

The Verge: Transforming an Insufficient Edge

by

Rebecca M. Edson

Bachelor of Science in Architecture
The University of Virginia, 2001

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE IN PARTIAL
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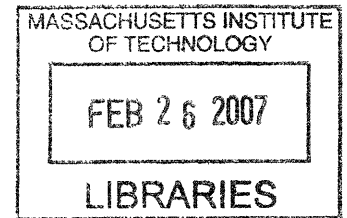
MASTER OF ARCHITECTURE

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Submitted to the Department of Architecture
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Abstract

This thesis considers a new edge strategy for an insufficient waterfront. The shore of Bass Harbor poses a problem significant to the whole Maine coast, as the access and infrastructure imperative to the fishing industries is unable to compete with the economic power of the private second home industry. Thus, expecting that neither real estate, nor tourism, nor industry will be sacrificed, a re-calibration of the existing coastal structure is necessary in order to accommodate all who want and need the coast of Maine. I am proposing that a focus on the existing systems of the site can determine an edge strategy that will organize and expand the lobster trade's presence within the growing realm of the private and recreational interests. The shortage of space and access will be addressed through designing a new means of occupying the edge, expanding the public and private program within the parameters of the site in order to accommodate a new multiplicity and density of program, space and infrastructure. Proposed as a blurring of disciplines and a breakdown of boundaries and scale, the access point will compose a coherent resolution between the plurality of zones, programs and boundaries as it extends outward as a threshold to the trade. The access point will compose the edge as a coherent singular surface. The edge, as a finite space, will be embedded with multiple functions.

Thesis Supervisor: J. Meejin Yoon

Title: Associate Professor of Architecture

Thank you:

To Meejin, Saeed, and Mark

Jimmy

To my parents, David and Susan

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Lisa Sutcliffe, Kathryn Schoefert, Marlene Kuhn, Pete DePasquale, Salome Francpourmoi, Gordana, Steve Form, Lara Davis, Chris Chen, Marissa Cheng, Haruka Horiuchi, Dan Bonham, Al Wei, Kyuree Kim.

To all the wonderful friends I met during my time at MIT.



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Introduction

This thesis proposes a new edge strategy for an insufficient waterfront. The limitations of the formal site justify an exploration of the ability to thicken and expand the edge in order to accommodate a multiplicity and density of program, space and infrastructure. At the outset of this project I proposed that a focus on the existing program, given constraints and necessary infrastructure could determine an edge strategy that would organize and expand the lobster trade's presence within the growing realm of the private and recreational interests. I projected that the extension of the insufficient edge would operate within the parameters set by the relationships present in the region of the waterfront and the programs that sought to occupy the existing space. Ultimately, the main objective of this thesis is to investigate how the edge, as a finite space, will become embedded with multiple functions.

Bass Harbor does not project the image of a quaint community that idealizes coastal Maine. Instead the town— the third largest working harbor in the state— exhibits the reality of a fishing town's industry; trailers are more visible than the hidden summer homes, pick-up trucks fill the town dock, and the harbor is often filmed with a tinge of oil from the boat motors. The town, like the rest of the remaining working waterfront communities of Maine, is subject to the impact of the myth that has overtaken the coast; "Some people spend a lot of time carving those miniature lobster traps not because they see it as particularly romantic, but because they sell them to people who do."¹ As the infrastructure of the working harbor is threatened by the desire for a water view and the myth of tradition, it can no longer remain neutral or immobile or docile— it must maintain its presence in the harbor. Of the roughly one hundred lobster boats based in Bass Harbor, thirty rely on the infrastructure of two private commercial wharves. Both wharves are for sale, and the Harbor Master predicts that the highest bidder will not maintain them as fishing docks. The two existing public wharves currently sustain the remaining lobstermen, but cannot manage the potential influx of the entire fleet. Refusing to be relegated to a projection of nostalgic imagery, and considering that a working waterfront is defined by the visibility of the water-based trades, the lobster industry must stake its position via the access point, maintaining a relationship between the very disparate parts at the waterfront by redesigning the edge. I am proposing a redesign of the access point to the harbor. Rather than pandering to nostalgia, the access point will revise, strengthen and intensify the presence of the fishing trade within the limitations of the existing edge, programming for a strengthened industry among the complexities of the programs involved.

¹ Moore, Bob. Coastal Character: On the Maine Coast, working waterfronts set the tone. Island Institute, 2006.

The strategy is undertaken in two stages;

(1) The limits and subsequent transgressions of the design are set within an understanding of the contextual systems and relationships referenced by the edge-as-waterfront.

(2) The edge is explored in its ability to obtain a multiplicity, or layering, of space, program and surfaces in order to accommodate the density required. And, the edge-as-threshold, or procession, is reinterpreted as a single surface or field that can accommodate a variance of disciplines.

My thesis seeks to determine how, through a re-framing of the waterfront as a zone of varied program and form, the edge can be challenged to accommodate a maximum density within limited space and restrictive constraints.

Context

The edge, when considered beyond a strictly formal identity as a line and instead within the realm of a network of contextual systems, is reinterpreted as a field of multiplicity, conceptualized as a threshold situated within a field of transactions. Architects have long theorized the idea of the site or building beyond that of an object-ness, proposing instead the idea of engagement within a larger contextual system of oppositions and relationships. Postmodern theory has consistently included much varied consideration of the site as defined by the contextual relationships and complexities at play, establishing the idea of site as a witness to the action, staging the site as the in-between, the inside-outside, or the no place – any place. A focus on the “systems” present at a site transform the idea of the site into a broader scope involving various interactions and participants. An early contribution to this realm of discourse was Foucault’s idea of the heterotopia—a place that could “suspect, neutralize, or invent the set of relations that they happen to designate, mirror, or reflect”—defining it as a site where the real is juxtaposed with the virtual or incompatible.² The shore edge of Bass Harbor may be considered within this realm of the “no place” as a threshold for the lobster trade between the land and water. The existing set of relations, oppositions, exchanges, and programs measured at the site define the multiplicity upon which an edge strategy can extend. Such a strategy will readdress the existing harbor structure and infrastructure, reframing the edge as a means of accommodating a plurality of program within the limited space.

One form of the heterotopia, as defined by Foucault, is the place of ritual, a site specific to, or penetrable by, certain set of actions or beliefs; “In general, the heterotopia site is not freely accessible like a public place. Either entry is compulsory, as in the case of entering a barracks or a prison, or else the individual has to submit to rites and purifications. To get in one must have a certain permission and make certain gestures...”³ The access point—as a threshold or ritual passage of the lobstermen to the water—is such a site since the ritual of the lobster trade involves a set of practices and rules specific to the daily act of fishing, and self regulations that ensure the longevity of the trade and mark regional alignments of lobstermen. Accepting a role within the lobster trade (captain, sternman, dealer, spouse, scientist, and state authority) requires a requisite submittal to a sort of procession based on the daily rituals, organization and requirements of the trade. The rituals of the lobsterman’s daily schedule demand a practical connection to the shore; short commutes from home to the docks, available parking for loading and unloading the catch and dinghy access from the docks to the boats moored in the harbor. Such a schedule results in a dependency on two crucial factors; living within close proximity to the shore and maintaining adequate rights to waterfront access. The lobster industry has remained largely independent, with no

2 Foucault, Michael, “Of Other Spaces (1967), Heterotopias”. In *Architecture/ Mouvement/ Continuïte* (1984).

3 Ibid

major franchise or ownership by a large corporation. The number of fishing permits per harbor is limited by the state in order to maintain a healthy lobster population, and before receiving any such highly prized permit a five to ten year apprenticeship must be completed. The procession is matched by a highly organized system of self-regulation has held for centuries in order to avoid the risk of over-fished grounds; fishermen operate in regional collectives, maintain a six month long fishing season in order that the lobsters can reproduce and grow, set trap limits for each boat, and sometimes even demand limited access for specific harbors that can only sustain a certain number of boats.⁴ There is a true spirit of community and respect (no “hogging the bottom”) that leads to cut lines and excommunication from a lobster ground when the rules are disobeyed.⁵ (This is not to suggest that all lobstermen operate on a clean conscious: it is not uncommon to find empty bleach bottles washed up on the beach, leftovers from the nefarious act of ridding the off-limits breeding females of their eggs). For generations lobstermen had no trouble in securing their fundamental needs, but Maine’s public access to the working waterfront is becoming more and more limited as private ownership of the shore increases. It is access to the waterfront that has sustained the lobster industry as a thriving economic powerhouse for Maine’s economy.⁶

4 Princen, Thomas. *The Logic of Sufficiency*. (Cambridge, MA: MIT Press, 2005), 236

5 *Ibid*

6 Cartwright, Steve. *Jobs and the Coast- A booming coastal economy can be its own worst enemy*. Island Institute, 2006

Context

A working waterfront in its very definition defies the artificial notion of the quaint coastal community, the “simple fisher folk myth”.⁷ Maine’s remaining working harbors exhibit a network of infrastructure; parking space for loading and unloading, fish houses for trap and bait storage, piers for dinghy access to the moored boats, floats for temporary storage of the lobster traps, docks for buying and selling the catch, processing and shipping facilities, fuel service, boat yards, and lobster shack restaurants. Paradoxically, it is this very history of the industrial presence along the shoreline that now threatens the lobstermen’s association with the water—the desire for private ownership of the coastal land is based on a fishing industry-driven image of the quaint communities that preserved the image of small-town Maine. However, the industry that initially defined this character of the coast must maintain a competitive and ambitious attitude concerning the trade and any changes/improvements to the infrastructure and ritual of lobstering that prove efficient and economical. Regardless of the industry’s efforts, the fundamental and crucial access to the waterfront— to the edge— is threatened by the rising shortage of public rights to the waterfront.⁸ Lobstermen, although they can earn a relatively decent living, are being priced out by those who can offer millions more for their land and waterfront. While Maine state law encourages local municipalities to give preference to “water-dependent uses”, lobstermen often live in very modest homes on very expensive land, and can often neither afford the property tax nor refuse the extraordinary offer for their lot.⁹ The region is caught in a negotiation between the demands of three very different groups, situating the needs of the industry (access, land and infrastructure) against the needs of tourism and real estate (view, land and ‘character’). Despite the high demand for privatizing the shoreline, the fact that the lobster trade’s prosperity continues to fuel the state economy discourages any prediction that the industry will be left to vanish. And, considering that this coastal polemic is not isolated to Maine— the entire East Coast is desired and experiencing a population influx— relocation of the lobstermen from Bass Harbor to another region is not a realistic option. Therefore it should be expected that real estate, tourism and fishing all will continue to maintain a hold in some capacity on the coastal land. The edge as a site, as the contested access to the water, is already loaded with a multiplicity of program and infrastructure: it is a stage of contrasting elements, a web of overlaid systems, caught as the no-place that measures the demands of its users. In anticipation that the friction of the three distinct yet overlapping groups will continue to grow, and with the reality of all groups remaining as integral to the economy and culture, an edge strategy is necessary to redefine the physical situation of the waterfront/access point of Bass Harbor.

7 Moore, Bob. Coastal Character: On the Maine coast, working waterfronts set the tone. Island Institute, 2006.

8 Ibid

9 Hall-Arber, M.; Bergeron, D.; McCay, B. Commercial Fishing Infrastructure Report. Portland, Maine 2004

Strategy: Limits and Transgressions

Defining the site as an engagement within the larger context of its field of influence establishes the parameters of the proposed design. The constraints are indicated by the complexity of the existing programs, requirements and tensions of the site, and the field is diagrammed to follow or disobey; “Theories of transgression invite anomaly, fragment, and violate the shape of the field. The authority of architecture—the symbiosis of building and city—is undermined by operations that reveal and subvert its limits.”¹⁰ What are the limits of the architecture, potential architecture and inhabited space? And what then are the possible transgressions? Within the field of the “web of transactions”, what elements can be crossed, and what must be maintained. What will the consequences be of “violating the shape of the field”? Bass Harbor is measured by an established set of constraints within which the design of the access point must be negotiated. The site observes multiple layers of boundaries and zones; the tides, geology, currents, channels, harbor dimensions, boat dimensions, fishing grounds, water-traffic, ferry routes, moorings, lobster buoys, private land and public land all describe a complex map that defines a very specific range of access and movement. Mapping the existing boundaries that define the land-shore-water zones establishes a set of limits—the constraints that can be maintained, dissolved or extended. Inspired by James Corner’s illustrations of Alex MacLean’s aerial photographs, I have diagrammed my own interpretations of the regional and immediate scales of Bass Harbor, mapping the physical boundaries and limitations as a means to imagine a reinterpretation of Bass Harbor and the regional coastal town condition. A study of the maps, charts, and surveys of the conditions that present limitations and potential moments of designed intervention configures a feasible water-ground site that can be inhabited. Corner’s “Measures of Rule” collection is specifically appropriate to the conditions of Bass Harbor, as the existing and potential human involvement and trade within the physical site of the harbor demands a careful calculation of the natural forces at work; “These striking landscapes of curves, rolls, and turns are literally measured expressions of the farmer’s elaborate negotiations with topography, soils, and weather. A dimensional vocabulary accompanies such measures, including phrases such as slope tolerance, pitch, strike, plow depth, plow line, over-plow, cross-sow, swale, and datum.”¹¹

10 Segrest, Robert, “The Perimeter Projects: Notes on Design”. In *Architecture Theory Since 1968* ed. K. Michael Hays (Cambridge, MA: The MIT Press, 1998)

11 Corner, J. & MacLean, A. *Taking Measures Across the American Landscape*. (New Haven: Yale University Press, 1996), 131

Strategy: Density and Continuity

A design strategy is developed for the architecture that will occupy the collapsed zones (collapsed in order to overlay and accommodate the density of program) of the threshold, the procession, and the reconceptualized edge. The idea of the zone of transfer between the outside and inside produces a thickened edge, blurring the boundary between the opposing realms of the land and water. Recognizing the multiplicity of program and insufficiency of the existing infrastructure at the edge enables a new density of program and an extension of the edge as a single body that blurs the boundary line, dissolving the contested divisions. In addressing a program that reconsiders the living/working needs of the water-based trade within the shared realm of the lobstermen, summer resident and tourist, I determined through the tension of space allocation and access how the lobstermen can utilize the landscape of the shore-harbor in order to maintain a position amidst the pressure of real estate and Vacationland. It will also program for the tourist (view and recreational access) and summer resident (marina and unobstructed views from land). As both a contested site and a crucial requirement to the lobster trade's continued existence, the access point will transcend the traditional confines of the dock and shore, utilizing the water region in order to maximize the site of the industry and maintain the three disparate groups within the small scale of the harbor. By reconceptualizing the land-shore-ocean threshold, a design for a new regional typology emerges that can counter the traditional situation of land/ocean divide.

Sylvia Lavin's article "What You Surface Is What You Get" cites the diminished role of wallpaper as representative of a larger issue concerning the serial two dimensional treatment of surface that proves to eliminate it's potential to "engage the decorative, environmental saturation, graphic sensibilities, and pattern making."¹² In the wake of modern architecture's effort to immaterialize the wall (lost for "getting in the way of other truths like those of materials, of structure, and of space."), Lavin suggests a reevaluation of the surface's relevance in design. A transgression is proposed against the treatment of the surface as a singular plane—a blurring of disciplines, a breakdown of boundaries and scale. An architecture that is capable of achieving an expanded field of sorts is proposed, a field of similar effects; "Could there be more than one surface that lies in a single place but that is riven by dissimilar discursive traditions? Can we theorize disciplinarity when differences between disciplines appear to occupy exactly the same surface?"¹³ The access point is composed as a coherent resolution between the plurality of zones, programs and boundaries as it extends outward as a threshold to the trade. The access point, as it extends across a plurality of zones, programs and boundaries, defines the edge as a coherent singular surface.

12 Lavin, Sylvia, "What You Surface Is What You Get". In *Log* (New York, N.Y.: Anyone Corporation, 2003), 105

13 Ibid, 104

Parallel to this directive that the surface be considered as a singular field encompassing a plurality of disciplines is the idea of the “thickened” surface. In a critique of OMA’s campus center at IIT, Sarah Whiting responds to the design’s “thick thinness”, citing the layered-space composition that appears to collapse into a single façade, attaining a depth via the composition of “multiplicities, simultaneities, and densities”.¹⁴ The design opposes the Mies-ian context’s extreme minimalist use of the surface-as-two dimensional plane, instead seeking a depth of field through a layering of surfaces, and an arrangement of program, material and space that is read as a single dimension—“ making air itself substantial.”¹⁵ If the edge is reframed as a threshold, or procession, then the spatial organization of the program of the access point may be realized as a designed collapsing of spaces via a collapsing of disciplines (spatially, programmatically, formally). I am proposing a strategy that, based on a “contracting of foreground, middle-ground, and background into a distinctly compressed pictorial matrix”, organizes the program and infrastructure within a limited site, expressing the threshold of program via a depth of overlay.¹⁶ Such a criteria of density is found in MVRVD’s proposal for a new urban condition. The “Stack Attack” model, which overlays the landscapes, resources and programs of a city in an extreme density, suggests a precedent of design logic for Bass Harbor. Referencing this vertical density at the rural harbor scale will enable a design at the shore’s edge that can satisfy the very different needs of three separate groups on one site; “The bigger the difference among the groups, the greater the complexity and the intenser the potential need for cohesion.”¹⁷

14 Whiting, Sarah, “Think Thin”. In *Log* (New York, N.Y.: Anyone Corporation, 2004), 25

15 Ibid

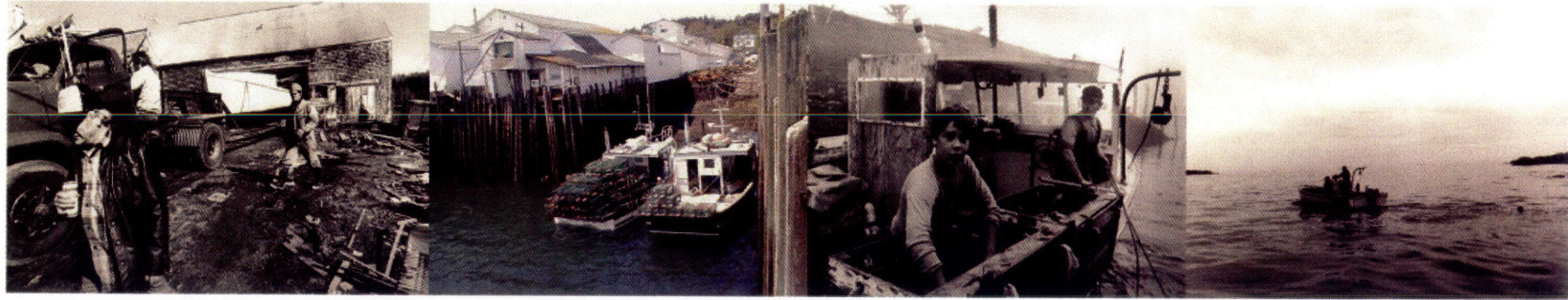
16 Rowe, C. & Slutsky, “Transparency: Literal and Phenomenal”. In *Perspecta*, Vol. 8 (New Haven: YSOA, 1963),46

17 MVRDV. *FARMAX*. (Rotterdam: 010 Publishers, 1998), 51

Program

The program for the proposed access point will include both the rituals and requirements evidenced in the lobster trade's daily schedule and the necessities of the lobstermen livelihood that are threatened by the increasing value of real estate at the waterfront and within proximity to the waterfront. Recognizing that coastal Maine also answers to the needs of the private real estate owners and tourists, the access point will also program for their interaction at the waterfront. Therefore, the access point is loaded with a complex array of programs; increased public anchorage, parking space for loading and unloading, fish houses for trap and bait storage, piers for dinghy access to the moored boats, floats for temporary storage of the lobster traps, docks for buying and selling the catch, processing and shipping facilities, fuel service, and public access (waterfront park and dock space). A change to the existing image of the harbor via the access point should not jeopardize the tourism and private real estate around Bass Harbor, but rather resolve all of the participants at the site within the extended edge.

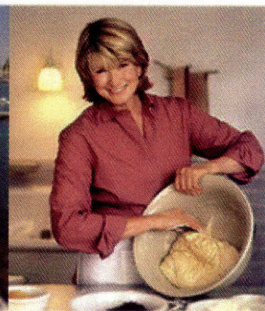
lobsterman



tourist



seasonal



Bass Harbor Marina \$2,400,000
Bass Harbor, Maine

22 Boat slip marina offers 2 separate buildings with over 3,000 sq. ft. of space. Marine railway system, waterfront cottage, sheltered beautiful harbor. Separate buildable lot with spectacular ocean views of Bass Harbor. Call Ken for private showing.



Three groups vying for access to the insufficient waterfront

Conclusion

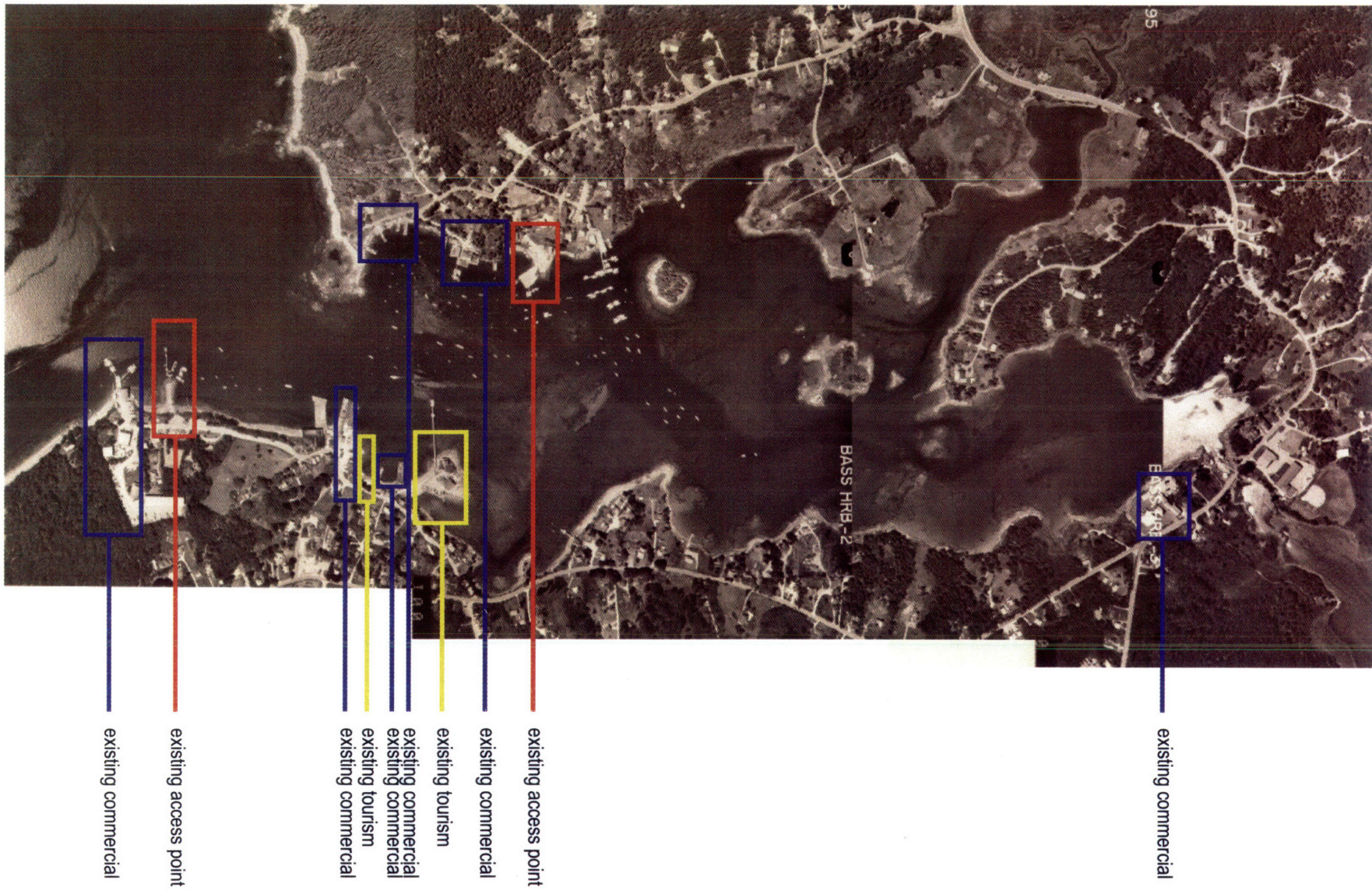
Therefore, expecting that neither real estate, nor tourism, nor industry will be sacrificed, a re-calibration of the existing coastal structure is necessary in order to accommodate all who want and need the coast of Maine. This situation must be addressed by contending that the full potential of the waterfront and larger region has yet to be realized. In determining an architectural response to a community that can no longer physically sustain its very livelihood, a new form, scale and program is necessitated in order to mediate a future existence of the water-based industry within the realm of the privatized coastal zone. A new strategy seeks to rethink the form of the edge and the situation of trade at the waterfront. The access point for the lobstermen to the water is proposed through a reevaluation of the relationship of the edge to its contextual parameters; an accommodation of density within a limited, or thin, space; a realization of the edge as a singular field of multi-disciplines; and finally the design of the edge as a prosthesis to the land and water.



Examples of existing industry at the Bass Harbor waterfront



Bass Harbor, Maine



Existing status of the public access, commercial, and tourism within the realm of overall private land holding around Bass Harbor.



View of the harbor from the existing public access point





View toward the harbor opening from the town dock/ existing public access point









Storage floats for lobster traps



The Swan's Island ferry landing, secondary public access point



Initial mapping studies attempt to resolve the proposed program of the expanded access point within the harbor. The very concept of the shore line as an edge is analyzed in order to determine the program's position within such a large site. An initial understanding of the waterfront as a singular line is immediately proven wrong— the edge already has a thickness, composed as a set of systems comprising a multiplicity of physical and social conditions. Through a collection of data, maps, aerial photos, and charts, the insufficient edge is detailed, delaminated, and organized into specific sets of conditions. Reframing the idea of the edge beyond its formal identity as a line, and instead within the realm of a network of systems, realizes it as a layering of natural and artificial constructions.

This initial effort to illustrate the complexity of the site is the first stage in exploring the waterfront's ability to obtain a multiplicity and layering of space, program and surface in order to accommodate a new density of program and use.

Site Analysis

property
public access
hurricane surge
subtidal
intertidal
tidal
topographic
rock ledge
anchorage
water storage
commercial
tourism
private
channel



Mapping the existing edge systems.



