The Politics of the Extinction Predicament – Democracy, Futurity, and Responsibility

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Abstract

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This dissertation examines the species extinction crisis as a matter of environmental political theory. By engaging the anthropocentrism/ecocentrism debate, literature in green deliberative democracy and green civic republicanism, and the work of Hans Jonas and Hannah Arendt, among others, I explore the challenges of the extinction predicament in light of key concepts such as freedom, responsibility, and wildness.

Table of Contents

Introduction

The age of a finite world has begun.
– Paul Valery

Men pay for the increase of their power with alienation from that over which they exercise their power.
– Horkheimer & Adorno

Our ignorance should dispose us to wonder, our wonder should make us humble, our humility should inspire us to reverence and caution, and our reverence and caution should lead us to act without delay to withdraw the threat we now pose to the earth and to ourselves.
– Jonathan Schell

Environmental issues are not puzzles in search of solutions but rather perennial challenges that successive generations must persistently confront anew.
– Paul Wapner

The current extinction crisis is more than a biological problem – it is a social and political problem that raises questions about what it means to live in a world that is alive. It also forces us to open our eyes to the kind of world we are leaving behind for future generations of humans and non-humans alike. A seemingly esoteric story about earthworms in a rural area with a large human footprint illustrates a number of themes and questions about the politics of extinction that are explored in this dissertation.

Only one native earthworm used to live in the Palouse prairie ecosystem of Eastern Washington and Northern Idaho: *Drilolerius americanus*, also known as the giant Palouse earthworm.[1] An influx of settlers in the latter half of the 19th century brought intensive agriculture to the region along with exotic worm species. The giant Palouse struggled to survive under these new conditions, and, until recently, it was thought to be extinct.

The worm is remarkable in a number of respects, though scientific knowledge about the following characteristics is lacking. The Latin name *Drilolerious* means "lily-like," and the worm is so named because it supposedly smells like lilies. As the colloquial name implies, it is a "giant" macroinvertebrate – adults can measure up to three feet long, longer than some snakes.

They are part of a family of earthworms called *Megascolecidae*. Their distribution has been important to the theory of continental drift, since worms do not swim, fly, or reproduce through seeds.[2] Ancient forms of these worms once lived on Gondwanaland, the southern landmass of the supercontinent Pangaea. Some members of this family still exist in Africa and Australia today and grow to between ten and fifteen feet long, the largest and longest-living worms in the world.[3]

Evidence indicates that the giant Palouse earthworm is an "anecic" worm – it burrows deeply and vertically and remains underground semi-permanently.[4] The Palouse bioregion is famous for its deep, loess soils, allowing the giant Palouse earthworm to rise through these volcanic soils up to surface at night during wet weather to feed, only to reclusively return underground during the day. They are capable of reaching depths of fifteen feet and remain there for long periods of time, surviving below the surface during dry periods due to a biologically unique kidney system that enables then to conserve water.[5] When threatened, they allegedly have the capacity to "spit" at a predator and an ability to quickly flee deep into the earth when they sense disturbances above.

The worm was described as "common" by local farmers in the 1890s, but a century of habitat transformation turned prairieland into farmland and non-native worm populations proliferated in this environment rather than the native species.[6] Eventually, sightings of the giant Palouse earthworm became rare. At the end of the 20th century, only portions of three specimens have been found since 1978.[7] Moreover, a cousin of the giant Palouse earthworm, the giant Oregon earthworm, was last seen in 1983, seemingly giving further evidence that these creatures could not survive the disruption of their prairie habitat.[8]

The Palouse bioregion is beautiful, in part because of agriculture. In some places the rolling hills look like ocean waves crashing in from every direction, especially prior to harvest in late summer when the wind blows and makes the tall wheat undulate. But the bucolic beauty is deceptive. Less than 2% of prairie now exists in the Palouse, making it the most threatened ecosystem in Washington and one of the least "wild" places in the state.[9] In its place is a landscape given over to agriculture, a testament to human engineering and the source of prosperity for local farmers and the regional economy. It appears that the region has undergone a successful ecological transition from prairie to agriculture, but that is deceptive. In *Dirt – The Erosion of Civilizations*, David Montgomery, a professor of Geology at the University of Washington, points out that the type of agriculture historically employed to transform the Palouse from prairie to bountiful wheat, pea, lentil, and alfalfa fields used the same "process that stripped (ancient) Greek hillsides" of fertile soil. Today on the Palouse, roughly one-third to one-half of the topsoil has washed or blown away in the last 130 years.[10] Soil conservation is now an important environmental issue for the bioregion, something that in itself is significant considering how copious Palouse soils once were.

For many years, scientists and sometimes grade school students have gone in search of the worm in the remaining prairie habitat to look for evidence of its survival, but always to no avail. In 2005, however, a graduate student at the University of Idaho was doing soil sampling research at an ecological preserve owned by Washington State University near Pullman, Washington and serendipitously came across two fragments of a giant Palouse. The discovery kick started a more rigorous scientific study, which by 2010 had recovered an adult and a juvenile specimen on Paradise Ridge south of Moscow, Idaho. Two more giant Palouse earthworms were found by residents of Paradise Ridge in 2012. All the specimens collected

were *Drilolerius americanus*, but they were considerably smaller (only one foot in length), didn't particularly smell like lilies, and didn't "spit." In fact, the Chinese graduate student who found the worm described them as "gentle."[11] It appears that the giant Palouse earthworm has not gone extinct, but virtually nothing is known about a remaining population or its distribution.

When evidence of the giant Palouse earthworm turned up in 2005, it generated exhilaration comparable to the surprising re-emergence of the ivory-billed woodpecker, another extraordinary creature thought to be extinct for decades sighted in the same year. While evidence for the ivory-billed woodpecker was never definitive, excitement amongst scientists and the general public for both species was palpable.[12] And why not – species on the verge of extinction might still exist and something might still be saved.

Environmental groups tried to "do something" about the giant Palouse earthworm after its re-discovery in 2005. They undertook a political and legal process to get the worm listed as endangered under the Endangered Species Act (ESA). In 2006, a coalition of environmental groups, led by the Portland-based Center for Biological Diversity, local chapters of global environmental groups like the Audubon Society and the Sierra Club, and Palouse-focused conservation groups like the Palouse Prairie Foundation and Friends of the Clearwater, petitioned the Fish and Wildlife Service to study the issue. If successful, the petition would initiate a formal conservation plan that involves designating critical prairie habitat. In 2007, the Fish and Wildlife Service denied the petition, citing a lack of sufficient evidence. By 2009, a round of legal appeals had run its course, upholding the Fish and Wildlife's decision. But in 2010, the discovery of new specimens prompted yet another attempt by environmental groups to list the worm, and another study by the Fish and Wildlife Service. In the summer of 2011, the Fish and Wildlife Service issued its most recent ruling: "After review of all available scientific

and commercial information, we find that listing the giant Palouse earthworm is not warranted at this time. However, we ask the public to submit to us any new information that becomes available concerning threats to the giant Palouse earthworm or its habitat at any time."[13] Essentially, not enough is known to warrant listing the worm under the ESA, a cruel irony for a species that is not easily visible to humans or sufficiently documented by scientific authorities. As we will see in Chapter One, a lack of sufficient information about population numbers, habitat requirements, and ecosystemic relationships pose a major problem to the survival of many branches of the tree of life.

Domestically, the giant Palouse earthworm does not have an official conservation status under the ESA, but it does have *global* recognition as a threatened species. Since 2001, the Red List, the internationally-recognized system for categorizing threats to endangered species under the auspices of the World Conservation Union (IUCN), has classified the giant Palouse earthworm as "vulnerable" to extinction (under the broader category of "threatened) because of the general problems of habitat loss and competition from exotic worm species.[14] They have taken this step even with the same scant scientific evidence to review.

The Giant Palouse Earthworm and Politics of Extinction

The saga of the giant Palouse earthworm raises a number of questions about what I'm calling the *extinction crisis* – the quietly unfolding process of biodepletion – and the *extinction predicament* – the epistemological, ethical, and political challenges that stand in the way of ameliorating the crisis.

The first issue is that we don't know much about what is being lost and what kind of extinction debt is being loaded for the future, as biodiversity loss can take decades or centuries to

manifest. The plight of the giant Palouse earthworm is emblematic of the extinction crisis as a whole: just as we are beginning to understand and more comprehensively catalogue the biological heritage of the earth, species are either disappearing or their future in the wild looks increasingly grim. The thrill of discovering new species is tempered by the tragic realization that many do not have a future.

The second problem is the constantly shifting perception of what are considered "normal" and "healthy" levels of biodiversity. A few generations ago the giant Palouse earthworm was common. Now, under a "new normal," we are surprised to find any in existence. We risk adjusting to new experiences of "normal" of ecology without recognizing how quickly, and at what scale, humans have transformed the biosphere in the time span of only a few generations.

The third challenge is that even though we know in general why species are at risk, the causes are mainly indirect and unintentional. Habitat transformation, invasive species, pollution, human over-population, and over-harvesting are the main independent variables. With the exception of a species like the wolf, which was historically extirpated with particular venom, biodiversity loss is mostly an externality of human enterprise and our effort to make a commodious home in the world. The question becomes whether we are able to make a home in the world that permits other species to do the same, even worms. Doing so is extraordinarily challenging because when the causes of environmental harms are construed as unintentional, it is hard to take responsibility, for the present or for future generations.

The fourth issue is that though the protection of wild habitat is critically important to species diversity, protecting wild habitat is increasingly complicated. Some species like the giant Palouse appear to only exist in particular habitats. Moreover, many species become uniquely adapted to particular environments over long periods of time and cannot survive

sudden, drastic changes in habitat. Unlike previous periods of ecological change, for many species there is now no refuge or possibility of adaptation because the wild is shrinking, breaking up into fragments and disappearing, a problem that is compounded by climate change.

The fifth problem is that species conservation is deeply political and often contentious. Local farmers find the recent interest in saving the giant Palouse earthworm a threat to their livelihoods. As one farmer said in regard to a potential listing of the worm under the ESA, "There's great potential for loss of freedom ... what can you do with your land if the government comes in and says, 'Well, you have to do such and such, or you can't do such and such because we have to protect the giant Palouse earthworm."[15] As historian of the Palouse Andrew Duffin asserts, "Telling farmers they can't farm because of a worm would be nearly impossible."[16] To environmentalists, however, the giant Palouse earthworm is an opportunity to save a species from extinction and preserve what is left of wild prairie habitat before it is gone entirely.[17] Many see this not only as an ethical duty but a mode of freedom that reflects the kind of world they would choose to live in because it expresses their values.

The sixth challenge is that is hard to drum up too much interest in worms. On one hand, worms aren't particularly charismatic. Charismatic species are those that tend to remind us of human capabilities – communication, pair bonding, care for the young, mourning their dead, and singing. We tend to want to preserve furry creatures with big, round eyes. According to the Xerces Society, an organization dedicated to conserving invertebrates and their habitat, people are more likely to be motivated to save charismatic species but not those at the bottom of the food chain, like worms.[18] At the same time, charisma is in the eye of the beholder. To some there is something attractive and mysterious about an ancient, giant, lily-scented worm that rises up through deep soils to the surface only at night. In any case, the challenge goes beyond

charisma and the protection of single species to the protection of entire ecosystems. As Steve Paulson, founder of the Palouse environmental group Friends of the Clearwater remarks, "The worm can't exist without the prairie and there are some people who say the prairie can't exist without the worm. The initial step to salvaging the whole is to save the parts."[19] Darwin, in fact, was so interested in the connection between the role worms played in soil ecology and evolution that he spent the last few years of his life studying them and published his last book about the ecological importance of earthworms.[20] Embedded in the question of caring about worms are larger issues about conserving habitat for species that are not particularly popular, have no clear relevance to human well-being, or may have an importance that we haven't yet recognized.

The last issue is the challenge of hope. The re-emergence of the giant Palouse after it was thought to be extinct gave many hope that something to could still be done to protect it. The enthusiasm of local citizens, civil society groups both local and distant, and, importantly, school children, shows us something about the passion that people have for preventing extinction. The civil rights activist Marshall Ganz argues that people first become politicized by attachment to particular causes and issues rather than being moved by abstract problems and data.[21] The extinction crisis, however, is global and begs the question of how people can shift perspectives from the local to the global and be concerned not just about the peril of particular species but about threats to biodiversity in general, and through it all, retain a sense of hope given the gloomy and disconcerting trends of the extinction crisis.

Extinction Politics: The Bigger Picture

Unfortunately, the quietly unfolding extinction crisis has not received the political attention it deserves. The UN has dubbed the decade of 2010-2020 as the "Decade of

Biodiversity,"[22] but most people don't understand the bigger picture and so it is easy to be skeptical that a simple label for the decade will have any real impact. The science writer David Quammen remarks in *The Song of the Dodo* that, "While the scientists have murmured, the general public has heard almost nothing … even well-informed people with some fondness for the natural world have remained unaware that any such dark new idea [of species loss and ecosystem decay] is forcing itself on the world."[23] Unlike climate change, which has moved beyond the relatively insular realm of scientific discussion and research to broader public and political spheres, awareness of species loss is thin at best. As the biologist Eileen Crist writes, "While the specters of climate change now draw considerable attention from scientists, policy makers, politicians, and the general public, the equally if not more momentous event of the biodiversity crisis – which includes the current human-driven mass extinction – has yet to pass a critical threshold into collective awareness."[24] It is curious that so little public attention has been given to species loss writ large. It makes one wonder how we will be perceived by future generations. As the environmentalist Norman Meyers writes, "Will people in the year 2100, and people further in the future, not look back with astonishment that we were so little concerned?"[25] It is important to consider what we would say to them now if we had the chance.

The more we learn about biodiversity the more there is to be troubled by its loss. The unfolding extinction crisis is silently ushering in new biological worlds, but they are, according to E.O. Wilson, worlds of simplification and non-linear change.[26] There have been five major extinction events in biological history. All were due to internal events such as volcanism, external events such as meteors, or some combination of internal and external factors like climate change, habitat transformation, methane belches, and sea level fluctuations. The one now underway, now the 6th major extinction event, is clearly anthropogenic in origin. As the

environmental poet and writer Chris Cokinos notes, our present problem "is due to the activity of conscious, rational, intelligent beings."[27] And yet we don't consciously wish for extinction to happen. We just have other priorities, such as enjoying a commodious material life. As global environmental political theorist Karen Litfin puts it, "The mass extinction of species is a monumental sacrifice, one that is largely ignored by societies wedded to a notion of progress as perpetual material betterment."[28] The extinction crisis is thus a human crisis – it demands that we examine our values, priorities, and conceptions of the good life.

All cultures have wondered about the human place in nature, but only now, I argue, are we confronted with an urgency that compels thinking about this question with immediacy, on a global scale, and with an eye toward political action. And yet, as environmental writer Verlyn Klinkenborg rightly claims, "We have no idea of what the "right" amount of biodiversity on this planet should be (although we seem at times to be running an ill-judged experiment to see how little we need). And we struggle to find reasons why other species and ecosystems are important, searching mostly for utilitarian arguments (their value as medicines, for instance), that specify their usefulness to us."[29] As we are pondering the role of biodiversity, the IUCN's Red List of endangered species increases with each new annual report. If we don't respond with urgency, the long project of planetary domestication and disenchantment will continue unabated, and what is "other" than human will continue to fragment and disappear. There will still be life, of course, and "nature" may even appear to be quite abundant. But it is likely to be a homogeneous collection of lifeforms that, above all, are particularly adapted to a planet that has been significantly terraformed by humans. The future will be less diverse and less wild. And human life, I contend, will be less interesting, inspiring, and aesthetically pleasing.

The extinction crisis is similar to climate change in that it compels a politics of the future and a *philosophie der zukunft*, or "future thinking." The biological world we will leave behind as our legacy will significantly shape the options, choices, and quality of life for future generations. Of course, it is hard to know with precision or certainty what this looks like, in part because nature expresses both an extraordinary capacity for resilience as well as a striking propensity for fragility. The combination of the mental and emotional distance from the biological and social worlds of the future and the inability to know what will really transpire makes it easier to act with little regard for precaution, foresight, and collective responsibility. And yet political vision that is precautionary, insightful, and capable of exercising collective responsibility is precisely what is needed. If we wait too long, as the environmental philosopher Robin Grove-White contends, we risk the possibility of not valuing something until it is gone.[30]

At the same time, the biodepletion crisis is qualitatively different from the climate change problem. Ultimately, I think it will have a more momentous and lasting impact than climate change and is more difficult to mitigate. It is more momentous because of its finality. Species loss represents a foreclosure of ancient lines of biological expression, and so the cliché "extinction is forever" may be a bumper-sticker, but it is also true (though scientists are at work trying to re-create extinct species from remnants of DNA).[31] In contrast, climate change can in principle be stabilized, though this obviously is not proving to be easy. Unlike the ozone problem, which was community theater to the Broadway production of climate change, the pumping of greenhouse gases into the atmosphere is intimately connected to the lifeblood of modern economies and structures how most of us live, work, and play. Fossil fuel exploitation has allowed modern civilization to bloom and is intimately connected to current political, economic, and military structures. But fossil fuels will ultimately be consumed and the energy

economy can in principle be changed, not least because the demands for energy are so central to modern life and incentives are in place to profit from the search for new technologies that excite our capacity for cleverness, the "perfectibility" that Rousseau rightly argues in the *Discourse on the Origin of Inequality* is an important driver of ecological and social change.[32] The biodiversity crisis, on the other hand, is less a geo-chemical or technological problem than it is one of justice and ethics. Of course, climate change is also about justice and ethics, but it is a problem with a measurable solution (e.g. the reduction of greenhouse gases in the atmosphere), whereas species loss is not as "reversible" and has, I argue, more ideological and cultural obstacles to overcome that are rooted in deep-seated prejudices about the human place in nature. Biodepletion asks different questions about how we can overcome our propensity to dominate nature and whether we have the capacity to share the planet with *non-human* others. Climate change, in contrast, is mainly about relations of justice *between* humans. The impact of climate change on humans will most likely be devastating in many ways, but it doesn't represent a threat to the existence of our species.

Prior to the arrival of modern humans, the Earth was the most biodiverse it has ever been.[33] In fact, the emergence of *homo sapiens* and our subsequent cultural evolution is intrinsically connected to this biodiversity. For most of our history human culture was not a profound factor in the evolution of species, and extinction was not the crisis that it is today. We are beginning to learn about what we are doing to biodiversity, but what has the loss of biodiversity done *to us*? The biologists Crist and Rinker argue that, "By shredding the planet's rhythms, cycles, and interconnections, we forfeit a quality of human life that can be of the highest caliber in a world abundant in biodiversity and healthy ecosystems."[34] And the writer

Johnathan Schell points out in *The Fate of the Earth*, that by becoming "actors in geological time," we are unwittingly altering the human condition.[35]

Critical theorists like Horkheimer and Adorno argued through their "domination of nature" thesis that the exercise of power over nature alienates us not only from nature but also ourselves.[36] One way of reading this thesis is to acknowledge that the anthropogenic transformation of the biosphere signals a fundamental shift in human power. The psychologist Eric Fromm in *To Have or To Be?* sees humans taking on the role of earthly gods. In past mythologies and cosmologies, human lives were the building blocks of divine play. Natural forces were large and human powers comparatively small. Now, for modern humans, the natural world has become building blocks for human drama.[37] Even when we assume the role of "saving species," we assume a role of power and assume it is a power *we can* exercise, even if we have not proven (so far) to be very good at it.

To Nietzsche, the experience of a prodigious power over the natural world has puffed up our arrogance. He writes that, "*Hubris* is our entire stance toward nature today, our violation of nature with the help of machines and the so thoughtless inventiveness of technicians and engineers."[38] Indeed, Nietzsche's insight that technological play is accompanied by thoughtlessness explains how we can be blind to the species loss that is happening all around us. Biodepletion is easy to ignore because it hides in the slipstream of our technology and outside the artifice of the human world.

In this context, protecting biodiversity is often framed as a form of sacrifice, as it suggests that certain ways, especially industrial ways, of exploiting nature need to be curtailed. Protecting biodiversity means *not* developing a landscape, *restricting* bioharvesting, or *cutting back* on consumption. These are sacrificial ideas that are hard to justify, especially when

pressing needs to alleviate poverty, create jobs, or strive for economic abundance are (much) more politically palatable. But the question of sacrifice isn't so simple. As sustainable development theorists Pimbert and Pretty rightly argue, the framing of biodiversity conservation as a binary choice between wild nature and nature as an instrumental resource for human use is false. It is better to conceive of *different kinds* of human use and *discrete forms* of political control over the environment.[39]

Another aspect of the extinction predicament requires us to determine when we should actively manage nature with an eye toward improving its biological richness and when restraint calls for us to just let nature be. Should our response be rational, ordered, and the product of human artifice or is it better to allow "nature" to be irrational, chaotic, and wild? Heidegger, who perspicaciously thought about such problems well before empirical evidence of species loss was known, believed that humans must learn to resist the overwhelming temptation to "strip the outer world of its foreign stubbornness" and "shape the world into a reduplication of himself."[40] He thought that we should learn to cultivate a sense of *Gelassenheit*, or letting things be. While wise, a strategy that relies *only* on restraint and scrubs the human presence out of natural landscapes is neither practical nor desirable, and is in many ways unjust.

The extinction predicament also raises questions about the justice of exercising power on behalf of species at risk – the power to resist ecological loss, the power to confront the causes of biodepletion, the power to speak for nonhuman nature and future generations, and the power to create and maintain durable conservation regimes. The exercise of power in these ways creates legitimate resistance, and the history of biodiversity politics is one of conflict.

Finally, as environmental sociologist Ted Benton puts it, "There is no 'natural' mode of human relation to nature."[41] Pluralist conceptions of ecological and social justice require a non-

foundational approach to the extinction crisis. As I will argue, biodiversity politics needs to acknowledge the essential contestedness of the effort to prevent species loss, while also embracing it as a matter of democratic deliberation.

Why the Extinction Predicament Needs Political Theory

The extinction crisis hails an interrogation of what it means to live at the beginning of a mass extinction event. It involves exploring the epistemological, ethical, and political challenges of the extinction predicament by re-examining political concepts like freedom, responsibility, community, and wildness with ecological considerations in mind. Are we capable, as Arendt asks in the *Human Condition*, of "thinking what we are doing" and living consciously according to values and lifeways that permit *both* social and ecological flourishing?[42] Answering these questions requires political vision and is why I argue in this dissertation that the extinction predicament needs the careful and critical reflection of political theory.

The extinction crisis has been explored in depth by conservation biologists on the one hand and environmental ethicists on the other. In the realm of practical politics, social justice advocates have mounted an effective critique of conservation regimes designed with ecocentric principles in mind. While these perspectives have greatly advanced our understanding of the challenges of the extinction predicament and the need for a response that is both ecologically and socially just, rich political thinking is required.

It is perplexing that the biodiversity crisis hasn't been closely examined by many political theorists, let alone green political theorists. In green political theory, much attention has been given to exploring phenomena such as green democracy, environmental justice, citizenship and a politics of scarcity. Green theorists, like feminist theorists before them, have revisited the

political theory canon to investigate ways in which important theorists did, or did not, have a compelling theory of nature. And recently attention in green theory has embraced the need for a political theory of climate change. But there has been surprisingly little explicit attention to the extinction crisis itself. This dissertation is an attempt to speak to this gap in the green political theory literature and create linkages to biological, ethical, and globalization literatures concerned with the problem of species loss.

Leslie Thiele, an environmental political theorist, characterizes environmentalism as the "challenge of co-evolution." He sees it grounded in three sets of relationships: interdependence in terms of *time* (creating sustainable societies so that future generations of humans and nonhumans can live respectable lives), *space* (establishing just ecological relations within and between human communities), and *species* (preserving integral populations of species and the ecosystem functions that support them).[43] The concept of co-evolution brings to the foreground the political nature of these challenges and compels us to think about freedom in relational terms as a form of ecological interdependence. Scientific, philosophic, and economic perspectives make different social claims about ecological interdependence, but it is through politics where we act collectively and conceive of ecological responsibility as a democratic exercise.

The critical resources of political theory can therefore help us think about the extinction predicament as a matter of democracy, futurity, and responsibility. At heart, the problem is about value conflict and it is in the political realm that value conflicts clash sharply. At the same time, democratic politics holds the promise of transforming value conflict into compromise, cooperation, and commitments to act with justice and fairness. For biodiversity protection to progress, it must be a cultural and social value, as well as a scientific and biological one. A deliberative democratic model that emphasizes the potential transformation of one's values

through encounters with strangers in the public sphere is helpful to conceiving biodiversity advocacy as a democratic project. Deep down this is an Arendtian insight about the power of possibility inherent in communicative action. It is about a process of democratic self-discovery in a political space *with* others, not *for* or *against* them. This is a primary reason why a politics of biodiversity advocacy should be sought through the deepening of democracy. Public goods may be discovered through better discourse and communication. The extinction predicament brings to the table irreducibly plural constituencies, and is necessarily perceived from different standpoints. A prominent argument put forth in the following chapters, therefore, is that only by opening the boundaries of political space to a full range of pluralistic perspectives on the biodiversity crisis can an inclusive approach lead to effective action. This requires considerable political imagination and a commitment to democratic deliberation.

Political theory can help make sense of biodepletion as a human issue and suggest humane responses rooted in a re-envisioning of civic values, responsibility, and freedom. Though the extinction predicament is utterly new in scope and scale, it can greatly benefit from the nuance and depth of ethical and political imagination that is the hallmark of political theory.

Dissertation Plan

The chapters that follow will explore some ways in which political theory can help illuminate the problem of the extinction predicament. In doing so, it critically engages debates at the intersection of biodiversity loss with democracy, responsibility, futurity, freedom, and different cultural construction of wildness. What follows is a map of chapters in the dissertation and a summary of their main lines of argument.

Chapter One: The Quiet Crisis of Biodepletion

Chapter One examines the extinction crisis and is essentially a literature review on the empirics of species loss. It seeks to accomplish three main goals. First, the chapter analyzes extinction as a biological phenomenon. Extinction is not as straightforward as it may seem. Different conceptual definitions, rates of speciation, and the idea of an "extinction debt" complicate how to approach the problem. Furthermore, our basic lack of knowledge about biological world makes our estimation of species loss particularly difficult for major branches of the tree of life. We know quite a bit about mammals, birds, and fish, but very little about insects, crustaceans, mollusks, fungi, bacteria and viruses.

The second goal is to show how present trends of species attrition compare to a normal or "background rate" of species loss. I demonstrate that the anthropogenic extinction crisis started roughly 500 years ago and is concomitant with the beginning of globalization. However, the past 50 years suggest that rates of species loss have started to increase dramatically. I examine the two most comprehensive and authoritative measures of species loss and ecosystem change – the IUCN Red List and the 2005 UN Millennium Ecosystem Assessment (MEA). These meta-studies show that rates of species decline are roughly 1,000-10,000 times the background rate.

The third goal gathers expert predictions on what future rates of species loss are likely to be based on current trends. The predictions are alarming. The prevailing wisdom is that the 21st century will see a contraction of biodiversity on the order of 30-50%. These figures amount to what I call the extinction crisis.

Chapter Two: Biodiversity Conservation and the Move from Ethics to Politics

Chapter Two functions in part as a literature review of the anthropocentrism and ecocentrism debate in green political theory (hereafter the A&E debate) and partly as a historical reading of how a social justice critique of biodiversity conservation moved the A&E debate from ethical to political terrain. The A&E debate consumed the field of green political theory as it emerged in the 1970's and 1980's and brought to the forefront many important arguments for protecting species (and valuing nature in general). But the debate was hung up on the search for unassailable foundational arguments from which, it was assumed, a new political ethics could be derived. Not surprisingly, this search proved philosophically and ethically inconclusive and the debate between increasingly hostile camps of anthropocentrists and ecocentrists became exhausting.

I argue that an underappreciated factor that helped to create this philosophical impasse and urged a shift in green political theory from ethics to politics was critical reaction to conservation regimes that were created with ecocentric principles in mind. As conservation regimes were globalized in the wake of the A&E debate, many parks, sanctuaries, and refuges were set aside in the global South by wealthy environmental organizations and state elites for the explicit purpose of protecting particular species and, more recently, biodiversity. This placed considerable cost on local residents, many of whom have long been historically marginalized. Their customary practices redefined as criminal and, in some cases, led to the new phenomenon of "conservation refugees." These problems led to compelling social justice critiques of ecocentric conservation regimes and did much to democratize conservation theory, though whether it has sufficiently democratized conservation praxis remains to be seen.

The main result is that critical concern has moved away from ethics and toward pragmatic and democratic politics. This is a positive development, as arguments for species protection as a political matter are ethically non-foundational and need to reflect the pluralist values and attitudes that people have toward non-human nature. But as I argue in this chapter, while it is encouraging that there is no longer pressure to choose, *a priori*, one ethical foundation or another before taking political action, it is a mistake to think that the A&E debate is a relic (as many in the field do). I argue instead that the values that encourage us to prevent species decline reflect both anthropocentric and ecocentric principles. Because this is the case, I end the chapter by arguing for a deliberative democratic approach that is capable of being attentive to the diversity of values people have while holding out hope that this can lead to effective action that is ecologically and socially just. To this end, I explore the concept of a green version of deliberative democracy with the help of green political theorists John Dryzek, Tim Hayward, Robyn Eckersley, and Graham Smith and argue that their work enables allegiances across ethical and political divides.

Chapter Three: Limits of Freedom and the Freedom of Limits

Chapter Three argues that reflection about species loss can benefit from the extensive literature on the limits to growth. In particular, I argue that the concept of ecological limits provides an opportunity to re-think assumptions about freedom rather than assuming, as much of the literature does, that freedom and limits are inversely related. My argument also takes a different tone than much of this limits to growth literature, and indeed much environmental rhetoric in general, in that responsible action does not have to be compelled by fear and specters of catastrophe. Clearly, species decline, like many environmental trends, is worrisome, which

naturally induces fear and anxiety about the future. To some, the notion that there are "limits to growth" or limits to human enterprise represent limits to freedom. I argue that "freedom" is too often conceived in negative terms as an absence of impediments, which is a main reason why ecological limits are stressed in the first place. In contrast, I argue that there can be a positive relationship between ecological limits and freedom and can that is enhanced by embracing limits to growth and a less materialist way of being in the world.

The chapter thus explores how earlier work on ecological limits relied on the prospect of an environmentally frightening and potentially authoritarian future to compel social action through fear, whether conceived in biophysical terms that urge self-interest and prudence or as ethical imperatives of responsibility that stress stern duties and obligations. I engage the work of the philosopher Hans Jonas, who makes a sophisticated argument for compelling responsibility through fear in his widely read (in Europe, at least) *The Imperative of Responsibility*. Agreeing that ignoring ecological limits is both imprudent and unethical, I argue that the emphasis on negative sources of motivation, which remains a central if not dominant rhetorical strategy in green thought, misses an opportunity to think about the value of ecological limits differently, and to respond to the challenge of living within ecological constraints through joyful expressions of social resourcefulness spirited by an attitude of creativity and freedom. Although ecological limits imply restricting certain forms of negative freedom, they also provide a context in which other modes of ecologically responsible freedom can be cultivated. The challenge of living in an "age of limits" can thus be understood, in part, as an inspiration to realize modes of freedom that are compatible with ecological responsibility. Viewing responsibility as something created by people through politics, rather than imposed on them as an ethical imperative, taps into a powerful source of political motivation with potentially broad appeal across social and

intellectual divides. I make this argument by engaging the work of political theorists Isaiah Berlin and Nancy Hirschmann, green political theorists Richard Dagger and Douglass Torgerson, the environmental ethicist Bryan Norton, and the literary ecologist Joseph Meeker.

Chapter Four: An Arendtian Evaluation of Green Civic Republicanism

Chapter Four looks at recent scholarly interest in developing green notions of civic republicanism and reflects on its connection to the extinction predicament. With the help of green political theorists John Barry, Andrew Dobson, and Patrick Curry, I discuss four key elements of republican thought – concern for the common good, virtue, participation, and the aesthetic imagination of community – and how they may be read with ecological considerations in mind. I argue that green civic republicanism can provide critical resources to help us picture a particularly compelling way in which ecological communities may be possible. The chapter then examines an Arendtian contribution to this conversation by first outlining her theory of political action and shows how it allows us to critique green republicanism. I argue that the Arendtian account of political freedom is wise counsel to a green civic republican version of ecological responsibility because she moves it in the direction of democratic freedom. People are more willing to accept the tectonic social shifts required by the move to ecological responsibility and the demands of attending to the extinction predicament – gentler lifestyles, more benign technologies, a re-thinking of economic development – if decisions are made from a condition of freedom they help to manifest. However, tough questions remain about the value of Arendtian and republican distinctions between "public" and "private" from a green point of view, as well as whether the republican approach and its Arendtian variant can adequately cope with the global nature of the extinction predicament**.** I engage the Arendtian critique with help from feminist

political theorists Linda Zerilli and Bonnie Honig, the environmental philosophers David Macaulay and Kerry Whiteside, and the green political theorist Douglass Torgerson.

Chapter Five: Globalizing Conservation and Wildness as a Cross-Cultural Encounter

Chapter Five analyzes the globalization of conservation and argues that the concept of wildness in cross-cultural dialogue can help advance the idea of biodiversity protection as a democratic project. Though the extinction predicament is a global problem, ways of ameliorating it cannot only come from global forms of governance, from the top down. Instead, working within established cultural traditions, all of which have reckoned with the human place in nature in their own way, is likely to yield more substantive results. The main cause of species decline is habitat loss, the transformation of what were once "wildlands" into cities, suburbs, farms, resource extraction zones, and other objects of human design. The main way to prevent further species decline is to preserve conceptions of "wildness" – geographical, psychological, and political. But the most prominent approach to conceiving wildness has been the wilderness philosophy that has been exported from North America to the rest of the world through the globalization of conservation. While the wilderness approach has its merits, to assume that it is the only approach to protecting wildlands is a mistake made by too many Western environmentalists. The chapter explores different conceptions of protecting wildlands within the purview of different cultural worldviews. It argues that promoting a cross-cultural approach to wildness is more likely to yield secure habitat protection for species at risk of extinction and help to deepen and appreciation for environmental ethics within particular cultural traditions. I make this argument by challenging the work of environmental journalist Mark Dowie and through the cases of *kami* (spirit) traditions of East Asia and the Pacific Islands, sacred grove conservation in

South Asia, the “ecological nostalgia” experiences of North East Asia, and examples of wildness without wilderness in North American through the wolf re-introduction campaign in Idaho and the Canadian Boreal Forest Agreement.

Chapter 1
The Quiet Crisis of Biodepletion

One of the beauties of biology is that its facts become our metaphors.
– Kenny Ausubel

The 2005 UN *Millennium Ecosystem Assessment* (MEA), to date the most comprehensive study of the health of the world's ecosystems, claims that "biodiversity and human well-being are inextricably linked."[44] On the one hand, it is obvious in a general sense that this is true. Human beings depend on biodiversity and ecosystem services for their lives, livelihoods, and, for some, aesthetic pleasure. The biosphere, as environmentalists like to say, is profoundly interdependent. On the other hand, general awareness of the decline in biodiversity is surprisingly thin. If biodiversity and human well-being are so inextricably linked, then why is there so little understanding, and more widespread concern, about escalating rates of species loss?

In fact, the linking of biodiversity to human well-being isn't so obvious, for a number of reasons. For one thing, conceptions of ecological and human thriving have long been seen as discursively separate. Humanity has long "struggled against nature," and doing so has produced technological marvels that make it seem as if the human artifice exists independent of an ecological setting. Arendt calls this process "world-building" – the capacity humans have to create "an 'artificial' world of things, distinctly different from all natural surroundings."[45] The dark side to "world-building" is precisely this artificiality, which creates an illusion that human well-being is *extricable* from biodiversity. Moreover, this illusion is electrified by a vicious circle. The scale of world-building through the domination and disenchantment of nature,[46] as Horkheimer and Adorno argue in *Dialectic of Enlightenment*, heightens a narcissistic

enchantment with our own knowledge, power, and independence and create feedback loops that run on hubris.

And yet, recognition of the dark side of the domination of nature kindled in the 20th century an "ecological turn" in a wide variety of fields, most notably in biology, ethics, literature, and politics. Part ethical critique of the domination of nature and part practical fear of what political theorist William Leiss calls the "revenge of nature" (the blowback experienced by the flux of natural systems), we quite rightly no longer speak of a struggle against nature, but against ignorance, the irresponsible use of power, and the uncritical exercise of instrumental reason.[47] Indeed, we are among the first generations of conscious human beings to be aware of global environmental trends as a matter of empirical verification while also worrying about appropriate normative responses both in the present and for the future.

I am particularly interested in the peculiar combination of awareness and ignorance that comprises our empirical understanding of species loss and the struggle over what should be done about it. Species loss is a quiet crisis that is not easy to detect or even understand, both in terms of its cause and effects. Like other "long emergencies" that characterize some environmental problems – climate change, ozone holes, desertification, soil erosion, biodepletion – small scale changes from a number of directions have had a multiplying effect that is difficult to perceive except over time. Moreover, long emergencies have a different impact, psychologically, socially, and politically than environmental "events" such as oil spills, hurricanes, or floods. These events are easier to grasp and invoke louder calls to action. In contrast, long emergencies like species loss communicate through whispers of absence. It is when these whispers build over time into a chorus that we are capable of recognizing the emergency at hand. And yet knowing this depends on our capacity for listening and our ability to hear what is being expressed.

This chapter primarily explores the conceptual and empirical dimensions of species loss in order to understand the scale and scope of the problem, including current estimates and future predictions regarding rates of decline. This is what I am calling the *extinction crisis* – the empirical reality of biodepletion and the trends that will likely extend into the future. Grasping the seriousness of the extinction crisis helps us to understand the need for normative engagement with what I am calling the *extinction predicament.* The extinction predicament is about human obstacles – ideological, political, and epistemological – that prevent the mitigation of species loss. It entails not only the biological, ethical, and social-psychological hazards that come from neglecting the ecological embeddedness of human action, but also the political challenge of confronting human exceptionalism and the insidiousness of the ideology underpinning the domination of nature. The extinction predicament is marked by a strong sense of pessimism that little can really be done to prevent species loss. At the same time, a predicament affords an opportunity to think, and provides the possibility of articulating and considering, with a fresh perspective, relationships, worldviews, and values that enhance human *and* ecological flourishing.

In order to productively position a political theoretic engagement with the extinction crisis, we must first understand the nature of the extinction crisis. To the extent that it is possible, I aim to discuss the extinction crisis in such a way that avoids what environmental political theorist Andrew Biro calls the rhetoric of "catastrophism"[48] and its attendant short-circuiting of possibilities for democratic deliberation and action. At the same time, I'd like to retain fidelity to the alarm raised by biologists and ecologists. This tone is not an easy balance to strike. Species loss is a problem of the first order, and yet, despite the gloomy data presented in this chapter, despair is not our only option, as the rest of dissertation attempts to show.

The chapter is organized into three parts. Part I looks at key biological concepts that help to place extinction in historical and intellectual context. This section also gives a number of examples of species that are or will likely become extinct in order to provide detail and texture to my argument. Part II examines estimates of current and future trends of biodiversity loss using the most authoritative research in the biological sciences and conservation biology literature, notably the annual International Union for the Conservation of Nature (IUCN)[49] Red List and the 2005 UN *Millennium Ecosystem Assessment*. Part III sketches preliminary considerations in thinking about the meaning of biodiversity loss as an ethical and political predicament. It provides a springboard for subsequent chapters, which explore the extinction predicament as a matter for environmental political theory.

Part I: Understanding Species and Biodiversity Loss

Absence of evidence is not evidence of absence.
– Steven Jay Gould

For every story describing the "recovery" or "rebirth" of a particular lake or forest, there is one announcing the loss or degradation of some other ecosystem. At times it seems we inhabit two worlds.
– David Wilcove

Perspectives, Problems and Definitions

As with most environmental issues, scientific research is central to both the framing of concepts and the compilation of credible data. What are the facts of biodepletion saying *to* us? What are they saying *about* us? I'll begin with a startling truth: we know little about what species exist, let alone what is being lost. To invoke Secretary of State Donald Rumsfeld's (unintentionally hilarious) phrase about what the U.S. government knew in 2002 about whether the Iraqi government had supplied terrorist groups with weapons of mass destruction, there are "known knowns, known unknowns, and unknown unknowns" about the earth's biological

inventory.[50] The current consensus, or "known known," is that 1.5-1.8 million living species have been "officially" documented by science. According to E.O. Wilson, the controversial Harvard biologist who is perhaps biodiversity's most well known public intellectual, estimates of the *total* number of species, the "known unknown," vary widely – anywhere from 3.6 million to 100 million.[51] Richard Pearson, director of the American Museum of Natural History, writes that an estimate of 4 million species is *reasonable*, 10 million species is *sensible*, and 100 million can be *justified*.[52] Many of these species, like bacteria, fungi and insects are, naturally, difficult to study. Visible organisms represent just the tip of a much larger biomass pyramid.[53] The gap between what is known and what is not yet known is vast and we are not yet close to understanding the full extent of biodiversity. The "unknown unknown," is what the unraveling of species loss may mean for both biological and human communities. There is overwhelming evidence to believe that current rates of biodepletion are unprecedented in human experience, and the current extinction event stands out even when compared to other mass extinctions in geologic time. We simply cannot know what ecological and social perils will result from this contraction in the diversity of life.

Despite our ignorance of what is being lost, the progress of biological knowledge is proceeding at a rapid pace. It is extraordinary that even physically large species are still becoming known to science. In just the past few years these species have been "discovered": a type of cloud leopard in Borneo, Lowe's servaline genet in Tasmania (a kind of mongoose), the Vu Quang Ox in Vietnam and Laos (a goat-antelope-cow-like creature whose taxonomical classification is hotly debated), the leaf-deer (the world's smallest) in Myanmar, and six new species of primate.[54] In Madagascar, a World Wildlife study claims that 615 new species have been discovered, including 41 mammals (many lemurs), since 1999.[55] In Borneo, 500 new

species have been documented since 1995.[56] Even more species are being discovered in the oceans, the depths of which were virtually unknown until the 1980s. Noted oceanographer and former National Oceanographic and Atmospheric Administration Chief Scientist, Sylvia Earle, once said that we know more about the moon than we do the oceans.[57] Recent research has documented the flourishing of life on geothermal vents in the total darkness of ocean depths. And while we typically think that the biosphere as a thin film on the surface of the planet, "extremeophile" bacteria have been found to live two miles deep in the earth's crust, considerably expanding what we thought was a habitable zone conducive to life.[58]

In some cases, the discovery of a new species occurs at the moment of its fading away. For instance, the first scientifically documented sighting of the po'ouli bird in Hawaii in the early 1970s came with both the thrill of discovery and the tragic recognition that its population is so depleted that its future is highly precarious. Similarly, the elusive honeycreeper, Laysan 'apapane, was famously caught on film in Hawaii in 1923 as it was singing on a piece of coral just prior to a major storm that likely wiped the species out, for they have not been seen since.[59] Andrew P. Dobson, a Princeton conservation biologist, writes that, "Biologists find themselves in a strange position … Never has a real understanding of our subject seemed so within our reach … Yet excitement at this scientific progress is tempered by realization that … at no other time in the world's history have species and natural habitats been destroyed at such a rapid rate."[60] These cases of simultaneous discovery and loss seem tragically symbolic of the era we are living in and prescient of one that is approaching.

Though much study of biodiversity focuses on depletion, not all of it is dismal. Many stories give us grounds for hope, even celebration. I think it is important to emphasize positive stories of recovery and adaptation given the "calamity-speak" that saturates environmental

discourse. When given the chance, some species can rebound through effective conservation techniques like reducing harvesting, letting habitat recover, controlling pollution, and regulating certain toxins. Wolves in the northern Rockies, bald eagles throughout North America, and certain whale populations in the Pacific and Atlantic oceans, among other examples, are testament to successful conservation efforts.

In other cases more deliberate help is required to make a positive impact. Consider the case of oryx re-introduction to Arabia. By the 1970s, the oryx was extinct in the wild and existed only in zoos. In recent years, a campaign to re-introduce the species in Oman has been launched. According to the IUCN, the re-introduction appears to have been a success, both biologically and socially. Population numbers are growing, so much that they are no longer classified as endangered. Furthermore, experiencing oryx in the wild has reportedly brought delight to many elderly Omanis who recall living with wild oryx in their youth, and re-introduction has helped to strengthen social bonds between older and younger generations.[61] Success in this case depended on quality *ex situ* conservation methods and point to a role for zoos, aquariums, gardens, and seed banks in raising awareness, funds, and expertise for projects like the oryx re-introduction.

Other species can rebound unintentionally. The white-tailed deer in the United States was almost hunted to extinction in the early part of the 20th century, but now its population has exploded in all parts of the United States due to increased forestland (there was more forestland east of the Mississippi in 2011 than there was in 1900) and a decline in top predators.[62] To conservation biologists, the focus on the vitality of a single species without considering healthy relationships between species in an ecosystem says more about the lack of predators than the abundance of prey and indicates a system out of balance. In the case of the white-tailed deer,

overpopulation in an ecosystem out of balance creates, among other things, a high number of accidents with cars and the perception by some that deer have become "pests." In the case of Humboldt squid, a voracious sub-predator previously held in check by sharks but whose numbers are now exploding due to the human overharvesting of sharks, especially due to the Asian (particularly Chinese) demand for shark fin soup (a delicacy served at banquets and weddings). The proliferation of Humboldt squid might prove deeply troubling for marine ecosystems off the California and Mexican coasts. According to the terrific BBC documentary series about the plight of endangered species, *The Last Chance to See*, Humboldt squid are expanding their range into Mexico's marine waters (where they had not previously been seen in great numbers). They are capable of tremendous fertility (one squid can have as many as 20,000,000 babies), hunt in packs, and treat almost everything as food (including humans), thus potentially disrupting relationships between predators and prey.[63]

There is also interesting literature on the ecology of conflict zones.[64] This is a phenomenon whereby ecological systems remain intact or spring back because human conflict prevents development or exploitation. (To be sure, this is not the case for "hot" conflict zones, for wars tend to be damaging to the natural environment and the ecological stress on remote biomes by rebel groups seeking refuge, resources, and bushmeat is considerable.)[65] The DMZ in Korea is a particularly interesting example. Because of the long conflict between North and South Korea, the DMZ has become a de facto nature preserve, with some species of plants and animals finding habitat there that no longer exists in other parts of the peninsula. As with Oryx re-introduction in Oman, considerable nostalgia exists among elderly South Koreans for the environment that existed prior to industrialization. It is important to note that this ecological

transformation has taken place within living memory, a point that I will explore in Chapter V when I discuss the experience of "ecological nostalgia" in green politics.[66]

Defining Difference

Another challenge to understanding biodiversity concerns what constitutes a "species." Richard Ellis, a respected conservation writer who specializes in explaining scientific research to a popular audience, points out that a "species" is generally defined as "a population of organisms whose members are able to interbreed freely under natural circumstances," though as many as *twenty different* definitions exist.[67] Even if we focus on the most common definition of what constitutes a species, it isn't as tidy as it may seem, for examples of hybridization abound and new techniques of genetic manipulation blur what "interbreeding freely under natural circumstances" really means. Humans have long "created" new species of animals and plants through hybridization. In fact, all domestic animals and most of the food we eat represent forms of speciation not found in the wild. Bananas, in fact, are no longer capable of growing in the wild at all and have so little genetic diversity that some fear disease could devastate the crop.[68] Also, genetic manipulation opens up vast new possibilities for new kinds of hybridization and cloning. Some researchers in Brazil actually see cloning as a potential response to the extinction problem. Scientists at Brazil's Embrapa Research Institute have created a gene library for hundreds of threatened species in the Amazon with the intent to eventually clone the species.[69]

Similarly, understanding biodiversity loss also means distinguishing between "wild" and "artificial" stocks of the same species. This is important, for example, to the politics and policy of salmon restoration in the Pacific Northwest. The important point from a conservation biology perspective is that although there is no major genetic difference between wild and hatchery stocks of salmon – they are the same species –wild stocks have more genetic diversity and have

greater significance to the larger ecosystem, as wild fish interpenetrate the environment with much greater geographic range than hatchery fish do and retain higher capacities for resilience. As humans respond to species decline with well-intentioned efforts to replenish species populations with hatchery stock, the overall effect is likely to be different than biodiversity that flourishes under "natural" conditions.

The *change* of species over time is also central to understanding species loss. There is still mystery surrounding speciation, though it is generally thought to exist in nature primarily as a function of geographic isolation. In the wild, some lifeforms undergo little or no speciation, such as sharks, rhinos, cockroaches, horseshoe crabs, coelacanths, and ginkgo trees, while others, like birds, fish, mollusks, and flowers are capable of rapid and splendid speciation.[70] In fact, some species undergo so much change, such as some dinosaurs into birds, that evolution is another word for a "false extinction."[71] These different rates of evolutionary change lead to a hot debate in conservation biology over whether it is better to conserve species whose lineage is ancient but whose capacity for future evolution is limited or whether effort should be focused on protecting those species that may be new from an evolutionary standpoint but whose capacity for speciation is greater. Ultimately, I'm not convinced that there are compelling ethical guidelines to answer this question. Species conservation is a form of "triage ethics," to use environmental ethicist David Bennett's phrase, that is forced choose between species that deserve or are able to be "saved."[72] In a modern version of the Noah's Ark story, it is increasingly likely we will confront dilemmas like these.

Finally, there is no escaping the fact that the concept of a "species" is a linguistic category. As the environmental and feminist political theorist Donna Haraway rightly argues in *The Companion Species Manifesto*, a species is a "corporeal join of the material and semiotic"

that implodes boundaries between "nature" and "culture."[73] Humans impose linguistic categories of taxonomy, however imperfect or precise, in order to make sense of the world.

