Isolated Ecologies : A stretegy for the reintegration of McNeil Island

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Table of Contents

List of Figures

Abstract

This thesis argues for the value of isolation as a spatial strategy. In examining the situation of the contemporary prison, we find an institution swarming with contradictions. Relegated to the periphery of our urban centers, the prison requires isolation to ensure public safety which also removes it from critical examination. At the same time, the prison represents the space of redemption and confrontation with essential human individuality.

As we begin to reexamine issues of architecture and justice, the situation of the prison represents a new problematic: how do we recognize the significance of the prison as a component of our built heritage while retaining a critical eye towards the shortcomings of the institution in the United States? In the case of the McNeil Island Corrections Center, we find a site that has been isolated from contemporary development. With the closing of the prison, we are challenged with how to memorialize the site of one of the oldest prisons in the country and how to imagine new situations that respect the heritage found there. This project recasts the prison island as a site of generative isolation; future engagement with the island will include the experience of isolation and, I argue, benefit from that experience. Unlike most contemporary attitudes toward abandoned prison structures that render space a theme park or tourist attraction, we might imagine the prison island as the most potent site of critical evaluation and reinterpretation of the architecture of isolation.

This thesis proposes a strategy of limited public access to the historic components of the park while retaining the remainder of the island as a site of ecological experimentation and research. A series of architectural interventions develop as a method for exploring the potentials of the site and strategically adapting existing structures with a consistent attitude towards the value of isolation.

Acknowledgements

The author wishes to thank the Department of Architecture and especially Professors Brian McLaren, Gundula Proksch, David Miller and Louisa Iarocci for their support and guidance. An understanding of McNeil Island would never have been possible without the help of Ann Burkly, Chris Moore, and Eric Heinitz. The final process would not have been survived without the support of friends and family.

1

Introduction

On April 1, 2011, the McNeil Island Corrections Center (MICC) was closed. In continuous operation since 1875, the closing of the prison marks the end of the oldest prison in the Northwest and the last functioning prison island in the United States. An institution with an expansive history, the prison on McNeil began operation as a territorial penitentiary with a variety of industrial endeavors including shingle manufacturing, ship building, and logging. During its 136 years in operation, the prison was used as a federal and state prison, as well as the site for experiments in several different modes of penology. The first prisoners to populate the prison at Alcatraz were brought from McNeil Island. Both Charles Manson and Robert Stroud, the infamous “birdman of alcatraz”, are known to have been incarcerated on the island.

The prison generated a community of residents with fond ties to the island. Currently listed as one of Washington State’s Most Endangered Properties by the Washington Trust for Historic Preservation, the future of the site, which includes several important historic and cultural resources and potentially a number of untouched native archaeological sites, remains uncertain. The potential for the site is great and confronts us with several challenging issues: how is the site of a former prison memorialized? How is the abandoned island, one of the 13 largest in the Puget Sound, responsibly developed with respect to its history and context? What new uses can we imagine that might benefit from such an unusal condition of isolation?

Figure 1
Guard house and flag pole with views of Puget Sound, McNeil Island, 1909. Image courtesy of UW Special Collections.

The Contemporary Prison

The contemporary American prison represents a failing building type. In 2008, for the first time in American history, one in every 100 adults was confined in a jail or prison. The high rate of growth (between 1987 and 2007, the national prison population tripled from 585,000 to 1.6 million) is coupled with high rates of recidivism and disproportionate levels of incarceration among minority populations (one in nine black males between 20 and 34 are behind bars compared to one in 30 in the general population). As a result, states have begun to revise their approach to incarceration and in 2010, for the first time in nearly 40 years, the number of state prisoners (not those incarcerated in the federal system) in the United States declined. A study conducted by the Pew Center on the States attributes this decline to a number of factors including alternatives to prisons, such as community corrections, for nonviolent offenders (other factors include advances in supervision technology and the science of behavior change, increasing focus on cost-benefit analysis, and budget pressure). The Pew study concludes with the following:

> "As a nation, the United States has long anchored its punishment policy in bricks and mortar. The tangible feel of a jail or prison, with its surefire incapacitation of convicts, has been an unquestioned weapon of choice in our battle against crime. Recent studies show, however, that a continual increase in our reliance on incarceration will pay declining dividends in crime prevention. In short, experts say, expanding prisons will accomplish less and cost more than it has in the past."[1]

In a similar vein, although one perhaps more relevant for the current course of study, the Spatial Information Design Lab (SIDL) at Columbia University issued a report in 2006 entitled "Architecture

1 Pew Center on the States, "One in 100: Behind Bars in America 2008."

and Justice". This study picks up where the Pew report leaves off and attempts to be more specific in examining how the problem of mass incarceration is at work in our neighborhoods. Employing a wealth of stastical information and mapping techniques, the SIDL was able to expose the effects of policy in an urban context. By mapping prisoner migration patterns, admission densities, crime densities, and poverty densities combined with prison expenditures, we begin to see a complex network of revolving doors and millions of dollars being poured into incredibly small areas of the city. These areas are referred to as "million dollar blocks" and represent the accumulation of dynamic processes. In conclusion, the SIDL writes:

> " ... an analysis of any Million Dollar Block will demonstrate how the overlapping resources of these networks conflate individuals and infrastructure, the local and the global, the close and the far, the piece and the system. Doing anything here, attempting to restructure the way the criminal justice system works, means working with contingent, dynamic and overlapping systems and collaborations between multiple agencies, tools, and techniques."[2]

The SIDL study does an excellent job of painting a compelling picture of the problem of the prison as it stands today. It should be noted, however, that a further problem develops from the same source, which is how to deal with the abandoned infrastructure of these crippled institutions. On one hand is the objectification of the structures as in the case of the prison at Alcatraz Island. This project seeks to bring the public into a critical and contemporary dialogue with the issues associated with the prison. This means that the structures are not presented as relics of the distant past. In the case of Alcatraz, one might argue, the structure has sufficient beauty or romantic quality to afford its preservation as a historic relic. This strategy does not translate to the issue of the contemporary prison which presents a much more

2 Spatial Information Design Lab, Columbia University Graduate School of Architecture, Planning and Preservation, "Architecture and Justice." 2006.

immediate set of issues to a visiting public, primarily that this method of justice is being implemented *now*, not in some distant, nearly forgotten past.

In light of these studies of our national prison system, the closing of the McNeil Island Corrections Center, one might argue, represents a larger cultural shift with respect to prisons. Even as the state run prison closes, the Washington State Department of Corrections seeks to construct a new prison reception center (to be sited in Mason, Kitsap, or Thurston county) which will function as the first place offenders go after being sentenced to a state prison to be assessed for physical and mental health and other needs, such as education and chemical dependency

The space associated with involuntary incarceration, according to these changes in the national prison system, will thus pose questions for future development and planning. As a microcosm of these trends, McNeil Island might function as a laboratory for testing ideas of how to memorialize the space of incarceration and negotiate the borders between the prison and the community generated by the prison.

It is worth mentioning that it is beyond the scope of this project to propose an alternative to the expansion and development of new prisons as a solution to what the Pew researchers call our “battle against crime”. This is a topic rich for architectural exploration, but falls outside of the realm of a project that has been developed to deal primarily with the abandoned relics of our failing correctional institutions and the metaphorical, poetic implications associated with the site of our nations last functioning island prison.

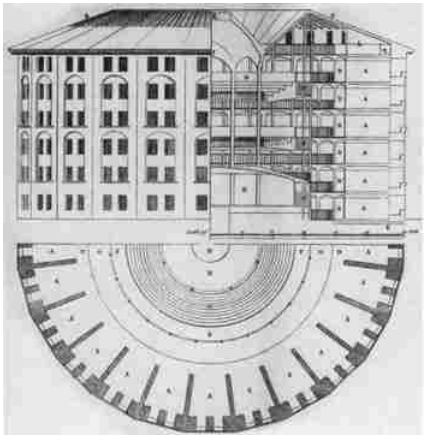
The Historical & Philosophical Prison

In order to understand the Penitentiary at McNeil Island, a typological study of prison architecture was made. This study helped to illuminate the complex issues that surround prison design and the relationship between the prison and philosophical issues of power, control, and the architecture of social discipline. The issue is not very well covered and this thesis draws from the work of Norman Bruce Johnston, a prison sociologist who, in 1972, was asked by the US Justice Department to prepare a concise history of prison architecture (which was expanded in the volume “Forms of Constraint”, published in 2000). As a starting point, Johnston states the intended goals of a prison structure in an attempt to categorize these intentions holistically, outside of historical context. They are as follows:

I. *Custody and safekeeping of inmates and defense against outside force*
II. *Punishment*
III. *Systematic supervision of both prisoners and their keepers*
IV. *Prevention of corruption of prisoners as a consequence of their association with one another*
V. *Maintenance of prisoners’ health*VI. *Reformation of prisoners by various measures, such as religious instruction, solitude, labor, vocational and academic instruction, and therapy*

Since the McNeil Island Corrections Center has been in continuous operation since 1875, first as a territorial prison, then a federal institution, and finally a state run facility, it demonstrates the evolution of philosophies of punishment as a spatial phenomenon. Johnston’s six goals of prison architecture are reflected in the various building campaigns undertaken by the institution.

The early history of prisons is speculative due to the lack of source material and conflicting accounts these spaces. No drawings or plans have survived (if they were in fact drawn or planned at all)



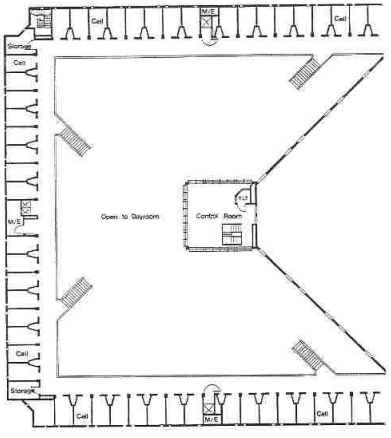


Figure 2
(Top) Jeremy Bentham's Panopticon Project. (Bottom) Standard Housing Unit, California Dept. of Corrections, 1980. Both plans illustrate a similar attitude towards centralized control and surveillance.

