

Environmental Participation:
Immanence, Cosmopolitics, and the Agency of Environmental Assemblages

A DISSERTATION
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

Michael Andrew Nordquist

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

Lisa Jane Disch

February 2010

Acknowledgements

This project has been a long-term labor that has involved more people than I can possibly acknowledge here. Throughout graduate school and the writing process, I have been tremendously fortunate to be part of various communities that prevented the dissertation experience from being the isolated, lonely, and depressing slog that many have described it to be. And, for that, I am endlessly grateful to all those who have made this project what it is and enabled it to be completed.

Most significant in bringing this project to fruition and completion have been the members of my committee—Lisa Disch, Bud Duvall, Bruce Braun, and Nancy Luxon—who have treated me as a colleague and challenged me intellectually and politically from the start. All four of them have been committed to establishing and maintaining intellectual communities of graduate students and faculty members, making sure that I and other students had every opportunity for constructive feedback and debate. In addition, each member exhibited how to live as an engaged intellectual, each in his or her own way, demonstrating how to be a committed political actor while participating in the often stifling environment of academic knowledge production. I am grateful both for their individual contributions to this project, as well as the congeniality and camaraderie demonstrated when meeting together.

My adviser, Lisa Disch, encouraged my early formulations of questions about environmental politics and the activities of entities of other than humans. Lisa had the uncanny ability to find clarity and sense in what I discussed with her when I only had a vague idea of what I was trying to think about, and remained engaged with my thinking throughout the duration of writing. Beyond this project, I had the opportunity to work

with Lisa as a teaching assistant for numerous courses. I greatly benefited and learned from her pedagogical skills and her incorporation of democratic practices into the classroom. Finally, I am immeasurably thankful for the time and energy Lisa has been (and hopefully continues to be) willing to dedicate to me and her other graduate students not just as scholars and academics, but as friends and colleagues.

Bud Duvall has been a fabulous mentor, critic, and departmental chair, providing insightful critiques of chapters and establishing a community among his students and in the department that encouraged the type of scholarly work that this dissertation represents. Bruce Braun introduced me to many of the questions addressed in my research, and has challenged me to push the political implications of this project to their most radical conclusions. Nancy Luxon, a late addition to my committee, has been an invaluable critic and reader. Nancy has been generous beyond belief in her time, reading many drafts of chapter and allowing me to consume hours of conversation and practice teach in her classes. In all, I thank my committee members for being an energetic and critical group of scholars that have made this project and me as a scholar much better than I would have been otherwise.

Other faculty, staff, and institutions at the University of Minnesota need to be acknowledged for their contributions to the completion of this project. Mary Dietz, Bill Scheuerman, and Jeff Lomonaco offered stimulating classes that have, in one way or another, found their way into my current work. Judith Mitchell, Alexis Cuttance, and Beth Ethier provided friendly and efficient support in making the byzantine bureaucracy of the university easily navigable. I was financially supported during graduate school with assistance from a Graduate Research Partnership award, two years of Foreign

Language/Area Studies fellowship administered through the Institute for Global Studies, and a grant from the Consortium on Law and Values in Health, Environment, and Life Sciences.

The community of graduate students at Minnesota was perhaps the most rewarding and unexpected aspect of my time in graduate school. Only upon leaving Minnesota did I realize how fortunate I was to be surrounded by kind, engaging, and brilliant peers and friends that made my time in graduate school, dare I say it, enjoyable. My thanks, in no particular order, to Ayten Gundogdu, Shirin Deylami, Ted Gimbel, Ilya Winham, Josh Anderson, Susan Kang, Asli Calkivik, Eli Meyerhoff, Govind Nayak, Mark Hoffman, Jonneke Koomen, Lauren Wilcox, Bas van Doorn, Angela Bos, Monica Schneider, John Conley, Morgan Adamson, Matt Stoddard and, at other institutions, Jesse Crane-Seeber, Chris Buck, Rafi Youatt, and Andrew Dilts. Friends and coworkers at the Minneapolis Parks and Recreation Board, including Kathy Swenson, Jamie McBride, Tracy Burns, Dan O'Neil, MaryLynn Pulscher and Cristina DeFranco, taught me more about the Mississippi river and the city of Minneapolis than I ever thought could, and they suffered through my cynicism and questions. Ashley Biser was an early mentor in graduate school and remains a close friend in moving forward in professional life. Jonathan Havercroft introduced me to curling, a welcome distraction from academics, read various drafts of chapters, and managed to illustrate the apparent absurdity of the day-to-day life of academia. Mike Kramer became a welcome respite from the department, and an invaluable reminder of life outside of the university. The importance of Isaac Kamola and Kartik Raj to making it through graduate school and having a good time doing it cannot be measured. Without Isaac

and Kartik in my cohort, my time in Minneapolis would have been unfathomably diminished.

Çigdem Çidam requires special mention, as it is impossible for me to think about this project and graduate school without her. Çigdem and I went through some of our greatest and worst times together at Minnesota, and our conversations and commiserations made these moments bearable, at the very least. Çigdem read a great deal of this dissertation, including far too many pages that did not make it into the dissertation. It is a much improved product because of that. Although nearly half of our graduate school experience was completed in different cities, I am thankful that the distance did not prevent us from sustaining a friendship that goes far beyond the debates we have about political theory, and I look forward to continuing our friendship even as the places and distances change again and again.

Beyond the University of Minnesota, this project benefited greatly from my encounters with members of the Environmental Political Theory community at the Western Political Science Association meetings. This group provided a surprisingly welcoming community of scholars all working on environmental theoretical issues from significantly differing traditions and perspectives. John Meyer, Bill Chaloupka, Tim Luke, David Schlossberg, and Teena Gabrielson read chapters at conferences and provided insightful commentary and criticism, in addition to important guidance in finding my way through graduate school and the academic environment.

Before entering graduate school, my undergraduate professors at Ithaca College encouraged me to seriously consider whether I really wanted to pursue a career in academics, political theory in particular. Fortunately, perhaps, their efforts to dissuade

me failed, and I remain committed to the career and life that their passions and energies convinced me to follow. I am deeply indebted to my undergraduate professors, including Naeem Inayatullah, Chip Gagnon, Peyi Soyinka-Airewele, Hugh Egan, Asma Barlas and, most significantly, Aida Hozic and Michael Richardson.

I left Minnesota before completing my degree, and have been fortunate to find a new community of friends and colleagues in New Haven who encouraged me to finish the dissertation, if only so we could hang out more. Chris Gallagher and Lani Rosen made our arrival in town welcoming and less overwhelming than it might have been, and provided the fresh-roasted coffee that helped complete the dissertation. My newly recruited curling squad—Gideon Bradburd, Jeremy Beaulieu, Christen Bossu, Liz Hatton, and Eugenia Lo—provided a group of friends that made it feel like we had been living here for years. My colleagues and students at Albertus Magnus College and Quinnipiac University have reminded me why I got into this profession, and have reaffirmed that I would like to remain in it.

My family has been an often unthanked and unspoken support team who have made it possible for me to get to this point. My three siblings—Kirsi, Chris, and Val—all completed their PhDs or MD and gave me little choice but to pursue a terminal degree. The seeming ease with which they worked at and completed their degrees, in addition to maintaining the semblance of a normal life and establishing families, provided models for how graduate school could be done without ending in depression and disaster (even if they told me later that it wasn't as "easy" as it may have seemed to their youngest sibling). My nephews and nieces have been great fun and offered excuses for vacations and breaks from academic life that I might not have taken

otherwise, and my siblings' partners—Eric, Holly, and Brenda—have made family get together much more entertaining than they would be with just Nordquists. My sister Val has been especially helpful in encouraging me along the way, providing numerous opportunities to go on endless hikes and offering words of encouragement in a process that often lacks any form of positive reinforcement. My parents, Andy and Bonnie, continue to express amazement and bewilderment at how their kids ended up doing what they're doing and living where they're living. However, even when they wanted us closer or didn't understand what we were doing or why, they have always demonstrated their love and support for my siblings and me in their own stylized manners. My thanks to all my family for always being supportive, regardless of what they would like to see me doing.

Finally, I need to acknowledge and thank my partner, Wendy. When we decided we would move to Minneapolis together to attend graduate school, I had no idea that seven and a half years later we would be married, that we would have traveled the world together, that we would have cats together (thanks Ruth and Alice!), or that we would have built our lives together into the friendship and partnership that it continues to be everyday. I have a sense that she knew that that we'd be where we are today (aside from the cats), even if I didn't. Were it not for her optimism, her refusal to take 'no' for an answer, her insistence on explaining herself and her thoughts, and her constant encouragement (even if I didn't always believe her), I know that this dissertation would be less than what it is, and I would be much less than I am. Because I would not have been able to complete this project as it stands today without her, this dissertation is dedicated to Wendy.

Dedication

To WLC, and to riding our bikes together.

Abstract

Over the past fifty years, environmental issues have dominated political concerns of political actors around the world. Political theorists have begun to address these novel issues, critically analyzing the dramatic transformations of people's relationships with the environment. Yet much of this emerging environmental political theory relies upon an understanding of environmentalism where "nature" and "society" are conflicting, opposite terms: nature is a collection of passive, mechanical objects and processes that must be saved and protected by a society that consists of active, political human subjects. This predominant understanding of environmental questions restricts political participation to humans only, ignoring the activities of nonhumans involved in shaping political outcomes.

This dissertation challenges the framework of understanding environmental political question through the lens of nature against society, human against nonhuman. The first chapter asks what it would mean to understand the activities of environments of humans and nonhumans as political, and by examining what a politics composed of environments looks like. In doing so, I question the centrality of the human being to politics, focusing attention on the attachments to nonhuman entities that make possible the activities of what have appeared to be discrete human political actors. The second chapter turns to the concept of immanence as a means of theoretically conceptualizing environments as actors composed of various beings. Drawing inspiration from science studies scholars Bruno Latour and Isabelle Stengers, the third chapter develops the concept of "cosmopolitical practices" to represent a redefined politics in which the actions of environments can be theorized and exercised together. Cosmopolitical

practices, the sets of activities involved in the political organization of a shared *cosmos* of beings of all sorts, offers an understanding of agency in which environments participate in the contested political practices that create our shared conditions of existence. The final chapter combines theoretical inquiry with critical analysis of contemporary debates around food, offering an empirical example of cosmopolitical practices in the constitution of resistant food networks. This dissertation reassesses what participates in political practices to force a rethinking of the untheorized activities that nonhumans contribute to seemingly human-only political projects.

Table of Contents

Introduction: the Activities of Environments	1
I. Obsessed with Nature: Environmental Political Theory and the “Problem” of Nature	14
II. An Ontology of Immanence: Thinking Environments as Political	70
III. Cosmopolitics: Articulating Environments	102
Cosmopolitics and Cosmopolitanism	107
Parliaments and Collectives	132
IV. A Cosmopolitics of Food: Reconfiguring Politics through Food	170
Cosmopolitical Practices	174
Resistant Food Environments	203
Conclusion: Towards a Cosmopolitics of Environments	223
Bibliography	230

Introduction: the Activities of Environments

In August of 2005, a series of Hurricanes, most notably Katrina, ravaged the Gulf Coast of the United States, repeatedly flooding New Orleans, destroying much of the gulf states' infrastructure, inciting riots, looting, and unbridled martial law in New Orleans and the surrounding communities. The effects of these "natural disasters" are still being dealt with today.

Beginning in early 2006, spinach became a political concern, as it became, in some sense, a bio-terrorist, distributing potentially deadly *E.coli* throughout the American food supply and threatening the safety and security of people, government agencies, and states. Only recently have food regulation laws been rewritten to decrease the likelihood of such events.

In August 2007, the interstate 35W bridge over the Mississippi river in Minneapolis collapsed, killing 13 and injuring hundreds, prompting investigations, hearings, a few sacked functionaries, as well as a reflection upon the funding and political priorities of the city, state, and federal governments. Thirteen months later, a replacement bridge was completed, reconnecting the federal interstate system through the heart of Minneapolis.

For the past half-century, average temperatures of the earth's atmosphere have increased significantly, altering the basic mechanisms of the planet's climate control system. Potential dangers include rising ocean levels with a corresponding elimination of shoreline acreage, stronger and more frequent destruction from storms, and an altered seasonal calendar. Because of the possibility of these events, climate change, cap and

trade, and carbon footprints have reshaped debate around economics, politics, global competition and the basic existence of human political communities in the future.

These events may seem quite unrelated—after all, what do these events have to do with one another? Very little, it would seem, except that entities other than humans—hurricanes, spinach, bacteria, bridges, climate change—did things that had political effects: they either changed or instigated the politics surrounding particular issues, altering what concerns are addressed, how they are talked about, and how seriously they are taken. Whether in the areas of food policy, urban planning or economic development, these “things” had effects on conceptions of what the political community is, who or what is doing what in this community, and whether they are doing a good job of it.

But few people, let alone political theorists and political scientists, think of events such as these as political activities, even as they produce political effects all the time. In most accounts, the activities of things other than humans do not count in discussions of action or politics. They cannot participate. They cannot speak. They cannot mobilize, organize, or resist. They cannot act. *But they do*, albeit in different ways than we are used to thinking. These entities paralyze populations. They poison and sicken thousands. They reorganize how and whether people can get across town. They encourage, enable, and at times *force* reorganizations of basic activities of everyday life, from eating to commuting, from reducing one’s carbon footprint to living and dying on a rooftop in a drowned city.

The activities of entities other than human beings frame the central questions of this dissertation: Why are these entities and their activities not considered political?

What prevents an interpretation of them as political actors and participants, when it seems obvious that their activities have political effects? What concepts and practices are necessary to be able to involve the activities of beings other than humans in our seemingly human-only world of politics?

And, further, how does a rethinking of politics and political action in regards to the actions of all beings change how we conceptualize “human” agency? Is it possible to conceive of agency as entailing more than intention, motivation and desired effects of actions? Can agency be usefully broadened to include unintentional and habituated practices of all beings, and not only humans? And, finally, is what we have considered to be “human agency” the fundamental category of political action, as it has been taken to be, or is it itself the effect of numerous other processes and actions that make it possible?

Over the course of this dissertation, I address these concerns and questions through the development of concepts that allow political theory to accommodate the effects of beings other than humans into its basic questions while questioning the priority of human agency in politics. The basic claim of my dissertation is that all entities participate in politics to some degree, and it is necessary to rethink what politics and participation mean in light of the collective political activity of what I am calling environments, collections of entities that are capable of action. The goal of my dissertation is to develop a way of talking about, thinking through, and participating in a politics of environments that act to create, change, and sustain the shared worlds they create.

Nature at an Impasse

Most often, within political science, questions about “the environment” and the things that make it up are addressed by the fields of environmental politics and environmental political theory, as the actions of entities other than humans typically fall under the category of “environmental problems.” And, most often, questions about the activities of other-than-humans is relegated to administrative and technical domains of environmental politics, with most research focusing on managing, distributing, or protecting “nonhuman nature.”¹

When considered from a philosophical and theoretical perspective, questions of the environment’s effects are usually interpreted through the categories of nature and society. On this account, nature, as the origin and domain of all entities other than humans, is external to a generalized society of humans. The pressing question from these perspectives then becomes how to navigate this relationship between nature and society through human action; the appropriate answer takes the form of developing alternative conceptualizations of nature and society or proposing a more properly organized interface between the two, such as science or technology. As a result, these approaches posit a distinction between nature and society that places humans in a tense position of being in nature as biological animals, but outside of nature due to the human capacities of consciousness, reason, or language.

But this manner of thinking about environmental questions and the activities of things has foundered, as the stable categories of nature and society are challenged

¹ For an overview of the different philosophical-political approaches taken in managing the environment, see John S. Dryzek, *Politics of the Earth: Environmental Discourses*, 2nd ed. (New York: Oxford University Press, 2005).

everyday by events such as *E.coli* carrying vegetables and anthropogenic climate change, where the natural and social are not so easily distinguishable. The seemingly reliable ground of nature no longer holds the epistemological and moral authority it once did, as uncertainty and ambiguity cloud formerly obvious claims about the most appropriate action to take given the parameters laid down by natural facts and laws. Scholars of environmental thought have repeatedly pointed out the socially and politically constructed “nature of nature” and its authoritarian uses throughout history.² However, few have questioned thinking about these concerns in the terms of nature and society; the categories of nature and society remain the foundation of environmental political thought, with the content and implications of nature interpreted in diverse ways. In these cases, nature becomes an object for human purposes, and it is the task of human thought to understand and renegotiate the relationship between nature, concepts of nature, and material practices.

But is it possible to talk about, think about, and act without separating humans and nonhumans in this way? Can we think through questions of environmental activities without using the abstracting shorthand of nature and society, or human and nonhuman? One of the claims of this dissertation is that yes, this is possible, and necessary for a constructive environmental politics that enables sustainable ways of living. It is necessary, I claim, to think outside of nature and society relations and its language in order to consider how particular environments exist and act together without treating

² On the social construction of “nature,” see Raymond Williams, “Ideas of Nature,” in *Culture and Materialism* (New York: Verso, 2005), William Cronon, “Introduction” and “The Trouble with Wilderness,” in William Cronon, ed., *Uncommon Ground* (New York: W.W. Norton & Company, 1996). On the authoritarian uses of concepts of nature, see William Ophuls, *Ecology and the Politics of Scarcity* (New York: W.H. Freeman, Ltd., 1977) and for a criticism of this, see David Harvey, “Population, Resources, and the Ideology of Science,” *Economic Geography*, Vol. 50, No. 3 (Jul., 1974), pp. 256-277.

their component parts as alienated objects that do not participate in social life. Without understanding the actions of environmental assemblages, made up of people, plants, institutions, laws, and more, as having as much significance as seemingly “human-only” actions, there is no way to develop an ethics and politics of living with and amidst a world of things and their effects.

Fortunately, theoretical resources exist to develop concepts that do not rely on the outmoded and broken foundation of nature and society. Most significant among these has been the work of Bruno Latour. Latour has been largely unknown to a political science and political theory audience, particularly in the United States, although this has begun to change during the past decade.³ Variousy described as a philosopher of science, a science studies scholar, a philosopher, and an anthropologist of scientific practices, Latour has written widely on modern western understandings of how humans bring nonhuman entities into the worlds of social humans. Latour’s work on questions of science began with an early project shadowing scientists at the Salk Institute to understand the creation of scientific knowledge based on the actual practices of science and scientists. Since then, Latour has offered stark critiques of inherited ways of understanding how humans engage with the nonhuman world.⁴ A recurrent target of his criticisms has been modern epistemologies based on the premises of human *subjects* encountering nonhuman *objects*.⁵ This epistemological hang-up, he claims, has

³ See, for instance, Mark Brown, *Science in Democracy: Expertise, Institutions, and Representation* (Cambridge, MA: MIT Press, 2009); Christian Büger and Frank Gadinger, “Reassembling and Dissecting: International Relations Practice from a Science Studies Perspective,” *International Studies Perspective*, 8 no. 1 (Jan. 2007): 90-110; and Bruno Latour and Peter Weibel, eds. *Making Things Public: Atmospheres of Democracy* (Cambridge, MA: MIT Press, 2005).

⁴ Bruno Latour and Steve Woolgar, *Laboratory Life* (Princeton, NJ: Princeton University Press, 1986) and *Science in Action* (Cambridge, MA: Harvard University Press, 1987).

⁵ Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1993).

prevented any adequate assessment of the existing attachments and connections that proliferate among humans and nonhumans, since the positing of human subjects and nonhuman objects assumes an irreconcilable gap between them. In place of this, Latour argues, we must let go of the obsession with human society as an all-powerful subject and nonhuman nature as the powerless object of human actions. Instead, focus should be on the complicated and complex hybrids, associations, and propositions consisting of human and nonhuman “actants” that all contribute to the outcome of events.⁶ By doing so, a politics of all beings, rather than a human politics *towards* nonhumans, can be conceptualized and enacted.

Most recently, Latour has turned to theorizing what this politics of humans and nonhumans might look like. Most notably, his call for a “Parliament of Things” has stimulated discussion about what sort of role nonhumans can play in politics, and how they might affect political debate. As much of this work is outside the conventional scope of political theory, sections of this dissertation are exegetical in content, in an effort to develop Latour’s and his fellow travelers’ thought for political theory purposes and audiences. Through his explorations of how beings of all sorts combine and come together to do things, it is possible to think about a politics of environments outside of nature and society, as well as beyond human and nonhuman.

Concepts and Overview

Accordingly, this project revolves around a series of concepts that enable thinking about entities of any type acting together. Concepts are often at the center of

⁶ An actant is a thing that is defined by what it does. It is not yet a substance, because no one knows what it “is,” but it is something that does things. For Latour’s discussion of this term, see Latour, *Science in Action*, 83-90.

political theoretical work, whether historical, critical, normative, or analytical.⁷ But whereas much work in political theory aims to develop appropriate definitions or accurate accounts of particular concepts, my utilization of concepts differs. Concepts do more than represent or provide approximations of what exists; they do more than serve as ideological filters through which humans interpret the world. They are, rather, actors and participants alongside the other complex entities I discuss throughout the dissertation. In the same manner as the environmental entities I focus on, concepts act and produce effects, affecting and altering relations through their capacity to reorganize how we act amidst the world. Concepts create things, producing new relations among thinking, acting beings. As Deleuze and Guattari note in their discussion of philosophy, “if one concept is “better” than an earlier one, it is because it makes us aware of new variations and unknown resonances.”⁸ The “new variations and unknown resonances” that concepts are capable of producing alter relations among participants. Effective and productive concepts enable thinking beings to exist in ways that were not possible prior to a particular conceptualization of experience.

Through the development of the concepts discussed below, I explore how new environmental relations might be made possible by thinking how beings attach with one another differently, and thinking how environments might constitute themselves differently. These concepts frame the organization of my dissertation, with each chapter focusing on a concept or a set of concepts, each building upon the previous.

⁷ For an overview on the debates about the interpretation of concepts in political theory, see the essays collected in Terrence Ball, James Farr, and Russell L. Hanson, eds. *Political Innovation and Conceptual Change* (Cambridge: Cambridge University Press, 1989).

⁸ Gilles Deleuze and Félix Guattari, *What is Philosophy?* (New York: Columbia University Press, 1994).

Environments. Instead of thinking about questions of the activities of beings other than humans through the framework of nature and society, I use the concept of environments to theorize how assemblages of diverse beings come together and act. Environments are assemblages of entities that produce effects that are capable of altering the conditions of existence of other assemblages. Borrowing the language of assemblage from Deleuze and Guattari, this dissertation focuses on the capacities of environmental assemblages to make differences in their relations with their composite parts as well as with other assemblages. Environments are complex associations of beings of all sorts; they are not hybrids or mixtures of social and natural characters, but are instead actors that participate in the creation of shared worlds.

To justify the use of and develop the contested concept of environments, in the first chapter I offer a critical account of existing models of thinking about environmental questions that rely on the concept of nature. Over the course of the chapter, I demonstrate why the language of nature and the practices associated with it are no longer useful for understanding and critiquing existing and future organizations of environmental life. Closely examining Latour's work in *We Have Never Been Modern*, I develop his critique of the mobilization of nature and society and the paradoxical role it has played in the creation of what he calls the modern world. Through an assessment of contemporary efforts in environmental political theory and critical geography, I argue for the abandonment of the concept of nature as it necessarily assumes and maintains an epistemological and ontological separation between social humans and natural nonhumans. Environments, in contrast, provide the

conceptual means to understand, critique, and engage with assemblages without recourse to the language and associated practices of nature or human and nonhuman.

Immanence. But to move outside the concepts of nature and society, it is first necessary to reconsider the epistemological and ontological foundations that established the efficacy of the nature-society relationship in the first place. To do this, I turn to the concept of immanence. The concept of immanence provides an ontological framework in which all entities occupy the same plane of existence, without any metaphysical distinction of kind between them. All beings can come into contact with all other beings, with no entity considered to be more or less ontologically deficient than any other. Immanence, defined in contrast to transcendence, places responsibility for the organization of the world upon the beings that inhabit and sustain it, rather than relying on superior or underlying orders of organization that predetermine what types of beings and relations can and should exist. Immanence offers a way of thinking about a politics without nature or society by starting from an assessment of what exists, without relegating any thing to a position outside social life among beings.

In Chapter 2, I explore the concept of immanence to establish a set of ontological assumptions that allow beings of all sorts to combine and act. To do so, I first offer an account of the connections between theorizations of ontology and politics, considering recent work in political theory that has brought ontological questions back into discussion. I then turn to a brief history of the concept of immanence, building upon Gilles Deleuze's influential narrative of immanence and its philosophical proponents. Following this, I provide an interpretation of Deleuze's use of immanence as read through Latour and other contemporary thinkers of immanence. Through this

exegesis of Deleuzean ontology of immanence, I propose an immanentist ontology that makes possible the conceptualization of all beings as able to act together as environmental assemblages, instead of hybrid combinations of distinct natural nonhumans and social humans. I conclude this chapter with a discussion of the relevance of the concept of immanence to environmental politics and the concept of environments proposed in the previous chapter.

Cosmopolitics. Following this discussion of immanence and the political possibilities an immanentist ontology offers, I return to Bruno Latour, as well as to fellow science studies scholar Isabelle Stengers, to inquire into the explicit politics proposed by these two influential thinkers of activity of entities other than humans. Stengers, a historian and philosopher of the sciences, introduces the concept of cosmopolitics as a way to think through a politics of the organization of an immanent world of existing beings. Cosmopolitics represents the constantly transforming organization of immanent relations among environments. As a politics of an immanent *cosmos*, cosmopolitics has no predetermined and foundational account of nature or naturalized qualities that underlie all existence. As an attempt to think environmental political practices, cosmopolitics represents an important step in building anew the linkages among politics and the entities of the world.

To develop this concept more fully, in the third chapter I introduce and elaborate the concept of cosmopolitics as a way of understanding how political participants consisting of diverse beings come into existence, hold together, and how they might be part of political controversies. I first examine the concept of cosmopolitics, in contrast to the more prevalent Kantian-inspired cosmopolitanisms, critically assessing the

connections and differences between these related concepts. I argue that cosmopolitanisms have mistakenly framed themselves as responses to protect a particular definition of what it means to be human, ignoring that “the human” exists and acts only through attachments with other beings. To make the case for a cosmopolitics that involves all types of beings, I provide an account of how environments come into existence and maintain that existence through Latour’s concept of articulation. I then turn to Latour’s and Stengers’ attempts to elaborate more concrete versions of cosmopolitical institutions. I develop a critique of Latour’s and Stengers’ recent work on model organizations of political life, to claim that their visions of politics remain trapped in human-only understandings of representation and politics.

Environmental participation and Cosmopolitical practices. The accounts of parliaments of things and collectives that Latour and Stengers develop involve what they refer to as nonhumans, but the manner in which these nonhumans are brought into institutional practices relies on conventional assumptions about human-only representative democratic bodies. Against their representation-based models of politics for nonhuman activities, I develop a concept of environmental participation that describes how environments engage in politics in a non-representative manner through their articulation among other entities and practices. Environmental participation points to the activities of immanent environments that take part in what I am calling cosmopolitical practices, the production and maintenance of environmental assemblages. These practices create, sustain, and alter social relations among an environment’s participants, with all exercising varying degrees of influence and agency upon other environments with which they relate. Environmental participation specifies

how environmental assemblages engage in cosmopolitical practices *outside* of the institutional confines in parliaments and collectives that Latour and Stengers create for these practices.

The fourth chapter focuses on the concepts of environmental participation and cosmopolitical practices. In it, I argue that it is both possible and desirable to conceptualize the activities of entities other than humans as taking part in politics in an other-than-representative manner. This chapter builds on the work of Latour and Jane Bennett and argues for an interpretation of environmental action as a form of political participation. To elaborate these points and to put this novel conceptual mode of thought into practice, I turn to the example of food and the environments in which food participates, in particular to the food environment articulated through corn and its many derivative products. I illustrate the activities of corn in industrialized food environments and the resistances corn has provoked, both within its environments and in others. As illustrations of this resistance, Slow Food and Community Supported Agriculture demonstrate cosmopolitical practices through their reorganization of forms of life around the activities of environments, forming novel environments that articulate people and things against prevalent norms of cosmopolitical organization. Describing the everyday activities that go into making a politics of *cosmos*, the concept of cosmopolitical practices starts from the assumption of environmental participation, and focuses on how things intervene in, interrupt and constitute seemingly human-only political action.

Chapter 1: Obsessed with Nature:
Environmental Political Theory and the “Problem” of Nature

The concept of nature has been a perennial problem for political theory. As Raymond Williams noted regarding the concept’s significance, “any full history of the uses of nature would be a history of a large part of human thought.”¹ Correspondingly, nature in its many variations has been used and abused, praised and despised, since antiquity. In ancient Greek thought, what is translated today as nature (*phusis*) occupied a complex position in relation to fate and necessity, inspiring a largely fatalistic approach to the nonhuman world and its gods, spirits, and *daemons* that authorized differing forms of political authority.² In much early modern thought, it was necessary for humans to escape from the state of nature for politics to be able to begin, but nature was also to be learned from and mastered by emerging conceptions of science, rationality, and reason that would help organize polities.³ In later modern thought, nature was to be transformed, known, and dominated through industry, science, and technology with corresponding transformations of social and political relations.⁴ And in contemporary times, nature has become a contestable and controversial concept and set of practices, with partisans of the “social construction” of nature engaged in

¹ Raymond Williams, *Keywords* (New York: Oxford University Press, 1983), 228.

² See Arlene W. Saxonhouse, “Nature and Convention in Thucydides’ History,” *Polity*, Vol. 10, No. 4 (Summer 1978): 461-487. For the founding statement in political theory of drawing a politics out of nature, see Plato, *Republic* (Indianapolis: Hackett Publishing Company, 1992).

³ For the classic statements on exiting the state of nature, see Thomas Hobbes, *Leviathan* (New York: Penguin Books, 1985), John Locke, *Two Treatises of Government* (Cambridge: Cambridge University Press, 2000), and Jean-Jacques Rousseau, *On the Social Contract* (Indianapolis: Hackett Publishing Company, 1987). For early modern accounts of mastery over nature, see Francis Bacon, *The New Organon* (Cambridge: Cambridge University Press, 2008) and Robert Boyle, *Selected Philosophical Papers of Robert Boyle* (Indianapolis: Hackett Publishing Company, 1991). For the now classic account of the disputes between Hobbes and Boyle, see Simon Schaffer and Steven Shapin. *Leviathan and the Air-Pump* (Princeton: Princeton University Press, 1989).

⁴ See Max Horkheimer and T.W. Adorno, *Dialectic of Enlightenment*. Edited by Gunzelin Schmid Noerr and translated by Edmund Jephcott. (Stanford, CA: Stanford University Press, 2002).

endless debate with partisans of a “brute reality” of nature and the implications that each has for political thought.⁵ What is it about such a seemingly straightforward concept—it is *nature*, after all—that has vexed theorists of politics for centuries?

But as we know, the concept of nature is hardly straightforward. And as with any concept, what is excluded from its definition often reveals more than the positive content of the concept.⁶ This is most certainly the case with nature. Defined in opposition to culture, society, and the human, nature has been the conceptual location for everything presumed to be beyond human knowledge and power.⁷ Nature has marked the limit of human influence, the realm of worldly existence in which humans could do nothing precisely because it was *natural*.

Similarly, nature has marked the limit of human political action. On many accounts, politics can only begin when humans have left nature⁸ or have moved beyond the basic necessities of nature.⁹ Nature and politics, in this sense, are mutually exclusive, defining discrete domains: one for brute, necessary, and instinctive nonhuman entities and actions, the other for willful, social human beings and actions.

⁵ For the “naïve realists,” see Alan Sokal and Jean Bricmont, *Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science* (New York: Picador, 1999) and Michael Soulé and Gary Lease, *Reinventing Nature?: Responses to Postmodern Deconstruction* (Washington, D.C.: Island Press, 1995). For a response to these, see William Chaloupka, “Jagged Terrain: Cronon, Soulé, and the Struggle over Nature and Deconstruction in Environmental Theory,” *Strategies* 13:1 (Winter 2000), 23-38.

⁶ This is a key insight of structural linguistics. For the classic account of this, see Ferdinand de Saussure, *Course in General Linguistics* (Peru, IL: Open Court, 1998).

⁷ Or as William Cronon describes it, nature is often understood “as demonic other, nature as avenging angel, nature as the return of the repressed... these things represent a nonhuman world we never quite succeed in fully controlling.” “Introduction: In Search of Nature,” in *Uncommon Ground*, ed. William Cronon (New York: W.W. Norton & Company, 1996), 48.

⁸ The social contract tradition is based on this basic principle: a new, *social* contract must be developed to overcome the natural, nonhuman laws of brute survival. See Thomas Hobbes, *Leviathan* (New York: Penguin Books, 1985), John Locke, *Two Treatises of Government* (Cambridge: Cambridge University Press, 2000), and Jean-Jacques Rousseau, *On the Social Contract* (Indianapolis: Hackett Publishing Company, 1987).

⁹ As Aristotle famously stated about the *polis*, “while it comes into existence for the sake of mere life, it exists for the sake of a good life.” Aristotle, *Politics* (New York: Oxford University Press, 1998), 10.

Under the framework of nature, the two have little to say to one another, and even less to do with one another. Inherited concepts of both nature and politics have reflected this bifurcation, and have exaggerated the significance of demarcating these two realms. At the same time, it has almost always been advantageous to be able to label one's preferred activity, policy, or practice as natural or reflective of nature's laws, as nature has historically carried an unquestionable moral authority that could be carried into politics.¹⁰ Because of this, it has been important to determine and maintain a particular version of this distinction between nature and society. Categories of the natural nonhuman and the social human have been mobilized to justify human social transformation of the "natural" world beyond the political reach of human power, in addition to justifying the oppression and discrimination of other humans based on "natural" characteristics, whether race, gender, ethnicity, or sexuality.

Nowhere has this been a more common practice than in debates around environmental politics and the use of ecological science to illustrate how nature supposedly demonstrates particular claims about politics and policy. Frustration abounds among ecological and environmental scientists as the conclusions of their research—on climate change, deforestation, biodiversity loss, or genetic technologies—are ignored, "distorted," and unappreciated by politicians and laypersons. From their perspective, nature, as demonstrated through scientific research and facts, operates as an indisputable arbiter among all controversies. Human society must follow the commands of what the sciences have to say about nature or risk extermination of human

¹⁰ This will be further developed throughout the chapter and the dissertation, but see the in depth account of this in Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1993) and *Politics of Nature* (Cambridge, MA: Harvard University Press, 2004).

life and of the planet. Findings of scientific research are used to portray a particular course of action as necessary and as the only solution available for an indisputable problem.

For instance, the group 350.org has built a campaign for the reduction of greenhouse gases based around a singular response to the question of global climate change: reduce the presence of carbon dioxide in the atmosphere to 350 parts per million (ppm). Based on the work of climate scientist James Hansen, among others, this coalition of environmentalist organization aims to educate and persuade political leaders and their constituents to come to a binding international agreement that will bring CO₂ levels to what they believe a sustainable level. The main justification for their proposed action is scientific fact. Humans must change their behavior or they will destroy themselves, they argue, and the science supports this one answer. As Bill McKibben, a founder of 350.org puts it, “arguing for 350 is not making “the perfect the enemy of the good.” It’s making the necessary the enemy of the convenient.” McKibben continues: “at root the real negotiation is between human beings on the one hand, and physics and chemistry on the other. Physics and chemistry have laid their cards on the table: above 350 the world doesn’t work. They are not going to negotiate further. It’s up to us to figure out, this year and in the years ahead, how to meet their bottom line.”¹¹ Nature has spoken, in a clear and direct voice, it seems; 350ppm is the answer, whatever the means of accomplishing that may be. Through the use of scientifically acquired data, this group of spokespersons for climate scientists claims the obvious solution to a complex problem based on a simplified slogan about CO₂ppm.

¹¹“Understanding 350,” 350.org. <http://www.350.org/understanding-350> (November 1, 2009).

Nature, via science, is being used to endorse and, if it were up to them, force a solution upon a seemingly unwilling and ignorant human population.

Environmental activists operate in a similar manner, using what they consider to be established facts or the moral authority of nature to advocate and insist upon specific political outcomes. Many wilderness preservation movements, from the Sierra Club to the Wilderness Society, claim to be acting on behalf of nature, earth, or the planet. Based in a philosophy of deep ecology, wilderness preservation activists endorse the famous “ecocentric” or “biocentric” approach to relating to nature, putting the earth and natural life before human beings.¹² Biocentrism, in the words of deep ecology theorists Bill Devall and George Sessions, argues that “all things have an equal right to live and blossom and to reach their own individual forms of unfolding and self-realization within the larger self-realization.”¹³ Biocentrism, with nature and its perfect plan at its center, is meant to provoke a changed attitude in humanity, an attitude that will prevent the hierarchical domination of nature by humans and will lead to more earth-friendly practices. Tapping into a common theme of proto-environmentalists like Thoreau and Leopold, Devall and Sessions hope for an “ecological consciousness” to emerge from a focused attention on nature.¹⁴ In their words, “we may not need something new, but need to reawaken something very old, to reawaken our understanding of Earth

¹² For a critique of deep ecology as political movement and philosophy, see Timothy J. Luke *Ecocritique: Contesting the Politics of Nature, Economy, and Culture*. (Minneapolis: University of Minnesota Press, 1997), chapter 1.

¹³ Bill Devall and George Sessions, *Deep Ecology: Living as if Nature Mattered* (Layton, UT: Gibbs Smith, 1985), 68.

¹⁴ On Leopold’s “ecological consciousness, see Aldo Leopold, *A Sand County Almanac* (New York: Ballantine Books, 1966), 243-246. For contemporary readings of Leopold and the ecological consciousness he endorses, see Richard L. Knight and Suzanne Riedel, eds. *Aldo Leopold and the Ecological Consciousness* (New York: Oxford University Press, 2002) .

Wisdom.”¹⁵ Nature, in this form, is meant to serve as a guide to enlighten misdirected humanity. If we listen more closely and pay more detailed attention to nature’s needs, desires, and wants, we will be able to live better lives that are less damaging to “Mother Earth.” The needs of nature, the earth, are primary to those of society or humanity, with society posing a significant threat to “Mother Earth” and the wisdom to be found in her secrets.

Although both of these groups consider themselves to be proposing important alternatives to conventional ways of theorizing the instrumentalized human relationship to nature, they largely reproduce received notions of human-nature divisions through an inversion of the priority of nature and human society. Instead of assuming that nature, in all its forms, poses a threat to human society, as much of the history of political theory has done, arguments based on a dogmatic mobilization of ecological and environmental sciences portray human society as posing a catastrophic threat to nonhuman nature through anthropogenic transformation of the nonhuman world. Environmental crises, as they describe them, are the result purely of human interference into the otherwise self-managing realm of nonhuman natural necessity. The same can largely be said for more romantically inclined environmental movements. While distanced from the scientific dogmatism of environmental scientists, these environmental political organizations treat nature with such reverence that society is considered to be the overriding evil that poses a threat to the wonder that is nature. In these discussions, then, nature becomes the standard against which all things are and need to be measured, and human society is considered to be an unwelcomed

¹⁵ Devall and Sessions, *Deep Ecology*, ix.

intervention into the biophysical organization of life on earth. If only we humans could simply follow the edicts of nature and its rules, so these uses of nature go, then human society could be a harmless counterpart to nature and its perfect plan.¹⁶

But the concept of nature, in these forms and other versions of the same story, cannot adequately capture the diverse sets of activities that it aims to describe, as it glosses over the differences among instances and sites of “nature” and denies the activity of anything other than narrowly defined humans of any ability to effect change in the so-called social world. Utilization of the concept of nature in political controversies has prevented a great deal of activity that has political effects from ever being considered political. For instance, critical accounts of Hurricane Katrina were hampered by the treatment of the hurricane as an inevitable natural event with unfortunate social, political, and economic consequences.¹⁷ The same can be said for the ever-increasing food contamination events of the last decade, in particular *E.coli* contamination in spinach, cookie dough, and beef, and *salmonella* in peanut butter and pistachios.¹⁸

Both of these examples—the events associated with hurricane Katrina and the repeated instances of *E.coli* contamination in food products—highlight the deeply embedded yet limiting effects of thinking in the terms of “nature and society” or,

¹⁶ See Leslie Paul Thiele, *Environmentalism for a New Millennium*, (New York: Oxford University Press, 1999) for a summary of these different approaches. For a detailed account of the misanthropic focus of many “radical” environmental groups, see Thiele, *Environmentalism*, 175.

¹⁷ On the aftermath of Katrina, see Michael Eric Dyson, *Come Hell or High Water: Hurricane Katrina and the Color of Disaster* (New York: Basic Civitas Books, 2007); Robert D. Bullard and Beverly Wright, eds. *Race, Place, and Environmental Justice After Hurricane Katrina* (New York: Westview Press, 2009); Chester Hartman and Gregory Squires, eds. *There is No Such Thing as a Natural Disaster: Race, Class, and Hurricane Katrina* (New York: Routledge, 2006); and Betsy Reed, ed. *Unnatural Disaster: The Nation on Hurricane Katrina* (New York: The Nation Books, 2006).

¹⁸ On food contamination, see Marion Nestle, *Safe Food: The Politics of Food Safety* (Berkeley: University of California Press, 2004) and Karl Weber, ed. *Food, Inc.* (New York: Public Affairs, 2009).

perhaps more accurately, “society versus nature.” Following Katrina and each occurrence of *E.coli* poisoning, private and public inquiries were undertaken to determine responsibility for the catastrophic results, often focusing on the poorly supervised regulatory apparatus, both for hurricane preparedness and food safety measures. Numerous investigations looked into the construction of levees around New Orleans, the Army Corps of Engineers’ analyses and actions, transportation capacities before and during the hurricane, and, still today, the rebuilding of the levee system and the neighborhoods that were destroyed. Continuing investigations into how *E.coli* and salmonella were included in spinach and peanut butter, respectively, critique the USDA’s inspections regiment, private companies’ lackadaisical food safety enforcement, and supermarkets’ standards for safe and clean food.

But these attempts to understand the causes and chains of responsibility for these events reveal an often unspoken assumption about the “relationship” between nature and society and the politics of “mediating” between these forces. Investigations into how regulation failed to protect humans from natural occurrences, whether hurricanes or bacteria, point to a treatment of nonhuman entities as forces to be contained, managed, and kept in check by human activities. The forces of nature must and can be contained and redirected for human society to flourish and survive, regardless of the degree of transformation necessary to accomplish this. Nature, from this perspective, is an adversarial energy to be countered and stopped, whenever possible. Nature is an opposed force, an enemy, to human social organization, and must be captured as effectively as possible by networks of regulation and restriction.

An approach that focuses on regulation of interactions between “nature,” in the form of hurricanes and bacteria, and society has, and continues to have, a certain utility, of course: countless human lives have been saved and human dwellings protected thanks to effective regulation and planning. It is easy to understand why those who suffer the effects of hurricanes and *E.coli* argue and petition for greater protection based on the assumptions of effective regulation. Families of *E.coli* victims persistently dog Congress to adequately fund the USDA and impose stricter enforcement capabilities for the USDA and other food-related agencies. Residents and advocates of New Orleans continue to demand reinforced protection from hurricanes, in addition to lobbying for funds to rebuild ravaged neighborhoods.

But this approach to human-nonhuman, society-nature interactions overlooks the possibility of thinking the engagements among beings in a different way, where the activities of other-than-human entities are not written out of a story about corporations resisting regulation from a business-friendly government, or underfunded and incompetent bureaucrats failing to perform their job and moral obligations. A regulatory approach to the activities of other-than-humans requires and institutes nature as an opposed collection of inevitable forces that humans can and must manage to survive. However, what passes for nature under this perspective prevents a politics that involves numerous entities of all sorts. Nature-society ignores the possibility of a politics that takes the relations among beings that do things—hurricanes, bacteria, etc.—as constitutive of political processes from the start. A nature that needs to be regulated by society forecloses a politics that includes questions of how the diverse and varied interrelations of entities can be altered or sustained, and instead automatically

attempts to control and regulate them. This version of nature is necessarily separated from and opposed to human action, and demands to be contained and controlled for human society to prosper.

I highlight these points—the bewildering range of meanings and moralities attached to the concept of nature, nature’s exclusion and simultaneous imbrication with society, nature’s perennial challenges to political thought, nature as an object that requires regulation—to make the more dramatic claim that a concept of nature understood in contrast to human society and politics is not an adequate concept for understanding and critiquing contemporary organization of ways of life, if it ever was. Describing the nonhuman world as a realm separate from human social activities cannot take account of the ways in which the activities of things that cross the borders of these categories or fall outside of them combine act. The actions of other-than-humans constantly interrupt this conceptual formulation of nature and society, as the events of Hurricane Katrina, food contamination, and many other examples suggest. The concept of nature, I claim, is an irredeemable concept that cannot be reworked, redefined, or nuanced into an effective and adequate concept to describe or account for the myriad ways that entities exist and act in the world.

Furthermore, the concept of nature as it is utilized in contrast to human, social activities, unnecessarily limits politics to be a human-only activity, if not the human activity *par excellence*, making a politics that considers anything other than humans difficult, if not self-defeating, from the start. Because of this separation of nature from political life, the importance that the concept of nature has played and continues to play in environmental politics and environmental political theory also becomes problematic.

Nature conceptually eliminates the possibility of a politics that can recognize the participation of beings of any sort in constituting the political actors that I will call “environments.” This conceptual impossibility follows necessarily from the binary structural relationship that sets human society and actions against nonhuman nature and actions, variously as something to be conquered, cultivated, preserved, emulated, or ignored. This poses problems for environmental politics built upon a concept of nature, caught in a complicated effort to navigate the “false problem” of nature-society relations.¹⁹

The question of nature-society relations has become, however, a multifaceted and complex “problem.” Thinking in terms of nature-society relations often leads to understanding the relation between nature and society as a political or ethical problem, that is, a problem which requires the development of a political or ethical relationship between nature and society. It is this assumption of the existence of a problematic relationship between the things known as nature and society that is itself problematic. Posing the question in terms of “nature-society relations” is a false problem, as suggested, in that these accounts, as Braun puts it, “presuppose a world divided into distinct ontological domains” rather than recognizing the processes and practices that have gone into, and continue to sustain, an image of the world as divided into “nature” and an opposed and distinct “society.” The questions of nature and society relations, rather than a perennial problem without solution, is, rather, a production of the very processes it attempts to investigate. Starting from the assumption of a dualist nature-

¹⁹ I borrow the language of the false problem from Braun, who in turn develops in from Deleuze’s account of Bergson’s notion of the “false problem.” See Bruce Braun, “Nature and Culture: On the Career of a False Problem,” in *A Companion to Cultural Geography*, ed. James Duncan, Nuala C. Johnson and Richard Schein. (Malden, MA: Blackwell Publishing Ltd., 2004), 151-179.

society division reproduces this dichotomy in the very question instead of eliminating it or moving beyond it, as many environmentally-minded thinkers aim to do.

