

LOCOMOTION:
A Railroad Museum for Chattanooga

by
Julie Ju Youn Kim
B.A., Wellesley College
Wellesley, Massachusetts
June 1989

submitted to the Department of Architecture in partial
fulfillment of the requirements for the degree
Master of Architecture at the
Massachusetts Institute of Technology
June 1994

Signature of Author _____

Julie Ju Youn Kim
Department of Architecture
May 6, 1994

Certified by _____

Ann M. Pendleton-Jullian
Assistant Professor of Architecture
Thesis Supervisor

Accepted by _____

Rosemary Grimshaw
Assistant Professor of Architecture
Chairman, Departmental Committee of Graduate Students

© Julie Ju Youn Kim, 1994. All rights reserved. The author hereby grants
to M.I.T. permission to reproduce and to distribute publicly paper and
electronic copies of this thesis document in whole or in part.

Rotch

MASSACHUSETTS INSTITUTE
OF TECHNOLOGY

JUL 14 1994

Table of Contents

Abstract	3
Introduction.....	4
Design Proposal.....	13
Conceptual Design Strategies.....	32
References.....	55
The Site.....	71
Conclusion.....	81
Bibliography.....	84

*Title page illustration: Charles Sheeler, Rolling Power, 1939.
(The Machine Age in America, 1986, p. 142).*

Note: All illustrations by author, unless otherwise noted.

LOCOMOTION:

A Railroad Museum for Chattanooga

by

Julie Ju Youn Kim

submitted to the Department of Architecture on May 6, 1994
in partial fulfillment of the requirements for the Degree of
Master of Architecture

ABSTRACT

This thesis is about exploring an architecture that serves a dual purpose: one, as witness to the past, and, two, as evidence of a constantly changing built environment. It is about exploring a landscape rich with associative memories. Through the design of a railroad museum on abandoned railroad lines in Chattanooga, Tennessee, this thesis seeks to define an architecture that is integrated with the industrial landscape in an interdependent relationship. Using the museum as a design mechanism, the intention is to evoke memories of the past through the present architectural experience.

Thesis Supervisor: Ann M. Pendleton-Jullian

Title: Assistant Professor of Architecture

Thesis Critics: James Axley, Rosemary Grimshaw

INTRODUCTION



Locomotives Illustrated, Jan/Feb 1994, p. 29.

History's mark on a city should never be erased. The visibility of time is one of a city's most vital aspects. Change is not only a process but a product, and time's layers should be felt by those walking down a city street.

Paul Goldberger "To Preserve the Visibility of Time"

Part One

Awareness of the past is essential to understanding the development of places and people over time. Without this cognizance, one can not possibly have any sense of continuity. Architecture supports the connection of past to present as a visible reminder of what used to be and what is now. Can architectural interventions intensify the awareness of past events while celebrating the present?

There are several schools of thought on this subject: preservation, restoration, celebration. Preservation and restoration can be grouped in the same category as both are interested in preserving and restoring the past. Preservationists set guidelines and regulations in an attempt to preserve the past. Restorationists are similar in that they wish to halt the passage of time and restore buildings or landscape to look as they did in a particular time period.

Restoration or preservation is not the answer. There exists the danger of recreating an image of the past that may be mythical or incorrect. The past is actually governed by our perception of the present. So, as that perception changes so do our views of the past. *"The very process of preservation - slowing down deterioration or guarding against accident - changes the look and feel, if not the form and substance, of protected sites or artifacts."*¹ *"Preservation...segregates a tangible past required to be unlike the present. But such segregation conflicts with our perception of reality."*² *"Total restoration subverts historical awareness.... Where the past becomes highly popular, ancient sites lose historical specificity in a romantic blur...."*³ Architecture should not strive for some conformity to an idealized past form. To *restore* a building or a site is to *preserve* it in our perception of its past function, disassociating the architecture from the existing context resulting in a lost connection with its surroundings.

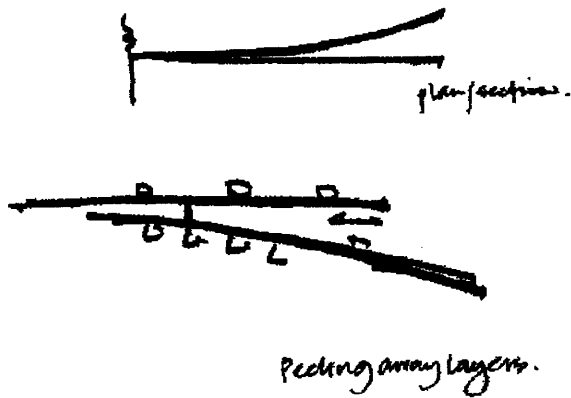
A richness can be achieved when architecture uses fragments of the past to enhance the present circumstances. The depth of dialogue that can be reached through the layering of old and new, of past to present, introduces a level of complexity to the landscape that strict preservation or restoration can not possibly achieve as both are single minded in

the pursuit of some sacrosanct past. Time's layers are evident through the contrast and the juxtaposition of past and present.

Architecture should recall and *celebrate* the past through the present experience. "*The things that surround us all have a past, and are recognizable because we share that past...with the memories we cherish, we live simultaneously in the past and the present.*"⁴ The juxtaposition of the physical present and the metaphysical past encourages an open dialogue between the two, and intensifies the architectural experience through tension of the co-existing elements.

Part Two

How can architecture reveal a piece of the past? *Layering* is one of the mechanisms used in this thesis to enrich the relationship of the old to the new. This thesis explores three approaches towards layering: physical layering as in plan or section; layering in time; and the layering of memory with the physical reality. Complexity in the architecture is achieved as the different kinds of layering become interdependent and inform the experience of the other. Through the materialized layers, one is able to realize the pieces that belong to the past versus the present, resulting in a variety of readings of the spatial relationships.



strategy sketch about delamination

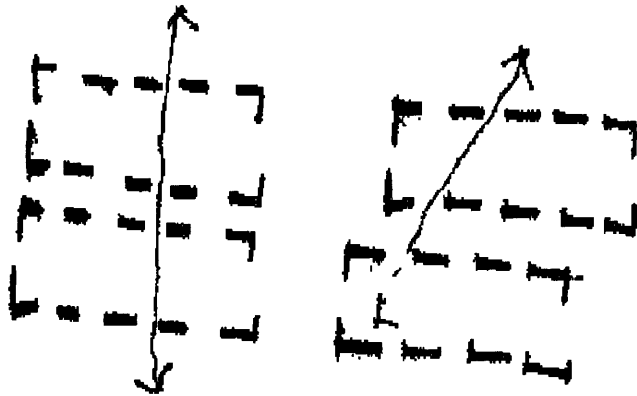
This thesis addresses the railroad as a remnant of the past whose presence has been literally buried under the asphalt, significant of the dominant presence of the automobile today. By peeling away layers in plan and in section, one begins to understand the threshold between the past and the present in a physical way. The layering of time is also explored through peeling away layers of the land, thereby, revealing the past...the ghost of the tracks that have been hidden.

The memory of the trains coupled with the physical realities of the present experience is addressed through an investigation of the spatial relationships of the individual to the train; of the train to the tracks; and of the train to a parallel train. As the ideas of time and memory are inherently intangible, it is necessary to impose the rigor of dimension to give this exploration a foundation. The actual dimensions in both plan and section of the railroad tracks, and of the train cars relative to the tracks and to each other inform decisions made in the study of the spatial configurations. Multivalent readings of the spatial relationships is achieved using two mechanisms: one, modelling framed/controlled views (as one experiences through a train window), and, two, by defining the circulation sequence as a series of changing experiences (within the wall, next to the wall, through the wall).

The relationship of the trains to one another on parallel tracks differs when they are standing still to when one is moving to when both are moving. By manipulating views through the walls with openings being directly opposite each other to being slightly displaced, one understands spatially the feeling of movement. The walls begin to act as the train does when one begins to move faster than the other. How one moves through and within the walls, and the controlled views one is allowed challenge the individual to understand the underlying reference to trains, movement ...locomotion.

This thesis proposes that the walls are composed of structural masonry, expressive of the memory of the railroad and its architecture. The tracks are expressed by the heavy walls that articulate the rails three dimensionally rather than their usual two dimensional form. The dimension and the relationship of the openings in the walls is an articulation of movement and the way the landscape is framed by a train window. The walls begin to peel away from each other and from the tracks, allowing opportunities to engage them as circulation through them, and as exhibit space inside and outside of them. The dominant experience of the architecture is the system of walls, expressive of the tracks that still exist on the site today and of the tracks that

strategy sketch about movement



have been revealed, resulting in a tensile relationship between the two as one delaminates from the other. The juxtaposition of the physical layering of the walls and the ephemeral layers of memory and time reveals a multiplicity of readings and experiences.

"The past remains integral to us all, individually and collectively. We must concede the ancients their place...But their place is not back there, in a separate and foreign country; it is assimilated in ourselves, and resurrected into an ever-changing present."⁵ It is not the intent of this thesis to romanticize or manipulate the past. "To inherit the past is to transform it".⁶ Through an understanding of the railroad and how it impacted the city, this thesis strives to transform that cognition in an experiential way.

Design Program

Railroad Museum - Chattanooga, Tennessee

A.	entrance / lobby	1,500 sf
B.	galleries	15,000 sf
C.	museum support	8,000 sf
	1. collections storage	
	2. conservation work area	
	3. exhibition preparation area	
D.	administration	5,000 sf
E.	cafe	2,000 sf
F.	museum store	1,500 sf
G.	facility support	6,500 sf
	1. security	
	2. mechanical, elec., etc.	
	3. shipping and receiving	
	4. maintenance and storage	

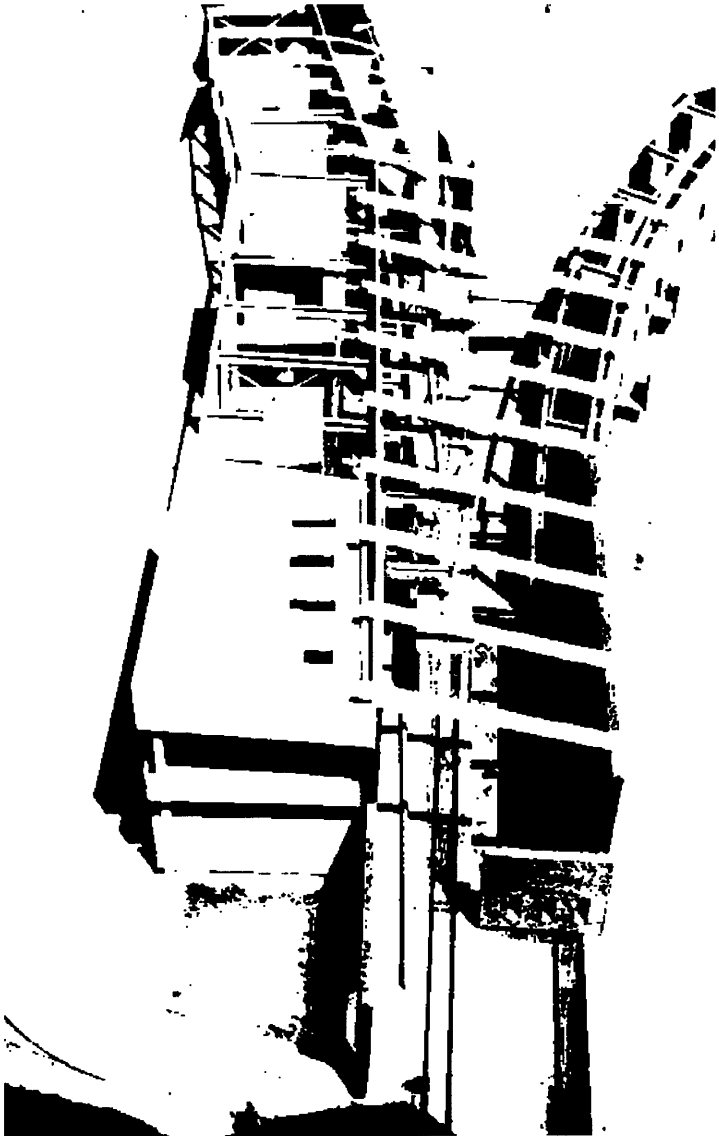
Total Net SF **39,500**

Total Gross SF (net x 1.2) **47,400**

H. a portion of the gallery space is articulated through the existing railroad tracks and as outdoor space - square footage remains open

Endnotes

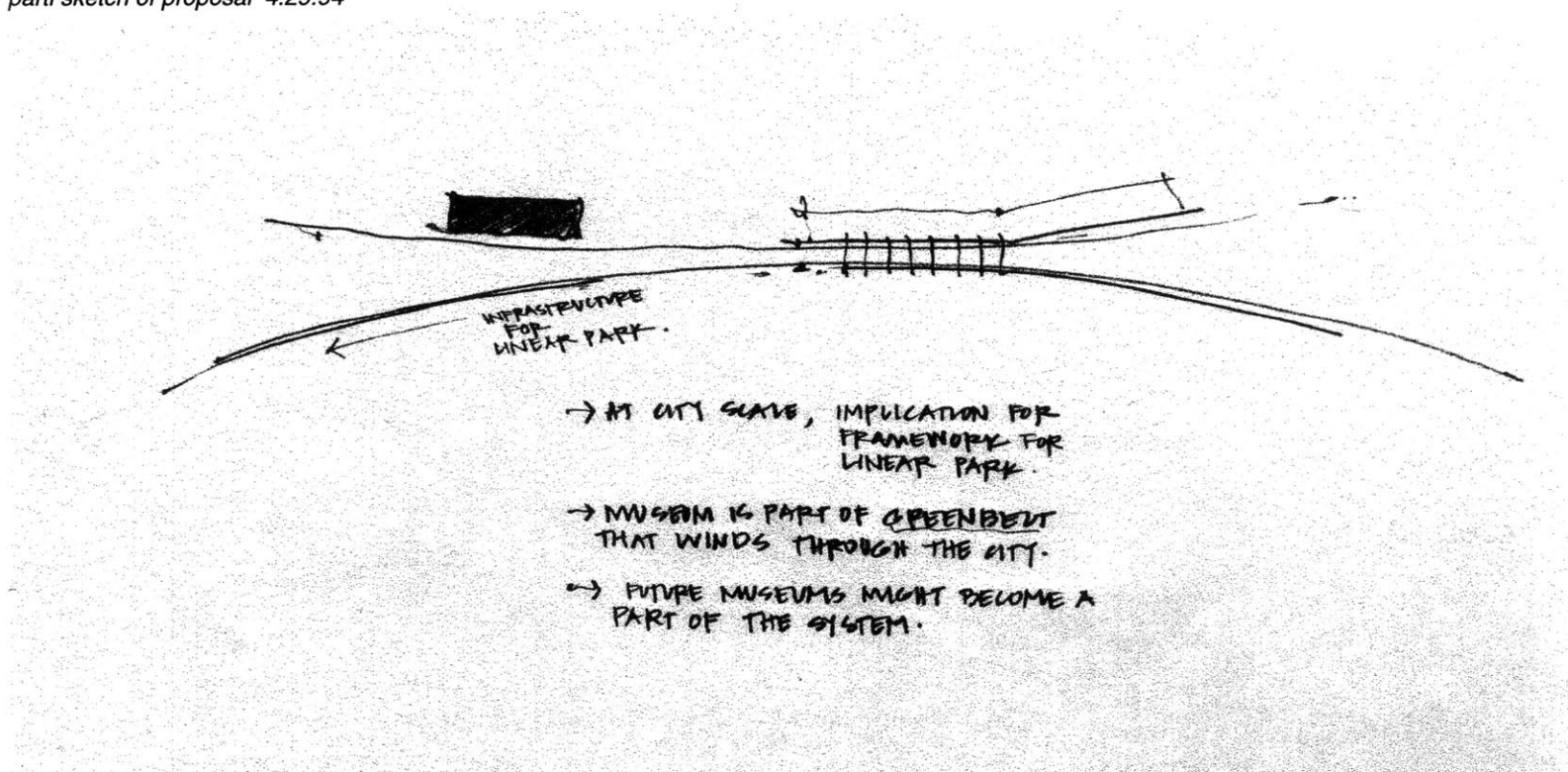
1. David Lowenthal. "Age and Artifact: Dilemmas of Appreciation." from The Interpretation of Ordinary Landscapes. 1979, p. 121.
2. David Lowenthal. The Past is a Foreign Country., 1985, p. 410.
3. David Lowenthal. "Age and Artifact: Dilemmas of Appreciation." from The Interpretation of Ordinary Landscapes., 1979, p. 117.
4. David Lowenthal. The Past is a Foreign Country., 1985, p. 410.
5. *Ibid.*, p. 412.
6. *Ibid.*, p. 412.

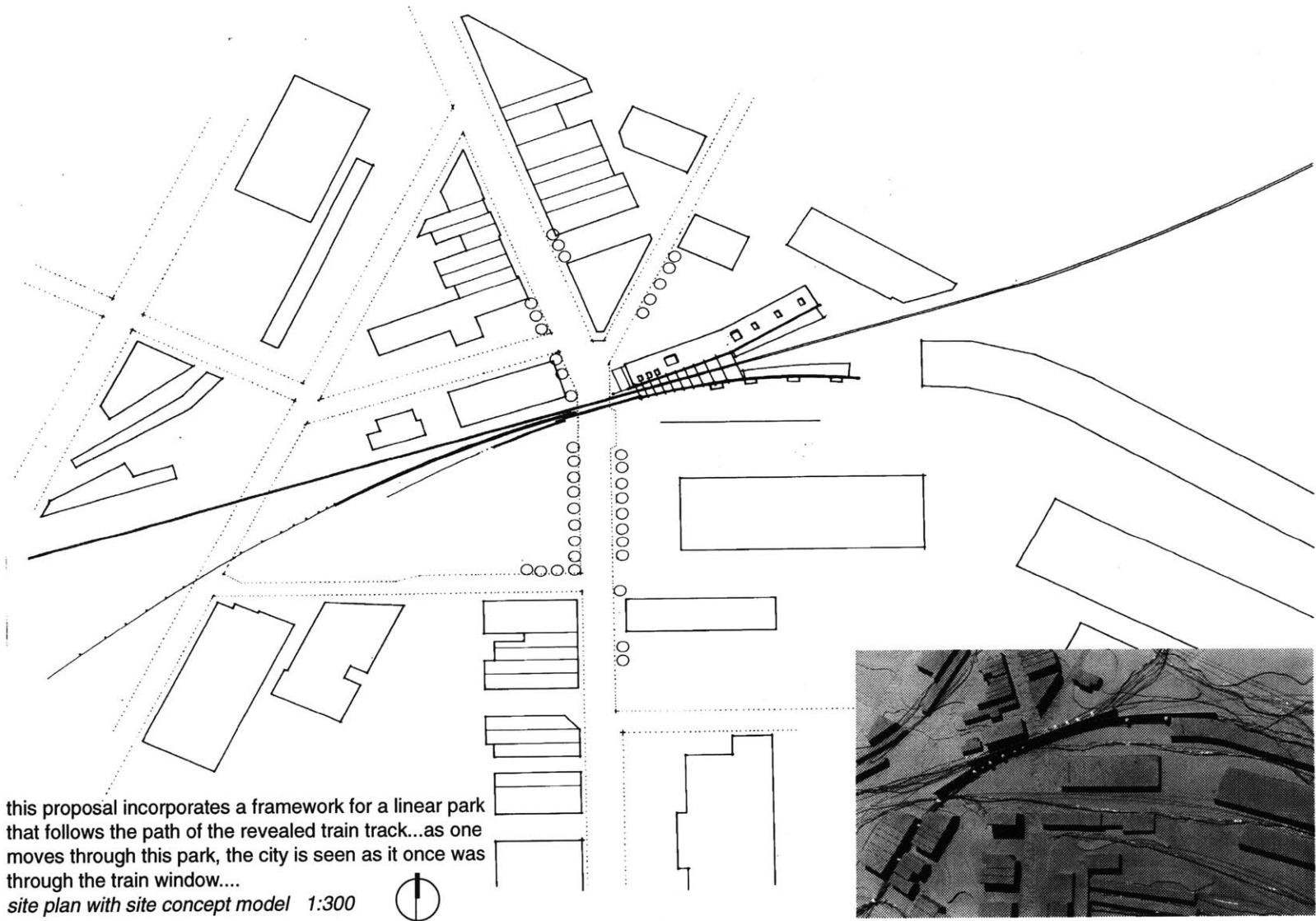


DESIGN PROPOSAL

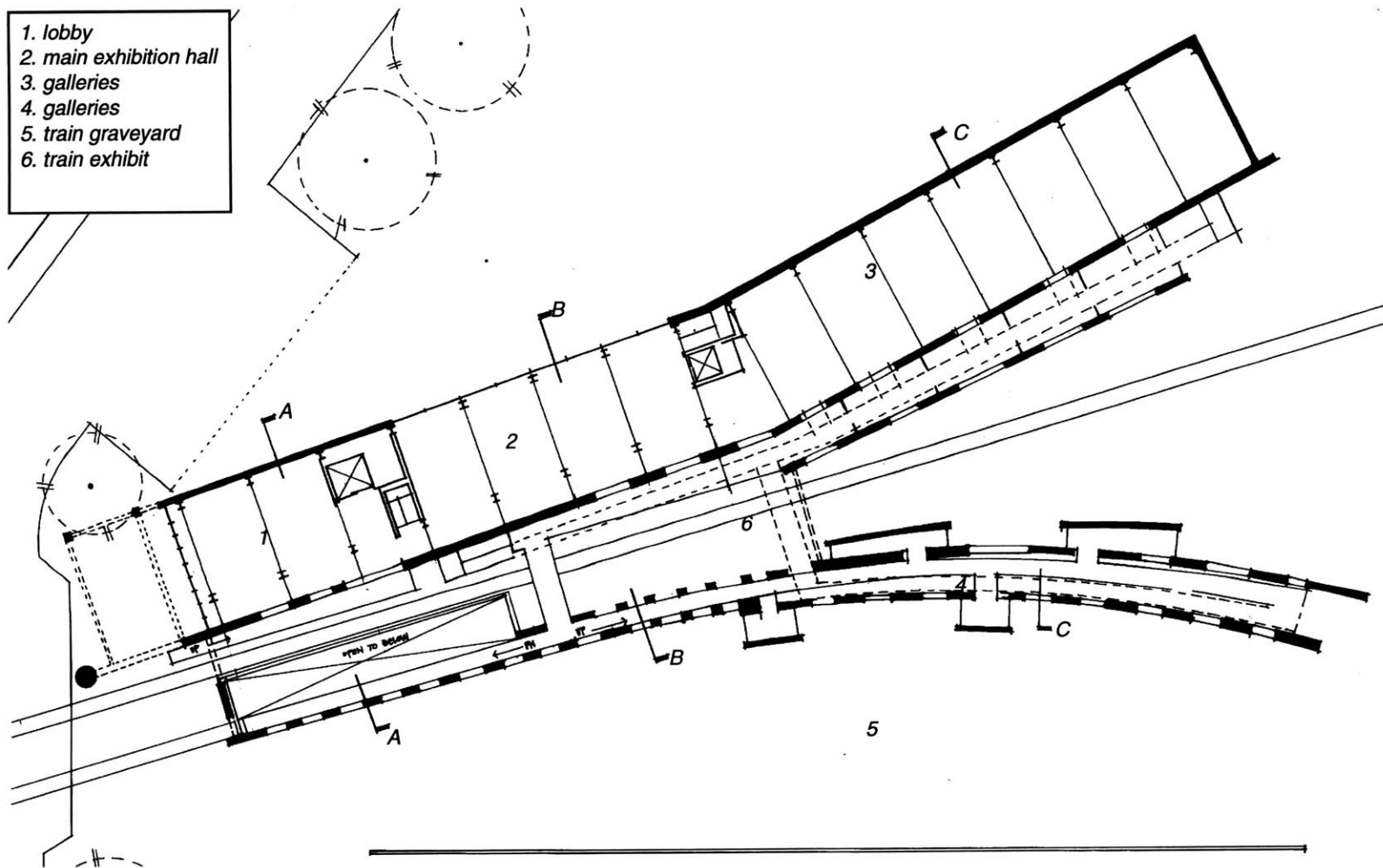
The following pages are a visual presentation of this thesis. The primary working method was through building models and executing quick gestural sketches. It is this author's contention that the thesis is substantiated through the work done throughout the semester. It is for this reason that the final proposal is presented first. The remainder of this document then serves to support this design proposal.

