



# FORGOTTEN not LOST

REFRAMING BUILT HERITAGE THROUGH ARTIFICIAL EXCAVATION

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- Elias Odsvik 01/06/2026



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# 1. ABSTRACT

With the renewed debates around Swedish Cultural canon and questions of national identity, this thesis explores the fragility of heritage as a social construct, one always in flux and embedded in the daily practice. When heritage ceases to be lived and becomes merely documented, it loses its vitality and becomes an artefact in itself. This process creates gaps in the collective knowledge in how material- and cultural heritage are understood.

The thesis engages with theories of adaptive reuse (Plevoets, 2019) through a thematic synthesis of transparency and palimpsest (Eisenman, 1998), material culture (Harvey, 2018) and ontology (Frampton, 2017) to examine the relationship between heritage, knowledge and continuity.

Through literature and case studies the thesis establishes a set of design tools. These tools were applied to Ragnhildsholmen castle ruin to provide a real world example of adapting the theory into architectural form.

Through an iterative process the findings are refined, evaluated by adherence to theory. The result is ultimately a design framework for a method that handles the built heritage both as artifact and narrative, exploring how collective identity and belonging is continuously rewritten through the material traces of the past.

The final design proposes an architectural experiment where architecture is constructed using fragmentary traces of Ragnhildsholmen on different scales and levels of abstraction resulting in a distorted echo of cultural memory that reveals how heritage once embodied in material, mutates through time.

**Key words:** Adaptive reuse, Artificial excavation, Palimpsest, Spatial artefacts, Heritage, Ontology.



## 2. THESIS STRUCTURE

### APPROACH TO RESEARCH AND DESIGN.

#### ACADEMIC FRAMEWORK

##### PURPOSE AND AIM

The aim of the thesis is to investigate how architecture can be used as a medium to explore the loss, readaptation and transformation of collective knowledge and identity. With a philosophical aim to reinterpret cross generational intent in design, a practice disrupted by rapid modernization which has favoured different short-term goals.

It becomes clear that culture heritage is less about fixed objects and more about the lived interactions, traditions and material practise that defines society over time. The central problem explored in this thesis is the response of architecture to the loss of cultural continuity and heritage. How can architecture embody the gaps and distortions in cultural memory, and what does it reveal about the interplay between cultural practise, heritage and identity. By framing architecture as both a material artifact and object of narrative the thesis hopes to tackle the consequences of knowledge loss and explore speculative strategies for engaging with culture in flux.

In the southernmost part of Bahusiana, atop a cliff on the bank of Nordre älv, there are remains of an old castle, a ruin excavated in the late 19th century, Ragnhildsholmen. This is my concrete example of a forgotten cultural site stuck in a historical limbo. It's both Norwegian and Swedish heritage, but neither national institution seems to have much interest in the site. It is a passive place, an echo of was once one of the most important cities in the Kingdom of Norway. It is a forgotten place that few know of today, but it's not yet lost.

#### RESEARCH QUESTIONS AND OBJECTIVES

**How can a thematic synthesis of palimpsest, material culture and ontology innovate on how fragmentary heritage sites are architecturally engaged?**

To what extent can a design framework be formulated on palimpsest, material culture and ontology?

How can the complex palimpsest of Ragnhildsholmen be accentuated through a design intervention?

##### Objective

Exploring themes of palimpsest, material culture and ontology through a design intervention at Ragnhildsholmen outside Kungälv, Sweden. With emphasis put on theoretical research and the formation of a design framework. The framework will be tested through implementation in a speculative design intervention, represented through layered composite drawings visualising the spatial logic and agency of the site.

#### DELIMITATIONS

The thesis aims not to make accurate future predictions but to use speculation as a critical tool to reflect on the long term complications of the project.

The thesis and its project utilize speculative archaeology as a representational tool and not as a scientific research method. Archaeological terminology and logic are borrowed for story-telling. Likewise, are any environmental and geological speculations as well engaged with conceptually.

The thesis project focuses on architectural representation rather than technical performance.

## **RELEVANCE FOR SUSTAINABILITY**

The thesis engages with sustainable development in various forms but most notably SDG11 Sustainable Cities and Communities as sustainable development is not limited to ecological resources but also cultural and social ones (United Nations, n.d.).

The project critiques loss of knowledge and advocates for long term preservation of knowledge aligning with both SDG11 and SDG 12 Responsible Consumption and Production. The thesis examine the transformation and decay of material culture, leading to questions about material durability, resource efficiency and other principles related to sustainable architecture and SDG12.

The project will speculate on how it may change over time. Designing from a future perspective forces thinking about anticipatory design strategies rather than reactive ones, Resilience and adaptability, so our contemporary architecture can survive, adapt or evolve with uncertain environmental conditions. Aligning with SDG 13 Climate Action.

The thesis also proposes an alternative way of engaging and activating under-utilized structures and challenges the modernist notion of separation of functions, that the built heritage only can exist as heritage. These sites are often located in areas with already established social or cultural infrastructure around them making effective use of already available resources.

## **EXPECTED RESULTS**

### **Thesis outcome and contributions**

Reiterate on built heritage engagement supported through thematic synthesis with antropological schools of thought and philosophy on ontology, with the purpose to contribute to architectural discourse on contemporary design interventions to built heritage sites.

### **Theory**

An analysis of the interconnected themes of palimpsest, material culture and ontology. Followed by a case study on how heritage sites can be engaged and decay, and finally the formulation of a design framework for manifesting the ideas in a realistic project. The relationship between palimpsest, material culture and ontology will be evaluated in the discussion about the final design project.

### **Design Framework**

Compiling and organizing principles into a Framework for implementation in a tangible design project. This takes the shape of methods of utilizing the palimpsest of a site in order to bring active design agency to the traces on site, recontextualising them from passive objects from the past to active space making geometry in the present.

### **Design project and context.**

The expected result of the design project is a design proposal in the shape of an architectural intervention to Ragnhildsholmen in which geometry and program is based on the formulated theory.

# THESIS METHODS

## RESEARCH ON DESIGN

In order to tackle the thesis question a basis needs to be constructed. This basis relies on theory to form a background and case studies as examples on how the formulated theory can be expressed in the built environment.

### Theory

Literature studies makes up the bulk of research. An understanding for the branches of theory is necessary to form a basis for the framework in order for said theory to be reflected in the design. With the theory established casestudies are made in order to observe how contemporary interventions utilize these ideas.

### Case Studies

Studies focused on written or spoken word leaves out an entire field of wordless experience that are shaped into artefacts. The opportunity to study and analyse specific projects allows for an intuitive understanding of how architecture can engage with the palimpsest of respective site and the how it dialogues with the local traces.

## RESEARCH BY DESIGN

The thesis question will ultimately be answered through the design process research is conducted through iterative design work and evaluation in order to find suitable way of implementing the theory in architecture.

### Thematic synthesis

Through theory and case studies a design framework will be created. This to compare findings cross cases and intergrate the qualitative insights of the case studies with the theory in order to produce a design framework.

### Design

A design based research method is used to empirically test the framework by applying it to a real world example and to provide basis for evaluation. This constitute the thesis project.

## ITERATIVE FEEDBACK

A process where design and its underlying framwork is tested, evaluated and adjusted based on how well it manages to balance the theory as well as aesthetic form. This forms an iiterative cycle of application, evaluation and refinement.

# STRUCTURE AND PROCESS

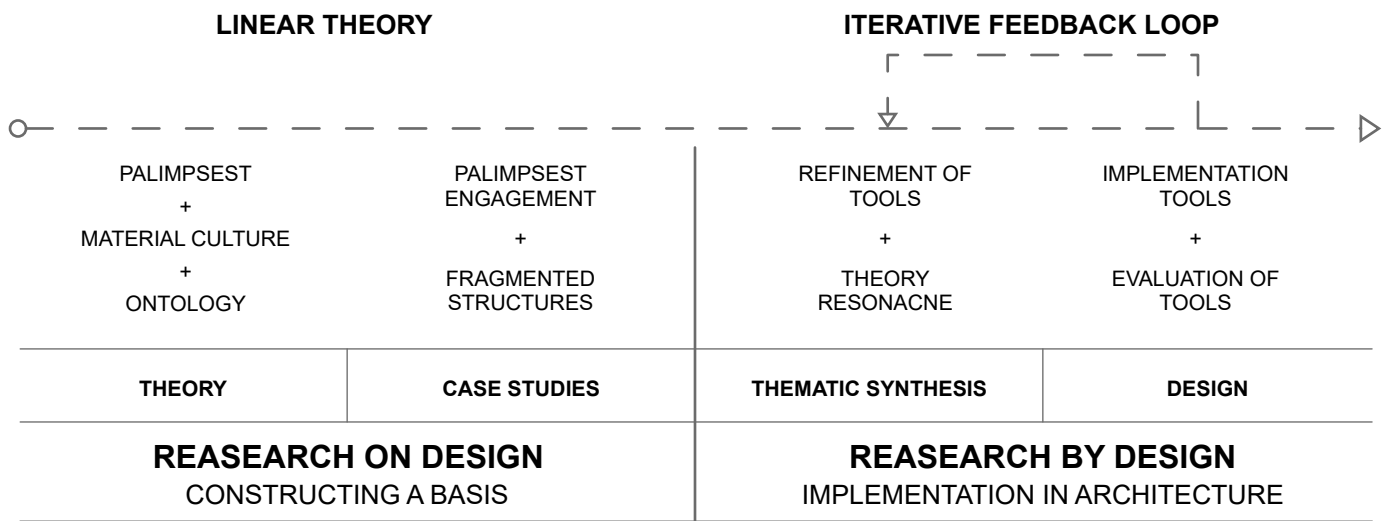


Fig. 1 Diagram of thesis process.

## RESEARCH PROCESS

A thematic overlap in the theory of palimpsest, material culture and ontology entails branching out cross disciplinary to fields outside architecture into anthropology, archeology and philosophy.

The objects of the case studies are divided into two groups. First more contemporary (within the last 100 years) design intervention to heritage sites, where the interventions to varying degree engage with the palimpsest on site.

The second group of case studies were a selection of more vernacular buildings from the past millennium, the oldest being constructed in the 16th century. The selection aims to inform on how these freestanding structures age over time as material and cultural fragments.

The case studies are presented in empiric rapport in order to be implemented in into the framework.

## DESIGN PROCESS

Translating the theory into a design concept together with tools based on the case studies make out the design framework.

The framework will be tested in this thesis' design project. The framework will be evaluated based on how well it manages to balance the three themes of the synthesised theory as well as on its programatic effectiveness and usability.

The iterative cycle continues until a final design is reached. The final design, its evaluation and underlying framework will be the real fruit of labour, a document to provide strategies for any contemporary design intervention engaging with built heritage, with intention to inspire new development and discussion on the built heritage.

### 3. BACKGROUND

#### DISCOURSE, RELEVANCE AND PROBLEMS

##### DISCOURSE ON HERITAGE

In recent years debates about the Swedish cultural canon have reignited questions about national identity and heritage. While the canon seeks to define and preserve cultural artifacts, it is questioned when culture itself is a dynamic, socially constructed process, everchanging by everyday practise.

##### **The problem with a homogenous national identity**

Much of modern day Sweden has a more complicated heritage than can be compiled in a list, especially in the provinces situated in the borderlands between the Scandinavian kingdoms, ie. Scania, Hallandia, Bahusiana, Dalia, Gothia, and the Swedish Northlands.

In these provinces, cultural heritage mixes with Danish in South, Norwegian to the west and Finnish and Sami to the North. These areas show that there is not a cultural landscape of homogenous heritage, and these borderlands have a tendency not to adhere to the traditional national historiography.

##### **THE VENICE CHARTER and MODERNIST DISRUPTION**

The most influential document on the built heritage and how to approach it is the 1964 Venice Charter (Plevoets, 2019) . This charter makes a clear distinction between heritage, national monuments and spaces for living. Article 5 states that making use of monuments must not change the layout or decoration of the building. In heritage conservation this has evolved into the notion that reversibility is a necessity when adapting historical buildings and sites. Although well intended it keeps the same separation of functions between the historical site and the design intervention.

##### PRACTISE AND PRESERVATION

How the built heritage is to be handled is a long-debated question and can be traced to early restorationist and conservationist movements of the 19th century. On readaptation Alois Riegl lifts the conflict of commemorative and present day values, as two factors where the conservation of a state is weighed against contemporary needs (Plevoets. 2019).

Overdocumentation and underpractice. Plevoets argues that an exclusive focus in the history of a site implies that the whole history of a site is already written (2019)

##### **Significance of palimpsest**

Plevoets points out in Adaptive reuse of the built heritage (2019) that a heritage site can be approached as either a monument or as palimpsest. Palimpsest being more authentic, uncensored character of the site, wearas monuments are singular in their narrative.

Bedard in Cities of artificial excavation (1994) showcases Peter Eisenmans methodology of maping and extruding form from the palimpsest. Palimpsest can be used to read the singularity of a site or project. Palimpsestic readings excavates the logic of the site rather than it's image.

##### RELEVANCE

The thesis relevance is it expansion on adaptive reuse in the following ways:

**Ragnhildsjolmen has not been studied in this manner before.**

**Introducing decay as active component in heritage engagement.**

**Strives to capture a deeper “living” palimpsest.**

# PROBLEM DESCRIPTION

## Large scale problematization

In many regions, not only in Sweden, built heritage that often fall outside dominant historical narratives receive limited institutional recognition, preservation efforts or public visibility. This result overtime gradual disappearing from the public consciousness, either physically through decay or symbolically through being excluded from education, tourism and representation in media.

Heritage that is not conserved falls into disrepair, and becomes forgotten. Regional differences and characteristics are especially vulnerable to homogenous simplification of culture. Culture is a social construct and as such essential in order to foster resilient communities and cultural continuity as well as in tackling social issues of rootlessness and loneliness cross generations.

## Architecture as culture manifest

Heritage sites enact as physical anchors for memory and meaning and without individuals may struggle to contextualise their present or engage with history critically and in extension become more susceptible to ideological rigidity.

This neglect of heritage sites is a symptom of systematic bias in how history is written and valued. Centralised narratives marginalise regional diversity, risking society to lose layers of cultural memory while individuals become increasingly disconnected from the places they inhabit and the history that shape their identity. Instead of being rooted locally, identity becomes externally defined.

## Reversible interventions

Interventions following the Venice charter often result in contemporary design interventions with reversability in mind. Being reversible these interventions often fall short of manifesting recontextualisation of the built heritage focusing more heavily on the material conservation effort. The wider problem this exposes is that heritage sites gets a feeling of sameness, instead of tapping into what makes the sites unique and informative to contemporary cultural expression.

## Reestablish broken continuity

In order for a heritage site to function as a living resource instead of a static artefact, fragmented history needs to reconnect with present day life in order for it to be recontextualised and reinterpreted. When sites are reinterpreted in a contemporary context they have the opportunity to renew public engagement, strengthen place-based identity and reintroduce overlooked narratives in collective memory. This brings agency to counter the risk of erasure by centralised history while enable communities and individuals to draw meaning, resilience and critical perspective from their past, ensuring the built heritage remains relevant, inclusive and dynamically evolving.

## Palimpsestic reading as solution

Palimpsestic reading and engagement highlights the complexity of a site rather than trying to simplify it, by bringing out singularity and uniqueness of a heritage site. By revealing multiple traces of the past visitors are allowed to engage with the site as an ongoing narrative instead of an object frozen in time. An intervention that respects these traces could let new meanings to emerge without erasing old ones. This would allow the heritage site to communicate cross time and generate new meaning to remain culturally relevant.

## **4. THEORY**

### **PALIMPSEST, MATERIAL CULTURE, DECAY AND THEIR HARMONY**

The theory aims to combine three different approaches to heritage in accordance with the research questions. First adaptive reuse and palimpsest is discussed and why it is relevant to identify the palimpsest as formal geometry. Then the theory on material culture and how it gives visibility to the hidden structures of the palimpsest. Additionally, decay is discussed. The synthesis of the three theories informs both the analysis of the case studies as well as the design framework.

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## APPROACHING BUILDINGS PAST

ADAPTIVE REUSE, PALIMPSEST AND TRANSPARENCY.

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There are several ways to engage with the built heritage, and the best approaches vary from case to case. Plevoets outlines two distinct approaches in Adaptive reuse of the built heritage, either as monument or as palimpsest (2019).

Palimpsest is in essence a manuscript that has been cleaned from its original text to be used again, but where traces of the original text are still visible. In this way palimpsest is used as a metaphor for the accumulation of material and immaterial traces of the past. And to approach a site as palimpsest allows for different narratives to coexist. Plevoets draws parallels to Semes (2012) descriptions of Rome, where the different historical layers become undistinguishable from one another.

This way of coexisting and interweaving of different layers making multiple readings possible resonates with Colin Rowe (1971) thoughts on transparency. Transparency in architecture has two distinct aspects, literal and phenomenal. Literal transparency is the general everyday use of the term, that something is "see through", such a glazed openings, a wire mesh or lattice. Phenomenal transparency is the visual appearance of double representation, as example Rowe lifts the compositional interplay of horizontal and vertical elements in a facade can change what is highlighted in a composition just by moving the eye, an ambiguity of figure-ground (Rowe 1971).

Influenced by the methods of Rowe, Peter Eisenman works out a method referred to as palimpsestic archaeology (Bedard, 1994), it's a method in resistance of the modernist figure-ground approach by layering readings on the site. These layers being maps, diagrams and drawings conflict with one another. This result in a visualization of phenomenal transparency and, according to Bedard, allows the intervention to add to the site without being nostalgic or restoring. Instead, the intervention

writes over the palimpsest without erasing it, adding a new layer of meaning to the site (Bedard, 1994).

Peter Eisenman elaborates on the use of layered diagrams, calling the horizontal layering of traces, and the focus fluctuate between one another as superposition. And distinguishes it from Gilles Deleuze term superimposition which refers to the vertical layering of figure/ground. Interiority, the architecture's internal logic, according to Eisenman, defines architecture as a singularity when there is a connection between diagram and built form (Eisenman, 1998).

As a generative device there is not necessarily a perfect representation between the final product and the underlying diagram. The diagram is a mediary between the base geometry and the finished result. However the diagram becomes partially visible in the building, a trace of the internal logic. Eisenman draws potential parallels between the diagram, interiority and the autonomous singularity of architecture (Eisenman, 1998).

Singularity here not being able to be reduced to a function or meaning. This seems to tie to Eisenman's earlier works with structural linguistics and self-referential architecture freed from semantics, and that meaning in architecture doesn't have to come from a single fixed function of the structure (Bedard, 1994).

Being able to read the palimpsest of a site becomes crucial, double representations of space that belongs to different times understandin for logic and singularity of a site.

## **SPECULATIVE LAYERS OF THE PALIMPSEST**

### **SPECULATIVE DESIGN AND ARCHAEOLOGY**

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Regarding the use for speculative design as a design method and theory, Dunne and Raby has written extensively on the subject. In speculative design there is a fine blending of the real and not real. This blend is what allows the viewer to visualise or recognise abstract ideas and concepts while still being grounded in a visual reality that anchors the suspended disbelief. However, too realistically portrayed and the subject may fall for too reality anchored criticism that distract from the idea. On the contrary, too little realism and the subject can too easily be brushed of as pure fantasy (Dunne & Raby,2013).

In line with speculative futures and design fiction lies also speculative archaeology. An argument can be made that speculative archaeology, instead of only study the past as remnants, speculation and design fiction is used to blend multiple temporalities – past, present and future- to reimagine our current relationship to materiality, to imagine more resilient futures (Ståhl, 2017).

In order to convey understanding of abstract ideas such as a lost way of living, speculation becomes a critical tool to asses ones relationship to the past.

