PIER 48

COLLABORATIVE CONSUMPTION

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Architecture

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Abstract

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Seattle's waterfront space has been largely unused due to physical boundaries that have disconnected the waterfront from downtown. The current redevelopment of the waterfront must address how to create a major connection and commitment within the community. Building upon my prior research on public participation models in my Master of Urban Planning thesis, "A Civic Waterfront", I propose an alternative approach to public space design that might help us develop more responsible and responsive strategies for designing with the local community. I propose and explore a self-evolving design process with public participation clearly affecting the decision-making process to ultimately test the influence such a process has on design. Drawing connections between the current practice of interdisciplinary design and research on user-generated design, I argue for a method of collaborative consumption—a sedimentation of user-generated program. Testing this method on Pier 48 in Seattle, I offer a design intervention with spaces for regeneration, connectivity, and exhibition to address how user-generated program could inform architecture through a self-evolving design process.

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Acknowledgements

The production and completion of this thesis could not have been accomplished without the support of my family and friends as well as the members of my thesis committee, Dan Abramson, Gundula Proksch, and Nancy Rottle. I would like to thank my thesis committee for advice and encouragement for pursing dual degrees; Master of Urban Planning and Master of Architecture, as well as the Urban Design Certificate.

Dedication

I dedicate this thesis to my parents, Zbigniew Celinski and Jolanta Celinska, for their unconditional love, support, and encouragement throughout my entire academic career.

Preface

The success of a public space is difficult to anticipate and is influenced by complex economic, political, environmental, and social factors out of the designers' control. As a response, the designers are increasingly adopting the concept of informality by strategical choosing which systems to act upon and which to be more flexible with.

Bearing this in mind, it is my intention to develop a process which would facilitate community growth and empowerment for the long term use of the waterfront. In order to enable long term use, the design process must address how to create a major community connection and commitment to reach a broad spectrum of the community.

This thesis is the second piece of a two part work. Within the first piece, a master of urban planning thesis, I researched public participation processes of complex public projects located on the waterfront. I am using the opportunity of this thesis to build upon my previous study of public participation models. In seeking to facilitate an open dialogue between public participation and design, I focus on how user generated design can translate into architecture, in the hope that I will become more informed of the challenges and constraints such a self-evolving design process has to offer.

Introduction

"For us, the territory of architecture should concern itself with the whole of the built environment. Our projects avoid neat definitions and plainly delineated edges. They operate at the peripheries of disciplines."[1]

As architecture progresses towards collaboration and the expansion of the discipline's boundaries; architects are adopting different roles than those traditionally found in the profession. These newfound roles have implications for the design process. With an interdisciplinary approach, we are designing spaces which seek to reposition architecture's relationship to complex organizations and environmental conditions within the city.

1. (Michael Manfredi, Lecture Oct 2011, http://www.youtube.com/watch?v=mJH_bLPKOAU&feature=uploademail)

An example of such a strategy is the current investigation of infrastructure through interdisciplinary approaches. A "coupling" with infrastructure forms is occurring as a method to reconcile architecture with the city. InfraNet Lab has defined this process as seeking "to reintegrate architecture as a systems-based organization, as an activity within the broader globalized exchange of economics, data, ecologies, politics, and land use-architecture after the superorganism."[2] Establishing design interventions to address our infrastructure is a method of questioning the social implications of climate change, inequality, environmental degradation and the way in which we live and operate in cities in general. In this manner, architecture becomes less of an exact form and shifts to become a collective system.

As a design student with a multidisciplinary background, this collective goal of architecture caught my attention and posed a series of questions. Is this method of questioning and repositioning architecture's relationship to conditions within the city comprehensive and inclusive? How can a collective approach proclaim to be collective when it does not include broad community involvement to shape urban spaces? My research in urban planning has illuminated this gap. This thesis is the second piece of a two-part work. In my thesis, "The Civic Waterfront: Public Participation in Urban Megaproject Design," I focused on public participation's contribution to the process of design decision-making within recent urban waterfront projects. For the purpose of long-term use of Seattle's waterfront, I proposed a model which would facilitate community growth and empowerment through spatial intervention. I argued that public participation, through physical design and installation, could transform the balance of decision making by establishing a self-informing process. With the collaboration of the public and the design team, dialog opens the design process and invites values to be examined and debated. This allows for the opportunity to design more effectively with the population.

This thesis will continue the discussion of waterfront public spaces and expand the discourse of urban

2. Bhatia, Neeraj. 2011. *Coupling: strategies for infrastructural opportunism.* New York: Princeton Architectural Press. 7.

design with public participation. It will investigate how public participation and developing local culture can become interwoven, inseparable from the design intervention. As a proponent for public participation, I argue that architects must alter the design process for public spaces to truly become public places—shared by residents and tourists open and accessible to all. In order to create such places, architecture requires a research extension into this field.

An extension towards user-generated design has the opportunity to influence our design methods and approaches. A similar shift and effect is currently visible within the discipline. As we investigate interdisciplinary collaboration as a movement, architects, outside the interdisciplinary progression—yet effected by the concepts—are also operating with different approaches to landscape. Stan Allen examines the manifestations of landscape and ecology in contemporary architecture as separate from the interdisciplinary phenomenon; as a comprehensive move toward new formal strategies with new technical problems. "New technologies, new design techniques and a demand for enhanced environmental performance have provoked a re-thinking of architecture's traditional relationship to the ground."[3] With this shift of thinking, architects, such as Manfredi, have engaged the ground expansively; shifting artificial mountains and developing geological formal gestures. As an interdisciplinary designer, I am interested in this movement from proprietary forms of architectural knowledge towards collective experimentation with the expansive potential for challenging our design approaches and in turn transforming our cities.

Bearing collective experimentation in mind, I am taking the opportunity of this thesis to understand the potential overlap of processes working within urban spaces. In "The Civic Waterfront," I proposed a public participation method specifically for the Seattle Waterfront. Working now within a section of the waterfront and employing different processes, I hope to clarify the potential synthesis between the scales and modes of architecture and planning.

3. Stan Allen, and Marc McQuade. 2011. Landform building: architecture's new terrain. Baden, Switzerland: Lars Müller Publishers. 40.

Public spaces require an open language beyond disciplines; addressing many complex relationships within urban landscapes throughout time. As a dual degree student, studying the disciplines of planning and architecture, I am able to contribute a unique viewpoint by drawing connections between the current practice of interdisciplinary design with the theory and research of community participation. In creating this thesis, I hope to provide my audience information, ideas, and clarity to improving the synthesis of urban design process as well as to provide guidance for those students embarking on interdisciplinary design degrees.

Chapter 1: PHYSICAL SITE

"Rather then assume an opposition between people and nature, buildings and landscape, and architecture and landscape architecture, a vulnerable urbanism regards these as complementary or contiguous. Rather than generate perfect objects and separate programs and functions, a vulnerable urbanism aims to build relationships, Our attention shifts from objects and centers to border, boundary, edge, periphery, margins, interstices and in-between space. In contrast to the modern attempt to eliminate boundaries and the post modern tendency to ignore or alternatively fortify them, a vulnerable urbanism seeks to generate porous membranes or thresholds." [1]

In order to understand the physical site of Pier 48 and the current design constraints which impact the site, I examine the evolution of the Seattle waterfront and the past human alterations of the shoreline due to urban development over time. (Figure 1) Within this chapter I analyze the past development, which has repeatedly altered and fortified the edge of the shoreline, walled the urban environment from the water, and created an inhabitable edge for ecology as well as residents. In addition to the shoreline fortification during the 20th century, major construction adjacent to the shoreline has moved mass quantities of soil and has impacted soil quality and intensified seismic instability. Shoreline fortification, degraded soil quality, and seismic instability continue to impact the physical site of the Seattle waterfront. I argue the future design approach must address these challenges. I claim Pier

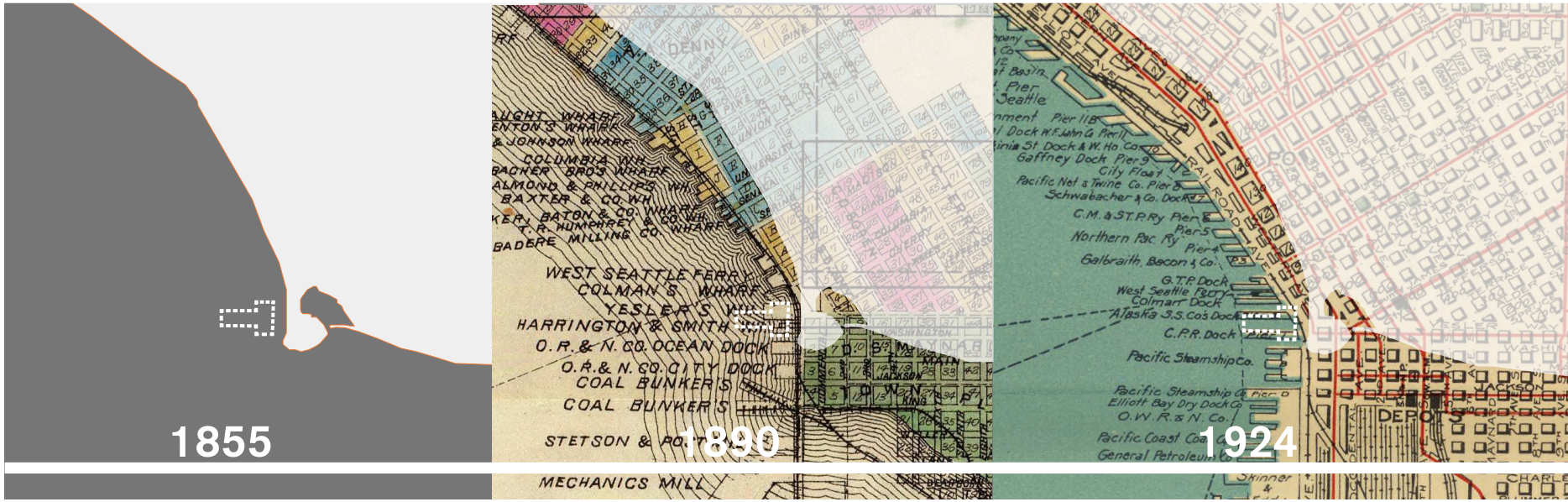
1. Nan Ellin, "A Vulnerable Urbanism," *Re-envisioning Landscape/Architecture,* Catherine Spellman (ed.), Barcelona: ACTAR, 2001, 226.

48 offers a unique opportunity for a different approach toward the urban edge—an approach which enables a multitude of thresholds and connections between the shoreline and urban development.

Prior to settlement in the mid-nineteenth century, the Seattle shoreline belonged to the Duwamish River natural estuarine complex— an ecosystem composed of 3,763 acres of mudflats, marshes, and freshwater riparian community, which was inhabited by the Duwamish People who lived along the mudflat beaches of Elliott Bay for centuries.[2] As settlers made their way to the Puget Sound in 1851, their population rapidly expanded with booms of industry growth over the latter part of the century.[3] In response to this growth, the shoreline was extended and fortified several times to allow for future population growth. As the city expanded outward from the original natural shoreline into the surrounding mudflats, the delicate ecosystem was obliterated by sequential shoreline fortification.

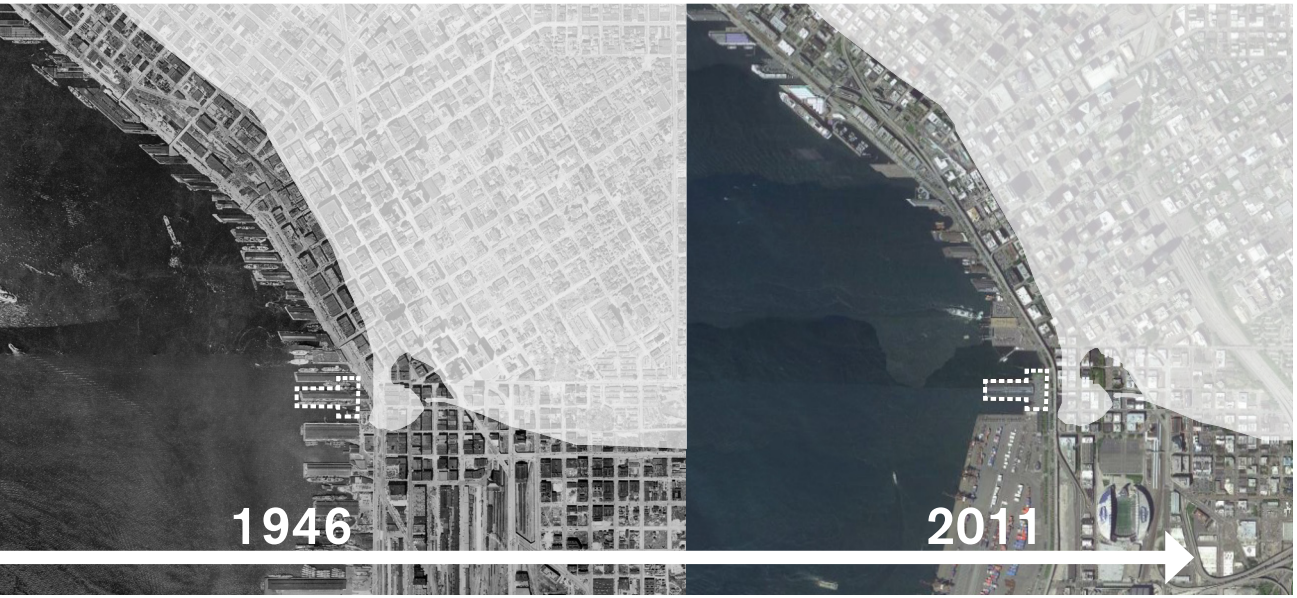
2. Mildred Tanner Andrews. 2005. *Pioneer Square: Seattle's oldest neighborhood.* Seattle: Pioneer Square Community Association in association with University of Washington Press. 7

3. Ibid., 12.



Human shoreline alteration initially began with the opening of Yesler Lumber Mill in 1852.[4] Using sawdust from the mill for landfill, Pioneers began recontouring the original shoreline, and filling the original lagoon with excess sawdust. This marked the beginning of the approach to cut and fill the landscape to overcome spatial restriction as opposed to working with the original topography.

During the late 19th century, Seattle's population rapidly grew from 3,500 in 1880 to nearly 45,000 in 1890.[5] Although the population grew, the commercial strip was confined spatially to much of the same physical space as the original shoreline. This spatial constraint changed after the Great Seattle Fire in 1889, which consumed the majority of the buildings from the shoreline to 3rd Avenue. The destruction



4. Andrews, 19.

5. Ibid., 42.

Figure 1. Evolution of Seattle Shoreline over time in relationship to the current site of Pier 48.

Map Underlay Sources (Left to Right):

"Plan of Seattle, 1855-6." c. 1855. University of Washington Libraries. Special Collections Division. Seattle Photograph Collection.

Anderson, O.P. and Co., City of Seattle and Environs. 1890, David Rumsey Historical Map Collection,

Rand McNally and Company,. Seattle, 1924, David Rumsey Historical Map Collection,

Aerial survey of Seattle,1946 Seattle, south of N/NE 85th St. 1 : 12,000

Rand McNally and Company,. Seattle, 1980

Google. (2011) Google Earth [Computer program]. (Accessed March 18, 2011.)

offered an unprecedented opportunity to reconfigure the landscape. After the fire, Seattle City Council decided to regrade the area in order to expand beyond the commercial island and relieve chronic flooding. James Street was raised 18 feet at First Avenue and 38 feet at Second Avenue while Yesler, Washington, Jackson and Main were all raised similar amounts from 6½ feet to 18 feet.[6] The city council also replated the area and widened First Avenue to 84 feet and Second and Third Avenues were also widened from 24 feet to 90 feet.[7] The original street level still exists today and can be accessed through the Pioneer Square Underground Tour.

6. Andrews., 47

7. Ibid.

Figure 2. Seattle in 1882 from Dearborn Street and Twelfth Avenue South

Source: , "Prosch Seattle Views Album, Vol. 2," c1870-1910, University of Washington Libraries. Special Collections Division. Seattle Photograph Collection. http://content.lib.washington.edu/cdm4/document.php?CISOROOT=/prosch_seattle&CISOPTR=171&REC=15 (accessed Feburary 8 2012.)

Perhaps the most drastic shoreline alteration occurred with an incomplete canal project in 1895. During the time, Eugene Semple, a former state governor, began a canal project from Elliot Bay through Beacon Hill to Lake Washington. The soil from the proposed canal project was intended to fill in the tide flats of current South Downtown in order to resell the land for profit. Ten months into the project, with nearly 100 acres of tide flats filled, Thomas Burke who had plans to build a canal north of downtown derailed the project.[8] As a result of Burke's efforts, Sempler's canal was never built, although, his landfill extended the perimeter of South Pioneer Square to present Georgetown. (Figure 3)

8. Richard Berner,

Figure 3. Semple's Canal Initial Dredging and Tideline Reclamation from 1895-1897

Source: Richard Berner, *Seattle 1900-1920: from boomtown, urban turbulence, to restoration.* Seattle, Wash: Charles Press. 1991, 13

Another major shoreline shift occurred with the Jackson Hill Regrade from 1907 to 1908. City Engineer R. H. Thompson created a master plan to level Seattle's topography, with the idea that business and commerce required level ground. Beginning with Jackson Street, workers pumped high-pressure water to remove 85 feet from the steep hill to the mudflats. As a result, street grades were lowered from 15 to 5 percent.[9] In addition to the Jackson Street regrade, in 1910 R.H. Thomson created additional plans to regrade downtown. Second, Third and Fourth Avenue were lowered to a maximum of 5 percent grade, and constructed with concrete and macadam.[10] (Figure 4)

Seattle 1900-1920: from boomtown, urban turbulence, to restoration. Seattle, Wash: Charles Press. 1991, 14

9. Andrews, 74.

Figure 4. View of 2nd Avenue during regrade work.

Source: James Lee, "Northern View of 2nd Avenue from Yesler Way showing regrade work," (photograph) c1894, University of Washington Libraries. Special Collections Division. Seattle Photograph Collection. http://content.lib.washington.edu/cdm4/item_viewer.php?CISOROOT=/lee&CISOPTR=274&CISOBOX=1&REC=18 (accessed Feburary 8 2012.)

Over the course of two decades, the landscape of the original Seattle settlement had been altered significantly. During this time more than 2,000 acres of land was created by filling tidal wetlands, mudflats, and beaches along the waterfront and south of Seattle.[11] The approach to cut and fill the landscape to overcome spatial restriction was a massive undertaking. Mildred Andrews, a historian specializing in Northwest history states "historians have likened the amount of dirt shifted from the Seattle hills to the tide flats to another technological marvel of the era- the digging of the Panama Canal."[12]

SHORELINE FORTIFICATION

The approach to cut and fill the landscape had other significant impacts. After the massive amount of soil was shifted, the soil needed to be stabilized for future construction projects. In order to address this need the Elliott Bay Seawall was constructed to support waterfront building structures and transportation infrastructure. (Figure 5) Initially constructed in 1916 with unreinforced concrete, the gravity wall stabilized soil and served as a protective wall against the wind driven storm waves of the Puget Sound.[13]

Over the past century the seawall has had three main alterations. Much of the original 1916 concrete gravity wall was replaced in 1964 and 1987 by two different types of structure. Both types are pile-supporting reliving platforms constructed from untreated timber, concrete and steel. However one type of seawall is taller and wider since it is located in deeper water levels. The entire seawall is filled with loose liquefiable material composed of mainly sand and small amounts of gravel and clay.[14] Due to the corrosive water environment, the seawall has sustained damage from marine bores, which critically altered the structural integrity of the timber supports.[15] The most extensive damage is along the deeper seawall type, since corrosive water tides produced holes in the steel sheet pile.[16] Corrosion was first observed in

10. Ibid., 106

11. Federal Highway Administration, "Alaskan Way Viaduct Replacement Project: Final Environmental Impact Statement and Section 4(f) Evaluation." July 2011. 87.

12. Andrews 106.

13. "Elliott Bay Seawall Project," City of Seattle Department of Transportation, http://www.seattle.gov/transportation/seawall.htm (Assessed October 15, 2010)

14. US Corps of Engineers, "Elliott Bay, Washington. Shore Protection and Storm Damage Reduction," Section 905(b) (WRDA 86) Analysis August 2003, 6

15. Ibid., 7

16. Ibid.

17. US Corps of Engineers, 7.

18. Elliott Bay Seawall Project

19. This widely public use sparked a debate for several years on whether or not the viaduct should be demolished. During the time, design and public process tapered. After a long debate on traffic alternatives, the City of Seattle declared to move forward with the tunnel option with the adoption of city council resolution 30726 on January 10th, 2005.

1947. This area was reconstructed and in 1956, a cathodic protection system was also installed which reduced the rate of corrosion. However, corrosion continued and in 1962, 1974, and 1979, additional voids were discovered and repair was required. A 1982 site condition survey revealed more damage to

Figure 5. 1934 Aerial of Seawall Construction

Source: "A circa 1934 aerial of the waterfront" (photograph) c1934, Seattle Now & Then: the Pike Pier Fishing Fleet. http://pauldorpat.com/seattle-now-and-then/seattle-now-then-the-pike-pier-fishing-fleet/(accessed Feburary 8 2012.)

the timber supports and in 1985 the timber-relieving platform was rebuilt and replaced with an ekki wood facing structure.[17]

The shallow seawall was thought to be immune against the corrosion. Since the seawall is shorter a mudline barrier was created between the soil fill and seawater which protected the structure. However, damage to this type of structure was also found in 2001, and further geoprobe explorations revealed damage to the dock. In the event of an earthquake, the ability of the seawall to continue to provide support to surrounding buildings and infrastructure is increasingly diminished. The structure is predicted to have a 1 in 10 chance of failure from an earthquake in the next 10 years.[18] If sections of the seawall structure were to fail, soils would liquefy and also destabilize the Alaskan Way Viaduct structure. This risk is the major driver for the current reconstruction of the seawall and adjacent viaduct.

Figure 6. (following page) Seattle Waterfront during the 1940's

Source: Pioneer Square Alliance

WATERFRONT ACCESS

In addition to posing a structural threat, the Alaskan Way Viaduct separates downtown and the waterfront. As shoreline fortification separated downtown from the industrial waterfront, the construction of the viaduct reinforced transportation access for industry. (Figures 6-7) Although this elevated highway does allow visual access to the waterfront by car, it creates a visual barrier for the pedestrian. (Figures 8-16) Although many question the aesthetic value of the viaduct and the pedestrian barrier it creates, the viaduct does provide a major public constituency a daily experience. Surely this experience will diminish significantly after the new waterfront is constructed.[19] Care should be taken to ensure social equity of visual access within the new design.

Figure 7. (following pages) Seattle Waterfront 2011

Source: Author

Figures 8-9. (following pages) Vehicular Access to the Waterfront on the Viaduct

Source Author

Figures 10-13: (following pages) Pedestrian Visual Barriers to the Waterfront

Source: Author


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Figure 14: Pedestrian Visual Barriers to the Waterfront

Source: Author

Figure 15: Pedestrian Visual Barriers to the Waterfront

Source: Author

Figure 16: (following page) Pedestrian Visual Barriers to the Waterfront

Source: Author


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Furthermore since the waterfront has been historically separated from the pedestrian downtown, public involvement must be addressed in order for community adoption to occur after the design process. Since the 2001 earthquake event, the City of Seattle has formed several outreach strategies for a new design of the waterfront. The seawall, in its current state, poses a public risk. To address this urgency, the waterfront project has been divided into two projects with varying timelines: The Elliot Bay Seawall, and The Central Waterfront Plan. The Central Waterfront design team, James Corner Field Operation, will design the public space vision. Both design teams will coordinate with one another and respond to the City of Seattle. (Figure 17)

Corner's preliminary design offers solutions to topography and pedestrian access. (Figure 18) Although Corner's design process does offer community outreach through public meetings, conventional public outreach is limited in gathering opinion outside of stakeholders and experts involved in the process. This is crucial to address. Seattle's waterfront has been largely unused due to physical man-made boundaries, which have historically disconnected the waterfront from downtown. As a result, the design process must address how to create a major community connection and commitment, or it risks creating space simply for tourist use. In order to study the potential for integration of public participation within the design process, I explore the range of user-generated design in the following chapter.

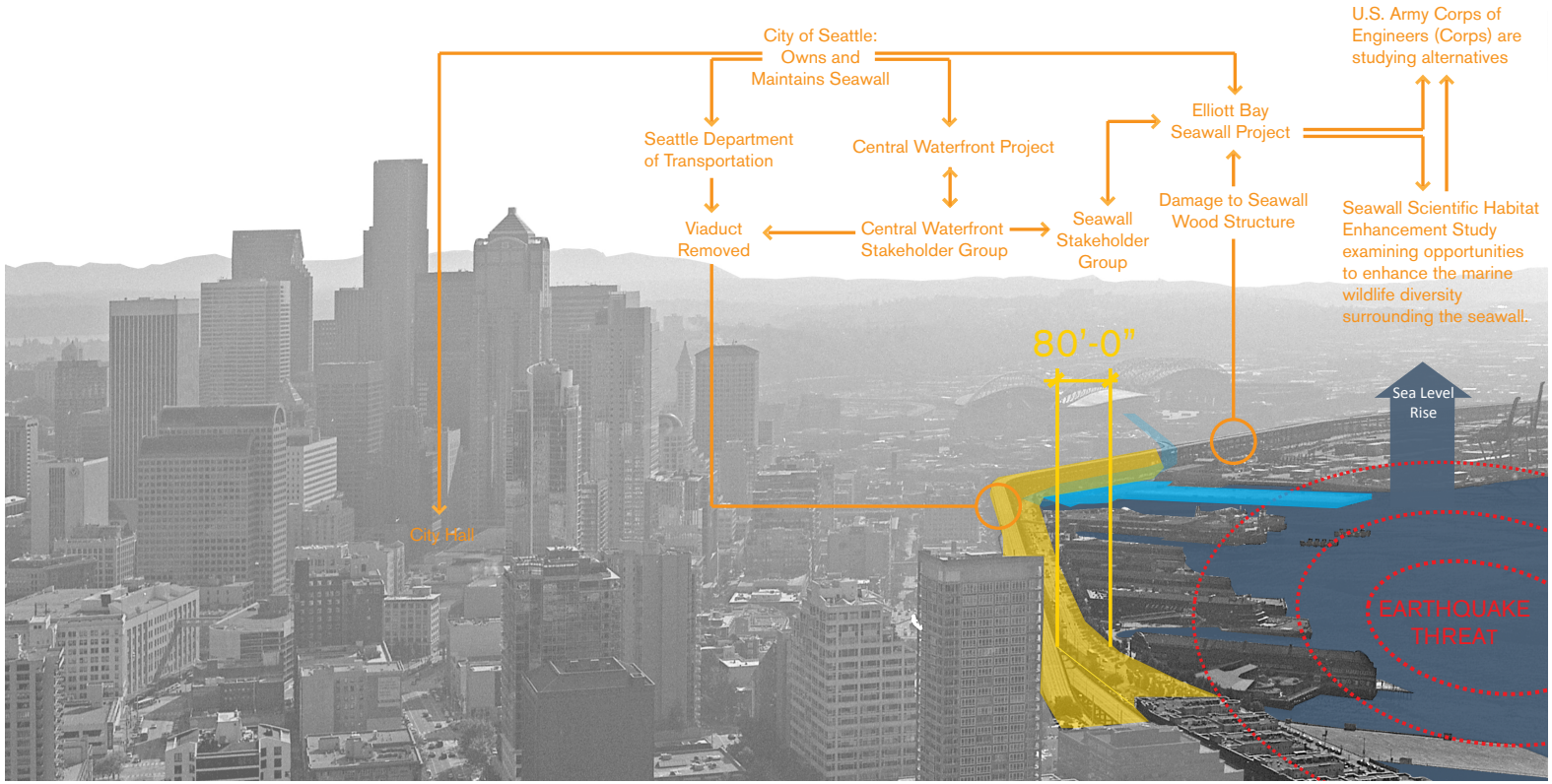

City of Seattle:
Owns and
Maintains Seawall
Seattle Department
of Transportation
Central Waterfront Project
Viaduct
Removed
Central Waterfront
Stakeholder Group
Seawall
Stakeholder
Group
Elliott Bay
Seawall Project
Damage to Seawall
Wood Structure
U.S. Army Corps of
Engineers (Corps) are
studying alternatives
Seawall Scientific Habitat
Enhancement Study
examining opportunities
to enhance the marine
wildlife diversity
surrounding the seawall.
80'-0"
Sea Level
Rise
EARTHQUAKE
THREAT
City Hall

Figure 17. (opposite page) Seattle Waterfront Design Team Structure

Source: Magdalena Celinska, "A Civil Waterfront." Master thesis, University of Washington, 2012.

