THE ECOTONE

Winter 2005 The Journal of Environmental Studies The University of Oregon

Theory/Practice

Inside This Issue

ECOTONE: A transition zone between two adjacent communities, such as a forest or grassland. It has some of the characteristics of each bordering community and often contains species not found in the overlapping communities. An ecotone may exist along a broad belt or in a small pocket, such as a forest clearing, where two local communities blend together. The influence of the two bordering communities is known as the edge effect. An ecotonal area often has a higher density of organisms and a greater number of species than are found in either flanking community.

EDITOR'S NOTE

This issue of *The Ecotone* focuses on the challenges of putting theory into practice and using practice to refine theory. Environmental Studies is interdisciplinary; practitioners negotiate a variety of approaches in their work, from science to poetry to activism.

Cover Image Credit:
Photo by Patrick Hurley

The Ecotone

The Ecotone is published by the Environmental Studies Program at the University of Oregon. If you have questions or comments, or if you would like to be placed on the mailing list, please contact:

The Ecotone
Environmental Studies Program
5223 University of Oregon
Eugene, OR 97403
E-mail:
espress@darkwing.uoregon.edu

Editors

Janet Fiskio
Sarah Jaquette
Shangrila Joshi
Sarah Mazze

Dark Cloud, Silver Lining

Dispelling regulatory disincentives might help habitat and landowners alike

Adam Novick

A storm is coming to the Willamette Valley. Its oak savanna and upland prairies are in trouble, and the species that depend on them are heading for federal listing. Maintained for centuries by the Kalapuya and Mollala through frequent, low-intensity fires, and now almost entirely on private land, these critically imperiled ecosystems have been disappearing not only to residential development and other conflicting land uses, but also to natural succession and invasive exotic species, such as ivy, English hawthorn, and false brome. As songbirds and other species that depend on these ecosystems head for listing under the Endangered Species Act, their prospect might only worsen, because the risk of financial harm from regulation makes it self-defeating for private landowners to conserve these ecosystems or to try to save them from conifer invasion and exotic species. USFWS is already preparing to designate critical habitat for the Fender's blue butterfly, and other species seem close behind.

Fortunately, some in the conservation community and natural resource agencies see this dark cloud as an opportunity to help habitat and landowners alike, by dispelling the threat that these species will be regulated on private land.

Some help might be on the way. In consultation with Defenders of Wildlife, the Oregon Department of Fish and Wildlife, the Oregon Small Woodlands Association, and other stakeholders, the Oregon Department of Agriculture and Oregon Department of Forestry advised the state legislature in 2003 to work with the US Fish and Wildlife agency to try to dispel regulatory disincentives inadvertently created by the Endangered Species Act, by exploring a pilot program of "Safe Harbor-type" agreements for oak savanna. USFWS began authorizing such agreements in 1995, recognizing that regulatory disincentives inadvertently encourage intentional destruction of habitat and discourage its maintenance on private land. The programs offer some assurance to private landowners that they will not incur regulation under the Endangered Species Act.

However, this solution is far from certain. Some see Safe Harbor-type agreements not as simply assuring landowners they are safe from regulatory consequences for conserving or restoring oak savanna. Instead, they see these agreements as "regulatory incentives." As one

Restoring oak savanna. *Survival of the Willamette Valley's oak savanna and upland prairie apparently depend on private landowners controlling natural succession to conifer forest (as shown here) and invasive exotic species. Habitat and landowners alike might benefit from dispelling regulatory disincentives for doing such work.*

conservation leader put it to me, "Now is the time to bring out the regulatory tool, yes, even for restoration." In this view, to receive assurances their properties won't be regulated under the Endangered Species Act, landowners must agree to maintain a "baseline" of existing habitat and restore and maintain additional habitat, under threat of regulation if they don't. Also, the agreements fail to protect landowners from future listings of other species, and they permit USFWS to unilaterally cancel them. Landowners may also withdraw, but at the risk of incurring regulation.

Some landowners might find these terms acceptable. In a Safe Harbor agreement signed last January, a Polk-

county family agreed to control invasive exotic species on 20 acres of oak savanna for 15 years, in return for assurances their property won't be subject to federal regulation if the Fender's blue butterfly comes to their property.[1]

However, few landowners might be willing to accept such terms. If faced with such choices, many and perhaps most landowners might likely choose instead to let their oak savanna and upland prairie succumb to conifer forest and invasive exotics, if they don't destroy it outright. Ecologists readily admit that restoring these ecosystems is difficult, experimental, and expensive, and that they are at imminent peril from natural succession and exotic species.

Further dimming hope for Safe Harbor agreements, USFWS apparently might not have the resources to establish additional agreements, under any terms. In addition, the prospect for more acceptable terms seems jeopardized by confusion about policy objectives and landowner preferences. The primary objective of the Endangered Species Act is expressly to conserve species. However, some apparently think its objective is merely to stop conflicting land uses. In their view, the Endangered Species Act should be used to fight sprawl, whatever ecological harm might result. Also, some apparently believe that if a landowner wants to conserve or restore habitat, they are also willing to suffer any loss in market value that might result.

Thus, unless regulators find a way to better understand how private landowners might respond to new policies, and unless regulators develop Safe Harbor-type agreements with terms more conducive to conserving and restoring oak savanna and upland prairie, new species-based regulation might exacerbate the loss of these ecosystems in the name of saving them, due to the effect of regulatory disincentives. What hope is there for these ecosystems if they depend on active management, and policies make it self-defeating or prohibitively expensive for private landowners to actively manage them?

When facing the prospect of new regulation, private landowners often place their hope in the Fifth Amendment, which appears to protect them by holding that "nor shall private property be taken for public use, without just compensation." However, as recently as 2002, in its "Tahoe" decision[2], the US Supreme Court has upheld the right of government to regulate private land, though depending on certain factors.

Therein lies what might be the best hope of dispelling regulatory disincentives for conserving or restoring these ecosystems, to the benefit of habitat and landowners alike. The Tahoe decision in part noted that to avoid constituting an unlawful "takings," regulation must "substantially advance a legitimate state interest." If in the name of conserving oak savanna and upland prairie, species-based regulation causes net ecological harm to these ecosystems, such regulation might be unlawful, because it works against the purpose of the Endangered Species Act.

I believe this is true, based on my experience trying to conserve and restore oak savanna and upland prairie on private land. I stepped in to try to save two acres of oak savanna from development, natural succession, and invasive exotic species, only to find myself at risk of substantial financial harm from state-based regulation intended to "protect" wildlife habitat. What hope is there for these ecosystems if species-based regulation penalizes those who try to save it?

While the marketplace seems to offer these ecosystems a dicey future, species-based regulation might only worsen their prospect, by discouraging active management. However slim, the best hope for these ecosystems might be to protect the conservation market for them, so that private landowners can conserve and restore these ecosystems without fear of regulatory consequences or having to accept unaffordable burdens under threat of regulation.

Thus, while private landowners might have little hope of defending themselves from new species-based regulation by claiming it is unfair, they might have some hope of defending themselves from such regulation at least for oak savanna and upland prairie, by legitimately claiming it causes net harm to the species it is intended to help. By doing so, private landowners might have an opportunity to defend their property interests and help habitat at the same time.

FOOTNOTES

1. Federal Register. Vol. 69, No. 12. January 20, 2004. 2726-27267.
2. Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency. 2002 WL 654431. (US) April 23, 2002.

Adam Novick is a master's degree candidate in Environmental Studies. In 2000, he won stewardship awards from the Oregon Department of Forestry, the Oregon Department of Fish and Wildlife, and The Wildlife Society, for conserving oak savanna and for leadership in its conservation. This article is appearing simultaneously in the December 2004 issue of Update, the newsletter of the Oregon Small Woodlands Association (www.oswa.org).

