The Soil is a Divine Drug

The Man Born to Farming

The grower of trees, the gardener, the man born to farming, whose hands reach into the ground and sprout, to him the soil is a divine drug. He enters into death yearly, and comes back rejoicing. He has seen the light lie down in the dung heap, and rise again in the corn.

His thought passes along the row ends like a mole. What miraculous seed has he swallowed that the unending sentence of his love flows out of his mouth like a vine clinging in the sunlight, and like water descending in the dark?
A NEW VISION FOR FOOD, FARMING, AND THE WILD

FARMING WITH THE WILD
Enhancing Biodiversity on Farms and Ranches

A Full-day Workshop on Wildlife Conservation and Sustainable Agriculture, featuring...

DANIEL IMHOFF, keynote speaker, author of the newly-released Farming with the Wild and co-founder of the Wild Farm Alliance

DICK RICHARDSON, UT Biology, Biodiversity and Conservation-based Agriculture; tools for repairing the land

PATRICIA RICHARDSON, UT Biology, Wildlife from the Ground Up: soil biodiversity and micro-wildlife

KEVIN ANDERSON, Director, Austin Water Utility Center for Environmental Research, Conservation-based Agriculture at Hornsby Bend,  

MARK KISER, ROB FREGUS, AND OTHERS

THURSDAY, MARCH 11
9 AM - 5 PM

THE CENTER FOR ENVIRONMENTAL RESEARCH  
HORNSBY BEND, 2210 SOUTH FM 973  
AUSTIN, TEXAS

Cost: $40 [includes copy of Farming with the Wild, Bats, Birds, Bugs information packet; and lunch]

Optional Fieldtrips to Bamberger Ranch and Setkrust Ranch  
Friday March 12, 2004

SPACE IS LIMITED. FOR REGISTRATION, CONTACT  
THE CER at 512-972-1960 or  
Kevin.Anderson@ci.austin.tx.us

Co-sponsored by BAT CONSERVATION INTERNATIONAL, THE CENTER FOR ENVIRONMENTAL RESEARCH, and HORNSBY BEND BIRD OBSERVATORY
Lads of the Fair - Brian McNeill

The work o' the weaver's over, likewise the days of the drover
And the plowboy sits on a tractor now, too high to see the clover
The workin's not so steady, but the lads are all still ready
To drink to the health of the working man in Falkirk town the morn
The Pastoral Tradition
Virgil’s Classical Agrarian Myth – Pastoral Arcadia

Virgil is credited in the *Eclogues* with establishing Arcadia as a poetic ideal that still resonates in Western literature and visual arts.

Fortunate old man, here you’ll find the cooling shade, among familiar streams and sacred springs. Here, as always, on your neighbor’s boundary, the hedge, its willow blossoms sipped by Hybla’s bees, will often lull you into sleep with the low buzzing: there, under the high cliff, the woodsman sings to the breeze: while the loud wood-pigeons, and the doves, your delight, will not cease their moaning from the tall elm.
Sweet it is to wind the rill,
Sweet with thee to climb the hill,
On whose lap the bullock free
Chews his cud most placidly;
Or o'er fallows bare and brown
Beaten sheep-tracks wander down,
Where the mole unwearied still
Roots up many a crumbling hill,
And the little chumbling mouse
Gnarls the dead weed for her house,
While the plough's unfeeling share
Lays full many a dwelling bare;
Where the lark with russet breast
'Hind the big clod hides her nest,
And the black snail's founder'd pace
Finds from noon a hiding-place,
Breaking off the scorching sun
Where the matted twitches run.
GLORY be to God for dappled things—
For skies of couple-colour as a brinded cow;
For rose-moles all in stipple upon trout that swim;
Fresh-firecoal chestnut-falls; finches’ wings;
Landscape plotted and pieced—fold, fallow, and plough;
And all trades, their gear and tackle and trim.

All things counter, original, spare, strange;
Whatever is fickle, freckled (who knows how?)
With swift, slow; sweet, sour; adazzle, dim;
He fathers-forth whose beauty is past change:
Praise him.

Gerard Manley Hopkins 1844-1889
Pastoral Nature in America – A Shadowed Legacy
Theology of Nature – Nature as a Window into the Divine

Cotton Mather 1663 – 1728


“Natural Philosophers” were not a threat to religion but when properly construed they presented evidence of God’s perfection.

