
Introduction

Severine von Tscharnher Fleming

Modernity tended to look down and backwards at Agriculture—in alternating moments romanticizing and de-politicizing or romanticizing and politicizing. The former usually from the top down and the latter from the bottom up. It is fertile ground for metaphor, for direct action, for true, naked experience, and for conjecture as well. Exploring what is possible within the boundaries of one farm and one lifetime encourages such sweeping notions of potential. As more and more of us engage in agriculture, and throw down straw, seek local ownership, experience stubborn local holdouts, watch bright stars overhead through twinkling under-stories of nurture—we become radicalized by what seems possible. An elongated sense of history provides a plentiful repertoire of resistance strategies. We hope here to hack open a few avenues, and leave a few scent-traces into the less-known micro histories of our agricultural tenure on this continent, as well as those we’ve replaced.

And it’s important because as we build upon history there is a question of attitude. Is this scar tissue on an old stump, or is it the site of potential, for regrowth, adaption. Are we doomed?

The rules that matter are the rules of life.

Life: plant, animal, insect, and estuary-complex. Life! is the meta-economy. An alliance with ecology is the strongest, because, as Wes Jackson would tell us, “nature as measure.” Because agriculture happens in the context and canvas of living systems, agriculture is exactly the right place to discover space for an economy based on sounder principles. Thank goodness for organic growth, the resilience, bounce-back, and massive productive power of photosynthesis and her sister systems. Ecological agriculture gives us the benefit of autonomy, and production, to afford rebuilding with a different priority. It’s not just apps and startup companies designed, like crystal patterns, as a quick fix or convenient candy rack to tempt and sideswipe a bit of revenue from the appetites of powerful ones at the top. That logic pattern is loud and animated and it seeps through mass media and hype marketing into every corner of our brain. What a particular place wants, what it can bear, that is a quieter pattern and a softer song of possibility. But this is the song of possibility that sings in the ears of our Almanac authors. We are squinting, hands on our hips, at the sagging barn to

“The survival of humans depends on the capacity of our species to maintain and preserve the plasticity of the Biosphere with all its interacting components, the human species included. Since agriculture is a production system based directly on the resources of the biosphere—soil, water and biodiversity—it provides a good example of non-sustainability brought about by the transition from traditional knowledge to fragmented traditional science. The reductionist method, born with modern science and with the aim of simplifying the study of natural systems, led to impressive progress in technology, but also to deep fragmentation in knowledge and a lack of capacity for synthesis.

“The construction of a simplified world based on single version of a few, optimal products, both living and non living, leads to the creation of a single, homogeneous society with only one culture, one ideology, one science, one technology, one model of economy and production. In other words, it means destroying the tools and the processes that have allowed the adaptation and the proliferation of humans in all areas of the planet. It also implies the destruction of cultural and biological diversity.

“Farmers across the world are re-evaluating traditional knowledge as a source of innovation, and are following their own independent paths of development as opposed to those suggested by official systems of knowledge, and are building parallel systems of knowledge, aligning themselves with non-reductionist segments of scientific research.”

—from the *Manifesto on the Future of Knowledge Systems*

"The function of planning is to render actual and evident that which is potential and inevent... This action of the imagination has already been described under the term of 'psychologic conversion.' This is closely related to biologic conversion: the action of the human brain cell is akin to that of the cambium layer. The cambium is that layer of perpetual fluidity which in the tree converts the ethereal substance of carbon dioxide into the solid substance of wood and timber."

—from *The New Exploration: A philosophy of Regional Planning*, Benton MacKaye, 1928.

"But the justifications of the family farm are not merely agricultural; they are political and cultural as well. The question of the survival of the family farm and the farm family is one version of the question of who will own the country, which is, ultimately, the question of who will own the people. Shall the useable property of our country be democratically divided, or not? Shall the power of property be a democratic power, or not? If many people do not own the usable property, then they must submit to the few who do own it. They cannot eat or be sheltered of clothed except in submission. They find themselves entirely dependent on money; they will find costs always higher, and money always harder to get. To renounce the principles of democratic property, which is the basis of democratic liberty, in exchange for specious notions of efficiency or the economics of the so-called free market is a tragic folly"

—from *Home Economics*, Wendell Berry, North Point, 1987.

see which beams can bear a new wing. Where can we prop it up? Where should we rip it down for salvage?

Restoration

"Restoration agriculture," the term, came to prominence as the title of a book by a radical midwestern edible forester named Mark Shepard. I see this functioning also as "Reconfiguration agriculture"—a working system that actively reshapes the economy, as well as the ecology, in which it operates. Attentive stewards with reform on the mind, and enough wiggle room, can sometimes set up systems that buck the mainstream. And like a little check-dam, they slow the erosive force of a river swollen in the storm.

Our agricultural system seems like just such a surging river—flowing through degraded wetlands, swollen and muddy with petrochemicals. When you're scavenging waste oil from the back of a strip-mall Chinese food joint, with infected wrists from the rat-festering tanks, that's the buttonhole of industrial agriculture. It's worth protesting, worth decrying, and hard to change. It's time to go upriver.

What do the narrow, animated upriver streams look like—those streams which constitute the headwaters of a new system, a "new economy" that's so profoundly needed? An economy that acknowledges the future, the externalities, the consequences, the integrity of the system? Unfortunately, it is not being taught as a discrete set of practices aimed at steady-state. There aren't any plans written by genius committees that chart out the way. This isn't a top-down, command and control situation. There are no orders to follow, no blue print, and if there were it would be suspect anyway. John Jeavons has his system, Alan Chadwick has his system, Fukuoka has his system, but these aren't prescriptive of how land managers, operating according to ecological principles, can conjoin their micro-economies into meso-economies.

