THE NATURE OF CAPITALISM: HOW GREEN CAN WE GROW?

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ABSTRACT

What does it mean to live sustainably? This dissertation considers the history of Western environmentalism in terms of antagonism and convergence with capitalism. Whereas many forms of environmentalism have been critical of capitalism and focused on production, contemporary forms of mainstream environmental discourses are now largely focused on reforming consumption. The dissertation considers how the greening of capitalism, as an attempt to account for the environmental crisis within the framework of neoliberalism, is interfacing with various movements focused on producing alternatives.

To this end, the dissertation focuses on alternative food movements as participating in the struggle for reimagining the current relationship between nature, culture, and the economy. Chapter One considers the significance of utilizing economic language in support of environmental reforms. It traces some dominant narratives of capitalism and nature and by utilizing discourse analysis, examines how the environmental crisis is being framed. By focusing on questions of representation, Chapter One demonstrate that conceiving ecological degradation as an economic opportunity has very profound material consequences, some of which are positive and some of which are negative.

Chapter Two contextualizes the argument by consider the politics of food, focusing in particular on the stories we tell about it, and examining how food is becoming a potent site for both resisting and reinforcing capitalist value practices. It examines the discourses of ethical consumption, pastoralism, utopia, and dystopia in a consideration of how a politics of the everyday is complicated by economic arguments.

Chapter Three moves from narrative to practice by considering how the autobiographical focus of food narratives can participate in the creation of new value systems. By focusing on the author's own experiences with the 100-Mile diet, this chapter examines the role of enchantment and technologies of self in producing forms of ecological subjectivity that can challenge capitalism.

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Introduction

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What does it mean to live sustainably? Like nature and culture, the concept of sustainability is immensely complicated, and has come to signify a whole host of social, ecological, economic, political, ontological, and epistemological issues that are shaping the emerging ecopolitics of the Twenty-First Century. What is being sustained? Who is sustaining it? To what end? What obligations and rights are contained in the term? And how can humans claim to speak for a nature they are presumably sustaining or destroying? The term has simultaneously become charged with meaning and moral content, and almost completely emptied of it— deployed as a rhetorical device along the entire political spectrum, at once used to justify xenophobia and economic protectionism in various incarnations of localism and nationalism,[1] and as an appeal to a transcendental nature capable of providing a moral compass beyond the human (see McKibben, 2007; Kingsolver, 2007). The Brundtland Report *Our Common Future* (1987) has joined sustainable to an equally elusive term, development (Brundtland, 1987). Unlike the 1972 Club of Rome's *Limits to Growth*, Brundtland "claimed that economic growth and environmental sustainability could be combined" (qtd in Næss and Høyer, 2009 74). Sustainable development has now become the hegemonic configuration of green capitalism, a means of bringing together profit and altruism, the market and ethics. Where,

[1] For example, the soil association in Britain wants to ban organic status for anything that has been shipped via airplane, in effect decimating the organic cash crop industry of Northern Africa that formed in response to consumer demand for organic produce outside British seasons (Averill, 2007).

generally speaking, environmentalism of the sixties and seventies focused on rejecting consumer society as a model of agency and economic activity, Twenty-First Century environmentalism is more focused on finding ways to make consumption sustainable (see Spaargaren and Mol, 2008 350). The contemporary focus on green growth seems to have abandoned the concerns of Rachel Carson's *Silent Spring*, which emphasized the environmental costs of economic growth by focusing on production, industry, and the structural causes of pollution and revealing the toxicity of profit-obsessed capitalism.

Although environmentalism takes many different forms, as Guha and Martinez-Alier have shown in their critique of the post-materialist thesis,[2] in the affluent West its form is increasingly entangled with questions of consumption and lifestyle (see Spaargaren and Mol, 2008; Hobson, 2002; Soper, 2004; Johnston, 2008). Whether in the growth of organic food, ecotourism, fair trade certification, eco-labels, or the popularity of Slow Food, we are seeing a shift in how the environmental crisis is being framed from production as a site of pollution and remediation (factories installing scrubbers, industry pollution and regulation, etc.) to consumption (life-politics, green consumerism, carbon-offset credits, eco-chic, green marketing). My work builds upon the current scholarship,

[2] Guha and Martinez-Ailer consider how affluence effects one's view of the environment, especially in terms of sentimentalism and utility. The post-materialist thesis holds that the global South is either too poor to care about the environment, favoring development, or that environmental protection is a form of "conservation imperialism" (Guha and Martiİnez-Ailer, 1998 xvii). Varieties of Environmentalism tries to cut through this conventional wisdom and looks into the many varieties of environmentalism, especially those that challenge this North-South bifurcation. The volume deals with "the perceptions and valuations of nature among subordinated social groups… the environmentalisms of the poor" (xxi). This has important consequences for the term sustainable development, which purports to unite the two poles.

some of which sees this shift as a negative trend (see Lavin, 2009a; Hobson, 2002; Næss and Høyer, 2009; Kovel, 2002; Luke, 1997; Bachram, 2004; Escobar, 1996; Ervine, 2007), and some of which sees this as positive (Nordhaus and Shellenberger, 2007; Spaargaren and Mol, 2008; Soper, 2004; Giddens, 2009), in order to consider how these competing discourses of environmental political economy are shaping questions of agency, politics, economy, justice, and futurity.

As Alexander Wilson has shown, there are many contested meanings of nature: "the earth as home or habitat, as resource, as refuge and inspiration, as playground, laboratory, profit centre" (Wilson, 1991 12). For those celebrating the shift in focus from restricted production to enlightened consumption, the dynamism of capitalism and hybrid terms like sustainable development provide a "middle ground from which former hotheads, dreamers and radicals can hone a workable policy" (Giddens, 2009 62). For those on the other side, the environmental "crisis cannot be resolved within the existing system" (Kovel, 2002 7). This dissertation will consider how questions of sustainability are framed along the continuum between capitalism and nature, focusing specifically on the interrelated politics of food, peak oil, and climate change in relation to various contested meanings of nature.

As the locus of mainstream environmentalism shifts focus from production to consumption, the doomsday forecasts of climate change are slowly becoming the celebratory market paroxysms of a supposedly new, greener, and fairer capitalism. Somewhere in the deluge of climate change stories in the news, the rhetoric of oil scarcity and apocalypse competes with the genius of markets and a technoutopian celebration of ethanol, wind, and that iconic symbol of baby-steps consumer environmentalism, the

compact florescent light bulb. In a strange turn of events, petroleum companies, energy utilities, car manufacturers, award celebrations such as the Oscars, and numerous Fortune 500 companies are scrambling to out-green each other, all the while spending lavishly on campaigns that inform the public that they are taking climate change seriously and putting the earth first, engaging in what some refer to as "greenwashing."[3] Even the *Economist*, a notoriously right wing publication, has released an ecology edition that looks at the profit potential of climate change, accepting that something must be done (Ecology Edition, 2007). This discursive shift, from the eco-phobia that characterized much of the corporate world just a decade ago, to the almost lascivious eco-chic of a post-Gore era, is signalling not only a shift in the approach of environmentalists to the issue of ecological degradation and its relationship to limits, capitalism, pleasure, and consumption, but a transition towards a greening of capitalism in one form or another. But how did it happen? How did we get from the environmentalism of the sixties, with its staunch opposition to capitalism, profits, and accommodation with industry, to the point where people are now discussing the "New Green Deal" and the "Green Collar Economy" (Jones and Conrad, 2008) and natural capitalism and environmental economics (see Hawken et al., 2000; Brown, 2008; Daly and Farley, 2004)?

We can further see this shift by comparing two images. The 1968 earthrise photo taken from Apollo 8 has been called the most influential environmental photograph ever taken (Hajer, 1995 9). Showing the earth coming over the horizon of the moon, it was the

[3] This is the process by which companies put forward an environmentally friendly image but do not back it up with actions.

first photo of the planet from deep space and is credited with crystallizing the burgeoning environmental movement by visually demonstrating that we live on a finite world. Although a product of one of the most sophisticated technological efforts ever undertaken by humanity, the image is striking for its simplicity and beauty— the earth hangs over the horizon of the moon, emerging from the black depths of space in a shock of blue and white that seems almost tender and timid. It was read by a whole generation as indicating that "we are in it together," floating through the void on a tiny and insignificant "spaceship earth" which houses all life that we know. [4] The image inverts the familiar view of the moon from earth, an inversion that foregrounds the precarious balance of life, contrasting a desolate moon on the horizon, with a verdant, yet finite and precarious earth piercing the darkness. The photograph has encouraged frameworks of stewardship and care based on the idea of a singular but finite world. The image seems to speak directly to the environmental crisis as a global event, one in which the line between life and death is as faint and thin as the pale glow of the atmosphere.

Compare this with the August 2007 cover of *Popular Science* and we begin to see a new logic emerge, one focused on technological innovation, geoengineering, market-based solutions, and the transcendence of limits. The earth in this picture looks like a

[4] Carl Sagan commented on an equally suggestive image taken by Voyager 1 on February 14, 1990. As the craft left the solar system, engineers turned it around to take a photo of the earth, which from a distance of 6.4 billion kilometres looks like a pale blue dot. Reflecting on that image, Carl Sagan states: "It has been said that astronomy is a humbling and character-building experience. There is perhaps no better demonstration of the folly of human conceits than this distant image of our tiny world. To me, it underscores our responsibility to deal more kindly with one another, and to preserve and cherish the pale blue dot, the only home we've ever known" (Sagan, 1994 6).

composite of satellite and computer generated images. Unlike the somewhat fuzzy and half-shrouded planet of the earthrise, this one is clear, with North and South America and Europe visible in topographic detail. The headline reads "Engineering a Better Earth," and the planet sits precariously on three robotic talons, perched as if ready for surgery or on display in a museum. Another robotic arm, reminiscent of something from an automotive assembly line, lifts Europe from the surface of the planet and reveals the mantel below. The arm reads "planetary rescue" and looks weathered, as if it has been tirelessly working to save the earth. Whereas the rest of the planet is desolate and desert-like, Europe is being retuned verdant and green.

Although obviously fictional, the size of the arms holding the earth in place, the wounded continent being removed (or replaced), the absence of any signs of climate or clouds, and the slogans—one of which reads "man-made super-trees"—all represent a shift in focus from planet to technology, from reverence to mastery, from limits to transcendence. The issue is devoted to geoengineering and explores various proposed techniques through which science might engineer a better world. Unlike the man-made super-trees that can theoretically absorb more carbon than a real tree, nature lacks the ability to solve the crisis, suggesting the survival of the planet is contingent on better engineering and technology. The opening article, "a realist's guide" to global warming, is an apocalyptic catalogue of consequences which can nonetheless be solved by science and the judicious approach of rationalism.

The two images reveal some critical trends in environmental discourse that are shaping responses to climate change and environmental crises, which the thesis will

attempt to unpack. The dissertation is a story about capitalism and nature. It is in fact multiple interrelated stories. How did we get here and where are we going? How did we get from narratives of stewardship and conservation to industrial organic food, and Jeremy Leggett, one the UK's most respected green energy developers and environmentalists arguing that greed is the key to stimulating alternative energy development (Jowit, 2007)? How did capitalism and nature become such cozy bedmates in popular discourse? And is this such a bad thing?

My dissertation will focus on how metaphors, discourses, literature, films, economic policy, political structures, and material realities embodied in the consumption and production of food, are engaging the question: what does it mean to live sustainably? The stories I consider are about a clash of values between nature and capitalism, a continuum that is often portrayed as fundamentally at odds, but which must be understood as entangled, if for no other reason than capitalism has literally become part of nature. On a very basic level, the cycles of capitalism and the processes it relies on, such as the production of synthetic nitrogen for fertilizers, have changed various environments by introducing new sources of pollution and food (Pfeiffer, 2006 7). In the case of nitrogen,[5] we are fertilizing the world with excess run-off from our agricultural systems (see Smil, 2001 186).

Chapter One will tell an alter-tale, echoing Jane Bennett's use of the term in *The Enchantment of Modern Life*, where she challenges the prevailing narrative of modernity

[5] Humans produce more nitrogen than all other terrestrial sources (see Smil, 2001 xvi; Heintzman and Solomon, 2004 5-6)

as a story of loss and disenchantment. In her story, she focuses on the ways in which modernity can enchant, recognizing that the dominant narrative "has itself contributed to the conditions it describes" (Bennett, 2001 4). Chapter One will trace some dominant narratives of capitalism and nature as two disparate discourses that are now merging in the formation of green capitalism, or what Arturo Escobar calls "ecological capital" (Escobar, 1996 56). Escobar claims we are entering a new phase of capitalism wherein the conservation of nature is a precondition for further capital accumulation (Escobar, 1996 57). Depending on how you approach it, this narrative can be a source of enchantment or disenchantment.

