CHAPTER 7

The Future in a Word

Great ideas come into the world as gently as doves.

—Albert Camus

Dare to be naive.

—Buckminster Fuller

TUCKED INTO THE OPENING pages of 1972's *The Limits to Growth* is a word that was destined for both fame and infamy. This was not the first time the word had been used, nor was this necessarily the defining time. Given the word's ungainliness, its indisputable lack of poetic elegance or euphonious charm, we could marvel that it went on to claim center stage in a global movement, and to prompt such vigorous debate. Its first use had been in the fields of forestry and fisheries; now, it began to apply to the whole World. As time went on it found both champions and enemies in government, business, economics, the environmental movement, the press, the United Nations, and ultimately—maybe this was the best indicator of

its universal reach—among the ranks of large consulting firms. Despite being clearly and meticulously defined, in terms both scientific and social, the word was regularly accused of promoting vagueness, hiding a green political agenda, hiding a pro-business agenda, or attempting to be "all things to all people." Some of its early champions came to abandon it as meaningless; some of its assumed enemies were converted to it as though to a religion. And still the word labored on, in its clumsy but steady way, serving as the political focal point for high-level government commissions, the strategic fulcrum for large corporations, the long-term goal of environmental groups, and the idealistic vision of artists and small journals and tiny villages dedicated to demonstrating a better way of life. All of this transpired over nearly thirty years, while the public was practically oblivious to the quiet revolution forming under its feet and the plans for a new World constellating around this word in a growing network of design schools, research labs, policy institutes, board rooms, government agencies, city halls, retreat centers, and humble vegetable gardens. The word itself, notwithstanding the valiant attempts of many authors and organizations and even public relations professionals to make it part of the common lexicon, refused to attract much attention and remained totally, and modestly, inconspicuous.

The word is: "sustainable."

In *The Limits to Growth,* the word "sustainable" is introduced in the middle of another much-overlooked passage, a paragraph that could be called, "Conclusion Number 2." Conclusion Number 1 spelled out the problem of humanity's runaway exponential growth, which had created the very real possibility of overshoot and collapse, a realization to which the authors had reluctantly come after two years studying a global computer model. That was the bad news. Conclusion Number 2 (which the authors later wished they had listed first) was somewhat more promising:

> 2. It is possible to alter these growth trends and to establish a condition of ecological and economic stability that is sustainable far into the future. The state of global equilibrium could be designed so that the material needs of each person on earth are satisfied and each person has an equal opportunity to realize his individual human potential.

Conclusion Number 2 was essentially like declaring that Utopia was within our reach. But when *Limits* was released in 1972, the World preferred to ignore this promising notion, and attack the message it (mistakenly) read into Conclusion Number 1: Doomsday is at hand. Three decades later, some kind of Doomsday (or Doomdecade) may be sneaking up on us after all, and some kind of Utopia is still very far away—but the word "sustainable" plods on, gaining steam and accelerating uphill like "The Little Engine That Could."

"Sustainable," from the Latin *sustenare* ("to hold up"), means "able to continue indefinitely." In playing with the computer model known as World3, the authors of *Limits* produced scenario after scenario that was *not* sustainable. Either population outpaced production, production outstripped resources, or pollution overwhelmed Nature. In any case, civilization came to a painful and grinding halt. Finding conditions that *were* sustainable—in the World3 computer model, but more importantly in the real World—thus became the name of the game.

Sustainability in the World3 model, or "dynamic equilibrium" in systems language, was attained only when three things happened: technology drastically improved, the population growth rate dropped to zero or less (about two children per woman), and the growth of industrial throughput stabilized. In other words, Growth stops, but Development goes on. The economist Herman Daly has called this condition a "steady state," but of course there's nothing necessarily steady about it except the total numbers. The more important word is "dynamic." Change continues to happen—radical change, in the direction of radical improvement.

