Timeline

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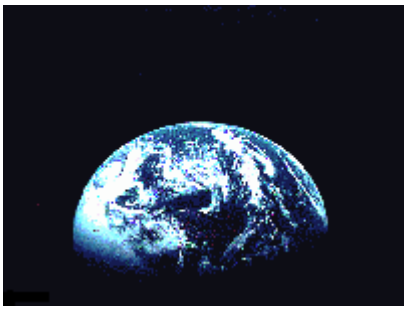

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What the People Want

by Mac Lawrence

We vote them into office to represent us. We even call them "Representatives." But do our elected government officials do what we want? Or know what we want? Or even care what we want?

Alan Kay, a wealthy, retired businessman, felt that most polls did not accurately reflect the American public's opinion on significant public issues. He also believed that the country would be better off if its leaders knew what the people thought and wanted. So Kay decided to spend his own money —millions, in fact—extensively polling people for their views on a wide array of subjects from military spending to U.S. policy in Central America, from health care to the welfare system. Kay reports his findings in a 400-page, self-published book, *Locating Consensus for Democracy: A Ten-Year U.S. Experiment.*

Getting accurate information, it turns out, is fraught with complexities and nuances. The pollster must be neutral on the subject, so Kay included Democrats and Republicans for polls on political matters. Questions needed careful wording, so Kay tried variations, often with slight word changes. To give the person answering the questions adequate background information, Kay included in the questions arguments pro and con. He made sure that people who answered "don't know" were questioned further to bring the "DKs" to a minimum (don't trust any survey with 10 percent DKs, he advises). It's an expensive, time-consuming job, but worth it, Kay says, because the results accurately reflect what the public thinks.

At the end of ten years of polling, covering 61 public issues, Kay concluded: "This massive project produced overwhelming evidence that the legislation and policy choices most supported by American citizens are stable, consistent, pragmatic, principled and, on issue after issue, startlingly at odds with the views of national leaders." Some of these conclusions surprised and impressed Kay himself, who said they turned him from "a pretty good elitist" into a "deep populist."

That was hardly the response of our country's leaders, reports Kay. "Gingrich, Bush, Gephardt, Gore, Clinton, Perot, and virtually all of Congress and the mainstream news media, just turned away. They did not want to know that the reasonable preference of supermajorities (67+%) of Americans differs from the desires of one or another special interest that officials across the political spectrum routinely enact into law."

Kay had hoped that his "high-quality, bipartisan, in-depth, large-sample telephone surveys" would be seen by lawmakers as an improvement over the typical surveys politicians now do which too often are used to sell a certain course of action rather find out what the people want. We all receive such surveys in our incoming mail containing questions like the one Kay uses in his book as an extreme example: "Do you agree with Senator Foghorn that vicious criminals should serve their full sentences and not

be released from prison after serving only a few months to continue raping and murdering innocent children playing in school yards?" Hardly the kind of question that invites a thoughtful response on a complex subject.

Kay's long-range plan was to foster the idea of a Congressional Office of Public Opinion Research and Assessment (COPORA), using his already completed polls as a model. His data indicated wide-spread support for the idea by the public, but during several years of talking with members of Congress and their aides, his COPORA idea got less than 4 percent support from senators and members of the House.

Kay describes his interactions with Congress, as "poignant, quixotic, sad, amusing, frustrating, and sometimes surprisingly different from one to the next. It led to a clearer understanding of where Congress is, how it arrived at this condition, and what is going on now." He learned a lot about how Congress works, how much time individual Congress members spend on long-term issues (the urgent takes priority over the important), how they make voting decisions (is it how they personally feel? or what they believe their constituents want? or in line with the special interests who fund their campaigns? or to show their independence?), and how they see themselves (allocators of funds rather than adjudicators).

Though Congressional reaction was disappointing, Kay says he learned enough from the experience to be guardedly optimistic that "people can still turn our democracy around and save it." He believes COPORA is the right process to produce timely democratic consensus on policies and legislation, but acknowledges that whatever the process, it must have the approval of two key groups. One is the public; the other is "the elites who study this kind of problem or whose careers are enmeshed in it, including political scientists, scholars, elected officials, and editorial writers. Without their approval, the process might never be considered seriously. Without the approval of the general population, democracy is lost."

At the end of his book, Kay quotes the noted pollster George Gallup, Jr. "Listening to the public is a healthy exercise. Public opinion is certainly not infallible, but when the people have enough information about alternative policies and the reasons behind each, they usually have the good sense to pick the best. In any event, where people feel that their important interests are at stake, they will insist on the right to participate in policy decisions. It is extremely important that our foreign and domestic policy leaders understand this necessity, take pains to inform people accurately, and give due weight to their views. This may add to the difficulty of policy making, but in no other way can we achieve wisdom and steadiness in the policies of the nation."

But—Can We Be Adequately Informed?

by Mac Lawrence

Alan Kay states the case (see page 1) that a well-informed citizenry will make the right decisions. But how well informed are we? What are our sources of information? How do we know what we hear, read, and see is not influenced, perhaps even fabricated, by someone who is biased?

An article in *The Sun*, titled "War on Truth: The Secret Battle for the American Mind," paints an ominous picture of where much of our information comes from. The article begins with a quote from Australian academic Alex Carey: "The 20th century has been characterized by three developments of great political importance: the growth of democracy, the growth of corporate power, and the growth of corporate propaganda as a means of protecting corporate power against democracy."

The remainder of the article is an interview with John Stauber, editor of the journal *PR Watch* and author of *Toxic Sludge is Good for You: Lies, Damn Lies, and the Public Relations Industry*. Stauber claims that virtually everything we read, see, and hear on the issues we care about is managed by corporate spin artists. "In order to confuse the public and manipulate opinion and policy to their advantage," Stauber says, "corporations spend billions of dollars a year, hiring public relations firms to cultivate the press, discredit their critics, spy on and co-opt citizens' groups, and use polls to find out what images and messages will resonate with target audiences."

