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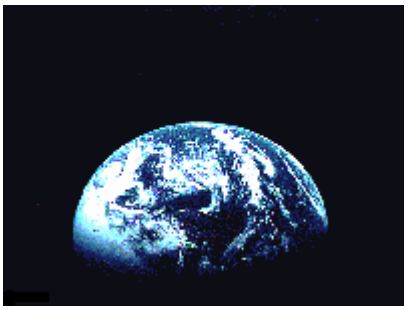

In this Issue:

The Post-Corporate World

by David Korten

Book Review by Joe Kresse

"Our obsession with money has led us to create an economic system that values life only for its contribution to making money."

Not so long ago I reviewed David Korten's book, *When corporations Rule the World*. The book was primarily a wake-up call, pointing out the severe problems being created by our capitalistic economic system. While some ideas for change were presented, they were in the realm of policy, which is very difficult to change given the power of the forces supporting the status quo. Now, Korten has written a much more positive, visionary book, *The Post-Corporate World: Life After Capitalism.* It presents a very hopeful picture of the possibility for radical revision of our economic system. Rather than focusing on policy changes, it speaks of the sweeping changes that can take place with a new view of our economies—that they must function in the same way as nature does. The promise is quite inspiring.

Korten points out that "our obsession with money has led us to create an economic system that values life only for its contribution to making money. With the survival of civilization and perhaps even our species now at risk, we have begun to awaken to the fact that our living planet is the source of all real wealth and the foundation of our own existence. We must now look to living systems as our teacher, for our survival depends on discovering new ways of living—and making our living—that embody life's wisdom.

"Since the dawn of the scientific revolution, we have been so busy subduing nature that we have given little thought to the possibility that living systems might embody wisdom essential to our own lives.

"This is beginning to change. Industrial ecology, for example, draws on life as a model for the design of closed-loop production processes in which all products and by-products are eventually used and reused, just as they are in nature. Likewise, a number of organizations are drawing from living systems models to enhance the creativity and effectiveness of employees.

"However, aside from social Darwinists who use only a narrow spectrum of natural processes to justify an ideology of unrestrained economic competition, there have been few serious efforts to distill principles from nature's economies for the design of human economies as a whole. Since the economy's incentive systems and feedback loops are so central in determining how we produce and for whose benefit, and who pays the costs, this area clearly holds enormous promise."

Korten then reviews six lessons from life that we should take into account in designing our economic systems:

LIFE FAVORS SELF-ORGANIZATION

Life has a capacity to self-organize toward ever higher levels of complexity and consciousness. Each level of organization has the capacity for

independent thought and action. Each retains its identity and volition even as it finds its place of sustenance and service within a larger whole. Therefore, "human economies can and should function as self-organizing systems in which each individual, family, community, or nation is able to exercise its own freedom of choice mindful of the needs of the whole, and no entity has the power to dominate any other."

LIFE IS FRUGAL AND SHARING

Because Earth receives a finite amount of energy from the sun, it has learned to continuously recycle and reuse energy and materials within and between cells, organisms, and species with a minimum of loss. Therefore, "human economies can and should be organized to contribute to life's abundance through the frugal use, equitable sharing, and continuous recycling of available energy and resources to the end of meeting the material, social, and spiritual needs of all their members."

LIFE DEPENDS ON INCLUSIVE PLACE-BASED COMMUNITIES

Life exists only in relation to other life, so species that share a particular habitat organize themselves into inclusive, place-based biological communities within which they learn through mutual adaptation to optimize the capture, sharing, use and storage of the energy sources available to them. Therefore, "human economies can and should be built around inclusive, place-based communities, adapted to the conditions of their physical space, adept at the collection and conservation of energy and the recycling of materials to function as largely self-reliant entities, and organized to provide each of their members with a sustainable means of livelihood."

LIFE REWARDS COOPERATION

In the interdependent world of life, unrestrained competition is generally self-defeating. Those who survive and prosper are invariably those who find a niche in which they meet their own needs in ways that simultaneously serve others. Therefore, "human economies can and should acknowledge and reward cooperative behavior toward the efficient use of energy and resources in providing adequate livelihoods for all and enhancing the productive capacities of a shared pool of living capital."

LIFE DEPENDS ON BOUNDARIES

Boundaries are essential to the processes by which each living organism creates and manages its internal energy flows. Similarly, biocommunities are bounded by oceans, mountains, and climatic zones that inhibit intrusions by potentially predatory species. Yet it is also true that life depends on relationships and is never fully contained. Therefore, "human economies can and should have managed borders at each level of organization, from household and community to region and nation, which allow them to maintain the integrity, coherence, and resource-efficiency of their internal productive process and to protect themselves from predators and pathogens while cooperating to enhance the potentials of the larger whole."

LIFE BANKS ON DIVERSITY, CREATIVE INDIVIDUALITY, AND SHARED LEARNING

The greater the diversity, the greater the potential for further innovation and the greater the resilience of the system in

times of stress and crisis. Genetic and cultural diversity are life's storehouses of intellectual capital and the building blocks from which it melds itself into new and more capable forms. Therefore, "human economies can and should nurture cultural, social, and economic creativity and diversity and share information within and between place-based economies. These conditions are the keys to system resilience and creative transcendence."

How do these lessons translate into what our economies should look like? Korten proposes nine design elements for a post-corporate world. They are:

1 Build our economic and political life largely around self-organizing processes based on the smallest feasible decision-making units.

2 Design our human settlements in a neighborhood-oriented, village model, rather than the dispersed, auto-dependent suburban housing tract.