Figure 18. Corner's Preliminary Design

Source: "James Corner: reconnect people to the waterfront " Seattle Daily Journal of Commerce. http://www.djc.com/news/ae/12029581.html. (accessed February 8 2012.)

Chapter 2: AUTHENTICITY + SEDIMENTATION

"Today, notions of place and market, expanding information technologies, local authenticity and global consumer culture have intersected to create a nexus of complex relationships. In a time of hyper-capitalism where counterculture has been demystified, culture hijacked to transport commercial messages (and commerce hijacked to transport culture), and all boundaries between high and low design, concept, content, and form have been blurred, how can we create relevant and meaningful and authentic experiences that are purely defined by architecture? [1]

Authenticity– a sense of place which is "authentic and genuine" as opposed to "inauthentic, contrived or artificial"—is a critical component for community adoption of urban spaces. [2] Authenticity was once the only means of city building. Before modern construction methods, cities were built out of community driven need to integrate the political, economic, social and cultural activities. Public places were built through sedimentation—the process of layering use incrementally into spaces.[3] The transition from a system based on close-knit community to one of non-converging networks and anonymity has altered the function of public spaces. Public places still contain some of their historic programs such as markets and event spaces, however these programs have residual roles, secondary to modern conveniences.[4]

1. Anna Klingmann, 2007. *Brandscapes: architecture in the experience economy.* Cambridge, Mass: MIT Press. 1

2. Edward Relph. 1987. *The modern urban landscape.* London: Croom Helm. 113

3. Within this thesis, I denote "place" as a built work which is adopted by a community. In contrast, a "space" functions without a identifiable user group.

4. Ali Madanipour. 2003. Public and private spaces of the city. London: Routledge. 6

Throughout history the measure for authenticity has remained constant. Within our modern cities, however, public spaces are superficially contrived; city centers are being themed around tourist and entertainment functions.[5] Architects such as Koolhaas recognize the "traditional sedimentation of a city, which for us is still the model for authenticity."[6] As designers, and as users, we perceive authenticity in public space by the historic layering of resident and community use. The disappearance of authentic public space is critical to address; especially when we, as architects and planners, advocate for a denser city environment, which would in turn, require more public space to be constructed. Within this chapter I argue that the lack of authenticity within public space design is due to the way we as designers approach the design process.

AUTHENTICITY WITHIN THE DESIGN PROCESS

Design process is not inherently conducive to authenticity. Furthermore the circumstances that make authentic spaces cannot be replicated. Sorkin argues when circumstances are replicated, "whether in its master incarnation at the ersatz Main Street of Disneyland, in the phony history of a Rouse market place, or the gentrified architecture of the 'reborn' Lower East Side, this elaborate apparatus is at pains to assert its ties to the kind of city life it is in the process of obliterating."[7] Richard Marshall argues "the condition in which we find ourselves is not an issue of memory. We have not forgotten how cities were made, rather our ideas of what a city is and how it is put together seem at odds with the way the world works today."[8] Although sedimentation allows for flexibility, urban challenges such as sustainability, social pressures, economic instability, and shifting demographics, re the rapid growth and change of our cities The current process of development is a linear progression. from need to scoping to conceptual design to design to construction to operation and maintenance. (Figure 19) When the development no longer provides a

5. Wall 1999, Dovery 1999, Sorkin 1992, Huxtable 1997 Mike Davis 1992, Harvey 1996

6. Rem Koolhaas Trajectory as a Positive, OMA

7. Michael Sorkin. 1992. Variations on a theme park: the new American city and the end of public space. New York: Hill and Wang. p xiv

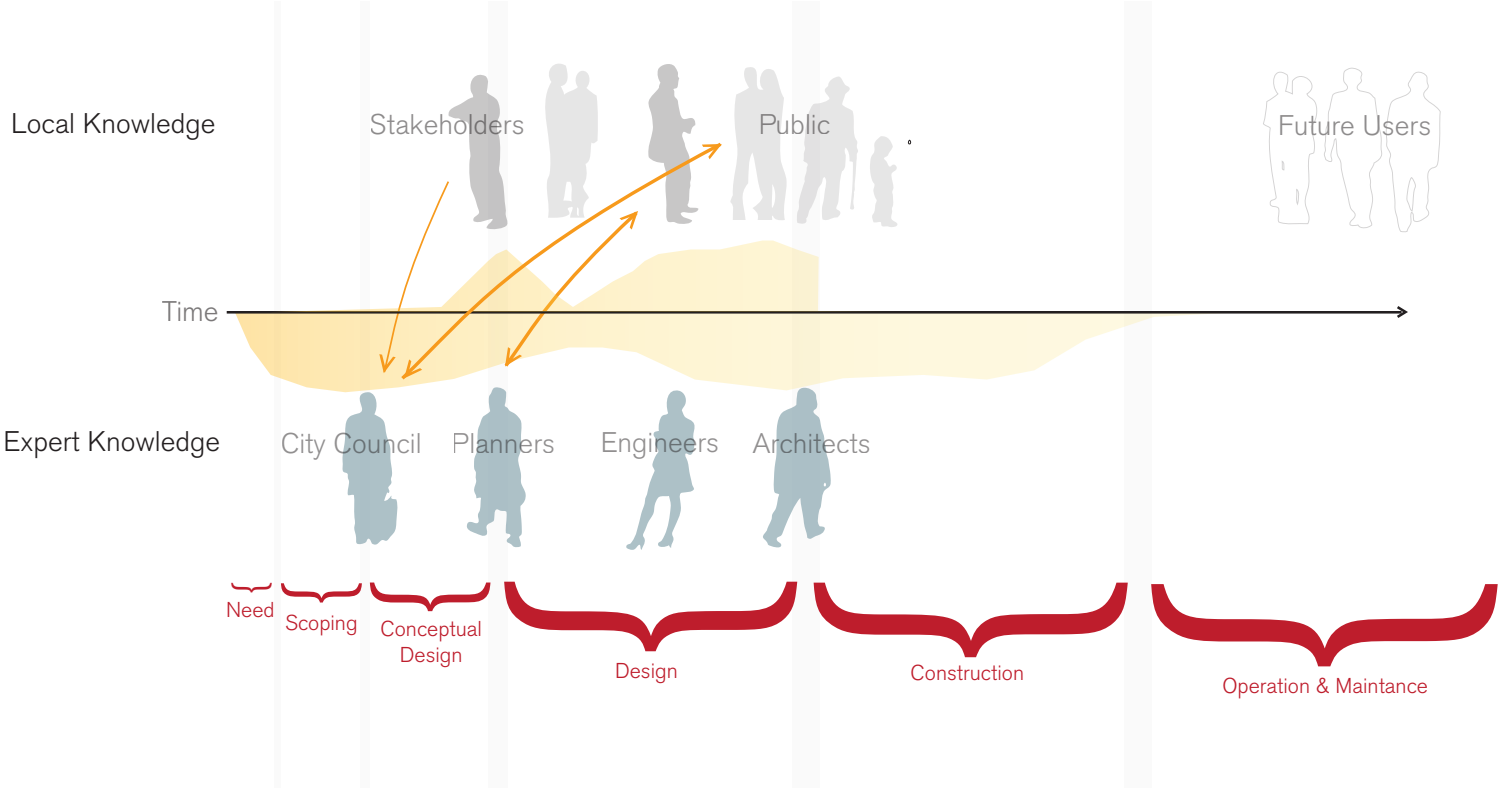
8. Madanipour. 6

valued need, the space is decommissioned and a new need establishes the beginning of a new linear process. Although this linear process functions with spaces which have strong community commitment and involvement, spaces without such commitment often develop into artificial public spaces–spaces which lack authenticity measured by time and use.

Figure 19. Conventional Design Process Transfer of Knowledge over time

Source: Author

An authentic and democratic process is critical to address for the future success of Seattle's Waterfront. Since the waterfront has been historically separated from the downtown, public involvement must be



addressed in order for community adoption to occur after the design process. In order to address an urgent replacement of the waterfront infrastructure, the City of Seattle has formed several outreach strategies for a new design of the waterfront. However, conventional public outreach is limited in gathering opinion outside of stakeholders and experts involved in the process.

If a conventual design process is creating a lack of authenticity in urban spaces, why are we not changing the design process? Architects such as Koolhass discuss the absoluteness of the contemporary situation we find ourselves in, "There is no escaping the artificial in the new architecture, and certainly not in large amounts of architecture being generated at the same time."[9] I argue that this matter is not as absolute as we might think. Although time, construction methods, and pace of life have irreversibly defined the way we construct our cities, I believe there is still room for expanding our scope of thinking–especially during this moment of slowing development–to work with the realities of planning process, construction delays, and funding limitations with the local community itself. In order to understand the possibilities of changing the conventional design process, I researched user generated design to understand the potential for layering use incrementally into spaces. Within my research, I found there are three approaches to user-generated design in public spaces:

1. *Highly responsive architecture*-a constantly evolving environment which anticipates building user use patterns, needs, or desires.

2. *Self-invention of experience*-users become active participants by some factor of contributing to the meaning of the work through their choices.

3. *Collaborative design*- a mutual effort of designers and community members

In the following sections I expand upon these these approaches with case study precedents.

9. Koolhaas.

HIGHLY RESPONSIVE ARCHITECTURE

The concept of user-generated design gained momentum during the 1960's, occurring simultaneously with the critique of rationality as a comprehensive and exclusive planning method.[10] During the time, architects began experimenting with technology to provide options for users to control their own surroundings and experiences. The most ambitious of these types of projects was Cedric Price's and Joan Littlewood's proposal for the Fun Palace. The architects collaborated with scientists, sociologists, artists, engineers, and politicians, including Richard Buckminster Fuller, Yehudi Menuhin, Gordon Pask and Tony Benn, on the project. Through lectures at London's Institute of Contemporary Art, Price had learned of the potential offered by electronic and cybernetic systems– first established by Norbert Wiener's pioneering efforts. Employing cybernetics, computer technologies, and game theory, Price produced improvisational, constantly evolving architecture.[11]

Rather than a diagram of architectural spaces, the program of the Fun Palace became "an array of algorithmic functions and logical gateways that control temporal events and processes in a virtual device."[12] (Figures 20-21) Specific areas requiring mathematical models were specified as:

1. Fun Palace and environment, visiting patterns.
2. Mechanical and architectural considerations: available capacities, etc.
3. Provision of specific participant activities, interactive activities.
4. Individual participant situations: teaching machines, etc.
5. Controlled group activities.
6. Communications and information systems.
7. Specific conditioning systems: environmental variables for different users.
8. Cybernetic art forms.

10. Magdalena Celinska, "A Civil Waterfront." Master thesis, University of Washington, 2012. 7.

11. During the time, Cybernetics was commonly associated with computers. Wiener pioneered the cybernetics as a model of the natural processes that permit all living things to actively maintain the conditions of life . Price used Wiener's concept of cybernetics to design the Fun Place.

12. Stanley Mathews. 2006. "The Fun Palace as Virtual Architecture". *Journal of Architectural Education*. 59 (3).

9. Determination of what is likely to induce happiness.[13]

The resulting web of information is parallel to rhizomatic theories of knowledge developed in the 1970s by Gilles Deleuze and Felix Guattari.[14]

Assembled, the architecture became a type of kit of parts. Enclosures where defined by two scales; small scale spaces with a high degree of servicing such as kitchens, restaurants, workshops and lavatories, and large scale spaces such as auditoriums, cinema and meeting halls. Flexibility was incorporated through the construction and the deconstruction circulation of the constantly adapting architecture. After years of design, the construction was blocked by mid-level bureaucrats in the

13. Stanley Mathews. 2006. "Cedric Price: from the "brain drain" to the "knowledge economy". *Architectural Design.* 76 (1): 45

14. Ibid.

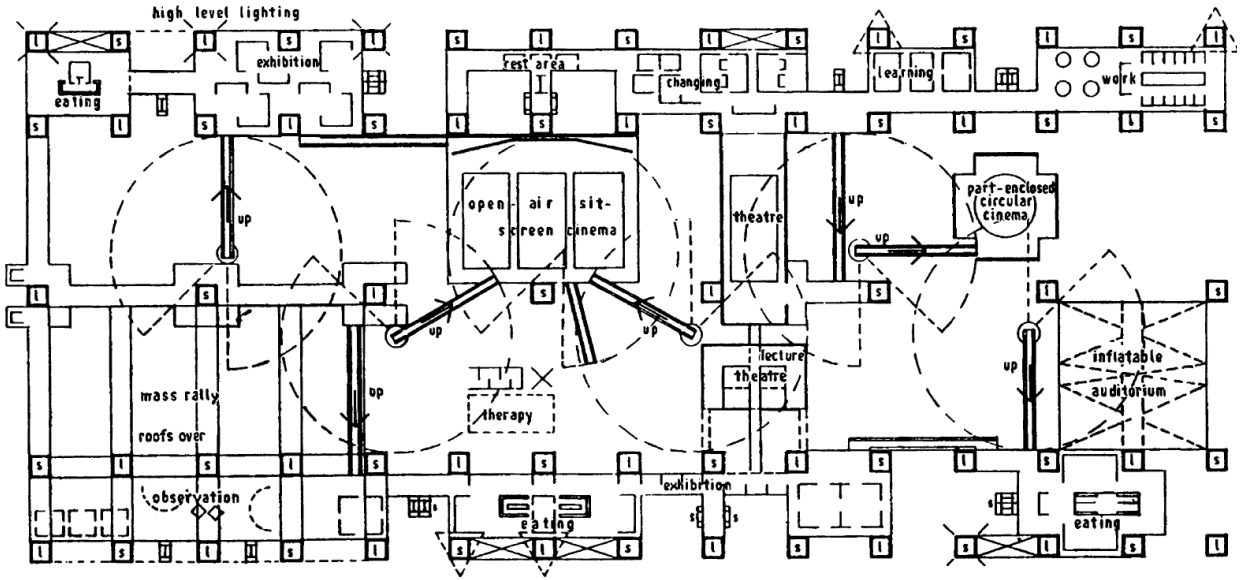


Figure 20. Price's Fun Palace Floor Plan

Source: Mathews, Stanley. "The Fun Palace as Virtual Architecture."

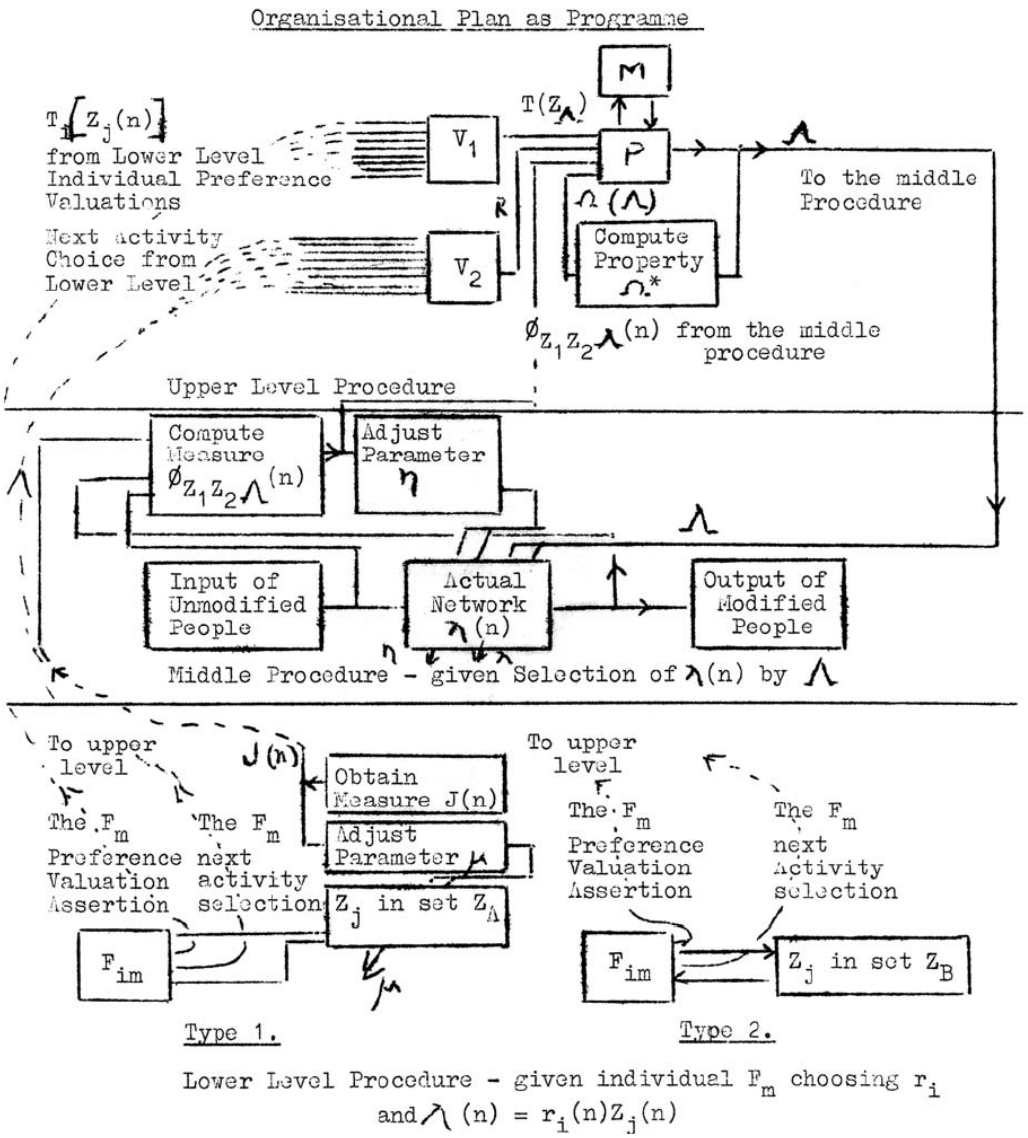


Figure 21. Price's Fun Palace Organizational Plan

Source: Mathews. "The Fun Palace as Virtual Architecture"

Newham planning office. Price moved on to construct a smaller scale of the Fun Palace in Kentish Town. (Figure 22) Known as the InterAction Centre, Price created the center as a building with a limited life span of twenty years.[15] Mathews, an architecture critic, attributes Price's designs to situating architecture to the most socially relevant position; "not as enclosure, symbol, or monument but as the convergence of site and human event."[16]

15. In 2003 conservationists tried to preserve the building, however, Price adamantly opposed the preservation, and the InterAction Centre was demolished.

16. Mathews. "Cedric Price: from the "brain drain" to the "knowledge economy." 47.

Figure 22. InterAction Centre

Source: Mathews, "The Fun Palace as Virtual Architecture"

COLLABORATIVE DESIGN

During the same time, designers also began adapting the design process in order to be more responsive to community interest and began to work with stakeholders collaboratively. Collaborative design requires the role of the architect to be the facilitator instead of the sole innovator. The adaptation of the design process has continued in this direction. The temporary design solutions of Muf (UK) explore the boundaries of art and public place, and participation and design decision making. The research project "We are artists" seeks to enable local public art and actively inform policy making in a highly contested space.[17] A chaired dinner debate with 32 local artists began the dialog that led to a collaborative manifesto for the area. (Figure 23) After the event, artist submitted proposals for a series of temporary

17. Muf architecture/art. "We are Artists." http://www.muf.co.uk/archives/portfolio/we-are-artists (accessed January 8 2012.)

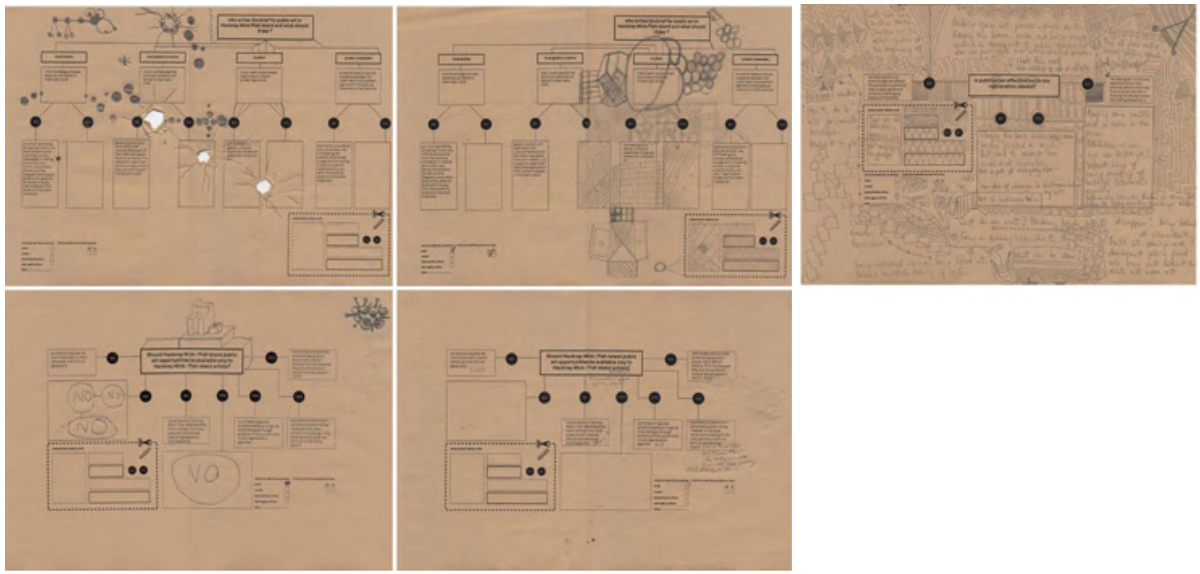


Figure 23. Public participation graphics from the "We are artists" event

Source: Muf architecture/art. "We are Artists." http://www.muf.co.uk/archives/portfolio/we-are-artists (accessed January 8 2012.)

workshops with local children on a local land-banked development site. Four temporary commissions were selected by anonymous peer review.

The Atelier d'Architecture Autogérée (AAA) is an interdisciplinary nonprofit organization of artists, architects, urban planners, landscape designers, sociologists, students and residents. Critical of formulaic participatory practice which superficially engages citizens, the group worked together on a 5 year public space installation beginning in 2001. Composed of mobile programs, ECObox housed various programs such as a garden, kitchen, library, tool bank, radio station. (Figure 24) Initially curated by AAA members, and then by the local inner-city community, the installation functions as a "rhizomatic agency."[18] Through a physical manifestation of democratic space manipulation, communal place is created.

18. Ruth Morrow. ECObox. "Mobile devices and urban tactics" http://www.domusweb.it/en/architecture/ecobox-mobile-devices-and-urban-tactics/ (accessed January 8 2012.)

Figure 24. The ECObox instalation

Source: Ruth Morrow. ECObox. "Mobile devices and urban tactics" http://www.domusweb.it/en/architecture/ecobox-mobile-devices-and-urban-tactics/ (accessed January 8 2012.)

SELF INVENTION OF EXPERIENCE

Public participation through self invention is rooted within the interactive art movement-a genre of art where viewers become active participants by some factor of determining the outcome; allowing for various contribution to an artwork, which transcends individual mental activity in traditional art. The earliest example of interactive art installation is Marcel Duchamp's Rotary Glass Plates piece.[19] Created in 1920, the artwork movement is controlled by the viewer. (Figure 25) Technology advancements have progressed the dialog between art and viewer. Computer-based sensors, allow artists, such as Scott Snibbe, to monitor temperature, motion, and proximity to elicit participant responses. With "Boundary

19. Larissa Bank. "Foundations in Interactive Art making" http://www.larabank.com/usc/lecture1/index.htm (accessed January 8 2012.)

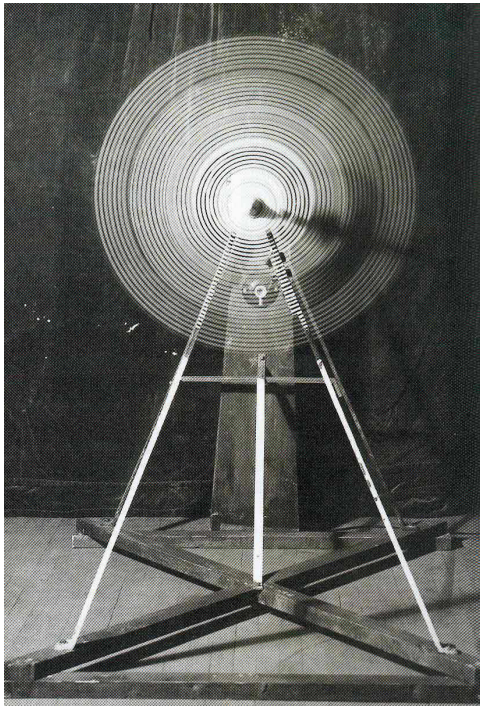


Figure 25. Duchamp's Rotary Glass Plates piece

Source: Larissa Bank. "Foundations in Interactive Art making" http://www.larabank.com/usc/lecture1/index.htm (accessed January 8 2012.)

Functions", an interactive floor projection, Snibbe strives "to make a medium as emotionally engaging as a movie, but one in which you remain aware of your body and your relationship to others- to communicate a vision of the world where people understand that we are all interdependent.""[20] (Figure 26) This interdependency produces meaning as a continual process, and has in recent years combined interests of specific artists and architects been explored within design decision-making on a smaller scale.

