REVOLUTIONIZING THE ‘MODERN’ ENVIRONMENTAL DISCOURSE:
RELIGION, REVOLUTION, AND MOUNTAINTOP REMOVAL

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Dedication Page

“In our obscurity, in all this vastness, there is no hint that help will come from elsewhere to save us from ourselves.”

- Carl Sagan

This project is dedicated to all those afflicted by the practice of Mountaintop Removal, in Appalachia and around the world.
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“In the end, we will conserve only what we love, we will love only what we understand, and we will understand only what we are taught.”¹

**Introduction**

**To Revolution and Rebirth**

On January 23, 2015 the Science and Security Board for the *Bulletin of the Atomic Scientists* moved the hand of the global doomsday clock up by two minutes, relating that the impending doom of global catastrophe caused by climate change, nuclear power and weapons, and bio security is now only three minutes to midnight, the closest it has been in the past twenty-five years, since the beginning of the Cold War. Forecasting the seemingly inevitable destruction of civilization, the *Bulletin* forewarns against the “irrevocable harm” being inflicted upon our global climate and foreshadows an irreversible travesty that will befall our planet and its life systems if we do not rectify our current practices.² The 20th and 21st centuries, specifically in the United States, have been a period of exponential development, technological advancement, and perfection of the “bigger, faster, better” mindset. In this age of global consumerism, we have become increasingly aware of the deteriorating state of our environment, bombarded with terms like ‘global warming’ and ‘climate change’ and implored to “do our part” to help ‘save the rainforest’ or ‘protect endangered species.’ Heightened awareness of global ramifications to environmentally devastating practices has begun to infiltrate the modern discourse, destabilizing the idea that humankind can, and will, evolve and endure. Yet, still, environmentally devastating practices persevere. It seems that we are habitually

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confronted with new sordid practices whose long term ramifications are indeterminate at best, and potentially catastrophic. Across the globe, scientists and scholars have begun to re-envision human relationships to the natural world, advocating for a new global environmental ethic in order to preserve the planet and its diverse life forms.

This paper seeks to contribute to the vast array of scholarship emerging today concerning the call to arms for a new way of thinking about the environmental crisis plaguing our world. Philosopher Roger Gottlieb once said that “only religious consciousness can take us beyond the conventional ego, beyond a frame of mind in which we calculate our interests, struggle for success, seek to control the world to get what we want from it, or unendingly complain about every damn thing we don’t have.” By engaging religion as a discourse for exploring this revolution, I attempt to broaden the avenues of thinking about our complex relationships with the natural world. Employing Buddhism as a heuristic tool, I present a unique approach for exploring and analyzing issues of environmental injustice transpiring in our world today.

Utilizing the theoretical and methodological approaches from the fields of religious studies and sociology, I problematize in chapter one the ‘modern’ intellectual framework, arguing that the structurally flawed nature of modern discourses undermines the environmental discourse, preventing any monumental progress from being made. Drawing from the theoretical approaches of religious studies scholar J. Z. Smith and sociologist Bruno Latour, I present the ‘modern’ paradigm, showing its constructed nature and problematizing its use of temporality, its dichotomous structure, and its linear

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model of causal relationships between actors. Through this chapter, I adhere to Latour’s finding that the ‘modern’ discourse is structurally flawed and is in need of a complete intellectual revision – what he terms a ‘Copernican Revolution.’ Chapter two depicts how the constitutionally flawed discourse of the ‘moderns’ presented in chapter one has been overlaid onto the environmental discourse.

Drawing from two well-known fields, deep ecology and eco-feminism, I illuminate how elements of this triparti flaw of modern discourses appears in the environmental discourse and I advocate for the necessity of revision in the intellectual framework of modernity. By flipping the ‘modern’ model on its head, like Latour envisions, and examining the interconnections between objects and ideas, I propose that we may begin to formulate a new intellectual framework necessary for furthering our thinking about complex issues, such as the global environmental crisis. Among the vast number of discourses that exist today, chapter three proposes that there is, in fact, an existent model already in place that fits perfectly with the re-evaluated, inverted framework that Latour envisions, and that this model becomes apparent in Buddhist virtue ethics. This chapter will explore the emergence of a virtue ethic in Buddhism which advocates for the cultivation of self through the complex network of interrelationships that one constantly encounters, including those relationships with the natural world. Recognizing that Buddhism does not intentionally perpetuate an environmental ethic, I argue that through the cultivation of a human virtue ethic, such as that apparent in Buddhism, it becomes possible to re-imagine the human condition as an interdependent entity in the vast global environmental network, simplifying and facilitating the creation of an environmental ethic which aligns with Latour’s re-
envisioned model. Employing the hierarchical model of compassion presented by scholar Alan Sponberg, I argue that Buddhism promulgates an environmental virtue ethic that, if employed, could radically change the discourse on environmental issues. Finally, in chapter four, I will apply this unprecedented, inverted structural framework detailing an environmental virtue ethic to one particular instance of environmental degradation and injustice transpiring today; mountaintop removal coal mining. Through this application I will demonstrate the potential that this renegotiation of the structural framework of the modern discourse could have for the discourse of environmentalism.

Conventionally, the academic study of religion is directed toward theoretical and methodological approaches which are employed to contemplate the historical past, or to posit ideologies of why people, practices and traditions appear as they do today. Rarely does religious studies attempt to discuss the reciprocal role that religion plays in the negotiation of individuals’ world views when contemplating their own futures. Evading what is a recognizably contentious approach because of the transitory nature of the future, the academic study of religion deals (for the most part) with the processes that have shaped what we call ‘religion’ today, avoiding taking into consideration the active process that are currently shaping religion, and will influence the way religious belief and practice will appear in a rapidly changing world. Simultaneously however, scholars problematize the creation of categories, those precariously limiting agents that attempt to define, organize, confine, and rationalize behaviors, philosophies, and agents. This paper seeks to envision a new approach for both religious studies and the environmental discourse by calling into question the very structural framework of modernity and
replacing this problematic underpinning with a re-envisioned intellectual model that would allow both fields to progress and prosper.

**Literature Review**

The majority of my insight for this thesis emerged from the fields of religious studies and sociology. Drawing from my own personal concern for the global environmental crisis and my fascination with the terribly devastating practices enacted on the environment today, I utilize scholarship from these two fields to explore and further my own thinking about environmental degradation, natural resource commodification, and the current discourse on environmental ethics. In his book *We Have Never Been Modern* Bruno Latour argues, like many others before him, for the necessity of a paradigm shift in the modern discourse. He presents a scathing, and intricate theoretical critique of the widely held conviction that we are ‘modern,’ and that to be ‘modern’ means to be separate from not only our ‘primitive’ selves but also our own historical past. For Latour, the ‘modern’ becomes a conundrum, constructing false notions of temporality, manufacturing duality, and dividing science and society. Rejecting the notion of modernism, he argues that the problem of ‘modernism’ lies in the fact that it is a double contradiction: that while we see society and nature as both transcendent and immanent, both constructed/artificial and pre-existing/pure, we cannot both remove nature and place it at the “heart of our social relationships” (37). His call for a triparti revision in the intellectual framework of modernity provides the foundation for

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my own argument. He argues that through the process of translation and purification, moderns are guilty of misinterpreting temporality, constructing categories and dichotomies, and failing to understand complex notions of interconnectedness. Latour calls for a rebirth in the thought processes utilized by moderns, which would not only revolutionize the intellectual framework of the ‘modern’ discourse but could contribute to the re-imagination of other, interconnected discourses as well, such as that of the environmental discourse. Religious studies scholar J. Z. Smith’s theoretical discussion of the process of categorization problematizes the tendency of comparison in scholarship, which has “been chiefly an affair of the recollection of similarity.”

His article “In Comparison a Magic Dwells” critiques the idea that the process of categorization can reveal an essence in any item or thing that is being categorized. Discussing the categorization of Judaism, Smith finds that there is not one specific, identifiable thing that can be labeled as Judaism but that there are instead multiple ‘Judaisms.’ Applying this finding, I suggest that there are not only multiple Judaisms but that there are multiple ‘natures’ and multiple ‘environments’ which the environmental movement seeks to protect, and that there are also multiple ‘modern’ discourses and multiple solutions that might be proffered, including the solution I propose of Buddhism and virtue ethics.

Through these two theoretical approaches, I develop my understanding of the ‘problem’ with the ‘modern’ discourse, as detailed by Latour, and I expand upon why an intellectual revision might be necessary.

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6 Ibid.
After working through the structural flaws of the modern approach, I apply the theoretical model to the ‘environmental’ discourse in order to show that it too is structurally flawed and in need of revision. After detailing the (specifically Western) historical becoming of the term ‘nature’ through R.G. Collingwood’s *The Idea of Nature*, I utilize Carol Adam’s idea of the ‘absent referent’ to discuss how “nature” has become an extracted, entirely separate, entirely other entity, wholly apart and intimately divided from the human being. Utilizing Vandana Shiva’s work I show how this process of extrapolation creates not only a dichotomous and hierarchical structure but is also effective in marginalizing elements that do not fit neatly into the constructed binary. I then discuss two modern discourses, deep ecology and eco-feminism which have both been prominent in recent years in developing new approaches to thinking about and dealing with the deteriorating state of the natural world. Looking at the work of several deep ecologists including George Sessions, Bill Devall, Arne Naess, and Aldo

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Leopold, as well as several scholars of eco-feminism including Ariel Sellah, Rachel Stein, and Greeta Gard. I show how both approaches adhere to the modern discourse and are also, therefore structurally and constitutionally flawed.

Chapter three moves on to a discussion of the religious tradition of Buddhism beginning with a discussion of the argument that many scholars have made that Buddhism is inherently ‘green’ and possess within its foundational teachings an environmental ethic. I argue that approaches to talking about Buddhism as a ‘green’ religion such as those presented in Buddhism and Ecology, Dharma Rain, Engaged Buddhism, and Hooked!, as well as approaches by scholars like Joanna Macy, John Seed, and Damien Keown are flawed because they fail to recognize that Buddhism, at its conception, had no need for an environmental ethic and does not perpetuate any unique notion of individual interrelationships with, and treatment of, the natural world. Rather,

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using the work of Ian Harris, Pragati Sahni, Sponsel and Sponsel, and Copper and James. I argue that while Buddhism does not advocate for an environmental ethic, it does have ingrained within its foundational teachings a virtue ethic. This virtue ethic, when cultivated by the individual, can influence a radical shift in human interaction with the natural world, providing the practitioner with a virtue ethic which applies to the environment – what I refer to as an ‘environmental virtue ethic.’ I then incorporate the work of Alan Sponberg, which argues for the revision of the notions of hierarchy along the lines of the Buddhist model of compassion to show how Buddhism, if employed, could provide one potential solution for the revolutionized model that Latour seeks.

The final chapter discusses the application of this revised theoretical model to one particular issue of environmental injustice transpiring in our world today: mountaintop removal coal mining. I begin the section by detailing the extensive process of coal commodification in the United States, pulling statistical information from the EPA, EIA, CDC, and United States Energy Commission to show historical coal mining process and current and projected coal usage and dependency. My work on coal mining

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in Appalachia has been largely influenced by the works of Richard Callahan,\textsuperscript{26} Rebecca Scott,\textsuperscript{27} Tricia Shapiro,\textsuperscript{28} and Kai Erikson,\textsuperscript{29} as well as my own time spent in and around Whitesville, West Virginia with the activist group Coal River Mountain Watch. Detailing the commodity fetishism of coal and the power of the coal industry, I show the devastating environmental practice and the current attempt to stop the extreme travesty happening in Appalachia. Employing the re-envisioned model theorized by Latour and supplemented by Sponberg, I argue that nothing short of this total revolution in the intellectual framework of modernity will allow us to deal with or assuage environmental travesties, like that of mountaintop removal, which are occurring around the world today.

\textsuperscript{26} Callahan, Richard J. \textit{Work and Faith in the Kentucky Coal Fields: Subject to Dust}. Bloomington: Indiana UP, 2009.


Chapter 1

Shifting the Paradigm for a New Environmental Discourse

The theoretical framework detailed in this chapter explicates the necessity of a revision in our intellectual negotiation of the complex interrelationships between two categories that have been constructed as wholly separate and wholly other - humans and the natural world. Through the processes of translation, purification, and classification, which will be detailed below, the discourse of the ‘modern’ has created, or constructed, the category that we will call *nature*. Because of the constructed character of *nature*, the modern discourse concerning what is referred to as the ‘environmental crisis’ also becomes implicated in this constructive process, in that it engages with the constructed concept *nature* and the need to save, or rectify the problems with, the *natural* world. I do not, in any way, suggest here that there is no environmental crisis transpiring in our world today; conversely, I see the environmental problem, despite its constructed nature, as being the most pervasive issue afflicting our world today. However, I suggest that the construction of the discourse concerning the environment is flawed, perpetuating problematic and inaccurately devised understandings of a human/*nature* dichotomy that effectively marginalizes and produces inaccurately constructed, causally conditioned, linear relationships between actors in the modern paradigm.

In this chapter, I propose that by re-envisioning the ways in which human/*nature* relationships have been constructed, we may begin to shift our perspectives on these critical issues and foster a change in the environmental discourse, contributing to a new way of thinking about the devastating human environmental practices transpiring today. In this section, I will first unpack the term *nature*, showing the major historical and
theoretical understandings of the term and exploring its definition in historical and philosophical thought as is set forth in the work of R.G. Collingwood. The modern discourse regarding nature, the environment, and climate change has developed primarily through the theoretical and philosophical thought of Western (male) scholars. I employ Collingwood here to explicate this Westernized process of construction of the modern, or current, discourse on nature, and will later argue for looking beyond the Westernized understanding of nature for additional understandings of the term and the potential for revolutionary paradigmatic shifts. After mapping the development of the term ‘nature’ through Western historical tradition, I will then synthesize the theoretical models of Bruno Latour\(^{31}\) and J.Z. Smith\(^{32}\) to detail the ways in which critical concepts, including nature have become socially constructed. After detailing Latour’s call for a “Copernican counter-revolution” in the intellectual framework utilized by the ‘modern’ and Smith’s critique of categorization, I will show how (from Latour’s elevated perspective) the contemporary discourse concerning the global environmental crisis may be understood as constructed, and how it problematically falls into the trap that both theorists detail. Then, following Latour’s lead, I will depict the need for a revision in the way we think about the discourse constructed as the ‘environmental crisis.’ Latour’s articulation of a need to reimagine the modern paradigm is not original,\(^{33}\) however, his model is unique both in

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\(^{33}\) Thomas Kuhn wrote in *The Structure of Scientific Revolutions* (1962) that as science progresses it opens up avenues for thinking about concepts in a new, previously inconceivable way (as might be exemplified by Copernicus’ theory that destabilized the Earth as the center of the universe). These new avenues for thinking were termed ‘paradigm shifts’ and were understood by Kuhn as not merely a linear progression of
the way that it envisions this radical shift in the intellectual structure of the modern discourse and because it provides a particularly powerful argument as to why the modern approach for dealing with environmental issues has failed thus far.

Although many scholars have articulated this same urgent obligation, I will show, using Latour’s model, that the ongoing intellectual framework of the “modern discourse” remains flawed. This fundamentally problematic discourse, which provides the foundational structure on which all other modern discourses, including the environmental discourse, are built, undermines any potential antidote that might be prescribed, even before it can be discovered and tested. The following two chapters will then rebuild the structural framework of the environmental discourse by proposing a unique and unprecedented model informed by the virtue ethics of Buddhism. I then seek to eliminate any potential contradictions that might appear with this ‘green’ model, and then apply the re-envisioned framework to one egregious environmental problem, mountaintop removal, to show the promise that this counter paradigm could inspire.

**Deconstructing Nature**

In its constructed sense, the term *nature* implies a concrete and identifiable space, which is made meaningful through the attribution of distinct qualities, making it wholly separate, and wholly other from the space occupied by the human. It is often envisioned as a space ‘out there’ something that the human has been removed from, yet something that we relentlessly attempt to reengage with. *Nature*, in its constructed sense, does not

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thought, but as inherently new, different avenues which had never before been conceptually possible. Kuhn, Thomas S. *The Structure of Scientific Revolution*. Chicago: U of Chicago, 1996.
truly exist, but is merely a product of the intellectual framework of the modern discourse. The construction of the concept *nature* has been an intricate process of theorization, interpretation, and negotiation which has continuously evolved for centuries. In his book, *The Idea of Nature*, British philosopher R.G Collingwood depicts in detail the transformation that the concept of *nature* has undergone in the West, reducing the variations in the application of the term into three separate periods of constructive cosmological thought. Collingwood says that the “concept of nature is not worked out in abstraction from any detailed study of natural fact,” effectively becoming a concept on which a “superstructure” may be erected. However, within the “modern discourse” the concept of nature has been employed in this manner. The term *nature* and all of its omnifarious meanings are reduced down, applied, and utilized as if *nature* has a concrete and static definition. Discourses are then constructed through the application of the minimalized term, facilitating the creation of a colloquial definition of ‘nature’ which can be easily identified and understood across discourses and allows for the continued growth and perpetuation of the minimalized term as discourses continue to employ it without question. Necessarily, this makes the discourses flawed because of the misappropriation of the term *nature* as part of their structural foundation. In the following sections I will briefly discuss the evolution of the term *nature* as articulated by Collingwood in order that my use of the term and its historical evolution may become more apparent. 

34 Collingwood.

35 Collingwood, 1.

36 I have chosen to use Collingwood as he provides a detailed analysis of the historical development of the term ‘nature’ throughout the history of the Western world, from the Greek period through the Renaissance and into the modern period. This Western concept of ‘nature’ has contributed to the modern idea of the ‘environment’ which is also a Western construction.
Collingwood argues that there are three distinct periods in which the term nature acquires a distinct constructed identity: the Greek period, the Renaissance period, and the Modern period. During the Greek period, nature was widely thought about as being alive with soul, rational and “permeated by mind.” The world of nature was intimately similar to the world of the human. The human perceived certain characteristics as intrinsic to its own being, and in a teleological fashion, it also saw these characteristics within nature. Collingwood attributes much of this definition of nature to the Ionians.

The Ionians believed that there were three indisputable points associated with nature: first, that “there are ‘natural things,’” second that these “‘natural things’ constitute a single ‘world of nature,’” and third, that “what is common to all beings is that they are made of a single substance or material.”

The founder of the Ionian school, Thales of Miletus (624-526BCE) is regarded as one of the earliest Greek philosophers and was praised by Aristotle as “the first person to investigate the basic principles, the question of the originating substances of matter and, therefore, as the founder of the school of natural philosophy.” Thales argued that the world had soul and that God, who was pre-existent, had created the world. Collingwood conveys that this creation of the world was understood by Thales as an act of magic as opposed to the architectural or mechanical

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37 Ibid, 3

38 The Ionian’s are one of the four tribes or phylai of ancient Greece who settled and gave their name to the Anatolia region in modern day Turkey. "Ionian | People." Encyclopedia Britannica Online. Encyclopedia Britannica, 2015. http://www.britannica.com/EBchecked/topic/292882/Ionian.

39 Collingwood, 29-30.


41 Collingwood, 32.
creation that is later observed during the Renaissance period. The Ionians understood the concept of nature as a broader understanding of the innate composition of things. Thus, the true ‘nature’ of things was identified as being not in their matter, but in their form.

Later figures, such as the mathematician Pythagoras (570 – 495BCE), a disciple of the Ionian school of thought, began to identify problems with the structural framework of the theory. Monumentally, Pythagoras understood things not by their composition, or those qualities that are understood as intrinsic, but instead by their form. Form however, according to Pythagoras is differentiated and, because of the ability to show differences, may be categorized into hierarchical groups. Form came to be understood as the identifier of behavior, nature, and essence within things. The primary difference between form and matter was further theorized by Plato (c. 420’s – 340’s BCE), who argued that form is considered intelligible, whereas matter is only perceptible: in other words, form is understood as ‘real’ (in the Greek sense of the word) meaning that it is “unhidden, unconcealed [and] undeceptive.” Perceptible things, on the other hand, such as matter, are unreal in the sense that they are “liable to change: not merely that they can be changed by the action upon them of external forces, but that they change of themselves, and thus show themselves to be inherently transitory.” Plato also theorized about the

42 Ibid, 32.

43 Collingwood notes the difficulty of extrapolating any of Pythagoras’ ideas from those of his students and followers, and conveys that the works he is often attributed with, which are a part of a larger body of doctrine ranging across several centuries, may or may not have been his, but are accredited to the Pythagoreans. Ibid, 49.

44 Collingwood, 56.

45 Ibid.
imminence and transcendence of forms, finding them necessarily transcendent because an absolute or ideal form (which is imminent) cannot be obtained but can be conceived of, and replicated. However, Plato also explained that the world of forms has no understanding of either space (which is equated with matter) or time. For Plato, space is not made by God because it is presupposed as the “receptacle of forms.” Time, on the other hand, is seen as being created by God but it is also understood as coming “into existence. . . simultaneously with the world of nature, so that there was no abyss of eventless time before creation, and creation was itself not an event in time: it is an eternal act, not a temporal event.”

‘Nature’ for Plato is understood as being equally as old as time, but its emergence is considered a causal process, necessitating the perpetuation of God in cosmology.

Aristotle (384 -322BCE), the most famous student of Plato, viewed nature as being a world in which forms moved spontaneously and were capable of change and development. This change, however, was understood as being rational (logical) as opposed to temporal and was, in its most pure form cyclical which according to Aristotle is “characteristic of the perfectly organic.” In this sense, the existence of nature is not constituent upon the presupposition of the existence of God (like it is for Plato). Thus, if one argues that God does exist, then it necessitates an end which everything else attempts to imitate. Aristotle later postulated however that God could, and did exist based on his

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46 Ibid, 74  
47 Ibid.  
48 Ibid, 82.  
49 Ibid, 89.
theory of multiple unmoved movers in which God is seen as the first, and ultimate mover whom all other movers seek to emulate. ‘Nature’ for Aristotle is understood as one of these unmoved movers, actively seeking to emulate God, and is “characterized not merely by change but by effort or nisus or tendency, a tendency to change in certain definite ways.”\textsuperscript{50} The Greek period of theorization about nature is particularly important for our understanding of how the term ‘nature’ is utilized in the modern period. Both the teleological and animistic elements of nature prominent in the Greek period were discarded during the Renaissance, eliminating a crucial element in the theorization of nature which, if re-invoked, could help to inform the new model we seek, along the lines of Latour’s envisioned framework.

