The Sailing House:

An Educational Paradigm

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Project Statements

Title: The Sailing House: an Educational Paradigm

Elevator Statement: The project will illustrate how built form and program can embody changing paradigms in education with a sailing facility where students will learn both theoretically and experientially.

Case Statement: Typical systems of education in the United States employ a narrow-minded ideal of what intelligence is, based on standardized testing and outdated modes of teaching. These systems are stifling students' creativity. Furthermore, the means of teaching are generally confined to the theoretical where the students learn about a subject but do not learn about its relevance in their worlds. The result is that many students feel discouraged and lose interest in school. By introducing sailing into education students may learn through experience as well as theory. This new educational paradigm will revitalize students' curiosity in the subject matter and encourage students to grow as part of a group and as individuals within the small and informal setting of the Sailing House.

In order to instate new educational paradigms, there needs to be a place in which those paradigms belong. A place that declares the new paradigm, where it is seen and felt before the formal instruction begins. This project's design and program will embody an educational paradigm of learning through application and experience of principles learned in its version of a classroom. Herman Hertzberger argues that developments in educational paradigms toward a more independent and democratic model has not been significantly reflected in the design of schools. It follows then that those paradigms are constrained by the forms designed for previous paradigms. In order to fully explore the potentials of new paradigms of education there must be facilities that foster that particular way of learning.

A new educational paradigm also needs a vocabulary with which to communicate. Given the common system of language, each person necessarily has his own vocabulary and his own understanding of each word of that vocabulary due to connotations associated with it. Each person appropriates the language and adapts it to express his own ideas. However, language is a communication tool and thus each user must confront others in the space of language and try to understand another's use of language in order to have some sort of discourse. A common ground for this discourse may be found through defining words and their connotations with a shared experience, such as sailing.

This project will use sailing as a vehicle for applying theoretical principles and as a means of defining a common language.

Goals

Guiding Principles

Project Qualities

Goals:

A design that embodies an educational paradigm based in experiential learning.

The project will encourage interaction between students and community to expand the students' education.

Guiding Principles:

To determine a common language between form and education.

Different learning methods require different learning environments to achieve optimal results. Spaces should be responsive to and encourage the learning methods

Spaces should respond to the ramifications of social dynamics both in the classroom and on the boat.

Environments should be comfortable and encourage students to spend time in the facility.

Project Qualities:

The spaces should be open and allow for easy interaction among all users.

Transitions between program are a gradient rather than a distinct contrast.

Within larger open spaces there should be smaller, more intimate, spaces where people may work individually or in small groups (e.g. corners, level change, alcove, etc.).

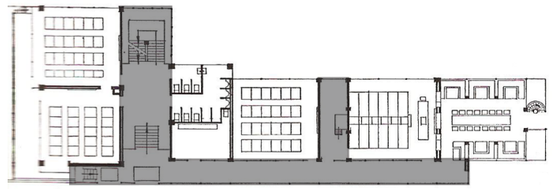
Spaces should be adaptable to suit different people's needs at different moments.

The spaces should have a lot of light and be focused toward the outdoors.

Form-al Paradigms:
The Space of the Corridor

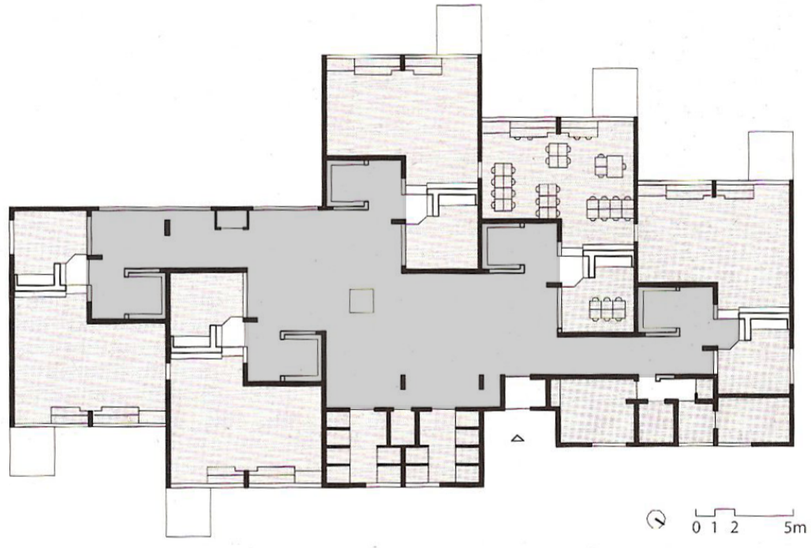
A typical school layout: Classrooms located off long, narrow corridor, leaving little chance for interaction or learning outside of classroom walls.

