PLACE of PROCESS:
DESIGN FOR A HIGH SIERRA
ARTWORKING CENTER

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B.A. University of California, Santa Cruz, 1978

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PLACE OF PROCESS:
Design for a High Sierra Artworking Center

by Sally A. Sweetland

Submitted to the Department of Architecture on January 17, 1986, in partial fulfillment of the requirements for the degree of Master of Architecture

ABSTRACT

Studies have been made to explore formal systems at a site of particular qualities and with a program of complexity and variety. This transformation of a place involved projecting systems of landscape, access, and building with the intention of unifying diverse elements into a collective, villagelike enclave.

"Every higher organism depends on the synthesis of differences."

Paul Klee
The Thinking Eye

Thesis Supervisor:
Maurice K. Smith
Professor of Architecture
MUCH appreciation and gratitude ...

Maurice Smith
Gene and Nancy Sweetland
Jeffrey Schoellkopf

Acknowledgements
To the vivid memories of Chris Hassig and my brother, Rob.
Celebrating their love of the felt terrain.
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An order to the natural environment does, indeed, exist; but it is an order that may be understood better in conceptual, rather than perceptual and biological, rather than visual, terms. Only with sufficient distance, or, conversely, with the extreme closeup of the microscope, is scrutiny rewarded with comprehension.

M. Treib

Introduction

Exploring the Form of the Collective and the Inflected

This thesis has been a process of exploring collective form in a particular landscape. A broad range of observations, references, and images are used to illustrate aspirations and possibilities for the transformation of a mountain site. The open-ended, linear organization of the project is meant to suggest both potential for addition as well as a built representation of passage through a landscape uniting places of varying individual characters. To this extent, the formal investigation was about movement and gathering.

In the documentation of site observations, an attitude was assumed about the value of reflecting impressions that would enhance the analyzed maps and descriptions. Despite the best intentions, a single selected photograph gives a random impression of its subject. Instead of slicing exclusive pieces, a more inclusive, less particular exploitation of randomness was adopted. An impression of the site might thus be as additively built as the design intentions.
The form of initial landscape gestures followed questions about appropriate balancing of extremes: What attitude should be taken in building on a virgin landscape that is both sensitive to the natural forms and assertive in creating a built, architechttonic imprint? The idea of the "inflected" landscape, as discussed by Marc Treib, became instrumental in understanding this middle range between projections overly sympathetic to topography and those completely disconnected from it. One extreme is the "merger" which tries too hard to become one with its setting, a contrived park or "constructed caves and follies." Modern architectural examples of mergers include bermed and sod-covered structures arising from efforts to make energy-consciousness a constructed reality. At the other end of the spectrum is building with "distinction" from the landscape: a discrete object hovering over its respective topography. Corbu's Villa Sa oye holds a place in this category. Many of the projects emerging from the megastructural movement of the sixties typify this attitude as well.

It is doubtful that a natural order could be truly replicated by architectural means. The act of construction, as a creation of places for habitation, work, worship, or pleasure, distinguishes these places from the preexisting order almost by definition.

M. Treib
What lies between the two extremes and slightly to the left, towards merger, is the inflected landscape. Treib describes this as places that retain in part the natural order or material while articulating an order distinct from the natural form of the land, a distinction sufficient to generate a sense of entity. ... Contributing to this ambiguity, the exact nature of the interrelationship (between the natural and the constructed) seems to shift and change under differing environmental or temporal conditions. Gunnar Asplund's Woodland Cemetery and Alvar Aalto's Villa Mirea are held as manifest recent examples of inflection.
At the woodland cemetery and at the Villa Mirea the construction of places exists apart from the natural order and yet fits comfortably within it. The structure is not an isolated machine in the garden; a synthesis of the pieces and their order exists. The edge between the two is ambiguous and blurred. As one squints at the pieces certain parts of the setting come sharply into focus and other parts soften and become cloudy. In the end, we cannot quite rest in a state of complete knowledge nor can we accept the information given as exhaustive and unchanging. Nor can we accept as given and finite the reactions and emotions to which those perceptions are linked.

M. Treib
On the project site a certain drama exists prior to any building conjecture. The magnitude and power of the lake as an orienting force makes the experience of being there similar to that of being on a cliff over the ocean. Awareness is instinctively turned in the direction of the water as a constantly changing source of light, color, and movement. The southward sloping landscape reinforces this tendency.

Orientation of the building collective is intended to reflect this expansive gesture. It takes on a linear form which is registered along the direction of the lake. In bending slightly away from the big water, the village encompasses as full a view towards it as possible. Simultaneous expression of a colony of individuals united by pressing common interest is achieved. On the largest scale the plan resembles the shadow of a large south-flying bird.

Strategies towards inflection occur at the scale of the large landscape moves as well as on the personal scale. The big gestures correlate systems of access with those of water collected from the natural, and held captive in the built environment. Buildings are intensified along the edge as defined by the variable landscape terracing. In general, they have two character types, to the right and left of inflection. The buildings which occur along the central passage have a distinct presence relative
to their surroundings. The building with its feet in the water, for instance, provides some exchange with its environs but remains separate and mannered. Others which occur along the linear cross-site "edge" which creates the bird form in plan, have a more rustic feel because of their native material composition of pine and stone and because of their variable roof forms.

The thesis project is organized around three primary aspects of the design: landscape, access, and building (structure and character). An additional section explains the development of the program based on observations of five places having a mixture of studio and exhibition facilities. Included in this section are observations and sketch studies for individual studio workplaces. Since this thesis is oriented to graphic communication over written, cross-referencing is used as an expository device. This strategy will support an emerging statement about architectural form-making that has resulted from a process of ongoing design inquiry.

The work of Luis Barrigan representing distinction from the landscape, particularly in his use of color. Here shocking sherbet hues are reflected in a captive body of still water.
Mykonos, and Japanese village types such as Ine Kame-Yama. Norman Carver, in discussing Italian village forms, describes them as "the extension of collective behavior into built forms".

Expressions of built reciprocity with the landscape.

Some of the principles of collective form.