On the heroic spectrum there are examples of dynamic, proactive formats for land health which hold inside them the rich kernel of a peaceful political economy. Both of my examples started out on rented land, and through power of virtue, charisma, luck and stamina managed to translate their commitment into ownership. A 500 acre, full diet, horse-powered C.S.A in the coldest, most sparsely populated and nearly poorest corner of New York state? Only mad people could do this. There, they produce a full diet—beef, lamb, pork, poultry, dairy, vegetables, grains—all on a weekly "free choice buffet" system with on-farm distribution. Essex Farm created its own format, overcoming structural obstacles with a pioneer ferocity, and it spawned 10 new farms in the surrounding area. Another example is Brookford Farm, with 25 milk cows, silos, wheat, pigs, cheese, milling, markets—all built knee deep, like Russian peasants in the mud of a barn-yard they did not own. They stored their grain in an old paper mill, convinced a town and millionaire to back them on a farm of their own, and built a small army of utterly devoted customers throughout the state. They even started their

own bottling plant, all with four tiny children hanging off their fronts and backs.¹

Through sheer force of will it seems, such pioneers make a new format possible in an inhospitable world. And what follows their success is a set of dynamic successional ripples—the talent that they attract, inspire, and spit out into the world. There are now 13 new farms in the towns around Essex—mostly connected in some way to the energy of initiation at Essex. The model that they invent is then observed, adapted, modified, re-enacted in other places and other towns. There is a heterogeneous pace and a very specific place-based quality to these remarkable farms, their ability to capitalize on the specific local opportunities and make a go of it.

And yes, the macro-economic conditions are inhospitable. And yes, labor is expensive and yet too cheap, food prices are higher than people can afford and yet lower than a reasonable cost of production. The technology platforms we use can connect us with markets, but also siphon away mental energy, time and resources. It is a tight turning radius to work within—to have enough yeoman, to be punk. To have enough capital to take risks. To be wily enough to adapt to change. To be sound-footed enough to dance around broken barbed wire, backing out broken equipment in a soggy autumn hedgerow.

There's a kind of natural law, obvious to people who take care of animals. It goes like this: If you are the only one who knows that the horse has no water, it's your responsibility to clean, plug, and fill the leaking trough. I'm sure we are not the only ones who have identified the massive shift, the next time coming, in agriculture, but that doesn't remove our responsibility to begin filling the trough.

It's up to us to navigate a truce making with the outgoing generation. We cannot afford to lose the land, we cannot afford to let the barn slip down, let the greenhouses lurking by the side of the road be bulldozed for a strip mall. Bankruptcy is a financial construct—ecological insolvency leaves us nowhere. We need to negotiate. We need to figure out real needs, and how reasonably they can be met. We need to assert. We need to bravely and with open-hearted, hard working honesty engage in a discourse of possibility.

Land Servitude, Farm Servitude

Hardly any agricultural societies managed without servitude. We're taught in school that hierarchy is necessary in order to maintain the irrigation, water works and infrastructures. After going to college we're reminded frequently that we should do "policy work" and other meta-labor, instead of participating directly in the stoop labor we extract from the 70% of farm workers who lack citizenship in the country they live.

Vinoba Bhave, known as the walking saint of India, marched more than 15,000 miles, mostly barefoot. Through a spiritual discourse and by applying the principles of Gandhian economics, he managed to convince many thousand landlords to gift their land into village ownership, what is known as the Bhoodan movement. By 1951, more than 4 million acres of land had been re-allocated, usually to landless farmworkers.

"We do not aim at doing mere works of kindness, but at building a kingdom of kindness.

"Money should be but an appendix on the book of life. But today, it is the sole theme of every chapter.

"The earth is the lord's and the fullness thereof' and though the land may be held in trust by individual owners, the village itself is the real owner of it, deciding how the acreage can best be divided. Vinoba wants each village to become as self-sufficient as possible in food and clothing in itself, not exporting either of these primary necessities until local needs have been met."

—from *India's Walking Saint, Hal-lam Tennyson*, Doubleday, 1955.



¹ To learn more about these farms read *The Dirty Life*, by Kristen Kimball and watch *Brookford Almanac*, a film by Cozette Russell. While you're at it, watch all the films in the UP UP FARM film festival: <http://www.thegreenhorns.net/up-up-farm-film-festival/>

Joe Studwell produces compelling answers to two of the greatest questions in development economics: How did countries like Japan, Taiwan, South Korea, and China achieve sustained, high growth? And why have so few other countries managed to do so? His answers come in the form of a simple—and yet hard to execute—formula: (1) create conditions for small farmers to thrive, (2) use the proceeds from agricultural surpluses to build a manufacturing base focused on exports, and (3) nurture both these sectors with financial institutions closely controlled by the government.

According to Bill Gates, “The agriculture section of the book was particularly insightful. It provided ample food for thought for me as well as the whole Agriculture team at our foundation. And it left us thinking about whether parts of the Asian model can apply in Africa.”

How Asia Works (www.gatesnotes.com/Books/How-Asia-Works), by Joe Studwell

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Montana	11,024,000	9.36	Washington	2,470,000	41.27
Wyoming	5,445,000	10.43	North Dakota	1,080,000	17.40
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FOR THE YEAR END IT IS ESTIMATED THAT \$24,000,000,000 WILL BE SPENT FOR SALES OF LAND IN THE UNITED STATES. LAND IS BEING SOLD IN ALL STATES. FINE LANDS FOR SALE.

WALTER L. FISHER, ROBERT G. VALENTINE, *Representatives of the States*

Is agrarianism the passageway of empire? Is it the invisible petticoat holding up the damask bodice of unreasonable power?

Recently I organized a speaking engagement with Eric Freyfogle. An author of multiple books on agrarianism, law, nature and power, he insightfully breaks down our ideas about private property, the configuration of systems, and the whole notion of how we use nature. We have to ask fundamental questions. What does it mean to own land and other parts of nature?

Private property ownership is an arrangement of power—not just power over nature, but also power over other people. All our power is derived from nature. Behind every corporation, behind every army is a mountain, a mine, a living or geological system which we dismantle and reassemble to suit our purposes. In the USA, we have removed more than 200 mountains in my lifetime, all to make the power grid which lights up my computer screen and yours.

But even tech billionaire and biotech promoter Bill Gates, who has funded, to the tune of hundreds of millions of dollars, the “next green revolution” in Africa—has discovered that farmers are the base layer.

And our clever systems have wrought some marvels indeed. But ultimately we have to face the music: a system that reduces complexity, diversity, resilience, and spongy-bounce from its underlying ecology is a parasite. It bears the moral burden of its own embedded destructiveness.

Much of the technology we enjoy—whose “techno-logic” seems to propel itself forward according to an almost evolutionary compulsion—is all predicated on parasitizing a pre-existing ecosystem, namely our planet. Those neat silicon chips, tennis shoes, and breathable fabrics, are made by young Chinese children living in cold warehouse dormitories, with inadequate plumbing. Sent away from small farms, made marginal by macro-economics, they struggle to earn a wage.

