

# Chapter Four

CONCEPT & DESIGN DEVELOPMENT

*This chapter investigates the vision and architectural approach towards what the project aims to propose as conceptual approach towards architecture. The mysteries of these ruins are discussed and in response, the proposed vision for the project is presented in order to contextualise the ideal design vision.*

*Figure 4.1  
The ruins of Fort Commeline  
(Author, 2018)*

#### 4.1 The Rehabilitative Strategy

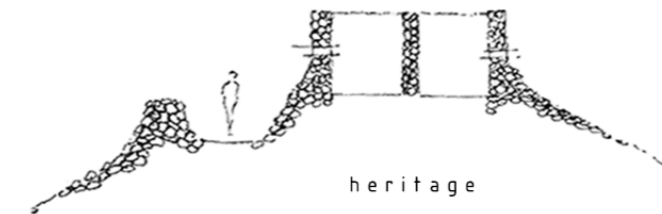
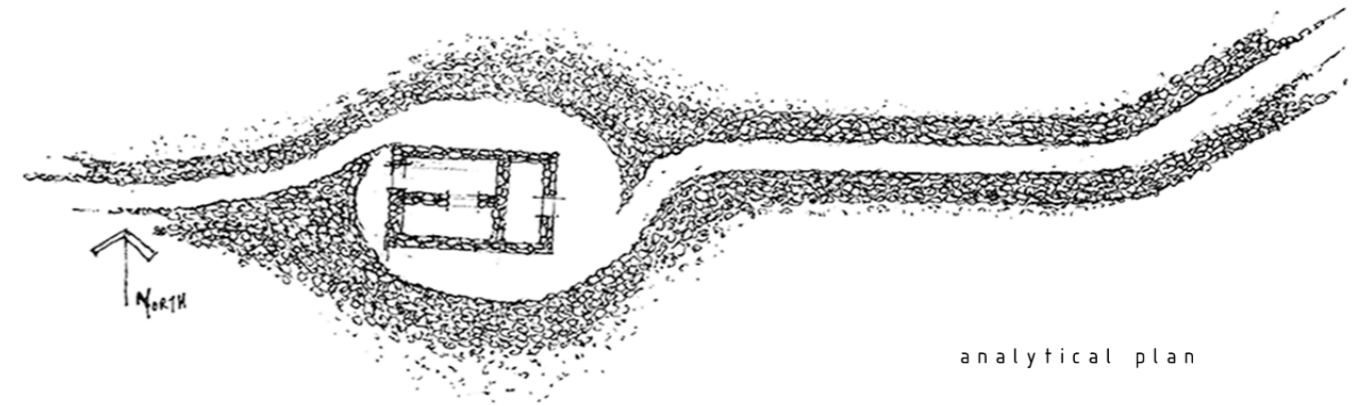
The success of rehabilitation is always subject to time, as it cannot be resolved by a single act. It is highly dependent on the process of healing that determines its new state of existence. It is at this point, where the character of architecture is to be adaptable in crafting networks and relationships among its setting. Where the "being" serves as substance, in order to rehabilitate the ruin.

The purpose is to engage and articulate a mere expansion and implementation of sustainable architecture and design, as a means of making a regenerative and restorative product. The translation of object among its setting into a sustainable intervention that would in turn respond to its site and surroundings within its social ecological requirements.

This is where the language of design comes into play, also referred to as the disruptive design of space and rehabilitative vernacular.

Due to the current state of the fort, it is in great demand of re-establishing itself as the 'peak of the mound'. Consequently, the decay of knowledge and separation of architecture leads to the disregard of the heritage and remains forgotten with a lack of utilization. With time, it embraces cultural and political conflicts even among its void, leading to the cataclysm on heritage

**Figure 4.2**  
*Opposite: The initial survey of the remnants of Fort Commeline (Author, 2018)*



4.2 The Heritage Transformation

It is a well-known fact that due to time, change is inevitable. Yet, in some cases, architecture still neglects to anticipate the process of change as critical element in planning and building on the identity of place. Together referred to the tangible and in this case, the intangible or spiritual.

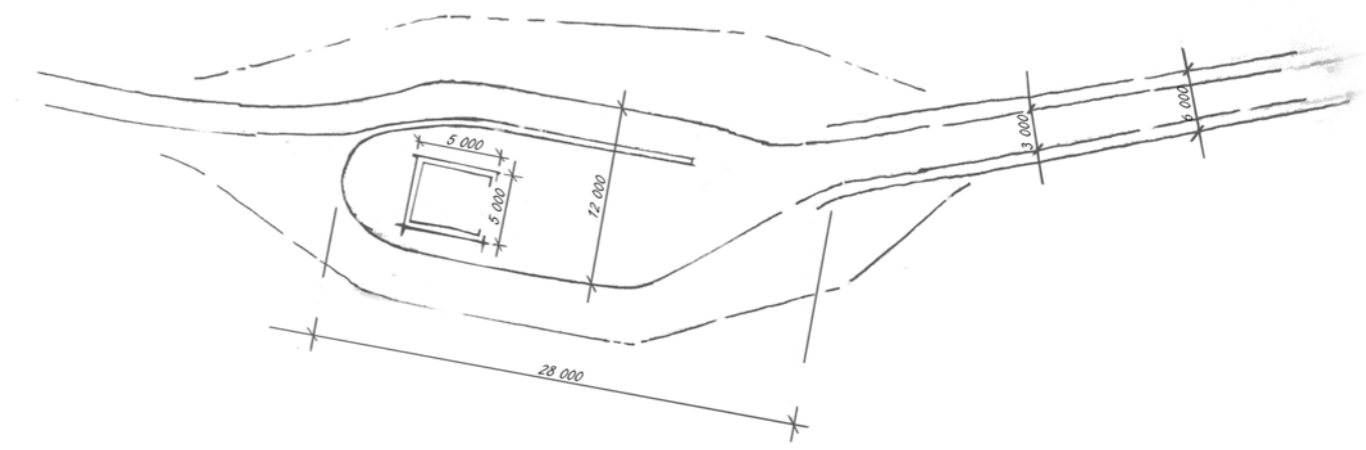
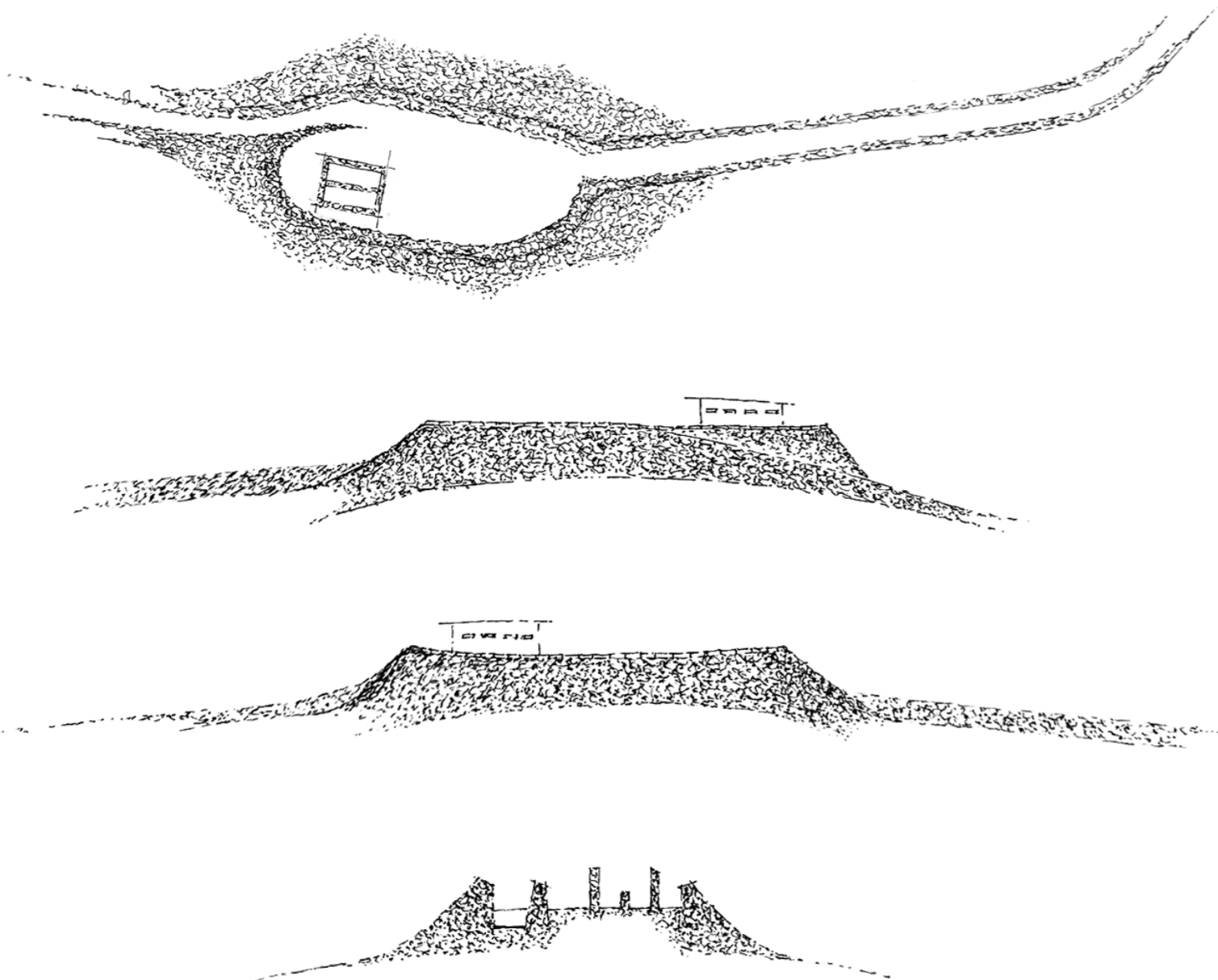
However, in order to successfully restore the value of the Magazine Hill precinct, it is crucial to first determine the approach towards the design this project will take. To achieve success in this advance, Lebbeus Woods explains the intimate ties and relationships between architecture and violence and bridges as the gap between civic and political entity where he creates a new urban culture and heritage language, uniting its civic identity (Woods, 1993).

