

And Now For Something Completely Different

An Experimental Approach to Architecture

Architectural Thesis
of
Robert Pearce

Montana State University
Fall 1992

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And Now For Something Completely Different

An Experimental Approach to Architecture

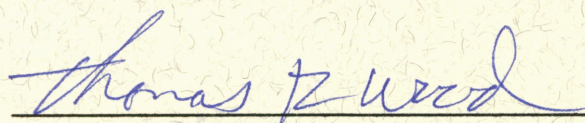
by

Robert J. Pearce

Submitted to the School of Architecture
in partial fulfillment of requirements for the
Degree of Bachelor of Architecture

Approved:

Clark Llewellyn
Thesis Advisor



Thomas Wood
Director, School of Architecture

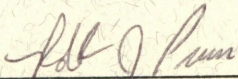
Montana State University
Bozeman, Montana
December 1992

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Robert J. Pearce

12/22/92
Date

The intent of this paper is to introduce my thesis project in the form of a short, descriptive paper, such as a competition statement. In the case of a normal architectural competition, requirements for the project would be stated in terms of functional requirements, site, special user needs, etc. The project I have taken on has a unique nature. Essentially I am turning around the "normal" method of architectural development. This paper is intentionally devoid of those requirements which would normally add that mass to a paper of this type.

In the course of my verbal presentation I will introduce what I have come to call the **debilitating mental image**. I mention this now because, frankly, with a paper this thin, one might assume that not much time, effort, or thought has gone into the project. This is not an accurate assumption. Of course, I am exhibiting my own debilitating mental image by assuming that all professors equate mass with thought. As I've discovered over this past semester, we make many erroneous assumptions that tend to get in our way.

A handwritten signature in dark ink, appearing to read 'Robert', is located in the middle right section of the page.

"The most beautiful thing we can experience is the mysterious. It is the true source of all art and science. "

-- Albert Einstein

Purpose

The purpose of this past semester has been to explore a process of architectural design, primarily in the development of an overall architectural form. This thesis is the result of a fourth year design class in Experimental Architecture, and a continuation of questions which arose during that class. The class was taught by professors Clark Llewellyn and Ralph Johnson during the spring quarter of 1991.

Process

My intention has been to create a series of form studies without concern for architecture. That is, the forms are primarily sculptural, and do not deal with function, scale, or site. My approach has been intuitive and non-linear, allowing me to try many different paths. The result of these studies was to be an aesthetically pleasing *form* which would define the function, scale and site of the architectural *project*. Ideally the architecture would develop from the original form with little alteration. The overall process was broken down into the following four phases:

Phase 1: Organic forms

Phase 2: Mechanical forms

Phase 3: Combination of organic and mechanical forms

Phase 4: Architecture based on ideas and knowledge obtained from Phases 1 through 3

Phases 1 through 3 each produced a "best" form which was a candidate for the form used in Phase 4. The requirements for the final phase are those of any good architecture developed by any other method;

It may or may not express its structure, but it must be structurally feasible.

It must have a specific function and be of an appropriate scale to properly serve that function.

It should be either contextually acceptable or visually stimulating enough to act as a contextual counterpoint (and still "work")

Results

The results of this project have two primary foci: the architecture created and the thoughts behind the architecture.

The Point Reyes Museum of Oceanography Function

The result of this experiment is a small oceanographic museum located at Point Reyes, California. The museum's function is to serve as a display area for oceanographic objects. Additionally, the museum is to serve as a viewing area of whale migrations, which is what the site is most famous for.

Site

Point Reyes is located about thirty miles north of San Francisco. The point itself is a rock outcropping which projects about a hundred yards from the face of a cliff. The existing site includes a lighthouse tower and two small support buildings. The chosen site for the museum is approximately a quarter mile south of the lighthouse, where visitor parking is currently located.

The major elements of the site are the intense verticality of the cliff, the cool wetness of the ocean, and the gloomy, yet fascinating *suffocationness* of the ever present fog.

The Architecture

The resulting architecture contains eight levels and approximately 77,000 square feet.

Public spaces in the design include two main display levels, an auditorium, gift shop, and cafeteria. Viewing spaces of the ocean are included as part of the two main display areas. One space has access to an outdoor deck, the other is enclosed and allows views in inclement weather.

Support includes administration, employee, and curation spaces.

My thoughts on thesis -- why I did what I did

For the past several years I have looked at thesis as the time when a student gets up before his instructors and colleagues and says "Okay, this is what I've learned here." Upon reflection of the structural, environmental, historical, and design issues I've dealt with, it is the design issues, perhaps I should say *solutions*, which are most elusive.

Structural requirements, building codes, and solar gains are all quantifiable entities. Good design is not. The rules of classical proportion can be smashed to bits, with a good design still emerging from the rubble. Why is that?

This question of design led me on a quest of design. Hence, this semester has given me a chance to explore forms and architects with whom I feel some sense of kinship. The cost of this search is the "disregarding" of other issues of architecture. The choice I've made has limited my ability to proclaim my knowledge of some of the finer areas of architecture, but has expanded my view of an already wide domain, that of design.

Possible Topics for Discussion

I'm including this list as a discussion stimulator as many topics may not be included in my verbal presentation unless prompted by the jury members.

Alternative thesis projects

- Desert residence

- Self sustaining architecture

Animation

Computers as a design tool

Context -- urban and isolated

Convention

Exploration

- Process

- Function based on form

Futurism

Harsh environments

Humor

Image vs. Reality

- Client

- Cost

- Disabled access

New experiences over the past year

New paths

- Form vs. space

- Scaling of form -- influence on function

- Interior space (and function) as form generator

- Site as form generator

Paper architecture

Shock value

Site influence on form

Symbolism in architecture

Quotes

Again, something else to spur discussion. Most of these are not especially deep or meaningful. But they were almost always at the forefront of my thoughts.

"It's amazing the ideas you get when your mind is completely blank."

-- Magazine ad

"I could no sooner stop dreaming than I could make them all come true."

from "The Kid" -- David Wilcox

"Here is the call: make symbols, not forms."

-- Erich Mendelsohn

"One of the professors told me that it's easier to take a wild design and tame it down than to take a tame design and make it wild."

-- Ric Heldt

"Some things are similar, but in a very different way."

-- Cheever graffiti

"The future isn't here yet."

-- Clark Llewellyn

"If you make a decision based purely on aesthetics it serves a higher purpose than one based on rationality."

history lecture -- Ron Hess

Bibliography

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Violated Perfection, Aaron Betsky
1990 Rizzoli International Publications, Inc. New York, NY

The New City, Lebbeus Woods
1992 Byron Preiss Visual Publications, Inc. New York, NY

Antonia Sant'Elia
Publication of Deutsches Arkitektur-Museum
Frankfurt am Main

Free Space Architecture, Andreas Papadakis, editor
1992 St. Martin's Press New York, NY

Fantastic Architecture, Michael Schuyt
1980 Harry N. Abrams, Inc. New York, NY

Necronomicon II, H. R. Giger
1985 Morpheus International Beverly Hills, CA

Books used in Phase 1 -- Organic

Living Invertebrates
Biology of the Invertebrates
Fundamentals of Applied Entomology
Plant Form
Nature as Designer
Cactus Primer

Books used in Phase 2 -- Mechanical

Aircraft Engines of the World 1941
Aircraft Engines of the World 1970
Automotive Service and Repair Tools

Site Supplement



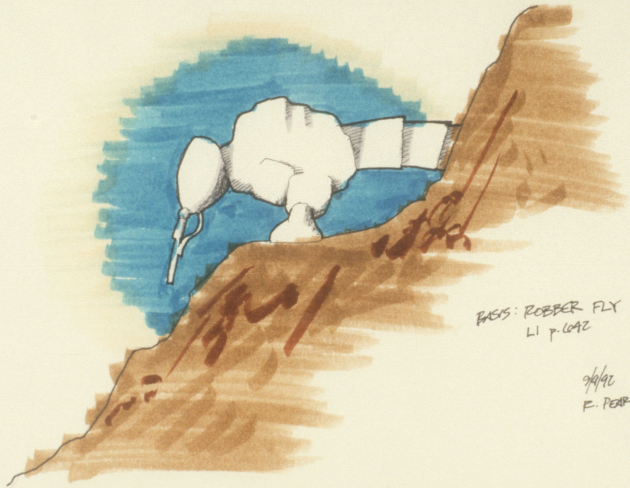
View of cliff from the point



Point Reyes Lighthouse

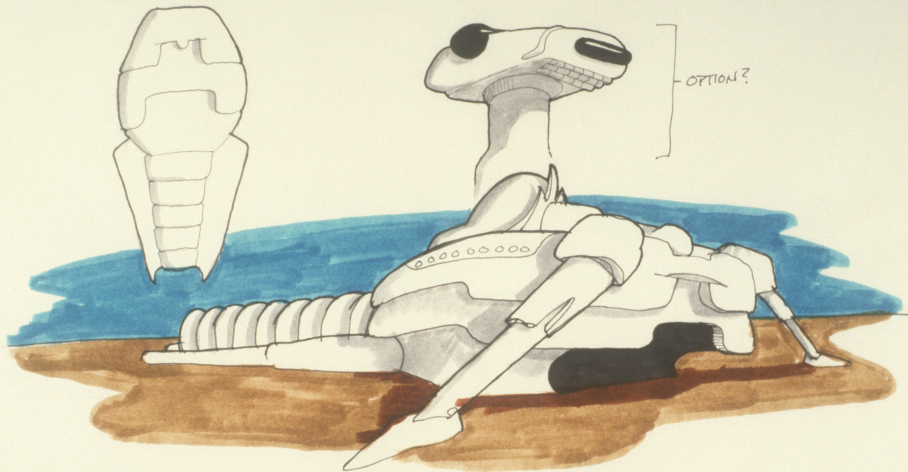
Entry path to lighthouse





BASIS: ROBBER FLY
LI p. 692

9/1/92
F. PEARCE



* HEAD TOO OBVIOUS AS HEAD

• UGLY ENTRY

• UGLY "FEET"

• FACTORY? UNDERWATER RESEARCH FACILITY?

