## Tarantulas in the Freezer (and other ethical dilemmas)

In the summer of 1983, my spouse and I bought a twenty-acre plot of Paradise for \$675 an acre. Paradise Township, that is—an historic Oklahoma settlement, now mostly free of humans, nestled between the Tallgrass Prairie and the foothills of the Ozark Mountains. Nourished by the utopian visions of Helen and Scott Nearing, the Shakers, and the Mother Earth News, we aimed to do our part in the imminent revolutionary transformation of our consumer society by living a life of ecological sustainability and voluntary simplicity. Originally, our twenty acres was hunting ground for Pawnee, Cheyenne, Arapaho, Osage, Quapaw, and Kaw, until the passage of the Federal Homestead Act of 1862 opened up the land for white settlement. The infamous Oklahoma Land Run of 1889 probably accelerated the revolutionary transformation of the North American continent away from ecological sustainability and voluntary simplicity— think "Big Oil." Our deed to the property originated with the first white settler who got his acreage for free in that vast land grab from the natives, and the tumbled stone foundation and caved-in well from that settlement were still visible—as was a rusty old whiskey still in a grove of cedar trees, bootlegging undoubtedly being more profitable than trying to eke out a living growing crops on the stubborn red clay soil.

That summer, we had a deep well dug for the unbelievable (today) price of \$200 and transported an old 984 square-foot wooden house down from Pawnee, which we set upon a new concrete foundation for the grand sum of \$2000. It had never occurred to me that you could actually move a whole house, but Okies are remarkable for their abilities to reuse and recycle; always have been ever since the Dust Bowl rendered that place uninhabitable for all but the most hardy, resourceful, and adaptable humans. We roto-tilled a substantial garden plot, and made the place reasonably habitable. *Reasonably* is the operative word here.

Along for the adventure were our four sons, Chris, Räm, Shaman, and Steve, ranging in age from two to twelve. With the approach of autumn, a defining moment in our homesteading experience occurred. I paid a visit to the local rural school, and discovered that the school bus ride would be about an hour and a half each way for Steve and Shaman. Misgivings turned into serious reservations when I inquired into the curriculum, and discovered that the arts were not included at this school because "all of these kids are going to end up on tractors anyway" (yes, that's REALLY what the principal said to me).

Well, I thought. Three hours a day on dusty old back roads on a school bus, to a school that doesn't value music, art, dance, or drama. Sure, we were

going back to the land, but that didn't mean we were prepared to give up culture too. We yearned to be modern homesteaders, experimenting with self-sufficiency and trying to live our lives with a small ecological footprint. But our values and dreams clearly were not completely in synch with the dominant ones in the local township. What to do?

We took stock of our situation. Coming of age in the 60's, we had lived our young adult lives rebelling against conventional ways of doing things. We had evolved from the "turn on, tune in, drop out" generation into the "use it up, wear it out, make it do, or do without" sector of society. We—not just our little family, but a whole generation of experimentalists—had become a see-whatwe can-do-for-ourselves subculture trying valiantly to create an alternate world free of greedy corporations, crooked politicians, and authoritarian dictums of all kinds. What optimists! We had educated ourselves about war, consumerism, the destruction of the environment and a host of other ills, and many of us saw our own educations as implicated in the mess our society had become. Why not try our hand at schooling—or unschooling—our own children?

We decided that there was all sorts of useful knowledge to be gained from the modern homesteading experience. The boys could learn to grow food, raise animals, build things, study nature, and read to their heart's content. I worried a bit that we might get arrested for not sending our children to school, so I spent some time in the local university library researching the education laws in Oklahoma. Happily, I discovered that the existence of scores of unaccredited Christian schools in this largely rural state, coupled with the very real political power of the fundamentalists, created a cozy context of extremely loose laws governing children's education. If one were to get into trouble for not sending one's offspring to school, it would only be necessary to demonstrate that we were providing an "equivalent" education to what might be offered in the government-run schools. Given my instructive meeting with the rural school principal, I figured the burden of proof was well within our capacity. So we spent the next five years "unschooling" in Paradise.

In European Medieval and Renaissance paintings, Paradise is portrayed as a lush place where humans lounge contentedly in soft grass with their arms draped around lions and lambs. In my Romantic fantasies about living close to the land, I imagined walking barefoot in the early morning dew, lying out under the stars at night, wading in sparkling streams, and drinking tea in the shade of willow trees on summer afternoons. Kind of a 19<sup>th</sup> century English countryside version of a relationship with nature.