Diagrammed by Tom Chastain
Cliff Palace, Mesa Verde, New Mexico: Anasazi Ruins representing ancient inflection. Using modern materials and technology, how can we build with such ... reasonableness and delight?

(photobyauthor)
Diagrammatic Overview of this Thesis

Site
- CALIF NEVADA
- Lake Tahoe
- trees
- rocks
- view over lake
- saddle
- stop/go forms
- Eddies in River
- inverted clamshell form

Landscape
- Pueblo Bonito • Louisiana • Haystack
- Museum
- Fillmore Path • Estherie School
- Oakland Museum
- public access
- public access topo.
directional
- Edge
- private
- collective
- simplicit, housing
- light + openness

Access
- Monterey Aquarium
- Minimal Requirements

Building
- five precedents

Studio
- A range of studio-exhibition relationships
1. Macdowell Colony, N.H.
2. Torpedo Factory, VA.
3. Sawtooth Center, N.C.
4. Anderson Ranch, CO.
5. Santa Cruz Art Center, CA.

Note: This shell stamp has been used throughout the thesis to cross-reference information.

PRECEDENTS TOWARD PROGRAM DEVELOPMENT

The program used for the design was influenced by visits to five places that combine the process of artworking with the exhibition of finished work. Each of these places has a different attitude towards both the creative process and the public interface. Selected aspects of each program were used to create a new kind of place. The idea is to provide conditions which would trigger spirited events in a rare setting.

As a working retreat, the program offers a range of studio facilities for varying sizes of groups consisting of professionals, apprentices, and students working together, or individuals working in concentrated isolation. As a public exhibition center, it provides gallery and restaurant facilities with a view over the lake.
The following chart encapsulates aspects of the five programmatic precedents. Further descriptions are in the final chapter.

<table>
<thead>
<tr>
<th>Place</th>
<th>Location</th>
<th>Context</th>
<th>Previous Life/Use of Buildings</th>
<th>Length of Participant Stay</th>
<th>Degree of Outside Participation</th>
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<tbody>
<tr>
<td>Macdowell Colony</td>
<td>Peterborough, New Hampshire</td>
<td>Rural/woods ~ 5 miles to town</td>
<td>Residence</td>
<td>Average 6 weeks</td>
<td>Virtually none; open to the public one day a year</td>
</tr>
<tr>
<td>Anderson Ranch</td>
<td>Near Aspen, Colorado</td>
<td>Rural/mtns. ~ 5 miles to town</td>
<td>Cattle ranch</td>
<td>Varies from ~ 6 weeks to 3-4 months</td>
<td>Some: invited when shows open; exhibits ongoing</td>
</tr>
<tr>
<td>Santa Cruz Art Center</td>
<td>Santa Cruz, California</td>
<td>Small town, downtown area (probably residential)</td>
<td>Daily use (non-residential)</td>
<td>Encouraged: ongoing exhibits, after-hours cafe</td>
<td></td>
</tr>
<tr>
<td>Sawtooth Center</td>
<td>Winston-Salem, North Carolina</td>
<td>Near downtown area</td>
<td>Industry</td>
<td>Daily use (non-residential)</td>
<td>Invited: ongoing exhibits</td>
</tr>
<tr>
<td>Torpedo Factory</td>
<td>Alexandria, Virginia</td>
<td>Urban, waterfront</td>
<td>Torpedo factory</td>
<td>Daily use (non-residential); artists generally stay for years</td>
<td>Depended upon for business; open 9 to 5, 6 days a week</td>
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<tr>
<td>Character of Place</td>
<td>Diagrammatic Relationship between Work and Exhibit</td>
<td>Aspects Shared or Borrowed from for This Thesis Project</td>
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| New England houses/private village | No exhibits here, just | - Residential  
- Solo work studios deployed at either end of site and clustered at the end of existing fire road  
- Option for solitude |
| Camp (rustic)             | some overlap                                          | - Residential  
- Apprenticeship-like classes  
- Degree of overlap between work and exhibition  
- Grandeur of site; high mountain views |
| Workshop                  | much overlap                                          | - Restaurant focal to public interest  
- Degree/quality of active public participation |
| School/industrial         | no overlap, but workrooms with interior screens      | - Variety and duration of classes  
- Quality of light  
- Sawtooth roof form |
| Shopping mall factory     | work = exhibit                                        | - Energy: "industrial" level of activity |

(after hours privacy)
ARTWORKING CENTER...

PROGRAM/USE/ACTIVITIES

- A working retreat for active exploration in the arts.
- A place where people can come, stay, work for lengths ranging from one months to two years.
- A place to work solo on designated projects -- or with others in an apprenticeship capacity.
- A place to visit/see exhibitions of work being done.
- A place to have a meal with a spectacular view.

RANGE OF FACILITIES...

Studio/workrooms designed to have barnlike openness which would allow/encourage changeable spaces in size and number................................................. 5,000 sq. ft.

Small groupings of studios to provide for 3-8 people working together.................. 16,000

Individual/solo studios for maximal privacy/concentration.............................................. 2,500

Living accommodations variable: "loft" style above studios, or down a path to suite-like dorms, or with studio (solo).....................................................

Cafe with a view over lake back to back with kitchen facilities......................... 2,500

Exhibition/gallery space................................................................. 9,000

Outdoor exhibition framework.................................................................. 10-12,000 +

Outdoor working patios/process sculpting gardens......................................... 20,000 +

Swimming pool with floating docks.............................................................. 8,000
Frank Lloyd Wright's 1922 proposal for a "summer colony" across the lake from the site ... Incorporating a system of moveable pieces ... including floating barges and tree houses. The project was never realized; F.L.W.'s client only wished to raise the value of the real estate by using Wright's name on it.

The idea of encampment, not unreasonable for the high Sierras, was the initial projection for the site.
THE SITE
THE SITE
The scale of things in nature seem bigger out west...

