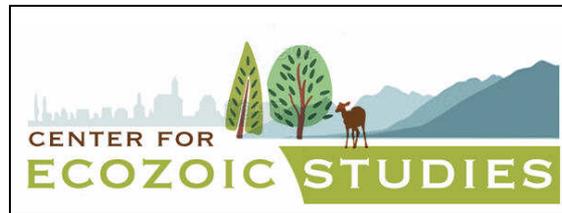


# *CEIS Monthly Musings*

Issue 12, April 2008  
(Published April 28, 2008)



*Seeking integral community  
in an ecological age . . . .*

**“Ecozoic” means “house of life.”**  
\* \* \*

**The “Ecozoic Society” means a society of life.**  
\* \* \*

**The “Ecozoic Era” is a time of mutually enhancing relationships  
among humans and the larger community of life.**  
\* \* \*

**The “Great Work” is living the promise of the ecozoic.**

**In this issue:** [“Nathan Rollins’ Graduate Program in Environmental Social Science”](#) by Nathan Rollins,  
and [“Report on Thomas Berry,”](#) by Herman Greene

## **Nathan Rollins’ Graduate Program in Environmental Social Science**

*“My goal is to find better ways of understanding the complex and unpredictable interactions that occur between social and ecological systems.”*

Nathan Rollins

Herman Greene has asked me to write a musing for this week concerning my journey to graduate school and my research goals. I was graduated from the University of North Carolina in December 2007 with a



BA in Religious Studies, and, following graduation, I applied to several PhD Anthropology programs around the country. My selection process came to a close this week as I accepted an offer from Arizona State University and their School for Human Evolution and Social Change. I will be one of the first students to graduate with their new PhD in Environmental Social Science.

Arizona State (<http://www.asu.edu/>) is one of the largest universities in the US and has declared their mission to become the “New American University.” In order to become an exemplar for 21st century universities, they have chosen to pursue a different

track from the traditional departmental and sectarian models of classical universities where every discipline has its own distinct department. Instead, transdisciplinary work is the keyword for ASU, and the traditional boundaries and walls that have existed between departments and disciplines are dismantled to make way for environments where scholars from many different traditions and possessing different outlooks on similar questions mix and collaborate.

ASU's former Department of Anthropology has been reorganized into the transdisciplinary "School of Human Evolution and Social Change" (<http://shesc.asu.edu/>). In this new school, anthropologists, sociologists, economists, political scientists, mathematicians, and computer scientists work together. They still offer the traditional PhD in Anthropology, but beginning this Fall, they are also offering a PhD in Environmental Social Science which I will be pursuing (<http://shesc.asu.edu/node/317>). In this program, I won't be restricted to the traditional study program associated with the Anthropology degree. I will have the freedom to pursue any courses and research that furthers my goals.

I chose to pursue a career in Anthropology because of its foundation on ethnographic studies. Ethnography is the practice of studying a culture and community by living with that community for an extended period of time. It provides a grounding point for the esoteric and abstract theories on social structures, cultural dynamics, and so on.

My research interests have centered around a relatively new body of research known as Complexity Theory. This research is providing a new perspective and counter-theory to the classical mechanistic physics and metaphysics of Newton and Descartes. Scholars are beginning to develop the analytical tools and intellectual frameworks to show that the universe does not work like a predictable clockwork machine. In the new Complexity paradigm, natural and social systems possess characteristics and behavior which cannot be predicted by measuring the properties of their component parts. When a complex system, such as an ant colony or an agricultural community, functions or comes into being, the most interesting and powerful qualities of the system arise as a feature that cannot be explained solely by elements that compose the system. The survival strategies of an ant colony cannot be found within any of the individual ants, not even its queen. The characteristics of the colony as a whole exceed the sum of its parts. It is a capability for surprise, an emergence. Moreover, complexity scholars have come to realize that these emergent systems possess the ability to self-organize and do not require outside intelligence to evolve or come into being. It is a property of the universe itself to self-organize, and self-create, given the right conditions.

