

Freeman's email of transmission:
BURST VERTABRA RECOMBINES!
WORDS DRIBBLE FROM WEIRDED MIND!

VARIETIES OF ATTENTIVENESS

Freeman House

Belonging is the pivot of life, the point at which selfhood becomes possible – not just belonging in general, but in particular. One belongs to a universe of order and purpose that must initially be recognized as a particular community of certain species in a terrain of unique geology.

Paul Shepard
Traces of an Omnivore

In 1980, the management policy of the H.J. Andrews experimental forest experienced a paradigm shift with consequences that continue to enrich the ecological sciences. Policy shifted from experimental management (i.e. how to successfully transform old-growth forest into economically productive tree farms) to Long Term Experimental Research (LTER). The long term is two hundred years, a visionary notion in 1980 and one that seems prophetic today. In 2008, I was privileged to be invited by the Spring Creek Project for a short stay at Andrews as a visiting writer, an integral part of the LTER plan.

CLOSE IN – Day 1, Lookout Creek

As I leave my room, I notice on the porch railing a series of eleven six-inch hemlock rounds tied with baling wire to the porch rail. No doubt something is being monitored. This is the sort of science that is readily understandable to a layperson like myself; the sort of thing a kid might do for who knows what purposes. I am on my way to Reflection Site #1, "the gravel bar," a place I remember well from

previous visits to Andrews. It is not far from the admin center and I have gone there often to decompress from the passionate conversations at Spring Creek Project gatherings. Out in the air I notice the irritating whine of a powerful machine. It's coming from the debris flume a few hundred yards down the road, so I stroll down to take a look. I don't intend to complain — after all, I'm a guest here — but I'm curious as to what's making that damnable racket.

The debris flow flume is a rather massive construction, a concrete chute maybe six feet wide with four foot sidewalls extending 300 feet up a steep slope, a 60% gradient. The floor of the flume is armored with corrugated steel plates. At the top is a gate that will hold back up to six cubic meters of saturated mud. The bottom of the chute is prepared for any particular experiment by distributing dirt and rock of exact proportions and volume, watering it with a series of spray bars to an exact level of saturation, and scattering tiny magnetic sensors throughout. At the foot of the chute is a paved area painted with one-meter-grids where the outflow is carefully analyzed after each flow. The gate contains the mud until hydrologists are ready to let it rip. The timing of the flows is in large part dependent on the quality of light necessary for video-documentation. (There are 107 debris flow videos on the Andrews Website, which might be recommended for victims of insomnia.) All of this data is turned into equations that may be useful by professionals beyond the boundaries of the Experimental Forest, but I don't know any more about landslides than I did when I arrived. What I know is that over-saturated soil on steep slopes will move. It takes a day or so to prepare for a pour and another day to clean up. Today we are cleaning up after an experiment yesterday. The sight of half a dozen workers, including two young women, students from Switzerland, busily shoveling mud, tempers my irritation. The source of the sound is a pump for high-powered hoses being used to clear the bottom of the flume. And it's not nearly as irritating up close as the sound the blade of a front loader makes as it scrapes the concrete pad.

As I make my way back, I reflect that Andrews is, after all, a working

forest. The work of research in twenty-first century America is more often than not giddily high-tech but still requires people with shovels, people like me. The trail down to Lookout Creek is itself a treat. Dead branches low on the big trees are draped with spangles of hairy moss and every other surface is cushioned with a score of different types of mosses. If you step off the trail (by accident of course) your feet sink into luscious rotting duff. It's hard to imagine this place has ever been other than moist. Then the creek, with a new addition since I was here last. A Douglas-fir at least four feet in diameter has uprooted itself and fallen at right angles across the stream, cantilevered into space. I'm delighted. I'm able to clamber up onto the log and edge out over the river a bit and enjoy the vista even more than usual: the hypnotic patterns as water flows over cobble, the grand forest on the other side. After a few moments of reverie, I begin to inventory the research tools close by; they are new, too, since my last visit.