The authors of *Limits* were quite specific about the changes that needed to occur to make the lines on their computer-generated charts level off comfortably at sustainability, instead of turning over and plunging downward toward chaos and destruction. They proposed a scenario where population started leveling off in 1975, and the expan-

sion of industrial capital (factories and machines) stabilized by 1990. Industry got 75% more efficient in terms of throughput, and pollution dropped by at least the same amount. The economy moved from *more stuff* to *more value*, reducing the need for raw materials from the Earth while maintaining or improving quality of life. The things people bought were designed better and lasted far longer. Agriculture and food distribution were greatly improved, resulting in an end to poverty.

That scenario worked in World3. But of course, it did not come to pass in the real World—at least, it hasn't yet. Nonetheless, again, *The Limits to Growth* proved prescient.

Today, senior economic planners in Europe, prompted by the work of leading sustainability researchers and the examples of forward-thinking companies, are talking about attaining "Factor Four" efficiencies—the same 75% reductions in the consumption of energy and materials proposed by *Limits*. (Some are even talking about "Factor Ten," or 90% efficiency gains.) A few countries and many corporations have begun to set, and attain, goals for pollution reduction that in some areas surpass the 75% figure used in World3. The use of wind, solar, hydrogen fuel cells, and other clean forms of energy is on the verge of taking off, to the point where even oil companies envision them replacing our reliance on fossil fuels. Economic growth—meaning, growth in the dollar value of what happens in the economy—is rapidly shifting not just to services, but to *information*, which is even less materials-intensive than services. Information can reduce material flows in other ways, too, as industries learn how to use less and recycle more. Organic farming is now the fastest-growing segment of agriculture in the industrialized parts of the World, and while persistent poverty and hunger are still widespread, the goal of improving distribution to the neediest is increasingly recognized. In some areas, consumer products show signs of becoming much more durable—if not directly in terms of their life spans, then indirectly, by means of utilizing materials that are more recyclable. None of these changes can yet be described as standard practice, but all have long since breached the boundary between theory and reality. These are the early signs of a new World in the making.

But we are getting ahead of ourselves. We were talking about a word.

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Seattle, Washington
March 1991

Today is the third meeting of the group that is starting to call itself "Sustainable Seattle." I've arrived early to arrange the chairs in a circle, to place a printed agenda carefully on each one, and generally to "warm up the room"—I'm a bit obsessive that way as a facilitator. It's a delicate process, forming a group, and I want everything to feel exactly right.

New friends and colleagues including Richard Conlin, Vicki Robin, and Nea Carroll start to arrive. Richard, Nea, and I will soon become the "co-administrators" of the group, and Richard, who runs environmental programs for the YMCA, will some years later get himself elected to City Council. Vicki will co-author the best-selling book, Your Money or Your Life. *Working together on this project will end up creating fast friendships, newspaper headlines, and ultimately global waves. But today, of course, we don't know any of this.*

Instead, we're concerned with definitions. The group that is gathering around this word "sustainable" is unusual: it includes representatives from the Mayor's office, Boeing, the Audubon Society, the Chamber of Commerce, social welfare groups, and others. We're not used to working together, and we're struggling to come to consensus about what we're actually discussing.

It will be a few more months before we find a definition of sustainability we can all live with: "long-term cultural, economic, and environmental health and vitality." The key word is "long-term." The other three main elements (culture, economics, the environment) will be in alphabetical order, to prevent the impression of bias in any one direction. The more dynamic word "vitality" will be added by the business caucus.

And after about six months of debating words and concepts, two changes will have occurred: one, we'll trust each other more, and two, we'll

be sick of talking in the abstract. Instead, we'll launch an ambitious project to create a set of indicators for sustainability—a kind of instrument panel, or report card, measuring in very concrete terms whether the city is moving toward long-term health or away from it.

Our report on indicators will link together the fate of endangered salmon, children in poverty, an economic base that is still overly dependent on Boeing for jobs. We'll have fun with this, too, bringing together people from all over the city, doing dramatic readings, throwing parties, giving out awards made of recycled materials. Over the next several years, the Sustainable Seattle "Indicators of Sustainable Community" will get talked about at international conferences, win a United Nations award, and become a model for hundreds of other projects.

But of course, that's all in the future, and completely unsuspected. For now, there's just this ring of chairs, waiting.

