12 students
3 architects
2 educators
1 builder...
1 week on Bear Island, off the grid, in Penobscot Bay, Maine

Joy...
Penobscot Bay

North Haven Island

North Haven Community School

Main Entry

Greenhouse

Spruce Trees

Garden

“Compost Commons”

Approach Axis

Bird’s eye overview
The team and the completed project on site at North Haven Community School — September 12, 2015
Island Compost Commons

BIDA student participants

North Haven Community School students

Bear Island caretaker  boat captain of Quicksilver  boat captain of Late Night  crew of Late Night  boatyard owner  lumberyard owner  lumberyard president  morning yoga leader  curious North Haven residents

How many people does it take to make a compost station...?
PROJECT OUTLINE

Problem:
Take twelve liberal arts students, three architects, and several assistants to a remote island off the coast of Maine for one week and design, build, transport, and install a composting station for a public school on another island in Penobscot Bay.

Goals:
Focus our collective skills and energy on a project that benefits more than just a single client or studio assignment, learn about living lightly on the land in the process, and bring good design to a simple composting station.

Conceptual Solution:
Some schools have three flagpoles out front; North Haven Community School now has three towers—a monument to compost, a welcome sign, lanterns for special occasions, a place to gather. They are more than compost bins.

The client requested:
• Composting bin(s) for approximately 80 cu. ft. of compost;
• The ability to designate an area for experimental composting of the invasive green crab that is destroying Maine’s mussel and clam populations;
• Protection from snow so students can access the bins in winter;
• A way to use the composting station as a gathering place;
• A chalkboard so the composting station can be used as an outdoor classroom;
• A place to hang garden tools

The three slatted containers aerate the compost without transferring it from one bin to another. One tower is dedicated for composting green crabs. Vertical loading and unloading panels are protected from snow. The middle band of smooth slats is used as a chalkboard. Tools can be hung directly on the towers.

PROJECT DESCRIPTION

Project Type:
Design-build composting station (new construction)

Size:
6 sq ft x 3 towers = 18 sq ft + access platforms and gathering area

Program:
Provide a composting station for a school on an island in Penobscot Bay, Maine

Responsibility of the Architect:
Guide the design-build process with the students and coordinate all logistical aspects of the one-week program

Location:
Bear Island and North Haven Island, Penobscot Bay, Maine

Site Description:
The community school on an island in Penobscot Bay, Maine—next to the school garden, at the head of the entry drive to the school.

Type of Client:
Island public school (smallest school in the state of Maine)

Total Construction Budget:
$2,250 including towers, access platforms, modular seating, sitework

Duration:
September 5 - 12, 2015 (eight days)

Environmental Features and other Relevant Information:
The “compost commons” was designed and built by a small group living on an island with no utilities.
• Electricity on the island is generated and stored by solar panels tied to batteries.
• Water for drinking is drawn from a well.
• Washing water is harvested from rainfall and stored in cisterns.
• Bathing is with solar-heated shower bags.
• Toilet facilities are composting outhouses.
• Food is purchased from local farmers and fishermen or harvested on the island, and prepared on-island by the group.

The participants, the building materials, and the constructed project were transported by two boats captained by Penobscot Bay locals.

The composting commons was built from materials purchased from a local family-owned lumber yard on the mainland.

The completed project supports a program that educates island students through hands-on learning while supplying local food to both the school cafeteria and the larger island community.
Day 1: Departing the mainland and visiting the North Haven Community School en route to Bear Island
Day 1: Arrival on Bear Island—Buckminster Fuller’s summer home, and our home for the next week
Island Compost Commons

Day 2: Designing on Bear Island
Day 3: Final design on Bear Island
Day 4: A boatload of materials arrives, then safety training and construction begins...
Days 5-7: Construction on Bear Island
Day 8: Loading up and delivery to North Haven Island!
Day 8: Assembly on site at North Haven Community School
Island Compost Commons

3-4-5 right triangles

Growing cycle: greenhouse—garden—compost...

Loading above; unloading below

Chalkboards
"Commons" for outdoor gathering and classroom
Lanterns for special occasions