Public Relations (PR) firms, Stauber says, are numerous, secretive, influential, politically connected, and have virtually limitless budgets. He reports that one, Burson-Marsteller, has a PR staff of 2100 in more than 30 countries, and claims a quarter of a billion dollars in net fees from its clients, which include not only many Fortune 500 companies, but governments as well. Stauber quotes Burson-Marsteller as saying: "The role of communications is to manage perceptions which motivate behaviors that create business results."

How do PR firms do it? Half of what we read about corporations, Stauber notes, actually originates from a PR firm. "If you're a lazy journalist, editor, or news director, it's easy to simply regurgitate the dozens of press releases and stories that come in every day for free from the PR people, many of them former reporters who cultivate relationships with the press, and control the press' access to key corporate people."

Though admitting that much of what public relations people do is helpful, Stauber worries that "public relations has become a huge, powerful, hidden medium available only to wealthy individuals, big corporations, governments, and government agencies because of its high cost. And the purpose of these campaigns is not to facilitate democracy or promote social good, but to increase power and profitability for the clients paying the bills."

In the interview conducted by Derrick Jensen, an editor with *The Sun*, Stauber

explains how PR firms use scientists to make their messages believable, how they use polls to market products like cigarettes and come up with product names the public doesn't find offensive (like substituting the name "bovine somatotropin" for the scary term "bovine growth hormone"), and how they cooperate with reporters on the basis of whether the reporter's stories are favorable or unfavorable to their clients. Stauber describes divide-and-conquer strategies for defeating social-change movements, such as hiring and paying large fees to "so-called activists" to work against the public interest, and the use of phony research for such objectives as proving that cigarette smoking doesn't cause cancer. He points to industry-funded groups with misleading names like the Global Climate Coalition which, he says, claims global warming is a myth; the Workplace Health & Safety Council which opposes regulations aimed at strengthening worker safeguards; and the National Wetlands Coalition composed mainly of oil drillers, developers, and natural gas companies. "Managing the outrage is more important than managing the hazard" is the single most important rule of public relations, Stauber says.

Stauber includes other quotes, such as this one from Edward Bernays, the man who is reported to have coined the term public relations: "If we understand the mechanisms and motives of the group mind, it is now possible to control and regiment the masses according to our will without them knowing it." Bernays called this process the "engineering of consent," describing its practitioners as "an invisible government which is the true ruling power of our country."

Of course, not every bit of information we get comes from those who are trying to "control and regiment the masses." But it makes sense that everything we read, hear, or see has some bias to it, however slight, because it is originated or processed by some individual or some group. So, what to conclude from Stauber's message? Continue to take things with a grain of salt, look behind the scenes, and read the morning newspaper with care.

We Call Ourselves Sapiens, Wise—But Are We?

by Michael Abkin

I had come home from work recently and was going through the mail when I came across a newsletter reporting that three participants at the 1998 State of the World Forum, which I attended, had met violent deaths.

I remembered having read the news reports soon after it happened:

Three Americans kidnapped and murdered in the jungles of Venezuela, near the Colombian border. The leader of the Colombian guerrillas said it was a mistake, that his men were not authorized to take those people, that the kidnappers panicked as one captive was dying of a spider bite—and so killed them all. A mistake.

But I must have merely scanned the article at the time. Didn't even register the victims' names. Probably just clucked my tongue, muttered something like, "Geez, not again. Will it ever end?" and went on to other stories.

This time the names registered: Terence Freitas, Ingrid Washinawatok, and Lahe'ena'e Gay.

The world went gray. Lahe Gay (of Hawaiian, Mohawk, and Scottish descent) was leader of Pacific Cultural Conservancy International, whose mission is to preserve human cultures and communities, particularly indigenous ones, that are in danger of extinction. She and her companions were in Colombia on that very mission.

I had sat at the same lunch table with Lahe at the Forum. We were in the same discussion groups. She electrified nearly 200 people gathered from all over the world when, beginning with a chant, she shared simple Native American wisdom about how to bring diverse points of view together into an effective dialogue. This wisdom was much needed, for at that point the session was in danger of dissolving into separate agendas. We all listened to her passionate plea and took heed—and thus she salvaged the meeting. At the close of the three-day gathering, her hair brushed my cheek as we hugged farewell.

I have never before known someone who met a violent end. The inevitable questions: Why? Why her? Why anyone? Why the violence?

The emotions and thoughts about this and subsequent events in the world have led me to see similar patterns in our response to seemingly unrelated issues—patterns that suggest some of the answers to these questions lie right before our eyes. Or rather behind them, inside our heads, as we have learned from recent scientific discoveries about the evolution of the brain.

THE AMYGDALA AND THE NEOCORTEX

Deep within our brains resides one of its smallest and most primitive parts, one that saves our skins when we are threatened by sudden, violent attack from a lion, shark, mugger, or other natural or unnatural predator. The amygdala, as it is called because of its almond shape, evolved with the first mammals, about 200 million years ago, as part of the brain's limbic system. It serves as a memory bank of emotions and corresponding responses—reactive, reflexive emotions, from craving and lust to fear and anger.

Later, about 100 million years ago, the neocortex began to emerge. The neocortex gives us our ability to analyze, evaluate, innovate, and choose. These more advanced functions, however, take time, time we may not have when faced with imminent danger. The more primitive amygdala, on the other hand, has the ability to short circuit pathways through the neocortex and reflexively trigger evasive or combative responses.