Following Bennett's assertion that "the cultural narratives that we use help to shape the world in which we will have to live" (Bennett, 2001 9), I will show how the greening of capitalism is a powerful (meta)narrative capable of simultaneously reinvigorating ecopolitics, but also enclosing some important counter-discourses and "alternative value practices to capitalism" (De Angelis, 2007 222). In considering the role of value struggles in resisting capitalist modes of production, Massimo De Angelis looks at the "hegemonic redefinition of discourse" as a process of enclosure (De Angelis, 2007 143). Nature, economy, ecology, sustainability, green— all of these are terms whose definitions are highly variable and contestable. For De Angelis, "the politics of alternatives is ultimately a politics of value, that is a politics of establishing what the value *is* that connects individuals and wholes" (De Angelis, 2007 176).

On a discursive level, the story of capitalism and nature is equally complicated and embroiled. In his influential book on ecological modernization, Maarten Hajer reminds us

that story-lines "not only help to construct a problem, they also play an important role in the creation of a social and moral order in a given domain. Story-lines are devices through which actors are positioned, and through which specific ideas of 'blame' and 'responsibility', and 'urgency' and 'responsible behavior' are attributed" (Hajer, 1995 64-65). How we tell this story of capitalism and nature has radical consequences, especially in terms of speaking for and listening to nature. Christopher Manes reminds us that for the most part, "Nature is silent in our [Western] culture" (Manes, 1996 15). Since nature cannot be understood by humans except through language, narrative, metaphor etc., the question of discourse, of cultural ecologies,[6] literature, and metaphor is crucial to understanding the effects of the shift towards a "green" form of capitalism. Lawrence Buell argues that "the environmental crisis involves a crisis of the imagination the amelioration of which depends on finding better ways of imagining nature and humanity's relation to it" (Buell, 1995 2). By making nature speak in an economic language, rendering "services" and "resources," ecology becomes subsumed in economy. Since nature cannot come to the table during climate negotiations, it is important to consider issues of representation. The question of representation is central to ecocriticism, which Richard Kerridge defines as the tracking of "environmental ideas and representations whenever they appear, to see more clearly a debate which seems to be taking place, often part-concealed, in a great many cultural spaces. Most of all, ecocriticism seeks to evaluate

[6] Hubert Zapf discusses the importance of the concept of cultural ecology which "considers the sphere of human culture not as separate from but as interdependent with and transfused by ecological processes and natural energy cycles. At the same time, it recognizes the relative independence and self-reflexive dynamics of cultural processes" (Zapf, 2008 851)

texts and ideas in terms of their coherence and usefulness as responses to the environmental crisis" (Kerridge and Sammells, 1998 4). Kerridge understands the ecological crisis as being a "crisis of representation," which involves examining the portrayal of nature within various texts and discourses (Kerridge and Sammells, 1998 4).

Broadly speaking, this dissertation will build upon ecocriticism (see Cronon, 1996b; Heise, 2008; Morton, 2007; Haraway, 2003; Mazel, 2000; Luke, 1997), discourse theory (see Darier, 1999a; Foucault and Foucault, 1972; Hobson, 2002; Rutherford, 1999; Luke, 1999), and various theories surrounding the social entanglements of nature (Deleuze & Guattari 1987; Latour, 1993; Latour, 2007; Bennett, 2001; Bennett, 2010; Beck, 2010; Giddens, 1991) that attempt to move us towards a more nuanced conception of the relationship between humans and nature. Rather than simply rejecting the falsity of binary divisions associated with modern Western epistemology, these works push towards a radical reconsideration of nature, matter, and agency that can provide alternative models for human-nature entanglements supple enough to account for various inequalities and specificities. I will build upon this diverse group of theorists in order to consider how questions of agency, futurity, and value are transforming within the greening of capitalism.

By focusing on the discursive framing of the environmental crisis, I will demonstrate that conceiving ecological degradation as an economic opportunity has very profound material consequences, some of which are positive and some of which are negative. Negative in the sense that ecology can rationalize another stage of development that expands the control and dominance of capitalism and ignores its history of

imperialism, colonialism, and injustice; and positive, as the tendency towards more global means of governance can also manifest in a more egalitarian, just, and sustainable forms of economy based on shared risk (see Beck and Ritter, 1992; Giddens, 2009). I will argue that the environmental crisis has always lurked beneath the surface of capitalism precisely because nature has been largely ignored or externalized. Historically, nature has been a forgotten value, absorbed through primitive accumulation and treated simultaneously as resource base and dump for unwanted externalities. This dual character means nature functions as a ghost to capitalism, haunting the system with its absolute necessity, but also by the resurgence of material pollution as a return of the repressed.

Chapter One examines the tension between economic and non-economic representations of nature, and how the capacity to be (ac)counted and valued, aligns along the poles of nature and capitalism. The tension between value systems is a crucial struggle for the coming decades as humanity attempts to restructure the world along less socially and ecologically destructive modes of production. In order to consider the stories of nature and capitalism in terms of convergences and divergences, emphasizing the discursive framing of power, knowledge, subjectivity, agency, and the relationship between the micro (individual, local, here and now) and the macro (group, collective, global, the future), I will propose three categories: ecological modernization, technoutopianism, and apocalypticism. Looking at such examples as industrial organic agriculture, vertical farming, and ecological economics, I consider each of these approaches to the greening of capitalism.

Broadly speaking ecological modernizers are about institutions, technoutopians

about evolution, and the apocalyptics about revolution. Ecological modernizers believe that the environmental crisis is essentially a market failure and that by internalizing it through accurate price signals, we can address issues like climate change without abandoning growth or profit. I will further subdivide this group into a consideration of green capitalism and ecological economics, which differ in their understanding of growth, but which fundamentally subscribe to an econometric valuation of nature involved in what I call the economic turn in environmentalism.[7]

Technoutopians begin the shift away from an economic grammar of markets and money, and instead, frame the debate in terms of morality and scientific objectivity. I will use the example of *An Inconvenient Truth* and vertical farming to explore how questions of value become embroiled in a utopian faith in technology and the figure of the impartial scientist-manager who can sit outside the politics of climate change by shifting the debate towards "facts." The apocalyptic mode, on the other hand, embodies the Malthusian belief that humans have vastly overstepped the carrying capacity of the earth. Utilizing horror statistics and guilt, this mode is concerned with finding alternatives to capitalist values. I look at discourses about the end of food, peak oil and obesity as indictments of the limitations of economic arguments. This mode appeals to alternative value practices such as spirituality, community, and slowness. Instead of reformation, the apocalyptic mode argues for a fundamental shift in value.

Chapter Two will focus more specifically on food issues. Because food exists on the

[7] Broadly speaking, the economic turn involves the increasing use of growth, GDP, cost-benefit analysis, and other economic tools as an argument for dealing with the environmental crisis.

boundary between so many elements of our lives, it touches on numerous tensions and anxieties. It represents the most basic transformation of nature to culture, and culture to nature; defines and shapes social and gender relations; embodies global and local inequities; organizes entire sectors of the economy; embodies anxieties about family and community life; organizes and mobilizes cultural identity; and exemplifies the tension between public and private subjectivity within the global everyday.[8] Organic and now local food has been constructed as the agrarian answer to many ills ranging from: the death of the family farm, obesity, the corporatization of the food system, class and gender relations, international development, and as of late, it has even been held up as a model for an ethical form of green capitalism and as a solution to global warming (LaSalle and Hepperly, 2008). This chapter examines alternative food movements "that advocate more ecologically sound and socially just farming methods, food marketing and distribution, and healthier food options" (Slocum, 2007 3) as an important site for considering alternative value practices to capitalism. [9]

Chapter Two focuses on the stories we tell about food. I look at books such as *An Omnivore's Dilemma, Animal, Vegetable, Miracle, Coming Home to Eat,* and *Fast Food Nation* , and films including *Food Inc.,* and *King Corn* as examples of storied food, a

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[8] Parkins and Craig use this term to refer to "the fundamental linkages between everyday practices and values and the global contexts in which we live"(Parkins and Craig, 2006 x)

[9] Alternative food movements is a term meant to encapsulate a wide variety of practices and movements, such as Slow Food, locavores, food sovereignty, organics, beyond organics, farmers markets, seed savers, and back-to-the-landers etc. Each of these practices has specific manifestations and contexts, but all are fundamentally concerned with challenging capitalist forms of agriculture for its effects on nature, the body, class politics, and peasant rights to land. I will examine alternative food in both its specificity and in a generalized resistance to conventional food practices.

genre that focuses on revealing the hidden social and ecological costs of industrial agriculture. Storied food attempts to "lift the veil" on the food that comes to us in the supermarket by emphasizing the true costs hidden deliberately by marketing techniques that draw on pastoral imagery to convince consumers that what they eat is authentic, natural, or organic. I break the genre down into four categories: the commodity biography, nostalgic pastoralism, utopian pastoralism, and the foodshed memoir. Each has a different understanding of agency, the relationship between consumption and production, and the best means for challenging the system of capitalist agriculture.

The commodity biography, exemplified by *Food Inc.* and Jamie Oliver's *Fowl Dinners*, focuses on telling the story behind the food by tracing a commodity or group of commodities and revealing the mystery behind the package. The focus is on issues of consumer rights and choice, accurate labelling, and standardized accreditation. Emphasizing access to information, the commodity biography believes people will make the right choice when presented with sufficient information. By showing the horror of modern industrial animal production, for example, these films and texts believe the audience will be shocked into changing their daily consumptive practices. The commodity biography works on the assumption that cheap food is inexpensive because it externalizes most costs and deliberately hides the production process. By revealing those costs, the genre hopes to compel the audience to spend more on ethically and sustainably produced food.

The next section considers the use of pastoral imagery in sustaining and challenging capitalist agriculture. While storied food generally rejects the use of pastoral images of

bucolic harmony in advertising, it nonetheless invokes actual farming landscapes and the relationships they embody. Many ecocritics have rejected Romantic images of pure nature (see Cronon, 1996a; Morton, 2007; Phillips, 2003) on the grounds that they tend to ignore issues of social inequity, patriarchy, and class by appealing to values conveniently outside of history. I consider these narratives and suggest that, while forms of nostalgic pastoralism do indeed participate in a "stunning erasure" (Guthman, 2004 175) of certain histories, we must consider the potential of the genre to enchant. Building upon ecocritics like Buell and Love who believe pastoralism can register actual, rather than idealized, landscapes, I argue that utopian pastoralism can be used to disrupt various narratives of progress that rely on dominating nature.

By looking at texts that try to reclaim the skills associated with gardening, preservation, and other elements of the *Urban Homestead*, I examine the attempt to reunite the rural and the urban in shows like *Jamie at Home* and *The River Cottage* series. By focusing on building skills, growing vegetables, and processing and cooking your own food from scratch, utopian pastoralism can be understood as an attempt to reunite pleasure and politics, the rural and urban. Rather than a retreat from the political, programs of ecoliteracy like the edible schoolyard, which attempts to introduce students to the materiality of food, can function to reconnect the urban and the rural. I argue that the pleasure associated with food is an important counterpoint to apocalyptic environmental messages, and that it is precisely in inhabiting the contradictions of pastoralism, that a utopian moment of possibility is opened that can challenge the prevailing logic that capitalism represents "the end of history" (Fukuyama, 1992). The final section of Chapter

Two considers the foodshed memoir as a form of counter-globalization that tells the story of everyday transformation made possible by experimenting on one's own life. Many of the texts in storied food feature some variation of the *100-Mile Diet*, in which the author transforms his\her everyday life by attempting to fully inhabit the local foodshed. I argue that this is a crucial move that helps bring together narrative and practice and thus makes possible the production of forms of green subjectivity that can challenge the economic turn.

The final section transitions into Chapter Three where I consider my own attempts to inhabit the foodshed of Hamilton Ontario as a way of embodying and producing place. I combine Sylvia Bowerbank's use of "technologies of self" (Bowerbank, 1999 164) and Anthony Giddens' concept of life politics in order to consider how the foodshed memoir can encourage the production of forms of ecological subjectivity that challenge the instrumentalized language of green capitalism. Bowerbank considers the nature journal as an attempt to internalize the concept of ecological interconnectivity. Building upon her notion that story-telling is a "cultural technology of connectivity and groundedness" (Bowerbank, 1997 np), I argue that an autobiographical approach to storied food can help internalize an ethical comportment capable of training the body in habits of wonder, affect, and love that push beyond an ethical code. For Bowerbank, Foucault's approach to the production of subjectivity through power relations and truth obligations, is always embodied in a series of practices and narratives. I extend the concept of technologies of self by building on Bennett's notion of enchantment, and argue that we need to consider life politics as an offshoot or alternative to traditional emancipatory politics. By looking at

how the individual and the global influence each other within the domain of lifestyle, I challenge some of the critiques of alternative food practices that reduce it to neoliberal forms of subjectivity (see Lavin, 2009a; McWilliams, 2009).