Self invention, as a concept, has influenced architecture since the early 1980's. In 1983, Koolhaus submitted a design competition proposal of a new public park to be built on the fifty-five hectare site

20. Julia Klein. Don't Just Stand There." *Brown Alumni Magazine.* 2008. 42

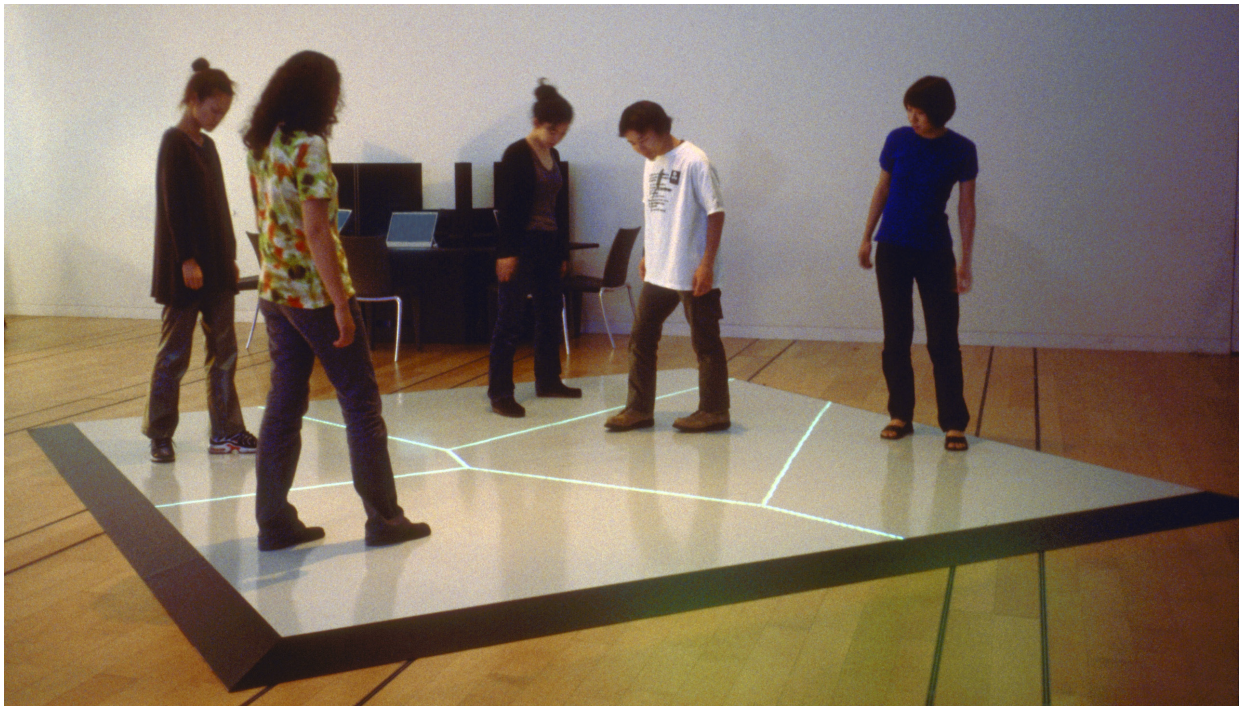


Figure 26. Snibbe's Interactive floor projection

Source: Klein. 42

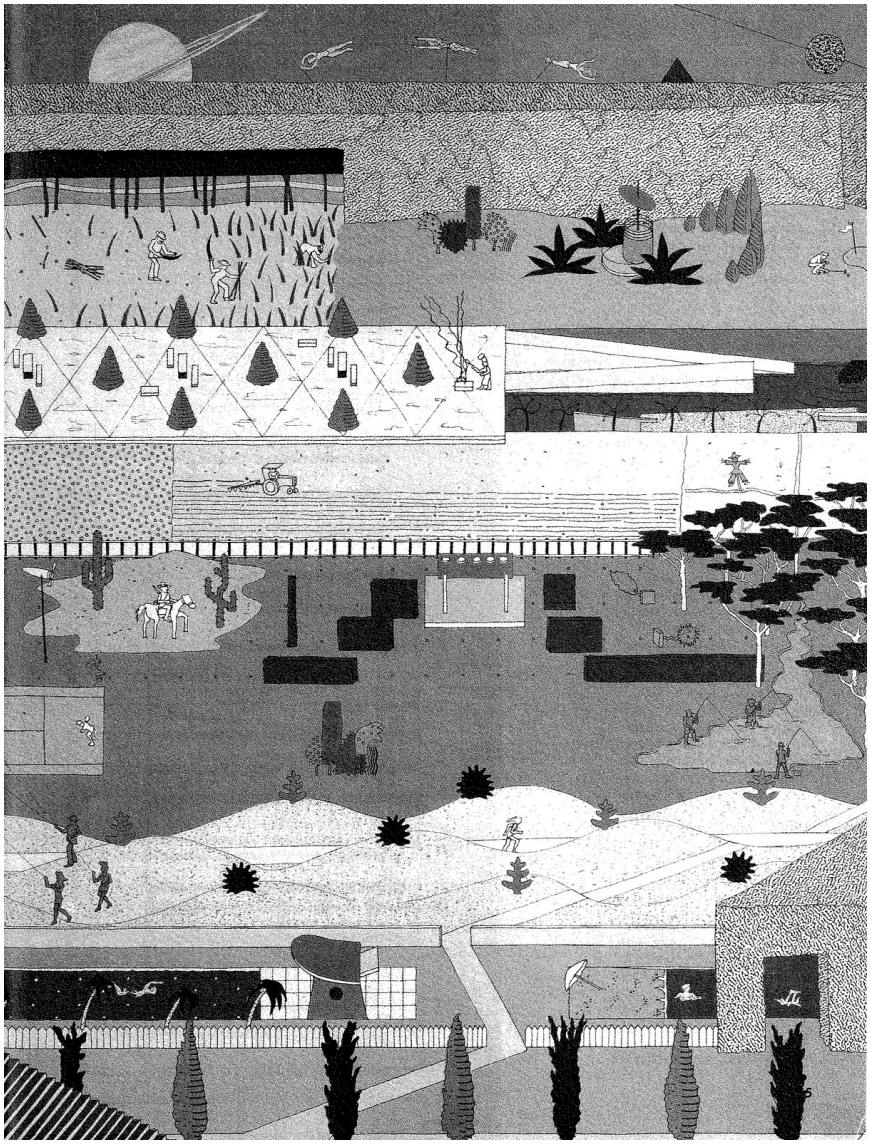


Figure 27. Koolhaus's Submission for Park de Villette

Source: Lebbeus Woods. "Another Rem." http://lebbeuswoods.wordpress.com/2009/10/24/another-rem/(accessed January 8 2012.)

of a former slaughterhouses in Paris. Koolhaus's submission, composed of five superimposed layers of program, transformed the site into contrasting vertical and horizontal strips; each containing different programs and different placement of structure and vegetation. (Figure 27) Lebbeus Woods argues that this architecture allows self-invention to occur. "It is a park that would be difficult to experience the same way twice—repeat visits would each be different. For example, if we walk along the strips, we encounter a particular sequence of landscapes and experiences; if we cut across the strips an entirely different sequence of perceptions is discovered."[21] In this manner, Koolhaus defines a mutable experience for the users, who can shape their experiences with the site.

Shaping experiences with the site can be used as a method of design inquiry. In October of 2011, University of Washington instructors Nancy Rottle and Kathryn R. Merlino assigned a public interaction installation as part of Scan/Design Master studio. The installations were specifically aimed at provoking public interaction and education on the waterfront. Student formed into 5 groups with simple instructions, constraints and a budget of $100 for materials. Over the course of one and a half weeks students, designed, constructed and exhibited a series of "Quick Win Site Expressions," on Pier 62/63. (Figures 28-30) Each installation engaged various spontaneous responses, including somewhat expected responses

21. Lebbeus Woods. "Another Rem." http://lebbeuswoods.wordpress.com/2009/10/24/another-rem/ (accessed January 8 2012.)

Figure 28. Public Interacting with the "Reconnect" Installation

Source: Author

such as children engaging the installation for play, or a somewhat unexpected occurrence of a couple taking wedding photos. The student's installations created a platform for mutable experience. Users could shape their experiences and choose their level of engagement. This temporal shaping of place creates a mutually beneficial dialog between the user and the designer.

Within the design of a public space, there is a tendency to focus on design and management issues rather than what people value about public places.[22] User generated urbanism transcend managerial thinking and focus on supporting place attachment including opportunities for people to engage with

22. "Public Places." *Joseph Rowntree Foundation* http://www.jrf.org.uk/work/workarea/public-spaces (accessed January 8 2012.)

Figure 29. Public Interacting with the "Submerged" Installation

Source: Author

others. User generated design can ensure that the citizens' experiences with new urban qualities and designs are considered. The process of public participation can create experiences beyond what is initially considered by the design team. The preceding studies of related precedent have helped develop a conceptual framework that applies to the design of large public places in general and Pier 48 in particular. Within this thesis I propose to reform the design process to be collectively owned. In the following chapter, I propose the method of collaborative consumption- a sedimentation of public use to provide the programing of the site, which provides flexibility to transcend conventional and present limitations.

Figure 30. Public interacting with the "Home Sweet Waterfront" Installation

Source: Author

Chapter 3: COLLABORATIVE CONSUMPTION

"The true issue is not to make beautiful cities or well-managed cities, it is to make a work of life. The rest is a by-product. But, making a work of life is the privilege of historic action. How and through what struggles, in the course of what class action and what political battle could urban historical action be reborn? This is the question toward which we are inevitably carried by our inquiry into the meaning of the city."[1]

In an attempt to define the design process of an authentic public place, I pose a set of alternative approaches to public space design that might help us develop more responsive approaches to designing with community. As a civic space, the focus of redeveloping Seattle's Waterfront should be directed on crafting evolving public participation for the purpose of community long-term space inhabitation. Public places are works of life. The success of these places is often measured by community use and adoption over time. Determining ultimately whether a design will become successful is often beyond a designer's control. Furthermore, within the conventional design process, it is difficult to gather community opinion outside of stakeholders, and impossible to gather opinions of future users. (Figure 31)

1. Raymond Ledrut "Speech and the Silence of the City" in Gottdiener, Mark, and Alexandros Ph Lagopoulos. 1986. *The City and the sign: an introduction to urban semiotics.* New York: Columbia University Press. 114-34

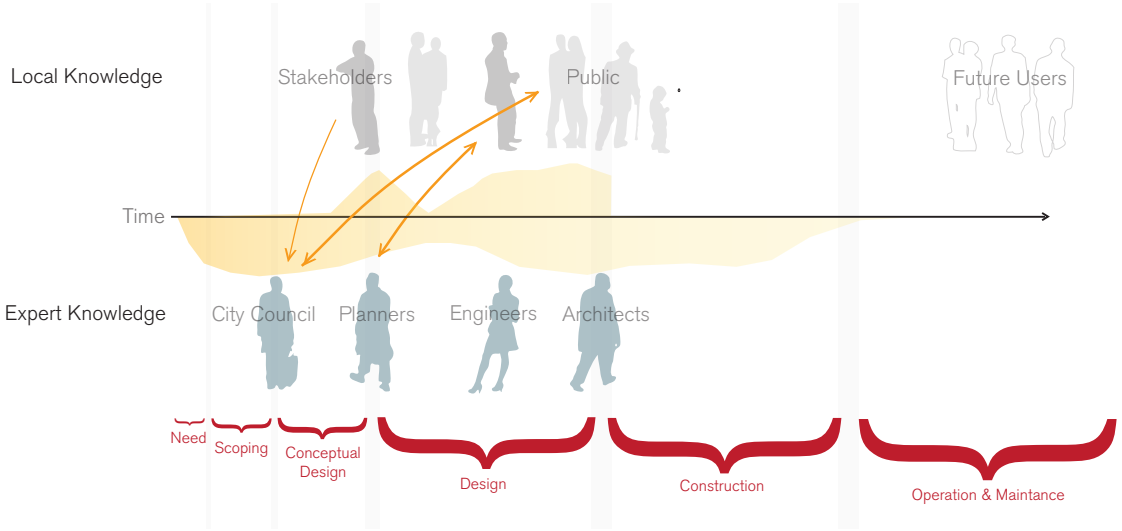


Figure 31. Transfer of Knowledge over Time with a Conventional Design Process

Source: Author

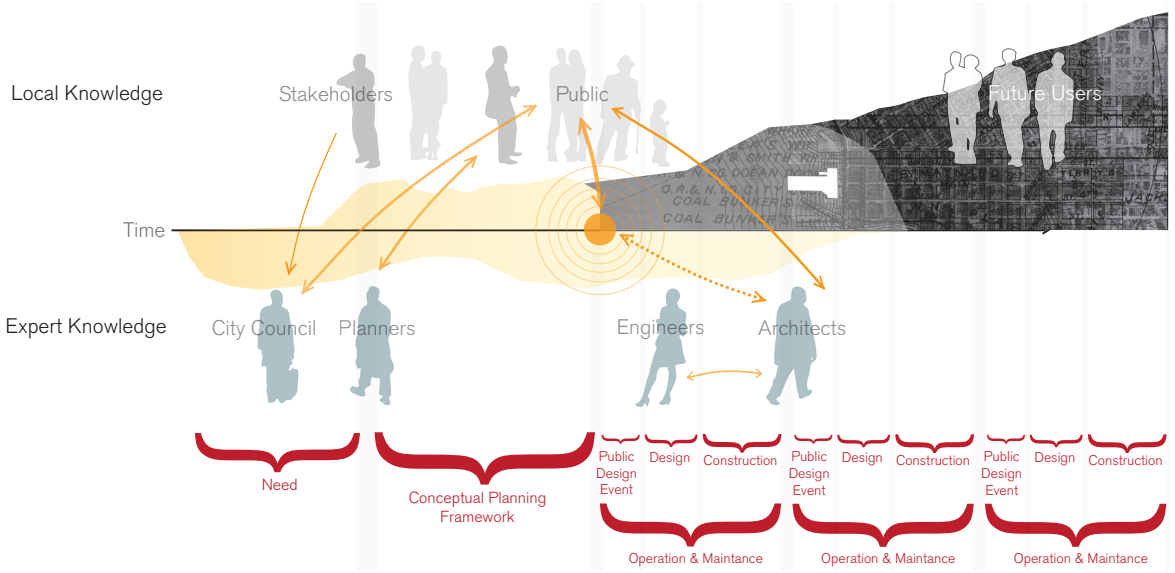


Figure 32. Self-evolving Design Process

Source: Author

Instead of a purely solution driven response, I argue for open-endedness within the design process itself for architecture to facilitate incremental sedimentation of program proposed by the evolving community. (Figure 32) It is important to note that the need to address the current and future residents is critical within the Pioneer Square Neighborhood. The neighborhood is currently undergoing significant change. The South Downtown neighborhoods currently has seventeen proposed projects. One of which, the Stadium North Lot, will develop 718 residential units, 410,000 square feet of commercial office space, and 16,000 square feet of retail space on a site of 3.85 acres.[2] Due to this and other large development projects, the neighborhood population will grow significantly. With this growth, the need for a public place to provide a place for the community will inevitably increase and will likely not be addressed through a conventional process.[3] To address this need for place and adaptability, I propose that the architecture becomes the site of collaborative consumption: sedimentation of use providing instances of incitement and spaces for negotiation and dialog between the local community and the design team.

Public places contain public memories, and with this collection of memory, there is mobilizing power.[4] within the design process, there is potential in gathering this mobilizing power through sedimentation of use. Such a collaboration would engage the multiple levels of the individual, group, organization, community, city, and region, and transcend the inherent disconnection between the vision of the designer and the public which will use the space in the future.[3] The following chapter builds upon my Master of Urban Planning thesis, "A Civic Assembly" through establishing a design process approach which would support a self-evolving form of public participation.

With this proposal, I recognize the potential of the power of place as an open-ended self-evolving process—inclusive to current as well as future participants. Within "The Civic Waterfront," I proposed a series of biannual events, which inform the site over time by the sedimentation of program. (Figure 33)

2. "Stadium Towers: Project Summary." *North Lo*t. http://www.northlotdevelopment.com/stadium_towers.html (accessed Feburary 20, 2012.)

3. Manzo, L. C. "Finding Common Ground: The Importance of Place Attachment to Community Participation and Planning." *Journal of Planning Literature* 20, no. 4 (2006): 336

4. Public involvement is often limited to participatory planning events where viewpoints from stakeholders are gathered in between design iterations; usually in initial phases of information gathering from the public or much later in the process for approval. Information collection in the initial phases of the process may or may not contribute to decision making.

Through this process, I argue that the function of the public space as a place for political, economic, social and cultural events is strengthened.

As part of my proposal, perspectives from a diverse range of public are obtained through a temporary design intervention capturing both the formal and informal modes of participation. (Figures 33-34) The purpose of the exhibition is to expand the possibilities of ideas. The public participation event offers multiple site perspectives, which are integrated into low risk design possibilities. Since these temporary designs are investigated and created over a short period of time, the event is perceived as low risk and

Figure 33 Temporal Action Installation Event Schedule

Source: Magdalena Celinska, "A Civil Waterfront." Master thesis, University of Washington, 2012. 77.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transcends the conflict inherent in large projects; high cost, large scale, significant technical constraints and differing expertise.

These ephemeral events harness the potential of power of place and have a lasting influence on the waterfront's future. The events establish a cyclical process, which temporarily claims ownership over the design process. During each event, participants are given the opportunities to offer ideas in a spatial way- a different approach from typical public consultation. Strengthening social networks for future participation, current and future participants become engaged and invested in the process.

Figure 34 (opposite page)
Visualization of Possible Installation

Source: Celinska, 79.

Instead of imposing a solution on the site, the architecture defines the areas where this sedimentation can occur. Through this process, design practice and public participation collectively articulate a balanced process, which can then define site activities. Since the design team and the public have the opportunity to creatively test ideas, the power of decision-making for the site is redistributed through the biannual open transfer of ideas.

In order to work within the timeframe of a thesis project, a simulation will act as a proxy for the series of public participation events proposed within "A Civic Assembly." For the simulation, each member of my thesis committee roles a pair of dice once to signify one program desired by the community for each biannual public participation event. The rolling of dice communicates different perspectives, outside my own will as a designer, and provides a possible pattern of community adoption and use. For the sake of testing this method against a reasonable amount of time which would allow the funding and construction of a new pier, I have chosen to simulate ten events beginning with 2012 and ending with 2030.

Over the course of the simulation, these events actively shape and contribute unique programmatic ideas

for the site. Programmatic ideas provide a sense of what the community desires at a given time while also provides feedback over time. For example if a programmatic idea is rolled again in the simulation, this communicates that the community is demonstrating a need for this program to expand.

In order for the site to be adopted by community in the future, I argue local community programing should be prioritized over general waterfront uses. Additionally, I assume that the Waterfront Core Framework Plan will provide the majority of general waterfront uses. I have designed the simulation accordingly. Rolling a combination of two different dice has a greater probability then rolling the same number on both dice. The dice combinations that have a greater probability of being rolled support local community programs. Dice of one kind propose programs for general use typically found on waterfronts. (Figure 35) By shifting probability toward local community programs, I prioritize local community uses to shape the site.

Through this simulation public participation is transformed into an active part of physical design and strengthens local social networks for future participation. For this sedimentation to occur, the architecture must spatially define areas where this sedimentation might take place. In order to understand the best opportunities, I have examined physical site of Pier 48 and the current design constraints that impact the site, through three scales: the shoreline scale, the neighborhood scale, and the intervention scale.

1/9 Probability

- Seattle Saw Mill Museum
- Pioneer Square Historical Preservation Museum
- Historic Boat Launch Restoration
- Excavated pier addition as part of Underground Tour
- Pioneer Square Architectural Photograph Gallery

- Viaduct Artifact Museum
- Artist Live/ Work Studios
- Artist Large Installation Spaces
- First Thursday event Community Space

- 4Culture Art Support Facility
- Woodworking Collaborative Shop
- Scuba Diving Center

- Fishing Area
- Expansion of Seattle Water Taxi

- Public boat docking

1/36 Probability

- Swimming Pool

- Kayaking Area

- Skateboarding surface

- Food Cart Space

- Winter Ice Skating Rink

- Tailgating surface

Figure 35. Simulation Strategically Prioritizes Local Community Use

Source: Author

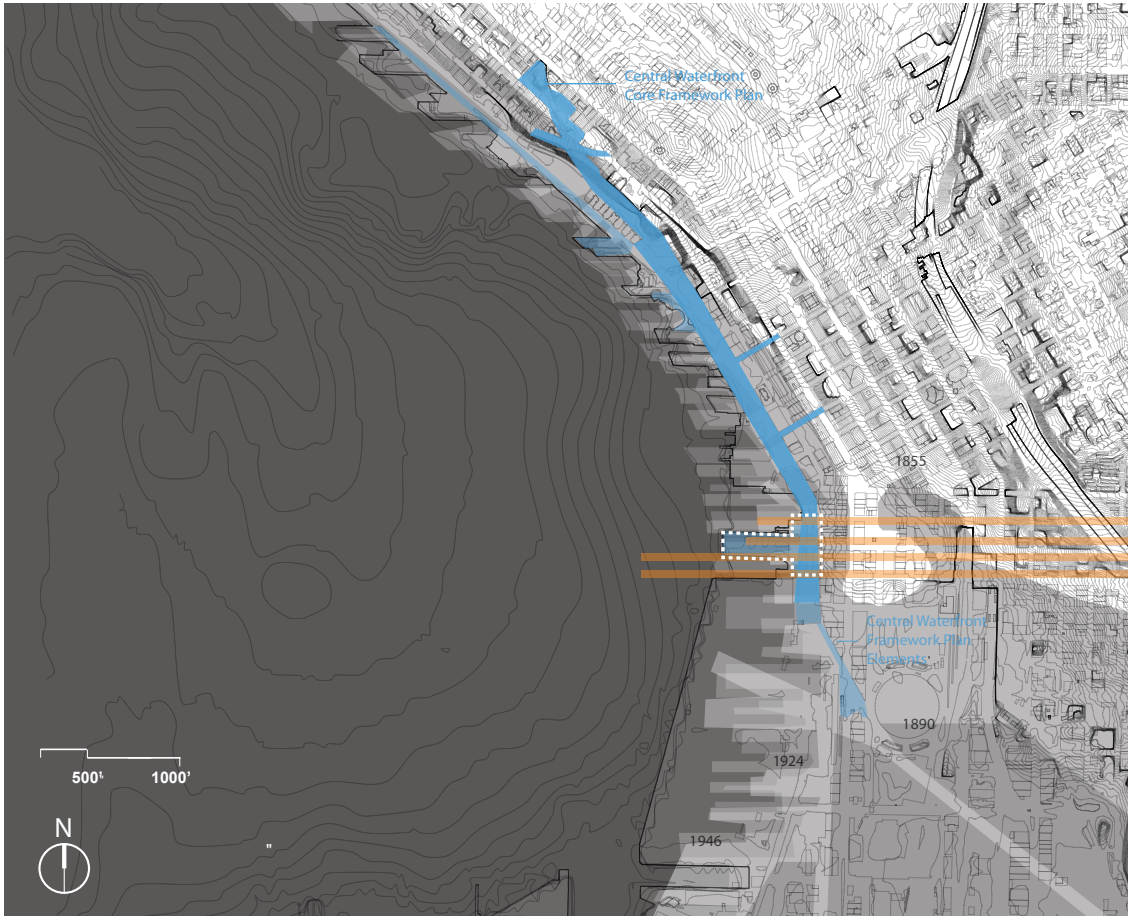


Figure 36. Shoreline Scale Diagram showing the Various Man-made Shorelines Constructed over Time

Source: Author

SHORELINE SCALE

Past development has repeatedly altered and fortified the edge of the shoreline, walled the urban environment from the water, and created an inhabitable edge for ecology and residents. (Figure 36) In addition to the shoreline fortification during the 20th century, major construction adjacent to the

Figure 37 Historic Shoreline Diagram

Source: Author

shoreline has moved mass quantities of soil, which has impacted soil quality and intensified seismic instability. (Figures 37 and 38) Shoreline fortification, degraded soil quality, and seismic instability continue to impact the physical site of the Seattle waterfront. The design approach must address these challenges.

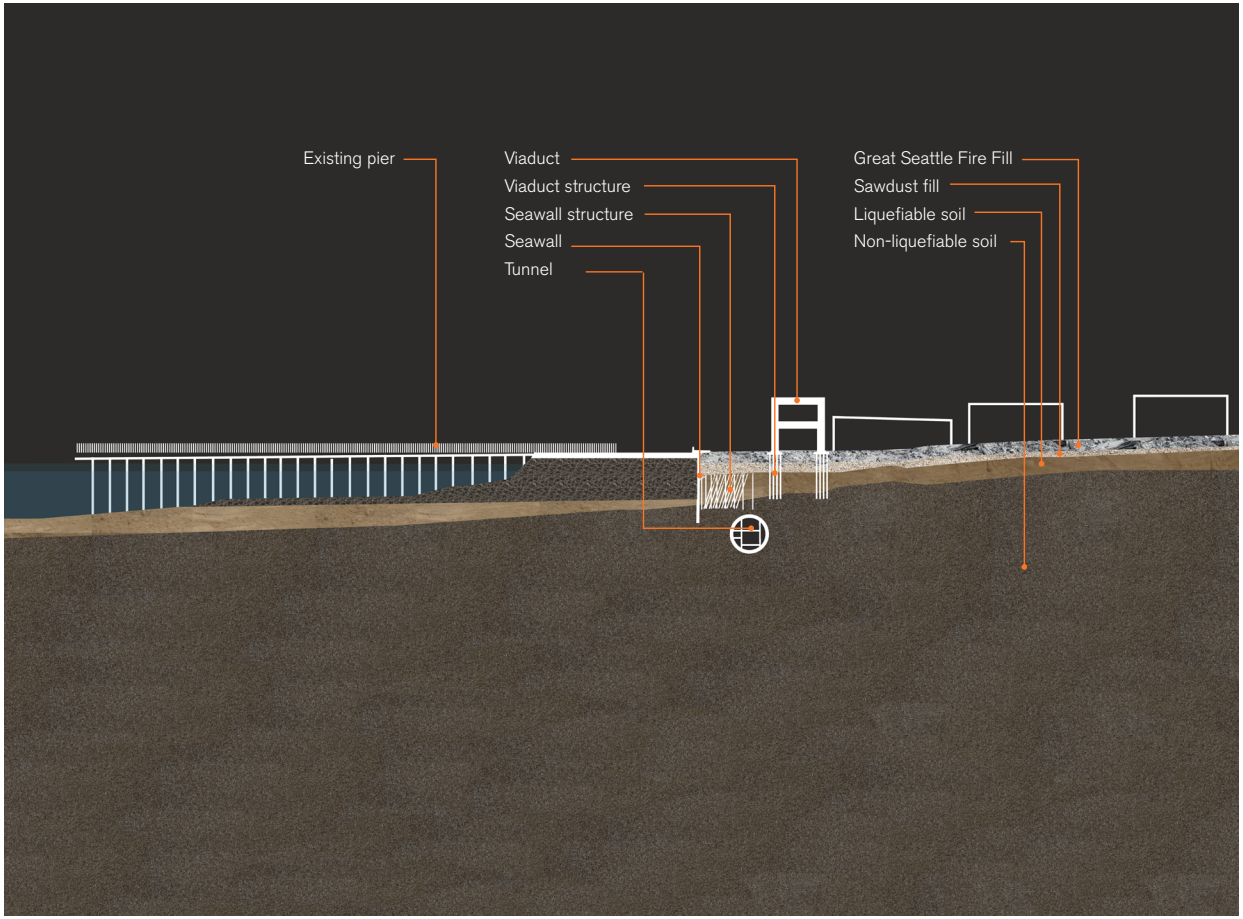


Figure 38. Site Man-made Boundaries

Source: Author

NEIGHBORHOOD SCALE

Seattle's waterfront has been largely unused due to physical man-made boundaries, which have historically disconnected the waterfront from downtown. Posing a structural threat, the Alaskan Way Viaduct separates pedestrian access between downtown and the waterfront. (Figure 39)

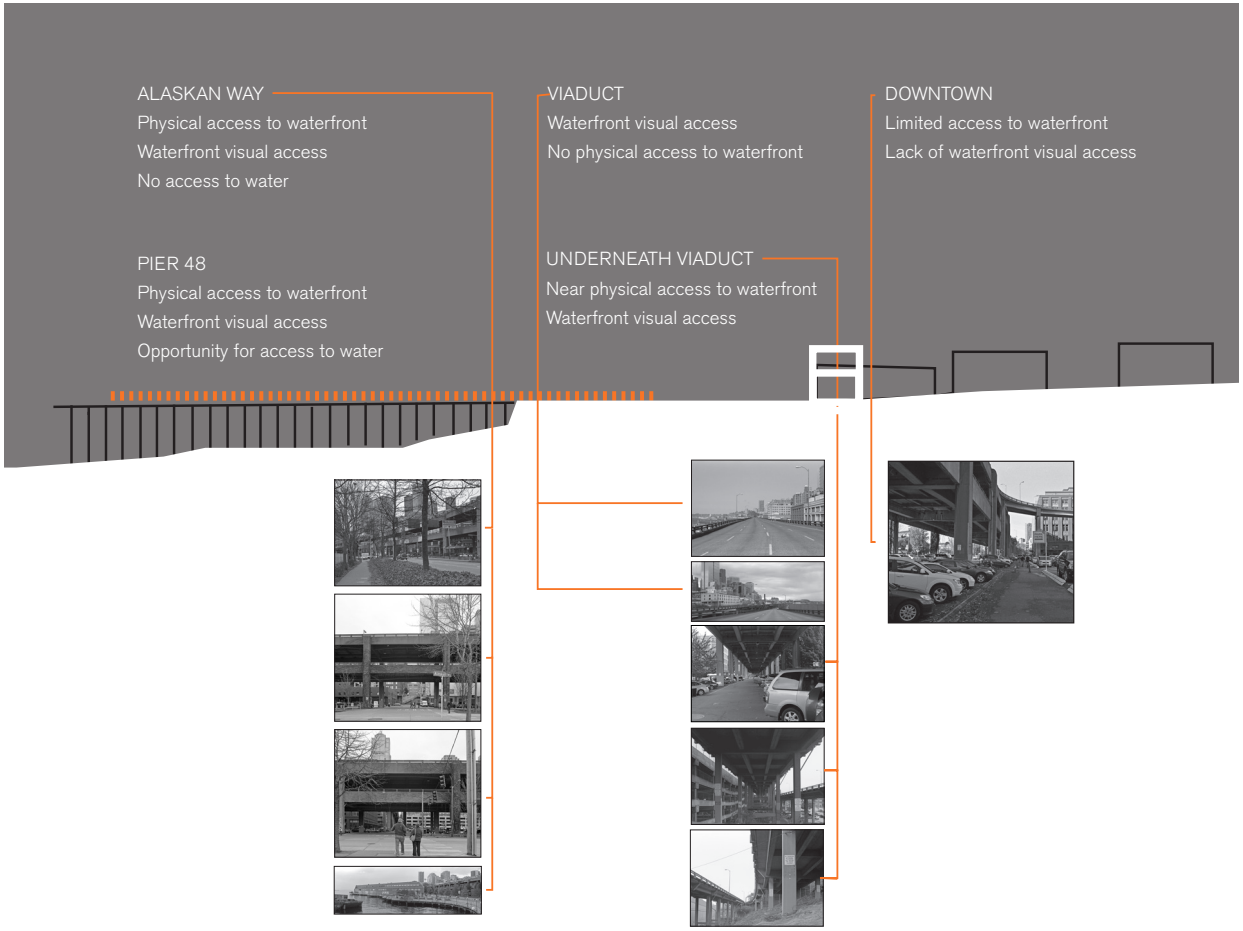


Figure 39 Site Access
Source: Author

As a result, the design process must address how to create a major community connection and commitment at the neighborhood and community scale, or it risks creating space simply for tourist use. As a National historic district and a local preservation district, the Pioneer Square District is protected by an ordinance and design guidelines. The neighborhood is comprised of 9,000 residents, including a large

Figure 40 Neighborhood Scale Diagram

Source: Author

artist community and a large homeless constituency of 7,000. (Figure 40) The district is in the midst of massive change. With the construction of large development projects, including the Stadium North Lots, the neighborhood population will grow significantly. The need for a public place, to provide space for the community, will inevitably increase with this population growth. This space must be able to adapt

Figure 41. Present day Pier 48
Source: Author

to the current community as well as future community. I claim Pier 48 offers a unique opportunity for a different approach toward the urban edge—an approach which enables a multitude of thresholds and connections between the shoreline and urban development.

