

**Ecological Forestry and the Honorable Harvest:
The Blue River Landscape Study, Willamette National Forest, Oregon**

INTRODUCTION

One of the challenges of developing an environmental ethic and a respect for nature is that seeing an animal, plant, or place as worth moral consideration isn't very helpful when it comes to eating it or otherwise taking from the natural world. We may expand the circle of what constitutes a moral community (Singer, 1973; Goodpaster 1978) or even erase any lines separating humans from the rest of the world (Birch, 1993; Plumwood, 2002). But how, if we follow the philosophers and our hearts, do we respect a being or place *and* use it, most particularly when use is the equivalent of destroying the subject of our affection?

I will explore this topic through a comparison of the indigenous concept of the honorable harvest and the ecological forestry practiced in the Blue River Landscape Study management area in Oregon's Cascade Range. Productive, working landscapes such as forests or mines tend to be overlooked in favor of wild places when we discuss ethics of the environment. It is easier to exclude from the moral community the extractive landscapes that produce the wood or gravel and so build the places we actually inhabit than to exclude the big trees or charismatic mega-fauna that inspire awe and wonder in us. We don't swoon over tree farms and gravel pits.

The honorable harvest offers insights into how it may be possible, if not to swoon, then to at least respect the places and beings that provide the materials of everyday life. Plant ecologist, nature writer and Native American Robin Kimmerer speaks of plants as persons. They "are persons," she says, "non-human persons with their own intrinsic rules in the democracy of species" (Kimmerer, 2012). The honorable harvest emerges within this context of a world of persons, some human and some other-than-human, and provides an alternative system of thinking about how we might ethically take from the more-than-human world (Kimmerer, 2013).

Ecological forestry reconceptualizes a scientific forest management approach that has traditionally focused on maximizing efficient growing and cutting of the greatest number of trees, or "getting the cut out" in logger terminology. This new approach emerged in the 1980s in response to growing ecological knowledge and changing public perceptions of the aesthetics and ethics of forests. The Wilderness Act of 1964, the Endangered Species Act of 1973, and public uproar over clearcuts in several states, were influential in pushing Forest Service scientists and managers to reevaluate methods of timber harvest. Ecological forestry is

a management approach that attempts to span the gap between fulfilling human needs for what the forest can provide, and sustaining the capacity of the forest ecosystem to regenerate. Forests are still logged, but in ways that work with the dynamics of the ecosystem so that management decisions include maintaining the ecological integrity of the forest.

In this paper I propose that the precepts presented by Kimmerer and others for an honorable harvest can be relevant to forest management strategies such as the Blue River Landscape Study, and that it is seeing our kinship with the forest and the trees, and speaking to them as persons, that gives us a way to maintain the intrinsic values of a place *and* take away significant elements of the place that present those intrinsic values to us. The honorable harvest and ecological forestry each address how the harvest might preserve the ecological integrity of the system. The approaches differ in significant ways - one originating in science and an economic accounting of value, and the other in what might be called a relational poetics that situates the forest and the harvest within a "community-of-beings" (Berkes, 2012). I overlay one on the other to locate points of connection and of departure between indigenous insights and the policies governing forest ecosystem management.

THE PLACE

The Blue River Landscape Study is a 57,000 acre ongoing timber harvest experiment conducted by forest managers and scientists from the Willamette National Forest and Pacific Northwest Research Station. It is located within the Oregon's Willamette National Forest, part of a system of national forestlands that were originally set aside to provide a sustained source of timber and protect watershed and so water quality, and not for appreciation of wilderness. It is a Douglas-fir dominated forest, interspersed with western hemlock, red cedar, and white pine, with Big-leaf Maple and red alder in the cooler, moister areas. Disturbances such as fire, insects and diseases, storms, or floods create openings in the forest where sun-loving grasses, herbs, and shrub species thrive and attract wildlife species that depend on the seeds and berries. The resulting forest is a mosaic of open meadows, thickets of brambles and gawky seedlings, and ensembles of diverse species of variably-aged trees. The health of the forest overall is dependent on the simultaneous presence of diverse assemblages of species associated with all phases of forest succession, from the post-disturbance early seral landscape of meadows, shrubs and seedlings, through the young forest, the 80-200 year old mature forest, and the old-growth forest with trees typically older than 200 years.