According to Woods, there is limited literature on the rebuilding of the damaged cities (in this case, deteriorating structures)—many of which were severely damaged—and even less about the actual concepts that guided their reconstruction. Following with his Pamphlet 15, Woods identifies two predominant principles for rebuilding cities following catastrophic obliteration:

**The First Principle:**  
To restore what has been lost to its former condition. Where the aim is to restore the 'normalcy', where the normal would be considered as the restorative response due to the former deconstruction.

**The Second Principle:**  
To demolish the damaged or ruined architecture. Crafting the new from the former. Where it is regarded as the 'new' would be the rehabilitative response. A radical change from what existed before, or only a restructured form of the former.

Many of the historic buildings in the existing city are rather restorable. The reality is that finances of the city and remaining institutions, have been depleted because of the current political conditions and its privations. Though due to the loss of craftsmanship and advancement of technology, it is hereby anticipated to use the vernacular and to reshape and reform it in order to represent the former.



**Figure 4.3**  
Above: The conceptual and analytical survey of the ruins of Fort Commeline with reference to its topography (Author, 2018)

**Figure 4.4**  
Above: The conceptual design approach to restore the ruins of Fort Commeline with reference to the initial survey (Author, 2018)

4.3 Design Concept

The purpose of this intervention is to re-establish the relationship between the historical built fabric and cultural landscape that transforms through the progression of time. Where amidst this matter among the site, it would be agreed as transitional space, forming a series of thresholds knitting the old and the new.

Ideally the design focuses on the four theories, previously identified in "A Theoretical approach to Architecture", as illustrated in Chapter Three, where the theory of architecture would be identified as experiential drive throughout the site. Referring to the "being" as the fundamental metaphor of character as a requirement, in order to craft architecture.

The old built fabric and rather proposed rehabilitated vernacular of the site essentially enables innovative ways and ideas of organic craftsmanship. It is therefore proposed as an approach to adaptive re-use and rehabilitation of the existing. Following this statement, that from the theory in Chapter Three, the key informants would be established that were utilised to guide the conceptual design exploration.

These informants would include the contextual approach, the theoretical approach and the architectural approach. The intended outcome of these characteristics, provides the guidance of design decisions, conceptual iterations as well as the intended architectural language that was conveyed throughout the site.

The design process and exploration will be discussed as architectural response to the informants and the conceptual vision. Following, these six aspects will be discussed.

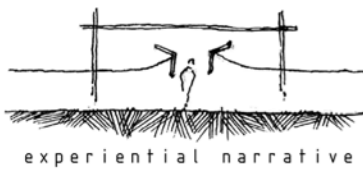
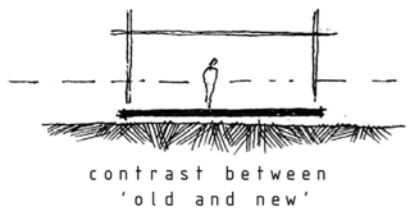
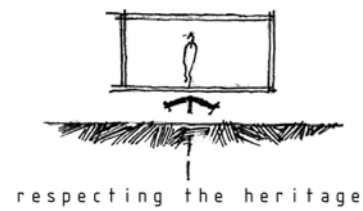


Figure 4.5 Drawings illustrating the defining of the design concept (Author, 2018)

4.3.1 Contextual Approach

As a rehabilitative and conservational strategy, the design is primarily and mainly focused on the contextual approach. It is understood in the context of this site, that due to the current state, it would be impossible to replace the old built fabric to its original condition. The design is therefore approached as a practical reflection to that of the context, such as utilising contour lines, etc. The contextual characteristics that were considered of the design, are as follows:

- The notion of understanding the context and reflecting on ruin as substance to craft from. Realising the heritage and contextual worth of what has decayed but restores the heritage by the approach of the vernacular. As referred to by Wang Shu utilising 'free design' and proposed as an incongruous ensemble of the new architecture, ideally crafting a single vital substance. (Shu, 2006: 1-22).
- Contrasting the ruin from the landscape it was birth unto and intentionally emphasising the former divisional structures. Conceptually mediating the existing envelope with the new.
- The conceptual intention thereof would be to craft a relation between the three built fabric envelopes, the fortification, Radio technical unit and the new Historical Performance Centre (theatre), that would narrate and exhibit the heritage and stories of Magazine Hill.

4.3.2 The Theoretical Approach

The theoretical heritage approach is summarised as a spatial interpretation of generating architecture. Reflecting the theory in Chapter 3, it recognises the user as an entity in crafting architecture. From the theory of invisible space, disruptive design and the rehabilitative vernacular, the theoretical approach transposes itself as the reclaiming of matter and subjectively crafts transitional space. The theoretical response is thus:

- Understanding architecture as tool of mediation. Retaining cultural significance by manner of the narration as anticipation, advent and accent through the landscape.
- To craft architecture that responds to the existing narrated landscape, while respecting the existing architectural heritage.
- Introducing the segregation of architecture from the existing typology. Respecting and preserving the heritage and cultural value by retaining scale of the fortification.
- Attempts to create continuity among the existing envelop. But would disrupt and intrude the existing built fabric, previously segregated due to the continuum of time.

4.3.3 The Architectural Approach

The main aim of this project is to rehabilitate and protect the heritage significance and future value of Fort Commeline. The architectural intention therefore aims at restoring the built fabric, in order to secure the narrative that lies among Magazine hill. The architectural response is thus:

- To craft a new architectural language that would contrast the historical footprint and that could clearly distinguish the old from the new. Ideally creating a continuous intersection of space throughout the site that would display both tangible and intangible qualities of the site's heritage. Intently mediating the existing with the new.
- Though the conceptual approach might be extreme, cutting through the earth and permanently fixing the structure to the origin of the narrative, the response would be subtle. As it is intended for a balance between earth and structure, the new is proposed to convey as temporary architecture.
- Create the milieu that would attract the being that conveys the architecture (as discussed in the theory of Chapter Three), that would attend, experience and convey the narrative.

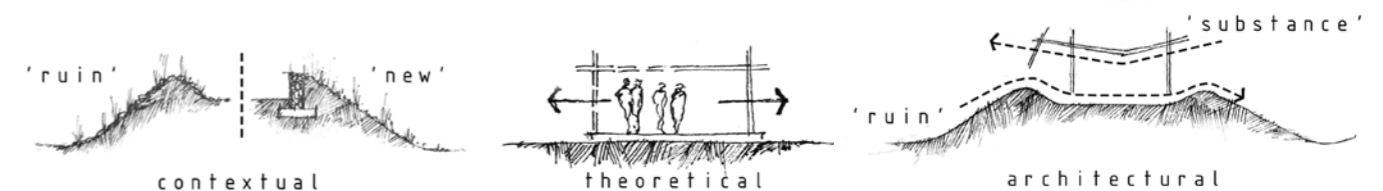


Figure 4.6 Drawings illustrating the defining of the contextual, theoretical and architectural approach (Author, 2018)

4.4 Experiencing the site

The following programmatic requirements are specified as the ideology of the proposed scheme for the Historical Performance Centre. It subsequently, responds as purpose of advent and accent through the site and reflects on the intended visitors of Magazine Hill, each with their own poetic intentions or activity.

The main route entering the site from the east (John Keevy drive) would therefore be identified as the semi-private parking space and would also act as a point of dispersal to the rest of the site. Where it is amended as main advent to arrive at the southern foot of the hill and intended for the theatre to be publicly accessed via funicular. From this point, the visitors might take the meandering walk through the landscape leading from the rehearsal studios, theatre and fort to the west, or alternatively access the offices and student residences to the east.

The main anticipation or chaperon of the site is guided by the old access routes, either the current access roads or old trench stone walls that becomes a pilgrim walk which narrates the history of Magazine Hill. In addition, it is proposed that on these routes, visitors would encounter different thresholds that would inform and draw their attention to the surrounding built heritage and landscape.

At the same time the aim of these routes is to emphasize on the existing heritage and narrative of the hill, which is regarded as being royal heritage. Introducing the South African narrative birthed into the landscape of Magazine Hill, where spaces are publicly anticipated, and the poetry of architecture would be fixed to the earth.

4.4.1 Spatial Intentions

Ideally this scheme intends to project the poetry of narration and art that was informed by the precinct's past. Serving as a reminder and informant of the history that this hill conveys. It poses to induce the natural interaction of structure and 'being' serving as a necessity of giving character as a requirement, to craft architecture. This is where the Historical Performance Centre is introduced as mediator of the context.

As the fort was previously disregarded in 1965, cutting it off from the main existing route, it was proposed that the new theatre would merge the ruins with the existing structure. This permits the direct interference among the existing envelope of the hill and conveys the narrative as a progression throughout the site, utilising the former heritage fabric as elements of intersession as the reliant of spatial intersection. It is hereby stated that the architectural intention is to restore the identity of the former Fort Commeline, through the reinterpretation of the rehabilitated vernacular drawn from the landscape.

4.4.2 The Fort

It is intended in this project that Fort Commeline would be re-established as the reign of the hill, being the main platform of the project. However, as it is situated at the top of the hill, it is not easily accessible and relies solely on the anticipation of accent throughout the site and would only be accessed by the trench footpaths. As a poetic response it is ideal to keep this structure as simplistic as possible. The proposed program of this intervention would serve as look-out point, exhibition space, museum and office.