Political Ecology of 2001 Water Crisis in the Upper Klamath Basin:

A Case Study in Narrative Policy Analysis

Dan Hurley

As the author Tupper Blake states in his book *Balancing Water: Restoring the Klamath Basin*:

Much of the controversy in the West...is a result of people speaking different versions of what is thought to be a common language. Talk is degraded into a posturing, adversarial game. We quit listening, and only talk to those we agree with, who speak "our language." (Blake, Blake and Kittredge 2000)

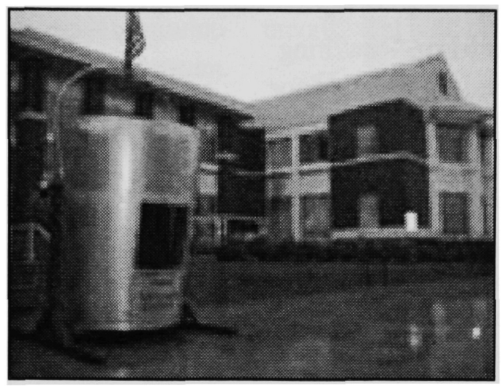


Photo by Dan Hurley

If you have not witnessed this phenomenon in the West, you have certainly witnessed it on a national level during the recent presidential campaigns. Adversarial discourses, repeated over and over to target audiences, tend to harden perceived realities and create barriers to accepting other possible points of view. Environmental controversies are prone to this phenomenon of polarizing discourse. Therefore, methodologies for bringing discourses together may be instrumental for overcoming polarization and finding collaborative solutions.

My master's thesis used a methodology called "Narrative Policy Analysis" to analyze the competing discourses from one of Oregon's most intense environmental controversies: the Klamath Water Crisis in 2001. This methodology for policy analysis was developed by Emery Roe and is articulated in his 1996 book, *Narrative Policy Analysis: Theory and Practice*. The methodology utilizes comparisons of policy narratives to analyze controversies that are wrought with uncertainty, complexity, and polarization. I used this methodology in my thesis to bring the adversarial narratives of water policy together for comparison to see if differences could be reconciled and to see if common ground could be realized. This analysis was not intended to resolve the tensions from the water crisis in 2001. Rather, it was designed to help the reader understand the controversy more thoroughly and to offer possible insights for future policymaking.

Background

In April 2001, amidst predictions of the worst drought on record, the Bureau of Reclamation made a decision to curtail irrigation water to approximately 1,200 farms in the Klamath Irrigation Project in order to protect three species of fish with protected status under the Endangered Species Act. Tensions in the Klamath Basin reached a crisis situation in the months that followed as farmers' fields went dry and frustrated citizens turned to civil disobedience in attempts to obtain irrigation water. Protesters forcibly opened the headgates to the A-Canal, the main irrigation canal for the Klamath Project, four times before armed federal marshals were called in to protect the headgates.

As the dry summer months progressed, the competing water users pled for support through emotionally charged discourses claiming entitlement to the water. On one side, the local irrigators and their supporters claimed that the water shut-off was unnecessary for protecting fish and that such action would threaten their farming livelihoods. On the other side, environmental groups, downstream fishermen, and the Klamath Tribes claimed that the water shut-off was essential for survival of the endangered fish and consequently for the survival of the fishing cultures of the Klamath Tribes and downstream fishermen. Over time, each side tailored a persuasive discourse to support their position using differing interpretations of history, science, law, and ethics.

Toward a "Metanarrative"

In an attempt to reconcile the conflicting discourses, I compiled the "stories" I found on various websites, from literature distributed by the stakeholders, and from articles from local newspapers and magazines. (I use the term "story" to denote that these were one-sided explanations, not to imply that these explanations were non-factual). I compiled these "stories" into two opposing narratives: the primary narrative (the pro-irrigation standpoint), and the counter narrative (the anti-irrigation standpoint). Next I told the "nonstories" of science and water law as they related to the previous narratives. (The word "nonstory" is a term used in *Narrative Policy Analysis* for arguments

that do not contain a clear beginning, middle, and ending, as in the case of a traditional story).

After compiling the relevant "stories" and "nonstories," the next step was to develop a "metanarrative" that makes comparisons between the stories and recasts the issues into a new form. Rewriting the stories into a new form is intended to create a tool for future policy-makers to understand the uncertainty, complexity, and polarization surrounding an issue. My metanarrative critiqued both of the competing discourses on the subjects of: historical, scientific, and legal interpretations; perceptions of nature/ethics; perceptions of entitlement; and perceptions of threats to power/livelihoods. The following excerpts from my thesis explore two of these subjects: "Historical Interpretations" and "Perceptions of Nature/Ethics."

Historical Interpretations

The competing narratives contain differing interpretations of history with regard to the historical periods that are emphasized and the perceptions of environmental change. Both sides make selective use of stories to build support for their respective positions. The primary narrative focuses entirely on the history following Euro-American development of the Klamath Project, particularly on the history of the early homesteaders, and it ignores preceding cultural conditions. Conversely, the counter narrative focuses chiefly on pre-settlement conditions and ignores the cultural development that has accompanied the Klamath Project. It is important to recognize both of the histories in the Basin and the effects of past policy decisions.

Euro-American settlers held little regard for Indian rights or culture during the early settlement of the Klamath Basin. Indians were banned from practicing their religious customs, their lands were taken, and their culture was suppressed in numerous ways (Zakoji 1953). The 1905 *History of Central Oregon* illustrates the disregard for Indian culture with a passage that states: "[Klamath became the] favored county of Oregon. In the earlier days it was the dreaded Modoc country; now it is the county of happy homes. Where once resounded the blood-curling war-whoop of savage Indians, now live a contented people at peace with the world" (History of Central Oregon 1905).

It should be acknowledged in any history of the Klamath Basin that there was a culture in place prior to Euro-American settlement and that this culture lived in a manner that was compatible with the environment for up to 14,000 years. Likewise, it should be acknowledged that settlement by whites was virtually inevitable, and that the culture of the area has transformed so significantly that a return to an environment of subsistence-living people is highly unlikely.

The primary narrative is quick to accentuate the hard work of the early homesteaders while minimizing the affects that they had on the surrounding environment. As discussed in the science nonstory, environmental alterations in the Upper Klamath Basin have been extensive. Water levels in Upper Klamath Lake were lowered by as much as 3 feet during critical drought years due the removal of a natural basalt sill and the construction of the Link River Dam. Water levels in the Klamath River have decreased during the dry season due to the loss of inflow from Lower Klamath Lake. Water quality in Upper Klamath Lake has decreased due to increased nutrient loading and the emergence of massive blooms of *Aphanizominon flos-aque* (blue green algae) that were not present in the lake 150 years ago. There have also been dramatic decreases in wildlife, not least of which are the endangered species of suckers and salmon. Claims to the contrary in the primary narrative hold little scientific or historic credibility and are either the result of misunderstandings, misinformation, or political propaganda. These contrary claims increase the complexity and uncertainty of the conflict and should be addressed in future policy making.

The counter narrative gives a corresponding one-sided history by accentuating the scope of environmental change without acknowledging the history of homesteaders or the present culture in the Basin. The Euro-Americans that settled the project area were hardworking people, and the federal government encouraged them to transform the landscape to pave the way for further growth and prosperity (Southwick 2002). The homesteaders built the communities that dot the Klamath Project, and their descendants continue to contribute to the larger regional economy. Society still values the goods produced by the farmers in the project, and large portions of the population are not inclined to favor a return to pre-settlement conditions. Environmental organizations that perpetuate a "fall from Eden" discourse, in which everything prior to Euro-American civilization was good and everything after is bad, may want to reconsider this antagonistic mindset in order

to facilitate future negotiations with the existing population in the Basin.