BASES: GRASSHOPPER
LI P. 57A

9/9/92
R. PEARCE

- SOME PARTS TOO MECHANICAL LOOKING
- TOO MANY HARD EDGES
- FORM ON RIGHT OKAY - LEFT NEEDS LOTS OF WORK
- WAY TOO SYMMETRICAL
-  - COULD BE WINDOW OVERHANGS

!! MIGHT VIEW IT FROM  UP
THIS SIDE..(ABOVE)
HAVE IT HANGING OFF
A CLIFF FACE



BASIS: PEIAPULAN LARVA

LI P. 447

9/9/92

P. PERRE



- PROPORTIONS ALL WRONG
- MIGHT INCLUDE MILLIPEDE HEAD DETAILS (P. 567)
- AIX "STUFF" ADDED

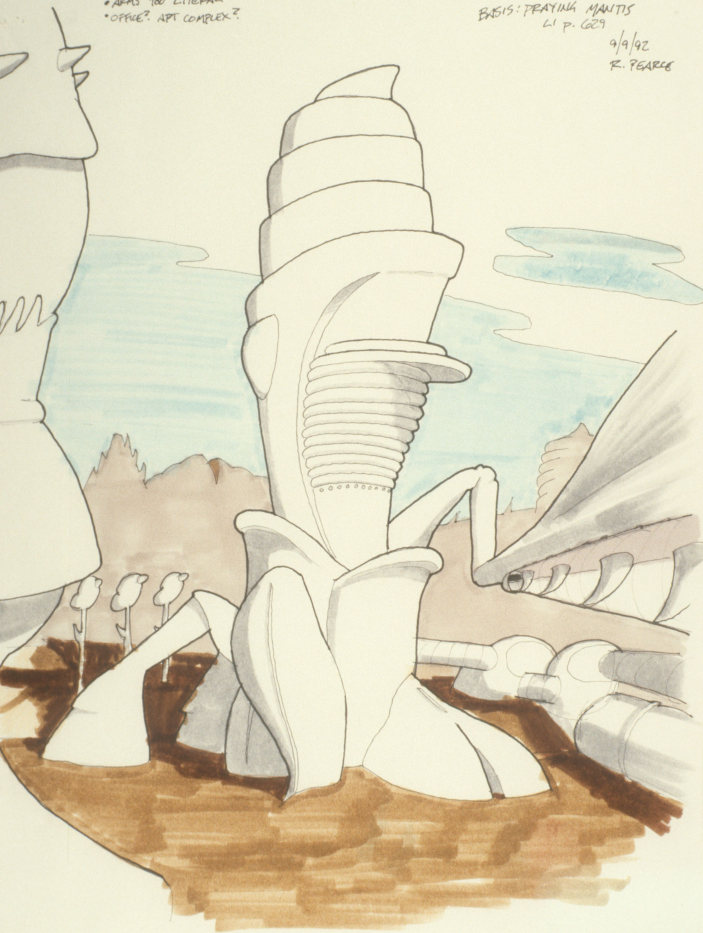
9/9/92
E. PEARLE

BASS: MANTIS HEAD
LI P. 969
MILLIPEDE P. 567

- ARMS TOO LITERAL
- OFFICE? APT COMPLEX?

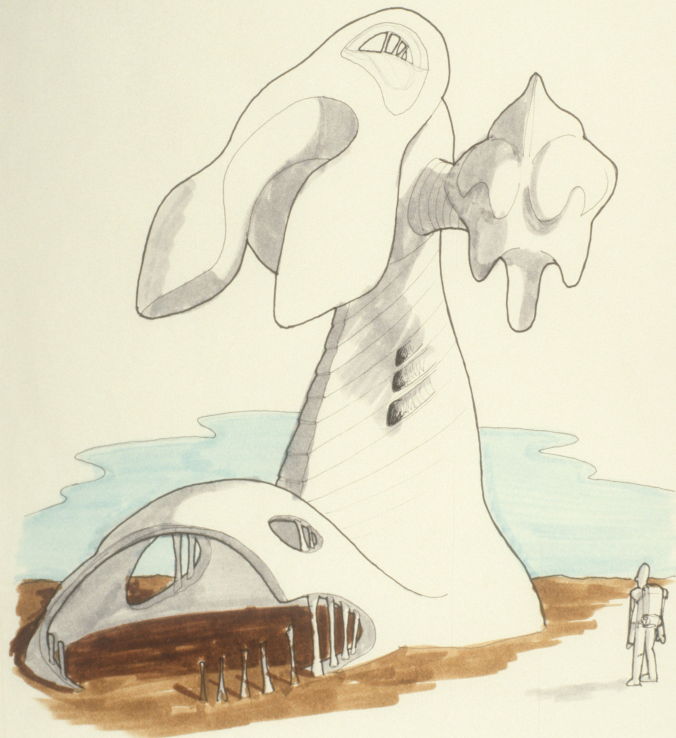
BASIS: PRAYING MANTIS
L1 P. 629

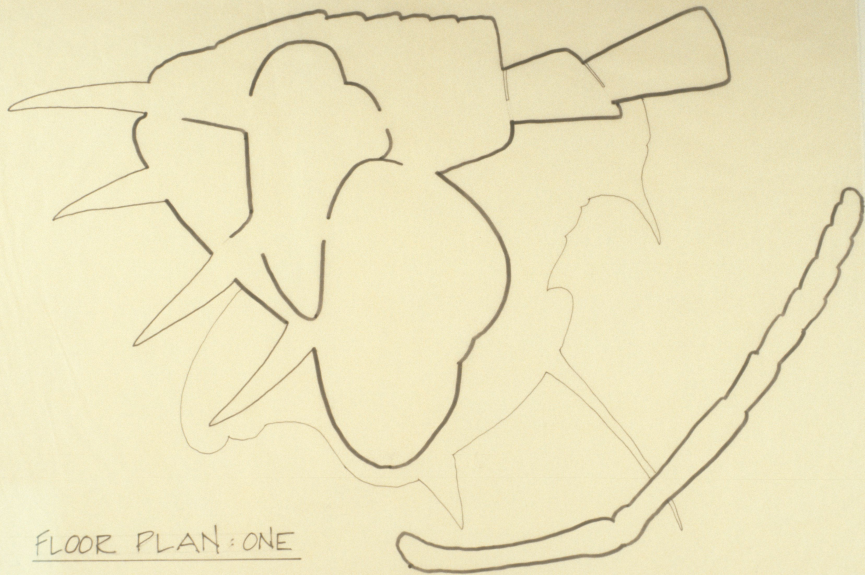
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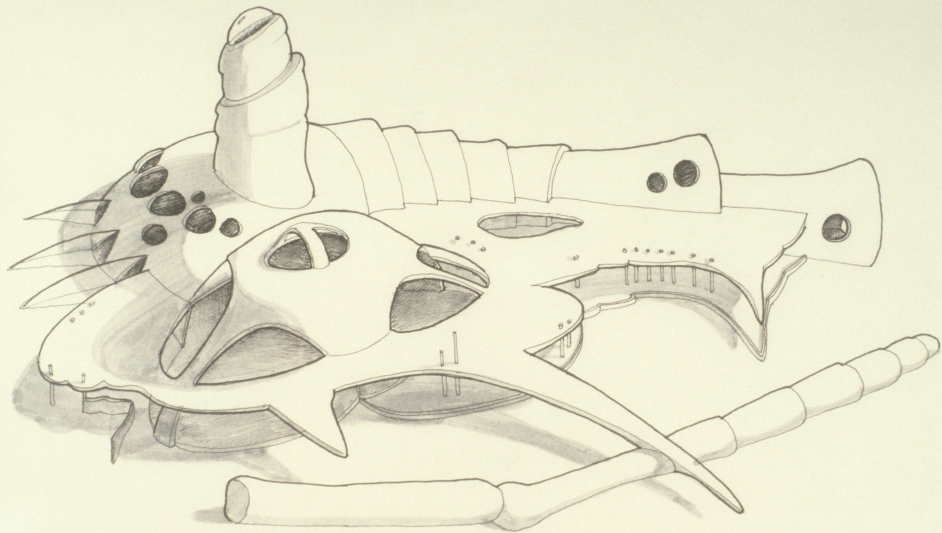
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- TOO FUCKING WEIRD
- BONES & GAVE TOO LITERAL
- TRIMORPHIC