The Seeligers (author's grandparents) pictured in nearby Yosemite, 1925.
Native American folklore about the shape of the west coast explains the emergence of the huge valley that runs the length of California, and its enclosure by the coastal range on the Pacific side and the Sierra Nevada mountains to the east. The western side of "turtle island" (the named shared by many tribes for the continent of North America) contained a huge body of water, separate from the Pacific Ocean, which was very gradually drying up. A whale of mythic proportions had swum through what is now called the "golden gate," entering this shrinking inland sea. By the time he wished to return to the cool Pacific, it was too late: the mouth of the
river connecting the two bodies of water had withered to its existing size -- which is big enough for ships to pass through but too small for a whale with a length of over four hundred miles! The poor trapped inland creature dried up and stopped breathing as its wet habitat became a dry one. Its great weight caused a massive, whale-shaped depression that runs the length of the coast.

There remains a trace of that original sea high up in the mountains to the east of this valley, in the Sierra Nevadas. This "trace" is the largest fresh-water body of water at its ample elevation (6,280 ft.) on the continent. Eighty miles in circumference, Lake Tahoe is longer than it is wide. But the width, even at its narrowest, is enough to make a view of one shoreline impossible to see from the other, because of curvature of the earth. Perhaps, if I may continue the oral tradition of the Indians by conjectured embellishment, the lake was formed by a last thrash of the tail of the inland whale: In addition to its other distinctions, Tahoe is also one of the deepest high mountain lakes on turtle island, as though pierced by this thrashing gesture. Almost 1500 feet from surface to bottom, this depth, in combination with the clear, thin air, gives it an inky blue color that is at once transparent and opaque. "Tahoe" is an Indian word expressing this color. Where depths are shallower around the edges, the bluegreens and aquamarines are tropically clear.
The site used for the purpose of this design study in forms is not intended to suppose "real life" practicality or suggestion. The value of a study in landscape as a cue to building conjecture in a hypothetical way is reinforced by an indefinite moratorium on construction currently in effect around the lake.

Nestled in a saddle which slopes south over this breathtaking view, the site lies two hundred feet above the shoreline. A ribbon of traffic stretches around the lake and occurs roughly a quarter of the vertical distance up from the water's edge to the site. This four-lane highway (50) shuttles a constant stream of vacationers and truckers around the lake. A fireroad from the highway traverses up the slope, making a hairpin turn on its way up the mountain, ending just past the saddle-site. Where it fades into deer trails is employed as the most secluded aspect of the projected transformation.

The relationship between the site and the lake is thus primarily a visual one: frequent access to the shore is unlikely due to the vertical distance, a road hard to cross, and the fact that almost all the land around the lake is private property. The nearest public beach is ten miles away. This has influenced a bringing of water to the site.
More of the water's surface is visible from the site ... than from the beach.
Opposite page:

Northwest facing view of the lake from the top of Mount Shakespeare (Elev. 7093) (a short hike from the site). Vacation town of Glenbrook, Nevada and Dollar Point in view.
Existing fire road moves past site and soon after, dissolves into forest...
... At present the palette is distinctly colorful, sky blue, orange, pink, vermilion, bright yellow, bright green, bright wine-red, violet. But by intensifying all the colors one arrives once again at quietude and harmony. There occurs in nature something similar to what happens in Wagner's music, which, though played by a big orchestra, is nonetheless intimate.

Vincent Van Gogh in a letter to his sister Wilhelmina (from Arles 1886-88)

Calico Scallop

GATHERING the site

Turning ...
Jeep tracks worn off fire road lead to boulder outcropping and view
The entire lake region has developed into a vacationland for Bay Area families. Summer waterskiing and winter snowskiing bring world fame to the area. The weather is dry and warm in the summer, with cool, crisp nights. The quality of air in the "off" seasons (spring and fall) is so trenchant it makes the nostrils flare with the smell of fresh pine trees. Winter snows are high all through the Sierras, but because of the southward orientation of the site and prevailing warm southern winds, it melts quickly off this "banana belt" section of the lake, as it is locally addressed.

Wildlife has naturally decreased since the widening of the highway. Ten years ago, whole families of deer could be found watering at the shoreline in the early morning. Baby black bears were occasionally heard stuck high in the pines, wailing for their mothers. These sitings are memory but others remain: fat healthy squirrels, chipmunks, blue-bellied lizards, screaming bluejays, and june bugs will inherit the place if not the earth. Canadian honkers have discovered it in enormous gaggles only two or three years ago. Deer are still around, but they steer clear of the highway for obvious reasons, and thus the lake itself. This is unfortunate. But encouraging was the firsthand spotting and tracking of a bobcat walking the length of the fireroad along the site. Quiet boots and winds in my favor masked my curiosity from his keen senses. After decades of exploration, this was a first, and occurred during "official" site observation and documentation. I took it as the go-ahead signal.
A fish went deeper and deeper into the water. It was silver. The water blue. I followed it with my eyes. The fish went deeper and deeper. But I could still see it. I couldn't see it anymore. I could still see it, when I couldn't see it. Yes, yes I saw the fish. Yes, yes I saw it. I saw it. I saw it. I saw it. I saw it. I saw it. I saw it. I saw it.

A white horse on long legs stood quietly. The sky was blue. The legs were long. The horse was motionless. Its mane hung down and didn't move. The horse stood motionless on its long legs. But it was alive. Not a twitch of a muscle, no quivering skin. It was alive.

Yes, yes. It was alive.

In the wide meadow grew a flower. The flower was blue. There was only one flower in the wide meadow.

Yes, yes, yes. It was there.

Wassily Kandinsky
John Muir called the Sierras a "Range of Light."
"I'm beginning to think that the beauty of a thing is in the process of looking, not in what is seen...."

David Hockney
The Collective in the Landscape
Initial impressions ... observing a familiar site. Curved forms represent a "gathering" of places hinted at by flattened areas and clearings.
The form of the site is similar to the inside of a scallop shell: what reads as a promontory on the topo map contains the form of this large flattened saddle or shell... and thereby creates a natural stopping or gathering area. Jeep tracks diverting off the existing fireroad and other artifacts of modern joys (i.e., old rusty beer cans, some bullet-ridden) testify to the gathering response this landscape form has generated in previous visitors. This aspect of the existing landscape form was taken as a strong cue for the organization of the collective.
The woods of California, New Hampshire. The things which keep these communities united are the same as those which keep the pieces separate from one another:
- winding roads which respond to topography,
- dedication to research and exploration,
- administration.