Perceptions of Nature / Ethics

The water crisis of 2001 demonstrated that there are fundamental differences regarding perceptions of nature and environmental ethics between the prevailing narratives. It is debatable whether or not these differences can be reconciled, but it is important to recognize the different viewpoints because they play an important role in shaping natural resource policy and politics. The primary narrative endorses a view that nature is robust and that human impacts on the environment have been minor. Nowhere in the primary narrative is there any acknowledgement that human activities have reduced wildlife abundance. In fact, a reverse notion is endorsed: the primary narrative depicts irrigators as stewards of the refuges because they provide the refuges with water and grains. This narrative places little value on indirect uses of natural resources. Instead, it argues that resources should be used for production - that good land *should* be farmed. The counter narrative endorses an opposite view by stating that the ecosystem of the Klamath Basin is threatened from top to bottom. It accentuates the reductions in wildlife, and attributes these reductions directly to human activities. The counter narrative places value on some direct uses of natural resources, such as commercial fishing, but it also places value on indirect uses such as recreation.

One point of commonality between the two narratives is the anthropocentric value of using natural resources to preserve livelihoods and culture. The primary narrative argues for water resources to sustain accustomed livelihoods and farming communities. Likewise, the counter narrative argues for water resources to sustain the fishing livelihoods and the cultures of native tribes and downstream fishing communities. Despite claims in the primary narrative that environmental groups are "haters of humankind," there is little evidence in the counter narrative to suggest that these groups are motivated purely by biocentric ethics to preserve fish for their own sake.

The evolution of American environmental ethics is also important in understanding the changes in federal policies over recent decades. The Klamath Project was constructed during an era that pursued conquest over natural resources to "democratize the West by peopling it with farm families... [to] fulfill the birthright of every American wanting a fresh, equal start"(Wilkinson 1992). Environmental protection measures, such as fish ladders for the first Copco Dam on the Klamath River, were considered impractical (Boyle 1976). However, in the 1960's the national culture began to shift in response to perceptions of threats to the environment. People began to perceive that society was living with an outdated ethical code that was inconsistent with our capacity for environmental change.

The shift in culture and values in the 1960's and 70's led to several national environmental laws, such as the Endangered Species Act and the Clean Water Act, that began to restrict private enterprise in order to safeguard the environment and protect public interests. The shift in culture also produced different views regarding the proper use of resources. In earlier years, public lands were controlled primarily by local resource users and production using these resources was considered to be in the public's interest. Nowadays however, a larger segment of society believes that public lands belong to everyone, including outsiders, and conservation of these resources is considered to be in the public's interest. These changes have produced conflict in the Klamath Basin where local resource users cling to an earlier era of local control of public resources.

Conclusion

When analyzing a complex environmental controversy such as the 2001 water crisis in the Upper Klamath Basin, it is often difficult to discern fact from fiction and to develop policies that will reduce polarization. Stakeholder groups actively attempt to sway public opinion through partial stories, emotional appeals, and in some cases, deception or misinformation. Rewriting these narratives into a new form is not intended to solve this controversy. Rather, it is intended to allow the reader to understand some of the major points of controversy with the hope that a greater understanding will lead to improved policy decisions. This approach may be frustrating for those who seek clarity, simplicity, and resolution; but easy answers are rare in environmental controversies. Policy makers in the Klamath Basin and elsewhere must be aware that there will always be a degree of uncertainty, complexity, and polarization as they work to perform the difficult tasks of achieving fairness and implementing the goals of society. Policy makers should avoid seeking simple solutions to complex environmental problems and acknowledge that they will ultimately be required to make difficult value judgments that may prove to be politically unpopular.

Dan Hurley recently completed his master's degree in the Environmental Studies program.

On Being Interdisciplinary

Glen Love

In "University Days," humorist James Thurber recalls his difficulty in passing a botany class in college because he was uable to see plant cells through a microscope. Thurber tried to explain his problem to his instructor. "'It takes away the beauty of flowers anyway,' I used to tell him. 'We are not concerned with beauty in this course,' he would say. 'We are concerned solely with what I may call the mechanics of flars'" (*The Thurber Carnival,* 221).

Thurber's lament and his instructor's icy response typify what may be a too-familiar conflict between the two cultures—the humanities and the sciences. In English classes one gets used to hostile depictions of science. In Poe's "Sonnet: To Science" the speaker blames science for painfully separating him from his summer dreams. Robinson Jeffers, in "Science," says that not only does science murder to dissect, but its thirsty knives turn inward upon mankind. And recall Emily Dickinson's brilliant, bloody little lines,

> Split the Lark—and you'll find the Music—
> Bulb after Bulb, in silver rolled—
> . . . . . .
> Scarlet Experiment! Sceptic Thomas!
> Now, do you doubt that your Bird was true?

We've all grown up with mad scientists, from Dr. Frankenstein to Dr. Strangelove. And the ones who aren't crazy or don't scare us are likely to be boring, as is the lecturing astronomer in Walt Whitman's famous poem, "When I Heard the Learn'd Astronomer." The speaker in the poem wearies of the scientist's lecture and wanders off to look up "in perfect silence at the stars."

Physicist Steven Weinberg recounts Whitman's lines with some exasperation in his book *Facing Up: Science and Its Cultural Adversaries.* "Generations of scientists have been annoyed by these lines," writes Weinberg. "The sense of beauty and wonder has not atrophied through the work of science, as Whitman implies. The night sky is as beautiful as ever, to astronomers as well as to poets. And as we understand more and more about nature, the scientist's sense of wonder has not diminished but has rather become sharper, more narrowly focused on the mysteries that remain" (70-71).

Having run into a good many excited scientists recently, I wonder, do we need to continue the sterile clichés of the two cultures, heartless scientists and touchy-feely humanists talking past each other? I think not. I'm no slavish admirer of all things scientific. I recognize, along with Jeffers, the double-edge of a science-created technology. But I affirm the role of the scientific method, of "science"—literally knowledge—as indispensable in understanding ourselves and the world, and in thinking our way through the challenges we face. As an English professor and an "ecocritic," involved in matters of literature and environment, I'm really interested in scientists like Weinberg and Edward O. Wilson and Rachel Carson and Sarah Blaffer Hrdy and Richard Dawkins, scientists who not only further our understanding of how the world works, but who convey their sense of enthusiasm and discovery—even delight—in what they do. And I don't see how anyone interested in "the environment" can be indifferent to what they are doing.

It has been the view of many contemporary humanists that we humans come into the world with brains that are a blank slate, and that it is culture alone that inscribes upon us our thinking and our behavior, and thus our art and our literature, the stories we tell. But in the last several decades, this blank slate theory has steadily been eroding in the face of powerful new evidence. (See, for example, Steven Pinker, *The Blank Slate.*) The old nature-nurture debate is no longer a matter of choosing one side or the other. Human behavior is increasingly recognized as having a genetic component. Human nature—what it means to be human—is more and more studied and recognized as "biocultural," an indivisible blending of our evolutionary genetic heritage as modified by cultural influences. Recent advances in the neurosciences, for example, have revised our study of animal and human behavior and have resulted in an enormous increase in interdisciplinary studies, new connections between the sciences and the humanities.

Those of us whose field is "the environment" are, or should be, right in the middle of this movement toward a more unified theory and understanding of human behavior. Unfortunately, most of us who are non-scientists are ill-prepared for the scientific end of interdisciplinary thinking.

We tend to reflect what is found in demographic studies: our country's astonishing degree of scientific illiteracy.

Observer and critic of science education Morris H. Shamos points out that only four or five percent of our population is scientifically literate, and that ninety percent of American students are not much interested in science. And he notes the same imbalance on the professional level between scientists and humanists: "Most scientists, if for no other reason than necessity brought on by having to live in a humanistic society, are literate to some degree in the humanities; very few humanists, because they do not regard it as a cultural imperative, are at all literate in science" (*The Myth of Scientific Literacy* 90, 157, 107).