In addition, as Braun notes, posing the question in terms of nature-society relations “leave[s] us with an impoverished understanding of the ‘integrated networks’ in which humans and nonhumans are entangled, in which entities (people, machines, words) continuously swap properties, and in which ‘agency’ is diffuse and relational, extending beyond humans to include all manner of other things.”²⁰ The categories of “nature” and “society” subsume the complicated entities and actions among beings that cross over and challenge these divisions into all-encompassing and mutually exclusive realms of being: nature operates as an involuntary brute force composed of nonhuman animals, machines, and things, while society acts through voluntary actions that manage and direct the actions of themselves and all of nature. From this starting point of nature as a threat to society, the control of nature, both materially and epistemologically, become central goals of human behavior.

Rather than starting from the assumption of nature, of whatever quality or content, as the basis for theorizations of environmental politics, I argue that it is necessary to work through concepts that begin from the complicated mixture of humans and nonhumans that exist and that exercise effects upon political and social relations. The concept of nature, as a holdout of modern formulations of how humans exist amidst a world of things, need not serve as the basis for thinking about how things exist and interact together and, in fact, prevents a workable set of practices of environmental politics. I propose, instead, the concept of *environments* as a means of theorizing the

²⁰ Braun, *ibid*, 108.

assemblages of what we categorize as humans and nonhumans that exist in the world, that produce political effects, and that are able to act and effect change in practices.

To make this case, I first offer an account of what the concept of nature has represented for much of modern thought, highlighting the limitations it imposes upon thinking about a constructive approach to environmental politics. I then turn to a series of recent works in environmental political thought to demonstrate how ingrained the effects of the concept of nature are, even in those thinkers who take a nuanced and critical approach to any naïve notion of nature. Nature, I argue, can no longer be a useful concept in thinking about environmental practices, as it separates human action from nonhuman action and makes it difficult, if not impossible, to theorize a coherent political position amidst a world of environmental assemblages. Borrowing from the work of Gilles Deleuze and Félix Guattari on assemblages, I conclude by offering an elaboration upon the concept of “environments” as an alternative to a singular nature.

Modern Nature

As suggested above, nature has been one of the key concepts in western political thought. This statement seems unproblematic and obvious: whether human nature, the state of nature, the nature of the state, natural rights, natural law, or nature that must be preserved, protected, and put aside, nature has recurrently presented itself as a political question seeking an answer. Particularly during the era we now call modernity, when people began to systematically investigate and engage with the things they found in the world, nature and the limits of and to human engagement with nature became central concerns to philosophers.

One of the most significant and transformative approaches to considering questions about how humans and other-than-humans engaged, interacted, knew one another, or combined, emerged from the distinction between subjects and objects. This distinction, elaborated most influentially by René Descartes in his *Meditations on First Philosophy*, posited a radical gap between mind and body, consciousness and material things, thought and action.²¹ From a Cartesian perspective, carried through to today by the enormous influence his work had on early accounts of science and epistemology, the human subject possessed all agency: only it was able to act, reflect, criticize, change. It was unique. Objects, on the other hand, could do none of this. They were passive material to be shaped and transformed by subjects, waiting to be picked up, interpreted, and handled by subjective powers. Not surprisingly, this subject/object distinction nicely paralleled a division between humans and nonhumans, where humans became the all powerful agentic subject and nonhuman nature became the static, passive object to be transformed and known. Nature became the object of the human subject's inspection and intervention. Pre-modern notions of the nonhuman world were discarded and dismissed as childish illusions.

Most importantly for political theory, the human relation with nonhumans became one of epistemological concern based around the theoretical framework of subject-object relations. What can humans—as part of the world but separate from it thanks to reason, soul, language—know about the things that “surround” us? How can we understand what they are, given the limitations that the subject/object, mind/body gap presents? The question of how humans could know nature, and what the limits of

²¹ René Descartes, *Meditations on First Philosophy* (Indianapolis: Hackett Publishing Company, 1993). See also Kate Soper, *What is Nature?* (Cambridge, MA: Blackwell Publishers, 1995), 41-45.

that knowledge were, became central questions for human subjects in a world of objects. Immanuel Kant took the Cartesian division of subject-object, mind-body, human-nonhuman nature, and raised this epistemological concern about what humans can and cannot know of the world to a more radical account of this relationship. Nature became “a wholly other and objective world” “that is indifferent to human purposes and the unknowable condition of human (and all other) existence.”²² Knowledge about the manifestations of things as grasped through human understanding became paramount. But this knowledge could never be about a thing-in-itself, but only its appearance to human understanding through concepts. As the inaccessible object of human understanding, nature became the object *par excellence*, and humans the subject *par excellence*, since “The world as we know it appears to have been designed with a view to allowing human cognition of it.”²³ This conceptualization of nature as the object of human knowledge and investigation has since become the dominant way of understanding the nonhuman world in the west, and the effects of nature-as-object have had an immeasurable impact upon how humans have lived for the past four centuries.

These epistemological claims about the subject-object relation between humans and nonhumans, however, were not merely theoretical claims about how humans came to know the world. Rather, this epistemology based in a subject-object, society-nature split made and remade the world in its image, enacting this split between human society and nonhuman nature. In this way, the nature-society split became a material reality as it was taught, promulgated, and practiced throughout Europe and eventually exported around the globe. More than just a harmless method of organizing the world through

²² Soper, *ibid*, 45.

²³ *Ibid*.

concepts, this epistemological approach to understanding how humans knew one another and knew their nonhuman surroundings had an implicit ontology of separate nature and societies, one that made invisible all the combinations between these poles. The production of knowledge about the world through this epistemological lens did not merely interpret and refer to “raw data” of the world, but attempted to actively create a world that was divided into nature and society, building and altering existing relations and concepts in an attempt to align with this neat conceptual division.

But today, as Annemarie Mol puts it, “knowledge is no longer treated primarily as referential, as a set of statements about reality, but as a practice that interferes with other practices. It therefore participates *in* reality.”²⁴ This *epistemological* framework of subject-objects was necessarily an *ontological* framework that intervened and interfered in the world. This model of knowing, like any epistemological set of assumptions, fostered human practices that attempted to create the world according to how they knew it, transforming ways of living and thinking in the process. Knowledge about the world, more than an attempted representation of what exists, engenders practices that sustain particular models of how the world supposedly operates. The subject-object epistemological division did just this, intervening, interfering, and producing realities through a delineation of what was nature and what was society. The effects of ways of knowing the world imply much more than a method or a neutral measure, but produce effects that shape and change the way that human and nonhuman actions are able to be seen, understood, and engaged with.

²⁴ Annemarie Mol, *The Body Multiple*, (Durham, NC: Duke University Press, 2002), 152-3.

For instance, the division of disciplines into natural and human or social sciences is one of the central manifestations of a subject-object epistemology that produced a corresponding subject-object ontology between “nature” and “society.” Starting from the assumption that the world can be divided into natural things and social things, the processes of producing knowledge about the world reinforced the epistemological subject-object distinction and created a world in which human social actors operate amidst a world of nonhuman natural objects. Regardless of the accuracy of such claims, assuming the distinction between entities with subjective and agentic characteristics prevented the consideration of beings that crossed these boundaries, such as intelligent simians, responsive plants, strategically-acting bacteria, or ecosystem communications. These entities were either invisible to observers and researchers or assigned to either the purview of the natural sciences or the social sciences, with little to no overlap. The division of the world into things that act of their own will, capable of making critically reflective decisions, and things that act due to instinct, incapable of controlling their actions, was enabled by this subject-object epistemology and the concomitant organization of knowledge and practices of and in the world.

Understanding exactly what the subject-object epistemological model of society-nature produced is important to comprehend what a contemporary environmental politics has inherited from its nature-thinking predecessors. Based on the theoretical model of subject/object relations, a concept of nature-as-object became common among much of modern western thought, and effectively altered what concepts and practices of

politics were available.²⁵ As the limit and opposite of the human social realm, modern nature is conceptualized and practiced as abstract, constant, separate, nonpolitical and passive. These features run through most all modern conceptions of nature and serve as useful guideposts to illustrate the limitations of nature as concept in theorizations of environmental politics.

First, the modern concept of nature assumes an *abstract* collection of matter and processes that is everywhere the same, ignoring or making irrelevant specific and local differences.²⁶ With help from the universalist scientific method designed to establish knowledge about the natural objective world, the properties of nonhumans came to be assumed to be the same throughout the world and the entire universe. Irrespective of the infinite factors that go into determining the various actions and responses of nonhuman entities, this peculiar modern concept of nature assumes that all of nonhumanity follows the same basic laws and is made up of the same basic inert material when isolated from intervening factors. The abstract aspect of modern nature is necessary to be able to make claims about the omnipresent reach of the subject's ability to discover and decode all of the underlying substrate of nature upon which different human subjects live. Without nature as an abstract object, devoid of local peculiarities, particular arrangements of things would remain parochial events that could not provide access to the ubiquitous world outside of human consciousness, or the fundamental truth that presumably comes along with it. This argument about the abstract relationship between

²⁵ There have been many attempts to summarize the unique characteristics of a modern conception of nature, and I do not claim originality with this description. The most thorough and in-depth accounts include Cronon, *Uncommon Ground*; Soper, *What is Nature?*; Latour, *We Have Never Been Modern*; Noel Castree, "The Nature of Produced Nature: Materiality and Knowledge Construction in Marxism," *Antipode* 27, no. 1, (1995), 12-48.

²⁶ See Williams, "Ideas of Nature."

humans and nature ignores the always changing, always specific, ways in which environments affect their constituent parts and consolidates diverse sets of practices into a superficial and oversimplified category.

Second, and following from the abstract conceptualization of nature, the modern understanding of nature assumes that nature is *constant* across time, without change or variation in structure or process. To understand modern nature involves the discovery of timeless and unchanging laws about the universe, equally applicable to the Big Bang and today's environmental 'problems.' As one account of this conception of a constant, abstract nature of modernity puts it, "it is not men who make Nature; Nature has always existed and has always already been there; we are only discovering its secrets."²⁷ This constancy of nature allows the belief that nature has never changed and that it unproblematically exists, awaiting its discovery by human minds, implying that nature "offers societies a set of possibilities and constraints that are more-or-less *unchangeable*."²⁸ These two features of nature, abstraction and constancy, combine to sweep innumerable different assemblages under one umbrella term, disregarding how specific circumstances affect and change a particular assemblage's effects.

Third, the assumed constancy of nature provided an impetus to understand humans as *separate* from nature, since humans, as subjects, changed in different ways throughout time and space while the backdrop of nature remained. Accordingly, humans will always be separate from nature and other to it, through the human capability to change their conditions of existence based upon language, reason, labor, or

²⁷ Latour, *We Have Never Been Modern*, 30.

²⁸ Noel Castree, "Socializing Nature," 1-21, in *Social Nature: Theory, Practice, Politics*, ed Noel Castree and Bruce Braun (Oxford: Blackwell, 2001), 8.

other characteristics deemed most significant and distinctively human. As Kate Soper comments,

Whether we are asked to view nature as an external realm or ourselves as belonging within its order; as vitalist or mechanistic; as the mere object or instrument of human purposes, or as dialectically shaping us as much as we shape it; all such thinking is tacitly reliant on the appreciation of our difference from nature or ‘the rest of nature’, and would have no purchase on our understanding without it.²⁹

This aggressively maintained difference between nature and humans plays an important role in determining the relationship humans have developed with what has been seen as their surroundings. Soper’s remarks illustrate the deep-seated influence this separation has had. As she claims, attempting to view nature on an equal-footing with humans would be incomprehensible as some degree of distinction must exist to be able to talk about nature at all. Regardless of the different interpretations and contents of it, the modern conceptualization and corresponding practices of nature necessarily entail a gap between humans and the nonhuman entities with which they coexist.

Fourth, with nature understood to be separate from humans, the activities of natural nonhumans were defined in contrast to the activities of *social, political* humans, leaving little to be gained by examining the connections between the activities that connected these two realms, with much to gain from emphasizing the differences between a modern, western human and an ahistorical, other-than-human. The concept of nature actively prohibits the consideration of the possible political and social effects that nonhumans can have. A nonpolitical nature functions as a tool to stifle politics, as scientifically discovered “laws of nature” take decision-making out of the hands of political actors, and put them into the hands of scientists and experts with purportedly

²⁹ Soper, *ibid*, 39.

privileged, enlightened knowledge.³⁰ An apolitical nature can neutralize controversial claims, thanks in part to its presumed objectivity and distance from what it is said to represent. People who do not follow these natural laws as delivered by scientifically authorized experts are considered to be second-rate humans incapable of making rationally informed decisions who can then be ignored or quashed. These people are often portrayed as uneducated citizens who cannot begin to comprehend the complexity or significance of scientific findings, or as individuals who are unthinkingly sentimental about an issue and cannot acknowledge the indisputable truth of scientific knowledge³¹. Nature and its incontestable, nonpolitical laws remove political possibility and agency from humans, let alone nonhumans, engaged in social life, only to replace it with an untouchable and distant arbitrator in the form of scientific, expert knowledge.

Finally, and perhaps most significantly, a modern nature seen as abstract, constant, separate, and not social, cannot *do* anything. As a passive entity that can only react to other actions, or do something only based on unchangeable and predetermined instincts, nature as it is conventionally understood cannot act. Unlike humans, natural beings have no will, intention, interests, desires or intentions. Nature's effects simply happen in response to other effects, but never in an active or nonmechanistic manner. It is an object, incapable of expressing anything but what it is predetermined to do. This significantly dilutes the action of nonhumans and denies the possibility of seeing how humans and nonhumans engage and act together to produce effects. Nonhumans are not

³⁰ This has been the case for environmental issues, of course, where experts prescribe particular solutions to problems, but it has also been the case for rights struggles of all sorts, where expert knowledge is used to enforce discrimination and oppression, whether in the domain of gender, race, ethnicity, sexual orientation, or any number of points where bodies inconveniently blur the line between natural and social.

³¹ This is often the case with ecological restoration projects that will transform backyards and area ecosystems: scientists insist upon the return of a region to its "natural" state, while residents fight for the maintenance of the "unnatural" state of affairs that has often been in place for hundreds of years.

a collective subject under the name of nature that acts with a will, nor are they sentient beings as far as anyone has been able to tell. However, describing nature as passive and reactive ignores how beings of all sorts create new possibilities and highlight old problems present in the environments they share.

Much of this description of nature likely seems intuitive, as the idea of nature as abstract, constant, distinct from humans, passive, and external to society has become commonplace and common sense for most in the contemporary west. This conception of nature is still in currency even as critics argue that it is not an “accurate” portrayal of the nonhuman world. However, as Noel Castree comments, “Deeply ingrained in Western thought since the Enlightenment, the society-nature dichotomy and the assumption that natural entities are unalterable ‘givens’ remain ‘common sense’—even at a time when developments like gene-splicing have challenged them in dramatic ways.”³² Modern nature, as recounted here, holds significant sway over western practices, as it has been enacted with great effect for over 400 years.

Most recently, however, many scholars have made efforts to reclaim a concept of nature that does not divide the world as starkly into nature and society as the subject/object-based modern nature does. But, as I aim to make clear in this chapter, these concepts of nature remain highly problematic. Not only do they conceal the political uses of the concept of nature, but they also short circuit any effort to think a politics of all sorts of beings acting together by maintaining the fundamental division between what is natural and what is social. In doing so, they limit the available modes of shared existence among entities, curtailing alternatives to thinking beyond the limits

³² Castree, “Socializing Nature,” 5.

of the concept of nature. Rather than enabling a set of practices that engages with complicated assemblages that make up what we take to be humans and nonhumans, the concept of nature, however redefined or reworked, holds onto the figure of the humans while simultaneously holding humans at bay from that which constitutes them, keeping nonhuman entities external to human activities.

Environmental Political Theory

Much work in political theory and cognate fields has begun to speak to the question of what to do with the concept and the thing called nature, with many environmental thinkers aiming to move beyond the modern nature that assigns agency and will to humans and instinct and unreflective reaction to nonhumans.³³ Within political science and political theory, environmental political theory (EPT) has dealt with these concerns since people began thinking about something called the environment in the 1960s.³⁴ Many in the field mine the history of political theory and philosophy to find support, proto-environmentalist hints, or unfulfilled promises of their particular endorsed interpretation of nature and the human-nature relationship in past political thinkers. Striving to justify different, particular versions of nature, environmental political theory aims to reformulate how humans relate and interact with their surroundings, negotiating the complicated mixture of human actions and nonhuman entities. However, for most of them, addressing environmental issues often

³³ Cultural and radical geography houses much of this recent work, along with philosophy and cultural studies and other similar but differently-named disciplines. For overviews of this work, see Bruce Braun and Noel Castree, eds. *Remaking Reality: Nature at the Millenium*. (New York: Routledge, 1998), Soper, *What is Nature?*

³⁴ For overviews of the field, see Meyer, "Political Theory and the Environment" in *The Oxford Handbook of Political Theory*, ed. John Dryzek, Bonnie Honig, and Anne Phillips (Oxford: Oxford University Press, 2006), 773-791, and Peter Hay, *Main Currents in Western Environmental Thought* (Bloomington, IN: Indiana University Press, 2002).

begins from an assumption that environmental problems stem from a skewed understanding of what nature is and the proper relationship between humans and nature, or that people's values are misaligned to the signals that nature provides about appropriate behavior regarding the other-than-human world.³⁵ Many, if not the vast majority of thinkers of environmental issues, endorse a newly modified theoretical and philosophical account of the concept of nature to guide human practices, one that would presumably have significantly less deleterious effects upon "the environment." If only we change how we think about how we relate to nature, so the argument goes, then human practices in relation to nonhuman worlds will change for the better.

Yet, despite the prolific writings on the topic in many disciplines, it seems that this work has reached an impasse. This blockage seems to stem from the very terms of the debate about "nature-politics relations." These attempts to incorporate nature into political and social life often present nature to be the always present substrate of politics, to which one needs merely to listen, experience, or better attune oneself for an effective environmental politics. Forerunners to what has become EPT stated this explicitly, with thinkers like Arne Naess and Bill McKibben declaring that getting out into 'natural settings' would radically alter how the average, modern human relates to their external worlds and would lead to a heightened awareness of the value and importance of nature and natural conditions.³⁶ For example, Naess praises doing field research in ecology, for "the ecological field-worker acquires a deep-seated respect, or even veneration, for ways and forms of life. He reaches an understanding from within,

³⁵ For an example of this, see the essays collected in Joel Jay Kassiola, ed. *Explorations in Environmental Political Theory*. Armonk, NY: M. E. Sharpe. 2003.

³⁶ See Bill McKibben *The End of Nature* (New York: Random House, 1989) and Arne, Naess "The Shallow and the Deep, Long-Range Ecology Movement: A Summary," *Inquiry* 16 (1973), 95-100.

a kind of understanding that others reserve for fellow men and for a narrow section of ways and forms of life. To the ecological field-worker, *the equal right to live and blossom* is an intuitively clear and obvious value axiom.”³⁷ This tradition goes back long before Naess and McKibben of course, famously including Emerson, Thoreau, and Leopold in the ranks of experiential nature endorsers. The problems with these approaches are manifold, and have been extensively registered elsewhere.³⁸ At its core, these early thinkers of contemporary human-nonhuman interactions romanticize a modern concept of nature—it remains abstract, constant, separate, apolitical, and passive—and reproduce the modern distance from nature that critical environmental theorists aim to lessen.

Environmental political theory has come a long way from its early deep ecologist forebears and has begun to focus critical attention upon the implicit concepts of nature in political theory and popular assessments of the environment, as well as environmental “problems” and “crises.” Yet even as contemporary EPT thinkers attempt to move beyond the detrimental effects of a modern concept of nature’s political implications, starting from the concept of nature, I argue, reproduces exactly the limits they aim to overcome: a nature that creates a dramatic fissure between human societies that can willfully act and a nonhuman nature that cannot. As a result, much of EPT reaffirms the impossibility of a productive ethics and politics that comes with nature as an object of human action and conceptualization.³⁹

³⁷ Naess, *ibid*, 96.

³⁸ For summaries of these concerns, see Luke, *Ecocritique*, and Cronon, *Uncommon Ground*.

³⁹ See Cronon “The Trouble with Wilderness,” in *Uncommon Ground*, ed. William Cronon (New York: W.W. Norton & Company, 1996).

To illustrate concretely how the concept of nature gets used in these ways in contemporary EPT and the problems the use of this concept brings with it, I look at three recent texts that attempt to redefine the concept of nature in politicized terms: John Dryzek's *Deliberative Democracy and Beyond*. Andrew Biro's *Denaturalizing Ecological Politics*, and John Meyer's *Political Nature*. Their works represent contemporary attempts to rework the concept of nature, striving to bring a critical reappropriation of nature into political theory and practice. Through examining how nature gets used in these scholars' work, I demonstrate how a focus on finding a solution to the "problem" of nature-society relations maintains and reinforces the separation between politics and nature that they aim to obviate.

John Dryzek straddles the border of EPT and democratic theory of the deliberative variety. Having published widely on environmental politics and democratic theory, Dryzek has made invaluable contributions to bringing environmental political questions into mainstream political theory.⁴⁰ In an effort to revitalize the critical edge of deliberative democracy through a renewed engagement with communicative rationality, in *Deliberative Democracy and Beyond* Dryzek extends a degree of communicative intersubjectivity to what he calls nature. Critical of how deliberative democratic theory has ignored environmental questions that involve nonhumans,⁴¹ Dryzek calls for a recognition of agency in nonhumans, and for the

⁴⁰ John S. Dryzek, *The Politics of The Earth: Environmental Discourses*. (New York: Oxford University Press, 1997). John S. Dryzek, *Deliberative Democracy and Beyond*. (New York: Oxford University Press, 2000).

⁴¹ See Jürgen Habermas, "A Reply to my Critics" in *Habermas: Critical Debates*, ed. John B. Thompson and David Held (Cambridge, MA: MIT Press, 1982). In this essay, Habermas argues that because nonhuman nature cannot fully participate in language-based discourse ethics, nonhuman nature cannot be considered as part of a political community. For more on this topic, see Stephen Vogel, *Against Nature: The Concept of Nature in Critical Theory*. (Albany, NY: State University of New York Press, 1996), and

development of institutions that are “sensitive to ecological signals.”⁴² “Recognition of agency in nature therefore means that we should listen to signals emanating from the natural world with the same sort of respect we accord communication emanating from human subjects, and as requiring equally careful interpretation.”⁴³ This account marks an effort on behalf of committed deliberative democrats to incorporate nonhuman communication into deliberative democracy’s framework of universalized communication, particularly in response to Habermas’ overly dismissive account of the role of nonhumans in deliberative democracy.⁴⁴

But this attempt at theorizing a democratic environmental politics based on deliberative principles remains vulnerable to the same critiques as accounts of human-only deliberative democracy, ranging from the difficulty of attaining the guarantees that a thing will be listened to, whether that thing will be comprehensible in any meaningful sense to its interlocutors, who or what will be authorized to decipher these signals, and how they will do this. Furthermore, nature continues to exist as a stable and constant surrounding presence that needs to be discovered and interpreted by humans for Dryzek, presumably through modern natural scientific techniques, as he alludes to in his summary of current research on human-like agency in nature.⁴⁵

Calling for an enlarged thinking that resituates human beings in their ecosystems and environments, Dryzek reveals an implicit commitment to a normative state of nature, far removed from our contemporary post-industrial life. Hoping for an

Andrew Whitworth, “Communication with the Environment? Non-Human Nature in the Theories of Jürgen Habermas,” *Politics* 20 no. 3 (2000), 145-151.

⁴² Dryzek, *Deliberative Democracy*, 155.

⁴³ *Ibid.*, 149

⁴⁴ See note above.

⁴⁵ Dryzek, *ibid.*, 150.

ecological human subjectivity that can “challenge others’ interpretations of the needs of ecosystems of which they are component parts,” Dryzek argues that “Indigenous peoples can probably do this more effectively than industrial selves long alienated from natural surroundings; but there is no reason why such capacities cannot be recovered.”⁴⁶ This remark reveals an implicit conception of nature that is where “we modern humans” are not: in the past, in tradition, separated from the rest of the normal, everyday parts of life. Holding onto the popular image of preindustrial populations as more in touch with an immediate and familiar nature than alienated modern individuals, Dryzek reinforces a modern concept of nature as a foundation for environmental political action, distancing himself from the human-nonhuman blurring he would like to see through interspecies, intersubjective communication.⁴⁷ By appealing to a romanticized vision of nature and of preindustrial humans better able to attune themselves to nature’s signals, Dryzek distances the entities considered to be nature from contemporary human existence. Contemporary humans are necessarily outside of nature and have a difficult time engaging with their nonhuman surroundings due to their 21st century habits, even as nonhumans encircle and constitute the nature that Dryzek reveres.

Overall, Dryzek’s efforts at greening deliberative democratic theory reproduce the basic problems with much thinking about environments as natural and humans outside of this account of nature. Wanting to grant nonhuman entities communicative agency, which he equates with political agency, he denies nonhuman entities co-presence with the human political sphere and prescribes an essentially passive role for nonhumans outside of ‘signaling’ to humans about what might be out-of-balance in an

⁴⁶ Ibid, 150

⁴⁷ Ibid, 147-157.

ecosystem. Politics, for Dryzek, is limited to a communicative exchange among beings, even as only some beings can interpret and understand this communication and even fewer are capable of acting upon this. This, like much of the early “deep ecology” work in EPT noted earlier, removes humans from nature and creates an impossible relationship of conflict and opposition between humans and nonhumans, while upholding a romanticized notion of “indigenous peoples” as closer to nature and the appropriate relations of existence with nonhumans.

While Dryzek’s work focuses on the communicative rationality of Habermas, Andrew Biro looks to the early Frankfurt School for inspiration in theorizing the relationship between nature and society or, as he refers to it, nature as given and ‘nature’ as socially constructed. Biro’s *Denaturalizing Ecological Politics* attempts to reconsider the concept of nature and the nature-society relationship through an examination of “alienation from nature” in Jean-Jacques Rousseau, Karl Marx, Theodor Adorno, and Herbert Marcuse.⁴⁸ In his theoretical efforts to develop an “emancipatory ecological politics” Biro points out that “the politics of nature/‘nature’”—that is, nature as naïve material reality, and ‘nature’ as socially constructed—“need to be reframed or supplemented by including a new category: nature viewed, as it were, from the other side of the glass- alienation from nature.”⁴⁹ Arguing for a revitalization of Marcuse’s conceptualization of “basic and surplus repression” through its translation onto basic and surplus alienation from nature, Biro works to reconcile nature and society through a determination of a proper and appropriate distancing from nature. Biro recounts

⁴⁸ Andrew Biro, *Denaturalizing Ecological Politics: Alienation from Nature from Rousseau to the Frankfurt School and Beyond*. (Buffalo, NY: University of Toronto Press, 2005).

⁴⁹ *Ibid*, 9

Marcuse's Freudian-inspired distinction between repression that is socially necessary for a functioning society and repression that unnecessarily restricts human behavior and instincts for the purpose of social domination, and argues that these categories can be effectively applied to environmental politics. As Biro argues, "we can thus extend Marcuse's distinction between basic and surplus repression to include a distinction between alienation from nature that is biologically necessary for human life and alienation from nature that is only made necessary by particular forms of social organization."⁵⁰

Accepting a fundamental distancing of humans from nonhuman nature as inevitable and useful for human society, Biro dismisses efforts at a final *Aufhebung* between nature and society and instead interprets nature as always and necessarily alienated and mediated through social practices and meaning. In place of the theoretical tension between nature and "nature," Biro claims that the concept of alienation from nature can be a useful mediation between human society and nonhuman nature, as the degree of alienation from nature can be changed over time. Biro argues that "the phrase itself [alienation from nature] must be understood as a form of shorthand, an allegorical figure, partly captured by the idea of thinking about human society as simultaneously embedded in, and apart from, natural processes."⁵¹ Alienation from nature, then, represents a necessary human condition that is subject to political contestation in degree and form; we can, through political efforts, change both the degree and the quality of our distance from ourselves as natural beings. Coming up with how and in what ways

⁵⁰ Ibid, 167.

⁵¹ Ibid, 10.

human societies should alienate themselves from nature becomes the object of environmental politics and theoretical efforts.

Biro's title, *Denaturalizing Ecological Politics*, hints at his efforts to remove nature from the focus of EPT, either in nature's brute and naïve form or in "nature's" socially constructed form, through the concept of alienation from nature. As Biro claims, "At its most basic level, 'alienation from nature' can be understood as the ongoing process whereby human beings self-consciously transform their natural environment."⁵² Alienation from nature, for Biro, is a way of conceptualizing the ways human societies alter their environmental surroundings, and distinguish human existence from nature's activities. The key means of determining the appropriate degree and manner of alienation is an assessment of necessary and surplus forms of alienation: "The project of an ecological politics should be to distinguish between those forms of interaction with the natural world which are *necessary* to the flourishing of human and other forms of life, and those forms of interaction which are *surplus* to it."⁵³ This distinction between necessary and surplus is developed in great detail in Biro's discussion of Herbert Marcuse's work on basic and surplus repression, but it does little to clarify what is basic and necessary and what is surplus or how to determine this. In fact, by relying on this distinction, much of the logic of the modern concept of nature that Biro wants to avoid is reproduced. Nature, without quotes, remains the substrate upon which humans act, interpreting and modifying it in different ways, but always through social mediation, and "nature" is a culturally and linguistically established concept that serves as a lens with which we engage nature. A modern nature continues

⁵² Ibid, 58.

⁵³ Ibid, 196.

to be the basis from which humans measure themselves and what is necessary, and the solid, reliable, objective realm of being from which humans alienate themselves.

By focusing on nature, the alienation from nature, and “nature,” Biro sets his argument up based around a dialectical tension between the poles of nature and society, mobilizing the alienation of nature as the interface between these two opposed realms of being. This move maintains nature in its inactive position as the immobile material for humans to mold and shape, within limits seemingly established by socially predominant norms of necessity and surplus. Not unlike Habermas’ critique of the early Frankfurt School, I would argue that this subject-based approach to understanding a mediating relationship between the human subject, individual or collective, and nature as the object of that subject makes a politically constructive approach with nonhumans impossible, as it removes humans from the very medium in which they intend to engage.⁵⁴ Focusing on the intermediary concept of nature and its attendant human society and “nature” traps thought in a model that cannot get outside of a modern conceptualization of nature with its inevitable distance between human and nonhuman ways of existence, in spite of the nuanced and complex accounts of nature that are developed. Alienation from nature still relies on a nature, in contrast to a social “nature,” to evaluate what is necessary and what is surplus, that is, beyond the limits of how far we should alienate ourselves from an original nature. Biro makes a well-intentioned effort to develop an ecological politics based around the reconciliation of nature and ‘nature’ through the alienation of nature, but is hobbled by the starting terms

⁵⁴ For Habermas’ criticism of the early Frankfurt School’s emphasis on subjectivity, see Jürgen Habermas, *The Theory of Communicative Action, Volume I: Reason and the Rationalization of Society* (Boston: Beacon Press, 1984), 366-399.

of his debate, as they, against his explicitly stated attempt to avoid this, make alienation of nature “just another word for ‘nature,’” as the interpretive lens through which humans are able to indirectly mediate the tensions of nature and society.⁵⁵

John Meyer takes a different perspective on the same problematic, from an approach that emphasizes the ways that the concept of nature is used in political argument. Meyer’s *Political Nature* provides an insightful account into how conceptions of nature help constitute understandings of politics and political orders and, vice versa, how conceptions of politics contribute to understandings of nature.⁵⁶ Carefully avoiding what he terms dualist and derivative accounts of the relationship between humans and nature, Meyer charts a course for establishing an alternative manner of thinking about environmental and democratic politics, without needing to find ‘roots’ or foundations in nature. Dualist accounts of political theory’s approach to understanding nature-society relations castigate western thought for establishing humans as radically separate and superior to nonhuman nature. Meyer claims dualist accounts are oversimplified accusations that ignore both the complexity and diversity in western thought and exaggerate the influence and universality of such a conception. In dualist accounts, “the predominant story is one of communities that sought to tear themselves away from the cycles of nature by celebrating and elevating qualities believed to be distinctively human” (5). Derivative accounts attempt to do something similar, but instead rely on a particular conception of nature and draw out normative valuations from this understanding of the natural world. “Some directive or first

⁵⁵ Biro, *ibid*, 218.

⁵⁶ John M. Meyer, *Political Nature: Environmentalism and the Interpretation of Western Thought*. (Cambridge, MA: MIT Press, 2001).

principle has been the basis for discussions about the properly ordered human community. The most influential principles are those that appeal to the unchanging character of the cosmos.”⁵⁷ These derivative accounts draw out principles from a conception of nature and its proposed relationship to it to determine how political community should be organized. Meyer finds both these takes on nature and the human relation to be oversimplified, flawed and, ultimately, based on the same incoherent logic. “Both readings of the past reinforce the appeal to nature as the standard for a future ecological polity,” the derivative account appealing to natural principles and the dualist account emphasizing the human difference from nature that gives human polities their distinctiveness and right over nature.⁵⁸

In contrast to these approaches, Meyer puts forward a notion of nature that he terms constitutive: this acknowledges “the ways in which humans are inextricably natural beings, whose thought, actions, and potentialities are inextricably interdependent with and embedded within the world.”⁵⁹ Rather than understanding nature as providing “direction or authority,” a constitutive role for nature recognizes how human conceptions of nature influence politics and conceptions of politics influence conceptions of nature through a dialectical relationship. This more nuanced understanding of human conceptions of nature’s influence on politics results, according to Meyer, in a *political nature* that “emerges from a dialectic between” “a conception of nature and of politics.” This dialectic “creates the category that we experience as nature and shapes the social and political practices by which we address the concerns

⁵⁷ Ibid, 5.

⁵⁸ Ibid.

⁵⁹ Ibid, 6.

generated through this experience.”⁶⁰ It is this relation between politics and conceptions of nature that predominates Meyer’s efforts, as “an understanding of this relationship is as or more important than the conception of nature itself.”⁶¹

Expanding on this understanding of the role of nature in politics, Meyer adds that “the product of the dialectic I am describing is a conceptual category that is typically characterized as “natural” and yet delineated politically. As such, it can be appropriately termed a *political nature*. By mediating between conceptions of nature and politics, this category partakes of some qualities from each.”⁶² Similar to Biro, Meyer strives to borrow from both nature and ‘nature,’ from the natural and the political, to obtain something in between that involves both but is neither.

In order to situate the dialectical process from which emerges a political nature, Meyer turns to place and experience. As he notes, “Place and experience are constituted through, and serve to mediate, the nature-politics relationship. They are the *political nature* that is the basis for, but not the authoritative principle of, an expansive environmental politics.”⁶³ Politics and conceptions of nature developed from experience of place interact and influence one another to produce a humanly established political nature to be mobilized by competing groups to accomplish particular activities.

While nature as the basis of politics has been replaced by an explicitly political concept of nature, caught in a dialectic between nature and concepts of politics mediated by physical place and human experience, nature remains an inaccessible object distanced from humans in opposition to a world of politics. In Meyer’s account,

⁶⁰ Ibid, 7.

⁶¹ Ibid, 8.

⁶² Ibid, 132.

⁶³ Ibid, 138.

nature still requires something to intervene on its behalf to have political effects. As the mediating factors for a human political nature to emerge and allow concepts of nature to have effects, place and experience serve as nature's and politics' intercessors for human comprehension and engagement, deferring the presence of nature in politics while holding onto its fundamental role as influencing politics and our conceptions and practices of it.

Meyer does briefly mention the importance of material effects in this process when he acknowledges that “the other side [of the dialectic] is the fact that this natural world shapes who *we* are- precisely the “we” that construct the boundaries in the first place. The emphasis is very much on material relationships rather than ideal conceptions.”⁶⁴ But in this formulation, it is a very human ‘we’ who construct the boundaries of the natural and the unnatural, the human and the nonhuman and their material relations. Nonhumans, if anything, serve as objects to be represented in human conceptions of nature, which will then affect how humans understand themselves in relation to the rest of the nonhuman world. What this account misses is the way in which nonhumans have a direct impact upon “humanity” as “human” beings, which often has nothing to do with concepts of nature, but everything to do with how various beings produce and act in combination with other beings.

Focusing on the process of conceptualizing nature, even a political nature, neglects how material environments act in politics, producing different results than otherwise expected or possible. It is not only the *concepts* of nature that constitute “humanity and humanity’s politics,” but it is the things and relations that make these

⁶⁴ Ibid, 136

concepts that constitute and create politics. The distance that remains between the political nature Meyer develops and the assemblages where people, things, and everything in between live and involve each other prevents his deployment of place and experience, that is, the actual engagements that people have with their “surroundings,” from reaching its most effective and radical conclusions whereby these places and experiences take part in politics. The continued reliance upon a concept of nonhuman nature that interacts dialectically with a distinct realm of human politics through concepts reproduces the dualist and derivative logics Meyer aims to avoid.

With this goal of moving away from dualist accounts of nature that separate humans from nonhumans, Meyer and I, along with many in the EPT community including Dryzek and Biro, express a similar desire to create a way to talk about and engage in environmental politics without falling back on a reified concept of nature as a safety net or apolitical foundation. Where we diverge and where, I believe, these three contemporary EPT thinkers and much of environmental political theory get caught in a similar trap, is the move to reinterpret and reclaim nature as the central concept available to environmental politics. The concept of nature, as I hope to have shown, necessarily starts from a division between nature as object for the human subject, whereby human society is necessarily external to a politically immobilized and ineffectual nature of all things not human. When starting from that assumption of nature, the quest to reconcile, mediate, or navigate the relationship between society and nature, politics and nature, humans and nonhumans becomes the central goal when, in fact, all of these beings have always been combined together in the diverse assemblages that exist and act.

Whither Nature? Or Let Nature Wither?

While many attempts have been made to work through this division of nature and politics, “all attempts to reuse it positively, negatively or dialectically have failed.”⁶⁵ For good reason, argues Bruno Latour. For Latour, modern thought and politics have depended upon the complicated relationship they have developed with nature, laying the foundation for the political exclusion and economic appropriation of entities other than humans, and sometimes humans, understood to be a part of nature. While the substantive content of the modern concept of nature inflected what can and cannot be thought in relation to what role politics can play in regards to the nonhuman world, the formal relation that the modern concept of nature has with politics and society in general has had far-reaching effects beyond concerns about environmental practices, framing the terrain upon which questions about politics could be asked and thought.

Bruno Latour has highlighted this impossible position of nature, tracing a history of the paradox of nature-society divisions in modern western thought. In *We Have Never Been Modern*, Latour argues that nature has never been the separate and distant entity that modern thought has imagined it to be.⁶⁶ Nature is not, for Latour, a collection of processes that humans must respond to and counteract, nor the opposite of a society or public which must figure out a collective solution to the problems that nature poses it. Rather, as a holding pen for all nonhuman entities regardless of their differences,

⁶⁵ Bruno Latour *Pandora's Hope: Essays on the Reality of Science Studies*. (Cambridge, MA: Harvard University, 1999), 294.

⁶⁶ For Latour's initial account of how moderns treat society, nature, and God as simultaneously immanent and transcendent, natural and social, even as they theorize the separation of these, see *We Have Never Been Modern*, 29-48.

nature has been placed in a tenuous position between immanence and transcendence whereby nature is assumed to be the separate and passive foundation of social life upon which humans build societies, yet at the same time, nature is considered an immanent reality that is only discovered and produced in the labs of scientists or the forests of naturalists engaging directly with nature.

Perhaps surprisingly, politics receives a similar treatment in modern thought, occupying a space between immanence and transcendence that complicates the seemingly evident limits between nature and society. According to Latour, modernity has understood politics to be solely the realm of social humans that create and form the conditions of their existence, yet simultaneously politics is treated as transcendent, in that even if humans do create society, it is far beyond their control and it shapes and determines them in an autonomous fashion. However, for modern thought to retain its effective,⁶⁷ although paradoxical, position, a conventional modernity⁶⁸ must assume and insist upon the separation of nature and society, even if modern western society recombines nature and society in infinite ways. Through this division and simultaneous mutual implication of nature and society, as Latour describes it, “moderns” “are going to be able to make Nature intervene at every point in the fabrication of their societies while they go right on attributing to Nature its radical transcendence; they are going to

⁶⁷ Latour argues that the modern constitution was so effective in that it allowed moderns to break free of the animist and ‘premodern’ fears of disturbing the social order by altering the combination and association of natural and social things. Not beholden to ‘superstitious’ understandings of nonhuman entities, moderns could create and invent radically innovative tools and hybrid entities of natural and social powers. For his account, see *We Have Never Been Modern*, 39-43 and Bruno Latour, *Politics of Nature* (Cambridge, MA: Harvard University, 2004), 276-280.

⁶⁸ I say ‘conventional’ modernity as the modern era was marked by numerous alternative intellectual movements that do not fit under received notions of ‘modernity.’ For one such example that focuses on Spinoza, see Jonathan Israel’s *Radical Enlightenment: Philosophy and the Making of Modernity 1650-1750*, (Oxford: Oxford University Press, 2002).

be able to become the only actors in their own political destiny, while they go right on making their society hold together by mobilizing Nature.”⁶⁹ While moderns have always assumed that they had moved beyond a nature that was distinct from them, they have only been able to hold their societies together through reinforcements and complicated conceptual and practical entwinements with nonhumans, even as these nonhumans remain ‘trapped’ in a distinct and distant nature.

Accordingly, nature occupies an important position in relation to society, but not the relationship typically imagined in modern thought. Instead of being that which society defines itself against—an unwelcome input into political life that we thought we had moved beyond, or an independent and omnipotent force that always returns—Latour illustrates how the concept and practices of nature, and the important formal relationship it had with society, have prevented the development of a politics that can take into account the political participation and the political effects of anything other than narrowly-defined humans, even as politics is maintained and exercised through these excluded nonhuman entities. What Latour calls the modern constitution relies on assumptions about the nature of the world that served an important purpose through its ‘enlightening’ capabilities, yet now pose a great danger to politics and life. The modern constitution describes a world where “nature and society must remain absolutely distinct” even as so-called natural and social entities and actions are incessantly combined in industry, bodies, cities, and many other assemblages.⁷⁰ Conceptualizing nature and all of the entities trapped therein as outside the scope of politics, much modern thought has refused to acknowledge or even notice the other than human

⁶⁹ Latour, *We Have Never Been Modern*, 32.

⁷⁰ Ibid, Figure 2.1, 32.

entities and processes that made their politics possible, or the social and political effects of their experimentation and combination of these entities. Without this transcendence of nature and the division of the world into Nature and Society, what Latour calls “western moderns” never would have been modern at all. Instead, they would have remained ‘stuck’ in a superstitious or animist past along with the rest of the world,⁷¹ unable to treat the attachments humans have and create with nonhumans as disconnected from social practice and, therefore, unable to combine and create the modern entities composed of ‘natural’ and ‘social’ attributes that modernity has thrived on.

Instead of continuing this long modern tradition of contorting nature and society together to explain what happens in the world—as popular accounts of natural disasters, technology, and science do, as well as the EPT accounts of the interactive relationship between nature and society—Latour looks at everything that passes amidst nature and society without attempting to purify the natural from the social, claiming that everything happens only in the space between nature and society, with no recourse to non-existent entities such as nature and society. Thinkers of nature-society relations are forced to come up with a way to explain an unconscionable conglomeration of natural and social powers, a problem only from the viewpoint of the modern constitution that

⁷¹ Modern thought expressed a belief that this was what made the modern west different and more advanced than the rest of the world; they had successfully removed themselves from nature, while indigenous cultures around the world remained mired in superstition, animism, and general irrationality. Rather, for Latour, it was the conceptual and consequent practical transformation of the world into Nature and Society, effected through the practical dissemination of the modern concept of nature discussed above, that made this distancing of ‘the West’ from the superstitious, animist, backwards ‘Rest’ possible. “Somewhere in our societies, and in ours alone, an unheard-of transcendence has manifested itself: Nature as it is, ahuman, sometimes inhuman, always extrahuman.” *We Have Never Been Modern*, 98. Whereas western anthropology regarded all other cultures as confusing the natural and the social, the west regarded itself as having finally recognized the essential differences between nature and society.

Latour highlights. Lumping all entities other than humans into a passive and separate nature, as the framework of nature-society relations does, has made taking nonhumans seriously politically a nearly insurmountable task, and requires a new language for understanding and acting with nonhuman entities and environments.

Environments, not Nature

By focusing on the underlying nature-politics dualism present in much of contemporary environmental analysis, the preceding critical assessment of the use of nature contributes, as William Chaloupka put it in a review of recent green books, an opportunity “for greens to develop a more sophisticated nature talk.”⁷² Rather than refining a concept of nature, however, it is necessary to develop a different framework through which to engage environmental concerns. As we have seen, the nature-politics dualism conceals the activities of beings other than humans in environmental politics and focuses on “solving the problem” of the appropriate relation between nature and society when, in fact, what had been called nature and society can no longer productively be distinguished, theoretically or ontologically. But if it no longer makes sense to use nature as the grounds for environmental politics and the concerns that environmental politics has traditionally considered, it remains necessary to be able to name the effects and actions of these beings in order to understand, critique, and create a politics of environments.

Much work in fields outside of political theory and more directly associated with environmental questions has begun to consider exactly this question, that is, how to talk about the combinations of what was referred to as nature and society, without talking

⁷² William Chaloupka, “Green Naturalism: The Politicization of Environmental Theory.” *Political Theory*, Vol. 31 No. 6, (December 2003), 881.

about and falling into the traps of a modern concept of nature. In particular, geography, as the discipline presumably focused on the relationship between people and their environments, has been most productive of thinking through what an environmental politics without a modern concept of nature would look like.⁷³ Coming from Marxian frameworks, David Harvey and Neil Smith broke important ground with their attempts to challenge notions of the limits of nature in the 1970s and the production of nature in the 1980s, respectively.⁷⁴

Over the past decade, there has been a great upswing in geographical work on these questions, taking advantage of theoretical insights of the 1980s and 1990s, among them “postmodernism” and eco-Marxism.⁷⁵ Inspired by Harvey’s and Smith’s work, Erik Swyngedouw’s concept of socionatures describes a world that “is a process of perpetual metabolism in which social and natural processes combine in a historical-geographical production process of socionatures, whose outcome (historical nature) embodies chemical, physical, social, economic, political and cultural processes in highly contradictory but inseparable manners.”⁷⁶ From a more explicitly post-structuralist perspective, Bruce Braun defines a parallel concept of “social nature” to be “the inevitable intertwining of society and nature in any and all social and ecological

⁷³ For overviews of the history of these debates, see Castree’s introductory chapter to *Social Nature*, and Braun’s “Nature and Culture”,

⁷⁴ David Harvey, “Population, Resources, and the Ideology of Science,” *Economic Geography*, Vol. 50, No. 3 (Jul., 1974), pp. 256-277; Neil Smith, *Uneven Development: Nature, Capital, and the Production of Space*. (London: Blackwell Publishers, 1990).