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Definitions of "sustainable" abound. In *Beyond the Limits*, the sequel to *The Limits to Growth*, the authors provide five different and complementary versions. The first is both simple and sufficient: "A sustainable society is one that can persist over generations." A society headed for overshoot and collapse is therefore, by definition, unsustainable. Either it survives, or it doesn't. But no society persists forever, just as not even the healthiest person can live forever. Sustainability is therefore an ideal, like health. (Internet joke: "Health is merely the slowest possible rate at which one can die.") There is perfect sustainability, and then there are an infinite number of lesser states that are closer to it or farther away from it. The goal of every society, whether they say it directly or not, is to be as sustainable as possible. The alternatives to sustainability—sudden chaos, rapid or gradual collapse, or slow decay—are unattractive, but that hasn't stopped numerous defunct societies from choosing them.

So, first we acknowledge that sustainability is an ideal, like truth, justice, freedom, democracy, and love. We never completely reach our ideals, but we strive *toward* them—and striving toward them is what defines us as a culture.

Further definitions of sustainability help us by describing the conditions, qualities, and goals associated with achieving this ideal in today's World. In *Beyond the Limits*, Meadows and company defer to economist Herman Daly, who sets three irrefutable conditions for a society's multi-generational survival, which I will reformulate for the sake of succinctness:

THREE CONDITIONS FOR SOCIETY'S SURVIVAL

Condition One. You can't use up renewable resources (such as water, fish, trees) any faster than they actually replenish themselves. Otherwise they run out. (While this principle sounds obvious, humanity consistently ignores it.)

Condition Two. If you are using stuff that will someday run out, and you depend on it utterly for basic necessities including food, water, and energy, you had better be investing some of that *non*renewable stuff into the development of *renewable* stuff that can someday replace it. Fossil fuels fall into this category: long before the oil runs out, better spend a little of that oil on building solar-panel factories.

Condition Three. You cannot dump garbage—whether it's old cars or used chemicals—into Nature any faster than Nature can absorb this refuse without going haywire. For some types of garbage (for instance plutonium, or certain chemicals that act like hormones in the body and cause, even in small quantities, strange malformations of the penis and other unpleasant surprises), that means no dumping at all.

If, in the management of your society, you were to follow these three conditions to the letter, you would achieve *physical* sustainability. But that would not prevent you from organizing your society in some stupid or politically insane ways, so other definers of the word are careful to include the social dimension. Meadows et al. describe a sustainable

society as "one that is far-seeing enough, flexible enough, and wise enough not to undermine either its physical *or its social* systems of support." (Italics added.) With the introduction of foresight, flexibility, and wisdom, our sense of the term has expanded beyond the physical to encompass, as a requirement for collapse-free living, some of our finer human qualities. The addition of social systems takes into account that a society without functioning families, schools, and governments is not likely to persist over the long term either, even if all its power comes from solar energy systems.

But that still leaves out morality. Theoretically, you could have an ecologically correct, smart, far-seeing, socially stable society that was also a brutal fascist dictatorship that controlled population by capriciously executing its citizens. While that might be "sustainable" in the purely physical sense, it is hardly worthy of association with the idealism associated with this term. Something more is needed to make the definition complete.

Enter the World Commission on Environment and Development, whose 1987 book *Our Common Future* included a definition of "sustainability" that remains, today, the most widely used and least thoroughly understood formulation on the planet. For poverty to be alleviated, noted the Brundtland Commission (its official nickname), economic development must continue. But we must have a new, nondestructive variety, which they called *sustainable* development, meaning development that "meets the needs of the present without compromising the ability of future generations to meet their own needs." Here we incorporate ethics. It is not enough simply to avoid overshoot and collapse by any means necessary; we must do so while feeding the poor, caring for the sick, and meeting contemporary standards of justice, compassion, and fair play.