When confronted by a charging bull or automobile, a split-second amygdala response can enhance the chances for survival. But in the more subtly nuanced crises of our neocortex-created social systems, such gut responses can cause us

more harm than good. For example, all too often, our responses to such scourges as terrorism, drugs, disease, and pests are overwhelmingly reactive rather than proactive, and weighted toward interdiction rather than prevention. It's the primitive "fight or flight" response. Even our metaphors are militaristic and defensive: War on drugs! Combat terrorism! Fight disease! Exterminate pests!

CASE 1: TERRORISM

The lion's share of our anti-terrorism resources goes to interdiction, a police or military response. It's easy; it's what we know how to do; it satisfies our primal survival instincts.

Consider security screening systems. Billions are spent developing and deploying "Star Wars" technologies and increasingly restricting the basic freedoms of all to stop the few from introducing weapons and explosives into airplanes, public buildings, or classrooms. Our airports, government offices, concert halls, and even our schools are becoming fortified bunkers—often with their own police departments (yes, schools, too).

Where will it stop? When will we realize the futility of the primitive response and how much it is costing us, not only in dollars but in the very liberties it is intended to protect? As well as it worked for us in the wild, maybe it just doesn't work in modern human systems.

In the short run, such measures may be necessary and even to some extent effective. In the long run, however, they are doomed to failure. Because as long as there are people who choose to carry out acts of terrorism, they will find a way to circumvent the systems we put in place to protect us. We will forever have to invest billions upon billions to stay one step ahead of, or more likely behind, the terrorists. The only way to eradicate terrorism is not to stop terrorists but to stop people from feeling the need to become terrorists. How much are we spending on that?

It's not that I don't believe there is evil in the world. I do, but I don't believe that evil is inevitable. That is, terrorists are born, but they are not born terrorists. Whether in Beirut, Rwanda, Oklahoma City, the Balkans, or Littleton, babies do not come equipped with trench coats, ski masks, camouflage fatigues, swastikas, or semi-automatic weapons. Babies are not born disaffected, alienated, angry, desperate. What turns babies into terrorists? What gives them the strength of will to coldly lash out at their fellow human beings, whether for political ends or merely out of blind rage and frustration?

If we can answer these questions, maybe then we will learn a new response, and store that in our quick-reaction amygdala. And we can because we have. It's called prevention. Children in school are learning and practicing emotional intelligence and conflict resolution. Informal personal dialogues are taking place between peoples of warring nations and tribes. We know from experience that prevention works and is even cost effective in the long run. And therein lies the hope.

CASE 2: DRUGS

We can continue forever spending billions to burn down the forests and farms of Colombia, send the Coast Guard and Navy out to patrol our coastal waters, and build more and more jails to house drug dealers and users. But the problem will not go away. Not that way. As long as someone wants drugs, there will be someone to supply them. Our national experiment with prohibition of alcohol didn't work. In fact, it did much to foster organized crime in this country.

Users and pushers will find a way to get together. No doubt about it. Yet, if no one wanted drugs, suppliers would find another line of work. Just a billion or two on counseling and drug treatment programs can go a long way to eliminating the demand. We know from experience that these programs work and are even cost effective. Look at Alcoholics Anonymous, Synanon, and the anti-tobacco label warnings and ad campaigns. And therein lies the hope.

CASE 3: DISEASE

Bacteria are part of our world, and our bodies have evolved mechanisms to live with them naturally in a win-win, symbiotic cohabitation. Actually, we are part of *their* world—after all, they are much more numerous and were the first life forms to emerge on Earth.

Know-it-all newcomers that we are, and not trusting our natural systems, we spend billions in our research labs and drug companies developing antibiotics to "protect" us. But the bacteria, time and time again, laugh at our hubris, mutate, and render our billions impotent.

Of course, some diseases are seriously endangering, and such treatment is necessary in the short term. But, from a larger perspective, what would happen if we spent a billion or two on wellness programs, on research into mind-body feedback loops, on holistic medicine, on enhancing the strength and vitality of the natural systems of our bodies? Indeed, there is statistical evidence that approaches such as these work and are cost effective, as health insurers are increasingly acknowledging. And therein lies the hope. Our neocortex knows these responses work, but we continue to act out of our amygdala, which is still in the dark.

AND SO ON

We try to exterminate agricultural "pests" (our name for them; they weren't created thus) with poisons that end up poisoning our environment and us, while they merrily go about evolving resistances. We already know in what direction the hope lies: organic farming, biointensive agriculture, and the like. Will we choose to go there?

We try to stop illegal immigration by putting up walls at our borders, chasing desperate people across the desert, and denying innocent children health care and education, thus setting them up for disaffection, alienation, anger, more despair.

The list goes on and on.

Terrorists, drug dealers, bacteria, pests, illegal immigrants. Killing them or putting up barriers cannot possibly succeed as the sole or even primary

strategy—whether in an American high school, the California desert, a genetics research laboratory, or a South American jungle.

It's not as if there were no successful models out there. I've cited a few here. And they don't all require expensive government programs. In fact, the compassionate, more thoughtful approaches often require fewer resources. And it's not a choice of either interdiction or prevention. Any real solution has to be both. So far, though, our response has been primarily the primitive, militaristic one. It's time to use the rest of our brain. It's time to live up to the name we have given ourselves—and truly be wise.

Michael Abkin is a systems analyst and a volunteer at the Foundation for Global Community.

The Edible Schoolyard

An interview with Alice Waters

Alice Waters is an internationally known chef, author, and proprietor of Chez Panisse restaurant in Berkeley, California. She designed an Edible Schoolyard program at a local middle school that involves children in planting, gardening, harvesting, cooking, and eating together. Her goal is to instill a sense of the vital relationship of food to their lives, while teaching respect for each other and the planet. She is featured in the Foundation for Global Community's latest television program, The Living Earth. *In an interview for the program, Waters talked about the Edible Schoolyard.*

How did the Edible Schoolyard come about?