## **MATERIAL CULTURE AND SPATIAL ARTIFACTS**

### **BUILDINGS AS CARRIERS OF MEANING, NARRATIVE AND COLLECTIVE INTENT.**

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Within the fields of anthropology material culture is used as a complement to primary sources such as documents, as alternative source of more structural cultural systems. Material culture is the physical embodiment of culture in material and objects. The study of material culture is the examination of said material and objects to understand a particular culture, its beliefs, ideas, values, attitudes etc. At a given place and time. The underlying idea is that human made objects either directly or indirectly reflect the idea of the person who commissioned, created, used the object. And through that person the greater society that person belonged to (Harvey et.al, 2018).

When this is applied to buildings, and fragments there of, it can be seen as the actualization of social relationships, resources, needs and talent of a particular patron, architect, household or builders at certain point in history. The building is meant to outlive these people and remain useful and meaningful long after they are gone (Harvey et.al, 2018).

Gunhild Eriksson expands upon this perspective, and means that in order to understand the use of buildings past the immaterial between the material structure, the space itself, needs to be “physically studied”, and that the space itself can also to be considered an artifact (Eriksson 2018).

In his book "Making" anthropologist Tim Ingold, also on the topic of artefacts raises that the making of an object becomes an integral part of understanding the culture, and to pay close attention to the materials properties and tendencies (Ingold 2013).

As a compliment to literary first-hand sources, studying the material traces of everyday life can bring a new dimension of understanding a more authentic and pragmatic way of thought at a certain site in time. If we consider space as one of these artefacts, then the preservation of space would be of equal important as that of material artefacts.

## **ITS MEANT TO DECAY**

### ONTOLOGY AND CONTINUITY

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One cannot escape the perpetual state of decay when discussing the built heritage, since its the leading agent of restoration efforts.

As Martin Heidegger points out in his 1927 magnum opus "Being and time", an object breaking or decaying marks the transition from one state to another. Heidegger means that an object goes from being ready-to-hand (useful/invisible) to present-at-hand (isolated/visible). (Heidegger, 1962). Decay is thus to be considered an ontological event of becoming; not necessarily a state of failure but a state that reveals the objects underlying structure, system and agency.

In his philosophical excursion "Towards an ontological Architecture", Kenneth Frampton (2017) expands on Heidegger, paired with other thinkers from the last century. Frampton lifts how through an ontological approach architecture has the potential of resisting the economical compulsion to commodify and strive for a more immortal expression of human culture.

Continuing on culture Frampton presents a case for how culture is as much invention as it is preservation, built upon the subjectively experienced identification of otherness of the past. This otherness is the basis for historical consciousness, and the cycle of recontextualize history in order to become one with it again. This circularity of identification and rewriting defines cultural continuity (Frampton, 2017).

Applied to the built heritage, the end goal is architecture that rather than staying intact, is to be absorbed into the sites ongoing transformation, continuously rewritten by human forces as well as environmental forces beyond control.

## **SYNTHESIS**

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Considering the palimpsest as formal geometry of the site that constitutes both visible and invisible traces, and identifying these traces as artefacts in line with material culture allows these traces to be restored and studied as part of engagement with heritage. The phenomenal transparency, or double representation, of spaces emerging from the palimpsest allows the spectre to imagine multiple spatial artefacts at once.

As articulated material these have entered a realm of physical decay. Continuity is achieved by visitors engaging with the materialised palimpsest, as they are confronted with the multiple readings of the site and has to identify the otherness of the traces. And then find a way to approach it, becoming one with it.

The intervention is not meant to be reversible but feed back into the palimpsest and realise its place as another layer in the history of the site. This to form continuity with the site itself. This is the outline of the feedback loop of the project as overtime the design itself will decay and become another layer to the palimpsest for future generation to recontextualise.

# SYNTHESIS DIAGRAM

BASIS FOR DESIGN FRAMEWORK

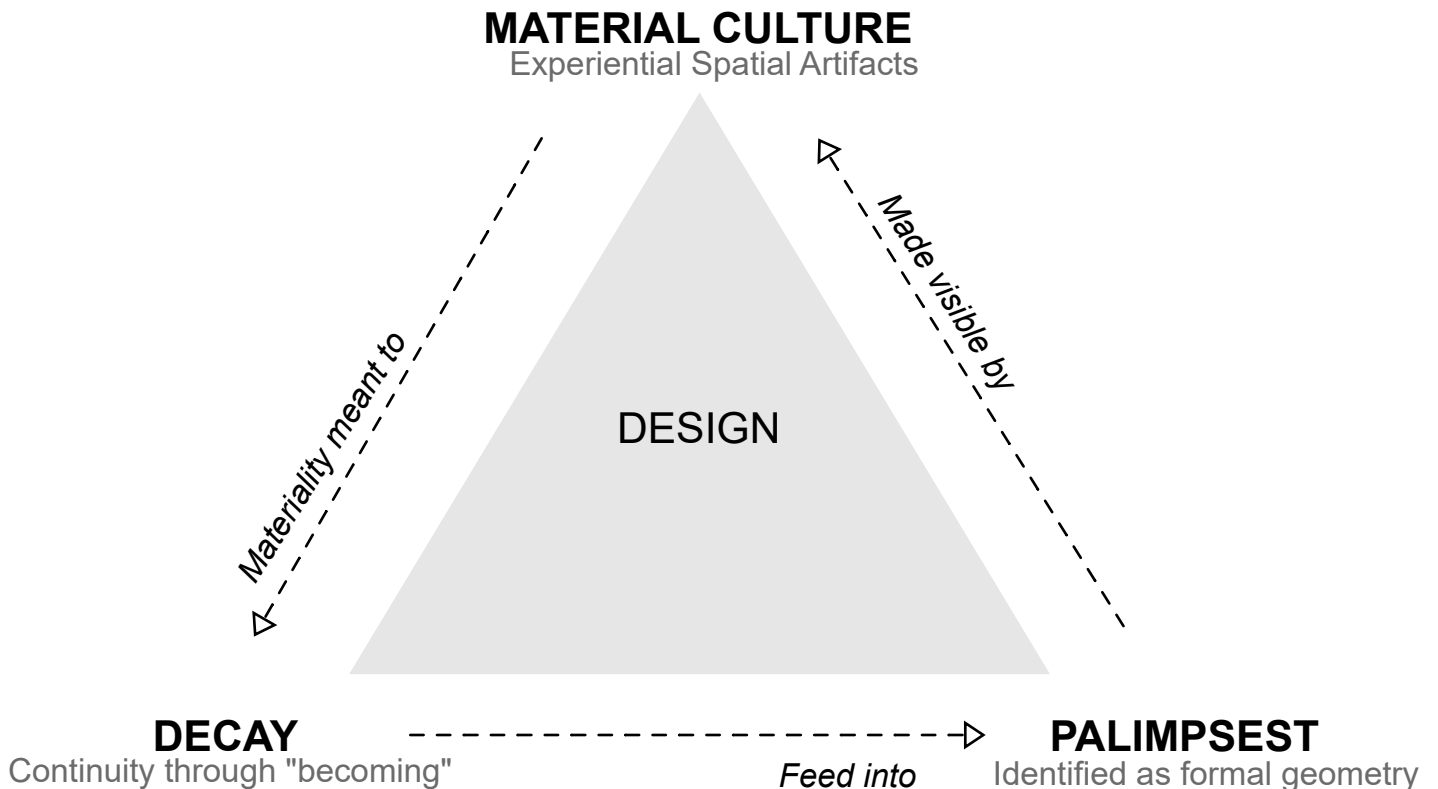


Fig. 2 Diagram illustrating thematic synthesis of theory.

**Purpose: A design that**

1. Engages the palimpsest
2. Treating space as artifact highlighted from the palimpsest
3. Through decay, merges with palimpsest

**On implementation**

Speculative design and speculative archaeology are theories that may inform programmatic layers to the palimpsest. Along the lines of Eisenman, having the meaning of the building only stem from its function may lessen the autonomy of the intervention. A fixed function was what made the site obsolete in the first place. There is here ideas to tackle the site of Rånghildsholmen, through the diagrammatic superposition of the site to design an autonomous piece of architecture that can embody new meaning and function over time in a way that enables future generations to readapt the building and continuously use and interact with the site and its layers. A fixed function as the main idea behind the intervention should not be the goal.

# 5 CASE STUDIES

## THEORY APPLIED TO BUILT PRECEDENCE

The case studies are divided into two parts. First an analysis of different contemporary projects engaging with the local palimpsest, how they function as spatial artefacts and how they relate to ontology. Second are a series of vernacular buildings for analysing experiential effect of material and cultural aging.

This part of the thesis is subject to the authors' subjective reading of the projects and the lessons they share that can be possible for implementation in the Design framework. These lessons are based on the authors' own experiential interpretation and interaction based on how the case study projects engages with the palimpsest of the site. Wordless experiences are clumsily framed in language; to aid this, the analysis is accompanied by photographs by the author.

The trip was financed with means from Edith and Egon Plomgren donation fund.

## **PALIMPSEST CASE STUDIES**

ALLMANNAJUVET	22
HAAKONS HALL	23
STORHAMAR BARN	24
THE GLASS CATHEDRAL	25
STJÄRNORP CASTLE RUIN	26
VRETA ABBEY GARDEN	27
VRETA ABBEY GRANARY	28

## **DECAY CASE STUDIES**

NORNS BRUK	29
ORNÄSSTUGAN NORNS BRUK & MALINGSBO	30
BORGUND STAVE CHURCH & SÖDERSVIK OLIVEHULT & ALMNÄS BRUK	32

# 1. ALLMANNAJUVET

## SPATIAL RELATIONSHIP AND DIALECTIC

**Reference:** Palimpsest  
**Location:** Sauda, Norway  
**Architect:** Peter Zumthor  
**Year:** 2016  
**Typology:** Attraction

The zinc mines at Allmannajuvet were in operation from 1881 until 1899. When the route was spicked up ass a national scenic route, work began on reviving the site. Zumthors intervention consists of four structures. Service facilities, Cafe, Gallery and Storage for guided tours (nasjonaleturistveger, 2026).



Fig.3 Cafe buildings inversion aligning with remains of the cellar of the mine adminstration building in foreground.



Fig. 4 Cafe and Gallery recreatig the spatial relationship between the admin and washery.

PALIMPSEST & NARRATIVES	SPATIAL ARTEFACTS	CONTINUITY & BECOMING
<p><b>Fragmentary</b>            The material layers mainly interacted with are the remains of the administration building and the washery.</p> <p><b>Offset palimpsest</b>            The additions are offset from the traces they reference. Allowing both narratives as an abandoned industrial site and Museum to be read seperately.</p> <p><b>Inversion</b>            The Café building takes the inverted shape of the cellar. Instead of descending into the ground to an open space, one ascends from the ground into an enclosed space.</p>	<p><b>Tracing path</b>            The spatial relationship between the central administration building, and the washery is recreated, as well as the movement between these two.</p> <p><b>Introduced Artefact</b>            A plaque of zink is etched with the siteplan. Showcasing the product of the site on the site.</p> <p><b>Dark Interiors</b>            As to mimic the darkness of the mines themselves, the interiors are black. The dark interiors are contrasted with panoramic views of the landscape.</p>	<p><b>Separated aging</b>            The added structures are seperated from the landscape by stilts. And decay at diferent rates.</p> <p><b>Traceable age</b>            Aging is mainly traceable through oxidization of metals and the slow whitening of the tared timbers.</p> <p><b>New Function</b>            The revived function as road side attraction has reignited new interest in a site that was only 18years in service.</p>

### LESSON

This is not a reconstruciton of the site, rather the reintroduced spatial relationship becomes the artefact of industrial memory. Palimpsest however small in quantity can stil be engaging. As the visitor is dwarfed by natural landscape, they have to walk in the steps of miners to traverse along the mountain side.

## 2. HAAKONS HALL

### RECONSTRUCTION OF ATMOSPHERE

**Reference:** Ontology  
**Location:** Bergen, Norway  
**Architect:** Gerhard Fischer  
**Year:** 1961  
**Typology:** Museum

Stone hall from the mid 13th century. Constructed during the same time and under the same king as the castle on Ragnhildsholmen, King Haakon IV Haakonsson. Over the centuries the building has had many uses. It's modern day appearance is mainly from Gerhard Fischers 1961 restoration.



Fig. 5 Main Hall with south west facing gallery of windows. Modern interventions kept to a minimum to convey medieval atmosphere.



Fig. 6 The former service areas, compression of space. Reinforcing the hierarchical relationship between the hall and lower floors.

PALIMPSEST & NARRATIVES	SPATIAL ARTEFACTS	CONTINUITY & BECOMING
<p><b>Scars</b>            Walled of doors and windows are readable like faded scars. Indicated by their unrendered soapstone lintels and casements.</p> <p><b>Floorlevels</b>            The second floor rests on joists laid on corbels in the wall, dividing the space vertically, gives feel for original dimensions of spaces without hindering contemporary use. Previous corbels are highlighted indicate previous floorlevels</p>	<p><b>Clear Hierarchy</b>            The dimensions and divisions of the levels gives a spatial sense of how the rooms operated. The darker service quarters, with workstations in the deep window nisches is a clear contrast to the illumination of the hall above, which feels majestic and awe-inspiring.</p> <p><b>Atmosphere</b>            The modern interventions are primarily that of reconstruction. The main hall strives to recapture the grandure and atmosphere of a royal medieval hall building, with exposed timbered trusses and encased windows.</p>	<p><b>National monument</b>            The hall was restored twice in the modern era as a symbol of National identity. It's current value is to be a reminder of a past that was nearly erased.</p> <p><b>Venue and Cermony</b>            The lower floors have been adapted to house events. The intervention has secured future use of the building, as well as its wider use for ceremonial purposes.</p> <p><b>Medievalism</b>            As their are few drawings and documentation of the original state, the reconstruction may fall for being to romantic or ideal interpretation.</p>

#### LESSON

The idea of an ancient structure can be equally entizing as one that actually is. And although the restoration is based on much speculation the suspended disbelief helps the visitor to picture how a royal household would inhabit the building.

### 3. STORHAMAR BARN OVERWRITING THE PALIMPSEST

**Reference:** Palimpsest  
**Location:** Hamar, Norway  
**Architect:** Sverre Fehn  
**Year:** 1974  
**Typology:** Museum

Museum complex built within and around the ruins of Hamarhus, a bishops palace from the 13th century, destroyed in 1567 during the Northern Seven Years' war. Adapted into a barn in the 1700 – 1800s. Now functions as Museum.



Fig. 7 View of courtyard in window reflection.



Fig. 8 Interior view of passage to courtyard with concrete walkway cutting across mid air.

PALIMPSEST & NARRATIVES	SPATIAL ARTEFACTS	CONTINUITY & BECOMING
<p><b>Mixed temporalities</b>            There are three main temporal layers distinguishable on site. The walls of rooms and buildings of the palace, the perimeter wall and wooden addition of the barn, as well as Sverre Fehns additions have an unmistakened presence.</p> <p><b>Overwritten, again and again</b>            The barn is built on top of the ruin, utilizes the ruins walls for its lower floors. The museum addition weaves in and out of this structure, mainly visible as concrete walkways.</p> <p><b>Coexisting narratives</b>            Each tell their own story of the sites history and use, as a palace complex, as a pragmatic vernacular farmstead and as a modern museum.</p>	<p><b>One material at a time</b>            Each temporal layer appears to have an assigned materiality, stone for the medieval structure, wood and brick infills for the barn and concrete, glulam and glass for the museum.</p> <p><b>Details encourage reading</b>            Openings in the wall, either manmade or from deterioration, are covered with glass, letting light into the structure. Modern additions are framed by historical remains and are materially contrasted.</p>	<p><b>Recontextualised Geometry</b>            The most striking is a ramp that loops over the courtyard. The shape of this ramp mimicks the geometry of the defensive wall. The geometry of the wall is offset and rotated in 3d space for its purpose as an accessible ramp. It highlights geometry already present at the site by moving it from its original location and fits the geometry to a new function.</p>

#### LESSON

Multiple historical layers are made visible simultaneously. The palimpsest becomes the exhibition and by utilising material traces this way, they are also conserved and in the spotlight for interpretation.

# 4. THE GLASS CATHEDRAL

## PRESERVATION AND REVIVAL OF FUNCTION

**Reference:** Material culture  
**Location:** Hamar, Norway  
**Architect:** Kjell Lund  
**Year:** 1998  
**Typology:** Museum/Church

Hamardomen, originally finished in year 1200, fell out of use in the 1530s with the reformation of Norway. It was ruined in 1567 when swedish forces blew up the nearby Hamarhus. Now part of museum exhibition and since 1998 fitted with a glass ceiling and turned into a hall for both concerts and religious purposes.



Fig. 9 Exterior view of Glass Cathedral. Separating remains from the landscape.



Fig. 10 Interior view. The Enveloping structure traces the perimeter of the site, not touching the remains.

PALIMPSEST & NARRATIVES	SPATIAL ARTEFACTS	CONTINUITY & BECOMING
<p><b>Cathedral</b>            The decayed state of the colonnade of the central nave, side rooms and weathering of the stones tell of the ruins previous exposure to the elements.</p> <p><b>Seperation of narratives</b>            The intervention interacts with the palimpsest through making a clear seperation of structure and ruin.</p> <p><b>Simultaneous space</b>            Movement is through two types of space, the enclosing glass space and the rooms of stone.</p>	<p><b>Lakeside landmark</b>            Lightweight, open air feel. The shape still reads as a hall building with its pitched roof. Implying the cathedrals influence over the lake landscape.</p> <p><b>Lost entrances</b>            The structure is aligned with the nave, with entrances to west and east. The western one correlating with the implied grand gate of the cathedral.</p> <p><b>Interior reestablished</b>            The intervention places the ruined interior within a new enclosure, reestablishing it's reading as an interior space.</p>	<p><b>Please don't touch</b>            The intervention leaves little to no footprint on the ruins part from its foundation along the perimeter of the site. Material continuity is absent, the steel and glass roof a strong material contrast.</p> <p><b>Figure-ground relationship</b>            Reads as two seperate entities. From the outside of the structure you predominantly see the sky reflected in the glass, inside the visual complexity of trusses and texture of stones clash a little more in attention.</p> <p><b>Revived function</b>            The intervention allows the cathedral to be used for religious purposes.</p>

### LESSON

The structure have a tendency to turn the ruin into a interior, seperating the ruin from its context in the landscape. Theres a strong distinction between now and then making the ruin appear to be more ancient than it is. The intervention manages to outline lost parts of the palimpsest such as entrance ways and roof lines.

# 5. STJÄRNORP CASTLE RUIN

## PRESERVATION OF TRACES AND TIME

**Reference:** Ontology  
**Location:** Stjärnorp, Sweden  
**Architect:** Erik Wikerstål  
**Year:** 2022  
**Typology:** Attraction

The residence of field marshal Robert Douglas and his wife Hedvig, built in 1655-62, destroyed in fire 12th of May 1789. The conservation effort in 2014-2022 was led by architect Erik Wikerstål and was nominated for EUmies Awards 2026.



Fig. 11 Interior view of the castle, ceiling aligned with the former attic floor encasing the living volume.



Fig. 12 Etched signatures of visitors ranging from 1800s until the early 2000s.