During the Renaissance the theoretical understanding of nature shifted dramatically, calling into question the Greek notion of teleology.\textsuperscript{51} The new theory on nature postulated by the Renaissance writers argued that phenomena exist based on a process of “efficient causes, which meant explaining all change and process by the action of material things already existing at the commencement of the change.”\textsuperscript{52} According to Collingwood, this idea was already prominent during the middle of the 16\textsuperscript{th} century. For example, Bernardino Telesio (1509-1588), an Italian philosopher, understood “nature not as drawn onwards by something outside itself to imitate forms having an eternal and immaterial existence, but as possessed of an intrinsic activity of its own, namely heat, in virtue of which it generates motion in itself and thus produces all the various types of

\textsuperscript{50} Ibid, 87.

\textsuperscript{51} This term originates in the works of Plato and Aristotle and postulates that the existence of a thing (a phenomenon) is explained through a discussion of its perceived purpose as opposed to its cause(s).

\textsuperscript{52} Ibid, 94.
structure found in the natural world.”\textsuperscript{53} The Greek paradigm understood nature as an organism which is itself alive and “whose immanent energies and forces are vital and physical in character.”\textsuperscript{54} The \textit{anima} was replaced in the Renaissance by a more immanent and mechanical understanding of nature, initiated in particular by Nicolaus Copernicus (1473-1543). One of the primary differences for the Renaissance writers was that the causes were seen as residing within \textit{nature} itself, as opposed to outside of nature like they were for Aristotle.\textsuperscript{55}

With the (posthumous) publication of Copernicus’s revolutionary theory the understanding of \textit{nature} shifted yet again. Copernicus did not merely promulgate a shift in the focus of philosophers from the earth as the center of the universe to the sun as center, but more significantly, he was the first to “implicitly deny that the world has a centre at all.”\textsuperscript{56} If the world has no center, according to Copernicus’s theory the different ‘ends’ which constitute phenomena (as may be seen by the Greeks as working to emulate God as a prime mover) cannot exist because there is no central point or prime mover to which they are working toward. This idea effectively destabilized the Greek understanding of \textit{nature} as a living organism in that \textit{nature} is not seen as capable of change in and of itself, or of working towards its own individual cultivation. In response to Copernicus’ revolutionary model, the Renaissance thinkers postulated yet another theory of \textit{nature}. Collingwood argues that Giordano Bruno (1548-1600), a controversial

\textsuperscript{53} Ibid.
\textsuperscript{54} Ibid, 95.
\textsuperscript{55} Ibid.
\textsuperscript{56} Ibid, 97.
friar and philosopher who interpreted the theory of Copernicus, was integral to the proposal of this new theory. Bruno emphasized Copernicus’ “denial of any qualitative difference between terrestrial and celestial substance . . . [arguing] that all [substances] move according to the same laws, with an inherent circular motion” rejecting Aristotle’s idea of a ‘prime mover.’ God is understood in Bruno’s theory as being a part of the ether, the essence that exists in all things, and is (due to its similarity to all things) a “mover immanent in its own body and causing movements throughout the body” which effectively identifies God as both the principle and the cause of nature in a form of what might be termed mechanistic pantheism. Bruno’s theory however perpetuates the notion of dualism, specifically between the immanent and transcendent forms of causation, and according to Collingwood is the reason why dualisms proliferated during the seventeenth century, emerging with the mind-body duality of philosopher René Descartes (1596-1650). The arising of duality will be particularly significant for our understanding of nature throughout the rest of the Renaissance and in the modern period.

57 Ibid, 99.

58 Ibid.

59 Here, we also see that God has been crossed out from the Renaissance view of nature, no longer necessary theoretically. Latour details this removal of God (Latour, 32) saying that “a wholly individual and wholly spiritual religion made it possible to criticize both the ascendancy of science and that of society, without needing to bring God into either. The moderns could now be both secular and pious at the same time.” (Latour, 33). Theorists such as Thomas Hobbes (1588-1679), John Locke (1632-1704), and David Hume (1711-1776) all applied deist approaches to their own theorization of nature which precipitated and influenced the arising of secularization. As the Renaissance was transitioning into the modern period, Hobbes and other theorists began to detail the ‘Laws of Nature’. Later, Kant deems these laws as a priori, suggesting that we can only interact with nature in an a posteriori manner. Because of its composition, we cannot understand these Laws of Nature and are unable to know the thing (nature) in and of itself; however, we can engage with pieces of it. (Kreines, James. “Kant on the Laws of Nature: Laws, Necessitation, and the Limitation of Our Knowledge.” Wiley Online Library. 6 Oct. 2008.) These pieces, or local manifestations, have been identified, in the Post-Humanist discourse (of which Kant is identified as an early thinker) as hyperobjects, which are discussed in Timothy Morton’s book Hyperobjects. (Morton, Timothy. Hyperobjects: Philosophy and Ecology after the End of the World. University of Minnesota Press. 2013.)
Developing the theory of inertia Johannes Kepler (1571-1630), completed the undermining of the Greek notion of the prime mover. The theory of inertia finds that objects tend to remain stationary until acted upon by an outside force. Galileo (1564 – 1642) took this idea from Kepler and expanded on it, arguing that, as Collingwood says, “the truth of nature consists in mathematical facts; what is real and intelligible in nature is that which is measurable and quantitative.”\(^{60}\) Significantly, Galileo has effectively separated nature from both God and from ‘man’ both of whom he sees as transcending nature.\(^{61}\) Galileo’s theory was later expanded upon by the Empiricists\(^{62}\) specifically differentiating between mental formations and matter. Immanuel Kant (1724-1804) later questions why (or how) mind creates matter, and finds that as long as one abides by the theories posited by the logicians, “anyone who thought at all . . . would find himself constructing an object having the characteristics ascribed to matter.”\(^{63}\) The question however remains, which ‘mind’ becomes the creator of matter? For Kant, this ‘mind’ was the human mind, but not in the sense that we understand it today. Instead the nature created by ‘mind’ in this sense is constructed through the “transcendental ego, mentality as such or the pure understanding, which is immanent in all human thought (and it does

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\(^{60}\) Collingwood, 102.

\(^{61}\) Collingwood relates that “. . . if nature consists of mere quantity its apparent qualitative aspects must be conferred upon it from outside, namely by the human mind as transcending it; while if it is conceived no longer as a living organism but as inert matter, it cannot be regarded as self-creative but must have a cause other than itself.”\(^{\text{Ibid.}}\), 103.

\(^{62}\) The empiricists may be understood as those philosophers such as John Locke, Baruch Spinoza, Isaac Newton and David Hume. Newton, who is noted as a mathematical genius for his invention of calculus, is seen by Collingwood as not being one of the monumental contributors to the theory of nature.

\(^{63}\)\(^{\text{Ibid.}}\), 115.
not create, though it makes nature).”\textsuperscript{64} For Kant, nature was understood as a phenomenon which could be understood through scientific knowledge.

Georg Wilhelm Friedrich Hegel (1770-1831) adopted Kant’s idea that nature can be thought about in and of itself. For Hegel, the ability of nature to be conceived of in and of itself lies in the fact that there is a ‘logical necessity’ by which nature both creates itself and maintains itself and is not dependent upon a creator (neither God nor mind). For Hegel however, nature is real in the sense that it is not an illusion nor a figment of our mental formations. In Hegel’s view nature as an idea does exist in time and space but is impermanent; it constantly changes in meaning depending on context, but this does not limit the fact that it is something real. Hegel’s perspectives were radical for his time period, and helped to usher in the ‘Modern Period’ of the theorization of nature.

What Collingwood terms the ‘Modern Period’ is the product of the intellectual thought which has developed through the Greek and Renaissance periods. Sociologist Anthony Giddens may provide us with a more critical, but inclusive definition for understanding what we mean by ‘Modern.’ In his book Modernity and Self-Identity (1991) Giddens says that modernity may refer to “the institutions and modes of behavior established . . . in post-feudal Europe” but which have had a pervasive global impact.\textsuperscript{65} Modernity, for Giddens is equitable to “the industrialized world, so long as it be recognized that industrialism is not its only institutional dimension.”\textsuperscript{66} Understanding Modernity in this way, shows the impact of previous and current philosophical theories of

\begin{footnotes}
\item[64]Ibid, 116.
\item[66]Ibid, 15.
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nature as it is utilized within the modern period. During the transition to the Modern period, British philosopher Samuel Alexander (1859-1938) began to understand matter as mechanical, “inherently possessed of motion, and of all movements as relative to each other within space-time as a whole” and implied that “[matter] does not exist merely because it appears to a mind; it exists as a function of structure in the objective world.”

Disagreeing with Alexander’s theory, Alfred North Whitehead (1861 – 1947) understood nature as both an organism (in its composition) and a process. His theory rested on the idea that “the activities of the organism are not external accidents, they are united into a single complex activity which is the organism itself Substance and activity are not two, but one.” From these two theoretical positions we begin to understand how the Modern notion of nature is situated in the historical genealogy of philosophical thought. The concept ‘nature’ is understood as a process of our mental formations (by post-moderns) but is also seen as being an identifiable thing which has its own essence, an organism which changes and also a process which continuously occurs. This understanding of nature is employed in the Modern period and will help us come to understand why Latour views the ‘Modern’ position as problematic and in need of revolution.

Collingwood points out that the cycle of cosmological thought about nature has been repeated, in that the same turn from Thales to Aristotle is recapitulated from Descartes to


68 Whitehead is strongly influenced by the rise of evolutionary theory.

69 Ibid, 167. This idea later contributed to the Gaia hypothesis, envisioned by James Lovelock during the 1970’s and states that “living organisms and their inorganic surroundings have evolved together as a single living system that greatly affects the chemistry and conditions of Earth’s surface.” ("Gaia Theory | Model and Metaphor for the 21st Century." Gaia Theory. http://www.gaiatheory.org/)
Newton to Whitehead. This tendency to duplicate this cycle has been cited as a tendency of human intellect. Religious studies scholar William James wrote in The Varieties of Religious Experience that “the first thing the intellect does with an object is to class it along with something else. But any object that is infinitely important to us and awakens our devotion feels to us also as if it must be sui generis and unique.” The problem with this repetition of our human intuition is that it does not allow for any drastic change in the structural foundation of the discourse on nature, and is therefore doomed to repeat the same theoretical thought processes over and over again, including in the modern period. It is this replication of the very structure of the discourse which becomes problematic for Latour, even more so than the divisions between different views of nature in the modern period.

**Exposing the Flawed Structure of the Intellectual Framework of Modernity**

In his work *We Have Never Been Modern*, Bruno Latour (1947 - ) problematizes the intellectual culture of modernity, pointing out that the disconnect between constructed categories not only constrains our methods of thinking but also limits our understanding of the complex system of interrelationships between things. Latour indicates that three distinct categories are habitually created between “modern” humans and our pre-modern or primitive ancestors. These three categories, which he identifies as nature, politics,

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70 Collingwood, 170.


73 This articulation of ‘nature’ by Latour, although also constructed, will remain un-italicized to depict the differences between his usage of the term and my application of it which will appear as nature throughout the paper. It should be noted that my use of “environmental” issues/crisis recognizes the constructed nature
and discourse, are constructed products of the ‘modern’ paradigm; in other words, they have been crafted, defined, limited, and mobilized by scholars in order to designate a particular space (for analytical purposes) for what would otherwise be seen as unrelated, ordinary, everyday occurrences. The very existence of these three separate categories creates additional categories into which many topics or issues might be essentialized and funneled into. Problems arise however when issues do not fit neatly into one of these three categories. Forced to the sidelines, or margins, issues that traverse the boundaries of these categories are problematic and ultimately foster an inevitable delay in rectifying the problems at hand.

My point here is that critical issues concerning the environment exist outside of all three of these categories. *Nature*, and more specifically the deteriorating state of the *natural* world, is problematized by biologists, and those in other areas of the environmental sciences who often take on the roles of whistleblowers, becoming the “canaries in the coal mine” warning that if there is not radical and immediate change in our treatment of *nature* (that thing that exists out there and is wholly separate from humans) then the global ramifications could be catastrophic. *Politics* as defined by Latour deals with implementation, regulation and enforcement of legislation and standards which are disseminated as a means to control and regulate the environment. Often these become a hallow set of arbitrary limitations which actually sanction the continuation of environmentally devastating practices, capping and restraining in appearance only, and allowing problems to degenerate further. *Discourse*, a method often invoked by the
humanities and the social sciences allows for connections to be made between even the most seemingly unrelated things due to the navigation of signs and symbols, connecting agents and actors through a complex system of interrelated networks. Thus, nuclear fallout from Fukushima, for example, can be linked to an increase in birth defects in California, a change in the number of radioactive isotopes present on the Canadian continental shelf, and the changes in eating habits of native tribes in Alaska when fish populations decline. Specific environmental topics, such as environmental issues like mountaintop removal, traverse all three of these categories and necessitate that proposed solutions traverse the limitations imposed by categorical classification. This disconnect however, between nature, politics, and discourse has not, and according to Latour, cannot be navigated and rectified by the “modern” approach. Latour explains that the structural foundation of the modern discourse itself is flawed, thus creating a disconnect between the categories of nature, politics, and discourse. So long as there remains a flaw in the constitutional foundations, there can be no rectification of environmental problems. Latour’s solution for this, as will be shown, is to invert the modern framework and shift the paradigm on which the argument of the moderns rests.

The idea of being “modern” implies two things according to Latour. First, he recognizes that there is a clear divide, or gap, in temporality which creates a distinct division between us, ‘moderns,’ and our pre-modern, primitive ancestors. This gap in temporality between the modern and the pre-modern is a retrospectively applied division, which functions as a juxtaposing agent, making the modern seem wholly other, and wholly separate from the pre-modern. Developing this insight, he argues that the idea of
being ‘modern’ “designates a combat zone in which there are victors and vanquished,” placing pre-modern and modern humans in competition where one approach is deemed as more productive, or more successful than the other. The pre-modern is necessarily always the underdog, losing to the unfair advantage that the modern possesses as the constructor of the discourse.

The category of ‘Modern’ according to Latour’s theory, also creates two distinct intellectual practices (utilized for categorizing nature, politics, and discourse) which must remain distinct. The first of these two distinct practices is navigated through a process of “translation,” or the identification of a common theme throughout a set of seemingly unrelated elements, which effectively allows them to all be grouped and identified together. The process of translation, according to Latour constructs and produces “hybrids of nature and culture” – networks of elements which are simultaneously “real, like nature, narrated, like discourse and collective, like society.” The second practice, on the other hand, is negotiated through a process of “purification” meaning that it constructs “two entirely distinct ontological zones: that of human beings on the one hand [and] that of nonhumans on the other.” These ontological zones divide, separate, and partition elements, creating an ‘either – or’ process of categorization. Latour says that the


75 While there is a discussion that less technologically advanced nations have less impact on their respective environments, this argument is difficult to prove. All societies, cultures, and individuals directly impact their environment, just as their environment impacts them and it is not my purpose here to determine, or even postulate, the comparability of impact between industrialized and non-industrialized nations.

76 *Ibid*.


process of purification “establish[es] a partition between a natural world that has always been there, a society with predictable and stable interests and stakes, and a discourse that is independent of both reference and society.”\textsuperscript{79} He goes on to argue, however, that these two process (translation and purification) are mutually dependent and each would be meaningless and useless without the other. This is because without a division between human and non-human, the process of translation between \textit{nature} and culture (or the non-human world and the human world) becomes obscure, and conversely, without purification and hybrid explanations, the divide between human and \textit{nature} would be restricted, or limited.

In order to explicate human/non-human distinctions more clearly, I offer the following examples that deal briefly with the subject of mountaintop removal. Works of “translation” are bred through the process of linking discursive issues together: thus, in the United States mountaintop removal coal mining is causally linked to national and global energy production and consumption demands, the EPA’s Clean Water Act, cancer clusters in southwest West Virginia, and concern over moving up the global doomsday clock. Works of “purification” however dichotomize humans and \textit{nature}, creating a “natural world that has always been there” (the mountains in the case of mountaintop removal) juxtaposed against a “society with predictable and stable interests and stakes” (e.g. industrial and individual interests in coal and energy production).\textsuperscript{80} These two methods, purification and translation, (so long as they are considered as distinct and separate approaches) only attempt to rectify issues (such as environmental ones) through

\textsuperscript{79} \textit{Ibid}, 11.

\textsuperscript{80} \textit{Ibid}.
one of the two practices at a time, allowing us to remain ‘modern.’ Latour’s point however is that we must remember that everything is embedded, and that we must recognize that these two distinct practices (purification and translation) have always been occurring together. Knowing that remaining modern necessitates the two practices to be employed separately, Latour finds that we have “never been Modern” (and can never be modern within this structural framework) and therefore cannot have been pre- or post-modern, but are in actuality, a-modern.81

The creation of categories and dichotomies has been widely critiqued and presents several different problems for the ‘modern’ intellectual framework.82 Religious studies scholar J.Z. Smith among others, problematizes the construction of categories and dichotomies in his book *Imagining Religion.*83 Smith says that, specifically in the creation of dichotomies (like those created through the process of purification) “there are usually normative implications or the assignment of positive or negative valences which render classification useless.”84 In the case of the dichotomy between human and non-human, which underlies the framework of modernity, one (the human) category may be associated with a positive inflection and the other (nonhuman) category may be associated with a negative inflection. This, in turn, perpetuates a further dichotomy, an

81 *Ibid*, 47.

82 The next chapter will present critiques to both the process of categorization and dichotomization, utilizing the discourse of deep ecology and eco-feminism to show the problematic structural framework of each.


‘us versus them’ mentality which, at its very inception, privileges the “us,” the insider, as the positive, and “them,” the outsider, as the negative.

Furthermore, the creation of categories, such as the ones constructed through the process of translation is also discussed by religious studies scholar J.Z. Smith. While he views the construction of categories as nothing more than a tendency to which the human brain is inclined, Smith does argue the necessity of being aware of this seemingly unconscious tendency, as well as its ramifications, both political and ideological, that are enacted in the act of classification.85 Discussing specifically the categorization of Judaism, Smith finds that there is not one specific, identifiable thing that can be labeled as Judaism, but that instead there are multiple potential Judaisms which become apparent through the re-mapping process. Smith argues that the marking of boundaries through the creation of specific categories forces the “identification of a single trait which is held to reveal the ‘essence’” of the thing being categorized.86 He notes however that these are “merely slogans”: “arbitrary,” distinctions and traits that allow elements which are otherwise seen as unrelated to be lumped together and identified as inter-related. The problem however, is that the notion of an “essence” allows for designation of ideas, issues, or phenomena into particular categories which produces “arbitrary and poorly defined,” and “improperly constructed, impressionistic divisions” that, according to Smith, we become compelled to recognize.87 This becomes important for the purposes of this paper in understanding that there is not one static ‘nature,’ which can be identified

85 Ibid.
86 Ibid, 7.
87 Ibid.
and understood but multiple possible natures. However, through awareness of the constructed nature of our categories we begin to understand the deeper motivations, both political and ideological, that often contribute to specific acts of categorization. The cross category split indicates that the restriction of any concept into a single category (i.e., politics, nature, discourse) reduces and essentializes the complex layers of meaning that actually constitute it. Categorizing any concept as ‘political’ in the modern discourse ensures that a particular group of individuals hold the authoritative power of the discourse instilling them with the power to regulate and change both the actual processes as well as the relevant discourses. Recognizing the need for awareness of the underlying political and ideological ramification of categorization, Smith suggests two alternative approaches which would help to re-envision this problematic tradition imposed by modernity.

Inverting the process of categorization that he has just identified, Smith’s first approach argues that the “internal agent of discrimination,” (namely identifying the constructed ‘essence’ that allows a thing to be funneled into a particular category) should be itself extracted, and in turn mapped through the phenomena that it seeks to limit in order to “gain some appreciation of the range of its application.” For example, let us say that the laws concerning coal mining become the ‘essence’ of how coal mining is defined, causing ‘coal mining’ to be categorized as ‘political.’ If we invert the model according to Smith’s suggestion, then we need to re-map the laws concerning coal mining onto the history of coal mining in order to more clearly see their breadth and complexity. When undertaken, this inversion produces a unique result: laws concerning coal mining

88 Ibid, 9.
are no longer seen as only political. Instead, laws such as the Surface Mining Control and Reclamation Act (1977) which regulate the effect that coal mining is allowed to inflict on the environment, can now be seen as also having to do with the Latourian category of ‘nature.’ Because the selection of an ‘essence’ is, as Smith conveys, ‘arbitrary,’ the possibility of identifying another alternative essence, or multiple alternative essences, is but a matter of the interpretation of the redactor. Thus, the “essence” itself is not unique – it is merely one identifiable essence out of the many potential essences that could be identified (e.g. resource exploitation or energy production). Therefore, if multiple redactors came together, compiling each of their individual identified “essences,” the potential exists for each of them to describe the “essence” of coal mining as something completely different. The potential for multiple essences allows that they might necessarily fit into multiple different categories simultaneously, whether they be politics, nature or discourse. When the essences of coal mining traverse these constructed boundaries, coal mining itself transcends the limitations of the categorization process making it ineffective.

Smith’s second approach for re-imagining categorization suggests taking “a limited body of material from” the phenomena being categorized and “map[ping] out all of the taxonomic indicators.”89 To continue with our previous example, if we view coal mining which is categorized by the modern framework as ‘political,’ and selected a limited amount of information from what we know about coal mining, we could then map those indicators across the constructed categories (of politics, nature, and discourse) in order to show how coal mining itself could be classified, or categorized as either a part of

89 Ibid.
nature, politics, or discourse. For example, if we consider three elements that are often discussed in association with coal mining (labor unions, slurry impoundments, and commodity fetishism) and essentialize them individually, separate from coal mining, then we can again see how coal mining itself traverses the constructed categories. Labor unions, formed by coal miners to protect the rights and lives of coal miners, could be categorized as ‘political,’ while slurry impoundments, an environmentally harmful by-product of the mountaintop removal coal mining practice, could fall under the category of nature. Commodity fetishism, a discursive tool conceptualized by Marx\textsuperscript{90} to discuss the roles of social relationships in production, would fall into the third category, ‘discourse.’ Therefore, coal mining itself cannot be categorized as merely ‘political,’ because many of the phenomena that it consists of fall into the other categories, again reinforcing the notion that the concept of coal mining itself extends across the constructed categories of modernity.\textsuperscript{91}

Similar to Smith, Latour also understands the process of categorization as an often unquestioned tendency of the ‘modern’ mind, and articulates the need to recognize the process of classification for what it is – a human practice that effectively limits, reduces, and groups bodies of information into what we understand as related, logical patterns.