7

and one must turn to archaeology to decipher what early prisons might have looked like and how they functioned. Typically, these early prison structures were carved out of residual spaces. In the case of the Mamertine prison, near the Roman forum, the "vast system of dungeons" (according to one source) was located just over the main sewer (the Cloaca Maxima) and cells contained drains to the sewer.

Unlike these makeshift prisons, more information exists on prisons within castles where defense practices were more explicitly planned. In the 11th century, the abbey of Mont-Saint-Michel, for example, contains specific cells that were used for incarceration in addition to accounts of iron cages within rooms or courtyards. Over the years the dungeons were expanded and by the 19th century the entire structure, which originally served as a monastery and fortress, was used as a prison. These castles and fortresses, as centers of power and governance, actualized the political goals of the lords

or his deputies through architecture.

Religious imprisonment evolved as a parallel development to the dungeons of powerful lords and monarchs. Johnston points out that "the Catholic church was the first institution in the West to use imprisonment consistently for any avowed purpose other than detention as a practical way of handling disciplinary problems among all people within its jurisdiction."[3] Unlike the dungeons of medieval castles, the object of imprisonment in early monastic institutions sought to create the spatial conditions necessary for meditation and penitence, not simply the punishment of the transgressor. Without spending too much time one the history and development of monasteries (there are large variations on spatial organization dependent on the particular order and these idiosyncrasies are each enlightening in their own right), it is important to note that the institution developed, like the prison, as a type that prioritizes incarceration as a necessary human activity and voluntary incarceration as a prescription for spiritual growth.

In 1975, French philosopher Michel Foucault published Discipline and Punish in which he argues for a fundamental shift in how power is exerted on citizens. Foucault describes this shift as changing from one of corporal and capital punishment (prior to 1800) to one that uses incarceration as punishment for almost all offenses. Essentially, it is a shift of control over the body to control over the mind. Architecture plays a huge role in actualizing this shift in priorities, for Foucault, and he writes:

> "A whole problematic then develops: that of an architecture that is no longer built simply to be

Figure 3
Interior of the Mamertine prison in Rome.

3 Johnston, "Forms of Constraint" 2000. p. 17.

> seen, or to observe the external space, but to permit an internal, articulated and detailed control – to render visible those who are inside it; in more general terms, an architecture that would operate to transform individuals."

This ideology is expressed in the architectural projects of Jeremy Bentham whose Panopticon of 1791 (based on an architecture of surveillance derived from textile factories) served as a model for modern prison design. Foucault's account of the prison is interesting in that it characterizes the prison as an essentially modern construction and one of the primary modes by which western society was reorganizing itself.

It is important to note that prisons represented much more than a relationship between the law and its transgressor. As architectural historian Elaine Jackson-Retondo argues in "Manufacturing Moral Reform : Images and Realities of a Nineteenth-Century American Prison", she describes the 19th century prison as a place of didactic entertainment for average citizens and commercial enterprise for corrupt officials. She writes, "the diverse experiences, interactions, interpretations and interests transformed the prison from buildings and space to complex cultural landscape."[4] Here, she speaks to the condition of contemporary prison as a space that is overlooked (especially by the design community) and relegated to spatial and psychological peripheries while at the same time representing a cultural touchstone for values of rehabilitation, the possibility of salvation, redemption, and (in some cases) the incubator of profound human connection. This is to say that there is a chasm that separates the reality of the contemporary prison and the prison as a cultural representation. How we as a society resolve these two ideas of the prison is critical and McNeil Island may serve as a laboratory for that resolution.

4 Jackson-Retondo, "Manufacturing Moral Reform". p. 120.

McNeil Island History

Several extensive primary and secondary histories of the island exist and are readily available. It is not the intention of this project to reprint their contents, but rather to provide a particular interpretation of those histories. To that end, a brief overview of the key moments in the islands development will suffice to address the more critical aspects of history for the purposes of this project.

The history of McNeil Island is inextricable from the history of the penitentiary. All of the development that currently exists on the island is associated with the prison complex including the residential structures outside of the prison grounds many of which were constructed by inmates and used to house correction officers and their families. Prior to the establishment of the prison, which officially began operation in 1875, settlement on the island was sparse. Despite this, perhaps the island's most famous resident was also its first: Ezra Meeker, a pioneer who travelled the Oregon Trail and founded the town Puyallup, lived in a small cabin on site that is thought to be not too far west of where the prison complex is today. A few families attempted to log the island and sell wood to passing ships, an effort which proved to be unsustainable for permanent residency. The island was familiar to local tribes who fished its shores and hunted its' forests seasonally, but there is no evidence, according to a 1981 archaeological resources survey of the island, of permanent settlement by native peoples.

The history of the first cell house, commissioned in 1873 after a lengthy search across the Washington Territory, was constructed under what is now referred to as the Auburn system, after the New York State Penitentiary in Auburn, New York (completed in 1817). This ultimately led to a large stone shell with back to back cells in a block within the shell. The Auburn system (also known as the

Figure 4
Interior of the original cell house completed in 1875. The structure was demolished in 1937. Image courtesy of MOHAI.

"Congregate" or "Silent" system) enforced a system of silent labor during the day and solitary confinement at night. In the early years of the institution, which lacked any industrial or shop facilities and no provision for work programs, prisoners spent the majority of their time in the cellblock.

In terms of construction and how the original prison related to typical prison design practices of the time, the McNeil penitentiary was unique in its lack of a stone wall. In fact, the institution became to be known as "the prison without walls" within the pages of contemporary newspapers. Although the wall had been planned at various times throughout its history, as a means of preventing escape from the inside and unwanted accomplices from the outside, the walls were never realized due, at least in part, to a lack of funding. The lack of a wall illustrates an important characteristic of how the institution was planned: unlike most prisons, the McNeil Penitentiary grew in accordance with necessity as opposed to adhering to an ideal master plan. For this reason, the penitentiary has an unusually chaotic spatial organization. Unlike some of the ambitious new supermax facilities, McNeil Island retains a character that appears to be cobbled together over the years.

Figure 5
Historic photograph of the warden's mansion, completed in 1932.

The lack of a solid stone wall is suggestive of the larger relationship of the prison with the island community. As the rest of the island began to be inhabited, the prison sought to purchase land from landowners as a way of harvesting wood for the kitchen and for warming the cells. Paul Keve, in his

Figure 5
Current conditions of structures on the island including (top left) the Luhr Creek Residence, (top right) the warden's mansion and (below) the community center. Photos by author.

history of the island prison, writes “for the first several decades the prison was dependent upon the good will of neighbors and subject to the uncertainties of the unstable land.”[5] This was especially apparent in acquiring a water supply for the prison. The spring from which the early prison acquired its water was located on a neighbor’s property and was frequently wiped out in rainstorms due to the unstable soil of the area. This form of dependence was continued in later years when, as the prison became more isolated from the island community, neighbors were still forced to rely on one another during periods when bad weather would not permit travel to the mainland.

5 Paul Keve, “The McNeil Century”, 1981. p. 45.

Mapping the Site

The process of mapping is used as a method for analyzing McNeil Island. These studies range in terms of scale and seek to clarify the relationship between the space of the prison and the space of island. In comparison to other islands in the Puget Sound, McNeil Island is one of 13 islands over 300 acres and slightly larger than the densely populated Mercer Island in Lake Washington. Development on the island is sparse, and general spatial trends are easily identified. The most apparent categorization is that between the natural and the mechanical. At the scale of the entire island the natural shoreline and the mechanical street grid represent these two categories. The street is laid on the natural topography, in most cases ignoring physical structures and carving its path regardless of topography.

This street grid forms the primary prescription for development outside of the prison complex. Residential structures cluster along the road north of the prison and form points at the endpoints of paths.

The prison was established on a 27 acre plot of land acquired in 1870 on the southeast corner of the island. The island totals 4,445 acres with about 1,120 acres of pasture, cropland, and orchards. The 13 miles of coastline support a variety of wildlife

Figure 6
(Above) Scale diagram illustrates the population and size of McNeil Island relative to neighboring islands in Puget Sound region.

Figure 7
(Opposite) Site strategy map illustrates prescribed zones and potential nodes for intervention.


Bradley Creek
Milewa Creek
Luhr Creek
Farm Compound
Still Harbor & Gerttude Is.
Ellison Spring
Orchard
Butterworth Reservoir
Warden's Mansion
Observation Tower
Pioneer Memorial
Eden Creek
McNeil Island Penitentiary
Community Center
McNeil Island Ecology Site
McNeil Island Historical Site

including the largest remaining population of harbor seals in south Puget Sound. There has been limited human interruption of the morphology of the island. The most significant was the creation of Butterworth Lake, the island's reservoir, in 1937. After the prison was founded, settlers began buying land and constructing log-cabins. Most were of Scandinavian heritage and followed traditional techniques although none of these original structures stand today. It was not until after a stable economic base was established that more modern, frame-constructed houses were established.

In 1981, a cultural resources survey identified 40 structures and groups of structures. These range from the simple one-story, utilitarian pumping station, to the modern Chapel of Mt. Tahoma designed by Tacoma architect, Moritz Kundig. The following two maps identify these structures both within the island and within the prison compound. The most recent addition to the prison complex is a series of five triangular housing blocks completed in 1993.

These maps show that almost all development on the island was associated with the prison. As a result, the most densely constructed areas are in the southeast quadrant of the island. Outside of the prison compound, there are several structures of historical interest. In particular, the Community Center, which contains an auditorium, schoolroom, chapel, swimming pool and bowling alley, was built in 1953. Two of the oldest residential structures, the Luhr Creek residence and the Julin residence, also come with their own historical anecdotes. The Luhr Creek "outpost" is positioned on a portion of the island where the crossing is narrowest, at Pitt Passage on the east side of the island. It is here that most prisoners attempted escape, so the residence literally functioned as an outpost. The Julin residence is believed to have housed the island's brothel for many years.

Regional mapping is useful in establishing the larger networks that a new infrastructure on

Figure 8
(Opposite) Site map shows collection of sites identified by the 1981 cultural resources survey and indicates a relative density surrounding the prison site on the SE portion of the island.