3 Have larger town centers, which offer a wider range of medical services and sports facilities, a high school, repair services, specialized shops, administrative offices, and a variety of public services, within bicycling distance of each village cluster. Build larger regional centers linked to town centers by light rail and bus transit.

4 Design each cluster so that it can be self-reliant in producing its energy needs from renewable sources. Energy use for transportation will be much lower given the above design criteria.

5 Design each community to be relatively self-reliant in materials use. Dump virtually no waste into the environment.

6 Structure each region's economy to live in balance with the limits of the regenerative capacity of its biosystem.

7 Eliminate the production of harmful and wasteful products, in turn eliminating most needs for large-scale production. Allow for a flourishing of artistic and artisan craft production.

8 Carry out most interregional communication electronically, thus cutting the use of energy and slowing the frenetic pace of modern life.

9 Use physical space in a way that honors the needs of other living creatures for wild spaces in which nonhuman life may flourish in its own way with minimal disturbance.

These elements will result in preserving, rather than eliminating, cultural and genetic diversity. They give priority to meeting the needs of the many over producing luxuries for the wealthy few. They make useful technologies available to all who can benefit from them, rather than restricting their use to those willing and able to pay royalties determined by corporate owners. They assure a meaningful and democratic role for each citizen in economic and political governance, and they link ownership rights to the communities that bear the consequences of their exercise of power, rather than the current system of absentee ownership that separates owners from the consequences of their decisions.

There are many more useful ideas in this book, including "Adam Smith's Ten Rules for Mindful Markets," a discussion of the distinction between a market economy and capitalism, and a review of the philosophical history of the

development of capitalism. And finally, in the chapters, “Life Choices” and “Engaging the Future,” Korten gives practical advice for steps each take in our lives today that will begin to transform capitalism into a democratic market economy.

The Post-Corporate World: *Life After Capitalism* by David Korten

Co-published by Barrett-Koehler Publishers and Kumarian Press, 1999. $27.95.

Korten's earlier book, *When Corporations Rule the World*, was reviewed in the November/December 1997 issue of *Timeline*.

Coming Back to Life
by Joanna Macy

Eco-philosopher Joanna Macy, Ph.D., is a scholar of Buddhism, general systems theory, and deep ecology. She works with groups in an interactive mode at the interface between spiritual breakthrough and social change, helping people transform despair and apathy in the face of overwhelming global crisis into constructive and collaborative action. She travels widely, giving lectures, workshops, and trainings in Europe, Asia, and North America. Her latest book, Coming Back To Life *(New Society Publishers, 1998), is about “the great turning” that she sees happening in our time, and how to take part in it. She spoke recently at Foundation for Global Community on this theme.*

I want to share with you something that has been a tremendous inspiration to me. That is, broadening our view of time, and looking at this historical moment not as something we are trapped in and cannot see beyond, but as a time whose role we can appreciate.

Lester Brown of the World Watch Institute talks about this as the time of the ecological revolution. He says it’s the third revolution of our species that we know about. The first was the agricultural revolution—that took centuries. The second was the industrial revolution, and that took generations. The third, the ecological revolution, is the shift from the industrial growth society to a life-sustaining society. He says that the ecological revolution is born of necessity and driven by evolutionary pressure to bring into being a sustainable civilization. But, unlike the past revolutions of our species, this has to happen in just a few years. Not only that, it has to involve not just our technologies and institutions and the systems of production and distribution; it also has to involve our values and our perceptions—who we think we are and how we experience our relationship to each other and to the world.

I would like to talk about how this is happening and how we can take part in it and experience the great adventure of our time. Lester Brown calls it a revolution, but I like to imagine that future generations, even as close as the 2030s, 2040s, will look back on this time and call it “the great turning.”

They’ll look back at us and say, “All those ancestors back then, bless them. They were involved in the great turning,

and they didn't know whether they would make it or not. At times it looked as if it was hopeless, futile. Their efforts seemed paltry, darkened by confusion, and yet they went ahead and they took part in it." And I'm imagining that they'll look back with almost a kind of envy, seeing more clearly than we can now the high adventure that it represents, this great turning from a growth-addicted, unsustainable society to a stable, life-sustaining one.

Lest I sound too wildly optimistic, let me acknowledge that we don't know if this great turning is going to happen fast enough or fully enough to stop the unraveling of the systems supporting complex, conscious life forms on this planet. It's not clear yet whether we're going to pull it off. There's no guarantee.

You know, when you make peace with that, you realize something. It liberates you from having to be braced all the time against bad news and constantly feeling you have to work up a sense of hopefulness, which can be very exhausting. That's one thing the Buddhists have taught me. There's a certain equanimity and moral economy when you're not continually trying to evaluate your chances of success.

Yet we can certainly see the great turning happening now, and most clearly if we look at three particular dimensions of it. These three are interdependent and mutually supportive.

The first I call "holding actions." These are the many forms of legal, political, legislative, and regulatory activities by which we are slowing down the destruction caused by the industrial growth society. To be included also are the many kinds of direct action — blockades, boycotts, civil disobedience, tree sitting. Through these we are managing to save some species and some ecosystems, save some lives, save some genetic material for the life-sustaining society that's coming.

These holding actions can be exhausting, though. It's good to know that it's OK to step back. Many of us, if we step back when we feel bruised and bent out of shape from being there in point position on issue after issue, feel as if we are abandoning ship. We feel guilty about it. But we need to know that the great turning is vast, and if we step back, it's like the lead goose dropping back from point position to fly in the windstream of the others. We're not abandoning anything. We don't cease being who we are, and we don't stop being deeply allied with the ongoingness of life.