But here also is where some perplexing opportunities for vagueness come in. The vagueness gathers not around the word "sustainable," but around the concept of *needs*. What are "the needs of the present"? Lack of clarity on this point has encouraged many companies, governments, and consultants to jump on the sustainability bandwagon without fully considering the challenges this really entails. What stops us

from categorizing Bill Gates's mansion as a "need"? What makes genetically engineered food a "need"? Clearly too much room is left for confusion; we need another sorting mechanism. *Beyond the Limits* offers yet another definition, one that forces us toward intellectual honesty by grounding us in the discipline of system dynamics:

> From a systems point of view a sustainable society is one that has in place informational, social, and institutional mechanisms to keep in check the positive [i.e., *trend-reinforcing*, as opposed to trend-reducing] feedback loops that cause exponential population and capital growth. [Capital = "stuff," like cars, factories, and Bill Gates's mansion.] That means that birth rates roughly equal death rates, and investment rates roughly equal depreciation rates, unless and until technical changes and social decisions justify a considered and controlled change in the levels of population or capital. In order to be socially sustainable the combination of population, capital, and technology in the society would have to be configured so that the material living standard is adequate and secure for everyone.

Translation: Do the math. Numbers are the great antidote to vagueness. No matter how you spin the term, sustainability requires that the number of people, and the quantities of stuff they use up and discard, cease their increase. Growth of material consumption must stop, and eventually go down, which means our technologies must be redesigned so that they are vastly more efficient and do no damage to society or the environment. Nature's critical stocks cannot be drawn down to zero, any more than you can keep driving a car with no gas in it. Nor can increasing amounts of garbage flow out from society forever. And we need some way of getting feedback on these trends—that is, a greatly improved system of indicators—together with new social and political methods for turning down the volume on those signals that seem to encourage humanity's lemming-like stampede over the cliffs of history.

The conditions for sustainability are measurable, and measuring them makes you honest about what is sustainable and what is not. Moreover, the phrase "adequate and secure" puts everything through

two more filters: (1) Does everyone have enough? and (2) Are we in any obvious danger of destroying ourselves? Considering the *security* of our creations would ultimately eliminate technologies such as nuclear weapons, and would make us far more cautious about what we do to the DNA of the life-forms that surround us. The burden of proof would not be on society, as it often is now, to demonstrate that a new technology is *not* safe, usually after it has been released to the four winds. Instead, it would be up to the producer to establish, to the best of current knowledge, that it *is* safe. Food crops with so-called "terminator genes," which prevent genetically engineered plants from reproducing (not a trait one would want wild plants to "catch"), would surely not make the cut.

Those are the absolutes; now come the qualifiers. "No Growth" doesn't actually mean *no* Growth. There would certainly be fluctuations up and down. (For example, some European nations have, today, achieved slow or even *negative* population growth rates, and are beginning to consider ways of modestly nudging growth up again.) There could also be purposeful and harmless expansions, made possible by new technology. But society "would use material growth as a considered tool, not a perpetual mandate." At the same time, Development—*qualitative* improvement in humanity's technologies, way of life, patterns of governance, economic systems, creative expression, you-name-it—would bloom. (Indeed, I argue in the final chapter that it *must* bloom, in a rather accelerated and profitable fashion, for collapse to be avoided.)

And remember, we are not talking here about a dull, earnest, melancholy, hair-shirt kind of existence, where everyone wears identical tunics and gives thanks for their daily servings of gruel, content with the knowledge that Nature has been protected and the Collective equitably served. A sustainable World, properly understood, is not only an abundant World: it is a wildly diverse and *fascinating* World. This is a World spilling over with opportunities for personal advancement, business development, creative expression, exploration of the unknown. Sustainability is beautiful and reasonable and profitable, all at once. Sustainable solutions come in every imaginable shape and size, reflect

every cultural variation, make possible the highest aspirations of individual human beings. Sustainability itself is not Utopia, but something much more realistic and more interesting: it is the process of trying to approach Utopia from a thousand different directions.