It feels like a perpetual ponzi-scheme played out against the future. The silicon boom town covers the valley floor, replacing the cherry plantation. Those dust-blown Oakies, if they survived the Hoover towns, became soil miners themselves. Sons of gold miners, fathers of golf course sod growers, topsoil merchants, concrete quarriers, suburb curb pourers. It’s one generation of extraction extracting from the next.

And this is our empire. But if agriculture is the portal into empire, can it also be a portal out of empire? Whats the relationship between the peasant and the king? The hedge funder and the stone mason? The techno startup prince, and his land manager? Can the emergent and the residual coexist?

We must remember that in this long tumble towards our current state of stratification, there have been exceptions to the rule of dog-eat-dog. There’s a nice metaphor for

this, given to us once again by observation of long-form nature. During the ice age the unstoppable glacial sheet would occasionally skip over a particularly sheltered bit of topography. A sideways valley would be protected by unconscious geometry and the surrounding mountains. This is called a “refugia”, and these pleistocene remnant ecosystems became the epicenters of biodiversity, reseeding their barren surroundings as the glaciers receded.

On the Commons

Commons-based land governance abound in an oft-neglected literature of durable land-based societies. Mostly, these societies aren't visible from main roads, or flatlands, or the prime ecosystems which empires tend to snatch up one from another. But the more delicate, more marginal human habitats—steppes, plains, montane areas—require more careful, more detailed local knowledge. These places are less snatchable, less habitable by highly hierarchical societies—and therefore provide a sanctuary for indigenous and agro-ecological cultures, which as it happens are usually far more egalitarian. These cultures, with their land-race varieties, spiritual practices and strong awareness of boundaries and constraints have the skills and sensitivities to survive inside the boundaries of the habitat. These are lessons of relevance to a larger macro-human society that needs to reestablish its boundaries.

These systems persist in the highlands, marginal-lands, the back corners of our over-developed planet. We should study them. We, as agrarians and idealists, are inadequately fluent in the lessons that these places and their stewardship arrangements teach. I propose that we regrow a fluency with the many case-studies of durable, surviving, land-based cultures.

There are good, compelling examples all over the world—the land-sharing of the Hawaiian Aina, the 10,000 year corn culture of the Abenaki, the perennial water gardens and spiritual algorithms of paisley-shaped rice paddies, whose sacred economies out-perform the fanciest computer math.

Elinor Ostrom studied such “Common-Pool Resources,” and identified 8 common characteristics, or “design principles,” for steady-state societies which managed to persist atop their nature without expansion (conquest) or degradation (collapse):

The 8 “design principles” of stable local common pool resource management:

1. Clearly defined boundaries (effective exclusion of external un-entitled parties);
2. Rules regarding the appropriation and provision of common resources that are adapted to local conditions;
3. Collective-choice arrangements that allow most resource appropriators to participate in the decision-making process;
4. Effective monitoring by monitors who are part of or accountable to the appropriators;

“Wild rice, which had led to their advance thus far, held them back from further progress, unless, indeed, they left it behind them, for with them it was incapable of extensive cultivation... In civilization one class of people at least must have comparative leisure in which to develop short-cut methods of doing old things, of acquiring the traditions of the race, and of mastering new thoughts and methods. Such leisure is impossible with a precarious food supply. But, in spite of these facts, for barbaric people during the period of barbarism, the most princely vegetal gift which North America gave her people without toil was wild rice. They could almost defy nature's law that he who will not work shall not eat.”

—from *Recovering the Sacred*, Winona LaDuke, South End Press, 2005.



Elinor Ostrom

“Every man has a right to an equal share of the soil, in its original state, and that ‘every-one, by whose labor any portion of the soil has been rendered more fertile, has a right to the additional produce of that fertility, or to the value of it, and may transmit this right to other men.’ In commenting on these maxims Ogilvie says ‘on the first of these maxims depend freedom and prosperity of the lower ranks. On the second, the perfection of the art of agriculture and the improvement of the common stock and wealth of the community.’”

—from *The Green Rising*, W.B. Bizzell, Macmillan, 1926.

“There is a tendency in many histories to confuse together what we have here called the mechanical revolution, which was an entirely new thing in human experience arising out of the development of organized science, a new step like the invention of agriculture or the discovery of metals, with something else, quite different in its origins, something for which there was already an historical precedent, the social and financial development which is called the industrial revolution.”

—H.G. Wells



5. A scale of graduated sanctions for resource appropriators who violate community rules;
6. Mechanisms of conflict resolution that are cheap and of easy access;
7. Self-determination of the community recognized by higher-level authorities; and
8. In the case of larger common-pool resources, organization in the form of multiple layers of nested enterprises, with small local CPRs at the base level.

I’m particularly passionate about the Seaweed Commons. Seaweed is the understory of the fishery, the substrate on which baby crabs, shrimps and the little creeping “sea insects” feed. Edible seaweed comes in three colors: brown, red and green. Humans eat dulse, wakame, kombu, alaria, kelp, nori, and others. Many countries practice oceanic aquaculture, growing shellfish, fish, shrimp and seaweed—sometimes in a stacked arrangement. These pieces of the aquacultural system rely on each other to function—the spark for establishment of the Commons and systems of sharing. But coming to a peaceful, gentle harvest of the wild commons is a more difficult but more valuable lesson for us to learn together.

Which brings us to sharing, and the character of sharing, the skillset of sharing, the consensus around what sharing means. It means different things to different people. The sharing economy—where nice strong bikes are available with the swipe of a credit card. Where countless apps help us monetize and access countless assets, from sofas, to spare rooms, to household appliances. It is “efficient” and “green” to optimize, we tell ourselves. We’re sharing. Economists have terminology to codify the behaviors, attitudes and expectations of players faced with decisions of where to plug in, where to cash out, and how to game the system—terms like “rent seeking” and “social choice.”

But not all of this sharing shares power, shares ownership, and allows for a reshaping of how we relate to the underlying property. Now is an important time to scratch off the scab on this topic, because there’s a relationship between early “constitutional” decisions and the structures they create, and often the structures themselves make decisions. Disruption of hierarchy, patriarchy, cooptocracy is clearly good—but disruption is not inherently a virtue.

