GATEWAY TO THE NORTHERN ISLES: GROWING TOURISM IN SHETLAND THROUGH THE LENSES OF LANDSCAPE

by

Brienne Miller

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ABSTRACT

Gateway to the Northern Isles: Growing Tourism in Shetland Through the Lenses of Landscape identifies and seeks to utilize the inherent potential in the Shetland Islands for sustainably growing the tourism industry.

This thesis proposes the development of an architecture for observation as a means of reshaping existing tourism typologies. The heightened observational experience generates new emphasis and understanding thereby elevating the experience for existing tourists while attracting new demographics of tourists to the islands. The creation of these destinations seeks not only to reframe these tourist events but through the development of a series of waypoints, also seeks to disperse the tourist population throughout the islands both preserving Shetland's unique wilderness and reconnecting the northern islands. The heightened phenomenological experience of existing tourism typologies is facilitated by the interaction between the architecture and the landscape. This system of movement and discovery invokes the phenomenological while simultaneously providing refuge and connectedness to the island.

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CHAPTER ONE: INTRODUCTION

Tourism – Enhancing Potential in Shetland

The economy of the Shetland Islands historically has been closely tied to the agrarian and seafaring lifestyle that has been the island way of life for thousands of years. In the islands' more recent history the economy has been taken over by the establishment of oil terminals, with the industry being based primarily in Sullom Voe on Mainland. The rate of extraction of the land's resources, especially oil, cannot be maintained indefinitely. Throughout Shetland's history the islands have always depended on the resources of the islands to survive; their wellbeing and prosperity always being intrinsically linked to this cycle of resource extraction. The finite nature of the oil industry strongly suggests that another industry should be developed with the foresight that the oil industry and its associated jobs will eventually cease to exist.

Tourism is one of the few industries existing on the island that does not involve resource extraction or exploitation. The recreational tourism industry has been declining for over a decade, causing some of the smaller northern islands to feel financial strain and a loss of jobs. The industry however, has the potential to become a major economic contributor for the islands. The islands' inherently unique qualities make it an ideal destination for a specific tourist demographics. Interest in the islands as a destination can be reinvigorated through careful development of the tourism industry through architecture. However this system of development must mediate between an increased tourist density and the necessity of preserving the islands' rare qualities and the pristine wilderness that make them a unique destination. The islands' remote wilderness and existing tourism activities create a unique tourism niche that could be adapted through the strategic use of architecture to create new, heightened experiences.

Isolation and Wilderness – Utilizing Potential / Preserving the Shetland Islands' Character

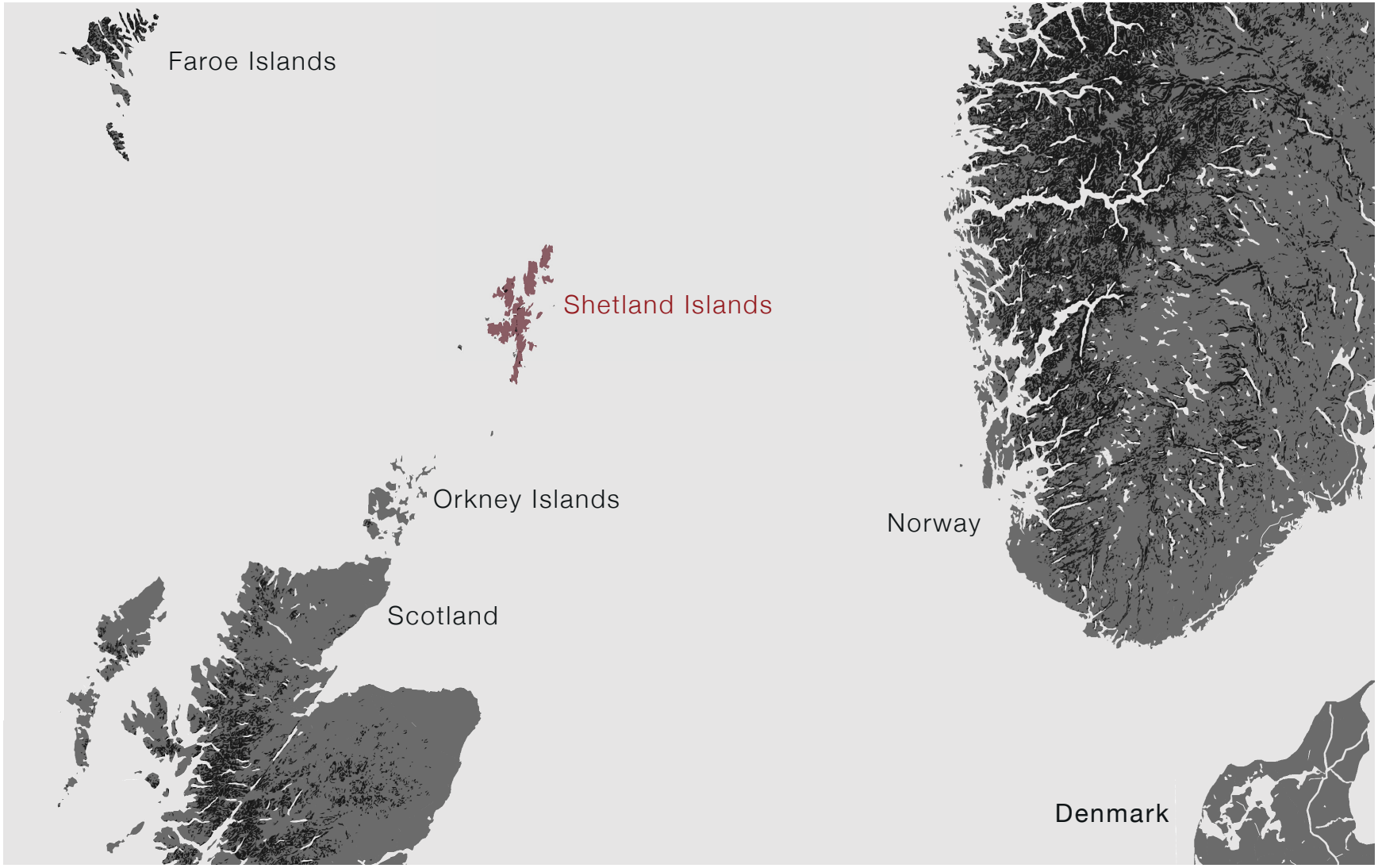
The primary impetus of Shetland tourism is the landscape and the pristine wilderness that is afforded by the islands' sparse population. While hiking and taking in the coastal

scenery is a main activity of all the tourist types that travel to Shetland[1] this wilderness is a catalyst for many other popular tourism destinations and events. The expanses of undeveloped, protected land house a majority of the seabird colonies that inhabit Shetland. Bird watching and its associated activities make up a large percentage of the tourist population each year. Additionally the lack of development of the islands' wilderness and the sparse population means that the thousands of archeological sites throughout the islands are left undisturbed, leaving them as cultural markers of the islands' history.

In addition to the remote wilderness the Shetland Islands' weather is considerably milder than its other northern counterparts. While occupying the northern latitudes along with Norway and Iceland the temperature range of the islands stays between 0 degrees Celsius and 15 degrees Celsius with extremes being only as low as -8.[2] Despite the relatively mild climate extreme rain and winds can make venturing into the wilderness hazardous and can deter potential tourists from travelling outside the towns. Coupled with the remoteness and lack of supplied facilities the Shetland wilderness can seem inaccessible to the average tourist.

1 *Shetland Visitor Survey 2012/13* (Edinburgh: Scotinform Ltd, 2014), 97.

2 *Shetland in Statistics* (Lerwick: Economic Development Services, 2014), 5.



The Shetland Islands in a geographical context (base map from Google Maps)

Shetland and the Sublime

In his discussion of the sublime Kant describes the Sublime as existing in places of "deep loneliness."[3] In a world so highly developed it is rare to find places where true isolation is possible. Shetland is a place where this remoteness is possible. There are few places in Shetland that do not inspire a feeling of awe but there are rare moments that capture this idea of Kant's sublime. While tourism has the potential to make these moments accessible it is imperative that the architecture enhance or create these opportunities rather than destroy or limit the experience. When developing a framework for an architecture of observation it will be critical to maintain the ability to find isolation in this pristine wilderness while facilitating growth of the tourism industry.

Hermaness Nature Reserve, Unst

Connecting to the Landscape – Perception and the Senses

Shetland possesses a deep history and sense of culture that is evident in their society and in the landscape itself. In addition to landscape as a tourism focal point, the islands' history, specifically its five thousand year old archeological history and Viking heritage are major influences for visitors. While archeology and the islands' history can be experienced through one of Shetland's many museums, tourists are also able to interact with these ruins first hand in the landscape. Shetland follows a system of open access,

3 Immanuel Kant, *Observations on the Feeling of the Beautiful and the Sublime*, trans. John T. Goldthwait (Berkeley: University of California Press, 1965), 48.

a set of guidelines that allows anyone access to all of Shetland, even private property. So there is no part of the islands that is inaccessible. This gives visitors the opportunity to experience the ruins in their environment rather than through a curated exhibit in a museum. This invokes a more immediate experience of the object allowing the body a multisensory interpretation of the ruin and through this process, a better understanding of the thing and its context.

Perception is often described and researched as a primarily visual occupation however to fully understand or experience an object or event it is necessary to engage the senses. It is by the body experiencing space or objects that we gain an understanding of our context and our relationship to these objects. Merleau-Ponty's *Phenomenology of Perception* discusses the connection between human understanding and the body's relationship to space. Merleau-Ponty states, "I could not grasp the unity of the object without the mediation of bodily experience."[4] Thus the understanding or interpretation of space or an event cannot be understood in its entirety without the experience of the body in that space or event. A total comprehension can shift existing events in such a way that they take on new meaning for the viewer thus renewing interest and, creating a method of attracting a new tourism demographic.

Manipulating the Conditions for Observation – Reframing Existing Events Through Architecture

The framework for a successful tourism industry already exists in Shetland; the natural and cultural landscape of the islands has limitless opportunities for exploration. However, the islands' relative seclusion and anonymity keep tourism from its potential as an economic staple of the islands. Ironically these conditions also create the experience of seclusion mentioned previously, an aspect that makes the islands a unique and worthwhile destination. The current demographic of tourist in Shetland is primarily people over the age of 45 who are from Scotland who have previously visited the islands.[5] There exists a need to attract a wider or even new demographics of tourists to the islands so that the tourism industry can begin to grow and become a primary income generator.

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4 Maurice Merleau-Ponty, *Phenomenology of Perception* (London: Routledge, 2002), 5

5 *Shetland Visitor Survey 2012/13* (Edinburgh: Scotinform Ltd, 2014), 20.

The potential for widening the demographic lies in the tourism drivers already existent on the islands. These tourism typologies can be reframed in new ways such that they attract both a new demographic of tourist to Shetland as well as creating opportunities for previous visitors to experience these typologies in new ways. The potential for reframing exists in reinterpreting the way the visitor observes the typology. By distilling the event down to its essence the viewer is able to grasp a new understanding of the event. The disassembly of observation into its associated elements can be used to create the framework for an architecture of observation. By combining and manipulating these elements of observation events can be shaped to generate a new interpretation of not only the event but its context and meaning as well.

Thesis Question

How can an architecture informed by the intersection between the cultural and phenomenological lenses of landscape create a more connected and profound experience of existing tourism typologies in Shetland?

CHAPTER TWO: HISTORICAL CONTEXT AND CURRENT CONDITIONS

The Islands of Shetland – Mainland and the Northern Isles

The Shetland Islands are comprised of more than 100 islands of which only fifteen are inhabited.[6] There are four main islands: Mainland, Yell, Unst and Fetlar. These are the four biggest islands with Mainland dwarfing the others in both size and population. A bulk of the islands' population of 22,000 resides on Mainland, mainly living in the capital, Lerwick.[7] The relatively low population is due to the small size of the islands and a population that never recovered from the mass exodus over 150 years ago. The islands vary in population density with Mainland being the most densely populated of the all the islands. Some islands host only two people. This concentration of the population on Mainland contributes to the disconnectedness experienced by the three northern islands: Yell, Unst, and Fetlar.

The islands are presided over by Scotland. However, a local governing body called the Shetland Island Council also manages them. Due to the population of Mainland in comparison to the other islands most of the council's time and resources are focused there. The northern islands' infrastructure is often far less developed than Mainland. This is especially noticeable in transportation. The bus system and main roads are most prevalent in Lerwick and throughout Mainland with regularly scheduled buses and larger highway infrastructure. However public transit only travels to Yell, Unst and Fetlar once per day making it difficult for those without cars to travel the northern isles. There is also a significant drop in infrastructure when travelling around the northern isles. The roads are condensed to single lanes and the buses and public transit systems can be unpredictable and inconsistent. Despite the islands' small sizes travel without a personal vehicle is significantly more difficult. There are no bridges to the northern islands creating a dependency on the ferry system. This lack of accessibility compounds the feeling of isolation expressed by many of the locals of the island. In turn this contributes to a dwindling population of tourists venturing north to experience these islands.

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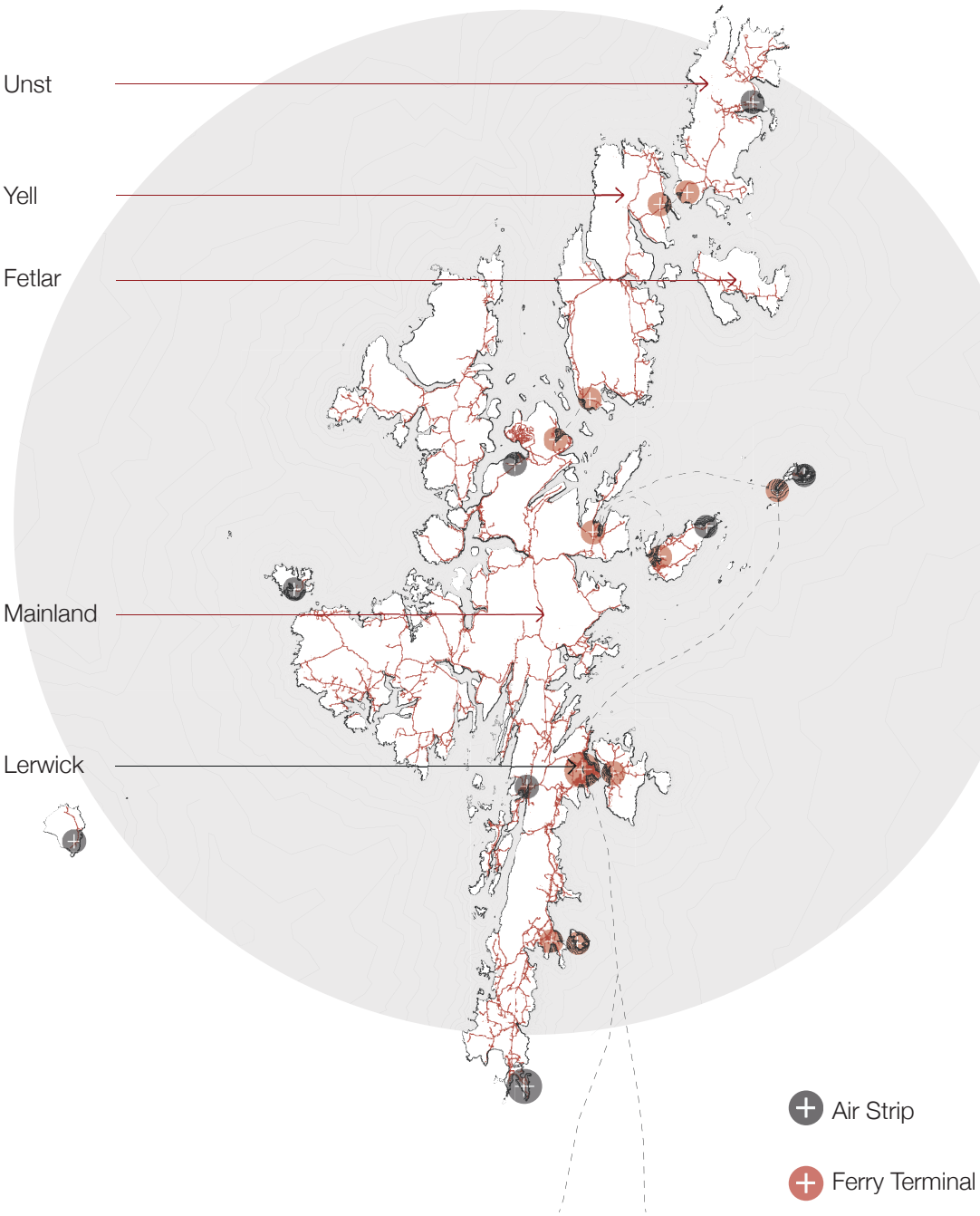
6 "Geography," *Promote Shetland,* October 18, 2017. http://www.shetland.org/about/geography.

7 *Shetland in Statistics* (Lerwick: Economic Development Services, 2014), 9.



Transportation systems throughout the islands (data from Ordnance Survey OpenData)

Early History: Archeology and the Viking Influence

The islands' relative isolation both protected and preserved the culture that was established in the eighth and ninth century by the colonizing Norseman who settled the islands already inhabited by the Picts and Celtic cultures. Many place names still reflect this Norse influence. While this influence declined when the islands' population dropped between the nineteenth and twentieth centuries,[8] Viking heritage is still apparent in the islands' culture. Archeological sites are common throughout the islands and yearly festivals observed on the islands usually contain Norse references. In addition to the cultural ramifications of the Viking colonization, the Scottish crofting architectural style was informed by the construction methods established by the Vikings during the Norse period of Shetland.

The Vikings established their style of building Longhouses on the islands. These long slender buildings are thought to have had stone walls with thatch roofs. This is a material palate that is prevalent throughout Shetland's history due to a lack of native wood.[9] The Norwegians would often return to Norway to supplement supplies of wood to be used in houses and boats; there was almost no wood available on the islands themselves. This close link between the two countries is reflected in the architecture as the Viking longhouses on Shetland are very close in construction to the ones found on the coast of Norway; the only exception was the reliance on wood[10] in Norway.

Often thought to resemble their boats in shape, Viking longhouses were often constructed on hills to provide drainage for the livestock that cohabited.[11] This drainage method was adopted by Scottish farmers hundreds of years later. The Norwegian influence remained in Shetland for five hundred years before slowly succumbing to Scottish rule when the islands were sold to the Scottish Crown as part of a dowry.[12] As the islands passed into Scottish rule many of the Viking sites were overlaid with newer croft houses or simply

8 James R. Nicolson, *Traditional Life in Shetland* (London: Hale, 1978), 178.

9 Val Turner, Julie Bond, Anne-Christine Larsen and Olwyn Owen, *Viking Unst: Excavation and Survey in Northern Shetland, 2006-2010* (Lerwick: Shetland Heritage Publications, 2013), 5.

10 Ibid., 4.

11 Ibid., 5.

12 Nicolson, *Traditional Life in Shetland,* 19.

Recreation of a Viking longhouse at Haroldswick, Unst

Recreation of a Viking longboat at Haroldswick, Unst

Viking longhouse ruins at the Keen of Hamar, Unst

scavenged for their materials[13], leaving only a few well-preserved reminders of the era of Viking settlement.

Scottish Ownership – Cultural and Economic Shifts

By the eighteenth century Shetland was firmly in the hands of a Scottish ruling class of Lairds.[14] The original small landowners became tenants under the Scottish crofting society slowly losing control of their lands; survival became dependent on the Laird. Scottish control brought an influx of Scottish immigrants and soon the original Norwegian culture mixed with the incoming Scots to create a hybrid culture. With the implementation of Scottish rule came international trade. Dutch and German traders arrived every year at the start of the herring season, docking in the area that would eventually become the capital of Lerwick.

Fishing soon became the primary economic activity of the island even after the decline of the Hanseatic merchants.[15] The Lairds took over trade and soon controlled the fishing as well as farming industry. The rapid growth of the fishing industry created a population boom with the population rising from little over 22000 to 32000 between 1800-1861.[16] This sudden population growth created further strain on the meager land and resources that were already a daily struggle for islanders. In the beginning of the 1830's the economy shifted once again from fishing to wool. The Lairds carried out mass evictions to clear room for flocks of sheep. These evictions combined with increasing rent and poor living conditions led to an exodus of roughly half the islands' people who left to find land in the colonies.[17] It wasn't until the signing of the Crofters Holdings Act in 1886 that tenants were able to regain land rights.[18]

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13 Turner, Bond, Larsen, and Owen, *Viking Unst: Excavation and Survey in Northern Shetland, 2006-2010,* 5.

14 Nicolson, *Traditional Life in Shetland,* 20.

15 Ibid., 23.

16 Ibid.

17 Ibid., 24.

18 Ibid., 25

Shetland Industry – An Economy of Environmental Interdependence

Farming

Farming has a long history in Shetland. It has been a primary part of Shetlander life for as long as people have inhabited the islands. The islands are considered to have poor arable land in comparison to the nearby Orkney Islands[19] meaning that income and food were always supplemented by fishing. The land is extremely amenable to grazing sheep and the islands boast a large population of sheep, which are used primarily for meat and wool.[20] There is also a long tradition of peat harvesting. Many crofts were located around hillsides where the peat grows in more heavily. After harvesting it each year the peat would be dried and used for fuel. Farms would often operate in conjunction with fishing. The definition of a Shetlander is "a fisherman with a croft"[21] as the two industries have always been closely intertwined.

Fishing

Fishing in Shetland has always held its place as a primary industry, both historically and today. The herring fishery in Baltasound, Unst was one of Scotland's largest herring ports. There was such a large demand that during the herring season the population swelled to over 10,000 people[22] (compared to 630 people who live on Unst today). The fishing industries have always waxed and waned and often the islanders' quality of life was directly related to this cycle of prosperity and hardship. Today the industry is quite heavily regulated to moderate the effects of overfishing. There are variety of fishing methods used including fish farms and the deployment of three different fleets that spread the catch out over fifty-five different species of fish.[23] These three fleets include pelagic

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19 Eric Linklater, "Part Two Shetland," in *Orkney and Shetland*, ed. James R. Nicolson (London: St Edmundsbury Press Limited, 1990), 159.

20 "Economy," *Promote Shetland,* November 26, 2017. http://www.shetland.org/about/economy.

21 J. Murray Neil. *The Scots Fiddle: Tunes, Tales & Traditions of the Western Highlands, Hebrides, Orkney & Shetland* (Castle Douglas: Neil Wilson Publishing, 2004), 197.

22 "Baltasound," *Scotland's Landscape,* December 1, 2017. http://www.bbc.co.uk/scotland/landscapes/baltasound/.

23 "Sustainable Fishing," *Shetland Fisherman,* December 1, 2017. https://www.shetlandfishermen.com/sustainable-fishing.

fishing, whitefish fishing, and inshore fishing.[24] Overall the fishing industry is the largest contributor to the Shetland economy providing £310 million each year.[25] This outpaces the more recently established oil industry several times over.

Oil Extraction

The oil industry at Shetland reaches a current output of over 10 million tons of oil per year.[26] The industry has added around two thousand jobs to the islands' workforce as well as over £100 million to the economy each year. However this industry is finite. There were predictions that the industry would run out before the end of the last millennium.[27] While the industry has found ways of expanding the supply the industry will always be finite. Offshore drilling also poses hazards to both the ocean and the fish that the islands rely on as a primary source of income. The Shetland Island Council strictly controls the industry so that its impact on the environment and Shetland's wilderness is kept to a minimum.

Tourism

Tourism is the last of the four main industries of the islands and one of very few that do not involve a process of resource extraction. This industry contributes £16 million to the local economy each year[28] while also employing over a thousand people. The industry is much smaller in comparison to both oil and fishing but unlike the other two there is the possibility for growth with minimal disturbance to the landscape. The tourism industry in Shetland is currently in decline (as seen in the tourism demographic diagrams on page 17). However Shetland possesses the possibility for enhancement, utilizing not only the islands' inherent potential but tapping its existing underutilized tourism resources as well. This potential suggests the implementation of a system of destinations to draw people around the islands.

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24 Shetland Fisherman, "Sustainable Fishing."

25 Ian R. Napier, *Shetland Fishing Facts* (NAFC Marine Cente: Scalloway, 2017), http://www.nafc.uhi.ac.uk/t4-media/one-web/nafc/research/document/shetland-fisheries-statistics/facts/Shetland_Fishing_Facts_2017-10.pdf.

26 *Shetland in Statistics,* 2014.

27 Ibid.

28 Ibid.

CHAPTER THREE: TOURISM IN SHETLAND

A History of Tourism and the Experience of the Sublime

Tourism has historically been the realm of the wealthy. Modern tourism came about with the advent of cheap efficient travel. Scotland was no exception to this; until the nineteenth century most tourists were wealthy or were scholars. As tourist populations spread to the countryside for days or weekends the notion of tourism grew.[29] Alastair Durie describes in his book *Scotland for the Holidays* the driving factors that led to this growth of tourism in Scotland. The socio-economic shift that led to people having disposable income to spend on travel was a factor as was the increased availability of transport. However, most importantly people came to appreciate the natural and historical assets that the Scottish countryside and wilderness offered to perspective tourists.[30] This growth did not occur without challenges. Critics cited that the influx of tourists, especially between the months of June through August, ruined the comparatively secluded atmosphere that the wildernesses of Scotland offered.[31] The advent of the railroad further disturbed one's ability to find pristine wilderness as it allowed large influxes of people into previously undisturbed areas. It was this notion of the untamed raw wilderness as it was commonly represented in literature and art that led many people to travel as a way to find their own experience of the sublime.

Tourism and the opportunity to travel share a historical connection with the idea of the sublime. The ability to travel offered one the ability to pursue what could be considered a sublime experience.[32] Edmund Burke described the sublime as "the strongest emotion the mind is capable of feeling."[33] The application of the sublime to landscape fundamentally shifted the way in which people perceived landscape.[34] The experience of wilderness, which had previously been overlooked or ignored, was newly sought

29 Alastair J. Durie, *Scotland for the Holidays: a History of Tourism in Scotland, 1780-1939* (East Linton: Tuckwell, 2003), 44.

30 Durie, *Scotland for the Holidays: a History of Tourism in Scotland, 1780-1939*, 44.

31 Ibid., 44.

32 Eric Zuelow, *A History of Modern Tourism* (Basingstoke: Palgrame Macmillan, 2016), 40.

33 Immanuel Kant, *Observations on the Feeling of the Beautiful and the Sublime*, trans. John T. Goldthwait (Berkeley: University of California Press, 1965), 39.

34 Robert Macfarlane, *Mountains of the Mind* (New York: Pantheon Books, 2003), 76.

out by those in search of this experience of the sublime.[35] The remoteness promised what Kant described as "deep loneliness," a place where one could experience what John Dennis described as "enthusiastic terror."[36] This search for places that held the potential for sublime encounters became an impetus for travel, popularized by artists, writers, composers, and rich aristocrats. [37] Their goal was the recreation of this sensation within their works of art or on their land so they would be able to experience the sublime in their daily lives.

Tourism in the Shetland Islands – Utilizing Existing Potential

The tourism industry currently contributes £16 million to the local economy each year.[38] However the population of holiday visitors has been declining over the last 15 years with the population of holiday or recreational tourists falling 11%.[39] This population has been replaced by business related tourism. This tourism type typically spends more per trip than recreational tourists; however, they are less likely to travel to the other islands or even leave the islands' capital, Lerwick.[40] Lerwick has the largest population of all the islands' towns and holds the majority of the islands' businesses and services. As a result Lerwick (and the island, Mainland) also holds a majority of the islands' capital and receives the majority of the Shetland Island Council's funding and attention. This leaves the three northern islands: Unst, Fetlar, and Yell relying on industries like tourism to supplement their limited capital. The small populations of these islands means that very little funding is given to these islands leaving them to rely on a sparse tourist population and outside funding to grow necessary services and infrastructure. While there exists the basis for a tourist-based industry on these northern islands many times there isn't a suitable tourist population to sustain the industry and these services fall into disrepair.

The current tourist demographic of Shetland is very specific, having been described as

35 Macfarlane, *Mountains of the Mind,* 76.

36 James Kirwan, *Sublimity: the Non-Rational and the Irrational in the History of Aesthetics* (London: Routledge, 2014), 1.

37 Macfarlane, *Mountains of the Mind,* 77.

38 *Shetland in Statistics 2014.*

39 *Shetland Visitor Survey 2012/13.*

40 Ibid.

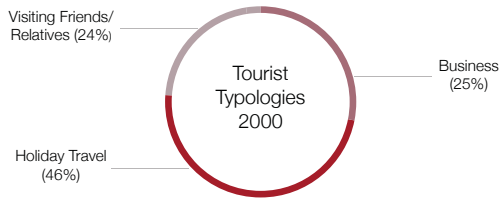
a niche market by Highland Business Research in their Shetland Tourism Plan.[41] They identify the "strong physical and cultural assets"[42] attractive to potential tourists but also note that currently these tend to attract a very specific tourist demographic. Popular tourism typologies on the islands include: archeological settlements, avian destinations, coastal viewpoints, geological points of interest, northern lights viewing, festivals, Viking sites, marine viewing, craft trail, photography, and museums.

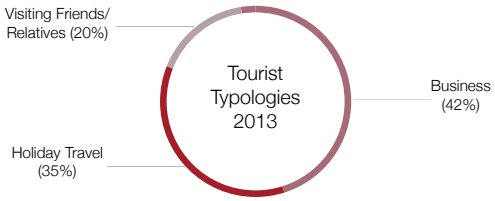
These typologies constitute some of the most popular events that intersect all the current tourist types: Business, Recreational and Visiting Friends and Family. It is imperative for the development of a successful tourist industry to continue to serve the existing demographic while also focusing on attracting a new type of tourist to the islands. Attracting a new demographic is a critical strategy for growing Shetland's tourism industry as concentrating on the same small niche market results in competition between destinations with similar characteristics.[43]

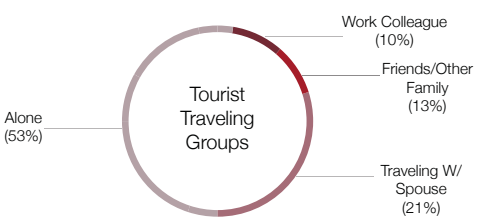
41 Budd, *The Shetland Tourism Plan 2011-2014*.

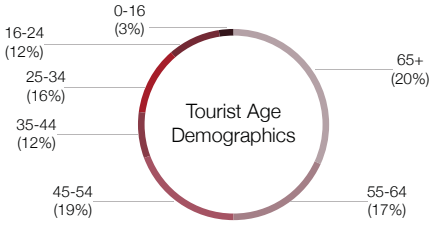
42 Ibid.

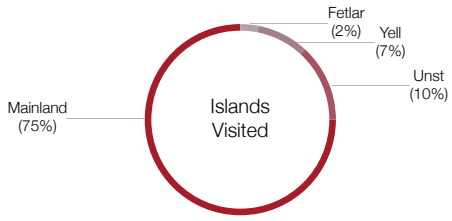
43 Budd, *The Shetland Tourism Plan 2011-2014*.

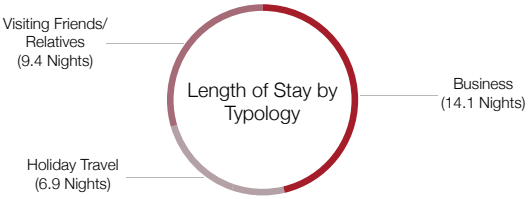












Tourist demographics of the Shetland Islands

Growing Tourism in Shetland

Shetland possesses an inherent potential in both its cultural and environmental resources on which to base the growth of a stronger tourism industry in Shetland. Modern tourism has continued to shift as Otgarr describes; “the nature of tourism is changing and is trending towards people visiting spaces as a means of learning and exploration.”[44] Shetland contains the resources to develop a tourism based on learning and exploration. The wilderness of the islands is very suggestive of the sort of freedom and accessibility desired by many tourists. Access Scotland is a set of guidelines that allow potential visitors access to most of the land on the islands, including private property. These guidelines enhance tourists’ opportunity to explore freely so long as they honour the access code guidelines.

The islands already contain both the potential and accessibility to make them successful however this potential has been largely untapped. The northern islands are some of the least developed; they lend the most potential for experiencing wilderness. They also contain a dense concentration of nature reserves and historic sites. Despite this potential the northern isles see very little tourism as 75% of all tourists remain on Mainland.[45] Therefore the architectural interventions will necessarily have a dual purpose of drawing people north while also preserving the qualities that make these islands intriguing destinations. The actual system proposed will be phased, starting at Unst and continuing to develop the whole of the islands with a series of paths and destinations.

Each destination will focus on the six most popular of the previously mentioned tourism typologies (archeological settlements, avian destinations, northern lights viewing, geological places of interest, coastal viewpoints, and marine viewing) with the potential to add tourism typologies to the system.

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44 Alexander H.J. Otgaar, *Industrial Tourism: Opportunities for City and Enterprise* (Farnham Surrey: Ashgate, 2010), 6.

45 Budd, *The Shetland Tourism Plan 2011-2014*.

Six tourism typologies of the Shetland Islands (Images 1-11 from Shetland website)

CHAPTER FOUR: ARCHITECTURE AS A GENERATOR OF TOURISM

Tourist Architecture and Landscape

Architecture plays a critical role in tourism on multiple levels. In a general sense architecture can simply be a facilitator for a tourism event but it can also act as a destination or an impetus for the traveler to reach that destination. Providing architecture allows for movement and accessibility to events and places[46] but the provision of the architecture can also provide a framework by which the tourist is able to experience the event. Therefore architecture can be viewed in a variety of different ways in the context of tourism. There are two lenses of tourism architecture that are relevant to a system of tourism growth in Shetland. These are: architecture as destination, and architecture as a facilitator of the tourism event. The combination of these two types of tourism architecture can be implemented in Shetland to create a more accessible destination that will invite people to explore the wilderness rather than remain in the more developed areas. This strategy has the potential to open up the wilderness of Shetland to tourists while create destinations that would create a greater impetus for tourism on the islands.

This section will outline a case study for each type of tourism architecture and how these basic concepts can help inform development of a tourism system in Shetland.

Architecture as Waypoint – Nordic Scenic Routes

The Nordic Scenic Routes are a series of eighteen roads with multiple architectural interventions along each designed primarily by local architects.[47] The waypoints along the route are intended to add needed infrastructure to the roads (rest stops, washrooms, and vantage points) while making Norway a more attractive tourism destination.[48] The added services create accessibility on the long stretches of roads while the viewpoints bring people out into this unique landscape. The interventions along the Nordic Scenic

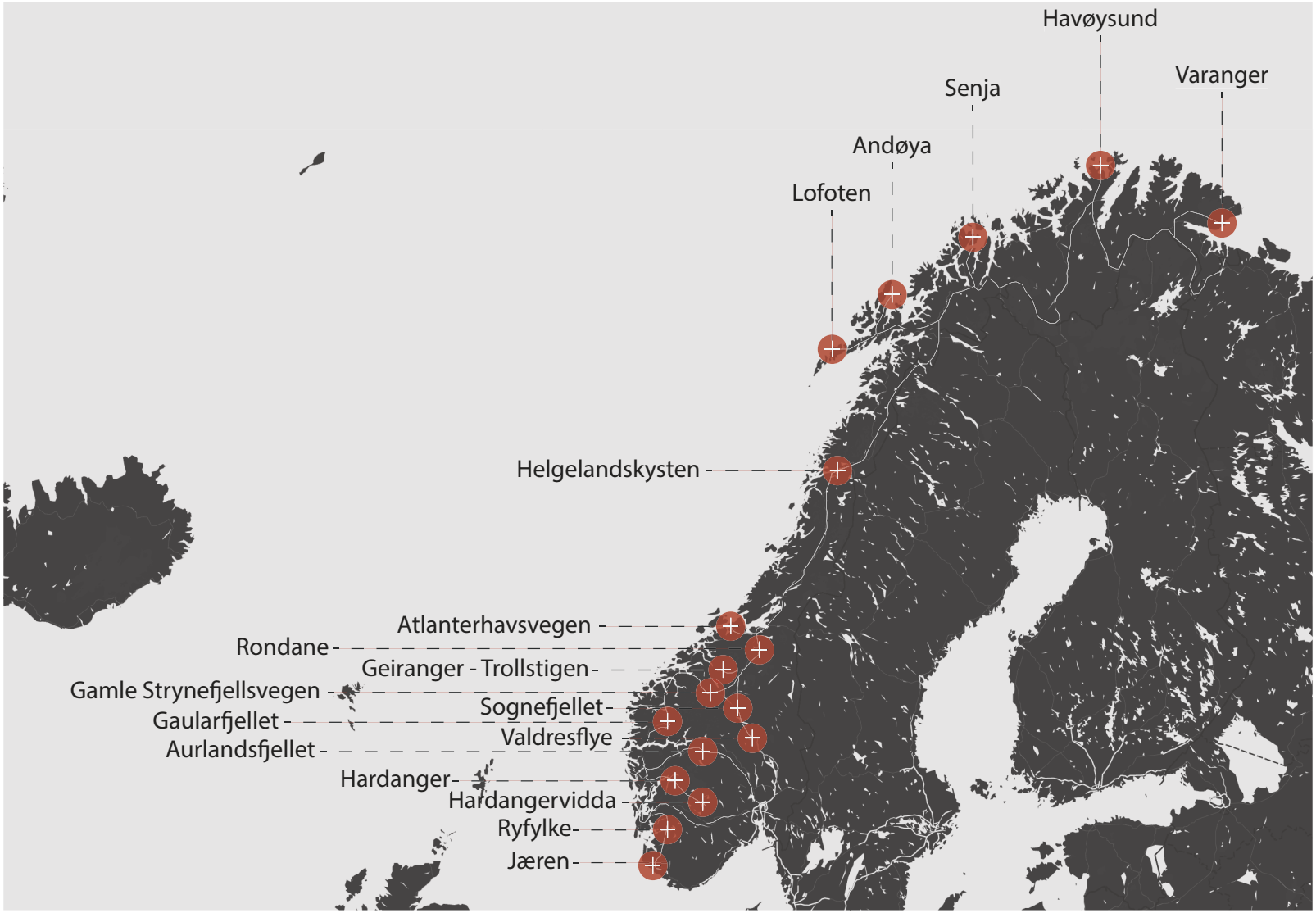
46 Jan Specht, *Architectural Tourism: Building for Urban Travel Destinations* (Wiesbaden: Springer Gabler, 2014), 2.

47 "Frequently ask questions," *National Tourist Routes in Norway*, Accessed November 29, 2017. http://www.nasjonaleturistveger.no/en/press/frequently-ask-questions.