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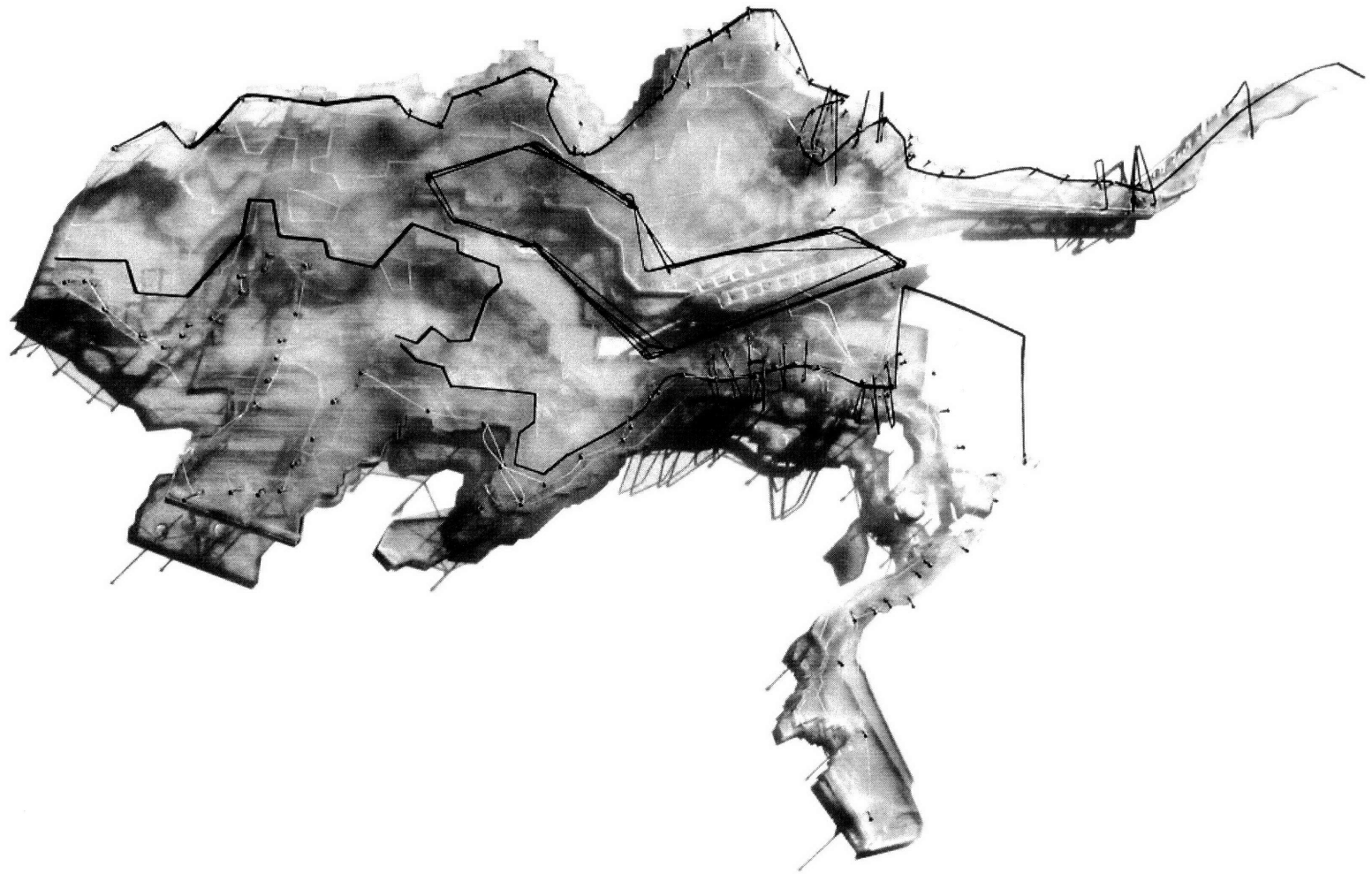


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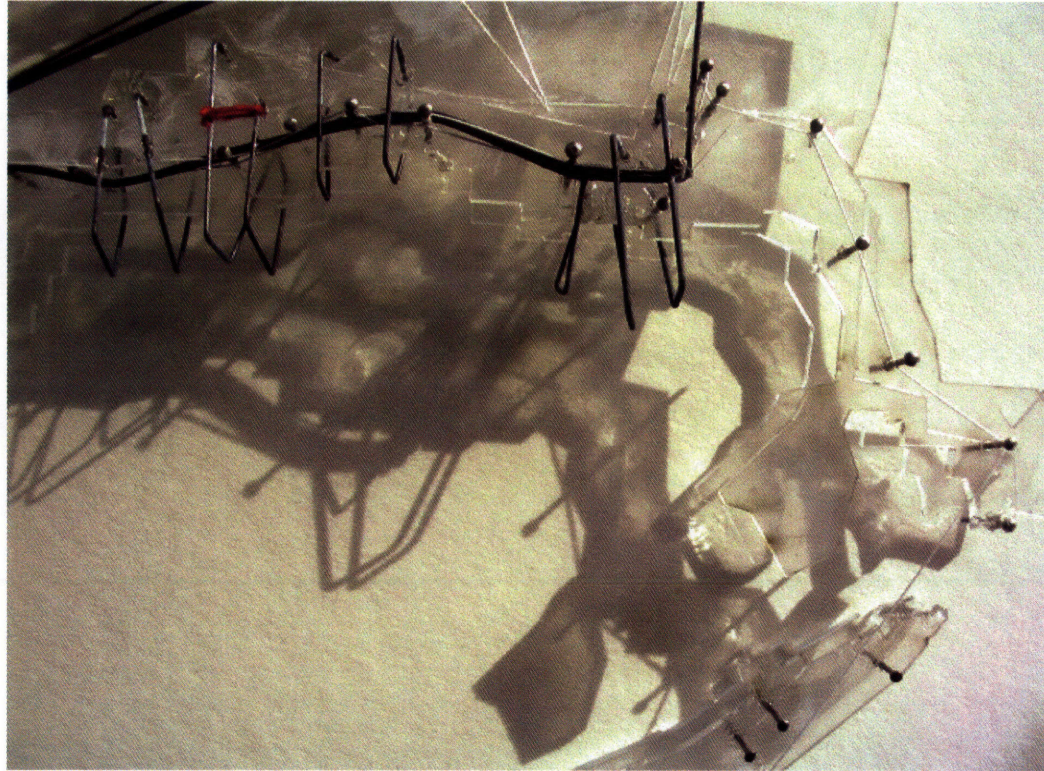


3





Modeling the existing edge systems, abstracted as a means of distinguishing the varying characteristics and hierarchies present at the waterfront.



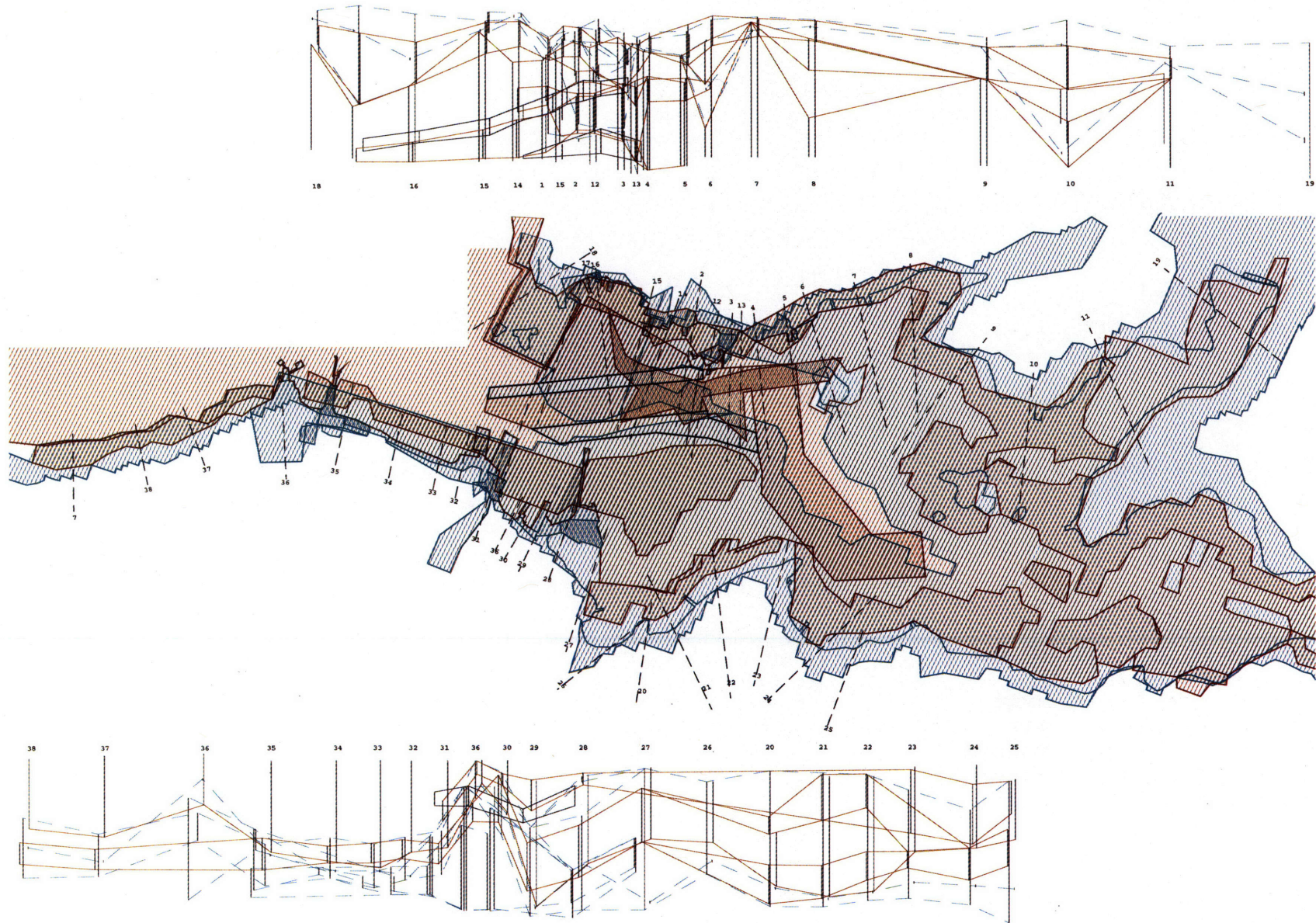
The site analysis seeks to realize some sort of logic within the existing systems and parameters that can enable the development of a strategy for the extension of the edge. Because the space is already insufficient, it is to be expected that the limits existing site must be challenged and transformed. A strategy for transgression, re-organization, and abeyance is designed via a classification of the existing edge systems as either boundaries or thresholds.

The boundary is defined as a system that specifies strict limits or extents, restricts, and/ or is dependant on another system.

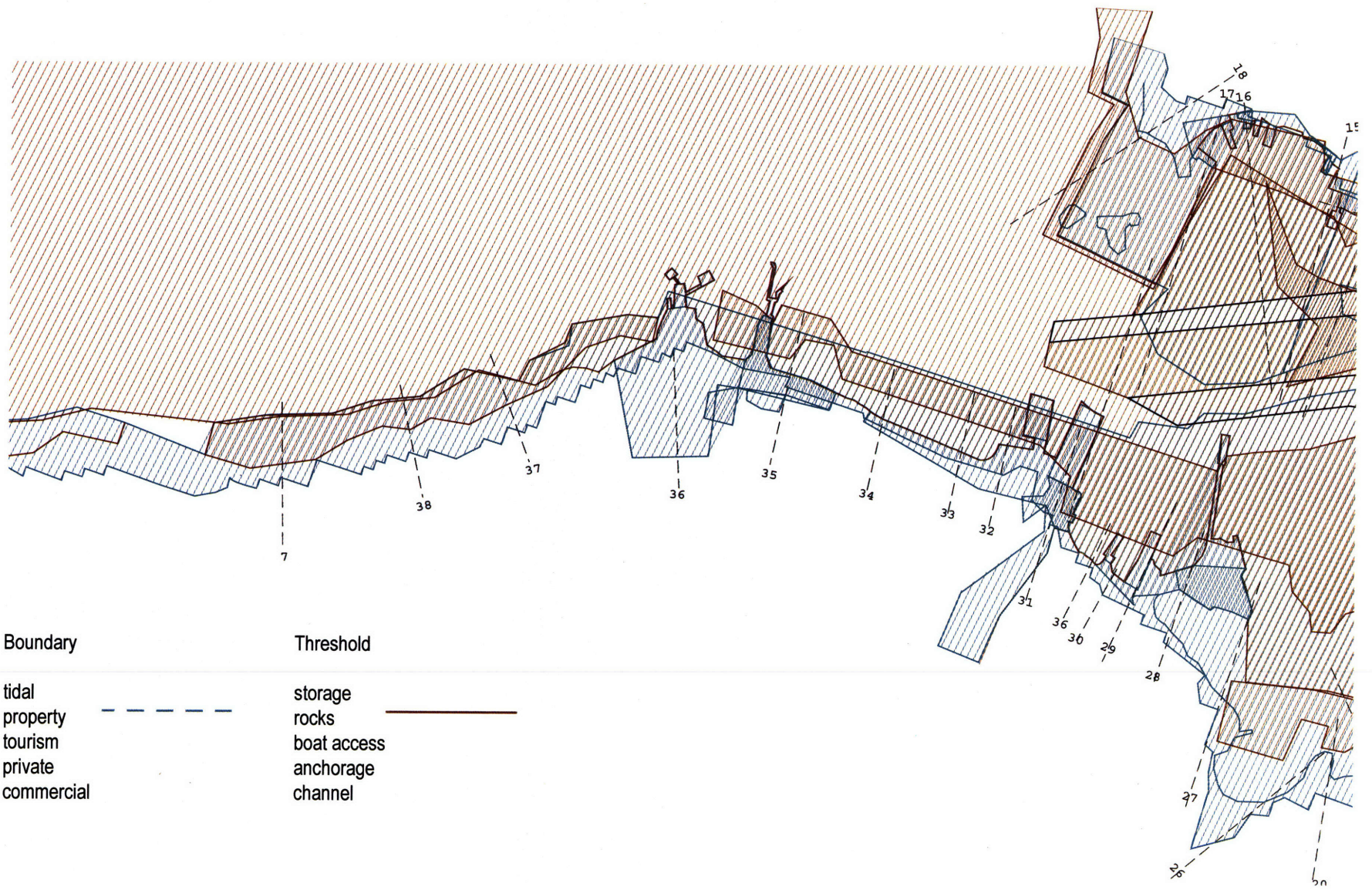
The threshold indicates a place of entry or beginning. As a transitional zone, may be a place with blurred relationships to other systems.

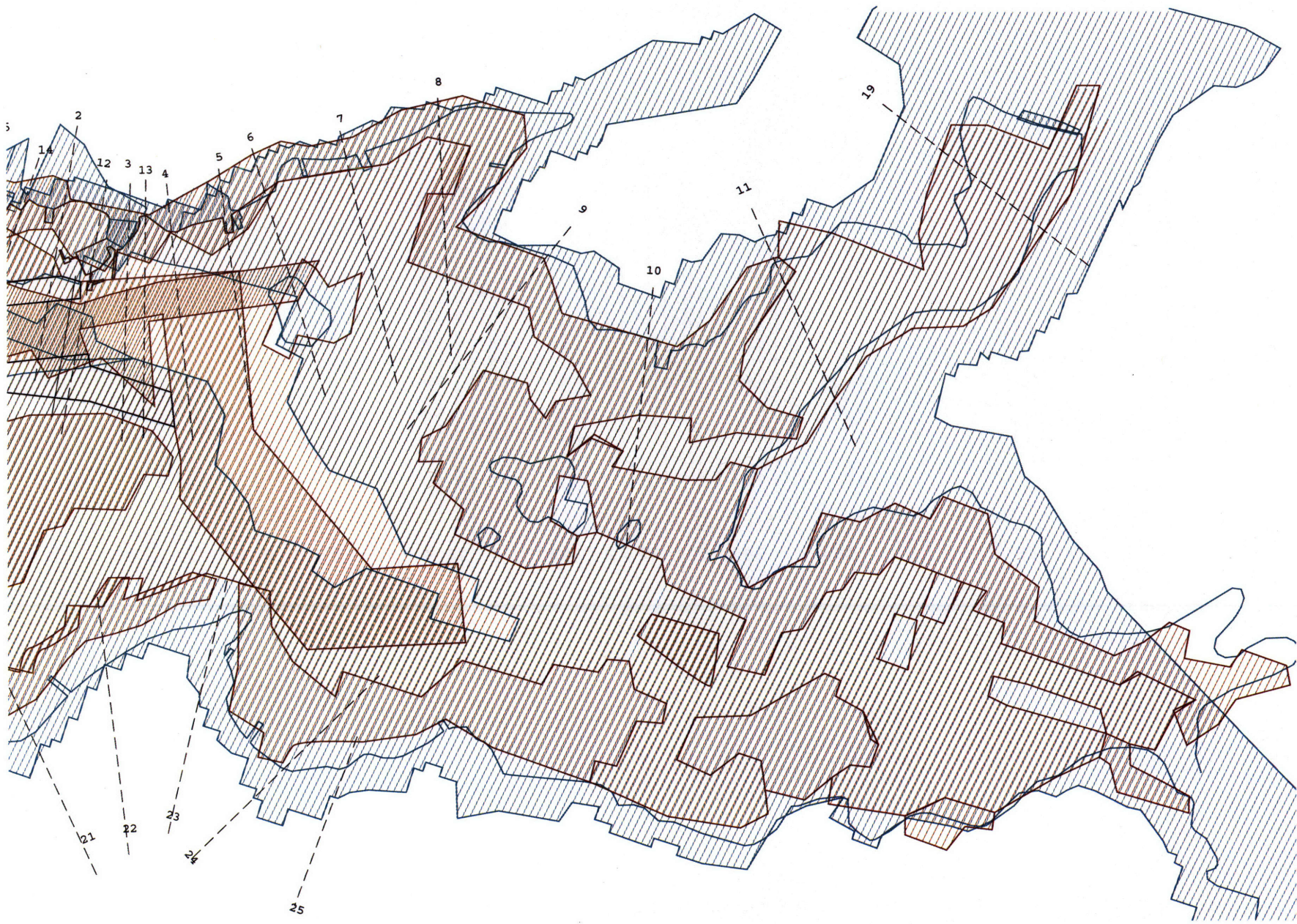
The boundary must be obeyed, violated, or transferred.

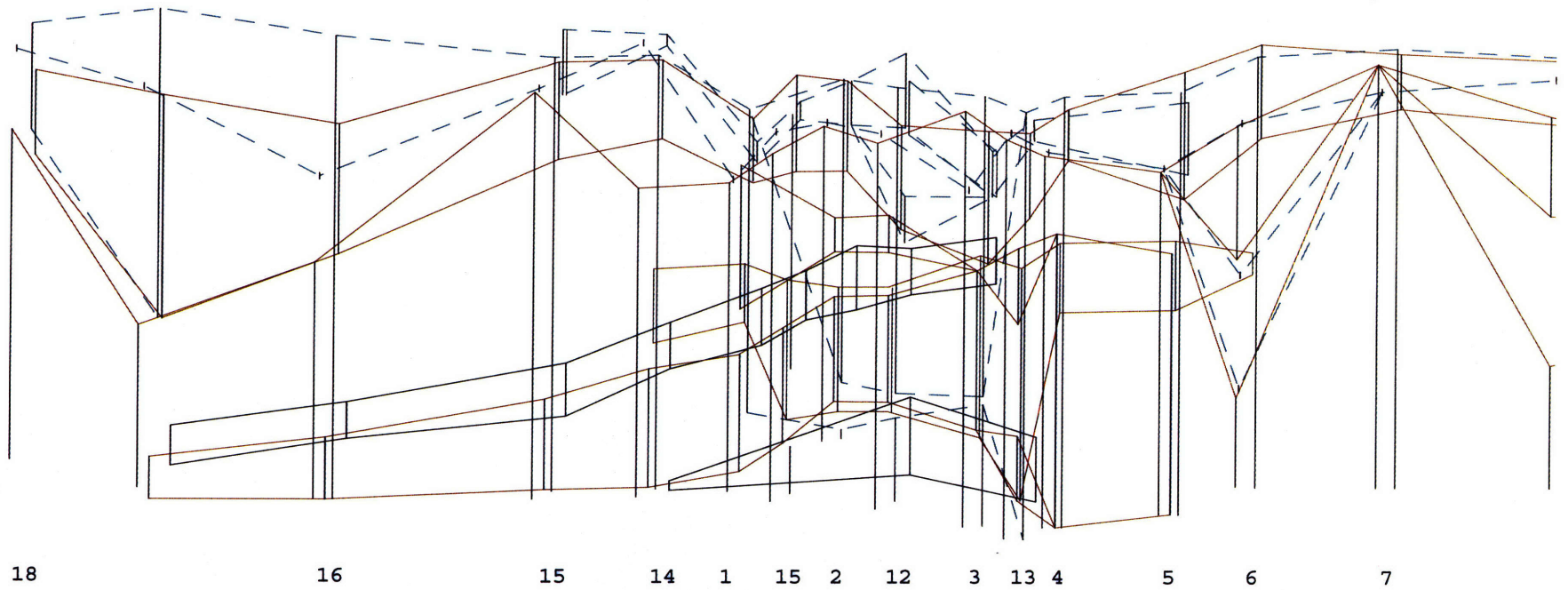
The threshold can be maintained, reinterpreted, altered, or extended.



Each existing edge system is designated as either a boundary or a threshold.







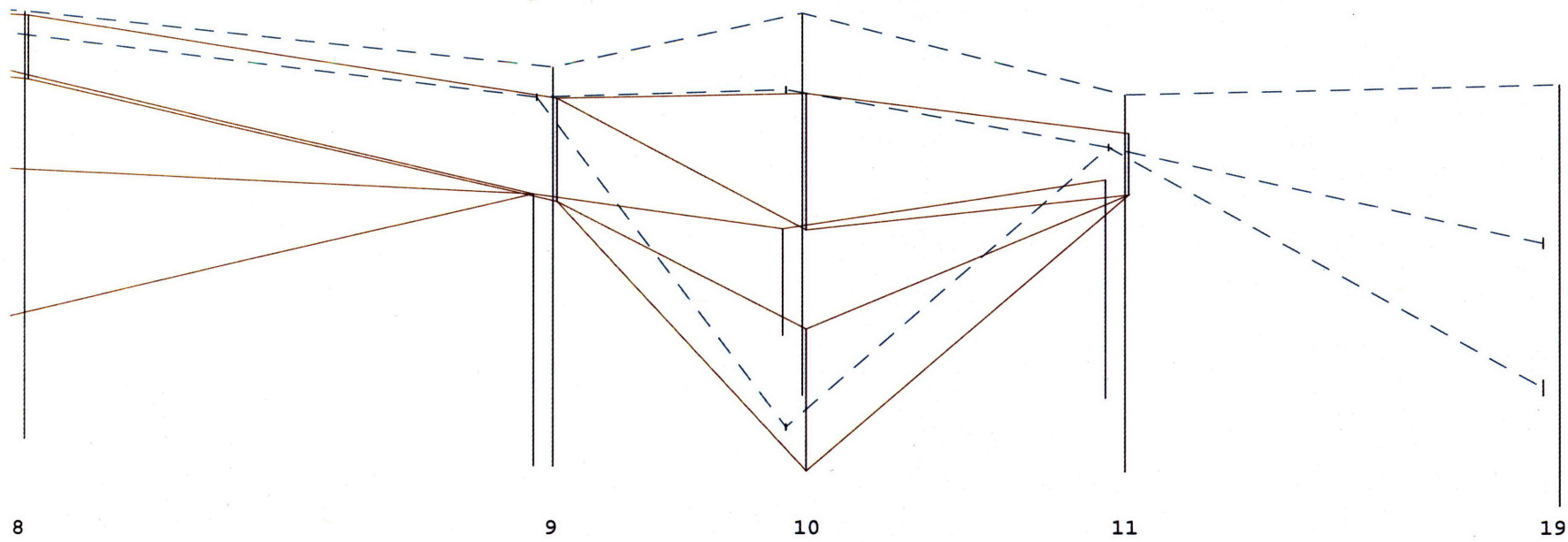
tidal
property
tourism
private
commercial

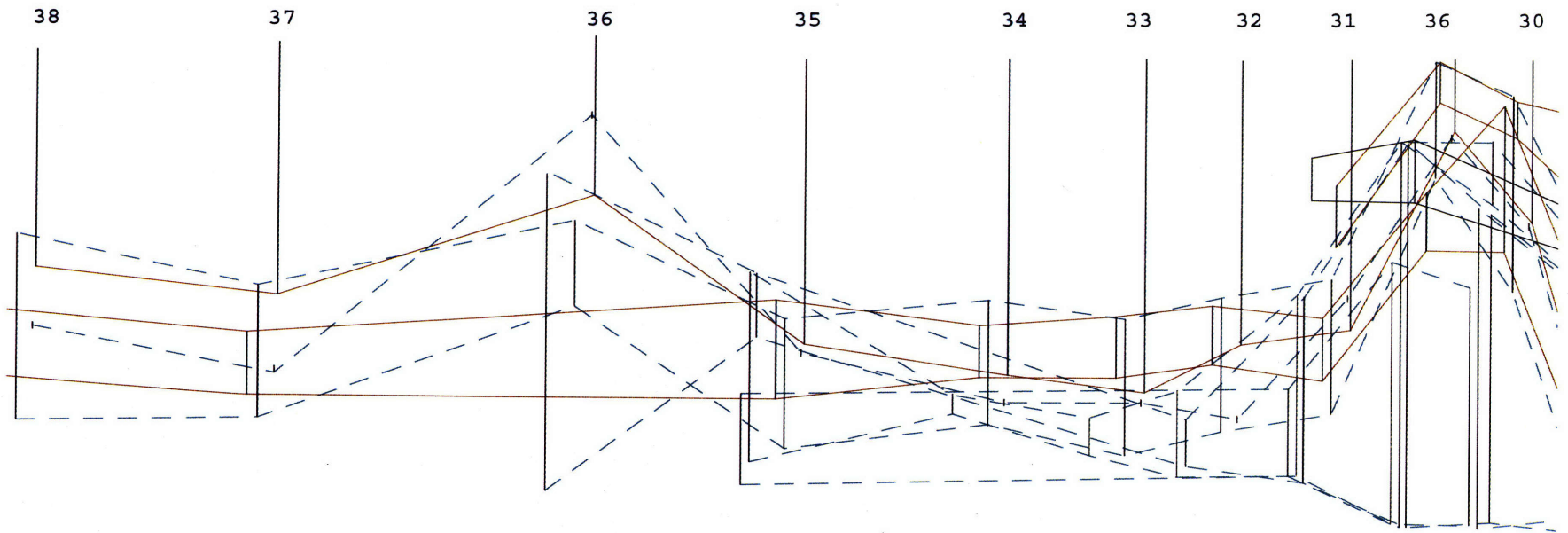


storage
rocks
boat access
anchorage
channel



The planar cuts in plan are stretched out, abstracting the relationships between the boundaries and thresholds in order to gain a new visualization of the overlap.





tidal
 property
 tourism
 private
 commercial



storage
 rocks
 boat access
 anchorage
 channel



29

28

27

26

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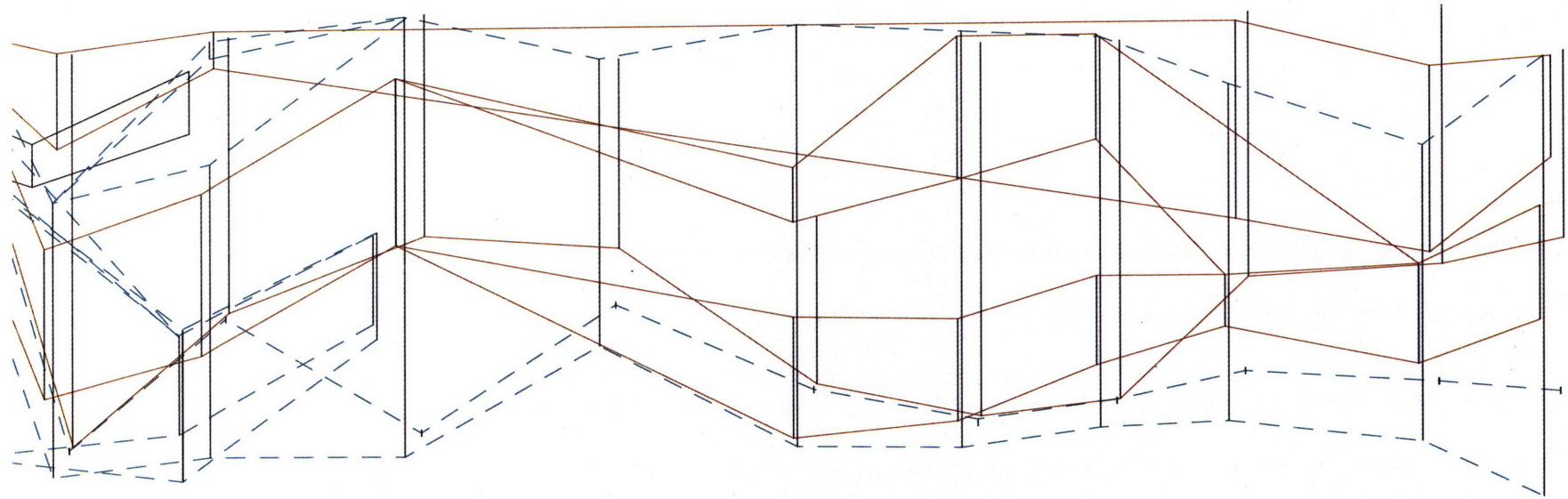
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In this thesis the verge is defined conceptually as a means of transformation between the existing and potential physical and social conditions.