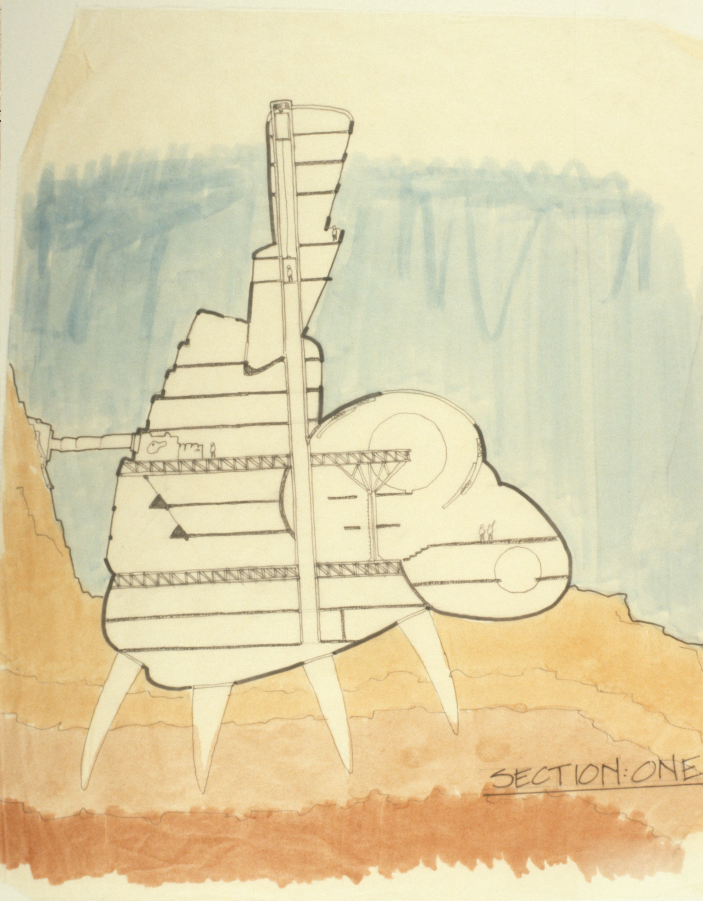




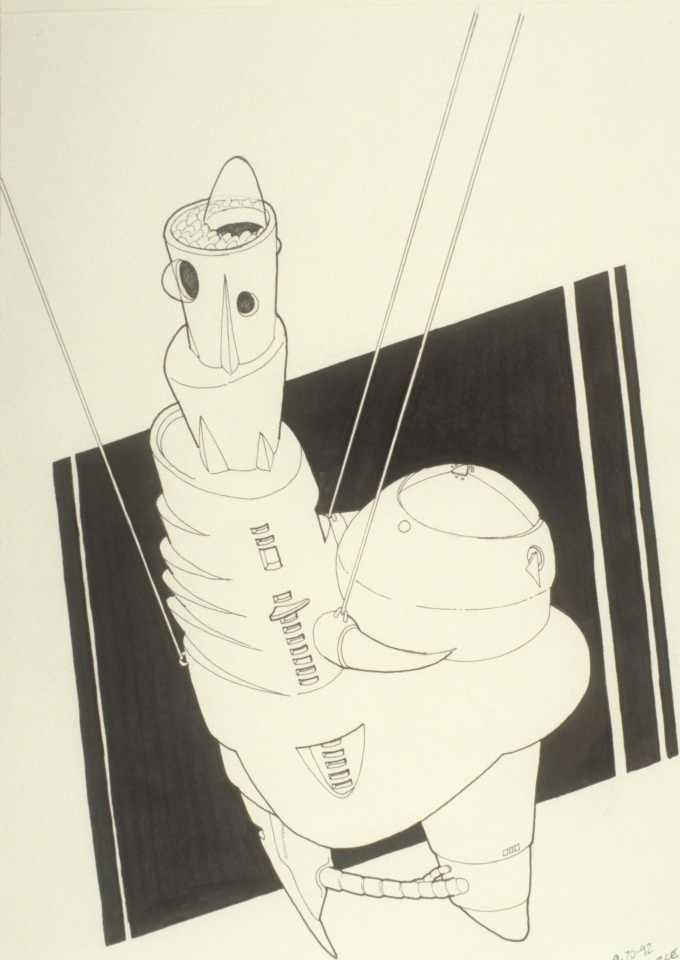
FLOOR PLAN: ONE



9/20/92
P. PERRELL
BASIS: INDEX LEG PLAN



SECTION: ONE



9.20.92
R. PEARCE



9/16/92
R. PEARCE

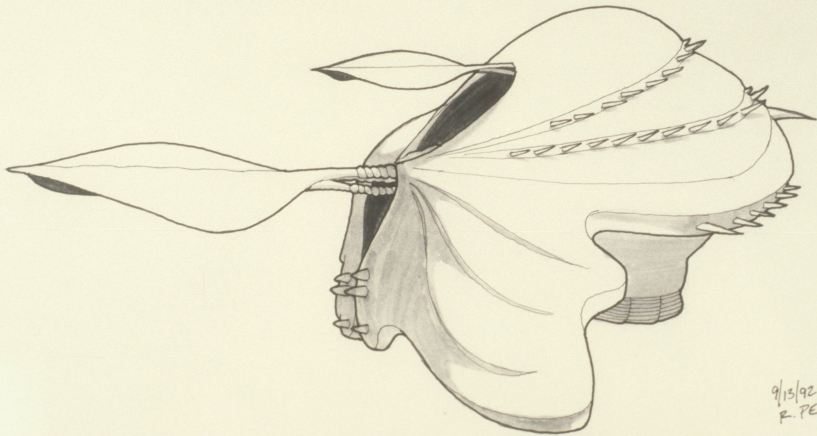
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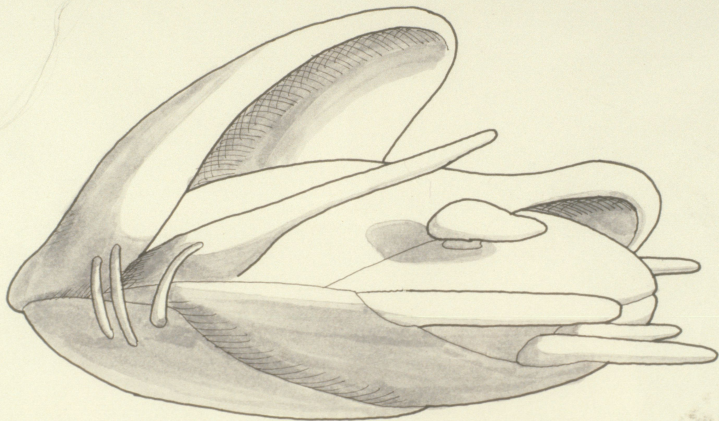


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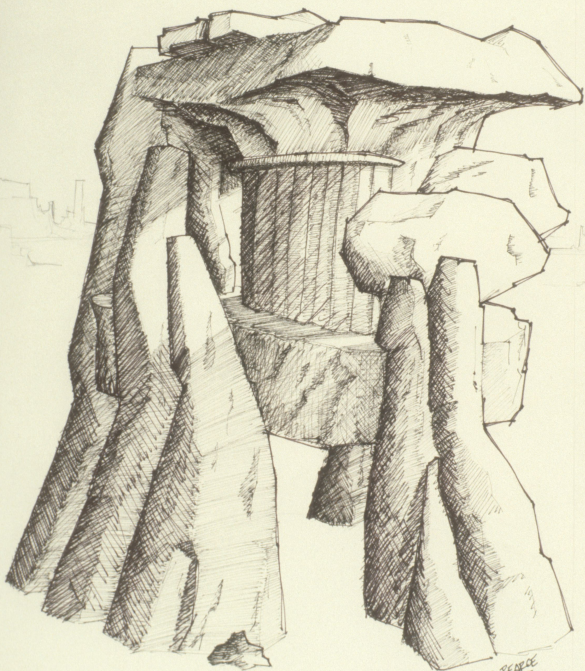




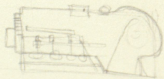
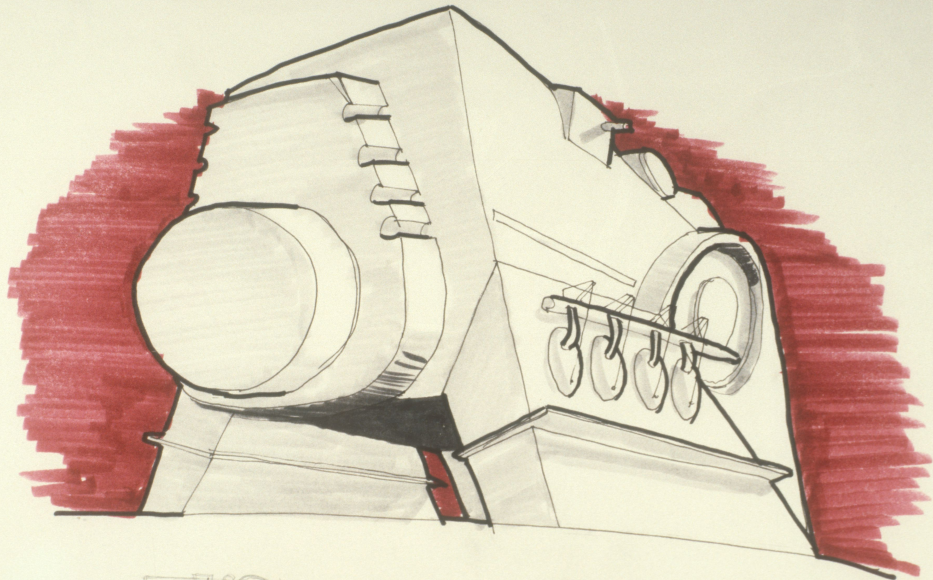
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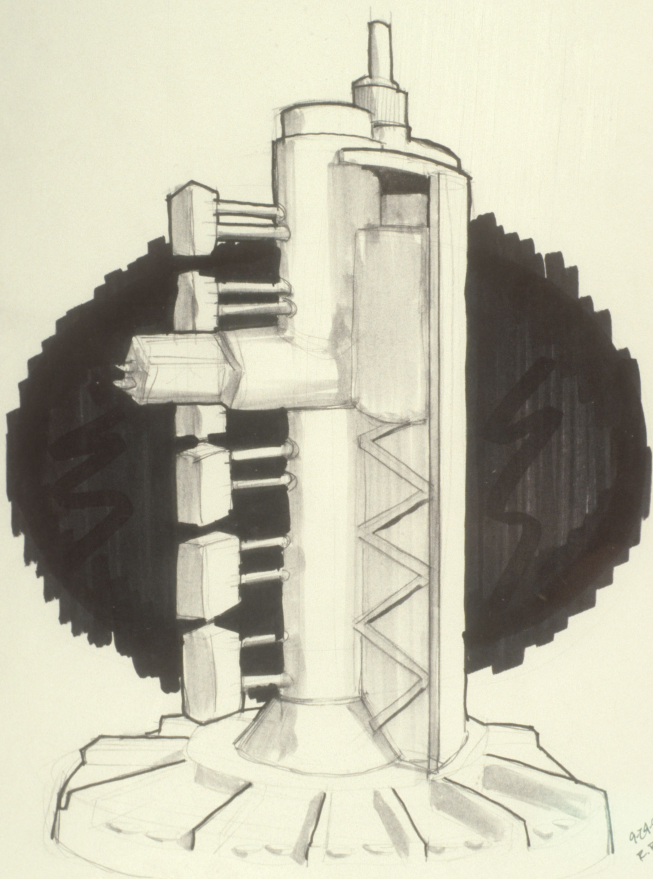