McNeil Island might be able to communicate with and tap into. The Puget Sound itself is interpreted as the primary geographic feature of the region. It provides transportation and its edges become the centers of development for the region which include Olympia and Tacoma to the South, Seattle in the center, and Bellingham to the North. The position of McNeil Island in the southern, most enclosed portion of the sound, is perhaps the most strategic site for a penitentiary in that it discourages escape due to its proximity to so many centers of development. Unlike the San Juans, for example, which provide a would-be escapist with a large area of wilderness in which to hide, McNeil is unique in its simultaneously isolated and centralized location. Beginning with a simple map of movement over a 24 hour period in Puget Sound, we begin to see the primary points of connectivity, the density of east-west ferry traffic, and the major zones of occupation by water traffic, most of which is contained within the north & central portions of the Sound. (The map was produced by collecting real-time AIS data from vessels in Puget Sound provided by the Marine Traffic project.) This suggests an area ripe for connectivity in South Puget Sound, but connections to what?

By looking at the historical features of the Sound, of which McNeil Island is undoubtedly a part, we see that most of the major historic landmarks also align with the water. A map of the sites on the National Historic Register exemplifies this. In fact, a large portion of these landmarks includes military encampments (Fort Worden near Port Townsend, American & English Camps on San Juan Island) and nautical vessels (the Virginia V steamboat, the Duwamish fireboat). This represents a network of historical sites into which McNeil Island could easily integrate.

It is also suggestive to map the potential new networks to which the island might relate. Perhaps the most obvious, since the island is 75% wildlife area, but also most significant is the network

Figure 9
(Opposite) Regional map indicates network of marine traffic through the Puget Sound as well as the locations of potential outreach for a new use.


National Historic Register
NOAA Research Stations
WA DoE Sites

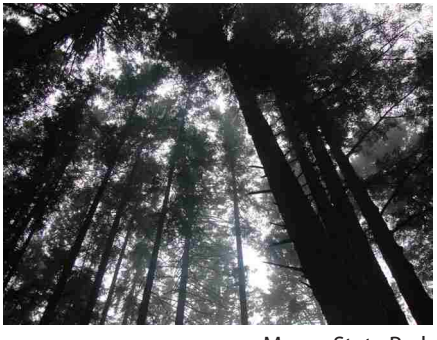
Figure 10
Comparative scale diagram to prominent parks in the region and nationally illustrates scale of the island as open public space.

of ecological study in the area. There are three major research stations set up by NOAA in the Puget Sound: the Manchester Research Station, Montlake Facility (near the University of Washington), and Mukilteo Research Station. Again, we see a similar pattern emerge as with the connection of water traffic. These stations are relegated to the northern and central zones of the sound, suggesting a further development in South Puget Sound. These maps illuminate some of the potential networks that may be exploited as a means of transforming the island into site of generative isolation.

Since there is no public access to McNeil Island, it was a challenge to develop a more three dimensional understanding of the island. In order to acheive this, outside of one site visit, a survey of a few of the neighboring islands in Puget Sound was made. Some parallels can be made between these islands. One of the more relevant is their use as miltary encampments (as in the case of the British

and Military camps on San Juan Island) or places of security. As in the case of McNeil, the island provides a natural fortification from the outside, allowing a point of prospect and refuge from invading or escaping parties. This is, however, a somewhat outmoded way of occupying these islands, and most are now used for recreation, as in the case of Orcas Island which houses one of the largest state parks in Washington, Moran State Park. McNeil presents a similar juxtaposition of a secure, somewhat militaristic past in the midst of an expanse of natural beauty. The question then becomes, is this trend among other islands a responsible way for proceeding with McNeil Island? Or might we use this as an opportunity for exploring a new way of developing an island? This project is interested in the latter, exploring the ways in which isolation, as opposed to touristic recreation, might be used as a strategy for occupation.

Point Robinson
Vashon Island



Moran State Park
Orcas Island

British Camp
San Juan Island

Figure 11
South Puget Sound with largest population centers in the region. McNeil Island is accessed from a ferry terminal in Steilacoom.

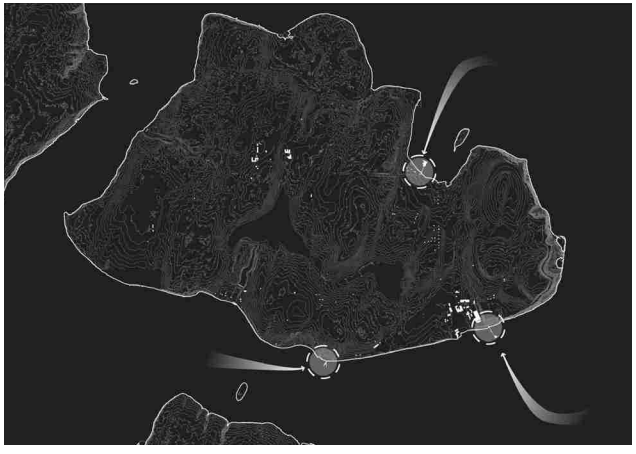
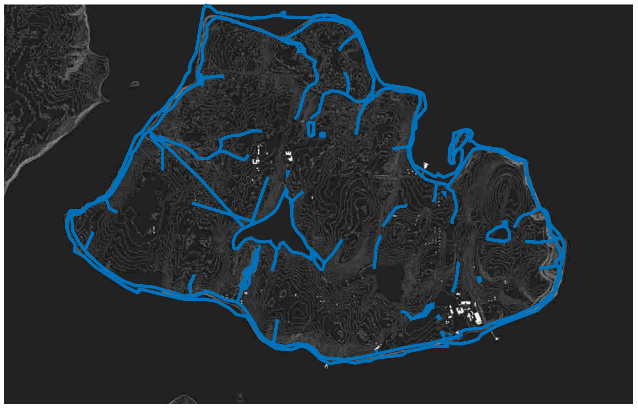


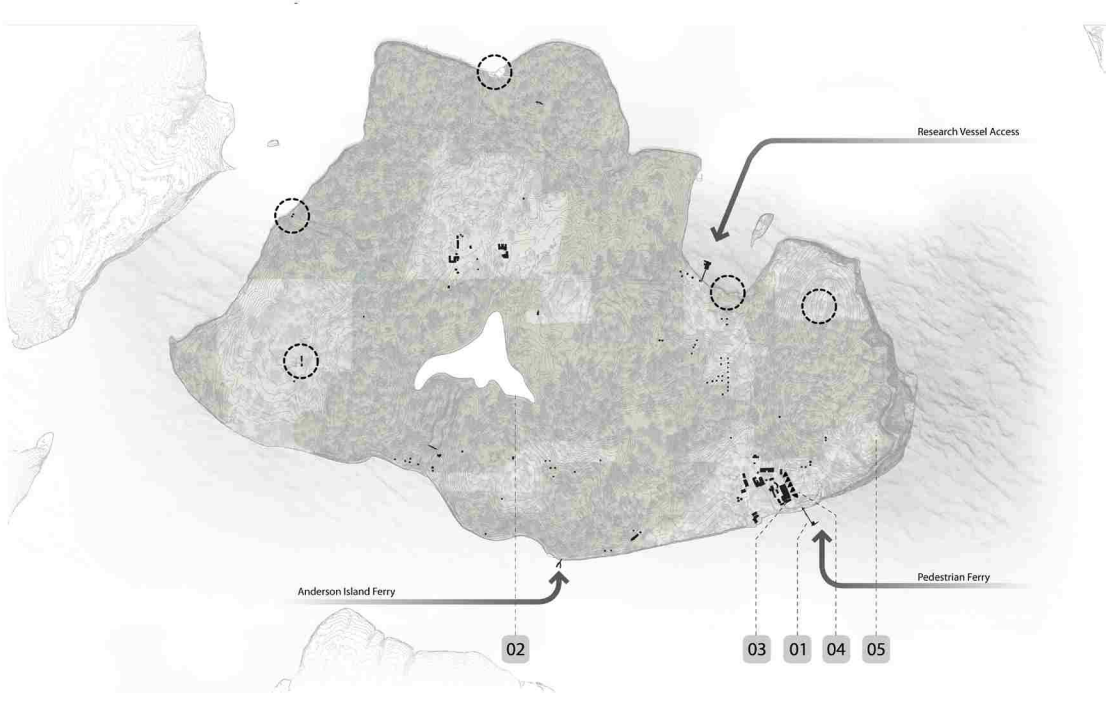
Figure 12, 13 & 14
Mapping exercises illustrate ferry docks (left), tree cover (lower left) and streams with estuarine zones (below)



Existing residential structures are adapted to function as housing for visiting researchers.

Prairies provide land for experimental manipulation, and support species diversity.

Pedestrian ferry provides access to island-wide hiking trails on a limited, weekend only schedule.