All technology is not the same Lewis Mumford lights a path through the history of invention and social change with two useful words: polytechnic and monotechinic. Polytechnics derive from an ancient lineage and combine functions and skills shared by many people in a society. Polytechnic tools can be used in different ways and allow people to develop skills and exercise control over their work. In a polytechnic society no single method of doing anything dominates, and no authority dictates technology. Think of craftsmen with their various guilds employed to build a cathedral. Until the 17th Century, this polytechnic tradition performed the feat of transmitting the major technical heritage derived from the past, while introducing many fresh mechanical or

chemical improvements, including inventions as radical as the spinning wheel and the printing press.

Monotechnics are defined by the concentration of authority in the proliferation of technology: “time-keeping, space-measuring, account-keeping, thus translating concrete objects and complex events into abstract qualities.”² From there, these can be further transformed into commodities which can become derivatives, bundled and traded in haze of a financialize vapors.

Those structures created a monoculture. It is getting worse all the time, with some counties in the midwest planted over 90% with corn or soybeans, and that includes all other land uses—riparian, treeline, woodlots, pastures, lawns, roads, houses, parking lots and kidney dialysis centers. And we just keep paving. The Lowe’s and Home Depot hang in hulking horizontal squander over the wetlands at the edge of town. Their over-fertilized, over-fungicided nursery plants leaking from the haphazard berms, dribbling out onto the landscape. The herons are not happy.

Of course much of our built environment in America agriculture, the barn, corral, pond and levy, was created to support the mixed family agriculture of the frontier and near-frontier. They used extremely high quality materials—glorious hand-hewn beams and old-growth redwood—for grape trellises, mangers and fenceposts. But these materials are grander, sometimes, than the paradigm defining their use or the insight of the original user. These are fenceposts worth re-tooling and re-thinking. They may be less permanent than the concrete-deco arches of an auto-metropolis like Detroit, they are gentler than the lasers and biotech we have now, but they are still tools of an export economy. Lest we romanticize those charming barns, we must remember how even these older forms drew from and degraded the commons.

For 60 years, the largest American export was cotton—a valuable chain of theft and cruelty, stimulated by greed and black tea. Grown by stolen Africans on stolen indigenous land, and fed to steam-powered factories in the sinking brick Empire of not-yet-unionized workers, many displaced from their own farms by the overproduction of exploited colonies. Indeed the cooperative efforts of share-croppers followed the logic of the Rochedale Group in Manchester, England, a group of factory workers collectively purchasing the strong-black-tea they need to sustain their working days. Agriculture built America, paid for the railroads and industrial revolution, amassed the wealth that was leveraged to drain the swamps, irrigate the deserts, and power the western portion of the continent behind mega-dams—it was enclosure, dispossession, exploitation that made it possible. It was the removal of resources from the common pool which filled the pockets of our nation and the wove the myths propping up

“Landshaft” describes as a working landscape, one that contains settlement, homesteads, wilderness, woodlots, varieties of land-use in a harmonious, sensible configuration. This was the ideal of reformers in the 1840’s, a kind of peaceful concession to seek balance between the wild, and domesticated worlds. In the words of Wendell Berry:

“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. Whether we go to those places or not, we need to know that they exist. And I would argue that we do not need just the great public wildernesses, but millions of small private or semi private 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. These places function, I think, whether we intend them to or not, as sacred groves—places we respect and leave alone, not because we understand well what goes on there, but because we do not.”

—from *Home Economics*, Wendell Berry, North Point Press, 1987.

² *Larding the Lean Earth*, Steven Stoll, Hill and Wang, 2002, 210



the forefathers of our current capitalist superstructure.³ That enclosure, which began with our natural resources, continues today with our networks, our data and our relationships.

Enclosure

James Scott, one of my favorite curmudgeons—and editor of *American Georgics*, the syllabus for the last Almanac—has put out another volume addressing some of the “format for freedom” questions that Thomas Paine has gotten me thinking about:

“The question I want to pose is this: are the authoritarian and hierarchical characteristics of most contemporary life-world institutions—the family, the school, the factory, the office, the worksite—such that they produce a mild form of institutional neurosis? At one end of an institutional continuum one can place the total institutions that routinely destroy the autonomy and initiative of their subjects. At the other end of this continuum lies, perhaps, some ideal version of Jeffersonian democracy composed of independent, self-reliant, self-respecting, landowning farmers, managers of their own small enterprises, answerable to themselves, free of debt, and more generally with no institutional reason for servility or deference. Such free standing farmers, Jefferson thought, were the bases of a vigorous and independent public sphere where citizens could speak their mind without fear or favor. Somewhere in between these two poles lies the contemporary situation of most citizens of Western democracies: a relatively open public sphere but a quotidian institutional experience that is largely at cross purposes with the implicit assumptions behind this public sphere and encouraging and often rewarding caution, deference, servility, and conformity. . . .do the the cumulative effects of life within the patriarchal family, the state (GMAIL) and other hierarchical institutions produce a more passive subject who lacks the spontaneous capacity for mutuality so praised by both anarchist and liberal democratic theorists?”

If it does, then an urgent task of public policy is to foster institutions that expand the independence, autonomy, and capacities of the citizenry. How is it possible to adjust the institutional lifeworld of citizens so that it is more in keeping with the capacity for democratic citizenship?”

—from *Two Cheers for Anarchy*, James Scott, Princeton University Press, 2012.

³ Rebecca Solnit has recently made some wonderful connections on this in an article in *Harpers*. <http://www.harpers.org/archive/2014/08/the-octopus-and-its-children>

Those blue bikes from the last section are sponsored and owned by a bank that gathers data about your commute on a computer attached to the public street. Boy are they convenient, but if the computer won't click open the lock, you're stuck. Are the owners at street-level? Are they available for a calm, spoken, rational negotiation about fairness? Cornel West says "justice is what love looks like in public," so what happens when decisions are remote from the public? Where administration of policies created by proxies is carried out by unthinking and unaccountable apparatus.



Last month, partially in reaction to the outcry in Ferguson Missouri, the Burlington, Vermont police department announced they would mount a video camera on the chest of their whole officer force. I'm reminded of the novel *The Circle*, by Dave Eggers, where a Google-Facebook-Apple corporation attempts to transform democracy via radical transparency of total digitization, total monitoring. In the half-wild west of today's internet, both protestors pay-to-play facebook posts bubble up and hype-merchants swarm for twitter rankings, anonymous hackers daylight Klu Klux Klan membership, credit cards are stolen, and the government keeps a carbon copy in their big twinkling bunker. It is not a gravitational force that drives us in this direction. Newton and Darwin would flinch at how we assign our minds to the "gravitational force" and "evolution" of the system in this direction.