I pass by Martin Luther King Jr. Middle School every day on my way to Chez Panisse, usually very early in the morning and very late at night. I had the impression that it was an abandoned school, and I mentioned this somewhere. As a result, the principal invited me to visit the school.

He wondered if I might want to help make a garden there. He took me on a little tour, and I realized that it wasn't just a garden that was a possibility. There was an abandoned cafeteria space that hadn't been used for 17 years—the kids ate at a fast food concession stand at the back of the schoolyard. When I went into this old room, it felt like a fantastic restaurant site! It was built in 1921 and still had all of the old cabinets and big tables. I thought if we just cleaned it up and painted it, we could make it into a place for the kids to cook.

There are a lot of schools with gardens, and a lot of schools that cook food, but I wanted to put them together. I think it's not just important to have a garden, but to grow the food, to cook the food, and to eat the food together—that is the transformational experience. I wanted kids to really understand the relationship of the earth to the table. It took Mr. Smith, the principal, about nine months to figure out how to convince the rest of the staff that this was a good idea. But then he called me back, and the idea of the Edible Schoolyard was born.

The first summer, the kids came and I brought the lunches. I thought, "I have to bring them something they'll all like. I'll make my own little handmade burritos and tortillas and beans." I brought that down, and also some peaches—and they didn't want it! They wanted the tacos that they were familiar with. The peach had *fuzz* on it, and they wouldn't touch it. I was really shocked by that. By the end of that summer, they were eating the bitter lettuces out of the garden. I learned that when kids get involved with the planting, the growing of the food, and the preparing of it, then they have a desire to eat it. I'm very excited about the results of the program so far.

How do the classes work?

We continue to work on the integration of the curriculum. The science and math teachers bring their kids out in the garden to teach them in that environment. We have a garden teacher who is there full-time, and usually one or two interns that help in the garden, so the classes can break down into small groups. It works very successfully. The same thing happens in the kitchen. They coordinate what they're serving with what the kids are learning in the classroom—in history, for example. It's a different avenue, one that I think is so accessible and appealing to the kids. It brings them into the subject in a very sensual way.

I was extremely pleased when they evaluated all the courses at King school last year. The students choose their top ten of about forty different courses, and we came in number three, after field trips and gym! This is incredibly encouraging. They think it's fun—and at the same time they are learning something very profound. They're learning how to take care of the land for their future. They're learning how to feed themselves. They're learning how to cook, a skill that they'll have for their whole lives. And they're learning how to have pleasure at the table, how to communicate, how to be part of the group and express their ideas. Now I want to be number one!

"Fast food" is the antithesis of what you're talking about.

Yes. Fast food is on the other side of this. We're trying to go into the slow-food movement—like they have in Italy. In Italy they have a slow-food movement, with a little snail as their logo. It's about making time to appreciate what you have around you.

What is your long-term goal?

I have a very big vision about what can happen with this program. I see it as a model for a national curriculum. Actually, it should be an international curriculum, because things are breaking down in countries all around the world. Kids don't understand the relationship of food to culture and food to agriculture. That's what we're trying to teach, just like you learn how to read and write and do arithmetic. You need to learn how to take care of the land. You need to learn how to cook, to feed yourself, and you need to learn how to communicate at the table—because that's where our culture is passed on.

I think the big change is only going to happen when people are educated about these principles. That's why the Edible Schoolyard program is so important to

me. We have to begin at the beginning, with very little kids. This should be a program that starts in pre-school and goes all the way through the universities. The choices that you make about food affect not only the quality of your own life, but the future of the planet.

When did you first begin to think about these principles?

I went to France when I was 19, and lived there for a year, going to school. In fact, I learned some profound things about life that changed my whole way of thinking. It was a kind of sensual awakening. I would go walking through the farmer's market in the morning, smelling things, and looking at the beautiful fruits and vegetables, and watching people shopping and their whole engagement with food—and I loved it. How they took an hour, maybe two hours, for lunch. In the afternoon, people would be sitting in the cafes. And at dinner, you'd find a little restaurant and you'd gather with friends at the table. I felt the French really understood something very important about life.

The ritual of eating?

Yes. Food brings people together. It's not about how fancy it is. It can be a little bowl of soup or a cup of tea. There's just something about the purity of it, and the care that's taken in the preparation. When you're offering to somebody else, you're expressing your love for them, your care about them. It's very satisfying to the person who gives it, and it's very satisfying to the person who receives it.

I started Chez Panisse about 27 years ago and it was really meant to be just a neighborhood cafe. I wanted a place, a little small restaurant like the ones I had known in France. I wanted my friends to come over every night for dinner. I never imagined it would grow into what it has.

Because we had a menu that changed every night, I think I was propelled more quickly into this understanding of ingredients. I had to find something every day and I was really searching. And then we hired a cook who knew a lot of farmers and she became our first forager. That's a position that's terribly important because it's a person who goes out and talks to the farmers. We're looking for people who care about food in the same way—people who have a certain honesty and integrity about what they're doing. That's really what this is about.

Farmers markets are our greatest hope for the future, because they don't just change the way you eat, they change the way you live your life. When I go there, I know that this guy has gotten up very early in the morning and he picked all these things for my pleasure and for my good health. I can talk with him. I have a bond with him. He relies on me, and I rely on him. A sense of community comes from that. I'm always excited to go to a farmers market. I just can't wait to see whether I can find something that I've never had before.

Earlier you used the term "transformational experience."

When I talk about a transformational experience, I mean that eating can change your state of mind. It connects you with all of nature, you discover a

new-found respect and appreciation. When you feel that way about it, it changes your relationship to the people in your life as well, because you see the people who are growing this food for you, who are giving you this life force, in a different way. You realize how important that is, and how important they are to your life. And that's the beginning of a sense of community, a sense of family.