⁷⁵ For classic statements of eco-Marxism, see Ted Benton, ed. *The Greening of Marxism* (New York: The Guilford Press, 1996). For early post-structural approaches to environmental questions, see Andrew Ross, *The Chicago Gangster Theory of Life: Nature’s Debt to Society* (New York: Verso, 1995); Arran Gare, *Postmodernism and the Environmental Crisis* (New York: Routledge, 1995); and Michael E. Zimmerman, *Contesting Earth’s Future: Radical Ecology and Postmodernity* (Berkeley: University of California Press, 1997).

⁷⁶ Erik Swyngedouw, “Modernity and Hybridity: Nature, *Regeneracionismo*, and the Production of the Spanish Waterscape,” *Annals of the Association of American Geographers* 89 no. 3, 443-465. 447.

projects,” so that it might be “an important source of analytic and political hope in the face of the radical social and ecological displacements effected by postcolonial capitalisms.”⁷⁷

These terms—socionature, social natures, and the move to plural and multiple natures more generally—represent attempts to develop a conceptual category that obviates the need to speak of nature-society *relations* or the interaction *between* nature and society when talking about what were considered interminglings of nature and society. These are important efforts to think beyond the modern conceptual apparatus which we have inherited. But by relying on amalgamations of the modern language—socio+nature, social+nature—it seems to me that the terms themselves have the potential to recreate the basic shortcomings of the modern constitution, as Latour called it: nature is no longer only nature, but a complicated mixture of social and nature, distinguishable but intertwined, hobbled together among differing categories of beings. For instance, retaining the distinction between social and natural, Syngedouw describes these socionatures in which “every body and thing is a mediator, part social, part natural, (but without discrete boundaries), which internalizes the multiple contradictory relations that redefine and rework every body and thing.”⁷⁸ The intention of these terms effectively captures what I want to talk about as the assemblages of beings that can act politically, but relying upon the terms and concepts of a modern nature-society split can be counterproductive in efforts to think these contemporary assemblages of technology, biology, economics, and culture.

⁷⁷ Bruce Braun, *The Intemperate Rainforest: Nature, Culture, Power on Canada's West Coast* (Minneapolis: University of Minnesota Press, 2002), 10.

⁷⁸ Syngedouw, *ibid*, 447.

Instead of neologisms that rely on the terminology of a dismantled natural-social division, I propose *environments* to name these actions and effects of assemblages. I opt for this term, borrowed from the signifier of the larger movement of environmentalism, as a way to start from the components of an assemblage of diverse beings in relation to one another, without recourse to notions of social or natural. Environments, as I use the term, describe the varied combinations of beings that are capable of acting through their effects upon themselves and other beings. Environment, etymologically, comes from the French *environs*, meaning “surroundings,” stemming from the preposition *en-*, meaning in, on, or to, and *-viron*, meaning circle or circuit, from the root *virer*, to turn.⁷⁹ Environment, then, refers to that which encircles and surrounds a particular entity, but not necessarily in the sense of separate, divided surroundings. An environment, composed of numerous entities that act together, has multiple participants, each of which could define and dominate a particular organization among beings. Each component cannot act equally, but each contributes something by relating to the assemblage in different ways.

The concept of environments creates an effective analytical tool to focus on the whole—the food environment, for instance, composed of the relations among plants, animals, agribusiness, farmers, fertilizer, water, and so on—or a particular participant or node in that environment—such as a particular food environment, a corn environment, in which corn plays a predominant role—to highlight the work that a particular entity contributes to the composite. In contrast to a modern concept of nature, as

⁷⁹ “Environment,” in *Oxford English Dictionary*. 2009. <http://www.oed.com> ; See also Tim Luke’s “On Environmentality: Geo-Power and Eco-Knowledge in the Discourses of Contemporary Environmentalism,” *Cultural Critique*, No. 31, (Autumn, 1995), pp. 57-81.

anthropologist Tim Ingold notes, environments “should on no account be confused with the concept of nature ... for the world can exist as nature only for a being that does not belong there.”⁸⁰ Environments, for Ingold and myself, do not connote a separation between that which is surrounded and the surroundings, but points instead to the manner in which, when analyzing environments, different aspects of environments can be emphasized. It is a shifting and transforming notion of connections among entities, one that allows different components to play differing roles throughout the existence of an environment. Environments, then, are assemblages of entities that produce effects through their actions, and that can alter relations of power.

The term environment has received its share of criticism, particularly in an essay by Tim Luke, “On Environmentality.”⁸¹ Luke argues that the concept of the environment, in the singular, has been effectively used by mainstream environmental organizations to implement a new form of governmentality, an “environmentality,” that produces and regulates the object known as the environment to accomplish other goals. Through the example of the Worldwatch Institute, Luke demonstrates how

environmentalized places become sites of supervision, where environmentalists see from above and from without through the enveloping designs of administratively de-limited systems. ... Enveloped in these interpretive frames, environments can be redirected to fulfill the ends of other economic scripts, managerial directives, and administrative writs. Environing, then, engenders "environmentality," which embeds instrumental rationalities in the policing of ecological spaces.⁸²

Luke emphasizes the production of the environment as an object of knowledge to highlight how the term had come to be accepted as neutral and necessarily a good thing,

⁸⁰ Tim Ingold, *The Perception of the Environment: Essays in Livelihood, Dwelling, and Skill* (New York: Routledge, 2002), 20.

⁸¹ Luke, *ibid.*

⁸² *Ibid.*, 65

and to problematize the technocratic and at times authoritarian efforts of environmental institutions such as the Worldwatch Institute. And he is correct in being critical of the construction of the environment as object of power/knowledge. But in focusing on the creation of the object by social forces, Luke overlooks how environments, as collections of varied beings, might resist and complicate their construction as such oversimplified objects of power/knowledge. That is, the practices of environmentality cannot wholly determine the capacities of an environment without turning it into a passive object as nature that cannot act.

In addition, the particular constitution of *the* environment, as envisioned by Worldwatch Institute and mainstream environmental groups, does indeed lend itself to the environmentality analysis that Luke offers. However, the environments I am theorizing are necessarily multiple and conflicting, with the actions of humans and nonhumans often resisting their enrollment into projects. In contrast to Luke's reading of *the* environment and the conceptual baggage it carries, I argue that environments, as particular assemblages of beings, need not be the object of environmental instrumental rationality, but can also name the process and product of combinations of these beings, provisional actors in environmental politics.

Environments, then, are examples of what Gilles Deleuze and Félix Guattari refer to in *A Thousand Plateaus* as an assemblage. The concept of assemblage is helpful to deepen this alternative account of the concept of environments, as it allows for an understanding of composite entities that make up a multitudinous whole and that can act as an entity. Using the term environments to describe a particular form of assemblages allows a refocusing of environmental politics on the mixed combinations

of beings that participate in an environment, from carbon dioxide and trees to cap-and-trade systems and satellites. An environment is necessarily an assemblage of connected entities that produce effects in the realm of environmental politics. Assemblages bring together humans and nonhumans, animate and inanimate entities, into a tentative collective that becomes, through the relations among its components, capable of acting in ways it could not in other configurations. As Deleuze and Guattari describe assemblages,

the material or machinic aspect of an assemblage relates ... to a precise state of intermingling of bodies in a society, including all the attractions and repulsions, sympathies and antipathies, alterations, amalgamations, penetrations, and expansions that affect bodies of all kinds in their relations to one another. ... Even technology makes the mistake of considering tools in isolation: tools exist only in relation to the interminglings they make possible or that make them possible. The stirrup entails a new man-horse symbiosis that at the same time entails new weapons and new instruments. Tools are inseparable from symbioses or amalgamations defining a Nature-Society machinic assemblage.⁸³

As an example of an assemblage, the symbiosis that results from the man-horse-stirrup is neither horse nor man nor stirrup, but an entity that can act as such, and produce effects that no singular component entity could do independently. As an example of understanding things as neither natural nor social, nor a combination of them, Deleuze and Guattari's reference to tools is illustrative. Tools offer no mystical bridge between

⁸³Gilles Deleuze and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. (Minneapolis, MN: University of Minnesota Press, 1987), 90. Deleuze and Guattari put particular emphasis on different aspects of assemblages, in this case focusing on the "material or machinic" aspect, that is, the ways in which assemblages are constituted by the material attachments among different components of an assemblage. This is in contrast to the "assemblages of enunciation" such as the contingent norms of language and meaning that attach to and transform assemblages. Both aspects contribute to the effects of any assemblage and, as Deleuze and Guattari describe, an assemblage "is simultaneously and inseparably a machinic assemblage and an assemblage of enunciation. In each case, it is necessary to ascertain both what is said and what is done." *A Thousand Plateaus*, 540. The discursive and material aspects of assemblages are inseparable, in that they mutually constitute each other.

nature and society for them, but are one of many means of combining things formerly considered to be nature and society. The human-horse-stirrup, as an assemblage, acts as one entity, without recourse to what components of its constitution are natural or social, and without granting the human any special status other than being yet another assemblage.

Deleuze and Guattari's concept usefully illustrates a way of analyzing and critiquing ways of seeing and thinking that separate entities and actions from their constituent parts. Thinking through the concept of assemblage makes it possible to see the relations and attachments among a being's parts and the larger processes that make a particular assemblage possible. Not only does an assemblage highlight the many connections that any being has with other beings and processes, it levels the playing field among actors and participants in a particular practice, as each constituent part becomes essential to the action of the whole. For instance, as an assemblage, the human body is a complex being composed of organs, processes, and engagements with other assemblages, both "human" and "nonhuman" in the form of other people, food, animals, and the things encountered in everyday activities. A person walking down the street is not simply a human agent who has decided to go out for a stroll, but is instead a combination of shoes on her feet, the sidewalk she walked on to get there, the zoning laws that required a sidewalk be built, the food that provides energy, the social norms of walking as an accepted practice of exercise and bodily movement, the security institutions that make it safe to walk on her streets—the list could go on. All of these constituent parts enable and are part of her casual walk; the activity of walking would be something different without any of these particular aspects. The walk that our

walker engages in would be not be possible without these institutions, norms, attachments and relations among the parts that make it up.

The same analysis could be done for any part of this walk. The shoes, for example, are the result of numerous actions and beings, including the corporation that arranged to have them produced, the labor of workers who partially assembled them, the laws that did or did not protect these laborers, the materials that went into the sneaker, the trade agreements that assured an affordable price, the designers who envisioned the shoe, and the shippers who delivered the shoes to the retail site. The history of sidewalks and how they became standard requirements in urban, suburban, and even some exurban/rural development is a part of this walk, as are debates in town councils about police services and garbage pickup. Each of these events contributes to the activity of this walk and other walks like it. Each part plays a key role, and without the particular events having taken place as they did, and as they continue to do through their effects, this walk would be impossible. Viewing this walk as an assemblage of all of these events enables a richer understanding of how practices are created and sustained through the maintenance of these actions, and gives insight into how these practices can be altered or strengthened in different ways.

More than an alternative mode of thinking about the connections among entities, the concept of assemblage and its extension to environments and environmental questions shift conventional understandings of agency as well, challenging the overly simple assignment of agency to humans and non-agency to nonhumans. As suggested in the example above, the ability of the walker to walk depends upon numerous other entities and practices; without shoes, the sidewalk, food, and everything that goes into

sustaining these things, her walk could not have occurred. The walker is not a human who is incidentally using shoes that she put on or walking on a sidewalk that her votes for town council put there, but the walker is the combination of all of these things and activities in one entity. Rather than a human being with many additions that enhance her capacities as a human, either as a biological human being or a social human subject, she has become a walking assemblage made up of all the components that make her walking existence possible. As an assemblage, what our walker does is the result of all the parts that make up this particular walking assemblage, distributing the locus of agency of walking throughout the varied entities that make her walk happen.

Thinking in terms of assemblages has more purchase than only differently describing a suburban walker, though. Its relevance to environmental questions and understanding assemblages as produced environments can be seen when thinking about larger entities such as cities, transportation systems, or electricity distribution networks. For instance, Jane Bennett makes use of the concept of assemblages to emphasize the dissolution of nature-society divisions in understanding agency and politics behind the North American blackouts of 2003. In a discussion of the role of nonhuman “things” in the politics of the events surrounding the blackouts, Bennett defines assemblages as:

first, an ad hoc grouping, a collectivity whose origins are historical and circumstantial, ... second, a living, throbbing grouping whose coherence coexists with energies and countercultures that exceed and confound it... third, a web with an uneven topography ... fourth, not governed by a central power: no one member has sufficient competence to fully determine the consequences of the activities of the assemblage. ...finally, [an assemblage] is made up of many types of actants: humans and nonhumans; animals, vegetables, and minerals; nature, culture, and technology.⁸⁴

⁸⁴ Jane Bennett, “The Agency of Assemblages and the North American Blackout,” *Public Culture*, 17(3): 445-65. 445.

Power plants, electrons, policies, cables, appliances, the humans that use them, and the electronic grid that connects them all constitute an assemblage “made up of many types of actants,” where “no one member has sufficient competence to fully determine” its actions. An environment, like the assemblages that both Deleuze and Guattari and Bennett describe, cannot be understood or engaged with its separate parts without losing the qualitative characteristics and capabilities that it possesses. An environment is constituted through the interconnections and commingled existence among entities. An environment makes no distinction between what is natural and what is social, incorporating anything and everything that makes up a conglomeration of entities, none of which are complete in themselves and all of which contribute to the actions of the assemblage. Just as a person, a horse, and a stirrup, or shoes, a street, and leg muscles, or electrons, wires, and power plants make up something that can act in ways that its component parts in other configurations could not, an assemblage has what were considered to be natural and social objects in it, creating a form of life in itself that makes such natural/social distinctions meaningless and effectively impossible.

Thinking about particular environments as assemblages, then, highlights the complex amalgamations of beings that exist, outside of the language of nature-society, natural-social, subject-object, and even human-nonhuman. For some, the language of human-nonhuman is an improvement upon the language of subjects and objects that influenced the nature and society dualism, as humans and nonhumans are not mutually exclusive in ontological terms in the way that subjects and objects are. As Latour notes, “Humans and nonhumans for their part can join forces without requiring their

counterparts on the other side to disappear... *objects and subjects can never associate with one another; humans and nonhumans can.*”⁸⁵ The human-nonhuman distinction, as he puts it, “does not specify any ontological domain, but simply replaces another conceptual difference,” that of “the insurmountable dichotomy between subject and object.”⁸⁶ Human and nonhuman, then, are not intended to divide the world into two sets that cannot mingle and merge, but rather to emphasize the compatibility between the two.

However, like the language of nature-society and subject-object, the terms human and nonhuman have become increasingly difficult to specify adequately from the perspective of assemblages or environments. What has been referred to as the human is, from this perspective, nothing more than an assemblage of various practices and entities that constitute a particular way of living; it is one assembled environment among many others, and its actions and effects carry the same significance as others’ actions. To slightly modify Latour’s claim that we have never been modern, we have also never been human. What has been called the human is always attached to and exists through things which have not been called human, from food and air to laws and cultural practices (themselves all assemblages). Speaking in the language of assemblages and environments dissolves the boundaries of the human-nonhuman distinction and pushes an understanding of the world and of politics that necessarily involves things beyond the management of “human,” “social” interests. With environments as actors and participants in politics and political action, in place of the

⁸⁵ Latour, *Politics of Nature*, 76. Emphasis in the original.

⁸⁶ Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network Theory*. (New York: Oxford University Press, 2005), 72, n84.

social human subject, it becomes impossible to ignore the environmental implications of politics and policy decisions.

Down with Nature

Nature, I have argued, as concept, entity, or conceptual heuristic, can no longer be an effective starting point for critical engagements with environmental politics, nor can it serve as the basis of an effective environmental politics. Since the nature associated with nonhuman objects has only ever made sense in relation and opposition to a society of human subjects, a different language for talking about the entities and processes that were previously encapsulated and separated in nature and society must be developed if we are to address environmental questions without short-circuiting the discussion from the start. Latour's insights about the role that modern nature has played in western politics and thought, as well as the more general critique of a universalized static nature, point to the limitations of defending, using, or understanding nature as a distinct entity. By starting from the basic principles of modern nature-society relations, it is impossible to take into account political participants other than humans or to recognize the effects they have on political possibilities and organization.

Theorizations of environmental politics that refuse to utilize the divisive and dismissive concept of nature need to rely on a radically new assessment of how environments are created and act. Developing a language and practice of environments, one where all beings share in the collective composition of their existences, is needed to be able to take assembled combinations of entities into account politically. While abandoning the always breaking nature-society dualism is important for the recognition of nonhumans as partners in creating a shared world, much work remains to open up

political space for the explicit and acknowledged participation of environments in political processes. With efforts begun to conceptualize environments as participants outside of the confines of nature, their contributions to political life should be brought into greater and clearer focus, both to better understand the processes behind forming environmental assemblages and to pose the question of what sorts of environments are desirable and possible. Maintaining the conceptual existence of and a reliance upon nature and society will continue to limit and disarm environmental politics, as the concept of nature prematurely dismisses the role of anything but “humans” in the outcome of political activities.

Since nature and society can no longer be used to divide the world into active and passive, agency, formerly found only in society, must be distributed across a variety of entities that participate in determining environments. Autonomous human agency has been challenged from numerous angles in recent years,⁸⁷ yet little has been done to connect human agency to the entities involved in producing this illusion of human agency and sustaining human ways of life.⁸⁸

Yet moving beyond entrenched notions of agency as located solely in a distinct autonomous human being, armed with reason, language or a soul, has been prevented by longstanding biases in how the world is interpreted and, concomitantly, engaged with. Underlying the subject-object distinction at the foundation of nature-society and human-nonhuman divisions is an implicit set of assumptions about the organization and

⁸⁷ See most famously Louis Althusser, “Ideology and Ideological State Apparatus,” in *Lenin and Philosophy and Other Essays* (New York: Monthly Review Press, 2001), 85-126.

⁸⁸ At least in political theory. There have been important exceptions to this, particularly the work of Donna Haraway. See, among others, *Simians, Cyborgs, and Women: The Reinvention of Nature*. (New York: Routledge, 1991).

ordering of the world that often goes unnoticed. Like the nature-society distinction, these ontological premises prevent the possibility of seeing of how anything other than human beings could be capable of acting in any meaningful sense. To understand why and how the figure of the social human being has remained a distinct entity, separate from its natural nonhuman surroundings, the theoretical presuppositions that maintain this distinction must be examined. Chapter 2 pursues just such an inquiry by examining the limitations to existing understandings of the human being as political actor and an alternative to the conventional understanding of human agency, as developed through the concept of immanence.

Chapter 2: An Ontology of Immanence:
Thinking Environments as Political

Existing nature-based attempts to understand environmental dilemmas have produced impasses and incoherence when trying to comprehend environmental politics. One of the main reasons for this impasse is the set of ontological assumptions that undergird human beings as a uniquely positioned creature in relation to the rest of its nonhuman surroundings. Conceptualized as separate from the vast majority of the universe, yet somehow related to the external world, human beings have come to be understood as transcendent to the nonhuman, natural world. They are removed from it, yet participate and interpret the world. This notion of human transcendence from mundane nonhuman surroundings has deep roots in the western philosophical tradition, from Platonic thought through strands of Christian thought to much contemporary liberal political theory. This tradition, throughout its many variants, has reinforced the appearance of an essential differentiation between humans and nonhumans, offering a conceptual apparatus that guaranteed the ontological transcendence of humans in relation to all the nonhuman entities and processes upon which humans acted.

However, this mode of thought is not the only available conceptual apparatus through which to think the position of the beings we have come to know as humans. In contrast to an ontology of transcendence, in which human beings are placed hierarchically above their contexts through some particular power, an ontology of immanence provides an alternative mode of thought regarding relations among beings. Immanence, as we shall see, disallows a differentiation of humans and nonhumans based on a priori categories of reason or language, and provides a way of thinking that

dissolves the human into its nonhuman attachments and makes it possible to conceptualize an environmental politics that takes into account the actions of any entities acting together, as environments. The concept of immanence, and the immanentist ontologies that can emerge from it, eschew efforts to separate nature and society conceptually, and do not require parsing assembled entities into seemingly autonomous components of varying ontological value.¹ Rather, the concept of immanence offers a means to think politics as composed of the actions of environments, reworking conventional notions of agency, participation, and politics. This chapter begins the work of making these political possibilities of environments thinkable through the concept of immanence.

To demonstrate this, this chapter considers the political implications of the concept of immanence for environmental politics through an elaboration of Gilles Deleuze's interpretation of the concept. First, I consider the connections between ontological assumptions and politics, arguing that prevalent ontologies built upon claims of transcendence based around the subject-object relationship are inadequate when it comes to formulating accounts of environmental politics. I then turn to Gilles Deleuze's influential and innovative account of the concept of immanence. Working from Deleuze's writings in conversation with other contemporary thinkers of immanence, I provide an account of an immanentist ontology that can be used to understand, critique and affect the actions of environments without resorting to transcendent claims of nature or the human being. I develop this account of immanence

¹ Immanence, and its various forms, needs to be distinguished from imminence, describing something that will happen in the near future (as in 'imminent demise'), and eminence, describing something that is superior and above all else (as in 'his eminence, the pope').

around seven characteristics of a Deleuzean notion of immanence, with the goal of clarifying the concept's significance for contemporary environmental quandaries. I conclude with a discussion of the implications that an absolute immanentist ontology has for political theory, arguing for an expansion in the understanding of political participation to include environments.

The Importance of Ontological Questions

Connections between ontology and politics are often provocative, with accusations of determinism and category mistakes often flung about. Questions of first philosophy are today assumed to be answered through scientifically-designed and epistemologically-bounded investigations. Accordingly, political theorists have typically relegated these concerns to the natural sciences or the philosophy of science, considering them outside their area of study.² But questions about the character of the world and the positions, relations, and constitutions of nonhumans and humans should not be closed prematurely, or given up to one mode of epistemological knowledge production, as environmental political questions often are. The ontological debates that revolve around questions of the processes and entities that constitute political actors provide a forum in which the potential forms and contents of beings can be explored and expanded. More than an abstract discussion of "Being" or metaphysics, ontological assumptions condition what one considers to be possible, opening and closing possibilities about which entities can exist, act, and participate in creating shared

² Most significantly, perhaps, has been the long dominant liberal model of politics, where human individuals with a (more or less) free will determine their political fates through autonomous, reasoned decisions. This exaggerated position has been criticized on many grounds, most trenchantly by those accounts that acknowledge the plural formation of subjects and the concomitant impossibility of a rational, unified subject. For more on the relation between liberalism and ontological questions, see White's *Sustaining Affirmation* (Princeton, NJ: Princeton University Press, 2000), particularly the introductory chapter and the chapters on George Kateb and Charles Taylor.

worlds. That is why ontological questions must be considered anew before it is possible to consider the effects of environments as political, or to recognize their indispensable place in constituting the seemingly human-only world of politics.

Against the established sentiment in political theory and practice that avoids ontological speculation, contemporary political theorists have begun to reexamine the entanglement of ontological questions and politics. This “ontological turn,” as Stephen White suggests, has become a central theme in many theoretical and practical debates over the past half-century. Recognizing the weaknesses in the implicit ontological assumptions of the modern subject most explicitly avowed in liberal political thought—“the disengaged self who generates distance from its background ... and foreground ... in the name of an accelerating mastery of them”—contemporary political theorists have begun to reconsider the basic frameworks used to understand political and social life. In White’s terms,

The sense of living in *late* modernity implies a greater awareness of the conventionality of what has been taken for certain in the modern West. The recent ontological shift might then be characterized generally as the result of a growing propensity to interrogate more carefully those “entities” presupposed by our typical ways of seeing and doing in the modern world.³

Reexamining “our typical ways of seeing and doing in the modern world” opens the possibility of an articulation of ontological assumptions that had been previously obscured, where the ontological claims that have been asserted implicitly without cautious consideration can be explicitly formulated and critiqued. These “typical ways”

³ White, *Sustaining Affirmation*, 4. See also the conversation on White’s work in *Theory & Event*, Vol. 4 Issue 2, 2000. While White suggests that ontology has come into its own in political theory, the status of ontological arguments and their implications remains a contested and controversial issue within theoretical arguments across disciplines, particularly approaches that push beyond the limits of *social* ontologies that do not consider anything other than social human beings.

that have dominated philosophy and political theory, as White suggests, have imposed strict differentiations between willful, autonomous, human *subjects*, removed and distinct from all other inert, dependent, nonhuman *objects*, as discussed previously. In prevailing western practices and intellectual traditions, this subject/object division⁴ has positioned the human subject in a relation of transcendence to her surrounding worlds, taking on all agentic characteristics—intention, will, self-reflection—leaving nothing but laws and stasis for non-subjects, the objects that are then considered to be nature. Jealously hoarding all agentic power for themselves, the concept of the human subject eliminated the possibility of thinking any other being as a potential political participant, purifying human subjects of any of the appendages and actions of nonhumans that constitute them as humans.

Yet this model of human agency, separate from all nonhuman influences and sources, is no longer, if it ever was, tenable, as seen in the overflow of “nature” into “society” in contemporary debates about responsibility for “natural disasters”, and as the numerous critics of the liberal subjectivity that Stephen White described have argued. Without engaging questions and practices of ontology that move beyond subject-object, nature-society distinctions, it is impossible to develop, or even consider, a politics that takes into account the potential participation of environments. Engagement with ontological questions can make possible an expansion of the conventional roster of who and what is able to act amidst the relations that constitute

⁴ Many have written on the problematic character of subject/object distinctions in western philosophy, and have variously attempted to overcome or reconcile the distinction. Some of the most prominent include the dialectical approaches of Hegel in *Phenomenology of Spirit* (New York: Oxford University Press, 1977) and Marx in *Economic and Philosophical Manuscripts of 1844* (New York: International Publishers, 1964) as well as the wide-ranging phenomenological approaches of Heidegger, Husserl, and Merleau-Ponty

shared worlds of humans and nonhumans. In this manner, political theorists can rethink politics in such a way that allows for these environments' participation. Such a politics requires an ontology that challenges the concept of the discrete human, that does not locate all agentic ability in purely human actors, and that provides for the political activity of other entities and their relations.

Along with ontological questions generally, immanence has been reinvented in a variety of ways far removed from the concept's historical origins in debates over the nature of God and reason in recent debates. It has alternatively become a lightning rod for criticism by skeptics, a cure-all for the world's woes to adherents, and completely incomprehensible to those unfamiliar with its historical roots and its contemporary transformations. This renaissance of interest in the concept of immanence has led to a degree of confusion with regard to its scope and implications, resulting in a much-reduced and oversimplified understanding of its potential for reconsidering political action and the constitution of political agency.⁵ In response to this, what follows is an effort to reconstitute this reduced understanding of immanence, through Gilles Deleuze's narrative of the concept's emergence and a discussion of its substantive ontological claims.

⁵ For less sympathetic accounts of immanence, see Ernesto Laclau's "Concluding Remarks" to *On Populist Reason* (New York: Verso, 2005), Slavoj Žižek's *Organs without Bodies* (New York: Routledge, 2003), and Alain Badiou's *Deleuze: the Clamor of Being* (Minneapolis: University of Minnesota Press, 2000). In addition to criticizing less robust notions of immanence than I hope to develop here, these accounts of immanence stem from seemingly incommensurable ontological and political commitments that cannot permit an immanent, monist ontology.

Historical Immanence

In recent years, immanence has been brought to the forefront of theoretical debates around questions of political agency.⁶ This recent resurgence of immanence has been met with great resistance from numerous camps. Many have criticized immanence for being apolitical or not providing a ‘causal mechanism’ for politics;⁷ others have claimed that immanence may provide a descriptive account, but it lacks any means of critique or justifiable normative claims.⁸ Despite the revived attention the concept has found, immanence is in no way a new concept. Etymologically, “immanent” stems from Latin, meaning “to dwell in” or “to remain in.” The prefix ‘im’ implies interiority, while the substantive ‘manent,’ stemming from ‘manere,’ to dwell or reside, is closely related to the present-day English ‘manor.’⁹ Immanence, then, refers to the quality of “dwelling in,” with the object of “in” left unspecified, always open and never closing off its boundaries.¹⁰ The unspecified object of “in” illustrates an absolute immanence to which no ‘outside’ or externality exists, making all that exists exist within whatever exists; there can be nothing outside of existence itself. At the same

⁶ This is particularly due to the work of Michael Hardt and Antonio Negri and the many commentaries produced on their work. Hardt and Negri, *Empire*, (Cambridge, MA; Harvard University Press, 2000), *Multitude*, (New York: Penguin, 2005), Antonio Negri, *The Savage Anomaly*, (Minneapolis, MN: University of Minnesota Press, 2000). *Insurgencies*, (Minneapolis, MN: University of Minnesota Press, 1999). *Marx Beyond Marx*. (New York: Autonomedia. 1989.)

⁷ Ernesto Laclau, “Can Immanence Explain Social Struggles?” in *Empire’s New Clothes*, ed. Paul A. Passavant and Jodi Dean (New York: Routledge, 2004), 21-30.

⁸ While it is beyond the scope of this chapter to address Hardt and Negri’s interpretative license in making use of Deleuze’s account of the concept of immanence, it is important to note the normative and political character with which Hardt and Negri imbue an immanentist ontology. Rather than a dangerous and risky account of existence, Hardt and Negri insert a particular valence to immanence and the rhizomatic structuring they see as necessarily possible and inevitable in immanence.

⁹ “Immanence,” Oxford English Dictionary. 2009. <http://www.oed.com>

¹⁰ Giorgio Agamben offers a reading of Deleuze’s use of ellipsis in the title of one of his final essays “Immanence: A Life...” as indicating “an indefiniteness of a specific kind, which brings the indefinite meaning of the particle ‘a’ to its limit (225).” “Absolute Immanence,” in *Potentialities* (Stanford, CA; Stanford University Press, 1999), 220-239.

time, immanence does not suggest a closed system or a unified, coherent totality. Immanence, the condition of dwelling in, remains open to itself and the infinite internal relations that constitute existence.

Immanence *avant la lettre* has a history that stems back to pre-Socratic thought, although it only emerges as a term with a specific content in debates around theodicy in the early history of the Christian church.¹¹ Immanence, alternatively referred to as monism, developed as an effort to understand the relationship between God and the world of humans, through which early Christian thinkers postulated the presence of God on and in Earth.¹² It is often defined in contrast to transcendence, which posits an insuperable gap between a spaceless, timeless God and the very spatial, temporal world. The religious roots of this concept are relatively unsurprising, and as Carl Schmitt has famously noted, “all significant concepts of the modern theory of the state [and therefore, for Schmitt, politics] are secularized theological concepts.”¹³ Others have, over the centuries, refined and reinterpreted the concept of immanence to provide a

¹¹ While an examination of pre-Socratic thought, as well as many other thinkers of immanence since then, would undeniably be useful, I limit myself to modern understandings of ontological immanence to better understand the origins of its recent intellectual development and deployment.

¹² I use the term immanence, rather than monism, because monism refers to the more general positing of a single realm of existence without binary divisions between mind and matter, nature and society, God and the world. Immanence entails substantive claims about this single realm of existence, different from a mechanical or idealist monist ontology. The absolute immanence I describe here is one version of monist thought, but does not exhaust it.

¹³ Carl Schmitt, *Political Theology*. (Chicago: University of Chicago Press, 2005. 36.) He explains that this is the case “because of [these concepts’] historical development—in which they were transferred from theology to the state, whereby, for example, the omnipotent God became the omnipotent lawgiver.” Schmitt discusses the concepts of immanence and transcendence in order to argue for a reestablishment of a medieval theological interpretation of a transcendent politics of sovereignty. Schmitt continues to argue for the examination of such political-theological terms such as sovereignty and miracle/decision “also because of their systematic structure, the recognition of which is necessary for a sociological consideration of these concepts.” While ‘sociological consideration’ is not my objective, Schmitt makes the more general point that it is not possible to examine contemporary political thought without considering its largely Judeo-Christian roots, and the connections between the concepts in use today and their often less-than-pure historical journey. Such is particularly the case with immanence and transcendence, and is one reason for embarking on this research.

framework to understand the relations between God and humans, as well as political relations among humans, as immanent, without transcendent ground or causation. Ernesto Laclau hints at the concept's wanderings through European theological and intellectual circuits from as early as the 8th and 9th centuries when "Eriugena, asserting ... that God reaches perfection through necessary phases of transition involving finitude, contingency and evil, started a tradition which, passing through Northern mysticism, Nicholas Cusanus and Spinoza, would reach its highest point in Hegel and Marx."¹⁴ These varied efforts to understand the changes of the world and their relationship, or lack thereof, to God, led these thinkers more and more to abandon a wholly transcendent God in favor of a mundane and grounded notion of being, no longer relying on God or theological explanations to justify the good, bad, and ambivalent events of the world.

As Laclau points out, Hegel and Marx pursued a form of relative immanence to its limit, mobilizing the concept to focus on the dialectical relations between subject and object and the resulting impossibility of a bounded or static society.¹⁵ As a consequence

¹⁴ Laclau, "Beyond Emancipation" in *Emancipation(s)* (New York: Verso, 1996) 1-18. Hegel and Marx represent thinkers of immanence, working through the implications of a common world, yet retain vestiges of transcendent thought via their adherence to the dialectical method. This in no ways reduces their contribution to thinking immanence, but rather highlights the difficulties present in thinking absolute immanence. In fact, see Jason Read's *The Micro-Politics of Capital* (Albany, NY: State University of New York Press, 2003.) for an innovative non-dialectical reading of Marx that draws on Negri, among others, to think through Marx and immanence.

¹⁵ Marx is and can be read as a thinker of immanence, and indeed his work and the motivation behind would suggest as much. For the purposes of this project of rethinking immanence for environmental politics, I do not engage Marx due to his explicit use and endorsement of a dialectical method that overstates the dialectical contradictions between society and nature. For insightful readings of Marx in relation to environmental politics and environmental political theory, see the edited volume *The Greening of Marxism*, ed. Ted Benton (New York: The Guilford Press, 1996), Neil Smith, *Uneven Development: Nature, Capital and the Production of Space* (Oxford: Basil Blackwell, 1990), as well as David Harvey's *Justice, Nature & the Geography of Difference*, (Cambridge, MA: Blackwell, 1996), and *Spaces of Hope* (Edinburgh: Edinburgh University Press, 2000).

of their theoretical and political commitments, Hegel and Marx hold off the possibility of an absolute immanent existence for an eschatological future, if at all.

Another line of thought on immanence focuses on an already existing absolute immanence of all that exists, outside of subject-object relations and without lack or absence.¹⁶ This notion of immanence confronts oft-relied-upon transcendent foundations of metaphysics and politics (the subject, nature, Idea, sovereignty, will, among others) that have supported understandings of humans as ontologically separate or alienated from all other beings. Due to the challenges that the concept of immanence poses to these foundations, and their deeply embedded status in western thought, Deleuze and Guattari describe immanence as “the burning issue of all philosophy because it takes on all the dangers that philosophy must confront, all the condemnations, persecutions, and repudiations that it undergoes.”¹⁷

In an effort to bring this burning issue to the forefront of political theoretical debates, a set of thinkers, most prominently Deleuze, has developed a narrative around absolute immanence, portraying it as a powerful subterranean tradition in political thought and philosophy.¹⁸ Elaborating upon this portrayal, in a discussion of naturalism “as the idea that all human activities function without the aid of a divine or supernatural force,”—an aspect of immanent ontologies—William Connolly notes that “if naturalism

¹⁶ For an erudite overview of the “adventures of immanence” through Kant, Hegel, German Idealists, and Marx see Yirmiyahu Yovel’s *Spinoza and Other Heretics, Vol 2: The Adventures of Immanence*. (Princeton, NJ: Princeton University Press, 2001). See also the subsequent discussion in *Inquiry*, Vol. 35, Issue 1, March 1992. For a discussion of democratic theory and theorizations of it in relation to notions of lack/absence and plenitude/fullness, see *Radical democracy: Politics between abundance and lack*, Eds. Lars Tønder and Lasse Thomassen (New York: Manchester University Press, 2005).

¹⁷ Gilles Deleuze and Felix Guattari, *What is Philosophy?* (New York: Columbia University Press, 1994), 45.

¹⁸ One could say this for many philosophical strands of thought; however, see Etienne Balibar’s *Spinoza and Politics* (New York: Verso, 1998) for an account of the sociohistorical conditions that led to the dismissal of Spinoza’s work and the immanent ontology espoused and described in it.

in all its forms presents a minority report within contemporary moral and political philosophy, immanent naturalism constitutes a dissenting opinion within the minority report.”¹⁹ Concepts such as immanence or the immanent naturalism of Connolly produce interpretations of political life that explode the limits to prevailing subject-based thought, as it combines normally antithetical elements into a single assemblage of thought and action and humans and nonhumans.²⁰ The language of absolute immanence pushes the limits of intelligibility of most western frameworks, and makes it possible to speak of politics and nonhumans in the same sentence. However, rather than working from an immanentist perspective for the sake of being contrarian, I contend that the effectiveness and legitimacy of the work of thinkers of immanence has often not been given the credence it might warrant, due to its position outside of conventional modes of argument and justification.²¹ For that reason, and for its potential to expand political participation to entities not otherwise considered, Deleuze’s creatively rigorous retelling of the concept’s development provides an important starting point from which to develop the implications of a practical ontology of absolute immanence.

In *Difference and Repetition* and *Expressionism in Philosophy: Spinoza*, Deleuze reconstructs an account of immanence as an exploration of being without any trace of transcendence. To establish this line of thought, Deleuze discusses three key

¹⁹ William Connolly, *Neuropolitics: Thinking, Culture, Speed* (Minneapolis, MN: University of Minnesota Press, 2002) 85, 87.

²⁰ See Deleuze and Guattari’s *A Thousand Plateaus* (Minneapolis, MN: University of Minnesota, 1988) particularly the sections “Nomadology” and “Apparatus of Capture.”

²¹ In a discussion of Kafka’s writings and their influence on Deleuze’s and Guattari’s notion of minoritarianism, Patrick Hayden points out that “minor is not a quantitative but a qualitative distinction, and in this case refers to the revolutionary potential of all linguistic interpretation by proliferating relations and connections between form and content.” This literature mixes “asignifying ruptures and intensive utilizations of language in order to create assemblages of acts and statements,” in the same way that the concept of immanence creates assemblages of ‘natural’ and ‘social’ that initially come across as nonsensical. *Multiplicity and Becoming* (New York: Peter Lang Publishing, 1998.), 99.

contributors to his development of a radical concept of immanence, represented by Duns Scotus, Baruch Spinoza, and Friedrich Nietzsche. First, Deleuze shows how Duns Scotus made immanence prominent in his philosophy without radically straying from the Christian milieu he worked in. Duns Scotus, a 13th century theologian and philosopher, posited being as univocal, “understood as neutral, *neuter*, indifferent to the distinction between the finite and the infinite, the singular and the universal, the created and the uncreated.”²² This notion of being as univocal, where “a single voice raises the clamor of being,” differed radically from accepted Thomist conceptualizations that related God and existence analogically.²³ Attempting to remain within the bounds of Christian theology of the time, Duns Scotus theorized being as a common mass, avoiding a world imbued with life itself or an immediately and completely present existence. This paean to Christian theological assumptions kept being at a distance from the world, but allowed one to speak in the same way of God and the world. Because of these near-heretical statements, Duns Scotus was actively and effectively forgotten amid charges of pantheism and animism.

Continuing down this path of Christian heresy, Deleuze points to Baruch Spinoza’s revival of immanence in the 17th century, directed against Descartes’ metaphysics of a disembodied *ego* and an inert external world. “Instead of understanding univocal being as neutral or indifferent” in the manner of Duns Scotus,

²² Gilles Deleuze, *Difference and Repetition* (New York: Columbia University Press, 1994) 39.

²³ Deleuze, *Difference and Repetition*. 35. Instead of needing to argue that our concepts can only approximate, be *like*, the nature of God, Duns Scotus argues that the same concepts can be said to apply to God and “creatures” alike, without analogy, without degenerative gap or insurmountable distance between our concepts and the things they describe. However, Deleuze contends that Duns Scotus “neutralized being itself in an abstract concept,” only thinking immanence in general rather than understanding the world’s finite entities as full of being in themselves; entities existed only as forms containing a general, blob-like being, without force of its own. For a fuller account of Duns Scotus, see Deleuze’s *Expressionism in Philosophy: Spinoza* (New York: Zone Books, 1992) 63-5.

Deleuze notes, Spinoza “makes it an object of pure affirmation. Univocal being becomes identical with unique, universal and infinite substance: it is proposed as *Deus sive Natura* [God or Nature].”²⁴ For Spinoza, being as substance is expressive in itself, rather than requiring the energies of a general, common being as with Duns Scotus. In short, but admittedly opaque, form: *modes* (‘actually existing’ entities), as the material things we experience in the world, are the expressions of *substance* (all that is) through the two *attributes* of God sensible to humans (thought and extension). This triad—*substance*, *attribute*, *mode*—forms the foundation of Spinoza’s ontological framework.²⁵

However, Spinoza still posited the modes of the world as dependent upon substance, even as they are God *sive* Nature and express this in their differences and powers. Modes still require a distinct power (in this case, substance) to create movement in them. This relationship of dependency of modes upon substance does not satisfy the radical break with transcendent causes that, Deleuze argues, Spinoza’s thought implies. While Spinoza radically redefined questions of God’s relation with the

²⁴ Ibid, 40.

²⁵ Substance is “that which is in itself and is conceived through itself; that is, that which does not need the concept of another thing, from which concept it must be formed.” Spinoza, *Ethics* (Oxford: Oxford University Press, 2000), 75. From this, Spinoza draws out a concept of being that imbues the entire world with full existence; substance flows throughout and is all of existence, and requires nothing else to explain itself or its actions. Substance is existence, immanently expressed through all of the world’s modes which are, for Spinoza, God *sive* Nature, cause of itself in all manners. No mode is more or less full of being or God than another. “Any hierarchy or pre-eminence is denied in so far as substance is equally designated by all the attributes in accordance with their essence, and equally expressed by all the modes in accordance with their degree of power.” Deleuze, *Difference and Repetition*. 40. Hierarchies that develop are the result of expressions of a particular entity’s power or lack thereof, not a transcendentally-preordained organization from an external God or the result of nature’s plan. For a deeper elaboration and development of Spinoza’s ontologies, see Negri, *The Savage Anomaly*, Balibar, *Spinoza and Politics*, Parkinson’s introduction to Spinoza’s *Ethics*, and Yovel’s *Spinoza and other Heretics*.

world, a transcendence in the last instance remained, keeping the potential fullness of existence at a distance, separated from itself.

For Deleuze, being “must itself be said *of* the modes and only *of* the modes,” whereby existing assemblages can have no other ‘foundation’ than themselves, within themselves: no God, no substance, no inert common being. This is only possible when “being is said of becoming,” that is, when being and becoming become indistinguishable, as in the case of the third author-as-phase that Deleuze highlights, Friedrich Nietzsche.²⁶ Reading Nietzsche through Spinoza, Deleuze draws out the underlying immanent tendencies that run throughout Nietzsche’s writings. Deleuze focuses on Nietzsche’s ‘eternal return’ as a way to conceptualize immanence.²⁷ The eternal return enacts the ‘being of becoming’ as all entities reproduce themselves through repetition, with differences emerging through the infinite repetitions of processes, cycles, and mutations.²⁸ The world and its constitutive assemblages do not form a stable and constant entity, but change and develop through transformations they enact through and upon them. As is well known, God is taken out of the picture for Nietzsche, at least as a ‘true’ metaphysical force.²⁹ Nothing takes God’s transcendental place in Nietzsche’s thought, aside from the becoming of being, the endlessly differing repetitions and repeating differences of material entities as time passes.³⁰ The powers

²⁶ Ibid.

²⁷ For more on the eternal return, see Deleuze’s *Nietzsche and Philosophy* (New York: Columbia University Press, 1983, 49-52) where he elaborates his understanding of Nietzsche’s will to power and the eternal return more fully.

²⁸ This is Deleuze’s interpretation of the connections between eternal return and material existence, developed more in the first two substantive chapters of *Difference and Repetition*.

²⁹ See *The Gay Science* (New York: Vintage, 1974), §108 and §134.

³⁰ For instance, the practices of growth, reproduction, mutation, and speciation reflect this differing repetition and repeating difference, as a new event occurs with each repetition, with always at the

ascribed to God are given back to the world, no longer utilizing God as explanation, justification, or scapegoat. “For Nietzsche, not only is God dead, but so too are those *a priori* principles and universal laws that aim to function as the philosophical ‘shadows’ of a transcendent God.”³¹ With this Nietzschean jettisoning of God and his substitutes, entities come to exist in and for themselves in their specific existence, depending upon neither God nor his “shadows,” in the form of substance, nature, or any other transcendent force.

Through Deleuze’s selective reconstruction of the concept of immanence through Duns Scotus, Spinoza, and Nietzsche, the contemporary relevance of a concept of immanence can be seen more clearly. Immanence directly confronts many of the bedrock presuppositions of epistemologies that are based around the relationship between subjects and objects that posit a necessary ontological distance from the things of the world, from notions of a transcendent God to modern understandings of society as subject and nature as its object. Immanence presents a basic challenge to much environmental political thought, removing nature from a transcendent position that environmentalism in theory and practice have elevated to a sacrosanct status.

An Absolute Immanent Ontology

To follow the radical implications of an absolute immanentism and to make it politically relevant and effective for environmental politics requires rethinking established notions of agency, causality, participation and politics. In this section, I offer a theoretical account of immanence that allows for the participation of beings

smallest difference appearing in the event’s consequences. The same can be said of other more quotidian practices as well, such as getting up in the morning, answering the phone, or cooking a meal.

³¹ Patrick Hayden, *Multiplicity and Becoming*. 53.

other than humans that can be used to understand, critique and affect the actions of environments without resorting to transcendent claims of nature. I develop this account of immanence around seven characteristics of a Deleuzian notion of immanence that emerge from the above history of immanence, with the goal of clarifying the concept's significance for contemporary environmental quandaries and to set the groundwork for a politics of environments.