Obviously, at this point in history, little in our industrial societies comes anywhere near the brilliance of true sustainability. But there are examples to which we can point, strategies to pursue, visions to encourage. It's hard to visualize a sustainable society because, as the authors of *Beyond the Limits* admit, "it could hardly be more different from the one in which most people now live." The "collective human imagination," they acknowledge, is too strongly imprinted with the million-year history of human poverty, followed by the relatively sudden splendor of our recent, rapid expansion. Despite the size of the crowd we have already become, we are still responding to what Elias Canetti called "the desire to be MORE."

We can dream of a World where Growth is no longer necessary, where a new conception of Development has reinvented all our systems in ways that are beautiful, intelligent, and environmentally benign. It may be hard to describe this dream in detail. But when someone has made a tangible step in the direction of sustainability, we recognize it when we see it.

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San Diego, California
February 1999

For what may be nearing the hundredth time, I am doing a presentation on indicators of sustainability. Little did I know, when I laid out the agendas for the third meeting of Sustainable Seattle back in 1991, that my volunteer passion would take me around the World and become part of my career.

My bizarre passion for indicators, I now realize, was born out of reading The Limits to Growth *many years earlier. How can society change course if it's not getting the right feedback? We need better measures of progress, to compete for our attention with the Dow Jones Industrial Average and the Gross Domestic Product. We need to get Nature's feedback sig-*

nals faster, and likewise the signals from our own children, our own streets. Apparently a lot of other people share that belief, because I've been asked to give this presentation all over the World.

This one is helping to kick off the latest grandchild of Sustainable Seattle, a project sponsored by the San Diego Natural History Museum. I'm not bored; for me, this is a performance. I throw in jokes, I surprise the crowd with songs, I pretend I'm a talk-show host—and somehow manage to maintain my profile as an expert talking about data, measurement, and public accountability. I explain that the process *of creating indicators is almost more important than the indicators themselves, because of the way the process brings people together and changes their perceptions. Consulting to groups like this is a living, as they say; but it's also a lot more than that.*

For one thing, doing this work brings me to places like this amazing building, headquarters for San Diego's Environmental Services Division. It's a retrofit, which means that it's not a new building, but rebuilt from the inside. It's state-of-the-art sustainability. I had no idea the U.S. mainstream had come this far along, this fast.

I'm working the crowd on a handsome carpet made from recycled soft-drink bottles. In a creative new arrangement, the city doesn't actually own the carpet, but leases it, from a company called Interface. Interface, instead of selling its customers physical carpet, provides "the service of carpeting"; when pieces wear out, Interface replaces them. The city saves money, and the company turns the used materials back into new carpet, at a profit.

The windows, electric lights, heating, and air conditioning have all been redesigned to be so efficient that the building spends two-thirds less on electricity than an identical building right next door. In fact, during our meeting this afternoon, the Director received an "Energy Star" plaque in the mail from the U.S. Department of Energy, the very first building in the country to win that certification.

Everywhere you look you see some lovely and functioning innovation—light switches that turn themselves off, ceiling tiles constructed of stuff that was formerly something else, even the dividers in the men's urinal are made of recycled plastic, in a nice burgundy. Out back are several kinds of composting systems, including my personal favorite, a worm bin. The

knowledge that little red worms are eating the scraps from today's lunch tables, and turning garbage into fantastic topsoil, just delights me.

I imagine every building in America being redone like this one, and better: great aesthetics, energy from solar modules on the roof, door-to-door service on a hydrogen-fueled mass-transit system . . . I imagine great worm ranches, billions of worms, composting all the uneaten sandwiches in San Diego . . .

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Sustainability is a deceptively simple word for an extremely complex idea. Complexity, to those who have trouble understanding or accepting a new concept, often gets mistaken for vagueness. But sustainability is anything but vague. It is just very challenging, because it is such a radically new way of thinking. Sustainability wraps economics, ecology, social and personal well-being together in one package. It ties the package up with system dynamics, and mails the whole thing decades or even centuries into the future. No wonder it's had a hard time making it to Main Street.