parti sketch of proposal 4.29.94



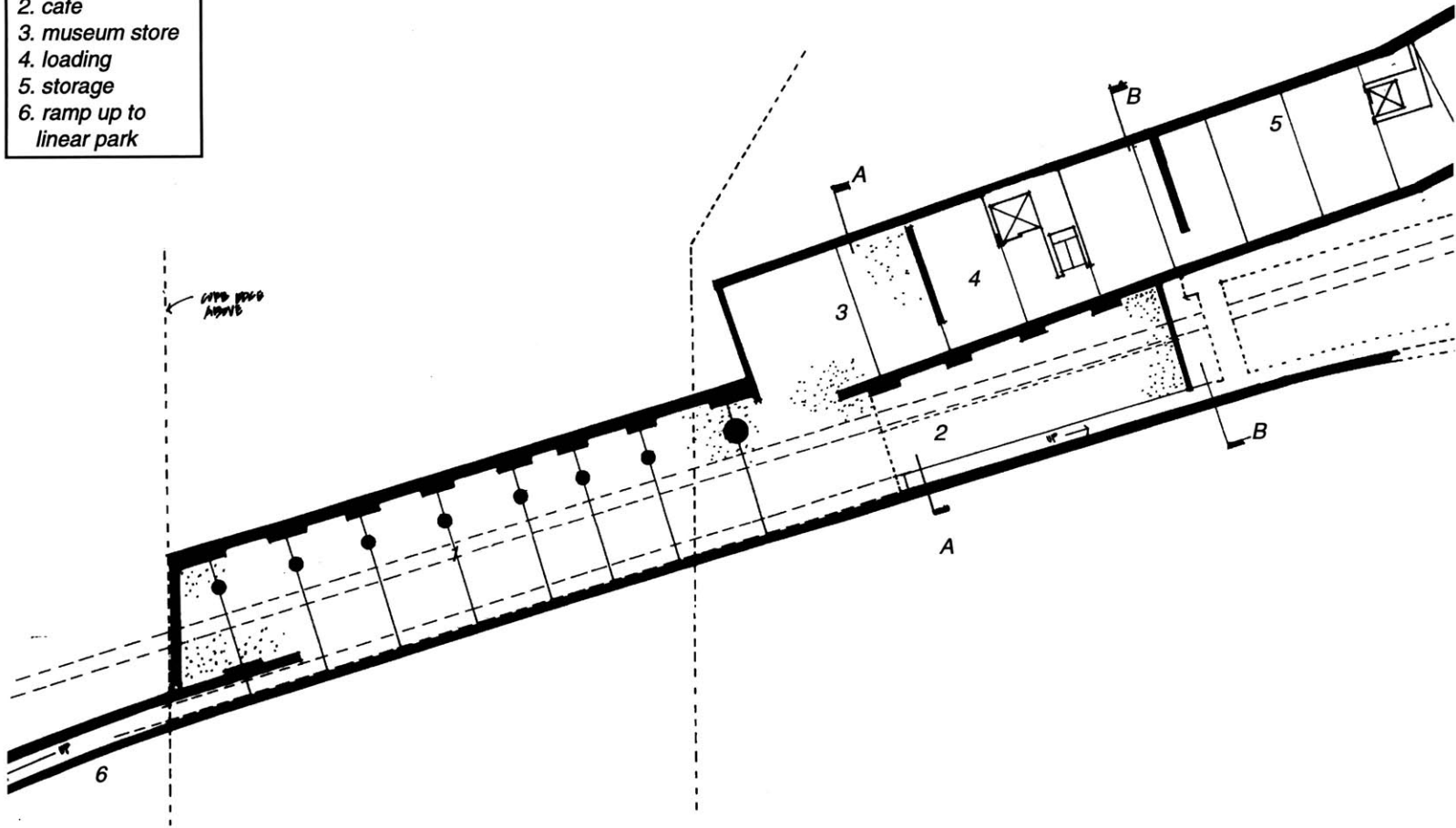


- 1. lobby
- 2. main exhibition hall
- 3. galleries
- 4. galleries
- 5. train graveyard
- 6. train exhibit



main level floor plan 1:50 5.94

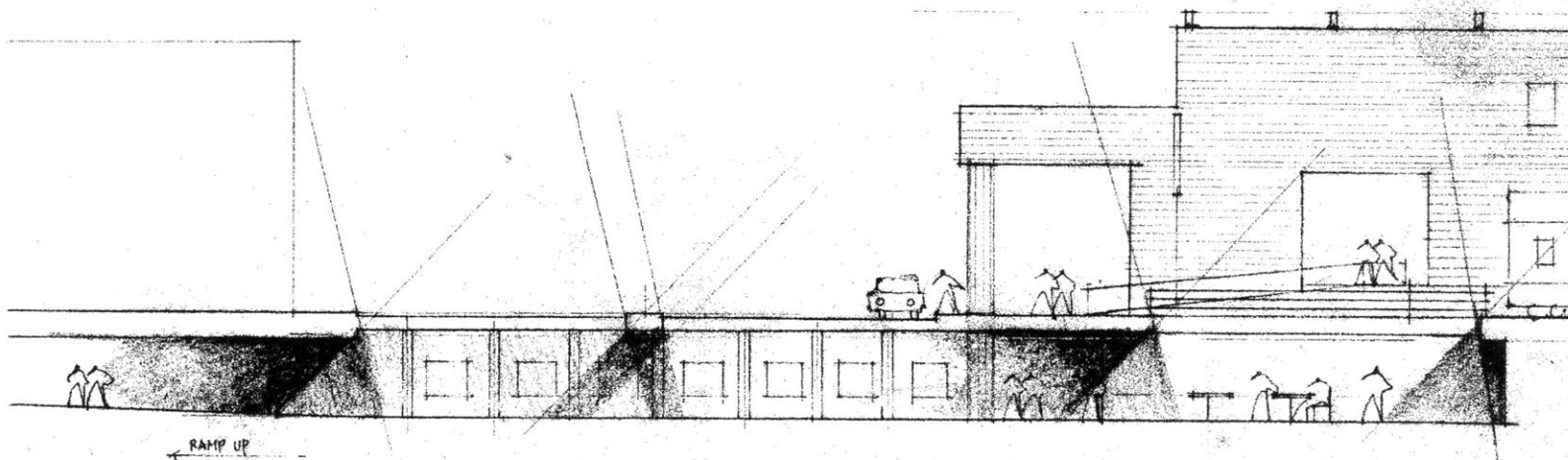
- 1. exhibit space
- 2. cafe
- 3. museum store
- 4. loading
- 5. storage
- 6. ramp up to linear park



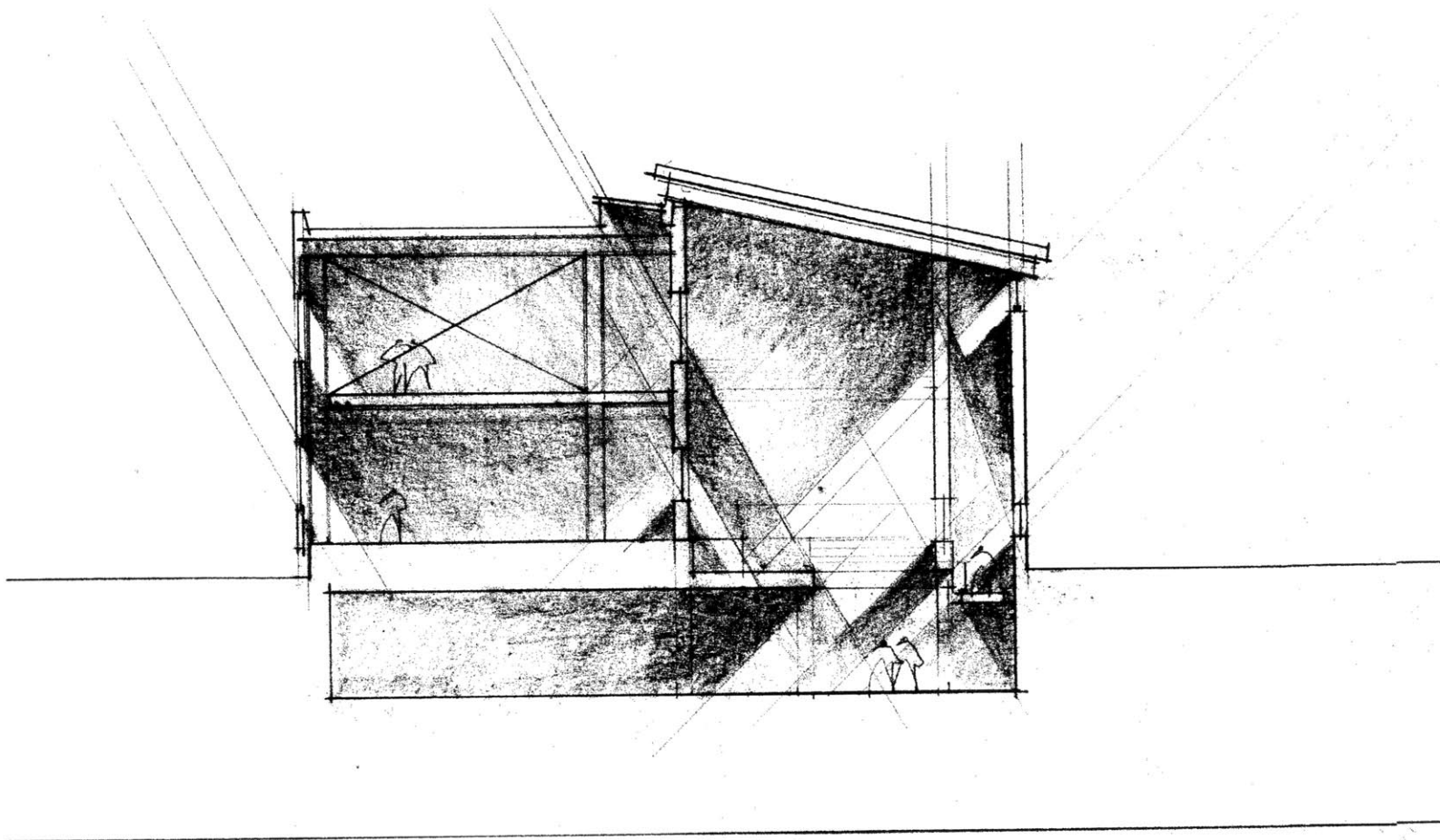
*lower level plan showing the connection underneath the street...
the building is marked by the column that pierces the ground from
above....this column reveals the vertical connection*



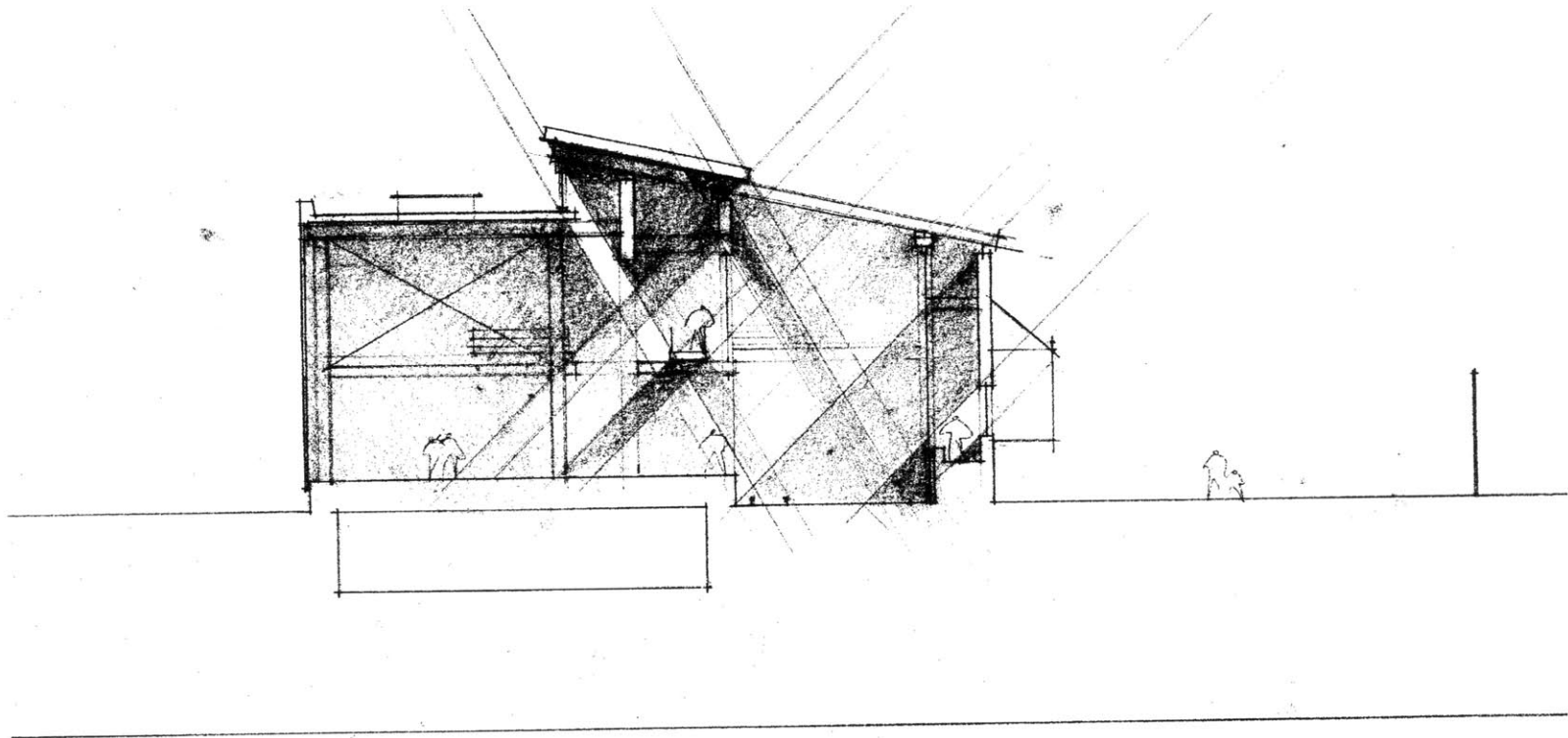
lower level plan 1:50 5.94



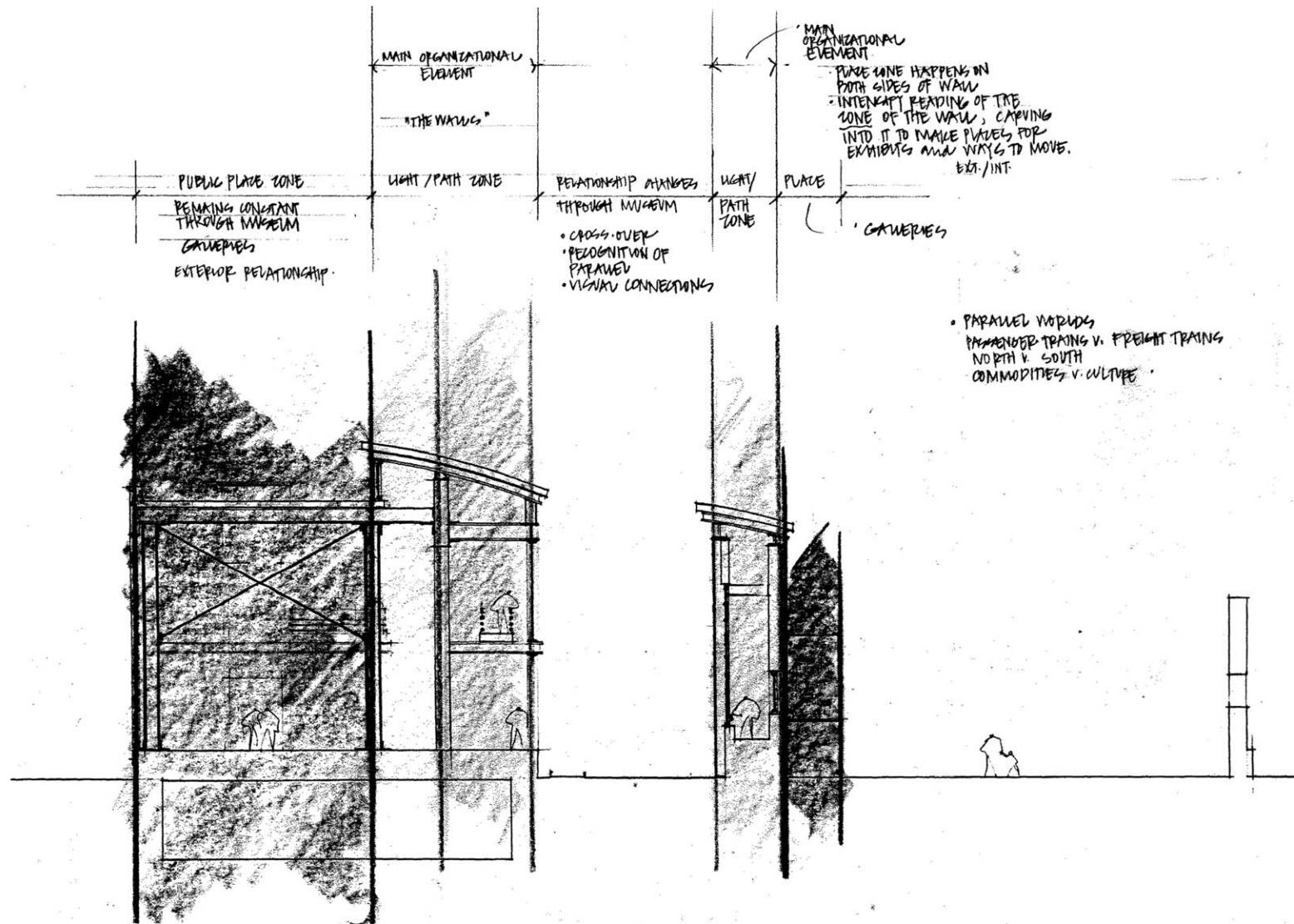
section showing the connection underneath the street
5.94



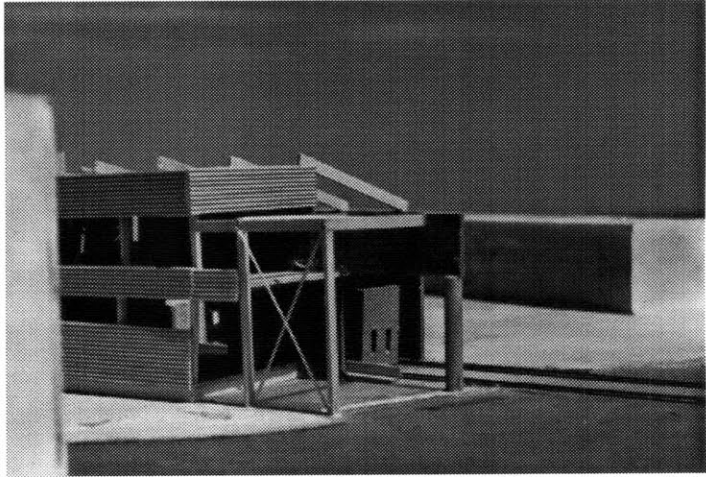
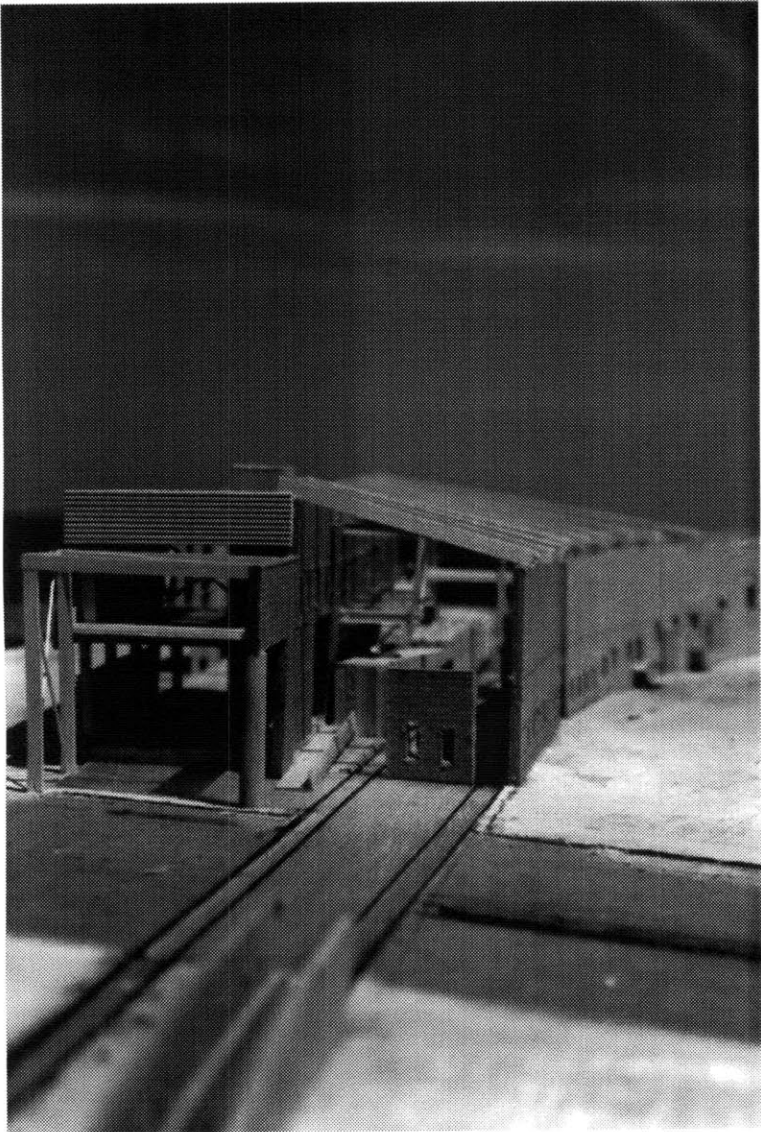
SECTION A-A
section through the lobby and the cafe underground
5.94



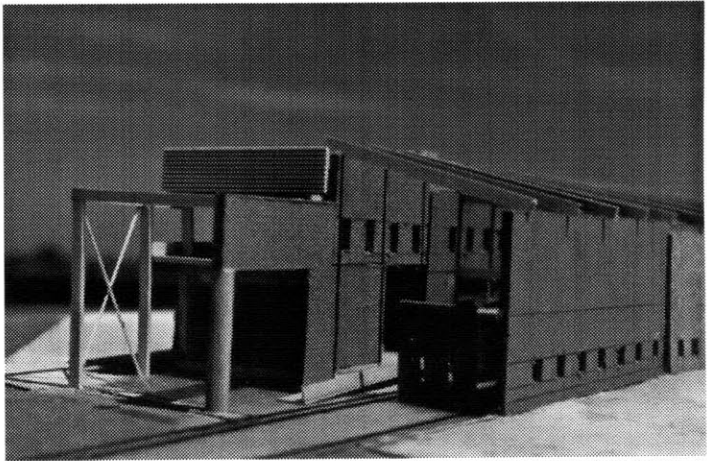
SECTION B-B
section through gallery 5.94
shows relationship of shed to the curving wall

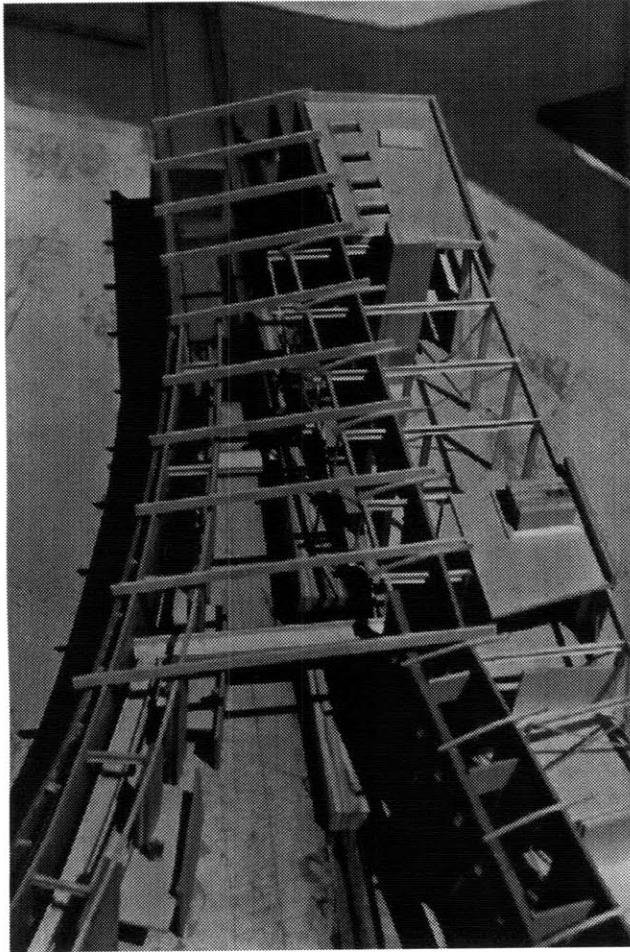


section diagram showing different zones in museum



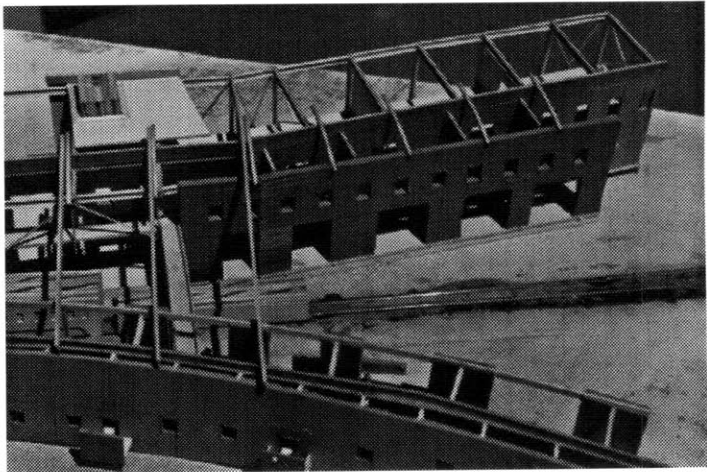
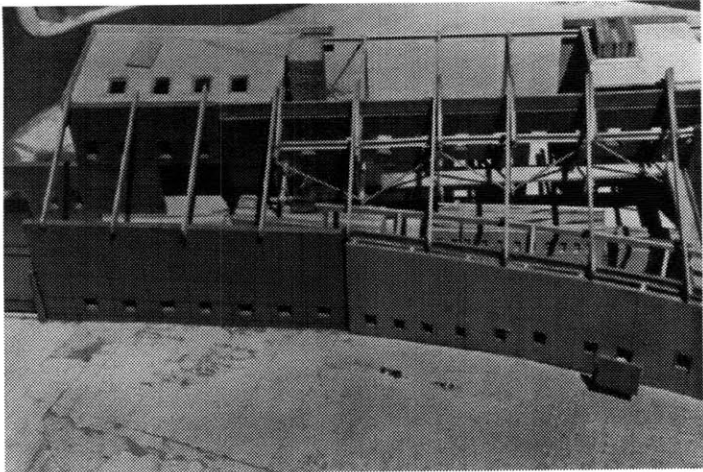
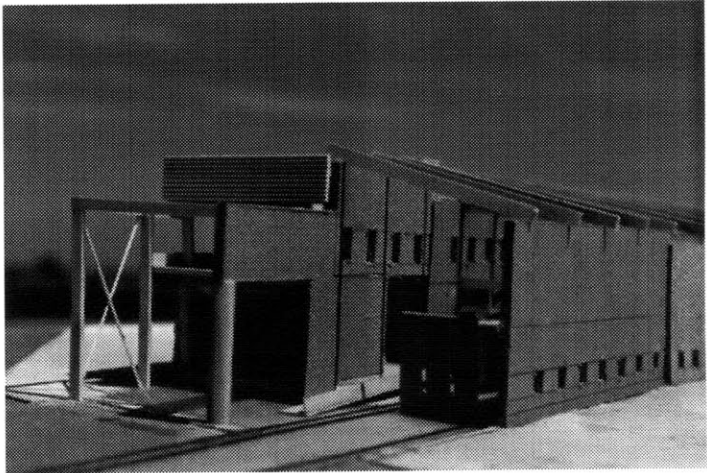
model views of entry

