Building the Water Edge:

A Public Event for Art and Artists at Fort Point Channel

by
Audrey Godwin
Bachelor of Arts in Liberal Arts and Sciences, University of Illinois at Urbana-Champaign
May, 1992

submitted in partial fulfillment of the requirements for the degree of
Master of Architecture
at the Massachusetts Institute of Technology
February, 1996

signature of author
Audrey Godwin..........................................

certified by
Imre Halasz, Professor Emeritus of Architecture
Thesis Advisor..........................................

accepted by
Anne Pendleton-Jullian
Assistant Professor of Architecture
Chairperson Department Committee on Graduate Students

© Audrey Godwin 1996. All rights reserved.
The author hereby grants to MIT permission to reproduce and to distribute publicly copies of this document in whole or in part.
**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>6</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>8</td>
</tr>
<tr>
<td>REGION</td>
<td>10</td>
</tr>
<tr>
<td>SITE</td>
<td>14</td>
</tr>
<tr>
<td>PROGRAM</td>
<td>18</td>
</tr>
<tr>
<td>DESIGN</td>
<td>21</td>
</tr>
<tr>
<td>Concept</td>
<td></td>
</tr>
<tr>
<td>Public/Private Domain</td>
<td></td>
</tr>
<tr>
<td>Structure/Tectonics</td>
<td></td>
</tr>
<tr>
<td>Places</td>
<td></td>
</tr>
<tr>
<td>DRAWINGS</td>
<td>34</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>42</td>
</tr>
<tr>
<td>CONCLUSIONS</td>
<td>44</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>46</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>48</td>
</tr>
</tbody>
</table>

Note: All photographs and illustrations are by the author unless otherwise noted.
ABSTRACT

The thesis deals with building the water edge at Fort Point Channel, between Congress Street and Summer Street Bridges. It serves as a public event that intends to establish continuity of movement along the waterfront.

The design proposes a multilayered promenade into which various activities are interwoven. It is a place for artists’ studios as well as indoor and outdoor exhibit spaces for the artists working there. The project also informs about the many galleries and studios in the Fort Point Channel Warehouse District.

Instead of viewing the building as a single enclosure or container, the thesis explores as an alternative a particular connection of built elements in which the built form becomes a three-dimensional screen, incorporating into its structural framework public open spaces, as well as visual and spatial interactions. The site is situated between two tectonics: on one side the wooden piles and decking, on the other, industrial buildings which are firmly anchored to the ground and present continuous surfaces. The proposed project echoes these materials and language of forms.
The Site
INTRODUCTION

The office building (also known as 303 Congress Street), which until recently was located on the particular site chosen for this thesis, had structural problems and was declared a public safety hazard that led to its demolition in the summer of 1995. The chemicals in the precast concrete pilings that support the building as it cantilevers over the Channel, had reacted with sulfates in the polluted water and caused the material to crumble.

The public spirit of the place, located directly at the water edge between Congress Street and Summer Street Bridges, seemed appropriate for the proposal of an art gallery and artist studios, and also presents many interesting and challenging issues. It is a very prominent public location since most people coming to the Wharehouse District from downtown Boston aproach the area either from Congress or Summer Street Bridge. Located next to the Boston Children's Museum, Computer Museum and the Boston Tea Party Ship, it is a place frequented by tourists especially in the summertime. The site has the potential of being a very active public zone, much like the boardwalk in front of the museums, also known as Museum Wharf.
It is a site of transitions between changing water (tide level), land and existing buildings. The level of Summer Street is one storey above Congress Street. Therefore, buildings along Summer Street have service and public access on two separate sides and on different levels. The project site is located between these two levels. The heights of adjacent buildings (up to 110 ft) and orientation to the sun leave a large part of the site in shade most of the day, adding to the challenges of the design.
The Fort Point Channel branches off the Boston Harbor and serves as a natural barrier between Boston and South Boston. As early as the 1700's it was a significant and busy urban waterway and maritime center. But the land expansion of Boston, South Boston and Dorchester in the 1800's, as well as the increased need for wharfage space reduced it to a much narrower waterway. Also, the building of bridges hindered large sailing vessels from passing. The Channel backland transitioned into a great industrial area. At the turn of the nineteenth century, a combination of shipping facilities, docks, wharves and new rail lines helped to turn the area into the center of Boston's industrial waterfront. In the early 20th century the region was at the height of its port-related activity.