We're meant to connect and to communicate in that way, and everything in the society is going away from that. The reason that I got involved with this project at the school was because I was worried about what was happening out there in the world. I'm worried about our kids. I'm worried about the violence. I'm worried about the way the cities are, the way people live, the lonely lives they live—it seems brutal to me, and going more and more in that direction. The Edible Schoolyard program is an effort to bring the children back into something that is real and part of their everyday life.

Organic Agriculture Works: Come See for Yourself

by Donella Meadows

I guess you must be in favor of pesticides," concluded a Monsanto public relations guy, after I objected to his company's genetically engineered potato.

"I guess it's OK with you if people starve," said a botanist I deeply respect, with whom I've carried out a fervent argument about genetic engineering.

Accusations like these astonish me. I'm an organic farmer. I'm not in favor of pesticides. I've spent decades working to end hunger; it is not OK with me that anyone starves. I believe that my two accusers and I are working toward exactly the same goal—feeding everyone without wrecking the environment. We would all label that goal "sustainable agriculture." But we must be making radically different assumptions about what that goal looks like and how to get there from here.

The idea that if I oppose genetic engineering, I must favor pesticides, arises from an assumption that those are the only two choices. If they were, I would probably agree that it's better to fool with genomes than to spray poisons over the countryside. But I see other choices. Plant many kinds of crops and rotate them, instead of one or two crops year after year, which make a perfect breeding ground for pests. Build up ecosystems above ground and in the soil so natural enemies rise and fall with the pests, searching and destroying with a specificity and safety and elegance that neither chemicals nor engineering can match.

These are pest-control methods based not on chemistry or genetics, but on ecology. They work. I know. I use them. I know dozens of organic farmers who use them. Small scale and large. Northeast, South, Midwest, West. Apples, lettuce, potatoes, strawberries, broccoli, rice, soybeans, wheat, corn.

The claim that we need genetic engineering to feed the hungry must be based on two assumptions: first that more food will actually go to hungry people; second that genetic engineering is the only way to raise more food. I assume, to the contrary, that more food will not help those who can't afford to buy or grow it, especially if it comes from expensive, patented, designer seed.

Furthermore, more food is not needed. We already grow enough to nourish everyone. If just one-third of the grain fed to animals went to humans instead, we would not have 24,000 deaths per day due to hunger. Or if 40 percent post-harvest loss rates in poor countries were reduced. Or if we shared the embarrassing crop surpluses of North America and Europe. Or if we created an economy where everyone had money to buy food or land to grow it—which would solve a lot of other problems, too.

Where, when, or if more food is needed, there are ways to produce it that don't require biotech or chemicals. Folks with an industrial ag mindset assume that organic agriculture would cut yields. Not only is there no evidence for that assumption, there are numerous studies to the contrary. One of the latest appeared in *Nature* last year; its summary opens like this: "In comparison with conventional, high-intensity agricultural methods, 'organic' alternatives can improve soil fertility and have fewer detrimental effects on the environment. These alternatives can also produce equivalent crop yields to conventional methods."

Imagine what yields could be if even one-tenth as much research effort were put into organic farming as has been put into chemicals or genetics.

When I show this evidence to proponents of high-tech farming, when I offer to take them to see organic farms, when I point out that hunger could be ended by sharing food or technologies that raise output without poisoning the earth or invading the genome, I don't think my argument even reaches their auditory nerves, much less their brains. That kind of extreme failure even to hear an argument, much less process it, alerts me that this is not a rational discussion. It is a worldview difference, a paradigm gap, a disagreement about morals and values and identities and fundamental assumptions about the way the world works.

I assume the world works by the laws of ecology and economics and human nature. Ecology says that monocultures breed pests; that chemicals upset soil ecosystems and kill off natural predators; that crops with pesticide in every cell will induce pest resistance; that animals and plants should be grown in close proximity so manure can go back to the soil; and that we haven't the slightest idea what the ecological or evolutionary consequences of genetic engineering will be.

Economics says you can never have a sustainable market if you produce something consumers fear and you hide critical information about how it was produced and what it contains. Because industrial agriculture has violated that law and lost the trust of consumers, the market for organic produce is growing in

America and Europe by 20 to 30 percent per year, even with a price premium; it now totals more than $9 billion.

Human nature says that the more actual producers can own and shape and control land and inputs and seeds and knowledge, the more inventive, adaptive, and equitable agriculture will be.

Acceptance of those laws shapes my vision of sustainable agriculture. I picture healthy ecosystems and healthy human beings working together in thriving, close-knit communities. Farms are small, owner-operated, with what Wes Jackson calls a "high eyes-to-acres ratio," which means they are well managed and high-yielding. Farmers make more use of knowledge and people than of chemicals and seeds they can't breed for themselves. Animals are raised on all farms; there are good reasons why ecosystems don't concentrate all the plants in one place and all the animals in another.

Food is grown everywhere—in cities, in suburbs. The distance from producer to consumer is short, there are fewer super-markets, more farmers markets, less packaging, more freshness. The principle of one of my favorite organic farmers permeates the system: "I'm not growing food, I'm growing health."

To those who do not believe such a vision is possible, I can only say, it exists, it's alive and well and growing, it's even more profitable than the industrial vision, the food tastes better, the work is more pleasurable. I live in this vision. I have friends all over the world who live in it. Come see.

Donella H. Meadows, a systems analyst, author, director of the Sustainability Institute, and adjunct professor of environmental studies at Dartmouth College, writes a syndicated article each week to "present a global view, a connected view, a long-term view, an environmental and compassionate view." Meadows can be reached at Sustainablilty Institute, Box 174, Hartland Four Corners, VT 05049.

More People Trained for the Edge

If you're interested in experiencing the Foundation for Global Community's "Living on the Edge of Evolution" program, chances improved this summer that one may be offered near you by one of 30 newly trained facilitators.

