

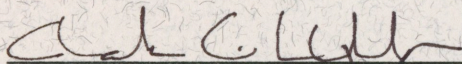


A TREE MUSEUM FOR CHAUTAUQUA, WASHINGTON

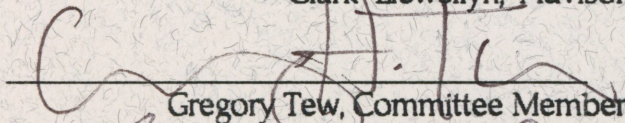
Samuel R. Wilson
Montana State University
Bozeman, Montana
June 1991

Thesis submitted in partial fulfillment of the
requirements for the degree of
Bachelor of Architecture

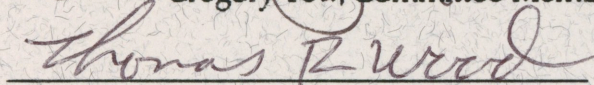
Approved:



Clark Llewellyn, Advisor



Gregory Tew, Committee Member



Thomas Wood, Director, School of
Architecture



STATEMENT OF PERMISSION TO COPY

P378
W6976

In presenting this thesis in partial fulfillment of the requirements for a Bachelor of Architecture degree at Montana State University, I agree that the library shall make it freely available for inspection and study. I further agree that permission for extensive copying of the paper for scholarly purposes may be granted by my major professor, or in his absence, by the Director of the Libraries. It is understood that any copying of this paper for financial gain shall not be allowed without my written permission.

Samuel R. Wilson 6-7-91

Samuel R. Wilson

Date

~~CAL~~
~~NA~~
~~2640~~
~~W698~~

At this time in my life, I would like to acknowledge my parents for their love, support, and assistance along the way and to my classmates for making these five years a very memorable experience.

TABLE OF CONTENTS

Thesis Statement / Thesis Project

Project Goals

Means of Achieving Project Goals

Competition Requirements

Personal Approach to the Competition

Experiences:

The Experience of Driving

Through Chautauqua

The Experience of the Site During
the Seasons

The Experience of Walking

Through the Tree

Museum--Preliminary version

The Experience of Walking

Through the Tree

Museum--Final version

Final Design

**THESIS STATEMENT/
THESIS PROJECT**

THESIS STATEMENT

The creation of a **place** with a design derived from desired experiences using a phenomenological approach to architecture.

THESIS PROJECT

The project that I have chosen for my thesis was created by the ACSA and the American Wood Council for their Ninth Annual Student Design Competition. The site is located in a fictional town in the state of Washington called Chautauqua.

The completion of my design and presentation will fulfill two major goals. First, it will satisfy the requirements for receiving my degree from the School of Architecture. Second, it will allow for submission to the ACSA as an entry for the competition.

PROJECT GOALS

PROJECT GOALS

- The design of a building that creates a sense of place.
- The design of a building that takes written images and translates them into concepts and forms.
- The design of a building that acknowledges the strengths and limitations of the site.
- The design of a building that follows the given guidelines and fulfills the Design Criteria found in the Competition Program Document.
- The design of a building and its surroundings that take issues of recycling, restoring, and reusing into account.
- The creation of a quality presentation that uses innovative methods, communicates the design effectively, and acts as a competitive entry for the competition.

MEANS OF ACHIEVING PROJECT GOALS

The design approach that I am taking in this project is to create the **experiences** first through words and then to **design** elements that make these experiences possible.

These experiences will be found in the contents of this book. By the end of Thesis One, the following experiences can be found within this book: the experience of driving through the town of Chautauqua, the experience of observing the site during each season, and the experience of walking through the spaces of the Tree Museum. By the end of Thesis Two, the experience of walking through the Tree Museum will be updated to describe the final design.

The method of writing used for each of these experiences can be found on the page before the description begins.

COMPETITION REQUIREMENTS

COMPETITION REQUIREMENTS

The following pages are taken directly from the Program Document for the 1990-1991 ACSA/American Wood Council Ninth Annual Student Design Competition. The contents will be used as the guidelines for part of my thesis project.



ACSA / AMERICAN WOOD COUNCIL

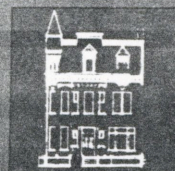
NINTH ANNUAL STUDENT DESIGN COMPETITION

1990-1991

**A
Tree
Museum**

& Open Submissions

Program Document



ACSA / American Wood Council

Ninth Annual Student Design Competition

1990-1991

Design Challenge **2**

Category One: A Tree Museum

Background

The Challenge

Program of Space Allocation

The Site

Category Two: Open Submissions

General Considerations

Evaluation **5**

Design Criteria

Evaluation Process

Jury

Competition Guidelines **6**

Registration

Eligibility

Schedule

Faculty Responsibility

Questions

Presentation Requirements

Shipping Requirements

Awards

Resources **8**

Registration Form **9**

Project Summary Form **11**

Sponsors

Canadian Wood Council
Louisiana Pacific Corporation
Pope & Talbot Incorporated
Weyerhaeuser Company Foundation
Willamette Industries, Inc.

Photograph Back Cover
Untitled, 1982 by Jerry Uelsmann



■ Design Challenge

CATEGORY ONE: A TREE MUSEUM

Program Challenge
by Stanley Saitowitz

BACKGROUND

This year's competition program addresses many of the important ecological, social and economic issues that we are all faced with today. Now more than ever, people must be concerned with the declining state of the Earth's environment. Pollution in the form of smog, acid rain and garbage are diminishing the everyday quality of life in cities and small towns. One of our greatest challenges is to learn to use our natural resources responsibly and efficiently. Man is seldom able to fully enjoy an unspoiled, natural environmental state. Once experiencing such a place, it is hoped that man's level of awareness is heightened to such a state that he is able to learn from and become more sensitive to his surroundings.

THE CHALLENGE

This year's competition program, therefore offers a unique challenge, to design a tree museum. "A museum is a place of reflection, where objects of value are displayed for contemplation. Removed from the spectrum of the world, and elevated in the museum, a new relationship is established between object and observer focused on both presence and meaning. Through selection and categorization, one thing exists in relation to others similar or dissimilar whose comparisons engender understanding. Like a book, a museum is a device for thinking. The objects to provide reflection in this museum are trees. They are to be displayed according to geographic regions, each of which constitutes a 'gallery.'"

The museum is to be located on the edge of a rural town, near a river, not far from a city. This small town is experiencing many ecological difficulties as well as being in a state of economic despair. This town has been fortunate enough to receive funding for the "Tree Museum." The town will now have an opportunity to create its own identity and also utilize the museum as a source of financial revitalization and a place of education and reflection.

The challenge is not only to design a "Tree Museum" but to address the total integration of environmental issues, energy and natural resources within the museum. You must also create a sensitive house for one of man's most precious gifts in a museum setting which will be ecologically sensitive and provide educational benefits to its visitors.



PROGRAM

The following spatial requirements are intended as guidelines.

Galleries	25,000 s.f.
Entrance	400 s.f.
Bookstore	400 s.f.
Lecture Room	1,200 s.f.
Cafe	1,200 s.f.
Restrooms	600 s.f.
Administration	1,800 s.f.
Director's Office	200 s.f.
Preparations and Conservation	2,000 s.f.
Storage	800 s.f.
Parking	50 Cars
Total Approximate Building Square Footage	33,600 s.f.

Note: Projects in which the spatial requirements vary by more than 10% should be accompanied by an explanation.

Recommended Galleries

Ice caps and tundra: mosses and lichens, stunted bushes and trees (willow, Artic birch).

Coniferous forest: Coniferous trees with some deciduous and evergreens.

Mountains: Coniferous forests and softwoods.

Grassland: Tall grass with scattered trees, or none at all, herbaceous flowering plant undergrowth.

Scrubland and Desert: Low growing dry brush, dwarf shrubs, after rains small patches of quick growing plants which flourish for a few weeks, fertile oasis with low thorny bush, date palm.

Tropical rain forest: Hot weather forests with luxuriant vegetation, mainly hardwoods, unbranched with thick crowns of leaves which prevent sunlight from reaching the ground.

Native trees, changing exhibition.

THE SITE

It is recommended that students use this proposed "generic" site as a guideline to actually locate a similar site in or near their own town. Students are encouraged to include actual building elevations and site data from their local chosen site.

The proposed "generic" site is to be located at the edge of a small town which is not far from a city. The site is an old vacant lot approximately one acre in size. The lot sits along side a river which is approximately 10 feet deep and 100 yards across. This river is not navigable for commerce. The site is relatively flat but slopes slightly towards the river. There are no buildings on the river side of the site.



CATEGORY TWO: OPEN SUBMISSIONS

General. The open submissions category holds an equal place in educational value, prize money and the deliberation of the jury. The category is designed for faculty with pedagogical goals that are not met by the authored program challenge to also have a national forum for recognition of student work. Faculty are encouraged to submit the work of their design studio as examples of challenging design projects, as well as innovative, highly skilled solutions. The only requirement is that the project be of an appropriate scale and complexity with wood as the primary expressive material.

Program and Site. Site information and the original program statement must be clearly communicated as part of the presentation, in detail sufficient to be understood by persons completely unfamiliar with the project.

Registration Form & Project Summary Form. A copy of the program statement must be submitted with the Registration Form (included in this booklet) by faculty sponsors and/or students when entering Category Two. Students submitting projects in Category Two must include a concise description of the design challenge in the Project Summary Form (last page of this booklet).

GENERAL DESIGN CONSIDERATIONS: CATEGORIES ONE AND TWO

Cost. There are no specific guidelines or requirements regarding costs, beyond the general concern that solutions demonstrate prudence and attention to cost as an important factor in any architectural problem.

Climate. All competition participants are to address the climate conditions consistent with their chosen site. The site need not be local, but participants are encouraged to work with site specific conditions. Climatic conditions must be clearly communicated in all cases.