So when I argue for interdisciplinary study, I'm saying that most of the necessary movement must be from the humanists, toward science. Recognizing my own scientific nerddom, I've been trying in recent years to pull up my socks and learn something about science. I have been helped in this by a fortuitous accident: Rhoda, my wife of many years is a scientist, a biologist and one whose specialty is—what luck!—ecology. I also began doing a lot of reading outside my literary field. My experience has resulted in a new book, *Practical Ecocriticism: Literature, Biology, and the Environment.* I argue in the book that, for a non-scientist interested in "the environment," crossover studies in biology and the life sciences and related and newly-emerging interface territories (evolutionary psychology, the neurosciences, linguistics, biogeography, anthropology, etc.) offer us the most relevant and accessible means of taking nature seriously, through interdisciplinary efforts.

An unanticipated bonus for me in my November romance with biology has been a fuller understanding of the importance of Darwinian evolutionary theory. The great modern geneticist Theodosius Dobzhansky has said, "Nothing in biology makes sense except in the light of evolution" (Mayr, *This Is Biology* 178). What he means is that all modern biology, all the surviving biological research of the last 150 years since Charles Darwin's *The Origin of Species,* rests upon Darwin's explanation of the evolution of all living things through natural selection. That would make it perhaps the most important scientific idea in the last two centuries. And with no Kuhnian paradigm-shift. So if you've been frightened away from learning anything about evolution by this or that presumed authority, it may be time to join the real world. Evolution is now accepted as fact by all the world's leading scientists, as well as by informed public leaders (not including our present president) and even non-fundamentalist religious leaders, including the current pope, John Paul II. But it is a subject often ignored or suppressed in our American educational system, and our students and all of us are the poorer for this.

As for the importance of interdisciplinary awareness to understanding "the environment," it wasn't until I read a paragraph in Harold Fromm's review of *Practical Ecocriticism* that I found how powerfully this idea could be expressed. Fromm writes, "If we could produce a high tech time-lapse movie of the person in the environment, what would we see? A man and a woman eat food from the Earth that becomes their bodies and sperm cells and eggs. A fertilized egg, fed by more plants and animals, keeps dividing, turning into specialized body parts, including a brain, that are wholly derived from the plants and animals (and the earth, sunlight, water, air, etc., that generate them). The environment is coursing through the fetus, who is made of the substances ingested by the mother. The fetus becomes a baby who becomes a person who is comprised of the plants and animals eaten by his parents and now eaten by himself. His cells, nails, hair, skin, etc. are regularly sloughed off and replaced by newly made substances derived from earth-generated plants and animals. The person dies and decomposes back into the earth to provide food for new plants and animals to feed new parents, sperm, eggs, and fetuses. There is no environment, only an ensemble of elements recycled through every existing [living] thing. The environment does not wrap around the person for his regal contemplation: The person is the environment and the environment is the person. The time-lapse movie shown fast would reveal matter from the Earth sweeping through the form of a person who himself sweeps back into the Earth, like a wave moving across the ocean" ("Ecocriticism's Big Bang," http://www.logosjournal.com/fromm.htm).

We do not exist independent of the environment. To rephrase Pope, the proper study of Mankind is "the environment." "The environment" invites both scientific and humanistic inquiry. Nature, including us and our human nature, is interdisciplinary. Should a worthwhile education be any less so?

Glen Love is Professor Emeritus of English, with emphasis on literature and the environment.

Theory in Action

Steve Mital

...There are three ways of trying to win the young. There is persuasion. There is compulsion and there is attraction. You can preach at them; that is a hook without a worm. You can say "you must volunteer." That is the devil. And you can tell them, "you are needed." That hardly ever fails.

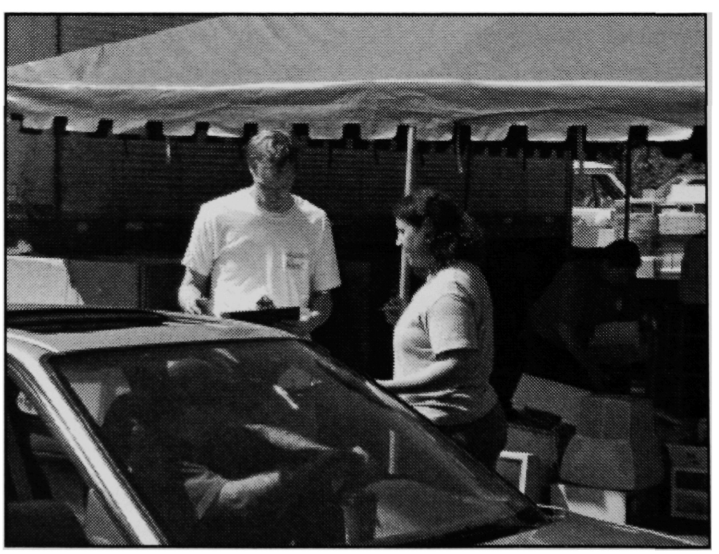
- Kurt Hahn (Educator and Philosopher)

Cars kept coming all day long. My students and I grabbed computer monitors and TV consoles from the back seats and trunks and furiously stacked them on wooden pallets. As one man handed me a five-dollar bill, he confided that he'd been holding onto his computer since the mid 80s because he couldn't bear to throw it in the garbage. Judging from the piles of PCs all around us, he wasn't alone. Clearly, we had struck a nerve in the community.

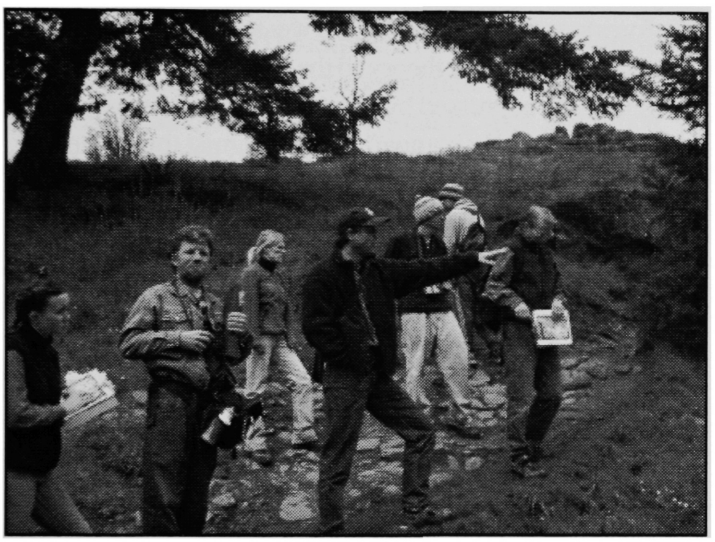
After the last of the cars left the parking lot, my student Erin yelled, "Let's count the money!" Each of us handed a stack of bills over to Erin, and she ran the tally: "Four thousand nine-ninety, nine-ninety-five, five-thousand!" The students were giddy.

The electronics recycling event was a total success. We demonstrated that the public was willing to pay a fee to responsibly recycle old monitors. We collected 40,000 pounds of computers and televisions and $5,428.00 to pay for their shipping and de-manufacturing. We initiated a debate about how to manage Lane County's electronics waste, or e-waste, that later resulted in a permanent e-waste facility operated by the Lane County Waste Management Division. And we won an award for our efforts to reduce waste. Perhaps most importantly, however, students learned about the growing problem of e-waste in a hands-on, exciting, and gratifying way. The electronics recycling event was the culmination of a six-month-long Environmental Studies Service Learning Program (SLP) project. The goal was to help BRING Recycling organize a collection drive and prove that the public would pay to support an e-waste recycling program. Students began the project by studying about the environmental problems associated with e-waste and investigating options for e-waste recycling. Using the information they had gathered, the students then crafted a public outreach campaign and e-waste recycling event.

