

Lately I've been returning to that passage again and again, and every time I read it I laugh. I laugh because it is a piece of superb wit, and because it is true. Faust's idea that farm life is necessarily "narrow" remains perfectly up-to-date. It is still true that to escape that alleged narrowness requires the agency of a supra-natural or extra-human power—though now, for Goethe's witchcraft, we would properly substitute industrial agriculture.

This progress from witchcraft to industrial agriculture does not seem to be especially happy. We could be forgiven, I think, if we find it horrifying. Farming does involve working hard and getting dirty. Faust, perhaps understandably, does not love it. To escape it, for a while at least, he has only to drink a nauseating beverage concocted by witches. But we, who have decided as a nation and by policy not to love farming, have escaped it, for a while at least, by turning it into an "agri-industry." But agri-industry is a package containing far more than its label confesses. In addition to an array of labor-saving or people-replacing devices and potions, it has given us massive soil erosion and degradation, water pollution, maritime hypoxic zones, destroyed rural communities and cultures, a farming population dwindled almost to disappearance, toxic food, and an absolute dependence on a despised and exploited force of migrant workers.

This is not, by any accounting, a bargain. Maybe we have begun to see that it is not, but we have only begun. As a nation, we have ahead of us a lot of hard work that we are not going to be able to do with clean hands. We had better try to love it.

(2009)

Faustian Economics



The general reaction to the apparent end of the era of cheap fossil fuel, as to other readily foreseeable curtailments, has been to delay any sort of reckoning. The strategies of delay, so far, have been a sort of willed oblivion, or visions of large profits to the manufacturers of such "biofuels" as ethanol from corn or switchgrass, or the familiar unscientific faith that "science will find an answer." The dominant response, in short, is a dogged belief that what we call "the American way of life" will prove somehow indestructible. We will keep on consuming, spending, wasting, and driving, as before, at any cost to anything and everybody but ourselves.

This belief was always indefensible—the real names of global warming are "waste" and "greed"—and by now it is manifestly foolish. But foolishness on this scale looks disturbingly like a sort of national insanity. We seem to have come to a collective delusion of grandeur,

insisting that all of us are “free” to be as conspicuously greedy and wasteful as the most corrupt of kings and queens. (Perhaps by devoting more and more of our already abused cropland to fuel production, we will at last cure ourselves of obesity and become fashionably skeletal, hungry but—Thank God!—still driving.)

The problem with us is not only prodigal extravagance, but also an assumed godly limitlessness. We have obscured the issue by refusing to see that limitlessness is a godly trait. We have insistently, and with relief, defined ourselves as animals or as “higher animals.” But to define ourselves as animals, given our specifically human powers and desires, is to define ourselves as *limitless* animals—which of course is a contradiction in terms. Any definition is a limit, which is why the God of Exodus refuses to define Himself: “I am that I am.”

Even so, that we have founded our present society upon delusional assumptions of limitlessness is easy enough to demonstrate. A recent “summit” in Louisville, Kentucky, was entitled “Unbridled Energy: The Industrialization of Kentucky’s Energy Resources.” Its subjects were “clean-coal generation, biofuels, and other cutting-edge applications,” the conversion of coal to “liquid fuels,” and the likelihood that all this will be “environmentally friendly.” These hopes, which “can create jobs and boost the nation’s security,” are to be supported by government “loan guarantees . . . investment tax credits and other tax breaks.” Such talk we recognize as completely conventional. It is, in fact, a tissue of clichés that is now the common tongue of promoters, politicians, and journalists. This language does not allow for any question about the *net* good of anything proposed. The entire contraption of “Unbridled Energy” is supported only by a rote optimism: “The United States has 250 billion tons of recoverable coal reserves—enough to last 100 years even at double the current rate of consumption.”¹ We humans have inhabited the earth for many thousands of years, and now we can look forward to surviving for another hundred by doubling our consumption of coal? *This* is national security? The

world-ending fire of industrial fundamentalism may already be burning in our furnaces and engines, but if it will burn for a hundred more years, that will be fine. Surely it would be better to intend straight forwardly to contain the fire and eventually put it out? But once greed has been made an honorable motive, then you have an economy without limits, a contradiction in terms. This supposed economy has no plan for temperance or thrift or the ecological law of return. It will do anything. It is monstrous by definition.*

In keeping with our unrestrained consumptiveness, the commonly accepted basis of our present economy is the fantastical possibility of limitless growth, limitless wants, limitless wealth, limitless natural resources, limitless energy, and limitless debt. The idea of a limitless economy implies and requires a doctrine of general human limitlessness: *All* are entitled to pursue without limit whatever they conceive as desirable—a license that classifies the most exalted Christian capitalist with the lowliest pornographer.