Levels of Biodiversity and New Challenges in Conservation Politics

As conservation science matured throughout the 20th century, the focus shifted from an individual species approach to one that is more systemic and structural. As a result, conservation politics has become more complex, practically and normatively. The key concept is that of difference, both *within* and *of* ecosystems. First coined by Princeton biologist Thomas Lovejoy in 1980 and employed by the U.S. Academy of Sciences in 1986,[74] "biodiversity" became the term that captures this change of perspective in conservation. Biodiversity is generally agreed to operate on three levels – species diversity, ecosystem diversity, and genetic diversity within species.[75] Biodiversity is mainly a function of warmth, moisture, and topographical steepness, which is why species diversity exists primarily in the mountainous rainforests of the tropics. While we tend to associate biodiversity with ecological health, places with a high degree of biodiversity are more delicate than they may appear. As the biologist Josef Reichholf writes in *The Demise of Diversity* for the European Sustainability Project, a collection of twelve books by prominent European academics on different dimensions of "sustainability":

> High species richness in no way also means high security. Indeed, the opposite is almost always true… There is a quite unexpected inverse biological relationship between 'productivity' and biological variety: diversity is a consequence of scarcity of essential resources, while abundance, the result of 'productivity,' leads to a smaller number of dominant species.[76]

The point that biodiversity is precarious should be a major point of reflection on whether biodiversity is a function of robustness or fragility. Indeed, the issue invokes a larger philosophical debate about whether the earth is resilient and can handle significant human manipulation or is delicate and requires the human footprint to tread with minimal disturbance. Biodiversity science and politics are integral to this debate.

The concept of biodiversity also helps to frame a particularly contentious issue in global environmental politics: Do areas with a high concentration of biodiversity deserve the most attention because of their biological uniqueness? Do countries that have these "hotspots" of biodiversty have a special moral obligation to protect their unique biodiversity, even at the expense of hindering economic development? Are they "lucky" or "unlucky" in this regard? That species diversity is concentrated in "hotspots," sites of extreme biological richness, is a notable fact. Norman Meyers, a conservation biologist, first described the concept and pointed out twenty-five hotspots that house 44% of vascular plants and 35% of all species in four vertebrate groups yet cover only 1.4% of the earth's surface.[77] Conservation International, a major international environmental non-governmental organization (ENGO), has since expanded the list to thirty-four hotspots, including twenty-two tropical forests, mostly in Africa, South America, and SouthEast Asia. As Tom Arrandale writes in an article for *Congressional Quarterly* on threats to global biodiversity, forests that are now fragmentary hotspots originally covered 16% of the earth, but now 86% of these ancient forests are gone.[78]

The hotspot approach to conservation has become discursively and strategically important because tremendous energy and financial resources have gone into protecting these biologically rich areas. However, a major issue with the hotspot approach is the fact that more than 20% of the world's population lives in these places.[79] What happens when their home

becomes a vehicle to "save" the remaining world's biodiversity? Who benefits and who loses? Some critics of the hotspot approach, many of whom are suspicious of the motives of "Northern environmentalism" in general, have long feared a prediction by the Brazilian Ambassador to the United States in 1972, Joao Augosto de Araujo Castro, when he wrote, "The implementation of any worldwide environmental policy based on the realities of the developed countries tends to perpetuate the existing gap in socioeconomic development between developed and developing countries and so promote the freezing of the present international order."[80] This perspective has helped to define splits between the global North and global South reflective of environmental and many other issues, and in many ways has only widened and deepened since 1972. Conservation has become a new way for the global North to infringe the "sovereign" rights of the global South, and is one of the central ways in which global environmental politics is explicitly *political*.

Viewing the protection of biodiversity exclusively as protecting hotspots raises questions on two fronts. First, it conceives of biodiversity as a kind of "museum" and promotes a vision of nature seemingly unable to accommodate human habitation or intervention. Doing so tends to separate humans from nature. Second, a hotspot approach is narrowly quantitative in that it simply measures biodiversity in terms of the number of species extant in a particular area and doesn't consider a wider diversity of unique ecosystems, regardless of species richness.

Another way of looking at biodiversity, then, focuses on ecosystem diversity. Ecosystem diversity is reflected in the variance of biomes, of which there are twenty – tundra, grasslands, savannas, mangroves, coral reefs, rainforests, alpine areas, etc. Recent campaigns by conservation groups are focusing efforts on broadly protecting a variety of ecosystem types. In fact, the last twenty-five years of conservation politics has generally seen a shift away from a

single species approach toward protecting whole ecosystems. But the shift to an ecosystem approach makes the political challenge correspondingly larger (for it is considerably more difficult to protect whole ecosystems than specific species). Protecting an array of biomes as part of a global conservation portfolio, as some global environmental organizations like the World Wildlife Fund is attempting to do, is cutting-edge, but is challenging simply because of the geographic scale of such an approach.

Genetic diversity, mentioned above in the politics of salmon conservation, is yet another perspective on a biodiversity politics of difference. A group's share of genetic material – its genome – refers to different characteristics within species. Among other things, genetic diversity is an important component of a particular species' resilience and its ability to adapt to environmental change. Genetic diversity is therefore important to overall biodiversity and is central to enhancing biodiversity in general. While preserving genetic diversity is an ancient mode of relating to nature, particularly in regard to agricultural practices like saving seeds and husbandry techniques that enhance unique characteristics, the urgency to protect copies of genetic diversity before they disappear has led to interesting initiatives. It is therefore not surprising that conservation guided by maximizing genetic diversity is relatively new and tracks relatively recent research in the genetic sciences. The Svalbard Global Seed Vault, for instance, is an attempt by the government of Norway and several trusts and foundations, such as the Bill and Melinda Gates Foundation, charged with storing a wide variety of seed types in a secure underground cavern on the island of Spitsbergen in the Arctic Ocean. The goal is to create a physical catalogue of genetic diversity should seeds in the wild or on farms cease to exist. Saving seeds is an old practice, but doing so as a hedge against future blight on a global scale reflects contemporary anxieties about the loss of biodiversity in the future.

Part II: Determining Rates of Extinction

Of course, the end of the wild does not mean a barren world. There will continue to be plenty of life covering the globe. There will be birds, mammals, and insects – lots of insects. Life will just be different: much less diverse, much less exotic, much more predictable, and much less able to capture the awe and wonder of the human spirit.
– Stephen Meyer

A plausible definition of extinction is "the attrition of species unable to track suitable habitat as it shifts locale in times of environmental change."[81] Getting an empirical handle on what this looks like at present, and why it amounts to a crisis, first requires understanding the *rate* of species decline. Measuring this depends on what is considered baseline – the "natural" rate of species loss.

The accepted consensus is that the background extinction rate is roughly 1/1000 species every 1,000 years.[82] With a new speciation rate of less than one per year, the background rate amounts to roughly *1-2 species per year*. This is the standard against which contemporary species loss is measured and future trends are calculated. To arrive at this baseline rate, researchers plot five major extinction events in the biological record, defined when 50% of species become extinct. Working backward from the present time, these include the K-T (65 million years ago; 75% species loss), Triassic-Jurassic (200 million years ago; 50% species loss), Permian-Triassic (250 million years ago; 70% terrestrial species loss, including the only event to significantly impact insects, and an astonishing 96% of marine life), Late Devonian (360 million years ago; 70% species loss), and the Ordovician-Silurian event (450 million years ago; 60% species loss, when all life was marine life).[83] Paleobiologists suspect there are more, but evidently the fossil record prior to the Ordovician-Silurian period is too difficult to decode. Clearly, major extinction events are rare, though comparatively smaller die-offs occur every 26 million years. As we will see, what is remarkable is how relatively new the current extinction crisis actually is in historical terms compared with previous eras in human history. Indeed, our

current extinction period emerged around 1500 A.D., and only significantly takes effect during the late 20th century.

Anthropogenic Extinctions Before and After the Modern Global Era

Before I analyze the claim that we are currently living through the beginning of an anthropogenic mass extinction event, let me first place current estimates in historical and intellectual context. Some measure of species extinction, at least on a local level, is strongly correlated with the history of human habitation. As previously mentioned, biodiversity loss is largely the *unintentional* by-product of making a life in the world, a function of what historians used to call "Man's struggle against Nature." According to paleobiologist Michael Boulter, humans were responsible for the extinction of the giant baboon, three-toed horse, and antlered giraffe in Africa, and the mammoth, woolly rhino, elk, hyena, lion, bear and tiger in Europe, around 21,000 years ago.[84] Wherever humans have migrated, local extinction of some species followed. This phenomenon is particularly true after distinct migrations to previously uninhabited areas, such as after the colonization of North America and South America, and in the relatively recent human migrations to New Zealand and Polynesia.[85]

Anthropogenic extinctions are clearly not new and have always been a part of the human condition. It is logical to conclude that awareness of the local extirpation of species, as opposed to the extermination of an entire species *qua* species, is something that humans have long been aware of. An interesting illustration of this come from the cave paintings of Southern France at Chauvet (30,000+ years ago) and Lascau (17,000 years ago), which contain some of the earliest examples of representational art. What is featured, among other things, are pictures of a creature commonly referred to as an ox. In fact, they are not oxen but aurochs, a large wild ox that is the genetic ancestor of domestic cattle that became locally extinct in pockets of North Africa and

Europe over a long period of time.[86] As aurochs were a prize of early hunters, it is interesting to speculate whether the cave painters were eulogizing locally extinct populations, and whether among the first sources for art was the urge to memorialize the loss of an animal upon which people depended.

Yet the first time modern humans seemed consciously aware that an *entire* species had gone extinct, and when this fact became a subject of popular and intellectual reflection, was after the eradication of the dodo on the island of Mauritius in the Indian Ocean. Mauritius was uninhabited until Portuguese and Dutch sailors arrived in the early 1500s *en route* to East Asia. In addition to bringing a menacing litany of invasive species that quickly overran the islands – rats, cats, goats, pigs, chickens and, somewhat inexplicably, monkeys – the Dutch slaughtered dodo colonies *en masse*.[87] As the noted ornithologist Carl Jones recounts in David Quammen's excellent book on the social history of anthropogenic extinctions, *The Song of the Dodo*:

> We still argue about when it actually became extinct, but it probably disappeared about the 1660s. It's become the sort of legendary bird of extinction. And a very important bird. There were extinctions before and there's been lots of extinctions since, but it was an important extinction because that was the first time, the first time in the whole of man's history, that he actually realized *he* had caused the disappearance of a species… And it was at that moment – or in that era – when he realized the dodo was gone, that he realized the world was an exhaustible place… So it signified a very profound moment.[88]

The sudden awareness that extinction was even a possibility must have caused a disturbing cognitive dissonance. This is because, to Westerners at least, Christianity had taught that species were created fully formed and that in a divinely ordered universe, species didn't change or go extinct. In fact, as the philosopher of science Loren Eisley points out in *The Firmament of Time*,

the concept of extinction as a natural process was heretical.[89] This perspective is one reason why evolution was considered such a dangerous and revolutionary idea from a Christian point of view when Darwin (and, somewhat independently, Alfred Wallace) presented it as a testable scientific theory in the mid 19th century. To be sure, notions of linear historical development as a fundamental constituent of ontology certainly pre-date evolution. Indeed, Rousseau, Hegel and the "historical turn" in philosophical thought revolutionized intellectual life a century before. But the idea of the naturalness of species extinction was not fully developed even in Darwinian science (the focus being more on mechanisms of speciation). As David Raup writes, it is notable that even today textbooks in evolutionary biology and paleontology rarely mention extinction.[90] Of course, there is nothing "natural" about the extinction of the dodo, unless we conclude that all anthropogenic species extinctions are "natural" because humans are a part of nature and everything that we do is "natural." This position is not tenable, for it gives no room to criticize human behavior and does not allow a normative perspective on human life.

Another interesting anecdote that further illustrates conceptual incredulity about extinction comes from one of Thomas Jefferson's goals for the Lewis and Clark expedition of 1804-1805. Jefferson was reportedly quite excited about the prospect of finding still living versions of giant mastodons, mammoths, cheetahs, lions, camels, saber-toothed cats, giant sloths, or other creatures that used to exist on the continent prior to the last ice age, a time when megafaunal diversity in North America, prior to human arrival, rivaled the present-day Serengeti Plain in East Africa. To Jefferson's imagination, the existence of these fossils indicated these creatures could, indeed must, still be there in unmapped quadrants of the North American continent. This anecdote helps to put ignorance about species loss in context, for extinction as

the total eradication of a species is relatively new concept. Even now we are only beginning to grasp what it looks like and what it means.

Estimates of Current Rates of Species Loss: The IUCN Red List and the MEA

What is known about extinction rates since the loss of the dodo compared to the background rate of 1-2 species per year? Since 1500, 785 species, including 113 birds and 83 mammals, have been documented as extinct.[91] The most recent large mammals to die off are the Chinese river dolphin and the Tasmanian wolf.[92] But given the pace at which scientists are learning about the richness of the biological world and the scale of habitat transformation, numbers are surely much higher. In fact, the most authoritative estimates put current extinction rates at 3,000-30,000 per year. This is 1,000-10,000 times the background rate.[93] The distance between minimum and maximum ends of this scale is considerable, and reflects the imprecision of our knowledge about threats to biodiversity.

How are these figures determined and should they be believed? The two most authoritative approaches in the literature that estimate species decline are the IUCN's Red List and the 2005 *Millennium Ecosystem Assessment*. The IUCN is a global environmental network consisting of over 1,000 government and NGO organizations with 11,000 volunteer scientists in 160 countries. Its annual Red List estimates degrees of threat for species at risk. Based in Cambridge University, the Red List began in 1994. The network's research has historically taken a global perspective on the threat to individual species, though it now claims to be working on putting together a "Red List" for each country as well as for ecosystems. The Red List is the authoritative standard when it comes to measuring individual species decline. After detailed study, to the extent reliable data is available, the Red List places the species on a continuum with seven markers: Least concern (LC), Near Threatened (NT), Vulnerable (VU), Endangered (EN),

Critically Endangered (CR), Extinct in the Wild (EW), and Extinct (E). The Red List's 2011 estimates for *threatened* species (i.e. those that fall into VU, EN, and CR categories), include the following: amphibians (41%), mammals (25%), birds (13%) and gymnosperm plants (40%).[94] Even more specifically, the Red List claims that the threat to cycads (63%), reef-forming corals (33%), sharks and rays (33%), freshwater crabs (31%), conifers (30%), and groupers (17%) are of particular concern.[95]

Of 394 primate species worldwide, 114 are designated as threatened.[96] Gorillas in particular appear to be in trouble. Nearly 1/3 of gorillas are at risk of exposure to the ebola virus, an epidemiological challenge made worse by dwindling population numbers.[97] Population bottlenecks are a concern because when a certain threshold is crossed, other threats, like disease, suddenly magnify the susceptibility to extinction. Moreover, the loss of genetic diversity inhibits a healthy rebound of the population over time.

Specific alarm is also raised for amphibians. In 2011, nineteen new amphibian species were classified as threatened, eight critically so, largely due to a new and lethal fungus that has spread around the globe impacting an extimated one-third of amphibians already. Susceptibility to this disease is compounded by the fact that a prodigious loss of wetlands has severely restricted suitable habitat. At present, 122 species of amphibian have gone extinct in the last 25 years alone due to a combination of these factors.[98]

As alarming as these statistic are, it should be noted that the IUCN has good data only on roughly 3% of the world's known species.[99] In other words, the world's most comprehensive database for empirically grounding the extinction crisis has data on only 50,000 species. Of these 50,000, only half are "well documented," that is "with information on ecology, population size, threats, conservation actions and utilization."[100] We can see now how the story of the giant

Palouse earthworm from this dissertation's Introduction is indicative of most species out there – not much is known about them. As the IUCN concedes, it has a research bias for terrestrial over marine life, forest over non-forest species, and animals over plants. Moreover, it is trying to fill in taxonomic gaps for plants, marine, freshwater and arid/semi-arid species, but admittedly has a long way to go. It is striking that so many *taxa* are labeled as having "insufficient coverage" and that the most authoritative scientific and environmental network has verifiable data on only 3% of the world's known species. Looking closely, most of the list is inconclusive with regard to reptiles, fishes, *all* invertebrates (insects, mollusks, crustaceans, corals, arachnids, velvet worms, horsheshoe crabs), plants (mosses, ferns and allies, flowering plants, green algae, red algae), and fungi and protists (lichens, mushrooms, brown algae).[101] In fact, very little is known in general about what constitutes ecological health for algae, bacteria, viruses, and fungi.

It is also interesting to note that when the 2007 Red List came out, it was headline news that even vultures, scavengers whose diet is not known for being specialized, are having trouble. This surprised many observers because it was assumed that species with a wide-ranging diet are more capable of surviving ecological change, particularly sudden disturbances because they could eat almost anything. A decline in vulture numbers corresponded to an overall crash in faunal abundance.[102] Vultures in this sense can be seen as an indicator species for the overall health of biodiversity.

The Red List focuses on *individual* species, another way to understand the scope of the extinction crisis is to look at *ecosystem* health. In 2005, *Millennium Ecosystem Assessment* (MEA) received considerable attention in media and academic circles for being a credible synthesis on the state of ecosystems from a global perspective. Published under the auspices of the UN and the World Resources Institute, the MEA draws on data from four major international

environmental conventions – The Convention on Biological Diversity (CBD), The Convention to Combat Desertification, The Ramsar Convention on Wetlands, and The Convention on Migratory Species.

The MEA's main focus is measuring change to "ecosystem services" over decades and aims "to assess the consequences of ecosystem change for human well-being and to establish the scientific basis for actions needed to enhance the conservation and sustainable use of ecosystems and their contributions to human well-being."[103] The report defines ecosystem services as,

> The benefits people obtain from ecosystems. These include *provisioning services* such as food, water, timber, and fiber; *regulating services* that affect climate, floods, disease, wastes, and water quality; *cultural services* that provide recreational, aesthetic, and spiritual benefits; and *supporting services* such as soil formation, photosynthesis, and nutrient cycling.[104]

The MEA's general conclusions are disquieting and paint a broad picture of the extent of human transformation of the natural world. Here is a sampling of relevant findings from research on change in ecosystem services between the years 1950-2000. Nearly 2/3 of ecosystem services are in decline, with more rapid and extensive change to the world's ecosystems in the last 50 years than at any comparable time in human history. More land has been converted to cropland in the last 30 years than between 1700-1850. More wild land has been plowed since 1945 than in the 18th and 19th centuries combined. Twenty-four percent of the earth's surface is now devoted to cultivation. Exploding rates of fertilizer use have led to increasing problems of eutrophication (algae blooms) and hypoxia (oxygen dead zones). Twenty-five percent of fish stocks are overharvested with some, like the cod fishery off the Grand Banks of the Northeast Coast of North America, in near collapse. Thirty-five percent of mangroves and 20% of coral

reefs have been eliminated. Forests are entirely gone in 25 countries and have been reduced by 90% in 29 other countries.[105]

The freshwater extinction crisis is perhaps the most acute. According to the MEA, 40-60% of all freshwater is now diverted for human use.[106] By some estimates, freshwater ecosystem services are declining five times faster than terrestrial ones, largely because of pollution, water diversion, the threat of invasive species, and the tremendous amount of water that is locked up each year in concrete – the equivalent of one Lake Huron annually.[107] One study concludes that as much as 50% of the planet's wetlands were lost in the 20th century alone.[108] As Princeton ecologist David Wilcove observes, if an alien came to North America in the 19th century, for instance, the abundance of biodiversity that lived in freshwater on the continent would have been its most amazing ecological feature.

One of the purposes of the MEA assessment is to link the "natural capital" of ecosystem services with the UN's Millennium Development goals. In the late 1990's, a famous monetary estimate of the total value of global ecosystem services, or the planet's "natural capital," were valued at 33$ trillion annually (roughly *double* total global GDP).[109] The overall decline in ecosystem services is a major reason why the eight Millennium Development Goals for 2015 (reducing poverty, hunger, child and maternal mortality; and increasing access to education, disease management, gender parity, environmental sustainability, global partnerships) will remain pie-in-the-sky.[110] The MEA report notes that, "Many of the regions facing the greatest challenges in achieving these targets coincide with regions facing the greatest problems of ecosystem degradation."[111] In this regard at least, environmental concerns, which are often seen as niche policy issues, are explicitly connected to discussions about global poverty, health and development and represent an emerging dimension of "sustainable development" discourse.

The decline in ecosystem services is not only a problem for the delivery of these services on which all humans depend (though some, known as "ecosystem people"[112] in the environmental anthropology literature, more directly than others). It also threatens to reduce the resilience of ecosystems themselves and raises the specter of unpredictable non-linear change.[113] On this view, common in systems theory, an ecosystem can tip from one state of flux-balance to another. A major concern is that this change will happen more like a switch than a dial.[114] The "event horizon" on the other side cannot necessarily be known in advance and the switch to a new state of balance can happen relatively fast. The MEA explicitly warns of such dangers and cautions that species loss and ecosystem degradation will have unpredictable effects.

The Theory of Island Biogeography and the HIPPO Hypothesis

That 75% of extinctions in the modern record have occurred on islands is an important fact to conservation biologists.[115] Why does the extinction story on islands concern ecologists? The study of species loss on islands led to the innovative theory of island biogeography, first discussed in the late 1960s by Robert MacArthur and E.O. Wilson.[116] This theory aimed to determine the mechanisms behind species loss and mathematically figure probabilities of what could be expected to occur in a "species-area relationship." The theory posits that when habitat has been reduced by 90%, 50% of species will become extinct. Considerable debate ensued as to whether such a relationship could be mathematically fixed, particularly outside of island ecosystems. Yet even those who are skeptical of the "species-area relationship" as a mathematical rule agree that Wilson and MacArthur's theory of island biogeography has been influential to the science of conservation biology because habitat on mainlands has come to resemble discrete "islands" cast about in a sea of human cities, suburbs, and farms. In other

words, the particular dynamics of biodepletion on islands is prologue to what many ecologists and environmentalists feel will happen in general in the future.

Once marooned on islands of habitat, species are vulnerable to extinction from a number of directions. The acronym HIPPO encapsulates the five main causes of extinction – habitat destruction and fragmentation, invasive species, pollution, population, and overharvesting.[117] Of these, the main causal variable is overwhelmingly habitat destruction, though in particular cases other causes may predominate. A number of conservation groups have recently accepted a more refined set of causal variables that give greater nuance to HIPPO. This is the "direct threat" approach articulated by the Conservation Measures Partnership (CMP), a joint venture of major global environmental NGOs, such as Conservation International, Defenders of Wildlife, the World Wildlife Fund, The Rainforest Alliance, and the Nature Conservancy, among others.[118]

Furthermore, the dynamics of extinction can be quite sinister. Great auks became extinct in the 19th century in part because they had a penchant for walking onto ships, showing tragically little fear of bemused sailors who killed them for the fun of it.[119] Still other species were nearly wiped out for politically strategic reasons, such as when bison were slaughtered by the U.S. government in order to "break the will" of recalcitrant Plains Indians.[120] Feather-bearing birds were threatened because of commercial fashion, particularly for use in ladies' hats. Resident orcas in Puget Sound, like many other marine mammals, have bodies that are technically considered toxic waste due to the bioaccumulation of pollutants.[121]

Also, humans have intentionally introduced species beyond their natural endemic distribution, with some remarkable outcomes. For instance, there are more wild camels in Australia than in Arabia.[122] The 2010 documentary about exotic pets, *Elephant in the Living Room*, points out that more tigers exist in Texas than in India and that Burmese pythons are now

rampant in Florida.[123] My favorite example of the problem of invasives comes from the deliberate introduction of starlings into the United States in the 1890s by a group called The American Acclimatization Society. They wanted to populate North America with all the birds that were mentioned in Shakespeare's works. Now among the most populous birds in North America, the starlings' aggressive behavior crowds out habitat of native birds like bluebirds, flickers, tree swallows, and great crested flycatchers.[124] Who knew that literary idolatry could have an ecological impact?

Estimates of Future Rates of Species Decline and the New Biosphere to Come

So what do current extinction rates tell us about the future? There is a fascinating range of opinion on what the biological catalogue of the world may look like in 40-90 years (the years 2050 and 2100 are considered relevant benchmarks used by major studies and voices in the literature). Not surprisingly, considering the evidence just presented, most paint a grim picture. One of the founders of the field of conservation biology, Richard Primack, argues that hundreds of thousands of species will be driven to extinction in 50 years.[125] The German Environment Minister, Sigmar Gabriel, remarked in 2007 in an attempt to link ecological and economic well-being in advance of Germany's presidency of the G8, that 30% of all species will be extinct by 2050.[126] Looking further to 2100, the numbers seem even worse. E.O. Wilson famously warns that 50% of biodiversity will be gone or fated by 2100.[127] Raven and McNeely in *Protection of Global Biodiversity* think the threat is even greater, with up to 66% of species threatened by 2100.[128] Stuart Pimm, another leading figure in conservation biology, thinks a more accurate estimate is 33-50%.[129]

How are we to make sense of these alarming predictions? One distinction is crucial, that between *extinction debt* and *actual extinction*. *Extinction debt* refers to the idea that extinction is

a matter of fate that will likely play out over time due to the needs of particular species and the constraints on their future existence. *Actual extinction* is a matter of verifiable fact that a species no longer exists. The leading voices in the literature work with both concepts, sometimes confusingly, to arrive at predictions about species loss in 50 and 100 year benchmarks. The political scientist Stephen Meyer in *The End of the Wild* has a sensible grasp on the meaning of this distinction and the implication of what future biodiversity will look like. As he coldly notes, "The land and oceans will continue to teem with life, but it will be a peculiarly homogenized assemblage of organisms unnaturally selected for their compatibility with one fundamental force: us."[130] To Meyer, three broad types of species will populate the biosphere to come – weedy species, relic species, and ghost species. *Weedy species*, like dandelions, coyotes, and rats, are adaptive generalists that thrive in "continually disturbed, human-dominated environments." [131] *Relic species*, like pandas, bison, or the Sumatran rhino, are those that do not thrive in human-dominated environments and are confined spatially to particular habitats. These species are often carefully managed as "boutique populations," but are fated to become genetic dead ends because of their considerable habitat needs and population numbers that are unable to support healthy levels of genetic diversity.[132] The third classification includes *ghost species*, like Asian soft-shell turtles, orangutans, or snow leopards. These are species that can only survive in the wild and are unable to exist "on a planet with billions of people, because of their abilities and our choices."[133] Because ghost species are highly dependent on particular habitats, they have a low capacity for adaptation and resilience. For most relic and ghost species, and even some weedy ones, body size is shrinking due to the seemingly irretrievable loss of wild habitat. That is to say, the future biosphere is also likely to be populated by a "kind of Lilliputian world" of "minifauna."[134] As Meyer concludes,

> A great many of the plants and animals we perceive as healthy and plentiful today are in fact relics or ghosts … Over the next hundred years, perhaps half of the Earth's species are destined to become relics or ghosts in the wild, while weedy species will constitute an ever-growing proportion of plants and animals around us … More and more we will encounter on every continent remarkably similar, if not the very same, species of plants, insects, mammals, birds, and other organisms organized in similar and simple communities.[135]

As we see here, the homogenization of the world entails not only language, culture, and ideas but also is a good descriptor of what is happening to biodiversity.

Climate Change and Extinction

Finally, another important factor impacting future constraints on biodiversity include the role climate change will play. Estimates from the 2007 Intergovernmental Panel on Climate Change (IPCC) express "very high confidence" that terrestrial ecosystems and "high confidence" that marine ecosystems are already impacted by climate change.[136] Its meta-analyses of discrete research programs imply that upslope migration, poleward shifts, and advanced phenology (seasonal events in a yearly life cycle such as mating, spawning, feeding, flowering, hibernating, or migrating) all point in the same direction and give good biological evidence for the existence of climate change.[137]

What this ultimately means for species decline is difficult to ascertain with precision, but sensible data based in probabilistic reasoning suggests the following: A widely cited study in the literature, Thomas (2004), set probability rates for a diverse set of 1,103 endemic species corresponding to three levels of temperature change by 2050 – a minimum increase of 1.4 to 3.1ºF, a midrange increase of 3.2 to 3.6ºF, and a maxim increase of 3.7 to 5.4ºF. Thomas

concluded that the range of extinction rates corresponding to each level of change was 11 to 23% for minimum change, 24 to 32% for medium change, and 35 to 46% for maximum change.[138] These figures, it should be noted, represent risk of extinction from *climate change*. Add in the HIPPO variables discussed previously and the effects *in combination* show how climate change exacerbates existing threats to biodiversity.

As with the predictions of conservation biologists discussed earlier, climate model research also distinguishes between *extinction debt* and *actual extinction*. The Thomas research suggests that certain endemic species are threatened by extinction but won't necessarily be extinct by 2050. Obviously this is an important distinction, but it is one that is often forgotten, making the numbers seem more sensational than they actually are. Nevertheless, when considering that the present global mean temperature is already only 2ºF below the *maximum average* for the past 2 million years, we are truly in uncharted territory as the world continues to warm.[139] As Thomas Lovejoy and Lee Hannah, leading researchers in the emerging field of climate change biology, conclude, "It is now clear that climate is the major new threat that will confront biodiversity this century, and that if greenhouse gas emissions run unchecked until 2050 or beyond, the long-term consequences for biodiversity will be disastrous."[140]

These climate models lead to another disconcerting aspect of the extinction crisis, the "preservation predicament." This is the idea that the struggle to protect biodiversity where it exists now may be futile because climate change will radically alter ecological conditions, a special concern for fragile ecosystems with high rates of endemic species that are most susceptible to climate change.[141] Many of the protected areas (PA's) that exist now will find their baseline ecological conditions upended. If so, what is the point, for example, of trying to protect the remarkable *freshwater* ecosystem of the Everglades if it will soon become a coastal

saltwater marsh? What happens to salmon restoration in the Northwest if streams become too warm to lay eggs? Or fog-dependent Redwood forests if the oceanic conditions that produce fog no longer exist?[142] These examples highlight the special challenge conservationists face from climate change when responding to the extinction crisis. Conservationists could do everything right from a scientific perspective, but if the climate changes drastically, all bets are off.

Finally, it is notoriously difficult to predict exactly how species will adapt to climate change. In past climatic shifts, species could move their range, dispersing geographically as conditions permitted. This possibility is highly questionable now because of the colossal extent of recent habitat transformation. Since many biomes are now fragmentary relics of what used to be a much wider range, species unable to shift their distribution only have recourse through *in situ* coping, which relies on a species' ability to undergo rapid evolution.[143] However, this is not an option for many species, as evolution is generally a slow process within species. The timescales of evolutionary and anthropogenic ecological change simply do not match. Some might respond that the biological record does show evidence of *punctuated equilibrium* – short periods of rapid morphological change and speciation following ecological upheaval. In this view, nature is resilient and is capable of tremendous regeneration under the right conditions. But counting on this extraordinary capacity of nature's resilience in human-dominated landscapes seems like a bad bet as a general strategy, even if there will likely be surprising, even amazing, examples of successful adaption, recovery, and restoration.

Part III: Extinction as a Normative Challenge

Hubris was a quaint notion that made for some good plays.
– Simon Young

Looking at the data presented in parts I and II, there is strong reason to think that global biodiversity is shrinking. But so what? Why should we care, especially when biodepletion can *seem* external to human experience (even though it really isn't) and will only really be a problem for future generations?

Throughout the remainder of the chapter and the rest of the dissertation I will emphasize that species extinction is an emerging crisis now but, like climate change, it is a problem whose real threats lie in the future. First, it is a "crisis" most evidently for species on the brink of extinction and for human communities whose economic vitality and cultural practices rely directly or indirectly on ecosystems of which they are a part. Second, by foreclosing evolutionary lines, lifeforms are denied the possibility of future evolution. Third, the loss of both complexity and beauty denies future generations the experience of living in a biologically rich world. Fourth, the unraveling of biodiversity has both known and unknown consequences for ecological and human well-being.

In addition to being a biological crisis, and a peripheral concern for human well-being, I argue that it is a predicament precisely because it is also a human crisis. Obstacles to mitigating extinction are co-extensive with the scale of our world-building and the ideologies and political forces that support infinite growth on a finite planet. The extinction crisis thus presents an opportunity, an interruption, to re-consider ways of relating to the natural world that are mutually beneficial to people and nature. How is it possible to accept the challenge of listening to what biodiversity loss is saying to and about us? I contend that the extinction crisis offers a similar kind of opening and provides a unique vantage point to critically interrogate ideological,

economic, and political assumptions that animate modern life and to awaken more fully to the ecological problems we all too often ignore.

There are frames of reference that can help us think about extinction in human terms. Literature on genocide, language loss, cultural extirpation, and the nuclear threat can offer salient insights about mourning, preservation, and precaution. The nuclear analogy is of particular help to this thought process. In reflecting about nuclear holocaust, Jonathan Schell observes that we speak of it as "unthinkable" but not "undoable."[144] By this he means that nuclear catastrophe seems unimaginable, but it is possible to envision a nuclear event resulting from deliberate acts of war, terrorism, or, as seen recently in the *Fukushima Dai-ichi* disaster in Japan, from earthquakes, tsunamis, and human error. The prospect of severe biological depletion invokes the reverse perspective – it *is* thinkable yet *preventing it* appears, on the surface at least, undoable. The "thinkable," as the research discussed in part II predicts, is that we will see a major contraction of the diversity of life on Earth by the end of the century. The "undoable" is that biodiversity loss appears inexorable. It is mostly indirect and occurs quietly and indirectly through habitat loss and transformation. But loss for some is gain for others, and gain in the short term can be loss for future generations. Differing perceptions of gain and loss make it hard to take collective responsibility for environmental damage, especially if responsibility as a concept is not called to account as a matter of public concern.

To be fair, the urgency of the biological crisis is hard to see, partly because we don't understand change very well. Snapshots of land and marine-scapes may seem everlasting and un-historical, like the simple, cyclical "pulse of nature" that Rousseau describes in the *Discourse on the Origin of Inequality*.[145] For Rousseau, and I submit, most of us, only humans are seen as *agents* of history. Nature exists only as object, as that which is acted upon. Through an

ecological lens, however, biophysical nature is in fact constantly changing and moves through systems of balance in response to shifting conditions. Systems theorists like Ludwig von Bertalanffy speak of the concept of *Fliessgleichgewicht*, or "flux-balance" – the perception that new orders of stability will inevitably emerge after intense periods of change. Hegel argues something similar when explaining the dialectics of history. Deep down these concepts about the natural world are comforting. They suggest that nature takes care of itself, that it is resilient in some essential way. But what if it isn't? What if it is more fragile than we assume? Or, to put it another way, what if *nature* isn't fragile but *biodiversity* is?

Faith in the power of nature is an obstacle to overcome, for we may confuse nature's abundance with flourishing. The Chinese concept of *sheng-sheng-pu-yi* (the incessant activity of life creativity), the Indian notion of *prakriti* (the fecundity of the evolving nature principle), and even Aristotelean notions of *plenitude* all point to confidence in nature's capacity for growth and regeneration.[146] However, these deeply rooted ideas suggest possibilities of nature that are at risk of being foreclosed by extinction. The extinction crisis asks us not to look at nature's power as such, but what kind of "nature" thrives under human-dominated systems.

The crisis is also a predicament in the sense that significant obstacles – ideological, political, and epistemological – stand in the way of reversing biodiversity loss. The extinction predicament is ideological because the flourishing of biodiversity and human communities appear to be deeply incompatible. The ideological underpinnings of world-building rest on conceptions of human flourishing that neglect, overtly and covertly, the ecological embeddedness of human action. Paraphrasing the paradox at the center of Rousseau's *Discourse on the Origin of Inequality*, the idea that inequality is not natural but seems to be inevitable, anthropogenic species loss is not *natural* – we do not need to commit ecocide in order to live –

and yet it appears to be an *inevitable* outcome of modern ways of life. Like the impact from climate change, which comes from fundamental economic modes of how we live, work, and play, the extinction crisis is deeply intertwined with basic forces at work in what Arendt calls "what we are doing." These structural forces are not easily acknowledged or changed. If ideology can be defined as knowledge in the service of power, then the power-knowledge complex that separates human from ecological flourishing needs to be examined carefully. The extinction predicament invites us to critically examine ideologies of enterprise that are not ecological and asks us about our capacity and willingness to share the world with non-human nature.

The extinction predicament is therefore an inherently political problem. Typically, biodiversity loss has been treated as a biological or an ethical problem, mainly because biologists and ethicists are the ones who have been most interested in the problem of extinction. This has led to increased knowledge and sensitive moral considerations about extinctions, but the political legacy to halt biological decline is in many ways underdeveloped. Analogous to feminist legacies, the struggle to make issues public that were previously private characterizes the political challenge of the extinction predicament. Despite relatively recent awareness about the extent of the biodiversity crisis and the modest successes of legal and ethical campaigns to "save" species and ecosystems, it helps to recall that biodiversity as a concept did not help to frame our thinking about extinction until the 1980s and 1990s. That the status of the non-human other is barely perceptible in political discourse is, perhaps, understandable, but it is not excusable.

The growing recognition about the problem of so-called "environmental refugees" may help to give visibility to the extinction crisis. Environmental refugees, according to some

calculations, now outnumber political refugees.[147] The UNHCR does not officially classify environmental migrants as "refugees," since they have not been legally determined to be persecuted, but they have compiled numbers on those who have involuntarily migrated due primarily to environmental factors. In 2009, 36 million people fell under this category (mostly for climate change related reasons), compared to 10.2 million people officially categorized as political refugees.[148] But while humans can, in theory, shift locales in times of change, much of non-human nature can't. Perhaps the environmental refugee story can be a vehicle to effectively talk about the politics of ecological displacement for both people and species.

Further contributing to the extinction predicament is an epistemological problem. Biodiversity can seem too abstract, a concept far removed from lived reality and one employed mainly by scientists, a concept that is "often meaningless" to most people.[149] Moreover, the value of biodiversity looks different to different actors and in this way is an essentially contested normative concept.[150] And the enormity of the extinction crisis makes it easier to ignore. It requires putting together too many pieces of a larger puzzle, is distant from lived experience, and has consequences that will far outlast everyone's lifetimes. And honestly, few *want* to think about such a gloomy subject. As a student once remarked to me, if a biodepleted future is inexorable, why not just forget the problem and maximize the pleasures of the here and now? This is certainly not a courageous stance, but ignorance, as recognized in the epistemologies of ignorance literature, can be *willful*. [151] It is true that there is much we don't know about the extinction predicament and therefore ignorance can be intellectually defensible as skepticism, but a lack of knowledge should not *justify* a lazy ignorance. Returning to Jonathan Schell again, our ignorance about extinction makes it an entirely different category of risk, for we usually calculate risk only within the bounds of life.[152] He insists that we teach ourselves about

extinction in a meaningful way and that it should become a more prominent feature of our common deliberation.[153] Ignorance must be willfully overcome, even if the extinction crisis is quiet and difficult to piece together.

Conclusion

We were on our way to becoming gods, supreme beings who could create a second world, using the natural world only as building blocks for our new creation.
– Erich Fromm

If you look at the science that describes what is happening on earth today and aren't pessimistic, you don't have the correct data. If you meet the people in this unnamed movement and aren't optimistic, you haven't got a heart.
– Paul Hawken

I think it is important to acknowledge that extinction does not necessarily represent "failure" as a natural phenomenon, though anthropogenic species extinctions do suggest a human failing. Ecologically, extinction is a driver of biodiversity through evolution. The K-T extinction event 65 million years ago, for instance, cleared the way for the rise of mammals along with radically new possibilities for other life forms. Extinction is a part of life in general, just as death is a part of birth. In fact, 99% of all species that have ever lived are no longer around. But I am suggesting that what is happening due to anthropogenic species extinction is more than death; it is also the end of birth for too many species. The word "nature" comes from the Latin *nascere*, which means "to be born." When writers, philosophers, and ecologists speak of the "death of nature," wild nature as a subject has been replaced by the rise of nature as an object of human instrumental reason. The question is whether biodiversity, with its ancient cycles of birth, death, renewal, and change is capable of thriving under human-dominated systems. Biodiversity loss, therefore, is not just an end; it is the end of new beginnings, a loss of *natality*.

Leading voices in the specie loss literature, the loudest of whom are biologists, are sounding an alarm that the biosphere is becoming less elaborate, interesting, and beautiful. Eileen Crist concludes that the "flame of life" – its diversity, complexity and abundance – is being irretrievably lost.[154] E.O. Wilson thinks we are "cutting the heart out of biodiversity."[155] To Richare Pearson at the American Museum of Natural History, we are "playing Jenga with the web of life."[156] Hannah, Lovejoy and Schneider liken what is going on to "losing books without reading them."[157] The feeling of being complicit in losing a future that is biologically recognizable to us is, as the environmental activist Joanna Macy contends, a principal psychological pain of our time.[158]

Though quiet and in many ways difficult to understand, the problem of biodepletion will become one of the main environmental issues of the 21st century, and its ecological and social impact is likely to grow in unforeseen ways in the coming decades. But ignorance of these problems shortchanges democratic discussion, denies the possibility of sustained political reflection, and blocks meaningful courses of action. So how can the "extinction predicament" become the subject of serious political discussion capable of engaging conceptions of human and ecological flourishing that are connected and integrated? The extinction predicament invites us to conceive of how ecological health and human well-being can be understood as "inextricably linked." I will explore this problem in the next chapter by examining normative responses to the extinction predicament by looking at the anthropocentrism and ecocentrism debate in green political theory and its relationship to questions of social justice.

Chapter 2
Beyond Anthropocentrism and Ecocentrism? Biodiversity Conservation and the Move from Ethics to Politics

Human beings must learn to stop forcing or projecting or imposing themselves on otherness; rather they must preserve it, guard it, shepherd it.
– George Kateb

The writer Rebecca Solnit comments that, "One way to guarantee a conversation without a conclusion is to ask a group of people what nature is."[159] This is not surprising because as social historian Raymond Williams points out, "nature is the most complex word in … language."[160] As such, it should also not be surprising that the struggle to articulate reasons why, whether, or in what ways nature should be valued produces a similar kind of conversation without a conclusion. Comprehending the extinction predicament requires entering into precisely these sorts of indeterminate debates about the value of nature. Regardless of whether we come to any firm conclusions about the relationship between "nature" and "culture," the *problematique* opens up interesting questions about species extinctions as a human predicament and is a rich source of political theorizing.

One channel in the middle of this river is the anthropocentrism/ecocentrism debate (the A&E debate). The A&E debate *consumed* environmental ethics, green political theory, and political ecology from the 1970s through the 1990s and in a significant way helped to constitute them as academic subfields. Understanding the history of this debate – including the more recent move to transcend it – is essential when thinking about the extinction predicament as a matter of green political theory. The controversy at the heart of the A&E debate is whether protecting nature is good in itself or because doing so serves human values. The debate is roughly parallel to divide between deontological and consequentialist accounts of ethics in philosophy. There has long been a philosophical demand to choose between what are perceived to be these very

different theories of justice about relating to nature. Each side has erected an ethical foundation from which values and politics are supposedly derived and the pressure to align oneself with one of these "great divides" has come to polarize academics, scientists, environmental activists, and social justice advocates, often to the point of frustrating rather than advancing conversations about important ecological issues. The pressure to choose *a priori* one foundation over another is a distraction however, even though the A&E debate is worth engaging. And so, to think of the A&E debate as something to move beyond, as many now argue, obfuscates how people do, in fact, assign meaning to nature and misses opportunities for more a more robust and nuanced articulation of values about species loss in a political context. As I will argue in this chapter by tracing its genealogy, the A&E debate has opened up space to treat biodiversity advocacy less as a comprehensive ethical stance and more as a subject for democratic deliberation, if we take the opportunity.

Green political theorist Robyn Eckersley refers to "two waves" of green theory – the period of the A&E debate and its aftermath. The aftermath has included the effort to "emphasize the humanist credentials of green politics … (moving the field) towards questions of human ecological stewardship, ecological virtue, and what might be the legitimate use (or illegitimate abuse) of natural resources and ecosystems."[161] Even though green theory is in a "humanist" period, I differ with Eckersley's analysis that the A&E debate has been transcended. What we need to overcome are the certainties of anthropocentr*ism* and ecocentr*ism*, which barricade thought, and not the A&E debate itself, which can illuminate and even transform perspectives. Rejecting the A&E debate as archaic is a way of exclusively supporting anthropocentric values. A prime danger is that democratic deliberation becomes constrained and only concerned with variations on the ethical verities of anthropocentrism, for we have an uncritical bias toward

valuing nature from an anthropocentric perspective. What is especially important in the move to a more deliberative democratic approach, therefore, is retaining the capacity to articulate ecocentric values as legitimate expressions of concern and perspective. A better way of looking at the debate is to see anthropocentric and ecocentric values as the nuanced expressions of a full range of thinking, feeling, and reasoning about nature. As such, democratic deliberation about the extinction predicament should be open to rendering the whole territory and not just particular kinds of maps.

The chapter is organized as follows. Part I is a selective literature review of the A&E debate that aims to link its legacy to contemporary biodiversity politics. Part II looks at how social justice critiques of actually existing conservation regimes, many of which were set up according to ecocentric principles and located in the global South, helped to shift the A&E debate from ethics to politics. Part III examines why this shift is a positive development. It explores how – with the help of theorists who work at the intersection of democratic theory and green political theory, such as John Dryzeck, Robyn Eckersley, Graham Smith, and Tim Hayward – a deliberative democratic approach offers new opportunities for biodiversity conservation as a matter of social and ecological justice, provided that "democracy" is not dominated by outcomes that are only framed in economic terms. Deliberative democracy holds the promise of articulating people-in-nature approaches that permit anthropocentric and ecocentric values to co-habitate without attempting to reduce these values to a homogenous ethical grammar.

Part I: Defining Anthropocentrism and Ecocentrism

To save really means to set something free in its own essence… Saving the earth does not master the earth and does not subjugate it, which is merely one step from boundless spoliation.
– Heidegger

The project of going beyond anthropocentrism still looks wild, incautious, intellectually overexcited.
– Anthony Weston

The notion that biodiversity protection is "political," that is, essentially contestable, is not a foreign concept to political scientists or green political theorists. Any effort to protect habitat, the keystone of any conservation regime, is layered with issues of power, participation, and justice and is marked by competing values and interests. For many ethicists, biologists, ecologists or nature advocates, however, the deeply political aspect of protecting biodiversity is often underappreciated. Curiously enough, the A&E debate was remarkably apolitical in substance, concerned as it mostly was with the search for convincing ethical reasons to protect nature. Partly this is a problem with the way "nature" and "politics" customarily relate. As green political theorist John Meyer characterizes it, the status of "nature" has typically led to two perspectives – dualist and derivative. The dualist account separates people from nature and finds no "nature" in human politics. The derivative account that sources values in nature has no room for a "politics" of nature. Meyer convincingly argues that there can be no meaningful politics at all in either of these accounts of the status of nature.[162]

As I'll argue later in the chapter, getting away from dualist and derivative foundations has important practical and theoretical consequences because without a non-foundational politics capable of negotiating value pluralism, effective biodiversity protection will remain elusive and stuck in a rigid ethical divide between nature and culture. Even though both anthropocentric and ecocentric views have contingent validity, there was, and in many unacknowledged ways still is, a disconcerting pressure to choose one ethical orientation over the other prior to taking a political

stance on a given issue, even from those who think that the A&E debate is a relic. Sitting on the fence, it is said, only gives you splinters. But sit on it we should, splinters and all.

One caveat before I begin. Despite the presumed theoretical unity of anthropocentrism and ecocentrism as ways of prioritizing culture or nature, there is considerable variation in these quite expansive theories of justice. This point should be kept in mind because "anthropocentrism" and "ecocentrism" are often used pejoratively as a vague and simplistic caricature of an opponent's position, something all too common in the rhetoric surrounding this debate. But it is precisely their imaginative variation as theories of justice that should be kept alive in order for the A&E debate to be productive.

I'll start the discussion of anthropocentrism and ecocentrism with a topographical metaphor. The environmental philosopher Arne Naess remarks that justifying why we should protect nature is akin to ridgewalking. On one side is an abyss of atomic individualism and on the other is an ocean of organic and mystical views.[163] A similar ridge divides anthropocentrism and ecocentrism. A few basic questions help to set up the ridgewalk: Do we protect nature because it is good for "people" or good for "nature"? Are we to save nature *for* people or save it *from* people? What is better able to protect nature – wise steward-managers or nature "let be" in a Heideggerian sense (*Gelassenheit*) as an expression of human freedom? Should our understanding of nature be more cognitive or affective? Answersing these questions depends first and foremost on how one treats the concept of "nature."

"Anthropocentrism" has two basic postures toward the concept of nature. The first is a perspective that understands it as existing entirely for human use. This is most commonly seen through a *materialist* economic lens that views the natural world merely as a resource for human use as consumption, energy, or pharmacology. In a position common to liberalism and Marxism,

real value lies not in nature itself but in human labor and industry. The economic angle on anthropocentrism leads to protecting nature *instrumentally* and prudentially, and uses language like "interest," "cost/benefit analysis," "maximum sustainable yield (MSY)," or even "sustainable development." But there is another way of conceiving anthropocentrism. This view is *ideational* and sees nature in recreational, aesthetic, or spiritual terms – as objects of human consciousness.[164] An ideational anthropocentric approach protects nature because doing so enables particular activities or experiences that people enjoy and find meaningful. What unites material and ideational forms of anthropocentrism is a belief that whatever goods nature produces, they are valued because they serve human goals and because humans are the real source of value. As environmental ethicist Bryan Norton puts it, anthropocentrism at its most basic level is the idea that "only humans are the locus of intrinsic value, and the value of all other objects derives from their contribution to human values."[165]

But there are other qualities of anthropocentrism that are important to recognize. In *Green Political Thought*, a book that that is a brilliant overview of green political theory as a subfield, political theorist Andrew Dobson helpfully distinguishes between "strong" and "weak" forms of anthropocentrism. In short, the weak form of anthropocentrism simply implies human-centeredness (but allows for values to exist in nature independent of human estimation), while the strong form exclusively sees the natural world in instrumental terms (and finds no value in nature except as they serve human ends). Dobson writes,

> The first, or weak sense, is more obviously 'neutral' than the second, or strong, sense – and it is truly astonishing how often 'human-centeredness' is confused with 'human instrumentalism.' I want to suggest that anthropocentrism in the weak sense is an

> unavoidable feature of the human condition ... while the strong sense carries a notion of the injustice and unfairness involved in the instrumental use of the non-human world.[166]

Dobson is right on both counts – weak anthropocentrism in some sense is inescapable and strong anthropocentrism is in many ways unjust. The critical point is to figure out how anthropocentrists can value nature without resorting to instrumentalism. Typically, this move attempts to ascribe intrinsic value to nature. But as Dobson goes on to argue, "If there were no humans in the world there would be no such conceptualized thing as intrinsic value, and it is an *open question* whether there would be any such thing as intrinsic value at all."[167] Dobson is also obviously right on this point as well – without human beings there would be no concepts about intrinsic value, for concepts that make sense to us require human language. I'll leave aside the open question of whether other species – who clearly communicate, some even with forms of language – speak in terms of values, let alone "conceptualize" them. Still, the "open question" about intrinsic value in nature remains. It was this question, together with emerging depictions of the natural world by scientists (particularly biologists), which pushed green theorists of the first wave to come up with an ecocentric critique of the assumed primacy of anthropocentrism.