48 *National Tourist Routes in Norway,* "Frequently ask questions."

routes vary in scale and program between small art installations and rest areas to larger visitor centers. Many of the installations focus on bringing visitors out of their cars and into the landscape. This is mainly done through the use of lookout points which passively engage the observer's body towards the landscape. However some interventions like the telescope along Sognefjellet actively orient the user towards the scenery. The telescope, Nedre Oscarshaug is sited at a vantage point looking out over Hurrungane massif. The glass is inscribed with the peaks of the mountains so the viewer is able to orient themselves to their location when the device is activated.

The Nordic Scenic Routes' strategy is applicable in several ways when considering a system of tourism architecture in Shetland. The application of various scales and programs creates destinations while also providing basic infrastructure to remote locations creating greater accessibility. Similar to Norway, the Shetland landscape is a primary tourism driver. Implementing an architecture that orients and activates that landscape for the observer will add additional interest to an already popular tourism typology on the islands. By applying a similar system of waypoints along a path in Shetland the islands can become both more accessible and a more desirable destination.



The eighteen Nordic Scenic Routes - creating waypoints as a system of tourism

Viewing landscape - visitor centre and lookout at Trollstigen
Photograph by Landezine of Reiulf Ramstad Architect's Trollstigplatået lookout

Understanding - mine museum at Allmannajuvet
Photograph by Aldo Amoretti of Peter Zumthor's Mine Museum

Shelter and observation - birding hut along the Veranger route
Photograph from Biotope Architects

Elements along the Nordic Scenic Routes (images from the Norwegian Scenic Route Tourism website)

Architecture as Destination – Fogo Island

Fogo Island is a small island just off the coast of Newfoundland and Labrador. The community shares a similar economic history to Shetland, being a primarily seafaring community. The relative isolation of this island preserved the culture of the islanders however, it also created an isolated economy based on a single industry. The decline of the cod industry created extreme economic hardship for the island's residents. This forced almost half of its residents to leave and seek employment elsewhere.[49] The Shorefast Foundation was established by a native Fogo Islander, Zita Cobb and her family. Her aim was to engage with multiple factors in order to bring life and economic prosperity back to the communities. These factors included: business, art, hospitality, and architecture and design.[50] The economic driver of this operation is the Fogo Island Inn designed by Todd Saunders. The project is seen as "an opportunity to use design as a means of fortifying culture and place."[51] The inn and the artist studios have launched the project into an international spotlight and rebranded Fogo as a tourist destination and arts capital for local craft and culture.

Similar to Fogo Island, the Shetland Islands are relatively isolated and draw a very specific demographic of tourists. Establishing a series of destinations has the potential to draw in a larger number of people but also attract a new demographic through architectural programming. In addition to attracting new potential tourists, careful placement of these destinations along strategic paths will entice visitors to travel beyond Lerwick to some of the more remote islands.

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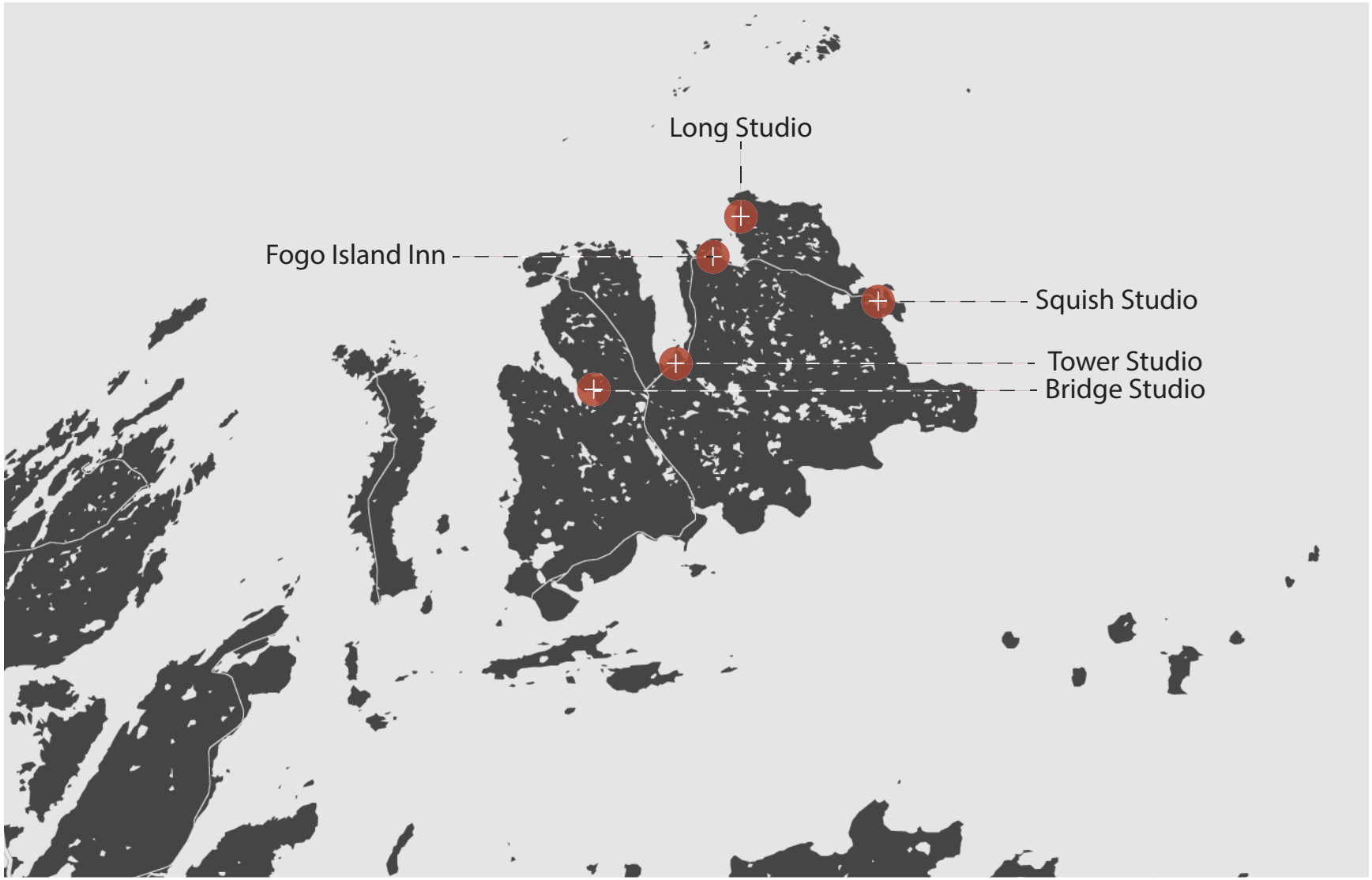
49 Judy Haiven and Larry Haiven, "The Fogo Island Cooperative Society and its Workers*: Lessons from the Fishery"* (symposium, The Co-operative and its Workers, Halifax N.S., June 15-17, 2006), 1.

50 "Integrity of Place" *Shorefast*, December 2, 2017. http://shorefast.org/#what-we-believe.

51 "Social Businesses" *Shorefast*, December 2, 2017. http://shorefast.org/our-activities/#fogo-island-inn.



The Fogo Island Inn and Studios - creating destinations as a system of tourism

Destination - Fogo Island Inn
Photograph by Alex Fradkin of Todd Saunders's Fogo Island Inn

Art and culture - Long Studio
Photograph by Bent René Synnevåg of Todd Saunders's Long Studio

Art and culture - Tower Studio
Photograph by Bent René Synnevåg and Brent Foster of Todd Saunders's Tower Studio

The five destinations of the Fogo Island (images from the Saunders Architecture website)

Establishing Waypoints and Destinations in Shetland – A Strategy of Connection

As demonstrated in these two case studies a framework for tourism growth in the Shetland Islands can be implemented through a series of architectural waypoints and destinations. This strategy will improve accessibility to the islands' typologies through providing shelter and other amenities to the Shetland wilderness. Additionally this strategy will draw people away from already well established tourist destinations to areas where identified tourism typologies have the most potential.

This strategy suggests interventions at multiple scales similar to the Nordic example. The primary scale would function as a point of origin for the proposed system. When applied to Sheltand and in consideration of transportation systems on the island this would suggest siting this primary scale at a ferry terminal or in proximity to a first point of contact on an island. The secondary scale would be destinations in a specific area for each of the identified tourism typologies. These interventions would be added in along existing paths and informal trail systems that would facilitate interaction between the observer and the typologies to be observed. This scale would be a series of smaller architectural interventions that would act as machines for observation for each typology while providing refuge in the wilderness. The third scale would be waypoints along an established path that would facilitate longer trips into the Shetland wilderness. These would include places of rest, shelter or simple installations added as a system of guidance.

The added accessibility and interest generated by a system of destinations and waypoints has the potential to increase tourism in areas of Shetland that are currently underutilized. The three northern islands have high tourism typology potential and existing tourism infrastructure. However, due to poor connectivity they are left largely ignored by the tourist population. Establishing destinations can begin to bridge some of the existing connectivity barriers by establishing an impetus to visit these islands. Waypoints will allow people to move further into the islands, past established towns and into the wilderness where the greatest potential for experiencing the identified tourism typologies exists.

CHAPTER FIVE: SITE ANALYSIS – INTERPRETATION THROUGH LAYERING

Layering – Establishing Areas of Need / Potential

In *Design with Nature* Ian McHarg proposes a systematic approach to determining areas of social value in order to avoid potentially damaging infrastructure when developing sensitive or valuable areas.[52] While in McHarg's method it is more difficult to propose equal priority for every value as some factors may have greater social value than others[53], in the context of establishing potential for tourist typologies it is acceptable to concede that each typology is equal in priority. McHarg's approach established a system of mediating between sensitive sites and necessary infrastructure development by ascertaining a method by which land is assigned levels of social value determined by layering identified factors.[54]

McHarg's method can be implemented to determine the areas of greatest potential for each tourist typological event. Through this method sites for an architecture of observation of tourism typologies can be established. By layering the proposed tourism typologies together, areas of higher potential become apparent and in turn suggest more specific sites for architectural interventions as well as a system of connecting paths.

This process can be used at multiple scales. In the context of the Shetland islands it can be used to suggest a starting point for a tourism growth strategy for Shetland. In this thesis it will be used to determine the best island on which to base a tourism strategy. At the second scale this method will determine the typological potential for the chosen island and create a framework for siting each of the destinations. Finally, at a third scale it will inform further analysis at the scale of each typology by examining each of the chosen typologies' associated sub-typologies. This will break the typologies into zones or types of experiences which facilitate a heightened experience of the typology.

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52 Ian L. McHarg, *Design with Nature* (New York: John Wiley & Sons, 2005), 35.

53 McHarg, *Design with Nature,* 34.

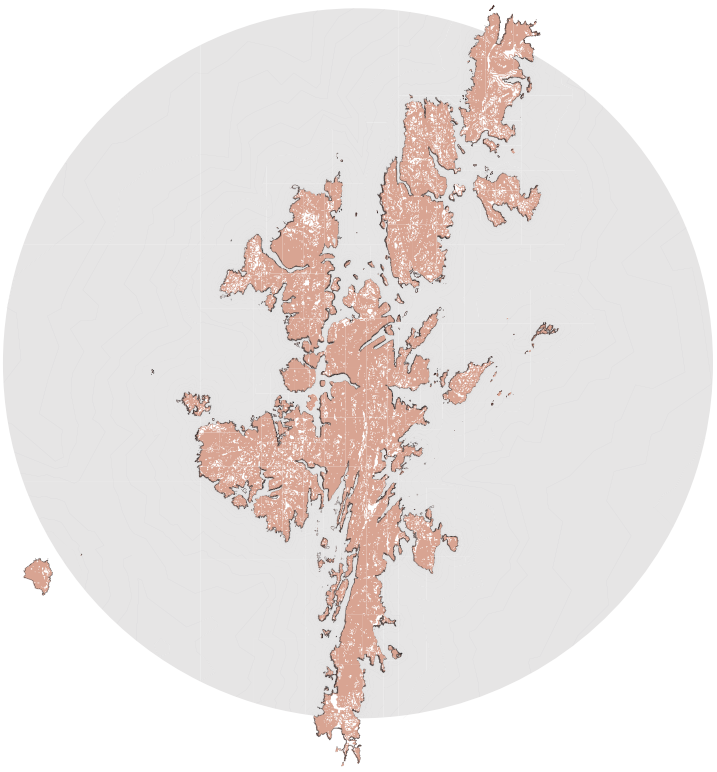
54 Ibid.

Site Analysis – Physical Landscape

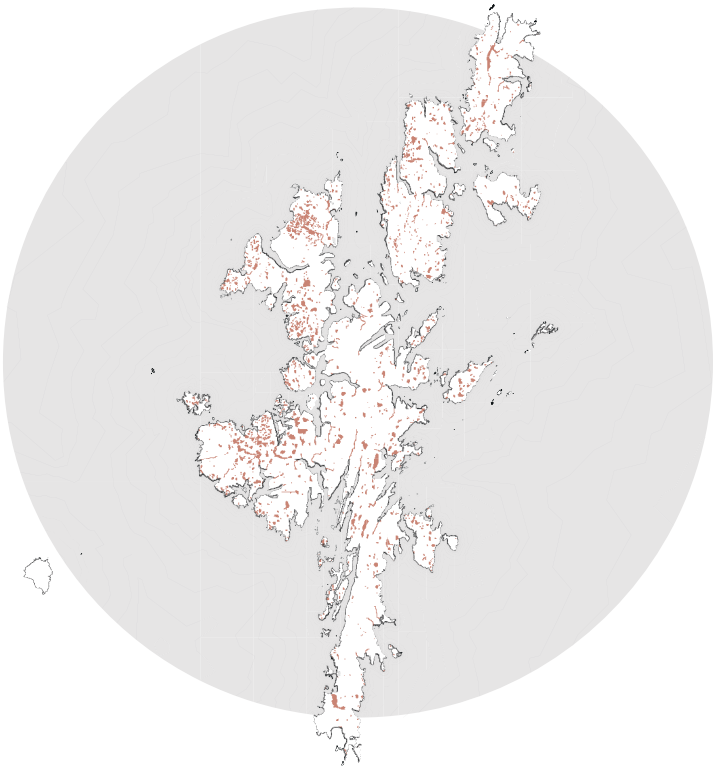
The Shetland Islands are a series of rough-hewn isles with a long history of agrarian and seafaring peoples. For the five thousand years of human history on the islands, development and population density have been associated with access to the ocean and good farmland. The islands' sparse population ensures large expanses of wilderness. To determine areas suitable to enhance the tourist experience and allow accessibility to the islands it is necessary to understand the human patterns of settlement.

The tourism typologies identified in Chapter Three exist in direct relation to areas of human development and population density. For example, archeological sites are found in areas where human settlements were originally established and typically continue to be developed. It is important to understand the tourism typologies' relationship to patterns of human in order to establish connectivity between not only tourists and the environment but also between tourists and existing towns. This thesis considers how a series of destinations can be developed to enhance tourist accessibility to the islands. By enhancing existing tourism typologies the islands' latent phenomenological traits can be appreciated by new and existing tourist groups. In addition, connecting towns along established paths will increase the tourist presence in these towns and influence the growth of local businesses.

By overlapping the following maps through Ian McHarg's technique of layering, common themes reflected in the development of existing towns or settlements can be identified.

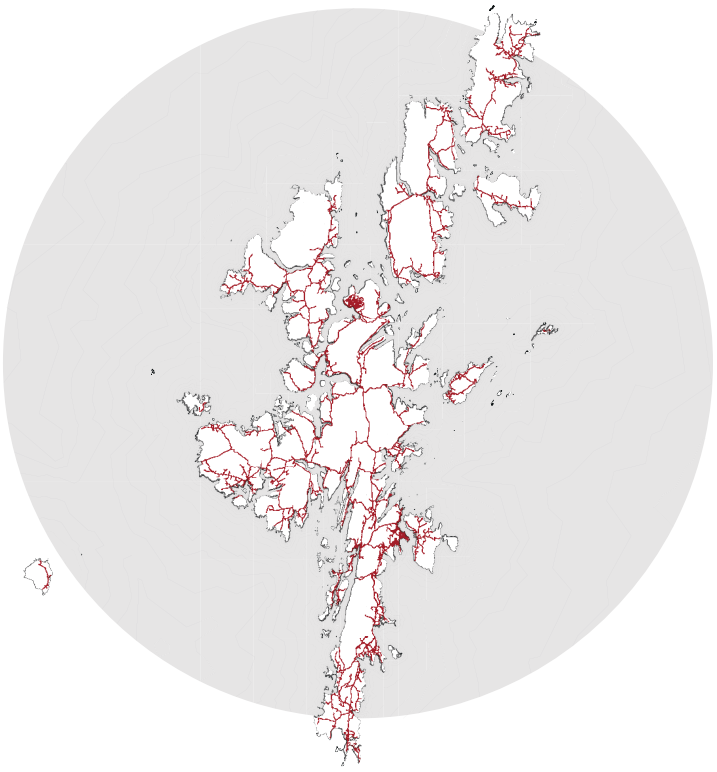


Layer One: Topography

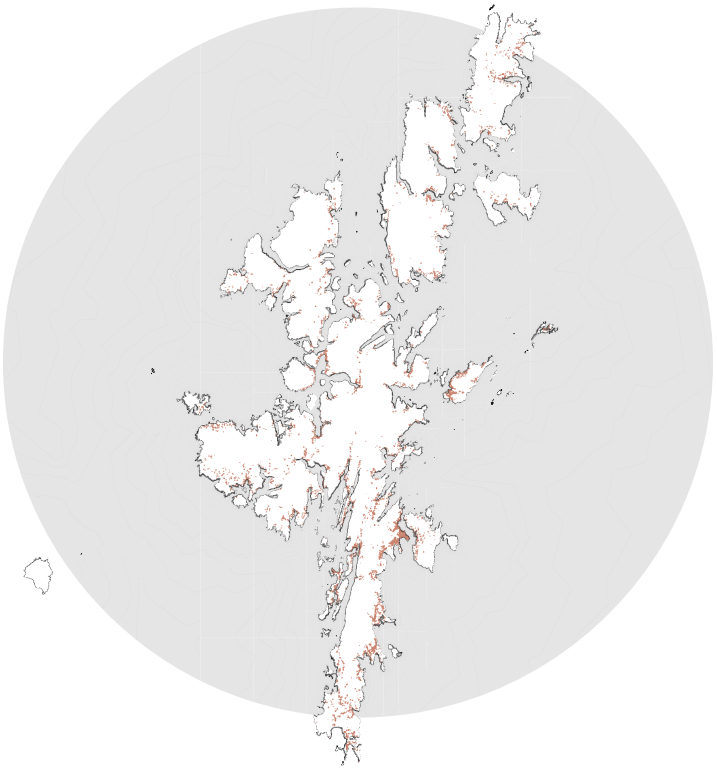


Layer Two: Bodies of Water

Physical landscape qualities of Shetland

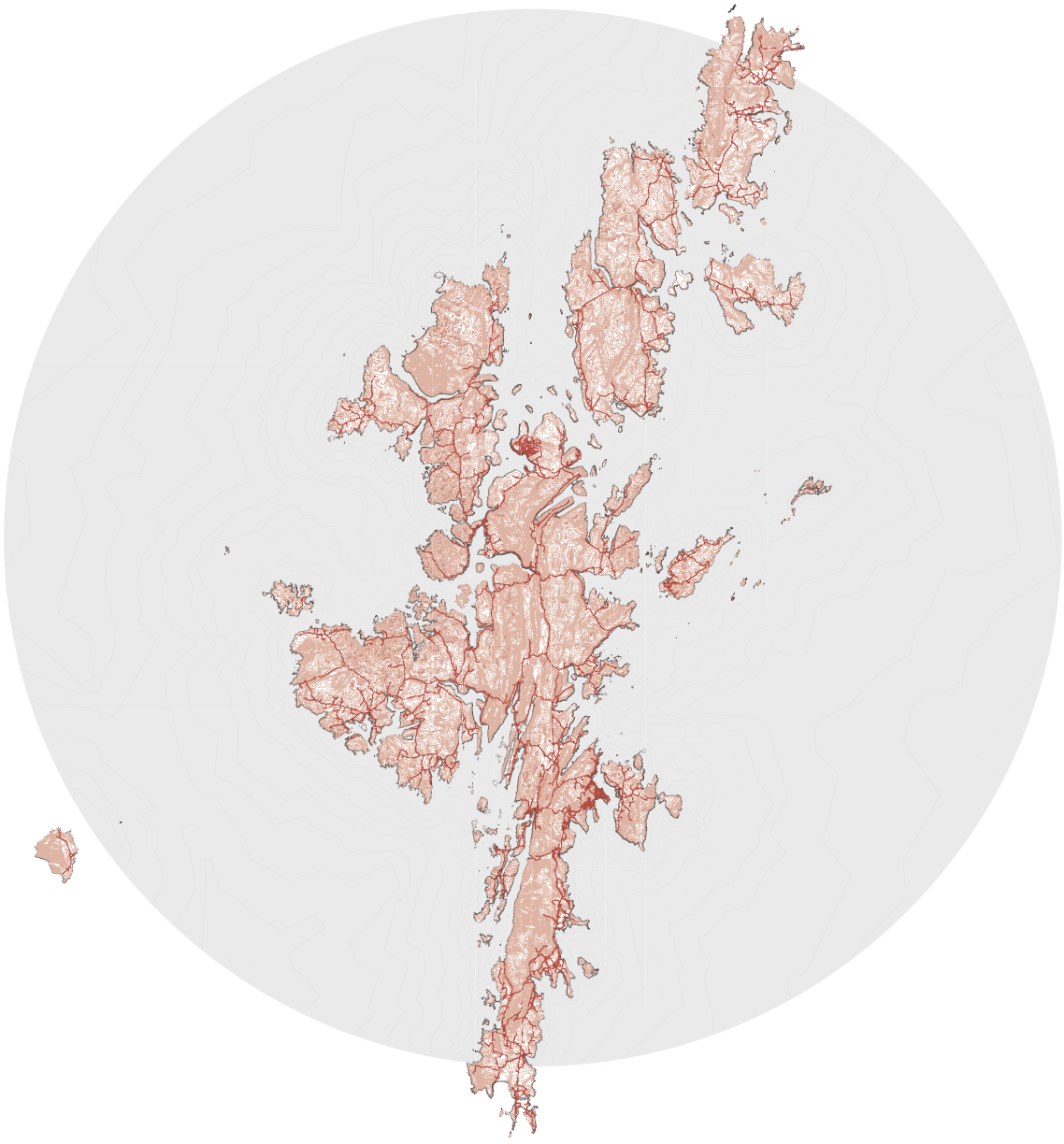


Layer Three: Roads + Trails



Layer Four: Towns

Physical landscape qualities of Shetland



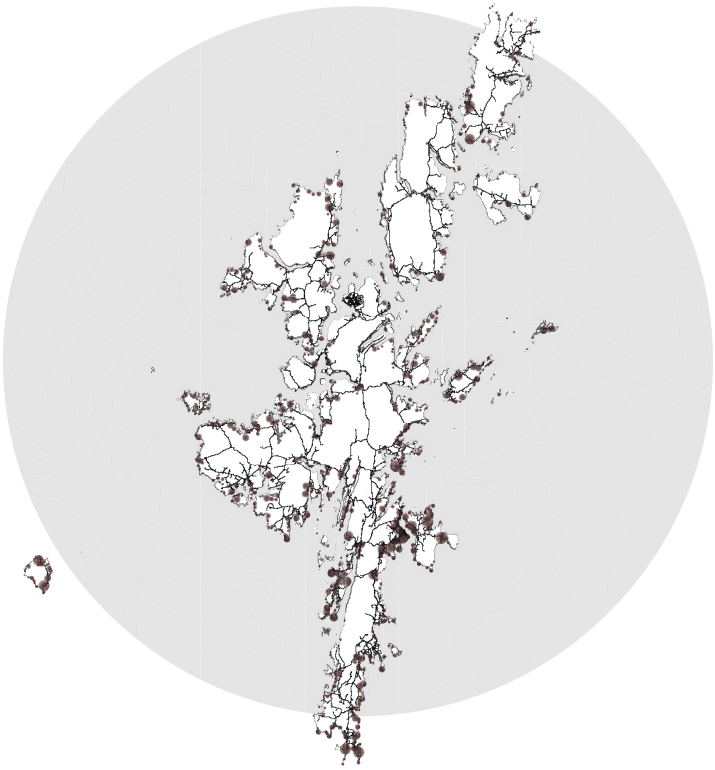
Layering - Establishing Places of Gathering

Site Analysis – Cultural Landscape

Shetland has a strong tourism foundation in both its cultural and ecological resources. Instead of establishing a system for growth of new types of tourism, it is possible to enhance existing tourism typologies. This approach will appeal to both the existing tourist demographics and draw new demographics to the islands, building on its existing potential.

The population of Shetland has always developed in response to the land. It is necessary to understand the impact of the physical landscape on how people have chosen to develop their surroundings; this analysis is crucial to creating a strategy for establishing destinations throughout the islands. Many of the tourist typologies that will be identified in this section (and previously in Chapter Three) exist in relationship to areas of human settlement as mentioned in the previous subchapter. Each destination for the identified typologies will be embedded within an existing path. Utilizing existing paths will help connect small towns as well as add accessibility to the more remote areas of the islands.

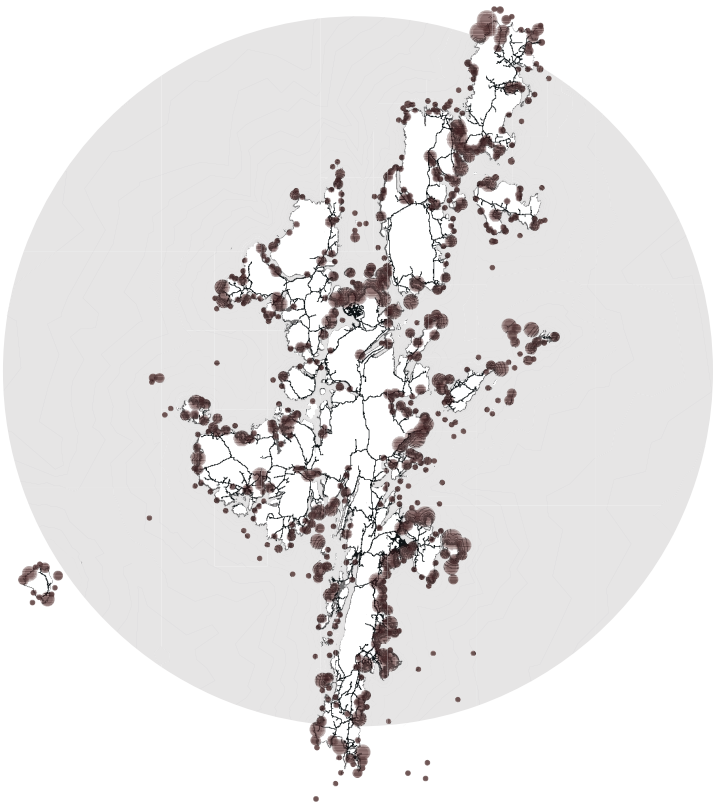
The following six typologies have been selected on which to begin to base this system: Archaeological Settlements, Avian Destinations, Marine Viewing, Northern Lights Viewing, Geological Points of Interest and, Coastal Viewpoints. The following maps identify these typologies throughout all of the entire Shetland Islands.



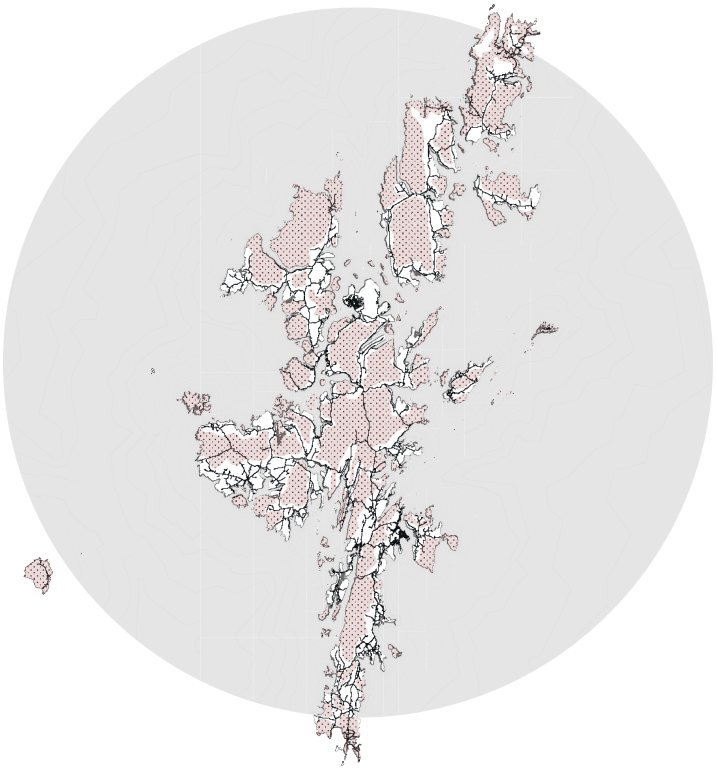
Typology: Archaeological Settlements

Typology: Avian Destinations

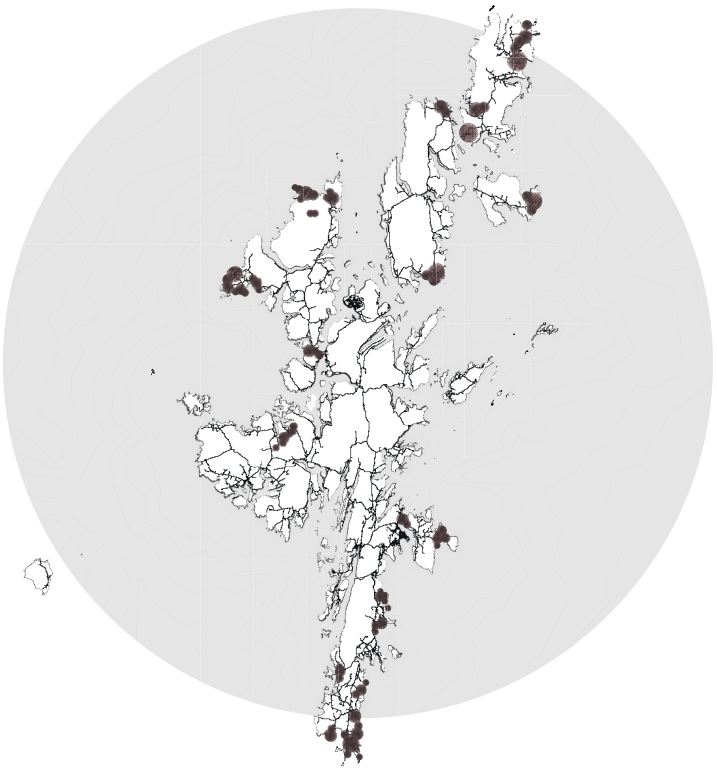
Cultural landscape potential of Shetland



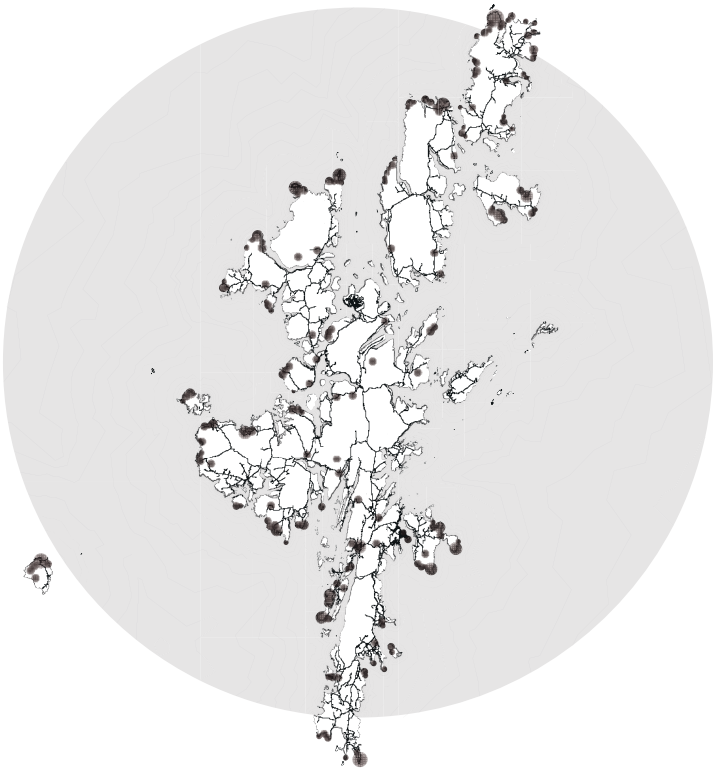
Typology: Marine Viewing



Typology: Northern Lights Viewing

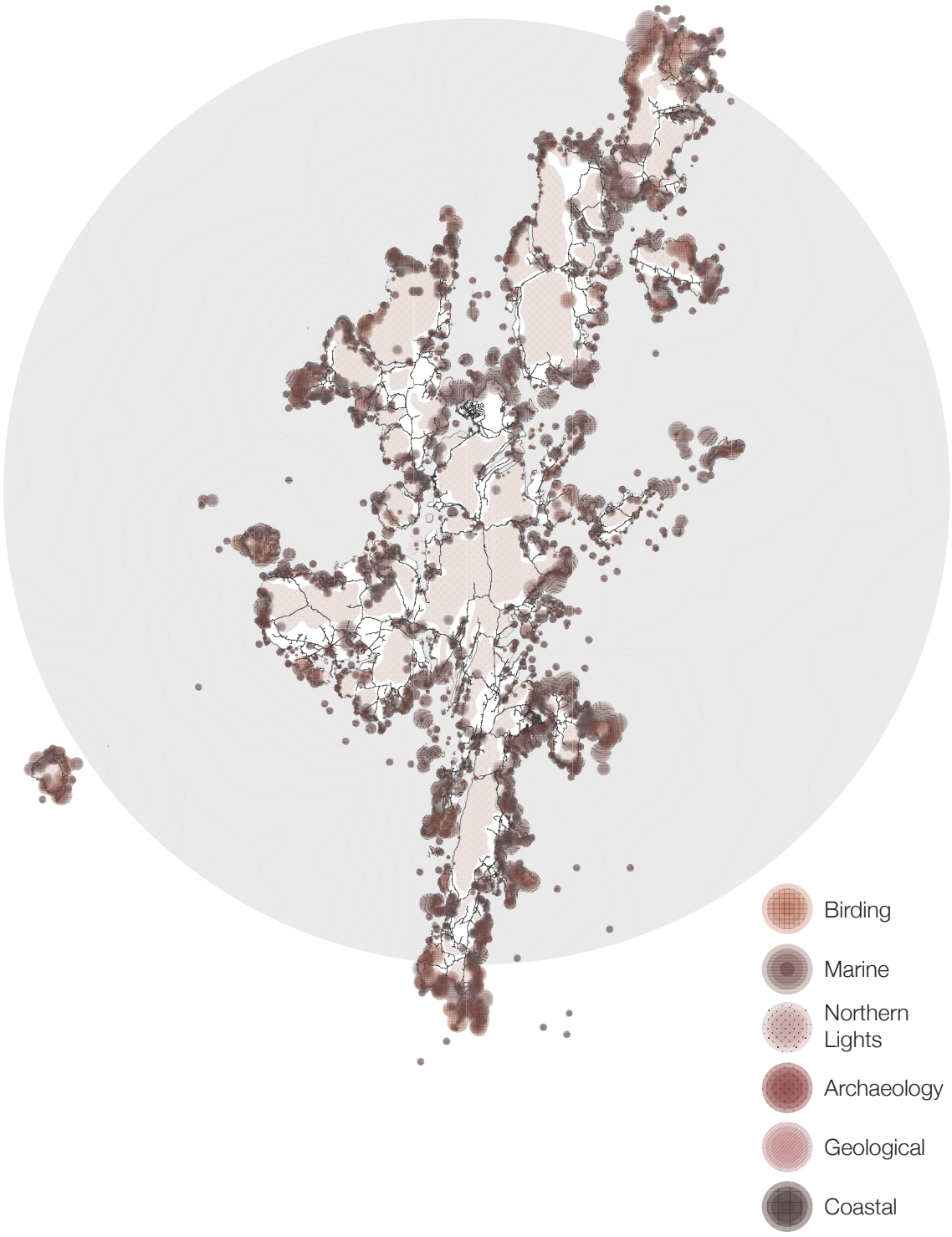


Typology: Geological Places of Interest



Typology: Coastal Viewpoints

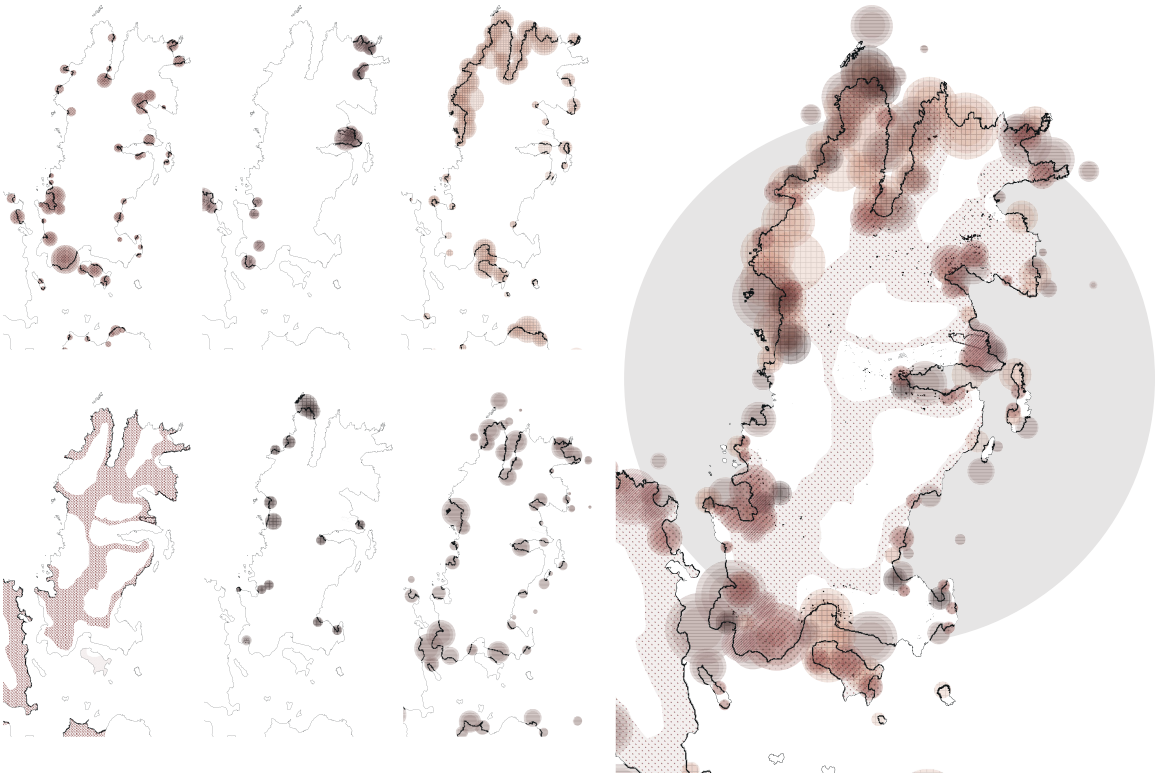
Cultural landscape potential of Shetland



Layering the tourism typologies- establishing places of potential

A Framework for Tourism – Phase One : Unst

Development of an effective system requires a starting point to establish a system of tourism enhancements throughout the Shetland Islands. In consideration of the following two factors, of the four major islands: Mainland, Yell, Unst, and Fetlar it is obvious that Unst is the most appropriate origin point for the development of the proposed system. These factors include: one, the level of development and population density of Unst and two, the existing tourism typology potential with which to establish the system. Unst has the lowest development and population density of the four main islands while also presenting an existing underutilized framework for an increased tourism population. By utilizing McHarg's layering method it becomes clear that while all tourism typologies exist in some capacity on all of the islands, Unst has the most potential on which to base a tourism growth strategy through architecture. While this inherent potential exists, the island's isolation prevents it from utilizing its full potential. This potential can be realized by creating an impetus to visit the island by establishing new paths and destinations through strategic architectural interventions.