Held at the Foundation's seminar site in Ben Lomond, California, at sessions in June and August, the training consisted of a condensed Edge program (usually a series of two-hour meetings for eight weeks), together with facilitator training. The Edge program examines the culture we live in in the context of the evolutionary story, and how to bring about an appropriate "integral" culture for the coming decades.

This was the second year of the Edge training program. In 1998, 47 people from seven states and Canada met in Ben Lomond to train as facilitators, resulting in a number of Edge programs being offered. This year, 15 of last year's attendees returned to Ben Lomond to

experience and learn to facilitate the second program in the Foundation series. Titled the "Identity Seminar," it explores the personal dimension of issues raised in the Edge program, including the subjects of love, resistance, authority, forgiveness, and working in community.

To learn more about where Living on the Edge of Evolution programs are being offered, or if you have completed the Edge program and want to know more about the Identity Seminar, please contact Amy Beare or Joe Kresse at the Foundation's offices in Palo Alto.

Blips on the Timeline

The term "blip" is often used to describe a point of light on a radar screen. Gathered with the assistance of Research Director Jackie Mathes, here are some recent blips which indicate positive changes toward a global community.

Auto Alternative

For the past nine years, Bremen, Germany, has been encouraging its 550,000 inhabitants to abandon car ownership through a car-sharing scheme that allows them to rent a vehicle quickly and at low cost. Officials believe the combination of car-sharing, bicycle use, and public transport has enabled one third of Bremen's households to dispense with their automobiles. The cars can be rented at 37 locations around the city for a short shopping trip or a weekend excursion. For about $40, a Bremen resident buys a smart card that allows a driver to make reservations and to gain access to the vehicles, with a choice of ten models from subcompacts to vans. The cars recognize the smart card through a transponder field on the windshield that opens the doors; upon return, a swipe of the card across the windshield locks the doors and transmits trip information for billing. Rates are cheaper than rental agencies' because the city picks up costs such as wear and tear, taxes, insurance, gasoline, and cleaning. Similar programs are planned in Switzerland, Austria, Denmark, Luxembourg, and the Netherlands.

More Teachers

A growing number of college students, including those from elite liberal arts colleges, now say they want to be school-teachers. Just over 10 percent of all freshmen say they want to teach in elementary or secondary school, according to a survey by the Cooperative Institutional Research Program at the University of California at Los Angeles. Interest in teaching, they say, is being fueled by students' search for meaningful work, concern about the plight of at-risk children, and a response to the national call for teachers with degrees in academic subjects as well as in education. The UCLA survey polled 300,000 freshman at over 600 U.S. colleges and universities.

Saving Farms Sustainably

In the 1980s, Sharard Phatak, of Coffee County, Georgia, was troubled as thousands of family farms failed. Farmers have little control over market prices

and the cost of seeds, chemicals, fuel, and equipment. Cost-cutting is the only answer, Phatak decided, and at the University of Georgia's Coastal Plain Experiment Station, he began promoting an inexpensive way to farm that is also environmentally friendly. Instead of fertilizer, farmers rely on cover crops such as crimson clover, rye, and winter wheat to supply nitrogen to the soil; instead of plowing and harrowing, they practice no-till farming, planting new crops amid the stubble of cover crops or previous crops; instead of relying exclusively on insecticides, they rely on beneficial insects and microorganisms in the soil. Coffee County's extension director, Rick Reed, was skeptical, but felt he had an obligation to assist farmers who were interested in sustainable agriculture. Now the County leads the state with 40,000 acres of crops grown with such techniques. Reed predicts 30 to 50 percent of Georgia's crops will be grown this way within ten years.

Drug-free Hens

The company that supplies 3 to 5 million chickens to Britons every week, a third of the nation's quota, has stopped feeding them antibiotics. The Grampian Country Food Group of Aberdeen made the decision after conducting a 6-month experiment on 1.5 million chickens which showed the birds grew just as well without drugs. Grampian hopes the ban will ease fears about antibiotic-resistant "superbugs" emerging on farms. "We think the public will appreciate our efforts," said Philip Hopley of Grampian's agriculture division.

SUGGESTIONS INVITED

Thanks to Chris Weil for sending "Auto Alternative." We are always on the lookout for interesting subjects for *Blips on the Timeline*. Readers are invited to send articles or clippings indicating positive change to Jackie Mathes at the Foundation. If we use your suggestion, we'll automatically extend your subscription for a year.

Fuel for Thought

by Joe Kresse

The title of Thom Hartmann's book *The Last Hours of Ancient Sunlight* is a metaphor for the impending end of ancient sunlight, in the form of oil, coal, and natural gas, to power our life-styles. For most of human history, we lived off current sunlight in a hunting and gathering existence. This usage became more sophisticated when we adopted herding and agriculture. But it was not until about 900 years ago that we discovered coal and began to use *stored* sunlight as an energy source.

The subtitle of Hartmann's book, "Waking Up to Personal and Global Transformation," points out that we have to change our ways. With the cheap energy prices of today (gasoline is the cheapest it has ever been when prices are adjusted for inflation, costing less than bottled water), we tend to forget that stored sunlight is a finite resource. But at current rates of usage, Hartmann estimates that there is less than 50 years of oil left in the ground.

However, the author has a larger point in mind, the use of ancient sunlight being only one example of our seeming inability to see the crisis nature of our current situation: “In the 24 hours since this time yesterday, over 200,000 acres of rainforest have been destroyed in our world. Fully 13 million tons of toxic chemicals have been released into our environment. Over 45,000 people have died of starvation, 38,000 of them children. More than 130 plant or animal species have been driven to extinction by the actions of humans—the last time there was such a rapid loss of species was when the dinosaurs vanished. And all this just since yesterday.” In other words, we are destroying ourselves and our life support system.