Ecocentrism in green theory thus begins as a critique of anthropocentrism.[168] It has, as I see it, three main components. The first, as we've just seen, is the insistence that nature, like humans, *also* has intrinsic value. To green theorists of this mindset, it is the project of theory to counteract strong forms of anthropocentrism found in religion, economics, culture, politics and philosophy by making the case for nature as having intrinsic value independent of its service to human goods. The significance of claiming that an entity – say, a species, river, or ecosystem – has intrinsic value is that humans have a moral obligation to protect and treat it with dignity. From this perspective, the more we recognize or assign intrinsic value to nature, the more we

will be attentive to preserving it in its own essence. Views like these are common to writers like Muir and Thoreau, activists like Bob Marshall, philosophers like Arne Naess, J. Baird Callicott, Holmes Rolston III, the deep ecologists Bill Devall, and George Sessions, and conservation biologists like Michael Soule and John Terbough (and many others).

The second perspective important to ecocentrism is the idea of *biocentric equality* (sometimes refered to as *bioegalitarianism*). This approach sees no moral difference in the dignity of living entities and speaks a language of egalitarian justice. The classic representation of this perspective comes from Aldo Leopold's theory of the "land ethic." He famously writes, "The land ethic simply enlarges the boundary of the community to include soils, waters, plants, and animals, or collectively: the land … A land ethic changes the role of *Homo sapiens* from conqueror of the land to plain member and citizen of it."[169] Challenging what is sometimes called "human exceptionalism," bioegalitarian arguments emphasize the ecological concept of hetarchy (distinction without rank) instead of hierarchy and, consequently, a respect for difference – of species, things, and landscapes. The ethnoecologist Enrique Salmon refers to this perspective as "kincentric ecology," claiming that, "We are immersed in an environment where we are at equal standing with the rest of the world … They are all kindred relations – the trees and rocks and bugs and everything is in equal standing with the rest."[170]

The third common denominator to ecocentrism is an emphasis on *holism*. Holism focuses on the ways in which entities are interconnected and not independent from the systems of which they are a part. Holistic perspectives see different kinds of systemic organization – cells, individuals, societies, ecosystems, planetary systems, etc. – playing out at different scales.[171] Holistic perspectives are common to systems theorists in sciences ranging from ecology, climatology, and oceanography. J. Baird Callicott and Max Oelschlager are good

examples of green philosophers who theorize about holism in environmental ethics. Holistic perspectives are also common to many forms of mysticism, from the spiritual to the literary. The poet Robertson Jeffers sums up this perspective nicely in his poem "The Answer": "The greatest beauty is / Organic wholeness, the wholeness of life and things, the / divine beauty of the universe. Love that, not man / apart from that."[172] Theorists of holism argue that, ontologically, the biosophere is a mega-community and that it is the task of isolated, atomistic individuals to see themselves and their actions as impacting greater and greater levels of systemic wholeness.[173]

All three strains of ecocentric argument are different, but they unite in denouncing strong forms of anthropocentrism. The challenge as ecocentric theorists understand it is to crack the limited, and limiting, perspective of ordinary human consciousness in order to see with more discernment the wider ecological contexts in which human life is placed. This position can be deeply troubling to philosophers who argue that one cannot derive "ought" from "is," and to political theorists, who are justifiably suspicious of appeals to "nature" to ground human values. But ecocentric theorists see a clear distinction between the defense of intrinsic values in nature and the "naturalness" of human categories like race, class, or gender. This is a distinction worth making and I will explore it in more depth in Chapter III when I engage the work of Hans Jonas and show how he bases his theory on deriving an "ought" from an "is."

As with anthropocentrism, I think we can distinguish between strong and weak types of ecocentrism as well. Strong ecocentrism seeks not just to denounce instrumental rationality but to de-center the human figure in moral arguments about nature. For ecocentrists of this type, like Arne Naess, J. Baird Callicott, Max Oelschlager, John Muir, Aldo Leopold, and Barry Commoner, there is a strong sense that if principles like complexity, naturalness, authenticity, and cooperation are detected in the deep structures of nature, then good reasons exist for these

values independent of human evaluation. This impulse to learn from the "more than human" has a long history in indigenous cosmologies, animism, Taoism, Shintoism, and, even, ancient Western thought through the concept of *naturan sequi*. Cicero, for instance, declared, "I follow the guidance of Nature … not to stray too far from Nature and to mould [*sic*] ourselves according to her law and pattern – this is true wisdom."[174]

But some strong ecocentrists find value in nature not from rules or maxims for living well but through *identification* with nature that expresses a certain kind of consciousness. As the environmental philosopher Warwick Fox recounts a meeting with the Nez Perce elder Smohalla, "When asked why he does not plough the ground, (he) does not reply with a closely reasoned explanation as to why the ground has intrinsic value but rather with a rhetorical question expressive of deep identification with the earth: 'Shall I take a knife and tear my mother's breast?'"[175] This approach, as Iris Marion Young would insist, reminds us of the importance of recognizing a diversity of speaking styles and argumentative patois and that detached rationality is but one of many ways to articulate values.[176]

Finally, to some strong ecocentrists, it is not the qualities of nature or an experience of identification with the non-human world that imparts value but its "naturalness" and sheer otherness. As the philosopher Robert Goodin writes, "What is crucial in making things valuable, on the green theory of value, is the fact that they have a history of having been created by natural processes rather than artificial human ones."[177] That is to say, irrespective of what can be said about intrinsic value in itself, the otherness of nature requires a kind of ethical relationship to it. This idea is not far from Levinas' view on respect for the "other" in his ethics of alterity.[178]

Weaker forms of ecocentrism, it stands to reason, persist in denouncing an instrumental rationality toward nature but not necessarily advocating a thorough de-centering of the human

place in nature. And so, the strong ecocentrism of deep ecologists and bioegalitarians is as much a problem for theorists of weaker forms of ecocentrism as anthropocentrism. Murray Bookchin's social ecology is a good example of this position. In a debate between Bookchin and an Earth First! founder, Dave Foreman, Bookchin remarks,

> The human species, its different societies, and its enormous powers to alter the environment, were not invented by a group of ideologues called "humanists" who decided that nature was "made" to serve humanity and its needs … We can contribute to the diversity, fecundity, and richness of the natural world – what I call "first nature" – more consciously, perhaps, than any other animal … Or, our societies – "second nature" – can exploit the whole web of life and tear down the planet in a rapacious, cancerous manner … We need to create an ecologically oriented society out of the present anti-ecological one.[179]

To Bookchin, the root of the ecological crisis is the problem of inequality, which is structural and social, and largely a function of capitalism. Further, note that the role for human agency in creating an "ecological society" is comparatively greater in weaker forms of ecocentrism like Bookchin's social ecology than in stronger ones, like the let-it-be wilderness philosophies of deep ecologists.

Another example of weak ecocentrism comes from theories of bioregionalism. Kirkpatrick Sale's *Dwellers in the Land* and Ernst Callenbach's novel *Ecotopia* are classic accounts of bioregional theory and practice.[180] In these works, the human presence is not marginalized but reconfigured so that human communities can best conform to and live with the natural qualities of a bioregion – watersheds, prairies, forests, or seashores. The emphasis is on

scale and a visceral proximity to one's immediate natural environment rather than on abstract duties or obligations to some ethically correct way of relating to nature. Sale writes:

> The issue is not one of morality … but of scale … The only way people will apply 'right behavior' and behave in a responsible way is if they have been persuaded to see the problem concretely and to understand their own connections to it directly – and this can be done only at a limited scale. It can be done where the forces of government and society are still recognizable and comprehensible, where relations with other people are still intimate, and where the effects of individual actions are visible; where abstractions and intangibles give way to the here and now, the seen and felt, the real and known. Then people will do the environmentally 'correct' thing not becaue it is thought to be the *moral*, but rather the *practical*, thing to do.[181]

The presumption here is that environmental problems exist primarily because they are easy to ignore in societies that are either too big or whose members have insufficient voice to redress grievances. Additionally, nature advocacy in bioregionalism comes not through the brilliance of ethical argument but the practical and affective experience of living in the world at something resembling "human scale." Connected to bioregionalism, on an even smaller social platform, are the growing numbers of eco-villages. These are intentional communities that seek, in idiosyncratic ways, to inhabit landscapes through principles of self-sufficiency. Ecovillages model forms of sustainable living in the present and hold the potential, as Karen Litfin puts it, to "seed" alternative ways of relating to nature and community in the future.[182]

A Brief History of the A&E Debate and its Critics

Now that we've explored different nuances of anthropocentrism and ecocentrism, I want to turn to putting the debate in historical context in order to show just how important the A&E

debate was to green theory and environmentalism as a new social movement, and how it is still important to a politics of the extinction predicament. Tempting though it might be to say that the A&E debate is new, many streams led to its river of argument. Carolyn Merchant's wonderfully detailed book, *The Death of Nature*, describes how the change in understanding nature from *organic* to *mechanical* metaphors marked a profound shift from ecocentric to anthropocentric worldviews that helped to constitute "Modernity." Philosophers critical of modernity, like Rousseau, Nietzsche, Heidegger, and Arendt were concerned about the hubris that accompanied newly discovered Promethean technical powers, the scientism of the Enlightenment, and the problems of conceiving "nature" in purely instrumental terms and only for rational human purposes.

In American conservation, the A&E debate is impacted by the Muir-Pinchot debates from the 1890s. John Muir, writer and environmental activist, and Gifford Pinchot, first head of the U.S. Forest Service, publicly argued about how to manage American forests. These debates crystallized arguments between "preservationists" and "conservationists" over whether forests should be preserved in a wild state or conserved wisely for human use and industry. The debate had particular impact on U.S. national forest policy and set a course of path-dependence for the Forest Service (in favor of conservationists and the logging industry) that lasted for over 100 years.[183] Also, the A&E debate in the U.S. context helps to explains different discursive approaches for creating and legitimizing the Wilderness, Clean Air, and Clean Water Acts. The Wilderness Act is grounded in ecocentric principles while the Clean Air and Water Acts have primarily an anthropocentric rationale.

In fact, we can say that the A&E debate has a family resemblance to even older philosophical debates about the value of non-human nature. For example, the moral status of

nature has long been a part of philosophical controversy and religious argument. Socrates said in the *Phaedrus* that, "Trees and open spaces won't teach me anything, but men in the town do."[184] Aristotle held the deeply anthropocentric view that animals and plants were *made for* humans. He writes, "Clearly, then, we must suppose in the case of fully developed things too that plants are for the sake of animals, and that the other animals are for the sake of human beings… In them nature makes nothing incomplete or pointless, it must have made all of them for the sake of human beings."[185] This kind of thinking helped nourish much Judeo-Christian thought, especially its creation myths and the concept of the Great Chain of Being. Of course, there are exceptions in these traditions. Maimonides and St. Francis of Assisi are notable examples who stress the concept of stewardship and care in relating to nature.[186] Other religions are less hostile to animals and to nature, such as Buddhism, Jainism, Hinduism, and various Native American cosmologies. Comparing different religious attitudes toward the status of nature led the historian Lynn White Jr. to famously claim in 1967 that the real cause of environmental degradation is Judeo-Christian in origin.[187]

Even though the A&E debate has a conceptual genealogy that goes back much further than the environmental movements of the 1960s and 1970s, it was during his period that the debate in green thought became explicit and unavoidable, especially amongst environmental ethicists and green political theorists. What did the A&E debate look like in this period and how did it start? Originally, it began as a lively critique of anthropocentric perspectives, some explicit, others tacit. David Ehrenfeld in *The Arrogance of Humanism* captured this spirit particularly well. He felt that an arrogant humanism and an excessively anthropocentric approach to moral reasoning was the main cause of the environmental crisis, like being part of a "religion" without being aware of it.[188] Eherenfeld expresses the visceral sense of anger and

despair that the antagonist in ecological crises is human, all too human. This psychology is strong in green thought. The feeling of an inescapable complicity in committing eco-harms is the cause of much anguish.

To ecocentric greens of this period, "dominating nature" had been a centuries-old project and it was time to correct the balance. Domination, as William Leiss brilliantly argues in *The Domination of Nature*, is something only humans are capable of doing. Other relationships in nature are predatory, parasitic, or symbiotic, but none of these operate through mastery and domination. This sense of domination, Leiss argues, comes from the early modern scientific view that "discovered" the world was "value free … and available for infinite transformation."[189] But domination also needed, as Horkheimer and Adorno put it, the extirpation of animism and the "disenchantment of nature."[190] This required the active forgetting of many older ways of relating to nature.

The ecocentric critique thus reacted vigorously to the apparent chauvinism and speciesism in anthropocentric environmentalism that arrogantly promotes human exceptionalism.[191] Intrinsic value ecocentrics see the instrumental valuation of nature for economic consumption or recreational enjoyment as morally bankrupt by definition. Anthropocentric moral argument is not just instrumental, however. In what is called "moral extensionism," prominent in arguments for animal rights a la Peter Singer or Tom Regan, some nonhuman entities can be valued if they exhibit traits like sentience, language, or familial care for the young. Conservationists have long noted that humans are most eager to protect species with big eyes or that exhibit a perceived charisma. But to critics of this view, like Robyn Eckersley, this makes nature protection dependant on human choice. She writes,

> Given that there are limits in the human capacity for sympathetic identification with non-human species that bear no resemblance to ourselves, we need to question whether this kind of identification is an appropriate basis upon which to ground respect for nonhuman others. Indeed the whole point of the contemporary debate about respecting difference (whether cultural or biological) is that 'the other' does not have to be 'like us' before we accord it any recognition and respect.[192]

Likewise, holistic ecocentrics also find fault with moral extentionism because it tends to apply only to individual species and ignores broader communities of life.

In addition to critiquing anthropocentrism, ecocentrists from the 1970s to 1990s set out to create a distinctly *ecocentric* approach to valuing nature. They portrayed the challenge as a radical transvaluation of consumerism, human needs, technologies, and lifestyles, and stressed limits to material satisfaction.[193] The point wasn't just to clean up after the messes of capitalism and industrialism, but rather change society in a more fundamental way. Some, like Marcuse, thought that the emergent ecological awakening had the potential to resurrect prospects for social revolution in liberal societies, attacking as it does the "living space of capitalism."[194]

That ecocentrics portrayed non-anthropocentric theory as a litmus test for being "green" that irked anthropocentrists who thought either that ecocentrism wasn't the only way relating to nature or, more critically, that ecocentric theories were intellectually indefensible. So as green theory developed, the A&E debate put on weight and a vigorous critique of ecocentrism concomitant with a defense of anthropocentrism began to take shape. It is interesting to note that anthropocentrist perspectives were often assumed and tacit, and it took the ecocentric challenge to force an articulation of a distinctively *anthropocentric* approach to environmentalism. Here we can clearly see the value of the debate in drawing out implicit and assumed perspectives.

Anthropocentrists criticized ecocentrists for being philosophically incohate, morally confusing, and socially misanthropic. I see three main points that support this critique. First, anthropocentrists denied the possibility that an objective account of intrinsic value was possible or even desirable. Andrew Light, for instance, claims that though the project to ground intrinsic value has been the main emphasis of the entire field of academic environmental ethics, it is mostly a "non-starter" from a philosophical point of view.[195] In this view, intrinsic value accounts wrongly assume that the values in nature exist "out there," irrespective of subjective interpretation. As Robyn Eckersley argues, discovering a pristine ethical source of intrinsic value – sentience, language, family dynamics, *autopoeisis*, or life – is fraught with epistemological difficulty and has very little practical relevance.[196]

A second line of critique claims that only morally responsible agents can be given moral treatment. That is, a "person" must be the subject of a life and capable of making choices about a plan for that life. From this perspective, the argument for biocentric egalitarianism, for example, is non-sensical and is at odds with mainstream schools of ethics that require a concept of personhood. Birds, trees, or rivers are not "persons." This view is predominant in Western ethical and religious theory (though, we should recognize, it is not so for worldviews like Buddhism, which do not rely on an ethics of personhood or subjectivity but rather on co-dependent origination). To anthropocentrists, there is nothing wrong in claiming that human personhood makes us morally exceptional. This doesn't necessarily mean that humans can't care for or come up with good reasons to protect nonhuman nature, but it suggests that we do not have a *moral obligation* to defend nonhuman nature, as this duty only applies to "persons." For instance, to Kant, only subjects who are capable of exercising moral deliberation, and a certain dispassionate kind at that (related to the categorical imperative), can be admitted into the

"kingdom of ends," i.e. has the right to be treated as an end in itself. In fact, Kant thought that how humans relate to nature is not subject to moral censure, though he did counsel to be "kind" to animals.[197] Similarly, as environmental ethicist Marcel Wissenburg argues, justice is only owed to other human beings. He writes, "Life is a necessary but not a sufficient condition for being a moral subject or for deserving treatment as a moral subject … Plants, and the same goes for inorganic nature (with which we share nothing but existence), lack the relevant property of subjective consciousness, or consciousness as such."[198] To adherents of personhood ethics, care for nature is a choice. It may be prudent or wise, but it is not a moral duty.

In the third line of critique, many anthropocentrics saw the ecocentric perspective as perilously misanthropic. Ecocentrists, they claim, show a pathological willingness to punish humans for their "crimes against nature. Some statements by ecocentrists exacerbated this perception, especially as they were salaciously portrayed in the media. There are many to choose from, but comments like, "The earth will only be free when the human race is wiped out," (famously uttered by an Earth First! activist with the pseudonym Miss Ann Thropy),[199] or Michael Soule's remark that, "Humanity, from the standpoint of other species, is a plague,"[200] added to the perception that ecocentric greens were clumsily misanthropic. Another example is the Voluntary Human Extinction Movement, based in Portland, OR, which has as its motto, "May we live long and die out." They claim that by "phasing out the human race by voluntarily ceasing to breed will allow the Earth's biosphere to return to good health."[201] Anthropocentrists see in these expressions of the environmental movement nothing but antipathy toward human beings.

The different perspectives that compose anthropocentrism and ecocentrism help to frame several dichotomies important to the A&E debate. For example, a fundamental question that

animates the debate is how it characterizes the need for social and political change. The A&E debate registers the magnitude of change needed to address environmental crises through a series of dichotomies. For example, Dobson helpfully contrasts "environmentalism" with "ecologism." "Environmentalism" is about "a managerial approach to environmental problems, secure in the belief that they can be solved without fundamental changes in present values or patterns of production and consumption."[202] In other words, environmentalism is superficial and cosmetic and translates rather easily into the idiom of mainstream interest group politics. In contrast, ecologism, Dobson argues, is, along with feminism, the only *new* ideology that was developed in the 20th century. This is significant because ecologism is an ideology in the positive sense of thinking richly about people, politics, and nature, and not the negative, Marxist notion of ideology as ideas that serve power. Dobson writes, "Ecologism holds that a sustainable and fulfilling existence presupposes radical changes in our relationship with the non-human world, and in our mode of social and political life."[203] Unlike environmentalism, ecologism requires a more fundamental restructuring of the present order to effectively respond to the environmental crisis.[204]

Other dichotomies in the literature speak to the question of social and political change. Arne Naess, for instance, distinguished shallow ecology from deep ecology, insisting that shallow ecology only polished problems at the surface while deep ecology sought more profound changes in ethical orientation, particularly through shifting conscious perspectives about relations between humans and nature.[205] John Meyer refers to the distinction between "issue area environmentalists" and "radical ecologists" based on the degree of social change needed to live in a "green society."[206] Another split can be found in the open hostility between the radical left green movements of Murray Bookchin's social ecology and groups like Earth First!, who

wrangled over "garden" vs. "wilderness" conceptions of nature and the human place in it. Ecofeminists also parsed various ways in which environmental problems were caused by *androcentric* culture, politics, thought, and language, and explored in different ways how liberation from androcentrism could heal ecological problems, recover older forms of traditional ecological knowledge, and empower new ways of relating to nature.[207]

These perspectives examined environmental crises from distinct standpoints, though certainly discourses cross-pollinated in a number of ways. But they all staked territory in the A&E debate and used their positioning in it to orient their thinking and criticize what was perceived to be "the other side." This is a slight generalization, but "environmentalists," shallow ecologists, social ecologists, and some ecofeminists tended toward the anthropocentric side of the continuum, while "ecologists," deep ecologists, Earth Firsters, and other ecofeminists often expressed ecocentric views. And though their politics of nature were different, there was general agreement that hierarchical social relations, state-sponsored capitalism, and corporate environmentalism were common enemies to be overcome.[208]

Beyond the A&E Debate?

The A&E debate constituted a "great divide" and spawned a wide-ranging and quite interdisciplinary constellation of arguments that helped to define the "first wave" of green theory and environmental politics. It gave remarkable nuance and texture to important ethical issues. But it also led to weary exhaustion and even a rejection of the premise that the debate was worthwhile. By the late 1990s and early 2000s, theorists began searching beyond the dogmatism of the A&E debate and sought refuge in various types of pragmatism and appeals to "democracy." Currently, the A&E debate is often seen to be a relic of an older time. But how could something that was once so prominent, so fundamental, now be seen as so archaic? These

days, many claim that the debate is a relic because we *now know* that people are not separate from nature. Since the debate was based on the false premise that culture and nature are separate, the whole debate was flawed. Case closed. Even undergraduate students now make this kind of statement casually and uncritically. In their reflexive gravitation to what "works," they show a remarkable unwillingness to think theoretically about reasons for protecting nature and different ways of relating to nature. Oftentimes the task of theory, especially in pragmatic times, is to open up and expose problems to critical scrutiny, to provide food for thought, and not just offer "solutions."

I'm convinced that there is more to the story than simply a misguided premise. I think there is a largely overlooked empirical history that impacted the desire to get past the debate. Aside from its essential contestedness as normative theory, the debate played out in actual environmental policy, particularly as conservation regimes established on ecocentric grounds went global in the 1970s and 1980s. The social justice critiques that emerged in response to the globalization of conservation cast a unique light on the A&E debate, one that sharpened arguments for anthropocentric environmentalism by pointing to the social experience of people whose livelihoods and, in some cases, residency, were impacted by new forms of ecocentric environmental governance. The historical experience that helped forge these social justice critiques of conservation regimes did much, I argue, to push green political theory beyond abstract ethical debates between anthropocentrism and ecocentrism. In doing so, the social justice critique of conservation helped to productively move the A&E debate from ethics to politics. Why did this happen and what did it look like? And further, though the shift from ethical to political discourses is salutary, why is it a mistake to throw the baby out with the bathwater and forget the A&E debate altogether?

Part II: Social Justice Critiques of Global Conservation and the A&E Debate

All nature conservation and environmental management are inevitably projects in politics.
– Charles Zerner

Sustainability is another word for justice, for what is just is sustainable and what is unjust is not.
– Matthew Fox

Politics of Globalizing Conservation

An under-appreciated reason as to why the A&E debate moved from ethical to more political terrain has to do with the social justice critique of actually existing conservation regimes. Indeed, one of the most challenging questions for biodiversity advocates, who often rely on ecocentric rationales in their work, is the question of whether biodiversity politics could be effectively democratized – whether protecting nature and promoting social justice are compatible. This question – whether explained in terms of the treatment of marginalized communities, poverty alleviation, stakeholder inclusion, or distant environmental management by elites – gave the A&E debate a new dimension, that of empirical experience and concomitant historical criticism. Disagreement between "anthropocentric" or "ecocentric" values opened up fault lines in specific areas of biodiversity politics, such as protecting endangered species, bio-prospecting, debt-for-nature swaps, sustainable development, integrated conservation and development projects, community conservation areas, and ecotourism, to name a few. I contend that it took the convergence of several different social justice critiques of extant conservation regimes to push the A&E debate away from de-contextualized ethical discourse and toward a more politically pragmatic approach focusing on democratic outcomes.

There is a sense amongst conservationists of a race against time, and so the protected area (PA) approach has been used globally with notable success. PAs have greatly expanded in number in the past fifty years. There are now over 100,000 PAs in the world, covering roughly

11.6% of the earth's terrestrial surface and 1% of the oceans.[209] By way of comparison, in 1960 there were only 1,000 protected areas covering only a small fraction of the earth and virtually none of the oceans.[210] The IUCN, which has created an officially recognized classification system for PAs, defines a PA as, "A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values."[211] Different kinds of PAs serve different goals. The IUCN's system includes six categories: (I) Strict nature reserves – for scientific research or wilderness protection, (II) parks, (III) monuments, (IV) habitat/species management, (V) protected land or seascapes, and (VI) resource management zones.[212] Most of these are governed by science-based management principles and supported in the main by "big international" conservation NGOs (hence the acronym BINGO). The proliferation of PAs in remote areas has also lead to a movement to link PAs across state boundaries, known as "transboundary conservation." These efforts are evident on all continents, particularly in Africa. It includes the special case of Antarctica, which is basically a giant international PA.[213]

While modern conservation through a PA approach has been around for nearly 100 years, especially in the United States, global conservation really spread in the 1970s and 1980s, with largely ecocentric rationales. In general, conservation regimes have been backed by Northern NGOs, and wealthy donors sought to "save" nature from inexorable development in a world increasingly knit together by economic globalization. But conservation has also been a state-sponsored strategy aimed at strengthening the sovereignty of national institutions by creating new kinds of legitimacy both internally (for domestic purposes) and externally (for the international community). This shift in legitimizing state sovereignty appeals to the global environmental community, as political scientist Ken Conca argues, which now expects states to

provide forms of environmental governance.[214] In other cases, the only effective governance in large areas of "weak states" is through conservation zones managed by foreign environmental organizations.

The creation of these regimes did not come without political friction and, in some cases, violent resistance. With PAs came enforcement tactics, forced dislocations, and the criminalization of customary practices collectively known in the literature as coercive conservation.[215] Conservation regimes often had this kind of shadow history, particularly, though not exclusively, in the global South. These tensions helped to crystallize the idea that environmentalists, especially Northern environmentalists, are interested in protecting "nature" and not "people." This perception is particularly sharp in the global South and in countries with sensitive postcolonial politics. But it is also a constitutive feature of environmental politics in the global North, principally when "jobs" are at stake.

The globalization of conservation thus raises a number of important questions. If conservation biologists are right and habitat destruction is overwhelmingly the main causal variable of species loss, then it seems clear that restricting human activity, sometimes severely so, in key locales is good for species and ecosystems. But is it good for people, and if so, why? Are biodiversity protection, human economic needs, and social justice complimentary? These questions take on particular urgency considering that complex cross-currents of knowledge, sovereignty, uneven power relationships, and emerging ideas of transnational ecological citizenship are helping to put global conservation politics in new frameworks of meaning. No longer merely local issues, global conservation efforts become a new way to address problems that are seen from a planetary perspective. One might intuitively think that preserving healthy

ecological conditions would be an unqualified public good that benefits all, but the reality is that conservation is deeply controversial.

Direct impact of the globalization of conservation is particularly felt by many of the world's approximate 4,500 (remaining) self-described indigenous cultures, or roughly 370 million people.[216] The traditional homelands of these cultures, which cover 20% of the land surface on earth,[217] has become contested terrain between global *economic* forces (with concomitant trade rules, interests, and international agreements), and global *environmental* agendas that see in these undeveloped lands an opportunity to protect habitat before it is likely to be transformed by cultivation and extraction.[218] Furthermore, a recent focus of BINGOs has been on protecting biological hotspots – the mega-concentrations of biodiversity mentioned in Chapter 1. Since these hotspots are also home to significant human populations – often poor, marginalized, and indigenous communities that lack clout to resist development from outside, whether from national governments or global corporations – questions of social justice become acute.

Recent historical experience gives good reasons for skepticism that environmental and social goals can be complimentary. In particular, ecocentric approaches to conservation, which animated strategies exported by Northern environmental groups from the 1970s through the 1990s, tended to ignore social issues. Many still do, though there is more awareness that "people" are also a part of "conservation." As environmental historian Ramachandra Guha writes in *Environmentalism: A Global History*, the "wholesale transfer of a movement culturally rooted in US conservation history can only result in the social uprooting of human populations in other parts of the globe."[219] But it should not be read into this narrative that only Northerners are concerned with protecting the environment, while Southerners desire only development. This

has been a common misreading that characterizes environmentalism as a middle or upper-class preoccupation in affluent societies more concerned with "post-material" values. The political scientist Ronald Inglehart claims that environmentalism is a leading example of the "post-material" thesis, which posits that politics in affluent societies has moved away "from giving top priority to physical sustenance and safety (and) toward heavier emphasis on belonging, self-expression, and quality of life."[220] In this view, environmentalism is disconnected from materialist conceptions of social justice. But "environmentalism" means more than the post-materialist thesis would suggest. There are materialist imperatives in *both* Southern and Northern environmental movements. Indeed, there have long been environmental movements in the global South, many notably spearheaded by women. Some examples include Chico Mendes's organizing of rubber tappers in Brazil; Medha Patkar's Save the Narmada Movement, which protested against dam building; and Wangarri Maathai's Green Belt Movement, which sought to combat deforestation and desertification in East Africa. In Northern countries, the recent emergence of the environmental justice movement (EJ) has emphasized a vital connection between ecological and materialist versions of social justice by focusing on remedying environmental harms like pollution, toxic waste, and unfair zoning issues in poor communities.

At the same time, there are differences in emphasis between many Northern and Southern environmentalists. Guha usefully distinguishes between the "environmentalism of the rich" and the "environmentalism of the poor." The former focuses on "the rights of plants, animals, and wild habitats," while the latter is primarily a question of "social justice, of allowing the poor to have as much claim to the fruits of nature as the powerful."[221] In terms of the narrative put forth in this chapter, the globalization of conservation regimes supported by Northern greens is an example of an "environmentalism of the rich" capable of putting ecocentric principles into

practice regarding biodiversity or species conservation. The optics of this arrangement gave new grist for the anthropocentric critique of ecocentric environmentalism as indifferent to the needs and interests of communities in the global South. Subsequent criticism provided empirical leverage for anthropocentrists to criticize ecocentric environmentalism. This history helped pull the A&E debate down from the realm of lofty discourse and into a politics of global conservation that crosscuts with contemporary debates about development, debt, and sovereignty.

A number of empirical cases give texture to the social justice critique in interesting ways. The political scientist Nancy Peluso writes about a tendency to militarize conservation zones in Indonesia and Kenya, tactics that echo colonial practices.[222] In India, tension between conservationists seeking to protect dwindling populations of tigers and tribal peoples – 325,000 of whom live inside "tiger sanctuaries" – prompted a remarkably vigorous national debate in 2005 over whether tiger *and* cultural conservation is possible.[223] In Thailand, some Karen, Hmong, Akha, and Lau "hilltribe" communities have been forcibly relocated as new national parks have been created in recent years. With financing from Global Environmental Facility (GEF – the environmental wing of the World Bank), the Thai government has created a large network of new national parks in the last ten years alone, in part, it seems, to control restive minorities and expand tourism.[224] The rhetoric of "conservation" in these and other cases serves an ulterior purpose and might appear to be new. But, in fact, this strategy of using conservation to gain control of frontiers has a long history, particularly in North America.[225] It is ironic that in order to protect "wild" places they must first become governable. The political scientist James C. Scott in *Seeing Like a State* argues convincingly that in order to govern, modern states must first make its territory "legible."[226] Conservation can be seen as a new technique of power which allows states to expand their hegemony.

The proliferation of PAs can be explained differently in other contexts. In China and Japan, for example, PAs are almost exclusively about tourism. Anyone who has climbed Mt. Fuji notes the dissonance of sublime volcanic viewscapes and *jido-hanbaiki*, vending machines that sell all sorts of drinks and snacks. In China, parks are often leased by the state to entrepreneurs who manage them as business enterprises.[227] In Latin America, PAs are often explicitly focused on ecotourism, with a predominant focus on international tourists. In Africa, many PAs are overlaid onto colonial game reserves.

The Social Justice Critique of Conservation Regimes

As we can see, the politics of conservation regimes "gone global" is complex. I argue here that four lines of critique coalesce into what I call the "social justice critique of ecocentric conservation." These are the "dehumanizing" critique, the "ecocratic" critique, the "enforcement" critique, and the "misplaced value" critique. The dehumanizing critique challenges the wilderness vision of an ecocentric conservation philosophy. An ecocentric conservation approach tends to hold to the view that core portions of a PA should be unpopulated by people, though limited human habitation in buffer and transition zones may be permitted. This critique points out that re-mapping an area to be "protected" suddenly makes people appear invisible and habitation no longer possible. Additionally, restriction on traditional use of natural resources, such as hunting, firewood collection, or honey-tapping, may be redefined as "criminal."[228] At its bleakest, this aspect of the social justice critique draws attention to fears that behind calls for robust ecocentric conservation measures is a dehumanizing indifference to human presence. And given that many PAs are home to illicit networks of narcotics traffickers and insurgent groups, customary practices are restricted even further.

The second aspect of the social justice challenge is the ecocratic critique. This takes aim at power disparities in how conservation regimes come into being and portrays outside organizations as ecocratic because these regimes are imposed from the top down and not the bottom up. Since most of the conservation regimes that have emerged in the past 20 years are heavily funded by BINGOs or international institutions like the Global Environmental Facility (GEF), there has tended to be a democratic deficit between how regimes are designed and how they are managed on the ground. Another aspect of the ecocratic critique highlights the "global" reasons for the proliferation of PAs. Whether under the banner of environmental concerns for global biodiversity, the "common heritage of mankind" standard in international law, ecological security, or corporate interest in profits to be made through bio-prospecting, a uniting concern is the feeling that important decisions are made elsewhere, from above, by self-styled ecocrats acting with putatively "global" interests in mind.[229] Eco-feminist Vandana Shiva captures the ecocratic critique well when she writes,

> (In) the moral framework of the global reach … There are no reflexive relationships. The G-7 can demand a forest convention that imposes international obligations on the Third World to plant trees. But the Third World cannot demand that the industrial countries reduce their use of fossil fuels and energy. All demands are externally dictated – one way – from North to South. The 'global' has been so structured, that the North (as the globalized local) has all rights and no responsibilities, and the South has no rights but all responsibility.[230]

This fear of an "ecocracy" operating in the name of "one earth" is quite prevalent and is a way to critique Northern hegemony by illustrating the marginalization of traditional ecological knowledge (TEK) and the rupture of customary practices in local environments. As Wolfgang

Sachs argues in *Global Ecology and the Shadow of Development*, "planetary knowledge" wipes out local claims to sovereignty and control because, "after all, has there ever, in the history of colonialism, been a more powerful motive for streamlining the world than the call to save the planet?"[231]

The third social justice critique concerns how PAs are enforced. This can be broken down in two main ways. First, as previously mentioned, states sometimes justify coercive methods in the name of conservation.[232] A state's invocation of sovereign rights to its natural resources often involves denying customary rights of tribal or minority groups. Global environmental groups are then criticized for remaining silent about this enforcement process because of their single-minded concern for saving species or ecosystems, giving further evidence to those who think that conservation is primarily about protecting "nature" and not "people." If customary rights are recognized, they tend to be limited to resources derived from the land rather than the recognition of traditional commons rights to the land, forest, or fishing grounds as such.[233]

The other issue concerns ecotourism. Ecotourism has become the fastest growing sector of the global tourism industry, which is one of the fastest growing sector of the global economy.[234] Ecotourism is seen by many greens as a linchpin that can integrate conservation and development. But who really benefits from ecotourism? According to West et. al, 90% of coastal development in Belize, 61% of hotels near Royal Chitwan National Park in Nepal, 80% of Costa Rica's beachfront property, and 100% of the safari companies operating in the Central Kalahari Game Reserve in Botswana are owned by foreign interests.[235] The lion's share of benefits from these and many other cases go to foreign interests or government elites, not to local people. This is not to say that ecotourism cannot work in principle. Many models of ecotourism

are certainly better than unbridled tourism that has no pretension to ecological sensitivity at all. But ecotourism largely remains an unfulfilled promise.

The fourth social justice challenge to global conservation is what I call the "misplaced value" critique. This is the idea that by "incarcerating nature" as a monument with specific geographic boundaries, psychological license is given to transform without limit all that lies outside this space. People are then lulled into thinking that "nature" is protected if there are enough parks, sanctuaries, or refuges somewhere else. "Nature" becomes identified with these protected spaces and not with others. As Rebecca Solnit succinctly puts it, "To say that Yosemite is Eden is to say that everywhere else is not."[236]

Another implication of the misplaced value critique is what environmental historian Roderick Nash calls the "irony of victory." He writes, "The increase in appreciation of wilderness threatened to prove its undoing. Having made extraordinary gains in the public's estimation in the last century, wilderness could well be loved to death in the next."[237] "Being in nature," in other words, becomes a crowd experience. To this mentality, having an experience in nature can only happen in places far from human-dominated environments, and not in cities, suburbs, or rural landscapes. In the end, the misplaced value critique argues that dualistic thinking between "nature" and "culture" is perpetuated spatially and in altogether unhealthy ways.

These social justice critiques of ecocentric approaches to conservation have had real impact on efforts to protect biodiversity and marked a democratic turn in the politics of biodiversity protection. This is most perceptible in the rhetoric of major global environmental initiatives about participation and stakeholder inclusion, even if real progress on the ground fails to match the rhetoric. Among many possible examples, the 1987 Brundtland Report promoted

the concept of sustainable development and the harmony between environmental, social, and economic goals. The 1990 Forest Peoples Programme challenged conservation governance that ignored local land rights. The 1992 Fourth World Parks Congress declared that the "establishment and management of protected areas and the use of resources must be socially responsible and just."[238] The Convention on Biological Diversity backed away from seeking strong mechanisms of global governance by affirming national sovereignty over exploitable resources and links biodiversity protection explicitly with economic development.[239]

These social justice critiques collectively did much to democratize conservation discourse and move it away from justifying conservation regimes solely according to ecocentric principles. And though the jury is still out on the degree to which it has democratized conservation praxis, for it has at least done so on the surface, how deeply remains to be seen. But given the enormous challenges of effectively including powerless and marginalized groups in modes of environmental governance that are historically quite new, it is clear that these historical experiences have impacted debates that connect conservation, development, and social justice.

As a result, the impact of the social justice critique of conservation is wider than conservation *per se*, for social critiques of ecocentric conservation have influenced the field of green political theory and the A&E debate. I contend this is especially propitious for emerging theories of green deliberative democracy, to which I now turn.

Part III: Deliberative Democracy and the A&E Debate

What was wrong with the A&E debate from the beginning was the premise that a particular orientation to either nature or culture should serve as the basis for deriving political points of view. But as green political theorist Val Plumwood convincingly argues, the search for

a "single oceanic theory" doesn't have to lead to isolationist stances and "the choice between reducing other critiques (and) being reduced by them is a false one. The barriers to synthesis are political, not theoretical."[240] What this means is that instead of conceiving biodiversity protection as historically and conceptually beyond anthropocentrism and ecocentrism, green theorists would do better to think of biodiversity advocacy as a democratic project that provides a political context in which different conceptions of ecological and social justice are engaged – conceptions that are often inescapably anthropocentric or ecocentric. The problem, again, is not anthropocentric or ecocentric reasoning *per se*, it is anthropocentrism and ecocentrism *as a foundational source of values and politics*. Instead, a non-foundational approach to biodiversity protection is what is needed, one capable of embracing, not rejecting, value pluralism.

A green version of deliberative democracy is uniquely positioned to take up this challenge. How can a deliberative democratic approach represent a more flexible and less dogmatic way of realizing ecological and social values? An important reason why deliberative democracy is important to biodiversity politics is because it avoids ethical monism. As the legal theorist Christopher Stone argues in the classic *Do Trees Have Standing*?, monistic theories begin from a single moral framework from which singularly correct answers are derived.[241] As we've seen, biodiversity advocates, along with anthropocentrists *and* ecocentrists who rely on monistic theories, have sometimes been guilty of this by promoting one rational, scientifically-based model that is universally available for export. Instead, a deliberative democratic approach would emphasize the diversity of conservation values that are inherent in biodiversity conservation as a political project. Without a precondition that demands a homogenous ethical language, whether duty, consequentialist, or virtue-based, we are liberated explore innovative and inclusive political possibilities.

A theory of deliberative democracy distinguishes between different kinds of rationality. Habermas' distinction between "system" and "lifeworld" can help clarify this distinction. To Habermas, a system is guided by a goal-oriented, strategic rationality that assesses political discussion in instrumental terms. The rationality that guides this approach is concerned with realizing a pre-conceived goal in a given context. In biodiversity politics, the best that can be hoped for in this model is compromise between private interests, and this tends to not be good for ecological flourishing. As Val Plumwood puts it, "In this process, as is easy to show in the case of forests and biodiversity, it is very difficult to maintain environmental values over the long haul."[242] A "lifeworld," on the other hand, is guided by a communicative rationality that emphasizes discussion, socialization, and a willingness to learn, which models the back and forth of a good conversation. The significance for biodiversity politics is that communicative rationality has the power to change perspective, particularly regarding issues of ecological and social justice. But, of course, effective communication is not easy to accomplish. As political theorists like Nancy Fraser, Michael Walzer, and Iris Marion Young can attest, communication requires committed attention to issues of redistributive justice, complex equality, and diverse ways of speaking.[243]

Major figures in the field of *green* political theory illustrate the move away from ethics and toward politics by consciously rejecting the A&E dichotomy as a choice that must be made before theorizing green politics. Green political theorists like John Dryzek, Robyn Eckersley, Graham Smith, and Tim Hayward reject the presumption of this choice and help us to think about the extinction predicament as a matter of democratic theory. John Dryzek in "Political and Ecological Communication" argues that communication is not simply restricted to the Habermasian communicative ideal, which stipulates that only rational subjects capable of

deliberation. Instead, Dryzek hopes to "rescue communicative rationality from Habermas."[244] For Dryzek, "We can best explore the prospects for an effective green democracy by working with a political model whose essence is authentic communication rather than, say, preference aggregation, representation, or partisan competition."[245] And so, Dryzek argues, the key would be to treat "political and ecological communication" as "extending to entities that can act as agents even though they lack the self-awareness that connotes subjectivity. Agency is not the same as subjectivity, and only the former need to be sought in nature. Habermas treats nature as though it were brute matter. But nature is not passive, inert, and plastic. Instead, this world is truly alive and pervaded with meanings."[246] Dryzek is particularly interesting here because he insists that this sort of communicative rationality is takes many forms. Quite a bit of real communication is non-verbal – body language, facial displays, pheromones, and music, for instance.[247] To skeptics of this view of agency in nature who require proof that it exists, Dryzek is blunt: democratic theory is not founded on scientific proof, period. He is worth quoting at length on this point:

> When it comes to the essence of *human* nature, political theorists can only disagree among themselves. To some, a utility-maximizing *homo economicus* captures the essence of human nature … (to sociologists), it is a plastic, socialized conception of humanity in which there are no choices to be made, let alone utilities to be maximized … (to critical theorists it is) a communicative and creative self; (to civic republicans it is) a public-spirited and reflective self … My general point here is that when it comes to ecological democracy … we should not apply standards of proof which no other democratic theory could possibly meet.

Dryzek's approach is stimulating because it is a serious attempt to expand the concept of the political to include nonhuman nature through a theory of agency and communication.

Robyn Eckersley is a strikingly interesting figure in the A&E debate. Her first major work, *Environmentalism and Political Theory: Toward an Ecocentric Approach*, mapped the A&E debate with theoretical nuance and defended ecocentric principles from the anthropocentric critiques.[248] Now she takes a different approach, at least in degree, if not kind. In "Ecocentric Discourses: Problems and Future Prospects for Nature Advocacy" and *The Green State*, Eckersley argues that the A&E divide has lead to "zero sum" outcomes and that the "second wave" of green political theory is *defined by* its rejection of the A/E distinction.[249] At the same time, Eckersley rightly concedes that "environmental pragmatism," which emerges in the wake of the A/E impasse and is where the "second wave" of green political theory seems to have settled, is really a bundle of arguments based in anthropocentric reasoning. The environmental pragmatist argument emphasizes the "humanist credentials" of green thought, such as stewardship, virtue, and the legitimate use of nature of for practical human purposes.[250] To Eckersley, this is not necessarily a negative development, but nature advocacy should be based more in what she calls "critical political ecology." This focus sees the domination of nature as necessarily tied to the domination of certain groups over others and by the insidiousness of impersonal social and economic systems. Some social classes, she argues, have achieved a "parasitical transcendence" from both other humans and their ecological contexts that results in a comfortable moral vacuum that appears to shield their lifestyles from the effects of biophysical degradation.[251] The radicalization of democracy and the work of developing a critical political ecological approach, she insists, can perform the twofold move of reducing social injustice and promoting ecological values.[252] Critical political ecology is not reducible to either

anthropocentrism or ecocentrism but in important ways can reflect both of these orientations filtered institutions of through institutions of "strong democracy."

Green political theorist Graham Smith also explicitly advocates for a deliberative democratic approach to green politics in *Deliberative Democracy and the Environment*. To Smith, anthropocentrism is unavoidable but human-centeredness can be enlightened. Though humans assign value, we are not the only ones who *have* value.[253] Moreover, the range of human values, he rightly insists, covers a wide spectrum that legitimately encompasses the mystically ecocentric to the narrowly anthropocentric. These values can alternately be aesthetic, scientific, spiritual, cultural, and economic.[254] Instead of attempting to prove the existence of intrinsic values, which more often than not are merely assertions about such values, recognition of the power of awe and wonder in the natural world can be enough.[255] The trap of valuing nature only because it is intrinsically "good" for us can be sidestepped by keeping alive the capacity to be awed by the alterity of the natural world, which compels a powerful kind of respect. Furthermore, deliberation means encountering the perspective of strangers and embracing difference. Drawing on Arendt's ideas that entering the public sphere can be surprising, self-disclosing, and helps to create an "enlarged mentality," Smith persuasively argues that a deliberative democracy can enable transformative experiences that profoundly impact how one experiences green values.[256] The possibility of modifying or changing one's worldview through deliberative democratic conversation is an important reason to engage in questioning relationships of ecological and social justice.

Another green political theorist who advances a green version of deliberative democracy is Tim Hayward. In his book *Political Theory and Ecological Values*, Hayward seeks to expand the concept of liberal *self-interest* to include a broad range of ecological values and human

interests that are necessarily diverse.[257] Because the concept of "self-interest" in behavorialist social science often amounts to egoism, this is a difficult challenge. Liberalism, for instance, tends to respect only narrow, specific "interests" formed by rational actors. But Hayward intriguingly argues that the liberal concept of self-interest can be ecological. The key is expand the concept of "self" considerably so that enlightened forms of self-interest can emerge. The "self" to Hayward should be less understood as an atomistic individual and more as an intersubjective subject that, through deliberation, can be the locus of justice, solidarity, and care in liberal theory.[258] Moreover, "interest" need not be pre-figured or pre-political, as he insists that it is not necessary, or desirable, to have clear teleological goals that guide democratic conversation.[259] Hayward is right to emphasize that a democratic approach should admit a critical discussion of both interests and values and I think he is right to focus on an elastic conception of self-interest.

If a green version of the deliberative democracy model can support biodiversity protection as a democratic task, then it necessarily admits to the conversation a spectrum of anthropocentric and ecocentric values without the need to choose an ultimate foundation. The question of whether environmentalism means saving nature for people or saving it from them becomes unnecessary, for it is both at the same time. Agreeing on practical outcomes need not require agreement on philosophical principles. And pragmatism in biodiversity politics should not avoid the articulation of principles and values. A deliberative democracy approach to biodiversity politics thrives when these conversations are expanded and not cut short.

Importantly, attempts to articulate distinctively *ecocentric* values are under a subtle threat because the move to "democracy" can be seen as a victory for anthropocentrism in a new guise. This is a primary reason why green theory should not abandon the A&E debate, for it should not

abandon ecocentric perspectives. If this happens, the ecological imagination shrinks and the Nietzschean notion that there is not one way to view the world, only multiple perspectives, is impoverished. The position that the A&E debate is no longer relevant to contemporary green theory masks arguments that still appeal at their core to anthropocentric and ecocentric reasoning. Ignoring the A&E debate, therefore, is an error of omission and we miss an opportunity to constructively build on it through a deliberative democratic approach. The continuum of anthropocentric and ecocentric argument is constitutive of a deliberative politics of biodiversity protection because it gives voice to the range of values that people actually hold. Not acknowledging these values is problematic because it frustrates democratic discourse. Further, not admitting that the A&E debate is still relevant forecloses possibilities, not known in advance, that may yet transcend political divides. Sustainability, issues of poverty, and indigenous rights have become environmental concerns in ways they simply weren't a generation or two ago. This is a positive development, as species loss isn't just about biodepletion: it is about a complex array of social, cultural, and historical factors. The sooner these are discussed in all their multiplicity the better.