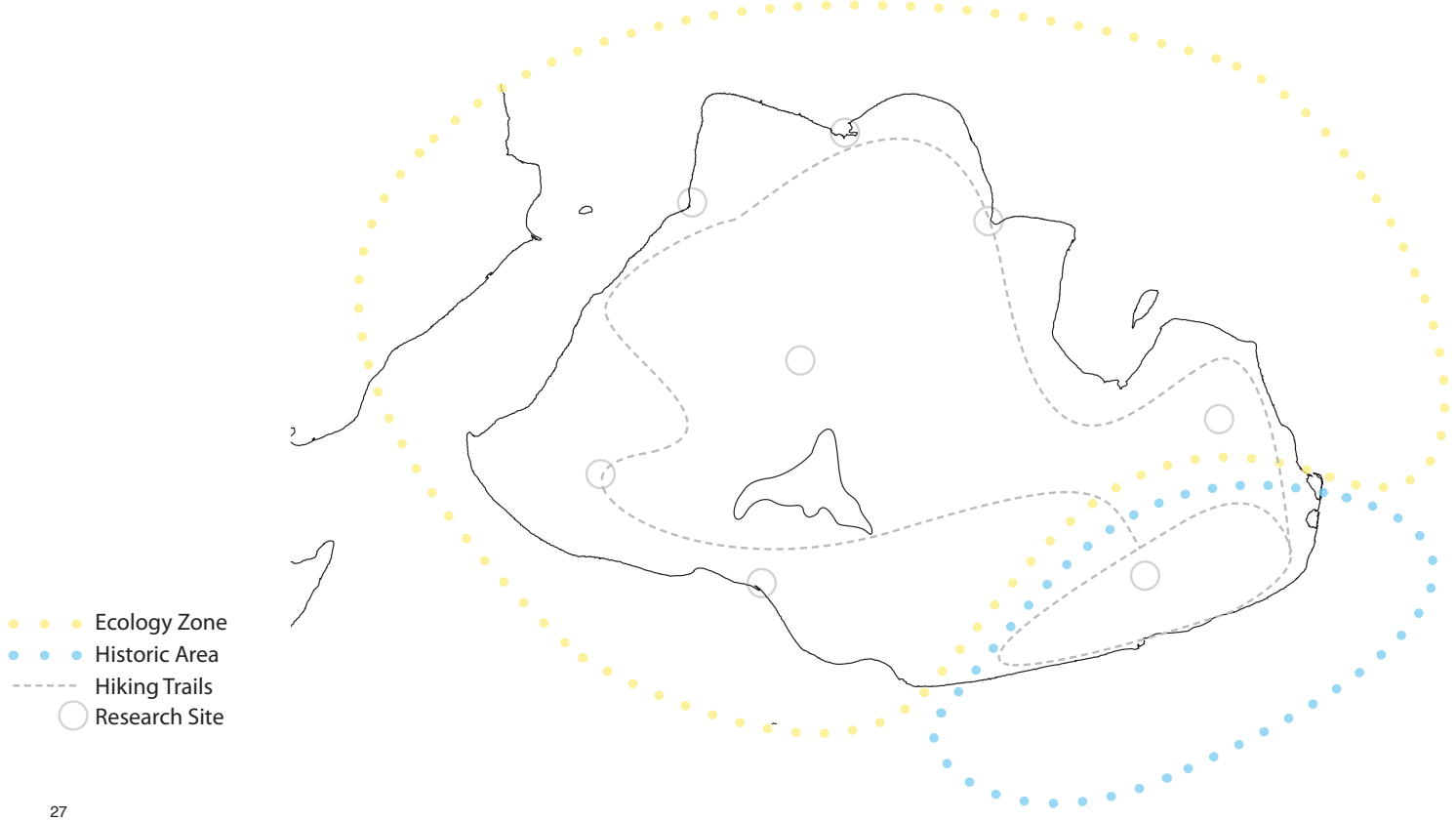
Design Proposal

Site Strategy

In examining the built form of McNeil Island, we find that the majority of historic structures are located in the southeast portion of the island, either within or just outside of the prison compound. The rest of the historic structures are scattered loosely across the site. This historical density also corresponds to the location of the present ferry terminal. By breaking the site into two main zones, one public and accessible, and the other private with limited access, we can start to define spaces of occupation and express those points of potential overlap.

The site is broken into two zones, one historical and one ecological. A pedestrian only ferry that runs on the weekends accesses the historical zone. A pedestrian path leads the casual visitor to the site of the historic prison, an observation tower on Hyde Point (the highest point on the island at 320'), the warden's mansion just north of the prison, and the community center. The strategy is meant to permit a limited amount of public foot traffic to the island as a means of exhibiting the cultural resources on the island. By way of interpretation, the goal is to mediate the typical touristic experience by presenting the built artifacts as they exist. These structures then serve as counterpoint to the overlapping ecological program and a select series of potential interventions which will be discussed later. Rather than objectify history by way of instructional signage, the historical portion of the island can be made more accessible by way of a guide. This position, most likely filled by an enthusiastic former resident (many of which continue to live in nearby Steilacoom) or prison guard, connects the visitor in a more nuanced way to the history of the site. This strategy takes it's impetus from several of the archaeological sites in Rome which are, for fear of being overrun, are mediated by a third party or guide

Figure 15
Site strategy map illustrates new uses and locations of the five interventions.


Ecology Zone
Historic Area
Hiking Trails
Research Site

which is contacted by the visitor and then provides access based on availability.

The rest of the island is turned into an ecological research area. Specific sites include the various points of runoff into the sound (i.e. Luhr, Bradley, Milewa, and Eden Creek), prairie fields, orchard and farmland, and Butterworth Reservoir. There are also nearly 3,000 acres of 2nd and 3rd growth forest with potential for study. Still Harbor, with the largest haul out site for harbor seals in the Puget Sound, also becomes a site of interest as seals might be studied as a barometer for the health of the region's water supply. Rather than centralize the program on the island, the ecological research station connects to the other similar sites in the region, perhaps most directly with the Manchester Research Station about 30 miles north and the Department of Ecology headquarters in Olympia. What emerges is a site that makes space for visiting researches by adapting the existing residential structures, the majority of which were only recently abandoned some of which were actually renovated within the past 5 years (for example, the Luhr Creek residence).

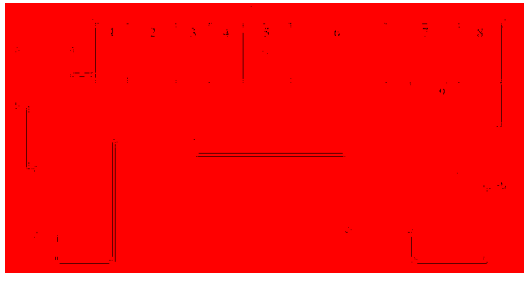
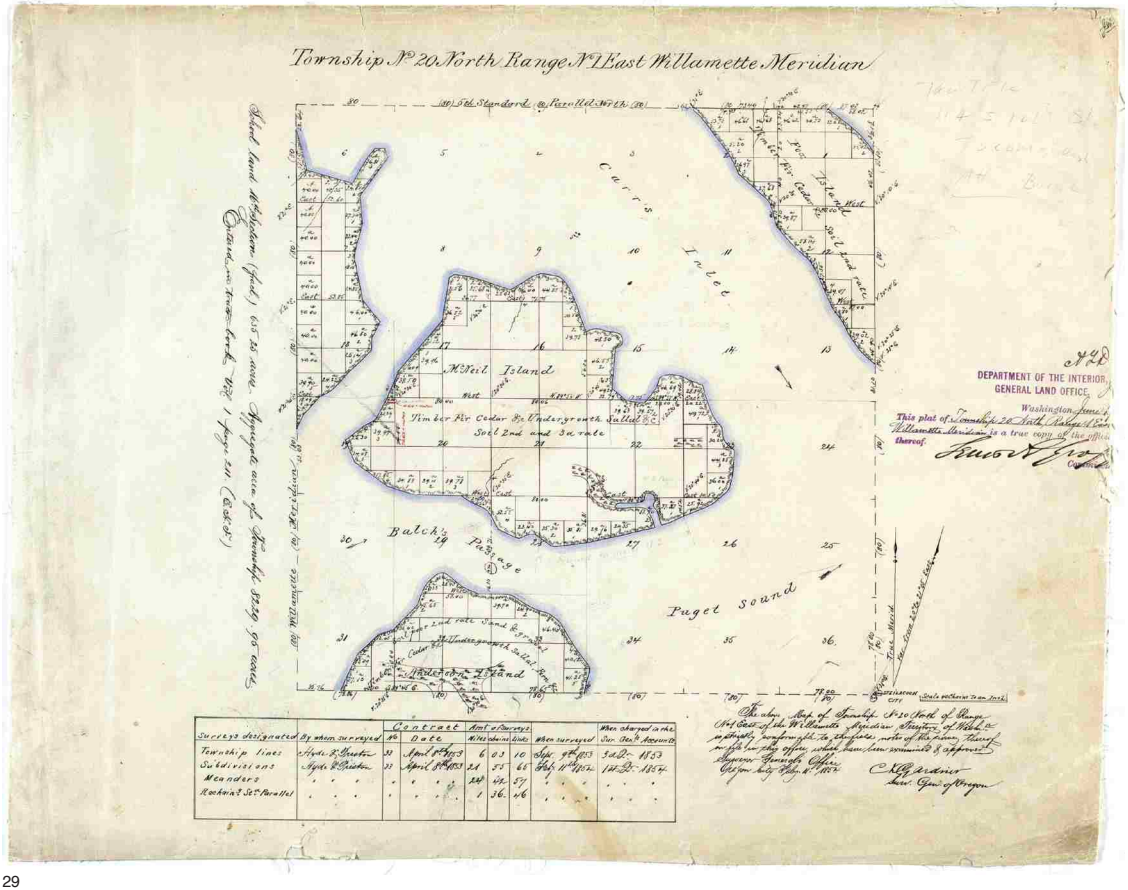


Figure 16
(Opposite) Site strategy map indicates ecological and historical zones with potential research sites.

Figure 17
(Left) Diagrammatic plan of the Paljakka Specimen bank. Numbered rooms indicate storage areas for 1) Humus 2) Litter 3) Coniferous Needles 4) Bark, etc.



