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NEWS AND VIEWS

Introduction: special section in memory of Donella (Dana) Meadows

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Donella (Dana) Meadows was a unique role model for many in the academic community and especially for those involved with ecological economics and sustainability. Her untimely death in February 2001 has left a huge vacuum, but the memory of her life and work will continue to inspire for generations. That is, if the real story of her life and work can be told and fully appreciated. This special ‘News and Views’ section is a small contribution to what will hopefully be a large body of literature devoted to that goal. It includes four brief viewpoint articles and this introduction that offer a glimpse of what made Dana unique and so inspiring.

With her colleagues, Dana created the International Network of Resource Information Centers (INRIC), also called the Balaton Group, as an informal global network of diverse people pursuing the common goal of sustainability. Several ecological economists (including myself) were fortunate enough to be members of that group. The first article is an obituary written by Alan AtKisson and Joan Davis, on behalf of the Balaton Group, that summarizes Dana’s life and work. It was carried in several newspapers around the world.

The second piece, by Richard Norgaard, is a version of the text he delivered at a memorial service for Dana held in San Francisco on April 21, 2001 (Earth Day). Simultaneous services were held in New Hampshire, Washington, DC and several other locations around the world, with several thousand people attending in total.

The third piece, by Alan AtKisson, touches on some of Dana’s major accomplishments, including ‘The Limits to Growth’ (Meadows et al., 1972) and ‘Beyond the Limits’ (Meadows et al., 1992). Alan describes how and why ‘Limits’ caused so much controversy, how it was and continues to be willfully misrepresented, and the continuing importance of its basic message.

The last piece is by Dana herself. It is a newspaper article she wrote for her syndicated column, the Global Citizen, in which she describes the world as a village of 1000 people. A shorter version of ‘the village’ was circulating around on the web for several years anonymously until it was recently ‘discovered’ to have been written by Dana (<http://goodbirds.net/futuretalk/guestarticle.html>). It demonstrates Dana’s unique ability to make difficult concepts vividly understandable, to use both numbers and prose in compelling combinations, and ultimately, to make arguments that are impossible to forget or to ignore.

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Yet, forget and ignore is exactly what the mainstream economics community has tried to do with *'Limits'*. It has been dismissed as 'methodologically flawed'. It has, in fact, gone much further than that, with blatant misrepresentations of the study's conclusions repeated so often that they have become accepted as fact (Economist, 1997). How and why did this happen? Norgaard's and AtKisson's pieces in this special section shed some light on the process and AtKisson's recent book (AtKisson, 1999) contains a much more detailed account. In searching for an explanation, I am reminded of an experiment I once read about concerning the peer review process. In this experiment, two versions of a paper, which were identical methodologically and varied only in the final conclusions, were sent to a random sample of reviewers. One version had results consistent with the dominant paradigm, while the other had results directly opposed to the dominant paradigm. The version where results were consistent with the dominant paradigm was given rave reviews, while the version whose results were opposed to the dominant paradigm was recommended for rejection because it was 'methodologically flawed' (even though the methods in both versions were identical). The results of *'Limits'* were most definitively opposed to the dominant economic paradigm and their methods were vigorously attacked (Nordhaus, 1973). Although their methods were certainly not flawless, they were the state of the art, the limitations were openly discussed and the methods were actually not that different from the current mainstream approach (Nordhaus, 1994; Costanza, 1996). As the peer review experiment shows, however, it was not the methods, but the results that were objectionable to the mainstream and any excuse possible was used to discredit those results. To people familiar with the details of the arguments, it made the conventional economists who attacked *'Limits'* look ridiculous. But to those in the outside world who did not want to wrestle with the difficult issues raised by *'Limits'*, the chorus of discrediting voices made it easy to dismiss the study and go on with business as usual. But, as AtKisson points out in his essay, the results of *'Limits'* have (unfortunately) not yet been proven wrong and the issues raised by *'Limits'* are even more relevant today.

Even though Dana is best known to the world as the lead author of *'Limits'*, her real contributions to the creation of a sustainable world are much broader. Dana recognized that the creation of a sustainable world requires that we create a shared vision of how we would like that world to look (Meadows, 1996). She recognized that computer models are not answers, but rather tools to help us in envisioning possible futures. I will never forget Dana's keynote address at the 1994 ISEE meeting in San Jose, Costa Rica, where she talked about the need to envision a sustainable future world, the process of envisioning and the cultural barriers we must overcome in order to effectively envision. There was a stunning interlude when she asked the more than 1500 assembled attendees to close their eyes and put themselves in that future, sustainable world for a few minutes. Among those closed eyes, many eyes were opened to the real possibilities before us.

Dana was also a truly transdisciplinary systems thinker, able to cross disciplinary barriers with ease and grace. Our current crop of specialized disciplinary experts are like idiot savants—they do one thing exceptionally well, but in the process have lost touch with reality. Dana, by contrast, was a whole person. She, more than anyone else in my experience, embodied maturity, compassion and wisdom and she was dedicated to creating a world that also embodied those characteristics. Her life, her work and her memory will help us to envision and create that world.

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