found to be unfit due to its neglected state at the time. The fort was dismantled, the roof removed, and all the rooms stripped down for the main steel components. Considering the endless battle over the control of the Pretoria forts, it is rather ironic that it was so easily abandoned and forgotten by both the British and the Boers.



2.13



2.14

Figure 2.13: Floor plan of Fort West as commissioned by archaeologist (Van Vollenhoven 1996)

Figure 2.14: Aerial photograph of Fort West (Author 2016)

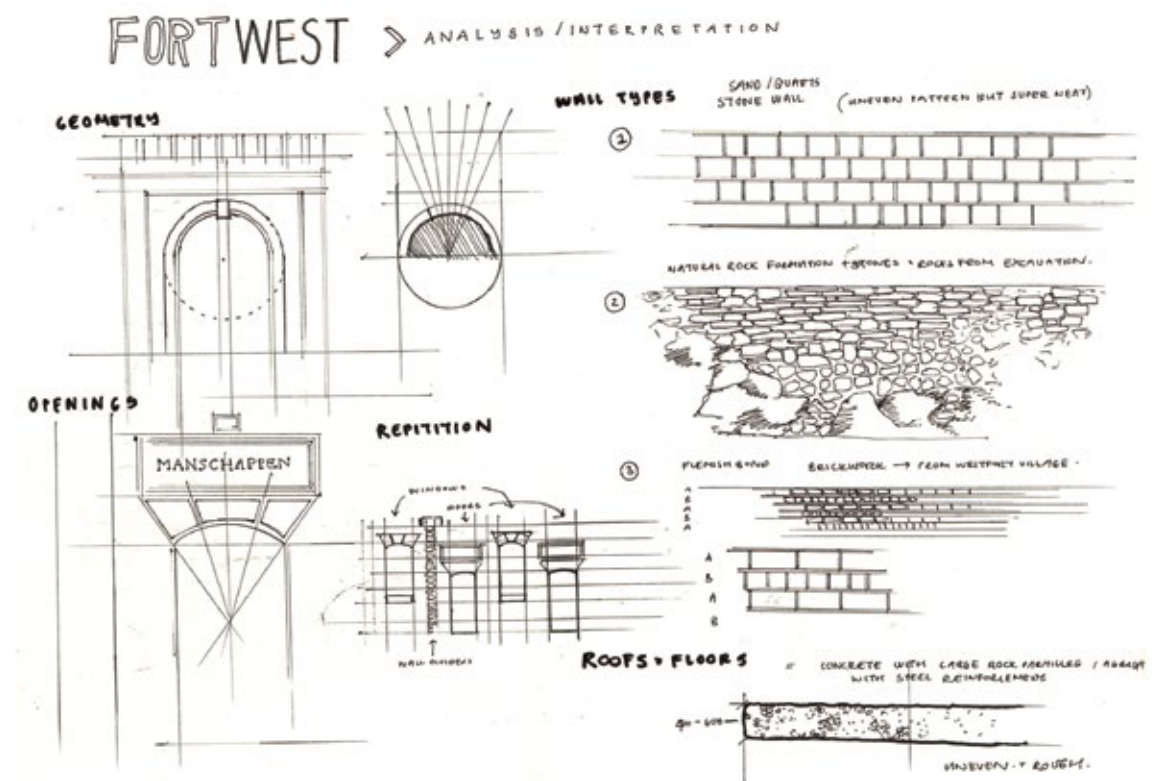
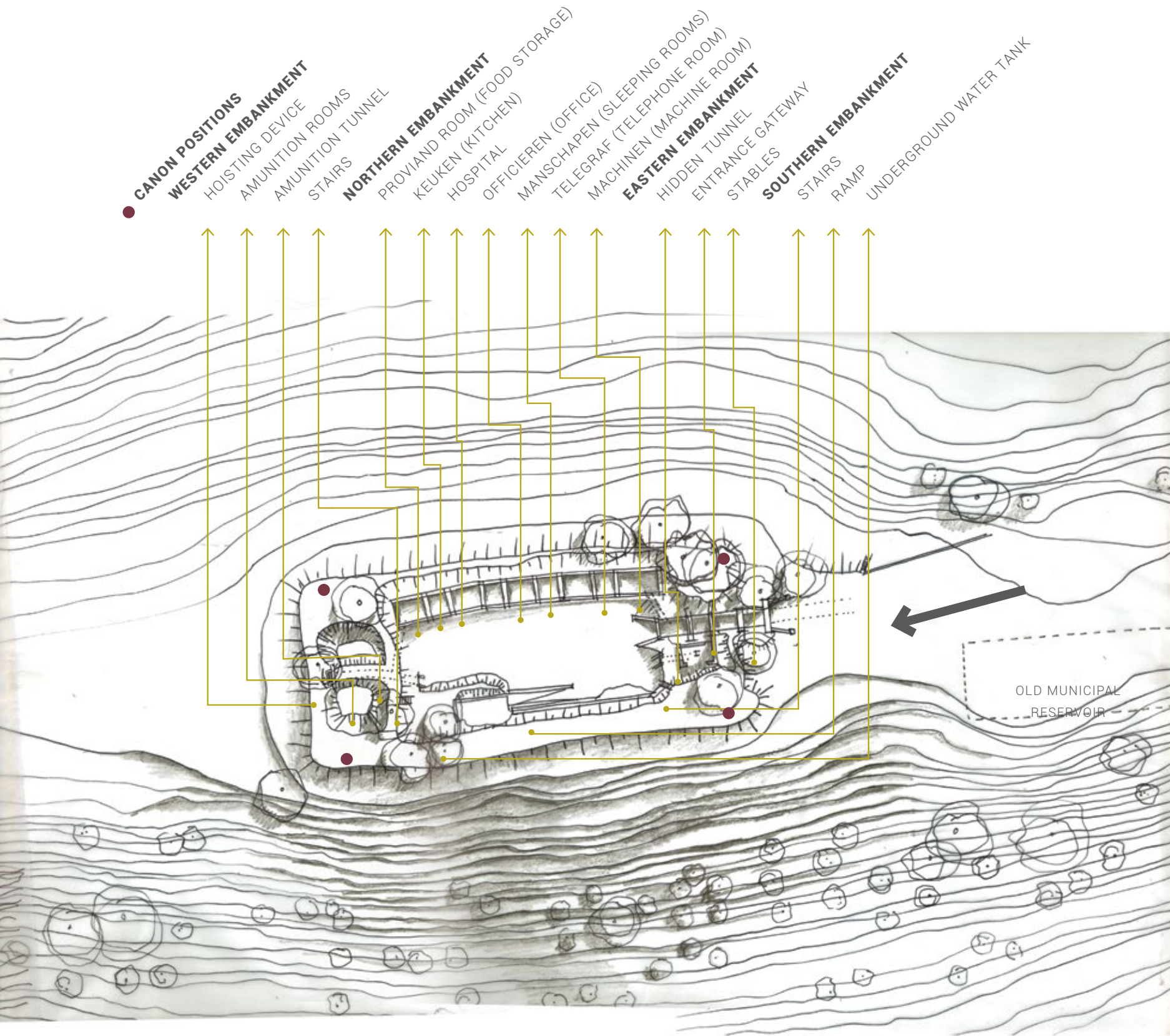


Figure 2.15: Site analysis of original intent & materials of Westfort (Author 2016)

2.14

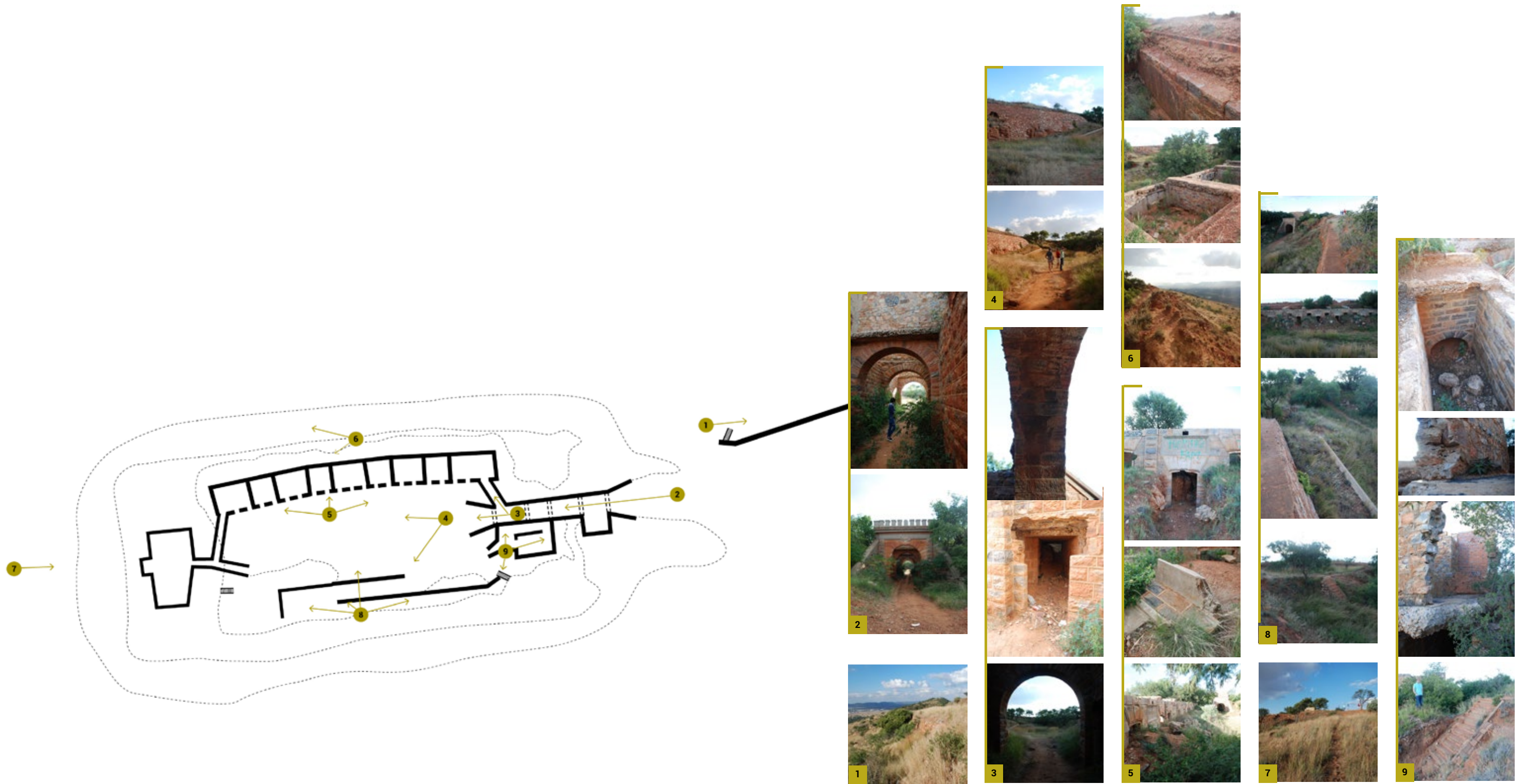


Figure 2.16: Site documentation of Westfort in its current condition (Author 2016)

2.15

As part of the unique history and cultural significance of the precinct, the former Westfort Leprosy Institution should also be considered for its valuable contribution to South African heritage.

The Westfort Leprosy Institution

Although it created a major upheaval in South Africa during the early 1900s, leprosy was a feared and misconceived disease, which historically received little attention in South Africa when compared to other countries (Horwitz 2006:271).

Leprosy (also known as Hansen's disease) is a chronic and infectious disease that manifests through the nerve system on the skin of individuals. If the disease was not well managed, the nerve system could be damaged, leading to numbness in the limbs and resulting in deformities of targeted body parts. Even before the discovery of the biological cause of leprosy, patients were condemned and kept at a distance from inhabited areas out of fear of the unknown (Breed & Grünwald 2013:54).

Horwitz (2006:272) believes that limited local research has failed society by not providing insight into both the history and the socio-political issues related to the disease, its biological relations, and the isolation policies connected with it. With the introduction of the Contagious Disease Act in 1880, the treatment of communicable diseases was highly regulated by public health legislation, which resulted in the establishment of multiple treatment facilities – as seen in the western parts of Pretoria (Kistner 2014:2).

The growing concern for and fear of the disease forced the former government (the Transvaal Volksraad) to act on what had by then become an epidemic. In 1897 President Paul Kruger put the Leprosy Segregation Law into effect, and the following year Westfort Leprosy Institution opened its doors. At that time Robben Island also accommodated a leprosy asylum which was only closed in 1931, after which it was integrated with Westfort as the only multiracial leprosarium in the country (Horwitz 2006:278).

Apart from being segregated from 'normal society', leprosy patients were further segregated according to racial, gender, mental and physical health policies (Horwitz 2006:274). As new information and knowledge became available, policies had to be reconsidered, in order to inform and educate both the patients and society in the collective effort to control this epidemic.

In 1922 a Leprosy Policy was approved by the Government towards research action, which placed high value on the ongoing process of documentation, examination and surveillance of the disease (Kistner 2014:240). At first, quarantine might have been considered the obvious solution to control all venereal diseases. Yet by 1940, the effective result of collective and thorough research had proven this idea to be a fallacy (Kistner 2014:5).

South African laws governing the compulsory segregation of patients were already repealed in 1977, after research proved that leprosy is fully treatable; yet, these laws were enforced for another 20 years. Horwitz (2006:291) states that the government ignored various social, economic and political factors in reconsidering the function and value of the Westfort institution, and therefore never determined its future use.



2.17



2.18



2.20



2.19

Figure 2.17: Patient check-up with doctors on site, 1979 (NASA Archive collection: 2015)

Figure 2.18: One of the patients at Westfort Hospital, 1963 (NASA Archive collection: 2015)

Figure 2.19: A Wedding accompanied by the military orchestra, 1933 (NASA Archive collection: 2015)

Figure 2.20: Patients lying in the sun as part of their daily treatment ritual, 1941 (NASA Archive collection: 2015)

An independent village

Before the leprosy epidemic, the former Daspoort Hospital (named after its location) was intended as a research facility dedicated to the treatment of smallpox.

A former superintendent of Westfort Hospital, Dr A van Zyl (1989:75), explains that, although it was initially called the New Pretoria Leprosy Asylum, it was later known as Westfort Leper Institution and in 1979 was renamed to Westfort Hospital. Before its completion in 1888, it had already been adapted into a leper asylum as a project under the ruling ZAR Government (Kistner 2014:3). The architect Sytze Wierda (1839-1911) was the Chief Architect of the Public Works Department in service of the government, and was responsible for designing additions to accommodate more patients. By 1896 the Daspoort Hospital housed 99 patients, and by 1902 it accommodated 328 patients (Kistner 2014:3).

Wierda was determined to design a place that represented a certain heterotopia, a home away from home, but it was still an asylum disguised as a beautiful small village. In his own words he describes his approach:

... to provide, in the most humane way a pleasant and attractive residence for those "unfortunates" who, through an incurable infectious disease, should be tied to it for as long as they lived.

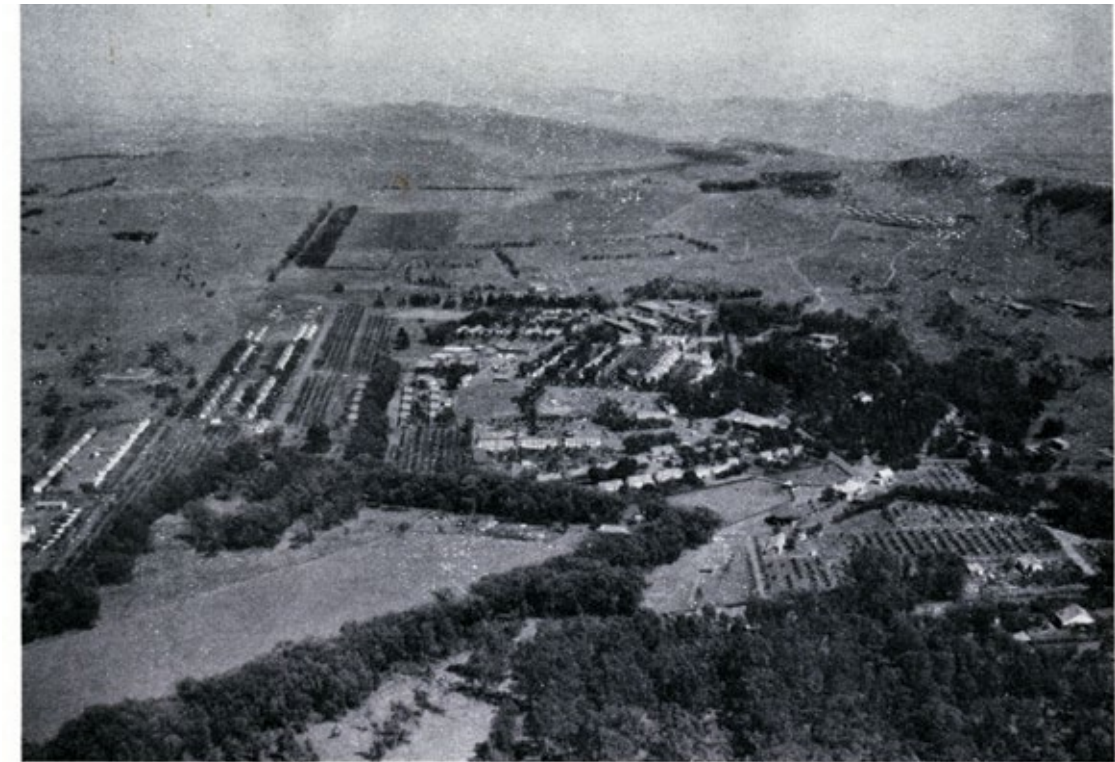
(Meiring 1980:15)



2.21

As the demand for treatment increased, the village had to be extended to accommodate more patients and specific facilities. A post office, police station, schools, churches and shops were just some of the facilities that were added. By 1900 the hospital managed its own farm which provided most of the fresh produce such as meat, poultry, fruits, vegetables and even honey through bee farming (Delpont & Saggacci 2015:47). This again highlights the significance of the Westfort Hospital establishment as an independent and self-sustaining community.

Although the establishment flourished as a small village, patients still yearned for a connection with the real world and a sense of belonging to society. By 1917 a series of eight watch towers were constructed to prevent patients from escaping and to protect the public from the unwanted disease (Delpont & Saggacci 2015:48).



2.22

This institution was intended, by design, to function as an independent village with all the necessary amenities and recreation facilities to make the patients as comfortable as possible. Yet, given the careful attention afforded to the built fabric with the State's best intentions, the patients were deeply traumatized by being forcefully removed from their loved ones and being considered as the 'outcasts of society'.

Reading through the countless pleading letters at the National Archives of South Africa (NASA 2015), one comes to realise the agony behind the isolation and the social turmoil as a result of the ongoing segregation and perhaps wrongful policy making at the time. Another concern that cannot be ignored is the collective memory of place and how this independent village is remembered by the patients, their loved ones, the health care community, and the general public.



2.23

Figure 2.21: Security gate at colored male section, 1945 (NASA Archive collection: 2015)

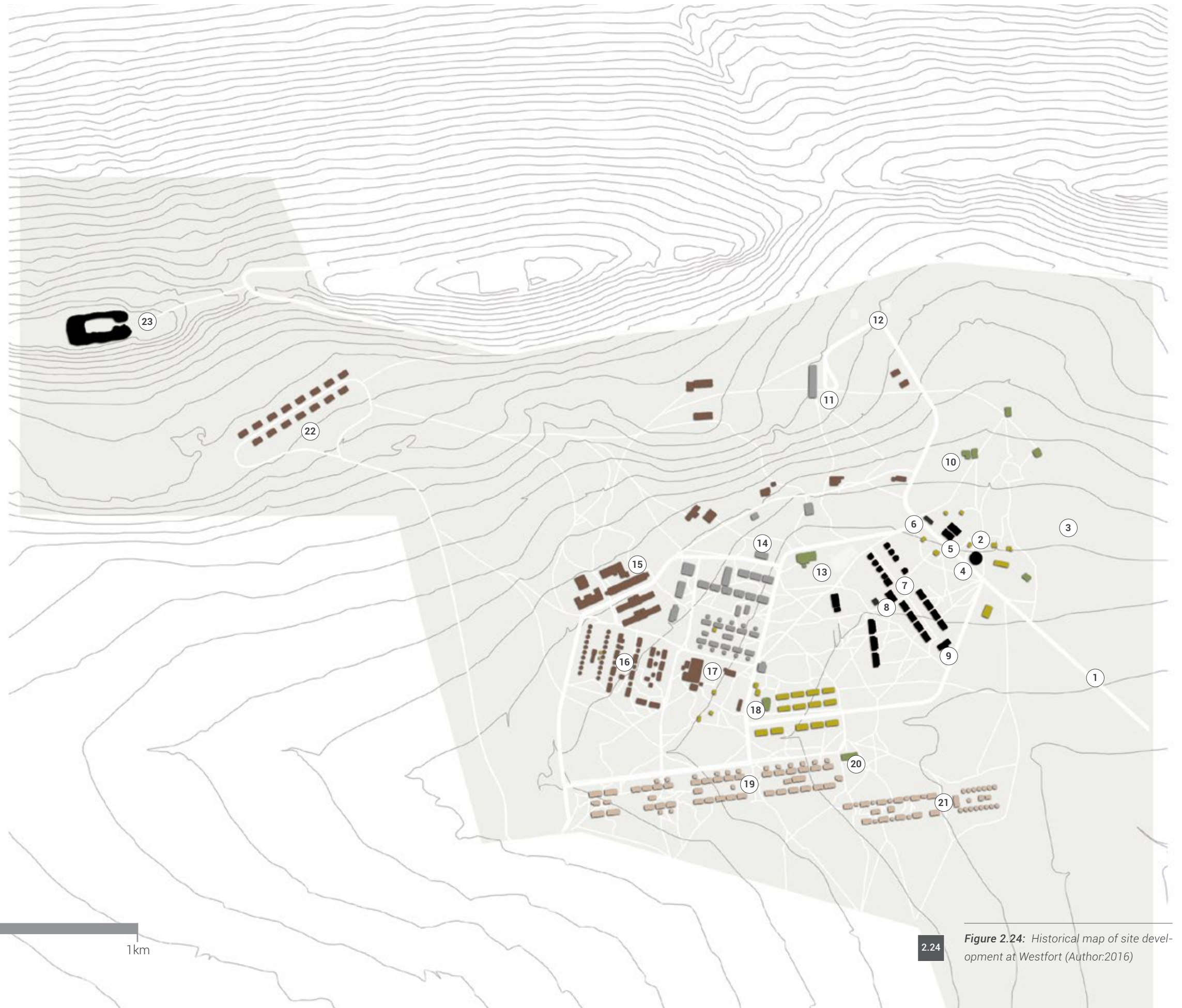
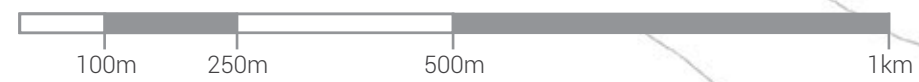
Figure 2.22: Native male patients section, 1941 (NASA Archive collection: 2015)

Figure 2.23: Westfort Leper institution and self-sustaining village, 1956 (NASA Archive collection: 2015)

- 1899
 - 1914
 - 1916
 - 1931
 - 1938
 - 1964
1. Entrance road
 2. Watch tower
 3. Graveyard
 4. Dutch Reform Church
 5. Administration
 6. Post Office
 7. European patients quarters
 8. Recreation room
 9. Hospital
 10. Police station
 11. Nurse quarters
 12. Access to Fort
 13. Catholic Church
 14. Pharmacy
 15. Theatre
 16. Native quarters
 17. Kitchen and inspection rooms
 18. Anglican Church
 19. Patients quarters
 20. School
 21. Native quarters
 22. Staff quarters
 23. Fort



WESTFORT
HISTORICAL
SITE DEVELOPMENT



2.24

Figure 2.24: Historical map of site development at Westfort (Author:2016)



AERIAL VIEW OF
WESTFORT VILLAGE
IN CURRENT CONDITION

2.25 **Figure 2.25:** Aerial view of Westfort in its current condition (GIS Department:2016)

2.3// THE PROCESS OF RUINATION

Today it is assumed that very few people know of the existence of Westfort and what is left of it. After its destruction in the early 1940s, the fort was vulnerable to vandalism and exposed to the natural processes of erosion and weathering. Due to its hidden nature and surrounding context, the fort is generally considered unsafe for curious visitors, which contributes further to its isolation as a lost historical beacon from the forgotten past.

Those who have ventured to this lonesome 'battleship' can still appreciate the grandeur of its unique design, but are left with questions as to how this majestic historic artefact could so easily have been abandoned and forgotten over the years.

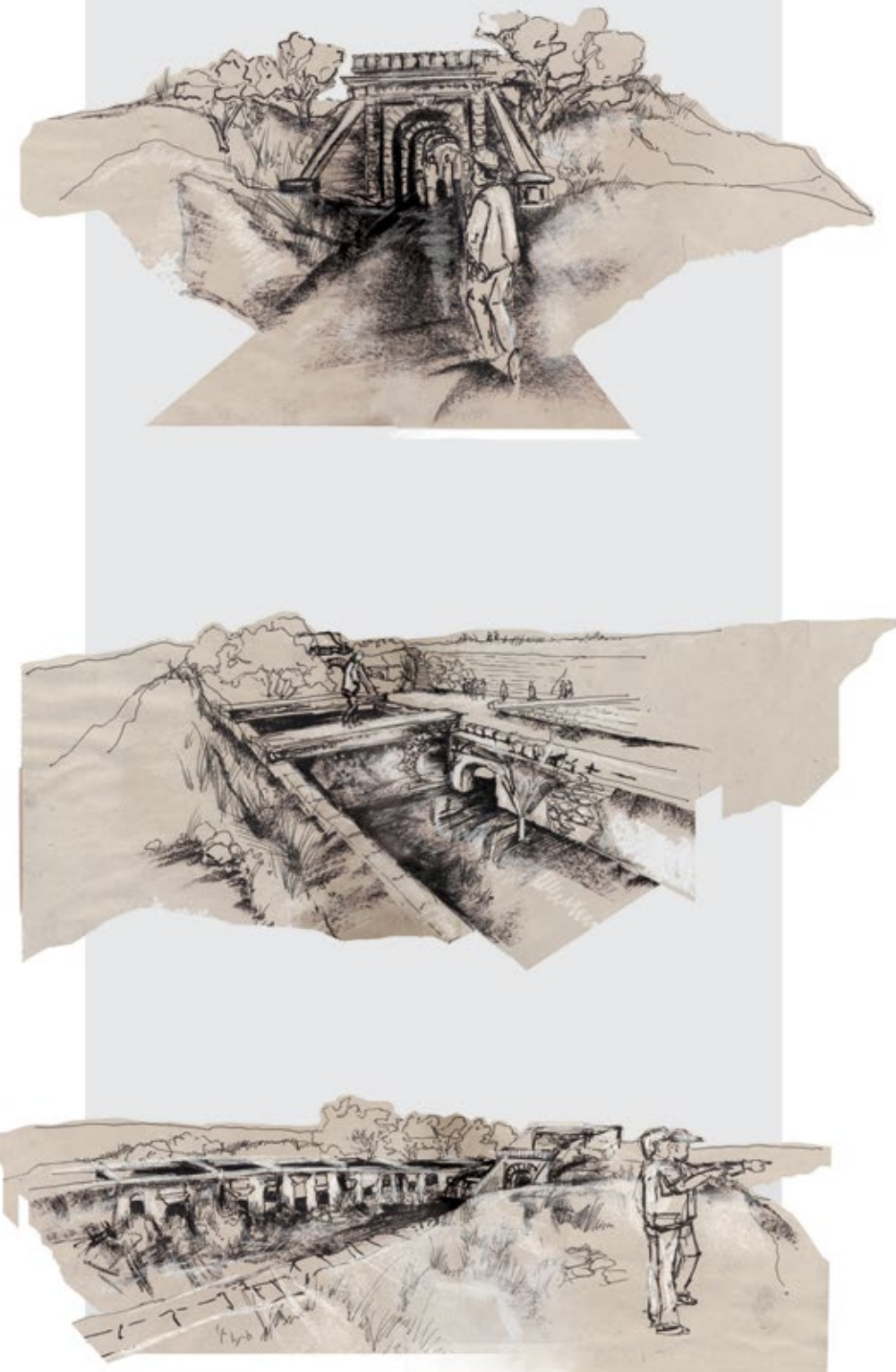
Some articles in the South African Panorama (1989, 1963), Pretoria News (1997, 2006, 2009) and Pretoriana (2009) (see Annexure) describe concerned history enthusiasts who have attempted to raise awareness of the forgotten memories and the significance of all the forts. One particular article in the South African Panorama titled 'Silent Forts' (Visser 1963:20) requests the governing authorities to take the lead in the campaign for restoration, yet calls on citizens to protect and preserve the memory of these neglected cultural artefacts.

In 1938 both Fort Klapperkop and Fort Schanskop were declared as national monuments under the old National Monuments Council (NMC), which was

replaced by the South African Heritage Resources Agency (SAHRA) in 2000 (SAHRA 1988:2). Fort Klapperkop was first restored to its original state and converted into a military museum in 1966, whilst the same procedure was also followed at Fort Schanskop in 1978 (Van Vollenhoven 1998:350). According to SAHRA (1988:34), ownership of Fort Wonderboompoort was transferred to the City Council of Pretoria in 1954. It was only partially restored in 1986, after which it was declared a provincial heritage site.

Sadly, Fort West was never declared a provincial heritage site, and although it is under the protection of SAHRA, it remains 'unprotected' and vulnerable to destruction (Van Vollenhoven 1998:240). It is evident that over the years the 'unprotected' Fort West was even further stripped down for its steel components. Until 2008 the unique and prominent steel doors at the entrance gate were still in position, yet together with all the iron hinges, handles and lettering, these were blatantly taken and probably found their way to the nearest scrap metal dealership. As the structural and decorative steel elements formed an integral part of the structural integrity and authenticity of the fort, it is crucial to reconsider its use and value in the design process.

Figure 2.26 Sketches from site visits at the Fort (Author 2016)



2.26

Fear or fascination?

With the de-sanctification of the city there is always that peculiar hidden artefact (or what is left of it) that fosters the popular perception of a ruin as a wasteland, dangerous and truly 'unsightly'. Yet, ruins are sites of numerous potential activities that could easily be enmeshed in the existing social context as places of adventure, cultivation, shelter and creativity that potentially provide an alternative public platform (Edensor 2005:21).

In the context of the city, Edensor (2005:22) argues that ruins are an integral part of capitalist expansion, reminding us of the temporal state of our human existence as well as that of the built environment. Yet traces and detail found in these forgotten ruins highlight the mystery of the past and simultaneously invoke a need to tell stories about it.

[The form of ruins] must be respected as integrity, embodying a history that must not be denied. In their damaged states they suggest new forms of thought and comprehension, and suggest new conceptions of space that confirm the potential of the human to integrate itself, to be whole and free outside of any predetermined totalising system.

(Woods, 2013:331)

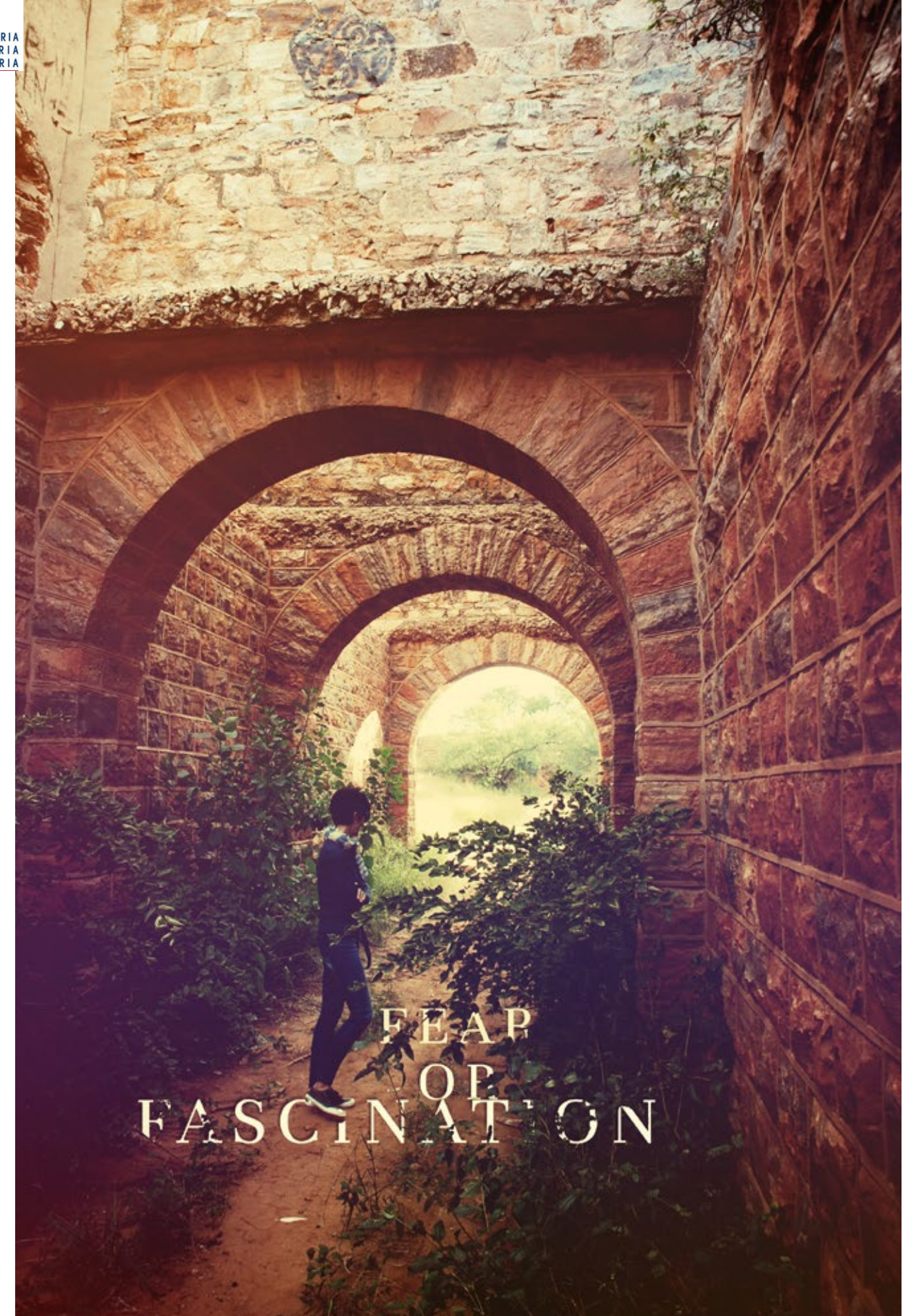
In recent years society has gone from fear to fascination and obsession with ruins, which is either engendered by a fear of the old or a curiosity of what it might become. Burrell and Dale (2011:112) state that this fascination might lie in the liminal state between polar opposites.

... the ruin as organisation and disorganisation, the ruin as architecture or dust, order and chaos, humanity or nature.

(Burrell & Dale, 2011:113)

These conflicting tensions are evident in the historical and architectural remains of both the fort and the former institution. They stand in a relationship of a certain 'otherness' which is lost in the present, yet reminds one of the forgotten past. With their current state resulting from isolation and abandonment, these artefacts are in desperate need of a collective plan of action. The answer to whether the site should be restored, rehabilitated or completely erased to make way for new meaning might just lie in their individual and collective heritage value.

Figure 2.27: Photograph of entry portal at Westfort in it's current condition (Author 2016)



2.27

Similar to the fort, the functional intent of the institution was instantly redundant when leprosy was no longer seen as a threat to society. In 1997 Westfort Hospital closed its doors and, despite its cultural richness, was abandoned and irrevocably became part of an extended process of ruination (Horwitz 2006:290).

Since its closure in 1997, roughly 5000 illegal informal settlers have occupied the site and the historical buildings, claiming self-appointed ownership over the property (Breed & Grünewald 2013:60). Although there are no recorded data or proof, it is speculated that the new occupants of Westfort are likely also considered by society as 'outcasts' due to their employment, migration, racial and social status.

After the doors were closed the site has been cut off from any municipal services, but is provided with a limited water supply to accommodate the most basic needs of the newly established Westfort community (Breed & Grünewald 2015:60). Apart from water limitations, these community members live under very harsh conditions and are forced to find alternative resources in the fight for survival.

The historic buildings have now been stripped and adapted to suit the needs of the inhabitants. Livestock freely graze over the landscape, gardens boast fresh fruit and vegetables, and at every corner someone is busy collecting, transforming or creating something that might be sold for another day's survival.

The alarming concern still to be addressed is the heritage value of this unique cultural landscape and its exposure to the ongoing process of ruination. It is possible that these historical artefacts will soon be completely diminished in value and forgotten, which will surely be a great loss to our collective South African heritage.

Due to a lack of understanding of the tangible and intangible consequences of isolation and ruination, this phenomenon is sadly accelerating in society. Apart from the forgotten memory of the heritage fabric, the people and the landscape, this process of ruination is still one of the biggest threats to fostering a sense of continuity and belonging.



2.28

Figure 2.28: Functioning St Mary's hospital complex (1963) (NASA Archive collection: 2015)

Figure 2.29: Collage of St Mary's hospital complex with current and historic context overlap generated in Honors year as part of site analysis (Author 2015)

Figure 2.30: St Mary's Hospital building in current condition (Author 2015)



2.29



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2.32



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2.37

Figure 2.31: Aerial view of Westfort precinct (1942) (NASA Archive collection: 2015)

Figure 2.32: Aerial view of Westfort precinct in current condition (Author 2016)

Figure 2.33: Functioning Orthodox Church at Westfort (1952) (NASA Archive collection: 2015)

Figure 2.34: Orthodox Church at Westfort as community hall (Author 2015)

Figure 2.35: Remains of the Orthodox Church at Westfort after a protest action (Swart 2016)

Figure 2.36: Native men patient complex at Westfort (1941) (NASA Archive collection: 2015)

Figure 2.37: Re purposed rondawels for pig farming (Author 2016)



WESTFORT PRECINCT
SITE BOUNDARIES

2.38

Figure 2.38: Aerial view indicating project site boundaries (Author:2016)

2.4//
CONTEXTUAL
PRECEDENTS

THE AMER FORT COMPLEX

Location : Jaipur, India
Date : 11th - 17th century
Architect : Raja man singh

Key words

Cultural landscape
Landscape conservation
Movement
Tourism

As previously mentioned, cultural landscapes are an integral part of a nation's heritage, exhibiting multiple stories of our shared cultural heritage over time. Similar to Fort West and its military counterparts, the Amer Fort complex in Jaipur is a good example of re-appropriation over time, as well as an experience of the authenticity of place.

Along with six other hill forts in the state of Rajasthan, this fort complex has recently been added to the tentative list of World Heritage sites in an attempt to preserve its shared heritage significance (Rajora 2013:2). As part of a thesis project, Rajora (2013:30) focussed on landscape conservation through experience and interpretation of place. By extending the presupposed heritage periphery from building to landscape, the project introduces a series of experiential interventions connected by a variety of walking trails.

One of the key determinants in this project was the overlaying of movement patterns and thresholds. The planning of the trail was informed by the development of and additions to the complex over time, such as the historical, water, cultural, archaeological and tourist trails.

In the hope of serving as a conservation model for the larger network of forts in Jaipur, this project illustrates that the Westfort can also benefit from rehabilitation through landscape conservation. Not only does the rehabilitated site contribute to the city's economic growth, but also to the shared memory of place.

Figure 2.39: Amer Fort complex upon approach from village (Wessels:2016)

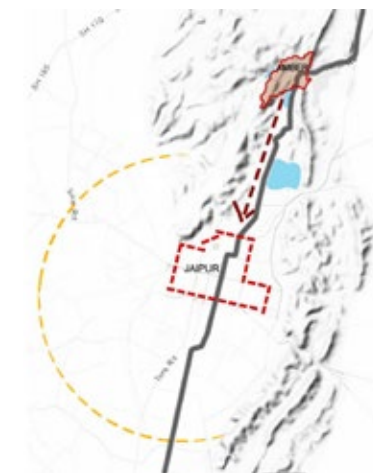
Figure 2.40: Map of Jaipur indicating its relationship to the Fort complex (Rajora:2013)

Figure 2.41: Multiple routes up to the Fort complex (Wessels:2016)

Figure 2.42: Circulation and tourist trails (Rajora:2013)



2.30



2.40



2.41



2.42

THE GENADENDAL CONSERVATION PROJECT

Location : Genadendal, Western Cape

Date : Established: 1738

Case study: 2008

Architect : Braaksma & Roos

Key words

Shared heritage

Community involvement

Participatory

Action plan

1. Training, communication & marketing
2. Town improvement & clean-up
3. Accommodation management
4. Integration with nature
5. Community based cultural tourism
6. Music as tourist attraction

As part of the shared heritage projects approved by the Ministry of Education, Culture and Science of the Netherlands, the restoration of Genadendal is an example of community integration to restore a sense of pride in the social and cultural identity of place (Roos 2002:336). Built on the site of the oldest mission station in South Africa, Genadendal was established in 1738. Even today it still reflects the richness of both the tangible and intangible heritage layers that were developed over time (Roos et al. 2009).

Driven by the community members themselves, the project aimed to preserve the original heritage fabric and unique construction techniques of the Cape vernacular region. The initial idea, as proposed by the restoration team, was to restore three critical points of interest: the fertile valley for agricultural development, the central church as the heart of the settlement, and the natural surroundings to promote eco-tourism.

Over the centuries it became a place associated with the coming together of people from different racial groups. In addition to being the first permanent Khoi settlement at the Cape, it was also a place of sanctuary for more than a thousand slaves when slavery was abolished in 1838.

– Nelson Mandela

(Roos, et al., 2009:vii)

The promotion of social sustainability and local knowledge and capacities is the main successful outcome of this project. This collaborative conservation effort illustrates the benefits of investing in a shared identity and collective memory of place.

Figure 2.43: Community members from Genadendal (Roos:2008)

Figure 2.44: Elevations and plans of original built fabric (Roos:2008)

Figure 2.45: Restoration and construction by community members (Roos:2008)

Figure 2.46: Restoration of local cottage (Roos:2008)



2.43



2.44



2.45



2.46

**THE LALIBELA
ROCK-HEWN CHURCHES**

Location : Lalibela, Ethiopia

Date : 11-12th century

Architect : unknown

Key words

Heritage Tourism

Indiginization

Construction

Experiential

Hidden in the northern part of Ethiopia, in the province of Wollo, lies the legendary town of Lalibela. Its authenticity is celebrated by the presence of eleven remarkable rock-hewn churches.

Except for the weekly market day, this town is perceived as just a quiet mountain village, yet it is home to an internationally renowned 900 year old World Heritage site (Fraser & Ruther 2013). Today the denomination of the still functioning Ethiopian Orthodox Church is a fascinating study in indiginization and the ongoing commitment to preserve its functional legacy.

In 1978 the rock-hewn churches of Lalibela were inscribed by UNESCO on the World Heritage List as one of the first restoration projects to be sponsored by the World Monuments Fund in the 1960s, and have since then been part of various international conservation projects to preserve this treasure as an international legacy (Negussi 2010:1).

Similar to Westfort, these hidden structures are also vulnerable to modern threats and in need of continuous rehabilitation. At first they required protection from enemies beyond their

borders, and today their structural integrity is compromised by natural forces of weathering and erosion (Hecht & Kidane 1983:211). Apart from the latter, annual pilgrims, festivals and tourists are also exacerbating the deterioration process and should be considered in the heritage management programme.

