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)

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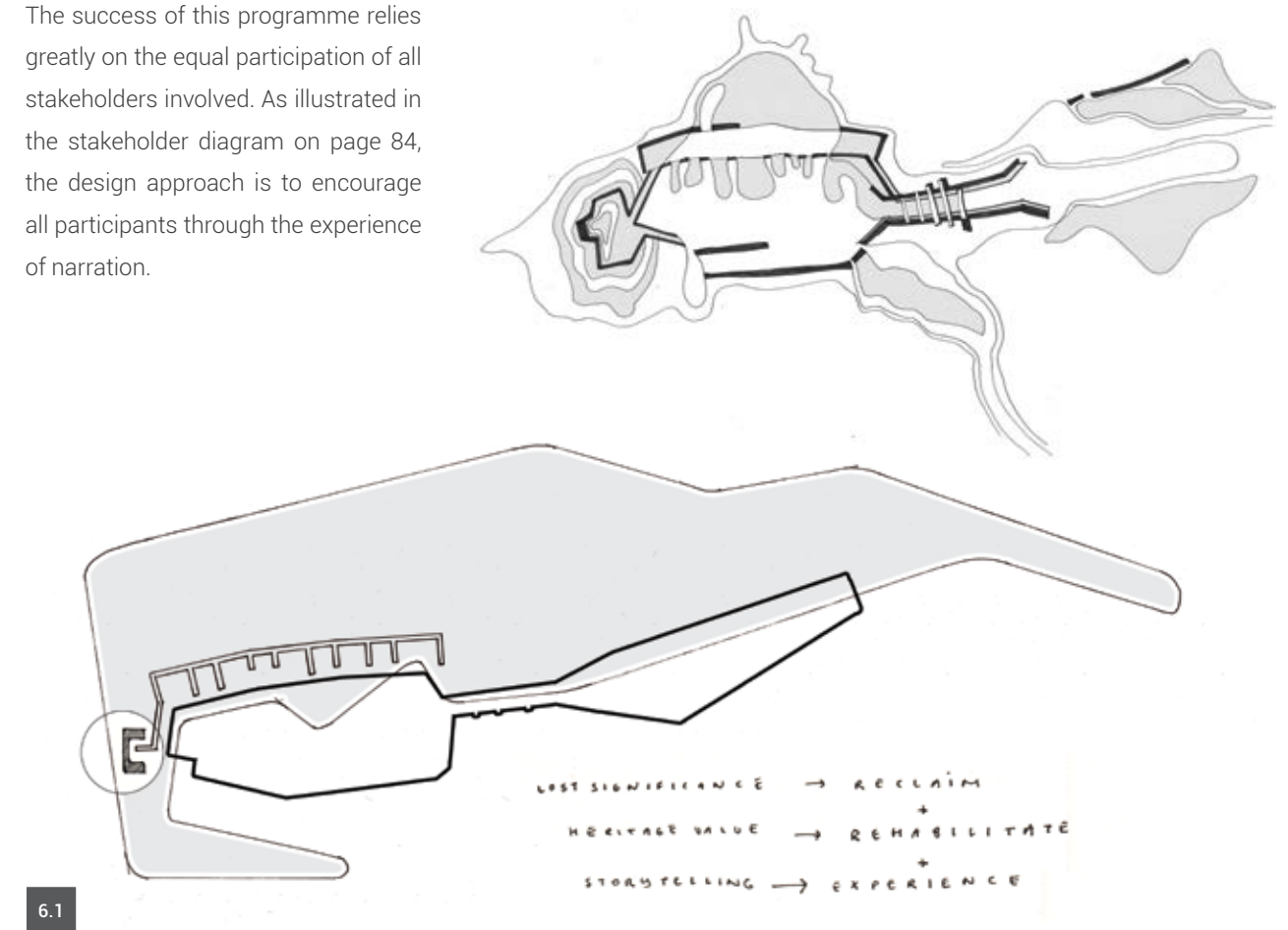
The spatial intention

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.
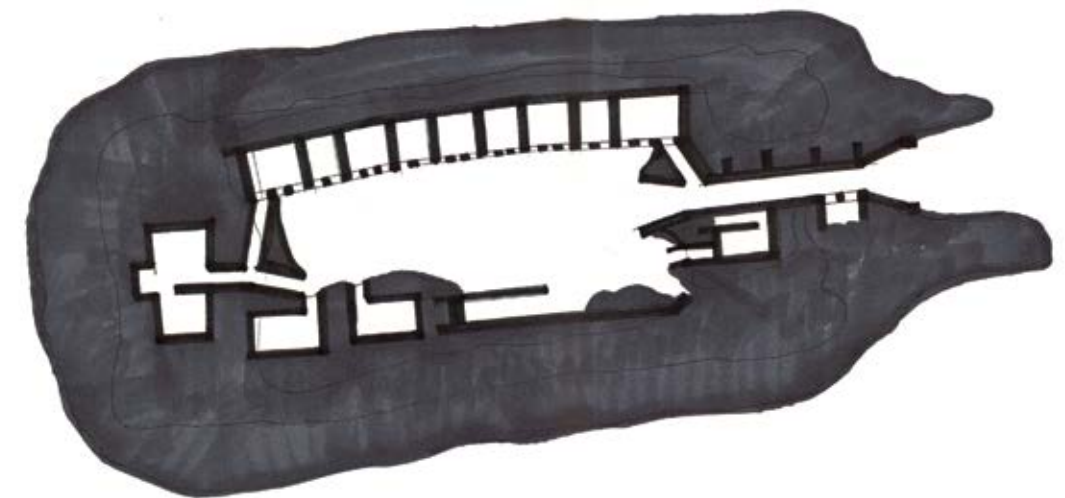
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Figure 6.2: Conceptual summary of the design response (Author 2016)
Figure 6.3: Analysis of the original spatial and architectural intent of the Fort as constructed in 1898 (Author 2016)
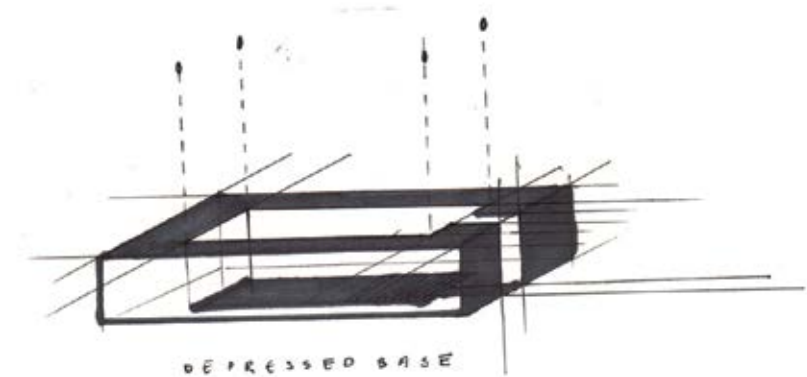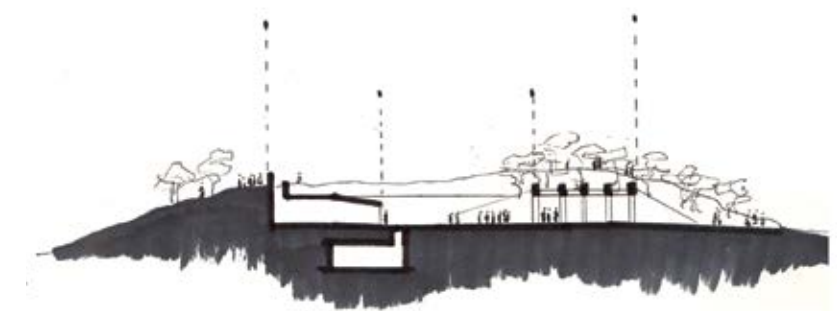
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6.2//
DESIGN
PRECEDENTS

**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.

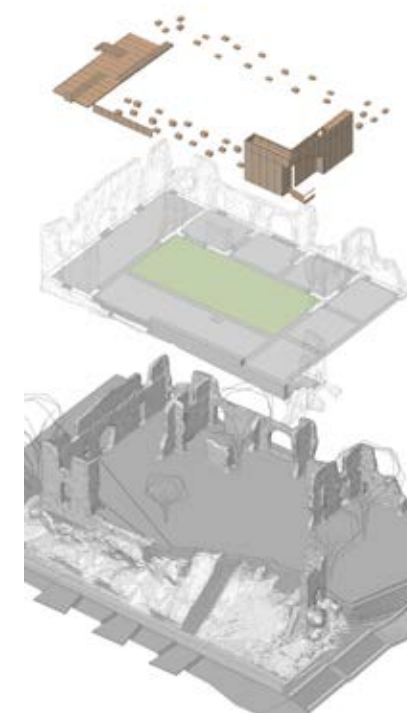*Figure 6.4:* Newly constructed south wall with corten steel (Török 2012)
Figure 6.5: Reconstruction of original palace with new foundations and walls (Török 2012)
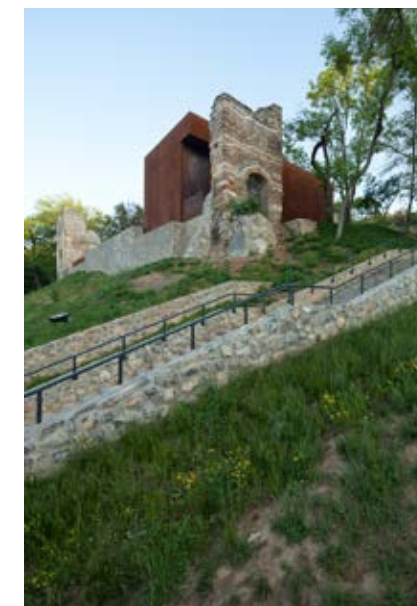*Figure 6.6:* Viewpoint overlooking the surrounding city (Török 2012)
Figure 7.7: New walkways to separate old from new (Török 2012)