Macdowell Colony, Peterborough, N.H. as it existed in 1911. Studios and cottages (compare with current plan, p. ___).

University of California, Santa Cruz. Eight Colleges, Shared Facilities, Housing. Dotted area indicates natural preserve.
I was interested in trying to amplify a dialogue between the windscape and the landscape, to amplify the dance these two entities do with each other the way a formation of land influences the windflow over it, creating vortexes and areas of calm. It's a kind of visualization of the atmosphere. Of course, the land itself is also formed by the wind; it isn't just a fixed entity.

Doug Hollis
(J. Kelly)

(In reference to his wind-generated "sound sculptures")

System of retaining walls follow the general topography of the site, fanning out where the inverted shell scoops up and the direction of building and movement resists. Curved forms gather individual places of stopping: gathering people and/or water.

Broken Patterns, 1977
Photo by Gyorgy Kepes
NOTES ABOUT CHACO 

Pueblo Bonito

(sitting alongside one of its kivas...)

This is one of the early megastuctures, according to
R. Banham. And the oldest ruin found in this continent,
north of Mexico. It is aw inspiring.

INSIDE/OUTSIDE: In an environment as harsh and open as
this high N.M. mesa country, the need for complete SHELTER
was/is essential. The sun beats down relentlessly and thunder-
storms spare no inches in their seasons. Therefore, the "INSIDE"
storms are completely protected from these and other elements
places are is may be/come...? They provide a cool darkness from which to
escape the blazing summer light. And heat. Stepping from
outside to in on a day like today is like moving from a bowl of
hot mush into a cool mint jelly. I suspect the sensation is
not much in winter... When the nights are so cold, the thick
masonry walls (usually 14" @ doorways) hold the
"right" /comfortable temperature into the day or night and
shift with grace to the seasons. Cool walls from summer's nights
keep it mottled the day. Warm walls from winter days help cut
the chill when night falls). There is little, if any, need there.
the, for screened, porch-like places that lie between the
extremes of inside and out. Clothes perhaps provided that

LIGHT: Openings were placed very carefully in these 1,000
year-old structures. Many of the small square light pockets
were probably used as clocks; The square of light cast as
it moves around the room indicating the hour. Other corner
windows are thought to be oriented with such precision
and forethought that they bring in equinox light dir-
rectly, marking seasonal change with de light.

ACCESS: Movement is room-to-room (Reun), with very little used solely for its purpose.

BLOOD PIECES: A blend of surrounding materials - Thick stone
walls (multicolored) put pieces hauled from miles around. Wood

loists... Stucco over walls - Painted red @ base, white or

Surmise in Bonito Textured Patterns of Light 9 Shade

Sculpted

Page from my Sketchbook 7/85
The issue of appropriateness of building to topography, of merger or contradiction, arises here. Yet the very distinction of morphological orders, the differences rather than the similarities, I would suggest, are the sources of their power. Imagine in the place of these structures a naturalistic construction of an irregular cliff adjacent to the true escarpments. If the imitation were so perfect that it might be mistaken for the prototype, it would still possess none of the sense of history and record imbued in the natural strata. Would this imitation evoke the same sense of suitability or even awe that these native communities do — even in ruins?

M. Treib
on Pueblo Bonito

The semicircular or "D"-shaped plan of this Chaco Canyon (New Mexico) ruin closed it to the possibility of additive growth, except through duplication. This strong defining and gathering wall to the outside orders the apparently loose deployment of subterranean kivas (round rooms) and surrounding three-story apartments. The development of the whole occurred in three periods around the turn of the millennium.
Early Projections: Buildings, gathering landscape

U.C.S.C. Quarry classroom
Seats >1000
As a self-contained non-growth form, the D-shape has been used throughout the projected landscape transformation to indicate areas of stopping or gathering. They contain singular functions such as that of the amphitheater, the parking turnaround, sculpture gardens, and collected water.

The form of some of the preexisting fences near the much-celebrated Searanch Community have the same D-shape form. The one observed (approximately 75' in diameter) responds to the form of the cliff it runs along in a geometric way, perhaps as much for the aesthetic effect as for ease of construction. Passage through these containments is made possible and continuous for those who can manage stairs that go up and down over the fence but are sufficiently prohibitive for passage of any bovine inhabitants in the neighborhood (all of whom, incidently, have moved away since Searanch was built).
The waterforms deployed collect drainage, provide swimming or wading, and are most prominent along public access. This additively generated form moves downhill, as water does naturally.
There were two essential problems to deal with, how to combine the old house naturally with a new building in such a way that the exceptional qualities of the park were utilized, but in no way disfigured. During the work we found out that the glass corridor which became the connecting link, in itself gave the park a new quality, making the walk through the grounds a new delight to the visitor. When designing the building we wanted partly to subordinate ourselves to nature and partly to emphasize and stress its values.

Great importance was attached to creating rooms of various character. One walks through a row of alternately open and closed forms.

Jorgen Bo and Vilhelm Wohlert
Ed Barnes' design for the Haystack School of Music and the Arts is organized by the path which descends ninety feet down its site towards the water. The buildings, separate from one another, are united by this access system and by their common roof forms. The thesis project site uses a similar strategy to unite detached buildings. The differences are that the slope of the site is far more gradual and the linking passage runs in the direction of the topography rather than against it, as does the Haystack school. Similar roof forms have been adopted as well, but are deployed in a consistently north-facing direction.
Early section building an idea: A structure which sits in and over the landscape ...
providing for open views at the level of a walk through the woods.
ACCESS

The path of a grownup:

point A  \[ \rightarrow \]  point B

The path of a kid:

point A  \[ \rightarrow \]  point B

The path of a dog:

point A  \[ \rightarrow \]  point B

Optimal systems of passage accommodate all travellers.
On getting up steep slopes directly....
The "ascensors" in Valparaiso, Chile climb cliff like hill-slopes. Each car carries 3-5 people and each ride costs 3-5 cents. The above (left is the view as car emerges from the station at the bottom: heading for the light from the dark. View opens with the ascent. (photo by author)

"Balcony House," Mesa Verde, Colorado. Ascent to this small cliff-commune (opposite side of the mesa from cliff palace) provided only by wood and leather ladder. This was practical for keeping marauders away. There happened to be a water spring in the cave.
A similar passage could be made from the road directly to the site.... Not elevators or ladders, but a stairway similar to that organizing the Haystack mountain school (see p. 65) or filbert path (see p. 97).
The systems of access throughout the site have been organized in a reasonably straightforward fashion. The existing fireroad is left intact. Its elongated, traversing gesture is necessary for the vehicular ascent of the hillside. (Note: Bumper stickers boasting "this car climbed Mt. (blank)" are ridiculous: cars can't climb real mountains.)