INTERVENTION SCALE

Pier 48 was chosen specifically for the physical attributes of the pier and the contextual opportunities. The pier is within the Pioneer Square district as defined by James Corner and is close proximity the Stadiums and the Ferry Terminal. (Figure 41) Environmentally, the site is located next to the only section of the waterfront which has shallow water, and the opportunity for a potential aquatic habit and beach, depending upon the seawall redesign. The present site of Pier 48 occupies by the original center of Seattle's maritime trade; a wharf extending from the foot of Yesler Way, once the site of the Yesler Mill.[5] The adjacent Washington Street Boat Landing was built in 1920 to house Seattle's harbormaster. The current pier structure was built in the mid-1930s to serve a variety of shippers and was bought by the Port of Seattle in 1950 to serve shippers and ferries. Pier 48 was the terminal for the Alaska Marine Highway System Ferries and later accommodated summer steamship service to Vancouver, B.C. from

5. History Link, Point 9: Skid Road Meets the Sea, foot of Yesler Way: Pier 48,. http://www.historylink.org/index.cfm?DisplayPage=cybertour.cfm&fileId=7056&frame=9 (ssessed February 23, 2011)

1967 to 1989. After the steamship service ended, several events activated the warehouse space on the pier, including the first Northwest Bookfest and Kurt Cobain's Live and Loud Concert in 1993. By the late 1990s, the warehouse was demolished. Pending possible expansion of the Washington State Ferry Terminal to the north, the stripped pier is currently offered through WSDOT as 14 acres of Maritime Lease/Development.[6] Currently the pier functions as a paid parking lot. During the summer, the West Seattle Boat taxi transports passengers from the historic boat launch.

Since the site is located next to the only section of the waterfront which has shallow water and the opportunity for a beach, I argue the best use of the site would be to provide this beach, as previous designers have also proposed. I define the area where sedimentation will occur on two distinct areas of the site. (Figure 42) The first will be constructed as part of the beach, situated on the northeast corner of the site. This location has the potential to anchor into the community and provide programmatic functions adjacent to the pedestrian ferry terminal.

The second area is at the end of a new pier structure. For this structure, I propose extending the view corridors of Main St. and Jackson St. into the water. Changing the circulation path into a loop allows for a different ways of approaching the pier, and various levels of engagement. For example, the pier structure could be used simply for the informal use of circulation, or for a more formal visiting of the programs on the pier. With the intervention scale, I define the areas where sedimentation of use should occur and I test this concept in the following chapter.

6. Port of Seattle, Pier 48, http://www.portseattle.org/business/realestate/flyers/c_lease_p48.shtml (assessed February 23, 2011)

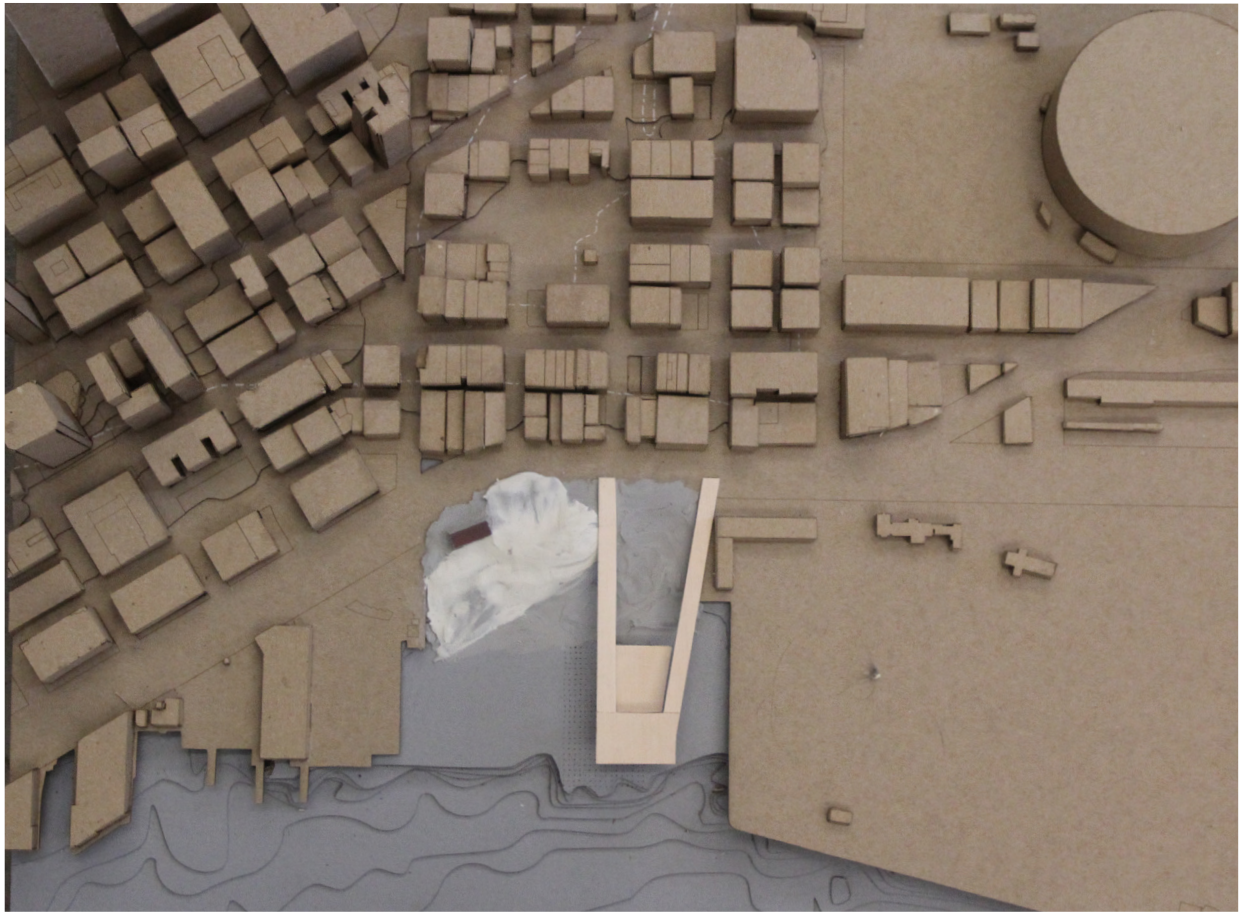


Figure 42 Photograph of Concept Model

Source: Author

Chapter 4: COLLABORATIVE CONSUMPTION OF „PIER 48

To stop understanding architecture as unique and singular objects, autonomous and isolated buildings, definite and finished products, big machines for consumption, and start to understand it and produce it as a strategy, a process, a system of relations, a process in which both time and the user take part, spaces whose essential matter is energy, an atmosphere for feelings and perception, a work acting symbiotically with nature"[1]

When architecture acts as a facilitator for user-generated program rather than a solution to community needs, different priorities and inform the design process. For example, if a site requires programmatic ideas from the community, rather than simply requiring community approval of a project, the priority becomes how might we, as designers, provide the platform to gather these ideas. Bearing this in mind, I propose a self-evolving design process with community involvement clearly affecting the decision-making process. I strive to strike a balance between the detail a structure requires in order to be built and open-endedness to how the structure might adapt over time through community adoption. This open-endedness within my approach is more responsible and more conservative with resources than conventional public space projects. Rather than spend resources to bring a project to an absolute solution (and redo this process

1. JM Montaner. Contemporary Architecture Systems. Ed. GG Barcelona 2008

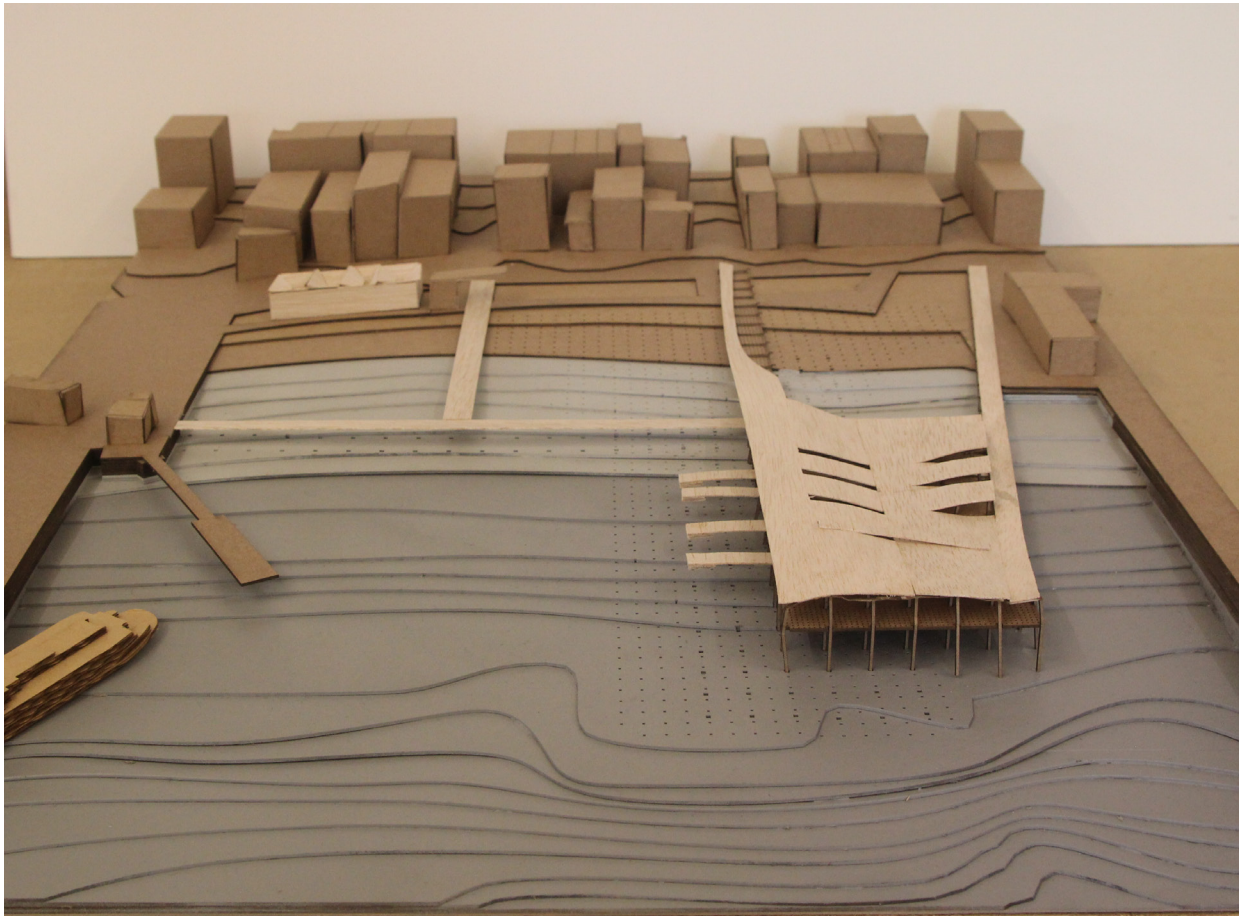


Figure 43 Photograph of Physical Model

Source: Author

in 50 years) I propose the method of collaborative consumption—a sedimentation of user generated program. With this method, architecture facilitates the incremental growth of a public place, shaped over time through community efforts. In this chapter, I test this method with an architectural proposal. (Figures 43 -44)

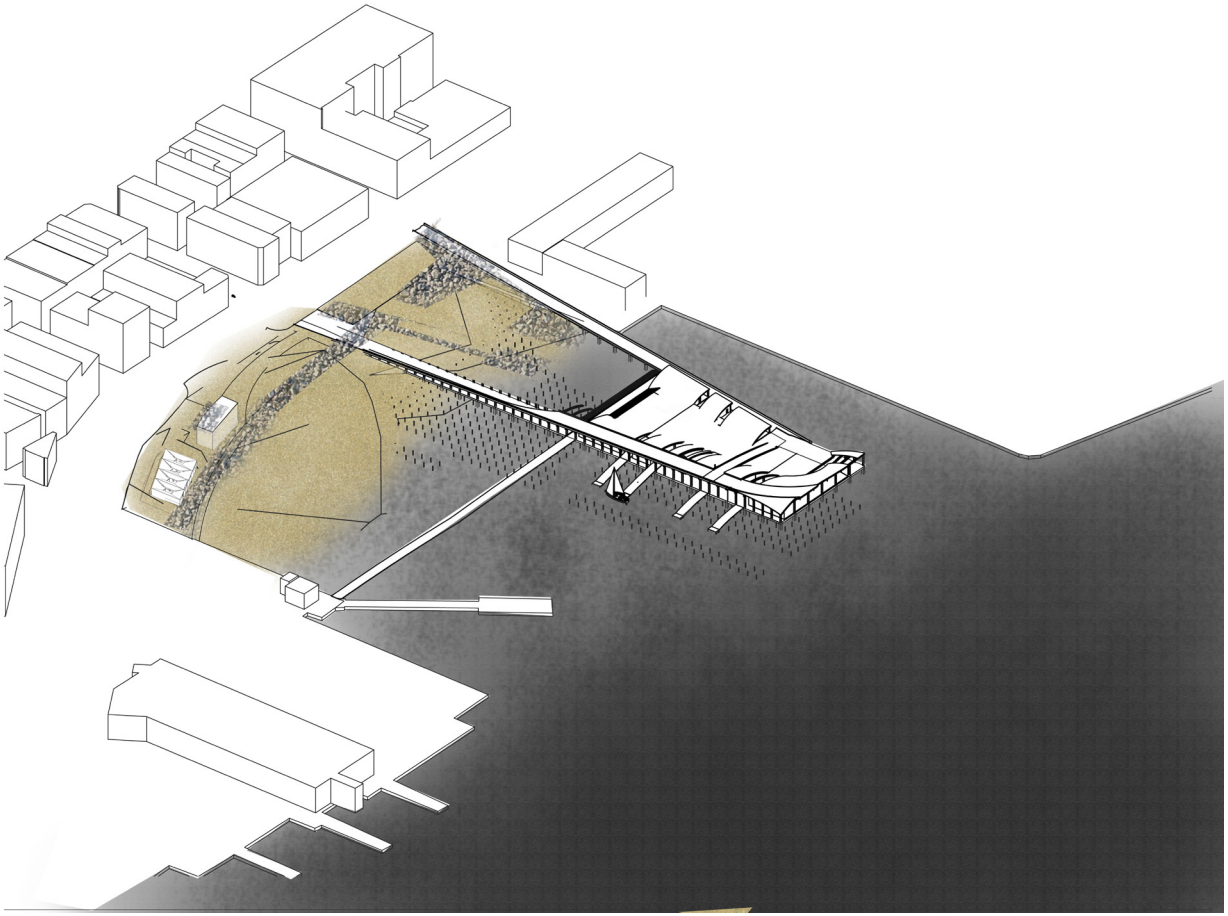


Figure 44 Concept Diagram
Source: Author

Through the method of collaborative consumption, I propose that over time, programs are expanded/contracted by biannual public participation events. In order to show how the architecture facilitates the sedimentation of use, I first introduce the design principles behind the highly responsive intervention, before I discuss how public participation informed the structure.

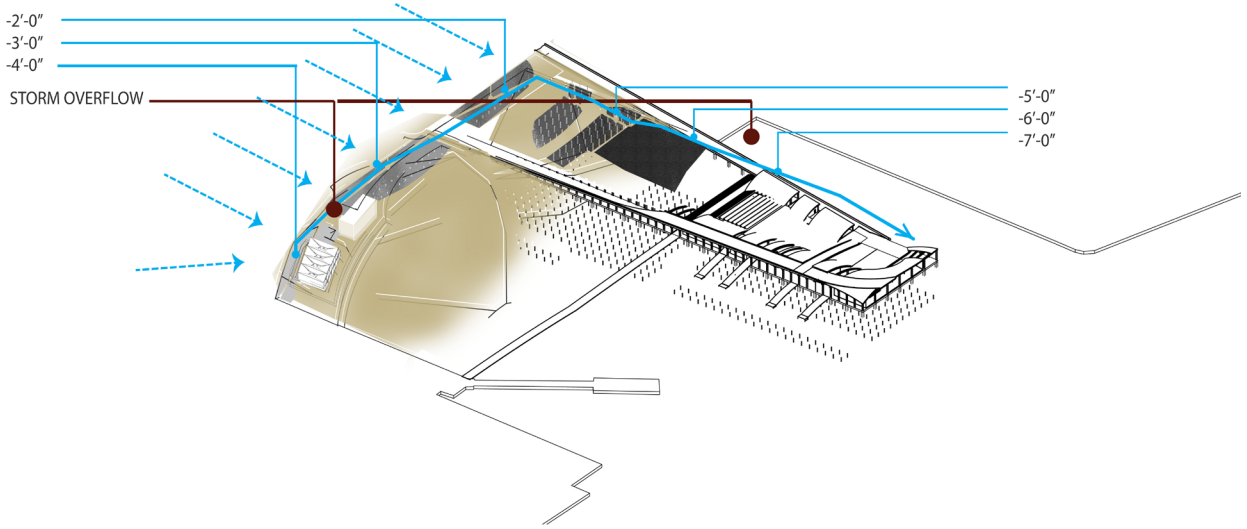


Figure 45 Diagram of Stormwater Treatment

Source: Author

Regeneration

Stormwater is collected and cycled through a series of rain gardens along Alaskan Way. This runoff collection system captures and treats water from two stormwater overflows; lowering the likelihood that untreated overflow from the site is introduced directly into the Puget Sound. Upcycling of materials is crucial for ecological regeneration. The existing pier is deconstructed. The concrete from the original pier is distributed across the site forming the path and structure for the rain gardens. The wooden piles from the original pier remain, marking the different levels of the water from the changing tides. (Figure 45)

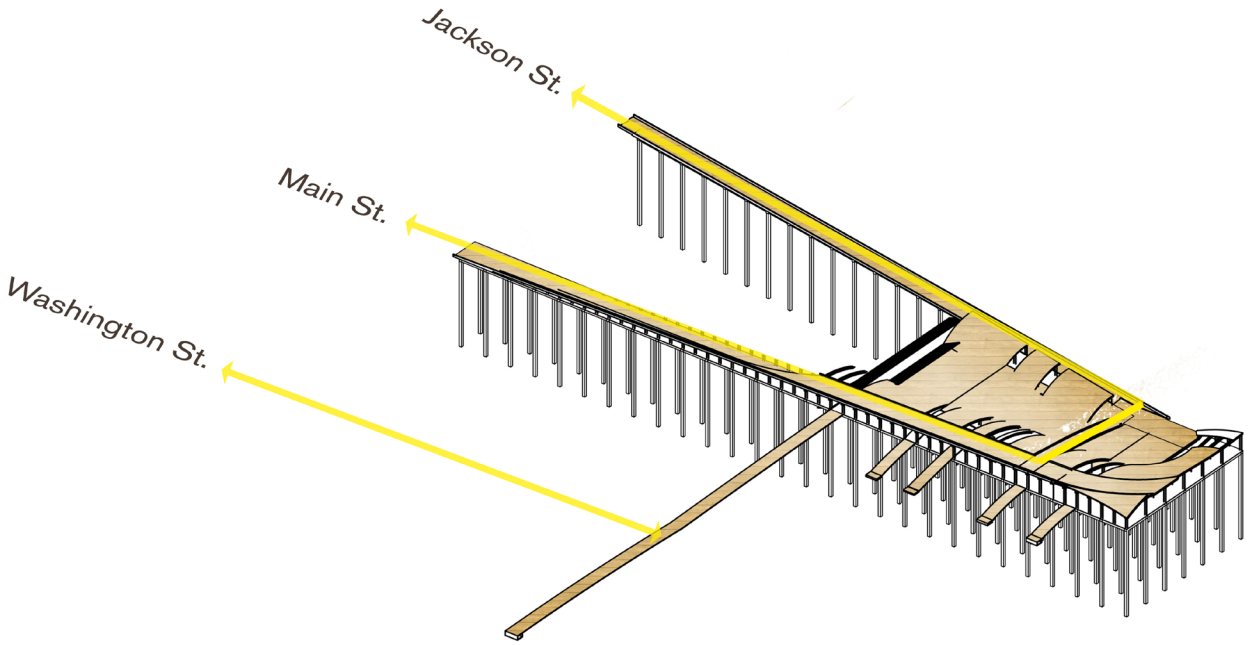


Figure 46. Connection to site
Source: Author

Connectivity

In order to support current and future connectivity, sight lines are preserved for visual connection to and through the site. Washington Street and Main Street remain as unobstructed view corridors for way finding and waterfront visibility. (Figure 46) The structural ribs of the pier form preserve these site lines. Between these ribs, program can sediment and spill into the surrounding topography. (Figures 47-48) The floor plans reveal the potential for sedimentation —underneath and between the structural ribs. (Figures 49-50) Listed in chronological order, based on the time of construction, the plans illustrate the layered connections between the neighborhood to the water from the simulation time frame of 2012-2030.