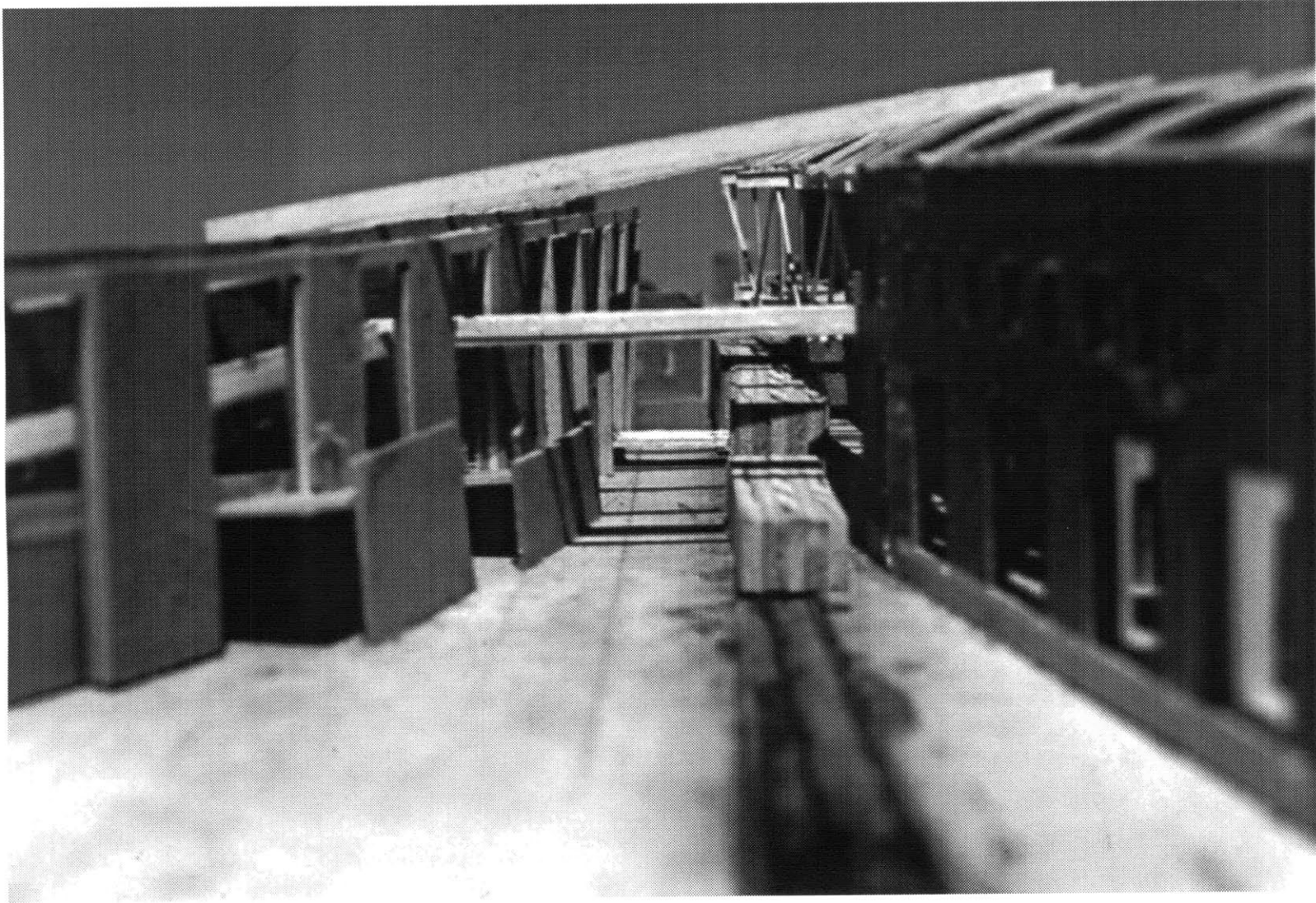




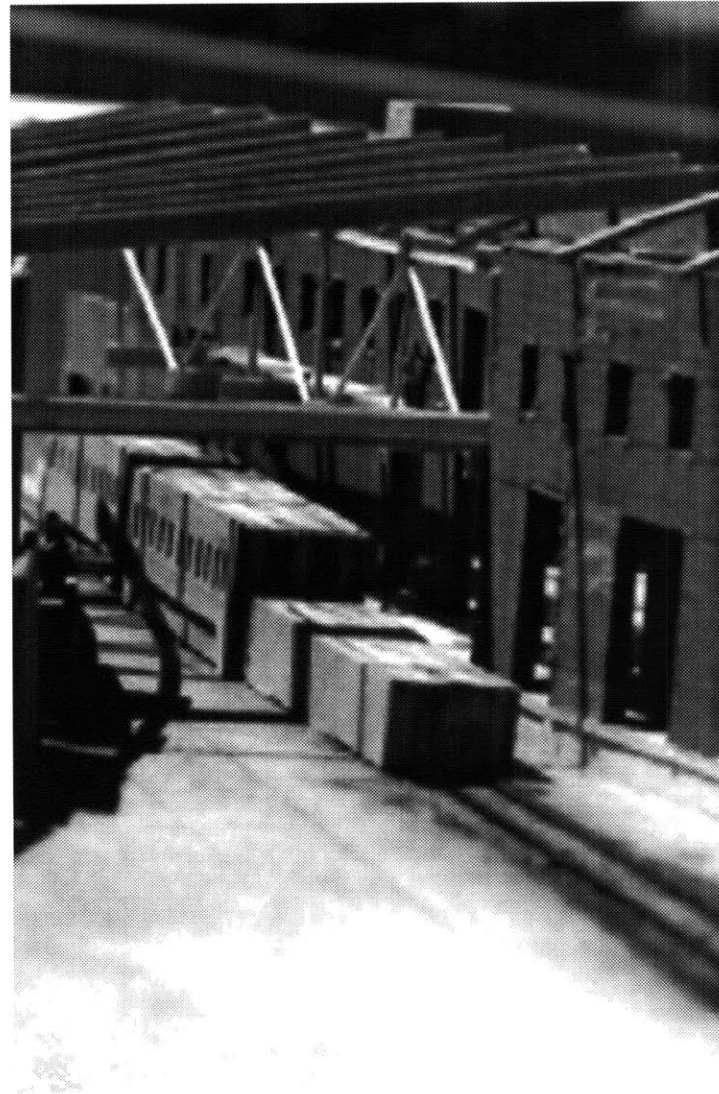
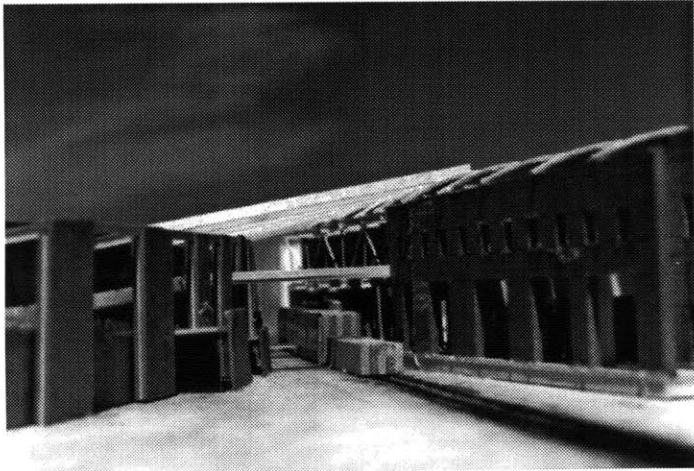
views of model

model views





view of model looking west through the museum



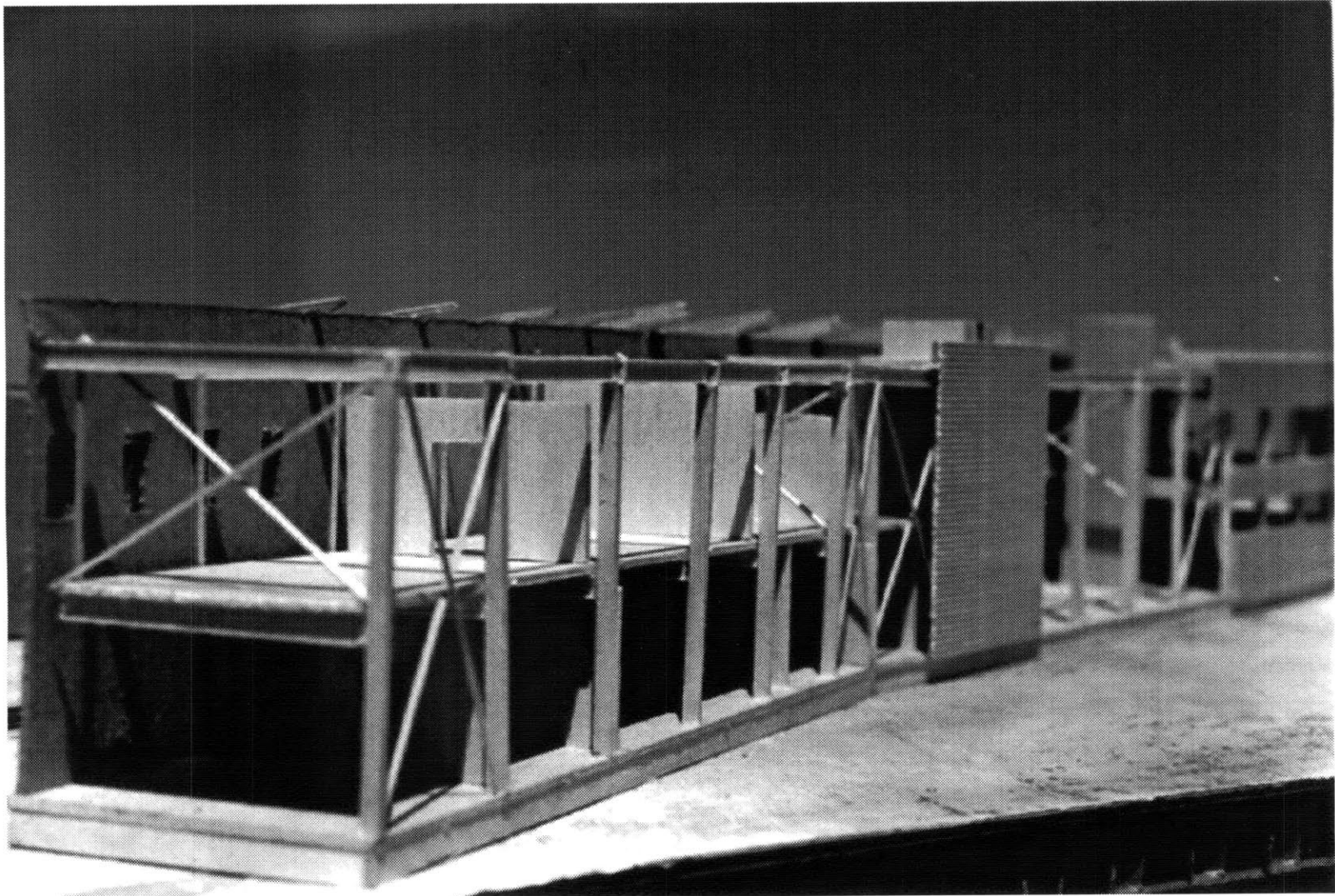
model view looking at the bridge connecting the parallel worlds



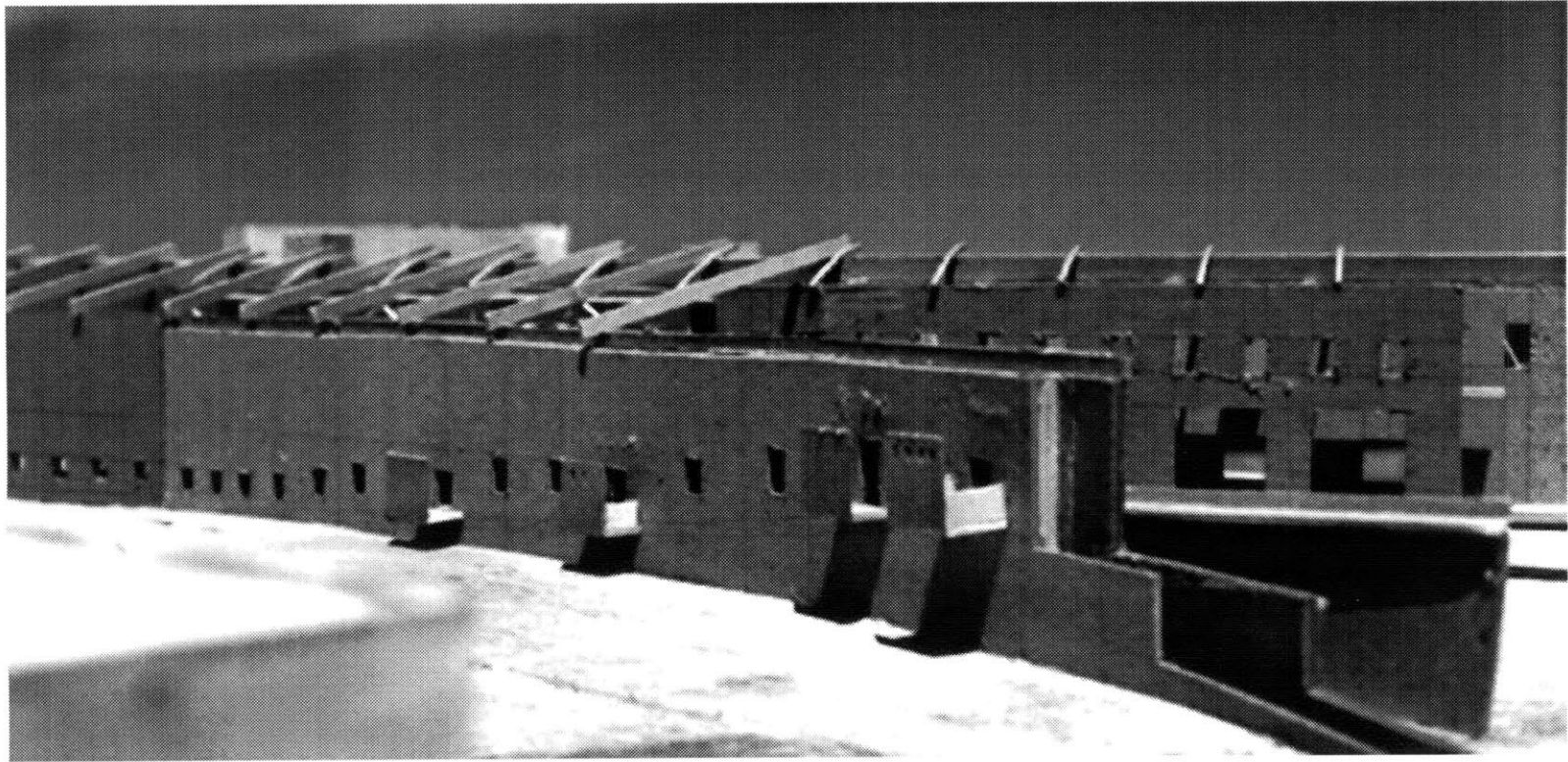
within the wall



view of the model where the two worlds almost touch



view of model looking at the industrial shed side



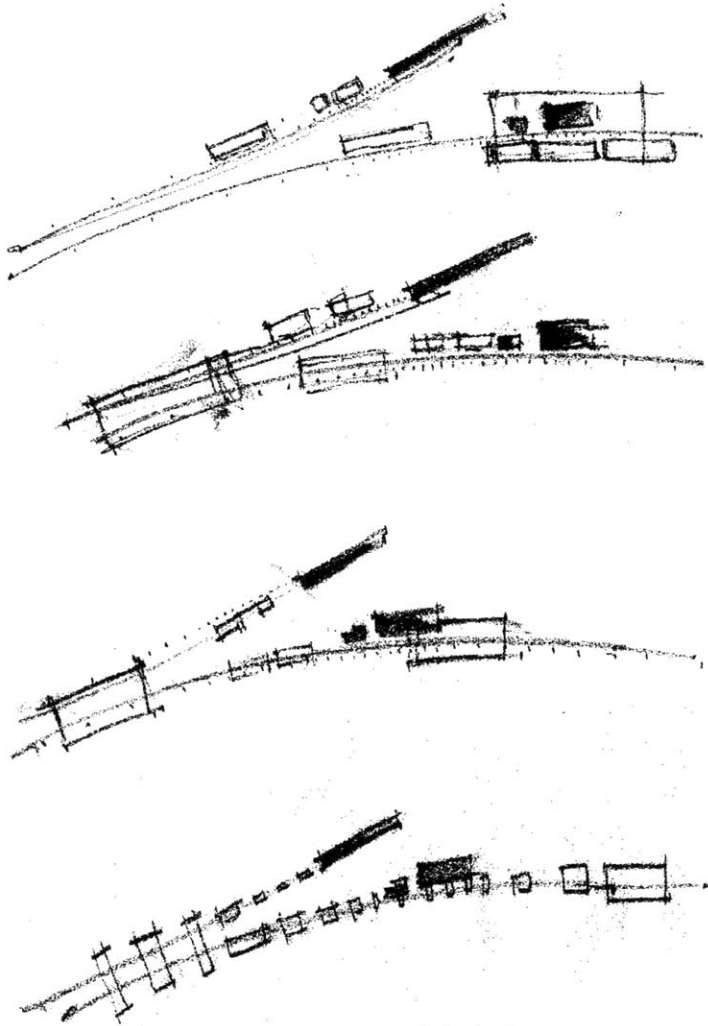
model



model

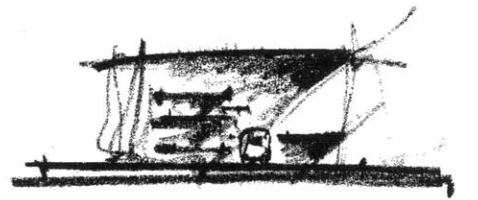
**CONCEPTUAL
DESIGN STRATEGIES**



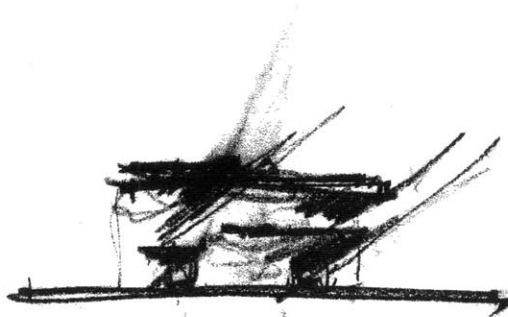


conceptual plan studies

*the ghost of the train still lives on and this is
expressed architecturally
parallel lives and universes
can there be two worlds occurring simultaneously
and there be a recognition of that and then some
crossover when least expected
what does this mean? I don't know
what drives this exploration?
layers of meaning and understanding
to the layman this may not be apparent
to someone else, the ghost of the train is
understood only afterwards
walking along the tracks and then there is the
opportunity to cross over and experience the
other realm
what does that mean?
the train need not be expressed only in a linear
way
multiple parallel tracks running through the
city....again the parallel worlds
what is the spirit of the place?
its genius loci
the trains and how one rediscovers the lure of the
railroad again
remember the little boy that wanted to be a
railroad engineer
the whistle of the train
the speed of the train*



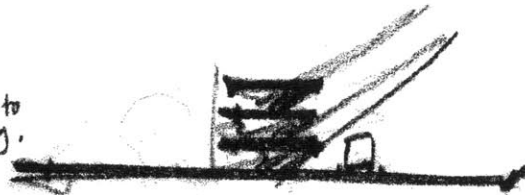
being an exhibit.



tracks
inside
building.



tracks
adjacent to
building.



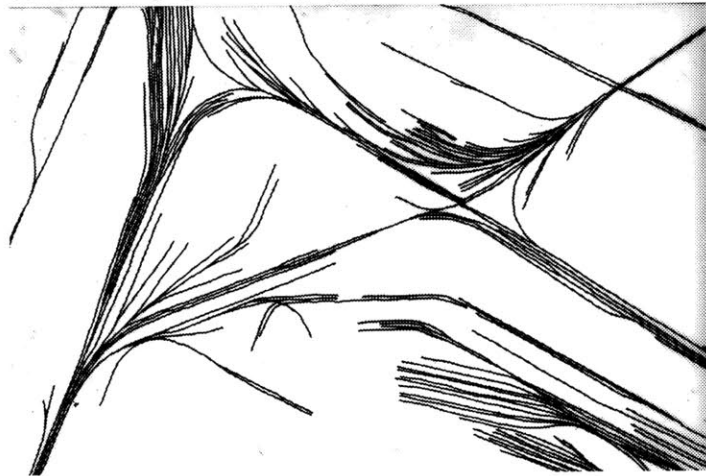
conceptual section studies

*past and present
how do you experience both?
what is the cross over and how does it happen?
parallels
locomotion
think about the doppler effect
what does that mean?
how is that expressed architecturally*

*an eternal spring of hope
discovery*

*what is the program of this museum?
a hermetically sealed box?
no, it is about discovery and realization
a catharsis
sense of the past
parallel tracks moving side by side
can we cross them and experience something
else
is that like being a voyeur?
seeing into someone else's life
projecting yourself into that state of being
maybe that's what this museum is
about....looking into and seeing something from
the past and wanting to live that life and actually
being able to do it
children do it...they see something on television
or in the world and suddenly they're living that
life.*

tracks converging and diverging



I remember watching things like gymnastics, ice skating, a movie.....and suddenly I could imagine living that life and it was real.

what happened?

we grow up and then it's as if we can't imagine like that anymore because we know better; know that we have much more at stake now.....it's a loss of innocence

is that what this museum is about?

recapturing within its walls the ability to pretend that you're in another life

is that too weird? is this getting too "warm and fuzzy"

no, it's about the death of a dream and the rebirth of it as we rediscover it

this museum is about rediscovery of the past and of self

therefore, the organization should not linear as this implies one foot in front of another and that you can see the end of the path from where you stand

it is about parallel worlds happening and suddenly you discover where you can cross over and see the other.

What is the memory of the past particular to this site?