The algorithms are artificial, even the ones running the voting machines. I've recently taken a survey of activists, friends of my mother and fairy godmothers—all of us have spam drama. Our messages don't get safely across the wild western internet lines. More and more activists' email accounts are hacked, calls are dropped, journalists working in Ferguson get their phones shut off, as we slowly realized the internet is actually telecom monopoly—a meta-technology of global capitalism—and we're too lazy to invest in alternatives.

This makes it easy to click around too much, to fall into a distracted frenzy. Today's techno innovation design cult (JFK/SFO) tend to hyperbolize their fantasies. The "internet of things" includes arduino-tended hydroponic vertical-glass-walled utopian skyscraper/arcologies. It's a narrative that insists we need "big data" to manage the vast land base that the technology's cost require. Its a new hyper-scale land-grab modality focused on pumping out a grid of predictable nutrition, lest the 9 billion rise up.

Who's idea of hopeful are rows of synthetic meat vats warmed by blinking servers, hovered over by drones of loving grace? Part Brave New World, part Pollyanna, if you tune into the media channels too much its hard to keep your lunch down. In highly abstracted high-rise condos, on expensive smelly gloss paper, these implausible scenarios, rendered with photoshop, are offered as a fashionista's parsley garnish—"modern farmer," "virtual grange," "sharecropping 2.0." Mirrored hallways of social media ring with rhetoric to "embrace the Anthropocene" and "if we're going to be Gods, lets get good at it."

Pinched between the Gates Foundation, National Geographic, and the massively-

budgeted Farmers and Ranchers Alliance, “we must feed the world” merges with “the world must feed us.” Yikes, it’s a mafia land grab, an unconscious techno-feudalist, by Venture Capitalists for Venture Capitalists fantasia, but with good design and nice outdoor dinners. Slow Food for the 1%, and server-farm-incubated synthetic meat soylent green for everyone else.

You see how easy it is to fall down the dark hole of negativism. This is of course the reason we need an Almanac, to keep ourselves bound up in a fraternity of commitment—a positive outcome for all our concerted creative logistics for reasonable change. Greenhorns are dedicated to the project of holding space for producer (not consumer) culture—this volume is the sequel to our commitment in this direction. Manic, fruit-fly narratives of pop press give us little traction. I would argue that the Almanac format (dozens of contributors, thoughtfully compiled) is a far better context for literary discourse that can support our landscape-authorship, direct action and practical stewardship of our neighborhood ecosystems. It is a reestablishment of the information commons for which big tech continually gropes as they attempt to pull close our very exchanges and rope them off inside the proprietary platforms of the neo-capitalist sharing economy.

And what is the alternative to a tragic commons, to a broken fishery, a depleted pasture, a hazy inversion layer over the shared atmosphere of city after city after city? Clearly small is beautiful, and small towns are easier to police, but I want to explore the planning process it would take to “step down” into a feasible governance strategy for the thousands of decisions needed to shift out of the broken road trajectory.

Format of Transition

“Manage for what you want” says the charismatic genius Alan Savory. He’s an ex-mercenary game park warden from Rhodesia who put forth the concept of “Holistic Management,” a powerful decision-making framework for ranchers and land-managers working to optimize conditions of land-health, business-viability, and human happiness. It’s a vector-approach to shifting the system, and a good way to visualize and measure out the “power down” from our current framework.

And we should not forget the other planes necessary for the trajectory either. Shakespeare had a more mythological concept map for the poison and its antidote:

Sweet are the uses of adversity;
Which, like the toad, ugly and venomous,
Wears yet a precious jewel in his head.

—As *You Like It*, Act 2, Scene 1

The precious jewel is the antidote to the poison—in this case, the antidote to capitalism.

Who else is perched in the head of the poisonous toad of capitalism, dreaming a

dream about a better world? Who are the precious, shameless, romantic, pragmatic, apocalyptic, optimistic jewels perched on the head of adversity? Young African Americans singing, crying, marching for justice against a militarized and unrestrained racist police-state. Young children of immigrants, migrants, and illegally-resident Americans stuck at the border, dislocated from their families, or stooping and kneeling in the fungicide sponge of our California lettuce fields.

Essays in this volume shoot out like spider-webs across the wide chasm of impossibility—the glorious rescue mission whose daily requirements keep us human, hopeful and operating inside the scale of possibility.

What future can we realistically build together, will it need electricity? Will it need globalization? These practices we've found—biodynamics, permaculture, resilience breeding, state-change in the soil, reformats of ownership, reclaiming the value-chain, re-tooling for diversity, committing to lifetimes of partnership—how long before the allow us to reach steady-state? Do they require interns? Do they require servants making silicon chips? Do they require, absolutely require, the internet? Which technologies are relevant to, appropriate to, and gestating within the new agrarian mind? We've been provided with some answers and we've come up with some of our own.

So how might we execute them? What happens to a dream fulfilled? Turns out, it reeks of bat poop.

The Land

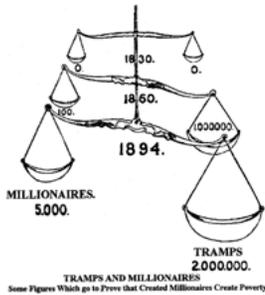
My dream hire, a young woman called Eliza Greenman, is a young orchardist without land and capital. She is a great organizer, hard worker, strong thinker, and a big-hearted sweetie pie. Trouble is, she's got a job offer to manage a bio-dome in the fortified desert palace of the prince of Abu-Dhabi. How can I, as measly director of a grassroots rat pack of agrarian cultural workers, ever compete with the prince of Abu Dhabi?

Let me wager an answer: free land.

What if I offered free land to the next generation of greenhorns as a legacy, or endowment? What if I gave Eliza the gift of good land, and not only to her, but to the the next greenhorn after her as well? What if I emancipated a piece of land from the commodity paradigm that currently rules our economy and planet.

Yes! A micro-retort against the macro-economy. An institutional elbow-jab. I've got the power for a tiny insurrection. Fifty-four thousand dollars is pretty good value for an 1820s house, 17 acres, 2 little barns, a glorious mountain view, and gravity-fed spring water. Owned by the bank and vacant for nearly three years, it's definitely a project house. The project is land reform.