I. All existence occurs in a single ontological realm. At its most fundamental, an ontology of immanence starts from the assumption of a single realm of existence for all entities, as formulated earlier by Duns Scotus' univocal being and Spinoza's substance. This realm includes gods, God, matter, norms, spirit, mind, soul, institutions, essence, and appearance on an abstract level, and trees, air, neutrons, the WTO, elephants, human rights, and proteins, more concretely. As Bruno Latour remarks, "we live in a hybrid world made up at once of gods, people, stars, electrons, nuclear plants, and markets." This seemingly simple statement mixes the world with spirits, nature with society, god(s) with mortals, and mind with matter, complicating efforts to bifurcate existence into dialectical or relational poles. Immanence provides a way of thinking through gods and electrons together, in the same language and concepts (univocally), as a consequence of their shared presence in the world and their shared ability to affect, alter, and combine with others' actions.³² Based on these assumptions, the distinction between the 'natural' and the 'social' loses its powerful normative significance, not

³² *Pandora's Hope* (Cambridge, MA: Harvard University Press 1999), 16. Latour would not necessarily endorse the concept of immanence that I elaborate here. Latour holds out for a notion of transcendence without an immanent world as reference. See *We Have Never Been Modern* (Cambridge, MA: Harvard University Press 1993; *WHNBM* hereafter), 127-9. There are parallels between Deleuze's 'transcendental' and Latour's 'transcendence that lacks a contrary,' but a closer examination exceeds the boundaries of this project. For an alternative account of Latour's ontological presuppositions, see Graham Harman's excellent *Prince of Networks: Bruno Latour and Metaphysics* (Melbourne: re.press. 2009).

functioning meaningfully in an immanentist ontology where the two are indistinguishable. Nature cannot be held up as a model to replicate, nor as a hard and fast predetermined limit to social actions. Both constitute each other, and one is imbricated in any claims about the other. ‘Man’s struggle with nature’ does not exist in an immanent ontology, as the social and natural cannot coherently be differentiated. What we have called natural and social are intractably melted and intercaptured through the assemblages composed of various mixed practices that cannot definitively be separated into natural, cultural, or linguistic, as is often done.³³ Latour, in his characteristic style, ironically bemoans that:

The ozone hole is too social and too narrated to be truly natural; the strategy of industrial firms and heads of state is too full of chemical reactions to be reduced to power and interest; the discourse of the ecosphere is too real and too social to boil down to meaning effects. Is it our fault if the networks are *simultaneously real, like nature, narrated, like discourse, and collective, like society?*³⁴

Latour emphasizes the multiply-layered constitution of these entities, illustrating the presence of all entities and processes in the composition of particular assemblages, unable to be divided out even into heuristic ontological categories. Disregarding the long-enforced ontological distinction between the natural nonhuman world and social human worlds locates all entities on the same plane, opening the door to understanding the effects of nonhuman entities in political practice.

II. All entities fully participate in existence. Ontological positions, the understandings and practices of how entities exist amidst the world and its environments, necessarily carry political implications, as they circumscribe what is possible in and as political

³³ These categories of linguistic, social, and natural come from Latour in *We Have Never Been Modern*, 1-12, as a means to introduce this concept of hybrid beings.

³⁴ *Ibid*, 6.

action. Full participation in being, the ability for any entity to have effects in relation to any other existing entities, is, at the very least, a necessary precursor to political participation and the possibility of understanding anything other than humans as having political effects. Immanence grants equal standing to all entities, with none lacking 'presence' or being. None is more or less distant from an original nature or state of existence. Against many Hegelian and Christian interpretations of the world, the concept of immanence denies a singular trajectory of historical transformation, where some entities are existentially lesser beings as determined by their relation to the progressive march towards *Aufhebung* or salvation. All entities participate in the world's composition and organization, although not with equal effects; none is alienated or distanced through social, natural, or communicative mediations.

There is no relationship of negation or a constitutive lack in an immanentist ontology; the world is ontologically complete in itself, and the activities of nonhumans are no less significant than those of humans'.³⁵ An ontological indistinction of assemblages posits all as equally valid and full of existence, rather than aberrant miscegenations of natural and artificial essences that violate a superior content of the world, existent or potential. All that exists is of the world and in the world fully, including its order and organization. In this way, as Hayden notes, the notion of hierarchy is transformed. "Rather than the measured degree of distance from a principle term which sets a being's limit, it now becomes a question of how a being is deployed according to the various ways in which it exercises its power, while still participating

³⁵ See Harman, *Prince of Networks*, 28-30, on this point and the implications it has for potential, and possibility.

equally in being.”³⁶ No longer comparing assemblages by their relation to a principle of human normality and preeminence, or deviation from an original nature or God, assemblages are measured solely by the particular relations with and resulting effects upon assemblages around them. Recognizing the immanence of entities typically considered unrelated or of different orders opens the door for these other entities to participate beyond the limits of ‘nature’ and ‘society,’ and to interact and engage in ways previously unimaginable. It becomes possible to acknowledge the participation of assemblages of any composition in political events, rather than denying or ignoring their standing due to their ontological inadequacy, that is, their lack of being human.

The full participation of assemblages in being demotes the human assemblage to the same status as other entities, one assemblage among greater and lesser assemblages and their relations, differentiated only by their relational effects and capabilities, rather than its ontotheological superiority. This equal standing, however, does not imply equal power, as a juridical notion of standing might suggest, nor does it equate the capabilities or affective capacity of all assemblages.³⁷ Rather, the equal ontological standing of these seemingly disparate assemblages points to their existence as composite entities of different practices and habits within a shared and interacting world. With no ontological boundaries to prevent mergers of entities, it becomes possible to combine previously uncombinable entities into new assemblages. Any entity can take on new practices and powers, just as they might relinquish them. Alternatively, they may come together to form a new and distinct assemblage. There is no ontological limit to what a

³⁶ Patrick Hayden, *Multiplicity and Becoming*, 14.

³⁷ On the differences among powers within immanence, see section V of this section.

new assemblage can consist of, and no one can know what an assemblage can do.³⁸ The leveling and mixing of the ontological playing field makes visible swarms of previously non-participating entities to the political arena.

III. Practices and relations among entities self-organize. Based on this full participation of all assemblages in a single ontological realm, immanence refuses any notion of the transcendent. An immanent ontology implies that there is no entity or power above and beyond that which is governed, organized, or ordered. This includes concepts or entities such as nature or society; pre-established natural orders and social laws do not exist. As a consequence, no overarching structure or underlying force exists as a cause, since such structure or force would transcend its relations, being beyond the immanent world.

This eliminates a distant and removed God, an underlying nature, or a universal essence, all of which exist outside of the world to limit it. As Deleuze and Guattari write, “immanence is immanent only to itself and consequently captures everything, absorbs All-One, and leaves nothing remaining to which it could be immanent. In any case, whenever immanence is interpreted as immanent *to* Something, we can be sure that this Something reintroduces the transcendent.”³⁹ Immanence, then, is entirely self-contained; no external standard is available to differentiate or rank-order entities of an immanent world definitively, nothing exists outside of the world, nor is any outside

³⁸ As Spinoza famously remarks, “For no one so far has determined what the body can do; that is, experience so far taught no one what the body can do and what it cannot do by the laws of Nature alone, in so far as Nature is considered as corporeal only, without being determined by the mind.” *Ethics*, 167.

³⁹ Deleuze and Guattari, *What is Philosophy?*, 45. In this section, Deleuze and Guattari argue that transcendence is always a product of immanent relations that have developed in a particular way. See also Peter Fitzpatrick’s interpretation of Deleuze and Guattari, where he shows that they recognize transcendence as unavoidable and inevitable, even as it is the most important thing to struggle against in thought. “The Immanence of Empire,” in *Empire’s New Clothes*, 33.

force capable of moving entities or giving them motion or movement. The modes of organization produced in immanence come from itself, the product of repeated actions over time by entities, caused by the force contained in themselves and variation in these repetitions over time. Manuel DeLanda illustrates this composition of consistency and repetition in the human body, suggesting that

we can say that our individual bodies and minds are mere coagulations or decelerations in the flows of biomass, genes, memes (behavioral patterns established and maintained through imitation), and norms (patterns originating in and reinforced by social obligation). Here too we, as biologic and social entities, would be defined *both* by the materials we are temporarily binding or chaining into our organic bodies and cultural minds *and* by the time scale of that binding operation.⁴⁰

The biological, ‘natural’ rules that govern the normal functioning of our bodies (and all entities) developed and continue to develop over time, through a process of repeated practices that become habitual interactions of an infinity of components that congeal into potentially temporally stable entities.⁴¹ The self-organization of the world is evident in the variety of ecosystems, cultures, and geothermal processes that can be found around the world, for instance. Things and systems hold together without the laws of nature being presumed or articulated, and they go through radical changes when different modes of self-organization are undertaken by different collectives initiated by an infinite number of possible other entities.

IV. Relations compose all that exists. Relations remain central in an immanentist ontology, as entities only exist as relations with the actions of and responses to other

⁴⁰ Manuel DeLanda, “Immanence and Transcendence,” *South Atlantic Quarterly* 96 Issue 3 (1997), 509-510.

⁴¹ This is the eternal return of Nietzsche, difference and repetition in Deleuze, evolutionary processes in biology. For a fascinating take on the same process in geological processes, see Manuel DeLanda’s piece cited above.

entities. These relations are not the ‘strong,’ contradiction-driven relations of Self and Other or nature and society as in conventional accounts of dialectics, but constitute the means through which entities differentiate and establish repeated practices and degrees of consistency and constancy: “real relations are effects of the activities and practices of individuals who are different yet nevertheless interacting,” and “they allow us to do and make different things.”⁴² Deleuze returns to Spinoza to develop an understanding of what an assemblage is, describing the “two simultaneous ways” in which Spinoza defined a body:

A body, however small it may be, is composed of an infinite number of particles; it is the relations of motion and rest, of speeds and slownesses between particles, that define a body, the individuality of a body. Secondly, a body affects other bodies, or is affected by other bodies; it is this capacity for affecting and being affected that also defines a body in its individuality.⁴³

This combination of “a complex relation between differential velocities” and the “capacity for affecting and being affected” results in the nodes of relations that I am calling environments. The relation among the “particles” that make up entities, whether species in an ecosystem, organs in an organism, or subatomic particles in a rock, contribute to determining the capabilities of an entity. The relative speed of a particular entity will, in turn, affect other assemblages’ relative speeds, producing effects that tie assemblages together into a web of relations that make up an assemblage’s composition and capabilities. Because these relations developed and maintained among assemblages, “an animal, a thing, is never separable from its relations with the world ... The speed or slowness of metabolisms, perceptions, actions, and reactions link together

⁴² Hayden, *Multiplicity and Becoming*. 91, 90. See also David Harvey’s account of dialectics and weak relations in *Justice, Geography, and Difference*.

⁴³ Deleuze. *Spinoza: Practical Philosophy*. (San Francisco: City Light Books, 2001), 123.

to constitute a particular individual in the world,” indecipherable outside of the world produced by these relations.⁴⁴ Much as DeLanda described the historical composition of the human body as “mere coagulations or decelerations in the flows of biomass, genes, memes,” all entities consist in these relations of speed and affect. Assemblages are the nodes of relations that hold together in a particular way over time, appearing as individual entities, yet always maintaining seemingly hidden temporal and spatial relations to “other” individual entities. Immanence directs attention to the relations that produce relatively stable entities, whether species, modes of social organization, or physical ‘laws,’ opening the possibility of changing and affecting these relations to produce different relations that produce different effects.

V. Differences emerge from relational effects among assemblages. Even as immanence includes all, differences thrive in immanence. Mutually constitutive existence does not reduce the world to a monotonous, homogeneous blob.⁴⁵ As Latour puts it, “It is possible to have our cake and eat it too- to be monists and make distinctions.”⁴⁶ Rather than premising difference upon the distinction between natural and social, predetermined secondary qualities, or the ‘essence’ of an entity, immanence produces difference through the various effects that assemblages have upon others and the relative power of these effects.⁴⁷

⁴⁴ Ibid, 125.

⁴⁵ In *Deleuze*, Badiou claims that Deleuze, against all his arguments to the contrary, is not a theorist of difference amidst immanence, but falls prey to a style of dualist thinking, of doublets, that conflicts with his attempts to formulate ontologies of absolute immanence. For more on the debates among contemporary thinkers of immanence and lack, see Carsten Strathausen, “A Critique of Neo-Left Ontology” *Postmodern Culture*. Vol 16, Issue 3. 2006.

⁴⁶ Latour. *Pandora’s Hope*. 214.

⁴⁷ The distinction between effect and affect in many ways breaks down in this discussion, as affects can be and often are effects, effects often affect, and the ability to be affected depends on an entity’s sensitivity to both effects and affects, and affects as effects. In Deleuze’s words, “A horse, a fish, a man

Although all assemblages exist equally and fully participate in being, each differs in the way it relates with other assemblages, how it continues to exist in its own specific manner, how it expresses its capabilities. The example of two horses, trained in different activities- one horse to plow fields, the other to race competitively- illustrates how two entities considered to be the same, perhaps even the same species, are fundamentally different in their capabilities. In Deleuze's words, "there are greater differences between a plow horse ... and a racehorse than between an ox and a plow horse. This is because the racehorse and the plow horse do not have the same affects nor the same capacity to be affected; the plow horse has affects in common rather with the ox."⁴⁸ Rather than looking at the biological essence of assemblages, in that 'horse' describes a category of beings that share particular genetic and morphological traits, Deleuze emphasizes the differential character of the horses' relational effects that produce the particular assemblages that we see as plow horses and race horses, putting into question the sense of hierarchical organization of assemblages along these lines. The same could be said, for instance, of a carbon atom that serves a different function in coal than in my body, each atom doing something slightly different from the next. The carbon in coal is closer to the uranium or plutonium used in nuclear power plants to

or even two men compared one with the other, do not have the same capacity to be affected: they are not affected by the same things, or not affected by the same things in the same way." *Expressionism in Philosophy*. 217. Affects both affect and effect, and effects affect. See the following discussion of immanent causality for more on the relationship between affect and effect and cause and effect.

⁴⁸ Deleuze. *Spinoza: Practical Philosophy*. 124. As my Midwestern colleagues informed me, however, only a fool would not be able to distinguish between a race horse and a plow horse, as they look and act quite differently. However, the significance of the example still holds, in that a "horse," or any other nominal conceptual category, brings to mind many different beings that could or organized under different categories just as easily. See, for instance, Foucault's account of Borges in the preface to *The Order of Things* (New York: Vintage, 1994).

produce electricity than it is to the carbon in the human body that bonds with other entities to maintain bodily functions.

While immanence puts all entities on a single plane, of the same order, the differing relations among these entities create and continue the immeasurable diversity of entities, provoking differences without relying on dualisms of nature/society, mind/matter, good/evil. Rather, paying attention to the infinitely different effects produced by relations among assemblages allows an understanding of difference that does not predetermine an entity's value and capacities in ways toward which rigid binaries and their normative assumptions tend. These differences create themselves, and their paths of assemblage must be traced to pinpoint the quality and character of the differences among entities, without relying on shortcuts of abstract universalizing concepts that organize entities prior to examining their relational effects.

VI. Causes are immanent to assemblages. Perhaps its most challenging and misunderstood aspect, an ontology of immanence transforms conventional understandings of causality that separate causes and effects from one another.⁴⁹ As a corollary of the lack of exterior either above or below the world, immanence posits causality as the action of an immanent force which produces effects itself. It cannot conceive of an external cause as the first, intermediate, or final mover and prevents the separation of causes from their effects. In *Expressionism in Philosophy: Spinoza*, Deleuze traces arguments over causality back to a question of participation in existence: how is it that entities come to take part in existence? How is it that things, including

⁴⁹ Debates about causality far exceed what I could ever cover here. For discussions of immanent causality, see Louis Althusser and Étienne Balibar, *Reading Capital*, (New York: Verso, 1997) and Read, *The Micro-Politics of Capital*.

humans, effect changes in the world? Whence comes the possibility of their active participation in the world? Historically, the common response was ‘emanation,’ whereby causality is understood as a donation, a gift, from an external force outside of what participates, in the form of God, the One, or Nature. An emanative cause produces effects outside of itself; a causal action emanates from an external force—the soul, the mind, reason—to produce an effect upon something else—nature, objects, lesser beings. “An effect comes out of its cause, exists only in so coming out, and is only determined in its existence through turning back toward the cause from which it has come. Whence the determination of the effect’s existence is inseparable from a conversion in which the cause appears as the Good within a perspective of transcendent finality.”⁵⁰ With emanative causality, an effect is produced by a cause that, once it occurs, serves as the inaccessible foundation of an effect, severing the effect from an entity’s action. The cause is then transcendent to its effect, determining its form and content after the fact.⁵¹ Emanative causes lend themselves to producing hierarchical distinctions among beings, as each effect is “the image of the superior term that precedes it, and is defined by the degree of distance that separates it from the first cause or first principle.”⁵²

⁵⁰ Deleuze. *Expressionism*. 172.

⁵¹ This notion of causality also produced a faith in the theoretical ‘reversibility’ of events and causal processes, as this separation between cause and effect isolated one from the other and suggested that a simple reversal of a cause could produce the prior conditions. Isabelle Stengers and Ilya Prigogine have demonstrated the problematic assumptions behind this reversibility, illustrating the important effects this has had on received notions of time, particularly within physics. See their *Order Out of Chaos* (New York: Bantam Books, Inc., 1984).

⁵² Deleuze. *Expressionism*. 173.

An immanent cause, however, produces effects that still retain their causes: “the effect remains in its cause no less than the cause remains in itself.”⁵³ As Jason Read explains immanent causality, “the cause ... is immanent in its effects; there is nothing outside of its effects. Thus there is no simple division or priority between cause and effect: Every effect is equally and at the same time a cause.”⁵⁴ An effect of an immanent cause is not a degradation of the cause, nor does it attain a lesser status as dependent upon an original cause. Immanence demands no originary causes of movement, acknowledging the presence of causes in everything everywhere. “Beings are not defined by their rank in a hierarchy, are not more or less remote from the One, but each depends directly on God, participating in the equality of being, ... irrespective of any proximity or remoteness.”⁵⁵ Just as we can say God *or* Nature, in that being is everywhere and equal in all entities, so too can we say that causes are immanent, univocal, “in that ‘efficient cause’ is said in the same sense as ‘cause of itself’.”⁵⁶ Assemblages express causes through their effects upon the world; they are inseparable, much like the Nietzschean discussion of lightning: “the popular mind in fact doubles the deed; when it sees the lightning flash, it is the deed of a deed: it posits the same event first as cause then a second time as its effect.”⁵⁷ Immanent causes place the onus of action on the relations among the assemblages and the effects produced through these relations, rather than positing a cause that is distant or remote, transcendent or superior,

⁵³ Ibid., 172. This notion of immanent causality is what Nietzsche termed the will to power as discussed earlier; it is the immanent force that acts without separating the act from the cause.

⁵⁴ *The Micro-Politics of Capital*, 31. For a more detailed discussion of the role of immanent causality in 20th century thought in France, particularly around Althusser and his interlocutors, see the first chapter of *The Micro-Politics of Capital*, 19-60.

⁵⁵ Ibid, 173.

⁵⁶ Deleuze, *Spinoza: Practical Philosophy*, 53.

⁵⁷ Friedrich Nietzsche, *Genealogy of Morals*, (New York: Random House, 1969), 45.

or an effect separate from the entity on its own. Immanent causality produces action without a preformed agent, and reminds us that actions will always exceed our expectations and exceed its supposed agents.

VII. Relations and their effects are open-ended. Absolute immanence is a materialist ontology, yet neither mechanistic nor deterministic; far from it. “The world is dynamic, partial—that is, it cannot be completely unified all at once—and constantly changing. ...relations between things may change and things may enter into new relations.”⁵⁸

Immanent causality, rather, posits entities as acting in the contexts in which they find themselves, leading not to a mechanistic, predetermined outcome, but to singular event-interactions. The interactions among entities and the novel and different relational effects they produce result from the unique and always new combinations of entities that act in concert as assemblages, with no universally predictable or predetermined result. Hayden notes that “the world is composed of interconnected yet different open systems whose relational qualities constantly mutate and exceed our attempts to assign them a final order or an absolute configuration.”⁵⁹ Each assemblage is the contingent result of various immeasurable assembling processes, and is a process of its own. Such an assemblage can fall apart or gain strength through its extensions and combinations with other entities. The action of entities, from quarks to ecosystems, is neither predictable nor predetermined; probability is merely one measure of anticipated action, and a rather poor measure at that. In fact, struggling against probability is often what politics is about, in that it is highly improbable that a radically new political assemblage

⁵⁸ Hayden, *Multiplicity and Becoming*. 90.

⁵⁹ *Ibid*, 92-3.

will emerge out of the existing political milieu.⁶⁰ Importantly, this is not a question of the limits to human knowledge: not only is an entity's action unknowable in that we are not omnipotent, it is not predetermined and can often surprise and frustrate human plans and intentions.⁶¹ No amount of effort will ever change that, as all environmental assemblages incessantly alter and change themselves.

Immanent Environments

This exegetical exercise into the history and content of the concept of immanence highlights the radical implications of an absolute immanentist ontology for political theory. Providing depth and breadth to contemporary discussions of immanence, I have outlined the rich resources available within immanence to rethink political practice and its potential participants. Immanence opens the limits of who and what can participate in the constitution and continuation of political communities, with assemblages of diverse components taking center stage, instead of a limited cast of only humans. Long identified as the privileged species for political life, humans can no longer be considered the only actors, but one participant assemblage among many in immanent environments. These infinitely multiple assemblages produce their own norms and rules through their interactive practices, without preemptively deferring to shortcuts in the form of transcendent moral principles, or categories such as subject/object and natural/social. The outcomes of these political processes of constitution are left open, as social existence among assemblages knows no

⁶⁰ As Isabelle Stengers remarks, an immanent ontology demands “an openly constructivist approach, which affirms the possible, that is, actively resists the plausible and the probable aimed at by other approaches that want to remain neutral.” *Cosmopolitiques, Tome I, Vol I: La guerre des sciences*. 63. (Paris: La Découverte/Poche. 2003.)

⁶¹ See Latour's account of the capacity for action to be “overtaken” in *Reassembling the Social*, 43-62.

predetermined limits. What happens within these processes is, of course, the question of politics, to be determined contingently.

Building from this discussion of absolute immanence, environments as assemblages of immanent relational entities that act in concert emerge as possible participants in political processes. Immanent environments consist of entities able to act together to produce particular political and social effects that can alter the relations of power among its components and the other political actors with which it engages. They exist within one common ontological realm, crossing over conventional divisions of political analysis, such as individuals, institutions, activist groups and states.⁶² Environments participate fully not only in being, but also in constituting the power relations that condition interactions among participants, shaping forms of political action and making possible certain responses and not others.⁶³ Environments can self-organize into political participants, coming together and dissipating depending upon the existing circumstances and demands. Hurricane Katrina, for instance, organized an environment that provided the opportunity to highlight the racialized and class-based distribution of risk in New Orleans, constituting a radically different political landscape than prior to its participation in Big Easy politics. The hurricane and its aftermath did not call itself into being to bring these inequalities into focus, but the hurricane did

⁶² Hardt and Negri make this point about political actors being capable of affecting other participants at any level in an immanent politics of Empire as well. Speaking of the possibility of the multitude, they claim that “Simply by focusing their own powers, concentrating their energies in a tense and compact coil, these serpentine struggles strike directly at the highest articulations of imperial order. [...] In short, this new phase is defined by the fact that these struggles do not link horizontally, but each one leaps vertically, directly to the virtual center of Empire” *Empire*, 58.

⁶³ For instance, Foucault captures this capability of environments to limit and permit specific forms of politics in *Discipline and Punish* (New York: Vintage, 1977) where he describes how the physical composition of buildings (prisons, schools, cities) and other nonhuman components produce certain forms of subjectivity and limit available responses to commands and requests.

create the physical and political environment in which these concerns could be articulated. The form of political participation that environments enact involves altering the relations of power that make political actions possible, reframing the constitution of participants and the entities they can enlist in their political projects.

The concept of immanence provides environmental politics and environmental political theory a means of thinking about environmental political issues without resorting to the nature-society dualisms that have dominated most environmental theoretical analyses. Mobilizing immanence in this way avoids framing environmental politics issues as social humans against or acting upon natural nonhumans, and is able to recognize the innumerable biological and technological entanglements among entities of all sorts. Immanence, and the politics that can emerge from its ontological implications, make available a way to talk about and act in conjunction with the varied beings that constitute environments. Without attempting to grant intention or will to particular entities, or to human assemblages, for that matter, immanence incorporates the actions of any being in accounts of political action, producing a richer analysis of political events, while posing the problem of which environments are possible and desirable. As a set of ontological commitments, immanence does not answer the normative question about what forms of environments should be sought after or attempted. Immanence does, however, open the range of possible responses to this question, allowing an infinite array of environments to emerge through political practices of environments.

In the next chapter, I turn to the political implications of an immanentist ontology to consider how environments act and take part in political practices.

Specifically, I turn to the explicitly politically oriented writings of Bruno Latour and Isabelle Stengers to examine their conceptualization of *cosmopolitics*, a politics of the order and organization of the things of the world. Through a critical consideration of cosmopolitics in comparison to cosmopolitanism, as well as a reading of Latour's and Stengers' formulations of politics designed to include nonhuman actors, I develop an account of how immanent environments come into being and how they might be understood to engage in political practices.

Chapter 3:
Cosmopolitics: Articulating Environments as Politics

Environmentalism and cosmopolitanism have emerged as two of the most prominent and influential political projects of contemporary times. The relationship between environmentalism and cosmopolitanism would seem intuitively complementary, as both represent attempts to bring together a global community around issues that affect all Earth's inhabitants.¹ Both struggle for the recognition and inclusion of people and things that have traditionally been considered outside of the appropriate realm of politics. Cosmopolitanism has attempted to redefine the relations among citizens, states, and those people who do not fit conveniently into these categories, such as stateless people and undocumented residents; environmentalism has attempted to remake the relations among human political actors and their environments, from endangered species and ecosystems to urban environmental justice movements. Both environmentalism and cosmopolitanism have attempted to theorize and practice a politics of the globe, as the boundaries of political jurisdiction in a so-called globalized world are no longer singular, obvious, or, in many cases, meaningful.

But these structural parallels between environmentalism and cosmopolitanism quickly dissolve when the two seemingly complementary efforts are examined closer. Most significantly, the political worlds that cosmopolitan thinkers and some contemporary theorists of environmental politics criticize are radically different realities. Many cosmopolitans regard the contemporary political constellation with

¹ For accounts of the potentially overlapping aspects of cosmopolitanism and environmentalism, see Andrew Linklater's "Cosmopolitanism" in *Political Theory and the Ecological Challenge*, Andrew Dobson and Robyn Eckersley, Eds. (Cambridge: Cambridge University Press, 2006) and Andrew Dobson's "Globalisation, Cosmopolitanism and the Environment," *International Relations* (Vol. 19, Issue 3: 259-273, 2005).

considerable approbation, concerned about the dissolution of the protections ostensibly provided by existing political structures of nation-states and their attendant rights, and the disregard with which certain political actors treat universalized human rights and norms. In an effort to preserve and protect the world's less able citizens, cosmopolitanism and its proponents demand latent rights for subjugated and abandoned people, and demand that global actors acknowledge and respect these established universal human rights. In so doing, the cosmopolitan thinker extends a moral argument about the intrinsic character and value of human beings to the realm of global politics, in an effort to define and limit the potentially chaotic and risky interactions of people and other actors, whether states, extralegal networks, or the effects of economic practices.

But this cosmopolitan perspective of demanding respect for established sets of human rights and characteristics misses an important point about the *cosmos* that a cosmopolitanism refers to: *cosmos*, the order and organization of worlds and its entities, do not pre-exist their creation through the social and political activities of many different participants. Significantly, the creation of shared worlds always involves transformations of conceptions of what it means to be human through the attachments humans have to things and ideas. While cosmopolitans lobby and struggle for a particular set of human capabilities, the *cosmos* that humans create and are a part of are changing and change them in the process. Global climate change, for instance, is a pressing political concern that must be addressed for the continuation of human polities around the world. But global climate change highlights, in a way that cosmopolitanisms have a hard time confronting directly, that nonhuman forces and

things engage with and define what it means to be human and how it is possible to exist as a human, or what passes for one at a particular time. In this way, and in contrast to environmentalist critiques, cosmopolitan thinkers have not acknowledged the role that entities play in making polities and the *cosmos* they inhabit and participate in, nor do they acknowledge how it is necessary to actively engage environments to create the ordered, organized political world they envision. The activities of nonhumans have long been held outside of the conceptualization of political actors and action, cosmopolitan or otherwise, much to the detriment of existing practices and policies surrounding environmental activities.

In recent years, however, theorists from the field of science studies have begun to rethink the relationship between political activity and nonhumans. Bruno Latour and Isabelle Stengers, among others,² have put forward a theorization of politics of human-nonhuman associations, what I'm calling environments, terming it *cosmopolitics*. As a politics of the *cosmos*, that is, of the constantly transforming organization of immanent relations among environments, cosmopolitics has no predetermined and foundational account of nature or naturalized qualities that underlie all existence. Building on each others' work, and the immanent ontology that infuses it, Latour and Stengers attempt to think through the implications of political practices that do not rely upon nature or the

² For instance, see the work of Michel Serres, including *The Natural Contract* (Ann Arbor, MI: The University of Michigan Press, 1995) and the series of conversations between Serres and Latour in *Conversations on Science, Culture, and Times* (Ann Arbor, MI: The University of Michigan Press, 1995). See also the rich body of work of Michel Callon, John Law, and others working through questions of Actor-Network Theory. For compact introductions to these authors, see John Law, ed. *A Sociology of Monsters* (London: Routledge, 1991) and John Law and John Hassard, eds. *Actor Network Theory and After* (London: Wiley-Blackwell, 1999), as well as Michel Callon's now canonical piece, "Some Elements of a Sociology of Translation: Domestication of the *Scallops* and the Fishermen of St Brieuc Bay," in *Power, Action and Belief: A New Sociology of Knowledge*, ed. John Law. (London: Routledge & Kegan Paul, 1986).

authority of modern science to exclude environments from a pre-defined political world. Their creative interventions reconceptualize the way that political actors come to be and come to be able to participate in politics, and provide space for the acknowledgement of political actors consisting of environments.³ As an initial attempt to think political and environmental practices together, cosmopolitics represents an important step in building anew the linkages among politics and the entities of the world, and an alternative to the narrowly defined human-only visions of predominant strands of neo-Kantian cosmopolitanism.

In this chapter, I introduce and elaborate the concept of cosmopolitics as a way of understanding how environments come into existence, hold together, and are able to act as political participants. The chapter is divided into two sections. In the first section, I examine the concept of *cosmopolitics*, in contrast to the more prevalent *cosmopolitanism*, situating both terms within the history of movements based around politics of a *cosmos*. I argue that cosmopolitanisms have mistakenly framed themselves as responses to protect a particular, preexisting definition of what it means to be human, ignoring that more than humans are involved in cosmopolitics and ignoring the processes of environmental assemblage that create the human through its articulation with other entities. I then offer an alternative to understanding cosmopolitical actors as preexisting human beings by providing an account of how environments, including the figure of the human, come into existence and maintain that existence through Latour's

³ As discussed in chapter one, an environment can be any combination of entities that can act in concert, regardless of its composition of humans or nonhumans. An ecosystem, with water, plants, trees, animals, minerals, etc, is an environment, as is an urban apartment building, with the same sets of actors, including its human tenants and all the related entities that go into maintaining the existence of all components of the apartment building assemblage.

concept of “articulation.” I conclude this first section with a critical assessment of how the concept of articulation provides a richer understanding of a cosmopolitics than neo-Kantian cosmopolitan and its attendant assumptions.

The second section examines Latour’s and Stengers’ attempts to formulate versions of cosmopolitics in an effort to assess the prospects of developing a practical cosmopolitics. To do this, I look at Latour’s and Stengers’ recent work that has focused on the Parliament of Things, Stengers’ writings on a cosmopolitical parliament, and Latour’s recent work on the concept of the collective. While their efforts make important steps towards thinking through the involvement of nonhumans in politics, their proposed forms of politics fall short of the implications of the ontological assumptions they develop throughout their work that is not explicitly about politics. I conclude with a critique of their efforts at thinking cosmopolitics, focusing on the limited notion of politics and democracy that Latour in particular puts forward.

Cosmopolitics and Cosmopolitanism: Politics of the *Cosmos*

The idea of a politics of a *cosmos* is, in many senses, nothing new. Combining the ancient Greek *cosmos* and *politics* and the practices these words signified,⁴ cosmopolitanism refers to the idea of a universal political community of all humanity connected through a shared fundamental commonality.⁵ As Kwame Anthony Appiah describes it, “Cosmopolitanism, as we’ve been conceiving it, starts with what is human in humanity.”⁶ For much of cosmopolitanism’s history, this has meant attempting to

⁴ *Cosmos*, from Ancient Greek, refers to “order, ornament, world or universe,” and represents the opposite of chaos, a disordered and unorganized mass. More than the fixed and constant totality of all things existing, *cosmos* specifically implies the order and organization of all things, the active composition and creation of all that exists. *Cosmos* does not name the force or actor behind the organization of existence, only that it is ordered and organized in a particular manner. This *cosmos* can be universal, in that it includes human activity and organization within the broader organization of animals, plants, and matter, including stars, planets, and all their relations; its universality is not given, however, and must be articulated and built through the practices of these entities. “Cosmos,” *Oxford English Dictionary*. 2009. <http://www.oed.com>

⁵ This is not, of course, a universally accepted definition of cosmopolitanism. As David Held defines contemporary cosmopolitanism, it is “the moral and political outlook which builds on the strengths of the liberal multilateral order, particularly its commitment to universal standards, human rights and democratic values, and which seek to specify general principles upon which all could act. These are principles which can be universally shared, and can form the basis for the protection and nurturing of each person’s equal interest in the determination of the institutions which govern their lives.” David Held, *The Global Covenant: The Social Democratic Alternative to the Washington Consensus* (Cambridge: Polity Press, 2004), 171. As Benhabib describes competing accounts of cosmopolitanism, it can be “an attitude of enlightened morality that does not place ‘love of country’ ahead of ‘love of mankind (Martha Nussbaum); for others cosmopolitanism signifies hybridity, fluidity, and recognizing the fractured and internally riven character of human selves and citizens, whose complex aspirations cannot be circumscribed by national fantasies and primordial communities (Jeremy Waldron). For a third group of thinkers, whose lineages are those of Critical Theory, [it] is a normative philosophy for carrying the universalistic norms of discourse ethics beyond the confines of the nation-state (Habermas, Held, and Bohman).” Seyla Benhabib, *Another Cosmopolitanism* (Oxford: Oxford University Press, 2008), 18. Benhabib “follow[s] the Kantian tradition in thinking of cosmopolitanism as the emergence of norms that ought to govern relations among individuals in a global civil society (Ibid, 20).” Kwame Anthony Appiah describes cosmopolitanism by claiming that “there are two strands that intertwine in the notion of cosmopolitanism. One is the idea that we have obligations to others, obligations that stretch beyond those with whom we are related by the ties of kith and kind, or even the more formal ties of a shared citizenship. The other is that we take seriously the value not just of human life but of particular human lives, which means taking an interest in the practice and beliefs that lend them significance.” *Cosmopolitanism: Ethics in a World of Strangers* (New York: W.W. Norton, 2005), xv. These authors do not all have the same interpretations of what cosmopolitanism consists of, of course, and some are explicitly critical of the universalizing and utopian drive behind its predominant premises. However, the broader critique that Latour lays out below—that they all implicitly rely upon a universal and determined nature—affects them equally.

⁶ Appiah, *ibid*, 134.

find what is distinctively “human in humanity” and to establish a universal political community in which all people can participate based on their status as humans. Cosmopolitan thinkers claim to have found resources to include the stranger, the other, the foreigner—figures that have no established or acknowledged place in existing politics—into a universal community’s political fabric, while guaranteeing certain rights and freedoms that come along with being human. Over time, different strands of cosmopolitanism have emerged in response to perceived crises. Believing that what it means to be human and live a human life were under threat, cosmopolitan thinkers sought to find a new basis for universal political life, a shared characteristic or quality among potential political participants. In all cases, the goal was to retain some semblance of order, continuity, and hope for coexistence among differing human beings.⁷

A brief history of the attempts to theorize a politics of the cosmos is useful to contextualize the term’s diverse interpretations and to situate contemporary efforts to transform cosmopolitics into a relevant political concept for the 21st century.⁸ As Lolive and Soubeyran recount in their edited collection on the contemporary emergence of cosmopolitics, “the notion of *cosmopolis*, the city of the world, appeared with the Stoics,” with the demise of the political model of the *polis* and the development of an at

⁷ For instance, in Seyla Benhabib’s most recent formulation of *Another Cosmopolitanism*, she argues that cosmopolitan norms have emerged and become dominant following the end of the Cold War and the “humanitarian interventions” in response to genocide and the unraveling of prior geopolitical norms of the 1990s. “Cosmopolitan norms,” in this case, serve as that underlying, or imposed from above, commonality that provides meaning to a shared, common political existence.

⁸ Following others, I will use “cosmopolitan” to refer to the Kantian-inspired global polity efforts, and “cosmopolitical” to describe the Latour- and Stengers-inspired politics of the *cosmos*.

least hypothetical community with universal dimensions.⁹ The crisis of the model political community of ancient Athens prompted a reassessment of the existing ways of collective existence, and motivated efforts to provide significance to what remained in the aftermath of the dissolution of previously existing social bonds. For the Greeks, this involved a search for commonalities amidst the political constellation into which they had been thrown, and one of the presumably universal characteristics that “made humans human” and superior to other creatures served this role well: reason.¹⁰ The asserted universality of human reason founded on natural human qualities provided the basis for a common human community for the ancients. “There was no longer any difference among the Greeks, barbarians, freemen, and slaves: everyone became citizens of a global community.”¹¹ The shared experience of a naturally guaranteed reason among humans granted all humans citizenship within this “global community” of the Greeks. Those who had no place in formalized politics were granted a role, at least in theory, through their naturally grounded capacity of reason.¹²

But the Greek cosmopolitan dream did not last long, in theory or practice, as the realities of conflicting borders, contested identities, and imperial conquests chipped away at the imagined unifying power of a posited universal human reason. Although this initial foray into cosmopolitan practices foundered, the inspiring aspects of

⁹ Jacques Lolive and Oliver Soubeyran, Eds. *L'émergence des cosmopolitiques* (La Découverte: Paris, 2007), 11.

¹⁰ Cosmopolitanism obviously does not have a monopoly on considering reason to be the defining characteristic of humanity. Much modern political thought adopts this perspective as well.

¹¹ Lolive and Soubeyran, *ibid*, 7.

¹² As is well documented and critiqued, this particular version of “universal” reason still excluded women, children, slaves and other irredeemably unreasonable people. Aristotle’s account of the degree to which people “shared in reason,” with women, slaves, and children having an inferior share, is illustrative of this. This also points to the limitations of cosmopolitan universalism in general: how to determine what is the common denominator for inclusion, and who is to decide and define that?

cosmopolitanism retained their appeal. Most significantly in the history of modern cosmopolitan thought, the concept reemerged in the 18th century with Immanuel Kant's "Idea For A Universal History With A Cosmopolitan Purpose" and "Perpetual Peace: A Philosophical Sketch."¹³ As Kant claims in "Idea for a Universal History," "The history of the human race as a whole can be regarded as the realization of a hidden plan of nature to bring about an internally—and for this purpose also externally—perfect political constitution as the only possible state within which all natural capacities of mankind can be developed completely."¹⁴ As human society tends towards a cosmopolitan commonwealth in which "all natural capacities of mankind can be developed completely," natural human reason will aid and direct the human species towards this goal.

Grounding reason in natural capacities, yet arguing that reason enables humans to move beyond natural instincts, Kant argues that "reason does not itself work instinctively, for it requires trial, practice and instruction to enable it to progress gradually from one stage of insight to the next."¹⁵ He continues: "it will require a long, perhaps incalculable series of generations, each passing on its enlightenment to the next, before the germs implanted by nature in our species [in the form of reason] can be developed to that degree which corresponds to nature's original intention." And this point "must be the goal of man's aspirations (at least as an idea in his mind), or else his natural capacities would necessarily appear by and large to be purposeless and

¹³ Immanuel Kant, *Political Writings* (Cambridge: Cambridge University Press. 1991).

¹⁴ *Ibid*, 50.

¹⁵ *Ibid*, 42.

wasted.”¹⁶ Kant’s explication of reason as a naturally endowed human capacity, available to all humans, and its connection to a potential universal political community, have formed the foundation of contemporary cosmopolitanisms, even as they diverge in their emphases and distance themselves from the centrality of Kant’s naturalism. Through the cultivation of natural human reason, Kant and his students claim, a polity that contains and provides for all reasonable political participants can emerge.

Across the history of cosmopolitan movements, the assertion of this common mold of human life, with its roots in the natural order of things, attempts to tie together what had fallen apart: in Ancient Greece, a life centered around the polis; in early modern Europe, the entire social, economic, and political structure; today, a so-called globalizing world.¹⁷ We can see variations on a theme of cosmopolitanism and its attendant search for universalized common human characteristics in the turn to a naturalized human faculty of reason, as noted, but also in the development of human rights regimes following World War II, the quest for a common underlying human genetic blueprint in the face of multiculturalism, and a turn to universal citizenship in an age of disintegrating borders and identities. Described as necessary responses to impending crises and threats to the definition of what it means to be human, cosmopolitanisms claim to be able to offer stable principles with which all humans can identify and ideally alter their political practices accordingly.

¹⁶ Ibid, 43.

¹⁷ Most contemporary theorists of cosmopolitanism aim to develop a form of cosmopolitanism that is “post-metaphysical” or “anti-foundationalist;” however, most usually fall short of this attempt, falling back on reworked notions of universalism and human reason. See Honig’s reply to Benhabib in *Another Cosmopolitanism*, and Steven Johnston’s review of *Another Cosmopolitanism* in *Theory & Event* 10 no.3 (2008). For a blunt account of this, see Chomsky: “In both domains [human language and human rights] we should, I think, be seeking universals, that is, elements of our common human endowment that provide humans with specific cognitive capacities and with the foundations for moral judgment.” Noam Chomsky, “Universals of Human Nature,” *Psychotherapy and Psychomatics*, 74, (2005), 263.

Today, in a response to the “crisis” of “globalization” of world economies and cultures, contemporary cosmopolitanisms have developed, both theoretically and practically, to describe and proscribe a global organization of citizenship and inclusion.¹⁸ In its earlier Kantian formulations, as well as neo-Kantian and other radicalized versions, this has meant the constitution of a polity based upon a naturalized model of what it means to be human that includes all people of the world, regardless of their differentiating characteristics of nationality, sex, class, or race.¹⁹ Prominent cosmopolitan political theorist Seyla Benhabib describes her understanding of cosmopolitanism as “a normative philosophy for carrying the universalistic norms of discourse ethics beyond the confines of the nation-state,” and considers her formulation to “follow the Kantian tradition in thinking of cosmopolitanism as the emergence of norms that ought to govern relations among individuals in a global civil society.”²⁰ The “emergence of norms” that Benhabib envisions remains based on the universal validity of a particular type of rational human being who participates in a communication-based discourse ethics, itself resting upon a variety of biological and psychological assumptions. These assumptions, in turn, are built upon a particular model of reason grounded in human nature that returns to Kant’s elaboration of the role of nature in reason. Through the spread of cosmopolitan values and norms, Benhabib and other

¹⁸ Source re era of neoliberal globalization. Held on globalization.

¹⁹ Much has been written recently on this version of cosmopolitanism and its divergent paths, as well as an alternative manner of reclaiming cosmopolitics to the account I offer here. For surveys on the various cosmopolitanisms and the cosmopolitics associated with them, see Pheng Cheah and Bruce Robbins, ed. *Cosmopolitanism: Thinking and Feeling Beyond the Nation* (Minneapolis, MN: University of Minnesota Press, 1998.), Archibugi et al., *Debating Cosmopolitics*. (London: Verso Books, 2003.), Jacques Derrida, *On Cosmopolitanism and Forgiveness* (New York: Routledge, 2001), Etienne Balibar *We, the People of Europe?* (Princeton: Princeton University Press, 2004) and Kwame Anthony Appiah, *Cosmopolitanism: Ethics in a World of Strangers* (New York: Norton, 2007).

²⁰ Benhabib, *Another Cosmopolitanism*, 18, 20.

cosmopolitans argue, a universal political community open to all rational human beings will emerge, one which is capable of including everyone under its model framework of what it means to participate in humanity.

This model of humanity, however, fails to recognize ways of living that fall outside of this specific form of cosmopolitanism, folding particular social norms into a supposedly naturalized and universalized definition of humanity. As Bonnie Honig critiques Benhabib's recent work on cosmopolitanism, neo-Kantian cosmopolitanism "launches us into a subsumptive logic in which new claims are assessed not in terms of the new worlds they may bring into being but rather in terms of their appositeness to molds and models already in place."²¹ As Honig rightly points out, contemporary neo-Kantian cosmopolitanism assumes the stable existence of an already present framework for universal human life, one which individual humans beings should be able to fit into. Instead, Honig suggests, a richer cosmopolitanism would not come armed with a set notion of what political life among different people should be, but should rather be open to exploring the "new worlds" created by novel political configurations and the possibilities inherent to them.

The principles of neo-Kantian cosmopolitanism often become transcendent benchmarks, either strategically or ontologically, that promise, following Honig, "moral guidance from above to a wayward human world below."²² As such, they serve as naturalized features of social and political life, relying on the presumed stability and constancy of natural human endowments to buttress their claims to universality and truth. From this point, cosmopolitanisms often run the risk of becoming universal

²¹ Honig, in Benhabib's *Another Cosmopolitanism*, 110.

²² *Ibid*, 102.

projects of reimagining political order from a particular perspective and prescribing it onto others. As many critics have rightfully pointed out, contemporary cosmopolitanisms have trouble achieving the neutral universalism they purport to represent.

Cosmopolitanism and its western model of the rights-bearing citizen, for some critics, is little more than a half-hearted apology for globalizing neoliberal capitalist practices, establishing the basic conditions for Northern enterprises to take advantage of previously inaccessible labor and consumer markets.²³ Or, as others have remarked, cosmopolitanism smuggles in “cultural assumptions, national prejudices and power positions that remain intact behind the apparently universalistic discourse of the new cosmopolitanism,” interpreting cosmopolitanism to be “a mask for the imposition of ‘Western’ values on the ‘East’ and ‘South.’”²⁴

Equally damning and overlapping with these previous critiques, cosmopolitanism masks those who exercise cultural and economic power to spread institutions and establishments that work to their favor across the globe under the guise of universal, cosmopolitan betterment. As a sympathetic reader of cosmopolitanism summarizes the criticisms of the body of cosmopolitan thought, it is claimed that cosmopolitanism “perpetuat[es] the myth that the current global order is ruled by universal ideals and a supranational body authorized to enforce these ideals, whereas it is actually ruled by a hierarchy of co-operating and competing nation states.”²⁵

²³ Hardt and Negri, *Multitude*, 234.

²⁴ Robert Fine, *Cosmopolitanism* (New York: Routledge, 2008), 20.

²⁵ *Ibid.*

While cosmopolitanism has come under criticism for imposing a liberal, socially detached subject as its normative model, the material attachments that constitute beings is more often overlooked, even as these connections can be just as, if not more, significant than the cultural affiliations beings have. Cosmopolitanism assumes the preexistence of stable, autonomous human beings and, in so doing, overlooks the ways that other-than-human entities make possible what appears to be the human being and human agency. What we perceive as the human only accomplishes its goals through the enrollment of other entities; the human that cosmopolitanism attempts to protect and ennoble through inclusion in its universalistic norms does not exist prior to the construction of an environment that can support and include this particular normative model of the human. Rather, particular assemblages exist that are often capable of being transformed into the human beings that cosmopolitanism envisions.