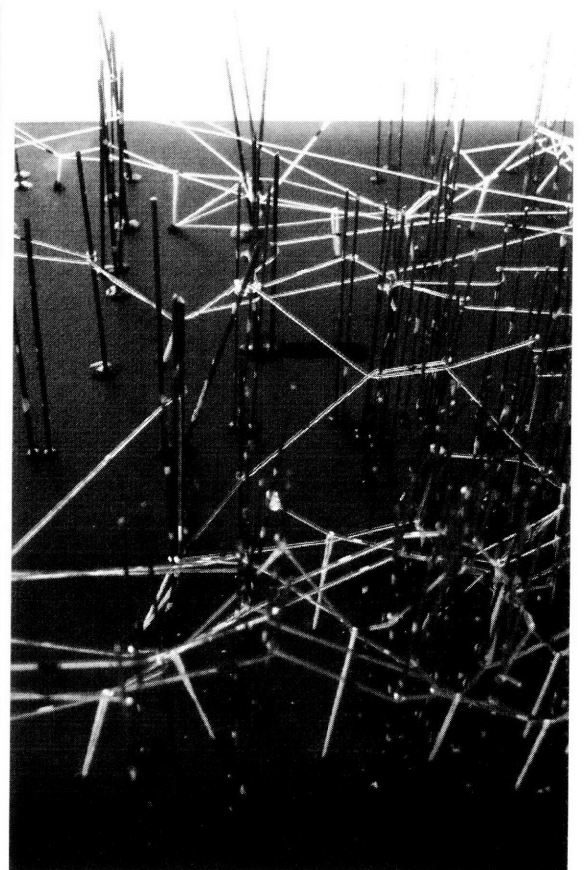
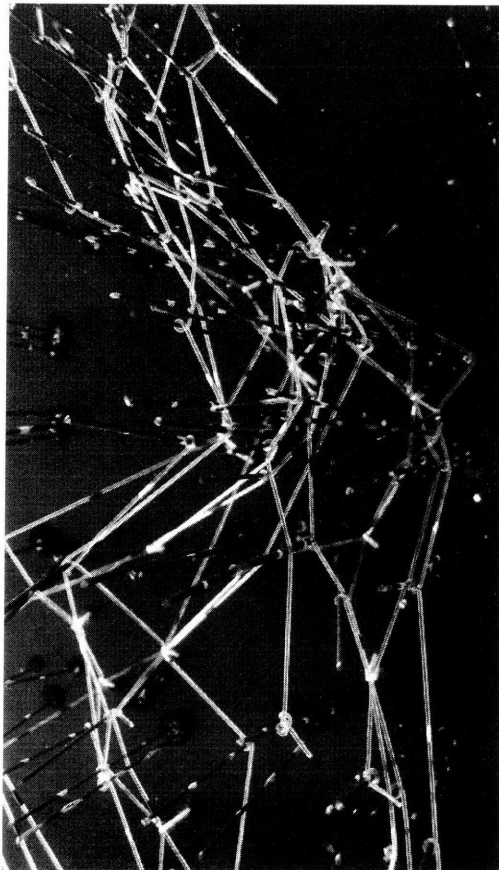
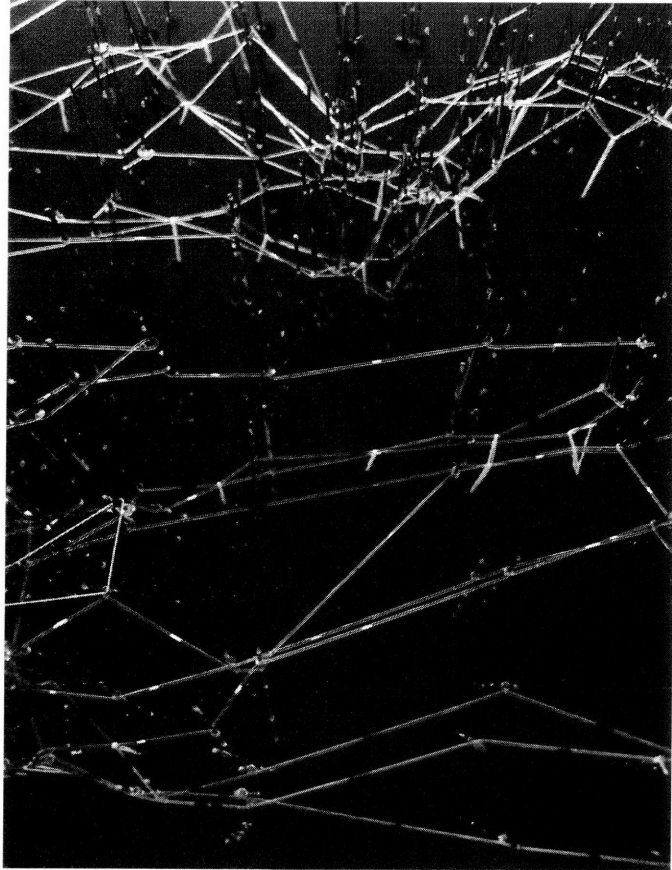
The verge suggests the idea of the brink, a point of negotiation between multiple zones.

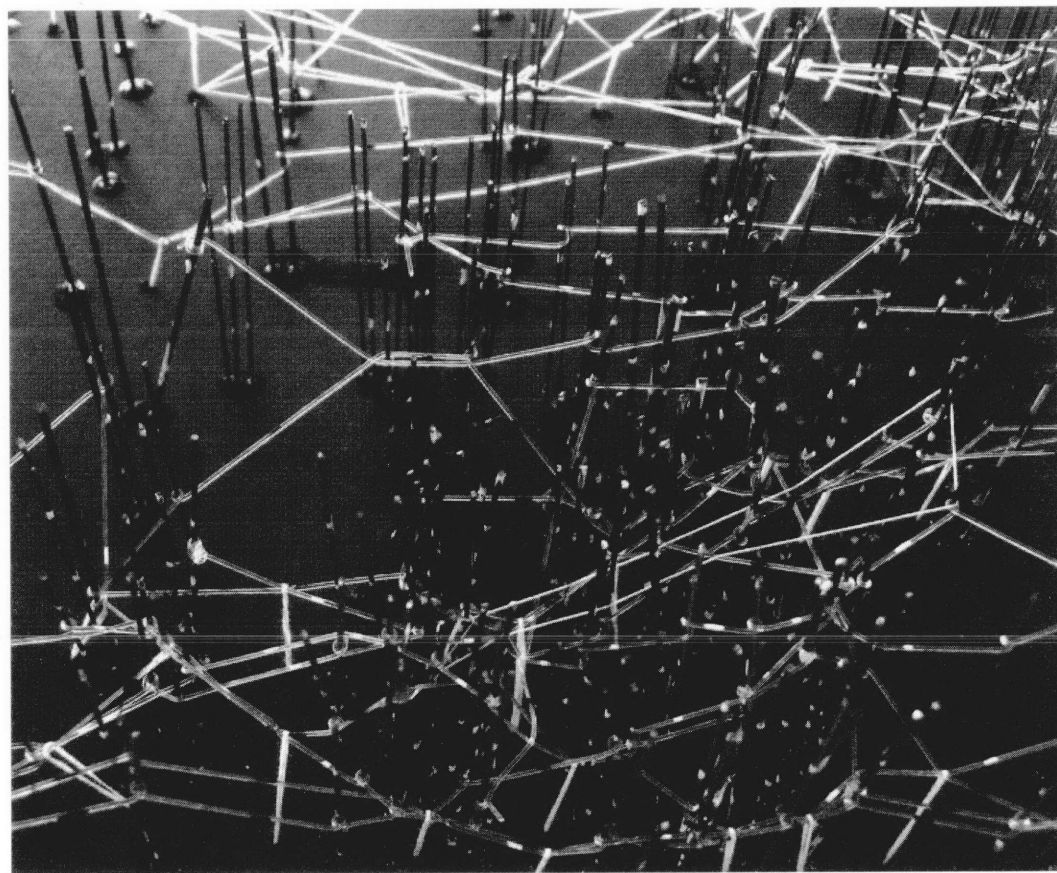
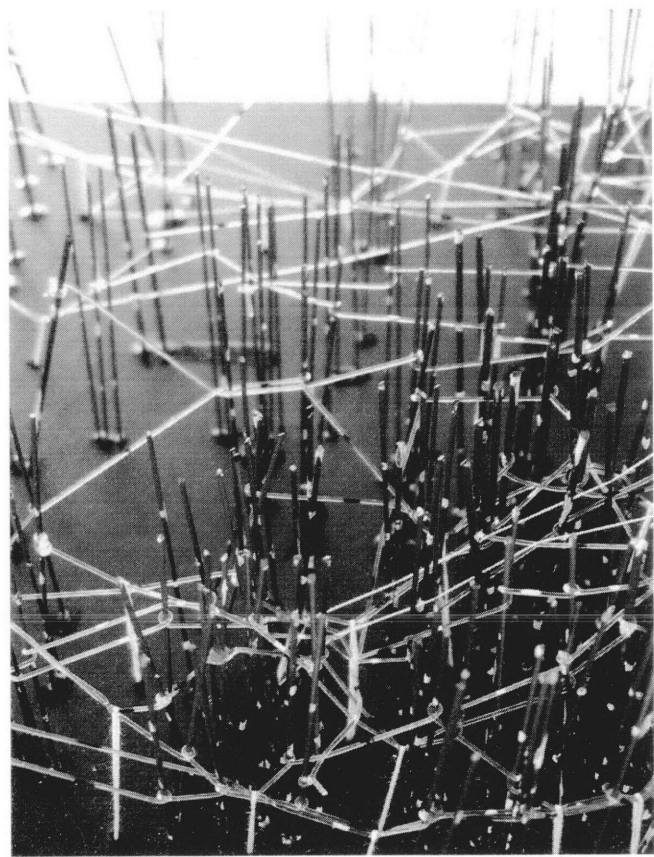
The verge responds to the idea of a “thick thinness”. It proposes the moments of transformation between the site and program in order to accommodate the requisite density. It envisions a place where both the collapsing of space and the collapsing of disciplines (programmatic and formal) can occur.

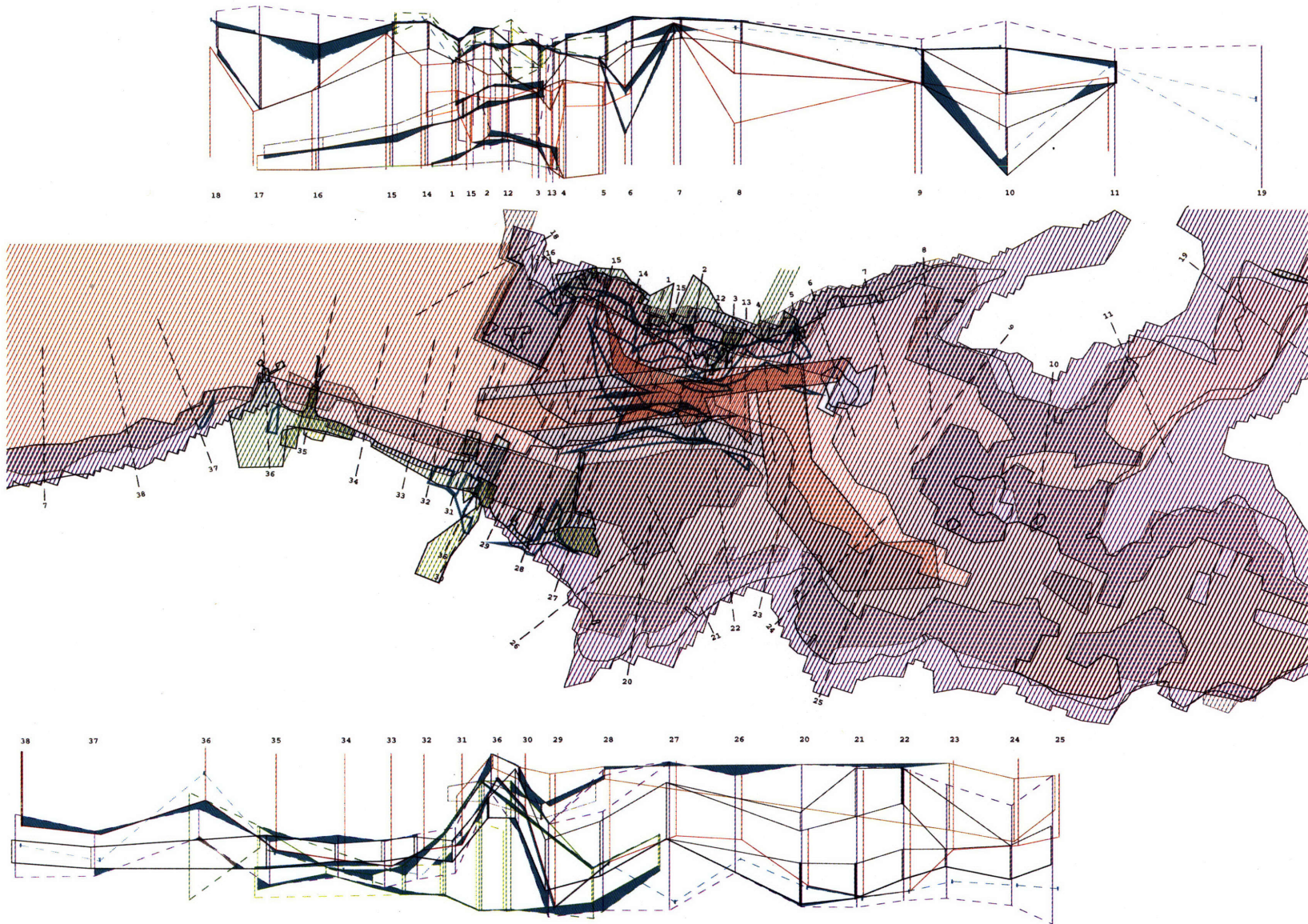
It is the place of overlap, interchange, or interference that will ultimately initialize the program and form of the infrastructure within the waterfront edge.



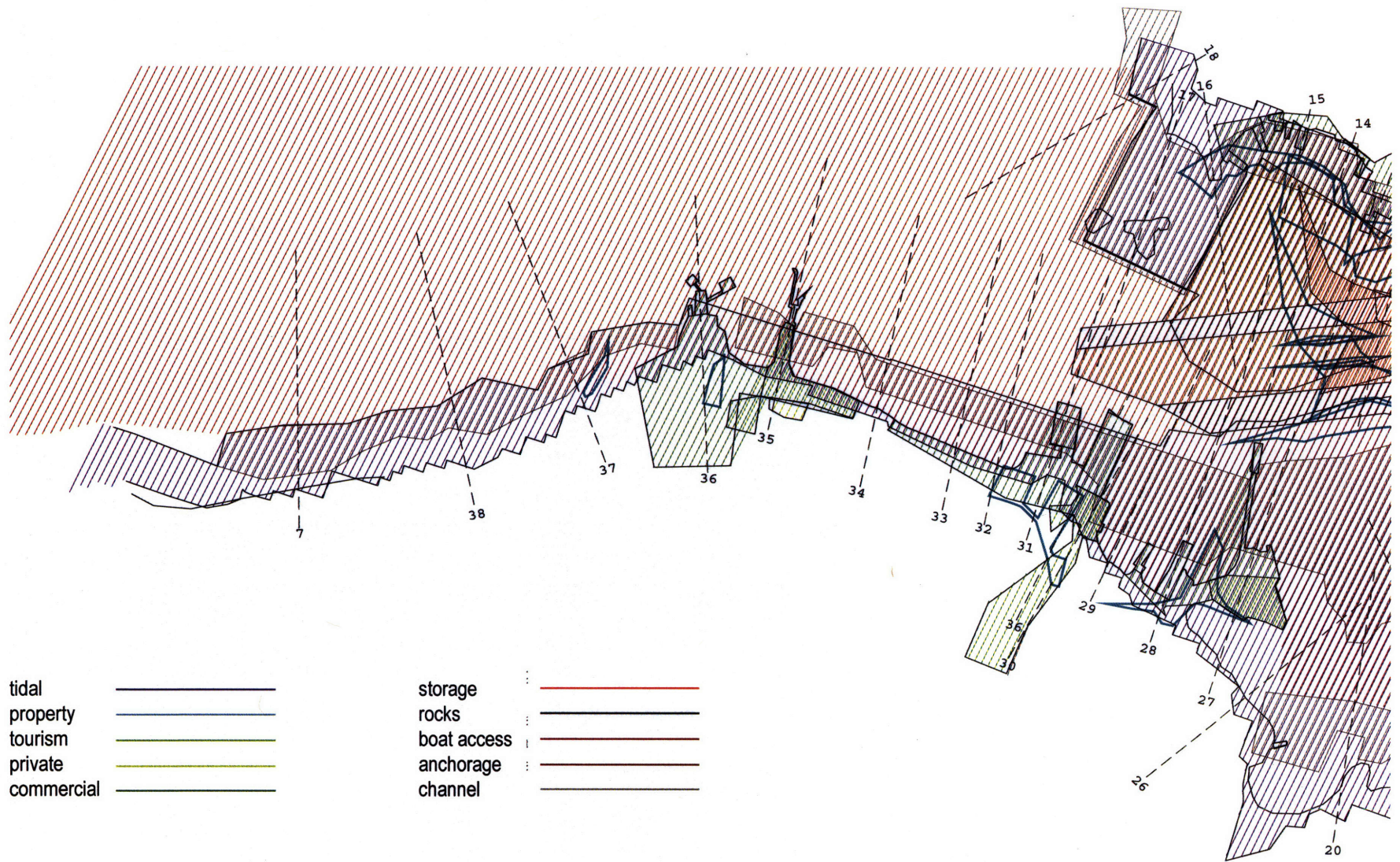
The idea of the verge came from this model. Originally intended as a tool for reshaping the existing systems, the wire pins and elastic were set according to the abstracted planar cuts and connecting lines from the previous drawing. I was surprised to find a very compelling depth in the overlap, and I began to imagine this as a section cut through the site. The images from this early model inspired an effort later on in the design to replicate a similar sectional quality in the building.

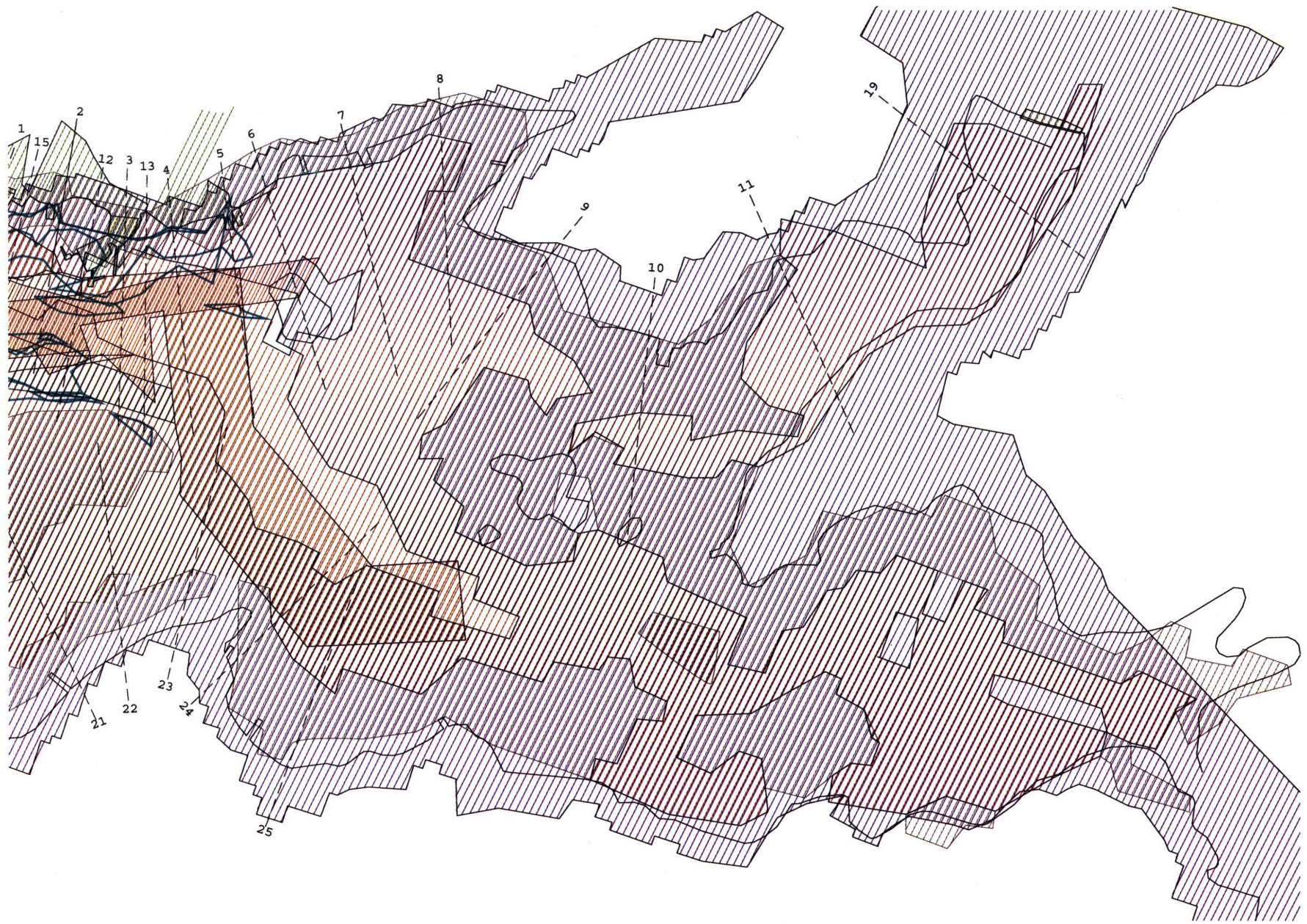


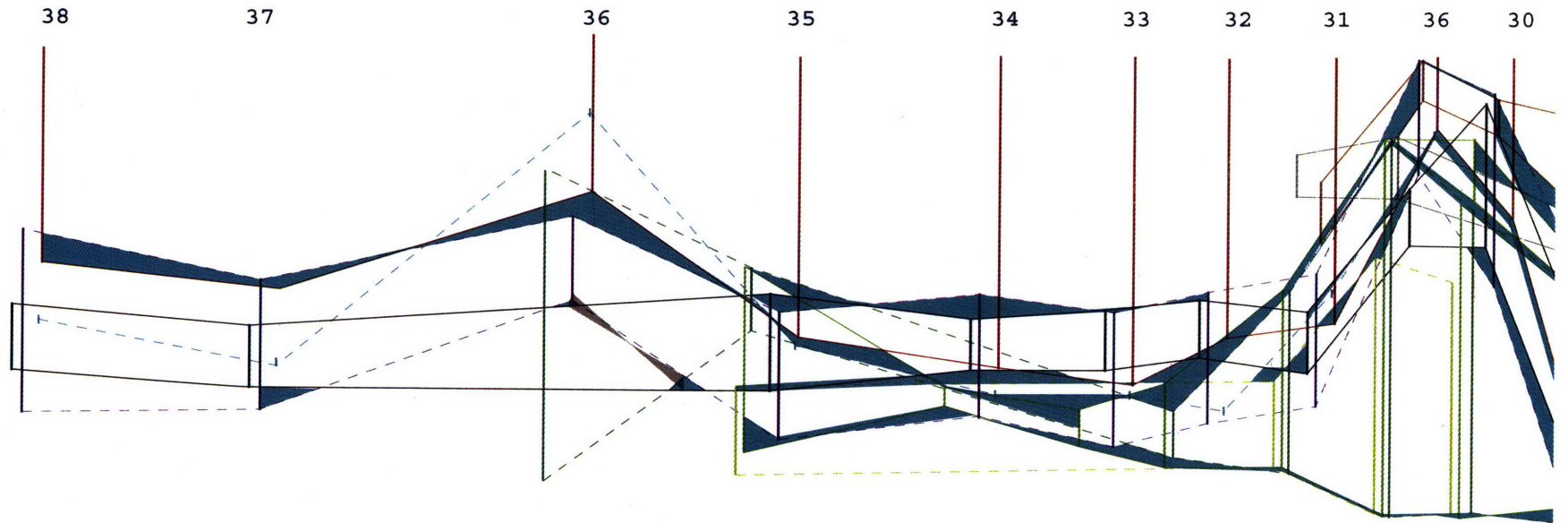




The verge typologies are identified as significant overlaps within the site.







tidal	—————	storage	—————
property	—————	rocks	—————
tourism	—————	boat access	—————
private	—————	anchorage	—————
commercial	—————	channel	—————

The planar cuts in plan are stretched out and connected, depicting an abstracted image of the overlapping edges. Such blurred moments are identified as the verge.