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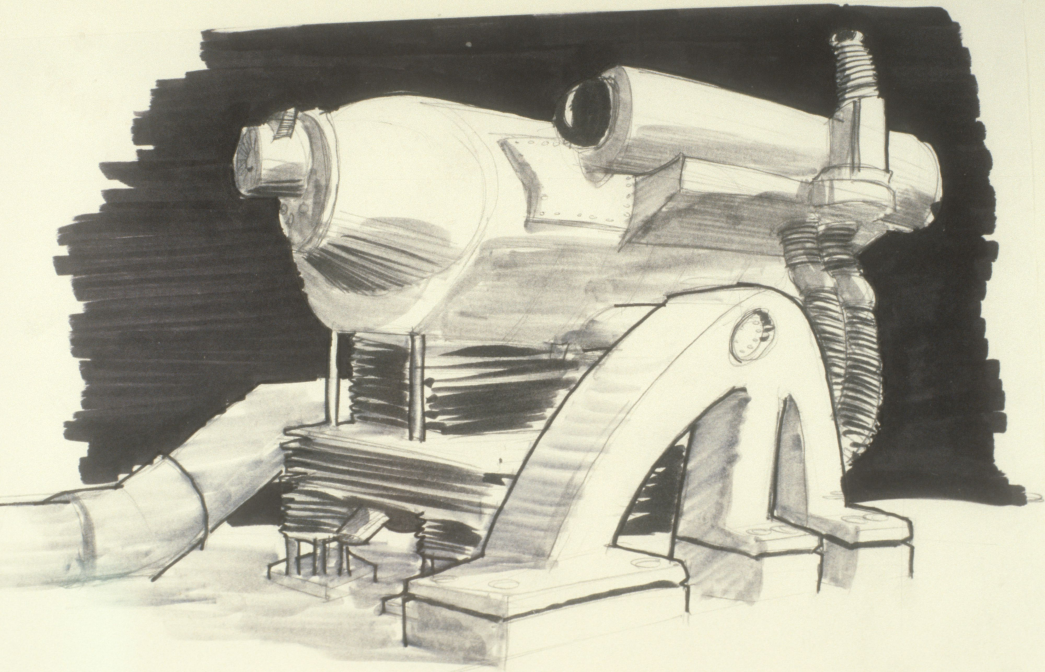


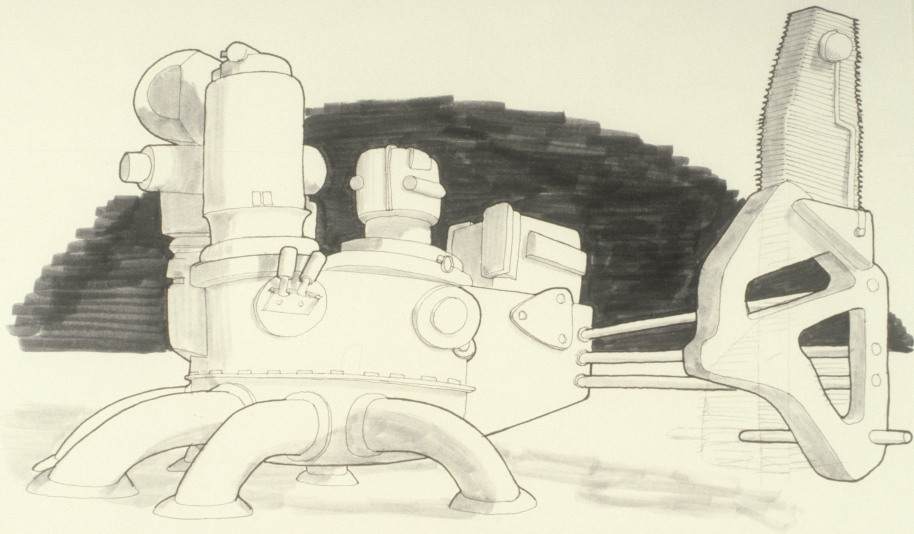
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F. TEMPLER



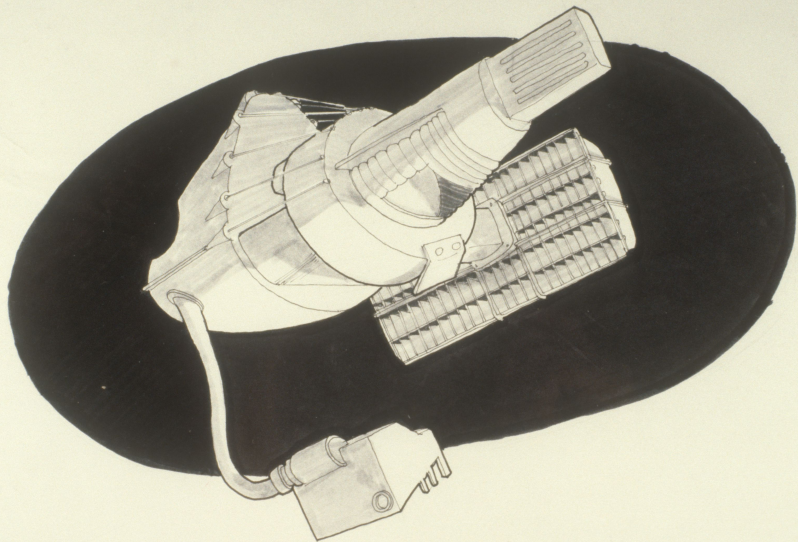
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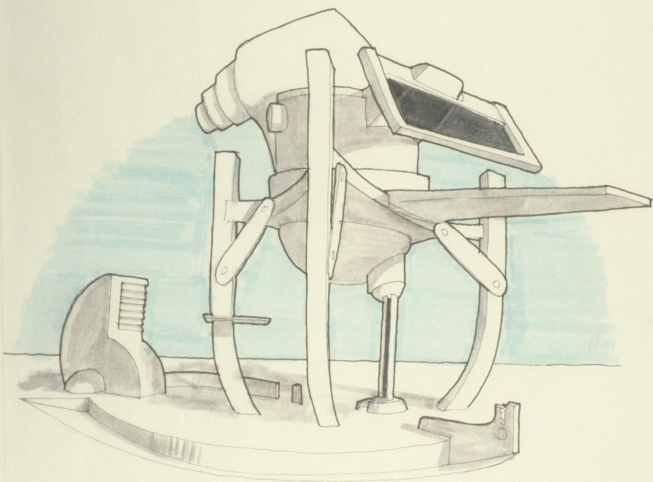
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FOR HEAVY DUTY PUMP

