

Reflections:
Field Notes, Journal Entries, Essay, Poems, and Comments
from a writing residency at the H. J. Andrews Experimental Forest

Robert Michael Pyle

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The Continuum Project: Long-term Ecological Reflection
A Collaboration of Ecosystem Science and Creative Writing

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I understand that basic pursuits of the sciences and humanities often differ intrinsically and logically, so much so that the techniques of one domain frequently cannot, in principle, answer the questions of the other. . . science tries to ascertain the factual structure of the natural world, whereas . . . the arts invoke aesthetic concerns that do not translate into the scientists's language of "true" and "false" . . . no factual conclusion of science (a statement about the "is" of nature) can logically determine an ethical truth (a statement about the "ought" of our duties).

Still . . . the commonalities of creative thinking, and the psychology of drive and mental excitement, seem to transcend the logical differences of subject or approach. I would not try to distinguish the emotions of exaltation felt in singing a particularly moving pasasage in Bach's *Passion* settings from the excitement of solving a tough little puzzle in the systematics of *Cerion* [the land snail of my particular research], and saying to myself, "Oh, so that's how it goes."

--Stephen Jay Gould, *The Hedgehog, the Fox, and the Magister's Pox*
Three Rivers Press, 2003



I. Field Notes (Raw Writing)

(Note: these rough bits are not intended as finished writing. They are transcribed directly from my field notebook almost unedited, with small changes made only for clarification. After-the-fact commentary appears in brackets, but parentheticals are original.)

April 18, 2004. Sunday night. Before bed, the last four hoot-notes of what I take for a spotted owl call. (The next day, Steve Ackers, spotted owl team leader, confirmed it; he also told me that barred owls are moving in, mixing and hybridizing with spotted owls, even in the old-growth. I wonder if future visitors will hear only barred owls out there.)

April 19, 2004. Monday morning. Heavy rain. A half-dozen black-tailed deer all around the lawn. Pileateds yodel beyond.

4 p.m. Rain. At Lookout Creek behind the settlement (**Personal Plot # 1**), white dogwood against black old-growth. Wet red yew bark, green vine maple bark. Winter wren ducks with a yip around an old-growth Douglas-fir. The *shock* of walking out the door into the Big Forest, Big Trees, after Willapa.

6 p.m. To **Long-term Site # 2**, the log decomposition research plot. Great gorge road up Lookout Creek. Rain increases at road end/trailhead. When hemlocks fall, I, who am used to seeing thousands of acres of western hemlock daily, see something new--for their boughs are arrayed on the ground such that their silvery undersides are up. It almost looks like snow.

This, in the dim deepwood of massive and moss-bound trees.

The triumvirate sounds forth: varied thrush, golden-crowned kinglet, winter wren, on and on; pileated woodpecker, the fourth, has totomed all the big old snags.

7 p.m. Up to **Long-term Site # 3**, the burn reproduction stand on the ridge. Through foggy woods, and then white over the road ahead--I think it's cars or trucks, but it's the sky, through the opened forest, over the ridge. And then the burnt trees, tall and black but alive, looming and leaning in from the burnt and blackened ridge. Forest Road 1508 apparently served as a fire line. These big trees were left while all the little ones were cut, or burnt; elsewhere, these scorched ones would be called "salvage" logs and cut.

Small firs and hemlocks and rhododendrons on the unburnt side, big trees on the burnt side. Funnily, Tom Paxton sings "There Goes the Mountain" on the radio as I behold this. More ridges ride off to the north in cloud valleys and burn-black forest shoulders. [Will the the remaining, scorched trees and reprod. be able to hold the soil on the experimental burn unit, or will the heavy precipitation up here carry the soil of this particular mountain down the watershed of the Central Cascades Adaptive Management Unit?]

In the low ridge woods, with lots of rhodies and some dogwood, is where the golden chinquapin appears. In three months, the golden hairstreaks (they are in Dana's collection from here). (Note: In Dana Ross's synoptic HJA Lepidoptera collection in the

entomology lab of the HQ building, I'd noted the golden hairstreak butterfly, which meant that its hostplant, golden chinquapin, had to occur somewhere on the forest.)

April 21, 2004. Wednesday afternoon. Forest Road 1506 near 330, going toward the Old-growth Trail, lower section.

Underlie: water tumble through roadside rivulet, maple flowerfall.

Overhead: distant jet rumble, rain.

North side: winter wren blows bubbles on a pennywhistle.

South side: pileated takes time off from hammering to yammer shrill runs.

In the ditch: red steel post, bent by snow, or?

On the moss-swaddled maple trunk: a geometrid moth that would be cryptic a few inches down, against the bark.

Up high: Steller's jay calling.

Down low: Douglas squirrel calling.

All around: western red cedar, vine maple, bigleaf maple, western hemlock, Douglas-fir, hazel, alder, willow.

Old-growth forest opening to columnar-tilted basalt with cupric facets, *Amelanchier*, and one tall incense cedar alone on top.

Water falls generously from above, is caught by a basalt outcrop, drips luxuriantly through mosses, succulents (a long-leaved, softish *Sedum* I don't know?), and tiny brassy monkeyflowers. It's like a rock wrapped in a knobby washcloth.

Tall cottonwoods down in the canyon shower balsam; when I find a small one by the road and smell it, I am almost overwhelmed. A buck leaps. High Doug-firs triangulate, rhodies hung with *Usnea* bunting.

Up past lower trailhead, in the rain, into snow. In a borrow pit (and log dump) on the left, snow spackles brown earth and rust rot-logs, and amongst it all, a single red currant stands out in full bloom [= blood currant, *Ribes sanguineum*].

Into the snow, on foot, and sun comes out, catching a moss-buffered boulder back: dark flowing ravine, only briefly.

Two sets of glyphs: the paired boundings of Douglas squirrels across the snowy road and back, and sapsucker Braille on overbrook alders. [In the sapsucker holes] you can make out numbers and letters, like pix in stars [constellations], till you wonder if the sapsuckers aren't on the hydrology team [taking readings].