Building Codes and Zoning Ordinances. Local regulations should be applied to the design problem. Submissions should reflect reasonable regard for the health and safety of occupants. In cases where variance from local codes is deemed reasonable and necessary for purposes of design objectives, and where no ill effects are apparent, entrants should assume that approval for variance would be granted.



■ Evaluation

DESIGN CRITERIA

In evaluating the competition submissions, the jury will seek those submissions which clearly demonstrate:

- The elegant and expressive use of wood as material and determinant of form;
- A response to typical architectural concepts such as human activity needs, climatic considerations, structural integrity, cultural influences, site planning, creative insight, coherence of architectural vocabulary, etc.;
- The ability to recognize and resolve situational problems of mechanical and electrical systems, environmental context, and external support systems;
- The ability to integrate functional aspects of the challenge in an appropriate manner.

EVALUATION PROCESS

Internal Evaluation. Each school is expected to evaluate carefully the work of its students, using the criteria set forth in this program document. The faculty sponsor is expected to develop a system for such evaluation. This process may be an integral part of the design competition, encouraging students to scrutinize their work in a manner similar to that of the jury.

A maximum of ten entries in each category may be submitted by a given school for review by the jury. Additional submissions will be disqualified.

JURY

Stanley Saitowitz

Stanley Saitowitz Office
San Francisco, California

Susan Maxman, AIA

Susan Maxman Architects
Philadelphia, Pennsylvania

Billie Tsien

Tod Williams/Billie Tsien Assoc.
New York, New York

The jury will convene on May 9, 1991, at the headquarters of the American Institute of Architects in Washington, DC. First, second and third place winners will be selected in each of the two categories, in addition to a limited number of honorable mentions.

All student winners will be notified by mail, with acknowledgement also being sent to the faculty sponsor and school administration. Other entrants will be notified by means of a press release sent to the faculty sponsor.



■ Competition Guidelines

REGISTRATION

Faculty members who wish to enroll all or part of their studio classes must complete and return the Registration Form included in this booklet. One form only should be used to register the entire class, with each student participant listed individually by name. Students who wish to enter the competition on their own must have a faculty sponsor, who should complete the form.

Each project must be the work of an individual student. Team, group or class entries are not permitted.

ELIGIBILITY

The competition is open to students in ACSA member schools in the United States and Canada who are: in the third or fourth year of a Bachelor of Arts or Bachelor of Science in Architecture program or other four-year degree program; in the third, fourth or fifth year of a Bachelor of Architecture degree program; or in a Master of Architecture degree program. Each entrant must have a faculty sponsor. Team submissions are not permitted. Submissions are to be principally the product of work in a design studio. All schools and all students wishing to participate must submit registration forms to ACSA.

SCHEDULE

Registration deadline: February 26, 1991

Submissions due at ACSA: 5:00 p.m., Eastern Time, May 7, 1991

Jury session: May 9, 1991, Washington, DC.

Winners announced: May 13, 1991

FACULTY RESPONSIBILITY

The administration of the competition at each school is left to the discretion of the faculty sponsor, within the guidelines set forth in this program document. The length of time devoted to the competition should be any continuous period of study from six to ten weeks.

QUESTIONS

Questions concerning the competition may be submitted in writing or by calling ACSA's national headquarters.

Questions should be directed to:
ACSA

American Wood Council Student Competition
Attn: Stephanie Urban, Project Manager
1735 New York Avenue, NW
Washington, DC 20006
(202) 785-2324

PRESENTATION REQUIREMENTS

Format. Drawings must be either firmly mounted or drawn directly on no more than four 20" x 30" **illustration or foamcore** boards. Presentations which are presented on any other material such as wood, metal or glass will be disqualified. Unmounted or oversized material will not be accepted. Graphics should be sufficient to explain the design solution completely. Each presentation must include the title of the project. Individual drawings and plans are to be titled. Photographs of models may also be mounted to boards. The entrant's name, school and faculty sponsor must not appear on the front of any board. An unsealed envelope, containing a sheet of paper with the entrant's name, school and faculty sponsor, should be firmly affixed to the back of each board.



Drawings. All drawings should be drawn at a scale appropriate to the design solutions and include a graphic scale and north arrow. Each presentation must include:

- a site plan showing the relationship of surrounding development, landscaping and circulation patterns;
- plans;
- one interior perspective illustrating the character of the space;
- two exterior elevations;
- one section through a representative portion of the structure;
- a large scale, detailed drawing describing the use of wood in the design solution -- suggested scale is 1" = 1' 0".

Competitors are urged to include any other drawings that will help to communicate the nature of their solutions.

Design Essay. Describe the three most important features of your design project, focusing on the stated program objectives. Limit your response to one typewritten page. Your name, school, and project title should appear on a cover sheet or on the back of the page only.

Project Summary Form. Each project must be accompanied by a completed Project Summary Form, found in the back of this booklet. The statement should be enclosed in the student identification envelope on the back of the first board.

Supporting Materials. Student entrants are encouraged to submit supporting materials. This material could include descriptive summaries of the project, site analysis, building code analysis and energy calculations. The materials should be bound in an 8 1/2" x 11" format, and attached--in an unsealed envelope--to the back of the first board only.

Media. All presentations must be made using media suitable for black and white reproduction. Extremely fine shading, finely textured Zipatone or continuous tones may be inappropriate. Entries may be either originals or high-contrast reproductions. Photographs of models are encouraged. Bear in mind that these photographs, as well, must be easily reproduced in black and white.

SHIPPING REQUIREMENTS

Shipping. Entries must be shipped in boxes or sturdy wrapping. All entries must be received at ACSA headquarters by 5:00 p.m. Eastern Time, May 7, 1991.

Ship to: Association of Collegiate
Schools of Architecture
ATTN: American Wood Council
Student Design Competition
1735 New York Avenue, NW
Washington, DC 20006

NOTE: Entries cannot be returned under any circumstances. Upon receipt they become the property of ACSA.

AWARDS

Awards for winning students include cash prizes totaling \$10,000. The prizes will be awarded in each category as follows:

First Prize --	Student \$2000
	School \$1000
Second Prize --	Student \$1000
	School \$ 500
Third Prize --	Student \$ 300
	School \$ 100

A limited number of \$50 honorable mentions will also be awarded at the discretion of the jury.

The winning entries will also be exhibited at the national AIA Convention, as well as published in a competition summary booklet to be produced by ACSA. The American Wood Council and ACSA reserve the right to publish photographs of all entries and names of student entrants without compensation.



■ Resources

A major goal of the American Wood Council Student Design Competition is to make students aware that background research is a fundamental element in approaching any design project. There is a continual process of evolving technologies, and new information is always available to the designer. Students should consult examples of similar structures built in this country and abroad for ideas and approaches that have been tested in the past.

In addition, the American Wood Council has compiled a resource package. One copy will be made available to each faculty sponsor and a second copy will be placed in the school library. This package contains **technical and product information** to be used as a reference source. Competitors should not delay commencing work on their submissions pending receipt of the resource package; every effort will be made to provide faculty sponsors with the resource material as soon as possible.

Last year's Wood Council Resource package contained the following materials:

National Design Specifications
Code Conforming Wood Design Guide
National Forest Products Association

Pressure Treated Southern Pine
Plen-Wood System Non-Residential Case Studies (2)
Southern Forest Products Association

Wood Frame Design
Marketing By Design, Miracles by Design
Specifying Rough & Finish Carpentry Materials
Real Wood Interiors Design Handbook
Western Wood Products Association

Canadian Lumber Dimension Data Book
Canadian Wood Construction: Structure and Properties, Price List, Thermal Insulation, Acoustics, Post and Beam, Light Frame Trusses
Canadian Wood Council

APA Grades and Specifications
303 Plywood Siding
American Plywood Association

Glulam Systems
American Institute of Timber Construction

Oak Floors Are For Real. And A Life Time.

Hardwood Flooring
Sweet's Insert

Buyer's Guide
Hardwood Flooring Finishing and Refinishing Manual
Oak Flooring Installation Manual
NOFMA Specifications, Wood Floor Care Guide, Hardwood Flooring Installation Manual
National Oak Flooring Manufacturers' Association

Red Cedar Shingles and Shakes
Red Cedar Shingle and Handsplit Shake Bureau

Wood Mouldings, Patterns
Solid Wood Plank Paneling
Wood Moulding & Millwork Producers Association



**PERSONAL APPROACH
TO THE COMPETITION**

PERSONAL APPROACH TO THE COMPETITION

The town chosen for this project is the fictional town of Chautauqua, Washington. Qualities of Chautauqua fit the requirements stated in the competition program document. It is a small, rural town of 2,900 people that was founded in 1893 when the railroad was constructed in the area. The town lies next to a river that is controlled by a hydroelectric dam eleven miles away. The town is one mile south of Interstate 90--the major east-west connection across Washington. The nearest city to the town is Seattle which is 105 miles to the west.

The town is faced with some hard times. Thirty years ago, the local lumber industries were very prosperous. Since then, the lumber mills have neglected to upgrade their equipment with more efficient technology. Plus, millions of acres of wilderness were created for the protection of the Northern Spotted Owl. Both of these aspects made the operation of the mills more expensive, due to the inefficiency and the extra miles required to find harvestable timber. One of the mills, Superior Lumber Products, Inc., was forced to shut its doors at the end of 1990, laying off the remaining 200 people who kept the mill running while it struggled to stay in the red. Now, the mill is empty--a depressing sight as one officially enters the town from the interstate.

The site chosen for the Tree Museum also responds to the generic requirements given in the competition program document. It is located at the southern edge of Chautauqua on an old vacant lot near a river. The river is not navigable for commerce. The

site itself is a relatively flat area on the southeast bank of the river that slopes slightly towards the river. There are no existing buildings on the site. In addition, the main route of access to the site is across an old, one-lane, steel-structure bridge. A seventy-foot long wooden portion at the end of the bridge has been condemned to automobile traffic. Because of this, the bridge currently is unused. This portion of the bridge requires restoration in order for the entire structure to be reused.