To avoid the trap of technocratic planning and bureaucratic forms of green governmentality (Luke, 1999) that focus on specialized knowledge and large-scale solutions such as geoengineering, I argue that we need to take lifestyle politics seriously as a means of positively engaging the public and inspiring shifts in everyday life. Lifestyle politics is a key site of this process because with an issue like climate change, which is largely invisible and almost entirely mediated by scientists and the media, convincing people that the choices they make on an everyday level matter, is extremely important. I argue that the foodshed memoir participates in an enchantment that can point towards the apocalyptic elements of the environmental crisis, while also celebrating conviviality, slowness, and the shared table as alternatives to economic reductivism.

For many people, there is a large gap between abstract environmental problems measured in decades and centuries, and the demands of everyday life. Since individual households account for a great portion of the global carbon burden, [10] it is crucial to find ways of making the environmental crisis "real" and immediate. The autobiographical nature of many narratives in food, which focus on the intersection of the global and the local within everyday life, are necessary as a means of bringing people into contemporary eco-politics. As such, Chapter Three builds upon my own experiences canning, gardening, and otherwise participating in alternative food practices. I attempt to create a narrative that

[10] In the UK, 40% of emissions come from household sources (Giddens, 2009 105)

can accommodate theory and practice, and which balances the celebration of alternative food movements as revolutionary, with the awareness that they are also constrained by capitalism in some profound ways. I argue that the foodshed memoir provides a unique insight into inhabiting late capitalist "naturecultures"[11] in a way that is self-reflexively aware of both opportunities and dangers.

The final chapter synthesizes previous discussions of food to consider how it can be taken up with alternative value practices to capitalism that emphasize co-production and what I refer to as biosocial production. The term emerges as a challenge to the separation of production and consumption and various theories of social change that ascribe to this separation. By emphasizing that consumption is always an act of production, in the sense that consumers produce a lifeworld, a way of life with every choice they make, I argue that discourses of food need to focus less on revealing the commodity's biography and more on the production of times and places where alternatives can flourish. Biosocial production is a concept that builds upon theories of the citizen-consumer hybrid (Johnston, 2008) and sustainable consumption (Spaargaren and Mol, 2008) by bringing in considerations of nonhuman nature. I argue that biosocial production is the dialogic process of producing place through a self-conscious cultivation of situated knowledge.[12]

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[11] This is Donna Haraway's term for the ways in which nature and culture are always already imbricated. She advocates the blurring of boundaries as way of acknowledging the crossing of species, technology, and language (see Haraway, 2003 4; Haraway, 1991; Haraway, 1996)

[12] This is Donna Haraway's term for forms of knowledge that moves away from the "god trick" of objective facts and instead focus on the embedded ways in which knowledge emerges from specific bodies, places, and times (Haraway, 1991 188).

By examining the ways in which narratives can enchant, Chapter Three looks at how alienation and control figure in discussions of everyday life, micropolitics, and the emergence of modes of subjectivity that can challenge the economic reductionism of green capitalism. By focusing less on questions of truth or distortion and more on the biosocial relations made possible and impossible by competing narratives, storied food can provide a way into ecological politics that is attentive to the multiple scales and scopes involved. As the environmental crisis becomes an increasingly defining aspect of everyday life and global geopolitics, it is important to find ways of framing the various intersecting and overlapping issues it touches upon and shapes. Unless we find ways of inhabiting places with more generosity and love, the environmental crisis threatens to unmake civilization.

Chapter One

Greening Capitalism and Capitalizing Nature.

In 2006 the British government commissioned Lord Nicholas Stern, the former chief economist of the World Bank, to examine the economic impacts of climate change. In his influential report, Stern argues that "climate change presents a unique challenge for economics: it is the greatest and widest-ranging market failure ever seen" (Stern, 2006 1). The report uses the apocalyptic implications of climate change to argue for quick and decisive action in the name of continued economic growth.

> The evidence shows that ignoring climate change will eventually damage economic growth. Our actions over the coming few decades could create risks of major disruption to economic and social activity, later in this century and in the next, on a scale similar to those associated with the great wars and the economic depression of the first half of the 20th century. And it will be difficult or impossible to reverse these changes. *Tackling climate change is the pro-growth strategy for the longer term, and it can be done in a way that does not cap the aspirations for growth of rich or poor countries.* The earlier effective action is taken, the less costly it will be. (Stern, 2006 2; emphasis added)

Stern treats climate change and its relationship to capitalism as primarily an issue of rectifying market mechanisms that have been skewed by incomplete data. By incorporating the true cost of environmental degradation, especially the effects of carbon, markets could respond effectively and still grow. By invoking the GDP and growth figures, he tries to downplay the popular right-wing argument that climate change is simply too expensive to tackle, and that without growth the economic system will

collapse.[13] He argues that it will only cost the world 1% of the GDP annually to stabilize emissions to 500-550 ppm of CO2 by 2050, whereas waiting will cost much more (Stern, 2006 12).

Ulrich Beck commends Stern, stating that his economic approach "robs the opponents of the political counter-argument as well as the counter-argument of costs. Now there are no excuses left!" (Beck, 2010 255). By focusing on creating "discourse coalitions" (Hajer, 1995 65) between business, government, and NGOs, the report is important for shifting the climate of fear surrounding global warming, especially in the business community, and in this sense it is simultaneously beneficial and harmful. What we see here is a domestication of climate change that places it within an economic grammar. In order to make climate change more palatable to the business community, Stern appeals to the rhetoric of dynamism, market mechanisms, and cycles of innovation as a way of reframing what has largely been a moral and scientific argument.

Reaction to his report has been divisive, with some celebrating it as "realistic," "reasonable," and "a vital step forward in securing an effective global policy on climate change" (Solow), and others criticizing it for its economic methodology,[14] its failure to

[13] For example, Bjorn Lomborg accepts that global warming exists, but disputes that we need to address it by limiting the emission of carbon. Instead, he argues that "if we invest smartly, we will essentially have no people flooded by 2085, simply because we are richer and can afford greater protection" (Lomborg, 2008 68). Utilizing cost-benefit analysis, one can argue that in order to avoid the effects of climate change, such as flooding, it is cheaper to simply build bigger dikes. This is one danger of economic arguments: it can rationalize almost anything because of the difficulty of calculating risk and valuing nature.

[14] (see Hourcade et al., 2009; Dasgupta, 2006; Mendelsohn, 2006; Nordhaus, 2007; Tol and Yohe, 2006)

bring in an analysis of power, politics or "the tense nature of international relations" (Giddens, 2009 201), or its economic reductionism and naturalization of growth and cost-benefit analysis (Spash, 2007 712). What I would like to focus on is the shift towards valuing nature through economic means, and the implications of this in terms of what Foucault calls an "imperative discourse" that guides and shapes all other discourses in a field of forces (Foucault et al., 2007 3). Stern is part of the economic turn in environmentalism in which the grammar of markets, growth, GDP, and cost-benefit analysis dominates the discussion of how best to account for nature. Discourses are more than just words, they imply a set of political and economic relations, and naturalize forms of power and knowledge (see Darier, 1999b 1-33; Murdoch and Clark, 1994 115-32; Mills, 1998 26-38).

So what does the economic turn imply? How do you actually value nature in economic terms? What is the worth of a butterfly or a coral reef? How do we calculate the ecological services rendered by the respiration of plants? The tempting answer is to give it a dollar term, often calculated at 36 trillion dollars annually (Costanza et al., 1997). This number, cited by popular commentators and theorists like David Suzuki, Herman Daly, and Paul Hawken, was first published in 1998 in the journal *Nature*. Although filled with methodological problems and probably impossible to quantify, it is meant to represent what it would theoretically cost us to replace all of nature's services with human labour and technology. More importantly, however, it shows us that the human economy cannot hope to "outproduce" nature's economy and that the two are irrevocably intertwined. The last decade has seen a flurry of economic metaphors emerge and frame the environmental

crisis in very specific constellations of power/knowledge that utilize the language of externalities and ecological debt, cost-benefit analysis, ecological services, natural capitalism, and environmental economics to bring together economics and ecology. For example, the World Wildlife Federation has been referring to the environmental crisis as the 'ecological credit crunch' (Eco-crunch, 2008), suggesting that ecology must trump economy, but that fundamentally, the two are inseparable. This cross-pollination of metaphors does specific work in situating priorities, but also, imports a whole host of assumptions about what constitutes value. In another article, the BBC cites a study commissioned by the EU stating that "Nature's loss dwarfs bank crisis," suggesting that the losses directly as a result of deforestation alone amount to between 2-5 trillion dollars" (Black, 2008). The rhetorical shift towards economic language is meant to highlight the limits of current economic thinking, revealing that nature must be accounted for, especially in a time when a global economic recession means governments are tempted not to spend money on "luxuries" like the environment. By coding environmental messages in an economic grammar, environmentalists are able to simultaneously speak in a language that politicians understand and to reveal the myopia of an economic system that externalizes most environmental costs.

As such, the economic turn is useful for healing a long standing rift between capitalism and nature that has traditionally separated environmental and social justice issues to the benefit of corporations who deploy a divide and conquer technique in order to rationalize lax environmental standards (see Di Chiro, 1996; Woodhouse, 2008). Where once it was most common to frame the issue as a choice between jobs or the environment,

as was the case with logging companies claiming either you have owls or work (see White, 1996), the call now is for green jobs and what many are referring to the Green Collar Economy.[15] One of the most outspoken proponents of green jobs and the synthesis of capitalism and nature is Anthony Van Jones, an activist and entrepreneur who wrote *The Green Collar Economy*, where he outlines the joint path to solving the economic and environmental crisis. [16] Robert F. Kennedy Jr's introduction compares decarbonizing our economy with eliminating the slave trade. When the British Parliament debated abolishing the trade, slaves were a key source of energy and labour, and critics believed the economy would crash if the trade was eliminated. However, argues Kennedy, this was not the case: "creativity and productivity surged. Entrepreneurs seeking new sources of energy launched the industrial revolution and inaugurated an era of the greatest wealth production in human history" (Jones and Conrad, 2008 vii). The same, he argues, will be the case for carbon. The moral road, it turns out, is also the best road for capitalism.

This economic turn underpins *The Green Collar Economy* and is the backbone of the discourse of green capitalism. The turn shifts the debate in a few interesting ways, all of which seem to be beneficial and to some degree necessary. By attempting to reconcile labour and the environment and offering "how one solution can fix our two biggest

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[15] Anthony Van Jones was appointed to become the White House Green Jobs Czar in 2009, signaling a significant shift of the American political landscape in accepting the notion that capitalism and nature can coexist within a framework of growth.

[16] Similarly, Shellenberger and Nordhaus's controversial essay "The Death of Environmentalism" lambasts the environmental movement for its narrow self interest, lack of vision, failure to inspire alternatives, and fetishization of an external environment. They argue for a grand vision framed around a win-win scenario between labour, capital, government, and individuals (Nordhaus and Shellenberger, 2007)

problems," Van Jones positions himself as a utopian bridge. He attempts to weave together morality, government regulation, an open market, and entrepreneurialism into an environmental justice platform. He argues that framing the debate between economic growth and a green future is "a false choice" (Jones and Conrad, 2008 4), a position shared by many environmental economists (see Hawken et al., 2000; Daly and Farley, 2004 6; Stern, 2006). Anthony Giddens echoes this position, arguing that "the other side of danger is opportunity" (Giddens, 2009 10) and that "no approach based mainly on deprivation is going to work" (Giddens, 2009 11). The utopian bridge between capitalism and nature, and between greed and altruism, seems to do just this.

I will discuss Hawken, Daly, and Van Jones in a more detailed fashion under the technoutopian mode. For now, I want to emphasize the appeal to "realism" and gradualism as it relates to the production of hope and a politics of the possible. In an article arguing for a new green modernity, Ulrich Beck takes a stance against the kinds of apocalyptic arguments and horror statistics typical of many forms of environmentalism: "In the name of indisputable facts portraying a bleak future for humanity, green politics has succeeded in de-politicizing political passions to the point of leaving citizens nothing but gloomy ascetism, a terror of violating nature and an indifference towards the modernization of modernity" (Beck, 2010 263).[17] Lester Brown makes a similar point, arguing that "restructuring the global economy according to the principles of ecology

[17] Bennett discusses ecopolitics in terms of facilitating "affective attachments to the world" capable of providing the kinds of moral energetics necessary for a deeper environmental and social justice ethics (Bennett, 2001 3). Susan McManus makes a similar argument for cultivating wonder and affect as a means of opening spaces of alterity and critique that can bridge the utopian gap (McManus, 2007)

represents the greatest investment opportunity in history" (Brown, 2007 np).