29

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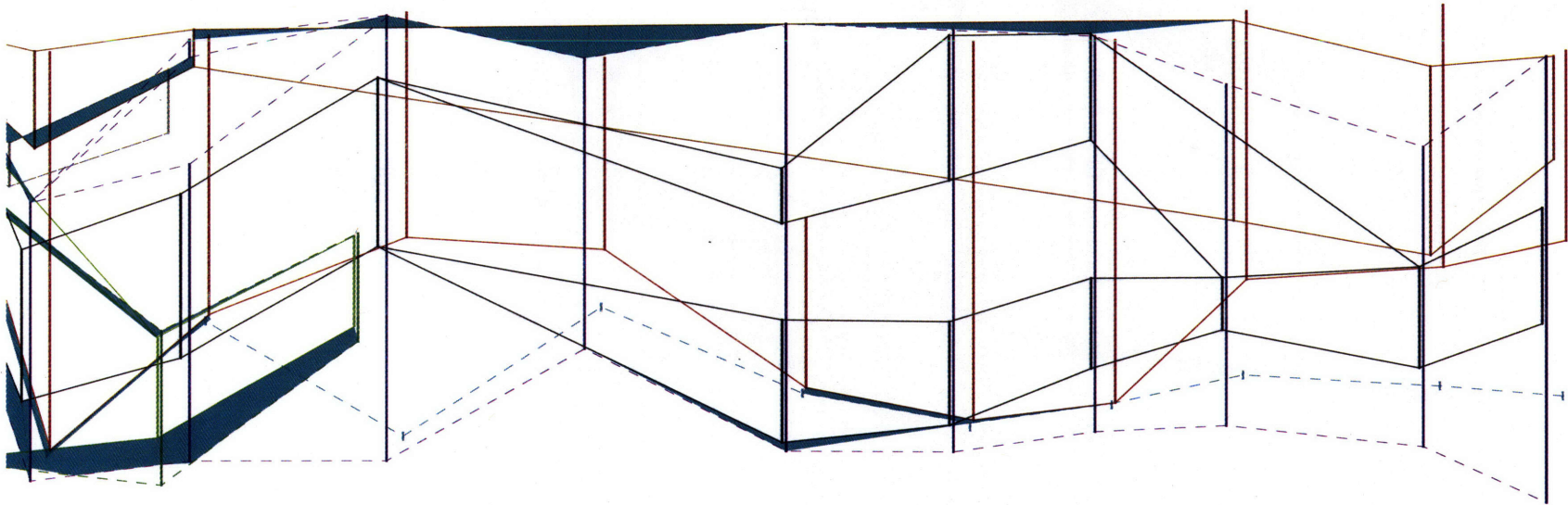
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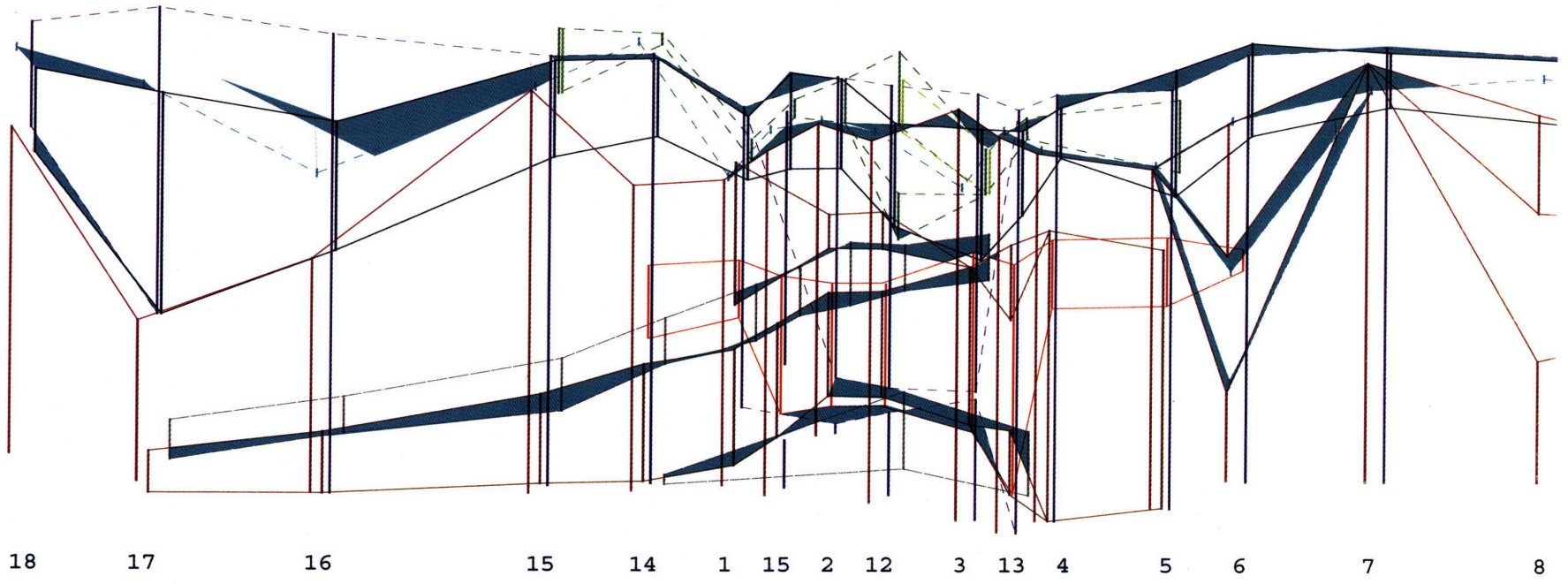
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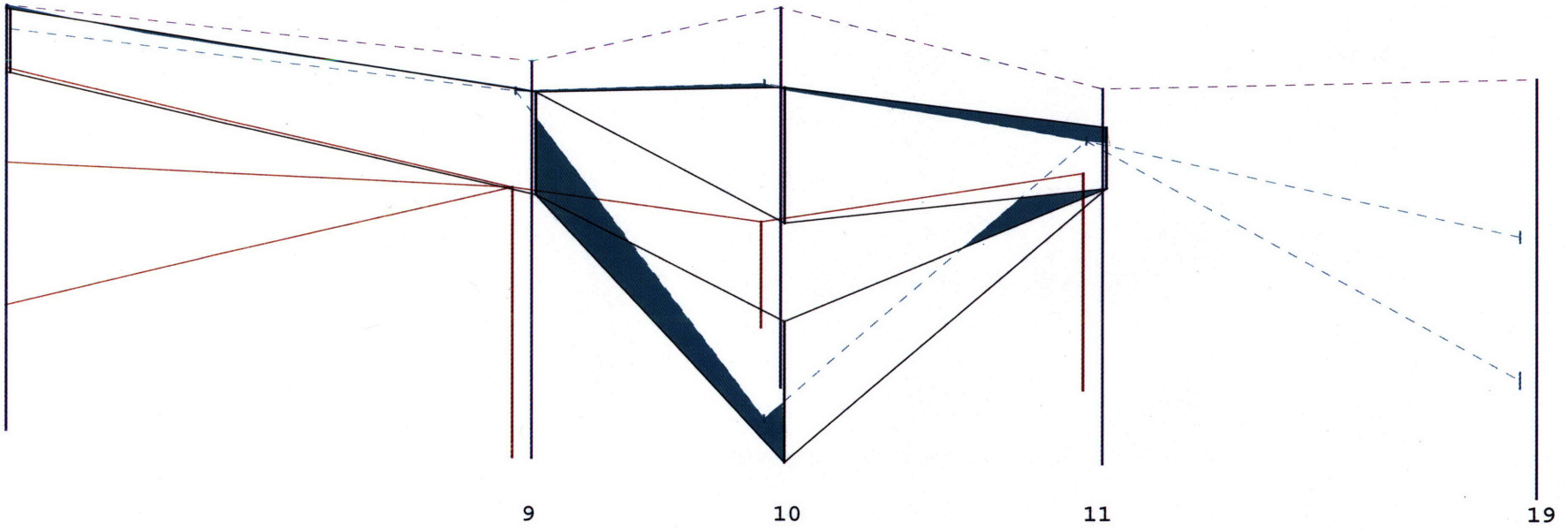
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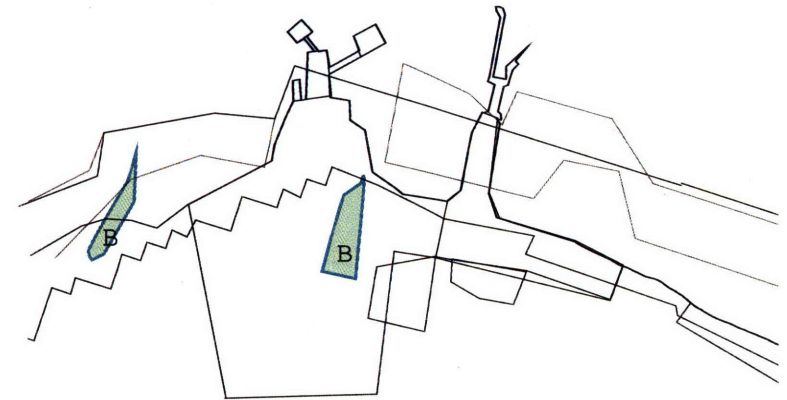
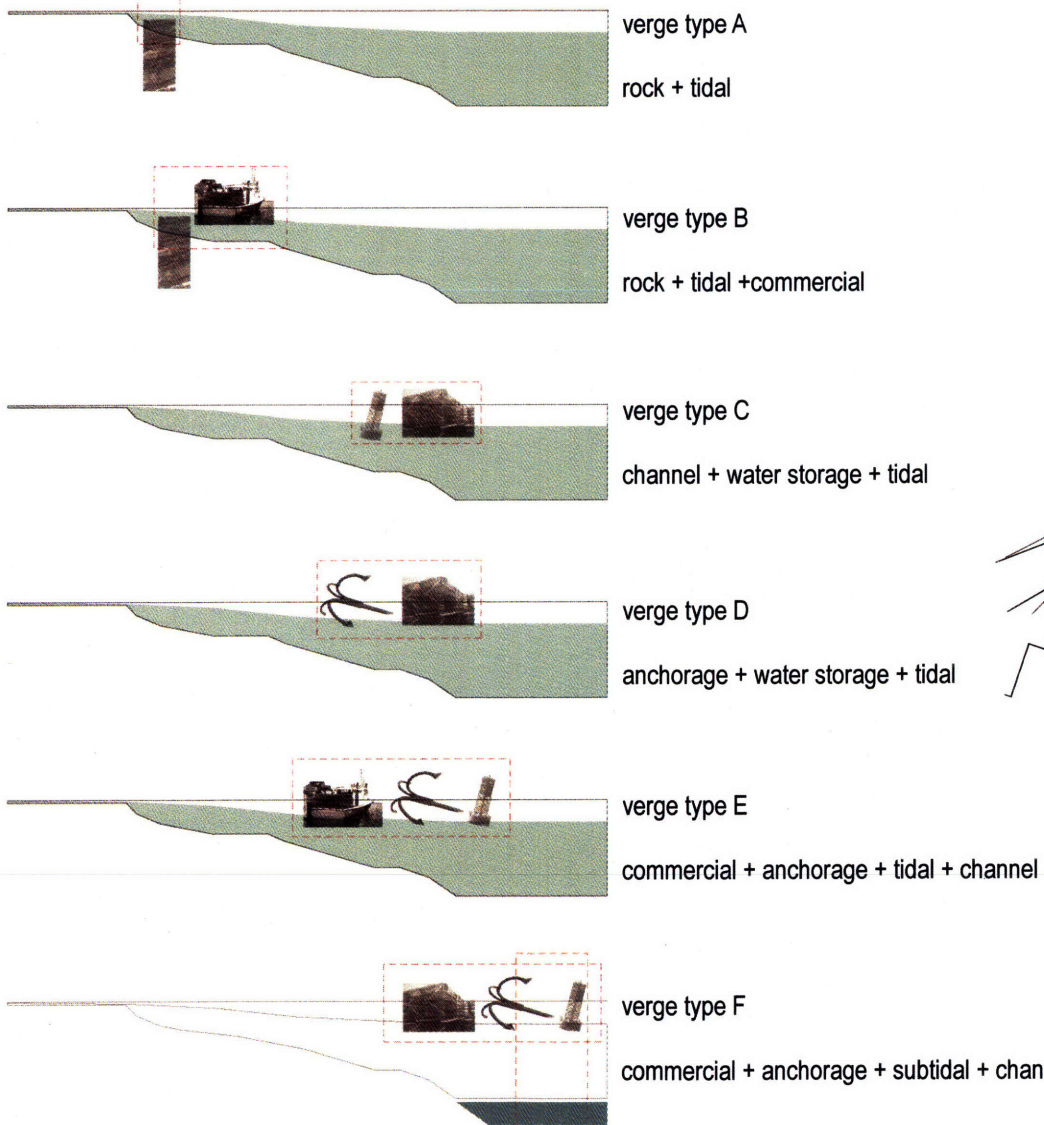




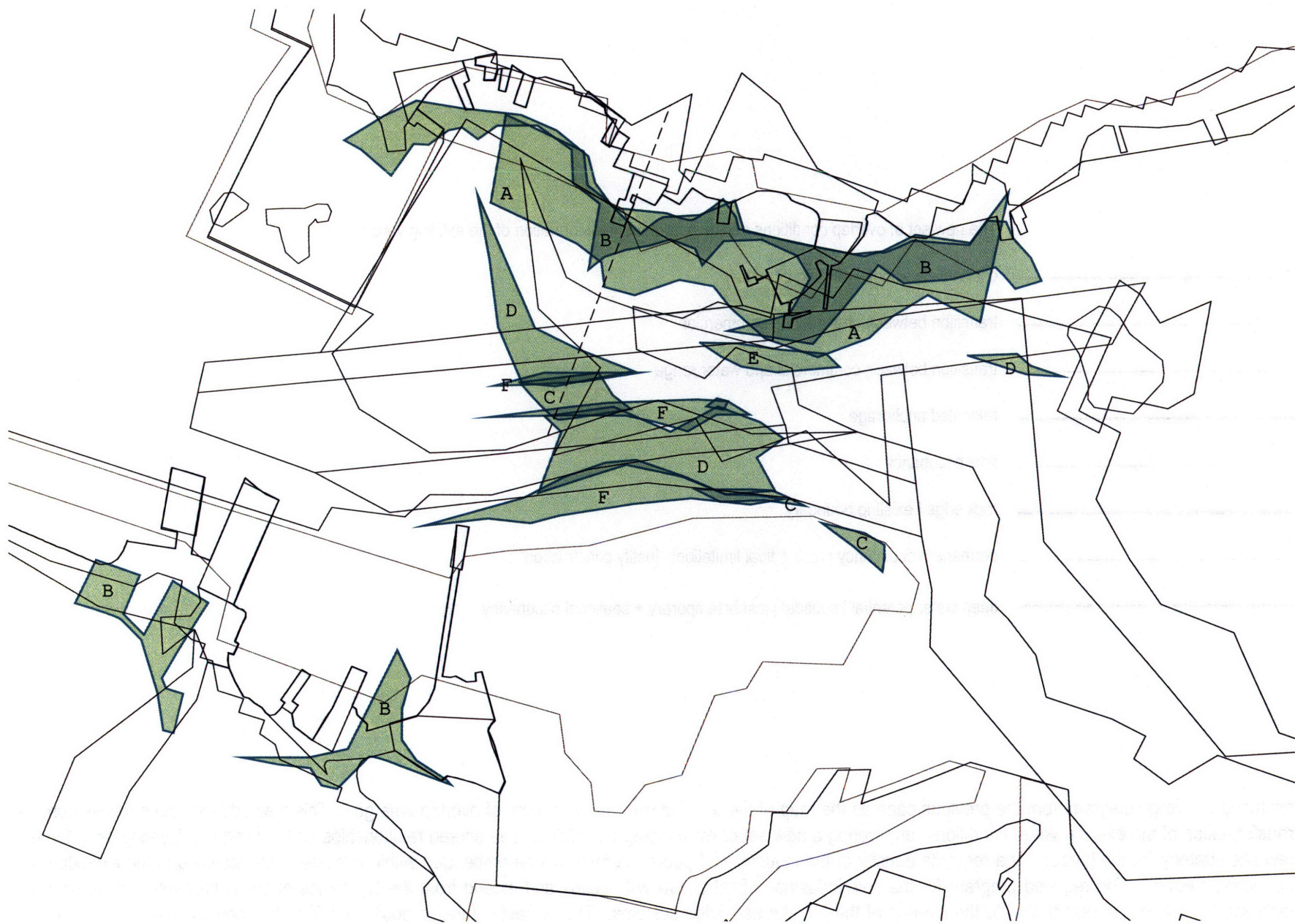
tidal —————
 property —————
 tourism —————
 private —————
 commercial —————

storage —————
 rocks —————
 boat access —————
 anchorage —————
 channel —————













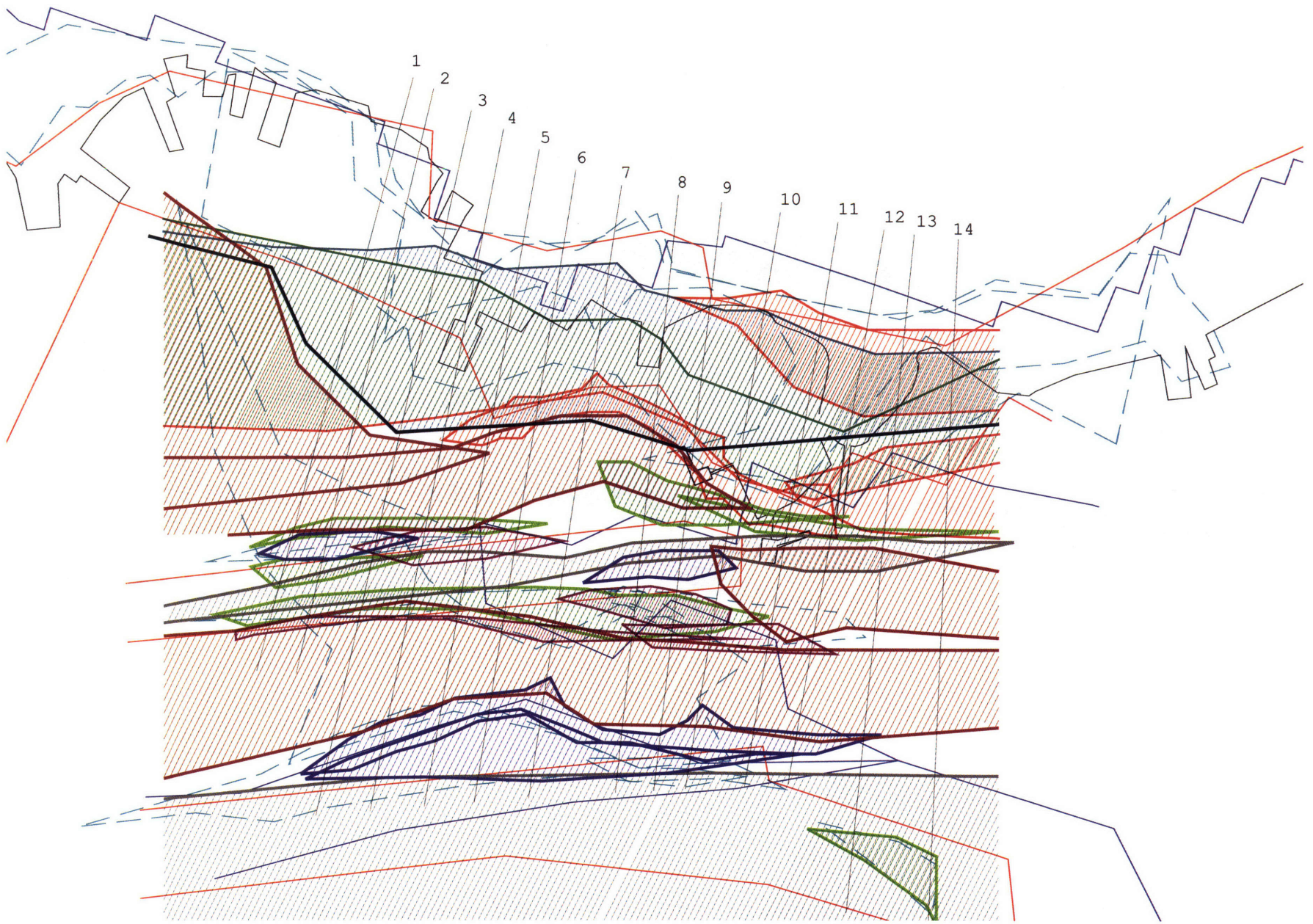
Based on the overlapping of the diagrammed edge systems, the verge typologies are classified and located within the harbor.

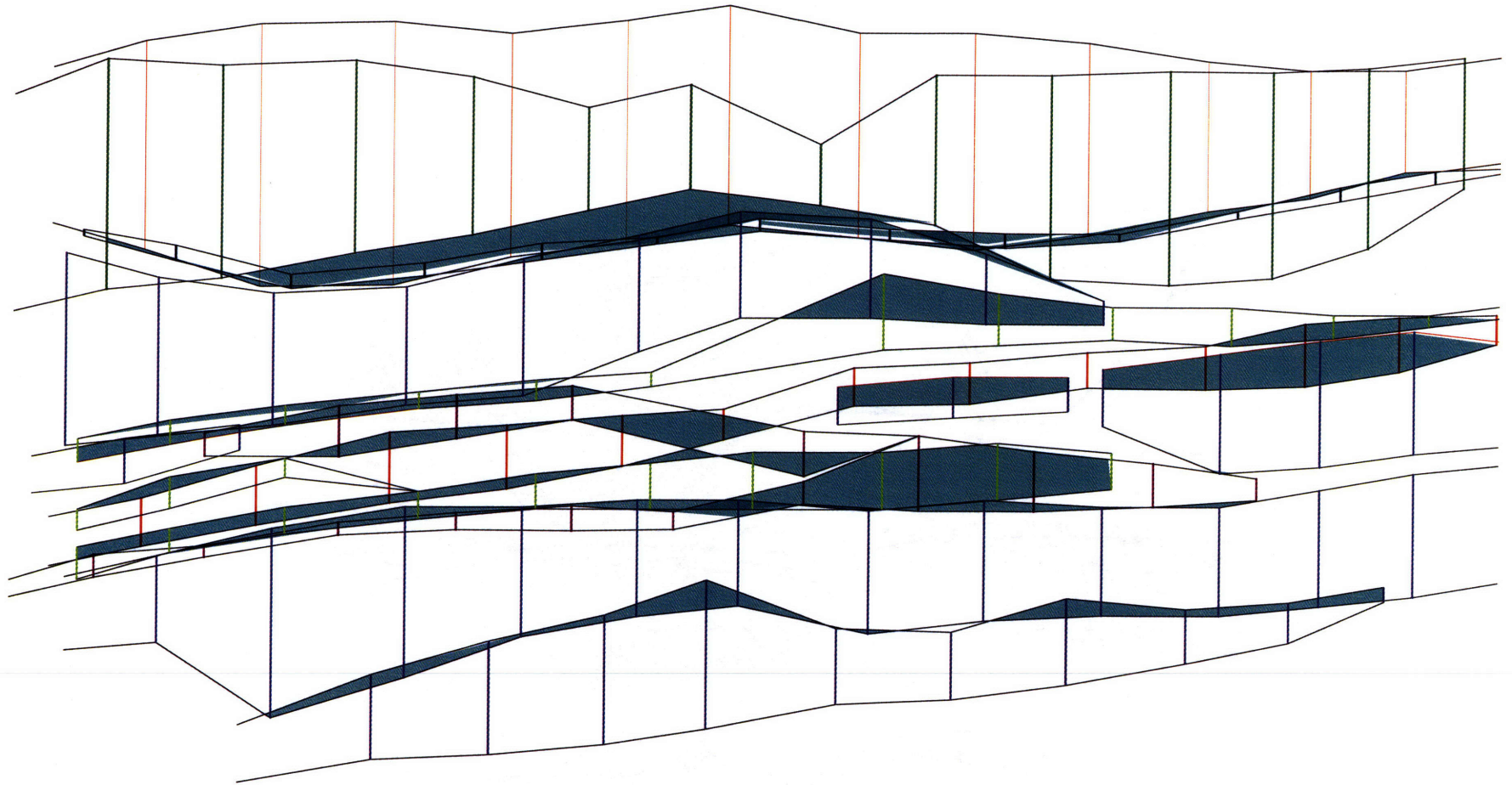


The new set of overlap conditions resulting from the transformation of the existing verge

-  channel clearance | existing boundary
-  transition between channel and commercial
-  transition between commercial and water range
-  relocated anchorage
-  tidal occupancy
-  rock edge | existing boundary
-  permanent occupancy | rock + tidal limitations justify construction
-  deep water potential | subtidal | justify temporary + seasonal occupancy

Instituting the verge diagram from the previous page as the map of the existing site, a new pattern of overlap emerges. This new edge systems results from the transformation of the existing verge conditions, uncovering a new set of overlapping conditions. The altered relationships and subsequent layering establishes a new site strategy for the harbor. The requisite density of the industry and public interests will be embedded within this new understanding of the extended and reconceived edge. The required program for the new industrial infrastructure will occupy and extend from the typologies of the reinterpreted verge diagram, each specific future use responding to the overlap of the transformed edge systems. The infrastructure is positioned from this new interpretation of the site.





The overlap of the transformed systems diagrams a new image of the existing and potential density of program at the site. Using this image as a framework,

Design Process



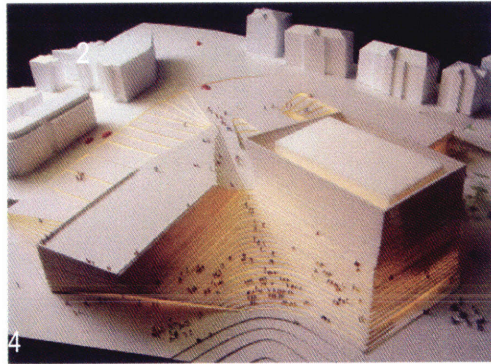
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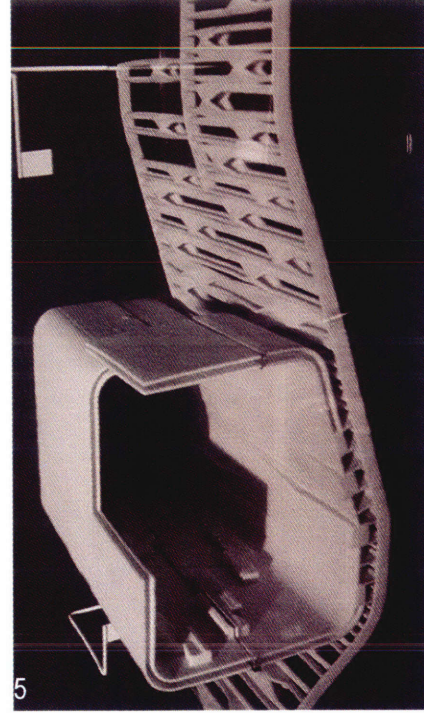
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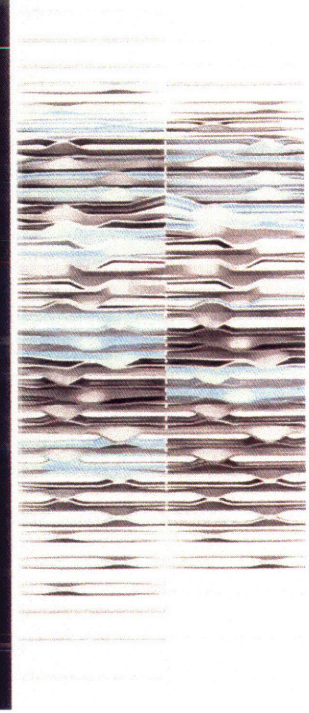
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4

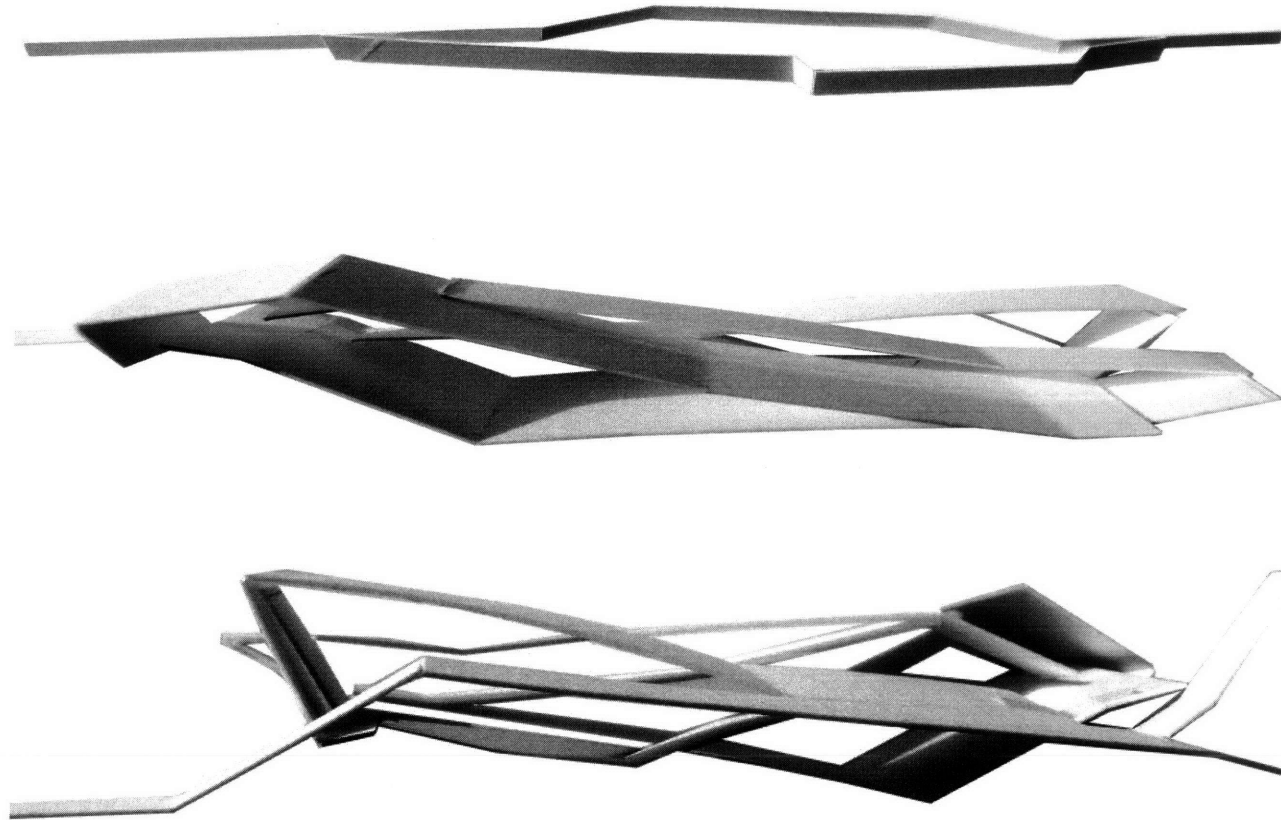


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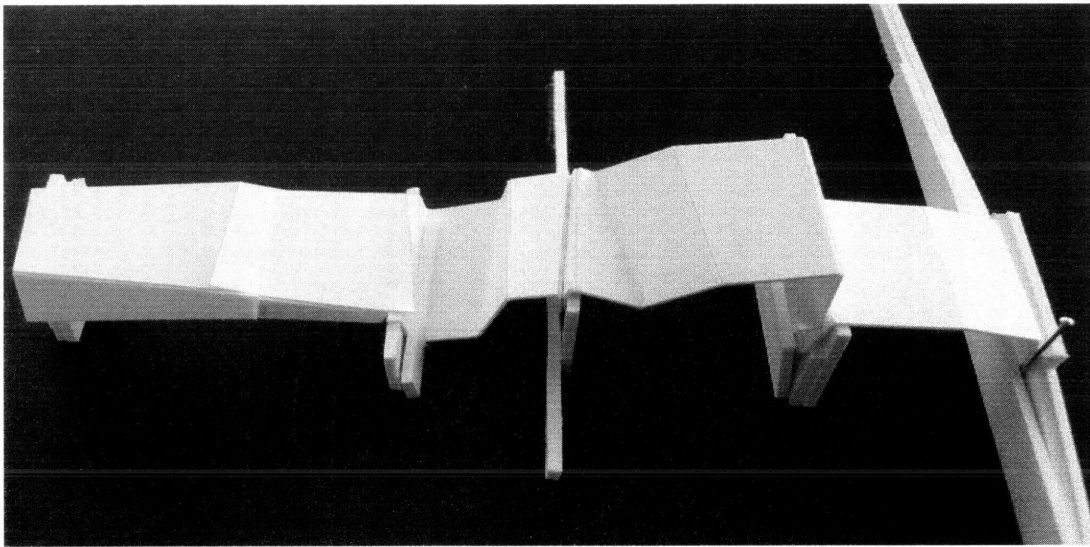


1. Berlin River Installation
2. Alvaro Siza, Swimming Pool
3. White Arkitekter, Kastrup Sobad Bathing Pavilion
4. PLOT
5. Servo in collaboration with Perry Hall, Lobbi-Ports

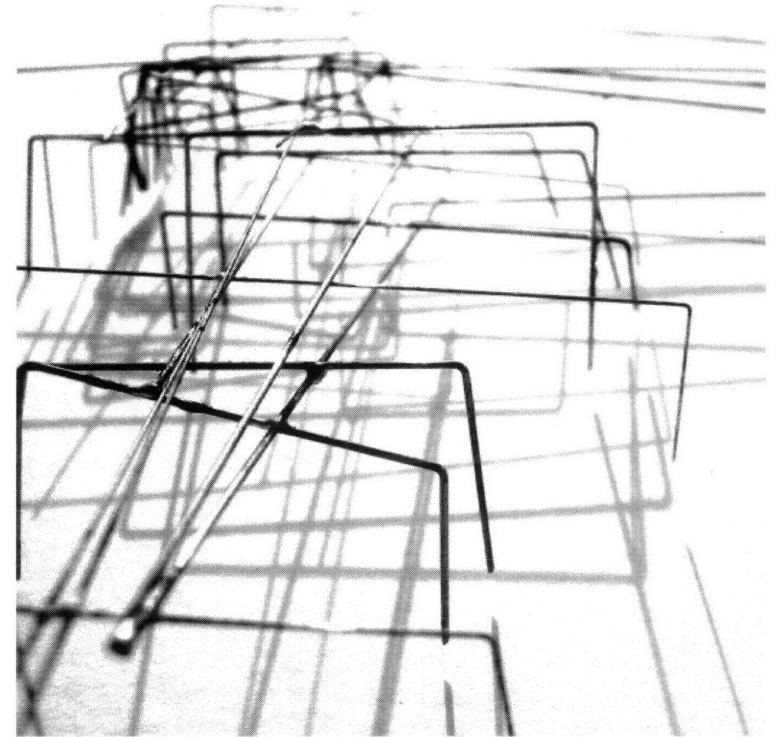
Precedent studies for occupying (embedding within) the edge.