The second dimension of the great turning comprises the new structures, institutions, agreements, and ways of doing things. It is extraordinary how swiftly these are springing up like green shoots through the rubble of our dysfunctional civilization. I don't think there has ever been a time in human history when so many new ways of doing things have appeared in so short a time—from ways of owning land, to co-housing, to eco-villages, to cooperatives, to new local currencies, alternative schools, alternative modes of healing. They reveal an amazing degree of ingenuity, an awesome readiness to experiment and create. Even though these emergent and often embryonic systems sometimes look fringe, perhaps, or marginal, they are the seeds of the future.

Yet these new forms will wither and die unless they're deeply grounded in our values. So the third dimension of the great turning is in the way we see things and understand our connection and requirements for life. There is a revolution going on in our grasp of what we really need, and it is quietly spreading now in the simple living movement.

I teach general living systems theory because it helps us understand that our true nature is in relationship. Deep ecology, which is also very important for me, is the moral and intuitive expression of this systems view, where we give up clinging to some special status as the crown of creation and rejoin the earth community. Then we can experience our own specialness in ways that allow us to see the specialness of every other life form. Arne Naess, the philosopher who first used the term "deep ecology," also coined another term: "ecological self." The ecological self recognizes and enjoys our interrelationship with all that is, as if we were living cells in the body of earth.

Here, in this dimension of the great turning, we are coming out of the prison that the Western, mainstream mind has put itself in—that of the rugged individual, the separate self, defended and needy—and we are freed to experience our inter-existence. It is an incredible moment to be alive. That is why I like working with people in groups, experientially, where we can hear from ourselves and each other and experience interactively this new way of being in our world as part of the living body of earth.

In our time we are not only finding new ways of thinking, but re-encountering very ancient ones. The religions of the East—Buddhism, Hinduism, Islam, Sufi, Taoism—come to greet us, and also the earth wisdom traditions of indigenous peoples. It's as if they're all walking into the room, the old shamans, and the witches, and the ancient storytellers and seers, to keep us company now and inspire us. To be alive in this time is to find it easy to be a mystic, because so much is telling us about the presence of the sacred.

I've started a list of the attitudes that can help us in this great turning, and I've come up with at least five to share with you:

COME FROM GRATITUDE

It's not something you immediately think of in relation to the disasters of our time: the pollution that is cloaking our cities and poisoning our air and water, or the bombs that are dropping, or the money that we're pouring into missiles instead of schools, or the growing gap between rich and poor. Yet it is precisely in this moment that we can profit from this teaching, which is featured in every religious tradition. For example, at the the beginning of a Buddhist practice period, you give thanks for having a human life. You give thanks not because humans are superior but because humans can change their karma. We have free will, the extraordinary capacity to be able to direct our attention and make choices.

DON'T BE AFRAID OF THE DARK

Don't be afraid of the darkness of your own pain, whether it's anguish for the world or rage for the suffering of your brothers and sisters. If we are like living cells in a collective body, it is natural that we feel the trauma of this larger body. It isn't crazy, or weak, it is natural that we suffer with our world. That is the literal

meaning of compassion: *suffer with*. We are all woven into this life, and we all know on some level that the fate of the world is our fate, too. There is no private salvation. So we must take care not to pathologize our grief. It is worthy. And we must not fret when we cannot see clearly. That's the nature of systems—they are not machines whose behavior we can predict. They unfold, and in the unfolding, new, undreamt of possibilities emerge. So don't be afraid of the dark. The future ones will say of us: "Bless 'em, they were groping their way but they still went ahead."

DARE TO VISION

Just because we can't see clearly how it's going to turn out is no reason not to cook up the most vivid of dreams. Whatever takes birth out of the darkness can only do so if we have been able to imagine it. Sometimes I think our imagination is the least developed muscle in our repertoire. Let the future into your hearts and minds and into your imagination. We will never be able to build what we have not first conceived.

ROLL UP YOUR SLEEVES

There are so many different issues, and they seem to compete with each other. Shall I save the whales or help battered women? Shall I protect the rainforest, or work on nuclear waste, or AIDS? It helps to realize that the part contains the whole. All the manifestations of the disease of our time have their source in the assumption that we are separate, and in the resulting illusion that we are somehow immune to what we do to other beings. But the root mistake is the same. The truth is that when you are working for the rainforest, you're also working for the whales or homeless children. This understanding is part of the great turning. It's a question, then, of finding what you love to work on and taking joy in that. Just don't try to do it alone. Link arms. Find the great gladness that is there for us in collaboration, the way we can spark each other's ideas and release each other's powers.

ACT YOUR AGE

Since every atom in our body goes back to the first flaring forth of space and light, we're really as old as the universe, which is continually happening. It's right here, unfolding in us, through us. So when you are lobbying at your congressperson's office, or visiting your local utility, or testifying at a hearing on nuclear waste, or standing up to protect an old grove of redwoods, you are doing that not out of some personal whim, but in the full authority of your 15 billion years. Practice knowing that. It is true. It helps us glimpse the enormous promise that is there, and feel life's desire to go on. The life of this planet has desired you into being, and through you it can continue.

To illustrate her points, Joanna Macy included passages from several poems. (All poems are abridged.)

From "The Old Mendicant" by Thich Nhat Hanh

Being rock, being gas, being mist, being Mind,

Being the mesons travelling among galaxies with the speed of light,

You have come here my beloved one, your eyes shine, so beautiful and deep.

You have taken the path traced for you by both the non-beginning

and the never-ending.
...on your way here you have gone through millions of births and deaths;

Innumerable times you have been transformed into firestorms in outer space;

You have used your own body to measure the age of the mountains and rivers.