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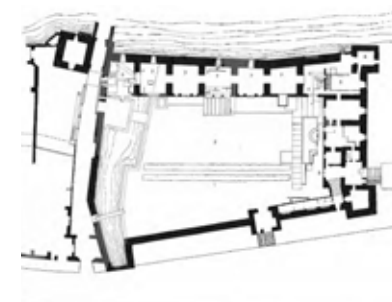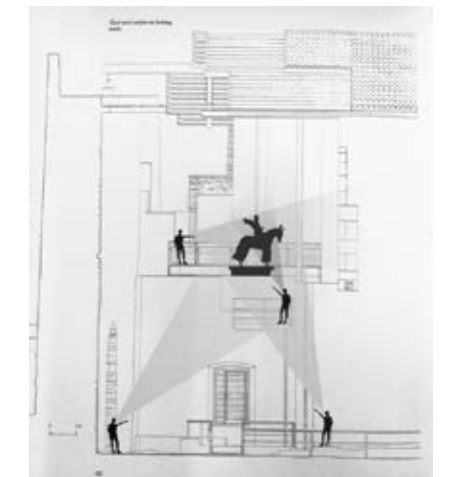*Figure 6.12:* Different angles and modes of viewing art (Stavroulaki:2003)

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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.
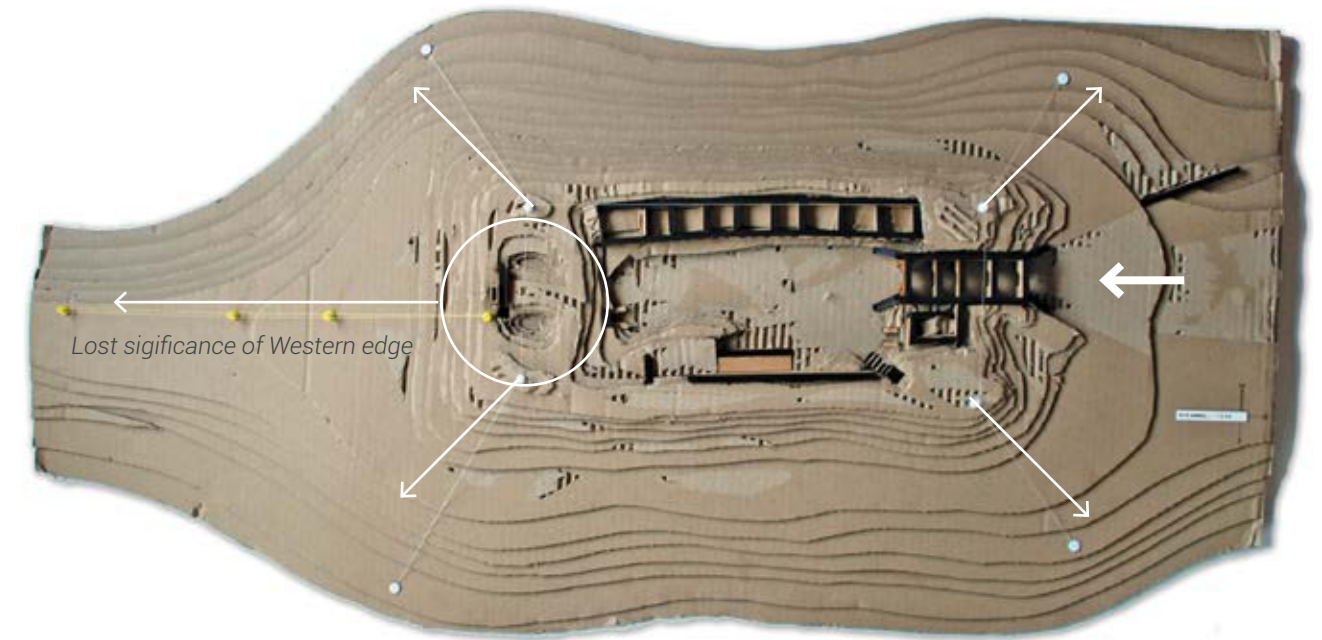
Figure 6.13: *Surrounding views from western edge of the Fort (Author 2016)*
Figure 6.14: *Model and analyses of the existing conditions of the Fort and potential interventions (Author 2016)*

Lost sigificance of Western edge
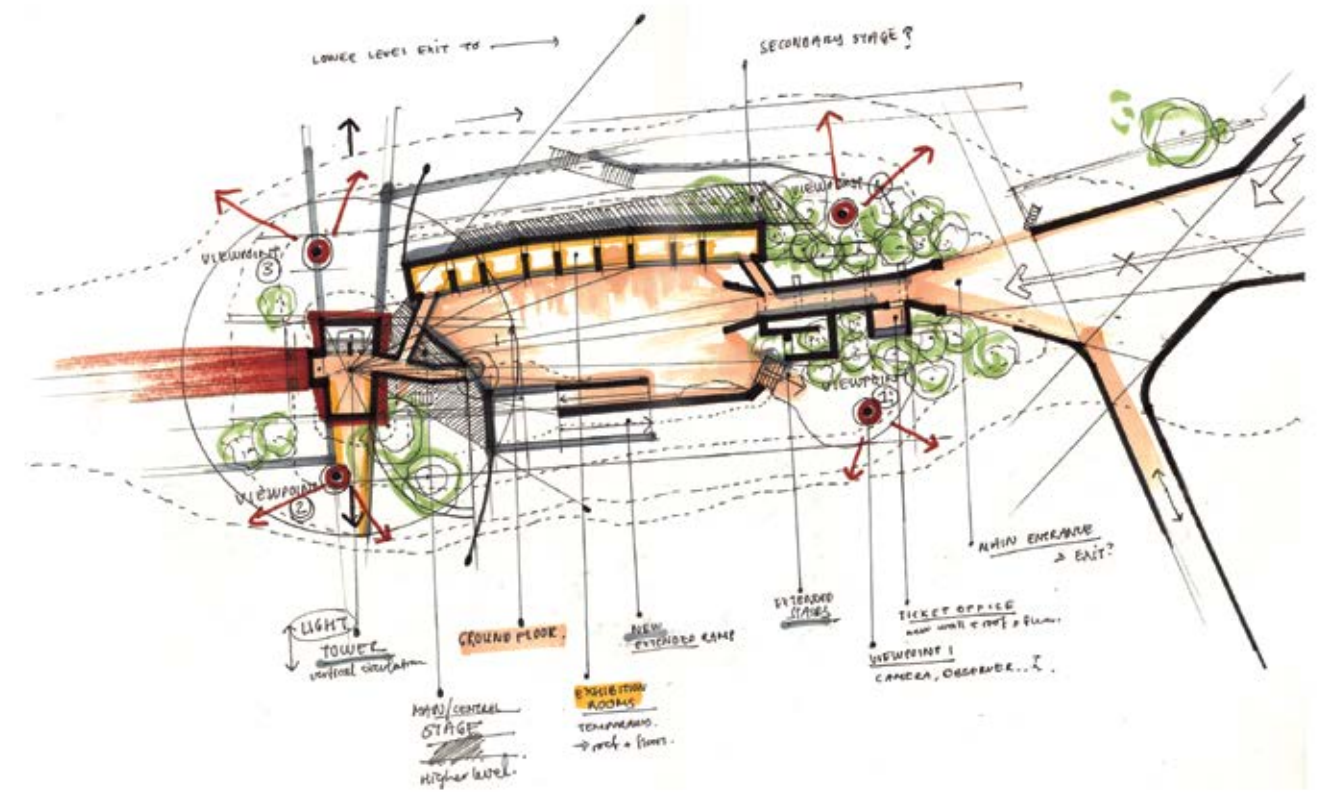
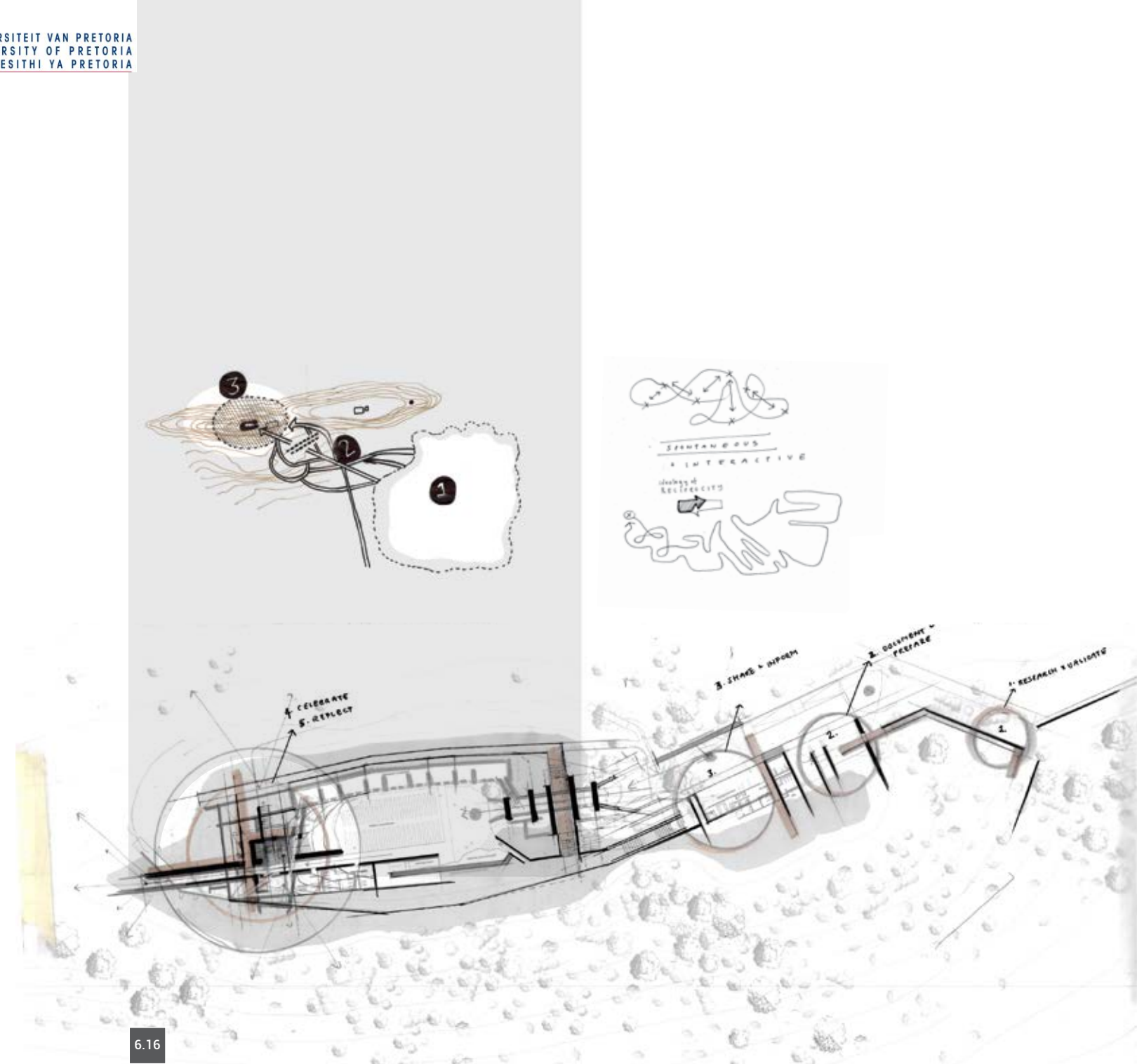**The story walks**

