

**Forests and People:
a meandering Long-Term Ecological Reflection on changing relationships between forests
and human culture**

[Early November, 2013 AD, perhaps 15,000 years after humans arrived in North America]

DRAFT

Setting: For nine days I am a guest in the H. J. Andrews Experimental Forest in the western Oregon Cascades. These wet-climate forests are much like those of home – the lowland Olympics and Cascades of Washington State – a mix of species that colonizes ground cleared by wind-throw, fire, or humans with Red Alder, Douglas Fir, Western Redcedar and Big-leaf Maple and slowly adds in the shade-lovers: Western Hemlock and Pacific Yew. Below these grow a varied understory including Salal, Hazelnut, Low Oregon Grape, Sword Fern, Rhododendron, and scores of herbs and shrubs.

Late in the week I find out (from Fred Swanson, geomorphologist and all-around wizard of the Andrews) that the ground I'm staying on here was laid down some 45,000-50,000 years ago when a glacier out of the Cascades blocked the Blue River and created a reservoir the reached well up that river and its tributary Lookout Creek – past the present site of the forest headquarters which is built on the sediments laid down in that lake.

The forest grows on the past and into the future.

It is November – clouds move through the canopy and along the ridges. Drizzle, squall, and rare sun break. Fungi fruit below: Short-stemmed *Russulas* – I think of them as vessels sprouted for goblins. [Goblets.] Chanterelles with caps big as my out-stretched hand. Slippery Jacks – less couth cousins of the Porcini royalty. Oyster Mushrooms, Sulfur Tufts, a Hedgehog or two. And a horde of their kin -- some shaped and colored like coral, some a white-icy-gelatin. It has been a wet fall with no hard freezes. A perfect year for mushrooms. Late in the week I learn that only 5% of the world's fungi are “known” – which is to say – have been described and named by science.

By November these forests are nearly all water. The voiced speech or music – the polyphony of the forest – is river-sound below and wind above. Rivulets and drops of condensate add xylophones to the talk. Now and then, there is the infrequent call of a single chorus frog, a Douglas Squirrel or raven. Down on the forest trail, the dim green light could be that of kelp forest. Lichen are the forest algae.

Definitions: Ambiguity resides everywhere in language. Even in everyday words. We forget to define our terms and the conversation goes awry:

forest (n) – “a dense growth of trees, plants and undergrowth covering a large area” A term of contested, possibly Latin, origin and early associated with the hunting grounds of royalty –

closed to ‘commoners.’ The modern meaning has meandered some from its roots. The Old English ‘forest root word’ lead us to *wood* instead.

change (v) – “to alter, to make different” [also “to give and take reciprocally; to exchange; as to change places with another.”] Originally of Celtic origin – *to bend or crook*, becoming – later – *barter*.

Words change, including *change*. Now *change* might mean *evolve* or something far more cataclysmic. Forests change – their species evolving and co-evolving, their composition shifting towards (or away from) climax, their parts and entreties leaning, quivering, proceeding, shifting.

People and cultures *change* as well. Values and behaviors morph, populations wax and wane, generations learn and forget, their tools and machines sharpen, stultify, evolve or fall into disuse.

Given that words themselves evolve, their meanings shifting subtly or abruptly, what will *forest* mean in 2203? And *change* itself – how might it be construed 200 years hence?

cultural ecology (n) – “the study of human interaction with ecosystems to determine how nature influences and is influenced by human social organization and culture.” Where *culture* is “the learned patterns of behavior and thought that help a group adapt to its surroundings.” And if this culture batters its surroundings? What then?

Meditation: Forests are far more than their simple definition. Consider the multidimensional gradient between forest (complex, heathen, other, sobering) and not-forest (another infinity of possibilities). Consider the point at which we (or some other semi-conscious or heedless force – wind, fire, volcanic or climactic cataclysm) turns the forest to something else: woodlot, parkland, blowdown, kindling, quarry, dump, berry patch, burn, stump farm, tree farm, clear cut or other “forest practice”, reservoir, highway, landing, landing strip or transmission-line right-of-way.