You have manifested yourself as trees, as grass, as butterflies, as single-celled beings, and as chrysanthemums...

Your smile invites me into the game whose beginning no one knows,
the game of hide and seek.

From "The Tower Beyond Tragedy" by Robinson Jeffers

I entered the life of the brown forest,

And the great life of the ancient peaks, the patience of stone,

I felt the changes in the veins

In the throat of the mountain, and, I was the streams

Draining the mountain wood; and I the stag drinking: and I was the stars,

Boiling with light, wandering alone, each one the lord of his own summit,
and I was the darkness

Outside the stars, I included them.

They were a part of me.

...how can I express the excellence

I have found, that has no color but clearness;

No honey but ecstasy...

From Rainer Maria Rilke's Book of Hours (I, 61)

Dear darkening ground,

you've endured so patiently the walls we've built,

perhaps you'll give the cities one more hour

and grant the churches and cloisters two.

And those that labor—maybe you'll let their work

grip them another five hours, or seven,

before you become forest again, and water, and widening wilderness

in that hour of inconceivable terror

when you take back your name from all things.

Just give me a little more time!

Just give me a little more time!

I want to love the things

as no one has thought to love them,

until they're real and ripe and worthy of you.

From "To Be of Use" by Marge Percy

The people I love the best

jump into work head first

without dallying in the shallows

and swim off with sure strokes almost out of sight.

They seem to become natives of that element...

I love people who harness themselves,

an ox to a heavy cart,

who pull like water buffalo, with massive patience,

who strain in the mud and the muck to move things forward,

who do what has to be done, again and again.

I want to be with people who submerge

in the task, who go into the fields to harvest

and work in a row and pass the bags along...

The work of the world is common as mud...

But the thing worth doing well done

has a shape that satisfies, clean and evident.

Greek amphorae for wine or oil,

Hopi vases that held corn, are put in museums

but you know they were made to be used.

The pitcher cries for water to carry

and a person for work that is real.

From "Work Song, part 2: A Vision" by Wendell Berry

If we will have the wisdom to survive,
to stand like slow growing trees
on a ruined place, renewing, enriching it...

then a long time after we are dead,

the lives our lives prepare will live

here, their houses strongly placed

upon the valley sides...

The river will run

clear, as we will never know it...

On the steeps where greed and ignorance cut down

the old forest, an old forest will stand,

its rich leaf-fall drifting on its roots.

The veins of forgotten springs will have opened.

Families will be singing in the fields...

Memory,

native to this valley, will spread over it

like a grove, and memory will grow

into legend, legend into song, song

into sacrament. The abundance of this place,

the songs of its people and its birds,

will be health and wisdom and indwelling light.

This is no paradisal dream.

Its harship is its reality

Getting a new Life

by Mac Lawrence

It took a little more time than they thought for Roy and Diane Gordon to downsize their way to financial independence. but now, in a new home and with their three children out on their own, Diane can devote all the time she wants to training tutors in the county library's adult literacy program, working with children's programs, and gardening. Roy is free to accept or turn down

consulting jobs, and to devote as much time as he wants to volunteering in the mediation field.

The Gordons had been interested for several years in Vicki Robin and Joe Dominguez' nine-step program, the Road Map to Financial Independence. The program, later described in Robin and Dominguez' best-selling book, *Your Money or Your Life*, invited people to honor and value their most precious resource—their life's energy. Their advice: Simplify your life so you can get out of the rat race and do what is really fulfilling and worthwhile.

Diane, the computer whiz who puts *Timeline* together, reviewed *Your Money or Your Life* in our July/August 1993 issue. At the end of her review, she said: "As for Roy and me, we've now set our date for financial independence. Our charts are ready, and we're on our way." And so they were.

"We took the 'Your Money or Your Life' course through tapes," Diane says, "working as a couple with the material and putting ourselves through a personal seminar for a weekend when we felt we were ready for it. That was probably the most valuable thing in the whole course for us because we dealt with the fundamentals. We had to determine where we were putting our life's energy, and where we really wanted to put it (was what we were doing in alignment with our principles?); how much money we brought in and how we had been spending it; how much we owned and owed; and if we wanted to make changes, what would they be and how would we make them?

"We had been warned about the difficulties in starting the Your Money or Your Life process, because there's so much guilt connected with money. We knew that we were going to have to talk about things that we didn't particularly want to be talking about. So before we began the serious talks, we acknowledged that we were going to blame each other, we were going to get mad at each other. It wasn't easy, but it was rewarding to put everything on the table, to reaffirm what we valued most, and make decisions on what we needed to do.

"We knew what we really wanted to do was to give back to the planet. That sounds very high and very lofty, but that had been the guiding principle in our lives for a long time. We had consciously avoided trying to become rich. We had both come out of a war situation in England with rationing and a make-do-with-what-you've-got attitude. At that time, the people we grew up with—family, neighbors, and friends—actually felt a discomfort with the idea of having more than you needed. You didn't want more than other people had. When my parents died, they didn't leave us any money, but they did leave us with a philosophy of living simply on the earth. That was a better legacy than any other we could have had.

"Our three children were grown when we started the Your Money or Your Life process, so it was simpler for us than for people who have teenage children and are struggling with the pressures to provide them with what their peers have. But we didn't have much money anyway when our children were young, so they easily bought into the pattern that you can exist fairly frugally. They have been

very supportive, and have expressed that they don't want us to leave them a legacy of money. They want us to be doing what we're doing.

"In keeping track of every penny we spent, we found that, though we weren't living extravagantly, we were erratic and a little self-indulgent. We'd been spending too much money on meals out, movies, magazines, gadgets and trinkets for the house, impulse clothes buys, and buying things we didn't need or even enjoy. As a result, we had a lot of debt, as well as a heavy mortgage. One way we felt was essential to bring down our debt was to use cash instead of credit cards so we could immediately control where our money went.