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)

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Figure 6.17: Early design exploration of
site integration and different approaches
(Author 2016)
Figure 6.18: Site plan development
(Author 2016)
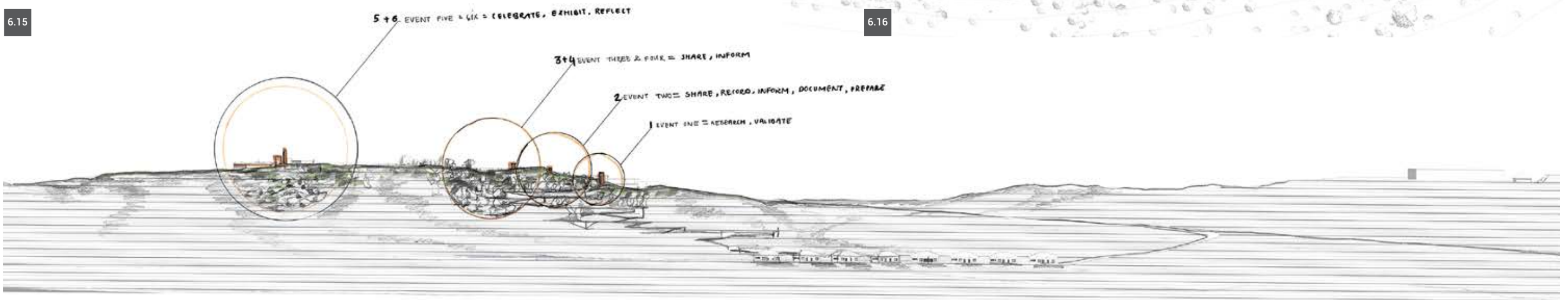
Layout of Exploration One

Considering the unique attributes of the existing fort and the programmatic requirements of the new additions, the following informants directed the lay-out 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.
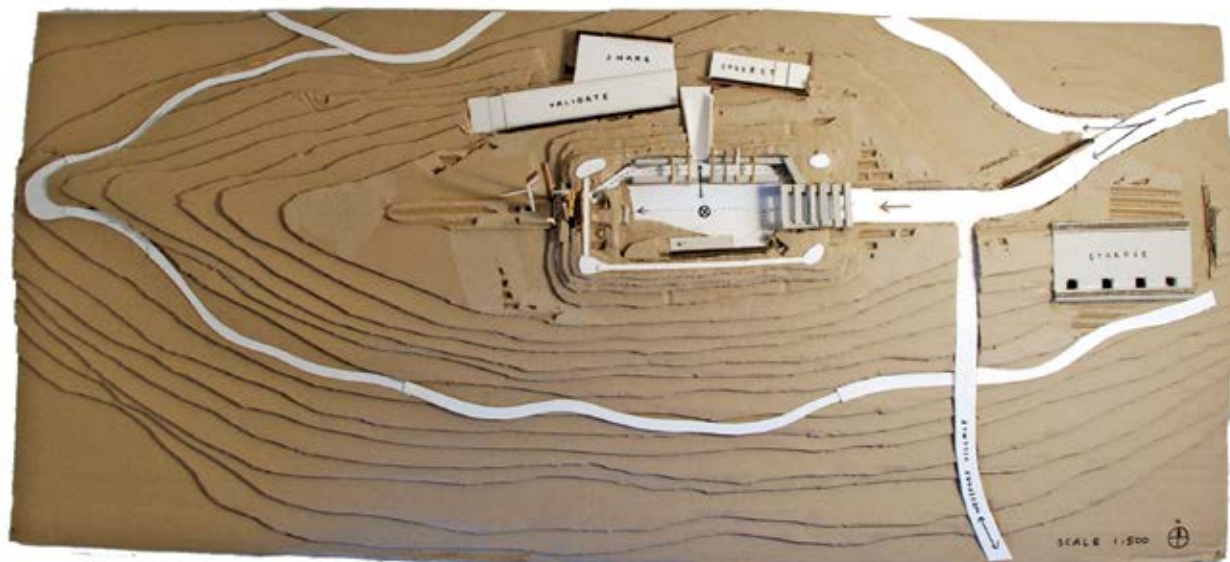
Figure 6.20: First model exploration to understand spatial arrangement (Author 2016)

Figure 6.21: Early layout and planning explorations (Author 2016)
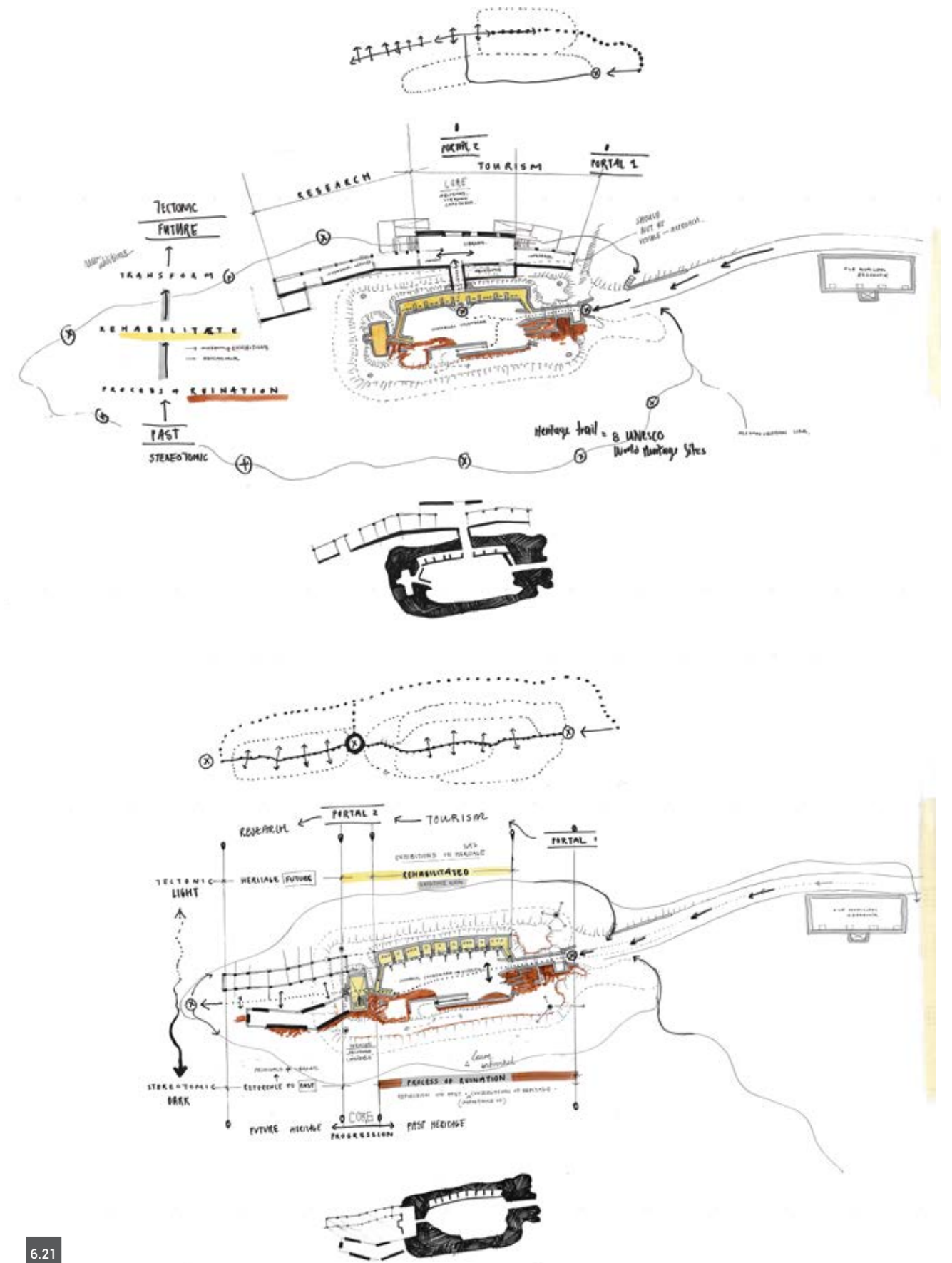
Layout of Exploration Two