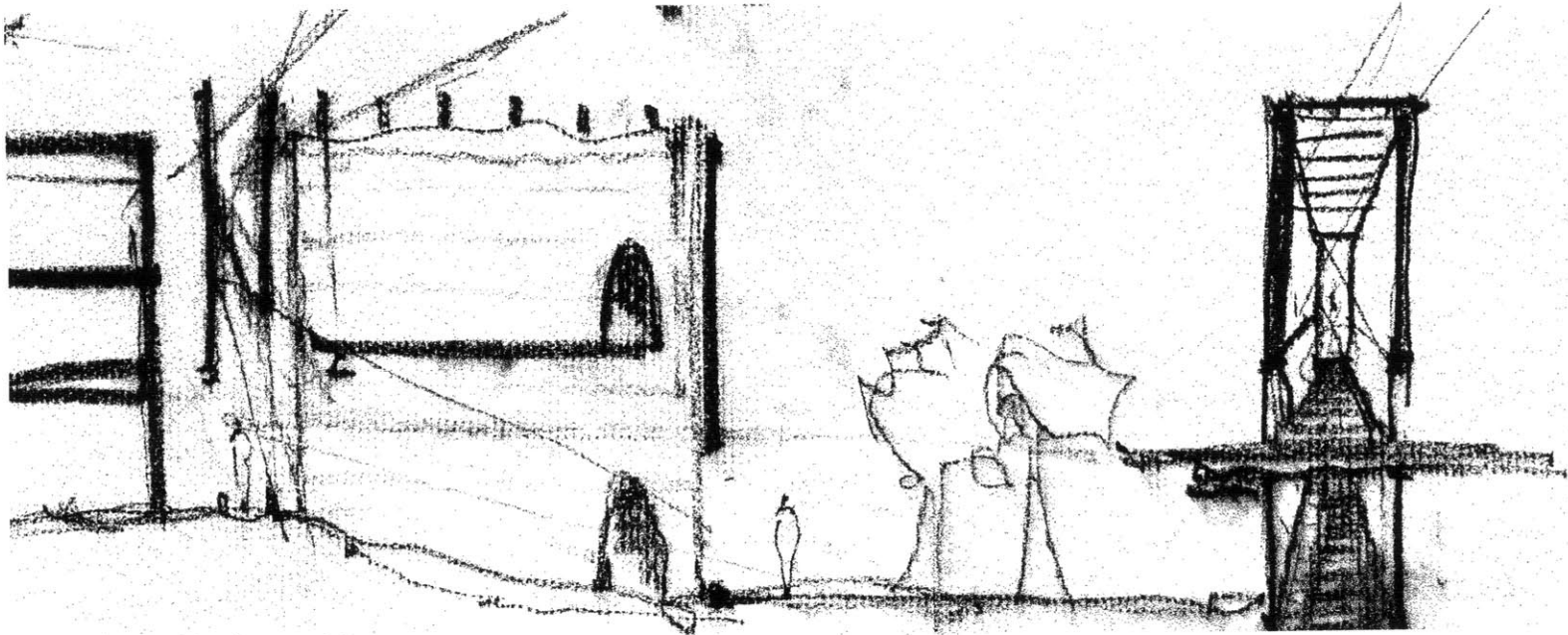
twin tracks crossing through and around the city railroad tracks converging to a single one and then diverging again

*connections between places
past and present coexisting momentarily
peeling away to reveal layers of the past
the memory is expressed by rails floating above
establishing the datum
this contrasts with the heaviness of the new....the
walls that are similar to the parallel run of tracks
in that they too are parallel and one must cross
through them
different layers of the meaning of parallel
there are the tracks that are composed of parallel
rails which are then crossed by the cross ties that
are also parallel
there are the tracks that run parallel routes
through the city
the walls are composed of parallel planes that are
filled in
the walls are crossed perpendicularly by parallel
paths that one takes into and out of the museum*

*what is the experience in the museum?
one moves under the ghost of the old tracks
through a thick wall to find an ethereal world
the light filters in from way above....northern
diffused light
the asphalt that was ripped up to reveal the past
results in rubble and gravel and earth
from here the museum grows
the walls have openings in them that aren't
necessarily in a dimensional order*

*the openings vary in width and distance
they frame views perpendicular to the tracks in
much the same way that the landscape is framed
by the window in a moving train and then the train
slows
offering glimpses to a world beyond....in this case
it is the present
while in the walls, one is aware of the past and
the present simultaneously
juxtaposition of the past and the present*

section sketches





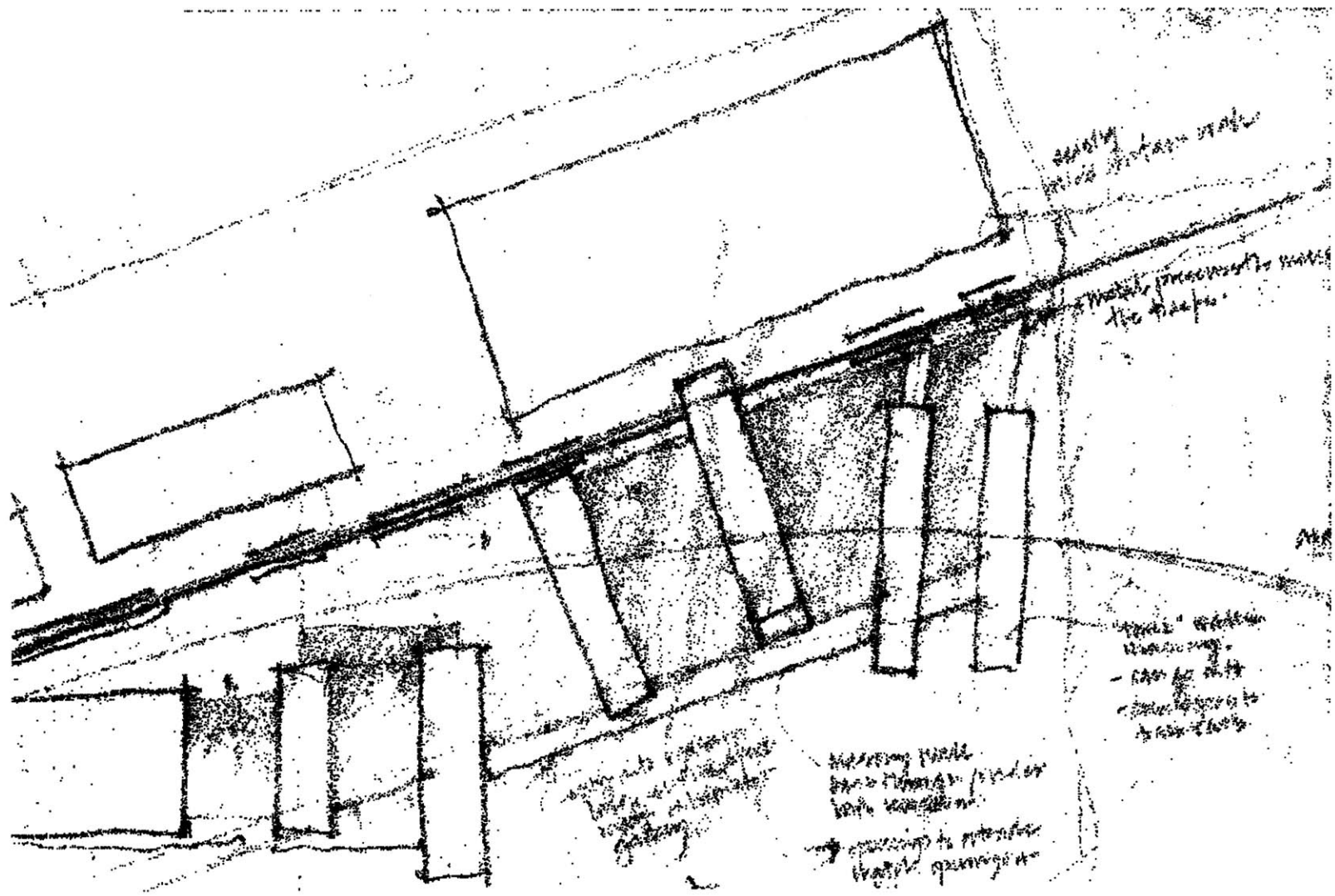
*train moving through the landscape
(Locomotives Illustrated, Jan/Feb 1994, p. 28).*

*I went on a train ride
the images it evoked and the way it made me feel
like a child again and time stood still
pulling out of the station
watching the still cars on a parallel track as we
moved faster and faster
catching glimpses of the world beyond seen
between the cars
windows to the world
and then I couldn't see between anymore
because we were going too fast
watching another train pulling away on another
track
first we were side and side and then they pulled
away and up
a sweeping arc
and then were none
just countryside
watching the trees pass by
looking far out into the landscape and not being
able to tell how fast we were going
looking at the vertical elements closer in and
understanding the speed of the train
the lulling rhythm of the trains wheels on the
tracks
slowing down to pull into a station and then
speeding up again
at night the experience is different and the same
the speed
the rhythm of the wheels*

*but this time I can see the lights from the houses
in the landscape
I can see people waving from the side of the
tracks
I can see the headlights of the cars lined up at a
railroad crossing
and then pulling into the station, I can't see the
columns as well
it's dark now and all I can feel is the the slowing
sound of the wheels as the train comes to a stop
an experience of the present
images of the past*

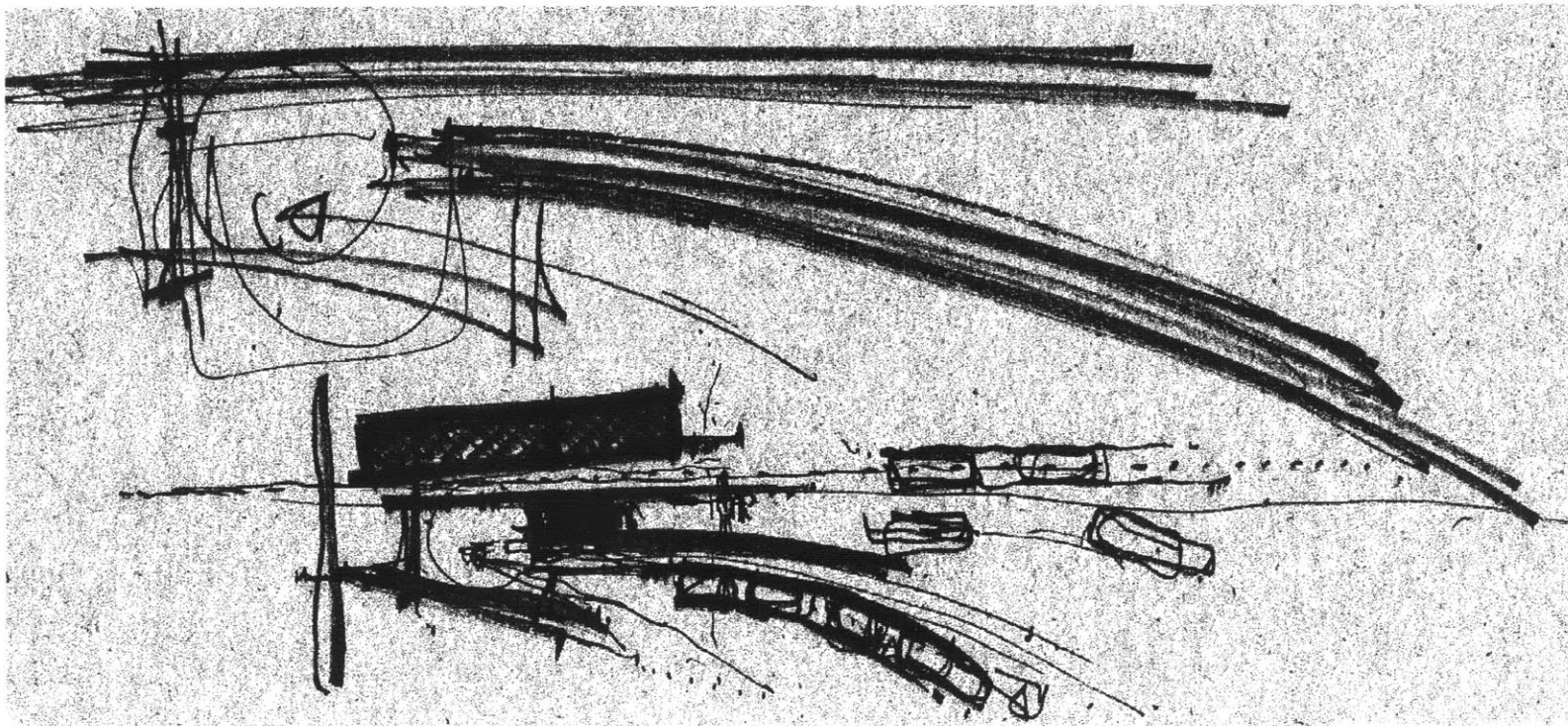
early conceptual sketch, 1.29.94

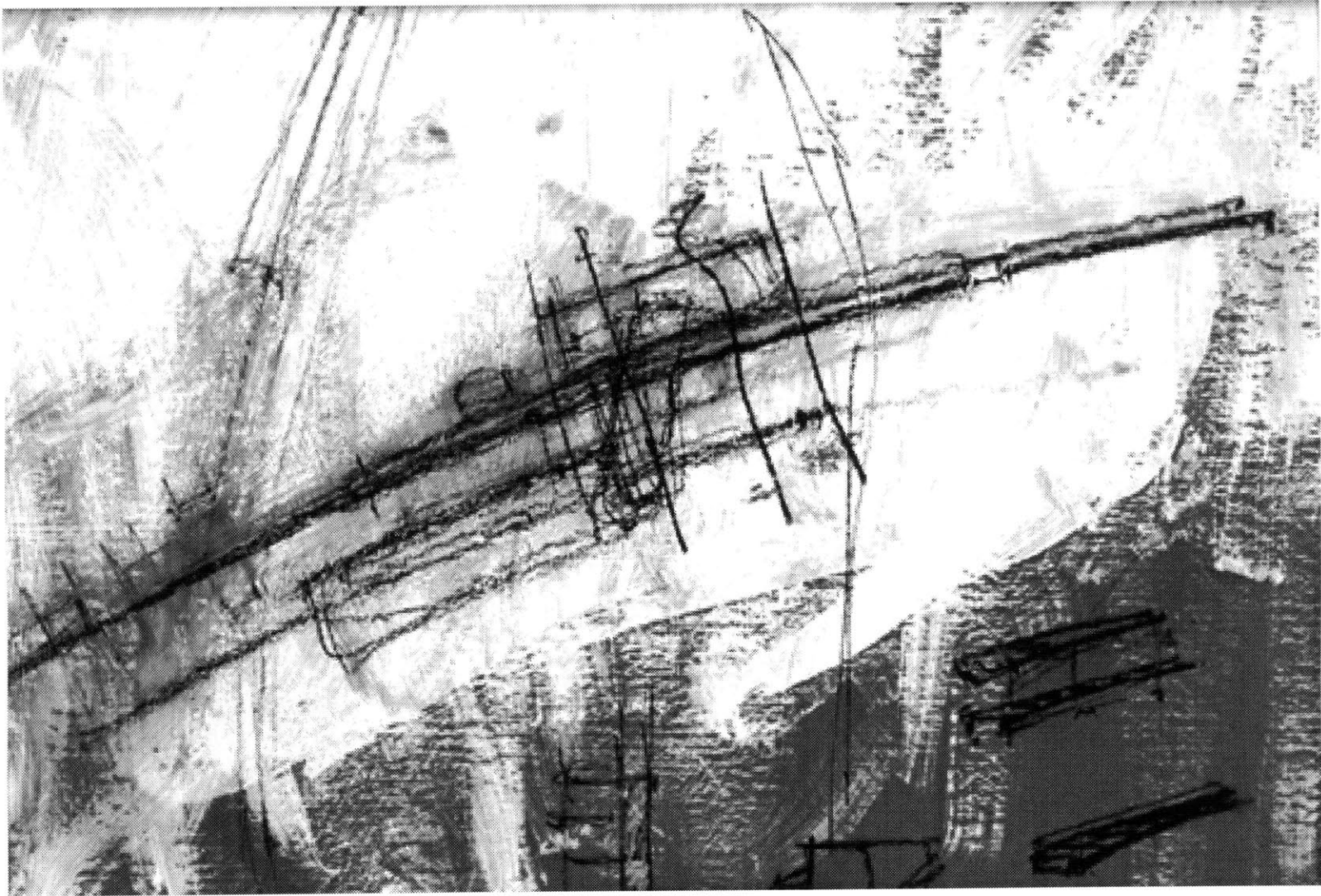




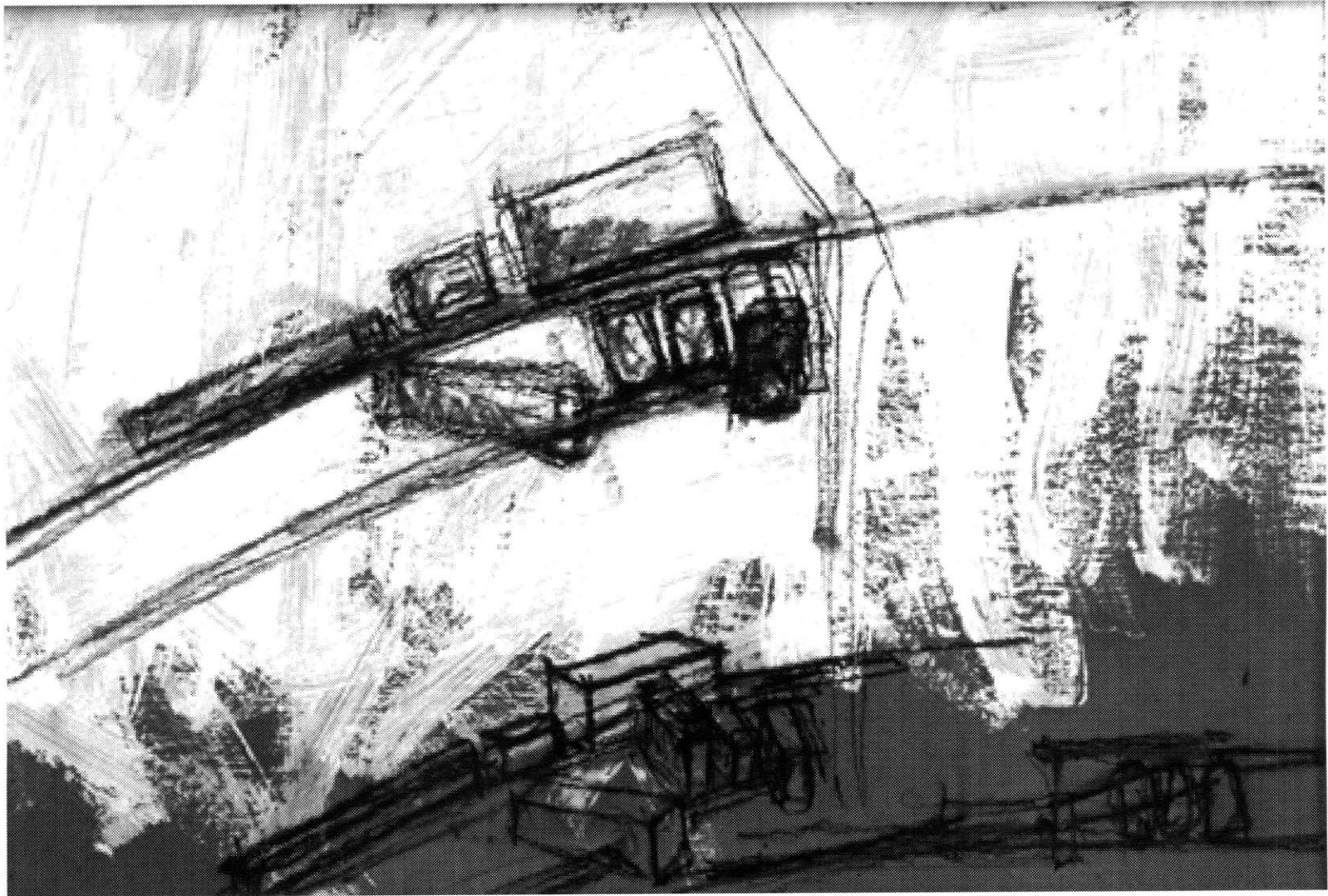
plan study, 2.94

peeling layers

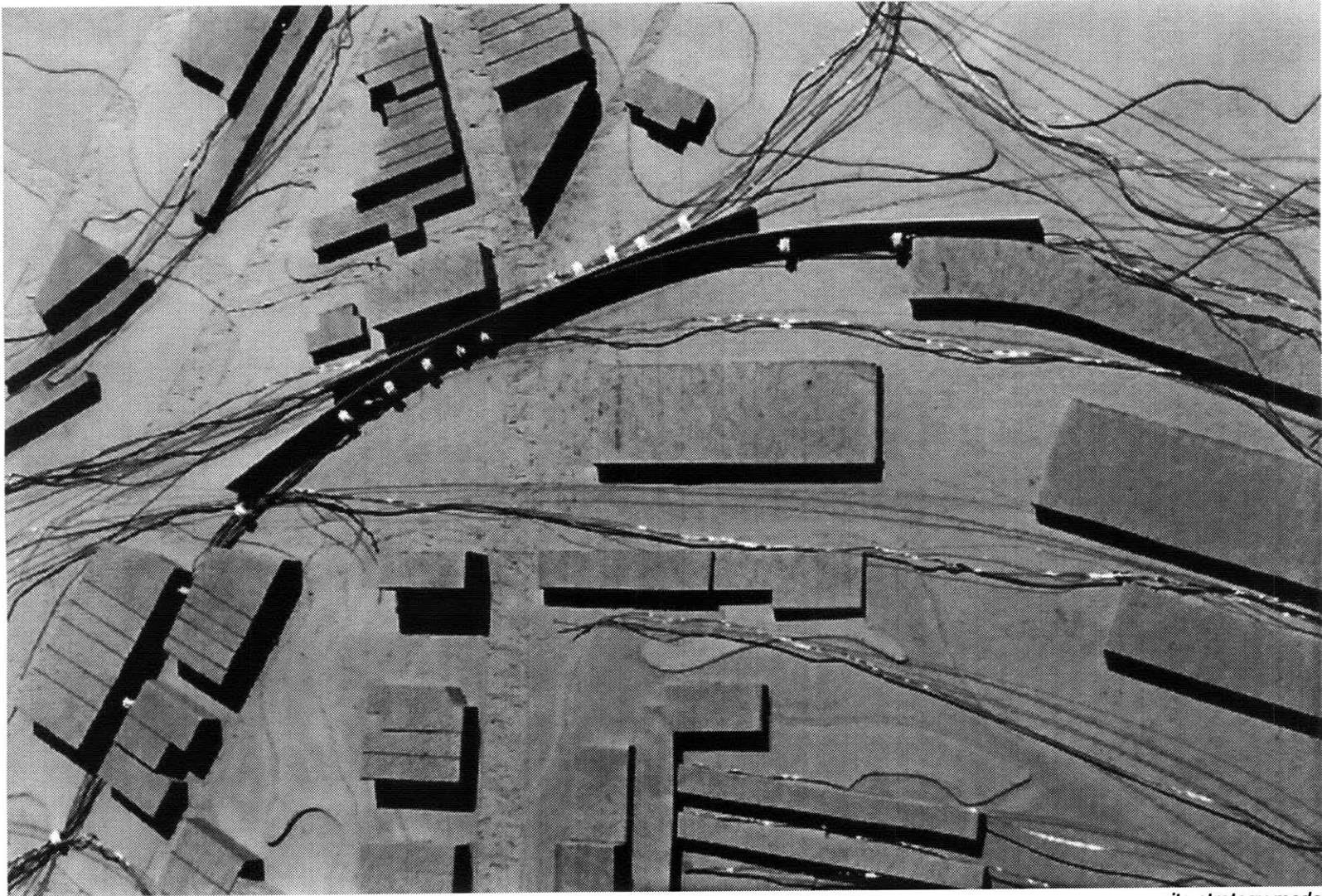




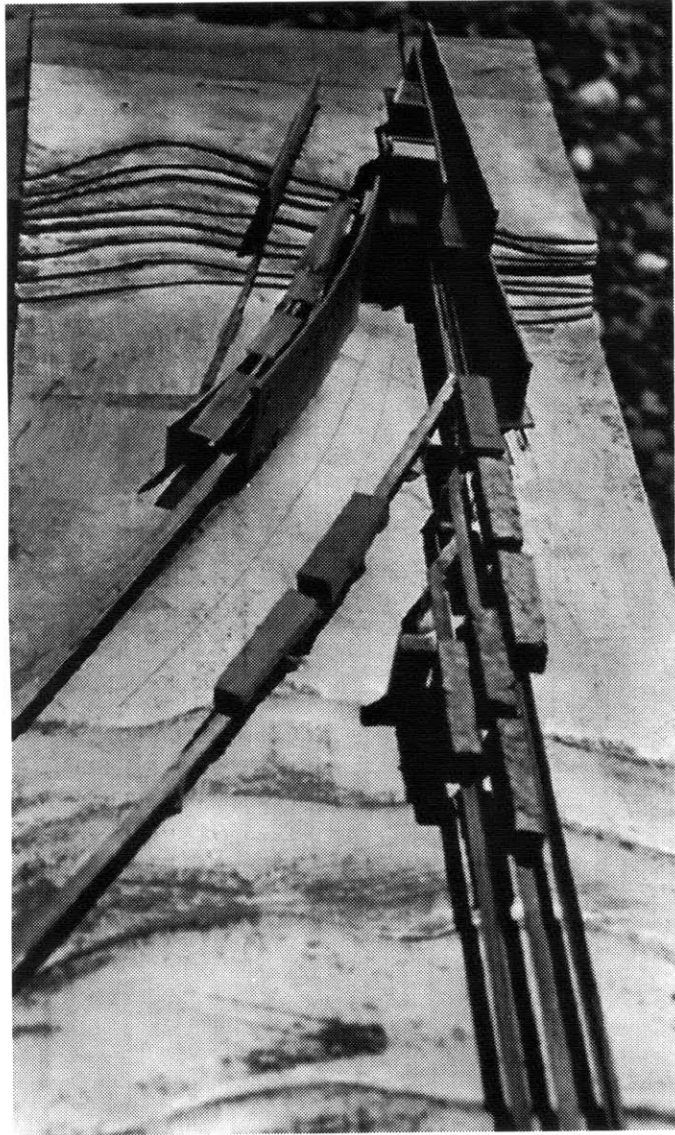
layer study



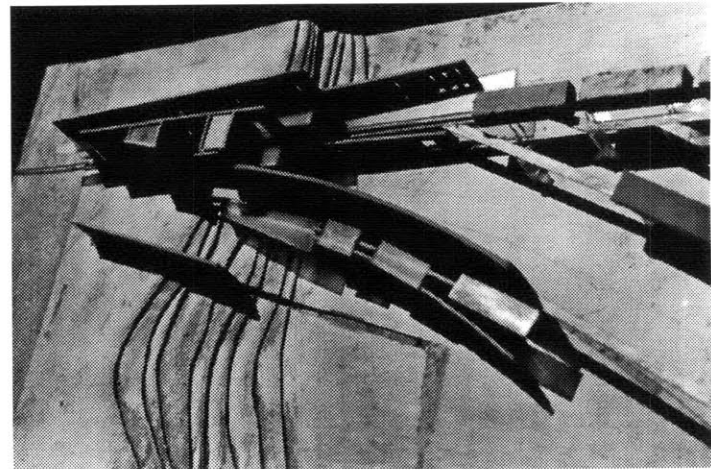
layer study

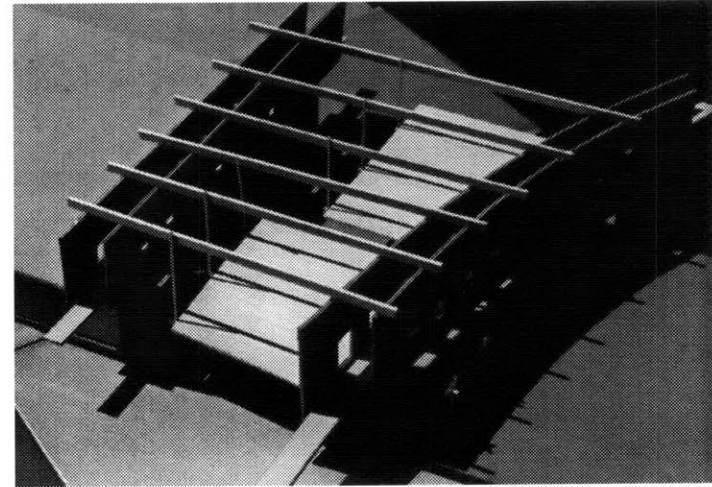
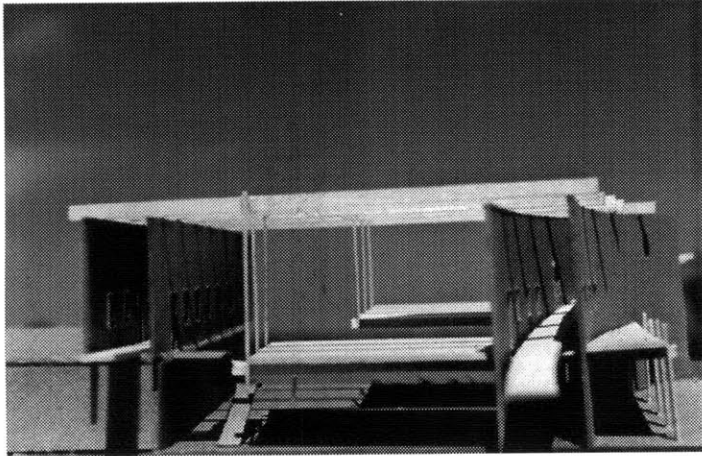


