

## Program Objective

There are currently 7 billion people living on our planet, approximately four times the number of people that were alive merely one century ago. Now more than ever, our willingness and aptitude for responsible natural resource use and management will determine the quality of life for all species on Earth. Through democratic education and partnerships with over 20 organizations, the Without Walls Eco Practicum exposes participants to the complexities of regional environmental issues, and creates opportunities for them to meet and work with experts in the field.

## Program Description

The Without Walls Eco Practicum is a summer enrichment program for current undergraduate college students and recent graduates who are interested in addressing the most pressing environmental challenges of our time and working towards environmental justice. The program is made up of 4 units, each spanning one week. The units are:

- 1. Growing Enough Food: The Role of Organic, Local Produce in the Global Food System**
- 2. Pets, Pests, Livestock: The Value, Role & Treatment of Animals**
- 3. Digging and Drilling: Using Fossil Fuels & the Hope/Hype of Renewable Energy**
- 4. This Land is Your Land: Natural Resource Management in an Age of (Over) Consumption**

Program participants live at Camp Shomria, an educational campus located in the Sullivan County Catskill region, where they get hands on experience farming, caring for livestock, and creating a healthy community. They also get first-hand experience working in the field with government agencies, businesses, NGOs, and grassroots organizations. All this is supplemented by readings, film screenings, and discussions.

## Method

*Field Work:* Participants choose their field work at the beginning of each unit; throughout the week they work directly with up to five organizations, touring their facilities, meeting with staff members and learning about how these organizations function on the ground.

*Farm Work:* Participants plant and tend to an on-site organic farm, an urban farm, and a forest garden, and care for the farm animals, which include goats, chickens, and bees.

*Guest Speakers:* Professors, professionals, and other experts in the field come to Camp Shomria to discuss the work that they do, and lead discussions about their achievements and challenges.

*Texts & Videos:* Field work is supplemented by videos and readings from academic journals.

*Participatory Education:* Without Walls educators lead interactive, learner-centered discussions and group-building activities to encourage critical thinking and personal connection to program content.

## Analysis & Final Report

At the beginning of each unit, participants share their knowledge about the unit topic and formulate questions together. These questions are sent to all of the partner organizations in order to specialize the participants' learning experience. Each unit concludes with a day-long workshop in which participants evaluate what they have learned, revisit their original questions, and come up with a series of recommendations. At the conclusion of the Eco Practicum, this final report, co-authored by all the participants is sent to all the partner organizations.

## Educators

The Without Walls facilitators are dynamic, experienced and trained to provide high-quality guidance for Eco Practicum participants. Facilitators have experience running programs in the areas of social justice, community building, and environmental sustainability.

## Field Work

Eco Practicum Field Work consists of daily trips to work with and tour the facilities of numerous organizations, businesses, and government agencies. It also includes guest lectures from a variety of experts in the field. All field work is accompanied by candid conversations with the experts about the efficacy of their work, their successes, and the challenges that they face.