This fantasy of limitlessness perhaps arose from the coincidence of the industrial revolution with the suddenly exploitable resources of the “new world.” Or perhaps it comes from the contrary apprehension of the world’s “smallness,” made possible by modern astronomy and high-speed transportation. Fear of the smallness of our world and its life may lead to a kind of claustrophobia and thence, with apparent reasonableness, to a desire for the “freedom” of limitlessness. But this desire paradoxically reduces everything. The life of this world is small to those who think it is, and the desire to enlarge it makes it smaller, and can reduce it finally to nothing.

However it came about, this credo of limitlessness clearly implies a principled wish, not only for limitless possessions, but also for limitless knowledge, limitless science, limitless technology, and limitless

*This is abundantly demonstrated by the suddenly ubiquitous rationalizations of “clean” and “safe” nuclear energy, ignoring the continuing problem of undisposable waste.

progress. And necessarily it must lead to limitless violence, waste, war, and destruction. That it should finally produce a crowning cult of political limitlessness is only a matter of mad logic.

The normalization of the doctrine of limitlessness has produced a sort of moral minimalism: the desire to be “efficient” at any cost, to be unencumbered by complexity. The minimization of neighborliness, respect, reverence, responsibility, accountability, and self-subordination—this is the “culture” of which our present leaders and heroes are the spoiled children.

Our national faith so far has been “There’s always more.” Our true religion is a sort of autistic industrialism. People of intelligence and ability seem now to be genuinely embarrassed by any solution to any problem that does not involve high technology, a great expenditure of energy, or a big machine. Thus an X marked on a paper ballot no longer fulfills our idea of voting. One problem with this state of affairs is that the work now most needing to be done—that of neighborliness and caretaking—cannot be done by remote control with the greatest power on the largest scale. A second problem is that the economic fantasy of limitlessness in a limited world calls fearfully into question the value of our monetary wealth, which does not reliably stand for the real wealth of land, resources, and workmanship, but instead wastes and depletes it.

That human limitlessness is a fantasy means, obviously, that its life expectancy is limited. There is now a growing perception, and not just among a few experts, that we are entering a time of inescapable limits. We are not likely to be granted another world to plunder in compensation for our pillage of this one. Nor are we likely to believe much longer in our ability to outsmart, by means of science and technology, our economic stupidity. The hope that we can cure the ills of industrialism by the homeopathy of more technology seems at last to be losing status. We are, in short, coming under pressure to understand ourselves as limited creatures in a limited world.

This constraint, however, is not the condemnation it may seem. On the contrary, it returns us to our real condition and to our human heritage, from which our self-definition as limitless animals has for too long cut us off. Every cultural and religious tradition that I know about, while fully acknowledging our animal nature, defines us specifically as *humans*—that is, as animals (if the word still applies) capable of living, not only within natural limits, but also within cultural limits, self-imposed. As earthly creatures we live, because we must, within natural limits, which we may describe by such names as “earth” or “ecosystem” or “watershed” or “place” or “neighborhood.” But as humans we may elect to respond to this necessary placement by the self-restraints implied in neighborliness, stewardship, thrift, temperance, generosity, care, kindness, friendship, loyalty, and love.

In our limitless selfishness, we have tried to define “freedom,” for example, as an escape from all restraint. But, as my friend Bert Hornback has explained in his book *The Wisdom in Words*, “free” is etymologically related to “friend.” These words come from the same Germanic and Sanskrit roots, which carry the sense of “dear” or “beloved.”² We set our friends free by our love for them, with the implied restraints of faithfulness or loyalty. This suggests that our “identity” is located not in the impulse of selfhood but in deliberately maintained connections.