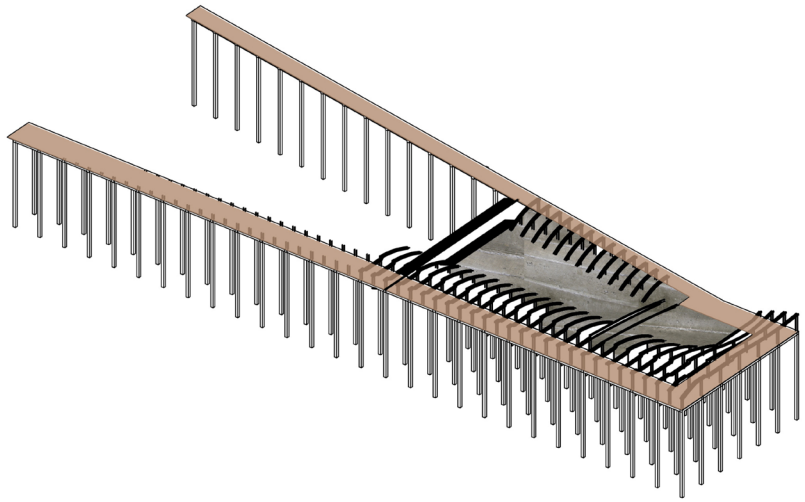


Figure 47. Pier Structure

Source: Author

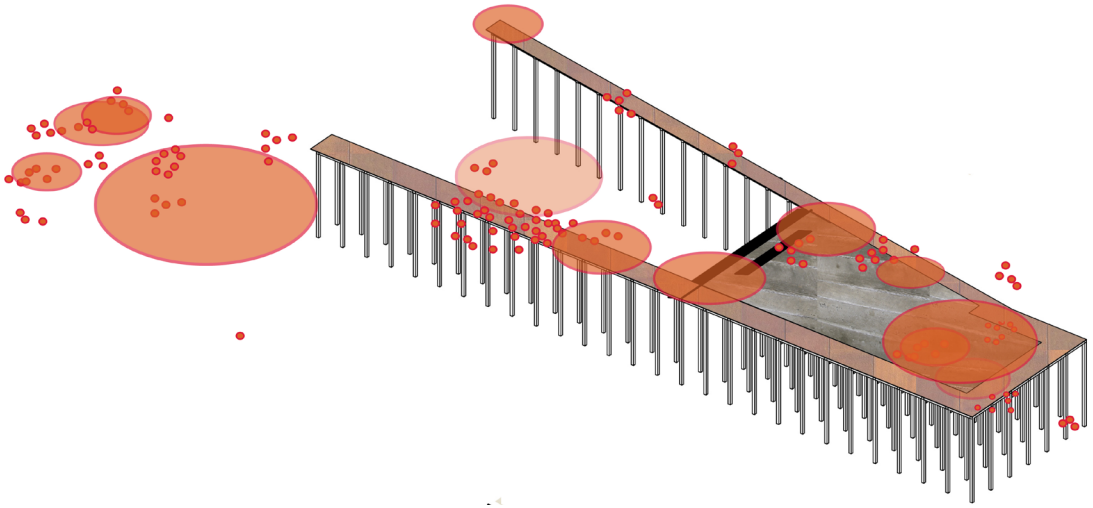


Figure 48. Places for Program to Sediment

Source: Author

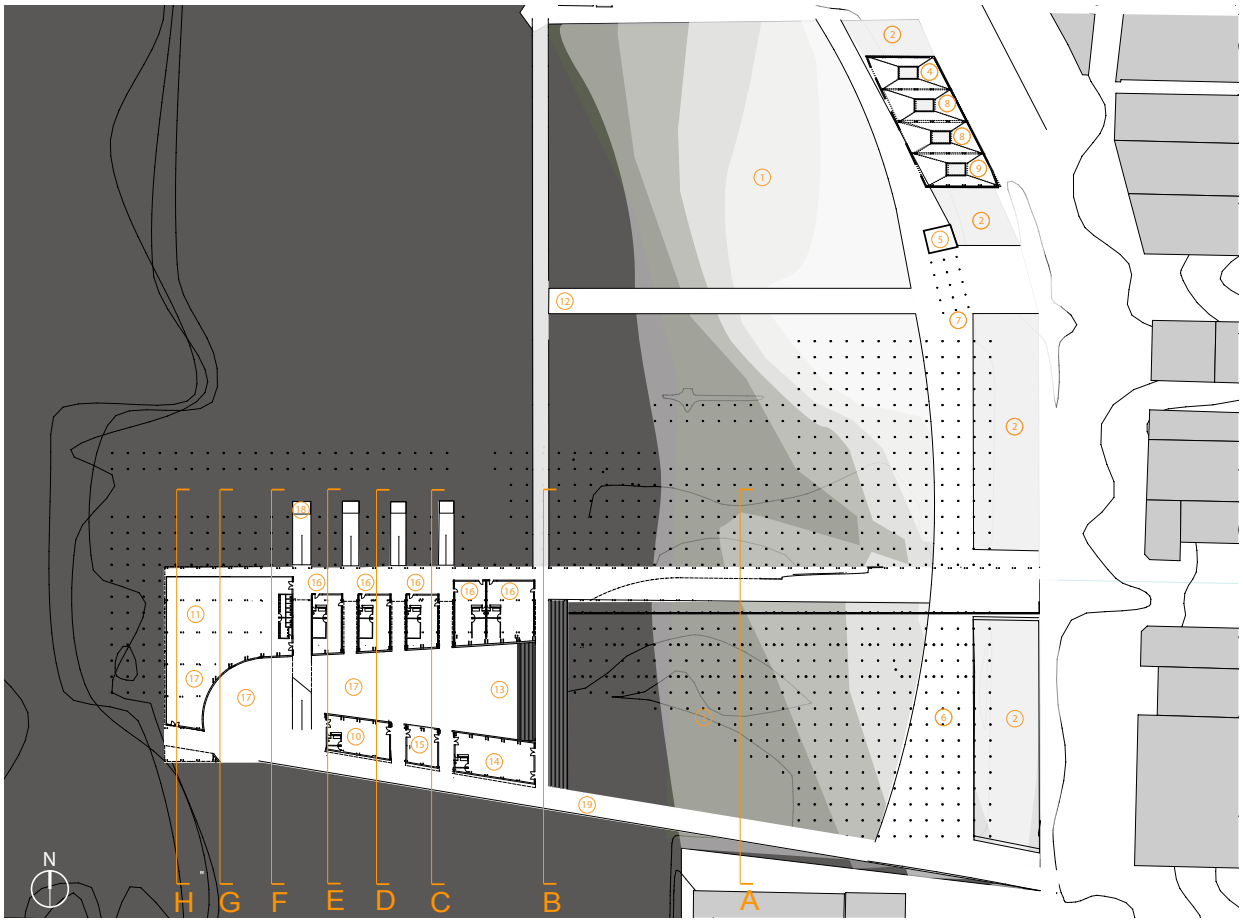
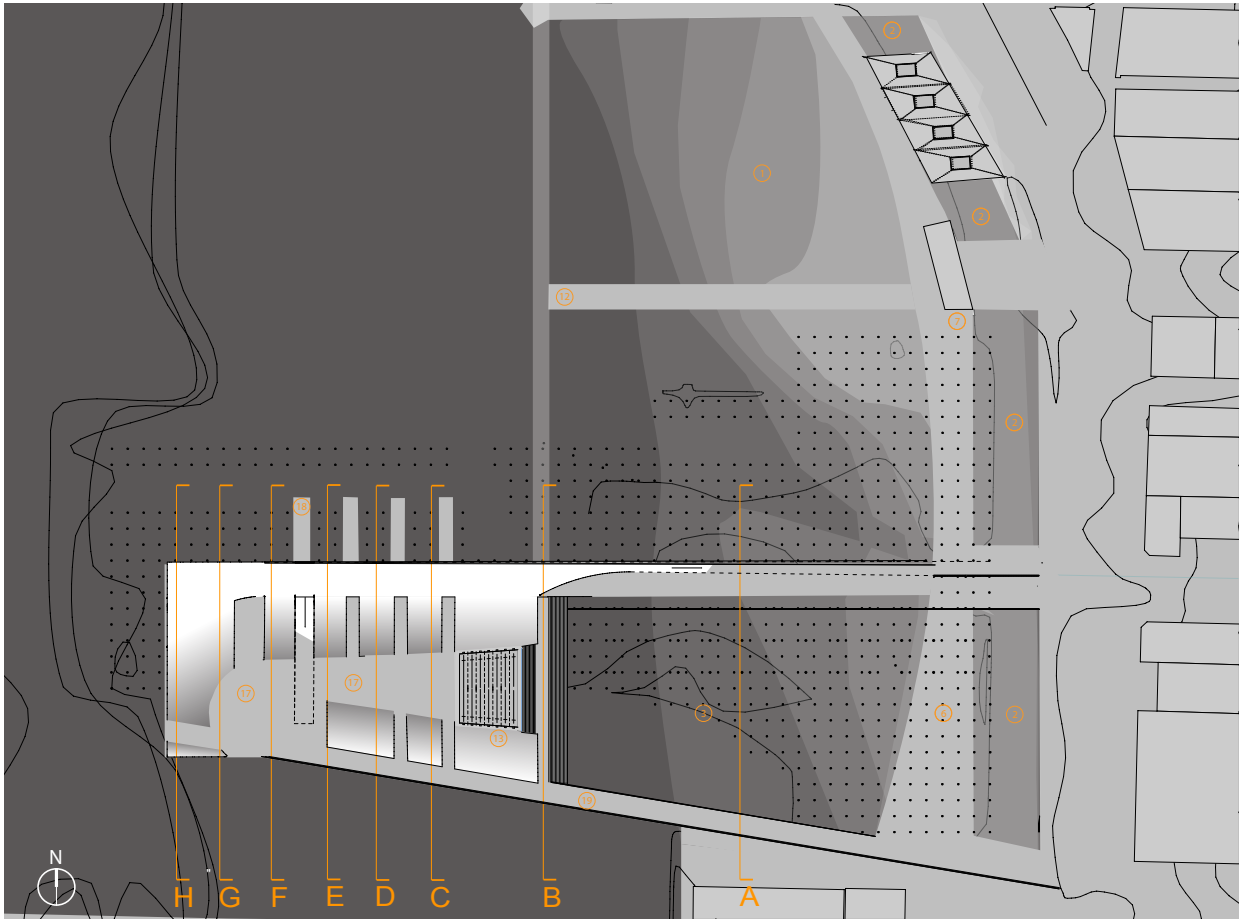


Figure 49. Street Level Plan
Source: Author

1 BEACH
2 RAIN GARDEN
3 SALT MARSH
4 SEATTLE SAW MILL MUSEUM
5 UNDERGROUND TOUR EXTENSION
6 FOOD CART SPACE
7 BOAT LAUNCH RESTORATION
8 ARTIST LARGE INSTALATION SPACE
9 WINTER ICE SKATING RINK
10 VIADUCT ARTICFACT MUSEUM



11 FIRST THURSDAY COMMUNITY SPACE

12 PUBLIC BOAT DOCKING

13 SWIMING POOL

14 WOODWORKING COLLABORATIVE SHOP

15 PIONEER SQUARE PRESERVATION MUSEUM

16 ARTIST LIVE/WORK LOFTS

17 ARTIST LARGE INSTALATION AREA

18 SEATTLE WATER TAXI/ PUBLIC BOAT LANDING

19 PHOTOGRAPH GALLERY

Figure 50. Upper level Plan

Source: Author

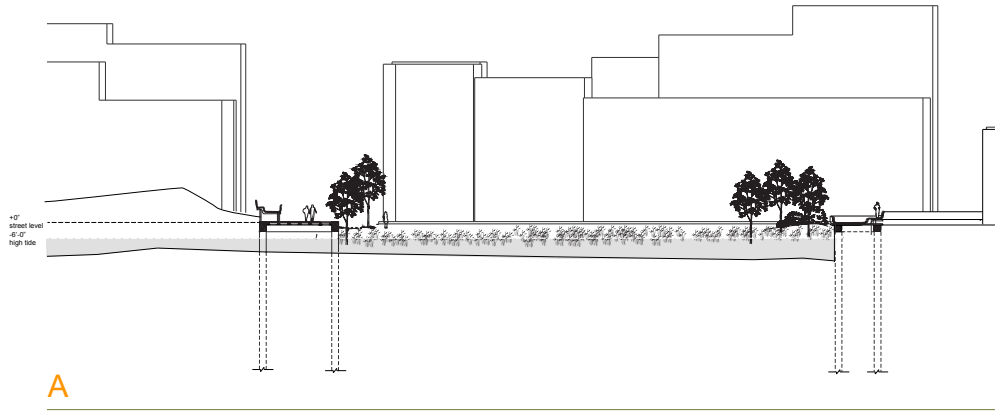


Figure 51. Section A
Source: Author

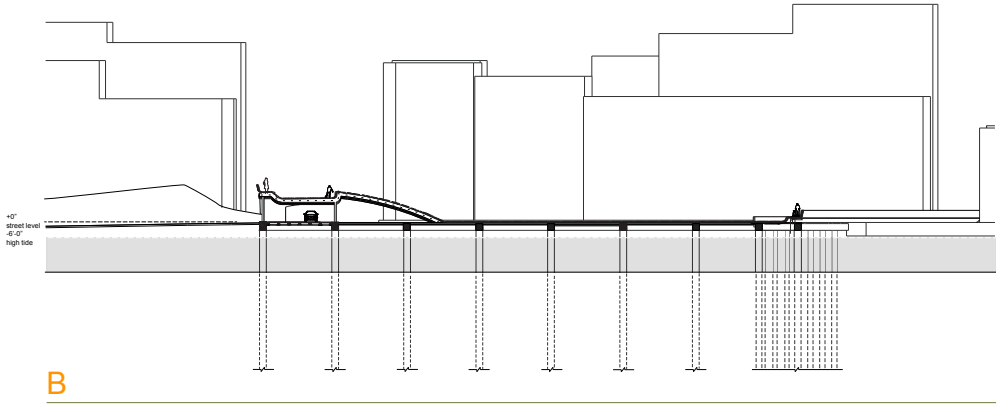


Figure 52. Section B
Source: Author

Exhibition

Sections reveal the topography formed by wrapping the structural ribs with a wood skin. (Figures 51-58) Built onto a steel pile and concrete slab, the glulam and wood skin structure is able to adapt for various programs, inviting the local culture to sediment uses. Established on existing networks,

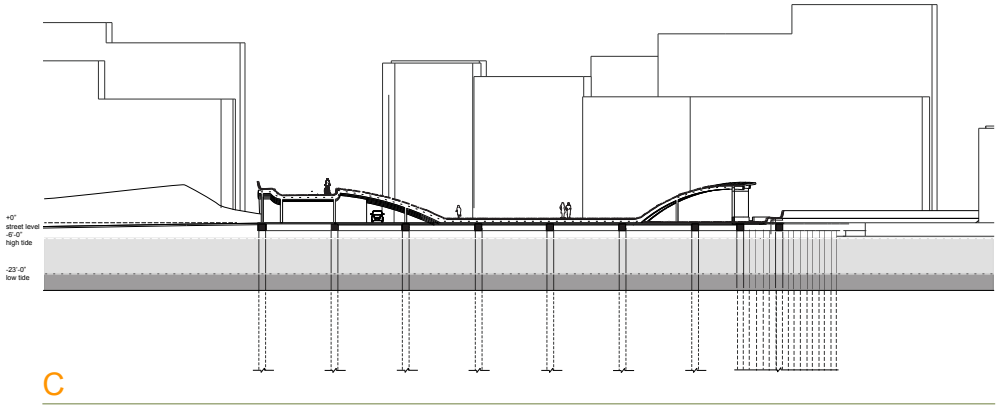


Figure 53. Section C
Source: Author

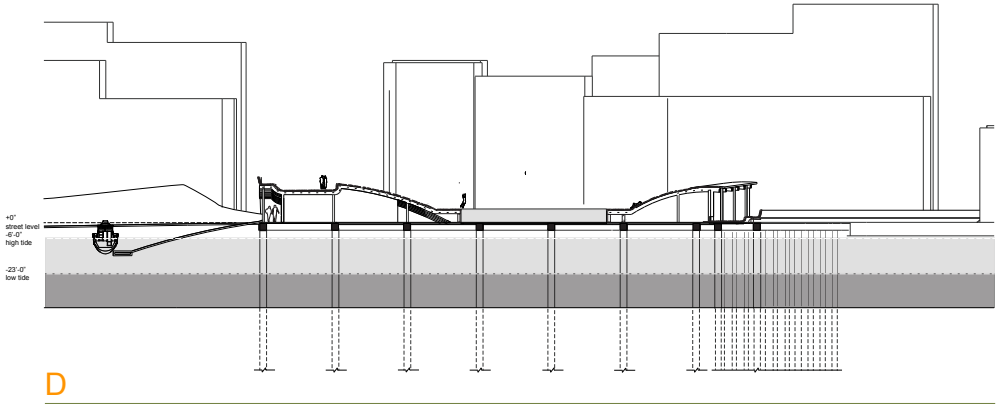


Figure 54. Section D
Source: Author

programs can organized according to constraints. They can expand or shrink in size within the ribs of the structure or expand beyond these ribs into the open courtyard. Since the site has no one center it can operate in a wide range of configurations, it can over time, produce new functions and find new ways to perform.

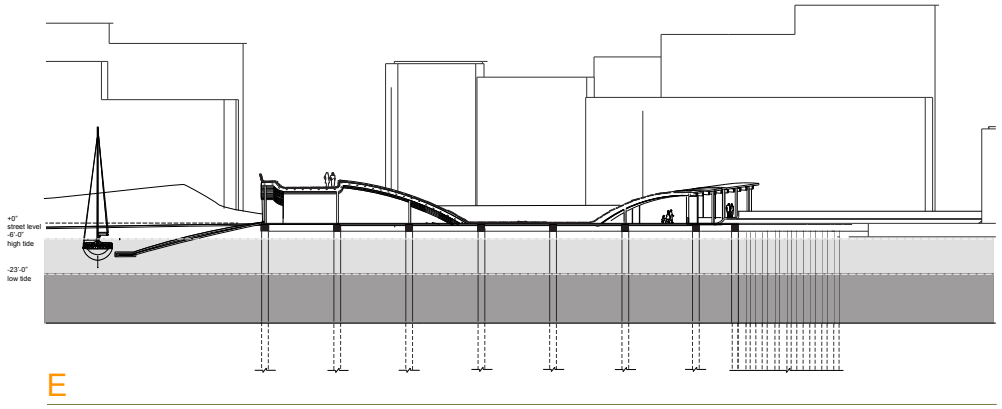


Figure 55. Section E
Source: Author

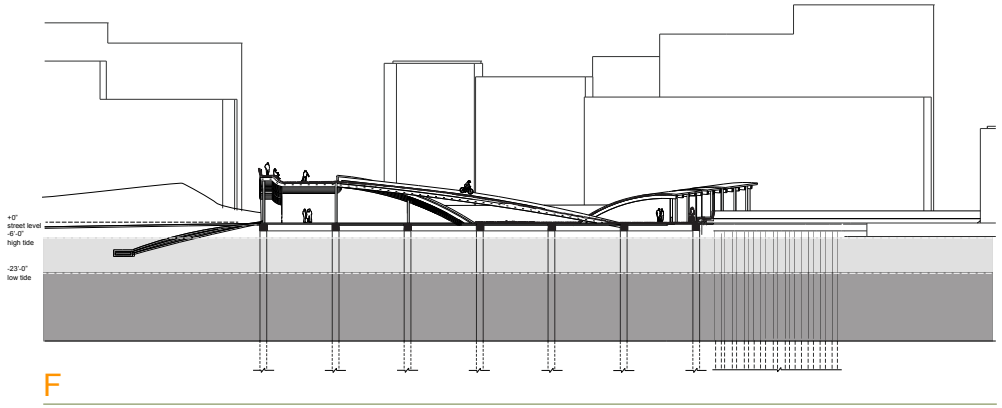
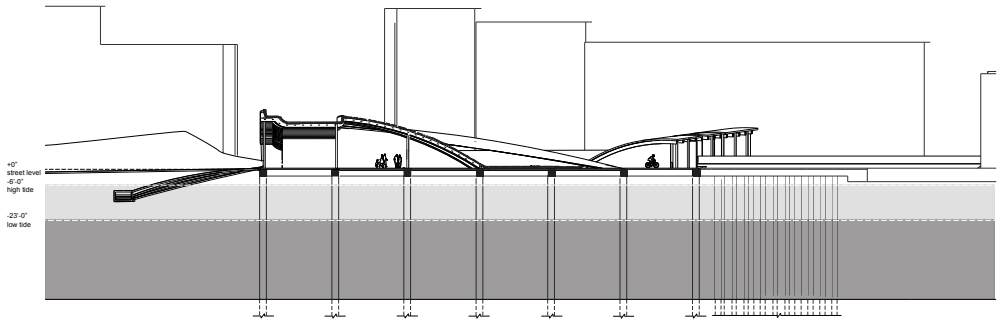
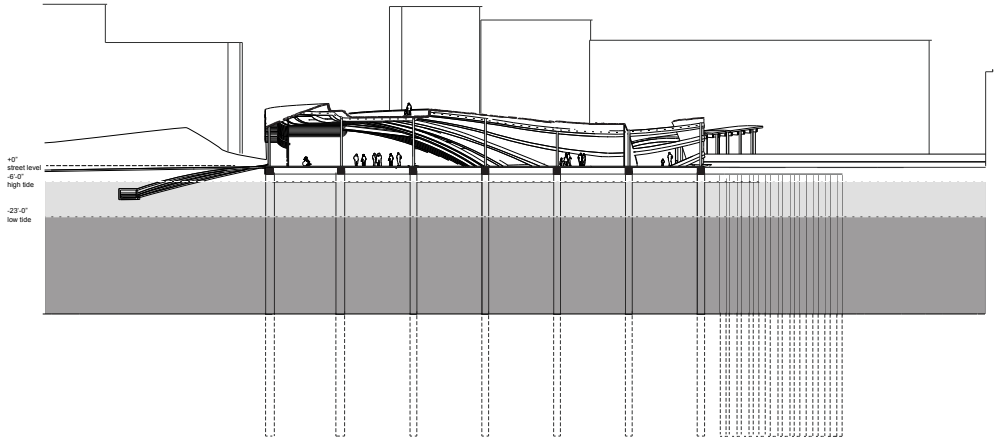


Figure 56. Section F
Source: Author



G

Figure 57. Section G
Source: Author



H

Figure 58. Section H
Source: Author

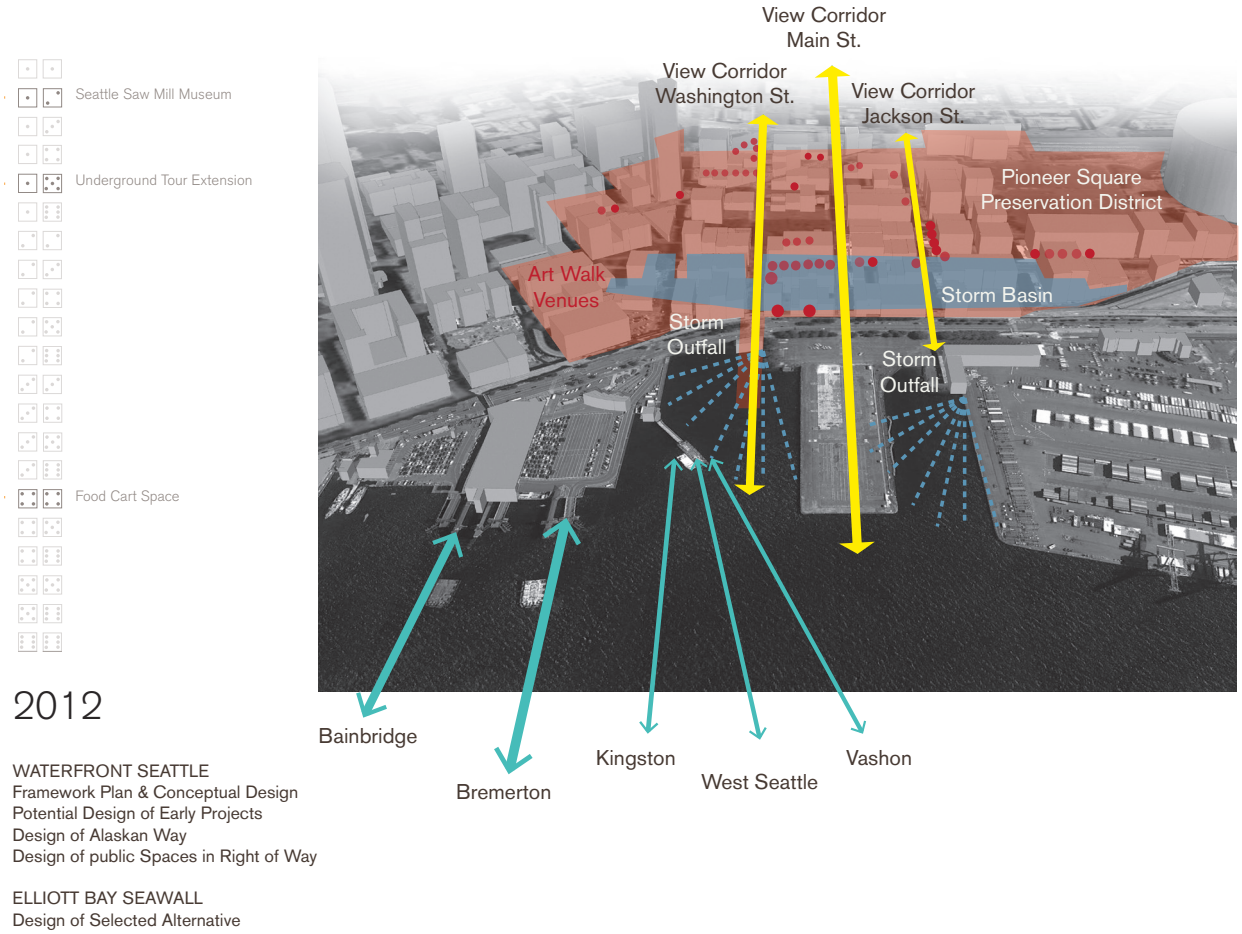


Figure 59. Site Analysis for 2012

Source: Author

In order to explain how this structure expresses sedimentation from multiple public participation events, I describe the design decision-making that occurred in response to several public participation events beginning with 2012. (Figure 59) Adjacent to the Pioneer Square Preservation

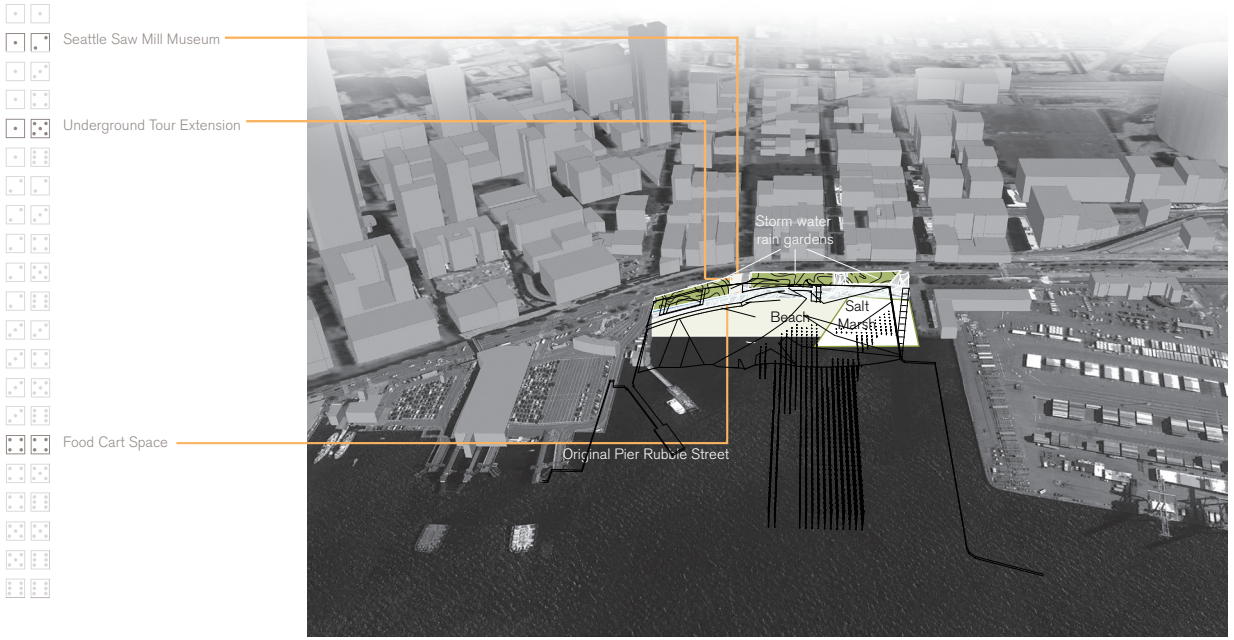


Figure 60. Site Design Approach in Response to 2012 Analysis

Source: Author

District and the Colman Ferry Dock, Pier 48 has a potential to open up as a gateway and a connection to art walk events. As the only section of the waterfront which has shallow enough water levels for the beach to be constructed, this opportunity is realized. Stormwater is collected and cycled through a series of rain gardens and a salt marsh. The first of four rain garden pavilions, appear on the site, housing the Saw Mill Museum. Adjacent to this pavilion, the historic boat launch structure is restored and renovated with a subterranean connection to the Seattle Underground Tour. Food cart space is formed along the public path framing the constructed beach. (Figure 60)

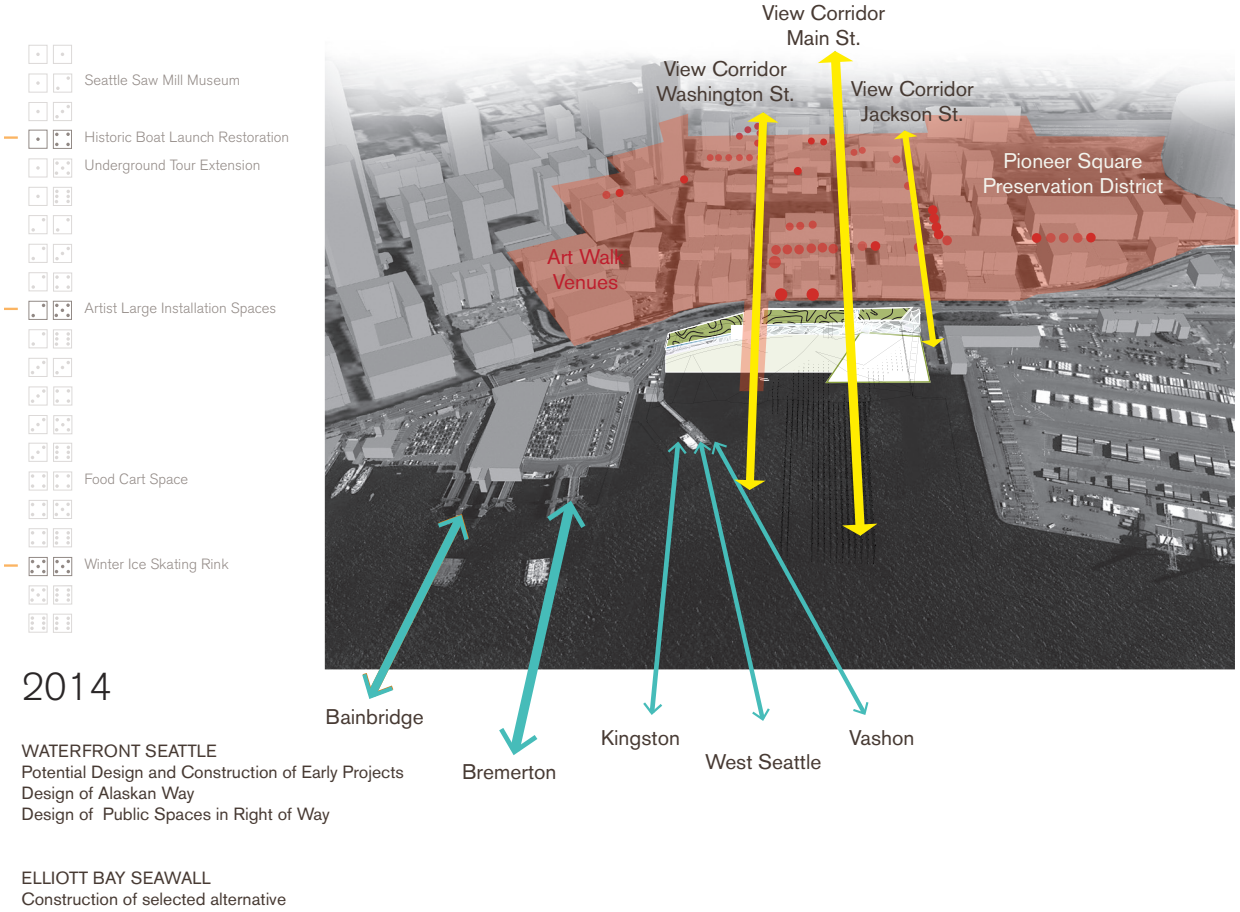


Figure 61. Site Analysis for 2014

Source: Author

The scale of biannual interventions fluctuate and respond to current events. During the 2014 biannual event, the sedimentation area is limited to sections of the beach, to prepare for the pier construction in 2016. At the event, the public installations indicated a need for large installation spaces, a winter ice skating rink, and the restoration of the boat launch function. (Figure 61)