\textsuperscript{91} Although it is not my intention in this paper to critique the second approach envisioned by Smith here for ‘mapping taxonomic indicators’ throughout a body of knowledge that is being categorized, there is a contradictory conceptual flaw in his argument. By acting as the redactor himself during the process of mapping, he is himself identifying essences of the taxonomic indicators in order to show that if they fit into different categories so must the original element being categorized. But by placing the taxonomic indicators into categories, they too must be necessarily mapped by their taxonomic indicators. This creates a “Penrose triangle” if you will, an impossible, never ending puzzle of essentializing, mapping, and traversing constructed categories.
necessitating association. Like Smith, Latour also identifies the implications of this process of classification and categorization, acknowledging that it is not only problematic because it produces conditioned, linear, presumptive relationships between individual elements but also because the very process of categorization itself informs, and is informed by, the analysis of the modern. Latour, however, sees an additional problem with the construction of dichotomies and categories. He argues that the two intellectual frameworks (transition and purification) which must by their very conceptual framework remain separate and distinct in order to remain intact, are, within the modern period, invoked simultaneously. This, according to Latour, forces us to recognize that we cannot be modern by fostering a realization that both of these restrictive practices, purification and translation, have always been in existence. If these two have always been in existence instead of being a product of ‘modern’ conceptions, then their perpetuation would negate the temporal divide between pre-modern and modern. If there is no division between the two, they are not in essence different, but one and the same – leading Latour to the logical conclusion that “we have never been modern.”\textsuperscript{92} Taking this into consideration, Latour finds a glaring paradox in the modern approach; that “if we consider hybrids, we are dealing only with mixtures of nature and culture [but] if we consider the work of purification we confront a total artificial separation between nature and culture.”\textsuperscript{93} Accordingly, \textit{nature} cannot be simultaneously wholly separate from society and yet also indivisible from its interrelationships with culture.

\textsuperscript{92}Latour, 47.

\textsuperscript{93}Latour, 30.
Latour, invokes the British philosopher Thomas Hobbes and physical scientist Robert Boyle as the two opposing forces of the modern paradox, and he goes on to show how in modern works, the existence of God is problematic. For both Hobbes and Boyle, God had to be removed from the constructed category nature in order to eliminate notions of “divine presence” from society in order to limit notions of its “divine origin”; this purge was necessary to “criticize both the ascendancy of science and that of society without needing to bring God into either.” By crossing out God, this allows modernity to appear as if it is invincible: thus, moderns can “mobilize Nature at the heart of social relationships, even as they leave Nature infinitely remote from human beings; they are free to make and unmake their society, even as they render its laws ineluctable, necessary and absolute.”

In this way, by examining what the modern constitution both prohibits and concedes, Latour reaches the conclusion that “no one has ever been modern. Modernity has never begun.” Part of this reasoning, for Latour, stems from his belief that the multitude of hybrids produced has overwhelmed the modern constitution’s framework, making the constitution incapable of keeping the proliferation of hybrids in check. Latour further rebukes the ‘moderns’ for their misguided understanding of temporality. He says that, “moderns have a peculiar propensity for understanding time that passes as if it were really abolishing the past behind it,” later going on to clarify that the “impression of

94 Ibid, 33.
95 Ibid.
96 Ibid, 47.
97 Ibid, 68.
passing irreversibility is generated only when we bind together the cohort of elements that make up our day to day universe.”

After dismantling the argument of the ‘modern’ Latour goes on to envision a “Copernican Counter-revolution” through which he argues that the modern framework for thinking about nature and society will be drastically altered, namely by taking the modern model and inverting it. In other words, Latour envisions a model in which notions of temporality are not linear but cyclical, where the processes of “translation” and “purification” are mediated and deconstructed, and where perceived causally conditioned relationships are seen to be what they are, vast interconnected networks which are created through the collaboration, negotiation, and (re-)articulation of naturecultures.

Latour emphasizes what I see as three distinct modifications in our intellectual mindset that are necessary in order to achieve the counter revolution that he envisions. First, he emphasizes the need for re-envisioning our notions of temporality about the linear progression of time perpetually moving into the future, seeing this as merely a hybrid which is created by the modern process of translation. He notes that it is “the connections among beings alone [that] make time” and that we must think about “beings and their relationships to the networks that construct irreversibility and reversibility.”

When we begin to see temporality as a hybridized notion that is not linear, and that is not limited to progression into the future, we can begin to re-imagine our connections to other beings, across both time and space, without the constraints and limitations of false notions of temporal or spatial separation.

98 Ibid, 72.

99 Ibid, 77.
Secondly, he indicates that we can no longer view society and nature as “two opposite, transcendences” but must instead see them as “one and the same growing out of the work of mediation.”\textsuperscript{100} When re-envisioning the intellectual process of purification then, the notion of ‘culture’ logically becomes “an artifact created by bracketing Nature off. Cultures – different or universal – do not exist, any more than Nature does.”\textsuperscript{101} The deconstruction of this dichotomy also allows for the re-emergence and re-examination of the ideas/concepts that were marginalized. Thus, according to Latour “Nature and Society” are able to be viewed not as “two distinct poles, but as one and the same production of successive states of societies-natures, of collectives.” Furthermore, “the work of mediation becomes the very centre of the double power, natural and social. The networks come out of hiding.”\textsuperscript{102} When the networks, which produce hybrids in the process of translation are exposed, Latour’s third modification for our intellectual mindset becomes clear. It is imperative, according to his model, that we recognize not only the synthesis of ideas that allows for the creation of a hybrid, but also the vast interconnected web of ideas that allows for the proliferation of hybrids. The model of the modern shows all hybrid objects being causally conditioned, resulting in a linear progression in one direction: forward, in time and space. Latour’s re-conceptualized model of interconnections, understands the connections between objects as working in both directions simultaneously and connecting each entity in the model to every other entity. For Latour then, it is imperative that we look at the array of networks as they

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\textsuperscript{100} \textit{Ibid}, 87.

\textsuperscript{101} \textit{Ibid}, 104.

\textsuperscript{102} \textit{Ibid}, 140.
relate and interact with one another, instead of recognizing that the creation of hybrids is merely a causal chain emanating from one distinct, or initial point.

Through this examination of the theoretical arguments of Bruno Latour and J.Z. Smith, I have detailed what Latour sees as a flaw in the intellectual framework of modern discourses, and outlined the problematic foundations on which they are constructed. The next chapter will detail the way in which the ‘modern’ framework has been applied within the discourse of global environmental problems, thus replicating the problematic structural issues found in the ‘modern’ framework that confront the environmental discourse as well. I will show through the examination of the discourses of deep ecology and ecofeminism that by flipping the ‘modern’ model on its head (re-conceptualizing of notions of temporality, deconstructing categories and dichotomies, and examining the *interconnections* between objects) we may begin to formulate a new intellectual framework that furthers our thinking about complex global issues, such as the environmental crisis.
Chapter 2
The ‘Modern’ Construction of Global Environmental Problems

Now that we have established the conundrum with the intellectual framework of the ‘modern’ approach through the theoretical and methodological frameworks of Smith and Latour, I seek to explicate how the ‘modern’ approach has been forced upon the global environmental crisis, perpetuating the same problematic structural issues, and undermining the very possibility of rectifying the crisis at hand. The impending doom of the global environment, as discussed in the introduction of this paper, produces feelings of fear and anxiety in the human population (or at least in parts of it), and reciprocally, these feelings of fear and anxiety inspire a desire to attempt to deal with the environmental problems plaguing our world today. I argue however, that historical and current approaches which have attempted to assuage environmental problems and prevent impending disaster have been, and continue to be, at their very core, structurally flawed. No radical shift in how we think about the environmental crisis has occurred leaving us ineffective in revolutionizing our modes of thinking, failing altogether to produce any monumental, or even meaningful, changes in the rapidly deteriorating state of the environment.

My purpose in this section is to detail how the current approach to dealing with the global environmental crisis replicates and perpetuates the problematic ‘modern’ approach detailed in the previous chapter. I will provide examples of how this ineffective intellectual framework materializes by showing how hybrid systems of translation and purification are replicated through the environmental discourse. In the following pages, I will first discuss the problem with the modern work of translation, and then I will go on
to discuss the problem of purification, looking specifically at how this modern intellectual framework has been utilized in the discourse of the environmental crisis.  

**The Problem with Translation**

Latour argues that the process of translation creates hybrids, networks of seemingly related issues that causally condition one another, perpetuating a linear pattern which designates a common “essence” and allows for the creation of categories. For the purposes of this section, I will utilize the three categories that Latour identifies (and has himself constructed) in his own work (politics, nature, and discourse) to discuss the environmental crisis. Here I will show how hybrid networks are produced through modern discourses and will then problematize the ‘essence’ that allows each issue to be funneled into the three categories Latour outlined. After presenting one example (of many possibilities) of how translation occurs in the modern discourse on the environmental crisis, I will then employ Smith’s theory of re-mapping to display an alternative, inverted framework that Latour advocates for.

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103 It should be noted here that these divisions, envisioned by Latour, of purification and of translation, as well as of hybrids, are themselves constructed categories. The previous chapter detailed the recognition by both Smith and Latour that categories are constructed and noted the implications, both analytical and political, that they argue the modern’s overlook in the construction of categories.

104 The term “environmental crisis” is itself a socially constructed term, imbued with meaning imposed on it by the discourse of the ‘modern’. For the purposes of this paper, I will employ the term in its socially constructed sense because it is not my purpose at the present time to deconstruct this term. It should be noted however that my account of the construction of the modern discourse applies not only to the discourse itself but also to the terminology it often employs (terms like ‘nature’ and ‘environmental crisis’).

105 Like nature in the previous chapter, the ‘environmental crisis’ is also a product of the modern discourse, relying on the conceptual framing of constructed discourse, including the dichotomized discourse of human and nature. Noting this constructed nature of the “environmental crisis” I will continue to employ the term to represent the need, expressed by the modern, to deal with the deteriorating state of the natural world and socially constructed issues related hereto, such as global warming and climate change.
As an example, I will choose the issue of global warming to think about the problem that occurs with translation and the creation of hybrid networks and categories. I construct the following incident in an attempt to provide a framework from where we can analyze the larger issue of translation. Let us conceptualize momentarily of the conditions that cause global warming. One such condition that comes to mind might be excessive air pollution from factories, which in turn could be causally related to high production demand of commodities. An increase in demand for certain commodities might be related back to an increase in population. Because production must keep up with and provide for demand from consumers, we can then imagine that because there are more people there are more consumers demanding the products, which factories have to produce, which causes the factories to have to operate for longer hours, thereby emitting more air pollutants and contributing to global warming. Each of these elements becomes linked together then, in a linear pattern that Latour would call a hybrid network. Let us also say that from this example global warming becomes political from the three categories (i.e. politics, nature, discourse) that Latour set up in his book.

The modern model is problematic for two central reasons. First, it finds issues to be causally connected in a linear pattern, overlooking the fact that the networks could be connected between different elements in the causal chain as well. Second, it creates the idea of an essence of the issue, or concern being defined, leading to the creation of narrow, unclearly defined divisions between categories. The first issue of causally conditioned linear networks effectively limits the understanding that the elements in the causal chain are, in actuality, without absolute essence but are instead interconnected and merely contingent upon the existence of the prior element. For instance, the linear
example of overpopulation being linked to global warming leaves out many of the interconnections that could play into the system, linking these causal notions together in a straight line fashion. Think for instance about a factory being open for longer hours. Because of this, more individuals will be needed to work the extended hours, providing more people with jobs. Because they now increasingly have the means to buy into the commodity being produced they too might deem it necessary and through their own purchase consequently increase demand. In this way, the production of goods is not only linked to factory production, but also to the workers and others who purchase the goods, who are also linked to the factory and to the product in demand. Through a revolution in thinking about the inter-relationships between each phenomenon present in this situation, the linear causal hybrid model becomes an interconnected web, where each element is reciprocally interconnected to each other element.

The second problem, as is dictated by the prior paragraph, is that the modern process of translation is the creation of an ‘essence’ which J.Z. Smith discussed in detail. For instance, the idea for example (that I mentioned before) that the problem of global warming is, in essence, a political problem. Global warming has been essentialized into this category, not only by perpetuating the idea/notion that global warming is a political and not a ‘nature’ problem, because politics must be the field which provides the solution to the problem. As Smith indicates however, in order to re-envision the “modern” framework, it becomes necessary to map the essence ‘politics’ through the issue of global warming to see how wide ranging its effects might actually be. For instance, if we map ‘politics’ through global warming we might see that some of the ways that politics become apparent are through the creation of pollution emissions standards, legalized
limits on large scale deforestation permits, or the United Nations Kyoto Protocol.\textsuperscript{106} While pollution emissions standards might be considered merely political, permits on deforestation effect the desecration of the worlds’ forests, which links it to both the categories of politics and of nature. Likewise the protocol issued by the United Nations becomes not only political, but also a product of a discourse that has begun between global leaders. In this way, we can see that when the ‘essence’ or limiting factor that effectively causes the creation of a category is in turn mapped through the issue that it seeks to limit and categorize it, we see that the phenomenon (e.g., global warming) cannot merely be restricted, or funneled into just one category, but has more broad ranging implications. By inverting the model as Smith advocates, and mapping each categorical classification throughout we destabilize the notion of an “essence” showing that these categories are actually composed of “shifting clusters of characteristics which vary over time.”\textsuperscript{107} As noted in the previous chapter Smith’s re-envisioned model then maps all of the potential categories that could be contained therein. For the purposes of this section I will use the categories set out by Latour (politics, nature and discourse) as the categories which become present through this mapping process. Additionally, I will use the previous linear elements (pollution, production, demand, and overpopulation) as the limited body of knowledge that I want to map in order to conceive of global warming as no longer just a political category.

\textsuperscript{106} The Kyoto Protocol is an international agreement that was created by the United Nations Framework Convention on Climate Change, which places regulations and limits on emission standards for the countries who choose to participate. The Protocol was first adopted by Kyoto, Japan in 1997 and went into full effect in 2005. "Kyoto Protocol." Kyoto Protocol. 2014. http://unfccc.int/kyoto_protocol/items/2830.php.

\textsuperscript{107} Smith, 18.
Thinking about the issue of pollution, we know that emissions are supposed to be regulated and that factories have restrictions, which does in fact make pollution ‘political.’ However, pollution also becomes a ‘nature’ issue when considering the ramifications that pollution can cause. Acid rain, for example, which occurs when there are increased sulfuric and nitric acids in the atmosphere, is one result of air pollution.\(^{108}\) In turn, acid rain has detrimental environmental effects, specifically to forests and bodies of water, as well as to the species that reside in these habitats. In this way air pollution can also be seen as part of the category ‘nature.’ On the other hand, consumer demand for and production of products adds yet another layer of meaning, becoming a ‘discourse’ from which companies must determine what they will produce based upon a set of indicators that project what consumers might be interested in purchasing. The production of hybrid cars, like the Toyota Prius, might then be a result of multiple indicators showing things like consumer interest in helping minimize pollution, the desire for affordable private transportation, and the desire to reduce out of pocket expenses in response to rising fuel costs. While these examples (pollution, consumer demand, and the Toyota Prius) might be neatly essentialized and funneled into one particular category or another, other phenomena often traverse all three categories. The issue of overpopulation for instance can be seen as one example falling into all three taxonomic indicators: politics, nature and discourse. Overpopulation is necessarily political because organizing large numbers of people through effective governing policies must be taken into

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consideration. However, there must also be zoning regulations, standards of living, and forms of population regulation and control (such as justice systems). However, overpopulation also becomes part of the nature category because it places individuals in competition for the basic human resources necessary for survival, specifically food and shelter. Furthermore, it falls into a discourse when considering the navigation of social spaces and the emergence of consumer markets.

Overall, the problem with translation, as proposed by Latour, is that the categories that are constructed during the process of translation create lines of division, which, through a revision in our methods of intellectual and logical reasoning, can be dissolved. The process of translation is articulated by the modern as if it transpires without the influence of an agent, operating under the assumption that categories (such as nature, politics, and discourse – or, nature in the sense that I employ the word) is something that actually, exists, much like Plato’s ideal form. However, this understanding which is perpetually rearticulated in the modern discourse, overlooks the role of the agent in defining, limiting, and redacting those categories, as well as the implications, both analytical and political, that inform and are informed by our analysis and construction. In addition to the problem posed by the modern method through translation, the problem of purification also becomes apparent in the modern’s model.

**The Problem with Purification**

In his discussion on “What Does it Mean to be Modern,” Latour shows two distinct practices, translation and purification, which he indicates are continuously mobilized by the moderns. In this section, I want to focus specifically on the second practice, namely, “purification” for the purpose of depicting its reemergence into the environmental discourse. Laid out in detail in the previous chapter, the practice of
purification creates “two distinct ontological zones”; namely, human and non-human. Dichotomies, as we have already established are problematic, not only because they marginalize or leave out objects that do not fit neatly into one side or the other, but also because they evoke notions of positive and negative, and privilege one side of the dichotomy over the other by creating an ‘us versus other’ mentality. Looking initially at this particular dichotomy of human and nonhuman, I show how it becomes problematic for our intellectual framework when applied onto the environmental discourse and how the division between human and nonhuman also makes room for additional dichotomies to be formulated and applied as well.

Robert Sessions argues that even for those who seek to destabilize the notion of dichotomy when talking about nature, “nature has become a disconnected abstraction . . . with the result that although they are devoted to ‘nature,’ they relate to nature in a way parallel to that of the dualists they oppose – nature is a lost part of one’s self (or one’s self is a lost part of nature) that needs to be rejoined.”¹⁰⁹ This idea, which developed during the Renaissance, expresses the view that ‘nature’ is something ‘out there,’ something that we have lost contact with, and that it must be rediscovered and rejoined to the self. Here nature becomes an abstracted idea that is inherently disconnected from the human: it becomes, in essence a representation of what Carol Adams calls an absent referent.¹¹⁰ A linguistic concept, the idea of the absent referent means that the object about which one speaks (for instance beef) has been abstracted, disconnected, and made


empty of any relation that it bears to the referent it actually describes (the cow). Adams relates that the absent referent is what separates the product from the process that created it: talking specifically about meat that ends up on our plate at meal time, Adams says that this piece of “steak” becomes inherently separate and wholly abstracted from the cow from which the meat came, as well as the process of slaughter that transpired to produce the meat on the plate. Using this idea, nature too is seen as separate and detached, and as something that we must go out of our way to find and experience, that the human being has been extracted from. Instead nature is here represented by that which exists outside humanity: trees, plants, animals, mountains, deserts – physical tangible objects that we separate from our modern, controlled environments. However, as part of the animal kingdom, human beings (homo sapiens sapiens) are also a natural part of nature and the order of existence on Earth. By representing humans as having a professed need to rejoin nature, it shows that human beings have been disassociated from it, making nature out there an abstracted absent referent separate from the idea of a nature that humans are inseparable from. This is important because nature is not actually something different, something abstracted and disassociated with the human but through the perpetuation of the modern discourse it has been represented as such.

Thus the dichotomous framework of nature constructed by moderns seems to function as a trap; once one recognizes the dichotomy and attempts to step outside of it, the realization arises that the attempt to work outside the framework instead of inside the framework, in itself produces another dichotomy. In order to avoid this recursive trap altogether, the very framework of modernity must necessarily be called into question. If we continue to rely on the framework of the modern, our philosophical and theoretical
attempts to understand and deal with hyperobjects\textsuperscript{111} like nature or the environmental crisis, reproduce the same problematic structural flaws conceptualized by the Greek and Renaissance philosophers. The continued use of the modern framework allows for the perpetuation of Cartesian dichotomies and of ideas such as the understanding of nature as something that may be controlled by the human – ideas which we want to eradicate.

Before talking about the issues that are created by applying this dichotomy to the environmental discourse, I want to briefly touch on the more specific problems revealed by this dichotomy, namely marginalization, hierarchy, and valuation. Constructing a definitive division between the categories of human and nonhuman forces the two to be completely opposite, contradictory, and not of the same kind. It is important to recognize that the human/nature dichotomy makes the human entirely separate from nature, implying that the human is not, in fact, part of nature but is something entirely other, of its own unique essence.

The first problem that emanates from the dichotomization of human and nature is the problem of marginalization. The very act of dichotomization functions as a redactor: it effectively limits things to being either this or that and leaves no other options

\textsuperscript{111} Post-humanist Timothy Morton has said that the term ‘hyperobject’ refers to anything that is “massively distributed in time and space relative to humans” and can include anything from the “biosphere or the solar system” to “Styrofoam or plastic bags.” Morton understands hyperobjects as falling outside of human apprehension, because they transcend spatial, temporal, and categorical understandings that are often imposed on other objects in order to explain them. Because they are so vast, hyperobjects (like nature and climate change) only manifest themselves and become apparent to humans in more localized settings, such as the ones we come into contact with on a daily basis. Morton emphasizes that “hyperobjects are not simply mental (or otherwise ideal) constructs, but are real entities whose primordial reality is withdrawn from humans,” meaning that hyperobjects like climate change are things that actually truly exist. Morton relates that humans are able to understand certain aspects of hyperobjects but they are incapable of understanding all of their interrelated elements, thus prohibiting even the possibility of a complete understanding of any hyperobject by humans. While this understanding of nature as a hyperobject is incredibly valuable, it is not my primary focus in this work to employ the post-humanist discourse. Morton, Timothy. Hyperobjects: Philosophy and Ecology after the End of the World. University of Minnesota Press. 2013.
available. However, Vandana Shiva relates that the “ontological and epistemological assumptions of reductionism are based on uniformity, perceiving all systems as comprising the same basic constituents, discrete, and atomistic, and assuming all basic process to be mechanical.”¹¹² In this way, the very process of reduction is what marginalizes nature. It is not the dichotomy itself that forces the problem of marginalization, but the process of creating and then limiting the dualism. To be more clear, to redact everything into two categories either human or nature, leaves out the possibility that there might be other “knowers” that exist: that objects for instance, like brick buildings, tables, and rocks belong to neither human nor nature. The construction of dichotomies, according to Shiva, has “reduced the capacity of humans to know nature both by excluding other knowers and other ways of knowing.”¹¹³ The other issue relating to marginalization in the construction of dichotomies is limiting the agency of nature such that it is deprived of the potential for change on its own terms. Nature defined and juxtaposed against the human becomes stagnant and its “capacity for creative regeneration and renewal” is eliminated.¹¹⁴ Reduction of ideas or objects into distinct dichotomies eliminates the complex interrelationships down to a single, identifiable descriptive, marginalizing other descriptors not utilized and forcing stagnation.