(drawing here, copied from field notebook)

Evergreen violet blooming in the snow-rags. *Pachystima* & pipsissewa beside. Slight bird peeps, and a pileated woodpecker. They all spend the night out here!

6 p.m. **Personal Plot # 2**, where FR 1506 comes up against the bare angle of repose: Looking across Lookout Creek Old-growth to the horn of the west summit, hump of the east summit of Lookout Mountain. Blue and silver skies mottle the gray above the mountain, wisps of mist float up the steep valley.

What is the essential difference I perceive looking over the old-growth/Andrews Forest/Mack Creek etc. watersheds, and the forests I wake to every day?

Obvious: age, complexity, diversity, depth, variegation, individuality, stability, wildness, grandeur, and all that.

Perhaps less obvious: Capacity to hold surprise, e.g., why does that snowy avalanche field [on the high side of LO Mtn.] have one large fir standing in the middle of it? Also soil, water, mystery, the possibility of wolverines, Bigfoot, and DB Cooper.

3-D: the vertical here is not understated! Depth, too. Unruliness!

These forests defy easy answers.

7 p.m. Heavy sun hitting summits now--avalanche slopes could be ski runs--upper forest saddle is flocked.

Down into **Long-term Site #1** on the Old-growth Trail, lower end. Immediate immersion. Out of snow, trillium, vanilla leaf, bunchberry; *Linnaea* tendrils form a bower under a nurse log arch [beneath a nurse log lintel]. Classic moss wonderland.

Down to the bridge as light wanes--and *such* a bridge! Two [horizontal] fir giants at right angles, both scored by sawyers to give purchase to soles, approach and cross Lookout Creek. Exquisite islands, streambed *rich* in coarse woody debris! Several huge cedar snags & candelabras dead, rise from water, flares accentuated by water and moss; [with the] soil around their roots washed away, [they look] like cypress knees almost. Maple and fir snags also drowned, other giants still alive just bankward from flood. Rain and dark come together, with me at the bottom of the trail.

Coltsfoot, *Montia*, *Tellima*, moss on islets. This crossing, one of the most beautiful places I have ever been. At south end of bridge, a great triad of snags: one Doug-fir, one cedar, one hemlock.

Last sun, up in the canopy. Can a forest as big as a mountain be said to have alpenglow? Forest floor, heading out, full of the glow of trilliums.

April 22, 2004. Thursday morning. 10, to **Personal Plot # 1**. Sun! Now the dogwood is in shade. Has almost retracted into the forest, while backlit shoreside alderlings and river chips assume all the borrowed brightness of the sun. I take hydro samples from rhodie boats [sip drops from curled leaves].

Every moment of every reflection is responsive, allusive, and subject to mood and how wet my butt is--just the opposite from long-term ecological observations with

numbers. How the cold current persuades that root, already talked out of its bark, to let go; how old trees and rootwads form islands that redirect the pummel for each downstream riffle-making rock. How organisms adapt to all this, and what they look like, doing so. How those things touch on our own sense of fitting, bending, releasing, resisting, hanging on.

A big pollinator visits a garnet vine maple flower; I see it is a red-bummed bumblebee. How many more days of rain would have doomed it? How long will this sustain it? Above it, dogwood flowers and fresh, tender *Cornus* leaves sunstroke against blue sky: benignity, or my sense of it? A winter wren sings me out the path of the green-black old-growth puzzle, where softest chartreuse vine maple and red huckleberry leaflets carve sharp relief against dark and still ancient boles. A piece has just revealed itself with a tiny movement in the sun: rufous hummingbird building a nest on a mossy branch of a large Pacific yew extending into the sun over the stream. What has she been doing, these cold, rainy days, and does she forage upstream all the way to the blood currants? Do the vine maples have nectaries, or is the bumblebee coming solely for pollen? Her spot is between an immense Douglas-fir and a massive western hemlock.

Among the puzzle pieces below, the jigsaw of *Trientalis*, queen's cup beadlily, and oxalis, in the matrix of salal. Sword fern, Oregon grape, and roses. Do roses ever bloom in here [in the deep shadows]?

11 a.m.--tumbling rill on the way up FR 1506--What is hard to accept for a writer, but unassailable, is that this *needs no words*.

At noon, back to **Long-term Site # 3**. Sunny; snowy summits ringing the north and east. At the burn site, look for golden hairstreak eggs or small larvae on golden chinquapins. Here's a picture: A *Pyrgus ruralis* alights on gravel beside dewberry [which I strongly suspect as a larval hostplant for this skipper], then flies onto the back of a sword fern beneath a golden chinquapin. The crisp pattern of its tessellation--snowy white on dark charcoal--make it grayish in flight, so I call them gray skippers instead of two-banded checkered skippers [the accepted name for this little butterfly, <1 in.]. But alighted, the rows of spots are discrete, the checkered fringes crisp. The spots show off to full advantage against the sori of the fern. On the underside, the olive and chestnut marbling almost matches the fern colors. The soft red-browns and complex pattern of dead bracken back up this spring tableau--and then a Frostian sky-flake, a spring azure, wings past! [The blue butterfly *Celastrina echo*.]

So searching for one butterfly leads me to another two. And as I scramble downslope through young black cottonwood balsam to the chinquapin whose leaves it brushes, the skipper stays put a yard away on the fern. A handsome brown bee-fly alights between me and the gray skipper, who never moves until finally I make a jerk and put it up. I begin to examine chinquapin leaves for eggs. It takes only moments: here's the little Mormon bee skep, stippled with tiny bumps, the micropyle like a push-pinhole on top. [The egg is] hard up against the glistening rolled edge of the leaf, half-way along, pasted to the golden down of the leaf's undersurface, the color of the butterfly to come. Back up to the road through the strong scent of mountain balm, making a one-two punch with the balsam of the cottonwood.

I perch down in the burn/cut unit. A good many blackened but okay trees standing, many removed (stumps) and on the ground (smaller) too. Backdrop of loud chain saws to the northwest, and occasional timberfall--some truly big trees, judging from great thuds, almost like thunder. That accounts for the enviro/action I've heard about up there [on the Blue River Adaptive Management Unit] and the three rangers I met by the bridge on the way in. It's part of a rigorous thinning experiment, Kari says, but a deceased activist used to study red tree voles at that site, hence the demonstration.