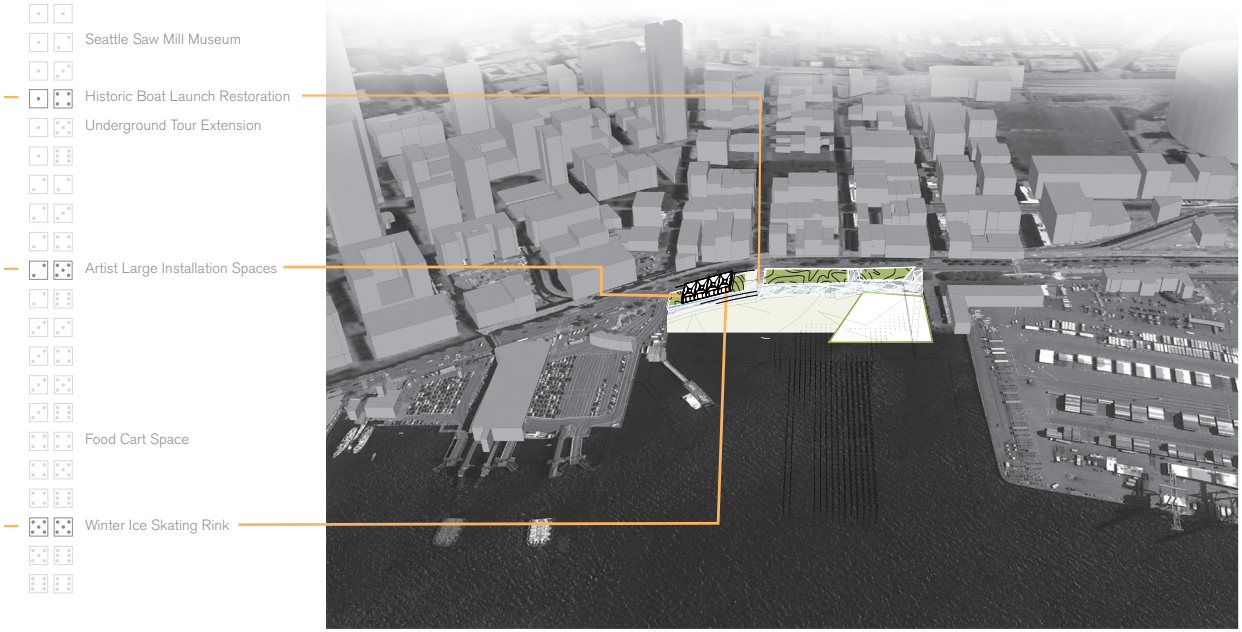
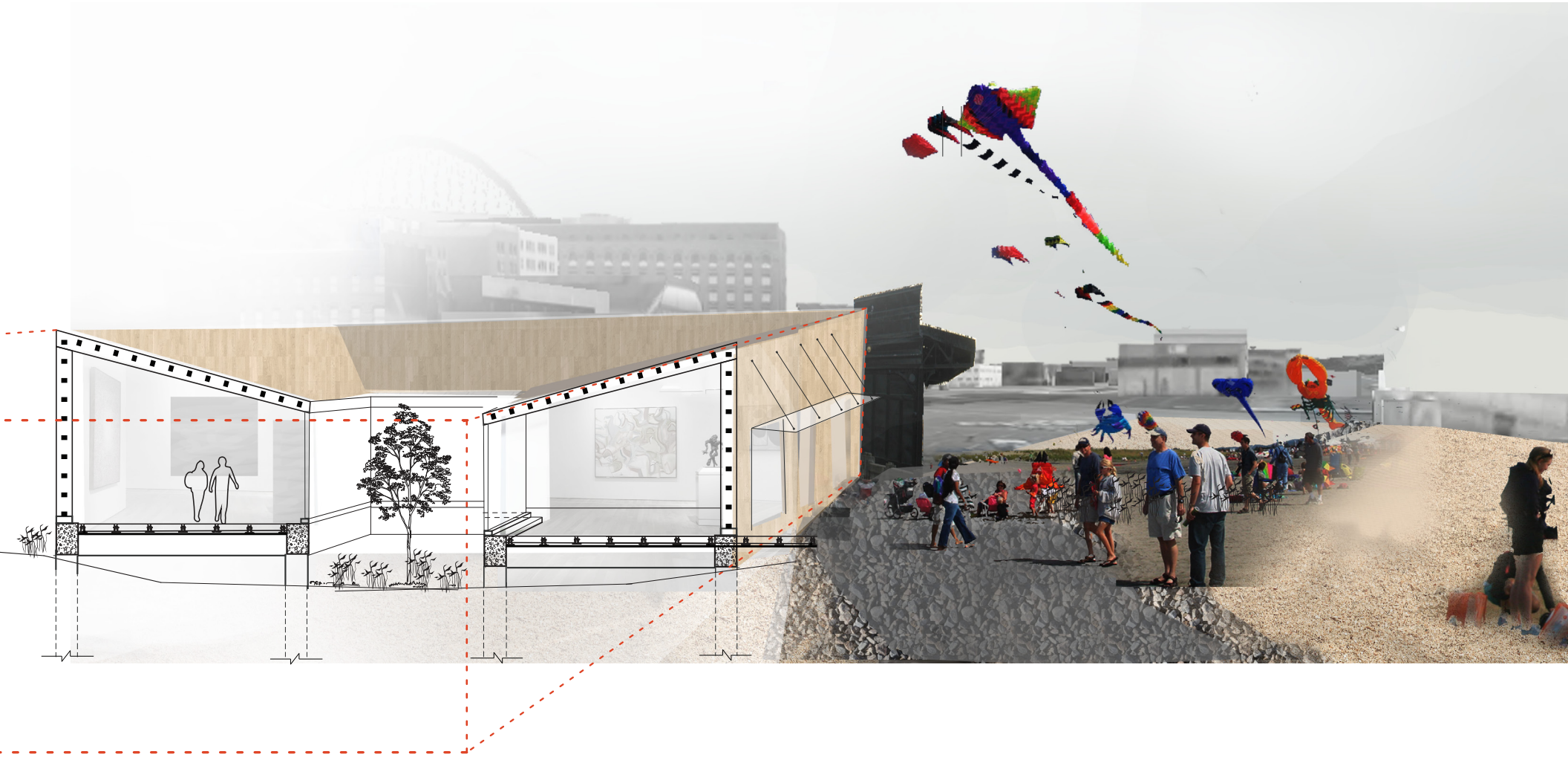


Figure 62. Site Design Approach in Response to 2014 Analysis

Source: Author

By providing opportunities for social interaction and giving users the ability to shape what happens there, the architecture facilitate growth and adoption. In response to the current site constraints and the user-generated programs, three rain garden pavilions are constructed and filled with large installation spaces for artists and a temporary ice skating rink during the winter. (Figure 62)



At each stage of sedimentation, the openness of the site supports multiple experiences from multiple publics. In 2014 site visitors can view the new construction of the pier structure, marking the future site of sedimentation. (Figure 63)

Figure 63. Site Perspective 2014

Source: Author

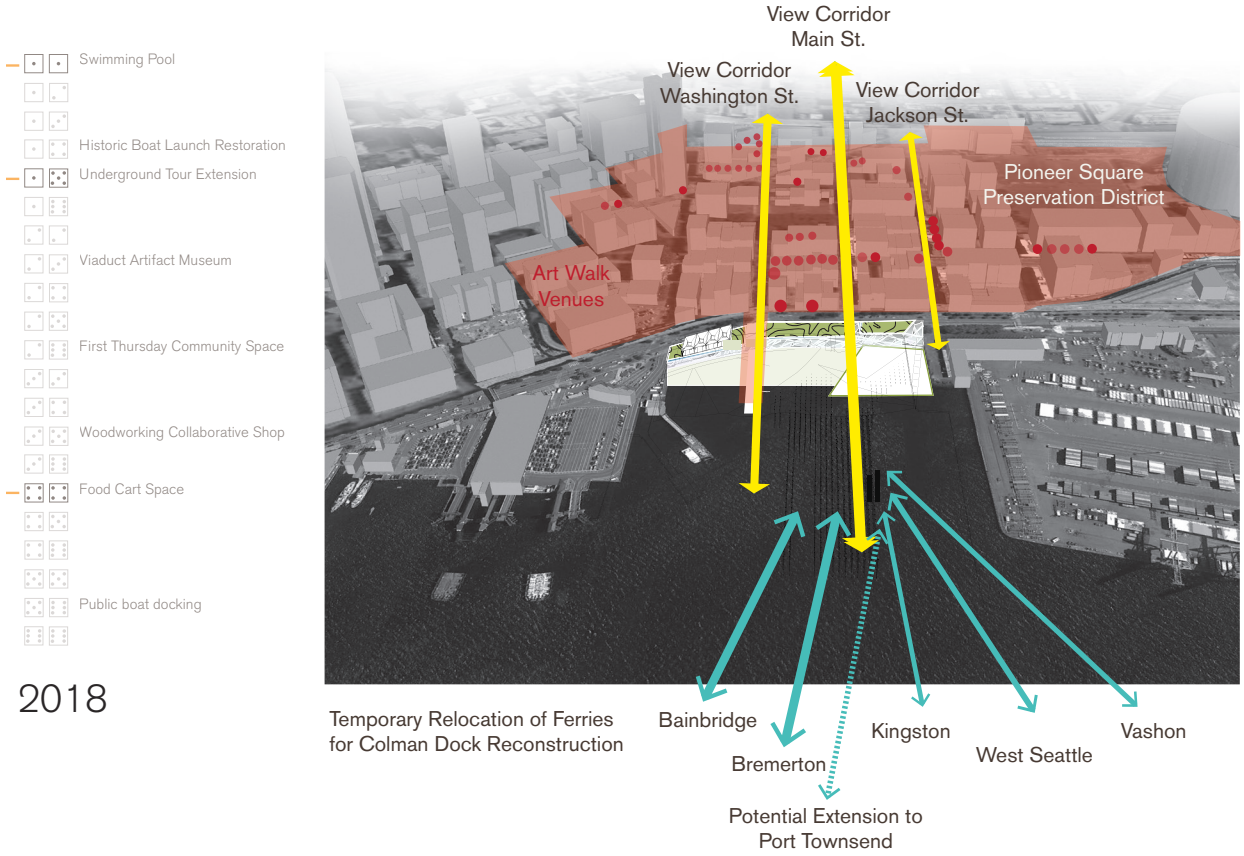


Figure 64. Site Analysis for 2018

Source: Author

Ephemeral public provide flexibility within the design process to allow for program integration over time, and offers potential for transcending conventional limitations and constraints. For example, within the next 5 years the Colman Ferry Dock will be reconstructed. To aid the reconstruction efforts, Pier 48 could become a temporary ferry platform. (Figure 64)

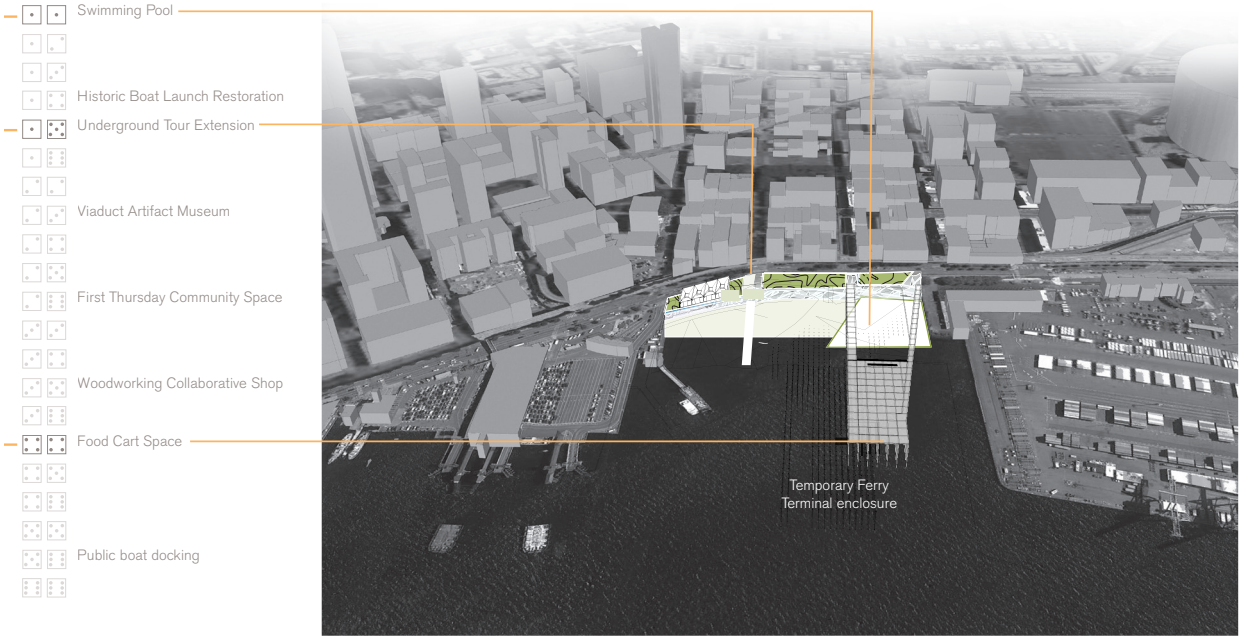


Figure 65. Site Design Approach in Response to 2018 Analysis

Source: Author

Extending the city fabric beyond the constructed shoreline, the public right of way connects Main St. and Jackson St. in a loop marking the new circulation of the site. While the site temporarily functions as ferry terminal, this loop connects and establishes the site as a gateway to the city from the water. (Figure 65)

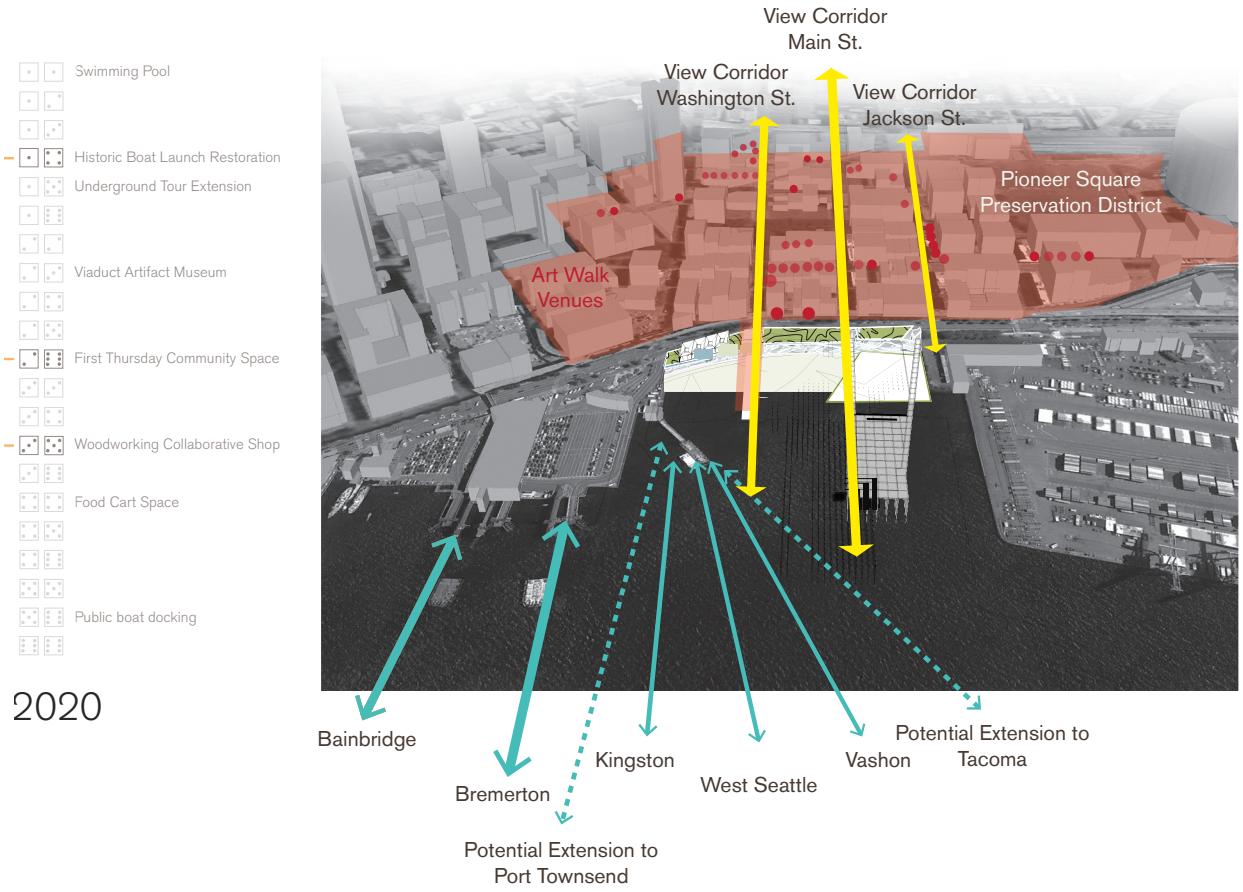


Figure 66. Site Analysis for 2020

Source: Author

Neither corrective nor prescriptive, the structure's allows program to develop onto, between, and beneath the exhibition topography, blurring boundaries between inside/outside. By 2020, a number of programs have been sedimented within the constructed topography of the pier. (Figure 66) Some programs occupy sheltered areas beneath the topography such as a woodworking collaborative shop.

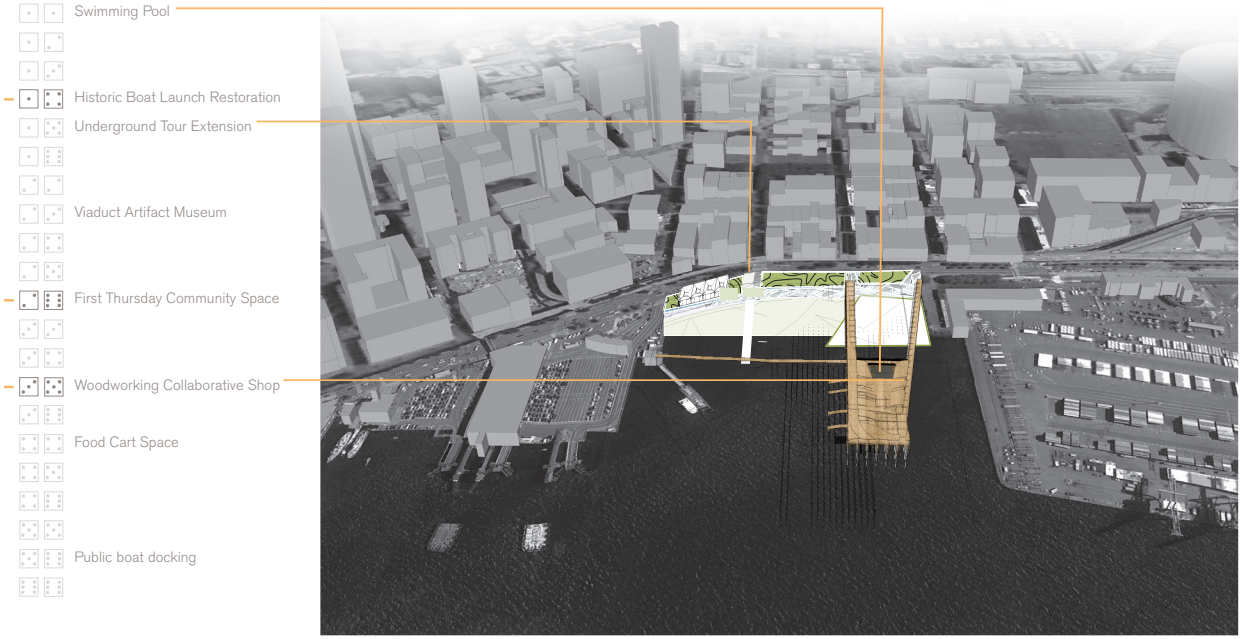


Figure 67. Site Design Approach in Response to 2020 Analysis

Source: Author

Others, such as a swimming pool, form in the valley in between sheltered areas. (Figure 67)

With construction of the two layers of pier structure complete by 2020, visitors can experience the waterfront and the many programs on the site with different circulation paths. (Figure 68)

Figure 68. Site Perspective 2020

Source: Author

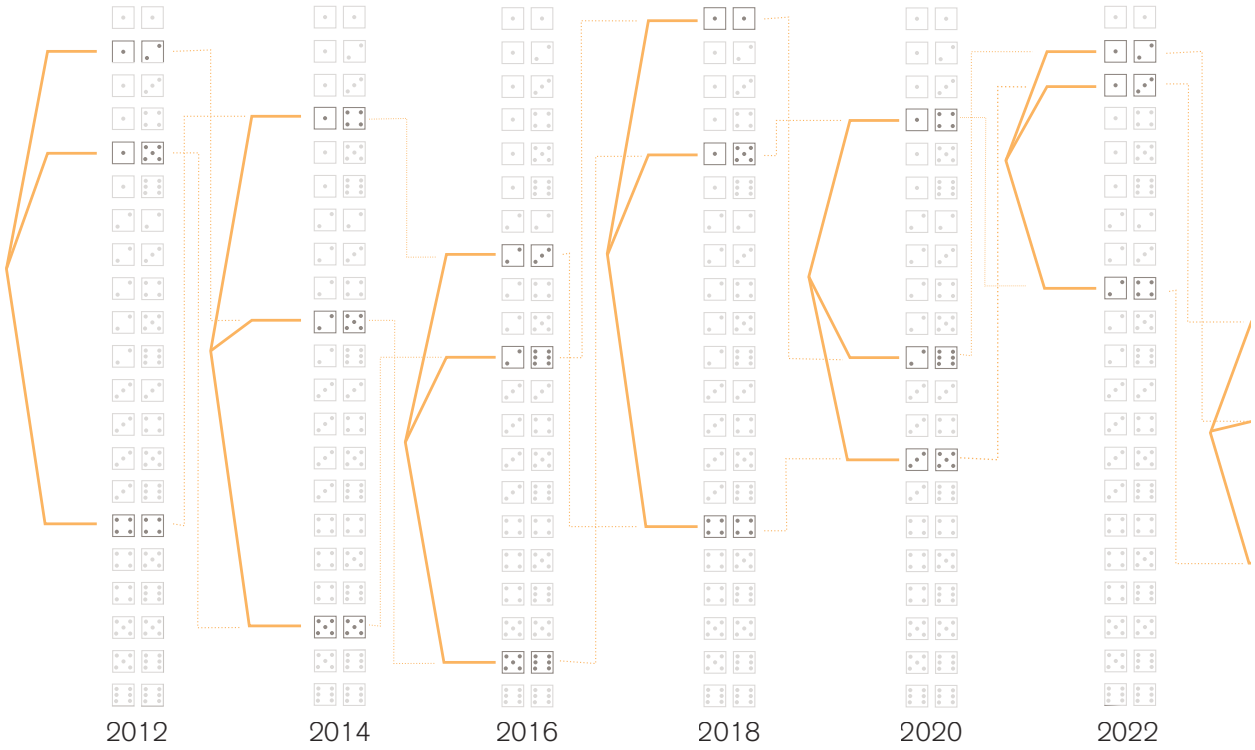
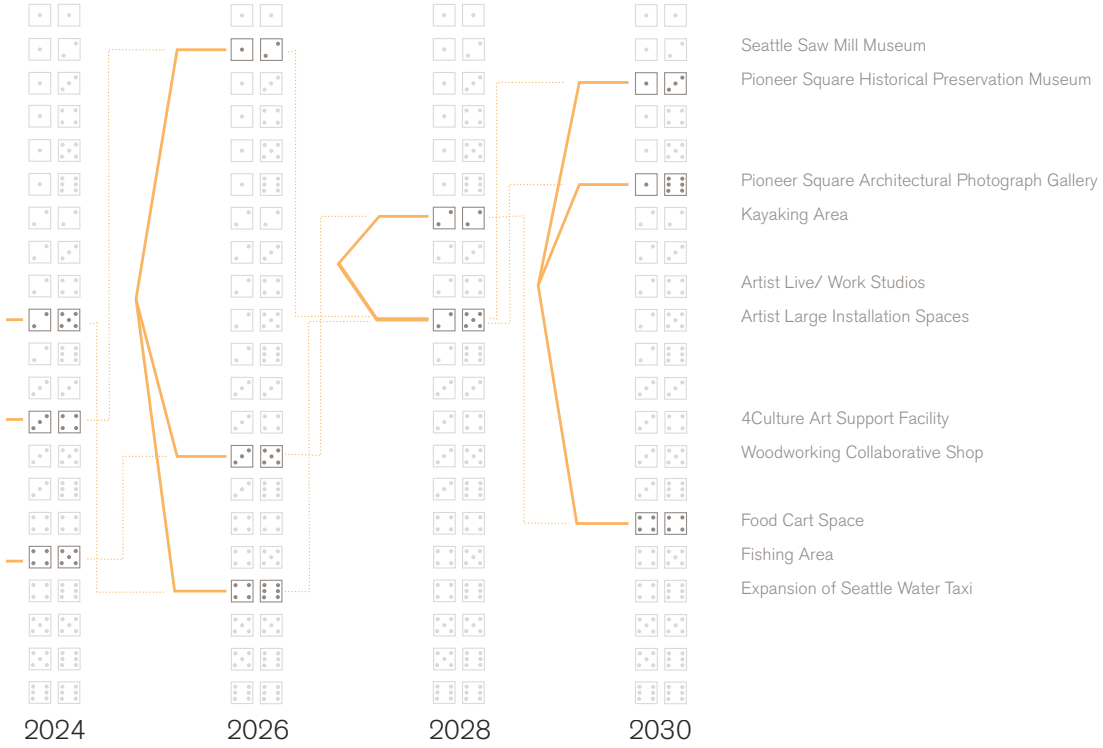


Figure 69. Simulation Outcome

Source: Author

The design proposal offers one possibility for one specific simulation. Within this particular simulation, a large number of artist and historic programing was advocated through community events. (Figure 69) In response to this simulation, the architectural form takes shape over time through the sedimentation process of user defined program. These ephemeral events have a lasting influence on the public space. The events establishes a cyclical process, which temporarily claims ownership over the design process and ensure a dialogue between the community and the design team. Public spaces

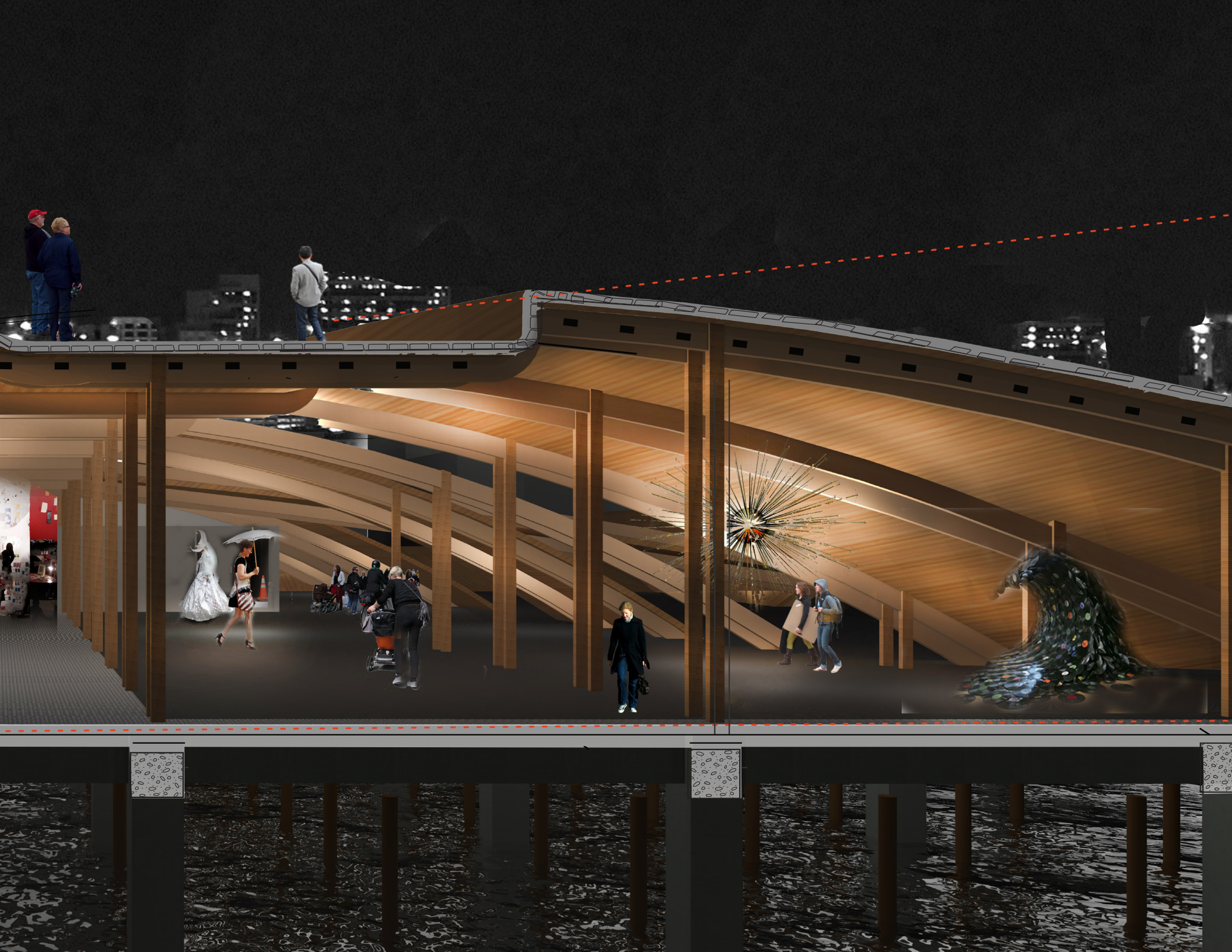


that look good but fail to provide adequate amenities or connections to existing social and economic networks will result in sterile places that people just do not use. The process of collaborative consumption builds on existing networks and transcends this disconnection by offering multiple formal and informal ways to engage with the site. Visitors become active participants by some factor of determining the design outcome. Allowing for various types of contribution, the public space transcends individual mental activity into collective consumption.

