CELEBRATION OF CHANGE:
AN EXPLORATION OF MEANING, FORM AND MATERIAL
ON THE CHELSEA WATERFRONT

BY SARAH HAGA

Bachelor of Arts
Washington University
St. Louis, Missouri 1984

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF ARCHITECTURE AT THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

FEBRUARY 1989

© SARAH HAGA 1989. All rights reserved.

The author hereby grants to M.I.T. permission to reproduce and
distribute publicly copies of this thesis document in whole or in part.

SIGNATURE OF AUTHOR ________
Sarah Haga
Department of Architecture
20 January 1989

CERTIFIED BY ____________________
William L. Porter
Professor of Architecture
Thesis Supervisor

ACCEPTED BY ____________________
Imre Halasz
Professor of Architecture
Chairman, Departmental
Committee for
Graduate Students

MASSACHUSETTS INSTITUTE
OF TECHNOLOGY
MAR 07 1989

LIBRARIES
Rotch
ABSTRACT

Change as a physical and psychological process is the connecting thread of the three themes explored in this thesis. First, the AA* and Al-Anon* programs are used as a framework for an exploration of spirituality or meaning. The programs are about finding a route to positive change in one's life through a sharing of common life experiences among group members. Second, concrete is used as a primary structural and textural material and as the point of departure for an exploration of all other materials. The integration of material and form throughout the design process was a basic premise. Finally, the strong character of the site, on the waterfront, demanded investigation. The ever-changing influences on the site generated the built form.

This document shows the project as a building process and a design process. The introduction clarifies the thematic origins and intentions. A pictorial essay describes the design process. Design production phases narrate the essay and act as a point of reference for a chronological journal.

* Please reference Appendix One
TABLE OF CONTENTS

INTRODUCTION: MEANING 7
INTRODUCTION: CONCRETE 11
INTRODUCTION: SITE 13

PRODUCTION 15
PHASE I - SITE VISIT 21
PHASE II - RESEARCH 25
PHASE III - BUILDING PROGRAM 39
PHASE IV - DESIGN EXPLORATION 41
PHASE V - CONTEXT ANALYSIS 53
PHASE VI - PRELIMINARY DESIGN 59

DESIGN PROPOSAL 67

MEETING ROOM 85

ACKNOWLEDGEMENTS (THANKS TO:) 119

APPENDIX ONE 123

BIBLIOGRAPHY 125
INTRODUCTION: MEANING

The Twelve-Step programs, originating with Alcoholics Anonymous (AA) represent, for me, a modern day search for meaning.

Alcoholics Anonymous is a self-help movement for those afflicted with the disease of alcoholism. It is centered around the Twelve Steps:

1. We admitted we were powerless over alcohol - that our lives had become unmanageable.

2. Come to believe that a Power greater than ourselves could restore us to sanity.

3. Made a decision to turn our will and our lives over to the care of God as we understood Him.

4. Made a searching and fearless moral inventory of ourselves.

5. Admitted to God, to ourselves and to another human being the exact nature of our wrongs.

6. Were entirely ready to have God remove all these defects of character.

7. Humbly asked Him to remove our shortcomings.

8. Made a list of all persons we had harmed, and became willing to make amends to them all.

9. Made direct amends to such people wherever possible, except when to do so would injure them or others.

10. Continued to take personal inventory and when we were wrong promptly admitted it.

11. Sought through prayer and meditation to improve our conscious contact with God as we understood Him, praying only for knowledge of his will for us and the power to carry that out.

12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

12 STEPS REPRINTED WITH PERMISSION OF ALCOHOLICS ANONYMOUS WORLD SERVICES INCORPORATED.
The core of the program is the meetings, loosely structured gatherings of two or more members. Their purpose: to help the alcoholic stop drinking and to give support for a new way of life.

Soon after the forming of AA in the 1940's a second Twelve-Step Group, Al-Anon, was formed. Al-Anon is a fellowship for the family and friends of alcoholics, the only requirement for membership is that there is a problem with alcohol in a relative or friend. Meetings in this group are similar in structure to those of AA, providing a forum for members to share their experience, strength and hope in order to solve their common problems.