"The nice thing about working with the course is that it doesn't define for you what frugality is and what luxury is, what you need and what you don't need. That you discover for yourself. For example, we realized that fast foods did nothing for us, so we cut that down. Instead, we had more people over for dinner, which is more in line with our philosophy that relationships are important to us.

"I've been asked if I felt deprived by cutting down on certain things. No, I never have. The only time Roy and I did feel deprived was when we were *thinking* about undertaking the process. But once we were *doing* it, and we could see that there was an endpoint, that we could actually make it, and that we could then think about what we really wanted to be doing, we didn't feel deprived at all.

"I would say that we really felt we had completed the whole process when we moved to a new home in a less expensive part of the San Francisco Bay area. Leaving a home we had lived in for 27 years was a major change. Even then, we could have moved farther away and spent less on a house. But we made a conscious decision to stay in this area because it's our home, two of our three children live here, and, of course, we get to be with our grandchildren. Also this is where we have relationships and, as I've said, relationships come very high on our list of what's important to us. Also we know the area, we know what the needs are, we know how to operate, how to network, how to volunteer effectively. So why not stay in the area that you love?

"That wasn't the end of the process, however. We had thought that we would then say, OK, we're where we want to be, we've moved into a new house, now we're going to save the planet! What we didn't count on was that we needed more time to determine what we really wanted to do. Though we have no regrets about anything we've been involved with over the years, we realize a lot of what we've done were things we "ought" to do, things we felt pressured to do both by family and by tremendous crises in the world. Even with all we had gone through in the Your Money or Your Life process, we had not really stopped long enough to reflect on what are the particular talents and gifts we have, and what are our particular passions. So we've been taking time for that.

"When I talk about what we've done in Your Money or Your Life, everybody kind of gets it, including young people who are very interested in what's going on. I think they are beginning to see that their values are important, that people they know are retiring early and living fulfilling lives, and that many others are burning themselves out and having heart

attacks from working 80 hours a week. I tell them that our only regret is that Roy and I didn't do this earlier. That starts them thinking."

Your Money or Your Life Course

"A healthy relationship with money."

That's the goal of Your Money or Your Life, a course put on regularly by the Economics Team at the Foundation for Global Community's Palo Alto center.

Even a better name for the course, according to Bill DeVincenzi who heads the team, would be Your Money *and* Your Life. Explains Bill, "It's all about evaluating how much of your life's effort you put into earning a given amount, and asking yourself if it's worth it. Most people who take the course come to realize that they spend too much time making money to buy things they really don't need or want. After the course, they typically end up working fewer hours or significantly reducing their expenses. But others who take the course realize they're so miserly about spending money that we urge them to loosen up."

Bill left a high-paying corporate job to teach finance at San Jose State University. He and his wife, Beth, took the course four years ago, and since then, they have cut their expenses some 30 to 40 percent. "We've never missed the things we've cut," says Bill, "and I'm now doing what I love to do!"

Your Money or Your Life meets one evening a week for seven weeks. The $50 course fee includes all needed materials, including the work book developed by Robin and Dominguez. There is a follow-up meeting several months later. "You can do the course on your own, as we did," says Bill, "but the sharing of stories and the learning from each other makes the course a great experience."

For information on how you can take or facilitate the course, contact Bill at (650) 328-7756.

SATELLITE VIDEOCONFERENCE: YOUR MONEY OR YOUR LIFE

The Foundation will be hosting a live, interactive satellite videoconference with Vicki Robin on Saturday, November 13, 10 am to 2 pm. The workshop will overview the 9-step program to financial independence covered in *Your Money or Your Life.* For reservations in Palo Alto call (650) 328-7756, and for other local downlink sites check www.resilientcommunities.org or call Amanda Butcher at (509) 484-6733.

It's Folly to Save Jobs by Risking a Resource

by Donella Meadows

At the beginning of this millennium, the Norse began to fish what is now called the Grand Banks off the coast of Newfoundland. In 1501, the Company of Adventurers to the New Found Lands was chartered in England to make summer expeditions to that rich fishing ground. For the next 500 years, the

Grand Banks yielded up vast wealth. In 1981, the fishery brought in 779,000 metric tons of groundfish, mostly cod, worth $705 million. East coast Canada boasted 29,000 registered fishing vessels and more than 1,000 fish-processing plants. The fishery employed 62,000 people in 1,300 communities, 20 percent of all the jobs in Newfoundland.

Then, after 1,000 years, it was over. Not suddenly. The catch declined for 20 years. Just about everyone saw what was coming. Many issued warnings. The government imposed quotas, but the fleet couldn't even manage to land the quotas, a blatant sign that they were set too high. Finally in 1992, the cod fishery was essentially closed. No one knows whether it will ever recover.

If you want to assign blame for this destruction of a resource that should have been renewable forever, you can point in many directions. You could point at the Canadian fishermen, who knew better than anyone that their golden goose was dying, yet opposed their government's attempt to revive it. You could also blame the foreign fleets that invaded the 200-mile limit, cheated on quotas, and falsified records.

Technology, so often hailed as our way out of any problem, was a direct cause of this one. Only after 1954, when the first factory trawler made its appearance on the Grand Banks (it was a British ship, rapidly followed by Russian and Spanish ones), was it actually possible to catch all the fish. Here is how Michael Harris, in his book *Lament for an Ocean*, describes these vessels: "The net and rigging are engineered to haul 50 to 60 tons of fish at a time. One hundred tons of mature cod can be taken in just two hours by these killing machines. The huge trawl is hoisted up and with a sudden whoosh, tons of cod shoot through the hatches to the factory deck below. Cod are loaded on conveyer belts that lead to the filleting machines. The fillets are packed into... blocks, frozen, and stored....The offal and so-called trash fish are sent to the fish-meal factory on a lower deck.

