

Consilience in Ravine Ecosystems
By Gerould Wilhelm
November 2009

If one acknowledges that plants and animals grow in habitats to which they are adapted, then one must accept the corollary: Change the habitat and the inhabitants change. All elements in an ecosystem must be in consilience, “jumping together,” if the system is to remain stable enough to endure changes at the rates at which mountains rise and fall. This consilience includes the Holocene-aged relationship that the system has had with any sustainable Human cultures that depended on the system for critical, life-sustaining resources. The implications for ecosystem collapse when consilience is abrogated are evident everywhere around us.

The ravines of the lake-border moraines of Lake Michigan are in a state of collapse, their age-old relationship with Human culture having been vacated since European settlement. Once very stable and indescribably beautiful, these systems suffer from fire suppression, storm water discharges, a superabundant growth of native trees and shrubs, and uncongenial ambient land uses. The overall anemia and system weakness renders the ravines vulnerable to invasion by non-native species, chronic soil loss, and slope instability. As the once great diversity native plants and animals wane and soils flush away to the lake, a few populations of weeds wax. Each year, the plants and animals with a genetic memory of sustained life along the western shores of Lake Michigan are replaced more and more by species that have no such memory or the aggregate biodiversity to sustain the system. Progressively, fewer and fewer things are jumping together. We are in no way in consilience with our ravines.

At a few locations along the lakeshore, people thoughtful of the trend and concerned about our posterity are struggling to understand the ravine system and re-engage our Human relationship in such a way as to stop the decline and nurture recovery insofar as it is possible. As our effort matures, the beauty and stability of the ravines are beginning to be restored. We have learned that while our contemporary ecological and engineering doctrines have led us astray, the native plants and animals of a place tell us only great truths. They are not encumbered by ego, hubris, pride, mendacity, academic doctrine, tenure, or political practicality. If our management is felicitous to them they flourish; if it is inimical to them they languish. Those who are attentive to them can see folly or fortune and respond accordingly. This act of study and caring is proving to be healthful to all involved with the effort, both the people and the place. Perhaps the greatest beneficiaries will be children yet unborn . . . seven generations hence.

Another crucial element of the relationship people have with their place is the humility that accrues to those who realize that Humans are incapable of whole understandings of much of anything. Such humility allows one to be open to the guidance that can be provided by nature and a deep study of the ancient wisdoms. Such wisdoms have been passed down from time beyond mind, often in the form of metaphor, by elders who are wise.

At one time, among the peoples native to the Great Lakes, elders would inform their young charges that the “earth is on the back of Turtle Mother.” We Cartesians scoff at such silly ideas. We know the “Truth.” Having seen the Earth from our space shuttle, we understand that the Earth is circling in orbit around the Sun. It takes 365.25 days and we are held near by gravity and distant by centrifugal force, and anyone can see that there is no turtle! The young Indian, however, is compelled to understand a different Truth, governed by the elder’s story. Wherever Turtle Mother goes to lay her eggs, the way must be free of obstruction and replete with good food; even so as the little turtles, now hatched, trundle back to the pond. If the pond is clean and full of life support, then there will always be a Turtle Mother to carry the Earth. What is the more compelling Truth?

In our own distant past, our elders told their children a story, a Truth. On the sixth day of creation, for no other reason, Man was created to have “dominion” over the birds of the air, fishes of the sea, and all things that crept upon the earth. All children could see that the extent to which we enabled the loss of a bird of the air, a fish of the sea, or anything that crept upon the earth was the extent to which we abrogated our covenant with our creator. Squabbling over the meaning of dominion has obfuscated the wisdom in this ancient but important story, one that is virtually identical in its veracity to that of the Turtle Mother.

Hubris, ego, and cupidity have always, are, and will always get in the way of understanding the important things. A faith in the infinite wisdoms will be far more salubrious to ourselves and our posterity than the certain assumption, at any given point in time we already have all the answers. Part of our consilience with creation is to make certain that the remnants of our natural world are cared for and secure, so that our ability to understand the important things is secure and passed along to generations yet unborn.