On my left, a two inch PVC pipe with some kind of electrified monitor wrapped in a plastic bag to protect it from moisture. Bell reducers are fasted to an ordinary garden hose that runs *into* the river, which mystifies me, but no matter. To my right, a 1-1/2 inch PVC pipe that disappears into the ground at the break in slope. Across the water, several strands of florescent tape hang from the brush, perhaps to mark high water a month or so ago. Just a little behind me on the walking path some corrugated heavy duty black plastic tubes, four feet by eight inches, are mounted three feet off the ground, hose-clamped to metal fence posts. I would be mystified again, but a neatly typed glassined card is taped to one of them and tells me that they are air pollution gauges, part of a nation-wide inventory. Rain and snow passes through the tubes, which are filled with one-centimeter gel beads that filter out pollutants, mainly ammonia nitrate and sulfates, and then release the water onto the ground below, presumably pure again. At the end of the year, the gel beads will be sent to a laboratory for analysis. The surrounding lush vegetation would seem to indicate that acid rain is not much of a problem here, but that's just anecdotal observation. I go back to my log and stare at the water for a good long while, letting the numbers

drain from of my mind, even as the landscape's numbers are being fed into a remarkable database. I am watching the river. The scientists of Andrews Forest are watching the river. I am moved to consider the varieties of attentiveness.

OUT THERE Day 2, Lookout Old Growth Trail

I have my own high-tech investigative tool, a Subaru Forester. I'm at least as pleased with it as the hydrologists are with their flume. I use it today to climb up to the trailhead that takes one into a stand of ancient forest. As I climb Road 1506, I see patches of rotting snow in the inboard ditch with increasing frequency. The patches get more frequent and cleaner, until my tool is finally stopped by a foot-deep snowbank across the road 500 feet short of the trailhead. The map says I'm at 3200 feet. I follow snowmobile tracks until I reach the trail, which plunges down a canyon carved by Lookout Creek. In a surprisingly short time snow and last winter's fallen trees obscure the trail and I set out across country toward the sound of water. I figure I can't get lost in a terrain where the only directions are up and down. Because I'm on such a steep slope, every time I stop to rest — often, as my legs are feeling each of their seventy years today — I get one of my favorite sights: the grand parallel columns of very large trees seen midway in their ascent, no tops, no bottoms. It's more of an architectural than an ecological pleasure.

Navigating off-trail is a challenge. It's messy down here. Fallen trees are everywhere, some as wide as I am tall. All among the grand standing giants are snags with shattered tops, huge root wads each of which leave large depressions where they had been anchored. Some giants have shattered as they fell, leaving brightly wooded gaps through which a person can crawl. Tidiness is obviously not an ecological strategy. I'm sure the data base can give you exact proportions, but I'm guessing there is a lot more dead litter on the ground than there are live trees standing. It's no wonder that loggers used to call this kind of forest decadent or overmature. The instructive thing is that the litter on the ground carries none of the weight or sadness of death that humans experience. The dominant

and delicious identifying smell of an old forest is that of rot and humus, and nothing smells more alive.

After a good deal of climbing and crawling, I find what I'm looking for, a spot in the sun with a view of the creek, all bright white water here curiously dimmed by the banks of snow at its edge, Every fiber of me wants to sink mindlessly in to the respiration of the life around me, and I do so until my breath slows to some approximation of the breath surrounding. A variation in the sound of the water snaps me alert. *I need to pay attention* or I'll have nothing to write about.

Bummer. Shall I count trees? Not a chance. Shall I name species? Too long since my tree identification class at what was then Oregon State College. I decide instead to speculate what time it is in the scheme of natural succession at this place. The largest trees are Douglas-fir, I'll guess 300 or more years old. I look for Doug-fir seedlings and see very few, but instead see a multitude of hemlock seedlings sprouting straight out of rotten wood. I lie on my back and look up, which action threatens to put me back into my preferred trance. Focus: The highest and most abundant crowns are Doug-fir, maybe 250 feet up. But wherever there is some opening in the canopy, I can see Western Red Cedars and Western Hemlocks struggling upward, occasionally to within a few score feet of the highest canopy. They are tall but not very vigorous looking. They are waiting their chance once the giants beside them fall and let in the light for both themselves and their sprouting offspring below. Another five hundred years, they may come to be the boss trees here. My rational mind tires quickly these days and I retire back into mindlessness. Spring, a few days later at this altitude, manifests in an occasional cloud of no-see'ums. There is a breeze in the canopy that doesn't reach the ground but knocks down a fine orange mist of what I take to be pollen. After a time without time, I rise and look around for a way back. I find that by climbing straight up the slope I will reach the trail that after all is only a hundred yards away.

