

FROM THE

Director



The Death and Rebirth of Everything

To not think of dying is to not think of living – Canadian musician Jann Arden

The single most important thing to know about Americans is that Americans believe that death is optional. – Jane Walmsley, in a New York Times profile of actor and playwright Woody Allen

In September 2004, two young environmentalists published an article that shook the environmental world. In “The Death of Environmentalism,” Michael Shellenberger and Ted Nordhaus argued that the environmental movement with all of its unexamined assumptions, exhausted strategies and outdated concepts needed to die so that a more vibrant, visionary environmental movement could be born.

Many in the national environmental community responded defensively. Numerous environmental leaders attacked what they saw as inaccuracies or omissions in their essay and vigorously defended the movement’s strategies, despite what Shellenberger and Nordhaus saw as recent demonstrable lack of successes.

The same knee-jerk response to criticism or questioning is evident in many other sectors of our society. For example, whenever anyone presents evidence that a new technology may have some unintended, harmful consequences, the reaction on the part of the intellectual community that developed the technology, as well as the industry that manufactured it, is likely to be defensive.

In May 2005, the journal *Environmental Health Perspectives* published a study that suggested a strong correlation existed between mothers exposed to phthalates (chemicals used in many consumer products from cosmetics to weather stripping) and the development of the genitals of their male children. The prompt rejoinder from the trade association that promotes products containing phthalates stated that “an extensive body of scientific research” had already confirmed the safety of phthalates.

Using science as a defense

It is especially interesting to note that science often is used to buttress such defenses. In *Food Politics*, nutritionist Marion Nestle demonstrates how science is used with respect to diet and health issues. She concludes that science often is employed to defend an existing

position rather than to uncover new or more accurate information. Science serves to counter objections rather than to explore or enlighten.

Using science primarily to defend positions that have already been adopted, rather than critically reviewing existing positions and exploring alternatives, contributes to the weakening of public trust in the scientific enterprise. That by itself is a perverse outcome. But perhaps even more troubling is the fact that our rush to defend accepted positions distorts our perception of the world. We end up believing that the way we happen to see the world at a given point in time is a literal, everlasting description of our world.

Lessons from the Earth

But the history of science has taught us that our understanding of the world constantly changes as new knowledge evolves about how the world works. It also shows that the world is very dynamic, continually evolving such that we constantly need to correct our perceptions. Our rush to defend accepted positions, accordingly, amounts to a kind of denial of death and the important contribution that death makes, not only to the rebirth of our perceptions and institutions, but as it turns out, to the vitality of our entire planet.

In her wonderful new book, *Reading the Rocks*, Lawrence University geologist Marcia Bjornerud helps us to understand the science of death. She reminds us that “recycling is ubiquitous and obligatory on Earth,” that everything gets “returned to the factory,” and that “nothing is unusable waste, and nothing will last forever . . . matter resides temporarily in various lodging places, then moves on in new guises.” Furthermore “residence times vary hugely even within a given biogeochemical system . . . eventually, though, everything passes through the system . . . nothing is permanent, and yet because of this, everything is eternal.”

The important point here is that death is the essential element by which everything is re-

talized and therefore is a necessary ingredient to the resilience of the living planet. Every farmer knows this. You can’t reap the bounty of a new crop without planting a seed to die in the soil.

Bjornerud reminds us that “the lessons we can draw” from this story of the Earth are “not merely metaphorical; rather they are design archetypes that we should emulate in our economic and social systems if we wish to avoid irreparable instability.” She goes on to suggest that “our mistake is forgetting that we are simply the youngest children in a generations-old dynasty. Narcissistic fascination with our own short biographies blinds us to the far richer and deeper family saga . . . It is folly to think that we can sit out the dance or make our own rules . . . unchecked consumption and unchallenged political power are violations of ancient earth-law.” In other words, we live in the shadow of Earth’s operating principles, which applies to our social and economic systems as well as biophysical systems.

Allowing the new to evolve

So, Earth’s ancient laws may offer some valuable lessons. Everything has a useful life span, then it is time to let go and allow new life forms to replace the old. Insisting on defending positions or institutions because they seem to serve our own short-term interests as well as our immediate objectives may leave us incapable of meeting the challenges of the future.

The United Nations’ recently released “Millennium Ecosystem Assessment Synthesis” report reveals that two-thirds of the earth’s ecological services on which life depends have now been so polluted or overexploited that the likelihood of unprecedented or abrupt ecological collapses is dramatically increased.