A pedestrian access which builds the virtual triangulation of this road is proposed as an option for walkers. This would build a direct route from the road to the restaurant, for local hikers and people dropped off at the bottom. Parking staggers through the woods near a vehicular turn-around adjacent to the main public entry. The diagrammatic organization of access between public and private relates to the direction of the landscape, and is pivotal in generating the building collective.

Public (visitor) movement crosses the contours of the "scallop-shell" site slope, building a passage variably covered and open from the parking area to the promontory-restaurant, building a forty-five degree axis relative to the east-west orientation of the other buildings. This system is punctuated by the fact that it is frequently aligned with water. Drainage pools, fountains, and the largest body of captured water are built additively to recreate the direction in which water flows naturally: downhill.
Participant access (rather than "private"), in contradistinction, runs with the direction of the landscape. It follows a system of retaining walls which build the "south-flying bird" mentioned previously. The fifteen degree shifts at either end serve to counter the gathering effect of the scalloped landform. Unlike a courtyard-organized, centrally-focused cluster (i.e., Lou Kahn's Salk Institute), the program calls for a more expansive, outward-facing form. The built manifestation of this collection of individuals united by pressing common interest in working is the topo-directional linking passage. As a collection of individuals with possibly very different views, visions, and methods of expression, varying degrees of separation are built by their unobstructed, outward views to the lake. The form of the south-flying bird corresponds with this system of access, as diagrammed by the "edge" study.

What I've been trying to do is use sound to define experiential space within a broader environmental context in a way that amplifies perception. Sound has a terrific influence on our perception, but we aren't necessarily conscious of its effects upon us. It actually physically vibrates upon your body. I find that I'm extremely aware of my sonic environment, and that I navigate in space accordingly. I tend to stay away from high-density sound. It's not merely an avoidance behavior but a functioning navigational device.

Doug Hollis
(J. Kelly)
The public access follows the water from the parking lot to the restaurant.
Private access, which moves "topo-directionally," is more loose: either end of the private passage, where built articulation dissolves into the forest, movement returns to the order of the natural, organic, and individually interpreted. Cues would probably be taken from existing deer paths.

WATER

The leg strokes of a swimmer—rhythm in loose continuity.

Paul Klee—Pedagogical Sketchbook
the Oakland Museum
Roche - Dinkeloo, Architects

Observed: Rhythms of sunlight, plantings - alternating with shade, vertical change builds outdoor movement in a way that keeps opportunities to get indoors.
The Oakland Museum (Roche and Dinkeloo, Architects) features passage created by a variety of experiences. Assorted ways of moving through this downtown building is similar to that of passing through a variable landscape. It is possible to meander over and under the entire structure, always adjacent to either water or plantings, often both, without ever entering the inside world. This quality is encouraged by west coastal weather. Cues have been taken from this aspect of the Oakland Museum toward building the form of the public access on the Nevada site. It is felt that the "banana belt" weather of the area, as described, would make such a strategy reasonable. From the auto turnaround to the restaurant, the form of the access provides passage of adjacencies along water, between buildings, through sculpture gardens, under building-bridge, and along a rustic path. The first half of this journey could alternatively be meandered through indoor exhibition halls with cues of light from above and glimpsed views to the outside.
Observations of two systems of hillside passage were made to understand the dynamic of public and private movement on discontinuous landforms. Nob Hill in San Francisco is topped by the world-famous silhouette and built-in view enhancer, Coit Tower. Consequently, there is a constant flow of visitors up the steep hill to this landmark. The two observed passages ascend either side of the hill; one is strictly pedestrian and the other optionally vehicular. In both cases, the direction of public movement is counter to the topography, and private use territories move topo-directionally. A similar access diagram is adopted for the project site.
Observations of an edge

Garfield School San Francisco
Joseph Esherick, Architect.

view from across the street
The woods grew deeper and deeper. The red trunks bigger and bigger. The green crowns heavier and heavier. The air darker and darker. The bushes lusher and lusher. The mushrooms thicker and thicker. Until there was nothing but mushrooms to walk on. It was harder and harder for the man to walk, to force his way through without slipping. But on he went anyway, repeating faster and faster and over and over the same sentence: — —

The scars that mend.  
Colors that blend.  

Wassily Kandinsky
Process site model: The "white" area indicates ceramic-granite surface: Heavy strength tiles with pine needle embossment. It organizes form of the public movement, outdoor exhibition area, and increasingly private areas. The upper edge (of the white) is a variably habitable retaining wall system explored in the diagrams following.
Ten conditions of the participant (private) passage: the Edge ("E")
The James House, Carmel, California.
Greene and Greene, architects.

Entry sequence variably light and dark through vines and trees towards entry courtyard. Arrival is punctuated by the arcing gateway: a dark covering just before the light opening of courtyard.

The house plan in diagrammatically similar to that of the project: entry sequence moves towards a body of water; the building creates the same expansive gesture which maximizes its interface with the water (in this case, the Pacific).

* at significantly different scales.
Surface textures of the public access in San Francisco
BUILDING
The constructed landscape: early recognition that the linear organization of buildings, registered with the direction of landscape and "force" of the lake, should gather/embrace views maximally by bending back slightly at the ends. The fifteen degree shifts also provide a more private slice of wilderness for places which move away from the public crossing and dissolve into the trees.
Process sketch: The Expansive Collective
The Monterey Aquarium

- large, flexible spaces with exposed mechanics
- relationship to its site and context: exchange with the water
- rocks in the sand organization: access created by "slack"; space between transparent closures
- participatory environment
The Monterey Aquarium

Exchange with the aquarium's coastal environment is made with inside-outside reversals. The structure sits half on land and half over the water, building an exchange with its landscape on a large scale. Room size reciprocity is built with indoor tanks and other "habitat" rooms which bring the outdoors inside. The aqua-theatre, cradled outside by the building, brings the inside out. The rocks-in-the-sand organization of the building is clearly understood as one moves through it.
Opposite page:

Pieces that (e)merge with/from the landscape: early study for structural system as derived from analyzing cracks and bulbs found on granite boulders at the site.