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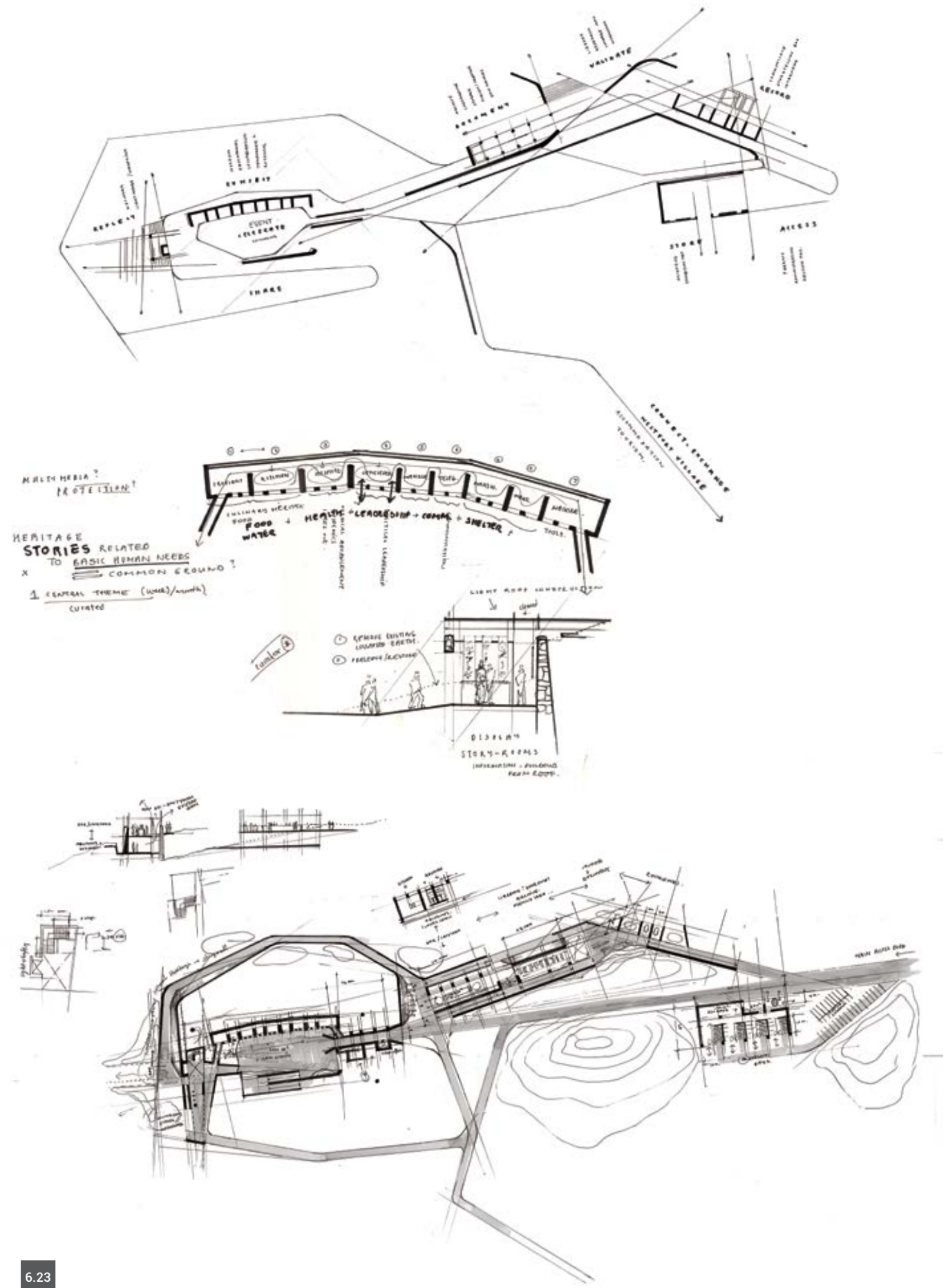
With the proposed new additions a better understanding of the spatial hierarchy and programmatic experience was communicated. The introduction of a new circulation axis allowed for easy access and interpretation of the specified sequel of events.

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.
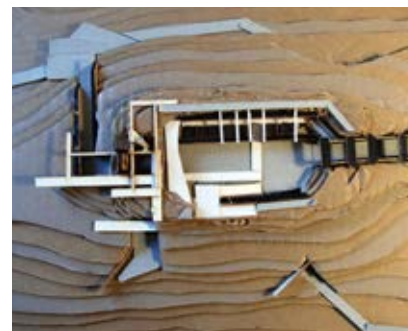
Figure 6.22: Model exploration of iteration two (Author 2016)
Figure 6.23: Design development of layout exploration two (Author 2016)

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

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Figure 6.25: Design layout and planning to identify the specific requirements of each event (Author 2016)

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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.
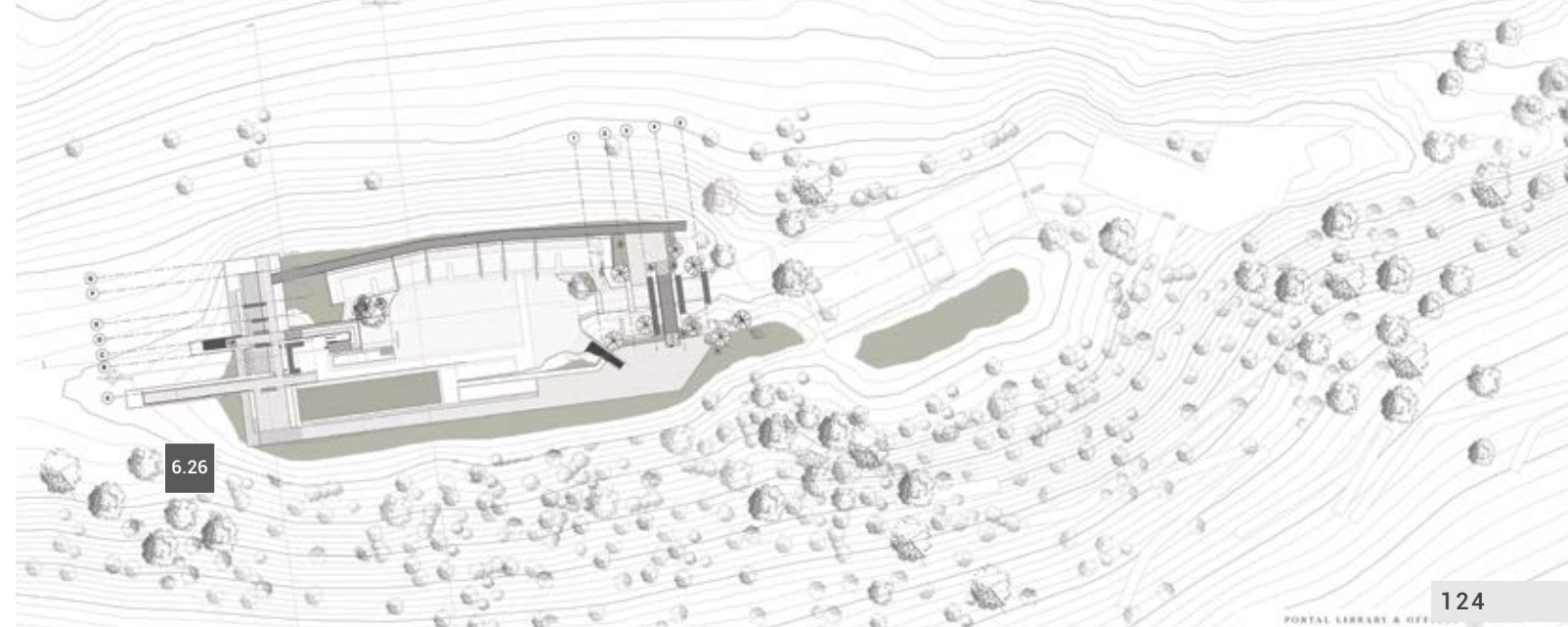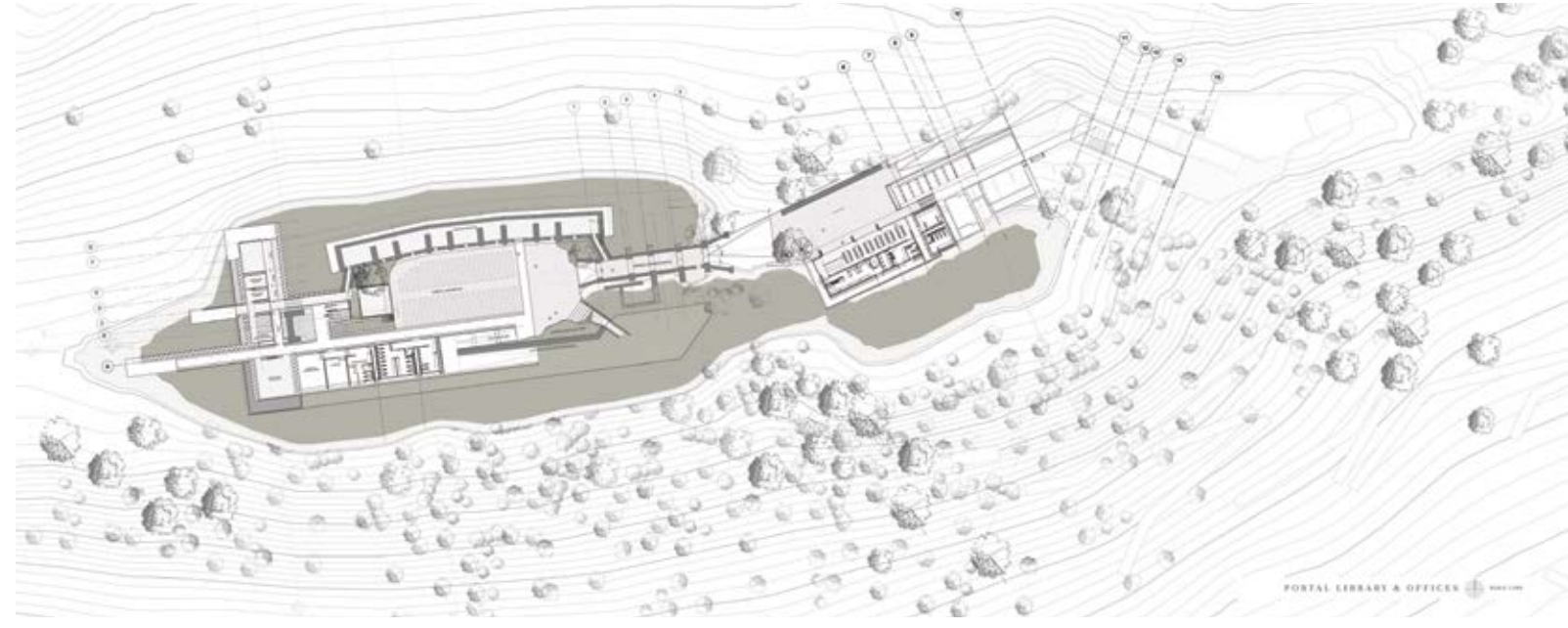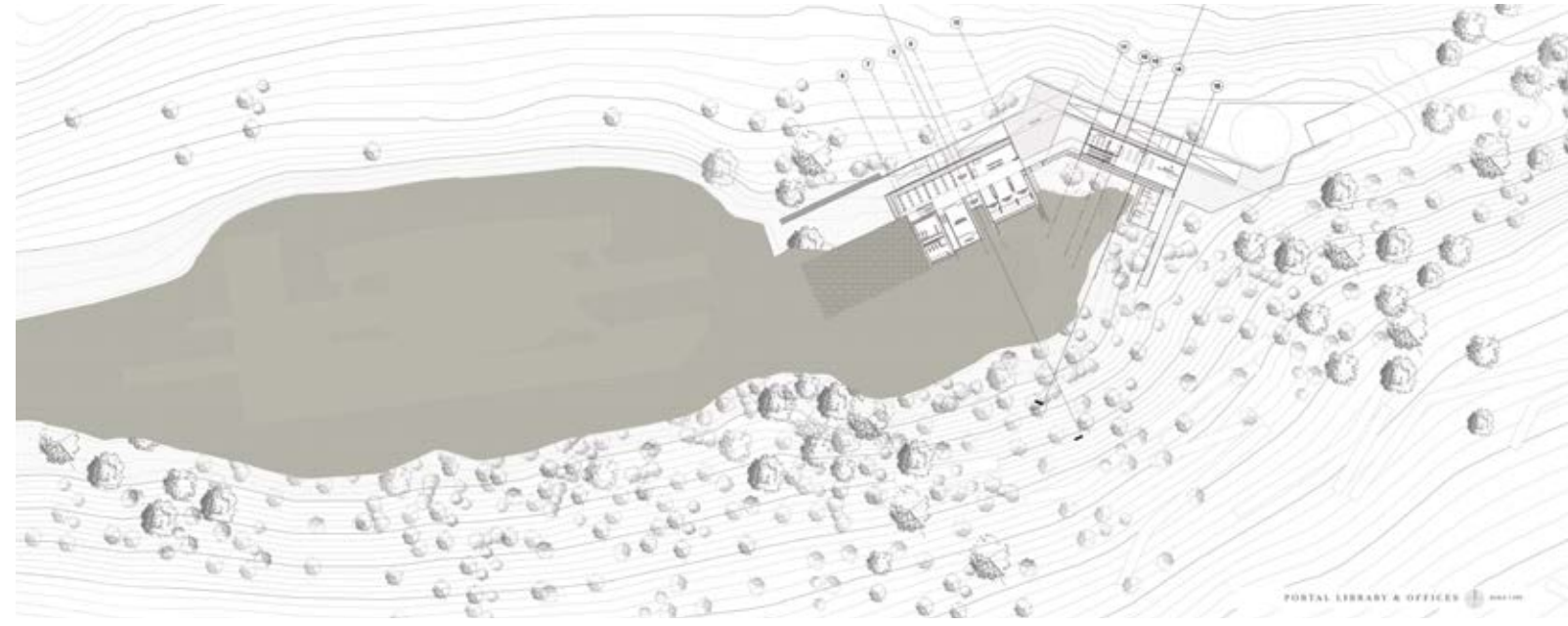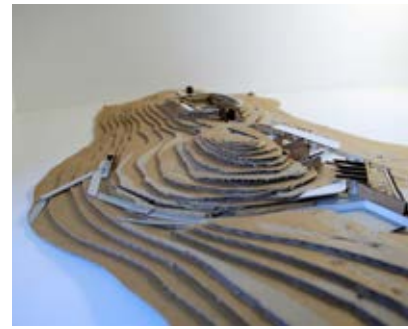
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Figure 6.25: Model exploration to finalize spatial arrangements (Author 2016)
Figure 6.26: Design plan development (Author 2016)