And, as Bjornerud reminds us, much of that situation is due to “the magnitude of human actions on the Earth” which “now matches those of natural agents. We are changing the

DIRECTOR (continued on next page)

Study shows farmers' markets boost Iowa economy

by LAURA MILLER Newsletter editor

Farmers' markets not only are a great place to get fresh produce, flowers and baked goods, they also may generate an estimated \$20.8 million in sales and more than 325 jobs for the Iowa economy.

These figures are from an economic analysis prepared for the Regional Food Systems Working Group (RFSWG) led by the Leopold Center. To do the analysis, Iowa State University economist Daniel Otto and graduate student Theresa Varner used information collected during the 2004 market season for the Iowa Department of Agriculture and Land Stewardship (IDALS) and the Iowa Farmers' Market Association (IFMA).

"There's more hidden economic value in Iowa's farmers' markets than meets the eye," said Rich Pirog, who directs the Center's Marketing and Food Systems Initiative and the regional foods group. "Farmers' markets and other efforts that support locally grown and processed foods have a positive impact on the regional economy."

In 2004, Iowa had around 160 farmers' markets, the highest per capita in the nation. At least 55,000 people went to a farmers market at least once, with total seasonal attendance set at 135,000. An additional 12 markets were expected to open in 2005.

Based on interviews with more than 4,500 customers, these markets generated \$20.8 million in total sales in 2004. Those sales, in turn, resulted in an additional \$12.2 million of economic activity, of which \$4.3 million represents the supplies and services purchased by vendors and growers, and \$7.2 million in induced (payroll) effects. The analysis showed that farmers' markets represent an estimated 325 jobs in Iowa, plus an additional 146 full-time jobs created by the secondary impacts of the farmers' markets.

The economic impacts of the year's bustling farmers' market season in Iowa were estimated using an economic input-output model. The model uses purchases and sales of commodi-



In 2004, at least 55,000 people visited a farmers' market at least once, with total seasonal attendance in Iowa estimated at 135,000. There were nearly 160 farmers' markets in the state.

ties among industries, businesses and consumers to estimate additional secondary impacts in a regional economy.

"This study really shows the multiplier effect of farmers' markets in a community," said Virginia Gieseke of Des Moines, who manages the Drake Neighborhood Farmers Market and is a member of the RFSWG and IFMA. "But farmers' markets have many other impacts that cannot be measured, such as the ability to gather people in a community and provide fun and educational activities."

To collect the consumer information, trained enumerators interviewed approximately 10 percent of the customers at 161 farmers' markets in Iowa. Customers were interviewed at the beginning, middle and end of the summer to account for differences in the markets during the growing season. Questions included the number of times they visited the market, average cost of their purchase, and type of

products purchased.

The average customer was 51 to 65 years old, and visited the market 13 times during the standard 21-week season. Customers spent \$11-\$20 per visit, and more than 80 percent bought fruits and vegetables and 40 percent purchased baked goods.

RFSWG is part of the Value Chain Partnerships for a Sustainable Agriculture (VCPSA) project funded in part by a grant from the W.K. Kellogg Foundation.

 www.leopold.iastate.edu

The report, "Consumers, Vendors and the Economic Importance of Iowa Farmers' Markets," is available on the RFSWG web site, www.valuechains.org, or by contacting Rich Pirog, (515) 294-1854.

USE SOME OF OUR SCIENCE TO EXPLORE ALTERNATIVES FOR A NEW ERA

DIRECTOR (continued from page 3)

underlying beat of the global dance." And we have no ecological blueprint to predict how the planet will respond to these dramatic impacts. There is plenty of evidence to suggest that we may not like (or even survive) the new trajectory.

Much of our defensive behavior seems to be rooted in our unwillingness to accept death as part of the drama of life and allow social, economic and political systems that no longer

serve the health of the planet to be replaced by alternatives that enhance the capacity of the land community to renew itself.

What does all of this have to do with sustainable agriculture? While we can all celebrate the short-term successes of our brief, past industrial agriculture, it may now be time to allow some aspects of that agriculture to die so that a new agriculture – more consistent with nature's ancient laws – can be born. Rather

than using science to reflexively defend every aspect of what made industrial agriculture successful, it may be time to use at least some of our science to explore different alternatives for a new era that appears to be emerging.

Sincerely,