

Boat Building as a Tectonic / Material Transformation: Schedule fall 2003

Prof: Paul Lukez

Assignment: Research / Site Readings and Model

Research Objectives

The aim of this exercise is to raise the level of our expertise about boating and boat building, its principles, tectonics, design and construction processes as well as its rich history. To that end, we will produce a book of sorts that will serve as a resource to our class throughout the semester.

We will break up into groups of two or three and divide the categories below. Each group will be responsible for producing a "file" which includes a synopsis on the sub-topic, as well as copies of salient articles, graphics, bibliographies, web sites etc. (In the interest of saving trees, try to compress the material as much as possible.) Given the breadth of the topics, the goal is to provide an overview of the sub-topic, while going into sufficient depth in those areas that appear most directly related to our studio. Please edit accordingly. Our TA, who will compile the entire document for distribution amongst class members next Tuesday, and will coordinate graphic standards for each "file". Please submit your final research by Monday evening or Tuesday morning (TA will confirm the time).

In addition, you will be asked to give a presentation next Tuesday on your findings. You may use PowerPoint, or simply Xerox acetates of your files and use an overhead projector.

Research Clusters:

Floating and Sailing

Hydrodynamics, Principles of
Sailing / Principles and Terms
Classification of Sail Boats / Categories

Tectonics

Hulls / Keels
Sails / Masts
Hardware

Building Processes:

Wood
Steel
Plastics
Composites

Design Process / Representation:

Drawings / Models / Digital Tools

Sailing / Boat History

General History: Pre -1800
General History: Post -1800
America's Cup:
Herreshoff Boat Builders:
(Ref: MIT Drawings)

Architectural Precedents:

Buildings that house boats
- Production facilities

- Boat houses
- Museums

Buildings whose architectural language is inspired by boat building

Buildings that have less direct associations to boat building

Graphic Format / Coordination

Synopsis

Graphic Summary

Summary of Articles

Articles

Bibliography:

Web References

Site Readings:

In addition, we will be documenting the order of the site, as a representation of multiple sets of forces (natural and man-made) that have shaped the site and the way in which we perceive it. To that end, we will dissect the site into independent (transparent) layers as noted below. Feel free to add categories as you see fit. We will analyze each layer independently, to understand in isolation what the order of each layer indicates, and then through a process of “cross-mapping”, we will combine other layers to determine the strong or weak connections between each system.

This process requires that all the maps, their graphics and locations are coordinated. Photoshop, Illustrator, Corel and Powerpoint are well-suited presentation tools. Provide a hard copy of your maps and findings as well, and submit them to TA.

Mapping:

- Infrastructure
- Topography
- Buildings
- Structure
- Public Spaces (Interior / Exterior)
- Surfaces
- Natural Systems:
 - Vegetation (Natural / Man-Made)
 - Water
- Phenomena
 - Sound
 - Wind
 - Light
 - Views
 - Tactility / Textures

Analysis:

- Cross Mapping
- Figure Ground*
- Nolli Plan*
- Elevational Analysis*
- Massing Analysis*

Model:

Build a Model @ $1/16" = 1'-0"$ or $1/32" = 1'-0"$ suitable for design investigations. Make sure parts of the model can be "popped out" so that new designs can be inserted.

Base:

Buildings:

Due: Tuesday, Oct. 7th, 03