"If a vessel from a particular fleet hits a 'hot spot,' her captain will call in sister ships to work the shoal. As many as 50 factory-freezers will converge, fishing nonstop until nothing is left....Electronic fish-finders, echographs and even mini-subs are used to locate shoals of fish. The newest sonar devices can scan the ocean two miles in advance of a working trawler."

You could blame this voracious technology, except that across the ocean another nation, equally dependent on a cod fishery, faced with the same technology, hearing the same kinds of warnings, managed to save its fishery.

In 1989, Norwegian scientists warned that the cod population in the Barents Sea was plummeting. They advised that the normal quota for the catch, about 800,000 tons, be drastically reduced. This idea was received, as in Canada, with panic, demonstrations, pleas from coastal communities, political threats. In Norway, the government hung tough. As one fisheries official said, "The main qualification to survive one week as minister of fisheries is that you have to be tough, because it's the most unpopular occupation you could have in Norway."

The Norwegian government slashed the cod quota, reducing fishing incomes by more than 80 percent. It put a moratorium on catching caplin, the main

food of the cod. It banned fishing on the spawning grounds. No one had proved that dragging huge nets through schools of spawning cod interfered with reproduction, but the Norwegians assumed that reproducing fish should be left alone, if you want fish in the future.

Both Norway and Canada are compassionate nations. They were down, in each case at a cost of billions of dollars. But Canada, in its compassion (and bowing to immense political pressure), closed the fishery too late and incompletely, didn't ban fishing on spawning grounds, didn't stop caplin fishing, and enforced its restrictions tepidly. Canada is still supporting its ex-fishermen. Norway no longer needs to.

After three years of Norway's intense restrictions, the Barents Sea cod population began to rise. The government cautiously raised its quota to 248,000 tons, double the 1990 quota, but far below historic catches. By 1997, there had been such a stunning recovery that the quota went up to 850,000 tons. Unable to process that catch themselves, the Norwegians kindly sent some of it to the idle fish plants of Canada.

Given the rate at which fisheries are crashing all over the world, it is not clear that anyone is eager to learn lessons from anyone else. But I see at least two lessons from the Norwegians' happy example—lessons that apply far beyond fisheries. One is that it is crazy to save jobs in the short term by endangering the resource upon which the jobs depend. The other is that social policy, and especially regulatory policy, must keep up with technical change. A world of powerful technology requires strong regulation. Those who wield the technology ought to be the first to demand that regulation, to ensure their own survival.

(The full, frustrating story of the Canadian cod disaster can be found in Michael Harris' *Lament for an Ocean*, McClelland & Stewart, Toronto, 1996.)

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.

The Sacred Depths of Nature

by Ursula Goodenough

Book Review by Sandra Mardigian

This eloquent book of scientific "short stories" provides testimony to the fact that among the most rational, most rigorous, most reductionist scientists are some who are discovering a meeting of science and soul—the intense sense of *meaning* revealed in the intricacies of the world they are uncovering.

Ursula Goodenough is Professor of Biology at Washington University, past president of the American Society of Cell Biology, and author of a best-selling textbook on genetics. In *The Sacred*

Depths of Nature, she combines a scientist's objectivity with a poet's gift, and shows how pondering the detailed scientific knowledge gleaned only in the past few decades can open the heart and mind to an emotional connection with the cosmos that is the essence of religion.

The book is short—174 pages. Each of twelve chapters begins with a scientific description, e.g., how DNA codes for proteins, how natural selection works, the dynamics of speciation, and ends with a personal section called "reflections," in which she describes the feelings and thoughts that arise when she contemplates these things—an experience which leads her to reverence and a sense of the sacred.

Goodenough describes her purpose in the introduction: "The goal of this book is to present an accessible account of our scientific understanding of Nature and then suggest ways that this account can call forth appealing and abiding religious responses—an approach that can be called religious naturalism. If religious emotions can be elicited by natural reality—and I believe that they can—then the story of nature has the potential to serve as the cosmos for the global ethos that we need to articulate. I will not presume to suggest what this ethos might look like. Its articulation must be a global project. But I am convinced that the project can be undertaken only if we all experience a solemn gratitude that we exist at all, share a reverence for how life works, and acknowledge a deep and complex imperative that life continue."

The Sacred Depths of Nature is written for both layman and scientist. Here is how a review in *Scientific American* (May 1999) described it:

"The factual sections of the book are valuable enough to stand on their own as a brief, highly engaging introduction to the epic of evolution. Would that all scientific texts were so carefully conceived and beautifully written. Goodenough's luminous prose evokes images and feelings more commonly associated with poetry than science, and her meditations on meaning are infused with wonder and joy.

"The recognition of nature's power to evoke emotions such as awe and gratitude is, of course, not new, as Goodenough acknowledges in her introduction. Two aspects of her approach, however, are novel. First, Goodenough's 'nature' encompasses not just our direct experience of the natural world, but also our scientific understanding of it. She argues eloquently that such understanding, far from provoking detachment or despair, can be a wellspring of solace and joy. The second novel aspect is Goodenough's definition of religious experience. For her, experience qualifies as religion if it entails emotions like awe, wonder, gratitude, or joy, regardless of whether or not the person associates such emotions with traditional religious creeds, deities, or supernatural phenomena.

