

A Memorial Note for Donella Meadows

by John H. Tanton

*Cast your bread upon the waters....
...for after many days you will find it again.¹*

Donella and Dennis Meadows were co-authors of the 1972 book *The Limits to Growth*. It was tremendously influential, as testified to by the twenty-six languages into which it was translated and the nine million copies that were sold. In a way that Dr. Meadows never knew, it had a marked effect on my life and upon the immigration reform movement.

After working in the sixties on the “population problem” I began to notice immigration as a significant and growing portion of the U.S. demographic dynamic. This was reinforced by the 1972 “Report of the Rockefeller Commission on Population Growth and the American Future” that devoted a chapter to immigration. I began to collect materials on the topic, hoping at some point to find someone to write the subject up, as I did not fancy myself a writer. No one surfaced.

Then, while reading *Science* magazine, I chanced to notice an ad soliciting entries for the Mitchell Prize competition to be held at the Woodlands resort in Houston, Texas, in connection with the first biennial Limits to Growth conference.² Oilman and developer of the Woodlands George Mitchell had read the Meadows’ book, thought it significant, and agreed to sponsor five biennial conferences on the topic

in conjunction with The Club of Rome. These meetings were to include an essay contest with a first prize of \$10,000 — big money back in the mid-seventies. The papers were to “encourage international research and debate on problems inherent in the transition from growth to equilibrium of population, material consumption, and energy use.” Yes, Virginia, people actually thought and talked like that back then!

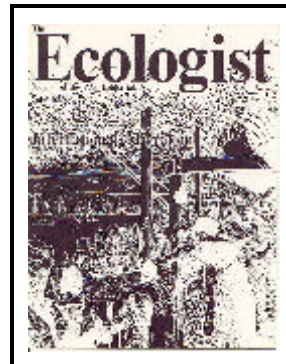
I pulled myself together and submitted the required abstract, and to my great surprise was picked as one of the twelve finalists. I subsequently won third prize (\$3,000) for my paper, “International Migration as an Obstacle to Achieving World Stability.”³

One of my fellow contestants was Edward Goldsmith, editor of the British periodical *The Ecologist* (and brother to financier Sir James Goldsmith, editor of *The Case against the Global Economy and for a Turn toward the Local*). He liked my paper well enough that he ran it as the cover story of the July 1976 issue of his journal. This gave me the credible reprint I needed to begin broaching the idea of re-examining U.S. immigration policy.

I was serving as national president of Zero Population Growth at the time. ZPG studied the issue, tested the waters, but ultimately decided not to take it on. To this day ZPG exemplifies the “cognitive dissonance” of arguing for stabilizing U.S. population while refusing to take a position on the single largest component of U.S. population growth: immigration.

With several refugees from the ZPG board I established the Federation for American Immigration Reform (FAIR), which opened for business on January 2, 1979, and is still in the midst of the controversy over migration policy.

This is not the place to argue the immigration issue.



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Rather I hope to make the point that when people like the Meadowses — or any of us — release our work it is very hard to envision where it will end up and what influences it will have. Hence the allusion to the Biblical phrase about “casting one’s bread upon the water” and seeing where it comes to rest.

In this case, the Meadows’ work led directly to the Mitchell conferences, to my paper, and on to the formation of FAIR. This in turn has influenced policy debates that have real-world effects on the lives of millions of people — I do not overstate the case. Whether the Meadowses would have approved this chain of events I do not know. Life is hard to predict, and even harder to manage.

Dr. Donella Meadows died on 20 February 2001 of staphylococci meningitis. I will miss her, even though we were not acquainted. Cut off in her most productive

years — she was just approaching 60 — she was adjunct professor of environmental studies at Dartmouth College and director of the Sustainability Institute in Hartland Four Corners, Vermont.⁴ Memorial services were held on Earth Day weekend in San Francisco, California; Whidbey Island, Washington; Talaquoa, Oklahoma; Washington, D.C.; Boston Massachusetts; and Hanover, New Hampshire.

For our memorial we reprint here her last article from the 20 April 2001 issue of *Grist* magazine. •

NOTES

1. Ecclesiastes 11:1-2.
2. Ad from *Science*, Vol. 186, No. 4167, 6 December 1974.
3. *The Ecologist*, Vol. 6, No. 6, July 1976, p. 221-227.
4. The Sustainability Institute, P.O. Box 174, Hartland Four Corners, VT 05049, www.sustainer.org.