Thinking of our predicament has sent me back again to Christopher Marlowe’s *Tragical History of Doctor Faustus*. This is a play of the Renaissance: Faustus, a man of learning, longs to possess “all nature’s treasury,” to “Ransack the ocean . . . / And search all corners of the new-found world . . .”³ To assuage his thirst for knowledge and power, he deeds his soul to Lucifer, receiving in compensation for twenty-four years the services of the subdevil Mephistophilis, nominally his slave but in fact his master. Having the subject of limitlessness in mind, I was astonished on this reading to come upon Mephistophilis’

description of hell. When Faustus asks, "How comes it then that thou art out of hell?" Mephistophilis replies, "Why, this is hell, nor am I out of it."⁴ A few pages later he explains:

*Hell hath no limits, nor is circumscribed
In one self place, but where we [the damned] are is hell,
And where hell is must we ever be.⁵*

For those who reject heaven, hell is everywhere, and thus is limitless. For them, even the thought of heaven is hell.

It is only appropriate, then, that Mephistophilis rejects any conventional limit: "Tut, Faustus, marriage is but a ceremonial toy. If thou lovest me, think no more of it."⁶ Continuing this theme, for Faustus' pleasure the devils present a sort of pageant of the seven deadly sins, three of which—Pride, Wrath, and Gluttony—describe themselves as orphans, disdaining the restraints of parental or filial love.

Seventy or so years later, and with the issue of the human definition more than ever in doubt, John Milton in Book VII of *Paradise Lost* returns again to a consideration of our urge to know. To Adam's request to be told the story of creation, the "affable Archangel" Raphael agrees "to answer thy desire / Of knowledge *within bounds* [my emphasis] . . .,"⁷ explaining that

*Knowledge is as food, and needs no less
Her temperance over appetite, to know
In measure what the mind may well contain;
Oppresses else with surfeit, and soon turns
Wisdom to folly, as nourishment to wind.⁸*

Raphael is saying, with angelic circumlocution, that knowledge without wisdom, limitless knowledge, is not worth a fart; he is not a

humorless archangel. But he also is saying that knowledge without measure, knowledge that the human mind cannot appropriately use, is mortally dangerous.

I am well aware of what I risk in bringing this language of religion into what is normally a scientific discussion—if economics is in fact a science. I do so because I doubt that we can define our present problems adequately, let alone solve them, without some recourse to our cultural heritage. We are, after all, trying now to deal with the failure of scientists, technicians, and politicians to "think up" a version of human continuance that is economically probable and ecologically responsible, or perhaps even imaginable. If we go back into our tradition, we are going to find a concern with religion, which at a minimum shatters the selfish context of the individual life and thus forces a consideration of what human beings are and ought to be.

This concern persists at least as late as our Declaration of Independence, which holds as "self-evident, that all men are created equal; that they are endowed by their Creator with certain inalienable rights . . ." Thus among our political roots we have still our old preoccupation with our definition as humans, which in the Declaration is wisely assigned to our Creator; our rights and the rights of all humans are not granted by any human government but are innate, belonging to us by birth. This insistence comes, not from the fear of death or even extinction, but from the ancient fear, readily documentable in our cultural tradition, that in order to survive we might become inhuman or monstrous.

Our cultural tradition is in large part the record of our continuing effort to understand ourselves as beings specifically human—to say that, as humans, we must do certain things and we must not do certain things. We must have limits or we will cease to exist as humans; perhaps we will cease to exist, period. At times, for example, some of us humans have thought that human beings, properly so-called, did

not make war against civilian populations, or hold prisoners without a fair trial, or use torture for any reason.