The SLP enables students to combine the knowledge they gain through coursework with action in the community. Students learn to organize and manage educational outreach efforts. They come face to face with the challenge of crafting policies that the public will support. They learn about managing natural areas for multiple uses, about unintended consequences, and adaptive management. SLP students consider the theory and concepts they encounter in traditional classes within the context of political, social, and economic realities, and it all happens through active participation.



In 2001, the City of Eugene asked a team of SLP students to make recommendations for preserving Spencer Butte's fragile habitat without compromising its recreational benefits. Students conducted surveys to find out how many people use the park, when they go, and whether they stay on the designated trails. They mapped the trail system and fragile areas. They then asked visitors if they knew about the threatened plant species found atop the Butte and whether the knowledge made a difference in their willingness to stay on trails. Students came face to face with the challenge of balancing recreational uses in natural areas, something they had encountered in class.



The results showed that additional regulations were not likely to work, but more education and better trail markers could significantly improve the situation. The City of Eugene asked the students to present their results at a statewide conference on municipal parks. The experience did wonders for the students' confidence.

This year the SLP initiated a long-term watershed stewardship project that trains students to monitor riparian restoration sites, practice adaptive management, and work with rural landowners and watershed councils. SLP students will continue collecting and analyzing data from these sites for several years, and they will make recommendations to local watershed councils for how to best manage these sites.

In addition to the SLP team, students taking Pat McDowell's Watershed Science and Policy course will participate in the watershed stewardship project. As they study the Clean Water Act, the Oregon Plan for Salmon and Watersheds, and riparian function in the classroom, the students will meet rural landowners, help with their restoration efforts, and learn about on-the-ground restoration techniques. Through the interactions with landowners and other community members, students will witness how the policies they study in class are manifested on the ground.

At the end of the year, I ask SLP students to reflect on their experience. This statement from a student who worked on a watershed education and restoration project in the Mohawk Valley is a typical response.

Although the Service Learning program was often challenging, time-consuming, and sometimes frustrating, I walked away from it with a feeling of achievement, growth, and satisfaction. One of the most rewarding moments came when members of the watershed council sincerely expressed their gratitude and approval of our work.

As Kurt Hahn observed, powerful educational experiences occur when students feel that their contributions are valued and needed. By inviting students to work on projects that meet real needs in the community, the SLP inspires students to apply their environmental studies educations to real-world problems.

Steve Mital leads the Service Learning Program through the ENVS program.

Ecofeminism and Forest Defense: A Meeting of Theory and Praxis

Chaone Mallory

NOTE: The following is an edited version of a talk the author delivered last year as a keynote speech at the "International Environmental Experience: Applications for Belarus" conference held at the Institute for Modern Knowledge in Vitseybsk, Belarus in November of 2003. Although Chaone's specialization and dissertation research is in ecofeminist philosophy and not specifically in issues related to forest defense and direct action, she was asked to speak on an environmental issue of importance in the U.S. After consulting with local environmental activists, Chaone chose the following topic, which was translated into Russian for an international audience.

Introduction and Overview

Over the past 25+ years, ecofeminists have continued to refine what has become one of the most important developments in environmental philosophy: the knowledge that a feminist perspective is crucial to environmentalism. Only by understanding how the domination and exploitation of women, people of color, the poor, and the natural world are interconnected, maintain ecofeminist scholars and activists, will we be able to construct an environmental movement capable of producing the deep shifts in personal attitudes, social and institutional practices, and cultural values necessary for re-*pairing* the nature/culture relationship. While many feminist environmentalists have written on the *conceptual connections* between women and nature, mostly in academic literatures, others have addressed the ways that gender influences the ways environmental issues emerge, and are understood and dealt with "on the ground." For example, environmental justice advocates show that women and their children often experience the most damaging effects of environmental pollution, a fact that helps to explain why women make up 80% of grassroots activists worldwide.[1] Anti-globalization activists argue that the entangled phenomena of multinational corporate capitalism, increases in poverty, greater militarism, and rampant environmental exploitation are being driven by governments, corporations, and institutions conditioned by patriarchal values and practices.[2] And radical forest activists in the Pacific Northwest area of the United States have recently begun to confront issues of sexism, racism, homophobia, and other exclusions that occur *within* activist communities and *during* direct actions, by forming all-women's affinity groups,[3] organizing women's and transgender action camps,[4] as well as by drawing public attention to their contention that environmental and social oppressions stem from similar conceptual frameworks. In this talk I will briefly present connections and tensions between ecofeminist theory and environmental activisms that focus on or include large numbers of women. I will do this by first giving a short presentation of ecofeminism's central tenets, describe some instances of what might be termed ecofeminist activism taking place in the forests and mountains of the western USA, and then compare ecofeminist theory to the feelings about ecofeminism expressed by radical forest activists in the state of Oregon. By comparing ecofeminist theory and activism in this way it is hoped that the relation between theory and practice will be made more clear.

Ecofeminism as Theory: Patriarchy, Domination, and the Woman/Nature Connection

To begin, what is ecofeminism? Ecofeminism is a theoretical position *and* a political movement which examines environmental problems through the lens of gender, explaining the ways that the oppression of women and the exploitation of the earth are conjoined. Ecofeminism, however, is not only concerned exclusively with issues of sexism and environmental degradation, but addresses issues relating to racism, classism, colonialism, heterosexism, and other so-called "-isms" as well. Ecofeminists emphasize in their theories and practices the fact that each of these oppressions are interrelated through what the ecofeminist philosopher Karen Warren calls "the logic of domination"[5]— a conceptual framework that perpetuates the idea that members of a particular group, be the group men, whites, economic elites, or human beings, are "naturally" entitled to exercise domination over "inferior" others; e.g. women, people of color, the poor, beings in nature. One of the fundamental premises of ecofeminism, then, is that varieties of oppression are interlocking, and are mutually reinforced through the historical, philosophical, and ethical traditions which become embedded and proliferated through our laws, practices, and institutions. Like other feminists, ecofeminists hold that destructive, controlling, and oppressive behaviors toward women, nature, and other subordinated groups are a product of the male-dominant paradigm that governs the structure and operation of basic

institutions of society, including politics, marriage and the family, the military, business, and the economy.[6]

However, while agreeing with other feminisms that many of our most deep-rooted social problems bear a significant relation to patriarchal thinking, ecofeminism differs from "traditional"[7] feminism in that it understands the domination and exploitation of women to be intertwined with the domination and exploitation of the more-than-human world. Ecofeminists point out that European cultures[8] have a long history of linking the earth and nature with the feminine body (think, for example of the common expression "Mother Earth"), and convincingly argue that this connection isn't coincidental, but rather that the conceptual linkage allows each to be exploited and degraded through conceptual frameworks that subordinate the physical (and those things associated with physicality, such as women, nature, and people of color) to the "rational" (white men) in Western culture (see footnote 5).