*site strategy model
the relationship of this design proposal to the memory of the rail*

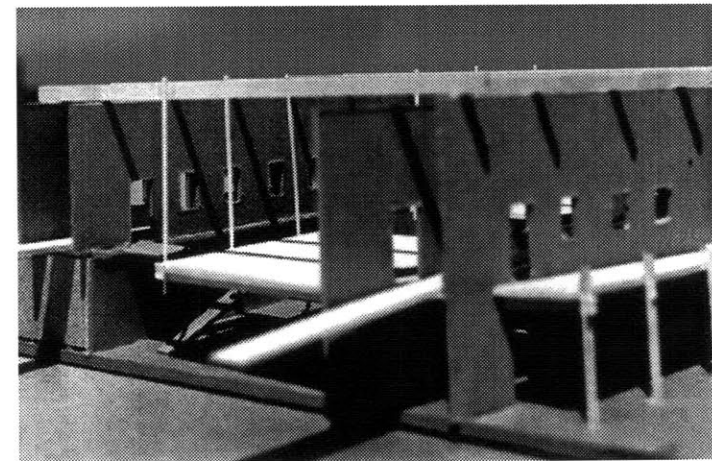


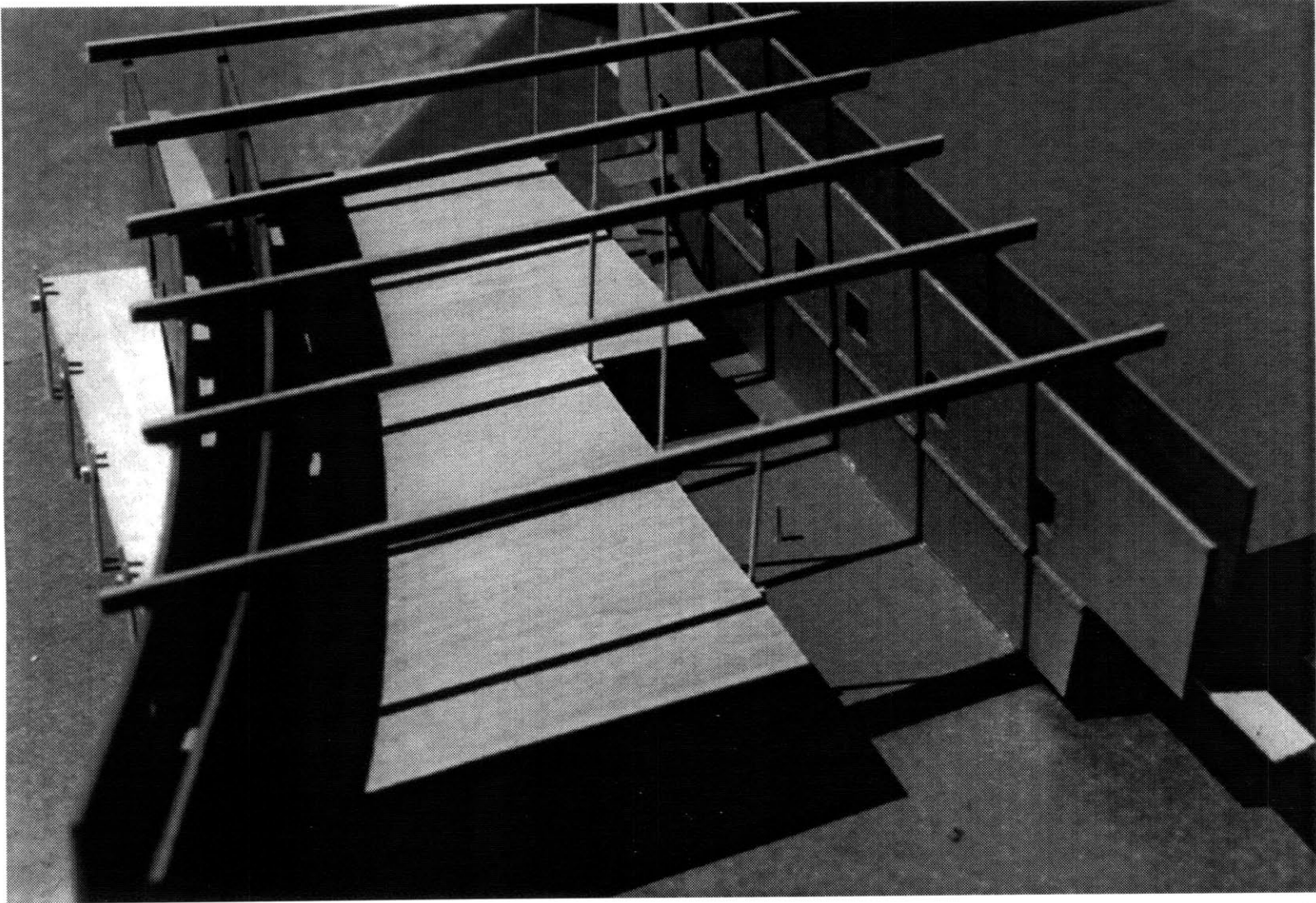
conceptual site strategy models



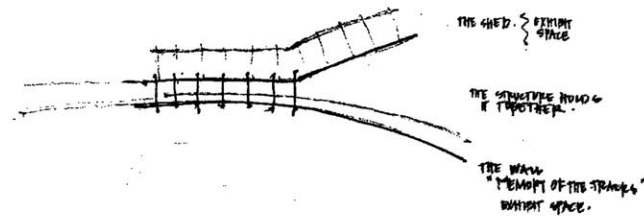
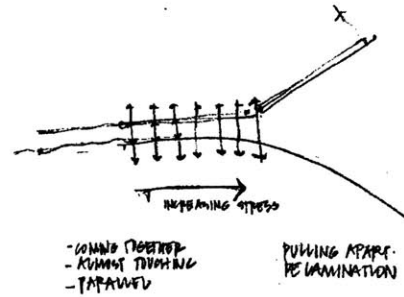


spatial configuration models

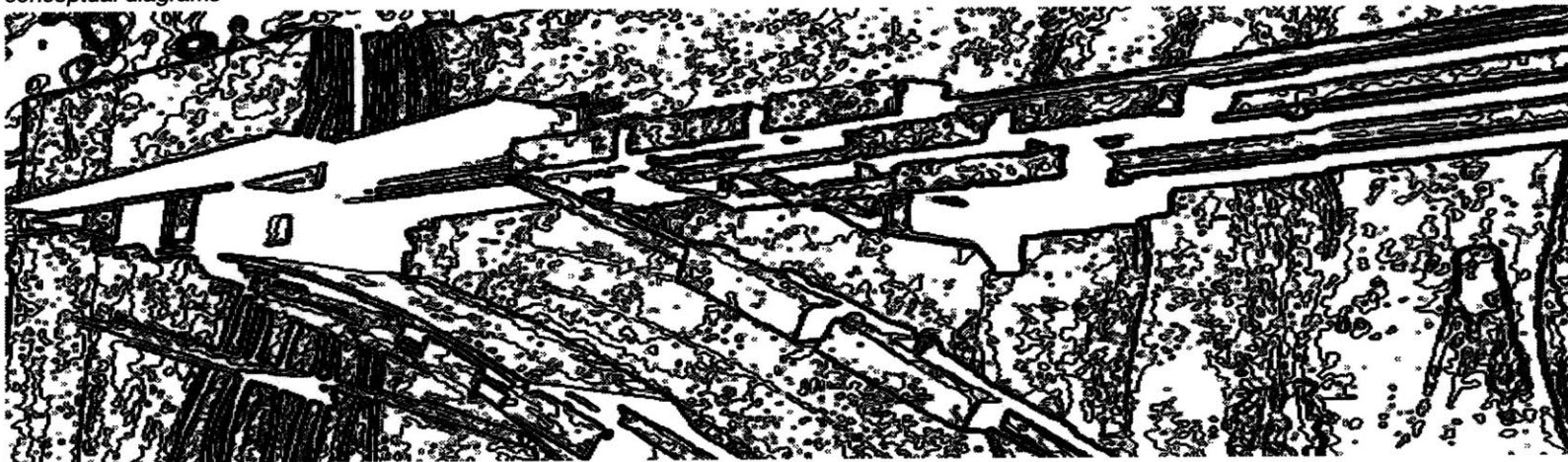


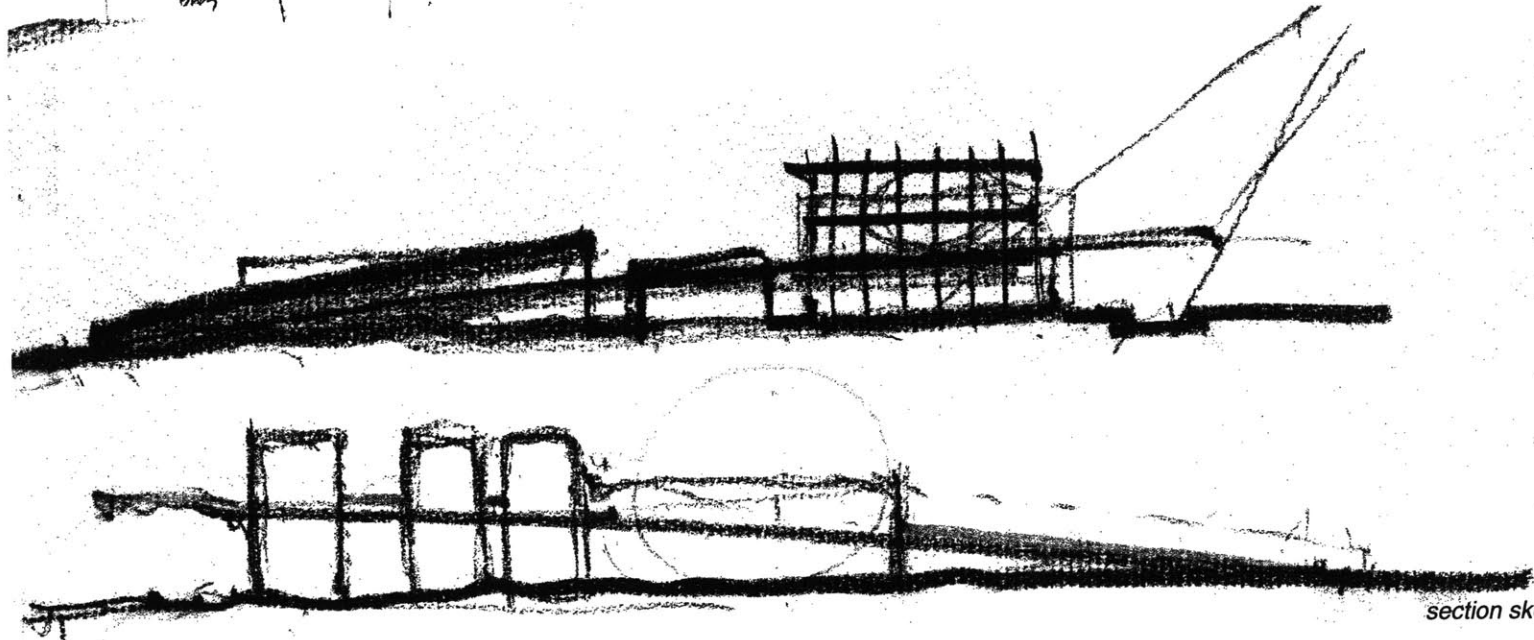
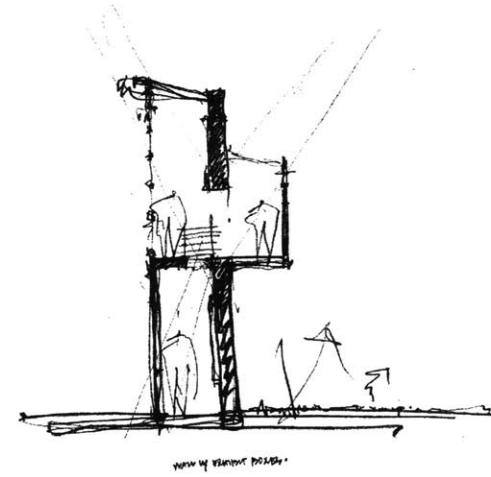
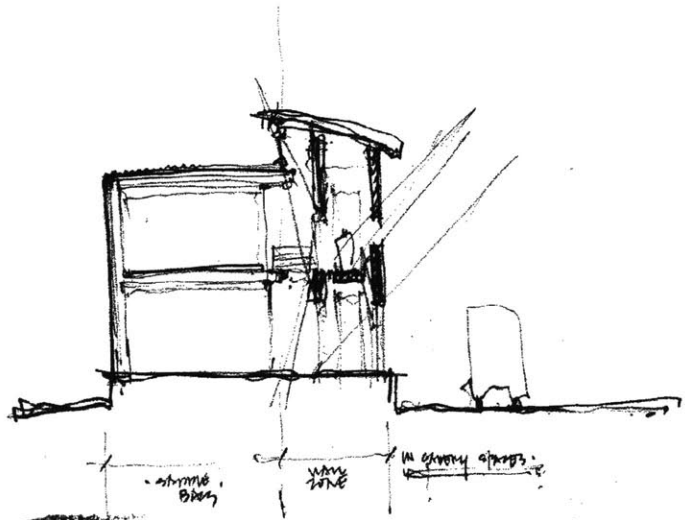