J.G. Wiebenga, school, Aalsmeer, Netherlands, 1932.

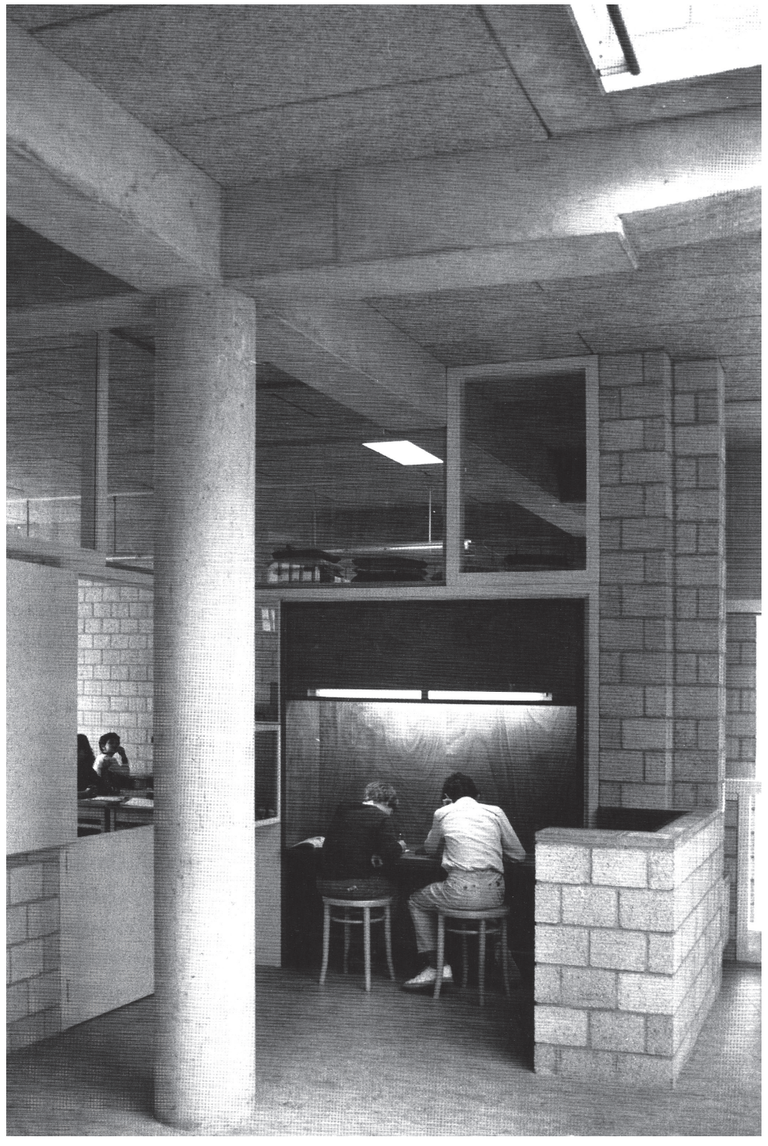


Beginnings of idea of working outside the classroom. The area between classrooms expands to become a space of its own.

Montessori School, Delft, Netherlands, 1960-1966.



Learning Outside the Classroom



Learning between classrooms means more spontaneous educational opportunities and gives people just entering the space a preview of what is to come.

Learning Outside the Classroom

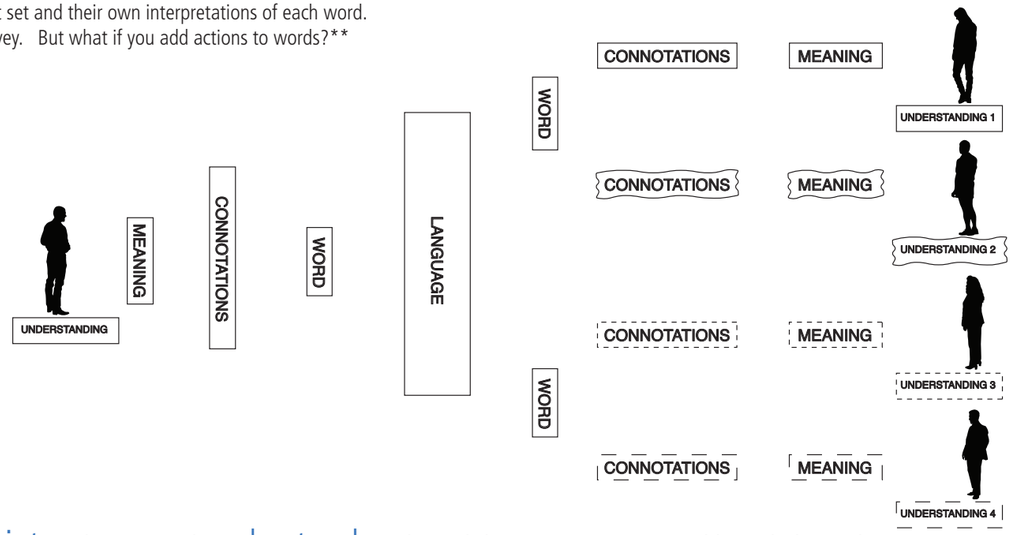
Sailing provides space outside the classroom where learning and adaptation are inherent in the activity. Students learn and apply concepts with a concrete goal of making the boat move.