Here, lots of young rhodies and Doug-firs coming in; raven, robin, junco, and nuthatch. Pileated or flicker in the distance, a piping woodpecker here, high--what kind?-hairy, probably. Lots of life, as always after fire. Elk scat, chickaree middens. Doug-firs planted or natural reprod? Almost look planted in their evenness, size. [This was later conformed] Some golden chinquapin reprod too. This should be good for the golden hairstreaks. Minute red and green mahonias, some cedar, too.

I scramble among lots of skeletal rhododendrons, over big black bones that stain my hands. Two little *purple* trilliums--they don't seem pink with age, but an actual purple species or morph! [There is no such species in the West; these were ordinary *Trillium ovatum*, but had pinkened to be as deep maroon as the eastern Wake-Robin, *T. erectum*.] Great filled well in hollow center of Doug-fir stump, with five or six riverteeth ends meeting in a strange occlusion near the middle. Above road, a new [for me] *Ribes*--[I first took it for more blood currant, but unlike *Ribes sanguineum*'s cerise panicles, this species had] single flowers, like little columbines--scarlet recurved sepals [later revised to crimson], pink-white protruding corolla, purple anthers on long stamens. Spicy-fragrant, spiny, small-leaved. Petals amazing *deep* rubies in sunlight, shifting, refracted by fine pilosity. [I later keyed this out as *Ribes lobbii*, the gummy gooseberry; I prefer to call it crimson currant.] Thinning should suit these species.

Late afternoon, visiting Barry, down the McKenzie. Osprey bringing sticks to a tall snag across the river, an old nest blown out and abandoned, being rebuilt this year. At least three hatches [of aquatic insects] float over the McKenzie River--including something *big* over against high opposite trees, like an alderfly or dobsonfly. Seemingly as big as a small bird, but flutters slowly. Then a crow with something large and reddish in its bill, as if it had maybe caught one of these. [I've yet to determine what this was; only dobsonflies are that large, but they are gray; it wasn't a dragonfly or lepidopteran.] Barry has a big cedar with healed-over pileated woodpecker holes--not entirely, but roll-scarred all around each cavity, as an old branch-stub would do. I've not seen that before.

April 23, 2003. Morning. Going for gas, I pass a man in a day-glo chartreuse windbreaker coming up the Blue River road on a bike. I feel equally clothed in bright lime, just being here at this season.

Back up to the upper Old-growth Trail. Cloud, dry, ~60 degrees F. No moth on the mossy maple [so it was alive and alit before, rather than prey]. Douglas squirrel crosses woodpiles, scamps up a diagonal down hemlock, and watches. That smooth hump of back, alert curve of tail (like a "?"), hands held up in importuning posture. I make a move, and both tail and hands come down, ready to scarper [Brit. for "getaway"]. Looks like it's looking straight ahead (90 degrees to me) but it is of course looking right at

me with that one black, glistening ball. Does it take in what the other eye sees too? How does it integrate the images? Can it double track, like me? Loses interest, creeps up log, scratches, noses vine maple leaflets, and moves off into endless tangle.

Snow-level is much higher today after yesterday's sun-melt; can drive to trailhead (Old-growth Upper) and a little beyond. Walk some way in the snow in my new Sorels (running shoes last time, feet got cold!). Snow: Steller's jay investigates, gray jay and a ? peeper too, but they don't show. More squirrel crossings, and deer, and grouse with two poops (eating buds). Black cottonwood and small soft pussywillows, subalpine fir and mountain hemlock appear.

Snowshoe hare crossing. Ruby-crowned kinglet, chestnut-backed chickadee [in forest edge]. Turn around (4 p.m. +) where snow gauge off road says ten feet of depth and pussywillows are exploding with yellow stamens and honey scent. Small fly lands on notebook [but little spring nival insect fauna, nor "snow worms" or "snow fleas"]. Cool here, ~45 F. Possible bobcat sign, single sit-leap crossing. [Continually peeping, following] birds won't show. Varied thrush in distance, down-canyon, and a jet above: antitheses. *Nice* snow walk! Sorels work A-1! One fall, knees wet, but not feet.

Into the upper Old-growth Trail. The start is under snow, then just patchy in the forest. Golden-crowned kinglets pipe in high western hemlocks. Can't go far--a recent Douglas-fir fall seriously blocks successive switchbacks. Sorels not as appropriate for up-down in slash and forest. The floor here is a carpet of bunchberry, pipsissewa, and rattlesnake plantain--right up the bases of the giants' duff aprons--with much sky-canopy debris. A cedar frond heavy with cones smells conifer-sweet but more terpy than cedary. Boles of these great trees straight, but off-shapes are as appealing: a mossy Douglas-fir burl that's a perfect bison head; an annealed-over stump with excrescences that could have been designed for Middle Earth.

I'm sorry not to see the river up here--it sounds near--but I don't think it makes sense to try; I'd have Terry and LeRoy out after me again. My reflection here is that access to wild places is nothing to do with our convenience or ease. And, again, how utterly useless most of us would be out here, unassisted. To be called old-growth, a forest ought to be able to offer up serious impediments against intrusion of writers and scientists and anyone else lacking the evolutionary PIN number.

(drawing here, copied from field notebook)

[Writing] On a five-foot Douglas-fir cookie for a table: I refound the trail beyond the fall, but again it is blocked, and even worse, a little way on. Just won't do--worse than Watershed Two on Tuesday's trek. The first blocker I came to skinned off the bark of a hemlock for 75 of its 100 feet height or so. Reminds me of my arm, three weeks ago tomorrow [I'd severely scraped my inner forearm while falling from a ladder]. Many other trees show signs of such bashing and scarring repair. [Now I understand why] Gram would say we "barked" our shins.

Red (blood) currant and mountain box (*Pachistima mersenites*) at the trailhead; the character changes quickly not far above here. [I saw] A high redbill going up [the road], a low flicker coming down.