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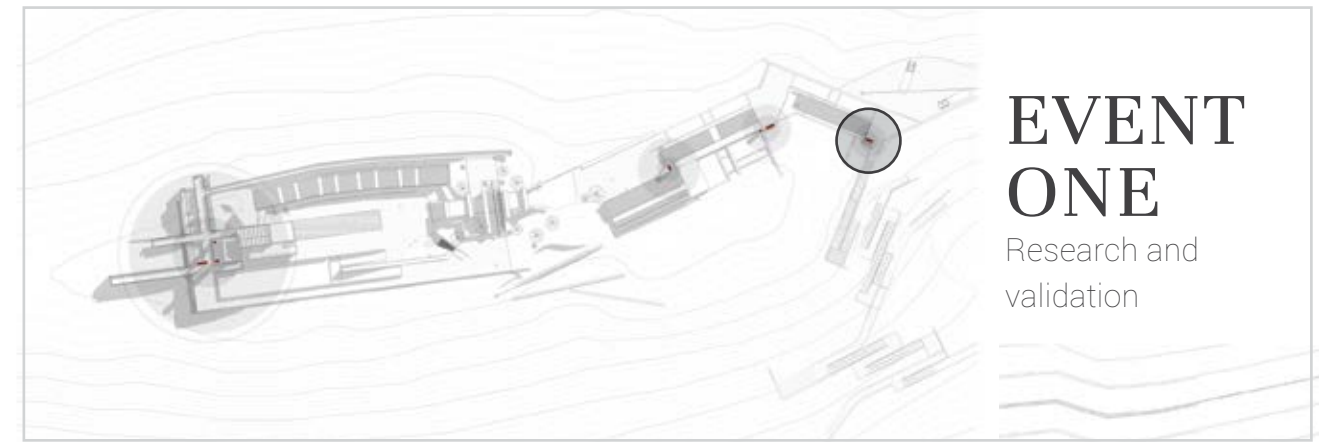
Natural ventilation, adequate daylighting and acoustics were some of the critical determinants in establishing a healthy indoor research environment. A steel portal frame structure represents the new interventions as tectonic elements in the stereotomic aesthetic of the surrounding landscape.