In recent years many other Twelve-Step groups have started, including NA (Narcotics Anonymous), OA (Overeaters Anonymous) and many others. In this thesis AA or Al-anon were the focus but the building was designed with service to all the groups in mind.

Participation in any of the Twelve-Step programs suggests making changes in one's life structure. For instance, if one's social life revolves around drinking, part of being in AA is finding replacement patterns. These changes often lead to a new sense of community among members, analogous to those who focus their lives around a church. This suggests the creation of a center for the community to gather. For simplicity, the term Twelve-Step Center is used in the thesis, although the groups listed above are in fact separate entities with individual organizations and policies. One of the policies they share is a tradition of not endorsing, financing or lending their name to a related facility or outside enterprise. The creation of a communal center, if implemented, would be a facility independent of the programs of AA, Al-Anon, etc.

The idea of designing one center, with all the groups in mind, came from my belief that participants in the groups have a shared theme, a search for change. What kind of place this Center should be and what references it could draw from was the starting point of my exploration.
INTRODUCTION: CONCRETE

Initially it was the mystique of the construction process which attracted me to concrete. The time it takes for concrete to pass from a liquid mixture of raw material to substance, a few hours, is in striking contrast to the life expectancy of the finished product. In a society increasingly focused on disposable materials, concrete stands out as a modern material with many of the characteristics of older building materials such as brick and stone. The use of these traditional materials structurally has disappeared with the introduction of steel. Concrete is currently the only material which can be used economically for both enclosure and as a structural bearing system.

The idea of combining a challenging architectural program with a predetermined use of concrete evolved. The intention was to expand on accepted views of concrete, especially as a textural material. The design of a Twelve-Step Center offered a program with the overlapping needs of spiritual expression and practical considerations. The lack of specific references defining what such a place could be suggested explorations of form which could only be aided by a material with the paradoxical qualities of concrete.
INTRODUCTION: SITE

Chelsea became my home in June of 1988. The choice of a site near my apartment was a natural as much of the initial thinking about the thesis occurred on my deck overlooking the neighborhood. A site on the waterfront came from the wish to include water, nature's most spiritual element and Boston's greatest asset, in my thesis.

The Waterfront in Chelsea, a quarter mile beyond the North abutment of the Tobin Bridge, is the site for my project. The site is on the edge. The property boundaries enclose an area that is half land, half water. Directly to the East of the site is a small drawbridge connecting Chelsea and East Boston. To the North and West are the remnants of a formerly Italian Chelsea neighborhood.

The Site is about connection: between two cities, two pieces of land. The site is about survival: the edge of Chelsea. It is about going beyond, pushing on: the bridge leading to other places. It is about existing fragments: the row houses dissected and severed with time, the warehouses, abandoned, waiting for new use, facing the last residential boat yard in Boston, the new concrete public housing. It is about reclaiming land for direct use rather than support uses like shipping and storage. It is about facing social problems on their own turf: poverty and bars surround the site on all sides.
PRODUCTION

The following pages are a summary of the thesis design process.

JOURNAL ENTRY JULY 18, 1988
Oh what thoughts I've missed in the last weeks not writing them down.
JOURNAL ENTRY  JULY 21, 1988
Visited the library this afternoon, just long enough to check out a book on Gaudi. In his introduction, Salvador Dali talks about Gaudi's natural casting process - direct from a tuft of grass, a donkey..... I want to do it.
JOURNAL ENTRY JULY 23, 1988

Gaudi built of stone and brick at the end of their age. His famous building Sagrada Familia was intended to be a continuous process building worked over many centuries, as enduring a project as the faith it represented. The fact is things were and are becoming more ephemeral. Immediate gratification is valued above a sense of timelessness. Charging it to have something now is more common than saving it to enjoy later.
JOURNAL ENTRY JULY 23, 1988
Structures built to last indefinitely are threatened by "disposable buildings". Trinity Church in Copley Square is weakened on all fronts: from below by the ever more frequent rumble of the subway, from the side by a 50 story mirror, the fragile ego projection of one man, by the air, whose constantly decreasing quality bathes the surfaces of the building with poison, from within as the faithful decrease and the need for repairs goes beyond routine.
Aerial view of Chelsea, East Boston and Charlestown, top.