Personal Plot # 2, second visit: 1506 overlook, < one mile down from upper trailhead. There's obviously been melting on the avalanche tracks, as there are hollows around the trees and snowball tracks down the slopes, like stretch marks. The [Old-growth] trail goes through over there somewhere--I'd guess it's blocked in many places. Thought I saw a bird flying in the distance, but it was a little hatch of midges in the foreground.

You can start with your eyes at the top of the treetops on the ridge, below the summits (4800' or so) and drop your view 1600' to the river, and never quite be sure when one tree leaves off and another begins--1000' tall trees! [This, through binoculars.]

You could almost map the winter wren territories on the old-growth north slope of Lookout Mountain from here, listening to their songs arise from various coordinates.

Back to **Long-term Site # 1** at the lower end of the Old-growth Trail. Double schoolmarm yew; great sealed stump with hollow, stripped cone cores [falling out, showing that squirrels have used the hollow as I'd imagined]; put nose in recently split Doug-fir--wow! [the sharp terpy smell of recently shattered wood]

Ah! Here is where I would sit and reflect forever! On the stony-mossy peninsula below the great log bridge. Another gargantuan log extending across the stream diagonally below; a cedar, and out from under it, a solid moss seahorse [or rather, mer-horse] with Douglas-fir seedling ears and hoof upraised, midstride, mouth open to gulp air, mossy forelocks, great muscular moss-log torso stretching back. Such a dipper place! Not yet seen. Bird lime on the cobble behind me beneath high broad moss bough--marbled murrelet this far inland?

I have only minutes by the clock till I must leave, but how can "dark" be near when I see sun on high firs upstream, blue sky-dapple above? I lean back into the mossy pebbles; my blue-dapple view is surrounded by the spikes, spires, and sprays of old-growth tops. I would spend a whole day here, and see what happens. I would be one of these moss-daubed presences. I could do that--it suits my somewhat saturnine demeanor. A whiff of wintergreen on the downstream draught of air.

And how does the creek sound? *That* would take a long poem in steno, like Kerouac at Big Sur with the sea.

Devil's club twining out of the vitals of the Big 3 [trees at the south end of the bridge]. Unfurling buds briefly tender; trilliums line the path up and into the trail not taken. Mossy bosses above [on the big bridge-end Doug-fir]. A rivulet issuing from cedar knees [in midstream], and a winter wren sings me out.

Finally see the dipper, crossing from Lookout Creek to a side-brook, [as I'm coming] down the road in the last dim light..

April 24, 2004. Noon. I break down and come down to **Personal Plot # 1** on the creek, though I am late departing. *Cannot leave!* At least three winter wrens singing, and I finally see one, running along a mossy thoroughfare singing, butt-tuft of a tail thrust forward and twitching. Time for [Mike Houck's] Winter Wren Society to arise! For this

final reflection I stand beneath an arch of holy yew, by a bleached Douglas-fir across the creek to a cobble island. This is "Painted Nail" site [from runes on an aluminum siting tag]. I just find myself saying "Thank you," and thinking of an HDT quote I'd read that morning [from Letter 16 of *Henry David Thoreau: Letters to a Spiritual Seeker*, edited by Bradley Dean, W. W. Norton, 2004: "I have been too much with the world . . . the completist performance of the highest duties it imposes would yield me but little satisfaction. Better the neglect of all such, because your life passed on a level where it was impossible to recognize them." And this one, later in the letter: "Vast hollow chambers of silence stretched away on every side, and my being expanded in proportion, and filled them. Then first could I appreciate sound, and find it musical."]

The big reddish insect I saw on the McKenzie wings by above. And at the white water-white pipe-white dogwood site [a little upstream]: This place is a constant conversation about the shapes life takes. Like the broken bright fir log poised on the cobble, a sculpture for a season, for all time; heartwood up, toward the rare sun.



II. Journal Entries

(Note: These are journalings written with more time and deliberation than the field notes above, but still immediate drafts with little editing. The first was written in my lodging, one day after the fact, from memory; the second, in the field.)

April 21, 2004. H. J. Andrews Forest, writing of 20 April. My plan for the day changed when I met Kari O'Connell, the Forest Director, who told me that an old Astoria friend, Howard Bruner, was coming up; that she and he would be making a traverse of Watershed Two (one of the old-growth control areas) and that I was invited to come along if I wanted. I guessed that this trip would be more rigorous than anything I'd do on my own, and that I'd be missing a grand opportunity if I turned it down. So a little after two, we headed up, for what Kari expected would be a couple hours' outing.

Two cars went up, one left at the bottom of our projected route, the other dropping us off as far as we could go on road 465 off 1507, with John cutting some deadfalls for us, then returning the second car to HQ. Then we set out, walking 465 across Watershed Three to the edge of WS Two, by which time the way had become a small trail. At first it was easy, though it was clear that there'd been a lot of windthrow.

Howard used to host a nature-oriented program on KMUN radio, and he had interviewed me and had me read from *Wintergreen*, one long-ago Earth Day. We'd first met on a butterfly walk I'd led on the Clatsop Plains. Howard's a good birder and botanist, and knew most of what we saw, including some plants I did not. He'd gone on to do graduate work in Corvallis, and now works for Kari monitoring permanent vegetation plots and transects on this forest and in related areas. Kari is compact and

energetic. She took her PhD at Wisconsin working on boreal forests. Her dad, for whom she had me sign a *Wintergreen*, brought her up a naturalist and largely out-of-doors.

Our rough trail followed the 288' contour for a way, then began descending the old-growth basin in a long series of obscure switchbacks. The point was to check on the state of the trail for Jerry Franklin (there's a photograph of him in this apartment from 1958!), who wants to bring a class down here from the UW to walk and study it (I understand he feels WS Two is somehow more typical than the Old-growth Trail unit). I don't think they'll be doing that until a hell of a lot of wood is removed!