PALIMPSEST & NARRATIVES	SPATIAL ARTEFACTS	CONTINUITY & BECOMING
<p><b>Destruction</b>            Blackened stone and timber remnants from the destruction. Earth floor has been excavated. Collapsed vaults and interior walls.</p> <p><b>Offset</b>            On the interior, offset from the old heart wall, four new loadbearing pillars are placed. The new roof is constructed at the level of the old attic floor.</p> <p><b>Dwelling, attraction and dig site</b>            The addition highlights three narratives. The original dwelling volume, the 250 years as exposed ruin and tourist attraction, and a contemporary shelter for an active archeological site.</p>	<p><b>Traces of visitors</b>            A large amount of graffiti and etched scribbles are found in the render of the tower interior.</p> <p><b>Material Logic</b>            The addition is careful, the exposed timbers tell a story about the original materials of the castle, that of timber, brick, mortar and stone.</p> <p><b>Vertical Communication</b>            Originally the floors of the towers were accessed individually from the main volume, as side rooms on each floor. The stairs in the tower appears to be a later 19th century addition to allow visitors access to the view. The intervention has replaced these with CorTen-steel staircase to grant access to the towers viewing platform.</p>	<p><b>Stasis</b>            The addition does not engage in filling the site with new meaning, nor does it in its current state allow for other activities that showcasing the ruin and further maintenance of the ruin.</p> <p><b>200 years of tourism</b>            The intervention itself homes in on long term protection and reversibility, almost invisible on the outside, to allow its continued use as tourist attraction.</p> <p><b>Structural continuity</b>            The addition utilizes the ruin for loadbearing support along the perimeter, as well as offsets it for internal support.</p>

### LESSON

All solutions being reversible and in line with the Venice charter- Though this goal is admirable, its lack of adaptability fail to renew relevance to the site, hindering the intervention to be little more than a pretty walkway over the “no touch” zone, further disrupting continuity by repeating the narrative of the ruin being a ruin.

# 6. VRETA ABBEY GARDEN

## FRAGMENTS OF PASSING TIME

**Reference:** Material culture  
**Location:** Berg, Sweden  
**Architect:** Sigurd Curman  
**Year:** 1926  
**Typology:** Garden

Vreta Abbey was originally constructed in the 12th century. It was the first nunnery in Sweden and was in operation until dissolution in 1582. The remaining monastic buildings are the church and granary. The cloister and its adjacent rooms were excavated (1916-26), restored and partially reconstructed in the 1910s and 20s. Other additions has been made with no appearant documentation.



Fig. 13 Reconstructed wall segment.



Fig. 14 View of cloister pergola, doors and windows emphasised through planterbeds.

PALIMPSEST & NARRATIVES	SPATIAL ARTEFACTS	CONTINUITY & BECOMING
<p><b>Cloister layout</b>            The layout of the monestary is readable in fragment. Rooms, door and walkways are readable and coexists with the sites contemporary role.</p> <p><b>Garden</b>            In its modern day use as garden, the ruins become dividers or planterbeds.</p> <p><b>Revisited excavation site</b>            The site has been continously revisted for archeological study, either as experimental visible through partial reconstruction or new additions such as the glass encasement of the newly excavated baptismal pool.</p>	<p><b>Recreated Compression</b>            Pillars have been erected on the cloister walls and spanning between these pillars a lattice of timbers have been laid, transforming the cloister to a pergola. Only this walkway around the court has been loosely reconstructed, recreating the spatial patterns and movement between areas of the site.</p> <p><b>Emphasised fragmentation</b>            Parts of the northern wing has been reconstructed. Partial remains of door and window openings are visible. Engaging the visitor through encouraging them to piece together the fragments and form an own understanding of the monastic complex and the life that took place there.</p>	<p><b>Time made visible</b>            Theres a strong sense of passing time. Plants that changes over the seasons, timbers that wither over decades and masonry decayed over centuries.</p> <p><b>Contemplation</b>            The garden succeeds well in communication both the old monastic use as well as a modern garden. The adjacent remains of rooms and buildings feel in comparison a little underdeveloped, however “the movement” between the rooms becomes almost ritualistic, this framing of movement, passing between the pergola covered “cloister” and “open air” rooms serves as yet another fragment, to not be read but to be experienced.</p>

### LESSON

The intervention engages the visitor through fragmentation, encouraging them to piece together traces and form an own understanding of the site. This approach encourages experience based recontextualistion of the built heritage.

# 7. VRETA ABBEY GRANARY

## LONGEVITY THROUGH FLEXIBILITY

**Reference:** Ontology  
**Location:** Berg, Sweden  
**Architect:** Magnus Almung  
**Year:** 2019  
**Typology:** Museum

The oldest free standing economy building in Sweden originally built in the end of 13th century. During the centuries it was continually used as a granary or barn, in the early 1800 it was adapted into a storage house for material used in the construction of Göta Canal. Since 1917 it has been used as a museum showcasing the findings of the excavation of Vreta Abbey.



Fig. 15 Exterior view, carefully fitted glass doors do not disturb the exterior expression of the granary.



Fig. 16 The modernised interior along the building axis, the two chambers. 2nd floor doorway visible.

PALIMPSEST & NARRATIVES	SPATIAL ARTIFACTS	CONTINUITY & BECOMING
<p><b>Medieval Wealth</b>            Being one of the better preserved building at the abbey, it's size and robustness are telling of the wealth and influence the abbey held.</p> <p><b>Textured Narratives</b>            The light is muted but not at all dark. The impression is clean and the matte finish of the fixtures lets the more visually complex textures of cut limestone and rendering of the walls and vaults show more clearly.</p> <p><b>Visible alterations</b>            The intervention does not hide traces of enlarged windows, the traces of second floor, or that the 19th century openings on both gables have been filled.</p>	<p><b>Preservation of space</b>            The most obvious additions of metal and glass contrast the older material of stone and wood. Electrical installations are hidden under the floorslabs, which rest on a bed of sand, hidden but accessible. Material continuity is shown in the floors, where a new limestone floor has been laid in the southern room. Tying the two rooms together visually while allowing for accessibility.</p> <p><b>Fundamentally human</b>            That is narrative in both the architecture and the exhibition. The traces of labour, hands and tools working stone, openings allowing people and materials to pass through.</p>	<p><b>Balancing function and preservation.</b>            The "generalness" of the intervention allows it to serve many functions over time. Focusing in on adaptation of the building for contemporary use in different times.</p> <p><b>800 years of Storage</b>            Being built a granary, the function from the very start has been that of storage, and this focus on a central human need has allowed it to easily allow its function over the ages. The recontextualisation that has taken place is what it is storing, which has kept the building relevant.</p>

### LESSON

There is a tension between conservation and contemporary use. The generalness of the intervention allows contemporary needs to inhabit the space, however the adaptive features takes a step back and lets the built heritage do the majority of talking.

# DECAY CASE STUDIES

## EXPERIENTIAL COMMUNICATION THROUGH MATERIAL

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### Fragments

Not knowing purpose, function or age of these next case study objects, I approach these buildings as fragments of their original context and function. The experiential effect and how it can engage a visitor are of interest. By first dissecting the effect of the decaying structure in encountering it and then try to formulate how the effect could be simulated through application.

### Experiential decay

The aim of this part of case studies is to map the cause and experiential effect of a selection of decayed structures. This in order for them to be able to inform an architectural framework not only based only on direct theory but also experiential phenomena.

**Effect: What is the experience?**

**Application: How can the experience be achieved?**

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## I. NORNS BRUK

### AGE AND LIGHT

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Fig. 17 The attic still enclosed from floor to ceiling. The random scatter of daylight brings to attention the withering perforation over time.

#### EFFECT

The paneling has shrunk and withered. Showcasing the aging process of the loft through random light distribution. As the building becomes older, the more light is poured into the enclosed volume and the less of a shelter it becomes.



Fig. 18 With the ground floors lacking enclosure, the adjacent floors receive a bottomlit presentation.

#### APPLICATION

This effect is achieved as a result of the paneling being exposed to the elements and thus withering at a different rate than other parts of the structure.

## II. ORNÄSSTUGAN WEAR, TEAR AND GRAFFITI



Fig. 19 Exterior view of Ornässtugan.



Fig. 20 Interior of Ornässtugan western annex. Signatures of visitors ranging from late 19th century to the early 20th century.

### EFFECT

Traces of human continual activity, implied through scribbles of people visiting or graffiti. An intital and a year communicates strongly the precense of people using the space, proclaiming that they were in fact there. Over time these scribbles become a chronicle of visitors and can stand proof of these peoples existence over centuries.

### APPLICATION

Feeding into the human need for proclamation or validation. The effect is achieved in a setting where an impressionable material is accessible and at the same time, out of view from judging eyes.

## III. NORNS BRUK & MALINGSBO ESOTERIC LOGIC



Fig. 21 Exterior view of the blast furnace at Norns Bruk



Fig. 22 Exterior view of Malingsbo granary.

### EFFECT

With a lack of understanding of these buildings function, many of them appear for the unbeknownst visitor with a secret logic only visible only fragmantary. The engaing intrigue of Malingsbo granary is if one had not known of its purpose one could easily mistake it for a temple of some sort.

### APPLICATION

Had they been self explanatory they might have been not worthy of closer study, on the other hand too obscure they may well be discarded as confusing and unnecessary. The visitor wanting to understand the structure gives it agency.

## IV. BORGUND STAVE CHURCH & SÖDERSVIK

### SHORT TERM AND LONG TERM DECAY

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Fig. 23 Exterior view of Borgund stave church. The wooden structure through careful and continual repairs results in slow longterm decay.

#### EFFECT

Wood tell both age and care, if tared it first transitions from black to brown, then from brown to grey. Continuity is shown through continual repairs, reapplication and buildup of texture. If untreated it greys and darkens. Both comunactes age, one long term and one short term.



Fig. 24 Exterior of Atelje Södersvik. Untreated panel giving short term decay.

#### APPLICATION

Age can be marked through both care and neglect, more vital parts can be treated while other parts become decay manifest.

## V. OLIVEHULT & ALMNÄSBRUK

### TRACES IN THE LANDSCAPE

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Fig. 25 Exterior view of Olivehult hayloft atop hill.

#### EFFECT

These buildings, due to their size and position in the landscapes tell of their importance. They become landmarks and signs of the type of status and labour its surrounding area have had in the past. The buildings that are still in use, are tended to, whereas the buildings that cannot adapt or simply are too cumbersome to demolished, are left to decay or taken apart for material.



Fig. 26 Almnäs Bruk granary. Appears to serve little function more than as tourist attraction.

#### APPLICATION

The structures that become ruins are those left to decay. Silent and obscured carrier of physical memory in the landscape, on a path into obscurity in overgrown surroundings. The ruination process could be directed by having specific components of low material repurpose value, encouraging them to be left behind.

## 6. DESIGN FRAMEWORK

### FROM THEORY TO STRATEGY

Presentation of the design framework starting with an overview of how it functions and the organisation of traces. Then an explanation of its implementation. Lastly a series of tools derived from the case study are presented paired with an explanatory diagram and a declaration of purpose, way of application, reference from casestudies and what part of the theory it corresponds to most.

The theory covers the three cornerstones of an iterative process or feedback loop. The first corner is the artificial excavation of palimpsest, being identified as formal geometry, invisible to the naked eye. These layers of information are given physical shape through adapting material culture as a design strategy. Being made physical it can be interacted with by the reader triggering an experiential and emotional response. This emotional response gives meaning to the palimpsest and experiential understanding.

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# TRANSLATING THEORY

## BALANCING THREE APPROACHES

The Design Framework, as mentioned in chapter 4, needs to balance three approaches to heritage: Palimpsest, Material Culture and Ontology. This results in a framework that feeds into itself.

### Intellectual, intuitive and poetic aspects.

Palimpsest is the intellectual aspect; the layers can be logically read and engaged with. One temporal layer come on top of another and so forth. The palimpsest is highlighted through a variation of design tools and manipulations to bring attention to the palimpsest. The spaces emerging gives the intuitive understanding to the site through allowing lost spaces to be experienced. The poetic aspect is the recognition that the intervention is itself a ruin in becoming.

## SYNTHESIS

Palimpsest is formal geometry of the site and constitutes both visible and invisible traces. Identifying these traces as artefacts in line with material culture allows these traces to be restored and studied as part of engagement with heritage. The phenomenal transparency, or double representation, of spaces emerging from the palimpsest allows the spectre to imagine multiple spatial artefacts at once.

As articulated material these have entered a realm of physical decay. Continuity is achieved by visitors engaging with the materialised palimpsest, as they are confronted with the multiple readings of the site and has to identify the otherness of the traces. And then find a way to approach it, becoming one with it.

The intervention is not meant to be reversible but feed back into the palimpsest and realise its place as another layer in the history of the site. This to form continuity with the site itself. This is the outline of the feedback loop of the project as overtime the design itself will decay and become another layer to the palimpsest for future generation to recontextualise.

## I. THE FORMAL GEOMETRY OF THE PALIMPSEST

### Artificial Excavation

Artificial Excavation is a method of uncovering hidden geometries and informative layers to a site. This may generate a lot of information of different qualities. In order to structure the uncovered information, the traces are divided into two main groups depending on their characteristics: Material traces and Virtual traces.

### Material traces

Material traces are physical traces, such as on site occurrences. These can be walls, roads, foundations, but also objects and artefacts in its literal sense. Being Material traces are manifests of labour and life that took place. Routes of communication, hierarchy etc.

### Virtual traces

Virtual Traces are traces that are not physical in nature but rather that exist in effect or essence. Even though these are not physical they still effect on how the site is interpreted. Examples of these are legislation, while other more tangible virtual traces would include abstract representations of the site such as drawings, maps, and speculation. Since speculation is an equally important component in understanding the the site, especially in our reimagination of it, these speculative traces are not to be taken for fantasy. Much like speculative design these traces need to reside within suspension of disbelief.

Through making direct reference to these traces through different strategies of manifestation they can be made physical and thus become objects of engagement.

## II. SPATIAL ARTEFACTS OF MATERIAL CULTURE

### Manifesting Virtual traces

Giving shape to virtual traces are to manifest hidden geometry of the site and give it physical form. With physical form that underlying information has become an artefact that can be read on site. Material culture leans heavily on the agency of artefacts as sources of embodied knowledge. Using the means of architecture this meaning is to be communicated through spatial experience.

### Experiential Understanding

The goal of traced spatial artefacts is to bestow the visitor with an experiential understanding of the sites complexity. Recreating spatiality obscured by time allow for experience based reading of their use and function. The introduction of an artefact can bestow more knowledge, ie. Zink plaque at Allmannajuvet, places the product of the mining site in focus, incorporated in at a point it cannot be over-looked, creating an intuitive understanding for one of the function of the site.

### Material culture in itself

Given designworks inherent connection to the creation of artefacts. The designer becomes the agents of material culture, values of his day and age are imbued in the creation of his design. To reiterate, material culture is the practise of reading origin, practice and relation from a material object. In most cases it will be near impossible for the present not to be represented in the design, becoming an artefact in itself for future generations to study wheter it is in the aesthetics, material available or craftsmanship.

## III. DECAY AS A DESIGN TOOL

### Traces in becoming

Once the structure has been completely absorbed into the site, it should be able to be read as a trace itself. Since decay generally operates beyond human control, designing for it can be difficult. The longterm goal is to signal with what ever remains of the structure, that it is an addition that can be overwritten. This can be done through distinctive geometry or material.

### Material choice

With the end goal of a piece of architecture that merges with the site, material choice should tell the story of a structure in perpetual decay. To have different components of varying material permanence is one way.

### Disappearing structures

Based on the ideas of ontological decay, the material choice and the structure itself should be not be intact forever, but allow for the structure to reveal it's system. Material layers that wither and reveal systems within is one example.

# APPLICATION OF THE FRAMEWORK

## SIX STEP PROCESS

The application of the framework can be divided into six steps, each building upon the other. Starting with identifying the traces of the palimpsest and organizing the findings. Then a generative phase of layering and tracing the palimpsest. From the tracings of layers a program will emerge. Lastly the design is evaluated in relationship to the theory.

<b>1. Excavation</b>	Compiling traces
<b>2. Grouping</b>	Sorting traces
<b>3. Layering</b>	Finding corelations
<b>4. Tracing</b>	Finding space
<b>5. Programing</b>	Find function from form
<b>6. Evaluation</b>	Adherence to theory

## 2. GROUPING

### Resolution

Traces vary also in scales. The thesis found the larger the scale the more abstract the function of the site appears, but can also inform how a site acts. Traces are sorted into one of five scales depending on what resolution they describe and at what scale they are best understood.

<b>Resolution</b>	<b>Scale</b>
Detail	1:1
Room	1:20-50
Site	1:100-200
Local Landscape	1:2000
Regional Landscape	1:>2000

## 1. EXCAVATION

### Sourcing

The first step is making an artificial excavation of the site, uncovering as many traces as possible and identifying the palimpsest and its manifestation on site. Sources can be occurrences on site, maps, renditions, drawings, illustrations, archaeological records, chronicle descriptions, but also archeological methods like inter site comparison and chronological seriation. This generates a lot of data. In order to make sense of it structure needs to be applied.

### Types

The first culling of information is to identify what type a trace is. This thesis sorts the traces in two main families, Material traces, which are physical on site occurrences, and Virtual traces being non physical. For distinction between the two see previous spread.

## 3. LAYERING

### Superposition of traces

Then through layering of traces the complexity and logic of the site become visible. Layering either within a scale mixing material and virtual traces across scales visualise different readings and corelations.

### Clashing information

The thesis found that information may clash, misalign etc. Instead of dismissing these they are equally important to understand the site, being proof of the many ways a site appears in the public consciousness.

## 4. TRACING

### Form finding

By tracing and making reference to several traces these are given physical shape. To help this process, a number of tools based on the case studies have been refined.

### Tools derived from case studies

The following section presents a series of tools to engage the palimpsest on site based on findings in the case studies.

## 5. PROGRAMMING

### Structure

Assigning material and a structural program to the forms found in the palimpsest. Material is based on how to strengthen the experiential understanding of the space and manifested traces. As well as their function to age with the structure.

### Function

The programming of the use takes cues from the larger scales of the palimpsest to outline a suitable contemporary purpose of the design. Use can be echoed from the palimpsest directly or be applied based on the space allows. The key is to balance the form found in the palimpsest with a pragmatic use. Instead of forcing a program onto the site, the program should appear from the site itself.

## 6. EVALUATION

The design is evaluated on how well it adheres to the theory based on questions such as:

### Palimpsest

Does the design read as palimpsest layer of the present? Can the intervention engage more traces? Does it adhere to internal logic?

### Material Culture

How many spatial artefacts are related to? Are spatial artefacts made possible to experientially understand?

### Ontology

Does the design have characteristics of becoming? Does the design become more obscure with decay? Is decay an active design component? Material effect over time, does it weathering, overgrowth, rot, etc. What is the experiential effect over time? What is left to be recontextualised by future?

## ITERATIONS

This process is repeated until a satisfactory result has been reached. Each iteration brings new understanding to the site depending on what traces in the palimpsest are followed.

# TOOLS DERIVED FROM CASESTUDIES

The following part is an overview of tools informed by the analysis and lessons of the casestudies in the previous chapter. The tools are accompanied by a diagram to visualise how the tool could be implemented, however the tools are described as basically as possible to allow for creative implementation and to avoid that a certain type of trace are exclusively assigned to a specific tool.

## PURPOSE

This describes the effect of the tools implementation and how it can be read by visitors. These are informed by the experiential precedence encountered during the case studies.

## APPLICATION

Describes instructions on how to materially engage the trace on site, also these are draw on built precedence encountered during the casestudies.

## REFERENCES

The case studies were imperative for the formulation of these tools. The first set of tools were much more directly influenced by the case studies, and appeared much more narrow in their description in order to recreate the effect of the reference projects. The state of the current list of tools is the result of an iterative design process where the tools were applied, and evaluated and refined.

## ITERATIVE PROCESS

The development of the tools were conducted through continous application to the traces excavated from the site. This resulted in a lengthy process of explorations in mainly three different mediums: traced drawings, digital modeling and physical sketch modeling. Each resulted design was broken down to its bare design choices and so the tools were iteratively rephrased and refined.

