

**Carl Leopold**  
Unitarian Church  
December 13, 2009

Mark Staves and I recently wrote a tribute to Carl outlining his many research accomplishments. Today I want to talk about sadder things—about some of the things that Carl has left for us to work on—because it is we, who must finish building the bridge to a sustainable future that Carl worked on all his life. It is we who must, “*make beautiful things where beauty is missing.*” I want to start off by paraphrasing Allen Ginsberg’s “Howl.”

Carl saw the best minds of my generation destroyed by madness, starving hysterical naked, dragging themselves through the academic Wall Streets at dawn looking for an angry fix of things to satisfy their habit of greed.

In our culture, which sanctifies gimmicks and growth, our solution to the problems originally caused by an unsustainable passion for gimmicks and superficial growth has been more gimmicks and more growth. Carl realized that the solution to growth-induced problems was not growth itself, but a transformation in our thinking and teaching—a transformation from thinking exclusively about the bottom line to ethical thinking—a transformation from narrow-minded reductionist thinking to thinking with an open mind over wide ranges—and a redefinition of what we consider to be “the good life.”

Carl knew that the dividends from an ethically-balanced economy were great—living cranes, not just construction cranes,

have a value that must be taken into consideration. Carl's father once wrote an elegy for the wetlands that were home to living cranes. Perhaps one day we will all help to write a eulogy for the construction cranes, which are now the dominant species on the Cornell Campus from the Plantations to the Arts Quad, and from the Ag Quad to the spot where the redbuds once stood. To build a building is so much simpler than to think. It is a time for thinking.

Birth is a beginning, Death is a destination, and Life is a journey. Throughout Carl's journey, he defined for himself and helped us to redefine for ourselves, what "the good life" and "a good life" mean. Carl lived simply and with integrity. Carl cared about people and the whole biotic enterprise. He had a sense of priorities; a guiding star—and he walked, or he drove his scooter that got 100 miles to the gallon, or, when the weather was too cold, he drove his 1992 rusty Justy that got 35 miles per gallon, toward that star, with his eye always on that star. After Carl died, I wondered whether the red plaid Pendleton jacket that he wore was threadbare. He had worn it for as long as I had known him. In fact, he had been wearing it ever since I was in junior high school. It was threadbare in places, repaired by Lynn in others. The thing is, when you were with Carl, the glitter in his eye, his smile, his enthusiasm, his creativity, wisdom, talent, humor and vision were so much greater than any material thing—any material thing—that I just never even thought to notice whether this red plaid jacket was threadbare. It takes a good man with an admirable definition of "the good life" to wear a threadbare jacket at a time when many in "polite society" are unable to see beyond the material trinkets with which people use to adorn themselves when all too often, it is the clothes that

make the man. Unfortunately, as people have less and less inside, they need to adorn themselves with more and more. Having your name embroidered in silk inside a hand-made suit is no longer enough. Now people strive to have their names embroidered on buildings where nature used to be.

You could see Carl, through everything he did, focused on that guiding star that defined his priorities and he never, and let me repeat, he never deviated from that path. Carl had an ethical compass that surpassed every technological advance in accuracy ever made since the ancient Chinese used the loadstone to guide them on their way.

Carl grew up with the deeply-rooted understanding that in our journey, we *“are only fellow voyagers with other creatures in the odyssey of evolution”* and that *“This knowledge should have given us, by this time, a sense of kinship with fellow creatures; a wish to live and let live; a sense of wonder over the magnitude and duration of the biotic enterprise.”*

Carl was keenly aware of the importance of his father’s Land Ethic. In an interview published by Grist.org in 2007, Carl said that, *“In the past decade, we suddenly have become startlingly aware of the contemporary threats to our environment....environmentalism is merging into survivalism.”*

Could science help us out of these problems? In 1992, Carl asked the scientific community, *“Are we, indeed, leading our creative lives in a work atmosphere that is essentially indifferent to the ethical implications of our endeavors?”* This question became even more poignant when Carl realized that, *“Concerns*