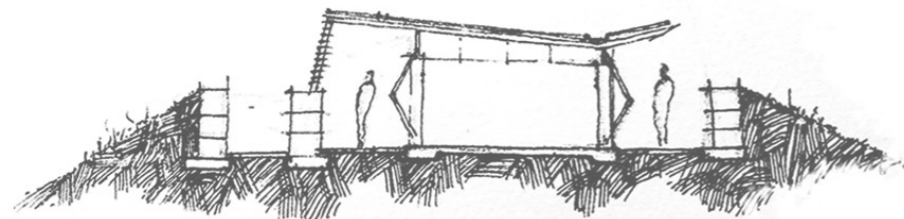


Figure 4.7  
Fort Commeline platform concept  
(Author, 2018)

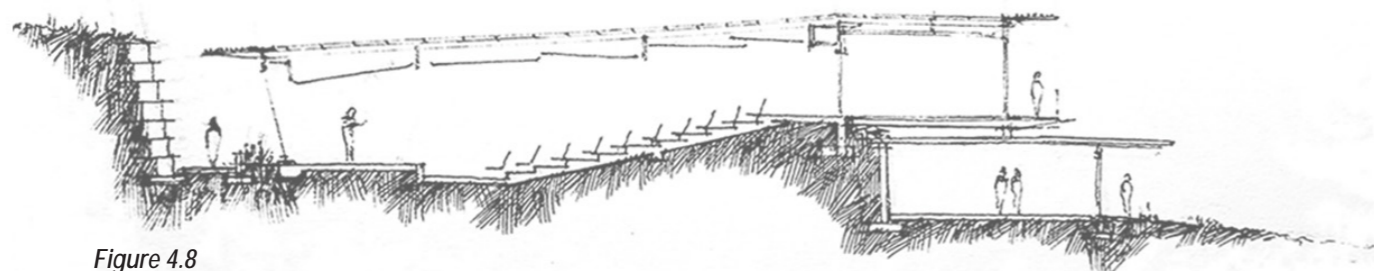


Figure 4.8  
Historical Performance Centre theatre  
concept (Author, 2018)

4.4.3 The Memory Wall

As stated in the above spatial Intentions, access to the site relies on the intersession of space. It is therefore proposed that the old fort camp would serve as platform of the new memory wall. This intervention would serve as mediator between the fort and the existing defect centre north of the hill, where the former explosion occurred in 1945.

4.4.4 The Performance Centre

With the proposed performance centre serving as the mediator of the site's historical narrative, the purpose of this intention is to serve as bridge between the old and new. Being a poetic space, it would also be important that this space conveys the poetry architecturally as well. Thus, intention is to serve as platform articulating the relation between the architecture and the earth that birthed the narrative. As a poetic response it is proposed to fix this structure among its heritage envelope, conveying the poetry of elements such as water, light and shadows. The proposed program of this space would serve as theatre, rehearsal studios, foyer, and cafe.

4.4.5 The Radio Technical Unit

It is intended that the existing SAPS Radio Technical Unit together with the former staff residence to the north, would serve as the new performance school and student accommodation that would be appropriated accordingly. It would serve as the semi-private and private envelope of the site where it would be presented as the educative response to the historical narrative. The proposed program of this space would serve as educative platform, communication centre, light tower, performance school studios, offices and parking.

4.4.6 The Funicular

As the site is limited in terms of access to the top of the hill, it was proposed that the process of reaching the precinct by foot would be reflected by the gradual accent of a funicular (grounded cable car), making the hill accessible from the north as well as from the southern 'Skietpoort'.

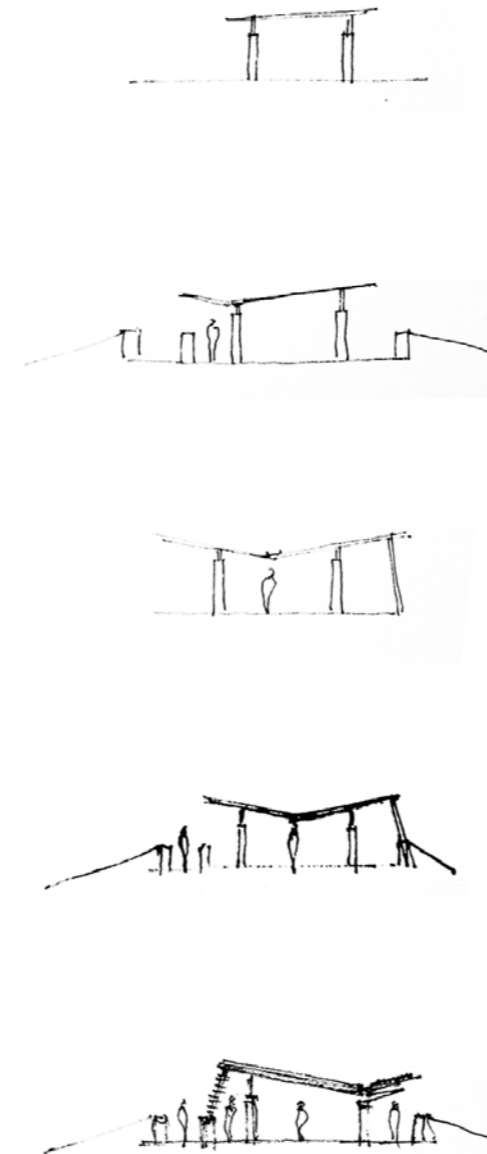


Figure 4.9  
Drawings illustrating the design development of Fort Commeline (Author, 2018)

## 4.5 Iteration One

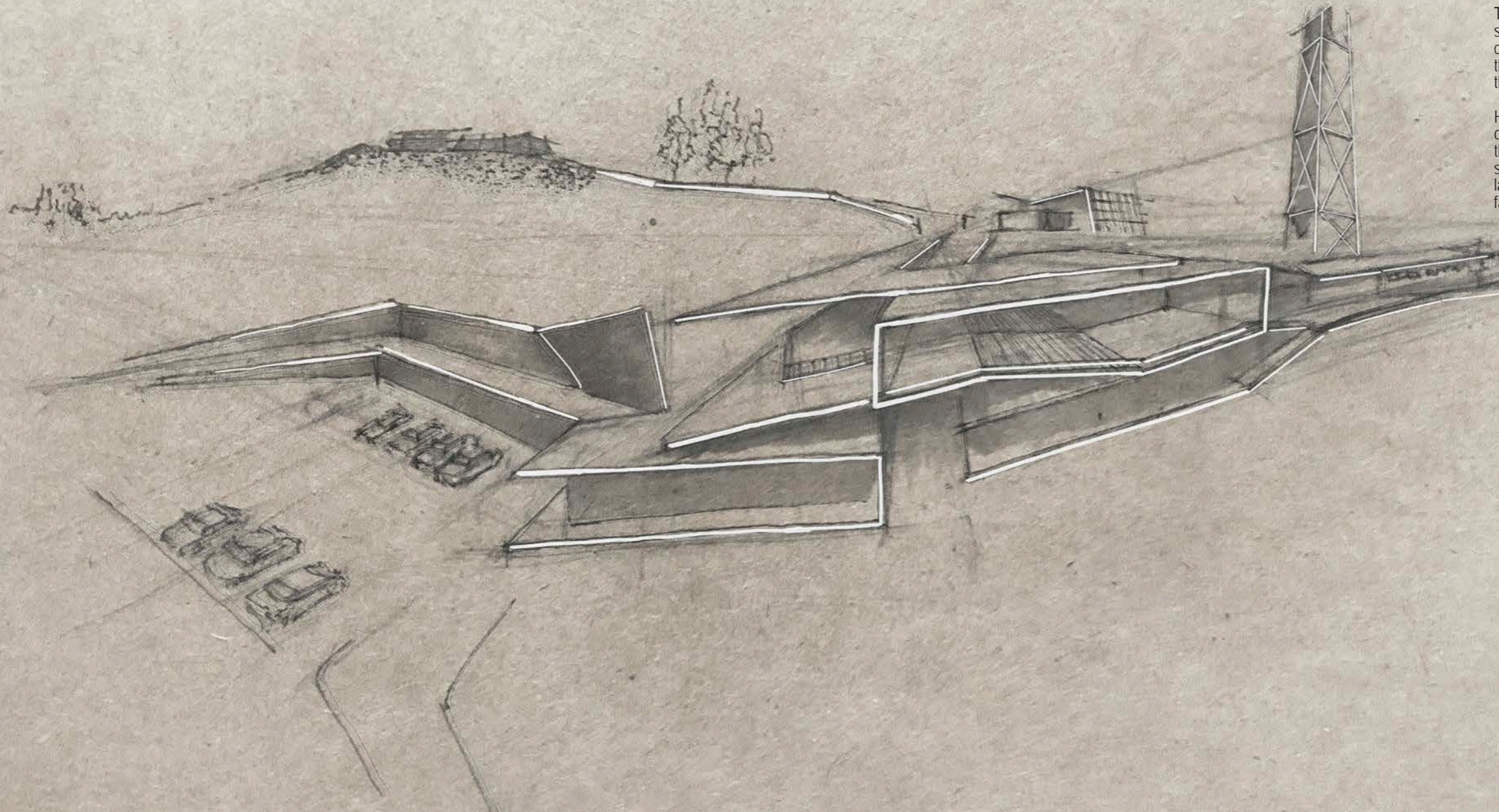
**Figure 4.10**  
 A conceptual drawing of the Historical  
 Performance Centre (Author, 2018)

Fort Commeline as central theme is positioned in a poetic manner among the site, following the envelope of Magazine Hill and with the addition of new programmes, the following informants guided the planning of the routes which can be taken throughout the site:

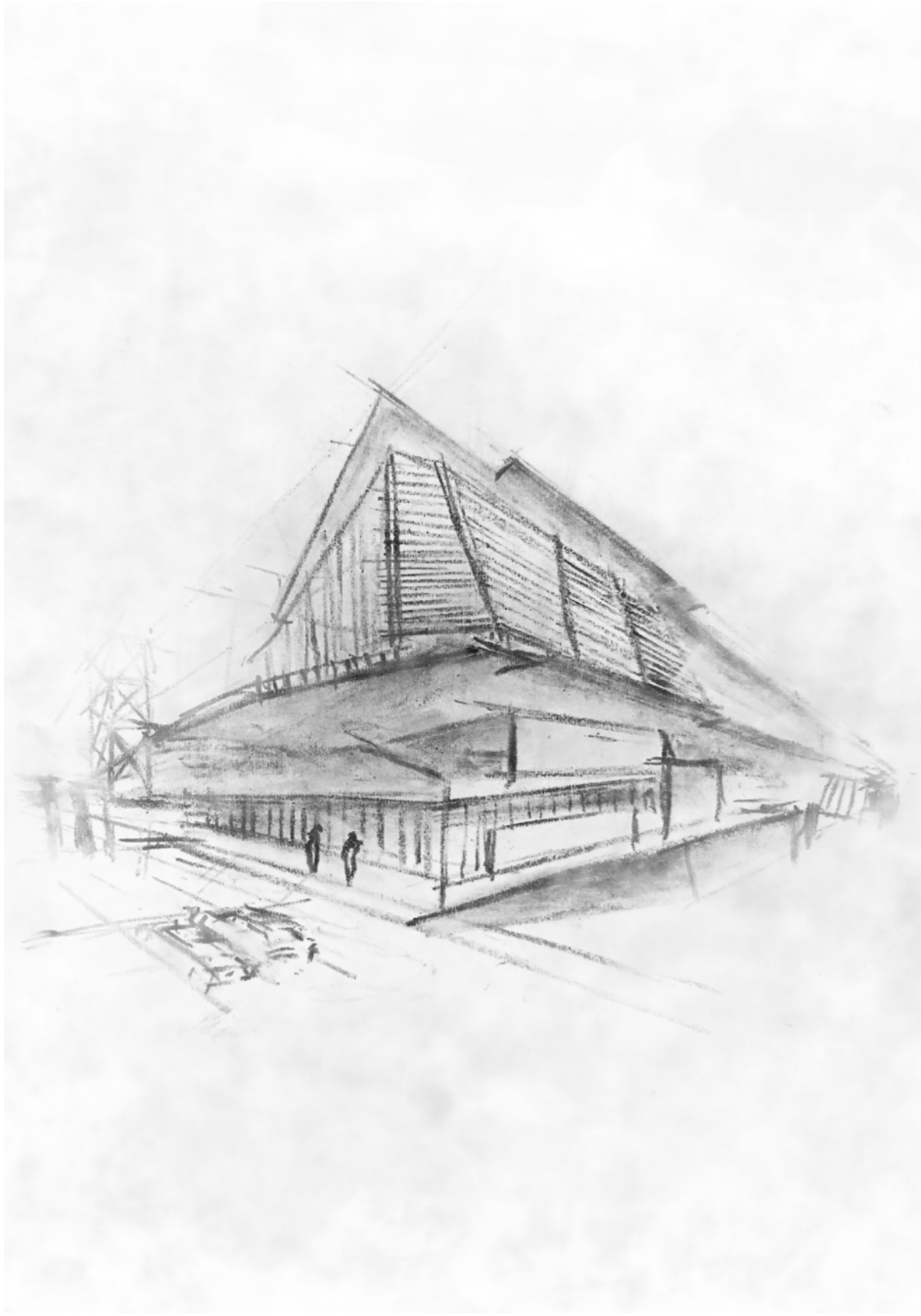
- The site is naturally approached from the east by vehicle and on foot from the north.
- There is a hierarchy of access routes, the existing access roads and the trench like "pilgrim walk" being the two most important access routes, with smaller routes elegantly cutting through the landscape. This indicated the access to the fort as well as the access to the rest of the site.
- Integration of the existing built fabric with the newly proposed intervention and the relationship it would have with the landscape and inherited heritage of the precinct.

The first study gave rise to a conceptual spatial layout that was motivated by the context of the site. Ideally motivating the argument and approach towards the programmatic requirements.

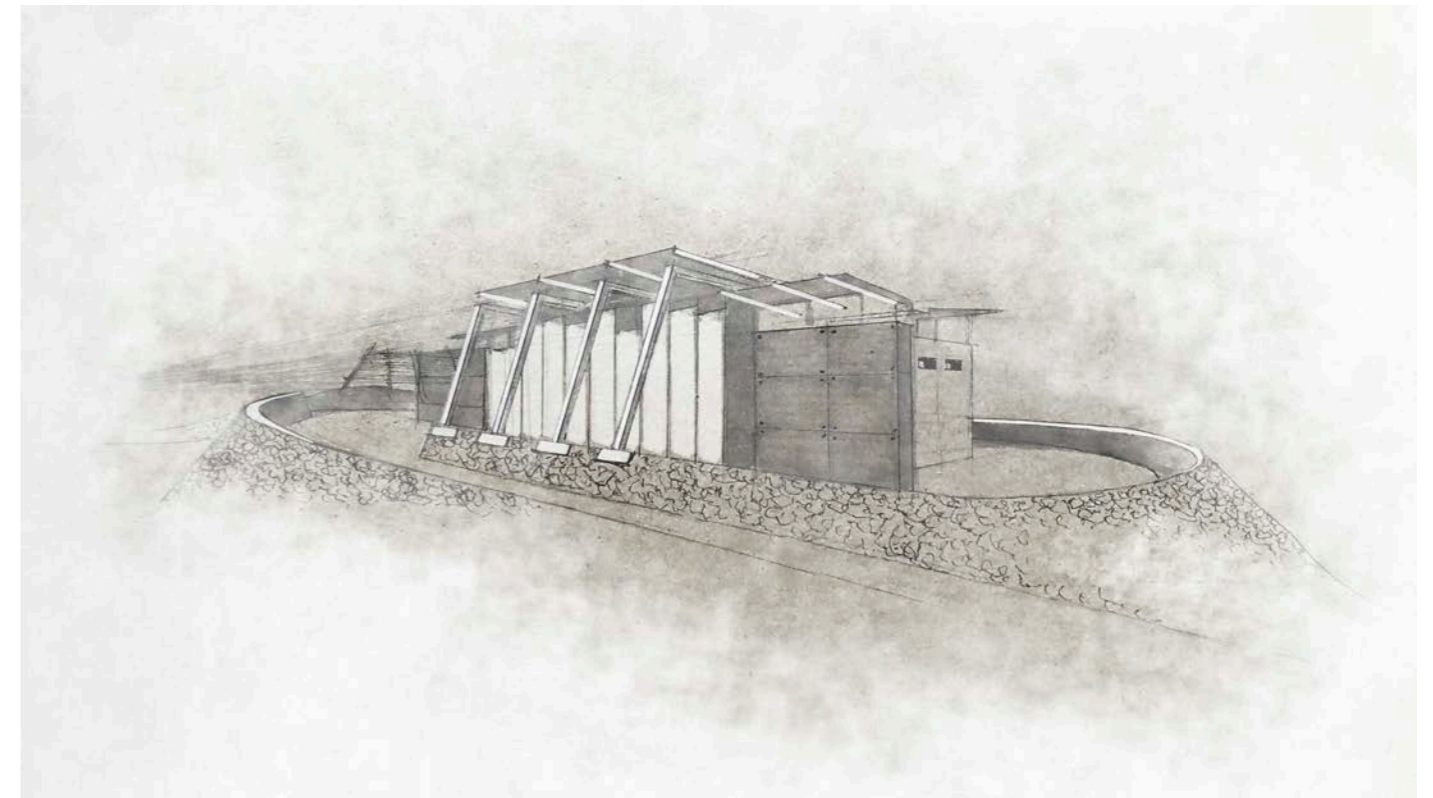
However, in this iteration, there is a lack of aimed hierarchy and as a result, the theatre imposes as main archetype, instead of becoming an extension of the landscape between the former built fabric.







**Figure 4.12**  
*A conceptual drawing of the Historical Performance Centre (Author, 2018)*



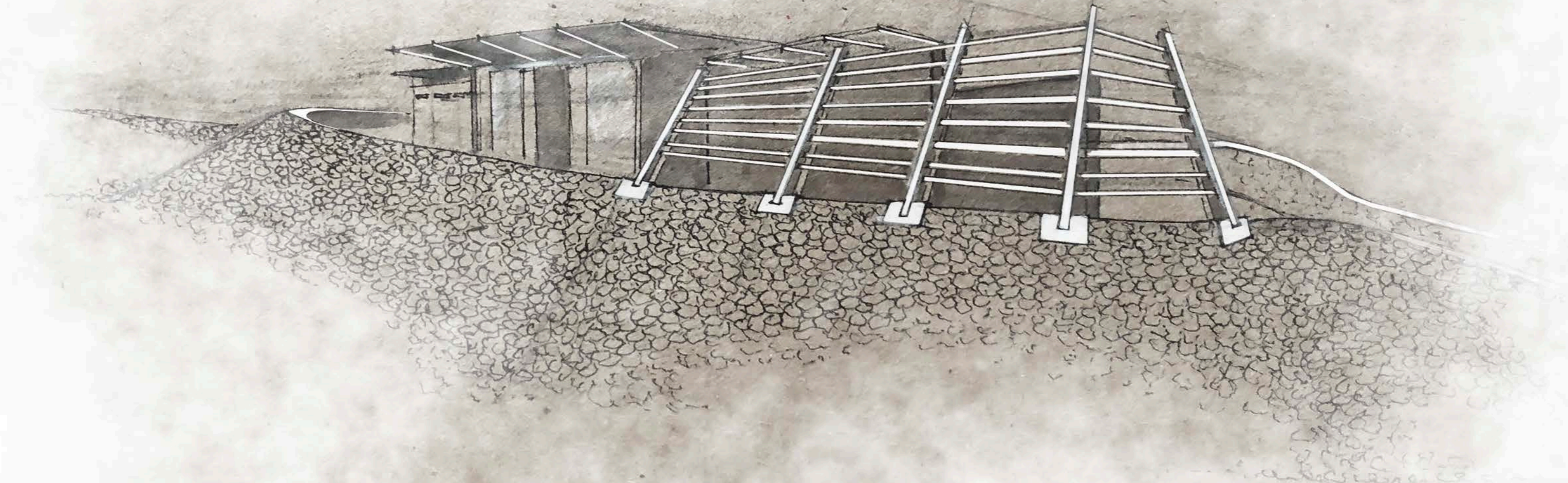
**Figure 4.13**  
*A conceptual drawing of Fort Commeline (Author, 2018)*



**Figure 4.14**  
*The conceptual approach towards the communication tower (Author, 2018)*



**Figure 4.15**  
A conceptual drawing of Fort Commeline  
(Author, 2018)



## 4.6 Iteration Two

**Figure 4.16**  
 A conceptual drawing of Fort Commeline  
 (Author, 2018)

This iteration served as a layered conceptual response to the first iteration. With this exploration it was apparent that the response as architectural vision was idealised. The circulation throughout the site was recognised and carefully identified as detailed nodes throughout the progression of the precinct.