## EVALUATION

The tools were evaluated based on their ability and flexibility as a generative devices to extrude spaces from the palimpsest as well as their adherence to the theory. Tags were put on the tool to mark to which theory the result of the tool correlated the most to.

SCALE	TRACE TYPE	
	MATERIAL	VIRTUAL
1:1 Detail		
1:50 Room		
1:200 Site		
1:2000 Local Landscape		
1:>2000 Regional Landscape		

Fig. 27 Illustrative table of grouping traces.

# I. PARTIAL RECONSTRUCTION

## SUGGESTING INSTEAD OF RECREATING

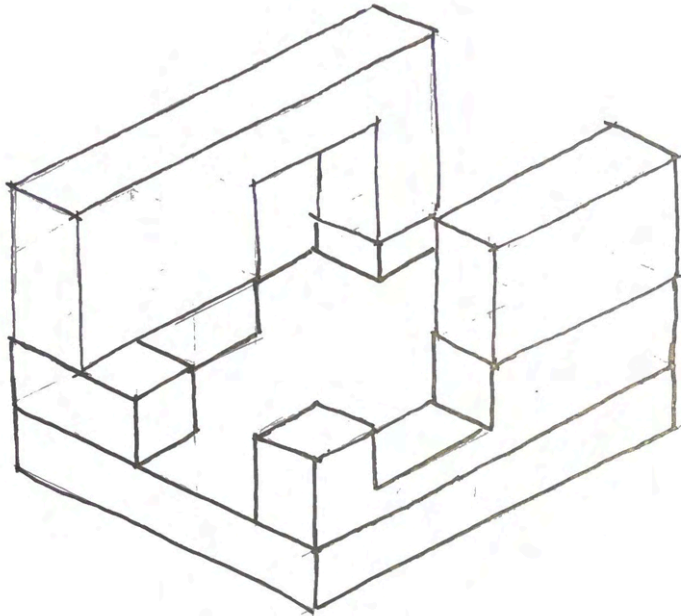


Fig. 28 Illustrative diagram of tool I.

### PURPOSE

Re-establish key spatial or structural relationships without attempting full restoration.

Deliberately leave part of the site empty of intervention to allow traces to permeate the site.

### APPLICATION

Rebuild or trace selected components such as floors, walls, roofs thus clarifying the original dimensions or functions.

### REFERENCE

Storhamar barn  
Vreta Abbey Garden

### MAIN THEORY

**Palimpsest**  
Material Culture  
Continuity

# II. MATERIAL CONTRAST

## LEAVING TRACES

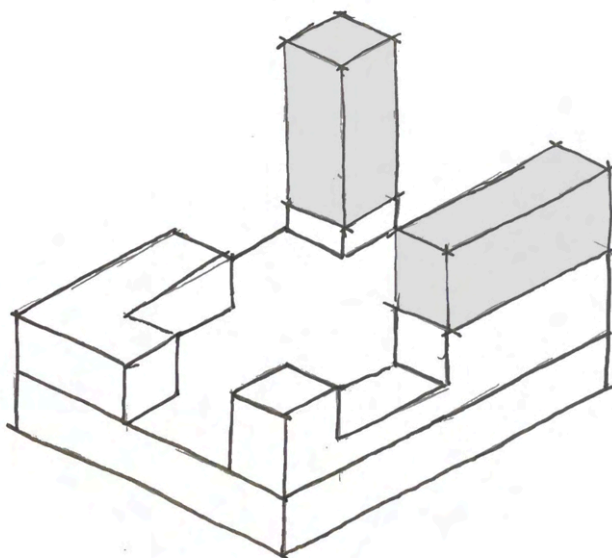


Fig. 29 Illustrative diagram of tool II.

### PURPOSE

Clear distinction between new and old in order to emphasize temporal traces.

### APPLICATION

Deploy materials with distinctly different texture and finish adjacent previous.

### REFERENCE

Storhamar barn  
Stjärnorps Castle ruin  
Glass Cathedral

### MAIN THEORY

Palimpsest  
**Material Culture**  
Continuity

### III. FRAMING

BRING ATTENTION

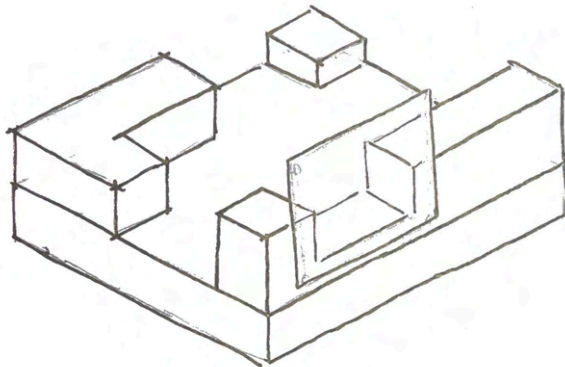


Fig. 30 Illustrative diagram of tool III.

#### PURPOSE

Direct attention to significant traces, views or artefacts. Traces that have become ambiguous over centuries are sharpened through contemporary interventions.

#### APPLICATION

Employ components such as walkways, doors, windows to direct the eye or body toward the trace.

#### REFERENCE

Storhamar barn  
Allmannajuvet Zinc Mine

#### MAIN THEORY

Palimpsest  
Material Culture  
Continuity

### IV. STRUCTURAL OFFSET

INDEPENDANT LOAD PATHS

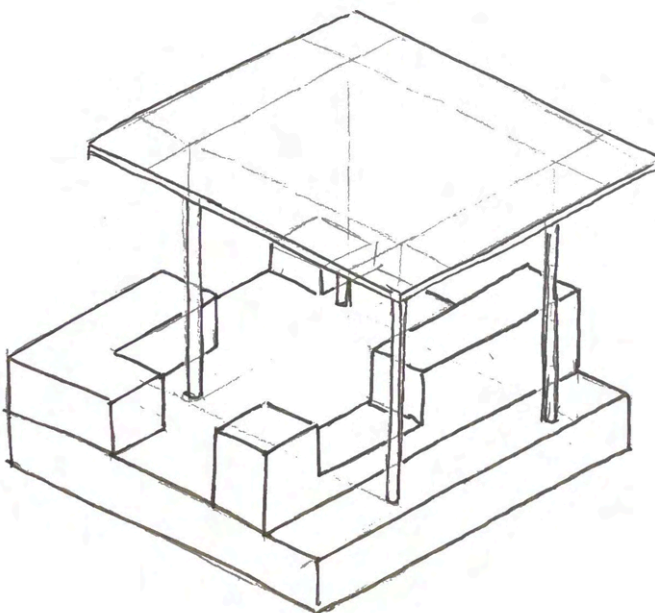


Fig. 31 Illustrative diagram of tool IV.

#### PURPOSE

Protect fragile remains by carrying loads independently. Allow structures to decay separately in relation to one another.

#### APPLICATION

Place structural components offset from material traces.

#### REFERENCE

Stjärnorps castle ruin  
Glass Cathedral  
Allmannajuvet  
Storhamar barn

#### MAIN THEORY

Palimpsest  
Material Culture  
Continuity

## V. RETROFITTED FUNCTION

### NEW USE OF MATERIAL TRACES

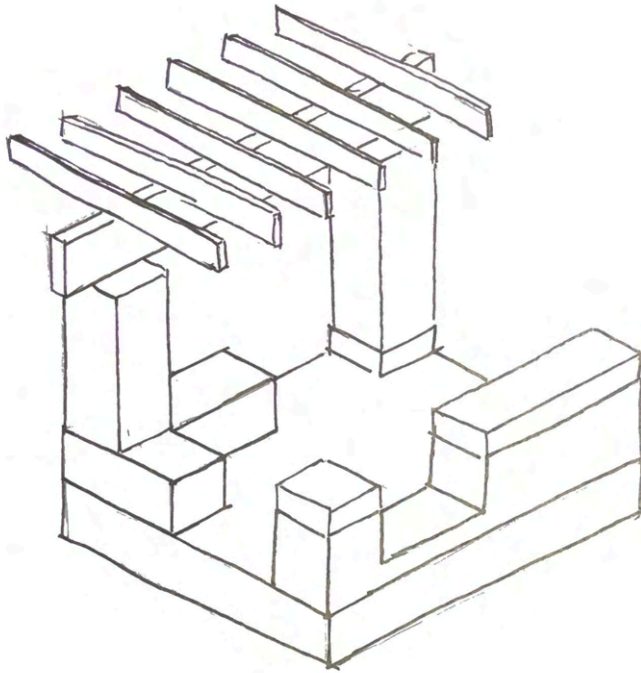


Fig. 32 Illustrative diagram of tool V.

#### PURPOSE

Activate material traces with contemporary use while making original geometry legible.

#### APPLICATION

Assign new functions to material such as programmatic edges or load bearing members.

#### REFERENCE

Storhamar barn  
Vreta Abbey Garden  
Haakons Hall  
Stjärnorp Castle Ruin

#### MAIN THEORY

Palimpsest  
Material Culture  
**Continuity**

## VI. HIDDEN SERVICE

### LEAVING TRACES

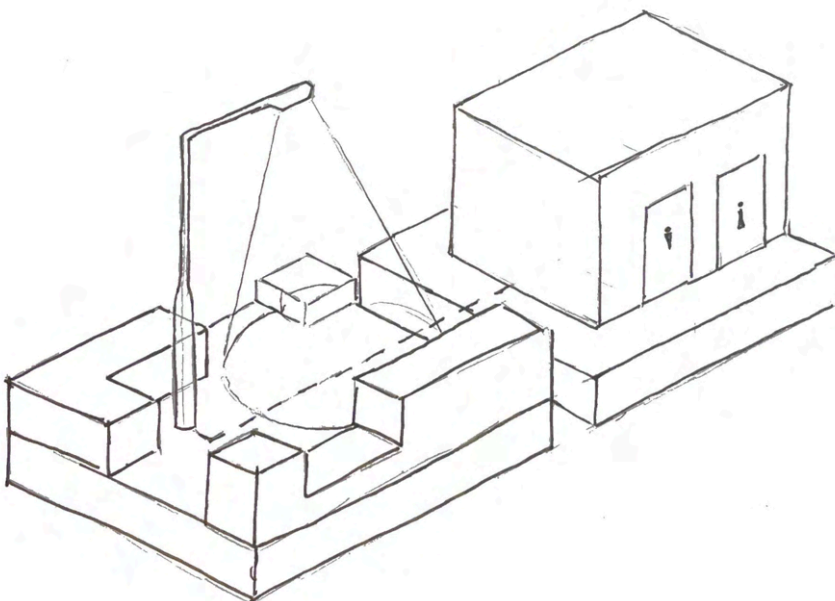


Fig. 33 Illustrative diagram of tool VI.

#### PURPOSE

Modernize functionality without visually disturbing heritage environments. Preserves atmosphere while meeting modern standards.

#### APPLICATION

- A. Run services out of sight e.g. under removeable floors.
- B. Concentrate at service nodes rather than dispersing it through sensitive areas.

#### REFERENCE

Allmannajuvet Zinc Mines  
Haakons Hall  
Vreta Abbey Granary

#### MAIN THEORY

Palimpsest  
Material Culture  
**Continuity**

## VII. OUTLINING

MAKING THE INVISIBLE VISIBLE

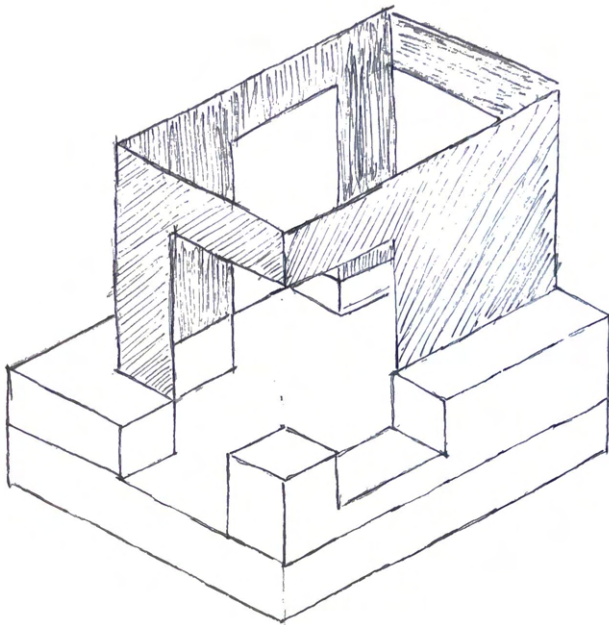


Fig. 34 Illustrative diagram of tool VII.

### PURPOSE

Manifest and bring attention to invisible traces of the palimpsest.

### APPLICATION

Have components outline contours of invisible palimpsest

### REFERENCE

Malingsbo  
Norns bruk  
Glass cathedral

### MAIN THEORY

Palimpsest  
Material Culture  
Continuity

## VIII. REVEALING STRUCTURES

TIME SENSITIVE

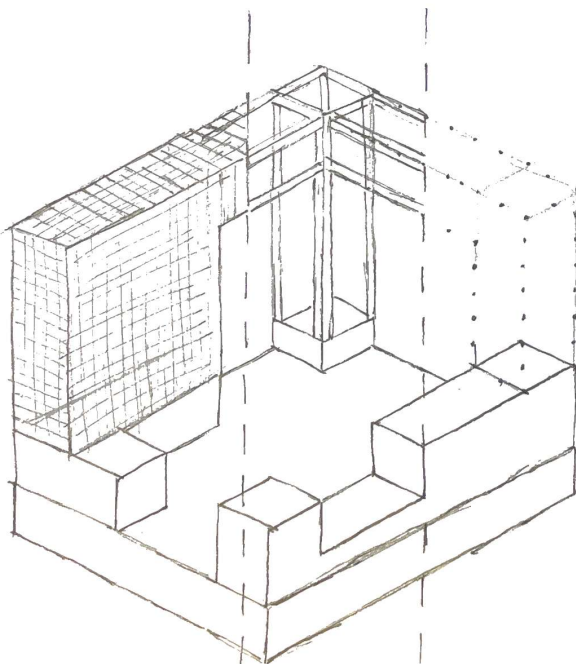


Fig. 35 Illustrative diagram of tool VIII.

### PURPOSE

Have structures that can be gradually absorbed into the palimpsest.

Have structures change character over time.

### APPLICATION

Have components of interventions age at different rates in order to manifest time and gradually reveal new experiences.

### REFERENCE

Norns bruk  
Borgund stave church

### MAIN THEORY

Palimpsest  
Material Culture  
Continuity

# IX. INTENTIONAL FRAGMENTS

ENGAGE THROUGH AMBIGUITY

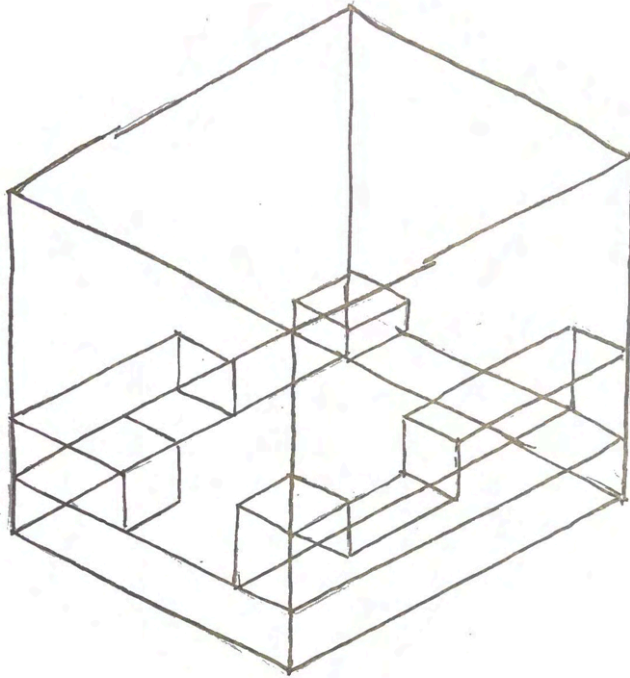


Fig. 36 Illustrative diagram of tool IX.

## PURPOSE

Pique visitors interest through snippets information in order to engage the visitor to self experience the narratives.

## APPLICATION

Leave out enough mystery to keep tension between built and unbuilt. Communicating through material and consistency and break away with intention.

## REFERENCE

Storhamar barn  
Vreta Abbey Garden  
Malingsbo granary

## MAIN THEORY

**Palimpsest**  
Material Culture  
**Continuity**

# X. INFORMAL RECORD

ALLOW VISITORS TO CONTRIBUTE TO THE SITE

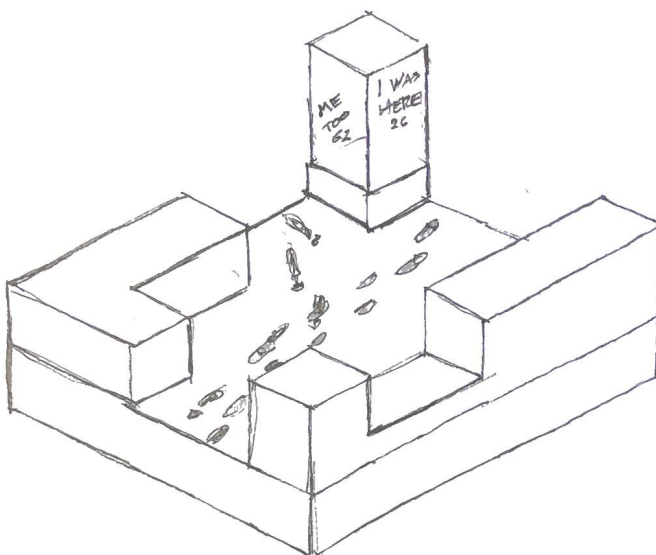


Fig. 37 Illustrative diagram of tool X.

## PURPOSE

Allow visitors to leave footprints on site, to be read as proof of presence and continual use.

## APPLICATION

Softer materials receptive to mechanical imprint, within reach of visitors. Plastered surface for scratching or wood for carving.

## REFERENCE

Ornässtugan  
Stjärnorp Castle Ruin

## MAIN THEORY

Palimpsest  
**Material Culture**  
**Continuity**

## **7. IMPLEMENTATION OF DESIGN FRAMEWORK**

### ENGAGING RAGNHILDSHOLMEN

This chapter covers the implementation of the design framework and the final design.

The first part follows an introduction to the site based with a physical description of its remains and a chronology of the site paired with a timeline for visual clarification. Following is an overview of the palimpsest traces found on site, organised into a table.

The second part showcases the generation of space. By breaking down the site on different scales, four suitable areas for intervention are presented labeled A1, A2, B and C.

Lastly a collection of perspectives are shown together with a short evaluation of the intervention.

The adjacent table of contents highlight which steps of the process are covered in each part.

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# INTRODUCTION TO THE SITE

## PHYSICAL DESCRIPTION

In the National Heritage Boards Database (2018) the site is described as a medieval ruin, measuring 39 x 35 m. The outer walls are 2,5 m thick constructed in hewn stone and mortar. The interior walls vary in the range of 0,3 - 1,5m and 1 - 1,5 m.

The semi circular southern wall to the Southeast measures 0,5-1 m high and 0,5 meter thick and is partly overgrown. The front gate to the Northwest has four steps. Other entrance points are located along the Northeast and Southwest. On the Northeastern side a rectangular extension is located with acces passage through the outhter wall to the west.

Surrounding the ruin to the NE, N, NW and WSW are hills of rubble assumed to be from the ruin at the time of excavation. These hills are also partially to fully overgrown.

## TEMPORALITIES

Traces available reference primarily four moments in time.