Perhaps what strikes the visitor the most is the expectation of a monumental experience, and yet on approach these churches are humbly situated below the vista, which makes them unique to the church typologies of their time. In contrast to the traditional method of constructing from the ground upwards, these churches were hewn out from the roof downwards (Hecht & Kidane 1983:130).

The construction process shows similarities to that of the fort, as the emphasis was on in situ removal rather than addition. What is interesting is that the builders had to work with the unconventional, the negative, and the process could therefore almost be described as a process of 'archaeology in reverse'. This World Heritage treasure is truly one of a kind. It successfully celebrates authenticity of place and heritage value, as well as an experiential journey.

Figure 2.47: Pilgrims gathering around the church of St George (Davey 2010)

Figure 2.48: Section indicating the visibility planes (Ching 2007:113)

Figure 2.49: Exterior Facade two churches (Zamani Project :2011)

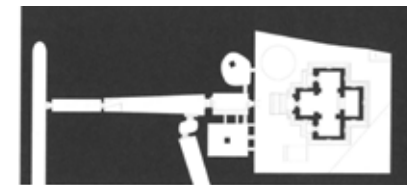
Figure 2.50: Temporary roof structure for protection (Grace et al 1967: 23)

Figure 2.51: Elevation of two churches (Zamani Project :2011)

Figure 2.52: Section indicating the visibility planes (Ching 2007:113)



2.47



2.48



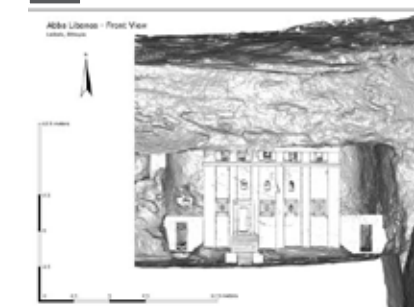
2.50



2.52



2.49



2.51

Conclusion

Luckily the concern for both Westfort and the former institution has found common ground amongst academics and professionals, political stakeholders, former patients, and current community members (Delpont & Saggacci 2015:42). The continued interaction between these critical stakeholders is of great importance in the protection of the cultural significance of the site, as well as the inclusion of current socio-economic concerns.

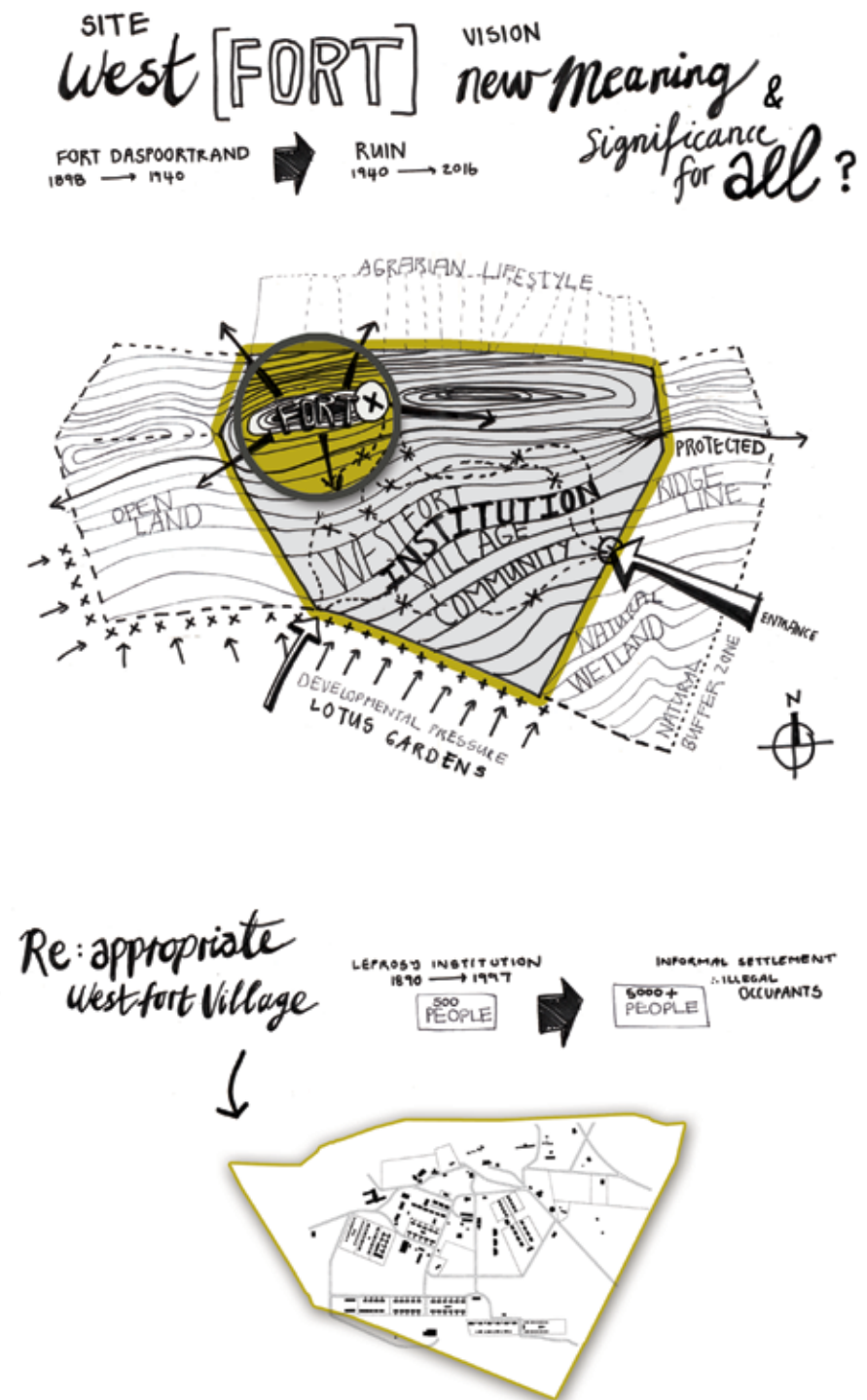
In 2012 a heritage survey of the Westfort Hospital complex was conducted to direct the approach to the future development of this significant cultural landscape. Naudé (2012:2) highlights the importance of not only placing value on the historical and architectural fabric, but also on its existence as a single entity in a contemporary context, which includes the social, cultural, historical and environmental factors contributing to the uniqueness of place.

Based on a recent research study by Delpont & Saggacci (2015:42), it is clear that there is information missing regarding ownership of the site, the intentions of future development, and the use of both the village and the fort. Although the site is under major threat from developmental pressures, it is interesting to note that the site boundaries have not yet been breached and are still clearly demarcated in accordance with the original site peripheries (see Figure 36).

It is clear that Westfort Village should be subject to either a formal or informal systematic approach that protects the site from encroaching developers and new inhabitants. Westfort Village is considered an established community that not only protects and preserves the site, but has also established a new informal economy that is integral to the continued existence of the site. As custodians of the site, the Westfort community is considered as critical stakeholders in the successful future valuation of the entire precinct.

In an attempt to realign the significance of this historical site with its value and possible future intentions, the following chapter will form the theoretical premise for the design process. The theory should assist the process of understanding the heritage value, the identity of place, and the experiential potential of the Westfort precinct, in order to determine an appropriate design response and programme.

Figure 2.53: Potential strategies for the Westfort precinct as one holistic entity (Author 2016)



2.53



CHAPTER THREE
**HERITAGE IN
THEORY**

3.1// HERITAGE PERSPECTIVES

As to heritage, perhaps the first concern originates from different perspectives on heritage. Society still tends to contest and segregate our cultural heritage according to our cultural DNA. This might lead to the categorization of our heritage into different fragments, exempting us from our responsibilities to protect the greater whole.

Fragmented heritage

As a result of recent events in South Africa, the colonial-era public memorials and place names have been severely targeted and some even destroyed for their physical & symbolic representation of the former apartheid regime (1948-1994).

As a representative of the Heritage Association of South Africa (HASA), Stoltz (2015) argues that the outcome of radical contestation should enforce the revisiting of policies in respect of our collective heritage. As confirmed by the National Heritage Resources Act (NHRA) (Act No. 25 of 1999):

National estate must serve to reconcile the past, heal divisions and advance the interests of social justice and cultural restitution.

(Republic of South Africa, 1999)

The Act clearly states that although the law protects public monuments and memorials, it still recognises the need for change (Stoltz 2015). It advocates for the effective management of change to ensure that the actions of the current contested concerns do

not deprive future generations of accessing and learning from the remains of our material past (Stoltz 2015). In March 2015, a new protest movement was initiated at the University of Cape Town with the aim of removing a statue of the former colonial leader, Cecil John Rhodes (Barnard-Naudé 2015). Apart from the statue being removed, the greater objective was to reconsider all colonial and Afrikaner Nationalist artefacts that are associated with a painful past (Barnard-Naudé 2015).

Perhaps the contestation of these heritage artefacts is not only a reaction to that painful past, but rather a concern for the future of transformation. As a continuously evolving society, we need to be reminded of our responsibility in protecting these fragmented reminders of a historical past in order to ensure their future interpretation.

There is a general tendency to view the process of fragmentation as a result of isolation or vice versa. Yet Vesely (2004:318) argues that fragmentation has contributed to the formation of meaning, resulting in a sense of completeness. One could argue that 'collage' is a method of understanding information that configures new meaning to generate a sense of a collective whole.

Fragmentation is a modern phenomenon closely related to the method of representation. An object or a memory can only be interpreted in conjunction with the person experiencing it and not in isolation. Fragmentation therefore has a situational structure that signifies a specific context or memory, but allows for imaginative interpretation and reading (Vesely 2004:325).

The ruination of the Westfort precinct is a result of fragmentation. It represents fragments of society's failures (the negative) and the opportunity for new interpretation and meaning (the positive). The latter is a way of responding to this process of renewal with a restorative attitude to encourage a sense of completeness (Vesely 2004:334). Through a process of rehabilitation, the Westfort precinct could not only regain its cultural value but also its shared universal authenticity.

Figure 3.1 Contested heritage monuments in recent protest action (THE TIMES 2015)

Figure 3.2: Collage of fragmented heritage artefacts within the inner city of Pretoria (Author 2016)



3.1



3.1

Shared cultural heritage

The tangible and intangible fragments from the past and those created in the present are what one could refer to as shared cultural heritage (UNESCO 2015:2). It is important to understand that cultural heritage is essentially a continuous process of discovery, evaluation and documentation, which are all subjected to the inevitable change in our cultural DNA.

Neither history nor heritage is restrained by country borders. Thus there is reason for heritage conservation to cross borders.

(Clarke & Kuipers 2015:17)

South Africa and the former Dutch republic have a well-known shared history, Westfort being one of the rich residues from the former *Zuid-Afrikaansche Republiek* (ZAR) (Kuipers 2015:5). Considered a trans-national concept, 'shared heritage' represents a holistic approach to preserving heritage that is a product of multiple contributions over time (Clarke & Kuipers 2015:14).

In 2015, the University of Pretoria (UP) and the Delft University of Technology (TUD) participated in a joint venture to document, evaluate and report on the shared heritage of the Westfort Leprosy Hospital precinct. Prof. Marieke Kuipers (2015:6) was part of the advisory team to report back on the implementation of policy by the City of Tshwane, as well as possible strategies to conserve valuable shared heritage.

Kuipers (2015:11) suggests that the main challenge concerning Westfort is the preservation of its legacy whilst balancing the needs of its current users. The solution, however, lies in an integrated conservation strategy that includes the active participation of all the relevant stakeholders.

UNESCO (2015:2) places high value on active participation in the production of all types of cultural heritage, which includes an array of artefacts such as built fabric, music, language and art. Considering the management of cultural heritage, UNESCO (2015:3) states these inter-related (environmental, social and economic) management programs must:

...meet the needs of the present without compromising the ability of future generations to meet their own needs.

(Brundtland Commission 1987)

With reference to the current situation at Westfort, meeting the needs of the present would mean that, apart from the economic pressures, the social viability of the cultural heritage is critical in the sustainable management process. Besides the benefits of social integration and cohesion, the rehabilitation of cultural heritage also creates employment and educational opportunities. Its success however would be highly dependent on the process of the equal participation of both the formal and informal heritage communities (UNESCO 2015:4).

Collective memory of place

Not only is Westfort vulnerable to socio-economic pressures, but also to the degradation of its ecological integrity. As mentioned earlier, the fort is situated on one of Pretoria's ridges forming part of a greater ecological network. Clarke and Kuipers (2015:1) suggest that all of these layers of informants are integral to the establishment of our collective memory of place and therefore also a new sense of belonging.

One could argue that memory is fundamentally connected to identity. Who we are as individuals influences how we perceive events and therefore how we construct our memories. However, it is the collective memory of place that is eventually documented and translated as history (Nora 1989:9).

It is a well-known fact that, due to political and social limitations, some of our cultural and traditional heritage was never recorded or documented, and is therefore excluded from written history records. The problem is that today, this exclusivity has escalated into other cultural issues of segregation and isolation, bringing the inclusivity of our shared cultural history in question. Inclusive history not only questions social or political accuracy but also individual and collective credibility.

In the field of 'memory studies', Maurice Halbwachs suggests that it is within the larger community and social networks that individual memory develops and not in isolation (Assmann 1995:126). Halbwachs argues that memory by nature represents both the individual and the collective, the specific and the multiple, which are all rooted in physical manifestations of gestures, images and objects; therefore the absolute is installed by remembrance.

History, however, belongs to everyone and to no-one specific; therefore it is bound to temporal continuities and the relationship between time, place and people (Nora 1989:9). Although the City Council of Tshwane places high value on the management of both heritage and cultural artefacts, they call on its citizens, the collective, to conserve what is left for future generations (City of Tshwane 2013:464).

However, the heritage sites concerned are in desperate need of a holistic approach in adapting their current social and functional requirements, in order to accommodate future needs and instil new meaning to place.

Meaning is not a condition or quality of the building, of the thing itself; meaning arises from situations. The meaning of a building, then, must always be a meaning for some specific one at some specific time in some specific place.

(Jones 2000:41)

Figure 3.3: Diagram of the collective memory of place as the point of origin for the documentation of our collective history (Author 2016)



3.2// THE IDENTITY OF PLACE

Managing change is an integral part of our lives and it often bewilders us. Renowned urban planner Kevin Lynch (1972:1) argues that the perception of our personal image of place is reciprocal with our individual well-being. It is possible that a desirable image of place is one that fundamentally celebrates the present condition with a strong connection to both the past and the future.

Creating a sense of belonging

As mentioned earlier, one way of establishing a desired image of place is to understand how people identify with their environment. It is critical to first determine the different users (to follow) in order to understand the point of identification.

Architect and theorist Neal Leach (2002:3) argues that it is difficult to establish the points of identification, and that it might be more appropriate to first understand the cultural identity of place in order to understand its relation to architecture.

Identifying with place is not a fixed condition and the process of identification should be interpreted as ephemeral, which could be explored through a model of 'belonging' as an active process rather than a given state (Leach 2002:12).

Leach (2002:126) questions the ongoing obsession with form which replicates so-called 'cultural identity' without even engaging with the process of subjective identification. Promoting the process of identification, Leach (2002:130) refers to the work of Judith Butler, who advocates the notion of 'performativity' that reinvents identity. Butler believes that identity is not defined by our social, political or biological existence, but rather by our actions and behaviours, and therefore our performance.

Thus it is possible that a new sense of belonging and attachment to place could be instated through performance. Through rituals and re-appropriation, spaces are reinvented and rewritten with new meaning and new memories, and then become spaces of belonging (Leach 2002:130). Instead of the preconception of 'belonging' as possession or related to a particular cultural group, Leach (2002:130) argues that it is in fact a product of performativity and that it enables us to understand the meaning of place as a collective effort over time.

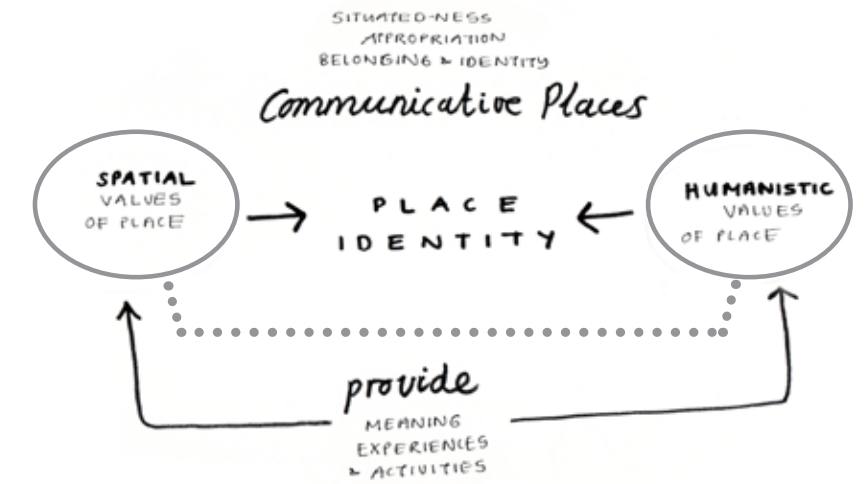
Architecture has the ability to facilitate this process of performativity in order to instil a new sense of continuity and belonging. It is not about form but rather about architectural engagement that allows for place to be imbued with new meaning and therefore also a collective cultural identity.

Understanding Sense of place

The work of Catalan architect Enric Miralles (1955-2000) represents his own theoretical interest in 'the architecture of time', which explores the potential brought about by change with emphasis on 'the journey'. This journey is simultaneously 'referential' (to past/future events) and 'experiential' (instantaneous), unifying different moments in time scales as one experience (Mackenzie, McMurray & Quiros, 2011).

It is however the interpretation of this journey through architecture that determines this collective experience or so called 'sense of place'. According to Cross (2001:1), the term 'sense of place' has become the buzzword to justify the lack of understanding of the true spirit or essence of place, which is mostly based on our own preconceptions. Cross (2001:3) highlights the complexity of the term by illustrating that each individual has different relationships and attachments to various places, as illustrated in Figure 41; therefore the relationship between place and people is transactional (give and take).

One could say that 'sense of place' is therefore more interactional than physical. It is an experience that is created by the setting and interpreted by the individual, and hopefully has an impact on collective society, both short-term and long-term.



3.4

Relationship	Type of Bond	Process
Biographical (9)	historical and familial	being born in and living in a place, develops over time
Spiritual	emotional, intangible	feeling a sense of belonging, simply felt rather than created
Ideological	moral and ethical	living according moral guidelines for human responsibility to place, guidelines may be religious or secular
Narrative (9)	mythical	learning about a place through stories, including: creation myths, family histories, political accounts, and fictional accounts
Commodified	cognitive (based on choice and desirability)	choosing a place based a list of desirable traits and lifestyle preferences, comparison of actual places with ideal
Dependent (9)	material	constrained by lack of choice, dependency on another person or economic opportunity

3.5

Figure 3.4: Diagram adapted from Leach (2002) to illustrate the concept of 'Place Identity' (Author 2016)

Figure 3.5: Different determinants that influence the individual's relationship on to place (Cross 2001:3)

3.3// HERITAGE MANAGEMENT

The problem statement of this dissertation addresses the issue of heritage value. It is therefore critical to consider the appropriate valuation approach in order to determine the value and significance of the Westfort precinct.

The architectural problem addressed by this dissertation is based on a critique on the lack of experiential qualities in conservation projects. Specific heritage legislation will therefore be referenced as a guideline for the design approach in establishing a more holistic and engaging experience that respects historic value but also anticipates future value.

Heritage valuation

The intentions and representation of heritage artefacts have changed and with that, their inherent value. On the one hand modern interpreters assign new meaning and significance to either the artefact's artistic or symbolic value, whilst others might only respect it for its age or historic value.

In his book *Modern cult of monuments and the problem of value*, Alois Riegl argues that the artistic value of a monument is ephemeral. He therefore introduces a new valuation scheme that makes a clear distinction between present and past value parameters (Lamprakos 2014:421).

Age value, as Riegl states, embraces the representation of time that is evident in the artefact without considering its original purpose or significance. The artefact therefore becomes more

valuable for its imperfection and its temporal and incomplete state of existence (Lamprakos 2014:426). The advantages of this interpretation are that it is not subjected to a specific religious or political stance and is also not exclusive to the educated and informed reader, but is rather valued for its universal language.

Riegl's approach to the *historical value* of a monument celebrates its origin and development over time without the intervention of man. This valuation approach is also not in favour of complete restoration but rather the prevention of disintegration (Lamprakos 2014:75). The focus is then on preserving the artefact as is. Another interpretation in accordance with Riegl's valuation is the *intentional commemorative value*, which places high value on the collective memory of the artefact and therefore suggests complete restoration (Lamprakos 2014:435).

Irrespective of each individual valuation criterion, our responsibility as a society is still to preserve the collective memory of the past to allow for continuous interpretation. The bigger challenge however is presented by the standard methods used in heritage preservation. The ideal is to encourage a constant reinterpretation and adaptation of all cultural landscapes that facilitate equal participation and foster a greater patriotism towards our collective heritage.

Negussi (2012:23) challenges heritage management programmes to allow for a more collective voice that includes a variety of cultural positions and different values. Negussi (2012:26) critiques the current heritage management process as one that:

...uncritically supports conservation in situ, but is less helpful in understanding the long-term results and benefits of these conservation actions in socio-cultural terms.

Negussi (2012:26)

Figure 3.6: Diagrammatic illustration of the Fort in its current state and the possible transformation in a new state of existence (Author 2016)

3.6



Heritage legislation

Considering the range of different heritage charters, it is critical to evaluate the experiential possibilities of these prescribed documents. In light of the research problems addressed earlier, two documents are of great importance and should be considered in the design process.

1/

The 2007 ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage sites (2008:4)

This document values the importance of 'interpretation and presentation' in the process of heritage conservation and management. The following principles and objectives are quoted directly from the charter and will be used in the design process as guidelines in the experiential approach to rehabilitate the Westfort precinct.

Principle 1:

Access and Understanding

Objective:

To facilitate the understanding and appreciation of cultural heritage sites and foster public awareness and engagement in the need for their protection and conservation.

Principle 2:

Information Sources

Objective:

Communicate the meaning of cultural heritage sites to a range of audiences through careful, documented recognition of significance, through accepted scientific and scholarly methods as well as from living cultural traditions.

Principle 3:

Attention to Setting and Context

Objective:

Safeguard the tangible and intangible values of cultural heritage sites in their natural and cultural settings and social contexts.

Principle 4:

Preservation of Authenticity

Objective:

Respect the authenticity of cultural heritage sites, by communicating the significance of their historic fabric and cultural values and protecting them from the adverse impact of intrusive interpretive infrastructure, visitor pressure, inaccurate or inappropriate interpretation.

Principle 5:

Planning for Sustainability

Objective:

Contribute to the sustainable conservation of cultural heritage sites, through promoting public understanding of, and participation in, ongoing conservation efforts, ensuring long-term maintenance of the interpretive infrastructure and regular review of its interpretive contents.

PRINCIPLE 6:

Concern for Inclusiveness

Objective:

Encourage inclusiveness in the interpretation of cultural heritage sites, by facilitating the involvement of stakeholders and associated communities in the development and implementation of interpretive programmes.

PRINCIPLE 7:

Importance of Research, Training, and Evaluation

Objective:

Develop technical and professional guidelines for heritage interpretation and presentation, including technologies, research, and training. Such guidelines must be appropriate and sustainable in their social contexts.

2/

1999 National Heritage Resource Act.
(1999:4)

With regards to South African national legislation and regulations, the South African Heritage Resources Agency (SAHRA) was established under this act and is responsible for the protection of our cultural heritage resources. It is therefore of great importance to this dissertation.

Considering the stark conditions at the Westfort precinct, it is alarming that no action has been taken to preserve this cultural landscape. The act clearly states that an integrated, interactive plan should be implemented but, more importantly, it should be done to protect and preserve collective heritage for future generations.

To introduce an integrated and interactive system for the management of the national heritage resources;... and empower civil society to nurture and conserve their heritage resources so that they may be bequeathed to future generations;...

(NHRA 1999:4)

Under the general principles for heritage resource management, the following points are of great importance in reinstating the Westfort precinct as part of our national heritage.

1. (a) *Heritage resources have **lasting value** in their own right and provide evidence of the origins of South African society and as they are valuable, finite, non-renewable and irreplaceable they must be carefully managed **to ensure their survival;***

(b) ***every generation** has a moral responsibility to act as trustee of the national heritage for succeeding generations and the State has an obligation to **manage heritage resources** in the interests of all South Africans;*

2. To ensure that heritage resources are effectively managed—

(a) ***the skills and capacities** of persons and **communities** involved in heritage resources management must be developed; and*

(b) *provision must be made for the **ongoing education and training** of existing and new heritage resources management workers.*

3.4// EXPERIENTIAL POTENTIAL

As a critique on heritage legislation, the author believes that architectural intervention in heritage artefacts should be directed to create a more holistic and engaging experience that anticipates their future value. In order to design for the latter it is valuable to briefly reflect on the essence of spatiality and the origin of the phenomenological movement.

The essence of phenomenology

Understanding the value of context and the experiences related to interaction with both the architecture and its surroundings, it is insightful to consider the thinking of the phenomenologists on the experience of space as celebrated in the 'essences'.

In his essay "The Origin of the work of Art", Martin Heidegger elaborates that the word 'origin' refers to the physical existence and meaning of something, which is possibly found in the source of its essence. He further questions the origin of art in terms of reference to the artwork or the artist; which one comes first or are they both a result of the origin or vice versa? (Heidegger 1935:143)

Given the history of Westfort it is interesting to consider the possible hierarchy of its origin given the historical value, the programmatic use of the site, and the richness of its location on a ridge. Thinking on the essence of spatiality, one might first seek to define the personal experience of space and context (without it being a mere projection or a replication of the self) as interpreted by sensory engagement.

As promising as this might sound, defining space and designing spatially in order to enrich human experience is not new. In fact, in the early 1920s Heidegger broadened his investigation of philosophical traditions, inspired by the philosopher Edmund Husserl, who is known as the inspiration or possibly the origin of the phenomenological movement (Habib et al. 2012:45).

Hermeneutic phenomenology

The realisation of 'phenomenology' as a specific style of thinking could largely be credited to the groundwork of Edmund Husserl (1859-1938). Husserl was a German philosopher interested in the human perception of an embodied experience and our consciousness of space (Merleau-Ponty 1962:2). As quoted by Merleau-Ponty (1962:4), Husserl referred to phenomenology as:

... a call to return to things themselves

These 'things' are not necessarily meant to represent objects but rather refer to certain ideals that reflect the real experiences that we are confronted with, as opposed to those experiences constructed from our preconceived perception of how a space should be experienced.

Yet, this philosophical movement was further developed by many other theorists who followed a more 'anti-traditional' style of thinking, i.e. Martin Heidegger (1889-1976), who was considered as one of the pioneers of the phenomenological movement. It was a quest for finding a new ontology that questions human existence and reflects on the nature of elements with a more 'mythopoeic' approach.

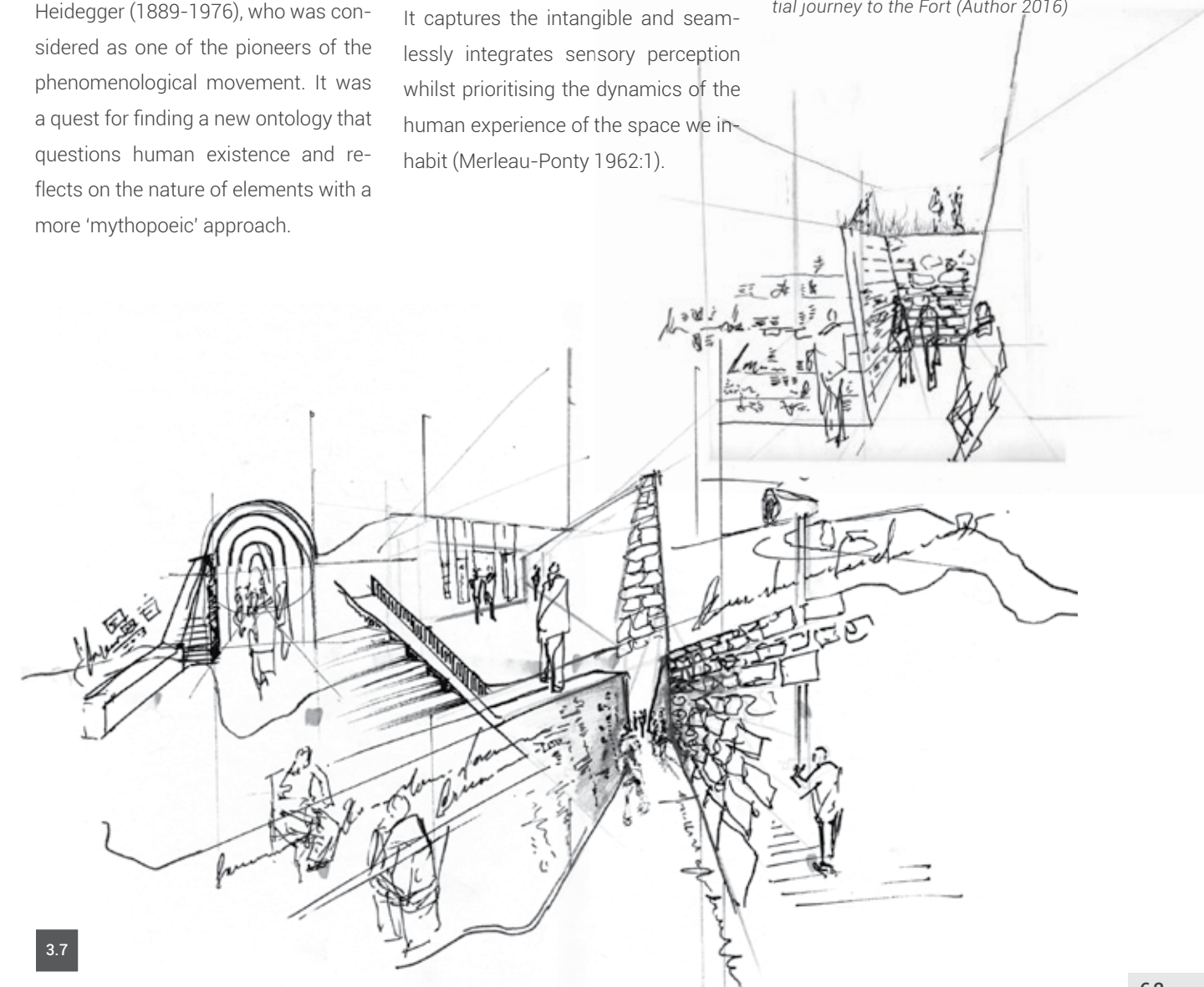
Heidegger managed to establish a link between phenomenology and architecture, which illustrates the experiential qualities of a sensory experience as an ongoing, dynamic and culturally dependent spatial tool (Habib et al. 2012:45). French philosopher Maurice Merleau-Ponty (1908-1906) argues that phenomenology should be understood as:

... a discipline that puts essences back into experience.

It captures the intangible and seamlessly integrates sensory perception whilst prioritising the dynamics of the human experience of the space we inhabit (Merleau-Ponty 1962:1).

Apart from the physical setting of external objects, space should also be interpreted as an experience based on our own subjective perception and interaction with our spatial surroundings within a particular time frame (Merleau-Ponty 1062:4). This interaction or interpretation process could further be explored and understood through the dialogues of narration, as will be discussed next.

Figure 3.7: Intuitive drawing of the spatial journey to the Fort (Author 2016)



3.7

3.4// HERITAGE NARRATION

In order to enable the continuity of collective heritage in support of the experiential, the methodologies used for narration should also be considered for their value in heritage interpretation and representation.

Oral history

Oral history is all about narration. It is about giving lost cultural and historical heritage a public voice and recognizing its value in order to have a deeper understanding of history.

Oral histories reveal the narrator's effort to make sense of the past and to give a form to their new lives

Allesandro Portelli (1998:69)

As part of South Africa's transformation process, the ongoing contestation and documentation of our cultural history plays a critical role in building the nation. Testimony as oral history is part of this process of recognizing past historical events which were detrimental to those excluded from our written history.

Wieder (2004:23) argues that testimony should be considered as a method of analysing oral history as a changing and living process. This method is not only based on a process of reporting on oral history through research, but is largely founded on mutual trust and the relationships between people.

African traditions have used the method of storytelling for centuries to testify about undocumented historical events. In South Africa this tradition is valued for its contribution to our shared history and elevates the voices of marginalised groups (Wieder 2004:24).

Perhaps society still questions and underestimates the power of recollection and reflection through this method of storytelling, as it is based on subjective memory. In the early 1970s, oral history was highly criticised for its lack of accuracy and credibility. There were too many questions about nostalgia, physical deterioration and the personal bias of both the interviewer and interviewee (Thomson 2007:50).

This argument was soon turned around by oral historians who believed that the so called 'unreliability of memory' was in fact its most valuable asset. They argued that the subjective memory leads to a more accurate relationship between the past and the present, between memory and identity, as well as between individual and collective stories (Thomson 2007:54).

Storytelling

Storytelling is an art dependent on equal participation. Apart from the entertainment it brings, it has the potential to translate shared and individual values, traditions and history into a new sense of identity (Banerjee 2008:148). For the purpose of this thesis project, it is important to focus on the art of storytelling as a collaborative

effort of exchange in order to accurately represent the collective memory of our South African heritage.

Contemporary storytelling has evolved into entertainment, where the storytellers often overshadow the story itself. Sadly, so much effort goes into the creation of the persona, the individual, the ego and the performance and not enough into the storytelling itself. What makes this problematic is that we tend to value the teller and the telling more than the actual story itself. Ryan (2008:72) argues that this phenomenon reinforces the idea that society has lost interest in the act of genuine storytelling.

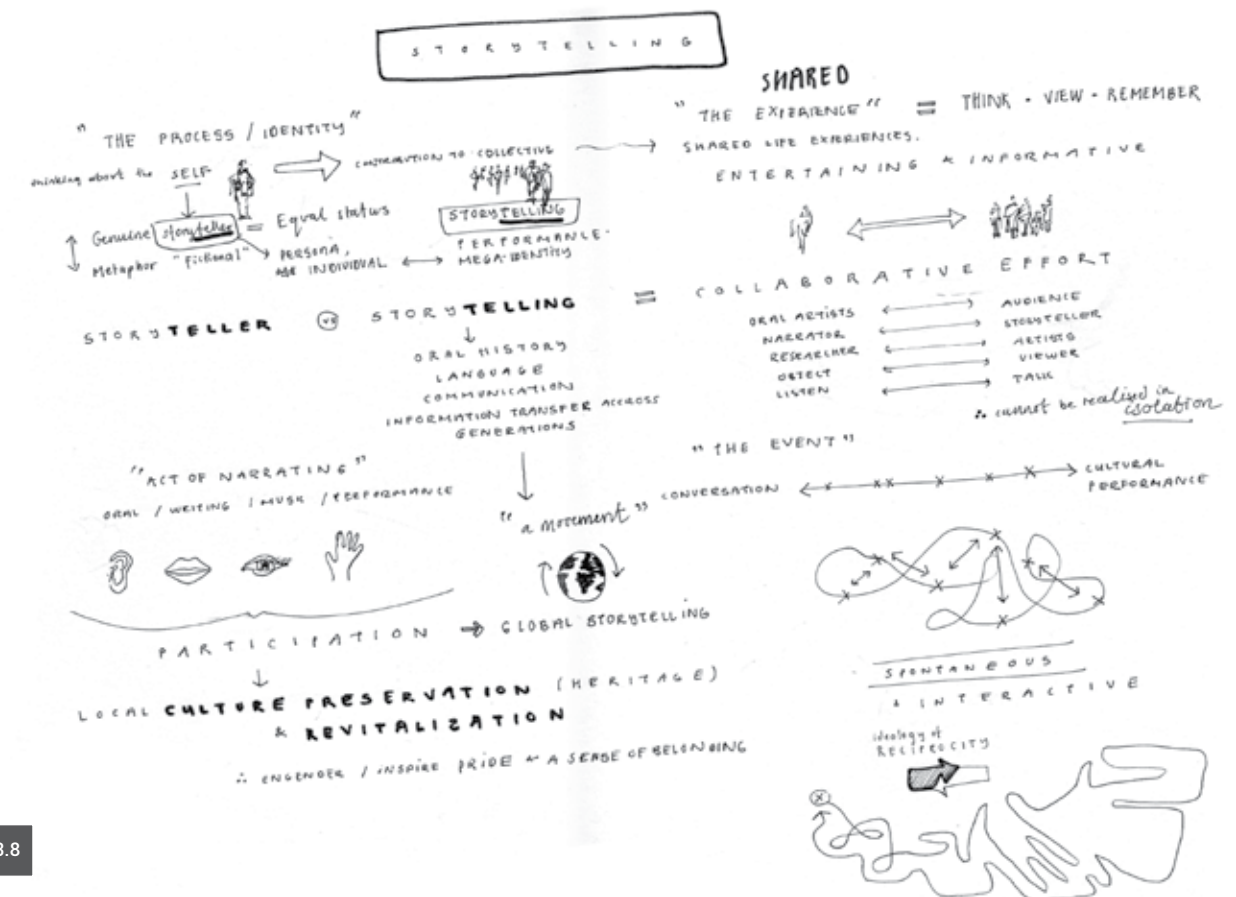
It is easier to change individuals into storytellers than to change society into one with a culture of storytelling

Ryan (2008:72)

The act of genuine storytelling requires the equal participation of the tellers and the listeners, both with equal status and sharing their life experiences (Ryan 2008:65). This collaborative effort encourages equal participation and replaces the inflated ego of the individual with integrated social transactions that include the collective.

This interaction is not only subject to oral stories but includes the performance of storytelling through multiple mediums of communication such as music, dance, and digital and physical display. Another possibility for promoting the culture of storytelling might be to reconsider the act of story sharing rather than storytelling. This will encourage the participation of a wider community even further, and will therefore enable a more accurate understanding of the collective memory of place, time and people.

Figure 3.8: Exploration of theory to understand the potential of heritage narration (Author 2016)



3.8

Conclusion

Perhaps we need to reconsider the importance of the way we understand, interpret, display and celebrate information – visual or written. The understanding that there is more value in the way we interact with each other and with our heritage is of great interest to this dissertation.

Storytelling is valued as a method of connecting, not only with different generations or cultures but also with global communities. Countless international organizations are now dedicated to fostering cultural transformation through the process of storytelling. It is a method of reconnecting with place, with time and with people.

Global storytelling has also proved to be a method of preserving and revitalizing the heritage of cultural communities. Given the ideology of reciprocity through storytelling, various global storytelling projects have been successful in nurturing a new sense of engagement, especially in marginalised communities (Tossa 2012:196). Tossa (2012:194) fears that young children today are deprived of local cultural heritage and therefore search for methods to inspire local pride through story sharing.

Perhaps architecture should also be accountable for its ability to tell stories. We as architects carefully curate spatial experiences based on our understanding and perceptions of individual and collective experiences. We use volume, materials and technology to narrate these experiences. But as mentioned earlier, it becomes problematic when the value of the storyteller overshadows that of the actual story or, more importantly, the individual interpretation.

In order to propose a new future value for the Westfort precinct, some of the key drivers of the research exploration should be emphasized:

- To understand the importance of securing a future value;
- To protect our collective heritage;
- To appreciate the uniqueness of place; and
- To build towards a holistic and continuous heritage experience.

CHAPTER FOUR
**PRECINCT
VISION**



4.1//
PRETORIA
WEST

Rehabilitating the west

Evident in the developmental patterns of Pretoria, the majority of urban sprawl is rapidly growing towards the east. As a result, the western part of Pretoria is extremely neglected and is still considered the backyard of the city.

Apart from being known as the industrial mecca of Pretoria, it is also home to several mental institutions, prisons, old age homes and cemeteries. Due to high demand, developmental growth has recently sprawled towards the west of Pretoria and what used to be on the outskirts of the city is now actually in its proximity.

The perception of Pretoria West is evident in its social and economic drivers, which have not changed significantly over the past century. Although the West is still perceived as a place of poverty and exclusion, it is also rich in cultural and historical artefacts which should either be repurposed or celebrated as part of the city's unique historical fabric.

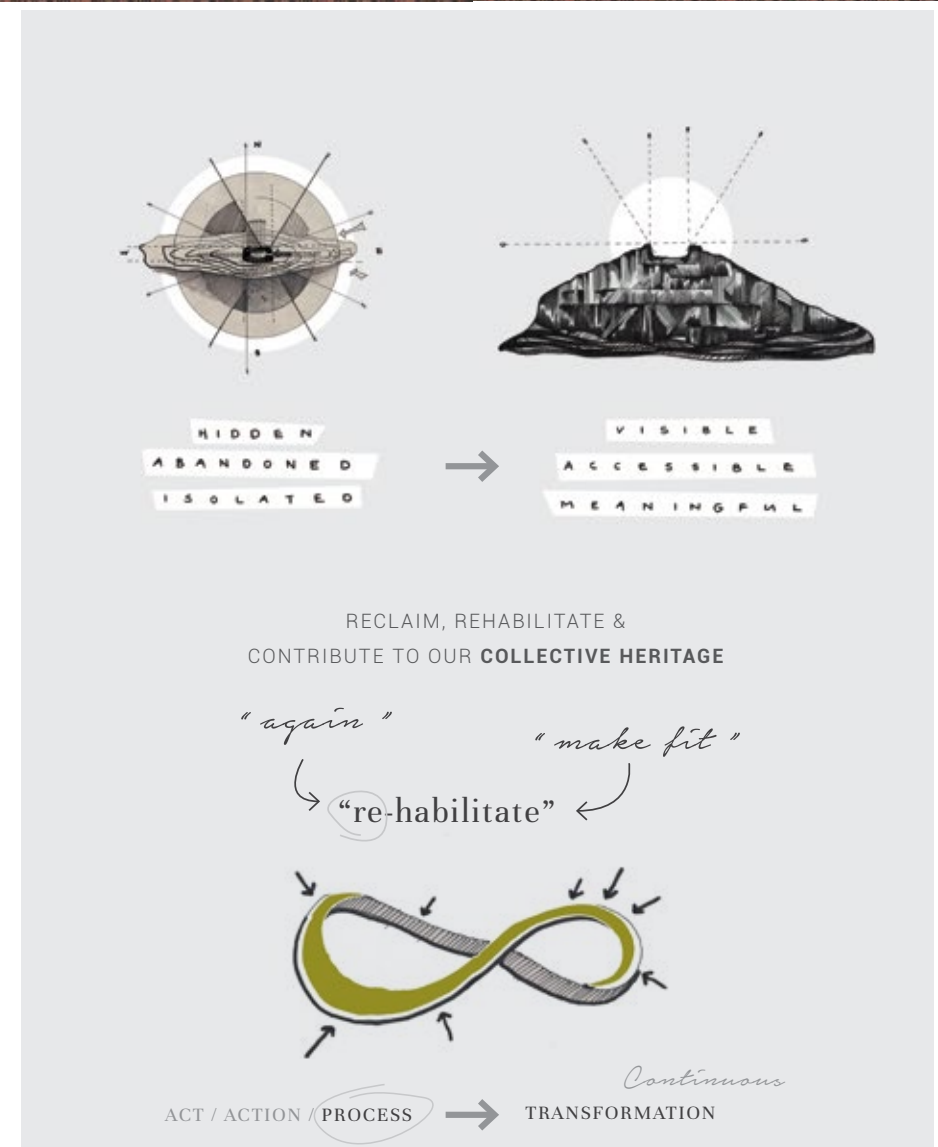
As part of a larger vision for the Pretoria West precinct, it is critical to establish potential nodes of catalytic intervention that aim to revitalize this marginal area, to instil developmental energy, and to re-establish a balance in the continuation of a sustainable city.