Tourism typologies on Unst - layering as a siting strategy

CHAPTER SIX : INTENT – AN ARCHITECTURE OF OBSERVATION

Observation and Perception – The Acquisition of Understanding

A person's ability to interpret their personal way of being in the world is fundamentally linked to perception. How one perceives events are dependent on the observer and their experiences; because of this engrained memory, the experience of an object will be unique to the one experiencing it. Kant describes phenomenology as a branch of science that deals with objects and the manner in which they manifest themselves to the observer.[55] This approach to analysis is characterized as a way of seeing[56] in which the observer perceives and defines the essence of what they observe based on their personal and innate experiences and way of being in the world. The aim of phenomenology as described by Merleau-Ponty is to "draw our attention to the always presupposed and actually present background of our actual experience."[57]

Merleau-Ponty suggests similarly to other forebears of phenomenology, Husserl and Heidegger, that to experience the essence of a thing there must be a sort of perceptual regression; to experience the essence of the object of our observation we must first acknowledge our experiences of the thing observed and our assumptions regarding it. Husserl first suggested phenomenological reduction as a means of reaching a presuppositionless state, therefore being able to observe the pure phenomena[58]. However both Heidegger and Merleau-Ponty reject this rigid process. An observer cannot disregard their experiences due to the simple fact they exist in the world and by being in the world, their experiences and reflections of said experiences are constantly in flux. As Merleau-Ponty writes in *The Phenomenology of Perception* "the return to the things themselves…differs absolutely from the idealistic return to consciousness…. The world is here before any analysis I can make of it. The real must be described, not constructed

55 Dermot Moran, *Introduction to Phenomenology* (London: Routledge, 2000), 7.

56 Mohammadreza Shirazi, "Architectural Theory and Practice, and the Question of Phenomenology" (PhD diss., Brandenburg Technical University, 2009) 12.

57 Monika M. Langer, *Merleau-Ponty's Phenomenology of Perception: A Guide and Commentary* (United Kingdom: Macmillan, 1989), xvi.

58 Shirazi, "Architectural Theory and Practice, and the Question of Phenomenology," 14.

or constituted."[59]

The crucial element of perception is the orientation of the observer. We observe in relation to our being in the world and we perceive based on our experience of being in the world. Therefore phenomenology, a science of observing and interpreting must consider this concept of being in the world. Heidegger's branch of phenomenology considers this concept of Being. His phenomenological approach emphasizes the use of phenomenology as a method for accessing the phenomena of concrete human life.[60] However in consideration of Being and being in the world Merleau-Ponty takes the concept further. One's way of being is through the body and its senses. As he writes "our insertion into the world is through the body with its motor and perceptual acts."[61] Therefore to consider the world is to consider the observer in the world and the world's relation to the observer's body.

The Body in Space – Framing the Act of Perception

"Perception in no way has a speculative interest; it is not knowledge but action"[62]
The concept of body is crucial to phenomenological study and through it, perception. In the work of Merleau-Ponty he describes phenomenology in this manner:

> Phenomenology is the study of essences; and according to it, all problems amount to finding definitions of essences: the essence of perception, or the essence of consciousness there is special consideration and emphasis placed on the body and its relationship to space.[63]

Merleau-Ponty furthers this by suggesting that the body is comprised of two layers that help to fashion our approach to perception. These layers are the habitual body, or the body as it has lived in the past, and the present body, or the body as it is in the moment.[64] The habitual body is experience and our developed ways through which we interact

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59 Merleau-Ponty, *Phenomenology of Perception,* iv.

60 Moran, *Introduction to Phenomenology, 227.*

61 Ibid*,* 403.

62 Barbaras, *Desire and Distance: Introduction to a Phenomenology of Perception*, 101.

63 Merleau-Ponty, *Phenomenology of Perception,* vii.

64 Ibid, 95.

with the world. This habitual body while containing our foundational experiences and understandings of the world actually allows us a certain freedom. In Merleau-Ponty's *Phenomenology of Perception: A Guide and Commentary* Langer interprets the habitual body as a mode by which we "attain the mental and practical space that enables us to build on personal existence and a human world."[65] Therefore it is crucial to accept the dialectic nature of the body as a both an entity comprised as experience and the body as a vehicle for perception.

As previously discussed the act of perceiving is not a static process. Perception entails a process of organizing, identifying, and interpreting information that in turn, leads to perception. The body interprets the object or event through the senses while moving through space interacting with the thing being observed. As Merealu-Ponty describes "insertion into the world is through the body with its motor and perceptual acts."[66] Every act of perceiving an object or event requires movement no matter how basic or slight. Movement of the eye is required for viewing an object while movement of the hand over the object is required to experience tactility. This necessity of movement in the process of perception solidifies the role of the observational body in space, thus establishing the necessity of path and the potential to move as a means of observation.

Tools of Observation – The Body and Machines of Observation

The history of phenomenological study distinctly characterizes the body as a tool for observation and perception. However it is important to also study historical tools of the observer as a method for developing an architecture of observation. Jonathan Crary's article, "Techniques of the Observer" creates a historical timeline for the development of machines of observation, from the camera obscura to the photograph, and the role of the observer in relation to these machines. The limitation of these machines as discerned by Crary is the nature of vision and how it transformed into an "object of knowledge, of observation.[67]" However even when considering the vision-centric nature of these tools, the ideas contained within their processes can be extrapolated to a framework for

65 Langer, *Merleau-Ponty's Phenomenology of Perception: A Guide and Commentary,* 34.

66 Moran, *Introduction to Phenomenology,* 403.

67 Jonathan Crary, "Techniques of the Observer" *October* 45, (1988):5, accessed October 11, 2017, http://www.jstor.org/stable/779041.

architecture to function as a machine for observing.

Many of these early optical devices were small hand-held creations that would produce an illusion of an event. One of the earliest of these was the Thaumatrope, a device that consisted of a small disk with images on either side; when spun it created an illusion of a relationship between the two images. This tool was not so much about perception and understanding but creating the illusion of an event. Many of these early tools sought to create illusions or manipulated images. The scale at which they relate to the observer is worthy of study. Some were smaller, at the scale of the body and allowed the experience of only a single individual. Others were at the scale of a building. The diorama as an observational tool, exemplified this larger scale in which the immobile observer was placed into the machine and was able to observe a predetermined event or experience.[68]

The nature of the relationship of the observer to the tool for observation is particularly important. An architecture of observation would suggest that the building itself acts in conjunction with the viewer to create the framework for perception and therefore understanding. It is critical therefore to consider the building as a machine and consequently the act of observing becomes a mechanical process wherein the viewer interacts with the space to comprehend the event. Crary describes this process in reference to other tools of observation. However, it can be extrapolated as a method for how, through the unity of architecture and viewer, an event can be perceived. The following elements convey the process of observation by way of machine or, in this case architecture: “a body at once a spectator, a subject of empirical research, and an element of machine production.”[69] Through the combination of these three components one can achieve understanding.

Deconstructing Observation – A Framework for the Phenomenological Experience

Perception can be construed as a process of assimilating raw data in the form of sensations.[70] These sensations involve the sensory exploration of a body in space and,

68 Crary, “Techniques of the Observer,” 22.

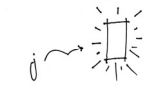
69 Ibid, 20.

70 James J. Gibson, *The Perception of the Visual World (*Westport: Greenwood Press, Publishers, 1974), 15.

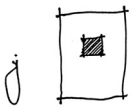
through the collection and analysis of this data the observer can arrive at perception. It is important to establish that these sensations or sensory encounters should place emphasis on all of the senses. With intention architecture can free itself of the vision-centricity of the machines discussed in the previous section. True perception involves the understanding of the body in the world as a totality not through a single mode of observation. If perception is to be understood as a collection of sensations interpreted by the brain then the building as a machine of observation should enable or actualize these sensations as a means of promoting understanding in the observer.

This thesis will apply a phenomenological lens by creating a systematic approach for reframing existing tourist typologies through deconstructing observation into a series of elements. These observational elements are a basis for how the architecture facilitates the creation of these sensations and through these sensations, a new perception of the event. Each intervention involves the combination of several of these observational elements as a method to construct an atmosphere conducive to observing the event. Through application of these observational elements, the building becomes a machine for observation created by a phenomenological framework.

The observational elements applied in the architectural interventions are included in the diagrams on the following page.



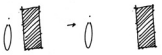
Light



Framing

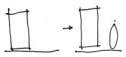
Prospect

Tension



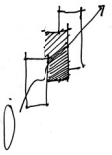
Distancing

Isolating

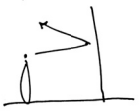


Hiding/
Revealing

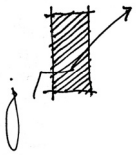
Refuge



Layering



Reflecting



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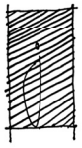
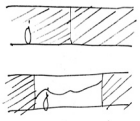
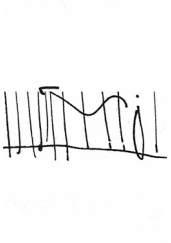


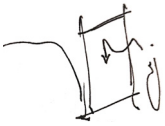
Deprivation



Operable
Framing

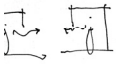


Variable
Screening

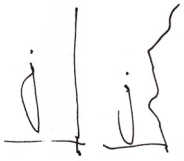


Concealing

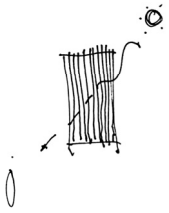
Revealing



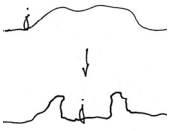
Orientation



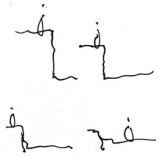
Tactility



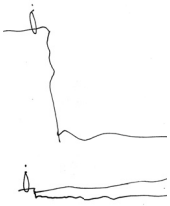
Filtering Light



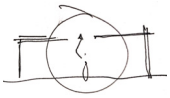
Excavation



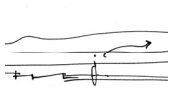
Progression



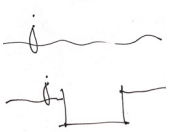
Accessibility



Emphasizing
Destination



Revealing
Layering



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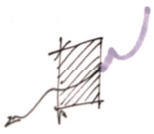
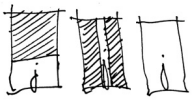
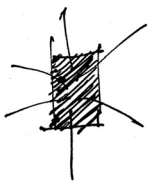


Color Filtering

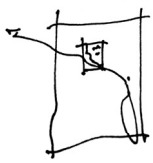


Aperture



Absorbing

Vanishing
Point



Focusing

Elements of observation

The Building – A Machine for Observation

The building as machine suggests an architecture with which the body interacts to undergo a process for observation. In the vein of developing this idea further, it is important to once again refer back to Norberg-Schulz's domain, place, and path. Combined, these elements create existential space.[71] However, this is not a physical space and therefore the body cannot inhabit or interact with it in a physical capacity. Therefore to create the opportunity for the body to inhabit these ideas of existential space, the theory must be concretized into architecture. This inhabitation falls into what is described by Noberg-Schulz as architectural space, the physical means by which one orients themselves in the landscape thus taking possession of the environment.[72] Noberg-Schulz explores the idea of architectural space as the physical counterpoint of existential space.[73] In considering this concept it can be stated that the building as a machine for viewing is the intersection between existential space, the realm of perception and; architectural space, the realm of framing and interacting in service to perception.

The combination of existential space and architectural space suggests a sort of hierarchy in which the existential space is primary, consisting of the event and its perception. The architectural space is secondary and is considered a vehicle by which one arrives at a new understanding through interacting with the space. The building as machine denotes a mechanical process which the viewer undertakes to more fully perceive the event to be observed. This process is informed by several factors including the tourism typology that the building is to frame, the observational elements assigned to frame and highlight the typology, and the site in which the building is placed. Through these factors the architecture can manifest itself as a tool for observing.

The nature of the interaction between the observer and the building also relates to an earlier notion of movement as stimulus for perception. By interacting with the building in service of perceiving a certain event the body will undergo a heightened experience of that phenomena through the process of movement and sensory manipulation produced

71 Norberg-Schulz, *Existence, Space & Architecture,* 16.

72 Ibid, 19.

73 Ibid.

by the architecture. This heightened experience will imbue the observer with a new and deepened understanding of what they are experiencing.

Understanding and the Sublime

The goal of this architecture of observation is to reframe existing events in such a way that the observer achieves a higher level of understanding of the event that is being witnessed. It is important to discuss how this new heightened experience will expand the existing industry of tourism. In Chapter Three's discussion of the history of tourism and its relationship to the sublime, the experience of the sublime is described as an impetus for tourism and a highly sought after experience. Historically it was solely the domain of the very wealthy. However different conditions apply today. Creating this system of reframed perception through architecture can potentially make this elusive experience more commonly accessible.

The experience of the sublime is encountered through perception and understanding. Kant describes in his essay, "A Philosophical Inquiry into the Origin of Our Ideas of the Sublime and Beautiful" the notion of the sublime in relation to beauty, "understanding is sublime."[74] Examining his notions of the sublime further, one can see that experiencing the sublime is also about the pursuit of knowledge and attempting to perceive that which is beyond comprehension. Kant describes the sublime as a supersensible faculty central to acquiring knowledge. Kant proposed that the sublime is the overwhelming effect of experiencing something surpassing the viewer's comprehension and imagination and which, through the viewer's ability to discern the event that they are observing, they are able to arrive at certain ideas of reason.[75]

This system thus contains within it the potential for two interpretations of the sublime relevant to Shetland. The first, through the islands' inherent qualities, is the aesthetic sublime which as previously discussed in Chapter Three produced through what Kant described as "deep loneliness"[76] or the sense of awe engendered by the rugged

74 Kant, *Observations on the Feeling of the Beautiful and the Sublime*, 51.

75 Erika Goble, "Sublimity & the Image: A Hermeneutic Phenomenological Exploration," *Phenomenology of Practice* 7, no. 1 (2013): 83.

76 Edmund Burke, *A Philosophical Inquiry into the Origin of Our Ideas of the Sublime and*

wilderness of Shetland. The second however, should be considered more crucial as it is the reward of an enhanced perception and understanding of the event. In her book, *The Sublime in Modern Philosophy*, Philosopher Emily Brady notes that the sublime as a form of "illuminating aesthetic experience" can "feed into the development of self-knowledge."[77] This characterizes a shift in perspective, through which one orients themselves differently in the landscape, creating the foundation for a deeper understanding of the event in nature that is being witnessed.[78] Therefore an experience of the sublime can be achieved through an architecture of observation acting as the process through which one is oriented in the landscape and the event is shaped and reframed.

Beautiful (Menston: Scholar Press, 1970), 48.

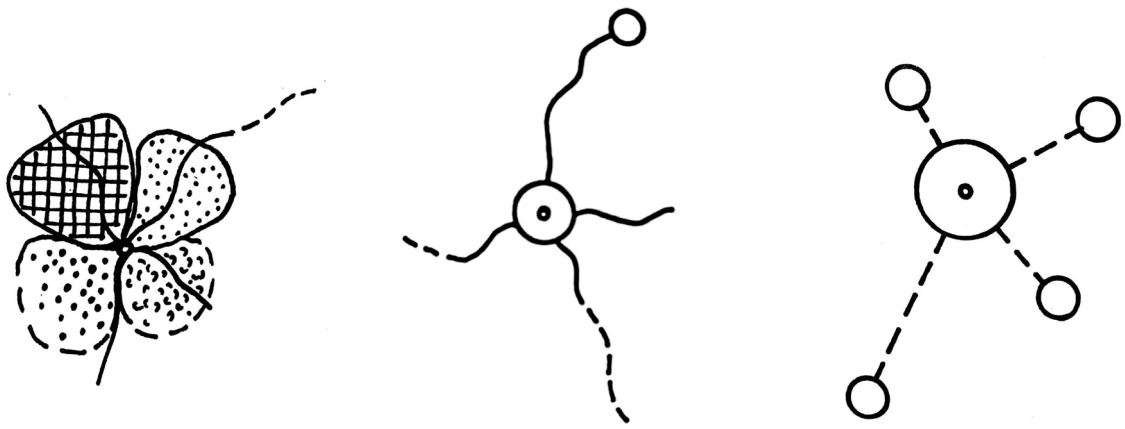
77 Emily Brady, *The Sublime in Modern Philosophy: Aesthetics, Ethics and Nature* (New York: Cambridge University Press, 2014), 199.

78 Brady, *The Sublime in Modern Philosophy: Aesthetics, Ethics and Nature,* 200.

CHAPTER SEVEN: SITE STRATEGY

Domain, Path, and Place – Schemata for Orientation

Phenomenologist, Christian Norberg-Schulz suggests that one is able to orient themselves in the landscape by interpreting the three schemata of orientation: domain, path and place. The combination of these elements is integral to the creation of existential space or what could be considered the space of perception[79] and thus the space of phenomenological experience. This thesis will consider the schemata outlined by Norberg-Schulz to establish a siting strategy for an architecture of observation based on his theory. There are three schemata crucial to siting this architecture that must be considered at multiple scales. The first is domain, the area defined by the typology to be viewed; the second, the path which enables perception through movement; and third, place, the architecture through which the event is framed for the phenomenological experience.



Domain, Path, and Place
Diagrams from Existence, Space & Architecture by Christian Norberg-Schulz

79 Christian Norberg-Schulz, *Existence, Space & Architecture* (United Kingdom: Praeger Publishers, 1971), 16.

Domain

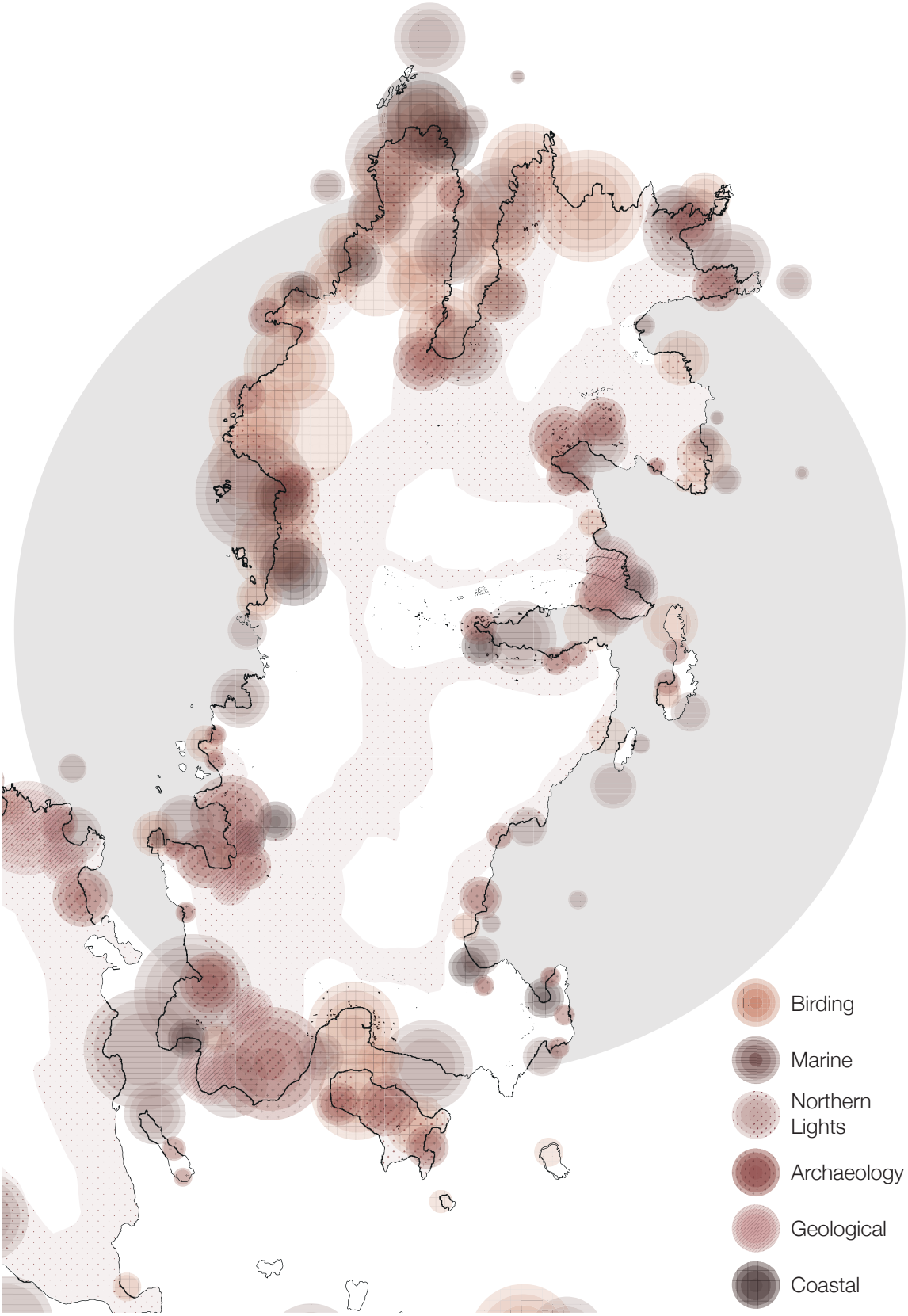
Norberg-Shulz's definition of domain establishes it as a support for the establishment of place and path.[80] In comparison to the other two elements, it remains relatively "unstructured ground, [81]" establishing place and path as the prominent elements to which the body is directed. As a unifying element, domain will set up the context for siting both place and path; in this case domain is established through locating the tourist typologies as discussed in Chapter Five. These domains contain no personal experience for the observer[82] as they are simply defined by the potential for activity that exists within them. Thus structuring the world, or in this context, the Shetland Islands into these domains creates the foundation in which it becomes possible to site both path and place.

The map on the following page demonstrates the potential of the six tourism typologies, identified in Chapter Five, on the island of Unst. Utilizing McHarg's system of identifying potential the typology maps are layered together to show zones of potential between the six typologies. This identified potential sets up the framework for destinations when informed by existing paths and trails.

80 Norberg-Schulz, *Existence, Space & Architecture,* 22.

81 Ibid.

82 Ibid, 24.



Layering tourism typologies- determining domains of potential

The Path – Multiple Scales

The path plays a fundamental role in the development of this system of architectural waypoints. The path or journey not only fulfills a need to connect the northern island of Unst back to Mainland but it also plays a crucial role for developing potential in the re-interpretation of perceptual events at the destinations. Norberg-Schulz describes the dialectic nature of the path in which the tension between known and the unknown[83] will draw people to continue onto the next 'place.' However, the path can also be viewed as the direction towards a goal.[84] In this context that goal on a physical level is the observation of an event; however, on a theoretical level the goal resides in the reshaping and heightening of the experience to be viewed. Therefore it is important to consider the physical path (the path of the island) as well as the path of perception (the path through the architectural intervention) that will enable to observer to perceive the event.

At the scale of the island a system of travel is established that will allow several outcomes. The island path allows tourists access to both the towns for necessary services and to the tourism typologies identified in earlier chapters. As existing infrastructure already provides access to the towns, the proposed architecture must be integrated with existing paths and networks to provide access to disconnected or inaccessible observational opportunities. The mode by which the observer is able to access the site will be determined by a number of factors including: site sensitivity, sensitivity of the observable event or thing, and method by which the event or thing will be observed. This last factor is an outcome of the observational elements ascribed to the typology and impacts how procession will be interpreted in the design. The island path has the primary function of accessibility and connectivity while the path in, around, and through the building will function in conjunction with an architecture of observation to reframe perception of the event being observed.

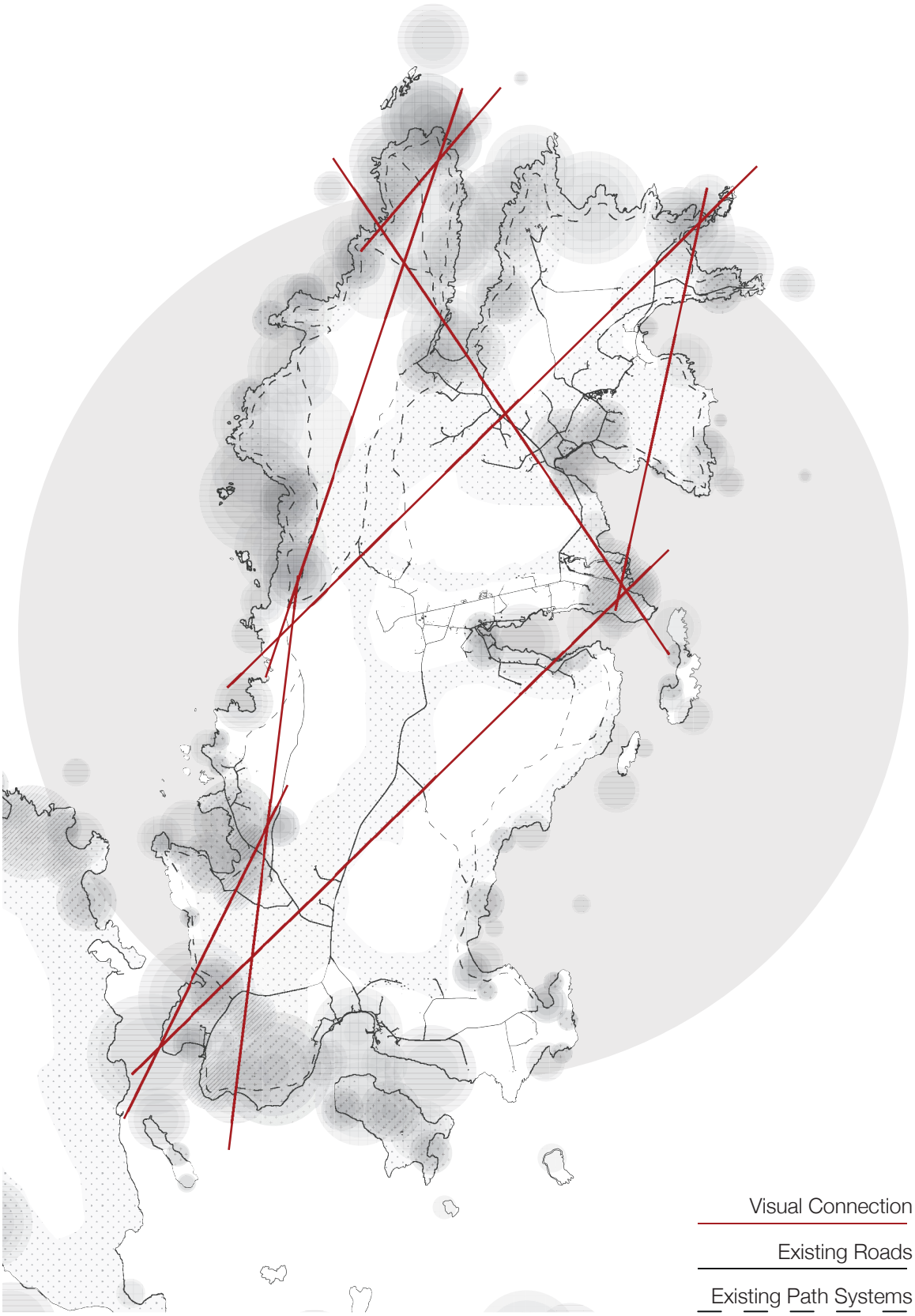
The path at the scale of the building effects the perception of the event being observed mediated by an architecture of observation. Contemporary phenomenologist Renaud Barbaras speaks to the criticality of movement in the consideration of perception such

83 Norberg-Schulz, *Existence, Space & Architecture,* 24.

84 Ibid.

that “if perception is a certain relationship between the living subject and its surroundings, movement forms part of its essence.”[85] Movement and the path that the observer will travel in and around the building will be dependent on the tourism typology that is observed and the elements of observation through which that typology is reframed. The building and it’s distinct path will each aid in this reframing. The path of the building will serve multiple purposes for facilitating perception: orienting the tourist in the landscape towards the object of observation, enabling participation with the experience of perception and, promoting the evolution of the observer’s understanding.

85 Renaud Barbaras, *Desire and Distance: Introduction to a Phenomenology of Perception*, trans. Paul B. Milan (Stanford: Stanford University Press, 2006), 88.



Determining path- establishing visual connection

Place

The place or centre is described by Norberg-Schulz as the "ideal goal which one can attain after a 'hard journey'."[86] The concept of place in this sense can be interpreted in two ways: one, a physical place that is reached via the path as described in the last section and two, a theoretical place in which the observer reaches perceptual understanding through an architecture of observation (discussed in Chapter Six).

The tangible or physical notion of place is crucial to establish as these destinations are what will draw people out into Unst. To consider these destinations as a system it is useful to analyze Barbaras's notion of desire. As he describes in *Desire and Distance:*

> Only desire can correspond to the horizon, as the presentation of the unpresentable, insofar as desire's object is given to it only in the mode of incompleteness and therefore always calls for a new satisfaction.[87]

Desire can be considered a driving force that will help inspire the continuation of tourists along the path. Desire can be then understood in a dual sense: in the anticipation of the next event and equally, in the desire to encounter a heightened phenomenological experience and the subsequent deepened understanding. This notion of desire as an impetus for journey suggests that these places create a sensory marker that drives the individual forward towards the next goal. Therefore each intervention must speak to the others as a means of facilitating this motivation for continuity.

It is also necessary to consider how these places might be established at multiple scales. The first or primary scale of intervention would act as an anchor point for the system as well as a beginning and endpoint. This building should be sited at the point of arrival or departure. In the case of Unst this would be in proximity to the ferry terminal. This is a point of high tourism typology potential as well as the origin and departure point of the proposed tourism system. The secondary scale, which this thesis will focus on, is at the scale of the architecture of observation sited at areas` of highest potential for each tourism typology. These are the primary destinations along the path. The tertiary scale is

86 Norberg-Schulz, *Existence, Space & Architecture,* 18.

87 Barbaras, *Desire and Distance: Introduction to a Phenomenology of Perception*, 110.

at the scale of small rest stops and areas of shelter. These would be placed at intermittent points along the path creating areas of shelter to improve accessibility throughout the island.

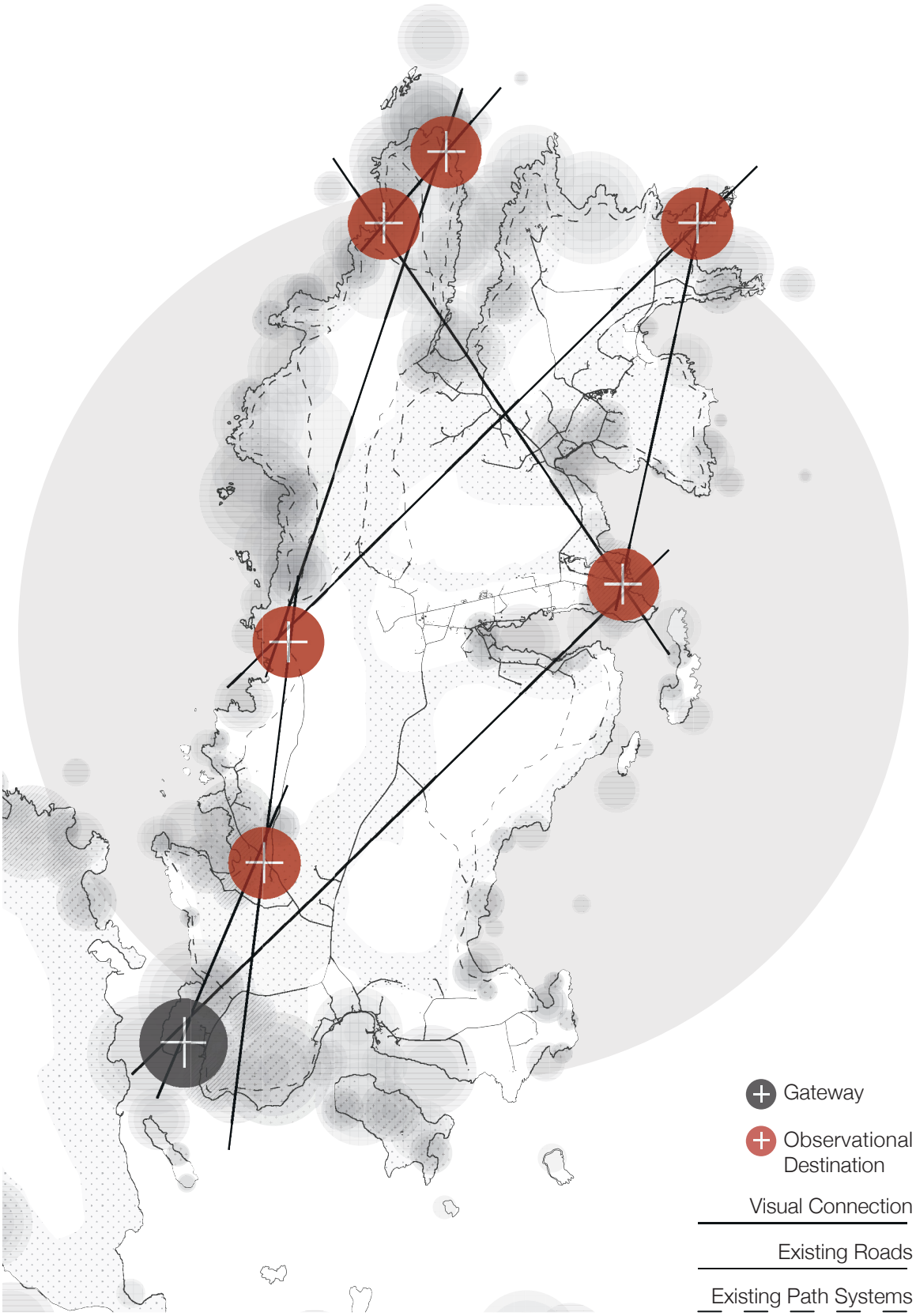
The theoretical notion of place is rooted in what Norberg-Schulz defines as 'existential space.'[88] Place establishes a space where perception is made possible. In his discussion of place Noberg-Schulz cites psychologist, Jean Piaget's description of existential space as having 'object character' in which he states:

> An object is a system of perceptual images endowed with a constant spatial form throughout its sequential displacements and constituting an item which can be isolated in the causal series unfolding in time.[89]

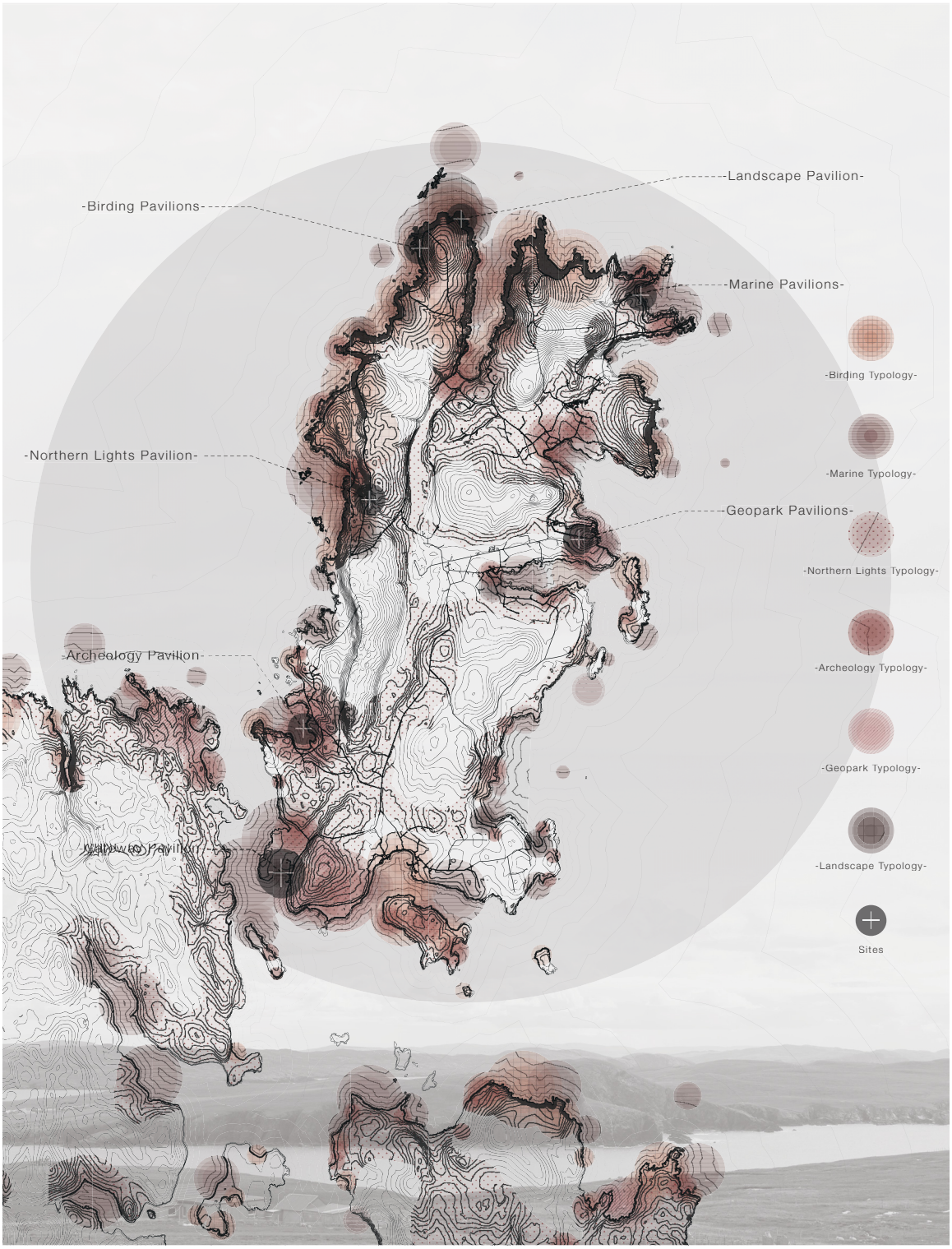
The object, in the context of this discussion can be considered the architecture of observation; it is through these objects that the body is able to orient itself in the world thus forming understanding. The concept of place therefore means that the physical nature of the building orients the observer in the world while simultaneously creating opportunity for perceptual reformation by manipulating and framing the event that the viewer observes.