- a) The structure before being tore down.  
(1257-1310)
- b) It's time as a hill 14th century - 19th century.  
(1310 - 1881)
- c) State during and after unearthing.  
(1882 - 1931)
- d) Current state since restoration efforts in 1931  
(1931 - present)

First follows a chronological overview of the site. In the next part a presentation of traces linked to each period.

Fig. 38 Site plan 1:4000 (A4).



## 1257 - 1310 Fortress and refuge

Constructed under the reign of King Haakon IV of Norway, Ragnhildsholmen Castle is first recorded in 1257. As a means to control trade on the river the castle came to offer refuge to the deposed Swedish king Valdemar Birgersson in 1275 and later to the Dane Jacob Nielsen, Count of Halland, following his exile from Denmark in 1288. Duke Erik Magnusson stay in 1304 ends with a military campaign launched by Haakon V which also results in the construction of Bahus Fortress (Nordisk familjebok, 1915)

The Castle on Ragnhildsholmen is last mentioned in the chronicles in 1310, however it is assumed it was in use 1319, and possibly destroyed in a fire, indicated by layers of ash and soot uncovered during excavations (Berg, 1883).

## 1310 - 1881 Hilltop

During the following centuries the ruin is looted and robbed of material for construction. The site is visited and dropped objects have been found on the site such as coins from Charles XI reign (Berg, 1883). A reference to a castle called Nyklaborg in the region appears in the Rhymed Chronicle from the early 16th century. The oldest known map of the area is drawn up in 1750, almost a century after the region was ceded to Sweden (Andersson, 1981).

## 1881 - 1931 Excavation and disrepair

The site is excavated by Wilhelm Berg during 1881/82. Findings are documented in text and drawing and subsequently donated to the National Heritage Board. In the years following the ruin is fallen into disrepair with local landowner collecting stones and using the remains as pen for animals. (Andersson, 1981)

## 1931 - present Preservation

Having fallen in heavy disrepair, the National Heritage Board appoints Adolf Tell to lead the restoration of the ruin, giving it its modern appearance (Andersson, 1981).

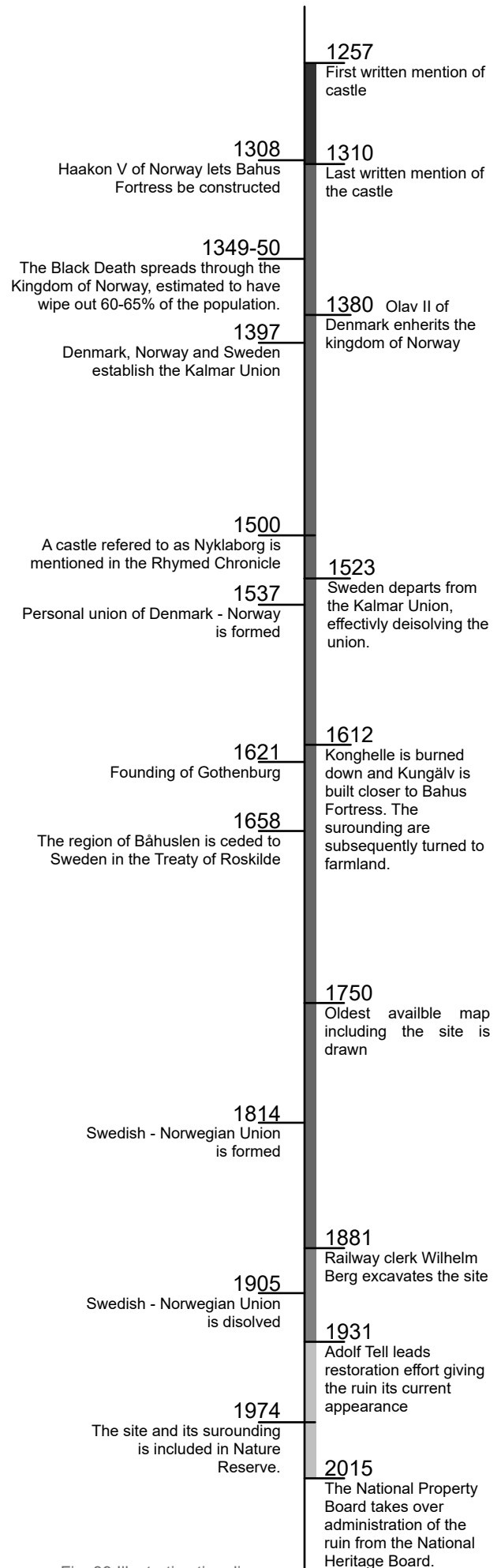


Fig. 39 Illustrative time line.

# ARTIFICIAL EXCAVATION

## THE MANY VERSIONS OF THE SITE

Many renditions, readings and interpretations exists of the site already, all of them conveying a certain aspects of the site. There is the original excavation plan by Willhelm Berg in 1883, aerial photography, romantic renditions, archived photographs, speculative reconstructions and individual experiences that all colour what this place is.

In an early investigation to the site all these layers were superimposed on one another and where the most overlap was would be the most truthful idea of the site.

The findings from the prestudy were messy. To bring some sort of organisation to it I have divided the traces into to specific types: Material Traces (empiric on site occurrences) and Virtual Layers (more abstract imaterial layers)

## MATERIAL TRACES

### **Collapsed wall**

Collapsed sections of the wall gives a glimpse of the structural logic of the wall and material use.

### **Brick wall**

In the northern corner of the site low segments of interior walls laid in brick can be observed, being trace of yet another material and structural logic to the site.

### **Corbels**

In the room believed to have been the kitchen there are corbels visible protruding from the wall, being telling of either placement of beams or vaults.

### **Joist holes**

In one of the rooms joist holes in the interior walls marks a floor level, dividing the space in two suggesting a raised floor with a low space underneath.

### **Arched passage**

One of the more grand features of the ruin is the intact, arched passage connecting the courtyard to the lower levels of enclosed space, suggesting a cellar.

### **Opening in interior wall**

The opening indicates the connection of two spaces on ground level and their hierarchy to one another.

### **Passage in outer wall**

The passage in the NW wall connects the adjacent area with the outside, indicating regular movement between these two sides of the wall.

### **Foundations**

A set of stone foundations line the courtyard on either side, outlining where buildings have stood.

### **Tower base**

A rectangular outcrop on the north eastern side. Passages and building follow a fairly orthogonal pattern however the passage to this room is cuts diagonally through the outer wall.

### **Landscape**

The local landscape locates Ragnhildsholmen on a cliff on the bank of Nordre älv, surrounded by farmland and marshland.

### **Geology**

Three types geology is found on site, of river sediment, post-glacial clay and igneous rock (granite). An arm of sediment stretches from the river, upstream along the southern side of the site.

### **Current context**

The site is situated outside of Kungälv, 3km from E6 and 15km away from Gothenburg city centre.

## VIRTUAL TRACES

### FROM THE ARCHEOLOGICAL RECORDS

#### Artefacts

Over 500 artefacts were uncovered in the excavation. Being removed from the site, their description of finding location links them to specific areas the site shedding some light on the purpose of these spaces.

#### Photographs and renditions of the site

Lithographic prints based on photographs of the site at the time of excavation allows us to observe vaults between rooms that has collapsed during the time after unearthing.

#### Plans and elevation drawings

In the plan drawing of Bergs excavation from 1883 there are also the elevation drawings of the hill of rubble covering the remains included. This provides a unique insight how the site appeared both before and after the excavation.

### WATER LINES

#### 13th century water levels

Post-glacial rebound in the region amount to a differing waterline of about two meters in the roughly 800 years past.

#### Earliest available record

The site is referred to as an island in literature as well as placenames and is pictured as such in the earliest available map of the area drawn in 1750. This landscape is most likely lost to a combination of agricultural draining efforts and the aforementioned post-glacial rebound.

### RECONSTRUCTION BASED IN INTER SITE COMPARISON

The Norwegian historian and archeologist Nicolay Nicolaysen (1880) writes thoroughly on the subject, compiling an account of medieval structures in Norway. At the time of his writing, Raghildsholmen had not yet been excavated, however his description of the use and careful measuring and documentation of Haakons Hall serves as the closest description of the use of the castle on Raghildholmen.

This teaches us about the importance of the sunpath, the orientation of buildings and a general distribution of functions in space within a structure of this castle typology.

A loose speculative reconstruction has been drawn up from this, based on Nicolaysens study on Haakons Hall in Bergen, Norway and Torkel Erikssons (2007) writings on Kärnan in Helsingborg, modern day Sweden. This informs masonry techniques available at the time and dimensions such as ceiling heights of roughly 4meters.

### LEGISLATION

The area is under protected nature, both as a nature reserve and bird life sanctuary under the Bird Directive. This defines much of the sites modern usage, being a popular destination for ornitologs (National Property Board, n.d).

### NORWEGIAN INFLUENCE

From historical description Raghildsholmen was located at the edge of of the norwegian kingdom, bordering on both Denmark in the south and Sweden in the east. Its position close to the ocean links the site to a well connected network across the sea, and an important port in a kingdom which at the time encompassed large parts of the north sea.

# MATERIAL TRACES COLLECTED IN TABLE

## OVERVIEW OF TRACES WITH SHORT DESCRIPTION OF THEIR FUNCTION



Fig. 40 Section of collapsed wall. Photo by author.

**Description:** Collapsed wall

**Origin:** On site occurrence

**Scale:** Detail

**Relevance:** Construction example.



Fig. 41 Layer of brickwork. Photo by author.

**Description:** Remains of brick wall

**Origin:** On site occurrence

**Scale:** Detail

**Relevance:** Construction example.



Fig. 42 Stone corbels. Photo by author.

**Description:** Corbels

**Origin:** On site occurrence

**Scale:** Room

**Relevance:** Indicator of beam or vault.



Fig. 43 Joist holes in wall. Photo by author.

**Description:** Joist holes

**Origin:** On site occurrence

**Scale:** Room

**Relevance:** Indicator of floor joist.



Fig. 44 Gothic arch. Photo by author.

**Description:** Arched passage

**Origin:** On site occurrence

**Scale:** Room

**Relevance:** Indicaton of access to lower floors.



Fig. 45 Wall opening. Photo by author.

**Description:** Trace of opening in interior wall

**Origin:** On site occurrence

**Scale:** Room

**Relevance:** Indicaton of connected spaces.



Fig. 46 Doorway in SW wall. Photo by author.

**Description:** Passage in outer wall  
**Origin:** On site occurrence.  
**Scale:** Room  
**Relevance:** Sugesting conection between interior and exterior space.



Fig. 47 view of site and foundations. Photo by author.

**Description:** Building foundation  
**Origin:** On site occurrence  
**Scale:** Site  
**Relevance:** Outlines areas occupied by buildings.



Fig. 48 Tower foundation. Photo by author.

**Description:** Tower Base  
**Origin:** On site occurrence  
**Scale:** Site  
**Relevance:** Indication of tower and vertical character of this part of the site.



Fig. 49 Aerial view of landscape. (Lantmäteriet, 2026).

**Description:** Aerial photo of site  
**Origin:** Lantmäteriet  
**Scale:** Local Landscape  
**Relevance:** Geographical context.

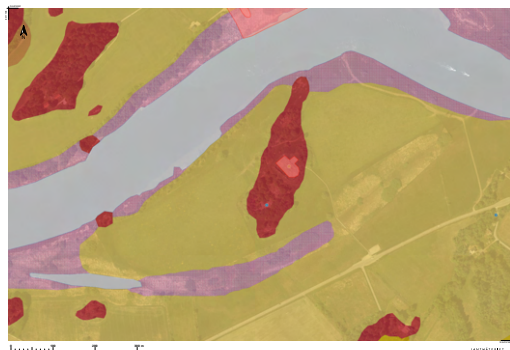


Fig. 50 Geological map. (Lantmäteriet, 2026).

**Description:** Geologic map  
**Origin:** Lantmäteriet  
**Scale:** Local Landscape  
**Relevance:** Mapping geological terrain and remains of anabranh.



Fig. 51 Aerial phot of Hisingen. (Lantmäteriet 2026).

**Description:** Aerial Photo of Hisingen  
**Origin:** Lantmäteriet.  
**Scale:** Regional Landscape  
**Relevance:** Showcases sites modern context.

# VIRTUAL TRACES COLLECTED IN TABLE

## OVERVIEW OF TRACES WITH SHORT DESCRIPTION OF THEIR FUNCTION

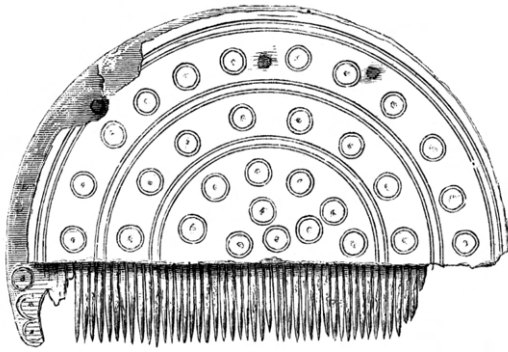


Fig. 52 Comb found during excavation. (Berg, 1883).

**Description:** Lithographic print based on artefact  
**Origin:** Bergs 1883 publication.  
**Scale:** Detail  
**Relevance:** Domestic artefact link its finding area to function of space.

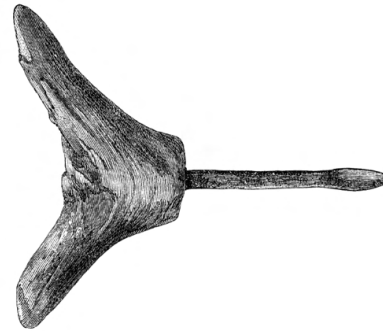


Fig. 53 Gimlet found during excavation. (Berg, 1883).

**Description:** Lithographic print based on artefact  
**Origin:** Bergs 1883 publication  
**Scale:** Detail  
**Relevance:** Work artefact link its finding area to function of space.



Fig. 54. Dörröppning mellan rummen nr 16 och 17. Efter fotografi.

Fig. 54 Archway from excavation. (Berg, 1883).

**Description:** Lithographic print based on photo  
**Origin:** Bergs 1883 publication  
**Scale:** Room  
**Relevance:** Documentation of architectural characteristics lost.



Fig. 7. Fönsteröppning åt borggården. Efter fotografi.

Fig. 55 Window in wall. (Berg, 1883).

**Description:** Lithographic print based on photo  
**Origin:** Bergs 1883 publication  
**Scale:** Room  
**Relevance:** Documentation of architectural characteristics lost.

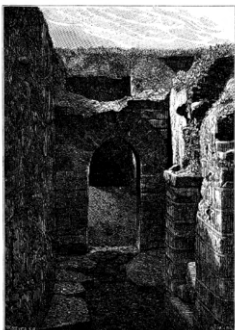


Fig. 11. Högåge i gången mellan äldre kapellruddaren och rummet nr 13. Efter fotografi.

Fig. 56 Archway from excavation. (Berg, 1883).

**Description:** Lithographic print based on photo  
**Origin:** Bergs 1883 publication  
**Scale:** Room  
**Relevance:** Documentation of architectural characteristics lost.

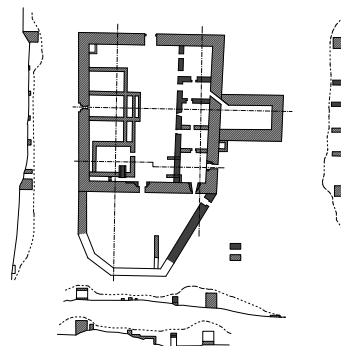


Fig. 57 Drawing of Excavation site.

**Description:** Drawing of Ragnhildsholmen at Excavation  
**Origin:** Berg 1883 publication  
**Scale:** Site  
**Relevance:** Showcases the state site before and after excavation.



Fig. 58 Postcard. (Nilsson/Bohusläns Museum, 1956).

**Description:** Reconstruction on post card  
**Origin:** Bohusläns Museum  
**Scale:** Site  
**Relevance:** Interpretation of site in public consciousness.

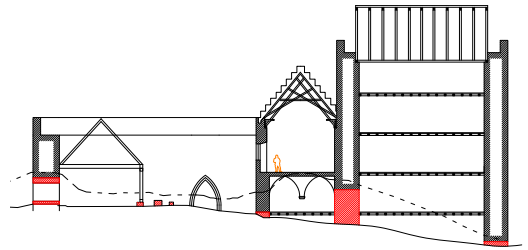


Fig. 59 Reconstructed drawing. Present remains in red.

**Description:** Speculative Reconstruction  
**Origin:** Authors interpretation.  
**Scale:** Site  
**Relevance:** Based on material traces and similar sites from 13th century scandinavia.

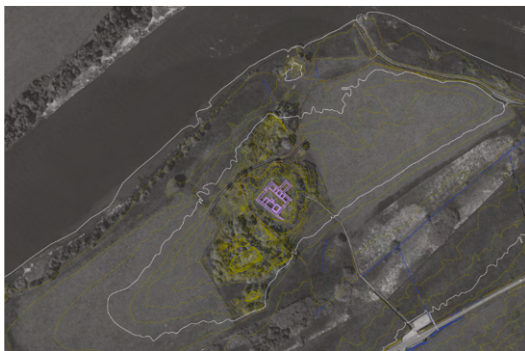


Fig. 60 Speculative waterlines in the 13th century.

**Description:** 13th century waterline  
**Origin:** Authors interpretation.  
**Scale:** Local Landscape  
**Relevance:** Compensating for c. 800 years of post glacial rebound.



Fig. 61 Map of area. (Anthelius, 1750).

**Description:** Aerial photo of site  
**Origin:** Lantmäteriet  
**Scale:** Local Landscape  
**Relevance:** Geographical context.

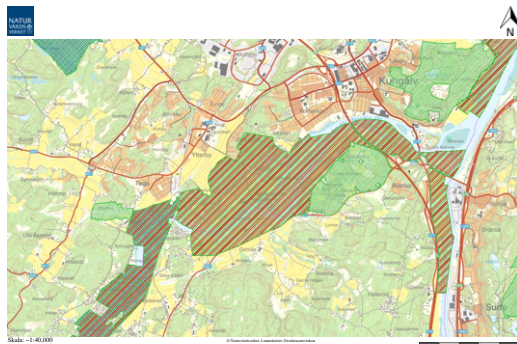


Fig. 62 Map of protected nature. (Naturvårdsverket 2026).

**Description:** Map of Protected Nature  
**Origin:** Naturvårdsverket  
**Scale:** Regional Landscape  
**Relevance:** Showcases sites modern legislative context.



Fig. 63 Kingdom of Norway, mid 13th century.

**Description:** Map of Kingdom of Norway  
**Origin:** From historic discription  
**Scale:** Regional Landscape  
**Relevance:** Representation of the larger influential sphere in the 13th century.

## 8. FINAL DESIGN

### SHOWCASING THE DESIGN FRAMEWORK IN A DESIGN PROJECT

#### DESIGN PROPOSAL OVERVIEW

The speculative design project aims at giving new meaning to the site of Ragnhildsholmen, approaching it as local testbed for the design framework.

The design proposal touches the entire site, stretching from Kongahällavägen up to the hill itself. The spaces moved through in sequence become more complex as the visitors come closer to the ruin.

The different parts of the intervention will be reviewed in closer detail in the following pages starting of with the division of the site.

#### FINAL PROGRAM

**A.**  
The reintroduced spaces allow for new use. Inspired by the palimpsest the redefined rooms could house pan-scandinavian exhibitions and the tower for observation of the landscape and birdlife, tying new use to both new and old cultural ties.

**B.**  
Bring to attention the separation between the two zones as a landscape to be traversed.

**C.**  
Arrival providing services fit for an entrance to a combined nature reserve and heritage site.

---

#### THE LANDSCAPE

In order to approach the site in a structured manner, the landscape is broken up into smaller tangible areas that together can for an experiential whole of the landscape from the point of arrival on Kungahällavägen.