¹¹³ Ibid.

¹¹⁴ Ibid. Here, what Shiva implies is that the discourse of the moderns has effectively seized control of defining the ways in which ‘creative’ regeneration and renewal can happen, limiting it, defining it, and explaining it in their own terms, taking away the possibility that nature has the capacity for regeneration outside of the realm of human understanding.
The other two problems I want to discuss in terms of the issue of dichotomization are valuation and hierarchy, which go somewhat hand in hand. Valuation implies a positive or negative connotation to the dichotomy, making one side appear as more important, or more valuable and leaving the other side as the less desirable category. Intimately related is hierarchy, which utilizes this value judgement to create levels within the dichotomy, privileging one (the human in the human/nature) dichotomy over the other. Valuation then often leads to the mindset that, specifically for the human/nature dichotomy, that one is not only better than the other, but because one is better one has the authority to use the other for their own purposes. The human is allowed to utilize nature; extract its resources and capture its bountiful products for their own purposes. Following this, the value of nature is determined based upon the potential use value, or economic advantage that nature could provide for humans. Aldo Leopold’s *Thinking Like a Mountain* captures this idea through his account of a hunter shooting a wolf and “reach[ing] the old wolf just in time to watch the fierce green fire dying in her eyes.”

Leopold’s article conveys that *nature*, valued for its usefulness for humans is unscrupulously utilized for human purposes and enjoyment, which is exemplified through the hunting of the wolf. However, the long term ramifications, and specifically the broader ecological impact on the ecosystem in which the wolf lives, is not considered at the time of the hunt. With a decrease in the wolf population however, as Leopold notes, the deer population increases, stripping the mountain of its vegetation (while looking for

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food sources) and changing the entire landscape. Value however, because it is assessed from the human perspective, does not consider the long range impact on the mountain and all of its interconnected biological systems.

This human centered valuation of nature has been widely critiqued by the field of deep ecology, which seeks to radically re-envision the ways in which humans conceptualize the environmental problems plaguing the world by emphasizing the need for deconstructing the system of oppressive dualisms and an increasing awareness of interconnectedness between all things. The field of ‘Deep Ecology,’ a term coined by Norwegian environmental philosopher Arne Naess in 1973, attempts to “go beyond a limited piecemeal shallow approach to environmental problems and attempts to articulate a comprehensive religious and philosophical worldview.”117 In his article “The Shallow and the Deep: Long-Range Environmental Movements”118 which explains the foundations of the field of Deep Ecology, Naess emphasizes that biological diversity is inherently valuable, that all beings are interconnected and that we should work toward truly understanding nature at a deep, as opposed to a shallow level. He also points out that, without a biologically diverse ecosystem, human beings will be unable to survive on earth.119 This notion of eco-thinking has been sorely criticized – and often rightly so – for it too essentializes nature. However, through a revision in the hierarchical model on


119 Ibid, 355
which fields and discourses are based, there is a way to resolve this problem, which will be laid out in the following chapter.

Deep ecologists specifically argue against the valuation process that goes into dichotomization, noting that “people should value nature as an end in itself rather than a mere means to satisfy human desires” and that “all things in the biosphere are interdependent and have an equal right to live and blossom and reach their own individual forms of unfolding and self-realization.” Deep Ecologists, like Naess, argue that the binary, or dualistic model must be completely replaced, specifically with a “rational total-field image, where man is not simply ‘in’ his environment, but essentially ‘of’ it.” This perceived need by the deep ecologists for an inversion of the paradigm, appears to call for the same shift that Latour envisioned in the previous chapter. Deep ecologists also recognize the problem with what Latour discussed as the modern’s practice of purification, and they also advocate on behalf of employing a perspective which makes apparent the vast, interconnected networks at play in the environmental debate. In addition to valuation however, the binary division between human and nature also masks an underlying hierarchy which further problematizes the modern’s practice of purification. Hierarchy, which advances upon the idea of valuation, not only makes one half of the dichotomy appear more important or useful than the other, but reflects notions of superiority, suggesting that one side is dominate over the other, and therefore, has the right and the ability to use the other for its own purposes. As many scholars have noted

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121 Salleh, Ariel Kay. "Deeper than Deep Ecology." Environmental Ethics 6.4, 1984; 340. Note that Salleh is also problematizing the use of the generic term man by the deep ecologists because she is arguing an ecofeminist perspective.
the “classical position” upheld by the moderns “must be shorn of its hierarchical component, in light of which nature, and even inferior people, are subjected to the rule of ‘rational’ man.”122

Another field, Eco-feminism, seeks to shift the modern framework away from a dualistic model by further rationalizing how the binary perpetuates hierarchy. Eco-feminism is a field that synthesizes methodological and philosophical approaches to feminism with the discourse on ecology. It is, according to Greta Gaard, in her book *Ecofeminism: Women Animals Nature*, a field that draws on “the insights of ecology, feminism, and socialism” and its “basic premis is that the ideology which authorizes oppressions such as those based on race, class, gender, sexuality, physical abilities and species is the same ideology which sanctions the oppression of nature.”123 Linking the domination of nature to historical oppressions, Eco-feminists argue that in order to destabilize the hierarchical systems in power in the modern discourse, we must first clearly define the systems of oppression which underlay them, seeking to change the way both women and nature are perceived. The charge leveled by Eco-feminists is that the field of Deep Ecology, through its attempts to deconstruct the binary between human and nature, actually ends up perpetuating other dualisms, which will be explicated through this section.

Critics like Salleh show that “by using the generic term *man*, [the deep ecology movement] simultaneously presupposes the difference between the sexes in an uncritical

122 Hinchman and Hinchman, 202

way, and yet overlooks the significance of this difference.”¹²⁴ Robert Sessions, echoing the perspectives of Karen Warren further critiques the deep ecological perspective stating:

[Eco-feminism] . . . takes traditionally male-identified beliefs, values, attitudes and assumptions as . . . the standard; it gives higher status or prestige to what has been traditionally identified as male than to what has been traditionally identified as “female” . . . A patriarchal conceptual framework is characterized by value-hierarchical thinking . . . such . . . thinking gives rise to a logic of domination . . . which serves to legitimize inequality when, in fact, prior to the metaphor of Up-Down one would have said only that there existed diversity.¹²⁵

The structural framework itself is flawed here, in that no matter which sex, species, gender, or race is placed in the dominant position in the ‘patriarchal conceptual framework’ there is always a dichotomous hierarchy, pitting one group above others.

Eco-feminists believe that the problem thus far with the attempt to deconstruct the human/nature dichotomy is that through the process of deconstruction other dualistic notions of historical domination, such as male superiority over the female, are re-articulated and re-legitimated through the uncritical use of patriarchal language. For example, Gaard, in her chapter “Toward a Queer Ecofeminism” in the edited volume *New Perspectives in Environmental Justice*,¹²⁶ discusses the need for deconstructing current modes of thought, specifically in regards to dualisms, which perpetuate and re-affirm notions of superiority and hierarchy. She argues that “sexuality, itself is a socially constructed phenomenon that varies in definition from one historical and social context to

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¹²⁴ Salleh, 340


Sexuality is not the same across time and space, and cannot be funneled into two narrow categories which limit its range. For example, the categories of ‘male’ and ‘female’ marginalize and leave out those who do not fit neatly into one category or another, which also communicates that by not fitting in, there is something that is incorrect, or out of place with those who do not fit into the hegemonic categories. For Gaard, by advocating a patriarchic framework, the Deep Ecology movement reaffirms the system of dualisms by differentiating between the inherent value distinctions traditionally accorded to the sexes.

In addition to the human/nature dichotomy that is often invoked when discussing how to deal with the environmental crisis there are many other binaries that often appear. Although I have already discussed why dualisms themselves are often problematic, I want to briefly outline the sentient/insentient argument in order to show the ways in which other binaries are often employed in the discourse and to further exemplify the necessity for a complete revision in the structural framework of the modern’s model. As we have noted, Latour defines a two part division in the modern structural framework between transition and purification, a process which leads to the construction of dualisms. The very structure of this framework then breeds further dichotomies, perpetuating the application of this flawed system. According to Heesoon Bai, a scholar in the Philosophy of Education, “to be educated into the modern Western worldviews, discourses, and practices means to embody these dualisms and to live out their ethical consequences.”

\[127 \text{Ibid, 96}\]

\[128 \text{Bai, Heesoon. "Peace with the Earth: Animism and Contemplative Ways." Cultural Studies of Science Education 10.1, 2015.}\]
Here I want to look briefly at the division between sentience and insentience to further problematize the dichotomous framework that transition and purification bolster. The term ‘sentient’ which is often evoked in the environmental debate may be defined as that which is living, animate, or consciously aware and has the ability to feel, perceive and reason. ‘Insentient’ on the other hand, presupposes the opposite – non-conscious and lacking in the capacity to feel, perceive or reason. This dichotomy is most often applied to beings and replicates the same notions of marginalization, valuation and hierarchy discussed in the previous sections. Additionally, it perpetuates the creation and application of other dichotomies as well, including the dichotomy juxtaposing intrinsic and extrinsic value.

A further problematic notion is created by the arbitrary divisions between types of sentient ‘beings’ and the tendency to anthropocentrise the discourse on environmentalism. Believing themselves to be the most rational of all sentient beings, humans have inaugurated themselves as the ‘shepherds for the fate of the planet’ ensuring that human rationality must guide the discourse on how to deal with the environmental crisis. Thus, environmental problems are assessed from human perspectives first and foremost, and then rationalized further through human perceptions and values. However, many people in the fields of environmental ethics and environmental philosophy have questioned, for example, whether trees should have standing.\(^{129}\) Christopher Stone notes that, in the past, “even where special measures have been taken to conserve [natural objects] . . . the dominant motive has been to conserve them for us – for the greatest good of the greatest

number of human beings. Conservationists . . . want to conserve and guarantee our consumption and our enjoyment of these other living things.”\(^{130}\) This perspective has been more recently replaced among environmentalists by the idea of guardianship; the idea that human beings can, much like Dr. Seuss’s imaginative character the Lorax, “speak for the trees.”\(^{131}\) While this concept may be vague, if we entertain for a moment the idea of legal guardianship, the problematics of this approach becomes much more transparent. As Stone shows, “we make decisions on behalf of, and in the purported interests, of others every day; these “others” are often creatures whose wants are far less verifiable, and even far more metaphysical in conception, than the wants of rivers, trees, and land.”\(^{132}\) He argues that, through the voice of the guardian, natural objects can be given their own voice: a voice not only to relate their needs but also to declare the injustices inflicted upon them. The problem however remains that there is an underlying binary division that constructs an ‘other’ that is separate from, inferior to, and less valuable than ‘us’ who are obliged to speak for these others.

As has been exemplified above the persistence of the use of dichotomies in modernism perpetuates potentially dangerous notions of marginalization, hierarchy, and valuation. The perpetuation of binary and dichotomous interpretations ensures that the intellectual framework of the discourse remains flawed and ultimately counterproductive. A revision in the dichotomous nature of the modern paradigm is necessary in order to change how to conceive of and deal with the global environmental crisis transpiring

\(^{130}\) Ibid, 16.


\(^{132}\) Stone, 24.
today. Therefore, I suggest that the very foundations of proposed methods of countering environmental issues are flawed because there has not been, and cannot be, a radical shift in dealing with the complex issues at hand until a revolutionary shift in our intellectual framework occurs. In the following chapters I will argue that there is in fact an existent model that can help mobilize Latour’s critiques of the modern paradigm and the needed shift in the intellectual framework of modernity that will be necessary to create a revamped approach to the environmental crisis.
Chapter 3

Toward Revolution: Buddhist Virtue Ethics and the Creation of a New Environmentalism

The previous chapters have advocated for a complete revision of the intellectual framework underlying the environmental discourse, arguing that because the current approach to dealing with global environmental problems adheres to the constitutionally flawed discourse of modernism, its own structural soundness is compromised. In order to assuage this critical oversight, a radical shift in the foundational underpinning of both discourses is necessary, beginning with a complete renegotiation of the discourse of modernity. Without this amendment, there is little hope of developing a productive understanding of the environmental crisis nor in rectifying any of the vast environmental problems that plague our world today. Despite the perceived magnitude of this task, the situation is not despondent. I argue that there are existent models that subscribes to the counter-revolution in the “modern” discourse envisioned by Latour, and that if employed, these models could help us to re-imagine our course of action for rectifying the environmental crisis.

In this section, I argue that one particular model may be found in the religious tradition of Buddhism which encompasses, at its very foundations, a revolutionary model that may be seen as ascribing to the guidelines of the new framework called for by Latour. I will show that the foundational teachings of different factions of Buddhism present an interrelated set of virtue ethics which, when cultivated, allows for a more profound understanding of the human role within the vast interconnected networks of our world. Furthermore, this Buddhist virtue ethic promulgates teachings that deconstruct the
processes of purification and translation problematized by Latour, and re-envisions modern notions of temporality, effectively providing an improved structural foundation to support the environmental discourse. The changing views of nature which has dominated the West (as was detailed through my discussion of Collingwood) has contributed to the perpetuation of the flawed modern discourse. Collingwood, however, fails to address Eastern understandings of nature, which appear radically different from those in the West. I do not mean to construct a division here between East and West, or to ‘orientalize’ the differences between Eastern and Western notions of thought about nature. I do however seek to point out that there has been a major oversight on the part of Western scholars in that they often leave out (as Collingwood has) significant portions of discourses that could, if incorporated, drastically redefine and reimagine the discourse as a whole. Understandings of nature, as already elucidated vary drastically across time, space, and context. In order to have a more comprehensive understanding of the ‘universal’ understanding of nature, what I refer to as ‘Eastern notions’ (those notions which are often excluded from Western scholarship) must necessarily be examined and incorporated as part of the larger discourse on nature and the environment. In order to begin to rectify this oversight and to enhance our understanding of nature and the constructed environmental discourse I will examine some understandings of nature found in different variations of the religious tradition of Buddhism.

The current environmental crisis is one that is precipitated by the spiritual disease of the individual and of society. According to Thai Theravāda Buddhist monk Buddhadāsa Bhikkhu (1906-1993) “the solution lies in ending the spiritual disease within the hearts of all the world’s people” which can be achieved by following the dhamma, or
the teachings of the historical Buddha, Siddhartha Gautama. According to Buddhadāsa the word *dhamma* literally means “nature,” in that “the etymology of the word . . . means ‘a thing that cherishes itself’” implying that it cherishes its own being, or nature, which it seeks to cultivate, specifically cultivating its own virtue. Buddhadāsa also emphasizes that each of these virtues, “if they are real virtues, have an identical nature: every one of them has the power to help change the world. But if virtues are false, they become obstructive, a disordered mass of contradictions.” Along the same lines, Buddhist scholar Donald Swearer notes that “for Buddhadāsa the natural surroundings of his forest monastery were nothing less than a medium for personal transformation” and that it is only by “being attuned to the lessons of nature” that “at-one-ment with the *dhamma*” can be achieved.

Considering the perspective of Buddhadāsa, I begin this section with a discussion about prior attempts to mobilize the religion of Buddhism (oftentimes erroneously constructed / reduced to one heterogeneous entity) as a methodology for alleviating the global environmental crisis, detailing why most of those approaches have been flawed. Noting the disagreement between two opposing sets of Buddhist scholars, I delineate the

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134 *Ibid*, 37

135 *Ibid*, 21

136 Swearer, Donald K. “The Hermeneutics of Buddhist Ecology in Contemporary Thailand: Buddhadāsa and Dhammapitaka.” *Buddhism and Ecology: The Interconnection of Dharma and Deeds*. N.p.: Harvard UP, 1997, 24-5. It should be noted here that Swearer critiques Buddhadāsa’s teachings saying that “it might be argued that it constructs Buddhist practice as a retreat to the forest rather than engagement with the world” and that “from a deep ecology perspective Buddhadāsa appears to be more anthropocentric than biocentric . . . [because] the forest is valued simply as a place for spiritual practice rather than for its inherent value.”
argument of whether or not there exists an ‘environmental ethic’ in the teachings of Buddhism. While some scholars\textsuperscript{137} argue that an environmental ethic may be elicited from the teachings of Buddhism, others, like Ian Harris, have argued that this understanding of Buddhism is flawed, specifically because early Buddhism not only had no need of environmentally conscious teachings (because there was no recognizable environmental problem or concern for environmental problems during the time of the historical Buddha), and that overlaying environmental ethics on to Buddhism takes Buddhism itself out of context, and fosters a false understanding of Buddhism as engaged\textsuperscript{138} with the world. However, utilizing the work of Cooper and James, I show that Harris has gone one step too far – diverging from the middle path – and overlooking the fact that there may perhaps be another solution. This solution arises from a virtue ethic that is present in Buddhism. Through the cultivation of this virtue ethic, we may begin to see how the virtue ethics in Buddhism foster a radically different approach to thinking about and dealing with the environmental issues and crises, thus bolstering the argument for ethical behavior towards the environment. By expanding on this Buddhist virtue ethic, I will discuss how different factions of Buddhism have contributed to the foundational models needed. Then, by employing Alan Sponberg’s ‘Hierarchy of Compassion’\textsuperscript{139} I

\textsuperscript{137} Scholars including Joanna Macy, Stephanie Kaza, Damien Keown, Kenneth Kraft, Steven Rockefeller, Donald Swearer and many others have advocated that an ‘environmental ethic’ exists within, or can be elicited from, Buddhism which might help us to deal with the global environmental crisis. While their approaches are distinct, each of them adheres to the flawed structural framework of the modern discourse and problematically finds that Buddhism contains, within its teachings, an ethic that can be ascribed to dealing with the current catastrophes transpiring today.

\textsuperscript{138} As opposed to disengaged, which Harris argues is what Buddhism actually teaches.

will show the potential for Buddhism to contribute directly to a revolutionary shift in the modern environmental framework when coupled with the radically re-vitalized approach that Latour adamantly seeks.

**Buddhism(s)**

In response to the increased awareness of global environmental devastation transpiring in our world today, there has been a push for alternative ways of thinking about this problem, including creating a global environmental ethic. To mitigate the problems we currently face with the deteriorating state of the environment, the two approaches most often invoked are those of science and technology. These approaches however, are now seen as not being enough: science may not be able to progress fast enough and technological developments will not save us from the global catastrophe that we have incited. Potential solutions are now being sought outside of the fields of science and technology, and are instead seen as grounded in cultural and societal values and related practices. The other oft noted solution is that of divine or un-worldly intervention. One discourse that has emerged from this mindset argues that the world’s religious traditions could be central to solving many environmental problems. As historian of religions Lawrence Sullivan says:

> Changing our habits of consumption and patterns of distribution, reevaluating modes of production, and reestablishing a strong sense of solidarity with the matrix of material life – these achievements will arrive along with spiritual modulations that unveil attractive new images of well-being and prosperity, respecting the limits of life in a sustainable world while revering life at its sources.\(^{140}\)

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\(^{140}\) Tucker, Mary Evelyn., and Duncan Ryūken Williams. *Buddhism and Ecology: The Interconnection of Dharma and Deeds*. Cambridge, MA: Harvard U Center for the Study of World Religions, 1997; XIII.
But the issues associated with the environmental crisis are more than political and social issues; they represent deficiencies in human morality and a widespread crisis of human spirituality in need of dramatic renegotiation and immediate attention. Swearer notes that because our “economic culture is primarily ‘materialistic’ in nature, in the sense that human well-being tends to be defined in terms of the production and consumption of goods” it has “had a generally deleterious effect on classical moral values and religious worldviews and on traditional ways of understating human existence and what constitutes the good or happy life.”\textsuperscript{141} Individual happiness and cultivation of \textit{eudaimonia} is no longer based (solely) on moral values, but now revolves around this new materialistic culture, of economic demand, capitalist production, and natural resource depletion. However, religious traditions are now seen increasingly as part of the potential solution because they invoke a revitalized sense of a need for cultivation of morals and virtues and because they are “\textit{all-encompassing} . . . [and] fully absorb the natural world in them.”\textsuperscript{142}

Buddhism has been considered as one particular religious tradition that presents promising notions for re-envisioning the ways that humans relate to the world around them. Buddhism specifically began to be seen as one religious tradition which proffered, through its historical texts, beliefs, and practices, an environmentally conscious mindset of moral and spiritual guidelines related to the environment that individuals could cultivate and live by. Arguments for an environmental ethic in Buddhism began to

\textsuperscript{141} Swearer, 22-3.

\textsuperscript{142} \textit{Ibid}, XII.
emerge in recent scholarly compilations such as *Buddhism and Ecology*,\(^{143}\) *Dharma Rain*,\(^{144}\) *Engaged Buddhism*,\(^{145}\) *Hooked!*\(^{146}\) etc. Emphasizing ideas about how “liberation from suffering is achieved through awareness,”\(^{147}\) the inclusion of Buddhist texts (as well as the retelling of myths) in these aforementioned writings becomes a means through which an increased awareness of “nature” and the “environment” could be cultivated. However, this application is often problematic at best. Buddhism, as an ‘Eastern’ tradition was often advertised as “an antidote to an allegedly ‘exploitative’ Western stance towards nature.”\(^{148}\) Arguing that this world view is wholly other from Western orientations, these texts viewed Buddhism as envisioning nature as a cohesive and identifiable thing, of which the human was an inseparable part. If the natural world deteriorated, all beings were effected, including humans. This position operates as a type of reverse Orientalism, detailing an “ontological and epistemological distinction” between the East and the West which authorizes the superiority of one perspective over the other.\(^{149}\) Here the Eastern (specifically Buddhist) perspective is privileged over that of the West and elevated, so that it becomes more worthy and more capable of producing

\(^{143}\) Ibid.