The shipping and distribution center began to decline gradually by the 1940's, and many of the Boston Wharf Company warehouses were destroyed and turned into parking lots. As wharves became unused, much of the Channel's waterfront was replaced by non-maritime uses.
Location Map (Finegold Alexander + Ass.)
Today the Fort Point Channel itself is underutilized and environmentally unsound. There are approximately 7 million square feet of non-industrial uses and 5 million square feet of industrial/light manufacturing uses in the so-called Warehouse District.

But the area is in the midst of major changes and new growth. There are over one million square feet of office spaces and a growing number of cultural events. Museums, restaurants, artist live/work spaces and some residential uses are currently helping to bring life to the District.1

1 Greater Boston Chamber of Commerce, Physical Change & Programming In And Around the Fort Point Channel, Boston 1988.
SITE

Typically, a pattern of building facades in the area creates a continuous edge, around the perimeter of a block, thus defining the continuity of the streets. The edge continuity is not necessarily monotonous, since the individual buildings occupy this zone in various ways. At points where the continuity is interrupted, such as points of intersection between streets, parking lots or the waterfront, the special character of these places is acknowledged as nodes of public activity and light. These open spaces are relatively spacious and are not as much in the shadow of surrounding buildings. The particular waterfront site of this project is one that should maintain a sense of openness and not compete with the solid adjacent buildings and their continuous edges.

Yet these open places are informed by and relating to the surrounding edges and their geometries. Geometry provides a framework of dimension and proportion that defines the range of sizes, which regulate and order the spaces in the building and the site. Geometry does not necessarily determine the form, position or structure of the building, but it does establish some structural relationships, which are an important basis for further design decisions.
Continuous Facades, looking east on Summer St.
View of downtown Boston from site
Direct and implied geometry of site
PROGRAM

It is an ongoing struggle for talented young and old artists to make a living and become known for their work. The thesis proposes work and exhibit spaces for about six artists for a short term (about one year) at a reasonable fee. Such a pilot program could be sponsored/subsidized by the government as well as private organizations or donors. It is an opportunity for artists to exhibit and even sell their work.

By proposing a community oriented project, the public is able to reclaim a part of the waterfront that had previously been mostly privatized. Even though the office building that previously occupied the site had a narrow public passage along the water, the public was unable to experience a variety of open spaces. Proposing a place for the display of local art reflects and adds to the cultural spirit of the area. The project also intends to provide information to visitors about all the other local artist studios and galleries.

Initial design schemes included housing for the artists who work there. It was, however, concluded that housing would not be appropriate, because it would overwhelm the public nature and spatial constraints of the site.

It should be pointed out that while the general nature of the program was established from the onset, the specific program was developed simultaneously with the architectural form throughout the design.
The final proposed areas are approximately as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Gallery</td>
<td>6000 ft²</td>
</tr>
<tr>
<td>Sculpture Garden/Plaza</td>
<td></td>
</tr>
<tr>
<td>Visitor Art Info</td>
<td>700 ft²</td>
</tr>
<tr>
<td>Coffee Bar</td>
<td>1400 ft²</td>
</tr>
<tr>
<td>Artist Studios</td>
<td>2200 ft²</td>
</tr>
<tr>
<td>Artist Lounge</td>
<td>240 ft²</td>
</tr>
<tr>
<td>Wood/Metalshop</td>
<td>1300 ft²</td>
</tr>
<tr>
<td>Storage</td>
<td></td>
</tr>
<tr>
<td>Adm. Office</td>
<td>150 ft²</td>
</tr>
<tr>
<td>Boat Rental/Storage</td>
<td>150 ft²</td>
</tr>
</tbody>
</table>

*Murray Dewart, “Vow” (D. Salva)*
DESIGN

Concept

The project aspires to define a continuity along the waterfront not by a single building with a continuous surface, but rather by proposing a screen-like building. This objective called for exploring a particular way of connecting built elements, whereby, the sum of built forms becomes a three-dimensional screen. The screen’s structural frame incorporates the proposed public open spaces, as well as the visual, spatial and light interactions between the constituent elements.