Edward Hicks 1780 – 1849

Peaceable Kingdom 1826

Jonathan Edwards 1703–1758

*Images or Shadows of Divine Things “The Beauty of the World"* 1758

The beauty of the world consists wholly of sweet mutual consents, either within itself or with the supreme being...spiritual beauties are infinitely the greatest, and bodies being but the shadows of being, they must be so much the more charming as they shadow forth spiritual beauties. This beauty is peculiar to natural things, it surpassing the art of man.
Yeoman Farmer

The creation of the United States of America coincided with a time when European intellectuals were reassessing the place of agriculture in society.

The concept of farming (and the farmer) was taking on a new, elevated status in the minds of the day.

This notion of the noble cultivator of farm and family became a part of the foundation of the new democracy.
Jefferson and the American Agrarian Myth

“Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous, & they are tied to their country & wedded to its liberty & interests by the most lasting bands.”
1785 Letter to John Jay

The yeoman farmer was portrayed as a self-reliant individual, the bedrock of democracy.

He owned a small farm and worked it with the help of his family and was seen as simple, honest, healthy because he lived close to nature.
The eldest daughter of American novelist James Fenimore Cooper, was an amateur naturalist and a successful author in her own right.

Her nature diary, *Rural Hours* (1850), covering two years in Cooperstown, New York, was consulted by Henry David Thoreau while he was composing *Walden* (1854).

In the preface to *Rural Hours*, Cooper describes her book as "the simple record of those little events which make up the course of the seasons in rural life. . . . In wandering about the fields, during a long, unbroken residence in the country, one naturally gleans many trifling observations on rustic matters."

“While observing, this afternoon, the smooth fields about us, it was easy, within the few miles of country in sight at the moment, to pick out parcels of land in widely different conditions, and we amused ourselves by following upon the hill-sides the steps of the husbandman, from the first rude clearing, through every successive stage of tillage, all within range of the eye at the same instant.

... But, there are softer touches also, telling the same story of recent cultivation. It frequently, happens, that walking about our farms, among rich fields, smooth and well worked, one comes to a low bank, or some little nook, a strip of land never yet cultivated, though surrounded on all sides by ripening crops of eastern grains and grasses. One always knows such places by the pretty native plants growing there.”
The West of which I speak is but another name for the Wild; and what I have been preparing to say is, that in Wildness is the preservation of the world. Every tree sends its fibres forth in search of the Wild. The cities import it at any price. Men plow and sail for it. From the forest and wilderness come the tonics and barks which brace mankind.

Life consists with Wildness. The most alive is the wildest. Not yet subdued to man, its presence refreshes him. One who pressed forward incessantly and never rested from his labors, who grew fast and made infinite demands on life, would always find himself in a new country or wilderness, and surrounded by the raw material of life. He would be climbing over the prostrate stems of primitive forest trees.

Hope and the future for me are not in lawns and cultivated fields, not in towns and cities, but in the impervious and quaking swamps.
MEANWHILE MY BEANS, the length of whose rows, added together, was seven miles already planted, were impatient to be hoed, for the earliest had grown considerably before the latest were in the ground; indeed they were not easily to be put off.

What was the meaning of this so steady and self-respecting, this small Herculean labor, I knew not.

I came to love my rows, my beans, though so many more than I wanted. They attached me to the earth, and so I got strength like Antæus.

But why should I raise them? Only Heaven knows. This was my curious labor all summer — to make this portion of the earth's surface, which had yielded only cinquefoil, blackberries, johnswort, and the like, before, sweet wild fruits and pleasant flowers, produce instead this pulse.
Agricultural Knowledge

I was determined to know beans. When they were growing, I used to hoe from five o'clock in the morning till noon, and commonly spent the rest of the day about other affairs. Consider the intimate and curious acquaintance one makes with various kinds of weeds — it will bear some iteration in the account, for there was no little iteration in the labor — disturbing their delicate organizations so ruthlessly, and making such invidious distinctions with his hoe, levelling whole ranks of one species, and sedulously cultivating another.

Wild and Domesticated Connected

We are wont to forget that the sun looks on our cultivated fields and on the prairies and forests without distinction. They all reflect and absorb his rays alike, and the former make but a small part of the glorious picture which he beholds in his daily course. In his view the earth is all equally cultivated like a garden.
Long Tradition: American back-to-the-land movements

- 1864: Ten Acres Enough
- 1935: Five Acres and Independence
- 1970: The Good Life
This Agrarian narrative/myth is still a powerful one
The American Agrarian Tradition and Nature
Ecosystem Approach to Agriculture

“The tendency of all natural ecosystems is to increase their ecological wealth. For instance, all prairie, left alone, recycles materials, sponsors its own fertility, runs on contemporary sunlight, and increases biodiversity. Agricultural systems tend otherwise. They erode and degrade ecological capital as they provide for human needs. We call this the "problem of agriculture, introduced when our ancestors made the transition to agriculture millennia ago."