\(^{147}\) Kaza and Kraft, 2.


productive solutions. As we know from the work of Edward Said, the construction of this distinct gap between east and west, us and them, is extremely problematic, not only because the gap itself is socially constructed, but also because it becomes a method and “style for dominating, restructuring, and having authority over” that which is constructed as the other. \textsuperscript{150} Buddhism for my purposes then should not be understood as the solution to the problem; however, my assertion is that within the teachings of Buddhism (and all of its multifarious forms) that multiple potential solutions may emerge, just as they might emerge from other religious traditions and other discourses, and that these potential solutions must become a part of the complex interrelated network of elements that contribute to the ‘modern environmental discourse.’

The term Buddhism encompasses a complex myriad of beliefs and practices, considered to be both religious and philosophical, which have been constructed, negotiated, and adapted for more than two millennia. Existing in a variety of forms around the world, ‘Buddhism’ looks extremely different based upon the context in which you view it. It becomes impossible to argue that the many different forms of Buddhism contain a single, pervasive notion of any one particular teaching. Depending upon the different tradition, the time period in which the tradition developed, and the social and cultural influence of the time, any single notion present in one tradition might look completely different, or not even exist in another tradition. The teachings \textit{(dhamma)} of the historical Buddha, Siddhartha Gautama, are regarded by Buddhadāsa as the “genuine and pure Dhamma, without trappings, without any of the numerous things that have come

\textsuperscript{150} Ibid, 3.
to be associated with it in later times.”\textsuperscript{151} Buddhadāsa argues that these trappings, or misguided interpretations of the Buddha’s teachings, are what we now refer to as “Buddhism” and that “due to our carelessness, Buddhism has become so nebulous that it now includes many things that were originally foreign to it”\textsuperscript{152} effectively creating multiple different ‘Buddhisms’. Despite this critical view of Buddhism\textsuperscript{153} I will argue that there remains a common core set of virtues that are promulgated in these ‘Buddhisms’ and that through the cultivation of these virtues, an ethic concerning the environment may also be discerned.

**Environmental Ethics in Buddhism**

Some scholars, such as Buddhism scholar Ian Harris, have adamantly argued that there is no environmental ethic ingrained within Buddhism, and that the proliferation of this idea radically changes what ‘Buddhism’ itself looks like, making it not Buddhist at all. For example, Harris has been outspoken against the attempt to make Buddhism into a “green” religion arguing that “the claim that pre-modern societies were ecologically aware in the modern sense is a clear example of anachronism.”\textsuperscript{154} He iterates the tendency of many scholars to treat the “compatibility of Buddhism and environmental ethics as a self-evident fact” by claiming that “positive orientation towards environmental matters is a good thing; Buddhism itself is a good thing; and therefore Buddhism supports

\textsuperscript{151} Thēpwisutthimēthī, Santikaro, and Dhammadicayo, 6.

\textsuperscript{152} Ibid.

\textsuperscript{153} Here I refer to the multiple ‘Buddhisms’ that have been constructed through interpretation of the historical Buddha’s teachings.

\textsuperscript{154} Harris, Ian. "Getting to Grips with Buddhist Environmentalism: A Provisional Typology." *Journal of Buddhist Ethics* 2, 1995; 180.
and is compatible with ecological activism.” Harris’s point is that although there might be elements within Buddhism that suggest, or lend themselves to the cultivation of an environmental ethic, that there is no such ethic ingrained within Buddhism itself. Harris further argues that because there are multiple competing views regarding nature within different Buddhist traditions, it becomes difficult to define environmentalism in Buddhism when there is no cohesive understanding of nature. Sponsel and Sponsel support this complex understanding of nature in their article “Buddhist Views of Nature and the Environment.” They indicate that:

Ultimately nature is the sum total of reality – all beings and all things. In practice nature often means the biosphere of planet Earth. Environment is nature manifested on a local spatial scale or a particular ecosystem. Environments range between the extremes of wilderness as supposedly untouched nature and culturally constructed nature such as Zen gardens.

Because nature can be seen as the ‘sum total of reality’ difficulty arises then in the attempt to identify an environmental ethic in ‘Buddhism’ because there is no unified, pervasive definition of what ‘environment’ or ‘nature’ actually means. Additionally, Harris argues that by applying environmental perspectives under the guise of “Buddhism” scholars have taken Buddhist teachings out of context and applied them in a manner such that the result is not “Buddhist” anymore. When we identify an environmental ethic within the teachings of Buddhism, Harris argues that we are understanding Buddhism as engaged with the world and taking it out of the cultural and

155 Ibid, 181.


157 Harris, 181.
social contexts in which it emerged. This engaged understanding is problematic because Buddhism teaches non-attachment to worldly matters, understanding them as transient and fleeting. If one is attached to worldly matters then *tanha* (craving/desire) is produced, leading to the creation of *karma* which causes rebirth, or *samsara*. Engagement with worldly affairs then would be seen as precipitating rebirth, which is contradictory to the Buddhist teaching of the ultimate goal of *nirvana*, or liberation from the cycle of *samsara*.

Through these arguments, we can see why the idea of an ‘environmental ethic’ in Buddhism must be crossed out; environmental ethics *must* be out of the way in order to begin to re-negotiate the intellectual framework of the modern discourse and to begin an unbiased discussion of the interconnected role of the human in the crisis at hand. I too want to emphasize that Buddhism does not contain an ‘environmental ethic’ in the modern use and application of the word. Because the teachings of ‘Buddhism’ vary across time, space, and faction, there is no unified teaching about Buddhist attitudes toward *nature*. By overlaying an environmental ethic on to Buddhism, the Buddhist tradition becomes radically different in appearance and form, defiling many of the intended meanings of its teachings (which are context specific) by reemploying them in a different time and space for our own purposes and viewing them through a radically different lens.

Despite the fact that Buddhism does not contain within its teachings an environmental ethic, its traditions still display great potential for helping us shift the paradigm of the modern along the lines that Latour advocates for. Buddhism, while failing to provide us with an environmental ethic, does have ingrained within its
teachings a strong virtue ethics which, through cultivation by the individual practitioner, can influence one’s ethical relationships to all things, including nature. This virtuous and ethical relationship with nature can be seen as helping formulate an environmental ethic – something not apparent directly within the teachings of Buddhism, but rather a way of informing (so-called) modernity with a useful framework of virtues that are taught in Buddhism. David E. Cooper and Simon P. James, in their book *Buddhism, Virtue and Environment* have argued that, while Buddhism does not emphasize the cultivation of an environmental ethic, it does advocate for the development of virtue ethics.\(^{158}\) The authors show that Buddhism emphasizes individual self-development, and cultivates human virtues, such as morality, compassion, and humility.

These virtues applied in every facet of life compel individuals to treat *nature* in the same manner that they treat other life forms, including other human beings. Cooper and James relate that while there is no environmental ethic in Buddhism, there are in fact virtue ethics (which may vary some across different Buddhist traditions), and that through the cultivation and enhancement of human virtue ethics the individuals will realize an environmental ethic.\(^{159}\) It should be noted here that Buddhist scholar Joanna Macy adheres to the perspective of deep ecologist Arne Naess and holds that “virtue is not required for the greening of the self, or the emergence of the ecological self.”\(^{160}\) I maintain however, that to argue that an environmental ethic persists in Buddhism is

\(^{158}\) Cooper and James, 2005.

\(^{159}\) *Ibid.*

impossible without recognizing that this environmental ethic is demonstrated only through the cultivation of human virtues, that it does not exist in Buddhism in and of itself, wholly separate from its relationship to the human. This “environmental virtue ethic” as I will call it, is only possible with the cultivation of human virtue ethics. This shift away from thinking about an environmental ethic in Buddhism allows us to recognize that Buddhism is not, in essence, eco-centric, but that we can have eco-Buddhism as a product of the cultivation of human virtues. The following section will detail the argument that Cooper and James present in regards to developing a true virtue ethics, showing that environmental ethics can only arise through the cultivation of human virtues. I show how the virtue ethics perpetuated in different variations of Buddhism adhere nicely to the restrictions re-envisioned in Latour’s framework, and advise the deconstructed processes of purification and translation and re-envisioned notions of temporality to create a fuller understanding of interconnected networks.

**Understanding Virtue Ethics and Eudaimonia**

The term ‘virtue ethics’ most commonly refers to a philosophical expression about the cultivation of one’s character, and specifically morality. Cooper and James have argued that within the very foundations of Buddhist teachings we find a virtue ethic which advocates on behalf of the cultivation of individual character and morality.\(^{161}\) Cooper and James explain that the model of virtue ethics contrived by Epicurus and the models put forth by the Stoics are perhaps the most similar to the virtue ethic in Buddhism.\(^{162}\) They say that in its application, “for some quality of a person’s character to

\(^{161}\) Morality may be understood in this instance as a system of (ethical) conduct.

\(^{162}\) Cooper and James, 84-5.
count as a virtue, it had to make a discernable contribution to his or her eudaimonia – to the well-being, happiness and flourishing of that person as a human being.” At the outset, this appears to present a glaring problem – anthropocentrism. Because virtue ethics are centered on the cultivation of human happiness and well-being, they are often deemed as “inherently anthropocentric and hence necessarily inimical to environmental concerns.”

Environmentalist John Seed argues that anthropocentrism or “the idea that humans are the crown of creation, the source of all value, the measure of all things, is deeply embedded in our [modern] culture and consciousness.”

As was noted in the previous chapter, the field of deep ecology is particularly adamant about eliminating this anthropocentric perspective from the discourse, arguing that its persistence allows for the perpetuation of entrapping dichotomies.

The problem with this virtue ethic perspective, it seems, is that when one expresses environmental concerns, they seem misconstrued as a valuation judgement on nature and its usefulness to the human – that is to say, nature as a tool to further human happiness and egoism. However, Cooper and James show clearly that the cultivation of one’s own happiness does not imply or “condone self-centeredness or egoism” because the cultivation of one’s own happiness need not necessarily devalue the happiness of others, whether they be humans or other beings. In other words, the cultivation of virtue ethics, although often seemingly human (or individual) centered, is not necessarily

163 Ibid, 10.
164 Ibid, 30.
166 Cooper and James, 11.
anthropocentric because the Buddhist cultivation of virtue ethics is not inspired by a value judgement which insists that humans are in any way superior to other beings, or that nature exists solely for the benefit of humans, but merely that each being has the right to work towards the cultivation of their own flourishing. The identification of a virtue ethic in Buddhism relies on the fact that it must “entertain a notion at least structurally similar to that of eudaimonia.” As ecofeminist scholar Val Plumwood has argued, “if we eliminated all knowledge of our experience of suffering not only would we be unable to consider ourselves properly, we would have no basis for sympathy with another’s suffering” implying that self-centered cultivation of the self is not only admissible, but necessary for our recognition of the suffering of all beings.

Plumwood’s argument clearly expresses that an anthropocentric perspective, if utilized to cultivate human virtues through an increased understanding of our own suffering, could help us to become more aware of the suffering of other beings, and therefore radically change the way we understand the environmental crisis as it causes suffering to all beings. Swearer too argues that “caring, in Buddhadāsa’s dhammic sense . . . is the active expression of our empathetic identification with all life-forms: sentient and nonsentient, human beings and nature.” Importantly, the approaches represented here by Plumwood and Buddhadāsa exemplify the deconstructed problematic dichotomies presented earlier (humans/non-human and sentient/insentient) showing that the cultivation of virtue ethics is not necessarily anthropocentric.

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167 Ibid, 68
168 Sahni, 81.
169 Swearer, 27.
Another problem with the argument for virtue ethics in Buddhism, is that “Buddhism deals not with man in society or among his fellows, but with the individual man facing his eternal destiny. . . The Buddha had little either of concern for society as such or of firm conviction of its possible improvability.” The Buddha was not concerned with worldly affairs, and taught that only non-attachment would lead to the cessation of suffering and to liberation. However, like the obtainment of eudaimonia, removal and detachment from society does not necessarily precipitate an ill-harbored resentment of it, merely just a removed, more self-centered approach to reaching one's own ultimate happiness, or liberation. Because Buddhism advocates that the journey along the path to enlightenment and Nirvana is unique to the individual, we must understand that the Buddha was not concerned with the ‘possible improvability’ of society. Improving society as a whole would not affect the Buddha’s own liberation (or any individual’s), nor does it necessarily effect the cultivation of an individual’s eudaimonia because the condition of society does not necessarily influence one’s own personal happiness. Now that the two primary arguments against the existence of a virtue ethic in Buddhism have been fielded, let us explore the argument that Cooper and James present more in depth, looking at the persistence of virtues throughout some of the different factions of Buddhist tradition.

Virtue Ethics in Different Buddhist Factions

“Buddhism” refers to a complex assortment of traditions, beliefs and practices that have been in constant negotiation since the time of its conception in the mid-5th century BCE. Today this religious tradition exists in a myriad of forms, from the school

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170 Cooper and James, 55.
of Theravāda which proliferates in south-east Asia, to the many different schools of Mahāyāna (including Pureland and Zen Buddhism) of East Asia, as well as the Vajrayāna tradition of Central Asia. While these versions of Buddhism all adhere to what are said to be the teachings of the historical Buddha, Siddhārtha Gautama, they differ greatly in form and instruction. Because of vast multifarious differences, the question becomes whether or not there is a common virtue ethic in Buddhism? According to Cooper and James, although virtue ethics proliferate in Buddhism a common core ethic is apparent in the foundational teachings of each of the different factions.

According to *eudaimonia* the ultimate goal of human life is to obtain well-being. For Buddhists, the ultimate goal is the achievement of enlightenment, or *Nirvana*, which (eventually) liberates the individual from suffering and the continual cycle of birth, death, and rebirth known as *samsara*. As Cooper and James show, the reason that this particular goal coincides with that of *eudaimonia* is because “samsara is chiefly characterized by existence in the world of *duḥkha* – ‘pain,’ ‘suffering,’ ‘dissatisfaction,’ or ‘dis-ease’” making samsara the antithesis of *eudaimonia*.\(^{171}\) It is imperative to note here that Buddhism specifically teaches that, as stated by D.J. Kalupahana, “man is accorded a special value, for it is he alone that can work towards liberation.”\(^{172}\) Other beings, although eventually capable of liberation, must be reborn into the human realm in order to obtain *nirvana*. Buddhadāsa explains the great potential that the human has in reaching liberation when he states that:

Dhamma is acting as we should act in order to be fully human throughout all the stages of our lives. Dhamma means to realize our fullest potential as individual

\(^{171}\) *Ibid*, 38.

\(^{172}\) Sahni, 69.
human beings. What is most important is to realize that the Dhamma is not simply “knowing,” but also “acting” in the truest sense of what it means to be human.\textsuperscript{173}

The \textit{dhamma}, also understood as the truth, or the teachings of the historical Buddha, are contained within the teaching of the Four Noble Truths.\textsuperscript{174} The teaching of the Four Noble Truths, the core of all forms of Buddhist teachings, becomes the departing point for uncovering a virtue ethic apparent in Buddhism specifically because it details the path that the Buddha laid out to eliminate dukkha and, for our purposes, achieving \textit{eudaimonia}.

The Four Noble Truths emphasize that by eliminating \textit{tanha}, or desire or craving, one may eliminate suffering, therefore not only achieving enlightenment (in Buddhism) but also obtaining \textit{eudaimonia} because it is the antithesis of suffering. As Cooper and James point out however, it is necessary to be aware that \textit{tanha} is not the “\textit{root} cause of suffering, for craving itself depends on various conditions.”\textsuperscript{175} One source of craving or desire is caused by \textit{nicca} or the idea of permanence. \textit{Nicca}, which is often associated with the Hindu idea of a permanent essence, soul, or self (\textit{atman}), is the Hindu belief that there is a permanent aspect or quality of the self which is reborn from lifetime to lifetime. The Buddha rejected this Hindu idea, teaching instead that suffering is caused by the

\textsuperscript{173} Thēpwisutthimēthī, Santikaro, and Dhammavicayo, ix. from Bhikkhu, Buddhādāsa, “The Right Action To Be Human” (“Kankratham Thi Thukdong Kae Quam Pen Manut”).

\textsuperscript{174} The Four Noble Truths taught by the Buddha are related thus: 1. All this is suffering; 2. Suffering is caused by desire (\textit{tanha}); 3. When desire is extinguished suffering may be extinguished; 4. The pathway to extinguish suffering is the 8 Fold Path. Buddhādāsa interprets the Four Noble Truths as “nature, the laws of nature, the duty of humankind to live according to the laws of nature, and the consequences of following the laws of nature.” Donald Swearer says that this view of the Four Noble Truths “reflects [Buddhādāsa’s] view that all human beings share a common natural environment, and are part of communities imbedded in the natural order of things. This interconnected universe we inhabit is the natural condition of things, To act contrary to this law of nature is to suffer, because such actions contradict reality.” Thēpwisutthimēthī, Santikaro, and Dhammavicayo, xiv- xv.

\textsuperscript{175} Cooper and James, 43.
individual’s clinging to the desire for the existence of a permanent self. Instead, the Buddha understood all things, including self, as impermanent and transient (anicca) and therefore taught that there is no permanent essence of the self. The Buddha taught the concept of \textit{anatta} or ‘no-self,’ because all things are causally conditioned and transient such that there can be no permanent essence applied to any person, or even to any thing. By desiring this permanent self, individuals become attached to the idea of eternal existence and consequently suffer because the truth is that there is no permanent self. Buddhādāsa emphasizes that the term “\textit{attā} or ‘self’ corresponds to the Latin word “ego.” If the feeling of self-consciousness arises, we call it egoism because once the feeling “I” arises, it naturally and inevitably gives rise to the feeling of mine.”\footnote{Thēpwisutthinēthī, Santikaro, and Dhammavicayo, 13.}

This idea may be represented by a story from the Buddhist text the \textit{Milindapañho}, which clearly exemplifies the Buddhist principal of impermanence, or \textit{anicca} through the concept of \textit{anatta}.\footnote{Strong, John S. \textit{The Experience of Buddhism: Sources and Interpretations}. Belmont, CA: Wadsworth/Thomson Learning, 2002.} In a famous discussion between the monk Nāgasena and King Milinda the concept of \textit{anatta} or ‘No Self’ is brought to light through the use of a analogy with a chariot. By employing the analogy of a chariot, and questioning the king as to whether the chariot is also any of its individual parts (“are the wheels the chariot?”) the monk proves to the King that the chariot has no self, no essence, i.e., no identifiable element that makes it what it is.\footnote{Strong, John S., 94.} The individual elements do not make up the chariot itself: instead it is that the word chariot comes into existence from its component parts as every constituent element dependently arises in direct relationship to every other element.
of the chariot.\textsuperscript{179} Buddhadāsa has explicated the term \textit{anatta} in terms of nature saying that:

The individual is not-self. As such s/he is part of an ongoing conditioning process devoid of self-nature, a process to which words can only point. This process functions according to universal principals we call nature. It is the true, normative and moral condition of things. To be not-self, therefore, is to be void of self, and hence to be part of the interdependent co-arising matrix of all things, and to live according to the natural moral order in a community voluntarily restrained by other-regarding concerns.\textsuperscript{180}

According to Cooper and James then, “because of the coincidence of various conditions, the world is said to be marked by conditioned arising or dependent origination,” also known as \textit{pañcaka-samuppāda}.\textsuperscript{181} The human is not separate from this causally conditioned relationship with \textit{nature} but is, according to D.J. Kalupahana, an inseparable part of \textit{nature}. He relates:

Like everything in the teeming and dramatic richness of nature, [s]he [the human] is dependently arisen or causally conditioned. [S]he comes into being depending upon various conditions, contributes [her/]his share to the drama, and makes [her/]his exit. [S]he is part of nature, that is, in a constant process of becoming (\textit{bhava}), evolution (\textit{parināma}) and dissoolution.\textsuperscript{182}

As Buddhadāsa says, “it is only by being in nature” that we can begin to learn “the lesson of forgetting the self – being at one with the Dhamma.”\textsuperscript{183} If we continue to destroy nature then this destruction necessarily “implies the destruction of the

\textsuperscript{179} \textit{Ibid}, 95.
\textsuperscript{180} Thēpwisutthinēthi, Santikaro, and Dhammavicayo, x.
\textsuperscript{181} Cooper and James, 46.
\textsuperscript{182} Sahni, 69.
\textsuperscript{183} Thēpwisutthinēthi, Santikaro, and Dhammavicayo, xiv.
Dhamma” which, in turn, is the “destruction of our [own] humanity.”¹⁸⁴

Fundamental Buddhist teachings associated with morality and the cultivation of virtues arise in the different schools of Buddhist thought. Cooper and James discuss how there is “no Pali term [which] unequivocally pairs off with our word ‘morality’ or ‘ethics’” but that this does not imply that the concept itself was unknown in historical Buddhism.¹⁸⁵ The teachings of Theravāda Buddhism, which is known as the ‘tradition of the elders,’ is contained within what is often referred to as the Theravāda Buddhist canon, or the *Tripiṭaka*. One particular Theravāda Buddhist concept that is often related to “virtue” is sīla. However, the understanding of sīla as virtue is problematic because of the underlying connotations associated with sīla’s meaning. As Cooper and James point out, sīla implies both right conduct as guided by Buddhist precepts as well as the intention behind the conduct.¹⁸⁶ Thus, morality and virtue deal not only with a specific type of conduct, but also with the volition underlying conduct. In Buddhist orientation, virtues should be good, pure, and free from mal-intention. Theravāda Buddhism teaches the cultivation of traits such as loving-kindness and compassion that can be related directly to virtues and morality. Buddhaghosa, a famous Theravādin monk and scholar from the 5th century, said that “one should practice loving kindness and compassion as the promotion of welfare and the removal of suffering.”¹⁸⁷

¹⁸⁴ Thēpwisutthimēthī, Santikaro, and Dhammavicayo, xiv. Buddhadāsa also says that “dependent co-origination is the process by which various things – existing in dependence on other things through the influence of ignorance (avijjā) – condition the arising of new things, which in turn condition the development of further things, and so on.” Thēpwisutthimēthī, Santikaro, and Dhammavicayo, 78.

¹⁸⁵ Cooper and James, 47.