Biodiversity politics is particularly vulnerable, however, to two communicative problems, problems, incidentally, that can only be ameliorated by better communication. One is the idea that in a deliberative democracy a divide emerges between what philosopher Bruno Latour calls the "noisy" and the "quiet."[260] Those who speak are capable of speaking, and those who speak loudly are ones who are heard. Those who can't speak aren't listened to, and those who speak quietly aren't heard well. As political theorist Carol Pateman points out, "one of the best attested findings in political science" is that socially privileged groups tend to be the most politically active.[261] Furthermore, it is socially privileged groups that are least likely to be directly harmed

by environmental problems. Interestingly, this cuts two ways. On one hand, the "noisy" refers to, as it most often does, the primacy of human interests in the contest over exploiting or preserving nature. But, interestingly, "noisy" interests on behalf of certain charismatic species, as in the case of tiger sanctuaries in India or elephant protection in Africa, can sometimes trump politically marginalized human communities.[262] The second problem of deliberative democracy is the issue of humans speaking for nonhuman nature in a politically relevant sense. Though we've seen through Dryzek's work that is possible to be open to "ecological communication," nature is still represented through human channels. To what extent are there "communicative distortions," as Habermas calls them, in this process and what do they look like?

A final danger concerns the assumption by many economists that markets provide a "natural" solution to many problems. This is a major challenge for biodiversity politics. For instance, the conversation that tends to dominate public discourse in many democracies today is fundamentally tethered to a politics of economic growth. This prism defines social justice primarily in terms of spreading the benefits of unlimited economic development. A main casualty of this conception of democracy is the ability to argue for environmental values, like biodiversity, unless they can be proven to fit a cost-benefit calculus. Of course, deliberative democratic theorists emphasize that these outcomes are precisely what effective deliberation is designed to avoid. A deliberative democratic approach should be able to resist a conception of democracy guided by a political climate where only economic factors determine the weather, but market economism is insidious and difficult in practical terms to overcome.

Michael Walzer masterfully describes this problem. As he argues, the greatest danger to democracy is that it is too weak to cope with what he calls "domination." Domination is expressed by the monopoly of social goods by those who can easily convert economic resources

to purchase the social goods of other spheres of life, such as better educational opportunities, higher quality medical care, leisure, love, favorable political legislation, more effective defense of rights and freedoms, etc.[263] In contrast, Walzer convincingly argues, different spheres of society need boundaries to prevent domination and the entrenchment of social classes. As there are no absolute standards of justice to adjudicate different spheres of public goods, the "morality of the bazaar" must be vigilantly contained in the bazaar.[264] This task grows more daunting as in the shadow of economic globalization the world becomes a bazaar and the bazaar becomes the world. Globalization doesn't just mean this, of course, but one danger is that an economic calculus becomes the dominant way to bridge pluralist divides.

A practical example of this problem in biodiversity politics concerns megafaunal conservation in Africa. *The Economist* ran an article in 2010 with the provocative thesis that if wildlife is to have a future on the continent, "Wildlife must pay its way."[265] In other words, unless the value of conservation can be properly monetized through expanding hunting and getting rich donors to pay small farmers, conservation measures are doomed to fail. To be sure, the politics of PA conservation are complicated in Africa, laden as they are with a history of colonial policies, the politics of development, and the increasing "militarization" of some protected areas. But the notion that conservation is not worth it unless it "pays its way" is too great a concession to the econometric reasoning of the marketplace.

On the surface, Wangarri Matthai, the Nobel Prize-winning Kenyan environmentalist, seems to make a similar argument about making wildlife "pay its way" when she links conservation with human needs. She insists that:

> If you want to save the environment you should protect the people first, because human beings are a part of biological diversity… It is ironic that the poor people who depend on

> the environment are also partly responsible for its destruction. That's why I insist that the living conditions of the poor must be improved if we really want to save our environment.[266]

Indeed, the vital issue of balancing human needs and effectively protecting biodiversity is at the heart of the extinction predicament. However, there is an important difference between the market-liberal position of *The Economist* and the one taken by Maathai. This difference rests on the role of the market in determining local use rights and conservation outcomes. To *The Economist*, a sacrosanct market-based approach that is open to all the flows that come from open borders and the liberation of capital is the solution to the *problematique* of rural poverty, environmental degradation, and conservation objectives. To Maathai, this kind of large-scale development is part of the problem. She comments,

> Unfortunately, for many world leaders, development still means extensive farming of cash crops, expensive hydroelectric dams, hotels, supermarkets and luxury items, which plunder human and natural resources. This is shortsighted and does not meet people's basic needs – for adequate food, clean water, shelter, local clinics, information and freedom.[267]

To subject the diverse values of public spheres to a baseline market-test is a Habermasian communicative distortion and what Walzerians would label a form of domination. State-centered development models that are intertwined too closely with the institutions of economic globalization pose a major threat to biodiversity protection. In fact, biodiversity loss is happening most rapidly in countries like Australia and the emerging economies of Mexico, Indonesia, China, and Brazil, which are intimately connected to global markets and leverage the extraction of their natural resources with remarkable efficiency.

The emphasis on "democracy" as a way to position biodiversity protection and social justice should be prepared to acknowledge the reality that "democracy" is often mediated by economic outcomes. The de-centering that needs to take place is not human presence in biodiversity politics but the primacy of economic reasoning. Utilitarian cost-benefit analysis should not be the only pragmatic outcome that mediates an environment of democratic pluralism. This is not easy. As postmodern cultural critic Slavoj Zizek quips, "So the paradox … (is) that it's much easier to imagine the end of all life on earth than a much more modest radical change in capitalism."[268] We need to find ways to articulate values politically without falling into the economic abyss, on the one hand, and the chasm of rigid ethical perspectives on the other. Deliberative democracy is another form of "ridgewalking."

Conclusion

This chapter has sought to historicize the A& E debate and think through the hazards of *both* anthropocentrism and ecocentrism as the bases for a foundational approach to biodiversity politics. The dialectic of the A&E debate interestingly parallels the emergence of the social justice critique of conservation regimes and should be recognized as an important factor moving the field of green political theory from ethics to politics. I argue that it was simply impossible to forge agreement on the foundational principles of what protecting the environment was for – people or nature. This led some to reject the A&E debate altogether, dismissing it as more heat than light. But though it became wearisome to endlessly argue about whether nature had *intrinsic* or *instrumental* value, that there was not a satisfactory resolution to the debate didn't mean that the debate wasn't valuable or that its nuances don't continue to nourish thinking about

the extinction predicament. In fact, I think it helps to create *more* not less space for political thinking.

New terrain in conservation politics reflects these historical shifts and opens up opportunities for a deliberative democratic approach that reflects value pluralism. Operating in more of a political than an ethical mode means that there need not be agreement on principles before there is agreement on action. Of course, values and principles remain important, but in an inclusive political space opened up by a deliberative approach to arresting species loss there is more room to express a multiplicity of values from standpoints that are not rigidly anthropocentric or ecocentric. Exploring biodiversity protection through deliberative democracy creates room for thinking through when ecological and social justice can be complimentary, and when they cannot. That is to say, the discussion should be less about abstract ethical absolutes and more about political relations between humans and non-human nature. The move from ethics to politics in protecting biodiversity opens up possibilities that were not previously available. As I will argue in chapters 3, 4, and 5, we need to be prepared to recognize multiple ethical grammars. In the next chapter, I will critically examine the concept of freedom and responsibility in the context of the extinction predicament.

Chapter 3
Limits of Freedom and the Freedom of Limits

But limits nonetheless exist and we know it.
– Camus

E.O. Wilson has remarked that most of the 20th century was "too busy to notice" that the earth had finite limits. Ecosystems were transformed and resources consumed with "cheerful abandon" on a scale previously unknown in history.[269] Both capitalist and socialist economic systems ignored ecological limits in fundamental ways, and social justice demanded, rightly, improved material conditions for billions of the world's poor. But something happened after the 1960s. What environmental sociologist William Catton called the "Age of Exuberance" was confronted in the early 1970s by a new and eruptive discourse of ecological limits. What did this confrontation look like and what is its enduring significance?

Led by the publication of the book *Limits to Growth*[270] and the sudden emergence of environmentalism as a vigorous new social movement, "limits discourse" challenged the idea of unlimited growth on a finite planet with a counter-narrative of environmental threats that have unknown political, social, and economic consequences. Whether conceived as nuclear annihilation, major species extinctions, or economic and population disruption resulting from overshooting the earth's carrying capacity for food, fuel, and resources, depictions of a dark future portrayed a seemingly inexorable world of constrained choices and radically unfree ways of life. Garret Hardin's "Tragedy of the Commons" and William Ophuls' *Ecology and the Politics of Scarcity* captured this mood well by envisioning a Hobbesian era of penury and authoritarian politics.[271] As Andrew Dobson puts it, "dystopia, then, for political ecology, is written into the dynamics of present social, political, and economic practices."[272] Much of the dystopian element to limits discourse was hyperbolic and bombastic, to be sure. But the

rhetorical style of "doom and gloom" remains a core feature of green politics to this day – as any trip to the environmental section of a bookstore will show. A veritable cottage industry now exists in forecasting ecological, political and social demise among credible green thinkers. Yet despite this challenge posed by "limits to growth," the mentality of exuberance did not go away, and in some respects only got stronger. From the right and the left, "cornucopian economists,"[273] technological optimists, and Marxist critics responded that talk of an approaching "age of limits" was factually untrue, dismissive of human cleverness, and unnecessarily reactionary.[274] The debate about limits to growth hasn't been resolved, though "sustainable development" resembles a nebulous sort of compromise.

The discourse of limits to growth reveals an interesting and under-examined assumption about the relationship between ecological limits, responsibility, and freedom. The assumption is that ecological limits represent a form of hard necessity that restrains "freedom." The implication is that societies will have to undergo painful hardship in the transition from material abundance to material constraints. But is this true? As the contemporary green movement struggles to expand its appeal by truthfully acknowledging dangerous trends while rightfully avoiding doom and gloom rhetoric, it will be served well by re-thinking the relationship between ecological limits and freedom.[275] Reflection about ecological limits, particularly the perils of the extinction crisis, can inspire forms of environmental responsibility guided by creativity and freedom rather than fear and determinism. This chapter shows how earlier work on ecological limits relied on the prospect of an environmentally frightening and potentially authoritarian future to compel social action through fear, whether conceived in biophysical terms that stress self-interest and prudence or as ethical imperatives of responsibility that urge stern duties and obligations. Agreeing that ignoring ecological limits is both imprudent and unethical, I argue

that the emphasis on negative sources of motivation occludes other powerful and more productive ways to frame environmental problems. Although ecological limits imply restricting certain forms of negative freedom – limits do restrict action – they also provide a context in which other modes of ecologically responsible freedom can be cultivated. Just as "necessity is the mother of invention," living in an "age of limits" can be understood as a creative, even joyful challenge to realize modes of freedom that are compatible with ecological responsibility. Viewing responsibility as something created by people through politics, rather than imposed on them as an ethical imperative derived from "nature," taps into a powerful source of political motivation with potentially broad appeal across social and intellectual divides.

The chapter is organized as follows. Part I unpacks the concept of ecological limits in three distinct ways: as biophysical thresholds, as social critique, and as a normative resource. Using the Limits to Growth (LTG) team's "30 Year Update" as an example of what is now a widespread approach of applying metrics of sustainability to biophysical limits,[276] this section shows how systems futurology urges respect for limits through an appeal to prudential *self-interest*. Part II explores the work of Hans Jonas and demonstrates how he derives an ethics of responsibility through a meditation on ecological limits. To Jonas, responsibility is an *imperative* that commands respect for the plenitude of life from a position beyond self-interest. Part III develops my criticism that the source of motivation in the LTG team's research and in Jonas' argument is too negative and prohibitive. The LTG's approach of appealing to self-interest does not develop a rich account of responsibility, while the framing of responsibility as an imperative is insufficiently political. I argue that we should explore salutary connections between ecological responsibility and freedom. I make this argument by assesing the negative and positive freedom tradition in political theory with the help of Isaiah Berlin and Nancy

Hirschmann. Then I examine Richard Dagger's distinction between agency and option freedom, Bryan Norton's work on the possibility of transformational values, and Douglass Torgerson's Arendtian-inspired conception of a green public sphere to sketch an argument for what an ecologically responsible freedom could look like. Finally, I engage the work of Joseph Meeker who avoids interpreting ecological challenges through a "tragic" lens, and intriguingly suggests that a "play ethic" can helpfully encourage adaptive engagement with difficult problems.

The particular issue of the extinction predicament will be emphasized throughout the chapter. The extinction predicament is really about us – our values, choices, and priorities.[277] Successful responses to the predicament lie largely in our sources of motivation, which in turn depend on a sense of freedom and creativity. Because inspiration is diverse, a politics that embraces a variety of sources for conservation – from the cognitive to the affective – is important. Exploring ecologically responsible forms of freedom can help biodiversity advocates transcend the limited effectiveness of appeals to self-interest and the limited audience of an ethical reliance on duty and obligation. A discourse of limits has long been a feature of green politics, but ways in which they are framed should focus more on liberation than limitation.

Part I: Ways to Understand Ecological Limits

It makes far better sense to reshape ourselves to fit a finite planet than to attempt to reshape the planet to fit our infinite wants.
– David Orr

The future whispers but the present shouts.
– Al Gore

Even so, what ecology is may be less important than what it is believed to be…
– Neil Evernden

In *Walden* Thoreau writes, "We need to witness our own limits transgressed, and some life pasturing freely where we never wander."[278] This is an unintentionally remarkable

statement. Thoreau is writing a paean to the value of the wilderness experience, to stepping outside the human world into a different realm of "freedom" in nature. But what if we flipped the quote on its head? What does *human* freedom look like when ecological limits are transgressed? Indeed, we have long associated the notion of transcending self-perceived limits with heightened experiences of freedom and power. But now our limits are co-extensive with that of the world and in this sense the Thoreauean distinction between human culture and wild nature is increasingly blurry. I suggest that "witnessing our own limits transgressed" can mean an invitation to a conversation about what constitutes ecological responsibility.

What are ecological limits and why are they political? Ecological limits are thresholds that reflect complex biophysical, social, and normative views of the human-nature dynamic. Beyond these thresholds lie unknown impacts and feedback loops that are largely impossible to predict, which is why, at the very least, heeding early warning signs when ecological limits are stressed can provide a buffer against unexpected events. Ideas about limits alternately speak languages of objective description (as in the natural sciences) and social construction (as in much of contemporary green theory). Another way of saying this is that ecological limits have quantitative and qualitative dimensions that are bound together. Limits can be analytically disaggregated, but as an environmental problematic they mutually inform each other. When, say, climate scientists argue that 350 ppm of carbon dioxide is a limit that safely prevents global warming from passing a tipping point, it is both a quantitative measure pertaining to atmospheric chemistry *and* a judgment about the social feasibility of restricting emissions.[279] Similarly, what is an "appropriate" level of biodiversity is also constituted by quantitative and qualitative perspectives pertaining to ecosystem dynamics and the social acceptance of environmental regulations.

Ecological limits also illuminate markers of social tolerance and reflect conditions of social injustice. For instance, quantitative and qualitative perspectives are not disaggregated in cases pertaining to human health, as when policymakers with the Environmental Protection Agency make regulations over how many fish can be eaten from a polluted river or how toxic dirt is allowed to be to a child who eats it.[280] What is considered socially tolerable as an ecological limit depends on factors related to subsistence, risk, and social status. Furthermore, the stress of ecological limits is felt differently by class, as much work in the environmental justice literature on pollution, desertification, and deforestation correctly demonstrates. This is to say that how a society defines ecological limits is bound up with issues of class and power.

The popular debate about ecological limits for forty years has been almost exclusively focused on implications for economic growth. This is a legitimate argument, but the popularity of the debate has tended to obscure the wider challenges – and opportunities – that ecological limits represent. Understanding ecological limits exclusively within an economic framework of limits/no growth or no limits/growth severely restricts a broader comprehension of limits themselves. To be sure, the idea of limits helps inform green economic metrics such as full-cost accounting, the triple bottom line, or the examination of ecological shadows.[281] Even the Brundtland Commission, authors of the UN-sponsored landmark study *Our Common Future*, which was responsible for shifting the discourse about limits to one of "sustainability" writes, "But ultimate limits there are, and sustainability requires that long before these are reached, the world must ensure equitable access to … constrained resources and reorient technological efforts to relieve the pressure."[282] This shift away from limits and toward sustainable development, it should be said, is criticized by some greens for employing a concept of "sustainable development" that appears more interested in sustaining economic growth in the face of

environmental constraints than sustaining environmental quality.[283] Certainly, it is not wise to depend on forms of economic growth that rely on expansionist models, especially when they prevent important shifts that need to be made toward homeostatic and steady-state alternatives, which take ecological limits more seriously and may be more equitable in the distribution of material benefits. Indeed, we should be open to the idea that green forms of economic growth that do not intensely exploit nature or leave ecological debt for future generations may be possible.

In any case, an exclusive focus on economic growth obscures a more considered examination of how ecological limits can offer useful heuristics and be a normative source of green political theorizing. How is this so? The concept of ecological limits can be usefully understood in three different ways – as biophysical thresholds, as social critique, and as a resource that informs normative ideals.

Limits as Biophysical Thresholds

Biophysical thresholds are what most people think of as ecological limits. These can refer to ecological conditions that maintain life as we know it, such as clean air, water, and productive land; the stabilization of greenhouse gases in the atmosphere; the ability of the ozone shield to reflect harmful UV light from the sun; or balanced population dynamics to sustain a species or an ecosystem. In the language of systems theory, limits are conceived by calculating *throughputs* for human activities – as resources for use and sinks that absorb waste.[284]

In 1972, the book *Limits to Growth* was published and helped to usher in an era of scientific examination of these biophysical thresholds. The study was unique in that it attempted to look at ecological limits in the aggregate and, consequently, humanity's *collective* impact on the earth's systems. It is hard to underestimate the impact of the LTG analysis had on imagining

environmental problems as global problems. When the limits discourse first gained traction, debate raged over how biophysical thresholds would emerge. The LTG team's predictions cautioned that biophysical limits were not likely to come about abruptly, though they lurked ominously as a backdrop on the stage of human activity. Instead, they predicted a gradual diversion of "more and more capital to cope with the problems arising from a combination of restraints."[285] Though the media and critics salaciously focused on particular scenarios forecasted by the study, like a Malthusian food crisis and population crash, the team was careful to not predict a specific outcome. Indeed, they continue to insist, even now, that the purpose of the project is to simply identify possible scenarios based on the straining of ecological systems and to take *precautionary* action to prevent the worst effects.[286] Once reached, however, biophysical limits could yield a broad spectrum of results ranging from the calamitous to a "smooth adaptation of the human footprint to the carrying capacity of the globe."[287] Their point was emphatic, however: "business as usual" will eventually lead to testing biophysical thresholds on a timescale measured in decades.

In 2002, the LTG team wrote a book reflecting on the thirty years after the publication of the original study. They concluded that they are even *more* pessimistic now than they were then. A main reason for this pessimism is that time was lost and business as usual proceeded in terms of resource use, population growth, and habitat transformation.[288] This pessimism is well-grounded in the case of species loss, as we saw in Chapter 1, and appears so for other biophysical thresholds like climate, soils, and resources like oil. A 2008 paper by Graham Turner from Australia's National Science Agency (CSIRO) largely confirms the LTG's analysis. He argues that, "Thirty years of historical data compare favorably with key features of a business-as-usual scenario, which results in collapse of the global system midway through the 21st century."[289]

Even though, as compared to 1972, more people now grasp both that there are global ecological limits and that human activity can have global impact, the LTG team rightly insists that,

> Still there is little discussion about the general problem of overshoot, little pressure for the technical changes urgently necessary to make throughputs more efficient, and almost no willingness to deal with the driving forces of population and capital growth. The lack of attention to overshoot could perhaps be excused in 1987. But now … it is inexcusable to deny the awful reality of overshoot and ignore the consequences.[290]

In other words, it is past time to spread awareness; it is now time for action because it is in our urgent self-interest.

For the LTG team only "profound, proactive, societal innovation through technological, cultural, and institutional change [would] avoid an increase in the ecological footprint of humanity beyond the carrying capacity of planet Earth."[291] But this approach to understanding limits as objective biophysical thresholds does not give us a clear picture of *what to do* in the face of these challenges. Computer analysis doesn't tell us how and why to act to be more sustainable, though advocates of this approach often assume that their work is prescriptive as well as descriptive, that somehow science on its own leads to clear policy solutions and motivates social change.[292] Indeed, the authors of the *LTG 30 Year Update* admit as much:

> How to bring into being a world that is not only sustainable, functional, and equitable but also deeply *desirable* is a question of leadership and ethics and vision and courage, properties not of computer models but of the human heart and soul. To speak of them … we need to turn off our computers, put away our data and scenarios, and reappear … with insights that have come as much from our hearts and our intuition as they have from our scientific analyses.[293]

In other words, their prescriptive advice comes when they act like environmental political theorists and ordinary citizens, not just systems analysts.

The sort of scientific futurology that forecasts an unfolding "age of limits" in global terms is even more important now than in 1972. However, even though a *global* standpoint is possible and necessary, it is not sufficient. If action is what is needed, we also need a perspective on ecological limits that is closer to a social world of lived experiences, one not reliant on an abstract "humanity" as the agent of environmental change and restoration.

Limits as Social Critique

Understanding limits as a social critique means that we can use them as a mirror to see how ecological stress is produced in the first place. The global focus of systems theory can suffer from too much generality and a lack of political context, obscuring the different ways that ecological limits are caused by problems of class, industry, or gender. As the environmental philosopher Neil Evernden perceptively writes, we may turn to "ecology for an understanding of physical nature, but it can mean more than that; we often look to nature for insight into the state of our social environment as well."[294] To be sure, from a certain ecological perspective, social, political, and historical analysis do not matter. Impact is impact, regardless of cause. Does the climate care where greenhouse gas emissions come from? Do endangered species distinguish between different causes of habitat transformation? Yet at the same time, it is important to contextualize causes and enable social critique, as much of the environmental justice (EJ) literature rightly emphasizes.[295]

On some level, the causes of atmospheric warming, the breakdown of the ozone shield, ocean acidification, deforestation, soil erosion, and desertification are global and generalizeable. Communities in the Arctic suffering from the melting of sea ice or island nations in the Pacific

that may soon be under water struggle to respond to biophysical forces beyond their control. But on another level, factors that stress limits are local. As the environmentalist Lester Brown writes, "Thus far, most of the environmental damage has been local: the death of the Aral Sea, the burning rainforests of Indonesia, the collapse of the Canadian cod fishery, the melting of glaciers that supply Andean cities with water, the dust bowl forming in northwestern China, and the depletion of the U.S. great plains aquifer."[296] It is difficult to know when we are dealing with a global, regional, or local problem, but we should be prepared to understand problems at different levels of scale and to learn how these scales are inter-related.

Furthermore, endogeneity – the direction of change – is not always the same in all places. For instance, as sustainable development scholar Sharachchandra Lele argues:

> One could say that soil erosion undermining the agricultural basis for human society is a case of ecological [un]sustainability. It could be caused by farming on marginal lands without adequate soil conservation measures – the ecological cause. But the phenomenon of marginalization of peasants may have social roots, which would then be the social causes of ecological unsustainability.[297]

In the U.S. context, for instance, soil erosion may not occur as much from social marginalization as the social power wielded by a farm lobby in support of large agribusiness. In other cases, an experience of marginalization takes on a dialectical process, as in Brazil where the government pacifies peasant agitation for land by permitting further clearing of the rainforest instead of the more difficult work of creating more equitable land reform policies.[298]

Another challenging social dynamic is the pressure to utilize resources before they disappear. As *Our Common Future* notes, inequality tends to sharpen once limits approach, further exacerbating social division.[299] This classic Hobbesian situation can be seen when fear

over access to scarce resources compels pre-emptive action by individuals or states. In some cases, military force is used to ensure access to scarce resources – such as oil, water, or other vital interests – even if real limits are unknown. For some resources like oil, ecological limits are protected as state secrets. States and industries in some cases have a strong interest to not make ecological limits transparent. Obfuscating ecological limits in this sense is a kind of statecraft, a practice we may see more of in decades to come.

Finally, another aspect of the social dimension of ecological limits concerns the peculiarly modern nature of "hedonism." As environmental political theorist Marius De Geus characterizes *modern* hedonism in *The End of Over-Consumption*, it is more forcefully appetitive in its intensity, frequency, and length than the classical Epicurean version of material pleasure, and it certainly leaves a greater ecological footprint.[300] In many respects, hedonistic materialism is at the core of modern striving, in rich societies as fact and in poor ones as aspiration. It is thoroughly intertwined in habits of daily life and grows from discursive reinforcement by political, economic and cultural institutions, especially in capitalist societies.

A political discussion of limits, therefore, can be seen as a threat to fundamental ideas about a nation's right to self-determination, development, or "freedom" as such. When the "first wave" of limits discourse received political blowback in the early 1980s, for instance, some of President Reagan's rhetorical power came from explicitly denying living in an "age of limits."[301] At the 1992 Rio "Earth Summit," President George H.W. Bush bluntly remarked that the "American way of life is non-negotiable." The assumption behind both Reagan and Bush's assertions were that limits are inimical to freedom and to America's sense of national and cultural identity. To countries in the global South, ecological limits are seen as a threat to development. Talk of limits is often seen as insidiously freezing rich and poor regions of the

world into current patterns of wealth and power. It should be noted that poorer countries most strenuously argue for liberalized trade and minimized environmental regulations at global environmental conferences.[302]

Ecological limits are an explicit challenge to certain hedonistic modes of satisfaction, some forms of negative liberty, and associated attitudes toward economic freedom, as we will see in Part III. *Pleonexia*, the insatiable desire for more, as environmental political theorist Joel Kassiola points out in *Explorations in Environmental Political Theory*, is too often viewed as an irrepressible force of human nature, as if it is rooted in some innate drive of human nature that cannot be modified.[303] Rather, Kassiola convincingly argues that a social context that encourages irresponsible forms of *pleonexia* is the problem. A discourse of limits can help us to see this social context more clearly.

Ecological Limits as a Resource for Normative Ideals

The third aspect of ecological limits serves as a frame that can shape green social ideals. That is, limits are dynamic, unique frameworks that shape human-nature relationships as we think they *ought to be*. They are dynamic because they change in complex ways according to different values. Limits are ecological boundaries of a world we wish to protect when we imagine a healthy ecosystem, bountiful resources, or sustainable landscapes. These ideals are unique in that they are strongly shaped by particular experiences tied to place, history, class, culture, and job title. Ecological limits in the American West, for example, look different to the particular standpoints of Native Americans, trappers, miners, settlers, immigrants, loggers, artists, recreationists, ecologists, or aesthetes.

The normative construction of ecological limits should be distinguished from ideas of prudence – in which respecting limits is good because doing so provides food, fuel, or medicine.

It is also distinct from the social dimension of ecological limits in that it is not concerned with critiquing how limits are reached historically by uncovering the social forces that stress ecological systems. Instead, thinking about ecological limits is normative and imagines how to properly live in a *place*. Ecological limits can therefore be a source of creative, aesthetic, and spiritual reflection about the world and the human place in it. There is no fixed answer to these pursuits and no original harmony we ought to comply with. As environmental political theorist John Barry puts it, there is no "reading off" hypothesis that predetermines a particular social or political arrangement from examples found in nature.[304] Because limits are not deterministic, we are free, within ecological constraints, to imagine different ways of living respectfully and responsibly in nature. In fact, as I will argue in Part III, limits provide an important context for creativity and freedom.

Linking ecological limits with freedom in this way should not be confused with utopianism – a depiction of life in "no place." Because we can, to a degree, freely create our world according to how we wish it to be doesn't mean that we can create any world that we want or that political reality will ever fully match normative vision. Indeed, neither ecological conditions nor the human condition is subject to "infinite malleability," to use Dobson's phrase.[305] Freedom as "infinite malleability" courses through different varieties of green utopianisms, which may explain why Dobson thinks environmentalism can inspire many different causes yet leave a "confusing political burden."[306] In *Ecological Utopias*, Marius De Geus explores a variety of green utopias that he organizes by the "sufficient" and the "abundant." He examines the classlessness of Thomas More, the radical simplicity of Thoreau, the anarchist mutual aid of Kropotkin, the aesthetic ideals of William Morris, and the stable state economics

of Ernest Callenbach, among others.[307] Utopian thinking can be useful, for it can serve as a guide to inspire in alternative political ecologies to come. As De Geus writes,

> Utopias allow human beings to briefly escape their own society and imagine another one, letting themselves be guided by a political thinker. Readers will recognize the 'enraptured feeling' of fully immersing themselves in a utopian book and letting their imagination take over … [At the same time], present-day utopias can alert us to aspects of our reality that we have long failed to notice, but which may well be important … [Utopias] do not lead to losing one's sense of reality, but can actually foster a heightened insight into it.

De Geus' argument for the relevance of utopian works are important for raising awareness of environmental issues in particular, many of which, as I alluded to in Chapter, are "quiet" problems whose effects unfold over long periods of time. At the same time, the terms "utopian" and "dystopian" carry much freight and do not necessarily characterize, in any case, what a normative view of ecological limits can be. There may be nothing particularly utopian *or* dystopian about a sustainable society that responsibly cultivates respect for ecological limits. Ecological responsibility may in fact be quite ordinary.

Part II: Hans Jonas, Limits, and an Imperative of Responsibility

The irony is that just as philosophy, in response to science, was becoming more narrowly specialized and positivistic, science … was becoming more speculative and uncertain.
– J. Baird Callicott and Roger Ames

How you stand here is important. How you listen for the next things to happen.
– William Stafford

Emphasizing the ordinariness of environmental responsibility is certainly not the approach taken by Hans Jonas. For him it is an ethical duty played out in a metaphysical realm. In this sense, Jonas exemplifies one approach to a normative view of limits – one that derives

ethical responsibility from what he believes is an objective account of ecological challenges, particularly the problem of species loss and biodepletion. Jonas is a neo-Aristotelean thinker who like many in the late 20th century took an "ecological turn," and he reflected deeply about the plenitude of life and the obligation to protect it. He develops a fascinating theory of responsibility as a counterweight to Promethean powers that transform the world, particularly through the uncritical worship of technology. Jonas's work defies easy description and categorization. Indeed, thinkers as different as Murray Bookchin, the radical social ecologist, and Leon Kass, the conservative Straussian political theorist, claim to have found inspiration in his work. It is also remarkable that *The Imperative of Responsibility*, which is a dense work of philosophy, was a bestseller in Germany but relatively unknown elsewhere.

Jonas's work has been received with controversy, however, because like other thinkers of this period concerned with developing a political theory of ecological limits, such as Ophuls and Hardin, it can be interpreted as supporting an authoritarian politics, though for ethical rather than practical purposes. Much of this criticism is sound but unnecessarily impedes serious engagement with his cogent arguments for a greening of modern ethics, and especially his articulation of the precautionary principle. The precautionary principle is the idea that, in the face of uncertainty, a burden of proof to prove that an action is safe falls on those who would commit ecological harm rather than on those who may suffer such harm. As environmental political theorist Kerry Whiteside perceptively writes, "Most who mention Jonas's influence hasten to distance themselves from his ideas. In fact, however, Jonas's reasoning is more crucial to the precautionary principle's philosophical pedigree than many want to admit."[308] When I examine Jonas' idea of responsibility as an ethical imperative grounded in ontological duty, I find that while his approach can be interpreted as too authoritarian, authoritarianism does not

follow from the idea of responsibility as such, or Jonas's theory in general, but from *politicized* interpretations of what constitutes an imperative. I undertake this analysis to show that while Jonas' effort to develop a theory of responsibility oriented toward the future is essential, it is important to move beyond ethically objective imperatives and instead view responsibility as open-ended, something to which an attitude of freedom and subjective creativity apply. Understanding responsibility this way generates more affective appeal and can better motivate people to take action than an imperative of responsibility compelled by fearful doom and gloom rhetoric.

In *The Imperative of Responsibility*, Jonas argues that the scale and cumulative effects of our Promethean powers, coupled with a deepening nihilistic culture unable to distinguish means from ends, has created an utterly new ethical situation. In this new predicament, not only does the concept of responsibility need to be re-examined, it should take center stage in ethical thought. The main task of responsibility as an ecological imperative is to ensure that future generations enjoy a high quality of life in a world that also has abundant biodiversity. Jonas conceives of this special obligation as a trust, a form of stewardship hard to justify without religion in an age where notions of the sacred have been superficially eradicated, even if as Karen Litfin puts it, they remain "underground."[309] To Jonas, an imperative of responsibility can only emerge when the dominant political-economic discourse of a "prophecy of bliss" is replaced with a "prophecy of doom" as a prominent political discourse. His argument follows four main lines of reasoning: the qualitative change in the impact of modern action, the objective character of responsibility, action's new future-oriented ethic, and the role of fear in making people act with care and precaution.

To Jonas, the nature of human action has changed in the "technological age." Where once the chorus in *Antigone* playfully mocked the pretentiousness of human powers as "clever beyond all dreams," no longer can human power be dismissed so easily.[310] Further, the social role of technology as a driver of economic activity, education, and environmental change is different from past ages. Though previous eras had technology, something is radically different about the scale and scope of how the world is transformed by human manipulation. Many environmental thinkers now refer to the present era as the "Anthropocene," which connotes that human forces are now the main driver of environmental change. For one thing, action is now capable of consequences that will linger, almost unfathomably, far into the future. And so, the future is no longer merely a realm of chance, fate or providence, but is directly shaped by human action. Particularly disturbing is the extent to which we are fundamentally transforming the biosphere in ways impossible to predict on timescales that are nearly impossible to comprehend.[311] For instance, when Steven Meyer argues, as mentioned in Chapter I, that "the broad path for biological evolution is now set for the next several million years" because of the biodiversity bottleneck we are now creating, how can we really grasp what this means?[312] How do we begin to take responsibility for this?

One problem with summoning a sense of responsibility is that many effects on the environment are cumulative and dynamic. As Jonas writes, "Doer, deed, and effect are no longer the same as they were in the proximate sphere, and which, by the enormity of its powers, forces upon ethics a new dimension of responsibility never dreamed of before."[313] This makes taking responsibility for any particular action difficult, for it cannot be foreseen with clarity how an action directly relates to those who will be forced to reckon with the cumulative impact of environmental changes in the present. This action, moreover, is based in the "peaceful and

constructive" use of modern power, "a use in which all of us collaborate as captive beneficiaries through rising production, consumption, and sheer population growth."[314] We like to draw roles for villains in ethical tales, but the contemporary challenge to ecological limits makes this difficult, for "nondiabolical automatism" is a process which we all contribute in some way.[315] To Jonas, the unintended effects of collective action require conceiving responsibility as an imperative, a cognate of our collective power. The first step is cognizance of the enlarged scope of human action.

Objective Responsibility

To Jonas, responsibility is also objective. In a reversal of Kant, who argued that we can because we ought, Jonas asserts that we ought because we can.[316] To make this argument, Jonas challenges two "dogmas" of the modern age, namely that nature has no purpose and that one cannot derive "ought" from "is." By "purpose" Jonas does not mean anything like "intelligent design." Rather, he makes a complicated case that in effect argues that life has a purpose in ensuring that life in the future is possible. There may not be any goal or final flourishing to evolution, but the striving for continued existence is a kind of purpose. By threatening human life and major categories of biodiversity with extinction, this purpose *becomes ethical* for human beings. In this sense one can derive an "ought" from an "is" – human beings have an ethical responsibility to themselves, their progeny, and to the biosphere to ensure conditions favorable to life. Environmental and feminist political theorist Val Plumwood is not far from this position when she argues that though socially constructed perspectives on nature are important, they can also be deceptive. She writes,

> Now, of all times, when we press so many natural limits, nature skepticism and constructivism of this highly generalized variety is immensely problematic, since we cannot come to terms with another whom we do not recognize as presenting to us any independent form of agency or limit on our projects.[317]

Plumwood does not go so far as Jonas as to derive an "ought" from an "is," but she does warn us against seeing "nature" as something illusory that can be ignored because it is merely a product of social construction.

Another aspect of this view of responsibility is that it is not due to each and every entity. Jonas is not a bio-egalitarian – moral regard is not due to each entity equally. There are parallels here to Leopold's land ethic, where a duty to preserve the "integrity, stability, and beauty" of the natural world prioritizes a biotic whole rather than obsessing, like a Jainist who takes *ahimsa* (non-harming) to a practical extreme by avoiding harm to particular lifeforms in all circumstances. At the same time, he is not an ecocentric holist either because, as environmental philosopher Lawrence Vogel points out in a commentary on Jonas as a "philosopher of ecology," the moral experience of responsibility is possible only with the presence of human beings.[318] Anthropocentrism anchors his thought and Jonas thinks that humans are cosmically exceptional and enjoy a higher status in a hierarchy of being. But Jonas is also quick to point out that we often delude ourselves by exaggerating the extent and uniqueness of our subjectivity, which is a mere "surface phenomenon of nature – the visible tip of a much larger iceberg."[319] While correctly sensitive to the fact that some measure of "mind" and "freedom" exist at different levels of life,[320] there are distinctions to be made between modes of life, such as between life forms that have nutritive and sensitive qualities, experience pleasure and pain, or can project desires and fear. But, as Vogel points out, only humans can "take the interests of others to heart

beyond our own vital needs,"[321] and therefore only humans can take responsibility. Without the presence of the diversity of life, however, the possibility of genuine, existential encounters with the world narrows and, for future generations, is potentially foreclosed. To Jonas, this is fundamental. We have a duty to an ethical authority *beyond* ourselves, and also an obligation *to* ourselves, to live in a world that enables genuine encounters with nonhuman others.

Future Oriented Responsibility

Another feature of modern ethics is the necessary inclusion of a future dimension in its consideration.[322] All previous ethics, according to Jonas, had four main tenets, none of which *needed* to take the future into account.[323] All four of these tenets are altered by a serious consideration of the future. First, humans related to an ethically neutral nonhuman world through *techne*.[324] Second, ethics only dealt with relations between people, and not between people and nature. Third, the human condition and human nature was considered more or less constant, and neither was an object of serious manipulative transformation. Finally, ethical judgment was bound in time and space and applied only to "contemporaries."

Jonas concedes that some older ethical perspectives had a future dimension, notably religious doctrines that prepared souls for eternal life, utopian political movements (such as revolutionary Marxism), and accounts of the relation between the statesman and the state (insofar as the statesman acts in the interest of perpetuating the state through time). However, both the saving of souls and revolutionary Marxism had an eschatological quality, which, due to an erroneous end-of-history view of a future that will never come, Jonas thinks distorts what responsibility is about. Religious responsibility asserts a value that is empty and beyond this world – that of eternal life. Jonas argues that life itself only makes sense – is fresh, immediate, eager, wondrous, and momentous – when limited by death as an "incentive to number our days

and make them count."[325] We can only have a responsibility to life, then, if there is the real possibility of death. Marxism has enough similarity to Jonas' theory of responsibility to warrant a separate chapter at the end of the book, but to Jonas, Marx's revolution is too enthralled by the promise of technology and productivism to usher in a utopian age of "freedom" unburdened by "necessity." At the end of the day, because Marxism is another variation of an unrealistic "prophecy of bliss," responsibility to such a future can have little fidelity.

The role of the statesman and parent *vis a vis* responsibility are, to Jonas, paradigms of a future-oriented responsibility because they stress the value of non-reciprocity. But their scope is limited to polity or progeny, and thus do not capture the fullness of responsibility that an ecological ethics of the modern predicament now makes clear. The responsibility Jonas is looking for is neither utopian nor eschatological, as a sacrifice in the service of a blissful future. As an existentialist, he wants responsibility to mean something *now*, as the execution of an authentic choice in a present that impacts a distant yet conceivable future.

Because of the dynamic context of modern ethical action, there is critical role for a robust scientific futurology to determine what sorts of "futures" are conceivable. In other words, *speculative science* is now central to developing a sense of responsibility for the future. Jonas is sensitive to the fact that science "may not tell the whole story about Nature," yet predictive knowledge is needed in order to envision environmental change.[326] In this sense, the LTG project and Jonas' work explicitly intersect.

But responsibility to Jonas is not only a handmaiden to rational knowledge; it must also have an emotional dimension. He writes, "It is indeed the essence of our moral nature that the appeal, as insight transmits it, finds an answer in our feeling. It is the *feeling* of responsibility."[327] Responsibility thus has mutually complementary sides – one objective and

rational, another subjective and emotional. What is unique about this theory of responsibility is that, unlike perspectives which also acknowledged the ethical value of a sensual aspect to human life, it is nurtured by a sense of loss and perishing – especially as regards the extinction crisis. Other ethics hitched emotion to a timeless good, in worldviews as diverse as Plato's *eros*, Spinoza's *amor dei intellectualis*, and Nietzsche's lust of the will.[328] A feeling of loss or perishing, on the other hand, develops an intuitively deep sense of what to avoid and what should be prevented. For Jonas, "Such an attitude must be cultivated; we must educate our soul to let [it] be affected by the mere thought of possible fortunes and calamities of the future generations, so that the projections of futurology will not remain mere food for idle curiosity or equally idle pessimism."[329] To this "new kind of *education sentimentale*" we must "lay ourselves open to the appropriate fear."[330]

The Role of Fear

It is understandable that an emotive side to responsibility is pronounced in an age when so many environmental trends seem so bleak and invite anxious worry. The tactic of depicting frightening scenarios is often employed by greens, but it is nevertheless surprising to see an explicit argument that encourages, even requires, the cultivation of fear. But for Jonas, fear has an educative function as well, which distinguishes it from the Hobbesian use of fear for purposes of coercion and social order. Fear can teach us how to be responsible because it is an *altruistic* fear, a fear that induces responsible behavior by showing us potential consequences of our action.[331] This use of fear as a political emotion goes beyond the prudence of the *precautionary principle*. Jonas' approach is a more philosophically radical way of using fear to incite

precautionary action. Yet science can be notoriously uncertain and *predicting* the future is (almost always) unreliable, so how does science help to create an imperative of responsibility?

Both the LTG project and Jonas operate with a "heuristics of fear" that urge restraint in the name of uncertainty.[332] For projects like LTG, this fear is a useful short-term strategy, based largely in self-interest, to lessen the impact of our ecological footprint now in order to avoid serious environmental and social problems in the coming decades. To Jonas, fear leads to an ethical posture that intends a deeper cultural shift over a longer period of time. Moreover, fear of ecological crises should be *deliberately* cultivated by authorities (intellectuals, politicians, scientists) to counter a peculiarly modern hubris – the comfortable sense that environmental problems will always be "solvable," especially by technology, and that a world of material plenty awaits in spite of ecological limits.[333] As an Aristotelean, Jonas believes in the doctrine of the mean – virtue is to be found in a middle ground between the excess and deficiency of some quality. "Technology" is therefore not a problem in itself, as relating to the world through technology is central to the human condition. Rather, the problem lies in the *unbalanced* relationship moderns have with technology. Jonas writes, "Technology needs no advocates in the Western world of the twentieth century: intoxication has taken its place."[334] The appropriate response to restore balance is to "find that fault [to] which one is more prone and therefore more likely to commit, rather [than] lean over in the opposite direction, toward the side less favored by inclination or circumstances."[335] In other words, fear can counter-balance the confident assumption that technology will solve environmental problems and at the same time deliver material abundance. Furthermore, it follows from his logic that even if scientific predictions turn out to be wrong, we should behave as if they could be true. This can be read as a peculiar

position to take, but its logic is central to the precautionary principle and much environmental reasoning.

Additionally, a feeling of fear helps to clearly identify what is really of value, for Jonas contends that "*we know the thing at stake only when we know it is at stake.*"[336] To him this is simply how humans experience the world, for "the perception of the *malum* is infinitely easier to us than the perception of the *bonum*; it is more direct, more compelling, less given to differences of opinion or taste, and, most of all, obtruding itself without our looking for it."[337] This experience of fear, then, is not merely a Hobbesian fear of social breakdown, environmental deterioration, and violent death. Rather, it is a fear that explicitly shapes the content of an ethical responsibility to protect life and biodiversity.[338] It is a fear both for future human survival and the endurance of an authentic quality of life. As Vogel insists, it also disgust over the kind of world that we *could* leave behind.[339]

Jonas sees respect for ecological limits in terms of an ethical duty and not simply self-interest. This ethical interpretation of limits makes his project different than the LTG team even though both perspectives paint a picture of ecological limits threatened by human action and call for action based on fear of an ecologically grim future. Both the LTG's project and Jonas's worldview, however, are necessary but not sufficient. They are essentially reactive postures and as such miss out on active, more robust approaches to developing responsibility for species loss inspired by a sense of freedom and creativity.

Part III: Toward Ecologically Responsible Freedom

None are more hopelessly enslaved than those who falsely believe they are free.
– Goethe

If we are free to learn, we shall learn from the falling leaf, from every kind of relationship, from being aware of the activities of our own minds. But most of us are not free to learn because we are so used to being taught; we are told what to think by books, by our parents, by society, and like a gramophone we repeat what's on the record … [But] there can be no freedom to learn when there is already a conclusion, an assumption, or when one's outlook … is held in tradition, and tethered to [believe] … a particular end.
– Krishnamurti

The Law doth punish man or woman who steals the goose from off the common, but lets the greater felon loose, who steals the common from the goose.
– Anti-Enclosure Rhyme

If I can't dance, I don't want to be a part of your revolution.
– Emma Goldman

Both Jonas and the LTG project do admirable work in preparing us to reckon with a future where ecological limits will play a larger role in environmental politics. While both perspectives rightly invoke precautionary action to prevent future environmental disasters, *avoiding* problems is an insufficient response to the challenges raised by ecological limits. In this final section, I will criticize the appeal to self-interest and the imperative of responsibility by arguing that a green politics of fear taps a meager source of motivation and will ultimately lead us astray. A politics of *danger* and precaution is a more effective way of framing worrisome environmental trends than a discourse of fear. Moreover, explaining responsibility through self-interest is too narrow in scope, and framing it as an imperative command misses an opportunity to generate affective enthusiasm by a critical mass of people. A more effective approach taps a *freedom to* create ecological responsibility rather deriving it from logics of tragic disaster. Responsibility can be a creative project, at once joyful and comic, and need not be cast in a tragic vein. Ecological limits exist and we need to be clear that they constrain action. But the rhetoric of limits and its relation to freedom should be challenged and explained differently.

Freedom in contemporary times has extraordinary affective appeal. Karl Jaspers in *Socrates, Buddha, Confucius, Jesus* likens the desire for freedom to "moderns" as similar to the desire for God in highly religious societies.[340] Harnessing the aspiration toward freedom, rather than assuming it is incompatible with a discourse of ecological limits, holds untapped potential for deepening theories of ecological responsibility. This perspective implies that individuals and societies approach the challenge of ecological limits differently. The result is a politics that remains open to pluralistic and multicultural political ecologies.

Criticizing Fear as a Political Emotion in Green Politics

A healthy respect for ecological limits needs a discourse of danger, for prudent and principled reasons, but too often danger takes the form of fear. Fear is dark magic in politics, and being so, it is unsustainable and unpredictable. It eventually wears off and becomes a target of mockery and cynicism. Though stern warnings may get our attention, when fear is the received effect, two main problems arise. The first is that under conditions of fear, the pressure to maximize self-interest is likely to increase. It can take the form of aggressively selfish action or meekly small-minded resignation. In the former, one might expansively, even deliriously, project what is "mine" as a right of survival. As Groucho Marx sardonically asks, "What have future generations ever done for us?" In the latter, a sense of agency can be dwarfed by the enormities of the ecological challenge, which can lead to quietist retreat inside a small, insulated world. In other words, fear moves people away from, not nearer to, responsibility.

A second problem is that a discourse of fear might yield troubling forms of authoritarian demagoguery. Political power expands in a climate of fear. But what restrains a government's exaggerated sense of its responsibility, especially when a polity is frightened and ecological problems become matters of "security"? In times of crisis governments are expected to have "a

plan," or at least an appearance of one, a plan that provides "solutions." But some ecological challenges, like the extinction crisis, are less about "problem solving" and more about developing enduring and responsible relationships to the natural world. Ameliorating species loss is not a technical fix.

Another concern is that both Jonas and the LTG project identify "humanity" as the responsible agent, but do not specify individual or institutional obligations. It is possible, and often revealing, to look at a collective human impact on the natural world, but "humanity" does not clearly define differentiated responsibilities for countries, social classes, industries, and individuals. Most people cannot be expected to act with restraint and a sense of responsibility for the future in the name of a "collective humanity," especially in a world that doesn't instantiate ideals of distributive and substantive justice. Invoking responsibility by "humanity" could even exacerbate social tensions, not alleviate them, because it calls into question *who* should act responsibly and why, which is something that often happens in biodiversity and climate change politics. Indeed, invoking responsibility for all could lead to a taking of responsibility by none, or a taking of "responsibility" by the privileged few. Recognizing a collective impact may be an important first step, but other steps need to be taken in order to develop more textured social critiques. Some scholars, like the environmental ethicist Robin Attfield, have interpreted the challenge of responsibility to distant others and to future generations by creating notions of *mediated responsibility*.[341] This is the idea that for some environmental *problematiques* (global warming, biodiversity loss, pollution) small individual actions have large cumulative effects. Responsibility in this sense is partial, not total, and enables, in theory at least, those who'd reject that they're part of the problem to become morally invested. A concept of mediated responsibility also has the potential to alleviate the profound

moral burden that some greens feel when they *individualize* what are essentially collective and historical problems.[342] People can derive a sense of responsibility for collective impact without the feeling that they are fully responsible for "humanity," for this tends to lead to despair.

Another issue concerns the framing of responsibility as an imperative. Jonas conveys the idea that responsibility is a metaphysical imperative, an ethical obligation that "humanity" must bear. Even if arguments based in metaphysical reasoning could convince a skeptical postmodern culture, how far of a reach could they realistically have? As Vogel comments, "It would be an unfortunate outcome if the power and glory of Jonas's ontological arguments succeeded in commanding a consensus, while concealing deep disagreements over the fundamental existential and policy choices we face."[343] In other words, we can see a situation where most people can agree in the abstract that protecting, say, biodiversity is a good thing, until this "imperative" is used to impose political decisions without adequate deliberation or social inclusion. Or, analogously, people may agree in general it is good to be green, until actual choices require changes to their way of life that are perceived as an unjust sacrifice. An *imperative* of responsibility has the potential to remain an empty commandment, and thus not as effective as other strategies that get people to participate in developing their own sense of ecological responsibility. Jonas's conception of responsibility, in other words, is insufficiently political. In contrast, I argue that political space should remain open to a variety of approaches to responsibility, from those who reach it through self-interest to those who seek ethical certainty, to those who seek something else altogether. The point is not to impose a common philosophical interpretation of responsibility, which is at the heart of Jonas's project, but to struggle with a common predicament from different points of view.