What we found were massive amounts of downwood blocking, covering, hiding, or obliterating the trail at frequent intervals. Howard had been over it not that long ago, and Kari on parts of it, and they'd had no idea. So for some hours and miles, we slogged, clambered, crept, and bushwhacked up and over and down and under great logs and through forests of limbs and tangles of rhododendrons, vine maples, and hemlock boughs. Howard is strong and fit from doing such things daily, and Kari is young and limber, but I fancy even they found it something of a challenge. For me it was tough--less than an ordeal, but more than a workout. My size makes it difficult to get through or beneath, and my short, inflexible legs render large logs into major barriers for getting over. I judged my routes carefully, and no doubt held them up, but not too badly. They were concerned for me, and Kari half-joked that it wouldn't be good if she got the visiting writer lost or damaged! And we did get temporarily lost a few times, but Howard was awfully good at picking up the trail.

Of course, it rained most of the time, and we grew awfully wet and muddy, but stayed warm enough with exertion; and though we were slipping and sliding, balancing and hopping like a bunch of red tree voles, (or two, plus a small walrus), no one got hurt. My hardest hike in years, but truth to tell, I much enjoyed it. Given the setting, it'd have to be a deal worse (uphill, for example; mercifully, we were heading mostly down) to detract much from the overall riches. I'm just glad my hernias were fixed *last* year!

The birds were chickadees, juncoes, Steller's jays, golden-crowned kinglets, a brown creeper, a nuthatch, lots of winter wrens, and not many more. Most old-growth birds don't show off. But the plants can't help it, and glowed their April extravagance. Everything you'd expect, plus some surprises. I enjoyed watching Kari and Howard working on the ranuncs and saxes, two groups with which I'm a bit short on real intimacy at the species level. They showed me *Anemone lyalii*, whose charming small purple-pink wind-flower was reflected in the two or three patches of calypso orchids we came across. Here and there, a luminous Pacific dogwood searchlit the dark wood. On a few drier slopes (almost an oxymoron here, with 90-140" precipitation), blood currant spurted forth and some golden chinquapin (with feeding damage that might have been from golden hairstreak larvae, but now we were getting worried about time and light, so I didn't tarry.) Shockingly, Scots broom has become well established on these open slopes, too.

Another instance of "feeding" damage seemed to suggest itself on some (already!) big-leaved umbel coming up in several crossings of the stream, open to the light above. But the only insects we could find on the holey leaves were tiny stoneflies from a fresh hatch, and I concluded that the hail Kari had encountered near here a week ago may have shredded and shot the leaves rather than insects. Howard bought my hypothesis.

The trailside tapestry wove trillia, vanilla leaf, and upside-down *Vancouveria* into deer fern, *Linnaea borealis* twinflower, and multitudinous mosses.

My hands were raw with wet, cold, bark, pitch, wood, lichen, and moss, and prickled by needles; but they *smelled so good*--as did all the air, all the down timber and veg. Frequently, we passed trees tagged long ago so their life trajectories and ultimate mortality could be measured; transect plots; and other signs of curious hands on this uncut basin. The responses of this forest, both to management and stochastic events (or, vicissitudes) will have been monitored over a long period, along with numerous other places involved in the LTER project. Much of the linkage and continuity, I gather, is Jerry Franklin's doing. He is dogged. Maybe he *will* get a class through there!

I am supposed to be initiating parallel reflections, response to forest time and change. But I am here for days only, and, whereas the experimental design depends upon repeatability, nothing is ever quite repeatable to the poet. Even so, I am having a go, and if I didn't write a word, just being an organism in this forest for a week would be worth it to me (if not my employers). Anyway, we made it through this much-more-than-expected crossing. Howard reckoned four miles+, but that strikes me as a little long from the map, though it felt like ten or twenty.

When we got down, Fred (Bierlemaier) had come looking for us, as we were later than expected. When these forest research pros are late getting out, temporarily lost, and surprised by what they find, the conditions are extraordinary. I was right to take the chance to go along.

But the best of it was the immersion among the trees themselves! This was *true* old-growth. More *huge*--five, six, seven feet DBH Douglas-firs than remain in the entire Willapa Hills, in that one small watershed! And western hemlocks, and western red cedars (much smaller than on Long Island, but grand), and numerous Pacific yews--which, as Kari pointed out, are particularly hospitable to epiphytic mosses and lichens, and to whom I paid due thanks and obeisance. On every hand stood, leaned, or lay trees as deep-furrowed as a Kansas cornfield, as tall as a row, as big around as a silo. I felt stunned, all over again, like rediscovering infatuation.

Afterward, we were wet to the bone. We had hot showers and got into dry clothes and reconvened here in Rainbow Right for hot tea and a post vivum. Howard had to return to town, but Kari and I continued the conviviality of the campaign in her cabin, over home fries & eggs and Thea's good pea soup and the Bridgeport IPA she had kindly brought up for me. It was exciting to me to see how scientists to whom the forest is home almost daily still get so wrapped up in it. And I felt, as I often do when barging into coterie of naturalists, scientists, and writers, a kind of unearned, short-cut inclusion, incorporation without initiation. Or maybe that deadfall scramble *was* initiation.

I slept hard that night, if waking often to turn over my aching bones. And today I went up to the better known old-growth trail (see notes), was again enchanted entirely, and again put up the alarm, as I could not come in until dark compelled me to. I met LeRoy and Terry, the fine and friendly maintenance men, coming up to look for me. The custom, when this happens, is for the searchee to provide the searcher with a six-pack of the beverage of his choice. They shall have their tall-can Buds, but Kari will have to take care of Fred (Bierlemaier). Twice in two days! Getting people out to look for me is not

what I was brought here to do. At least, perhaps, it shows real engagement with the landscape.

* * *

April 22, 2004. H. J. Andrews Forest. 2 p.m., sun.

Into the log decomposition plot on the old 410 of FR 1506, **Long-term Site # 2**, for a second visit. The mossy approach leaves the road, paved in evergreen violets, looking as if it was meant to be that way. Then it is tank-trapped--but the tank-trap is covered in sword fern, salal, and moss, having grown to resemble a native outcrop. Chickadee spring song, brought out by the first sunshine in days. Beyond the berm, there is so much light deadfall that you'd think it had been cut across the trail to deter entry. Then you see bigger falls, also recent, in the ravine, and know it happened on its own. But it makes a suitable entry to the place where a tree falls in the forest, and a lot of people listen up. And when you get to the laid-out logs and cookies cut out of logs, you know you've come to the place where high priests of research make offerings to rot.