Human action and human agency are only possible through the combination of nonhumans into what is understood as the human, and then only through ignoring all of the nonhuman entities that went into the process of making a human. Human bodies are the most obvious product of the process of nonhumans making and making possible the idea of the human being. The organs that constitute bodies, the biochemical processes that occur without consciousness, and the relations among all these parts and processes are all nonhuman entities that enable the figure of the human to be understood as a whole. Human skin, typically considered to be a container for our “internal” organs, physically connects bodies and their environments, exchanging air, water, and chemical compounds with whatever it comes into contact. The interconnection of these bodies

with food, air, and water further attach “humans” to their environments through the literal combination of these “external” things with “internal” bodily processes.

The many forms of material attachment to environments point not only to the differences among “humans,” but also to the ways in which people are radically transformed by the things they are attached to. The walker from the previous chapter—with her shoes, street, laws, leg muscles, etc.—is radically different from a driver who, with an automobile and all of its attendant connections to laws, norms, and physical power, can accomplish a different set of things through her combination with them. A person who uses a cellular phone is not merely using a tool or technology to talk to someone around the planet, but he becomes something different, a network of attachments, material and otherwise, that transform a “human” into an entity that can do much more than simply “be human.” The driver is not a human being in an automobile, but is a car-street-law-mobility assemblage. The cell phone user is a communicating-wireless-electricity-phone company assemblage. The distinctively “human” things they are doing can only be accomplished through the enrollment of things that fall outside of the definition of human, such as phones, cars, and telephone companies.

By detaching all of these “internal” and “external” connections that “human” life depends upon, it is easy to overlook and underestimate the role other-than-human entities play in everyday life. These are not tools we use to accomplish our pre-established goals or ranked preferences, but they modify us, what we want to do, and what we are capable of doing. Envisioning the human as a rights-bearing and reason- and language-using sentient being actively eliminates the environmental connections that a human being has. Thinking the human being as a universalizable norm

necessarily cuts off these connections among entities that are integral aspects of their existences. As Latour notes, “no one can define in advance what a human being is, detached from what makes him [sic] be.”²⁶ As noted earlier, just as we have never been modern according to Latour, we have also never been human, relying on the relations we have with the entities that enable us to do things that “the human” on its own is incapable of. Subsuming the variously connected and constituted human assemblages into a model of human existence radically transforms them into something they do not see themselves as and eliminates a particular set of environmental relations.²⁷

As a concept open to contestation and disagreement, it is important to push the limits of these conceptual forms of a politics of *cosmos* to understand what exactly cosmopolitanism makes possible and what it cuts off. Just as Honig argues for an “agonistic cosmopolitics” in contrast to the “subsumptive normative cosmopolitanism” of neo-Kantians,²⁸ I aim to make clear that these Kantian-inspired and human-based cosmopolitanisms need not be the only form that a politics of *cosmos* can take, and they are in fact rather limited, anthropocentric means of acting in a world. This is particularly the case when what it means to be human is constantly challenged and redefined through the infinite relations with entities that produce what we take to be humans.²⁹

²⁶ Bruno Latour, *Politics of Nature* (Cambridge, MA: Harvard University Press, 2004), 197.

²⁷ This is the case with development and aid agencies as well. See Michael Goldman, *Imperial Nature* (New Haven, CT: Yale University Press, 2005) for an account of the construction of subjects through the transformation of their environments.

²⁸ Honig, in *Another Cosmopolitanism*, 117-120.

²⁹ Much has been written on posthumanism, including Donna Haraway’s *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991), as well as her more recent *When Species Meet* (Minneapolis: University of Minnesota Press, 2007); Katherine Hayles’ *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999)

Cosmopolitics against Cosmopolitanism

Bruno Latour and Isabelle Stengers attempt to develop their concept of cosmopolitics in conversation with, and in contrast to, these existing traditions of cosmopolitanism. Interestingly enough, however, as the debates about cosmopolitics, cosmopolitanism, and their many variants continue, the contributions that Latour and Stengers have to make to these controversies are often left out of the conversation completely. For example, in a collection entitled *Cosmopolitanisms* published in 2002, the editors remark upon the absence of any mention of Stengers' work in an earlier collected volume on the topic, but themselves fail to consider the implications of Stengers' writings on the topic of cosmopolitanism as well.³⁰ It is for this reason, and to contest what the various politics of *cosmos* might look like, that I aim to elaborate Latour's and Stenger's approaches here.

The strength of cosmopolitanism relies on assumptions about a well-established agreement as to the commonalities shared by all humanity, and the pressing need to prevent political actors from endangering humans and the things that make them human. But these assumptions about the commonalities of humanity are not as obvious as cosmopolitanisms' proponents claim. The presumed commonalities based in the nature of humanity can no longer be mobilized to undergird and sustain a superstructural human politics that takes place on top of the base of nature. Questioning

Neil Badmington's *Alien Chic: Posthumanism and the Other Within* (New York: Routledge, 2004), among many others.

³⁰ "Apparently unknown to the authors in *Cosmopolitics* is the remarkable series of studies by the historian of science Isabelle Stengers, which argues for a form of politics no longer contained within the separation of nature and society that characterizes Enlightenment and modernity." *Cosmopolitanisms*, eds Carol A. Breckenridge, Sheldon Pollock, Dipesh Chakrabarty, Homi K. Bhabha. (Duke University Press, 2002), 13-4, n1.

the assumptions of contemporary cosmopolitan thinkers, Latour takes the recent work of Ulrich Beck and his cosmopolitan vision to task for what Latour describes as an

anthropological blindness. For sociology [and other thinkers of cosmopolitanism in this vein], nature, the world, the cosmos, are simply there. ... What [Beck] doesn't realize is that what cosmopolitanism attempts, from Alexandria to the United States, can only be effective during a period of absolute confidence in the capacities of reason, and even more so in science to determine with certainty the unique existing cosmos at the base of the world-city to which we all aspire to be citizens. The problem that we come up against now is precisely the disappearance of this "unique cosmos," what I call mononaturalism. It's impossible for us to inherit this magnificent idea of cosmopolitanism, since we lack what our prestigious ancestors possessed: a cosmos. Starting from this, we have to choose, I think, between cosmopolitanism and cosmopolitics.³¹

At the base of cosmopolitics, then, in contrast to cosmopolitanism, is a radical uncertainty about the nature of things that constitutes existence: an uncertainty not only about a common bond among humanity, but about what holds any group of people or environments together. Cosmopolitanism requires "absolute confidence in the capacities of reason, and more so in science" to be able to provide direct access to the truths of nature and the nonhuman world upon which the human drama plays out. With the "death of God," democratic revolutions against sovereign monarchs, and other forms of transcendent commonality abandoned over the past half millennium, nature, as the common ground of all life as revealed through science, became the standard measure of all human action, providing the common medium, often indirectly, through which cosmopolitans have justified their claims to universality. In a modern society, no

³¹ In Lolive and Soubeyran, *ibid*, 73. Latour coins the long-standing assumption of western thought that nature is universal in time and space "mononaturalism," an unnoticed prerequisite to the multiculturalism and cosmopolitanism that has long formed the basis of western rationalist thought and the cosmopolitanisms that have emerged from it. "Mononaturalism is not at all self-evident; it is simply one of the possible solutions to an aborted experiment in constructing a common world: *one* nature, *a multiplicity* of cultures ... The solution of mononaturalism stabilizes nature at the risk of emptying the notion of culture of all substance and reducing it to mere representations." *Politics of Nature*, 48. See also William Chaloupka's account of Latour's multinaturalism in "The Environmentalist 'What is to be done?'" *Environmental Politics*, Volume 17, Issue 2 (April 2008), 237 – 253.

alternatives remain for a shared universal quality other than scientifically grounded truths about basic human functions and hardwiring found in nature, removed from all potential social interference and cultural distortion.³² Science, and the comforting certainty its guaranteed claims to truth and reason brought with it, managed to forge a cosmopolitan settlement in which all humans could come together as a political community.

But contemporary upheavals in the status of knowledge about the world and the uncertainty at the basis of scientific practices, from subatomic physics to ecological assessments of planetary viability, have chipped away at the veneer of the epistemological authority of science.³³ Following Latour and Stengers, cosmopolitics reclaims a more tentative and provisional understanding of *cosmos* than the *cosmos* of most contemporary natural sciences, focusing on the practices that create and sustain beings and relations rather than transcendent laws of natures or societies³⁴

The debate between cosmopolitanism and cosmopolitics, as much as it is one, hinges upon whether the world(s) of politics have a readily available normative model of human action that must be realized in political activities, or whether these political worlds and their participants must constantly be built and rebuilt through the relations

³² The most recent example of this is the turn to genetics as a way of understanding political preferences and, in turn, behavior. See Alford, J.R., and Hibbing, J.R.. 2004. "The origin of politics: An evolutionary theory of political behavior." *Perspectives on Politics* 2 (4): 707–23. Alford, J.R., Funk, C., and Hibbing, J.. 2005. "Are political orientations genetically transmitted?" *American Political Science Review* 99 (2): 153–67, James Fowler, Laura Baker, and Christopher Dawes, "Genetic Variation in Political Participation" in *American Political Science Review* Vol 102, Issue 2 (May 2008). Also see the ensuing dialogue between these authors and Evan Charney in *Perspectives on Politics* Vol 6 Iss 2 (June 2008).

³³ See Ilya Prigogine's *The End of Certainty* (New York: Free Press, 1997) for a technical, physics-based discussion of the problems with assuming certainty in contemporary scientific debates.

³⁴ This approach to engaging the world based on tentative and contingent understandings of knowledge parallels that of pragmatism, and Latour and Stengers take much from pragmatist writings, particularly Dewey. See Latour's *Reassembling the Social* (New York: Oxford University Press, 2005) and Isabelle Stengers *Penser avec Whitehead* (Paris: Seuil, 2002).

of the things and beings that constitute them. As a politics amidst immanence, cosmopolitics does not take for granted an underlying structure to reality that necessarily leads to any particular politics, but provides a way to build possibilities for political activities, utilizing whatever participants that lend themselves to it. A redeveloped politics of *cosmos* attempts to account for the radical transformations of political worlds in the 21st century in a way that does not attempt to conform a changed world to outdated models of no longer existing worlds, whether scientific or political.

In addition, cosmopolitics abandons any sense of the teleological program that cosmopolitanism implicitly smuggles into its precepts. As a normative project, cosmopolitanism postulates the seemingly inevitable spread of its values across the planet, pulling into orbit all members of its potential universal political community. The posited end goal of cosmopolitanism is one universal shared political existence of all human beings that exercise their human capacities appropriately. Cosmopolitics does not aim for one final end goal. Cosmopolitics recognizes that some environments, “human” and otherwise, will not be compatible with others and will be excluded or separated from a particular political community. This does not necessarily result in attempted extermination or forced ostracization of those environments that are not compatible with existing or desired ways of living, but simply emphasizes that one universal model for all of existence will not fit all ways of living. Cosmopolitics allows for any number of forms of political existence among entities, without a predetermined order or endpoint for all participants in all places.

The implications of this redevelopment of a politics of *cosmos* are far-reaching. Cosmopolitics redirects political struggles away from cosmopolitan attempts to unite

the world through universalism, contingent or otherwise, and towards focusing on the specific ways that immanent environments can be brought into existence and can be made to act. Cosmopolitics offers a way of conceptualizing politics that is open to the constant redefinition of what it means to be and act politically regardless of an actor's status as human or other, and the seemingly infinite combinations that can be created through the activities such assemblages produce.

Articulating Environments

If cosmopolitanisms wrongly assume that humans are stable and readily defined political actors, then what does a cosmopolitical participant look like, and how is it that particular polities and environments come together, stay together, and act? How is it that sets of relations that constitute particular political actors transform and change? And how can an environment, composed of humans and nonhumans, animate and inanimate entities, things and forces, act politically? The interpretation of cosmopolitics that I offer here posits that *any* entity can be a participant in a political controversy, that is, that more than only humans can affect and be involved in politics. Through the processes involved in assembling and creating political actors in environments, cosmopolitics formulates new worlds of political action, worlds and participants not conceivable to neo-Kantian cosmopolitanisms, due to these novel worlds' and actors' heterodox constitution. But understanding and critiquing assorted actors and creating an assembled environment that can act in political controversies are complicated endeavors, often creating more disrupting complications than simple clarifications regarding what or who is acting, participating, and creating significant effects.

Latour provides a detailed example of how novel political participants come to be in *Pandora's Hope*, where he tells the story of a battle between a forest and a savanna.³⁵ He was able to witness this skirmish as an observer on a field research expedition to the Brazilian Amazon along with a group of French and Brazilian scientists. For the researchers, their object of study was the question of a transition between two particular environments. What is causing the border between the forest and the savanna to change: Is the forest advancing? Is the savanna advancing? And how, for the purposes of Latour, can trees, soils and worms end up taking part in political controversies about rainforests, desertification, and conservation around the globe? Through an examination of the work these researchers undertake in the forest and the lab, Latour illustrates how things become “packed” into discourse, how the worlds of humans and nonhumans, words and things, are not separate worlds, and how particular environments become enrolled in political projects through what he calls *articulation*. The culmination of Latour's 15-day excursion into the Amazon is an academic publication written with his collaborators that concludes that the forest is indeed advancing upon the savanna with the help of earthworms as an advance guard, transforming the sandy soil of the savanna into forest-compatible clayey-sandy soil. But the path from earthworms to an academic paper, the transformation of actions and things into words and ideas, from objects into participants in a controversy that extends far beyond the Amazon rainforest, is initially less than obvious and warrants closer

³⁵ See also Jane Bennett's account of this expedition in “In Parliament with Things,” in *Radical Democracy: Politics between Abundance and Lack* (New York: Manchester University Press, 2005) 133-148.

attention to understand how environments become active participants in debates, and are made available to be brought into explicitly political events.

For instance, in order to be able to take the actions of the transitioning environment between forest and savanna beyond the confines of its location in the Amazon, the researchers whom Latour accompanied on this fieldwork in the Amazon gathered specimens of plants, sampled cores of soil, and classified and measured the relations among these entities in the forest. They put these entities, among others, into relation in order to develop hypotheses about what was going on on the forest floor and to be able to translate these entities and activities onto other relations, actions, and things. The plant specimens were collected by the expedition's resident botanist, compared to hundreds of other samples from other forests, and preserved as "silent witnesses" of a specific tree's location and relation to other plants on the forest/savanna border.³⁶ In the final version of the academic paper, and any references made through it, the text will be able to "speak of plants. A text has plants for footnotes."³⁷ Plants have been attached to words, made accessible beyond their immediate location in the Amazon, and inserted into controversies about what they do and can do.

The articulation of this environment that is shifting from savanna to forest, thanks to earthworms, soil, plants and other actors unseen, creates novel actors, which are capable of playing roles in political controversies about rainforests, desertification, property lines, or many other conceivable debates within environmental politics. This creation of the transition-as-actor transforms the forest-savanna border into something

³⁶ Latour, *Pandora's Hope*, 34.

³⁷ *Ibid.*

else, but something that remains attached to the Amazon forest.³⁸ This particular transforming environment in the Amazon is articulated through the long connections from soil to university, involving words, ideas, concepts, things, both animate and inanimate, and people, all in a relatively tightly knit bundle. This environment can have effects upon things and relations that were irrelevant to one another prior to their combination in this assemblage. This assemblage holds together effectively because it has a rich, deep series of actions and things that circulate in a network and, in the process, infuse it with reality and an ability to have an effect upon other actors beyond the rainforest. Along this network, a novel entity is produced, slightly different and transformed from what it was, but still connected to its constituent parts.

Understood in these terms, environments come into and out of existence all the time, with some gaining a contingent permanence and others disappearing or being absorbed into others. Whether a particular environment, as a collection of statements, things, processes and relations, holds together and can act effectively depends upon whether it and its components are “well-articulated” or “poorly-articulated,” according to Latour.³⁹ The degree of articulation, as Latour explains, depends upon how well a particular thing is attached to the other things that make it possible. The more connected an entity is within the network of entities, the tighter the connections

³⁸ Ibid, 67.. Speaking of a diagram of the transition, Latour notes that “Yet we cannot divorce this diagram from this series of transformations. In isolation, it would have no further meaning. ... It is a strange transversal object, an alignment operator, truthful only on condition that it allow for *passage* between what precedes and what follows it (Ibid.)” The connections between the end result and the initial actions of things must be maintained for this account to sustain its effectiveness. If these connections break down—if soil conditions change, if invasive species alter the plantscape, if soil and plant samples cannot be found or accounted for, if measurements and calculations are done incorrectly—the effectiveness of the novel environment produced by the transformations gathered and recorded in an academic text will no longer hold. As any truth claim, and any social relation, its effectiveness must constantly be reproduced to maintain its reliability and resilience.

³⁹ Latour, *Politics of Nature*, 86-7.

circulating through it, the more existence and agency it will have thanks to the support it is given, and it gives, to the other things that exist around it.⁴⁰ This particular environment, the transition between the forest and savanna as instigated by worms, is *well-articulated* due to the rigorous, detailed connections created through the new relations into which entities and processes have been put and the relations that have been found to exist by human-scientist-apparatus assemblages.

The process of articulating an environment into existence entails more than “discovering” what already exists “out there” in the world of nature, material things, or brute reality. According to Latour, the “construction” of reality “is in no way the mere recombination of already existing elements.”⁴¹ Rather, the creation of well-articulated environments involves the creation of an “event,” according to Latour, whereby the various entities that are put into relation produce more than the sum of their parts.⁴² All things that are put into relations are partially transformed in such a process, creating new effects that were not possible prior to the event or sets of things coming into relation. This means that the things both pre-existed their articulation while simultaneously only coming into being as they do at this point through the process of their fabrication.⁴³ Global climate change, for instance, had a minimally articulated existence prior to its fuller articulation into a global network of scientists, CO₂, rising waters, automobiles, censored policy documents, United Nations-sponsored research

⁴⁰ Latour, *Pandora's Hope*, 18. In discussing the connections that the sciences have and make, Latour comments that “*the more connected a science is to the rest of the collective, the better it is, the more accurate, the more verifiable, the more solid.*”

⁴¹ *Ibid.*, 124.

⁴² For more on the event character in science, see Stengers’ *Invention of Modern Science*, 67-9, and Annemarie Mol’s *The Body Multiple* (Durham, NC: Duke University Press, 2002), 13-27.

⁴³ See Bruno Latour *The Pasteurization of France* (Cambridge, MA: Harvard University Press, 1988) for an account of the emergence of the microbe. For a critique of this based on an object-oriented perspective, see Harman, *Prince of Networks* (Melbourne: re.press, 2009).

groups, and concepts of environmental security. But through the process of articulation that occurred through these entities' activities, global climate change has emerged as a set of processes, entities, and narratives that has a greater degree of reality and existence than it had prior to its articulation with other things. Once articulated as an environment of narrative and material relations, global climate change gained the ability to produce effects it did not have prior to its articulation as such. Previously, it was merely an unaffiliated collection of actions and relations that had no autonomous existence.

Looked at through a cosmopolitical lens, now global climate change acts: it angers skeptical politicians and political actors who question its reality; it changes weather patterns; it mobilizes activists to act to put off its effects for as long as possible; it threatens life as we know it on this planet. After decades of denial and disbelief, global climate change has been effectively articulated into existence as a political participant through attachments among material relations, scientific truth claims, narratives, and actions in response to its effects. The process of articulation is necessarily a political process, as whether or not an environment will come together and whether it will be well-articulated or not depends upon the activity of the participants enrolled in an environment and the ability to demonstrate the effects that an environment will exercise upon others that can be connected to it. Through the process of being well articulated, an environment can become a political participant by affecting the realm of possible actions and by intervening into political life through its autonomous and now-recognized actions.

We can see how this cosmopolitical approach to understanding where political actors come from can take account of the creation of previously non-existing political

worlds in a way that cosmopolitanism cannot. Cosmopolitanism strives to offer an idealized version of politics that assumes the existence *in potentia* of a normative model of what a human political actor looks like and what she should be able to do. In contrast, cosmopolitics aims to discover, make possible, and create modes of being that can act as political alternatives to existing organizations of human and nonhuman social life. Global climate change certainly offers one alternative mode of existence and differing sets of cosmopolitical organization enabled by its effects. Earthworms change what is possible to do in relation to reforesting parts of the world and acting to accomplish that. Ecological modernization, “going green,” and natural capitalism, to name but a few, are collections of cosmopolitical propositions about organizing ways of life among varied beings differently.⁴⁴ Cosmopolitanism, in contrast, offers but one way to coexist and live in the world based on a particular model of how a human should exist, dismissing alternative possibilities available for creating assemblages, and ignoring the ways that nonhumans attach and make possible what appears to be human existence. Articulation, as developed here by Latour and extended from science studies into political theory, offers a way of conceptualizing how these previously non-existent actors can come into being as well as how their attendant modes of organizing life can be created.

What difference do articulation and this alternative form of cosmopolitics make to neo-Kantian cosmopolitanisms? Cosmopolitics, I have argued, offers two major

⁴⁴ See John Barry “Ecological Modernisation,” in *Debating the Earth*, ed. John Dryzek and David Schlossberg. 2nd ed. (Oxford: Oxford University Press, 2005), 303-321; on “going green,” visit <http://www.grist.org>; on natural capitalism, see Paul Hawken, Amory Lovins, and L. Hunter Lovins, *Natural Capitalism: Creating the Next Industrial Revolution* (Boston: Back Bay Books, 2008).

lines of critiques against neo-Kantian cosmopolitanisms. First, cosmopolitics recognizes that the organization of social life does not depend on the stability of always available and underlying potential participants in the form of naturalized rights-bearing human beings, as it does in most accounts of neo-Kantian cosmopolitanisms. Instead of starting from the assumption that social life is grounded and guaranteed by humans and the naturalized qualities that make them human, cosmopolitics recognizes that any social organization is sustained by the diverse material relations among the things and forces that constitute it, whether considered to be human or nonhuman. From a cosmopolitical perspective, the material relations of power among humans and nonhumans, and how well-articulated they are with each other, are what bring effective political actors into existence. They do not pre-exist their articulation, and often require putting-into-relation of seemingly unrelated things. The *cosmos* that global climate change creates and acts in are radically different from an existence without global climate change, and all potential actors are transformed through the effects of global climate change. It has created new participants in political life, placing demands upon the seemingly human-only world of global politics. Understanding the actions of global climate change as political activities that create and limit political possibilities allows a greater range of available actions to act with and against its effects, offering new ways of comprehending the fabrication of social life that include nonhumans and their actions. Neo-Kantian cosmopolitanisms overlook the activity of anything but humans and the institutions identified with them, limiting the prospective cast of political actors involved in any political struggle.

Second, the version of cosmopolitics I attempt to develop through Latour and Stengers offers no pre-existing model of what political life should look like, but builds upon existing sets of social relations among humans and nonhumans, exploring and experimenting with differing and alternative modes of existing in a world of immanent beings. Instead of reorganizing the world together under the auspices of a unifying common principle or set of rights based on a naturalized universalism, cosmopolitics recognizes the multifarious ways worlds come together and hold together under differing circumstances. Because of this, cosmopolitics is better able to account for existing social organization. Cosmopolitics leaves open the space for political participants to establish complicated and complex modes of co-existence. Instead of prescribing with moral authority granted from nature or universal principles, cosmopolitics attempts to analyze and critique from an immanent perspective. A cosmopolitical analysis builds off of the ways that environments engage one another and assemble. From a cosmopolitical perspective, global climate change, as mentioned above, has become a risky political project involving many participants and requiring attempts at living with the novel modes of existence that its actions create. Instead of assuming the basic substance of political life has not changed, cosmopolitics recognizes that the actions of an environment (and global climate change is an example without equal of an environment) remake possible ways of living with other people and things. In an effort to respond and work with emerging modes of living, cosmopolitics looks to build political life anew with all types of beings involved as active participants, without offering a pre-existing model of what that political life should look like.

More broadly, in an effort to put environmentalism and conceptualizations of politics of the *cosmos* into a richer conversation, cosmopolitics explicitly brings the omnipresent activities of environments into account of political practices. Instead of treating entities other than narrowly-defined humans as the backdrop to political activity as cosmopolitanism does, the cosmopolitical analyses that Latour and Stengers offer insist upon engaging with the environmental entities and processes that make the world of politics possible. Today, with the effects of global climate change beginning to be felt in melting glaciers and rising sea levels, the effects of a wide series of environments will in fact force a reconsideration of environmental relations. In this way, cosmopolitics is necessarily an environmental political project, attempting to examine how politics are sustained and transformed through the actions of nonhumans and the assemblages they participate in. Rethinking environmental politics as cosmopolitics, and explicitly naming them as such, opens up the possibility of a new relationship between the sciences and politics, various entities of the world, and the possibility of organizing the relations that constitute environments of all sorts differently. It is to Bruno Latour's and Isabelle Stenger's efforts to think through the political implications of a cosmopolitics that I now turn.

Parliaments and Collectives: Cosmopolitical Institutions

Cosmopolitics provides a framework for understanding how political assemblages can be created—through articulation of the various possible participants in any polity—but what a cosmopolitical analysis has not necessarily answered, so far, is why and which environments should be articulated, and how this might be accomplished in a democratic manner. Latour and Stengers have engaged in a long-standing effort to think through this question by means of what they have variously called a Parliament of Things, a cosmopolitical parliament, and the collective. I will argue that these attempts by Stengers and Latour to spell out the political theoretical implications of their mode of science studies are productive steps in the right direction. However, their approaches to questions of human-nonhuman politics are quite surprising. Both Latour and Stengers build upon an immanentist ontology of becoming and a corresponding conceptualization of agency distributed throughout human and nonhuman entities. However, the politics that they see as made possible by this ontology fall back upon conventional institutions of human-only representative democracy; while positing an ontology that distributes agency across human-nonhuman boundaries, their politics continue to locate political agency solely in humans. Their various formulations of a politics of things make the unexamined assumption that it is ultimately the task of humans to represent non-humans in politics, rather than developing a politics of environments where entities of all sorts participate and act in politics. In addition, the cosmopolitics that Latour and Stengers envision falls short by virtue of their naïve and limiting assumption that political conflict and decision-making operates similarly to scientific debate. Latour's and Stengers' formulations of politics

of things, I argue, hamper efforts to think the political participation of environmental assemblages through the concept of cosmopolitics, as they pursue a politics *for* things instead of *with* things.

Latour's Parliament of Things

Latour first mentions the Parliament of Things (Parliament, capitalized, hereafter) in the final pages of *We Have Never Been Modern*, leaving most readers befuddled regarding what precisely he intended to describe, how it would work, or what it would mean. The Parliament is Latour's attempt to formulate a body that brings the formerly opposed categories of "nature" and "society" together to make sense of the relations and practices that exist *between* the poles of "nature" and "society." Global climate change, for instance, is a combination of what had been taken to be natural and social practices that are now inseparable, theoretically and practically. Instead of seeking an answer to *whether* climate change is a natural or social phenomenon, Latour proposes that a Parliament take account of environmental political concerns such as climate change by looking at the actions and relations of both humans and nonhumans and *how*, not if, they have both participated in the production of higher global temperatures, more powerful and unpredictable storms, the submerged cities and landscapes they may produce, and, most significantly, the relations of power that result from this. The Parliament, consisting of people, knowledge, industries, and representatives of all of these, is to come to a conclusion about a "quasi-object," an "object-discourse-nature-society"—global climate change, for instance—that they all discuss and to whose form and content they can contribute something. It is not only

politicians and experts who participate in this Parliament, but “voters,” “meteorology,” “workers,” and others who have their own particular interests and perspectives.⁴⁵

However, notwithstanding the proliferation of types of representatives, this initial version of the Parliament comes across as quite similar to existing institutional arrangements, where representatives of everyone affected gather together to concur on what course of action to take in response to a particular environmental conundrum. This is both the benefit and the disappointment of Latour’s Parliament: it resembles ineffectual institutions already in place based on the ideals of deliberation and consensus, but radically re-envision the operations and actions of these familiar objects. Much like the scientists in the Amazon, Latour sees representatives of entities speaking and acting on behalf of things through their accounts of them, always articulating their accounts of a thing and the entities themselves. “Natures are present,” he says, “but with their representatives, scientists who speak in their name.”⁴⁶ Much like a legislative hearing to determine the particular threats a new product or process poses, in the Parliament any number of representatives present their case for why a particular entity should and can be considered to have relevance and what an appropriate action in response should be. Representatives attempt to articulate things into debates in an effort to change the material practices of which they speak. In determining policy related to rain forest preservation, for instance, the transition between the forest and savanna would be accounted for by the scientists, their diagrams, the soil and plants articulated through these, and the worms, as represented by the numerous mediations between worm and Parliamentary hearing. Each might have its

⁴⁵ *We Have Never Been Modern*, 144.

⁴⁶ *Ibid*, 144.

own interest group and its attendant lobbyists to try to convince the Parliament of the appropriateness of their own interpretation of events and the corresponding proposed action. In his example of a Parliament debating the hole in the ozone layer, Latour insists: “Let one of the representatives talk, for instance, about the ozone hole, another represent the Monsanto chemical industry, a third the workers of the same chemical industry, another the voters of New Hampshire, a fifth the meteorology of the polar regions; let still another speak in the name of the State.”⁴⁷ The more representatives of differently articulated claims about the ozone hole that can speak in a Parliament, the more appropriate and comprehensive, presumably, a Parliamentary decision and action will be.⁴⁸

However, this vision of inclusiveness and Latour’s emphasis on the role of representatives and practices of representation overshadow the more radical implications of the articulation of environments into these Parliamentary proceedings. The representatives of various participants are not only speaking on behalf of certain entities or environments, but are actively *articulating* the varied participants in a Parliament. As a consequence of Latour’s understanding of scientific practices as social practices that articulate humans and nonhumans, the activity of testifying, for instance, about CO₂’s effects on the atmosphere, changes the make-up of other entities’ existences based on their relations to CO₂. Instead of an automobile being a relatively innocuous mode of individual transportation, it becomes a participant in ozone layer depletion and global climate change through the process of articulation undertaken by

⁴⁷ Ibid.

⁴⁸ Although how this “follow through” is to happen is not presented in *We Have Never Been Modern*, and we must wait until his *Politics of Nature* for an attempt at an answer.

the scientific and Parliamentary work that establishes the existence of the connections among these entities. The network that extends from Latour's proverbial refrigerator to the Antarctic, as he describes it, exists through the articulation of material relations among the entities that physically connect these things, the representative practices that schematize the network, and the social practices that maintain the network's existence.

These aspects cannot be peeled off from one another, and their articulation confounds easy analyses of such environmental conundrums. Hence the need, according to Latour, for a Parliament of Things to be able to address such complex, complicated imbroglios of "object-nature-discourse-society," instead of over-simplified, "human-only" political problems. Latour's proliferation of representatives in the Parliament of Things brings the activities of nonhuman entities into formerly human-only processes, "socializing things" by making them active participants in the Parliamentary process and social life in general.⁴⁹ Representation in this case is not merely a "speaking for" environments or a "presenting again" of their actions; rather, acts of representation transform the environment through translation⁵⁰ into other registers while bringing an environment's action along into the Parliament.⁵¹ In Latour's parliament, representation transforms both that which is discussed—the processes that are united under the concept of global climate change, the processes of transition between forest and savanna—as well as the debates that mobilize these articulated entities.

⁴⁹ See Latour's *Reassembling the Social* for more on "socializing things" and a complete redefinition of the social.

⁵⁰ For more on "translation," see *Pandora's Hope*, chapter 3 "Science's Blood Flow," 80-112.

⁵¹ See also Lisa Disch's "Representation as 'Spokespersonship': Bruno Latour's Political Theory." *Parallax*, 14:3, (August 2008), 88-100, on issues of representation in Latour.

By bringing the actions of environments into the Parliament through articulation, the Latourian Parliament dramatically shifts the assumptions behind what a Parliament can and should be. Similar to the fabrication of entities and environments by the scientists and their tools in the Amazon, a Parliament creates novel environments in their own articulation of things, words, ideas, and relations, an environment that was not possible prior to this convocation of Parliament.

But Latour's initial account of a Parliament of Things leaves too many questions unanswered to be a useful mode of thinking about how to organize environments and the engagements among humans and nonhumans. Left unaddressed are practical and political issues such as how to convene a Parliament, how to determine who and what gets to participate in it, what powers such a Parliament would have, and how it would enforce its deliberative conclusions. While Latour attempts to take into account how environments act and participate in a politics of the cosmos, his proposal leads back to a parliamentary structure of representatives and interest groups. The activities of entities remain outside of political action, relegated to distantly mediated things that have limited roles along a web of articulation through representation. This does not consider the creation of environments through an environment's action in combination with representations of environments' actions, but takes the representations as the only means for environments and things to take part in political processes. How a particular environment would be handled in a Parliament of Things is not considered, nor is the process for participating in the production of a particular desired environment.

But perhaps most frustratingly for many readers of *We Have Never Been Modern*, Latour sidesteps all practical efforts at developing a Parliament of Things,

declaring that “I have done my job as philosopher and constituent by gathering together the scattered themes of [a nonmodern constitution]. Others will be able to convene the Parliament of Things.”⁵² This is not exactly the inspiring and powerful conclusion one might expect from such an otherwise impassioned and militant polemic.

Stengers’ Parliament of Things

Responding to this provocative formulation of a politics of things, as well as to Latour’s challenge to “others” “to convene the Parliament of Things,” Isabelle Stengers picks up where Latour left the nascent Parliament, expanding upon Latour’s minimal description through a more focused exegesis of its potential activities. As she describes it, the Parliament of Things “remained quite mysterious [in Latour’s *We Have Never Been Modern*], the procedures were barely described, the only thing that was certain is that this did not resemble our parliaments at all.”⁵³ Yet with her particular version of the Parliament, focusing on what a Parliament might look like in practice from the perspective of the sciences and those who participate in politics as scientists, Stengers further limits the role of the activities of environments, designing a parliament of human experts that can and must testify on behalf of things.

For Stengers, although its practices already exist in many settings, a Parliament of Things is unrealizable in an institutionalized body. It cannot be brought into existence in a single building or department, but rather it is “a vector of becoming or an ‘experience of thought,’ a tool of diagnosis, creation, and resistance.”⁵⁴ Rather than a

⁵² Latour, *We Haven Never Been Modern*, 145.

⁵³ Stengers, “Une politique de l’hérésie,” <http://www.vacarme.eu.org/article263.html>, as cited in Lolive and Soubeyran, 19-20.

⁵⁴ Isabelle Stengers, *The Invention of Modern Science*. (Minneapolis, MN: University of Minnesota, 2000), 155. As Latour notes as well, “the very particular form of government that we are seeking to install

model institutional framework to solve all problems, the Parliament “is a challenge, not an answer;” it “provokes problems wherever solutions are reigning.”⁵⁵ It is a challenge to examine the relations and practices that constitute environments, the relations that connect things, bodies, ideas, and actions, and is constantly in the process of being convened without ever being institutionalized.⁵⁶ As examples of Parliamentary actions, Stengers mentions “the role of homosexual groups in the negotiations of the measures to take faced with the AIDS epidemic,” as well as organized groups of Dutch drug addicts, both of which altered the terms of drug policy debates when they refused to be defined “solely as victims to protect and “heal,”” but instead as citizens on equal footing with policymakers and their advisers.⁵⁷ These groups challenged the conventional ways of articulating drugs, human bodies, and the narratives about them, in very different contexts, thinking about and acting upon existing human-nonhuman controversies differently. As a “vector of becoming” and an “experience of thought,” Stengers’ interpretation of the Parliament expands its scope to describe the quotidian ways of thinking about and addressing environmental controversies that arise all the time. Instead of handing over controversial topics to be decided upon by technical policy makers, the Parliament is a mode of questioning that considers the relations that constitute political actors of all sorts.

will not find fully equipped offices, ready to occupy without remodeling, in the older building of the Leviathan.” *Politics of Nature*, 203.

⁵⁵ Stengers, *ibid*, 159, 154.

⁵⁶ This is in contrast to Latour’s more loosely institutionalized proposal in *We Have Never Been Modern*, although both Latour and Stengers institutionalize their parliaments in differing directions.

⁵⁷ See in the American context Steven Epstein’s work, including *Impure Science: AIDS, Activism, and the Politics of Knowledge* (Berkeley: University of California Press, 1996). My thanks to Çigdem Çidam for this reference.

Stengers also attempts to put the operation of the Parliament into more focus, providing guidelines for who and what should be included in its activities. Latour's initial account of the Parliament did not address how to delimit the range of what is being considered or the number of representatives permitted to participate, seemingly leaving open the possibility of interminable Parliamentary sessions and little decision or action. In his description of the Parliament of Things, Latour dismisses critics who might insist that so many representatives would lead to chaos: "what does it matter [how many or what kind of representatives], *so long as they are all talking about the same thing*, about a quasi-object they have all created, the object-discourse-nature-society whose new properties astound us all and whose network extends from my refrigerator to the Antarctic by way of chemistry, law, the State, the economy, and satellites."⁵⁸ In his brief account, however, Latour offers no means by which to determine whether representatives are "talking about the same thing," guaranteeing confusion and irrelevant arguments to occupy the Parliament's time.⁵⁹

Stengers considers this question of relevance and germaneness, and argues that any entity seeking to participate in Parliamentary activities must prove that it *makes a difference*, however small, in existing or potential relations to count as a relevant participant. Demonstrating the small differences among entities and their effects contributes to the tentative existence of an entity and its attendant effects. An entity's or a process's contribution to an environment must make a difference to the problem in two senses: first, it must be presented as mattering to the question at hand, as having standing and relevance to what is being discussed; second, it must literally make a

⁵⁸ Latour, *We Have Never Been Modern*, 144. Emphasis added.

⁵⁹ See Mol's *The Body Multiple* for an account of this problem in the field of medicine.

difference, that is, an entity's participation must make the situation and circumstances different from what these circumstances would be without its action or existence.⁶⁰ The competition and conflict among environments to show the differences they make is an important component of the activities of the Parliament of Things, negotiating among environments to determine if and how they can coexist.

For instance, in a discussion about how scientists went about promulgating the “big bang” as the authoritative account of how the universe came into existence, Stengers notes that, for the cosmologists interested in convincing others about the veracity of the big bang, “they must seek to multiply the links between the big bang and those scientists who do not belong to their own specialty. As Latour says, they must multiply the “allies” of the big bang, those for whom it makes a difference, those who need it in order to give meaning to their practice.”⁶¹ This had been the struggle of global climate change activists for decades, attempting to create a coalition of allied scientists, politicians, and publics, in addition to the gases, waters, animals, and diseases, to make the case for the existence of its effects. Until it was made evident, through a variety of means, that the assorted effects of global climate change would make a significant difference upon these actors, and until they were able to demonstrate the different interests at stake in acknowledging and acting on global climate change, global climate change did not exist, for all practical purposes.

But the necessity of making a difference that Stengers pursues fails to consider what is required to accomplish this. The articulation of entities and processes into political assemblages is not a neutral, “equal opportunity” process where the best

⁶⁰ Stengers, *ibid*, 13.

⁶¹ *Ibid*, 98. For more on “allies,” see Latour’s *The Pasteurization of France*.

argument wins or the most rational solution will eventually come to surface. Even in the face of seemingly obvious actions and relevance (Hurricane Katrina, melting ice caps, species migration, etc) where environmental actions make a difference, these differences can be explicitly written off, suppressed, or simply not noticed, as has happened in the United States for decades. The challenge, as Stengers notes, is that in order for an entity to have the difference it makes recognized, all participants “would have to invent the means of becoming interested in others and in making them interested, with no hope of being able to substitute itself for them ‘in the name of science.’”⁶² “The representative [of a particular controversy] can only bring into existence what it represents if it succeeds in situating what it represents “between” itself and the others, thereby making itself actively interested in the others in order to comprehend how it can make them interested in itself.”⁶³ Articulation must occur between one entity and others, one environment and others, one representative and others, so that their fates are tied together in an issue. In Stengers’ Parliament, as in Latour’s, a representative must perform this work of articulation, lobbying among the various other representatives of other things and environments to create a network that can act most effectively. But in order to reach this point, where others can be shown how a particular thing or environment makes a difference, they must become interested: ““To let oneself become interested” is the prerequisite necessary to every controversy.”⁶⁴

⁶² Stengers, *ibid*, 153-4.

⁶³ *Ibid*, 154.

⁶⁴ *Ibid*, 92.

This depiction of Parliamentary politics remains trapped in models of existing political processes of convincing others and getting often unpopular and unfunded ideas to be taken seriously. Like Latour's assumption of a representative consensus- and deliberation-driven Parliament, this model of political argumentation parallels versions of Habermasian deliberative democracy where all participants are assumed to be open to becoming interested in others and to actively pursue interesting others in their own causes, rather than the hard and contentious conflicts that often is politics.⁶⁵ If the embarrassing debates about global climate change in the United States can serve as an example, this commitment to being able to interest others and be open to being interested in others does not offer a practicable alternative to existing models of parliamentary politics and coalition forming. Actors in parliamentary settings have incentives to *not* become interested in others' concerns and causes, for strategic coalition-building reasons as well as the struggle over finite resources available in any publically-funded endeavor. In this case, Stengers treats politics as if it operated according to well-established rules that parallel how scientific communities communicate and presumably come to consensus through collaborative and well-reasoned demonstrations of what become matters of fact. In a discussion of what makes a statement accepted as scientific or not, and how to make challenges to claims of scientificity, one of the principal criteria for being taken seriously for Stengers is that a competing claim "must be described according to a perspective that *follows* the perspective of the colleague it qualifies," that "adopts, by definition, the history and

⁶⁵ See Habermas' *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*. (Cambridge, MA: MIT Press, 1996) for the most recent iteration of deliberative democracy and its implications.

epistemology of the victors.”⁶⁶ Likewise in the history of science, Stengers describes the efficacy of a particular act (Galileo’s demonstration of the relationship between the rate of speed and the inclined plane, for instance) as “to *oblige* historians to pass through his own reasons in recounting his work.”⁶⁷ Both of these accounts, which Stengers parallels to argumentation in politics, assume an interest and an established mode of debate that does not necessarily exist in political contestation. This analysis prescribes a particular path for debate to take, one based on an established set of frameworks through which political actors must pass to be taken seriously, even though political change often occurs strictly in spite of the established norms and facts.⁶⁸ Stengers assumes that just because something matters and makes a difference in human-nonhuman relations, open and interested representations and parties will take these issues into account when considering political responses and action. It is evident that this is not the case: as Latour will point out, it is precisely because of this unnoticed feature of political life—that things that seem to matter most are often ignored and denied and that political actors are rarely open “to be interested”—that politics must be rethought and reorganized around different sets of practices.

Like Latour, Stengers focuses on the function of representatives in the Parliament of Things, and these representatives, for Stengers, are uniquely and solely

⁶⁶ Stengers, *Inventions of Modern Science*, 91.

⁶⁷ *Ibid.*, 42.

⁶⁸ See also Stengers’ account of the importance of the “Leibnizian constraint,” by which “philosophy should not have as its ideal the “reversal of established sentiments”” *Invention of Modern Science*, 68. Stengers adopts a parallel position of knowledge and truth production that requires questions to be posed in terms of established frameworks. Stengers assumes a relatively clear account of what is “established” and, therefore, what one must act in and through, as in traditional scientific settings: the parameters are well known, prior research is readily available, the disagreements are relatively clear. But this is rarely the case for political controversies, where “established sentiments” are often ignored and dismissed, regardless of their seeming value or their scientific truth.

humans. For Stengers, “only humans have seats in [the Parliament], are seated there, but these humans are defined not as free subjects, characterized by their convictions and ambitions, but as representatives of a problem that engages and situates them.”⁶⁹ These are, admittedly, different humans from the rational actors that liberal political theory and empirical social science describe. They are not foremost humans that come together to rationalize or bond together in a “dynamic of intersubjectivity,”⁷⁰ as Stengers puts it. “On the contrary, they have to *invent* links within disparity, they have to bring into existence rhizomatic prolongations that refer not to a general interest stronger than any of them but to new interests provoked by their coming together.”⁷¹ These humans, as problematic assemblages, come together to formulate and address a particular problem through the production of “rhizomatic prolongations,” extended networks of relations among practices to achieve a provisionally settled coexistence among practices. As the only representatives permitted into the Parliament, these humans must build links and connections among themselves and the things that animate them. They must interest others and demonstrate the differences they or those they represent will make, in turn creating and altering links among the environments that are represented. And like her understanding of the process through which scientific events define the terms of future controversies, these humans are constrained by the conditions that brought them there, as they are in the Parliament “as representatives of a problem

⁶⁹ Stengers, *ibid*, 155.

⁷⁰ She elsewhere describes “intersubjectivity” as “the ideal fiction of human protagonists looking into each other’s eyes and together managing to bring out the values, presuppositions, and priorities that unite them beyond their conflicts, which henceforth become secondary.” *Ibid*, 101.

⁷¹ Stengers, *ibid*, 155.

that engages and situates them.”⁷² While attempting to avoid the “ideal fiction” of intersubjectivity, Stengers introduces instead a naïve willingness to debate to participants in the Parliament, portraying all present as curious and already open to being interested. This account of politics assumes an open and curious participant, rather than a contentious and stubborn opponent.

This limitation on participation in the Parliament conventionalizes the Parliament, merely modifying contemporary institutional arrangements and changing little in the process or the character of politics that involve more than humans. Rather than thinking what a politics of things, in which things act and participate, would look like, Stengers draws out the unspoken implications of Latour’s representative-filled Parliament of Things and conceptualizes a Parliament *of Humans for Things* where humans pay attention to and are curious about the things that are articulated to them and the environments in which they participate. In addition to her seemingly undeveloped account of political processes, Stengers hopes the concerns that things produce in humans will be sufficiently compelling to achieve a negotiated resolution among the many participants and their constituents.

These shortcomings of Stengers’ account of the Parliament of Things—the monopoly upon participation by human representatives, the assumption that the relevant entities will be able to “make a difference” and be taken into account accordingly—stem from an overly simplified transposition of the norms of scientific practices and scientific communities onto political activity. In addition, under Stengers, the role of entities other than humans in a Parliament becomes even more limited than Latour’s,

⁷² Stengers, *ibid*, 155.

and the radicalization of the Parliament as a “vector of becoming” or as a way of thinking through problems becomes an escapist means of avoiding the questions of political action and participation outside of already institutionalized forums. Stengers’ Parliament of Things, for all its efforts of imagining an alternative space of political action with the involvement of more than humans, remains a practice of well-informed humans that changes little from what exists in contemporary parliamentary procedures.