Freedom and Ecological Politics

A helpful way to think about the relationship between freedom and ecological responsibility is to distinguish between negative and positive forms of freedom. In his classic account "Two Concepts of Liberty," Isaiah Berlin writes that the contest between negative and positive forms of freedom is the "great ideological clash of modern times."[344] While Berlin argues that negative liberty is more "humane" and less prone to tyranny in the name of rational social goals, he insists that, "the satisfaction [that both negative and positive liberty] seeks is an ultimate value which, both historically and morally, has an equal right to be classed among the deepest interests of mankind."[345] With this said, to Berlin, negative liberty, or "freedom from," involves the question of what a person or group of persons should be able to do without interference by other persons.[346] This form of freedom, which runs through Hobbes, Locke, Constant, Tocqueville, and Mill (and many others), is concerned with erecting walls to protect one's freedom of will from intrusion by others. It requires a network of laws and rights to ensure that the strong don't overtake the weak, because, as Berlin puts it, "freedom for the pike is death to the minnows."[347] As such, negative liberty is particularly concerned with questions of coercion and with haggling over "a frontier between … the area of private life and that of public authority."[348] What is considered "coercive" becomes very important as a political matter, for being restrained from doing something is different from an inability to do something. Similarly, freedom in the negative sense is conceived as maximizing choices in the private sphere, and negative liberty is constantly seen to be in tension with "coercive" forces that constrain these choices.

Positive liberty, to Berlin, is involved with the question of what or who can determine someone to do, or be, this rather than that.[349] This form of freedom is concerned with achieving

"higher" things, with attaining a more authentic self – a freedom to do something or be someone through self-mastery. Rather than erecting walls around a private self, certain conditions are needed to help realize this form of freedom. For Berlin, the concern for adherents of positive liberty comes down to this: how do you *educate* people so that they realize their higher selves, whether as individuals or as members of a collective?[350] The question shifts away from coercion as restraint to coercion as a positive force that enables the ability to do something or be someone. Coercion is therefore not *ipso facto* in tension with freedom in the positive liberty tradition, if one is able to participate in obedience to laws that we prescribe to ourselves when we participate in executing public power (as in Rousseau's *Social Contract*).[351]

In a critique of Berlin's analysis of negative and positive liberty, the feminist political theorist Nancy Hirschmann asks, "What constitutes the "choosing self" of [negative] liberty?"[352] For her, Berlin's insistence that freedom is better understood as negative liberty is deeply troubling, as it contains assumptions about freedom that associates it with maximizing individual choices and options. Hirschmann rightly points out that this conception of freedom is overwhelmingly masculine and impoverishes the complexity of freedom theory. Freedom is de-contextualized from social circumstances and is "objective" in the sense that what is important is not the choice one makes but that one is able to make choices at all. What is troubling about appeals to positive liberty to Hirschmann, on the other hand, is the sense in which "internal barriers" to freedom, like "fears, addictions, or compulsions," can be used by others to prevent an experience of one's true self.[353] By not being able to overcome our own internal barriers to liberty – desire, will, and identity – we can be seen to be "unfree," particularly by those who know, who claim to know better than we do (especially the state).[354] Hirschmann convincingly argues that social construction theory challenges the notion that there is an "essential self" inside.

For Hirschmann, both these views of liberty – negative and positive – rely on questionable understandings of the self even as the dichotomy between negative and positive liberty is helpful from a theoretical point of view. She writes that, "Freedom is precisely a combination of self-creation and what happens to you, the internal as well as the external, the combination of and the dynamic between the two. If freedom is concerned with the capacity to choose, then social construction requires us to think about the broader conditions in which choices are made."[355] Hirschmann's analysis is germane to thinking about the relation between ecological limits and freedom. Ecological limits can be construed as a context in which our "choices" are both constrained and constructed. Freedom in this context is constrained, particularly with regard to negative conceptions of liberty that disregard ecological consequences. And yet the *freedom to* construct responsible forms of positive liberty can be liberating, both for individuals and collectives.

Freedom is not the sole value of politics, to be sure, but it is a primary human aspiration. Too many greens seem to avoid the prospect of engaging freedom discourse productively because they see, often rightly, that it is part of the problem. Another way of saying this is that freedom as an ideology of "limitlessness" causes many to not care about environmental problems and creates the illusion that we can live in ways that ignore ecological limits as if they were not there.[356] This is a vital issue – our dominant political concepts, like freedom, have not yet become sufficiently ecological. As Levinas reminds us, freedom is called into question by the presence of the other.[357] It cannot operate in an ecological, social, or ethical vacuum. Greens can profitably build a political strategy on the insights of Freud and Critical Theory that the denial of external limits actually make us less free.[358] To inspire affective enthusiasm for

ecological responsibility, certain rhetorics of freedom should to be criticized and others embraced.

Some modes of freedom – of expression, recognition, the panoply of constitutional rights – have little ecological relevance because they are about how citizens relate to each other. But other kinds do, particularly those in the mold of "negative" freedom that insist on maximizing options for economic and material satisfaction. So to see what ecologically responsible freedom can look like, it is important to first sketch what ecologically *irresponsible* modes of freedom look like. Then we can understand that living in an age of ecological limits need not imply a diminishing of freedom as such, and can, in fact, enhance certain forms of it.

Modes of Ecologically Irresponsible Freedom

Ecologically irresponsible ideologies of freedom have three main characteristics – they promote context-less individualism, demand that productivism and consumerism expand indefinitely, and deny any special obligation to protect human and nonhuman others. Context-less individualism is a problem that promotes a freedom outside of social and ecological matrices, and puts the individual in conflict with public goods. This perspective determines how one views environmental problems. To theorists like Hardin, for instance, negative freedom centered on the individual inexorably leads to a "tragedy of the commons." As political theorist Susan Buck argues, Hardin's individualism is unable to acknowledge a positive version of freedom that can be enacted through proper regulation of the commons *as a commons*.[359]

De-contextualized individualism also has psychological effects that have ecological impact. Perpetual reinforcement of the world-centric individual not only exacerbates narcissism, loneliness, and alienation, it makes the horizon of ecological limits difficult to register. Context-less individualism begins and ends with a location of the self outside of nature. As the writer

Jonathan Franzen writes, "The ultimate goal of technology, the *telos* of *techne*, is to replace a natural world that's indifferent to our wishes – a world of hurricanes and hardships and breakable hearts, a world of resistance – with a world so responsive to our wishes as to be a mere extension of the self.[360] This type of narcissism effectively avoids a sense of responsibility to anything but oneself, which is not responsibility at all.

Indefinite productivist and consumerist expansion, what Marx would call "bourgeois forms of freedom," also rests on an understanding of freedom that denies limits. Growth for the sake of growth creates the risky illusion that economic expansion will always expand over the long term, despite temporary setbacks (like recessions). This kind of economic freedom is "free" only until material growth is restrained by diminishing throughputs, rising costs, and ecological degradation. More insidiously, this habit of productivist thinking tends to construct satisfaction as lying *over the horizon*, and rarely in the present. Even Adam Smith, an idol to some who cherish freedom as a materialist pursuit, notes that the conventional pursuit of material happiness was at bottom a "joyless quest for joy."[361] And Mill, a hero to progressive liberals, in speaking of a stationary state economy writes, "I confess I am not charmed with the ideal of life held out by those who think that the normal state of human beings is that of struggling to get on; that the trampling, crushing, elbowing, and treading on each other's heels … are the most desirable lot of humankind."[362] Indeed, restless activity, overwork, and busyness are modes of "freedom" that have significant psychological, social, and ecological impact. Interrogating "work" is an important part of a critique of negative freedom.[363] Greens can expand their appeal by citing the compatibility between the desire for more free time, and healthier individuals, communities, and environments, as the *Take Back Your Time* movement endeavors to do.[364]

The posture of human exceptionalism that denies an essential connection to non-human others is also based on an irresponsible mode of freedom. Because we can transform the world to suit our desires doesn't mean we should. It may not be an intellectually defensible position to deny *any* limits to human enterprise on principle, because the world is either ethically neutral or because humans occupy a privileged position in the hierarchy of being, but it *does* reflect powerful currents in modern societies. Might *appears* to make right. This attitude needs to be interrogated on a deep level and is more widespread than many would care to admit.

Ecologically irresponsible freedom thus unwisely promotes context-less individualism and supports a psychological and sociological rupture from society and from nature. Fidelity to unbounded productivism and consumerism leads to blindly ignoring ecological limits. An ideology of human exceptionalism provides an excuse that justifies these unbridled forces. Together, these understandings lead to a view of the world as a limitless *frontier* for human enterprise and manipulation and create an impression that freedom is something that only exists when there are minimal limits. The only sense of responsibility that negative freedom leaves us with is a thin duty. Responsibility to negative freedom is flimsy and only speaks of prudent self-interest or unjust coercion. Talk of limits is in considerable tension with a negative conception of freedom.

Toward Ecologically Responsible Freedom

These appeals to negative freedom, dominant as they are, do not exhaust the promise of freedom as a motivational source for green politics. Seeking ecological responsibility in positive forms of freedom is more promising. Seeing how this can be accomplished requires cognitive and material shifts in our aspirations toward "freedom" in the context of ecological limits. We should be able to see that we are free when we work toward creating the responsibility that leads

to sustainable societies. Furthermore, ecological responsibility need not be overly intellectualized and judgmental, and bear the imposition of a tragic ethical command. For ecological responsibility to also be a goal of freedom it needs to generate affective appeal. I look briefly at work by environmental political theorists Richard Dagger, Bryan Norton, and Douglass Torgerson, as well as the literary ecologist Joseph Meeker, to see what this can look like.

A first step is to show that while respecting ecological limits may restrict some choices, they do not exhaust possibilities for agency and autonomy. Dagger's work, drawing on Phillip Pettit, distinguishes "option freedom" from "agency freedom." Option freedom refers to the number of choices that a person or, I would add, a community, may have. Pettit gives the example of having a choice between "20 barely discernible beers" as meaning little to someone who would rather drink something else (or a different kind of beer).[365] Agency freedom refers to the ability to be autonomous or self-governing, and thus is concerned with the *value* of options available and the context in which they are exercised.[366] Maximizing option freedom may enhance the number of choices in the short term but endanger both option freedom and agency freedom in the long term by destroying ecological contexts in which freedom is experienced. Dagger writes, "What an ecological or land-ethic does … is to encourage us to think of our relationship to nature as a matter of autonomy … Autonomy is self-government, not license … [and] the question, then, is not whether autonomy is compatible with the land ethic but whether the pursuit of autonomy, properly understood, leads to the land ethic."[367] By restricting option freedom and preserving agency freedom, a sense of choice need not be diminished, choice that may give even greater meaning to one's life through opportunities afforded by education or participatory politics. Freedom is less about the number of choices one has but the contexts that expand agency freedom. Pursuing agency freedom may involve "sacrificing" some options, but

sacrifice is not necessarily pejorative. As environmental political theorist Cheryl Hall puts it, "[Sacrifice] is about surrendering something valued *for the sake of* something else regarded as more important or worthy."[368] Re-thinking how sacrifice is discussed politically has important implications for how we think about freedom and the extinction predicament. We may sacrifice some options so that other species may live, but doing so can expand our sense of agency freedom.

Also helpful is the work of Bryan Norton and the relation between environmental values and freedom. He makes distinctions between demand values, intrinsic values, and transformative values. Demand values and transformative values are tied to human estimation – they are anthropocentric measures of utility. But demand values see nature merely as an object of consumption, and hardly the foundation for a robust ethic.[369] Intrinsic values come from the objects of valuation themselves and have no relation to human estimation. As a result, Norton thinks they are politically and ethically irrelevant since we cannot agree on what constitutes intrinsic value in nature. Transformative values, on the other hand, are not tied to utility or consumption directly and can serve as a foundation for an ethic of ecological responsibility. Norton defines them as something that "provides an occasion for examining or altering a felt preference rather than simply satisfying it."[370] These can be, "aesthetic or moral ideals (that) may be enlisted to limit the exploitation of nature and nonhuman species."[371] Transformative values in an ecological sense come from experience, but it is not a one-way street. We can interpret *how we are transformed* by these experiences. In other words, we can be free to invest ecological responsibility with meaning according to our own lights, whether aesthetic, moral, or prudential, so long as there is the opportunity to express deeply held feelings. The emphasis on feelings, in contrast to ideas, should not be slighted by scholars.[372] In fact, I think it is largely a

Western bias to assume that transformative values are primarily experienced through the intellect. The Japanese ecological tradition, for instance, has long insisted on preserving opportunities to experience *mono no aware*, or sensitivity to nature, which is largely a direct, intimate, and pre-intellectual encounter. Furthermore, much research demonstrates that a strong connection to nature comes from exposure at a young age when one learns to relate emotionally, not intellectually, to the natural world.[373]

Another approach to theorizing freedom and ecological responsibility comes from Douglass Torgerson. Drawing on Arendt, Torgerson focuses on the role of a green public space. Torgerson insists that it is a modern conceit that all problems have solutions.[374] We often unwisely assume a moralistic posture of "saving" the environment, as if this is an *event* that has a beginning and an end.[375] The approach taken by Jonas seems to fit into this dramatic mindset. It can be alienating if measured by the "tragic seriousness" of instrumental goals of success.[376] As such, political space should not be oriented to finding a single solution but rather opening up horizons to new ways of exploring enduring problems. As a result, Torgerson rightly insists on a conception of political space that avoids instrumentalizing politics and is constituted by deliberation and discovery. This is not to say that executing goal-oriented policies like protecting a certain habitat or reducing greenhouse gases is not properly "political." An instrumental rationality *is* important to environmental politics and there *are* problems to be "solved." But a green political space should also remain open to the kind of communicative rationality that Arendt insists is only available in a public realm. In the essay "What is Freedom?" Arendt writes that freedom is eruptive, principled, public, new, and entails significant risk. She argues that, "Freedom needed, in addition to mere liberation, the company of other men who were in the same state, and it needed a common public space to meet them … into

which each of the free men could insert himself by word and deed."[377] Arendt goes on to liken freedom as action to "Machiavelli's concept of *virtu*, the excellence with which man answers the opportunities the world opens up before him … Its meaning is best rendered by "virtuosity," that is, an excellence we attribute to the performing arts (as distinguished from the creative arts of making), where the accomplishment lies in the performance itself and not in an end product."[378]

Political space is thus not merely the venue for exchange of opinions but holds out hope for transformative experiences of understanding, sensitivity, and shared solidarity.[379] For this reason, it is important to insist on political space as a free space that is not merely subservient to interest group politics and functional goals. This approach to politics encourages the examination of common problems from multiple perspectives and does not assume that ecological responsibility as a political question is defined by the certainty of a singular ethical imperative. Ecological responsibility should thus be seen as an evolving practice to which many, not just elites or leaders of epistemic communities, can contribute. As Torgerson rightly insists, by keeping the surprising connections with others that are possible when we approach politics non-instrumentally, green politics can hold out for unexpected, insightful, and politically resonant approaches to responsibility. The Japanese concept of *kyosei* speaks to this possibility. *Kyosei*, a concept drawn from peace studies but which has recently influenced a number of disciplines from ethics, politics, and environmental studies, is the notion that "living together," as Buddhist environmental scholar Stephanie Kaza puts it, is a "conversation where parties enter into a common forum of conviviality. The idea is to simply enjoy the natural play of agreement, disagreement, controversy, and competition in everyday interaction in society … *Kyosei* between humanity and the natural environment [similarly] involves peaceful coexistence filled with

dynamic interchange.[380] It is the dynamic interchange that this perspective on political space is meant to open up.

And so, ecologically responsible freedom thus takes into account the three different forms of limits – as biophysical thresholds, as social critique, and as normative ideals – explored in Part I. Cultivating an awareness of the world as a connected web of finite biophysical systems, in fact, is likely to reach the widest common agreement, for people can understand that reaching biophysical limits has dangerous unknown ecological consequences. Even those who do not see themselves as environmentalists can recognize constraints on freedom of action when ecological limits are approached. Respecting biophysical limits requires not acting as though natural systems are a *frontier* for exploitation and economic manipulation. Political leadership should play a critical role in ending frontier "prophecies of bliss" by engendering awareness of and respect for biophysical limits.

Limits as social critique are more difficult to relate to a notion of responsible freedom, particularly because the social forces that push marginalized and privileged groups to stress ecological systems are complex. But if the case is made that marginalized groups do what they need to do because their choices are deprived, then clearly there needs to be a different context in which to make choices. And if privileged classes can be seen to abuse freedom by recklessly endangering the freedom of others through overconsumption and exploitation, then some leverage can be made to push social relations onto a more sustainable path. Furthermore, responsibility will only ever be broadly embraced in societies that are more egalitarian. Otherwise, responsibility would be seen as sacrifice and framed through a prism of winners and losers. Rousseau's criticism of Locke applies in this regard – freedom in the context of a grossly unequal society is neither sustainable nor expresses a socially responsible freedom. It is critical

for ecologically responsible freedom to have a social justice component both because an equitable distribution of social goods is good in itself and also because people are more willing to act responsibly if they are convinced that others are doing the same. Materially unequal societies cannot expect ecological responsibility to be a widely shared commitment. And yet here is no good reason why the liberal tradition, which is often critiqued for promoting unregulated capitalism and material inequality, cannot contribute to the exercise of an ecologically responsible freedom. In fact, a compelling argument for biodiversity posits that if liberals value choice they should desire a wide variety of healthy environments in which to exercise their preferences.[381]

Normative perspectives that urge respect for ecological limits because it is the right thing to do can also benefit from developing a sense of responsible freedom. Rather than commanding a formal imperative of responsibility, we should feel that it is our creative obligation to give responsibility meaning both through individual choices and in our political communities. We have the capacity to resist the determinism of nature because we are free, but we also have the ability to restrain ourselves because we are free. These capacities need not rely on "disputable concepts of moral perfection," as Jonas seems to think.[382] Living within ecological limits as a way of creating a home in the world depends not on moral perfection but moral readiness and a willingness to acknowledge there are different paths to ecological responsibility. What is important is not the validity of a single approach to environmental sustainability but rather that people feel inspired by the challenge of freely creating an ecologically responsible culture.

Since most environments are experienced locally, theorizing about ecological responsibility should not occur in a neutral social matrix as ethical commands that *humanity* must bear for future generations. If this is the terrain of the debate, we will not get past arguing

over historical questions of endogeneity and culpability. This means that a subsidiary principle of freedom should encourage a multicultural political ecology. Responsibility is a practice that flowers closest to home, and does so differently in diverse circumstances. If we understand that ecological limits are at least partially defined by lived, social experiences and under diverse normative ideals, then variation in modes of responsibility should be celebrated as an expression of freedom and diversity. Speaking about keeping open the possibilities of political freedom, feminist political theorist Linda Zerilli writes, "Were we to hand over speaking and acting to those who know … we would no longer be engaged in the world-building that is surely crucial for feminist and democratic politics, nor experiencing freedom as a right to be a participator in common affairs, but merely registering our claim to a certain distribution of goods and services."[383] The task of giving ecological responsibility meaning is thus something to which we all can contribute. This generates motivational appeal because it means that ecological responsibility doesn't need to be practiced in the same way in all bioregions. As human beings who aspire in different ways to be free, it is vital to insist that ecological responsibility be dynamic and pluralistic.

My final point here is to insist that we will never *solve* the extinction predicament. We can hope to mitigate its worse effects, but it is not a question of solving or not solving, it is a question of relationship. The literary ecologist Joseph Meeker in *The Comedy of Survival* is helpful in tuning our attitude to the nature of ecological problems. He insists that crises like species loss are not "tragedies" in the way we typically understand "tragedy." A tragedy is the result of a moral error of an individual who has made a destructive choice, and involves, as Aristotle said, ritual purification, moral catharsis, and suffering.[384] Tragedies need a *personality* to focus on in order to generate a cycle of reflection, learning, and redemption. It is too easy to

cast ecological crises as "spectacles of catastrophe" that are distant from day to day experience because they do not have a "personality" that is easy to relate to.[385] Moreover, the tragic approach to diagnosing ecological crises requires a tragic hero who, through tribulation and fire, approaches tragedy with a problem-solving mindset. This mindset, Meeker perceptively argues, tends to be finite, fundamentalist, and motivated by the passionate certainty of a single choice that must be made in order to rectify wrongs. Such a view is not good for a world that is complex and systematic.[386] Ecological crises have structural and collective causes, for the most part. Guilt is not distributed evenly between rich and poor, developed and developing nations, or between generations.

Instead, Meeker suggests that we approach the question of ecological responsibility with a "play ethic." A play ethic is a way of thinking and feeling that employs tactics of reconciliation – like novelty, spontaneity, wit, and imagination – that are not strictly functional or goal-oriented.[387] To illustrate the play ethic he distinguishes between finite and infinite games. Finite games involve clear rules, goals, authority, and winners and losers. Infinite games, on the other hand, are not geared toward "winning," and are more focused on methods of cooperation with others so that everyone can *keep on playing*.[388] When I play with my son, we play in the "infinite" mode. The infinity of our play is only interrupted when I insist that we need do something else – eat, sleep, or write a dissertation.

I want to suggest, along with Meeker, that a play ethic is a better approach to the problem of species loss than a tragic one. A mindset of play is better able to encourage creative and adaptive responses to ecological challenges without casting our efforts as "saving the planet." The problem-solving mindset implies this can be done once and for all, and we can move on to the next problem. Instead, ecological challenges invite us to develop, or re-discover as the case

may be, ways of *relating* to nature that endure and aspire to human and nonhuman flourishing. There is no one way to do this and the extinction predicament is not a technical problem – it is a complex human problem. By seeing ecological responsibility as connected to certain conceptions of positive freedom, we can inspire creative responses rather than frozen imperatives of virtue. There is joy in exploring what this means.

Conclusion

Living within the biological constraints of the earth may be the most civilized activity a person can pursue, because it enables our successors to do the same.
– Paul Hawken

Much green literature portrays a grim and frightful future due to the neglect of natural limits. It is assumed that the specter of ecological limits has an inverse relationship with freedom. This is so because "freedom" is narrowly associated with the tradition of negative liberty and unlimited materialistic and hedonistic pursuits. Environmental political theorists should insist that there is a false choice between living responsibly and being "free." A discourse of ecological limits, properly framed, can be a counter-hegemonic force to create more ecologically sensitive and politically sensible iterations of freedom. To be sure, the prospect of reaching, or even coming near to, ecological limits is shocking. And, indeed, danger can play a vital role in sparking social action. But too often danger shapeshifts into fear, so it is critically important that green politics maintains a firm distinction between projections of danger and rhetorics of fear. Fear has limited utility as a green political strategy and may in fact harbor authoritarian dangers.

Thinking anew about the relationship between ecological limits and freedom enables a critique of certain ideologies of freedom from the perspective of ecological responsibility, whether the possessive individualism of certain forms of liberalism, the nationalism of

productivist socialism, or the ethical myopia of human exceptionalism. Respecting limits can also us help to see that ecologically responsible freedom is fundamentally relational and best operates in social contexts that permit more just relations between individuals and with biological communities. Deepening a discourse of ecological limits thus challenges us to develop responsible and qualitatively enriching versions of freedom as a task of realizing sustainable societies, rather than simply assuming that respecting limits requires societies that are less free. We should re-think how appeals to freedom can reflect care for natural systems and biological communities, similar to a freedom that reflects care for the body. Just as production-driven growth-model societies put incredible strain on the health of the human body such that in many cases we struggle to have the freedom to care for ourselves physically, emotionally, and spiritually, so too economic-cultural systems are putting a strain on the "earth body." Frightening people to live responsibly in an age of limits by restraint that is neither joyful nor free is not a sufficiently strong foundation on which to build sustainable societies and is prone to unexpected authoritarian tendencies. Greens should think *and* talk differently about ecological responsibility so that we can lucidly articulate it as a positive, creative, and liberating force. The task of ecological responsibility thus depends critically on our sources of motivation and the attitude with which we meet environmental problems.

As Wendell Berry urges, the challenge of making a home in nature is "the forever unfinished lifework of our species."[389] That this project is "forever unfinished" should not be a counsel of despair but rather an invigorating challenge to continually envision modes of ecological responsibility. If greens can make ecological responsibility a project of freedom, perhaps we will not need to be in the heroic position of "saving" ourselves from a world gone haywire or protecting nonhuman life forms from extinction through an imperative of

responsibility. As Meeker argues, the approach of "saving" is played out in a tragic vein, and all tragedies end in … tragedy. Instead, ordinary modes of resilience, rejuvenation, and reconciliation can come from joyful experiences of being free in cultures we have participated in creating and a world we wish to live in.[390]

Transition to sustainable societies needs to supplement alarm with an invigorating sense that cultural change is exciting, meaningful, and full of possibility. We need to not just *prevent* dystopian scenarios but to joyfully *create* green ways of life, to not only evade disasters but to enhance our quality of life. Instead of viewing ecological responsibility as a burden, then, we may see it as a source for inspired and resourceful political imagination. In this way, associating responsibility with freedom moves beyond the environmental choir and can be employed as a political strategy that breaks down familiar tropes about what it means to be free and what it means to be green. Whether this is done successfully depends mostly on making the case that ecological responsibility can truly be a project of freedom.

Since impact on biodiversity is created on cumulative levels by humans in aggregate, ecologically responsible freedom cannot be conceived only through an individualist paradigm. The concept of biodiversity as a public trust should be based on positive notions of the public good. This approach can profitably link freedom with emerging ideas of a green civic republicanism. I turn to this theme in the next chapter.

Chapter 4
Great Ancestors and Good Neighbors: An Arendtian Evaluation of Green Civic Republicanism

One generation plants trees and the next gets the shade
– Chinese Proverb

The forms of human ecology, as culturally mediated relations to physical, chemical, and biological conditions, are both limitlessly variable and ecologically bounded.
– Ted Benton

A saying about the green movement asserts, "Environmentalists make terrible neighbors but great ancestors." It means that environmentalists, through pesky regulations and nagging appeals to public goods and civic virtue, do not leave neighbors alone to use nature as they see fit. Future generations, though, may come to regard environmentalists as great ancestors for their work on behalf of clean air and water, a stable climate, wild spaces, and abundant biodiversity. But I wonder if this saying is accurate and whether it diminishes the potential of green politics. Why can't green politics help to foster neighborliness and help to strengthen community ties in the present? To what extent can participation in the construction of ecological responsibility help to enrich community attachment to place and to each other?

In the previous chapter I considered how a discourse of limits challenges ideas of freedom and ecological responsibility and encourages us to think about freedom differently. In this chapter I explore how appeals to political community help to contextualize our understanding of freedom and responsibility, and emphasize that *because* we are free we can *choose* to live differently. A small but emerging area of scholarship in environmental political theory – green civic republicanism (GCR) – is particularly useful in helping to think through a nexus of freedom, responsibility, and community.[391] GCR provides critical resources to help us picture one way in which ecological communities may be possible. Its focus on the common good, civic virtue, political participation, and aesthetic imagination of the "body politic" is

strongly related to a green politics of material sufficiency, responsibility cast in long time horizons, and participatory notions of freedom. Hannah Arendt, one of the thinkers credited with "reviving" republicanism in the 20th century can help to advance the approach taken by GCR offers an interesting critical encounter with green republican thought. Despite an association with classical politics, a spirit of novelty links Arendtian thought and civic republicanism, especially when interpreted from an ecological point of view. Both are essentially oriented toward the future, which is critical from the perspective of preventing species loss, and both are concerned with creating a home for human fulfillment through politics. By putting green civic republicanism in dialogue with Arendt, and in particular her conception of political space and political freedom, we can evaluate the strengths and weaknesses of green civic republicanism and also gain a better understanding of how Arendt can contribute to green politics.

Part I of this chapter looks at the concept of green civic republicanism with the help of green political theorists John Barry and Andrew Dobson, environmental ethicist Patrick Curry, and environmental sociologist Bruno Latour. It proceeds to discuss four elements of green republican thought – concern for the common good, civic virtue, political participation, and the aesthetic imagination of human communities nested in ecological contexts.[392] I am particularly interested in the communitarian aspects of civic republicanism and the degree to which this tradition can help to constitute ecologically responsible versions of political community. I then examine, in Part II, an Arendtian contribution to this conversation with help from feminist political theorists Bonnie Honig and Linda Zerilli, environmental philosophers David Macauley and Kerry Whiteside, and environmental political theorist Douglass Torgerson. In this section I first outline her theory of political action and show how it enables us to critique green republicanism. I argue that an Arendtian account of political freedom productively cautions

against domineering appeals to the common good by insisting on a conception of political space that remains open to diversity and contestation about what constitutes ecological responsibility. By insisting that politics remain a realm of freedom itself, and not instrumental for some other end, such as virtue, the state, or aesthetics in and for itself. Arendt reminds green civic republicans of the need for a particular kind of political participation focused on new beginnings. People are more willing to accept the tectonic social shifts required by the move to ecological responsibility – gentler lifestyles, more benign technologies, a re-thinking of economic development – if they feel it is something they help to manifest. Yet while Arendt's contribution to GCR is useful, but there are limitations to seeing Arendt as a "green thinker." Her condemnation of technology worship and rampant consumerism resonate with environmental themes, but her judgment that the metabolic, the biological, and the "shadowy interior of the household"[393] are not properly political is problematic, for "life" and the *oikos* are intrinsic to green politics. Indeed, how *both* Arendtian and republican thought maintain distinctions between "public" and "private" also raise intriguing questions from a green point of view. Finally, the global natrue of environmental problems like extinction predicament challenge us to think about the boundaries of a green civic republican approach and whether it or an Arendtian variant can adequately cope with the global nature of many ecological problems**.**

Part I: Green Civic Republicanism – A Narrative Overview

Getting and spending we lay waste our powers.
– Wordsworth

The civic republican tradition underwent a revival in the 20th century. This was partly a response to the perceived failures of liberalism, but scholarship also endeavored to demonstrate the shared historical foundations of both liberalism and republicanism. Work on civic

republicanism has traced out a variety of republicanisms that have surfaced from its anti-monarchical beginnings[394] in Aristotelian and Roman forms, through the "free states" models of Machiavelli, Harrington, Rousseau, and Madison, to 20th century versions in Arendt, Skinner, Pettit, Sandel and Charles Taylor.[395] There is a Gadamerian approach to much of this effort – the acknowledgement that new horizons of possibility can open up through an engagement with the traditions of the past. But interest in civic republicanism is not an abstract and purely intellectual exercise in nostalgia. It is a vital and contemporary reaction concerned with re-invigorating a public realm, increasing sites for participatory politics, and framing issues civically, beyond appeals to individual self-interest.

Recently, environmental political theorists have built on the civic republican revival and discovered that, though under-theorized from a green perspective, there are strong connections between civic republicanism and green politics. To some theorists, this has been a bit revelatory. As green political theorist and central figure in GCR scholarship John Barry characterizes it,

> The language of civic republicanism has been largely absent from debates within green politics and theories of the politics and ethics of sustainability, unlike the conferences, edited books and monographs dedicated to exploring the relationship between green politics and, *inter alia*, feminism, liberalism, anarchism, socialism, Marxism, conservatism, or neo-liberalism. This absence is somewhat remarkable given the compatibility of core republican ideas with key principles of green politics. For example, key features of green politics include active citizenship, in which duties as well as rights are central; a democratized and decentralized state is seen as necessary to promote the common good of sustainability (particularly in relation to regulating the free market); and a sense of justice and connection between past, present, and future generations.[396]

Green civic republicanism thus seeks to engage two problems at once – one ecological, the other democratic. Relying as it does on stout appeals to the common good, public virtue, political participation, and aesthetic imagination, green republicanism puts considerable trust in the ability to cast ecological problems as public issues that need more civic engagemet. Green civic republicanism can encourage forms of political association conducive to building an ecologically sustainable community because of its potential to constrain capitalism's "externalities," view environmental problems holistically, and act in longer time horizons according to the interests of future generations of humans and nonhumans alike. It does so, as Barry argues, in a way that, "allows greens to offer an 'immanent critique' of the current unsustainable paths being followed by western societies in a language comprehensible to the majority of its citizens."[397]

Greens who are interested in civic republicanism as a resource for environmental political theory share some of the disaffection with liberal approaches to the ecological challenge. As liberal green political theorist Marcel Wissenburg puts it, some greens go so far as to think that "liberalism [is] the evil genius behind the ecological crisis" – both responsible for causing environmental degradation and frustrating potential solutions.[398] Robyn Eckersley is more tempered, as she sees green politics as post, not anti, liberal. But ecological problems, in my view, cannot be reduced entirely to shortcomings in any particular political tradition. Nothing in civic republicanism, for instance, *necessarily* prevents ecological degradation in the name of the "republic." So this isn't to say that the republican tradition provides readymade answers to ecological problems, nor is it to imply that it will always have good answers independent of how they might be interpreted and practiced in discreet social contexts. Moreover, some greens might be skeptical of the republican approach in general. Talk of civic duties and the common good can make green liberals nervous. The classical association of republicanism with "masculine"

virtues and military values is off-putting to eco-feminists. Green cosmopolitans may wonder whether republicanism suffers from an unfortunate problem of scale – too big for local problems and too small for global ones. Eco-anarchists find in republicanism too strong a reliance on the state. These criticisms have merit, but as I will show, a green version of civic republicanism points toward deepening attachments to place and community in remarkably robust ways and can be helpful in responding to the problem of species loss.

Four Elements of Green Civic Republicanism

So what is green civic republicanism? As I read the (admittedly small) literature on GCR and reflect on its possibilities, I see four elements that are germane to a green civic republican approach – discourse in the language of common goods, the invocation of civic virtues, the importance of active participation, and the development of aesthetic political vision.

Green Common Goods

The first feature asserts that there is – or should be – such a thing as green common goods. The premise of this position assumes that people have, or are capable of having, a political identity coeval with being a free "republic." As the political theorist Quentin Skinner points out in his analysis of republicanism in early-modern Britain, what it means for a political community to be free "constitutes the core of what is distinctive about (republicanism)."[399] The notion of identifying of identifying with a republic that can plausibly construe a common good, free from either external constraints by outside influences or internal domination by unrestrained political and economic forces, is at the core of the republican project. External constraints bound a republic with the common purpose of maintaining freedom from external domination. Sensitivity to internal forms of domination binds a republic together and explains

republicanism's concern for political equality. A strong sense of interdependence thus animates republicanism and green politics. Aristotle reminds us that we are neither beasts nor gods – we need each other not only to survive, but to thrive.[400] To greens, interdependence with reference to common goods is a fundamental theme, both descriptively and prescriptively.

This sense of interdependence is tied to depictions of the common good. As Andrew Dobson and Andrew Light both argue, environmental goods are strongly amenable to being cast in public language.[401] Intuitively, this makes considerable sense. After all, everyone materially depends on clean air, water, and the fecundity of land and sea for food, fiber and fuel to live. Nature is the ontological ground that makes life possible. Yet increasing numbers of people believe in a "post-material" account of environmental goods that posits the importance of ecological integrity to living the good life. We might even say that future generations *only* understand environmental goods as something held in common, for it is reasonable to think that they would want an environment that is integral and not degraded.

What does the "common" in green common goods refer to? On one hand, it clearly implies a connection to human communities and their wellbeing. In this sense appeals to the common good in green republicanism are compatible with what Eckersley calls "human welfare ecology" – environmental goods that instrumentally serve human interests.[402] On the other hand, it is also possible to expand the moral meaning of the "common" to include nonhuman communities. Articulating the common good in a more extended ecological sense would argue for political recognition of the interdependence of human and nonhuman nature in the wider web of life. How would green republicanism articulate this challenge specifically? Can it do so without depending on pre-political descriptions of agency, personhood, sentience, or other bedrock sources of moral reasoning? Republican notions of political "duty" could be a

pragmatic way forward, as the concept of duty need not require a referent that has the same moral status as the subject. Duty derives from a sense of sharing something in common with nonhuman nature. Conceptions of duty can also be anthropocentric in origin, which is important as green republicanism reflects the human achievement of creating a republic and making a space for political freedom. As green political theorist Patrick Curry points out, "candidates for non-contractual duties include children, the senile, the temporarily and permanently insane, defectives, embryos … sentient animals, non-sentient animals, plants, artifacts, art, inanimate objects … ecosystems, landscapes, and places, countries, the biosphere, and oneself."[403] Moral philosopher Margaret Midgely adds that, "As far as sheer numbers go, this is no small minority of beings with whom we have to deal. We are a small minority of them."[404] There is no reason why a green republican community could not take into account political conceptions of duty to nonhuman life forms and ecosystems.

There are challenges, however, in appealing to green common goods from a republican perspective that I'd like to address. First, in what way does their being realized depend on other structural features of the political community, such as an egalitarian class composition? Throughout the republican tradition, relative material equality is viewed as an antecedent to the development of common, shared interests. But what comes first in *green* civic republicanism? Does it require strong social bonds or does it help create them? Is the *green* part of an appeal to the common good a cause or an effect, or both? The issue here is complex, but I think is likely both. Green common goods help us to realize how we are biologically connected to our material surroundings, and therefore, to each other. At the same time recognition of the shared quality of environmental goods would be more likely to appear in societies not overwhelmed with class conflict or deep historical divisions. Distributive justice is thus important to GCR.

Another question concerns the common good and consensus. We often fiercely disagree about when an ecological common good should be protected as a public good or used instrumentally for public benefit. Impressions of ecological damage from pollution, industrial disaster, and species extinction also prompt reflection about what "we" are doing to the environment. Similarly, conceptions of "we" accompany sympathy with victims of environmental degradation and rely on a sense of public shame, which requires a political context in which shame has significance. At the same time, invocations of "we" are part of a political community's decision to use and exploit resources for the benefit of the republic. All expressions of a common good represent power in some form or another, but when can we say that it genuinely reflects authentic consensus and when is it a mask for particular interests? It is not easy to say. Green republicanism holds out hope that community sentiment would bend toward protecting ecological common goods in an effective way. But how and why we should protect clean air, water, and biodiversity are contested, even amongst greens. Rather than viewing this as debilitating, we should recognize that conflict over place and the struggle to express common goods can be an important practice of green republicanism. Green republicanism does not require a monolithic conception of the common good, which can be associated with reactionary side effects. In fact, discussion about green common goods – even with a lack of consensus – can be an important site of meaningful politics in green republicanism.

A final problem concerns the relation between green common goods and scale. Since the common good in civic republicanism is conceived in terms of the scale of the republic, one consequence is that the republic is likely to remain in considerable tension with local or particular interests. This can express an uneasy relationship between republicanism and

decentralized forms of grassroots democracy. Green political theorist Terrence Ball, for instance, notes that the Arctic National Wildlife Refuge in Alaska only remains free from oil drilling because people who do not live there wish it to remain a wildlife refuge.[405] Indeed, protected areas around the world are frequently in conflict with local inhabitants, as we saw in Chapter I, though by no means is this always the case. As someone who has been to the Arctic Refuge and is deeply gratified that it is protected as a wildlife refuge, I think green republicans should, nevertheless, be on guard for outcomes that marginalize local communities. A good start would be to recognize that green common goods are political and subject to all the challenges of expressing "community sentiments" in the context of complex, pluralistic societies.

Green Civic Virtue

The second element of green civic republicanism concerns civic virtue. Dick Cheney once famously said in reference to the need for nuclear power expansion that, "Conservation may be a sign of personal virtue, but it is not a sufficient basis for a sound, comprehensive energy policy."[406] Green republicanisn virtue stands resolutely in stark contrast to Cheney's derisive comment because conservation isn't a personal virtue but a public one. In another sense, Cheney's statement (ironically) goes to the core of republican virtue itself – the idea that some virtues represent community values and others merely personal values. As a result, when action is divided between these different "selves" responsibility to civic virtues take precedence in civic republicanism. In traditional republican thought, allegiance to one's political community is seen to be in perpetual tension with allegiance to one's individual self.[407] As Patrick Curry explains, "For civic republicans like Machiavelli, where there are conflicts between public duties and private virtue, the latter must give way, or else both decline together."[408] But while this may be true in general for civic republicanism, the *connection* between civic and personal virtues is

important and there is a close link between civic and personal virtues for civic republicans from Aristotle, Cicero, Montesquieu, to Rousseau. While there is perpetual tension between the two, the two types of virtue also mutually inform each other. Civic and personal virtues reflect different instantiations of a self in spheres of life that are different but not fundamentally disconnected from one another. As the philosopher Richard Rorty writes, many moral problems are really, "Conflict between alternative selves, alternative self-descriptions, [and] alternative ways of giving meaning to one's life."[409] Green politics throws open to debate the political meaning of settled divisions between public and private, civic and personal. It provides an opportunity to reflect on points of conflict and points of complimentarity between different views of the self and their attendant virtues.

What kinds of virtues have typically been associated with civic republicanism? Courage, sacrifice, and strength are often at the top of the list. Dobson notes that these have been criticized as excessively "masculinist," though he rightly points out that "it turns out these are better understood as masculinst interpretations of what these virtues might entail."[410] The virtues of courage, strength, and sacrifice have resonance with green republicanism as well but, at the same time, there is no reason why green republicanism can't incorporate "feminine" virtues of care and compassion, keeping in mind that just as care and compassion certainly have "feminist" interpretations, they should not be understood as virtues that apply only to women.

What brings courage, strength, and sacrifice together with care and compassion in a green construction of virtue is the concept of responsibility to ecological goods. Virtue as responsibility takes two forms – as *responsibility for* redressing environmental harm, and *responsibility to* enact green ways of life. The former is reactive and concerned with

enforcement, punishment, reparation, and restoration. The latter is active and about fidelity to values that serve ecological and social flourishing.

Green virtue as *responsibility for* takes a collective view of environmental harm. This does not necessarily entail the replacement of private interest by the public interest, as some liberals might fear. But it does imply a social environment in which individual interests are examined and potentially transformed, instead of relying, as liberalism does, on only constraining or incentivizing private preferences.[411] *Responsibility for* becomes a kind of mirror in which private interests are revealed and the environmental impact of individual choices can be seen in light of their cumulative effect.

Green virtue as *responsibility to* is aspirational and idealistic. It is less about what has been done and more about what a community of citizens can become. Ecological virtue in this sense takes on a more aspirational and normative character, and draws in equal measure from courage and sacrifice as it does compassion and care. What makes this properly a green republican concern, as opposed to an individual matter of conscious enlightenment, is the role that the theater of "the republic" plays in embodying the desire for social change through education, civic service, and political reform.

In green politics, exercising virtue most essentially means rethinking the role of economic activity in a political community – investment, production, consumption, reproduction, distribution.[412] The importance of constraining and directing economic impulses in republican thought rests in the recognition that public goods are continually under threat from economic activity that has moved beyond a proper sphere of distributive justice.[413] Unrestrained material ambitions lead to class divisions that undermine social cohesiveness. In traditional civic republican theory, such as Rousseau's *Social Contract*, there should be a firm separation

between political and economic spheres that correspond to sharp divisions between public and private interests.[414] Indeed, from an Aristotelian perspective, according to Arendt at least, "political economy" was seen as an oxymoron.[415] For Aristotle, freedom to engage in political activity required freedom from private economic affairs. Arendt's interpretation of Aristotle may be exaggerated, as it is not true that economic concerns play *no part* in a civic republican view of politics, classical or otherwise. But from a green republican point of view, thinking that political economy is an oxymoron doesn't make sense. Economic desiderata saturate private and public conceptions of good to such an extent that green politics has to reckon with enterprise on both a structural level and as a matter of personal lifestyle choices. *Green* republicanism seeks to intertwine economic enterprise with civic virtue and community responsibility and is necessarily, therefore, a form of political economy.

However, economic questions in green civic republicanism are tricky as matters of virtue, especially if one thinks of "virtue" as something heroic and extraordinary. This is because green politics is both about the everyday material throughputs of ordinary living and the structural place of the economy in a political community. In this sense, a neat division between public and private breaks down in striking ways. As Dobson correctly argues, "Ecological politics is a quotidian politics – a politics that embraces and entails the everyday metabolistic relationship between individuals and the non-human natural world, as well as that relationship mediated by our presence and participation in 'public' bodies."[416] There is no simple way to categorize economic activity and its effects as simply public or private from a green perspective, and therefore it is difficult to disentangle private from public virtue in green civic republicanism. The already complicated divisions between public/private and civic/personal in republicanism

are scrambled by adding a green dimension. Green republicanism therefore represents a considerable re-imagination of the republican tradition on the question of virtue.

A final point about green republican virtue is concerned with the question of whether it can go too far into the details of life. Is there any limit to the reflection of daily life choices in the mirror of eco-social virtue? After all, doesn't every action in some way leave a carbon footprint, create waste, or cause "harm"? Building on Freud's "psychopathology of everyday life," which needs trained experts to interpret minor anxieties in terms of larger pathologies, postmodern social theorist George Meyerson sees a creeping "ecopathology of everyday life." This phenemon requires an environmental authority to divine what is really going on in our everyday lives.[417] He writes, "The Ecopathology of Everyday Life begins when you insist that there is no such thing as simply a blocked drain in a city sewer system. This blocked drain is a symptom of global climate change, a mundane confirmation of a deeper meaning that has been discovered behind everyday life. At its most extreme, ecological interpretation gives a deepening significance precisely to the most trivial details. The effect can be disorienting."[418] When is the storm that causes the blocked drain on a city street a regular storm and when is it symptomatic of a major climactic shift? Only experts can know.

Myerson thus goes on to argue that one implication of this "pathology" is an increasing reliance on "experts" to scrutinize the real ecological impact of our ordinary lives. Both the magnification of the trivial and the need for green experts to interpret daily life choices in terms of their larger ecological impact, Meyerson argues, "threatens to alienate those who are happy enough with the ecological approach in general."[419] In other words, moralizing about virtue can be alienating. "Virtue talk" can become a subject of ridicule and spawn subversive hostility, becoming fodder for late night comics who crack jokes about plastic bag bans, limiting the size

of soft drinks, or the proliferation of bike lanes. Too much "virtue talk" can initiate games of public guilt and accusations of hypocrisy, as when greens fly around the world in carbon-spewing airplanes to speak at conferences about sustainability or when Al Gore sells Current TV to rich Emiratis who got rich off of oil money. Irrespective of the substance of these claims or whether it is ever possible to avoid hypocrisy in green politics, the discursive focus shifts from the merit of green virtues themselves to questioning the value of "virtue talk" at all. How much of everyday life should be subject to "green" scrutiny? It is hard to say, but green republicans should be keenly aware that a quotidian politics of virtue is susceptible to alienating those who might otherwise be willing to take a more civic-minded approach to their daily life.

Political Participation

A third theme in green civic republicanism is political participation. Participation is vital to the republican tradition because "the republic" is not naturally given – it is an artificial human creation. Part of civic republicanism's recent revival lies in response to the perceived decline in political participation across modern liberal democracies. In this regard, green civic republicanism is part of a broad literature in political theory pointing to the value – intrinsic and instrumental – of greater political participation. As John Barry puts it, "Politics, for republicans, is an attempt to build an enduring home for human lives in a world ruled by contingency and filled with potentially hostile agents, both human and nonhuman. Political communities and their values – of liberty, honor, glory, power, wealth and the common good – are conventional, human creations, not naturally given; they must be actively created and recreated and sustained by collective, conscious human action."[420] "Collective, conscious" action, in other words, requires active forms of citizenship and participation.

The intrinsic value of greater participation is that it binds citizens together through doing. Recognizing interdependence through common connections to nature, participation helps them to articulate common sense perspectives in the vernacular of ordinary people. At the same time, participation exposes environmental problems that are seen from a multiplicity of perspectives and teaches citizens about diversity. As Robyn Eckersley writes, "Public spirited political deliberation is the process by which we *learn* of our dependence on others (and the environment) and the process by which we learn to recognize and respect differently situated others (including nonhuman others and future generations). It is the activity through which citizens consciously create a common life and a common future together, including the ecosystem health and integrity that literally sustain us all."[421] In many ways, ecological issues themselves provide the inspiration for civic participation. Environmentalist Paul Hawken writes in *Blessed Unrest* that both domestic and global civil society NGOs have proliferated tremendously in recent decades, mainly around environmental, human rights, social justice, and indigenous issues. He thinks that up to two million such groups now exist worldwide.[422] To Hawken, moreover, these issues are increasingly "intertwingling," meaning that they intersect in fundamental ways and are no longer discursively separate. Their proliferation signals a tremendous social shift and intimates a connectedness that we have not yet named, one that, perhaps, future generations will be able to see more clearly, just as we now see social movements of the past as coherent movements (even when they weren't) with the hindsight of what Hegel calls the Owl of Minerva, with the optics of hindsight that only historical vantage points can provide.

Green civic republicanism also wants participation to lead, instrumentally, to specific goals and sound policies. This requires certain enabling factors, such as opportunities to associate, access to information, and the confidence that popular participation makes a

difference, something that a green republican model would actively promote. The instrumental argument also claims that greater participation would lead to an increased sense of collective identity, more opportunities for consensus, and some modicum of social understanding, rather than providing an arena that only hardens and exacerbates social conflict. Obviously, this is a big assumption, one that relies on an idea of participation that unites rather than divides people, as participation can just as easily lead to acrimony, ossification, and faction. Indeed, an alternative strain in republican literature emphasizes the dangers of too much democracy, in the form of factionalism and majority tyranny, to the stability of the republic. Republicanism, as in Madison's Federalist 10, is put forth as a cure for the dangers of democracy.[423] Nevertheless, green republicanism is better served by too much democracy than too little, a point I will emphasize in part II.