Ecofeminism as Practice: Gender and Radical Activism

Although this has been only the briefest and most rudimentary explication of what is held by ecofeminists, in the interests of space I will now turn to the issue of whether ecofeminism *as a theory* is useful to those who are engaged in *environmental activism*. This question for many like myself is the most important question to ask, since those of us engaged in liberatory theory do not want our philosophies to simply gather dust on the shelf, be passed from one disembodied mind to another through the arcane pages of obscure scholarly journals but to be relevant to the real-world eco-social exigencies that we face (we are here reminded of Marx's dictum that the point of philosophy is not to understand the world but to change it). Thus ensuring that there is a strong and vital relation between theory and praxis is essential to *any* liberatory project, and especially one such as ecofeminism. Ecofeminism has been called "engaged theory," meaning that its practitioners are not content to merely describe existing conditions, but to describe with the aim of altering for the better existing ecosocial relations. Thus perhaps more than other varieties of feminism, ecofeminism explicitly maintains that there must be a strong and mutual relationship between theory and practice (Merchant 1995; Bari 1994; Sturgeon 1998). Ecofeminists argue that theory and practice each strengthen the other: theory is made more relevant, accurate, and powerful when it incorporates the voices of those who are struggling for change "on the front lines," while practice becomes more effective when activists are conscious of the deeper pattern of ideas that connect specific issues and undertake reflective assessment of long and short term goals, tactics, and strategies. Taking this into account, some of the most important questions to ask about ecofeminism in relation to environmental activism at this juncture then, might be expressed in the following way:

- How does gender identity (both masculine *and* feminine) influence the way that environmental politics, practices, and activism are conceived and carried out?
- What tensions are there between feminist theory and what might be called ecofeminist practice? Are they productive tensions—i.e., are they mutually strengthening?
- What obligations do theoreticians have to listen to activist voices?
- What benefits are there to activists if they school themselves in theory?

In such a brief space it is not possible to definitively answer all of these questions. In fact here we will only be able to scratch the surface, point the direction toward better answers. But it is my contention that these are the important lines of inquiry to be pursuing regarding the efficacy of ecofeminism as a philosophy and a part of the global environmental movement. We can, however, make progress toward answering these questions through an examination of the reflective practices espoused by communities of radical forest activists in the United States.

Feminist Discourse and Activist Practice

Within the Pacific Northwest region of the United States (spanning from northern California, through Oregon and Washington), and especially near the town of Eugene, Oregon (home of the University of Oregon), exist multiple highly but non-hierarchically organized groups of "forest defenders"—people who engage in controversial and confrontational forms of direct action with the goal of halting or preventing the commercial cutting of trees and the concomitant destruction to the temperate rainforest ecosystem. Oregon is home to many of North America's last remaining stands of old-growth,[9] and one of the most effective tactics, both in terms of publicity and ability to halt the logging utilized by these environmental activists, is to engage in what is called "treesitting." Treesitters literally place themselves 150 feet or more up a particular tree,

and live on platforms for weeks and even months at a time, in order to prevent whatever timber company has been given permission to log from felling that tree and the ones surrounding it .Within these activist communities, members involved with treesitting and other forms of forest defense have begun to question not only the values of the dominant culture *outside* of radical ecological movements, but to expose and challenge as well instances of sexism and discrimination *within* activist communities, exploring within their communities the ways in which forms of oppression—sexism, racism, classism, homophobia, speciesism, etc—are interconnected. Central to this process has been the implementation by female forest defenders of all-women's tree sits. Gender-specific treesits are organized in order to combat instances of sexual assault that have been committed by male activists against female activists, as well as to provide an atmosphere of support for other women to learn the skills necessary for forest defense and who may be subtly or overtly discouraged by male activists from engaging in some of the more "macho"-type activities such as building structures, climbing trees, and confronting authorities.

Such a response is necessitated, activists believe, by earlier direct action groups' tendency to be characterized by a culture that many women experienced as decidedly patriarchal and masculinist. Judi Bari, a long time environmentalist, labor organizer, and feminist, (and victim of a bombing in 1990 while on the way to an environmental rally) explained it in the following way:

> I see no contradiction between deep ecology and ecofeminism. But [the radical environmental group] Earth First! was founded by five men, and its principal spokespeople have all been male. As in all such groups, there have always been competent women doing the real work behind the scenes. But they have been virtually invisible behind the public persona of 'big man goes into big wilderness to save big trees.'[10]

Women involved in environmental movements, as in all social movements, have long noted the tendency for groups and organizations to fail to acknowledge internal patterns of interaction that privilege men even while they are working to eliminate a specific oppression within the society as a whole.[11] Thus many have found it necessary to conduct dialogues, hold workshops and organize other activities within their communities to confront misogynist, heterosexist, and other oppressive attitudes. For instance, the following "Ecofeminist Manifesto" was written and posted on the Internet by women involved in an all-women's action camp/treesit in the Willamette National Forest (Oregon) during the summer of 2003. It read,

> In addition to defending the last 2% of native old growth forest that still stands in Oregon, the Womyn's[12] Action is dedicated to building a community that is intolerant of all forms of oppression. We work to build a space of mutual learning and growth; a space where we can conquer not only the demons of capitalism, patriarchy and indifference that surround us but also the demons of oppression, self-loathing and fear that reside within us.
>
> The Womyn's Action is a safe space where womyn can come and gain skills and perspectives; a safe place to clear our heads after a lifetime of being taught not to trust ourselves.
>
> It is our belief that the oppression of womyn and the destruction of the earth comes from the same unsustainable need to dominate and control. The same ones who wish to take away our autonomy wish to take away the last of the wild beauty on earth.
>
> We cannot stop the humyns' race toward extinction without taking back our freedom of choice. We cannot as womyn achieve liberation while the earth is still in chains. We need oxygen to survive, we need clean water to survive, we need the forest to survive. We need to be able to walk around alone at night, we need our homes to be free of violence; we need a life where rape, molestation, and assault are not the norm. None of these things will exist without the others. Womyns' struggle and the earth's struggle are the same.
>
> Today should be the last day lived in fear, breathing carcinogenic air and wondering when the next time we will be fondled on a public bus or we'll be held down against our will by someone we love. With your help and support it can be!

We invite womyn of all situations and backgrounds to come to Straw Devil [an area in the forest and the name of the timber sale] for an hour, a day, a month, a lifetime — and take back what they never had a right to sell. We will take our last breath in defense of our bodies, the earth, and each other.

In love, solidarity and strength,

The Womyns Action[13]

Conclusion: The Dialectic of Theory and Practice

It seems clear that ecofeminist theory, as a theory that investigates the joint causes and connections between women's sexual subordination and ecological degradation, is consistent with the proclaimed deeds and words of radical forest activists in the Pacific Northwest. One question which remains, however, is whether the activists themselves would label themselves "ecofeminists." Not every female or male activist who wishes to confront social oppression while simultaneously protecting forest environments would necessarily self-identify in this way; and in fact some *do* reject the term outright as there is still the lingering (but false) impression that feminism is "anti-male." In forest communities, as in other places, feminism remains the F-word. Others feel that the label has too much of an academic ring to it; activists don't want to be put into categories that others (especially others who may not be engaged in direct action themselves) define for them, as though they were exotic cultural specimens being investigated for anthropological purposes. And still others have a received view of ecofeminism as something not political, a way for women to access the 'goddess within' and thus not to be taken seriously. Therefore the question posed earlier remains: is ecofeminism as a *theory* useful to activists, and how much does environmental activism influence the development of ecofeminist philosophy?

In ending, I can state that as one who has studied the development and impact of ecofeminist theory to environmentalism, ecofeminism *is* quite useful to activists, since as a theory it makes the powerful point that forms of oppression are not simply parallel, or similar, but actually stem from the same historical/conceptual roots, and thus reveals how it is that in order to address one form of oppression one must simultaneously confront them all.[14] And ecofeminism enables a multi-layered analysis of complex environmental problems in ways that bolster activists' ability to effect the broader change in attitudes necessary to preserve life on the planet. I have personally witnessed within the past three or four years a deeper and more explicit exploration of ecofeminism and familiarity with ecofeminist texts within activist communities, and activists are in recent times more willing to call themselves ecofeminists. Knowledge of ecofeminist theory encourages activists to become more reflective regarding the nature and causes of ecological harm, bringing greater comprehension of the connections between global economic systems, local economies, class, race, and gender relations, political systems, and consumer behaviors. Along with this knowledge comes greater ability, better strategies, and more tools to change the existing state of affairs. In concluding, however, I must emphasize that those of us involved in academic fields, and who consider our contributions to environmentalism (or feminism) to be primarily in the production of scientific, philosophical, and sociocultural knowledges, must realize that theory and practice are a dialectic, and that the insights of activists can, do, and should be actively incorporated into our methodologies and practices.