#### SITE DIVISION

Through the palimpsest the site is divided into the following subareas:

**A. Ragnhildsholmen**

**B. The river bed**

**C. The riverbank.**

#### TRACES ENGAGED

The overarching programming of the site engages with traces on the larger scales, mainly the sequences of spaces as outlined by both geology and historical waterlines, its situation in a area of protected nature and its proximity to the Gothenburg metropolitan area as well as the E6 highway.

#### TOOLS UTILIZED

##### V. Retrofitted function

The waterlines of the palimpsest become programmatic borders.

##### VI. Hidden service

Services are allocated to one area, allowing atmosphere to not be effected by modern standards.

##### IX. Intentional fragmentation

Peek interest through snippets, letting three zones have different character.



# A RAGNHILDSHOLMEN

## READING THE RUIN

### SPACES

The site of the ruin itself can be further subdivided into four smaller areas.

1. **Hall and Tower.** (shown in red)
2. **Economic buildings** (shown in blue)
3. **Courtyard**
4. **Outer ward**

While much of the spatial character of the courtyard and outer ward are still experientially defined the intervention turns its attention to the former two mentioned main structures that define the site but has lost most of their interiority.

### TRACES

#### Artefacts

During the excavation over 500 individual objects were unearthed. Domestic objects, such as combs, board game pieces, sewing equipment were primarily found along the north eastern side of the site (1.). While work related objects, such as tools, weapons and horsemanship equipment such as stirrups and spurs were found at the opposite side of the site (2.).

From this one can make the assessment that there is a hierarchy between the two sides of the ruin. With the latter (2.) playing the role of supporting structure to the main household.

### Material traces

The width of wall remnants still present on site are telling of the height of buildings. While the low foundation walls on tell of a wooden structure. The myriad of available building techniques makes it hard to define their size. It could have been post-and-plank, stave, timber framing, log construction etc. What can be said with more certainty is that it was probably at least one story high.

This informs us of a spatial hierarchy between the hall and tower, not only in use but in architectural terms of dimension and material.

### A1 & A2

The interventions on either side of the ruin, engaging with the outlined areas 1. and 2. will be referred to as A1 and A2 respectively.

## TOOLS UTILIZED

### I. Partial reconstruction

The intervention leaves part of the site untouched and focuses on selected components.

### III. Framing

Bring to attention obscured spatial relationships within and between the two sides.

### IX. Intentional Fragmentation

The intervention leaves much of the heritage site out to engage.

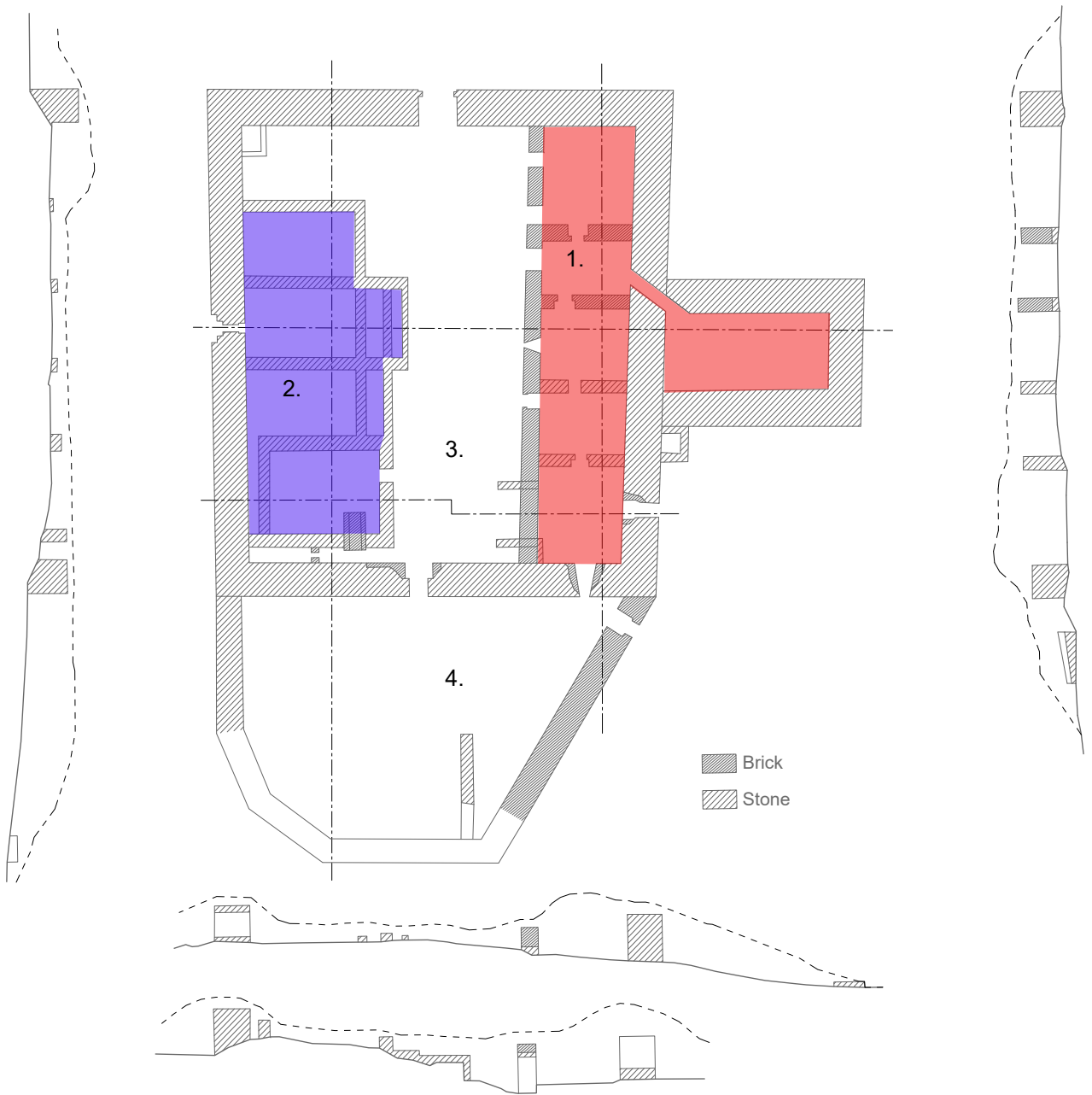


Fig. 65 Annotated excavation plan and elevation based on Wilhelm Berg drawing from 1883. 1:500 (A4)

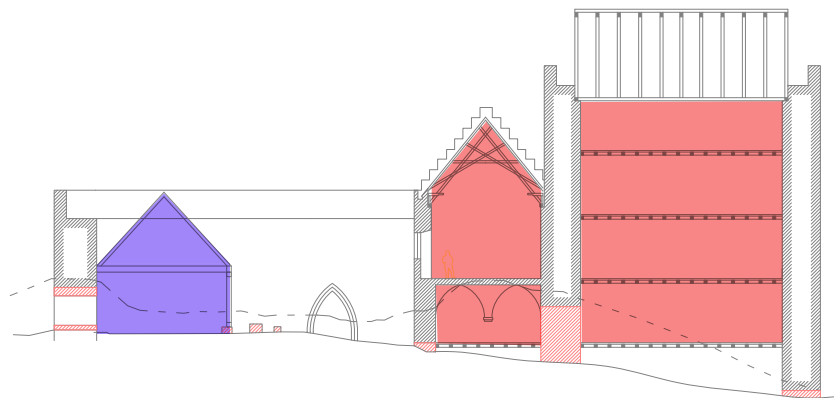


Fig. 66 Speculative reconstruction with Hall building (red) and economic building (blue) 1:500. (A4)

# A1 LOOKOUT TOWER



Fig. 67 Lookout tower exterior.

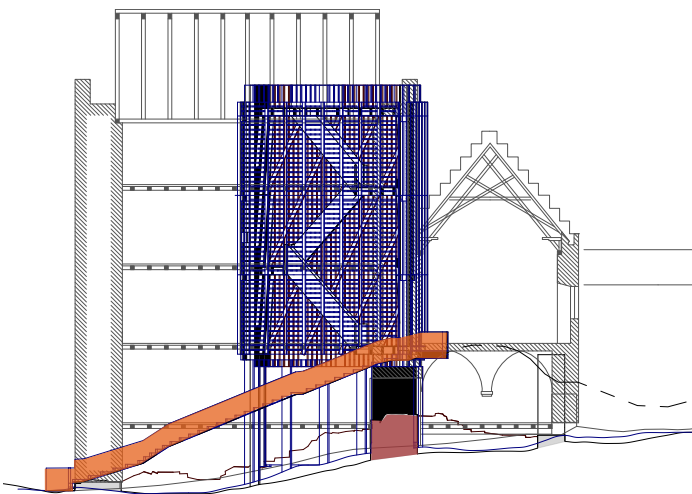


Fig. 68 Lookout tower traced elevation 1:400 (A4)

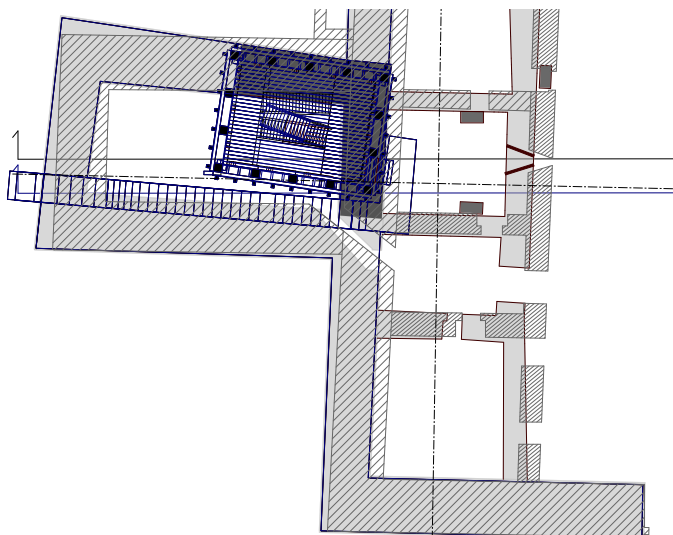


Fig. 69 Lookout tower superimposed plan 1:400 (A4)

## TRACES ENGAGED

The intervention engages with the footprint of the tower, by placing it directly on top of it, extruded to the speculative reconstructions top to give a sense of original scale. However the tower does not cover the whole footprint, but is constrained by the the section line from Bergs elevation drawing. The rubble hill traced for the path. To bring attention to the uneven form of the tower, the two first flights of stairs align with different walls while the last aligns with Bahus fortress framing the view and connection between these two places.

## TOOLS IMPLEMENTED

### I. Partial reconstruction

The intervention engages with specific lost spaces, the tower while leaving the hall out.

### II. Material contrast

The intervention utilizes glu-lam, steel, brick and concrete to contrast the material traces of timber, lime and stone.

### IV. Structural offset

The tower rest partially on the wall and on freestanding supports.

### V. Retrofitted function

The foundation of the tower utilizes parts of the outer wall.

### VII. Outlining

Steps to the tower follow the curve of rubble hill.

### VIII. Revealing structure

The tower employs a double facade, allowing the light to penetrate more with withering, exposing its system.

### IX. Intentional fragmentation

Aligning floors with plausible levels of the tower while having the tower only occupy part of the footprint.

### X. Informal record

The concrete foundation wraps creating a secluded space underneath the tower and is withering reach to be imprinted.

## PROGRAMING

This intervention centres around the lost tower, reintroducing this vertical element in the landscape allows the site to regain visual precense aligning with its original use. In its modern context in a bird life and nature reserve it would play the role of observation tower, to allow vistor to achieve a greater view of the area as well as an elevated view of the the heritage site and understanding of the castles function in the landscape, while the steps trace the climbing of the hill of rubble before excavation.

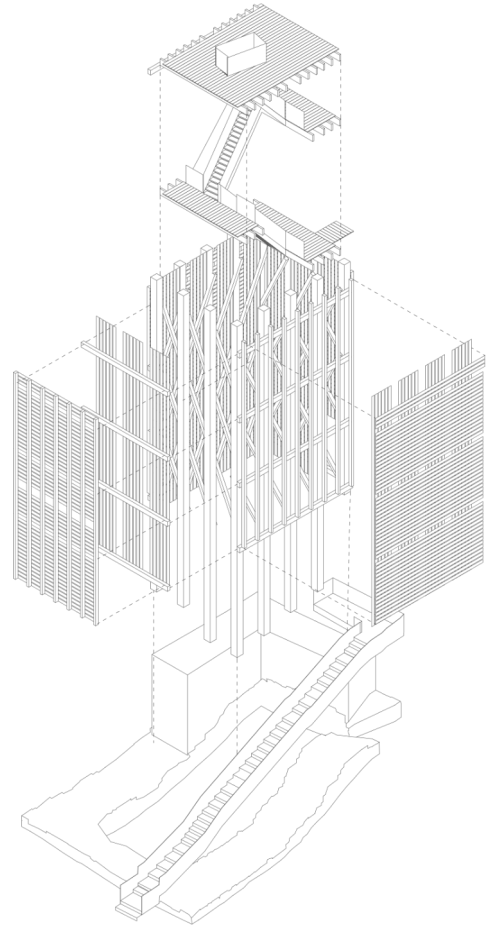


Fig. 70 Lookout tower exploded isometric 1:400 (A4)

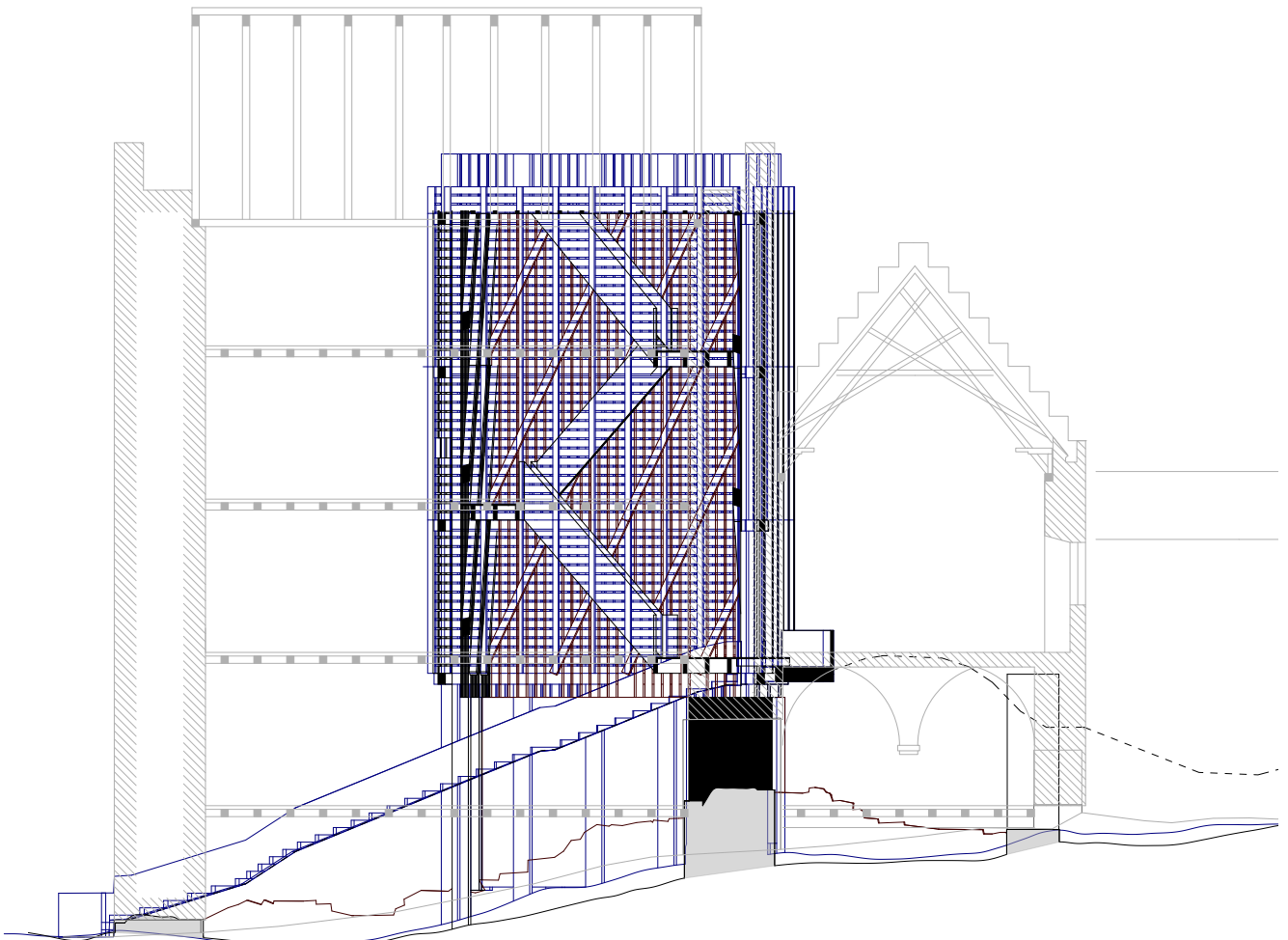


Fig. 71 Lookout tower superimposed section 1:200 (A4)

# A2 PAVILION



Fig. 72 Pavillion exterior.

## TRACES ENGAGED

The Intervention engages with the reintroduction of lost interiority.

One having an adjacent door leading to outside, whatever this space was used for originally it was connected to the outside the wall. this is reflected in the opening in the architrave, implying that the space continues outside through the passage.

The structure is raised directly on the foundation remains bringing attention to the low foundation walls that are easily obscured by vegetation.

A gap in the columns in suggestion of bergs section line drawn across the site.

## TOOLS IMPLEMENTED

### I. Partial reconstruction

The intervention engages with specific lost spaces, the economic buildings.

### II. Material contrast

The intervention utilizes glu-lam, steel, brick and concrete to contrast the material traces of timber, lime and stone.

### III. FRAMING

Columns and cladding shift to bring attention to other easily missed spatial connections.

### V. Retrofitted function

The columns stand directly on the foundation of the economic buildings.

### VII. Outlining

The column plinths of the pavillion follow the curve of the documented rubble hill and marking section cut.

### VIII. Revealing structure

The pavillion employs a dubble facade, that with withering exposes its skeleton.

### IX. Intentional fragmentation

Can either be read as a series of spaces or a connected space to reflect archeological uncertainty.

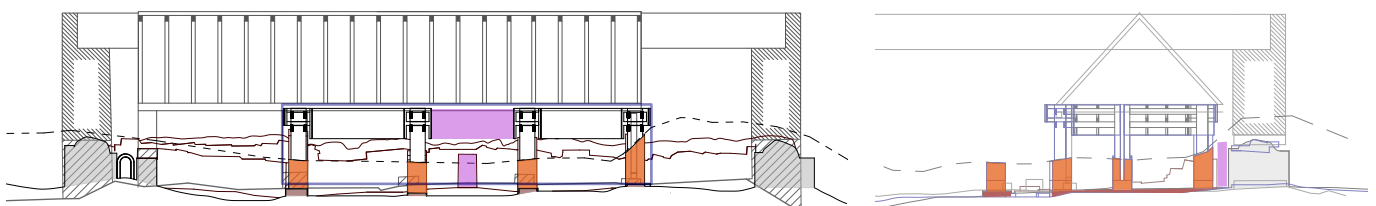


Fig. 73 Pavillion traced elevations.

## PROGRAMING

The reintroduced spaces allow for new use. The form found outline three spaces that together become a larger simultaneous space lending itself for joining and division. Inspired by the palimpsest the redefined rooms could house pan-scandinavian exhibitions and the tower for observation of the landscape and birdlife.