Rhetorically this is a very appealing position, one which helps explains the popularity of the green capitalism narrative as a variant of Fukuyama's claim that we have reached "the end of history" and that liberal democracy and capitalism represents the apex of society (Fukuyama, 1992). Since the environmental crisis can, as I will argue later, signal a fundamental flaw in capitalism and its ability to internalize the environmental crisis in any meaningful way, the appeal to reconciliation is crucial for maintaining capitalist hegemony by conflating economics with capitalism. This have-your-cake-and-eat-it-too attitude is precisely why the term sustainable development is so popular, since its inherent vagueness allows it to functions as an interdiscursive foil for competing ideologies, ironically transforming nature into a justification for its own (ab)use. Speaking of investment and hope, rather than renunciation and apocalypse allows green capitalism to contain what is meant by sustainability in ways that favour growth and allow it to recode climate change as another example of creative destruction[18] and the necessity for technological innovation.[19]

In addition to facilitating a neoliberal grammar of markets, other popular/populist narratives can be drawn on to shore up the end of history appeal of green capitalism. For

[18] Popularized by Austrian economist Joseph Schumpeter, this term refers to the process of capitalist accumulation where radical innovation leads to the destruction of old infrastructure, monopolies, or markets, making way for new growth (see Schumpeter, 1975). Marx and Engels refer to this as the process by which capitalism reinvents itself by "constantly revolutionising the instruments of production" (Marx and Engels, 1848 64). The effect is generally destabilizing, requiring that the old make way for the new, and often resulting in labour redundancy.

[19] This approach is often referred to as "weak sustainability" (see Auty and Brown, 1997; Hobson, 2002 96).

example, Van Jones frames the task in nationalistic language, comparing the decarbonization of the economy to the Manhattan Project and the Apollo mission,[20] both feats of technological heroism that were equally ideological victories in the fight against communism and the ascent of American hegemony. The U.S. reliance on oil is thus positioned as an anchor keeping a once glorious nation from maintaining its rightful place as economic superpower. Van Jones also invokes the spirit of "wartime mobilization" (Jones and Conrad, 2008 6), arguing that the Green Collar Economy is a way for the U.S. to regain moral and economic leadership in the world. The whole book appeals to reviving the "true" spirit of the American dream in the face of a shifting world economy that is seeing US economic hegemony slip.

The book's optimistic tenor is important in facilitating a sense of possibility and transformation, something which is crucial, since in the global North at least, addressing climate change will inevitably mean giving up certain kinds of mobility and consumption patterns. Especially in a time of deep economic crisis following the financial collapse of 2008/9, it is important to frame the environmental crisis in a way that won't immediately be rejected by politicians, economists, and a public that has largely bought into the idea that it is the economy, and not nature, that makes the world go round. The failure of Copenhagen to provide a roadmap beyond Kyoto shows just how tenuous the coalition between sustainability and development really is. Although many countries, including the US, have pledged to reduce emissions, the targets and dates are not binding, and the inclusion of developing economies –especially China and India— in future talks remains a

[20] (Nordhaus and Shellenberger, 2007) make a similar claim, as does (Hawken et al., 2000; Brown, 2007 1; Beck, 2009)

huge stumbling block to the implementation of binding emissions targets and cuts. Many of the low-hanging fruit of eco-efficiency have already been picked (see Næss and Høyer, 2009 80; Giddens, 2009 71-90), and therefore future investments will yield less profit, thereby challenging the order of priority between nature and capitalism as deficits balloon and profits decline. Without a means of addressing the need to constantly grow, either through a process of creative destruction or competition, it is unlikely that capitalism can deal with the demands of the environmental crisis. 2010 is already seeing some of the momentum of green capitalism slow as belts tighten and the rhetoric of economic sustainability overtakes ecological sustainability, especially as Italy and Greece have fallen into solvency crises and claim they can no longer afford climate change initiatives.

The Economic Turn: Setting the Stage

The rest of the chapter will take up the economic turn by breaking it down along an ideological spectrum for the purpose of considering how each position imagines and prioritizes the relationship between capitalism, nature, and value. The chart below does not describe viable and self-contained relationships, but the value accorded to them as examples of certain discourses and ideological positions. In other words, what I am interested in is the types of values associated with, and the reactions from each position as a response to the greening of capitalism. The chart represents some key ideological positions/responses, focusing on the production of value and the prioritization of nature and culture. To clarify, the greening of capitalism refers to the process by which the

environmental crisis is challenging capitalism to consider the value of nature in new ways. Green capitalism, on the far left of the continuum, refers to the most commercial and most capitalistic form of this accommodation, focusing on consumerism and often associated with greenwashing. Since capitalism is the dominant social and economic force shaping human history at this time, I am lumping all responses/modes under the broad process called the greening of capitalism, a process that I view as fundamentally open and contestable. Green capitalism, on the other hand, is much more crystallized and represents the dominant interests of neoliberalism.

The chart serves a largely heuristic purpose that is intentionally at odds with the language of embroilments and imbroglios (Latour, 2004) of natureculture hybrids (Haraway, 2003), assemblages (Deluze and Guattari 1987; Bennett, 2010), networks (Castells, 1996), and webs that informs the rest of the dissertation. Each mode: ecological modernization, technoutopianism, and apocalypticism, tells a different story and suggests a series of practices that seek to address the environmental crisis from specific loci of power/knowledge. As you move from left to right on the spectrum, the emphasis tends towards prioritizing nature above capitalism and seeking out alternative value systems. It is my goal to show how the stories of nature and capitalism, of ecology and economy, are always already embroiled. I will examine key arguments and examples in each modality in order to consider how they frame questions of power/knowledge, ecology, economics, the role of the individual and community, agency, and subjectivity within the interrelated discourses of food, global warming, and peak oil. The continuum is meant to suggest the permeability of the modalities, while at the same time focusing on ideological positions

and their material consequences.

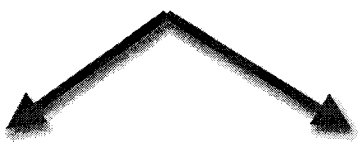
Figure 1, The Greening of Capitalism

The Greening of Capitalism

Economic Value — Alternative values

GDP, markets, ecological services — Family, slowness, wilderness, community etc.

Ecological Modernization — Technoutopian — Apocalyptic



Pro-growth — Steady-state

Greenwashing — Natural Capitalism

Green Capitalism — & Environmental Economics

Ecological Modernization: Marketizing Nature and Naturalizing Markets

This section builds upon on Maarten Hajer's theoretical account of ecological modernization and extends it into a consideration of current configurations of capitalism and nature. In his book on the politics of environmental discourse, Hajer identifies 1972 as

a turning point for ecological modernization, in which the Club of Rome's *Limits to Growth* , and the UN conference of the Environment in Stockholm (Hajer, 1995 24), helped shift the dominant approach to the environmental crisis. The response prior to 1972 was to develop departments and legislative frameworks that compartmentalized the environment into air, soil, water, sound, and to subsequently hand out pollution permits in order to regulate the market (Hajer, 1995 25). Pollution was "not generally recognized as a structural problem," and as such, was subservient to industry (Hajer, 1995 25). Ecological modernization changed the idea that pollution was something that could be dealt with after the fact, with end-of-pipe technologies like chimneys, drains, and water processing plants. Hajer documents how this earlier approach was largely replaced by a policy-focused ecological modernization in the 80s (Hajer, 1995 25). He defines "ecological modernization… as the discourse that recognizes the structural character of the environmental problematique but none the less assumes that existing political, economic, and social institutions can internalize the care for the environment" (Hajer, 1995 25). This requires that pollution can be accounted for, in the sense that it can be monetized and portrayed as a positive-sum game that requires universal participation (Hajer, 1995 26). The environmental crisis thus becomes an issue of proper management and a "strategy of political accommodation of the radical environmentalist critique of the 1970s" (Hajer, 1995 32).

Along the continuum I identified above between nature and capitalism (Fig. 1), ecological modernization is the closest to capitalism in terms of its reliance on the economic grammar of markets, profit, throughput, efficiency, and wealth generation. As

my chart shows, I will be further dividing ecological modernization into two sub-categories: green capitalism and environmental economics, both of which share some crucial similarities and a desire to value nature within an economic framework, but which represent a significant divergence. In the context of valuing nature economically, ecological economics has used terms like natural capital as a "means to control the discourse of sustainable development" (Åkerman, 2005 37). The major distinction between ecological modernization and ecological economics is the emphasis on growth versus that of steady state economics,[21] a struggle that is both discursive and material. Environmental economics can be seen as an attempt to beat capitalists at their own game, revealing the limitations of treating nature as a resource and garbage dump, and discounting future generations in favour of immediate profits. However, it also represents the danger of using economic language. I will argue, that in the case of ecological economics which offers some challenges to the ecological modernization paradigm, the challenge is easily contained within the overarching logic of capitalist value. Natural capitalism and ecological modernization, two names for the same movement, can therefore be understood as an attempt to re-write capitalist value practices from within.

This section attempts to show how ecological modernization is characterized by a profound schism concerning the goal and function of economic systems as they relate to the historically given condition of capitalism as a dominant world system. It is thus crucial

[21] In 1972, Herman Daly proposed the idea of the steady state economy: "he argued that the physical flows of production and consumption must be minimized, not maximized. The central concept must be the stock of wealth, not the flow of income and consumption. Furthermore the stock must not grow. The important issue brought to the fore by the steady-state concept was distribution, not production" (qtd in Næss and Høyer, 2009 77).

to examine the rhetorical strategies and metaphors of ecological modernization, for the struggle over terms like sustainability, green, and ecology is perhaps the most acute in this modality. Both natural and green capitalism accept the basic language of market economics, and are therefore circumscribed by the imperative discourse of capitalism. Ecological modernization is the purist example of the economic turn, and reveals some of the pitfalls of adopting the language of capitalism as a strategic tool to create discourse coalitions among environmentalists, policy makers, economists, and a public that has largely bought into the idea that the health of the economy is more important than the health of the planet. I will begin by considering the critique of capitalism offered by ecological economics/natural capitalism and then proceed to consider organic food as an example of how ecological modernization internalizes and incorporates critique into meagre accommodations, greenwashing, and the establishment of new markets that prioritize growth and consumerism above all else.

Although environmental economics[22] contains many different analyses of the relationship between capitalism and nature and relies on divergent and competing discursive fields and methodologies (see Åkerman, 2005 38-41; Næss and Høyer, 2009; Spash, 2007), the underlying critique of a growth-based economic system has remained consistent throughout the discipline's history. In the late 1960s and early 70s, Herman Daly, Kenneth Boulding and Nicolas Georgescu-Roegen "suggested that economics

[22] Natural Capitalism and Environmental economics share a similar historic path and I am treating them as the same. The idea of natural capital is used in environmental economics to discuss primitive accumulation and the worth of ecological services. Hawken uses the term to describe a broader shift in the capitalism that is occurring as stocks of natural capital become worth more than stocks of human or industrial capital (Hawken, 2000 5).

should focus more on the material and energy flows and search theoretical tools from mechanistic and evolutionary systems theory" (Åkerman, 2005 39), which led to the development of ecological economics in the 1970s (see Boulding, 1966; Costanza et al., 1997; Daly, 1968; Georgescu-Roegen, 1971). In one of the earliest and most influential texts of the discipline, "The Economics of the Coming Spaceship Earth" (1966), Kenneth Boulding compares two idealized economic systems. On the one hand, a cowboy economy that is fully open, and a spaceman economy that is closed. The latter criticized neoclassical economics "obsessed with income-flow concepts to the exclusion of capital-stock concepts" (qtd in Næss and Høyer, 2009 76).

One of the rhetorical strategies employed by ecological modernists is the metaphor of natural capital, a polysemic term which invokes notions of an active, rather than passive nature that produces value and generates wealth, suggests a dynamic relationship between economy and ecology, and creates a powerful discursive coalition between otherwise disparate actors. While some like Maria Åkerman are critical of the reductionism of ecological economics as it attempts to monetize the intrinsic value of nature (Åkerman, 2005 48), she recognizes that as a "linguistic device, a fluid object…" it has "offered a common ground of communication for actors coming from different social worlds, acting in different contexts, involved in heterogeneous practices and having different goals" (Åkerman, 2005 44). It is for this reason that Herman Daly and Joshua Farley emphasize a common root with neoclassical economics, while at the same time pointing out its limitations, and thus framing ecological economics as an arboreal branching rather than a radical split: "these divergences are branchings from a common historical trunk, not the

felling of that common trunk" (Daly and Farley, 2004 xviii). Unlike the apocalyptic mode, ecological economics is careful not to alienate the general public with strong rhetorical and revolutionary demands. Instead, Daly and Farley carefully position themselves as reformists who are trying to cure the "economic autism" of neoclassical economic systems through a "necessary evolution of conventional economic thought" (Daly and Farley, 2004 5). They believe in the utility of markets, but not that markets can reveal all desires, goals, and means, or that they should be followed exclusively. In a sense, they are trying to move capitalism from the far left of the spectrum, towards the right, where other values can begin to exert a force on how capitalism measures worth.