EVENT
ONE
Research and
validation

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Figure 6.27: *Section exploration of new research addition (Author 2016)*
Figure 6.28: *Plan development of research addition (Author 2016)*
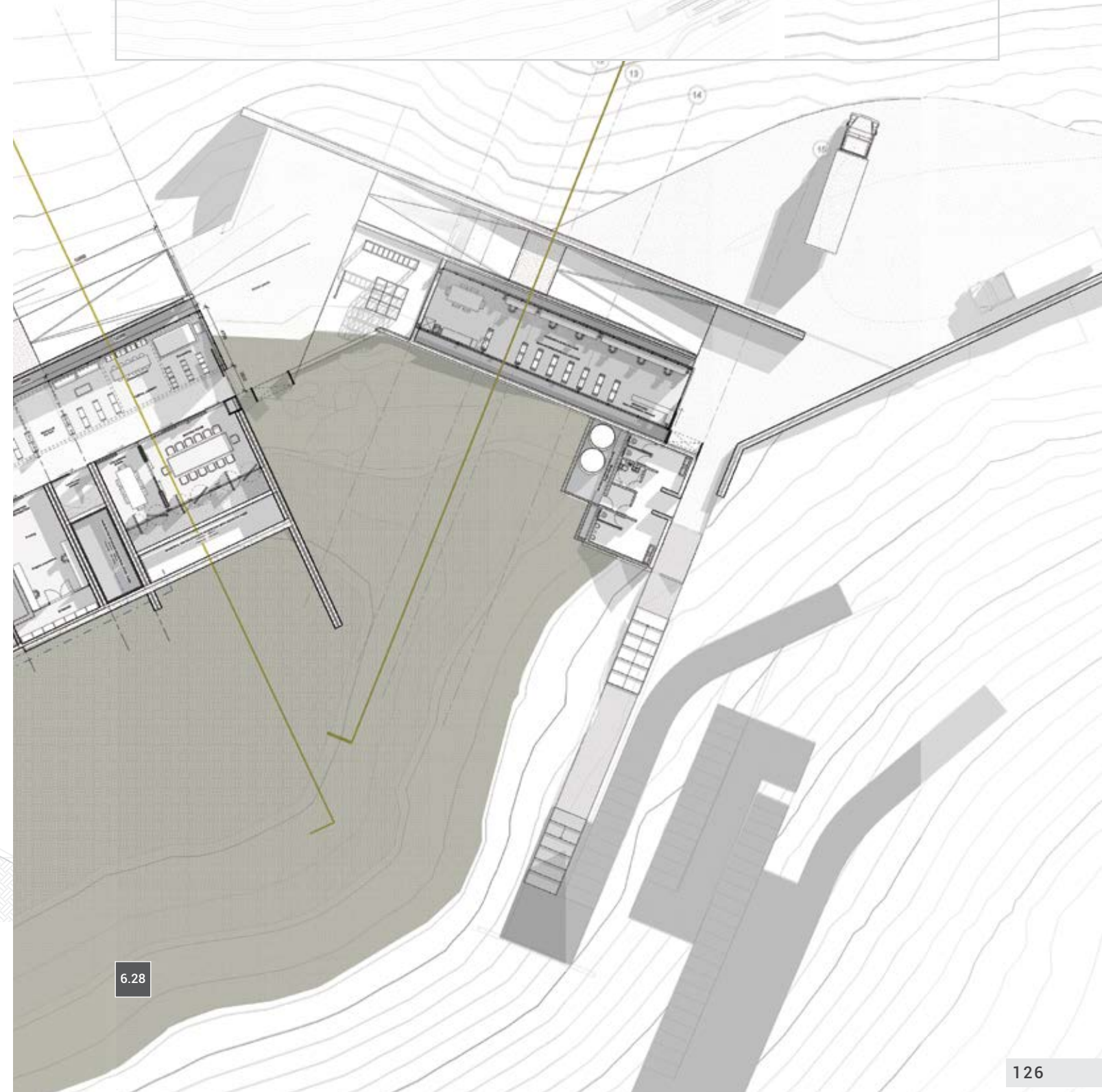
Upon reaching the second beacon of narration, the design encourages a more intimate and participatory process along a secondary circulation route.
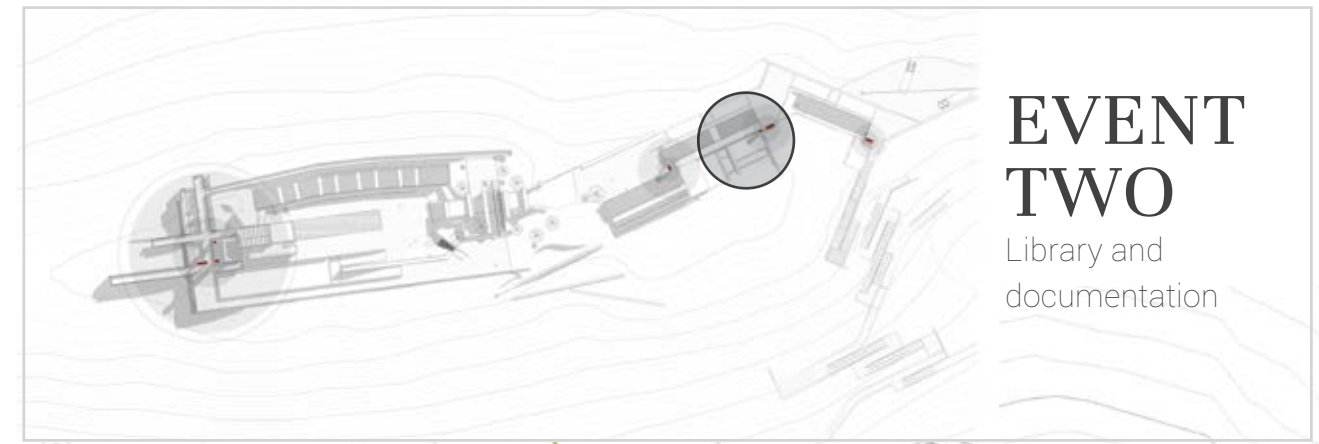
The public interface is facilitated by an open library where storytelling and information is shared and made visible along the northern edge. The southern edge is allocated to more intimate spaces such as conversation rooms and the documentation process. Ablutions and all wet services are also installed and hidden along the southern edge.
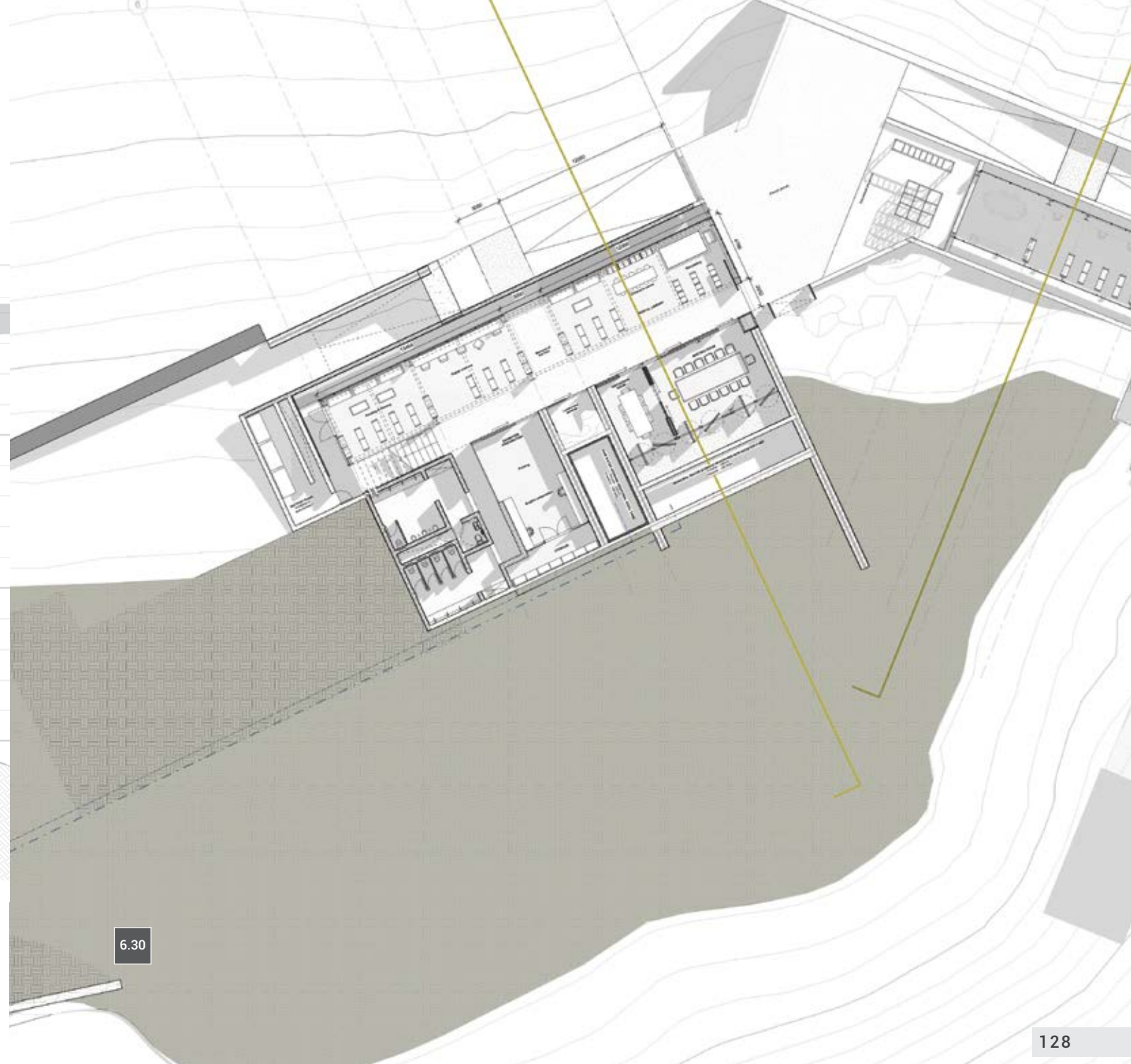

EVENT
TWO
Library and
documentation

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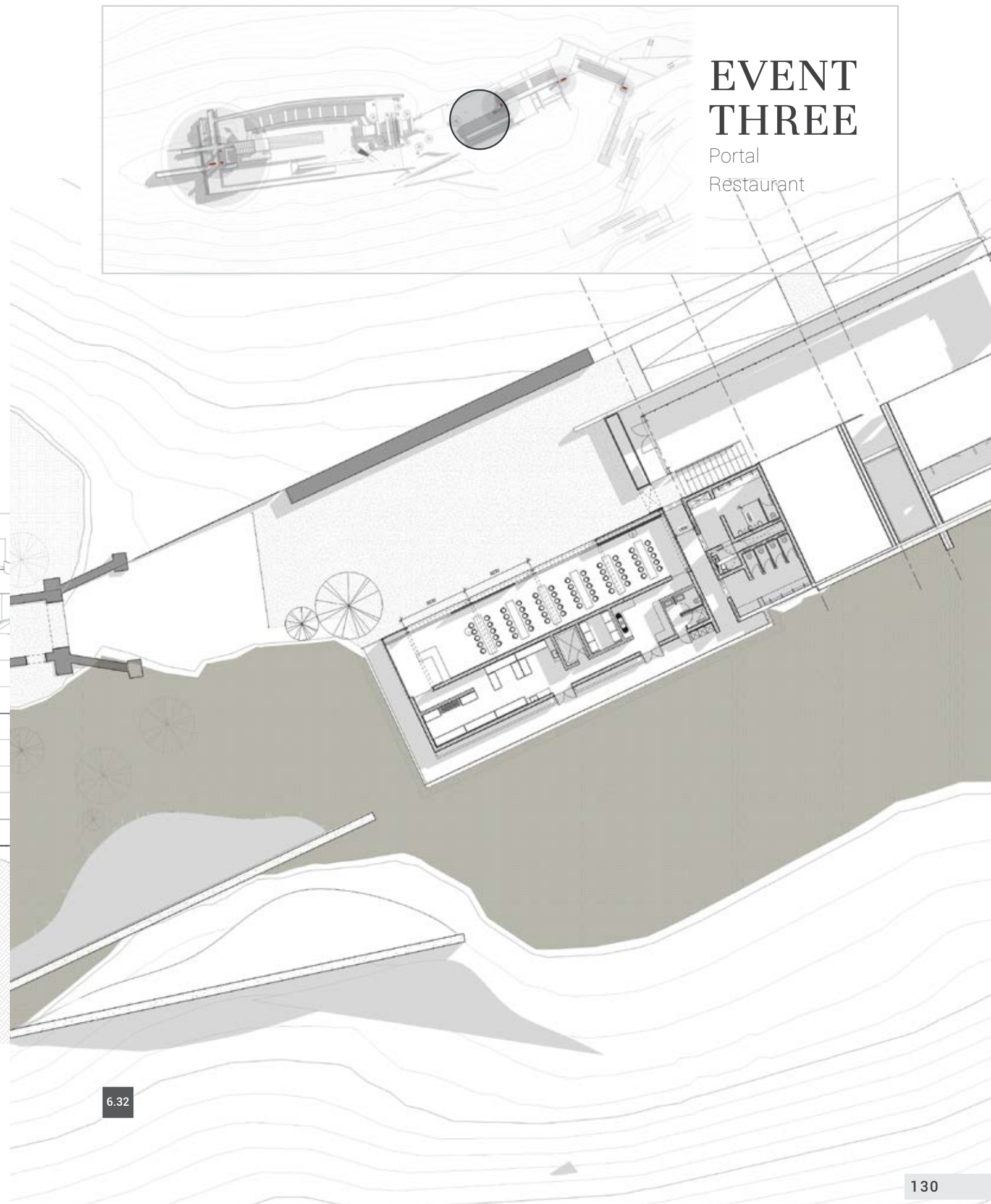
The Portal restaurant is situated on an open platform that takes advantage of the surrounding vantage points. This allows the user to reflect on the storytelling experience before moving on to the next event. At this point the user is introduced to the anticipated grand entrance portals of the former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

EVENT THREE
Portal
Restaurant

Figure 6.31: Section exploration of new restaurant addition (Author 2016)
Figure 6.32: Plan development of restaurant addition (Author 2016)