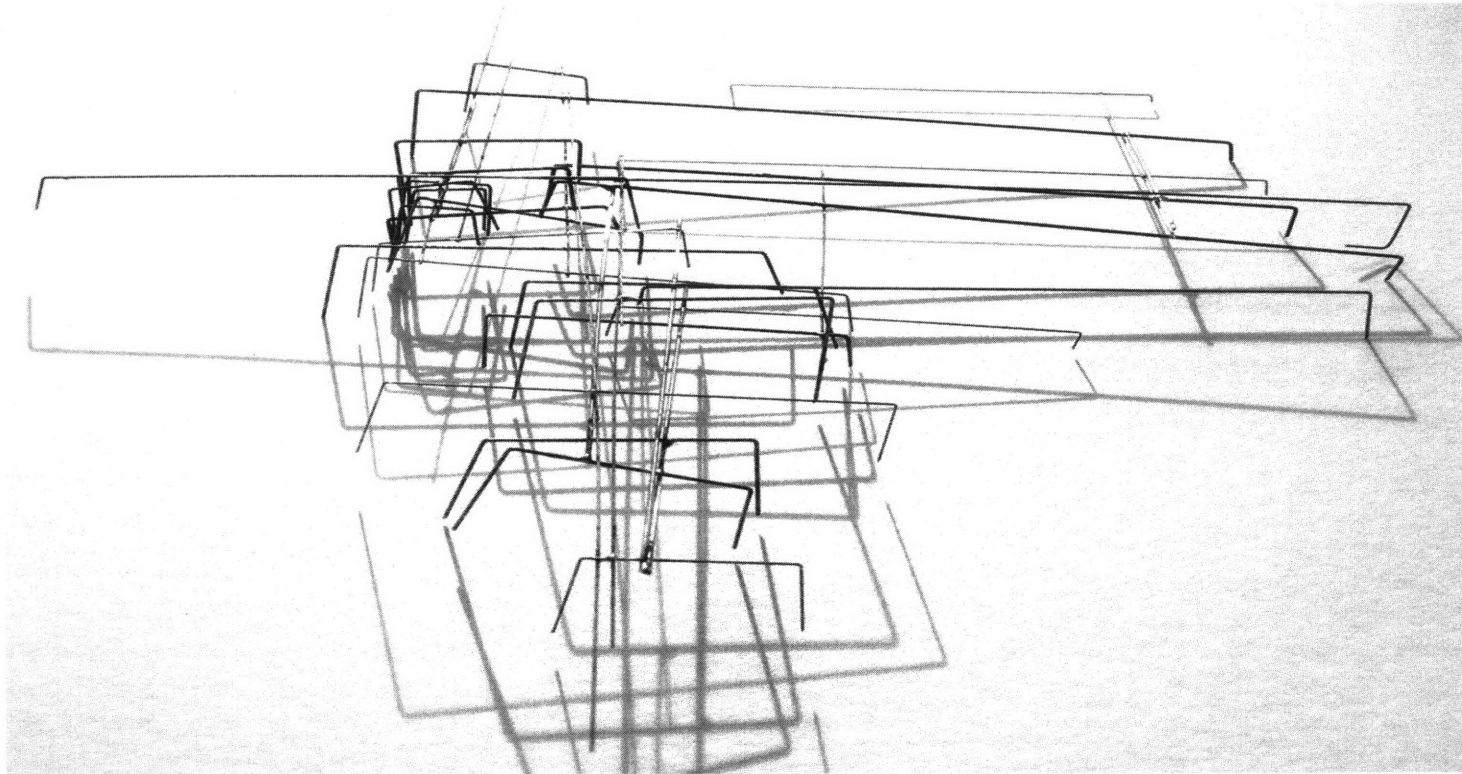
Initial study models exploring space-making within the confines of the proposed site. Each model is reacting to the possible situation of program at the site as



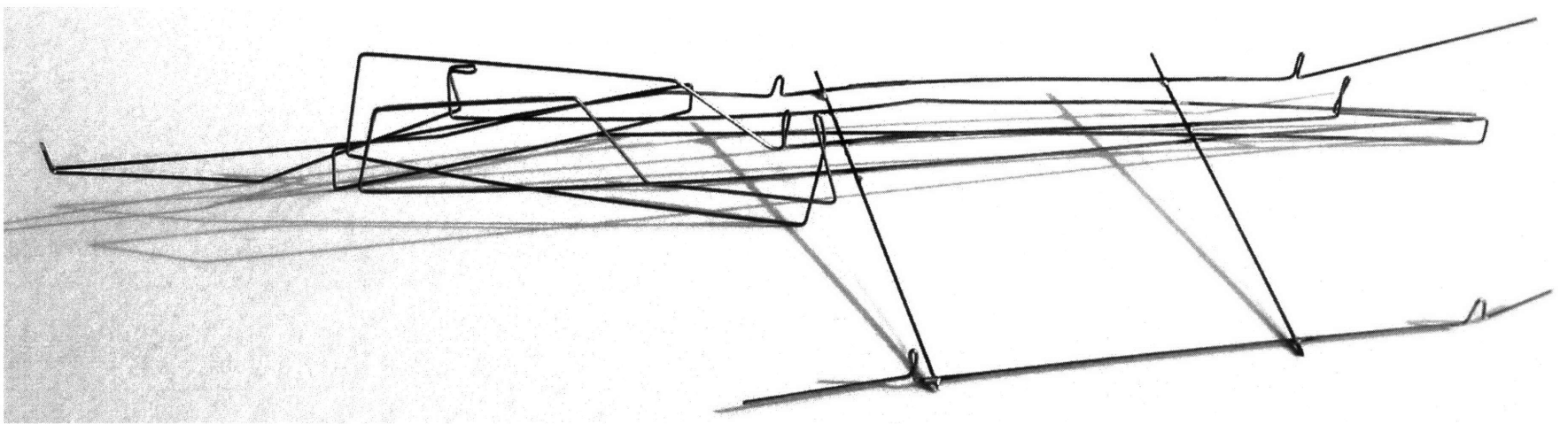
indicated by the transformed verge diagram. The discovered potential overlaps are responded to in form via enclosure, passage, bridging, connecting, etc.

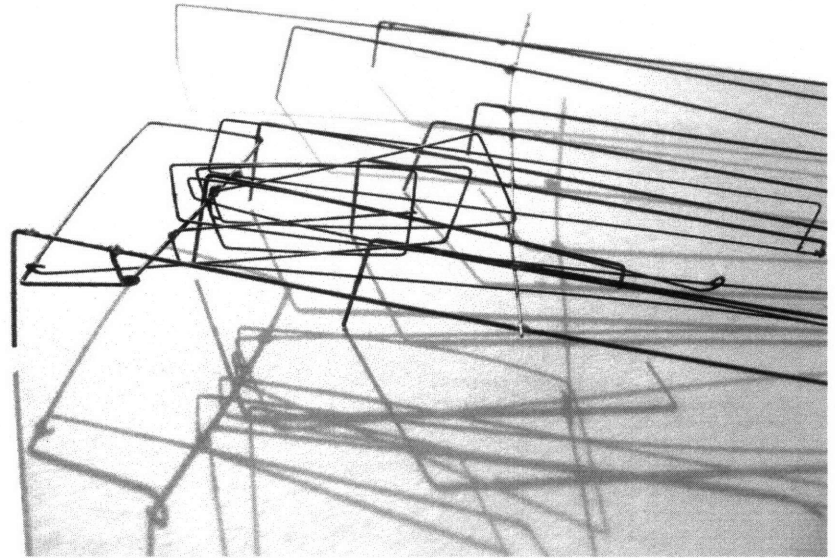
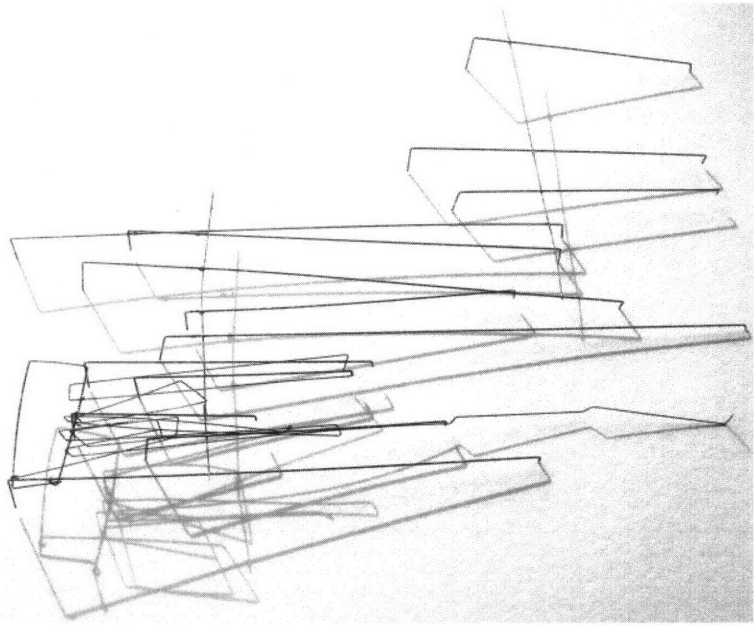


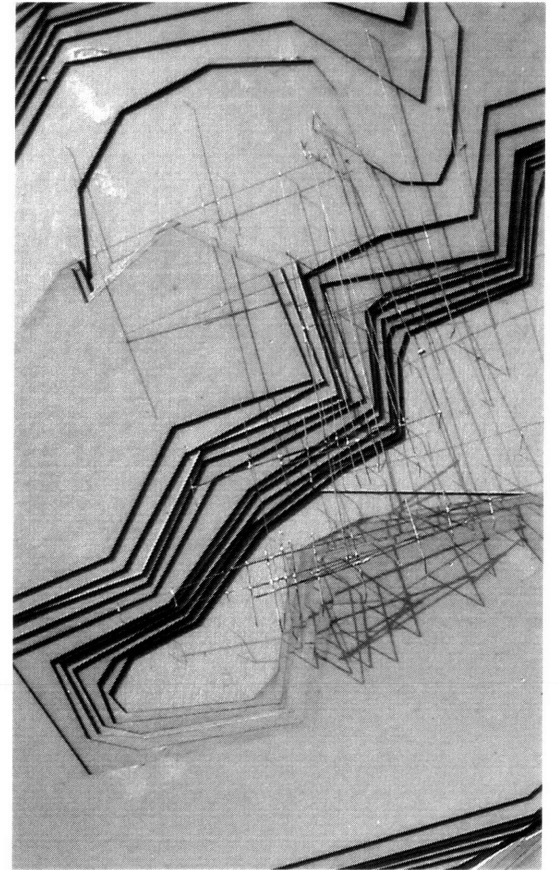
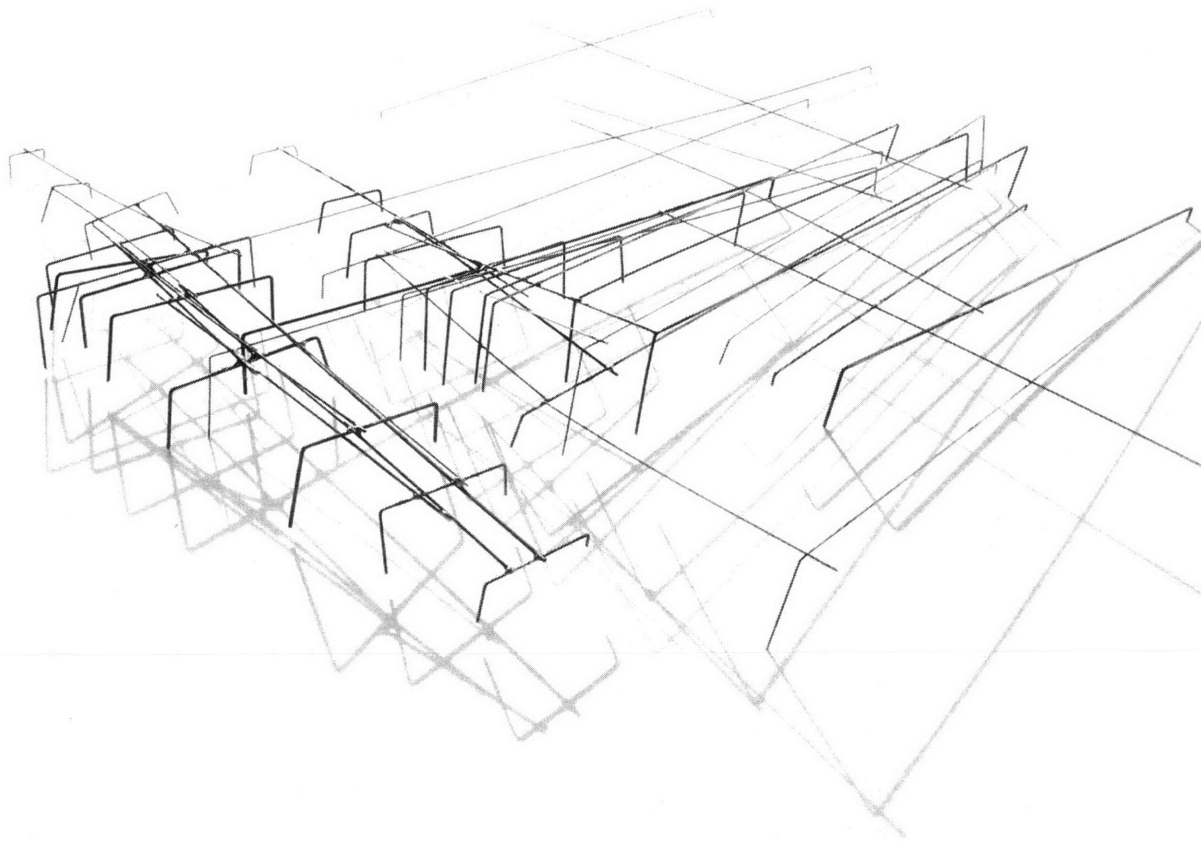
Second series of study models exploring space-making within the confines of the proposed site. Each wire framework suggests different composition of layers of

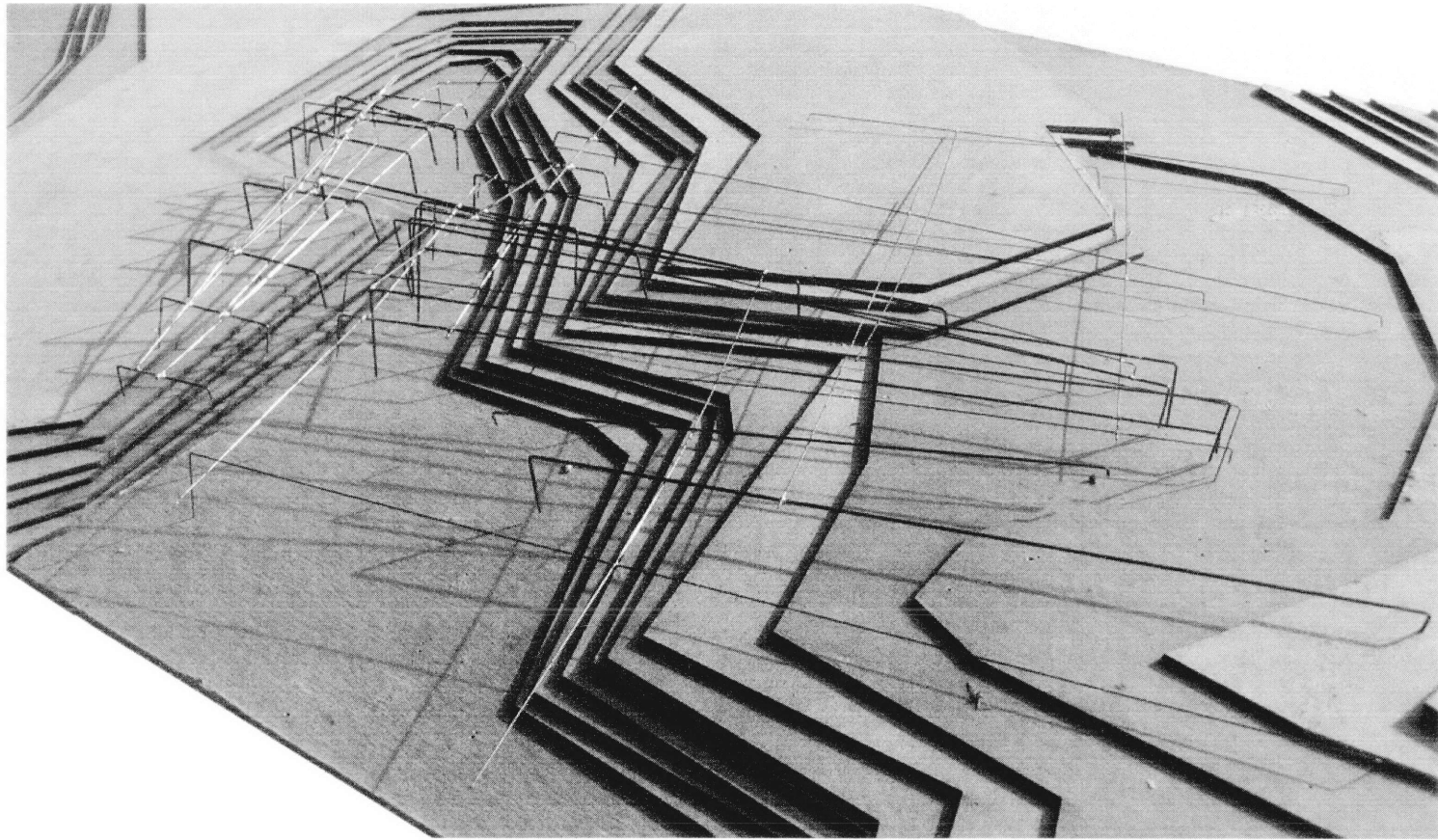


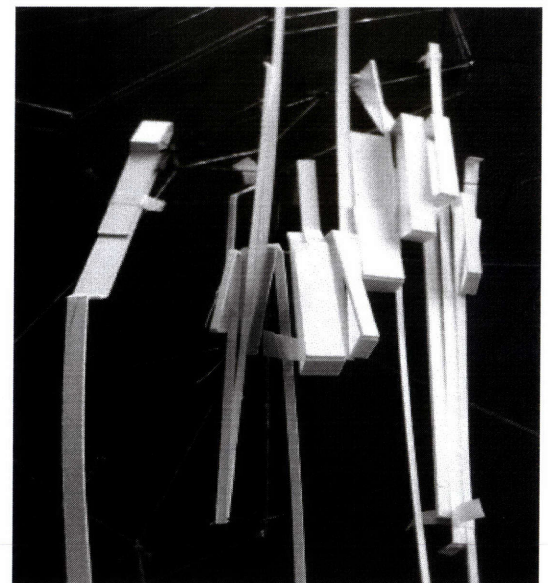
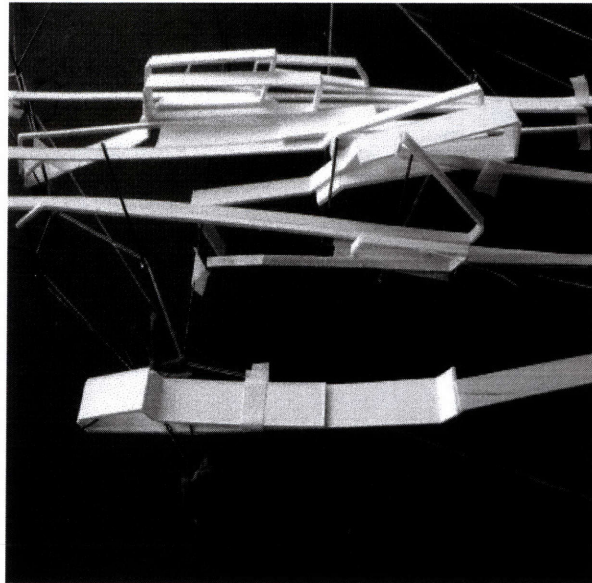
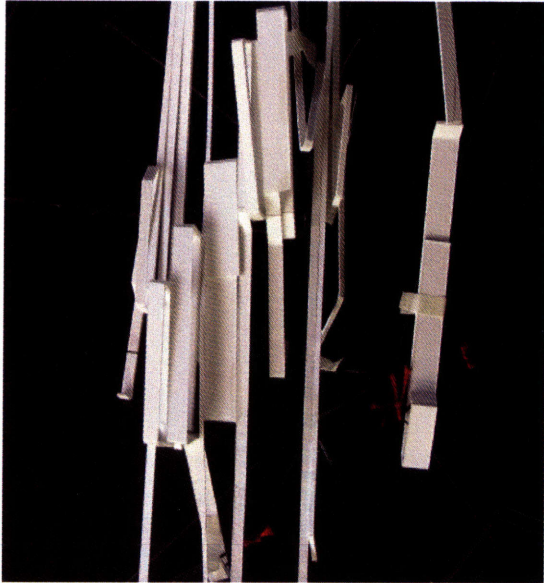
occupancy offset from the shore, connected by a surface running perpendicular to the shore.



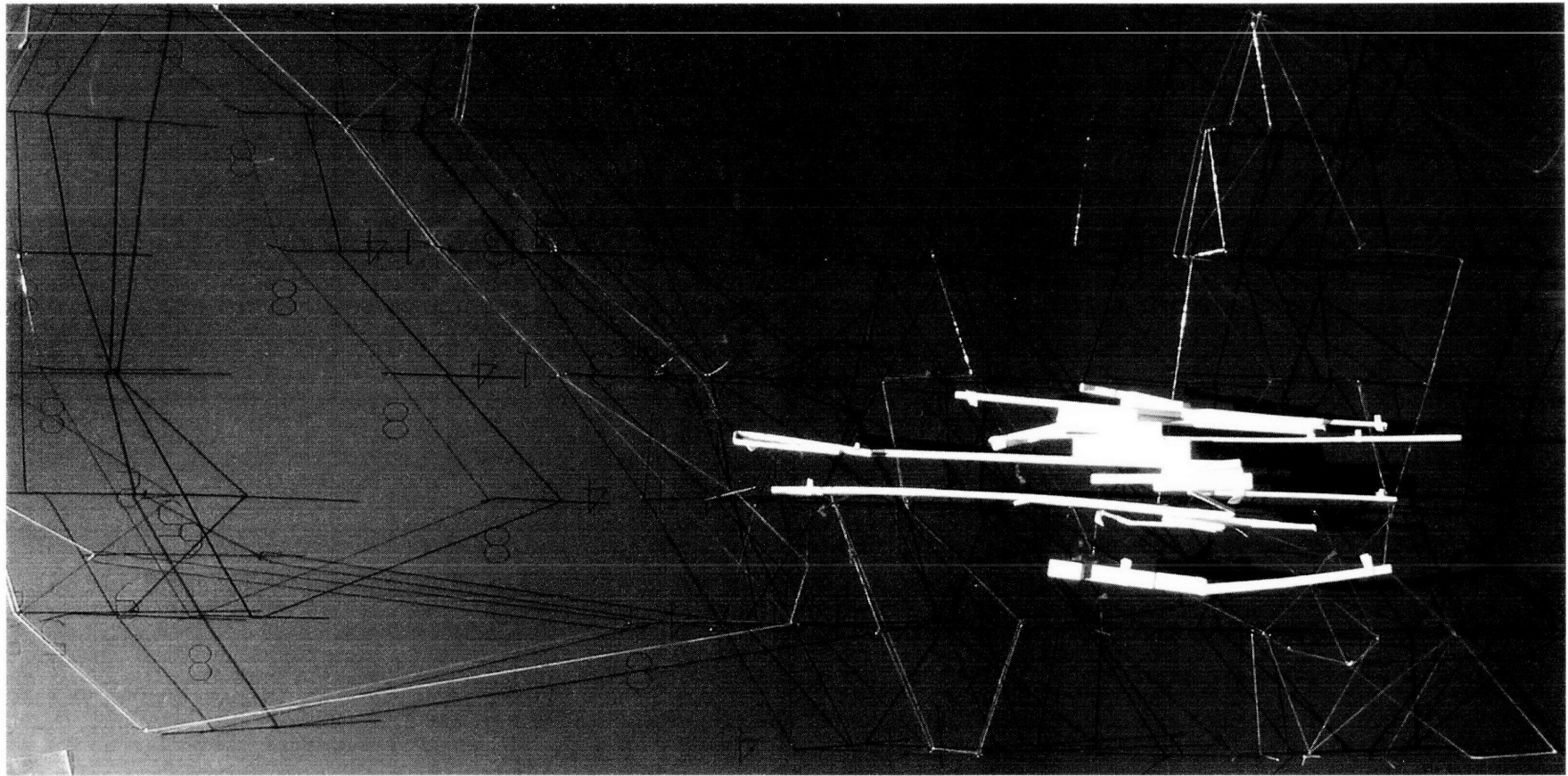






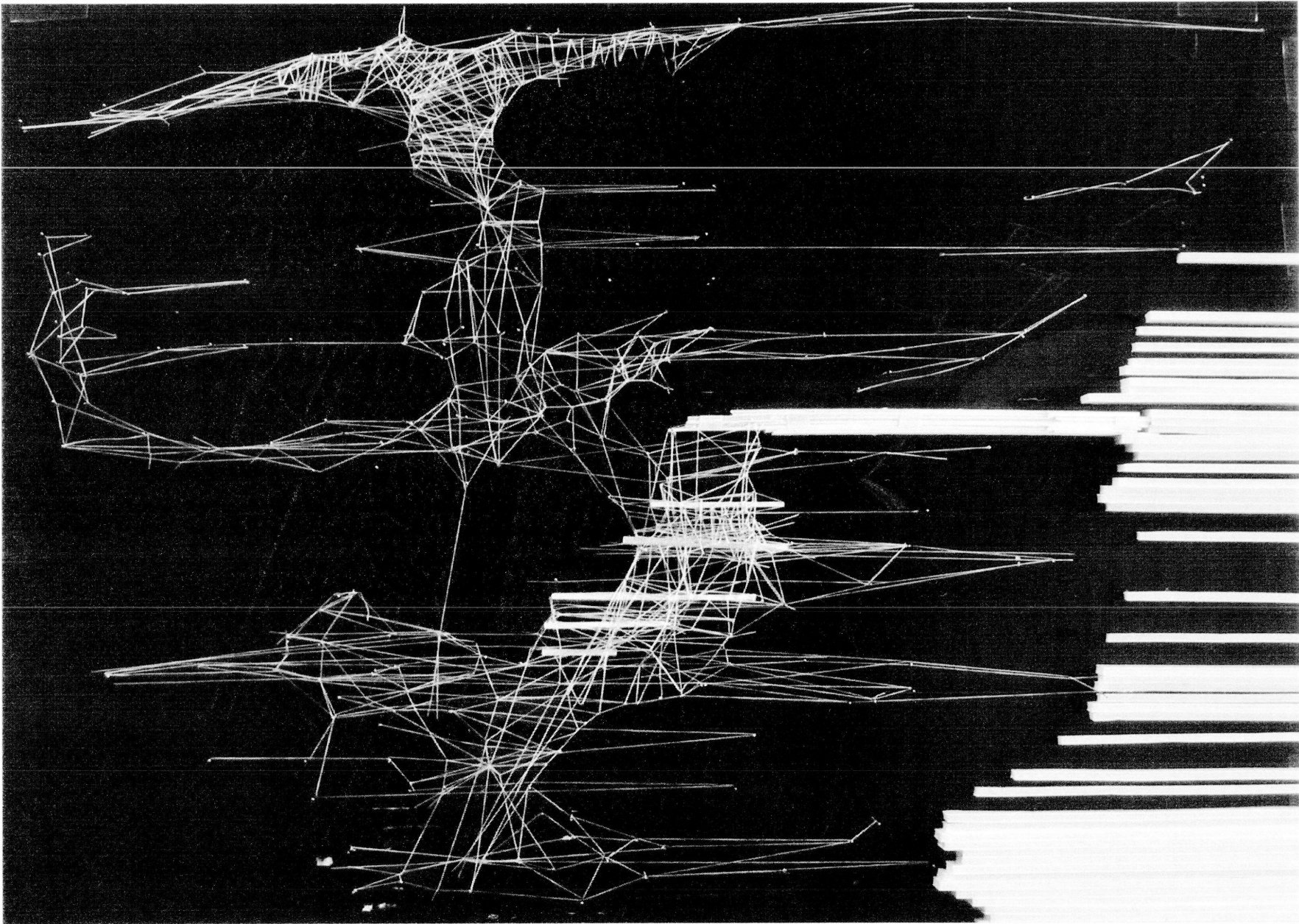


This study model was made with elastic lines representing the edge systems at the site. The intention was that the introduced structure would actually warp the