Lets use this farm as a test-case, lets make these 17 acres and red brick farmhouse an emblem of everything. Lets make it a proxy-land for the total-land on which our whole economy is built. To do so is not such a stretch—all our human-scale and domestic micro-economies nest inside the macro-economy of the market.

We are programmed to see ourselves as “proprietary” defined by what we control, what we obtain, what we own and oversee. We want to own land, and we understand innately the mathematics of territory + labor + taxes and maintenance = equity over time. But this is not the only way we operate as humans. Start with the family. There are the unpaid hours of our motherhood, the shared, non-monetized daily chores of house holding and reciprocity of the neighborhood. Think about functional societies in all cultures, and micro-societies that have non-economic relations of sharing and care taking and managing.

These are all powerful cultural paradigms, but in looking for an “authentic economy” on which to base my thinking I’ve found the context of our own economics to be more than befuddling. It usually comes back to exploitation, enclosure of the resources of the commons.

And the cream has certainly risen. Let me be specific. The Aluminum mining corporation Alcoa is worth 17.217 billion dollars.⁴ It makes a material that we turn into disposable beverage containers. Alcoa owns assets of mountains which they dismantle for bauxite ore, as well as hydro-electric plants that generate the electricity needed to turn that land (destroyed via dynamite) into aluminum, which is useful for coke cans and has a use-value as a virgin material as well as a recycled material. It creates this value by adding energy, machines and applied chemistry to the power of mountains and rivers.

Meanwhile, there is a corporation called Twitter, valued at 27.3 billion dollars.⁵ It operates on the internet, allowing users to post short messages which are visible to other users. These are called Tweets. Twitter has its own web-based software, but it relies on many external components of the information superhighway—hardware owned by server farms, internet service providers, home computer users, and telecommunications infrastructure of optic wires—all of which are made out of minerals and materials mined from the earth, also powered by electricity. Twitter does not charge for this service.

⁴ Alcoa’s shares are trading at \$14.64 (<http://www.marketwatch.com/investing/stock/aa>) and it has 1.176 billion shares outstanding (http://ycharts.com/companies/AA/shares_outstanding).

⁵ According to Reuters, as of July 30th of this year Twitter is worth about 27.3 billion dollars. (<http://www.reuters.com/article/2014/07/30/us-twitter-results-idUSKBN-0FY27C20140730>)

The value of these two companies is measured according to the vast internet of value assignments, which we call the market. Besides the Twitter and the Aluminum can, the fish in the sea and the salad in the field each have their own value assignment, which determines the prices of labor. These justify the invention and creation of machines, mortgages, and portable toilets for farmworkers. The terms of this economy dictate the “efficiencies of scale” for those parts of the economy which aren’t considered valuable.



This is reflected on a micro level in a symptom which is more apparent for those of us examining our relationship to land and ownership—the end of the nest egg. Whereas in previous inter-generational interstices there was a little nudge, a dowry chest and maybe even a down payment, that’s less than possible for increasing numbers of elderly people. No longer are they able to provide a little tug to get the next generation up to speed when they need every ounce of energy to bail out their own sinking financial boat.

Forced to liquidate, forced to extract and despoil, the market holds a moral grip on us. Its basic economics: what’s under and inside the mountain (gasoline, bauxite, shale-gas) is more valuable than what grows on top (acorns, wild boar) and can be gently, sustainably harvested. So we blow up the mountains, make the cans and fill them with corn syrup from corn grown in some other, far cheaper field. This is the logic we live under, and it leads to bankruptcy.

Because at a certain moment, this economy ends. And I think it ends first with Agriculture. Agriculture, the intersection of economy and ecology, between culture and industry, is the right place for the inter-generational truce that is necessary for restoration—which started out the trajectory of this essay.

At a certain moment the land becomes irreplaceable as the place we need to grow our food. We are reaching that point, and a hard stare at the state of the world proves to us that our prime farmland—especially the land close to centers of population, well watered by natural rainfall, and decently healthy—must be exempted from the global shuffle of trade-offs. We need a new economics that values it for what it can provide over the long run, And the height of that value—the highest, best use—is for good, clean, food.

The land is true wealth because the land holds our whole society and culture, our whole ecology. I frame my little piece of land in these sweeping terms because so often land is traded and grabbed as an abstraction, and to talk about this tiny patch in the context of its grandiosity is a kind of poetic justice. This total-land has value in our economy, and the thought experiment we are engaged in here is about how that value is created, assigned and managed, and how we can organize our systems of human culture and economy to suit the best interests of the land on which they rest.

Which brings us back to my own little land. It just so happens that the town where my particular land retort is located—Westport, NY—is about contemporary with

Thomas Paine, whose treatise *Agrarian Justice* provided a basis for much subsequent land reform discussion. Paine released this treatise as a retort to a sermon given by the influential Bishop Landalf. In that sermon, reflecting the predominant owning-class perspective of his parishioners, Landalf cited the “Wisdom of God in having made both rich and poor,” and endorsed social inequity as part of the natural order of the universe.

The church has a long history of noticing that the meek will inherit the earth, but in that moment the Church was weighing in on the side of the mighty. In another time of both extreme poverty and wealth, Landalf was conferring upon this situation the wisdom of God—validating it in a rational context, as if this social condition were an outcome of a natural law. The laws of gravity (discovered by Newton) and later the laws of evolution (discovered by Darwin) of the emerging scientific age had come to dominate the rhetoric and worldview of leaders. Paine felt it was critical that gross injustice was not assumed as a baseline context. Poverty and destitution, he reminded, are not a natural phenomena like gravity and orbits, evolution and diffusion. This assertion remains relevant today, with our levels of inequality even further pronounced than at that time.



Paine would point out that we cannot create land and we cannot destroy it, and that ownership is really just the “right to use” the land. Our current economy is a kind of suspended vinaigrette of small, medium and large versions of businesses, landowners and national actors. But it is a vinaigrette out of balance. It doesn’t hold together, it doesn’t match the reality of the planet. It’s a clumpy, lumpy mess. To remedy this, Paine proposed an equal payment system in which citizens would be repaid yearly for the inheritance—the land—which they had lost. Henry George echoed this idea with his own proposal for a single tax on land value, intended to reflect the fact that the economic value of that land and its resources is a commons, which belongs equally to all people. And I’m proposing to restructure our models of land ownership and use with a re-fortification of the commons, to shore up the communities and the lifeways which depend on this land.