Ecological economics declares itself a transdisciplinary science that tries to address the limitations of ecology, which tends to treat ecosystems as separate from humans, and of capitalism, which tends to ignore natural services in order to sustain the demands of unrestrained growth. They call for an end to growth, measured as throughput (quantitative: resources in and waste out), but not of development, which is qualitative and involves "realization of potential, evolution towards an improved, but not larger, structure or system" (Daly and Farley, 2004 6). They are carful to define sustainable development as "qualitative improvement in the ability to satisfy wants (needs and desires) without quantitative increase in throughput beyond environmental carrying capacity" (Daly and Farley, 2004 6). As such, they espouse the steady-state economy as a goal for restructuring capitalism, which would be capable of maintaining "constant stocks of wealth and people at levels that are sufficient for a long and good life. The throughput by which these stocks are maintained should be low rather than high, and always within the

regenerative and absorptive capacity of the ecosystem" (Daly and Farley, 2004 55). This is one of the most radical critiques of neoclassical economics offered by environmental economics. However, it is easily contained by appeals to sustainable development and green growth. For ecological modernists, there is strong "belief in the possibility of decoupling economic growth from negative environmental consequences" and confidence that "society in its present form need not be changed, as pressures from customers, environmental groups, legislators, etc. will force organizations to take environmental responsibility and come up with technological solutions" (Næss and Høyer, 2009 78).

One of the most popular figures of environmental economics is Paul Hawken, author of *Natural Capitalism* and *The Ecology of Commerce.* He has made many appearances on popular documentaries such as *The 11th Hour* and *The Corporation*, and is the author of hundreds of popular articles and books about environmental economics. He optimistically argues that "the world stands on the threshold of basic changes in the conditions of business. Companies that ignore the message of natural capitalism do so at their peril" (Hawken et al., 2000 xiii). Like Stern, Hawken emphasizes the investment potential of redesigning the world along a radically more sustainable path. Spurred by massive gains in efficiency, Hawken believes that we will be able to transform the industrial metabolism so that it mirrors natural cycles. For example, utilizing developments in biomimicry, which uses nature as a model in the development of new materials and industrial techniques, we can produce material goods that are significantly less resource-intensive and toxic. He argues that the first industrial revolution accumulated material capital at the cost of natural capital, and because we have destroyed so much of the true basis of wealth,

"limits to prosperity are coming to be determined by natural capital rather than industrial prowess" (Hawken et al., 2000 2). Thus markets must invest in conservation in order to grow. By factoring the depletion of natural capital into the cost of production, businesses will find new ways to extract and use what they need without damaging the environment. His model assumes that the market, with some tweaks and internalizations, will react and conform to the undeniable logic of natural capitalism once a critical mass has been achieved. He states that "the goal of natural capitalism is to extend the sound principles of the market to all sources of material value, not just to those that by accidents of history were first appropriated into the market system" (Hawken et al., 2000 261). As with Stern's argument, the environmental crisis can be understood as a market failure and also an immense business opportunity.

As I have already mentioned, the danger of adopting economic language lies in the ability of that language to over-determine, direct, and incorporate critique. In order to consider more closely how radical propositions like environmental economics are translated into neoliberal contexts, let us consider organic food as an example. Organic food is a consumer and producer driven movement that has emerged as part of a broader environmental consciousness and anxiety surrounding toxicity, health, and the deleterious effects of industrial agriculture. Advertisers have cleverly tapped into this anxiety, with green marketing appearing on everything from pizza boxes to designer yogurts and probiotic breads. Despite consumer willingness to pay a premium for green products, the lack of transparency and reliable information can easily lead to cynicism, as the words natural, green, and eco appears on products that clearly do not embrace the ideals they

conjure. Organic food is one arena where marketing, consumer activism, and profit have interacted in some fascinating ways. Much of Chapter Two and Three will attempt to disentangle some of the developments in organic and local food, but for now, I want to focus on the relationship between the market and the goals and ideals of the organic food movement as an alternative value practice. As Julie Guthman points out,

> even though the organic movement has never agreed on the extent to which its alternatives should be embedded in noncapitalist forms of production, it has gained coherence and momentum through the shared awareness that the undesirable aspects of mass food production are at least in part the result of profit-driven agricultural industrialization. (Guthman, 2004 3)

Similarly, Warren Belasco argues that "organic agriculture was envisioned as a system of small-scale local suppliers whose direct marketing, minimal processing, and alternative forms of ownership explicitly challenged the established food system" (qtd in Guthman, 2004 7). For many involved in the original movement, the fact that Wal-Mart now carries organic food would invalidate any gains made. I can now go into my local supermarket's organic section and buy Organic Batter Blaster, a pancake/waffle batter in a pressurized can that can be squirted into a pan or waffle-maker. The status of such a product as certified organic reveals the effects of market forces and consumer demand on what began as a movement with strong anti-capitalist and utopian tendencies. Whether in the form of communes, subsistence farming, Community Supported Agriculture, buying co-ops, and back to the land experiments, organic agriculture emerged as a counter-culture concerned with "therapeutic self-enhancement, consumer self-protection, and alternative production" (Guthman, 2004 7). The popularity of organics is a market success story, but represents a failure of the system to accommodate any radical change, and as such must be

taken as an example of how green capitalism and environmental economics can easily merge into various hegemonic configurations of ecological modernization. That is, organic food participates in a larger greening of capitalism that takes up the critique of organics and incorporates it by emphasizing choice and ethical consumption.

Part of the vulnerability of consumers to the values of ecological modernization comes from the powerful narratives marshalled by the organic and local food movements. For example, Michael Pollan argues that organic food is as much a literary experience as a gastronomic one: we pay for a narrative of the food, and a lot of companies are aware how lucrative this story can be. Organic food is the fastest growing sector of the food industry, and many companies are using what Pollan refers to as the "supermarket pastoral" (Pollan, 2006 158) to sell their products. Organics offer a rich pastoral narrative of heroic, family farmers fighting in the name of mother nature by standing against Goliath corporations only interested in the bottom line. It gratifies our deepest longings for connection with the earth and a taste for authentic experiences. It is a "return to a utopian past with the positive aspects of modernity intact" (qtd in Pollan, 2006 137), and as Leo Marx puts it, a "landscape of reconciliation" (qtd in Pollan, 2006 138) which within the context of industrial organic serves to support rather than challenge the system.

Thus we see companies like Kraft and General Mills buying up organic farms and mass-producing food on a industrial scale that is dependant on energy-intensive transportation networks. Like conventional agriculture, industrial organic slips into a botanical treadmill of production (Obach, 2007 234) that relies heavily on off-farm inputs and monocultures (Guthman, 2004 119). Pollan criticizes industrial organic as "a

venerable ideal hollowed out, reduced to a sentimental conceit printed on the side of a milk carton" (Pollan, 2006 158). Laura Delind points out that as a result "the codification and commercialization of organic has helped to catalyze a 'second generation' response to food system issues – the local food movement" (DeLind, 2006 123). By adopting the logic of ecological modernization, organic food became entrenched in the industrial monocropping model. Spurred by books like the *100-Mile Diet, The Omnivore's Dilemma,* and *Animal, Vegetable, Miracle*, the local food movement has thus proposed a move beyond organic, one not so much concerned with labels and accreditation,[23] as helping foster local distribution networks based on direct marketing and models of farmer-consumer co-production. Chapter Two and Three will examine these developments with greater detail. For now, I will focus on the relationship between nature and capitalism, between economic arguments and more personal, environmental, and socio-political ones.[24]

As an attempt to introduce alternative value systems into capitalism, organic food has largely failed. For this reason, I consider organic food in the ecological modernization

[23] Guthman argues that "certifying agencies became institutions of surveillance" (Guthman, 2004 111). Local food must be careful not to follow the same emphasis on labels and consumer clarity, as in the case with organic, this tends to replace more direct relationships of co-production in favour of distinct consumer-producer paradigms typical of industrial agriculture. .

[24] Laura DeLind emphasizes two major arguments in local food, which have a similarity to organics. "The first of these arguments is economic and political in nature. From this standpoint, local food tends to be viewed as a development (or redevelopment) tool, a means to support small to mid-sized farmers and a sustainable agriculture… The second argument is far more individually focused. From this standpoint, local food represents a vehicle for personal improvement. Here, local food is understood to be fresher, riper, more nutritious, and thus a healthier product than its long distance counterpart" (DeLind, 2006 123).

category, as the appeal to consumerism and voting with one's dollars has largely evacuated organics of any of its revolutionary momentum. Considering the fate of organics, Laura DeLind argues that we need "ways of thinking and feeling about local food that cannot be easily appropriated and/or disappeared by the reductionist rationality of the marketplace and that can balance and reframe an economic orientation with more ecological and cultural understandings of people in place" (DeLind, 2006 126). The arguments of the ecological modernist paradigm fail precisely in their inability to move beyond the rationality of the market and the economic grammar of yield, consumer demand, ethical consumption, and neoliberal subjectivity (see Lavin, 2009a; Johnston, 2008 256). Alternative food movements have attempted to push beyond this value system. Chad Lavin, however, is as equally sceptical of local food as he is of organic, arguing that the emphasis on consumerism "reflects more than anything else a deep suspicion of conventional politics and the wholesale colonization of the political imaginary by the logic of the market" (Lavin, 2009b 1). Once again, what I want to emphasize here is the oppositional character between the market as a means of addressing and accommodating demands for sustainably and ethically produced goods, and the history of co-opting those demands into a neoliberal logic. The ecological modernist mode is characterized by the promise to provide sustainability, growth and profit within the framework of the current system. It is impelled by the undeniable power and appeal of the narrative of the citizen-consumer hybrid and voting with one's wallet (Johnston, 2008 235), and the "realistic" approach of environmental economics to changing the system from within. And yet, as the example of organic food illustrates, the entrance of General Mills, ConAgra and ADM

into organic farming has resulted in a fundamentally altered industry (see Cuddleford, 2003; DeLind, 2000; Guthman, 2004) that relies almost exclusively on off-farm inputs and which emphasizes the individual health, rather than environmental, benefits of its products (Obach, 2007 235).

It is for this reason that I lump organics and ecological capitalism within the discourse of ecological modernization. As a strategy of accommodation, ecological modernization is able to colonize the alternative models of ecological economics by emphasizing the economy over ecology, transforming an otherwise radical critique into basic pollution controls, consumer labelling laws, and an emphasis on free choice. The economic turn can thus be seen as a necessary evil, one which allows for communication between disparate actors, but which comes at a substantial price. The ability of alternative/local food movements to effect real and lasting change is dependent on the influence of non-economic values in steering the course of the future of food.

Technoutopianism; or How I Stopped Worrying and Learned to Love the Flow Chart

Anthony Giddens argues that global warming is different than other kinds of pollution because we cannot experience it in the same way that we can other toxins or smog, for example. With global warming, we are "wholly dependent on the research and monitoring work of scientists to track the progress of warming and map its consequences" (Giddens, 2009 55). Because of this, global warming is a different kind of crisis, one

which must be mediated by various parties and institutions to make the information legible to the public. In the case of climate change, where the data is hugely complex, and where computers crunch thousands of climactic scenarios, the normal presence of uncertainty is easily construed as justifying inaction.

The 2009 "climategate" controversy, in which a group of Russian hackers downloaded and disseminated the personal emails from the University of East Anglia's climate research unit, is an excellent example of how scientific data, media, and politics can mix. The controversy began a storm of accusations of interference with the peer-review process, scientific withholding, collusion, and peer exclusion, and has been treated as evidence of a climate conspiracy by the rightwing media. Although an independent British commission has exonerated the scientists (Gillis, 2010), the controversy is an excellent example of how powerfully the politics of representation can shift the terms of a debate. For ecological modernists, representing climate change and the environmental crisis in terms of free choice, markets, and capitalist logic is crucial for creating a shared vocabulary that can address the joint ecological and economic crisis.

Technoutopianism begins the shift away from the language of markets and money and instead frames the debate in terms of morality and scientific objectivity. It is this combination of moral outrage, trust in scientific leadership beyond politics[25], and a utopian faith in technology, that I want to consider in this section. Addressing and representing risk and uncertainty in science as it relates to policy issues and public perception is perhaps the quintessential difficulty of ecopolitics. How do you respond to a

[25] Anthony Giddens discusses this in terms of disconnecting climate change from a green agenda and environmental politics (Giddens, 2009 49).

future crisis that is by its very nature unknowable? How do you make environmental issues more urgent, more everyday without slipping into discussions of individual choice and consumer activism? How can you account for the future? The difficulty in assessing risk is one of the reasons that the future tends to be so heavily discounted in economics, and why appeals to wealth, scientific progress, and uncertainty can reinforce the status quo.

