

# Ecosystems as Models of Understanding by Tim Ramage

I am a dad, a teacher, and a husband. I do not make my own clothes. I do not raise my own hamburger. I do not grow my own pizza. Thanks to a genetic idiosyncrasy on my mother's side of the family, I am an ecologist who cannot truly see or comprehend the color green. I take long, hot showers, and I love road trips. I so love road trips, teaching, ecology, and doing things to make the future better for my daughter that for several years I, alone in the minivan, would drive 120 miles round-trip to a major state university to teach about sustainability. Now I drive a Land Rover and rail against global warming.

The irony of my life is not lost on me. I know I am a man far from being free of sin.

I was born in Kentucky – a Commonwealth that gave this country Abraham Lincoln, Jefferson Davis, and Henry Clay. Clearly metamorphosis can be as arduous as it is wondrous. As a young man, I could walk through the same woods as Daniel Boone and John James Audubon. It was seeing the works of Audubon that, in part, lead to my studies on birds. The detail and authenticity of his work was amazing. His observational dedication was inspiring to a budding field biologist. I lead trips for various Audubon Societies and Chapters. I even played John James Audubon for a couple of groups who wanted a reenactment Audubon to do a talk about the elephant portfolio of North American Birds. Their hero, my hero. A man whose paintings of birds were so lifelike and exquisitely detailed. A man whose works inspired an appreciation of wildlife as well as a conservation ethic. A man who literally shot every bird he drew and posed the carcass on a board so he could get it right.

My father was a highly skilled, gifted, and famous surgeon. A man of healing, great intelligence, determination, and moral fiber. A

man who firmly believed that the sick should be healed and that dandelions should be eradicated. He would come home on Saturday afternoon, after rounds at the hospital, put on his gardening clothes, and engage in battle. No chemical was too harsh, no dosage too small. Single toxins, multi-toxins, sequential toxins, prescribed doses, and overdoses – all were fair in this most noble pursuit. I was his aide-de-camp. Sunday afternoon in the garden was about worthy plants. And it was generally in his concern about the good plants that he would comment that the roses or the tomatoes were not doing as well as he thought they should.

Eventually, I let him in on the connection. I would have done so sooner but had assumed that the answer was so obvious to all that it could not have been a secret. While in different garden beds, the roses and the tomatoes were both down slope of the dandelions. Those to whom too much is applied simply pass the excess on. My reward for this enlightening observation was to be put in charge of the now hand-to-root battle strategy on dandelions. What can I say: a boy, his dog, a shovel, and no limitations. The dandelions did not stand a chance (especially since many were transplanted). The roses flourished, and the tomatoes were terrific. The strawberries are a tale for another time.

Environments are not about perfection, but connection. Do we operate in context of place, in concert with others, in the continuity of generations and confluence of cycles? Environments are about engagement, not efficiency. I have been to the grasslands of east Africa and have seen the foraging of zebras. There is nothing efficient about the processing of grass by a zebra, although they do seem to be fully committed to the activity. But the apparent inefficiency of one is a key to the survival of others. For the zebras clear the way for the wildebeests, and they for the "tum-mies." Efficiency is determined by the synergy of the system, not the value of the entity. We say lions are king because we like hierarchy. We seem to feel that a linear relationship of order brings clarity to the situation and insures continuance. But the lions and the zebras, the "croc" and the wildebeests, the gazelles and the cheetahs intuitively understand that the relationship is not linear, but sequential. Lions on their own are rulers of nothing. Zebras without lions ruin the place for others. Nature is about the balance of interactions and the dynamics of interdependencies. Generating and maintaining equilibrium in both time and space. At both my mother's and my father's graveside services, those often-uttered words were again expressed – "Ashes to ashes, dust to dust." We say them. Environments live them. Eventually, both the lion and the zebra become fodder for the grass, which

then becomes fodder for one whose excess is sustenance for others.

The environment does not care about how we feel or what we think and believe. Environments respond to our actions. Singly, cumulatively, collectively, those actions help or hinder the quality of the whole. I often wonder if "live long and prosper" was a Vulcan curse – and inside joke, rather than the salutation it appears to be. Do we really want to outlive our quality of life? Do we want to gain financially if it comes not by creating and regenerating, by depriving or degrading others? Economies and ecologies are linked. There is no economy that is not dependent on natural resources – so the only way to have a long-term economy is to have a long-term ecology. And healthy ecologies are dependent upon the quality of life of the population. Starving people do not protect endangered species; they eat them. Short-time-sighted people do not protect systems or processes; they harvest to live and to horde. We engage in willful ignorance or cognitive symbiosis. Our actions are the manifestations of our beliefs. Do we act as if we are a part of, or apart from, nature and the environment? Wes Jackson once asked: How do we become native to place? David Orr asks how we would live if we lived downstream from ourselves. Together, they form the basis of a larger and more critical question: Are we ready, willing, able, and looking forward to living in a manner that supports the living systems and physical processes that support us?

I have a daughter, so of course I am. My connection to the future is tangible and visceral, not merely intellectual or ideological. The whole family loves the Land Rover. So we are converting the front lawn to habitat. The roof, in the not too distant future, will support a wildflower garden. The pool in the backyard that has already allowed four species of amphibians to give rise to seven cycles of eggs/pollywogs/adults is likely to be turned into the pond the local fauna already believes it to be. Next week, I am getting a composter. And we will continue to teach about the environment and support those organizations, stores, and activities that best reflect our ideals. We get better, smarter, and wiser as we go. We are not perfect, but we are engaged.

*Tim Ramage is the developer and coordinator of the Environmental Studies Program at the Ringling School of Art and Design. His fieldwork on marine mammals, seabirds, marshes, and forest ecology led him to teach about sustainability and ecological design. His current work focuses on green roofs and ecomimicry (the adaptation of ecological systems as infrastructure for primary services and environmental health in the built environment). Email [trumage@ringling.edu](mailto:trumage@ringling.edu)*