Some of us would-be humans have thought too that we should not be free at anybody else's expense. And yet in the phrase "free market," the word "free" has come to mean unlimited economic power for some, with the necessary consequence of economic powerlessness for others. Several years ago, after I had spoken at a meeting, two earnest and obviously troubled young veterinarians approached me with a question: How could they practice veterinary medicine without serious economic damage to the farmers who were their clients? Underlying their question was the fact that for a long time veterinary help for a sheep or a pig has been likely to cost more than the animal is worth. I had to answer that, in my opinion, so long as their practice relied heavily on selling patented drugs, they had no choice, since the market for medicinal drugs was entirely controlled by the drug companies, whereas most farmers had no control at all over the market for agricultural products. My questioners were asking in effect if a predatory economy can have a beneficent result. The answer usually is No. And that is because there is an absolute discontinuity between the economy of the seller of medicines and the economy of the buyer, as there is in the health industry as a whole. The drug industry is interested in the survival of patients, we have to suppose, because surviving patients will continue to consume drugs.

Now let us consider a contrary example. Recently at another meeting I talked for some time with an elderly, some would say old-fashioned, farmer from Nebraska. Unable to farm any longer himself, he had rented his land to a younger farmer on the basis of what he called "crop share" instead of a price paid or owed in advance. Thus, as the old farmer said of his renter, "If he has a good year, I have a good year. If he has a bad year, I have a bad one." This is what I would call community economy. It is a sharing of fate. It assures an economic continuity and a common interest between the two partners to the

trade. This is as far as possible from the economy in which the young veterinarians were caught, in which the economically powerful are limitlessly "free" to trade to the disadvantage, and ultimately the ruin, of the powerless.

It is this economy of community destruction that, wittingly or unwittingly, most scientists and technicians have served for the last two hundred years. These scientists and technicians have justified themselves by the proposition that they are the vanguard of progress, enlarging human knowledge and power. Thus have they romanticized both themselves and the predatory enterprises that they have served.

As a consequence, our great need now is for sciences and technologies of limits, of domesticity, of what Wes Jackson of the Land Institute in Salina, Kansas, has called "homecoming." These would be specifically human sciences and technologies, working, as the best humans always have worked, within self-imposed limits. The limits would be, as they always have been, the accepted contexts of places, communities, and neighborhoods, both natural and human.

I know that the idea of such limitations will horrify some people, maybe most people, for we have long encouraged ourselves to feel at home on "the cutting edges" of knowledge and power or on some "frontier" of human experience. But I know too that we are talking now in the presence of much evidence that improvement by outward expansion may no longer be a good idea, if it ever was. It was not a good idea for the farmers who "leveraged" secure acreage to buy more during the 1970s. It has proved tragically to be a bad idea in a number of recent wars. If it is a good idea in the form of corporate gigantism, then we must ask, For whom? Faustus, who wants all knowledge and all the world for himself, is a man supremely lonely and finally doomed. I don't think Marlowe was kidding. I don't think Satan is kidding when he says in *Paradise Lost*, "myself am Hell."⁹

If the idea of appropriate limitation seems unacceptable to us, that may be because, like Marlowe's Faustus and Milton's Satan, we confuse limits with confinement. But that, as I think Marlowe and Milton and others were trying to tell us, is a great and potentially a fatal mistake. Satan's fault, as Milton understood it and perhaps with some sympathy, was precisely that he could not tolerate his proper limitation; he could not subordinate himself to anything whatsoever. Faustus' error was his unwillingness to remain "Faustus, and a man."¹⁰ In our age of the world it is not rare to find writers, critics, and teachers of literature, as well as scientists and technicians, who regard Satan's and Faustus' defiance as salutary and heroic.

On the contrary, our human and earthly limits, properly understood, are not confinements, but rather are inducements to formal elaboration and elegance, to *fullness* of relationship and meaning. Perhaps our most serious cultural loss in recent centuries is the knowledge that some things, though limited, can be inexhaustible. For example, an ecosystem, even that of a working forest or farm, so long as it remains ecologically intact, is inexhaustible. A small place, as I know from my own experience, can provide opportunities of work and learning, and a fund of beauty, solace, and pleasure—in addition to its difficulties—that cannot be exhausted in a lifetime or in generations.

To recover from our disease of limitlessness, we will have to give up the idea that we have a right to be godlike animals, that we are at least potentially omniscient and omnipotent, ready to discover "the secret of the universe." We will have to start over, with a different and much older premise: the naturalness and, for creatures of limited intelligence, the necessity of limits. We must learn again to ask how we can make the most of what we are, what we have, what we have been given. If we always have a theoretically better substitute available from somebody or someplace else, we will never make the most

of anything. It is hard enough to make the most of one life. If we each had two lives, we would not make much of either. One of my best teachers said of people in general: "They'll never be worth a damn as long as they've got two choices."