The growing awareness of environmental destruction has led many people to be receptive to environmental messages, whether in the startling rise in popularity of hybrid cars, CFL light bulbs or organic food. Despite its materiality, the environmental crisis does not necessarily manifest in objective or concrete ways. Timothy Luke reminds us that all toxicity and risks associated with the environmental crisis are "social acts of political interpretation" (Luke, 2000 240). Toxins are "socially produced, and the process of evaluating their costs and benefits frequently uses scientific evidence in disinformative ways" (Luke, 2000 239). All parties involved inevitably manipulate this riskscape for their benefit, whether it is in the hope of maintaining economic growth, increasing investment in alternative energy, forming local economies, or resisting capitalism. Environmentalism is big business and many people hold stakes in various imagined futures.

As such, discourses about risk, toxicity, and culpability are difficult to navigate, especially when it comes to complicated scientific theories. As the rhetorical tone of the debate becomes more and more apocalyptic, people will continue to struggle and make decisions that align with their worldviews. The emphasis on science-based policy at the

Bali and Copenhagen round of climate talks amplifies this tension as the public must make decisions regarding their personal relationship to the causes and effects of climate change, while at the same time abdicating decision-making responsibility to specialists and scientists who supposedly have our best interest in mind. The climate of risk is exacerbated by various levels of expertise and specialization: as Giddens reminds us, "we are all laypeople in respect of the vast majority of the expert systems which intrude on our daily activities" (Giddens, 1991 124). Precisely because so many environmental issues straddle the boundary between various scales of personal, local, national, and international risks and opportunities, responsibility is easily passed on, and the scale and scope of response is not always clear. An issue with a local watershed can easily reverberate around the world, and small decisions made every day by consumers can magnify exponentially (see Spaargaren and Mol, 2008).

For Ulrich Beck, the "central concept is not 'crisis' but 'new global risk'. Risks are, essentially, man-made, incalculable, uninsurable threats and catastrophes which are anticipated but which often remain invisible and therefore depend on how they become defined and contested in 'knowledge'" (Beck, 2010 261). In this section, I will consider how risk, technology, and scientific management are interfacing with concepts of futurity, morality, duty, and responsibility within discourse of food security and climate change. The technoutopian mode moves beyond economic arguments and emphasizes the moral character of the environmental crisis, while at the same time focusing on translating science into a discourse of futurity and responsibility. Carbon capture and storage, geoengineering, the hydrogen economy, and visions of eco-cities, are all illustrations of

technoutopianism, but I will focus on two specific examples.

First, I will argue, Al Gore's *An Inconvenient Truth* uses a mixture of moral arguments and scientific expertise in order to address the issue of risk and uncertainty by establishing the impartial status of the scientific-manager as wise leader. And second, vertical farming is an example of the technoutopian mixture of faith in progress, scientific ingenuity, and technological developments as key prerequisites of social and environmental justice. Because many environmental problems are long in scope, complicated to understand, and preclude everyday knowledge, the role of translator is becoming increasingly important. It is thus equally important to examine the process of translation as filtration and distillation. What assumptions, ideologies, and systems of power/knowledge are contained within technoutopianism? What rhetorical strategies and metaphors are used? And how do they shape the broader debate about the role of capitalism and ecology in steering the human response to climate change, peak oil, and the future of food?

Since the 1970s environmental movement prompted a wave of regulation that was supposed to prevent environmental crises from decimating the world, many environmentalists have come to lament a widespread lack of political will and the extent of corporate cronyism behind the basic environmental laws in place today. Al Gore's *An Inconvenient Truth* deals with this anxiety directly, taking on the oil lobby and the climate deniers and sceptics who have spent considerable wealth sowing seeds of public doubt by claiming global warming is scientifically unproven. Although Gore is not the first to criticize the media's excessive coverage of climate sceptics like Bjorn Lomborg and the

American Petroleum Institute, *An Inconvenient Truth* was immensely successful in appealing to a lay public incapable of understanding the phenomenally complicated science of global warming and thus held at the mercy of newspapers and other popular media capable of translating the data. In the movie he frequently points out how climate change deniers try to "reposition global warming as theory rather than fact" (Guggenheim et al., 2006). Gore argues that even though there is almost universal scientific consensus that global warming exists and is caused by human activity, the media has given half their time to the climate deniers. For Gore, the solution is a combination of raising awareness and engendering faith in the leadership of impartial scientists. The movie attempts to move beyond politics by arguing for the truth status of climate change science and thus shifting from discourses of risk to that of crisis. The popularity of *An Inconvenient Truth* is in large part related to Gore's ability to position himself as a kind of interlocutor who can speak as a layperson and translate the science into a compelling narrative that balances the apocalyptic implications of climate change with hope that another future is possible.

To that end, the central figure in *An Inconvenient Truth* is the flow chart or graph; at one point Gore explains how he was transformed by a university professor who showed him a chart with CO_2 concentration and temperature in perfect correlation. For Gore, his moment of environmental awakening is directly tied to statistics and scientific data. He recreates this experience for the audience with a picture of the earth breathing in and out as the graph of temperature and CO_2 concentration marches steadily upwards, invoking a strange mixture of awe, feelings of biophilia,[26] and raw scientific data. The data is then

[26] Harvard biologist E.O Wilson coined this term, referring to human's innate desire or

linked to iconic images of polar bears and glaciers collapsing. His sense of amazement about the science is palpable as he declares that "the ice has stories to tell us" (Guggenheim et al., 2006). In this sequence, Gore is trying to legitimate climate change science by showing us how it can give us the ability to read the book of nature. Nature is used to support the data, which in a strange way comes first, and offers an objective view of nature unclouded by politics.

For example, the ocean temperature graphs come before his discussion of Katrina and the destruction caused by warmer ocean temperatures. The movie functions as a visual politics of technocratic management, fostering a trust in data and science-based policy that Gore claims is absolutely necessary if people are to harness their moral outrage in productive ways. Thus the rather dramatic hockey-stick graph of CO_2 concentrations rising off the charts as he explains how scientists brave the Antarctic cold to bring us a record of the past, is meant to visually represent an objective form of moral outrage: "this is not a political issue, so much as a moral issue" (Guggenheim et al., 2006). By emphasizing that "scientists have an independent obligation to respect and present the truth as they see it"(Guggenheim et al., 2006), Gore transforms the audience into the "technical-political object of management and government" (Foucault et al., 2007 70), while at the same time claiming to transform that government with moral legitimacy. In this mixture of "objective" data, moral outrage, apolitical rage, and faith in technological progress, Gore exemplifies the technoutopian modality.

Overall the movie is as much about Gore as it is about climate change, focusing on

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need to connect to other life forms (Wilson, 1984)

his own journey to expose the truth and enlighten the public to the dangers of climate change, which echoes the heroic journey of the scientists who brave the Antarctic conditions to bring the public the truth. He weaves together his own quest with various iconic images of the imperilled earth, including the earthrise photo with which he begins and ends the movie. But it is the ending that is particularly illustrative of the system of moral technocracy Gore supports. As he discusses why he was compelled to take his message to the people, he recollects that it was because his early exposure to climate science gave him a window into the future: science literally leads to responsibility. As he opens up to the audience, the camera pans out from a grainy, black and white image of Gore standing in front of an image of Katrina. The outline of his body is the window into the future: white, privileged, consumerist, sponsored by Apple, wearing a suit, and jetting around the world to spread the word. His silhouette cuts through the hurricane, as if taming it, rendering its eye more human, manageable, and digital. The eye of the storm and the eye from space interplay through a technocratic subjectivity of scientific facts, data, and consensus on the one hand, and political failure, moral abjectness, and ignorance on the other. Gore becomes a kind of translation matrix, a means by which to channel the data into the realm of politics and policy in a seamless and graphically slick package. His is a Mac version of climate change: he stands in front of the storm, transformed into an image, reduced to a PowerPoint presentation.

Despite the power of his appeal, the movie is remarkably deficient in imaging what an alternative future means, making a brief series of suggestions at the end of the film that involve changing light bulbs, driving less, buying offset credits, and otherwise

supporting politicians who are aware of the issues. Gore assures us that "when the warnings are accurate and based on sound science, then we as human beings, whatever country we live in, have to find a way to make sure the warnings are heard and responded to" (Guggenheim et al., 2006). Thankfully, "humanity already possesses the fundamental scientific, technical, and industrial know-how to solve the carbon and climate problems" (Guggenheim et al., 2006). Like the ecological modernists, Gore assures us that "if we do the right thing we will create a lot of new wealth and jobs because doing the right thing will move us forward" (Guggenheim et al., 2006). He ends the movie saying "we have everything we need save political will. But in America political will is a renewable resource" (Guggenheim et al., 2006). He thus transforms the insecurity cultivated throughout the movie into some rather weak shifts in personal behaviour and a trust in the objective truth of climate science.

Anthony Giddens argues that "fateful moments are threatening for the protective cocoon which defends the individual's ontological security, because the 'business as usual' attitude that is so important to that cocoon is inevitably broken through" (Giddens, 1991 114). *An Inconvenient Truth* neuters this moment by limiting the argument to an emotional and visual rationalization for the science behind climate change, translating scientific data into an emotional technocracy. In the process, the movie ignores the underlying and systemic roots of the problem and allows the individual to avoid the ontological insecurity necessary to stimulate the kinds of changes suggested by the scope of the problem. By making the changes seem like technical design solutions, the ontological disruption of global warming as a fateful moment becomes a re-affirmation of

the role of capitalist technoscience in solving the environmental problematique. The mixture of moral appeals, scientific (un)certainty, and consumer activism creates fertile ground for green governmentality, as "the economics and ecologies of risk, then, create tremendous new opportunities for cadres of educated professionals to work productively as better resource managers" (Luke, 1996 10). The wise technocrat is a central figure in the technoutopian modality, and convincing the audience to trust the science is a crucial move in establishing a form of green governmentality capable of deflecting the anxiety of navigating an uncertain and risky future. Although Gore does much to challenge the climate deniers, the movie's main function is to engender trust in the objective scientist by making an impassioned plea for separating politics from science.

Discussions surrounding how humanity will feed the future as climate change transforms the nature of agriculture and population continues to grow, has a long history of relying on similar technoutopian narratives of science releasing nature's true cornucopia. The idea of the vertical farm, a skyscraper that produces its own energy, collects rain water, and grows local and organic food year round, has captured the imagination of many. Dr. Dickson Despommier's radical proposal for simultaneously addressing climate change and food security has garnered a lot of attention, both positive and negative. The Columbia University professor of health and microbiology manages a website on the topic and has recently published, *The Vertical Farm: Feeding the World in the 21st Century*. Although there is no working model of the farm, the idea has garnered a lot of media attention, with many articles in major periodicals and a forthcoming documentary funded by the musician Sting, that will follow the construction of the first

vertical farm in China. I am less interested in debating the possibility of such a project than I am about the way it frames questions of sustainability, technology, capitalism, and nature. The idea of a the vertical farm is perhaps more compelling than the reality, promising to reunite town and country, science and nature, and banish hunger while at the same time addressing poverty and land degradation.

Despommier argues that agriculture is one of the most ecologically destructive activities humans engage in. He cites evidence that almost all areas currently in cultivation show significant signs of degradation (Despommier, 2010a np). The idea of the vertical farm offers a utopian reconciliation of science and technology that combines Malthusian dread of overpopulation outpacing food production, with horror statistics of the effects that agriculture has on biodiversity, soil erosion, water, and climate. The vision vertical farming evokes is seductive: it "promises to eliminate external natural processes as confounding elements in the production of food, since crops will be grown indoors under carefully selected and well-monitored conditions, insuring an optimal growth rate for each species of plant and animal year round" (Despommier, 2010a). From the disciplining of nature's vagaries to the promise of solving hunger and climate change and eliminating the use of herbicides and pesticides, the vertical farm embodies the vision of a sanitized modernist aesthetic of scientific control, streamlining, and faith in reason, while at the same time maintaining a pure, external nature as a binary opposite. Despommier argues that

> the best reason to consider converting most food production to vertical farming is the promise of restoring ecosystem services and functions. There is good reason to believe that an almost full recovery of many of the world's endangered terrestrial ecosystems will occur simply by abandoning a given area of encroachment and

> allowing the land to "cure" itself … One vertical farm with an architectural footprint of one square city block and rising up to 30 stories (approximately 3 million square feet) could provide enough nutrition (2,000 calories/day/person) to comfortably accommodate the needs of 10,000 people employing technologies currently available. (Despommier, 2010a)

The vertical farm literally takes the dirt out of farming, moving plants indoors into a realm of pure management and biological control, tapping into a much longer modernist desire to overcome nature. Science becomes almost magical, producing a miracle of cornucopian abundance by taking control of nature directly. Drawing on examples of technological fairs, expos and Disney Land, Alexander Wilson argues that too often a Western, rationalist approach responds to scarcity and crisis as "technical problems that could be solved with "objective" research, planning and administration" (Wilson, 1991 167). Warren Belasco examines the history of similar proposals for agriculture, ranging from meals in a pill, algae burgers, and artificial meat grown in laboratories. In the 1930s, food security issues were often seen through the lens of science, technology, and business. Many futurists saw agriculture as horribly wasteful and believed that the food of the future would be grown in laboratories, with steaks being formed from other steaks, and microbes and yeasts providing other foodstuffs. The dream of a meal in a pill was strong: "the assertion that hyperindustrialized food production would enhance soil conservation and convert unsightly farms to decorous parks was a central tenet of technological utopians"(Belasco, 2006 37). The futurists believed that technology would solve, rather than exacerbate, the problem of soil erosion and environmental degradation. Malthusian worries concerned specifically with food and population spurred huge amounts of research and funding into looking for alternative food sources, especially in algae and yeast.