And when do these, in time, again revert to forest?

Because forests predate us, they certainly can thrive without us. Perhaps that is really what ‘wild’ means: life (even storms or thermonuclear events) thriving without human attention.

Forests swallow. Warm, wet forests have enormous appetites. They swallow whole civilizations. Mayan temples and Haida villages. Perhaps only human cultures have greater appetites. Or wildfires, tsunamis, or stars in nuclear fusion.

The temperate forest here swallows sunlight and summer heat, mists and drenching rains, traffic noise, wind, the breath of animals and machines. An occasional hunter. These disappear into forest to keep it going, to make more temporal forest-body and forest-verb.

Cultures swallow as well. Among their various snacks – forests; among forests’ snacks – cultures, or at least their remnants.

The task of tracking and explaining the fate of forests at human hands is as complex and indeterminate as the mathematics of chaos. Example: the radically different fates of Hispaniola's Haitian and Dominican forests. To what extent do culture, history, climate, poverty, desperation, and/or soils bear responsibility?

Here, near Blue River, one culture or another has encountered these forests for up to 13,000 years. Remnants of Clovis points seem to have been recovered from a hunting camp on a bench at the confluence of the Blue and McKenzie Rivers. This era coincides with the Cro-Magnon artwork on the cave-walls of the Dordogne in south central France. We do not know what, if any, forests stood in the Blue-McKenzie drainages during that era, but during most of the intervening ages, human culture seems to have barely bruised the forests that grew here. Some meadows maintained or enlarged by purposeful burning, the gathering of withes and poles, keeping up trails along ridge-tops and over cols to the eastern Cascades. On the coast, wedges, mauls, adzes and longhouses. Man was another clever creature in small herds. Humans nibbling at the forest.

Then Europeans arrived from lands where they had largely beaten back and tamed the forests. They arrived with different powers, ideas, and diseases. New flora, some of which was invasive. Gun powder. Cattle. Saws, axes, nails, shakes, froes, and sawmills.

Johnny Cash got the spirit:

We work in woods from mornin' to night,
We laugh and we sweat, we cuss and we fight,
On Saturday night we go to Eugene
And by Sunday mornin' our pockets are clean.

Will you tell me somethin' Mr. Lumberjack?
Is it 1 for forward and 2 for back?
Is it 3 for stop? Is it 4 for go?
"Boy ask a whistle punk, 'cause I don't know."

Lumberjack, lyrics by Leon Payne, sung by Johnny Cash

The newly dominant culture had photographers and springboards. Newspaper. A Book from a desert god. But also Young Science gathering its power. On one hand, a general disdain and fear of darkness, deep forests, wolves and mushrooms. On the other, explorers and naturalists with an intense curiosity about this *new world*. A love of cash and status and unfettered access to lands that, back in Europe, would have belonged to the royal overlords. Forests fell, farms rose, mountain tops were scraped into Appalachian valleys. But, also, national parks and forests were established and protected.

And not all native people distained wealth and class. The Haida, the Chinook (the richer coastal peoples, the traders) remind us of ourselves in that respect. But they were not interested in leveling forests. The idea would have been seen, I suspect, as absurd.

Transplanted Europeans took the coastal forests down first, then those of the lowest valleys – with log booms, skid roads, ox teams, flash dams and steam donkeys. Then rolled inland and hauled the forests out on the trestles of short-track logging railroads.

And what were the driving wheels – the motivations – for bringing down those primeval forests? Jobs certainly, but also control, I suspect. Dominance. Desire for sunlight and wealth. Status. Genesis justified it. Boss and timber faller alike pitched themselves against the dark forests stocked with *rough beasts* – catamounts, bears, and midnight owl calls. Many died – these were some of the most dangerous professions. But the forests blocked access to the ports of manifest destiny. And felling them paid well. It must have seemed provident.