Perennial polyculture systems have a variety of benefits over conventional annual monocultures such as increased biodiversity, reduced soil erosion, and reduced inputs of irrigation, fossil fuels, fertilizers, and pesticides.

Wes Jackson, President of The Land Institute, earned a B.A. in biology from Kansas Wesleyan, an M.A. in botany from University of Kansas, and a Ph.D. in genetics from North Carolina State University.

He established and served as chair of one of the country's first environmental studies programs at California State University-Sacramento and then returned to his native Kansas to found The Land Institute in 1976.

He is the author of several books including New Roots for Agriculture, Becoming Native to This Place, Consulting the Genius of the Place, and most recently Nature as Measure.
The Land Institute has worked for over 30 years on the problem of agriculture. Our purpose is to develop an agricultural system with the ecological stability of the prairie and a grain yield comparable to that from annual crops.

Using gains made in scientific knowledge and ability over the past few decades, Land Institute scientists are breeding the annual crop plants wheat, sorghum and sunflower with wild, perennial relatives, thus creating perennial wheat, perennial sorghum and perennial sunflower. They also are working to domesticate productive perennials.
Nature’s Farming - Sir Albert Howard 1873-1947

The British botanist Sir Albert Howard is often referred to as the father of modern organic agriculture, because he was the first to apply modern scientific knowledge and methods to traditional agriculture.

From 1905 to 1924, he and his wife Gabrielle, herself a plant physiologist, worked as agricultural advisers in Pusa, Bengal, where they documented traditional Indian farming practices and came to regard them as superior to their conventional agriculture science. It was here that he promoted the 'Indore Method' of composting that focused on returning nutrients to the soil and creating quality 'humus'.

Their research and further development of these methods is recorded in his writings, notably, his 1940 book, *An Agricultural Testament*, which influenced many scientists and farmers of the day.

Howard acknowledges Darwin as the founder of reformed agriculture in the West and in his introduction to the 1945 edition of Charles Darwin’s *The Formation of Vegetable Mould*, Howard states: "Nature is the supreme farmer and gardener, and that the study of her ways will provide us with the one thing we need - sound and reliable direction."

Many of Howard’s works online at http://journeytoforever.org/farm_library/howard.html
Nature’s Farming - Sir Albert Howard 1940

“The main characteristic of Nature's farming can therefore be summed up in a few words.

• Mother earth never attempts to farm without live stock;
• she always raises mixed crops;
• great pains are taken to preserve the soil and to prevent erosion;
• the mixed vegetable and animal wastes are converted into humus;
• there is no waste;
• the processes of growth and the processes of decay balance one another;
• ample provision is made to maintain large reserves of fertility;
• the greatest care is taken to store the rainfall;
• both plants and animals are left to protect themselves against disease.

In considering the various man-made systems of agriculture, which so far have been devised, it will be interesting to see how far Nature's principles have been adopted, whether they have ever been improved upon, and what happens when they are disregarded.”

“Organic Farming” - Walter Northbourne 1940

Walter Northbourne was apparently the first to apply the word ‘organic’ in application to farming. In 1940, Northbourne published an influential book, Look to the Land, in which he elaborated on the idea of the farm as an ‘organic whole’—in the philosophical sense, ‘organic’ refers to ‘having a complex but necessary interrelationship of parts, similar to that in living things’.
The leaves fall, the wind blows, and the farm country slowly changes from the summer cottons into its winter wools.

(Henry Beston)
Farming With Nature - A Sand County Almanac – Aldo Leopold

- On this sand farm in Wisconsin, first worn out and then abandoned by our bigger and better society, we try to rebuild, with shovel and axe, what we are losing elsewhere. It is here that we seek—and still find—our meat from God.

- The land ethic: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

- What more delightful avocation than to take a piece of land and by cautious experimentation to prove how it works. What more substantial service to conservation than to practice it on one's own land?"
There are two spiritual dangers in not owning a farm. One is the danger of supposing that breakfast comes from the grocery, and the other that heat comes from the furnace.

To avoid the first danger, one should plant a garden, preferably where there is no grocer to confuse the issue.

To avoid the second, he should lay a split of good oak on the andirons, preferably where there is no furnace, and let it warm his shins while a February blizzard tosses the trees outside.

If one has cut, split, hauled, and piled his own good oak and let his mind work the while, he will remember much about where the heat comes from, and with a wealth of detail denied to those who spend the week end in town astride a radiator.
Meddling with the Land

I have read many definitions of what is a conservationist, and written not a few myself, but I suspect that the best one is written not with a pen, but with an axe.