But the complexity—and the polysyllabic extravagance—of the term "sustainability" does not mean that the word should be abandoned. It may take longer, but eventually, this idea will catch on. History is full of examples of new and complex ideas overturning the old order, often against seemingly long odds. An example is democracy. Today, most people throughout the World take it as a given that governments should be elected by the people. But this is a fairly recent idea, and not a simple one (nor is the word particularly beautiful). Before a rudimentary form of democratic government took hold in the late 1700s in the newly formed United States—inspired, in part, by the ancient Greeks and the Iroquois confederacy of nations—democracy was not exactly a household word. Nor was this form of social organization widely understood, accepted, or practiced. Consider the following; the quotes are in the voice of an imaginary courtier in the service of King George III.

PERCEPTIONS OF DEMOCRACY

Democracy was seen as lost to the ancient world. "Only the ancient Greeks could do democracy, and then not too well: don't forget, they kept slaves, imprisoned their women inside the house, and forced Socrates to drink hemlock. Plato called it 'charming' but 'full of variety and disorder.' You want *that*?" (Apparently, we do.)

Democracy was seen as an unattainable ideal. "It might be a noble and Utopian sentiment to believe in representative government, but as far as the real world of politics is concerned, democracy is for dreamers." (Exactly.)

Democracy was considered too complicated. "It's so much simpler to have the mandate of heaven resting with one person, and royal succession saves us the trouble of having to choose a new leader every time the old one dies. Besides, how would important decisions get made?" (More deliberatively.)

Democracy was considered unworkable in practice. "Voting? By the people, aka, 'the rabble'? You must be kidding. There would be fraud, election-rigging, vote-buying, threats and intimidations, you name it." (Often true, but it hasn't stopped democracy from working.)

Democracy had strong and powerful interest groups allied against it. "If you attempt to revolt and install your precious 'democracy', we will crush you." (Nice try.)

Democracy grew out of the efforts of small groups of social activists. "All this nonsense seems to have gotten started with the publication of a few pamphlets. People seem to be gathering in small groups simply to talk about the idea. What foolishness; where could that possibly lead?" (To transformation.)

Today's examples of democracy are far from perfect. Considering the current state of the art in the United States, country of democracy's modern-day rebirth, the process of self-government is beset with problems and deserving of criticism. But few in the U.S. would argue that today's democracy is not a miraculous advance over the tyrannical monarchy of yesterday. Moreover, democracy in America has steadily improved over time, from the original "one white male property owner, one vote" (in combination with extremely corrupt voting practices) to "one person, one vote." It is sometimes a wild and wacky way to run a nation—Winston Churchill apparently called it "the worst form of government, except for all the others"—but democracy has clearly proven its early critics wrong.

Now, repeat the above exchange in your own mind, replacing the word "democracy" with *sustainability*. Make the skeptical voice that of a hard-line, free-market economist employed by a major oil company—the rough equivalent of yesterday's royal courtier—and rewrite the quotations accordingly. See what I mean? As Yogi Berra said, "It's *déjà vu* all over again."

Just as it has taken some time to work the kinks out of democracy (and that effort is far from finished), sustainability will hardly be perfected, or even perfectly understood, any time soon. This new way of perceiving ourselves, socially as well as politically and economically, faces continuing uphill battles against the forces of inertia, greed, and simple ignorance. Most of the resistance comes, of course, from the mainstream power elite, defenders of the *status quo*, the self-avowed movers and shakers who actually do not want the World to move or to shake, because that might be threatening to their position in society. In the example of the award-winning San Diego city building cited above, the City Council apparently fought against the plan every step of the way—and has yet to acknowledge this extraordinary instance of intelligent, money-saving design right there on its own home turf. (If these city councillors were truly gifted politicians, they would be taking credit for the building by now.)

But sustainability also gets attacked from its left/green flank as well. In an article called "Buzzless Buzzword," no less an environmentalist than Bill McKibben, esteemed author of *The End of Nature*, pronounced the word "doomed" because "it does not refer to anything familiar." He proposed that it be replaced with "maturity," to link it to the cessation of physical growth—and the presumed advent of wisdom and restraint—that we associate with adulthood. Alas, in our youth-obsessed, pizzazz-driven culture, the prospects for galvanizing a transformative social movement around the word "maturity" seem even more daunting.