Figure 70 Site Perspective 2030

Source: Author

Local residents, passersby, and tourists gather in the large community space for a First Thursday Art Exhibition in 2030. (Figure 70)



Conclusion

"...all evolution is coevolution: individual species and their environments change and evolve on parallel sources, constantly exchanging information. ecologies, unlike buildings, do not respect borders. Instead the range across territories and establish complex relations operating simultaneously at multiple scales, from microscopic to regional. In the design of a city, landscape, or territory, the question of process is shifted from design process - the short and limited province of the discipline to the long life of a building, city, landscape over time, enmeshed in complex social and cultural formations."

Building upon my prior research on public participation models in my Master of Urban Planning thesis, "A Civic Waterfront", it was my intension to propose and explore an alternative approach to design that might help us develop public places through mutual learning and dialog.

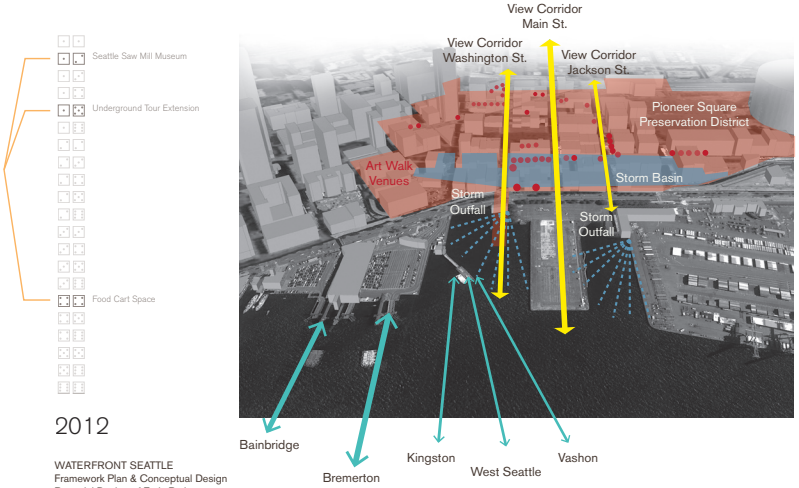
By exploring a self-evolving design process with community involvement clearly affecting the decision-making process and testing its influence on design, I found such a design process has the opportunity to transcend current constraints and adapt over time to serve future users of the public place. The self-evolving design process requires a different type of design thinking. Part of the challenge within my design process was designing a structure, which

1. Stan Allen, and Marc McQuade. 2011. Landform building: architecture's new terrain. Baden, Switzerland: Lars Müller Publishers. 22.

could be flexible and open to future sedimentation of program, while also reflective of the programs demonstrated as user needs by the simulation. This type of design process cannot center on an individual architectural icon fixed in time, but instead must focus on the potential and flexibility of the site through the passage of time.

My design proposal offers one possibility for one specific simulation. Working on this thesis, I realized that there are many possibilities for further exploration. If this project process was actualized, different programs and ideas would evolve from the design process. It is not my intention to claim that the simulation's specific set of programs would build community commitment. Rather, I claim that the method of collaborative consumption from which the programs resulted creates an open dialogue between current and future users of the site and the design team. Sedimentation of use offers a visible result to working with the public and establishes new ways to design and create public places for long-term inhabitation by the local community.

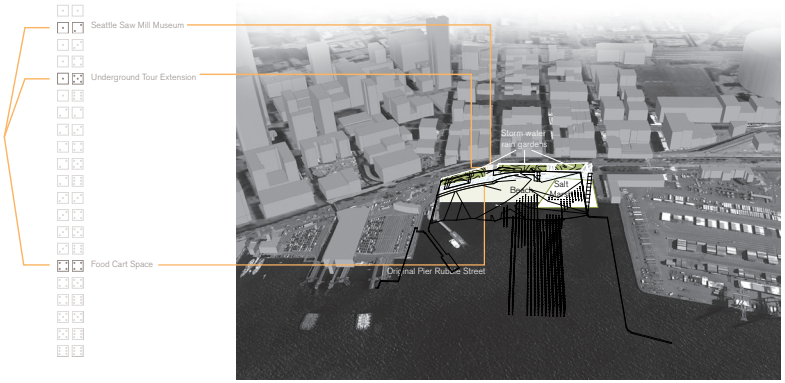
Appendix A
Sequence of Sedimentation Diagrams

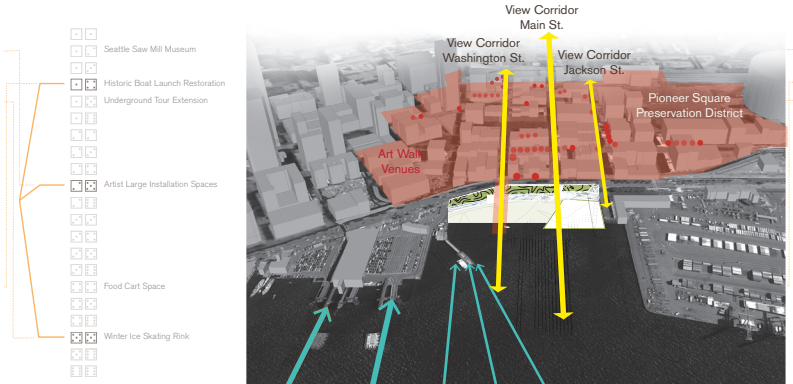


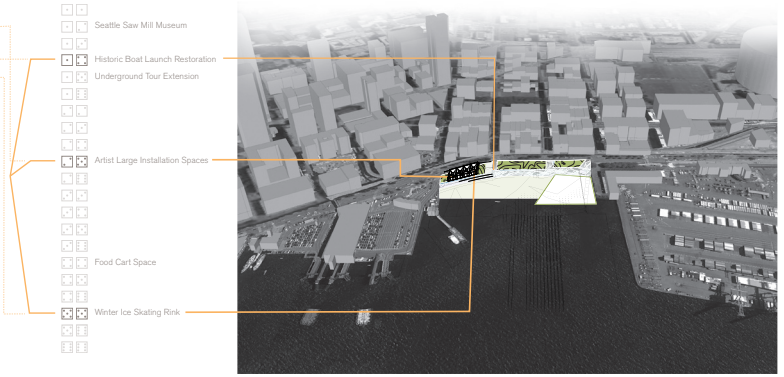
2012

WATERFRONT SEATTLE
Framework Plan & Conceptual Design
Potential Design of Early Projects
Design of Alaskan Way
Design of public Spaces in Right of Way

ELLIOTT BAY SEAWALL
Design of Selected Alternative



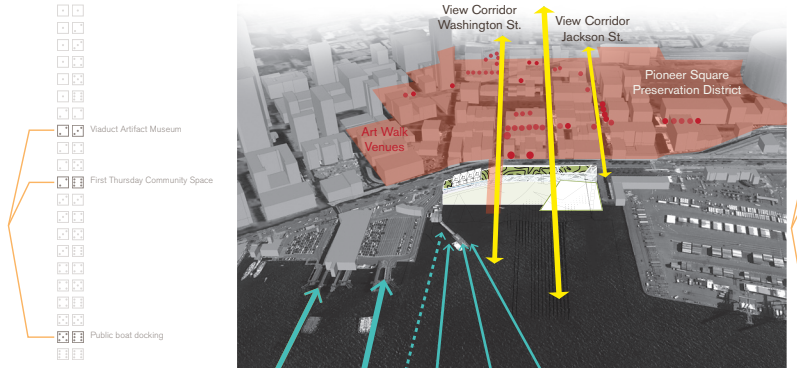


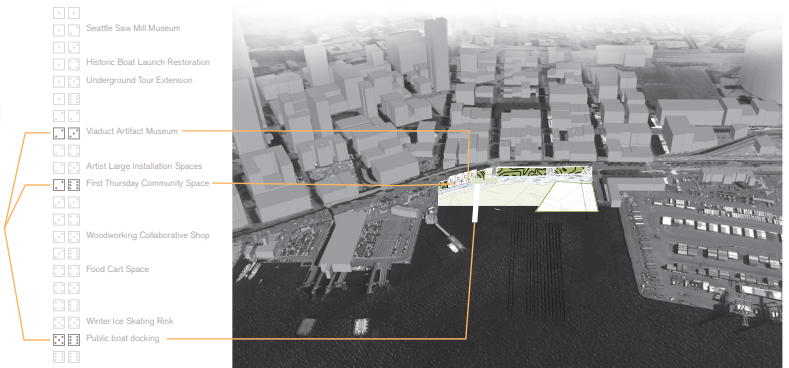


2014

WATERFRONT SEATTLE
Potential Design and Construction of Early Projects
Design of Alaskan Way
Design of Public Spaces in Right of Way

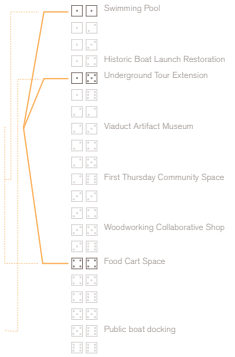
ELLIOTT BAY SEAWALL
Construction of selected alternative



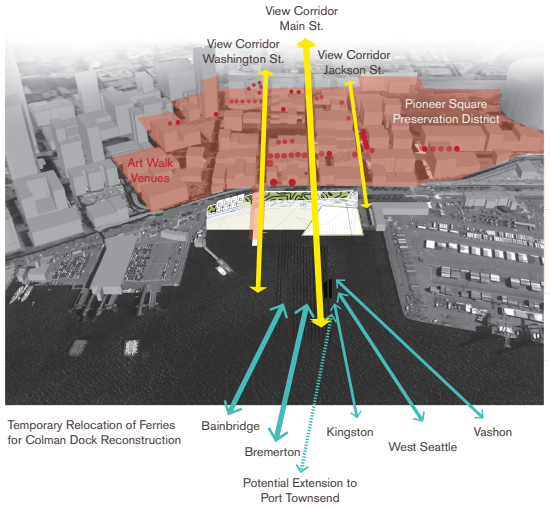


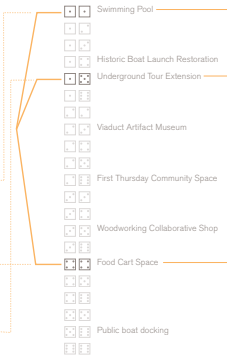
2016

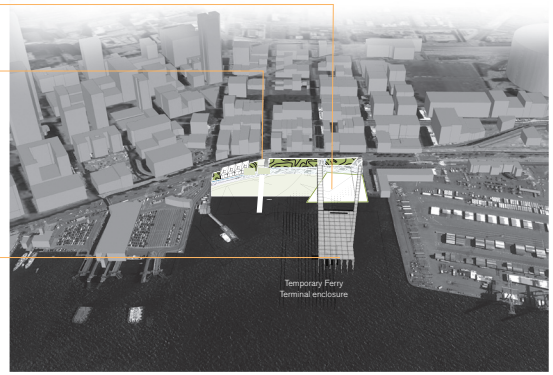
WATERFRONT SEATTLE
Tunnel Opens
Viaduct Demolition
Construction of Public Spaces streets and utilities

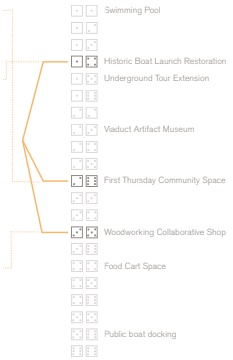

Swimming Pool
Historic Boat Launch Restoration
Underground Tour Extension
Viaduct Artifact Museum
First Thursday Community Space
Woodworking Collaborative Shop
Food Cart Space
Public boat docking

2018

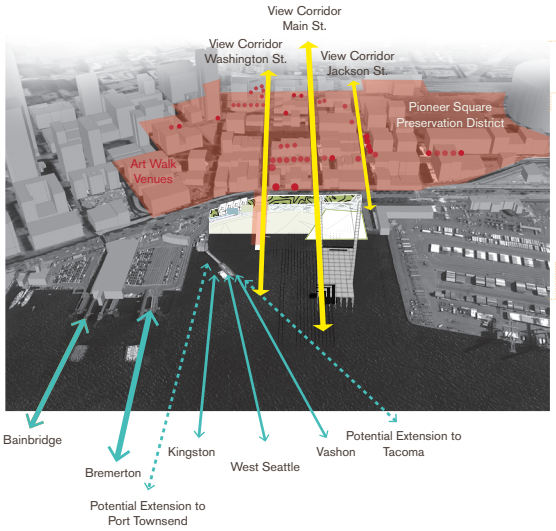

View Corridor
Main St.
View Corridor
Washington St.
View Corridor
Jackson St.
Pioneer Square
Preservation District
Art Walk
Venues
Temporary Relocation of Ferries
for Colman Dock Reconstruction
Bainbridge
Bremerton
Kingston
West Seattle
Vashon
Potential Extension to
Port Townsend

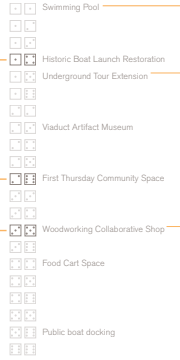

Swimming Pool
Historic Boat Launch Restoration
Underground Tour Extension
Viaduct Artifact Museum
First Thursday Community Space
Woodworking Collaborative Shop
Food Cart Space
Public boat docking

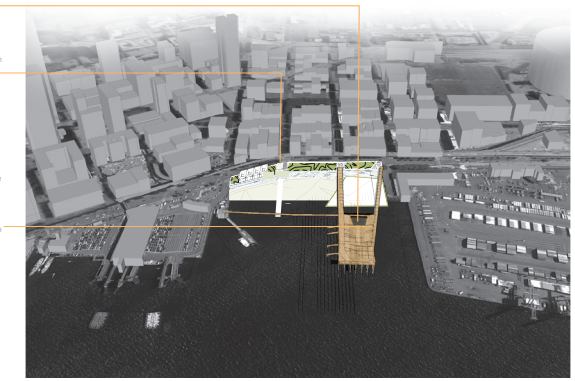

Temporary Ferry
Terminal enclosure

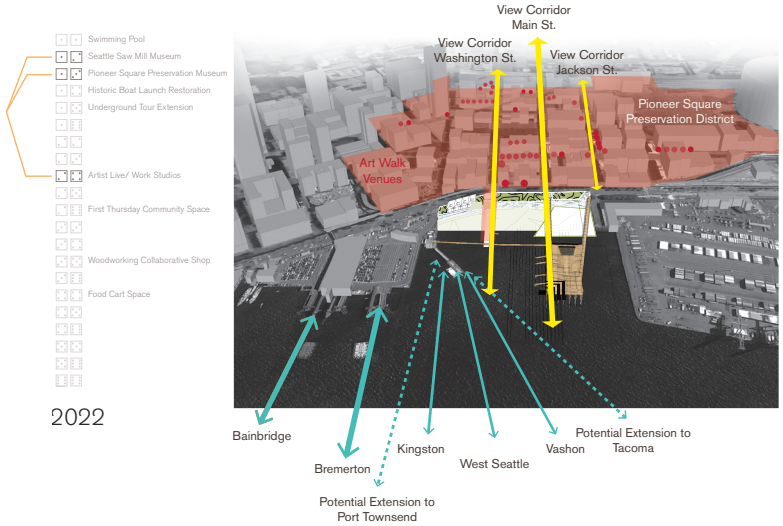

Swimming Pool
Historic Boat Launch Restoration
Underground Tour Extension
Viaduct Artifact Museum
First Thursday Community Space
Woodworking Collaborative Shop
Food Cart Space
Public boat docking

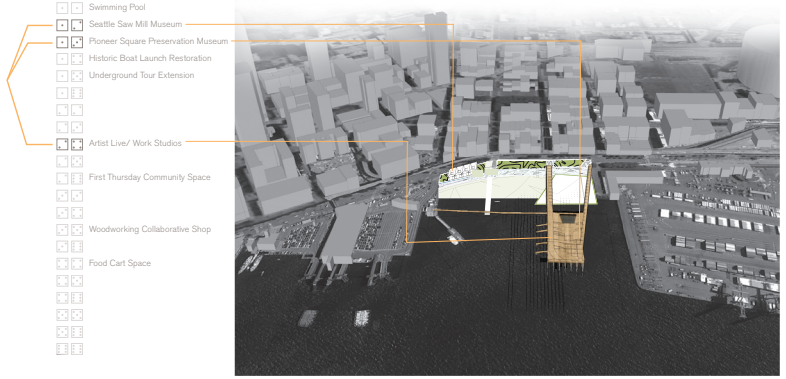
2020

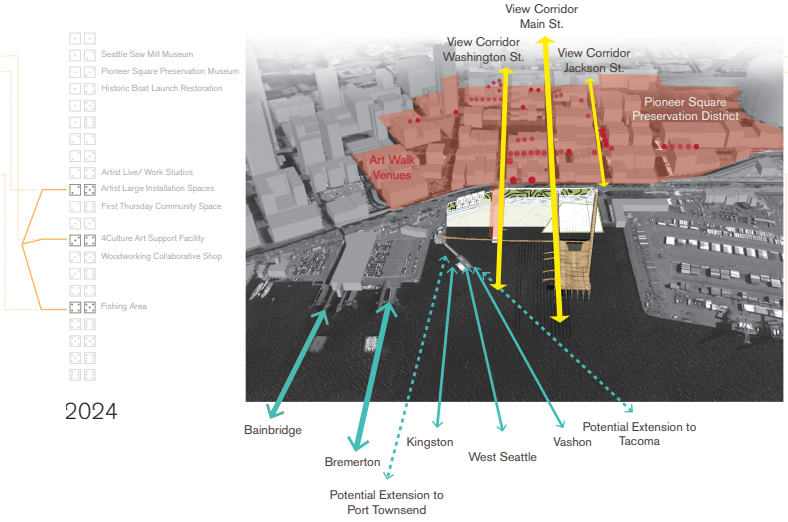

View Corridor
Main St.
View Corridor
Washington St.
View Corridor
Jackson St.
Pioneer Square
Preservation District
Art Walk
Venues
Bainbridge
Bremerton
Kingston
West Seattle
Vashon
Potential Extension to
Tacoma
Potential Extension to
Port Townsend

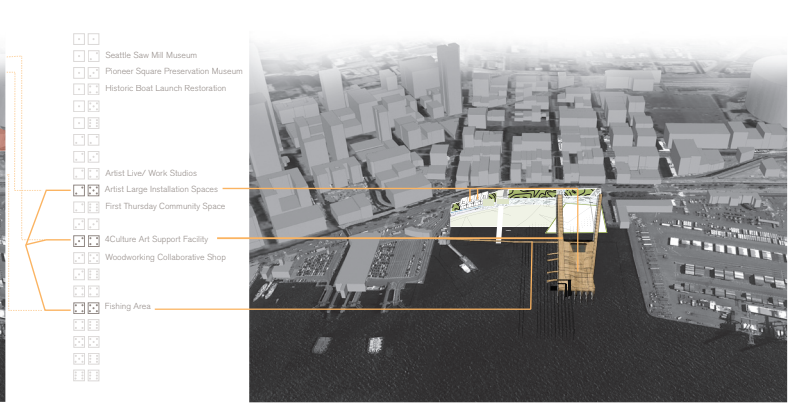

Swimming Pool
Historic Boat Launch Restoration
Underground Tour Extension
Viaduct Artifact Museum
First Thursday Community Space
Woodworking Collaborative Shop
Food Cart Space
Public boat docking

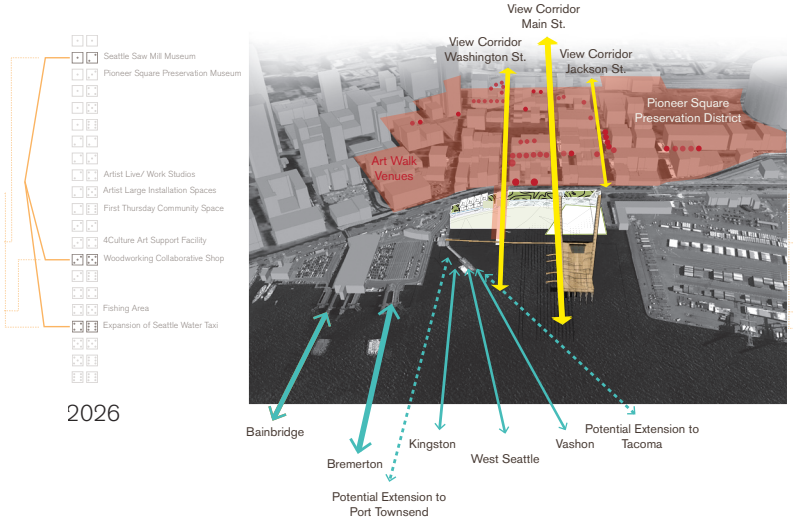



Swimming Pool
Seattle Saw Mill Museum
Pioneer Square Preservation Museum
Historic Boat Launch Restoration
Underground Tour Extension
Artist Live/ Work Studios
First Thursday Community Space
Woodworking Collaborative Shop
Food Cart Space
2022
View Corridor Main St.
View Corridor Washington St.
View Corridor Jackson St.
Pioneer Square Preservation District
Art Walk Venues
Bainbridge
Bremerton
Kingston
West Seattle
Vashon
Potential Extension to Tacoma
Potential Extension to Port Townsend

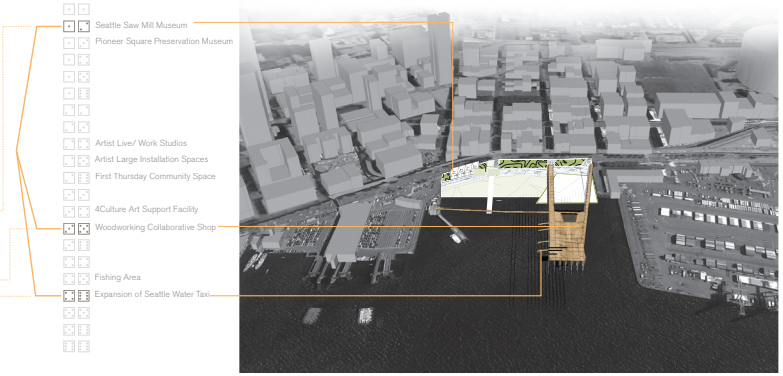

Swimming Pool
Seattle Saw Mill Museum
Pioneer Square Preservation Museum
Historic Boat Launch Restoration
Underground Tour Extension
Artist Live/ Work Studios
First Thursday Community Space
Woodworking Collaborative Shop
Food Cart Space


Seattle Saw Mill Museum
Pioneer Square Preservation Museum
Historic Boat Launch Restoration
Artist Live/ Work Studios
Artist Large Installation Spaces
First Thursday Community Space
4Culture Art Support Facility
Woodworking Collaborative Shop
Fishing Area
2024
View Corridor Main St.
View Corridor Washington St.
View Corridor Jackson St.
Pioneer Square Preservation District
Art Walk Venues
Bainbridge
Bremerton
Kingston
West Seattle
Vashon
Potential Extension to Tacoma
Potential Extension to Port Townsend


Seattle Saw Mill Museum
Pioneer Square Preservation Museum
Historic Boat Launch Restoration
Artist Live/ Work Studios
Artist Large Installation Spaces
First Thursday Community Space
4Culture Art Support Facility
Woodworking Collaborative Shop
Fishing Area


Seattle Saw Mill Museum
Pioneer Square Preservation Museum
Artist Live/ Work Studios
Artist Large Installation Spaces
First Thursday Community Space
4Culture Art Support Facility
Woodworking Collaborative Shop
Fishing Area
Expansion of Seattle Water Taxi
View Corridor Main St.
View Corridor Washington St.
View Corridor Jackson St.
Pioneer Square Preservation District
Art Walk Venues
Bainbridge
Bremerton
Kingston
West Seattle
Vashon
Potential Extension to Tacoma
Potential Extension to Port Townsend

2026


Seattle Saw Mill Museum
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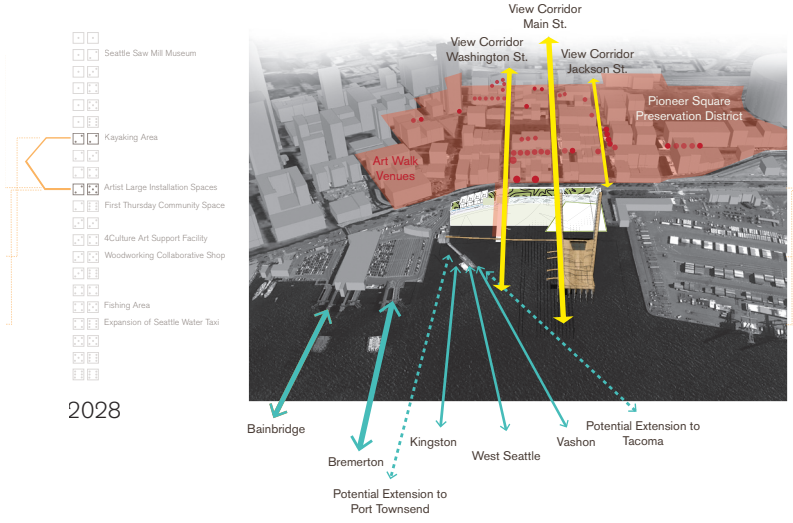
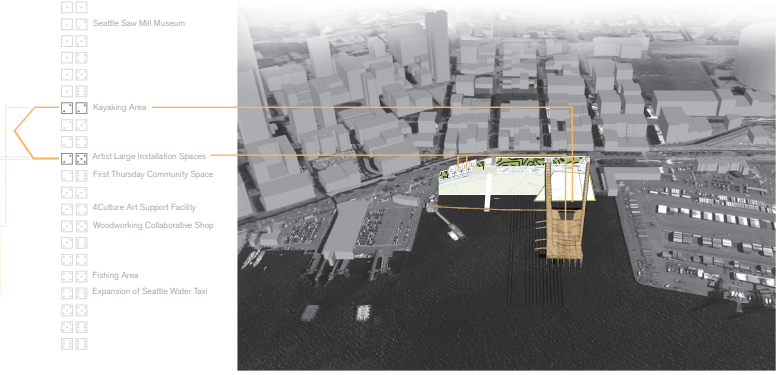
Artist Large Installation Spaces
First Thursday Community Space
4Culture Art Support Facility
Woodworking Collaborative Shop
Fishing Area
Expansion of Seattle Water Taxi