The aim of this iteration was to reflect on the existing fortification as pedestal and intercession of the scheme. The stone trench walls throughout the site was identified serving as sculptural element and heritage fabric serving as chaperon for the anticipated architectural intercessions of the new interventions. Where it was identified that these former routes would guide the visitor throughout the site, serving as hierarchy of the narrative.

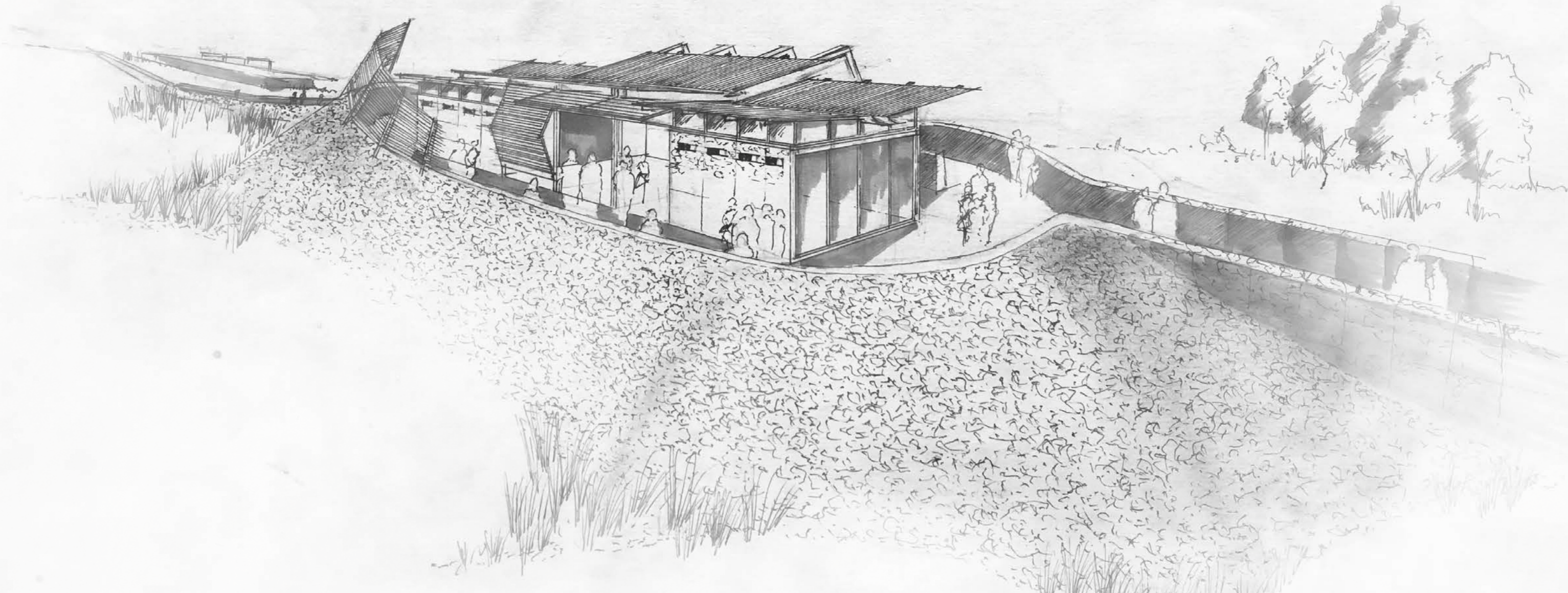
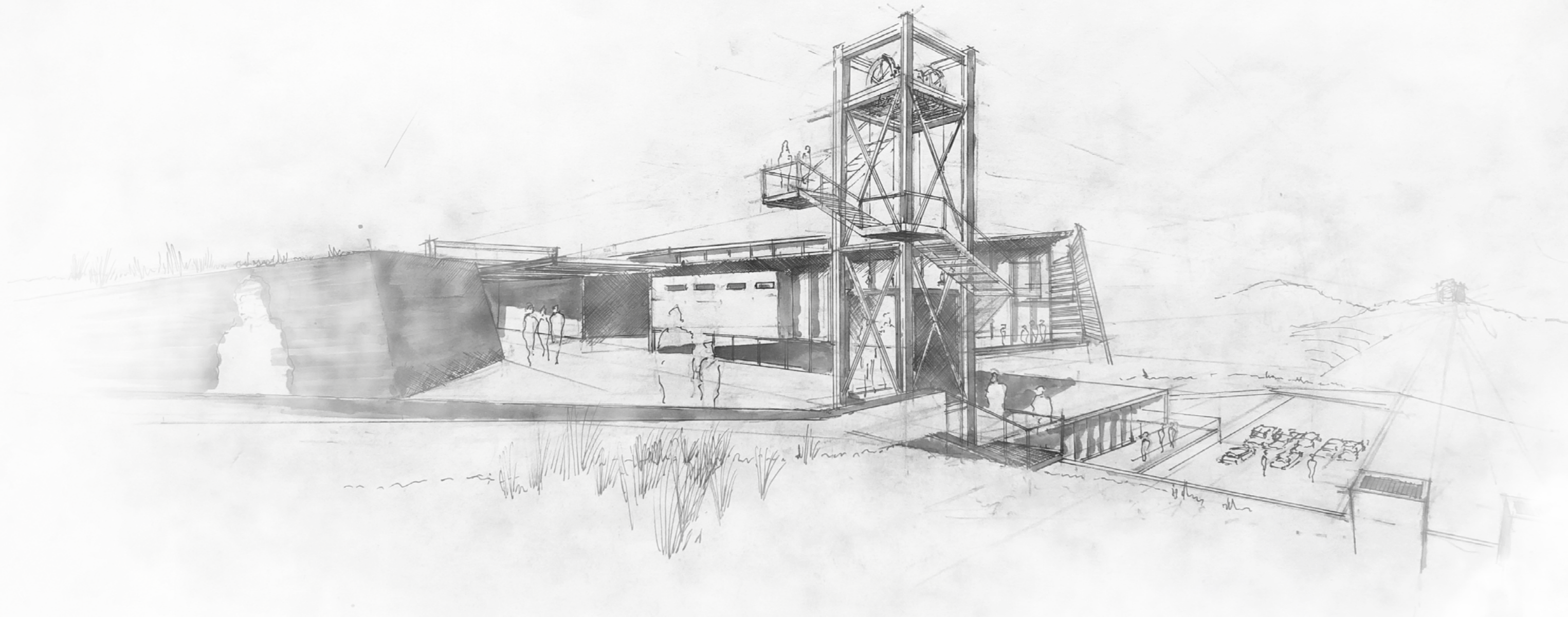


Figure 4.17  
The Site Plan of the Second Design  
iteration presented as collaboration with  
Cliff Gouws (Author, 2018)