Wm. Ruskin: Studies of the structure of leaves and clouds
If a person were to have "clothed" them, what form would they take? Map 2-3 different "rock formations," perhaps:

- Narrow, fused...
- Narrow, point...
- Narrow, base...

...or: occur into the narrow...

places = dolos

Bean's house in Beausca...
Circle: absorbs all directions; non-selective tangential... multi-sided polygon movement

Triangle: minimum polygon
Triangular: optimised 2-directional system selective

Building 2 Directions in plan... Resolve through the Vertical

Column w/ 2 directions optionally

2-WAY
Process sketch: Efforts to build a shift in directions resulted in a study for a two-way system of columns and beams where conflicting directions are resolved through vertical staggering. This idea was transformed into an optional panel system for exhibition areas (see p.127). Instead of building the enclosure to shift from the direction of public access to that of the private edge (as this sketch shows), the construction system remained on the north-south parallel and the enclosure became staggered to build the "forty-five" (degree direction).
TWO-WAY COLUMN SYSTEM
The idea of webbing the space between structures at either the ground or (flat) roof level was considered. As seasonal covering for outdoor events and exhibitions, a lightweight form that would move and change with winds and light seems appropriate to the site and program.

The structure, initially designed as a retractable roof, was specially developed for the exhibition. It demonstrates the structural and formal potential of lightweight systems rather than their economical advantages, which are fully effective only at a larger scale. The structure, 64 feet long and 36 feet wide, demonstrates the separation of primary supporting members from the secondary enclosure system.

The extension of the main membrane over the stairs to the Sculpture Garden terrace is stabilized at two points by subsidiary masts. Its design was prompted by the site, but the entire structure can readily be re-erected on plane ground, proving the versatility and adaptability of these tensile systems.
The sound that is produced, as well as the thing that produces the sound, which in my work has tended to be the wind, provides a volumetric and temporal aspect to my pieces. The sound then gives a sense of enclosure without there physically being an enclosed space; it's an implied volume.

Doug Hollis
(J. Kelly)

on wind-generated sound structures

Frei Otto
Automatic Umbrella Roofs
Cologne, Germany, 1971
Field organized covering system

Takes advantage of the great distance from forest floor to the bottom live branches (see p. )

Issues addressed:

- outdoor summertime gathering in unpredictable weather
- selective shade
- allows rain in
- encourages grouping (between raindrops)
- easily operable (one person) and fast
- preserves and uses trees

Not to be used unselectively — better as an idea leading to a more "distinct" method using the same clustering organization ...
2nd fl

3rd fl & roof terrace
(Studio beyond)
Solo

Studios shared by 2-5

Outdoor Work Area

1" : 16' SECTION A
Shallow part of Pool ..... Exhibition In 9 Outside
Main Working Area... Larger groups

associated exhibition  habitable roof

shaded lounge beyond

SECTION B

1/16" : 1"
Outdoor Amphitheatre . . . Arriva! Gazebo . . . Exhibition
+t+to+more+ex.+Restaurant+.+.+large+build-studio+beyond
Entry

Ex, Buildings... Vehicular

Turnaround... to parking →

1/16" = 1'

SECTION C
East Elevation: Exhibition bldg. over water
Combined Studio & Living
LUIS BARRIGAN, ARCHITECT  WATER HELD CAPTIVE IN THE TRANSFORMATION OF A LANDSCAPE
The STUDIO: Observations & Sketch Studies
ASSUMPTIONS ABOUT A REASONABLE WORKING ENVIRONMENT

The following notes and observations relate an attitude about optimal working conditions. Assumed is that the majority of people who come to this artworking "retreat" are arriving from dirty, crowded cities and bare-bulb conditions. Since "you got to suffer if you want to sing the blues," a place like this is meant to juxtapose that continuum by providing a temporary difference. Minimal requirements would suffice to contrast many urban working conditions, including those currently available to architecture thesis students at M.I.T. Some of these are:

- Room to move, and inhabit variably.
- Daylight, preferably north.
- Optional containment; closed area.
- Storage.
- Proximity to amenities.
Eleanor Peabody Studio, Jamaica Plain, MA.
Openness/northlight.

Shelf sketch designed/built by Chris Hassig and Maurice Smith for the Blackman House (M. Smith, Architect).

Tools accessible.
Examples of deployed room-size pieces adding up to a collective whole. Variable outside containments are created by the form of the building closure.
**Explorations:** Single, deployable studio units.

Model studies were made to look at the individual unit: one-person work places. The additive deployment of room-size pieces could build a system of cohesion by repetition or collection; the slack space between objects forming the access and variably shared territories. The schools designed by Hans Sharoun and Aldo Van Eyck build in such a positive manner.
Lou Kahn, Kimball Museum, TX

Prototype deployed
Layers of light observed at Pueblo Bonito
The design process has been guided by explorations of a landscape and formal studies for its transformation. The program has been of lesser importance. Nevertheless, some consideration was made as to its character. As mentioned (and charted) in the introduction, the following five places were visited; Impressions were gathered from talking with people and looking around. Selected aspects of each were used for the project.
The Macdowell Colony in New Hampshire represents one extreme in the way individuals might come together to work. Of the five cases reviewed, its program and spatial arrangement are the most conducive to creative work inspired by solitude, separation, and silence. The architectural character reflects this attitude: separate studio bungalows are deployed throughout the forest they share. Each has a different history, plan, and material composition. They are unified by their use and the winding road which connects some to each other and all back to the shared area used for dining and sleeping.