*about ethics traditionally have been in the realm of the humanities, not in science. And as science has grown almost to the point of dominating academic communities, discussions of ethical matters have become increasingly rare.”*

Carl saw the growth of science as a two-edged sword. While it *“has been the source of startling... medical advances..., engineering capabilities, and new energy sources”* it has *“developed the capability to undermine the environment, and finally the ability to destroy life on earth. The beautiful game of creative thinking has given rise to marvelous advances, intellectual and utilitarian, and the same game has spawned the capability for limitless damage to mankind and the space around us. And as the juggernaut of scientific progress presses forward, in its wake has appeared an increase in the occurrence of fraud and sophistry among scientists.”*

Carl wrote in an autobiographical article, humbly entitled, *“Learning from Seeds,”* that *“I am seriously worried about the research community becoming increasingly the handmaiden of corporations. As research becomes increasingly expensive, and the federal support system is increasingly limited in support funds, our faculties are turning increasingly toward corporate funding. In spite of the alleged goals of academic research to provide intellectual information to the community that supports it, academic research is instead becoming increasingly the handmaiden of corporate interests.”*

Aldo Leopold wrote in his *“Marshland Elegy”* that, *“Our ability to perceive quality in nature begins, as in art, with the*

*pretty. It expands through successive stages of the beautiful to values yet uncaptured by language.”*

Although Carl was a great scientist, he really was first and foremost an artist who used the medium of science to exhibit his talents. Carl saw that science could be depicted by a triptych, *“an image of three Muses hand-in-hand. In the center, of course, is the sage, representing wisdom. At his right hand is the artist, representing imagination and skills. And at his left hand is the jester, representing the ability to laugh and see the fun in it. It might be creative for each of us to approach our science with wisdom, a sense of artistry, and a good sense of humor.”*

Carl had a wonderful ability to write with irony and awe. *“In retrospect, as I have grown older, I feel that my research work has become progressively more interesting and relevant. I may be wrong, but I would like to think that such a progression represents at least in part, some increase in skill at selecting promising avenues of pursuit.... Collecting the data at the end of each experiment still brings that wonderful increase in heartbeat that comes with testing your own hypotheses, and with the expectancy of finding new and relevant information.”*

*“As a less optimistic postscript, I must add that rewards from the profession are fickle. Credits for contributions that you have made will quickly lose their connection with you. Is it not remarkable, for instance, that people’s role in research so quickly fades from view?*

*....And so..., one needs to realize that rewards are mainly personal. Making contributions to your science may provide benefits to both science and agriculture, but your principal*

*reward will be your own personal gladdening. Among the most important of these personal rewards are (i) the joy of widening your intellectual abilities; and (ii) the happy confirmation that good mental processes combined with good experiments can do wonders for your understanding of nature. The former might be compared to the pleasure you get from learning how to play a musical instrument well; the latter may be analogous to the gladness from applying your skill, then, to search out the beauty and subtleties of fine music.”*

These very rewards provide the ingredients necessary for the paradigm shift required for a transformation in our thinking and teaching—a transformation from thinking exclusively about the bottom line to ethical thinking—a transformation from narrow-minded reductionist thinking to thinking with an open mind over wide ranges—and a redefinition of what we consider to be “the good life.”

*“A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community.”* Carl Leopold was right.

Carl was a guiding star to life scientists. He reminded all who knew him to think about the meaning and value of all of life as we studied aspects of it. Recently, Carl had been frustrated that his light had not been as bright as it needed to be in order to penetrate the smog of complacency that has been paid for with corporate dollars at the expense of environmental and intellectual integrity. We can each pick up and nurture an ember from Carl’s fire light. All of us together can ensure that

Carl's guiding star continues to provide a direction for anyone who wishes to hone his or her ethical compass.

That's Happy

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