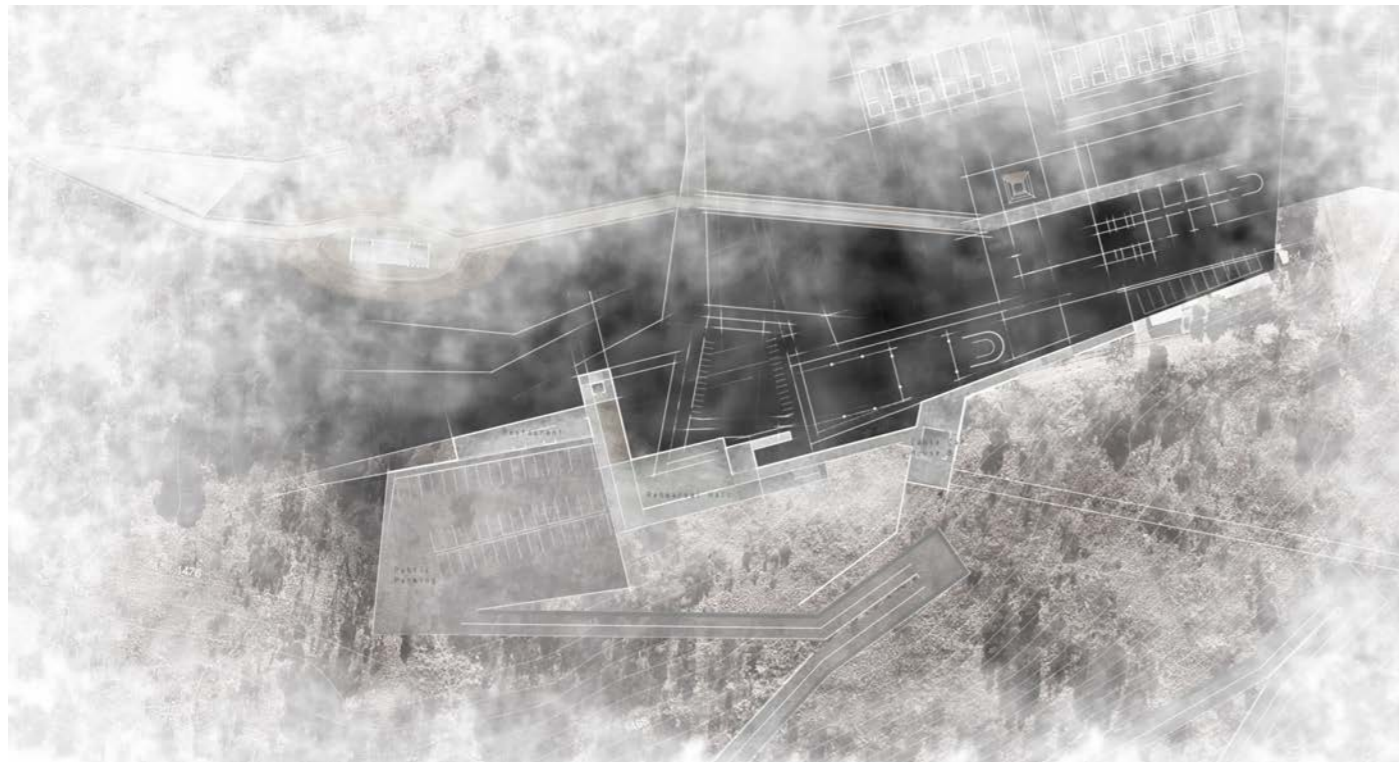


**Figure 4.18**  
*A conceptual drawing of the Historical  
Performance Centre (Author, 2018)*

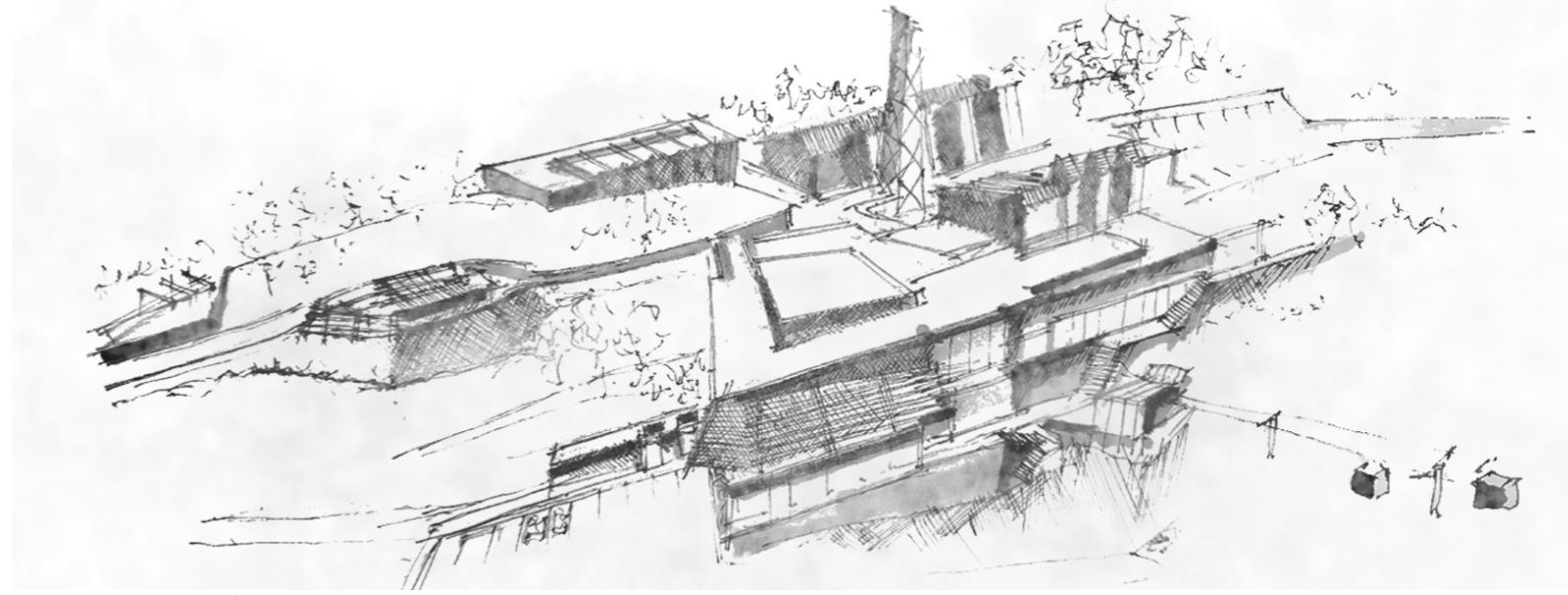




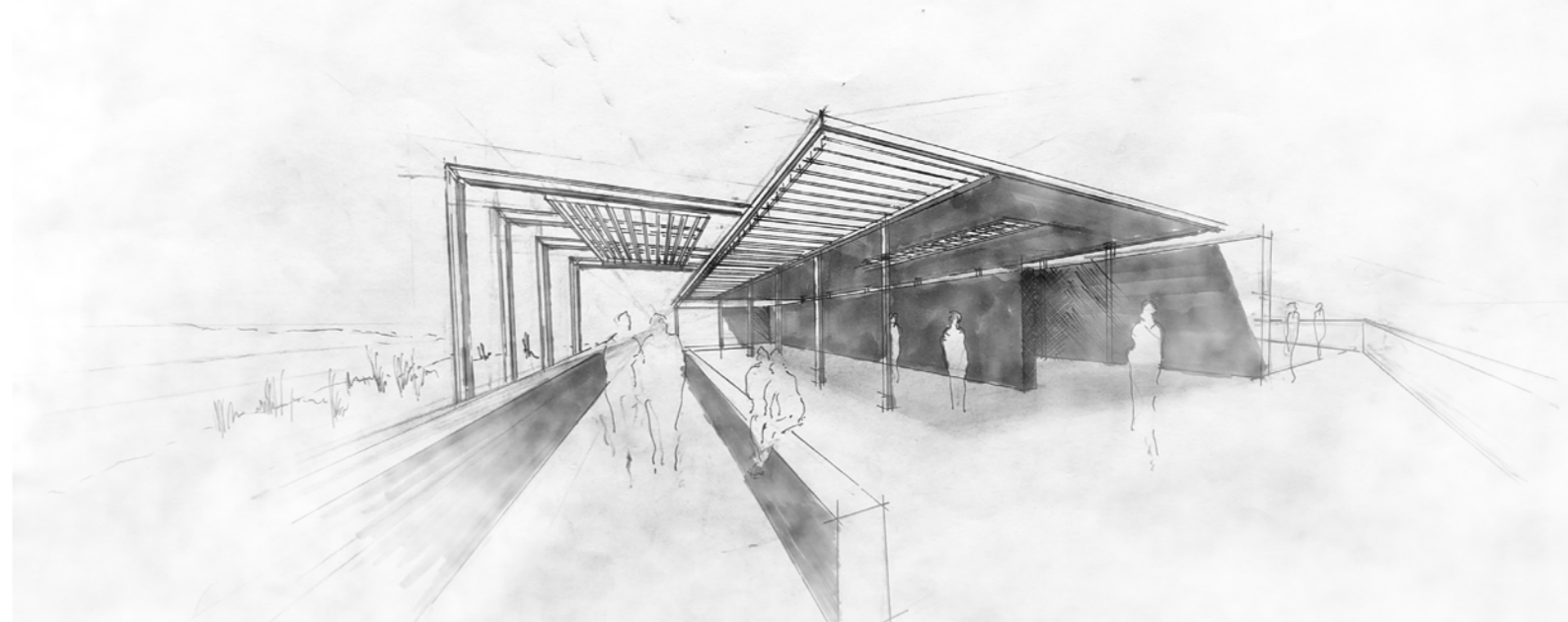
**Figure 4.19**  
The First Floor Plan of the Second  
Design iteration (Author, 2018)



**Figure 4.20**  
The Ground Floor Plan of the Second  
Design iteration (Author, 2018)



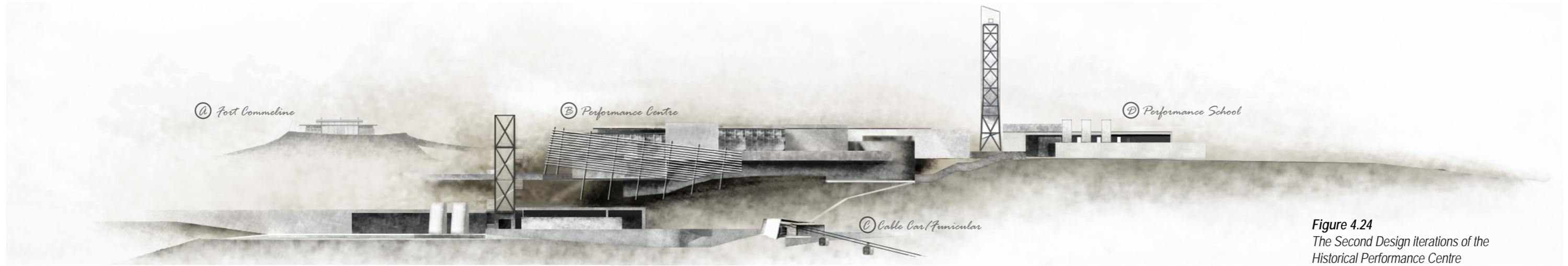
**Figure 4.21**  
A conceptual drawing of the Historical  
Performance Centre (Author, 2018)