Understanding the brutal consequences of isolation and abandonment, it is alarming to see how the conditions at the Westfort precinct have only accelerated. With the main focus on the effective rehabilitation of the fort as well as the adjoining village, both will be included in the precinct vision as one holistic entity.

Rehabilitation is not a new term. It is well known that the word "rehabilitate" derives from the Latin prefix re-, meaning "again" and habitare, meaning "make fit". As an example, a person who underwent extensive surgery has to commit to and fully participate in a process of rehabilitation in order to heal. The same goes for architecture. The success of rehabilitation is always subject to time as it cannot be resolved by a single act. It is highly dependent on the process of healing that determines its new state of existence.

The vision for the Westfort precinct is therefore to rehabilitate the site to a new state of significance that represents a beacon of continuity and belonging. With emphasis on transformation through rehabilitation, the following criteria will be considered as the main drivers in allocating the appropriate programme: the current context and the future value, as well as the contribution to our collective South African heritage.

Figure 4.1: Precinct vision diagrams illustrating the potential strategy of the design interventions (Author 2016)



4.1

4.2// THE WESTFORT HERITAGE VILLAGE

The Westfort legacy

Given the initial intentions of the fort and institution to protect the greater public from possible threats, it only seems fit that the Westfort precinct should continue its legacy. However, now the intention must be to withstand a new modern threat of historical loss, isolation and fragmented memory.

In order for stakeholders to actively participate in averting this new phenomenon, it is important to first instil in them a collective interest, pride and awareness within and around the current Westfort community. All built fabric from the former Westfort institution will be restored to its original appearance but with the needs of the current community as main priority.

In order to secure the future value of this heritage village, it is of great importance to ensure the buy-in of the current inhabitants. The framework proposes an upliftment program with the main intention to restore the value of the Westfort precinct.

Managing change

It is a well-known fact that change is an integral part of life. Yet, in some cases, architecture still neglects to anticipate the process of change as a critical determinant in planning and building on the identity of a place, both tangible and intangible.

In order to successfully restore the value of the Westfort precinct, it is crucial to first determine the approach the project will take. The aim is rather to manage and assist both the defined and invisible stakeholders, each of whom has a different perspective on how to engage with the barriers of the project.

To achieve success in development practice, Nabeel Hamdi (2010:141) suggests four integral action points which question the capacity to provide, enable, adapt and sustain. As seen in Figure 4.2, Hamdi (2010:152) challenges the logic of project planning, and indicates how the lasting impact of any end result is subject to the process and approach to planning. By questioning the 'one-size-fits-all top down approach to design and planning', and advocating 'reasoning backwards' rather than over-planning, the process can be determined by good policy making and practice.

For the Westfort precinct a healthy balance should be maintained in its stakeholder participation. The formal stakeholders should facilitate the process (top-down) and simultaneously enable the Westfort community to take ownership of the process and improve their living conditions (from the bottom up).

A self-sustaining community

Cole and du Plessis (2011:1) argue that motivation for change lies in a paradigm shift of engaging and motivating social transformation by re-thinking stakeholder involvement to achieve holistic and flexible strategies.

'Stakeholder participation' is critical in the process of participatory design. It encourages all participants in a project or programme to act in a partnership in which they are interdependent and equal owners of the project (Cole & Du Plessis 2011:4).

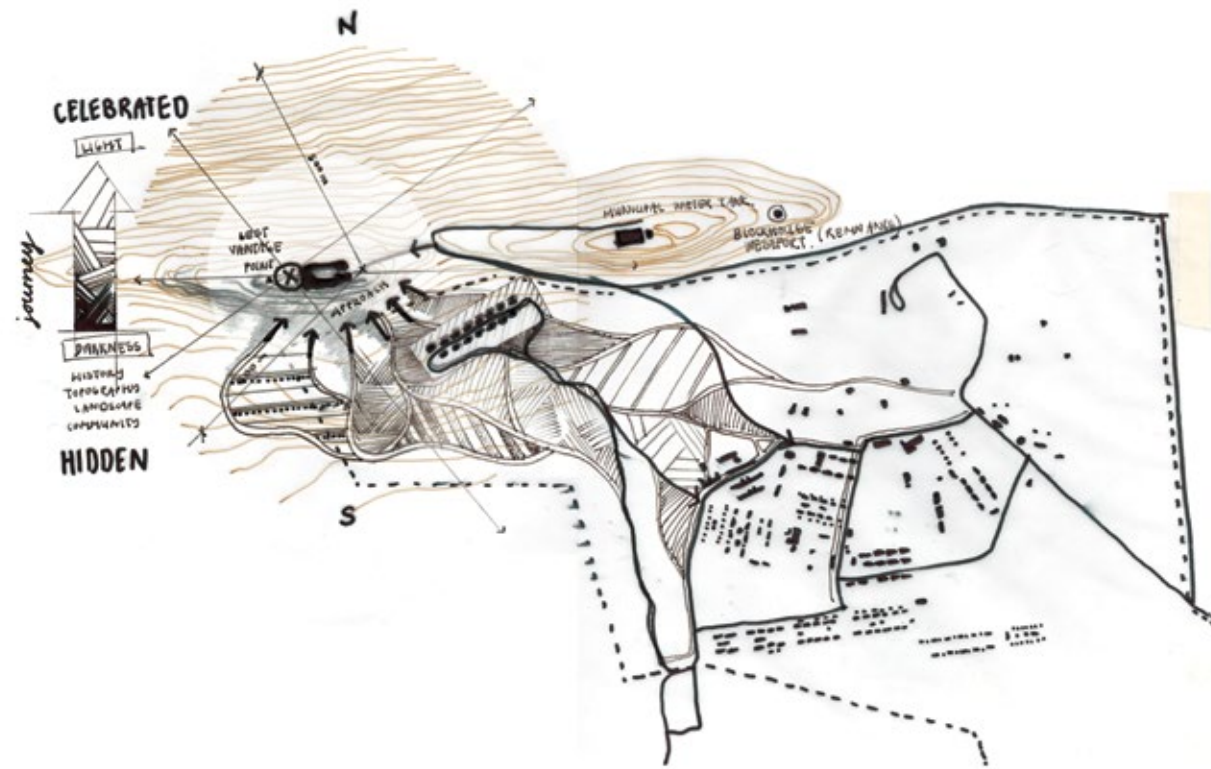
Apart from the identified or visible stakeholders, there are also the invisible stakeholders, the public, who are just as important in their role of participation (Hamdi, 2010:135). The question however is how flexible the model should be to allow for participation to happen on a comfortable and spontaneous level from both a bottom-up and top-down perspective.

The current occupants of Westfort Village will therefore have equal ownership of the site. The proposed shared project will depend on guidance by the Department of Public Works in an attempt to protect the heritage fabric and its future value, but to also allow for new interventions that will restore its value as a self-sustaining village.

Figure 4.2: Four integral action points as suggested by Nabeel Hamdi in project planning (Hamdi 2010)

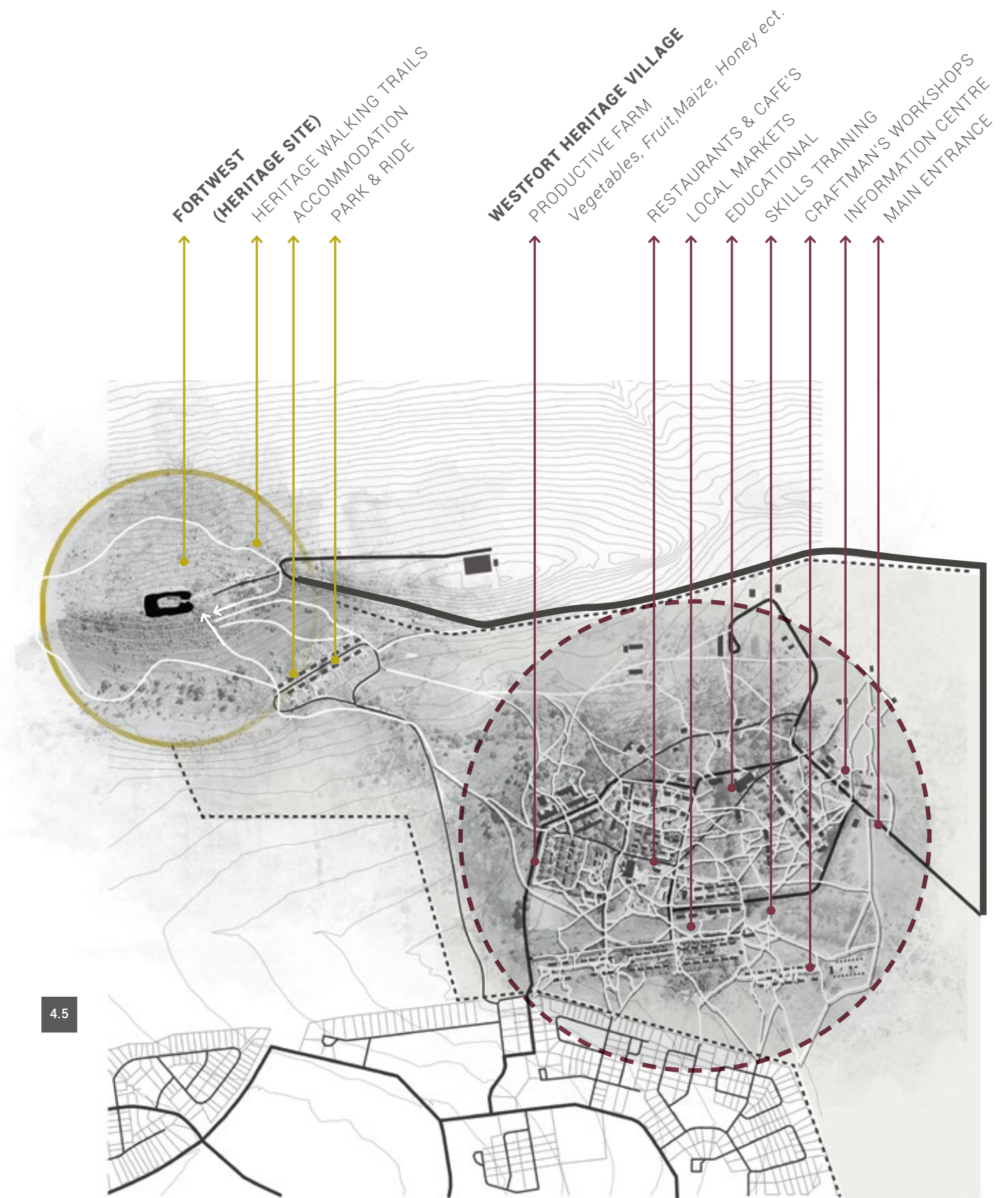
Figure 4.3: Collage of possible community integrated projects that encourages equal participation (Author 2016)





4.4

Figure 4.4: Conceptual exploration of integration possibilities between the Fort and the Village (Author 2016)



4.5

Figure 4.5: Conceptual master plan indicating the programmatic possibilities (Author 2016)

- Access points
 - Main roads
 - Secondary roads
 - Walking trails
- WESTFORT
ACCESS POINTS & ROUTES

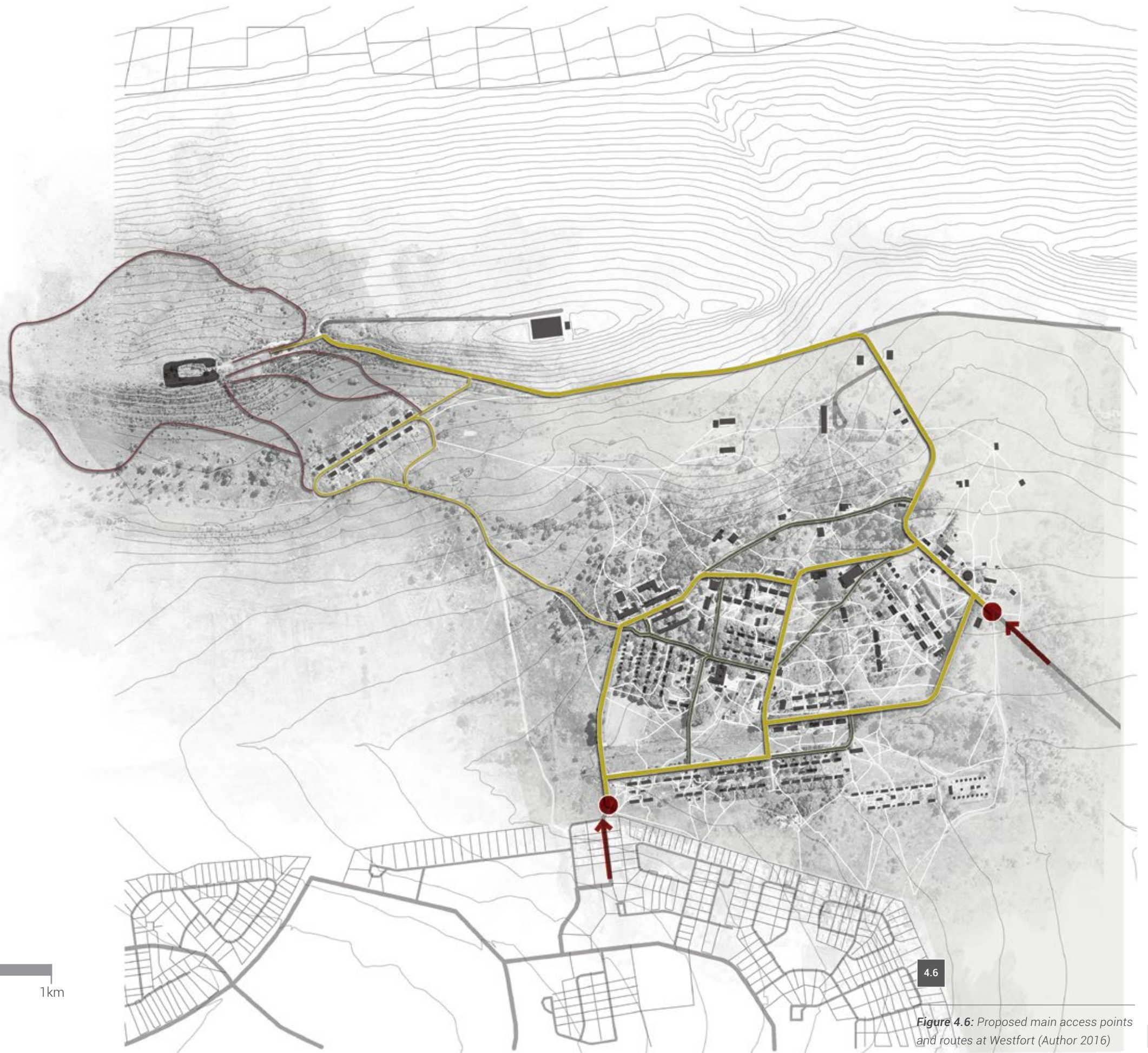
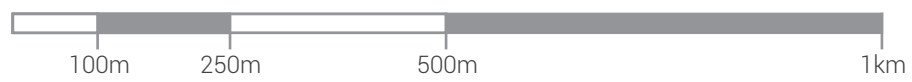


Figure 4.6: Proposed main access points and routes at Westfort (Author 2016)

4.4//
HERITAGE
SIGNIFICANCE
& OBJECTIVES

Statement of heritage significance

Westfort exhibits a multiplicity of associated values that should inform and guide the design process. The National Heritage Resources Act (1999) sets out a list of criteria to determine its 'national' significance. The heritage significance of Westfort can therefore be broadly described under the following categories:

1. Historical significance

The site is associated with the establishment and protection of the capital city (Pretoria) as well as the history of medical services and the fight against leprosy in South Africa. The former institution is credited for its ability to meet the needs of its users by creating independent and sustainable living conditions.

2. Architectural significance

The Westfort Village represents various historical layers with different additions over time. The sensitive scale of the buildings allowed for an intimate experience for the inhabitants that suggested the familiarity of a neighbourhood in the city. Although much of the architectural fabric at the fort has been violated, the quality of the craftsmanship and technical achievement is still visually accessible for interpretation.

3. Spatial significance

The structural integrity of the fort as a submerged design is valued for its use of local materials and successful integration into the surrounding landscape. The fort is not visible from lower levels and therefore does not interfere with the sensitivity and natural ecology of the ridge.

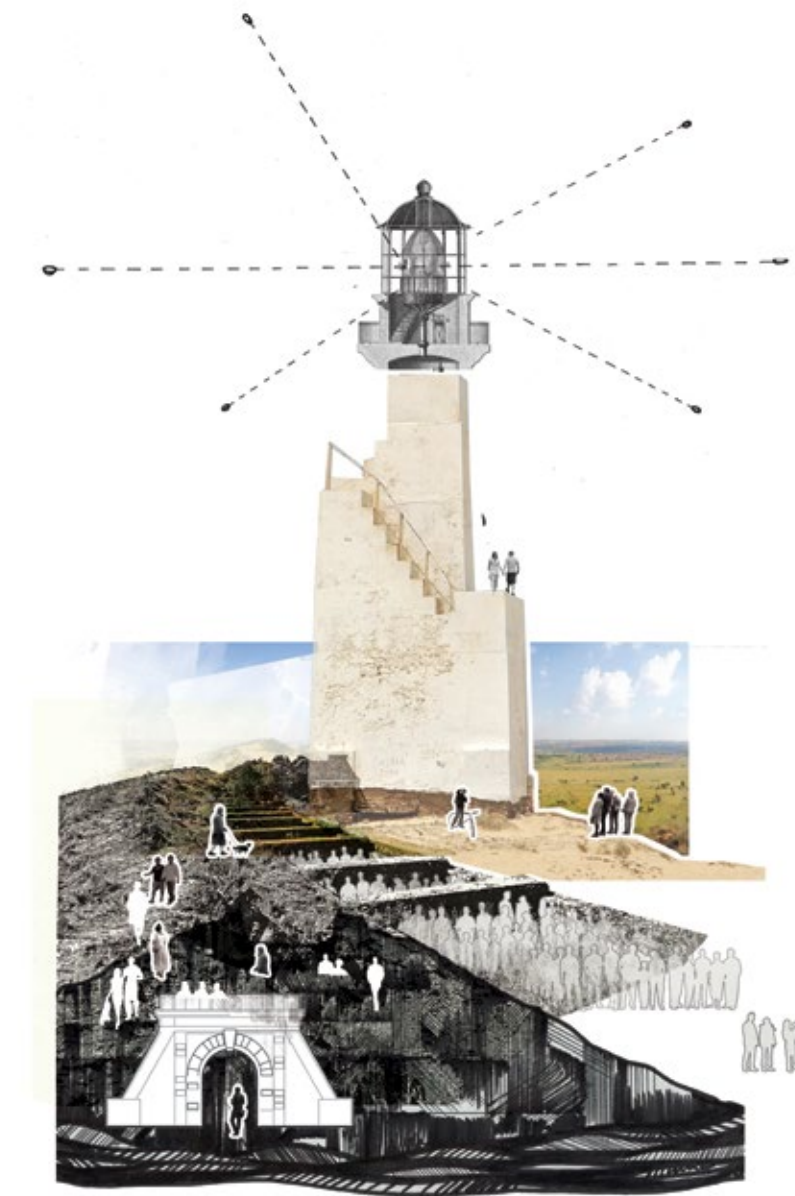
The objectives of the project

Inspired by the metaphorical potential of the fort as an anchor of hope and a beacon of continuity, the following objectives will inform decisions throughout the project:

- To re-establish the discarded landscape of Westfort as a significant self-sustaining heritage village.
- To enable the current community of Westfort Village as critical stakeholders in the process of rehabilitation.
- To re-appropriate the fort as a dynamic beacon of continuity and belonging.
- To celebrate and preserve our shared heritage.

Figure 4.8: Conceptual collage of Westfort, inspired by the lighthouse metaphor as a beacon of continuity and belonging (Author 2016)

4.8



A BEACON OF
Continuity & Belonging



CHAPTER FIVE
PROGRAMME

5.1// THE CLIENT & PARTICIPANTS

The Heritage Portal

As a volunteer-driven organization, the Heritage Portal acts as mediator in facilitating information related to the collective memory of our South African heritage. Being restricted to online communication only, this portal has proved to be successful in collaborating with individuals and collective organisations in collecting and sharing information. Although it is a noble act of preservation, it needs the support of a bigger network to elevate the importance of our national and global heritage.

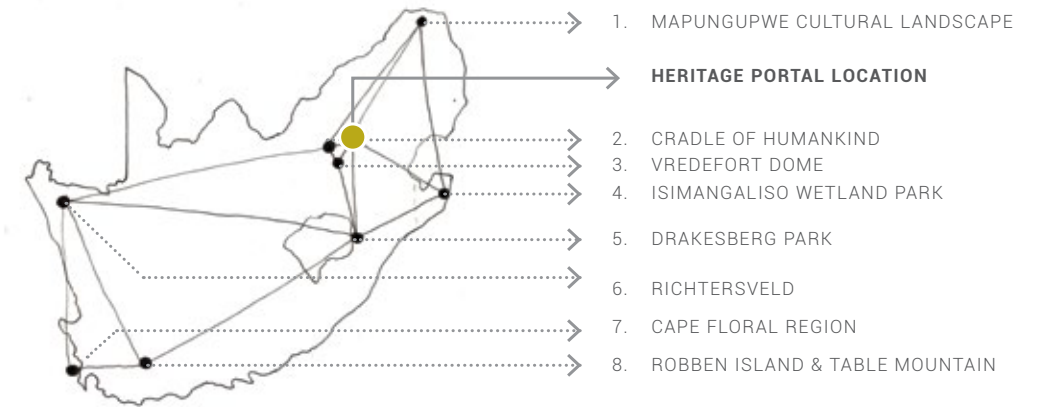
As part of a global mission to encourage the identification, protection and preservation of natural heritage around the world, UNESCO (United Nations Educational, Scientific and Cultural Organization) believes in heritage as a gift from the past to the future (UNESCO 2008:5). This gift is not entrusted to selected individual, group or cultural organizations but is rather a valuable universal asset that belongs to an international community, and therefore to everyone.

In 1972, UNESCO introduced the global Convention concerning the Protection of the World Cultural and Natural Heritage (UNESCO 2008:6). This convention encourages all countries to identify and protect all heritage of local, national and international interest. South Africa has already contributed eight world-class heritage sites that are listed as part of a global heritage community of preservation. These

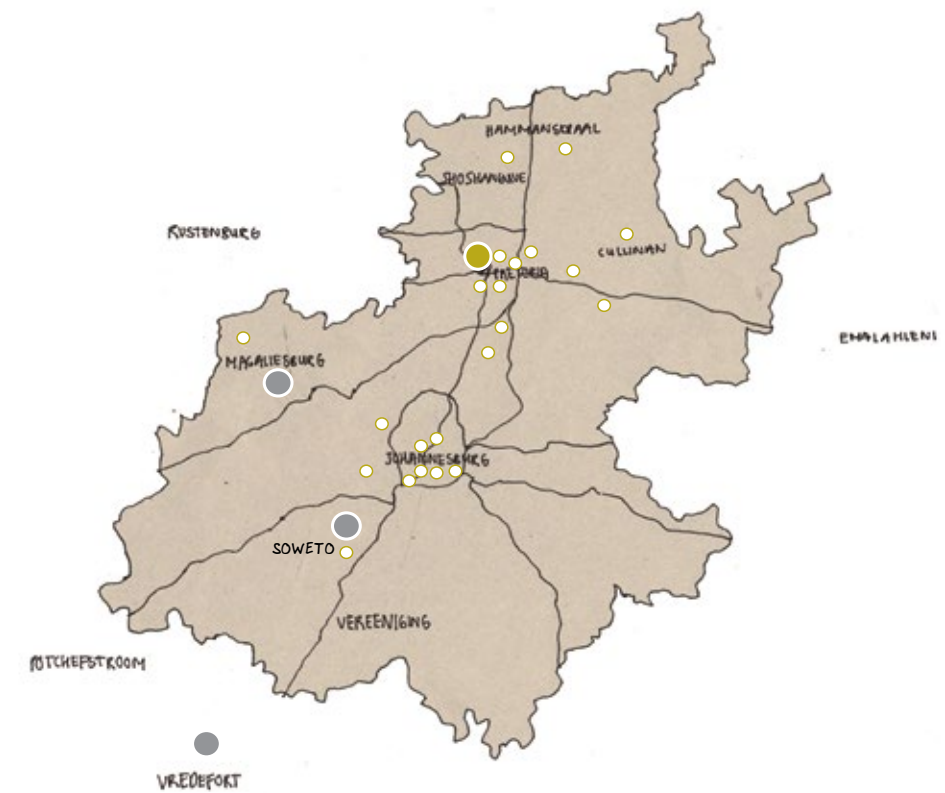
sites are evenly distributed across the country, showcasing the uniqueness of our country through diversification. Given its irreplaceable value to a global audience, the Heritage Portal will facilitate the process of collecting information regarding South Africa's cultural and natural heritage as a touchstone for building on our collective identity.

The client requires a central and neutral platform that would facilitate the process of sharing and engaging in collective heritage through narration. This experiential platform should call on both the national and global heritage communities to not only preserve and restore, but also celebrate our heritage. With emphasis on the experience of place, the story of the site should be carefully narrated across various scales. The programme should facilitate the process of collecting, recording, validating, documenting and exhibiting new information regarding collective heritage.

Using the location of the fort and the adjoining village allows for both a tangible and intangible touchstone that would remind us of our responsibilities as citizens to protect our heritage. It further recognizes the need to reclaim ownership of the abandoned and isolated past, and focus on its rehabilitation into a new memory which encourages a sense of belonging and continuity.



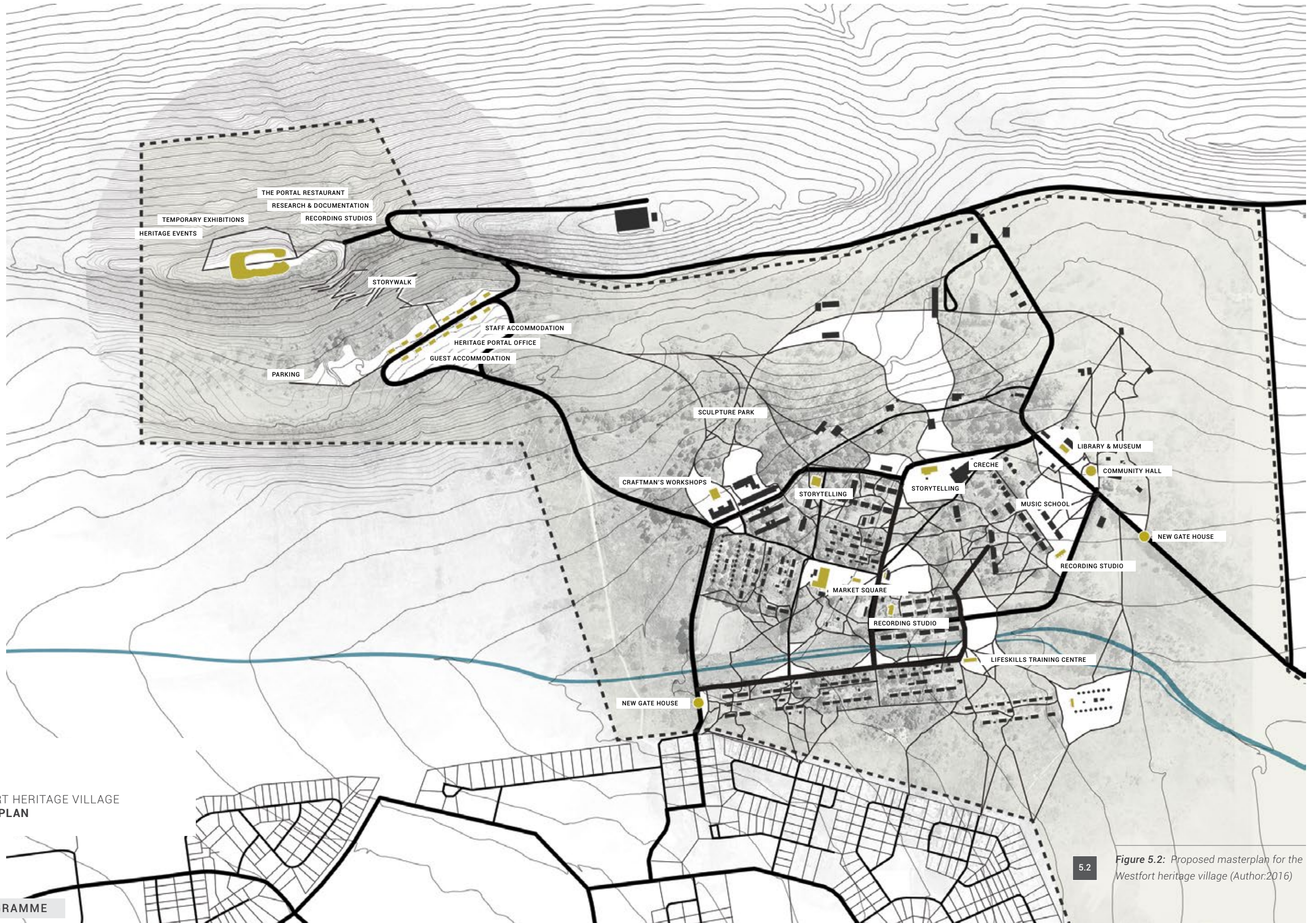
UNESCO WORLD HERITAGE SITES IN SOUTH AFRICA



5.1

GAUTENG HERITAGE COMMUNITIES

Figure 5.1: Map of South Africa indicating the 8 UNESCO World heritage sites and the distribution of heritage communities across Gauteng (Author 2016)



WESTFORT HERITAGE VILLAGE
 MASTER PLAN

5.2 Figure 5.2: Proposed masterplan for the Westfort heritage village (Author:2016)

5.2// PROGRAMME REQUIREMENTS

The main intention of the project is therefore to celebrate our collective South African heritage through the experience of narration.

The experience will be narrated according to a series of events, leading up to the pinnacle of the experience, the beacon of continuity. It is also important that these events do not occur in isolation but are rather integrated in the daily routines of the Westfort Village to encourage equal participation and continuity even further.

The five events of narration are the following:

The five events of narration are as follows:

Event one

Exchange

Upon entering the newly established heritage village, visitors are encouraged to participate in the experience of place. Historical, economic, educational and social interaction is integral in this process to encourage equal participation by all parties.

Event two

Record

As the visitor progresses through the journey of place, a selection of interventions is dedicated to the recording of new information. The Heritage Portal will be responsible for facilitating formal and informal interviews on site.

Event three

Validate and document

New-found information is then researched to clarify its value. Heritage researchers facilitate this process by collaborating with the relevant communities. After validation and confirmation, the information is then documented and prepared for exhibition.

Event four

Exhibit

Hosted within the fragile existing ruin, the fort would act as a background to the progression from the past to the present, and hopefully the future. Temporary exhibitions are held within the latter, informing and educating the collective on the value of our continuous South African heritage.

Event five

Celebrate

The fort itself would act as the pinnacle of this experiential narrative journey. Events such as music festivals and seminars will be held in the enclosed courtyard to enhance its former function of protection. A new beacon anchors both the west and our lost heritage as a place of great value.

Figure 5.3: Diagram of stakeholder involvement throughout the program (Author 2016)



Main Intention
TO CELEBRATE OUR COLLECTIVE HERITAGE
THROUGH THE EXPERIENCE OF NARRATION



5.3



5.4 Figure 5.4: Proposed sequence of events at Westfort heritage village (Author:2016)

Stakeholders involved

- The Heritage Portal
- Westfort village
- Public works & City Council
- UNESCO & tourists
- South African citizens
- Heritage organisations
- Heritage researchers

Event one EXCHANGE

FUNCTION

REQUIREMENTS



FUNCTION	REQUIREMENTS	m ²
1. Gate houses (x2) Ticket office Security check point Ablutions	● (1 security guard & 1 admin person) x 2 Cashier safe Security monitoring equipment 1 wc, 1hwb, 1 shower (x2)	4 m ² 2 m ² 10 m ²
2. Westfort Library & Museum (Former Post Office)	* Master plan only	
3. Lifeskills training centre (Former School building)	* Master plan only	
4. Westfort market square Restaurants, markets, deli's & shops	* Master plan only	
5. Guest accommodation (14 existing) 2 Bedroom & 1 bathroom Kitchenette & Living area Verandah and shared garden	● Sleeps 14-28 guests, 3x cleaning staff, 2x gardeners ● Bedroom furniture, 1xwc, 1xhwb, 1xshower ● Off-grid energy & water requirements Visual access to Fort & heritage trail	30 m ² 18 m ² 12 m ²
6. Heritage Portal offices Information desk Open plan offices Meeting room Staff kitchenette Storage Cleaning store room Ablutions	● 2x reception, 4x administration, 1x cleaning ● Reception foyer, waiting area, visual access, Administration, visual access Private, acoustics, visual access Off-grid energy & water requirements Document deliveries & collection Cleaning equipment for accommodation units (Unisex) 3 wc, 2hwb	17 m ² 35 m ² 10 m ² 10 m ² 20 m ² 2,5 m ² 14 m ²
7. Staff accommodation (14 existing) * same as per guest accommodation	● Sleeps 14-35 Westfort community members	60 m ²
8. The Portal Restaurant Entertaining & seating area Cooking facilities Scullery Cold & dry storage Staff ablutions & washing rooms Refuse	● 6x operation staff, 6x kitchen staff, 2x cleaning staff ● max 100 guests, indoor & outdoor (shaded with views) ● water & energy connection, circulation, ventilation ● wash-up (water & energy connection, storage) ● walk in fridge & pantry (access & energy connection) ● 2 wc, 2hwb, 1 shower Service access, ventilation	110 m ² 80 m ² 50 m ² 25 m ² 25 m ² 10 m ²



5.5 Figure 5.5: Allocation of event one at Westfort heritage village (Author:2016)

Stakeholders involved

- The Heritage Portal
- Westfort village
- Public works & City Council
- UNESCO & tourists
- South African citizens
- Heritage organisations
- Heritage researchers

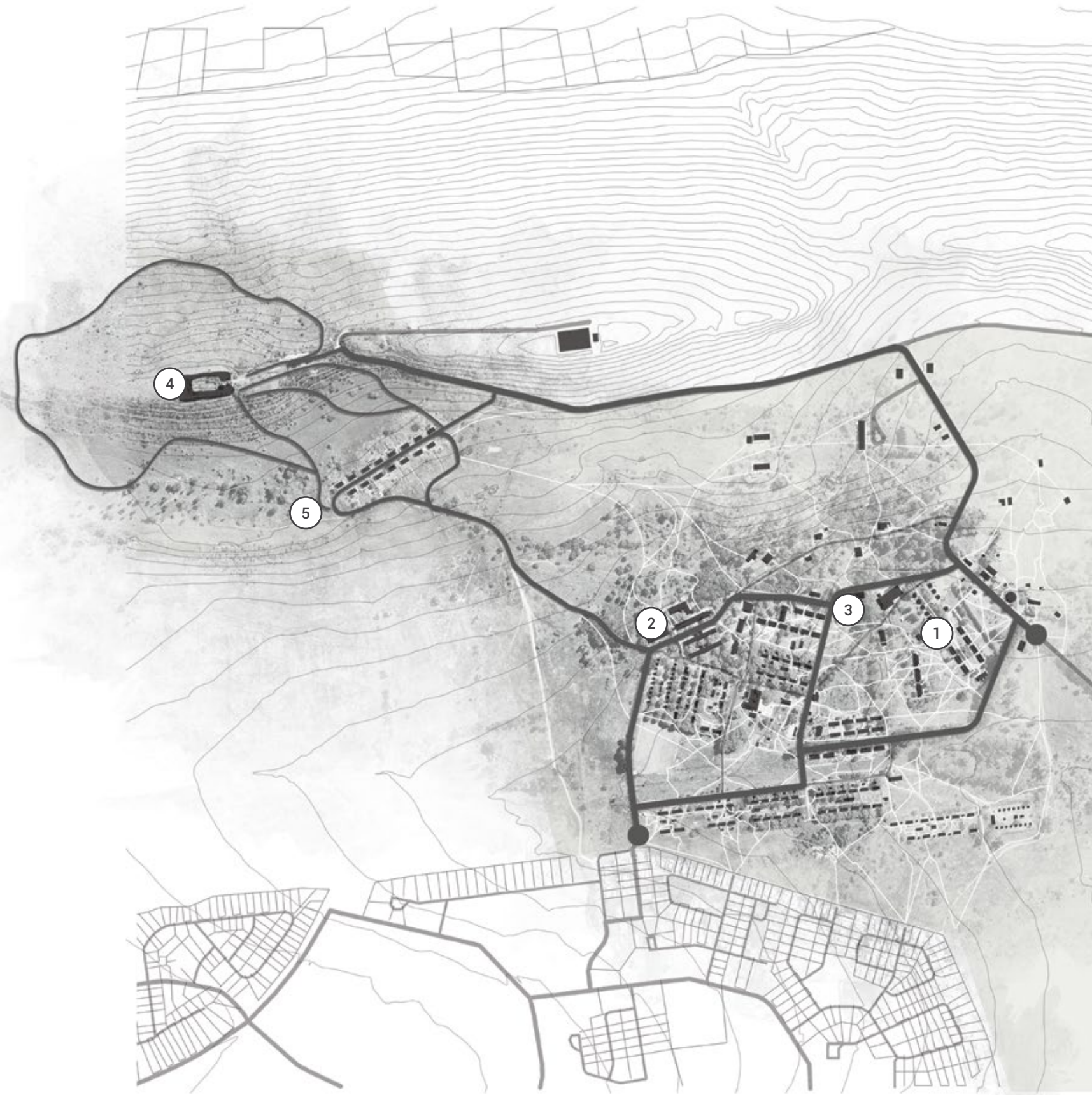
Event two
RECORD

FUNCTION

REQUIREMENTS



FUNCTION	REQUIREMENTS	m ²
1. Music school (Former school hall)	* Master plan only	
2. Craftman's workshops (Former prison block)	* Master plan only	
3. Storytelling (Former Orthodox church)	* Master plan only	
4. Recording studios Informal reflection Group discussions Digital archive Storywalls Service and control room Ablutions	<ul style="list-style-type: none"> ● 2x partially enclosed studios (acoustics, light, comfort) ● 1x studio (acoustics, light, comfort) ● 1x studio for digital presentation (visual access, light, acoustics) Visible, waterproof, light Open and accessible (acoustics) (see sanitary installations) 	<ul style="list-style-type: none"> 20 m² 20 m² 50 m² 10 m² 30 m²
5. Parking Heritage Portal staff Staff Accommodation Accommodation units Visitors Spill over parking (large events)	<ul style="list-style-type: none"> ● 4 bays at office (paved) ● 2 bays per accommodation unit (28) (paved) ● 2 bays per accommodation unit (28) (paved) ● 40 bays (paved) ● open grassland to accommodate 500 vehicles (unpaved) 	<ul style="list-style-type: none"> 50 m² 350 m² 350 m² 500 m² 6250 m²



5.6 Figure 5.6: Allocation of event two at Westfort heritage village (Author:2016)

Event three VALIDATE & DOCUMENT

Stakeholders involved

- The Heritage Portal
- Westfort village
- Public works & City Council
- UNESCO & tourists
- South African citizens
- Heritage organisations
- Heritage researchers

FUNCTION



REQUIREMENTS

FUNCTION	REQUIREMENTS	m ²
1. Heritage Portal offices Information collection & distribution	* see exchange (page ?)	
2. Research & validation * Reception desk * Storage Open plan office Kitchenette Ablutions	● ● 2 x reception, 8 researchers, 2 cleaning staff, visitors * Receptionist (visual access & circulation) * Information & recording deliveries (access & circulation) Seating, research access & equipment Off-grid energy & water requirements (see sanitary installations)	6 m ² 20 m ² 80 m ² 20 m ²
3. Documentation Discussion rooms & meetings Print room & Exhibition preparation	● ● ● ● ● Seating, acoustics, flexible, informal Digital equipment, storage, workspace	30 m ² 45 m ² m ²



Event four EXHIBIT

Stakeholders involved

- The Heritage Portal
- Westfort village
- Public works & City Council
- UNESCO & tourists
- South African citizens
- Heritage organisations
- Heritage researchers

FUNCTION

REQUIREMENTS



FUNCTION	REQUIREMENTS	m ²
1. Local Art gallery (Former Hospital building)	* Master plan only	
2. Westfort sculpture park Exhibition, seating, play	* Master plan only	
3. Storywalk Walking trails Information display Seating Viewing platforms	<ul style="list-style-type: none"> ● Daily use = 40 users ● Partially paved surface (waterdrainage) ● Signage, ● Landscape integration (waterproofing) ● Seating, orientation, visibility 	1 km walk
4. The Portal Library * Reception desk Information display Reading & seating Archives * Digital research Children storytelling Educational playground	<ul style="list-style-type: none"> ● Daily use = 40 users (including staff) ● * Librarian & sales desk (visual access & circulation) ● Bookshelves (light quality, visual access) ● Tables & seating (light quality) ● Exhibition & reading of heritage material (safety, light) ● * connection with research office ● Indoor & outdoor options (safety, visual access) ● Informative landscape integration (safety, visual access) 	12 m ² 80 m ² 20 m ² 35 m ² 15 m ² 25 m ² 45 m ²
5. Temporary exhibition rooms Rotating display technology Information display Interactive display	<ul style="list-style-type: none"> ● Daily use = 40 users ● Wall, floor & roof connections (no permanent attachment) ● Light quality & circulation ● Digital interventions (energy, acoustics, light) 	370 m ²



5.8 Figure 5.8: Allocation of event four at Westfort heritage village (Author:2016)

Event five CELEBRATE

Stakeholders involved

- The Heritage Portal
- Westfort village
- Public works & City Council
- UNESCO & tourists
- South African citizens
- Heritage organisations
- Heritage researchers