To spend time at this working retreat, one must be admitted. After gaining acceptance from a deciding jury, workers of a range of mediums from words to music, color forms, and photography come to Macdowell for two-month visits. Work is a solo concentrated experience while social exchange occurs in conjunction with physical fueling. Usually the participants at Macdowell ("colonists") come from environ-
ments which sometimes foster the fracturing of concentration by way of sensory stimulus overload (i.e., New York). In contrast, the monasterial existence at Macdowell encourages concentration: it is the silence in a noisy conversation in which a writer/poet might say something or a composer might fill with music. The great distances and natural sights for city-sore eyes could unlock visual expression as well.

The term "retreat" applied to the colony is both precise and misleading. To the extent that one moves (temporarily) away from urban overload, it is a retreat. But, in fact, it is a simultaneously affirmative act of going to work that counters this idea. It is the space and uninterrupted time-freedom which, mixed with disciplined energy and dedication to clear ideas or expressed maps of intended exploration, provide the room for enhancement of the process of working.

Someone asked me, "Is it difficult to compose music?" "Yes," I said, "but it's more difficult not to." This answer, I admit, smacks of compulsion, even martyrdom. I do, in fact, dread the brain-strain of working out a piece; worse, facing the embarrassing limitations of that brain. Usually, I only feel good when the piece is finished, if then. What ever happened, I used to wonder, to the PLEASURE of invention?

At Macdowell, I found it again. After coming to terms with an initial block and schedule-less existence, I was so seized one morning with a passion of imaginings that I began scribbling back and forth on two scores at once. The old delight was back.

A special Macdowell-bred energy does, I believe, imbue the works done there. Thrown among high-powered artists (all beaver ing away, one is convinced, on the next batch of Pulitzers), the freshman colonist assumes at once a no-nonsense professionalism and a sense of play that won't quit. With effort, this precious combination can be carried home and kept in operation. There is time and room (there).

Altogether, the Macdowell experience is soul-pummeling, a spiritual rubdown. I was awfully glad to remember why I compose, and to renew my vows with that oldest of friends, my work.

Elinor Armer
reflections on Macdowell
The Torpedo Factory in Alexandria, Virginia produced weapons through both world wars before reopening in 1983 as a factory with better intentions. Architecturally it retains an open warehouse structure of concrete frame and panel infill defining studios of variable sizes. Over two hundred artists and craftspeople work and exhibit there, paying rent for their individual or shared studio-galleries. It is a mall for art things which last year over 650,000 people visited. The brochure boasts that "art thrives in this bright and exciting community in part because of the interchange of ideas between artists, their public, and one another." This exchange occurs during regular business hours, six days a week.
The Factory, as its retained name implies, is about volume of both space and business. Despite jury-reviews to gain the privilege of renting space there, it is possible that something is lost in the shuffle of this art-mart. A certain degree of commercialization is given or accepted when one moves in to a place like this, and it is possible that the obvious competition of final packaging may hinder the quality of the process involved in the creation of work. Emphasis is on art as noun, rather than the verb it should be.

Nevertheless, the Torpedo Factory is included in this programmatic reference file for its exuberance and energy. Its sharp contrast to Macdowell's rural location and its emphasis on uninterrupted work enables a middle ground between the two extremes to be envisioned. The programmatic middle ground would include the level of active exchange found at Torpedo with the option for reclusive concentration available at Macdowell.
The Sawtooth Center for Visual Design began in 1945 as the Arts and Crafts workshop in Winston-Salem, N.C., and has been running continuously as such ever since. It now forms an arm of the new arts complex where it is housed in a renovated factory building. The center is primarily a learning one, with a student range that includes children, professionals, and retired people. Over a hundred courses are offered in clay, fiber, graphics, metal, photography, and printmaking.

The program and arrangement of the place reflects a relaxed attitude of (art)work as leisure. This is particularly evident in the way it bills itself to the retired, but it is also reflected in the minor transformations of its industrial structure. The original gridded plan is playfully broken to create a jagged edge similar to the section from which the center got its name. This form defines the variably wide internal "street," a corridor double loaded with workshops. The procession along this path leads to increasingly private studios, smaller than the workshops, and rented by professionals. All are daylit with north-facing sawtooth skylights and have windows in to the access.

At the other end of this passage is the most public area, housing student work for exhibition. Sawtooth is referred to primarily for its image of industriousness, the simplicity of its spaces, and quality of light.
The Santa Cruz Art Center is of programmatic interest in the way it attempts to merge exhibition and cafe with working (professional) studios. The centrally organized space focuses on the open form restaurant with transparent walls to the outside and into some of the studios. In some cases these work areas have no daylight and consequently are used more for exhibiting than making. It would be difficult to work in a goldfish bowl. The other studios with outdoor views and skylights are actively and regularly inhabited by people working.

The restaurant, with its after-hours menu and world-famous hash browns, works symbiotically with the art center: each aspect draws people and the other function benefits from the business and/or exposure. There is some degree of ongoing community participation at this arts center: individuals united by pressing common interests often form guilds in which expenses are shared for paying models and facility access.

... Sheer work and calculation, with one's mind strained to the utmost, like an actor on the stage in a difficult part, with a hundred things to think of at once in a single half hour.

Van Gogh to his Brother, Theo
on the mental labor of balancing the 6 essential colors
Anderson Ranch began last century as a livestock ranch. The tradition of a working ranch continues, but instead of cattle, it is clay being prodded alongside several other mediums of expressive research. As a seasonally fluctuating working retreat, its population balloons from a winter community of only forty or fifty local people to a summer number which tops two thousand. The program and virtual site size shift and grow simultaneously.

Sketch by Harry Teague, Aspen architect. He was telling a story of the organization of the place, and how his additions to it had embellished that order and related as well to local Native American history.
In winter, local artists rent studios, giving the place perhaps a Macdowell-like feeling of quiet concentration of solo endeavors. The summer months with an expanded program and population give it a "Torpedo-factory-like" level of industry and energy. The physical organization has workshops arranged sequentially along an outdoor path, facing the view to the Rockies on one side and forming the edge of the shared outdoor space with a dirt volleyball court, on the other. Exhibition occupies a new building beyond the upper entry end of the sequence. During the populated season, the virtual site size quadruples: skier-owned condominiums up the side of the adjacent mountain are rented to workshop participants.