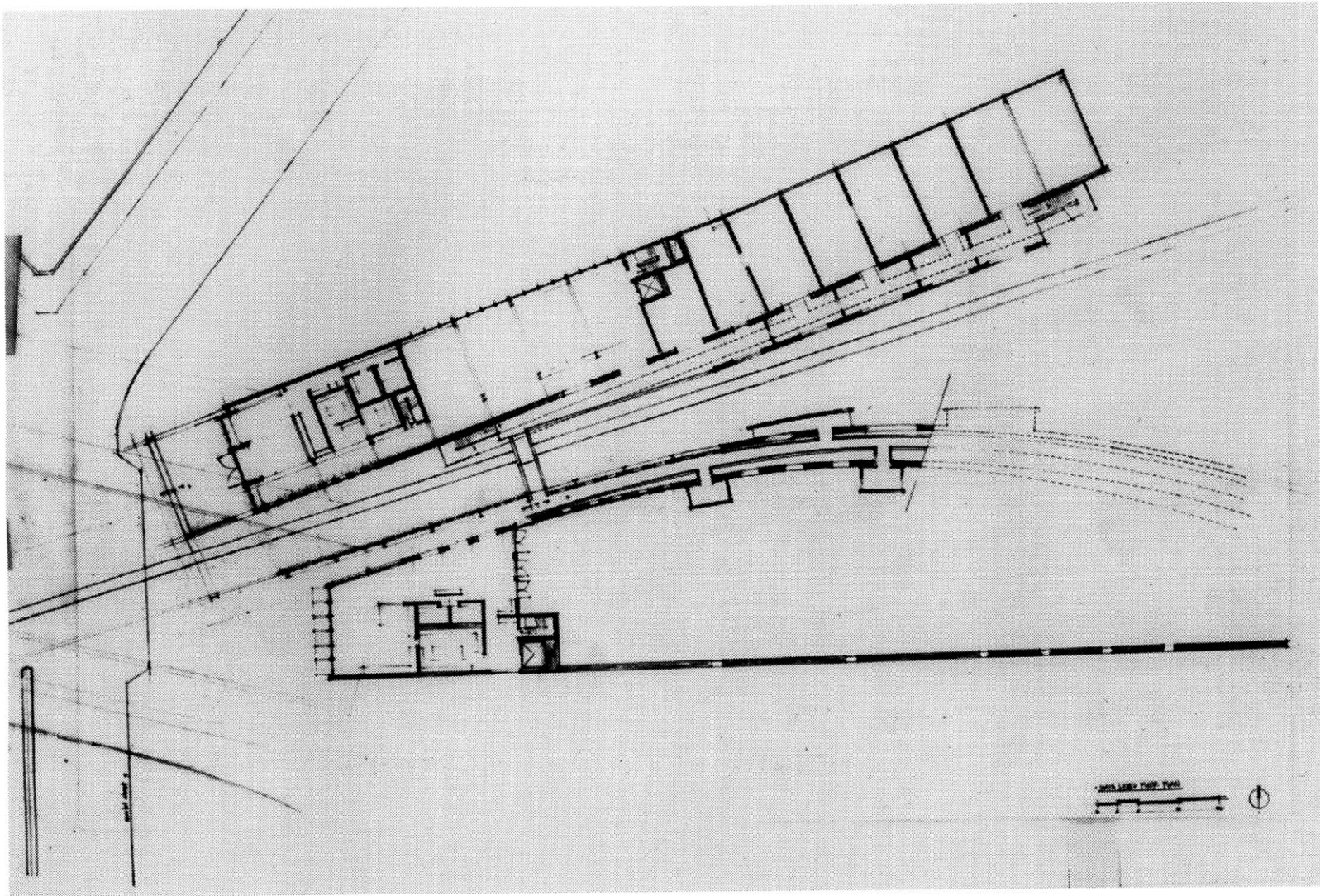
spatial configuration model



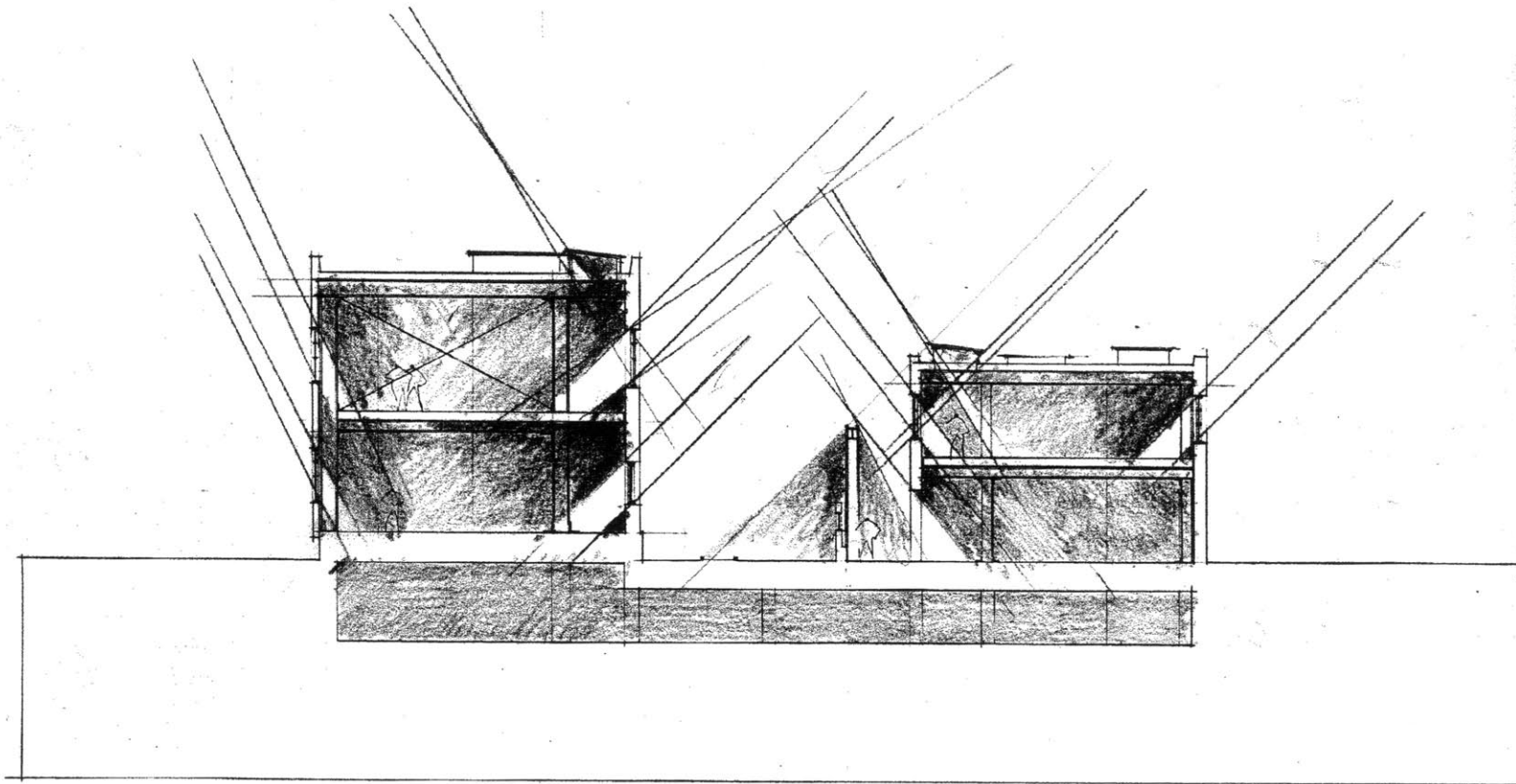
conceptual diagrams



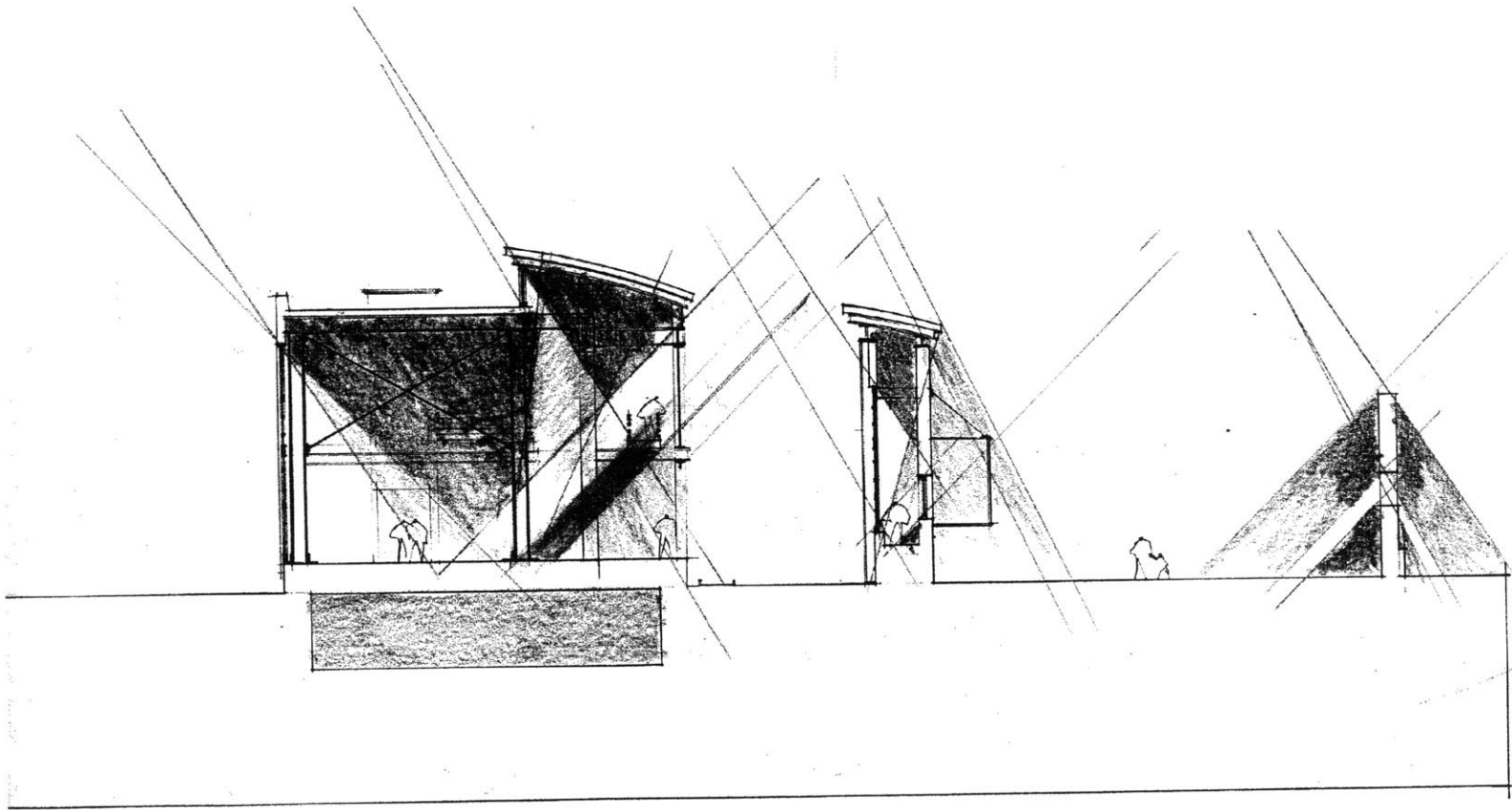




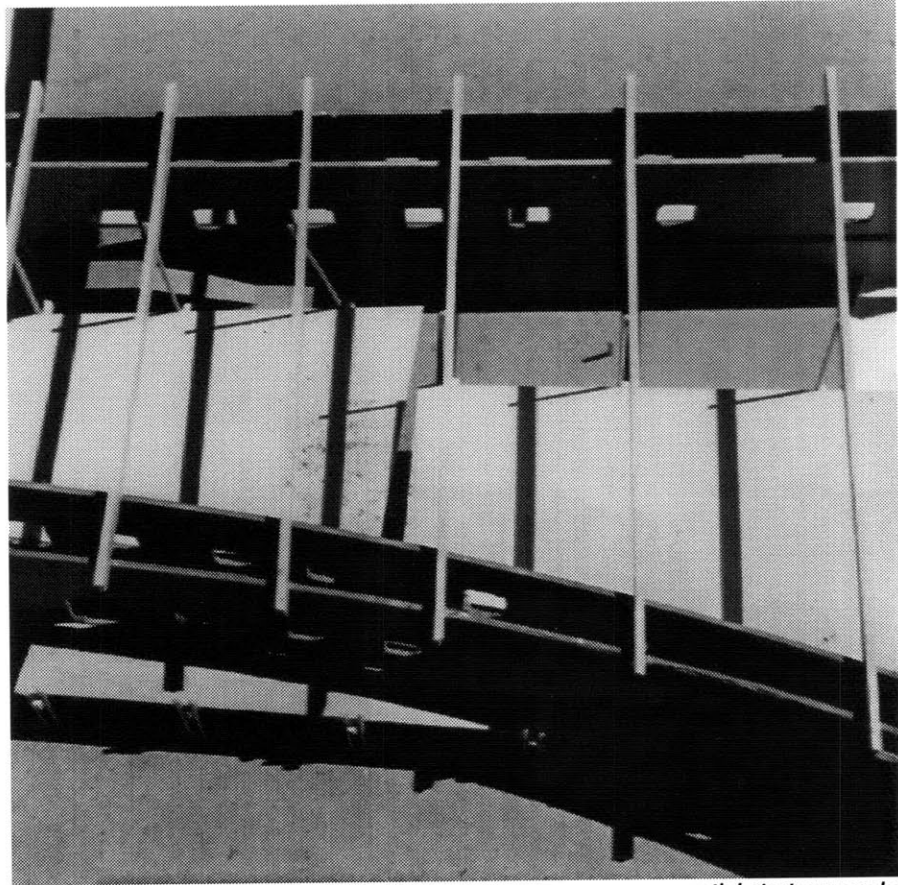
main level floor plan 1:60 4.6.94



section through the lobby and administration buildings 4.6.94



section through the gallery spaces 4.6.94



spatial strategy model

***this project is about parallel worlds that come together....
never quite touch....and then split apart again***



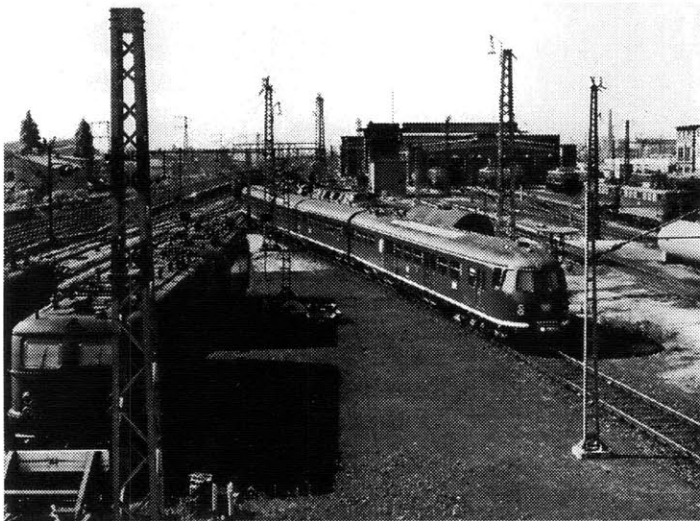
Thomas Hart Benton, *Instruments of Power*, 1930.
(*The Machine Age in America*, 1986, p. 228).

REFERENCES

Part One

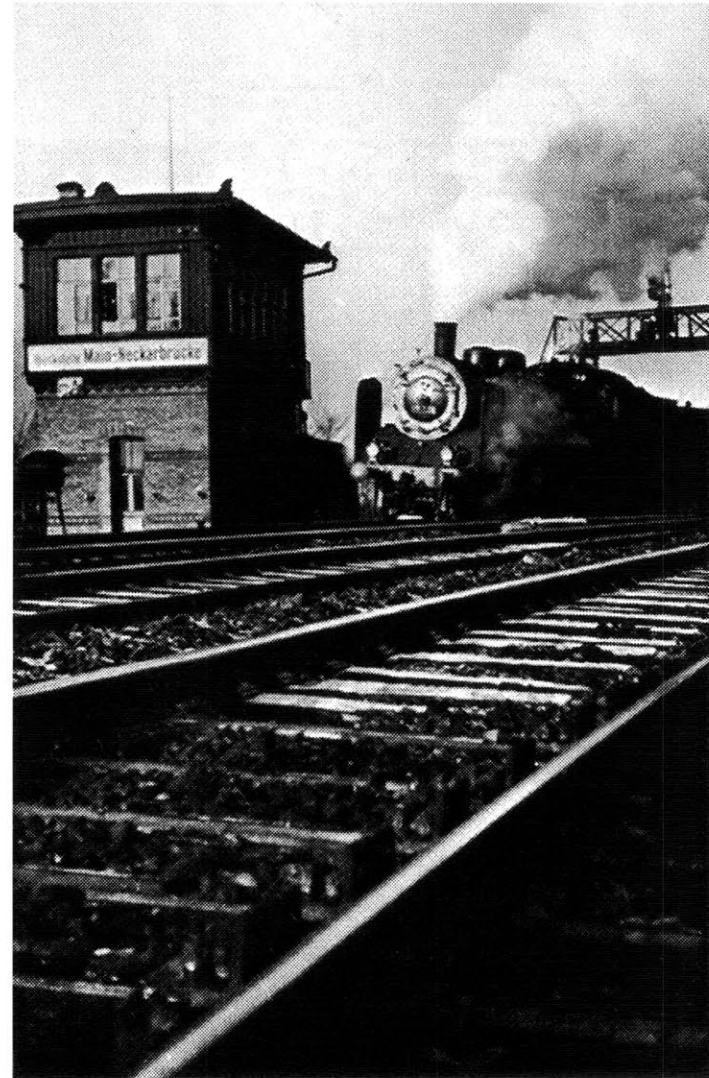
In order to pursue an exploration of a museum devoted to the railroad, it was necessary to develop an understanding of trains. Trains engage the senses of sight, sound, touch, and smell - the way it looks as it thunders down the tracks; the vibration of the ground as the train passes by; the feel of the cool metal beneath your fingertips; the smell of the diesel as it belches from the engine; the sound of the whistle as the train approaches and then leaves. It is this author's intention to articulate these experiences architecturally.

Initial moves in this investigation centered around looking at many images of trains in its different states. The train stretching across the expansive landscape is evocative of an emotion quite different from that of the train coming into a railroad yard. The perception of the landscape from the train changes as it comes to a stop and then speeds up again. The notion of harnessing the different experiences of trains and expressing that in a static form inherently lends itself to a dynamic relationship between the architecture and the experience. The following images coupled with the actual experience of a train ride helped begin this exploration.



*converging and diverging tracks
(Schomann, 1983, p. 195).*

converging and diverging tracks (Locomotives Illus., p. 22).



parallel tracks and the locomotive (Schomann, 1983, p. 159).

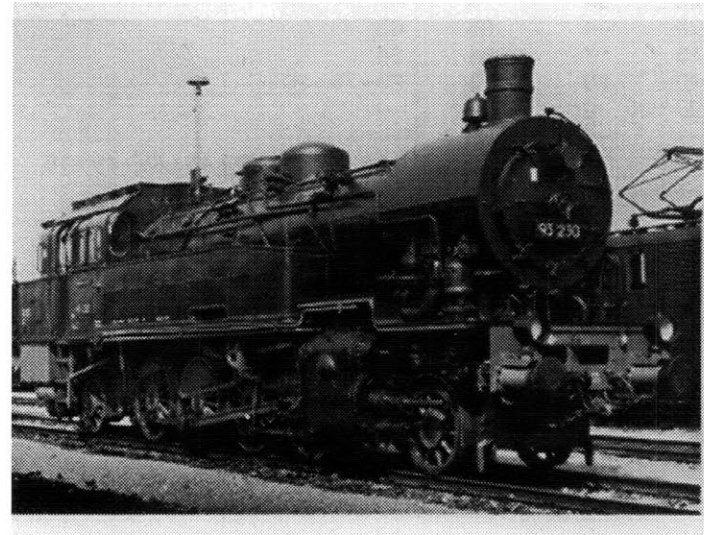


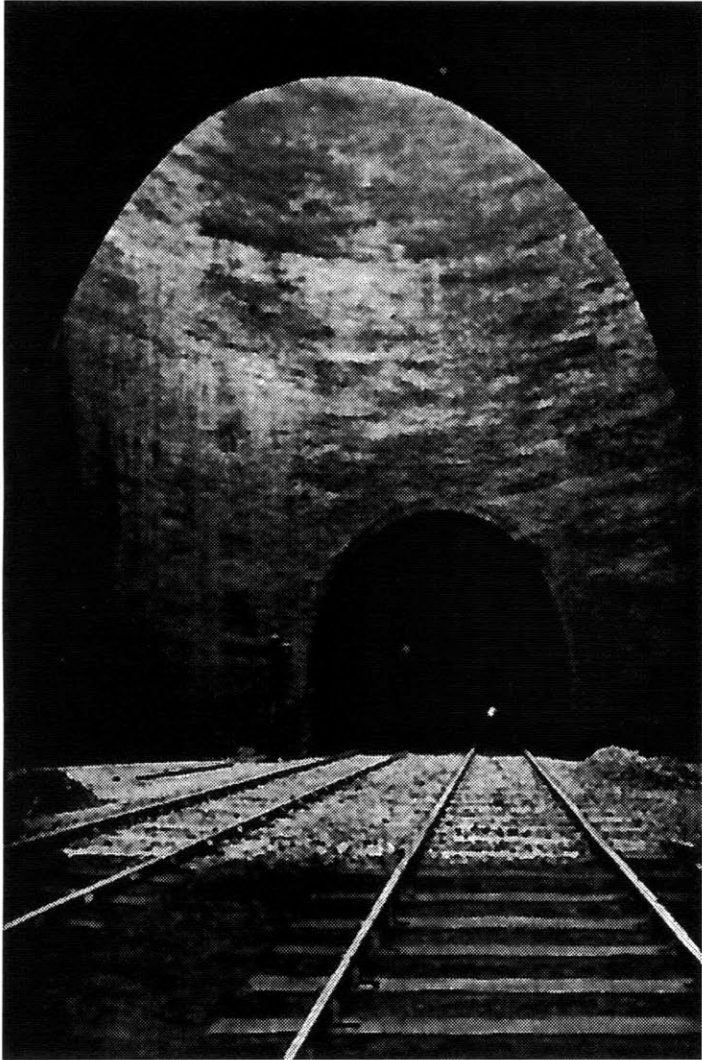
parallel tracks (Anderson and Fox, 1981, plate 471).

parallel tracks (Anderson and Fox, 1981, plate 445).



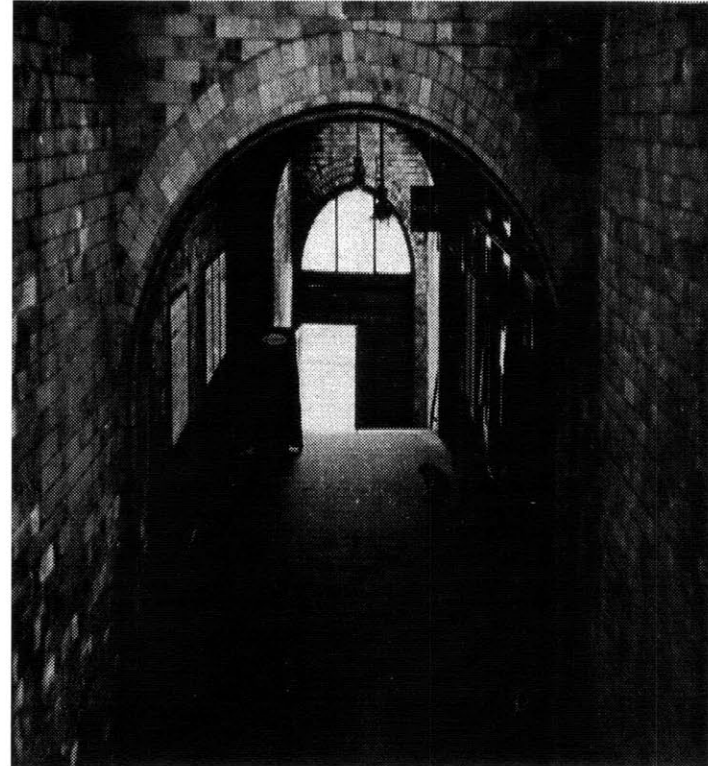
the locomotive (Schomann, 1983, p.197).

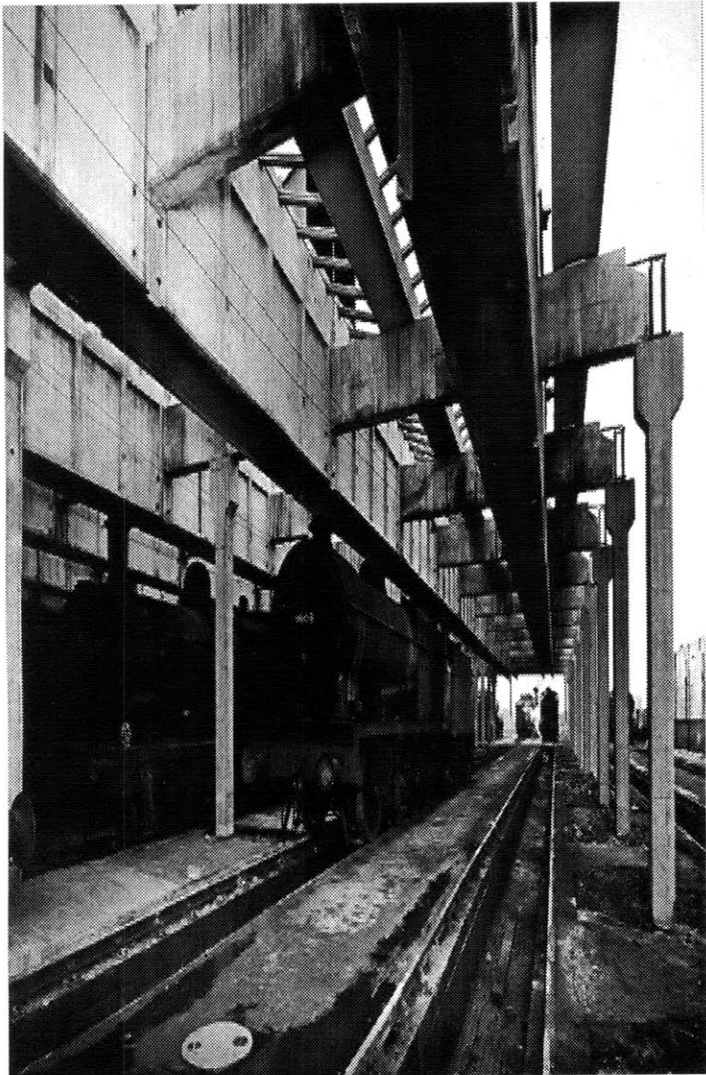




*transition of dark to light to dark
(Anderson and Fox, 1981, plate 492).*

dark to light going down (Anderson and Fox, 1981, plate 236).





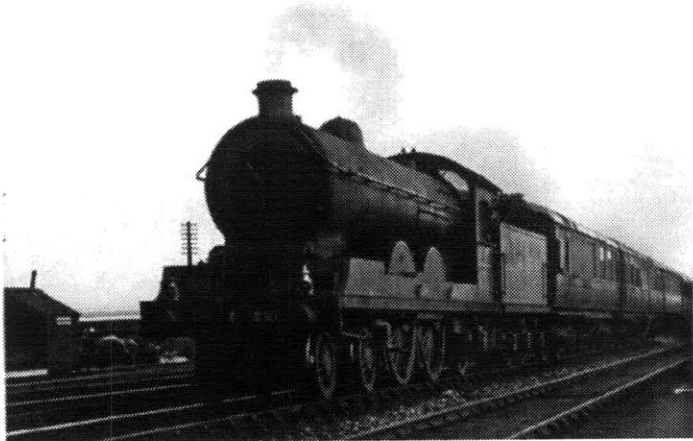
*rhythm of columns, parallel tracks, and moving trains
(Anderson and Fox, 1981, plate 679).*



*converging and diverging tracks coming into a shed
(Anderson and Fox, 1981, plate 214).*

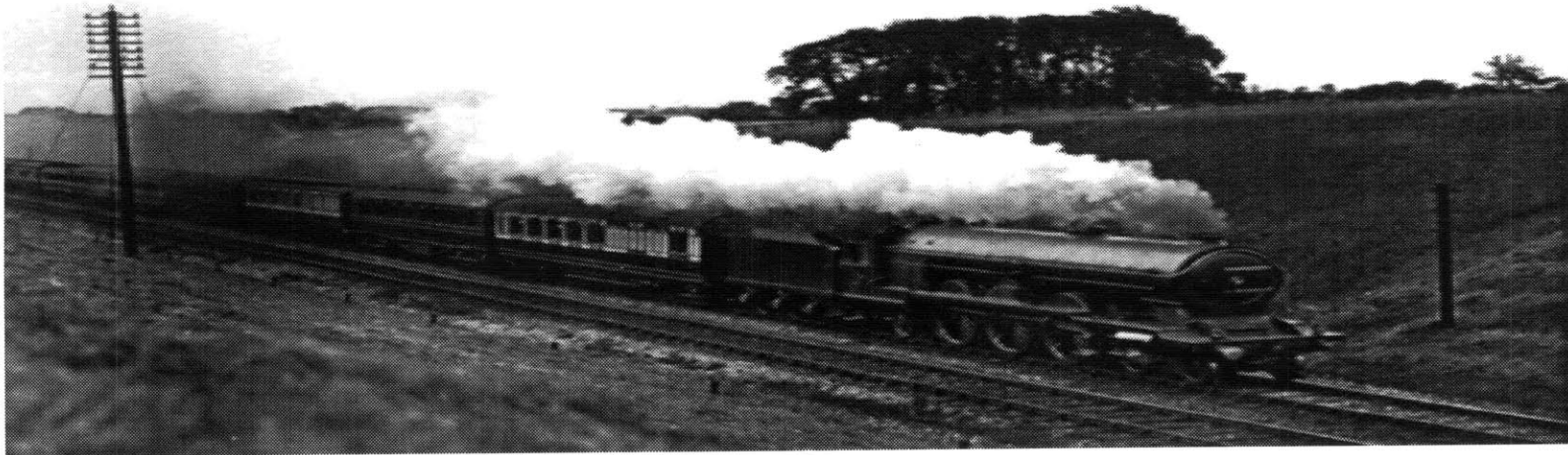
relationship of train to the platform (Locomotives Illus., p. 44).





locomotive with parallel tracks (Locomotives Illus., p. 21).

the train in the landscape (Locomotives Illus., p. 28).

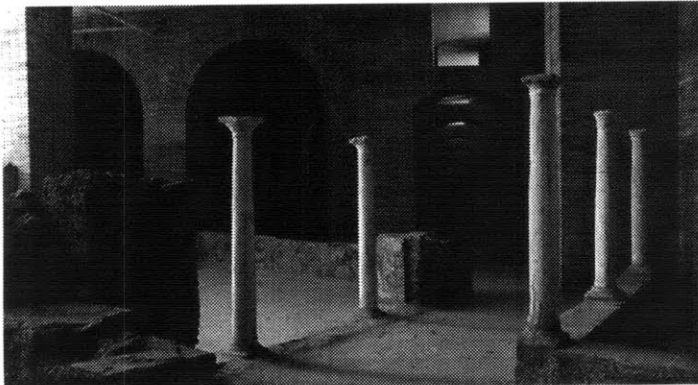


Part Two

It was also integral to this exploration that there be careful study of pre-existing museums. It is this author's contention that there be an established discourse between the architectonic form of the museum and its contents. There is a certain looseness in the typology of a museum and, while this thesis does not attempt to redefine museums specifically, it does look at examples of museums where the architect was successful (or not) in metaphysically linking the architecture to the objects and the site.

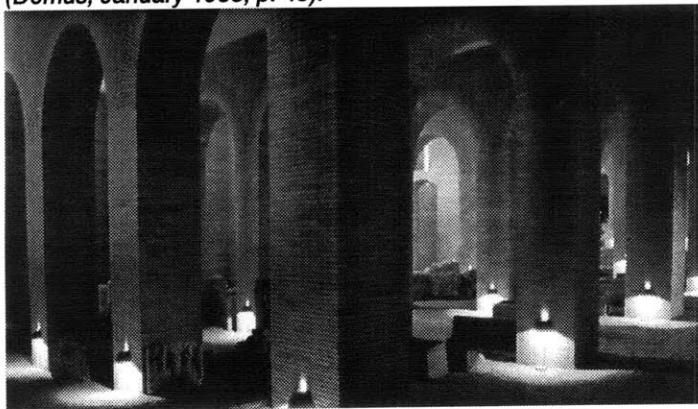


Museum of Roman Art, Moneo (Domus, January 1988, p. 55).