Our actual Paradise, on the other hand, was inhabited by scorpions, ticks, chiggers, brown recluse spiders and copperhead snakes, which more or less precluded walking barefoot at any time, let alone lying in the grass. Quiet nights under the stars were likely to be interrupted by howling coyotes. The closest body of water was a murky brown pond and standing on its shore one day, we all saw a water moccasin, sometimes called a "cottonmouth viper," swimming around in it. The university herpetologist we consulted was quite certain their habitat did not extend this far west. Their range line was just a few miles over, however, in Creek County, and we saw what we saw—long gray-green body slithering along the top of the water and that telltale fuzzy white mouth yawning open to reveal venomous fangs. Gives me the creeps even now just to think about it. Earl had stories to curl your hair about kids getting bitten to death by swarms of those nasty reptiles even in the bigger Oklahoma lakes. Rural legends? At any rate, I ruled out pond swimming, if not lake swimming, and I never did find a clear sparkling stream anywhere in Oklahoma to wade in. To top off the demise of my Romantic notions, Oklahoma summers are too bloody hot even in the shade to enjoy afternoon tea.

In the best of worlds, one's dwelling offers respite from the dangers and discomforts of the great outdoors. However, the boundaries between inside and outside are very permeable when you live in a construction site, and seeing that our recycled house was basically "a work-in-progress" the whole time we lived there, we were continuously invaded by a variety of noxious creatures. Science fiction writers and doomsayers predict that after we have fully wreaked our ecological havoc on the planet, the world will be taken over by insects. I fully support this theory. In fact, our little spot on Gaia was living proof of the ingenuity, persistence and general evolutionary superiority of our multi-legged planetary partners. If you are at all squeamish about things that bite, sting, pinch, burrow, creep, itch, or blister, or if you want to hang onto Romantic notions about your relationship with nature, you may want to stop reading now.

The positive side of living a participatory existence within an ecosystem swarming with life is that your science classroom is right at hand. The negative side of living a participatory existence within an ecosystem swarming with life is that your living room is the laboratory. Our investigatory tools were simple: a high intensity lamp, exact-o blades, measuring tape and rulers, regular kitchen knives, magnifying glass, jewelry pliers, flat Styrofoam cartons, jars, and the freezer. And we didn't even have to go out the front door for our specimens.

One of our earliest exciting discoveries occurred one summer day when we noticed a large clump of dried red mud near the ceiling. A wasp was flying in

and out of the mud clump, so we invoked the inductive scientific method to hypothesize that it might be a wasp's nest. We waited patiently for a moment when there were no wasps around—poor Steve had already experienced the wasp defense mechanism—and then scraped the dried red clay blob off the wall with a putty knife. With great anticipation—this really was exciting, but perhaps you had to be there—we carefully sliced it open, hoping to get a good cross section view. We discovered an architectural marvel consisting of a cluster of short parallel tubes, covered over with a layer of mud like a Southwestern adobe house. To our surprise, a mass of itsy bitsy white spiders swarmed about. Spiders? We were expecting to see wasp larvae.

Further exploration into one of the many mud tubes did yield a squirming white larvae in a transparent egg case and an Aha! moment occurred when we realized that the baby spiders must be its food, flown in by the conscientious mother. Upon further research in the trusty World Book, we discovered that this solitary creature (unlike others of their species they are not social and do not live in colonies) was actually doing us untold favors by hunting, stinging and paralyzing spiders, usually black widows, packing them into the mud tunnels with her head, and laying eggs upon the not-yet-dead spiders before sealing up the tunnel. One of the unfortunate spider moms must have been carrying an egg sack. Mystery solved. But we were faced with a problem of both ecological and aesthetic dimensions. Should we allow our guest to continue her reproductive labors in our house, ridding us of countless dangerous spiders? Or would it just be too much to keep a mud dauber's nest in a prominent corner of the living room? Aesthetics won the day, and the patched up nest, some extra mud, and the baby spiders were put in a gallon glass jar on the porch, while Steve and Shaman commenced to record their observations.

Another group of creatures that provided endless opportunities for study were the red fire ants. Incredibly industrious, these creatures create impressive underground networks of tunnels and chambers to store their food. After a rainfall, they clear debris from their doorways and halls, creating conspicuous mounds of red dirt, a bit like those made by gophers. One evening, Shaman intervened in the normal cycle of nature, filling a plastic bucket with dirt and depositing a fair number of the population of a red ant colony into it. The next morning, he was thrilled to find that they had burrowed into the dirt overnight. He continued to restock the artificial colony, taking special note of how far up the sides the ants could climb before they fell, and seeing if it made a difference when he rubbed sand or water on the inside of the bucket. That's called "changing your independent variable" in science talk, which hints that kids might well be hardwired for the scientific method if we let them go about their business. Further explorations included activities like spreading grains of sugar in patterns to watch the troops follow the leader.

Once we all found a tarantula lying by a fire ant hole with ants swarming around it. We wondered how it died. Could the ants, collectively, have killed such a disproportionately large creature? We watched the food orgy until our attention was diverted by mating grasshoppers. How exciting can life be?