Stenger’s cosmopolitical parliament of Cosmopolitiques

In *Cosmopolitiques*, Stengers returns to the concept of a parliament for the negotiation of human-nonhuman relations. In 1997 and 1998, Stengers published this seven-volume work, reassessing the relationship between modern and so-called nonmodern sciences through a reading of the history of physics and the epistemological and ontological contests that this history created. Over the course of this work, Stengers reconsiders the politics of these ontological and epistemological debates and proposed cosmopolitics as a mode of paying attention to competing and contradictory claims to authority and reality about relationships among nonhumans and humans. Seemingly dissatisfied with her earlier take on the Parliament of Things in *The Invention of Modern Science* and other writings, Stengers approaches the notion of a parliament for more than humans from a new perspective, transforming her and Latour’s initial formulations into a *cosmopolitical parliament*. Since Latour had done little with it, and her own initial endeavors to develop the concept were quite limited, Stengers felt, as she describes, “free to draw it out, and I transformed it into a “cosmopolitical parliament,” because my problem was slightly different from [Latour’s]. For me, it was a matter of

injecting supplementary heterogeneity and risk.”⁷³ On her account, cosmopolitics is a proposition and a challenge to remain open to the unknowns of the world in an effort to find a means to coexist with them and the demands that things put upon us. The particular inflection she brings to debates over cosmopolitics and the cosmopolitical parliament emphasizes the obligations and demands that nonhumans put upon action and considers how and if novel things can put current modes of existence at risk.

Focusing more explicitly on the relations among things, people, and ideas, Stengers’ understanding of how the cosmopolitical parliament now functions is built upon what she terms an “ecology of practices,” whereby coexisting and contradictory relational practices among assemblages *obligate* their constituent actors to act in particular ways, even as these actors *demand* alterations to their constitutive relations.⁷⁴ Entities are placed under the obligations of their historical emergence, while making demands upon existing relations that restrict another entity’s existence in a particular way. By constraining action based on existing relations and the insistence of past and present relations, this obligation of things and their actions puts limits upon what environments can do, in that things will be obligated to act in particular ways based upon their historical constitution and the habitual practices they have adopted over time. Similarly, environments will place demands upon other things in the same manner, based upon the habits and expectations an entity has for other things. This is the result of the process of effective articulation: a tightly connected assemblage that acts through

⁷³ Stengers, “Une politique de l’hérésie,” <http://www.vacarme.eu.org/article263.html>, as cited in Lolive and Soubeyran, 20.

⁷⁴ Isabelle Stengers, *Cosmopolitiques, I-VII*. (Paris: Éditions La Découverte, 1997) Tome I, p48-61.

its components' capacities while also constraining the actions of an assemblage due to the particular characters of its participants.

Ecology of practices serves as a framework to understand the transformation of environments, in that they are sites of immanent demands and obligations among an environment's components upon each other that constrain and enable possible action. For instance, an ecology of practices permits an understanding of global climate change as a dangerous political project of humans, nonhumans and their relations exploring their respective constraints, taking into account the obligations that specific practices put upon relations (weather patterns, migrating insects, disease, higher sea levels) and the demands that others place upon these same relations (residents of New Orleans, water, floodplains and their human and nonhuman inhabitants) to determine which organizations of human-nonhuman life can hold together and which cannot. In her words, the resulting environments are not the result of "consensus, but symbiosis, where each protagonist is interested in the success of the other for his own reasons. The symbiotic accord is an event, a production of new modes of immanent existence."⁷⁵

This "intercapture," as she terms it, among entities is an effort to "try to think the stability of a relation without reference to an interest that would transcend the terms," whether nature, justice, truth, or any other overarching concept, maintaining the immanent mode of argumentation and resisting the obfuscating shorthand of nature.⁷⁶ In her words, "the challenge of [cosmopolitics] is precisely the creation of a "we" that *excludes every external measure*, that excludes every preliminary settlement separating the illusory from the rational, the subjective and the objective, separating, in other

⁷⁵ Stengers, *Cosmopolitiques, Tome I*, 42.

⁷⁶ Stengers, *ibid*, 43.

words, those that have a title to “enter” into the calculation from those that must submit to its result.”⁷⁷ From this angle, Stengers emphasizes that all entities in an environment participate in its production and maintenance, blurring the separation between those that decide and those that submit to results; each subjects the other, albeit in neither equal nor transparent ways. Any production of a stable relation among entities has its roots in the participants that constitute it and the commitments they put to one another, and not from an external or transcendent concept or set of norms that predetermine the final result for any of its participants. Based on these relatively strict conditions of environmental articulation, ecology of practices allows a limited range of possible results to each Parliament, responding to the demands and obligations that entities place upon possible “symbiotic accords.” In the cosmopolitical parliament, the relations of obligations and demands among entities hold each other together, as in Latour’s account of articulation.⁷⁸

In this portrayal of the cosmopolitical parliament, the results of Parliaments occur through the inevitable relations that obligate entities to one another. Conceptualizing the immanent negotiations within these Parliaments is Stengers’ chief contribution to thinking the form of environmental politics I aim to develop here. The concepts of intercapture and ecology of practices replace her earlier notions of

⁷⁷ Stengers, *Cosmopolitiques, Tome II*, 382.

⁷⁸ Borrowing from Deleuze and Guattari (*A Thousand Plateaus*, 10-12, 293-4), Stengers refers to examples of coevolutionary relations to illustrate the intercapture of obligation and demand, such as the tightly-articulated relation between the wasp and the orchid, where one species of wasp is dependent upon one species of orchid, and vice versa, for their reproductive survival. The relations between species of wasps and orchids, in addition to the engagements with their environments, remained attached over centuries in varied evolving relations, obligating and demanding each other to create new and unique relations to maintain their autonomous existences or else go extinct. This is the same process that Stengers envisions for a cosmopolitical parliament: entities commit one another, through obligations of survival and demands for alterations, to coexistence, or they are left outside of the parliament and its decisions and risk irrelevance and elimination.

consensus and agreement from the parliament with a more chaotic and less autonomous-actor-centered process of engagement among entities. The “symbiotic accords” that result from Parliamentary negotiations are the various environments that act and have effects, often beyond the control or the awareness of those involved in producing them. While an active and conscious process occurs among participants in a cosmopolitical parliament, Stengers also importantly emphasizes the unconscious and passive ways that things articulate and coalesce into participants that can act. In addition to the attention paid to the implicit and unseen activities going on, Stengers’ focus on the immanent and contingent relations that hold environments together reemphasizes the absence of any overarching principle that will necessarily and overwhelmingly force an environment together. It is only through articulation of relations that an environment will emerge and, if it can, sustain itself.

But even as Stengers acknowledges the non-autonomous, passive actions involved in making environments, the cosmopolitical parliament is intended to regulate and preempt the potential for autonomous, disruptive action on the part of nonhumans. In her exploration of cosmopolitics and the cosmopolitical parliament, Stengers takes cosmopolitics to be an open commitment to coexistence with other competing modes of being, and requires any cosmopolitical actor to espouse a belief that “peace is possible” among these competing claims.⁷⁹ This account of cosmopolitics and the cosmopolitical parliament avoids questions of how things themselves enter into and can be a part of politics, and what role actually exists for other-than-humans. While the elaboration

⁷⁹ To her credit, Stengers explicitly comes out against a trite version of liberal toleration in the parliament, but rather insists upon a full engagement with those whom we cannot understand, to see what relations can be developed and what interests can be exchanged. See the final book of *Cosmopolitiques, Tome II, Pour en finir avec la Tolérance*.

upon ways that things come together and hold together places an important emphasis on the activity of things and their effects, we are no closer to understanding a *politics* of these things, or how it is that the interest-requiring open commitment to coexistence and peace can be achieved. The cosmopolitical parliament, like the Parliament of Things before it, remains a weakly imagined procedural body that offers little to build upon to formulate significant political activity. It does, however, envision the process of negotiating settlements of the contested and competing effects of humans and nonhumans in the form of ecology of practices, but fails to formulate a politics of their actions.

Latour and the Collective

In conversation with Stengers, Latour too was reconsidering what exactly a Parliament of Things or cosmopolitical parliament would look like, but, in typical Latourian style, opted to change the terms of the debate. In his 1999 *Politics of Nature* Latour offers an alternative to earlier conceptualizations of a politics of things, in the form of what he calls “the collective,” a way of “collecting associations of humans and nonhumans.”⁸⁰ This is a novel configuration of political life, something that is hard to recognize in relation to contemporary politics. Latour develops the collective as an alternative form of political organization that is able to take into account humans and nonhumans, and provide a framework for deciding which associations of humans and nonhumans are desirable or not. The collective, then, is a political body defined by the organizing relations among the humans and nonhumans that constitute it. It is the process and the product of this organization, both its explicitly established aspects as

⁸⁰ Latour, *Politics of Nature*, 238.

well as the unseen and unknown aspects of its emergence. It is Latour's version of the cosmopolitical parliament of Stengers, albeit in a "constitutional" form that is developed in a more structured way, and continues the conversation he started in *We Have Never Been Modern*. As he says in a footnote in *Politics of Nature*, "I am taking another look at what I called the Parliament of Things, which was visible at the time, as it were, from the outside." *Politics of Nature* and the concept of the collective he develops in it are his efforts "to describe it from the inside," fleshing out the skeleton of the Parliament.⁸¹

Latour assigns the collective three powers: the power to take into account, the power to put into order, and the power to follow up. As Latour sees it, these powers are practices that occur today, but under unrecognizable forms and in implicit, if not invisible, ways. Some aspects are hidden from analytical view, while others are currently distributed in odd places that prevent effective decision-making around environmental questions. The first power, "the power to take into account," enables the collective to determine what exists and ask the question "how many are we?" in an attempt to establish who and what entities will be capable of participating in a particular configuration of collective human-nonhuman life. This power, according to Latour, enables the collective to deny or accept a particular thing's existence into the shared common life of the collective. It is exercised regularly in contemporary environmental and policy decisions, from denying the existence of global climate change and UFOs to

⁸¹ Ibid, 252n.

accepting the existence of mad cow disease and HIV.⁸² This power makes explicit the ability of an extant collective to determine whether new, previously undiscovered or previously denied entities will be given a place amidst the existing collective, asking “How many new propositions must we take into account in order to articulate a single common world in a coherent way?”⁸³ Like Stengers’ efforts to establish a parliament, Latour claims “it is necessary to make sure that reliable witnesses, assured opinions, credible spokespersons have been summoned up, thanks to a long effort of investigation and provocation.”⁸⁴

Latour illustrates this first power of the collective through an examination of the mad cow controversy, highlighting how prions, the agent presumably responsible for “mad cow disease,” came into existence through various scientific trials, parliamentary hearings, and public outcries to find out what was causing rare and dangerous manifestations of Creutzfeldt-Jakob disease.⁸⁵ Through negotiations among the public, politicians, and scientists, “veterinarians, cattle farmers, butchers and government employees,” as well as “cows, calves, sheep and lambs,” a consensus emerged that a place must be found for prions in the collective, since they have been determined to exist by the collective and a connection to Creutzfeldt-Jakob disease had been made apparent. Prions exist and must have a place, or they will continually disrupt the coherent common world, the cosmos, that the collective attempts to construct.

⁸² For an account of the role that denying the existence of UFOs plays in debates about sovereignty and anthropocentrism, see Alexander Wendt and Raymond Duvall, “Sovereignty and the UFO,” *Political Theory*, Vol. 36, No. 4, 607-633 (2008).

⁸³ Latour, *ibid.*, 110.

⁸⁴ *Ibid.*

⁸⁵ Much to the displeasure of science studies scholars and readers of his earlier works, this is, in fact, the only empirical example that Latour discusses in the entirety of *Politics of Nature*. For a criticism of the work along these lines, and addressing the case of BSE in particular, see Steven Yearley, “The Wrong End of Nature,” *Studies in the History of the Philosophy of Science*, 36 (2005), 827-834.

The power to decide what can become part of the collective is, in essence, the power to decide what environments will be permitted to join with others that already exist. This power is a step in the process of possible articulation whereby certain entities become connected to existing relations through a varied set of arguments and processes, demonstrating whether they can make a difference in the results and the process or not. This power closely follows Latour's description of articulation and Stengers' imperative of making a difference, as various actors and participants combine into a network to provide an account of a set of human-nonhuman relations. Prions, through their articulation to cows, disease, bovine cannibalism, scientists, research, publications, and proteins, take on an autonomous existence and will now be recognized as acting on their own. They exist in a novel way that was not possible prior to their articulation into the network that sustains them, and make a qualitative difference to the abilities of the collective as it has been reconfigured.⁸⁶ Whether or not an entity is accepted into a collective or not, be they prions or global climate change, is not solely about whether the scientific community can come to a consensus on a particular entity or not, but has to do with how an entity is articulated into a larger human-nonhuman social network. Some things will make it in, some things will not, based upon whether or not they can be effectively articulated through the various means of attachment to existing entities and whether the difference they will make is accepted and taken into account by others.

⁸⁶ Similarly, global climate change, while well-supported and documented by independent and partisan scientific communities around the world, was not considered to be a part of the world we live in until it attained the necessary political and social support to articulate effectively with scientific evidence. With its attachment to political and social actors, global climate change became capable of standing up to challenges and tests of all sorts.

Once it is decided what will be taken to exist and what will not, the second “power to put into order” charges the collective with the responsibility to hierarchize and institutionalize the entities deemed to be participants in an environment, providing a provisional organization to the otherwise chaotic relations among things and people. It asks “What order must be found for the common world formed by the set of new and old propositions?”⁸⁷ This power is “an explicit work of hierarchization through compromise and accommodation” that requires a direct consideration of what things the collective will value and which they will not, and how to put into order those it decides are important. Latour again focuses on prions to illustrate the role of this power. In recognizing their existence, the collective must now consider in what ways the existing arrangement among entities needs to be reworked. All at once, the collective must consider “consumers’ tastes, the imposition of quality labels, the biochemistry of proteins, the shepherders’ conception of epidemics, the three-dimensional modeling of proteins, and so on.”⁸⁸ All these concerns must be considered and put into a hierarchy of importance for the collective. If this sounds overwhelming, Latour says, “Too bad—it is indeed this power to establish a hierarchy among incommensurable positions for which the collective must now take responsibility.”⁸⁹ Once this institutionalization takes place, Latour insists it be accepted according to his reorganization of political categories and thought. The debate that took place to establish these entities in their relations was, presumably, a thorough and good one, and to continue on that path would lead to an

⁸⁷ Latour, *Politics of Nature*, 110.

⁸⁸ *Ibid.*, 113.

⁸⁹ *Ibid.*

interminable debate without ever accomplishing anything.⁹⁰ Prions are now hierarchized and institutionalized into a set of practices that provide a limited space for their existence within the collective; global climate change exists and adjustments and responses must be made accordingly.

This ability to state explicitly what value and what role something will have in the organization of collective life and the explicit decision about how to prioritize and order these things that exist draw on existing practices, as Latour repeatedly claims, yet these processes take a radical step away from existing institutional arrangements. In contrast to how priorities are determined now, which is to say, they often are not decided but simply fallen into or are not considered to be debatable decisions but facts and “hard realities,” Latour’s second power recognizes that political organization is always a decision that prioritizes some things and sacrifices others. Latour repeatedly contrasts the number of French people killed each year by mad cow disease-carrying prions (a few, “and even these cases are in doubt”) and the number of people in France killed while traveling in an automobile (roughly eight thousand).⁹¹ This highlights how the priorities that collectives agree upon—in this case, the higher likelihood to die while driving is less important than the smaller likelihood to die by eating beef—are not always transparent or formulated, and are often not considered to be decisions open to discussion. While a collective does little to stem the annual deaths of 8000 people caused by driving, a collective will reorganize its national and global beef industry to avoid a handful of deaths each year.

⁹⁰ See chapter 2 of *Politics of Nature*, “How to Bring the Collective Together,” for more on Latour’s notion of due process as the necessary procedures for assembling a common world.

⁹¹ Latour, *Politics of Nature*, 113.

But these priorities do not remain constant, and new beings will demand a place in the collective, forcing a change in established priorities whether a collective wants it or not. Latour's third power represents an attempt to deal with acknowledging and responding to these challenges. The third "power to follow up" represents a collective's efforts to transform itself through comparisons of its previous configurations, determining what is valued about existing environmental relations and plotting a course for improving upon the collective's organization. In an effort to re-create a collective under differing conditions as often as necessary, Latour emphasizes that it is necessary "to recommence the process of composition [of the collective] while moving as quickly as possible to the next iteration" of the collective to be able to address the externalized demands of new things and processes that inevitably arise in any existing collective.⁹² Latour refers to this quality of the collective as its "experimental" existence,⁹³ where political reconstitution is approached as a provisional experiment and experience that alters the character and quality of any collective.⁹⁴ The collective "as a whole is defined from now on as *collective experimentation* ... on the attachments and detachments that are going to allow it, at a given moment, to identify the candidates for common existence" and to determine who and what will become a part of the collective's reorganization and who and what will become a provisional external enemy whose participation in the collective is denied or deferred until another iteration of the

⁹² Ibid, 198.

⁹³ Latour proposes to retain "from the sciences the word "experiment," to characterize the movement through which every collective passes in this way from state to a future state," emphasizing the creative and infinite possibilities open to social organization of the environmental collective. Ibid, 195.

⁹⁴ This is a responsibility of the administration and its power to follow through, according to Latour's restructuring of political practices. *Politics of Nature*, 200-206.

collective.⁹⁵ No morality, no right of nature, can conclude this transformational process whereby a collective experiments and changes its constitution, including the basic list of participants, from microbes to forests, minerals to groups of humans, and all the relations that attach them to one another.

In place of a transcendent moral principle to adjudicate the value of particular environmental configurations, the differences between iterations of the collective provide the immanent measure by which to transform the collective normatively and create better arrangement of humans and nonhumans. The “learning curve”—the name Latour bestows upon the difference between iterations of the collective—is the only available source of comparison and measurement. This normative measure of the process of collective change is an empty normative measure, however, in that its content cannot be determined prior to its exercise. The normative dimension will emerge from what a collective values in its current organization and what it determines is desirable and not. “The collective does not claim to know, but it has to experiment in such a way that it can learn in the course of the trial. Its entire normative capacity depends henceforth on the difference that it is going to be able to register between [one arrangement of the collective] and [the next arrangement of the collective] while entrusting its fate to the small transcendence of external realities,” that is, the nonhumans that appeal and demand to be taken into account by a collective.⁹⁶ The power to follow-up is responsible for measuring and assessing the learning curve, so that the collective might attempt a new experimental mode of existence among its relational constituents. At the base of this collective experimentation is “the

⁹⁵ Ibid, 196.

⁹⁶ Ibid.

fundamental discovery of the ecology movement: no one knows what an environment can do; no one can define in advance what a human being is, detached from what makes him be.”⁹⁷ This lack of pre-given knowledge about the abilities and qualities of an environment (and the human position in it, for Latour) require that its measure be different versions of itself: no other standard exists by which to adjudicate how well articulated a particular collective is or what entities should be and are valued. “It is required to devote itself to *a meticulous triage of the possible worlds*, of the cosmograms, always to be begun anew.”⁹⁸

This iteration of a polity of and for nonhumans and humans holds promise, and reflects the previous efforts of both Latour and Stengers to struggle through the numerous obstacles to thinking a forum for more than human entities and their relations. Latour’s collective explicitly locates nonhumans and elaborates upon the role they play, both as externalized demands upon an already organized polity as well as integrally included in the constitution of the collective in the first place. The collective relies upon an immanent mode of negotiation and contestation that builds upon Stengers’ formulation of an ecology of practices, and institutionalizes this in explaining how it is that collectives change and develop overtime via the “learning curve.” As a corollary of this process, Latour’s theorization of the collective recognizes the constantly changing condition of human-nonhuman assemblages, and takes account of the incessantly transforming worlds that exist and sustain themselves. Finally, Latour’s collective, unlike Stengers’ descriptions of a cosmopolitical parliament, recognizes the role that power plays in determining the results of political negotiations, and does not attempt to

⁹⁷ Ibid, 197.

⁹⁸ Ibid, 195.

unrealistically banish irrationality from the political domain. Rather, acknowledging that the best argued case or the most obvious conclusion will not necessarily be that which is acted upon in politics, Latour attempts to account for this through the unending transformations of the collective and the built-in process for evaluating previous organizations of social life.

A Democratic Cosmopolitics?

Latour's and Stenger's efforts to think through what a politics of more-than-humans looks like leaves us with alternative accounts of political life that rely on representing nonhumans in human political circles. These accounts recognize the demands and interruptions that nonhumans enact as potentially political events, even if they do not attempt to formulate a politics of things. The political theoretical implications of the work of Latour and Stengers offer much to the field of political theory and political science in general, and this chapter represents one effort to bring their efforts into conversation with political theory concerns. From questions about the limits and meaning of representation to considering who and what an actor can be, Latour's and Stenger's efforts at thinking cosmopolitics suggest many innovative lines of inquiry to pursue. Yet, in regards to theorizing an environmental politics, their most recent formulations of a cosmopolitical parliament and the collective fall short in adequately addressing their concerns, particularly around questions of democratic politics. This is evident in three areas of their work, particularly in Latour's *Politics of Nature*: the relation between their work and political change, the concept of politics, and the relationship between democracy and politics.

First, both Latour's and Stenger's discussions of the cosmopolitical parliament and the collective and their operations betray a utopian and idealistic understanding of politics, political change, and the possibility of transformation. The reorganization of political life that Latour presents avoids questions of how to make the collective into something more than the ideas he presents in *Politics of Nature*. To overcome the distance between contemporary politics and the collective he envisions requires great amounts of work that are underplayed if not ignored in Latour's texts. Even as he claims that he has "no utopia to propose, no critical denunciation to proffer, no revolution to hope for," Latour's collective ignores the important institutional and engrained practices that have organized collective life as it is.⁹⁹ "Far from designing a world to come," he continues, "I have only made up for lost time by putting words to alliances, congregations, synergies that already exist everywhere and that only the ancient prejudices kept us from seeing."¹⁰⁰ However, the passage from these "ancient prejudices" and Latour's vision of the collective is more difficult than simple enlightenment about our benighted existence. Against Latour's intentions, I might suggest that the collective be considered as a first attempt at theorizing what a more-than-human polity might look like, and take from his and Stengers' efforts the valuable and innovative critical components that might be more practicable for contemporary environmental politics.

Latour's account of politics in *Politics of Nature* does not adequately encompass the range of politics available to a politics of humans and nonhumans. Latour repeatedly argues that modern concepts and practices of nature and politics have shut

⁹⁹ Ibid, 163.

¹⁰⁰ Ibid.

down politics by foreclosing the political process too soon. Sometimes through the means of facts and epistemology (*Politics of Nature*), sometimes through nature (*We Have Never Been Modern*), and sometimes through science and reason (*Pandora's Hope*), politics is “humiliated,” “short-circuited,” “shut down,” “neutralized,” “aborted” and “paralyzed” by the “shortcuts” that pre-established and assumed versions of nature and its surrogates impose upon social relations and organization. By offering definitive understandings of the borders between politics and the rest of the world, these concepts and practices limit politics to a particular set of choices and actions. However, Latour claims, there is much more to politics than what is left over and excluded from the realm of nature, science, or reason.

And what is this politics that is being limited by the pre-packaged assembly of its supposed opposites? As Latour defines it, politics is “the progressive composition of the common world,” whereby the organized social relations among beings is established through meticulous procedures, negotiations, and compromises.¹⁰¹ The common world, the organized *cosmos*, results from the politics that Latour envisions among the complex and complicated combinations of entities of everyday existence. This notion of politics runs throughout his recent work, including *Reassembling the Social* where he attempts to lay out a method for constructing a social collective out of all sorts of entities, controversies, and activities.

But Latour’s “politics” is a peculiar and stylized understanding of politics, one that involves a high degree of management and administration at the expense of political activity and action. In *Pandora's Hope*, Latour discusses how, with a

¹⁰¹ Latour, *Politics of Nature*, 18.

redefined science, “political order” can be redefined as “that which brings together stars, prions, cows, heavens, and people, the task being to turn this collective into a “cosmos” instead of an “unruly shambles.””¹⁰² And, as he puts it later in the same text, “The great advantage of letting facts merge back into their disheveled networks and controversies, and of letting beliefs regain their ontological weight, is that politics then becomes what it has always been, anthropologically speaking: *the management, diplomacy, combination, and negotiation of human and nonhuman agencies.*”¹⁰³ Politics, on Latour’s account, has to do with the organization and production of a common world in which all participants’ voices have a place. Collecting entities together in an ordered whole, even as this whole is provisional and tentative, is *the* political task for Latour.

But the notion of politics embedded throughout Latour’s formulation of the collective in *Politics of Nature* offers a proceduralist, administrative understanding of politics, and perhaps of democracy, that overlooks what is being administered, managed and negotiated: the actions and activities of human and nonhuman assemblages and associations. The actions of assemblages are to be managed, organized and represented, but these actions are not understood as politics; rather it is determining their existence and ordering them that constitutes politics. Their various actions are assumed and expected, but, for Latour, it is only once they are organized into a collective mode of life that they can be properly understood as participating in politics. For instance, the actions and effects of Hurricane Katrina would not be political, nor would the immediate effects of droughts, famines, or food contamination events. It is only when

¹⁰² Latour, *Pandora’s Hope*, 261.

¹⁰³ *Ibid.*, 290, emphasis mine.

these events have been articulated and represented in organized collective modes of life that these actions can be considered to take part in politics. Their actions and effects serve as the raw material of politics as a process of organization, but not as politics on their own.

The effects of nonhumans, in Latour's language, serve as something to be responded to, reacted to, included or excluded in the collective, but not as political action. They may serve as a catalyst for politics, in that they demand a reorganization of the common world of collective existence, but they do not participate in the political process, according to Latour's understanding of politics as the composition of the common world through procedures of the collective. It may be that Latour would claim that the act of restarting negotiations among existing entities is necessary to the political process and is, therefore, politics, or that their articulation into the representative realm of politics is politics. But this is a severely limited understanding of politics, one that does not account for the many ways in which other-than-humans play important roles in making, affecting, and constituting politics.

It is also unclear what exactly Latour understands by democratic politics in his account of the collective. Latour has recently begun to be taken as a radical democratic theorist, opening up and expanding the demos of democracy to include nonhumans in their various assemblages. Jane Bennett has described Latour's account of democratic action as a complicated process involving numerous entities, human and nonhuman.¹⁰⁴ Graham Harman has described Latour's ontological leveling between subjects and objects and humans and nonhumans as a "democracy of objects: an Adidas shoe is not

¹⁰⁴ Jane Bennett, "In Parliament with Things," in *Radical Democracy: Politics between Abundance and Lack* (New York: Manchester University Press, 2005) 133-148.

just a shadow on a cave wall, but an actor every bit as real as justice itself,” and as “a democratic cosmos of actors engaged in networks.”¹⁰⁵

Undoubtedly, Latour has done much to complicate received understandings of who and what affects political organization and action in democracies. But in what sense is this *democratic*? Does it make sense to call the political processes involved among humans, nonhumans, and their multiple assemblages democracy, or is there a better way to understand and think about what goes on among these participants? Instead of a necessarily democratic polity, I argue that Latour’s work gives us something else all together, a way of thinking about politics and political activity that opens up participation to other-than-human entities, but one that is not necessarily democratic in any substantive way.

Including nonhumans in a political organization, process, or action, does not necessarily make it a democratic politics, and it is difficult at this point to describe a politics of environmental assemblages as democratic. In Latour’s account, it is unclear what the difference is between politics as the collective composition of the common world and democracy. In his discussions of the politics he endorses, the two are interchangeable: politics as the composition of the collective common world is democracy, and the formulation of the collective that he offers in *Politics of Nature* is one means of achieving an institutionalized democratic polity of humans and nonhumans.

But including nonhumans in political processes in no way guarantees a democratic polity as the outcome. Latour is fully aware of this, and has been pointing

¹⁰⁵ Graham Harman, *Prince of Networks: Bruno Latour and Metaphysics*. (Melbourne: re.press. 2009) 91, 134.

out for decades how nonhumans have always necessarily been involved in politics, even if they are not acknowledged or taken into account.¹⁰⁶ As Latour notes, “we have always been involved in cosmopolitics,” of ordering and organizing relations among entities in the world, and that “it is only through an extraordinary shrinking of the meaning of politics that it has been restricted to the values, interests, opinions, and social forces of isolated, naked humans.”¹⁰⁷ Conflating politics and democracy, as Latour does in a strategic rhetorical statement and in a gesture to his nominally democratic commitments, likewise shrinks the meaning of politics, and glosses over the differences between what is understood as democratic and what is captured in the processes of political composition he describes.

Latour’s understanding of politics as democratic overlooks competing accounts of democratic action and participation, let alone competing forms of politics. Direct actions, disruptive protests, strikes, or other irruptive events by environmental assemblages do not seem to have a place in Latour’s democratic polity of the collective, other than as a catalyst for reorganization and incorporation or exclusion. His is a representative democratic politics that retains much of the human-centered role through the necessity of representation, even as the meaning of representation changes drastically in his account. In addition, the intentionality of actors that is often presumed in human-only accounts of democratic politics is not and cannot be as central in a politics of humans and nonhumans, making the use of the concept of democracy and democratic problematic in its application to cosmopolitics. Even the term democracy,

¹⁰⁶ See his *We Have Never Been Modern*.

¹⁰⁷ Latour, *Pandora’s Hope*, 290.

as the power of the *people*, makes it a problematic term for the purposes of describing a human-nonhuman politics.

Where Latour's efforts of human-nonhuman politics is democratic in a seemingly straightforward way is in the realm of participation and the many novel actors that can now explicitly be included in politics. With the recognition that humans and nonhumans constitute one another and the worlds they sustain, the necessary participation of other-than-humans in sustaining what had seemed to be human-only social worlds becomes evident. It becomes necessary to maintain the participation of various entities to sustain a particular political and social constellation through a variety of means and, like any effective democratic system, a polity will collapse or reconfigure itself without at least a minimal degree of useful participation. But participation in itself does not guarantee a democratic result either; active and acknowledged nonhuman involvement in politics is more ambivalent than the democratic enthusiasm of Latour suggests.

While I do not think it is impossible to name particular instances of politics of environments as "democratic," it seems to me that we have not done the necessary work of understanding what it would mean to have a democratic assemblage of humans and nonhumans. Based on the power of people, democracy as it has been conceptualized must be reworked in a way that does not rely upon the intentionality of its actors and can take account of non-representative actions of assemblages. Latour's *Politics of Nature* takes a first, unhesitant step in that direction, but his understanding of politics as the composition of collective common worlds, rather than struggle, resistance, or action, limits what we can say about his project as a democratic politics.

In addition to the contest between cosmopolitics and cosmopolitanism, the political theoretical implications of the work of Latour and Stengers offer much to the field of political theory and political science, and this chapter represents one effort to bring their efforts into conversation with political theory concerns. From questions about the limits and meaning of representation to considering who and what an actor can be, Latour's and Stenger's efforts at thinking cosmopolitics suggest many innovative lines of inquiry to pursue. Yet, in regards to theorizing an environmental politics, their most recent formulations of a cosmopolitical parliament and the collective also open up many more problems and questions about how environments act and participate in political life. In the next chapter, I suggest the language of cosmopolitical practices and environmental participation as ways of understanding the politics of environments that engage and act in politics, rather than relegating their involvement to representatives that are presumably democratic.

Chapter 4:
A Cosmopolitics of Food: Reconfiguring Politics through Food

Working through various formulations of a politics of *cosmos* in their writings, Latour and Stengers have theorized how to include assemblages into the world of representative democratic politics, radically redefining, in Latour's case, the basic premises of democratic political organization. And while these forms of cosmopolitics offer institutionalized accounts of the role of environments, they sidestep important questions of how the actions of environments and entities can *directly* affect political outcomes, deferring the effects of environments to how they are picked up and represented in other forums by human delegates and diplomats. But is it possible to think of environments' actions as having political effects outside of representation in parliaments and collectives? In what ways do the actions of environments, as I am referring to them here, change political relations outside of idealized institutional, representative politics? In what way are everyday practices cosmopolitical, how do everyday practices reorganize and alter environments, and how do these relate to conventional understandings of politics?

In this chapter, I argue that it is both possible and desirable to conceptualize the activities of environments as taking part in politics in an other-than-representative manner, exercising their forms of agency in diverse and often unseen ways. To demonstrate how entities other than humans can be political actors, I examine food networks organized around human consumption. As one of the more dramatic instances that illustrates the human assemblage situated within a larger environment that makes it possible, food serves as an exemplary case of a politics of the *cosmos* by creating and

transforming relations among assemblages' participants. Food environments and the relations among their component members produce new *cosmos*, unique arrangements of environments, that carry with them distinctive social and political practices and possibilities that are not possible in other cosmopolitically organized food environments. Through the lens of food, I demonstrate that a concept of *environmental participation* is integral to understanding contemporary politics and the recurrent environmental issues around food that have escaped adequate theorization by analysts and critics. Picking up on Latour's work on how things can be brought into political controversies, I claim that *cosmopolitical practices*, that is, entities combining and constituting themselves as environments to produce effects that alter, sustain, augment, or sever relations of power, offer a way to understand the actions of environments as taking part in political actions. Describing the everyday activities that go into making a politics of *cosmos*, the concept of cosmopolitical practices starts from the assumption of direct environmental participation, focusing on how things intervene in, interrupt and constitute seemingly human-only political action.

This chapter proceeds in two sections. The first part considers the concepts necessary to theorize the agency of food environments. First, I demonstrate how nonhumans participate in what I am referring to as cosmopolitical practices. Building on Latour's understanding of the agency of things, in combination with Jane Bennett's recent work on the political potentials of food, I claim that understanding the actions of environmental assemblages as agentic to differing degrees, in the form of environmental participation, is valuable for political theory and critique. I then look at how food, as an assemblage of relations among different entities that coalesce into an environment,

demonstrates this political agency of other-than-humans, an agency that is always distributed throughout a network of participating actors. Existing interdisciplinary work within geography and agricultural studies provides insight into how food networks, a form of environments, act as political participants in creating and altering social and political relations. Following a consideration of theorizations of food environments, the chapter turns to one particular food environment. I offer an account of the activities of corn, arguing that corn exhibits numerous degrees of agency including cooperator, coerced, and antagonist. Through these forms of action, corn has effected a transformation of human assemblages into “industrial eaters,” enrolling entities into cosmopolitical food environments that have provoked resistant practices.

The second part of the chapter looks at resistant food environments that I claim are engaging in cosmopolitical practices, even as their theorizations of their activities suggest otherwise. I look into two contemporary social-political movements, Slow Food and forms of Community Supported Agriculture (CSA), to demonstrate how food is renegotiating environmental relations and transforming the abilities of its participants and interlocutors to act. Against the prevailing tendencies in American dietary practices, these resistant food practices show environments cosmopolitically reconfiguring the conventional relationships that constitute them. These movements represent cosmopolitical action through everyday alimentary practices and show the centrality of environmental participation in political life. Finally, I conclude with a reflection upon the political potential of environmental participation and cosmopolitics, and I argue that it represents a richer and more practical account of the actions of

environments than do Latour's and Stengers' efforts to represent the actions of nonhumans.

Cosmopolitical Practices: Environments as Political Participants

As examined in the previous chapter, Latour and Stengers offer frameworks for political bodies that incorporate representations of humans' and nonhumans' interests.¹ In the process, human representatives must present the case of these environments. They must interest others in the concerns of a particular environment for the effects of nonhumans to be taken into account politically. This representation, following Latour, is not a representation of correspondence, but rather involves articulating the activities of nonhumans to other assemblages of humans and nonhumans who become interested in and recognize the effects these actions have upon them. This procedural and representative politics responds to nonhuman activities as externalities to an already established, if always tentative, political organization. The status of environments' actions—earthquakes, hurricanes, disease, contamination—remains something to be responded to and acted upon politically; the actions themselves do not qualify as political or politics for Latour.

But in conceptualizing politics as the composition of the collective good through the processes of the collective, Latour's theorization of a politics of things leaves out the actions of things themselves.² Events enacted by nonhumans can be considered for inclusion or exclusion in the collective, but the events themselves do not constitute politics as far as Latour is concerned. This is surprising given the broad degree of agency Latour is rightfully willing to grant nonhumans in other cases. For instance, in a broad criticism of the social sciences, Latour argues that social science mistakenly

¹ As discussed last chapter, Latour retains the language of human and nonhuman because he sees it as an improvement over subjects and objects. It is only in my discussions of Latour that I use the language of human and nonhuman to reflect accurately his account.

² See the conclusion of the previous chapter.

avoids taking the activities of nonhumans into account because of a limited definition of actor and agency. “If action is limited a priori to what ‘intentional’, ‘meaningful’ humans do, it is hard to see how a hammer, a basket, a door closer, a cat, a rug, a list, or a tag could act,” Latour admits.³ However, “if we [decide] to start from the controversies about actors and agencies,” that is, if we do not begin from the assumption that we know who or what is doing things or “acting,”

then *any thing* that does modify a state of affairs by making a difference is an actor—or, if it has no figuration yet, an actant. Thus, the questions to ask about any agent are simply the following: Does it make a difference in the course of some other agent’s action or not? Is there some trial that allows someone to detect this difference?⁴

With this alternative conception of agency and action, in which the capacity to make a difference in the outcome of events qualifies as a type of action, agency is greatly expanded, and it would seem that environments have direct access to participate in events, outside of institutionalized settings of parliaments and collectives. But Latour’s conceptualization of politics seems to have little room for environmental participants as anything more than fodder to be articulated into human political practices of organizing social relations, sidestepping or avoiding the question of whether the actions of things can be considered politics or political.⁵

Jane Bennett takes Latour’s broad starting assumptions about nonhuman agency and attempts to extrapolate a form of political agency for “things.” Discussing conventional notions of human political agency, Bennett argues that “something more

³ Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network Theory*. (New York: Oxford University Press, 2005) 71.

⁴ Ibid.

⁵ Latour readily admits and argues for nonhumans as contributing to and participating in social relations, but it is unclear at what point the social and the political intersect.

than an automatic causality is operative: if a human is to qualify as a political agent, her act must participate in a less deterministic kind of causality” than an unthinking reflex.⁶ But paralleling Latour’s claims above, Bennett goes on to say that a broader conceptualization of agency that includes nonhumans “need not rise to the level of full-blown intentionality: all we ask is that the act makes a difference to collective life and that it be *irreducible* to a knee-jerk reaction or instinctual response.”⁷ Following this line of argument about broader degrees of agency, the activities of environments can occupy a wide spectrum of agency, involving actions that lead to expected consequences as well as completely unanticipated effects. Including environments’ activities and their varying capacities within the realm of agency distributes an action’s origins across a diverse array of participants. In fact, for Bennett, agency of any sort, whether perceived as human, assembled, distributed, or environmental, “is *always* an assemblage: even what has been considered the purest locus of agency—reflective, intentional, human consciousness—is from the first moment of its emergence constituted by the interplay of human and nonhuman materialities.”⁸ Agency cannot but be constituted through environments, including “human” agency, as it is always with and through other-than-humans that actions are expressed and sustained.

Bennett develops Latour’s understanding of the distributed agency of things into a language of political theoretical concern, emphasizing the radical break that Latour makes with accepted notions of agency and opening the door to a concept of political

⁶ Jane Bennett, “In Parliament with Things,” in *Radical Democracy: Politics between Abundance and Lack* (New York: Manchester University Press, 2005) 133-148.134.

⁷ *Ibid.*

⁸ Jane Bennett, “The Agency of Assemblages and the North American Blackout,” *Public Culture*, 17(3): 445-65. 454.

agency of environments. Offering an account of Latour's understanding of political engagement among humans and nonhumans based on a reading of *Pandora's Hope*, Bennett goes on to extrapolate an implicit theory of democracy from Latour's account of how decisions in a *demos* are attained. According to Bennett's reading of Latour, "democratic action entails a long and convoluted series of 'negotiations', 'mediations' and 'translations involving the actions and effects of a rich mix of actants.'"⁹ She continues, quoting Latour: "What it means to participate in a democracy, then, is to engage in a process akin to the 'kneading of dough—except that the *demos* is at once the flour, the water, the bakers, the leavening ferment, and the very act of kneading.'"¹⁰ This account of an early version of Latour's democratic politics in *Pandora's Hope* reflects the often chaotic and unregulated activity that goes on among participants in any democratic polity.

But Latour's account of political action in *Politics of Nature* underplays this disruptive and chaotic aspect of the politics of things, as discussed in the previous chapter, settling instead for a representative body that further adjudicates all actions before they can be considered political. Can things themselves not act in such a way to produce political effects prior to entering into the collective? Following Bennett, I propose the concept of *environmental participation* as a way of understanding what environments do when they act. Environmental participation describes the many ways in which environments alter the outcomes of events, making a difference to a particular situation and affecting the relations among other entities. Environmental participation need not imply intention, will, or reason, but only that environments play a role and

⁹ Bennett, "In Parliament with Things," 143.

¹⁰ Ibid.

make a difference in how events play out, changing the outcome of certain events and making a difference to public life. Instead of assigning will to environments, where they might be construed to determine specific outcomes or express prioritized interests, this understanding of participation “means that there might exist many metaphysical shades between full causality and sheer inexistence,” the position anything other than human subjects have historically occupied in the social sciences, political theory included.¹¹ A concept of environmental participation involves the acknowledgment of nonhumans in projects where they do things, in ways predictable and unpredictable, desirable and undesirable. Participation and participants, rather than action and actor, better account for the activities of environments, for, as Bennett suggests, “‘Actor’ may connote more autonomy than I mean to imply; ‘participant’ better captures the sense in which action is a collective endeavour in which nonhumans act alongside or with humans.”¹² Starting from an understanding of environmental participation as involving the various degrees of agency that any effect produces, a politics of the *cosmos* becomes more readily conceivable, if all the more complicated. To remain consistent with the ontological insights about the agency of nonhumans that Latour provides in his less explicitly political writings, in which things play an active role in all events, it is necessary to reconsider what role environments play in politics and how it is that they are capable of direct participatory political action.

It may indeed be necessary to develop a new language to understand this sense of environmental politics that lacks the intentionality and reflective critique of

¹¹ Latour, *Reassembling the Social*, 72.

¹² Bennett, “In Parliament with Things” 134. Bennett retains the human-nonhuman language as well. When discussing her work, I do so as well.

traditional notions of politics and political action. I suggest that *cosmopolitical practices* best captures the activities of environments. Bennett's account of "the self-brewing *demos*" parallels closely what I am calling cosmopolitical practices, where the intentionality of action by human subjects is not the measure of agency and efficacy. Somewhere in between intentionality and instinct, cosmopolitical practices take Latour's and Stengers' understandings of how environments engage one another, and how diverse beings of all sorts participate in them, as their point of departure but do not end in the institutionalized politics of parliaments and collectives that they posit.¹³ Focusing on practices, the broad array of intentional and habitual activities that sustain relations among social actors,¹⁴ cosmopolitical practices emphasize the production and maintenance of environmental assemblages. These practices create, sustain, and alter social relations among participants, with all participants exercising varying degrees of influence and agency upon other environments with which they relate. Environmental participation specifies how entities act in concert in cosmopolitical practices *outside* of the institutional confines of parliaments and collectives that Latour and Stengers envision. More than a response to nonhumans as externalities, cosmopolitical practices can be, and already are, incorporated into quotidian practices, and need no representative political body to emerge.

¹³ I do not think that Latour and Stengers are *only* offering up institutional blueprints for a changed politics, but the parliaments they imagine restrict possibilities otherwise available unnecessarily.

¹⁴ By practice, I mean something like Bourdieu's *habitus*, in that cosmopolitical practices sustain a particular environment by enacting it, that is, by maintaining the conscious and unconscious relations that hold an environment together. These practices are habituated over time as a being becomes accustomed to the entities with which it is attached, but these practices can change through efforts to transform and work on the self, broadly conceived. On Bourdieu's notion of *habitus*, see *The Logic of Practice* (Stanford, CA: Stanford University Press, 1990), 53-55.

In the same way that Latour and Stengers claim that the parliaments and collectives they describe already exist in one form or another, cosmopolitical practices exist as the practices that animate and substantiate everyday activities of diverse beings. Exploring cosmopolitical practices in action through a concrete examination of how entities act together as environments will help demonstrate this politics of *cosmos* formation. Food, and the attachments that it sustains and that sustain it, manifest how environments can have effects directly upon the organization of any particular *cosmos*, without the indirect funneling through an institutionalized body.

Food Networks

Concerns over the quality and security of the American food supply¹⁵ occupy many people's minds and bodies today, to a degree perhaps not seen since Upton Sinclair's *The Jungle* was published in 1906. The constant appearance of *E.coli* contamination in food products including spinach, beef and cookie dough, the unsettling debates over the safety of genetically-modified goods, and the rising interest in organic, local, and whole foods are only a few signs of the growing attention political actors are paying to how they nourish and sustain themselves and their communities. As a result of these irruptions of food into what seemed to be human-only social and political life, the processes that go into the creation and maintenance of food environments have come under increased scrutiny in the past decade.¹⁶ These concerns belie the seemingly

¹⁵ I focus on the U.S. food supply because it is most familiar to me and because it has become the dominant model of industrial agriculture exported throughout the world via the World Bank and other global financial and academic institutions. Parallel accounts of food networks, with even more devastating and dramatic results, could be made for food networks around the world as well. For instance, see Raj Patel *Stuffed & Starved*, (Brooklyn, NY: Melville House Publishing, 2007), Vandana Shiva, *The Violence of the Green Revolution* (New York: Zed Books, 1991).

¹⁶ For instance, recent bestsellers addressing these topics include Eric Schlosser's *Fast Food Nation* (New York: Houghton Mifflin Company, 2005 [2001].), Michael Pollan's *Omnivore's Dilemma* (New York:

trite observation that food and embodied humans are intimately entwined, if not entirely co-constitutive. Without food, the human assemblage cannot continue to exist. The connections between people and food form a network, an environment, that stems through seeds and soil and animals to stomachs and supermarkets and sewage systems. Participants in food networks are incessantly interrupting and remaking the environments they constitute, each contributing and participating in the networks' maintenance and augmentation.

Food provides an important point of leverage into questions of environmental politics and the environmental relations that constitute them. As one of the chief nodes of combination and transformation among entities, food relations are ubiquitous, as are the environments they constitute. The ways that food production in the 20th and 21st centuries has transformed environmental relations are only now beginning to be understood, as are the impacts of these transformations on life-sustaining processes and beings. In addition, food is one of the most obvious and least considered ways the human assemblage constitutes and sustains itself. While much attention is paid to diet and caloric intake, it is only recently that eating has come to be seen as an environmental and political act, and a closer examination of who or what is doing what may help inform actions around food policy and practice. Food is also one of the most readily evident instances of cosmopolitics, organizing and reorganizing material and social relations around how entities relate, combine, and act upon one another. A food politics necessarily alters how environmental assemblages are constituted and the effects they have, creating diverse modes of existence among all types of beings.

As a relation between one entity and another, food can be any substance that combines with a body to produce effects and change in that body for the purposes of pleasure, sustenance, or any number of other reasons. The consumption of food is an act of combination between entities and their effects, recomposing bodies in their internal relations among the components of a complex whole. As Bennett describes eating, “Human and nonhuman bodies re-corporealize in response to each other; both exercise formative powers and also offer themselves as matter to be acted upon. Eating, then, reveals not only the interdependence of humans and edible matter, but also a capacity to effect social change inherent in human and nonhuman bodies alike.”¹⁷ The social change that can be effected by altering food assemblages varies, and is limited in comparison to other means of effecting social change.¹⁸ But the demands for particular food environments, and to even be able to be part of a food environment, have led to radical social upheaval recently, and the issues that food raises pose important questions for political theoretical examination more broadly.¹⁹ As a universal mode of combination among beings, “human” and otherwise, the broader political effects of food require closer attention than they have received.