The Blue River Landscape Study uses fire as part of a land management technology, and the history of fire disturbance as a guide. Fire is the primary and recurring disturbance that impacts the dynamics of forests in

the West. According to historic records, significant fires can be expected every 200-300 years in the western Cascades (PNW, 2002). Native Americans in the region are known to have long used fire as a tool for managing crops and grazing land, controlling insects, and enhancing biodiversity. Fire was used to "multiply life" through resetting the ecological clock of the forest and encouraging conditions for certain food crops such as the roots of Camas lilies and many berry species, as well as open grasslands for deer and elk (Kimmerer and Lake, 2001).

Scientific forestry

Our National Forest system emerged in response to the rapacious, unrestrained logging of the late nineteenth- and early twentieth-century, and from a European model of scientific forestry that rationalized forests into standardized, monocultural plantings. Translating this model to America was a challenge to Gifford Pinchot, the first Forest Chief, and early foresters. The old-growth trees had to be logged first to make way for "thrifty" stands of young, fast-growing trees that could provide a steady supply of lumber. Eliminating the "decadent" and unruly old-growth forests of the West and replacing them with more productive forests, typically in the form of tree farms, would contribute to the sustained prosperity of the nation and be a sign of true conservation. "The first great fact about conservation," Pinchot would write, "is that it stands for development. There has been a fundamental misconception that conservation means nothing but the husbanding of resources for future generations. There could be no more serious mistake" (Pinchot, 1910). Mechanization took command, to use Sigfried Gideon's phrase, and efficiency guided forest conservation and land management. By the late 1980s, more than half of the old-growth forests in the Pacific Northwest had been logged, often leaving eroded hillsides, silted streams, and struggling communities behind.

Ecological Forestry

The Blue River Landscape Study area is adjacent to the boundaries of the H.J. Andrews Experimental Forest, one of more than two dozen Long-Term Ecological Research sites funded by the National Science Foundation. Ecological Forestry began here, where ecological research projects focus on long-term observation and experimentation, and data are collected over decades, and eventually, centuries. Jerry Franklin, a forest scientist who has been called the "guru of old-growth" (Dietrich, 1992) and a former lead scientist at the Andrews, has described Ecological Forestry as "a kinder and gentler forestry" that works with natural processes rather than against them (Luoma, 2006). Trees are still cut, but rather than presuming that the best logging practice is to clear all logs, standing, downed, dead or alive, and leave a clean slate for planting a monoculture of trees, the way a farmer might clear a field, the new forestry allows for a semblance of chaos. This creates what Franklin has called a "sloppy clearcut" (Luoma, 2006): some live trees are left standing as "biological legacies" that function as a seed bank for future forests and habitat for species that

need the complex structure of old trees, and many fallen logs are left in place to decay, retain and regenerate soil, while providing habitat for diverse species.

ETHICS IN THE PRODUCTIVE LANDSCAPE

Productive landscapes like tree farms or forests maintained for forest products are typically found on the periphery of inhabited areas, out of the arena of everyday life. They are often intensely contested, with conflicting demands and expectations held by passionate stakeholders. Inquiries into the ethical use of productive landscapes such as the Blue River Landscape Study area are challenged by preconceptions of our place in nature, and whether we consider ourselves to be masters of nature, its students, or kin.

Forest managers and decision-makers have established policies and practices that attempt to fit public ideals of what a forest should be. That these reshapings of forest landscapes have tended to coincide with economic ideals is unsurprising, as the way we think about a place influences how we expect it should be managed (Maser, 1988; Langston, 1999). The landscape we see is the one that is telling the stories we think are important. "To the silviculturist, trees are timber," writes forest historian Paul Hirt (1994), but to the advocate for wilderness, trees are a "manifestation of the 'fierce, green fire' of life growing across the face of the Earth" (Moore, 2007).