88 Norberg-Schulz, *Existence, Space & Architecture,* 20.

89 Jean Piaget, *Construction of Reality in the Child* (Abingdon: Routledge, 2013), 92.



Determining place



Site plan - potential and sites

CHAPTER EIGHT: DESIGN

Refuge

Refuge is both a practical and observational consideration. The wilderness of Shetland has extreme weather and providing tourists with the opportunity for shelter contributes to the accessibility of the island. Refuge in a more theoretical sense gives the observer an opportunity to ground themselves in their personal experience before undergoing new or elevated experiences which may entail being taken out of the comfort of their personal view of the world. Some typologies, for example the Avian Pavilions, require the employment of refuge as a way to hide the observer from the different bird species.

In a physical sense it is critical that each typology's architectural response employs a degree of refuge. Many of the destinations outlined in this chapter are in remote locations that offer no shelter from the elements. Due to the unpredictable nature of the weather the architectural interventions will serve two functions; the first and primary function is to elevate the experiences of the six tourism typologies while a secondary function is the creation of places of refuge in the Shetland wilderness. The primary weather conditions that hinder accessibility to the islands are strong winds and rain. Each pavilion's cladding system will not only orient the observer but offer varying degrees of protection while the pavilion is being utilized.

In addition to providing shelter from elements the pavilions also provide rest areas which are often lacking along the existing trails and paths on which the pavilions are sited. There are few places to sit and rest in the moors and fields of the Shetland wilderness. The pavilions would offer critically needed rest areas in addition to shelter.

The following renders show the operation of the Avian Hill Pavilion as both an architecture of observation and as a place of refuge.

Observation - Hill Pavilion with open blind

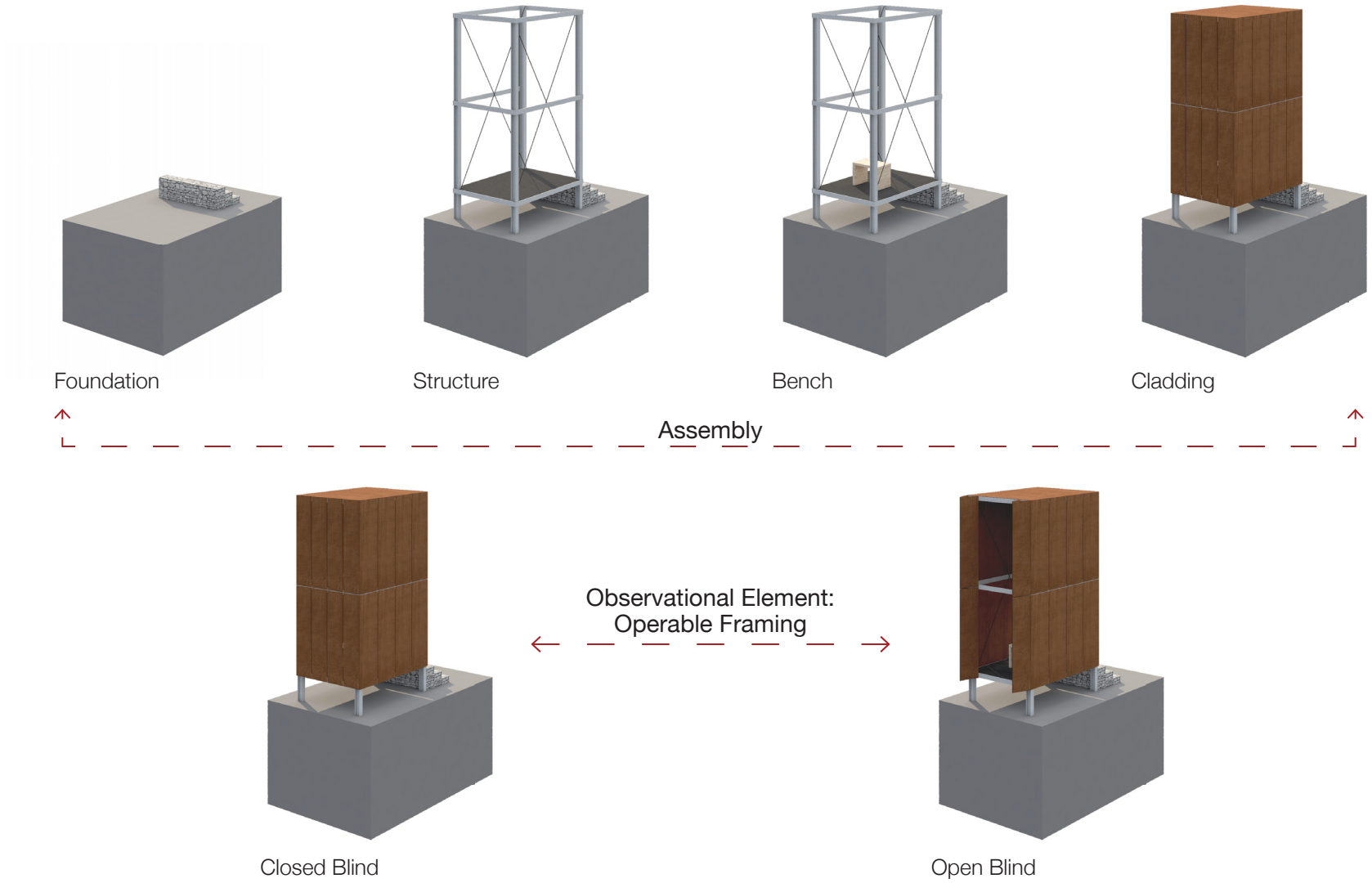
Refuge - Hill Pavilion with closed blind

Assembly

When considering the building as a machine for observation an emphasis is placed on the process by which the observer interacts with the building in order to observe the event. The machine orients the observer to the phenomenological experience. However in addition to considering the architecture's observational applications, the building itself has to be adapted to and compatible with the site. Most of the identified tourist typologies exist in sensitive locations where there is limited road access. It is imperative to consider how modular or pre-fabricated construction can be implemented to the advantage of the observation elements identified for the building.

The cladding and structural systems of each pavilion (shown in the component anonometrics for each typology) are comprised of components that are capable of assembly both on or off-site. The trusses and cladding across all six typologies utilize elements that are transferable between the different pavilions allowing parts to be reused as needed. As previously mentioned, assembly of the pavilions can happen in a combination of off-site construction and on-site assembly. The trusses can be either assembled off-site and shipped into the site or the components themselves can be transported to the site and assembled there. There are no welded connections in any of the 12 pavilions or paths allowing easy on-site assembly as well as disassembly if necessary.

Each pavilion interfaces with the observer in different ways depending on the typology. Where the observer interacts with the building wood is utilized as a marker. This occurs differently between various pavilions. In the following diagrams wood is shown as both a seating element and the handle by which the operable door in the Avian Hill pavilion is activated.



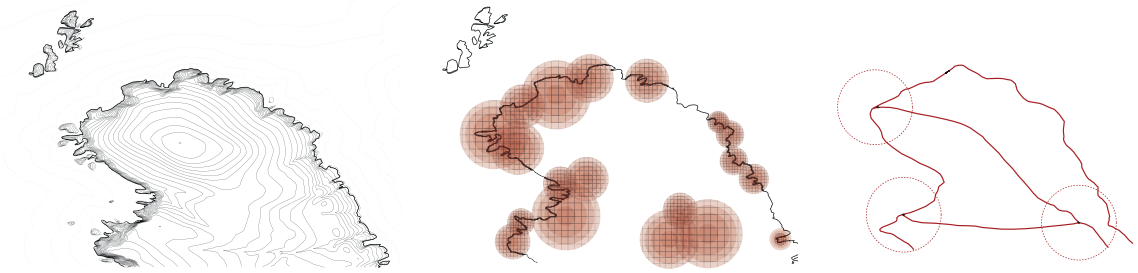
Assembly of the avian Hill Pavilion

Typology One: Avian Destinations

Contributing to the Path / Establishing Potential

Through layering it was determined that the area of greatest potential for the Bird Watching typology was the Hermaness Nature reserve. The reserve houses some of the highest density nesting sites for a variety of sea birds in the world, some of which are endangered or protected species. The spot is extremely remote but is one of the islands' most popular destinations for birders.

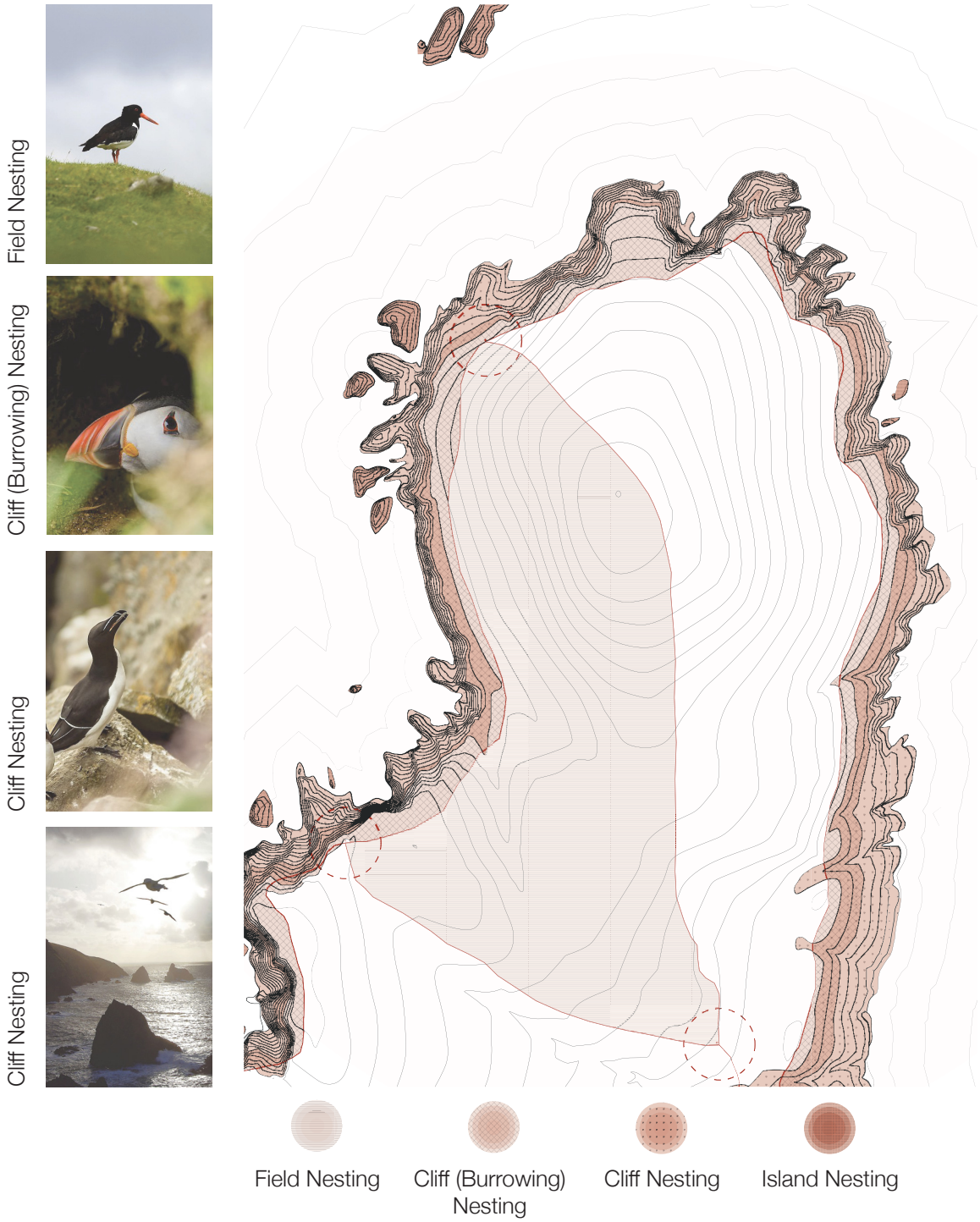
There are three groups of sub-typologies that are necessary to address for this typology (as seen on the site plan). The first is field nesting birds; the second is cliff nesting and cliff burrowing birds; and the final sub-typology is island and ocean nesting birds. The existing path will lead the observer past all three pavilions where the observer will be able to experience all three birding sub-typologies. From each pavilion the user will be directed towards the next destination, whether it is the next avian pavilion or the next typology.



Site Topography Typology Potential Pavilion Sites

Site axonometric of the Hermaness Nature Reserve - using potential as a method for siting

Site Plan - Birding Pavilions at Hermaness



Site plan of the Hermaness Nature Reserve showing the overlap of potential, existing trails and siting (Images from Shetland website)

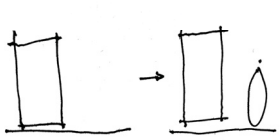
Observational Elements: Avian Destinations

Three observational elements are identified and applied in varying degrees to the three pavilions to create an architecture that mediates between the observer and the different bird observation sub-typologies. The three observational elements applied to this typology are: Refuge, Hiding/Revealing (of the observer), and Operable Framing.

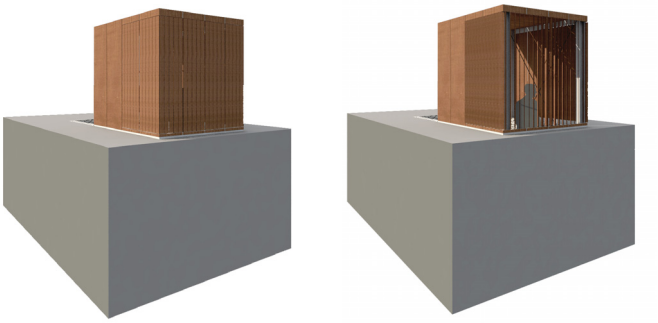
The first identified sub-typology, field nesting birds is the most sensitive to human presence and therefore the “Field” pavilion places an emphasis on the observational element, Hiding/Revealing. To mediate between the observer and the sensitivity of the birds being observed the aperture of this pavilion is the smallest of the three. The operable blinds can be opened and closed to varying degrees allowing the observer to control the exposure depending on the need to hide.

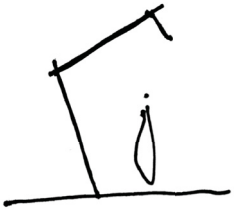
The second and third sub-typologies are the cliff nesting and island nesting birds respectively. Due to their relative distance these species are typically less sensitive to the human presence allowing the apertures on these pavilions to be larger. However there is a greater need to apply the element of refuge to these pavilions due to their proximity to the cliffs and open ocean. The Cliff pavilion offers apertures that allow viewing of species that burrow into the cliffs while the Hill pavilion focuses exclusively on capturing views of the ocean and the island nesting birds. Similar to the Field pavilion these pavilions both utilize operable framing as a way to provide refuge and to a lesser extent hide the observer from the birds.

Observational Elements



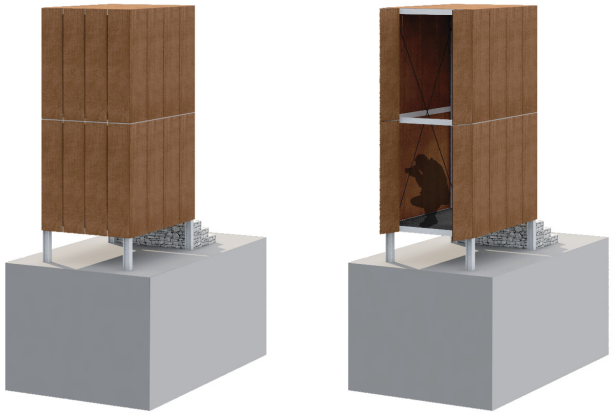
Observational Element :
Hiding/Revealing





Observational Element :
Refuge

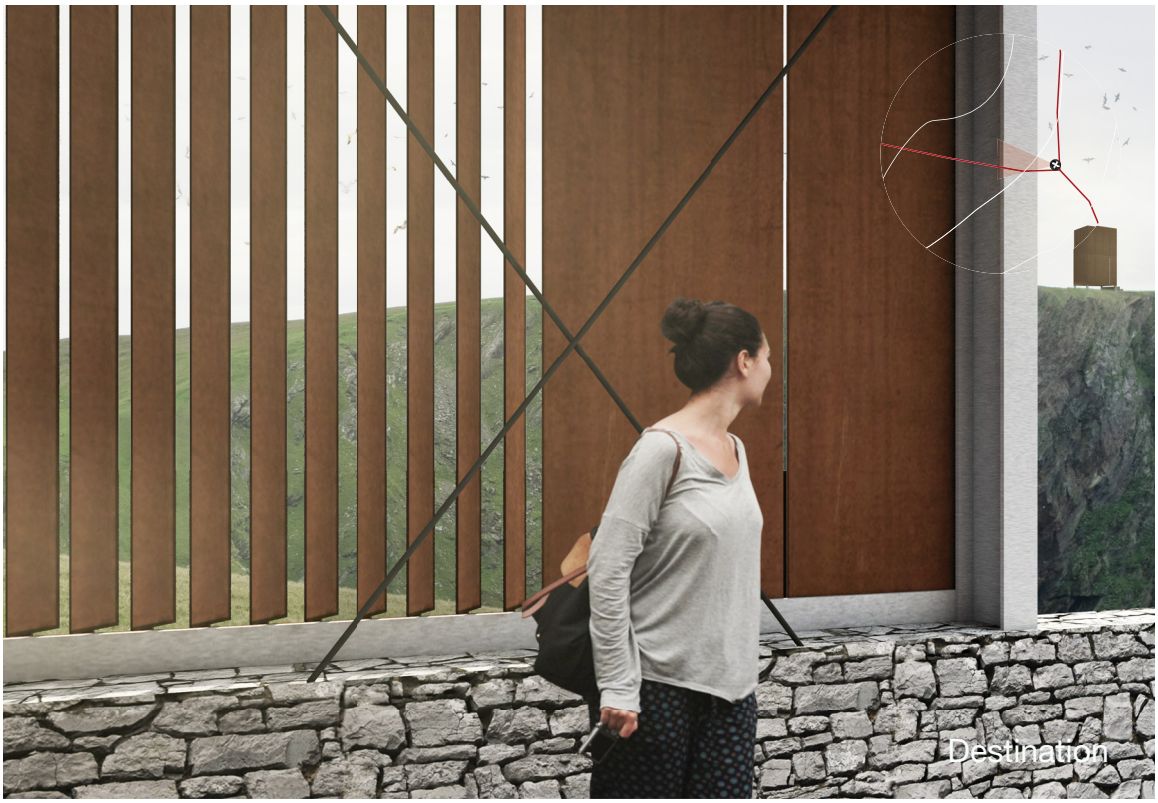
Observational Element :
Operable Framing



The three observational elements utilized in the avian pavilions

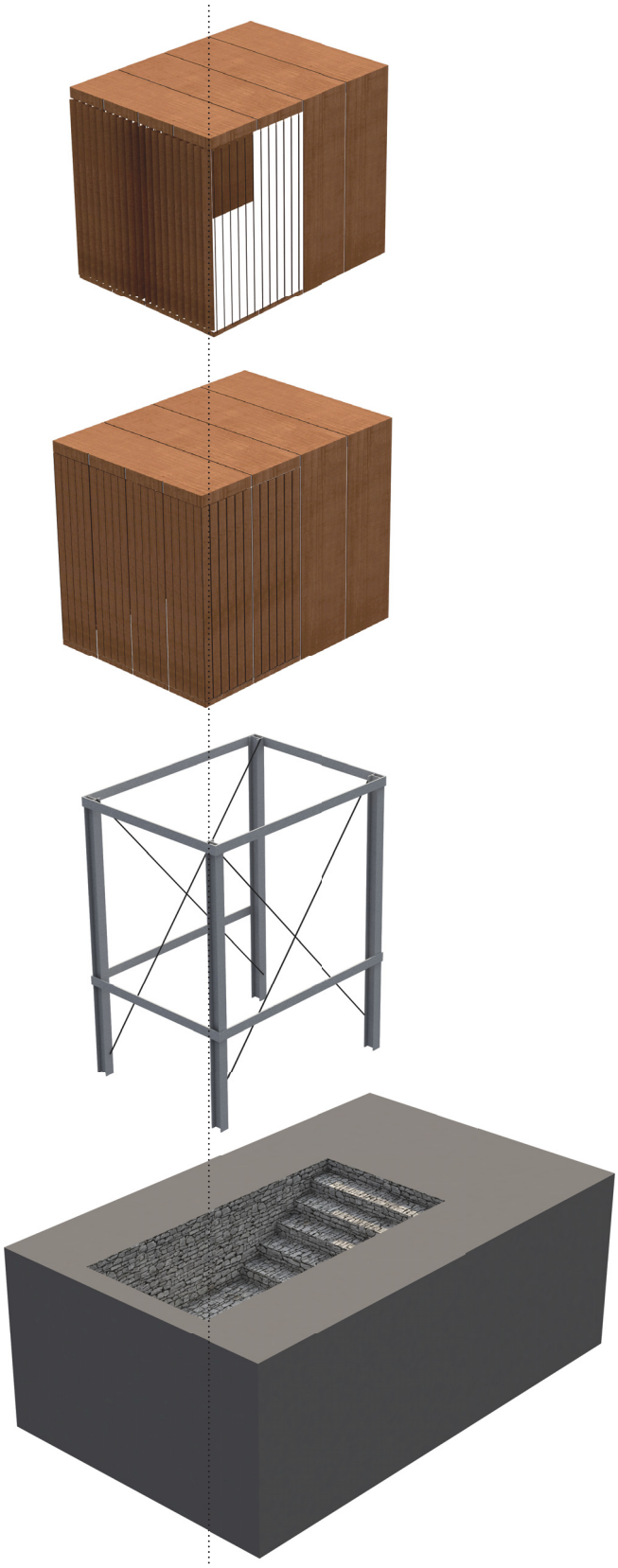
Processional vignettes - Field

Processional vignettes - Field



Processional vignettes - Field

Component Axonometric



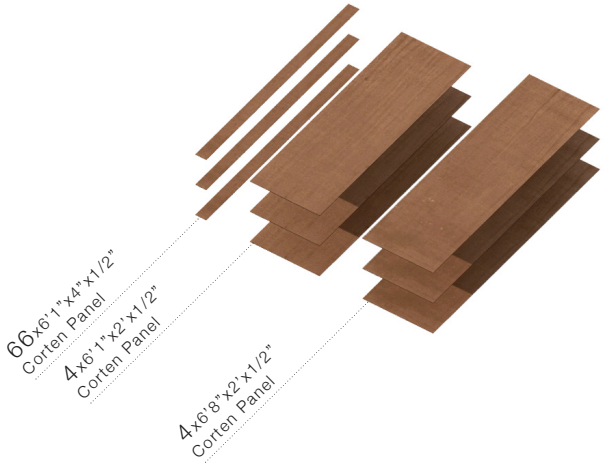
Cladding Elements -
Corten Panel Cladding with Reveals
-Refuge (Observational Elements)

Tectonic Elements-
Repeating Truss Structure with
Secondary Elements

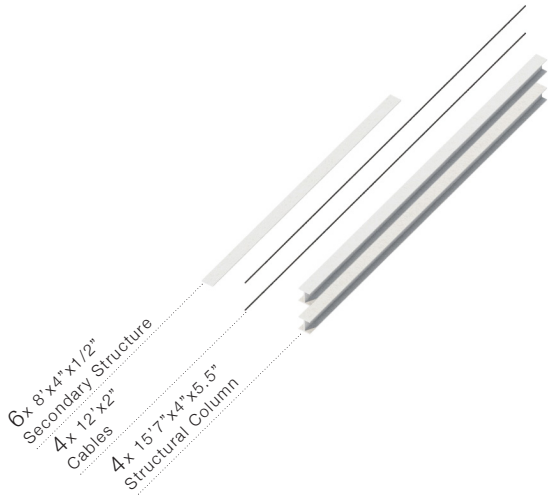
Stereotomic Elements -
Varying levels of integration with
the site depending on the
sub-typology to be viewed
Reflection (Observational Element)

System axonometric showing the relationship between the three elements: stereotomic, tectonic, and cladding

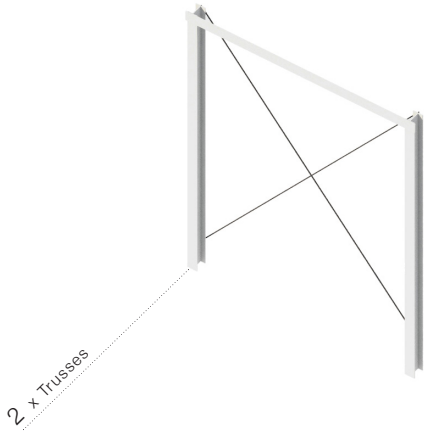
Cladding/Structure Components



Cladding Components
-Corten Plate Steel
-Off-site Fabrication

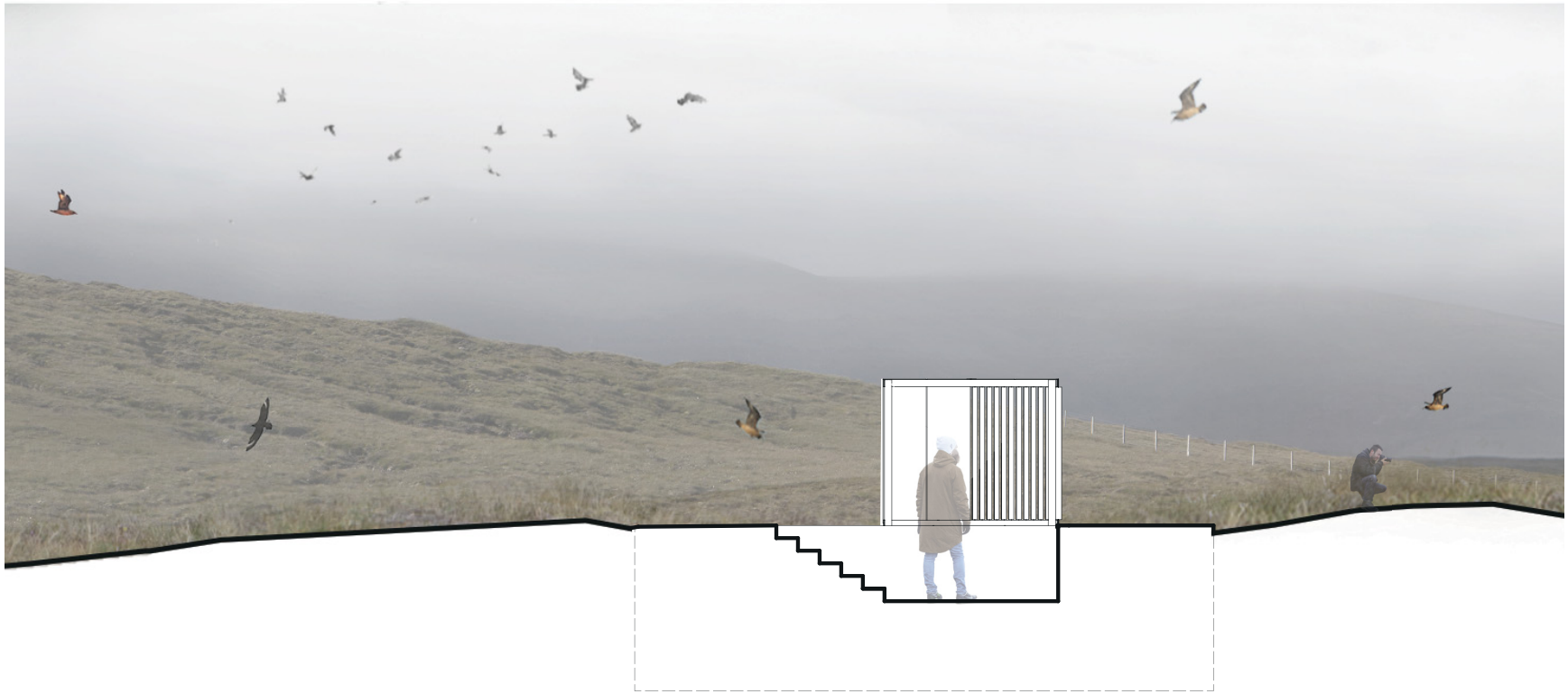


Truss Components + Secondary Structure
-Steel
-Off-site Fabrication



Assembled Truss
-Steel
-On-site Assembly

Component list for the Field Pavilion showing a breakdown of the cladding system, structural system and number of assembled trusses.



Field Pavilion section

Typology render: Field Pavilion

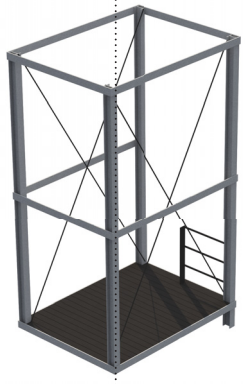
Processional vignettes - Cliff

Processional vignettes - Cliff

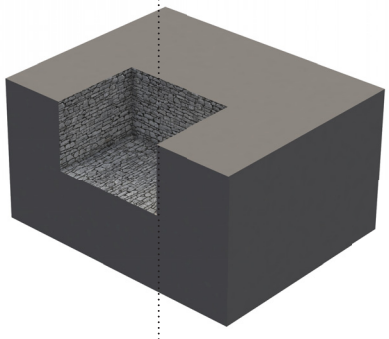
Processional vignettes- Cliff

Component Axonometric

Cladding Elements -
Corten Panel Cladding with Reveals
-Refuge (Observational Elements)



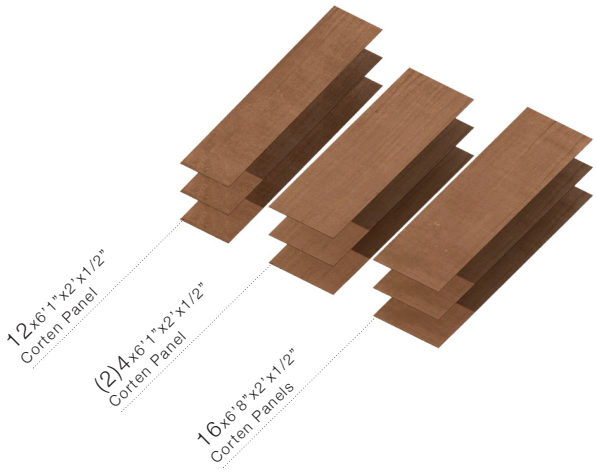
Tectonic Elements-
Repeating Truss Structure with
Secondary Elements



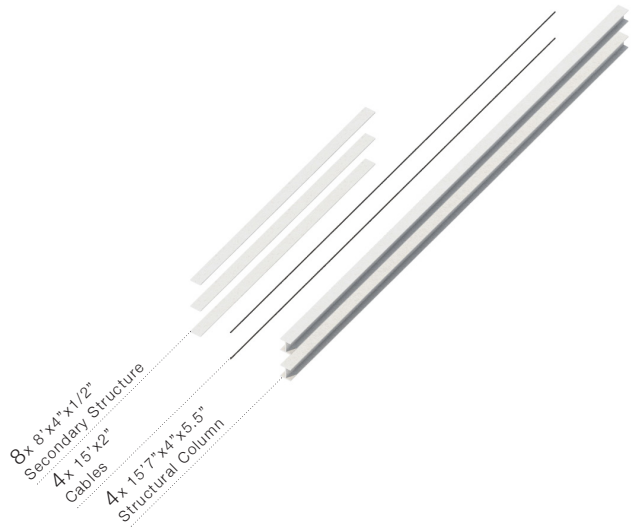
Stereotomic Elements -
Varying levels of integration with
the site depending on the
sub-typology to be viewed
Reflection (Observational Element)

System axonometric showing the relationship between the three elements: stereotomic, tectonic, and cladding

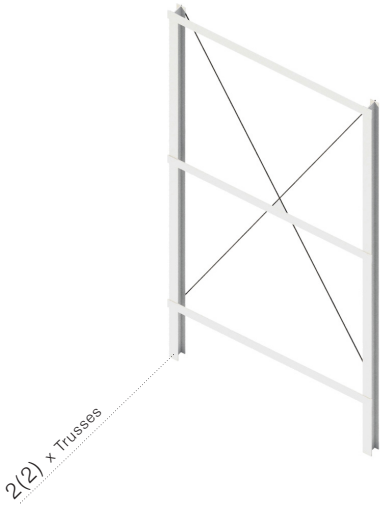
Cladding/Structure Components



Cladding Components
-Corten Plate Steel
-Off-site Fabrication



Truss Components + Secondary Structure
-Steel
-Off-site Fabrication



Assembled Truss
-Steel
-On-site Assembly

Componen list for the Cliff Pavilion showing a breakdown of the cladding system, structural system and number of assembled trusses.

Cliff Pavilion section

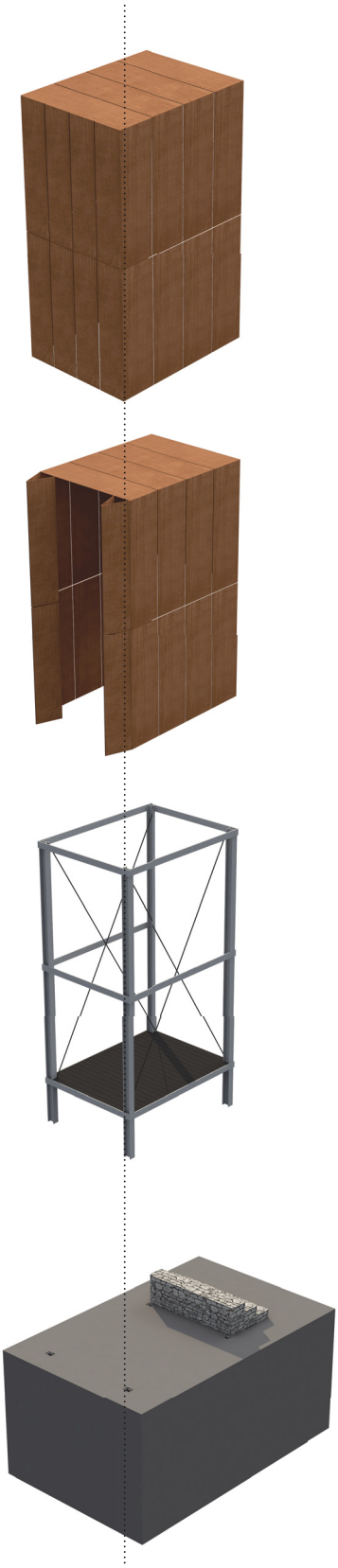
Typology render: Cliff Pavilion

Processional vignettes - Hill

Processional vignettes - Hill

Processional vignettes - Hill

Component Axonometric



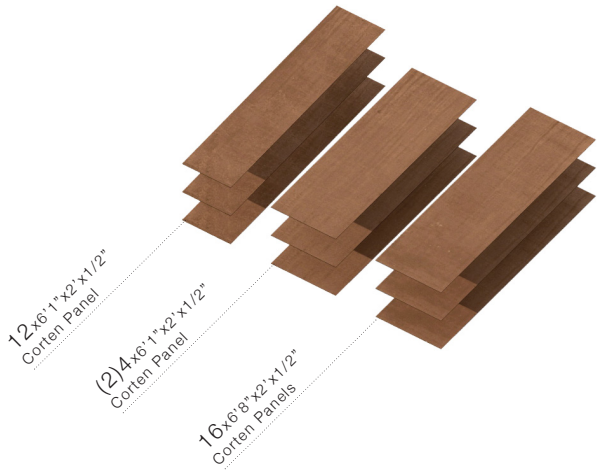
Cladding Elements -
Corten Panel Cladding with Reveals
-Refuge (Observational Elements)

Tectonic Elements-
Repeating Truss Structure with
Secondary Elements

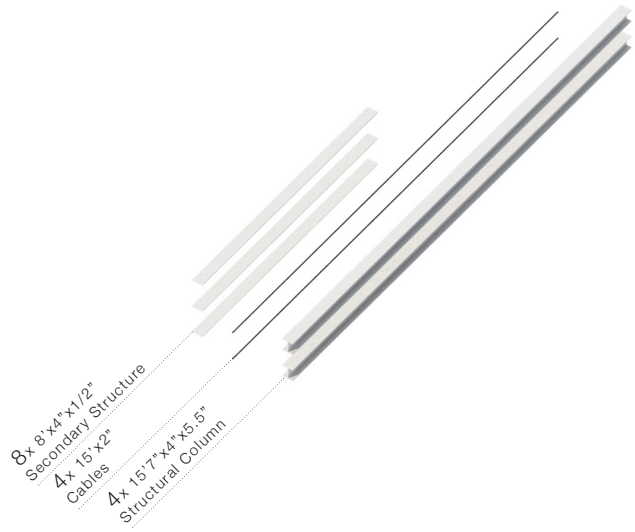
Stereotomic Elements -
Varying levels of integration with
the site depending on the
sub-typology to be viewed
Reflection (Observational Element)

System axonometric showing the relationship between the three elements: stereotomic, tectonic, and cladding

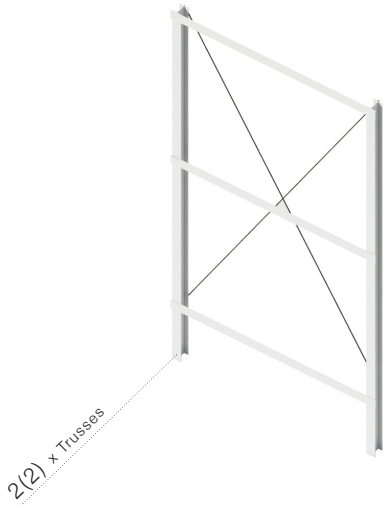
Cladding/Structure Components



Cladding Components
-Corten Plate Steel
-Off-site Fabrication

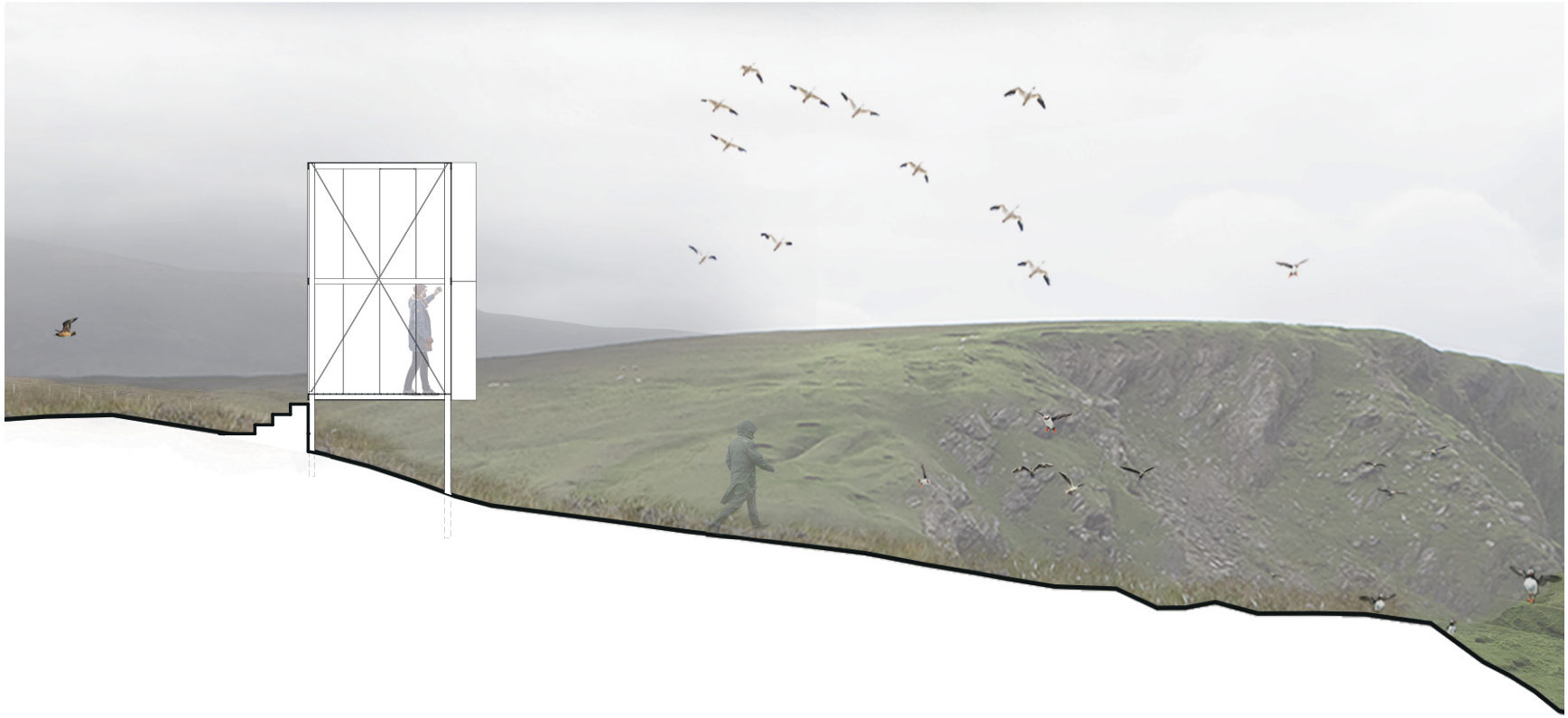


Truss Components + Secondary Structure
-Steel
-Off-site Fabrication



Assembled Truss
-Steel
-On-site Assembly

Component list for the Hill Pavilion showing a breakdown of the cladding system, structural system and number of assembled trusses.