View of the Tobin Bridge from the Southeast side of the project site.

JOURNAL ENTRY AUGUST 6, 1988

...my first stab at identifying a site. I walked around Chelsea, a small but incredibly diverse place. The town is bound by the bay, industry, the highway and poverty.
I keep thinking that anything of importance in Boston ought to have a view towards the water. Being on the water implies being on the edge. The program (of my thesis project) whatever it evolves into, is about centering.
Approaching the project site from Broadway, downtown Chelsea, middle.

View of Boston Harbor from the edge of the project site, bottom left.

View of Boston from the channel on the project site, bottom right.

JOURNAL ENTRY AUGUST 6, 1988
Community is about gathering. Can one be at the edge and also gather? A bridge on the other hand, is on the edge but it is about connection because it is on the edge of two things.
**JOURNAL ENTRY SEPTEMBER, 1988**

The Waterfront is community property. Not just physically but visually. The view belongs to everyone. The building must respond to this.

Relationship of the project site to the City of Boston.
Relationship of the project site to the City of Chelsea.
Relationship of the project site to the Chelsea Waterfront Neighborhood.
First site analysis.

JOURNAL ENTRY SEPTEMBER, 1988
Views are critical within the building. Only views towards the water or views towards internal spaces are truly private. North/South orientation reduces the area available for views.
The neighborhood adjacent to the project site was originally settled by the European immigrants of the 19th century. The streets to the northwest of the project site were primarily populated by Italian families. In the 1950's and 60's the neighborhood fell into a period of decay as the original families left and buildings were rented or abandoned.

Until the last 20 years the entire waterfront area was busy with shipping activity. The project site was a dry dock, the foundations of this structure can still be seen in the channel at low tide. The adjacent buildings were warehouses servicing the piers which fanned out into the harbor. A decline in commercial shipping in recent years has left the waterfront full of vacant buildings and abandoned piers.

Beginning in the 1970's the waterfront and neighborhood have experienced a surge of new investment. The five minute commute into downtown Boston and the potential for a ferry connection to the Boston waterfront has brought attention to the area. Upscale residential development is planned for the future.
Production phase II

Sketches of Pembroke St., typical of the Neighborhood.

Josie Limoli
My Landlady
Relates to the "New" Neighborhood through her Window

30
Production phase II

Building on the Waterfront around Boston Harbor
Production phase II

Ruin of frame construction on the East Boston Waterfront.

JOURNAL ENTRY SEPTEMBER 9, 1988
The built edge meeting water must be strongly reinforced from behind.
The edges must be guarded from leaks.
With what forms can a solid greet a liquid?
The first form experiment which comes to mind is looking at how water meets an edge. The second is looking at how people meet an edge. The third is how cars meet an edge.
JOURNAL ENTRY SEPTEMBER 9, 1988
What form is suggested by the program (of the building)? Words that come to mind are: Open, acceptance, easy does it, gentle, one step at a time, one day at a time. All these suggest evolution rather than division. Relating this back to the greeting of water with a solid mass, the greeting should be friendly and open. An embrace rather than a handshake.
Material reference detail, Imperial Hotel, Japan, Archt. Frank Lloyd Wright

Frank Lloyd Wright's Imperial Hotel; Cary, James
In addition to user related concerns is an interest in the connection of concrete to other materials in relation to this design. For example: what are the ways in which to connect concrete and wood to:

- create a window
- make a seat
- make a transition between structural systems
JOURNAL ENTRY SEPTEMBER 9, 1988
The choice of ways is unlimited but which ways:
- make sense for a specific design
- don't fail or leak
- are most cost effective
- are most visually and tactiley pleasing
PROGRAM COMMITMENT