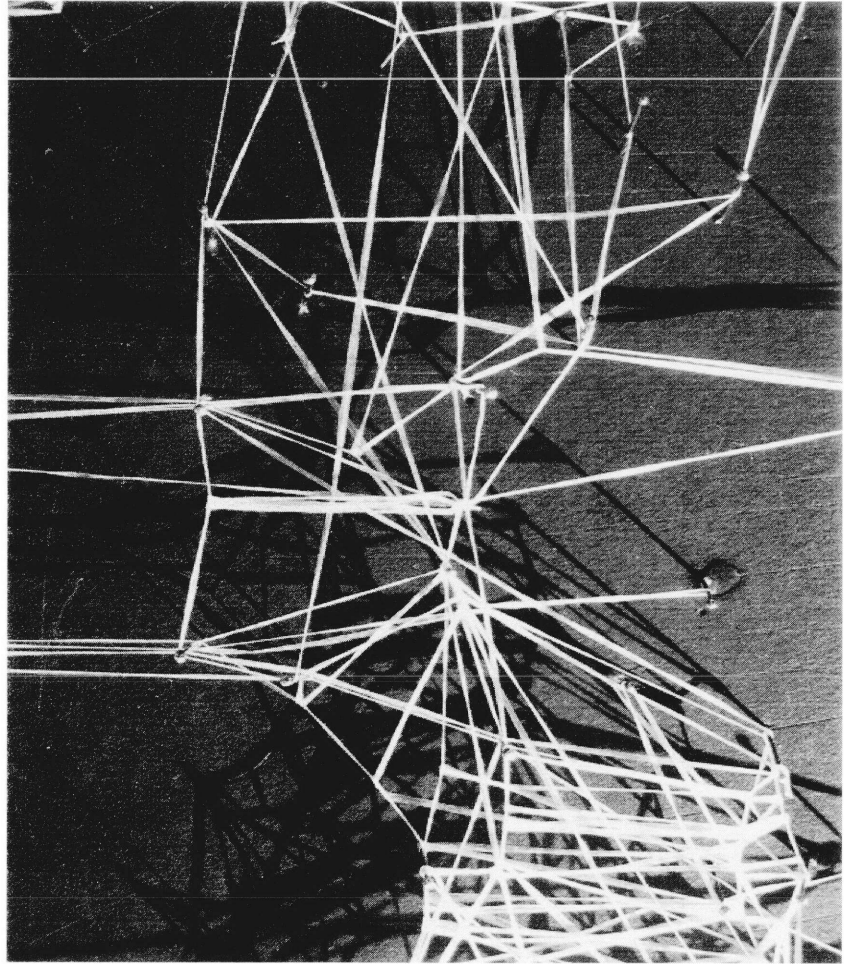
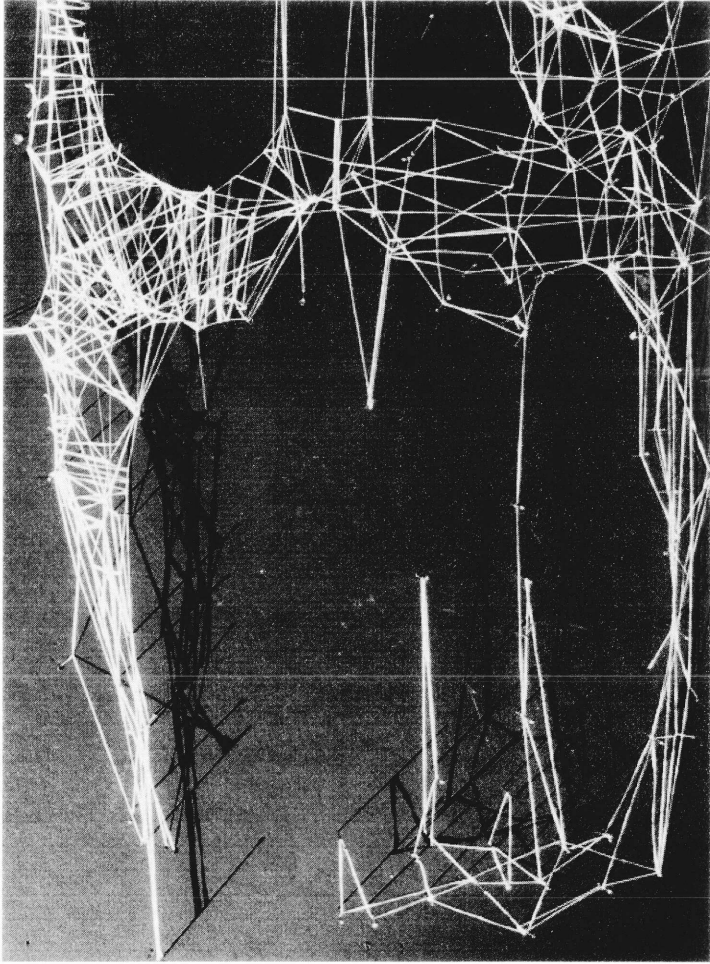


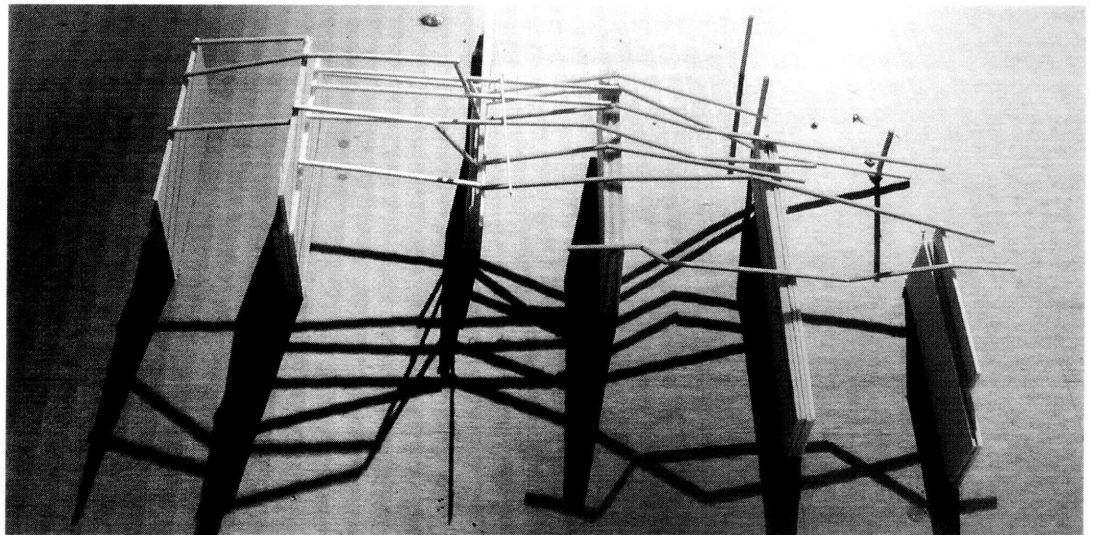
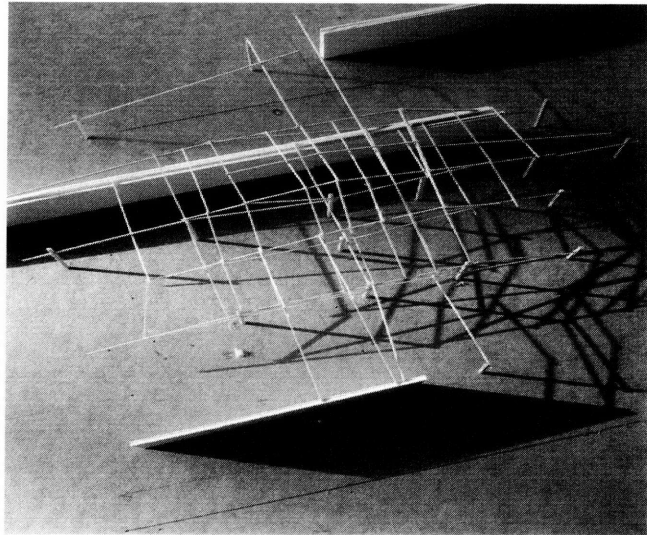
various boundaries (black) and thresholds (clear), literally transforming the existing site. The building is embedded and engaged within the thickened edge.

Considering the infrastructure as a network, this model imagines the building as a set of points (pilings) and lines (cables). Examining the idea of the building as emerging from the density of the overlap, this model suggests a layering of surface and enclosure that maintains the building as a finite entity. The building will be changed over time as use changes and the materials fade or erode. It is meant to be altered, rebuilt, and transformed as needed. The needs of the infrastructure will continue to change, so the building must also be designed as a framework rather than as a final, unchangeable design.

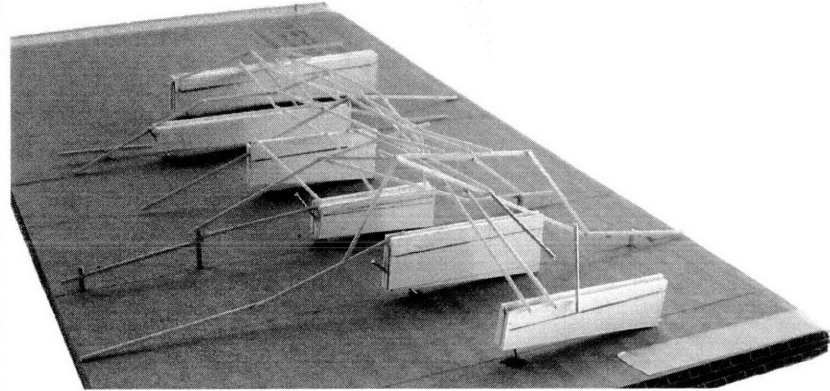
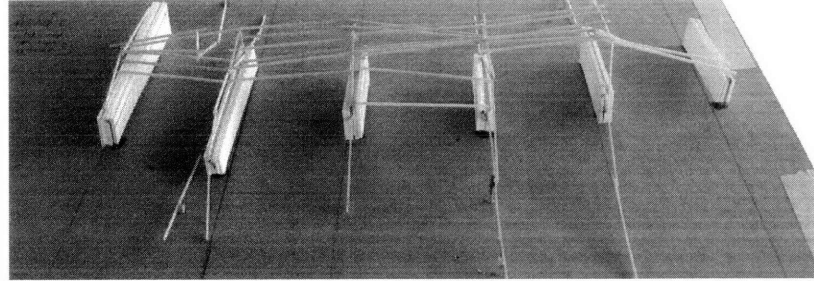
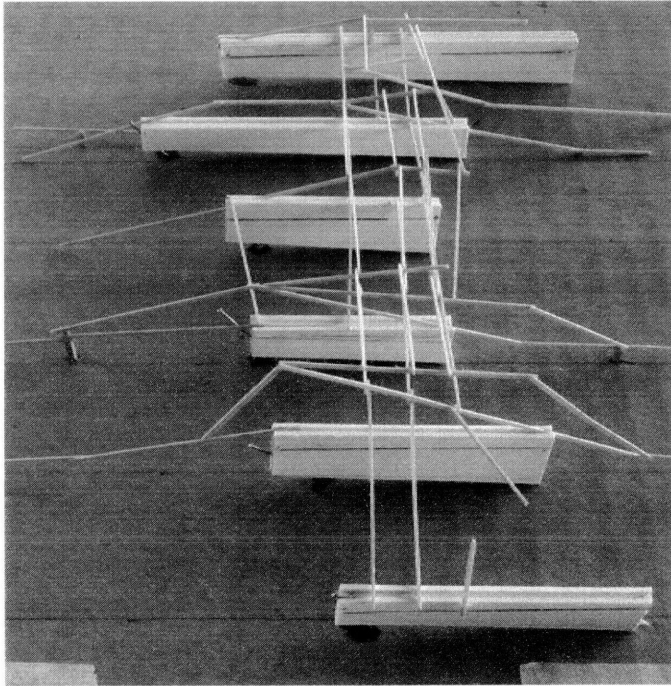


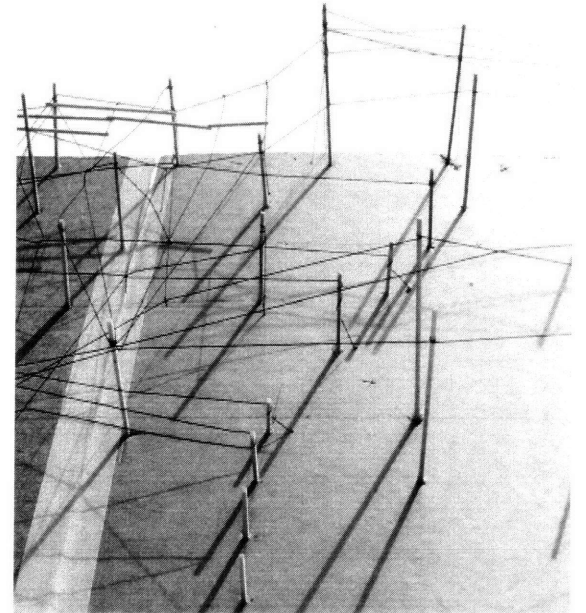
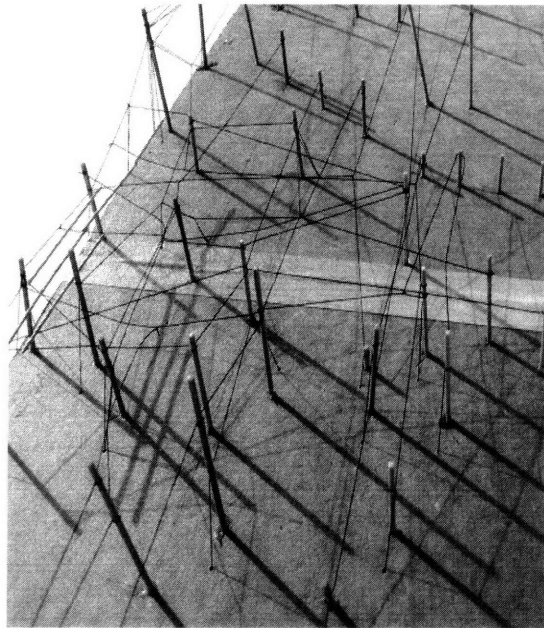




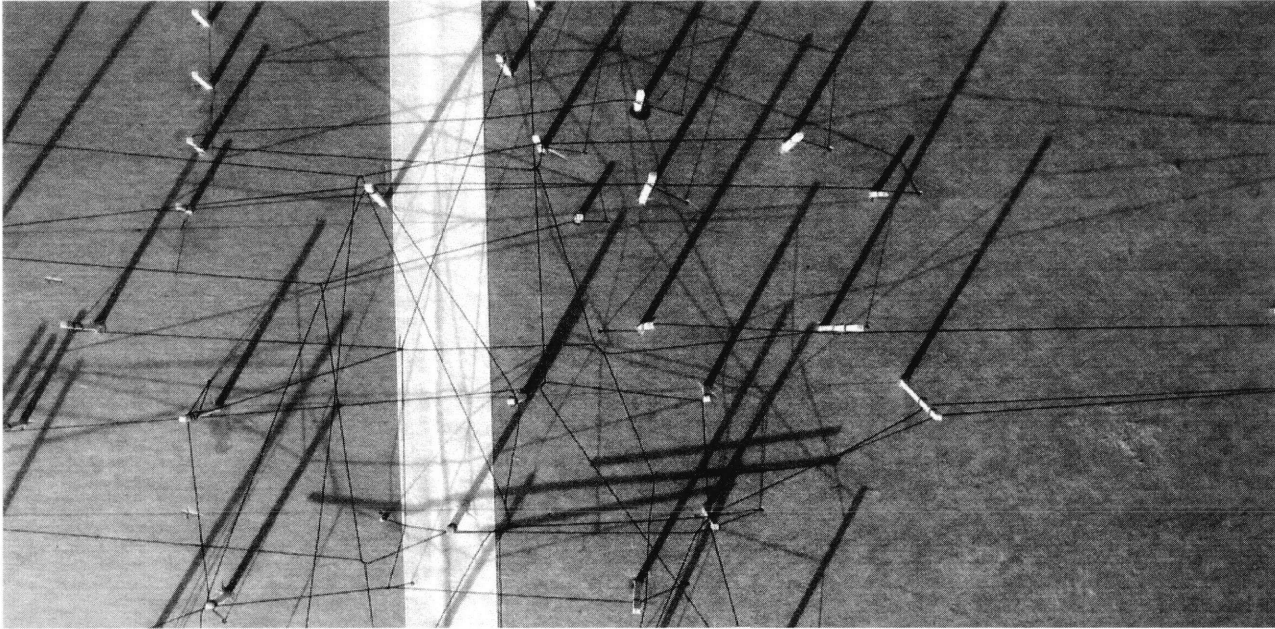


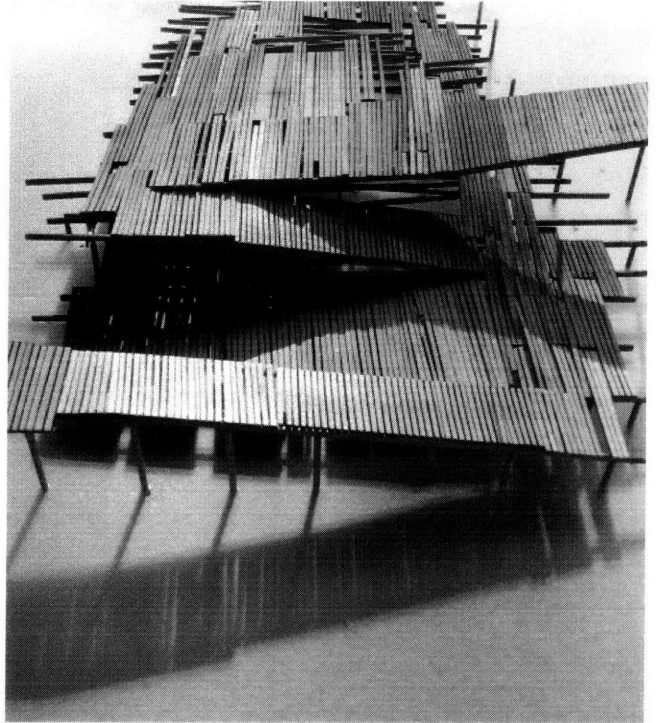
Studying the form of the surface and enclosure within the framework.

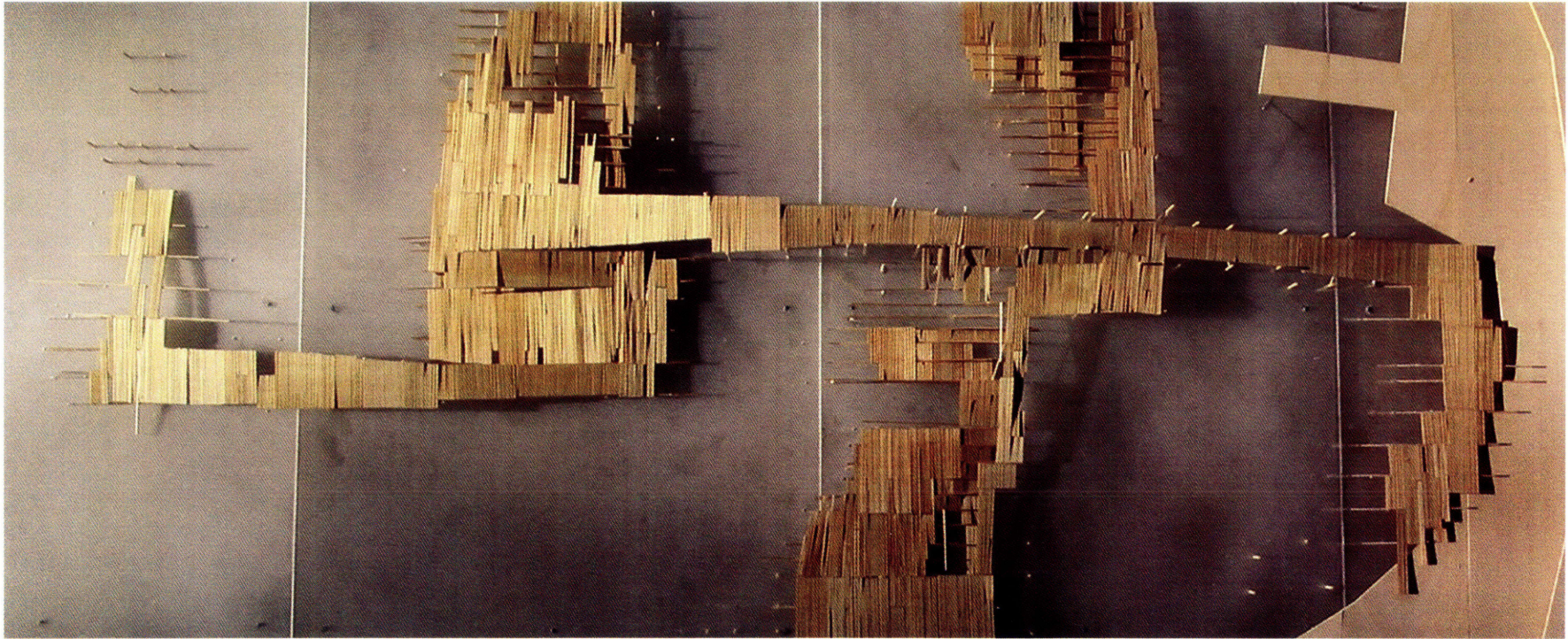




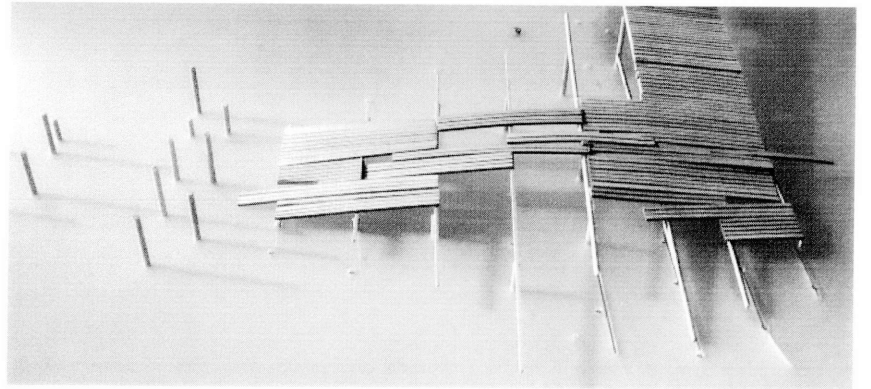
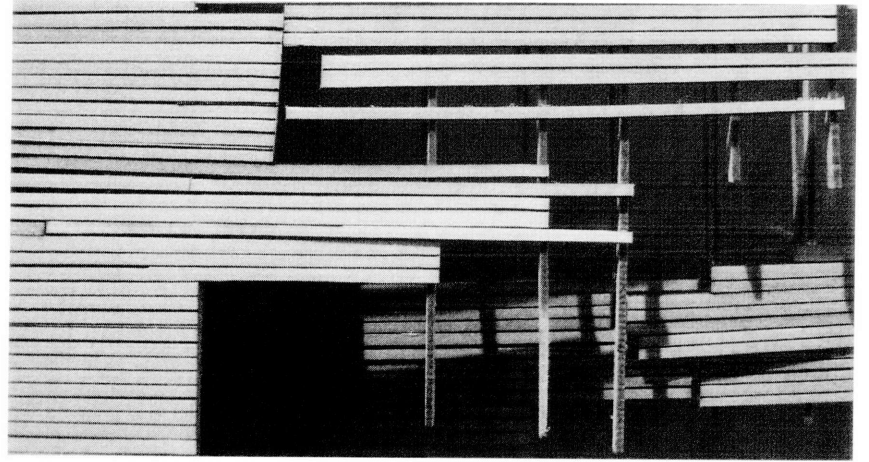
A literal exploration of the points and lines, considering a tension structure suspended above the water.