Anderson Ranch has a majestic high western mountain terrain with grand views in common with the project site. The organization and location of the projected buildings might easily lend themselves to this kind of seasonal population ebbs and flows as well.
"You may ask yourself ... How did I get here?"

David Byrne
Talking Heads

CONCLUDING NOTES
During the Abstract Expressionist period of the '50s, there was a constant dialogue among artists about when a painting was finished. It became a kind of existential question that was discussed for hours in studios and at the art hangouts like the Cedar Tavern. When you're doing Abstract Expressionist work there is a built-in angst about knowing, or not knowing, when the painting is complete. There even used to be panel discussions on this very topic.

Al Held
quoted in Art News
DH: Well, what I feel I do is create structures that use a particular sensory level to make people more aware of the homogeneity of a place. In some ways, I think of my pieces as excuses for conversations on the site about the site. They're not preoccupied with themselves but act as sensory extensions that make the ongoing phenomena more perceptible. They're real analogues, not metaphors. They do what they are talking about. Does that make any sense?

JK: They are what they do?

DH: They are what they do.

Doug Hollis
(J. Kelly)

In making design explorations and projections for a place which would "trigger spirited events in a rare setting," as mentioned in the introduction, an attitude of hope was being expressed about the making of places. The common analogy is to raising a child who is, by virtue of his birth, his own person. Once a place is built, it belongs to its users and the effects of time.

Architectural design work involves a process of decision making which involves high hopes for the "child," or building's future, and not often enough for its users/inhabitants. Often hopes that are manifested serve to feed the sometimes ample ego of its designer. But the hopes worth having are not for awards found in some of the current "professional" magazines. Places that have a nice, glossy, two-dimensional image in the photograph are
featured and celebrated. Not all of them are reasonable places to actually be. The visual sense, sliced and "duplicated" by the camera, is only one of the many that we have when we are actually walking through, living, or working in a place. The experience of a place goes beyond the visual.

While a painting or prose description can never be other than a narrowly selective interpretation, a photograph can be treated as a narrowly selective transparency.

Susan Sontag

A "reasonable place to actually be" is that way not simply, or necessarily, one that looks good in a picture book. This is not to deny the value of beauty perceived visually! It has other sides, and depths. Certainly, buildings should be pleasing to look at. But as designers we are obligated to remember all the senses that add up to the total experience of a place. Our eyes actually developed, after all, from the tactile sensations, back in the evolutionary soup-pond. We must design as well for sounds, smells, touch, perhaps even taste. What does it feel like? Comfort has degrees. And we have eyes in the back of our heads.

"You got to humanize yourself."

Sting
The Police

The inflected landscapes and buildings discussed by Marc Treib are places which relate to all the senses. Places worth being (i.e., Frank Lloyd Wright's Fallingwater) often don't respond well to the camera (although Fallingwater looks just fine) because part of what makes them so good is the total experience, not just the visual aesthetics. Differences are expressed and felt in three dimensions that two simply cannot illustrate.* Inflected places, then, have texture, articulation, and depth so thick we can breathe in them. Differences on several orders.
Ironically, Fallingwater falls short in the "auditory" department. A trickling brook is musical because it builds the spaces/silences into its variable flow. But a loud, non-stop waterfall (i.e., at Bear Run) is only exhilarating to listen to for short intervals. Because the spaces are missing, one is driven to where space -- and silence -- is, after a while. That is why the Kaufmans, for whom it was built, moved away only a month or two after moving in. (This is, of course, lucky for us archi-tourists!)

Every higher organism depends on/is a synthesis of differences.

Paul Klee
The Thinking Eye

In taking this thesis project as the semester-long exercise it was intended (by the department) to be, I was giving myself a dose of the practical experience so common in the profession of dealing with time constraints (a necessary evil, sometimes). On the other hand, my topic (which now seems extremely open ended), was deliberately hypothetical: I used the site as my "client." School provides a context for safe exploration, and this should be exploited. It's a good place to get in trouble, for its educational purposes.

It is in the nature of the design process that it perpetuates itself, once it has truly gotten started. All the senses become acute as everything one comes in contact with seems to have relevance in one way or another! It is the "once it has
gotten started part that is tricky. My constructed program has the lofty goal of building a place to house the triggering of starts. (Assumed is that retreat can induce start.) Simultaneously, an attitude has been emerging; an expression of favorable intention. The design, as it is arrested by time's evaporation, could be developed.

Wharton Esherick studio, Paoli, PA. Hand carved entry: Attention to the tactile.
Some aspects I would further investigate straight away, were the time not "up," involved investigations at the hand size scale: the elements, materials, and texture that would build the character of the Artworking Center in the Sierras. Henry Mercer's tile sketches (from his notebook in the Doylestown, Pa. archives) and Wharton Esherick's hand-carved railing on his Paoli, Pa. studio exemplify the scale and quality envisioned. For instance, since the entire floor of the site/forest is covered with pine needles and cones, they could be used to build patterns in the place. Embossed surfaces of ceramic-granite, a new building material to make outdoor strength tiles. (And would be accenting the granite boulders throughout the site.) ... Display furniture, for inside and out, would be detailed. And issues of light and color are pivotal!!

Looking for formal order and finding triangulation in Cezanne's portrait, "Chouquet Seated," 1877.

A DECOMPOSITION/CONSTRUCTED ANALYSIS OF CORBUSIER'S STILL-LIFE.
A last investigation that would be made, time given, relates to unconventional methods of analysis and referencing. Observations are far more useful if they incorporate rigor ... but rigor needs de light, or else it turns to mortis. And the interest is in things that live and change.

Having made this "wish list," I return to the facts: (I never intended to provide working drawings). An attitude of hope; An intention of inflection. The exploration has been a success if it gets something "started" in the reader. For myself, it is time to begin.
Someone asked me once if my pieces existed when the wind wasn't blowing because when the wind isn't blowing, there is no sound. And I said yes because there's a kind of anticipation built into the structures. I feel my work is as much about suggesting that people listen as it is about making sound. So if they're about sound, they're also about silence.

Doug Hollis
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