FUNCTION

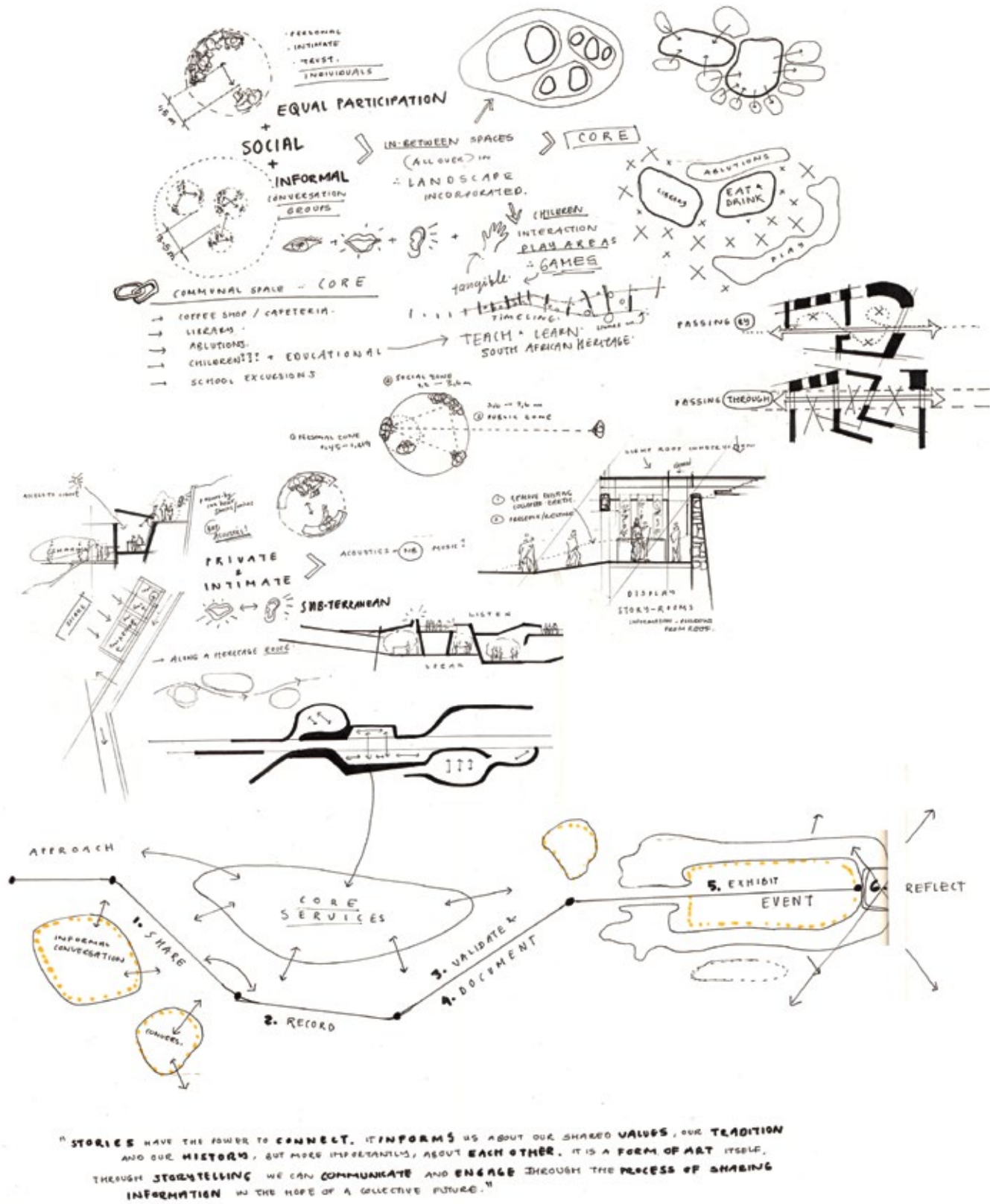
REQUIREMENTS

Validate & Document

m²

1. Community hall (Former administration building)		* Master plan only	
2. Market square		* Master plan only	
3. National & local heritage events Performance stage Seating	● ● ● ● ●	Montly events = 800 users Visual access, safety, acoustics Floor integration (use on demand) (500 removable seats)	50 m ² 800 m ²
4. Beacon of Continuity Vertical circulation Viewing platforms & equipment Information display Lighthouse Seating	● ● ● ● ●	Daily use = 40 users, Montly events = 800 users (median = 60) Stairs & Ramp (Safety & Visibilty) Viewpoints, landscape integrated telescopes (safety) Landscape integrated Artificial light, visibility, materiality Landscape integrated	24 m ² 450 m ² 10 m ²
* Sanitary installations Additional ablutions (entrance) Portal Restaurant Portal Offices & Library Fort (large events)	● ● ● ● ●	Daily use = 60 users, Montly events = 600 users Women (2 wc, 2 hwb), Men (2 urinals, 1 wc, 2 hwb), M.i.p Women (4 wc, 4 hwb), Men (3 urinals, 1 wc, 4 hwb), M.i.p Women (4 wc, 4 hwb), Men (3 urinals, 1 wc, 4 hwb), M.i.p Women (10 wc, 5 hwb), Men (3 urinals, 2 wc, 3 hwb), M.i.p	40 m ² 70 m ² 70 m ² 105 m ²
* Service deliveries Drop-off & Loading zone General maintenance Kitchen deliveries		Road access, turning circle, circulation Access to services, durability of materials Access, circulation, removal of refuse	
* Service distribution Energy Water Sewerage		Solar PV panels on northern ridge or roofs, battery room Potable water from reservoir, rain water harvesting, grey water French drain, westfort village connection to larger system	

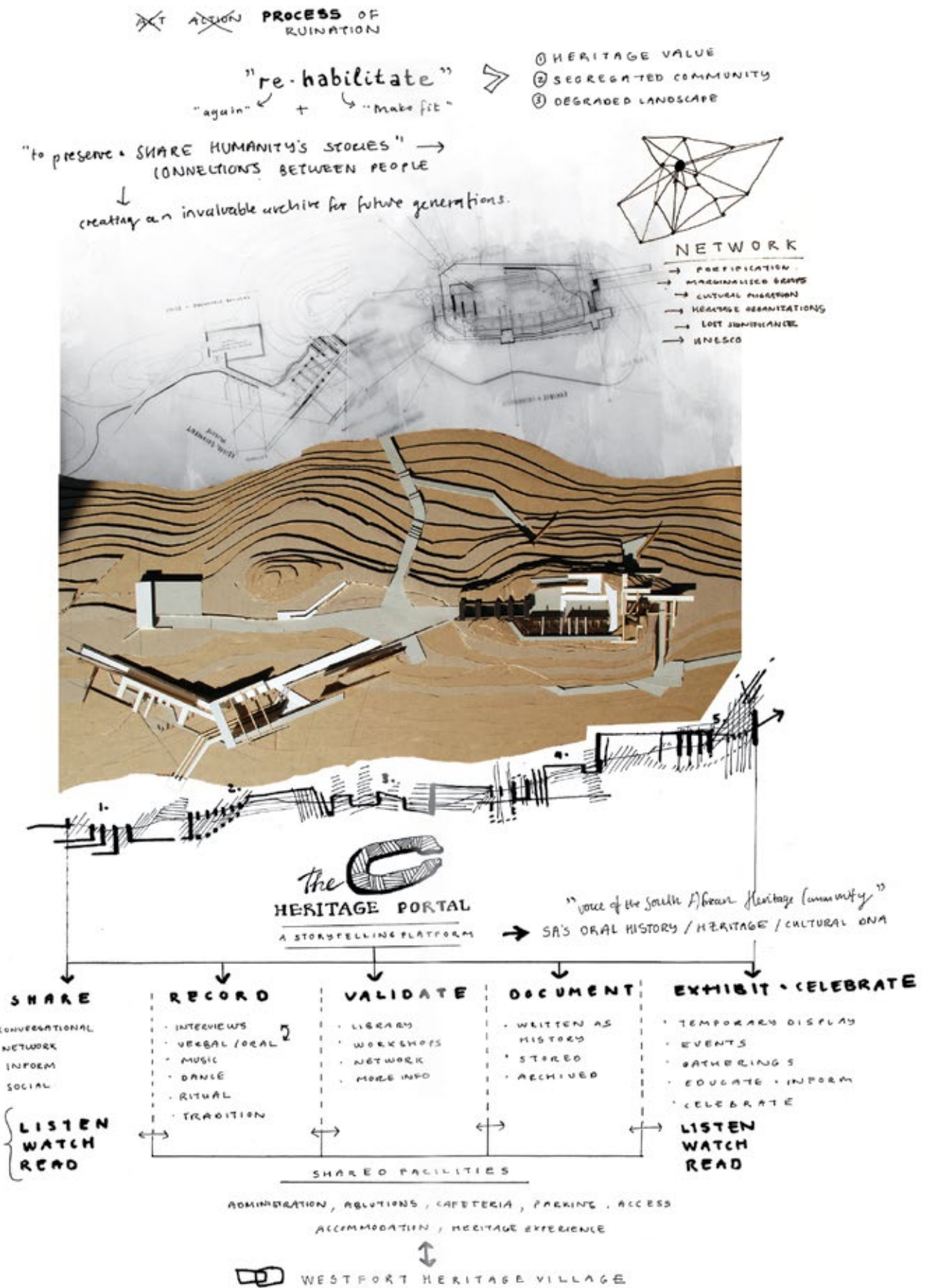




5.10

Figure 5.10: Spatial exploration of programmatic requirements (Author 2016)

Figure 5.11: First design explorations of programmatic requirements (Author 2016)



5.11

5.3//
PROGRAMMATIC
PRECEDENT

FREEDOM PARK

Location : Pretoria, South Africa

Date : 2008

Client : City of Tswhane

Architect : Gapp+ Mashabane Rose
Architects + Mma

Key words

Heritage narration
Heritage Tourism
Circulation
Thresholds

As part of Pretoria's regeneration projects, the main intention of Freedom Park is to tell the **story of our South African history**. By acknowledging the past, this landmark hope to celebrate the achievement of democracy and stand as a beacon of hope for the future (Young 2004:1).

Visiting the site, one is informed of our collective history that dates from the pre-colonial till the Post-apartheid era. In 2014, Freedom Park hosted a first ever storytelling festival. This event wished to bring people together through spritual engagement and entertainment by proffessional storytellers (Daniels:2014).

Although this precedent shows similar approaches to the dissertation proposal in terms of it's programme, it is mainly included as a critique on it's limitations as an inclusive heritage site.

Freedom Park is a national monument positioned towards furthering the rich cultural, historical, political and spir- itual needs of the people of South Africa and beyond.

(Daniels:2014)

Given it's mandate to 'further' our collective cultural, historical, political and spritual values, the author's opinion is that it is still perceived as a **political monument, static** and very **isolated**. Considering the previous theoretical exploration on heritage value, continuity and experientialism, the success of this dissertation lies in it's ability to transform an isolated heritage monument into an everyday, ongoing dialogue.

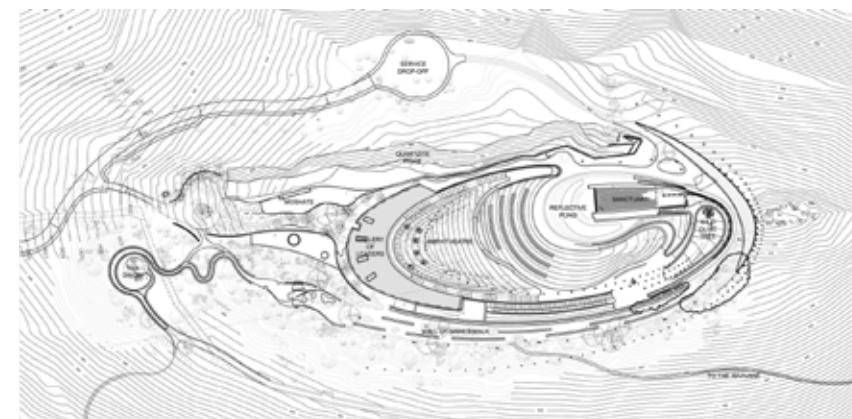
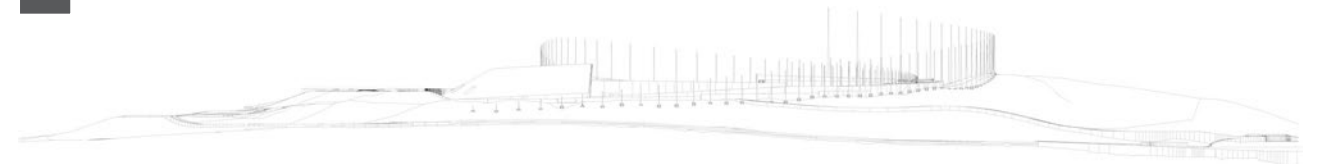
Figure 5.12: Elevated view of Freedom Park (Young: 2008)

Figure 5.13: Section and floor site plan of design (Young:2008)

Figure 5.14: Elevated views of the circulation routes and landscape integrated events (Young:2008)



5.12



5.13



5.14

CHAPTER SIX
**DESIGN
DEVELOPMENT**



6.1// DESIGN VISION AND INTENT

The design process was informed by the following generators: an understanding of the context, the site conditions, and the programmatic requirements. The design approach should also resonate with the project intention, which is to encourage equal and collaborative participation in the continuous contribution to our shared future.

Heritage legislation

As listed earlier in the document, the seven principles set out by the 2007 ICOMOS Charter will guide the design process to ensure that the interpretation and representation of the proposed Heritage Portal are in accordance with legislation (ICOMOS 2008:4).

These principles are applied in the following design strategies:

Principle 1:

Access and Understanding

Application:

Multiple entry points and access routes will allow for diversity and easy access to the specific events. The aim is to encourage an appreciation for the existing heritage fabric whilst introducing new interventions that equally engage in the need for heritage conservation.

Principle 2:

Information Sources

Application:

Information (both verbal and written) needs to be accessible at the entry gates, in the village at nodal intersections, and along the journey to the fort. As part of community involvement, the members of Westfort Village will accompany the visitors on the story walk routes.

Principle 3:

Attention to Setting and Context

Application:

As introduced in the precinct master plan, the entire site is accessible on foot and visitors are encouraged to make use of the allocated circulation paths to navigate from one event to another. This would allow for a more intimate sense of both the tangible and intangible qualities of place.

Principle 4:

Preservation of Authenticity

Application:

At a larger scale, the heritage village will be partially restored with minimal interventions to retain the authenticity of the existing built fabric. The fort as a ruin will also only be partially rehabilitated through a combination of restoration and preservation techniques contrasted to the new interventions. The goal is to retain its unique character with minimal intervention as a reminder of the fragility and continuity of heritage fabric over time.

Principle 5:

Planning for Sustainability

Application:

Currently the Westfort Village is cut off from any municipal services, which forces the users to resort to alternative and creative methods to fulfil their immediate needs. The new additions at the fort must therefore contribute towards the larger network of the village, and self-sustaining passive environmental strategies should be introduced.

Principle 6:

Concern for Inclusiveness

Application:

The success of this programme relies greatly on the equal participation of all stakeholders involved. As illustrated in the stakeholder diagram on page 84, the design approach is to encourage all participants through the experience of narration.

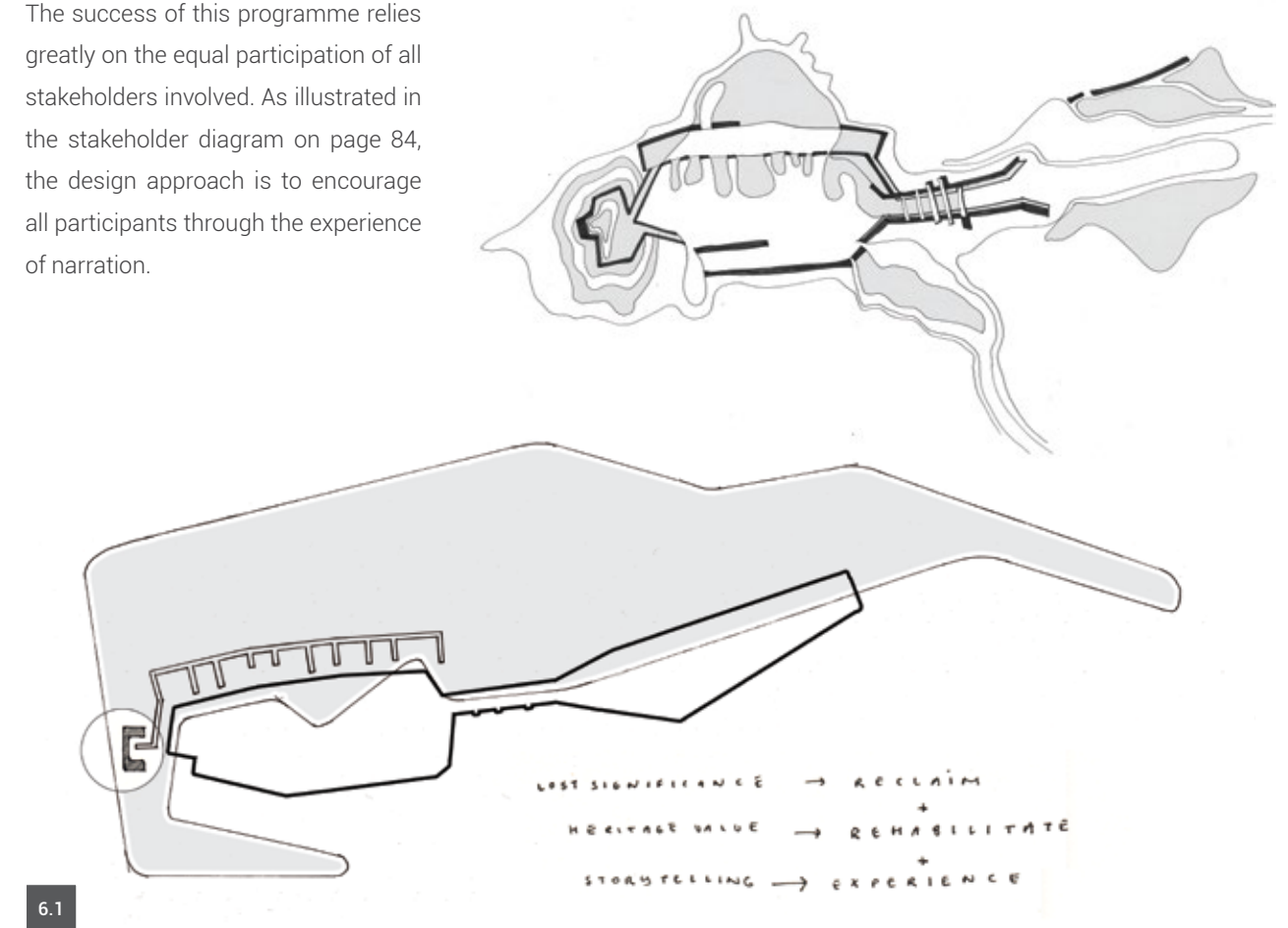
Principle 7:

Importance of Research, Training, and Evaluation

Application:

As part of the programmatic requirements, the Heritage Portal will also develop and present information regarding our collective South African heritage. The process of research and documentation should be visible to educate members of the public on, and inspire them with, heritage conservation.

Figure 6.1: Conceptual exploration of spatial and architectural intent on plan (Author 2016)



The spatial intention

Given the initial intentions for the fort to protect the greater public, it only seems fit that the new additions and alterations should respect the structural integrity of the existing ruin. As a protector, the legacy of the fort will now be continued by protecting the continuity of our collective South African heritage.

It has been illustrated in this dissertation how the authenticity of place can be narrated through intuitive experience. The narrative experience and the architectural expression should therefore form a synthesis in guiding the user through the journey.

The spatial intention is illustrated through the journey that connects the series of narrative events whilst building on the anticipation of reaching the pinnacle, the beacon of continuity.

The architectural intention

The renowned philosopher and theorist, Michel Foucault (1926-1984) (1986:22-24), argues that we are operating in an epoch of juxtaposition where certain hierarchies of spaces are juxtaposed with one another in order to define their spatial quality or superiority.

These opposing spaces can be traced from as early as the Middle Ages, as seen with sacred places and profane places, protected or open places, urban or rural places, all of which determine the richness of the human experience. The intersections of opposing spatial experiences are therefore part of our daily lives, our interactions with each other, and our natural surroundings.

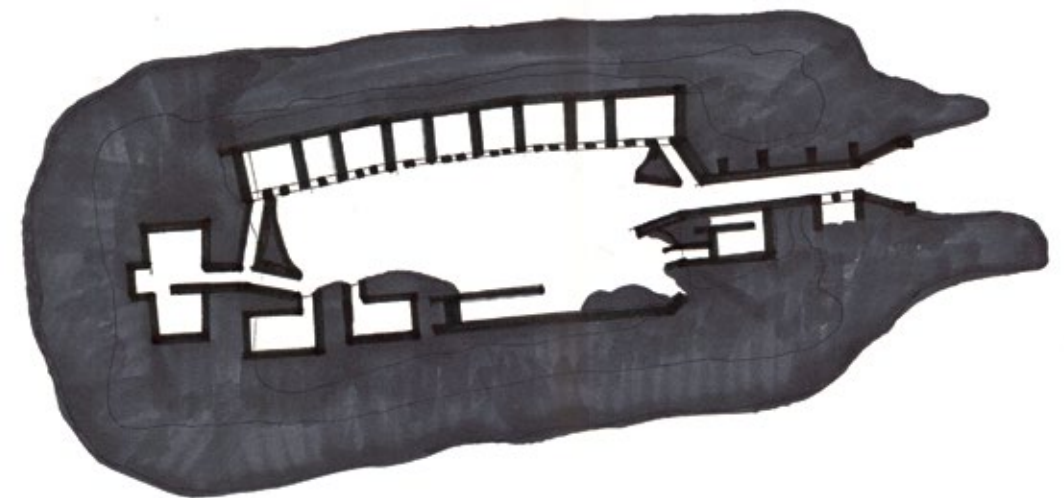
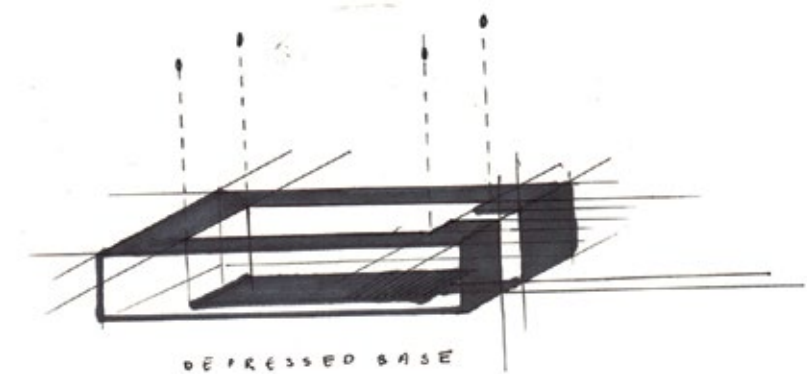
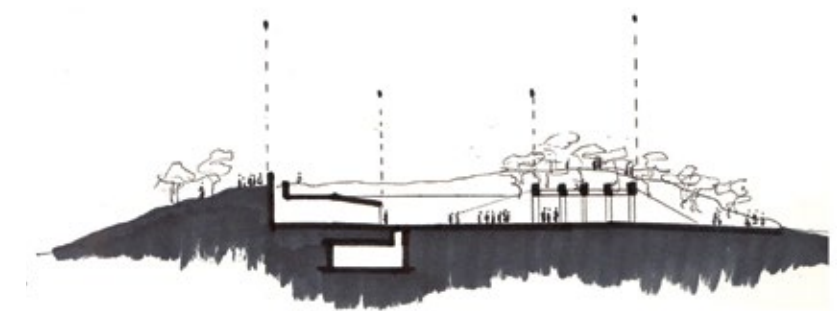
The architectural intention should therefore represent a language that makes clear distinctions between past and present, old and new, and building and landscape, in order to encourage a sense of spatial continuity.



6.2

Figure 6.2: Conceptual summary of the design response (Author 2016)

Figure 6.3: Analysis of the original spatial and architectural intent of the Fort as constructed in 1898 (Author 2016)



6.3

6.2//
DESIGN
PRECEDENTS

**THE RECONSTRUCTION OF
SZATMÁRY PALACE**

Location : Pécs, Hungary
Date : Original: 16th century
Project Planning: 2008-2010,
Completion: 2011
Client : City Of Pécs
Architect : Marp

Keywords

Ruin
Reconstruction
Transition
Events
Temporary vs. Permanent

Given the current condition of the fort as an undervalued and isolated ruin, the following precedents illustrate the potential of preserving the character of a ruin whilst accommodating future needs.

With its magnificent views from the hilltops in the Tettye Valley urban park, this project truly celebrates the thresholds and transitions between old and new, urban and nature (Dévényi 2012). Still visible today, these historical remnants were once home to the Hungarian Bishop, and were altered and added to as functional requirements changed (Dévényi 2012). Until recently, it was used as an alternative backdrop to open air performances, adding to its theatricality.

In 2010, the city council of Pécs refocused its attention to the renewal of public space, which included the Tettye Park and the former ruin. Given the unique and picturesque presence of the park, the aim was to rethink its value as a public space without sacrificing the authenticity and quality of the ruin.

With a clear understanding of the historical, economic, social and future value of the site, the design team proposed the reconstruction of the original palace to host contemporary and future public events in a renewed context. With a clear distinction between old and new, a variety of materials were juxtaposed to not only enhance the spatial experience but to also separate the temporal and permanent dimensions of time.

Figure 6.4: Newly constructed south wall with corten steel (Török 2012)

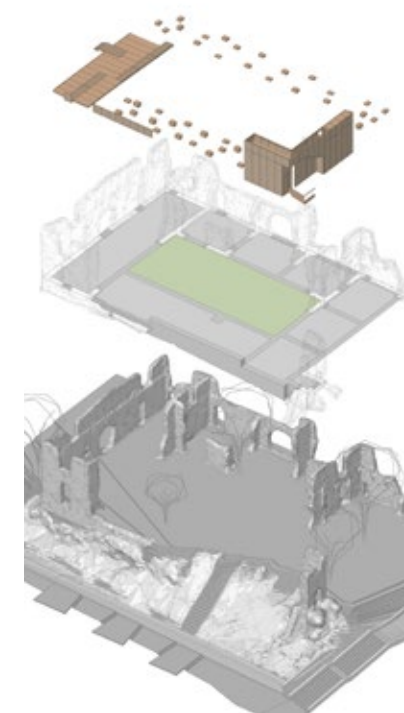
Figure 6.5: Reconstruction of original palace with new foundations and walls (Török 2012)

Figure 6.6: Viewpoint overlooking the surrounding city (Török 2012)

Figure 7.7: New walkways to separate old from new (Török 2012)



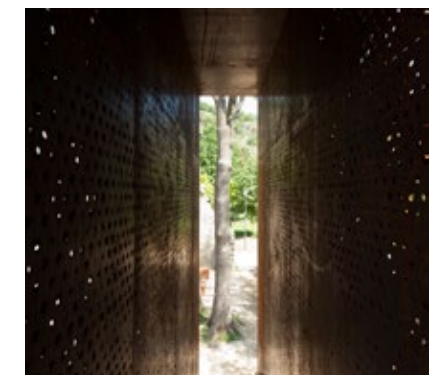
6.4



6.5



6.6



6.7

CASTELVECCHIO

Location : Verona, Italy

Date : Original: 1354

Reconstruction: 1958

Architect : Carlo Scarpa

Keywords

Interpretation

Rehabilitation

Detail

Experiential

Similar to Fort West, Castelvecchio was also originally intended as a defence structure for military purposes. It was later re-purposed to host the Venetian Military Academy and today houses an art museum (Coombs 1992:2).

By the time that Carlo Scarpa was commissioned, Castelvecchio ('old castle') was already an amalgamation of several transformations and additions over four consecutive periods of construction. Coombs (1992:4) argues that, apart from the rehabilitation of the historic castle, Scarpa was more interested in the experiential interpretation of its complicated history.

**... in an act of discovery...
the antithesis of the mute
observer of the prewar era.
Scarpa's critique is contained
in the individual's experience
of architecture, landscape and
museum exhibits.**

Coombs (1992:5)

Stavroulaki (2003:1) argues that Scarpa's design approach could be considered as an embodied pedagogic device aimed at ways of seeing. Scarpa's approach is therefore valued as a spatial tool where the focus shifts from the story of art to the story of interpretation (Stavroulaki 2003:2).

As mentioned earlier, the recent phenomenon of 'ocularcentrism' is considered the preferred method in museums, yet it is limited in its experiential potential. It is as if Scarpa anticipated this phenomenon in his reconstruction project, where the design facilitates the perception and mode of understanding of the history rather than the history itself.

Scarpa celebrates the different layers of history, therefore revealing the inherent discontinuity of time through careful narration of its context (Stavroulaki 2003:4).

In retrospect, this project is valued for its interpretation of its unique history, the architectural detail and its design for the experiential. But perhaps one of Scarpa's most valued contributions to architecture is his ability to design for the human experience.

Figure 6.8: Interior view of museum corridor (MITLibraries:2016)

Figure 6.9: Construction additions (<http://mela.iuav.it>)

Figure 6.10: Entrance additions celebrating old and new (Stavroulaki:2003)

Figure 6.11: Plan of Castelvecchio (Stavroulaki:2003)

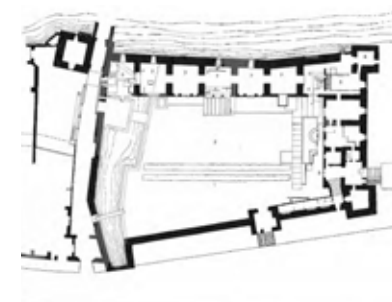
Figure 6.12: Different angles and modes of viewing art (Stavroulaki:2003)



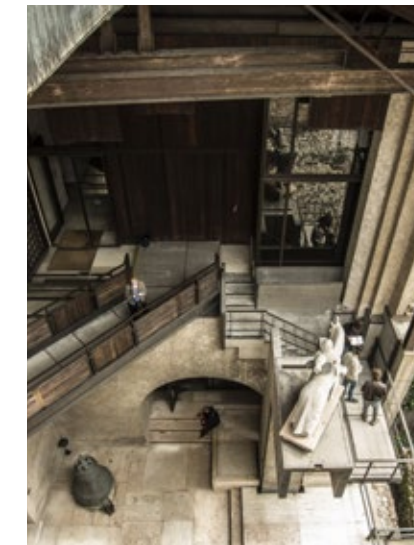
6.8



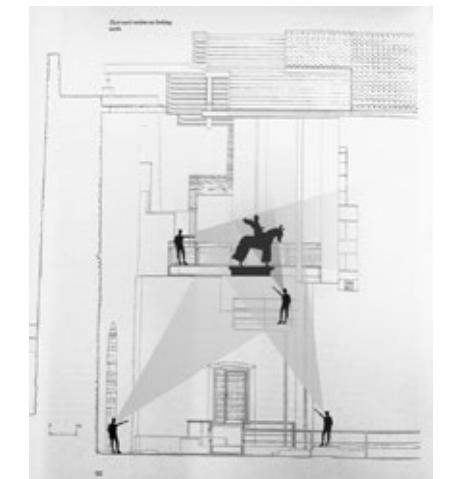
6.9



6.10



6.11



6.12

6.3//
DESIGN
EXPLORATION

The existing conditions

In order to implement the proposed design strategies, the following unique attributes should be considered to inform the design process:

1. Orientation

Although the fort was intended to protect the western entry portals of Pretoria, it seems to have lost its significance on the western edge. The main ammunition shaft and machine rooms were allocated to this important edge to ensure maximum control and vertical access to different levels.

2. Access

On the eastern edge, most of the built fabric was used to announce the entry portals and are still in good condition today. There is a clear hierarchy in the circulation routes, ranging from 4m wide vehicular routes to 0,7m narrow corridors.

3. Visibility

According to Van Vollenhoven (1998:45) four canons were positioned on each corner of the embankment for its maximum visibility and exposure to the surroundings, and these should be celebrated in the design.

4. Typology & materials

Almost the entire fort was constructed with excavated materials and local sandstone from the region. Apart from its natural appearance, today this submerged structure is now seamlessly integrated with and hidden in the landscape.

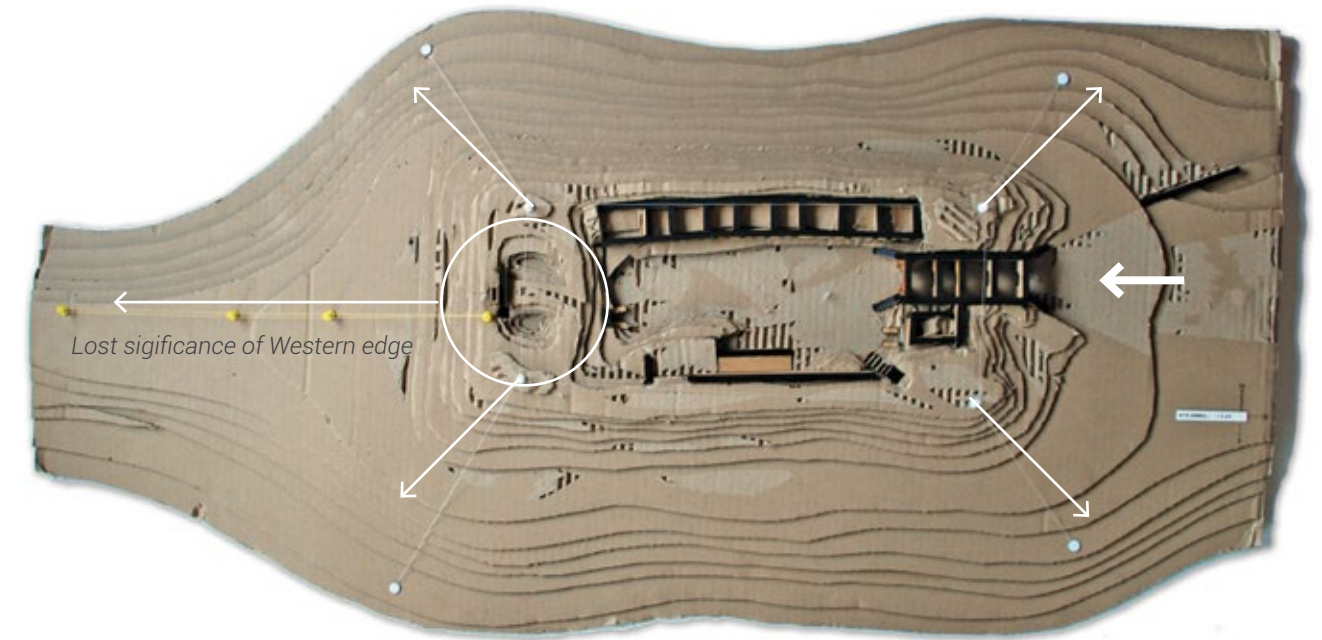
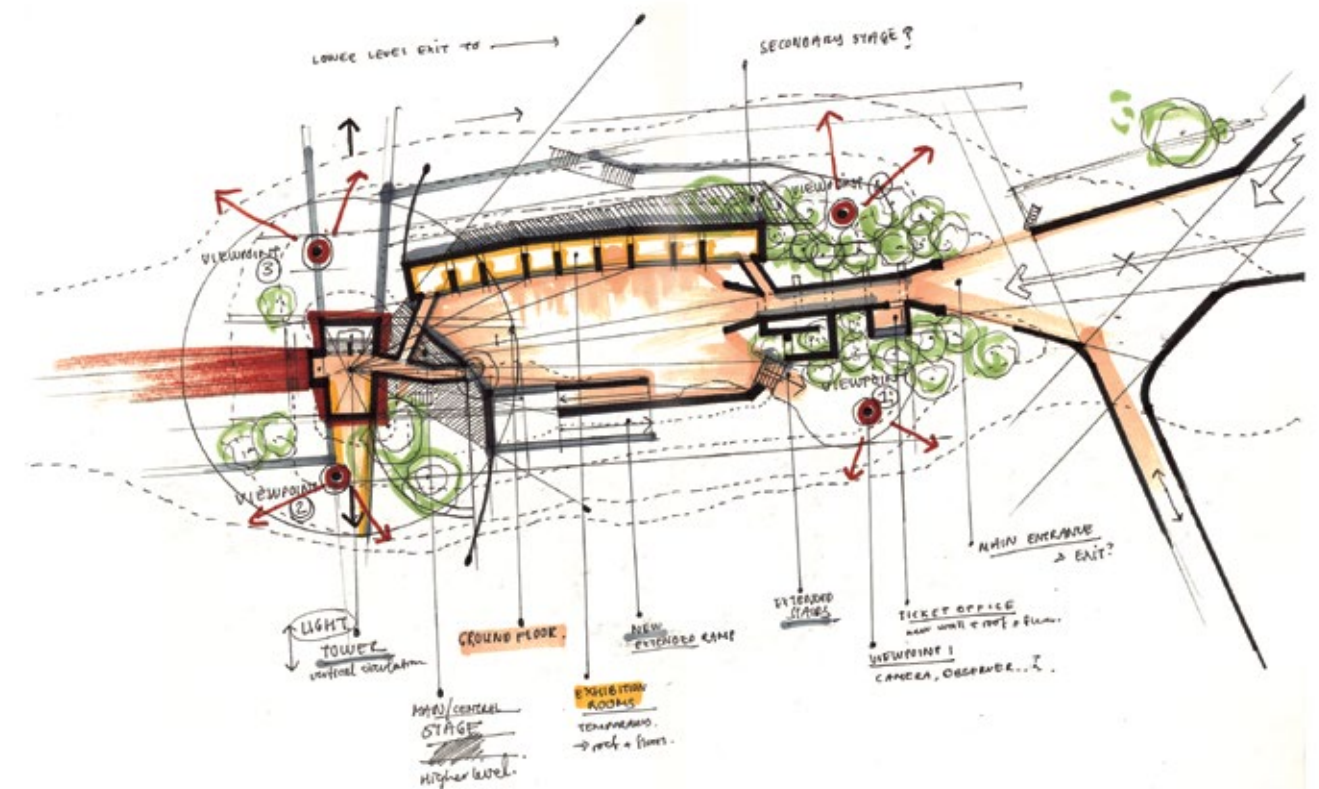


Figure 6.13: Surrounding views from western edge of the Fort (Author 2016)

Figure 6.14: Model and analyses of the existing conditions of the Fort and potential interventions (Author 2016)



6.14

6.13



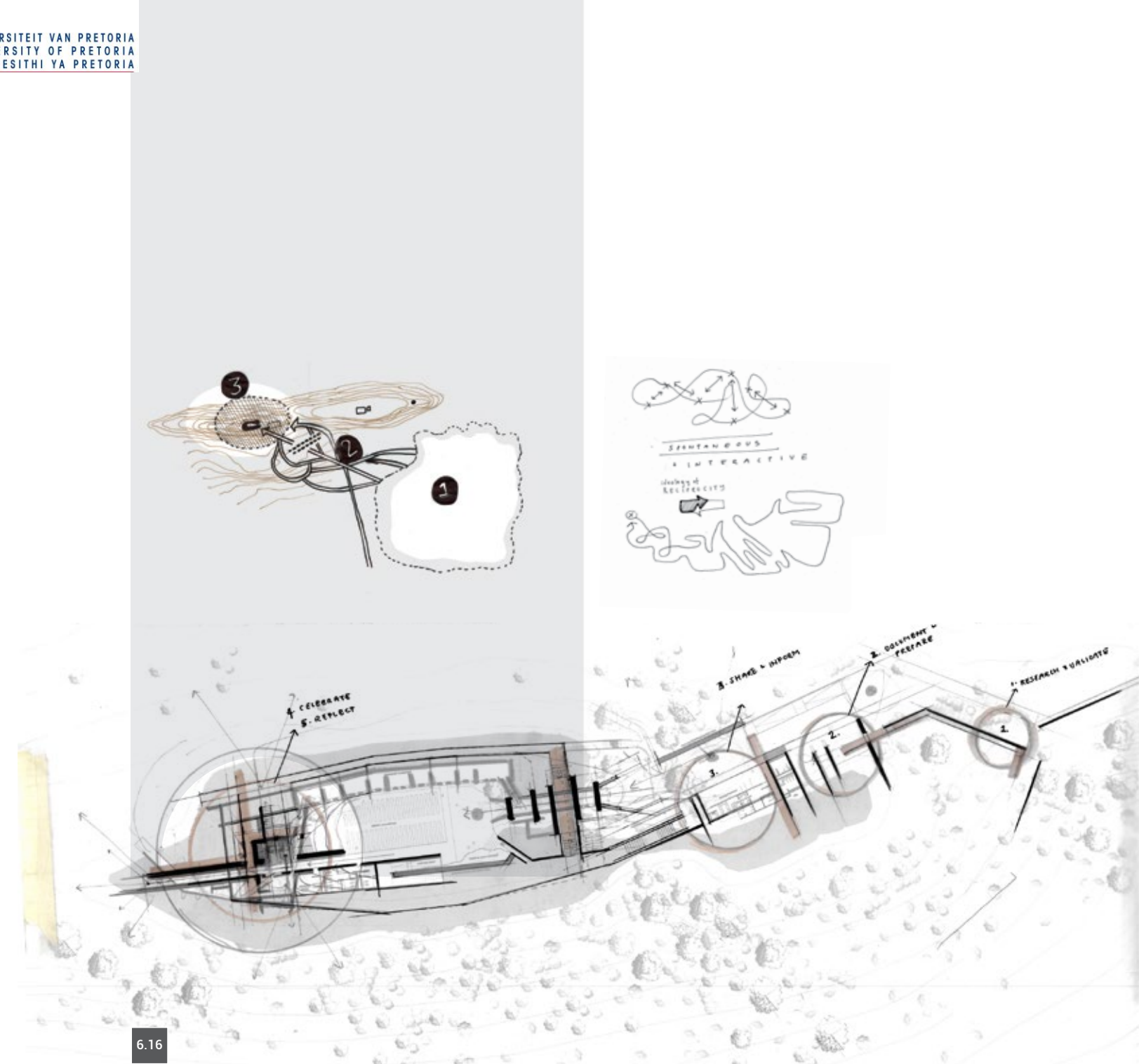
The story walks

The programme requirements state that there are different users, each with their own intention for visiting the site. A central meeting point is therefore essential in order to inform and direct these users to specific events. At the foot of the ridge, the existing built fabric is utilised as accommodation units for both visiting guests and the hosting staff members from Westfort heritage village.

Dedicated parking at the foot of the ridge allows the visitor to engage with the site by taking either a 2km guided story walk or the drop-off taxi ride to the top. The story walk should be designed in such a way that it communicates the story of place with intercepting platforms that allow for reflection. As the story progresses, so does the anticipation of discovery as the visitor is drawn onwards with small suggestions of protruding beacons at the top.

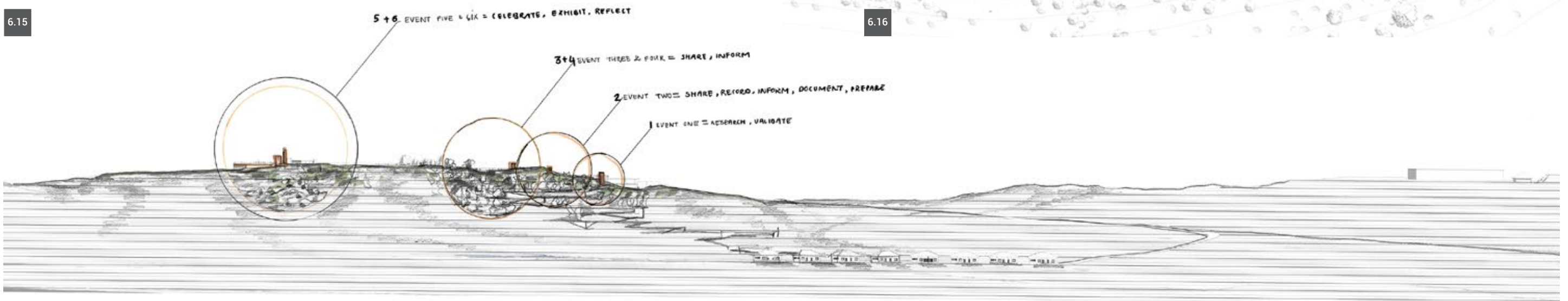
Figure 6.15: Southern Elevation of ridge upon approach (Author 2016)

Figure 6.16: A series of events visible with subtle beacons in the landscape (Author 2016)



6.15

6.16



Layout of Exploration One

Considering the unique attributes of the existing fort and the programmatic requirements of the new additions, the following informants directed the layout exploration, as illustrated .