The Space of Interaction

Language and Physical Space

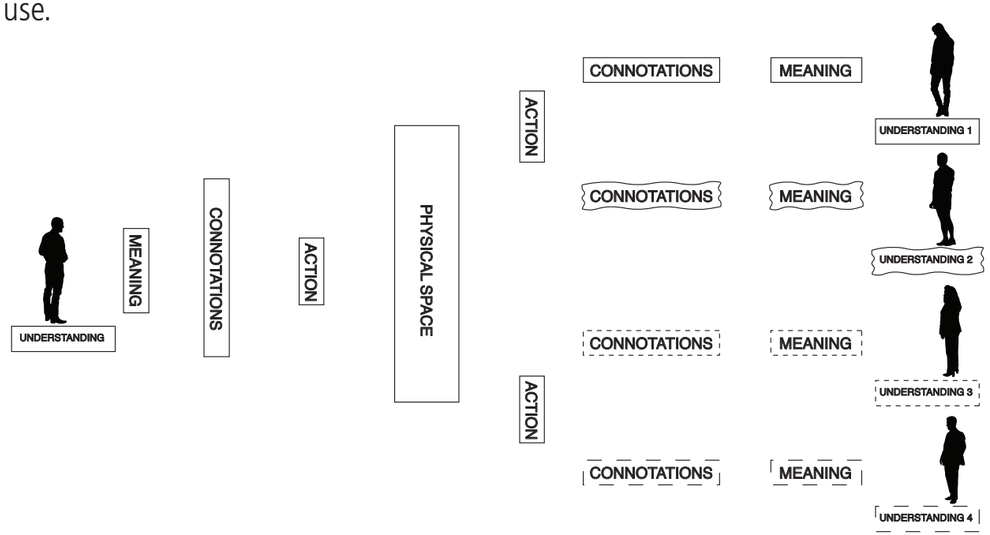
Language provides a system which is flexible so that people may appropriate it to express themselves yet is structured enough to be used to interact with others.*

*There is a system of grammar and vocabulary for language, yet each person has their own vocabulary within that set and their own interpretations of each word. Therefore, even as one person interacts with another, neither understands exactly what the other is trying to convey. But what if you add actions to words?**



"When one reads he inevitably appropriates the text and understands it through his own memories and knowledge... This mutation makes the text habitable, like a rental apartment." -- Michel de Certeau, *The Practice of Everyday Life*

Space also must be organized to allow for adaptation and flexibility of use.