"Goodenough describes a profoundly religious relationship with the cosmos rooted in her detailed understanding of phenomena such as atoms and stars, the complex workings of a cell, and the astonishing evolutionary emergence of a mind capable of inquiring into its own nature. Such understanding can give rise to what she calls 'religious naturalism,' a scientifically based reverence for every

aspect of the natural world, including ourselves."

About our human species, Goodenough says: "We are uniquely *religious*. Anthropologists have given the name *Homo religiosus* to our forebears who first buried their dead and set flowers and icons beside the graves. We need answers to existential questions. We need to believe in things, to structure and orient our lives in ways that make sense and offer hope, to identify values and ideals, to transcend and interconnect.... And so, I profess my faith. For me, the existence of all this complexity and awareness and intent and beauty, and my ability to apprehend it, serves as the ultimate meaning and the ultimate value."

Many of our ancestors and many human cultures have intuitively discerned the sacredness of all things. But we are the first humans with the means to apprehend a sacred universe through the discoveries of our rational minds and revelations of our rigorous sciences. Ursula Goodenough is one of our most inspiring guides.

The Sacred Depths of Nature by Ursula Goodenough.

Oxford University Press, New York and Oxford, 1998. $24.00.

What Really Matters in Saving the Environment

Paper or plastic? Cloth diapers or disposables? Crumpled-up newspapers or polystyrene "peanuts?" Most everybody agonizes over everyday decisions like these in trying to live lightly on the Earth. But how do we know what are the right choices to make?

In a new book, *The Consumer's Guide to Effective Environmental Choices,* the Union of Concerned Scientists gives us answers. There are things we should worry about, they say, and things we might think are important, but that don't make much of a difference. Theirs is a detailed, thoroughly researched 292-page book which divides everything people buy and use—from distilled liquors to shoes—into 50 categories, and shows how each thing impacts the environment in four areas: global warming, air pollution, water pollution, and alteration of natural habitats.

To make it easy for those who want quick answers, the authors summarize the four most significant consumer-related environmental problems, the seven most harmful things you can do, and seven rules for responsible consumption. Along the way are some eye-popping statistics, like the fact that in terms of water pollution, producing beef is 17 times more damaging than producing pasta, and that cars produce 3.7 tons of greenhouse gas emissions per household each year.

What makes the least environmental sense? Driving your sport utility vehicle to the grocery store, buying meat, and then worrying about whether to choose paper or plastic. That's because personal automobiles and light trucks are the worst overall environmental offenders.

Meat and poultry come in second overall, causing 20 percent of "common" (not toxic) water pollution, and using 860 million acres for livestock grazing and animal feed.

Conventional cultivation of fruits, vegetables, and grains comes next on the harmful list because of the large quantities of pesticides, herbicides, artificial fertilizers, and irrigation water used. Then come home heating, hot water, and air conditioning; household appliances and lighting; home construction; and household water and sewage.

With this information in mind, what can a concerned citizen do? Choose a home no larger than you really need in a location that involves as little driving as possible. Buy a car that gets good gas mileage (SUVs and light trucks are the worst). Eat less meat, buy certified organic produce, install efficient lighting, buy efficient appliances, choose an electricity supplier offering renewable energy, buy things made of recycled materials, and be a "weight watcher"—all things being equal, the purchase of a heavy item will have a larger impact than the purchase of a light one.

Don't worry about *occasional* use of disposable cups, paper plates, paper napkins, and plastic utensils; they're lightweight, take relatively little energy to make, and take up little space in landfills. Spray cans no longer damage the ozone layer, so spray away, the authors say. Crockpots, toaster ovens, frying pans, electric convection or gas ovens are better than using a full-size electric oven, but a microwave is many times better yet, so buy one if you can afford it and don't feel guilty.

As for paper or plastic, it doesn't make much difference; both consume about the same amount of resources, and a typical household uses only a few pounds of each a year. As for diapers, the authors note that hundreds of thousands of dollars have been spent studying the environmental impact of cloth versus disposables without proving that one or the other is better, so use whichever you want. And only major businesses that ship hundreds of thousands of packages a year need worry about what to use as packing material.

In short, sweat the big stuff, not the small stuff, and think light.

The Consummer's Guide to Effective Environmental Choices: *Practical Advice from the Union of Concerned Scientiests* by Michael Brower, Ph.D., and Warren Leon, Ph.D. Three Rivers Press, New York, 1999. $15 (Canada $21).

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.

Nontoxic Mosquito Control

Pamlico County, North Carolina, has initiated a mosquito control program that uses the biological control agent Bacillus thuringiensis as a larvacide and minnows as predators. The county heath department has taken additional steps to

educate the public on how to reduce or eliminate mosquito breeding grounds around homes, using volunteers to identify and count mosquitoes. This program is in sharp contrast to others where fogging with conventional pesticides like malathion or resmerin is the method of first choice. It is especially notable that the program has been implemented in coastal areas where control is often more difficult.

20,000 Gardeners

When Havana teacher Maria Felix Bonome started cultivating the plot in front of her home in 1989, urban agriculture was unheard of in Cuba—half the food in Havana was imported from the Eastern Bloc, and half from the countryside. When food shortages ensued at the collapse of the Soviet Union, Bonome created a cooperative urban garden with a group of families. Soon others followed, and the citizens of Havana began cultivating any space available, including balconies and rooftops. Today around 20,000 inhabitants of Havana are directly involved in urban gardening, and half Cuba's food is now grown in the cities. Bonome's urban garden provides free food and care to those who need it, and on-site work programs for students from a local youth correctional facility. "We organized a brigade of family and friends and created it for ourselves. We needed only our hands," said Bonome. "We all work together to make our city a good place."