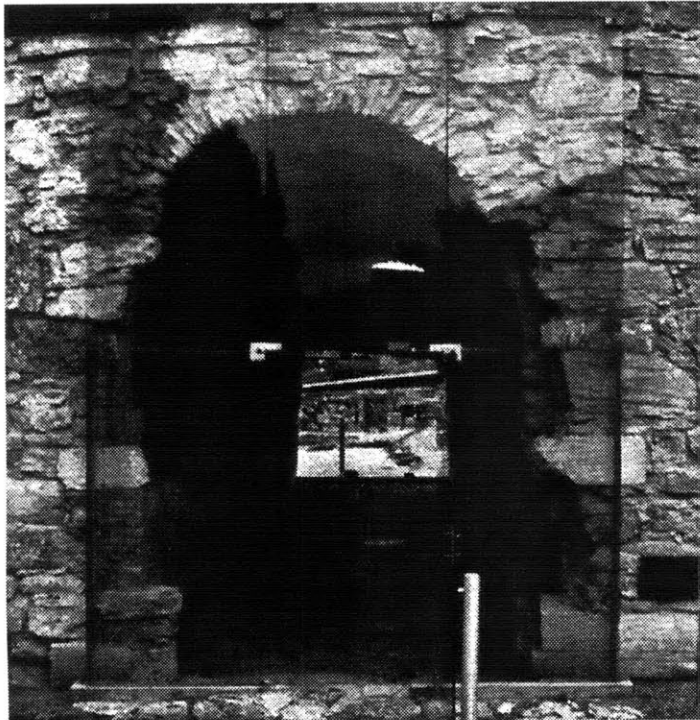


*Basement view of Museum of Roman Art
(Domus, January 1988, p. 48).*

*Building upon the past, Museum of Roman Art
(Domus, January 1988, p. 48).*

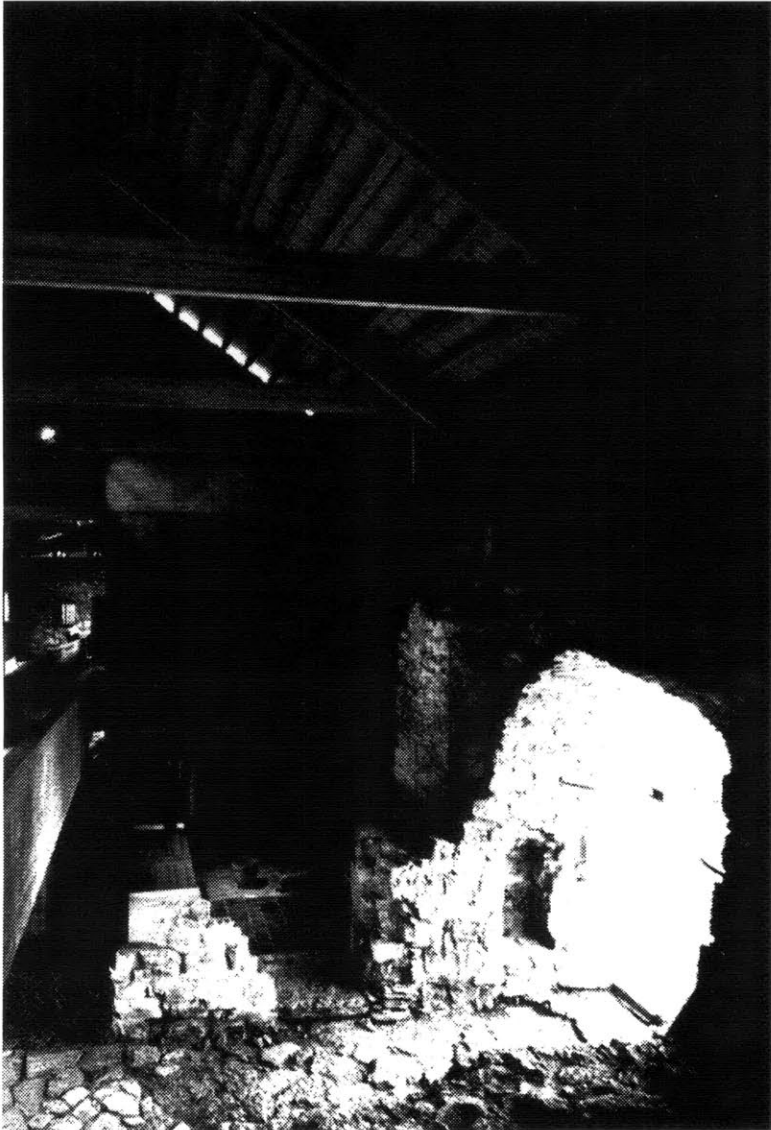


The Museum of Roman Art in Merida, Spain is exemplary of the kind of relationship between building, object, and site that this thesis strives to achieve. Moneo's use of materials and the method of construction are evocative of the ruins upon which this museum is built. The past and the present experience co-exist and reveal each other as one moves through the exhibits. Moneo addresses the past through a modern interpretation of the Roman brick that is typical of the surrounding architecture. *The building offers varying spatial experiences of moving through the heavy, load bearing, masonry walls; of moving between these walls; and of moving down below the street level to discover the ruins from which this museum grows.*



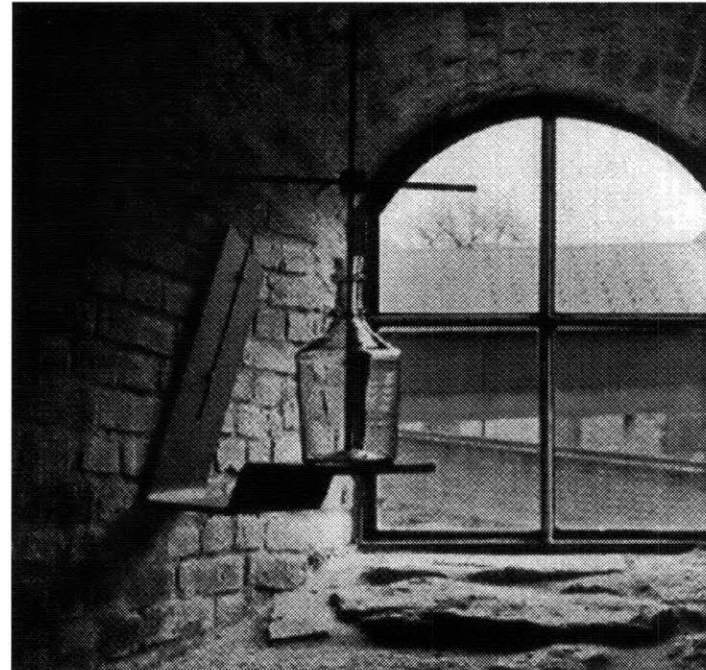
*glass door reveals the past, Hamar Bispegaard Museum
(Progressive Architecture, February 1994, p. 53).*

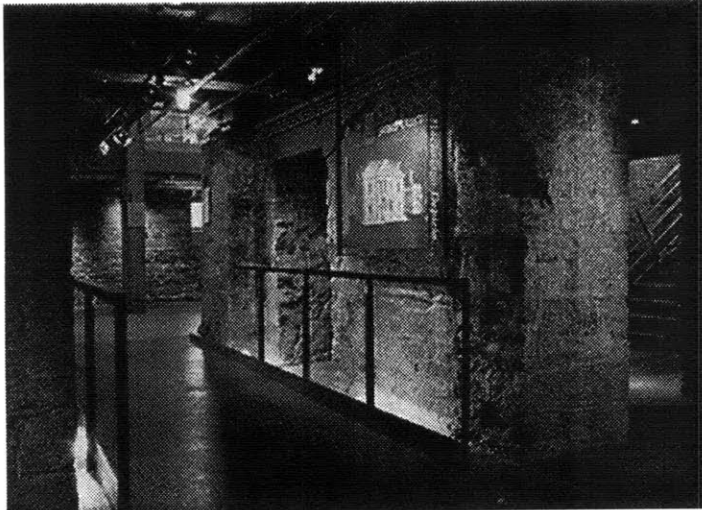
The Hamar Bispegaard Museum in Hamar, Norway is another example of an architecture that achieves a dynamic relationship between the artifacts, site and building. Similar to the Museum of Roman Art, this museum is built directly on ruins. Fehn's choice of a concrete and laminated wood structure serves as counterpoint to the existing stone walls and allows the archaeology to stand on its own. The circulation is designed so that the individual moves via a ramp suspended over the ruins into the building. Inside the museum, Fehn designed a gallery that crosses over dig sites; circulation through this gallery is marked by concrete cells that house some of the artifacts. The architect's understanding of the past and the present is evident in the thoughtful articulation of the circulation through and within the ruins; and through the method of construction. *The present experience brings the past back to life.*



*gallery over dig sites
(Progressive Architecture, February 1994, p. 52).*

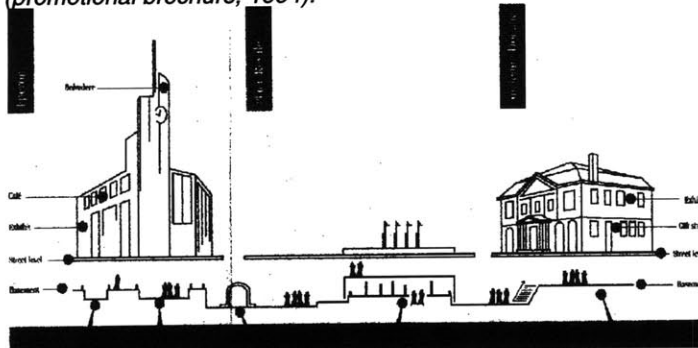
*building with the artifacts...display for ancient bottle
(Progressive Architecture, February 1994, p. 53).*



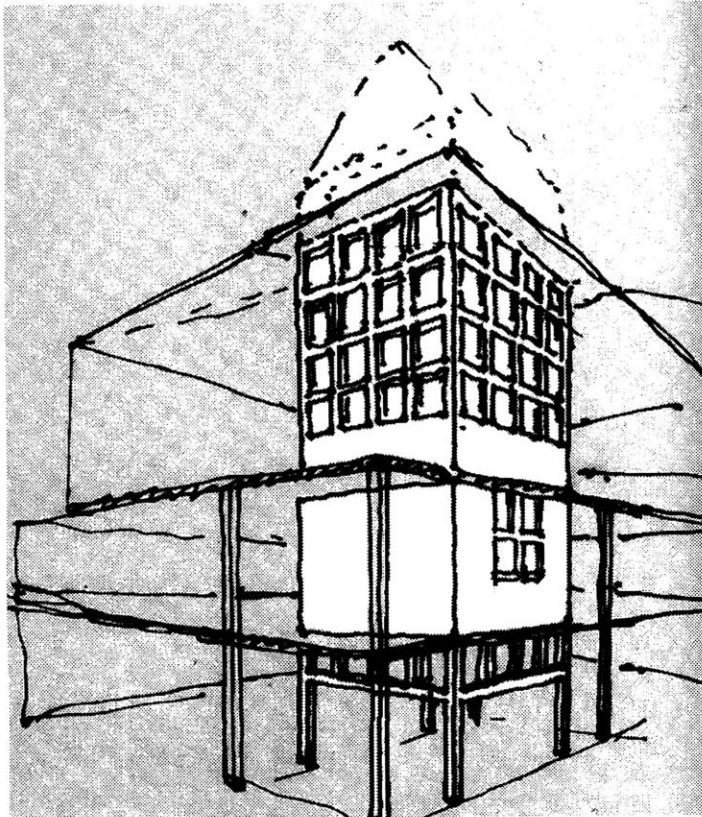


*relationship of old to new...past to present
(Architecture, November 1993, p. 76).*

*diagram showing circulation sequence under the street
connection between the buildings, references the street
(promotional brochure, 1994).*



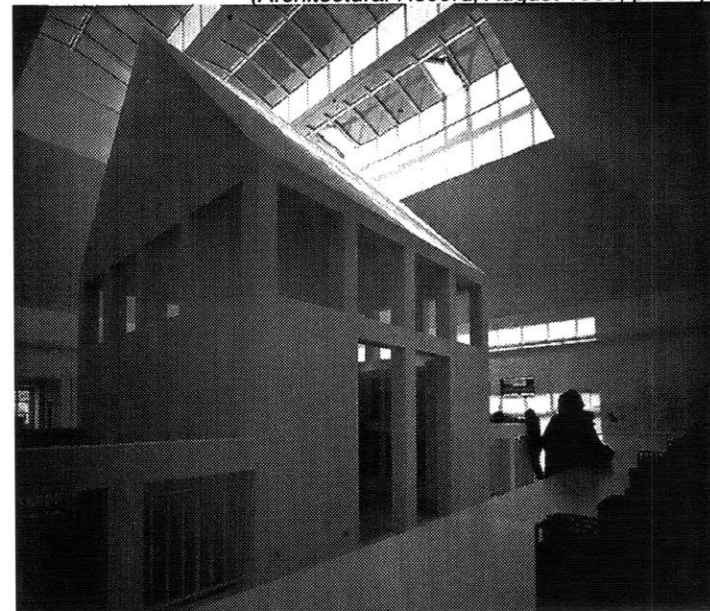
The Pointe a Calliere Museum in Montreal, Canada is an archaeological museum that is successful in simultaneously addressing the past and the present. This building is different from the previous two in that it is actually an addition onto an existing building, which sits across the street. The architect designed an underground connection between the new and the old building. When one arrives at the museum, this connection is not immediately apparent. The circulation is designed so that one moves down into the ruins of the old city. The connection to the street is established underground with one narrow opening in the ceiling. It is at this point that the individual is referred back to the street level and the placement of the crypt above suddenly makes sense. The movement through this museum is about discovery. *The point of discovery when one understands the relationship to the street and the connection of past to present is one of the points that this thesis endeavors to achieve.*



*an example of self-referentialism...an example of what not to do
(Architecture, September 1985, p.104).*

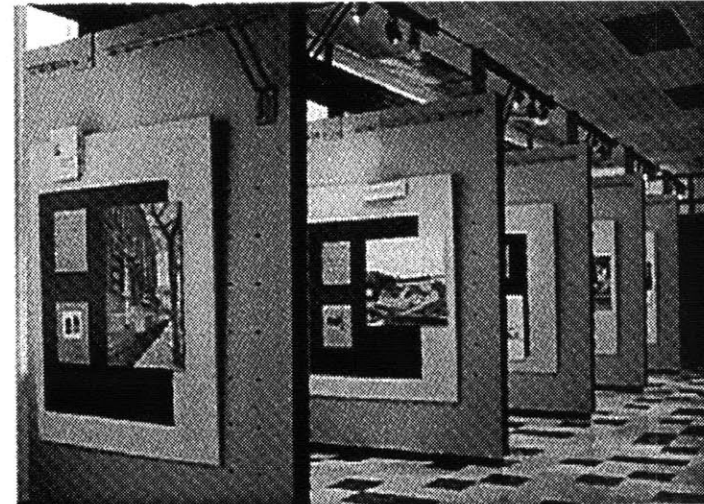
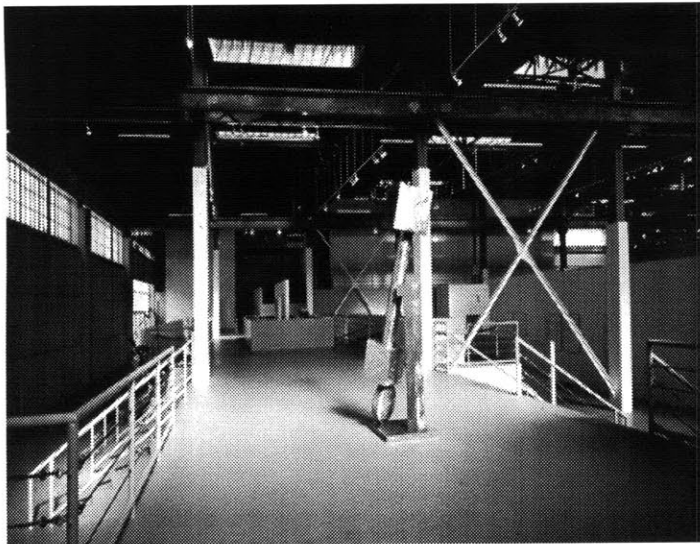
The Museum of Architecture in Frankfurt, Germany is less successful in establishing any sort of discourse between the building and its contents. The main exhibit, the primitive hut which sits at the center of the museum, subsumes the building itself. The circulation constantly refers back to this exhibit, resulting in an architecture that is self-referential. The objects within the museum walls dominate and define the architecture.

*The house within the house
(Architectural Record, August 1985, p. 106).*

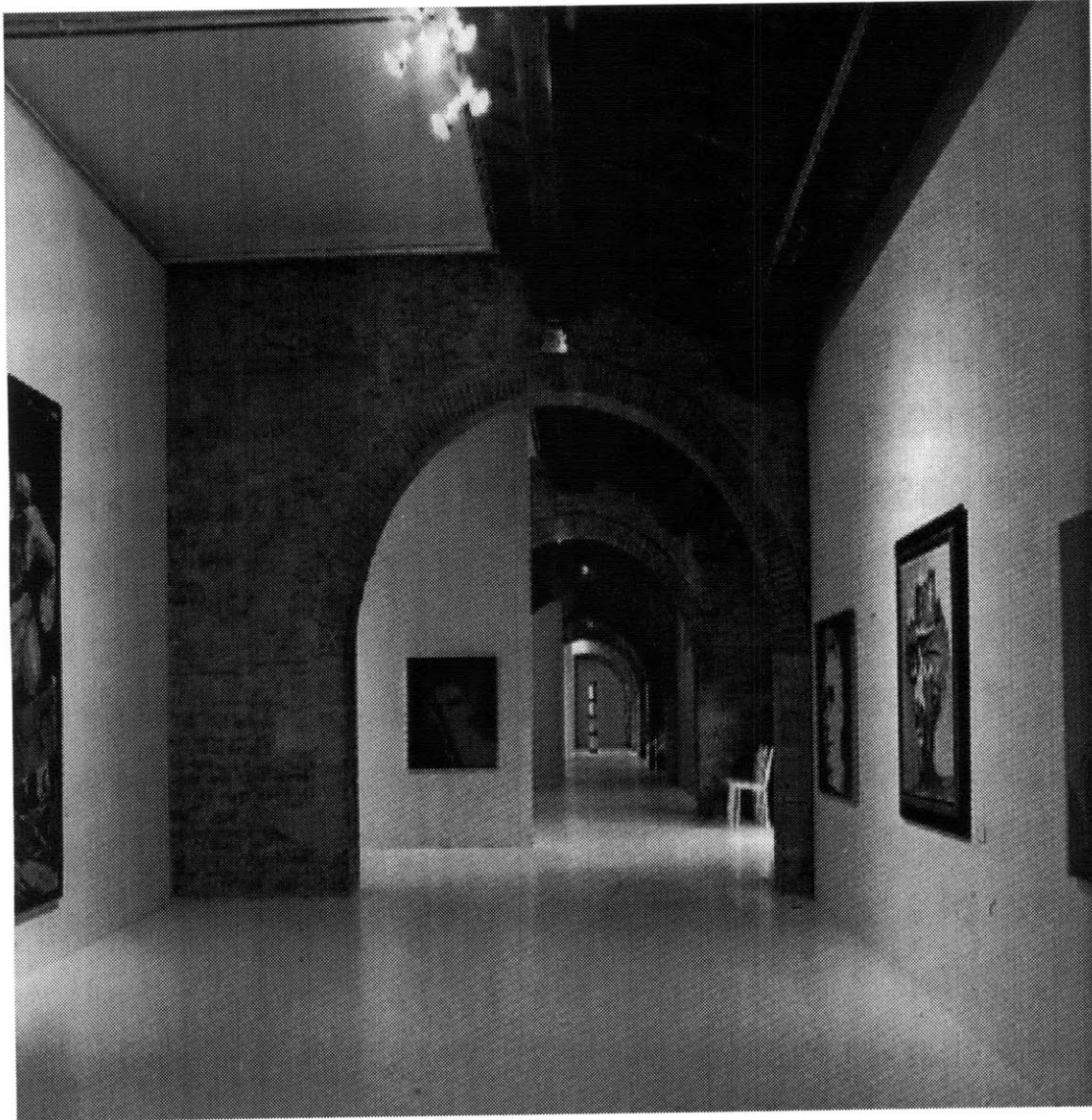


The following images of gallery spaces were used as visual references in this exploration.

*the warehouse as gallery space
Temporary Contemporary, Los Angeles
(Montaner, p. 109).*



*ways to define gallery space, Rotunda Gallery, NYC
(Architecture, November, 1993, p. 81).*

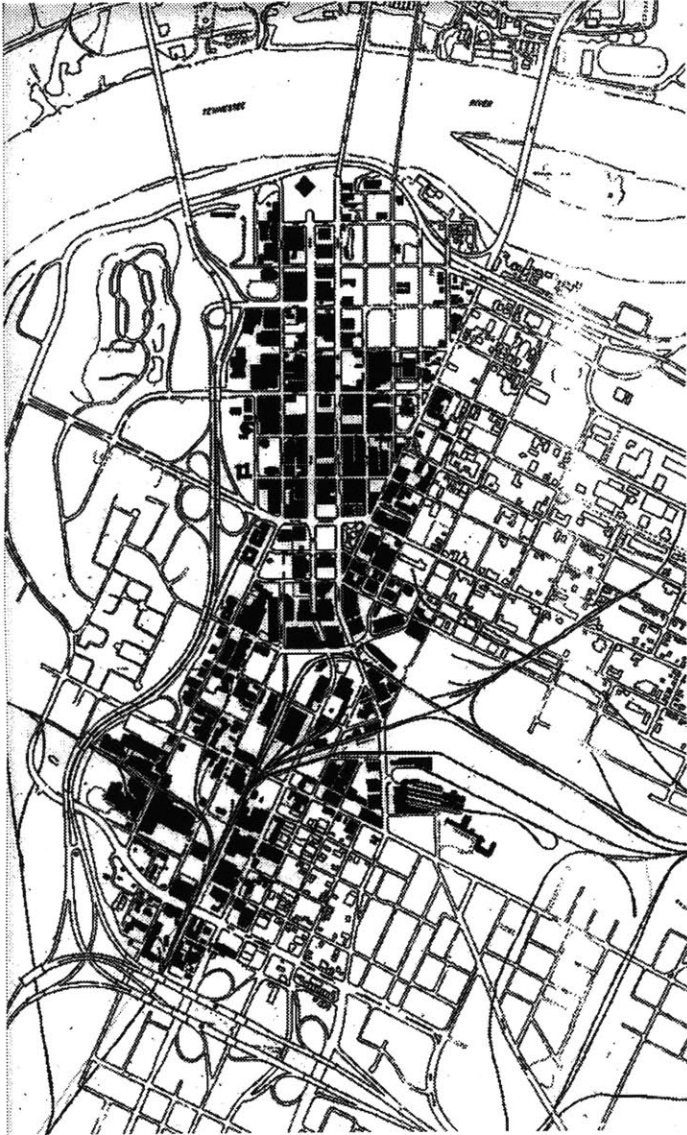


moving through walls
(Montaner, p. 27).

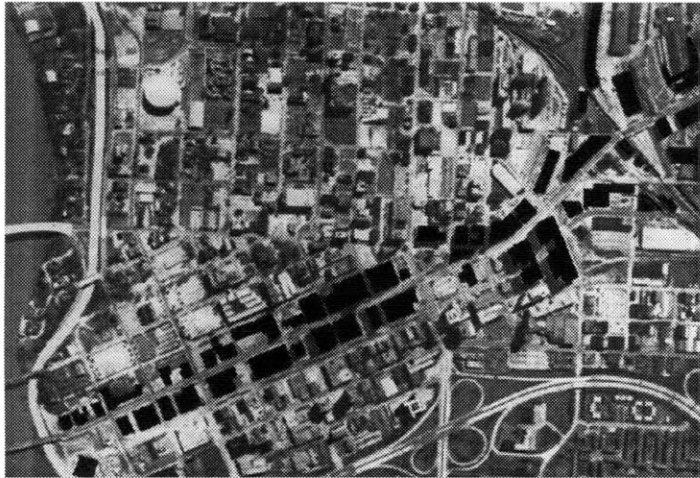


*defining the shed space for exhibits
(Montaner, p. 27).*

THE SITE

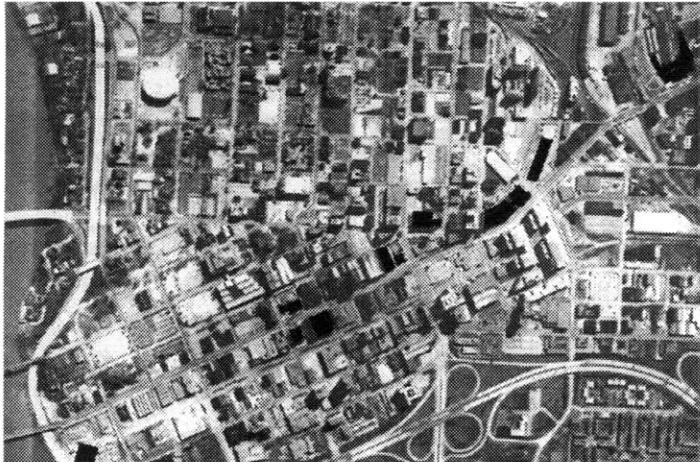


Figure/Ground study of downtown Chattanooga



Site Map showing density of Market Street

Site Map showing the organization of public buildings / spaces



Part One

Chattanooga, Tennessee developed as a result of, first, river, and then rail travel. The river served as a major thoroughfare that connected the city to many of the other neighboring cities on the water. The city's location and the increasing presence of the railroad prompted early settlers to incorporate rail lines into Chattanooga's travel network. By the 1880s, Chattanooga had become one of the most strategically located railroad junctions in the Southeast.