For example, during the 50s in the United States, many people believed that chlorella[27] could feed the world. Scientists and the media envisioned a future of tubes filled with algae in warm sunny places, needing almost no labour, and banishing hunger from the world.[28] The algae turned out to be hugely expensive and difficult to produce, and still did not taste good or live up to the laboratory conversion rates. It was deemed too expensive to sell as animal feed or as cheap burgers, but Japanese companies were able to market it in high-end health food stores by promoting its ability to control weight, prevent cancer, and boost immune system functions (Belasco, 2006 212). Belasco argues that algae's "actual fate as a food source shows how, in the absence of an explicit, well-funded public commitment specifically to feeding the poor, new food research may drift towards high-end markets" (Belasco, 2006 213).

The idea of the vertical farm recycles this much older vision of a modernist future while at the same time tapping into a desire for local and organic produce and an increasing concern with carbon footprints. Stan Cox and David Van Tassel have criticized Despommier in the same vein as Belasco, accusing the vertical farm of trading on unrealistic technological fantasies and extending the logic of industrial agriculture to absurd heights (Cox and Tassel, 2010 np). They disagree with the fundamental math, suggesting that stacking plants vertically would require enormous amounts of energy and

[27] Chlorella is an algae that can be grown in warm sunny water, can convert upwards of 20% of the light available, orders of magnitude more than the typical plant, and when dried, it contains 50% protein, has a complete assortment of amino acids, fats and vitamins (Belasco, 2006 203).

[28] Its hard not to notice similarities with current discussions of algae-based biofuels.

that "just to meet a year's U.S. wheat production with vertical farming would, for lighting alone, require eight times as much electricity as all U.S. utilities generate in an entire year" (Cox and Tassel, 2010). Instead, they advocate permaculture systems based on diverse perennial crops that establish "deep, long-lived roots to protect the soil, manage water, nutrients efficiently, and help restore the below-ground ecosystems that agriculture has destroyed" (Cox and Tassel, 2010).

As with *An Inconvenient Truth*, what is missing in Despommier's vision is an analysis of power and distribution. Who would build, own, and operate these farms? To what extent would the produce grown within compete with and displace rural farmers? He acknowledges that "at present the abundance of cash crops is more than sufficient to meet the nutritional needs of the world's human population, delivering them to world markets is driven largely by economics, not biological need" (Despommier, 2010a). Despite this, vertical farms offer a solution based on increased production, rather than the politics of distribution. If current trends in genetically modified food and agriculture are any indication, vertical farms will not solve the problem by simply producing more food. Vandana Shiva has written extensively on the deleterious effects of bioprospecting and industrial farming on agriculture in the global South, especially on the ownership of seeds and the treadmill of production that occurs once farmers are enticed into industrial methods (Shiva 1997). Depommier's own analysis points towards economics, rather than ecology, as the primary source of starvation. Unless these buildings become common property, which would be hard to conceive of since their manufacture and operation would be a highly technical and capital-intensive affair, then the politics of fair distribution will

by no means be assured.

Without a strong critique of the inequities foundational to capitalism, various technoutopian dreams are doomed to replicate conditions of scarcity amplified by the ecological and economic injustice already present and surely to increase as population growth stretches the capacity of the earth to regenerate. If it is true that we are producing enough calories today and people still exist in a state of food insecurity, it seems likely that given the momentum of capitalism, this insecurity will increase as scarcity becomes less an economic issue so much as a physical limit of nature. While it is important to maintain a sense that a better future is possible, the combination of moral appeals, emotional technocracy, and green governmentality tends to foreclose the possibility of radical action, and instead, slips closer to the meagre accommodations of green capitalism. The utopianism of technoutopianism actually represents a failure of imagination, a failure to think differently or venture beyond the entrenched ideology of growth and development. It is in fact an anti-utopia, in the sense that it becomes trapped in an end of history limbo where the logic and trajectory of the same system is mapped onto faith in technological advancements capable of ushering in a cornucopia of abundance. Chapter Three considers how utopian pastoralism challenges the hegemony of growth with a different vision of the future, trading on a nostalgic memory of agrarian populism as a means of disrupting the technocultures of late capitalism.

Apocalyptic Narratives: Fat Kids and the End of Food

In this last section, I consider apocalyptic narratives about food, oil, obesity, and the death of the family farm as examples of the interconnected discourse of oil, climate change, and agriculture, and as articulations of alternative value practices to capitalism. Within the context of responding to the question of how we can value nature, this mode is the furthest from capitalism, and underlying many of the critiques is a deep suspicion of the ability of capitalism to account for nature in any meaningful way. Whereas ecological modernists try to value nature by providing an accurate cost that accounts for the full impact of a product or service, and technoutopianists argue for technological solutions based on a moral economy of progress and technological advancements that will release nature's true cornucopia, the apocalyptic modality relies on alternative value practices such as spirituality, community, and slowness as means of avoiding ecological collapse. The apocalyptic modality is firm of the belief that change must be deep and profound: a shift in culture, not just technology and market mechanisms is necessary if we are to avoid ecoapocalypse. Although some of the texts I discuss in the following section do not conform to the formal definition of apocalypse as pertaining to the end of the world, they combine a series of shared qualities: an invocation of a sense of doom, binary conceptions of good and evil, and a reliance on a looming catastrophe or crisis ranging from the end of capitalism to the end of the world. The apocalyptic modality can thus be understood as a prioritization of alternative values above and beyond capitalism. For example, David Suzuki argues that "economics itself is an invention that makes no ecological sense"

(Suzuki, 2003 107).[29]

Along the continuum of capitalism and nature, apocalypticism demands that humanity moves from economy as a source of value, to a presumably more authentic base in nature. Neil Evernden suggests that "we are not *in* an environmental crisis, but *are* the environmental crisis," in the sense that our way of knowing and being in the world is the problem (Evernden, 1993 134). Historically, various environmentalisms have tried to offer a different vision of value and worth rooted in nature. For example, deep ecology, often connected with Henry Thoreau, Wendell Berry, Edward Abbey, and Gary Snyder, is associated "with a valuation of wild and rural spaces, self-sufficiency, a sense of place, and local knowledge and sometimes with an alternative spirituality" (Heise, 2006 507). Deep ecologists appeal to the idea of biocentric equality, in which "all organisms and entities in the ecosphere, as parts of the interrelated whole, are equal in intrinsic worth" (Devall and Sessions, 1985 67). Departing from the modern scientific discourse of objectivity and mechanistic assumptions regarding nature, the principles of the universal right to self-realization and biocentric equality become the modus operandi for deep ecologists. They often position themselves as the true or real environmentalists, using pejoratives like reformist, weak, and shallow to categorize more anthropocentric environmentalisms that focus on conservation, recycling, or green consumerism. Deep

[29] Suzuki's current position is an example of the power of the economic turn. He is now the host of "The Bottom Line," a show on CBC radio that examines the partnership between industry and environmentalism. The first episode features Stern as a kind of hero, a stark contrast to Suzuki's earlier positions against economic arguments (Suzuki, 2010).

ecologists view Nature as a victim of modernization, but also as its salvation.[30] Wilderness in particular is valued, and the glorification of nature, solitude, and wildness has strongly influenced environmental movements and literary critics within the US context (see Heise, 2006 507).

What I want to focus on for the rest of this section is the tension between modernity as progress, the dominant narrative of green capitalism, and modernity as regress, the dominant narrative of the apocalyptic mode. How can contemporary environmentalism stir people into action? How can it find a means of disenchanting a public of the narrative of modernity, progress, and capitalism as the end of history, while offering a vision of an enchanted world worthy of saving? As Jane Bennett points out about disenchanting narratives, of which apocalypse is perhaps the purest form: "what's to love about an alienated existence on a dead planet?" (Bennett, 2001 4). This tension between enchantment and disenchantment, between realism and fantasy, science and poetry, goes to the heart of environmental realpolitik, but also reveals the extent to which the environmental crisis is very much a crisis of our mental ecologies. How can we save a planet from ourselves? How do we move beyond the intractability of the present and usher in a future where alternatives to the course of modernity can emerge? What would this world even look like?

Many of the texts I have discussed so far contain at least some amount of apocalyptic dread. Whether in lamenting the corporatization of food, the reduction of

[30] Latour refers to this as the "antimodern" position, which attempts to jump out of progress and back into a purer nature (Latour, 1993 9).

biodiversity, the degradation of soil, or the decline of the family farm and the family dinner, the apocalyptic modality is concerned with finding a way out of the current historical moment. Avoiding this apocalypse is the impetus for changing the food system and for the rage that impels members of various alternative food movements to envision another world. As Imre Szeman points out in an essay titled "System Failure: Oil, Futurity, and the Anticipation of Disaster," "the discourse of eco-apocalypse understands itself as a pedagogic one, a genre of disaster designed to modify behavior and transform the social" (Szeman, 2007 816). For example, in a *Deep Economy*, Bill McKibben embraces the environmental crisis as a lesson that, if approached correctly and with reason, can transform the world in positive ways by helping dethrone the capitalist economy and the various assumptions about progress, wealth, technology, and development that come with it. He makes an impassioned plea that local and small is beautiful, and that once basic security has been met, we have to avoid the pitfalls of pursuing wealth endlessly for the sake of itself. *Deep Economy* is filled with statistics, examples, and above all else, hope that another future is possible, one that is fundamentally different in its value system then capitalism. McKibben suggests that the various social, economic, political, and environmental problems we face today are avoidable if we can learn to pursue happiness and small-scale community based economic systems, re-learning how to take pleasure in family, community, and nature.

Two common threads in the apocalypticism of storied food are oil and obesity. I will focus on Jamie Oliver's television series *School Dinners*, the documentary *A Crude Awakening*, two separate books with identical titles by Paul Roberts and Thomas Pawlick

called *The End of Food*, and Pollan's *The Omnivore's Dilemma.*[31] As I have already said, the apocalyptic runs throughout storied food (the subject of Chapter Two), and through environmentalism more generally, as a dominant approach to the idea of crisis. I separate it here to consider the specific arguments and concerns that apocalypticism engages in as an alternative to the economic grammar of green capitalism. Discussions of peak oil and the obesity crisis share many elements, and obesity is perhaps the most controversial and yet most easily accessible narrative of storied food, precisely because it taps into a common anxiety about an uncontrolled body, whether individual or planetary. Especially when it comes to obesity, the sense of crisis manifests in moral panic and the rhetoric of ballooning healthcare costs, [32] while discussions of peak oil revolve around excessive and unequal consumption. Both evoke themes of individual responsibility and addiction. Put another way, they are concerned with the status of the subject in relation to advertising, consumption, ecological decline, and agency.

The end of food is a common thematic in apocalyptic narratives. Many of the texts I have already discussed share the same basic assumption that something has gone horribly wrong with agriculture. One common refrain is that despite the apparent success of modern agriculture in providing mountains of cheap calories with fewer people working

[31] One could add Kunstler's *World Made by Hand* and *The Long Emergency*, *King Corn*, *The Age of Stupid*, *Against the Grain*, and social movements like the Slow Food Presidia, and many more.[31]

[32] "Barack Obama created a White House Task Force on Childhood Obesity, which issued a ground- breaking new national obesity strategy in May 2010 that included the bold goal of reducing child obesity rates from 17 percent to 5 percent by 2030 and contained concrete measures and roles for every agency in the federal government" (Levi et al., 2010 3). See also: (Neville, 2010; Levi et al., 2010)

the land, the true costs are mounting in the form of a system of production heavily reliant on oil (Pfeiffer, 2006). Many also point out that vertical integration has led to deadly and endemic pathogens (Roberts, 2008 185), a seriously degraded land base (Manning, 2004), and fewer varieties of vegetables and animals and thus a vulnerability to climate change (Petrini, 2003 87; Shiva, 1993 65-88). Paul Roberts argues that "to an important degree, the success of the modern food sector has been its ability to make food behave like any other consumer product" (Roberts, 2008 xiv). The paradox, according to Roberts, is that although the modern food industry is economic, "food itself is fundamentally not an economic phenomenon" (Roberts, 2008 xiv). We have had to alter the food we eat, breeding less nutritious, but more standardized varieties to accommodate the system, and as a result, have left ourselves vulnerable to pathogens, obesity, chemical contamination, and a general loss of skills and knowledge. It is thus prioritizing the economic over the biological that has led to a fundamental distortion of the entire food system, forcing organic nature and the biocultural systems surrounding it into an economic derangement that cannot be sustained. Robert's book reads like a horror show, cataloguing with great detail the failures and problems with modern agriculture and why he sees the system collapsing under the weight of its own success. Most of the argument comes down to the effects of capitalism, especially on the meat industry and convenience foods. The desire for profit, the requirements for long distance transport, and the blandishments of cheap food have transformed what was once a solar economy into one saturated by oil (Roberts, 2008 223; Pollan, 2006 83).