The next time I saw a tarantula it was hopping across my kitchen floor and I nearly jumped out of my skin. It's one thing to come upon a dead tarantula outside, where it belongs, and guite another to have a live one hopping about your kitchen. I did not know at the time that tarantulas are mostly nonaggressive towards humans or that their bite is comparable to a mere wasp or bee sting. Absent such reassuring knowledge, I found those long hairy legs and bulbous body mildly terrifying. What to do with a tarantula in the kitchen? I certainly didn't want to smash it because then I would have to clean it up. Besides, we were trying to model a sense of deep ecology for our kids that went something like this: We all share this tiny planet, and every living creature has inherent worth, and just as much of a right to be here as we do. Therefore, we should not take any life unnecessarily. Despite the commitment to species rights I did not believe that every creature had a right to find its way into someone's warm and cozy bedroom slippers. Even though I had trained the boys early on in our homesteading adventure to shake everything out before putting it on, I lived in dread of nasty critters lurking in underwear drawers, bed sheets, or shoes. I wanted that hairy monster out of my house. A corollary to our evolving philosophy, derived from idealized Indian lore, was if you have to take a life to satisfy vital needs, make use of every scrap of it. So rights aside, maybe there was a way to make full use of it. I knew the boys would get a kick out of a close-up view of Monster Spider, and that my standing as Super Earth Mother would increase tremendously should I surprise them with such a magnificent specimen. That's where the freezer comes in.

When attempting to capture a creature with eight eyes, it is no easy matter to situate yourself out of its range of vision. At that time, I did know that tarantulas could leap, but wasn't sure how far. I definitely did not want it to leap on me. So I snuck up from the rear and clamped a Mason jar down over it, creating an instant terrarium. *Voilà!* Safely encased in glass. Now came the scary part, when I had to quickly turn the damn thing over and clamp a lid on it. Gazing deep into its eight eyes, I communicated my sincere apologies and stuck it in the deep freeze, so that later the boys might be able to study those hairy legs and little claws and venomous fangs really close up.

Presumably tarantulas, being cold-blooded creatures who regularly experience the deep freeze of winter, do not experience pain or discomfort from this sort of slow, cold death. I want to believe this, but in fact, I really don't know, and I admit to some minor moral qualms about such interventions

we undertook in the name of science—everything from spray painting gorgeous new morning spider webs with white spray paint and lifting them carefully onto black construction paper to occasionally freezing insects and arachnids for mounting and closer inspection. Ethical dilemmas arose: What does "deep ecology" really infer? What are "vital needs" and who should decide this? How far need our sympathies extend? Should we interfere in the course of nature in the service of constructing knowledge? What does it matter, in the bigger picture, if Spider Mom has to spin a new web in order to capture lunch? After all, there's a good chance that she will be paralyzed and stuffed into an earthen tube by Wasp Mom anyway. Or if fire ants find themselves inexplicably hemmed in by plastic walls? What does it mean to have a "relationship with nature," when nature is not a 19th century English countryside, but a harsh, hot, and threatening eco-system populated by venomous creatures? And perhaps, most important, how can we make these questions part of the "curriculum"?

Respect for non-human species must necessarily include not just cocker spaniels and butterflies, which are easy to love, but those creatures which are downright hostile to humans and ugly to boot. In fact, some of the nastiest, lowliest creatures may be the most crucial to the maintenance of eco-systems. But how can we learn to appreciate these under-appreciated species if we don't take the time to carefully observe their marvelous engineering feats, their superb defense mechanisms, their incalculable contributions to ecological balance (think spiders and flies), and the stunning designs that have evolved in response to the environment (eight eyes - wow!)

Few kids in the United States today have the opportunity to study nature up close and personal. Farm families are forced off the land to make way for industrialized food production. Our wild spaces are disappearing, given over to suburbs, condos, and malls. Where there are spaces to wander in, many parents are too fearful—of dirt and germs and accidents and predators—to let the kids loose. Lives are too highly scheduled and structured to make time for wandering and exploration. But how does one develop an appreciation for the natural world without spending a significant amount of time in it? If we're going to love the earth and its creatures enough to save it, we need to really love it, not some Romantic ideal of nature or an intellectual abstraction of it, but the real deal, in all its teeming, hairy, ugly, creepy, crawly, slithering, slimy, swarming, buzzing, biting, sucking, stinging glory. If we can learn to love the wasps and the scorpions and the fire ants and the tarantulas, there is hope for the planet. Besides, they outnumber us. And they may outlast us. For that alone, they deserve our respect.

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foundations of education and teacher research. She is co-author, with Jim Henderson, of *Curriculum Wisdom: Educational Decisions in Democratic Societies* (2004) and *Understanding Democratic Curriculum Leadership* (1999), and editor, with Wayne Ross, of *Defending Public Schools: Teaching for a Democratic Society* (2004). She is also the author of numerous book chapters, book reviews, and academic articles in such journals as *Educational Researcher, Educational Philosophy and Theory, Teachers College Record, Encounter: Education for Meaning and Social Justice, the Journal of Critical Education Policy Studies, English Education, Journal of <i>Curriculum Theorizing, Curriculum Inquiry,* and the *Holistic Education Review.* She is currently completing a memoir about a five year experiment unschooling her four boys, entitled *Tarantulas in the Freezer: Reflections on Unschooling in Paradise.*