Approach from the east

Hierarchy of circulation

Access and use of existing ruin

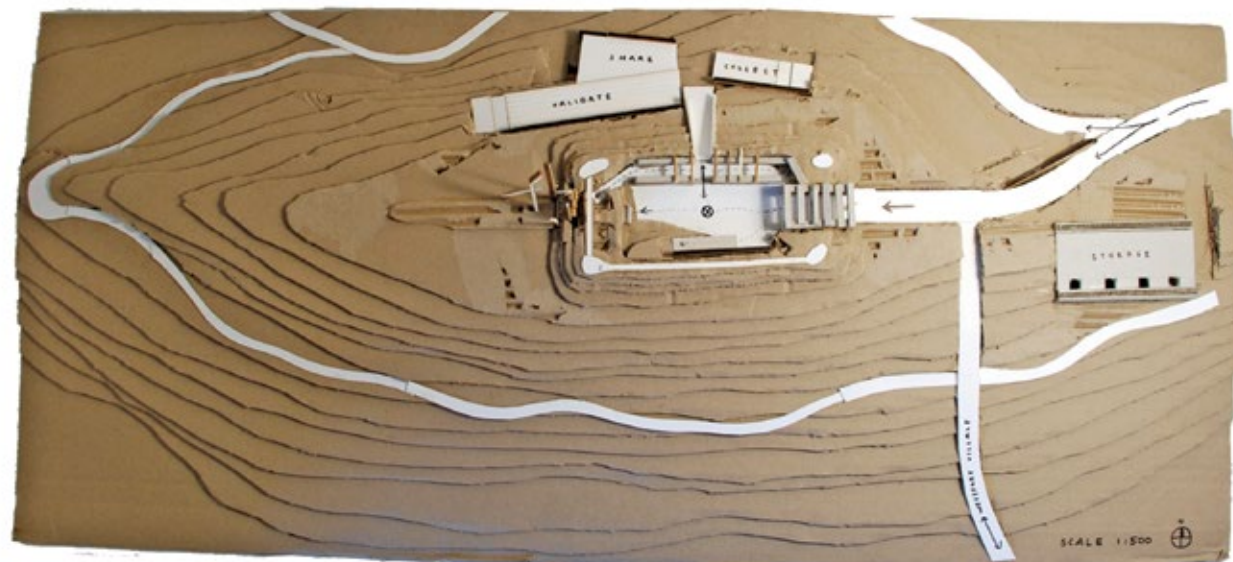
Integration of new additions

Visibility & orientation of new additions

The significance of the western edge

Landscape integration

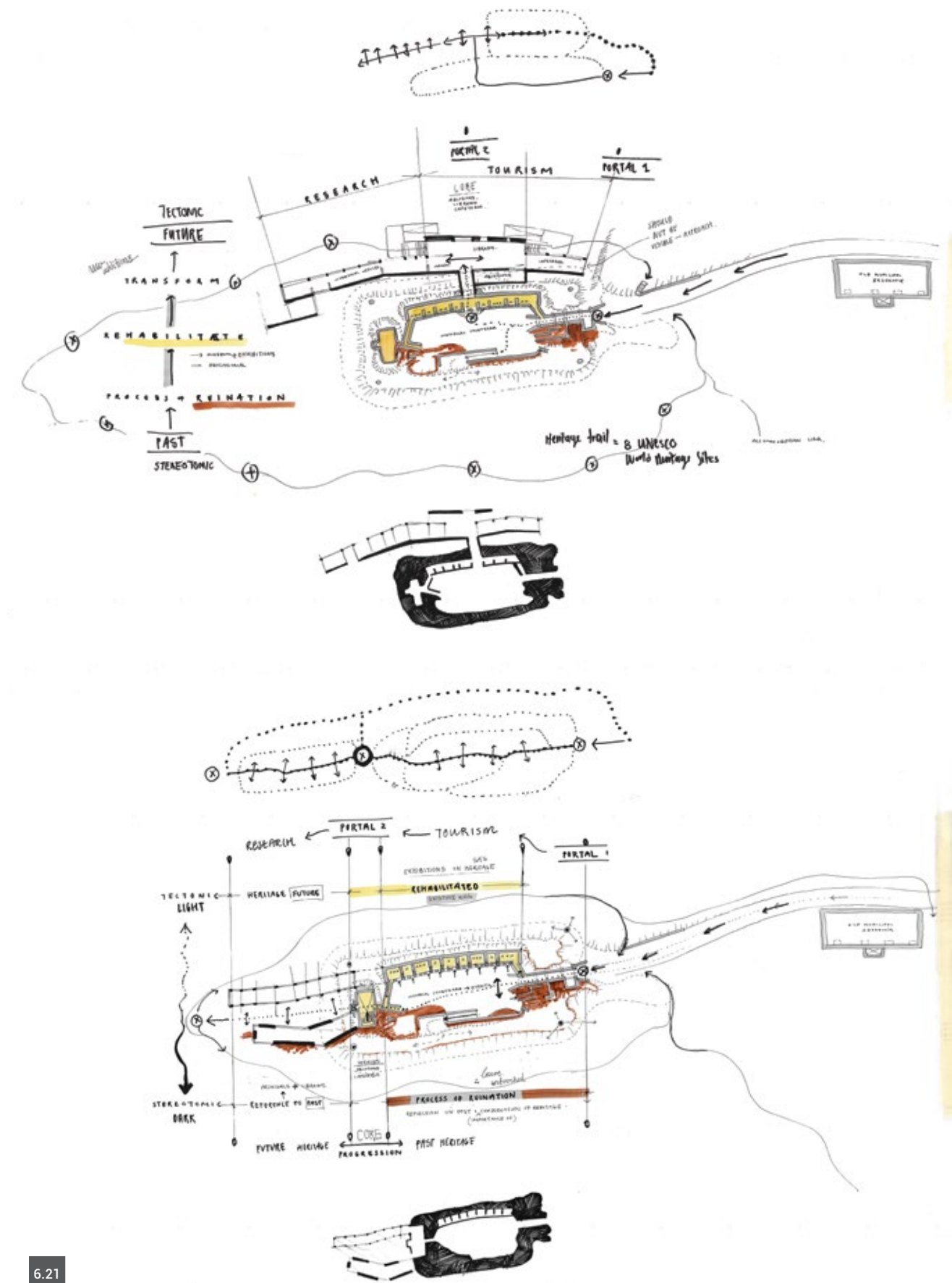
The exploration resulted in a spatial response that encourages the extension of the story walk as an experience of place. The model investigated various degrees of circulation through and around the site to add to the experience of narration. The positioning of the new additions was questionable for its spatial hierarchy, as it did not complement but rather competed with the existing fabric of the fort.



6.20

Figure 6.20: First model exploration to understand spatial arrangement (Author 2016)

Figure 6.21: Early layout and planning explorations (Author 2016)



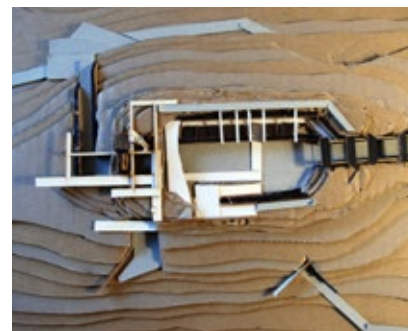
6.21

Layout of Exploration Two

As a result of the first explorations, it was realised that the new additions of the Heritage Portal should be better integrated into the landscape to build on the experience of the journey towards the fort.

With the proposed new additions a better understanding of the spatial hierarchy and programmatic experience was communicated. The introduction of a new circulation axis allowed for easy access and interpretation of the specified sequel of events.

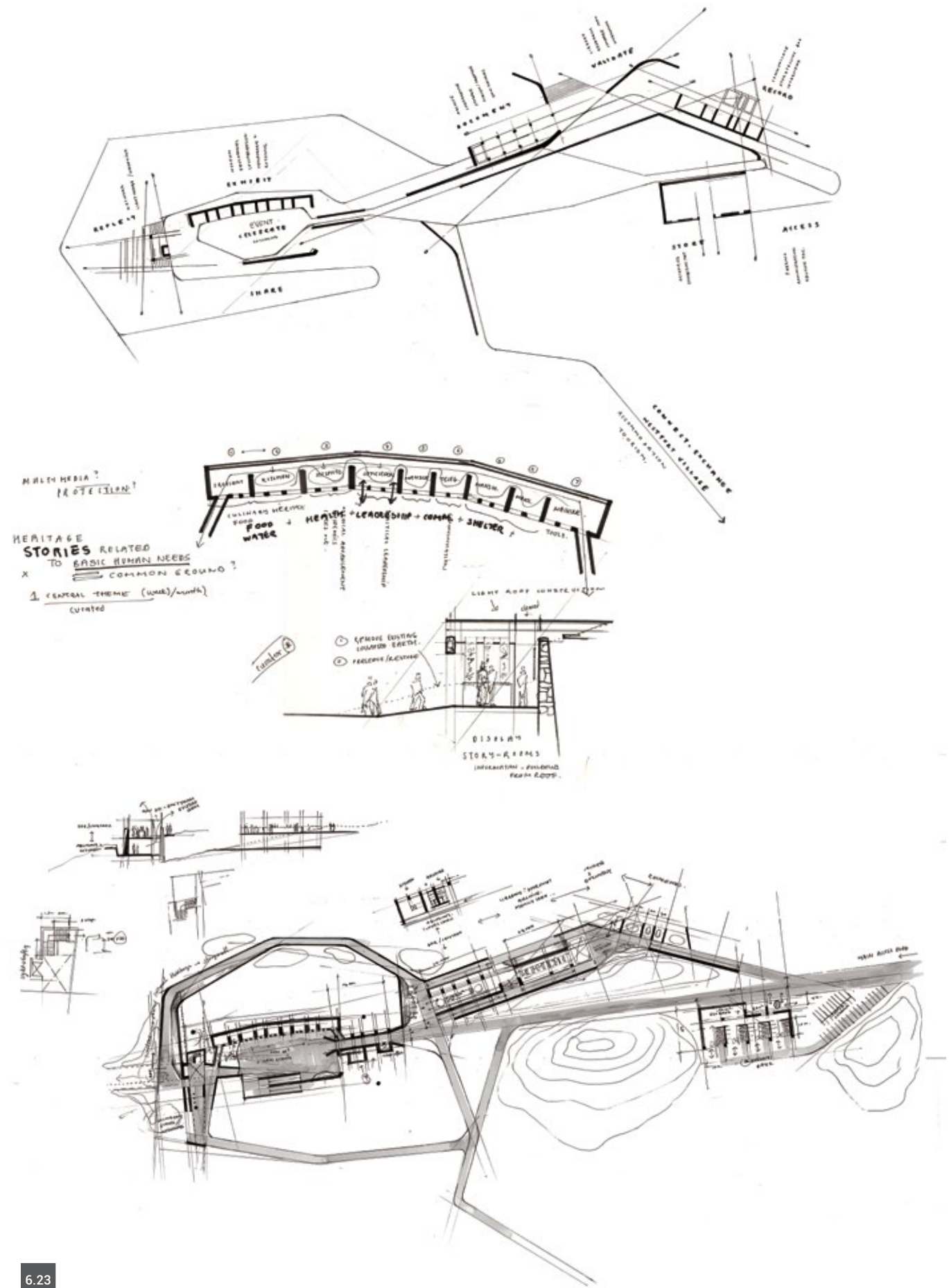
The intention with this iteration was to explore the potential of the new additions to be extensions of the fort, but the scale and proportion were still questionable and unresolved. The rehabilitation and alteration of the existing structures at the fort were iterated according to the new proposed function. The intention is to retain the structural material of the existing walls but introduce new materials according to the proposed new function.



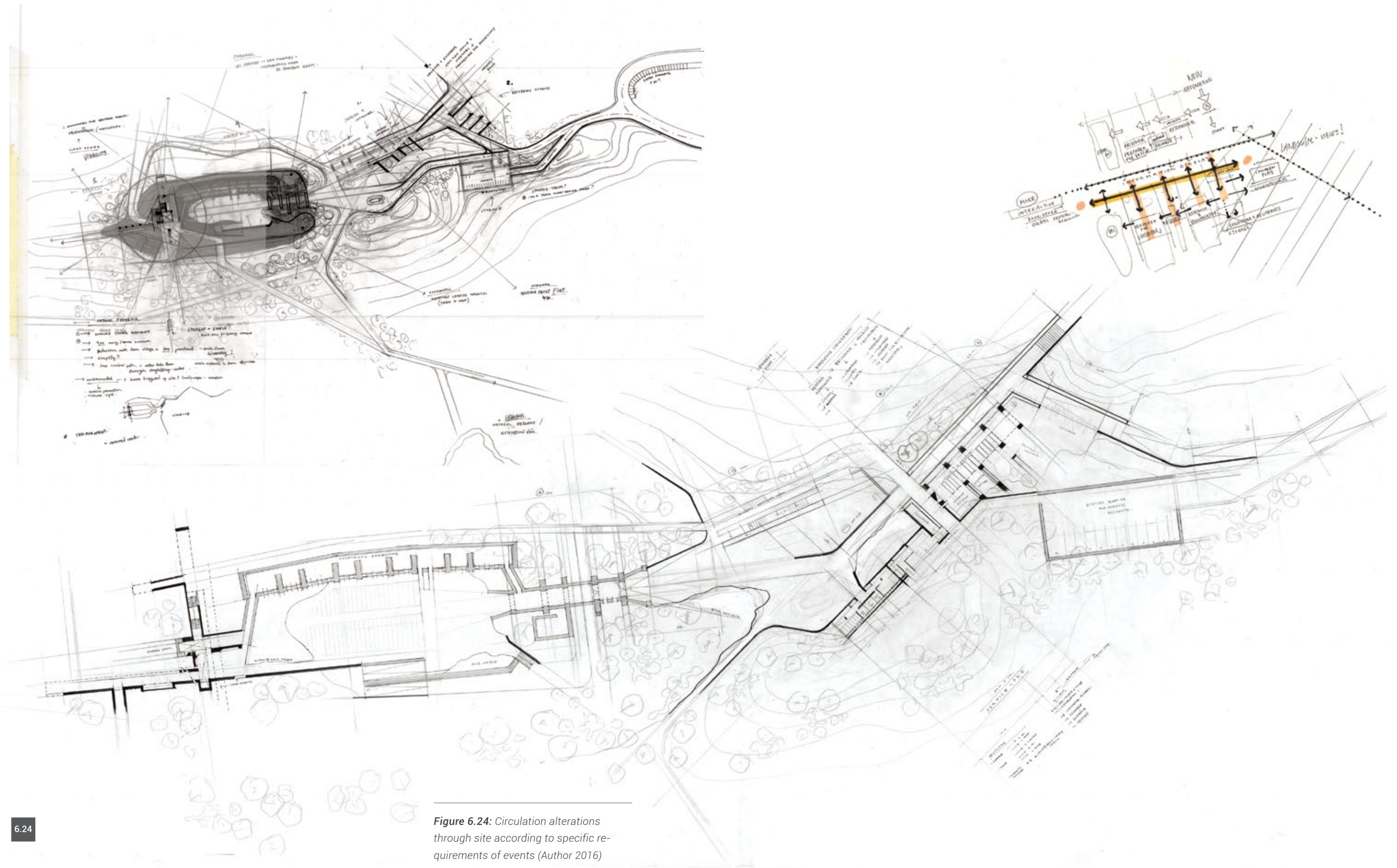
6.22

Figure 6.22: Model exploration of iteration two (Author 2016)

Figure 6.23: Design development of layout exploration two (Author 2016)



6.23



6.24

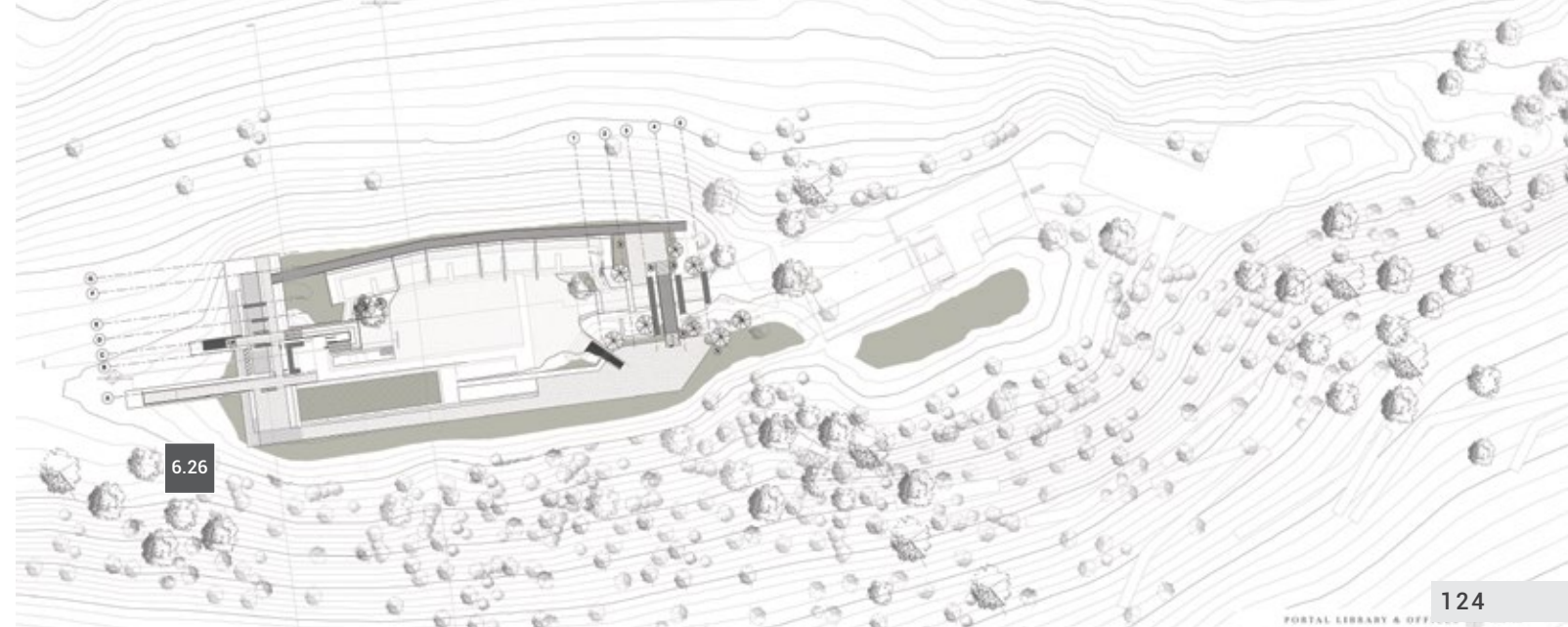
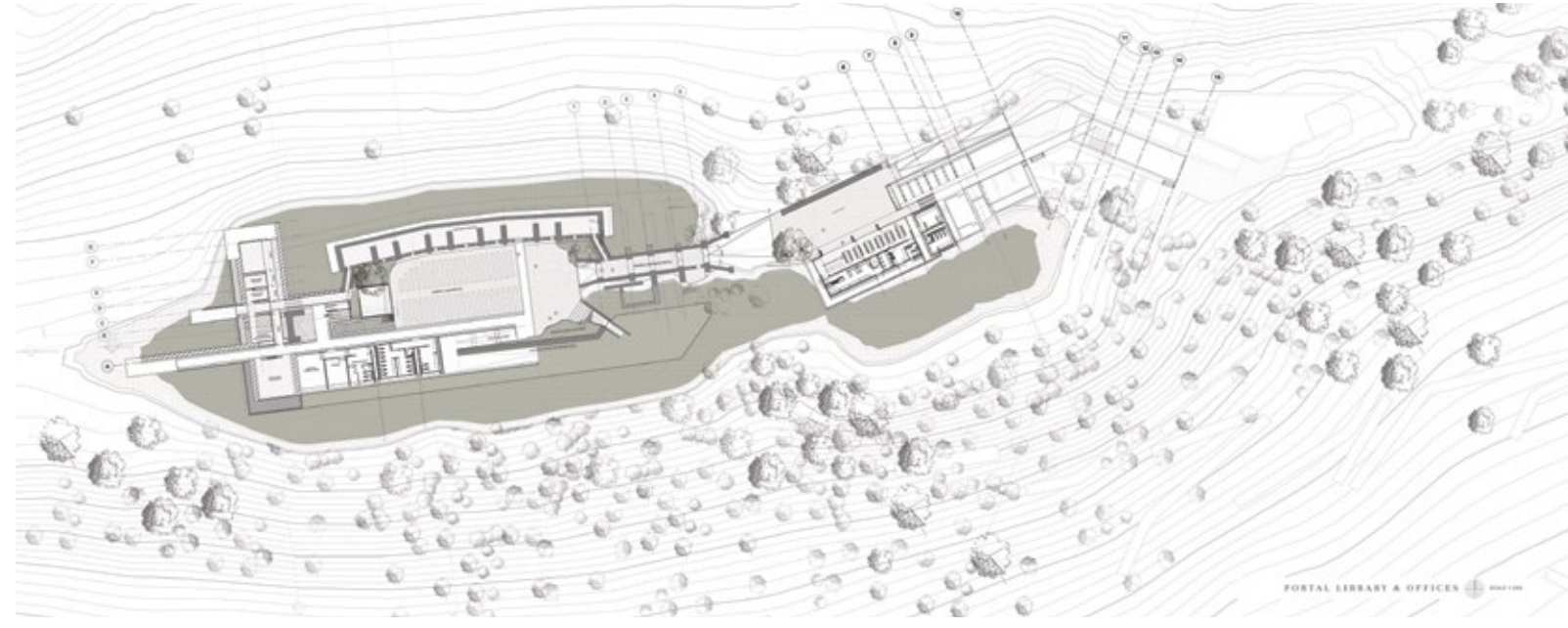
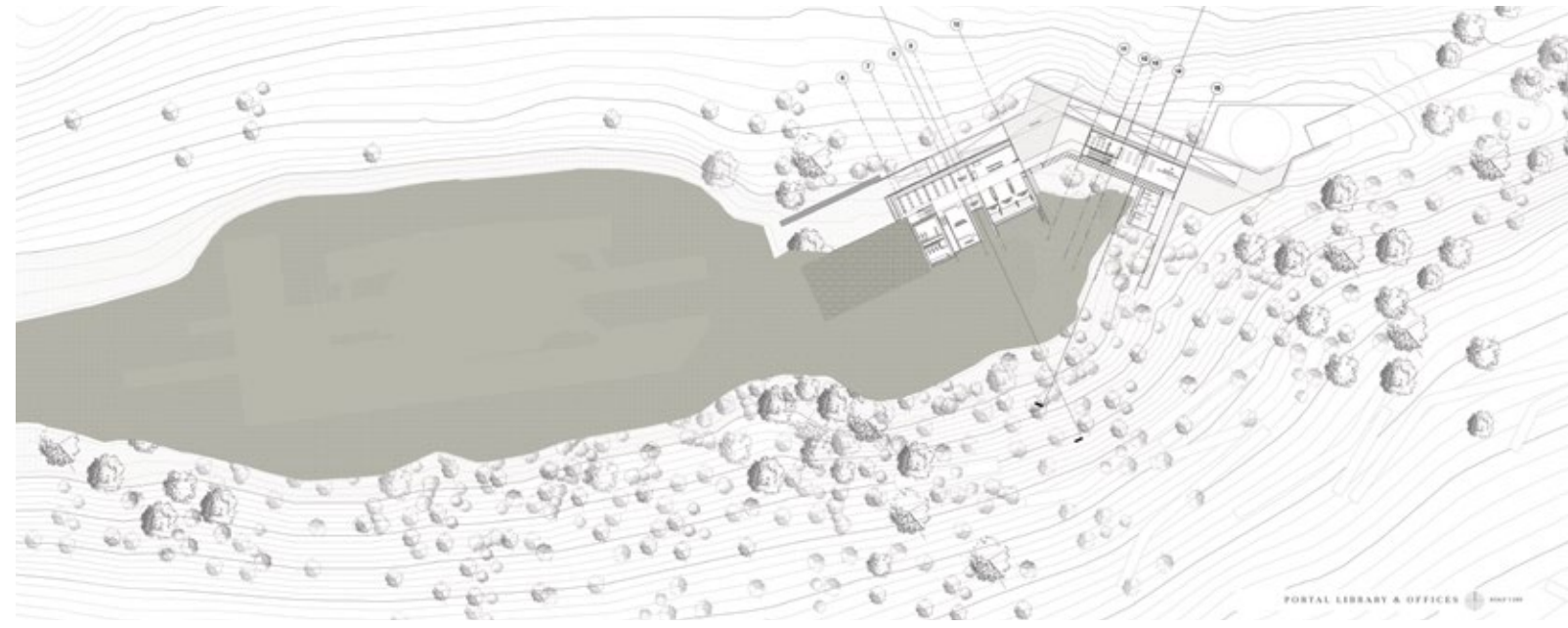
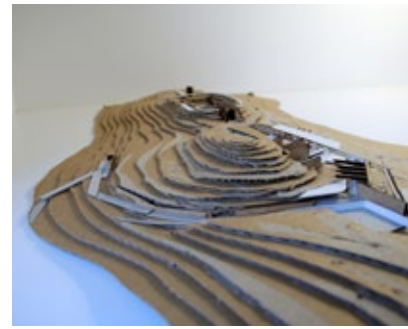
Figure 6.24: Circulation alterations through site according to specific requirements of events (Author 2016)

Layout of Exploration Three

As a result of the previous iterations, the proportions of the new additions in relation to the existing were better resolved.

This iteration utilized the natural topography of the existing ridge to direct the user and build on the anticipation of discovery. The different events of narration are therefore now connected and interpreted as one collective experience.

With a clear distinction between old and new, landscape and building, the design started to communicate the design intentions on both a spatial and architectural level. The user requirements and general circulation were still problematic and had to be addressed at a more detailed scale.



6.25

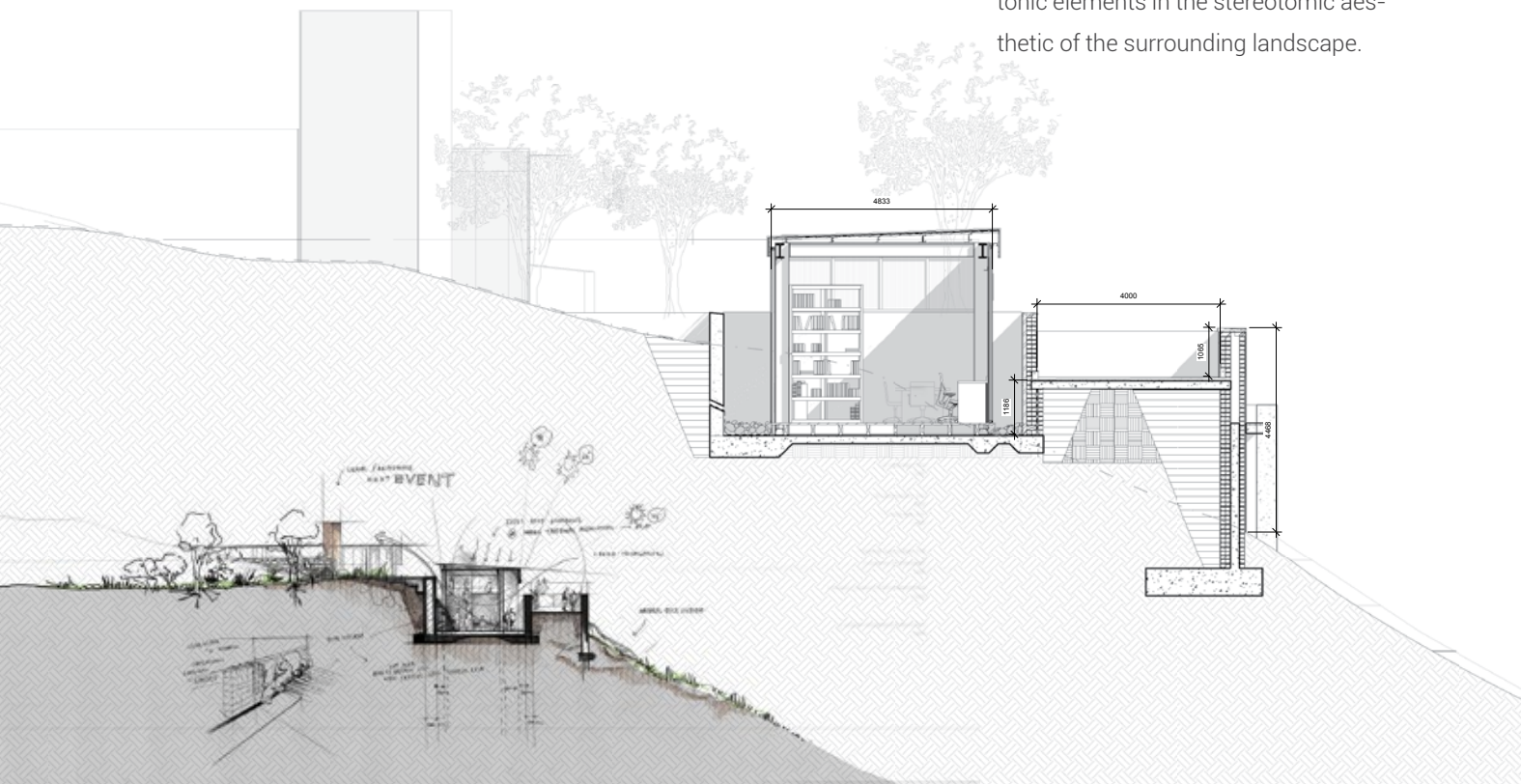
Figure 6.25: Model exploration to finalize spatial arrangements (Author 2016)

Figure 6.26: Design plan development (Author 2016)

6.4//
DESIGN
RESOLUTION

As the user enters the site from either the story walk trail or the drop-off platform, the first encounter of heritage narration is the Heritage Portal research and validation studio. This process requires a peaceful environment with minimal disturbance and is therefore only partially visible to the passing public.

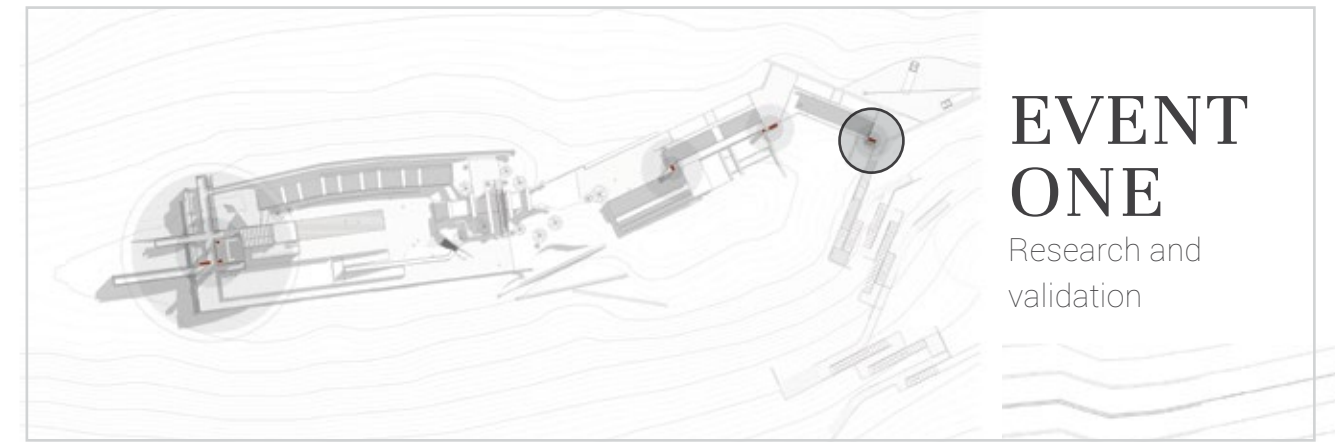
Natural ventilation, adequate daylighting and acoustics were some of the critical determinants in establishing a healthy indoor research environment. A steel portal frame structure represents the new interventions as tectonic elements in the stereotomic aesthetic of the surrounding landscape.



6.27

Figure 6.27: Section exploration of new research addition (Author 2016)

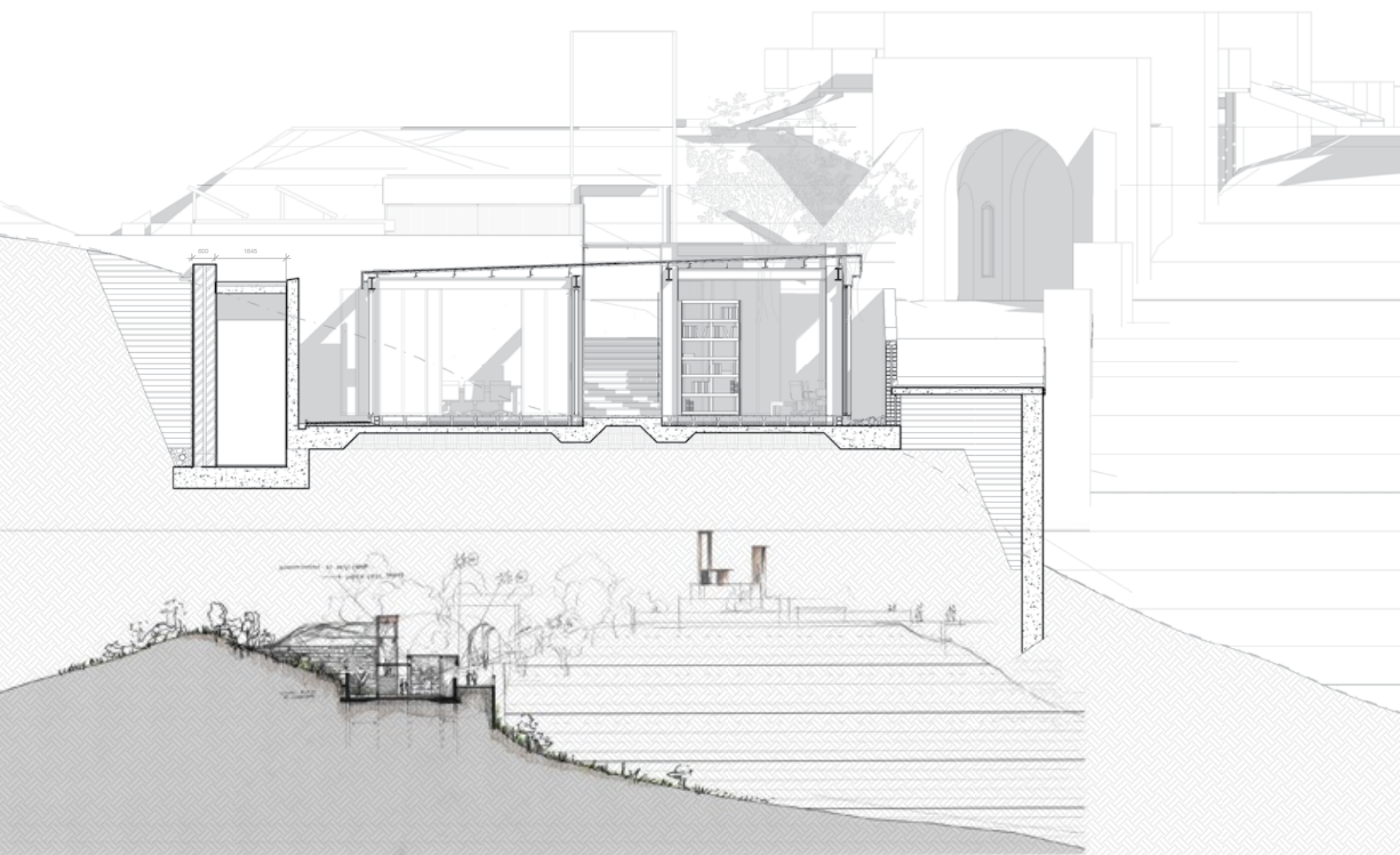
Figure 6.28: Plan development of re-search addition (Author 2016)



6.28

Upon reaching the second beacon of narration, the design encourages a more intimate and participatory process along a secondary circulation route.

The public interface is facilitated by an open library where storytelling and information is shared and made visible along the northern edge. The southern edge is allocated to more intimate spaces such as conversation rooms and the documentation process. Ablutions and all wet services are also installed and hidden along the southern edge.



6.29

Figure 6.29: Section exploration of new library and documentation addition (Author 2016)

Figure 6.30: Plan development of library and documentation addition (Author 2016)



6.30

EVENT TWO

Library and documentation

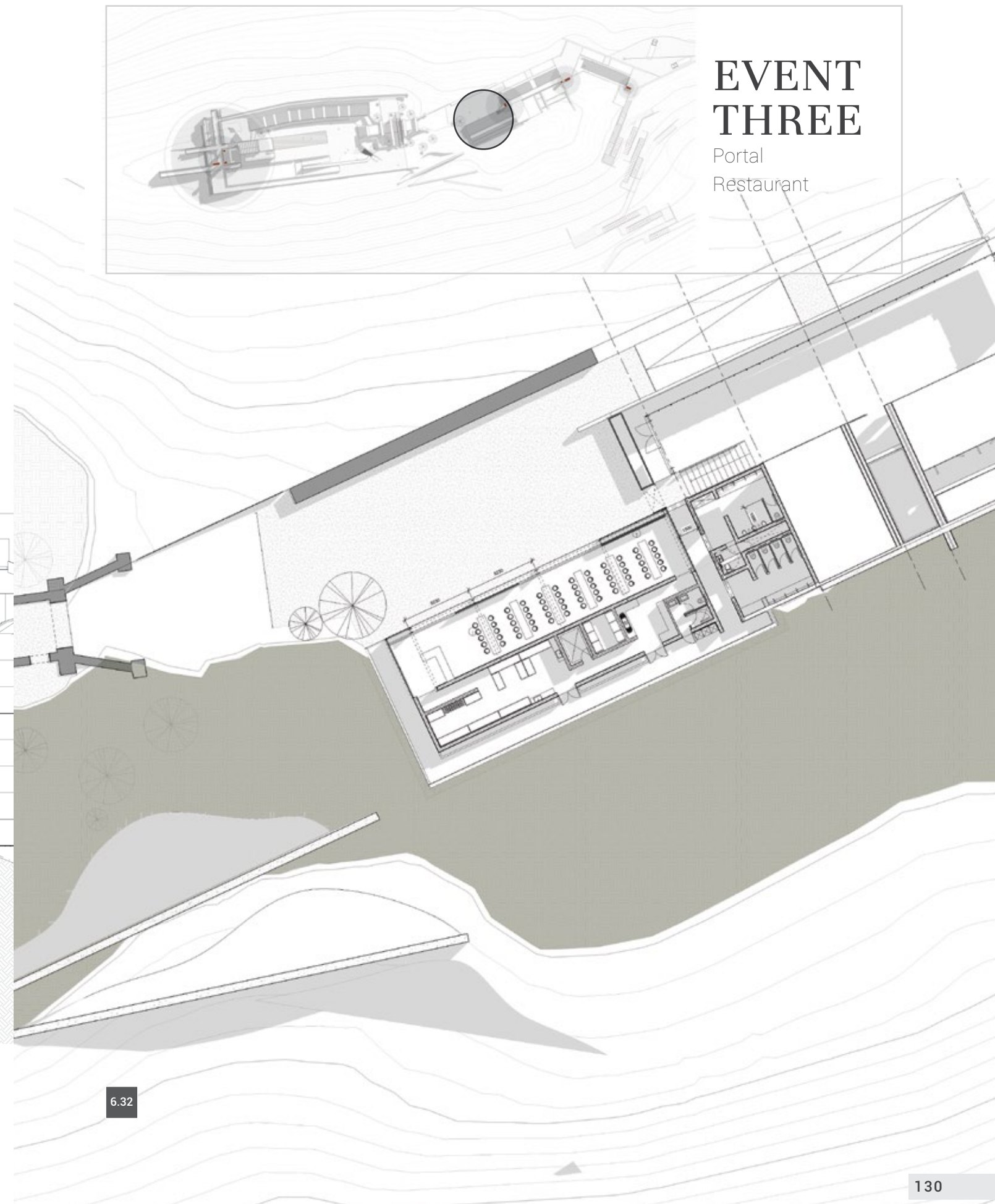
The Portal restaurant is situated on an open platform that takes advantage of the surrounding vantage points. This allows the user to reflect on the storytelling experience before moving on to the next event. At this point the user is introduced to the anticipated grand entrance portals of the former fort and continues to explore the narrative.



6.31

Figure 6.31: Section exploration of new restaurant addition (Author 2016)

Figure 6.32: Plan development of restaurant addition (Author 2016)



6.32

EVENT THREE

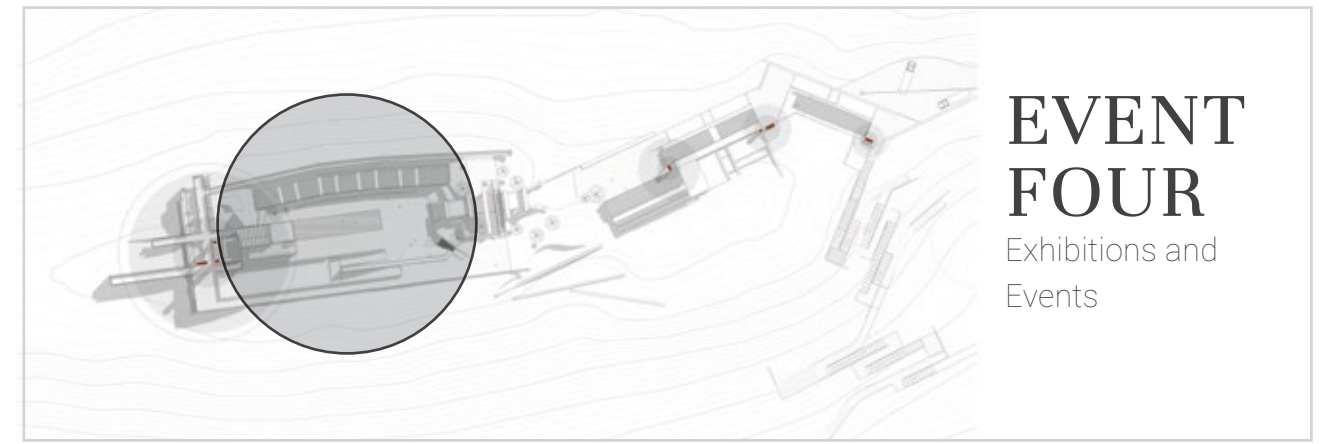
Portal
Restaurant

Traversing the entry portals of the old fort, the user is confronted with the dominant quality of the thick stone walls, constructed with precision and perfection. A small opening invites the user to move through a hidden tunnel which leads to the rehabilitated rooms that now exhibit new-found heritage information.

The exhibition continues in different forms of architecture with subtle transitions in storytelling from inside to outside. Recording rooms, a small cinema and digital archives allow the user to be inspired by the voices of our collective heritage. The open air courtyard can also accommodate up to 800 visitors which make it the ideal location for larger storytelling events.