¹⁸⁶ Cooper and James, 47-48.

along the path to liberation (while still self-interested) promotes an ethical, virtuous, and moral treatment of all beings. Additionally, Swearer argues that Thai Buddhism says that to be in tune, or at one with the dhamma, one must recognize their co-dependence with it and all other beings. Swearer explains that the Pali term anurak which is most often translated as “conserve” (and is often applied in ceremonies of forest conservation) is paired with the term thamachāt which is translated as nature. Thamachāt according to Swearer implies “all things in their true, natural state” meaning that to ‘conserve nature’ (anurak thamachāt) means “having at the core of one’s very being the quality of empathetic caring for all things in the world in their natural conditions.”

Mahāyāna Buddhism expands on the concept, whereby “compassion can engender the aspiration to strive for full Buddhahood, both for its own sake and for the sake of sentient beings.” This striving toward nirvana is known as bodhicitta and ultimately represents the desire to assist all beings in obtaining enlightenment, ultimately to be released from the cycle of samsara. The figure of the Bodhisattva, literally the “enlightenment being,” is willingly reborn after reaching enlightenment, out of his/her compassion for the suffering of other beings. The Bodhisattva comes back into samsara to help other beings reach nirvana. Cooper and James discuss four specific ethics from the Mahāyāna tradition that they see as integral to the virtue ethic that they argue exists in Buddhism, namely “generosity, forbearance, wisdom and skillful means.” All of

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188 Swearer, 27.
189 Ibid, 60.
190 Ibid, 63.
191 It should be noted that these perfections, or Pāramitā refer to the cultivation of a set of ten virtues in Theravāda Buddhism (from the Pāli canon in the Buddhavamsa). These ten virtues were later adapted to six
these ethics, when cultivated by the individual can, according to Cooper and James, help to inspire an ethical environmental perspective.

Additionally, two traditions of Buddhism, Tiantai and Huá-yán, arose from Mahāyāna Buddhism during the T’ang dynasty in China. Tiantai Buddhism taught that all beings, not just humans, had the potential to become enlightened and obtain Buddhahood.\(^{192}\) By interpreting the Mahāyāna text the Lotus Sūtra in a novel fashion, the Tiantai school began the shift toward minimizing (and later completely eradicating) the gap between sentient and insentient beings.\(^{193}\) Later, the Huá-yán school developed this idea further, reducing the division between animate and inanimate beings, asserting that all things, not just all animate beings, could obtain Buddhahood.\(^{194}\) William LaFleur points out this perspective in the following quote:

The man whose mind is rounded out to perfection knows full well that Truth is not cut in half and that things do not exist apart from the mind. In the great assembly of the Lotus all are present – without divisions. Grass, trees, the soil on which these grow – all have the same kind of atoms. Some are barely in motion while others make haste along the Path, but they will all in time reach the precious land of Nirvana. . . . Who can really maintain that things inanimate lack buddhahood?\(^{195}\)
This quote emphasizes the idea that all things, because they originate from the same atoms have the potential to reach enlightenment and liberation. Thus the division between animate and inanimate has been eliminated. Each thing, whether it be a human being, an animal, a tree, or a mountain has equal potential to obtain liberation, each of these is equally important – that no one of them should be privileged above the other. That implies that each of these things is equally as capable of cultivating their own virtue in order that they may too obtain liberation.

For Cooper and James in Buddhist traditions such as Pureland and Zen, actions are deemed virtuous or ‘ethical’ only when they “are unforced”; in other words “the master’s morality is most evident in his spontaneous actions rather than his deliberations about the right way to act.”196 This too can be evidenced from Norman Fischer’s article “Wash Your Bowls” when he shows that only one intention should be present, that is, fully aware in body and mind of all actions. When one is fully aware, it allows that actions to transpire in an unforced notion and for the individual to eventually overcome intention of the self: “when food comes, you open your mouth; when sleep comes, you close your eyes. As you wash your face you find your nose; when you take off your shoes, you feel your feet.”197 This specifically emphasizes the critical Buddhist notion that one must “realize enlightenment in one’s worldly activities.” Each thing or task that a person encounters, from washing their bowls to interactions with the natural world, becomes a site for the potential cultivation of virtue in the individuals’ daily life. Through

196 Cooper and James, 67.

the cultivation of human virtues, individuals may also cultivate their understanding of their interconnection with other beings that are also working towards self-cultivation. In this manner, cultivation of individual human virtues lends itself towards Latour’s call for a deeper understanding of the vast interconnected relationships between beings.

**Cultivating Virtues in Buddhism**

This section deals with various virtues that Buddhist traditions specifically express through its teachings and its scriptures. Cooper and James group these virtues into three different groups: foundational, self-regarding, and other-regarding. Foundational virtues, like mindfulness “are presupposed by the cultivation and exercise of any others”\(^\text{198}\), meaning that mindfulness (or any of the other foundational virtues) has to be employed in order to cultivate the other virtues. The other two categories, self-regarding and other regarding, are slightly more complicated, particularly because of the fact that virtues do not fit neatly into them, because that would imply that something is merely self or other and can be seen as contributing to the moral development of both the self and the other. Nevertheless, the categorical funneling still transpires for the purposes of the argument, and Cooper and James identify self-regarding virtues like humility, self-mastery, and equanimity, and the other-regarding virtues as solicitude, non-violence, and responsibleness.\(^\text{199}\)

Humility for Cooper and James is equivalent to the “destruction of pride” which all Buddhists must shed before liberation from the cycle of samsara.\(^\text{200}\) This notion is

\(^{198}\) Cooper and James, 91.

\(^{199}\) Cooper and James, 90-97.

\(^{200}\) Ibid, 92.
directly linked, to the concept of *anicca*, or no-self because when one realizes that there is no-self, then the attachment to pride in the self is able to diminish and disintegrate.\(^{201}\) Self-mastery implies, for Cooper and James, the ‘Right Effort’ aspect of the Eight Fold Path (in that one should apply oneself to eliminating *karma* through right efforts) which emphasizes eliminating attachments and conducting one’s life such that it shows correct effort in doing so.\(^{202}\) Equanimity “is best thought of as a quality of *judgement* or, to be more precise, the power to exercise discriminating and appropriate judgement,” and therefore “is a virtue that necessarily manifests understanding or wisdom.”\(^{203}\) Cultivating equanimity allows the individual to overcome valuation judgements against other beings, and instead recognize the value each thing has in and of itself. Solicitude is understood as an “umbrella term to encompass three virtues” namely, “loving-kindness, compassion and empathetic joy.”\(^{204}\) Non-violence, or *ahimsā* is regarded as the principle in Buddhism that expresses that individual practitioners should inflict no intentional harm on any other thing. Responsibleness, according to Cooper and James, means to “be ready, perhaps even eager, to assume and accept one’s moral responsibilities.”\(^{205}\)

These virtues, present in the foundational teachings of Buddhism, are often invoked by those who argue in favor of an environmental ethic in Buddhism as an attempt to demonstrate an empirical relationship between human beings and the separated

\(^{201}\) *Ibid.*


\(^{203}\) *Ibid*, 96.

\(^{204}\) *Ibid*, 97.

\(^{205}\) *Ibid*, 104.
natural world. In contrast, Harris has argued that this application of purported Buddhist virtues is misdirected. He states that:

“Buddhism lacks an ecological conception of nature, in that it does not privilege nature over culture or civilization, that it maintains crucial distinctions between human and animal existence and that it presents a less than wholeheartedly positive assessment of the natural world.”

Harris is arguing that Buddhism lacks an environmental ethic such as that proposed by ecoBuddhism, because at its foundation Buddhism recognizes a divide between the human and the natural world and that this divide perpetuates anthropocentric notions. While Cooper and James agree with some aspects of Harris’s argument, and that “the Buddha does not start with a concern for the health of the biosphere,” they maintain, that an environmental ethic persists through the cultivation of virtues, because a concern for the biosphere is “induced . . . for the enlightenment and felicity of human beings.”

Harris insists, however, that ecoBuddhism “subscribes to an ecological holism that celebrates the alleged ‘inseparability of humanity from nature.” Cooper and James agree that Buddhism does in fact ascribe to holism, however, it is not the same kind of holism envisioned by Harris. Rather, they indicate that “Buddhist holism . . . occupies a middle ground between two extreme views”: first, “it rejects that things exist ‘from their own side’, holding instead that they are void of self-existence” and second that “on the other [side, Buddhism] must be distinguished from the monistic view that things are ultimately void, not just of self-existence, but of any kind of existence at all, and that

206 Ibid, 113.
207 Ibid.
208 Ibid, 114.
reality is, in essence, entirely undifferentiated.” Their argument insists on a middle path which recognizes the doctrine of no self, but holds that the observer of no self must be aware not only of the conditioned nature of all things but also that his/her mental formations (samskara) allow for the recognition of this conditioned state. In other words, we must recognize the conditioned nature of all things and also be aware that it is our (human) mind that draws connections between these things, constructing categories, dichotomies and notions of temporality.

Through the cultivation of virtues, and simultaneously the overcoming of vices the obtainment of eudaimonia becomes possible. Cooper and James conclude that “a morally good life is one that manifests the virtues, these being the dispositions to act and to feel that are indispensable for, indeed inseparable from, the attainment of the Buddhist summun bonum . . . referred to as nirvanic felicity and enlightenment” and furthermore that “these virtues have definite implications for people’s treatment of and attitudes towards the non-human world, but that these implications are duly recognized in Buddhist scripture and commentary.” The environmental ethic that they find in Buddhism necessarily stems from the cultivation of the human virtues for the eventual liberation of the human; nevertheless, Buddhism provides a model for a virtuous and moral treatment of the natural world that remains “inextricable from the Buddhist dispensation as a whole.”


210 Ibid, 145.

211 Ibid, 149.
Environmental Problems in Buddhist Nations

Despite the arguments presented above which suggest that Buddhism promulgates an environmental virtue ethic which arises through cultivation of the foundational virtues of the individual, one major flaw in the argument persists. If Buddhism does in fact contain an environmental virtue ethic why do we see countries with large Buddhist populations suffering from extreme environmental problems such as Thailand or Japan? If the cultivation of human virtues in the pursuit of liberation informs an environmental ethic, then countries with large Buddhist populations should be the most developed in the sense of environmental preservation and sustainability. Instead, when we observe these countries we often find extremely detrimental practices transpiring that have irreversible deleterious effects on the environment. We are well aware of the continued desecration of the environment in countries like Thailand where deforestation proliferates, and of the devastating environmental conditions that exist in Japan in the aftermath of the Fukushima incident.

Admittedly, we must recognize that part of the continued environmental problem in these countries exists because of economic colonization and the pressures of capitalism, globalization, and consumer culture. In order to exist in the modern world and to engage in global networks, it is nearly impossible to remain separate from the mindset of the ‘modern’ structural framework that creates the foundation on which globalization, capitalism, and consumerism persist. It is not enough then for the Buddhist practitioner, or those environmentalists hoping to ‘fix’ the problem, to understand just the inextricable interconnection that makes humans an element of the natural world instead of an isolated and extracted part of it. Instead, people must recognize the mental formations (samskara)
which have conditioned this interconnected network. These mental formations, as discussed in the previous chapter, often persist below the layer of discourse, but influence at a fundamental level the negotiation and full realization of the concept of interconnection. It is, once again, the institutional framework of the ‘modern’ that prevents a progression of understanding and foils any attempt at a pervasive remedy to the global environmental problem.

I do not mean here to imply that Buddhists, in essence, are doing Buddhism wrong because they may fail to fully understand the breadth of interconnection, and specifically the role of mental formations in the interconnected nature of all things. Rather, I see the mental formations that preclude full understanding as being ingrained, like Latour argues, within the very underpinning of the discourse, and become inescapable without a complete revision in the framework itself. When we continue to adhere to a framework which is in itself inherently flawed, the discourse cannot grow productively - and the samsaric cycle continues without hope of productive environmental resolution or human liberation. When however, the discourse itself is called into question and re-negotiated, it will inspire a radical shift in the mental formations that underpin the discourse, allowing not only for a broader understanding of interconnectedness, but also a proverbial step forward on the path to enlightenment. The teachings of the virtue ethics in Buddhism, I maintain not only inspires the cultivation of an environmental ethic, but also provide an important part of the platform through which we can remodel the framework of the modern environmental discourse. Cultivation of one’s own virtue allows for the inversion of the hierarchical model utilized by modernity, inverting the framework along the lines that Latour has envisioned.
The Latourian Revolution

In the previous chapters I discussed the problematic intellectual and structural framework of the ‘Modern’ arguing that without a complete revision in the very structure of the modern discourse which underlies current environmental problems, there will be no progress in dealing with the environmental crisis plaguing our world today. In this section, I intend to synthesize this call to arms for a re-envisioned institutional framework with my discussion of Buddhist virtue ethics. I argue here that Buddhism offers at least one, if not many models that are compatible with the model Latour envisions. In order to fit the model that Latour argues for with Buddhism, it is necessary to adhere to the following three revisions from the modern framework: the deconstruction of the linear progression of time, the deconstruction of the process of purification (or the proliferation of dichotomies), and the recognition of the interconnected networks that allow for the construction of hybrids.

The first revision in the revolutionized framework of the modern is easy to exemplify in the foundational teachings of Buddhism. Latour critiques the modern intellectual foundation for always expressing time as a linear notion, failing to recognize that the understanding of time as only progressing in a forward motion is itself a construction of the process of translation that he critiques. Buddhism, in its foundational teachings which are common across traditions, readily provides the inverted model that Latour seeks for this particular structural flaw. Buddhism teaches that time is cyclical in that all things, including life, death, and rebirth transpire in a cyclical (but not repetitive) cycle. This is opposed to the Western notion of linear time which is utilized in the modern framework. Each individual being on the path to enlightenment is trapped in a
continuous, eternal cycle of birth, life, death and rebirth, making time itself repetitive and cyclical. The only potential escape from the path of samsara is through the cultivation of the virtues discussed above, and the obtainment of enlightenment, Nirvana and liberation. Beings are inextricably linked to both their past and future selves (for lack of better descriptive words) because their actions in other lifetimes directly influence their overall karmic package, and thus their position on the wheel of samsara and their progression along the pathway to liberation in this lifetime. Likewise, as stated before, it is the connections between beings that we understand as time and thus the recognition that the tiger lurking in the jungle could be, in a past or future existence, your mother, promotes a new understanding of the nature of temporality.

The second criteria that Buddhism must encompass is Latour’s call for re-envisioning the process of purification, and which leads to the construction of dichotomies. It does not suffice to argue in this instance that Buddhism does not contain a dichotomous framework, because, in actuality it does. There is an intrinsic difference between the humans and all other beings, primarily encompassed in the notion that the human being has the ability to, and is the most capable of, reaching liberation within this lifetime. The reason that the human is understood as the most capable of achieving liberation is because it is in the human incarnation that a being is most capable of cultivating his/her virtues and eliminating karma, which leads to the cessation of the cycle of samsara. This separation in Buddhism, although perhaps not as adamantly pronounced as within the traditional modern discourse, still invokes notions of hierarchy and problematically leads to further binaries, such as the division between sentient and insentient beings. How then do we continue to argue that Buddhism adheres to Latour’s
envisioned revolutionary model? Fortunately, Alan Sponberg offers a solution in his article “Green Buddhism and the Hierarchy of Compassion.” Sponberg points out that while many people argue in favor of ‘green’ Buddhism, and they adhere to the idea that Buddhism is “incompatible with, and hence necessarily opposed to, hierarchy in any and all forms.” This is the concept of the interconnectedness of all beings. This, he argues, is fundamentally not true in the Buddhist orientation. He shows that the taxonomy of life forms proliferated in Buddhism is indicative of a hierarchical structure; specifically, as it is considered to be more advantageous to be born as a human being than as an animal, and better to be an animal than a plant because one’s potential for ultimate liberation is potentially greater. Therefore, spiritual hierarchy in Buddhism does exist.

However, Sponberg holds that this form of hierarchy is fundamentally different than the Western notions of linear hierarchy which “justif[ies] the dominion or domination of one class of beings over another.” Instead, he argues that in the Buddhist hierarchical structure “all of the levels in the . . . ‘chain of being’ are . . . interpermeable” and that “life forms move up, and often down, in this . . . cosmic game of ‘chutes and ladders’.” This vertical as well as horizontal development does not perpetuate the same notions of anthropocentrism as does the modern construction of hierarchy privileging one side of the dichotomy over the other. Sponberg describes how this model of the

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213 Ibid, 351.

214 Ibid, 353.

215 Ibid, 358.
“hierarchy of oppression” actually becomes problematic in the modern discourse.

Exemplified by the figure below, he holds:

The nature of a 'hierarchy of oppression' is such that as one advances vertically, one's circle of interrelatedness becomes increasingly smaller. This is so because one advances in a hierarchy of oppression by exercising one's control over and domination of all those below. And as a result of one's vertical progress, one necessarily becomes less and less aware of one's interrelatedness with them.216

In opposition to this model however, Buddhism’s hierarchical structure is inverted, as represented by the next figure (figure 3) below. In the hierarchy of compassion, as the individual cultivates the virtues promulgated by Buddhist teachings, they logically increase compassion for other beings, specifically the understanding that all beings are suffering in the same continual cycle of samsara. The “hierarchy of compassion” emphasizes that as one cultivates virtue ethics and advances their understanding of compassion, their degree of interrelatedness expands as well but “confers no increasing privilege over those who are below on the path. Quite the contrary, [the hierarchy of compassion] entails an ever increasing sense of responsibility” which is “profoundly

216 Ibid, 364-5.

ethical” and provides for a greater “sense of responsibility for an ever greater circle of
realized relatedness.”

As Sponberg’s analysis shows, we must accept that Buddhism does indeed
perpetuate notions of hierarchy, but Buddhism presents a dichotomus model that is
radically different from the linear model of the ‘modern’ discourse, which privileges one
part of this binary relationship, i.e., oppression over interrelatedness. Instead, we can see
that through the cultivation of the virtue ethics ingrained within the foundational
teachings of Buddhism the dichotomus framework of the modern (although not entirely
obliterated) is drastically revolutionized, allowing for an increase in the understanding of
the interconnected networks at the same time that spiritual advancement occurs. This
model answers Latour’s call specifically because the human and non-human are no
longer seen as “two opposite transcendences,” but instead become “one and the same

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What Buddhism helps us to understand about Latour’s critique of the modern is the dynamic relationship between interconnection and interrelatedness and the linear advancement of compassion. The marginalization that occurred before, in the modern process of dichotomization is logically removed because the model now does not require that only one being (i.e., the human in the modern model) must sit at the top of the pyramid in the end, climbing on, usurping and exploiting all others along the path to get there. Rather all beings are on the same path at the same time, each aspiring toward its own *eudaimonia* through the cultivation of their own virtue ethics, where the increasing recognition of interrelatedness of all life forms occurs simultaneously with advancing compassion.

Through this revolution in the second foundational element of the modern framework, we have also completed the revolution of the third, and final stage, which Latour calls for. Not only has the potential for vast interconnected networks been exposed, allowing all beings to work towards salvation and liberation simultaneously, but we can now recognize the synthesis of ideas that allowed for the creation of the hybrid model to begin with. With this final recognition the Latourian inversion (i.e., revolution) is complete.

This chapter has attempted the difficult task of providing an example that adheres to the revised intellectual framework of the modern that Latour envisions. I have argued, as have others, that although the religious tradition of Buddhism does not contain an environmental ethic in its foundation teachings, it does contain a virtue ethic, and that through the cultivation of these virtue ethics an environmental ethics arises that can

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220 Latour, 87.
proffer not only a re-envisioned understanding of the environmental crisis that we face
today, but also helps create the beginnings of a framework to solve significant
environmental problems. The environmental virtue ethic that arises within the teachings
of Buddhism(s) adheres to the revolutionized model that Latour promulgates, and I assert
that if this model is invoked instead of the current model utilized by the environmental
movement, it could revolutionize the way we think about and deal with the environmental
catastrophes transpiring in our world today.
Chapter 4
The Latourian Inversion Revolution: The Environmental Problem of Mountaintop Removal and the Revision of the Intellectual Framework of Modernity

For the purposes of providing an example of environmental injustice to which our theoretical model may now be applied, I will discuss the practice of mountaintop removal coal mining, focusing primarily upon my own work and research on the utilization of this practice in the Appalachian Mountains of West Virginia. After detailing the environmental injustice associated with mountaintop removal, I employ the re-envisioned framework which we obtained from the environmental virtue ethic of Buddhism in order to enact the shift that Latour envisions on an actual environmental problem.

The historical dependence of industrialized nations on fossil fuels, and specifically on coal, has in recent years become recognized as a leading cause of global climate change and the deteriorating state of the environment. In November of 2014, the Obama Administration announced a joint initiative with China to decrease global greenhouse gas emissions, relating that the United States would cut greenhouse gas emissions by between twenty six and twenty eight percent of what they were in 2005 by the year 2025.221 According to the multi-level plan, the United States will work to cut emissions by reducing power plant emissions, increasing energy efficiency and fuel efficiency standards and reducing methane emissions, attempting to curve the unchecked growth of greenhouse gas emissions since 1990.222 The Obama Administration, as well as


environmentalists are hopeful that this will reduce emissions from the 2005 total of 7260.4 Tg\(^{223}\) CO\(_2\) per year to less than 5,500 Tg CO\(_2\) per year.

In the face of global climate change, scholars and environmentalists have advocated for a reexamination of the ways that we think about human impact on the environment and for a re-envisioned environmental ethic to help rectify the current deterioration of the world and its natural systems. The leading cause of climate change has been identified as the emission of greenhouse gases into the atmosphere, which “act like a blanket around Earth, trapping energy in the atmosphere and causing it to warm.”\(^{224}\) Emissions reports indicate that approximately eighty two percent of the total emissions produced in the United States each year are CO\(_2\) emissions, and that the “largest source of CO\(_2\) and of overall greenhouse gas emissions [is] fossil fuel combustion.”\(^{225}\) Because of the deleterious impact of fossil fuel consumption and combustion, environmentalists have begun to advocate for decreased dependence on fossil fuels and for the inception of alternative energy sources.

One of the leading contributors to CO\(_2\) emissions in the United States is the combustion of coal for energy purposes. This chapter will discuss the historical dependency of the United States on coal, detailing a history of coal mining, production and consumption, in order to exemplify the complex narrative of natural resource depletion, colonial expansion, and wage labor exploitation, that all exist as elements in

\(^{223}\) A Tg is equivalent to one million metric tons

\(^{224}\) "U.S. Epa, Oar, Climate Change Division" "Executive Summary." U.S. Inventory-1990-2005 Executive Summary Released2007: ES1-S19. EPA.