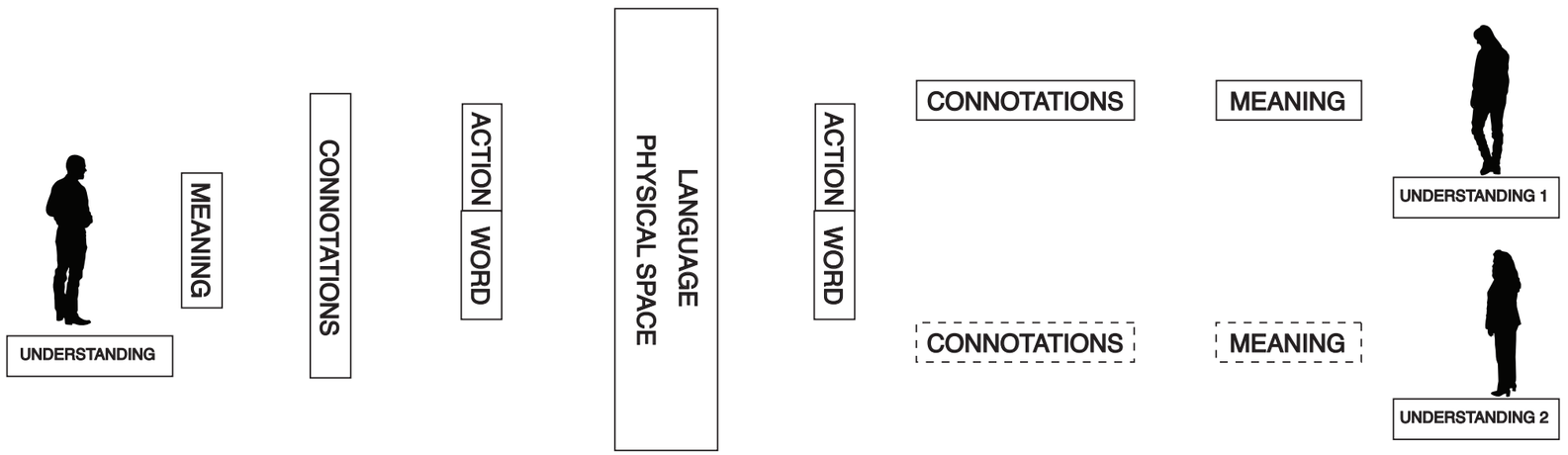


"We must always design in such a way that both components and totality are always open to be appropriated and so incite activity."
-- Herman Hertzberger, *Space and Learning*

**The Space of Interaction

Language,
(Sailing) Action,
and
Physical Space

What happens when you add the action of sailing to the system of language?



Perhaps through the common experience of sailing, actions may be combined with words so as to specify the connotations of each, resulting in fewer variations in understanding through interactions.

Maritime Youth House, BIG Architects
Sundby Harbor, Copenhagen, Denmark

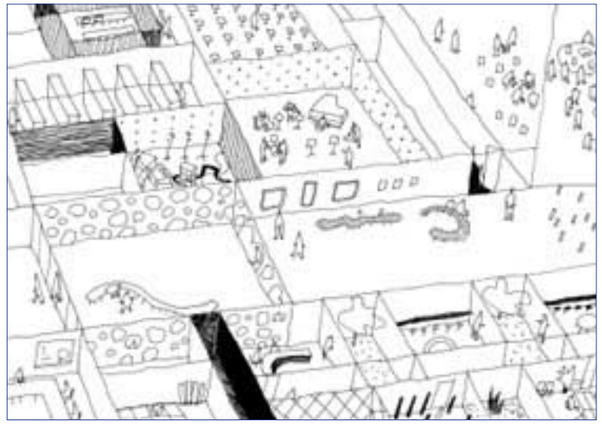
The Maritime Youth House offers an innovative solution for providing boat storage and an area for exterior activities given a limited space. It lifts up the exterior deck in an undulating fashion allowing for play above it and boat storage below.

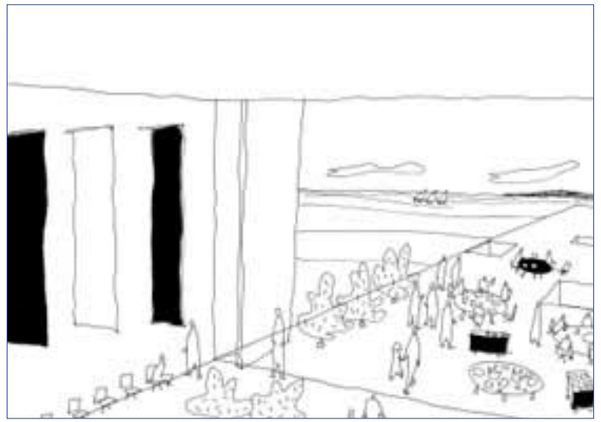
The deck adapts to become a room of its own rather than being simply a roof for the boat storage.

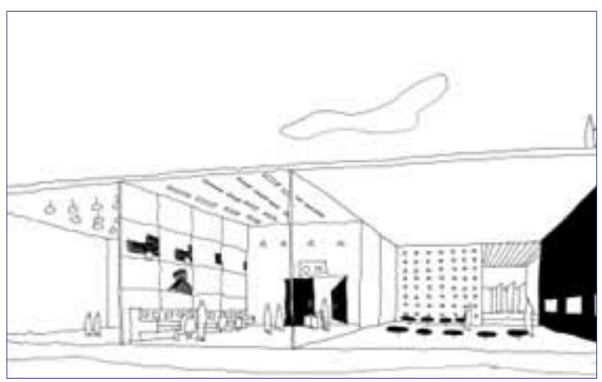
Rolex Learning Center, SANAA
Ecole Polytechnique Fédérale de Lausanne
Lausanne, Switzerland

The Rolex Learning Center uses variations in level from the rise and fall of its structure to separate program and delineate space rather than using walls. This allows for greater interaction between different programs and a more open learning environment.