1) INTERIOR MEETING ROOMS
   - 0 > 30 PEOPLE = 4 ROOMS
   - 30 > 80 " = 2 ROOMS
   - 30 > 200 " = 1 ROOM
   TOTAL = 7 ROOMS

2) COFFEE SHOP / RESTAURANT
   SEATING FOR 0 → 100

3) BABYSITTING
   0 → 50

4) ADMINISTRATION
   GENERAL
   - 4 @ ≤ 100
   LIT DIST.
   - 4 @ ≤ 600
   PHONE ANSWERING
   - 2 @ ≤ 400

5) SERVICE
   BATHROOMS MECH

6) DAYTIME SPECIFIC
   BOATING HQTRS
   OFFICES
   DAYCARE

Given by a Hypothetical project sponsor.
Production phase IV
DESIGN
EXPLORATION

Initial sketches, top and bottom left.
Plaster site model, bottom right.
Scale 1/16" = 1'-0"
Building on the site.

Plaster site model
Scale 1/16"=1'-0"
Form, building program applied to site plan.
Plaster site model
Scale 1/16"=1'-0"
Form, detail development, form work for plaster cast, imitating concrete building column.
Scale 1/16" = 1'-0"

JOURNAL ENTRY SEPTEMBER 10, 1988
"The silhouette of a monument is born out of its structure, everything has a positive reason, and, if a line is repugnant to our intuitions it is not right; in tracing a line we do not work solely by the power of rationality" (Gaudi The Visionary; Descharnes, Robert and Prevost, Clovis)
Production phase IV

Form, detail development, plaster cast, imitating a concrete frame.
Scale: 1"=1'-0"
Form, plaster cast imitating concrete frame, this page. Scale 1"=1'-0"

Frame becomes structure for meeting room, facing page. Scale: 1/8"=1'-0"
Form, built, ink wash of existing site facing north towards Chelsea this page.

Same view with image of project meeting rooms and communal gathering space, facing page.

JOURNAL ENTRY SEPTEMBER 15, 1988
Constructing the soul? Constructing the spirit? My thesis is about expressing my soul, my spirit and finding the universal soul and spirit. The method: from the ruins up.
After the sea wall, how does the building grow? Traditionally, spirituality has been expressed architecturally by larger than life dimensions. Sometimes this is a vertical exclamation such as a church spire or a minaret. Sometimes an awe inspiring space such as St. Peters or the Parthenon. Sometimes an awe inspiring object such as the pyramids or a stupa. The purpose of the Twelve Steps is not to inspire awe, but to serve as a sanctuary and guide.
Creating bays within the channel is one way of connecting the building to the larger waterfront moves.
Production phase V

Existing site plan, top.
Existing angle at which the water meets the sea wall of the channel. This angle is extended across the project site, bottom.

JOURNAL ENTRY OCTOBER 16, 1988
A direct attack upon this edge (the channel seawall) feels wrong. The program's intention is to regard one's life with a new clarity. This does not suggest cutting, but rather, a subtle shaping or moulding of the edge.
JOURNAL ENTRY OCTOBER 16, 1988
The essential feeling of attending an Al-Anon meeting is security and safety. If transitional space is possible between the everyday and the safety of the meeting, all the better.
Combined effect of the existing influences on the project site, this page.

Plan generated from analysis, opposite page.

JOURNAL ENTRY OCTOBER 16, 1988
The idea of regarding the original sea wall as a reference point against which gentle impressions and changes are measured is appealing.
JOURNAL ENTRY OCTOBER 16, 1988
Al-Anon and AA are about reaching out to one another in a hug.
JOURNAL ENTRY OCTOBER 17, 1988