Wonder, Wood, Wilderness

Philosopher Kathleen Dean Moore suggests that while we are well-versed in the economic valuation of forests, we are less articulate in describing that green fire of spiritual values. But, Moore continues, "If the forest were only a commodity, if it had no meaning beyond its usefulness to human ends, would its descending light and sweet dampness set us back on our heels?" (2007). She offers a philosophical measurement of the intrinsic, non-anthropocentric values that can be found in the forest: the continuity of time, especially in old-growth forests, that allow us to feel what composer Brian Eno calls the "long now" (Eno, 1995); the monumental scale of forests that invites awe and wonder; the fascination arising from immense complexity and diversity within the forest; the transformative power of silence and sanctuary that may be found in the forest; the knowledge that we are not so greedy that authentic and wild places can no longer exist; and the manifestation of beauty, wholeness and integrity.

Forests have long been uncanny places for humans: dark, vast, mythological and fabulous places that mask light and truth, places of both lawlessness and enchantment (Harrison, 1992). However, though individuals may find spiritual meaning or escape in the forest, we also need wood. The wood products used in an

average, contemporary single family residence, such as the framing, beams, reconstituted wood panels, and cabinetry, require a minimum 16,000 board feet, or about half an acre of well-tended, fifty year old Douglas-firs. Our demand for wood for home building has doubled since the 1950s, when the median house size was less than 1200 square feet (Wells, 1999). Even if we built smaller homes, or only repair, reuse, recycle and put on a sweater, we will still need to be able to see some trees some of the time as 2 x 4s, or to see the forest in the 2 x 4, as poet and one-time logger Gary Snyder does:

"The ancient forests of the West are still around us. All the houses of San Francisco, Eureka, Corvallis, Portland, Seattle, Longview, are built with those old bodies: the 2 x 4s and siding are from the logging of the 1910s and 1920s. Strip the paint in an old San Francisco apartment and you find prime-quality coastal redwood panels. We live out our daily lives in the shelter of ancient trees" (1990).

In her book on the devastating Tillamook fires of the early 20th century, journalist Gail Wells locates the problem of our relationship with productive forest landscapes within one of two traditions: the frontier worldview or the arcadian worldview. The frontier worldview saw the forest as a wild land to be conquered, or a wasted land waiting to become productive under the saw or plow, or both. The arcadian worldview saw the forest as imbued with transcendent spiritual significance, perfect as it was, and certainly better without any human interventions.

The *either-or* of the forest-or-arcadia worldviews - either cut it all or cut none - highlights inherent tensions between the forest of spiritual values and the forest of 2 x 4s, as the same landscape is framed as ecological well-being against economical well-being, preservation against wise use, and, in the Pacific Northwest, owls against jobs. We need a "new story," writes Wells, one that "might help us look to our forests for both bodily and spiritual sustenance. It could teach us to cherish them both more realistically and more fiercely, rather than sitting by as market forces turn them into housing developments or ranchettes or shopping malls" (Wells, 1999).

Or tree farms. In William Dietrich's (1992) investigation into conflict in the Pacific Northwest forests, he asks, "What is wrong with transforming the planet to human needs: to turning forests to tree farms, prairies to cornfields, deserts to irrigation works, and the seas to aquaculture?" One response to his question is found in a short story by Ursula Le Guin, "The Ones Who Walk Away from Omelas" (1975). It is a science fiction story of a utopian community whose prosperity and happiness is completely dependent on the imprisonment of a child. Releasing the child from its prison would mean the people of Omelas would lose the joy and beauty they enjoy and that defines their lives. Staying in Omelas means accepting the sacrifice of the one child for the good of the many. Some from Omelas decide that the gain for the many is not worth the sacrifice of

the few; these are the ones who walk away. To turn the parable back to the forest, the preservation of some forests for their spiritual values, beauty, and wonder, requires that other forests are turned to tree farms. Some are sacrificed to fulfill the utilitarian greater good of production and consumption.

WHO and WHAT

"There are, to be sure, also a great many ecologists who have nothing to say to a tree" (Kohák 1992).