Besides, once inside the research zone, it's easy to tell: yellow, red, and blue tags sprout from the moss on wire stems, one pink cluster like old trilliums from a mossy mound that once was a tree. A red series limns the ground where a nurse log has finally given up the ghost. Metal tags label the cut butt-ends of many logs that lie about higgledy piggledy, as gravity and the wind might have arranged them even without researchers to help. Flags beribbon trees, shrubs, small boles, limbs, again in every color. Duct tape binds some log ends--there must be a paper in this, for the decomposition rate of duct tape, at least as useful as the rest! Plastic pipe sections, buckets, carboys and other bits lie here and there, each significant to some measurement or other. Some would consider these litter, marring the wilderness experience. But you can also see them as inflorescences--like that white plastic funnel next to a nodding trillium--fertile with questions and eventually (after long, tedious germination) even some answers.

Golden-crowned kinglets tinkle up in the (adventitious side) branches of the still-standing columns called Douglas-fir; a robin chitters in an opening. The light is the definition of dapple, falling on the forests of *Hylocomium splendens* and hammocks of twinflower leaves. *Lobaria* lichens lie about like tossed-up foam. The path is an Irish thoroughfare for voles & chickarees, who, lacking color vision, do not go green-blind. They leave their middens of fir bracts all about. Another treasury of green coins spatters the path in: the round leaves of evergreen violets and wild ginger. "If sword ferns were greenbacks," I once wrote, "all the loggers would be rich." And if these green coins were gold, I doubt the ranks of leprechauns who come here to gather tediously the data of decline would pay them any attention; gold doesn't rot, and this place is all about the documentation of rot. And it is all around: something fairly large just fell from a nearby old-growth Doug-fir.

But as much as dying and rotting are what take place here in this tree cemetery, it's also life and regeneration. There is nothing morbid about the winter wren's singing from two abutting territories before me. Old vine maples hoop and droop under their epiphytic shawls, but the unfurling leaves of the young ones are the brightest items in the forest (even brighter than the red plastic tags). A yew of indeterminate age bows up a few yards away, and it too is slathered with boas of lichen and moss; but the yews don't seem to die

and rot at all, they just go on and on, never getting much bigger. Every downed cylinder of cellulose is that much $\times \pi^2$ surface area for hopeful baby hemlocks and lichens and liverworts and entire empires of moss to take hold and begin.

It is not difficult, observing all the breakage, damage, rot, and loss among the treefolk to understand the timberfolks' belief and rhetoric about all the "waste" that goes on in "overmature," set-aside forests. We laugh at the naiveté of such a notion, but it makes all the sense in the world to one for whom converting fiber means paying the bills. Any one of them, given the leisure, information, and opportunity, would probably see the beauty of regeneration here--the antithesis of waste. The actual dialectic isn't between waste and use, so much as between moral positions that see rot as bad or decomposition as good. Given the former ethical outlook, beholding tight-grained Douglas-fir going to a damp and shaggy future as vegetable mold, just to fertilize more setasides, could indeed drive you wild. It does me: wild with a deep, thoroughly satisfying pleasure. But then, I'm weird: the scold of the chickadee behind me and the beep of the nuthatch on the other side move me as much as a guttural engine's roar moves a NASCAR fan. I can't help it.

For me, the moral dilemma coming here was where to plant my butt to reflect and write. Almost anywhere I sat would smash plants and possibly affect the grand experiment, if only infinitesimally. I finally settled on a seven or eight inch hemlock log, fairly recently fallen, still suspended horizontally at the right height, not yet growing much on it, and much drier than those sponges of mossy stumps that are so inviting.

Coming back here over and over, the differences would be mostly in the details you'd notice. Under blue sky, the light now is very different from Monday's, the greens more contrasty. The things you'd spot: I've just found *mountain* hemlock foliage and cones at my feet; I didn't think it grew at all this low in elevation. Does Pileated Totem-maker call or percuss or not, on any given visit? But whether or not the investigators were assisting by laying out fresh-cut logs to monitor as close to forever as they can, the unmanipulated forest would look largely the same. Take away that pink ribbon around a hemlock over there, pick up all the aluminum and plastic, and let all the square-cut butts rot away; and then what you'll have is a place that looks much the same, with all of its bits and pieces lying about every which way, going about the important, perpetual business of rot and regeneration.

I could go on documenting details, just as the scientists gather figures: the declination of that row of saplings bent over one deadfall by another; the way that one sword fern catches the sun to suggest a helmet; how the polypore conks launch out from cut ends as soon as they can after the verticals go down, mycelia re-orienting 90° to the azimuth. Or how that geometer moth and a falling scale of bark might well be the same. There is no end of details as long as the forest goes on and there is anyone to record them--or not. The decomp crew come here basically to watch how the cookies crumble. That's hard work. I have it much easier: all have to do is watch the moss grow, hear the raven bark once, and say so.



III. Essay

(A column in the author's "Tangled Bank" series for *Orion* magazine, having to do with taking a long view of ecological processes and perception; in progress, to be submitted.)



IV. Poems

Poem # 1, first field draft: 19 April 2004 in the H. J. Andrews Forest
(written in the decomposition plot)

And here is what the scientists see
but cannot say:
How dogwood blossoms glow
against the black wet trunks of Douglas-fir
How the skin of yew runs
red in the rain, the bark of
young vine maple green as the
skin of anoles in hot southern woods.
The way evergreen yellow violets erupt
from the green magma of moss
and trilliums pinking out paste
their petals against the waxy leather of salal.
Cascara's small tongues lapping the
drip as chorus frogs sound
the walls and depth of Lookout Creek.
All these things may have
adaptive value for all I know.
Could generate data points,
yield understandings
that poets can read but cannot write.
As last year's bracken rots beneath
the new sword ferns,
someone, surely must know
what to make of all this.