It is a matter of what a man thinks about while chopping, or while deciding what to chop.

A conservationist is one who is humbly aware that with each stroke he is writing his signature on the face of his land.

Sportsmanship – Hunting and Fishing

There is value in any experience that exercises those ethical restraints collectively called “sportsmanship.” ...A peculiar virtue in wildlife ethics is that the hunter ordinarily has no gallery to applaud or disapprove of his conduct...Voluntary adherence to an ethical code elevates the self-respect of the sportsman, but it should not be forgotten that voluntary disregard of the code degenerates and depraves him.
Hunting and Dogs

“October - Red Lanterns” from A Sand County Almanac

One way to hunt partridge is to make a plan...another is to wander, quite aimlessly, from one red lantern to another. This will likely take you where the birds actually are.

The lanterns are blackberry leaves, red in October sun...Partridge hunting, then, is a creekside stroll, upwind, from one briar patch to another...the dog, when he approaches the briars, looks around to make sure I am within gunshot...

My dog, by the way, thinks I have much to learn about partridges, and, being a professional naturalist, I agree.
Wendell Berry was born in Henry County, Kentucky, in 1934. He earned a bachelor's degree from the University of Kentucky in 1956 and continued on to complete a master’s degree in 1957. In 1958, he received a Wallace Stegner Fellowship from Stanford University.

Berry has taught at Stanford University, Georgetown College, New York University, the University of Cincinnati, and Bucknell University. He taught at his alma mater, the University of Kentucky from 1964-77, and again from 1987-93.

The author of more than 40 works of fiction, nonfiction, and poetry

“I’ve been thinking about that question about what city people can do.

The main thing is to realize that country people can’t invent a better agriculture by ourselves. Industrial agriculture wasn’t invented by us, and we can’t uninvent it.

We’ll need some help with that.”
Nature and Agricultural Lessons
2010 National Humanities Medalist Lecture

As many hunters, farmers, ecologists, and poets have understood, Nature (and here we capitalize her name) is the impartial mother of all creatures, unpredictable, never entirely revealed, not my mother or your mother, but nonetheless our mother.

If we are observant and respectful of her, she gives good instruction.

As Albert Howard, Wes Jackson, and others have carefully understood, she can give us the right patterns and standards for agriculture.

If we ignore or offend her, she enforces her will with punishment.

She is always trying to tell us that we are not so superior or independent or alone or autonomous as we may think.
Conservation and Farming

But we cannot hope— for reasons practical and humane, we cannot even wish—to preserve more than a small portion of the land in wilderness. Most of it we will have to use. The conservation movement swings from self-righteous outrage to self-deprecation because it has neglected this issue. Its self-contradictions can only be reconciled—and the conservation impulse made to function as ubiquitously and variously as it needs to—by understanding, imagining, and living out the possibility of “kindly use”

Kindly use depends upon intimate knowledge, the most sensitive responsiveness and responsibility...the understanding of kindly use in agriculture must encompass both farm and household...

1977

"If conservationists will attempt to resume responsibility for their need to eat, they will be led back fairly directly to all their previous concerns for the welfare of nature."

Wendell Berry
Conservation and Economy

Since the beginning of the conservation effort in our country, conservationists have too often believed that we could protect the land without protecting the people.

This has begun to change, but for a while yet we will have to reckon with the old assumption that we can preserve the natural world by protecting wilderness areas while we neglect or destroy the economic landscapes—the farms and ranches and working forests—and the people who use them.

That assumption is understandable in view of the worsening threats to wilderness areas, but it is wrong.

If conservationists hope to save even the wild lands and wild creatures, they are going to have to address issues of economy, which is to say issues of the health of the landscapes and the towns and cities where we do our work, and the quality of that work, and the well-being of the people who do the work.
Wildness in the Human Economy

“Getting Along with Nature” Home Economics

What I am aiming at – because a lot of evidence seems to point this way – is the probability that nature and human culture, wildness and domesticity, are not opposed but are interdependent.

Authentic experience of either will reveal the need of one for the other. In fact, examples from both past and present prove that a human economy and wildness can exist together not only in compatibility but to their mutual benefit.

To argue for the necessity of wildness to, and in, the human economy is by no means to argue against the necessity of wilderness. The survival of wilderness – of places that we do not change, where we allow the existence even of creatures we perceive as dangerous – is necessary.

Our sanity probably requires it...and I would argue that we do not need just the great public wildernesses, but millions of small private or semiprivate ones.

Every farm should have one; wildernesses can occupy corners of factory grounds and city lots – places where nature is given a free hand, where no human work is done, where people go only as guests.