Hill Pavilion section

Hill Pavilion model

Hill Pavilion model

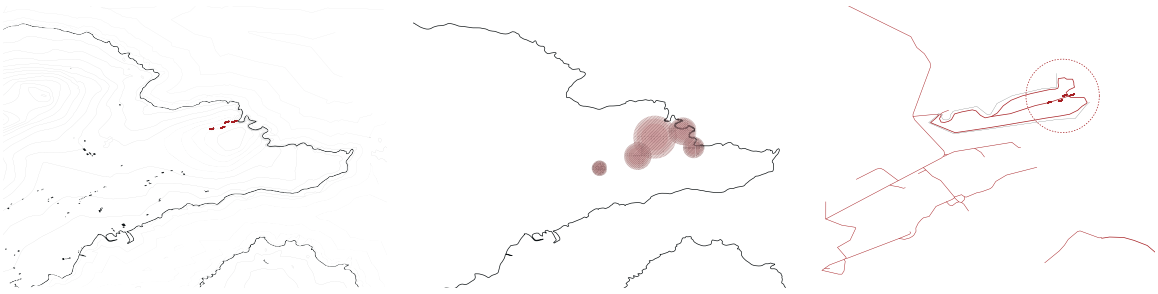
Typology render: Hill Pavilion

Typology Two: Geological Points of Interest

Contributing to the Path / Establishing Potential

The Geopark structures are located in the Keen of Hamar Nature Reserve, an area of significant geological interest. The area contains one of the largest serpentine geological formations in the United Kingdom along with Edmonston's Chickweed, a plant that grows nowhere else in the world.[90] Serpentine is a type of igneous rock that when broken down produces a very poor soil which due to its poor quality has allowed the continued existence of the rare plant life. The reserve and the surrounding area at one time held the island's largest Chromite mines.

The Geopark paths combine the various historical elements with the unique geological features of the site to create four separate sectional experiences. These four sectional experiences align with the four ecologies of the reserve: the Serpentine Debris Field where the mineral is most prevalent, the Serpentine Heath – an area of finer soil composition which encourages more plant life than the previous ecology, the fens – an area of thick plant life, and the cliffs. The four paths straddle an existing footpath leading the observer through all four ecologies ending at the Cliff path where at the end the viewer is oriented towards the next typology.

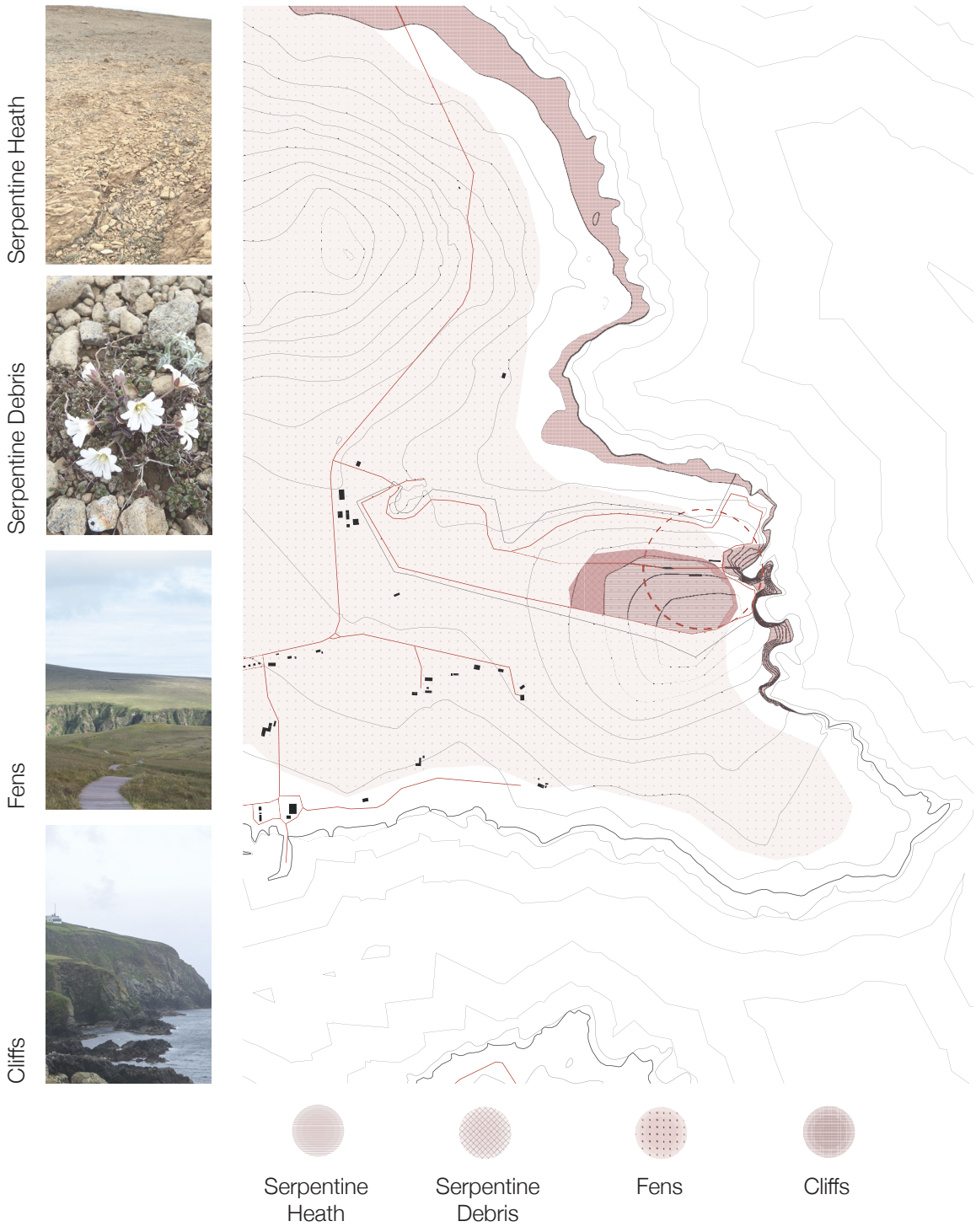


Site Topography Typology Potential Pavilion Sites

Site axonometric of the Keen of Hamar Nature Reserve - using potential as a method for siting

90 *The Story of the Keen of Hamar National Nature Reserve* (Lerwick: Scotland's National Nature Reserve, 2009), 5.

Site Plan - Geopark Paths at the Keen of Hamar



Site plan of the Keen of Hamar Nature Reserve showing the overlap of potential, existing trails and siting

Observational Elements: Geological Places of Interest

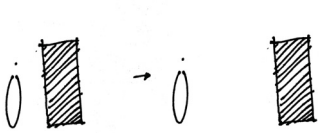
There are three observational elements applied in varying levels to the four geological paths. These elements include: Distancing, Revealing of Layering, and Extraction.

There are total of four interventions each with a different sectional approach. Each intervention utilizes these observational elements to enhance the existing features of the site. As previously mentioned there are four ecologies in the Keen of Hamar reserve: Serpentine Heath, Serpentine Debris, Fens and Cliffs. Each of the four interventions deals with one of these ecologies.

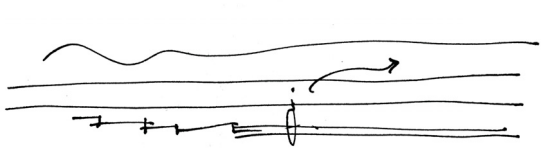
The first intervention, the Serpentine Heath Path holds the viewer above the ground where the striations in the serpentine created by the spring freeze-thaw cycles are visible. This path then continues on to the next intervention along the trail, the Serpentine Debris path. This path follows along the serpentine debris field holding the observer closer to the ground where gaps in the corten panels reveal the rare plant life growing in the debris. Both the Serpentine Heath and Serpentine Debris paths utilize Distancing to hold the observer away from these two sensitive ecologies.

The third intervention is the Fens Path. This path digs down into the earth bringing the observer into the earth to reveal a transition to the rich vegetation of the fens ecology. The plant life spills into the channels between the corten slats, revealing both the geology and fauna of the area. Continuing on from the Fens pathway the observer reaches the Cliffs pathway. This final pathway utilizes existing depressions in the cliff face while further extracting earth to reveal the geological striations that have generated interest in the area for hundreds of years.

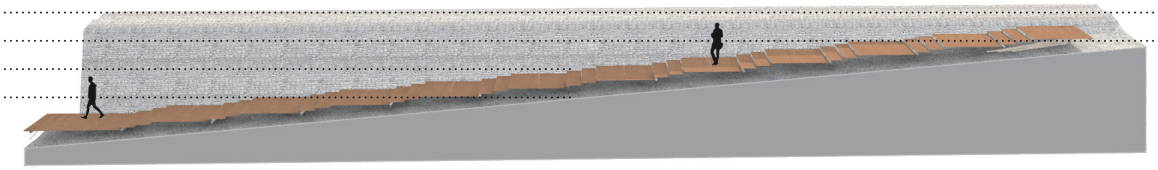
Observational Elements

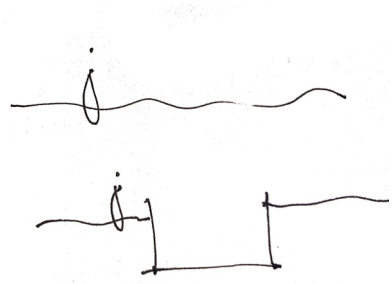


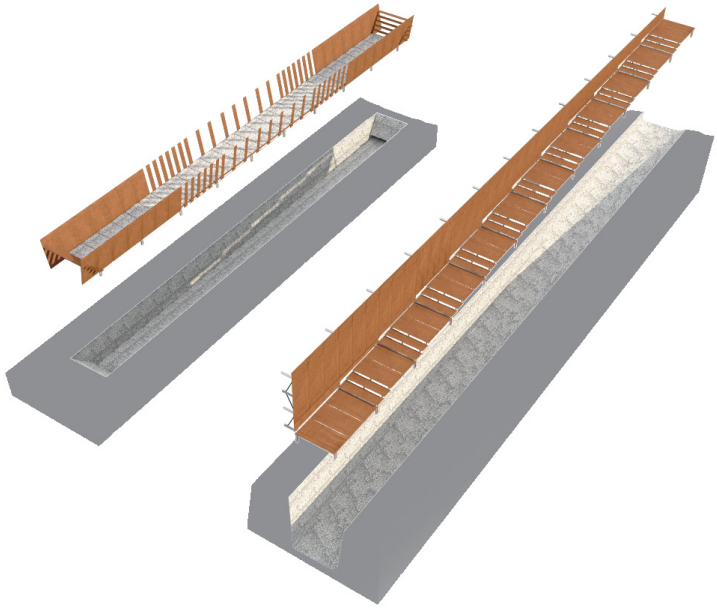
Observational Element:
Distancing



Observational Element:
Revealing Layering

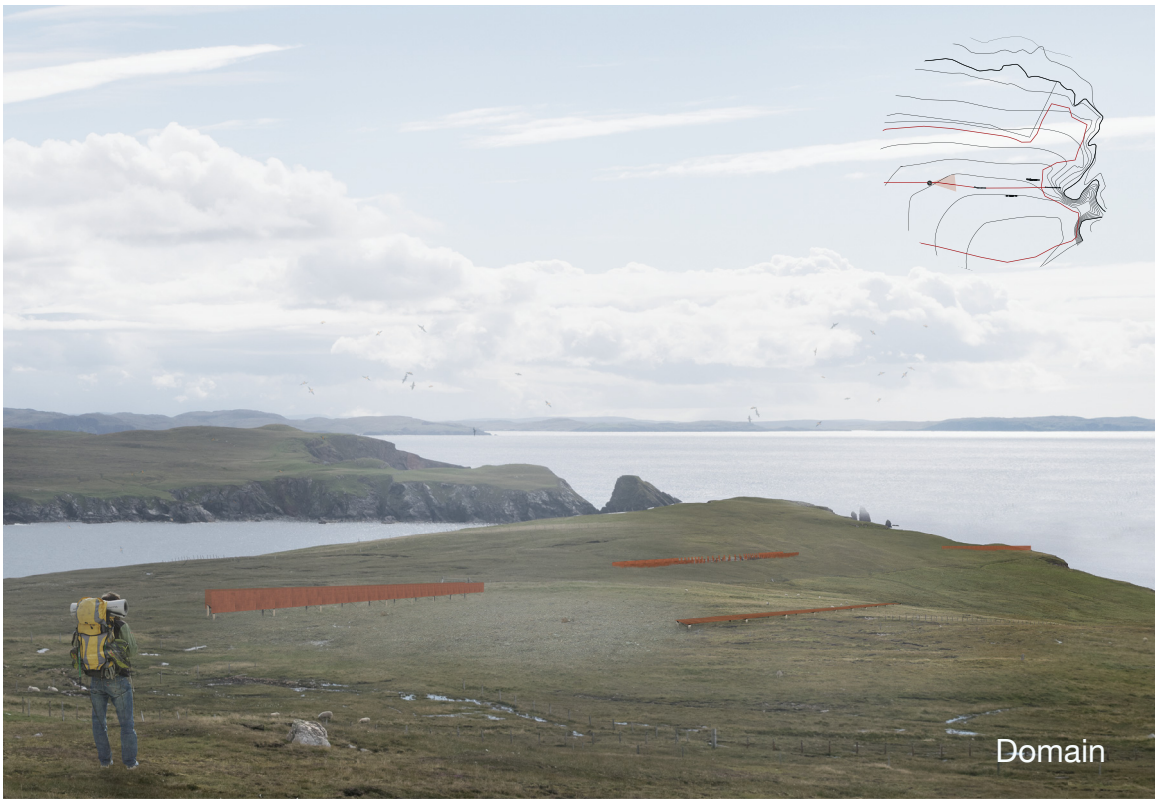




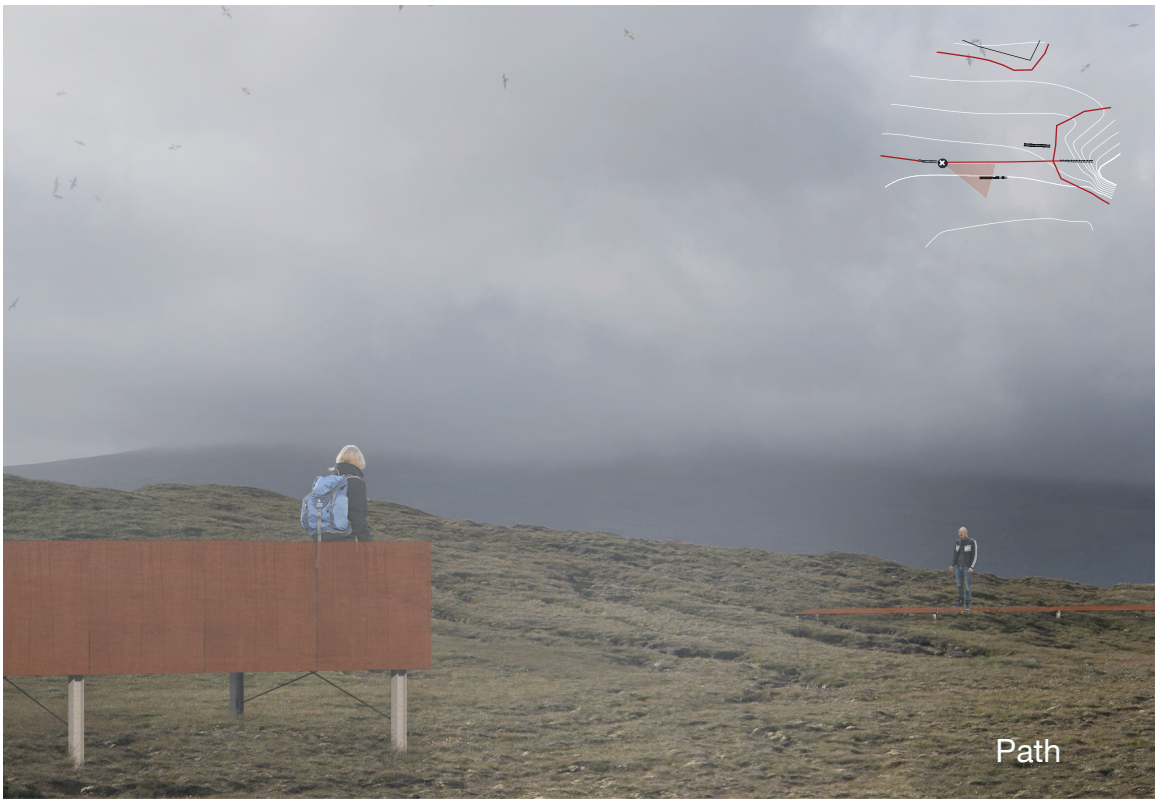


Observational Element:
Extraction

The three observational elements utilized in the Geopark Paths

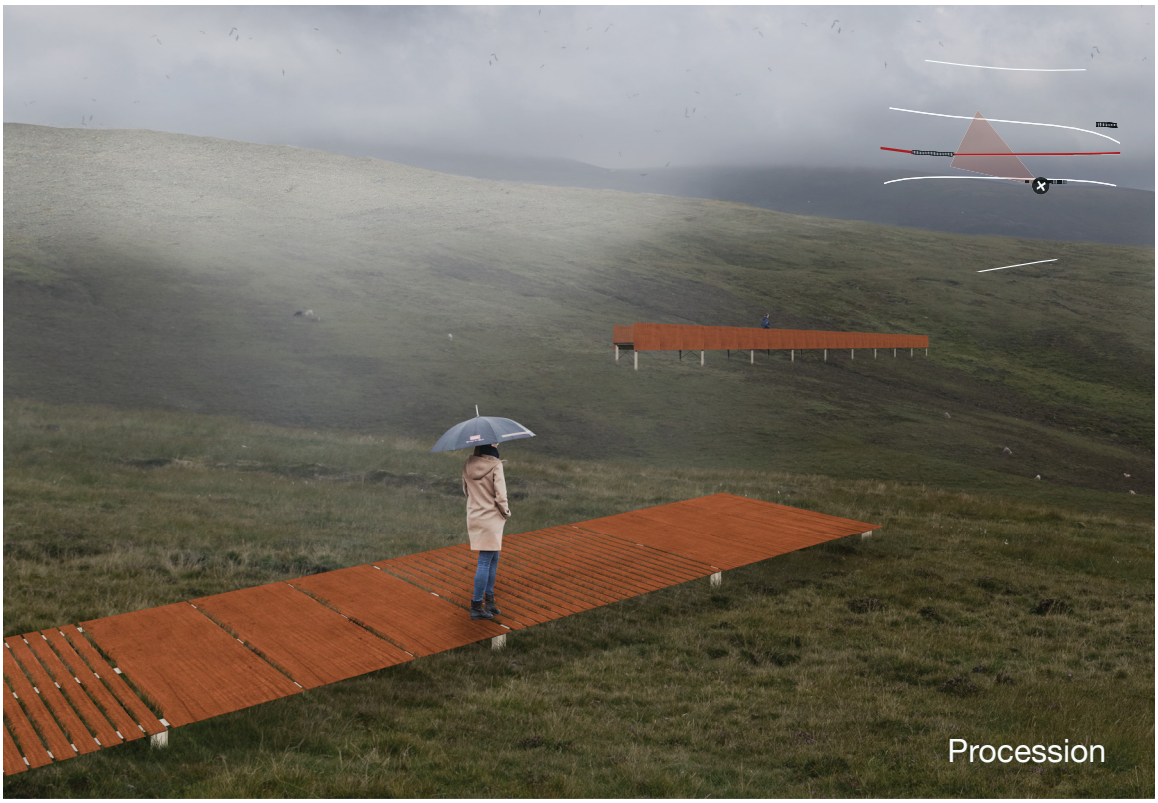


Processional vignettes

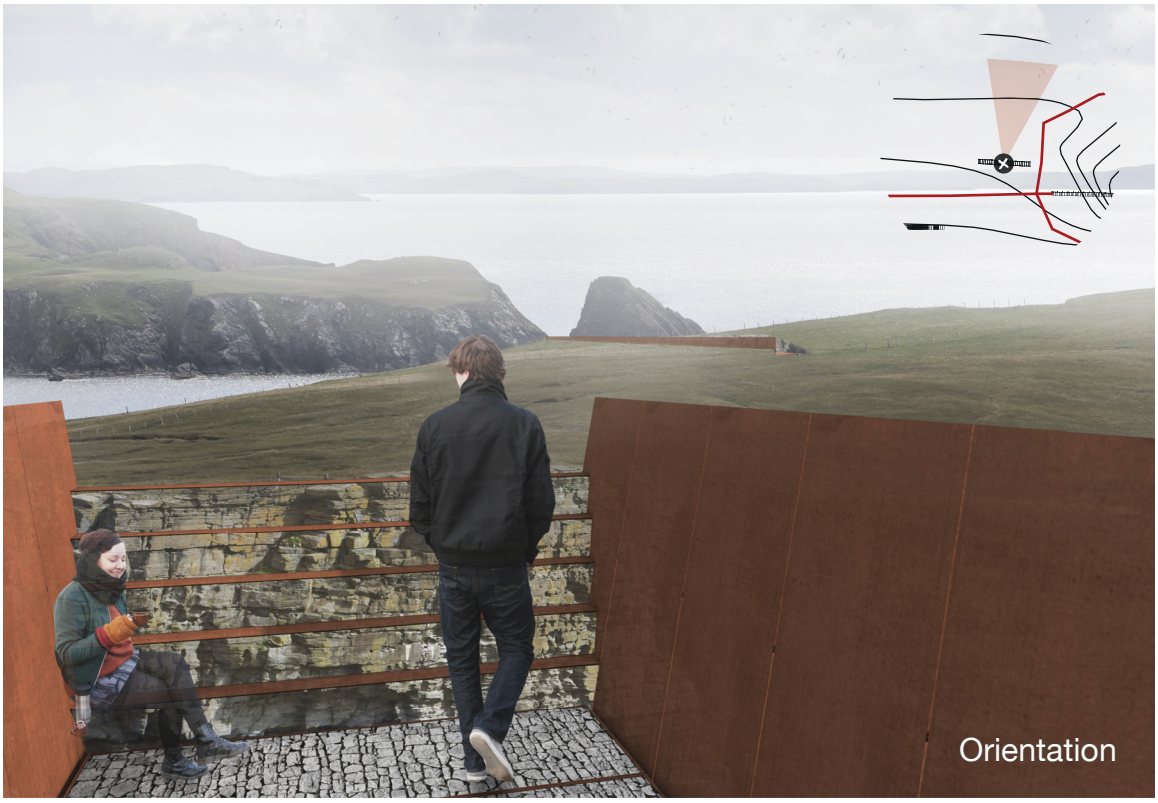


Processional vignettes

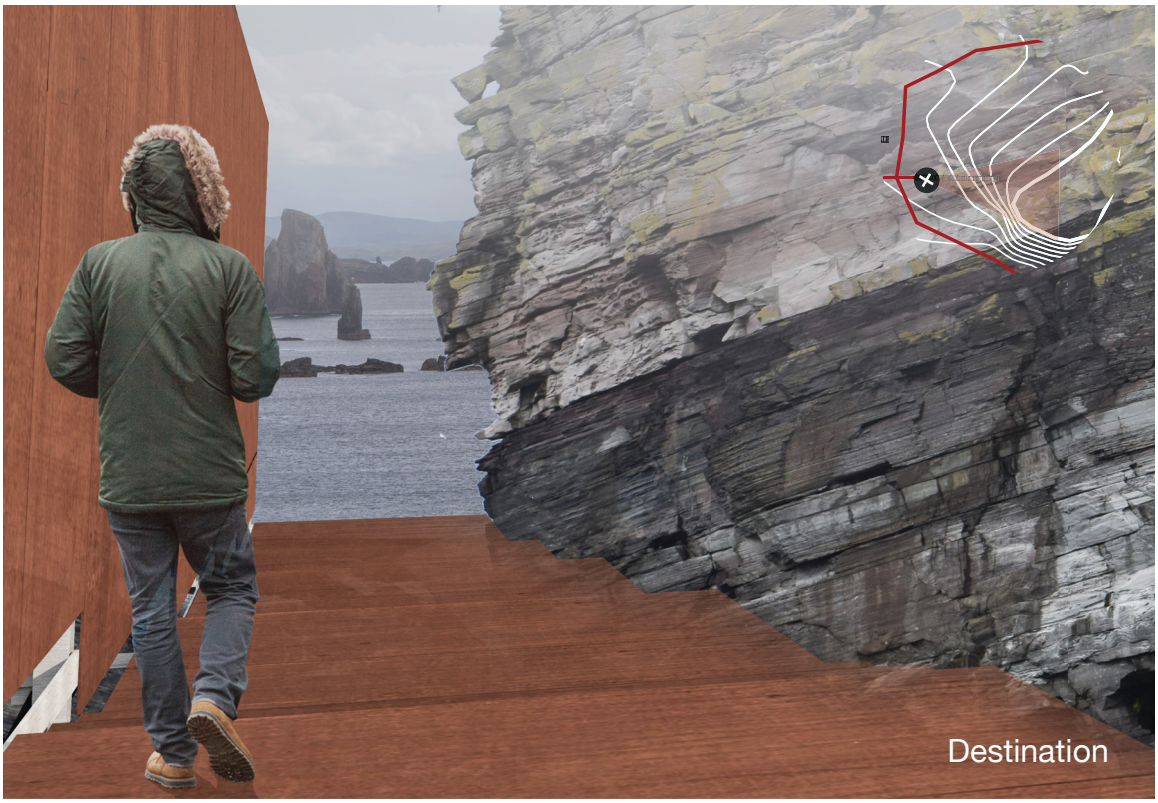
Processional vignettes

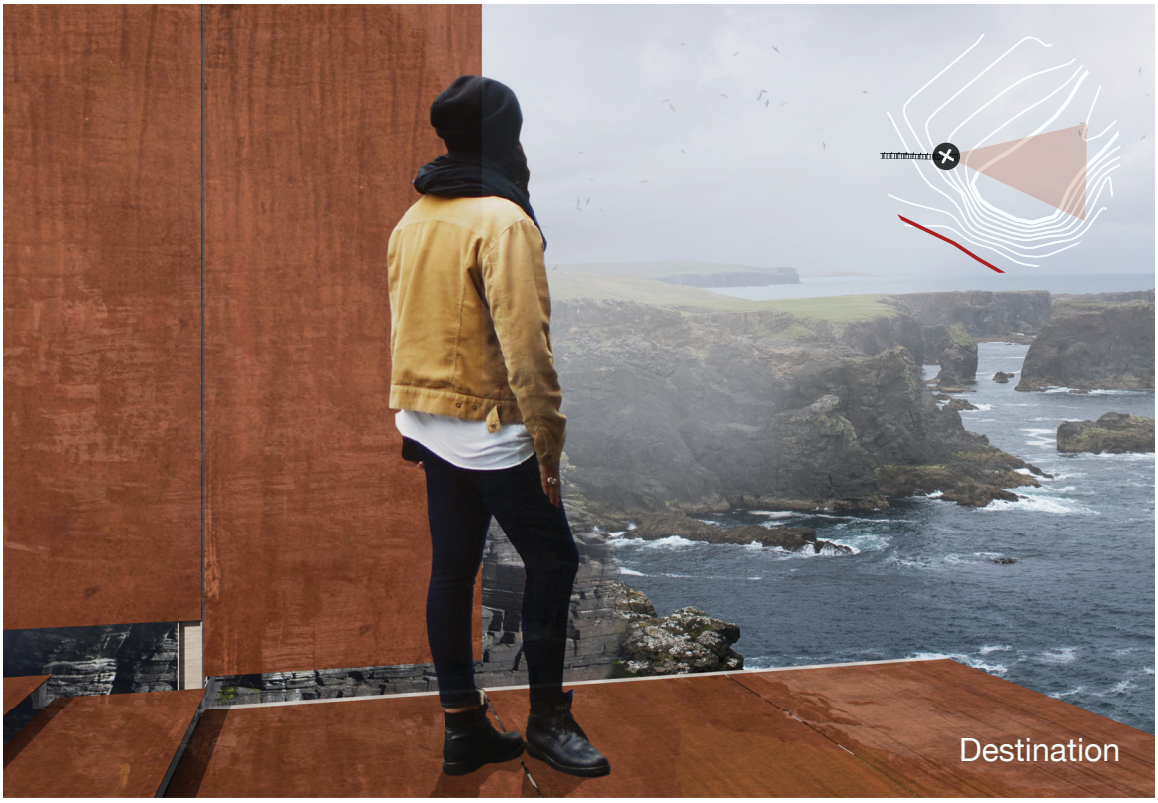


Processional vignettes



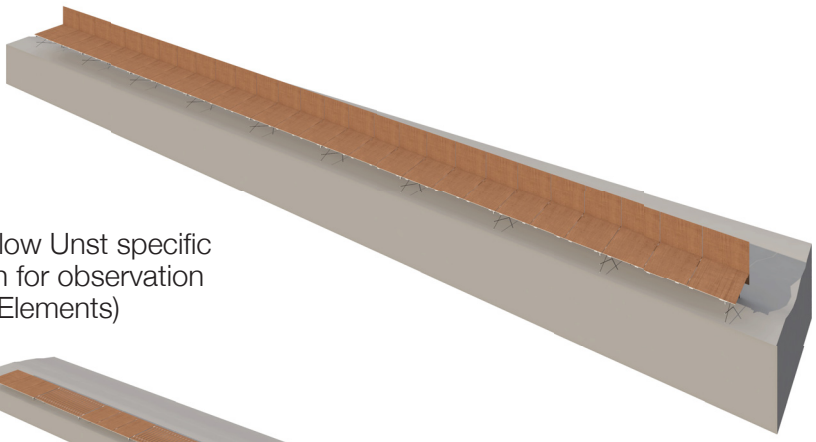
Processional vignettes



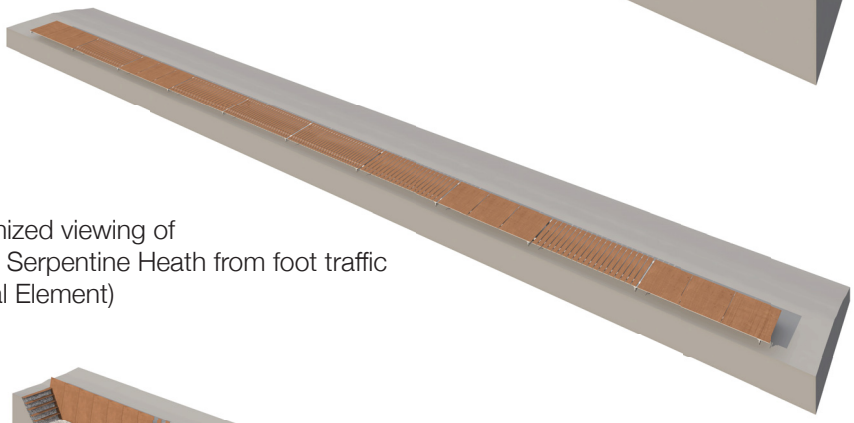


Processional vignettes

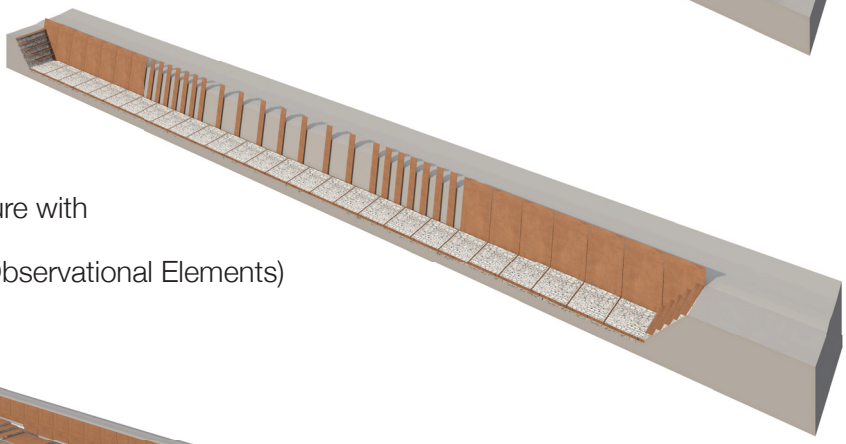
Component Axonometric



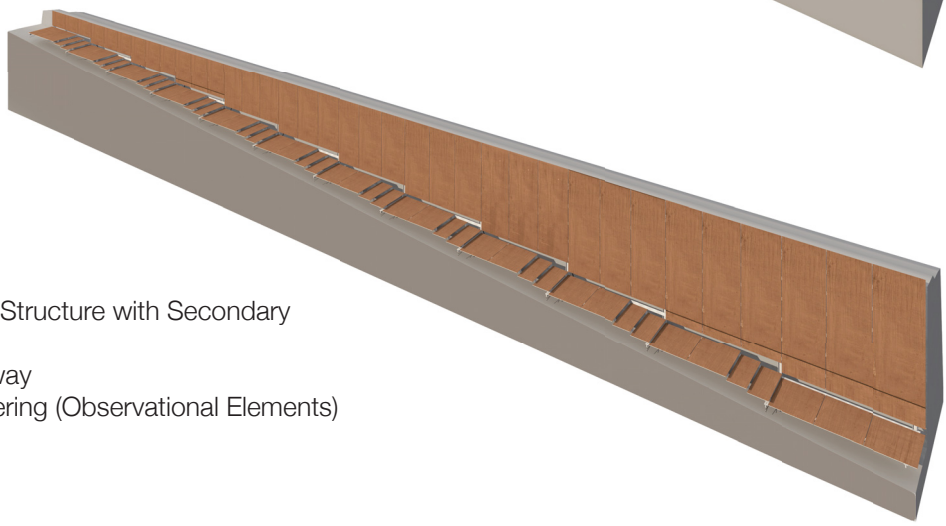
Serpentine Debris Path-
-Reveals in the pathway allow Unst specific vegetation to grow through for observation
-Revealing (Observational Elements)



Serpentine Heath Path-
-Raised platform for optimized viewing of serpentine field / Protects Serpentine Heath from foot traffic
-Distancing (Observational Element)



Fens Path-
Repeating Truss Structure with Secondary Elements
-Excavation/Layering (Observational Elements)

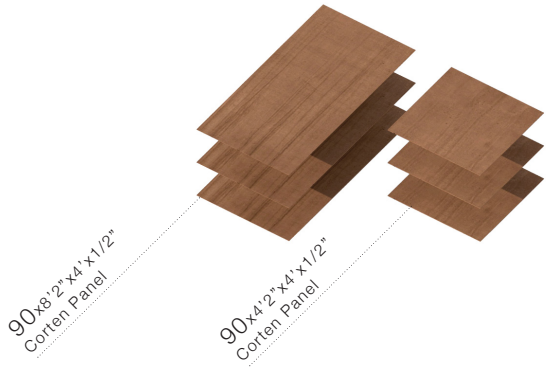


Cliff Path-
Repeating Truss Structure with Secondary Elements
-Encarved Pathway
-Excavation/Layering (Observational Elements)

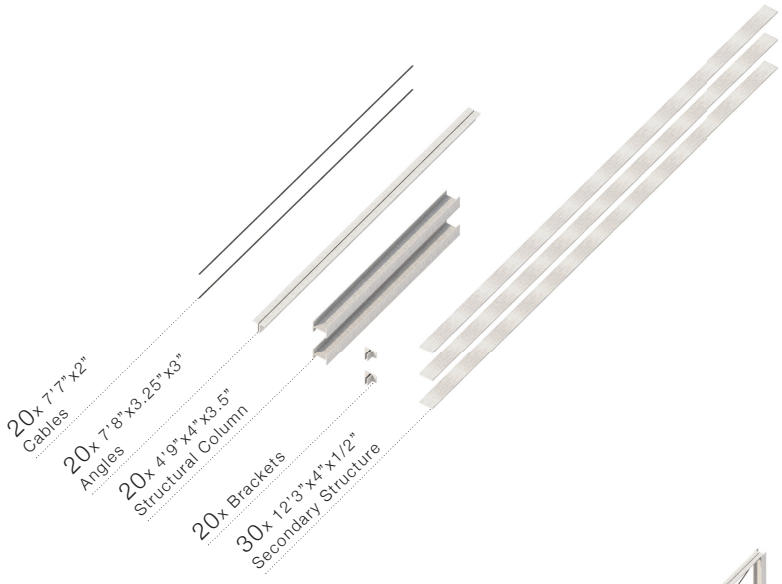
Axonometrics showing the sectional relationship between the each of the four paths and the ground

Cladding/Structure
Components
-Serpentine Heath

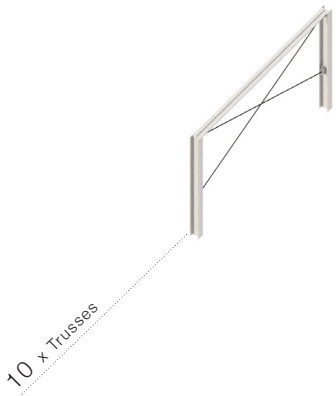
Cladding Components
-Corten Plate Steel
-Off-site Fabrication



Truss Components + Secondary Structure
-Steel
-Off-site Fabrication



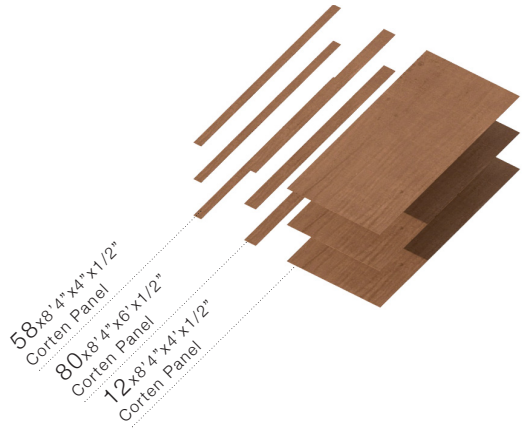
Assembled Truss
-Steel
-On-site Assembly



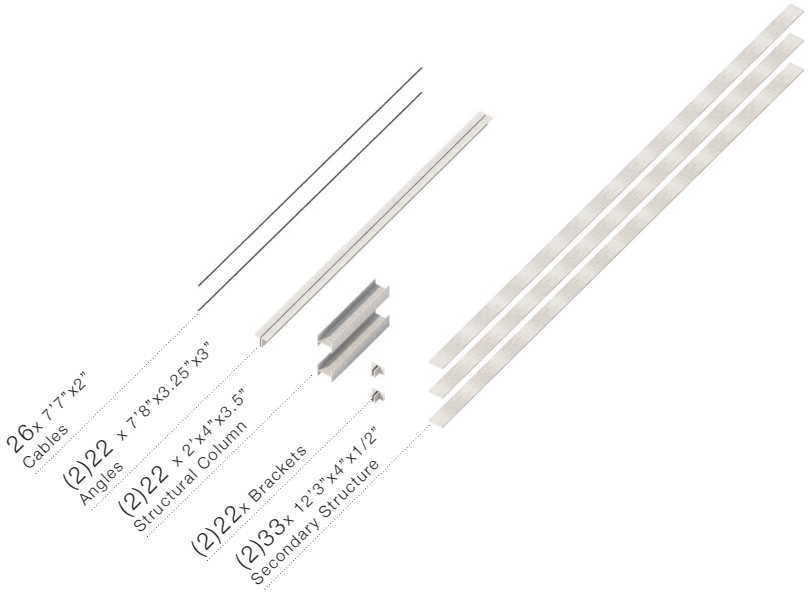
Component list for the Serpentine Heath Path showing a breakdown of the cladding system, structural system and number of assembled trusses.