Seattle Saw Mill Museum
Kayaking Area
Artist Large Installation Spaces
First Thursday Community Space
4Culture Art Support Facility
Woodworking Collaborative Shop
Fishing Area
Expansion of Seattle Water Taxi
View Corridor Main St.
View Corridor Washington St.
View Corridor Jackson St.
Pioneer Square Preservation District
Art Walk Venues
Bainbridge
Bremerton
Kingston
West Seattle
Vashon
Potential Extension to Tacoma
Potential Extension to Port Townsend

2028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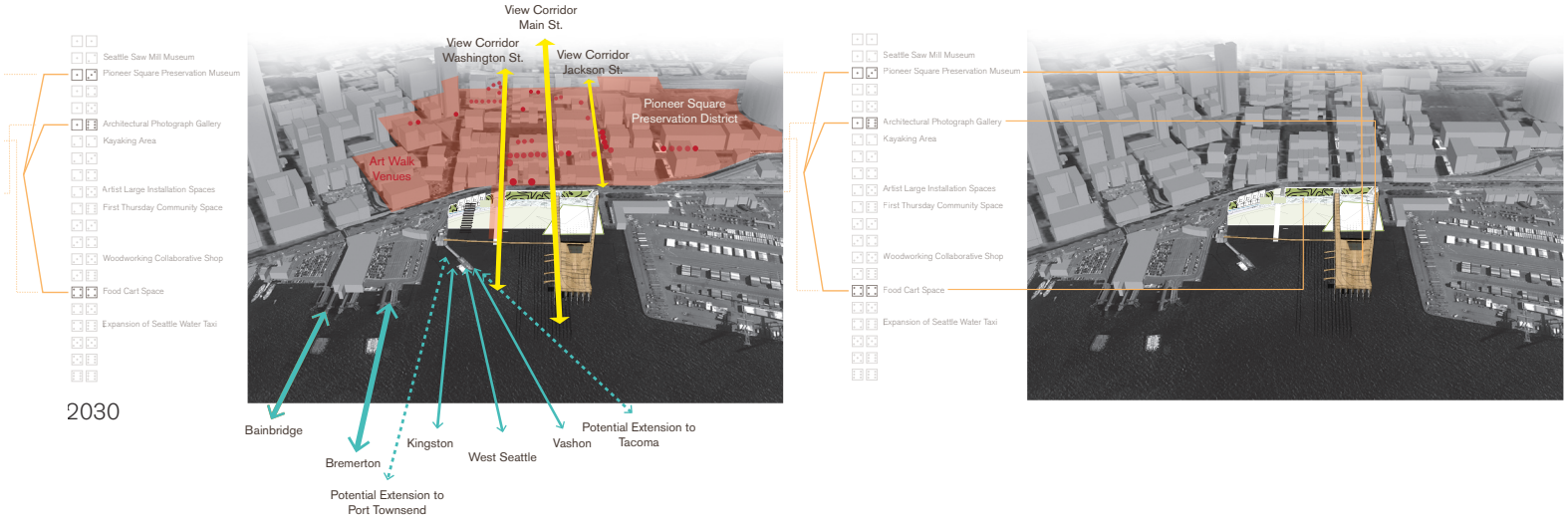
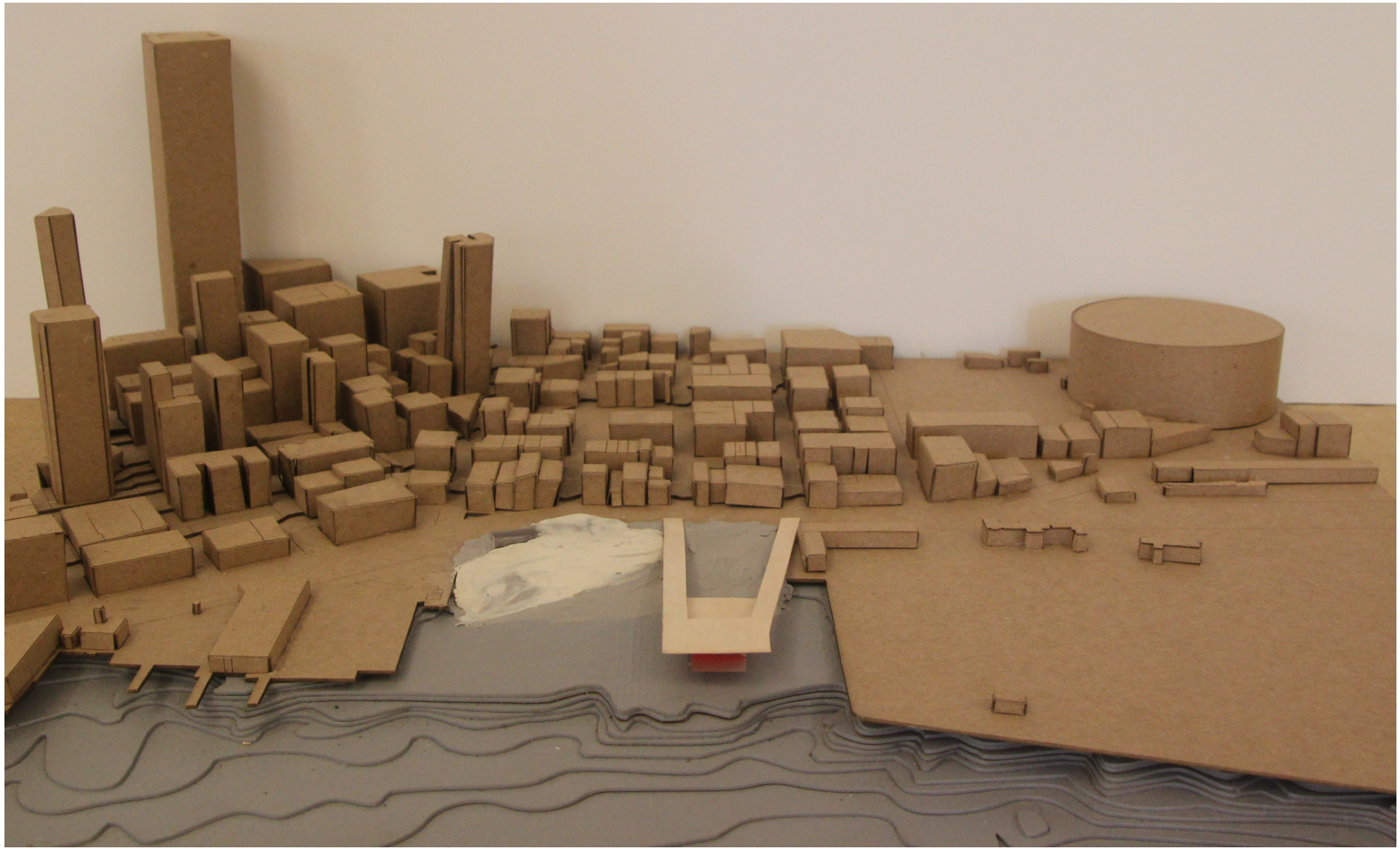
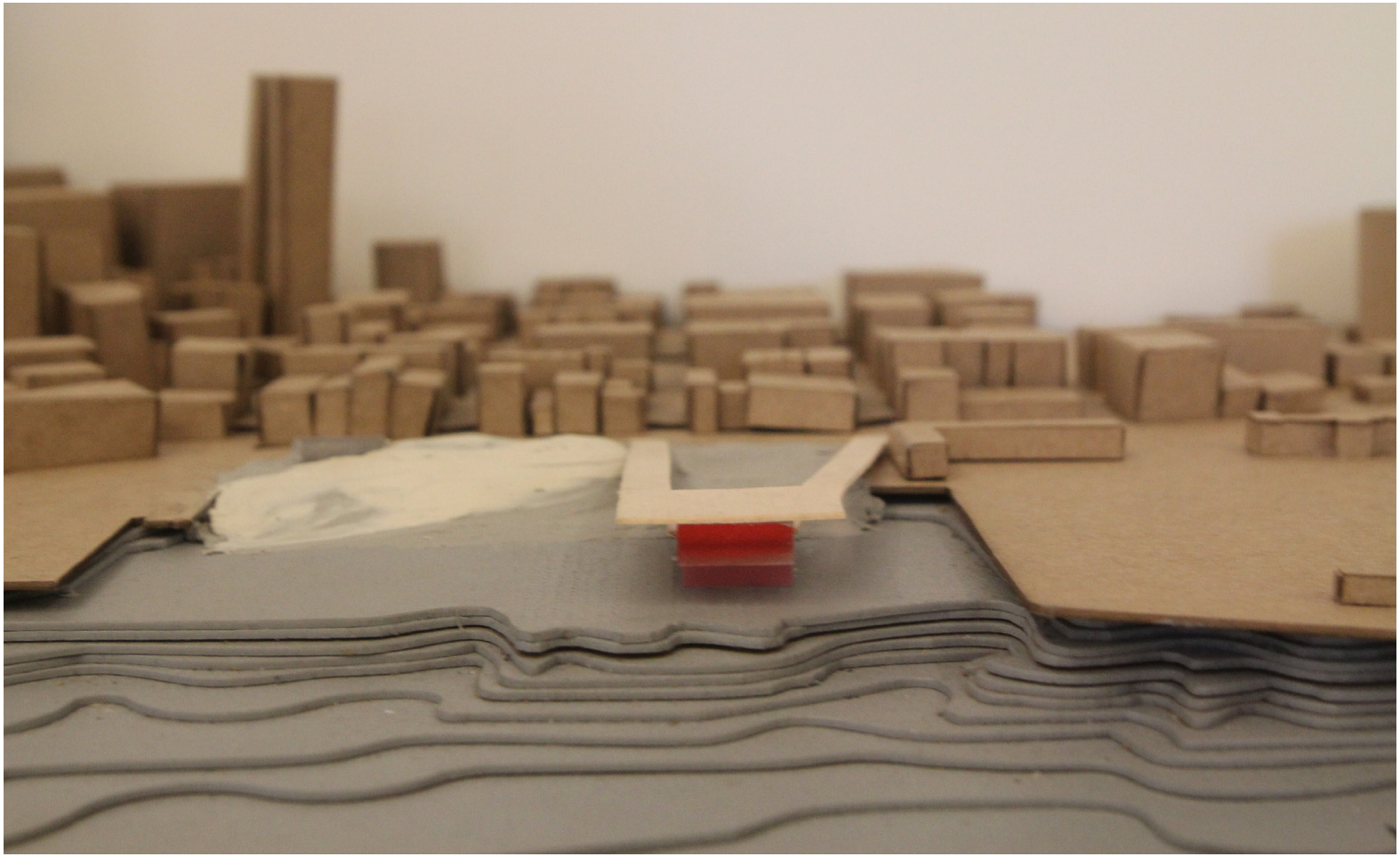
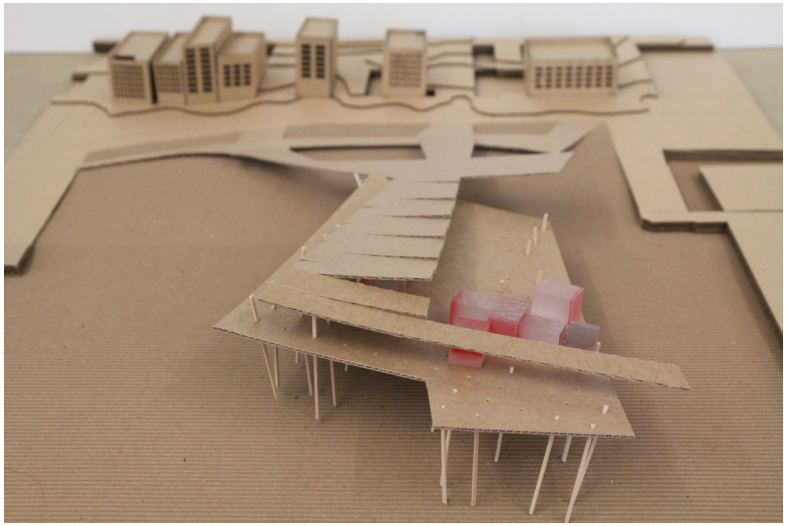
Kayaking Area
Artist Large Installation Spaces
First Thursday Community Space
4Culture Art Support Facility
Woodworking Collaborative Shop
Fishing Area
Expansion of Seattle Water Taxi

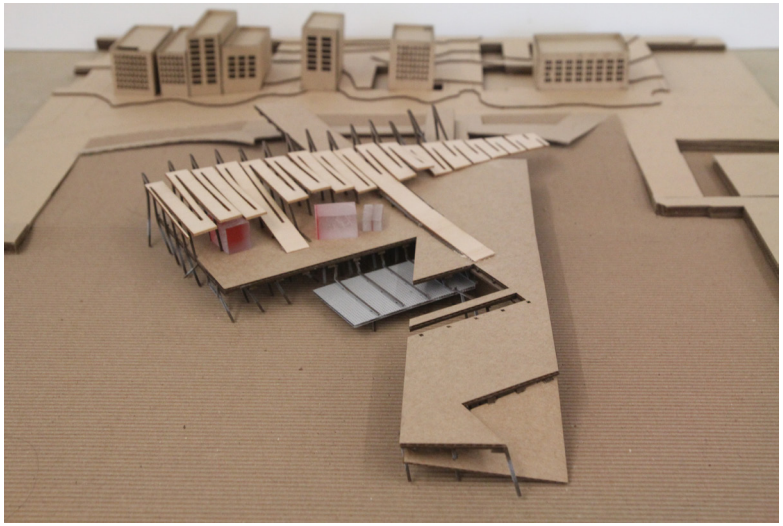

Seattle Saw Mill Museum
Pioneer Square Preservation Museum
Architectural Photograph Gallery
Kayaking Area
Artist Large Installation Spaces
First Thursday Community Space
Woodworking Collaborative Shop
Food Cart Space
Expansion of Seattle Water Taxi
2030
View Corridor
Main St.
View Corridor
Washington St.
View Corridor
Jackson St.
Pioneer Square
Preservation District
Art Walk
Venues
Bainbridge
Bremerton
Potential Extension to
Port Townsend
Kingston
West Seattle
Vashon
Potential Extension to
Tacoma
Seattle Saw Mill Museum
Pioneer Square Preservation Museum
Architectural Photograph Gallery
Kayaking Area
Artist Large Installation Spaces
First Thursday Community Space
Woodworking Collaborative Shop
Food Cart Space
Expansion of Seattle Water Taxi

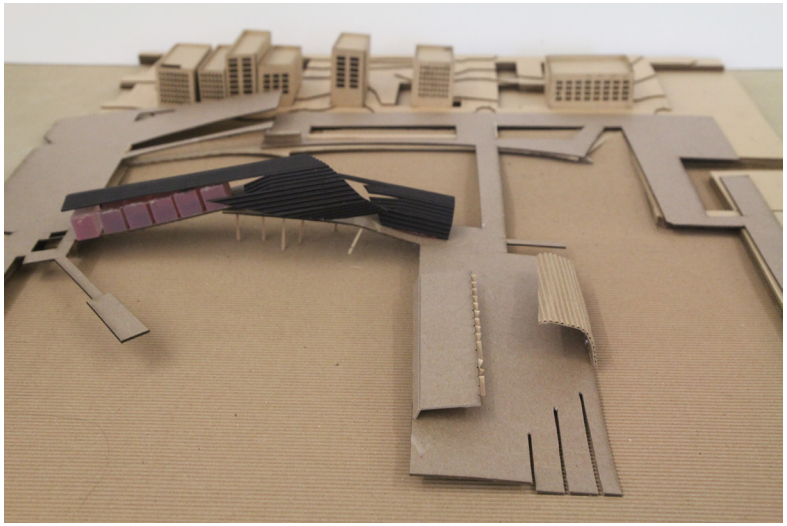
Appendix B
Model Investigations

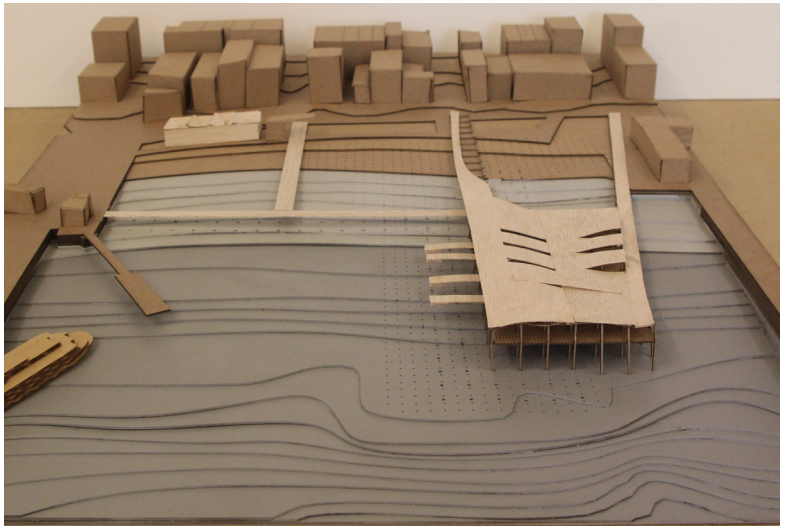


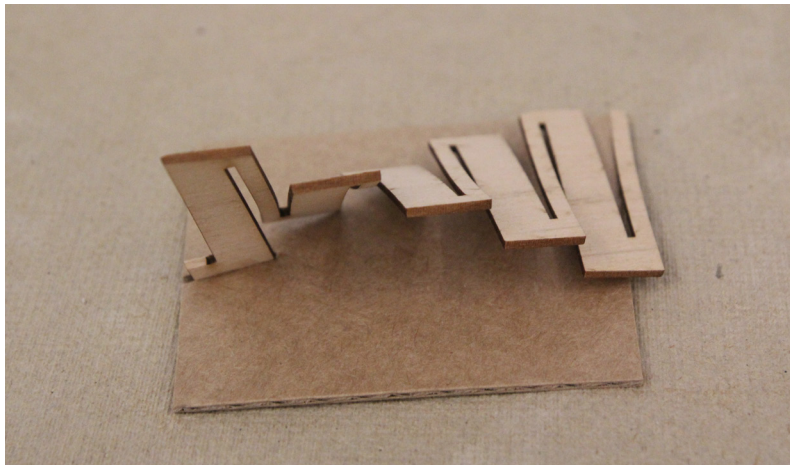


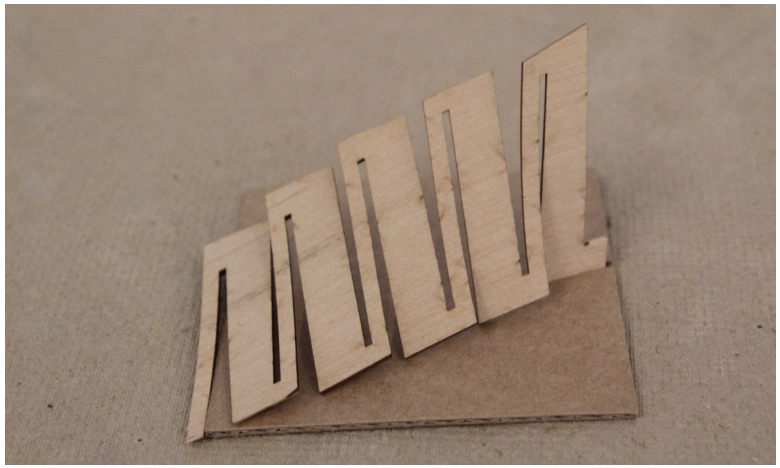


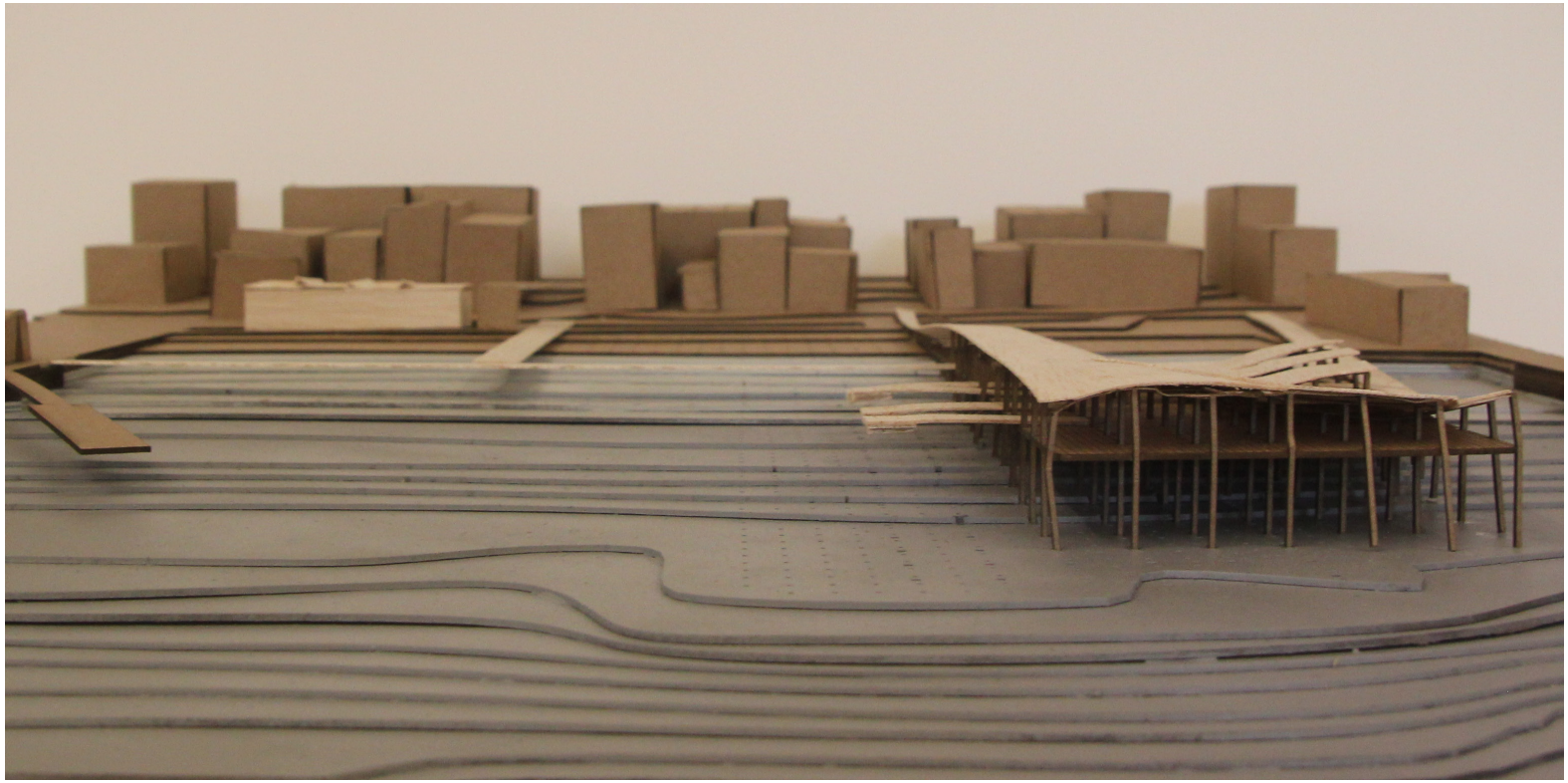


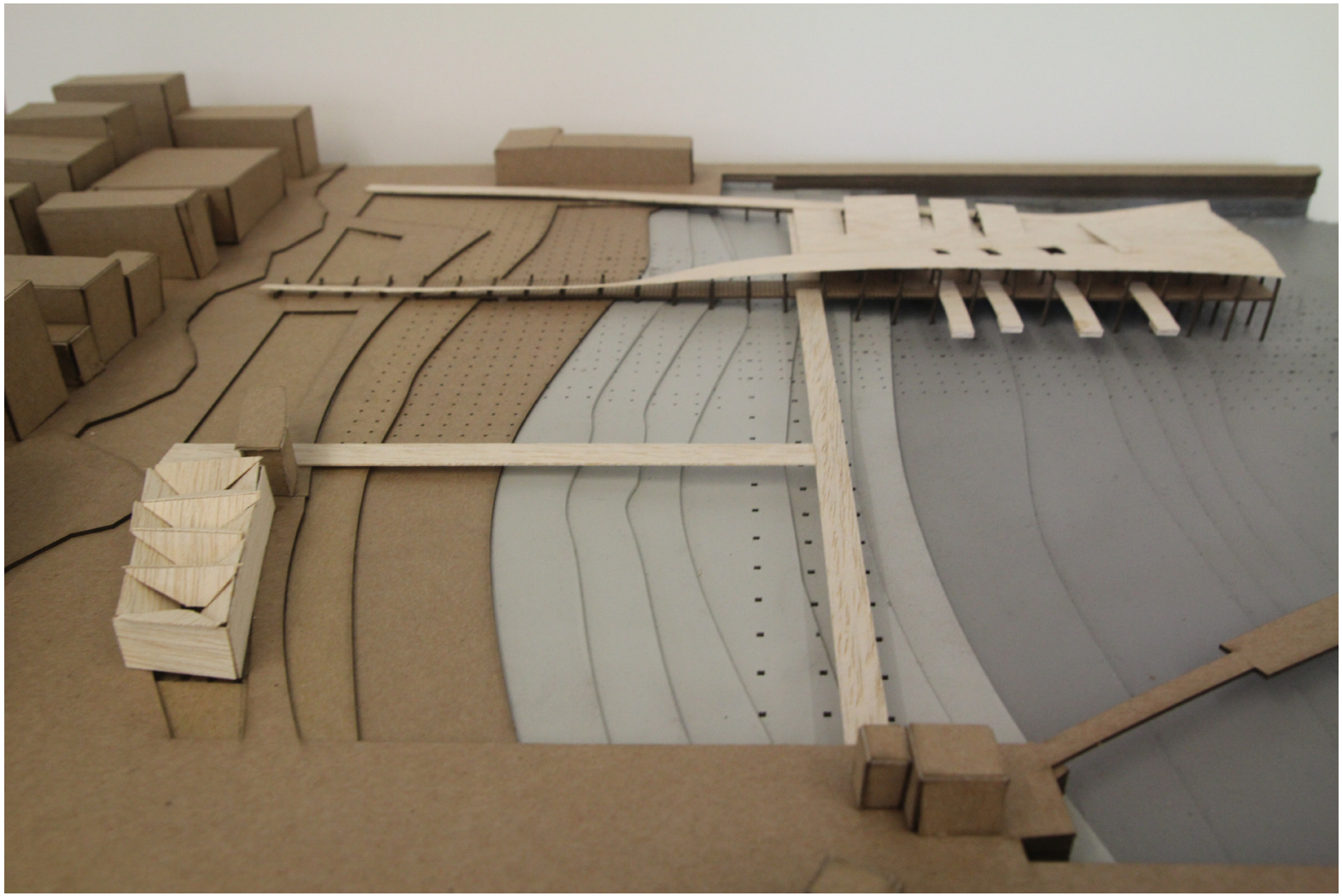












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