1987
The Wilderness of Healthy Soil

These meetings of the human and the natural estates, the domestic and the wild, occur invisibly, of course, in any well-farmed field.

The wilderness of a healthy soil, too complex for human comprehension, can yet be husbanded, can benefit from human care, and can deliver incalculable benefits in return.

Mutuality of interest and reward is a possibility that can reach to any city backyard, garden, and park, but in any place under human dominance – which is, now, virtually everyplace – it is a possibility that is both natural and cultural.

If humans want wildness to be possible, then they have to make it possible.

If balance is the ruling principle and a stable balance the goal, then, for humans, attaining this goal requires a consciously chosen and deliberately made partnership with nature.

From “With Nature” in Home Economics (1987)
Agriculture and Biodiversity

Study of two Sonora Desert oases

Oasis 1 in Arizona

Park Service removed the Papago Indians who had lived and farmed there to make it a bird sanctuary, “an odd thing is happening to their “natural” bird sanctuary. They are losing the heterogeneity of the habitat, and with it, the birds. The old trees are dying...Summer annual seed plants are conspicuously absent...without the soil disturbance associated with plowing and flood irrigation, these natural foods for birds and rodents no longer germinate.”

Oasis 2 in Mexico

The other oasis...still thrives because a Papago village is still there, still farming. Twice as many bird species are found at this oasis. Mr. Nabhan’s Papago friend Remedio, explained it this way: “That's because those birds, they come where the people are. When the people live and work in a place, and plant their seeds and water their trees, the birds go and live with them. They like those places, there's plenty to eat and that's when we are friends to them.”

Purple Martins, Hornsby Bend
The Peace of Wild Things

When despair grows in me
and I wake in the middle of the night at the least sound
in fear of what my life and my children's lives may be,
I go and lie down where the wood drake
rests in his beauty on the water, and the great heron feeds.
I come into the peace of wild things
who do not tax their lives with forethought
of grief. I come into the presence of still water.
And I feel above me the day-blind stars
waiting for their light. For a time
I rest in the grace of the world, and am free.
On-Farm Chicken Processing

I won’t go into all the steps of butchering chickens, but will show what the chickens look like after they are scalded and through the tub plucker. We did 39 chickens in the morning – we had hoped to get going by 6 am, but the rain didn’t stop until 8 (now rain 23 of 26 days in June). We were through by 11:30. It seemed to go better than the first time. We broke in Emma on the eviscerating line, and Martin caught chickens, turned the plucker off and on and ran bagged chickens to the freezer or refrigerator. Emma and Linda cut up 20 for quick meals of chicken breast or other parts and we sold a few of the rest. Still have about 50 to do later this week.
I think I could turn and live with animals, they are so placid and self-contain’d; I stand and look at them long and long.

They do not sweat and whine about their condition; They do not lie awake in the dark and weep for their sins; They do not make me sick discussing their duty to God; Not one is dissatisfied—not one is demented with the mania of owning things; Not one kneels to another, nor to his kind that lived thousands of years ago; Not one is respectable or industrious over the whole earth.

Walt Whitman
Rural scene, a rural scene,  
    Sweet especial rural scene.

Gerard Manley Hopkins  
“Binsey Poplars”
Contemporary Urban/Suburban Pastoralism

Michael Pollan

Thoreau did plant a bean field at Walden, but he couldn’t square his love of nature with the need to defend his crop from weeds and birds, and eventually he gave up on agriculture.

Thoreau went on to declare that “if it were proposed to me to dwell in the neighborhood of the most beautiful garden that ever human art contrived, or else of a dismal swamp, I should certainly decide for the swamp.”

With that slightly obnoxious declaration, American writing about nature all but turned its back on the domestic landscape.

It’s not at all surprising that we got better at conserving wilderness than at farming and gardening.

My Thoreau problem is another name for the problem of American environmentalism, which historically has had much more to say about leaving nature alone than about how we might use it well.
This Agrarian narrative/myth is still a powerful one in modern/postmodern/metamodern urban America.
Urban Conservationists and Wendell Berry

Why should conservationists have a positive interest in...farming?

There are lots of reasons, but the plainest is: Conservationists eat.

To be interested in food but not in food production is clearly absurd.

Urban conservationists may feel entitled to be unconcerned about food production because they are not farmers.

But they can’t be let off so easily, for they are all farming by proxy.

They can eat only if land is farmed on their behalf by somebody somewhere in some fashion.

If conservationists will attempt to resume responsibility for their need to eat, they will be led back fairly directly to all their previous concerns for the welfare of nature.

“Conservationist and Agrarian” 2002