



Ithaca College Ithaca, New York Farming/Garden

SCHOOL

Ithaca College Campus, private 4-year college, 6,448 students, Ithaca, New York.

ABSTRACT

The goals of the IC Permaculture Garden project have been to develop a prominent space that bridges the gap between food production and landscaping. This 50-square-foot garden serves as an educational model for exploring ways to meet human needs with ecological design and to demonstrate a new landscape paradigm. The garden cost just under \$1,500 to install, funded by supportive departments at IC, and is entering its first growing season. Incorporated in the garden design is passive cooling provided by plants growing vertically along the walls of a nearby building that surrounds two sides of the garden. The area no longer needs to be mowed, saving money and greenhouse gas emissions. The plants in the garden sequester a substantial amount of carbon dioxide and the perennial plant varieties in the garden require very little water input. Our primary achievements during 2012 were to lay the groundwork for a now-flourishing garden, including amending soil with compost and installing a trellis, pergola, and signs. Seedlings were planted in mid-May and we are preparing for fall seed collection. We worked in tandem with the IC administration and many volunteers and consultants from the Ithaca community. Their expertise has made this project possible. We faced many challenges this semester, the most difficult being planning for sustained student involvement and funding.

GOALS

The goals of the IC Permaculture Garden project have been to develop a prominent space that bridges the gap between food production and landscaping. The garden serves as an educational model for exploring ways to meet human needs with ecological design and to demonstrate a new landscape paradigm. In the next 2-3 years our goals are to make the business case for permacultural landscaping on college campuses and to incorporate the space into curriculum and research. We hope that in years to come our model is shared and improved in other areas on the IC campus and on other college campuses.

Our garden is still in the pilot phase, but we hope to work with the Business School at Ithaca College to generate a report outlining the business case for productive landscaping – landscapes that serve as learnscapes, fund themselves, reduce campus greenhouse emissions. We ask the question: “What if campuses, with their sprawling greenspaces, grew truly local food and created meaningful work towards a green and just economy through ecological design?”

Accomplishments and Outcomes

The inspiration for the garden grew out of a strong tradition of ecological design in the Finger Lakes region surrounding Ithaca College. Using permaculture as a design framework was made possible by the participation of students in the Environmental Studies and Sciences Department with permaculture

design certificates and faculty with experience teaching permaculture design with the Finger Lakes Permaculture Institute. The project participants grew from a group project in a sustainability course to an independent study to a full research team that recruited volunteers for installation.

Twice a year, Karryn Olson-Ramanujan will offer a 1-credit course “Gardens: Ecological Design and Practice” offered through the Environmental Studies and Sciences Department, another gesture of the department’s support for the project. This course helps to ensure that students will continue to learn from and interact with the garden, and our hope is that students’ inspiration for the course will carry over into maintenance of the current garden or expansion to other areas of campus.

The garden serves ecological purposes for natural and human communities on campus. We have installed a variety of plants that are primarily perennial, edible, and that work together in many different ecological relationships. Hardy kiwi and schisandra vines grow on 10-foot trellises lining the walls of an adjacent building, and provide passive cooling and a niche-market fruit crop that can be sold for future funding. Many plants were chosen for their role in regenerating the soil, attracting pollinators, wildlife food and habitat, and medicinal properties.

The garden is also met needs for human use and accessibility. As mentioned before, many of the fruit-bearing and herb plants are prolific, delicious, and can be used in herbalist practice. There is a wheelchair-accessible path that reaches the center of the garden, and smaller walking paths that extend into the beds. There is a sign explaining the goals of the garden, and many more smaller signs and self-guided tour brochures are in the works that showcase the ecological design of the space.

Challenges and Responses

In the installation of infrastructure in the garden during Spring 2012, the challenges we encountered were primarily related to efficient funding, project management, and volunteer organizing.