(Footnotes)

[1] Carolyn Merchant,

Earthcare: Women and the Global Environmental Movement

(New York and London: Routledge, 1997), p. 150.

[2] See Starhawk,

Webs of Power: Notes from the Global Uprising

(New Society Publishers, 2002).

[3] Affinity groups are small (usually 5-10 people) cells of activists who provide material, psychological, and emotional support for one another for the duration of an "action." Members of affinity groups typically make decisions for the group through consensus, and participants are assigned different roles according to personal preference or proclivity — for example, some group members may agree to get arrested (or risk arrest) as an act of protest and civil disobedience, while others will pledge to help the arrestees post bail, locate legal assistance, and act as an outside contact to help ensure that those arrested are treated in accordance with their rights. In the case of forest activism, which is the topic of this paper, some activists may do the actual tree-climbing and sitting, while others agree to prepare meals, write press releases, provide medical aid, and solicit food donations— all tasks that are equally necessary for a successful action. For more discussion of the structure and function of affinity groups, see the book *Webs of Power* especially pps. 17-19, by the prominent American ecofeminist Starhawk, who in the book relates events which took place during anti-globalization and pro-peace protests around the world. Ecological and feminist affinity

groups are also discussed in chapter one of Noël Sturgeon's *Ecofeminist Natures: Race, Gender, Feminist Theory and Political Action* (New York and London: Routledge, 1997)

[4] Action camps are temporary camps set up near a site where activists gather to learn skills and provide the support necessary for actions such as treesits.

[5] Karen Warren, "The Power and the Promise of an Ecological Feminism" *Environmental Ethics* 12(2) 1990. Warren and many others have commented on the way in which Western philosophy seems to be predicated on a normative metaphysical dualism, which separates and pairs such things as subject/object; mind/body; self/other; male/female; human/animal; nature/culture; reason/emotion; white/'colored' and so forth. The important thing for feminists regarding such pairings is to note that in each case that which lies on the right-hand side of the dualism is both associated with femininity and is considered to be inferior to its counterpart, thereby supposedly giving that which is on the left an entitlement to dominate the other. Ecofeminists challenge the dualism not by claiming that that which is assigned to the second category is equally as valuable, good, etc. as that which lies on the left, but instead note the socially constructed nature of the dualism and question the notion that reality is really divided into such fixed, 'natural', and non-fluid categories.

[6] To say that such institutions are "patriarchal" is to say that not only are they largely designed, administered, and controlled by men, but that they are organized according to "masculine" precepts, in which characteristics associated with maleness are privileged, such as rationality, objectivity, domination, toughness, etc., and traits associated with "the feminine" are repudiated as being 'weak', 'emotional,' and 'ineffectual.'

[7] I use this term with extreme irony; as one of the fundamental tenets of feminism that feminism is *not* a monolithic, uniform philosophy that must adhere to a rigidly set group of principles that are universally agreed-upon by all of those who call themselves "feminist." Rather, feminism celebrates diversity and divergence, embraces multiplicity, and engages frequently in productive debates about the meaning of the term "feminism." There is by no means a 'party line' as to what counts as feminism, although some major varieties of feminism have been identified by theorists and are used widely in the literature for purposes of clarity. These include liberal feminism (characterized by the slogan "equal-pay for equal work"; does not wish to strongly challenge the established structure but rather gain access for women on an equal basis to the privileged positions in society), radical feminism (asserts that women and men are fundamentally, essentially different and that women's values are superior to those of men), Marxist-socialist feminism (women are an oppressed class whose subordination serves the interests of capital), and postmodern feminism (drawing heavily from the academic discourses of psychoanalysis and deconstructionism). For a rich analysis of varieties of feminist thought (although not ecofeminism), see Alison M. Jaggar, *Feminist Politics and Human Nature* (Totowa, NJ:1983). Another good basic source on feminism that does include a chapter on ecofeminism is Rosemarie Tong's *Feminist Thought: A More Comprehensive Introduction* (Boulder, CO: Westview Press, 1998).

[8] The ecofeminist classic that traces the history of this idea is Carolyn Merchant's *The Death of Nature: Women, Ecology, and the Scientific Revolution* (San Francisco: HarperCollins, 1980). Of course, identifying the earth as female, and as maternal, is not unique to western culture. However, this linkage when combined with the denigration of that which is female is especially dangerous to the environment.

[9] It is commonly estimated that between 2 and 5 percent of the original (pre-European contact) forest remains. Of that, over 50 percent is currently slated to be logged. For two accounts of the pressures facing public lands in the US, see Nancy Langston, *Forest Dreams, Forest Nightmares: The Paradox of Old Growth in the Inland West* (Seattle and London: University of Washington Press, 1995); and Mark Dowie, *Losing Ground: American Environmentalism at the Close of the Twentieth Century* (Cambridge, MA: MIT Press, 1995).

[10] Judi Bari, *Timber Wars* (Monroe, ME: Common Courage Press), 1994, p. 220.

[11] See, for example, many of the writings from the second-wave American women's movement (spanning from roughly late 1950's through the late 1970's] anthologized in the volume *Dear Sister: Dispatches From the Women's Liberation Movement* (NY: Basic Books), 2000. Rosalyn Baxandall and Linda Gordon, eds.) describing instances of sexism within New Left movements such as the Civil Rights and Anti-war movements, and in countercultural ("hippie") communities.

[12] Note here the decision to present a different spelling (in English): "womyn" instead of "women." Such a change from traditional spellings is often enacted by feminists who wish to both draw attention to and challenge linguistic conventions that make "woman" a subsidiary of "man." Notice that the accepted spelling of "human" is changed to "humyn" in the 3rd paragraph as well.

[13] http://www.forestdefenders.org/WomynSD.html, visited 10/13/03.

[14] This is not to say that activists or theorists (or theorist activists) should not choose to focus on a particular issue—e.g. toxic waste, urban poverty, global warming, racism, spousal abuse, deforestation, etc. It simply means that one must be aware of the ways these problems are connected through the patriarchal desire to maintain mastery and control over others, as well as realize that long-term, permanent solutions are going to require that all systems of domination be dismantled.

Chaone Mallory is a Ph.D. Candidate in Environmental Science, Studies, and Policy at the University of Oregon.

MEET OUR NEW GRADUATE STUDENTS!

Coeylen Barry

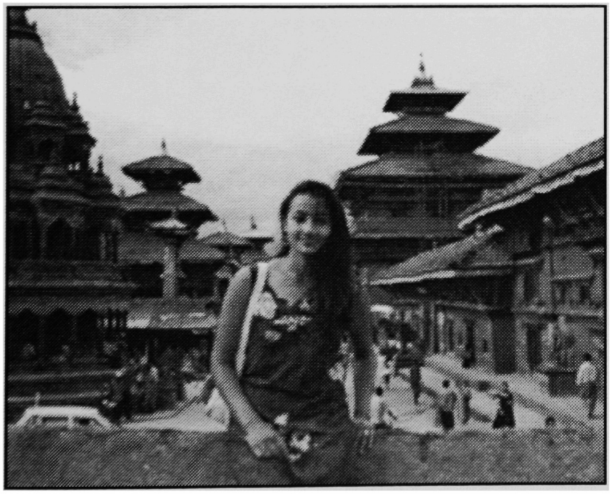
First Year Master's Student

Concentration Areas: PPPM, Business Management & Marketing, and Environmental Law.

I am studying Sustainable Business Management and Marketing. More specifically, I am looking at environmental impact life cycle analysis of products in local and international markets. I am also looking at effective certification and environmental labeling systems. My end goal is to create a labeling system that creates a stronger market for environmentally friendly goods.