..the recurring theme of the river in Siddhartha which represented both change and a constant led to a realization that the common thread in places people turn to for guidance is change. Institutional buildings, churches, government offices and schools, in past times, were built for eternity, summer, winter, regardless of the site, they stood steadfast oblivious to time and social change.
JOURNAL ENTRY OCTOBER 17, 1988
The Twelve-Step programs are about stability but stability arrived at by change. This place (the thesis project) should have an under-current of change. A layering as in the old cathedrals. They were built over time because the magnitude of design was more than one generation could build. So, they became a collage of parts. The layering gave reference to the past.
JOURNAL ENTRY OCTOBER 17, 1988
People came to these (institutional buildings) places seeking either the status quo or a sense of universal timeless guidance. Suddenly in this age, people are embarking on personal crusades. Seeking change within themselves and in the world around them. How can architecture respond to this? Representing change is not necessarily about flexibility, rather it is about response.
DESIGN PROPOSAL

On the following pages are the plans, elevations and sections as a summary of the final phase of design.

JOURNAL ENTRY OCTOBER 20, 1988
Rooms I would like to be in. How one gets there is as important as the there.
ELEVATION (GROUND) CUTS AND FOUNDATION PLAN, COMPLETE THIS PAGE

ELEVATION (GROUND) CUTS AND FOUNDATION PLAN, PARTIAL FACING PAGE
MEETING ROOM

On the following pages are a series of photo's showing a model of one of the smaller meeting rooms in the project. The intention is to suggest what the building might feel like.

JOURNAL ENTRY OCTOBER 23, 1988
The experience of an Al-Anon meeting is unlike anything else. Each meeting is unique but the program is the guiding theme which connects them all. As I designed I made decisions on what a meeting space should feel like based on my own impressions gathered from a large variety of meetings. To help understand the design it is important that I articulate that generalized meeting I hold in my mind.
JOURNAL ENTRY OCTOBER 23, 1988

The first part of the experience is the decision to attend a meeting. The physical location of the meeting enters into this mainly based on how accessible the site is. However subtler physical influences could affect the decision if a particular meeting has been attended before. For example, at one meeting I have been to there is a lack of acoustical privacy which is disturbing to many people who attend the meeting.
JOURNAL ENTRY OCTOBER 23, 1988
Arriving at the location is generally unnerving. The meetings are listed by street address and because they are often held in hospitals, churches or other large institutions it can be difficult to find the meeting room.
Meetings are places of intense personal sharing. The physical environment must relate to this by providing some basic supports. Privacy, related to anonymity and safety is essential.
Once the room is found the next hurdle is entering a room full of strangers. The standard format of the meetings helps one feel at home, even at a meeting one has never attended before.
Meetings are structured with a formal opening read aloud by a person selected to "chair" the meeting. The opening is a simple statement of welcome, a mention of the purpose of Al-Anon followed usually by a reading of the Twelve Steps. Everyone then introduces themselves, by their first names only, for the sake of anonymity. The chair-person shares a personal story always relating it to the program. Then the meeting is opened for all to share their own experiences usually related to a topic the Chair-person has chosen or to one of the Twelve-Steps.

JOURNAL ENTRY OCTOBER 23, 1988
JOURNAL ENTRY OCTOBER, 1988

It is very frustrating to summarize on paper the experience of a meeting which is about feeling. Writing a poem seems more appropriate.

Fear, doubt, insecurity.

Indecision, mind games, worry.

I need a meeting.

No time, things to do, people to see, places to go.

I need a meeting.

It is cold out tonight, the bus is a drag, parking's a pain...

I need a meeting.

Ok

Lets see, 6:00pm, 123 Anywhere.

I'm here but where is the meeting room?

People, voices, through the door.

Safety.

Turning off my head, turning on my feelings.