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NEGATIVE SPACE FROM
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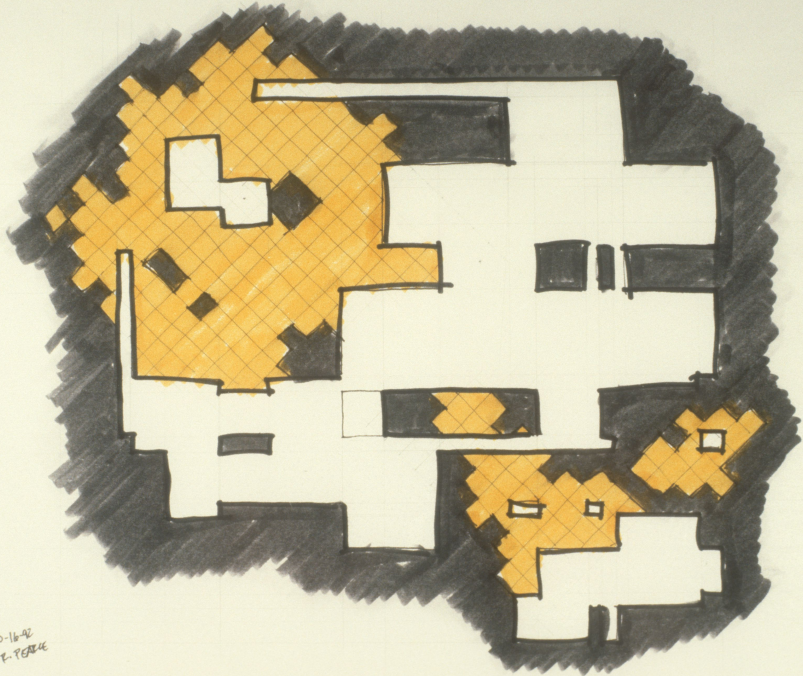
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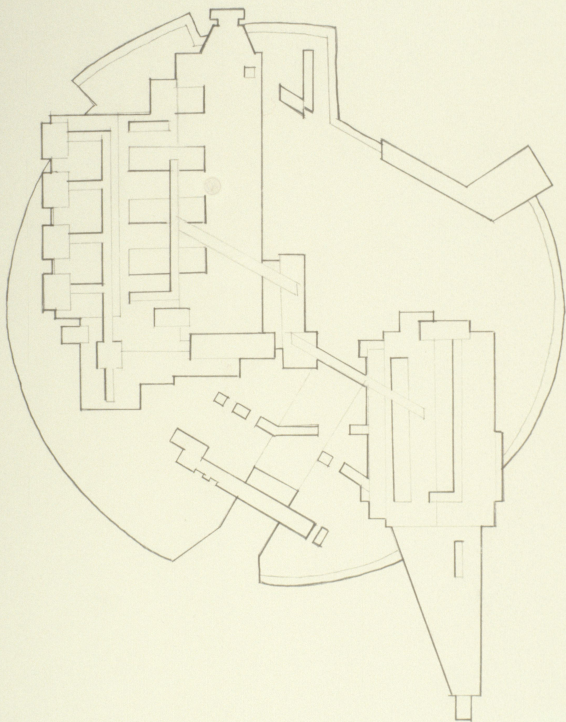
GIVE THINGS
OUT-OF-REACHING LOVE
DRILL
WORK

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F. PEARCE

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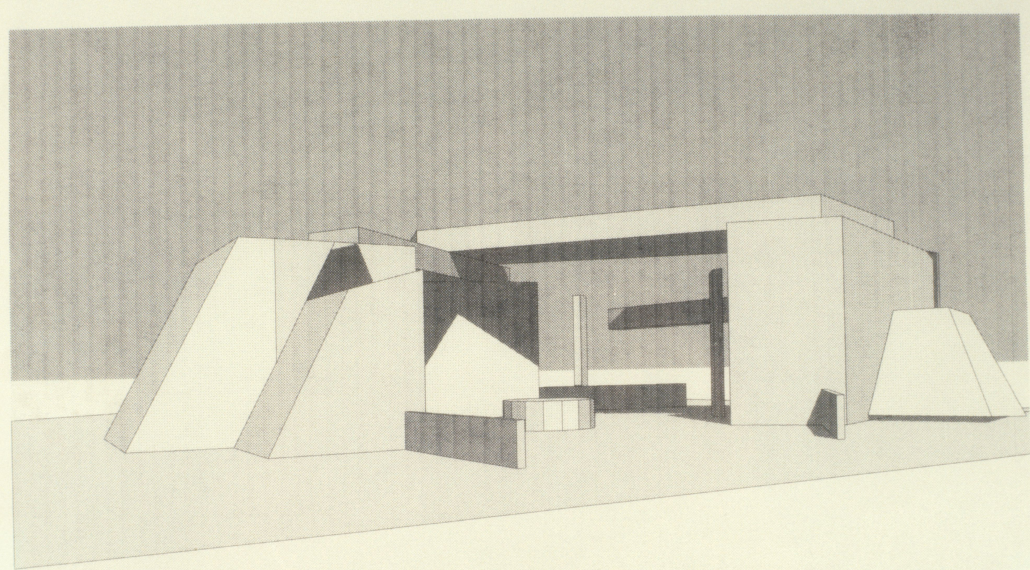


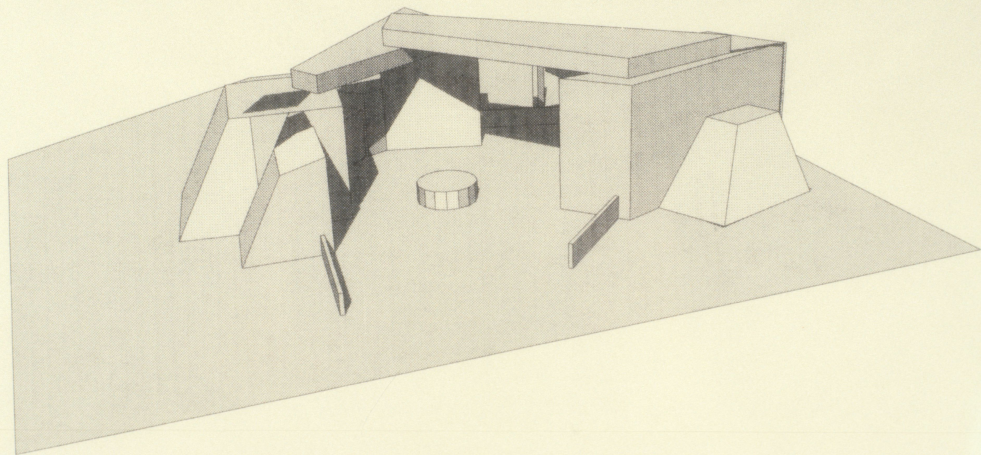
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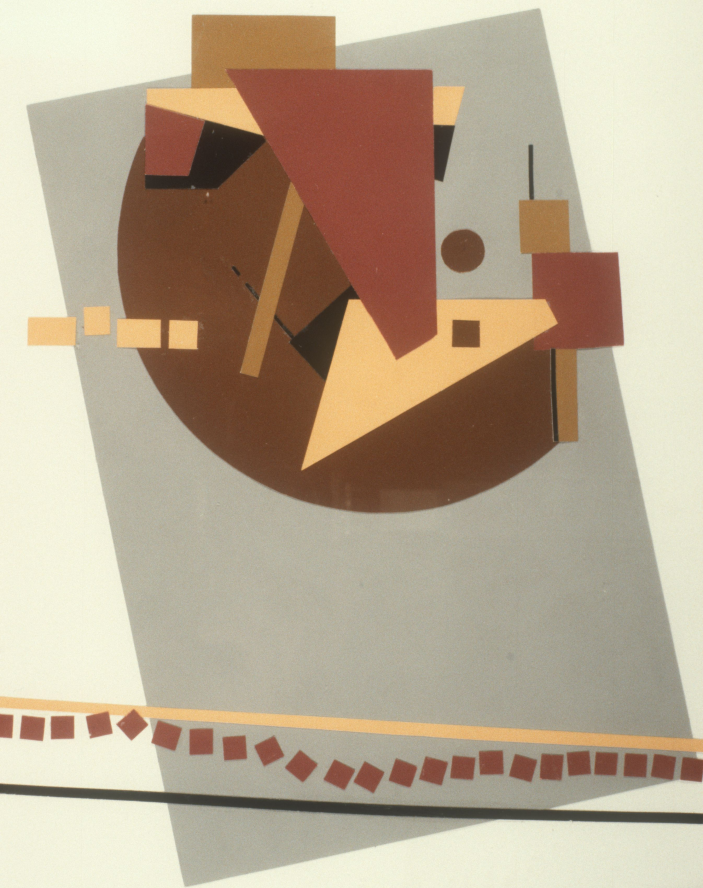