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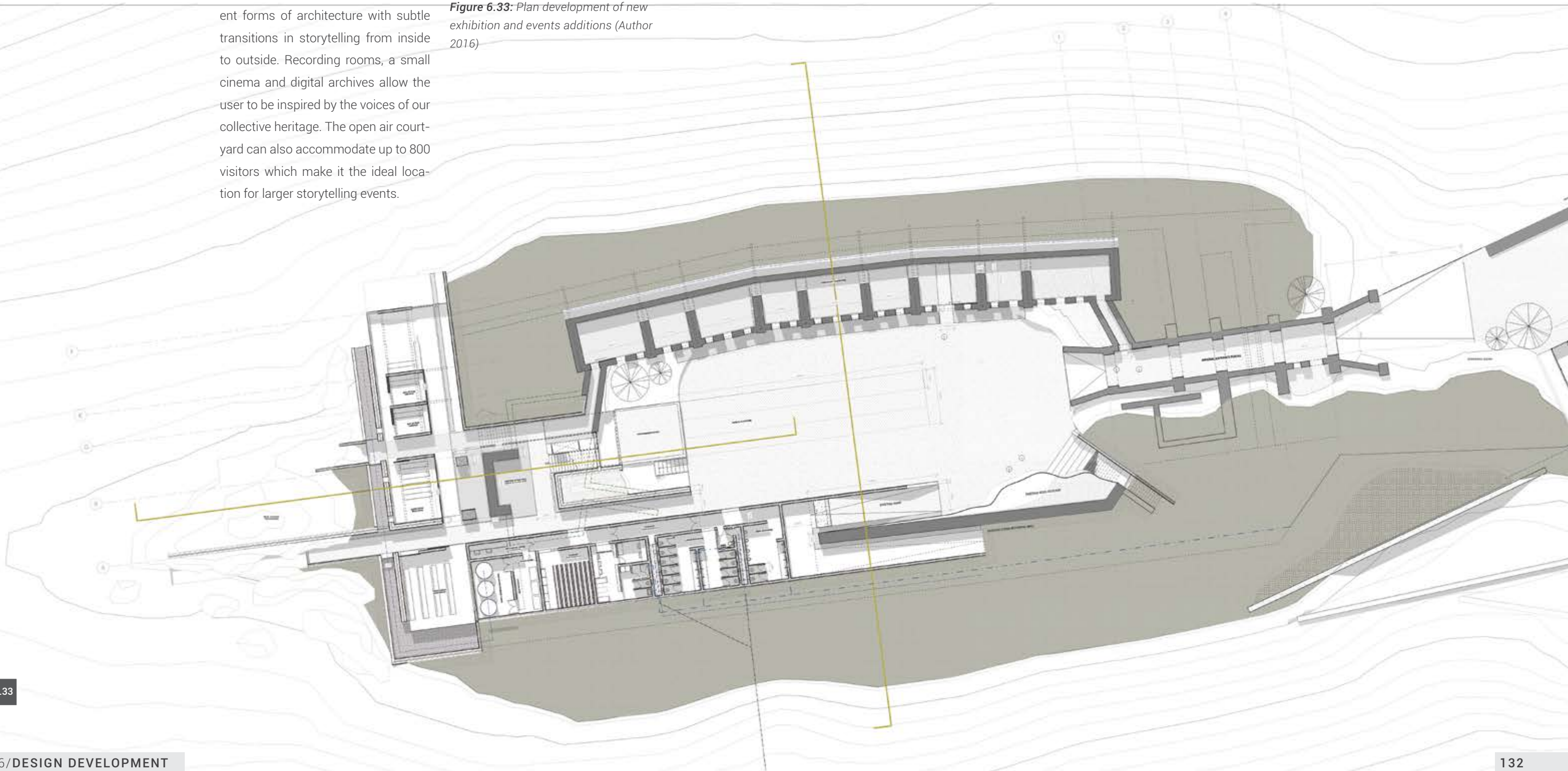
Announced by the towering ammunition shaft, the user can advance to the next event which is continued by a series of spectacular viewpoints. The pinnacle of the experience is marked by an arrangement of slender light beacons that celebrate the existence of the fort and signals the endurance of our continuous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

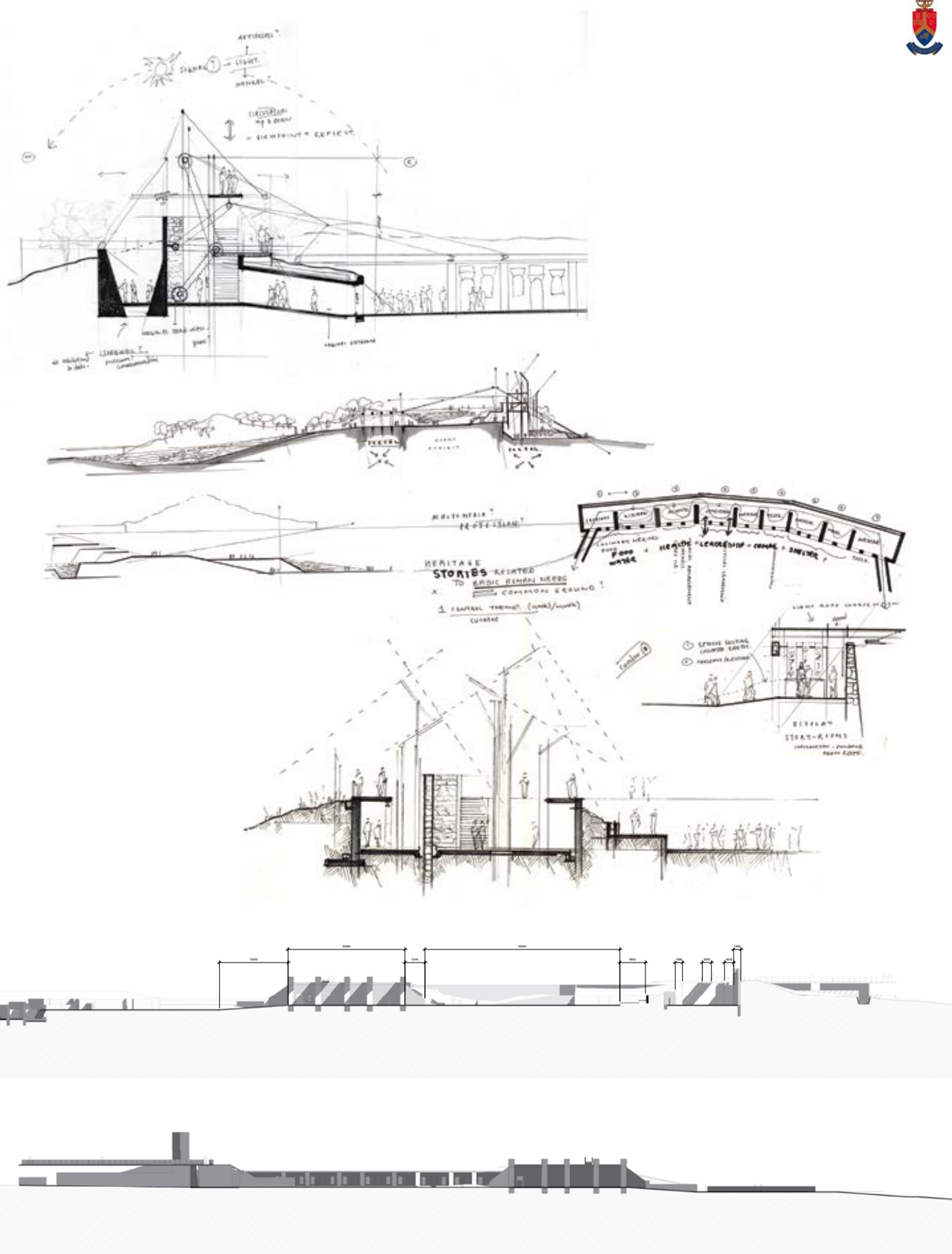*Figure 6.33: Plan development of new exhibition and events additions (Author 2016)*
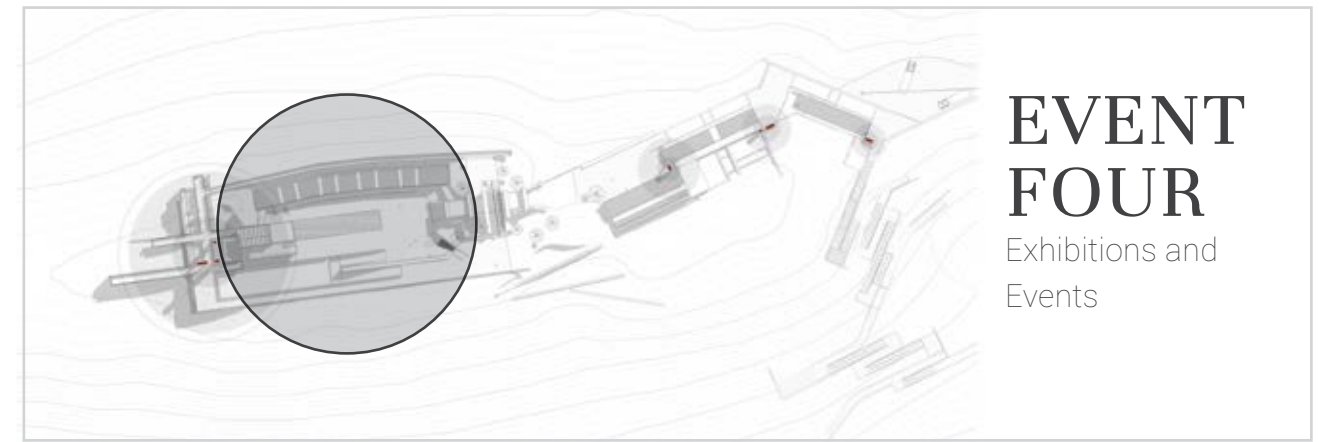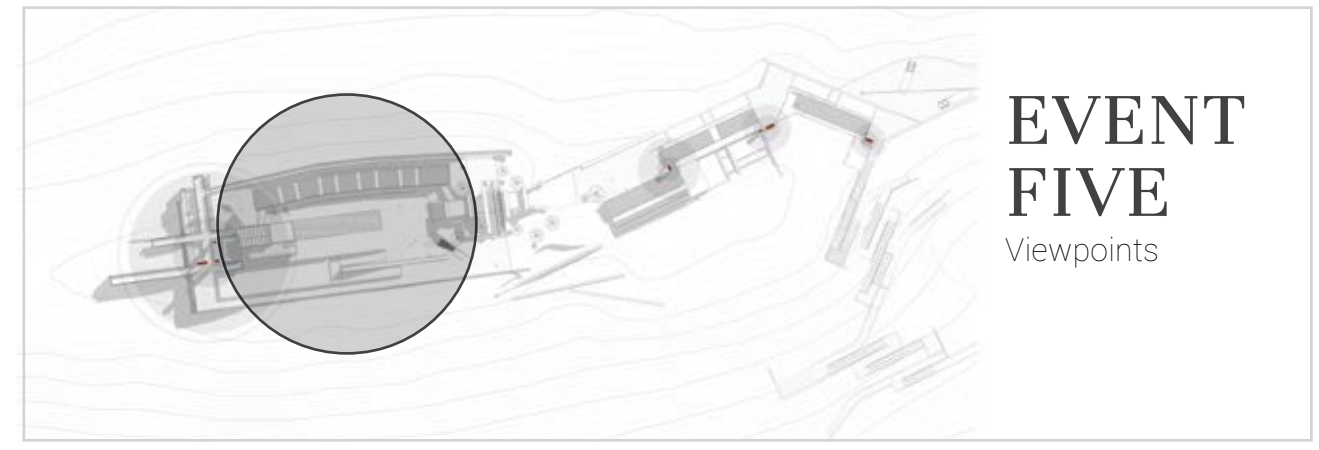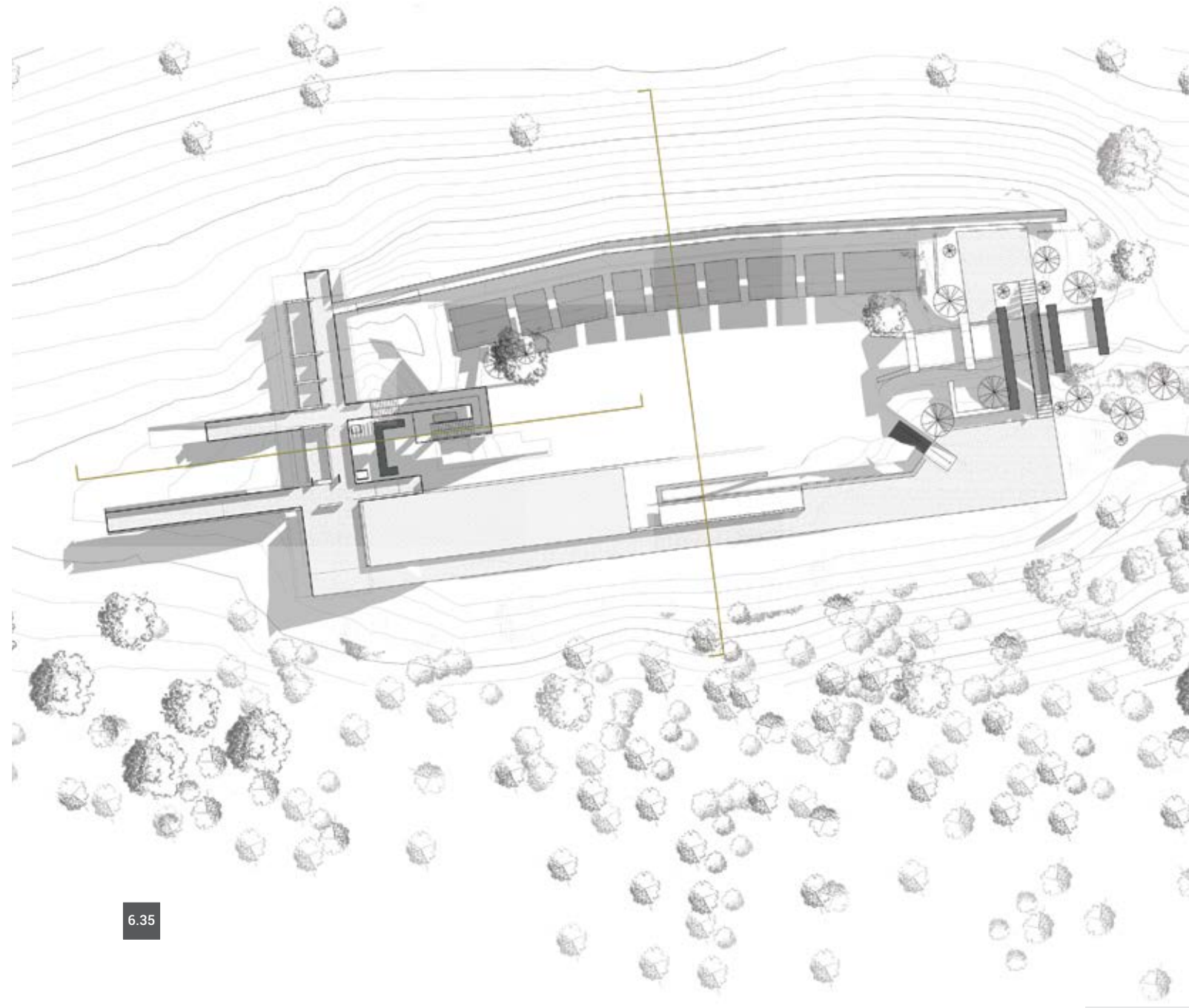
EVENT FOUR
Exhibitions and Events