Theatre and Cultural Center, SANAA
Almere, Netherlands





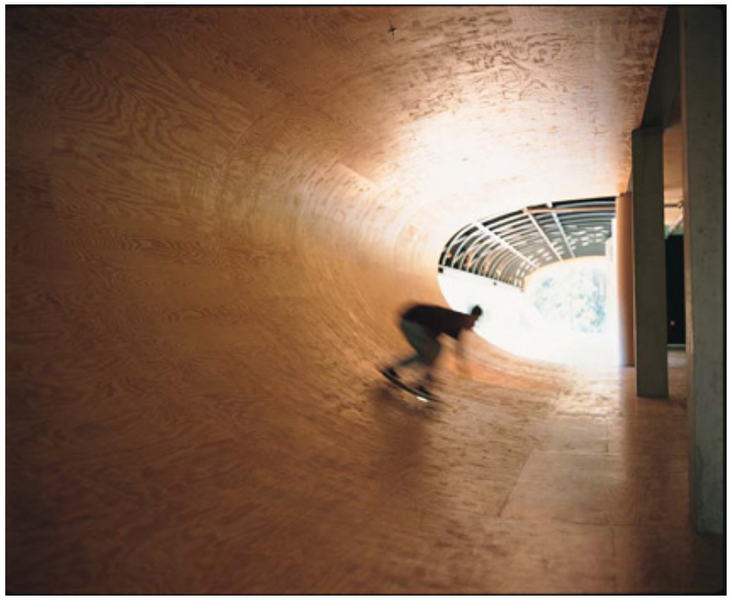


With their Theatre and Cultural Center, SANAA sought to eliminate spatial hierarchies between different rooms and corridors. Almost all program is treated the same spatially--orridors are just as much 'room' as rooms are. As a result activities occur throughout the building and are not confined to the walls of a classroom.

Indian Institute of Management, Louis Kahn
Ahmedabad, India

The Indian Institute of Management breaks from the old paradigm where learning has to take place in the classroom. Louis Kahn designs hallways as social centers and creates gathering places with light wells where students may interact and learn from each other and from professors alike.

Educatorium, OMA
Uithof University, Utrecht, Netherlands



The Educatorium in Utrecht creates an environment of inclusivity and passage with its planar composition. It is as if the circulation surfaces of the campus simply lift up and enter the building. It is a distinct node on the campus that connects buildings and exterior spaces alike and also houses many different types of program, such as two lecture halls, a cafeteria, and a testing facility. Even as these programmed areas occupy their own distinct areas, the building around them adapts and changes constantly as people flowing through stop and gather, different activities crop up depending on the moment.

OMA does not discourage unprogrammed uses of its spaces, but rather organizes programmed spaces such that unexpected and unusual interactions and events may occur spontaneously between them. Koolhaas creates open interstitial space in order to encourage such activities. "By merging the 'pause' areas with circulation, larger open territories are generated as part of a strategy of eliminating frontiers in favour of more subtle techniques of separation or inclusion." He creates different regions within a territory, but it is all the same space.

Hudson River Community Sailing
www.hudsonsailing.org

Founded in 2007, Hudson River Community Sailing (HRCS) provides experiential learning opportunities to at-risk youth in New York City. It works with public middle and high schools as well as community-based organizations to offer internships and programs for credit. It encourages a stronger connection to the Hudson River for the community and offers services to the public to help sustain themselves financially.

In this way, Hudson River Community Sailing provides an educational and fun environment for students at the same time as it establishes itself as an active entity in the community.

Re:Form School
www.reformschool.letsredu.com

"A high profile group art exhibition event series and public awareness campaign taking place in New York City, that brings together the creative community in a call for the reform of the American Public Education System."

Re:Form School describes itself as a REDU project, meaning rethinking, reforming, and rebuilding United States education.

Their main themes for achieving this goal are:

- Knowledge:
  - Ensure that all students graduate from high school and are prepared to face future challenges
- Community:
  - Engage parents and the community in students' education to help encourage their work and progress
- Teachers Inspire:
  - Teachers should do more than share facts. They should mentor, inspire, and help shape the students as individuals
- Creativity and Innovation:
  - Provide youth with environments that charge their imaginations and nourish creativity

Edutopia
www.edutopia.org

Edutopia is an organization dedicated to improving k-12 education through the incorporation of many methods of learning and teaching. They promote interactive learning environments and "provide not just the vision for this new world of learning but the real-world information and community connections to make it a reality." They also endeavor to spread their ideology by providing information on their website about how to achieve these goals.