Cladding/Structure
Components
-Serpentine Debris

Cladding Components
-Corten Plate Steel
-Off-site Fabrication



Truss Components + Secondary Structure
-Steel
-Off-site Fabrication

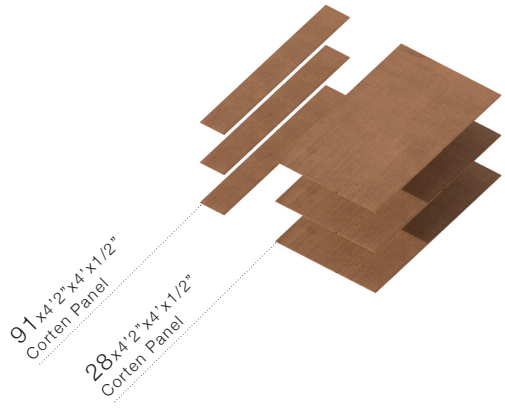


Assembled Truss
-Steel
-On-site Assembly

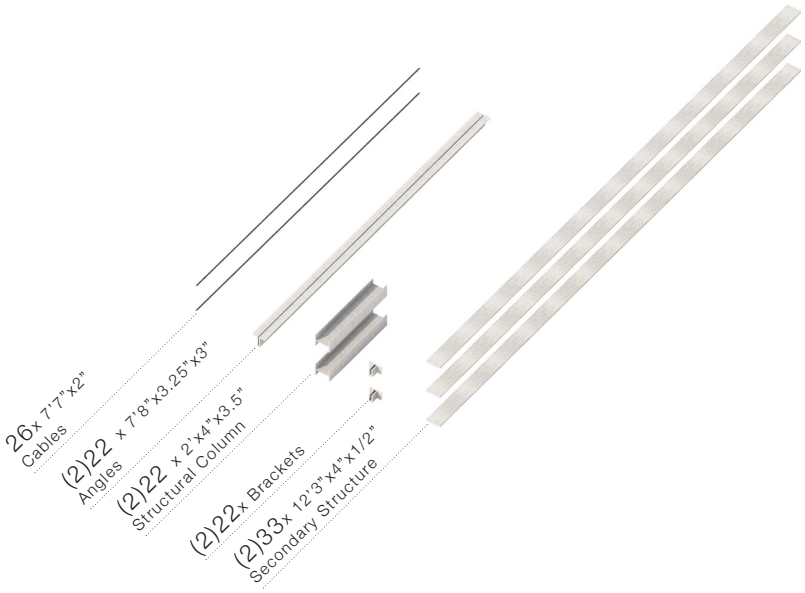
Component list for the Serpentine Debris Path showing a breakdown of the cladding system, structural system and number of assembled trusses.

Cladding/Structure
Components
-Fens

Cladding Components
-Corten Plate Steel
-Off-site Fabrication



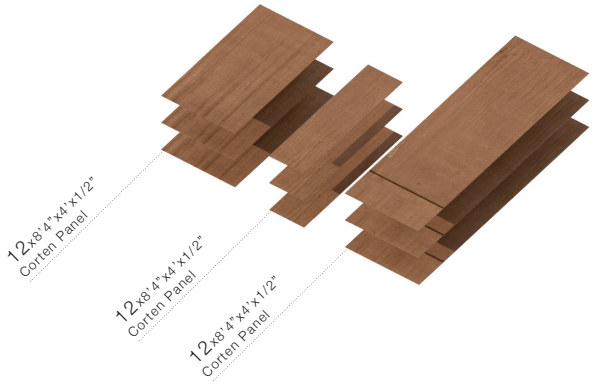
Truss Components + Secondary Structure
-Steel
-Off-site Fabrication



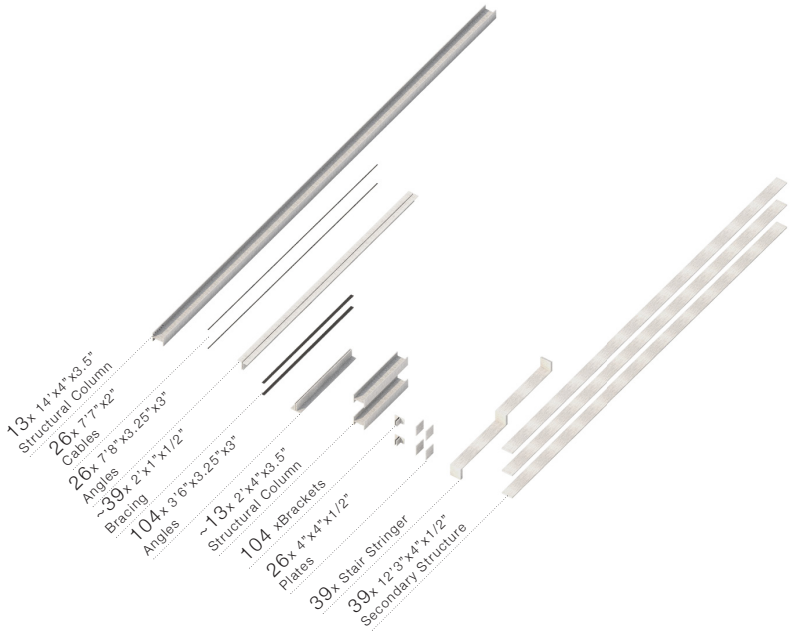
Assembled Truss
-Steel
-On-site Assembly

Component list for the Fens Path showing a breakdown of the cladding system, structural system and number of assembled trusses.

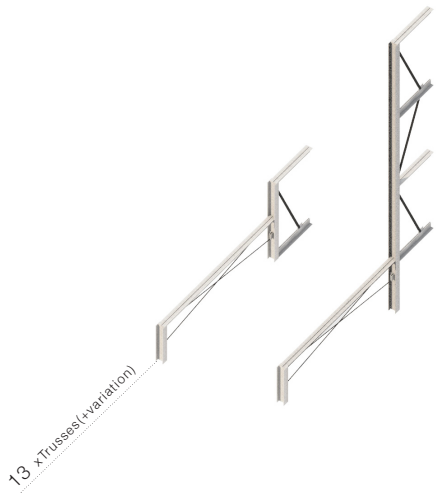
Cladding/Structure Components -Cliffs



Cladding Components
-Corten Plate Steel
-Off-site Fabrication



Truss Components + Secondary Structure
-Steel
-Off-site Fabrication

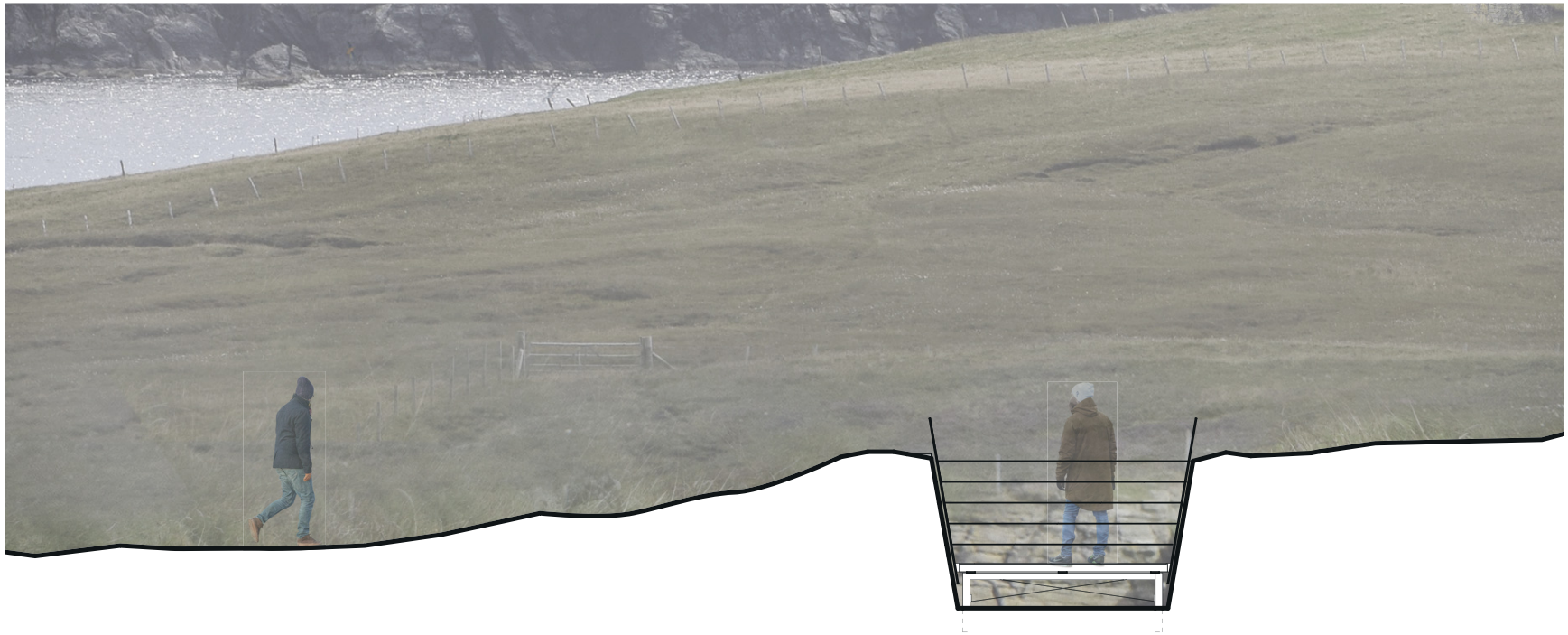


Assembled Truss
-Steel
-On-site Assembly

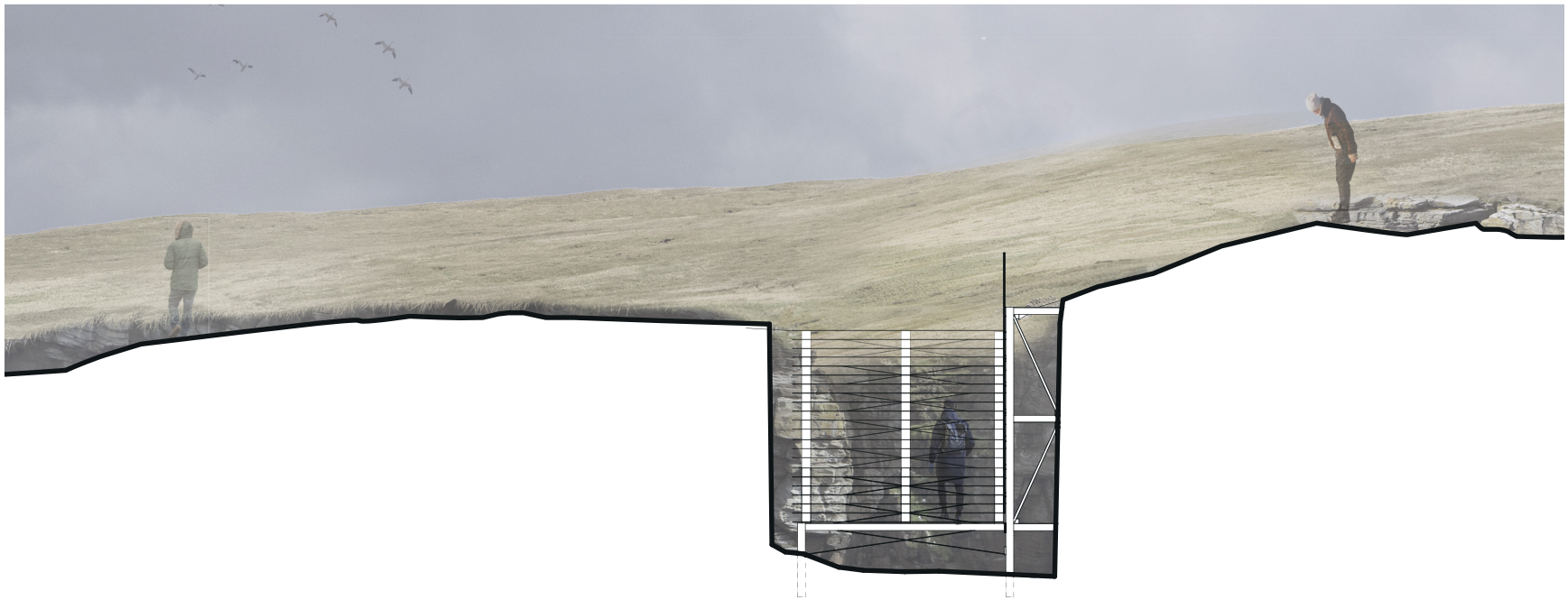
Component list for the Cliff Path showing a breakdown of the cladding system, structural system and number of assembled trusses.

Serpentine Heath Path section

Serpentine Debris Path section



Fens Path section



Cliff Path section

Typology render: the Fens Path

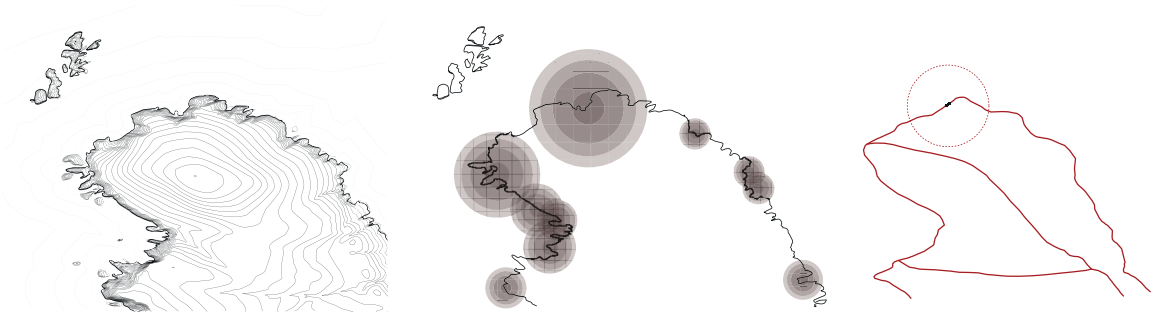
Typology render: the Cliffs Path

Typology Three: Coastal Viewpoints

Contributing to the Path / Establishing Potential

The landscape or coastal viewpoint typology has the highest density of potential sites of any of the other tourism typologies on Shetland. There are few places on any of the islands that don't offer amazing views. This pavilion is sited to capture one of the best mediations between the rugged Shetland landscape and human intervention, the Muckle Flugga Lighthouse also known as the Impossible Lighthouse. The lighthouse in the Hermaness Nature Reserve.

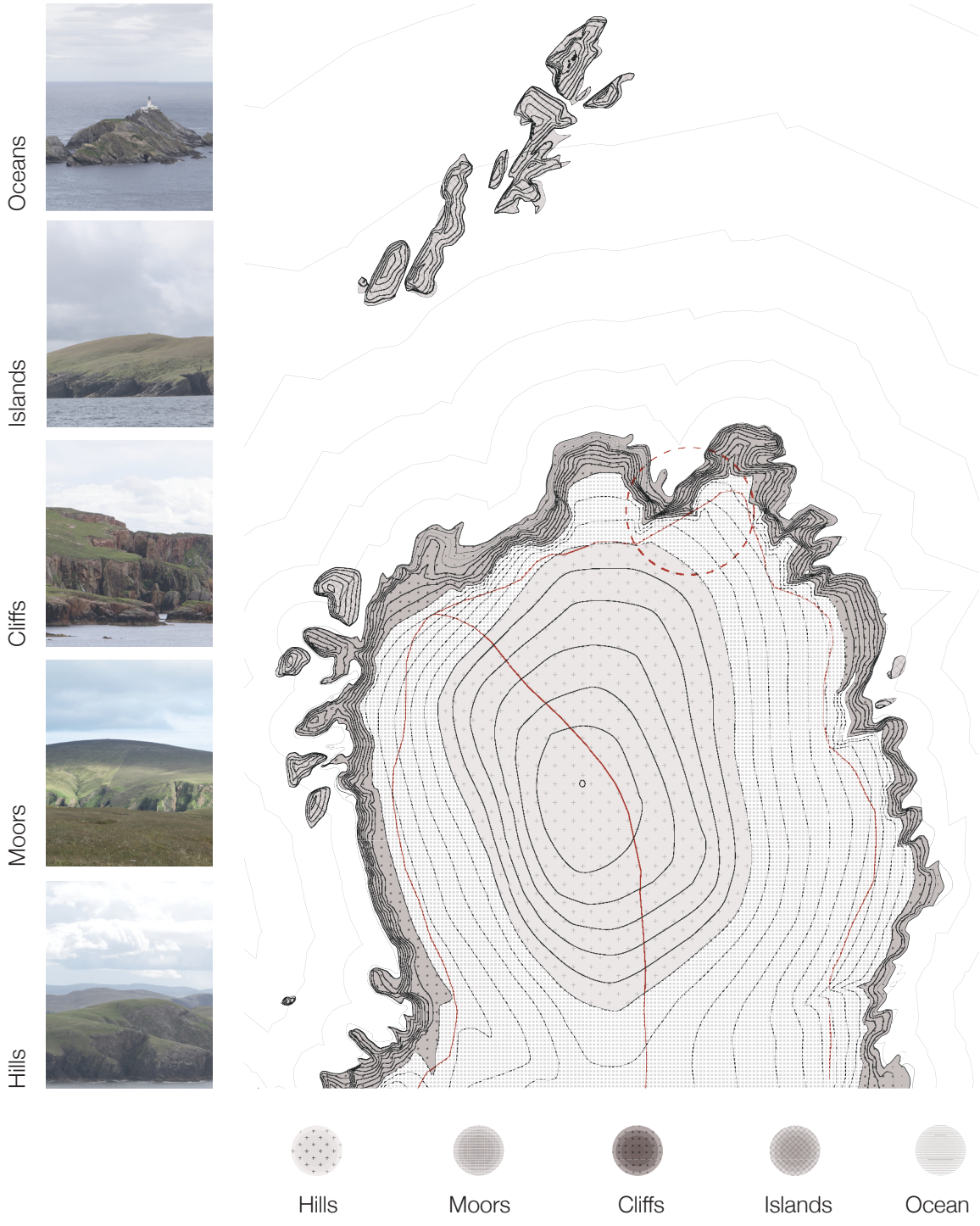
The path this intervention is sited on will take the viewer through the landscape sub-typologies: Moors, Hills, Cliffs, Island, and Ocean. The Bridge pavilion is sited to utilize an existing path bridging a valley in the reserve. This offers a new vantage point for viewing the lighthouse. Upon existing the pavilion the observer is directed towards the next typology (either Avian Destinations or Marine Viewing).



Site Topography Typology Potential Pavilion Sites

Site axonometric of the Hermaness Nature Reserve - using potential as a method for siting

Site Plan - Bridge Pavilion at Hermaness



Site plan of the Hermaness Nature Reserve showing the overlap of potential, existing trails and siting

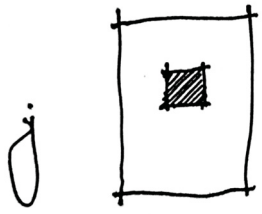
Observational Elements: Coastal Viewpoints

The Bridge pavilion will address the Island sub-typology while utilizing the three observational elements: Framing Viewpoints, Rhythm, and Tension. The elements are used in conjunction not only to frame the lighthouse but the surrounding environment.

The exiting path leads the observer through the different landscape sub-typologies until they are finally confronted with the Bridge pavilion. The pavilion bridges a gorge on the far northern end of the Hermaness Reserve adding to an existing path.

As the observer moves across the bridge rhythmically spaced slats created a visual tension while gradually allowing the viewer to behold more of the lighthouse. As they continue on the observer reaches two large operable doors. Upon sliding open the centrally placed doors the observer is able to view the island and lighthouse unhindered. The screen filters views allowing the observer to focus on specific elements which are heightened by the selective views and varied porosity. This highlights details of the surrounding landscape, creating emphasis on the journey towards the destination of the lighthouse. The journey across the bridge becomes just as integral to the experience of landscape and island as the final unfiltered reveal.

Observational Elements

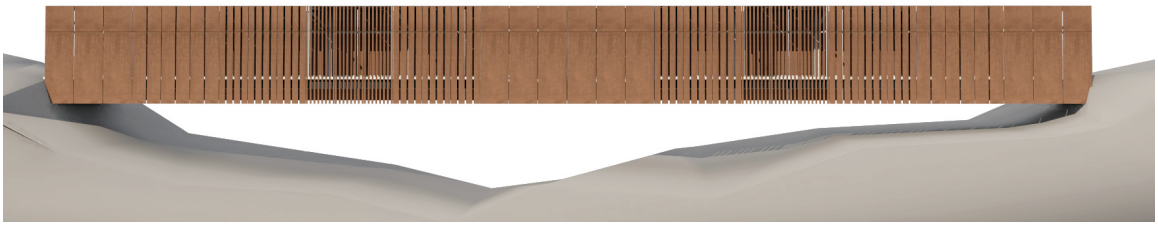


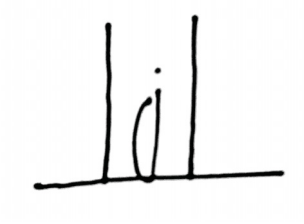
Observational Element :
Framing Observation

Door Closed

Door Open

Observational Element :
Rhythm

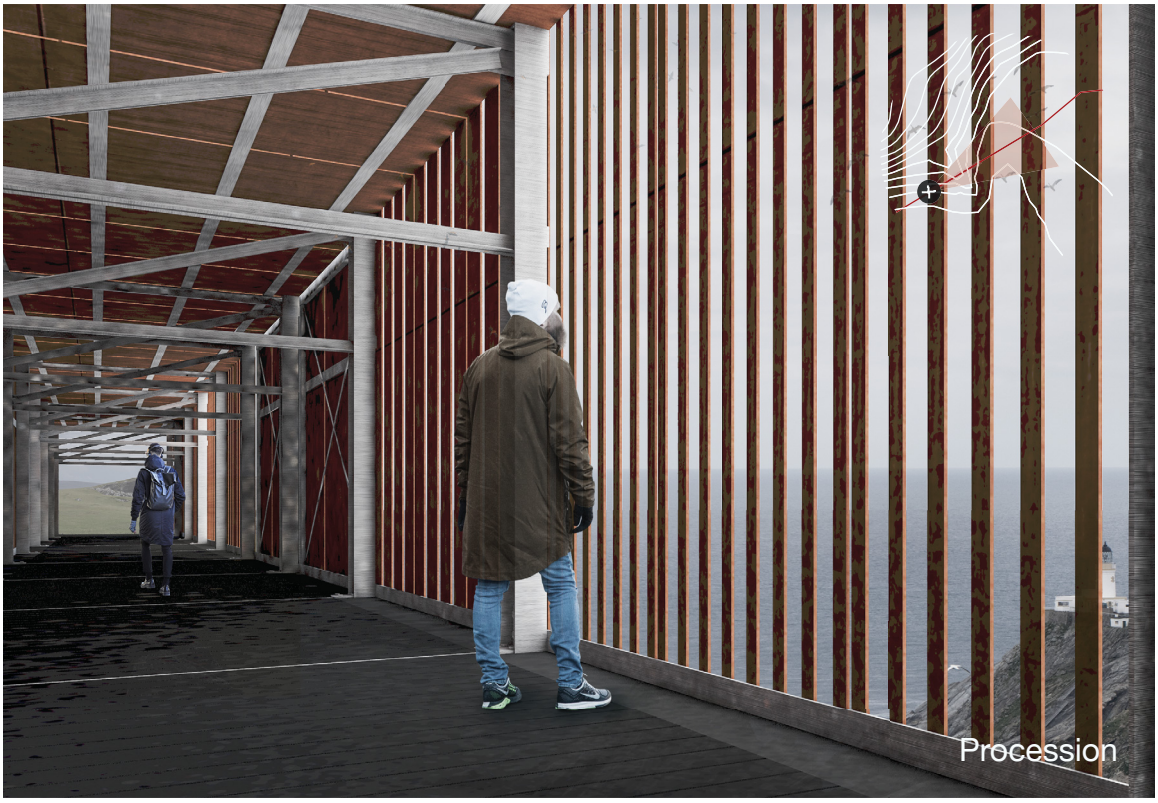




Observational Element :
Visual Tension

The three observational elements utilized in the bridge pavilion

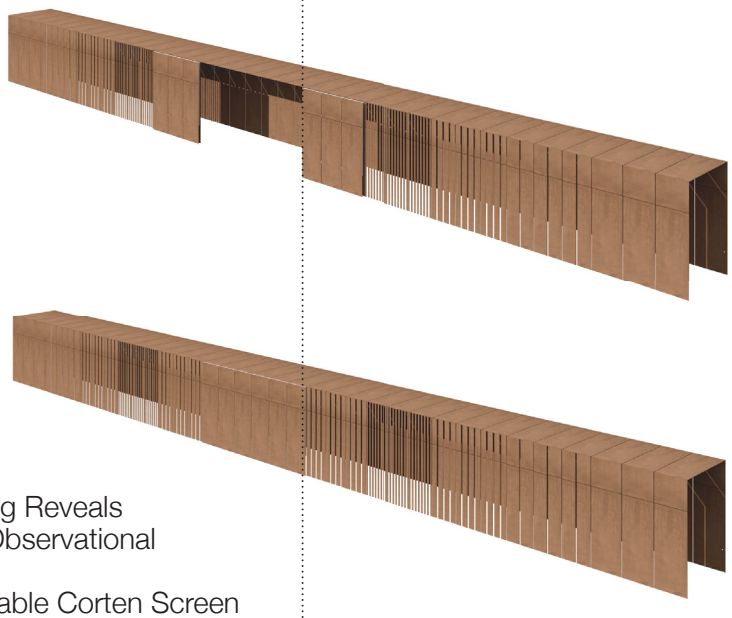
Processional vignettes



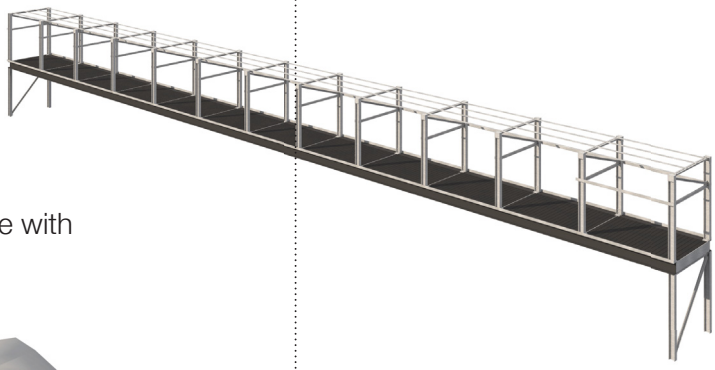
Processional vignettes

Processional vignettes

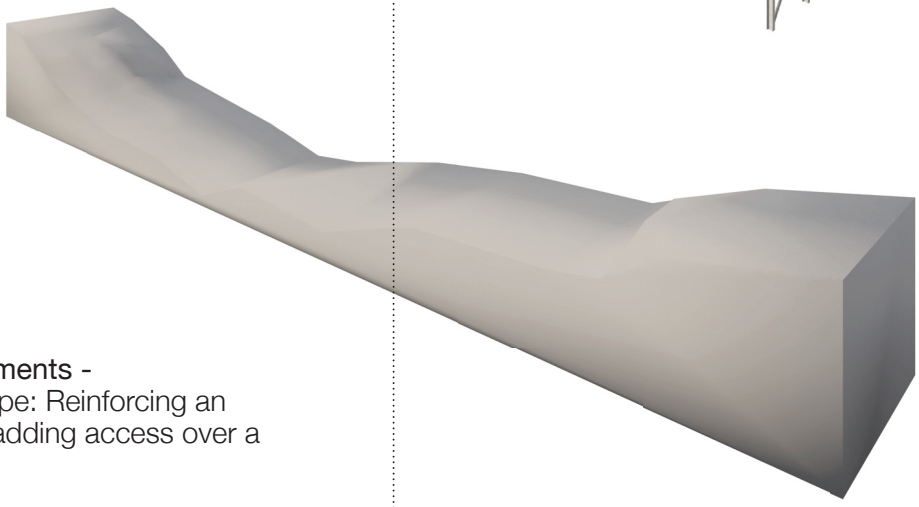
Component Axonometric



Cladding Elements -
Corten Panel with Varying Reveals
-Rhythm and Framing (Observational Elements)
-Operable door and Variable Corten Screen



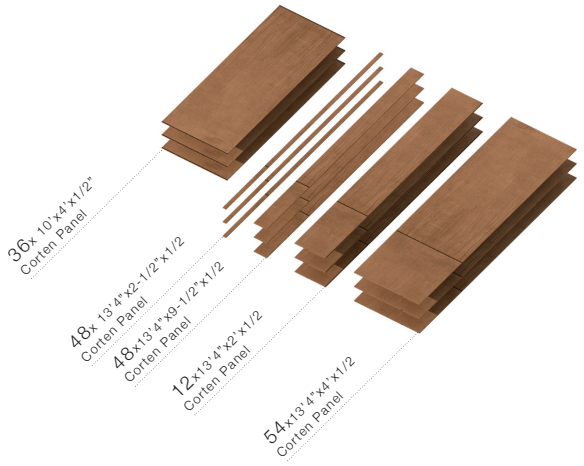
Tectonic Elements-
Repeating Truss Structure with Secondary Elements



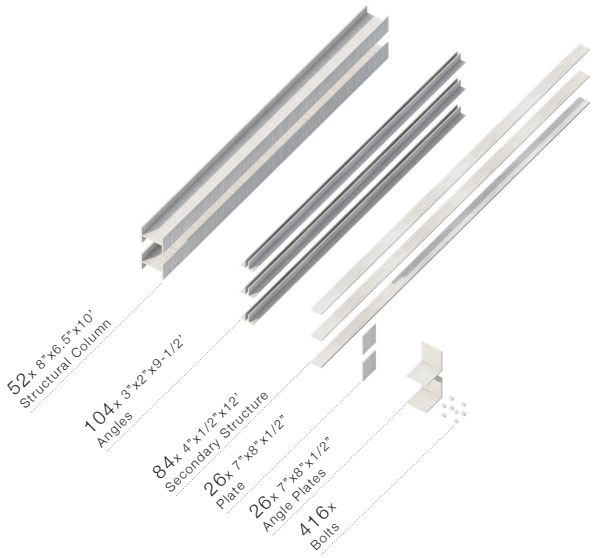
Stereotomic Elements -
Existing Landscape: Reinforcing an existing path by adding access over a gorge

System axonometric showing the relationship between the three elements: stereotomic, tectonic, and cladding

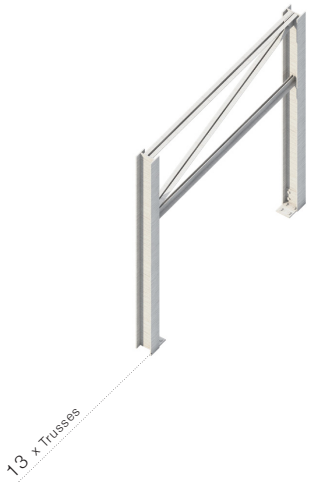
Cladding/Structure Components



Cladding Components
-Corten Plate Steel
-Off-site Fabrication

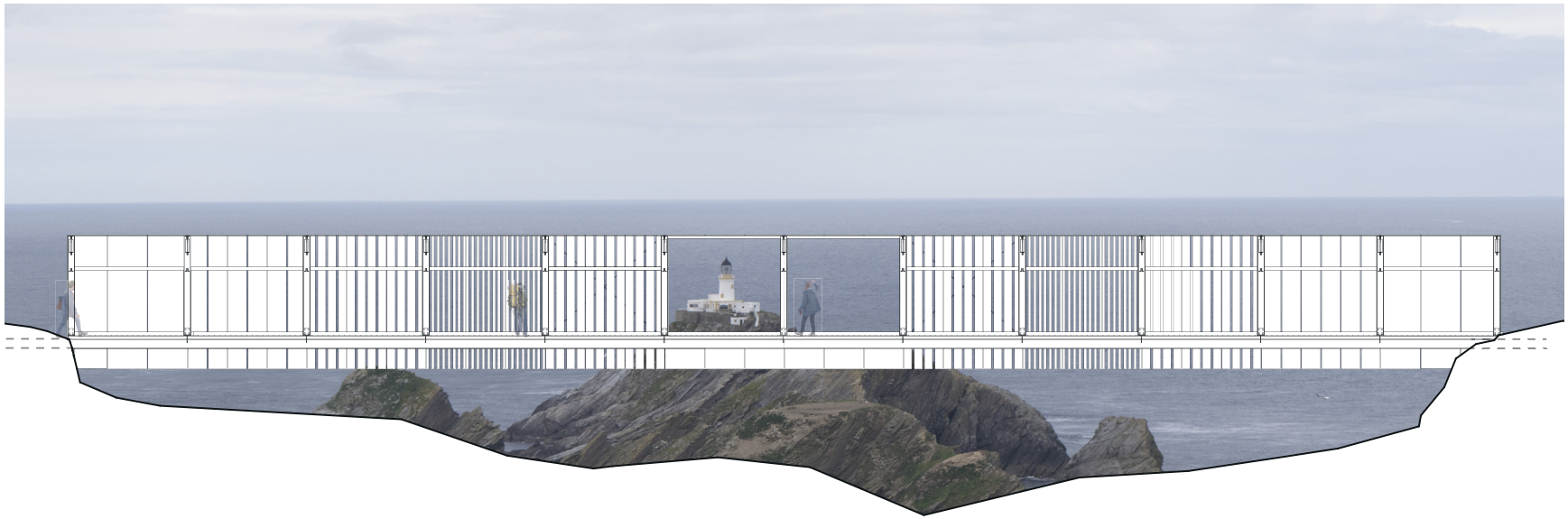


Truss Components + Secondary Structure
-Steel
-Off-site Fabrication



Assembled Truss
-Steel
-On-site Assembly

Component list for the Bridge Pavilion showing a breakdown of the cladding system, structural system and number of assembled trusses.