To deal with the problems, which after all are inescapable, of living with limited intelligence in a limited world, I suggest that we may have to remove some of the emphasis we have lately placed on science and technology and have a new look at the arts. For an art does not propose to enlarge itself by limitless extension, but rather to enrich itself within bounds that are accepted prior to the work.

It is the artists, not the scientists, who have dealt unremittingly with the problem of limits. A painting, however large, must finally be bounded by a frame or a wall. A composer or playwright must reckon, at a minimum, with the capacity of an audience to sit still and pay attention. A story, once begun, must end somewhere within the limits of the writer's and the reader's memory. And of course the arts characteristically impose limits that are artificial: the five acts of a play, or the fourteen lines of a sonnet. Within these limits artists achieve elaborations of pattern, of sustaining relationships of parts with one another and with the whole, that may be astonishingly complex. Probably most of us can name a painting, a piece of music, a poem or play or story that still grows in meaning and remains fresh after many years of familiarity.

We know by now that a natural ecosystem survives by the same sort of formal intricacy, ever-changing, inexhaustible, and perhaps finally unknowable. We know further that if we want to make our economic landscapes sustainably and abundantly productive, we must do so by maintaining in them a living formal complexity something like that of natural ecosystems. We can do this only by raising to the highest level our mastery of the arts of agriculture, animal husbandry, forestry, and, ultimately, the art of living.

It is true that insofar as scientific experiments must be conducted

within carefully observed limits, scientists also are artists. But in science one experiment, whether it succeeds or fails, is logically followed by another in a theoretically infinite progression. According to the underlying myth of modern science, this progression is always replacing the smaller knowledge of the past with the larger knowledge of the present, which will be replaced by the yet larger knowledge of the future.

In the arts, by contrast, no limitless sequence of works is ever implied or looked for. No work of art is necessarily followed by a second work that is necessarily better. Given the methodologies of science, the law of gravity and the genome were bound to be discovered by somebody; the identity of the discoverer is incidental. But in the arts there are no second chances. We must assume that we had one chance each for *The Divine Comedy* and *King Lear*. If Dante and Shakespeare had died before they wrote those poems, nobody ever would have written them.

The same is true of our arts of land use, our economic arts, which are our arts of living. With these it is once-for-all. We will have no chance to redo our experiments with bad agriculture leading to soil loss. The Appalachian mountains and forests we have destroyed for coal are gone forever. It is now and forevermore too late to use thriftily the first half of the world's supply of petroleum. In the art of living we can only start again with what remains.

As we confront the phenomenon of "peak oil," we are really confronting the end of our customary delusion of "more." Whichever way we turn, from now on, we are going to find a limit beyond which there will be no more. To hit these limits at top speed is not a rational choice. To start slowing down, with the idea of avoiding catastrophe, is a rational choice, and a viable one if we can recover the necessary political sanity. Of course it makes sense to consider alternative energy sources, provided *they* make sense. But also we will have to reexamine

the economic structures of our life, and conform them to the tolerances and limits of our earthly places. Where there is no more, our one choice is to make the most and the best of what we have.

(2006)

NOTES

- 1 *Louisville Courier-Journal*, October 21, 2006.
- 2 Bert Hornback, *The Wisdom in Words* (Louisville: Bellarmine University Press, 2010), 10.
- 3 Marlowe, *The Tragical History of Doctor Faustus*, scene 1, lines 77, 85-86.
- 4 *Ibid.*, scene 3, line 77.
- 5 *Ibid.*, scene 5, lines 123-25.
- 6 *Ibid.*, scene 5, lines 152-53.
- 7 Milton, *Paradise Lost*, bk. 7, lines 119-20.
- 8 *Ibid.*, bk. 7, lines 126-30.
- 9 *Ibid.*, bk. 4, line 75.
- 10 *Ibid.*, bk. 1, line 23.