Despite that Chautauqua is a fictional town, this is an actual site in a different location. Therefore, the limits of the realities of the site will need to be dealt with. This thesis project will acknowledge these strengths and limitations. Many elements of Chautauqua have been taken from an actual town as well. Some have been jumbled around in order to create the desired experience of going through the town. Again, these realities will contribute their strengths and limitations to this project.

EXPERIENCES

**THE EXPERIENCE OF DRIVING
THROUGH CHAUTAUQUA**

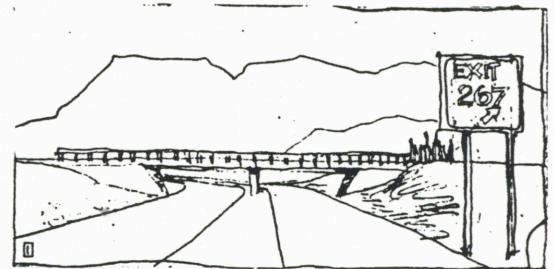
A Chain-of-Thought Narrative

Driving through Central Washington on I-90. Pavement is streaked from the millions of cars that have sped along this stretch since the four-lane highway was installed twelve years ago. Reflected glare from the roadtop requires sunglasses to ease the eye strain. The agricultural part of Washington. Irrigation is needed to transform this semi-arid land into fertile fields. Seems like it would rain more than it actually does because Seattle is only a hundred miles away. Everyone says it always rains in Seattle.

Chautauqua--Exit 267--One Mile Ahead. The blue peaks of the Cascades are quickly approaching. Thirty miles ago (just when they became visible) the mountains appeared to be a mirage. It seemed unlikely that the flat dried-brown landscape was ever going to end. When the mountains were looming on the horizon, the blue peaks contrasted directly with the browns of the low hills and flatlands. Now they are near enough that loggers' clear-cuts are as visible as a scar on a criminal's face. Remnants from another time, another attitude.

Exit 267. Funny--from a distance the town looks as refreshing as an oasis. Now, it's hidden behind a couple of bleak, brown hills. The creations of the highway department to accommodate the overpass--Exit 267. The exit lifts and spins the car to look due south. The town can now be seen again. A green spot surrounded by dried-up tan and trimmed with tall, blue-green mountains. Late winter sun still hangs low enough at midday to irritate eyes.

Hunger set in about an hour ago. Wanted to get to Chautauqua before stopping. Luck has placed Ruby's Cafe just off the overpass. Looks like typical small-cafe food can be expected. Stop, get out, feel leg-



cramps. Enter through an ordinary aluminum-framed glass door. "Push." "We're OPEN. Hours 7 a.m. -8 p.m. Breakfast served all day." "Please seat yourself."

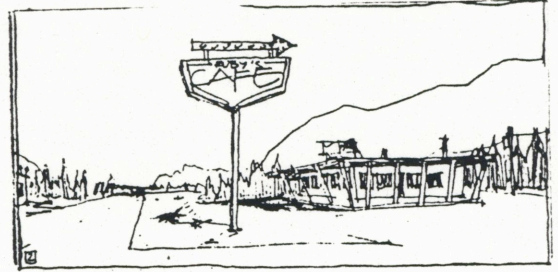
No interior designer has ever been commissioned for ideas. Formica on the counters and tables and upholstery on benches are original to the cafe. Avocado green seats with dark brown fake-wood tabletops recall the mid-70s. Carpeting was replaced a couple of years ago. Now an unsympathetic, non-coordinating tan.

Same menu has probably been used for years. Manually typed pages list menu items while hand-printed numbers tell the prices. Two pages that open in a clear plastic folder and "Daily Special" tags at the top. Shelly takes the order: hot beef sandwich, coffee--black--and a slice of the apple pie that's wrapped in plastic and is spinning in the displaycase.

A shadow from one of the canting columns outside casts on the tabletop. The coffee that Shelly brought helps pass the time. Window faces south. Viewing to the west. Cascades are quite striking. Details on the mountainside can be seen more clearly now than they were from the Interstate. A reforestation project is evident. Healing the wounds of the past. New time, new attitude.

Lunch was satisfying. The apple pie was delicious. Shelly said they were made from local apples. Washington, of course, is famous for its apples. While paying for the meal, she said, "Have a nice day."

The road continued due south. Small businesses dotted the state highway. Relatively new buildings--built since the interstate arrived--constructed as inexpensively as possible. A couple of gas stations to serve those interstate drivers who



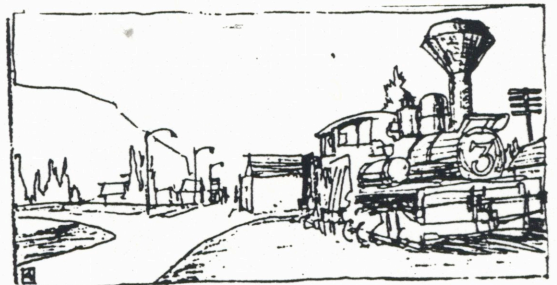
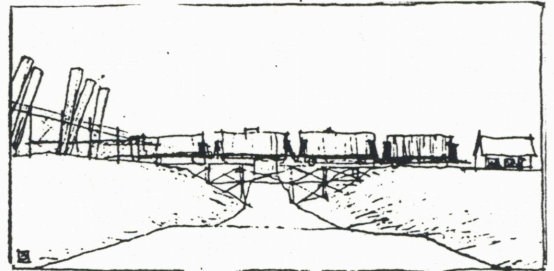
only needed gas and who did not feel like driving the extra mile into town. Signs are placed along the road. Seem lonely. Pass by an auto repair shop--"24-hour tow, AAA recommended"--then by a closed, seasonal fruit stand. Openings boarded up with plywood signs--they always spell "nectarines" wrong out here. More small businesses, a couple of old houses, and an abandoned auto dealership.

It was easy to tell that this was and still is a lumber town. On the left, just before the railroad tracks stands a colonnade of enormous logs, used as support for recently-cut logs waiting to be processed. They are a haunting sight. The lumber mill closed for good at the beginning of last year and the recently-cut logs waiting to be processed were sold shortly thereafter. The lumber mill stands quiet. No smoke, no steam. Poised for re-use.

Officially enter the city by passing under the train tracks. A heavy-timber train trestle acts as the gateway to the town of Chautauqua "Max. Clearance 13' 8". Recently-added timbers glitter when sun hits the fresh creosote. The trestle must date back a ways--is this the only one left?--but is strong enough to hold up two tracks and a train or two.

To the right, on top of the berm, an old, coal-fueled locomotive engine soaks up the sun. "#3." A favorite spot for mothers to bring their kids. A train station is in the background. Not a significant piece of architecture, unlike several other stations in the region. Amtrak does not stop here.

Fully into the town. "Nucleus Avenue"--the town's main street. Not much here yet. The town must not have grown up around the train station. In fact, the buildings



do not grow over one story for five more blocks. No street trees. A lack of a sense of enclosure. A vacant lot on the left, a charity-supported second-hand shop on the right followed by a repair shop. "Muffler Alley." Quonset hut painted white with translucent green corrugated fiberglass sections for "daylighting."

Next block. A shoe repair shop in a building from the late fifties. One of the older buildings seen so far. Brick with square recesses. Advertising inside. Must have been a plumbing store at one time because the sign has been sloppily painted over. The painter did a bad job because the old sign can still be read. Vertical wood siding now covers the front facade, covering the brick. Probably done by an ambitious new owner who felt like "fixing the place up." A metal frame for a sign hangs nothing, unused. The lot next door serves as an orphanage for school buses. About seven are waiting for someone to claim them. Across the street is the chosen site for Chautauqua's new post office. The project has been put on hold by the federal government. Just as well--the residents prefer that the post office remain where it is--in the "city center" four blocks away. "No trespassing. Government Property." Signs vandalized by B-B gun owners. Formerly a lot with a ranch-style house. Torn down in the name of progress. Now, an empty lot with vandalized signs.

The following blocks. Marginal character. A convenience store on the right, a dentist's office on the left. Three residences--one converted into a day care, two with front lawns. Senior citizens' center with a flagpole in front. Obnoxious green-painted wood siding. A vacant furniture store: blue-painted concrete block, large windows directly facing

the street, and a low-pitched, standing-seam metal roof. A struggling jewelry shop: white-painted CMU's, a ten-foot black-topped yard in front, and a sign broken by a vandal's rock. A bowling alley: plenty of parking in front, "Sign up now for Spring leagues." A credit union building: precast exposed-aggregate concrete panels, fifteen feet from the sidewalk with planters and grass to fill the gaps, and steep-pitched metal roofing. Three vacant lots. Unmaintained--lots of weeds.

Nucleus Avenue is a well-paved street. Chip-coated. Eight-foot sidewalks on both sides, three lanes: one in each direction and one for left turns. Parking on both sides. No parking meters. Nice gutters and drains because the townspeople wanted them.

City center. Easy to tell since there is the grocery store where most people shop. Takes up the full block--parking lot in the front. The B & B. Always at least one misspelling on the big red sign. Sticks out to the edge of the parking lot. Feeble attempt at landscaping at the base. A sea of cars and pickups lie between the sign and the store. "Open 7:30 a.m.-10 p.m." The "Variety" section of the store is on the next block. Expansion project that reused a defunct clothing store. Both stores are white-painted concrete block with dark-stained wood decorations. Red signs. Flat roofs. Across Nucleus Avenue. Stores at one time were some of the busiest in town. Now, only one--the video rental shop--is very profitable. Businesses now compete with all that Seattle has to offer. City Laundry still runs its twenty-year-old gas-powered dryers. Same-day dry-cleaning hasn't arrived yet in Chautauqua. Next to the video store is a second-hand clothing store, then a vacant shop, a Christian bookstore/health food shop, and finally a



barbershop. "Randy's." Small signs formerly hung from the sides of the stores; now, bright fabric awnings give shelter from the elements while advertising at the same time. A ten-foot empty space separates the shops from the building on the corner. A goof in the planning of Nucleus Avenue. The first two-story building so far. The Lions' Clubhouse. Another concrete block building that has been painted white and has a flat roof. (Regionalism?)