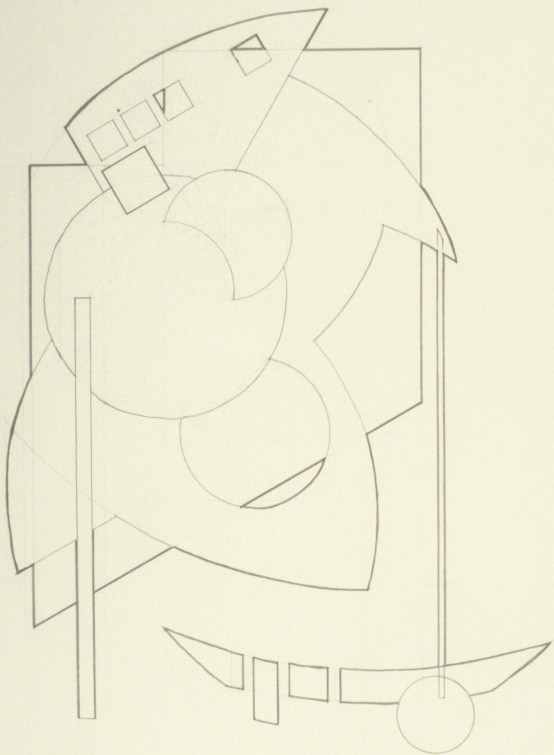
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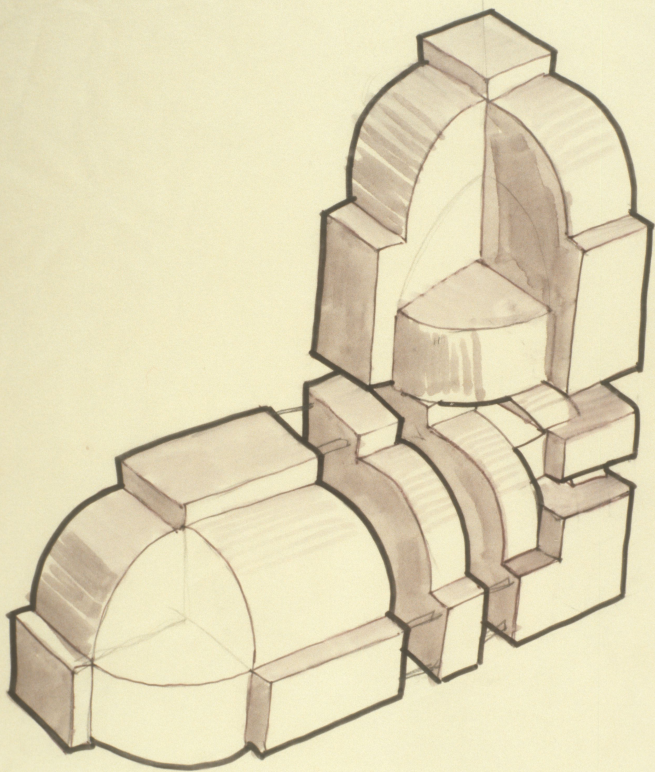
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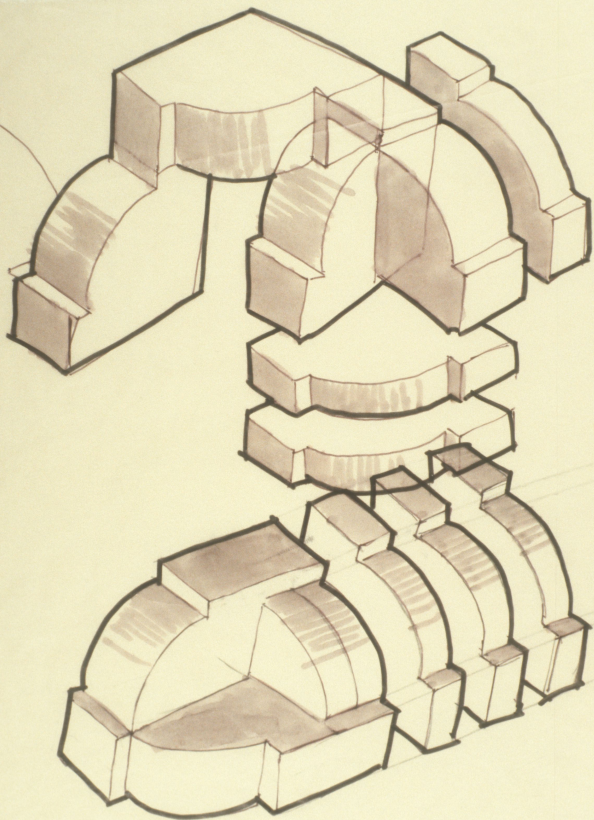




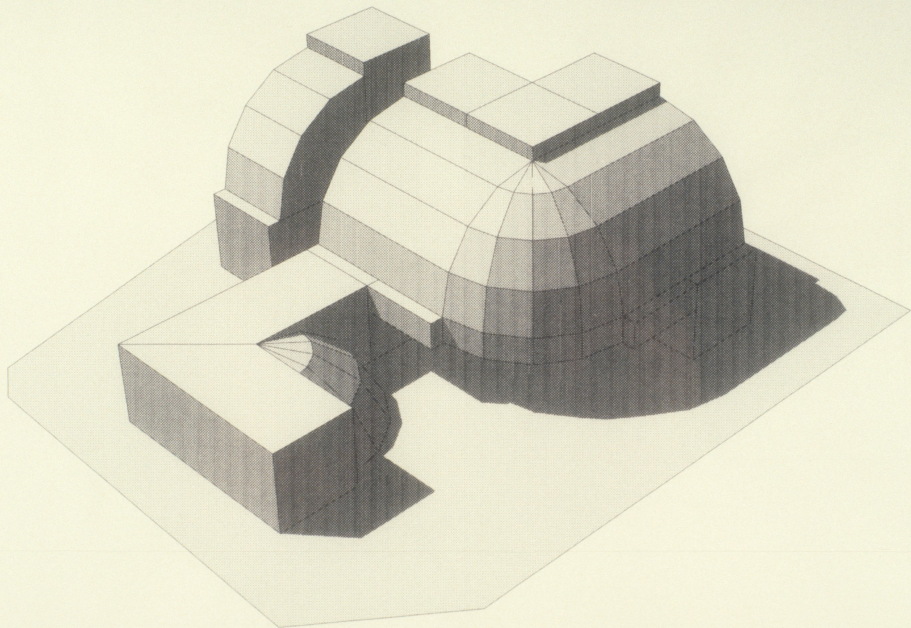


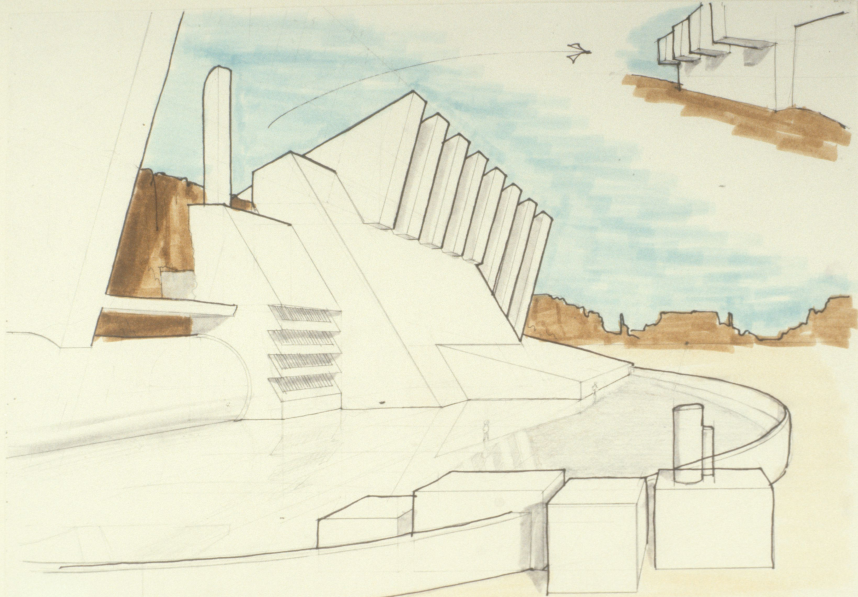


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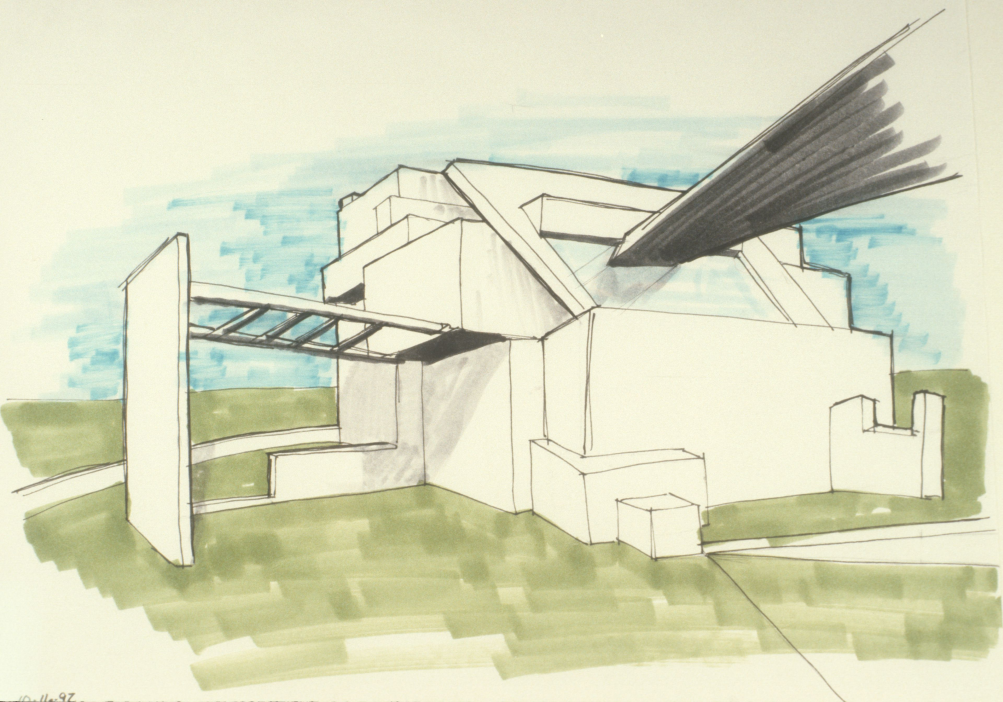