One To Watch

Iceland aims to be the first country to cut its links to fossil fuels and create a "hydrogen economy." Analysts say Iceland's strategy, if adopted worldwide, would banish global warming by the middle of the 21st century. Leading companies in the fast-growing fuel-cell business—car-maker DaimlerChrysler, Shell Oil, Norwegian hydroelectric company Norsk Hydro, and Canadian fuel-cell designers Ballard Power Systems—have signed up with Iceland to conduct a country-wide experiment. The new power source will be hydrogen, made by splitting water molecules using the island's abundant hydropower. The hydrogen will be liquified and fed to fuel cells that will power buses, trucks, cars, even the fishing fleet. Although Iceland is well placed to manufacture the fuel in an environmentally friendly way, some environmentalists are critical of the high energy needs of producing and storing it. But Tony Jupiter of Friends of the Earth said, "One big attraction is that it will help solve urban air quality problems. If it is made using renewable energy, there are real attractions."

Casa Guadalupe

Cathy Gilligan, a retired school teacher, sold her comfortable condo and bought a five-bedroom house in a low-income neighborhood in order to invite homeless, often abused, Latino women and their children to live with her, rent-free, while the mothers work to save money to be on their own. Since she opened her doors in the spring of 1996, 10 women and 17 children have made "Casa Guadalupe" their home. Most have worked as housekeepers through a business Gilligan set up. At age 69, Gilligan devotes her $1400 monthly income from Social Security and her teacher's retirement to pay the mortgage, utilities, and food bills. Several churches

and service groups help her, and a newsletter she mails to potential donors brings in a few hundred dollars a month. “Doing this brings me joy,” says Gilligan. “It’s the only way of living that makes sense to me in a culture so addicted to violence, consumerism, and so little respect for life.”

Suggestions Invited

Thanks to Catherine Cameron for sending "Nontoxic Mosquito Control." 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.

New Video Program

Over many years, our methods of growing food have become more mechanized and more complex. At the same time, we’ve lost millions of acres of good soil to pollution, erosion, and an ever-growing population. However, there is now an increasing awareness of the need to change our perceptions about how we grow our food and how we treat the land. *The Living Land*, produced by the Foundation, features four individuals on the frontier of this effort.

JOHN JEAVONS, founder of Ecology Action, is known internationally for his work developing small-scale, sustainable food production techniques. His book, *How To Grow More Vegetables Than You Ever Thought Possible On Less Land Than You Can Imagine*, is used in more than 110 countries.

WES JACKSON was born and raised on the great plains and holds degrees in both botany and genetics. As president of The Land Institute in Salina, Kansas, for more than 20 years he has been developing a revolutionary concept known as Natural Systems Agriculture.

ALICE WATERS is an internationally known chef, author, and proprietor of Chez Panisse restaurant in Berkeley, California. She initiated an Edible Schoolyard program at a local middle school which involves children in planting, gardening, harvesting, cooking, and eating. Her goal is to instill a sense of the vital relationship of food to their lives, while teaching respect for each other and for the planet.

MAS MASUMOTO is an organic farmer and author of *Epitaph for a Peach*. A sansei, or third generation Japanese American, Masumoto grows peaches and grapes on his 80-acre family farm in California’s San Joaquin Valley.

The Living Land

Narrated by Peter Coyote - 27 minutes - Closed Captioned

This video can be ordered from Foundation for Global Community, Distribution Dept., 222 High Street, Palo Alto, CA 94301 - (800) 707-7932 - $24 (includes shipping & handling)

ON THE INTERNET

The following programs produced by the Foundation for PBS viewing can now be ordered directly on the internet at www.amazon.com:

- *The Unfolding Story*
- *A Sense of Place*
- *Ecopsychology*
- *Art of the Wild*
- *Children and Nature: Awakening a Sense of Wonder*
- *Water: Sacred and Profaned*
- *The Living Land*

A Fisherman Story

(From the Internet)

An American businessman was at the pier of a small, coastal Mexican village when a small boat with just one fisherman docked. Inside the small boat were several large yellowfin tuna. The American complimented the Mexican on the quality of his fish and asked how long it took to catch them. The Mexican replied, "Only a little while."

The American then asked, "Why didn't you stay out longer and catch more fish?" The Mexican said he had enough to support his family's immediate needs. The American then asked, "But what do you do with the rest of your time?"

The Mexican fisherman said, "I sleep late, fish a little, play with my children, take siesta with my wife, Maria, stroll into the village each evening where I sip wine and play guitar with my amigos. I have a full and busy life, señor."

The American scoffed, "I am a Harvard MBA and could help you. You should spend more time fishing and with the proceeds buy a bigger boat. With the proceeds from the bigger boat you could buy several boats. Eventually you would have a fleet of fishing boats. Instead of selling your catch to a middleman, you would sell directly to the processor, eventually opening your own cannery. You would control the product, processing, and distribution. You could leave this small coastal fishing village and move to Mexico City, then LA and eventually New York City where you would run your expanding enterprise."

The Mexican fisherman asked, "But señor,how long will this all take?"

"15-20 years," was the reply.

"But what then, señor?"

The American laughed and said, "That's the best part. When the time is right you would announce an IPO and sell your company stock to the public and become very rich. You would make millions."

"Millions, señor? Then what?"

Triumphantly, the American replied, "Then you would retire! You'd move to a small coastal fishing village where you would sleep late,fish a little, play with your grand kids, take siesta with your wife, and stroll to the village in the evenings where you could sip wine and play your guitar with your amigos."

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Palo Alto, California
October 15, 1999