City Center--Block Number Two. The First Citizens' Bank of Chautauqua dominates the block. The architectural landmark (?) of Chautauqua. The main building has a single low-sloped roof--pitched towards the entry--glulam beams supported by steel pipe columns that bear onto stone piers. Large windows reflect glare during the day and show off the interior at night. Cars are parked in front throughout business hours. Drive-thru tellers only keep two of the four islands open. Buildings rest on a bed of grass. The first street trees along Nucleus Avenue so far.

Across the street. The B & B Variety Department. A bar with two curved glass block walls leading to the entry. Built long before glass block was trendy. Another gap between buildings. This one used for parking. About thirty feet wide. Another empty building. Formerly a large fabric and clothing store. Now, "FOR RENT" or "FOR SALE." Next, a hotel now rents apartments. A bar and a cafe on the ground floor. Large, exaggerated Mansard roofs covered with cedar shakes dominate the building. Another attempt at "fixing up" an old building.

The last block of the business district is depressed. Four empty businesses. A beauty parlor. A pharmacy. Two rival bars and one of the two law offices in town. Some of the

oldest buildings on Nucleus. Nice brickwork that has been preserved on the building with the law office. Brickwork that has been painted over or completely covered with the other buildings. Apartments on the second floor of all of them. Another gap along the street marks where the town's only theater once stood. The Park Theater. Fire-destroyed eight years ago, a concrete pad with two precast double-T concrete benches and a trash can with a green top now takes its place. A wound waiting to be healed.

A major road intersects with Nucleus Avenue. At the intersection, three of the four corners were taken by gas stations. Now, only one still operates. Thacker's Conoco. Gas is more expensive "downtown" than out by the Interstate. The other three gas station buildings changed. One lost its large, sweeping awning and became an auto repair shop. Another was completely remodeled. Blue-painted shakes now cover a fast-food restaurant. "The Corner." The third was demolished.

The highway--Washington #35--was the major way to come into town until the Interstate was installed in 1979, shifting the town in the name of progress. Now, Washington #35 is merely a frontage road. Businesses give the road a strip-like quality. Small sheds floating on a sea of paving, addressing the car, not the pedestrian. Cafes: the Nite Owl--"Open 24 Hours"--and the Pines Cafe--the place with the tree growing in the middle of the building. Franchises: Pizza Hut (how did one of those get here?), a convenience store, and a gas station. Further down, a glimpse can be caught of an Art Deco-styled elementary school. Looks very out of place.

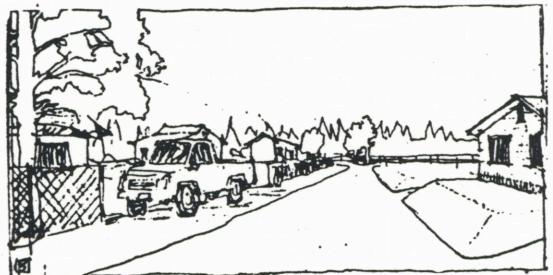
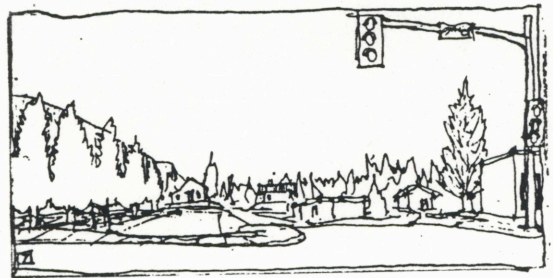


The intersection has one of the two stop lights in the entire town of Chautauqua. The lights look as out of place as the elementary school.

After crossing the intersection, the improvements to Nucleus Avenue end. Two lanes now, pot holes, sidewalks on only one side. The street declines sharply, dropping about fifteen feet. A park is on the left. The park, Pinewood Park, has a swimming pool that opens on the day after school gets out, closes the day before it starts. Now, the pool has three more months before the blue tarp is taken off for another season. Large douglas fir trees provide lots of shade during the entire year. The tennis courts are not usable--no nets. A funeral home is on the right. Strangely, it seems to kill the business district of Chautauqua. Next door to the parlor--directly next to the carport where the hearse is parked during a memorial service--is a field of dried-up weeds and thistles. The sidewalk stops here. A fire hydrant on the corner has been painted blue and white to commemorate America's bicentennial fifteen years ago.

The next block. Three dilapidated buildings are on prime real estate on the left--right across the street from the park. All three former residences--the furthest one from Nucleus has been transformed into an unsuccessful real estate office. The other two wait to be disassembled so some of the parts can be reused elsewhere.

Houses on both sides of the street now. Houses on the left are set back thirty feet from the avenue. Front lawns merge with the gravel shoulder of the street. Trees seem to have been planted along some unrequired twenty foot setback. No sense of enclosure. Houses on the right are set back only ten feet.



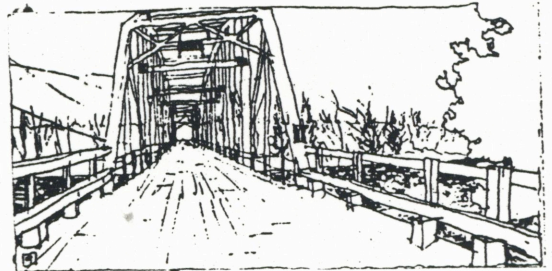
Nucleus acts as the edge of the side yard for these houses.

Four more blocks. Houses on both sides. Mostly "ranch-style" houses built during the late fifties when the lumber industry in Chautauqua was exploding. Cars and pickups are parked in front of the houses. Most families have two vehicles, but one garage. Some garages are filled with the family "treasures." Two vehicles parked on the street. Chain-link fences stake the owner's claims. "Beware of Dog" A vicious poodle.

Nucleus Avenue ends. Fork in the road. Two fifty-year-old douglas fir trees stranded on an island in the middle of the intersection. An appropriate terminus to Nucleus Avenue. Take a left. "Bridge Closed Ahead." A fifteen-foot drop in the road. Two duplexes on the left. White with brown trim and roofs. An intersecting road that parallels Nucleus but dead-ends at the park. No more houses. Cottonwood trees. Some old and distinguished. Others, young and spindly. A few evergreens (isn't this the "Evergreen State"?). Power lines.

The Old Red Bridge. "Stop." "Bridge Closed to All Motor Vehicles." Two barricades. An opening for bikes and pedestrians through both. The river's edge. A drastic, rocky drop of twelve feet. The river only rises about two more feet during the height of spring runoff. A dam in the river eleven miles away regulates the flow. No worries for flooding.

Crossing the bridge. Steel structure has weathered to a rusted red over the years. Diagonal bracing is provided by steel cables, making the bridge seem lighter than it actually is. Emphasis on the rectangular. The surface is weathered-gray 2x8's and 2x10's. Time has created an uneven surface. Jagged remains of



the chip-coating from eight years ago add a varying surface texture and level. Pieces of gravel fill larger cracks between boards and raise the surface of lower boards. A distinct smell of freshness from the river. Water flows a sediment-laden brown during this time of the year, but turns brilliantly green late in the summer.

The site is in view. Across the river. Relatively flat. Inclined towards the river. A rocky shore is swallowed and altered by the river each spring. Cottonwood trees grow in lines that mark where the river bank once was. A small rocky cliff is a remnant of the river bank from eons ago. The river will continue to build up the bend on this side for years to come. More trees--older cottonwoods and young pines--in a line at the edge of the rocky cliff. A very flat, treeless area beyond the three-foot high cliff. Direct views to the north and west framed by shrubs and low deciduous trees.

Looking back, the structure underneath the Old Red Bridge. Concrete pontoon at three equal points under the steel structure. At the southern end, seventy feet of wood post and beam underneath. Vandals struck a year ago. A section burned. Bridge still standing, but lonely. Waiting to be used again during a new time, with a new attitude.

I am standing on the site.

**THE EXPERIENCE OF THE SITE
DURING THE SEASONS**

A Series of Poems

WINTER

Deathly chilled,
The river creeps,
Frozen only on the banks.
The valley protects,
Doesn't get too cold here.

Cold steel,
The bridge creaks,
Frozen joints stubbornly move.
Extra gravel required,
Watch for ice.

No leaves,
The cottonwoods bare,
Frozen mist on the branches.
Mist from the river,
Mysterious mornings.

Gray skies,
The clouds hang,
Frozen in the same place.
Mountains disguised, covered,
Life under wraps.

SPRING

Muddy brown,
The river races,
Redoing its path on the way.
No worries of flooding,
Brimming but controlled.

Warming rust,
The bridge thaws,
Regaining its flexibility.
Fishermen gather at its base,
Hoping for the best.

Twigs revived,
The cottonwoods budding,
Regrowth of the leaves lost.
Mushy ground below,
Fresh smells.

More warmth,
The clouds break,
Remaking familiar landscapes.
Breaths of sunlight, moisture,
Blossoming.

SUMMER

Intense green,
The river flows,
Bright reflections in the water.
Children on the banks, not swimming,
Water's too fast.

Peeling color,
The bridge weathers,
Bright paint hates the heat.
Teenagers know better, no diving,
Not deep enough.

Yellow-green,
The cottonwoods resplendent,
Bright thick carpet that rustles.
Moving shadows on pages,
Reading underneath.

Rays strong,
The clouds seldom,
Bright blue in the day, stars at night.
No one wants to be indoors,
Play in the sunshine.