(Draft two, worked and delivered at Earth Day reading in Corvallis, April 24:)

At the H. J. Andrews Experimental Forest

19 April 2004

And here is what the scientists see
but cannot say:

How the dogwood blossoms glow
against the black wet trunks of Douglas-fir;
how the skin of yew runs red in the rain, the bark
of young vine maple green as the skin of anoles
in a hot southern wood.

The way yellow evergreen violets erupt
from the green magma of moss, and trilliums, pinking
out, paste their petals against the waxy leather of salal.

The manner in which Douglas squirrels inscribe
the snow, and where they leave their middens.

Cascara's small tongues lapping
the drip as chorus frogs and winter wrens sound
the walls and depths of Lookout Creek. Pipsissewa
and bunchberry catching all the windthrow
that winter can bring. All these things

may have adaptive value, for all we know. Could generate
data, yield understanding, render the answers
that poets may dream but cannot write.

As last year's bracken rots beneath the new sword ferns
and varied thrushes whistle through spit

I have faith
that somebody, somewhere, surely knows
what to make of all this.

Poem # 2: Paean to the Yew

Notes for a poem, written throughout the week:

For killing the cancer that was killing
my love, thank *yew*.

How did someone suspect it might?
Toxin in red berries of medieval churchyards
Glowing red trunk alive with moss
Did something in this concentration of reds
say, I can take life, but I can give it, too?
Taxus brevifolia, giver of Taxol,
I thank you.

The backlit lichens dependent from
your boughs, as bright in this
forest sun as the hair of the
women who lost it to your
embrace, will regrow it because
of you, the most adorned tree in the wood. (*Kari pointed out to me that yew supports
the most moss: true!*)

Dogwood grows up through yew,
birdsnest fungi on the stem
of a rhododendron below.
Nuthatch calling, raven barks.

Barry's wooden medicine box above his study lintel--

Draft # 1: May 7, 2004

Paeon to *Taxus brevifolia*

How was it, Yew, that someone suspected

your body's gift to ours:
that your needles and bark distilled
could silence
the angry cells?
Was it your toxic red berries
in medieval churchyards;
your red-muscl'd limbs as the bark falls away;
something in this concatenation of reds that says
"I can take life, but I can give it, too?"

The backlit mosses depending
from your boughs shine
as brightly in this forest sun
as all the women's hair you brush
away.
Is that how you became
the most adorned tree in the wood?

Dogwood reaching up through yew.
Birds' nest fungi clustered on the stem
of rhododendron below.
Nuthatch calling, raven's bark. All
this medicine and more dwells
in your wooden box,
polished ruby in the rain.

Pacific yew, bringer of taxol: for killing
the cancer that was killing
my love, I thank you.

Poem # 3: The Land of Aluminum Tags & Plastic Ribbons
Notes for a poem, Log Decomposition Plot, 22 April.

Necklace and earrings of spotted owl leg bands.
Yellow ropes and angles and tangents.
A red ribbon in a yew --
Questions made manifest in forest signs.
Let he who can read, read.
Let she who can measure, know.

Pink ribbon in the hair of a viney maple
adorns/gilds/reflects/mirrors the pinkened trillium below.
A still fresh white one leans against a white plastic jug.

(No draft yet written as of 12 May 2004)

Notes for a Prose Poem:
Scientific Questions One Could Ask

1. Sunbeams slanting through the forest strike evergreen violets and tight buds of cherries: What is the ignition point of each?
2. What is the relative albedo of snowmelt trilliums, rain-wet Oregon grape glister, and the pale underside of *Lobaria* lichen against cedar frond?
3. What is the precise incidence of sunshine that makes one centimeter of one web shine emerald, a nearby centimeter of another strand sapphire? Or waterdrops on Douglas-fir needle tips on sunny mornings after rain or snowmelt: one ruby, one tourmaline?
4. Is it innate or learned behavior that causes some birds to respond responsibly to pishing, outing themselves for a look, while others obstinately hang back, seeping and teasing invisibly from the brush, for as long as the investigator keeps pishing?
5. What is the capacity of the winter wren's heart for ebullience? How much blood must it pump for one endless obligato? How many times must a winter wren sing, to establish his territory for good? To get a mate? To achieve transcendence in the human heart?



V. Comments on the Project

Replies to questions posed by the project heads (letters of December 17, 2003 and February 2, 2004, from Charles Goodrich to RMP):

1. How and where should we set up "Reflection Plots" around the Andrews, place of special ecological and/or geophysical resonance which participants can visit periodically to collect "data"? (And, should we, and how might we, set up and manage personal "Reflections Plots" for individual residency participants?)

I think the three long-term reflection plots suggested to me, that is, the old-growth trail (I interpreted that as the lower trailhead-to-stream crossing), the log decomposition plot, and the burn-reproduction area, were good choices. They provide vastly contrasting conditions, each with dramatic and differing features and implications for the long run. I found each of them compelling, stimulating, and thought/impression-provoking. I might have added a young clear-cut, if there were any on the forest, but the burn-reprod site will provide a similar opportunity to start from scratch. As for personal plots, I selected two: Lookout Creek behind the facilities, and the old-growth overlook on FR 1506 between the two trailheads. These give both a near and distant perspective on the forest's main watercourse and its attendant woodlands. Subsequent residents may wish to use the personal reflection plots I established, but I suspect each writer will prefer to select his or her own sitting sites, depending on how the place speaks to them.

2. How can we facilitate conversations between Andrews' research scientists (as well as other community members) and resident writers?

This is a challenge because of the time available, and who happens to be on hand. All of my personnel contacts were friendly and helpful, with both scientific and support staff. I felt warmly welcome, and everyone scrupulously respected my time and privacy. I much enjoyed and benefited from talks with Terry and LeRoy, John, Fred (Bierlemaier), Steve Ackers, Kari O'Connell, Howard Bruner, and (in Corvallis) Fred Swanson and Dana Ross. I would have enjoyed additional contact with investigators, and could happily jawbone with them till the cows come home; but there just isn't time to do a lot of that and still experience the place in any depth, while doing much reflection and writing, in a one-week residency. Too, there were few scientists in residence at that season.