**Figure 4.22**  
A conceptual drawing of the Memory wall  
(Author, 2018)

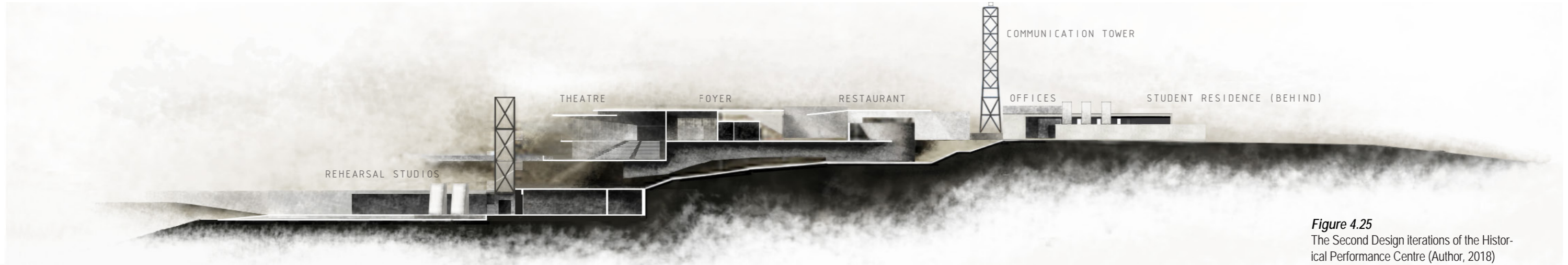


**Figure 4.23**  
A conceptual drawing of Fort Commeline  
(Author, 2018)



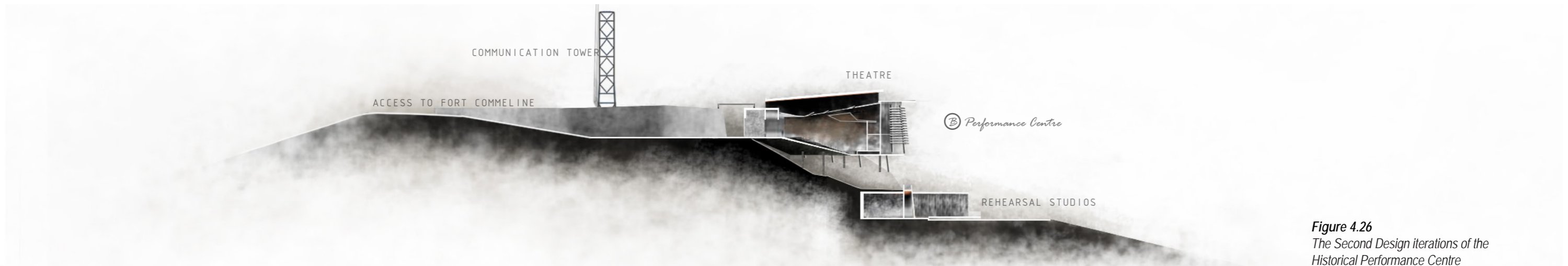
*Historical Performance Centre Elevation*  
Scale 1:1000

**Figure 4.24**  
The Second Design iterations of the Historical Performance Centre (Author, 2018)



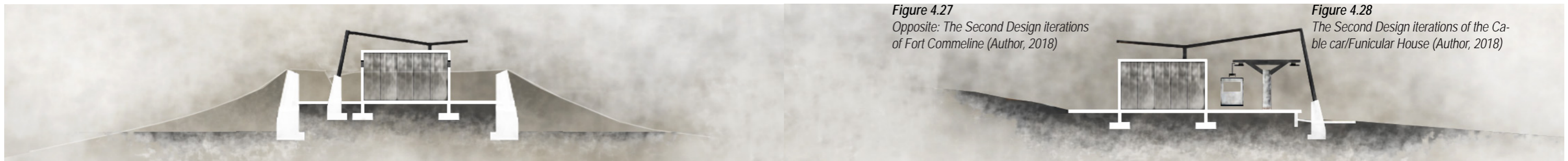
*Theatre Section A-A*  
Scale 1:1000

**Figure 4.25**  
The Second Design iterations of the Historical Performance Centre (Author, 2018)



*Theatre Section B-B*  
Scale 1:1000

**Figure 4.26**  
The Second Design iterations of the Historical Performance Centre (Author, 2018)



**Figure 4.27**  
Opposite: The Second Design iterations of Fort Commeline (Author, 2018)

**Figure 4.28**  
The Second Design iterations of the Cable car/Funicular House (Author, 2018)

*Fort Commeline*  
Scale 1:200

© University of Pretoria *Cable Car House B*  
Scale 1:200

## 4.7 Iteration Three

**Figure 4.29**  
 The third design iterations of Fort Commeline (Author, 2018)

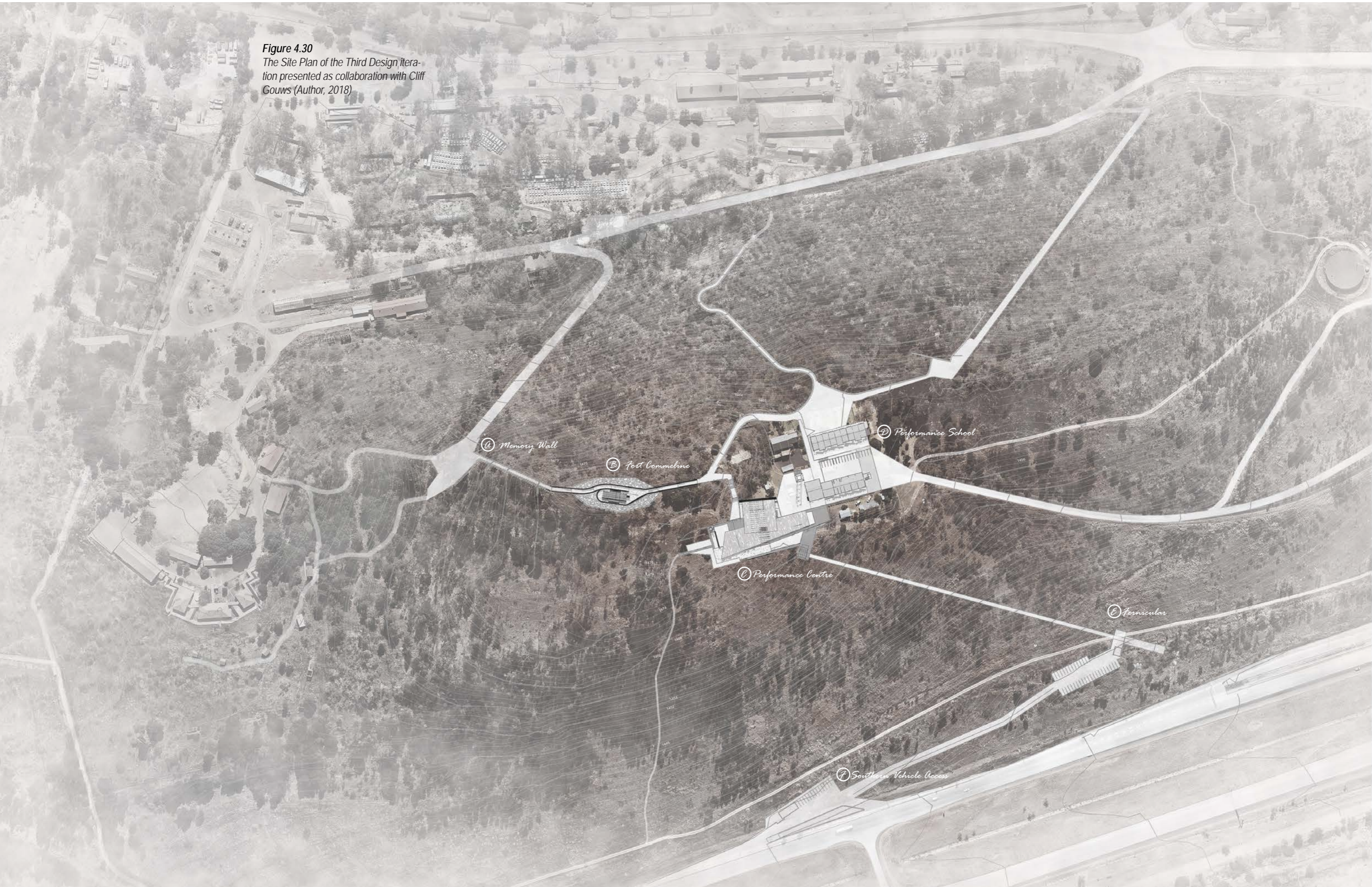
The desired response among the hill's envelope is achieved as a poetic and graceful, yet dramatic interception in the landscape. However, it was found that the posture and response to the theatre should be better integrated within the landscape due to the existing typology of the site that had not been fully realized in iteration two.

In this iteration the intent was however to draw the visitor into the landscape. Poetically fixing the structure within the landscape that birthed the narrative.

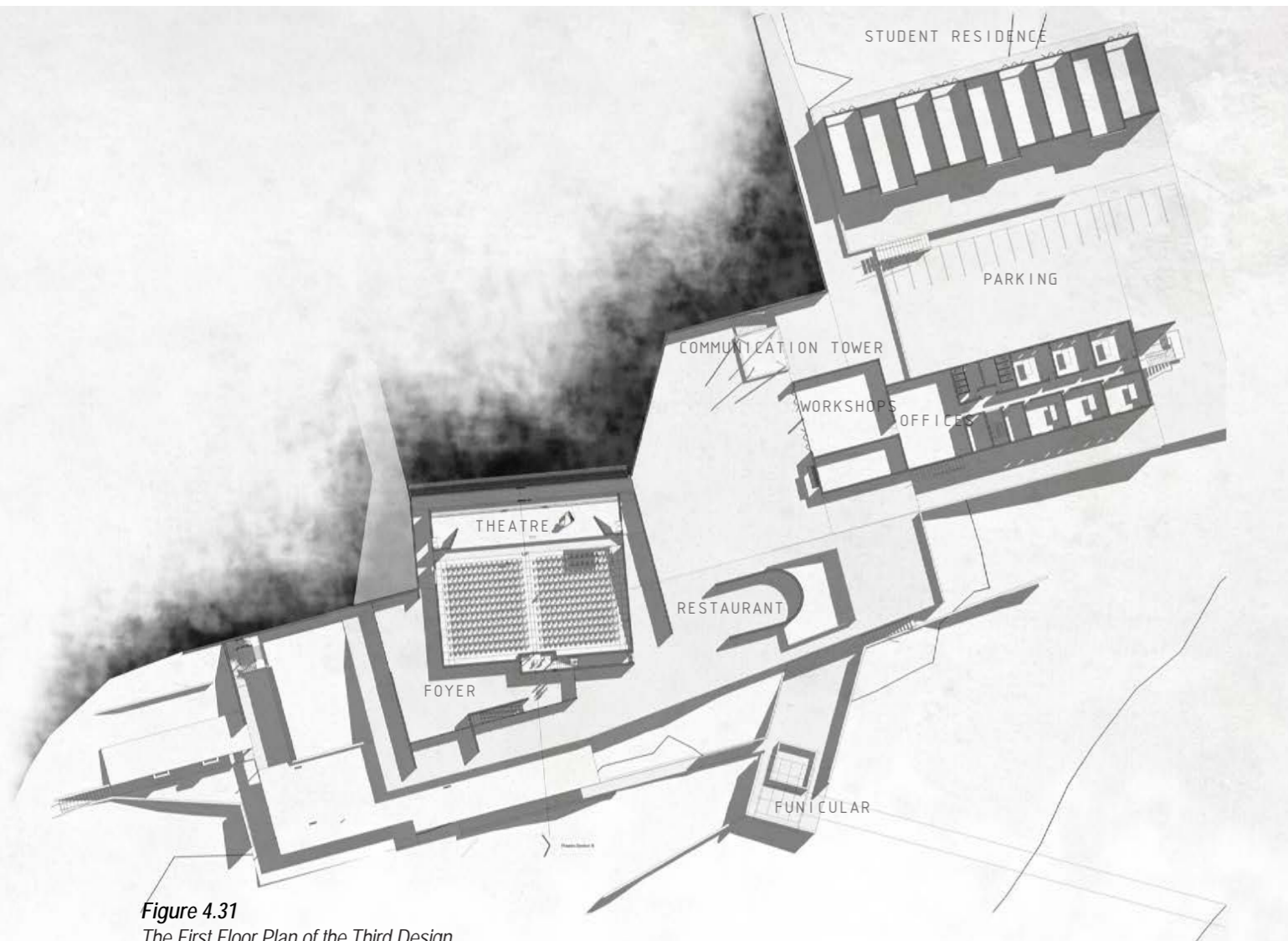
This is achieved by deliberately cutting into the south of the hill, emphasising the former fortification orientation of the 'Skietpoort' as well as the bridge between the old and new. Primarily, ensuring the circulation throughout the heritage fabric of the site, but then drawing the user out into the landscape through the footpaths and the programmatic experiences.