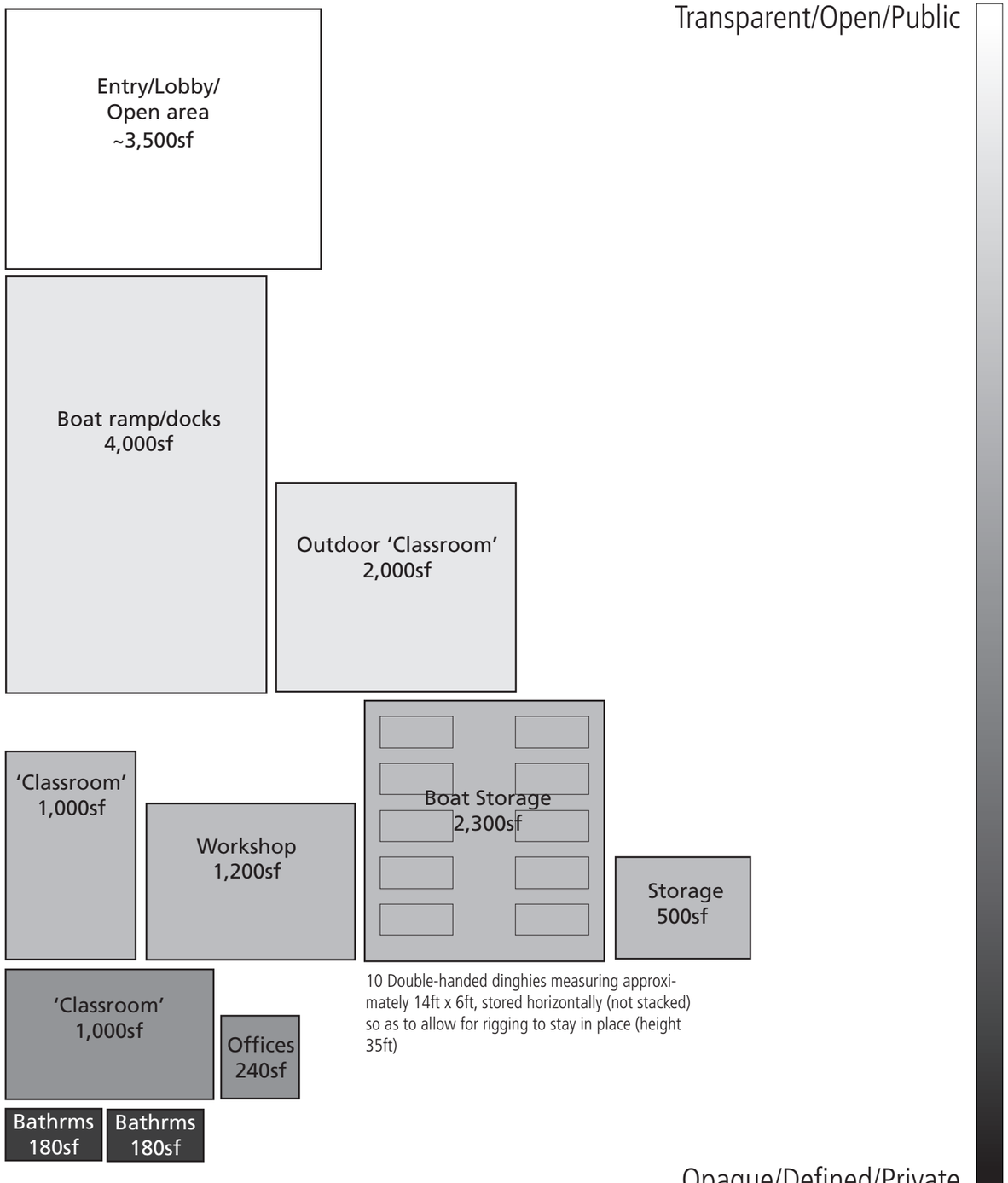
Their core strategies include:

- Integrated Studies:
  - Combines disciplines so students see how ideas are connected
- Project Learning:
  - A hands-on approach to learning subject matter and skills that are generally taught in abstraction
- Social and Emotional Learning:
  - Students work in teams to learn to collaborate and communicate
- Technology Integration:
  - Teaching with technology as an active tool
- Teacher Development:
  - Teacher candidates spend time in the classroom with experienced teachers
- Comprehensive Assessment
  - Assessment of the full range of emotional and academic achievement