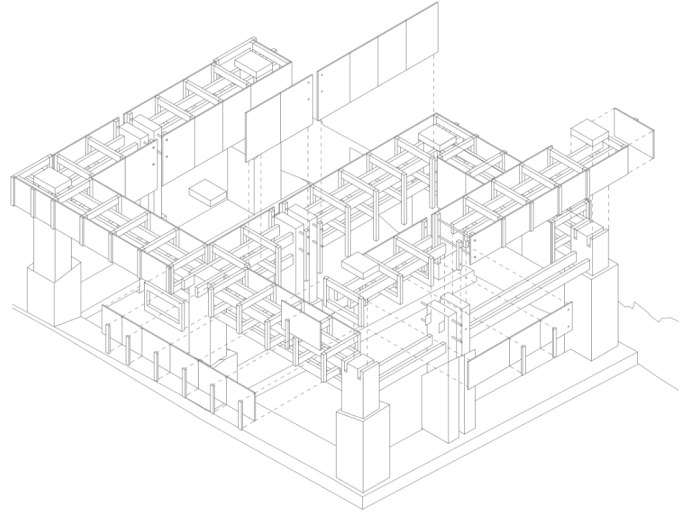


Fig. 74 Pavillion exploded isometric 1: 50 (A4)

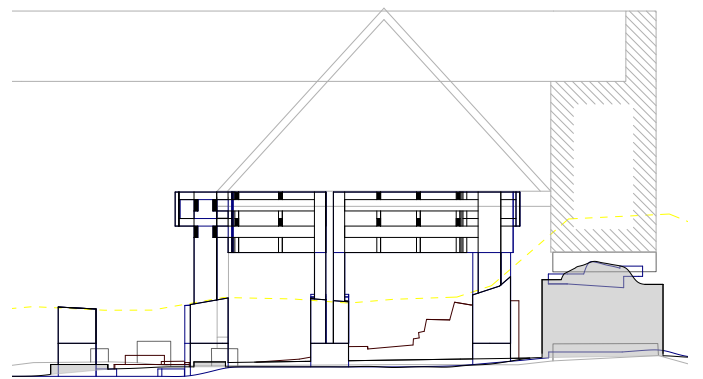


Fig. 75 Pavillion elevation. 1:200 (A4)

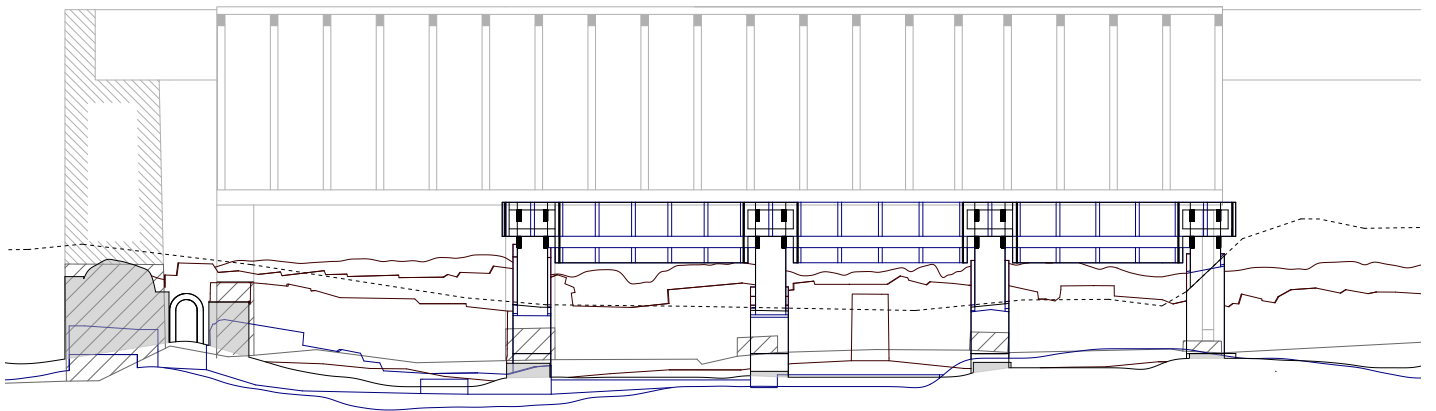


Fig. 76 Pavillion elevation. 1:200 (A4)

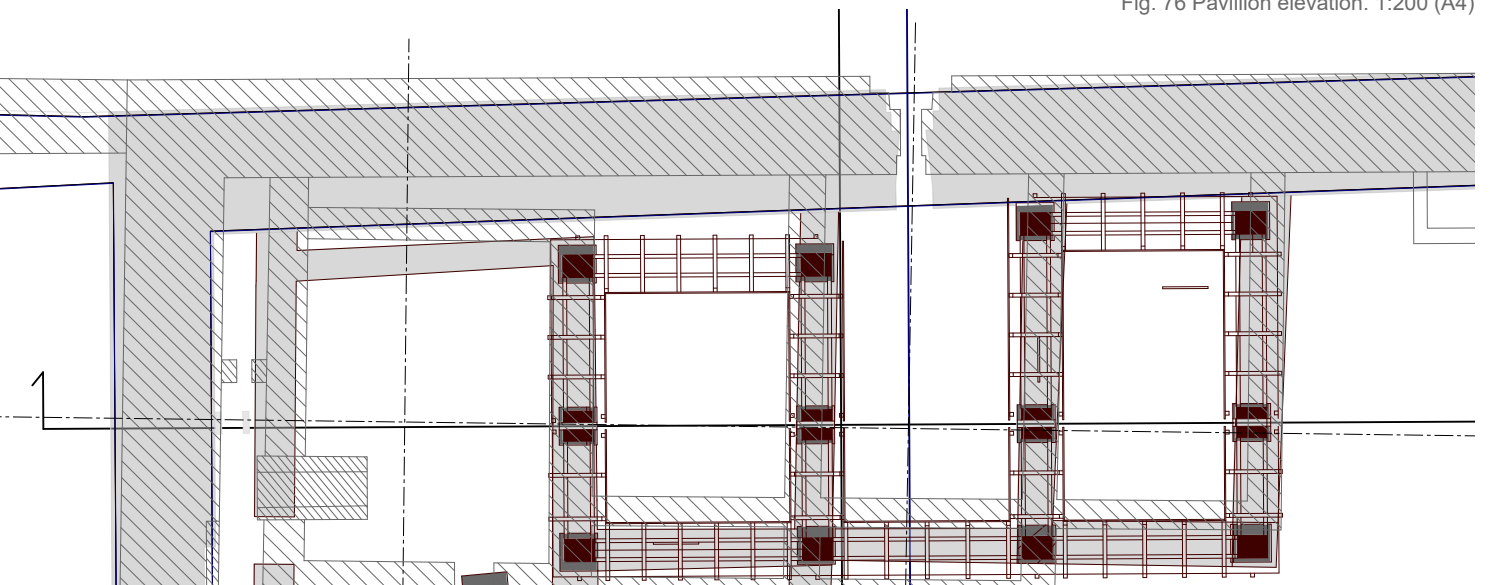


Fig. 77 Pavillion plan. 1:200 (A4)

## B WATERLINE WALL

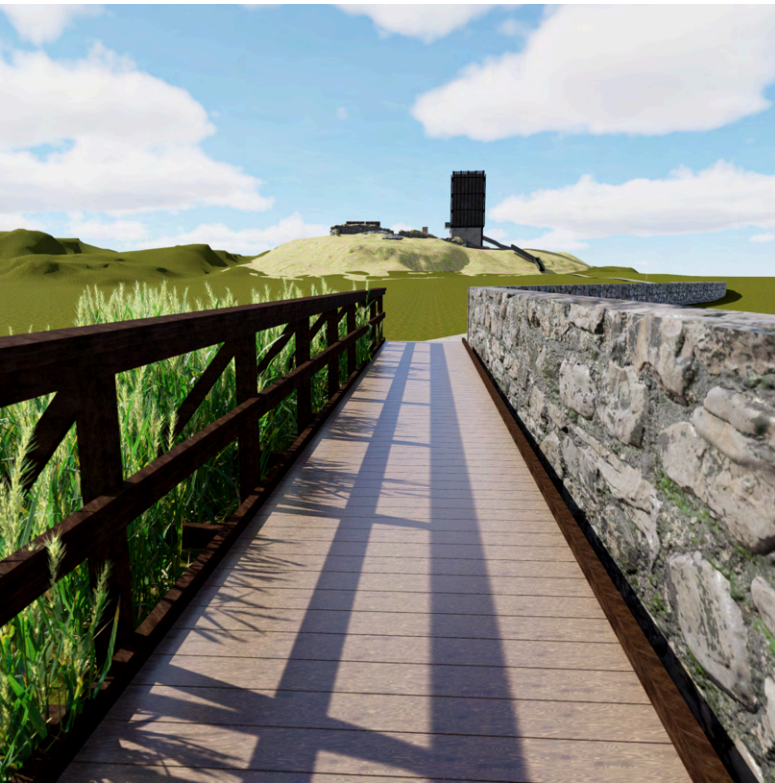


Fig. 78 View of footbridge directing attention towards the ruin.



Fig. 79 Overlaid waterlines and path. 1:2500 (A4)

### TRACES ENGAGED

The wall cutting across the landscape traces historical water levels making invisible history visible.

The section of the path that can still be considered wetland is covered by a footbridge, resting on beams protruding through the wall, making a physical connection between traversing the landscape, its wet character and the wall itself.

The wall is kept level at 2m above the current waterlevel accross its full lenght, appearing and disappearing where water would historically met the bank.

### TOOLS IMPLEMENTED

#### III. Framing

The footbridge aligns with the ruin, directing the attention to the silhouette and changing character over time.

#### VII. Outlining

The cap stones traces the 13th century waterlevel. The wall itself follows the 20th century footpath.

#### VIII. Revealing structure

The footbridge withering reveal supporting stones which tells of width of path.

#### IX. Intensional fragmentation

Meaning is kept vague while manifestation is strong.

#### X. Informal record

Precense of others are highlighted by wear on floorboards and railing.

Fig. 80 Elevation of path. Present wetland in grey. 1:1000 (A4)

## PROGRAMING

The barrier of the natural moat surrounding the castle has been reinterpreted as a wall stretching across it, guiding visitors from the arrival zone to the foot of the hill. The material choice is robust with the aim of the wall being able to communicate way of the path long after the path is gone with the footbridge itself implied by its joist holes in the wall and aligning supporting stones telling of its width.

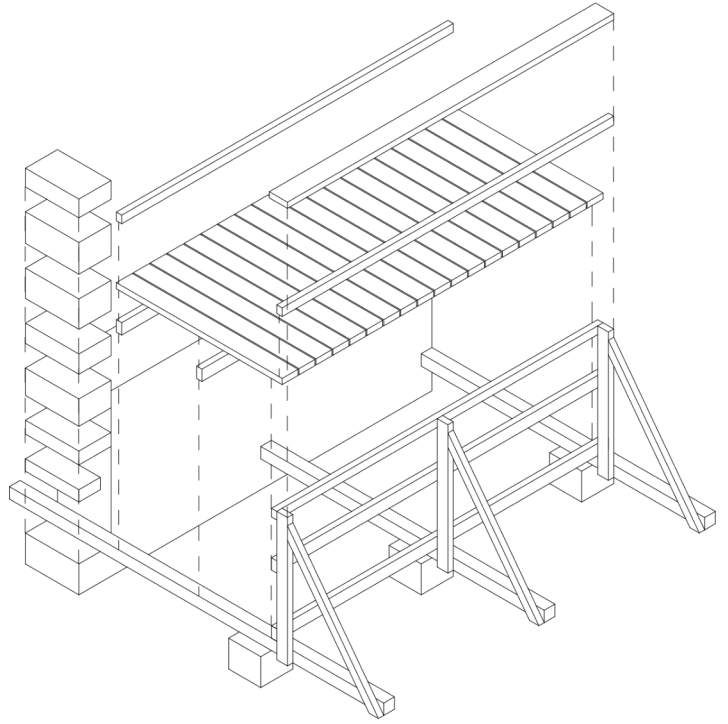


Fig. 81 Footbridge exploded isometric 1: 50 (A4)

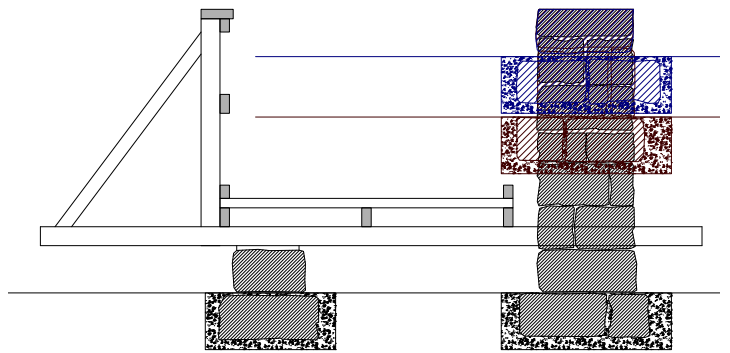


Fig. 82 Footbridge Layered section 1:100 (A4)

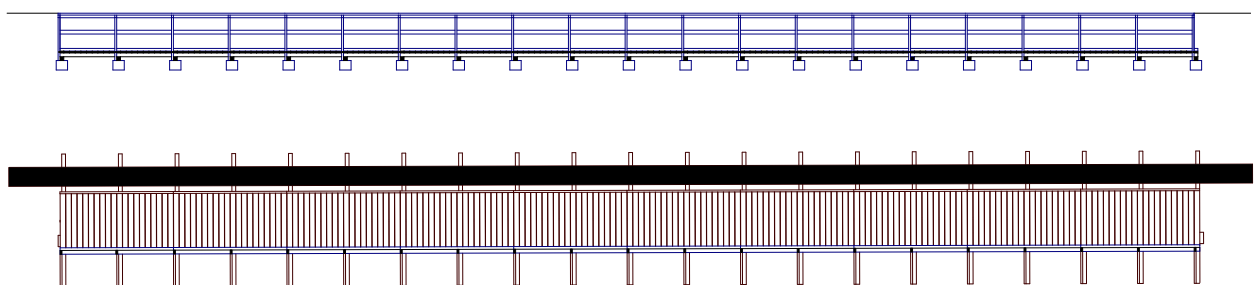


Fig. 83 Footbridge plan and elevation 1:200 (A4)

## C SERVICE NODE



Fig. 84 Exterior view of service node.

### TOOLS IMPLEMENTED

#### III. Framing

Building is oriented to bring attention to adjacent dry stone fence.

#### VI. Hidden service

Services are concentrated at a node, to modernize functionality without visually disturbing the landscape.

### TRACES ENGAGED

Traces in this area of the site are scarce, there is a dry stone fence, presumably marking out an old property line. Its easy to miss so the volume is positioned perpendicular to this wall in order to frame it.

Given the accessibility standards for public restrooms of our current time, this measurement has been interpreted as a module measurement making up the basic geometry of the structure.

#### VIII. Revealing structure

The structure decays in steps, with withering panel revealing a second fiberglass facade.

#### X. Informal record

Age and use is traced through the wear on metals.



Fig. 85 Layered plan drawing of service node. 1:1000 (A4)

## PROGRAMING

Nature reserve and birds directive and heritage site informs the decision to utilize this area as a service node, encouraging visitors to stay longer than their bladder can hold.

The service node has a foundation of concrete, hollow floor to allow installations. A tared outer facade that browns and grays over the first decades. Once they fail the fiberglass casing is revealed. The interior is flexible with installation space under the floor allowing the space to take on different functions if needed. Once it has played out its role the foundation is left to be read. The underlying systems are sugested through the gaps of the paneling and pertruding spouts on either gable.

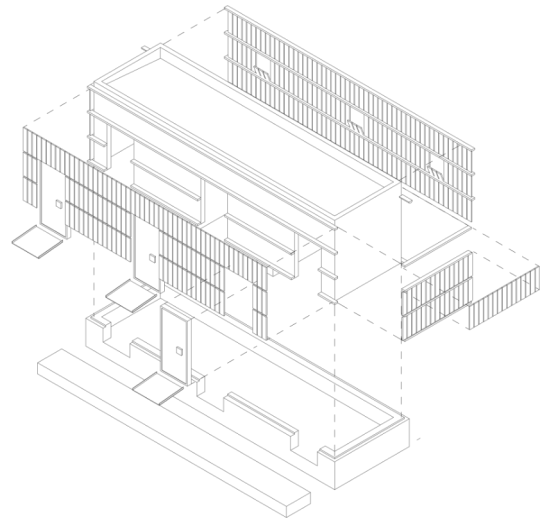


Fig. 86 Service node exploded isometric 1: 200 (A4)

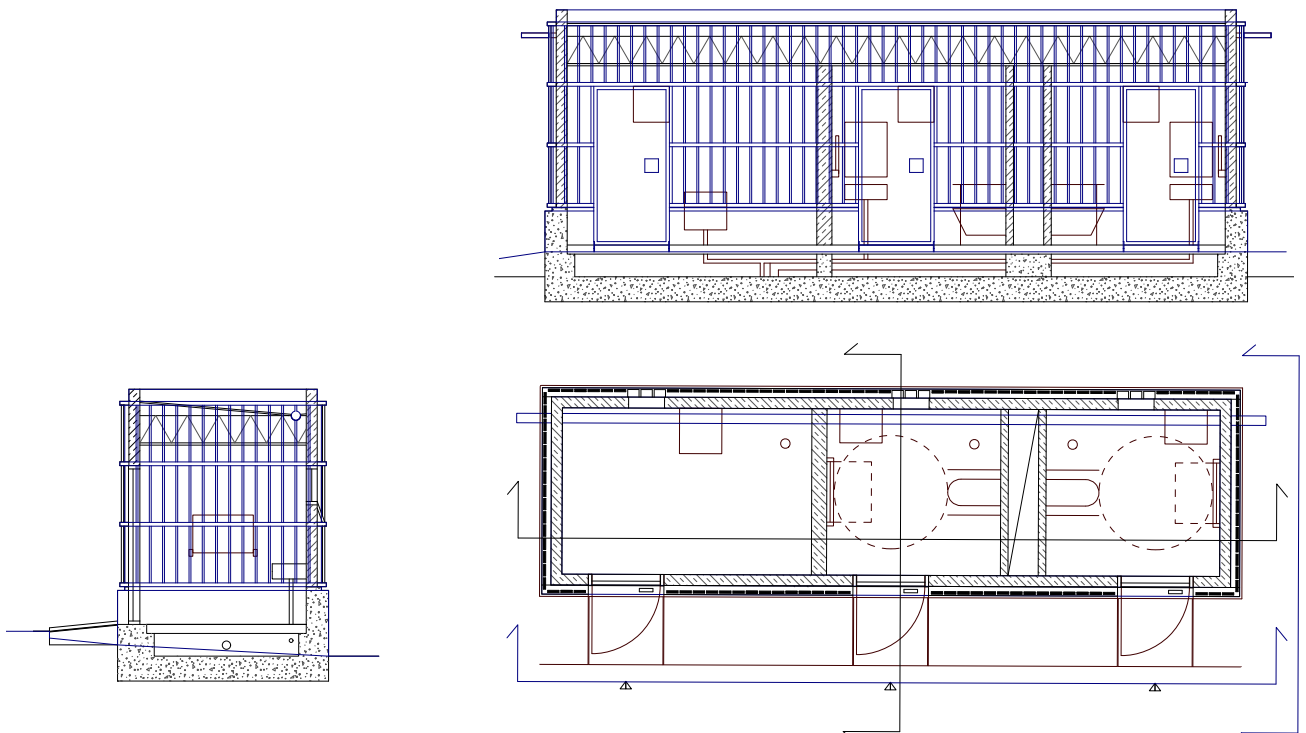


Fig. 87 Service node superimposed plans and elevations 1: 100 (A4)

# EXTERIOR PERSPECTIVES



Fig. 88 Perspective from western corner of the ruin overlooking the courtyard.