There may be another instrumental value in participation that greens count on – the connection between participation and moderation, one that, again, harkens back to Aristotle. Aristotle thought that the experience of ruling and being ruled in a *polis* leads both to moderate rule and to moderate virtues. As John Barry writes, "Citizens as well as cities are made not born. Here recent debates within green politics on citizenship are illustrative of the potential for engagement between green politics and republicanism. Particularly interesting here are arguments defending distinctly 'republican' notions of green citizenship including proposing provocative ideas such as compulsory 'sustainability service' for all citizens."[424] In this sense, participation in green politics, even if "required," can potentially lead to a closer appreciation of the common good and concomitantly to a more moderate lifestyle that leaves a lighter ecological footprint. This argument rests on the idea that political participation has the residual effect of changing, perhaps in ways that are less than conscious, environmentally destructive behavior. At

the same time, of course, anything perceived as "compulsory" will create resistance, especially in the context of societies that are more individualistic and less communitarian.

At the same time, however, greens should interrogate what counts as "participation," and question how people can contribute differently. In a terrific short essay by Michael Walzer entitled "A Day in the Life of a Socialist Citizen," Walzer warns against seeing *active* participation as the only thing that counts in a democracy as "participation." He writes that many do not participate, "Not because they are beaten, afraid, uneducated, lacking confidence and skills (though these are important reasons), but because they have made other commitments; they have found ways to cope short of politics; they have created viable subcultures even in an oppressive world."[425] For a movement as vigorous as the green movement, divisions between "core" and "periphery" activists are pronounced and Walzer's comments are a tonic to relieve this division. Being active can take many forms, and even "passive" criticism can be a form of participation. As Walzer writes,

> Along the democratic politics of shared work and perpetual activism there would be the open and leisurely culture of part-time work, criticism, second-guessing, and burlesque. And into this culture might well be drawn many of the alienated citizens of today. The modes of criticism will become the forms of their participation and their involvement in the drama the measure of their responsibility. It would be a great mistake to underestimate the importance of criticism as a kind of politics, even if the critics are not always marked, as they will not be, by "republican virtue.[426]

Walzer wants to remain open to forms of participation – like criticism – that should "count" in a democracy. GCR should similarly remain open, not just to criticism but other kinds of participation as well. Environmental modes of participation are particularly diverse – from

educational outreach, divestment campaigns, neighborhood associations, culture jamming, and direct action – and serve an extraordinary variety of causes.

Green Republicanism and Aesthetic Vision

The fourth theme in green civic republicanism is concerned with the aesthetic construction of community, as eco-republics need to be pictured in order to be understood and have affective appeal. This theme is not emphasized in GCR scholarship but I think it should be. The body politic, an ancient republican way of depicting a polity, is a rich metaphor for green republicans, materially and symbolically, and serves an important aesthetic purpose. Quentin Skinner claims that, "The clue to understanding what (republicans) mean by predicating freedom of entire communities lies in recognizing that they treat as seriously as possible the ancient metaphor of the body politic."[427] And as global environmental political theorist Steven Slaughter puts it, the body politic represents environmental public goods, "goods that are not able to be obtained individually."[428] Three "ideal types" are available – the green republic as "wilderness," as "garden," and as "metropolis." Each one corresponds to a different social logic and aesthetic sensibility in regard to nature ranging from wild to pastoral to urban, but all can inform and co-exist in an ecological republic. Aesthetic forms of a "green republic" have clear connections to the ecological utopian literature and bioregionalism mentioned in Chapter III.

Imagining aesthetic components can also draw on Bruno Latour's anti-essentialist work on "nature-cultures." To Latour, the depiction of "nature-cultures" is a way of describing the hybrid ways both nature and culture interpenetrate each other.[429] He seeks a way around the universalism of nature (as depicted by science) and the relativism of cultural frameworks (as described by anthropologists). His point is that we can't describe either "nature" or "culture" in essentialist terms, and we can only do so in terms of their hybridity in specific circumstances.

Where I find Latour beneficial here is in extending this idea of hybridity to how a green republic is envisioned as a polity embedded in a particular ecological context.

Green republican communities are therefore "imagined hybrids" on an important level. They are imagined in the way that Benedict Anderson argues in *Imagined Communities* that all political associations are at scales larger than village or the *polis*.[430] In fact, in one way they are *necessarily* imagined insofar as the distance between the way things are and they way they could be is so vast given current experiences of environmental degradation. This imaginative quality can engender an aesthetic perspective that tries to connect social and ecological flourishing. For example, green technologies that reduce carbon footprints and meet human needs have a kind of aesthetic elegance. Small-scale organic farming provides meaningful work and healthy food, increases the solidarity of local economies, does right by soils and local water systems, and, when viewed as a whole, elicits a kind of beauty. Protected landscapes that retain the same levels of biodiversity found thousands of years ago connect generations through conservation.

Yet insisting on an aesthetic component to politics makes realists, conservatives, and even some civic republicans nervous. Critics as varied as Burke and Kateb may point to examples of social cruelty condoned in order to achieve an aesthetic vision in politics, such as the reckless view of social malleability in Rousseau; the perils of imposing Platonic forms on the shadowy illusions of the empirical world; Nietzsche's will to power; or the willingness to accept violence in many revolutionary ideologies.[431] John Barry insists that, "A republican sensibility is not romantic; it is resolutely based in 'realpolitik' – hence its 'tough' and often 'austere' character in being vigilant about the dangers facing the republic and its free citizens."[432] I'm not so sure, at least about the romantic part. Yes, much brutality has been done in the real world by vanguard social movements trying to remake society to fit some aesthetic dream of the "correct

social reality." What should be kept in mind at this point, however, is that an aesthetic feature of green republican thought is not intended to grasp in ideal form *the* correct social relationships between humans and between human and nonhuman. Aestheticism in green civic republicanism should be inspiring, not terrorizing. It is inspiring in the way that people come together and participate in envisioning the kinds of communities they would wish for themselves, their children, and future generations – communities that are capable of enduring because they take the ecological embeddedness of society seriously.

I think there is room in green republicanism for romantic depictions of the green body politic. One of the attractions of green republicanism is its future-orientation. To be widely effective, the exercise of ecological responsibility and virtue needs linkage to visionary expeditions that help us to see what we want to become, even if our worldly knowledge tells us that ecological communities will never be quite like what we are capable of imagining. Quite naturally, deliberation over the aesthetic qualities of what a green republic should look like nourishes the imagination of social freedom and cultivates a kind of dreaming capable of envisioning alternative futures. To help us write a story of sustainability we need to envision new storylines and the aesthetic element in green civic republican can serve this vital purpose.

Part II: An Arendtian Encounter with Green Civic Republicanism

They are wrong who think that politics is like an ocean voyage or a military campaign, something to be done with some end in view, something which levels off as soon as that end is reached. It is not a public chore, to be got over with; it is a way of life.
– Plutarch

We are of this world and not merely in it; we, too, are appearances by virtue of arriving and departing, of appearing and disappearing; and while we come from a nowhere, we arrive well equipped to deal with whatever appears to us and to take part in the play of the world.
– Arendt

The image of political freedom as a "lost treasure" that needs to be rediscovered animates Arendt's work and clearly links her political theory to the civic republican tradition, albeit idiosyncratically. Her work is also relevant to green politics and thought, though, again, in a particular kind of way. In this section I will put Arendt in conversation with my depiction of green civic republicanism as outlined in Part I in order to both critique GCR and Arendt, and in so doing gain a deeper understanding of the promises and pitfalls of this approach to green politics. I find that Arendt's account of political freedom can help advance GCR by keeping it open to politics and preventing it from relying on essentialist or *a priori* notions of nature, virtue, or the republic. GCR should embrace a *virtu* politics of meaningful contestation about place and community as it seeks to strengthen social bonds through increased participation and experiences of political freedom.

At first glance, connections between Arendt and ecological thought are not obvious. She is a humanist with a strong anthropocentric core. Judged by her voluminous published work, she does not seem terribly aware of or bothered by ecological concerns in and of themselves. Several biographical factors may play a role in this, notably the embryonic stage of the ecological movement during her lifetime and, perhaps, a keen recognition of the wicked ways environmental values were touted in Nazi propaganda to naturalize racist constructions of community.[433] But there are intellectual reasons as well. Her discursive contrast between the

dark and forgettable world of the "private" realm (and its association with the determinism of nature) and the bright and historical world of the public (and its association with freedom) can seem deeply unsatisfying from a green point of view. Her banishment of the "social question" from politics concerns many, from feminists for whom the 'personal is political' and those who accuse her of 'polis envy,'[434] socialists who find ignoring material questions of social justice baffling,[435] and greens who'd find policing divisions between public and private confusing. Moreover, Arendt's rigid dualism between an active human culture and inert nature ignores the ontological interpenetration of each by the other, and in so doing goes against the grain of most recent thought in green politics, especially, as I attempted to show in Part I of this chapter, in green civic republicanism.

On second glance, however, a number of Arendt's core themes – earth and world alienation; the loss of a shared, common world; an incisive critique of science and technology; concern about the dangers of consumerism and materialism; respect for natality and the promise of new beginnings; and a deep worry about a politics subservient to economic goals – are all relevant in vital ways to green issues. Indeed, there has been some notable Arendtian scholarship on her connection to green politics, such as environmental philosopher David Macauleys' work on ecological conceptions of place and Arendt as a "philosopher of ecology," green political theorist Douglass Torgerson's arguments advancing a green public sphere, and environmental ethicist Kerry Whiteside's emphasis on greening Arendtian conceptions of "culture" and care for the natural world.[436] But more can be done.

Both GCR and Arendt investigate classical politics in order to gain a perspective on modern problems. Arendt's distinctive understanding of action as political freedom, the importance of promise-making to politics (especially to the future), and the encouragement of

democratic citizenship all complement elements of green republicanism. Arendt's complex investigation of modernity through the analytical framework of the *vita activa* reveals a remarkably persuasive story about the genesis of modern ecological problems and the promise of meeting ecological challenges through a reinvigorated sense of public freedom. By putting Arendt's distinctive version of republicanism in dialogue with some of the core tenets of green republicanism outlined above, we can get a sense of the strengths and weaknesses of the green republican approach and, as we will see, of the potential of Arendt's thought for green politics.

I argue here that her insistence on political space as a site for agonistic contestation ensures that the green concern for the common good and its associated civic virtues is not a substitute for democratic politics but rather requires it. This would help keep the constitution of ecological community where it belongs – as a constituent feature of the people themselves, not something that stands over them from a distance and determined by green experts. Furthermore, her anti-foundational and non-utilitarian approach to politics can be used to give voice to the plural strands of green valuation in a way that does not *a priori* foreclose what an ecological community could become if it is politically free. Green politics is about reckoning with ecological limits and Arendtian political action is concerned with freedom in the context of an earthly and worldly reality. Both are concerned with social conditions that lead to ecological sustainability and, therefore, a lasting home in the world for both human and nonhuman inhabitants. Moreover, Arendt and GCR think that life is enriched by spending more time in the communicative space of politics and by delighting in civic engagement. Yet GCR embraces the "social question" in a way that Arendt cannot countenance, not because politics is a vehicle to consumerism or economism (far from it), but because "housekeeping" – both individually and

collectively – is properly a matter of green politics. In what follows I'll first look at Arendt's theory of freedom, relate it to GCR, then explore what can be learned from this encounter.

Political Action as a Theory of Freedom

To understand what Arendt means by political action, we should first understand why it is missing in the modern world. For Arendt, the modern age is in an ironic position. She writes in *The Human Condition*, "It is quite conceivable that the modern age – which began with such an unprecedented and promising outburst of human activity – may end in the deadliest, most sterile passivity history has ever known."[437] The main reason for this is the loss of a common world. About this she claims in *Between Past and Future*, "This twofold loss of the world … has left behind it a society of men who, without a common world which would at once relate and separate them, either live in desperate lonely separation or are pressed together into a mass."[438] Both social conditions lead to a kind of totalitarianism wherein "everything is possible – and not just permitted, morally or otherwise, as was the case with early nihilism."[439] On one hand, the apolitical separation of individuals left to their own sovereign realms of "freedom" radically inhibits responsibility to care about ecological relations to the world. On the other hand, the mass can only see itself politically as lumpen-consumers subjected to pressures of "pecuniary emulation" and "conspicuous consumption" so well described by social critic Thorstein Veblen in his classic *Theory of the Leisure Class*.[440] Both see politics as a phenomenon that either secures or steals from economic well-being. Politicians see themselves as "social housekeepers" catering to the needs of "jobholders," at least rhetorically. Nancy Pelosi, former U.S. Speaker of the House, summed up succinctly her goals for the 2008 legislative session *prior to the financial crisis* as "jobs, jobs, jobs, jobs, jobs."[441] "It's the economy, stupid," was the Clinton campaign mantra of the 1990s. In the modern era, the political, from Arendt's perspective, has been

colonized by the economic. Contemporary politics unfailingly manifests a consumerist and technological view of politics that furnishes a continual flicker of nightmares for Arendt.

In the context of an age that has turned away from contemplation and wonder at the natural world, "that *thaumazein*, the shocked wonder at the miracle of Being," human activity seems to have become unmoored from a natural backdrop that puts its enterprise in salutary perspective.[442] Arendt writes, "Only when the *vita activa* had lost its point of reference in the *vita contemplativa* could it become active in the full sense of the word; and only because this active life remained bound to life as its only point of reference could life as such, the laboring metabolism of man with nature, become active and unfold its entire fertility."[443] To Arendt, in addition to losing respect for the *vita contemplativa*, the modern age has also "lost" a political conception of a common world that is not dominated by economic considerations, one where political freedom is still possible. What exactly does she mean by this? A brief summary of her thoughts on the *vita activa* – constituted by labor, work, and action – will enable us to see her vision of public freedom and its relation to GCR more clearly.

I should be said prior to a discussion of the *vita activa* that many read in Arendt an elitist strain that demeans the economically-oriented activities of labor and work in favor of the more "dignified" pursuit of political freedom. While it is true that she agrees with the classical hierarchy of the *vita activa*, this does not mean that labor and work are unworthy pursuits in themselves. As Kerry Whiteside helpfully points out, each part of the *vita activa* has a corresponding "mentality."[444] Arendt's point is that a society is out of balance when it is dominated by a particular "mentality," for this takes away from a fully rewarding life. Whiteside persuasively argues that these categories are, "interdependent and the *suppression of any category diminishes a fully human existence*."[445] Therefore, her praise for the political life of

freedom should not be read as an exclusive concern for "political" matters. Just as a life dedicated only to labor or work is unbalanced, so is a life dedicated only to political action. But what is of value here for greens is the idea that if the political realm of action can be recovered and assert its rightful place alongside the concerns of labor and work, it can be a space from which we can freely choose ways of life more compatible with ecological sustainability.

Labor is the part of the *vita activa* that is directly connected to the biology, growth, metabolism, decay, and "the ever-repeated effort to secure food, shelter, security, and longetivity."[446] Nature has intrinsic value from this perspective insofar as it fosters life itself. Its "mentality" is concerned with securing material conditions of abundance. Labor to Arendt in the form of the "rise of the social" in politics signifies necessity destroying freedom. The mute impulses of nature obliterate a public world characterized by speech and deed. Arendt is horrified by the presence of *animal laborans* in politics, but as Whiteside points out, labor's relation to nature is not, in itself, a problem. He writes, "Labor, in spite of its penchant for consumption, is not intrinsically hostile to nature. Indeed, insofar as we labor, we learn to live with nature, coordinating our activities to its cycles: planting and harvesting, giving birth and fostering maturity, setting aside time for recuperation to follow exhaustion."[447] Arendt may not be especially hostile to nature on this point. Indifference is a better characterization.

For greens, the mentality of *homo faber* is more of a fundamental problem. Arendt writes that, "*homo faber*, the creator of the human artifice, has always been a destroyer of nature."[448] Work's corresponding "mentality" is concerned with means and ends, and the durability and permanence of human artifacts. It is the activity in the *vita activa* that produces things in the world. The "unnaturalness" of work (as opposed to the naturalness of labor) is concerned with the erecting a durable world of human artifice – of tools, utility, the objectivity of standards,

yardsticks, measurements and rules.[449] Nature from the perspective of work has no inherent value; it has value only as a resource. As Whiteside puts it, work "harbors the desire to do violence to nature by mastering it and reshaping it."[450]

Action is the last, and qualitatively the most enriching, part of the *vita active* to Arendt. Unlike labor and work, it alone corresponds to an experience of freedom, and therefore genuine politics. She writes, "The raison d'être of politics is freedom, and its field of experience is action."[451] It is the "only activity that goes on directly between men and without the intermediary of things or matter, corresponds to the human condition of plurality, to the fact that men, not Man, live on the earth and inhabit the world."[452] Action is not determined by a relation to nature, except in the sense that freedom is something always won from the struggle against necessity, existing momentarily when the pressures of necessity temporarily abate. Action's corresponding "mentality" is freedom itself and concerns, as feminist political theorist Linda Zerilli characterizes it, the relation between individuals in communities.[453] Action as freedom is not a pre-political property of individuals because it becomes possible only when individuals act and speak in a particular kind of public space.

Arendt's conception of freedom is therefore not a pre-political freedom in the fashion of natural law or the experience of inner freedom won through a flight from politics and the world by the lonely sage on the mountaintop. The dominant modern conception of freedom as freedom *from* politics sees politics simply as a realm where private freedom is secured or lost.[454] Instead, the Arendtian realm of freedom is an *in-between* space where men and women, through speech and action, distinguish themselves and reveal their distinct plurality. Arendt is worth quoting at length on this point:

> With word and deed we insert ourselves into the human world, and this insertion is like a second birth, in which we confirm and take upon ourselves the naked fact of our original physical appearance. This insertion is not forced upon us by necessity, like labor, and it is not prompted by utility, like work. It may be stimulated by the presence of others whose company we may wish to join, but it is never conditioned by them; its impulse springs from the beginning which came into the world when we were born and to which we respond by beginning something new on our own initiative … In acting and speaking, men show who they are, reveal actively their unique personal identities and thus make their appearance in the human world.[455]

In this space people are revealed, treated and respected as persons, not as products, commodities, or consumers. It is an intersubjective freedom created with others, only in public, and once liberation from the necessities of life has been achieved or put aside.[456]

This view of action presupposes a space in which to operate, a "kind of theater where freedom could appear."[457] For Arendt, this space is the common world of appearances, which is why she connects the practice of politics to the performing arts.[458] Freedom in this sense then is performative, where being and doing are not separated. She argues that, "Men *are* free – as distinguished from their possessing the gift for freedom – as long as they act, neither before nor after; for to *be* free and to act are the same."[459]

Stepping back, Arendt's theory of action is quite paradoxical. One paradox is that with the increase in scientific, technological, and organizational powers – the manifestation of a *certain* kind of action – comes a corresponding thinning of another kind of action rooted in individual agency and political freedom. The very nature of human action, to Arendt, lies in the

ability to begin something anew without ever really being able to control or predict its outcomes. However, the very lack of control and our subjection to what we are capable of initiating constitutes an existential worry. She writes, "It is beyond doubt that the capacity to act is the most dangerous of all human abilities and possibilities, and it is also beyond doubt that the self-created risks mankind faces today have never been faced before … Action (has) never before … revealed its greatness and its dangers so openly."[460] This paradox is further exacerbated if we conclude with Arendt that the possibility of truly acting has become an "experience for the privileged few."[461] Despite the ubiquitous rhetorical appeal of "democracy," real democratic action in contemporary societies seems scarcely conceivable, emerging, it seems, only in fleeting periods of political and historical rupture – for instance in moments of "people power" revolution or in resistance that cannot be sustained long term. She speaks of political freedom in almost mystical terms not because the experience is ineffable but because it seems so foreign to, and incidental in, modern life. This mood of frustration pulses through the *Human Condition* and *On Revolution*, and other works.

Her argument about the paradox of action has clear links to ecological concerns such as the denial of ecological limits, consumerism as a *summum bonum*, economism, and the inability to control or direct forces that humans have created. Yet Arendt's attempt to rescue political space from what she terms the "rise of the social" is indeed a curious project from a green perspective. On one hand, it seems almost inconceivable, and undesirable, to imagine a democratic politics that would steadfastly refuse to consider social and economic questions as relevant political issues. As the political history of the past century shows (although we need not exclude recent centuries), social and economic issues have played a central role in the affairs of politics, and indeed have constituted, it could be argued, the very substance of politics for

socialist, colonial/post-colonial, social democratic, and liberal democratic states. Arendt's theory of *virtu* politics[462], with its emphasis on the agonistic, virtuosic, and performative character of action in a public space unsullied by the private aspects of social and economic matters surely seems to speak a different language about the political than most of us speak today.

On the other hand, Arendt describes a type of political space that is not colonized by the pursuit of economic aims, and in so doing represents a republic liberated from the imperatives of economic growth. Greens can most definitely get behind this perspective on politics. To Arendt, the political space of action is where open, honest and frank discussion about vital matters of public concern can take place. But what do Arendtian citizens talk about? Feminist political theorist Bonnie Honig writes about the imagined Arendtian citizen that, among other things, "They may even address *environmental issues* so that they might prevent or at least delay the destruction of the very earth beneath their feet and preserve the most palpable condition of worldliness we have."[463] Action, especially action oriented toward environmental justice, is a model of what could be used to reinvigorate conceptions of the public currently overrun by private interest and power politics. As political theorist Hannah Pitkin comments,

> What distinguishes public life is the potential for decisions made not merely in the name of the whole community but actually by that community collectively, through participatory political action, and in the common interest. What distinguishes public life, then, is not that it has important substantive consequences for many people, for that could be true of large-scale private power, or economic activity, or childrearing practices. What distinguishes politics, as Arendt and Aristotle said, is action – the possibility of a shared collective, deliberate, active intervention in our fate, in what would otherwise be the by-

> product of private decisions. Only in public life can we jointly, as a community, exercise the human capacity to "think what we are doing," and take charge of the history in which we are all constantly engaged by drift and inadvertence.[464]

Thought of in this way, we can see why Arendt's lament of the "lost treasure" of political freedom is of value for greens –it pleas for us to reflect on our conduct and choices in ways that impact human and ecological communities. Arendt inspires us to question our goals, to question with others in a public sphere, and to question in general as persons, not as machines or consumers. For it is only from a position of political freedom that we are capable of reckoning with economic and ecological limits as a community that sees itself as free and has the ability to make choices about its values and the purpose of political action, or at least put them in perspective. Through acting and speaking with a plurality of others in their togetherness and natality, free subjects disclose their uniqueness and produce "meaningful stories." One of the central stories that now needs to be produced is, I contend, is the story of what ecologically sustainable societies could look like.

Green Common Goods

Given Arendt's theory of political freedom, how might an Arendtian encounter enrich green civic republicanism? An Arendtian contribution to green construction of the common good would begin by asking two questions. What does it mean to invoke ecological forms of the common good in the political realm? And what is involved in promising ecological common goods for future generations?

First, Arendt would resist the view that "life" as such is what is to be valued. If it were, then everything would only have value insofar as it served the "life process" and green politics would be little more than a version of the authoritarianism of Hobbes. Politics, she'd insist,

while concerned with life, *is not for the sake of life*. From Arendt's perspective, such a world enshrines "life" as the highest good, without regard to judgments about the good life. Arendt would certainly question the commitment to "life" *qua* "life." This questioning would make for an interesting dialogue with green politics. Greens, of course, also worry that we have come to think that "human needs can only be met through the *permanent* expansion of the process of production and consumption."[465] But they would find it ironic and troubling that in an era where "life" is supposedly the highest good, that biodiversity is being lost on such a tremendous scale.

Another concern is the fact that because many green values can be readily identified as "public" goods, they pose distinct dangers.[466] On one hand, the rhetorical ease of appealing to the common good can (and does) lead to empty sloganeering, greenwashing, and speechifying so general as to be meaningless. On the other hand, invoking the common good could lead to uncritical acceptance of authoritarian measures and policies perpetrated by the republic, for if action is done in the name of "the common good" it cannot, as Rousseau might argue, err – for "the general will cannot be wrong." Arendt's counsel here would remind, time and again, that democratic politics are always a site of agonistic contestation. To the extent that individuals are politically free and interested in maintaining this freedom in common, she would rightly argue, citizen vigilance would be the best defense against the hijacking of ecological common goods for issues of posturing, power, or profit. Nothing should be taken for granted, especially appeals to a common good in the name of a green republic.

Furthermore, Arendt would argue that what unites people into a community is not only their residence in a shared landscape, or other markers of a fixed identity, but their participatory existence as members of a shared common world. Residence in a shared landscape can provide an important context for contestation about what a common world means but it should not reflect

an essentialist and fixed identity. We have a common interest in green public goods not because, Arendt writes, we are "a multitude … of one supernatural body driven by one superhuman, irresistible general will,"[467] but because we share a public world in common. This is an important distinction because it does not see the common good as corresponding to a given subject, i.e. the "community." As Zerilli perceptively writes in thinking about the Arendtian concept of political freedom as it relates to feminism, the collective subject of "women" raises the "fraught question of whether the raison d'être of politics, feminist or any form of democratic politics, is indeed the social advancement of the group in whose name members of a political movement claim to speak."[468] Behind this instrumental conception of politics lie great pressures of conformism and behavorialism, argue Arendt and Zerilli, as the community demands from politics that which it already knows in advance – the values derived from a foundational and essentialist understanding of the common good. This instrumentalist attitude expects nothing more from politics but a means to an end. If so, according to Zerilli, ordinary citizens have no incentive to believe they are participants in building something together and no reason not to let, "the actions and judgments of experts to substitute for their own."[469] The common space that unites people and their relations to nature lies in-between them, not, as Zerilli puts it, what is inside them.[470] Invoking the common good in green civic republican terms from an Arendtian point of view, then, should emphasize less what we "are" and more of what we can do together as we deliberate freely about how we should relate to the place in which we all dwell.[471]

The Arendtian perspective on the second question – willing ecological common goods for future generations – would emphasize the important aspect of how the republic endures through time. This involves a capacity to make promises for the future as a central activity of political freedom. Arendt writes that, "All political business is, and always has been, transacted within an

elaborate framework of ties and bonds for the future – such as laws and constitutions, treaties and alliances – all of which derive in the last instance from the faculty to promise and keep promises in the face of the essential uncertainties of the future."[472] Promises are what hold communities together.[473] What Arendt would question here is that ecological promises may mean something different when transmitted across generations. Invocation of an ecological common good, as a matter of cultural heritage or social tradition, should not be narrowly interpreted to command a specific ecological way of life for future generations. Arendt stresses the importance of promising to politics, and promising a future well-being is an important "gift" to future generations. At the same time, there is a profound tension in Arendt between promise making and enabling the capacity to create new beginnings. We can see this tension in her discussion of Jefferson's ward system in *On Revolution*. She is concerned with keeping alive a capacity to act in an institutional setting, post revolutionary period and post political founding. She writes, "What [Jefferson] perceived to be the mortal danger to the republic was that the Constitution had given all the power to the citizens, without giving them the opportunity of *being* republicans and *acting* as citizens. In other words, the danger was that all power had been given to the people and that there was no space established for them in their capacity of being citizens."[474] Arendt's critique of GCR on the question of promise making for future generations, as I see it, would be to remind green republicans that while future generations may be grateful for being left ecological common goods like clean air, fresh water, and abundant biodiversity, what these may mean to them may be altogether different. In their capacity as free citizens in a free republic, they can ascribe their own signatures as to what these ecological goods mean to them.

Civic Virtue

In the essay "The Crisis in Culture," Arendt traces the word "culture" to its Latin root *colere*, which means to cultivate, dwell, take care, tend and preserve.[475] She argues that a proper relationship between "man and nature" should be an attitude of loving care rather than "efforts to subject nature to the domination of man."[476] In this, Whiteside is right to unearth environmental virtues in Arendt's invocation of culture. He writes, "To be cultured, in Arendt's sense, is to bring to one's surroundings a desire to enhance qualities of beauty, 'permanence, stability, and durability.' The striking similarity of these values to those of Aldo Leopold's land ethic, which aims to 'preserve the integrity, stability, and beauty of the biotic community' reinforces the conviction that 'respect for nature' arose from … seeing in it qualities like those that define our world."[477] Like the previous discussion of green common goods, virtues that relate to care for nature are not derivative from nature itself but from human capacities to make quality judgments about how we should relate to nature. Herein resides a core value of Arendt's approach: The ability to make quality judgments itself requires action in concert with others. Judgment is not about aligning virtuous action with the "correct" picture of what an ecologically sustainable society looks like. It is not epistemological in this sense because it is not concerned with truth. But neither is it arbitrary, Whiteside argues, because it is a "*political* process that transcends arbitrariness."[478] As Arendt writes, "Culture and politics, then, belong together because it is not knowledge or truth which is at stake but judgment and decision, the judicious exchange of opinion about the sphere of public life and the common world, and the decision [of] what manner of action is to be taken in it."[479] Decisions about how a community relates to nature should therefore be the cultured judgments that enact virtues that relate to our common world.

Moreover, freedom for Arendt *is* the expression of virtue – the actualization, and sometimes discovery, of a certain kind of virtuosity. She writes, "If, then, we understand the political in the sense of the polis, its end or raison d'être would be to establish and keep in existence a space where freedom as virtuosity can appear."[480] Here Arendt explicitly draws on Machiavelli's concept of *virtu* as "the excellence with which man answers the opportunities the world opens up before him in the guise of *fortuna*."[481] Green politics is a politics of opportunity in the context of ecological limits, as I argued in Chapter III – an opportunity to live differently and with a lighter, more deliberate ecological footprint. But what this means is not given or pre-determined. Indeed, responding to the challenge of living well in the context of ecological limits calls for surprising and unscripted acts of virtuosity, a kind of excellence that only politics, Arendt argues, can deliver. Construed from a green perspective, then, Arendt would insist that in order to allow for the practice of green virtues to appear, people must experience themselves and each other in a public space of freedom. Otherwise, they'd lose their audience.

Or would they? Recalling the discussion between public and private in Part I, does such a split between public and private virtue make sense from a green point of view? Indeed, as Dobson points out, the split between public and private virtue gets us into some strange territory. Why, he asks, should campaigning for a recycling center be considered a public virtue while sorting through trash at home categorized as an act of private virtue? Dobson rightly concludes that, "The ecological challenge is to regard both of these as acts of citizenship."[482] Here is where Arendt's contribution to a green republican construction of virtue would appear to be severely limited, for her division between public and private seems unbridgeable. Green republicanism would have to insist that "virtue" need not be construed in the narrow spaces of "the public" that Arendt defines. At the same time, the boundaries between public and private virtue shift. People

recycle in their homes now because recycling was made a political issue by activists who wanted there to be a way for the public to recycle, just as there is garbage collection, sewage systems, and public water utilities.

Furthermore, one of the most important features of a green argument about virtue entails the debate over how to regulate both public and private property. The Arendtian refusal to admit "the social question" into the realm of politics derisively refers to a politics that merely caters to improving the economic concerns of the populace as "social housekeeping." But green politics cannot help but confront economic questions and the ecological impact of the ways in which we "keep house." A central challenge for green republicanism, then, is immanent to the tradition of republicanism itself. That is to say, how does republicanism confront its separation between public and private regarding environmental issues? Additionally, how should economic practices, individual and corporate, be understood as political practices, and not just matters of private enterprise? Green politics, like socialism and feminism before it, pries open the wall between public and private and asks how Arendt and the civic republican tradition reckons with a green critique of economic processes *from the inside*.

But why should we take Arendt at her word? As Bonnie Honig writes, "Arendt insists that her public-private distinction is nonnegotiable, but its politicization and attenuation are called for by her own politics and action. Indeed, any reading of Arendt that takes seriously the agonistic, virtuosic, and performative impulses of her politics must, for the sake of that politics, resist the *a priori* determination of a public-private distinction that is beyond contestation and amendment."[483] A green republican approach would, therefore, be better served in wrestling with this problem by getting private individuals to think of their choices and preferences as having public impact, and *vice versa*. If Arendt is right that a chief value of the political

experience of a common world is an "enlarged mentality" that results from being able to see problems from multiple points of view, then one of its chief benefits from an ecological standpoint would be in getting individuals to become more conscious of their own impact in both the private domain of the household and the public realm of the world. Public and private should be understood in this sense then as dialectically informing each other and not existing in separate spheres. While such an effort to distinguish public from private virtue would be intensely contested in green politics, as it is for all enterprises that are political, there is inherent value in this deliberation.

Political Participation

With regard to political participation, one issue immediately stands out – the rule of expert authority. Many environmental problems require the input of expert study and opinion both in the articulation of problems and in recommendations for policy. Does this mean that the input of experts is more important than the input of ordinary citizens? Or that the republican concern with cultivating habits of political participation is misguided because the perspectives of ordinary citizens might water down expert opinion? Green political theorist Harlan Wilson incisively writes about this problem as it relates to green politics and the status of environmental authority.[484] He claims that,

> Most environmental theorists who discuss these matters don't want to think about it very much. Authority is something to be resisted or contested, not something to be acknowledged … (Yet authority in a positive sense) enables a community or collectivity to act together for such purposes as it deems worthy to avoid what it deems unworthy or dangerous. Authority is thus justified insofar as it leads to collective empowerment and the prevention of disempowerment.[485]

Arendt was keenly aware, and rightly disturbed, by the increasing reliance on technocratic approaches to political practice, but this is not to say that "expert" opinions are not warranted in public debate. That would be ludicrous. Yet, she would insist on a distinction between different types of knowledge claims (of which scientific claims are only one), as well as a distinction between and knowledge claims and political judgments. Furthermore, the idea of political participation isn't geared toward finding one right answer. In the ferment of action, many perspectives are brought to the table and none need be solely "actionable" in order to have value. Scientific data on its own, as Bryan Norton rightly argues, cannot provide proposals for action that bring together ecological and social concerns.[486] Eminent scientists may all agree that climate change may increase the risk of stronger storms, flooding, and coastal inundation, but what a community should do about it is a democratic question and expert knowledge is not a substitute for democratic *praxis*. Democratic participation, therefore, helps communities balance different social perspectives on what an ecological problem means and in turn helps create better social judgments (at least in theory) because it binds citizens together as participants in creating a world worthy of habitation. The value for greens here is that the more we can be seen as participants in constructing a world in both a human and ecological sense, the less likely we may be to debase it.

Arendt would insist that the "mentality" brought to political participation should not be instrumental. For her, the value in political participation is in the exercise of freedom itself – it is in the "doing." Just as an artist is free and alive during the performance of action, possibilities of freedom open up through political participation that can create something new – fresh perspectives on old problems, novel ways of relating to others, and insights about new paths forward. But is the performative conception of action that Arendt endorses enough from a green

point of view? John Meyer, in a review of Douglass Torgerson's endorsement of Arendt's theory of political action to develop the idea of a green public sphere, argues that a green critique of instrumentalism should insist on an end or purpose outside of the activity itself. Meyer rightly points out that people engaged in political action surely don't see the value of their action *only* in terms of its inherent performative quality – they also want to have a desired political effect. In other words, green politics still requires "outcomes," and thus, on some level at least, an instrumentalist approach.[487] Meyer's critique has bite and Arendt may overplay her hand here in ruling out *any* instrumentalist value to politics. At the same time, though, Arendt's caution about only thinking about politics in terms of means and ends is inspiring. Since we do not know what an ecologically sustainable society looks like in advance, we should not see a republican political space only in terms of means and ends. The important thing is the attitude that this approach to political experience engenders – one of sharing, listening, and exchange of opinions with the knowledge that though agreement may not be reached, something new that no one could have foreseen may appear. Participation, for those who choose to engage in it (and to Arendt political participation is a matter of self-selection), is an important ingredient in green community building and a constituent feature of political freedom. [488]

Aesthetic Vision

Even though Arendt sees politics as one of the performing arts, but not one of the creative arts, she would initially be cautious of an aesthetic dimension to republicanism. To her it could be construed as engendering a utilitarian conception of politics built on a model of fabrication. This might sound strange at first, as the aesthetic is often contrasted to the utilitarian and, to me at least, is almost immediately associated with creative and visionary expeditions. For Arendt, however, an aesthetic approach to politics is akin to the making or fabricating, which is "so

characteristic of the earlier industrial phase of the modern age, when men, fascinated by the new possibilities of manufacturing, thought of everything in terms of means and ends."[489] This implies a completed object akin to the "end-product of a manufacturing process … (and) Whenever we hear of grandiose aims in politics, such as establishing a new society in which justice will be guaranteed forever, or fighting a war to end all wars or to make the whole world safe for democracy, we are moving in the realm of this kind of thinking."[490] Green republicanism can potentially be viewed as susceptible to the utilitarian orientation to politics in that creating a sustainable world certainly belongs with the aforementioned "grandiose aims" and is often talked about as one giant problem to be "solved" or a project to be "completed." Much of green politics, as with modern societies in general, is enthralled to a technological problem solving model. To Arendt, "no act can ever be recognized by its author as his own with the same happy certainty with which a piece of work of any kind can be recognized by its maker."[491] Social reality will never neatly fit our design for order, nor should we expect that it should. Her non-foundational approach tempers the overconfidence that green republicanism could have in forcing social relations to match an aesthetic vision, and here she is good counsel.

Yet political action, as previously mentioned, is concerned with making quality judgments. Quality judgments are less about making truth claims and more akin to aesthetic valuation.[492] Thus, as a question of political freedom the aesthetic imagination is not what a "correct" ecological community looks like, but instead what we want to value as a community. As a service to what communities should value, then, aesthetic depictions help nourish debate and motivate citizens to act virtuously and with affection for their community and its ecological setting. Arendt's call for an "enlarged mentality" could be seen to accompany an aesthetic dreaming of what ecological communities could look like if they see themselves as free to

exercise chosen modes of ecological responsibility. Aesthetic visions of green community and the body politic can be part of the "meaningful stories" that are produced in a realm of political freedom.

Green Republicanism and the Shrinking World

Stepping back, one of the most trenchant challenges to green republicanism and an Arendtian variant is the fact that ecological problems do not correlate to political borders. They exist on complex geographic scales – local, regional, international, and global. As political theorist Leslie Thiele puts it, "The world is shrinking, ecologically speaking, and our duties have correspondingly expanded. More and more of the environmental concerns we have for future generations can be adequately addressed only through environmental protection that is socially and geographically inclusive."[493] Environmental politics may require greater inclusivity, but is a political geography divided by allegiances to particular republics commensurate with global environmental challenges? Is green republicanism up to the challenge of globalization? There are two reasons for skepticism. First, some may argue that green republicanism is by its very nature exclusionary as it sees the good of its republic as having preeminent value, that it "is ultimately a philosophy that defends an inward-looking state."[494] The polis is defined by its walls. Second, it is hard to see how the democratic version of green republicanism represented in Arendt's theory of political action can nurture the face-to-face, speech-oriented conception of political action in a global arena. These perspectives alone might cause many green critics to conclude that republicanism has an inherent structural disadvantage when confronted with global ecological problems.

While these criticisms have purchase, they need not be fatal. First, one key move for green republicanism is not to exclusively conflate territory with republican identity and be open

to global civil society networks and new media interested in both green republican concerns and participatory democracy. Second, "cosmopolitan republicans" like Dan Deudney point civic republicanism in the direction of living in a global era.[495] If so, there can be an opening for a more creative approach to green republican constructions of the common good. We can think about the concept of shared ecological worlds not simply as bound by the spatial organization of the republic but by other markers of ecological community. This could include, for example, transnational bioregional relations built along shared ecosystems, a politics of responsibility and citizenship that constitute an "ecological footprint," or through participation in new social movements of the global public sphere. Moreover, practical experience gained in particular republics can create an expanded awareness of ecological common goods – for so many environmental issues are not contained within particular borders – which can lead to a shared sense of responsibility.[496] As Steven Slaughter writes, "Thus while there is not an ascriptive global public in a republican sense, various publics around the world could still potentially direct their respective states to develop global forms of institutional collaboration to guard against domination, including a republican regulation of capitalism that necessarily includes ecological concerns."[497] In this sense we can see the green republic as laboratories of civic environmentalism that can potentially percolate up to higher levels of institutional governance.[498]

Conclusion

Creating ecological responsibility may, in fact, be one of the most important activities of political freedom. That there is no fixed human relationship to nature compounds the challenge, for it means that answers to what we should do about ecological degradation and rehabilitation cannot be found in context-free metaphysical accounts, whether anthropocentric or biocentrically conceived. Rather, it is in the possibility of freedom, specifically democratic freedom, that we

should focus our efforts. Green civic republicanism is one way of conceiving this democratic project.

A central lesson for green republicanism from an encounter with Arendt's political thought is that its "product" is never built in any final sense, and is not, properly speaking, a "product." Rather, republicanism is a form of association that should be continually re-evaluated and examined from the perspective of people confronting new social realities and ecological problems together in a space of freedom. It does not stand apart from, over or above, the people themselves. An Arendtian version of green civic republicanism, then, would argue that human communities *become* ecologically sustainable because they *act* sustainably from a position of political freedom. That is to say, if political space represents *freedom from* limitless economic imperatives then it might allow *freedom to* create a different kind of future.

Despite all this talk about action, freedom, and responsibility, one of the greatest achievements that a green republican form of politics may be able to accomplish is not activity but inactivity. This should not be confused with *atraxia* – the serene withdrawal from the world and from others in a state of robust tranquility (as much as this, at times, seems nice). Nor is it what Arendt denounces as the traditional Western response to the problem of action, namely "non-acting, in abstention from the whole realm of human affairs … [because of] the intrinsic 'weakness' of plurality."[499] But it is to say that recognition of ecological limits requires some form of scaling back, slowing down, and letting be. One of the risks of a green civic republican approach (as distinguished from, say, the civic mentality of liberalism), might be too much emphasis on concerted political action and continually being busy. Yes, there needs to be action in the sense of actualizing ecologically sustainable principles, doing something about environmental problems, and cultivating and beautifying the places where we dwell. But we also

need to think of "action" in a different sense – the wise counsel of not acting, of refraining from doing all that we are capable of, and sometimes "letting be" because we *are* free and can, sometimes, choose not to choose activity. The world can be less of a rat race if it can be seen that such races don't need to be won, let alone entered. Veblen recognized, like Rousseau, that what propels capitalism forward is not a desire to be obscenely rich but to keep up with relative standards of material decency. One dear promise of green civic republicanism centers on its ability to change the terms of social emulation, to see economic enterprise as a form of political ecology and to see others as equal members in a political community. Environmentalists need not be terrible neighbors in order to be great ancestors. We can become better neighbors if we act as great ancestors. Green politics gives us common cause to act as great ancestors, and in so doing can make us better neighbors.

Chapter 5
Is It Only Wild in Winnipeg?
Globalizing Conservation and Wildness as a Cross-Cultural Encounter

Those who would take over the earth and shape it to their will, never, I notice, succeed.
– Tao Te Ching

The environmental journalist Mark Dowie recounts a recurring experience he had during field research for his book *Conservation Refugees*. He writes,

> On several occasions during my research, an interview would be brought to a dead stop after I included the word "wild" or "wilderness" in a question. The word simply didn't exist in the dialect of the person I was interviewing. My interpreter would stare at me and wait for a better question. When I tried to explain what I meant by wild to Bertha Petiquan, an Ojibway woman in Northern Canada, she burst out laughing and said the only place she had ever seen what she thought I was describing as wild was a street corner outside the bus station in Winnipeg, Manitoba.[500]

Dowie uses this anecdote to make the point that the terms "wild" and "wilderness" are ontologically questionable constructs connected to a particular social history in North America and a uniquely Western approach to environmental ethics and conservation. Now that conservation guided by a wilderness approach is "going global" through a remarkable proliferation of protected areas (PAs), Dowie contends that the result is a familiar drama of marginalization and dispossession for those affected by newly created conservation regimes. As environmental historian Ramachandra Guha puts it, the "wholesale transfer of a movement culturally rooted in US conservation history can only result in the social uprooting of human populations in other parts of the globe."[501] And yet, without the role that global conservation

initiatives play in preserving wild habitat, especially for species at particular risk for extinction, it is hard to see how the biodiversity crisis can be slowed.

Both Dowie and Guha point to something vitally important: conservation too often lacks a social dimension and ignores a deliberative democratic approach to conservation. Whether conservation is romanticized as a return to an Edenic *mythos* or viewed as a clinical scientific prescription to treat the emergency of the biodiversity crisis, local ways of relating to nature are often superseded by a wilderness approach to nature that minimizes a human presence. As a result, charges of environmental cultural imperialism are increasing, as is resistance to the idea of conservation itself.[502] These criticisms have led many anthropologists, political ecologists and human rights activists to champion a vigorous assertion of local rights, land-use, and territoriality in response to conservation from above and at a distance.[503] Dowie concludes that the "tortured semantics of nature and wilderness … create a communications impasse between land-based peoples of the south and science-based conservationists from the north."[504]

But does there have to be a "communications impasse"? I think the answer is, "not necessarily." Dowie's perspective seems to take this impasse as a given, but it us a limiting perspective. As I will argue in this chapter, the key will be improving dialogue about different ways to construe "wildness." As environmental ethicist Dean Curtin writes,

> When we export our conceptions of nature, culture and the economy to the rest of the world, the mixture is unpredictable, and sometimes explosive. Ideas that we connect with responsible nature preservation can cause deep social injustice in other contexts: people are dislodged from their longstanding places in nature with disastrous consequences. If we wish to arrive at a better environmental ethic we need to become good listeners to other cultures that are different from our own. We need to de-center ourselves from self-

> understandings as "the experts" and admit that other cultures could have something to teach us.[505]

This chapter draws on Curtin's perspective but seeks to expand it. The export of Western, particularly North American, conservation projects requires listening to and learning from non-Western approaches, as a matter of both principle and pragmatism. At the same time, Curtin's position is too limited. It is not simply that Westerners need to learn from non-Westerners – "place-based" conservationists in the global South have much to learn from scientific conservationists in the global North. Though it is important to respect and learn from "the local," a rapidly changing world with new ecogeographies shakes up settled ideas of what constitutes local, national, regional, or global nature protection and, along with it, what it means to live in an interdependent world. In other words, conservation needs to work in a local idiom, but it can never remain merely local. Dialectical encounters between local communities and global perspectives about environmental problems like species loss are not only inexorable, they are to be embraced. If conservation is to be successful, therefore, it needs to be more deliberative and more democratic. Moreover, conservation represents an opportunity for cross-cultural understanding, not just cross-cultural misunderstanding, and can expand our ideas about ecological citizenship.

Dowie's position, and the criticism it represents, therefore misses something important. Conservation *is* doomed to conflict and "tortured semantics" so long as we assume that there is only one way of protecting biodiversity and promoting nature advocacy. But there isn't. And because there isn't just one way, it is vitally important to explore different lifeways that blend "nature" and "culture." A conservation ethic of respecting and protecting *wild nature* is, in fact, a part of many different cultural traditions. The term "wildness" may be lost in translation but

the idea it represents is a resonant theme in many cultures and traditions. Ideas of wildness as a conservation ethic should therefore not be seen as exclusively Western (or North American). As a result, I argue that diverse ways of understanding wildness as a way of relating to nature is an important way of overcoming the "communications impasse" and helps to productively position a politics of global conservation. By disaggregating wildness from wilderness (for wilderness is but one way to approach the question of wildness), we can open ourselves up to exploring wildness as a form of cross-cultural dialogue. Not only might this lead to more culturally sensitive and socially empowering conservation practices, and hopefully strengthen the political legitimacy of biodiversity conservation and habitat protection around the world, it may also help cultivate fresh ways of relating to the wild that is always all around us, even if its manifestation seems more evident in particular places. If wilderness promotes a dualism between people and nature, wildness as an environmental ethos suggests a different kind of connection between people and nature and allows for a more flexible and imaginative account of embedding human communities in nature. As environmental geographer Bill Adams puts it, "The challenge is not to preserve 'the wild' but people's relationship to the wild."[506]

This chapter unfolds in two parts. Part I examines the globalization of conservation, and the increasing resistance to it, by pointing out important critiques of the wilderness approach. Part II advances the argument that wildness and wilderness should be disaggregated by exploring different social constructions of *wildness* at different scales, notably in the *kami* ("spirit"), sacred grove, and what I call the "ecological nostalgia" traditions of East and Southeast Asia. I also look at wolf re-introduction in the Pacific Northwest and at a new broad-based political effort in Canada's boreal forest as examples of cultivating wildness – without wilderness – in North America.

Part I: The Globalization of Conservation and Critiques of the Wilderness Approach

The West has a special relation to the forest, and deforestation.
– Deleuze and Guttari

There is just one hope of repulsing the tyrannical ambition of civilization to conquer every niche on the whole earth. That hope is the organization of spirited people who will fight for the freedom of the wilderness.
– Bob Marshall

As we saw in Chapter 1, the rate of human-caused species extinction has dramatically increased in recent decades. While there is still much that is unknown about what is being lost, credible estimates suggest that by the end of the 21st century 30-50% of the earth's species will "functionally if not completely disappear."[507] This lack of knowledge has given rise to the field of "parataxonomy" – the desperate rush to study, categorize, and, ultimately, do something about species loss before they vanish.[508]

It is against this backdrop that the remarkable growth in the globalization of conservation in the latter half of the 20th and first part of the 21st century takes place. At the time of the first World Conference on National Parks held at the Seattle World's Fair in 1962, there were roughly 1,000 protected areas (PAs) in the world – parks, sanctuaries, wildlife refuges, game reserves, and other conservation zones – comprising 3% of the earth's surface, most of it remote and sparsely populated by human beings. Now there are over 100,000, covering nearly 12% of the planet, with many of these PAs containing significant human populations.[509] Much of the impetus for this growth in PAs as a conservation strategy has come from the rich, developed world and is sponsored by a motley array of entities – transnational conservation organizations, epistemic communities of scientists and researchers, government agencies, and numerous local environmental organizations. As conservation biologists are learning more about what species are threatened with extinction and where, the PA approach is poised to expand even more. These

are mainly in the global South, and the PA approach raises the prospect of new social, cultural, and economic conflicts between local communities and global conservationists

Explicitly designing PAs for the purpose of biodiversity protection is a relatively new enterprise. Conservation biology, which first emerged in the academy in the 1970's and later through political advocacy of ENGOs in the 1980's, argues that the best strategy for preserving biodiversity is the protection of viable habitat. Habitat loss is the critical independent variable, conservation biologists argue, that affects 89% of all threatened birds, 83% of threatened mammals, and 91% of threatened plants.[510] Furthermore, for many species, especially mega-fauna, large swaths of integral ecosystem habitat, including protection of key migratory zones, are needed to maintain the genetic integrity of healthy populations and the prospect of continued evolution. Habitat protection can come in many forms – public and private parks, ecotourism schemes, biological stations, game reserves, private conservancies or other special designations designed to govern a particular space for conservation purposes.[511] The new PA's that have come into existence for the explicit purpose of species conservation and biodiversity protection reflect ecocentric commitments to nature protection. The ecocentric commitment to nature protection comes out of older traditions of a wilderness philosophy and a particularly American approach to designing conservation regimes. It is the merging of concern about biodiversity loss with the particular way of relating to nature represented in a wilderness philosophy that is at the root of social conflict when it is "exported" as a model for global conservation regimes.