Program

Square Footages

Quality

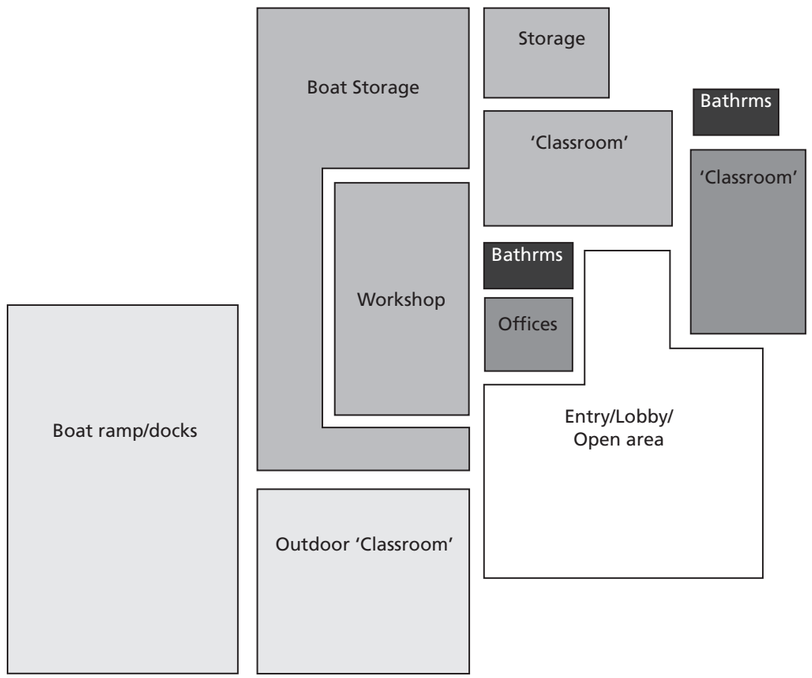


10 Double-handed dinghies measuring approximately 14ft x 6ft, stored horizontally (not stacked) so as to allow for rigging to stay in place (height 35ft)

Total Square Footage: 16,130

Spaces are sized to accommodate an enrollment of 50 students and provide space for community interaction and involvement.

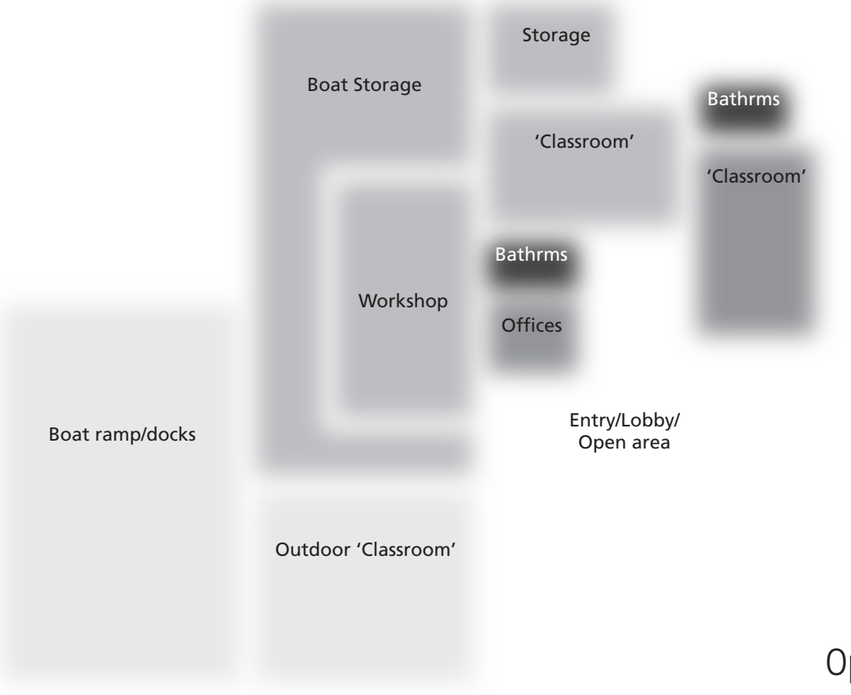
Adjacency Diagram



Transparent/Open/Public

Connectivity Diagram

Delineation of space through changes in environment rather than physical barriers such as walls