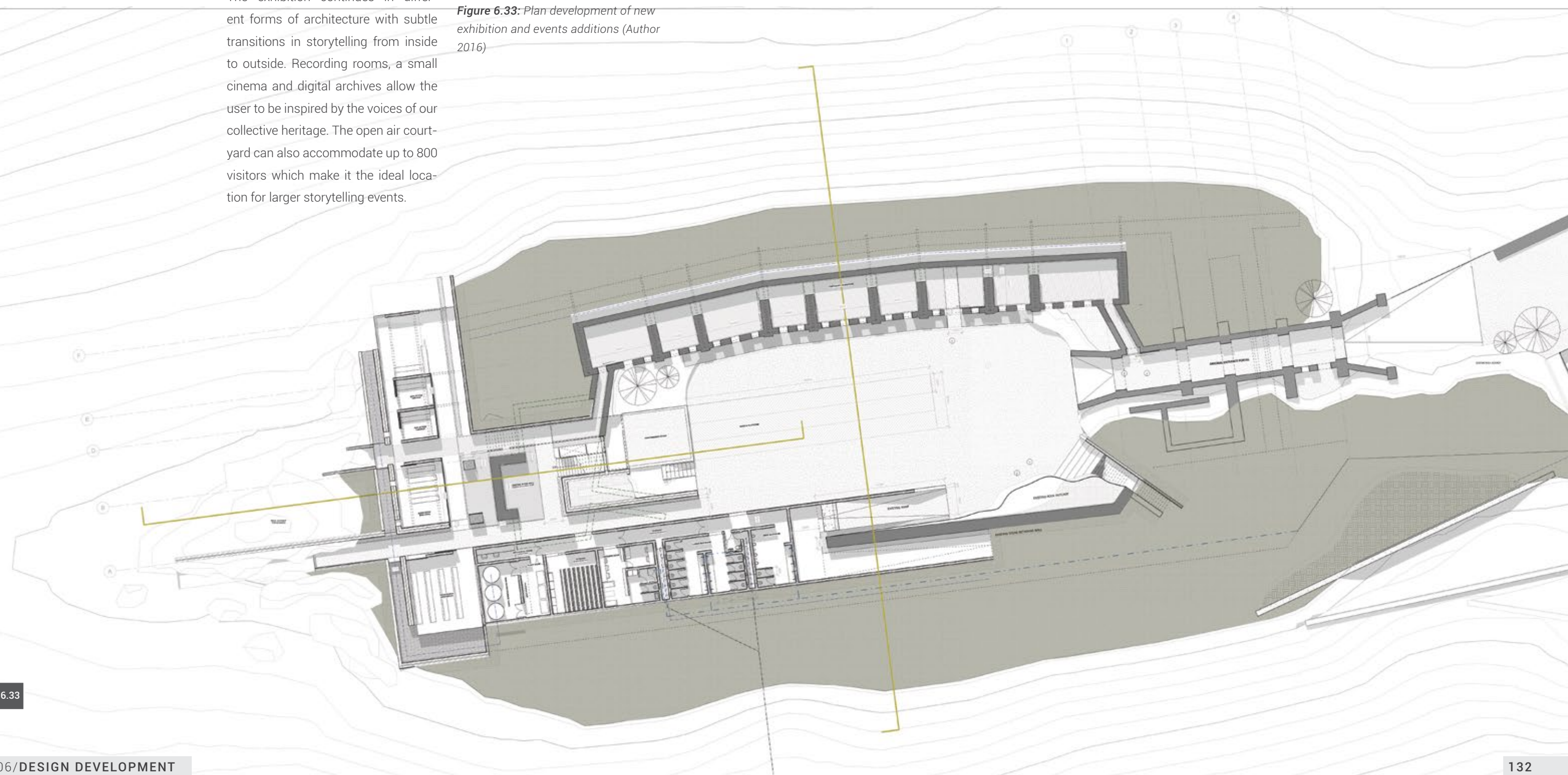
Announced by the towering ammunition shaft, the user can advance to the next event which is continued by a series of spectacular viewpoints. The pinnacle of the experience is marked by an arrangement of slender light beacons that celebrate the existence of the fort and signals the endurance of our continuous heritage.

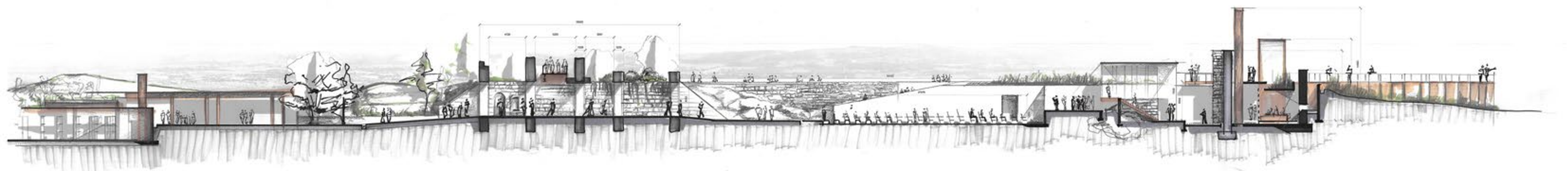
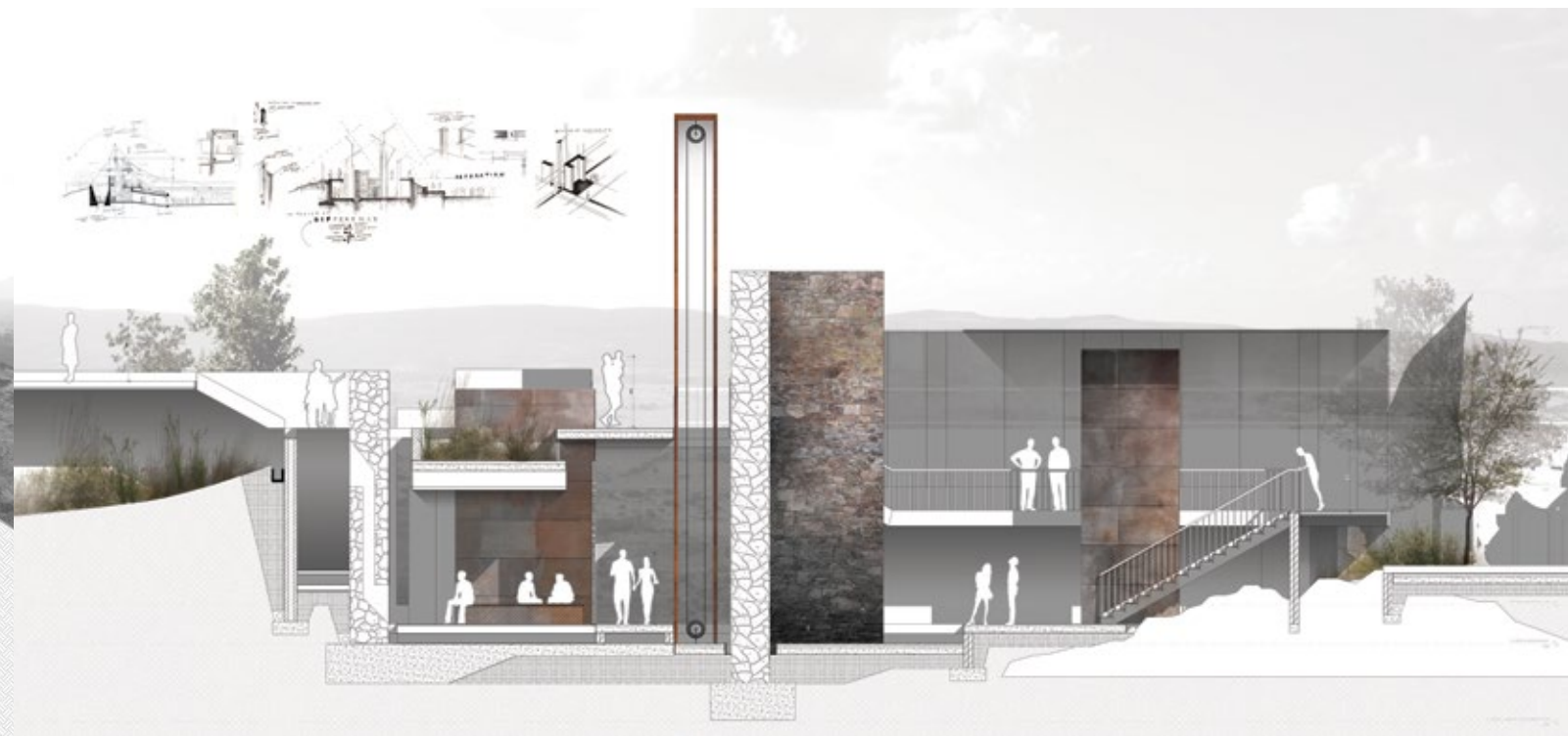
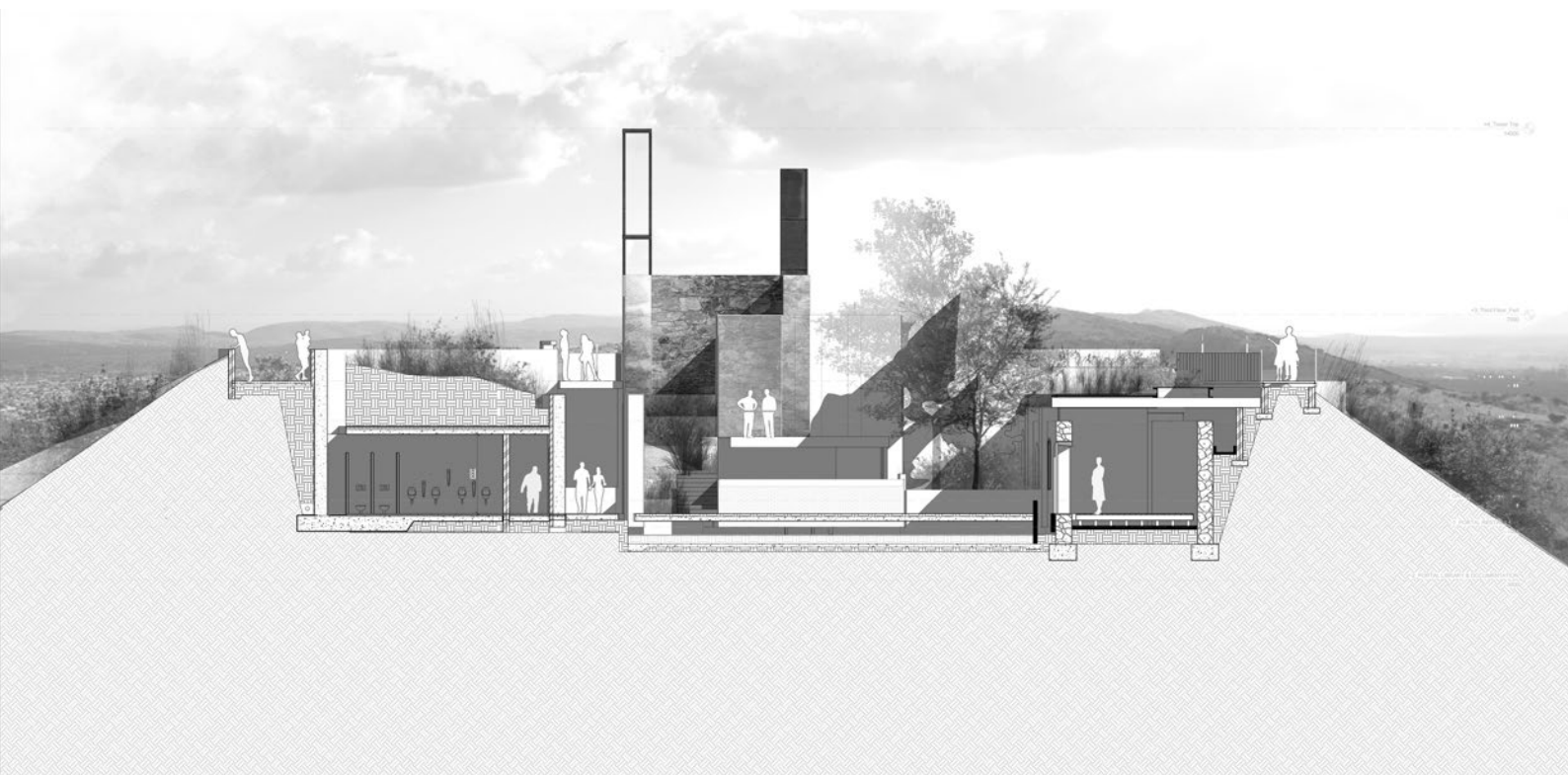
Figure 6.33: Plan development of new exhibition and events additions (Author 2016)



EVENT FOUR

Exhibitions and
Events





6.34

Figure 6.34: Section exploration of new exhibition and story telling additions (Author 2016)

6.35

Figure 6.35: Plan development of the top floor levels of the Fort (Author 2016)



CHAPTER SEVEN
TECHNÉ

7.1// TECTONIC CONCEPT

By introducing a sense of continuity, the tectonic approach is based on the key aesthetic parameter of new meets old. Whilst preserving the integrity of the old fabric, the new interventions should be clearly differentiated and represent a new architectural language.

This method of contrast or juxtaposition favors the programmatic interpretation of respecting our past whilst contributing towards the future. The success of differentiation not only relies on the degree of contrast between old and new but an acute understanding of connecting the latter.

There are different variations of contrast ranging from subtle to apparent or extreme interventions. Bloszies (2012:12) suggest that although extreme contrast encourages an appreciation for both old and new, a restrained or referential approach is equally effective. The technical exploration will be based on a combination of different degrees of contrast depending on the experiential requirements. The effective use of materials will be the key determinant in the process of differentiation.

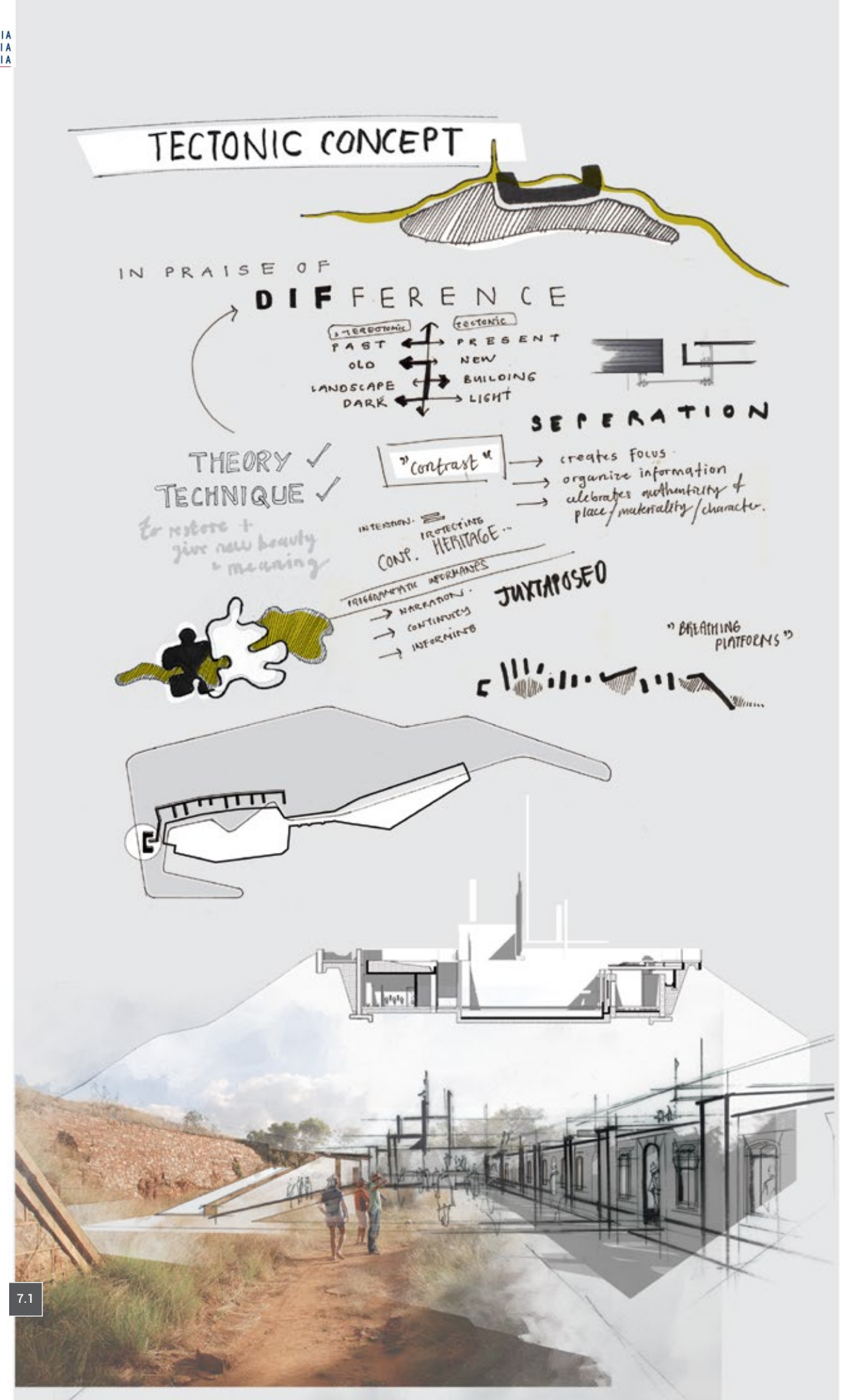
7.2// CONSERVATION STRATEGY

Although the fort has not been declared as a national monument, it remains under the protection of the 1999 Heritage Act. Alterations and additions is therefore possible if motivated accordingly. The ICOMOS Charter for conservation and restoration (1964: Article 5) suggests that the repurposing of historic monuments for social use is acceptable and should not adjust the layout or decoration of the building. Modification that change the function may be permitted if it is within the limits of the latter.

Adaptive re-use projects is therefore a sustainable method of ensuring the conservation of historical sites given the new intervention respect the integrity of the old. The intention is to preserve all existing structures and ensure that new additions do not compromise the stability or integrity of the latter.

The excavation and levelling of floor levels should be facilitated under the supervision of the required experts such as environmentalists and archaeologists. Any archaeological findings that has been discovered during the excavation phase of the project will be exhibited in the new additions to amplify the narrative experience. All excavated soil is re-used on site for new construction and remains sensitive to the existing ridge line.

Figure 7.1: Conceptual collage of tectonic approach (Author 2016)



7.1

7.3// STRUCTURAL SYSTEMS & MATERIALITY

In support of the tectonic approach the method of contrast is illustrated through a combination of three inter-dependent structural systems, each contributing to the narrative experience.

Substructure

Apart from the structural integrity of this system, it should also resemble the endurance and protection of our collective heritage. Given the submerged existence of the Fort, the natural condition of the ridge forms the basis of the transitional process of contrasts. To retain the soil of all the excavated floor levels the reinforced retaining walls are finished off with either a board formed concrete or a double coated white Rhino wall plaster finish.

Structural walls will support the lateral imposed loads of the secondary structural system and allow for the alignment of wet and electrical services. The interpretation of the stereotomic quality of the substructure will complement the new tectonic additions of the superstructure which represents the versatility of our future heritage.

Superstructure

In response to the original design of the fort, the dismantled structural and decorative steel components will be reintroduced in a combination of primary and secondary structural support frames. These steel components are valued for their versatility in form, their compatibility with other materials and structural stability.

Pre-oxidised structural steel beams and columns are also valued for their potential to be dismantled and re-used in future additions. A light-weight steel roof construction is explored as temporary construction to allow for future renovations, additions or demolition of the site.

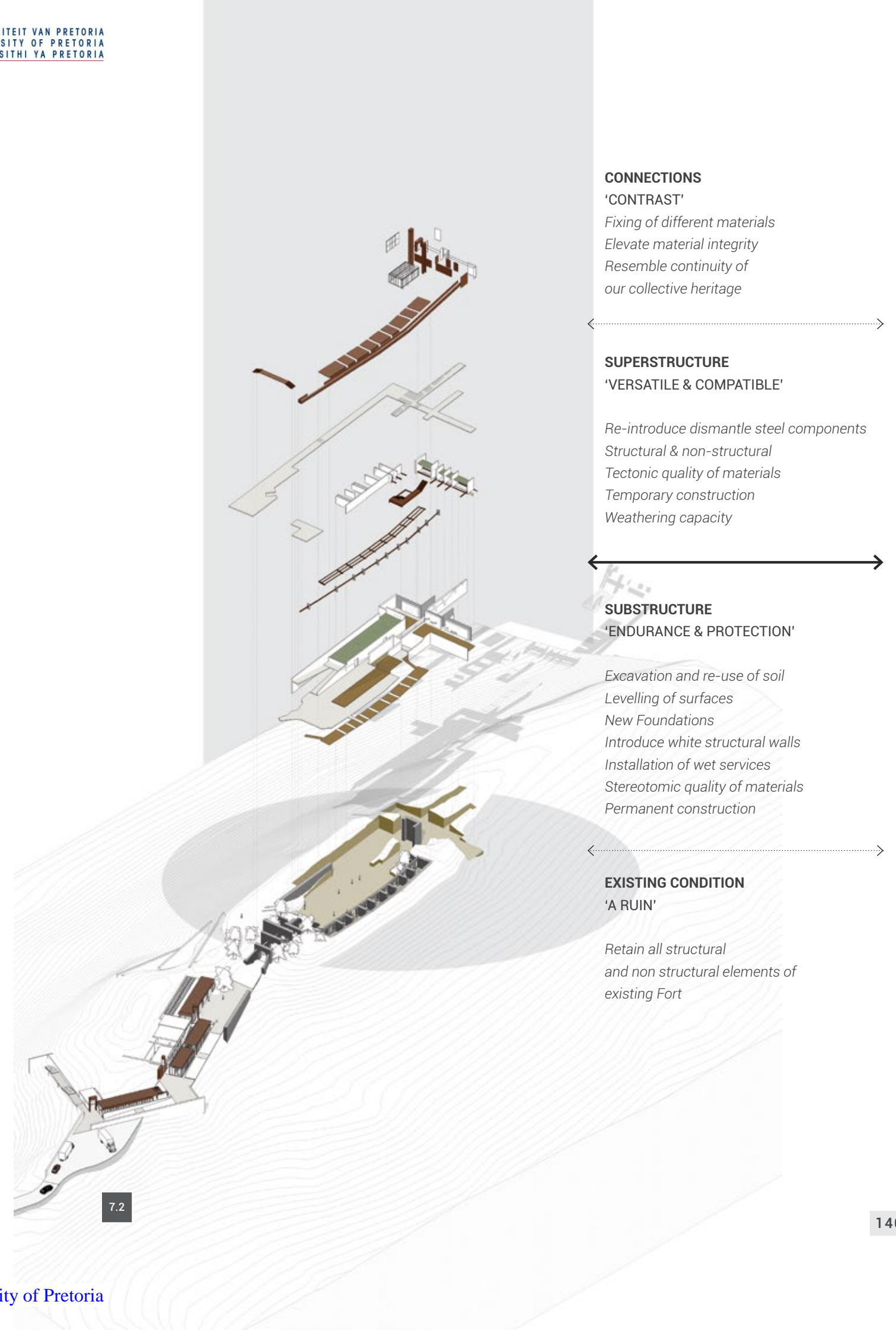
Connections

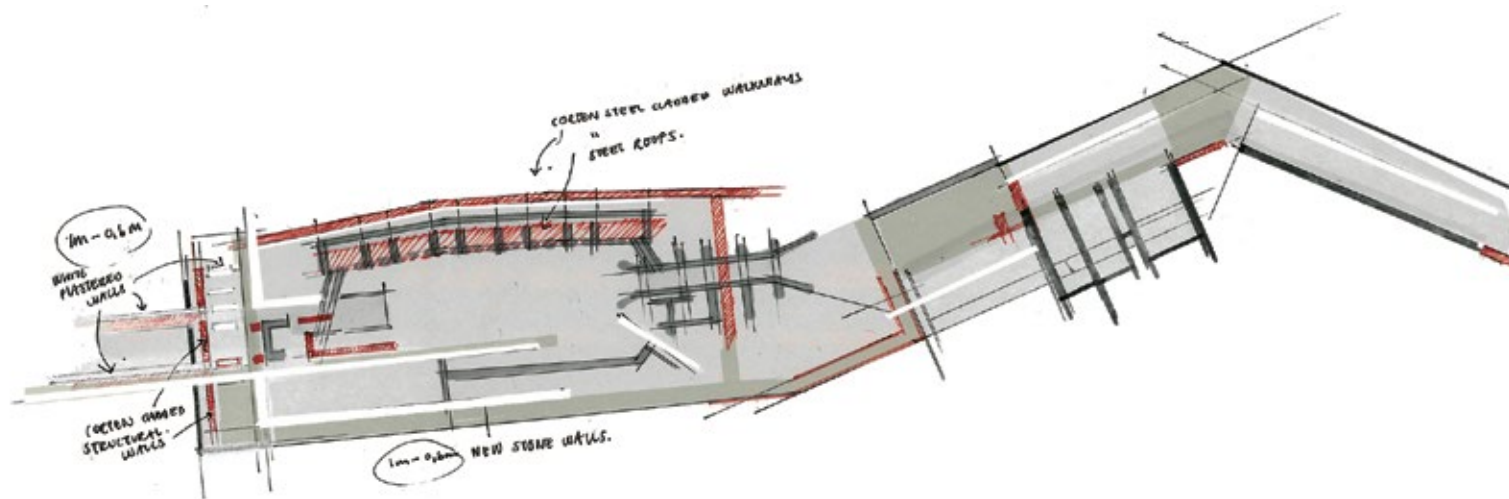
The success of the tectonic approach is largely subjected to the detail connections between the suggested contrasting structural elements. One of the major concerns is the connection of the new additions to the existing structures without compromising the integrity of the heritage fabric. The intention is to elevate the experience and uniqueness of each structural component whilst connecting them to form part of the greater whole.

Recycled materials

As a product from the ruination at Westfort Village, the original timber floors was stripped and replaced with new materials. These original oak timber planks will be reused in the temporary exhibition rooms. All excavated soil are utilised on site by a well balanced cut and fill construction plan. Recycled steel components are implemented in construction process. The use of Corten steel plates as cladding is valued for its weathering capacity and unique character as it changes over time.

Figure 7.2: Extrusion of all Structural systems at the Fort (Author 2016)





7.3

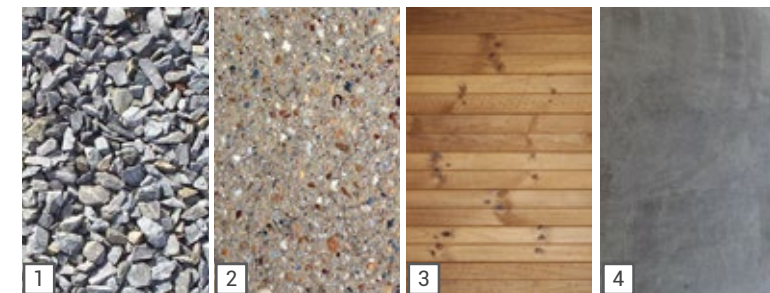
Figure 7.3: Exploration of the material application (Author 2016)

Figure 7.4: Existing and proposed material palette (Author 2016)



ROOF CONSTRUCTION

1. Copper roof (www.freedompark.co.za)
(Local manufacturer: Copalcor trading)
2. Gravel-Balled roof
3. Green roof (www.liveroof.com)
(Liferoof LITE SYSTEM over conventional roofing assembly with moisture portals)



FLOOR FINISHES

- exterior circulation**
1. 13mm grey stone aggregate on compacted soil
 2. Lafarge Artevia with exposed aggregate (www.lafarge.co.za)
- indoor circulation**
3. 32mm Recycled SA Pine t&g timber planks
 4. Power floated screed on concrete surface bed



INFILL

1. Corten steel cladding
(Local manufacturer: ArcelorMittal)
 2. Danpalon-polycarbonate sheeting
(Local manufacturer: Danpal)
- (1 & 2 is fixed to a light weight steel frame)



STRUCTURAL SUPPORT

1. 300-600mm white plastered structural walls
 2. 300mm reinforced concrete retaining walls
 3. Structural steel portal frames (NJR)
- Basement construction (Tanking)
Raft foundations



EXISTING CONDITION AT SITE

- 600-1,2m dressed stone walls
- Rocky ground conditions
- Soil erosion
- Vandalism

7.4

7.4//
ENVIRONMENTAL
STRATEGIES

Function	m ²	WATER DEMAND Litres/day	RAIN WATER HARVEST CONTRIBUTION	ENERGY DEMAND Watts/day	SOLAR ENERGY HARVESTING
Research & validation 6- 8 full time staff members * See programme requirements on page 87	108 m²	wc - 8L (4x4 flush) hwb - 2L (8x4) urinals - 1L (4x4) kitchen - 4x30L TOTAL = 328L/day	Roof catchment 117 m ² Surface catchment 187 m ²	Lighting 1 856 W/day Office Equipment 13 950 W/day	Solar panels Stand alone system PRODUCT 'Sunmodule SW80 Poly RNA PV Panel size 958x680x34mm Weight 7.6kg Energy (Wh/day) 270Wh Cost R4650 / panel Total panels installed 40 Total energy generated / day 10800 Wh/day
Library & Documentation 40 daily users * See programme requirements on page 89	345 m²	wc - 8L (20x4 flush) hwb - 2L (40x4) urinals - 1L (20x4) TOTAL = 1200 L/day	Roof catchment 450 m ² Surface catchment 306 m ²	Lighting 2 535 W/day Office Equipment 18 034 W/day	
Portal Restaurant 40-100 daily users * See programme requirements on page 85	235 m²	wc - 8L (30x1 flush) hwb - 2L (60x1) urinals - 1L (30x1) kitchen - 65L (60 seat) TOTAL = 4290L/day	Roof catchment 168m ² Surface catchment 376 m ²	Lighting 2 807 W/day Office Equipment 7 500 W/day	
Events & Exhibitions 60-800 daily users * See programme requirements on page 85	1334 m²	wc - 8L (300x1 flush) hwb - 2L (600x1) urinals - 1L (300x1) shower - 40L (2x2) TOTAL = 4060L/day	Roof catchment 432 m ² Surface catchment 760 m ²	Lighting 3 920 W/day Office Equipment 12 342 W/day	

Sources:
<http://ecotechenergy.co.za/calculator/EnergyCalculator.xlsx>
 GBC SA-Energy-Water-Benchmarking-Tool-v1-20112014.xls
 BUCKLE. J.S, et al. 2007. Water consumption levels in selected South African Cities. Water Research Commission: November.

BUILDING METRIC	
GLA	1839.41
Average occupancy hours p/month	110.69
Average daily occupants	180
Water demand p/day (2 events/month)	9879L/day
Water demand p/day (excluding events)	6368L/day
Average water demand p/day	6602L/day
Total rain water harvested annually	1688'774L/y
Total rain water harvested daily	4691 L/day
Potable water supply (municipal reservoir)	
Total energy consumption p/day	42 kW/day
Total energy consumption p/month (18)	808 kW
Solar energy generated p/month	846 kW

AVERAGE MONTHLY PRECIPITATION FOR PRETORIA (mm)		AVERAGE HARVEST PER MONTH (90% of surfaces)
January	136mm	2796m ² x 0.136m = 380,256 L
February	5mm	2796m ² x 0.005m = 13,980 L
March	82mm	2796m ² x 0.082m = 229,272 L
April	51mm	2796m ² x 0.051m = 142,596 L
May	13mm	2796m ² x 0.013m = 36,348 L
June	7mm	2796m ² x 0.007m = 19,572 L
July	3mm	2796m ² x 0.003m = 8,388 L
August	6mm	2796m ² x 0.006m = 16,776 L
September	22mm	2796m ² x 0.022m = 61,512 L
October	71mm	2796m ² x 0.071m = 198,516 L
November	98mm	2796m ² x 0.098m = 274,008 L
December	110mm	2796m ² x 0.110m = 307,560 L

Source: <http://www.climatetemp.info/south-africa/pretoria.htm>



WATER MANAGEMENT

- Main water connections
- Potable water inlet
- Roof catchment area
- Surface catchment area
- Rain water harvesting flow
- Water storage tanks
- Grey water purification system
- Irrigation needed



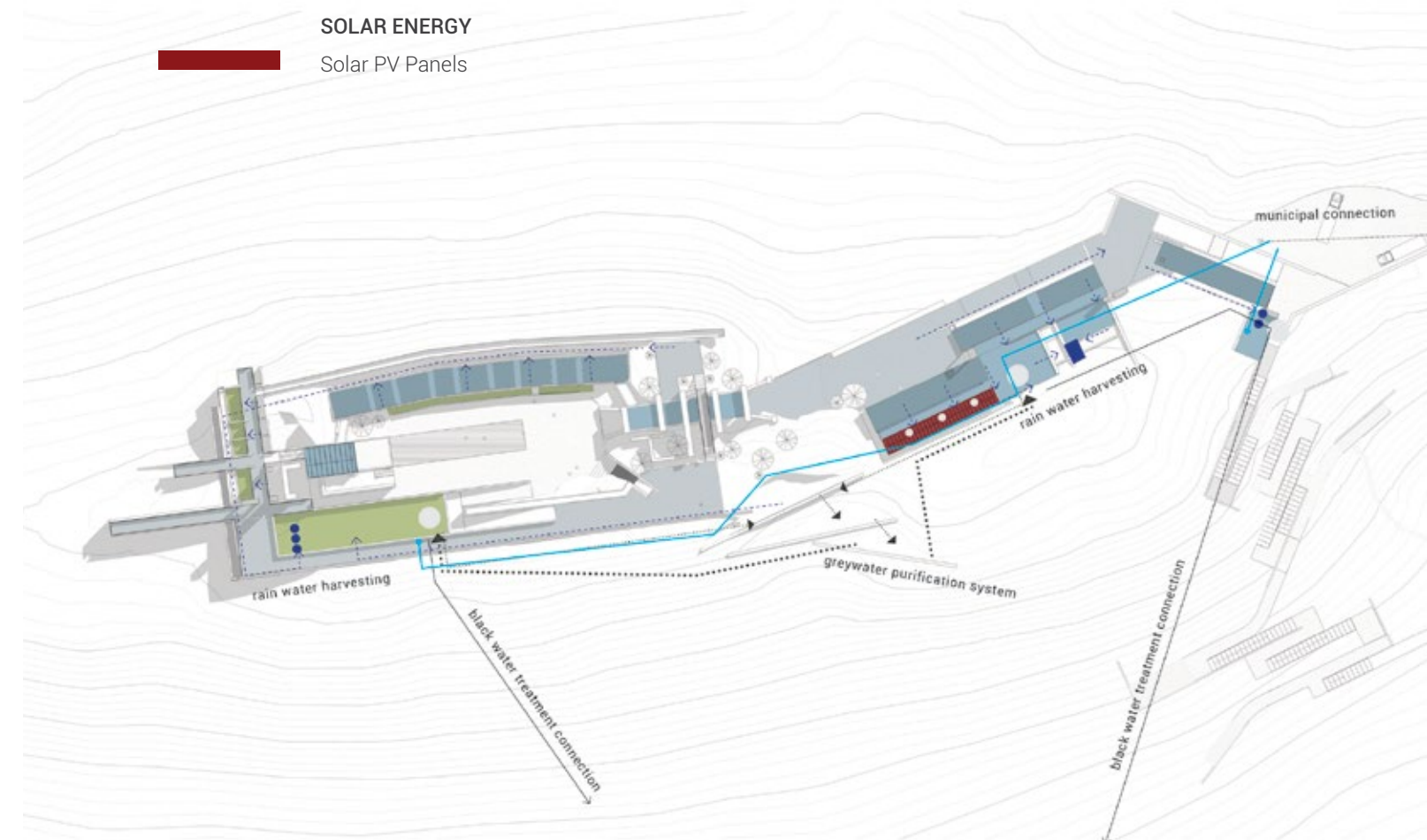
WASTE

- Black water treatment at Westfort village



SOLAR ENERGY

- Solar PV Panels



7.5

Figure 7.5: Proposed water and energy conservation strategies at the Heritage portal (Author:2016)

7.5//
TECHNICAL
RESOLUTION

Services

Given its remote location and the current conditions of the site, the fort and the Village has no connection to formal services. It is therefore critical to implement environmental strategies that accommodates the energy and water requirements on site.

The water management plan includes the effective harvesting of rain water which is directed to either 5000L JOJO tanks or a built in steel reservoir with a 120 000L capacity. Potable water is supplied by the adjacent municipal water reservoir with a 126 000L reinforced concrete water reservoir and a booster pump that ensures that the water is under constant pressure and always readily available.

Grey water is transferred to the grey water purification system which circulates through three different treatment stages. The first stage is the sedimentation pond (primary treatment), water is then filtered through a aerobic pond (secondary treatment) which leads to the maturation pond (tertiary treatment). All filtered greywater is then pumped back for reuse in waterclosets, urinals, scullery and for irrigation purposes.

The kitchen roof is ideal for solar panel installation as it exposed to maximum sunlight and not visually obtrusive. A battery room below the kitchen allows for central distribution, accessible storage, adequate insulation and natural ventilation

As part of a larger system, all waste is recycled and sorted on site and black water is connected to a larger system of sewage treatment that accommodates the entire Westfort heritage village.

Natural Daylight

The method of contrast could also be explored in the effective use of natural light juxtaposed to the deep shadows of the submerged structures of the fort. This juxtaposition is therefore a mediator to another world of perception which allows for the experiential to take lead in the expression of place.

It reveals people, places, emotion and fosters the connection to the ethereal. Bille et al. (2007:266) considers light through its reflection on identity, cultural heritage, our morality and need to feel safe or rather visible in our environment.

The use of natural light and ventilation is essential to the experiential qualities of place. It is a physical phenomenon which is measurable, quantifiable and influential in the construction of social space (Bille et al. 2007:265). As an extension from the exploration on contrasting materials, the use of natural light as a respected building material will be utilized to further elevate and manipulate the experiential qualities of place.

Using Richard Kelly's three main elemental qualities of light as a basic framework it is possible to identify the intended spatial experience in accordance with a specific light intensity (Kelly 1952:24). The quantity of light is the natural first concern and needs to be assessed in support of software modelling to ensure that the amount of natural light within the building is sufficient according to the suggested programme and intended experiential qualities.

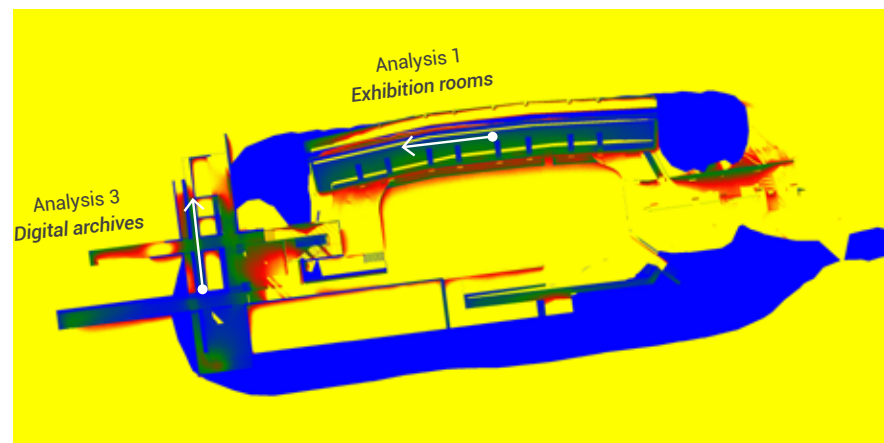
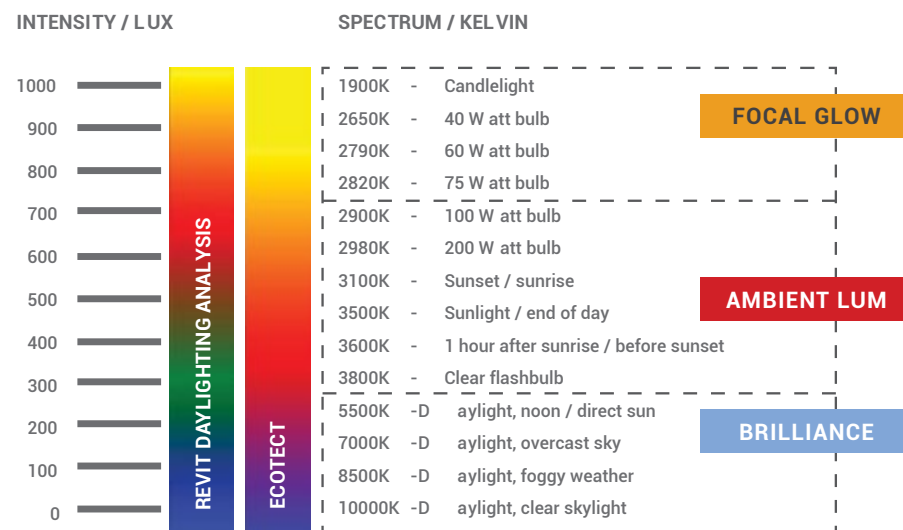
The effective use of natural light as an alternative building material resembles the very idea of phenomenology. By first returning to the essence of the spatial experience, it is possible to establish the quality of the sensory engagement and then designing for the correct light application to enhance the human experience of that particular space.