\(^{225}\) Metcalf, 2005.
the interconnected web of environmental travesty transpiring today. After detailing the historical tendencies, I will discuss one particular method of coal mining, mountaintop removal, detailing how the environment becomes a zone of sacrifice in the face of commodity fetishism and capitalist demand. I then apply the re-envisioned environmental virtue ethic that was conceptualized in chapter three in order to provide an example for how a revolution in thinking about complex reciprocal relationships and interconnectedness might appear if applied.

A History of Coal and Coal Dependency in the United States

Coal, a naturally occurring type of rock which was formed approximately 300 million years ago during the Carboniferous period,\(^\text{226}\) has become one of the most fetishized commodities of modernity. Curtis Harvey, in his survey of *Coal in Appalachia*, relates that estimates indicate that “one-fifth to one-sixth of the world’s coal deposits are located in the United States.”\(^\text{227}\) The initial discovery of coal in the United States is difficult to position owing in part to a lack of historical records and archeological evidence and also in part to the implications of colonial expansions and the “discovery” of resources that were widely utilized prior to colonial domination. The United States Department of Energy however, recognizes the Hopi Indians, a sect of the larger designation of Pueblos Indians thought to be descendants of the Aztecs, who inhabit(ed) a large area in the southwest United States (modern day New Mexico and Arizona), as using coal as early as


\(^{227}\) *Ibid*, 3.
the 1300’s. However it is more widely recognized and accepted that coal was (re)discovered in the late 1600’s by explorers in the eastern United States.

Soon thereafter, the landscape of the eastern United States was recognized as more than just a vast frontier of unexplored and unclaimed lands: it was quickly identified as an untapped reserve of “merchantable commodities” that “could be shipped to Europe and sold at a profit in order to provide a steady income for colonial settlements.” Although coal never itself became a “merchantable commodity” because it was not economically efficient to transport and because of its relative abundance in Europe, the commodification of the landscape in the early years of American colonization directly contributed to the commodification of coal. In his book Changes in the Land, William Cronon relates that “seeing landscapes in terms of commodities . . . treated members of an ecosystem as isolated and extractable units” so much so that “their descriptions often degenerated into little more than lists” through which ecological relationships tended to be obscured or completely forgotten. Coal too was eventually recognized as one such extractable unit: a resource that could be appropriated for colonial use and consumption which was not considered an integral element in the interconnected environmental systems present in the new world.

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229 Ibid, 21.
As early as the mid 1700’s coal began to be commercially mined, commencing in Virginia. Early mining practices, as opposed to those which are used today, served a practical purpose: coal was sought out as a cleaner, more efficient source of energy than the timber burned for personal, domestic use. Cronon relates that in the early days of colonization “a typical New England household probably consumed as much as thirty or forty cords of firewood per year” and that in total “New England consumed more that 260 million cords of firewood between 1630 and 1800.” The initiation of coal mining influenced a drastic shift in resource consumption during this time period, providing an alternative energy source which was more efficient, but also instituting a new commodity which could be extracted and sold for profit. Anthracite, or hard coal as it is commonly called, was valued in the early ages of coal mining because it was a cleaner, slower burning form of coal that “emit[ted] relatively little smoke” and “produced little dust.” However, because of the extreme temperatures necessary to form anthracite coal, it was chiefly existent only in the deepest geographical layers of coal deposits and therefore much more difficult to access and costly to mine. Anthracite deposits are found primarily in the eastern United States, specifically in the Appalachian Mountains, and make up only about two percent of the total amount of coal found on Earth.

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232 “Thirty to forty cords” according to Cronon can “best be visualized as a stack of wood four feet wide, four feet high, and three hundred feet long; obtaining such a woodpile meant cutting more than an acre of forest each year.

233 Cronon, 121.


235 Ibid
of the 19th century however, coal mining changed drastically in the United States. With the growth of the railroad from around the 1830’s to the late 1860’s, America sought a form of energy that could be mass-produced at a relatively fast and inexpensive rate, and anthracite, which was difficult to access and expensive to mine, was unsuited to meet this demand. Bituminous, or soft coal, quickly supplanted anthracite as the preferred source of coal for energy purposes because of its accessibility and abundance, even though it lacked in quality and efficiency.

This new form of mining came with its own set of problems however; the mining of bituminous coal through traditional, underground mining techniques was, and still is, highly dangerous because bituminous coal contains high levels of both nitrogen and sulfur, making it highly volatile and reactive. When exposed to oxygen, and struck with the metal tools (such as the pick ax) used for mining, the coal can be highly explosive and is therefore precarious to mine. The NIOSH Office of Mine Safety and Health has compiled data reporting the number of fatalities and coal mining disasters in underground coal mines in the United States between 1900 and 2010, and relates that in order for an incident to classify as a “disaster” there must be “five or more fatalities.” 236 During this period of 110 years, there were a total of 514 documented underground coal mining disasters which led to the death of 11,615 individuals. 237 The early years, from 1900 to 1909 were recorded as the most deadly with over twenty five percent of the disasters and over thirty one percent of the deaths occurring during this ten year period. However, a


237 Ibid.
total of 420 disasters and 10,390 deaths were caused by explosions and another thirty-five disasters and 727 deaths were the result of underground fires. Overall, these statistics indicate that over eighty-eight percent of the total number of disasters and over ninety-five percent of the deaths from underground coal mining between 1900 and 2010 were the direct cause of explosions and fires created from the highly volatile nature of bituminous coal.

In addition to the dangers posed to miners, bituminous coal is also a major source of air pollution when burned because of its chemical composition, and contributes to the leakage of dangerous chemicals into the atmosphere. According to the EIA, coal made up approximately forty-three percent of the total amount of energy used in the United States in 2013 to generate electricity, followed by non-fossil fuels (at thirty four percent) and natural gas (at twenty two percent). However, out of these, coal contributed to seventy-seven percent of the total carbon dioxide emissions in that year. When burned, coal releases a combination of dangerous chemicals into the atmosphere including sulfur dioxide, mercury, nitrogen oxide, and carbon dioxide. These chemicals produce long term, devastating environmental effects including the emission of greenhouse gases, can cause acid rain and smog, and can also contribute to long term health effects for humans,

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238 Ibid.

239 Knopp, Otto C.


241 Ibid.

242 Ibid.
such as respiratory illness and neurological disorders.\textsuperscript{243} Today, there are restrictions in place for companies that rely on coal fired power for energy, which regulate the amount of emissions released.\textsuperscript{244} The average annual emissions of carbon dioxide from coal fired power is almost double that of the emissions for either oil or natural gas, and the total emissions of sulfur oxides and natural oxides from coal are more than those of the emissions for oil and natural gas combined.\textsuperscript{245} However, these emissions statistics, while accurately depicting the amount of emissions contributed by the burning of coal, fail to take into consideration the full impact of the footprint for coal. The environmental impact of transporting coal also contributes to the overall footprint, and to the amount of methane and carbon dioxide entering the atmosphere each year as coal production and consumption continues. Despite the potential risk of mining and harm to the environment bituminous coal remains the primary source of coal mined for industrial energy production in the United States today.

The high demand for coal for energy purposes began in the early and middle 20\textsuperscript{th} century, as the coal industry became increasingly industrialized, operating primarily on the exploitation of wage labor workers. In 1917, Upton Sinclair coined the term ‘King Coal’ in his novel bearing the same title, in which he critiqued the coal industry. Rebecca Scott relates that the term King Coal “reflects the historical dominance of the coal

\textsuperscript{243} Ibid.


\textsuperscript{245} Ibid.
industry in the United States”\textsuperscript{246} through the end of World War II. Coal became a necessary element for powering the war effort, and the “peak years for employment in coal mining were 1941-1945.”\textsuperscript{247} Post war, demand for coal began to decline, perpetuated by the lower costs and accessibility of other resources such as oil and natural gas for energy purposes. Harvey relates that during the “1960s the coal industry was in a production trough” devastated by a “36% decline in output” due to decreased demand.\textsuperscript{248} The 1970’s saw a return in the coal industry, facilitated in part by the “1973 OPEC oil shock,” a drastic rise (approximately 400\%) in the cost of oil due to the oil embargo.\textsuperscript{249} After its rebound, the commodity fetishism of coal continued to increase, and the need to mine it faster and more efficiently increased drastically as national energy usage rose exponentially. In response to the growing demand of coal for energy during the second half of the 20\textsuperscript{th} century, new methods of coal mining became necessary and new methods of mining were developed and implemented.

**West Virginia and Mountaintop Removal Coal Mining**

Coal was discovered in what is now southern West Virginia, (Boone County) in 1742 by John Peter Salley.\textsuperscript{250} Coal deposits can be found across the state, lining “all but the eastern edge” and occurring in 43 out of the 55 counties in significant enough

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\textsuperscript{246} Scott, Rebecca R. *Removing Mountains: Extracting Nature and Identity in the Appalachian Coalfields*. Minneapolis: U of Minnesota, 2010; 70.


\textsuperscript{248} Harvey, 12.

\textsuperscript{249} Ibid.

\end{flushleft}
amounts to be considered “economically recoverable reserves.” As the region began to receive increased attention with the discovery of coal, the pristine majestic beauty of the mountains became a symbol for abundant untapped coal reserves, reinforcing the narrative of landscapes as merely useful because of the extractable units they produce. Depicted in early newspapers as an area of “exhaustless treasures” this region of Appalachia quickly became a land of opportunity. Outsiders began to move into the region, buying land rights, setting up mining operations, and hiring any able bodied man that could swing a pick ax to work in the mines.

Mountaintop removal (MTR), a form of surface mining, developed as one response to the growing demand for coal during the mid-20th century. Surface mining, as opposed to deep mining practices which require laborers to mine coal deep underground in often volatile conditions, is completed above ground, primarily through the use of machinery. Minimizing labor and maximizing efficiency, MTR coal mining allows coal to not only be extracted more quickly, but to also generate higher profit in the market for the companies that engage in the practice. Additionally, surface mining has a much higher recovery rate; some surface mines have up to ninety percent potential recovery, as opposed to underground mines which begin at less than forty percent. First employed in 1967 in Virginia, MTR has been widely utilized since its inception for the purposes of coal mining in central Appalachia. During the middle to late 1980’s strip


252 Edwards, 57.

253 Recoverable reserves indicating the amount of coal that can actually be extracted from a mining site

254 Edwards, 11.
mining and MTR began expanding rapidly across the eastern United States, in the Appalachian Mountains.

The Appalachian mountains, which are thought to be one of the oldest mountain chains on earth, expand from parts of northern Georgia and Alabama, north through the Carolinas, Tennessee, Kentucky, Virginia and West Virginia, further north through Pennsylvania and all the way into Maine and Canada. The practice of MTR primarily transpires in the region I will refer to as ‘central Appalachia’; namely in Virginia, West Virginia and Kentucky, but also expanding into parts of Tennessee and North Carolina. In this region, coal mining has, for many years, been a way of life.\footnote{255} As Harvey relates, “the coal reserve base in Appalachia is particularly important because it is the source of most coal consumed in the United States today.”\footnote{256} For the purposes of this paper, the majority of my research and discussion on MTR will deal with the coal fields of southwest West Virginia. Although similar to MTR transpiring in other regions of central Appalachia, the practice of MTR in the region of West Virginia that I am discussing is somewhat unique, not only because of the extent to which it is happening in this area, but also because of the unique social and cultural situation created as a result of severe environmental injustice.

\footnote{255}{Matthew Huber, in his discussion of the oil industry in the United States, \textit{Lifeblood}, relates that “a way of life” implies “a set of practices situated within a particular geography.” Huber, Matthew T. \textit{Lifeblood: Oil, Freedom, and the Forces of Capital}. 2013; 40.}

\footnote{256}{Harvey, 11.}
Originally designed to “make possible the total recovery of the coal seam by removal of all overburden,” MTR, according to Tricia Shapiro, is just as drastic as it sounds. In her book *Mountain Justice* she conveys that “at each Mountaintop Removal (MTR) site, a mountaintop is stripped of trees, blown to bits with vast amounts of explosives, and then pushed aside by giant equipment – all to expose a layer of coal.”

As presented by the Environmental Protection Agency (EPA), MTR is a five-step process beginning with the removal of “overburden” which includes the trees, vegetation, rock and dirt above the coal seam. Shapiro relates that “often the cut trees are not even harvested but simply bulldozed together and burned.” Following this, the initial layers of coal are extracted from the mountain and the ‘spoils’ or the other debris extracted from the mountain that are not coal (rock, dirt, excess plant materials), are transported to what is called a head-to-hollow fill in the valley, which is generally adjacent to the mountain being exhumed. Continuing this process of extraction and dumping of waste in the fills, the mountain is bereaved of its protected layers of coal through the blasting away of layers of rock that were formed over periods of millions of years. Coal companies are then required to re-grade the mountain surface and re-vegetate it, returning the mountain landscape to its “approximate original contour.”

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260 Shapiro, 3.

261 Ibid.
the region in the early 1800’s, today MTR has supplemented, but not fully replaced, traditional deep mining practices and is considered a more efficient and productive source of mining. As of 2012, West Virginia was the second largest producer of coal in the United States (after Wyoming), mining between 120 and 130 million tons during that year with approximately forty-one percent (between 49 and 53 million tons) coming from surface mining operations.262

The following images, taken by the author in August of 2014 at the Kayford Mountain MTR site in West Virginia, depict the changes in the mountain landscape when subjected to MTR practices. This site serves as only one example of the vast amount of environmental desecration transpiring at over ninety263 different surface mining sites in the state.

Figure 1: Figure 2:

Figure one depicts coal, visible just below the surface of the mountain trail on the portion of the mountain that has not yet been subjected to mining practices. This figure represents


263 As of 2013, Ibid.
the landscape as a commodity, located directly beneath the feet of the colonizer, ripe for the taking. This seam of coal is located at Stanley Heirs Park on Kayford Mountain, a land grant established by Larry Gibson and his family in order to protect the mountain region that for over 230 years thy called home. "Larry Gibson Memorial Page." *Keeper of the Mountains.* http://www.mountainkeeper.org/larry-memorial/.

Today, this mountain park which used to fall in the shadows of the surrounding mountain peaks, now stands as the highest point in the surrounding mountain landscape, due to the MTR mining that has transpired all around it. Figure two, taken from the peak of Kayford Mountain depicts the lush majestic beauty of the “untouched” mountain landscape in the distance, which is starkly juxtaposed against the staunch barren landscape of the MTR sites visible on the other side of the mountain.

Figure 3: Figure 4:

Figure three shows the first, and closest of seven active MTR mining sites visible from Stanley Heirs Park. The mountain peaks have been completely cleared of their lush...
vegetation, and layers of rock and debris have been blasted away to expose the coal seams, such as the open seam depicted in figure four.

Facing West, Figure five shows three other active MTR sites, and in the distance on the right hand side of the photo a reclaimed mine site that has supposedly been re-vegitated by the coal company—meeting the standards of what the EPA calls returning the landscape to its “approximate original contour.” Figure six shows perhaps the most drastic and devastating MTR site in the area – a vast desert moonscape stripped of all life.

Figure seven shows what a MTR site looks like from the ground; it remains almost invisible to the untrained eye, hiding just below the tree line of the flattened mountain peak, the only revealing characteristic is the new plateau. The vast destruction however
remains hidden from view. The areas around MTR sites, including the ones visible from Stanley Heirs park on Kayford Mountain, are owned by coal companies and are restricted to the public. Posted private property signs, camouflaged trip wires through the forest and fear of prosecution and jail time if caught trespassing on the (still forested) outskirts leading up to MTR sites, are enough to keep most people, including many of the local inhabitants off the land, effectively limiting access to, and preventing people from seeing, the environmental devastation caused by MTR mining practices. Figure eight more clearly depicts the process of reclamation after a site has been fully mined. The lush tree line visible about two thirds of the way down the picture is the natural forest that was not cleared prior to mining, and above that, the barren hillside sparsely revegetated is the area that was cleared for mining and then “revegetated” by the mining company. The harsh contrast is representative of a drastic change in the landscape and depicts a loss of habitat and biodiversity.

**Environmental Effects of MTR**

In 1979 the EPA conducted its first assessment of the surface mining methods employed in West Virginia (and Kentucky) and critically examined MTR techniques and environmental impact. In its conclusions which came after MTR had been in practice for approximately twelve years, this original study notes that MTR “mining is an environmentally desirable surface mining technique in the steep sloped terrain of southwestern West Virginia” and that “land use potential can be dramatically improved when [MTR] mining is accompanied by well-designed and constructed head to hollow

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fills.” However, the conclusions fail to take into consideration long term environmental effects on animal and plant life in the surrounding areas and notes that the “ultimate stability” of MTR and head to hollow fills are “unknown.” The EPA study published in 1979 also discusses in depth the topography and climatology of West Virginia, presenting information about the soil composition and hydrology of the state. Predominately deciduous forest, the state consists of a variety of tree species (including hickory, oak, cherry, maple, pine, and fir) as well as many species of smaller shrubs, herbs, and other foliage. Likewise, the forest supports a vast web of different animal species, from carnivores such as the black bear and different species of fox, herbivores such as deer and rabbit, varied bird species including wild turkey, and reptiles including many different snake species.

Growing concerns about the environmentally deleterious effects of MTR began to infiltrate the discourse around the beginning of the 21st century. The practice of MTR has been hotly debated because of its devastating effects to the land, the water, and to the health of the local inhabitants and has sparked controversy at the local, state and federal levels. Seen by some as one of the most environmentally catastrophic industrial practices transpiring today, mountaintop removal is charged with causing and/or contributing to a multitude of severe effects which deleteriously affect the natural world including (but not

266 Ibid, 6.
267 Ibid, 8.
268 Ibid, 16-19.
270 Ibid.
limited to) deforestation, habitat destruction, wildlife displacement, toxic waste production, surface runoff, stream and river pollution, air pollution, sickness, and terminal illnesses.

In the face of increasing debate around MTR practices, the Environmental Protection Agency published its most recent study on MTR mining and its environmental effects in Appalachia in October of 2005. The report states that its purpose, in part is to “contribute to reducing the adverse environmental impacts of mountaintop mining operations and excess spoil valley fills in Appalachia.” This study focused specifically on minimizing “to the maximum extent practicable, the adverse environmental effect to water of the United States and to fish and wildlife resources affected by mountaintop mining operations” and focused on a geographical area encompassing parts of southern West Virginia. Almost fifty years after the first documented MTR incident in West Virginia recognition of the hazardous environmental effects was openly published, however, MTR practices have continued. As referenced above, there is a complex and inexhaustible list of negative ramification of the practice of MTR. Here, I would like to briefly discuss some of the major environmental concerns, acknowledging that these are only a representative few of the multifarious problems that arise from the practice.

One of the most recognizable problems of MTR which deleteriously impacts the environment occurs during its initial stage of deforestation. As the forest on the higher

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273 Ibid, 2.
elevations of the mountain is removed, loss of biodiversity and habitat destruction are imminent. As mentioned before, the mountains of central Appalachia, and particularly those in West Virginia are incredibly biodiverse. Records indicate that during settlement of the region, Europeans found the region (central Appalachia) to be “80 to 90 percent forested.”\(^{274}\) Noted as one of the most biologically diverse regions on earth, the area is home to over “690 vertebrate species and 2,245 higher plant species.”\(^{275}\) However, deforestation is one practice associated with MTR that inflicts harm on the environment and its life support systems. When mountaintops are clear cut, the plant species in that region are completely destroyed, and many animal species are harmed or killed in the abrasive deforestation process as well. Those animals that do survive are forced to flee further down the mountain because they have been robbed of both their habitat and their food supply. This too however becomes problematic; as animals are forced down the mountain it heightens competition for the resources on the lower portions of the mountain, especially at the primary consumer level, and throws off the precarious balance of the forest environment.

Aldo Leopold article *Thinking Like A Mountain*\(^{276}\) expresses similar concerns about sudden changes to the delicate mountain ecosystem. Although his article discusses the extermination of the wolf population through over-hunting, he also relates that the increased number of deer on the mountain (a result of the elimination of their predators), and specifically increased competition for available resources, is devastating to the

\(^{274}\) Edwards, 52.

\(^{275}\) *Ibid*, 52.

\(^{276}\) Leopold, 194.
mountain ecosystem. Furthermore, overgrazing can further strip the mountain of foliage, increasing rates of erosion that are already heightened by the deforestation of the top of the mountain. Without tree cover and foliage, soil is more easily displaced by heavy rains that often occur in that area. With increased soil erosion, the mountain is less able to support the growth of tall trees or plants with deep root systems. Additionally, the “stripping of mountain slopes of trees has caused the buildup of silt on the river bottoms and been the cause of major flooding” and “the release of chemicals, including mercury and dioxins” which were once trapped beneath the forest floor, “has made fish unfit for consumption.”

Revegitation of the land after mining is also problematic, primarily because the standards set by the EPA are loosely defined. Additionally, it is notoriously difficult to revegitate barren landscapes because it is difficult for the root systems of most plants, especially larger ones, to take hold and thrive in soil stripped of nutrients. It has also been noted that the compact soil at vacated MTR sites also makes it more difficult for vegetation to grow. Because “heavy machinery presses down on the rock and dirt” when regarding the land on MTR sites, “plant roots cannot penetrate the compacted spoils so revegetation is poor.” As is exemplified here, deforestation of the mountains becomes incredibly detrimental, deleteriously affecting many interconnected systems.

In addition to the harm caused by the practice of deforestation, another environmentally devastating practice associated with MTR is the creation of slurry impoundments to contain the waste generated by MTR sites. During the course of MTR

277 Ibid.
278 Edwards, 52.
279 Ibid, 61.
coal mining, coal waste is disposed of through the creation of what were originally referred to as sediment ponds or what have now been termed ‘slurry impoundments.’ These impoundments are created from two different forms of waste: course refuse and fine refuse. Course refuse often consists of many of the debris from the initial deforestation and blasting process as well as the rocks, dirt, and unusable pieces of coal which are extracted while mining. Course refuse is removed from the mountaintop, and is usually transported to an adjacent valley. It is deposited and compacted across the valley, effectively creating a dam, or retaining wall known as a “head to hollow fill.” Fine refuse, on the other hand is created through a process known as coal ‘washing’ which is a mandatory processing technique that takes place prior to the export and sale of coal. Fine refuse often contains coal dust, as well as silt and excess dirt that mixes with the water and chemicals from the coal washing process. Some of this refuse is allowed to accumulate at the outdoor processing plant and “in dry piles can ignite and burn for years.” Furthermore, when it rains, these piles of debris leach “acid out of the refuse, polluting both land and streams below.”