Our funding came from many disparate sources that were all very supportive of the project. Managing these funds was made possible by a shared Google spreadsheet, but communicating clearly about funding with all of our sources was difficult. We intend for the garden’s future funding to be managed in a single account.

Project management was a challenge for the research team during the garden installation in Spring 2012, but we overcame it with regular face-to-face meetings, email and phone communication, and use of Google documents. Sharing the work of organizing the garden installation was important so that individuals did not become overwhelmed.

Incentivizing volunteers to join us at workdays was a difficult but surmountable challenge. We found that clearly presenting the goals and design of the space was vitally important, otherwise volunteers were less enthusiastic because they did not understand the vision that our work was progressing toward. We also had raffles and prizes, used facebook and announcement in classes as recruiting tools, and always tried to recruit twice as many volunteers as we expected to need.

An ongoing challenge that has rolled over into the summer maintenance of the garden has been understanding the hierarchy of decision-making in the Ithaca College administration and Department of Facilities. Our “fit” within the collaboration of many departments at IC was difficult to discern, but very

important to be aware of. We found that communicating clearly with the Grounds and Facilities Departments was critical, including making requests well in advance and having multiple means of contacting them.

Campus Climate Action: Your School's Carbon Footprint

Our garden eliminates the need for mowing. It also reduces greenhouse gases in other ways, particularly through passive cooling. The hardy kiwi and schisandra vines are being grown up trellises, so they will shade the walls surrounding ½ of the garden boundary. These walls would otherwise become very hot in the summer and holds heat in their thermal mass. Our design explores using plants for passive cooling by shading walls in strong sun sectors, thus reducing the need for air conditioning.

In addition, these plants will also sequester carbon over their lifetimes. According to One Green World, the donors for our Akebia vines, "When fully mature, the plants [...] will absorb 110 pounds or more of carbon dioxide from the atmosphere per year. By providing shade near your home, they will also help reduce heating and cooling loads. An added benefit for fruit producing plants is eliminating trips to the grocery store which will reduce your carbon footprint even more."

Commentary and Reflection

We truly believe that green space on college and university campuses can be put to many more productive uses than they currently are, and we need not rely on traditional gardening with annual plants to achieve this. We have demonstrated so far at Ithaca College that productive, educational, and beautiful landscapes are possible and can be help reduce the carbon footprint of campuses.



ENGAGEMENT AND SUPPORT

Leaders and Supporters

- Faculty leaders: Karryn Olson-Ramanujan and Michael Smith
- Independent Study Group, Spring 2011: Patrick Haggerty '11 and Noah Mark, '12
- Research Team, Spring 2012: Allison Currier '14, Sachiko Ishihara '12, Madison Vander Hill '13
- Supporting Departments at Ithaca College: Departments of Facilities, Environmental Studies and Sciences, Sustainability at Ithaca College, Committed-to-Change Committee.
- Supporting Community Groups and Businesses: Finger Lakes Permaculture Institute, One Green World, Bakers Acres, Der Rosenmeister, Nina Bassuk at the Cornell University Department of Horticulture.

Funding and Resources

We received funding from the Environmental Studies and Sciences Department, the Office of the Provost, and the Commit-to-Change Fund. The garden cost just under \$1,500 to implement in Spring 2012. We relied on a great deal additional (non-financial) of support from the Environmental Studies and Sciences Department, ranging from publicity to curricular support.

Education and Community Outreach

Twice a year we offer a 1-credit course “Gardens: Ecological Design and Practice” through the Environmental Studies and Sciences Department. This is a hands-on gardening course offering direct experience in the gardens. During Fall 2012 the students in the course will be preparing explanatory signage and self-guided tour brochures. We also offer weekly lunch-hour workshops for the broader campus and Ithaca community, frequently led by guest experts on such topics as medicinal plants and permaculture design.

CONTACT INFORMATION

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Case Study Submitted By: Madison Vander Hill (see above)

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Campus Sustainability History

Please visit <http://ithaca.edu/sustainability/>

Image Credit: Madison Vander Hill