Recently, transnational conservation groups have promoted habitat conservation schemes at larger and larger scales, but there are significant differences in how large-scale habitat conservation is promoted. One model is to focus on *hotspots* – areas of particularly rich diversity or species endemism. As mentioned in Chapter 1, ecologists have identified twenty-

five of these global *hotspots* that are estimated to hold 44% of the earth's vascular plants and 35% of all species yet cover only 1.4% of the earth's surface.[512] Another includes *representation*, the protection of a certain percentage of key representative ecosystems such as savannah, tropical, temperate, and boreal forests, tundra, deserts, coral reefs, wetlands, and grasslands.[513] The 1992 Parks Conference, for instance, proposed that 10% of each of these biomes be preserved in each country participating in the conference.[514] What is called the *rewilding movement* has a different emphasis, aiming for conservation on a continental scale. The rewilding movement focuses on the "three C's" of conservation – core reserves, connectivity, and keystone carnivores (or herbivores). Examples of conservation models on a continental scale include proposals to connect, through a series of interconnecting PAs and management regimes, places like Yellowstone to Yukon (Y2Y), Algonquin to Adirondack, Baja California to the Bering, Paseo Pantera (Mexico to Panama), Terai Arc in Nepal, Gondwana Link in southwest Australia, the European Greenbelt from the Baltic to the Black and Adriatic Seas, and the transboundary peace parks networks that already exist in multiple locations in Africa, to name but a few.[515]

Global Action to Slow Species Decline

As small pieces of a giant puzzle come together, the environmental mantra of "everything connects" has elicited a global response to halt species decline. So far, however, mostly biologists and ethicists have urged robust policy action. Indeed, scientific knowledge and ethical intuition about the gravity of the extinction predicament has vastly outpaced public awareness and concern, which is generally pretty thin. This is a central problem in that biodiversity politics suffers from a lack of democratic conversation about what species loss means now and for the future. To be sure, discussion about the need to protect biodiversity from a global perspective is

an extraordinarily difficult challenge because it requires coordinated action at a variety of geographic scales and with many different kinds of communities, networks, and governments. Furthermore, a reason why the extinction predicament is a *predicament* is because action requires exercise of the precautionary principle, something that is a difficult sell for a politics that is generally stuck in short-term time horizons and seems to respond only to environmental "events," not "long emergencies" like species loss or climate change. Nevertheless, some action at the global and domestic levels has already been achieved. What does it look like?

The highest profile global response has been the Convention on Biological Diversity (CBD).[516] One of the fruits of the 1992 Rio "Earth Summit" Conference, the CBD now has 193 parties and is managed under the auspices of the UN Environment Program (UNEP). One doesn't necessarily know much about it living in the United States, as it, along with Andorra and the Holy See, are one of the few countries to not ratify it. The United States signed the treaty in 1993 but never ratified it, a posture in the international arena that the USA seems particularly good at striking. The CBD is a remarkable document in many ways, as it calls for parties to research and catalogue their biological heritage in order to understand what is actually there (which is no small task). It also calls for parties to turn 10% of their landscapes into protected areas (PAs) and calls on states that share common borders to work together on research and collaborative conservation across borders.

It must be said that global environmental conventions, protocols, and treaties are often disappointing in terms of outcomes. One exception is the 1987 Montreal Protocol, which is generally regarded as having successfully prohibited ozone harming chemicals with the result that the ozone hold in the Southern Hemisphere looks likely to shrink by mid-century. The quip that global environmental conferences are about "doing something without doing anything"

generally characterizes the CBD's accomplishments, at least up until this point.[517] The CBD has produced plenty of parchment and lots of talk, but despite these criticisms and the track record of international environmental agreements, there are promising signs.

Two major protocols have emerged under the CBD's remit – the Cartagena Protocol on Biosafety (2003) and the Nagoya Protocol (2010). Cartagena is about the handling, transport and use of living modified organisms (LMOs), and now has 161 parties. The focus of Cartagena is important, judging by the fear than many have about technological creations run amok, a concern with a long tradition in literature and science fiction, from Mary Shelley's *Frankenstein* to Margaret Atwood's *Madd Addam* trilogy. But Cartagena's relevance is likely to lie in the future, when new lifeforms are genetically "invented" in laboratories. The Cartagena Protocol's impact on biodiversity conversation at present is, therefore, limited.

The more relevant, and certainly more well-covered from a media standpoint, is the 2010 Nagoya Protocol (though "well-covered" is a relative term, for the media exposure of real biodiversity *politics* is thin). The Nagoya Summit was strange by the standards of summits with missions this important and politics this controversial. Few heads of state made the trip (only Gabon, Guinnea-Bissau, Yemen, and Morocco did so), and only two-thirds sent ministers.[518] Hardly any protestors marched in the streets of Nagoya (unlike other global summits these days). And despite the hyperbolic newspaper headlines that trumpeted the Protocol as "historic," "landmark," and a pledge to "save life on earth," the targets promised for 2020 are not mandatory and are mere *aspirations* to reduce biodiversity loss.[519]

At the same time, there were important developments at Nagoya. These include an agreement in principle to share monetary benefits from bioprospecting (called "Access and Benefit Sharing"), an issue that has sharply divided the global North and global South since the

1992 Rio Summit, and is essentially about how corporations and host countries divvy up profits from the commercial exploitation of biodiversity. Another is Japan's pledge of $2 billion for a conservation fund (intended mainly for projects in developing countries).[520] This is significant, though it remains to be seen whether this conservation fund truly materializes and includes other sizable commitments from other countries. Additionally, Nagoya unveiled a new biodiversity media network to help bridge communication divides between scientific research, policy, and journalism.[521] And finally, the summit showcased a new generation of extraordinary mapping techniques to help visualize threats to species loss that are quite brilliant.[522]

The other major global treaty concentrating on species loss is the Convention on Trade in Endangered Species in Wild Flora and Fauna (known as the CITES treaty).[523] It regulates international trade in plants and animals with an eye toward ensuring that these species retain healthy populations in the wild. Like the CBD, most countries in the world have signed the treaty. But like many international conventions, however, it is signed but not ratified by national legislatures, thus minimizing its effectiveness.[524] Moreover, CITES is concerned with preventing trade in species at risk of extinction, or commercial products derived from those species, but it has limited means of enforcement and the illicit trade of many endangered plants and animals flourishes anyway (especially in Asia), in particular for rhino horns, elephant ivory, tigers, sharks, manta rays, and many others. As *The Economist* puts it, "The economics of extinction are ruthless. The fewer the specimens of a creature there are, the greater the value of its products … The CITES regime … seems not to be working."[525] Despite this bleak characterization, the CITES treaty provides an important forum for information gathering and brings together government ministries, environmental NGOs, and commercial trade organizations under an international legal framework.

Outside the CBD and CITES on the international level, discussion, if not action, to protect biodiversity has also taken place. At the 2002 Johannesburg Summit on Sustainable Development, Kofi Annan put biodiversity and ecosystem protection on the sustainable development agenda alongside health, agriculture, energy, water and sanitation.[526] Participating nations set a goal to halt the increase in biodiversity loss by 2010. In 2007, leaders of the G-8 endorsed the idea. By 2010, however, the UN admitted that the goal was unfulfilled, as biodiversity loss was still on the increase and did not stabilize as hoped for.[527] It was not all bad news. According to the IUCN Red List – the internationally recognized standard form measuring threats to species loss – sixty-four species moved away from the extinction vector and some others held steady.[528] But many more were added to the Red List, making the goal of halting the *increase* in biodiversity loss sadly unattainable.

Domestic Action to Halt Species Decline

In a very intriguing innovation, Ecuador has made biodiversity protection a matter of constitutional law. For the first time in history, the "right" for nature to exist was written into the text of a state's constitution. In 2008, Ecuador adopted a new constitution that includes protections for ecosystems. It states the following, "Natural communities and ecosystems possess the unalienable right to exist, flourish and evolve within Ecuador. Those rights shall be self-executing, and it shall be the duty and right of all Ecuadorian governments, communities, and individuals to enforce those rights"[529] By 2011, a court case tested the "rights of nature" provision for the Vilcamba River. A road widening project dumped rocks and debris into the river, which altered its course and caused floods downstream. A subsequent lawsuit was filed by Ecuadoran and global environmental groups. The court ruled in favor of the river, citing the "rights of nature" provision in the constitution. This halted the road project and ordered the

government to restore the river to its original course.[530] Time will tell whether this innovative legal tool of granting "rights of nature" will prove its worth in other cases, but it certainly marks a symbolic moment in environmental legal politics.

While not written into its constitution, the "rights of nature" provision has already influenced New Zealand. New Zealand announced in 2012 that the Whanganui River, the third largest in the country, has been granted legal personhood, in the manner of a corporation or a child.[531] The Whangauni Iwi indigenous community has long pressed for more say in how the river is managed in order to both exercise a political voice and revitalize their historical connection to the river. As a government minister in charge of treaty negotiations remarked, "Today's agreement which recognises the status of the river as Te Awa Tupua (an integrated, living whole) and the inextricable relationship of Iwi with the river is a major step towards the resolution of the historical grievances of Whanganui Iwi and is important nationally."[532] Of course, it is too early to judge the success of this legal innovation over the long term, but the linking of "rights of nature" with indigenous rights campaigns seems to serve both the complimentary goals of ecological and cultural restoration.

The United States has traditionally been home to one of the strongest domestic tools to protect biodiversity – the Endangered Species Act (ESA). Historically, the ESA has been the model for an arguably robust approach to *individual* species protection, but it has strategic and bureaucratic limitations. As conservation science has developed, the strategy of a single species approach has been challenged by conservation biologists who increasingly favor focusing on entire ecosystems. The ESA does designate "critical habitat" in its quest to save particular species. Some think that through this approach the protection of ecosystems can be achieved indirectly through the critical habitat provision. The protection of old-growth forests in the

Pacific Northwest by designating critical habitat for the spotted-owl is cited as a major example. Environmentalists on the Palouse hope to do the same for bunchgrass prairie habitat through the giant Palouse earthworm. Yet to claim that the ESA alone is responsible for this success is misleading. It took executive action by President Clinton to hammer out the 1993 Northwest Forest Plan, not independent administrative action under the authority of the ESA, not to mention that by 1993, most of the old growth forest in the Pacific Northwest had already been logged.

Additionally, bureaucratic politics have stymied enforcement of the ESA. Politics has always been *sui generis* to the ESA process but appears to have grown in recent years. The polarizing climate in America's winner-take-all politics has impacted agency effectiveness. For instance, the Bush Administration significantly slowed the process of administrative review. As a result, there is a growing backlog of species awaiting formal review. The Obama administration has listed 59 species in two years, 48 of which are Hawaiian birds and plants, but has done little to speed up the review process.[533] Both the Bush and Obama administrations have slashed the budgets of the Fish and Wildlife Service, the agency responsible for vetting threatened species. In response, conservation groups, especially the Center for Biological Diversity and Wild Earth Guardians, have flooded the Fish and Wildlife Agency with petitions and legal challenges in an attempt to force it to act. Since 2008, an extraordinary 1,230 petitions and lawsuits have been filed. By way of comparison, from 1996-2008 there were an average of 20 petitions and lawsuits per year.[534] What will happen? According to the 2012 budget, only 4% of the petitions filed will actually be reviewed. *New York Times* journalist Todd Woody contends that the agency is in "emergency triage mode."[535] And as Princeton conservation biologist David Wilcove concludes, the ESA could be more vigorously defended, as it suffers

from poor monitoring, tardy listing, a lack of resources, and not enough compensation for private landowners who are impacted by conservation policies.[536]

Since the ESA was first adopted in the early 1970s, 1,370 species have been listed (and some think that many as 5,000 could be on the list if "politics" were not an issue).[537] According to a 2004 study sponsored by the Center for Biological Diversity, in the first 21 years of the ESA, 42 species went extinct.[538] This number alone doesn't signal a crisis, though we should keep in mind that an extinction debt can take decades, even centuries, to unfold. Unlike other countries, the United States does not face an imminent crisis in biodiversity loss. But there is a case to be made that a displacement of ecological problems elsewhere can occur when a country's economy is deeply globalized, has high rates of consumption, and has comparatively good conservation laws that are actively supported by a sizable number of concerned citizens.[539] This is an interesting paradox of modern conservation politics in an increasingly interconnected world. One may be tricked into thinking that because a particular locale in the USA is protected by robust conservation laws and active, concerned citizens that "good green deeds" have been accomplished. Maybe so, but if one ignores the effects cast by high rates of consumption in the USA that lead to "ecological shadows" of biodiversity loss and other environmental problems elsewhere, how much is really accomplished?

Conservation and Perception

Though the political and legal strategies I've just discussed, both global and domestic, are different, there is a widespread *perception* is that they foreground a North American wilderness approach to conservation and put people in the background. In truth, there are many different types of reserves and very few are created or regulated according to the standards of wilderness ethics or the Wilderness Act. For instance, the IUCN, a leading authority in transnational

conservation that brings together over a thousand conservation organizations and government agencies, has six different categories of PA, each with corresponding levels of restricted human use. Even the Wilderness Society – one of the oldest and most respected ENGOs – has five different categories of PA, each with a different vision of acceptable human use.

Conservation is not monolithic, and there is considerable conflict within the conservation community regarding a wilderness approach where critical arguments about anthropocentrism and ecocentrism, as we saw in Chapter 2, resurface. As mentioned above, the merging of a wilderness model with biodiversity advocacy is quite new historically speaking, though it is has become a *more* prominent feature of conservation zones outside North America in the past 10-15 years.[540] Indeed, there have been significant tensions *between* the newer biodiversity organizations and older wilderness groups. On one hand, wilderness advocacy has been criticized from a biocentric perspective as too anthropocentric and utilitarian, existing only to serve human needs, such as aesthetics, recreation, mental health, spiritual nourishment, or scientific research, rather than the exigencies of species or ecosystem survival. On the other hand, wilderness is criticized from an anthropocentric perspective as being inattentive to human needs by ignoring customary use of natural resources or by denying the right of a sovereign state to develop its economy as it sees fit.

There have been attempts to address these critiques, particularly through the promotion of inclusionary and participatory schemes such as Community Conservation Areas (CCA's), Integrated Conservation and Development Projects (ICDP's), stakeholder inclusion, co-management of resources, incorporation of "traditional ecological knowledge" (TEK) in surveys and mapping, and the training of guards and guides. But to critics, these approaches smack of tokenism and don't allow for real democratic participation in how, whether, or why conservation

should take place. Differences in power, position, and, most notably, modes of relating to nature, are proving to be extremely challenging. As Mac Chapin of the World Watch Institute puts it, "Discussion of "natural" alliances between conservationists and indigenous peoples and the need to work closely with local communities, common just a few years ago, has largely disappeared. It has been displaced, in the biggest conservation NGOs, by talk of changed priorities, with a new focus on large-scale conservation strategies and the importance of science, rather than social realities, in determining their agendas."[541] How did it get this way? Why is a wilderness approach in particular, especially when seen to be "exported" from North America, so contested? And what can be done about it?

Colonial and Counter-Cultural Genealogies of Wilderness in North America

The concept of the wilderness area is a socially constructed idea into which many different aspirations are poured – political, social, economic, spiritual, scientific, and artistic. In fact, the genealogy of "wilderness" reaches back to two colonial fantasies and one counter-cultural democratic movement. First, in the European colonial imagination, the Americas were "wild" in the sense of both the land and its people being dangerous, unpredictable, uncultivated, and uncontrolled. "Wild" by this definition is understood by what it is not, namely "civilization" construed by the standards of the European colonial imagination.[542] Samuel Johnson's definition of "wilderness" was, "a desert; a tract of solitude and savageness."[543] Wilderness was considered wasteland. In contrast, to Native Americans, "wilderness" had no meaning. Chief Standing Bear of the Ogalala Sioux remarked,

> We did not think of the great open plains, the beautiful rolling hills, and the winding streams with tangled growth as 'wild.' Only to the white man was nature a 'wilderness' and … the land 'infested' with 'wild' animals and 'savage' people

> … There was no wilderness … since nature was not dangerous but hospitable … (it was) not forbidding, but friendly.[544]

By the Euro-American definition, on the other hand, the Americas were untamed, uncultivated lands with "unspoiled" mountains, glaciers, lakes, rivers, and wetlands populated by an abundance of wildlife – mammals, fish, amphibians, reptiles, and birds. The concept of the continent as "wilderness" has propelled a history of resource exploitation and helped to constitute frontier myths of unlimited abundance. This particular construction of wilderness has thus emboldened what Aldo Leopold called the "cut and get out" rapacity of the "conquest of nature" thesis that pulses through the metabolism of mainstream Euro-American political and economic culture.[545] See, for instance, Andrew Jackson's inaugural address in 1830: "What good man would prefer a country covered with forests and ranged by a few thousand savages to our extensive Republic, studded with cities, towns, and prosperous farms, embellished with all the improvements which art can devise or industry execute."[546] And for a philosophical justification of unlimited economic exploitation rooted in the labor theory of value, John Locke argues in *The Second Treatise of Government* that, "God gave the world to men in common; but since he gave it them for their benefit, and the greatest conveniences of life they were capable to draw from it, it cannot be supposed he meant it should always remain common and uncultivated. *He gave it to the use of the industrious and rational*, (and labour was to be his title to it)."[547] In addition to defending the appropriation of publicly-held common land through the "divine work" of transforming the land for industrial and rational purposes, a reasonable argument can also be made that European expropriation of the Americas was justified because Europeans were fulfilling God's command to subdue and cultivate the "waste" of the American wilderness. The portrayal of the Americas as unspoiled and virgin land ripe for cultivation by industrial hands is

thus the first fallacy of the colonial fantasy. In this context of this plenitude, it is hard to perceive that "wilderness" could ever really be threatened.

The second fallacy of the term "wilderness" in the colonial imagination includes a radical disassociation with human presence. Political, religious, and artistic depictions of wilderness rarely included people and experiences of "wilderness" are often associated with radical solitude. But the construction of wilderness without people also served a political purpose in suppressing restive Native American peoples and creating the impression that "settling the frontier" could be accomplished with little guilt. Wilderness was used in this way as a political weapon. Tony Vaska, an Inuit from the Bering coast, comments in Roderick Nash's classic *Wilderness and the American Mind* that,

> (White people) think there's nothing out there. They are only vaguely aware that our people are already there, using the land for hunting and fishing and trapping, as we have for 15,000 years … They think the native people and our lifestyle are part of the nothingness of the frontier.[548]

Indeed, many present-day wilderness areas and national parks are literally constructed on land once populated or seasonally used by Native American peoples who have, of course, lived in all regions of the continent for thousands of years. That is to say, until genocidal conditions – political, deliberate, and epidemiological – radically altered and consciously suppressed these histories. As environmental historian Mark Spence writes in *Dispossessing the Wilderness*, "Ultimately, an understanding of the context and motives that led to the idealization of uninhabited wilderness not only helps to explain what national parks actually preserve but also reveals the degree to which older cultural values continue to shape current environmentalist and preservationist thinking."[549] The perception of wilderness as uninhabited land serves to erase

historical memory. And by remaining an important feature of a distinctly American environmental ethos, wilderness philosophy perpetuates dualism between people and nature.

Yet there is an equally important revolutionary and democratic history of wilderness that emerges from a different watershed of values in Euro-American history – what the venerable environmental magazine *High Country News* refers to as a "people's history of wilderness."[550] In Europe, Rousseau, particularly in the *Discourse on the Origin of Inequality* and *Emile*, represented a profound shift in the utilization of "nature" to justify revolution against social order. Whereas defenders of class privilege once used dead-end arguments about "nature" and "reason" to argue for the "naturalness" of a hierarchical social structure, democrats used "nature" to validate revolution. As the environmental writer Rebecca Solnit comments in her excellent book *Wanderlust – A History of Walking*, "Rousseau and romanticism equated nature, feeling, and democracy, portraying the social order as highly artificial and making revolt against class privilege 'only natural'."[551] If in Rousseau's vision that "society" and "civilization" was corrupting, then to find something more genuine and pure was to search for its opposite – in "nature." This is why children, illiterates, and "noble savages" were lauded by progressives of the time as "naturally" living more authentic lives. The entirety of *Emile,* Rousseau's treatise on education, is written in this spirit.[552] Political theorists are rightly suspicious of using "nature" to justify social relationships or political order, but it is important to recognize that shifts in attitudes about respecting nature that emerged at the end of the 18th century had a profound impact in Euro-American culture on wilderness as a critical political movement in the 19th and 20th centuries.

The shadow history of wilderness as a critical eco-political movement can also be sourced in part to Romanticism in literature, poetry, and the arts. The Romantic celebration of

the "sublime" in nature expressed aesthetic and moral values as a counterpoint to an increasingly dominant scientific *weltanschauung* (worldview). As Byron wrote about the de-populated sublime, "There is a pleasure in the pathless woods / there is a rapture on the lonely shore / There is society where none intrudes … / I love not man the less, but nature more."[553] And Wordsworth writes, "One impulse from a vernal wood / May teach you more of man / of moral evil and of good / Than all sages can."[554] Interestingly, these days you are as likely to hear lyricism about nature coming from scientists as you would poets. Mammoth paleontologist Daniel Fisher said in a recent *National Geographic* article about the remote Wrangel Island in the Russian Arctic Ocean, "You feel as though you've come to the end of the Earth … It's such a pristine environment. You feel yourself so close to the primeval processes of the universe – birth, death, survival, the ebb and surge of populations. Every year when I'm back on Wrangel, I'm reinfected by the Arctic."[555] Perhaps the divide between "science" and "romanticism" isn't as wide as it seems to be, or once was.

In America, democratic "citizen conservation" surfaced over many decades as a critical anti-capitalist reaction to the excesses and brutality of European colonization. Originally concerned with the loss of wilderness to America's subduing of "the frontier" and its creeping industrial transformation, arguments for protecting wilderness, both as means to preserve resources for the future and as an end in itself, began to take shape. In America, the wilderness preservation movement began with Thoreau and other 19th century "Easterners with a literary and artistic bent."[556] This history eventually took the form of oppositional citizen activism in large organizations like the Sierra Club and the Wilderness Society and numerous local groups of concerned citizens. As a political and social movement it was inspired by the writings of John Muir, furthered by the political agitation of Forest Service employee and environmental activist

Bob Marshall, advanced by the planning of another Forest Service employee and writer, Arthur Carhart, spearheaded by the legal work of Howard Zahniser, and grounded in the land ethic of Aldo Leopold.

The first "wilderness area" was established in 1924 at the mountainous headwaters of the Gila River in New Mexico by the Forest Service, and, notably, a young Aldo Leopold. Originally, the idea was to exclude motorized access in roughly 500,000 acres of the Gila. Two things are of note here. First, the Gila as wilderness represented a strict model of restraint that, unlike parks created in part for tourist purposes, is designed to minimize the impact of human presence. The exclusion of motorized vehicles evolved over time to include a whole array of human creations, like roads, buildings, and structures of any kind that violated an ecocentric sensibility. The wilderness ethic that best expresses this sensibility is summed up by the phrase "leave no trace." Second, the scale of the wilderness area got conservationists to think big in terms of their geographical approach. In the following decades, environmental groups coalescing in the western states like the Sierra Club and the Wilderness Society worked to carve out wilderness areas in national parks and to create new ones in newly created national forests, particularly in the American west. Their efforts culminated in the landmark 1964 Wilderness Act, an extraordinary piece of legislation that defined wilderness, formalized a process for designating wilderness, and created a federal wilderness preservation system. A subsequent doubling of wilderness under protection occurred in 1980 with the Alaska National Interest Lands and Conservation Act.[557] After further expansion in 1984, new wilderness designation slowed, partially in response to the Sagebrush Rebellion[558] in the West and new fights over multiple-use on public lands. Occasional new designations have occurred, such as the Wild Sky wilderness outside of Seattle in 2008, which is notable for including lowland terrain close to a

significant conurbation, distinguishing it from most other wilderness designations that are only seasonally-accessible because the terrain is so remote. At present, formal wilderness designation accounts for roughly 40% of national parks, 30% of national forests, and 2% of BLM (Bureau of Land Management) administered lands.[559] This may sound like a significant amount, and to a certain extent it is, considering what has happened since 1964. But much "wilderness" consists of inhospitable terrain at high elevations – lots of "rock and ice."

This anti-commercial history of wilderness always saw it as an antidote – on environmental, aesthetic, spiritual, and countercultural grounds – to the mainstream socio-economic ethos of American civilization. The Wilderness Act famously defined wilderness as, "A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and community of life are untrammeled by man, where man himself is a visitor who does not remain."[560] This view of wilderness is an ethical-political construction guided by a precautionary "noninterference" model that restricts human activity, especially commercial economic activity, in a bounded geographic space at a scale that permits natural systems to self-regulate without significant human manipulation. What is interesting is that, despite the lyrical panegyrics lauding wilderness as a *place* and an *ethic* where "nature" is prominent and the "human figure does not remain," there has always been a human presence in wilderness – in history, in practice, and in law. Even supporters of the Wilderness Act, such as Senators Henry Jackson and Frank Church, recognized that a "purity theory" restricts and blunts the effectiveness of the designation, even when earnestly championed by wilderness activists or derided by anti-wilderness opponents. Church remarked that the Forest Service "would have us believe that no lands subject to past human impact can qualify as wilderness, now or ever. Nothing could be more contrary to the meaning

and intent of the Wilderness Act … for few if any lands on this continent – or any other – have escaped man's imprint to some degree."[561] And yet the "purity theory" is what is most clearly seen by conservation critics – a vision of nature where people are visitors who do not remain.

Critiques of Wilderness as a Global Conservation Strategy

Interestingly, wilderness in the United States does not correlate with areas of high biodiversity. Despite confusion over actual wilderness history and policy in the United States and the functional lack of connection between "wilderness" and "biodiversity conservation," a wilderness approach to conservation merged with scientific concerns for species loss and biodiversity in the 1970s and 1980's and became ready for export as a conservation model around the world. But as it has done so, it has created fierce resistance. As discussed in Chapter I, the conception of nature advocacy "without people" is rightfully challenged from four distinct socio-political perspectives that I term the "social justice," "ecocratic," "politics of enforcement," and "misplaced value" critiques.

To quickly recap, the "social justice" critique begins by challenging the conception of wilderness as *terra nullis* unpopulated by people who are not just "visitors." This perspective argues that the ecocentric values associated with wilderness privilege the protection of "nature," or particular species, over the subsistence of people. A wilderness approach redefines property and restricts ways of relating to nature by pushing people out of their homes and preventing access to traditional sources of livelihood like food, fuel, fiber, resins, or medicine, and in some cases criminalizing these activities. At its bleakest, the social justice critique fears that behind calls for wilderness conservation lies a pernicious impulse that is antihuman, even misanthropic – a form of dehumanization *through* ecocentric romanticism.

The "ecocratic" critique builds on the social justice perspective. It takes particular aim at the international "big conservation" movement dominated by Northern environmental NGOs like Conservation International (CI) and the World Wildlife Fund (WWF). The ecocratic critique is primarily about procedural justice and is based on the idea that decisions about conservation are made elsewhere and imposed from "above."

The third critique is about the "politics of enforcement." This perspective focuses on the politics of how conservation areas are managed. It involves the fact that, internally, state governments sometimes use military coercion to control restive minority groups in the name of conservation.[562] The international environmental community is then criticized for remaining silent about this coercion because of a single-minded concern for environmental and not social goals. As Bernhard Grzimek, former director of the Frankfurt Zoo and one of the "fathers of African conservation," once said, "It can be easier to work with a dictator on these matters of conservation than with a democracy."[563] Furthermore, a state's invocation of a sovereign right to "its" natural resources often involves denying tribal land rights and ignores long-standing customary use. Interestingly, this can change attitudes to wildlife in an astonishingly short period of time. For instance, the Masai in Kenya used to respect the wildlife that co-existed with their pastoral lifestyle, calling them "second cattle." After eviction from some of their traditional lands in the service of new parks created to protect iconic megafauna of the African savannah, the Masai now refer to wildlife as "the government's cattle."[564]

The fourth socio-political critique is what I term the "misplaced value" position. This is the belief that "nature" only exists in a protected area, "incarcerated" as monuments to human conquest.[565] A corollary to this point gives psychological license to transform or spoil the environment *outside* of the protected space without qualm, for "nature" still exists because it is

"over there" and can be visited on weekends. As Mark Dowie provocatively asks, is it right to protect 10% of "nature" and sacrifice the rest to a neoliberal agenda?[566] Wilderness as non-interference in this sense is *anti-ecological*, since a core principle of ecology is that everything is connected.[567] Thus, the "misplaced value" critique is so termed because it misconceives the value of nature as something that only exists inside PAs, and perpetuates canonical wilderness thinking by conceiving landscapes as "wild" only when uninhabited by people.

These critiques of the wilderness idea and of conservation projects more broadly are trenchant. They raise questions of how, if at all, biodiversity advocates can be successful in serving both ecological and social goals, especially when conservation is becoming more global in its reach. As political scientist Paul Wapner writes,

> One person's wilderness is another person's home, and that which is valued as an endangered species to some is a threat, potential income, or source of food to another. The North-South divide on these issues simply underlines the more general point: nature is not a single realm with a universalized meaning but instead an ideational canvas on which people project sensibilities, cultural attributes, economic conditions, and social necessities.[568]

Criticism of wilderness shows how conservation movements need to devise conservation strategies that are more sensitive to diverse social and ecological contexts. However, as I will argue in the next section, these critiques do not fatally discredit the promotion of *wildness* as a conservation strategy. In fact, the critique of wilderness enables us to see how wildness can be appreciated as conservation *praxis* in particular ways by different cultural traditions. If a wildness ethos can be understood as having culturally elastic meaning, then there is greater

possibility to find common ground and conservation has a better chance of being ecologically and socially legitimate.

Part II: Wildness and Cross-Cultural Encounters

When you visit a community, walk in, don't fly.
– Papuan proverb

The careful foot can walk anywhere.
– Chinese proverb

Our King killed very few animals.
– 5th Pillar Edict of King Ashoka (3rd century BCE)

Relating to "the wild" is a central mode of being human. I aim to show in this section that North American conservationists do not have a monopoly on concern for wildness by exploring examples from non-western cultural traditions. I also demonstrate that while a wilderness approach has been important to North American conservation movements, wildness and wilderness are distinct even in a North American cultural context. In doing so, I argue that biodiversity conservation should be less about the arrogant imposition of certain essentialist ideas regarding nature and more about creating opportunities for cross-cultural dialogue about what it means to live with an unfolding extinction crisis and be confronted by the political challenges of the extinction predicament. My argument is not a retreat to the local, nor does it simplistically valorize what is traditional and cultural. While I want to recognize different cultural constructions of wildness, the extinction crisis is global and planetary perspectives – ethical, political, and scientific – are necessarily part of the conversation. My sense is that there is potentially more common ground between different environmental traditions than critics of the globalization of conservation would have us believe. This understanding is crucial to the exercise of biodiversity conservation as a politically legitimate exercise. Exploring these

possibilities should open up rather than shut down the environmental imagination and enhance the necessary, open, and evolving conversation that needs to take place regarding the intersection between planetary and place-based conservation strategies. In all of the examples that I discuss, with the exception of the uniquely local *kami* (shrine) traditions of East Asia, global conservation groups are working with communities on the ground to advance goals of nature advocacy and species protection. As such, overcoming Dowie's "communication impasse" is therefore central to the success of globalizing conservation.

The environmental historian William Cronon writes that environmentalists must recognize that, "'Nature' is a human idea with a long and complicated cultural history which has led different human beings to conceive the natural world in very different ways … We turn (experiences of nature) into human symbols, using them as repositories for values and meanings which can range from the savage to the sacred."[569] And as the political ecologist Arturo Escobar argues, to overcome an essentialist view of nature, "We are talking here about nature as an essential principle and foundational category, a ground for both being and society, nature as 'an independent domain of intrinsic value, truth, or authenticity.' To assert the disappearance of the notion is quite different from denying the existence of biophysical reality – prediscursive and presocial, if you wish."[570] These perspectives on nature – that we can never get away from our ideas about it, the language we use to describe it, or the historical traditions that shape its meaning – rightly emphasizes that in order to understand something as complicated as *wildness*, we need to look at the different ways in which it *is* and *can be* constructed. This goes for the different masks of nature that appear to the shaman or healer, the "cold potato" language that Leopold says marks the idiom of the scientific ecologist,[571] or the folk rituals that counsel wise conservation and respect for nature. Another way of saying this is that *wildness*, like *wilderness*,

is always socially constructed. Because "nature" is especially indeterminate and malleable as an idea, we need to move away from the view that there is only one view of it that is "scientifically true, morally unimpeachable, and universally applicable."[572] Local resistance to Northern conservation ethics and the recent proliferation of PAs around the world, therefore, does not necessarily mean that such resistance is anti-environmental or un-ecological. In fact, recognizing resistance to conservation presents opportunities for cross-cultural learning and improved prospects for social justice. The critique of a wilderness approach opens up opportunities for dialogue.

It is sometimes said that because certain words like "nature," "wild," "wilderness," or "biodiversity" don't exist in some cultural traditions, they are *merely* cultural constructs and not *really* real. Usually these arguments are used to challenge culturally dominant Western categories of environmental thought. Sometimes the problem is a linguistic one – much can get lost in translation. The linguistic problem caused some environmental scholars to start the "Wilderness in Translation" project in 2011 (also known as Wilderness Babel).[573] The on-line project, hosted by the respected Rachel Carson Center for Environment and Society in Munich, seeks descriptions of what "wilderness" means in particular languages. While very much in its infancy, it is an interesting and potentially useful project. But exploring wildness as a cross-cultural encounter is not just about finding words that may or may not translate effectively. Of course, language is important in how we think, conceptualize, and communicate, but it isn't everything. And so it is important to recognize that the lack of a word in a language doesn't mean that an analogous ecological *ethos* doesn't exist. That English doesn't have a word for *iworu*, an indigenous Japanese Ainu word meaning a field of living beings, including humans, bounded by a particular land or marinescape and totemized by a keystone creature (e.g. bear or

salmon), doesn't mean that this sensibility doesn't exist to English speakers or isn't resonant as a way of relating to the environment to those who don't have a word for it. Thus, as environmental anthropologists Gomes-Pampa and Kaus argue with regard to a conservation ethic by rural residents in Latin America, "Conservation may not be part of their vocabulary, but it is *part of their lifeway* and the perceptions of the human relationship to the natural world."[574] My point is that an apparent lack of correspondence between words in different cultural contexts doesn't necessarily need to create a deliberative impasse. Instead, linguistic problems can open up possibilities for a dialogue that is potentially more enriching than one that assumes there is a universal and foundational approach to conservation politics.

Wildness can serve as one of these useful concepts for a green version of deliberative democracy. "Wildness" and "civilization" are ancient and co-dependent categories, most probably traceable to the rise of the agricultural revolution 10,000 years ago. We might best conceive them now, as ever, as abstract ends of a continuum *that don't really exist* independent of what they mean in a particular context. Nothing is ever purely "wild" or "civilized." Ideas and attitudes toward wildness can reveal cultural codes and enable cross cultural communication. Moreover, investigating and remembering older ways of relating to nature can help to fashion new possibilities.

Examples of Wildness Without Wilderness

There are many examples to choose from and I believe that future research opportunities in this vein can be fruitful. In what remains of this chapter I will sketch three examples from Asia and two from North America that give evidence of alternative appreciations of wild nature without relying on a wilderness ethic. In Asia, *kami* protection, sacred groves, and "resurrection ecology" as a form of national nostalgia are important for two interconnected reasons. On one

hand, exploring attitudes toward wildness in Asia is challenging because Asian civilizations have a long history of environmental transformation, contain large population densities, and are currently undergoing breakneck economic development. Environmental ethicist John Passmore called Japanese industrialism, "Second to none in its offensiveness to ear, eye, and nose."[575] This model is being replicated throughout Asia. Wild nature advocacy in this context would seem to be a minimal possibility. On the other hand, however, there are longstanding folk, art, and monastic traditions that cultivate a particularly rich ecological ethos. King Ashoka's Pillar Edicts of the 3rd Century BCE are regarded as the world's first concrete environmental ethic – literally. The pillars which are found throughout Southeast Asia from present day Bangladesh to Pakistan, depict the social and moral teachings of Buddhism. They also contained specific laws that prohibit the killing of a remarkable number of particular species and advise people to promote animal welfare.[576] The two examples from North America – Idaho's wolf re-introduction program and Canada's Boreal Forest Agreement – highlight the point that even in North American conservation, conservation can promote wildness without relying on wilderness. Together, the Asian and North American examples show that – through manifestations of respect and responsibility for waterfalls, forest groves, restoration ecology, the re-introduction of keystone species, and continental-scale landscape protection – wildness is not measured by austere standards of protecting "nature without people."

Kami Recognition and Wild Nature

I lived in Japan for several years in Fukushima Prefecture, which is now famous for the on-going nuclear tragedy resulting from the 2011 Tohoku earthquake and tsunami. It was a typical setting in the *inaka*, or countryside. A long, narrow valley was surrounded by mountains and drained by a river known nationwide for producing *ayu*, a type of sweet fish beloved by

many Japanese. Though this was agricultural country – mainly rice, yams, and tea – tangible evidence of an embedded conservation ethic permeated the region. This is seen most explicitly through the *jinja*, or shrines, that dot the landscape. Hardly a waterfall, mountain peak, bamboo grove, or indeed, even rice field are without little reminders of the *kami* (or spirit) of particular places. Mountains are especially powerful abodes of *kami* and represent sites of spiritual and political freedom high above the "dusty world" of misperception, malice, and suffering.[577] Shrines inside people's homes, called *kamidana*, are nearly universal and exist as a way to honor the memory of ancestors. Interestingly, ways of paying respect to people and nature took similar form as aspects of respecting *kami*. A strict separation of nature from culture, physically or philosophically, is simply not evident.

Kami is a Shinto term variously translated as "spirits," "natural forces," "essence," or, more problematically, as "god" or "gods." It is related to similar ideas about nature spirits in traditional Chinese folk religion or *devas* in Sanskrit. Over time it became blended with Buddhist ideas about nature and interdependence. In fact, Buddhism has a long history of cultivating a non-dualistic environmental ethic, particularly in Japan and without much canonical evidence from Buddhist texts (mainly because the Mahayana variant of Buddhism, which is prominent in Japan, is not particularly textual). As a result, distinctions between human culture and wild nature are not well-defined, as all things have a potential Buddha-nature.[578] *Kami* is a word that means many things and can be hard to pin down, but it represents an approach to wildness that is part of the fabric of everyday human culture. Nature isn't spatially and materially distinct from human habitation and neither is an experience of wildness.

The ubiquitous presence of *kami* throughout Japan, and indeed, in much of the Pacific Rim, is a way of knowing and remembering wild nature in society. They are expressions of what

religious historian Mircea Eliade calls "sacred technology" in his classic *The Sacred and Profane*.[579] As Kirpatrick Sale writes in *Dwellers in the Land*, every pre-literate culture worshipped features of the earth, which, it is claimed, cultivated a sense of limits, temperance, and respect for nature as expressed through myth and ritual. Rivers, trees, clouds, springs, and mountains in this view are alive with spirit and sensibility.[580] The writer Edward Hoagland comments in the foreword to Peter Matthiesen's environmental classic *The Snow Leopard*, "Nature was the central theater of life for everyone's ancestors."[581]

Furthermore, what is interesting about *kami* as a kind of environmental ethic is that it expresses a non-material attachment to place that is quite different from conventional scientific approaches to understanding nature. Critical Theory since Horkheimer and Adorno has associated the scientific European Enlightement with the "disenchantment" of nature through the extirpation of all forms of sacred animism, what Shiller earlier called the "de-godding" of nature. Nature had to no longer be conceived as wearing multiple masks in order for it to be objective and unified.[582] To a modern scientific view, therefore, respect for the "multiple masks" of *kami* in nature entities is understood pejoratively – and is derided as "new age" spiritualism. But this way of relating to nature is ancient and represents an environmental ethos that has been largely rejected by authoritative modes of Western scientific culture. It is important to recognize that *kami* represents a form of enchantment by and respect for nature that is found in many different cultures.

A striking conflict between scientific approaches to knowledge and valuing *kami* occurs on Mt. Mauna Kea in Hawaii. Mauna Kea, when measured from seabed to peak, is the tallest mountain in the world. It is dotted on all sides with shrines that resemble Japanese *kami*, though native Hawaiians refer to the whole mountain as *heiau*, or a place of worship.[583] In this sense,

the mountain is not dissimilar from other mountains invested with a similar power like Mt. Shasta, Mt. Fuji, Mt. Ararat, or Mt. Sinai. Mauna Kea is the geological and spiritual source of the Hawaiian Islands, and is referred to as *piko*, or "origin point," "navel," and "umbilicus."[584] As a result, some native families bring the placentas of newborns to plant by a lake at the summit of the mountain, as a way of connecting culture, nature, and creation.

But to the consternation of native Hawaiians, the University of Hawaii runs an astronomical observatory on top of Mauna Kea. It is simply one of the best sites in the world to gaze out at the universe due to the lack of light pollution. Light pollution, it should be noted, is increasingly becoming an environmental issue.[585] Justifying the observatory, the University of Hawaii's master plan states, "Astronomers come to Mauna Kea in search of scientific answers to some of humanity's most fundamental questions. How and when did the stars, planets, and galaxies form? What threats do we face from the Sun and other celestial bodies? What will be the ultimate fate of the universe?"[586] Plans for more powerful telescopes on the mountain were halted in 2007, until the university could sufficiently address concerns about environmental damage and the cultural concerns of native Hawaiians. By 2009, the university was given permission to build the new telescope by the courts. This juxtaposition of two different approaches to understanding nature is symbolically rich. As environmental legal historian Lloyd Burton writes, "On one side of this geographic and cultural divide is the observatory cluster from which … science looks up into the heavens, seeking the source of all creation. And on the other side [is] … where native Hawaiians look down into the womb of the Earth to find the same thing."[587] Both sides seek a connection to ancestors and to future generations, using different paths to understanding and appreciating wild nature. Are the two approaches compatible? If you assume that there is only one way to understand and respect nature, then the answer has to be no.

But if there is, first, dialogue, and, second, recognition of different ways of relating to nature, then the possibility exists, to, if not find common ground, at least respect the dignity of competing perspectives.

Sacred Groves

Another expression of a conservation ethic devoted to the protection of wild nature is from the tradition of tending to "sacred groves" in Asia. We can note that the protection of waterholes throughout Africa expresses a similar kind of ethic.[588] Sacred groves existed throughout Europe, the Middle East, and Asia, but it is only in Asia were they have continued to thrive, particularly in Thailand, Nepal and India. They represent a religious respect for particular aspects of nature that are not found in all religions. Christians, for instance, regarded sacred groves as evil domains where pagans held rites, places where "heads rested on pikes" to ward off outsiders.[589] It was considered Christian duty to cut down pagan groves to chase away evil and destroy pagan culture.[590] This is not to say that Christianity doesn't have an environmental ethic – stewardship is a prominent theme, for example – but it is to say that nature advocacy takes different forms and wears different masks.

In Asia, the sacred grove tradition comes from the Buddhist ordination by monks of a grove of trees (or in some cases a much larger tract of forest), for the purposes of ecological protection. The Buddha was "enlightened" under a *bodhi* tree, and these trees in particular have long been protected for centuries. But recent, and quite sudden, deforestation throughout southeast Asia, along with the supplanting of native forest with monocrops like eucalyptus, has invigorated the old sacred grove tradition.[591] In this ceremony, certain trees are "wrapped with robes to mark their sacredness" and to signal their status as part of a community's identity.[592]

The establishment of community forests as sacred groves has increased in recent years throughout Thailand, and draws on resonant themes in Thai culture.

Spearheaded by "ecology monks" (*phra nak-anuraksa*), they represent a form of environmental activism seeking to connect people to wild nature. The monks also see their role as educating locals about the negative effects of deforestation.[593] These sacred forests are not meant to be cut down, yet their resources are meant to support community life. These are not *wilderness* areas but *wild* areas that are integrated into daily life. Through local management and guided by an ethic of conservation, the hope is that original forest can be effectively protected from development, and with it people's embedded relationship to a wild environment.

It is interesting to note that sacred groves serve many purposes – seclusion, worship, burial, and ritual. Importantly, they need neither the armed guards of "fortress conservation" nor sophisticated arguments for biodiversity in order to be protected. What they need is community support rooted in local traditions and values. As environmental anthropologist Susan Darlington argues, "The involvement of Buddhist monks, the most highly respected category of person in Thai society, invests the environmental movement, and grassroots action specifically, with powerful legitimacy … It highlights the need to understand and use local cultural and religious concepts of community in instituting grassroots environmental projects such as community forests."[594]

Sacred groves have not prevented rampant deforestation in Asia, to be sure. But they are an example of a wildness ethos that does not take the form of a wilderness philosophy that de-centers people. They are also an example of a community's commitment to preserving wild areas not far from, but near to, where people live, work, and play. The sacred grove tradition expands our understanding of what relating to wild nature can look like in the textured context of

a particular culture. It is an example of a wildness ethos that does not take the form of a wilderness philosophy where people are merely visitors.

Ecological Nostalgia

In 1953, the Demilitarized Zone (DMZ) was created as a military buffer and partition between North and South Korea. The DMZ is a 2.4 mile wide strip that runs across the entire Korean peninsula. Due to nearly sixty years of conflict, relatively little human activity has "ironically transformed the DMZ into a wild natural sanctuary for native plants and animals."[595] Environmental degradation in communist North Korea and rapid industrialization in the South has made the relatively wild character of the DMZ stand out all the more. After the "Sunshine Policy" of 2000, a new openness occurred between the North and South Korean governments. This allowed for the temporary reunification of families, some tourism, and limited economic development. With this transitory thaw in relations, hope has risen in some Korean and transnational environmental circles for the protection of the DMZ as a nature reserve and as a peaceful symbol of unity between the Korean peoples through recognition of a shared ecology. While a plan to turn the DMZ into an international peace park to foster peace and integrate the two Koreas has gained some traction and media attention, it is still at an early stage and, obviously, remains hostage to the larger military and political conflict between not just North and South Korea, but regional powers like China, Japan, and the United States. But domestic and global environmental, peace, and human rights groups have emerged in recent years to work toward this innovative proposal, civil society organizations like the DMZ Forum, the Korean Federation of Environmental Movements (KFEM), and the International Crane Foundation.[596]

Covered by barbed wire on all sides and dotted with land mines, the DMZ "now supports one of the last vestiges of Korea's natural heritage, providing important sanctuary for wildlife

including Chinese egret, black bear, musk deer, mountain goat, and many endangered and practically extirpated species such as the migratory black-faced spoonbill, white-napped crane, red-crowned crane, leopard cat, and perhaps even the Korean tiger."[597] The red-crowned crane, long a symbol of peace in East Asia and a prominent figure on scrolls and paintings, is said to land so lightly that it does not trigger land mines even if it lands on one. There is something strikingly beautiful about this fact. Nostalgia for a wild Korea appears to be sparking an environmental imagination that may yet influence the politics of the Korean conflict. Irrespective of ultimate political outcomes, it is clear that for some Koreans, the drive to reconnect to the "old" Korea through protection of the DMZ resonates strongly. A similar theme of nostalgia plays out in the Japanese case over the territorial conflict between Japan and Russia in the Kuril Islands.[598]

The European Green Belt project is another expression of this kind of yearning for connection to a wilder past. This is a proposal by governments and environmental NGOs to create a network of parks, reserves and conservation zones on the old "Iron Curtain" that once divided Europe. The project characterizes its mission as having the "vision to create the backbone of an ecological network that runs from the Barents to the Black sea, spanning some of the most important habitats for biodiversity and almost all distinct biogeographical regions in Europe. By following a course that was in large sections part of the former east-western border – one of the most divisive barriers in history – it symbolizes the global effort for joint, cross border activities in nature conservation and sustainable development."[599] It also symbolizes the desire to connect a densely populated and culturally diverse continent to a wild, green corridor.

What is appealing about these cases of nostalgia is the longing expressed by many Koreans, Europeans, and others to reconnect to an ecological identity that has been noticeably

changed by military conflict, industrial pollution, and habitat transformation in *living memory*. Wildness in this sense is expressed as preserving the recent ecological memory of a Korea transformed in the space of roughly two or three generations. To many Koreans, the ecological baseline of what is a "new normal" has noticeably shifted in their lifetimes. This idea of a rapid change in "ecological baselines" – what people are used to and environmental transformation they are willing to tolerate – is in constant tension with the nostalgic remembrance of an ecological past. I suspect that this impulse toward feelings of ecological nostalgia exists in many parts of the world. It is a significant aspect of an ethos of wildness, and is something that environmental political theorists and activists should study further, as it connect the past to the future and links generations.