It becomes a collage of separate building parts which are related to each other. About one third of the total three-dimensional field, it was decided, should be taken up by built form.

The three-dimensional framework (structure) can be extended or further inhabited in the future.

The three-dimensional sketch models set up ways of modelling the spaces and directions. They were important not only in establishing sizes of components, but most importantly their relationship with each other. To some extent they were an intuitive way to approach the design problem.
Concept Models
Inevitably, the program initiates discussion of community and individual, of public and private realms. Art intensifies these issues, in a sense, since it deals with the artist's individual perception and work on his/her piece of art, the visitor's individual's unique way to experience the work, as well as the collective way of displaying and discussing the work. Through varying degrees of translucency in materials, for example, a balance is achieved between public and private domains. Public benefits of translucency are sought out in order to maintain views towards the public activities, movement between building parts, terraces and bridges as well as to reconnect to the city. Other domains respect the artists' desire for private work. The exhibit space, both indoors and outdoors, is viewed as most public and is separated from the private studios. On occasion the studios may be opened up for viewing by the public. The transition between public and artists is achieved through the plaza and the coffeebar area, which foster interaction between the two.
Structure / Tectonics

The project is situated between two existing tectonics: on one side the abandoned wooden piles and decking in the water, on the other, masonry industrial buildings, which are firmly anchored to the ground and present continuous surfaces. The proposed thesis project echoes these materials and language of forms.

The building frame consists of reinforced concrete columns that are connected to laminated wood beams. The column structure is spaced on a grid with 10, 20 and 30 ft intervals, which allows for flexibility and possibilities to occupy these zones. The enclosure uses materials such as glass and wooden louvre panels, which give a light feeling and support the idea of a screen-like building.

The artist studios and the connected wood/metalshop are located away from the water and are basically taking on the role of an urban infill condition between three existing built edges. This part of the project is more about solid facade enclosures, since it relates to these surrounding buildings, but also since it requires more privacies. Mostly concrete walls and wooden louvre panels are used for containing the spaces, while glass becomes important for the skylights to provide ample daylight from above.
Abandoned wood structures in Fort Point Channel.
Places

The ground floor next to the water is viewed as most public, open and as a zone of exchange between water and land and is, therefore, for the most part not occupied by built elements. Separating the building elements and raising them, while maintaining an open and inhabitable ground, allows for public access and uses on the site. The ground floor deals with defining edges, level changes (stepping down into the public plaza), making places and making interactions between water and land. Edges of surrounding buildings and site geometries are reinforced through structure and built form.

The ground floor provides transition and continuity of both space and movement between the two adjacent sides of the site: the broad open space in front of the museums to the narrow, yet public passageway leading to Summer Street. Public access to the waterfront is continued. A floating platform attached to the column structure with rings protrudes out and allows small boats to dock and also provides a place for the public to step down closer to the water or rent boats. The exchange between water and land is accentuated by the exchange between built form protruding and land being carved into.

As one approaches the building from Congress Street, the sculpture in the plaza already reveals the nature of the building. The public is invited to either enter the visitor art information located at the corner or proceed up on the ramplike stairs.
The stairs lead over the water under a compressed space and out onto open terraces with views either to the skyline of the city or into the sculpture garden. An elevator also connects the various levels.

The walkways allow one to be connected to the activities taking place outdoors and views and at the same time give glimpses through either the glazing or wooden louvres to the inside of the spaces. The second city level (Summer Street Bridge) moves into the site also via an elevated walkway, that is integrated into the design concept and replaces the existing path and steps. Lower and upper city level are connected at two crucial nodes, where both vertical and horizontal displacements take place. The walkway and terrace railings are glazed and in elevation, together with the built volumes, add up to define the dimension of the whole length of the site (from Congress to Summer Street).