A key insight receiving a great deal of attention, and one of my future focuses, is how ecological systems have the ability to absorb disturbances and perturbations. The traditional ecological perspective had been that environmental processes from small meadows to the global climate functioned as an equilibrium. According to this perspective, all the interconnected elements in an ecosystem interacted to produce a stable equilibrium. Predators (e.g., lions) were balanced by the population of their prey species (e.g., gazelles). If the gazelles have an unusually productive birthing season, the lions are able to eat better and thus give birth to more young. As the number of predators increase, they place greater pressure on the prey species until there is no longer sufficient numbers of prey to support the predator population and the predators die off to more sustainable levels. Eventually the predator-prey populations stabilize at a reliable and stable equilibrium.

In fact, it is now understood that such a perspective is fundamentally flawed and simplistic--it is too linear and mechanical. These ecological systems do not maintain a single point of equilibrium but may possess the ability to shift from one "stability" point to another when sufficiently disturbed. A woodland can be a stable landscape regime for many generations and rapidly shift into an open grassland range (as has been observed as a result of human agricultural strategies or natural forest fire outbreaks). The "stability" of the woodland gives way to a much different and equally "stable" grassland which remains self-sustaining for an extended period of time. This is known as resilience (<http://www.resalliance.org/>). The challenge for scholars is to understand what makes an ecosystem resilient and able to absorb disturbances without shifting into new regimes. It is also important to understand what can reduce a system's resilience and increase its likelihood for regime changes or catastrophic collapse. (Especially since it is possible we may be facing a future global regime change due to human activities.)

My goal is to find better ways of understanding the complex and unpredictable interactions that occur between social and ecological systems. We need new ways of looking at and talking about the environmental, economic, cultural, and spiritual dimensions of social-ecological processes so policy makers, engineers, and community citizens can make more informed decisions on how to work with the environment and not despite it. Too much is at stake, as we all know, to just blindly guess or even make decisions based upon well-intentioned but incorrect beliefs. The latest research is demonstrating that not only do we not know enough about the complex interactions between social processes and ecological processes, but there is a significant dimension of unpredictability that is unavoidable. These processes are not just beyond our current ability to master--their fundamental nature is irreducibly complex and unpredictable. Surprise is a fundamental variable that has to be included in any equations seeking to describe the world, natural and social.

As a closing gift, I have attached a short article from my future ASU professors which may be a bit technical for some readers (but is far more readable than the other articles in the journal which followed this article!) In this editorial, they discuss the dangers posed by panaceas (universal solutions championed for all manners of social and ecological ills.)

Nathan Rollins

[solarahawk@gmail.com](mailto:solarahawk@gmail.com)

Google Talk: solarahawk

Skype: solarahawk

### **Report on Thomas Berry**

I last visited with Thomas on April 20. As you may know he is 93 and recovering from a severe hip fracture. His mind remains clear, this the miracle. His spirit remains generous and bright, this is the gift. His body is in pain and he is unable to walk other than a few steps. When he puts weight on his hurt leg, it is very painful. He is now in the skilled nursing part of his facility. He is able to join others at meals and continues to see people almost everyday. As before, if you want to send something to him, use email or his mailing address (available from me).

I received this lovely email from Jane Stavoe of Mt. Prospect, Illinois, to give to Thomas. I read this to Thomas on my visit. When I did he laughed.

Some years ago I was seated near you at an EarthSpirit Rising conference in North Carolina. I asked you a question about what I how I should have answered a four-year-old child who asked me how the flowers in my garden got to be purple. You told me that I had missed an opportunity for story and that I might have told her that the fairies paint them in the night while children are sleeping. I now have a sign in my garden that reads, "Leave room in the garden for the fairies to dance". It reminds me of you and your important answer to my question. Thank you.

This email says so much about Thomas and what he means to others.

I also read a paper of Fred Lanphear's to Thomas, which he liked very much.

Herman Greene

[hfgreene@mindspring.com](mailto:hfgreene@mindspring.com)

\* \* \* \* \*

***The mission of CES is to offer a vision of an ecozoic society and contribute to its realization through research, education and the arts.***

**If you like to become a member of CES, you may do so by sending a letter to CES at 2516 Winningham Road, Chapel Hill, NC 27516 with your contact information and dues. Annual dues are US\$30 (individual or family); reduced price, US\$20; outside U.S.A., Canada and Mexico, add US\$10. Sustaining Member US\$130. Contributions are welcome.**