Wolf Translocation in Idaho and the Role of the Nez Perce

Unlike most species loss, which is indirect due to overhunting, disease, or habitat transformation, wolves have long been hunted *deliberately*, with extermination in mind. This fact makes it all the more remarkable that wolves were re-introduced to Yellowstone in 1995, after a seventy year absence. Technically it was a "translocation" since the wolves came from gray wolf populations in Canada, whereas a "re-introduction" refers to recovery efforts from species bred in captivity. It is one of American conservation's success stories, as the wolf was one of the first species protected under the Endangered Species Act of 1973 and by 2012 the U.S. Fish and Wildlife Service officially de-listed the wolf from federal protection. States like Wyoming, Montana, Idaho, and Washington now run wolf-management programs, and in some cases authorize hunting once again because of increased populations and conflicts with livestock.

Wolf translocation has ignited atavistic passions throughout the Pacific Northwest. Conservationists are thrilled that wolves have returned. Ranchers are predictably concerned

about the loss of livestock. As Irving Berlin quips, "Freedom for the wolf is death to the sheep."[600] Hunters are also concerned about a decline in elk populations, an ungulate that is widely popular for sport and subsistence hunters. A popular bumper sticker reads, "Save 1,000 elk, kill a wolf." An environmentalist bumper sticker in Alaska mocks this logic, reading, "If you shoot wolves to save moose, and then you shoot the moose, you're either out of your mind or in Alaska." Hunting wolves is obviously controversial, but it should also be recognized that some hunters, and many hunting organizations, are avid conservationists.

In any case, wolves have thrived in Wyoming, Montana, Idaho and Washington (as many as nine distinct wolf packs now exist in Washington, whereas as little as five years ago, it was thought there were none).[601] A wolf's range is extensive. One wolf was tracked from Glacier Park in Montana to Banff National Park in Alberta to Spokane, Washington in a couple of days.[602] But it is in Idaho where the wolf populations have expanded the most. Of the 1,645 estimated wolves in the tri-state area in 2008, over half were thought to live in Idaho.[603]

It was big news when wolves were released in Yellowstone. But less well-known is that a similar effort took place in Idaho with the assistance of the Nez Perce tribe. This happened outside the bounds of a popular park like Yellowstone with extensive participation of citizen organizations. The part of Idaho where wolf populations have increased has mainly been in the roadless region of north-central Idaho along the west slope of the Bitterroot spine. Much of this region is roadless (the largest tract of roadless area outside of Alaska, in fact), but a lot of it is not. Moreover, while there are some wilderness areas in newly re-inhabited wolf habitat, most of the national forests in this complicated landscape mosaic do not have any special environmental protection (to the ire of many North Idaho conservation groups). Further, the land that comes

under Nez Perce jurisdiction has long been settled by human communities, though much of it is quite rural.

An important aspect of the wolf recovery story in Idaho is that the Nez Perce have been co-managers of the wolf recovery effort with the U.S. Fish and Wildlife Service. This is the first such collaboration between a tribe and the federal government for endangered species protection and re-introduction in U.S. history.[604] The Nez Perce stepped in as local partners once the state of Idaho explicitly prohibited the state Fish and Wildlife service from participating in the recovery plan (the state of Idaho is more eager to participate in regulating wolf hunting than aiding wolf recovery).[605] As Burton writes, "This is probably as good an example as any … of *cultural coevoluions* – two culture groups affecting each other's perceptions and behaviors in a mutual effort to reach a common goal."[606] The U.S. Fish and Wildlife Service and the Nez Perce working toward complementary goals of species protection and cultural integrity is a good example of what is possible through a deliberate democratic process focusing on ecological and social goals.

Wolves have deep cultural and spiritual value to the Nez Perce. Burton writes that, "When the wolves were first brought to central Idaho, a tribal elder sang a religious song to welcome them, and later said that the experience had been 'like meeting an old friend.'"[607] Like ecological nostalgia discussed above, we see that the rewilding of a nature-culturescape has the potential to invigorate the health and spiritual well-being of local communities and connect generations to a bioregional vision.

Canada's Boreal Forest Agreement

The last example I'd like to highlight comes from Canada. The landscape of Northern Canada remains "wild," at least according to the standards of the Wildlands Project, meaning it

retains the full range of native vegetation, wildlife, and landscape permeability.[608] Yet only 12% of the boreal forest is under any formal protection.[609] In late 2009, an agreement was reached to protect Canada's boreal forest by banning logging, mining, and oil drilling in an area *twice the size of California* between Provincial governments, logging companies, and First Nations leaders.[610] The agreement was many years in the making, and includes an "unlikely conservation alliance" between several government agencies, resident First Nation communities, conservation organizations, "socially responsible" investment firms, and logging and energy companies.[611] As Susanne Goldenberg writes in *The Guardian*, "The sheer scale of the forest conservation drive is somewhat of an anomaly for Canada, whose government has been accused of sabotaging the global climate change talks by its development of the Alberta tar sands and its refusal to make deep cuts in its greenhouse gas emissions."[612]

So it is interesting that part of this campaign explicitly links preserving the boreal with the fight against climate change. The United Nations' International Panel on Climate Change has targeted the protection of boreal regions around the world, particularly in Canada. One reason for the urgency is the growing recognition of the important role that boreal forests play as carbon sinks (by some estimates, they soak up 22% *more* carbon than tropical forests). Canada hosts most of North America's Boreal Forest, storing an estimated 186 billion tons of carbon—the equivalent of 27 years worth of global carbon emissions from burning fossil fuels. The forest stores carbon in its mosaic of trees, lakes, and peat lands.[613] Recognizing links between issues such as deforestation, climate change, and biodiversity loss has the potential to broaden the appeal of these campaigns independently, and as aspects of an interconnected set of ecological issues.

The increasing political stature of some indigenous groups in Northern Canada is also notable in this agreement. Ever since 1982, when aboriginal rights were introduced into Canada's Constitution, Canada has been a laboratory for innovative multicultural approaches to land use and conservation. Collaborative success, of course, cannot be known at this stage and this agreement is too new to evaluate. But the outline of this historic agreement represents an approach to protecting wild nature without wilderness designation on a large, continental scale, and with a diverse array of stakeholders.

Conclusion

The human race has forgotten so much in the last two-hundred years.
-- Dolores LaChapelle

The unknown element in the lives of other people is like that of nature, which each fresh scientific discovery merely reduces but does not abolish.
– Proust

Nature is not a place to visit, it is home.[614] Yet our "home" is rapidly being transformed to the point where "wildness" is increasingly crowded out by a human-dominated lifeworld. Our "home" is also a place where species extinctions and ecosystem transformations are occurring on a grand scale. There is deep-rooted political skepticism toward "protecting nature" by setting areas aside and eliminating most human activity. Yet instead of "incarcerating" nature for these purposes, cultivating a wildness ethos is a more effective way to achieve conservation goals. In some contexts, traditional cultural values can be seen as a rich source of ecological praxis that teaches authentic lessons in practical sustainability and ecological interdependence. At the same time, evolving notions of global ecological citizenship and the proliferation of transnational conservation networks broaden our understanding of environmental issues and create new linkages with people from distant locales. For 21st century conservation to be effective and

politically legitimate, spaces of cross-cultural dialogue need to open up between global and place-based conservationists.

Another way of saying this is that place-based and planetary-inspired conservation are now inextricably linked. Common ground regarding protecting biodiversity should be sought, but a discourse of wildness is likely to be nuanced, contextual, and political. I think that by exploring different constructions of wildness, conservationists can realize that there is more than one way to practice habitat protection. The justified criticism of *wilderness* as it has been exported from the West need not prevent the promotion of *wildness* as a conservation ethos that is an important form of nature advocacy in a globalizing and ecologically transforming world. The point is to explore different cultural relationships to nature advocacy and not promote an arrogant essentialism regarding wild nature. To deny essentialism about wild nature isn't to say that it doesn't exist. "Wildness" is an important social construction, whether cultivated on anthropocentric or ecocentric grounds. When we expand our definition of wildness and adopt diverse ways of viewing the environment and nature as a central way of being human, then our understanding of conservation will expand and it can be clear that it isn't only "wild" outside bus stations in Winnipeg.

We should retain our capacity for finding "the wild" in surprising places, which sometimes requires counter-intuitive reasoning. For instance, on a recent trip to the Yucatan, I noticed that beaches in front of developed hotels and bungalows (the *zona hoteleria*) were immaculately "pristine," obviously appealing to tourist desires for clean beachscapes. Walking beyond tourist boundaries to the "wild" beaches in the Sian Ka'an Biosphere Reserve, the shift from manicured hotel beaches to a shoreline strewn with seaweed, logs, and piles of garbage that had washed in from other parts of the Caribbean was sharp and distinct. One might think that the

clean beaches in front of the *zona hoteleria* were in a better condition of ecological health than the beaches further down the peninsula covered with detritus. They certainly looked nicer. From the perspective of endangered turtles, however, only the beaches away from the *zona hoteleria* are suitable to hatching eggs, despite having to share nesting sites with plastic bottles and discarded tires. It is in hybridized and modified environments like the beaches of the Yucatan – places that are both wild *and* a part of human culture – that our response to the extinction predicament will play out.

Notes

Introduction

[1] Sciencedaily.com, "Two Discoveries Add."
[2] Oreskes, "The Rejection of Continental Drift," 321.
[3] Palouseprairie.org, "Giant Palouse Earthworm (*Drilolerius americanus*)," 5.
[4] James, "Earthworms (*Annelida: Oligochaeta*) of the Columbia," 5.
[5] Palouseprairie.org, "Giant Palouse Earthworm (*Drilolerius americanus*)," 5.
[6] Sciencedaily.com, "Two Discoveries Add."
[7] Federal Register, "Endangered and Threatened Wildlife."
[8] Milstein, "Chasing a Giant of the Past."
[9] Pacific Biodiversity Institute, "Giant Palouse Earthworm."
[10] According to Montgomery, the rate of soil loss in the Midwest is worse – at least half of topsoil in states like Iowa is gone. Montgomery, *Dirt*, 160-162.
[11] Doughton, "Idaho Scientists Find Fabled Giant Palouse Earthworm."
[12] To see the video analyzed by the Cornell Lab of Ornithology and the Lab's analysis, go to: http://www.birds.cornell.edu/ivory/.
[13] Federal Register, "12 Month Finding on Petition."
[14] The Red List uses a seven point spectrum classifying risks to extinction that range from "extinct" to "least concern." See the IUCN Red List of Threatened Species: http://www.iucnredlist.org/.
[15] Fleener, *All Things Considered*.
[16] Sottile, "Great White."
[17] The giant Palouse earthworm has also become an actor in a campaign by environmentalists to challenge the re-routing of I-95 (the main highway that connects north and south Idaho). The plan favored by the Idaho Department of Transportation cuts through the native prairieland of Paradise Ridge (where the recent specimens were found) and not the surrounding farmland. See the Paradise Ridge Defense Coalition: http://www.paradise-ridge-defense.org/.
[18] Sottile, "Great White." Also see the Xerces Society: http://www.xerces.org/.
[19] Ibid.
[20] Darwin, *The Foundation of Vegetable Mold*.
[21] Ganz, "How People Power Generates Change."
[22] See United Nations Decade on Biodiversity: https://www.cbd.int/2011-2020/.
[23] Quammen, *The Song of the Dodo,* 12.
[24] Crist and Rinker, "One Grand Organic Whole," 14.
[25] Meyers, "Biodiversity and Biodepletion," 46.
[26] Wilson, *The Future of Life*, 79
[27] Cokinos, "The Consolations of Extinction."
[28] Litfin, "The Sacred and the Profane in the Ecological Politics of Sacrifice," 133.
[29] Klinkenborg, "Food, Humanity, Habitat."
[30] Cited in Smith, *Deliberative Democracy,* 16.
[31] Zimmer, "Bringing Them Back to Life."
[32] Rousseau, "Discourse on the Origin of Inequality."
[33] Harding, "Gaia and Biodiversity," 107.
[34] Crist and Rinker, "One Grand Organic Whole," 13.
[35] Schell, *The Fate of the Earth,* 113-115.
[36] Horkheimer and Adorno, *Dialectic of Enlightenment*.
[37] Fromm, *To Have or to Be?*
[38] Nietzsche, *On the Genealogy of Morality,* 80, emphasis added.
[39] Pimbert and Pretty, "Parks, People, and Professionals," 304.
[40] Cited in Kateb, *The Inner Ocean,* 148.
[41] Cited in Barry, *Environment and Social Theory,* 285.
[42] Arendt, *The Human Condition*, 5.

[43] Thiele, *Environmentalism for a New Millennium,* xvii-xix; 58-59.

Chapter 1

[44] See the UN Millennium Ecosystem Assessment: http://www.unep.org/maweb/en/index.aspx.
[45] Arendt, *The Human Condition*, 7.
[46] Horkheimer and Adorno, *The Dialectic of Enlightenment*, 4.
[47] Leiss, *The Domination of Nature*.
[48] Biro, "The Good Life in the Greenhouse?" This paper is not published yet but recently won the 2012 Best Paper in Environmental Political Theory by the Western Political Science Association's EPT working group.
[49] The IUCN is now officially called the World Conservation Union.
[50] Rumsfeld's full quote is, "There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we know we don't know. But there are also unknown unknowns. There are things we don't know we don't know." This report is in response to a question from a reporter at a February 12, 2002 press conference who pressed Rumsfeld about the lack of evidence supporting the theory that the Iraqi government had supplied terrorist groups with weapons of mass destruction. See http://www.youtube.com/watch?v=GiPe1OiKQuk. Incidentally, *Known and Unknown* is the title of Rumsfeld's memoir.
[51] Wilson, *The Future of Life*, 14.
[52] Pearson, *Driven to Extinction*, 10.
[53] Wilson, *The Future of Life*, 15.
[54] Ellis, *No Turning Back*, 258-260; See also *National Geographic*, "Primates in Trouble."
[55] World Wildlife Fund, "New Madagascar Species Discovered Weekly."
[56] World Wildlife Fund, "Heart of Borneo Forests."
[57] Earle, *Sea Change,* 8-13.
[58] Ross, "Tullis Onstott Went 2 Miles Down."
[59] Wilcove, *The Condor's Shadow*, 205, 214.
[60] Dobson, Andrew P., *Conservation and Biodiversity*, v.
[61] See http://www.iucnredlist.org/news/a-grain-of-hope-in-the-desert.
[62] Wilcove, *The Condor's Shadow*, 5, 24.
[63] BBC, "The Last Chance to See."
[64] Ali, *Peace Parks,* "Introduction"; also, Austin and Bruch, "Legal Mechanisms for Addressing"; and Lambacher "Nesting Cranes."
[65] Austin and Bruch, "Legal Mechanisms for Addressing."
[66] Kim, "Preserving Korea's Demilitarized Corridor."
[67] Ellis, *No Turning Back*, 3; See also Earle, *Sea Change*, 202.
[68] See http://www.batcon.org/index.php/media-and-info/bats-archives.html?task=viewArticle&magArticleID=1023.
[69] Barchfield, "Brazil Eyes Cloning to Boost Dwindling Animal Species."
[70] Raup, *Extinction,* 6.
[71] Ibid, 7.
[72] Bennett, "Triage as a Species."
[73] Haraway, *The Companion Species Manifesto,* 16.
[74] Boulter, *Extinction,* 18.
[75] Some think there is a 4th level – molecular diversity. See Campbell, "Save Those Molecules."
[76] Reichoff, *The Demise of Diversity,* 25.
[77] Wilhusen et. al., "Contested Nature," 3.
[78] Arrandale, "Disappearing Species."
[79] Meyers, "Biodiversity and Biodepletion," 54.
[80] Castro, "Environment and Development," 30-31.
[81] Eldridge, *Life in the Balance*, 32.
[82] Meyer, *The End of the Wild*, 4; Eldridge, *Life in the Balance*, viii.

[83] Raup, *Extinction,* 64-87.
[84] Boulton, *Extinction*, 8-9.
[85] Ibid, 9.
[86] Ellis, *No Turning Back*, 147-149.
[87] Quammen, *The Song of the Dodo*, 123.
[88] Quoted in Quammen, *The Song of the Dodo*, 277; emphasis in text.
[89] Eisley, *The Firmament of Time*, 36.
[90] Cited in Ellis, *No Turning Back*, 3.
[91] Arrandale, "Disappearing Species," 14.
[92] Reichoff, *The Demise of Diversity*, 143.
[93] *Millennium Ecosystem Assessment*, 74.
[94] See http://www.iucnredlist.org/.
[95] See http://www.iucnredlist.org/about/summary-statistics#How_many_threatened.
[96] *National Geographic*, "Primates in Trouble."
[97] Ibid.
[98] Perlman, "Fungus Killing Frogs."
[99] See Arrandale, "Disappearing Species," 4.
[100] See http://www.iucnredlist.org/about/red-list-overview.
[101] See http://www.iucnredlist.org/documents/summarystatistics/2011_1_RL_Stats_Table_1.pdf.
[102] McIlroy, "Vultures Vanishing."
[103] *Millennium Ecosystem Assessment*, 9.
[104] Ibid, 9.
[105] Crist and Rinker, "One Grand Organic Whole," 14.
[106] *Millennium Ecosystem Assessment*, 2; See also Harding, "Gaia and Biodiversity," 121.
[107] Harwood, "Gaia's Fresh Water," 160; Harding and Margulis, "Water Gaia," 55.
[108] Crist, "Intimations of Gaia," 329.
[109] Arrandale, "Disappearing Species," 10.
[110] *Millennium Ecosystem Assessment*, 18.
[111] Ibid, 18.
[112] "Ecosystem people" refer to those who livelihoods are intimately dependent on ecosystem services.
[113] *Millennium Ecosystem Assessment*, 88, 91.
[114] Crist and Rinker, "One Grand Organic Whole," 14.
[115] Dobson, *Conservation and Biodiversity,* 60.
[116] See MacArthur and Wilson, *The Theory of Island Biogeography.*
[117] Harding, "Gaia and Biodiversity," 109.
[118] These threats are broken down into eleven categories: 1) residential and commercial development, 2) agriculture and aquaculture, 3) energy productivity and mining, 4) transportation and service corridors, 5) biological resource use, 6) human intrusions and disturbance, 7) natural system modifications, 8) invasive and other problematic species and genes, 9) pollution, 10) geological events, and 11) climate change and severe weather. See Conservation Measures Partnership: http://www.conservationmeasures.org/about-cmp.
[119] Wilcove, *The Condor's Shadow*, 142.
[120] Ibid, 89.
[121] Bohle, "The Effects of Toxic Waste."
[122] Ponting, *A Green History of the World*, 171.
[123] See http://theelephantinthelivingroom.com/.
[124] Wilson, *The Future of Life*, 71; See also Ontario Ministry of Ag., "Why European Starlings."
[125] Cited in Harding, "Gaia and Biodiversity," 107.
[126] Gabriel, "Biodiversity 'Fundamental' to Economics."
[127] Cited in Arrandale, "Disappearing Species," 10; Meyer, *The End of the Wild*, 4.
[128] Cited in Guruswamy and McNeely, *Protection of Global Biodiversity*, "Introduction," 4.
[129] Cited in Arrandale, "Disappearing Species."

[130] Meyer, *The End of the Wild*, 4.
[131] Ibid, 9.
[132] Ibid, 13.
[133] Ibid, 14.
[134] Malakoff, "Shrink to Fit," 19.
[135] Meyer, *The End of Life,* 16-17.
[136] Pearson, *Driven to Extinction*, 93.
[137] IPCC 2007, Chapter 4-4-11, "Global Synthesis Including Impacts on Biodiversity."
[138] Pearson, *Driven to Extinction*, 114-115.
[139] Ibid, 62, 90, 98.
[140] Lovejoy and Hannah, *Climate Change and Biodiversity*, x.
[141] Dean, "The Preservation Predicament."
[142] Ibid.
[143] Pearson, *Driven to Extinction*, 150.
[144] Schell, *The Fate of the Earth*, 8.
[145] Rousseau, "Discourse on the Origin of Inequality," 380-386.
[146] Kaza, *Mindfully Green,* 38-39; See also Macy, *World as Lover*, 114.
[147] Montgomery, *Dirt*, 169.
[148] Lam, "The Rising Tide."
[149] Ghimire and Pimbert, "Social Change and Conservation," 19.
[150] Blaikie & Jeanrenaud, "Biodiversity and Human Welfare," 46.
[151] Sullivan and Tuana, *Race and Epistemologies of Ignorance;* also see Mills, *The Racial Contract.*
[152] Schell, *The Fate of the Earth*, 95.
[153] Ibid, 139.
[154] Crist, "Intimations of Gaia," 329.
[155] Cited in Arrandale, "Disappearing Species," 4.
[156] Pearson, *Driven to Extinction*, 183.
[157] Hannah et. al., "Biodiversity and Climate Change, 9.
[158] Macy, *World as Lover*, 5.

Chapter 2

[159] Quoted in Dowie, *Conservation Refugees*, 15.
[160] Williams, *Keywords,* 219.
[161] Eckersley, "Ecocentric Discourses," 365.
[162] Meyer, *Political Nature*, 1.
[163] Cited in Lucardie, "Why Would Egocentrics," 21.
[164] Sax, *Mountains Without Handrails.*
[165] Norton, *Why Preserve Natural Variety?* 135.
[166] Dobson, *Green Political Thought*, 42.
[167] Ibid, 43; emphasis mine.
[168] Technically, ecocentrism is distinguished from biocentrism in that the former sees intrinsic value in all natural entities (biotic *and* abiotic), while biocentrism only claims intrinsic value for living entities.
[169] Leopold, *A Sand County Almanac*, 239-240.
[170] Quoted in Dowie, *Conservation Refugees*, 20.
[171] Litfin, "Principles of Gaian Governance," 198-200.
[172] Jeffers, *The Collective Poetry.*
[173] See Lucardie, "Why Would Egocentrics," 22-25.
[174] Quoted in Wapner, *Living Through the End of Nature*, 61.
[175] Quoted in Dobson, *Green Political Thought*, 38.
[176] See Young, *Inclusion and Democracy.*
[177] Goodin, *Green Political Theory*, 26-27.

[178] Caygill, *Levinas and the Political.*
[179] Bookchin and Foreman, *Defending the Earth.* 33.
[180] Sale, *Dwellers in the Land*; Callenbach, *Ecotopia.*
[181] Sale, *Dwellers in the Land*, 53; emphasis in text.
[182] Litfin, "Reinventing the Future."
[183] See Egan, *The Big Burn,* for an excellent account of this history.
[184] Plato, *Phaedrus*, 25.
[185] Aristotle, *Politics*, 14.
[186] Ponting, *A Green History of the World*, 145.
[187] White, "The Historical Roots."
[188] Ehrenfeld, *The Arrogance of Humanism*, 3.
[189] Leiss, *The Domination of Nature*, 110.
[190] Horkheimer and Adorno, *Dialectic of Enlightenment.*
[191] Ehrenfeld, *The Arrogance of Humanism*, 255-262.
[192] Eckersley, "Ecocentric Discourses," 369.
[193] McLaughlin, "Industrialism and Deep Ecology," 123-124; See also Eckersley, *Environmentalism*, 129.
[194] Marcuse, *The New Left*, 175.
[195] Light, "Trip the Light Fantastic," 2.
[196] Eckersley, "Ecocentric Discourses," 365, 367.
[197] Ponting, *A Green History of the World*, 145.
[198] Wissenburg, "The Idea of Nature," 12.
[199] Lee, *Earth First!* 109-110.
[200] Quoted in Snape III, *Biodiversity and the Law,* 81.
[201] See the Voluntary Human Extinction Movement: http://www.vhemt.org/.
[202] Dobson, *Green Political Thought*, 2.
[203] Ibid, 3.
[204] Ibid, 2-3. An "ideology" to Dobson must satisfy three conditions: (1) provide empirical analysis of political life, (2) offer a picture of the good life, and (3) have a theory of strategic action.
[205] Duvall and Sessions, eds. *Deep Ecology.*
[206] Meyer, *Political Nature*, 21-22.
[207] Diamond and Orenstein, eds., *Reweaving the World*; See also Scharff, ed., *Seeing Gender.*
[208] Bookchin and Foreman, *Defending the Earth*, 2-3.
[209] Djoghlaf, "Secretariat of the Convention."
[210] Dowie, *Conservation Refugees*, xx.
[211] IUCN, "Guidelines for Applying."
[212] Byal and Olsen, "Current Protected Areas," 74.
[213] See Ali, *Peace Parks,* and Fraser, *Rewilding the World,* for accounts of transboundary peace parks and the global rewilding movement respectively.
[214] Conca, "Rethinking the Ecology."
[215] Peluso, "Coercing Conservation," and Dowie, *Conservation Refugees.*
[216] Dowie, *Conservation Refugees*, 153.
[217] Ibid, 153.
[218] Hawken, *Blessed Unrest*, 102-103.
[219] Guha, *Environmentalism*, 122.
[220] Cited in Guha, *Environmentalism*, 98.
[221] Ibid, x, 104.
[222] Peluso, "Coercing Conservation."
[223] Dowie, *Conservation Refugees*, 127-132.
[224] Ibid, 102.
[225] See Spence, *Dispossessing the Wilderness,* and Jacoby, *Crimes Against Nature,* for excellent accounts of coercive conservation in North America.

[226] Scott, *Seeing Like a State*, 2.
[227] Ghimire and Pimbert, "Social Change and Conservation," 30.
[228] See Dowie, *Conservation Refugees*, 79-99.
[229] Sachs, "Introduction," 19.
[230] Shiva, "The Greening of the Global Reach," 154.
[231] Sachs, "Introduction," 19.
[232] Peluso, "Coercing Conservation," 47.
[233] Peluso, "Territorial Claims and Practices," 237.
[234] United Nations Environment Programme, "Green Economy and Trade Opportunities."
[235] West et. al., "The Political Economy of Ecotourism," 104.
[236] Cited in Dowie, *Conservation Refugees*, xxvii.
[237] Nash, *Wilderness and the American Mind*, 316.
[238] Fortwangler, "The Winding Road," 26-31.
[239] Reid, "Halting the Loss of Biodiversity," 273.
[240] Plumwood, "Ecosocial Theory," 207-209.
[241] Stone, *Earth and Other Ethics*, 13.
[242] Plumwood, "Inequality, Ecojustice, and Ecological Rationality," 619.
[243] Ibid, 628.
[244] Dryzek, "Political and Ecological Communication," 638.
[245] Ibid, 633.
[246] Ibid, 638-639.
[247] Ibid, 639.
[248] Eckersley, *Environmentalism and Political Theory.*
[249] Eckersley, "Ecocentric Discourses," 365.
[250] Ibid, 365.
[251] Ibid, 373.
[252] Eckersley, *The Green State*, 35.
[253] Smith, *Deliberative Democracy*, 11.
[254] Ibid, 14.
[255] Ibid, 17.
[256] Ibid, 15, 25, 26.
[257] Hayward, *Political Theory and Ecological Values*, 2, 16.
[258] Ibid, 68.
[259] Ibid, 131.
[260] Cited in Dobson, *Green Political Thought*, 50.
[261] Cited in Plumwood, "Inequality, Ecojustice, and Ecological Rationality."
[262] Dobson, *Green Political Thought*, 51.
[263] Walzer, *Spheres of Justice*, 16.
[264] Ibid, 10, 109.
[265] *The Economist*, "Horns, Claws and the Bottom Line."
[266] Anbarasan, "Kenya's Green Militant," 99.
[267] Ibid, 101.
[268] Zizek, *Zizek!*

Chapter 3

[269] Wilson, *The Future of Life,* 22.
[270] Meadows et. al., "The Nature of Exponential Growth."
[271] Hardin, "The Tragedy of the Commons"; Ophuls, *Ecology and the Politics of Scarcity;* and Stephens, *Nature, Liberty, and Dystopia*.
[272] Dobson, *Citizenship and the Environment*, 69.
[273] Wilson, *The Future of Life,* 23.

[274] Barry, *Environment and Social Theory,* 179.
[275] Thanks to John Meyer for clarifying an important distinction between fear and danger in this context.
[276] See, for instance, the work of Mathis Wackernagel and the Global Footprint Network (http://footprintnetwork.org/en/index.php/GFN/), and many other organizations that devise similar metrics.
[277] Meyer, *The End of the Wild,* 74.
[278] Thoreau, *Walden,* 210.
[279] Kolbert, *Field Notes from a Catastrophe,* 128.
[280] Thanks to Alex Fidis, EPA administrator, for emphasizing this point in a private conversation.
[281] "Full-cost accounting" is the idea that social and ecological factors should be included in the cost of a product, rather than just the price a market will bear. The "triple bottom line" is a metric that comes from the sustainable development literature and conceives a "bottom line" in terms of social, ecological, and economic variables. An "ecological shadow" is a concept that examines how domestic consumption can ecologically impact other parts of the world.
[282] Brundtland et. al., "World Commission for Sustainable Development," 236.
[283] For a trenchant criticism of how the discourse of limits was co-opted by imperatives of economic growth, see Bernstein, *The Compromise of Liberal Environmentalism*.
[284] Meadows et. al., *The Limits to Growth,* 9.
[285] Ibid, xi.
[286] Ibid, xiv, xvii.
[287] Ibid, xi.
[288] Ibid, xvi.
[289] Turner, "A Comparison of the Limits to Growth," 397.
[290] Meadows et. al., *The Limits to Growth,* 123-124.
[291] Ibid, x.
[292] Thanks to John Meyer for emphasizing this point.
[293] Meadows et. al., *The Limits to Growth*, 263. Emphasis in text.
[294] Evernden, *The Social Creation of Nature*, 7.
[295] See Schlosberg's *Defining Environmental Justice* for a good introduction to "EJ" in environmental political theory.
[296] Brown, "A Planet Under Stress," 38.
[297] Lele, "Sustainable Development," 254.
[298] Conca, "Rethinking the Ecology."
[299] Brundtland, et. al., "World Commission for Sustainable Development," 237.
[300] De Geus, *The End of Overconsumption*, 160, 168.
[301] McKibben, *The End of Nature,* 197.
[302] Conca and Dabelko, Introduction to "The Debate at Stockholm," 18-19.
[303] Kassiola, "Questions to Ponder," especially 27-30.
[304] Barry, *Environment and Social Theory,* 27-28.
[305] Dobson, *Green Political Thought,* 70.
[306] Ibid, 67.
[307] De Geus, *Ecological Utopias.*
[308] Whiteside, *Precautionary Politics,* 95.
[309] Jonas, *The Imperative of Responsibility,* 8, 23; Litfin, "The Sacred and the Profane," 119.
[310] Ibid., 2, 6.
[311] Ibid., 5.
[312] Meyer, *The End of the Wild*, 5.
[313] Jonas, 6.
[314] Ibid, ix.
[315] Ibid, 203.
[316] Ibid, 128.
[317] Plumwood, "Feminism," 58.

[318] Vogel, "The Outcry of Mute Things," 181.
[319] Jonas, *The Imperative of Responsibility*, 71.
[320] For an interesting account consciousness in nature, see Margulis et. al. *Chimeras and Consciousness*.
[321] Vogel, "The Outcry of Mute Things," 172, 181.
[322] Some interesting projects have emerged that take a long-term responsibility for the future into account, such as Stewart Brand's Long Now Foundation, which "Fosters long-term thinking and responsibility through diverse projects aiming to inspire, educate, and challenge our concepts of the future." The "10,000" year clock, with chimes devised by the musician Brian Eno, is particularly interesting. See http://longnow.org/projects/.
[323] Jonas, *The Imperative of Responsibility*, 4-5.
[324] Here I insist that Jonas must only be referring to the Western ethical tradition. Certainly other non-religious ethical traditions, e.g. Taoism, Buddhism, animist, and some Native American perspectives, among others, did not see nature as ethically neutral.
[325] Jonas, *The Imperative of Responsibility*, 19.
[326] Ibid, 8.
[327] Ibid, 85; Emphasis mine.
[328] Ibid, 87.
[329] Ibid, 28.
[330] Ibid, 28.
[331] Cited in Whiteside, *Precautionary Politics*, 97.
[332] Jonas, *The Imperative of Responsibility*, 2.
[333] Ibid, 2.
[334] Ibid, 203.
[335] Ibid, 204.
[336] Ibid, 27. Emphasis in text.
[337] Ibid, 27.
[338] Ibid, 28.
[339] Vogel, "The Outcry of Mute Things," 182.
[340] Jaspers, *Socrates, Buddha, Confucius, Jesus*.
[341] See Attfield, "Mediated Responsibilities," for an interesting appropriation of Jonas's ideas to the problem of global warming.
[342] See Maniates, "Individualization," for a good discussion of the problem of individualizing what are essentially collective environmental problems, and how this process impoverishes political imagination.
[343] Vogel, "The Outcry of Mute Things," 184.
[344] Berlin, *Four Essays on Liberty*, 131.
[345] Ibid, 166, 171.
[346] Ibid, 120-121.
[347] Ibid, 124.
[348] Ibid, 124.
[349] Ibid, 121.
[350] Ibid, 145.
[351] Ibid, 132.
[352] Hirschmann, *The Subject of Liberty*, 4
[353] Ibid, 7
[354] Ibid, 7, 14
[355] Ibid, 39
[356] See Bacevich's *Limits of Power* for an analogous argument about limits, freedom, and American foreign policy.
[357] Levinas, *Totality and Infinity.*
[358] Freud, *Civilization and its Discontents*; See also, Horkheimer and Adorno's *Dialectic of Enlightenment.*
[359] See Buck, "No Tragedy of the Commons."
[360] Franzen, "Technology Provides an Alternative to Love."
[361] Cited in Torgerson, *The Promise of Green Politics*, 131.

[362] Cited in Meadows, *The Limits to Growth*, 257.
[363] See Kathi Weeks, *The Problem with Work*; Also see Judith Schor, *The Overworked American*.
[364] See http://www.timeday.org/.
[365] Dagger, "Freedom and Rights," 211
[366] Ibid, 211.
[367] Ibid, 210-211.
[368] Hall, "Freedom, Values, and Sacrifice,' 81.
[369] Norton, *Why Preserve Natural Varitety?*, 11.
[370] Ibid, 10.
[371] Ibid, 12.
[372] See Nussbaum, *Upheavals of Thought – The Intelligence of Emotions.*
[373] See Louv, *Last Child in the Woods*; Nabham & Trimble, *The Geography of Childhood;* Van Noy, *A Natural Sense of Wonder: Connecting Kids to Nature Through the Seasons.*
[374] Torgerson, *The Promise of Green Politics*, 76.
[375] Ibid, 49.
[376] Ibid, x.
[377] Arendt, *Between Past and Future*, 147.
[378] Ibid, 151.
[379] Torgerson, *The Promise of Green Politics*, xv.
[380] Kaza, *Mindfully Green*, 148.
[381] Wissenburg, "Liberalism," 29.
[382] Jonas, *The Imperative of Responsibility*, 204.
[383] Zerilli, *Feminism and the Abyss of Freedom*, 22.
[384] Meeker, *The Comedy of Survival*, 27, 36.
[385] Ibid, 36.
[386] Ibid, 35.
[387] Ibid, 10.
[388] Ibid, 17; Emphasis mine.
[389] Quoted in Cronon, "The Trouble with Wilderness," 89.
[390] See Meeker, *The Comedy of Survival*, 12-21.

Chapter 4

[391] See Barry, "Toward a Green"; Barry and Smith, "Civic Republicanism"; Dobson, *Citizenship and the Environment;* Curry, "Redefining Community"; Cannavo, "Ecological Citizenship"; Slaughter, "An Alternative"; and Lane, *Eco-republic.*
[392] Latour, *We Have Never Been Modern.*
[393] Arendt, *The Human Condition*, 38.
[394] Quentin Skinner asserts that republicanism in a strict sense means "opposing the institution of monarchy" (55).
[395] Honohan, *Civic Republicanism,* 111-144; Maynor, *Republicanism,* 10; and Pettit, *Republicanism,* 8.
[396] Barry, "Toward a Green," 5.
[397] Ibid, 5.
[398] Wissenburg, a liberal, uses this comment in caricature, as he does not think that all environmental problems can be blamed on liberalism. Wissenburg, "Liberalism," 20.
[399] Skinner, *Liberty Before Liberalism,* 23.
[400] Aristotle, *Politics,* 5.
[401] Dobson, *Citizenship and the Environment*, 95; and Light, "Restoring Ecological Citizenship."
[402] Eckersley, *Environmentalism and Political Theory*, 36-38.
[403] Curry, "Redefining Community," 1067; see also Nussbaum's *Frontiers of Justice*.
[404] Cited in Curry, "Redefining Community," 1067.
[405] Ball, "Democracy," 134.
[406] See www.pbs.org/newshour/bb/white_house/july-dec01/cheney_7-18.html.

[407] Dobson, "Citizenship," 216.
[408] Curry, "Redefining Community," 1061.
[409] Cited in Eckersley, "Communitarianism," 103.
[410] Dobson, "Citizenship," 217.
[411] Maynor, *Republicanism,* 57.
[412] Barry and Eckersley, "W(h)ither the Green State," 260.
[413] Walzer, "Money and Commodities," 95-128.
[414] Rousseau, *On the Social Contract.*
[415] Arendt, *The Human Condition*, 29.
[416] Dobson, "Citizenship," 226.
[417] Myerson, *Ecology,* 50-51.
[418] Ibid, 52.
[419] Ibid, 51.
[420] Barry, "Toward a Green Republicanism," 6.
[421] Eckersley, *The Green State*, 115. Italics and parentheses are in original text.
[422] Hawken, *Blessed Unrest,* 2.
[423] See Madison's Federalist 10 for a classic statement of this perspective.
[424] Compulsory "sustainability service" is the idea that time should be set aside in a citizen's life to work on behave of environmental goals that are beneficial to one's community, similar to notions of compulsory military or civil service. Barry, "Toward a Green Republicanism," 7.
[425] Walzer, "A Day in the Life," 460; see also Nancy Fraser's work on "publics" and "counterpublics" in *Justice Interruptus*.
[426] Ibid, 461.
[427] Skinner, *Liberty Before Liberalism,* 24.
[428] Slaughter, "An Alternative Foundation," 214.
[429] Latour, *We Have Never Been Modern,* 105-109.
[430] Benedict Anderson, *Imagined Communities.*
[431] Burke, *Reflections on the Revolution in France*; See also Kateb "Aestheticism and Morality."
[432] Barry, "Toward a Green Republicanism," 7.
[433] Macauley, "Hannah Arendt," 121.
[434] Dietz, "Hannah Arendt"; Kaplan, "Democracy's Law."
[435] D'Entreves, *The Political Philosophy of Hannah Arendt*; Pitkin, "Justice."
[436] Macauley, "Hannah Arendt," especially 104-108, 112-124; Torgerson, *The Promise of Green Politics*; Whiteside, "Hannah Arendt and Ecological Politics"; and Whiteside, "Worldliness and Respect for Nature."
[437] Arendt, *The Human Condition*, 322.
[438] Arendt, *Between Past and Future*, 90.
[439] Ibid, 87.
[440] Veblen, *The Theory of the Leisure Class,* 15-22.
[441] Radio interview: http://www.npr.org/templates/story/story.php?storyId=18751646.
[442] Arendt, *The Human Condition*, 302.
[443] Ibid, 320.
[444] Whiteside, "Hannah Arendt and Ecological Politics," 345-348.
[445] Ibid, 354; emphasis in text.
[446] Ibid, 346.
[447] Ibid, 351.
[448] Arendt, *The Human Condition*, 139.
[449] Ibid, 136-44.
[450] Whiteside, "Hannah Arendt and Ecological Politics," 351.
[451] Arendt, *Between Past and Future*, 145.
[452] Arendt, *The Human Condition*, 7.
[453] Zerilli, *Feminism and the Abyss of Freedom,* 15.

[454] Arendt, *Between Past and Future*, 148.
[455] Arendt, *The Human Condition*, 176-177, 179.
[456] Arendt, *Between Past and Future*, 147.
[457] Ibid, 152.
[458] Ibid, 152.
[459] Ibid, 151, emphasis in text.
[460] Ibid, 63.
[461] Arendt, *The Human Condition*, 324.
[462] Honig, *Political Theory and the Displacement of Politics*, 77.
[463] Ibid, 118; emphasis mine.
[464] Pitkin, "Justice," 278-79.
[465] Porritt, quoted in Whiteside, "Hannah Arendt"; emphasis in text.
[466] Dobson, *Citizenship and the Environment*, 95.
[467] Arendt, *On Revolution*, 60.
[468] Zerilli, *Feminism and the Abyss of Freedom,* 2.
[469] Ibid, 3.
[470] Ibid, 19; Zerilli cites Margaret Canovan in this passage.
[471] Ibid, 11-12.
[472] Arendt, *Between Past and Future*, 162.
[473] Zerilli, *Feminism and the Abyss of Freedom*, 18.
[474] Arendt, *Between Past and Future*, 245; emphasis in text.
[475] Ibid, 208.
[476] Ibid, 208.
[477] Whiteside, "Worldliness and Respect for Nature," 34.
[478] Ibid, 35; emphasis in text.
[479] Arendt, *Between Past and Future*, 219-220.
[480] Ibid, 151.
[481] Ibid, 151.
[482] Dobson, "Citizenship," 226.
[483] Honig, *Political Theory,* 118-119.
[484] Wilson, "What is Environmental Authority."
[485] Ibid, 1.
[486] Norton, *Why Preserve Natural Variety,* 15.
[487] Meyer, "Book Review: *The Promise,"* 182.
[488] Arendt, *On Revolution*, 277-280.
[489] Arendt, *Between Past and Future*, 80.
[490] Ibid, 78, 79.
[491] Ibid, 84.
[492] Zerilli, *Feminism and the Abyss of Freedom*, 178.
[493] Thiele, *Environmentalism,* 115.
[494] Slaughter, "An Alternative Foundation," 221.
[495] Deudney, *Bounding Power.*
[496] Ali, *Peace Parks,* 2-16.
[497] Slaughter, "An Alternative Foundation," 221.
[498] Young, *Inclusion and Democracy.*
[499] Arendt*, The Human Condition*, 234.

Chapter 5

[500] Dowie, *Conservation Refugees,* 19.
[501] Guha, quoted in Gudynas, "The Fallacy of Ecomessianism," 174.
[502] Curtin, *Environmental Ethics,* 4.

[503] Chapin, "A Challenge to Conservationists."
[504] Dowie, *Conservation Refugees,* xviii; emphasis mine.
[505] Curtin, *Environmental Ethics,* 9.
[506] Quoted in Dowie, *Conservation Refugees*, ix.
[507] Meyer, *The End of the Wild,* 4.
[508] Fraser, *Rewilding the World,* 312.
[509] Ibid, 11.
[510] Wilshusen, et. al., "Contested Nature," 3.
[511] Contrary to those who might think that private land holdings are environmentally insignificant because they are too small, consider the fact that media mogul Ted Turner has purchased over 2,000,000 acres of land, and has claimed that he wishes to purchase enough land to be able to ride his horse from Montana to Mexico without ever leaving his own property. He is one of America's largest landowners. See http://en.wikipedia.org/wiki/Ted_Turner.
[512] Wilshusen et. al., "Contested Nature," 3.
[513] Fraser, *Rewilding the World,* 10.
[514] Ghimire and Pimbert, "Social Change and Conservation," 11.
[515] Fraser, *Rewilding the World,* 10.
[516] See Convention on Biological Diversity: http://www.cbd.int/.
[517] Cited in Vogler, "In Defense of International," 237.
[518] Monbiot, "We've Been Conned."
[519] Ibid.
[520] Revkin, "A Postcard from Nagoya Species Talks."
[521] See http://biodiversitymedia.ning.com/.
[522] To see the maps unveiled at the summit, see the Alliance for Zero Extinctions: http://www.zeroextinction.org/.
[523] See http://www.cites.org/.
[524] Ibid.
[525] *The Economist*, "Horn of Scarcity."
[526] See http://www.johannesburgsummit.org/html/basic_info/basicinfo.html.
[527] Monbiot, "We've Been Conned."
[528] Revkin, "A Postcard from Nagoya Species Talks."
[529] See http://www.mnn.com/local-reports/oregon/local-blog/constitutional-rights-given-to-ecuadors-environment.
[530] Greene, "The First Successful Case of the Rights of Nature Implementation in Ecuador."
[531] See http://www.treehugger.com/environmental-policy/river-new-zealand-granted-legal-rights-person.html.
[532] See http://www.treehugger.com/environmental-policy/river-new-zealand-granted-legal-rights-person.html.
[533] Woody, "Wildlife at Risk Face Long Line at U.S. Agency."
[534] Ibid.
[535] Ibid.
[536] Wilcove, *The Condor's Shadow*, 232.
[537] Meyer, *The End of the Wild*, 43.
[538] Woody, "Wildlife at Risk Face Long Line at U.S. Agency."
[539] Knudson, "Shifting the Pain," 243-246.
[540] Foreman, *Rewilding North America,* 157.
[541] Chapin, "A Challenge to Conservationists," 18.
[542] Snyder, *The Practice of the Wild,* 9.
[543] Quoted in Nash, *Wilderness and the American Mind,* 3.
[544] Quoted in Nash, *Wilderness and the American Mind*, xiii.
[545] Leopold, *A Sand County Almanac,* 122.
[546] Quoted in Nash, *Wilderness and the American Mind,* 41.
[547] Locke, *Two Treatises of Government,* Chapter V, Section 34; emphasis added.
[548] Quoted in Nash, *Wilderness and the American Mind*, 277.

[549] Spence, *Dispossessing the Wilderness,* 5.
[550] Jenkins, ed., *A People's History of Wilderness.*
[551] Solnit, *Wanderlust – A History of Walking,* 109.
[552] Rousseau, *Emile.*
[553] Quoted in Nash, *Wilderness and the American Mind,* 50.
[554] Quoted in Blythe, *Zen in English Literature,* 418.
[555] Sides, "Russian Refuge."
[556] Nash, *Wilderness and the American Mind*, 96.
[557] See http://www.fws.gov/laws/lawsdigest/ALASKCN.HTML.
[558] The Sagebrush Rebellion was a conservative political movement in the 1970s and 1980s that aimed to give states more control over public lands in the West for the purposes of ranching and mining. They engaged in high profile fights with environmental groups, particularly wilderness advocacy groups, over road building on rangelands and national forests. The Sagebrush Rebellion, of which Ronald Reagan counted himself a "rebel," morphed into the Wise Use movement that is still active today in disputes over many of the same issues.
[559] Stroll, "Aw, Wilderness."
[560] 1964 Wilderness Act, Section 2 (c): http://wilderness.nps.gov/document/WildernessAct.pdf.
[561] Quoted in Foreman, *Rewilding North America,* 195-196.
[562] Peluso, "Coercing Conservation," 47. See Peluso's case studies of the politics of forest management practices in Java, and of elephant protection in wildlife preserves in Kenya in the same article, 52-67. See also her discussion of the politics of policing tiger preserves in India in Greenough and Tsing, "Pathogens, Pugmarks, and Political 'Emergency,'" 201-227.
[563] Quoted in Dowie, *Conservation Refugees,* 24.
[564] Fraser, *Rewilding the World,* 212.
[565] Birch, "The Incarceration of Wilderness," 339-352.
[566] Dowie, *Conservation Refugees*, 177.
[567] Torgerson, *The Promise of Green Politics,* 124.
[568] Wapner, *Living Through the End of Nature,* 126.
[569] Cronon, *Uncommon Ground,* 20.
[570]Escobar, "After Nature," 1.
[571] Quoted in Foreman, *Rewilding North America,* 151.
[572] Zerner, *"Dividing Lines*," 64.
[573] See http://www.environmentandsociety.org/search?search_api_views_fulltext=wilderness+in+translation.
[574] Gomes-Pampa and Kaus, "Taming the Wilderness Myth," 273. Emphasis added.
[575] Quoted in Hargrove, *Nature in Asian Traditions of Thought,* xvi.
[576] Public Broadcasting System, "The Story of India."
[577] Snyder, *Practice of the Wild,* 100.
[578] LaFleur, "Buddhist Value of Nature," especially 188-195.
[579] Eliade, *The Sacred and Profane*.
[580] Sale, *Dwellers in the Land,* 5.
[581] Matthiesen,*The Snow Leopard,* "Forward."
[582] Horkheimer and Adorno, *The Dialectic of Enlightenment,* 5-6.
[583] Burton, *Worship and Wilderness,* 245.
[584] Ibid, 248.
[585] See the International Dark Sky Association: http://www.darksky.org/.
[586] Burton, *Worship and Wilderness,* 245.
[587] Ibid, 248.
[588] Snyder, *Practice of the Wild,* 83; Guha, *Environmentalism,* 44.
[589] Stark, *For the Glory of God,* 227.
[590] Burton, *Worship and Wilderness,* 56; See also Nash, *Wilderness and the American Mind,* 17.
[591] Darlington, "Practical Spirituality," 347, 356.
[592] Ibid, 347.

[593] Ibid, 350.
[594] Ibid, 348.
[595] Kim, "Preserving Korea's Demilitarized Corridor," 239.
[596] Ibid, 254.
[597] Ibid, 245.
[598] Lambacher, "Nesting Cranes."
[599] See: http://www.europeangreenbelt.org/.
[600] Berlin, *Four Essays on Liberty,* xiv.
[601] Brown, "Fed Plan Would End Gray Wolf Protection."
[602] Fraser, *Rewilding the World,* 18.
[603] See http://fishandgame.idaho.gov/cms/news/fg_news/manage.cfm.
[604] Burton, *Worship and Wilderness,* 214.
[605] Ibid, 214.
[606] Ibid, 215; emphasis in text.
[607] Ibid, 214.
[608] Foreman, *Rewilding North America,* 136.
[609] See http://www.interboreal.org/index.php?option=com_content&task=view&id=112&Itemid=212.
[610] See http://www.guardian.co.uk/environment/2009/oct/29/canada-boreal-forest-carbon-vault http://e360.yale.edu/content/digest.msp?id=2125.
[611] See http://www.ecoearth.info/shared/reader/welcome.aspx?linkid=49669.
[612] See http://www.guardian.co.uk/environment/2009/oct/29/canada-boreal-forest-carbon-vault.
[613] See http://www.interboreal.org/index.php?option=com_content&task=view&id=112&Itemid=212.
[614] Snyder, *Practice of the Wild,* 7.

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