The Market and Main Street District, an eight block commercial and industrial area, located in the downtown, was developed largely as a result of the railroad. Most of the buildings in the district were built or altered to accommodate passengers and workers of the railroad, or to store, manufacture, or sell products from other parts of the country. The urban diagram around Market Street, the spine of the downtown, is tightly organized around a single bay size and rigorous setbacks. The building type is similar to a row house with firewalls separating one building from its neighbor; openings exist only at the front and the back. The cross streets to Market Street define fairly regular blocks and set a rhythm in the north-south direction. The nexus of the rail lines, immediately adjacent to the downtown, does not follow any such rigor. In fact, the urban diagram

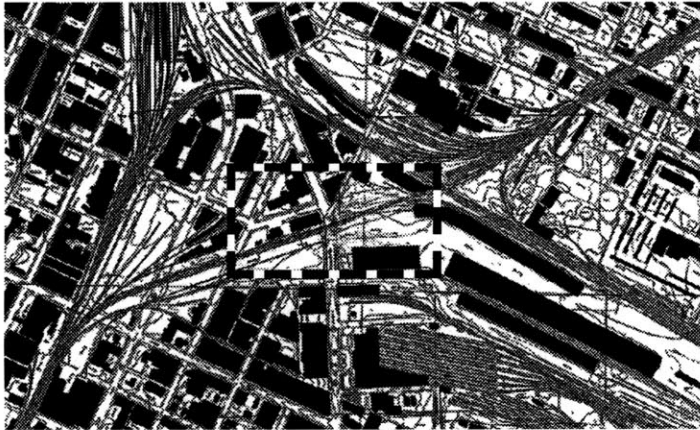


Figure Ground Study showing the urban fabric around site

Diagram showing the system of tracks around the site



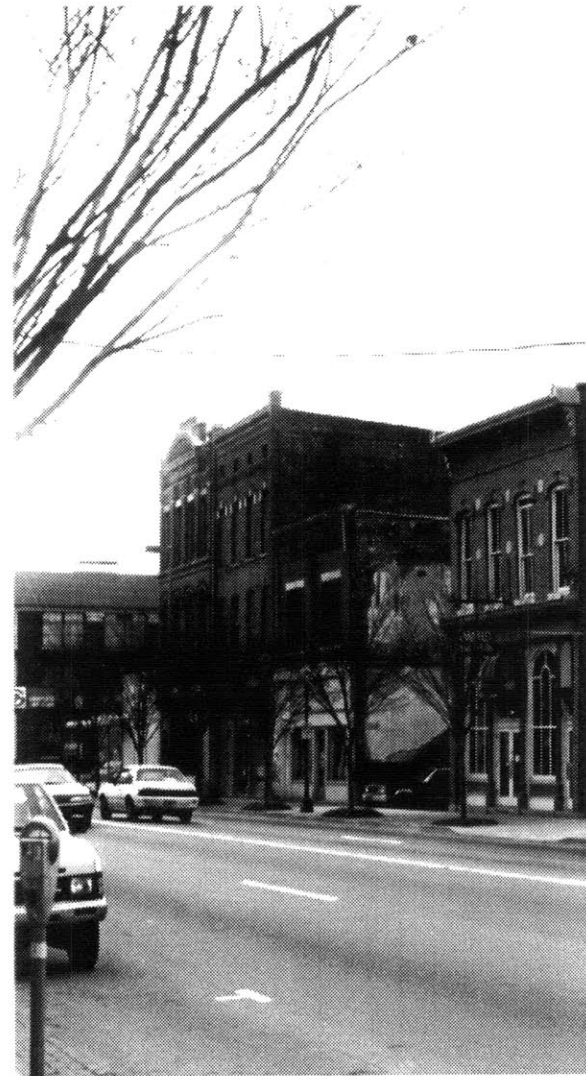
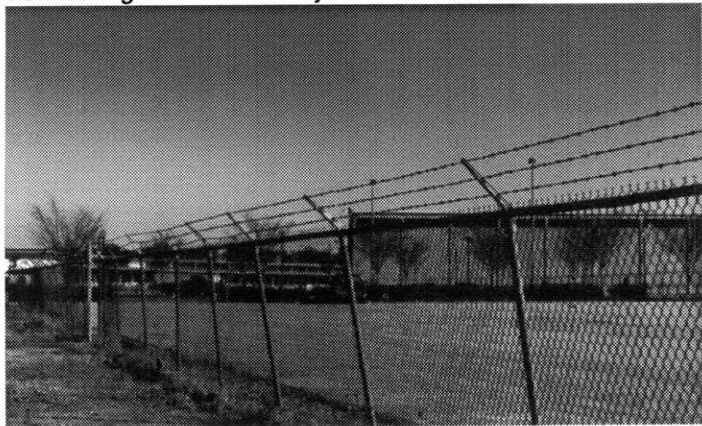
deteriorates rather quickly. The street grid falls victim to the web that the tracks weave. Buildings are scattered, following no particular pattern. The prevalent building type in the area is the warehouse or industrial shed which in form and location are servant to the railroad.

The site for this thesis occurs at the juncture between the organized vocabulary of the city and the chaotic nature of the railroad district. The northern edge is defined by the last building that belongs to the downtown fabric; the southern edge is marked by a banal warehouse building with loading dock for trucks facing the site. Numerous lines once crossed through and around this site. Today, one set of abandoned railroad lines remains.



View looking at site

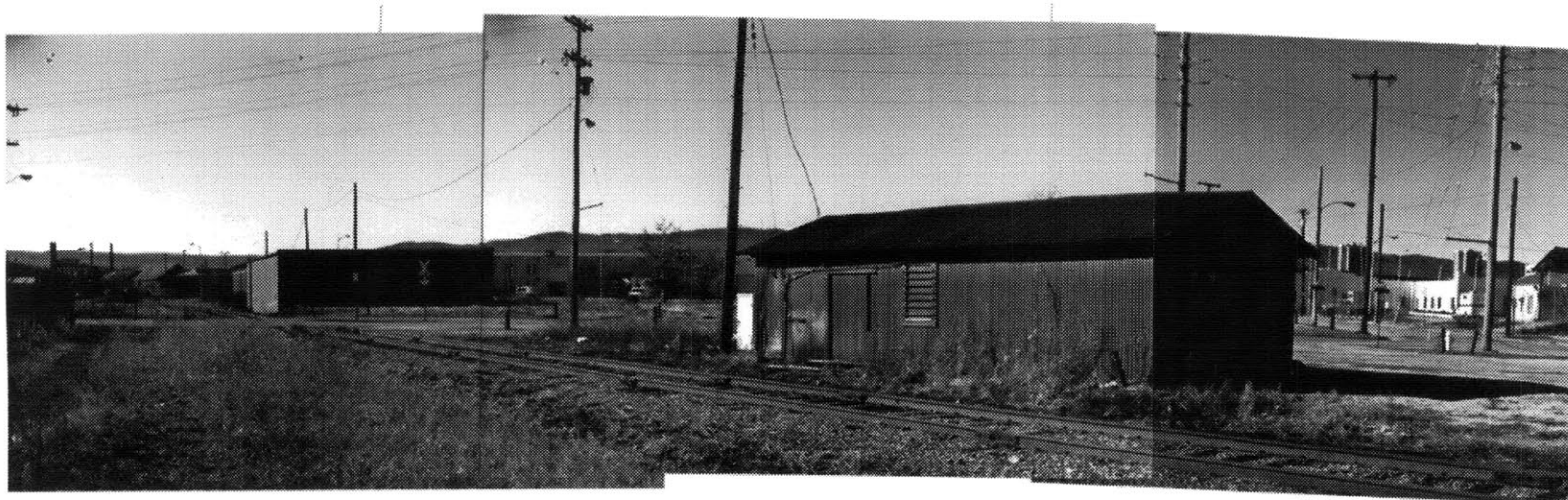
view looking at warehouse adjacent to site



View of commercial district north of the site on Market Street



View looking south on Market Street



View of the abandoned tracks west of the site

Part Two

Building transcends physical and functional requirements by fusing with a place, by gathering the meaning of the situation. Architecture does not so much intrude on a landscape as it serves to explain it. Illumination of a site is not a simplistic replication of its context; to reveal an aspect of a place may not confirm its appearance. Architecture and site should have an experiential connection, a metaphysical link, a poetic link.

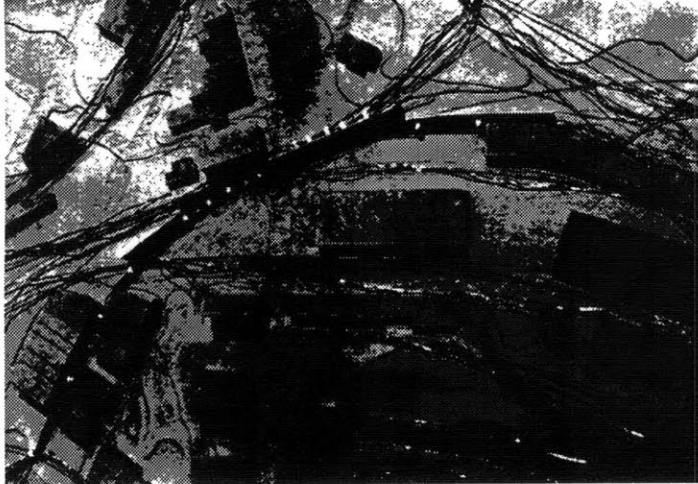
Steven Holl "On Anchoring"

One of the strategies of this thesis is to phenomenologically link the architecture to the site. Through an understanding of the land and its relationship to the proposed intervention, this thesis strives to establish that experiential connection.

A railroad museum is appropriate for this site as its program respects the history of the site; this attitude being integral to this exploration. This proposal suggests integration of the abandoned rail lines into the museum. The existing track is used as exhibit space for railroad cars. Implied, then, in this strategy is that a dialogue is established between the museum and the tracks. The tracks are resurrected from their inactive state today and support connections across the street and through the city.

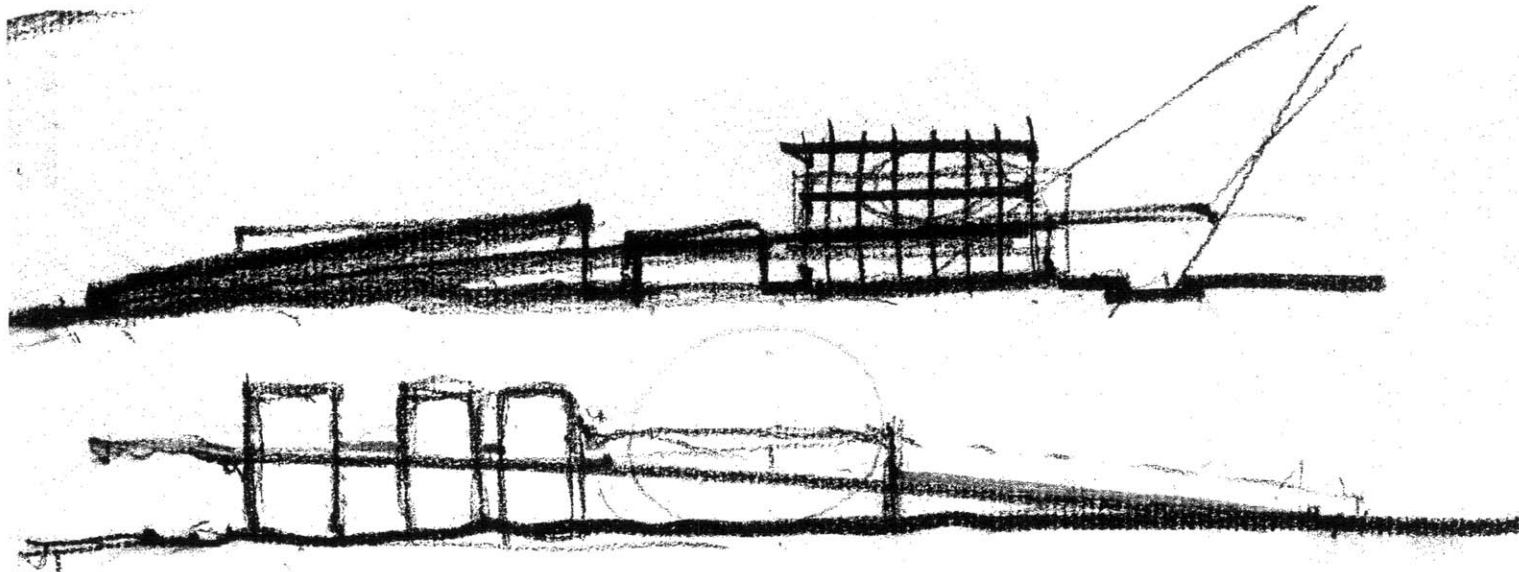
Currently, there is no sense of the density of the

site strategy model showing connections through the city

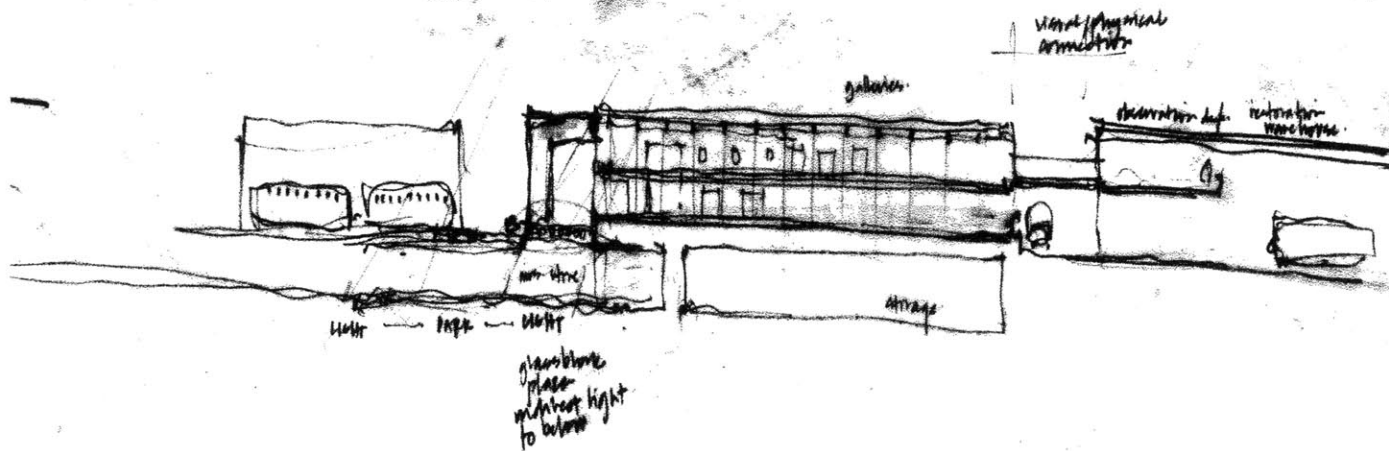
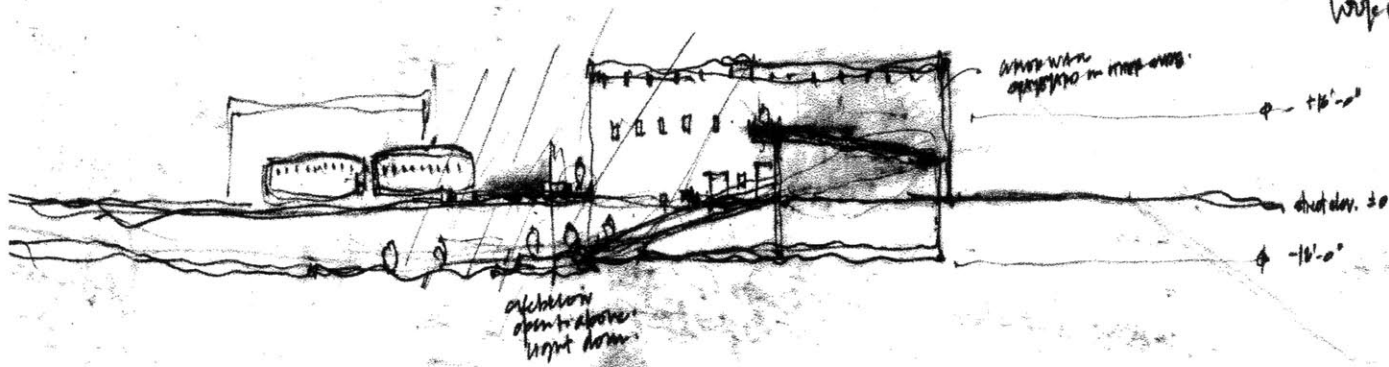


track system since most of the tracks have been covered by asphalt. One of the concepts is to reveal the past by literally removing the layers of asphalt. The experience of the land is intensified by the excavation and carving of the site. This articulation of the different kinds of layering, as explained in the introduction, gives varying experiences on, above, and below the tracks. The notion of *peeling* away to reveal the past potentially allows juxtaposition of past and present, thereby, establishing a dialogue between the layers of time.

Conceptual sketch showing the idea of layering



carving into the earth.
 above, on, below.
 cross street, see grass b/w rails.
 on top of.
 go through museum
 end up below.
 lift up reference
 back to street.



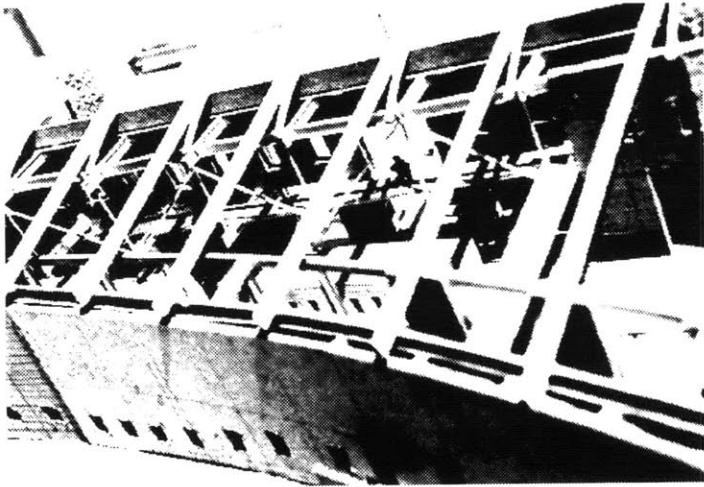
section studies

CONCLUSION

*Our common sense tells us that the things
of this earth barely exist, that actual
reality is
only in
our
dreams.*

Charles Baudelaire, *Les Paradis Artificiels*

from
Polyphilo, or The Dark Forest Revisited
Gomez, 1992



model

Architecture supports the connection of past to present.

The intention of this thesis is to evoke memories of the past through the present experience. The railroad was influential in the development of the city and this proposal addresses its importance through the design of a railroad museum on abandoned lines. Careful consideration is given to the integration of the architecture with the site and to the articulation of the circulation through the museum. These two considerations become interdependent and the relationship of the land to the building is realized as one moves through the museum. *Framed views to the landscape; openings in the walls that shift as though the walls themselves were moving; paths that curve away; paths that carve into the land, revealing the memory of the tracks; paths that come together and almost touch but never do; peeling away in plan and in section.* When one realizes the connection that all these experiences share, *that* is the moment of discovery within the museum.... that is when you understand the parallel worlds of past and present and where you can cross over to see the other.

I would like to recognize those people who helped me in spirit or in reality to realize this exploration.

Ann Pendleton-Jullian
Jim Axley
Rosemary Grimshaw
Renee Chow

Kathleen
Susan
Lenore
Lowell
and
Paul

BIBLIOGRAPHY

Books

- Aloi, Roberto. Musei Architettura - Technica. Milan: Industrie Grafiche Italiane Stucchi, 1962.
- Anderson, Roy and Gregory Fox. A Pictorial Record of L.M.S. Architecture. Oxford: Oxford Publishing Company, 1981.
- Castle, Philip. Airshow. Great Britain: Dragon's World, 1989.
- Fjeld, Per Olaf. Sverre Fehn: The Thought of Construction. New York: Rizzoli, 1983.
- Holl, Steven. Anchoring. New York: Princeton Architectural Press, 1989.
- Lowenthal, David. "Age and Artifact: Dilemmas of Appreciation." in The Interpretation of Ordinary Landscapes. D.W. Meinig, editor. New York: Oxford University Press, 1979.
- Lowenthal, David. "Creative Anachronism." in The Past is a Foreign Country. Cambridge: Cambridge University Press, 1985. pp 363 - 412.
- Lynch, Kevin. What Time is This Place? Cambridge: MIT Press, 1972.
- Montaner, Josep. New Museums. New York: Princeton Architectural Press, 1990.

Norberg-Schulz, Christian. Genius Loci: Towards a Phenomenology of Architecture. New York: Rizzoli, 1979.

Ruskin, John. "The Lamp Of Memory" in The Seven Lamps of Architecture. London, 1849.

Schomann, Heinz. Der Frankfurter Hauptbahnhof. Stuttgart: Deutsche Verlags-Anstalt, 1983.

Wilson, John. Chattanooga's Story. Chattanooga: The Chattanooga News-Free Press, 1980.

Wilson, Richard Guy, Dianne Pilgrim, and Dickran Tashjian. The Machine Age in America. The Brooklyn Museum in association with Henry N. Abrams, Inc., Publishers, 1986.

Periodicals

Architectural Record. August 1985.

Architecture. November 1993.

Domus. January 1988.

Karp, Ivan and Steven D. Lavine. "Communities and Museums." Museum News. May / June 1993.

Locomotives Illustrated. January-February 1994

Papadakis, Andreas, editor. "New Museums." Architectural Design. November / December 1991.

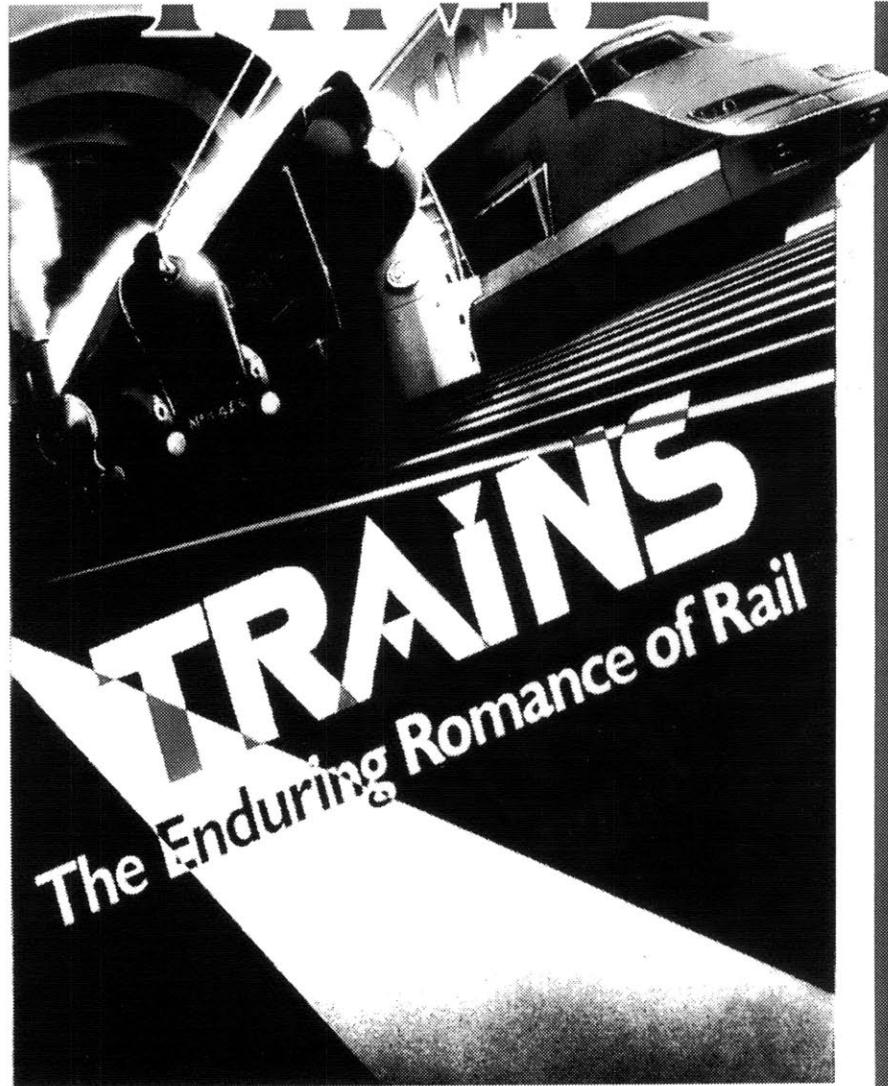
Progressive Architecture. February 1994.

Reichardt, Jasia. "Museum Tomorrow." Architectural Review, November 1985.

Riegl, Alois. "The Modern Cult of Monuments: Its Character and its Origin." Oppositions 25, Fall 1982.

di Sola Morales, Ignasi. "From contrast to analogy: Developments in the concept of architectural intervention." Lotus International, number 46.

Report from The American Association of Museums. Excellence and Equity: Education and the Public Dimension of Museums. 1992



(Castle, 1989, p. 73).