AUTUMN

Drab olive,
The river wanders slowly,
Growing darker and colder.
Water level at its lowest,
Preparing

Chilly rainfall,
The bridge rusts more,
Growing older and weaker.
School buses can't cross,
Waiting for renewal.

Different daily,
The cottonwoods change,
Growing paler yet more colorful.
Carpet once in the air, now on the ground,
Recycling

Present again,
The clouds cast,
Growing shadows that retain the chill.
Foreshadowing of what's to come,
The never-ending cycle.

**THE EXPERIENCE OF WALKING
THROUGH THE TREE MUSEUM**

Preliminary version

A Chain-of-Thought Narrative

Driving across the bridge. Klik-klak, klik-kluk, klik-klak, klik-kluk. Tire sounds on an uneven surface. Past the steel structure, now on wood. A bump between. Down. A smaller bump. Wood to asphalt paving.

Not far away. A turnout like a freeway exit. Continue or turn. Turn. Road edge of driftwood. Single pieces at first that build up into a dramatic fence of twisted, drab-colored members. Fence spins the car around. South, southwest, west, northwest. River's edge now visible. Parking lot between. Planted trees help relieve monotony of the lot. Each tree is different. Indigenous. Steel tree skirts protect trees from careless drivers and house lights that flood trees with an orange glow at night. Must be room here for fifty cars. Park. Get out.

A pattern in the pavement leads towards the entry. Towards the bridge. The wooden structure. Some pieces very old, some pieces pretty recent, and some pieces very new. Recycle, restore, and reuse.

Walking under the bridge. Diagonal bracing between members force a straight shot through. Sidewalk creates three bays--two people wide each. To the left, the river. Concrete bridge abutment blocks some of the view. Something moving on the abutment. A movie. Burning rain forest. Echoes from the flowing water sounds like the roaring fire on the screen. Image switches quickly to a clear-cut. Look away. Those things won't happen again. In front now, a dead ironwood tree. Over 2,000 years old before it died. Now, transported here, a focal point at an entry. To the left, original trees left standing. Behind the ironwood tree, the entry to the museum.

Approach the entry. Up a ramp. Structure looks like the old train trestle at the north entrance to the town. Lifts six feet off

the ground. Approach a group of cottonwood trees and see the river behind. The sun casts shadows of the bridge onto the bank and the river. Past those shadows and into the shadows created by lightposts along the ramp. Wood posts with sophisticated light fixtures.

At the entry. Small observation deck juts out towards the cottonwoods. Beautifully detailed truss spans from building to observation deck. See the river, see the bridge, see the town behind the trees, see the mountains beyond. Doors at the right under an awning. Door handles have bark on them.

Enter. Double doors. Details are more refined than the outer doors. Go through. Doors swing easily. Hit by a burst of sunlight in the vestibule. Look up. A skylight splashes the space. Richness of the wood floors is enhanced. In front, a wall has a dynamic geometric relief. Different types of wood--oak, maple, and douglas fir--add to the drama.

To the left. Glass shelves suspended from an exposed stud wall define another space. Bookstore. Informal, but with lots of books dealing with trees. A small section on environmental awareness and conservation. A friendly elderly lady who is working at the counter smiles while talking to a young couple. No problem finding volunteers in this town. A window behind the counter opens directly into the branches of a cottonwood tree. Additional lighting that track lighting provides is minimal. Light from the skylight in the vestibule and from the window behind the counter is almost enough.

To the right. A small hallway. A discreet sign announces that the lecture room can be found down this hallway. Lecture room is adaptable--can be used for roundtable discussions and for formal lectures. Townspeople are using the room more

frequently for their meetings. Museum welcomes use by the community. A cabinet built into the wall encloses equipment for the lectures and materials for student groups. Occasionally becomes a children's activity room when the elementary school schedules field trips to the museum. The space is comfortably nestled in the trees just outside. Windows open out onto the vegetation. A glimpse of visitors coming to the museum can be seen through the trees.

Back in the main space. On the left is a cafe. Early lunch crowd fill the space. A mix of locals (they know the volunteers by name) and visitors sitting, eating, and talking. Noisier than expected. A curved wall meanders along the edge of the space. Curved to respect the trees that were growing long before the museum was built. A new age of respect. The curve extends beyond the building. Wood posts similar to the ones used under the bridge compose a curve that extends into the river. Spaced close enough so that pieces of driftwood build up--thickening the curve in places. The cafe is a bright and cheerful space. Polished floors--very pale wood. Light-gray stained walls. Glazed partition wall separates from the main space.

The main space. Directly in front. A desk to control the admissions into the main museum space. Another skylight highlights this space. Volunteer staffers comfortably sit where they can monitor the security screens while they admit visitors. A staircase leads down to the administration spaces below. An elevator, too. Handicap access. All staffers--administrators and volunteers enjoy their special spaces. Plenty of sun and a view of the river. Can't beat that.

Pay to get into the museum. Receive a pamphlet that explains the organization of the

exhibits and an unbreakable visor for the hologram forests. Go through a turnstile. Space is darker. A screen in front welcomes. Turn a corner. Burst into a large space. Trusses above, exhibits all around, a curved, glazed wall to the left, and views of trees and the river beyond. Lots of people--some middle-aged couples, a class of third-graders, a couple of college students, and a group of elderly women. Interaction with interpretive exhibits. A scientist performing a demonstration. A map of the world that lights up while a recording informs about global climate regions. A computer that tests knowledge about trees. A voice informs whether the answer is correct.

To the far right, the hologram forests. Enclosed in round spaces that penetrate the large exhibit room. Displays near the entrances to the hologram forests deal with the specific global regions where the forests are located. Display cabinets house screens on which images of the region are shown. Written information accompanies the images to prepare the visitors for the experience inside the hologram forests.

"Put the visor on," a lighted sign informs. Enter the first of the hologram forests--a tropical rain forest. Open the door. Step into a forest in Brazil--at a level ten feet from the ground. Strange--a railing can be seen ahead. The pamphlet informs about this. Entry to the hologram forests is ten feet from ground level. A balcony wraps around the space to allow the visitor to walk around the forest at this level. A completely different experience from the ordinary. An elevator at the opposite side of the space takes visitors to ground level in all of the hologram forests. In some of the forests--including the tropical rain forest--the elevator also takes visitors to a

higher level, allowing them to see the crowns of the trees. The visor glows and helps visitors see each other inside the forests. The space is designed so that no light from outside enters. The holograms simulate the actual light of the forest. No lights can be seen. Pamphlet says that emergency lights are recessed into the walls. The experience of walking through the actual forest is enhanced by sound effects and smells generated by ultrasonic equipment. The experience of a place far away without the expense of travel.

Walk through the other hologram forests. Climate zones include the desert, grasslands, alpine, and ice caps and tundra. Enthralling.

Another exhibit--native trees. Trees planted next to the curved wall in the main museum space. A path outside winds through this indigenous arboretum. Native trees can be viewed from both the outside--on those pleasant days--and inside--on those not-so-pleasant days. Go outside. A path made of large stones surrounded by gravel. Walk among the trees. A breath of fresh air. Views of the river along the way. In the distance, a sculpture. A place to go. Something else to see. A day full of experiences.

**THE EXPERIENCE OF WALKING
THROUGH THE TREE MUSEUM**

Final version

A Chain-of-Thought Narrative

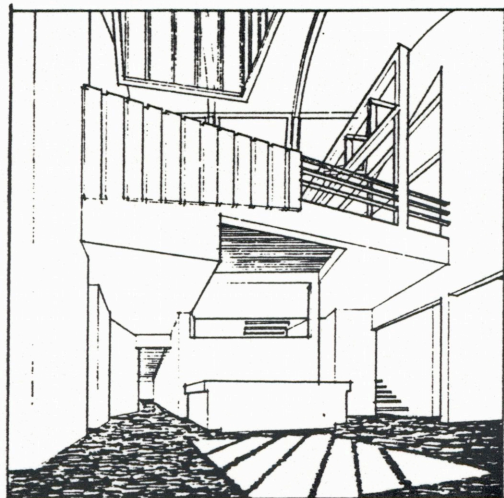
Driving across the bridge. Klik-klak, klik-kluk, klik-klak, klik-kluk. Tire sounds on an uneven surface. Past the steel structure, now on wood. A bump between. Down. A smaller bump. Wood to asphalt paving.

Not far away. A turnout to the left. Signage. A stone base with weathered wood posts. This must be the place. Take the turn. The road slopes. Trees on either side focus the eye on an abstract sculpture directly ahead. A turn to the left and then another. A parking lot. Planted trees relieve the monotony of the lot. Each tree is different. Indigenous. Steel tree skirts protect trunks from careless drivers and house lights that flood trees with an orange glow at night. Must be room here for fifty cars. Park. Get out.

Along the sidewalk. A straight row of trees lead towards the entry. Cottonwoods that were in the way of construction crews were carefully dug up and transplanted here. Naturally, cottonwoods grow in straight lines--but not this straight. The building is beyond this row of trees. Buried into a large berm that helps to tame the southern exposure.

The entry sequence. Arrive at a circle that is ringed with a stone retaining wall that cuts into the berm. Benches for waiting and planters with vibrant-colored petunias along the wall. A frame structure provides the first sense of enclosure. Gauzy fabric flutters overhead--attached to the frame. The doors. Two of them with a window between. Handle on outside is a slender lodgepole pine trunk at a slight vertical angle. Pull. Enter onto a hardwood floor with a rug inset to dry shoes. An air-lock vestibule--another set of doors. Same handles. Pull again.