Figure 7.6: Diagrammatic exploration of natural light as a spatial agent (Author 2016)



RICHARD KELLY FRAMEWORK

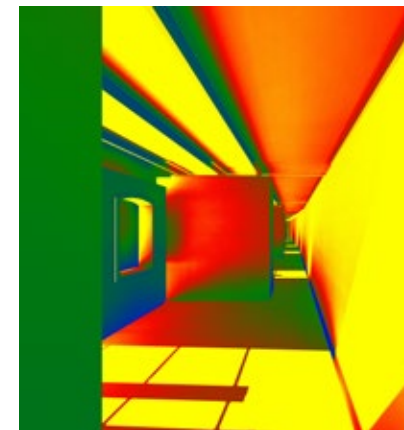
CONDITION 1 FOCAL GLOW	CONDITION 2 AMBIENT LUMINANCE	CONDITION 3 PLAY OF BRILLIANCE
<i>Draws attention</i> HIGHLIGHTS	<i>Safe and reassuring</i> GRADED WASHES	<i>Stimulates the spirit</i> SHARP DETAIL
INDOOR APPLICATION Research office Meeting rooms Exhibition rooms	INDOOR APPLICATION Library Ablution facilities Indoor circulation	INDOOR APPLICATION Digital archives Recording rooms Reflection spaces
REQUIREMENTS <i>Light intensity</i> 700 - 1000 Lux	REQUIREMENTS <i>Light intensity</i> 300 - 700 Lux	REQUIREMENTS <i>Light intensity</i> 700-1000 Lux



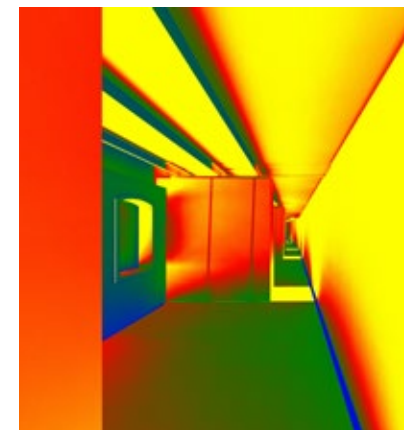
DAYLIGHT SIMULATION

Revit daylight analysis

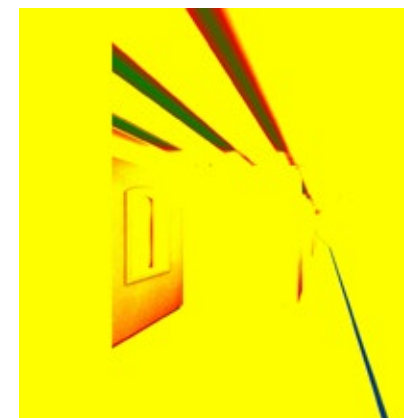
Exhibition rooms
10:00



13:00



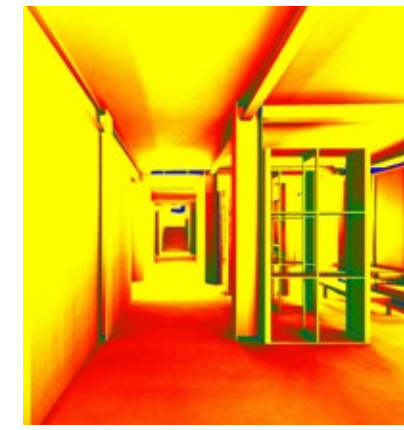
15:00



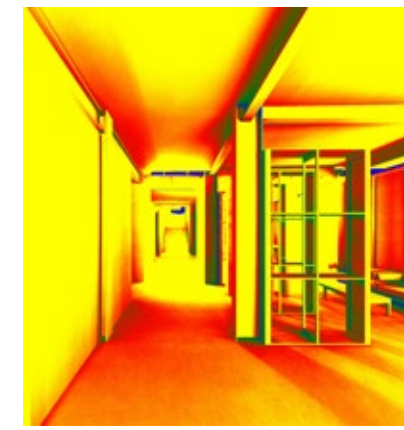
DAYLIGHT SIMULATION

Revit daylight analysis

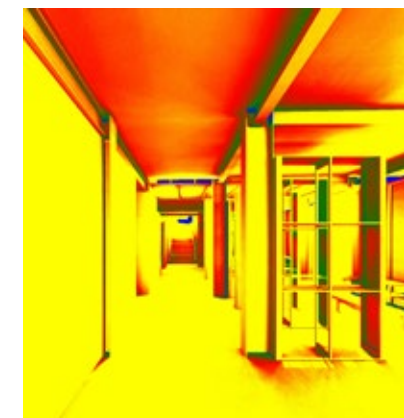
Library
10:00



13:00



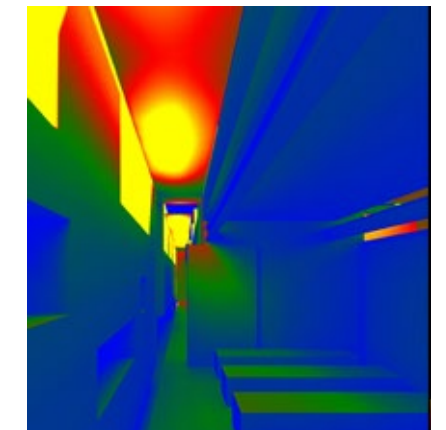
15:00



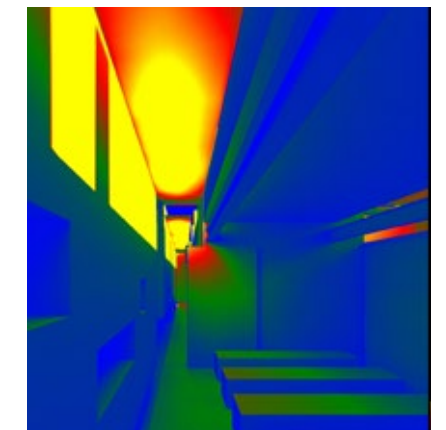
DAYLIGHT SIMULATION

Revit daylight analysis

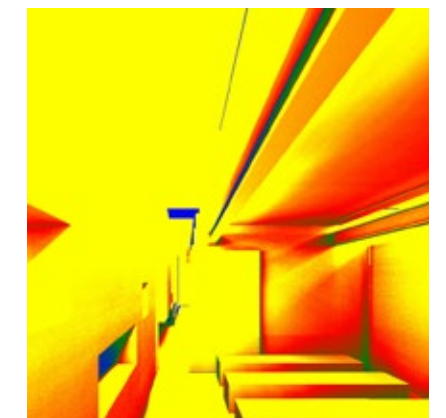
Digital storytelling
10:00



13:00

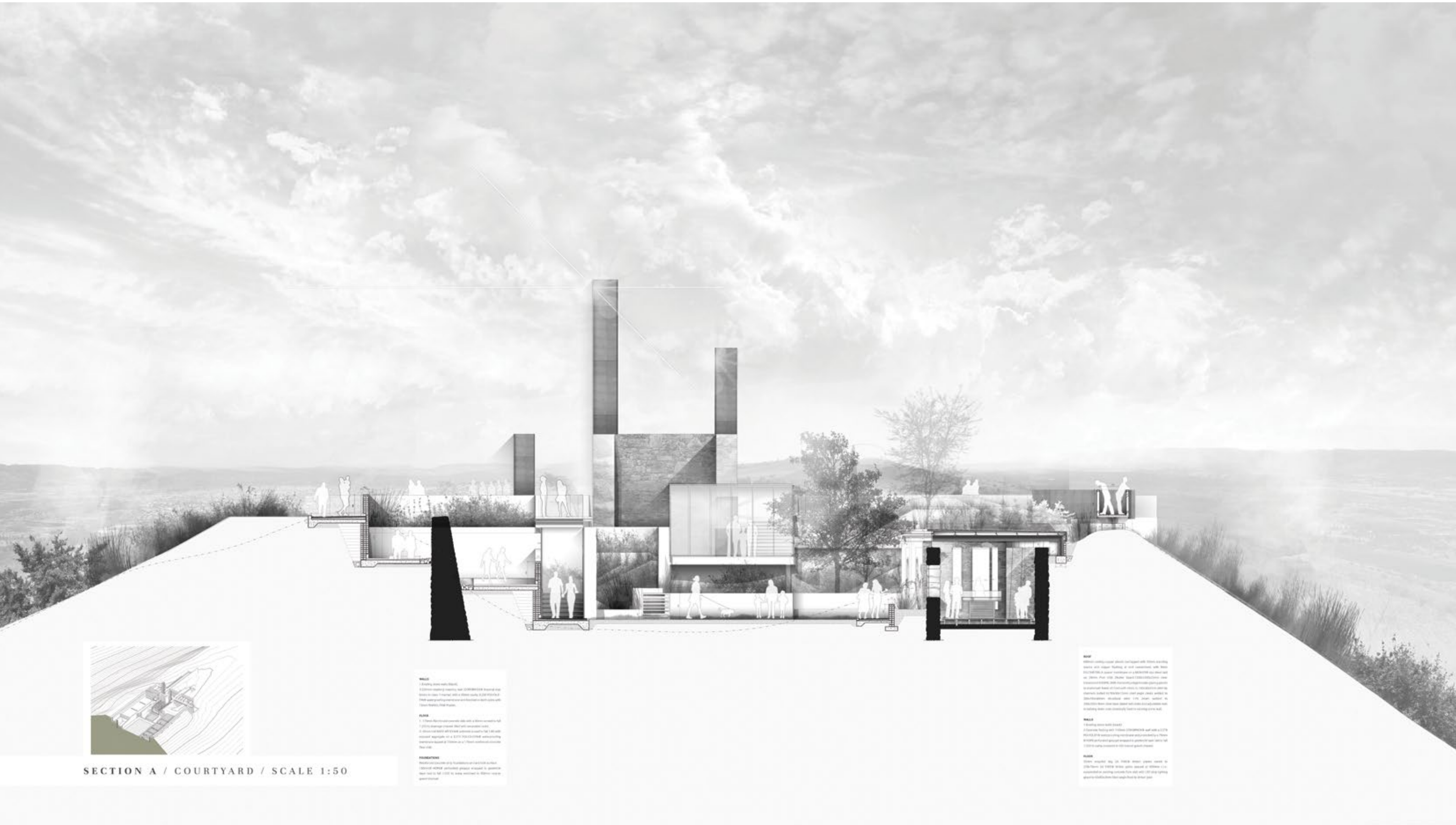


15:00



7.7

Figure 7.7: Daylight simulations to test the desired daylight requirements (Author:2016)



SECTION A / COURTYARD / SCALE 1:50

WALLS
 1. Exposed brick walls (brick).
 2. Concrete masonry walls (concrete block masonry).
 3. Brick masonry walls (brick masonry).
 4. Concrete masonry walls (concrete block masonry).

FLOOR
 1. Concrete masonry walls (concrete block masonry).
 2. Concrete masonry walls (concrete block masonry).
 3. Concrete masonry walls (concrete block masonry).
 4. Concrete masonry walls (concrete block masonry).

FOUNDATIONS
 1. Concrete masonry walls (concrete block masonry).
 2. Concrete masonry walls (concrete block masonry).
 3. Concrete masonry walls (concrete block masonry).
 4. Concrete masonry walls (concrete block masonry).

ROOF
 1. Concrete masonry walls (concrete block masonry).
 2. Concrete masonry walls (concrete block masonry).
 3. Concrete masonry walls (concrete block masonry).
 4. Concrete masonry walls (concrete block masonry).

WALLS
 1. Exposed brick walls (brick).
 2. Concrete masonry walls (concrete block masonry).
 3. Brick masonry walls (brick masonry).
 4. Concrete masonry walls (concrete block masonry).

FLOOR
 1. Concrete masonry walls (concrete block masonry).
 2. Concrete masonry walls (concrete block masonry).
 3. Concrete masonry walls (concrete block masonry).
 4. Concrete masonry walls (concrete block masonry).



DETAIL ONE
NEW EXHIBITION ROOMS

ROOF

* Copper roof assembly (see next detail)

WALLS

Existing stone retaining wall with 40mm rough plaster interior finish

6mm safety glass in aluminium frame nail fixed to existing dressed stone facade and sealed with silicone

FLOOR

32mm recycled t&g SA PINE ® timber planks nailed to

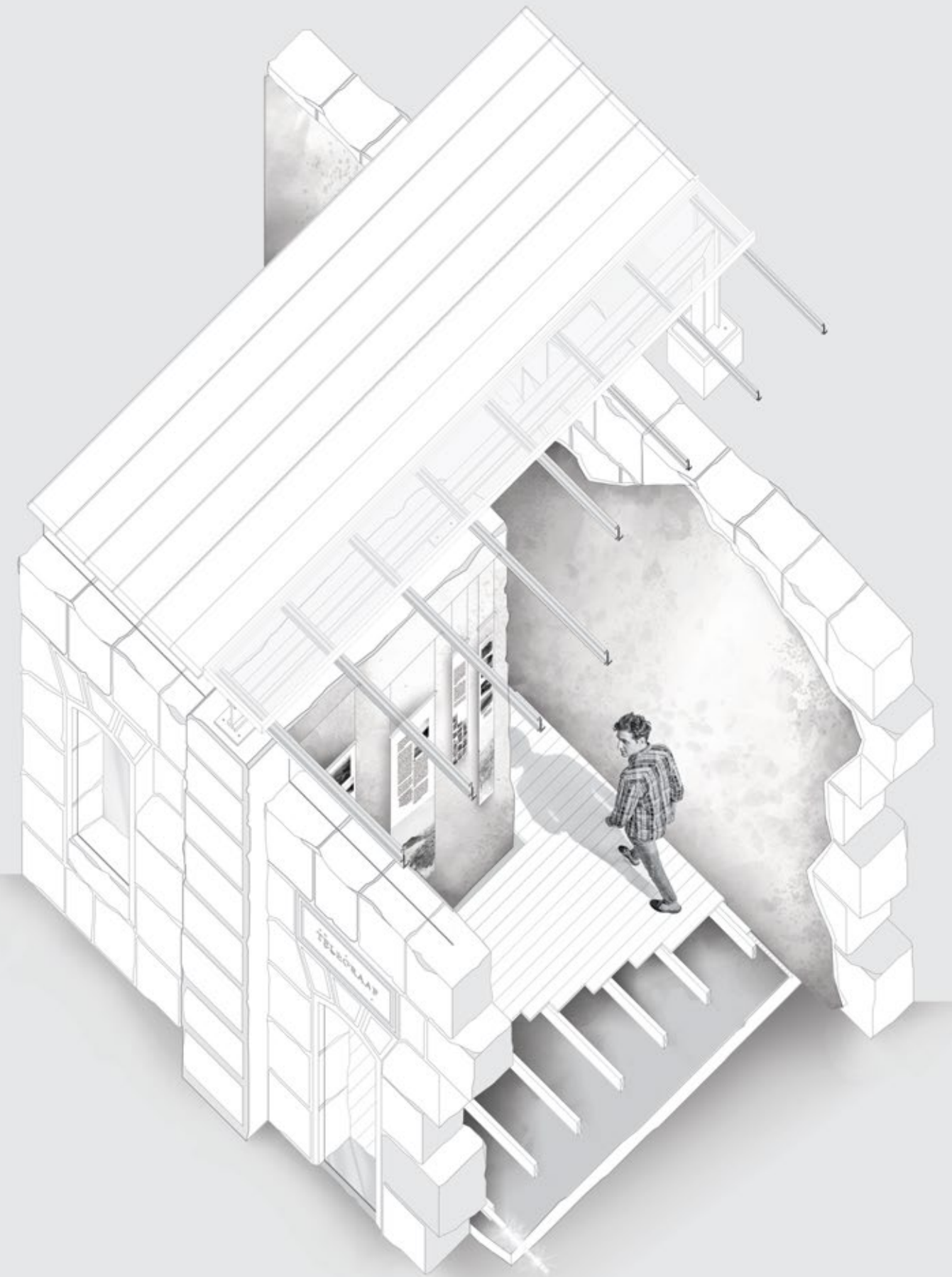
228x76mm SA PINE ® timber joists spaced at 400mm c.t.c. suspended on an existing floor slab

FINISHING

LED strip lighting glued to 50x50x2mm steel angle fixed to timber joists

7.10

Figure 7.10: Detail illustration of new exhibition rooms (Author:2016)

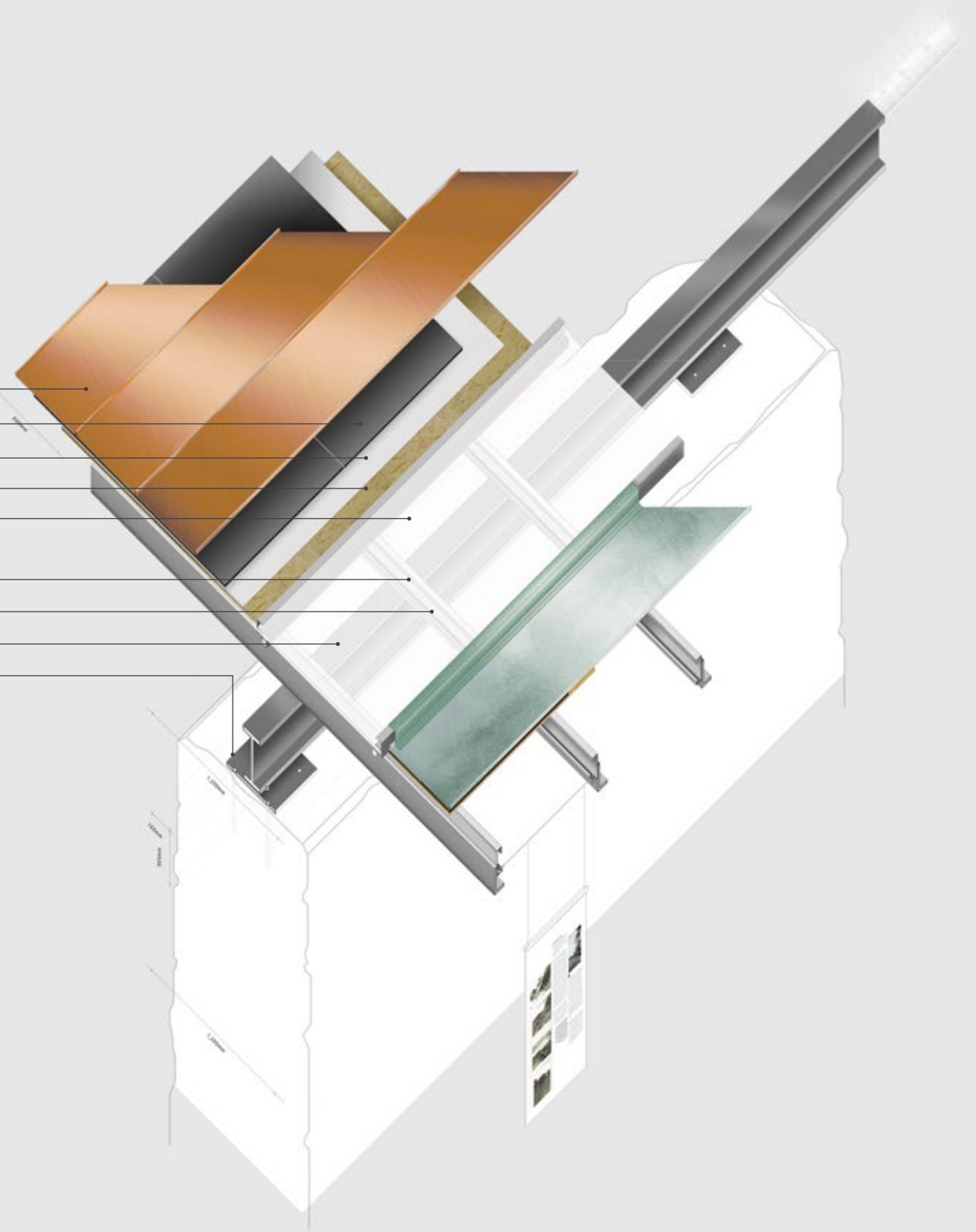


NEW EXHIBITION ROOMS
SCALE 1:20

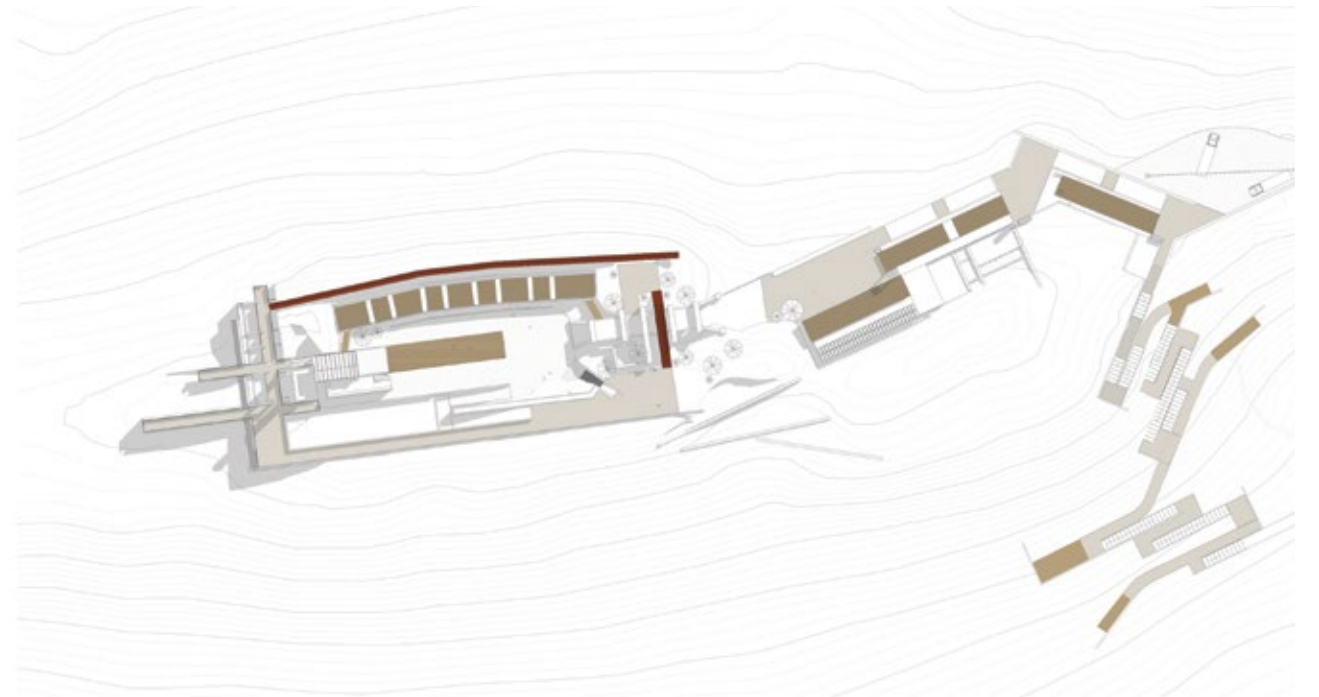
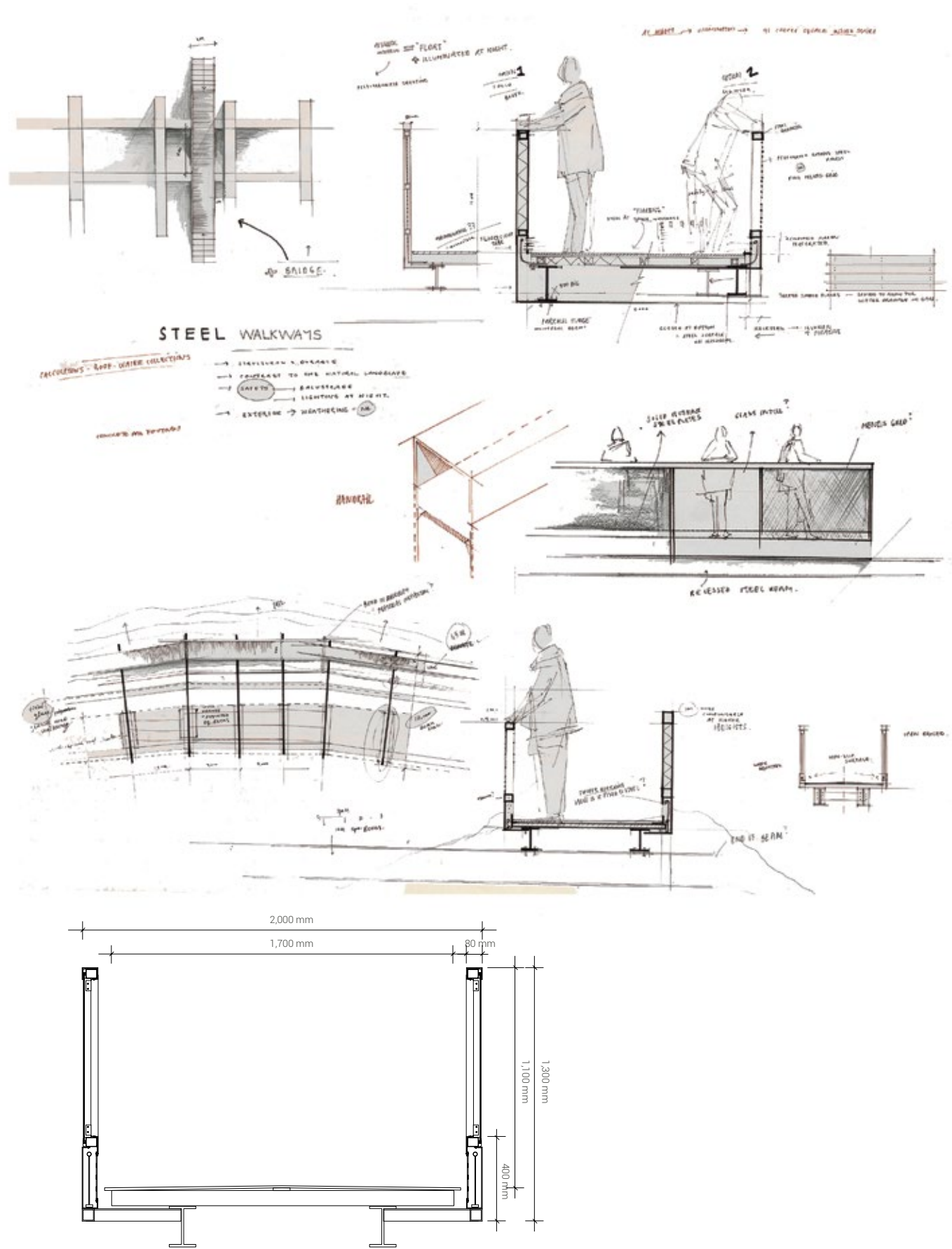


DETAIL TWO
**COPPER ROOF WITH
SKYLIGHT INSERTS**

600mm roofing copper sheets overlapped with 25mm standing seams and copper flashing at end connections with
8mm DELTA@TRELA spacer membrane on a
MONIER® slip sheet laid on
20mm Pine OSB Shutter board
1200x1000x20mm clear translucent DANPALON® microcell polycarbonate glazing panels in aluminium frame
all fixed with cleats to
150x50x3mm steel lip channels bolted to
150x90x12mm steel angle cleats welded to
305x165x40mm structural steel I-PE beam welded to
200x200x10mm steel base plated with bolts and adjustable nuts to holding down rods chemically fixed to existing stone wall



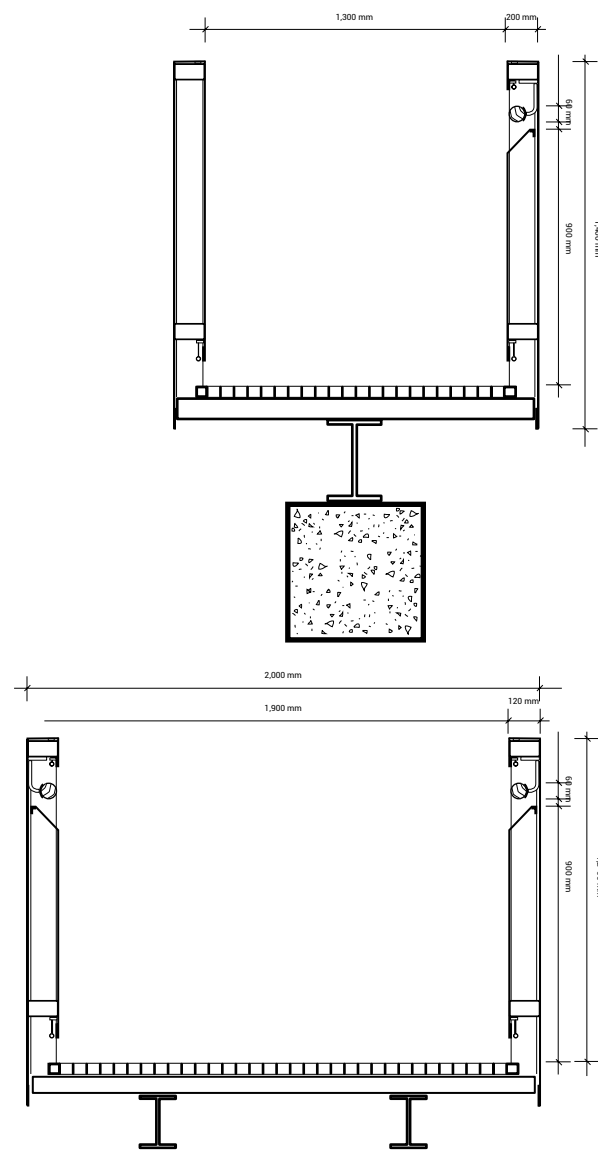
7.11 **Figure 7.11:** Detail resolution of the copper roof construction (Author:2016)



7.12 Detail exploration of elevated walkways (Author:2016)



DETAIL TWO
ELEVATED STEEL WALKWAYS

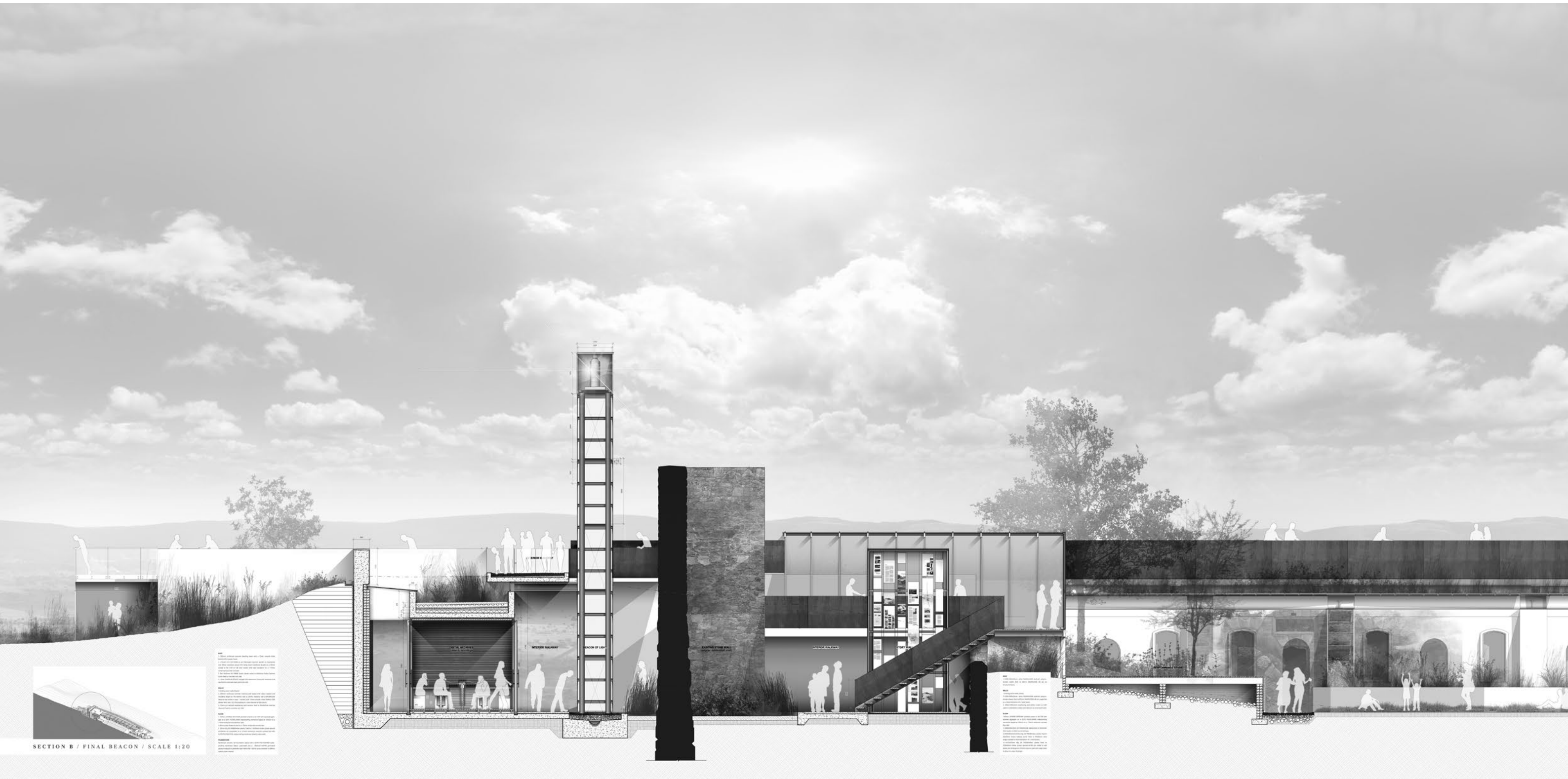


7.13

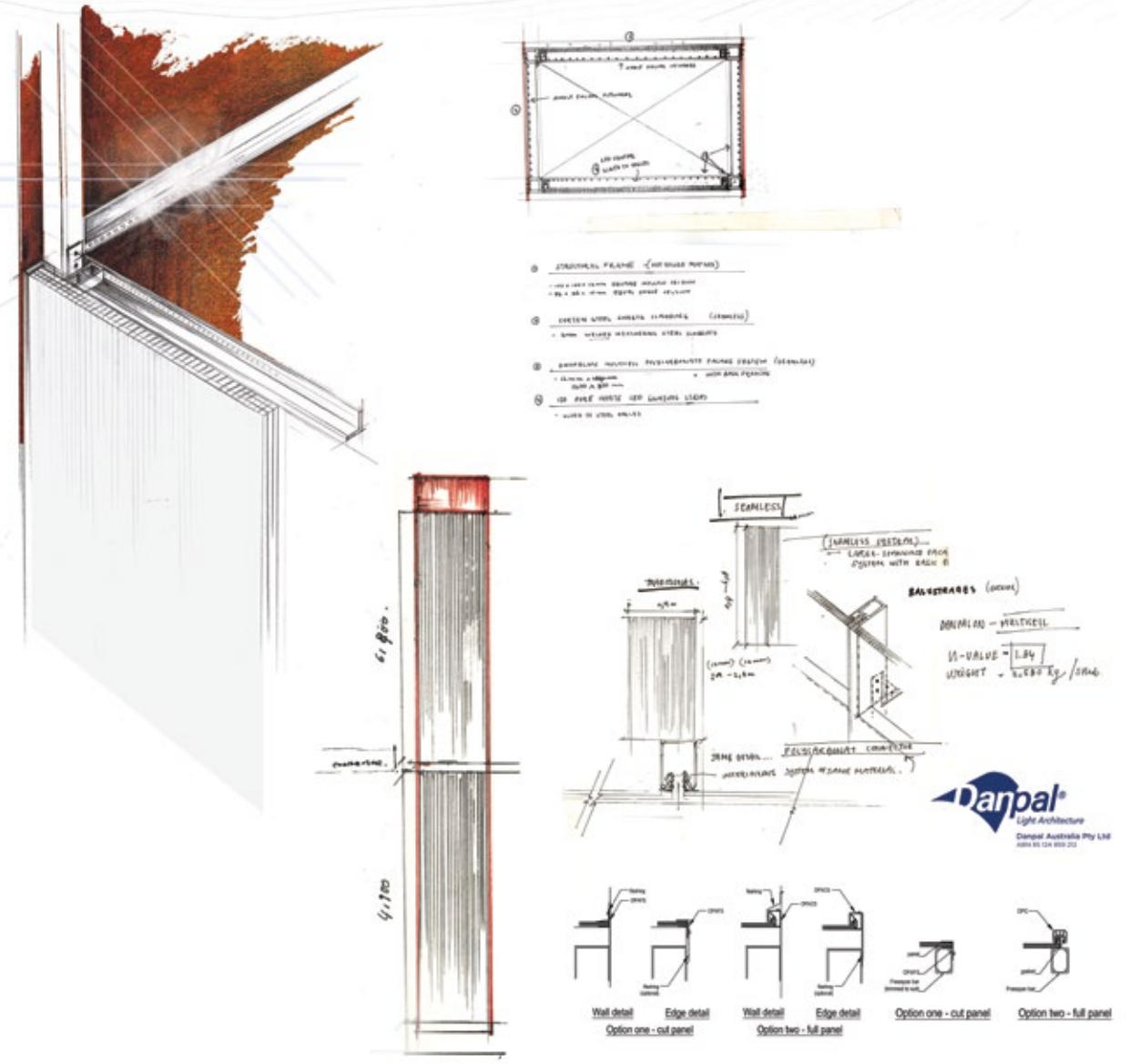
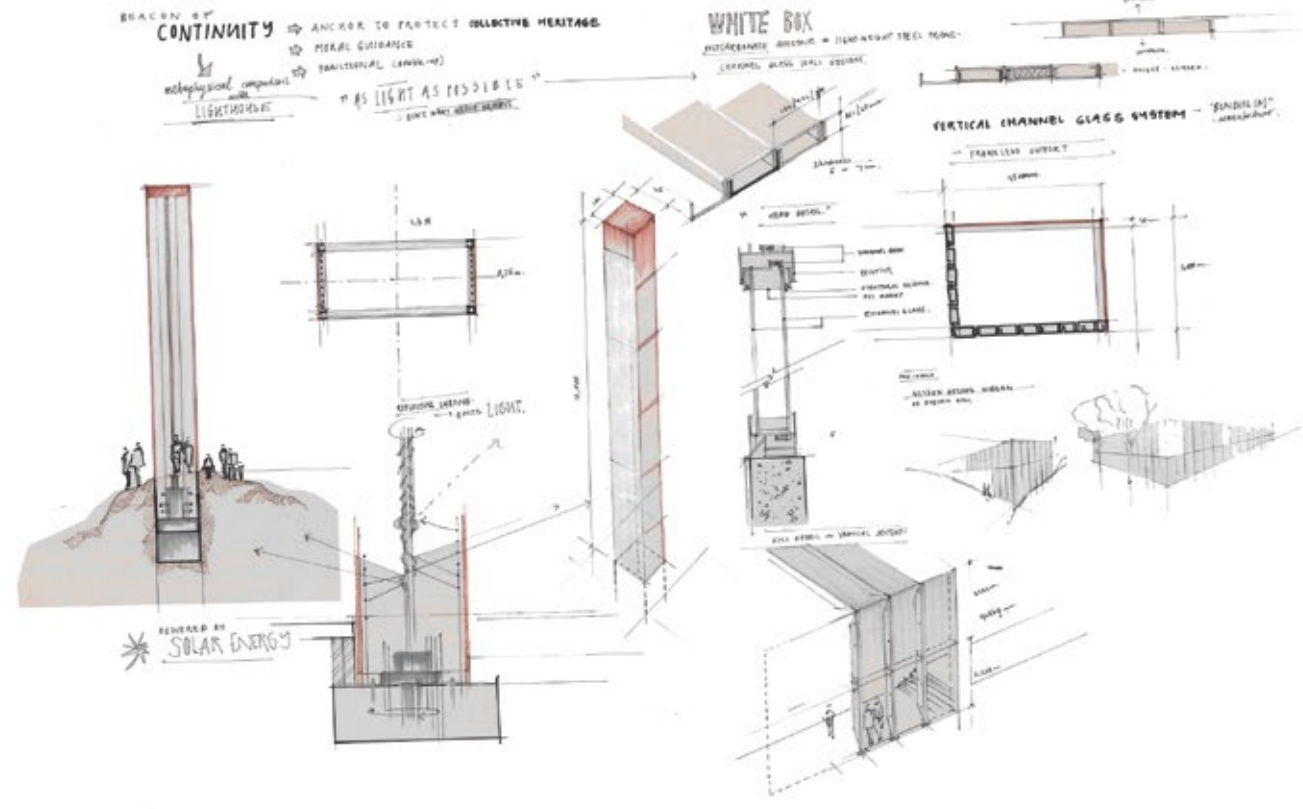
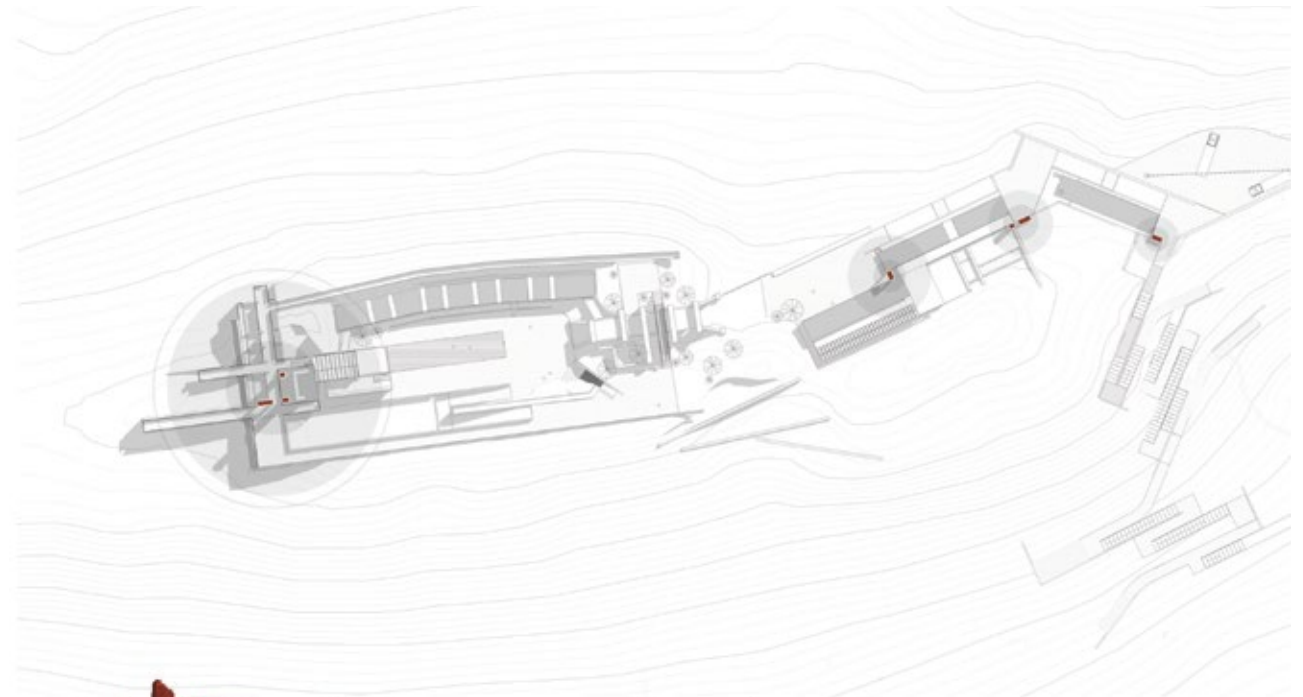
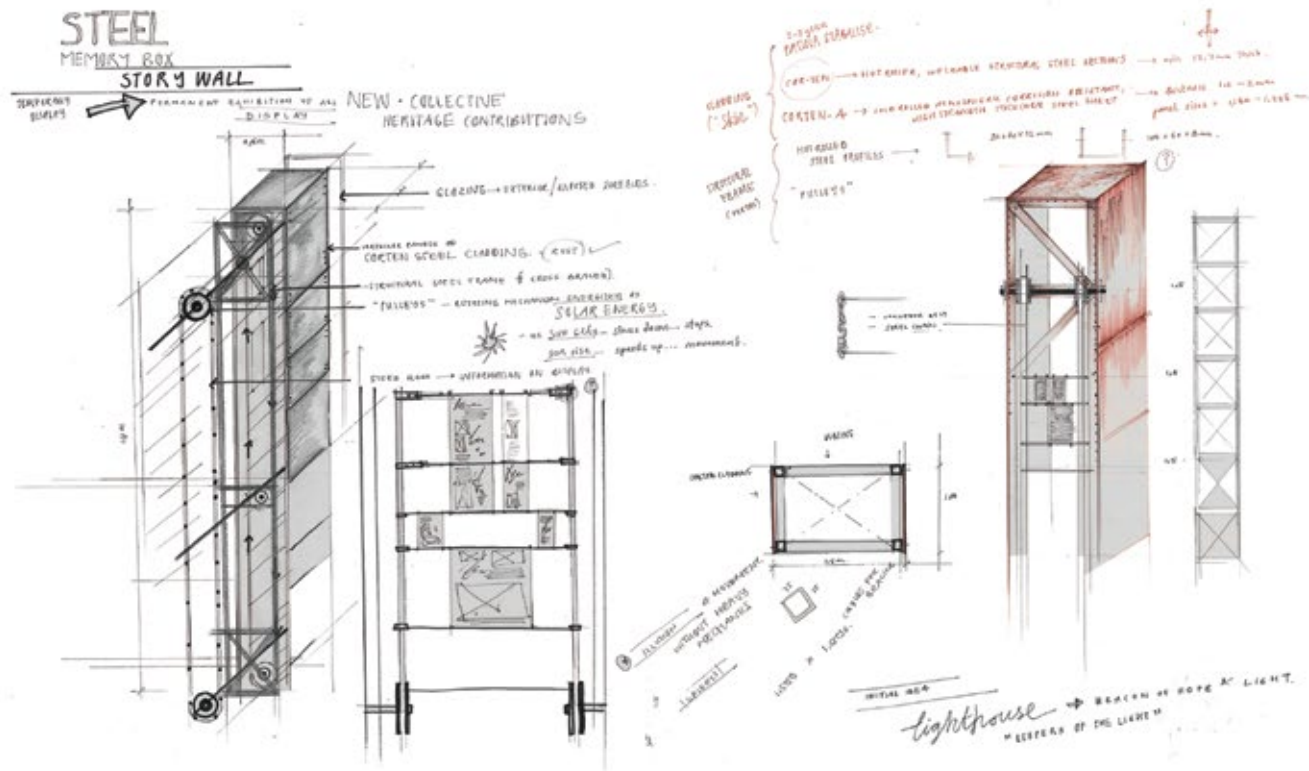
Figure 7.13: Detail resolution of elevated walkways (Author:2016)