A singular challenge in environmental ethics is determining who or what belongs in the moral community. A being or a place that is within what Peter Singer called the "expanding circle" of moral consideration, deserves this respect, care, and protection. The anthropocentric adherent claims that humans occupy the center of the circle, and is loathe to let other-than-humans in. Only humans are intrinsically valuable; others are instrumentally useful. An ecocentric perspective extends the circle of moral consideration to encompass all living beings and their habitat, which in turn includes collectives such as species and populations. It expands the moral circle and breaks the prejudicial and hegemonic ethics that would exclude some for not being similar enough to us (Hall, 2011). In contrast, Czech philosopher Erazim Kohák (1992) proposes that neither anthropocentrism or ecocentrism is true or false, as all beings in the world must be seen as possessing both intrinsic value as demonstrated through having a life to cherish, along with instrumental value as each feeds or shelters other beings. Or as Plumwood holds, "all embodied beings are food for some other beings" (2000). The question to ask concerns how should we speak about and to the world so to make a sustainable, just, and fair world. Kohák offers that we may choose to speak of the world in ways that are sustaining and reverent, or in ways that are harmful and destructive. Speaking of trees as timber or biomass, for instance, or of forests as ecosystems, has formed the attitudes and directed the actions that have led us to a time of environmental crises (Kohák, 1992). Resolving these human-made crises will require new ways of speaking that begin with assumptions of respect and equality.

Kohák speaks of the world as a "community of persons" (1992). Persons are not only human beings, although humans are persons too. To speak of an entity as a person is to recognize that it is the subject-of-a-life with intrinsic value, and so deserving of respect. The concept of personhood is based on a kinship that is both relational and autonomous: persons are individuals and part of an assembly of others (Hall, 2011). Animism is the recognition of this kinship, and an understanding "that the world is full of persons, only some of whom are human, and that life is always lived in relationship with others" (Harvey, 2006). Traditional anthropology has interpreted animism as projections that humans assign to non-human entities, and often assumptions were made by the observers concerning the inferiority of animistic beliefs (Harvey, 2006).

However, new generations of anthropologists, particularly those conducting multi-species ethnographies, are dismissing this one-sided view of how the world works. Other-than-humans are also capable of responding to and interpreting the world: "they are selves, in short, that have a point of view" (Kohn, 2013).

THE HONORABLE HARVEST

Kimmerer (2013) offers thirteen biocultural precepts that guide an honorable harvest:

"Know the ways of the ones who take care of you, so that you may take care of them.

Introduce yourself. Be accountable as the one who comes asking for life.

Ask permission before taking. Abide by the answer.

Never take the first. Never take the last.

Take only what you need.

Take only that which is given.

Never take more than half. Leave some for others.

Harvest in a way that minimizes harm.

Use it respectfully. Never waste what you have taken.

Share.

Give thanks for what you have been given.

Give a gift, in reciprocity for what you have taken.

Sustain the ones who sustain you and the earth will last forever."

This is where an honorable harvest begins. Religious Studies professor Graham Harvey asks, "If respectful engagement is the central moral imperative of animism, how might animals, plants, fish, rocks, rivers and other living persons be utilized to meet human subsistence needs? How can other persons be eaten?" (Harvey, 2006).

That it is necessary to kill persons is a fact of life (Hall, 2011). Kimmerer suggests that the "moral tension" of taking a life may be resolved through reciprocity, although how to reciprocate for a life is not always evident. We can replant, reseed, and in general harvest in ways that allow the system to continue and thrive. Kimmerer also submits that we can reciprocate through increasing our eco-literacy, being stewards of the natural world, and through asking if the goods we purchase are "worthy of the lives consumed" (Kimmerer, 2013). Reciprocity is also crucial to Plumwood's parsing of the ethics of eating. We take, she says, but we do not reciprocate. We consider our own lives to be sacred while other lives are not, and so we are "eaters of others

who can never ourselves be eaten." Further, we refuse to "even conceptualize ourselves as edible...resisting giving something back, even to the worms and the land that nurtured us" (Plumwood, 2000). We are not participants in the food chain, and rather than (re)asserting our kinship with the natural world, we are more inclined to take others - sentient animals, our pets - out of the food chain too. Plumwood proposes that it is "(o)nly when we can truly acknowledge our own position as food for others will we be able to acknowledge those who are our food as our kin..." (2000). A moral accounting of an honorable harvest, therefore, might assume an egalitarian ethic in which all participate, benefit, and are consumed (Hall, 2011).