1854 Map of McNeil Island

Structures Identified on 1981 Survey

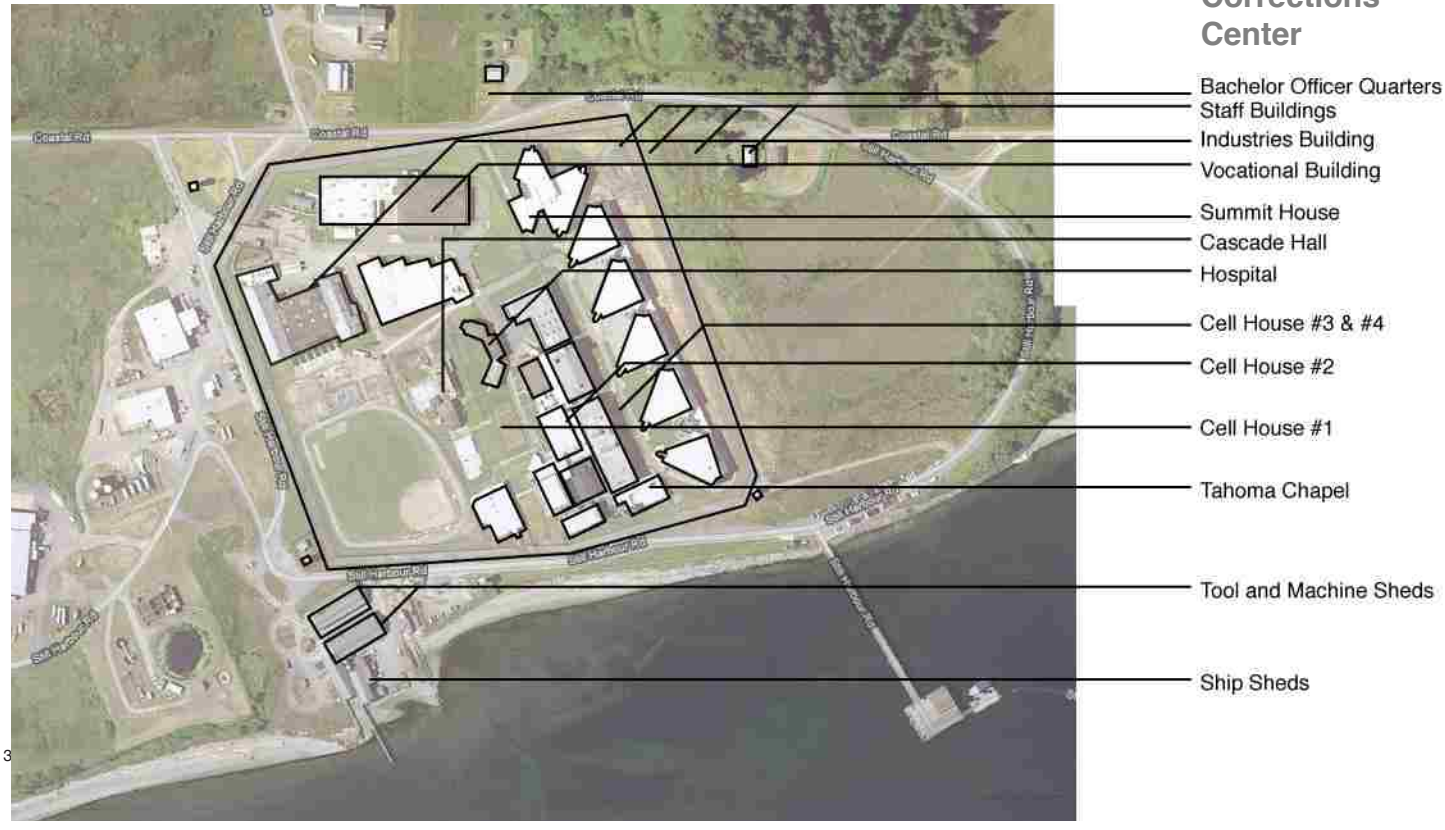
Pumping Station
Luhr Creek Outpost
Site of most escapes

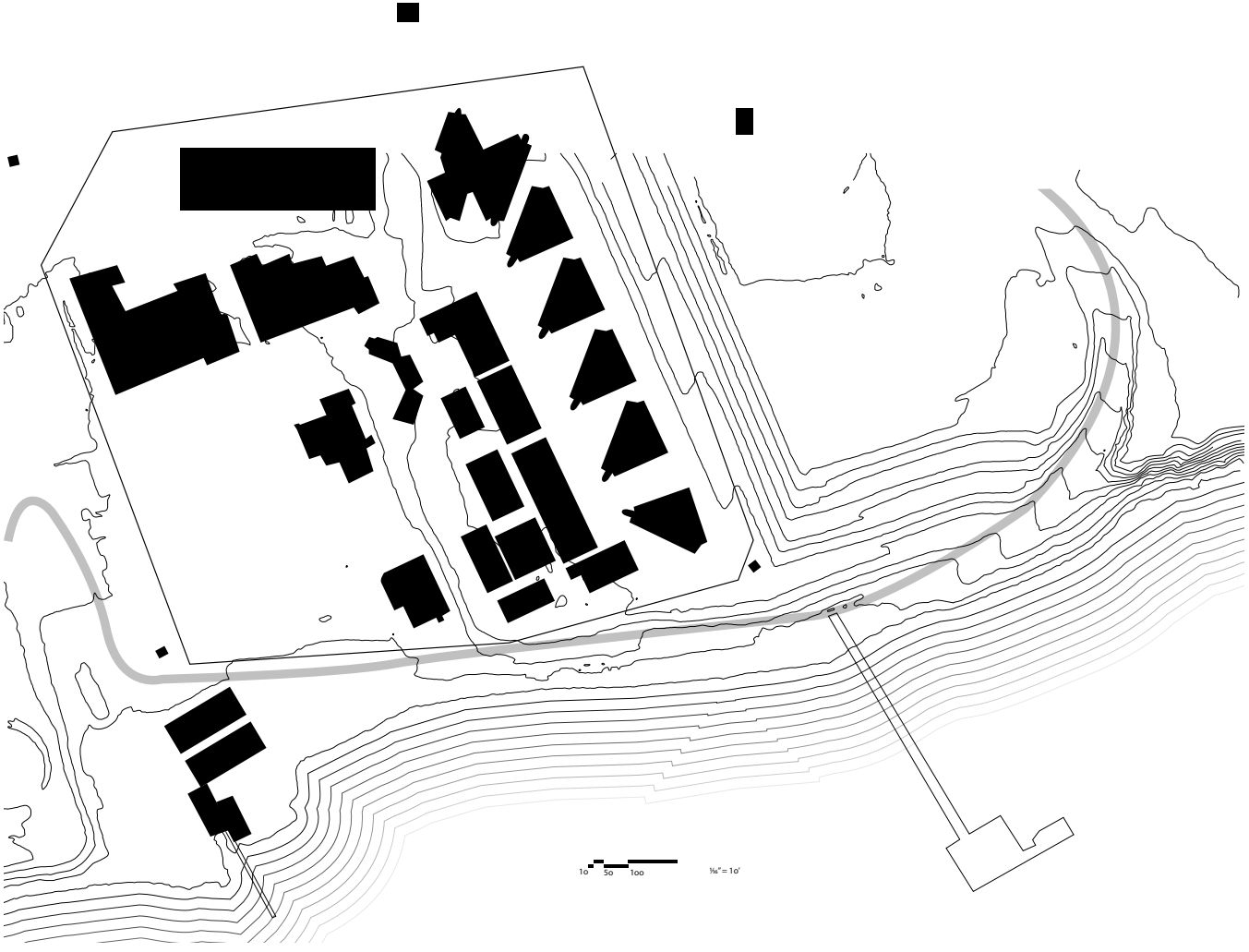
"The Camp"
Julin House
Store (Gertrude P.O. est'd 1899)
Gas Station
Power House (1940)

Warden's Mansion
Watershed or Reservoir Building
Staff House (1.5 story bungalow)
Bachelor Officer Quarters

Water Filtration Plant
Old Hay Barn
Ward House
School / Community Center (1953)

Plan of McNeil Island Corrections Center

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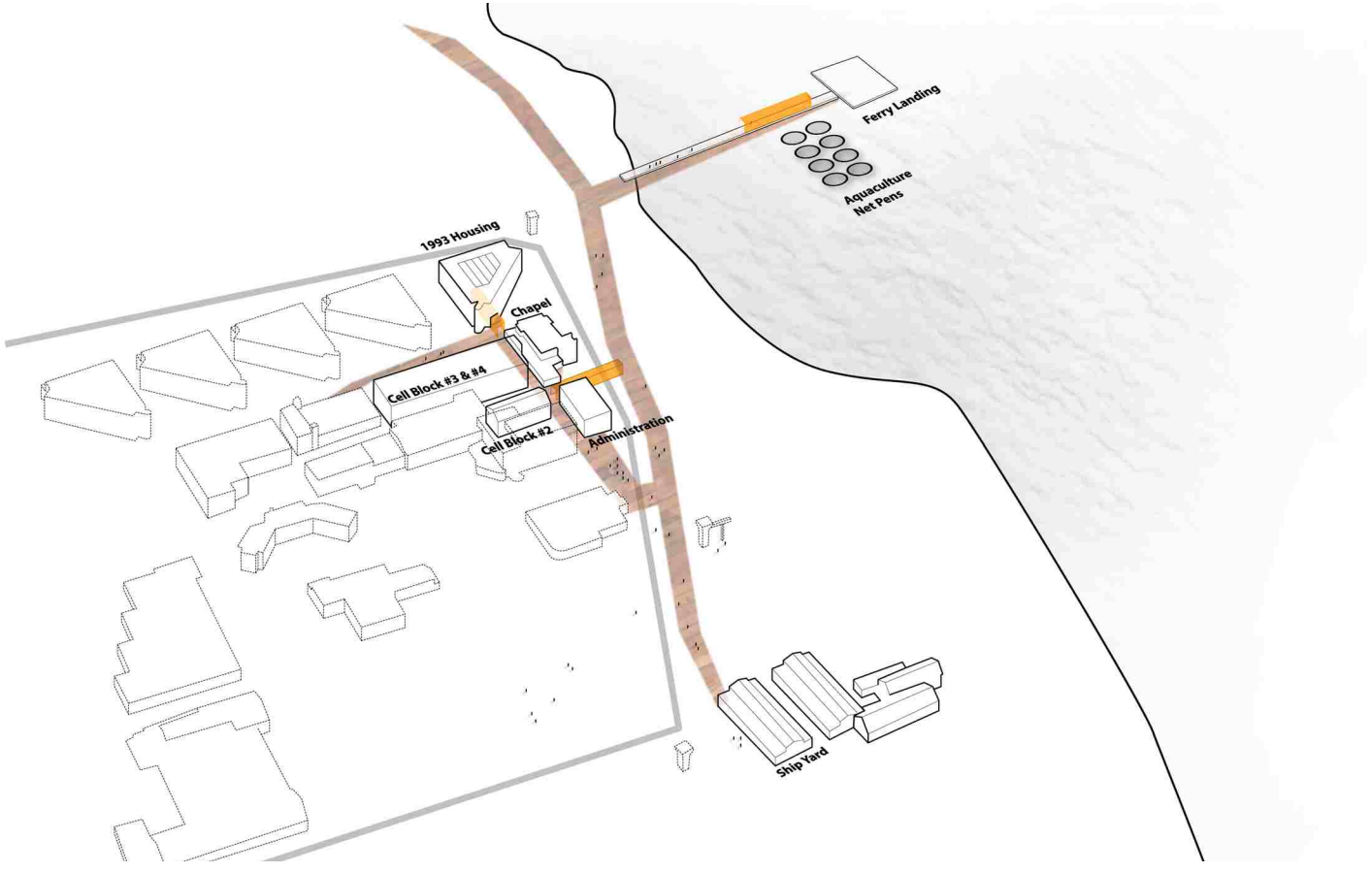