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281 Edwards, 61.

282 Ibid.
Figure nine depicts course refuse, the larger debris often used to create impoundment retaining walls, while Figure ten shows part of the coal washing and processing facility and the piles of fine refuse littering the ground at its base. The fine refuse, when mixed with water, becomes a thick black sludge, known as slurry, which is piped into the head to hollow fill, creating a slurry pond. These ponds often hold hundreds of millions of gallons of the thick, black liquid slurry waste. MTR sites may have multiple slurry impoundments in order to deal with the excess waste that is generated from the coal mining practices. Currently, there are 112 slurry impoundments in operation across the state of West Virginia. These slurry impoundments are extremely devastating to the mountain landscape, to biodiversity, and pose a huge threat to both animal and human life because of the excessive amounts of chemicals that they contain.

The Ohio Valley Environmental Coalition relates the findings of its ‘Sludge Safety Project’ citing over fifty chemicals (an abridged list) that are commonly found in

\[283 \text{ Ibid}\]
slurry impoundments. These include, but are not limited to, the following: diethyl phthalate, a synthetic liquid that “is commonly used to make plastics more flexible” and is often found in “toothbrushes, automobile parts, tools, toys, and food packaging”; Hexachlorobutadiene which is a colorless liquid which is created from the combination of other chemicals and has been found to cause “a reduction in the body weights of [mice] fetuses when their mothers breathed high levels of the chemical” (there have been no studies to test the effects on humans); and Isophorone which liquid that is an industrial chemical (often used in paint) and has been cited by the EPA as being a possible human carcinogen (based on animal testing). In addition to the possible chemical hazards slurry impoundments impose on the environment there is also a physical risk that accompanies the creation of these impoundments.

Several issues arise with the creation of the dam by the course refuse removed from the mining pit. Weakness in the dam walls has been a major problem as have ‘fall throughs’ where the slurry impoundment has collapsed into the mine being excavated beneath it. This happens because slurry impoundments, as noted before, are created adjacent to the mountains being excavated, and when the insides of the mountains are hollowed out and bereaved of their supportive layers of coal, the sidewalls of the mountain now compressed under millions of gallons of slurry are no longer strong


enough to support the weight, and often cave in. As of March of 2014, the EPA sited 53 different slurry impoundments (at 34 different MTR sites) across the United States that had a High Hazard Potential rating.\footnote{287} FEMA (the Federal Emergency Management Agency) sets the federal guidelines for safety in regards to dams across the United States and relates that “dams with High Hazard Potential classification are those where failure or mis-operation will probably cause loss of human life.”\footnote{288} When considering the Buddhist concept \textit{ahimsa} in regards to the potential hazards associated with the creation of slurry impoundments, we begin to see the potential harm that MTR practices can cause. There have been several devastating incidents associated with impoundment wall collapse. The most well known and documented, the Buffalo Creek Disaster, will further explicate the pernicious quality of MTR mining.

Buffalo Creek runs through the state of West Virginia, cutting through the centrally located county of Logan. In 1957 the Buffalo Mining Company (owned by Pittston Corporation) began “to deposit its wastes” at the top of the hollow, in a location called Middle Fork.\footnote{289} Fifteen year later, in 1972, the dumping site was still being used by the same company, which was, by that time, depositing “about one thousand tons [of refuse] every day.”\footnote{290} That year, the estimates on the impoundments size were thought to be in the neighborhood of “forty-five to sixty feet high,” containing approximately “a


\footnote{290} \textit{Ibid.}
million tons of waste” and “trapped 132 million gallons of black water – a lake some twenty acres in size and forty feet deep at the edge of the impoundment.” On February 26th, 1972 at 7:59 am, the Buffalo Creek slurry impoundment burst, spilling all of the 132 million gallons of waste down the mountain hallow, on a 17 mile path of destruction. 125 individuals were killed in the disaster and the destruction left over 4,000 of the approximately 5,000 local inhabitants homeless. The vast ecological devastation that transpired had incalculable ramifications on the ecosystem of the region, killing and displacing thousands of animals of a variety of species and causing long term effects because of the dangerous chemicals that seeped into waterways and were absorbed into the ground.

Other, more recent incidents in Central Appalachia involving slurry impoundments have had devastating environmental effects as well, and the long term ramifications of these events have yet to be fully realized. One other particular event in which a dam wall failed at a mine in Kentucky in 2001, “releasing 2.5 million gallons of coal sludge into tributaries of the Big Sandy River” was cited by the EPA as being “the worst environmental disaster ever in the southeastern United States.” Although the negative effects discussed here do not come close to detailing all of the complex environmental problems caused by MTR, they provide a concrete example which depicts the gravity and breadth of the devastating, long term environmental effects of MTR. In

292 Ibid, 40.
293 Ibid, 40.
294 Edwards, 61.
the next section, I will discuss one particular coal corporation, Massey Energy, to provide an example of the role of the coal corporation in the complex interconnected system contributing to environmental travesty in West Virginia.

**The Role of the Coal Company: Massey Energy**

As one of the most powerful, and most controversial coal mining corporations that operated in the region of West Virginia, Massey Energy Corporation functions as one primary contributor to the systematic environmental degradation transpiring in the region. Massey Energy Corporation was founded in the 1920’s and through the mid 1900’s became one of the largest corporate coal producers in the United States. A strictly anti-union corporation, Massey remained one of the biggest names in coal mining in West Virginia through 2011 (at which time it was bought out by Alpha Natural Resources) and was heavily involved in the development of the practice of MTR in the region. Don Blankenship, who is today one of the most recognizable and demonized figures associated with coal mining in Appalachia, was appointed as the Chairman and CEO of Massey in 1992, and was extremely influential in the expansion of the company. In 2007, under the leadership of Blankenship, Massey “announced plans to aggressively expand its operations in Central Appalachia” and to increase its total yearly coal production from “approximately 40 million tons in 2007 to approximately 50 million tons by 2010.” At the time, over one third of the mines operating under Massey Energy Corporation were surface mines. In one news report from October 25, 2007, Blankenship

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297 Ibid.
stated that Massey currently had “the capital, resources and market position to execute [their] strategic plans for growth. With a large portfolio of idle reserves, [they had] abundant opportunities to expand low-cost production . . . [and] expect to be able to take further advantage of current strong metallurgical coal prices and expected favorable long-term utility coal fundamentals to earn attractive margins and high returns on these investments.”

Taking advantage of their powerful economic position and the still growing demand for coal, Massey began expanding, updating existing mining sites and opening new coal seams at already operational sites while driving production costs down and maximizing profit by mining types of coal that were in high demand. At its height in 2008, Massey Energy was the fourth largest coal company in the United States. In the few short years since Blankenship’s rise to power at the helm of Massey Energy Corporation, this coal mining giant has gone from being one of the most powerful capitalist economic industries in the United States to one of the most recognizable culprits of environmental degradation in the political economy. Numerous court cases have been leveled at both Massey Energy Corporation and at its CEO including a number of civil cases and multiple Supreme Court cases. Among the findings of some cases, Blankenship has been convicted of "conspire[ing] to commit and cause routine violations of mandatory federal mine safety standards in order to produce more coal, avoid the costs


299 Ibid.

of following safety laws, and make more money.”\textsuperscript{301} These violations not only resulted in the deaths of twenty-nine workers in the Upper Big Branch Mine Disaster\textsuperscript{302}, but also deleteriously affected the environment in areas surrounding mining operations, specifically contributing to the decrease in water quality. Massey has, since 2007, been cited for violations of several regulatory standards, including, but not limited to violations of the SMRA, the Clean Water Act, and the Buffer Zone Rule.

In 2008, Massey Energy Corporation settled in a landmark lawsuit leveled against them by the EPA, agreeing to pay an unprecedented fine of twenty million dollars for violations of the “Clean Water Act . . . at coal mines in West Virginia and Kentucky . . . [and] for wastewater discharge permit violations.”\textsuperscript{303} The Environmental Enforcement Section (EES) cited Massey in early 2007 for contaminated waste water from coal production that contained “pollutants [such] as iron, aluminum, manganese, pH and total suspended solids” and other “discharges not pursuant to an authorized Clean Water Act permit.”\textsuperscript{304} The EPA, who filed the case against Massey, charged that the Corporation had violated over 4,500 permits associated with the Clean Water act “between January 2000 and December 2006” and that the pollutants produced in the coal mining process were drained into “hundreds of rivers and streams in West Virginia and Kentucky . . . in

\textsuperscript{301} “I Could Krushchev You”: 9 Shocking Allegations from the Don Blankenship Indictment.” \textit{Mother Jones}. http://www.motherjones.com

\textsuperscript{302} \textit{Ibid.}

\textsuperscript{303} “Massey Energy to Pay Largest Civil Penalty Ever for Water Permit Violations.” \textit{United States Environmental Protection Agency}. http://yosemite.epa.gov/opa.

amounts forty percent more than allowed . . . and at levels more than ten times over the permit limits." Furthermore, Massey was also accused of “spill[ing] large amounts of slurry” into local waterways in West Virginia which was deemed as “harm[ful to] fish habitats” and detrimental to surrounding ecosystems. The District Court of the State of West Virginia ruled that Massey was in violation of sections 301 and 402 of the Clean Water Act which relate, respectively, that “discharge of any pollutant by any person shall be unlawful” (301) and that “point source discharges of pollutants to waters of the United States [are required to] have an NPDES permit.” Massey has since been cited for extensive breeches of regulatory policies, specifically those related to water quality and protection of water resources around surface mining sites, and has been subject to multiple fines and lawsuits associated with the environmental degradation caused by their surface mining practices.

The Future of Coal

While coal production in the United States fell (for the first time in over twenty years) between 2012 and 2013, dropping a total of 3.1 percent from 1015.5 million short tons to 984.8 million short tons, coal consumption in the United States continued to

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306 Ibid.


309 Equivalent to one ton, or 2000 pounds. (A long ton is equivalent to 2240 pounds).
increase.\textsuperscript{310} Consumption increased by over four percent in 2013 to a total of 924.8 million short tons, indicating that the United States is now consuming almost as much coal as is produced.\textsuperscript{311} In addition to the decrease in production, there was also a 10.5 percent decrease in the number of people employed by the coal mining industry from 2012 to 2013, a decrease in 9,442 total jobs.\textsuperscript{312} Furthermore, the total number of projected recoverable coal reserves in the United States, or coal that is still left to be extracted through the coal mining process, decreased between 2012 and 2013 by a total of six percent.\textsuperscript{313} Out of the coal that is produced there is also a decline in the total energy contained therein, referred to as the heating value, because of the decrease in recoverable reserves of more energy efficient forms of coal (like anthracite) and the reliance on those less efficient forms, like bituminous. Richard Heinberg, in his book \textit{Blackout: Coal, Climate and the Last Energy Crisis}, relates that, in the United States “the decline in energy content per unit of weight amounts to more than 30 percent since 1955.”\textsuperscript{314} Despite this decline in recoverable reserves and heating value of the reserves left, the National Academy of Sciences related in 2007 in its study \textit{Coal: Research and Development to Support National Energy Policy} that “there is no question that sufficient minable coal is available to meet the nation’s coal needs through 2030 and that there is probably sufficient coal to meet the nation’s needs for more than 100 years at current


\textsuperscript{311} \textit{Ibid.}

\textsuperscript{312} \textit{Ibid.}

\textsuperscript{313} \textit{Ibid.}

\textsuperscript{314} Heinberg, 35.
According to Heinberg, in order to “offset the declining heating value of US coal while meeting EIA forecasts for electricity demand growth by 2030, the nation will then have to mine roughly 80 percent more coal than it is currently mining.”

**The Latourian Revolution Applied**

Current approaches to dealing with and attempting to rectify the environmental issues plaguing our world today are copious and multi-faceted. It seems that every new book or article that I encounter presents a slightly different approach, some improvement on an pre-existing model that attempts to take us to the next level and to save us from the deteriorating state of the natural world. The problem with these approaches however is that they envision nothing new; they merely re-envision the old in some ‘novel,’ ‘unique,’ or ‘inspirational’ format. The problem with all of these approaches, as has been made apparent throughout this paper, is that each of then continues to adhere to the very same intellectual framework of the ‘modern’ that Latour argues so adamantly against. By adhering to the same structural model, these revitalized efforts fail to purport anything new but instead continue to provoke the same categorical formation, dichotomization and linear causality despite the content of issue it is applied to. In this section, I argue that it is imperative to recognize the illusion that the modern intellectual framework propounds in order to once and for all foster a radical shift in the attempt to assuage the dire environmental situation which we face today. Taking up the re-envisioned, inverted model of Latour as was exemplified through the environmental virtue ethic of Buddhism,

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315 Ibid, 42
316 Ibid, 52
I will briefly discuss the implications of a revolution in the structural framework of modernity by detailing what this shift would look like if applied to MTR. Latour, as we already know, envisions a three part shift: the deconstruction of linear notions of temporality, the deconstruction of the products of translation and purification, and a recognition of the complex notion of interconnectedness. If we think about these three shifts as they would appear if enacted on the discussion concerning MTR, we can understand a clear example of how the discourse around environmental issue would change, providing us with not only a radically different perspective, but also with a truly unique approach to rectifying the problems at hand, not only with MTR but with many of the environmental issues transpiring in our world today.

To begin, it becomes necessary to re-envision the modern conception of temporality: namely, the idea that is perpetuated by modernity that time is linear and unidirectional, moving only forward and incapable of being reversed. Our Buddhist environmental virtue ethic offers the solution of thinking about time in a different method: that is, recognizing (or in this case re-recognizing) the cyclical pattern of temporality as is expressed in the wheel of samsara. This recognition of cyclical rather than linear time does not necessitate that we all become Buddhist and believe in samsara and rebirth. Rather, it provides us with an alternative perspective for viewing the world such that we are able to recognize that the progression of time has been socially constructed. This is evidenced by the calendar, which shows the passing of days, months, and years all counting higher leading toward some eventual culmination, dooms day, or end point. But this is merely a construction – envisioned by human beings and applied to the cyclical patterns of the passing of day and night, and the changing of the seasons to
make us feel that we are going somewhere, working toward something. This illusion of
the linear progression of time is apparent in even the most simple clock face. The second
hand, the minute hand and the hour hand work their way around the clock over and over
again, cyclically repeating the same numbers for eternity (or at least until the battery runs
out). The modern misconception often applied to the environmental discourse is that
“time will run out” for us to save the planet, or to protect our natural resources, or to
change our ways. But time will not run out. The cyclical movement of time will persist,
Despite the condition of the natural world, the human species, or even the existence of the
earth. To say time will run out is merely a continuation of the modern misconception that
temporality is linear. It is not time that will expire, but instead it is the natural resources
that will run out, it is the natural world that will be demolished, and it is the human
existence that will expire. Furthermore, time is not static; instead it is constantly in
motion, ever changing and transitory. To revolutionize our methods of thinking about
notions of temporality is to recognize the gravity and breadth of the current
environmental situation.

As far as we are concerned with MTR, re-negotiating our understandings of
temporality could help us to look at issues of environmental injustice, such as MTR, in an
entirely new light. Understanding that time will persist despite the over-consumption,
squandering and eventual elimination of natural resources, such as coal, makes us more
aware of the potential that one day, the human race may be faced with how to exist
without this resource. The extreme dependency on coal is an attachment, a craving or
desire – *tanha*. In Buddhism, it is this craving and attachment that causes suffering. As
stated earlier the quality of coal that is being mined today has greatly depreciated, and
will continue to do so as reserves are exhausted. In order to satiate current demand which is driven by attachment to and desire for certain creature comforts, such as heat and electricity, the amount of coal being mined will have to increase to proportionally account for the decrease in quality. However, this increase in mining will deplete existing reserves faster. When reserves are depleted (if the current modern model and mindset persist this cannot be an if statement) human beings who have become attached to coal and to the comforts that it provides, will suffer. The suffering, in this case occurs because of attachment to a notion of permanence – that coal exists, and will continue to exist and to provide the comforts that are also seen as permanent and necessary for life.

Recognizing that time is not static, and that all things are impermanent, allows us to begin to realize the need for the revision in the intellectual framework of modernity put forth in the earlier sections of this paper. Without a complete revitalization in our intellectual framework, the modern model will persist, perpetuating our attachment and leading us further from the cultivation of *eudaimonia*.

Furthermore, in order for the shift that Latour envisions to work, the modern framework of dichotomies must be effectively demolished as well. By applying the Buddhist model of virtue ethics, the notion of hierarchy contained within the modern discourse is re-negotiated. The former hierarchical structure privileging the human over nature is inverted, allowing the bounded categories of human and nature to be dissolved through the recognition that all things (all beings) can exist on the pathway to *eudaimonia* simultaneously. The cultivation of the self then does not harbor other beings from progressing on their own path to self-cultivation. In the case of MTR, recognizing the hierarchical shift would mean recognizing that nature is not an untapped reserve from
which merchantable commodities can be extracted by the more powerful, dominant human being. Rather, it would allow us to see modern, fetishized commodities, as beings in their own right, working along their own path to self-cultivation and eudaimonia. Likewise, this model avoids marginalizing things that do not fit nicely into the constructed categories by allowing that all things can exist in the model simultaneously.

The third revision that Latour calls for is a recognition of the interconnected networks at play, instead of the causal conditioned relationships the moderns so staunchly adhere to. The new model, provided by the virtue ethics in Buddhism and Sponberg’s hierarchical inversion allows for this increasing understanding of interconnectedness. One example of the modern model which is associated with MTR is the use of electricity and the failure of the moderns to see the interconnection of electricity with the coal which produces it. Modern Americans, in particular are incredibly attached to electricity; flipping on the light switch whenever we enter a room, turning on our blenders, toasters, microwaves, and hairdryers daily, leaving televisions and refrigerators plugged in around the clock, charging cell phones, iPads and even the batteries for our more ‘environmentally friendly’ automobiles. We believe that we cannot function without electricity – when the power goes out we think that there is ‘nothing to do’ becoming frustrated because we cannot watch our favorite television show. This attachment to electricity however does not stop to consider where electricity comes from, or how it is generated. Coal then, has become for electricity what Caronl Adams calls an ‘absent referent.’ Specifically discussing the extrapolation, or disconnect, between the piece of meat that appears on our plate at dinner and the animal that was slaughtered to produce it, the meat, according to Adams “becomes unanchored by its original referent (the animal),
becoming instead a free-floating image.” Likewise, coal has become an absent referent when we turn on the light switch. We do not connect the blinding white fluorescent light or the beeping sound of the microwave with the coal that produced it, or with the mountain from which that coal came. Furthermore, we fail to connect the ramifications of turning on a light switch with the deforestation, the slurry impoundments and the extreme loss of life that all transpire as part of the process of obtaining that coal.

The devastating practice of MTR functions as one example of the devastating environmental issues afflicting our world today. This chapter has detailed the practice of MTR, the reasons behind it, and the perpetuation of the model of the moderns through its practice. I have used MTR as an example to show how a re-envisioned framework, like that proposed by Latour and exemplified in the Buddhist environmental virtue ethic from the previous chapter, would appear if applied in an actual setting. In conclusion, in order to truly change the devastation that is afflicting the environment today we cannot merely continue to offer solutions that adhere to the same constitutional foundations as all the other solutions that have been proposed. Rather, it becomes necessary to rework the very structural framework of the modern model in order to insight any kind of substantial and long lasting change.

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Conclusion: Title

In conclusion, this paper has attempted to make clear the necessity for a drastically re-envisioned shift in the intellectual framework which provides the structural foundation of the modern environmental discourse. Arguing that the approach of the ‘moderns’ is inherently flawed, I show, through the work of Bruno Latour and J.Z. Smith, the three part problem with the modern discourse; namely, the problematic understanding of temporality, the perpetuation of the construction of ineffective categories and binaries, and the lack of understanding of the vast interconnected networks that underpin our relationships and our understanding of modern environmental problems. Furthermore, I have argued that because the very intellectual framework of the modern discourse is flawed, discourses which stem from that, including the current environmental discourse, is structurally flawed as well, and in need of drastic, and immediate revision.

Employing Buddhism as a heuristic tool, I present a unique approach for exploring and analyzing issues of environmental injustice transpiring in our world today. By engaging the traditions of Buddhism, I show that a complete revision in the framework, as called for by Latour is possible, although not along the same lines as previous attempts such as engaged Buddhism and Deep Ecology. Previous approaches to applying Buddhism to the problem of environmental crisis have often been flawed because of the argument that Buddhism, within its foundational teachings, contains an environmental ethic. Using the works of Ian Harris and Copper and James, I have shown that the idea that there is an environmental ethic in Buddhism is a misconception. However, at the same time I argue that traditions from different Buddhisms do offer a model of virtue ethics, which allows the individual to work towards cultivation of
eudaimonia without intentionally harming or hindering other beings along the same path. By utilizing Sponberg’s work on the hierarchy of compassion, I have shown that virtue ethics in Buddhism can help cultivate an environmental virtue ethic, or a more enlightened understanding of notions of interconnectedness, ethical development, and more complex notions of temporality, providing the re-envisioned, inverted model that Latour so adamantly seeks. My final chapter on mountaintop removal discusses this re-envisioned model in a specific application, showing the productive potential for this new discourse on environmental issues if we completely re-imagine its structure. By flipping the ‘modernist’ model on its head, like Latour envisions, and examining in more depth the interconnections between objects, I propose that we may begin to formulate a new intellectual framework necessary for furthering our thinking about complex issues, such as how to tackle the global environmental crisis.

In our attempts to rectify a rapidly growing environmental crisis, it is imperative that we look to the world’s religious traditions, and specifically to the moral and ethical guidelines that they promulgate, to help inform an environmental virtue ethic. By engaging religion as a means through which a revolution in the conventional, ‘modern’ theoretical and philosophical understandings of “nature” and the “environmental crisis” can be initiated, I have worked to broaden the avenues of thinking, not only about our complex interrelationships with the natural world, but also the very scope of religious studies in the future of the environmental discourse.