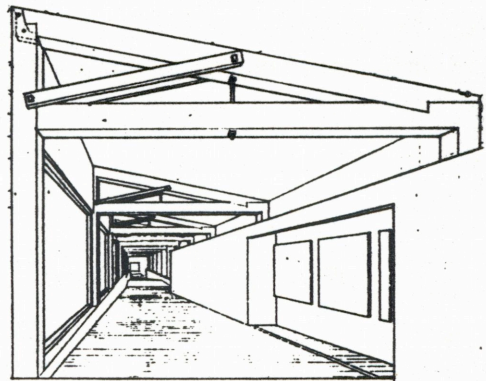
In the main lobby space. The reception and information desk is ahead. Eye is drawn upwards. A curved ceiling with cove lighting



that highlights the curve. Glue-laminated beams carry the load. An interruption in the ceiling. A cube made of unfinished wood studs covered with glass has been juxtaposed into the space. Eye is drawn back to the floor where shadows from the cube crisscross on the polished hardwood. Activity in between. An elevator to the left carries a woman in a wheelchair up to the second floor. The guts of the elevator can be seen. Never knew how sculptural they could be. Clinking of silverware on plates. The cafe. Local business people must come here on lunch breaks.

Approach the desk. Intersecting planes of wood attach to the counter in places, yet overall leave it free-standing. A friendly, local volunteer offers a greeting. Mounted into the desk are a computer and a panel of security screens. Pay to get in. Receive a map to use as a guide. To the left, the lecture room and a door leading to the administration. This is the building where the director is held responsible to the public since his office has been floated away from the building as if it were on display.

Go to the right. The stairs to the cafe above and the restrooms are easily accessible. A bookstore sells beautiful pictorial books on trees as well as ones on conservation. Keep moving. Approach a corridor. Panels on the wall explain the concept of the Tree Museum, provide information on conservation efforts, and acknowledge the benefactors. High-tech track lighting hang from ballasts that project from the trusses above. The trusses above. A panel to the right shows that the structural members are recycled from an old wooden train trestle that once stood near Chautauqua. Old nail holes are still visible in the re-planed and sanded, but weathered wood. Move further. Windows to the left. A gap in the building that was left so that a couple of trees

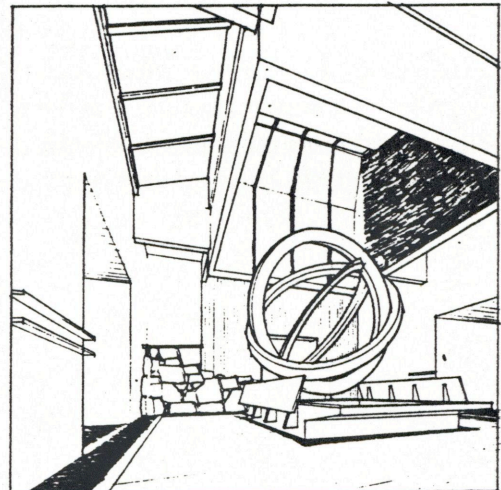


and some native vegetation could grow. Frosted plexiglass panels that display the names and common growing areas of each tree are mounted at about 36 inches from the floor. Small diagrams of the world give a feel for locations of climatic regions similar to Central Washington.

Just before the ramp. To the left, a connection for the volunteers to the administrative offices. To the right, a children's resource center. Provided for two reasons--to accommodate programs offered to children on field trips from nearby schools and to give sons and daughters of visitors a special learning experience geared to their level. Inside, a computer controls images displayed on video screens that compose a presentation that can be either general or specific. The video screens cover a long wall. In a separated room, a large circular table can be used by youngsters for activities like coloring and by adolescents for discussions. Windows open towards the east and look out onto part of the arboretum and the river.

Down the ramp. Windows on either side give views of trees. More plexiglass panels for proper identification and learning. An indoor arboretum. On the rainy, slushy days of the winter, the visitor can get a taste of some of the trees in the arboretum with the comforts of being indoors. A landing and then more ramp. Must have descended at least ten feet.

The end of the ramp. A dramatically lit space. Sunlight penetrates only in the center. A light scoop has a slit for an opening--light washed down a steeply sloped plane and filters onto the globe in the center of the room. The globe--slightly abstracted--displays the location of the differing climatic zones on the continents. Ice caps and tundras,

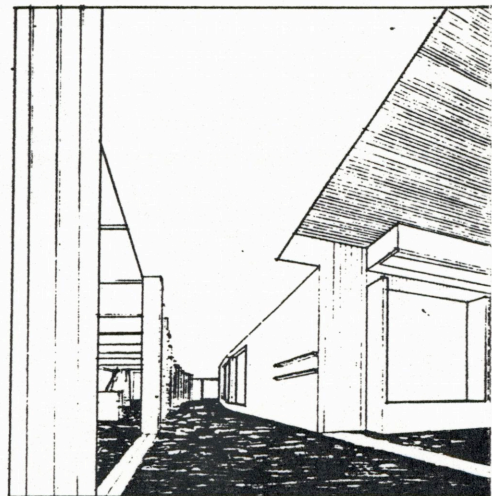


mountainous regions, grasslands and savannahs, rain forests, and deserts. A metal grating in the floor under the globe floods it with the light from below.

The guide shows three directions to go. Galleries to the left and the right and the arboretum straight ahead. Go to the left. Signs indicate that besides the interpretive galleries and the continuation of the indoor arboretum, the rain forest and the desert galleries are ahead. The guide recommends that the interpretive galleries should be visited first so that the experience inside the climatic galleries will be enhance to the fullest. Creative displays combine observing and participating to achieve a full learning experience. The windows facing south look out at more trees. Some strikingly beautiful specimens. Look and learn to appreciate.

Enter the nearest climatic gallery--the Desert gallery. A dynamic, flowing space. Intersecting curves in plan and elevation. The shifting sand dunes. Glue-laminated beams allow for such a complicated structure. Wood inside has been coated with a natural finish. The color of sand. Numerous video screens display the various trees and vegetation of the desert. Time-lapse photography shows the difference between the dry and rainy seasons. Identification panels nearby.

Walk into the next gallery--the Rain Forest gallery. The inside of a dome and 360 degree vertical screens have images of a lush green forest shown on them. In the center of the space, railings help maintain the balance of visitors while looking up, down, and around. The visitor has been transported into the rain forest. Native animals drift in and out of view. Sounds have been recorded and smells are recreated ultrasonically. A holistic experience.



Back to the main space with the globe. Straight across--the rest of the galleries. Again, participate in the interpretive exhibits and view the indoor arboretum before entering the climatic galleries.

Enter the nearest gallery--the Ice Caps and Tundra gallery. A very bright space compared with the others so far. Jagged stud walls are held apart with windows of different sizes and different angles. Sunlight bounces around the room to make the displays effective. The hologram displays. Large, silvery photographs contain images of the sparse vegetation of the polar regions. Images frozen into place. Walk around the holograms--the images move. A three-dimensional feeling.

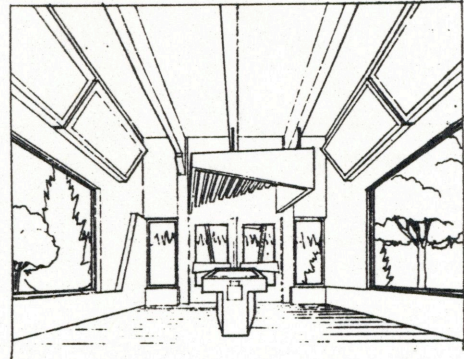
Go to the next one--the Mountainous Region gallery. A simple form--just a box that has been tilted at the slope of a ramp. On either side, dioramas represent the different trees found at the varying levels of altitude. The walls have been painted with a technique called trompe d'oeil to make the space seem bigger than it is. Sections of trees have been sculpted from the paintings on the walls to add to the sense of experience. The trees go from dense and green to sparse and windblown as the ramp gets higher. A little mountain climbing experience.

Move to the last one--the Grasslands gallery. Confronted by long, low, slightly-slanted forms. Movie screens at the end of each. A hole in the ceiling admits soft, diffused light into the space to help eyes to adjust to the dark. A lower area in the ceiling disguises a crawl space that contains the projectors. Images on the screens move gracefully--swooping over flat terrain from tree to tree. Just like the wind.

Back to the space with the globe. On the right, the corridor that leads to the exit to the arboretum. Another ramp slopes up to bring back to ground level. A continuation of the indoor arboretum. Reach a space at the end of the ramp. An arboretum information space. In the center, a relief map of the arboretum is encased in what looks like an altar. Copies of the map are found in slots on the side of this altar.

Exit out the arboretum. A stone terrace acts as a gathering place for guided "nature tours." The Yakima River steadily flows straight ahead. The arboretum extends in both directions from the terrace along the river. Go to the left, encounter the native deciduous trees, walk underneath the wooden section of the Old Red Bridge, and then eventually arrive at an orchard of apple trees.

Washington is known for its apples. A local woman takes the apples each fall and makes them into apple butter that is served in the cafe inside. Go to the right, encounter the native coniferous trees and walk among the rows of cottonwoods original to the site. In the distance, a sculpture. Another thing to see. A day full of experiences.



FINAL DESIGN

The concept for my final design came from the features of the site. The geometry for the plan was derived from the distance and the angle between two prominent rock outcroppings existing on the site. The section takes clues from the slope of the site--flat, then down, and then up.

The galleries were what I considered to be the most important feature of this project. Therefore, each one is individually designed to take on some of the qualities of the climatic region that is being exhibited inside. The Desert gallery is formed to represent the shifting sand dunes. The Rain Forest gallery is layered to suggest the differing levels of growth. The Grasslands gallery expresses the horizontal terrain that is occasionally interrupted by a tree. The Ice Caps gallery is formed like an iceberg.

The drawings for this project were submitted to the competition in time for the deadline. However, my entry did not place as a finalist.

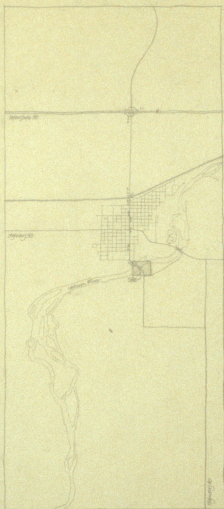
The final drawings and model are documented in the following slides. The design can be understood by reading the finalized version of the Experience of Walking Through the Tree Museum that is found in this book. Thanks for reading.