A Community Format

This little red house, and the land it sits on, is a chance to experiment with radical de-coupling of finance and real estate, and a way to reframe “financial wealth” into “community wealth.” Positioned between the train tracks and Lake Champlain, our little town has a county fair ground, a victorian bandstand,⁶ two marinas, a hiking trail trust,⁷ and organic grain mill,⁸ and a little grocery store that daily bakes their own hamburger buns. It is the romantic all-American town built to serve the extraction economy of lumber, iron, and stone on territory of the Iroquois and Western Abenaki.

⁶ <http://www.ballardparkny.org/events.html>

⁷ <http://www.champlainareatrails.com/>

⁸ <http://champlainvalleymilling.com/>

This is the site of our 17 acres. It may be a small gift, but its a land gift.

By making a “Land Gift” I can give my little mission-driven non profit organization (and the young farmers movement it serves) a lasting legacy of free land. Afterwards (since perpetuity is a long time) the land will become a part of the larger Adirondack Community Housing Trust.⁹ This means finally! We’ll have a stable place for our library of 8,000 books, our tool-shop, props and event-production materials. As long as Greenhorns exists, it will have a home. When, and if, it ceases to exist, the house will become permanently affordable housing for farmers new to the region.

The Community Land Trust model was designed by Bob Swan—inspired by the teachings of E.F. Schumacher—while he was working at Indian Line Farm and New Communities, a 5,700 acre cooperative farm for landless African American farmers on a former slave plantation in Georgia created by the International Independence Institute and the Sherrod family.¹⁰ At the time, the latter was one of the largest black-owned tracts of farmland in the U.S., but it was eventually lost due to discrimination on the part of USDA lenders. The loss triggered a major mobilization¹¹ to save black-owned farms, centered in North Carolina. It wasn’t until 20 years later, when the *Pigford v. Glickman* case was settled, that the Sherrods received compensation, allowing them to embark on the next chapter, and purchase a different plantation, now called Resora.¹²

More and more of the young farmer community is studying up on land reform. Why? Because hardly anyone can pay for the land they farm on by farming. Hardly anyone can find a deal as good as I did in America today. In order for our movement to succeed (and provide food sovereignty in the places we farm) a thousand times more farmers are going to need the confidence, capital, and soil-health that you get from secure tenure. In America, this usually means ownership. Mark Twain famously quipped “buy land, they aren’t making it anymore.”

And though ownership seems the only sure-thing-paradigm for the majority of Americans, there’s a pinch—we mostly cannot reach it due to student loan debt, low pay, inadequate savings and the tricky dilemma of the impossibility of capitalizing a business, a family and a land-mortgage at the same time. In an ideal world your parents would have spent 20 years building the business, barns, brand and land-health and handed it to you, debt free. The pinch that brings us back to reality, is that new entrants to agriculture don’t have that cushion, and neither does society. The pinch for the farmer is a pinch for society in general.

⁹ <http://www.adkhousing.org/>

¹⁰ [http://en.wikipedia.org/wiki/Robert_Swann_\(land_trust_pioneer\)](http://en.wikipedia.org/wiki/Robert_Swann_(land_trust_pioneer))

¹¹ <http://landloss.org/>

¹² <http://www.wkcf.org/what-we-do/featured-work/the-arc-of-justice-bends-toward-cypress-pond>

There was a famous study in the 1940's performed by USDA agricultural economist Walter Goldschmidt. It was commissioned because the USDA was considering constraining the size of operations who would be eligible for subsidized irrigation. He looked at 2 towns in the Central valley of California, Arvinda and Dinuba. Both towns produced vegetables of similar types, volumes, values, and sold to similar markets. The difference was ownership of land from town to town: in one, majority owner-operated, in the other majority absentee-owned. You may be able to imagine the outcome. In terms of education, civic institutions, road qualities, health outcomes, and church attendance the owner-operated town outranked the absentee-town in every category. The USDA suppressed the study, defunded the agency which created it, and never investigated land tenure again.

Goldschmidt interpreted his finding this way: "it is difficult to prove causation in history, for each society is unique and the forces are complex, but there are few who doubt that the nature of rural land tenure is intimately related to the character of the social order."¹

At stake was a US policy that worked to distribute the wealth created by tax-dollar-funded irrigation projects. Seemingly the policy recognized that the state, as an instrument of democracy, has the responsibility to distribute the benefits of expenditures democratically. Unfortunately, this was not the outcome and California descended into a cronyism we today take for granted.

My land is OUR Land. And as discussed at the outset of this essay, we face an unprecedented risk to our national security when it comes to land ownership. An estimated 400 million acres will change hands in the next 20 years. That's an opportunity, to change the management of that land from commodity-production for national or international markets, to sustainable, careful, caring agriculture that produces food for local or regional markets. But it's also a danger, because if no one shows up to love this land, with a plan of how to capitalize and run a business on it "in the real world," it will become a commodity. The reason is human—farmers are aging. More than 70 percent of American farmland is owned by those 65 and older.

What comes first, the detailed chicken, or the deviled eggs? The history and frustrating economics of agriculture—land too expensive, labor too cheap, energy costs and subsidies distorted—could take up the rest of this essay. Farmers who've survived the perverse unreality which is our mainstream American food system have had to invent functional structures. To be more succinct, let's call this a "format." The local food movement, and local food explosion, is made possible by the "format" of very specific business structures and strategies that meet the needs of both consumers and producers. Let's focus on some familiar ones: Farmers markets and C.S.A.s (Community Supported Agriculture—where the customers pre-pay for their produce and get one box per week). You probably know this story, farmers are able to capture the full retail dollar, charge reasonable prices for their product based on quality, relationship, and ecological and values-based stewardship. Similarly, with C.S.A., the economic mechanism, or "format," puts cash into the farmer's hand at the beginning of the season so that they don't have to go into debt, and distributes the risks of agriculture to the whole community. It also benefits the consumers who get a good and reliable deal on produce.

My little red house in this fairy tale is a relic of a previous economy—the extractive boom-days of mining, lumbering, and quarrying in the Adirondacks. That economy is now imploded, making this land and house accessible and affordable for redemption by sustainable agriculture. So how can I prevent it from ever entering the boom again, and becoming a slot for a shale gas warehouse? What do we learn from this study of the "format" of C.S.A. and Farmers Market, that we can apply to the troublesome quandary of land access for new growers?