Hartmann argues that current debates about whether we are in a crisis and what the nature of that crisis is overlook four basic realities:

1. The present dilemmas and dangers are not caused by recent changes such as the impact of modern technology. They are the predictable result of the way humans have been living since the first city-states were established 7,000 years ago.

2. We are made of sunlight. All living things are made up of the food they eat, and food has sunlight as its sole source of energy. How we marshal this most fundamental resource is a reflection of how we see ourselves in relationship to the rest of the natural world.

3. Our problems derive not from our technology, our diet, violence in the media, or any other one thing we do. They arise out of our culture—our view of the world. The reason most solutions offered to solve the world’s crises are impractical is because they are based on the same worldview that caused the problems. Nothing but changing our way of seeing and understanding the world can produce real, meaningful, and lasting change—and that change in perspective will then naturally lead us to begin to control our population, save our forests, recreate community, and reduce our wasteful consumption.

4. The solutions to this crisis are neither new nor radical. In fact, they represent a way of viewing the world that has sustained and nurtured humanity for thousands of years. Many indigenous people did not overpopulate or destroy their world, even though in most cases they had access to far more resources than they used. Neither does the fossil record show that they led rude and desperate lives, as is so often depicted in the media. Many of them lived sustainably, seeing the sacredness of the world and the presence of the Creator and divinity in all things, and generally led fulfilling lives with far more leisure time than working-class citizens of the industrialized world will ever enjoy. Their consciousness and lifestyle kept their culture and people alive a hundred times longer than the United States has existed, and continues to sustain millions of them worldwide. Indigenous people still have important lessons to teach us, although we “civilized” peoples are literally exterminating them, and, therefore, face the terrible risk of losing their knowledge as we take their lands, languages, and lives.

Contrasting “older culture” (indigenous) worldviews with “younger culture” (modern society) views, Hartmann says:

"Older cultures believe that we are part of the world. We are made of the same flesh as other animals. We eat the same plants. We share the same air, water, soil, and food with every other life form on the planet. We are born into life by the same means as other mammals, and when we die we, like they, become part of the soil which will nourish future generations. They also hold that it is our destiny to cooperate with the rest of creation. Every life-form has its special purpose in the grand eco-system, and all are to be respected. Each animal and plant has its own unique intelligence and spirit. We are permitted to compete with other plants and animals, but we may not wantonly destroy them. All life is absolutely as sacred as human life. Although hunting and killing for food are part of nature's order, when we do so it must be done with respect and thankfulness.

"On the other hand, younger cultures believe that we are not an integral part of the world. The Earth (and all of the plant and animal life on it) is something different from us. We call that different stuff 'nature' and 'wilderness;' we call ourselves 'mankind,' 'humankind,' and 'civilization.' We are very clear in our vision of the difference between us and the rest of life on the planet—we are separate from it, superior to it, and a law unto ourselves. When we want something, it's there for us to take, and we don't have to answer to anyone else. We also believe it is our destiny to subdue and rule the rest of creation. From the Bible's command to establish 'dominion' over the Earth and its inhabitants, to the American government's acted-out doctrine of Manifest Destiny, to our science-fiction stories about colonizing space, we tell ourselves many stories which express that we deserve to be the designated rulers of everything we can see, from the seas to the moon and beyond. Some people try to soften this by saying that when Man was given dominion of the Earth, it meant he was given responsibility for taking care of it, but few people in our culture behave as if they believe this."

The cultural stories that have been used to justify our current behavior fall into two groups: "get yours before anyone else can," and "the world is going to end anyway, so grab what you can now." These are profoundly disconnected stories; disconnected from others, from nature, and from life itself.

In the final part of the book, Hartmann addresses what we can do to begin to shift the dominant destructive worldview to a more connected one, offering specific suggestions which range from the personal to the larger, more systemic:

PERSONAL

- Keep up with the new sciences of quantum physics and complexity and chaos theory, which are revealing a vastly different world from what we thought and are now beginning to address consciousness.

- Practice small acts of anonymous mercy.

- Reconnect directly with Source.

- Touch the sacred by remembering moments of presence and by practicing

being totally present to the moment you are experiencing.

• Create awareness that there is divinity everywhere.

• Develop a meditation practice.

• Learn the secret of having "enough."

• Look into the face of the Divine by looking into the face of other living things.

• Turn off the TV.

• Form an intentional community, based on deep principles of connection.

SYSTEMIC

• Reinvent our daily life and rituals to remind ourselves of our inter-connectedness.

• Change the focus of technology by limiting the use of oil to things for which it cannot be replaced, by learning to live "off the grid" and by conserving.

• Respect other tribes, other cultures.

• Renounce war against any living thing.

• Re-empower women.

• Tell the New Story—the story of all of us, the story of our unfolding Universe.

As Hartmann says in his introduction, this is ultimately a hopeful book, one that presents the belief and some evidence that "we can really make it to the other side."

The Last Hours of Ancient Sunlight: *Waking Up to Personal and Global Transformation* by Thom Hartmann Mythical Books, Northfield, VT, 1998. $12.95

Business Comes to Life

by Mac Lawrence and Joe Kresse

You'd hardly expect the *Wall Street Journal* to publish an article criticizing the way most American businesses are run, but there it was recently—and on the front page of its Marketplace section: "A New Model for the Nature of Business: It's Alive!"

Written by Thomas Petzinger, a 20-year veteran reporter and former bureau chief for the *Journal*, the article used material from his book, *The New Pioneers: The Men and Women Who are Transforming the Workplace and Marketplace,* to talk about a revolution that is reshaping the face of business. A lot of what used to work, doesn't any longer, Petzinger says.

One new reality: The world is too complex and moves too fast for ten-year plans, or five-year plans, or even one-year plans. Better to know basically what your company is all about, and be fast on your feet. Take advantage of opportunities that fit you as they emerge. Look for niches that open up.