What can you and
your community
do about recycling?

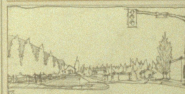
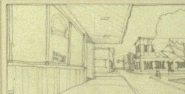


Canton

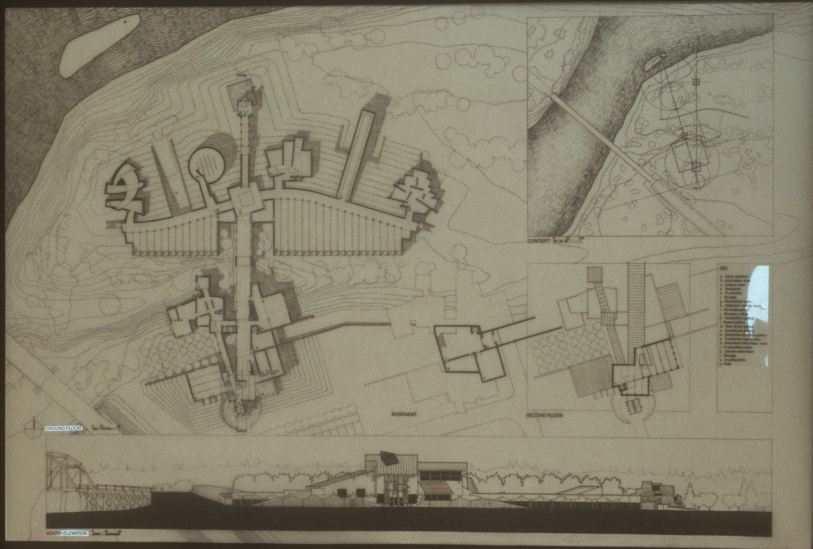


Canton River

1920

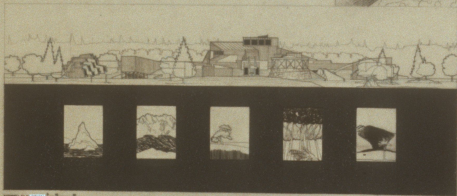




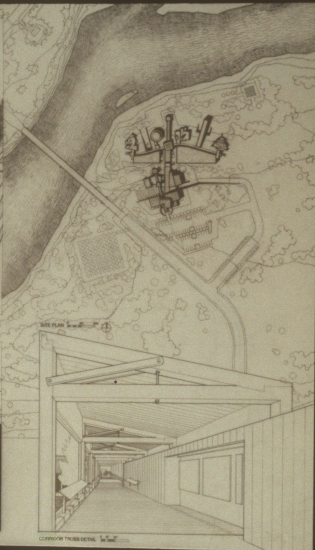




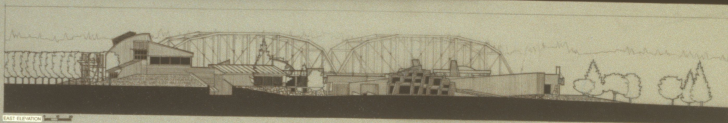
VIEW FROM BRIDGE



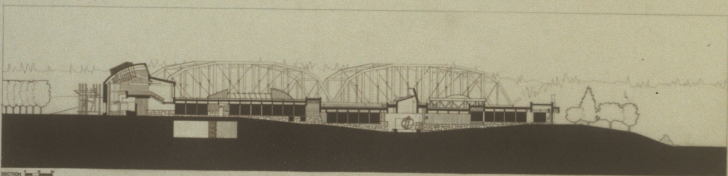
NORTH ELEVATION



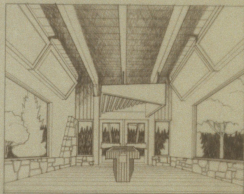
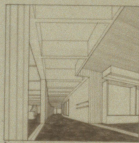
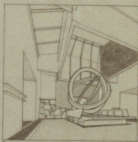
CORROSION TRUSS DETAIL