ELEVATED WALKWAYS
SCALE 1:10



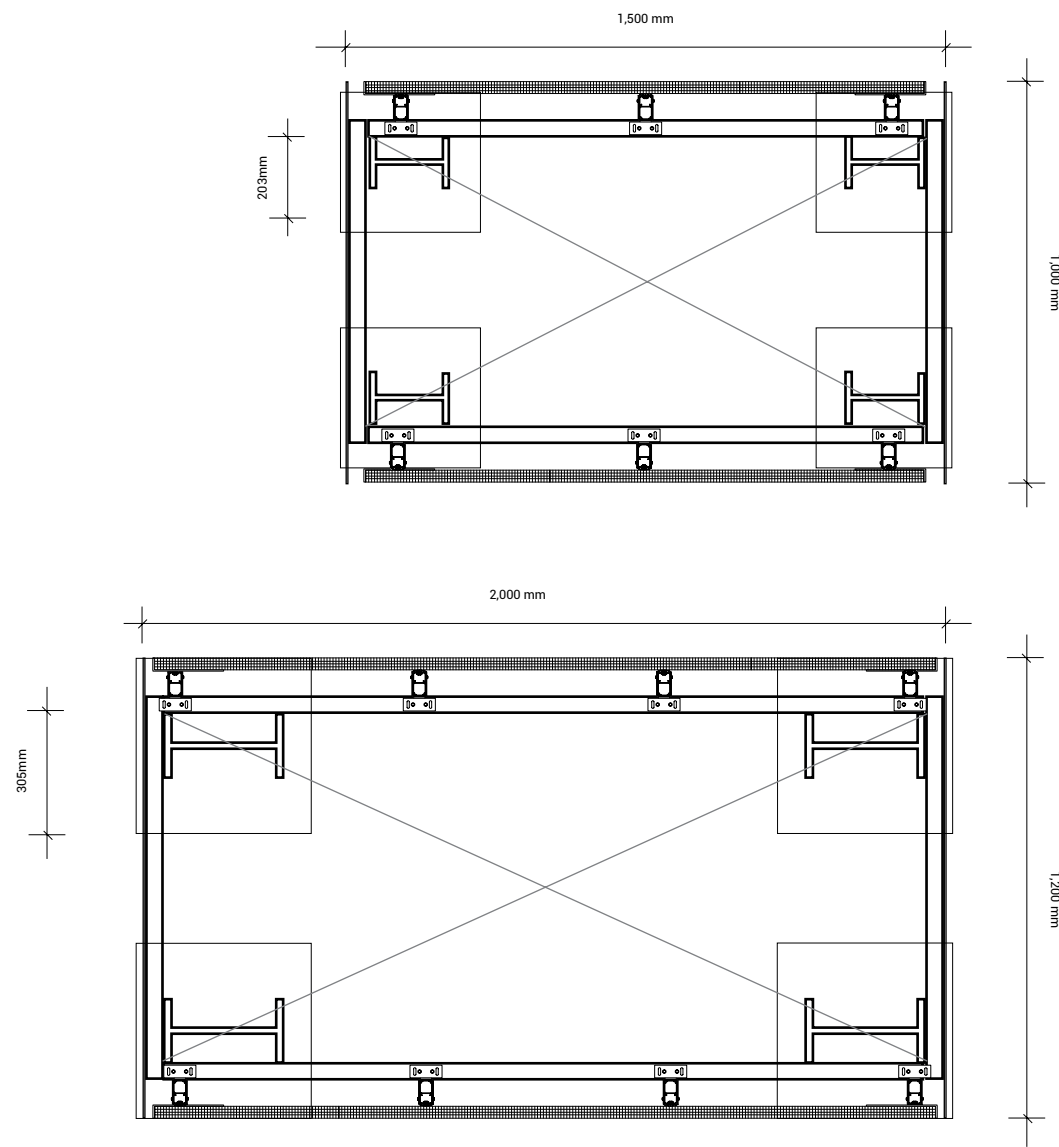
SECTION B
BEACON OF HOPE



7.15 Figure 7.15: Detail exploration of the beacons (Author:2016)



DETAIL THREE
BEACONS OF HOPE



7.16

Figure 7.16: Detail resolution of the beacons (Author:2016)



BEACONS OF HOPE
SCALE 1:20

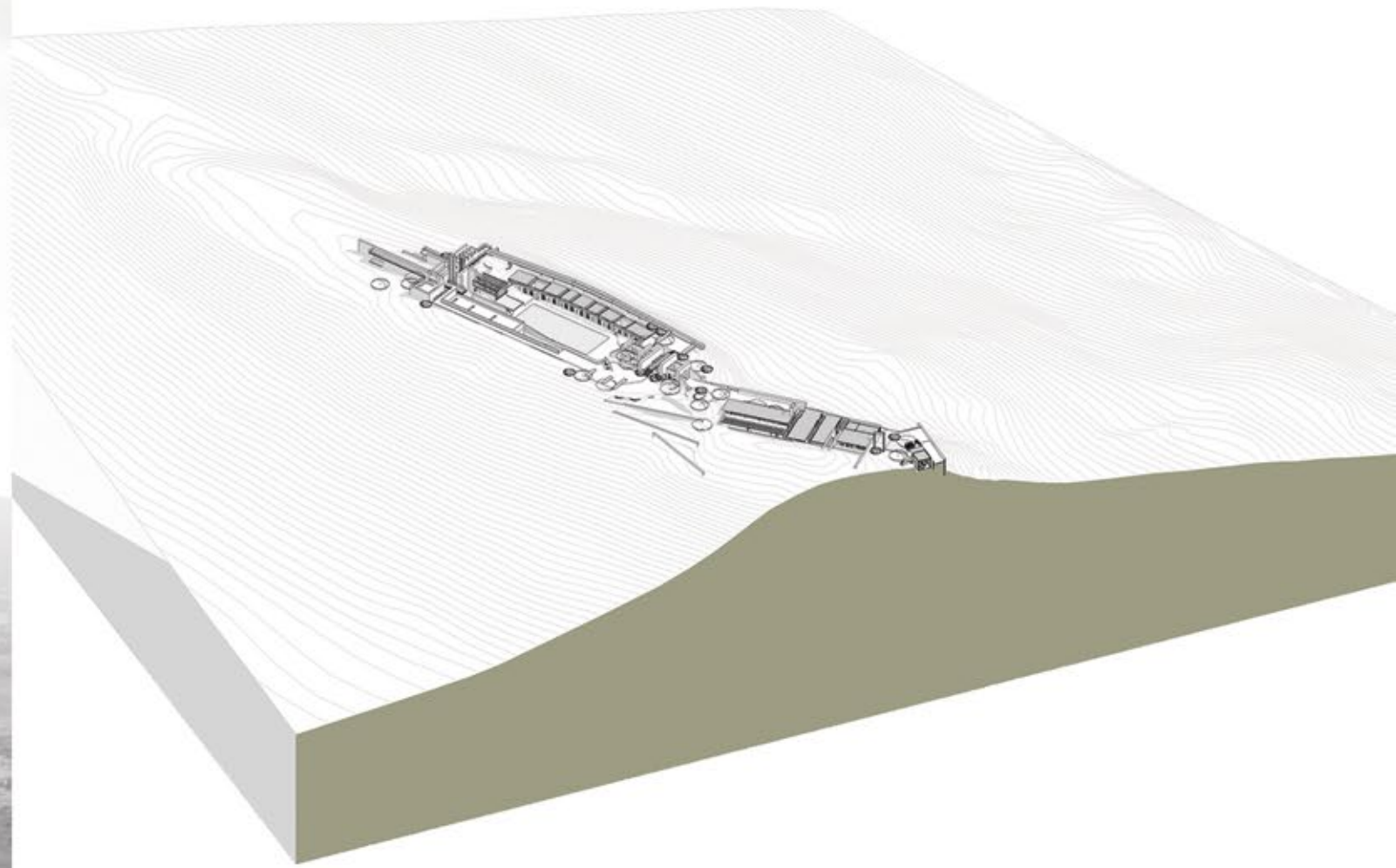
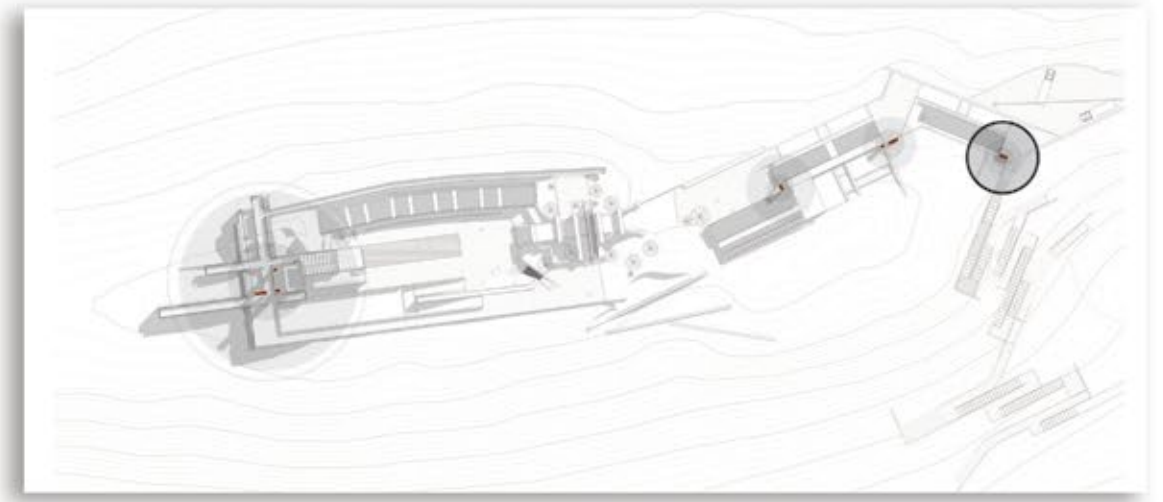
CHAPTER EIGHT
**DESIGN
RESOLUTION**



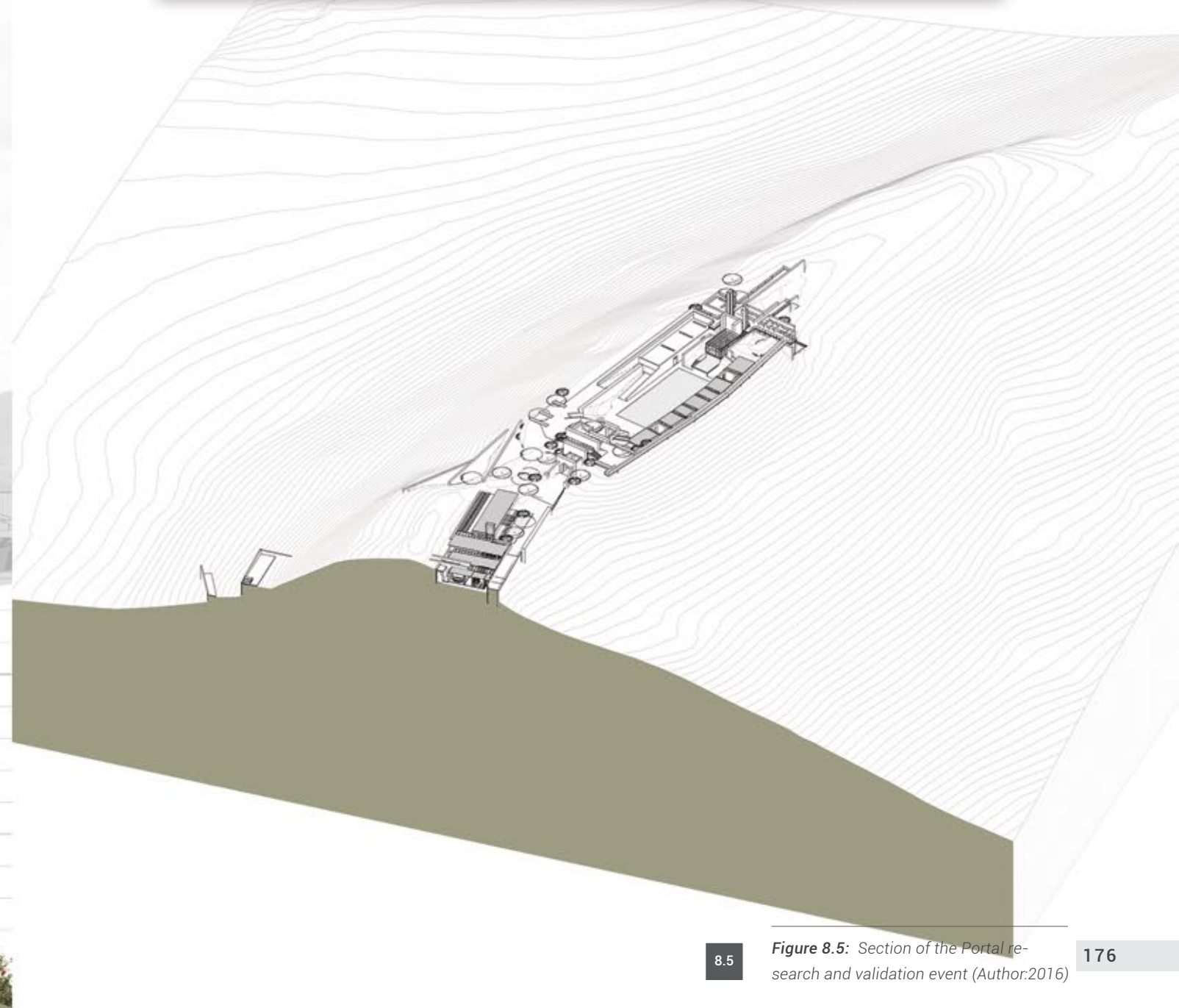
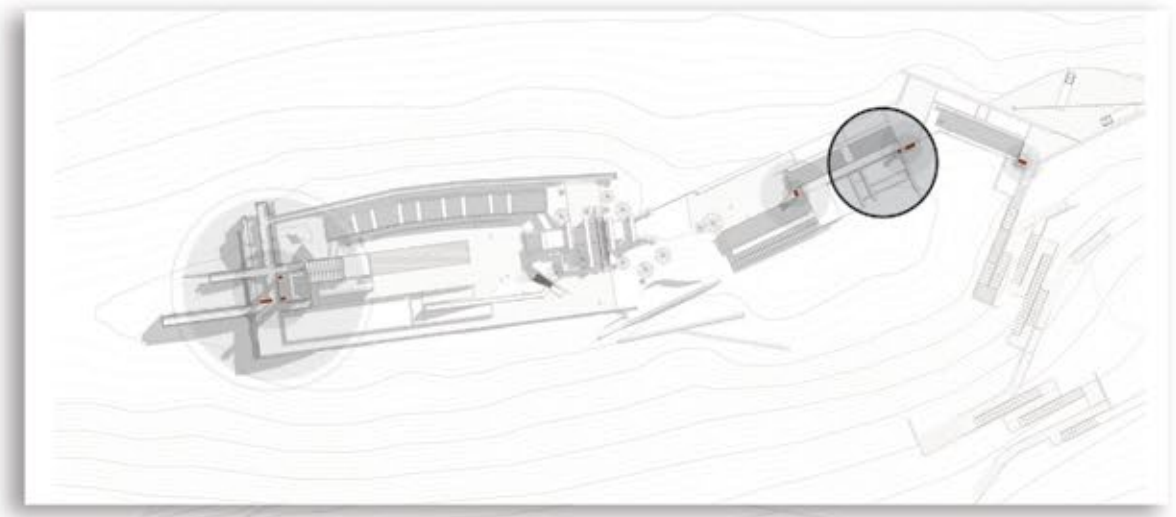


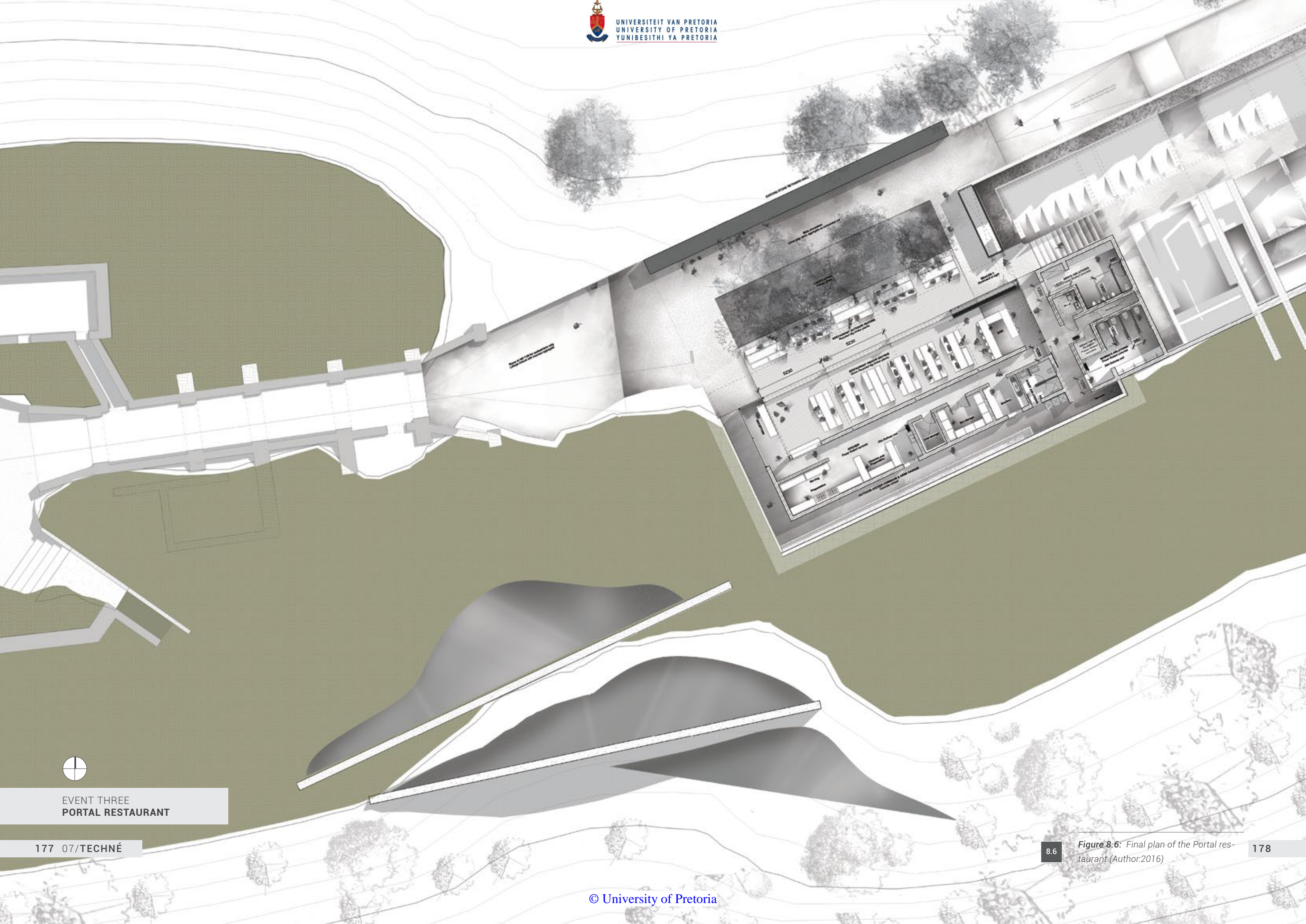
SITE PLAN



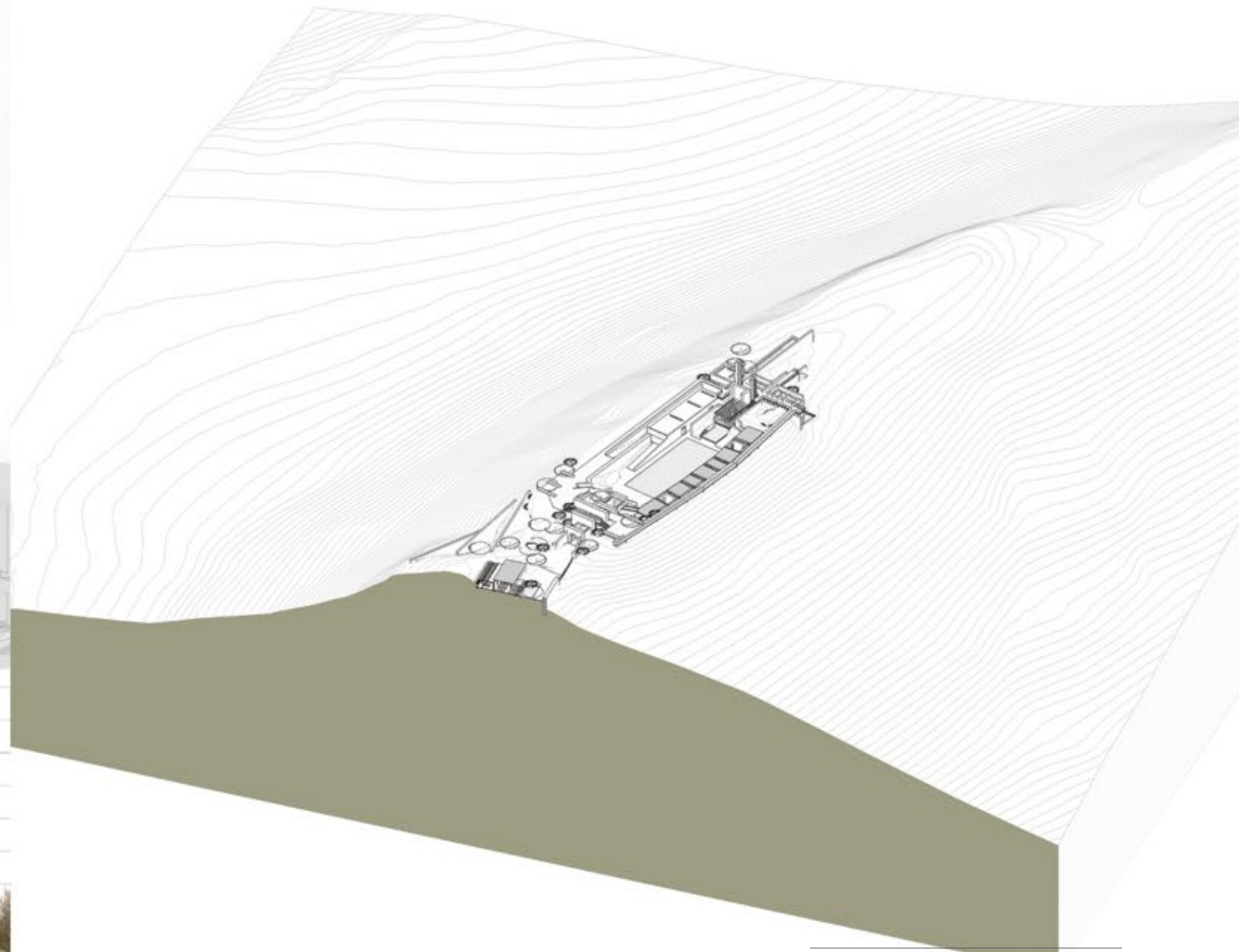
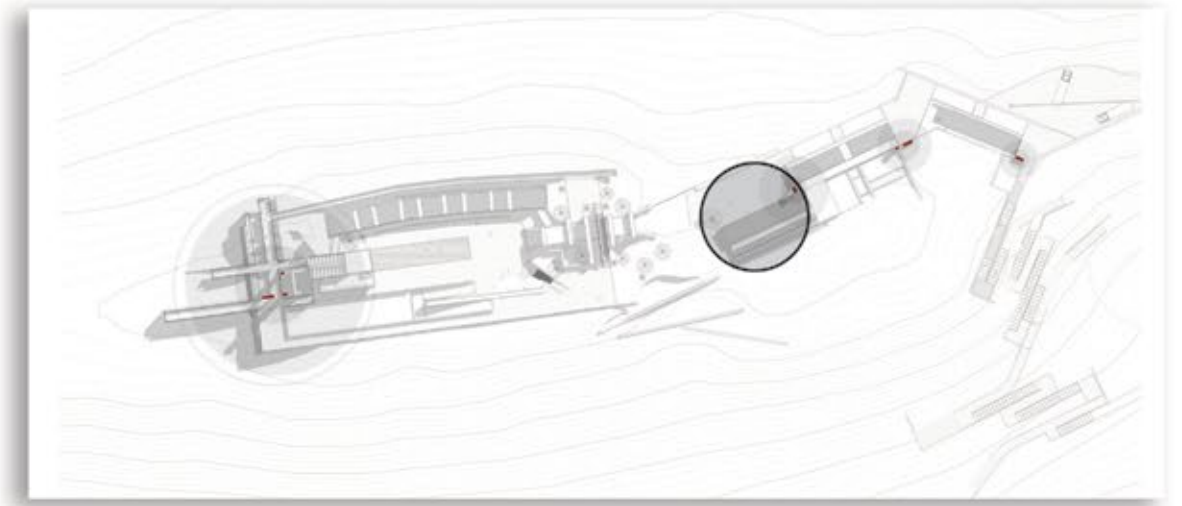


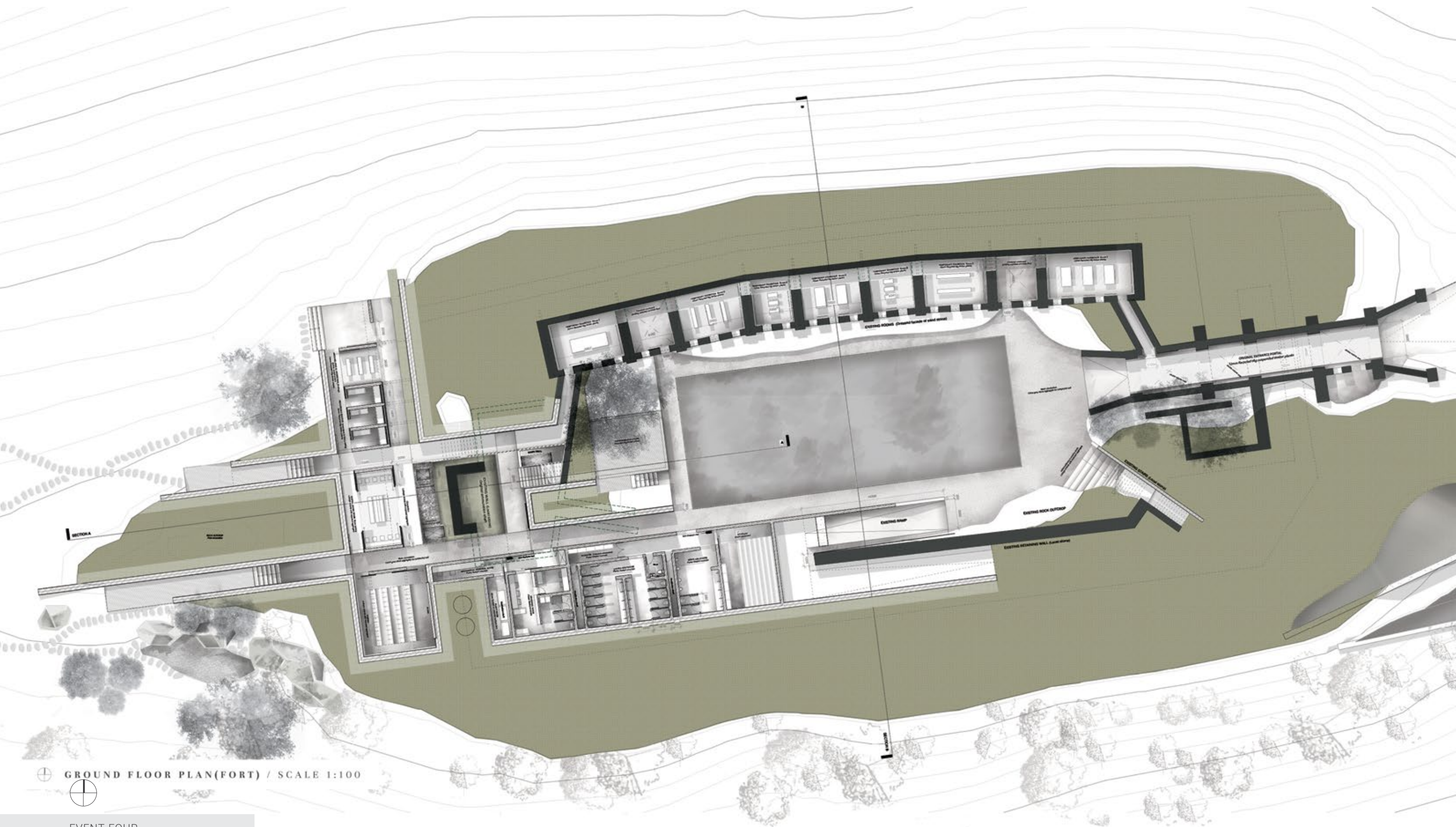






EVENT THREE
PORTAL RESTAURANT

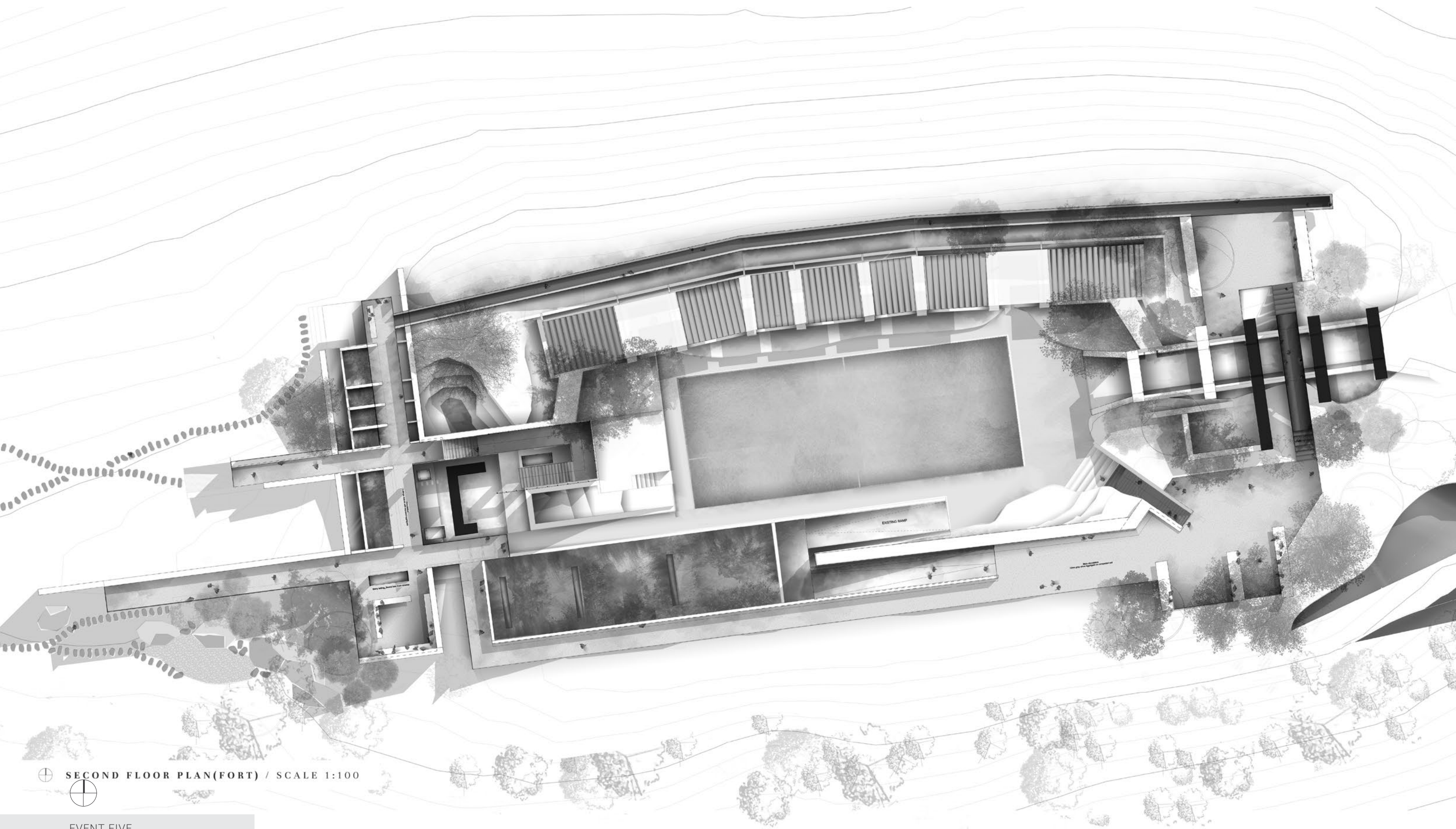




⊕ GROUND FLOOR PLAN(FORT) / SCALE 1:100

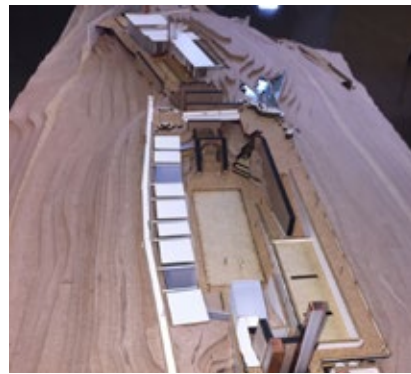
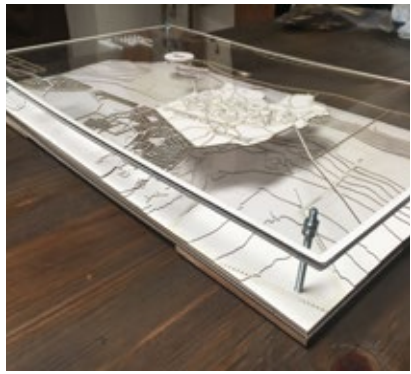
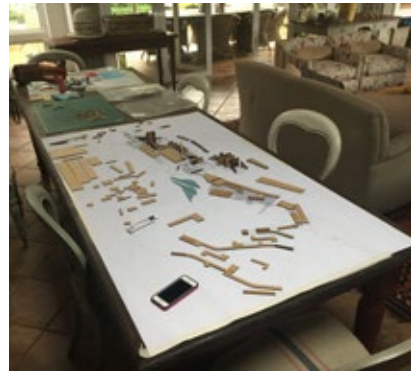
EVENT FOUR
EXHIBITION & EVENTS

Figure 8.8: Final plan of the Heritage Portal exhibition and storytelling additions (Author:2016)



⊕ SECOND FLOOR PLAN (FORT) / SCALE 1:100

EVENT FIVE
REFLECTION



8.10

Figure 8.10: Model building process
(Author:2016)



8.11

Figure 8.11: Final context model built to scale 1:200 (Author:2016)



8.12

Figure 8.12: Final presentation
(Author:2016)



8.13 *Figure 8.13: Night view of the Fort as a beacon of continuity (Author:2016)*



Conclusion

ARCHITECTURE AS AN EXPERIENTIAL NARRATIVE

The intention of this dissertation was to rehabilitate the forgotten fort in order to protect its heritage significance, secure its future value and introduce continuity through experiential narration.

The site is considered the main driver of the project and required a comprehensive understanding of both the historical and current context in relation to the process of ruination and isolation within highly contested continuums of change. This led to a brief reflection on specific theoretical investigations to clarify the appropriate heritage and architectural response.

In considering the phenomenological approach of enriching the human experience, the project proposed the Heritage Portal which exhibits heritage narration as an event. The design approach is largely directed by a series of narrative events. These events also adhere to the heritage legislation, ensuring its support from the local and national heritage communities. The success of the latter is not only dependent on the rehabilitation process but also on the continuous equal participation from the collective. As a beacon of continuity that protects our future and collective heritage, the fort is now transformed to an anchor of hope through collective storytelling.

The proposed architecture is based on the key aesthetic parameter of how new meets old. The intention was to clearly differentiate the old heritage fabric from the new architectural interventions. Implementing a conservation strategy, the existing heritage fabric is preserved without compromising its structural or material integrity.

Being a monument of protection, the stereotomic quality of the fort now represents the protection of our past heritage and its continuity. With the effective use of materials, form and contextual sensitivity, the architecture mediates the narrative experience from one event to another. The architecture is explored as the curator of the narrative journey, although it still allows for the experiential through individual interpretation.

By synthesizing the narrative with the architectural experience, the juxtaposition of different materials and forms defines the spatial intent of each event. With clear distinctions between old and new, past and future, landscape and building, the once hidden and neglected remnants of the past is now a celebration of our continuous and collective future.

Figure 9.1: First conceptual model of the Fort as a beacon of continuity and belonging (Author 2016)

A friend took me to the most amazing place the other day. It's called the Auguste-um. Octavian Augustus built it to house his remains. When the barbarians came they trashed it a long with everything else. The great Augustus, Rome's first true great emperor. How could he have imagined that Rome, the whole world as far as he was concerned, would be in ruins. It's one of the quietest, loneliest places in Rome. The city has grown up around it over the centuries. It feels like a precious wound, a heartbreak you won't let go of because it hurts too good.

We all want things to stay the same. Settle for living in misery because we're afraid of change, of things crumbling to ruins. Then I looked around at this place, at the chaos it has endured – the way it has been adapted, burned, pillaged and found a way to build itself back up again. And I was reassured, maybe my life hasn't been so chaotic, it's just the world that is, and the real trap is getting attached to any of it.

A ruin is a gift. A ruin is the road to transformation.

(Gilbert 2006:223)

9.1



REFERENCES

BOOKS

- BLOSZIES, C.** 2012. *Old Buildings, New designs: Architectural Transformations*. New York: Princeton Architectural Press.
- BOLSMANN E.** 2008. *French Footprint in South Africa*. Pretoria: Be my Guest Publishers. 208-211.
- CLARKE, N., KUIPERS, M.** 2015. *Re-centering Tshwane: Urban heritage strategies for a resilient Capital*. Pretoria: Visual Books.
- COLE, R.J., DU PLESSIS, C.** 2011. *Motivating change: shifting the paradigm*. Building Research & Information. 39:5, 436-449
- EDENSOR, T.** 2005. *Industrial Ruins: Spaces, Aesthetics, and Materiality*. Oxford: Berg.
- GILBERT, E.** 2006. *Eat, Pray, Love*. Penquin Books. 223-225.
- HAMDI, N.** 2010. *The Placemaker's Guide to Building Community*. London: Earthscan.
- HARRIES, K.** 1997. *The Ethical Function of Architecture*. MIT Press.
- HEIDEGGER, M.** 1993. *Building, Dwelling, Thinking*. Washington University.
- JONES, L.** 2000. *The hermeneutics of sacred architecture*. Harvard Press.
- MEIRING, H.** 1980. *Pretoria 125*. Cape Town: Human & Rousseau.
- TANIZAKI, J.** 2001[1993]. *In Praise of Shadows* (trans. T.J. Harper and E.G. Seidensticker.) New York: Vintage Books.
- VESELY, D.** 2004. *Architecture in the age of divided representation*. MIT Press.

DISSERTATIONS/THESES AND ACADEMIC ESSAYS

- BREED, I., GRUNEWALD, T.** 2013. Cultural landscapes as a model for natural and human systems integration. SA-JAH, vol 28(3) 51-76.
- RAJORA, N.** 2013. Vision, movement and landscape experience in Princely Town Amber, India. Submitted in partial fulfilment of the requirements for the degree of Master of Landscape architecture in the Graduate College of University of Illinois at Urbana Champaign. Illinois: University of Illinois.
- STEIL, L.** 2010. Metaphysical Archaeology of Lighthouses (Part1). American Arts Quarterly. (27) 2. Accessed 10 March 2016.
- VILJOEN, C.** 2011. "Architecture in Ruins." Submitted in partial fulfilment of the requirements for the degree of Magister of Architecture, M. Arch(Prof), to the Faculty of Engineering, Built Environment and Information Technology. Pretoria: University of Pretoria.
- VAN VOLLENHOVEN, A.C.** (Translation: Bailey,A.) 1998. *The Military Fortification of Pretoria: A study in Historical Archaeology*. A.C.Van Vollenhoven: Pretoria.

JOURNALS

- BANERJEE, U. K.** 2008. The Subtle art of Storytelling. *Indian Literature*. 52:4, 147-152. Accessed: 11 May 2016.
- BURRELL, G., DALE, K.** 2011. Disturbing structure: Reading the ruins, Culture and Organization. 17:2, 107-121. Accessed: 12 May 2016.
- COOMBS, T.** 1992. Scarpa's Castelvecchio: A Critical Rehabilitation [Speaking of Places]. Accessed: 11 July 2016.

- DELPORT, T., SACCAGGI, B.** 2015. Occupying Heritage: From a Leprosy Hospital to an Informal Settlement and Beyond. *Journal of Community of Architecture and Heritage*. Vol 2(1) February. 40-56. Accessed: 18 April 2016.
- HORWITZ, S.** 2006. Leprosy in South Africa: A Case Study of Westfort Leper Institution, 1898-1948. *African Studies*, 65:2, 271-295. Accessed: 18 April 2016.
- KAFLE, N.P.** 2011. Hermeneutic phenomenological research method simplified. *Bodhi: An Interdisciplinary Journal*. Accessed: 28 August 2016.
- KELLY, R.** 1952. Lighting as an Integral Part of Architecture. *College Art Journal*, 12(1) 24-30. Accessed: 18 Oct 2015.
- LEACH, N.** 2002. Belonging: Towards a theory of identification of place. MIT Press. Accessed: 15 February 2016.
- LYNCH, K.** 1972. What Time is This Place?. The Massachusetts Institute of Technology.
- MERLEAU-PONTY, M.** 1962. Phenomenology of Perception. (trans. Colin Smith) New York: Routledge.
- RYAN, P.** 2008. The Storyteller in Context: Storyteller Identity and Storytelling experience. *Storytelling, Self, Society. Special Issue: Storytelling as contemporary Performing Art*. 4:2, 64-87. Accessed: 12 May 2016.
- STRAVROULAKI, G.** 2003. The Spatial construction of seeing at Castelvecchio. Greece: National Technical University of Athens. Accessed 11 July 2016.
- THOMSON, A.** 2007. Four paradigm transformations in oral history. *The Oral History Review*. 34:1, 49-70. Oxford University Press. Accessed: 13 May 2016.

- TOSSA, W.** 2012. Global Storytelling and Local Cultural Preservation and Revitalisation. *Storytelling, Self, Society. Special Issue: Global Storytelling*. 8:3, 64-87. Accessed: 12 May 2016.
- WIEDER, A.** 2004. Testimony as Oral History: Lessons from South Africa. *Educational Researcher. Theme Issue: Disciplinary Knowledge and Quality Education*. 33:6, 23-28. Accessed: 13 May 2016.

PUBLICATIONS

- NEGUSSI, E.** 2012. Changing World, Changing Views of Heritage: heritage and social change. ICOMOS Scientific Symposium: Dublin, Ireland.
- KUIPERS, M.** 2015. 'Mapping' Westfort Village at Pretoria, Tshwane. Cultural Heritage Agency of the Netherlands Ministry of Education, Culture and Science. The Hague: Xerox.
- LAMPRAKOS, M.** 2014. Riegls "Modern cult of monuments" and the problem of value. The Venice charter at fifty: An international journal of conservation and the built environment.
- NAUDE, M.** 2012. Phase 1 Heritage survey of Historic Westfort Leprosy Hospital site (Pretoria).
- ROOS, J.** 2002. Project "Restoration Genandendal, South Africa. ICOMOS General Assembly and Scientific Symposium, Madrid. 336.
- UNESCO.** 2008. World Heritage Info kit. Paris: Unesco World Heritage Centre.
- UNESCO.** 2015. Towards a UNESCO Culture and development indicators suite: Working document.
- VISSER, R.** 1963. *South African Panorama*. "Silent Forts." July.

WEBSITES

- BARNARD-NAUDE, J.** 2015. Mail & Guardian: Removing Rhodes' statue would not 'erase the past'. [online] http://www.humanities.uct.ac.za/sites/default/files/image_tool/images/62/Thoughtleader26Mar15-JBN.pdf. Accessed: 27 July 2016.
- DÉVÉNYI, M.** 2012. Archdaily: Szatmáry Palace. [online] <http://www.archdaily.com/272346/szatmary-palace-marp>. Accessed: 11 June 2016
- STOLTZ, J.** 2015. History is not for the Sensitive - HASA comments on the Rhodes Statue Saga. [online] <http://theheritageportal.co.za/article/history-not-sensitive-hasa-comments-rhodes-statue-saga>. Accessed: 20 April 2016.



In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and thesis, I declare that this thesis, which I hereby submit for the degree Master of Architecture (Professional) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

I further state that no part of my thesis has already been submitted for any such degree, diploma of other qualification.

I further declare that this thesis is substantially my own work. Where reference is made to the works of others, the extent to which that work has been used is indicated and fully acknowledged in the text and list of references.

Yvonne Bruinette