But, in a way, this is all too pat. It came to me on waking today, the last morning here in the forest, that my mother, born and raised in sunburned Fresno and the Texas plains, used her mother's inheritance to buy the pine-wooded lot next-door to the home where I was raised. The little house my father built in Spokane. She transplanted in fir and cedar from north Idaho. The green and the buffer seemed to calm her. "We should enjoy the smell of soil, its feel," she said once while planting crocuses, "it won't be there in heaven." There, I think, the seeds of forest appreciation were planted.

No culture is monolithic. We easily overlook sources of sustenance, inspiration and greening. From the groundwater hidden in aquifers and hyporheic zones, to long-lived seeds buried under St. Helen's snow and ash, to texts left unread for decades, to the secrets of the subconscious, the abyssal ocean trenches and hydrothermal vents, subterranean fungi, and the night forest – in all these resilience resides.

Even landscapes as blasted and bleak as the post-eruption slopes of Mt. St. Helens re-vegetate. John Muir and Teddy Roosevelt somehow emerged from the bleak and blasted cultural, social, and forest landscapes of the Gilded Age [I think of huge hoses blasting down the hills fronting waterfront Seattle – a brute technique learned, I suspect, from miners 'hydraulicizing' the gold-bearing river bluffs of the California mine fields.]

From Muir, Roosevelt, their brothers and sisters arose the radical concepts of national parks and forests. And these manifested as refugia *for* wild habitats and *from* urban anxiety. The scope of social responsibilities and conscience has slowly broadened. Tribal influence has rebounded a bit. The green movement has taken serious root in the values and politics of many. The works of naturalists, a full range of biologists, forest scientists and geomorphologists – all the inquiries of honest science – continue to refine our insights and inform our efforts to preserve and recover forests. Whether these will be enough to stay or reverse the whelming impacts of population growth, species loss, and climate disruption may now seem doubtful, even naive, still they remain sources of hope and potential healing.

Learned Values: Small as my perspective is. Short as my life will be. I can at least say what I've learned to value:

- Science's often successful attempts to encourage objectivity in our searches to understand how the world works – why things small as quarks and water droplets, and as large as atmospheres and solar flares, behave as they do.

- An atavistic awe and respect for creatures, systems, and spirits that remain beyond our ken; a resulting bias for leaving the world alone and doing minimal harm whenever possible.
- A predisposition for experience over consumption and for art that is conscious of the natural world and its time-tested cycles. An appreciation for the products and processes of evolution, the music of small groups, human-scale travel. A bias for respectful conversation over trash talk, grandiosity, tabloids and bad TV.

Unlikely as it may be, let us invoke a future where human cultures and forests coexist, where we can find ample evidence to argue convincingly against Jim Harrison's reluctant contention:

“It seems strange that it could have been done well.
Greed has always fouled our vast nest...”

-- *Bird's Eye View*, from *Songs of Unreason*

Coda for 2203.

This was written in a season of dim politics and weather – shortly after a two-week government shutdown precipitated (from my perspective) by rear-guard forces that, for the most part, reject ‘belief’ in evolution, climate change, and population control. The shutdown threatened work at the Andrews but the creative folks there managed to persevere.

Far worse than the painful politics of Washington DC, I learned, driving home to Olympia, that on the fourth day of this residency a major typhoon slammed into the Philippines. Winds as high as 200 miles per hour (this seems barely possible) left over 10,000 dead (many more mangled by flying debris) and hundreds of thousands displaced. Today the mayor of Taclonban -- the city hardest hit -- has urged the survivors to flee as attempts at mass burials have failed.

A UN conference on climate change is in session. Little perceptible action and few solutions seem to come from previous such gatherings. The Philippines' representative is stunned by the devastation back home and has begun to fast. He will not eat until "some progress is made".

Whether these events are evidence and harbingers of the impending abrupt end of the Holocene or signs that will wake and prod us work harder to fix what is vastly broken, I have no way of knowing.

As of today it certainly “seems strange that we could have done it well...”