The food environments that I will focus on are food environments that been organized to produce food for human consumption. While this is an anthropocentric

¹⁷ Jane Bennett, “Edible Matter,” *New Left Review*, 45 (May-Jun3 2007), 133-145. 134.

¹⁸ I am in no way suggesting that food politics is the most effective means of creating social change, but rather that it is an often overlooked area of social life that has significant political implications and can be mobilized to create change. As David Harvey notes about these sorts of issues “there is as much potential for social struggle over lifestyle and associated bodily practices as there is in the realm of production itself.” David Harvey, *Spaces of Hope* (Berkeley: University of California Press, 2000), 112.

¹⁹ In 2008 alone, rioters took to the streets in Egypt, Bangladesh, Haiti, and Mozambique to demand access to food; they demanded to be a part of a food environment, any food environment. “Riots, instability spread as food prices skyrocket” April 14, 2008.

<http://www.cnn.com/2008/WORLD/americas/04/14/world.food.crisis/>

bias, one could also analyze other food environments, such as pet food environments, plant food environments, or ecosystem food environments. That said, it is difficult to disentangle these assorted food environments, as they inevitably feed one another as well, producing a larger network of food environments. I choose to focus on human-oriented food environments in order to problematize the unconsidered relations among human assemblages and the (most often) nonhuman food they combine with, to pose a challenge to the human-nonhuman divide that structures much of how politics is implicitly thought of, and to situate the human assemblage in an environment in order to emphasize that the constitution of the human assemblage is only possible through its affiliations with other entities.

Food environments have been well described in the fields of geography and agro-food studies in anthropology and agriculture under the sign of “food networks.”²⁰ As Hughes and Reimer describe a network, “the idea of the network helps to conceptualize the complex and multi-stranded ways in which different types of nodes (people, firms, states, organizations, etc.) are connected,” making it possible to see the participation of things other than humans (states and organizations, but also plants and weather) in these networks.²¹ One of the major tenets of networks, according to Hughes and Reimer, holds “that agency in a network is driven by both humans and non-humans,” allowing for the effects of nonhumans to be taken into account rather than

²⁰ Ian Cook “Follow the thing: papaya.” *Antipode* 36, 624–64. 2004. Susanne Freidberg, *French Beans and Food Scars: Culture and Commerce in an Anxious Age*. (Oxford: Oxford University Press. 2004.) Alex Hughes and Suzanne Reimer, editors, *Geographies of Commodity Chains*. (London: Routledge. 2004.), Michael D. Smith, “The Empire Filters Back: Consumption, Production, and the Politics of Starbuck’s Coffee,” *Urban Geography*, Vol. 17, No. 6. (1996), 502-525.

²¹ Hughes and Reimer, “Introduction” in *Geographies of Commodity Chains*. (London: Routledge. 2004.) 5, 6.

assumed or ignored.²² More broadly, food environments are environmental assemblages engaging in cosmopolitical practices, circulating substance into and through bodies, sustaining, modifying, and harming them.²³

An effect of the infinite relations among human assemblages and what becomes food, food environments consist of the economic, cultural, biological, physiological, and political relations among food entities, the producers of food, consumers of food, and all those affiliated with them. Whatmore and Thorne list among possible entities included in food networks as “the encoding of particular agricultural knowledges in the form of various technologies; the legal inscription of agro-food practices, from patents to health criteria; and the disciplining of bodies, from obese and skeletal people to industrial animals and plants.”²⁴ Food environments necessarily overlap and connect up with other networks that have nothing necessary to do with food, such as toy companies, cartoon shows, or chemistry research.²⁵ These environments provide a readily available set of relations to articulate and mobilize in novel ways for an infinite number of possible motives, and have lent themselves to radical transformations by various economic and political groups.

²² Specifying a particular type of network within this approach, Murdoch and Miele define a culinary network to be “the array of materials, actors and institutions that comprise *cuisines*,” defined as “stable arrangements of foods, ingredients, practices, and tastes and comprise cultural and productive ‘worlds of food.’” *Geographies of Commodity Chains*, 104. Culinary networks focus on the particular cultural aspects of food networks, analyzing regional traditions of human-food relationships.

²³ Or in the words of Jane Bennett, “Edible material is an agent inside and alongside intention-forming, morality-(dis)obeying, language-using, reflexivity-wielding, culture-making human beings. Food is an active inducer-producer of salient, public effects, rather than a passive resource at the disposal of consumers.” “Edible Matter,” 134.

²⁴ Sarah Whatmore and Lorraine Thorne, “Nourishing Networks: Alternative Geographies of Food,” in *Globalising Food*, (New York: Routledge, 1997), 295.

²⁵ Which is why toys with lead paint used to promote a new kids’ show can end up in a children’s meal at any number of fast food chains. See Schlosser’s *Fast Food Nation*, 47. This is also the benefit of analyzing networks, instead of chains or circuits: a network is infinitely expandable and multidirectional and can take account of seemingly irrelevant things.

As instances of cosmopolitical practices, food environments are assemblages that cannot be broken down into nature or society, human or nonhuman, but can only be seen as networks of immanent entities that participate in their continuation and extension. Most examinations of food networks focus on the human role in organizing food networks and putting them into motion, from commodity chain studies to Marxian political economic critiques.²⁶ Overlooked is the movement that occurs in these networks as a result of the participants other than human agents, including plants, animals, minerals, chemicals, and many other environmental participants. The actions of environments take different forms in the context of food, whether as culturally symbolic participants in rituals and traditions, as a means to lubricate otherwise awkward social interactions, or as sustenance making it possible for other entities to act and sustain themselves. Particular food environments and the relations they elicit produce new *cosmos*, unique arrangements of the things of the world, that carry with them distinctive social and political practices and possibilities that are not available in other cosmopolitically organized food environments. Industrialized food production creates radically different relations among food and its consumers, just as hunting-gathering or 19th century American homesteading environments have different relations and possibilities of social engagement and participation. Food, as environmental assemblages, participates in the making and sustaining of particular political and social arrangements.

²⁶ For a summary of these different approaches, see Goodman's and Watts' introduction to *Globalising Food*, (New York: Routledge, 1997).

Corn Environments

Food environments are complicated and complex chains of relations among entities, and it takes enormous efforts to initiate and sustain stable and productive food environments. They are inevitably the result of decisions made and actions taken by varying entities under differing degrees of intention and influence over time. These arrangements and the food relations that make them possible are often not consciously produced or actively promoted, as Bennett suggests with the “self-brewing of the *demos*,” but more often arise from the historical experiences of the participants in them. These relations can and do change, and have undergone radical change in the past century around the world, producing novel environments that allow certain political and social environmental arrangements, to the detriment of some participants and to the benefit of others.

One particular food environment has developed prevalence in the United States and has reshaped the American and global diet, as well as literally reshaping Americans and global citizens: the environments constituted and held together by industrially produced corn, in all its forms and derivatives.²⁷ Corn, thanks to its unique qualities, has operated as an overwhelming lever to shift the constitution of many food environments. Corn has been enrolled in a whole series of projects that affect nearly everything in the United States, from agricultural policy to weekly groceries to fuel for automobiles. Corn holds together numerous participants in a political economic environment that acts through the entities held in its sway. But what does corn do? Perhaps more appropriate

²⁷ A similar case could be made for soy, wheat, and rice as plant-centered food environments, thanks to the subsidies dumped into these crops in the United States, and the innovative uses to which these entities have been put. It is, in fact, difficult to consider any other plants to focus on, since these crops are the only near-ubiquitous entities in American diets.

would be to ask what it does *not* do and in what areas of life it has *not* been asked to do something. Speaking about the centrality of corn in the conventional contemporary American diet, Michael Pollan writes:

Corn is what feeds the steer that becomes the steak. Corn feeds the chicken and the pig, the turkey and the lamb, the catfish and the tilapia and, increasingly, even the salmon... The eggs are made of corn. The milk and cheese and yogurt... now typically come from Holsteins that spend their working lives indoors tethered to machines, eating corn. Head over to the processed foods and you find ever more intricate manifestations of corn. ... [In a chicken nugget,] the leavenings and lecithin, the mono-, di- and triglycerides, the attractive golden coloring, and even the citric acid that keeps the nugget “fresh” can all be derived from corn. To wash down your chicken nugget with virtually any soft drink in the supermarket is to have some corn with your corn. ... There are some forty-five thousand items in the average American supermarket and more than a quarter of them now contain corn. This goes for the nonfood items as well....²⁸

Corn has found its way into just about everything we could possibly consume in a standard supermarket. In *Omnivore's Dilemma*, Michael Pollan traces corn through the seemingly infinite processes it undergoes and contributes to. His work explores how corn became the being that acts in nearly every node of the larger American food network, or, in his words, his work considers “how corn could have conquered our diet and, in turn, more of the earth’s surface than virtually any other domesticated species, our own included.”²⁹ Through a reading of his work, I demonstrate corn as a key participant in the cosmopolitical practices surrounding contemporary American food environments, tracing corn’s emergence and instantiation into the networks of the American food economy.

Michael Pollan became well known with his *Omnivore's Dilemma* and the follow-up *In Defense of Food*, in addition to his earlier *Botany of Desire* and *Second*

²⁸ Michael Pollan, *Omnivore's Dilemma* (New York: Penguin Books, 2006), 18-9.

²⁹ *Ibid*, 20.

Nature.³⁰ His recent work on food issues reflects current efforts by many intellectuals and academics in America to reevaluate the role of food in American culture and its effects on health, community, and the environment. Much of what Pollan brings to popular attention in his most recent books is nothing new. Animal rights and vegan/vegetarian activists have long been promulgating much of the information that Pollan presents about the treatment of animals in industrial food production and the risks of biotechnological transformation of plants in industrial agriculture. However, through his journalistic presentation of contemporary industrial agriculture, Pollan managed to tap into a constellation of growing discomfort with what passes for food, thanks to a dramatic uptick in food contamination scares and a comparatively wealthy readership that has been able to consider his recommendations about paying more for quality food. His books have been bestsellers, his *New York Times* columns often make the “most read” list, and he has become a figurehead for organic and “locavore” movements across the United States.

While influential in policy and popular “foodie” circles, my interest in Pollan stems from his efforts to understand corn as an actor and participant in American and global food politics. Like many authors currently writing on food, Pollan is trying to get his readership to think differently about the food they consume, both physically and economically. The approach Pollan takes towards thinking about how corn acts would seem to dovetail nicely with what I am talking about as cosmopolitical practices, where entities other than human agents play a role in political outcomes. However, instead of challenging a notion of agency attached to particular agents, Pollan largely recreates

³⁰ Michael Pollan, *In Defense of Food* (New York: Penguin, 2008), *Botany of Desire* (New York: Random House, 2002), *Second Nature* (New York: Grove Press, 1991).

this model by granting corn and other food entities the type of agency presumed to be held by autonomous human subjects. Corn, for Pollan, is a discrete entity that has interests and acts, similar to the conventional image of autonomous human agency. While situating corn in a series of networks, his understanding of how and why corn acts does not consider its ability to act as a result of its position within this network, regardless of how it got there. In Pollan's reading, corn is an autonomous agent with ranked preferences and a will to enact them, competing against other beings for presumably scarce resources. While Pollan tries to rethink the role of corn and other beings in the process of food economies, he inverts the model of human agency, granting corn a degree of independent agency that I am arguing is not applicable to humans or any other being. All agency is exercised through networks of beings, through environments; no single entity possesses agency. Pollan's account of corn—he speaks of corn as a “hero,” “conquering and domesticating” humans and the planet—fails to see how corn itself is tied up in various connections to other things and that corn, as entity and actor, is only possible through the network in which it participates.

Pollan does not make the critique of models of autonomous agency when it comes to food, nor does he make the radical critique of the industrial agriculture complex that his activist forerunners make. However, his reading of what goes on in industrial and non-industrial agriculture offers an important account of thinking about food's activities in political events. His assessment of the agency of corn comes from the perspective of wanting to grant corn an agency equal to humans so that his readers feel a moral obligation to consider the corn when buying and eating food. However, read from a different angle, Pollan's work demonstrates the activities of corn as a form

of what I am calling cosmopolitical practices, where corn produces different effects in different relations with other entities, without the intentional and will-driven motivation of the model of human agency. Through a reading of Pollan's telling of the story of corn, we can see how corn acts in three different ways: as "cooperator," providing energy and substance to others in productive ways; as "coerced," being put to use in various ways to accomplish other goals; and as "antagonist," resisting efforts to enroll it and its effects in particular ways.

Corn the Cooperator

As Pollan insists throughout *Omnivore's Dilemma*, the food environment of corn depends upon, most importantly, corn and the things corn can do, often in cooperation with humans and other actors. "Of all the species that have figured out how to thrive in a world dominated by *Homo sapiens*, surely no other has succeeded more spectacularly—has colonized more acres and bodies—than *Zea mays*, the grass that domesticated its domesticator."³¹ Corn is not a passive object that only receives or absorbs human labors, but corn exerts its own demands and acts within its limited range of possible actions. In Pollan's words, "corn is the hero of its own story, and though we humans played a crucial supporting role in its rise to world domination, it would be wrong to suggest we have been calling the shots, or acting always in our best interests. Indeed, there is every reason to believe that corn has succeeded in domesticating us."³² As evidence of corn's ability to domesticate humans, Pollan describes "agriculture as a brilliant (if unconscious) evolutionary strategy on the part of the plants and animals

³¹ Pollan, *Omnivore's Dilemma*, 119.

³² *Ibid.*, 23. For more on the ability of plants to attract others to them, see his earlier *Botany of Desire*.

involved to get us to advance their interests.”³³ This unconventional interpretation of the origins of corn-based agriculture prior to European colonization turns our attention to corn’s activity in this process, noting the overlooked benefits to and activity of corn in making it the dominating and prolific plant is as in Native American agriculture.

In Pollan’s account of the early history of corn-human domestication in pre-Columbian North America, corn acts in four specific ways that have made it particularly amenable to its eventual participation in today’s global food network. Through its life cycle, it produces and stores a great amount of energy, making it a relatively efficient and effective plant for feeding people and animals, full of calories for anything that consumes it. Corn is radically adaptable to different climates and environments, able to establish itself in drastically variable ecological settings. Corn lends itself to storage in numerous forms, including grains, flours, oil, alcohol, starch, and the many novel forms it takes today in processed foods. Finally, corn reproduces in a manner that is easily susceptible to intervention, allowing humans to cross-pollinate individual corn plants to produce bigger, better corn.³⁴

Corn was able to make “itself at home in virtually every microclimate in North America,” thanks to its “prodigious genetic variability” which “allows it to adapt rapidly to new conditions.”³⁵ Variations in soil quality and temperature and rainfall patterns were no match for corn’s enterprising efforts at existing and finding a place to put down roots, according to Pollan. The annual nature of the plant increased its

³³ Ibid.

³⁴ For more on these features, see *Omnivore’s Dilemma*, 22-4 on efficiency, 24-6 on adaptability, 86-7 on fungibility, and 37-9 on its reproductive traits. For a more historical approach, see Jack Ralph Kloppenburg Jr. *First the Seed: The Political Economy of Plant Biotechnology* 2nd ed. (Madison, WI: University of Wisconsin Press, 2004).

³⁵ Pollan, *Omnivore’s Dilemma*, 25.

evolutionary chances of selectively breeding for beneficial traits, and for the fittest plants to survive. Emphasizing corn's active role in its spread across the continent, Pollan argues that "with the help of its Native American allies, [corn] evolved whatever traits it needed to survive and flourish."³⁶ Corn, with assistance from humans, found a place wherever it was taken, assuming proper tending by the others with which it had thrown its lot.

But, as Pollan highlights, corn did not do all of this on its own. Corn needs to be replanted each year, and humans made the perfect partner to realize this need. "Had maize failed to find favor among the conquerors, it would have risked extinction, because without humans to plant it every spring, corn would have disappeared from the earth in a matter of a few years."³⁷ Corn, adapting to different conditions across the continent with help from humans and others, proved to be a formidable ally in feeding and sustaining the communities that have exploded over the last four hundred years.

Pollan interprets this alliance between humans and corn as a strategic calculation on corn's part, as if corn planned and executed its "partnership" with bipedal mammals. The description Pollan provides of corn portrays it as if it had acted independently in order to accomplish its goals. Yet this is a skewed version of the story of the corn environment's spread. The above description of corn's activities focuses on its domestication prior to European colonization of North America and the far-reaching effects this had on American plant ecology and agriculture.³⁸ Focusing on the agency of

³⁶ Ibid.

³⁷ Ibid 26.

³⁸ See Alfred Crosby, *Ecological Imperialism: The Biological Expansion of Europe 900-1900* (Cambridge: Cambridge University Press, 2004) and Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World* (Cambridge, MA: Harvard University Press, 2007).

corn in this period of its history emphasizes its capacities of evolution and selection arguably inherent to its make-up, making it easier to portray corn as an autonomous agent. This is in stark contrast to corn's role in the 20th century, when it became the most manipulated and distributed plant on the globe and when, as we shall see, the network based through corn became incorporated into more powerful environments that reduced its appearance as an interest-bearing agent.³⁹ This is not to say that corn does not act; on the contrary, it acts, but only in articulation with other beings. Corn does not have a will or interests of its own, but rather, like all things, acts through an articulated environment with other immanent entities.

Corn, then, articulated and has been articulated into an expansive network of actions and entities that now feeds and reconstitutes millions, thanks to its activities and its versatile composition, as well as the numerous other participants who contribute to the multifaceted maintenance of a corn-based food environment. As a cooperator with other entities, corn guaranteed its survival and has participated in creating an environment in which it can thrive.

Corn the Coerced

The effects of corn have also been put into other environments for uses ancillary to its own conventional existence as the integral actor "corn" that Pollan describes. Contemporary agribusiness and the corn assemblage around which it is built have dramatically remade the American foodscape, enrolling the powers of corn in unimaginable ways. Following World War II, corn became one of four crops around

³⁹ See Kloppenburg, *First the Seed*, 66-129 for the history of how corn became the privatized commodity it is today. See William Cronon, *Nature's Metropolis Chicago and the Great West*. (New York: W.W. Norton & Company, 1992) 145-7, for how corn became marketized as well.

which the United States built its agricultural policy.⁴⁰ Agribusiness concerns took advantage of the subsidies available to grow unheard of amounts of corn, and planted it in ever larger farms across the country, eventually producing more corn than many of them knew what to do with.⁴¹ This glut of corn led to innovations in how to use corn, transforming it into products that take advantage of the effects of corn's biochemical properties.

The effects of corn are distributed throughout the entire American food environment in often unnoticeable forms. As Pollan recounts, a single kernel of corn can be broken down into three main resources: "its yellow skin will be processed into various vitamins and nutritional supplements; the tiny germ ... will be crushed for its oil; and the biggest part, the endosperm, will be plundered for its rich cache of complex carbohydrates."⁴² Corn is transformed into a whole collection of molecular entities that find their ways into a large proportion of the processed foods in conventional grocery stores. To help aid human bodies in processing these diverse forms of corn, many of the corn products come partially digested for humans, degraded through a series of "physical pressure, acids, and enzymes."⁴³ The most prominent member of this family of corn products is high fructose corn syrup, found in nearly all U.S.-based soft drinks, juices, mixes, and every other sweetened food product on the shelf.

⁴⁰ In addition to Pollan's *Omnivore's Dilemma*, see Daniel Imhoff, *Food Fight* (Healdsburg, CA: Watershed Media, 2007) and Mark Winne. *Closing the Food Gap* (Boston: Beacon Press, 2008).

⁴¹ *Omnivore's Dilemma*, 62. Highlighting how these incredible amounts of corn and their effects have remade the American food economy and its participants, Pollan remarks that: "Another way to look at this 10-billion-bushel pile of commodity corn ... is that industrial agriculture has introduced a vast new stock of biomass to the environment... the creatures feasting on the surplus of biomass are both metaphorical and real: There are the agribusiness corporations, foreign markets, and whole new industries (such as ethanol), and then there are the food scientists, livestock, and human eaters, as well as the usual array of microorganisms (such as *E. coli* O157:H7)."

⁴² *Ibid* 86.

⁴³ *Ibid* 87.

While mass amounts of corn may have seemed like a perfect solution for post-World War II food concerns, as well as a way to dispose of unused munitions,⁴⁴ the entities to use, consume, and degrade all this corn in all its forms did not yet exist. With the newly abundant stock of corn, as well as its standardization and transformation into novel products, a processor for these complex food products needed to be produced to be able to access and mobilize the power of corn products and the profit they would be capable of providing. In Pollan's words, "this is where [humans] come in. It takes a certain kind of eater—an industrial eater—to consume these fractions of corn, and we are, or have evolved into, *that* supremely adapted creature: the eater of processed food."⁴⁵

Through the transformation of human assemblages' tastes and expectations regarding food, the *cosmos* that this corn-based industrial food environment has produced has also produced a novel environmental assemblage, "the industrial eater" to which Pollan refers. Convincing human bodies to believe that their habitually established intake norms have not been met is at the heart of research and development in the food science departments of agribusiness conglomerates.⁴⁶ In addition to and in combination with an onslaught of food-related advertising and media-driven diet fads, the body itself must be captivated by the effects of nutritionally questionable and dangerous food, all of which have stemmed from the transformation and utilization of

⁴⁴ Vandana Shiva, *Green Revolution*, 103.

⁴⁵ *Omnivore's Dilemma*, 90.

⁴⁶ Relative limits get in the way of how much the body can be fooled and filled, but these limits are quickly surpassed by contemporary food industries. "The power of food science lies in its ability to break foods down into their nutrient parts and then reassemble them in specific ways that, in effect, push our evolutionary buttons, fooling the omnivore's inherited food selection system." *Omnivore's Dilemma*, 104. Corn, with its unique chemical structure and ease of transformation into other derivative products, has become the chief means of accomplishing this deception, inserting itself, incognito, into all sorts of saleable products.

corn and the industrial food *cosmos* it has enabled. Industrial food aims not only to influence the mind's perception of what and how much humans should pass through and combine with their bodies, but industrial food aims to recreate both body and mind through flavor, energy, and a false sense of nutrition to convince, persuade and deceive the cosmopolitical human assemblage to consume more.⁴⁷ A population of industrial eaters is exactly what contemporary food relations in the United States have produced.⁴⁸

Although it is unlikely that CEOs intend primarily to control human mind-body assemblages through food, agribusiness' enrollment of corn-based products that bodies consume and incorporate has created a novel food environment and new participants in it that play radically different roles in organizing social and political life.⁴⁹ This has been much more effective than any conscious effort on their part, gradually transforming environments and their components into food economies. Corn's effects, although sometimes unrecognizable in their transformed state, are enrolled and used by others to achieve separate goals: deceptive nourishment and over-consumption to achieve profit.⁵⁰ Corn acts, even if only through its energies that it lends to agribusiness, by animating and powering this industrially-organized food environment.

⁴⁷ But agribusiness and the food industry have come up with a solution to the problem of apparent "limits to growth" of food consumption, in the form of processed foods that taste great, but have absolutely no nutritional value. "When fake sugars and fake fats are joined by fake starches, the food industry will at long last have overcome the dilemma of the fixed stomach: whole meals you can eat as often or as much as you like, since this food will leave no trace. Meet the ultimate—the utterly elastic!—industrial eater." *Omnivore's Dilemma*, 90.

⁴⁸ Marion Nestle's work on these issues is exemplary of critical nutrition science that examines the political and biological effects of policy and political decisions around food. See, in particular, *Food Politics* (Berkeley: University of California Press, 2007).

⁴⁹ For instance, as one food activist puts it regarding genetically modified seeds, "The seeds came with the genetic code of the society that produced them ... They produced not just crops, but replicas of the agricultural systems that produced them. They came as a package deal and part of the package was a major change in traditional cultures, values, and power relationships." As quoted in Sandor Ellix Katz, *The Revolution Will Not Be Microwaved* (White River Junction, VT: Chelsea Green, 2006), 53.

⁵⁰ Latour in *Pandora's Hope* describes this as goal translation, 178-183.

Without the participation of corn and its many useful properties, agribusiness would have been unable to achieve the reach it has, both across farms and into supermarkets.

From Pollan's perspective, the creation of an industrial food environment is a moral and public health disaster. Participants in the contemporary American food environment have deceived human agents into self-destructive behavior, whether in the form of coyly sweet soft drinks or profit-driven food product marketing. Pollan is also aghast that corn could be used in such un-corn like ways: the transformation of corn into its many secondary products is a travesty against natural ways of producing and consuming food. The creation of the industrial eater, as Pollan describes today's American eaters, violates notions of autonomy and borders of internal/external manipulation by corporations.

But what Pollan does not acknowledge is that the industrial eater is one mode of human consumption among many others that has emerged over the course of time. The "pastoral" and "hunter-gatherer" eaters that he describes in later chapters of *Omnivore's Dilemma* are "victims" of the same manipulation by other entities, constituted by the sets of relations that enable those forms of human assemblages to exist as they do. Pollan's understanding of agency as a natural feature of discrete beings modeled off the illusory image of autonomous human agency prevents Pollan from seeing how "humans" eating practices and the constitution of bodies have always been manipulated and enabled by other entities. The difference today lies in the scale and ubiquity of the industrial consumption framework, not in its capacity to "violate" human autonomy or corn's integrity. Today's corn environments have emerged in such a way that corn as an individual entity is one participant among many and its capacities

are mobilized in ways different from less technologically complicated uses of corn's energy. Corn is "coerced" into lending its agency to other projects that make use of corn's distinctive qualities.

Corn the Antagonist

As a corollary to their capacity to act, food environments can also resist their participation in environments, limiting what a particular environment can do. In the case of corn, resistances abound, and more threaten in the near future. Stronger versions of *E.coli* from corn fed beef, childhood obesity from over consumption of refined sugars, depleted diet and crop biodiversity from monoculture crops, and malnourishment from corn-based fast food diets all point to corn's refusal to participate in this particular food network anymore, at least in the manner it has been enrolled in it and in the harmless way in which it is represented by its proponents in agribusiness. Without a reorganization of food economies, the corn that we have become so familiar with will no longer participate in constituting existing environments. Just as other plants have done in the past, and varieties of corn have already done,⁵¹ corn will not be the last to refuse to participate in industry-based food production, withdrawing its support for the social relations in which it finds itself embedded.⁵²

⁵¹ For more on the corn blight in the United States in 1970 and 1971, see Jack Doyle, *Altered Harvest: Agriculture, Genetics, and the Fate of the World's Food Supply*, (New York: Viking Press, 1985) and Kloppenburg, *First the Seed*, 122-3, on corn blight.

⁵² See, for instance, the case of bananas as recounted by Dan Koeppel in "Yes, We Will Have no Bananas," *The New York Times*, June 18, 2008. Similarly produced and processed as corn, the case of bananas is illustrative of the risks of losing the active participation of a central participant in a particular food environment. Like corn today, up until the mid-twentieth century one species of banana was grown for mass consumption around the world, the Gros Michel. But due to the monoculture planting of this species, a particularly fatal strain of fungus developed and nearly made the Gros Michel extinct, taking away the ability of these bananas to participate in the global food environment built up around them.

Evidence suggests that this refusal is happening with corn today, as corn becomes incapable of withstanding stronger strains of blight and disease that develop in fields of genetically identical plants. Having been deprived of its collective ability to resist these diseases because of monoculture crops, corn has no choice but to abandon its productive role in the industrialized food environment. This should not be considered a “natural limit” that has been reached in the human capacity to exploit corn’s qualities, for every other limit along these lines has been surpassed and overcome through innovative means, for better and for worse. Rather, the increasing frequency of breakdowns in food networks suggests the exhaustion and inability of its participants to continue to play the role assigned to and extracted from them.

Another instance of corn’s resistance is evident in its refusal to participate willingly in the beef industry’s feeding practices. With unwitting (and perhaps unwilling) allies in cows and *E.coli*, corn has transformed the relations of many actors in this aspect of the industrial food environment. Steers have come to play a central role in the corn-based industrial food environment as an intermediary (in the eyes of agribusiness) between corn and humans. The steer, “this sunlight- and prairie grass-powered organism,” has been remade into a processor of corn, making use of its biological properties to produce profit and support a monopolistic food economy.⁵³

Although cows have evolved to eat grass and chew their cud, a corn-consuming cow plumps up more quickly, is therefore cheaper to produce than a grass-fed animal, and has become the norm in industrial agriculture. Not surprisingly, steers had never developed the capacity to process and live off corn effectively. As a result of the

⁵³ Pollan, *Omnivore’s Dilemma*, 84.

unaccustomed diet of corn for steers, they develop a long list of ailments, from bloat, acidosis, and abscessed livers, all of which lead to diarrhea, ulcers, rumenitis, liver disease, weakened immune systems, and pneumonia.⁵⁴ In order to prevent these things, cattle feed is pumped full of antibiotics to keep steers alive long enough to slaughter them. The overuse of antibiotics has not only allowed the steer to develop into a corn-eating processor, it has allowed new “antibiotic resistant superbugs” to be distributed throughout the ubiquitous American food network, including new versions of *E.coli* and salmonella, to name only the most common. While antibiotics sustain the rest of a steer’s life functions, corn greatly increases the acidity in a cow’s stomach, creating the perfect “man-made environment” for the emergence of acid-resistant *E.coli* O157:H7 which is not killed off by human digestive processes like most previous versions of the bacteria. And although the *E.coli* of cow manure should not generally end up in dangerous amounts in human diets, it is considered an inevitable and tolerable consequence of industrial food production. These have been only the most immediately noticeable problems that have emerged with the development of this corn-based food network, while many others wait in the wings to voice their refusal to participate as they have been enrolled.

Without the active participation of many different entities in maintaining the connections within a food environment, no environment can sustain itself and will collapse, finding itself in disarray and dissolution. As suggested through heightened diseases that affect corn and the new cosmopolitical practices that corn, steers, bacteria and *E.coli* have come together to exercise, corn’s active resistance to its mode of

⁵⁴ Ibid, 78.

participation in industrial food environments will force a reorganization among participants, again reshaping the *cosmos* of food environments and creating novel cosmopolitical practices among all involved.

Pollan's account of corn offers a creative take on what role corn has played in establishing itself as the dominant plant in American agriculture and diet. However, his reliance on conventional notions of human agency transplanted onto corn prevents him from seeing the constitutive connections among the various participants that enable them to act and produce the relations Pollan is critical of. The complicated articulation of the industrial food environment's components—cows, corn, fertilizers, marketing, food research and development, industrial agriculture, antibiotics, bacteria, regulation, etc.—presents moments of agency distributed throughout its creation and maintenance. It is not corn that is acting on its own against others, nor is it only manipulative corporations that market the transformed corn products to unwitting consumers: the agency of corn depends upon all of these facets. Corn cooperates, corn is coerced, and corn resists through its participation in different series of articulated networks that transform how each component can act.

As an example of a contemporary food environment, the industrial food environment built up around corn created a novel cosmopolitical reorganization of the relations among entities and their actions. The *cosmos* produced as an effect of the industrial corn environment has remade environments around the world, creating new humans, new cows, new corn, new chemicals, and new relations of power among all of these. With little notice, the centuries-old attachments among these entities have been

radically upended, with the political ramifications of these reorganizations of the world still to be felt by all of its participants. The participation of diverse entities in these environments, most often ignored in the discussions of political and social organization, cannot be overlooked, as it is their contributions to these environments that make them what they are. Without the capacity to act in the ways they do, a corn environment would be unthinkable. Through the power captured in their existence as material entities with histories and capacities to act, as well as their abilities to resist enrollment in particular *cosmos*, food entities play a central role in constituting the seemingly human-only dramas that make up many realms of politics. From the perspective of cosmopolitics, the role of these nonhuman entities can be seen, theorized, and acted with and against without relying on a transcendent concept of nature or the institutional structures of parliaments.

Resistant Food Environments

Although bodies have always been constituted through larger food networks, today's extensive networks which span continents are unprecedented in their scope and scale, in their dependence on monocultured crops like corn, and in their ability to determine such a large portion of dietary and cultural choices. In the contemporary United States and many other places around the world, though, the ability to sustain one's self as an environment through food consumption without risking self-endangerment has become more difficult, as recent food contaminations attest. Decisions about how food environments are constituted and what they can, cannot, and can even *attempt* to join with their bodies have been gradually and surreptitiously removed from the hands of those whose bodies are being sustained.

However, there are signs that corn's actions, along with breakdowns in other human-centered food networks, have caught the attention of some participants in this corn-based food environment. Recognizing their status as complicit participants in corn-based food environments, groups have begun to organize around food issues, articulating networks of food circulation that break the dominance of industrially-produced food. Participants have started to recognize their positions in these food networks, acknowledging the environments created and destroyed through their alimentary practices. Just as corn before them, these groups refuse to be taken as consenting and passive components of industrial food production, and assert their capacities to produce and incorporate food outside of industrial food networks, acting as cosmopolitical participants reorganizing the environments that they are part of. Two movements in particular, Slow Food and forms of Community Supported Agriculture,

stand out in the realm of reorganizing environmental relations around particular effects of food. Through their practices, if not always their theorizations of their practices, Slow Food and Community Supported Agriculture each demonstrate the political possibilities in working with the direct actions of environmental assemblages in the form of food.

Slow Food: Strengthening Food Networks

The Slow Food movement, developed in opposition to fast food, is an attempt to redefine contemporary food practices through closer attention to how food is produced, emphasizing that food should be “good, clean, and fair,” that is, high quality with traditional natural tastes, grown without toxic pesticides or fertilizers, and purchased at an equitable price to the farmers and farmworkers who handle it.⁵⁵ Slow Food was founded in 1986 in Italy, led by the efforts of Carlo Petrini, who now holds a peculiar patriarchal celebrity status among so-called foodies. Petrini and his colleagues were incensed at the transformation of Italian cuisine into a mass-produced and standardized set of food products, the literal poisoning of food and people by pesticides and related chemicals, and the general lack of consideration with which people consumed what they considered to be food.⁵⁶ In response, Petrini and like-minded peers developed the “Slow Food Manifesto,” proclaiming their goal to “rediscover the flavors and savors of regional cooking and banish the degrading effects of Fast Food” and asserting that “real

⁵⁵ For another account of Slow Food’s resistant practices regarding time, see Bonnie Honig “The Time of Rights: Emergent Thoughts in an Emergency Setting,” in *The New Pluralism: William Connolly and the Contemporary Global Condition*, ed. David Campbell, Morton Schoolman, and Bonnie Honig. (Duke University Press, 2008), 85-120.

⁵⁶ For a fuller and self-promoting account of the rise of Slow Food and Carlo Petrini’s role in it, see *Slow Food Revolution* (New York: Rizzoli, 2005).

culture is all about [...] developing taste rather than demeaning it.”⁵⁷ Since its founding two decades ago, the Slow Food movement has expanded to 122 countries with more than 800 local chapters of the movement.

Slow Food has been quite effective at bringing awareness to foods and food traditions that have come close to extinction, and have made progress in highlighting the environmental impact that food choices can have. They have drawn attention to the physiological experience of food and the important connections between people and what they eat. However, Slow Food largely retains conventional approaches to how they conceptualize food, humans, and agency, recreating, like Pollan, the model of human agency and priority even as its limits are revealed in their own descriptions of what they do.⁵⁸ This reliance upon the model of human agency is rather surprising, since the theoretical underpinnings of the Slow Food movement recognize the character of food as a network that connects people, animals, cultures, plants, and geographic regions, and since one of the key features of Slow Food’s attention to food is its material effects upon bodies through taste, health, and pleasure. However, due to Slow Food’s extrapolation of norms from an assumed knowledge of what is natural, its emphasis on *human* taste and pleasure, and its universalist “civilizing mission” of re-education around taste, Slow Food theoretically reproduces a conventional modern

⁵⁷ Petrini, *Slow Food Revolution*, 76.

⁵⁸ Other criticisms of Slow Food abound. Slow Food also exhibits a fetishism of the local and parochial, even as its member participants travel the globe to experience and “save” species and practices from extinction. Finally, Slow Food has been accused of being yet another consumer choice group that encourages individuals to make ethical food purchases, even as they are unattainable by most people. Many of these criticisms ring true, even to many members of the Slow Food organization and they are issues they are actively attempting to address. Finally, Slow Food’s more practical politics leave much to be desired, as they are often, and rightfully so, accused of being elitist, racist, and Eurocentric. One of the persistent criticisms of Slow Food has been its inability to work with other like-minded groups, and its attempt to speak for the entire sustainable food movement.

understanding of who and what acts within food politics, even as their practices create new and potentially transformative modes of existence among diverse beings. While Slow Food's theoretical assumptions limit their critical potential, the work that Slow Food undertakes to build alternative networks among entities redefines what an environmental assemblage of food can and does take part in. Although its adherents would not recognize it as such, Slow Food's activities warrant attention as instances of cosmopolitical practices, as they redefine the organization of environments based around the capacity of environments to act and motivate other participants to act.

In understanding food as—in his words—a network, Petrini wants to problematize the connections among consumption, production, and distribution, to highlight how existing food economies have been structured and are changeable through reorganizing and reworking the affiliations that maintain them. “Food is a *network*,” Petrini claims, “of men and women, of knowledge, of methods, of environments, of relations”⁵⁹ These participants operate in corroboration with one another, each being unable to exist in its condition without the other. A network can strengthen and sustain itself by “reactivat[ing] the connections” among participants and “extending the network as far as possible,” so that its effects are felt beyond its immediate participants. In principle, Slow Food attempts to build out networks based around what food can do, joining up with⁶⁰ other like-minded groups to create durable and resilient food networks, relying on the materiality of food and its effects to help maintain these networks.

⁵⁹ Carlo Petrini, *Slow Food Nation* (New York: Rizzoli, 2007), 175.

⁶⁰ This is a sympathetic reading, to say the least. Others might say they try to absorb, bring in, subsume, or incorporate other groups involved in similar struggles.

Yet Petrini's notion of networks relies on the same anthropocentric model that commodity-chain studies and much Marxian work on food do, that is, focusing only on the human role in establishing, maintaining, and transforming food environments and downplaying the role that the food itself plays. Even as Slow Food attempts to offer an account of food and eating that pays attention to the things being eaten, it is an account based on a relationship between human subject and nonhuman object. Although prodded into activity by the effects that nonhumans exercise through their bodies, Slow Food adherents tend not to acknowledge food as an active participant in their activities, but only as objects to consume and enjoy. For Slow Food, the loss of particular food traditions and foods is primarily a tragedy for the "patrimony" of humanity, a cultural and anthropological loss. In fact, most of the projects they initiate and support are explicitly for humans and human culture, preserving particular foods and their environments as a cultural treasure for future human generations or as part of the heritage of a particular region's human cuisine.

The lack of attention paid to the actions of food is surprising, as it is the effects that food can have upon humans that are central to Slow Food's philosophy, as portrayed by Petrini. These effects—taste, pleasure, and health—have motivated the organization to take action against what it sees as threats to ways of existing together with others. Key to the principles behind Slow Food is taste. As Petrini claims, "Slow Food endorses the primacy of sensory experience and treats eyesight, hearing, smell, touch and taste as so many instruments of discernment, self-defense, and pleasure. The education of taste is the Slow way to resist McDonaldization."⁶¹ In an effort to

⁶¹ Carlo Petrini, *Slow Food: The Case for Taste* (New York: Columbia University Press, 2001), 69.

transform people's tastes, Slow Food has set up classes and schools to "re-educate" people's palates so they can appreciate what food is "supposed to" taste like. Taste, the moment and place of human-nonhuman combination of food, serves to transform some humans' approaches to food. More forcefully, in Petrini's words,

our regained and educated senses have a very important political role. The coarsening of our senses is a surrender to the ruling model, which does not want us to be pleasure-loving, satisfied people but unfeeling cogs in the juggernaut propelled toward profit (and the grave). [...] To reappropriate one's senses is to reappropriate one's own life and to cooperate with others in creating a better world.⁶²

For Petrini and like-minded Slow Food advocates, retraining and reappropriating human sensory experiences to be capable of sensing the effects of food are key to resisting dominant food environments.

Not only does reeducating our senses enable us to appreciate and create alternative food economies for Petrini, but it allows humans to tap into something which makes them human, the capacity to enjoy and find pleasure in taste. The language of "reappropriation" of human senses suggests that our essential and underlying senses have been stolen but that they remain hidden underneath the artificial and damaged sensory apparatus humans currently have. Much like the cosmopolitan thinkers in the previous chapter, Slow Food approaches questions of food politics and food environments from a predetermined perspective, already knowing what qualifies as good and bad taste and with the assurance that they are right. In Petrini's assessment, anything other than "good, clean, and fair" food "degrades" and "demeans" both the human consuming the food and the food itself; the human is not exercising her senses fully and the food is not deserving of the name food. The critical framework which

⁶² *Slow Food Nation*, 98-9.

Slow Food mobilizes against contemporary food environments is based not on an immanent assessment of what its participants are capable of or might want, but on a transcendent principle that is meant to apply to all people. Slow Food and its “civilizing mission” of taste education reproduces the logic of cosmopolitan thought, proposing one model of human existence as the only authentic model available while disregarding the position of humans as integrated into a set of environments that make the human possible.

Like the cosmopolitans, Slow Food adherents base their commitment on a set of transcendent principles in an assumed knowledge of nature and what counts as “good, clean, and fair” according to this version of nature. In a discussion of what makes food “good,” Petrini claims that food’s “naturalness” should be the primary characteristic by which to measure its goodness. Petrini offers a definition of “natural” as “not using too many elements that are extraneous and artificial with respect to the system/environment/mankind/raw material/processing... The raw materials must be healthy, whole, as free as possible from chemical treatments and intensive procedures.”⁶³ Although this suggests Petrini is a culinary Luddite, he does recognize that food, whether in agriculture or on a plate, involves an infusion of process and technique to create quality meals, and that this definition of “naturalness” must be somewhat flexible. He conditions nature, arguing that in determining whether something counts as natural or not “common sense should prevail: a technique is natural if it respects nature, does not abuse it, does not waste it, does not irreparably alter its

⁶³ Ibid, 102-3.

balance.”⁶⁴ The character of good food, then, is dependent upon a particular conception of nature that is balanced, involves “no violence” against animals, is in harmony, has natural rhythms, and does not change.⁶⁵ As with all definitions of nature, Slow Food uses it to argue for a particular moral framework that is uncontested thanks to its status of “natural.” If nature is in balance, peaceful, not wasteful, much like the modern nature we saw in chapter one, then our food practices should resemble and imitate this as much as possible. Anything that deviates from this transcendent model of nature becomes too distant from a primordial origin that “provides” humans with food to count as quality edible material.

Carlo Petrini’s account of Slow Food holds onto a modern concept of nature to assess the quality of food, incorporating a moralizing concept of nature as a foundation to its principles. One might expect a different basis of criticism for a group that prides itself on its defense of local and particular food cultures that demonstrate the diversity present in the world’s food environments, made up of, in his language, “nature and culture.” The cosmopolitan impulse of Slow Food principles of taste conflicts with their efforts to encourage the flourishing of specific food environments around the world that thrive on different measures of taste, quality, and goodness. Even as Slow Food acknowledges the role food plays as a network that connects numerous actors, its spokespersons maintain a nature-culture, human-nonhuman distinction that holds it in an uncritical attachment to a modern concept of nature and the prioritization of humans and their desires. Rather than coming from a dogmatic position of self-assurance based in nature and human agency, a cosmopolitics of food would be able to build notions of

⁶⁴ Ibid 103.

⁶⁵ Ibid.

good, clean and fair food that emerge from existing food environments and their participants.

However, the theorizations of Petrini and other Slow Food writers do not prevent the practices of Slow Food adherents from engaging in cosmopolitical practices as I define them by creating and transforming existing arrangements among entities and the relations that exist among them. As examples of cosmopolitical practices around issues of food, two of Slow Food's projects demonstrate the possibilities inherent to thinking food as a collection of diverse beings that form environments that act: the Ark of Taste and Terra Madre. Interpreted outside of a framework that depends on a moralized and fixed definition of nature, these projects illustrate how food environments are being established and resisting dominant modes of industrial food production.

The Ark of Taste project is an effort to catalog and preserve threatened food entities by reinforcing the food environments they create, to “carry out a broad census of small-scale, high-quality food products from all five continents, in the belief that ... these things represent a heritage of humanity to be kept safe and to be appreciated.”⁶⁶ As Slow Food USA describes the justification of the Ark of Taste, “By promoting and eating Ark products we help ensure they remain in production and on our plates.”⁶⁷ For instance, in the United States, numerous foods that once served a central role in local social practices have become more rare with the homogenization and regulation of American food production. Wild rice in Minnesota, Anishinaabeg Manoomin, is one of

⁶⁶ Petrini, *Slow food: The case for Taste*, 92. Note the language of “heritage of humanity” overlooking the heritage of nonhumanity that is integral to it.

⁶⁷ “US Ark of Taste,” http://www.slowfoodusa.org/index.php/programs/details/ark_of_taste/ Dec 10, 2008.

the better publicized examples, although breeds of turkeys and squirrels as well as fruits and vegetables have also been listed on the Ark of Taste.⁶⁸ The Slow Food organization provides resources for endangered food environments, such as human-wild rice-lakes environments in Minnesota, to invest in the necessary infrastructure and publicity to continue in their practices, if not re-establish them all together or re-invent themselves for contemporary existence.⁶⁹ Through this process of reinforcing and creating novel and broad environments for foods to continue to exist, Slow Food reorganizes and buttresses existing relations among humans and nonhumans to create resistant practices against the domination of industrialized food environments.

The second Slow Food project, Terra Madre, meaning “Mother Earth,” is an expansion of the Ark of Taste project, bringing together the people and the food involved in sustaining threatened environments around the world for a conference of sharing strategies and practices to maintain particular food environments. Terra Madre convened for the first time in 2004 in Turin, Italy, and “brought together 5,000 members from 1,200 food communities in 130 countries.”⁷⁰ While participants tended to overflow with praise about the wonderful multicultural gathering of peoples from around the world, Terra Madre was also an effort to produce not only local food environments of distinctive social practices, but an alternative global food network among participants that incorporated the diverse practices that have gone into creating

⁶⁸ “An Unlikely Way to Save a Species: Serve It for Dinner,” *New York Times*, April 30, 2008. <http://www.nytimes.com/2008/04/30/dining/30come.html> For a list of the foods in the United States Ark of Taste, see *Slow Food Revolution*, 292-4, or the above website.

⁶⁹ This most often involves being connected into capitalist networks of production and distribution, creating niche markets for “traditional” and “authentic” food that only some can afford. This is certainly the case in some instances, and Petrini is more than happy to embrace the market-based tendencies of Slow Food, claiming it is necessary for the survival of these foods.