Computer Predicts World Collapse

Author looks back on the storm following book

by Donella Meadows

[*Donella Meadows was an adjunct professor of environmental studies at Dartmouth College and director of the Sustainability Institute in Hartland, VT. She died on 20 Feb. 2001. This column is excerpted from her story about writing *The Limits to Growth* in 1972. *Limits* was translated into twenty-six languages and sold more than nine million copies. Visit the Sustainability Institute website (www.sustainer.org) for more information on continuing the work that Meadows began.*]

I was one of the team of people at MIT who wrote a book that

created a worldwide burst of media foreboding. It began as a small report. Within a few months we were reading headlines like the one above with complete astonishment.

We didn’t think we had written a prediction of doom. We had intended to issue a warning, but also a vision. We saw, with the help of the computer, not one future but many, all possible, some terrible, some terrific.

In the introduction to *The Limits to Growth*, we listed three main conclusions, one of danger, one of hope, and one of urgency. The press picked up only the first and the third: If the present growth trends in world population, industrialization, pollution, food

production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next hundred years.

It is possible to alter these growth trends and to establish a condition of ecological and economic stability that is sustainable far into the future.

If the world’s people decide to strive for this second outcome rather than the first, the sooner they begin working to attain it, the greater will be their chances of success.

You wouldn’t think such simple conclusions would stir up much of a fuss, but the fuss was incredible. The storm went on for years. It

inspired conferences, studies, books of denial, and books of affirmation and elaboration. Eventually, like all media-generated storms, this one settled back down.

Later, people who remembered *Limits* began asking me: Is this it? Are we running into the limits to growth? Were you right after all?

The question "Were you right?" bothered me. It is the wrong question. One can only be right or wrong if one has made a prediction. We didn't do that. We

offered a choice, and people heard a pronouncement of doom.

Are we pushing the limits?

Since we wrote *Limits*, the human economy has more than doubled its physical presence, from vehicles to electric power plants to garbage. At the same time, there has been great erosion of the planetary resource base. Species, forests, wetlands, soils, and habitats have been lost, buffers and degrees of protection have decreased, options have narrowed.

I have spent the past twenty years immersed in statistics that describe this decline. I've watched them unfold. I've presented them to classes and to audiences many times and in a calm tone of voice. I haven't cried over them. I haven't yelled in outrage.

That's because of psychic numbing, I'm sure. I haven't been hit all at once, as I was the first time I saw the birth-rate graph. Watching the numbers slowly get worse is like watching a child grow up — or a better analogy would be watching someone die of a wasting disease.

Exponential growth of population and physical capital, exponential depletion of resources, and degradation of the environment are not necessary to the human condition. But collectively we have been behaving as if they were. Growth is still the pattern of the human system. As yet no corrective processes have been strong enough to stop it. But there are signs of such processes. The good news is that some are coming from human ingenuity and restraint. The bad news is that some are coming from environmental breakdown.

There is a bright side

I've grown impatient with the kind of debate we used to have about whether optimists or the pessimists are right. Neither are right. There is too much bad news to justify complacency. There is too much good news to justify despair.

I am not afraid of the challenge of easing the throughput of human society back down within its limits — I think that can be done fairly easily and even with considerable benefit to the human quality of life. I am afraid of what the world might do with the idea that we are beyond the limits. I have already experienced the hostility, denial, and ridicule engendered by the idea that there are limits. I would expect more of the same from the idea that those limits are already exceeded.

Even worse than denial or ridicule would be simpleminded, uncritical, hysterical acceptance. I can see the headlines now: **BEYOND THE LIMITS: COLLAPSE IS COMING** or

BEYOND THE LIMITS: POPULATION, STANDARD OF LIVING MUST BE CUT.

Those are the two worst possible conclusions to jump to. The first confuses trend with destiny again, leaps at prediction, denies choice. The second recognizes only the most dramatic, conflictual, and violent of the possible responses to a state of overshoot.

To ease my fear, to set the record straight, to forestall the destructive headlines, let me write my own headlines in even larger type:

**OVERSHOOT DOES NOT
MEAN COLLAPSE**

and

**MATERIAL AND ENERGY
THROUGHPUT MUST BE
CUT, BUT NOT PEOPLE,
NOT LIVING STANDARDS,
NOT THE DREAM OF A
BETTER WORLD.**