Ferry Landing
Aquaculture
Net Pens
1993 Housing
Chapel
Cell Block #3 & #4
Cell Block #2
Administration
Ship Yard

Program

The addition of a new program on the island requires careful consideration of the present conditions of the island. For the past 135 years, the island has been relatively untouched by modern development, especially when considered next to other islands of similar size in the Puget Sound region (Mercer Island, for example). Furthermore, the development that has occurred has been remarkably restrained. As shown in the historical analysis of the prison, the development of a prison favors density as a means of achieving a high degree of control. As a result, the existing infrastructure (water, electricity) does not extend to the far reaches of the island, and is instead restrained to the area around the prison and reservoir. Traditional development would encourage an expansion of infrastructure. This would however, compromise the most valuable asset on the site: its' natural resources. The island is viewed as a site of great potential for

Figure 18
(Left) Satellite image of the Manchester Research Station net pens area.

encouraging a diversity of species. The South Puget Sound Wildlife Management Plan states: "The McNeil Island Unit, which includes Gertrude and Pitt islands, provides opportunities for many species due to limited access."[1] These conditions are highly beneficial for the introduction of an ecological research station. In short, the presence of a prison on the island has ensured, by virtue of it's isolation, that the site cultivate a unique situation of unfettered growth in the Puget Sound region.

At the metaphorical level, we see the introduction of an ecological research as one

Figure 19
(Opposite) Intervention plan for the prison compound identifying key structures.

1 "South Puget Sound WIldlife Area Management Plan", Washington Dept. of Fish and Wildlife. p. 8.

associated with developing a stronger knowledge of the interconnectedness of things, a fitting response to the crippled prison infrastructure that has, in its most recent expression, fostered deep divisions within society.

The specific characteristics of the program are based on a hybrid of existing ecological research stations from local to international examples. The most local is the NOAA Manchester Research Station on Clam Bay in Western Puget Sound. This station conducts primarily marine research and contains the largest floating marine net pen complex on the west coast. The specific research programs revolve around improving marine species diversity and enhancing natural rearing in the Puget Sound. It is interesting to note that the site of the research station was a historical fortification for the defense of the nearby Puget Sound Naval Shipyard, and interesting corollary to the history and proposed adaptation of McNeil Island.

Figure 20
Current research activities undertaken at the Savannah River Ecology Laboratory: 1) Greenhouses 2) Mesocosms 3) Marine Animal Research 4) Experimental Ponds.

The second proposed programmatic element is an ecological sample bank based on a facility in Finland. The Paljakka Specimen Bank was built in 1994 (and expanded in 1999) as a site for the storage and conservation of environmental samples. The primary samples are collected from forests and include lichen, moss, coniferous needles, etc. Interior conditioning is important in the facility to ensure specimen lifetime which, if done properly, can

extend from decades to centuries. This is achieved by monitoring ambient air conditions as well as the air inside storage bags and boxes.

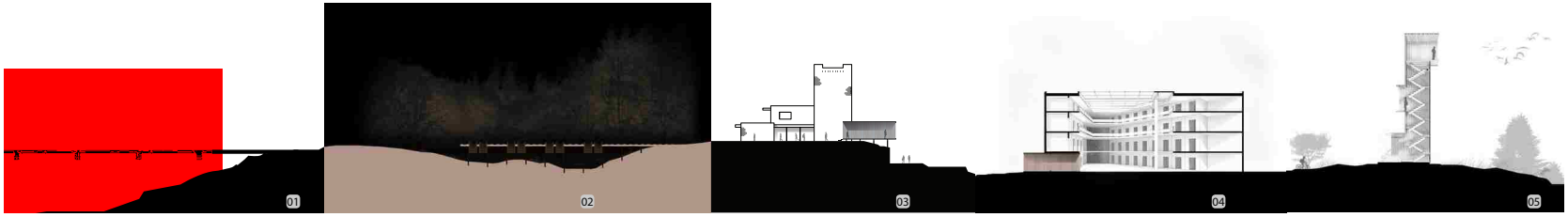
The third element is based on the Savannah River Ecology Laboratory near Aiken, South Carolina. This facility reaches out into the surrounding landscape to conduct experiments on specific set-aside research zones. In addition to controlled experimental ponds and greenhouses, field research is conducted on 30 sites as a part of the DOE Research Set-Aside program. This program established a system of reserve areas that might provide a reference for understanding human impacts on the environment.

The design proposal for the ecological zone on McNeil Island combines these three elements as a means of exploring the potentials of the site. A more detailed explanation will be provided later, but just by way of overview, we might see the strategy unfolding in the following way. 1) Abandoned water related infrastructures will never again serve a population as large as the prison. Therefore, we might interpret these networks as sites of experimental infrastructure. Butterworth Reservoir, for example, might function well as a site of experimental ponds. 2) There are several agriculture related sites on the island. The largest is the site of the former prison farm just north of Butterworth Lake. There is also an orchard still intact on the west side of the island. These resources provide opportunities for experimental land manipulation of the study of land use history. 3) The structures of the prison, in their current spatial configuration, are essentially archive structures. They are large blocks of cells designed to carefully control and monitor its contents. As such, these structures might serve well the needs of a specimen storage facility or seed bank. The challenge is then to intervene in ways that humanize the interior logic of the prison as well as find opportunities for public engagement.

Five Interventions

The thesis proposes a series of five architectural interventions on the site. Together, the interventions reveal a process of exploring the potential of the site, as well as capitalizing on the spatial and thematic issues related to McNeil Island. A similar tectonic language relates all five constructions. A wood truss is clad in light vertical battens that rotate slightly to modulate light, air, and sound. The weakness of the vertical batten (the lightest component of the structure) is accentuated by virtue of being the most continuous component of the entire system. The five interventions are as follows:

1. Arrival Dock
2. Experimental Ponds
3. Chapel Promontory
4. Prison Archive
5. Observation Tower.



Arrival Dock

Experimental Reservoir

Chapel Promontory

Sample Archive

Observation Tower

Arrival Dock

The arrival dock on the southeast point of the island was the point of arrival for almost all traffic on and off of the island. The present situation finds a simple concrete dock with one side bounded by chain link fence. The new intervention recalls the sense of enclosure by conceptually wrapping the dock in a light wood structure. The wrapper sits above the plane of the dock to allow the sound of water underneath and create a sense of enclosure that is tenuous, just on the verge of dissolving. By receding from the ground plane, the casual visitor experiences an architecture that expresses a space of transition (between water and land) articulated in such a way that blurs interior and exterior. Small slotted openings bring the visitor closer to the edge to take advantage of views out and a closer experience of the structure at a point where the cladding pulls away to reveal a heavier structure underneath.

Figure 21
Marine net pens float just off shore and are experienced by the casual visitor to the site, thus displaying some of the new uses for abandoned infrastructures.

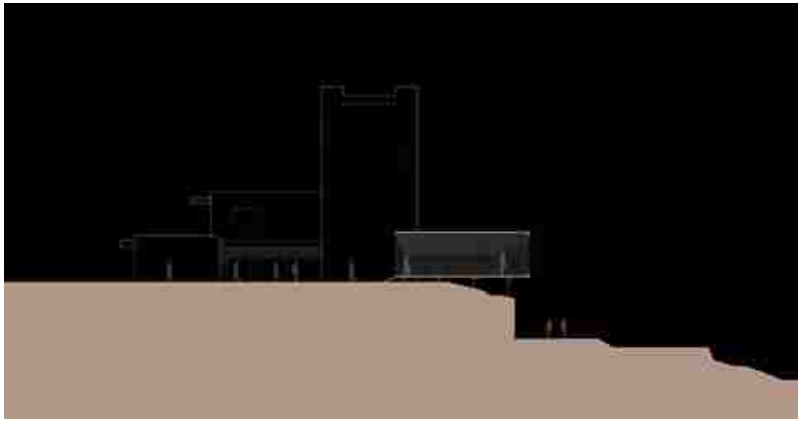
Figure 22
Arrival dock perspective.

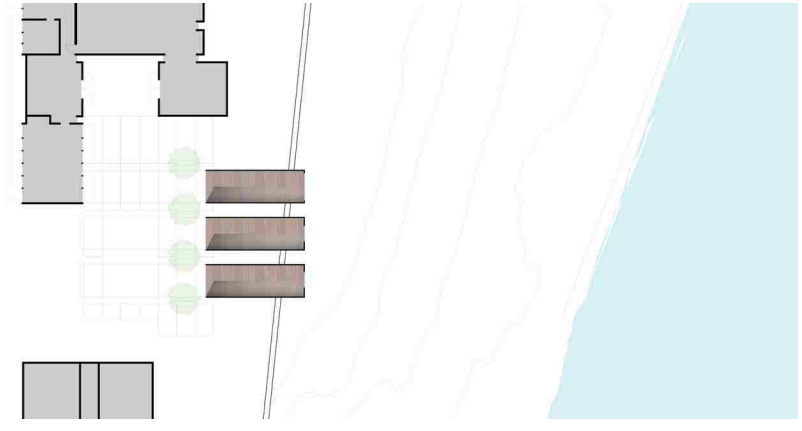
Figure 23
Section of Butterworth Reservoir.

Experimental Ponds

Butterworth Reservoir represents a component of abandoned water infrastructure that, without substantial development on the island, will never be used at a level of its' past capacity. Therefore, the entire reservoir is open territory for experimentation and research. A light architectural strategy of linear docks is mapped onto the lake in order to support experimental mesocosms that control interior water conditions. Access is only available to researchers who can access the site by way of the existing paved roads. The architecture is conceived as an accumulation over time, beginning with a small series of docks on the periphery of the lake and slowly developing over time, claiming the deeper interior waters later in time as needs grow.