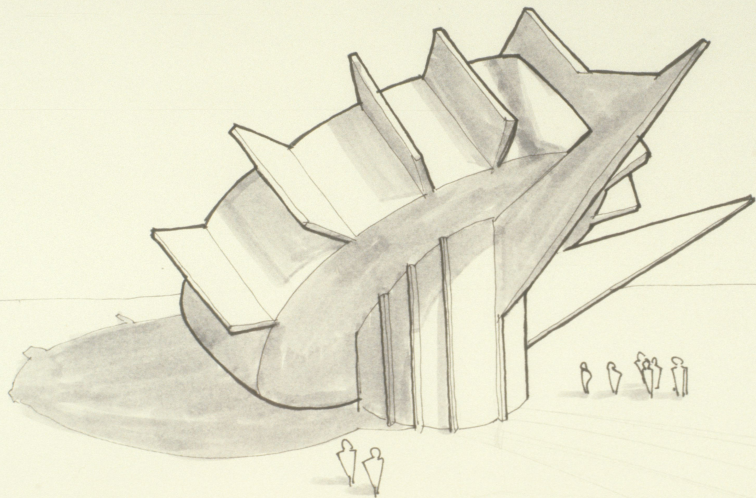
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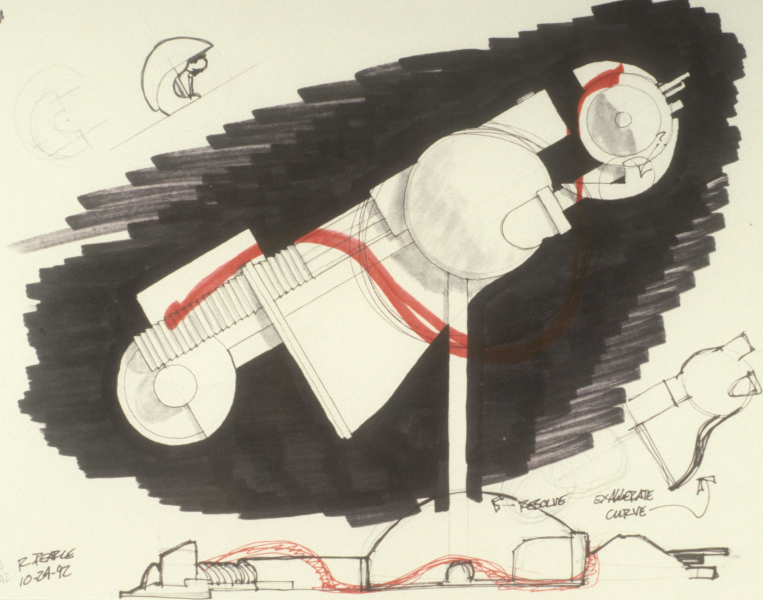
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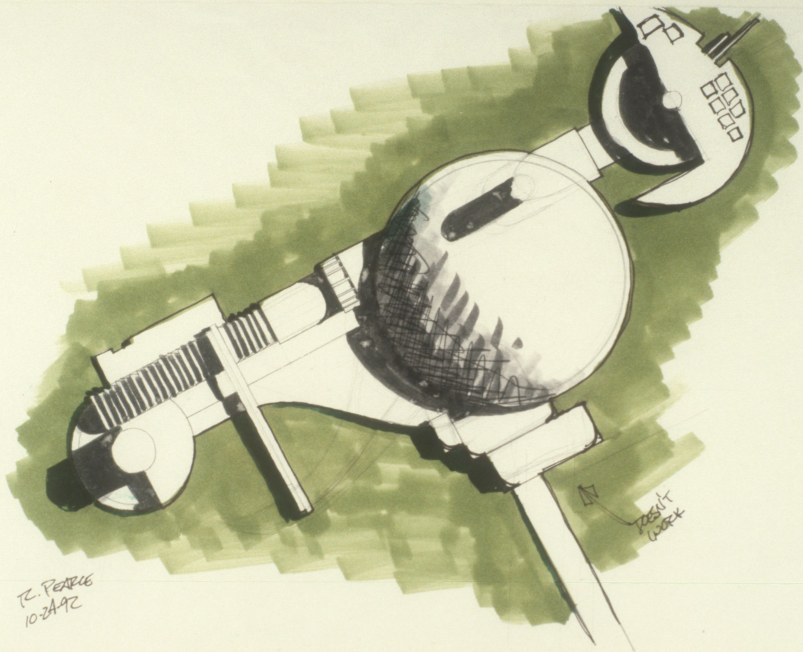






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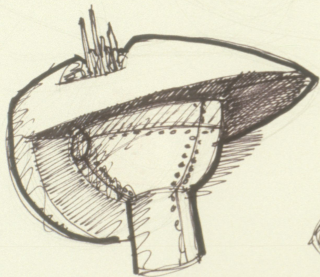


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Result
Work

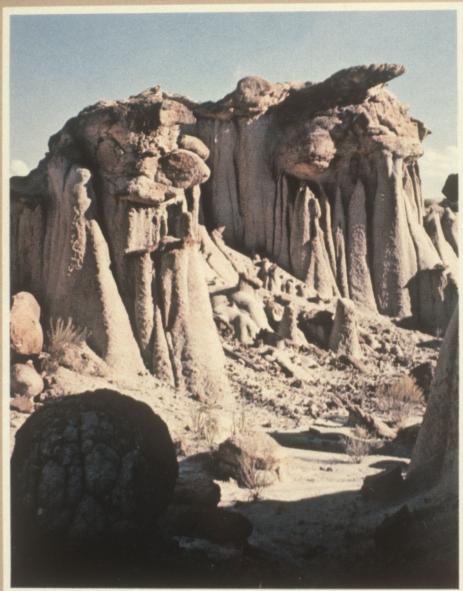


R. PERCE
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F. PEARCE
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BADLAND
BADLAND
GLENDON









PT. REYES OCEANIC MUSEUM & OBSERVATORY

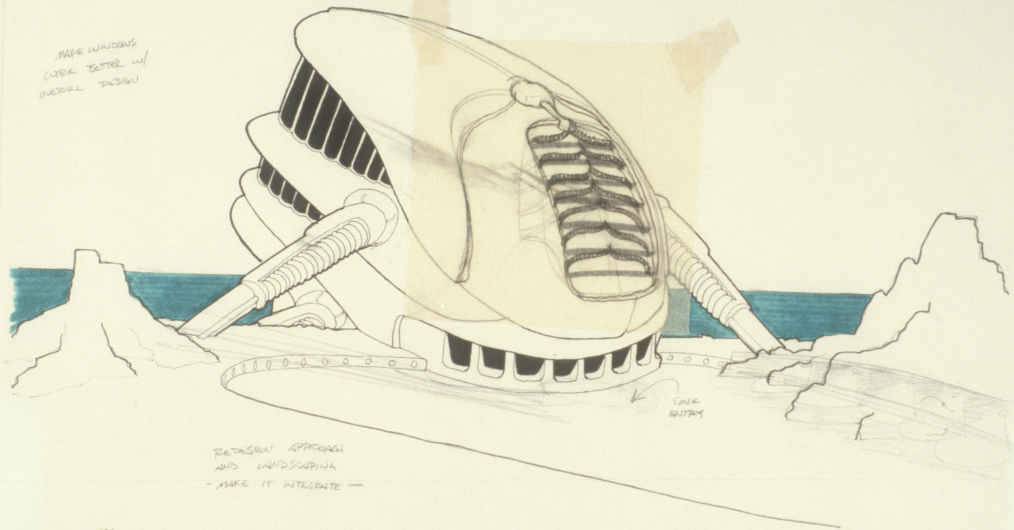
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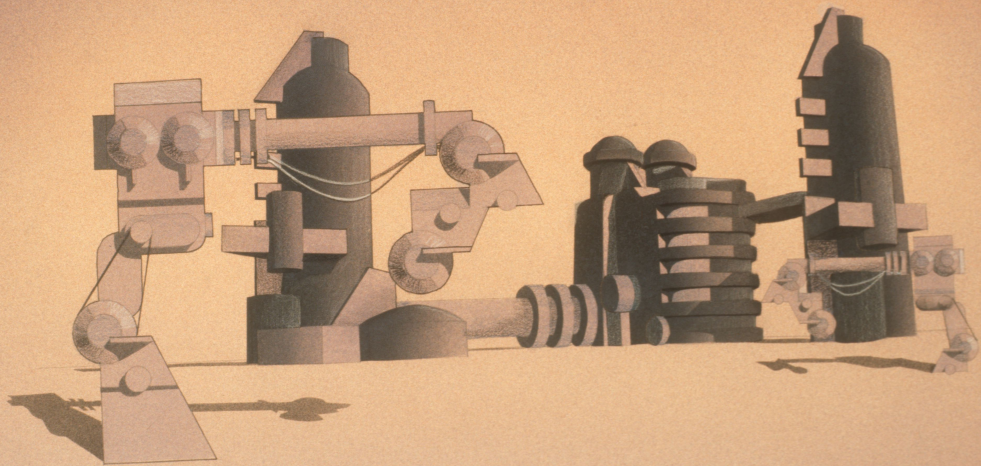
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AND OBSERVATORY WITH
SUBMERSIBLE OBSERVATION PODS
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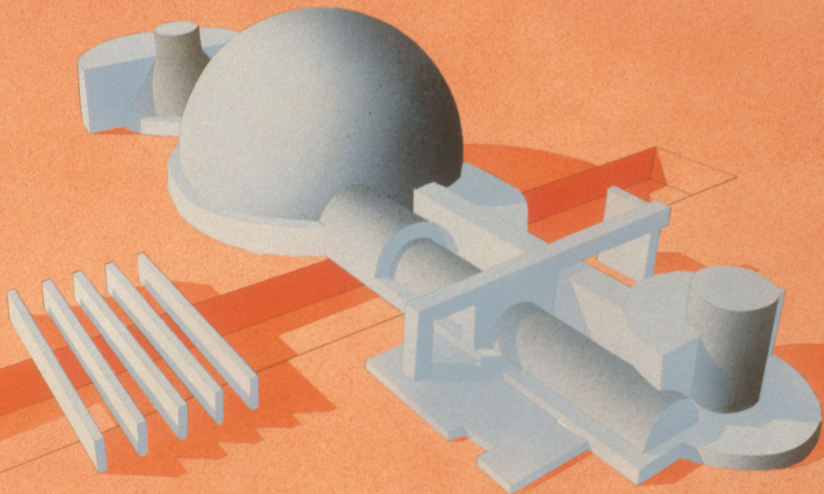
MAKE WINDOWS
LOOK BETTER w/
OVERALL DESIGN