As a name for the future of our dreams, sustainability may be "the worst word, except for all the others." Like democracy, sustainability has been rudely used and abused; remember that Communist East Germany called itself the "German Democratic Republic." But if perverse misappropriations of idealistic terms are indicators of their symbolic power, sustainability is on the upswing.

Synonyms for "sustainable" in my computer's thesaurus include livable, bearable, passable, tolerable, and sufferable. There are no candidates for a replacement in that bunch, nor are there any credible contenders on the horizon. So it is far too early to abandon the word, and it is also too late: "sustainability" (or its even-less-elegant cousin, "sustainable development") has long since become the global signifier of record, the brass nameplate upon hundreds of doors, agreements, commissions, and initiatives at every level, from the United Nations to the village green. We might as well get used to it.

After all, as many writers have noted, we are "doomed to achieve sustainability" one way or another, at some level of comfort or discomfort, by choice or by Nature's decisive hand. It is far more desirable to attain it by choice, and that means studying it, planning for it, measuring our progress toward it. Choosing sustainability means doing a great deal of education to ensure that everyone understands what sustainability really means, especially those in leadership positions, so that everyone is pulling in the same direction. Failure to do this essential spadework can lead to results that are both comic and tragic.

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Fairfax County, Virginia
Fall 1993

I'm settling into my seat for the opening of a national conference on "sustainable communities." Vice-President Gore has already canceled, and I recognize far too many of the people here—always a bad sign, when you're hoping to expand a movement. But the turnout is pretty good, and a certain buoyant hopefulness hangs in the air.

The welcoming remarks are offered by the president of a local university. He's happy to see us, and reports that he has long been a champion of "community sustainability." He proceeds to tell an illustrative story.

In the mid-1980s, he was deeply involved in economic development for the local county. "We overbuilt," he confesses. The county was in a state of "hypergrowth," and so bonds were passed and roads were constructed and malls were erected to service the new suburban developments. Alas, new residents did not appear, leaving the county with enormous financial problems.

"We learned our lesson," he assures us. I purse my lips and nod my head, waiting for the punchline. But it's not quite what I expect.

"Then, last year, the Disney Corporation announced that they were planning to build their new theme park here in Fairfax County, which they plan to call Disney's America." The new park is supposed to celebrate American history, and draw millions of tourists out of Washington, D.C., together with new residents, businesses, and jobs. This, he expects, will solve the county's financial problems, and usher them into a new era of "sustainable hypergrowth."

He wishes us well and takes his leave, and the stunned crowd politely applauds him on the way out.

Postscript: *The theme park was eventually quashed by public outcry, in part because local citizens felt the installation of a Disney theme park would amount to a "desecration" of the nearby Civil War battlefields.*

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Having said a great deal about what sustainability is, let us consider what it is not.

FIVE CLARIFYING DECLARATIONS OF SUSTAINABILITY

1. ***Sustainability is not environmentalism.*** While the former originally grew out of the latter, "sustainability" and "environmentalism" are now very different causes. Many environmentalists distrust the word "sustainable," while practitioners of sustainability (myself included) sometimes distance themselves from the environmentalist label—not because they don't support green causes, but because activism to protect Nature from the ravages of the economy is different from working to redesign the economy itself. We continue to need a strong (in fact a stronger) environmentalism, setting boundaries and protecting society from some people's unfortunate tendency to try to get away with profiteering at Nature's and society's expense. But for environmentalism's "No" to be effective, there must also be sustainability's "Yes." Environmentalism may have given birth to sustainability, but now the offspring needs to be free to grow and mature, departing at times from some of environmentalism's more strident precepts.

2. Sustainability is not business-as-usual. To call something "sustainable" does not make it so. Let us be clear: achieving sustainability requires nothing less than a massive reorientation of the global economy and much of society as well. Over the next fifty to one hundred years, that means redesigning and rebuilding virtually everything: cities, transportation systems, cars, power plants, engines of all kinds, materials, educational curricula, patterns of work and leisure, consumer expectations, and especially our systems for handling waste. (If not "Worm bins everywhere!", then something just as good.) This is business-as-very-*un*usual, and looked at correctly, this is also the biggest business *opportunity* since the invention of money. This is "unplanned obsolescence" on a global scale: if virtually everything needs to be replaced, repaired, retrofitted, or redesigned, that should translate to millions of new jobs and billions in potential profits (and ultimately planned non-obsolescence).