Bridge Pavilion section

Bridge Pavilion model

Bridge Pavilion model

Typology render: Bridge Pavilion

Typology Four: Northern Lights

Contributing to the Path / Establishing Potential

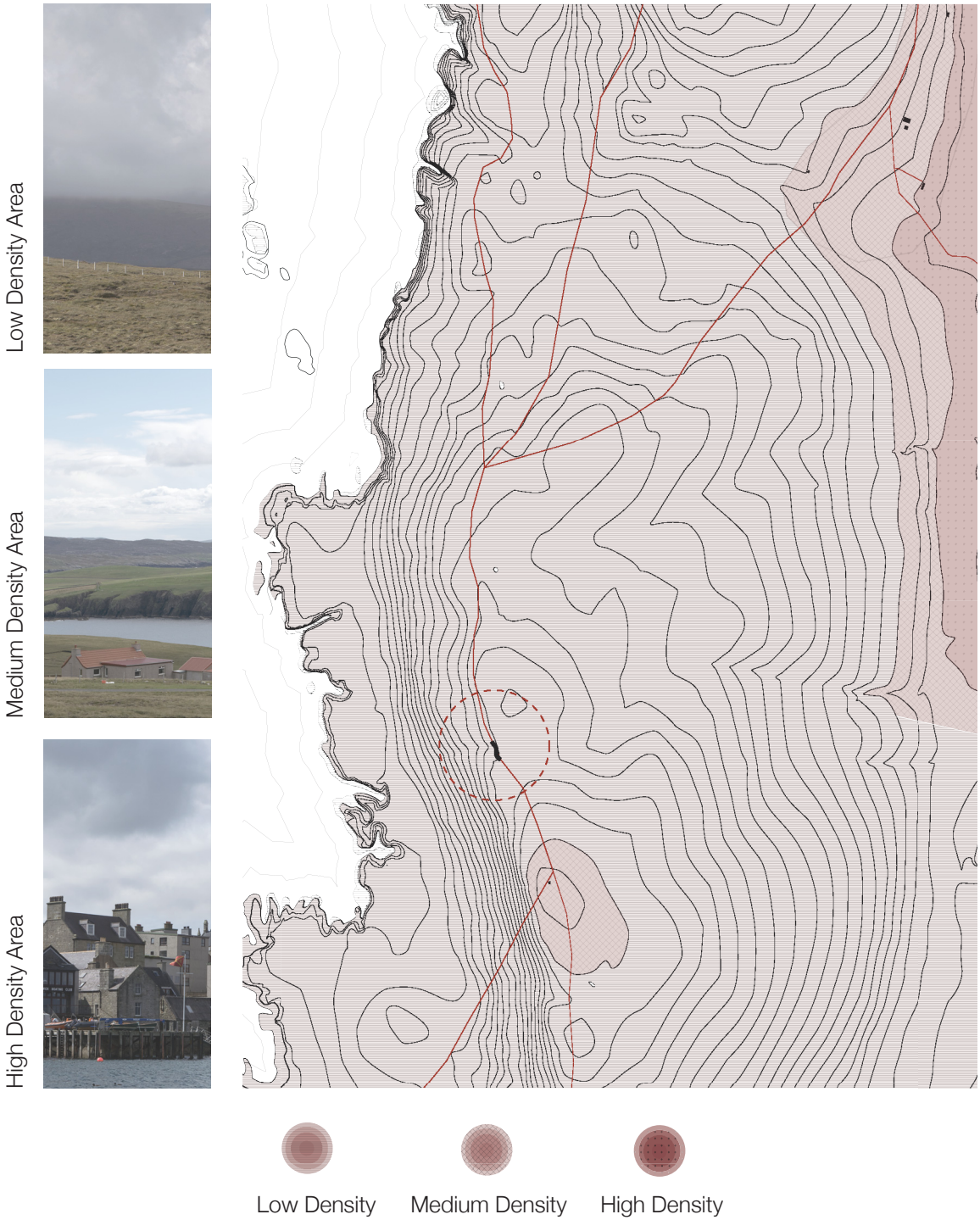
The northern lights pavilion has several siting requirements specific to viewing northern lights. These conditions include low levels of light pollution (low human population density), and a higher altitude. Due to this the pavilion is situated on the top of the hill at Valla Field which has an ascent of 243 metres and little to no human development in its immediate proximity.

The pavilion is situated on an informal walking trail beginning in the town of Baltasound to the west, where the relative density of the human population would disturb the viewing of this typology. The path then continues on to Valla Field where the complete lack of human development and higher altitude creates ideal viewing conditions for this event.

Site Topography Typology Potential Pavilion Sites

Site axonometric of Valla Field - using potential as a method for siting

Site Plan - Northern Lights Pavilion at Valla Field



Site plan of Valla Field showing the overlap of potential, existing trails and siting

Observational Elements: Northern Lights Pavilion

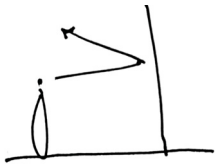
In order to frame a primarily exterior event to achieve a phenomenological experience this pavilion utilizes the observational elements: Reflection, Orientation, and Concealing/ Revealing.

The first element Reflection is applied through the utilization of an existing streambed. The building follows the topography, following the stream while using the water to reflect the night sky into the building through reveals. The water then flows out of the pavilion down the natural channel in the hillside.

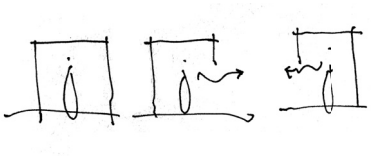
The second element, Orientation deals with how the observer orients themselves in the landscape. Observing the northern lights is undertaken at night; this creates issues of mobility due to the lack of light. A series of ground lights would be placed along the trail leading to the pavilion so the observer can use the ground to orient themselves in the landscape. On reaching the building and seeing the reflection in the water they transition to using the sky to orient themselves as they continue along through the building where the sky is finally revealed.

The final observation element, Concealing/Revealing deals with the openings in the cladding that allows first views of the town Baltasound, then views of ocean where the stream in the pavilion will eventually reach. Then finally the exit opens up to the sky where the event can be fully appreciated.

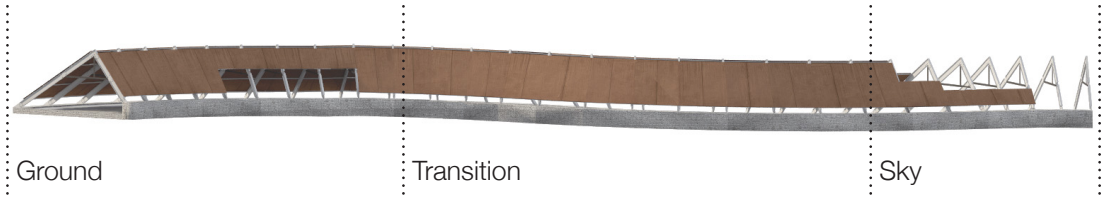
Observational Elements



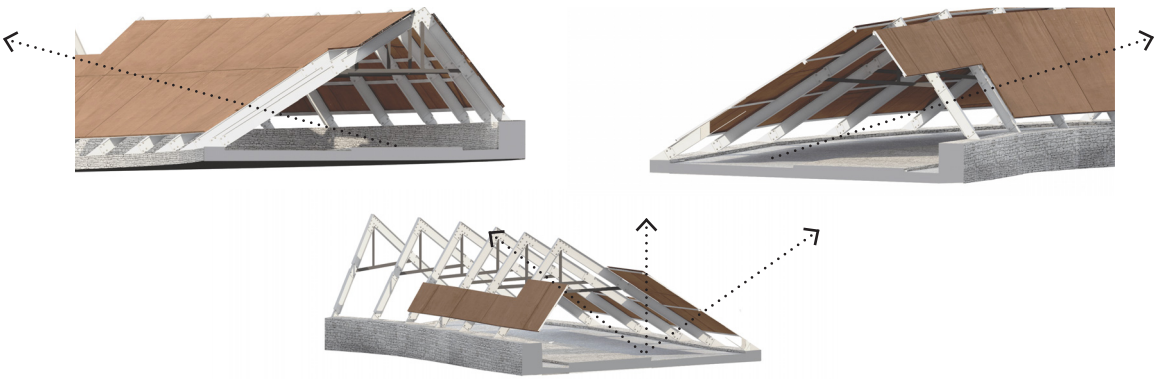
Observational Element :
Reflection



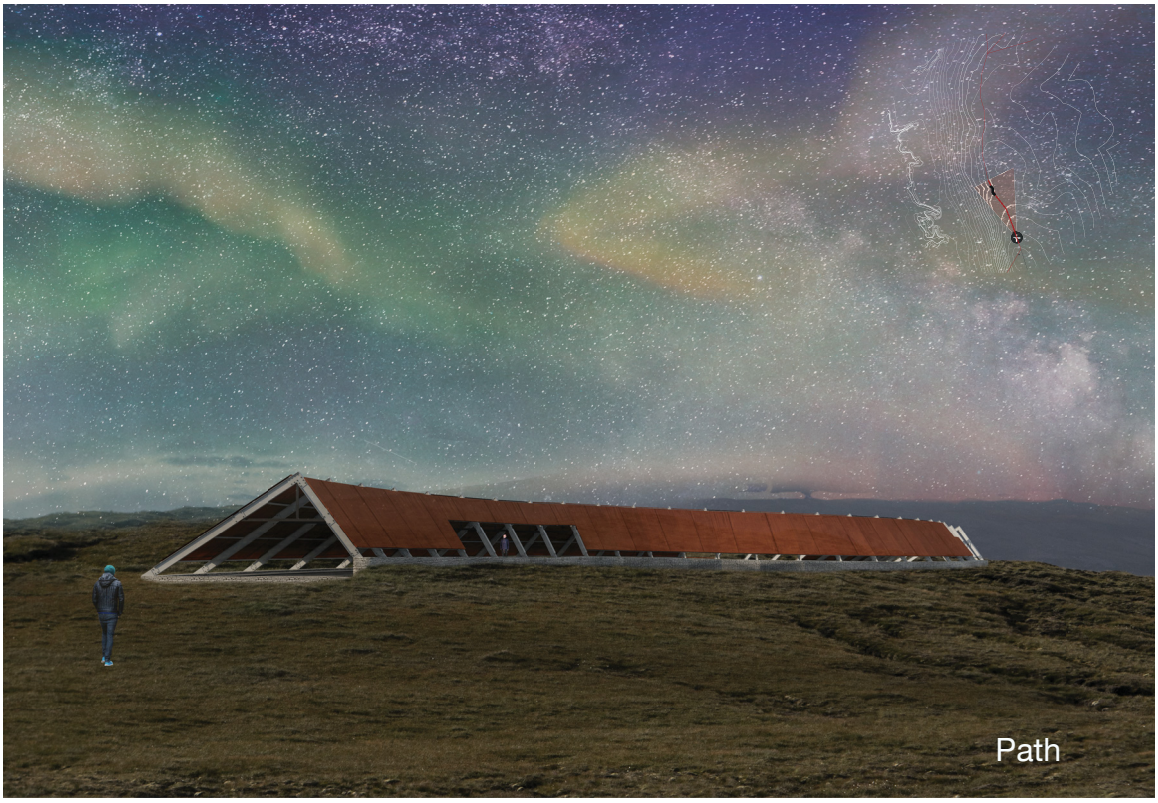
Observational Element :
Orientation



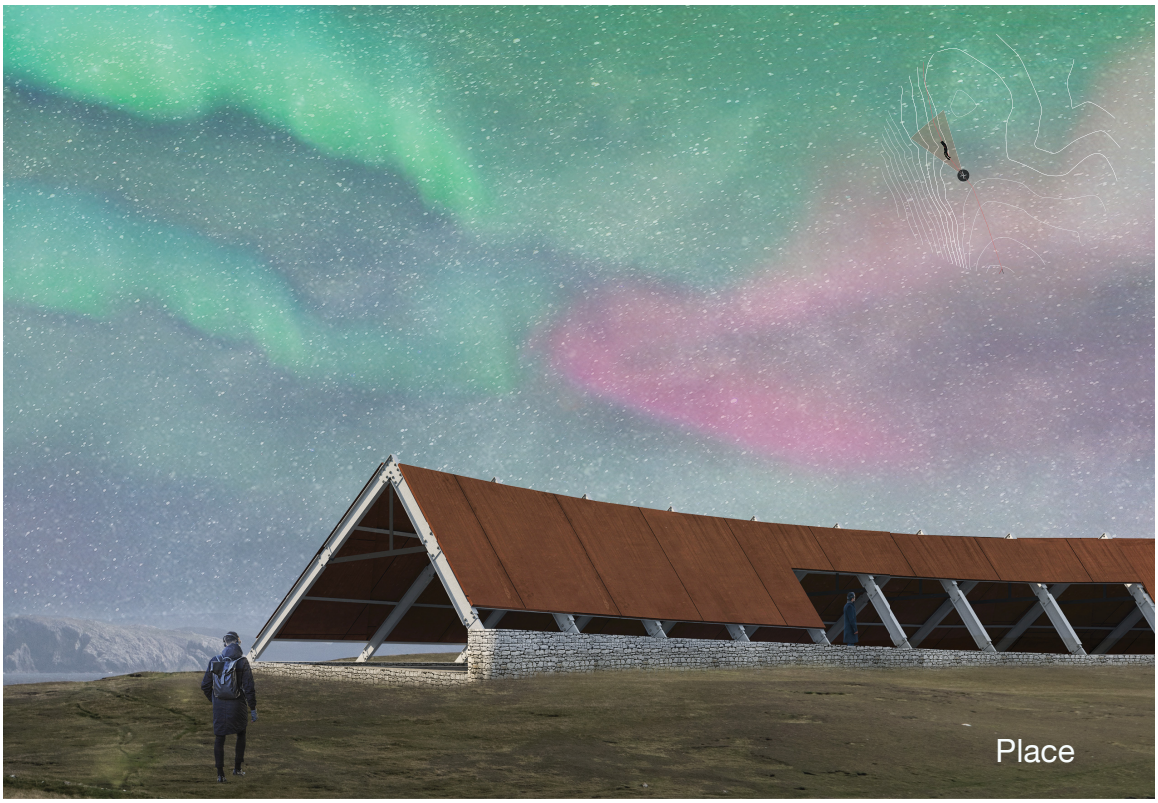
Observational Element :
Concealing and Revealing



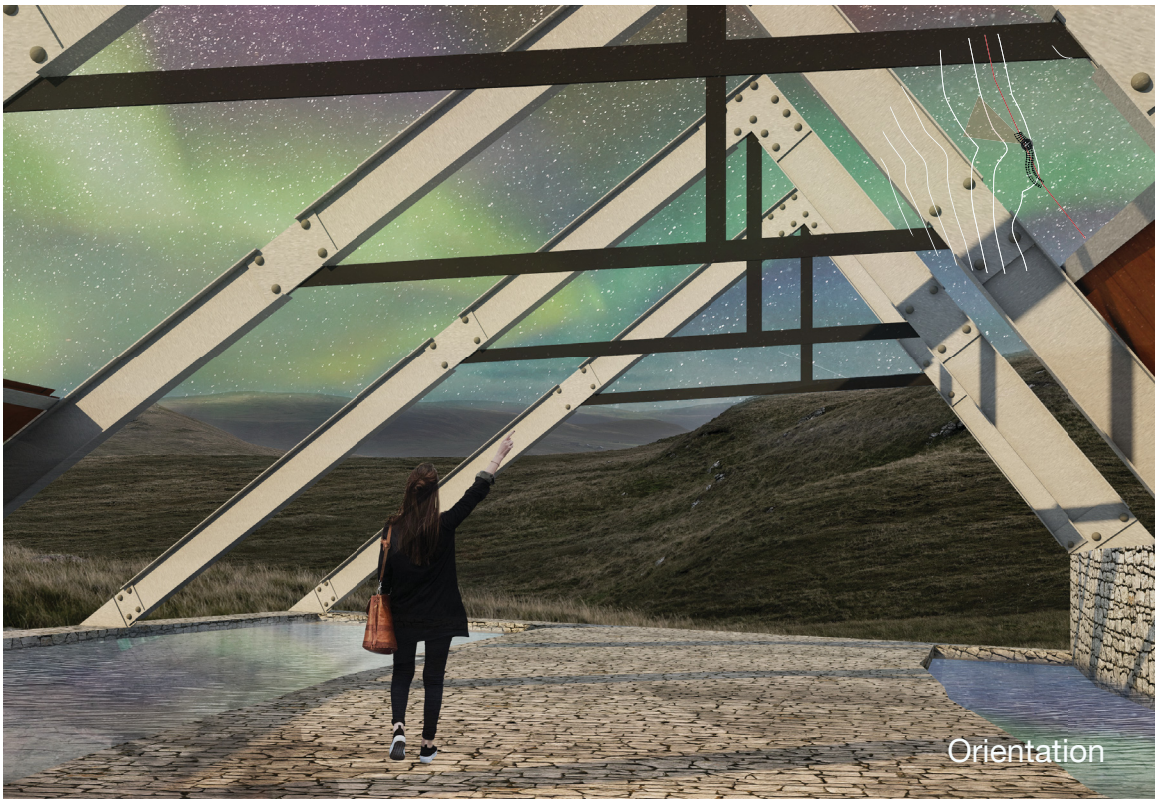
The three observational elements utilized in the Northern Lights Pavilion



Processional vignettes

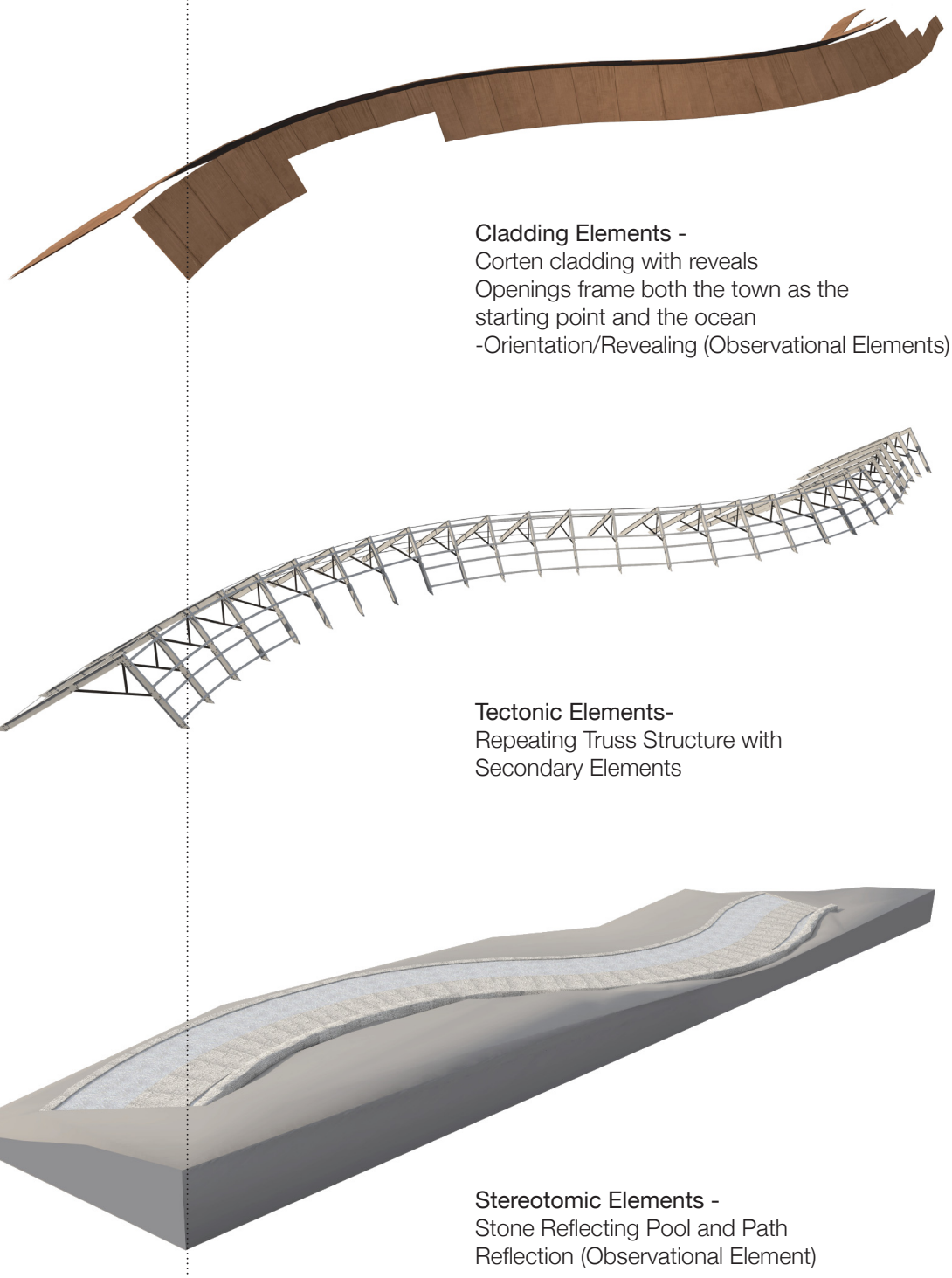


Processional vignettes



Processional vignettes

Component Axonometric



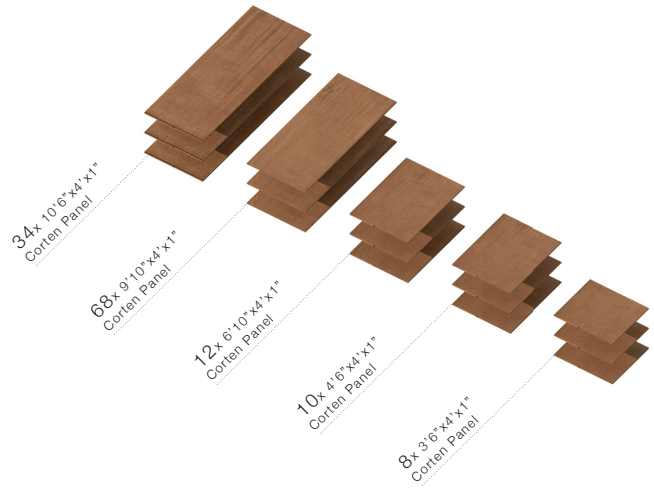
Cladding Elements -
Corten cladding with reveals
Openings frame both the town as the starting point and the ocean
-Orientation/Revealing (Observational Elements)

Tectonic Elements-
Repeating Truss Structure with Secondary Elements

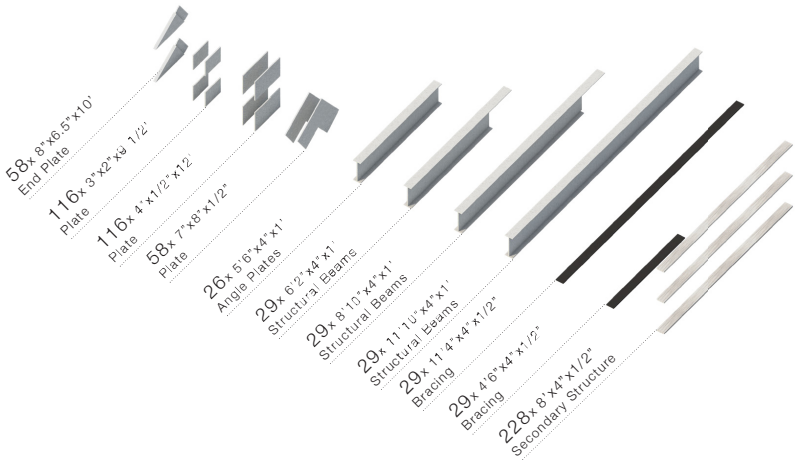
Stereotomic Elements -
Stone Reflecting Pool and Path
Reflection (Observational Element)

System axonometric showing the relationship between the three elements: stereotomic, tectonic, and cladding

Cladding/Structure Components



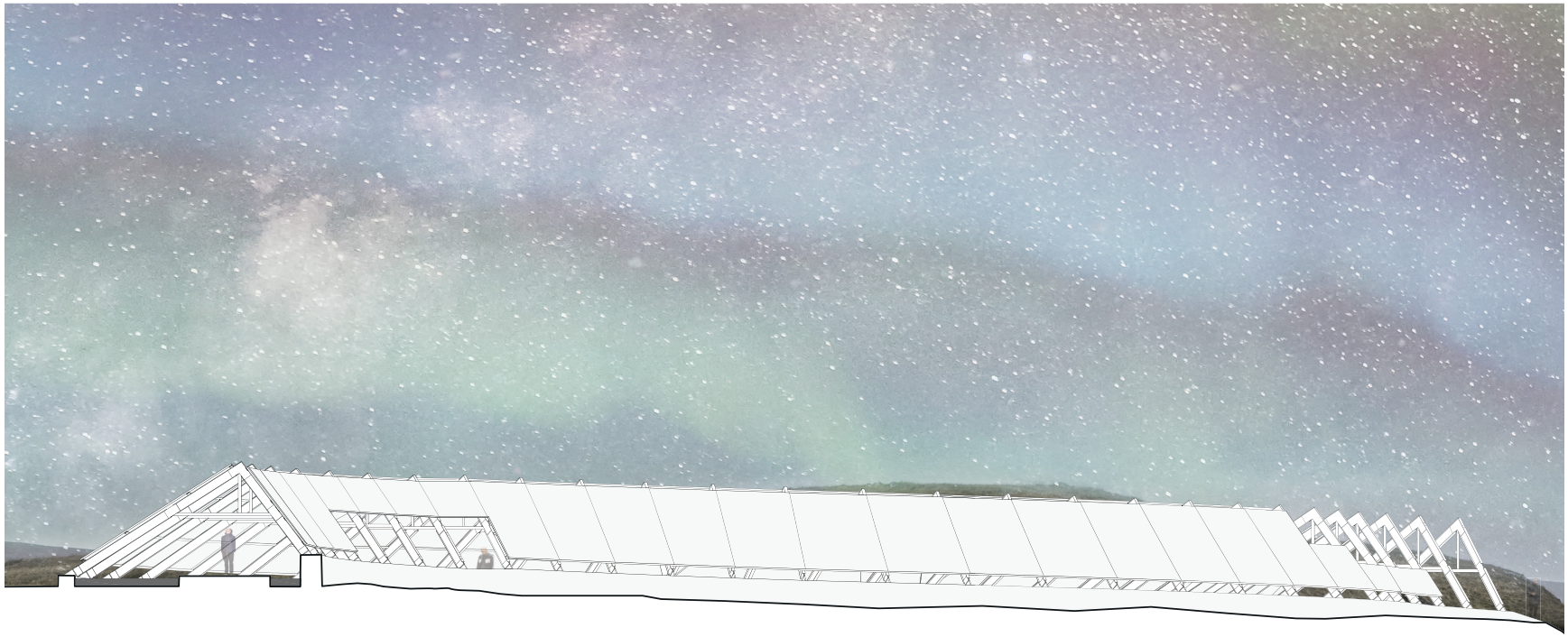
Cladding Components
-Corten Plate Steel
-Off-site Fabrication



Truss Components + Secondary Structure
-Steel
-Off-site Fabrication

Assembled Truss
-Steel
-On-site Assembly

Component list for the Northern Lights Pavilion showing a breakdown of the cladding system, structural system and number of assembled trusses.



Northern Lights section

Northern Lights Pavilion model

Northern Lights Pavilion model

Typology render: Northern Lights Pavilion

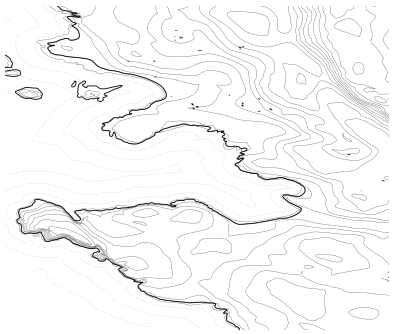
Typology Five: Archaeology

Contributing to the Path

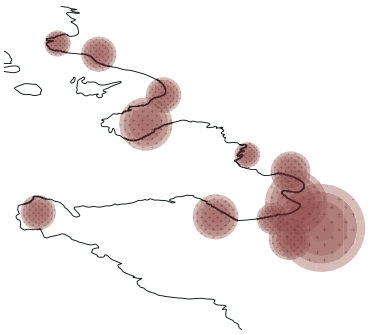
There is a particularly high concentration of archeological ruins on Unst. They are often simply left in fields where the public is free to explore them. The ruins of the islands past cultures are typically found in areas where development still occurs as the ideal zones for human settlement have remained much the same for the last 5000 years.

Within the archeology typology there are several sub-groups that pertain to the different time periods. The particular site chosen for this typology includes several of these sub-groups including: Iron Age, Viking, and the more recent remains of Scottish crofts.

The pavilion itself will focus on the oldest of these, an Iron Age Broch which lies unexcavated at the beginning of a trail that encompasses many other ruins from the other groups. The Archaeology pavilion will serve not only to protect and enhance the newly excavated ruins but will also direct the observer towards the next destination by way of the cladding.



Site Topography

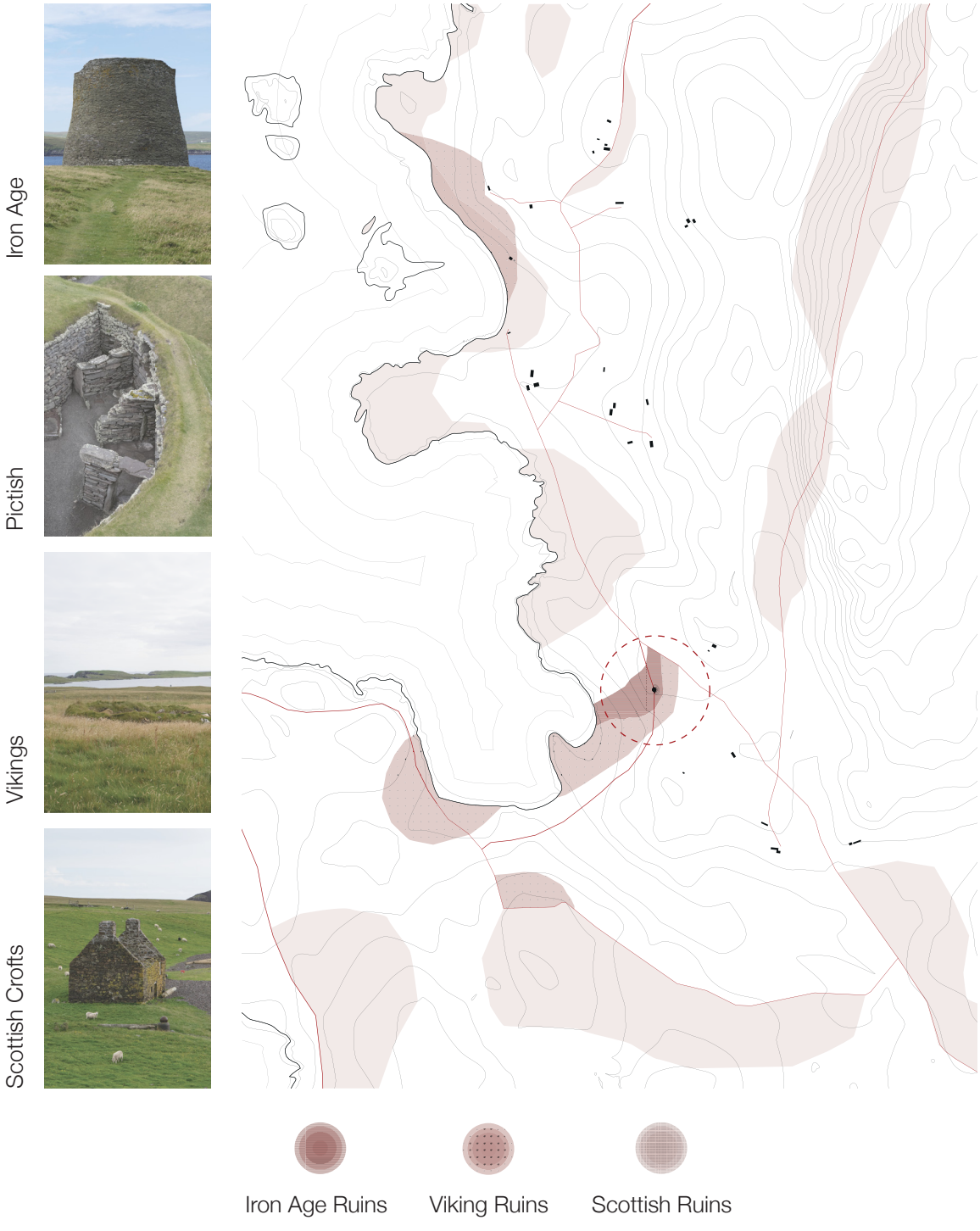


Typology Potential

Pavilion Sites

Site axonometric of Underhoull - using potential as a method for siting

Site Plan - Archaeology at Underhoull



Site plan of Underhoull showing the overlap of potential, existing trails and siting

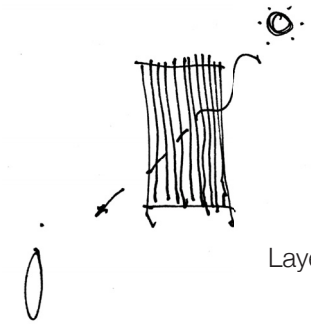
Observational Elements: Archaeological Pavilion

This intervention employs three observational elements: Light Deprivation, Emphasizing Tactility, and Excavation.

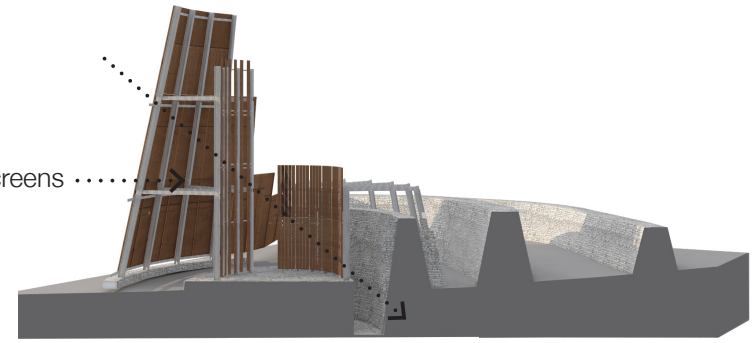
The elements are all intertwined to emphasize the existing ruin of the ancient Broch. There are two experiences that this pavilion offers. The first uses the original walls of the Broch. These existing walls are excavated to allow people to venture down below the current ground level. The layered corten screens filter the light creating a darker space where the tactility and monumentality of the stacked stone walls can really be understood. As the observer passes through the space they are able to interact with the ruin, moving through the narrow channel that two thousand years ago would have housed a similar darkened staircase in the original structure.

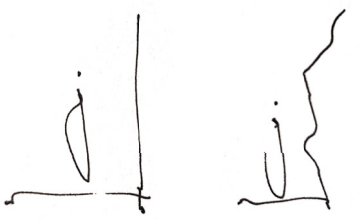
The second experience is created through an interpretation of the original form of what the Broch would have been when it stood as a tower safeguarding against invaders. The observer would be able to climb to the original height using ladders in a manner which is thought to be one of the methods of ascension in the original structure. The observer is then able to move along the upper levels of the structure to a gap in the cladding which directs the viewer toward the sea much like the watch undertaken by the towers residents thousands of years ago.