Factories should run with machine-like precision, right? Wrong, Petzinger says, and cites as one example Rowe Furniture of Salem, Virginia, where Charlene Pedrolie became manufacturing manager. Realizing that today's customers demand sofas built just the way they want them, and want them now, not four months from now, Pedrolie rethought how Rowe made sofas. She tore apart the assembly line and sent gluers, staplers, and seamstresses madly scurrying to build the sofas as they saw fit. Result: confusion at first, then creative pandemonium with huge increases in productivity and quality.

What Rowe Furniture did is model its business on how living systems work.

Living systems use resources as economically as possible, Petzinger writes. "People are gifted with the instinct to innovate, collaborate, and economize; through countless local actions, whether in corporations, communities, or entrepreneurial confederations, they create global order without central control."

Petzinger had been writing about rule-breaking business success stories for four years, traveling to 100 cities in 30 states, before he realized that these unusual stories began to seem more and more like the norm. "Everywhere I turned," he says, "people were succeeding in business by doing exactly the opposite of what business had long counted as conventional." Business, as well as most societal institutions, has been modeled on Newton's view that a few simple laws could predict everything—tides, movements of objects, anything that could be seen or felt.

But Newton's laws work only within a narrow range, and the world turned to Einstein's concepts of relativity, and more recently to chaos and complexity theories. Now businesses are beginning to realize that they, too, are uncontrollable by the old methods of command and control, conformity and compliance, do what you're told and don't ask questions. All the brains are not in the boardroom.

The chapter called "Nobody's as Smart as Everybody" explores this issue in detail. Petzinger writes: "Freed to do their best work and free to test it against others, the people in a group become a single, intelligent being, much as billions of neurons become a single brain or millions of intelligent citizens become a single nation. Although the people at the top might discover what's *good* for an organization, contrary to centuries of received wisdom, they will never discover what's *best."*

But for people in an organization to act as a force for economizing, knowledge exchange, and self-organization, they need boundaries. Otherwise, chaos will prevail. How can there be boundaries without reverting to the old command and control model? Here Petzinger gives examples of how companies defined "minimum critical specifications" that enabled both freedom and constraint. These "min specs" are the same kind as the simple rules complexity theorists discovered that allow complex behaviors such as the flocking of birds or the schooling of fish.

One example: Monarch Marking's new owners realized their manufacturing operation was hopelessly obsolete. To fully involve the workforce in discovering and making the needed changes, they developed these rules: Participation in the new exchange of knowledge would be compulsory, not voluntary. Second, teams could only form to improve *measurable* problems. Third, teams not only had to come up with their own solution to a problem, they had to implement it as well, including convincing other departments or vendors also to change, if necessary. And finally, no project could last more than 30 days. "Those were the only rules. Anyone could create a team, management or labor. Anything and everything in the plant was fair game for review—so long as it could be measured. A team could come up with any solution at all—so long as it was willing to carry it out on the shop floor. Management forswore any and all veto rights. There were no limits on spending." In addition to Monarch's operating income subsequently hitting an all-time high, "a new culture emerged spontaneously within the work-force—a culture that did not permit but *insisted* on brain work."

Another way to create freedom and coherence is through a strong set of values. "Says business theorist William Frederick, 'the component that permits change within constrained limits is the corporation's values system.' "

In a division of Lucent Technologies, a group "decided to build a new business on what it called a core set of unswerving principles, which were set forth on a single sheet of paper: 'We live with speed, innovation, quality; a strong sense of social responsibility; a deep respect for the contribution of each person;.integrity and candor.' It swore to 'an obsession with serving our customers.' This was intended as blood oath: Everyone coming to work in the new business would have to sign the document—with some formality, using a special pen. That document served as the hard half of a paradox—the zone of order, if you will. The other side would be as loose as anyone from a big company could imagine. They called it their 'organically adaptive structure.' These values and the adaptive structure provided a sufficient basis to enable the group to pick a product, design it, and then figure out how to make it successfully. It also allowed them to ramp up production from one-at-a-time to a line."

Petzinger concludes: "While the old order persists, the new order is rising quickly and is poised to overtake it—haltingly in some places, unevenly in others, but inexorably in every corner of the economy. How can I be so sure that the Newtonian model is giving way to the natural one? Two reasons. For one, the marketplace leaves companies with no choice. In an era when change arrives without warning and threatens to eradicate entire companies and industries overnight, organizations can survive only by engaging the eyes, ears, minds, and emotions of all individuals and by encouraging them to act on their knowledge and beliefs. Second and far more importantly, the new, more enlightened way of business will persist because it hews more closely to what we are as humans."

The New Pioneers:
The Men and Women Who Are Transforming the Workplace and Marketplace by Thomas Petzinger, Jr.
Simon & Schuster New York, NY, 1999.
$25.00

during the years 2000 and 2001, to look backward and learn, to look forward and plan. The opportunity is to tune out the hype and bring up the wisdom of our souls."

2000

by Donella Meadows

Before the next issue of Timeline appears, we will have crossed over into the next millennium. Noting the inevitability of capacity crowds of revelers at the world's hot party spots, 60-minute specials reviewing the history of the last thousand years, talking heads speculating on the next thousand, the hawking of collectables like medallions and t-shirts, Donella Meadows has some thoughts that put the event in perspective.

"What an opportunity to glance up from our humdrum lives and take a good, long look at where we've been and where we're going. What a fine thing to think and talk together with a thousand-year perspective. What a chance to see ourselves in the great sweep of history, to be humbled by the thought of all the generations that went before, and to take responsibility for the generations to come. The more I think about it, the more I see that the opportunity here is for all of us to choose our own moments to mark the millennium—not fleeting New Year's Eves, but long moments

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