Figure 24
Butterworth Reservoir perspective.

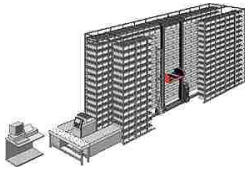


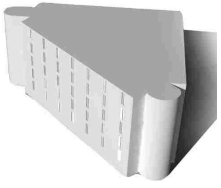


Chapel Promontory

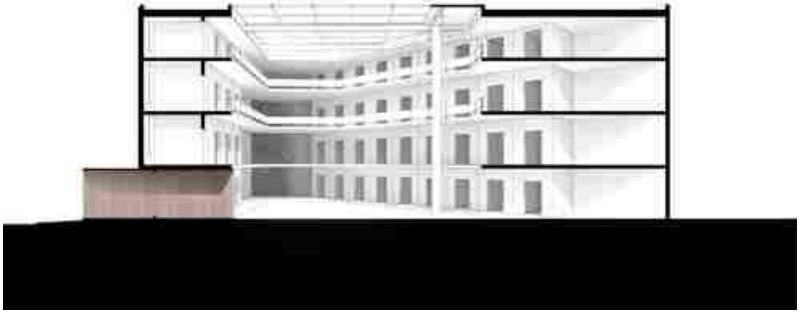
The first intervention within the actual prison compound shares some characteristics with the arrival dock. Both are constructed of the same material and system. The siting of the promontory or pavilion is between the Mt. Tahoma chapel and the Administration Building at the south end of the prison compound. The pavilion pulls space outside of the compound, lifting the visitor above the ground with begins a slow descent toward the water. Moving through the pavilion, the visitor crosses the former boundary of the prison, which had been expressed by a double layered chain link fence topped with razor wire. Through this spatial ordering, the visitor becomes aware of the boundaries of the site and gains a new perspective on the position of the prison within a larger framework that had been obscured by the original fence.

Figure 24
Chapel Promontory perspective.





Automated Storage / Retreival System + Carve Into Existing Cell Blocks + Ecological Samples



Prison Archive

The second intervention within the prison compound is the most invasive. It interprets the most modern component of the compound, the 1993 housing blocks, as ripe for adaptation as an ecological specimen bank. There are a series of five triangular structures, and the initial design only addresses one of them, seeing that future development might determine whether the remaining four might be necessary for conversion. By carving into the top of the block as a way of day lighting the central courtyard. This space is used as the primary specimen preparation area, with the surrounding cells containing a modular storage system that is accessed by way of a four storey automated retrieval system. This limits the need for the occupant to circulate through the entire structure in order to obtain a single sample and allows for ease of storage and access. A similar system is already in place in multiple libraries across the country. The

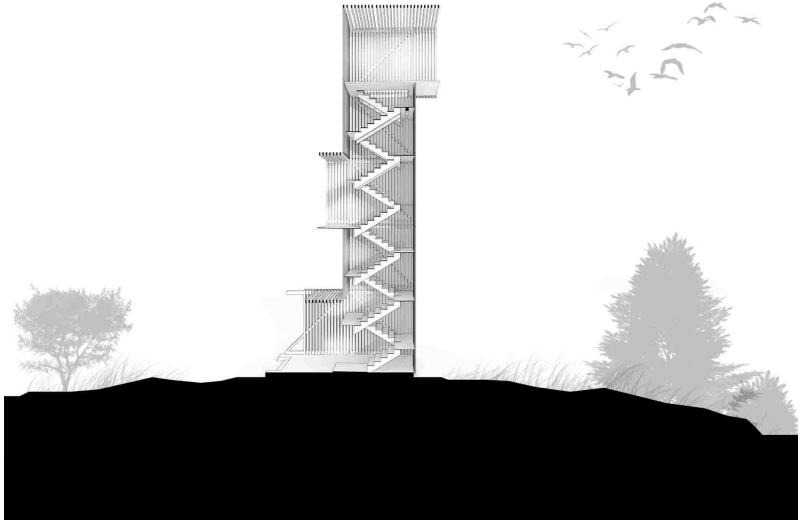
Figure 24
Prison archive, interior perspective.

Figure 25
Automated storage integrated into the existing prison cell blocks.

Figure 26
Interior of the carved prison blocks illustrates the addition of day lighting into the central preparation space.

design benefits from the configuration of the existing cell blocks in that the cells have extremely limited access to daylight and can thus interior conditions can be more carefully controlled and monitored. All of the cells in these housing units are known as “dry cells” within the industry. That is, there is no access to water within the actuall cells and, instead, prisoners use a communal washroom along the service bar within the triangular configuration. The steel structure of the blocks is also highly adaptable and allows for a variety of mechanical configurations to fit the needs of the storage facility. The southernmost archive presents a public façade to engage the public component of the project. This façade is generated by carving into the existing cell block and allowing pedestrian access into the central courtyard, thus exhibiting how the structures were adapted and a new system of archiving was installed. This provides another dimension of interpretation of the historic prison that superimposes a generative use upon a crippled one.

Figure 27
Prison archive, exterior perspective.



Observation Tower

The last component is a public observation tower. The tower relates to those encountered previously through its structure and materiality, but its primary direction is vertical, not horizontal. The structural module (as in all of the other pavilions) is 10’ x 10’, create a rather compressed internal staircase. This compression creates a more individualized experience of the surroundings and attempts to bring the visitor into a state of reflection and contemplation. The tower also figures as a reference to the four guard towers which mark the corners of the prison compound. These original towers, however, are oriented toward the ground as a means of maximizing surveillance and limiting obscurity due to rain or glare. The new tower inverts this relationship by favoring a constructed logic that allows air to flow through and a variety of views that reach out beyond the immediate context. This object lifts the visitor 50’

Figure 28
Observation tower perspective.

Figure 29
Observation tower, interior perspective.

above Hyde point and provides two primary views: 1) Back towards the prison complex and 2) across the sound to the original point of departure, Steilacoom. Encompassed in this final panorama are also several other key components to the surrounding landscape: The Tacoma Narrow's Bridge, Chambers Bay former mining area, and Mount Rainier. The various research activities are also on display for the casual viewer who will catch glimpses of activity in those spaces uncovered by forest. As the context is revealed, McNeil Island is seen as a piece within a larger whole whose isolation, while an integral part to the island's character, is an arbitrary condition.

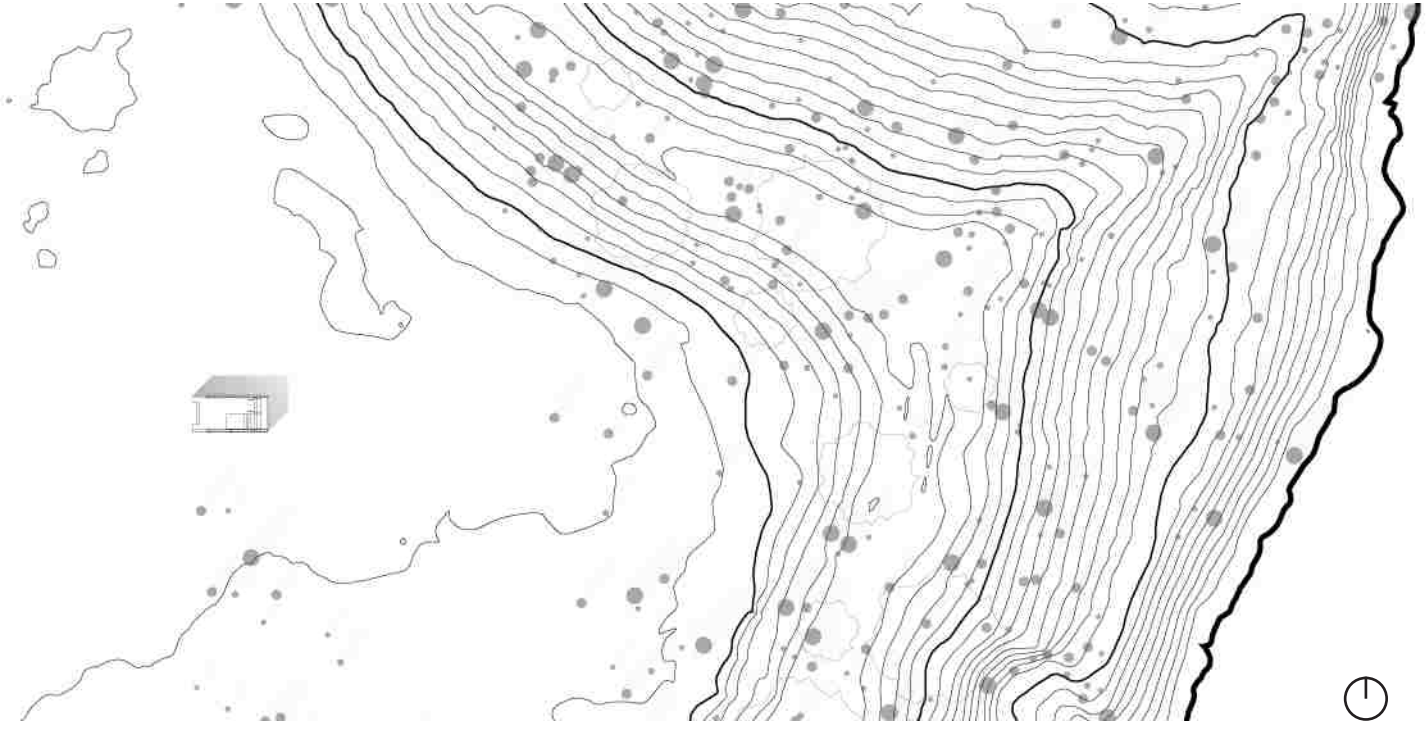
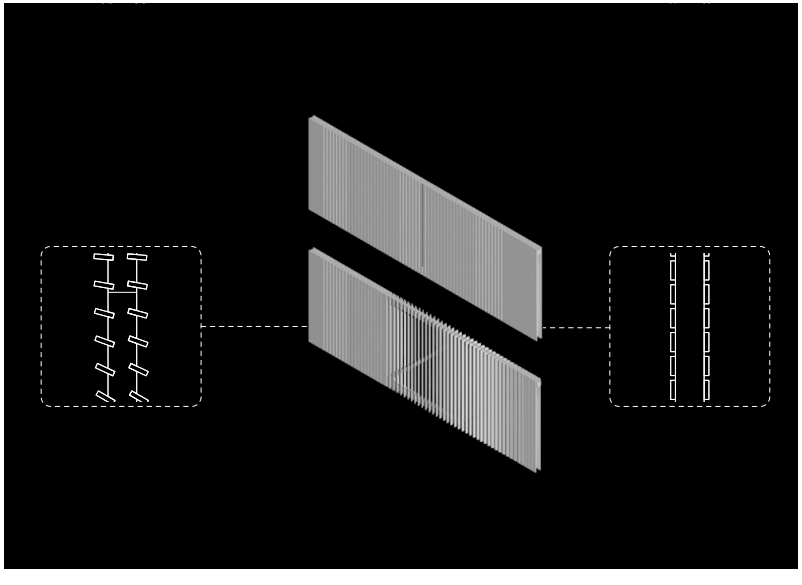