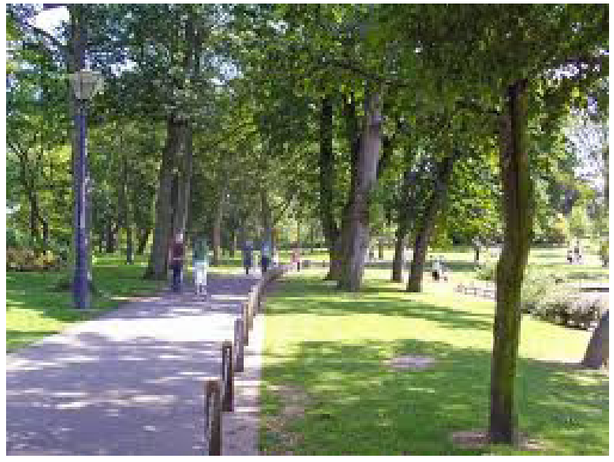
Opaque/Defined/Private

Site Parameters:

As this project is an endeavor to create form based on a new paradigm of education, the specific site for this project is not so important as more general parameters that help to define what kind of facility the project will become.

Urban environment so as to create relationships with various other schools and communities.

Near a substantial body of water big enough to allow ample leeway for beginner sailors.



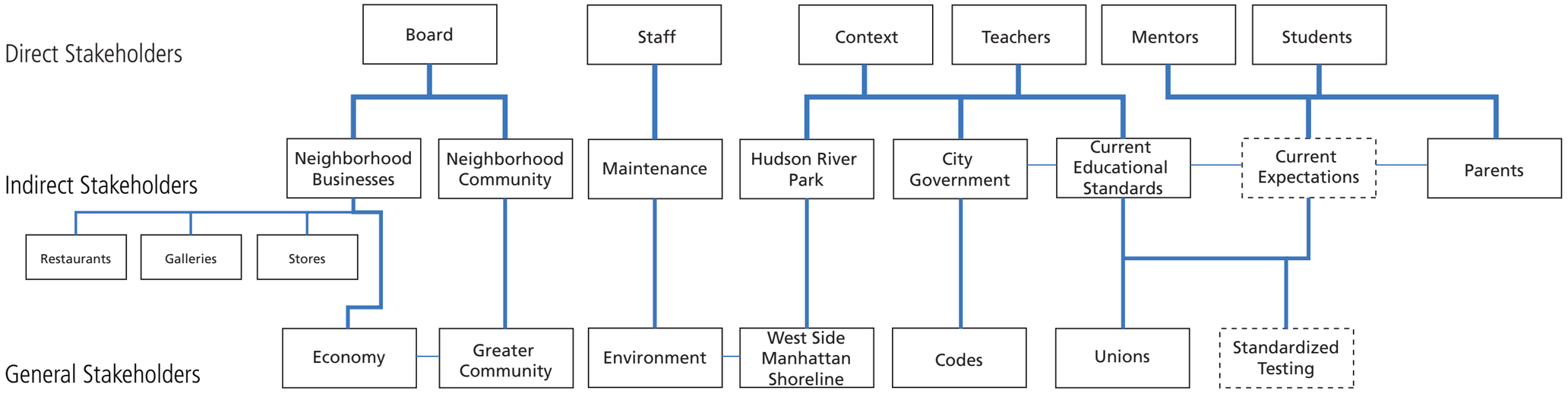
Near a park so that there will be active and leisurely passersby. The project becomes a part of the park and its activities.

Near various other schools so that there may be greater interaction among schools as well as with the surrounding community.

Potential Site:
West 26th Street and Hudson River
New York, NY

A potential site for the Sailing House is on the West Side of Manhattan at 26th Street and the Hudson River. The location is just north of Chelsea Piers Sports and Entertainment Complex and directly adjacent to the Hudson River Park. The Sailing House could link into the active environment already present in this area and also serve as an anchor point in the effort to attract even more people to the park system. The result would be a symbiotic interaction between the space of the project and the space of the park around as they both benefit the other. Furthermore, during the winter months, when sailing may not be as popular and the boats may be derigged and stored more compactly, the Sailing House may serve as indoor activity space for the park as well as an exhibition space for the galleries nearby so as to incorporate even more of the life of the community into the students' education.

Stakeholders



Process
Spring 2011

Research (Two Weeks)

Research current and past educational paradigms
- What are their advantages and disadvantages?
- Why are these present?

Research current school design
- What seems to be a common theme among them?
- Why is this theme present?
- What variations are there?
- What are the reasons for these variations?

Research experiential learning
- What are its benefits/drawbacks?
- Current facilities
- Exceptional spatial requirements

Produce: Graphic diagrams that present information gathered

Develop (Three Weeks)

Explore and develop multiple possibilities for designs

Evaluate efficacy of designs

Produce: Plans, Sections, Models, Diagrams, Analysis for each possibility

Refine (Ten Weeks)

Choose one design to refine and develop fully

Produce: Plans, Sections, Elevations, Models, Diagrams, Analysis

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