Not all consumption is ecologically harmful. For plants, at least, consumption or taking, even by humans, may be an essential aspect of the plant's reproductive strategy (Hall, 2011; Pollan, 2002). In the Cree worldview, as well as other indigenous cultures, the use of plants and animals is necessary to preserve their productivity, making use of the natural world an obligation (Berkes, 2012). It is a reciprocal obligation as, if we take, we must give in return (Kimmerer and Lake, 2001). What matters, to return to the honorable harvest, is the knowledge, respect, solidarity, and caring that we bring to what or who we might eat (Hall, 2011). Kimmerer (2013) asks what it might look like if a developer had to ask the land and its inhabitants for permission to turn a field into a shopping center, and replace one culture with another. What would a planner, designer, or manager need to do in order to adhere to the guidelines of an honorable harvest? Following is a possible translation of the honorable harvest into the language of a landscape architect, developer or forest manager:

Become ecologically- and place-literate. Many species may require long-term monitoring, and understanding the structure and function of a place requires close observation.

Be transparent in your objectives and truthful in your cost-benefit analysis.

Ask if the whole population of affected species is robust enough to sustain the harvest. Allow for all concerned voices to be heard. Be prepared to change your plans or even to walk away.

Design to ensure the continuity of the system and the possibility of future harvests.

Practice restraint in determining appropriate profits.

Do not depend primarily on technologies and external inputs to optimize efficient functioning.

Leave at least half of the land for ecosystem functioning and health.

Account for the socio-ecological impacts of process and by-products as well as products of the development.

Make sure your economic analysis doesn't externalize the costs to species or other places.

Design and plan for social justice.

Express your gratitude for all who have made the harvest possible.

Reestablish fragmented communities, reknit new landscape into the old, replant, reseed.

Commit to continued care of the place and its inhabitants.

THE FOREST HARVEST

One of the catalysts for the Blue River Landscape Study Part emerged from a critique of the Northwest Forest Plan that was brokered in 1993 by the Clinton Administration. Forest scientists and managers soon concluded that under the plan, the landscape would tend to become bifurcated into mature and old-growth forests left along waterways and in smaller patches, while the bulk of the land would be young trees in monocultures and logged on short rotations of 80 years or less. This would virtually eliminate the 80-200 year old forest and compromise early seral and future old-growth forests within the Pacific Northwest (PNW, 2002).

Mature and old-growth forests in particular are the sites of public protests against logging on public lands managed by the US Forest Service, with passionate constituents who are ready to lie down in front of tractors to stop timber sales. The Blue River Landscape Study was no exception, with "tree sitters, vandalism and threats" against the proposed timber sale (CCAMP, 2011). Although the protests were successful in protecting a number of species and old trees from the logging operations, the logging and broadcast burning proceeded. In the end, 70% of the trees were cut, pulled up the hills and sent to the sawmill. Twenty million board feet of timber were removed from the Blue River site (CCAMP, 2011), enough for building more than 1200 homes. Following Ecological Forestry principles, the remaining live trees were left as biological legacies, primarily along the far reaches of the site, and with a few odd trees uphill that were growing out of the way of the paths formed by the logging equipment. A number of fallen and standing dead trees were left for habitat regeneration (PNW, 2002). There was discussion about whether to allow the area to regenerate naturally. In the end, Douglas-fir seedlings were planted in a loose grid that accommodated the fallen logs and snags left behind. The early seral riot of berries and grasses is encouraged and not sprayed with herbicides to give the tree seedlings more advantage. What was taken in the pre-fire harvest of trees matched what ecologists believed would still allow for the forest to regenerate, so at least in some sense, the logging took no more than what needed to remain to ensure the health of the forest.

CONCLUSION

Environmental ethics tends to focus on wild environments and species. There is growing interest in agricultural landscapes, but the non-food productive landscape is essentially ethically invisible. We choose to deny these places and persons the moral standing or respect that we convey to wilderness or even to a kitchen garden because to say otherwise would profoundly challenge our way of life. Our happiness, like that of the people of Omelas, is dependent on the sacrifice of some other place, somewhere else. The denial of respect is

implicit, rarely explicit, for most of us do not see or speak to productive landscapes. They are literally and conceptually distant to where we live and our ethical concerns. However, erasing the circle around the moral community and declaring that there are no meaningful lines to be drawn signifies that all are potentially morally considerable no matter how awkward it may be.

