Level II studios: Fall 2003
Department of Architecture, MIT

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Project 1:
Physics and Phenomena: Installations at Thompson Island

The first project for all students in Level II studios will focus upon the design, testing and partial fabrication of a series of installations on Thompson Island in Boston Harbor. The work will be collaborative and engage all students working across boundaries of the 3 studios.

Project 1 is a preliminary design exercise that sets the scene for the themes of the major project of the semester of each studio. It will be centered around the notion of series of installations that respond to a series of physical and phenomenological conditions (described later), and supplemented by design issues that are at times intrinsic to the island condition, and at other times determined by your design group. The project asks you to innovate, design, research, test, prototype and fabricate a design proposal. The intention is to develop a model for working iteratively between the design concept and the material development, assembly and fabrication such that they are all significant to the form and realization of the project.

Thompson Island is close to South Boston and a 25 minute ferry ride into Boston Harbor. The island, which is approximately 1 mile x ¼ mile, is a diverse and rich landscape and has many different microclimatic and ecological conditions formed by the interaction with the tides and wind. The island is the home and ‘laboratory’ of Outward Bound, an expeditionary learning based school that sponsors many outdoor programs for young adults from the Boston area. While there are no vehicles, a network of paths gives access to most parts. At the southern end of the island, is an area of tidal salt marsh will be the focus of our installations. This area, due to the tides, seasonal climate, vegetation and bird habitat is a delicate ecology. Being in it or a part of it poses questions about how one makes a place, constructs shelter, touches the land, rises above the land or traverses it. There are also many interesting issues related to the ‘ergonomics of the landscape’ - in other words how to be ‘in the landscape’ and the difference between designing installations or places for one or two person – or for a small group.

Design Assignment

**Physics:**
The diagrams suggest a series of conditions – the physics – that are determined by a relationship between gravity, surface and movement. We can possibly identify each of these conditions by words that are familiar; tower, bridge, cantilever, float, raft, drape, balance, passage, shelter etc. – but we prefer that you don’t have these images in mind when starting as we are looking to you to step outside of normative solutions. However, each diagram also suggests a condition in relation to the ground in terms of stable or unstable, and whether movement is parallel to vertical to the gravitational condition. As you start working, we expect that you may also develop hybrids of these conditions.

**Phenomena:**
Each group or design team should consider how their design proposal is conceived around local phenomena that hold intrigue and a challenge. Some directions might be related to:

- The conditions of the island and especially the salt marsh change on both a short term and long term cycles. They respond to the 10’-12’ tidal flow - and the changes in the climate or environment in respect of the sound, wind, the temperature, the sun angles, rainfall and so forth. What impact does this have on the experience of the installation?
- Does the installation undergo transformation? Does it change its nature, how and why? Does it need some form of external force to make it work?
- Is the installation mobile- can it be relocated- and if so why and how? Does it move as part of the design idea (multiple sites)?
- How would you transport and assemble your installation? The island poses significant constraints on size and weight of components as well as deliveries. Everything has to be moved by ferry or a barge. How might this constraint affect your thinking about the design and the materials?
- What conditions or opportunities does the material language create? Think of the qualities of lightness or mass, of tactility, plasticity, or resources and how these characteristics can be generative. How might material form and shape relate to nature? We will be interested in developing techniques and technologies that innovative but appropriate for the task.

**Requirements**
Each group should consider these issues and develop a design proposal for an installation as a response to either ONE of the described physical contexts –or a hybrid condition resulting from an integration of ideas.
The schedule gives dates for the project. The week by week requirements are as follows:

**Week one:**
Show and tell, studio set up, site visit to the island.
Over the weekend you should revisit the sites if necessary, and prepare diagrams and ideas of your own initial response to the project. These initial idea diagrams (which will be discussed at the next studio on Tuesday) must describe your response through:

- The force and gravity diagram- (sections, 3 d diagrams or sketch models)
- The phenomenological, environmental and ecological response
- The ergonomic aspects of your ideas
- The potential material technology

Use a 11 x 14 format for each diagram.

**Week two:**
Assignment of groups by faculty. All studio pin up of initial idea diagrams.
A design esquisse in groups that will synthesize ideas and then intensively develop these into one design proposal.
Group presentations at the end of the week of the emerging design - at a scale and format to be given.
Assignment of faculty to work with groups over weeks 3 and 4

**Week three:**
Further research, developing and testing of the project. The research should engage the place, the land or water, the material and techniques to construct, transport and assemble as well as precedents and related references. The testing engages the idea of study models and drawings of that determine the feasibility of the developing design.
Individual group working pin ups at the end of the week

**Week four:**
In preparation for a review of the project (Friday 09/26), the week will be used for working in the studio and shop on modeling, fabrication and prototyping of all or parts of the project as well as making appropriate design drawings. The requirement and scales will be agreed by the faculty.

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<thead>
<tr>
<th>WEEK</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tbody>
<tr>
<td>1</td>
<td>Sept</td>
<td>02 Show and Tell @ 3.20pm</td>
<td>04 first studio: studio introductions</td>
<td>05 all studios- field trip to T. Island</td>
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<td>project 1 introduction</td>
<td>2.30 ferry at EDIC dock, South Boston</td>
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<tr>
<td>2</td>
<td>08</td>
<td>09 pick up group assignment (posted in studios)</td>
<td>11 group esquisse hybridization desk crits</td>
<td>12 group presentations of design strategies</td>
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<td>pick up group</td>
<td>pin up of first individual ideas/concepts but in</td>
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<td></td>
<td>assignment</td>
<td>groups</td>
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<tr>
<td>3</td>
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<td>16 research, development and testing</td>
<td>18 research, development and testing</td>
<td>19 working pin ups with assigned faculty</td>
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<tr>
<td>4</td>
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<td>23 workshop prototype / fabrication</td>
<td>25 workshop prototype / fabrication</td>
<td>26 2pm REVIEW of groups work with critics</td>
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