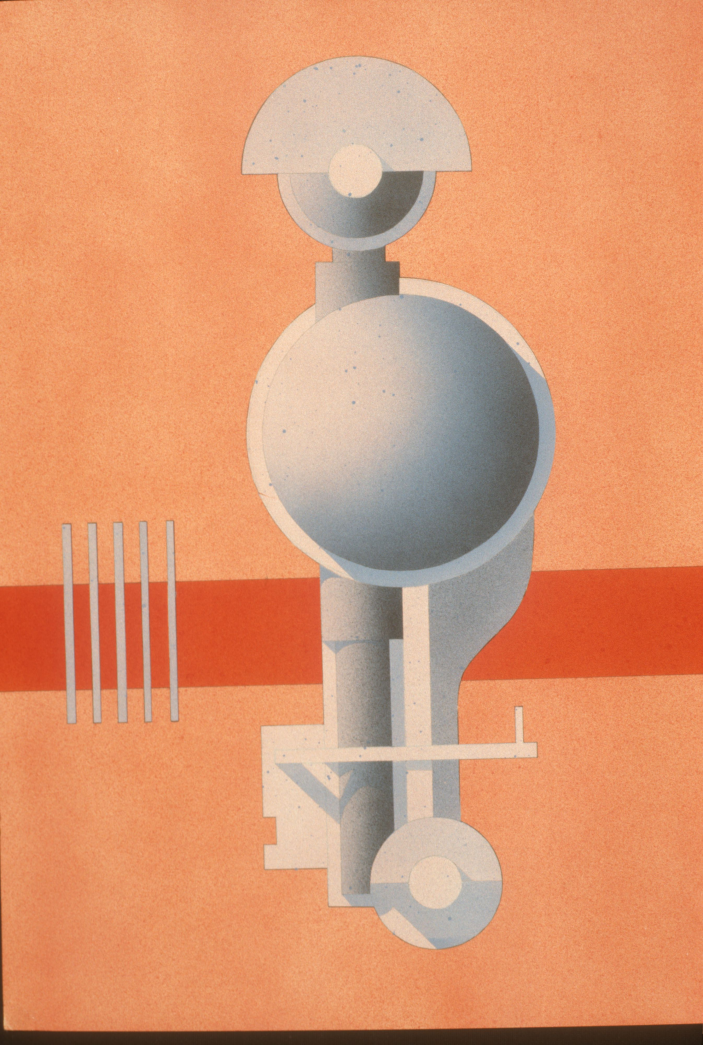


REDSKIN APPROACH
AND LANDSCAPING
- MAKE IT INTEGRATE -

R. PERCE
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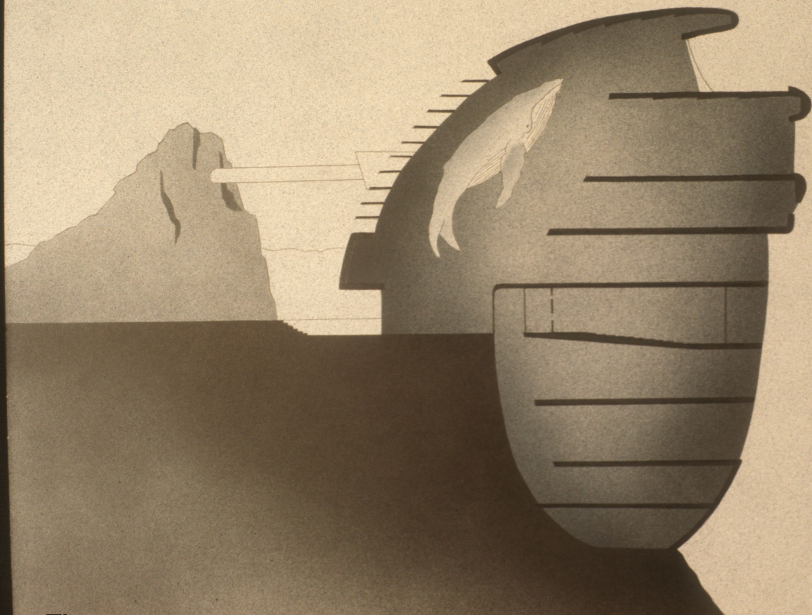


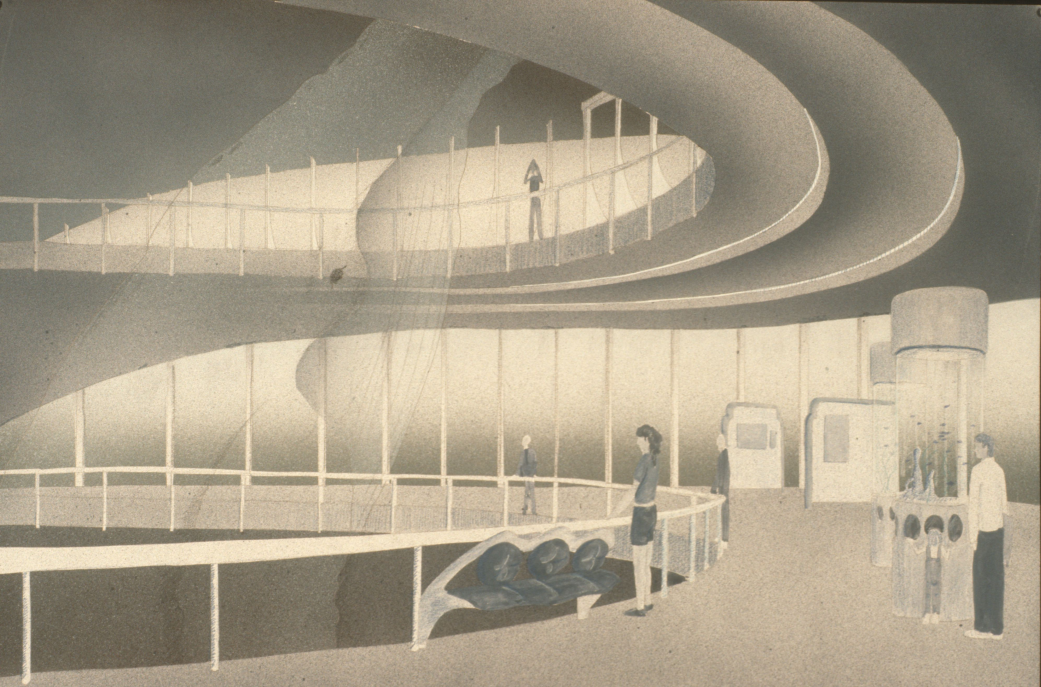


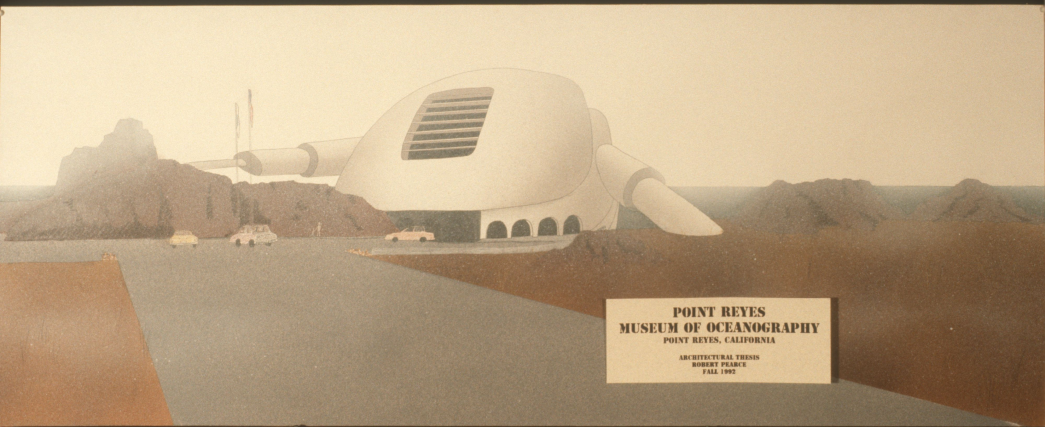












POINT REYES
MUSEUM OF OCEANOGRAPHY
POINT REYES, CALIFORNIA

ARCHITECTURAL THESIS
ROBERT PEARCE
FALL 1992

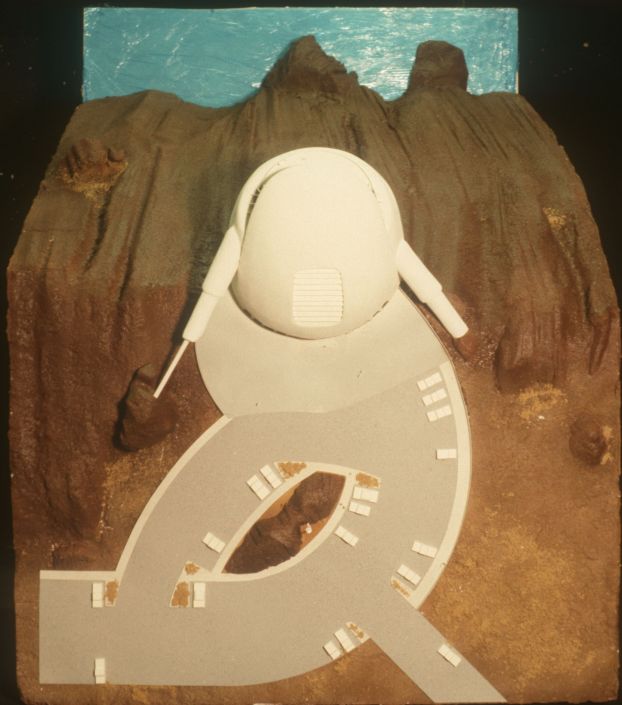


















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