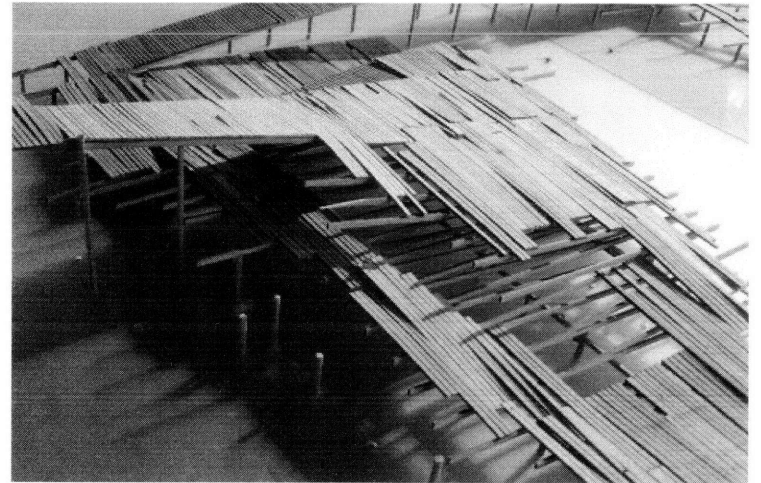
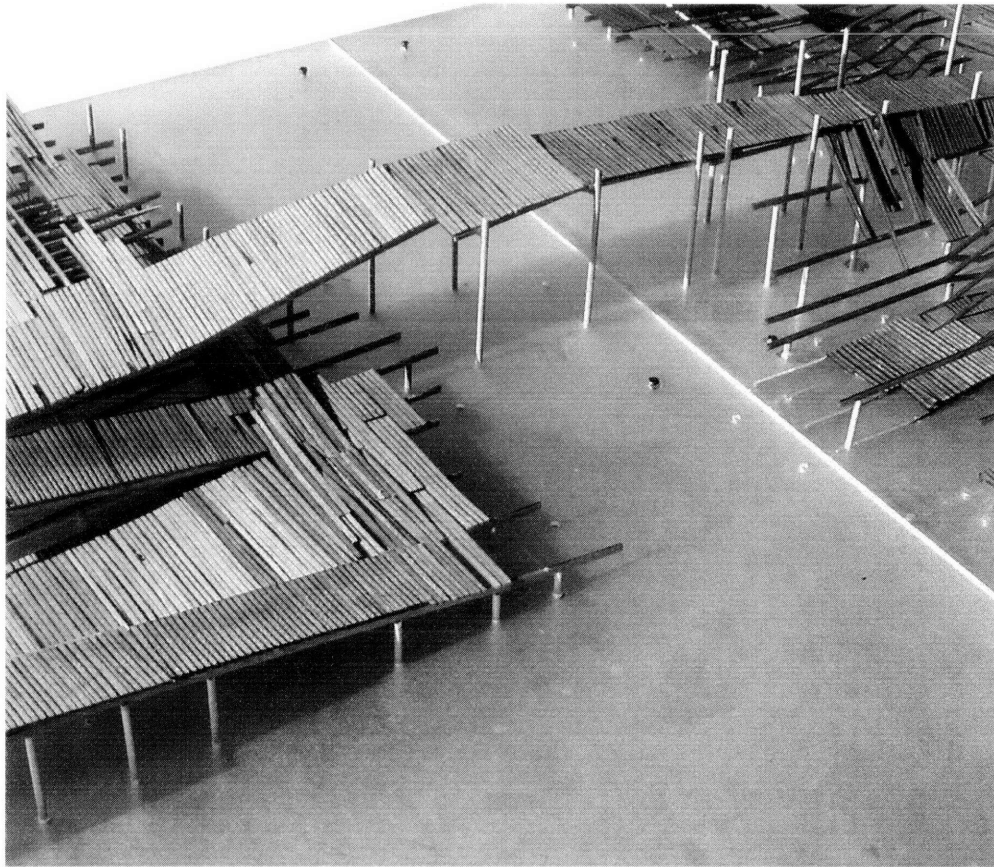


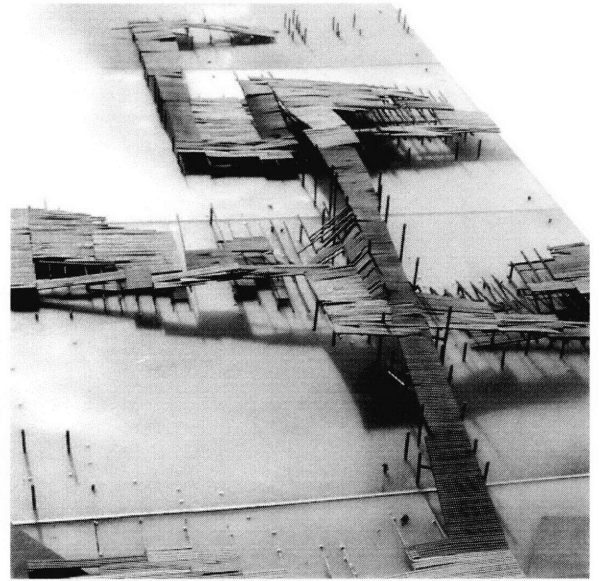
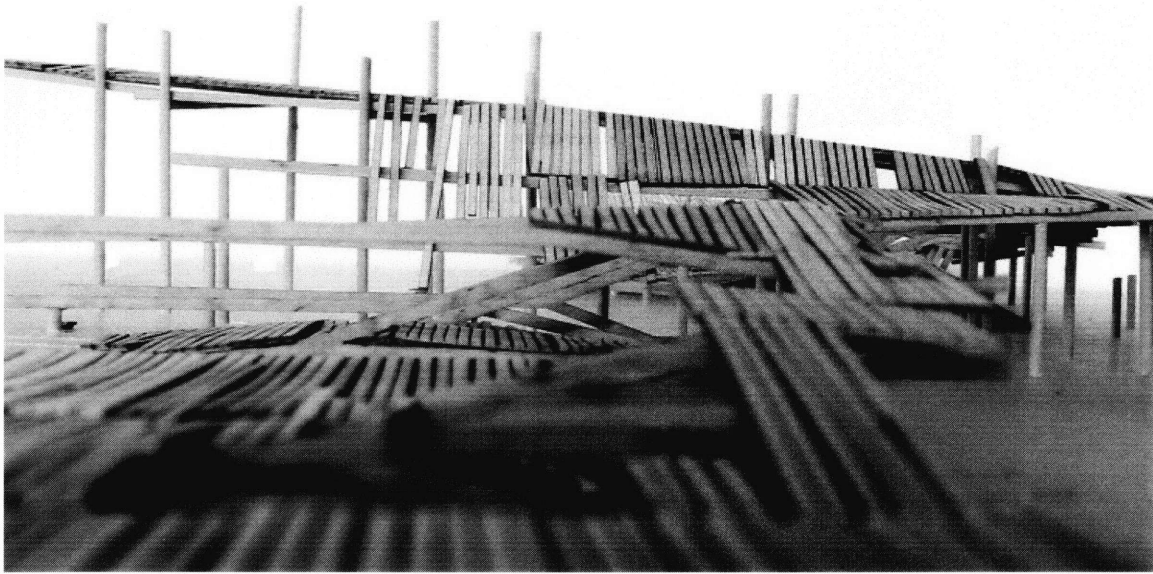




Final review model

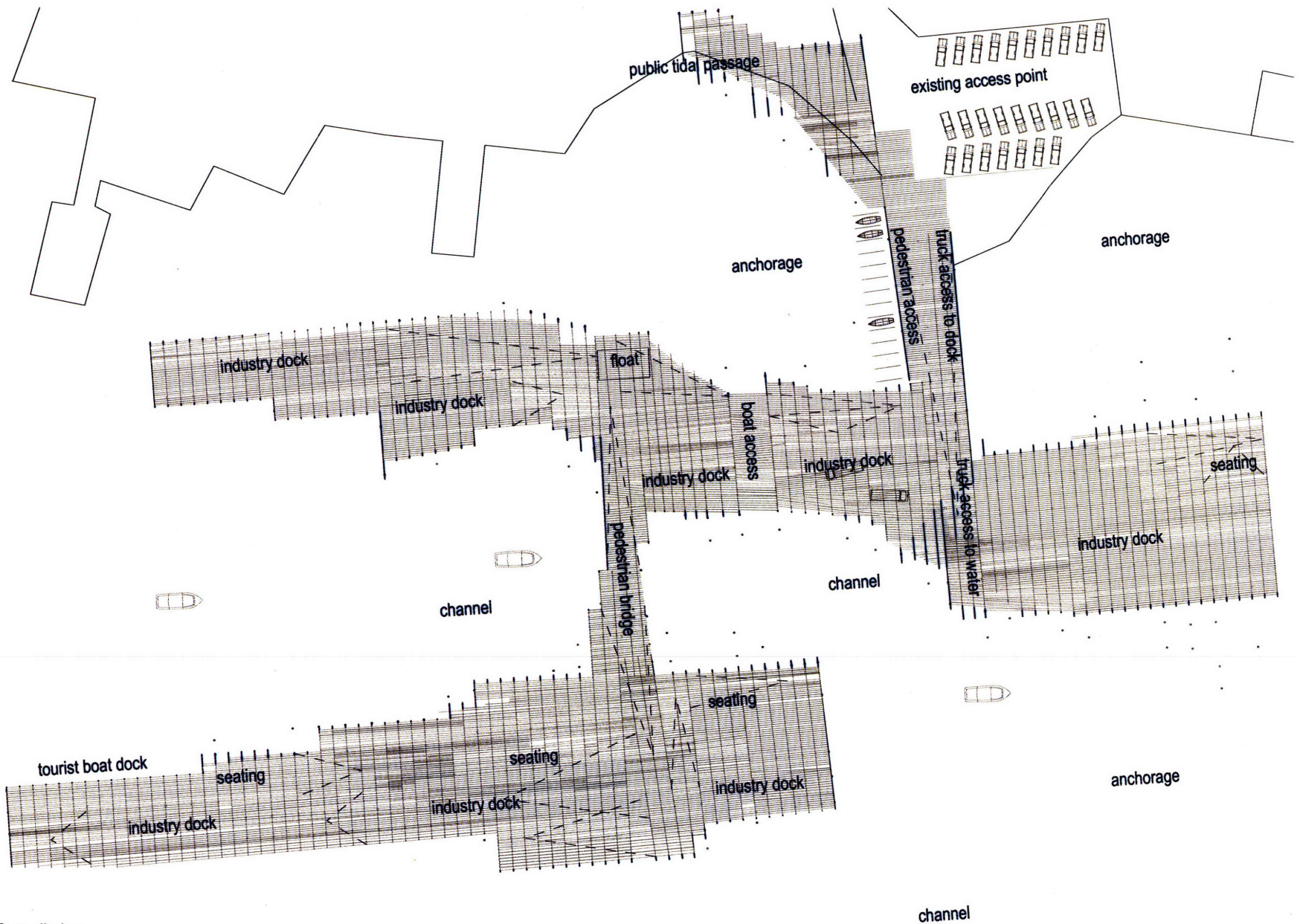




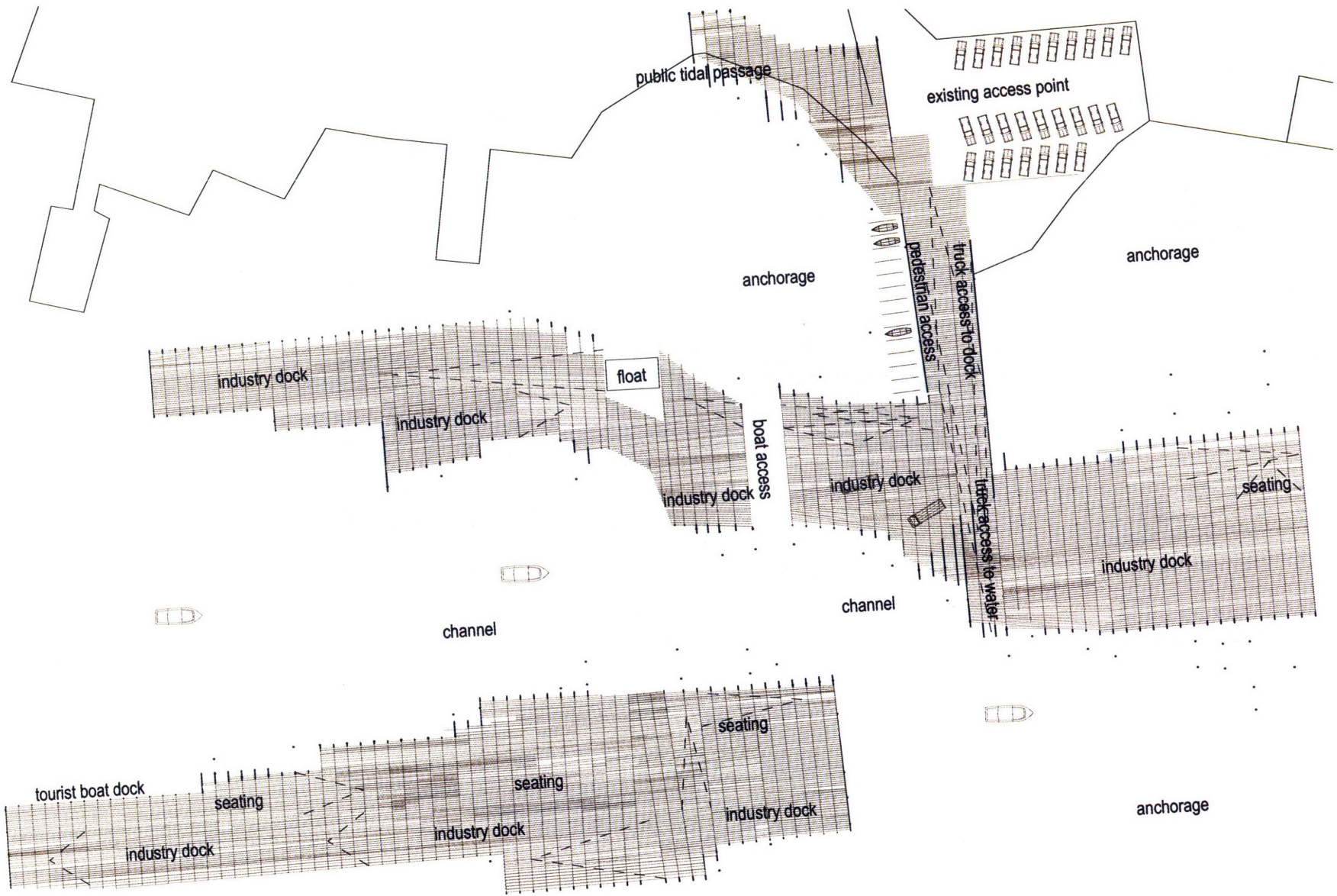


Final Design





Overall plan



Plan at lower dock level

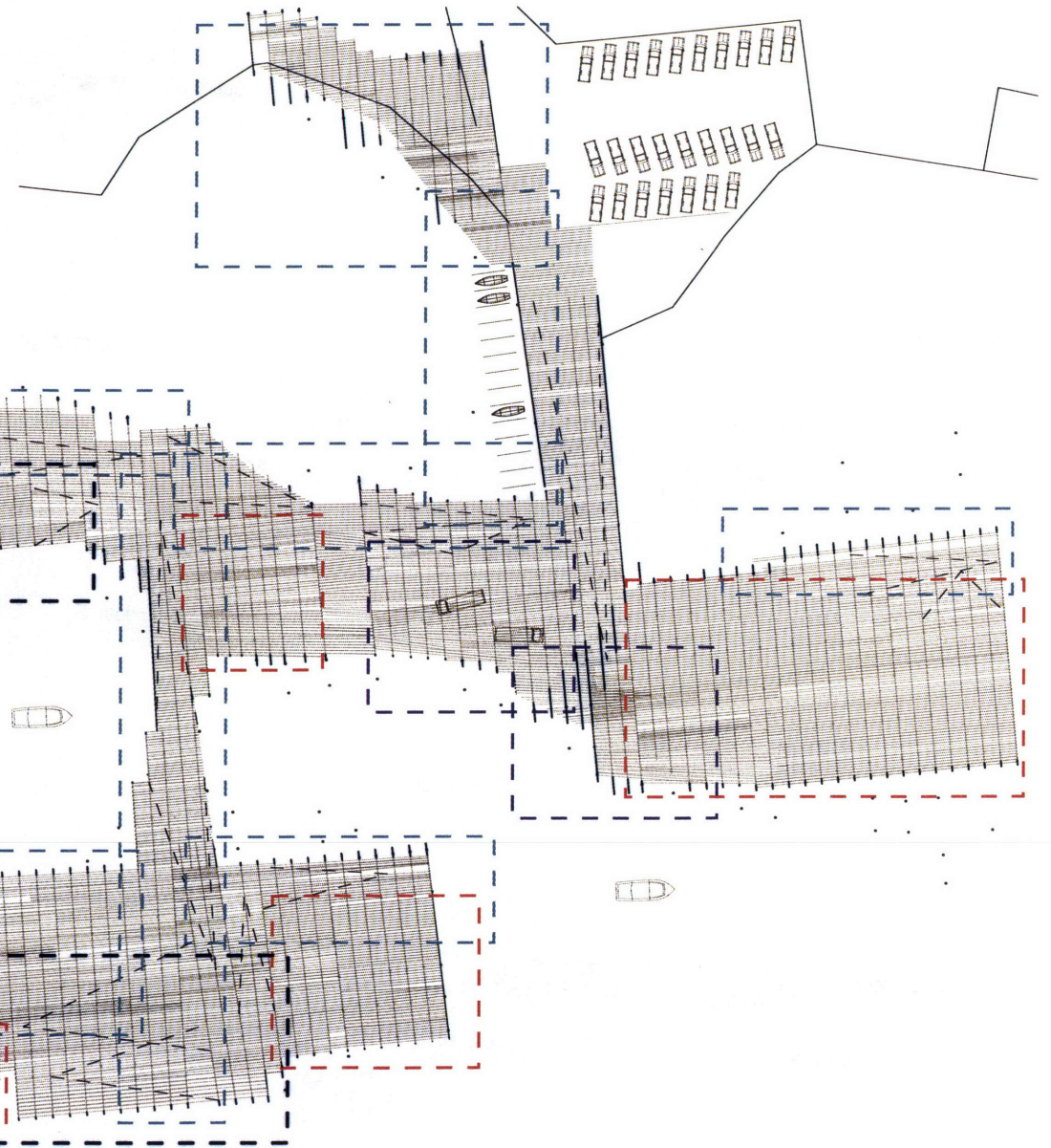
channel

public access
commercial:
loading + unloading
cargo transfer
dinghy tie-up

commercial:
loading + unloading
cargo transfer
storage
dinghy tie-up

commercial:
barge service slip
whole sale truck access
trailer water ramp

tourism:
whale watching terminal

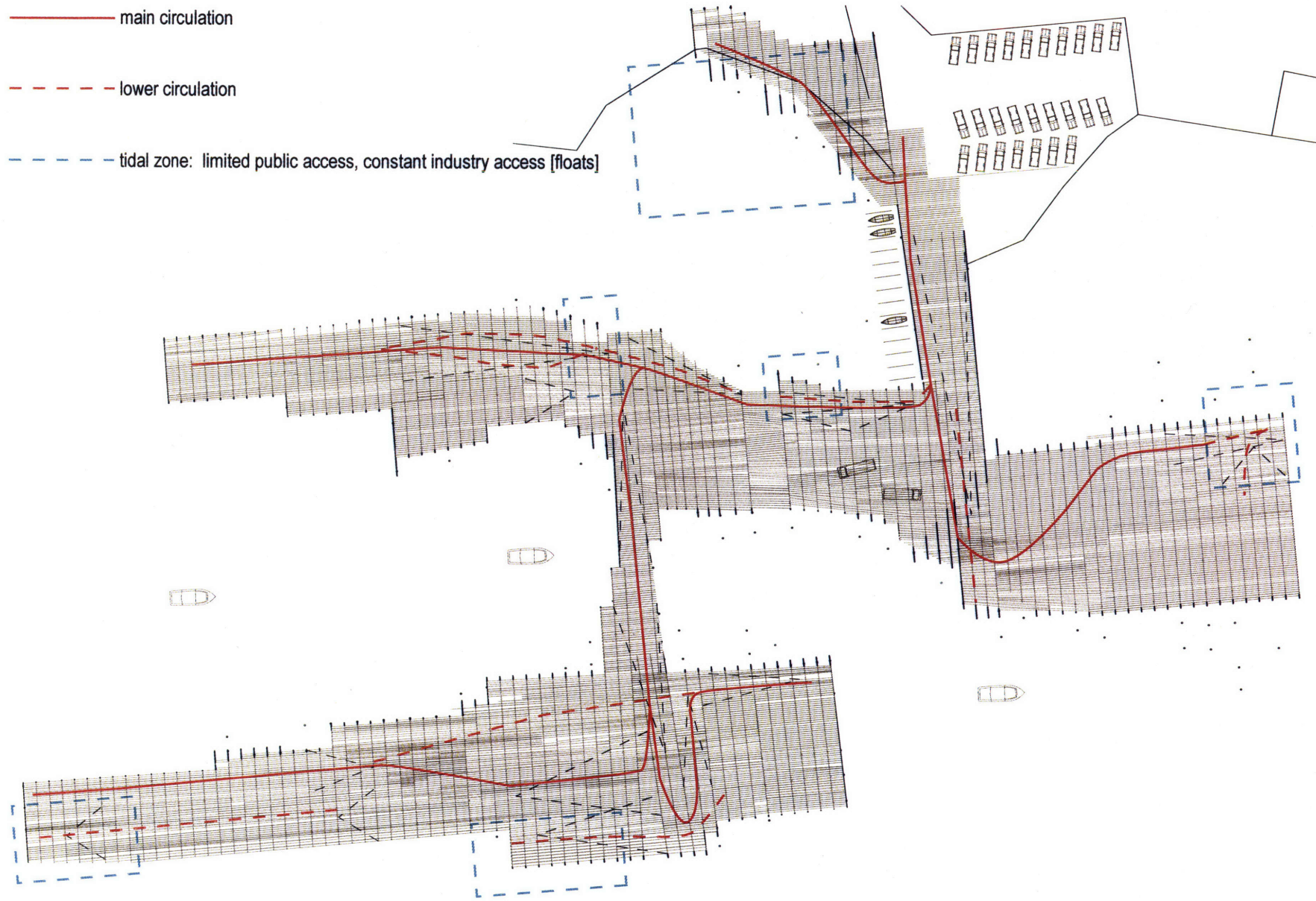


Use Diagram

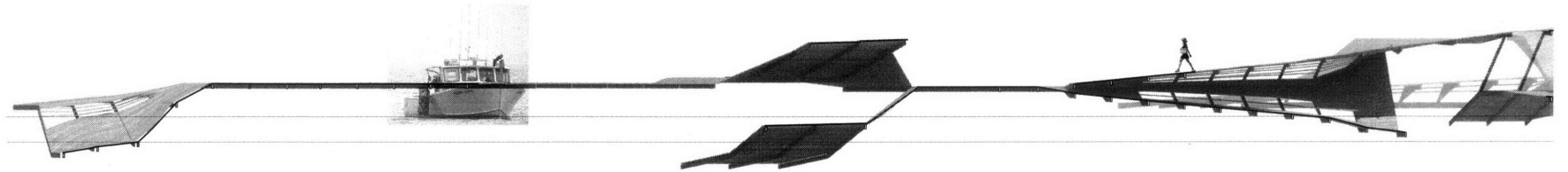
— main circulation

- - - lower circulation

- - - tidal zone: limited public access, constant industry access [floats]

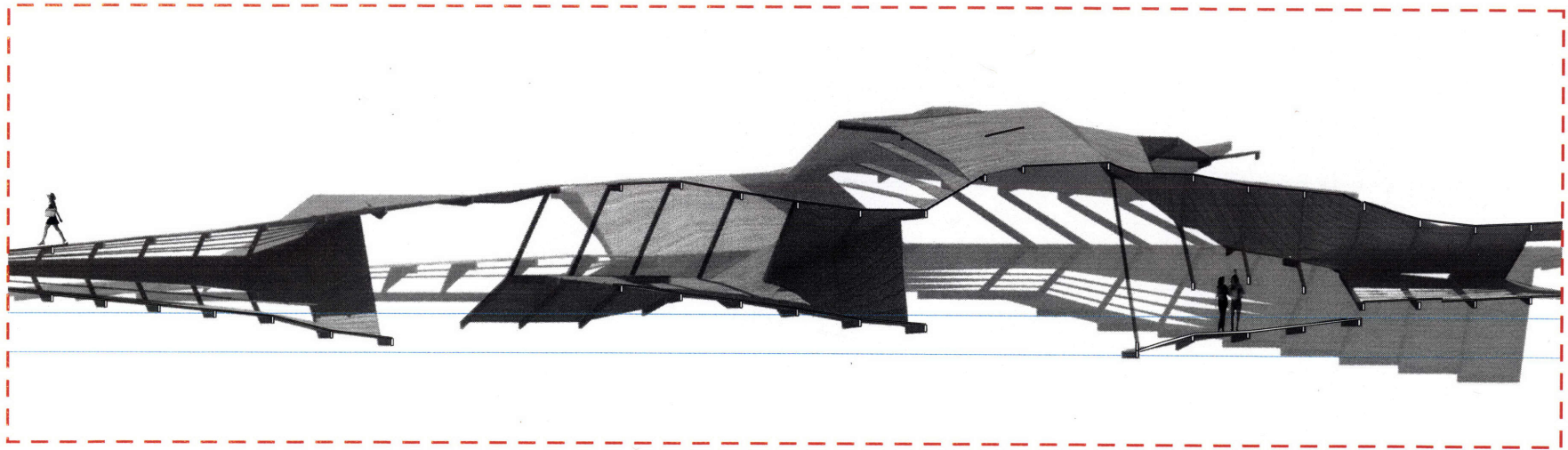
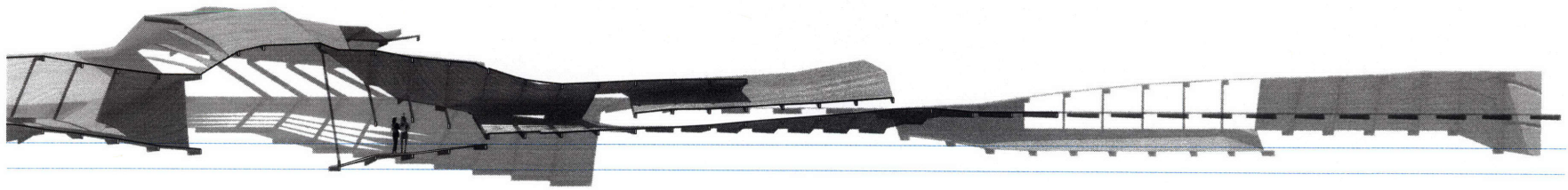


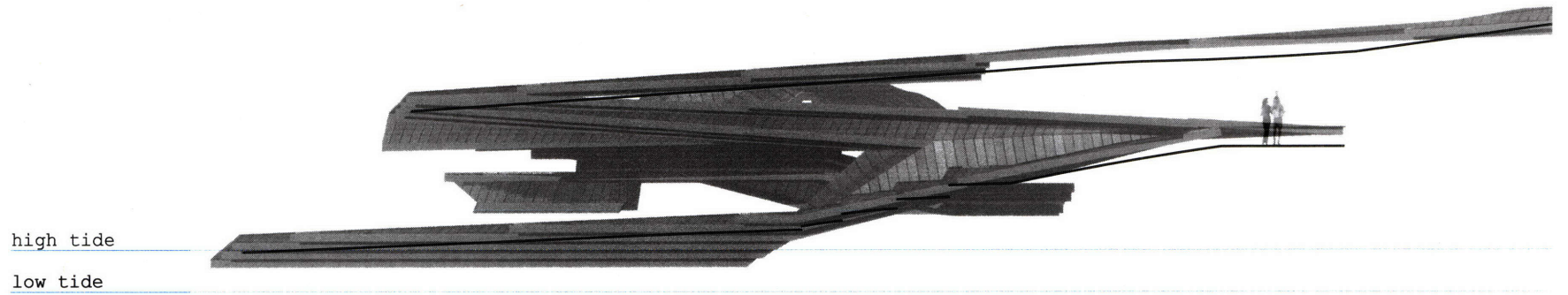
Circulation Diagram



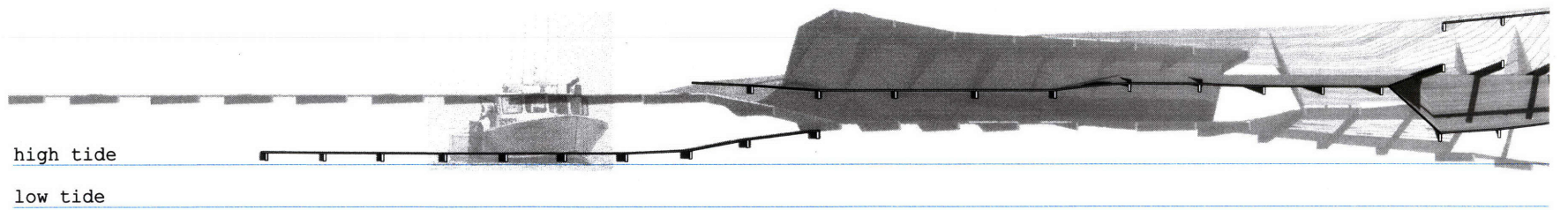
Section cut through inner layer, parallel to shore, facing harbor.

The overlap is manifest in the section. The original concepts of the boundary and threshold reoccur in the density and relationships established between the public and industry, as moments of overlap, blur, and avoidance are realized in the section and subsequent use by the two groups. The spaces of highest tension/ density are found in the moments where the building bifurcates, splitting to allow for passage below or above the industry docks. Circulation/ recreation and utility are constantly reconciled within the limited space.