⁷⁰ Vandana Shiva, *Manifestos on the Future of Food and Seed* (Cambridge, MA: South End Press, 2007), 1.

distinctive food environments. “Terra Madre,” writes Vandana Shiva, “was a celebration of our practice of living economies in which we coproduce with the earthworm and the spider, with the mycorrhiza and the fungus.”⁷¹ The Terra Madre “project certainly did not stop with the meeting, but still strives to provide tools and services that may lead to other analogous meetings, possibly even wider in scope.”⁷² Various food environments, the entities and the relations they produce, convened people and things to create resilient food environments. And the organizers, while perhaps overly optimistic about Slow Food’s aspirations, claim that “the political value of the examples conveyed by the network is important to the extent that it sustains itself, grows and establishes relations and alliances with other networks.”⁷³

Slow Food’s Ark of Taste and Terra Madre are projects of articulating food environments among food and people to resist the dominant and homogenizing spread of industrial food environments. The many participants in Terra Madre and the Ark of Taste differently articulate entities into food environments in order to create well-articulated cosmopolitical participants that can withstand challenges from competing food environments. Food brings these participants together and serves to cement the relations among them, from organizations to individuals, seeds and farmers. Slow Food, as one contemporary mode of cosmopolitical practices that actively involves environmental participation, has had a significant impact in altering the *cosmos* they find themselves and their environmental participants in, based on the effects of food. Through projects like the Ark of Taste and Terra Madre, Slow Food has produced a

⁷¹ Shiva, *Manifestos*, 7.

⁷² Petrini, *Slow Food Nation*, 204.

⁷³ *Ibid*, 206.

large network of food environments that are capable of resisting dominant cosmopolitical food practices of industrial food production and creating alternative modes of food provisioning.

Community Supported Agriculture: Building Resistant Environments

One of the strategies endorsed and encouraged by the Slow Food movement, among many other environmentalists and food activists, Community Supported Agriculture (CSA) represents a second example of contemporary cosmopolitics of food practices resistant to dominant food environments. A typical CSA connects food consumers with local producers by distributing weekly allocations of freshly harvested produce to subscribers and part-time workers on a local farm. This normally involves an up-front payment of between \$300 and \$700 (less if subscribers agree to work on the farm for 10-20 hours in a growing season) for 16-20 weeks of local, often organic, produce. The program began in the United States in 1986, spearheaded by food activist and farmer Robyn Van En and modeled after existing arrangements in Switzerland and Japan. From its small beginnings in western Massachusetts, CSAs can now be found across the country, with approximately 1700 CSAs now actively distributing local food to an estimated 100,000 members.⁷⁴ The food environments that CSAs create and sustain are intended to be sustainable, with long-term maintenance of farms, communities and the immediate environment in mind. Many CSAs are not officially organic, because of the onerous and expensive certification process of the USDA, in addition to the watered-down and industry-written legal definition of “organic.”⁷⁵ But

⁷⁴ See the Introduction to Elizabeth Henderson and Robyn Van En, *Sharing the Harvest: A Citizens Guide to Community Supported Agriculture*. (White River Junction, VT: Chelsea Green Publishing, 2007).

⁷⁵ On the difficulty of getting certified organic, see *Sharing the Harvest*, 134-142.

nearly all are biodynamic and sustainable, relying on few to no industrially-produced pesticides or herbicides and refusing to plant genetically-modified organisms.

Against the global network of industrialized food production, CSAs decentralize food production, cutting themselves off from industrialized food networks that have begun to refuse to function. In contrast to the global reach of the industrial food network, CSAs refuse to extend their reach across geography or culture, preferring, instead, to intensify the relations among the environments they already constitute. In doing so, CSAs and their participants are less susceptible to dangers of industrialized production, such as the *E.coli* contamination that frequently occurs in industrial processing, and offer a functional alternative to industrial food production environments. With recurrent food crises around the world, CSAs also aim to provide a safeguard against distribution-based food famines and monoculture crop failure, relying on locally produced and adapted foods, rather than long-distance imports of standardized products. Committed to building local, sustainable food environments that are, to greater and lesser degrees, outside of industrialized food markets, CSAs aim to empower food environments to enrich and develop, providing a resistant alternative set of human-nonhuman relations through which to act.

CSAs, while susceptible to niche-marketing to yuppies and well-to-do environmentalists, do more than provide rich people with access to local, authentic, “whole,” foods, as its critics often claim. Unlike the image that Slow Food has attained in the United States, many CSAs are committed to providing low-income and traditionally ignored communities with fresh fruits and vegetables. CSAs have actively pursued eliminating “food deserts” in urban communities by establishing farmers’

markets and delivering shares to shelters and food banks.⁷⁶ They have aided public schools in incorporating local, organic, and fresh foods into their lunch programs, if not replacing low quality food all together.⁷⁷ CSAs have partnered with rehabilitation centers to provide opportunities for residents to work on the farm. Explicitly seeing environmental justice to be a question of social justice, CSAs struggle to reorganize established food environments around sustainable and just food practices.

In addition to these well-organized and well-established arrangements among farms and subscribers, an “underground” version of community supported agriculture also exists, facilitating the distribution and circulation of food products deemed to be illegal by the Food and Drug Administration, United States Department of Agriculture or state and local authorities. For instance, as Sandor Ellix Katz recounts, many local “bread clubs” exist across the United States, where local participants bring food they have made themselves to an agreed upon public place to sell and trade their products with others, including bread, milk, eggs, seasonal produce and fish. This is all illegal because none of the food products are certified by health code-enforcing agencies. As one breadmaker describes, “For me to build a certified kitchen with attached oven, I would have to go greatly into debt and then bake my ass off just to pay that debt, probably seven days a week, and then I’d grow to hate baking and hire other people to bake, and then I would just be a business owner. And so I bake underground, every other week, because I love to...”⁷⁸ What seems like a simple and unproblematic act—baking homemade bread and selling and trading it with neighbors—is met by staunch

⁷⁶ Winne, *Closing the Food Gap*.

⁷⁷ San Francisco chef sponsors a garden at a local school to provide healthy, local lunch food. <http://www.edibleschoolyard.org/>

⁷⁸ Katz, *The Revolution will not be Microwaved*, xiv.

resistance from state powers, as non-industrial food production has been made burdensome and illegal, in some cases. As Katz describes, “Selling home-baked bread, or any food prepared in a home kitchen, is prohibited by most, if not all, health codes in the United States. Livestock for sale [...] may not be slaughtered by the farmers who raise them... Milk and other dairy products may not be sold without pasteurization...”⁷⁹ For the ability to produce and combine with food products made largely outside of industrial production processes, people across the United States break the law daily. Numerous similar instances of these practices exist, including groups such as Food Not Bombs,⁸⁰ medical marijuana growers, guerilla gardeners, and the newly trendy dumpster diving.

More than a feel-good subjective experience of creating food and sharing it with others, these efforts represent the construction of a food environment capable of altering the conditions of its participants existence. Enrolling the effects of food, participants articulate among themselves to create CSA food environments that act against the dominant and expansive food environments that aim to subsume all food activities under their umbrellas, such as the omnipresent industrial corn network. This combination of entities in CSAs produces a set of cosmopolitical practices that redefines the relations of existence while offering a critical alternative way of life to that inscribed in existing social and legal relations. Participants in conventional CSAs support their farms, often both physically and financially, because of the effects that the food they consume will produce. These effects include the contested health benefits of

⁷⁹ Katz, *The Revolution will not be Microwaved*, xiv.

⁸⁰ Katz, *ibid*, 289-296; see also C.T. Butler and Keith McHenry, *Food not Bombs* (Tucson, AZ: See Sharp Press, 2000).

an organic diet and the improved taste of the food, but for many, participation in a CSA is also an effort to mobilize with food to act against an environmentally unsustainable and public health harming mode of industrial food production. The benefits of a local, sustainable diet that CSA-based food offers encourage a changed set of practices that may have some at least minimal effect upon broader social relations that go into food production.

Food Environments as Cosmopolitics

The food environments that organizations like Slow Food and CSAs create are not only about consumer choice in the marketplace where individuals should have a right to eat whatever they want (20 different types of peanut butter!), nor are they entirely about the danger of processed, industrialized fast food and the public health effects it has on people and populations, as has been documented by many others.⁸¹ These are undeniably important and, in some cases, central aspects of Slow Food's and CSA's critique of existing food networks. What is most politically promising in Slow Food's and like-minded organizations' activities are the alternative networks they aim to create through constituting resistant food environments. In contrast to libertarian-inspired actors who aim to "get off the grid" or produce autarkic isolated communities of one, these food-based cosmopolitical participants actively build networks of people and food, strengthening them so they can resist, refuse, and counterpose dominating modes of food organization and the relationships that contemporary food practices condition and make possible. Slow Food and CSAs represent attempts to create space for various immanent entities to act as a cosmopolitical entity upon itself and others.

⁸¹ See Schlosser, *Fast Food Nation*.

Infusing these environments is the activity of food, articulating entities and places together, convoking a group to act and do things that they would not have the capacity to do otherwise. Food not only provokes other entities to act and organize against industrial food practices, but food demands a role in this response and provides the means for entities to come together and act together.

Food environments may indeed be examples of what Latour has in mind when he refers to collectives. In some senses, the two powers of Latour's collective, to take into account and put into order, are exercised in food environments: human-nonhuman assemblages decide with which entities they will attempt to articulate and which they will dismiss, and they attempt to prioritize certain relations over others to organize their collective existence. For Slow Food, for instance, "taking into account" would involve recognizing the existence of threatened plants and animals that constitute important cultural practices alongside the existence of monocultured, bland processed food products. "Putting into order" for Slow Food prioritizes the use and dissemination of these plants and animals to make sure they are utilized and their existence strengthened, building lives around the protection and consumption of these other beings.

A distinctive aspect of these food environments, and of the cosmopolitical practices inherent in building environments in general, is the particularity of the environments that emerge. Rather than attempting to build a universal polity that can include all entities, a cosmopolitical approach acknowledges the impossibility of universality and instead attempts to build collective communities based on the often local and always specific attachments among environments. Slow Food's practices emphasize the local and particular entities that create specific environments and attempt

to articulate specific food items more strongly with their component parts. Although the overriding principles of Slow Food are standardized (“good, clean, and fair,” according to Petrini), the particular environments they buttress are not and *cannot* be standardized because of the particular qualities they express. CSAs are found across the United States and around the globe and have similar practices to one another, but each is particular to its region based on what grows well in particular areas and what communities are willing and able to support.

In contrast to neo-Kantian liberal cosmopolitanisms, cosmopolitics does not attempt to include all people and things. Instead, a cosmopolitics necessarily and explicitly excludes particular beings from its environments, often without due process or defensible reasoning. Environments of cosmopolitical practices are selective entities that will articulate with other environments, beings, and processes if they are compatible. Oftentimes environments will form that are not compatible or at least conflictual. For instance, contemporary industrial food production is a food environment that is held together tenuously through antibiotics, fertilizers, manure lagoons at animal feeding operations, government subsidies, and an American diet focused on meat consumption. In contrast, CSA food environments hold together tenuously through local communities’ contributions, varied growing and weather conditions, a non-meat-centered diet, and limited marketing capabilities. These contrasting environments, based on the participation of the entities involved in them, are not compatible and one could not subsume the other without destroying it. As forms of cosmopolitical arrangements of relations and entities, neither can be all-inclusive if it means to keep the other environment’s practices in any recognizable form.

Acknowledging that these environments will not be universal or capable of accepting any and all entities is a central tenet of what cosmopolitical practices entail, as it is only through the immanent activities of varied entities that an effective environment can emerge.

Understanding the actions of nonhumans as a form of political participation provides a better conceptual apparatus to think through environmental political questions, as it takes into account all entities that have effects and produce outcomes in conditioning the social conditions of political and biological possibilities. Ignoring the actions of nonhumans, as most accounts of politics do, or downplaying their capacity to participate in politics, creates an emaciated picture of what actually goes on in political activities, relegating entities' powers to an assumed and taken for granted part of producing desired political effects. From this cosmopolitical perspective, food's effects are explicitly and directly political, in the form of food policy, public health, food supplies in markets and stores, and agricultural practices.

Cosmopolitical practices allow the construction of environments on many levels, in many realms of life, without overhauling everything from the foundations. This may appear to be less substantial or radical than a theoretical framework that aims to explain all aspects of political life through one particular lens, or a cosmopolitanism that attempts to include any and all entities. But instead of offering the false promise of radically reorganizing society around particular principles, cosmopolitical practices offer a mode of thought that recognizes the peculiarity and particularity of specific (cosmo)political configurations that require and benefit most from detailed attention and consideration. Cosmopolitical practices provide a tool for all participants to

conceptualize the environments they participate in, the *cosmos* these may produce, and whether they will continue participate, opt out, or offer up an alternative cosmopolitical organization to challenge and resist existing or dominant modes of the organization of life.

Taking account of environmental participation in this cosmopolitical manner also broadens environmentalism and environmentalist concerns to any and all arrangements of entities in the world. Food and other beings are not simply objects that need to be managed and regulated, but become participants in practical activities and decisions about what sort of community and collective any collective wants to be. Politics becomes a set of questions about what sort of relations are possible and desirable among environments, and the capacities of environmental participants must be factored into the constitution of any political community. Finding sustainable cosmopolitical arrangements of environments capable of living together, and taking account of participants refusals, variously expressed, to participate or not in a certain food network, may be an important step in the process of reorganizing and establishing new and participatory food networks.

Conclusion: Towards a Cosmopolitics of Environments

The theorization of environmental politics has long been held captive by the language and thought of the categories of nature and the human. These categories have limited possible ways of existing amidst the world of things, as nature and the human start from the assumption that it is impossible for one to be actually amidst the other. This project is an effort to understand why this has been the case, and an attempt to think environmental politics without relying on these categories. Through the concepts of environments, immanence, and cosmopolitics, as well as cosmopolitical practices and environmental participation, I have tried to provide a framework of thought that can conceptualize the varied beings of the world as acting together to change the relations that constitute their collective existences.

This project was motivated by a dissatisfaction with the way that environmental politics gets talked about. Abstract notions of nature and society that were inherently in conflict did not explain the cities, transportation networks, food systems, or rural areas that I was familiar with. Work in environmental political theory generally reproduces much of this disappointing language of nature and society, even as they develop nuanced and innovative accounts of the varied content of nature and of the relations between nature and society. To their credit, the work of contemporary environmental political theorists has done much to open the possibilities for the accounts of the relations among entities that I aim to understand here. Accordingly, the concepts I have focused on speak primarily to those working in environmental political theory who recognize that the language of nature and the human is problematic, and who aim to

find ways of thinking outside of this language to develop environmental political practices that can take into account all entities of the world.

That said, the key concepts of this project offer the groundwork for approaching an environmental politics without nature or the human. As noted in the introduction, concepts do more than represent or interpret the world; they, like any assemblage, contribute to and help constitute the worlds they take part in. Therefore, cosmopolitics and environments aim to create new worlds unavailable through previously existing concepts in environmental thought. I will conclude with a discussion of some of the ways that these concepts redefine the basic questions of environmental political thought.

First, the concept of environments creates a novel approach to agency that is rarely conceptualized as such in environmental political thought (EPT). In most cases, environmental political thought remains based around the assumption that humans can and must do something for the environment: save it, preserve it, protect it, restore it. In other cases, humans must remediate the environment and get it into working order so that people can live healthy and safe lives without having to worry about a threat of polluted environments. Either way, EPT assumes that humans are the central agents that act, change things, and affect others. Nature is something that can be respected or revered, used and transformed, but it is always separate and distinct from the human being that sees, interprets, and modifies it. The concept of an environment changes this. Based on the participation of any and all immanent beings, the concept of an environment frames these efforts to change environments as a corroboration among beings, not an exercise of force or labor from one to the other. Where conventional approaches to EPT see humans trying to rearrange their surroundings, from the

perspective of environments, as I develop them here, new assemblages are being created through the transformation and modification of the material organization of life. Environments are not acted upon or subjected to human labor or will, but environments are created in conjunction with the activities of the entities that act, the same entities that conventional EPT sees as being moved or altered by humans. Environmental politics, from the cosmopolitical perspective I propose here, is not about creating safe and healthy backdrops upon which human lives can play out. Rather, cosmopolitics, as a politics of articulating environments, creates the collective beings that exist in an environment. There is no “backdrop” that humans exist on, but instead there are only environments that take part in shared existence. The participation of entities in this process differentiates the environments I elaborate here from the nature that EPT focuses on. Environmental participation permeates all aspects of life, to such a degree that all of life takes part in cosmopolitics at all times.

Cosmopolitics, the other central concept I develop through the course of this project, also offers a dramatically contrasting take on what environmental politics is and can be. As a way of conceptualizing how particular environments come to be and how they are sustained, the concept of cosmopolitics recognizes the role that various beings play in constituting an environment and its possible actions. This, again, is significantly different from most accounts of nature and the environment within conventional EPT or environmental politics. From an EPT perspective, the environment is primarily a product of nature and natural laws that can be understood through the natural sciences. In order to be an environmentalist, it is necessary, first and foremost, to follow the pronouncements of science, as the spokesperson for nature, in how to live, act, and

consume. Other understandings of nature or the environment—religious, cultural, social, economic—can and should be added on top of the scientific understanding of nature, but, at base, environmental politics should follow the guidelines of the natural sciences as the authoritative voice on what nature is. From a cosmopolitical perspective, this is not the case. The concept of cosmopolitics in no way dismisses science or its understanding of environments; far from it. The sciences create important ways of articulating entities that would not be possible without their insights. However, where cosmopolitics differs from a conventional environmental politics is in the moral and epistemological authority granted to the sciences. Instead of understanding an environment as a natural being with culture added to it, cosmopolitics understands environments as multiply constituted entities with varied sources of creation. An environment is necessarily a cultural-economic-material-conceptual entity, and the various aspects of an environment's constitution contribute different degrees of significance to what it is capable of doing. But in no way is an environment of cosmopolitics primarily a being of nature and secondarily a cultural, religious entity; it is always simultaneously all of these.

On that point, in a cosmopolitical environmental politics, no single authoritative source holds an objective “solution” to perceived environmental problems. Just as an environment takes part in various parts of life, transformations of environments require compromised negotiations among the differing participants in an environment. The varied food environments described in the previous chapter are all possible and defensible cosmopolitical arrangements of how entities combine and sustain themselves. Various factors go into the processes that creates a particular environment,

with modern scientific arguments mixing with capitalist profit-driven practices, cultural norms, government interests, religious commitments, dietary restrictions, developed tastes, and the activities of food and bodies. Thinking about environmental politics from a cosmopolitical perspective means taking all of these perspectives into account when understanding and critiquing particular environments; it means not assuming that scientific explanations are the only legitimate means of adjudication of whether a particular environment should be sustained or weakened, transformed or eliminated.

As a corollary of the diverse sources of an environment's origins and actions, the concept of cosmopolitics does not provide a means of answering what environments are "good" or "bad," or what environments are desirable. Without the sciences or any other authority to decide in the last instance, cosmopolitics leaves open the evaluation of particular environments. Instead, cosmopolitics provides a way of examining and understanding the environments we constitute and are a part of. It is then up to environments to ask what kind of assemblage they can be, what activities they want to be able to do, what possibilities they want to open themselves up to. But cosmopolitics cannot answer the question of what environments should be struggled for. The answer to those questions must come from the participants in a particular environment who utilize immanent measures of what they can and want to do to transform themselves into something new with different capacities for action.

Yet this process of directed transformation becomes less straightforward from a cosmopolitical perspective, as no clear process for making decisions about what an environment wants to be exists. Models of liberal human agency suggest that an agent should be able to determine what it wants based on instinct, will and reason. But

without these constructs available to environments, agency and action become much more ambiguous. Moving from the figure of the human to environments as actors emphasizes that, even when we ask “what type of assemblage do I want to be?,” many other assemblages are enrolling “us” in “their” assemblages, taking advantage of the things that our particular environments can do. We are always enrolled in some other assemblage, often without our awareness of it, participating in, for instance, a capitalist environment or cultural environment without actually choosing to do so. Choices about what environments to participate in are only so meaningful when considered from a cosmopolitical perspective of environments, as the environments we participate in are beyond the control of any one participant or a single other environment. Agency, in this way, is spread around many entities that articulate into an environment to produce action, even without a direct or clear line of decision-making.

The form of agency developed over the course of this project is not the modern liberal agency that locates all agentic capacities in the rational human, but neither is it a deterministically or mechanistically structural account of agency. The implications of this conceptualization of agency political suggests that it is an impossible task to choose what environments one wants to participate in, as one is always caught up in a variety of environments. Instead, cosmopolitics suggests that agency is something to be explored through our practices, in an effort to understand the roles we can and cannot play, the things we can and cannot do, what environments articulate well and which do not, and what attachments produce which effects. To recognize that our actions, as much as they are “ours,” affect other environments and are affected and often motivated by other environments, changes how we conceptualize notions of autonomy and

responsibility, as participants in environments that are both much smaller and much larger than we can know. As part of an environment, we both cannot and must accept some degree of responsibility for the effects of the environments we are a part of, as practices we participate in produce effects and articulations that affect and alter our selves and other environmental assemblages. Living as environments means we must develop new means of measuring responsibility that are neither paralyzing nor meaningless, and that do not originate in transcendent principles beyond the environments they measure.

Finally, a cosmopolitical approach to environmental questions suggests a critical stance towards particular arrangements of life, based not on a transcendent standard external to an environment, but based on the question of what an environment can do. What can an environment do? What effects can it produce? Can it do more? Can it do less? And how, through a reorganization of cosmopolitical relations, can we create a “we,” full of things of all sorts, to do the things that “we” want to do? It is in these questions where the problem of thinking a *democratic* cosmopolitics emerge once more. How might it be possible to form an environment, a “we,” that can act along the lines of what its participants want to do, even while recognizing that its participants cannot express their wishes in ways that the ideals of human-only democracy are formulated? I do not have answers to these problems, but my hope is that cosmopolitics and environments can help us think more effectively about how to explore and create democratic practices that are capable of the developing the participatory possibilities of cosmopolitics.

Bibliography

- Adorno, Theodor W. and Max Horkheimer. *Dialectic of Enlightenment*. New York: Continuum. 2000.
- Agamben, Giorgio. *Potentialities*. Stanford, CA; Stanford University Press, 1999.
- Althusser, Louis. "Ideology and Ideological State Apparatus," in *Lenin and Philosophy and Other Essays*. New York: Monthly Review Press, (2001), 85-126.
- Althusser, Louis and Étienne Balibar. *Reading Capital*. New York: Verso, 1997.
- Appiah, Kwame Anthony. *Cosmopolitanism: Ethics in a World of Strangers*. New York: Norton, 2007.
- Archibugi, Daniele, et al. *Debating Cosmopolitics*. London: Verso Books, 2003.
- Aristotle. *Politics*. New York: Oxford University Press, 1998.
- Bacon, Francis. *The New Organon*. Cambridge: Cambridge University Press, 2008.
- Badiou, Alain. *Deleuze: the Clamor of Being*. Minneapolis: University of Minnesota Press, 2000.
- Badmington, Neil. *Alien Chic: Posthumanism and the Other Within*. New York: Routledge, 2004.
- Balibar, Etienne. *Spinoza and Politics*. New York: Verso, 1998.
- Balibar, Etienne. *We, the People of Europe?* Princeton: Princeton University Press, 2004.
- Ball, Terrence, James Farr, and Russell L. Hanson, eds. *Political Innovation and Conceptual Change*. Cambridge: Cambridge University Press, 1989.
- Barry, John. *Environment and Social Theory*. New York: Routledge. 1999.
- Barry, John. "Ecological Modernisation," in *Debating the Earth*, edited by John Dryzek and David Schlossberg. 2nd ed., 303-321. Oxford: Oxford University Press, 2005.
- Benhabib, Seyla. *Another Cosmopolitanism*. New York: Oxford, 2008.
- Bennett, Jane. *The Enchantment of Modern Life: Attachments, Crossings, and Ethics*. Princeton, NJ: Princeton University Press, 2001.
- Bennett, Jane "The Force of Things: Steps toward an Ecology of Matter." *Political Theory* 32:3 (June 2004), 347-372.
- Bennett, Jane. "The Agency of Assemblages and the North American Blackout," *Public Culture*, 17:3 (2005), 445-65.
- Bennett, Jane. "In Parliament with Things," in Lars Tønder and Lasse Thomassen, eds. *Radical Democracy: Politics between Abundance and Lack*. New York: Manchester University Press, 2005.133-148.
- Bennett, Jane. "Edible Matter." *New Left Review*, 45 (May-Jun 2007), 133-145.
- Bennett, Jane and William Chaloupka, editors. *In the Nature of Things: Language, Politics, and the Environment*. Minneapolis, MN: University of Minnesota. 1993.
- Benton, Ted. Ed. *The Greening of Marxism*. New York: The Guilford Press, 1996.
- Bergen, Véronique. *L'Ontologie de Gilles Deleuze*. Paris: L'Harmattan, 2001.

- Biro, Andrew. *Denaturalizing Ecological Politics: Alienation from Nature from Rousseau to the Frankfurt School and Beyond*. Buffalo, NY: University of Toronto Press, 2005.
- Bourdieu, Pierre. *The Logic of Practice*. Stanford, CA: Stanford University Press, 1990.
- Boyle, Robert. *Selected Philosophical Papers of Robert Boyle*. Indianapolis: Hackett Publishing Company, 1991.
- Braun, Bruce. *The Intemperate Rainforest: Nature, Culture, Power on Canada's West Coast*. Minneapolis: University of Minnesota Press, 2002.
- Braun, Bruce. "Nature and Culture: On the Career of a False Problem," in *A Companion to Cultural Geography*, edited by James Duncan, Nuala C. Johnson and Richard Schein, 151-179. Malden, MA: Blackwell Publishing Ltd., 2004.
- Braun, Bruce and Noel Castree. *Remaking Reality: Nature at the Millenium*. New York: Routledge, 1998.
- Breckenridge, Carol A., et al. *Cosmopolitanisms*. Duke University Press, 2002.
- Brown, Mark. *Science in Democracy: Expertise, Institutions, and Representation*. Cambridge, MA: MIT Press, 2009.
- Bullard, Robert D. and Beverly Wright, eds. *Race, Place, and Environmental Justice After Hurricane Katrina*. New York: Westview Press, 2009.
- Büger, Christian and Frank Gadinger, "Reassembling and Dissecting: International Relations Practice from a Science Studies Perspective," *International Studies Perspective*, 8 no. 1 (Jan. 2007), 90-110.
- Callon, Michel. "Some Elements of a Sociology of Translation: Domestication of the *Scallops* and the Fishermen of St Brieuc Bay," in *Power, Action and Belief: A New Sociology of Knowledge*, edited by John Law. London: Routledge & Kegan Paul, 1986.
- Campbell, David, Morton Schoolman, and Bonnie Honig, eds. *The New Pluralism: William Connolly and the Contemporary Global Condition*, Duke University Press, 2008.
- Castree, Noel. "The Nature of Produced Nature: Materiality and Knowledge Construction in Marxism," *Antipode* 27:1 (1995), 12-48.
- Castree, Noel. "Socializing Nature." in *Social Nature: Theory, Practice, Politics*, edited by Noel Castree and Bruce Braun, 1-21. Oxford: Blackwell, 2001.
- Castree, Noel and Bruce Braun, Eds. *Social Nature: Theory, Practice, and Politics*. Malden, MA: Blackwell Publishers Ltd, 2001.
- Chaloupka, William. "Jagged Terrain: Cronon, Soulé, and the Struggle over Nature and Deconstruction in Environmental Theory," *Strategies* 13:1 (Winter 2000), 23-38.
- Chaloupka, William. "Green Naturalism: The Politicization of Environmental Theory." *Political Theory*, 31:6, (December 2003), 881.
- Chaloupka, William. "The Environmentalist 'What is to be done?'" *Environmental Politics*, 17:2 (April 2008), 237-253.
- Cheah, Pheng and Bruce Robbins, eds. *Cosmopolitics: Thinking and Feeling Beyond the Nation*. Minneapolis, MN: University of Minnesota Press, 1998.
- Chomsky, Noam. "Universals of Human Nature," *Psychotherapy and Psychomatics*, 74, (2005), 263.

- Connolly, William *NeuroPolitics*. Minneapolis, MN: University of Minnesota Press, 2002.
- Cook, Ian. "Follow the thing: papaya." *Antipode* 36, (2004), 624–64.
- Cronon, William. *Nature's Metropolis: Chicago and the Great West*. New York: W.W. Norton & Company, 1992.
- Cronon, William, ed. *Uncommon Ground: Rethinking the Human Place in Nature*. New York: W.W. Norton & Company, 1996.
- Crosby, Alfred. *Ecological Imperialism: The Biological Expansion of Europe 900-1900*. Cambridge: Cambridge University Press, 2004.
- DeLanda, Manuel. "Immanence and Transcendence," *South Atlantic Quarterly* 96:3 (1997), 509-510.
- Deleuze, Gilles. *Nietzsche and Philosophy*. New York: Columbia University Press, 1983.
- Deleuze, Gilles. *Expressionism in Philosophy: Spinoza*. New York: Zone Books, 1992.
- Deleuze, Gilles *Difference and Repetition*. New York: Columbia University Press, 1994.
- Deleuze, Gilles. *Spinoza: Practical Philosophy*. San Francisco: City Light Books. 2001.
- Deleuze, Gilles. *Pure Immanence: Essays on a Life*. Trans. Anne Boyman. New York: Zone, 2001.
- Deleuze, Gilles and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis, MN: University of Minnesota Press, 1987.
- Deleuze, Gilles and Felix Guattari, *What is Philosophy?* New York: Columbia University Press, 1994.
- Derrida, Jacques. *On Cosmopolitanism and Forgiveness*. New York: Routledge, 2001.
- Descartes, René. *Meditations on First Philosophy* (Indianapolis: Hackett Publishing Company, 1993).
- Devall, Bill, and George Sessions, *Deep Ecology: Living as if Nature Mattered*. Layton, UT: Gibbs Smith, 1985.
- Disch, Lisa. "Representation as 'Spokespersonship': Bruno Latour's Political Theory." *Parallax*, 14:3, (August 2008), 88-100.
- Dobson, Andrew. *Green Political Thought*. Third Edition. New York: Routledge. 2000.
- Dobson, Andrew. "Globalisation, Cosmopolitanism and the Environment," *International Relations*, 19:3, (2005), 259-273.
- Dobson, Andrew, and Robyn Eckersley, eds. *Political Theory and the Ecological Challenge*. Cambridge: Cambridge University Press, 2006.
- Doyle, Jack. *Altered Harvest: Agriculture, Genetics, and the Fate of the World's Food Supply*. New York: Viking Press, 1985.
- Dryzek, John S. *Deliberative Democracy and Beyond*. New York: Oxford University Press. 2000.
- Dryzek, John S. *The Politics of The Earth: Environmental Discourses*. 2nd ed. New York, NY: Oxford University Press, 2005.
- Dryzek, John and David Schlossberg, eds. *Debating the Earth*, 2nd ed. Oxford: Oxford University Press, 2005.
- Dryzek, John, Bonnie Honig, and Anne Phillips, eds. *The Oxford Handbook of Political Theory*. Oxford: Oxford University Press, 2006.

- Duncan, James, Nuala C. Johnson and Richard Schein, eds. *A Companion to Cultural Geography*. Malden, MA: Blackwell Publishing Ltd., 2004.
- Dyson, Michael Eric. *Come Hell or High Water: Hurricane Katrina and the Color of Disaster*. New York: Basic Civitas Books, 2007.
- Eckersley, Robyn. *Environmentalism and Political Theory: Toward an Ecocentric Approach*. Albany, NY: State University of New York Press, 1992.
- Fine, Robert. *Cosmopolitanism*. New York: Routledge, 2008.
- Freidberg, Susanne. *French Beans and Food Scares: Culture and Commerce in an Anxious Age*. Oxford: Oxford University Press, 2004.
- Foucault, Michel. *Discipline and Punish*. New York: Vintage, 1977.
- Foucault, Michel. *The Order of Things*. New York: Vintage, 1994.
- Gare, Arran. *Postmodernism and the Environmental Crisis*. New York: Routledge, 1995.
- Goldman, Michael. *Imperial Nature*. New Haven, CT: Yale University Press, 2005.
- Goodman, David and Michael Watts, eds. *Globalising Food*. New York: Routledge, 1997.
- Habermas, Jürgen. "A Reply to my Critics" in *Habermas: Critical Debates*, edited by John B. Thompson and David Held. Cambridge, MA: MIT Press, 1982.
- Habermas, Jürgen. *The Theory of Communicative Action, Volume I: Reason and the Rationalization of Society*. Boston: Beacon Press, 1984.
- Habermas, Jürgen. *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*. Cambridge, MA: MIT Press, 1996.
- Haraway, Donna. *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York, NY: Routledge, 1991.
- Haraway, Donna. *Modest Witness@Second Millennium.Female Man© Meets OncoMouse™*. New York: Routledge, 1997.
- Haraway, Donna. *When Species Meet*. Minneapolis: University of Minnesota Press, 2007.
- Hardt, Michael. *Gilles Deleuze: An Apprenticeship in Philosophy*. Minneapolis, MN: University of Minnesota Press, 1993.
- Hardt, Michael and Antonio Negri. *Empire*. Cambridge, MA: Harvard University Press, 2000.
- Hardt, Michael and Antonio Negri. *Multitude*. New York: Penguin, 2005.
- Harman, Graham. *Prince of Networks: Bruno Latour and Metaphysics*. Melbourne: re.press, 2009.
- Hartman, Chester and Gregory Squires, eds. *There is No Such Thing as a Natural Disaster: Race, Class, and Hurricane Katrina*. New York: Routledge, 2006.
- Harvey, David. "Population, Resources, and the Ideology of Science." *Economic Geography*, 50:3 (July 1974), 256-277.
- Harvey, David. *Justice, Nature, and the Geography of Difference*. New York: Blackwell Publishers, 1996.
- Harvey, David. *Spaces of Hope*. Edinburgh: Edinburgh University Press, 2000.
- Hay, Peter. *Main Currents in Western Environmental Thought*. Bloomington, IN: Indiana University Press, 2002.

- Hayden, Patrick. *Multiplicity and Becoming*. New York: Peter Lang Publishing, Inc., 1998.
- Hayles, Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press, 1999.
- Held, David. *The Global Covenant: The Social Democratic Alternative to the Washington Consensus*. Cambridge: Polity Press, 2004.
- Henderson, Elizabeth and Robyn Van En. *Sharing the Harvest: A Citizens Guide to Community Supported Agriculture*. White River Junction, VT: Chelsea Green Publishing, 2007.
- Hobbes, Thomas. *Leviathan*. New York: Penguin Books, 1985.
- Honig, Bonnie. "Another Cosmopolitanism? Law and Politics in the New Europe," in *Another Cosmopolitanism*, Seyla Benhabib. New York: Oxford University Press, 2008, 102-127.
- Honig, Bonnie. "The Time of Rights: Emergent Thoughts in an Emergency Setting," in *The New Pluralism: William Connolly and the Contemporary Global Condition*, edited by David Campbell, Morton Schoolman, and Bonnie Honig. Duke University Press, 2008.
- Hughes, Alex and Suzanne Reimer, eds. *Geographies of Commodity Chains*. London: Routledge, 2004.
- Ingold, Tim. *The Perception of the Environment: Essays in Livelihood, Dwelling, and Skill*. New York: Routledge, 2002.
- Israel, Jonathan. *Radical Enlightenment: Philosophy and the Making of Modernity 1650-1750*, Oxford University Press, 2002.
- Johnston, Steven. Review of *Another Cosmopolitanism*, Seyla Benhabib. *Theory & Event* 10:3. (2008).
- Kant, Immanuel. *Political Writings*. Cambridge: Cambridge University Press, 1991.
- Kassiola, Joel Jay, editor. *Explorations in Environmental Political Theory*. Armonk, NY: M. E. Sharpe, 2003.
- Katz, Sandor Ellix. *The Revolution Will Not Be Microwaved*. White River Junction, VT: Chelsea Green, 2006.
- Kingsolver, Barbara. *Animal, Vegetable, Miracle: A Year of Food Life*. New York: Harper Perennial, 2007.
- Kloppenburger Jr., Jack Ralph. *First the Seed: The Political Economy of Plant Biotechnology* 2nd ed. Madison, WI: University of Wisconsin Press, 2004.
- Knight, Richard L. and Suzanne Riedel, eds. *Aldo Leopold and the Ecological Consciousness*. New York: Oxford University Press, 2002.
- Laclau, Ernesto. *Emancipation(s)*. New York: Verso, 1996.
- Laclau, Ernesto. "Can Immanence Explain Social Struggles?" in *Empire's New Clothes*, edited by Paul A. Passavant and Jodi Dean. New York: Routledge, 2004, 21-30.
- Laclau, Ernesto. *On Populist Reason*. New York: Verso, 2005.
- Latour, Bruno. *Science in Action*. Cambridge, MA: Harvard University Press, 1987.
- Latour, Bruno. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press, 1993.
- Latour, Bruno. *The Pasteurization of France*. Cambridge, MA: Harvard University Press, 1993.

- Latour, Bruno. *Pandora's Hope: Essays on the Reality of Science Studies*. Cambridge, MA: Harvard University Press, 1999.
- Latour, Bruno. *Politics of Nature*. Cambridge, MA: Harvard University Press, 2004.
- Latour, Bruno. *Un monde pluriel mais commun*. Paris: Editions de l'Aube, 2004.
- Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network Theory*. New York: Oxford University Press, 2005.
- Latour, Bruno and Steve Woolgar, *Laboratory Life*. Princeton, NJ: Princeton University Press, 1986.
- Latour, Bruno and Peter Weibel, eds. *Making Things Public: Atmospheres of Democracy*. Cambridge, MA: MIT Press, 2005.
- Law, John, ed. *Power, Action and Belief: A New Sociology of Knowledge*. London: Routledge & Kegan Paul, 1986.
- Law, John, ed. *A Sociology of Monsters*. London: Routledge, 1991.
- Law, John and John Hassard, eds. *Actor Network Theory and After*. London: Wiley-Blackwell, 1999.
- Leopold, Aldo. *A Sand County Almanac*. New York: Ballantine Books, 1966.
- Linklater, Andrew. "Cosmopolitanism" in *Political Theory and the Ecological Challenge*, edited by Andrew Dobson and Robyn Eckersley. Cambridge: Cambridge University Press, 2006.
- Locke, John. *Two Treatises of Government*. Cambridge: Cambridge University Press, 2000.
- Lolive, Jacques and Olivier Soubeyran, Eds. *L'émergence des cosmopolitiques*. Paris: Éditions La Découverte, 2007.
- Luke, Timothy J. "On Environmentality: Geo-Power and Eco-Knowledge in the Discourses of Contemporary Environmentalism," *Cultural Critique*, 31, (Autumn, 1995), 57-81.
- Luke, Timothy J. *Ecocritique: Contesting the Politics of Nature, Economy, and Culture*. Minneapolis: University of Minnesota Press, 1997.
- McKibben, Bill. *The End of Nature*. New York: Random House, 1989.
- Meyer, John M. *Political Nature: Environmentalism and the Interpretation of Western Thought*. Cambridge, MA: MIT Press, 2001.
- Meyer, John. "Political Theory and the Environment" in *The Oxford Handbook of Political Theory*, edited by John Dryzek, Bonnie Honig, and Anne Phillips. Oxford: Oxford University Press, 2006, 773-791.
- Mol, Annemarie. *The Body Multiple*. Durham, NC: Duke University Press, 2002.
- Naess, Arne. "The Shallow and the Deep, Long-Range Ecology Movement: A Summary," *Inquiry* 16 (1973), 95-100.
- Negri, Antonio. *Marx Beyond Marx*. New York: Autonomedia, 1989.
- Negri, Antonio. *Insurgencies*. Minneapolis, MN: University of Minnesota, 1999.
- Negri, Antonio. *The Savage Anomaly*. Minneapolis, MN: University of Minnesota Press, 2000.
- Nestle, Marion. *Safe Food: The Politics of Food Safety*. Berkeley: University of California Press, 2004.
- Nestle, Marion. *Food Politics*. Berkeley, CA: University of California Press, 2007.
- Nietzsche, Friedrich. *The Gay Science*. New York: Vintage, 1974.

- Nietzsche, Friedrich. *On The Genealogy of Morals and Ecce Homo*. New York: Vintage Books, 1989.
- Ophuls, William. *Ecology and the Politics of Scarcity*. New York: W.H. Freeman, Ltd., 1977.
- Passavant, Paul A. and Jodi Dean, eds. *Empire's New Clothes*. New York: Routledge, 2004.
- Patel, Raj. *Stuffed & Starved*. Brooklyn, NY: Melville House Publishing, 2007.
- Petrini, Carlo. *Slow Food: The Case for Taste*. New York: Columbia University Press, 2004.
- Petrini, Carlo. *Slow Food Nation: Why Our Food Should Be Good, Clean, And Fair*. New York: Rizzoli Ex Libris, 2007.
- Plato. *Republic*. Indianapolis: Hackett Publishing Company, 1992.
- Pollan, Michael. *Second Nature*. New York: Grove Press, 1991.
- Pollan, Michael. *Botany of Desire*. New York: Random House, 2002.
- Pollan, Michael. *Omnivore's Dilemma*. New York: The Penguin Press, 2006.
- Pollan, Michael. *In Defense of Food: An Eater's Manifesto*. New York: Penguin Press, 2008.
- Prigogine, Ilya. *The End of Certainty*. New York: Free Press, 1997.
- Prigogine, Ilya and Isabelle Stengers. *Order Out of Chaos*. New York: Bantam Books, Inc., 1984.
- Read, Jason. *The Micro-Politics of Capital*. Albany, NY: State University of New York Press, 2003.
- Reed, Betsy, ed. *Unnatural Disaster: The Nation on Hurricane Katrina*. New York: The Nation Books, 2006.
- Ross, Andrew. *The Chicago Gangster Theory of Life: Nature's Debt to Society*. New York: Verso, 1995.
- Rousseau, Jean-Jacques. *On the Social Contract*. Indianapolis: Hackett Publishing Company, 1987.
- de Saussure, Ferdinand. *Course in General Linguistics*. Peru, IL: Open Court, 1998.
- Saxonhouse, Arlene W. "Nature and Convention in Thucydides' History," *Polity*, 10:4 (Summer 1978), 461-487.
- Schaffer, Simon and Steven Shapin. *Leviathan and the Air-Pump*. Princeton: Princeton University Press, 1989.
- Schiebinger, Londa. *Plants and Empire: Colonial Bioprospecting in the Atlantic World*. Cambridge, MA: Harvard University Press, 2007.
- Schlosser, Eric. *Fast Food Nation*. New York: Houghton Mifflin Company, 2001.
- Schmitt, Carl. *Political Theology*. Chicago: University of Chicago Press, 2005.
- Serres, Michel. *The Natural Contract*. Ann Arbor, MI: The University of Michigan Press, 1995.
- Serres, Michel and Bruno Latour. *Conversations on Science, Culture, and Times*. Ann Arbor, MI: The University of Michigan Press, 1995.
- Shiva, Vandana. *The Violence of the Green Revolution*. New York: Zed Books, 1991.
- Shiva, Vandana ed. *Manifestos on the Future of Food and Seed*. Cambridge, MA: South End Press, 2007.
- Smith, Michael D. "The Empire Filters Back: Consumption, Production, and the

- Politics of Starbuck's Coffee," *Urban Geography*, 17:6 (1996), 502-525.
- Smith, Neil. *Uneven Development: Nature, Capital, and the Production of Space*. London: Blackwell Publishers. 1990.
- Sokal, Alan and Jean Bricmont. *Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science*. New York Picador, 1999.
- Soper, Kate. *What is Nature?* Cambridge, MA: Blackwell Publishers. 1995.
- Soulé, Michael and Gary Lease, *Reinventing Nature?: Responses to Postmodern Deconstruction*. Washington, D.C.: Island Press, 1995.
- Spinoza, Baruch. *A Theologico-Political Treatise and A Political Treatise*. Mineola, NY: Dover Publications, Inc. 2004.
- Spinoza, Baruch. *Ethics*. Oxford: Oxford University Press. 2000.
- Stengers, Isabelle. *Power and Invention: Situating Science*. Minneapolis, MN: University of Minnesota. 1997.
- Stengers, Isabelle. *The Invention of Modern Science*. Minneapolis, MN: University of Minnesota. 2000.
- Stengers, Isabelle. *Cosmopolitiques, I-VII*. Paris: Éditions La Découverte, 1997.
- Stengers, Isabelle. *Penser avec Whitehead*. Paris: Seuil, 2002.
- Strathausen, Carsten. "A Critique of Neo-Left Ontology" *Postmodern Culture*. 16:3, 2006.
- Swyngedouw, Erik. "Modernity and Hybridity: Nature, *Regeneracionismo*, and the Production of the Spanish Waterscape," *Annals of the Association of American Geographers* 89:3, 443-465.
- Thiele, Leslie Paul. *Environmentalism for a New Millennium*, (New York: Oxford University Press, 1999.
- Thompson, John B. and David Held, eds. *Habermas: Critical Debates*. Cambridge, MA: MIT Press, 1982.
- Tønder, Lars and Lasse Thomassen, eds. *Radical democracy: Politics between abundance and lack*. New York: Manchester University Press, 2005.
- Vogel, Steven. *Against Nature: The Concept of Nature in Critical Theory*. Albany, NY: State University of New York Press. 1996.
- Weber, Karl, ed. *Food, Inc*. New York: Public Affairs, 2009.
- Wendt, Alexander and Raymond Duvall. "Sovereignty and the UFO," *Political Theory*, 36:4 (2008), 607-633.
- Whatmore, Sarah and Lorraine Thorne, "Nourishing Networks: Alternative Geographies of Food," in *Globalising Food*, edited by David Goodman and Michael Watts. New York: Routledge, 1997.
- White, Stephen. *Sustaining Affirmation*. Princeton, NJ: Princeton University Press, 2000.
- Whitworth, Andrew. "Communication with the Environment? Non-Human Nature in the Theories of Jürgen Habermas," *Politics* 20:3 (2000), 145-151.
- Williams, Raymond. *Keywords*. New York: Oxford University Press, 1983.
- Williams, Raymond. "Ideas of Nature," in *Culture and Materialism*, 67-85. New York: Verso, 2005.
- Williams, Raymond. *Culture and Materialism*. New York: Verso, 2005.
- Winne, Mark. *Closing the Food Gap*. Boston: Beacon Press, 2008.

- Yearley, Steven. "The Wrong End of Nature," *Studies in the History of the Philosophy of Science*, 36 (2005), 827-834.
- Yovel, Yirmiyahu. *Spinoza and Other Heretics, Vol 2: The Adventures of Immanence*. Princeton, NJ: Princeton University Press, 2001.
- Zimmerman, Michael E. *Contesting Earth's Future: Radical Ecology and Postmodernity*. Berkeley: University of California Press, 1997.
- Zizek, Slavoj. *Organs without Bodies*. New York: Routledge, 2003.