The bifurcation of the forest that concerns the scientists at the Blue River Landscape Study should concern us too. It is morally problematic to reduce any part of the natural world we love and respect, wild or not, to the equivalent of a scenic highway, while all beyond our view is ravaged or regimented. (In traditional forestry practices this is called the "beauty strip," leaving enough traces of the forest along public roads that the illusion of a forest remains). The language we use to speak of the natural world is inadequate to the task of "(re)situating humans in ecological terms and non-human others in ethical terms" (Plumwood, 2002). But seeing the world as inhabited by persons, only some of whom are human, and then being willing to confront the moral tension that arises when we must eat or otherwise take the life of some of those persons, is a way to start a conversation.

The meaning of the "ecological" in Ecological Forestry is mixed. Is it traditional forestry in an "eco-friendly" package, fulfilling predetermined goals for turning trees into board feet without questioning the legitimacy of what we say we need? Or is Ecological Forestry truly a new approach to forestry that strives to fulfill our human responsibility for reciprocity with the natural world? Measuring the efficacy of a management plan that is defined as "ecological" needs to include comparisons of whether the process and outcomes were ecologically constructive or ecologically destructive (Kohák, 1992).

From one perspective, perhaps that of nature as wilderness where humans are only visitors as the Wilderness Act states, the Blue River Landscape Study was no more than business as usual. Forest Service surveyors overlooked multiple vole's nests that citizen surveyors located; the pattern of cutting followed what the logging equipment was designed to do - get as many trees out as quickly as possible; the removal of 70% of the trees was also the removal of post-fire habitat and nutritive additions to the soil; the replanted grid of Douglas-fir signals that the planners did not want to preclude the possibility of future logging for maximum economic value; and while it may have been a "sloppy clearcut," what the protesters saw was a clearcut nonetheless.

From the perspective of the honorable harvest, the view is less clear. The Forest Service's logging plan was based on seeing the larger context of the forest and encouraging diversity of structure and pattern from early seral through old-growth; the plan changed as more voices were heard, and the acres to be logged were reduced and particular trees left alone; fire is integral to forest health and well-being, part of the circle of

forest kin, and assists reproduction of and habitat for many species who otherwise would be crowded out by dense tree canopies; biological legacies of live and dead trees help grow the post-fire and future environment; and as part of the research at the H. J. Andrews Forest, there is a commitment to long-term monitoring and observation. Some areas in the Blue River Landscape Study will leave the half of the system intact, as the honorable harvest suggests, however, other areas will take up to 85%, so the balance is in favor of taking, not leaving.

Aldo Leopold's poetic insights into of the beauty of wild places and wild things, have inspired many to embrace the Land Ethic as a holistic, ecocentric vision of a community of beings (Leopold, 1966). But Leopold also wrote much about "husbandry-in-the-wild." He was a game manager who saw no contradiction in loving the land *and* using it. Wild meat from deer or goose was a "gift from God." Leopold believed in the intrinsic value of what was wild and more-than-human. What he interestingly termed its "esthetic" was the wholeness of a place: the land *plus* the red maple *plus* the ruffed grouse. But he believed in managing the land for "wild crops" and so it was also part of Leopold's land ethic to shoot the grouse and tap the maple. He expected human use of the land. What concerned him was the human use that excluded grizzlies and wolves, human use that didn't leave room for what was wild or that managed the land to advantage single species, or human use that showed no respect for the whole life of the land and what it could teach us (Leopold, 1966).

Equating use with abuse aids in the forgetting of the "possibilities and dynamics of loving and even respectful use and interaction" with the natural world (Plumwood, 2002). At the core of the honorable harvest is a critical question of how we might mindfully use the forest, and learn to live *within* productive landscapes, to see and speak to them, rather than furthering the bifurcation of production and inhabitation, or production and beauty or wonder. Living within productive landscapes rather than building monocultures of production elsewhere means these divisions of "either/or" ought to become "and": humans *and* forests *and* lumber *and* spiritual values *and* communities of all persons.

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