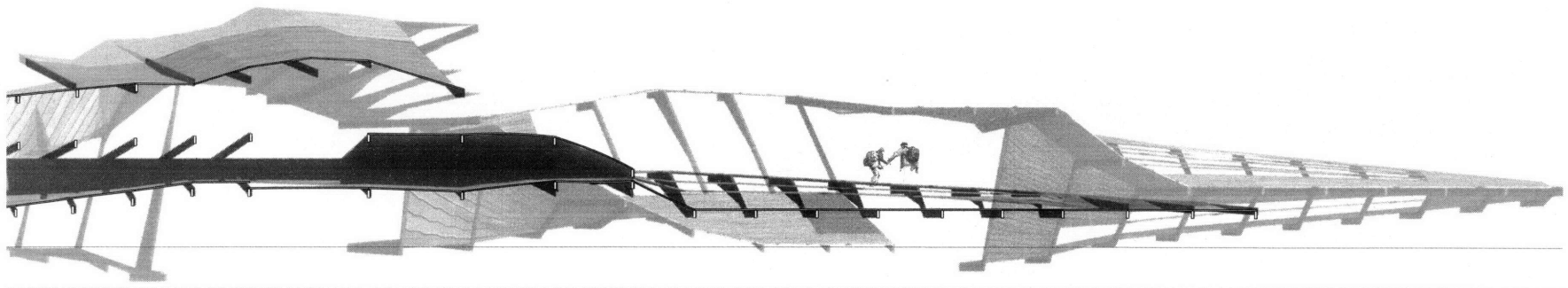
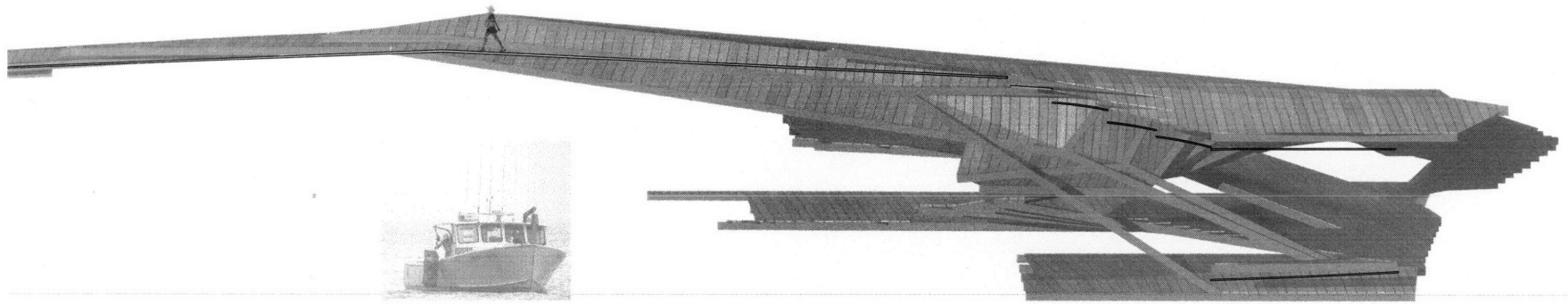


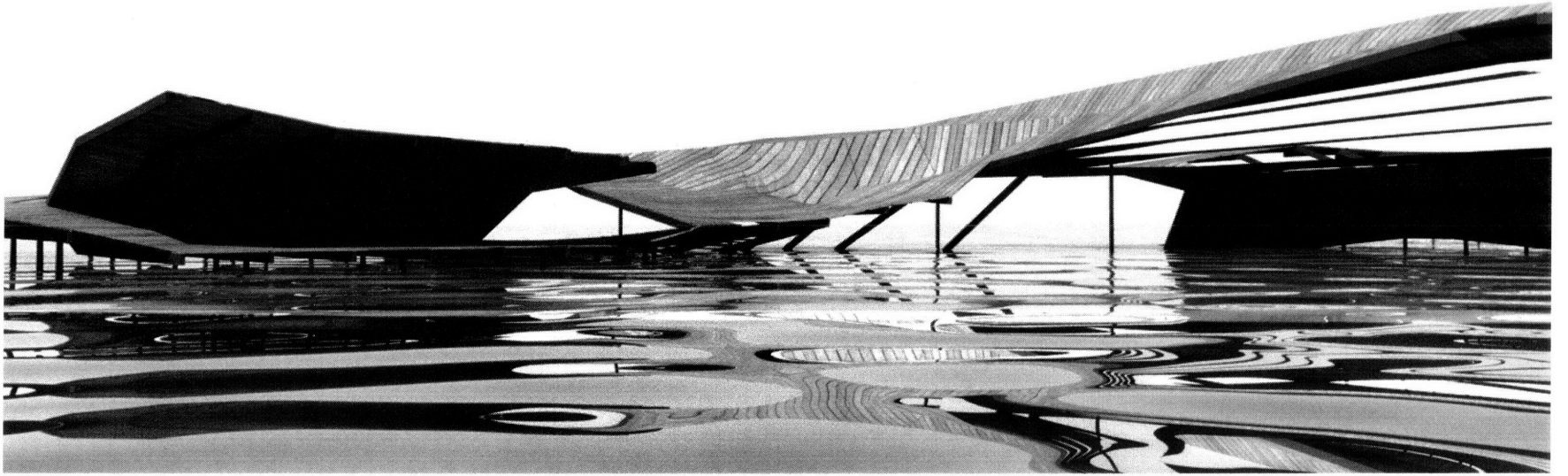


Section cut through both layers, perpendicular to shore, facing harbor opening.

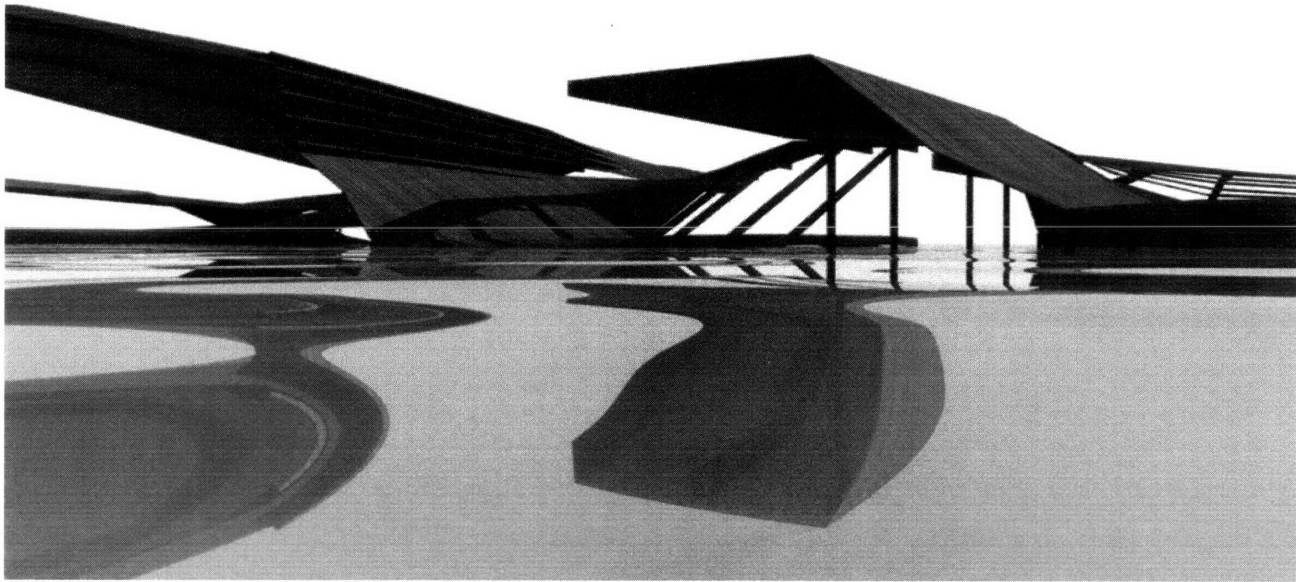


Section cut through outer layer, parallel to shore, facing shore.

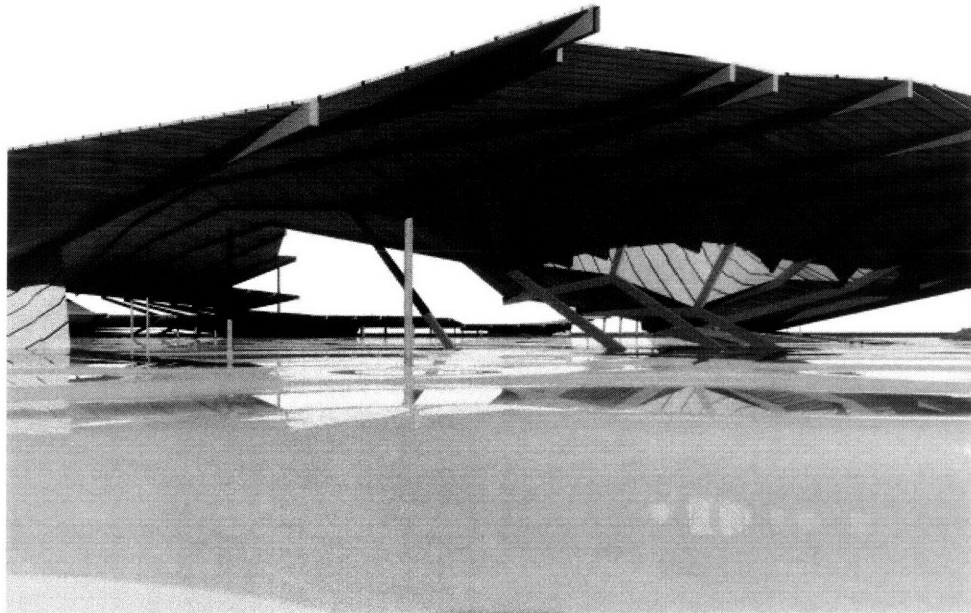




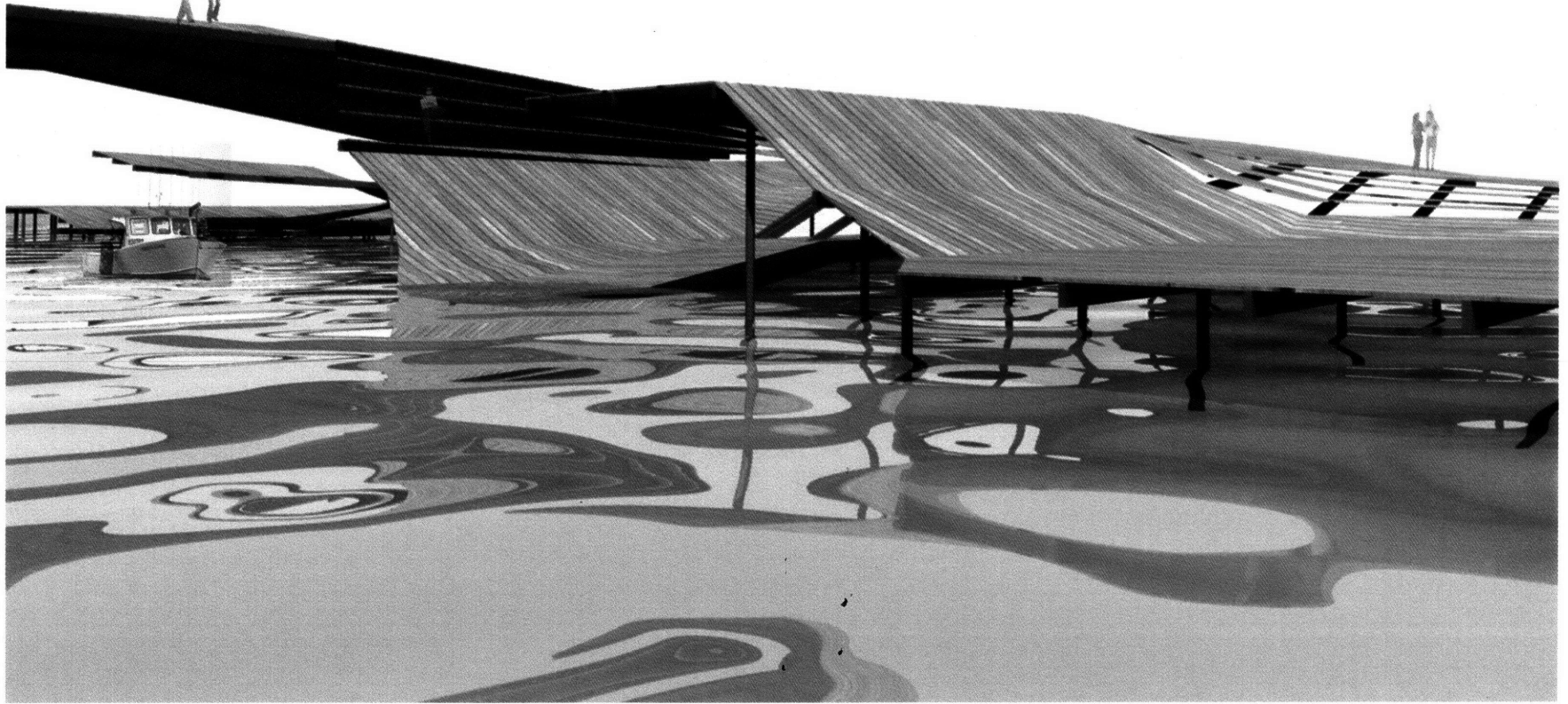
Temporal use of the structure: high tide/ low tide. The industry dock areas remain intact for the lobstermen throughout the day, while the public realm is not always accessible. The

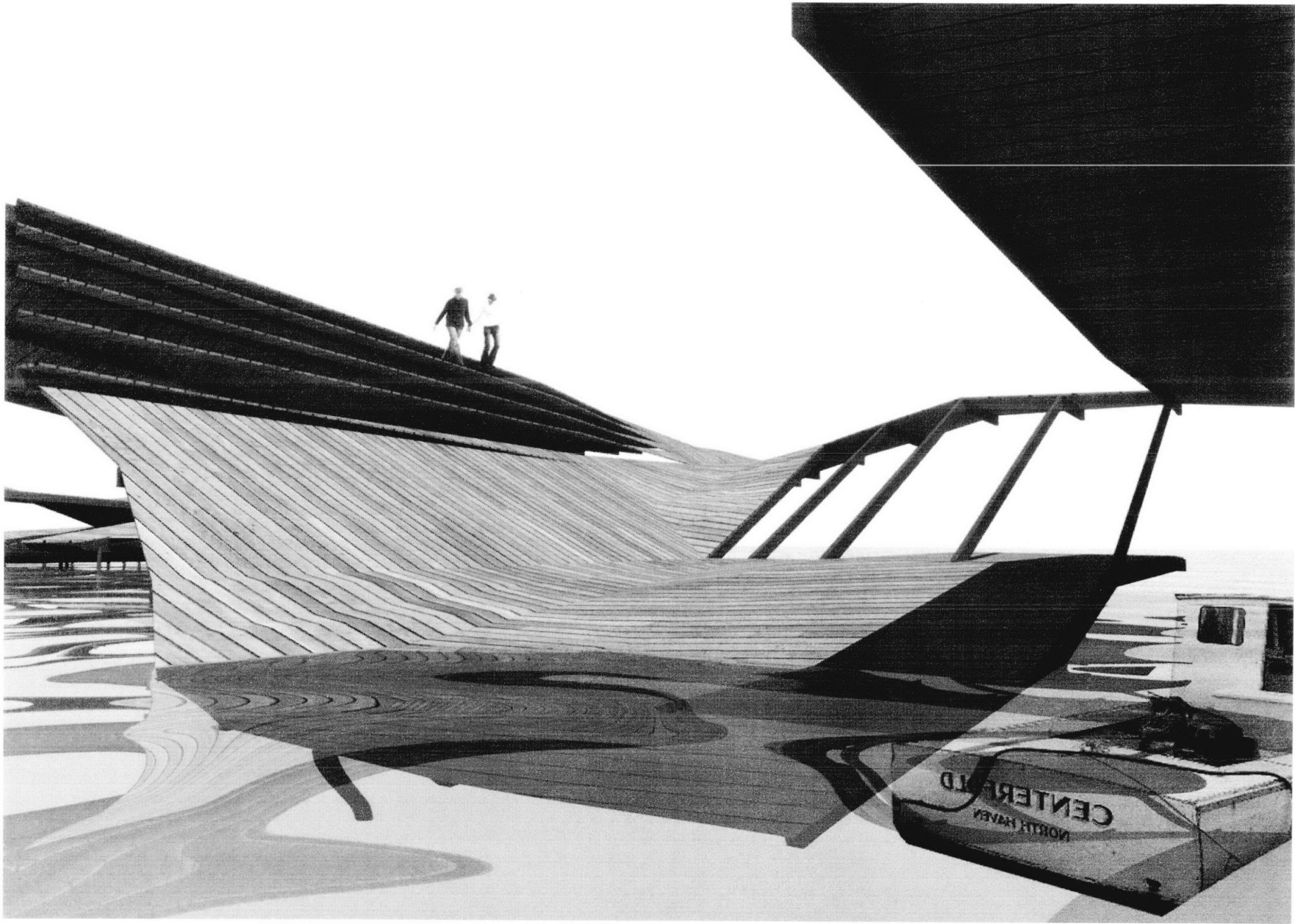


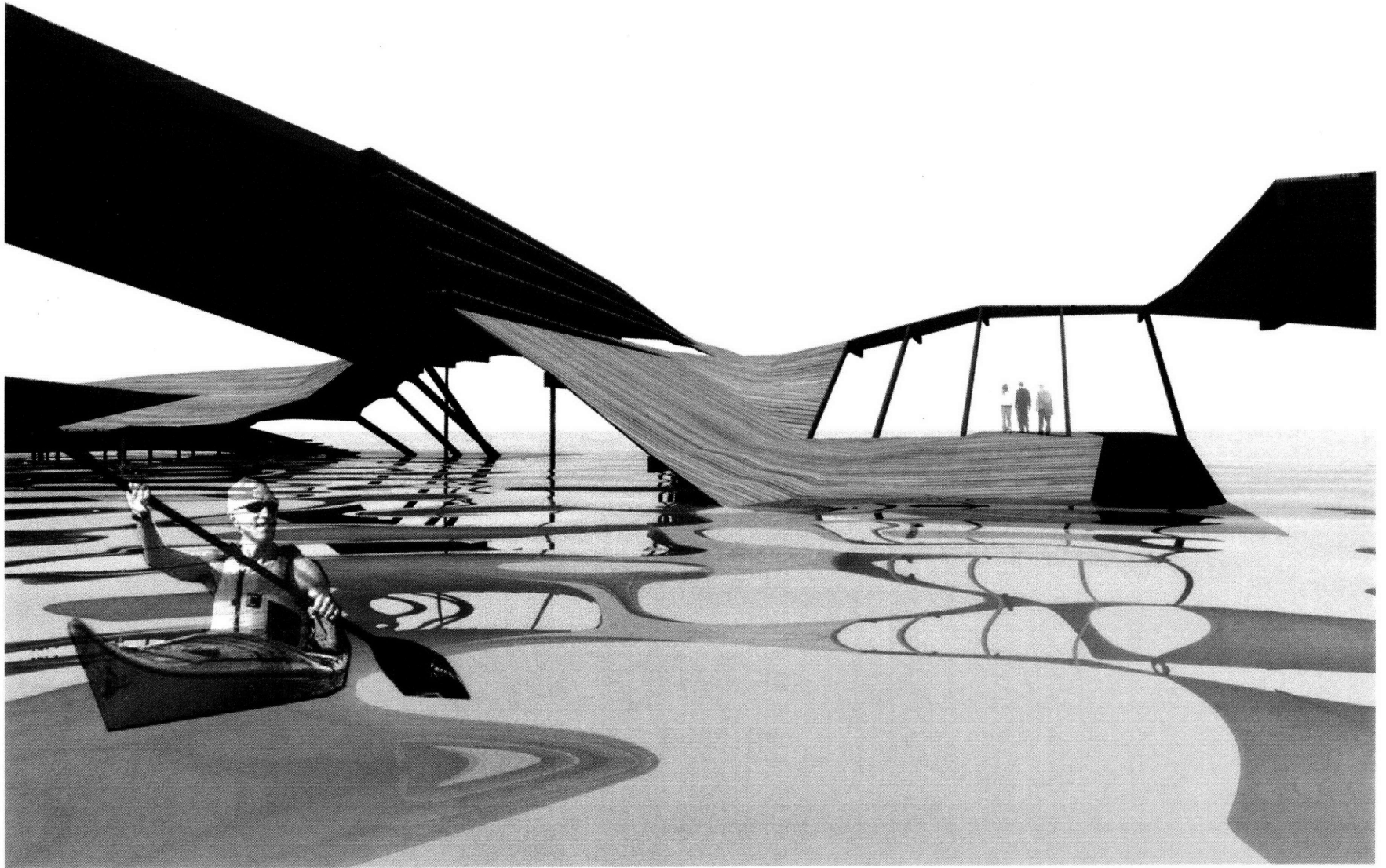
tidal effect on the infrastructure transforms the relationship between the users, as the connection between the zones alternates twice daily between thresholds and boundaries.







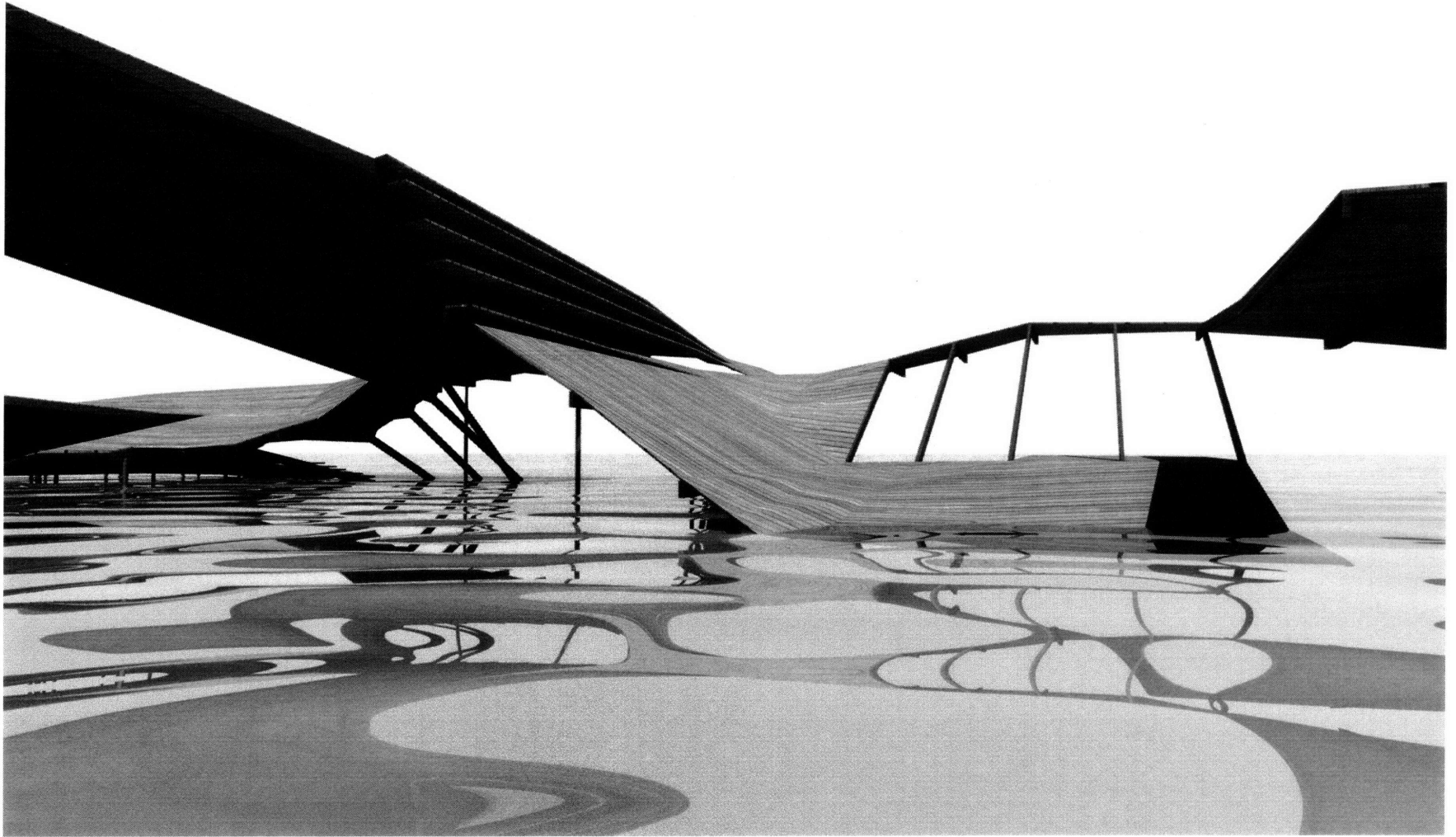




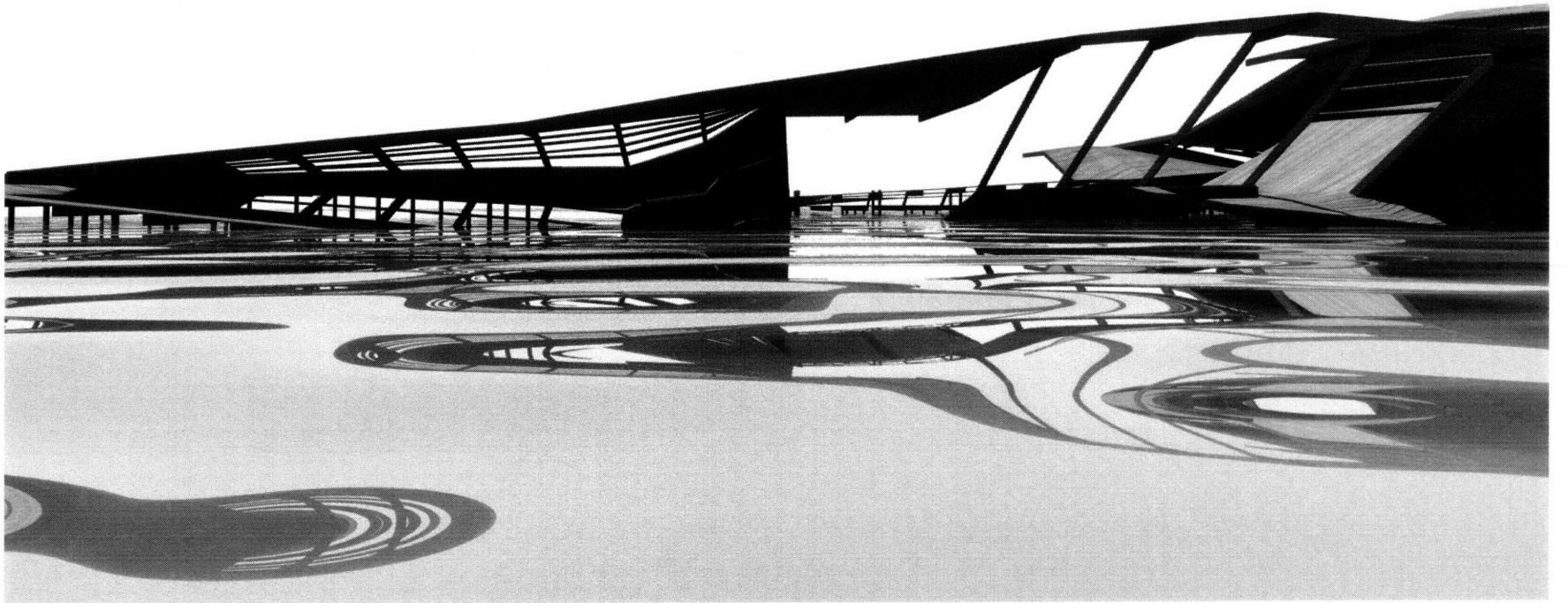
















Bibliography

- Conkling, P.W. *From Cape Cod to the Bay of Fundy – An Environmental Atlas of the Gulf of Maine*. (Cambridge, MA: MIT Press, 1995)
- Corner, James & MacLean, Alex. *Taking Measures Across the American Landscape*. (New Haven: Yale University Press, 1996)
- Corson, Trevor. *The Secret Life of Lobsters*. (New York: Harper Perennial, 2004)
- Foucault, Michael, "Of Other Spaces (1967), Heterotopias". In *Architecture/ Mouvement/ Continuïte* (1984).
- Frampton, Kenneth. "Towards a Critical Regionalism: Six Points for an Architecture of Resistance." In *The Anti-aesthetic: Essays on Postmodern Culture*. (Port Townsend, WA: Bay Press, 1983)
- Kraus, Rosalind. "Sculpture in the Expanded Field." In *The Anti-Aesthetic* ed. Hal Foster. (Port Townsend, WA: Bay Press, 1983)
- Lavin, Sylvia, "What You Surface Is What You Get". In *Log* (New York, N.Y.: Anyone Corporation, 2003)
- Moore, Bob. *Coastal Character: On the Maine coast, working waterfronts set the tone*. Island Institute, 2006.
- MVRDV. *The Regionmaker: RheinRuhrCity - The Hidden Metropolis*. (Hatje Cantz, 2002)
- MVRDV. *FARMAX*. (Rotterdam: 010 Publishers, 1998)
- Princen, Thomas. *The Logic of Sufficiency*. (Cambridge, MA: MIT Press, 2005)
- Rowe, Colin and Slutsky, Robert, "Transparency: Literal and Phenomenal". In *Perspecta*, Vol. 8 (New Haven: Yale School of Architecture, 1963).
- Segrest, Robert, "The Perimeter Projects: Notes on Design". In *Architecture Theory Since 1968* ed. K. Michael Hays (Cambridge, MA: The MIT Press, 1998)
- Speaks, Michael. "Negotiating the Hypertext: Bernard Tschumi's La Villette" In *Context & Modernity*, 1990.
- Tufte, Edward. *Envisioning Information*. (Cheshire, CN: Graphics Press, 1990).
- U.S. Army Corps of Engineers. *Bass Harbor Navigation Improvement Project Proposal*.

www.lobsterinstitute.org

www.islandinstitute.org

www.webster.com

Vattimo, Gianni. *The Transparent Society*. (Baltimore : Johns Hopkins University Press, 1992)

Whiting, Sarah, "Think Thin". In *Log* (New York, N.Y.: Anyone Corporation, 2004)

The Metapolis dictionary of advanced architecture : city, technology and society in the information age (Barcelona: Actar, 2003)

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White Arkitekter, Kastrup Sobad Bathing Pavilion: www.white.se

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Servo, Lobbi-Ports: "Servo in collaboration with Perry Hall: Lobbi-Ports, New York, USA 2002". In *A + U: architecture and urbanism*, pp. 54-57, June 2004