Shangrila Joshi
First Year Doctoral Student

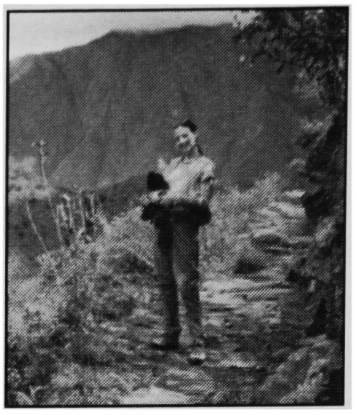
Focal Department: Geography



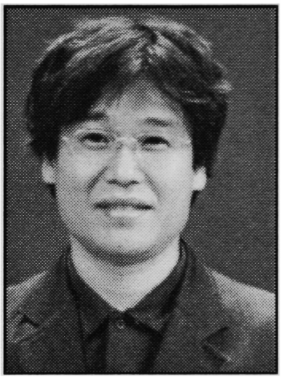
My areas of interest include participatory approaches in environmental policy and environment and development. I am particularly interested in studying the ways in which citizens can participate in or contribute to environmental planning and policy-making.

Jennifer Garmon
First Year Master's Student

Concentration Areas: Biology, Land & Landscape, and PPPM.



I am interested in the conservation of biodiversity at a landscape level. Some particular areas of interest include: large-scale conservation planning; protected area management; wildlands network design; the use of focal species as conservation targets; rare species protection; predator ecology and management; and community-based conservation.



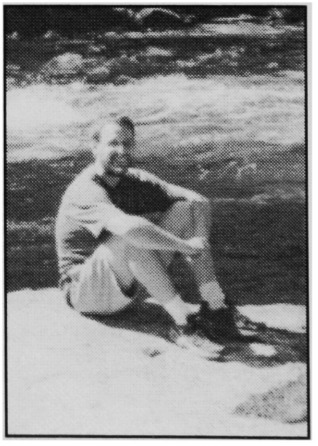
Beobjeong Kim
First Year Master's Student

Concentration Areas: Environmental economics, public policy, and environmentally-friendly land use.

Jason Schreiner
First Year Master's Student

Concentration Areas: Critical Theory and Philosophy; Political Ecology and Ecotopian Social Movements; Political Economy of Agro-Food Systems

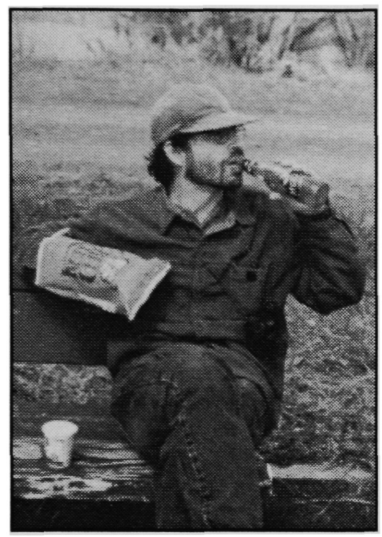
I'm interested theoretically in the intersection of pragmatism and materialism, particularly in the work of Marx, Dewey, and Dussel, and the practical implications of this intersection for contemporary ecotopian social movements that envision communities and societies which are democratically plural, ecologically sustainable, and socially and economically just. I'm particularly focused on the possibilities for instituting social and economic relations that optimize organic nutrient cycling in local and regional agro-food systems.



Adam Novick
First Year Master's Student

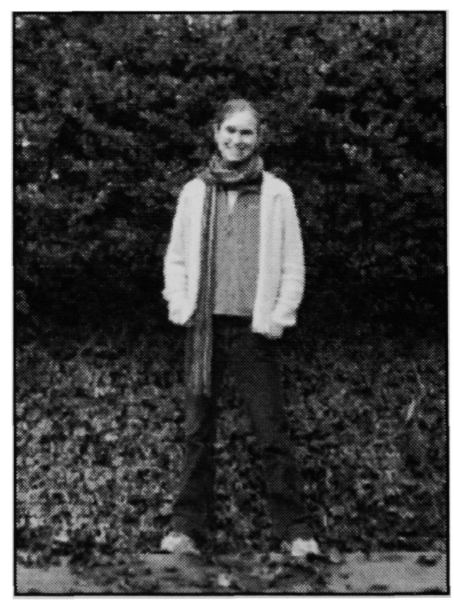
Concentration Areas: Principles and Methods in Conservation Policy, Conservation Policy in Law & Land Use Planning, Conceptions of Nature, Environment, and Conservation.

I am interested in policy to conserve biodiversity on private land. I am especially interested in anthropogenic ecosystems, such as the Willamette Valley's oak savanna and upland prairie. I believe society may have opportunities to improve the conservation of such ecosystems through efficiencies in conservation policy, such as by clarifying policy goals. Related interests include collaborative management, conservation incentives and disincentives, and distortion of policy debate in controversial natural resource issues.



Kirsten Rudestam
First Year Master's Student

Concentration Areas: Water Resources & Sustainability, Cultural Perspectives of Place, Political Ecology.



I am interested in public perceptions of place and space, and how these perceptions participate in the creation of identity, regionalism and ecological awareness. My current research focuses on water law and policy in the west, and examines how the legacy of the myth of the American frontier intersects with current resource use and degradation of water sources.

Thanks to the following honor roll donors who gave generously in 2004:

Andrew Berger '03
Andrew Peara '99
Anita and Michael Lefevre
Ann Bailey '72
Anne Acuff and Marc Sherson
Barbara and Stephen Lane
Bronson Shonk
Carol and Allen Evans
Cathy and Breck Wilson
Cathy Verret '93
Chandra LeGue '01 and Eric Anderson
Cheri Van Bebber '83 and Daniel Puffinburger '83
Christine Scholey
Christine Sheahan
Claudette Kleinke
Coeta Barker
Dale and William Phillips II
David Kozak '88
Elizabeth Garcia-Briggs
Eric Guth '02
Erin Pursell '02 and Brian Marlowe '02
Esther and Tom Schmidgall
Gale Reber
Gayle and Terrence Dougherty
Gayle Moser '81
Jane and George Forsythe
Janice Roth
Jean and Gary Lasater
Jennifer and Joseph Gilhooly
Joan and John Dolan '63
JoAnn Thacker Nelson '60 and Edwin Nelson
John Guitteau '80
June and Steven Erickson
Karen George
Kathy and Michael Brown
Kay Burnett and Eric Engdahl '86
Kenji Ima '62
Kerry and John Bliss
Kevin Roth '97
Lara Utman '03
Linda and Layng Martine Jr.
Lisa and Fred Cross
Lynn and Paul Korus
Mark Stiles '80
Mary Biggs
Michael Slocumb
Monique Schoustra '92 and Thomas Ribe '90
Nancy Lorr '78
Nicole Carter '97
P. Thomas Pinit '99
Peggy Tuckness
Richard Foote
Richard Hassel
Rita and Keith Lanier
Rita Wasil Fiedler '71 and Dennis Fiedler '75
Robert Tuke
Shelley Bedell-Stiles '80
Shirley Martin McGrath '66 and William McGrath
SOLV
Susan '90 and John Minor
Susan and Bradley Waterman
Susan and Murray DeBates
Susan Swartz
Suzanne and Robert Price
Teresa Spezio '00
The Coeta & Donald Barker Foundation
Todd Miller '02

THE ECOTONE
UNIVERSITY OF OREGON
ENVIRONMENTAL STUDIES PROGRAM
5223 UNIVERSITY OF OREGON
EUGENE, OR 97403-5223

00452467 562
MS. CHAUN M. MACOUEEN
4848 SE FLAVEL DR
PORTLAND OR 97206-9132