APPLE POND FARM

BOB FRANKILIN'S KOSHER SLAUGHTERHOUSE

CARGILL REGIONAL BEEF SLAUGHTERHOUSE

CATSKILL CITIZENS FOR SAFE ENERGY

CATSKILL FOREST ASSOCIATION

CATSKILL HARVEST

CATSKILL MOUNTAIN FOUNDATION & SUGAR MAPLE CENTER FOR THE ARTS

CATSKILL MOUNTAINKEEPER

CATSKILL WATERSHED CORPORATION

DIRIE'S RAW MILK DAIRY FARM

DELAWARE COUNTY DEPARTMENT OF PUBLIC WORKS

FARMLAND PROTECTION PLAN

FRIENDS OF NATURAL GAS

FROLIC FARM

FROST VALLEY MODEL FOREST

GORZYNSKI ORNERY FARM

GREENMARKET

HUDSON VALLEY FOIE GRAS

NATIONAL PARK SERVICE

NATURAL RESOURCES DEFENSE COUNCIL

ORANGE COUNTY LAND TRUST

PURE CATSKILLS

QUALITY DEER MANAGEMENT ASSOCIATION

RED BARN PRODUCE

RHIO'S GARDEN

RIVENDALE FARM

TOWN BOARD OF BETHEL

SILVER HEIGHTS FARM

SLOW FOOD

SNOWDANCE FARM

SULLIVAN ALLIANCE FOR SUSTAINABLE DEVELOPMENT

SULLIVAN COUNTY DIVISION OF PLANNING AND ENVIRONMENTAL MANAGEMENT

SULLIVAN COUNTY DIVISION OF SOLID WASTE

SULLIVAN COUNTY FARM NETWORK

US DEPARTMENT OF AGRICULTURE

WATERSHED AGRICULTURAL COUNCIL

WATERSHED PROTECTION & PARTNERSHIP COUNCIL / NEW YORK STATE DEPARTMENT OF STATE

WILLOW WISP FARM

WILDFLOWER FARM

WOODLAND WEAVERS' & SPINNERS' GUILD

# Growing Enough Food: The Role of Organic, Local Produce in the Global Food System

There are currently 900 million people going hungry across the globe. In the US, despite \$60 billion spent yearly in government food nutrition programs, one in six children goes hungry each month and 35 million people cannot meet minimum daily caloric requirements. Meanwhile, about 1/3 of all adults are obese. Less than 1% of Americans farm for a living, and this number is decreasing. However, the agricultural sector in the New York State Catskill Region is growing. With its close proximity to New York City, this area is playing an increasingly crucial role in a new sustainable regional food system. Unit 1 addresses the environmental and social impacts of different farming and food distribution models. Explore the pros and cons of seed patents, genetically modified foods, and organic certification. Learn about different farming and food policies. Unit 1 aims to provide participants with a holistic understanding of issues surrounding local and global food security and nutritional security.

## SUNDAY: Introduction to food & how it grows

- Hike the 100+ acres of Camp Shomria property and explore edible wild plants.

## MONDAY: Different farming models

- **Willow Wisp Organic Farm:** Work on farm and meet farm owner Greg Swartz, former Executive Director of the Northeast Organic Farming Association of New York.
- **Sullivan County Farm Network:** Work on Erlwein farm and meet Amy Erlwein, organizer for the SCFN, which works to support farmers and strengthen their communication with consumers.

## TUESDAY: Organic certification & GMOs

- **Gorzynsky Ornery Farm:** Work on farm and meet owner John Gorzynski, who has been at the forefront of the organic and local food movement since the 1970s.
- **Silver Heights Farm:** Tour this certified organic farm specializing in heirloom and open pollinated vegetable transplants and discuss seed saving and the dangers of GMOs.
- **Rhio's Garden:** Plant new trees and prepare a raw-food lunch with Rhio, a published author, speaker, and an expert on raw food and GMOs.
- **US Department of Agriculture:** Meet Evan Axelrad and discuss national farming policies and GMOs.

## WEDNESDAY: Eating for a healthy body & planet

- **Catskill Harvest:** Learn about food pricing and marketing while working at Catskill Harvest, a food and garden supply store dedicated to offering affordable, high quality local produce.
- **Slow Food:** Meet Jen McGlashan from the Upper Delaware River Valley chapter and learn about food that is healthy both nutritionally and environmentally.
- **Frolic Farm:** Work on farm, as well as preserve and prepare herbal medicine at a community farm and center for education, healing and wellness.

## THURSDAY: Getting food from farm to table

- **Red Barn Produce:** Meet owners and operators of this wholesale produce distribution company that focuses on local, sustainable, and specialty fruits and vegetables.
- **Pure Catskills:** Promote and work at a local farmers market for Pure Catskills, a branding and buy-local campaign that helps farmers located in the NYC watershed farm responsibly and thrive.
- **Greenmarket:** Meet with Director Michael Hurwitz to discuss urban access to locally grown food.

## FRIDAY: Sustainable regional food systems

- **Natural Resources Defense Council:** Meet Jennifer Grossman to discuss her work with the NRDC in developing the Catskills Foodshed Initiative, which aims to promote regional agriculture.
- **Collaborative Regional Alliance for Farmer Training:** Meet farm interns of CRAFT, a cooperative effort of local farms organized to enhance educational opportunities for farm apprentices.

## SATURDAY: Workshop lessons learned & collaborate on final report

### SELECTED READINGS & VIDEOS

- Balter, M. 2007. Seeking agriculture's ancient roots. *Science* 316: 1830-1835
- Ground Up: Cultivating Sustainable Agriculture in the Catskill Region. Columbia University Urban Design Lab, 2010.
- James, Clive. 2008. Global Status of Commercialized Biotech/GM Crops: Brief No. 39.
- "The Next Billions: Business Strategies to Enhance Food Value Chains and Empower the Poor." World Economic Forum (2009).
- Smithsonian: Dig It! The Secrets of Soil. [http://forces.si.edu/soils/video/soil\\_savvy.html](http://forces.si.edu/soils/video/soil_savvy.html)

## Pets, Pests, Livestock: The Value, Role & Treatment of Animals

Livestock production accounts for 70% of all agricultural land and 30% of the land surface of the planet. The livestock sector generates more greenhouse gas emissions as measured in CO<sub>2</sub> equivalents – 18% – than transport. It is also a major source of land and water degradation. As the human population grows and the standard of living rises, so too does the demand for meat. Unit 2 considers the social, environmental, and ethical issues surrounding our relationship to the other animals on Earth. We consider the reasons that certain animals are considered food, while others companions. From industrial farming to hunting, Unit 2 explores different ways that people relate to animals.

### SUNDAY: Relationships between humans and other animals

- Learn how to tend to pregnant goats and help them deliver their kids.

### MONDAY: Large-scale industrial meat production

- **Hudson Valley Foie Gras:** Visit this concentrated animal feeding operation and discuss economic, ethical, and environmental considerations when raising animals in a factory farm.
- **Cargill Regional Beef Slaughterhouse:** Tour the facility and see first-hand the entire industrial meat production process, from the cow's arrival to the packaging of the meat.

### TUESDAY: Small-scale farm based meat production

- **Rivendale Farm:** Work on farm, tend to the herd of sheep, and meet with Alan and Linda Rajlevsky to discuss grass-fed lamb production.
- **Snowdance Farm:** Work on farm, which specializes in pastured poultry, pigs, and beef. Meet with owner Marc Jaffe, the President of the Cornell Cooperative Extension, Sullivan County and participate in the slaughtering and butchering of a lamb.

### WEDNESDAY: Hunting

- **Quality Deer Management Association:** Track deer with wildlife biologist Dick Henry and discusses the role of hunting in wildlife population management.

### THURSDAY: Animal products

- **Dirie's Raw Milk Dairy Farm:** Meet owners and discuss the economics, politics and environmental impacts of small-scale versus large-scale dairy production.
- **Woodland Weavers' & Spinners' Guild:** Learn wool spinning and felting, and discuss the process of using animal fibers for manufacturing essential products and crafts.

### FRIDAY: Killing animals

- Slaughter, feather and cook chickens that have been raised at Camp Shomria with life-long farmer and director of Catskill Mountainkeeper Wes Gillingham.
- **Bob Franklin's Kosher Slaughterhouse:** Tour farm and discuss religious rules that consider people's obligations towards the animals they raise and kill for food.

### SATURDAY: Workshop lessons learned & collaborate on final report

#### SELECTED READINGS & VIDEOS

- "Putting Meat on the Table: Industrial Farm Animal Production in America." A Report of the Pew Commission on Industrial Farm Animal Production (2008).
- McMichael, Anthony J., John W. Powles, Colin D. Butler, and Ricardo Uauy. "Food, Livestock Production, Energy, Climate Change, and Health." *The Lancet* 370.9594 (2007): 1253-263.
- Tarson, Holly. "Thinning the Herd: Can We Live With Deer Hunting in the Hudson Valley." *Edible Hudson Valley* Jan. 2011: 22-28.

## Digging and Drilling: Using Fossil Fuels & the Hope/Hype of Renewable Energy

We currently use 30 billion barrels of oil, a finite natural resource, each year. Oil consumption has nearly doubled since the 1970s, and is expected to increase by nearly 50% by 2030. This would lead to a rise of global energy-related CO<sub>2</sub> emissions from nearly 30 to over to 40 billion tons in the next 20 years. As the future of our oil supply is growing increasingly uncertain, the demand for energy is also growing. Some believe that ethanol, “clean coal,” and natural gas extraction through hydraulic fracturing (fracking) can solve our current energy crisis without the need to decrease our current energy use. Others believe that renewable energy in the form of wind and solar will provide the solution. Unit 3 explores the politics, economics, and environmental consequences of energy use and extraction.

### SUNDAY: Defining ‘energy’

- Perform simple science experiments to understand of the basics of energy.

### MONDAY: Understanding fossil fuels

- **Friends of Natural Gas:** Meet professor of Earth Science at Syracuse University, Donald Siegel, and discuss fossil fuels and natural gas drilling in the Catskills.

### TUESDAY: Climate change

- **Catskill Mountainkeeper:** Take part in an effort to thwart hydrofracking efforts in NY State with this non-profit organization whose mission is to protect the ecological integrity of the Catskill Mountain range.

### WEDNESDAY: Hydraulic Fracturing / Fracking

- Travel to Dimmock, PA to visit fracking wells, see first-hand the infrastructure that fracking requires, and meet homeowners whose water sources have been affected by fracking.

### THURSDAY: Renewable energy advocacy and infrastructure

- **Catskill Citizens for Safe Energy:** Work with this all volunteer grassroots organization that aims to prohibit fracking through educating the public, lobbying policymaker, and direct actions.
- **Apple Pond Farm:** Work on this farm and alternative energy education center. Tour facilities, which include a wind mill and solar panels.

### FRIDAY: Making renewable energy work

- **Sullivan Alliance for Sustainable Development:** Meet with this energy conservation consulting firm which has helped procure grant money for funding alternative energy infrastructure projects.

### SATURDAY: Workshop lessons learned & collaborate on final report

#### SELECTED READINGS & VIDEOS

- Collapse. Dir. Chris Smith. Perf. Michael Ruppert. Bluemark Productions, 2009.
- "Energy: What Is It?" Energy Quest Room. California Energy Commission, 2011.
- Kerr, Richard A. "Peak Oil Production May Already Be Here." Science 331.6024 (2011).
- Hoffert, Martin I. "Farewell to Fossil Fuel?" Science 329.5997 (2010): 1292-294.
- Weidenhof, Emily, ed. Hancock & the Marcellus Shale: Visioning the Impacts of Natural Gas Extraction Along the Upper Delaware. Rep. New York: Columbia University Urban Design Research Seminar, 2009.

## This Land is Your Land: Natural Resource Management in an Age of (Over) Consumption

In the United States, the average person uses 80 gallons of water per day and produces 5 pounds of trash in that same time. As our standard of living rises, so too does the demand for natural resources. Responsible regional land use and resource management is critical if we are to ensure our continued ability to meet our most basic needs. Resource management in the Catskill Region includes addressing issues of waste, development, conservation, and water, as this region provides 90% of the 1.3 billion gallons of unfiltered water consumed daily by the 9 million residents of New York City.

### SUNDAY: Conservation versus preservation

- Explore the Camp Shomria facilities and learn about the on-site interaction between man-made structures and the natural environment.

### MONDAY: Socio-geological history of the Catskill Region

- **Catskill Mountainkeeper:** Director Wes Gillingham leads a half-day hike through the Catskill Mountains, highlighting historic and present-day land use trends.

### TUESDAY: Water

- **Watershed Protection and Partnership Council / New York State Department of State:** Visit Ashokan Reservoir with Exec. Dir. Bill Harding and discuss water management.
- **Catskill Watershed Corporation:** Visit Time and the Valley Museum and participate in a discussion and presentation of the history of the NYC Watershed in the Catskills.
- **Watershed Agricultural Council:** Work with WAC to understand the role that local land owners play in maintaining high quality drinking water for NYC residents.
- **National Parks Service:** Work at the Upper Delaware Scenic and Recreational River and learn about the role that this federal agency plays in regional and national conservation efforts.

### WEDNESDAY: Forests

- **Frost Valley Model Forest:** Work on a trail management project and learn about the role that forests play in maintaining a safe and healthy watershed.
- **Catskill Forest Association:** Tour forests surrounding Camp Shomria and learn about ways that human intervention can promote healthy sustainable ecosystems.

### THURSDAY: Disposal, recycling, and adaptive reuse

- **Delaware Department of Public Works:** Tour the large-scale composting, recycling, gas recovery and waste disposal facility.
- **Sullivan County Division of Solid Waste:** Tour a recycling center and waste transfer station to learn about waste transport and management.
- **Wildflower Farm and Aquaculture Center:** Work on farm and see how a former dairy farm has transformed into a wastewater recycling tilapia farm.

### FRIDAY: Land use and responsible development

- **Orange County Land Trust:** Work on a trail management project and learn about the efficacy and challenges of voluntary land conservation initiatives.
- **Bethel Town Board:** Attend meeting to learn about the role of local government and discuss the Farmland Protection Plan, a town level plan to protect and enhance agriculture.

### SATURDAY: Workshop lessons learned & collaborate on final report

#### SELECTED READINGS & VIDEOS

- Galusha, Diane. "Introduction." *Liquid Assets: The Story of New York City's Water System*. Fleischmanns, NY: Purple Mountain, 1999.
- Howard, Gregory J. "Garbage Laws and Symbolic Policy: Governmental Responses to the Problem of Waste in the United States." *Criminal Justice Policy Review* 10.2 (1999): 257-90.
- Peterson, Richard B., Diane Russell, Paige West, and Peter Brosius. "Seeing (and Doing) Conservation Through Cultural Lenses." *Environmental Management* 45 (2008): 5-18.