Attention is not the same as attentiveness in the sense that I would like to use the word. Attention is narrowly focused and intense; it can only be maintained for relatively short periods of time, although it

can be made cumulative through record keeping stored in databases. My small efforts evaporate as soon as I stand. They won't stay with me unless I return again and again. To be attentive in my sense is to work toward becoming a functional part of a place. To begin to be attentive to this little patch of space, I would have needed to return here again and again over the last twenty or so years. I would have needed to bring my children with me and had conversations with them about the place. What does it mean to live here? What are our responsibilities? What can we take from here to nourish ourselves without harming the place?

Despite a culture that encourages non-attachment to a "particular community," I would speculate that attentiveness can lead to reconnection, communion with places. Attentiveness is a personal and necessarily long-term practice; it can quickly become a community practice. In my home place, the practice has taken the form of the contemporary community going out to engage the landscape we inhabit and attempt to repair some of the wounds that we and our ancestors may have inflicted on the place. After twenty-five years, that communal practice has become one of the signifiers of our local community. Science has always played a role: the new science of old-growth Douglas-fir ecology that has been generated at Andrews Forest has played an important role in helping us defend our own ancient Douglas-fir forests. But it's hard for me to see how scientific method by itself can get us to that desired state of belonging, a state of being that includes an intuitive sense of how to act so as to do it no harm. You can't immerse yourself in a landscape by translating the landscape and yourself into numbers and formulae. On the other hand, I am convinced that my community's style of attentiveness and that of Andrew Experimental Forest has more in common than it has differences,

A world without H.J. Andrews Forest and the LTER project would be a poorer place. It would be enough to see the aerial photo of the Lookout Creek watershed surrounded by ubiquitous Forest Service clearcuts to convince me of this. Knowing something of the work that goes on here elevates the place in my mind to something that

approaches the sacred. In the generation during which Andrews has been a site for study, it has developed resemblances to Shepard's description of belonging. Some of the scientists with whom I've had the good fortune to spend time have without a doubt become a part of the place. They are attentive. Their enthusiasm when describing the minutia of their work knows no bounds, including the one that limits my capacity for absorbing so much new information in a short time. They have a poetic quality; they love this place and their work very much. Their work has changed their behavior. But when they retire, what will they leave behind but a cold but thorough database on which to build?

When I arrived here, I spent the day guided from site to site by the same man whose enthusiasm knows no bounds, etc., and at the end of the day I blurted out the question, "When will all these data be interpreted? I want a picture of a watershed as a living being!" He didn't miss a beat but with a twinkle in his eye answered, "Don't know, We're all here as dispassionate observers." I've been puzzled by that reply all the time I've been editing these notes. Even remembering the spark in my friend's eye, it has taken me this long to realize that his very being — his enthusiasm and sense of vital participation — *is* a living form of the integration I seek.

Aquatic ecologist Jim Sedell writes in *In the Blast Zone* of what he calls the tribalism of scientific endeavor, a quality most likely to be generated, he believes, when organized around a single place. Unsurprisingly, Sedell first discovered said tribalism as a post-doc at Andrews Forest. "Communities of scientists sometimes coalesce into these intense group endeavors. I think of them as science "tribes," gatherings of motivated individuals sharing an excitement of discovery and personal dedication to solid research heightened by a sense of shared purpose, rich camaraderie, and, I can only call it, *joie de vivre*." In other words, they become people whose sense of self is reconfigured in the context of a particular place, people whose behavior is transformed.

It is the institutional memory of these transformative experiences that

will make cold databases come alive. Such a conclusion is, of course, contrary to the theories and practices of Science. But In two hundred years, the forested watershed of Lookout Creek is not the only thing that will change. Could it be that out of the turbulence of the times that coincide with the LTER all those atomized data will appear suddenly emergent as a living whole? We can only wait and witness.

END