EVENT
FIVE
Viewpoints

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

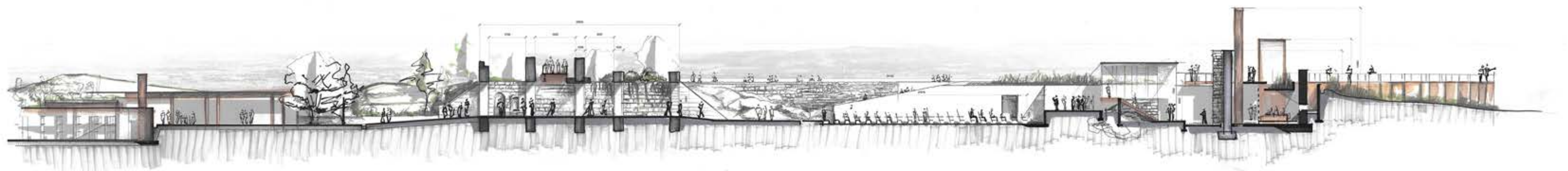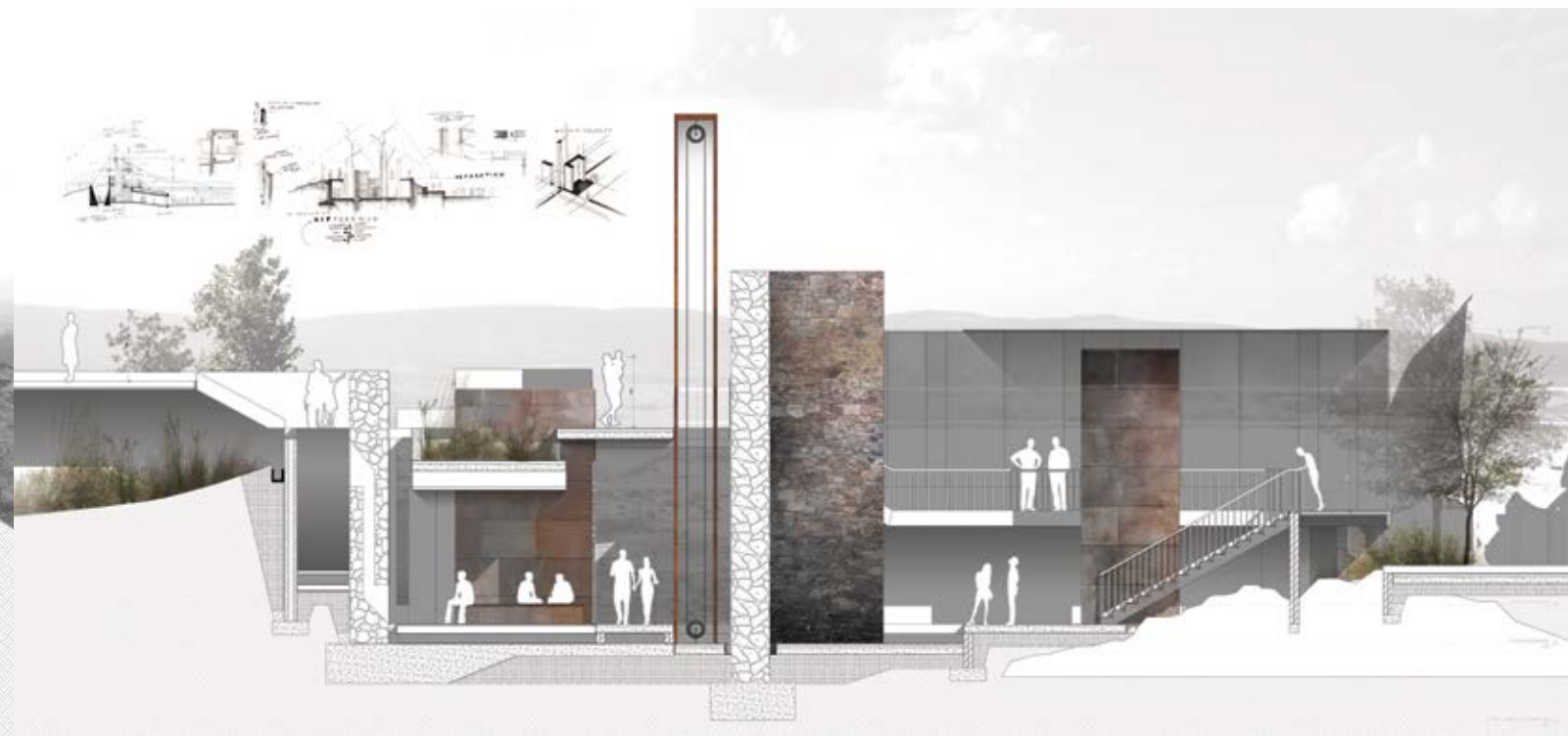*Figure 6.35:* Plan development of the top floor levels of the Fort (Author 2016)

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

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