3. Sustainability is not against economic growth. *Au contraire.* Remember, *economic* growth is measured in *money* (via the GDP). Growth in *money* is not the problem; the problem is Growth, measured in numbers of *people* consuming increasing amounts of *stuff*. A World that is very busy recapturing materials out of the waste stream, replacing and recycling its cars into beautiful hydrogen-powered "Hypercars," retrofitting its buildings with the latest materials and technologies, and continuing to generate more and more economic value by selling *information, wisdom,* and *experience* rather than ever-increasing piles of *stuff*—that World will be making money hand over fist. Its GDP will go through the roof, and for much better reasons than by spending money on the clean-up of oil spills, or on rebuilding after floods, hurricanes, and other climate-change induced disasters (all of which, perversely, currently make the economy look good).

This is the magic of "Development without Growth," which is similar to what the Dutch call "decoupling" (cutting the link between a rising GDP and rising pollution levels). Once you unchain the economy from the shackles of "Growth by consumption and pollution," and set it to work on "Development by learning, improving, rebuilding," only the sky is the limit—and probably not even that, for long. (Flashforward to the future: "Scientists from Moon Colony today released a controversial new report called 'The Limits to Lunar Growth' . . .")

4. Sustainability is neither a religion nor an ideology. Thank the World's various deities for the people who live simply and cultivate non-consumerist lifestyles. Most of them, of course, are in Third World villages; their simplicity is not by choice. But those in the industrialized part of the World who embrace "voluntary

simplicity" have set an important and paradigm-busting example: they prove that you don't have to enter the rat race to be happy; that you have more control over your financial life than you realize; and that it's possible to live more sustainably *right now*, without waiting for society and technology to catch up to you. They also set a *moral* example, because while sustainability may be the profitable choice, it is also the *right* choice.

But voluntary simplicity is not everyone's cup of herbal tea, and some people take genuine pleasure—as opposed to the ungenuine kind, induced by the ubiquitous mind-control devices known as "ads"—in shopping. Embracing sustainability does not require a vow of poverty, or a promise to shop only in second-hand stores. If everyone did that, it would be hard to find really great stuff at really low prices. Nor does sustainability require adherence to a creed: "I believe in the coming overshoot and collapse . . ."

Sustainability is the most practical choice for solving some rather disquieting problems. It is also very adaptable. Embrace it in whatever way works for you: as a lifestyle choice, as a business opportunity, or even, if you like, as a religious commitment. That's what freedom of religion is all about.

5. Sustainability is not the end of history. Even sustainability, in the real World, is not forever. Nor is it the final word. Success at sustainability leads not to societal immortality, but to societal *transformation*. Learning how to manage the World in a more elegant and intelligent way is merely the next step on the evolutionary ladder for sentient species like us, who have overrun their respective planets. Similar situations might be as common as dandelions on planets throughout the known (and unknown) universe.

We have no idea what phase in the evolution of conscious organisms comes after sustainability. But it would certainly be nice to give our descendants a chance to find out.

CHAPTER 8

The Proof of the Possible

I believe it to be perfectly possible for an individual to adopt the way of life of the future . . . without having to wait for others to do so.

—MOHANDAS K. GANDHI

Anything that exists is possible.

—KENNETH BOULDING

IMAGINE A VILLAGE WHERE people enjoy all the benefits of modern technology, but create few of the usual problems . . . where virtually all of the energy comes from the Sun, the wind, human exercise, and other clean and creative sources . . . where people of differing languages and ethnicities live together harmoniously, while maintaining their distinct cultures . . . where the once-barren landscape is now growing lush forests, out of which come a steady stream of high-value and renewable products . . . where even the seesaws in the children's playground are disguises for elegant water