## LOST COMPONENTS

### Cellar doorway

A doorway traced from Wilhelm Bergs lithographs, placed in relation to their appearance on his excavation site map. By introducing a doorway, a distinctively human sized passage, one is able to visualise and experience the transition between rooms, their hierarchy, and what type of movement can be performed between the two joining spaces.

### Abstract window

The movement of daylight is traced through the introduction of an abstracted window niche. Based on Wilhelm Bergs excavation, extruded to the speculated full height of the first floor. The shadow these two slabs cast becomes a representation of the daylight moving across the adjacent room. This in turn to suggest the importance of daylight to the orientation of the building as outlined by Nicholaysen study of norwegian castles (1880).



Fig. 89 Perspective from hall building entrance, looking cross courtyard..

## EVALUATION

The goal is not to dominate the site but to extend its logic into the present and let old and new interact. The intervention is distinguishable from the material traces on site, but does not prevent reading the site. Aligning with the goal of the intervention to be read both separately and part of the site.

### Spatial artefacts

The rise of the tower is emphasised by the horizontal stretch of the pavillion, strengthening the hierarchy between the two sides of the ruin.

The tower reestablish visual presence of the ruin, reconnecting it with its original function as watchtower as well as strenghtening the sites present function as landmark and destination.

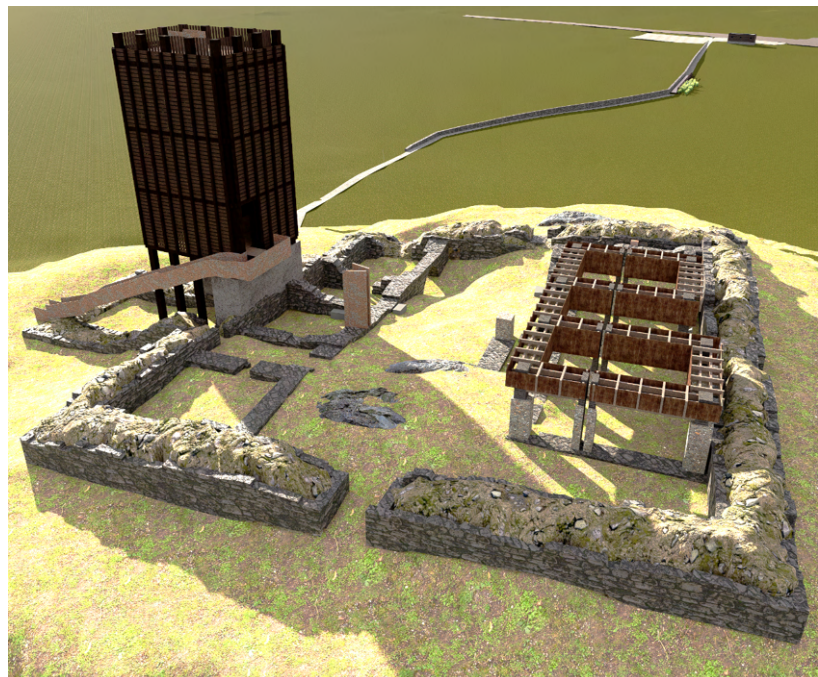


Fig. 90 Aerial perspective from NW of the ruin and landscape from.

# INTERIOR PERSPECTIVES



Fig. 91 Interior view of pavillion.

## EVALUATION

### Palimpsest

The plinths of the columns indicate the rubble covering the site before it's excavation. The gap in the middle columns reference the section drawn by Berg and its estimated position in on site. The brick columns on top of the plinth are to draw attention to the bring to attention the brickwork accross the site, linking the two parts of the site.

### Material Culture

The inner outline of the rooms reaches lower to enforce a sense of interiority. This also enforces the notion that the middle room is open towards the door to suggest the continuation of useage outside the castle walls.



Fig. 92 Interior view of look out tower.

### **Decay as source of atmosphere**

The tower with its layerd of vertical and horsontal panels creates atmospheric lighting. The interior would with time become brighter as more of the facade withers away. The paneling compresses the visual field while climbing the tower only to later expand it once one reaches the top, driving home the effect of an elevated and widened view of the ruin and landscape.



With the paneling withered away the interior loadbearing system and vertical communication becomes readable from the outside.

Fig. 93 Lookout Tower first stage of decay.



Floors and stairs removed or withered it still communicates vertical presence. The steel steps tracing the rubble still functions as an elevated viewing platform.

Fig. 94 Lookout towers second stage of decay



The foundation tells of a larger structure on the site. Due to it only occupies part of the tower footprint it does not dominate the reading but blends the intervention into the palimpsest.

Fig. 95 Lookout towers final stage of decay

# A2

The silhouette of the space is still traced but in a more jagged expression.

Fig. 96 Pavilion first stage of decay.



With wooden structure withered away the brick columns communicate a much more fragmented and ambiguous idea of the structure.

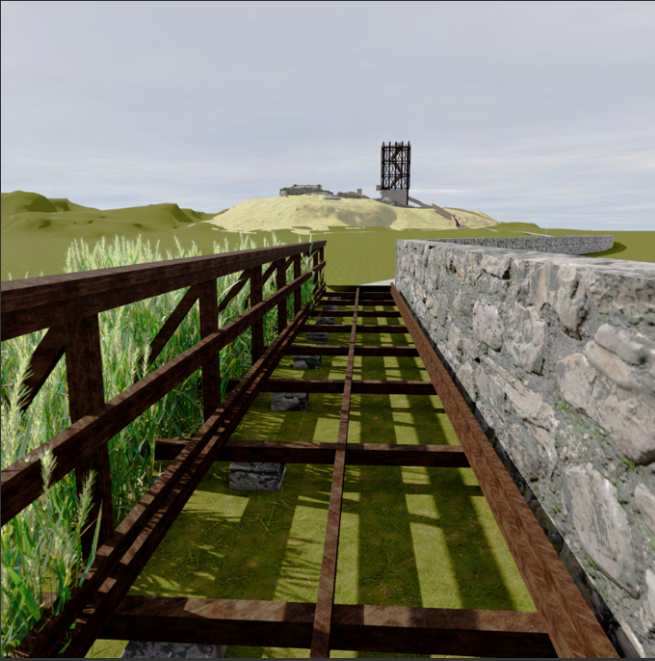
Fig. 97 Pavilion second stage of decay.



The bricks are easier to reuse as building components however the concrete plinths are intentionally not. The plinths of the column are cast with rubble from the site, once the concrete withers the stones will return to the site.

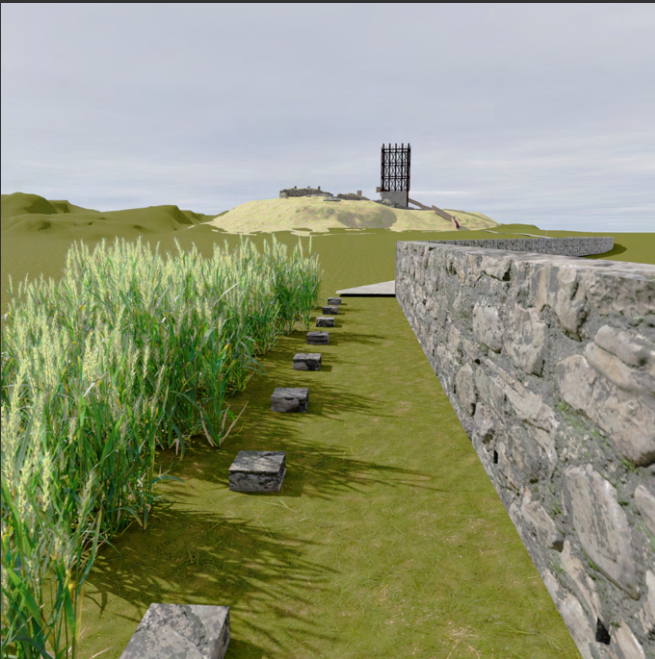
Fig. 98 Pavilion final stage of decay.





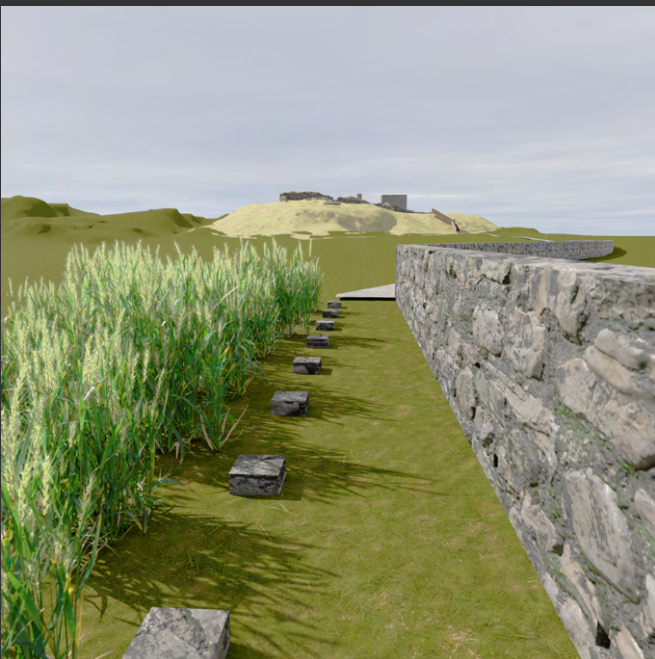
The boards of the footbridge are withered exposing the loadbearing system.

Fig. 99 Footbridge first stage of decay.



After the glu-lam structure has been removed or withered away its supporting stones still communicate the width of the crossing.

Fig. 100 Foot bridge second stage of decay



The silhouette of the incomplete shapes on the hill are still framed.

Fig. 101 Footbridge final stage of decay

# C

The paneling withered away, the second skin of the building is revealed. Age is now traced in the wear on metals.

Fig. 102 Service node first stage of decay.



Once the interior has become outdated the shelling can house new functions.

Fig. 103 Service node second stage of decay.



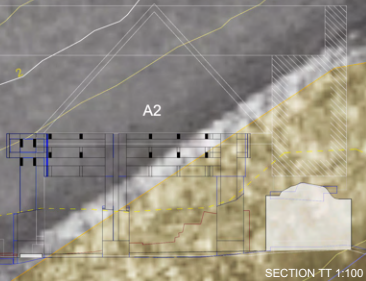
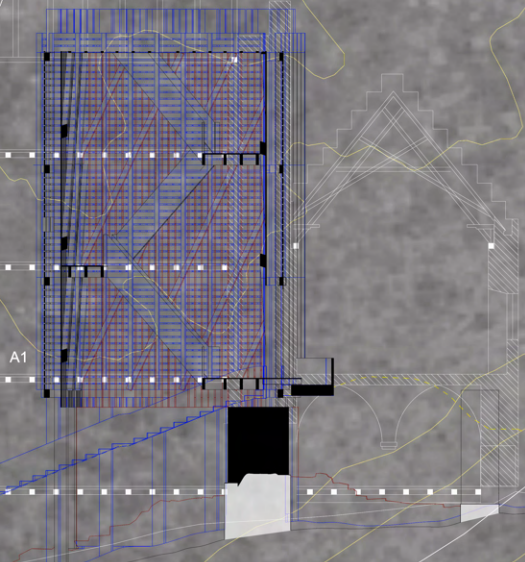
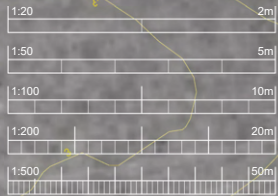
Only the foundation remains to be interpreted and readapted.

Fig. 104 Service node final stage of decay.

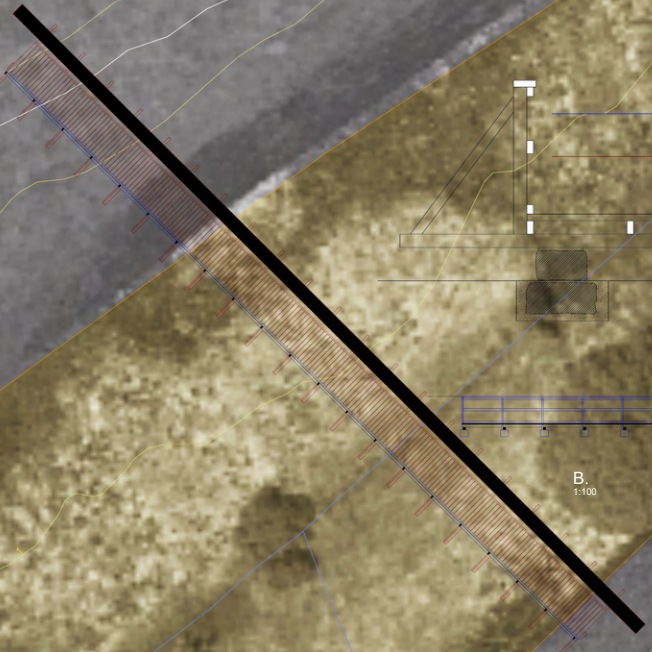
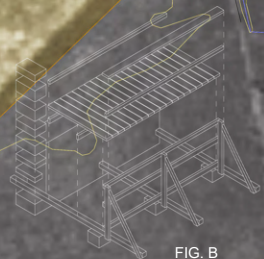
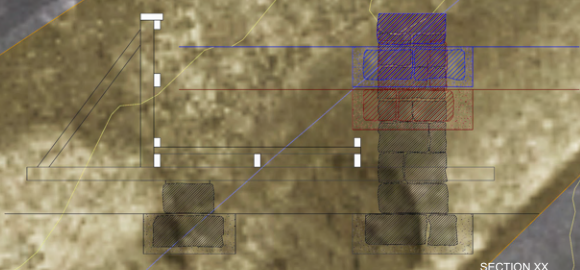


Fig. 105 Composite drawing, mixed scales (A0)



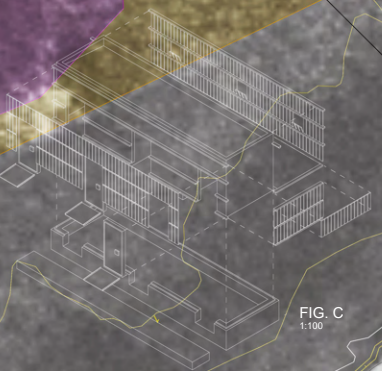


SECTION TT 1:100



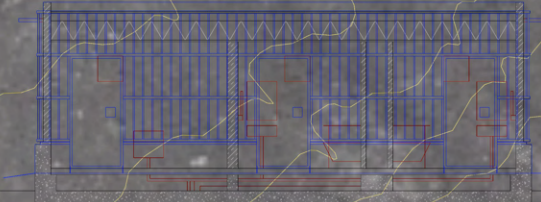
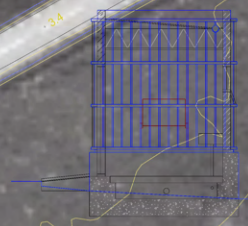
x2

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SECTION V-V 1:200



SECTION ZZ 1:50

# 9 CONCLUSION

## SUMMARY AND DISCUSSION

### PROCESS

The process, while leaning heavily on qualitative research methods, the thesis found that the synthesis of the theory and the model coming based on it proved to be a vital tool for structuring, ordering and categorizing findings in a qualitative manner. Allowing the author to overview and evaluate all subsequent decisions in both case studies, the formulation of tools and design explorations.

### ON ARCHITECTURALLY ENGAGING FRAGMENTARY HERITAGE SITES

The thesis has inovated on how fragmentary heritage sites are engaged by providing both a methodology of approaching the site through theory, articulated in a design framework, and exhibited an example of how a process of implementing that framework can look.

#### Design framework

The thesis has shown how a synthesis of palimpsest, material culture and ontology can be translated into a design framework consisting of a structured methodology and tools transferable to other sites and contexts.

#### Design project

The design project, showcasing the design framework applied to Ragnhildsholmen demonstrates how fragmentary traces can become active generators of form and reconnect past and present without relying on restoration by engaging the palimpsest not as a fixed narrative but as a system allowing multiple narratives over time.

The structure is kept general to allow for future recontextualisation, combining more and less permanent components while programming is based on contemporary conditions and spatial allowance of the intervention to create a programme that does not impose itself on the site but rather stems from the sites own agency.

### CONTRIBUTION

While palimpsest and material culture are theories are already discussed in the spheres of heritage conservation, the thesis has lifted the aspect of ontology and continuity in regard to conservation of the built heritage. As well as proposed a theoretical synthesis of these three. The result is a way of building more inline with how cultural heritage functions at a social scale, through a recontextualisation of traces from different temporal states to find a contemporary use instead of enforcing a present need.

### ADRESSING THE AESTETICS AND TOOLS

The design is not without subjective tendecies, the choice of construction methods and treatment of material and the process of deciding on what tool to utilize with what trace are up to the architect.

For future expansions of the design framework a system of assigning tools would be interesting to see. However the idea of continuity does not necessarily need to adhere to an objective system since the process of historic conciousness, and identifying the otherness in ones cultural heritage, is in essence a subjective endeavour. Thus the architects would need to be able to be vessel for the wider cultural expression they carry when implementing the framework, revealing as much anout the architect and his clients as the society society they belong to.

## FINAL THOUGHTS

### **Heritage is collective and personal**

Working with heritage and its built form can be a very personal endeavour. As I myself can trace my lineage from the regions of Bahusiana and Hallandia, this proximity may well have influenced a silent self censorship and unconcious self imposed constraint in my design simply due to some sort of reverence to local heritage. It begs the question, from the same tool set, in the hands of another architect, how drastically different would the end result become? Where does the architect end and architecture begin?

### **Self similarity**

Almost as a mental microversion of the project itself, this booklet can be read as an attempt of creating continuity with Ragnhildsholmen. The thesis positions itself in relationship with the 800 year old history of the site, reframing it and bringing it to the front of a the readers mind, giving new meaning and agency to it.

### **Making space**

One of the earliest sources researched in this thesis process, Tim Ingolds Making (2013) emphasis the making of an artefact as key to understand its culture of origin. Combining this with the idea of spatial artefacts being immaterial I ask myself, how is a spatial artefact actually created? The material boundries of a space and their creation is heavily studied, and ranges with techniques famililar from masonry and timer, casting etc. But the space inbetween is must be created through inhabitation, when the space is claimed and given purpose.

### **End**

I wish to end this thesis with repeat the importance of heritage as a factor of identity that on a collective level lay the foundation of a mutual understanding of the cultural practises that unites us togheter. Not only to our fellow living humans, but through continuity, ties us to our ancestors as well as our future kin. But as social constructs, heritage and culture are fragile, and becomes forgotten once it falls out of practice.

What do we chose to conserve of what he inherited and what do we give to the next generation is a question that has risen in me during the work of this thesis. As architects designing space for human use, we become carriers of cultural expression by planning the spaces that culture and heritage is allowed to inhabit. Continuity gives us a responsebility to our contemporaries as well as those who came before and will come after.

Lastly, just because something is forgotten does not mean it is lost. It can be rediscovered, reinterpreted and continued through physical manifestation in architecture.

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## STATEMENT ON AI

This thesis was researched with the assistance of Microsofts' Microsoft 365 Copilot (version 2.2, accessed during the period of Jan - May 2026) as a creative aid to explore ideas, concepts and approaches to the project. All factual content has been independently researched and verified by the author. The thesis presented, its structure, arguments and conclusions are the authors own and the author accepts full responsibility for the accuracy and originality of this work.

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