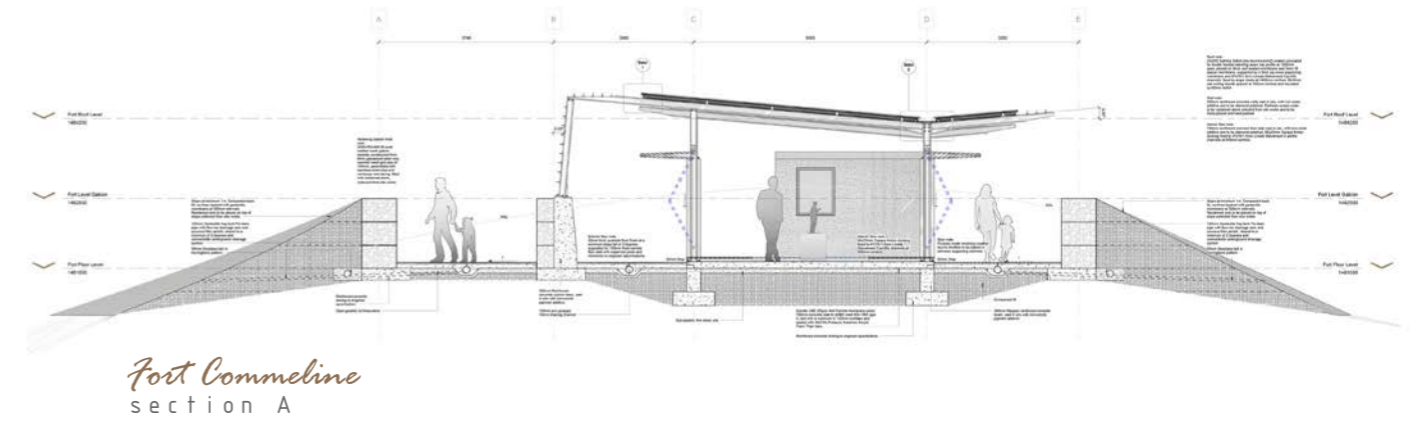
**Figure 4.30**  
The Site Plan of the Third Design iteration presented as collaboration with Cliff Gouws (Author, 2018)



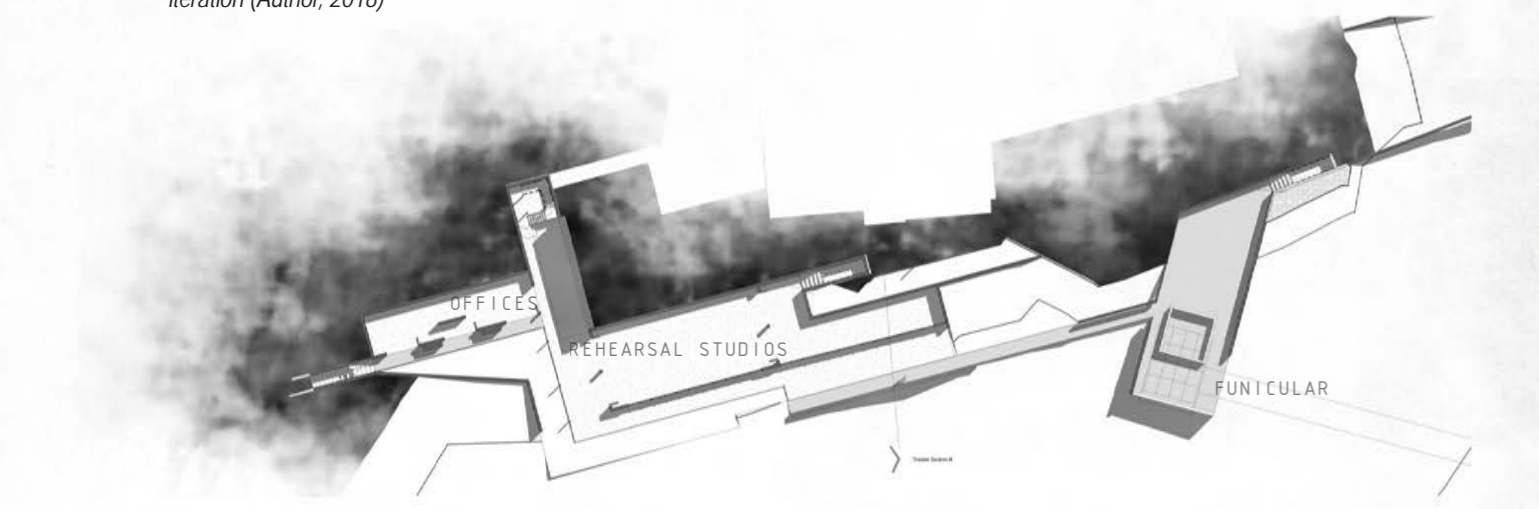




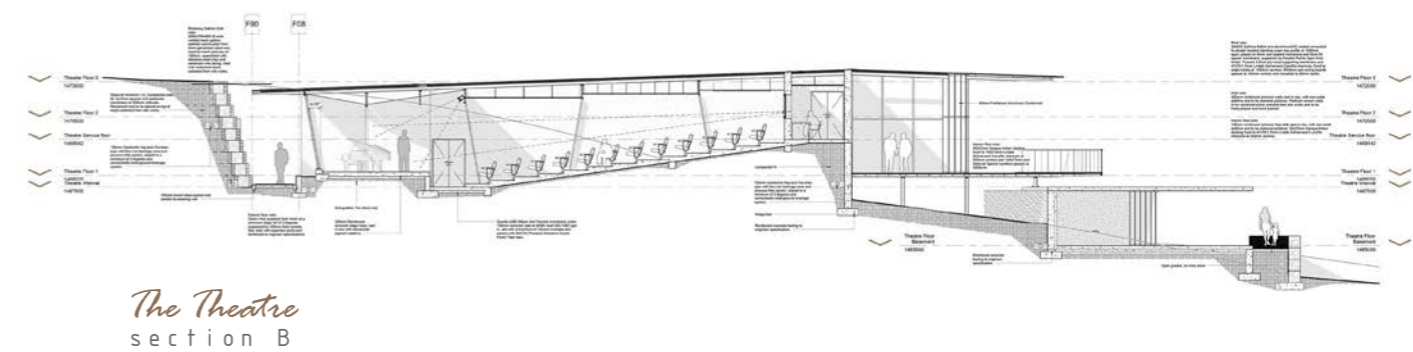
**Figure 4.31**  
The First Floor Plan of the Third Design iteration (Author, 2018)



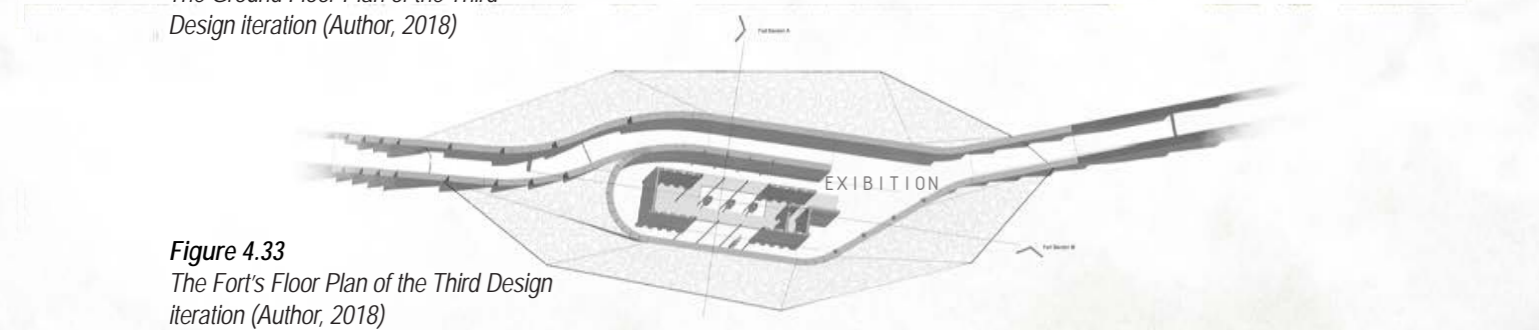
**Figure 4.34**  
The main detail of the Fort (Author, 2018)



**Figure 4.32**  
The Ground Floor Plan of the Third Design iteration (Author, 2018)



**Figure 4.35**  
The main detail of the Theatre (Author, 2018)



**Figure 4.33**  
The Fort's Floor Plan of the Third Design iteration (Author, 2018)