Observational Elements

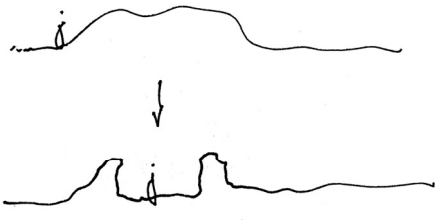


Observational Element :
Light Deprivation

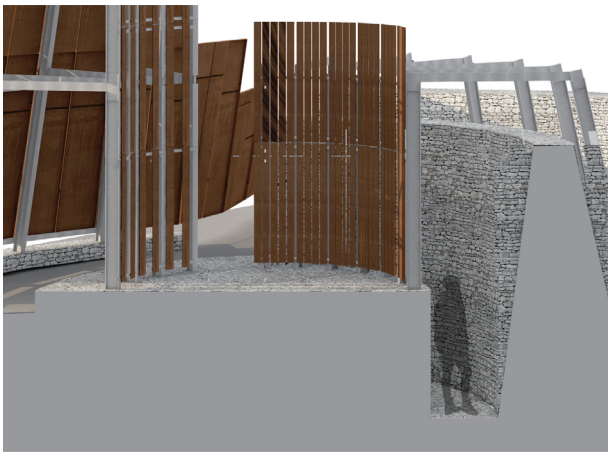




Observational Element :
Tactility



Observational Element :
Excavation



The three observational elements utilized in the Archaeology Pavilion

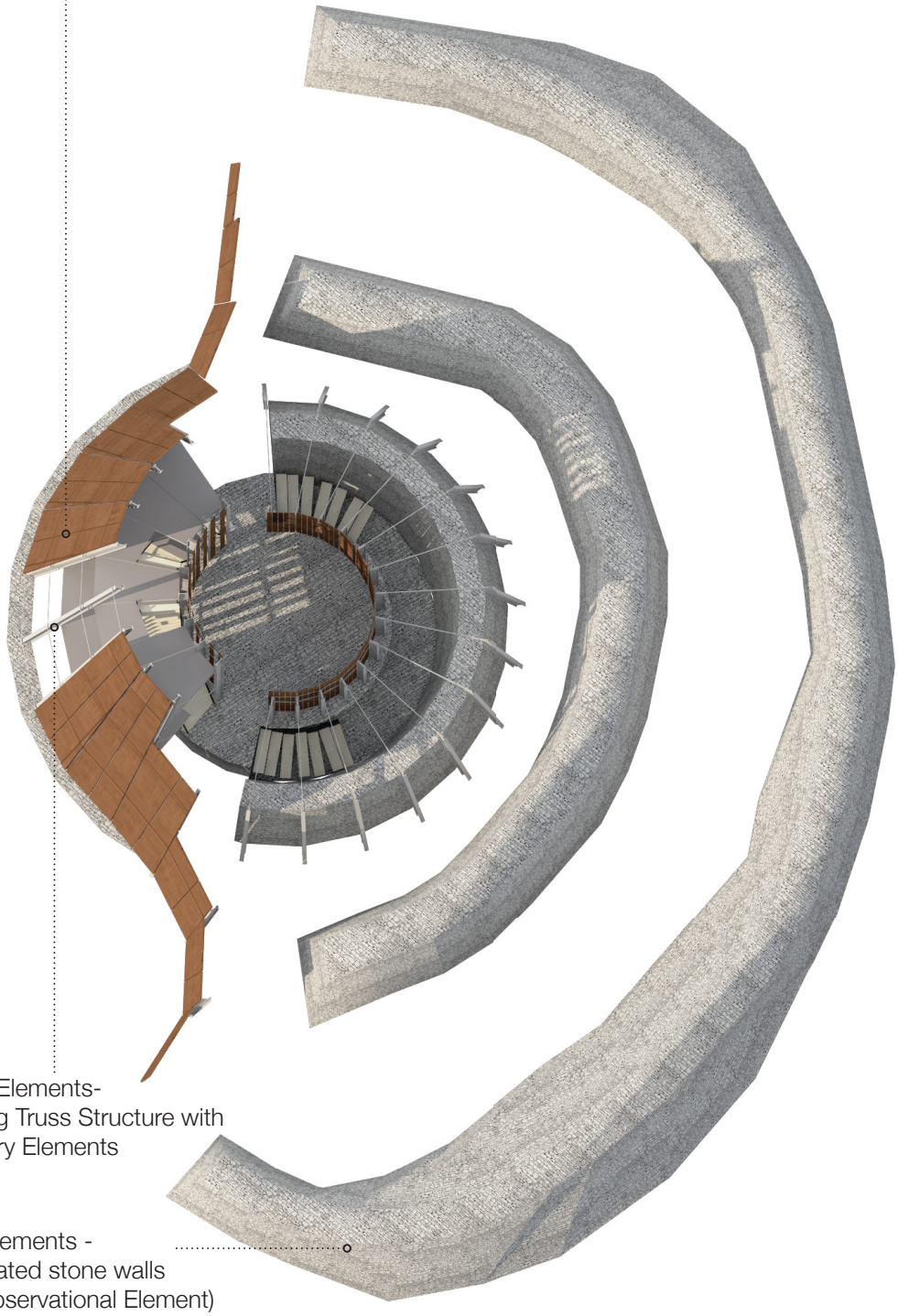
Processional vignettes

Processional vignettes

Processional vignettes

Component Axonometric

Cladding Elements -
Insulated Panel Cladding with Reveals
-Orientation/Revealing (Observational Elements)



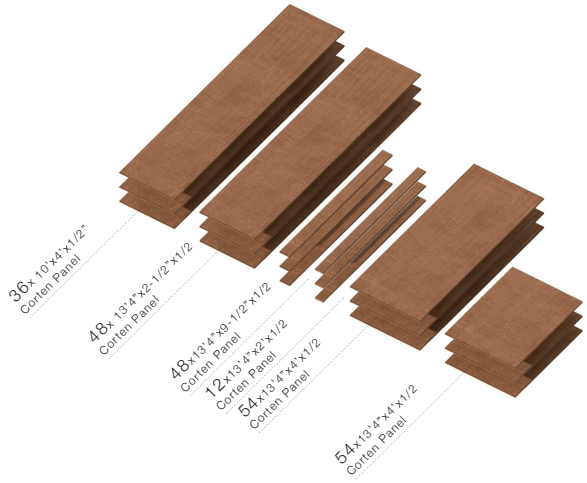
Tectonic Elements-
Repeating Truss Structure with
Secondary Elements

Stereotomic Elements -
Existing excavated stone walls
Excavation (Observational Element)

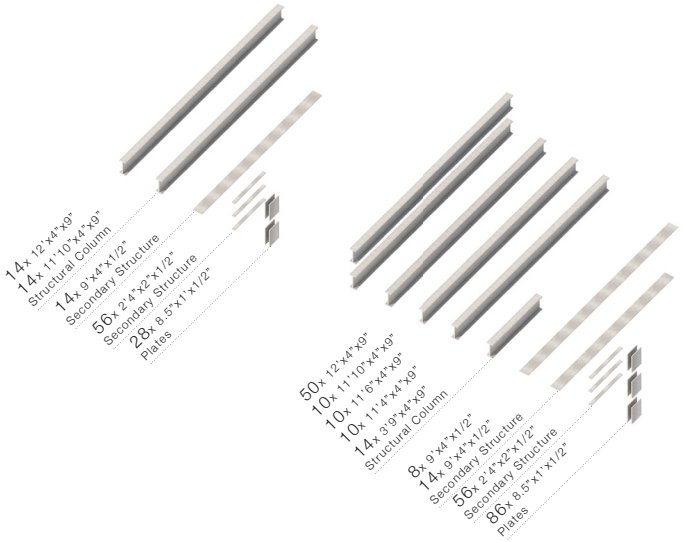
Axonometric showing the relationship between the architectural intervention and the existing walls of the Underhoull Broch

Cladding/Structure Components

Cladding Components
-Corten Plate Steel
-Off-site Fabrication

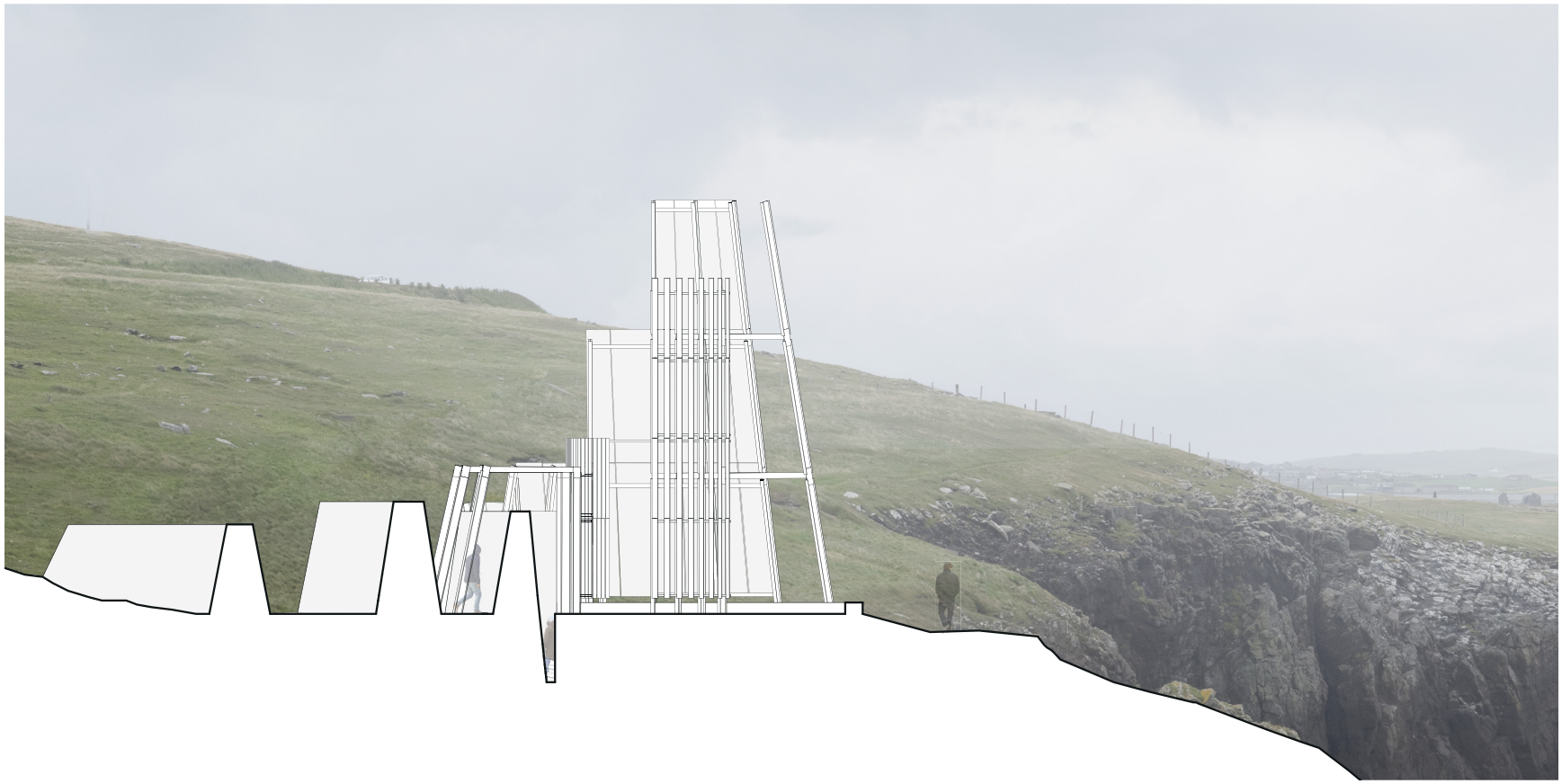


Truss Components + Secondary Structure
-Steel
-Off-site Fabrication



Assembled Truss
-Steel
-On-site Assembly

ComponentlList for the Archaeology Pavilion showing a breakdown of the cladding system, structural system and number of assembled trusses.



Northern Lights section

Archaeology Pavilion model

Archaeology Pavilion model

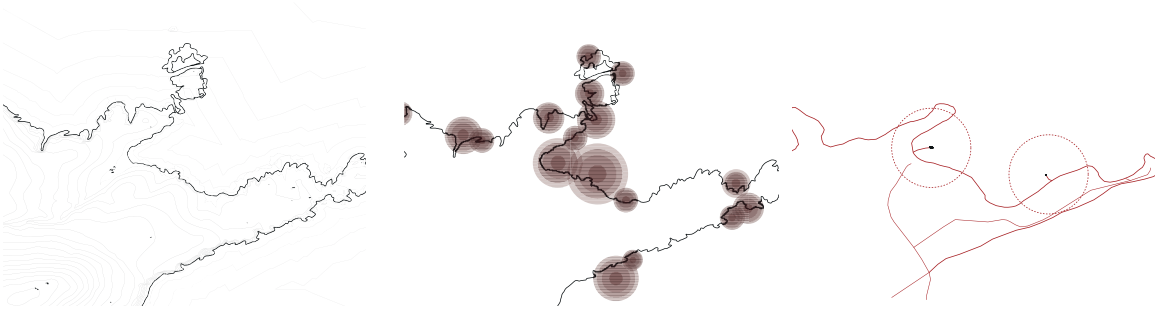
Typology render: Archaeology Pavilion

Typology Six: Marine Viewing

Contributing to the Path / Establishing Potential

The Marine pavilion is situated at Skaw beach. Shetlanders have always had a close relationship with the sea and development has always occurred based on two key factors: good farmland and access to the water. The fishing industry is deeply embedded in their culture and has spread into their tourism industry due to an abundance of sea life.

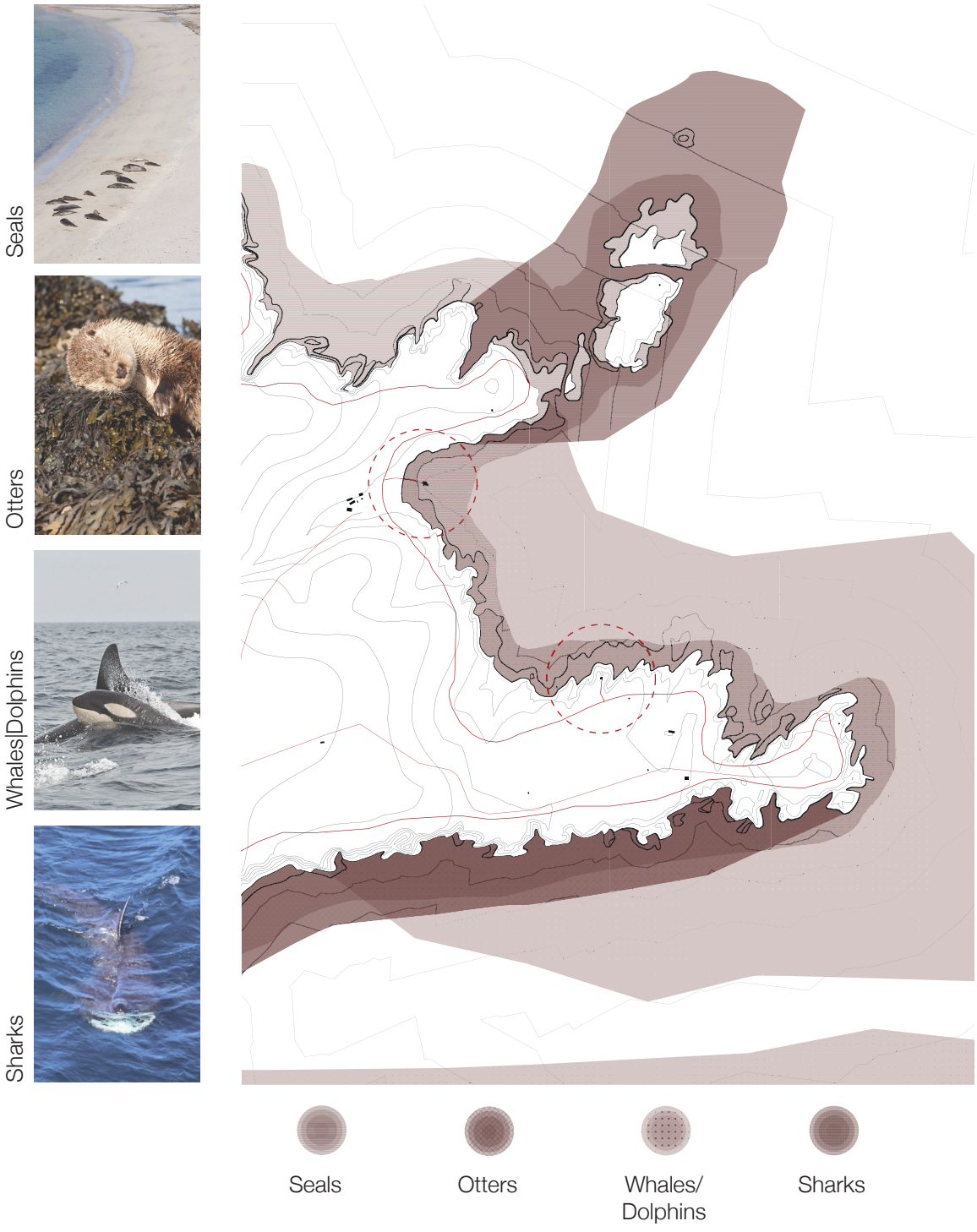
Skaw beach is an area that features high potential for all of the sub-typologies associated with marine life viewing. The sub-typologies include Whales/Dolphins, Sharks, Otters, and Seals. These sub-typologies are best viewed from the ocean. The two marine pavilions are both situated in order to direct the observer down the cliffs and down onto the water where these creatures are best viewed.



Site Topography | Typology Potential | Pavilion Sites

Site axonometric of Skaw Beach- using potential as a method for siting

Site Plan - Marine Viewing at Skaw Beach



Site plan of Skaw Beach showing the overlap of potential, existing trails and siting (Images from Shetland Webstie)

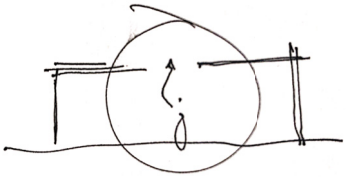
Observational Elements: An Architecture of Observation

The pavilions and their associated observational elements focus on accessing the water and directing the observer towards the best place to observe these creatures, out on the ocean. The elements employed by the Marine pavilions are: Progression, Accessibility, and Emphasizing Destination.

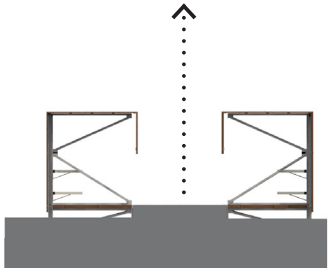
The path starts in the town of Norwick just south of the site. The informal foot trail continues along the coast where the observer will come across the first Marine pavilion, the Tower. The corten cladding is separated into two distinct elements that form a lens directing the user's view along the path and onto the next destination. The next destination in this typology is the Boathouse. The Boathouse utilizes similar cladding methods to emphasize the destination which is ultimately the ocean. The pairs of cladding elements on both pavilions highlight the path or the next destination while also offering different vantages points of the ocean and the marine life it holds. Upon reaching the boat launch the observer would cast off from a lightly stepped stone dock which takes its form and materiality from existing docks around the islands constructed by the Stevenson family (who also built many of Scotland's Lighthouses.)

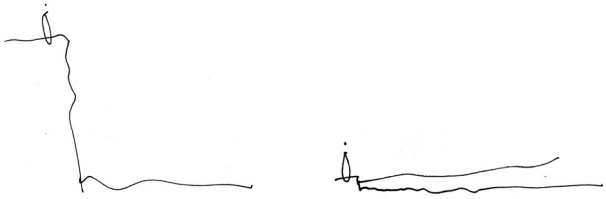
Once out on the water there is then the option to progress on by boat to the next typologies, either the Landscape typology starting at the Hermaness or south to the Geological Points of Interest typology.

Observational Elements

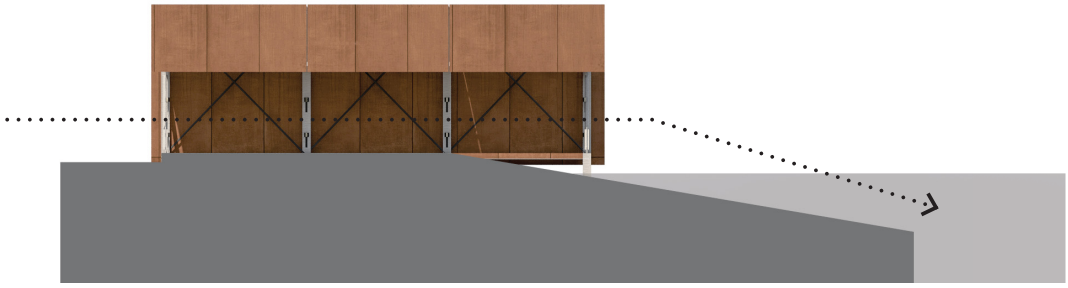


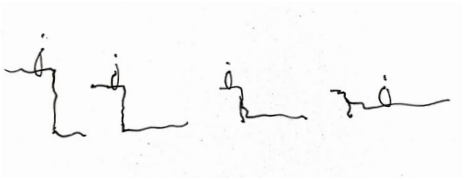
Observational Element :
Emphasizing Destination



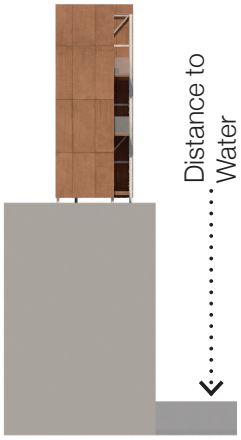


Observational Element :
Accessibility





Observational Element :
Progression



The three observational elements utilized in the marine pavilions

Processional vignettes

Processional vignettes

Processional vignettes

Component Axonometric - Tower

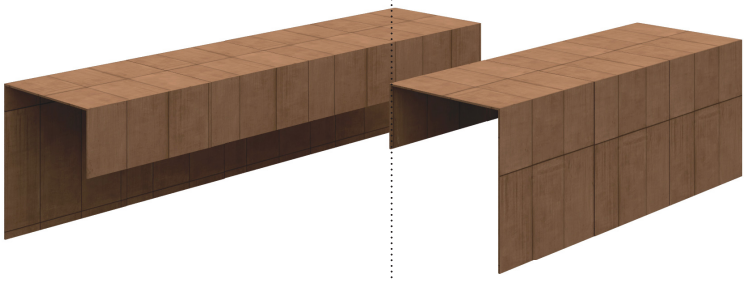
Cladding Elements -
Corten Panel Cladding with Reveals
-Emphasizing Access (Observational Elements)
-Progression (Observational Elements)

Tectonic Elements-
Repeating Truss Structure with
Secondary Elements

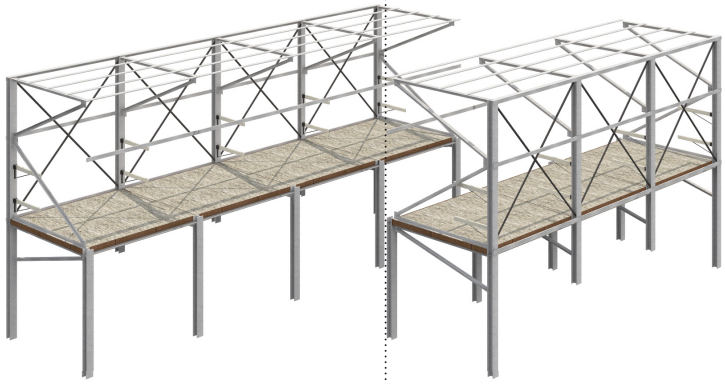
Stereotomic Elements -
Stone Floor

System axonometric showing the relationship between the three elements: stereotomic, tectonic, and cladding

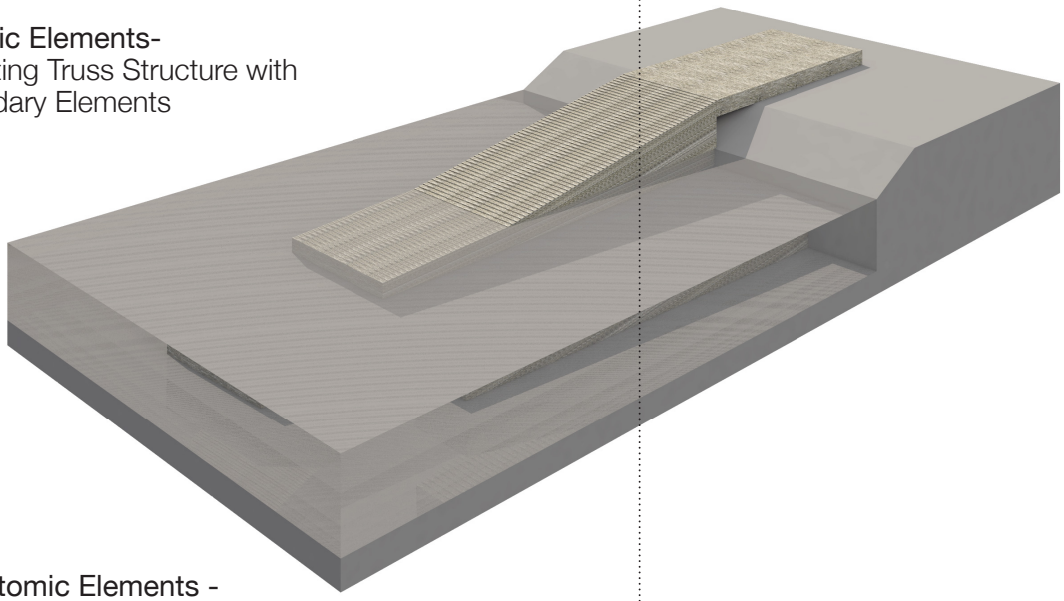
Component Axonometric - Boathouse



Cladding Elements -
Corten Panel Cladding with Reveals
-Emphasizing Access (Observational Elements)
-Progression (Observational Elements)



Tectonic Elements-
Repeating Truss Structure with
Secondary Elements

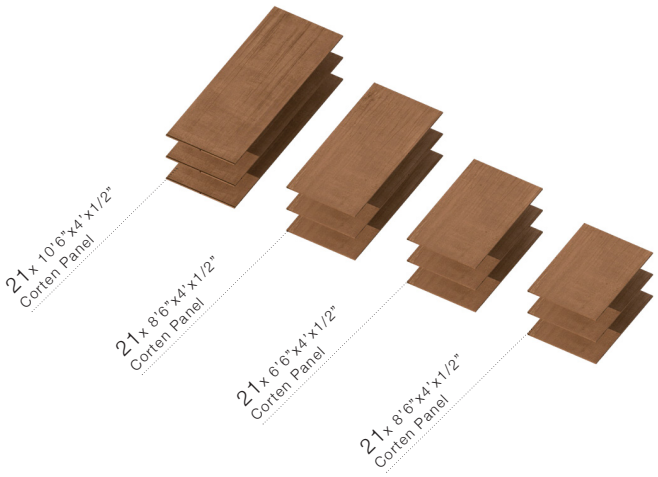


Stereotomic Elements -
Stone dock
Accessibility (Observational Element)

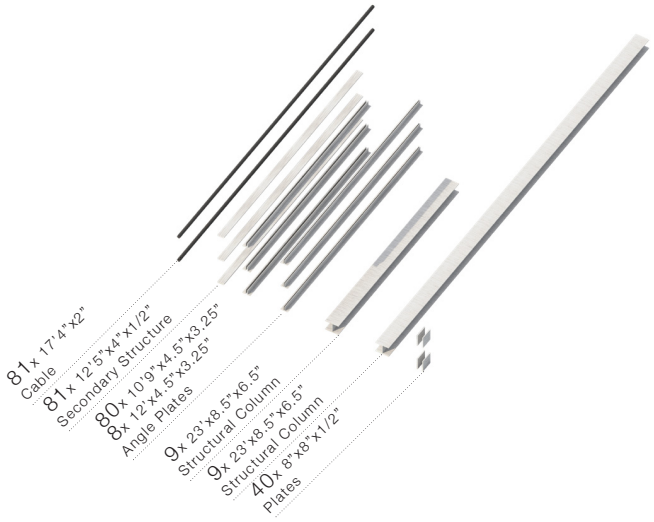
System axonometric showing the relationship between the three elements: stereotomic, tectonic, and cladding

Cladding/Structure Components -Boathouse Pavilion

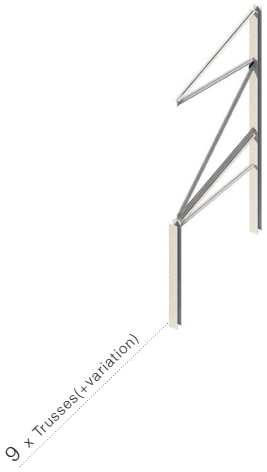
Cladding Components
-Corten Plate Steel
-Off-site Fabrication



Truss Components + Secondary Structure
-Steel
-Off-site Fabrication



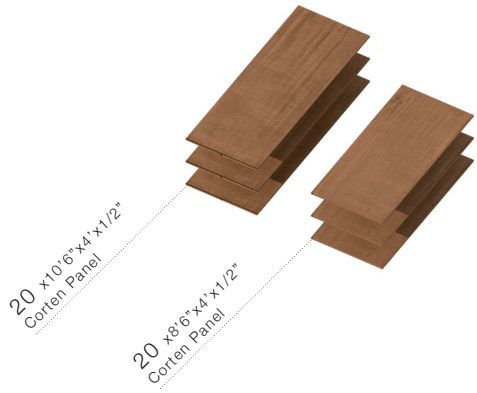
Assembled Truss
-Steel
-On-site Assembly



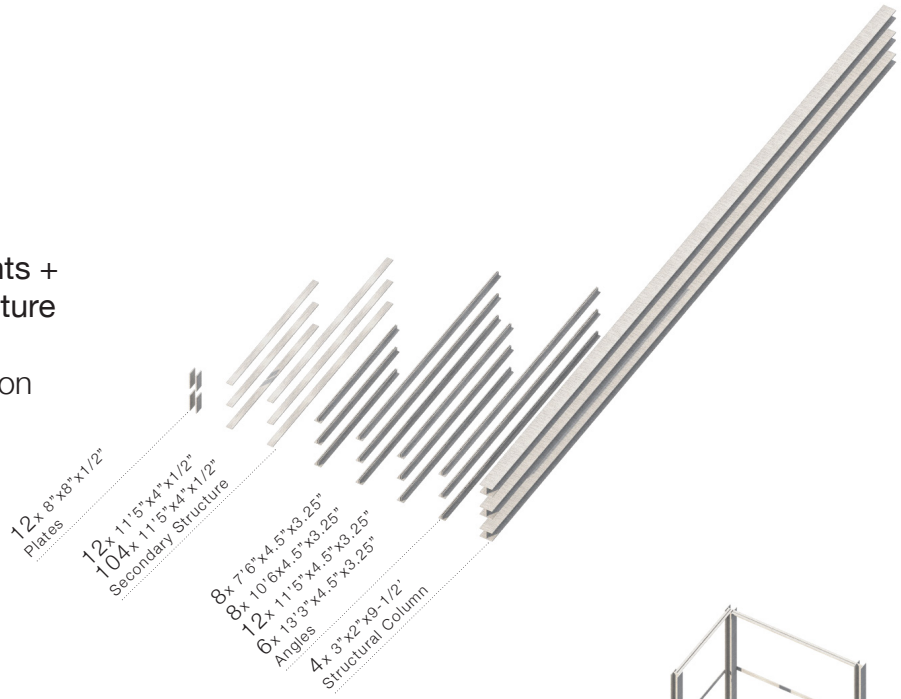
Component list for the Boathouse Pavilion showing a breakdown of the cladding system, structural system and number of assembled trusses.

Cladding/Structure Components -Tower Pavilion

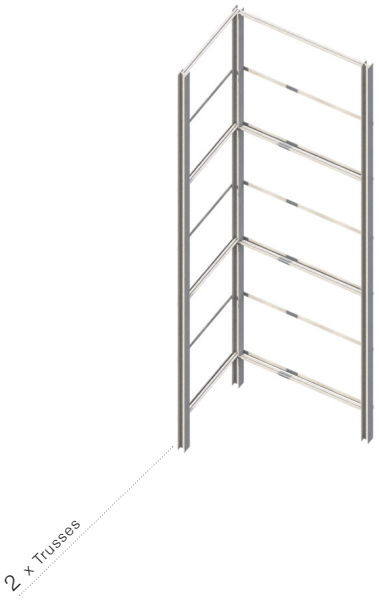
Cladding Components
-Corten Plate Steel
-Off-site Fabrication



Truss Components + Secondary Structure
-Steel
-Off-site Fabrication



Assembled Truss
-Steel
-On-site Assembly

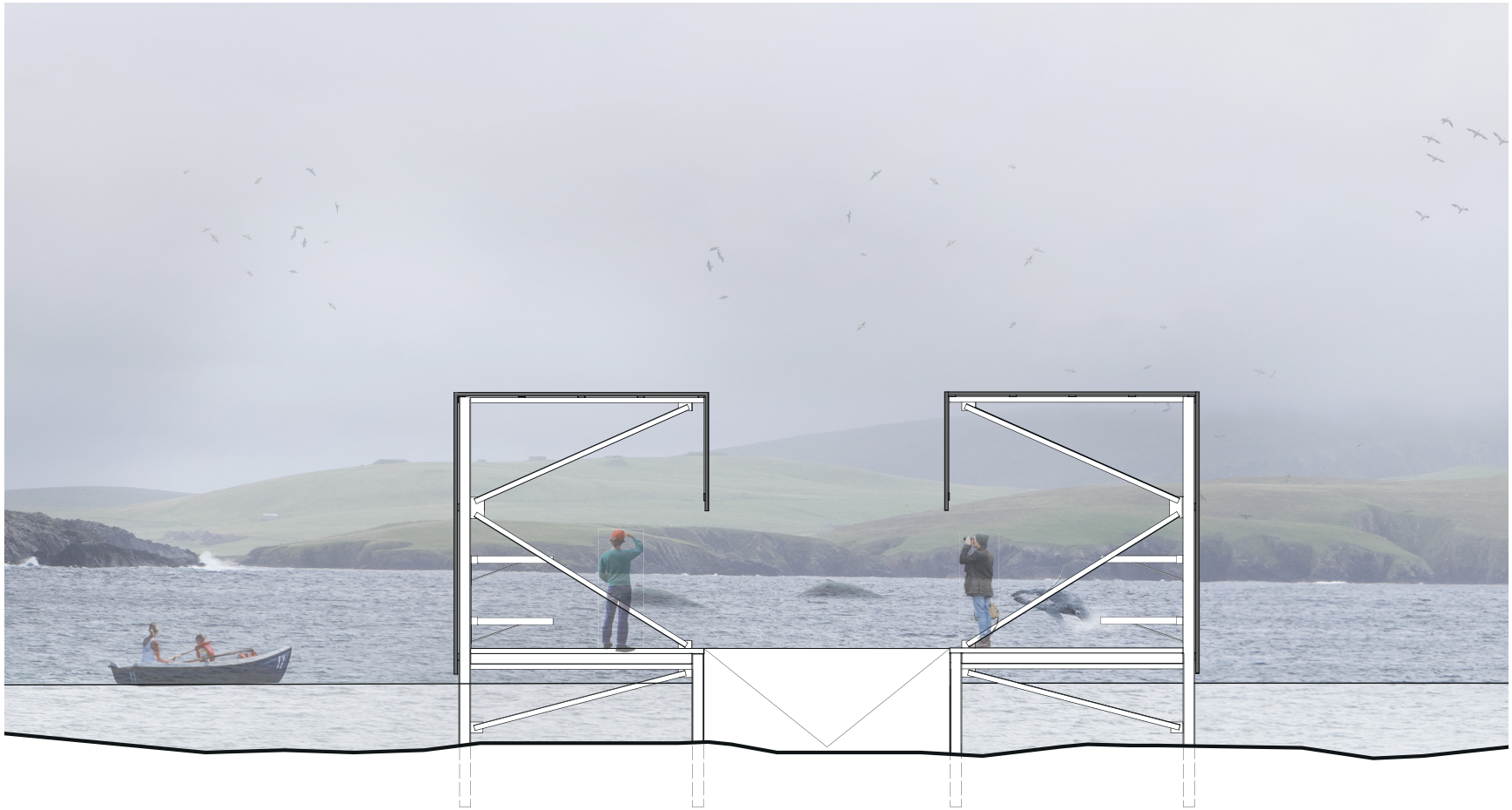


Component list for the Tower Pavilion showing a breakdown of the cladding system, structural system and number of assembled trusses.

Tower Pavilion section

Tower Pavilion model

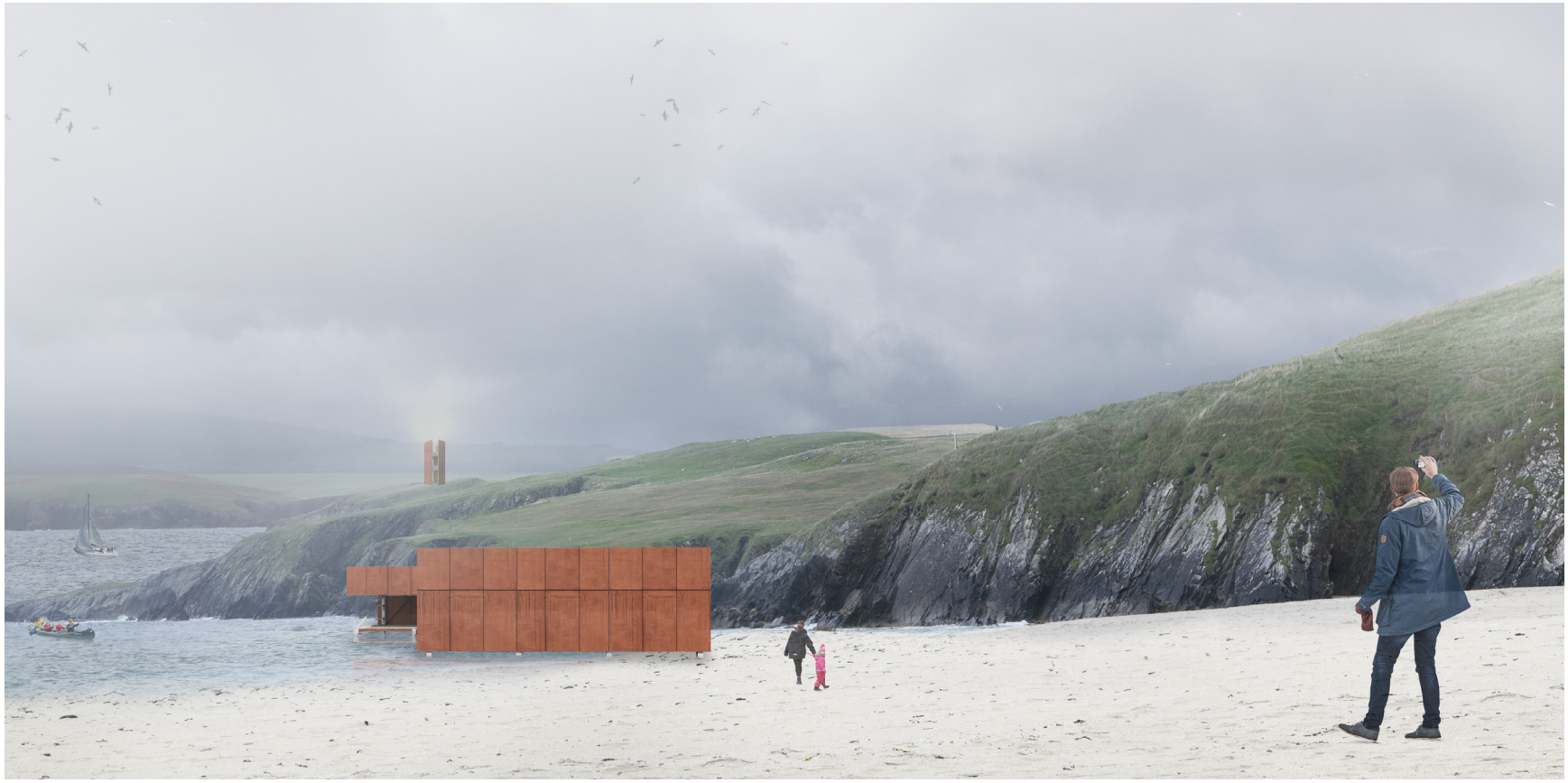
Tower Pavilion model



Boathouse Pavilion section

Boathouse Pavilion model

Boathouse Pavilion model



Typology render: Boathouse and Tower Pavilions

CHAPTER NINE: CONCLUSION

The Shetland Islands have always been intimately connected to the natural world. As long as humans have existed on the islands they have subsisted off of the land and the sea. It is the phenomenal natural and cultural resources contained within the islands that provide Shetland with the potential to enhance a system of tourism. The inherent potential of Shetland will act as a catalyst and through the development and strategic placement of architectural interventions, create heightened experiences of existing tourism typologies.

Through the incorporation of a system of modularity in the cladding and structural systems, the architecture can be applied to the sensitive sites of Unst. The use of modular components allows for the possibility of either on-site or off-site construction. This combined with the cladding system creates an architecture of observation, a building specifically formed to mediate between the body and the site, orienting the observer towards the phenomenological event.

The phenomenological and cultural lenses are brought together in the architecture. The heightened phenomenological experience of existing tourism typologies is facilitated by the interaction between the building and the landscape. By orienting the body in space through architecture the observer can achieve new understanding and perception of these events. This system of movement and discovery invokes the phenomenological while simultaneously providing refuge and connectedness to the island.

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