Relaxing.
JOURNAL ENTRY NOVEMBER 1, 1988
I have explored the idea in my thesis that a place for change should suggest change. The architecture of a place can do this by responding to the physical changes which naturally occur such as the weather, the tides, the sun and most importantly: time. The Center was designed to have an undercurrent of change.
JOURNAL ENTRY NOVEMBER 1, 1988
The time of day can be seen in the height of the piers. The age of glass can be visually estimated by the change in the width of the bottom of the pane.
The amount of rain falling is best measured by the number of streaks left on the concrete surface.
<table>
<thead>
<tr>
<th>JOURNAL ENTRY NOVEMBER, 1988</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Places Between</td>
</tr>
<tr>
<td>Spontaneous conversations.</td>
</tr>
<tr>
<td>A cigarette break.</td>
</tr>
<tr>
<td>A hug.</td>
</tr>
<tr>
<td>A place to cry.</td>
</tr>
<tr>
<td>A place to reflect in private.</td>
</tr>
<tr>
<td>A chance to encounter change.</td>
</tr>
</tbody>
</table>
JOURNAL ENTRY NOVEMBER 1, 1988
The rooms are places of great safety. Feeling secure is a physical sense of confidence.
Being safe is knowing the boundaries of the space one is inhabiting.
Safety can be suggested by form.
Security can be textural.
JOURNAL ENTRY NOVEMBER 7, 1988
Anonymity. Our society does not yet encourage reaching out as a way of dealing with problems. We are still trapped in the stiff upper lip trap of private sorrow and pain. Alcoholics, overeaters and those dependent on drugs are seen as having a problem but, more destructive for them, they are expected to deal with their problem on their own.
It is only recently that people have started being educated to the concept that these problems are actually addictive diseases for which the persons affected are not to blame. As a society however, we are still far from accepting or even more importantly encouraging people to deal with their diseases. As a result, it is important to all people involved in the twelve-step programs that they remain anonymous.
THANK YOU ALL:

My Parents:
Juola and Patricia Haga

My Sisters:
Alexandra and Antonia Haga

My Grandparents:
Clifford and Mary Haga

My Advisor:
William L. Porter

My Readers:
Eric Dluhosch
Damon Strub
Mark Kucirka

The Girl Talk Group:
Maria D.
Lauren W.
Janina M.

My Friends:
Monica and Elliott S.
Betsy W.
Steven M.
James B.
Sarena H.
Diane M. and family
Sharon H.
Moezzedin K.
Leon G.
Jennifer M.
Mike S. and family
The guys in California
APPENDIX ONE

AA PREAMBLE
Alcoholics Anonymous is a fellowship of men and women who share their experience, strength and hope with each other that they may solve their common problem and help others to recover from alcoholism.
The only requirement for membership is a desire to stop drinking. There are no dues or fees for A.A. membership; we are self-supporting through our own contributions. A.A. is not allied with any sect, denomination, politics, organization or institution; does not wish to engage in any controversy; neither endorses nor opposes any causes. Our primary purpose is to stay sober and help other alcoholics to achieve sobriety.

Preamble reprinted with permission of the AA Grapevine.

AL-ANON PREAMBLE
The Al-Anon Family Groups are a fellowship of relatives and friends of alcoholics who share their experience, strength and hope in order to solve their common problems. We believe alcoholism is a family illness and that changed attitudes can aid recovery.
Al-Anon is not allied with any sect, denomination, political entity, organization or institution; does not engage in any controversy; neither endorses nor opposes any cause. There are no dues for membership. Al-Anon is self-supporting through its own voluntary contributions.
Al-Anon has but one purpose: to help families of alcoholics. We do this by practicing the Twelve Steps, by welcoming and giving comfort to families of alcoholics, and by giving understanding and encouragement to the alcoholic.
Preamble reprinted with permission of Al-Anon Family Group Headquarters, Inc.

In this thesis AA and Al-Anon are referred to as Twelve-Step groups. The Twelve Steps are only a part of each group's program. Information on the groups included here should be regarded as a selective introduction to the programs, rather than an inclusive description.
BIBLIOGRAPHY:


Bruun, Erik and Popovits, Sara, "Kaija and Heikki Siren Architects", Helsinki: The Otava Publishing Co. 1977

Descharnes, Robert and Prevost, Clovis, "Gaudi The Visionary", New York: The Viking Press, 1982


James, Cary, "Frank Lloyd Wright's Imperial Hotel" New York: Dover Publications Inc. 1988