Existing path/steps to Summer St. level
The artist studios are located in the most private part of the site, and form an edge that separates the existing service access from the pedestrian street. Views into and out of the studio building hallway helps to activate this street. The street also maintains visual and physical continuity to the water.

The artist workspaces consist of two large, flexible communal spaces, one on the ground and one on the second floor. Depending on the nature of an artist's work, the individual's space could be defined further by using moveable partitions. About three artists can work in each space. The artists' lounge overlooks the sculpture plaza and, along with the cafe, helps to activate its public nature. The cafe also relates directly to the plaza, since it maintains visual connections and views and also allows the visitors/artists to interact with it through both indoor as well as outdoor seating.

The cafe, located in a critical corner, the views from the water edge and the possibility to move out onto the deck, allow for a displacement of movement and building of territory, so that the entire area on the ground floor will be inhabited.
Light becomes an important factor in activating the experience, perception and life of the architecture. Different qualities and degrees of light and dark are used in order to connect and separate spaces as well as to define certain territories. Light enters the gallery spaces from the sides and partially from the reflection of light in the water below. Light penetrating the glazing reveals both activities on the inside and gives glimpses of the buildings beyond. In the afternoon and evening the glass on the north west facade also becomes a reflective surface for the sun.

The direct sunlight in the plaza in the middle of the day takes on a collective quality as it brings people together in this public space.

In the studio spaces the light is not so much about translucency or collectivity, but more practically to allow ample diffused light to penetrate an area, which is in the shadow of another building at most times of the day.
The organization of the project also speaks about the working process in the art community. On one end materials, such as wood or metal, are delivered, unloaded and taken to the studios. There these materials undergo several transformations into pieces of art as seen by each artist. From there some of these pieces move on to be displayed in the more public realm of either outdoor plaza or indoor exhibit space. The junction between making and displaying is addressed with places like the cafe where artists and the public can interact. The cafe could also be used off-hours for receptions or presentations by artists.
Office Building, Schuster Architects (Detail, Feb./March 95)
- Glass as reflective and translucent surface

Hysolar Research Institute, Behnisch & Partners (A Walk Through the Exhibition)
- Layering of screens
REFERENCES

Several projects served as precedents and inspirations for further developing the initial concept of this thesis project. These buildings have successfully dealt with a variety of issues that were important and relevant to the thesis, such as screens, circulations and materials.

Vocational School, Mahler Gump Schuster (Detail, Aug./Sept. 95)
- reinforced concrete columns with wood and glass screen enclosure

Inter-Junction City, Riken Yamamoto (SD, Jan. 95)
- continuities of movement between built form
CONCLUSIONS

The thesis project has attempted to explore how to build a specific site with a certain attitude about it and certain spatial images and aspirations. As the project evolved and transformations took place, some of the freshness and ambitions of the early concepts had to give way to more practical issues. In other words, the building had to actually work in terms of things such as access, circulation and structure.
BIBLIOGRAPHY

Books


Boston Society of Architects, Architecture Boston, Boston, (1976)


Greater Boston Chamber of Commerce, Physical Change and Programming In and Around the Fort Point Channel, Boston, (1988)


Periodicals

Detail, Dachtragwerke, Munich, Aug./Sept. 1995

Detail, Bau nr. 16, Munich, Feb./March 1995
SD, Art and Public Space, Tokyo, No. 338, Nov. 1992

SD, Space for Contemporary Art, Tokyo, No. 318, March, 1991

SD, Riken Yamamoto, Tokyo, No. 364, Jan. 1995
ACKNOWLEDGMENTS

To Mama and Papa with Love!

Many thanks go to my advisors and critics Imre Halasz, Alona Nitzan-Shiftan, Julie Dorsey and Dimitri Antonakakis for all their timely support and great commitment.