Maybe the best way to facilitate contact would be to arrange one or two gatherings as fit the researchers' schedules, and to rely on fortuitous meetings for the rest. There is no end to what could be learned, and no way to adequately summarize it for any one writer. Since I have a forest science background, know Jerry Franklin and something of his work, and have modest familiarity with some of the other fields of study, I had something of a leg up. Writers with different experience might benefit from more direct background meetings. If a residency took place when there was a lot going on at the forest, it could be both helpful and pleasurable to convene an evening potluck social-cum-seminar, where questions and ideas and cross-disciplinary thoughts could fly.

3. How can we encourage the kinds of writing we hope to see come out of this experience--writings that exemplify long-term ecological reflection--while assuring our participants the freedom to follow the muse wherever she leads?

That's tricky, because most residencies don't impose much of an external agenda on the recipient's output, and creative writers are notorious anarchists. But I think immersion in the forest largely solves this challenge. At least for me, I thought I might use the opportunity for other kinds of writing entirely; but once in the sway of the place, I found I wasn't much interested in anything else. How one translates immediate response to a certain time and place into a "long-term reflection" is another matter, and I have no

idea whether I have succeeded. I think merely by suggesting the attenuated framework of the research, and the intention of stimulating a parallel response from writers, you will probably bring about the desired state of reflection in most participants. There is a certain inevitability about it, when one counterposes the necessary brevity of any one person's actual HJA exposure to the inescapable reality that we (or our genes) are all in it for the long haul. To some extent, it will just have to be an act of faith on your part.

4. How might we encourage and facilitate innovative approaches to long-term ecological reflection--e.g. collaborative projects, interdisciplinary projects, etc.

The latter two noun categories are almost antithetical to the first. Reflection, by its nature, must largely be a solitary activity. At least, that's been my experience, but I'm not by nature much of a collaborator. Maybe your Shot Pouch Creek results will suggest otherwise. I *can* imagine effective collaboration between individual scientists/teams and writers, examining the same sites/organisms/processes with their respective tools, but this would be quite a different activity. It would involve some preparation, with the writer fed and reading published papers and research reports in advance of the visit, and then going afield with the scientists at least once to see the plot/experiment/organisms through their eyes and means; then responding or reflecting on the writer's own terms. Such an interdisciplinary undertaking could be very fecund, especially for writers who were not very familiar with science. It would probably take more time, and require a more narrow focus for those involved, compared to what we did. I am not sure how the long-term component would work into this, since the scientists (or their colleagues, students, successors, etc.) will keep coming back, while writers will be replaced with different people bearing different perceptions and biases.

5. Any further ideas on how to articulate this request [re. rights and use of materials produced] to future participants as clearly as possible to avoid misunderstandings.

You might want to consider drafting an unambiguous contract. Short of that, I recommend full and nuanced dialogue with participants about your expectations and projected uses for their writings. Without a contract specifying surrender of any given rights, artists retain all rights under current copyright law. See my copyright note on page one: though I anticipate that the Project's plan's for use of my materials will be readily agreeable, it is important to recognize and acquit any copyright issues from the outset.

Personal Comments on the experience:

My hopes for the undertaking were entirely met. As the first writer invited to take part in the Continuum Project, and as one with some scientific and forestry background, I suspect my experience may have been somewhat different from that of many who may follow--which is largely the point. Even so, here are a few remarks on my residency, which I consider to have been a completely positive time. For me, it seemed to work.

Arrangements: Given the pioneering nature of this project, the set-up, arrangements, and follow-up were remarkably adept. Charles Goodrich was highly solicitous of my

needs and questions. Consider providing more written materials about the forest well in advance, especially summary sheets on the decomp, burn-reprod, & old-growth plots. For some, the website will serve this function; I do better with reprints, maps, and so on.

Facilities: My lodging at H. J. Andrews (Rainbow Right) was very comfortable and well furnished for my needs. *Minor* notes: I could have used instruction on the gas stove, and a dishcloth and dish towel. The smoke detectors are hypersensitive, perhaps because they are both in the cooking area. I found the excellent computer center in the office to be very useful (almost too much so, in Wordsworth's "world is too much with us" sense).

Timing: The time of year was perfect for me, offering both rain and sunshine. I had to hustle a bit to get to the three research and two personal sites repeatedly, and all my visits were briefer than I'd have liked. I tend toward dusk and night-time activity as well as daylight, and this is difficult here, given the natural (and much appreciated) staff concern about one's whereabouts after dark. Two weeks would be better, but most people probably can't manage that (I couldn't have). Ideally, the aftermath event in the lowland would not occur on the same day as departure, thus permitting a gentler, unpressured separation from the place on the last day.

Contacts: See comments above, under questions. Pretty much, these followed my grandfather's dictum about Sunday dinner: "There were plenty of 'em, such as they were; and they were mighty fine, what there was of 'em."

Sequelae: The follow-up activity in Corvallis was delightful, both the reading and the debriefing dinner. I would have been fresher for the latter had it occurred a day later. For future residencies, I'd recommend fresh participants each year, and if deemed helpful and if resources allow, successive visits for the writers at several-year intervals after each original residency. I can imagine visiting maybe ten times over the next fifty years. (Ecologist/writer Jane Claire Dirks-Edmunds' view of her truly long-term site--the subject of James McNab's original "Aspection" of the Oregon Coast Range--spanned 60+ years.)

Acknowledgments: I express my warmest gratitude to everyone at the HJA and OSU who made my residency productive, safe, and pleasurable. I am deeply appreciative of Kathleen Dean Moore, Charles Goodrich, Fred Swanson, Franz Dolp, Kari O'Connell, Barry Lopez, Dana Ross, and anyone else involved in realizing this experience.



From vole to slug, or beetle to bacterium to mycorrhiza, the vital connection flows, transforming death -- former life -- into new life, creating a living bridge, resembling the placenta which links a human mother to her unborn child.

That is the essence of the forest.

Jane Claire Dirks-Edmunds
Not Just Trees: The Legacy of a Douglas-fir Forest
WSU Press, 1999.