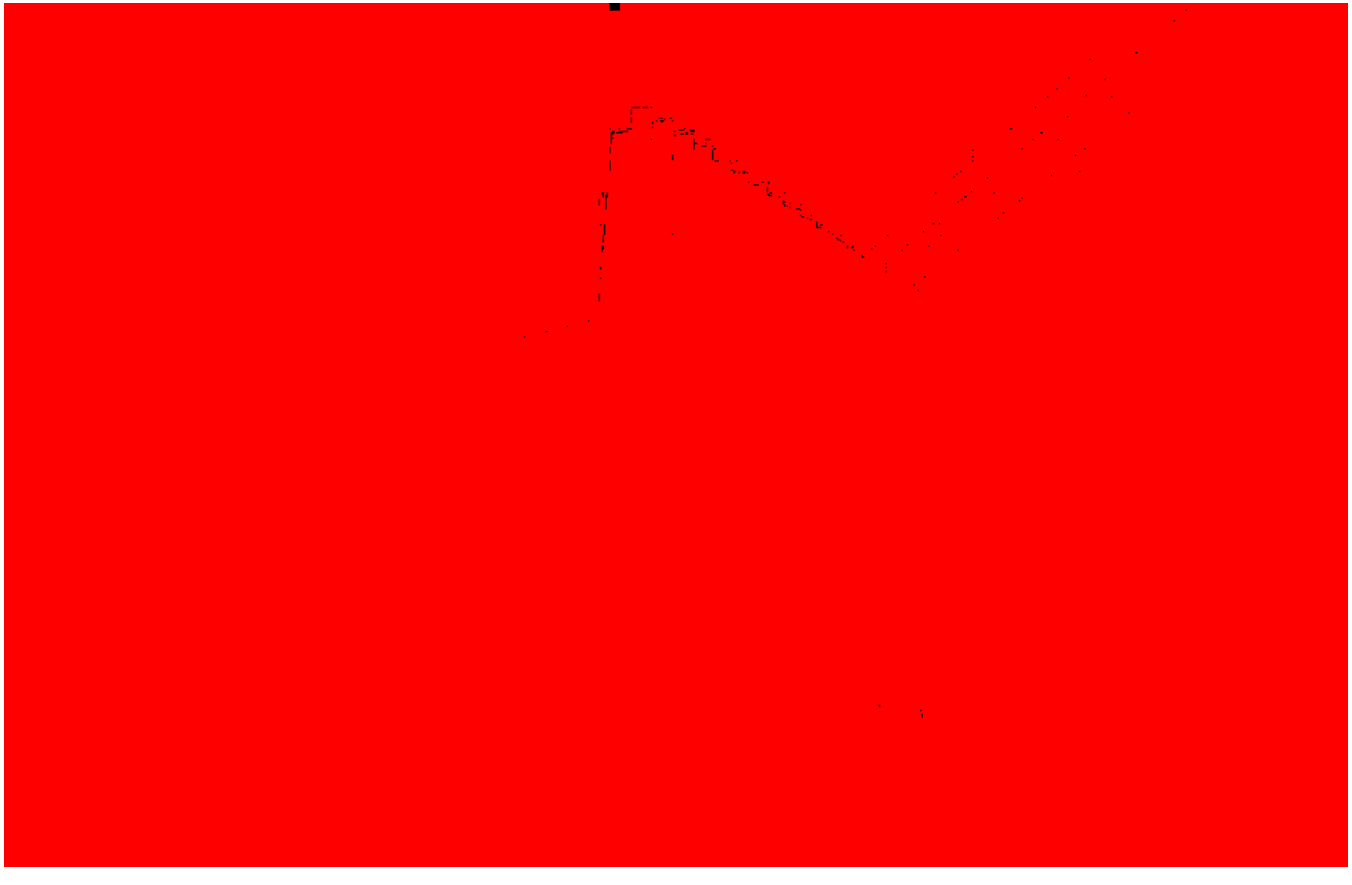
Figure 30
Observation tower, plan.

Constructed Order

The Construction of each intervention follows the same logic. A simple wood truss is clad in light vertical battens that rotate to allow the passage of light and air. The weakness of the architecture is intended to contrast with the singular, monolithic method of planning and construction that persisted within the compound of the prison. Although the structure differs in important ways, it also recalls the spaces of the prison in the tight, cellular construction and the principle typologies of the prison itself, namely the cell, the wall, and the tower.

The wood construction recalls industrical logging on the site and opens the potential for current structures to house the fabrication of these interventions. Using trees logged and milled onsite limits the need for materials to be shipped to the island.





Conclusion

This thesis began with an interest in those spaces that fall outside of typical design discourses. Although very present in cultural representations such as film and literature, the prison is rarely discussed by the design professions even though architects continue to design and win awards for their construction. From this departure point, a few general questions are raised: are designers culpable for the failure of the prison system? How does architecture address the problem of mass incarceration in this country? What does one do with a failed architecture?

In addition to these inquiries, McNeil Island itself proposed a complex set of issues rich for architectural interpretation: the history of the prison, the isolation of the site, the possibility of renewal. Despite this potential, it was surprising to learn that the island is little known, even among natives to the Northwest. (Depending on who you are speaking with in the region, the phrase “the Big Island” may refer either to Hawaii or McNeil Island). One major goal of this thesis has been to unearth that potential in the site and share it through a project. For this reason, the primary ambition was to be a beginning, not a final product.

Through the studio design process, a range of possiblities for the island were explored. Ultimately, the project became interested in the fact that the island itself has been the longest prisoner of the island, a situation that has produced a rare untouched natural resource in the Puget Sound Region. It was through examining the possibilities of isolation that an ecological dimension was explored and ultimately developed into the final design response. In many ways, this solution provided the direction for architectural intervention.

Annotated Bibliography

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Along with Howard's study, this essay by Beccaria, originally published in 1764, lead the way for 18th century prison reform.

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Davison, Robert L. 1931. "Prison Architecture". The Annals of the American Academy of Political and Social Science. 157:.

Duncan, Martha Grace. 1988. "'Cradled on the Sea': Positive Images of Prison and Theories of Punishment". California Law Review. 76 (6).

Duncan provides examples that, she argues, illustrate the prison as a place of refuge and rebirth.

Engler, Mira. 2004. Designing America's waste landscapes. Baltimore: J. Hopkins University Press.

Foucault, Michel. 1977. Discipline and punish: the birth of the prison. New York: Pantheon Books.

Foucault dates the birth of the prison to 1840, situating it as a modern expression of control. He uses Jeremy Bentham's panopticon as a central metaphor for the mode of power today (based on isolation and surveillance).

Howard, John. 1929. The state of the prisons. London & Toronto: J.M. Dent & Sons.

Influential text originally published in 1777 that, along with C. Beccaria's essay, sparked a prison reform movement. New prison forms result (radial and circular plans) that stress the importance of surveillance in planning prisons. Possibly anticipated the project by Jeremy Bentham.

Jackson-Retondo, Elaine. 2000. "Manufacturing Moral Reform: Images and Realities of a Nineteenth-Century American Prison". Perspectives in Vernacular Architecture. 8: 117-37.

Study illuminating the role of ad hoc spaces and their role in daily prison life. Seeks to "analyze the disparity between an image of the prison based on reform theory and the realities of prison experience, space, and form." Uses the Massachusetts state prison at Charlestown as a case study. Also interesting are Jackson-Rotondo's comments on the prison as simultaneously "didactic entertainment" and "commercial enterprise".

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Much more concise history of the prison that examines physical changes in typologies and how they relate to major movements of prison reform. Good source for case studies and unique approaches to the issue of incarceration. Starting with the medieval prison / monastic prisons.

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-A History of prisons dating back to the ancients. In depth look at incarceration practices and their philosophical underpinnings. From the abstract:

> "The authors trace the persistent tension between the desire to punish and the hope for rehabilitation, recounting the institution's evolution from the rowdy and squalid English jails of the 1700s, in which prisoners and visitors ate and drank together; to the sober and stark nineteenth-century penitentiaries, whose inmates were forbidden to speak or even to see one another; and finally to the "big houses" of the current American prison system, in which prisoners are as overwhelmed by intense boredom as by the threat of violence."

Sekula, Allan. 1987. "The Body and the archive". *October* (Cambridge, Mass.). 39 (39): 3-64.

Western B, and B Pettit. 2010. “Incarceration and social inequality”. Daedalus. 139 (3): 8-19.

A sociological study of the mass incarceration that has occurred in the U.S. since the 1970s and how the system has unfairly criminalized marginalized populations. Uses demographic data to finally argue: “the institutions charged with public safety have become vitally implicated in the unemployment and the fragile family structure characteristic of high-crime communities.” (p.17)

Online Resources

HistoryLink. Online Encyclopedia of Washington State History.
http://www.historylink.org/

Washington Department of Fish and Wildlife. For management plans and resources on natural habitats.
http://wdfw.wa.gov