Agrarian Trust

When I went to visit Wendell Berry, I arrived with an arm load of questions for him, centered on this fundamental dilemma about land access. He chuckled at me and quipped, "Young lady, there is no big solution, only many thousands of small ones." Looking forward at the thousands of small transactional moments that will decide the destiny of our collective farmland, it feels like an inverted riddle from the old agrarian sphinx. But one worth cracking. One nut at a time. It will take a whole team of hopeful squirrels.

¹ *The People's Land*, Barnes, Rodale 1975, 171.

There will be many forms to this solution, all of them at their core a kind of truce between the generations, expressed both economically and territorially. Donella Meadows counsels us to “expose [our] mental models to open air.” As Americans that also sometimes means opening up to models developed in other countries. The C.S.A. for instance, was first practiced in Japan, then Germany, and only arrived in the U.S.A. in the early 1980s via the international biodynamic farming network. So in looking for a template for a solution, we were lucky to find a project in France with the same set of principles. It is called *Terre De Liens*,¹³ and it already holds more than 100 farms, on more than 6,000 ha with a value of over 53 million euros. The average investment size is 5,000 euros—some of the farmers gifted the land outright, some of them received “shares” equivalent to the value of their land which they can pass to their children, who can slowly liquidate the equity over time. This is a perfect locus for a conversation about ecology, economics, and resource management on our good planet—an “economic truce” between the generations.

The truce I’m committed to help build is called Agrarian Trust. This will be a trust that can receive donations of land and money with which to purchase land. It will put a covenant on the deed of that land that it will be protected for sustainable farming, in perpetuity. It can only ever be farmed for local sale. The idea is to give farmers a lifetime lease on the land, providing the benefits and security of ownership, without the cost. The point of this work is to demonstrate that keeping sustainable farmland in farming, is highest purpose for that land, and for the community that surrounds it. The Farmland Commons we are building—with help from the Berkeley, California-based Sustainable Economies Law Center¹⁴—will be the legal container for a land reform. For Agrarian Trust to succeed, we need thousands of grandmothers, landowners, and benevolent investors to give land and equity to the trust, and to pass forward a legacy of opportunity for new farmers. This will require a major shift in how we perceive land, and treat it, both culturally and economically, as a commons which we share with the future.

In studying this issue and providing immediate support for the stakeholders, Agrarian Trust has built a library of resources for land transfer,¹⁵ and a community of farm-service providers committed to systemic change. This means stories of access, strategies of equity-sharing employed by entering and exiting farmers and their partners on the land. It means tracking the personal trajectories and negotiations that reject the logic of the macro-economy and accommodating the needs of both parties—those entering and those exiting. Again, these are humans we are talking about, humans who were raised by unpaid mothers and who take care of their own children for free. As Joel Salatin puts it “we can’t get out of farming, until y’all get in.” In case after case, we see motivation on the retiring side that goes beyond retirement funds and “doing right by

“... there remained, firmly embedded in the very act that gave birth to the Bureau of Reclamation, that explicit clause designed to spread the benefits of public subsidies among the maximum number of resident farmers. Few might have noticed but for an economist at the University of California whom one historian has called “the last Jeffersonian”. Paul Taylor was shocked by the disparity of wealth he found in California, which he, like Henry George, traced to land monopoly. In a series of elegantly concise legal briefs and articles, Professor Taylor fought a long and often lonely battle to make the government enforce its own law.”

—from *Farewell, Promised Land*, Dawson and Brechin, University of California, 1999, 161.



¹³ <http://www.terredeliens.org/>

¹⁴ <http://www.theselc.org/>

¹⁵ <http://www.agrariantrust.org/resources>

the children.” There is a willingness to experiment with arrangements that consider the land’s best interests as well.

People who are disconnected from land by pavement, elevators, and swivel-chair notions sometimes forget about the specific, connected power of the land on which they are working—the land that feeds them, the land that feeds the oxygen they breathe. Agrarian Trust is one approach, built on the lineage and analysis of Tolstoy, Paine, Barnes, Swan, the Levellers. Many dozens more methodologies may be created for passing land forward—a range of partnerships, community investment models, logical, family-like approaches.

According to the recent U.S. Department of Agriculture census, the vast majority of farmers—both on commodity-producing and community-based farms—are subsidized by other form of income: a wife’s teaching job, a government pension, a marijuana crop, or side business plowing snow or selling tractors. Farm businesses that have the option often keep themselves afloat and capitalized by selling lots for housing development.

The context in which many food producers are running their businesses tends to be colored, more than we’d sometimes like to admit, by the global economy, the commodity market, and market price. These are all factors which impact the discrete business decisions that are being made on the farm. The big picture shows us that natural resources, human labor, and agriculture in general is profoundly undervalued, particularly in comparison to other sectors (like technology) which command a far better set of margins despite their intangible nature.

We know that farmers shouldn’t be economically undermined by real estate and development pressures that over-ride their stewardship practices. Therefore, we need to take away the value of the land for the individual, and put the value into the hands of the community (OUR land) that benefits from the food, a bit like a C.S.A. In addition we must remove the speculative forces from that land (which would consider it for its recreational, scenic, development or other non-agricultural purposes). We recognize that for good farmland, good farming is its perfect destiny, and should be its permanent use.

To my ear, the thousands of small solutions Berry spoke of means thousands of small farms and local economies, each adapted to the farmsteads, landscapes, and cultures of this large land.

At the Greenhorns, we’ve worked to connect young farmers while providing social support and cultural enlivenment. Now, we also hope to help them find land. That’s

why we've founded Agrarian Trust, an organization dedicated to improving land access for sustainable farmers, and to helping those who hold the land pass it forward graciously, to new stewards who will grow food for their local economies.

Onward

These thousands of small solutions, small farms, small economies and small communities may not make the whole “step-down” by themselves—there will certainly be more required, and the effort must be sustained. But there is value in micro-retorts against macro-economies and their foundations, their histories of enclosure and exploitation. There is value—both symbolic and tangible, economic value—in re-establishment of the commons and a defense of its borders. We must be flexible, these borders will change as anything organic does. They may recede, they may shift, but the quiet momentum, the diversity, of thousands of small solutions is a model with far deeper roots than the strange monoculture that so many in the industrialized world have come to know. And as we hack these new paths through to allies on the other side of the hedge, we also discover paths long-worn, paths we had sometimes missed on the first pass along the edge of the field. So functions the Almanac in front of you: guide yourself to something new, learn something long-established. And keep moving forward.