EAST ELEVATION Jan. 1992

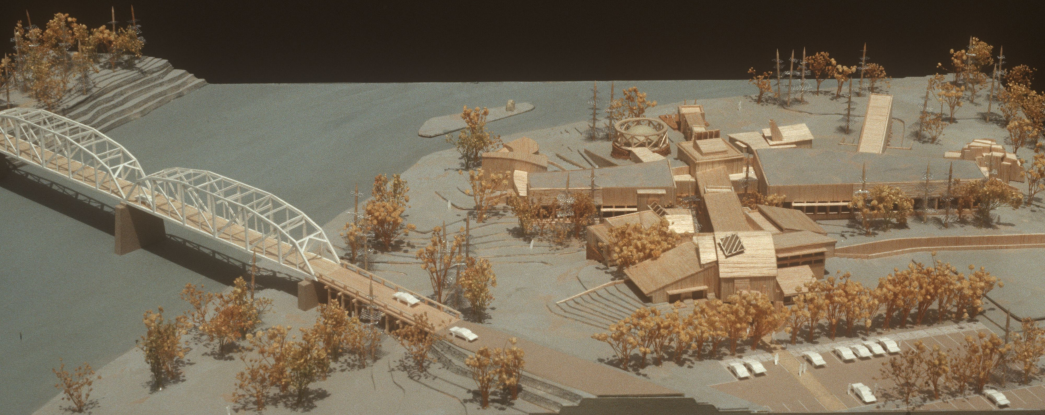


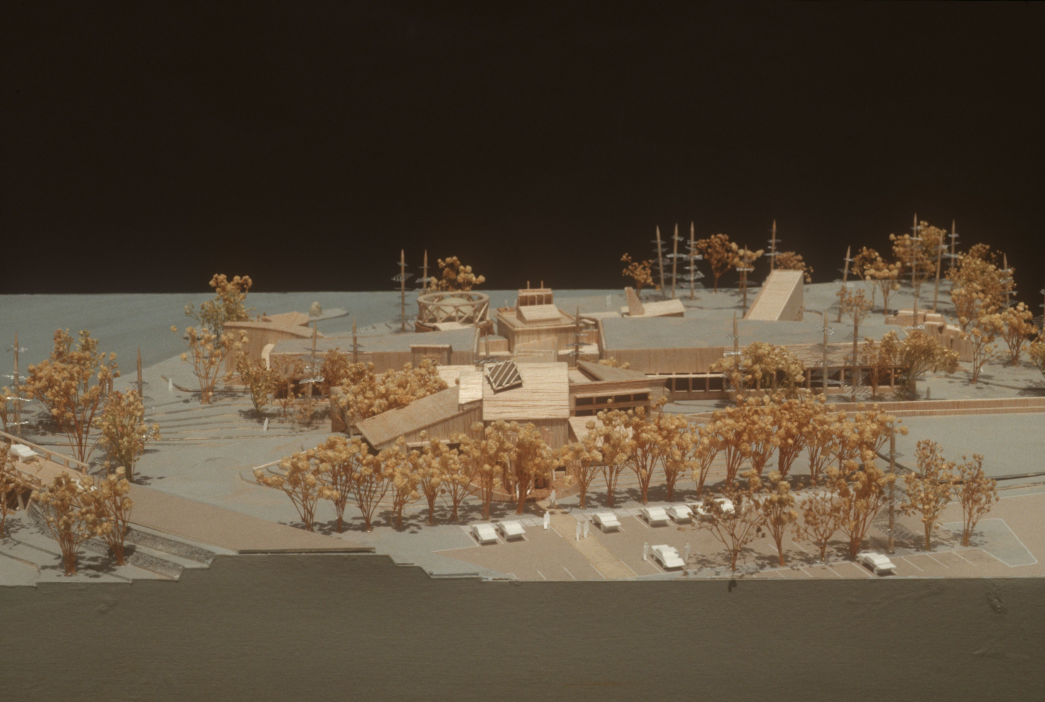
SECTION Jan. 1992

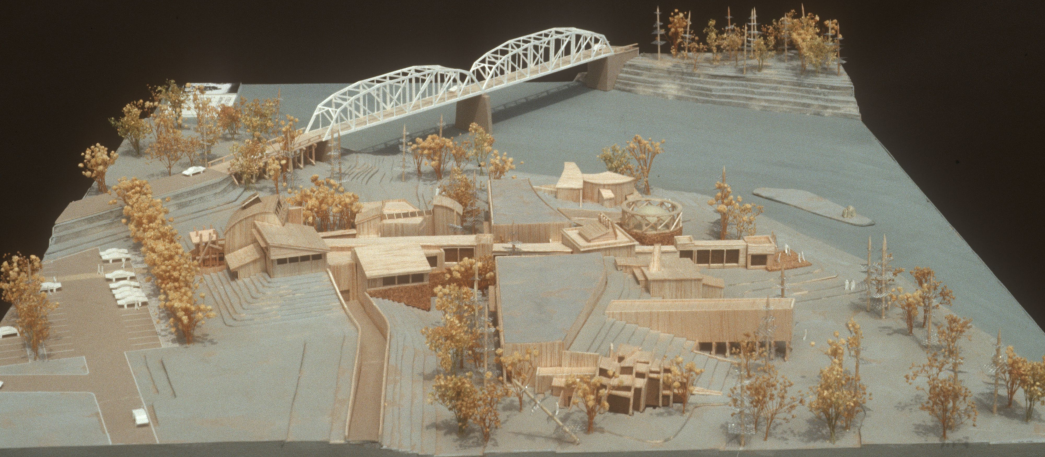


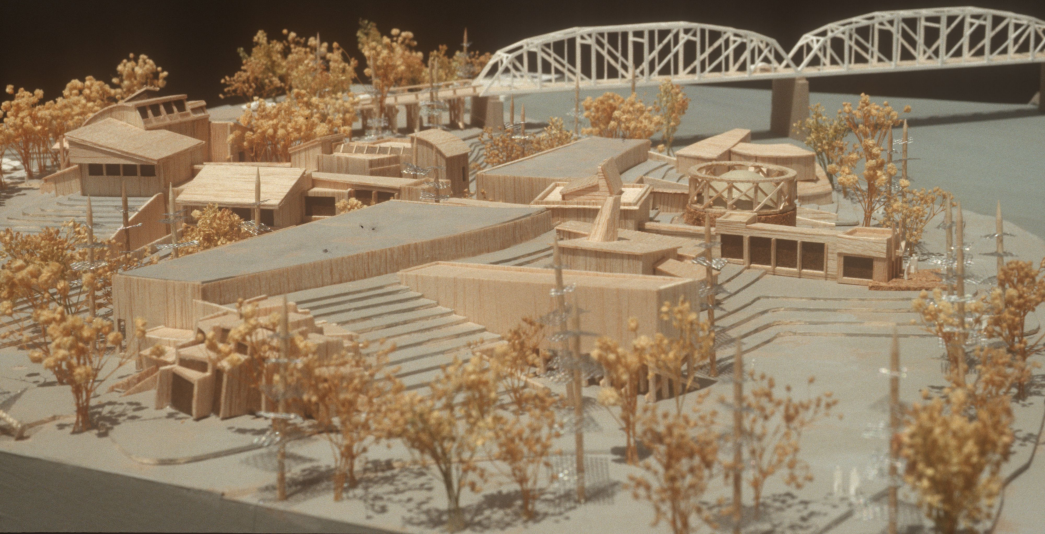
A TREE MUSEUM

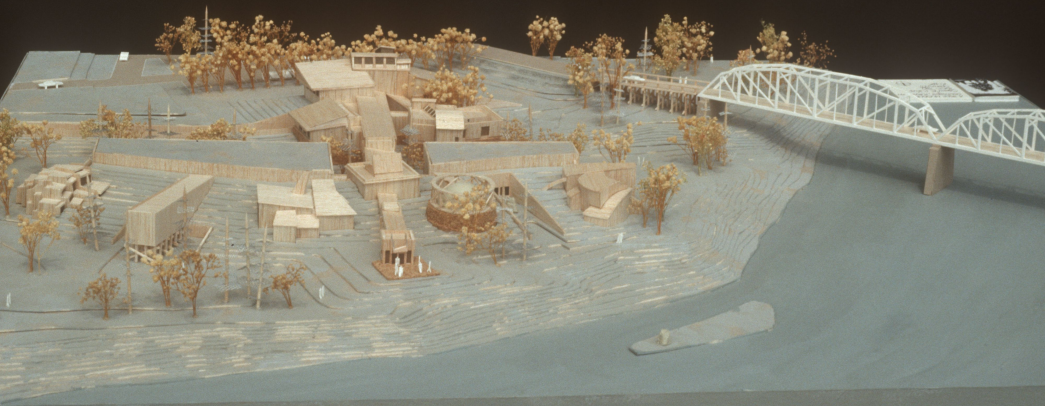
ACSA-AMERICAN WOOD COUNCIL NINTH ANNUAL STUDENT DESIGN COMPETITION



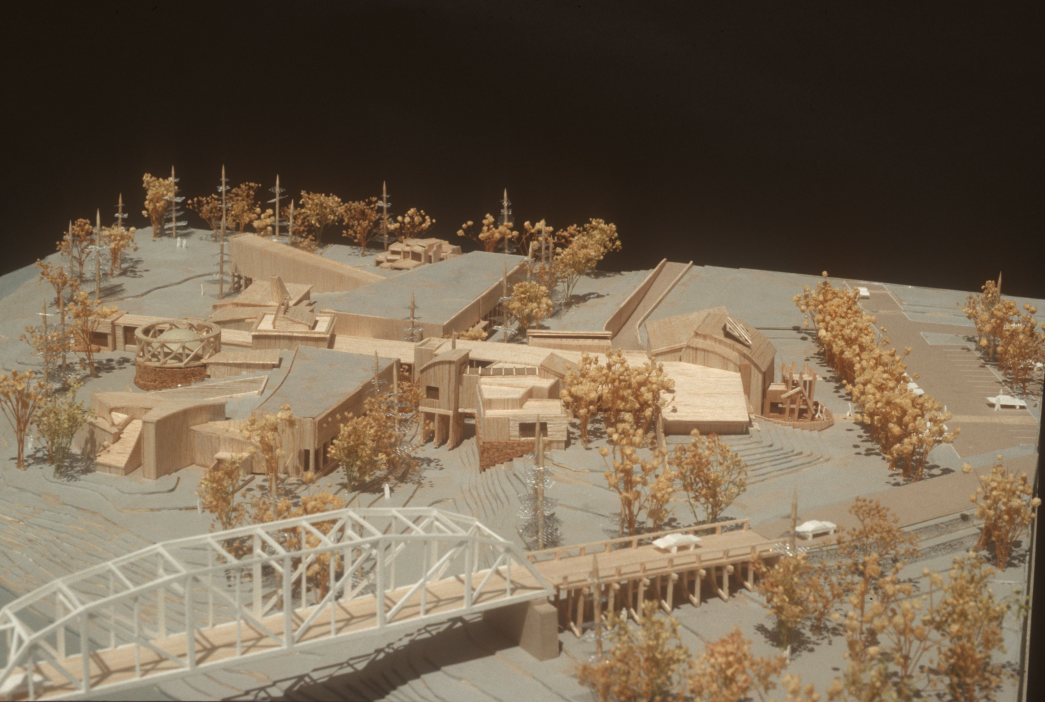


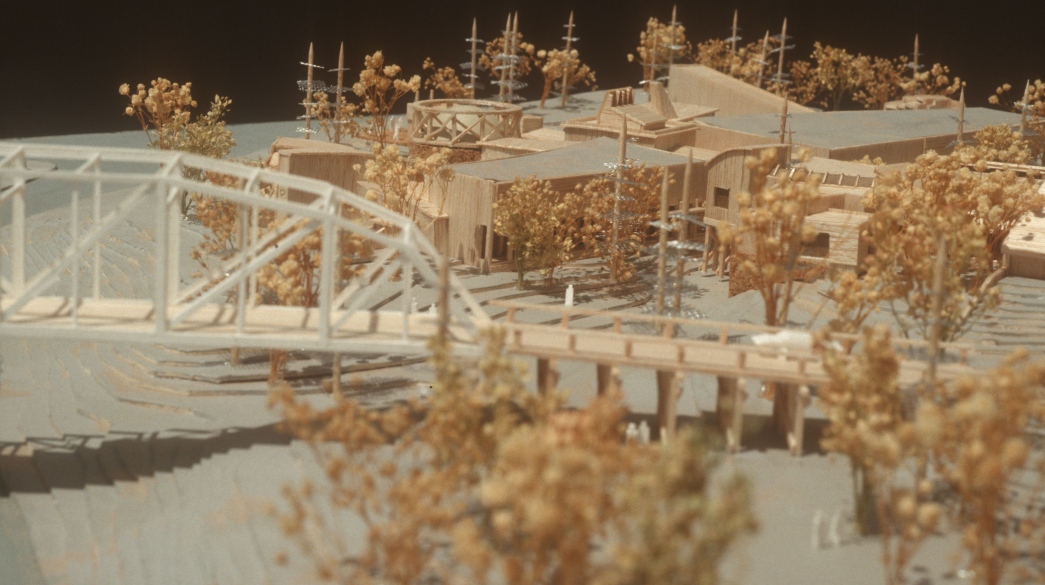












GUIDE for OPERATION AND MAINTENANCE

RIC-WIL PREFABRICATED DISTRIBUTION SYSTEMS

You, as a Ric-wil customer, are entitled to years of trouble-free use.

Every section of Ric-wil is subjected to a pressure test prior to shipment. It is designed to keep out water and moisture because of possible damage from future construction (such as communication cables, etc.) and methods of operation, some precaution and maintenance is necessary.

ANY WATER entering conduit MUST be removed and kept out as it will seriously shorten the life of the installation.

A. GLAND SEALS

Conduit ends fitted with gland seals will require periodic tightening or replacing of the packing. Due to friction and hardening the packing loses its life and will allow water to enter if the manhole or pit is subject to flooding. Gland seals on lines with frequent cycling require more frequent maintenance.

B. TO DRY OUT CONDUIT

Remove drain plug at low end of line and vent plug at high end. This will allow water to drain from conduit. These plugs are located at terminal conduit ends inside manhole or building. With heat on the internal pipe, air should then be forced through the conduit by connecting a portable compressor at the vent opening. Do not use more than 15 pound pressure.

Air should enter through the vent at the high end of run forcing water out the lower end. For easier control the air connection should be piped to above ground with a 30-lb. gauge and control valve. After all water is blown out of the low end, attach a hose here bringing the end of the hose up out of the manhole or to a point where surrounding air will not fog a mirror. With 15 lbs. pressure in the conduit hold a small mirror over the end of hose. When the mirror is clear at 15 lbs. drop the pressure gradually, repeatedly testing by shutting down the air occasionally to allow it to heat up in the conduit, until with very little breathing from the hose the mirror will stay clear. If the mirror stays clear, the insulation should be dry. If vent piping is not installed vent and drain holes should remain open for a few days and then closed with plugs furnished. Take precautions to prevent reflooding.

C. VENTING THE SYSTEM

Shutting down the steam (cycling) line will cause a vacuum in the conduit and suck in moist hot air from unventilated manholes if glands are not maintained, or plugs are left out. This hot moist air will condense and settle inside the conduit. To prevent this, vent piping should be installed on the vent holes and should rise to outside air (minimum humidity). A drain nipple and cap should be placed in drain openings which can be removed occasionally to test the conduit for dryness. For suggested method of vent piping see page 11-1 in Installation Manual.

If you have a malfunction, phone or write:

