

Environmental Studies 332
The Perennial Turn in Ag and Culture
Fall 2018

Class Time: Tuesday 1:30-4:15 p.m.
Location: Munroe 314

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Class Website: Our website, with course information, readings, assignments, and updates is available from <https://middlebury.instructure.com/courses/3331> or the Canvas home page go/canvas.

The Perennial Turn

So much has been written in both the 20th and 21st centuries about the need for fundamental changes in human ways of doing, including how we grow food, how we view “otherness” and treat other human and non-human beings, how we teach and learn, how we practice healing and even approach and “manage” death and dying, and how religion and spirituality function in society. Joanna Macy has taught that we are in the midst of a “Great Turning” to a life-sustaining society, even as we are simultaneously involved in widespread, extreme destruction of Earth’s living systems and great upheaval in social, political and economic systems around the world. There is a robust body of literature documenting the Great Turning, among which are David Korten’s *The Great Turning* (2006), Paul Hawken’s *Blessed Unrest* (2008), and numerous organizations, movements, websites, and actions.

What, then, are we “turning” toward? The answers are many, and wisdom certainly suggests that there is no one answer. In fact, the wisdoms and knowledge that humans have gained through the many millennia of our species’ existence indicates that we *cannot* know in any great detail all the future forms and structures of a life-sustaining society. Uncertainty is product of the emergent, co-creative process that we know as the life of and in the Universe, from the big bang onward to the evolution of biological life on Earth and likely millions of other planets, too.

In this class we will explore a “perennial turn”—a turn toward perennial thinking and action that is an extension of the perennality of life itself and ecosystems. Perennality is persistence through more than a one-year cycle. For example, a perennial plant, in contrast to an annual, describes plants that persist from year to year, be it by root parts or above ground stems. Plants that produce seeds that are spread by the wind, birds, or other vectors, but whose other parts die at the end of a growing season, are called annuals. Most of Earth’s ecosystems are made up of perennial varieties of plants. Annuals thrive in soils and ecosystems that undergo episodic disturbance (fire, drought, flooding) where they can take root and do not have to compete with long-lived perennials. But it’s not just natural ecosystems and episodic disturbance. Agriculture around the world and for nearly 10,000 years is largely practiced by *annually* disturbing soils in order to plant annual plant varieties including wheat,

rice, corn, and the vegetables we buy at farm stands. Such annual disturbance over time can lead to the undoing, the erasure of the life forms that are on a site. Not all life forms, for surely there are bacteria and other less obvious forms of cellular beings that persist in most cases (the seeds are not alone when they begin their transformation to roots, stems, leaves!). Aside from agriculture, annual ecosystems are spatially rather small and restricted (like the newly exposed soil of a beaver pond that has drained), and they tend to quickly become places dominated by perennial plants and processes. A great many of the native and naturalized annual plants are what farmers, in their yearly battle to get their crops to harvest, refer to as weeds. But the majority of Earth's land-based and water-based ecosystems tend toward diversity of perennials and annuals and a persistence over time in any one location, even as we see succession of biotic communities and changes in the membership of species. Such continuation in the development of complex systems on Earth is at the heart of perennial thinking and is the predominant pattern in nature.

Wes Jackson's *New Roots for Agriculture* (1980) elaborated on his perennial-thinking idea. Rather than growing our primary food calories (about 80% of our calories come from the cereal grains, such as wheat, rice, rye, oats, millet, etc.) in annual systems that erase the plant life and disrupt the soil by plowing every year before planting seeds for a new year's crop, humans can develop, through plant breeding, varieties that are perennial. Furthermore, with grains, oilseed crops, and legumes (beans, lentils, etc.) that are perennial varieties, our agroindustrial system of annual cropping can be replaced with a system that uses prairies, Earth's grasslands, as a model—an agroecosystem that is a perennial polyculture and that provides many of the calories for the human population. Jackson co-founded The Land Institute in Salina, Kansas in 1976. The breeding program began a decade later. Thirty years in, the first success, Kernza®, was brought to commercial growers signaling a powerful proof of concept for perennial polycultures in agro-ecosystems feeding a hungry planet. Humans are able to think like a prairie and, to use Wes' phrase, use "nature as measure."

The "perennial turn" also means a turning away. For about ten thousand years, the length of time since the birth of agriculture, humans have been practicing annual thinking. Annual agriculture has been a dominant force in shaping our minds, ways of thought, belief systems, and all of our institutions and structures, not to mention annual disturbance of soil ecosystems as a necessary condition for feeding ourselves (the full story is more complicated than that). The turn to perennial thinking is "a long game"; it is a deep dive into a different way of being human, a way whose details—given our population size, our current structures and ways, our very technological world, and the fully co-creative nature of Earth and Universe—we can only imagine, and we cannot come anywhere close to fully imagining it. The turn from human devastation of Earth to humans as a mutually beneficial member of Earth community is part of what Thomas Berry has called "The Great Work." The turn is the challenge and the necessity with which we humans must engage in present times, if we don't want to continue on our life-destroying trajectory.

In Ag and Culture

Our plan for this class is to begin to grow out perennial ideas beyond agro and food systems to other human systems and institutions. What does it mean to think perennially and use nature as measure in human endeavors in food systems as a whole, in health and healing, in the creative arts, in teaching and learning, and in communities of faith? Embracing that question, fed by the promise of perennial polyculture agriculture on the landscape, is the subject matter for this course.

Drawing on knowledge, wisdom and methods from philosophy, ecology, biology, physics, religious and spiritual traditions, communications and more, we will explore thought and thinkers, practices and practitioners to help us find pathways in the “Perennial Turn.” Additionally, we will work with community partners engaged in local initiatives that are working for change. We hope to learn from them and to teach them about what we are learning in class. One of our objectives is to develop some language and communications that can help us collaborate with, support and teach others who are working on the turn.

In addition to reading, discussion, viewing, and experiential activities, students will work in small teams and communicate with community partners. Teams will “specialize” in one of four communities: 1) food, 2) healing and creative arts, 3) teaching and learning, and 4) faith. The course will culminate with each team’s final presentation and with a December 7th conference, *Praxis of Change*, which will bring to campus a few of the many thought leaders for community-wide discussion and exploration of the turn.

This course will work from three primary books, Wes Jackson’s *Nature As Measure*; Craig Holdredge’s *Thinking Like a Plant* and Robert Ulanowicz’s, *The Third Window*. In addition other texts will be assigned via canvas and available in the Perennial Turn Library google folder.

Structure and Process of the Class

During the first half of the semester, we aim to build a strong foundation of understanding through readings, viewings and discussions. We will also begin working with community partners to gain a sense of their views, vision, goals, actions and strategies. There will be a rhythm to the course that will change and vary throughout the semester. The first four weeks may feel more like a philosophy seminar with a reading load that will be heavier than in the rest of the semester. The middle of the semester will be more involved with getting to know our community partners, learning and sharing with them. In the final weeks of the semester students will work on their final presentations and communication strategies. But every class will demonstrate (we hope!) perennial thinking in action, whether through experiential exercises, guest speakers, discussions about food, faith, imagination, creativity, communication and the arts, or the simple presence of our collective beginner’s mind as we feel and grow (turn) our way forward.

Grades and Assignments

- 1. Class attendance and positive participation** (10% of grade). We only meet once a week and our time together learning from each other is not only a critical part of the course but is very much part of the “turn” that we are considering. Thus, class attendance and positive, active participation are required. “Positive, active participation” includes participating respectfully and constructively in class discussions; communicating and interacting conscientiously and responsibly with the whole class, your project group, community partners, and instructors; meeting group obligations and deadlines; and having a team-oriented, collaborative, and thoughtful attitude.
- 2. Reflection Assignments** (10%). We will present you with prompts for these informal reflections. The general objective will be to help synthesize and build upon the course readings, viewings, activities, and discussions. (two)

3. **Story of a Plant, Semester-Long Learning Adventure** (10%). Detailed instructions will be provided for this activity designed to help us practice thinking like a plant. You will deeply observe and learn from and about a specific plant native to Vermont, as well as associate organisms and processes that interact with and influence “your” plant.
4. **Midterm paper** (25%). During the semester we will develop a formal paper assignment (7-10 pages) that will allow you the opportunity to go deeper with one of our central readings. The specific assignment details will be provided well in advance of the due date. The papers are designed to promote reflection on all of our work; we will ask you to reflect on the readings, synthesize ideas, and integrate what you know with other aspects of the course, including your project work, class guests, ES colloquia you have intended, and perhaps other activities.
5. **Final presentations** (20%).
6. **Final reflection paper** (15%).

Accommodations and Scheduling Conflicts

Students involved in sports or other extracurricular activities will need to notify the professors at the beginning of the semester about any scheduling conflicts. Students with disabilities who need accommodations in this class are encouraged to contact us the first week of the semester to ensure that such accommodations are implemented in a timely fashion. Assistance is available to eligible students through the ADA Office. Please contact Jodi Litchfield, the ADA Coordinator, at litchfie@middlebury.edu or 802-443-5936 for more information. All discussions will remain confidential.

Honor Code

(<http://www.middlebury.edu/about/handbook/ug-college-policies/ug-policies/academics/acad-honesty>) Adherence to the College honor code is required of course, and we expect that you are all familiar with the College policy. In this course, much of the work is collaborative by design and thus, your classmates and project groups often represent “authorized (wildly encouraged!) aid.” Work on your individual assignments—reflections, midterm and final papers, and story of a plant—must be individual efforts.

Email Policy

If you have questions regarding the course, please schedule a time to see or email us. If you send us an email, please allow enough time for us to respond. We will do our best to respond to email inquiries within 24 hours during the week and within 48 hours on weekends.