Thomas Pawlick's *End of Food* focuses more on what has happened to the food

itself as it has become an economic artefact. He begins by traces the nutritional vacuity of a modern hybrid tomato compared to an heirloom variety: "higher in fat, higher in sodium, lower in calcium, potassium, Vitamin A, and Vitamin C, losing iron, phosphorous, niacin and thiamine, today's tomato looks as if it is almost calculated to lack whatever nutritionists recommend" (Pawlick, 2006 7). The demand for plant varieties that can withstand mechanical harvest (in order to avoid paying farm workers a living wage), and which ripen uniformly and can successfully travel long distances, has created the conditions where the economics of the industry trump all other concerns, including nutrition, taste, sustainability, and labour relations. Pawlick argues that the end of food is the point where the nutritional content declines, and the toxicity increases so much, that the food is doing more harm than good (Pawlick, 2006 79). For Pawlick and many of the texts in the apocalyptic genre, oil and capitalism are to blame.

Dale Pfeiffer's book *Eating Fossil Fuel* looks at the extent of modern agriculture's reliance on hydrocarbons. He observes that "the green revolution was made possible by fossil fuel-based fertilizers and pesticides, and hydrocarbon-fueled irrigation" (Pfeiffer, 2006 7). The kind of monocultures cultivated by industrial agriculture are only possible when whole ecosystems are essentially sterilized and then reinvigorated with the very basic nutrients required for life: phosphates, nitrogen and potassium. [33] This linear, reductionistic model made incredible short term gains in yield, but at great costs. In the

[33] Richard Manning argues that we have adopted a strategy of nature, the resetting of the biological clock after a disaster (colonizing plants and succession communities), and applied it on a yearly basis. "And as grain is the foundation of civilization, so, by extension, is catastrophe" (Manning, 2004 29). He refers to farming as catastrophic agriculture.

US, 400 gallons of oil is used annually to feed each citizen, and even more to transport, process, cook, and distribute the food. Shockingly, that number is increasing, while farm production is falling (Pfeiffer, 2006 8). The soil can only take so much before it becomes sterile, and we only have so much oil. A pound of breakfast cereal produced from wheat uses thirty two times the amount of energy need to make a pound of flour, and just the can used to contain pop uses ten times the energy contained by the drink (Roberts, 2008 223). Oil is thus responsible for masking soil degradation, through substitution with fertilizers, while at the same time providing the illusion of abundance and allowing the global population to rapidly increase. Subtract oil from the equation and you are left with a seriously degraded and in some cases sterilized land base incapable of supporting the very population that oil made possible.[34]

The apocalyptic genre is almost overburdened by these kinds of statistics, deployed in a shock and awe tactic that is meant to invert the technoutopian teleology of progress with a sense of impending collapse— to transform mobility into a Red Queen shuffle and reveal the distortions generated by capitalism. *Collapse, The World Without Us* and *The World Made by Hand* are bestselling books that marshal apocalypse for pedagogical purposes. Environmentalists have long relied on the apocalyptic implications of ecological collapse to justify urgent action. Obviously this has not worked and, like the statistics of global poverty, it is easy to simply become numb by the sheer scale implied by them.

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[34] Vaclav Smil argues that the industrial synthesis of ammonia (which requires natural gas) is the most significant invention of the 20th C. It has allowed the population to rise from 1.6 billion in 1900 to over 6 billion in 2000, making synthetic nitrogen the most important aspect of the human diet (Smil, 2001 xiv)

What can you possibly do in the face of such a problem? How can one person make a difference?

A Crude Awakening is a good example of the work that apocalyptic dread does. The entire documentary tries to show how deeply reliant modern humans are on petrochemicals. The film portrays oil as the secret mover of modern history and consequently the end of oil is also the end of history. The movie is filled with old footage from the 1950s predicting the endless quantity of oil still left in the United States, and envisioning a future filled with phenomenal wealth and technology that will liberate humans from toil and sweat. It turns the progressivist narrative of history on its head by suggesting that modern day peak oil deniers and technoutopians who envision a hydrogen economy smoothly replacing hydrocarbons, are equally ludicrous. The film allows for no hope: oil is such a rare and energy dense source of fuel that we can never replace it in any way that would allow contemporary humans to continue as they are. As with Kunstler's *A Long Emergency*, the film offers little hope because the apocalyptic clean sweep of peak oil is the only way to save the planet and humanity. The apocalypse becomes the means for re-harmonizing humanity with nature.

In considering ecoapocalypse, Szeman argues that "there is a sense in which disaster is all but welcome: the end of oil might well be a case of capitalism digging its own grave, since without oil, current configurations of capital are impossible" (Szeman, 2007 817). This is particularly true for theories of ecosocialism which embrace the clean sweep that will come when capitalism faces the environmental crisis and is eliminated in favour of a more just, sustainable, and diverse system that may emerge in its place (see Kovel, 2002

83). Joel Kovel argues that given that "capital tends to degrade the conditions of its own production" and "must expand without end in order to exist," the only conclusion is that this "combination makes an ever-growing ecological crisis an iron necessity so long as capital rules, no matter what measures are taken to tidy up one corner or another" (Kovel, 2002 39). One dominant strain of the apocalyptic mode understands capitalism as fundamentally anti-ecological and asserts that the only solution is to abandon its structures and start anew (see Kovel, 2002; Foster, 2000; Escobar, 1996). [35]

There are two big camps in the future of food debate. On the one hand, the technoutopianists that see the food crisis as a signal that we need a new round of technological innovation to boost productivity— namely transgenetic crops that can adapt to a harsher climate. On the other hand, the apocalyptics interpret the very same crisis as a sign that industrial agriculture has "nearly exhausted the underlying systems restorative capacities" (Roberts, 2008 242). They see the promise of transgenetic crops as simply an extension of the same mentality responsible for our current situation, and argue that the only solution is a new, sustainable agriculture that is conscious of natural limits and treats nature like a co-producer, rather than a sponge for inputs. "Beyond organic" advocates wish to abandon the economic logic of agribusiness and use traditional methods, technology, and new research to create "consciously designed landscapes which mimic the patterns and relationships found in nature" (Roberts, 2008 249). Beyond this, the new system must also foster human communities by re-establishing agriculture and food as the

[35] Ecosocialism is a philosophy that looks at the interrelated dimensions of ecology and human liberation from capital. The journal *Capitalism, Nature, Socialism* is representative of the philosophy.

centre of the community once again. Farming "needs to be redefined in terms of biological, ecological and social principles… and not the purely chemical and physical principles that industrial agriculture is now based on" (Roberts, 2008 249). Rhetorically speaking, the apocalyptic mode is meant as a kind of slap in the face, utilizing horror to suggest that alternatives must be found.

For Michael Pollan, the apocalyptic is manifest in the congruence of oil and obesity. In *The Omnivore's Dilemma*, corn is the common denominator. Much of the book is devoted to telling the story of Zea Mays and its success in taking over "more of the earth's surface than virtually any other domesticated species, our own included" (Pollan, 2006 20). Pollan argues that "corn is the protocapitalist plant" (Pollan, 2006 26). It is the perfect commodity, which takes well to intensive production, can be broken down and reassembled into countless products, and has allowed Americans to eat enormous amounts of meat because cheap, subsidized corn provides the bulk of animal feed.[36] In storied food, corn often embodies apocalyptic dread:[37] it is one of the commodities most responsible for the development of the current agribusiness model; it has provided the mountains of cheap calories required to feed our sugar and meat addictions, and made fast food possible. Much of *Omnivore's Dilemma* is a story about how corn took over the world. In terms of oil, corn is the perfect sponge: "every bushel of industrial corn requires the equivalent of between ¼ and ½ of a gallon of oil to grow, or around 50 gallons per acre" (Pollan, 2006

[36] 37% of all world grain production goes to animal feed (Wheeler & Thompson, 2004 212)

[37] In the sense that it represents what is evil about the current system(see Kenner, 2008; Woolf et al., 2006; Pollan, 2006; Kingsolver, 2007; Smith and MacKinnon, 2007; Manning, 2004).

45). Corn has become a kind of stand-in for oil in much storied food: it is the vehicle for humans to eat petrochemicals, and the means of shifting from a solar based agricultural system, to one saturated in oil.

From elaborating the consequences of intensive mono-cropping and focusing on farm policy, Pollan shifts to junk food and obesity, especially in terms of corn's most evil manifestation: high fructose corn syrup (HFCS). Pollan argues that the entire food system is skewed towards the production of cheap calories, and because corn is so easily converted into various junk foods, it is much cheaper to fill up on chocolate and pop than on broccoli. For Pollan, this makes for an obvious conclusion, especially when a corn-based diet feeds the poor: "when food is abundant and cheap, people will eat more of it and get fat" (Pollan, 2006 102). Arguing that people are unequipped to deal with the surfeit of calories, Pollan appeals to a problematic hybrid of biological determinism and a cultural industry thesis [38] that portrays an ignorant public caught up in an advertising machine. The combination of targeted marketing to children, an evolutionary preference for sweets, and low cost has co-opted our "thrifty gene," which allows us to eat more when presented with surplus, so we can store energy during times of plenty for use in times of scarcity. Biologically, it is a very useful adaptation that many animals have. Many contemporary humans, however, are now presented with such large portions at such

[38] This influential thesis by Horkheimer and Adorno argues that culture has become little more than an arm of industrial production, infected by the same homogeneity and alienation characteristic of commodity production under industrialism. The machine logic of the cultural industry serves bourgeois interests by taking the leisure-production distinction and transforming leisure into consumption and reproduction, thereby extending the domain of capitalist control (Horkheimer and Adorno, 1972 124) .

cheap prices, it is hard to keep our calories in check: "our bodies are storing fat against a famine that never comes" (Pollan, 2006 106). Junk food and the obesity crisis can thus act as a counterpoint to the "real" food Pollan encourage people to eat.[39]

Julie Guthman is very suspicious of this argument, suggesting that as a discourse, "obesity has achieved the status of an infectious disease" (Guthman, 2004 75). While Guthman is sympathetic to Pollan's goal of transforming the food system, she argues that by "evoking obesity, Pollan turns our gaze, perhaps inadvertently, from an ethically suspect farm policy to the fat body" (Guthman, 2007 77). Guthman contends that the science of obesity research is so tied into moral arguments, and so poorly understood, that it can no longer be taken at face value (Guthman, 2007 77). In addition to stigmatizing the fat body, the discourse of obesity transforms the bulk of the population into dupes: bottomless pits for various incarnations of corn which lifelong advertising has made impossible to resist. Thus, Guthman rejects Pollan's evolutionary argument that we are wired to respond to sweets and fats, making us hopelessly attracted to fast food. This argument transforms the obese body into something abject, immoral, and in fact, unnatural: a product of a corporate environment that is impossible to resist. Fat people are therefore "short of subjectivity" (Guthman, 2007 78), and the apocalyptic narrative is thus an intervention, a means of fleshing out that lack. The fat body becomes the epitome of the subject caught within the advertising food machine, without free will, eating itself to death: an artefact of hyper-consumption that reveals our own complicity in it and suggests

[39] For Pollan and others, real food simply means food that your grandmother would recognize as such, emphasizing simple, whole ingredients produced with minimal processing and prepared at home with love (Pollan, 2008)

we are all a few burgers away from losing control. Thus Guthman rejects the focus on obesity: "At best, fat people are seen as victims of food, bad genetic codes, or bad metabolism; at worst, they are slovenly, stupid, or without resolve" (Guthman, 2007 78). If this is true, "those who resist [bad food] must have heightened powers" (Guthman, 2007 78). Furthermore, "in describing his ability to overcome King Corn, to conceive, procure, prepare, and (perhaps) serve his version of the perfect meal, Pollan affirms himself as a super-subject while relegating others to objects of education, intervention, or just plain scorn" (Guthman, 2007 78).

The emphasis on obesity has tended to displace other concerns. For example, *Jamie Oliver's Food Revolution* (2010), takes his "School Dinners" model to America, and in the process, abjectifies the fat body by mobilizing the panic surrounding obesity in order to make better TV. He chose Huntington Virginia to film in because it is the "fattest town" in America and therefore the world. The obese body is used as a visual metaphor for what is wrong with the global food system, especially in affluent countries who have abandoned traditional food cultures. I agree with Guthman that, especially as a rhetorical strategy, the lack of subjectivity accorded to the obese is very troubling. However, while Guthman is right about the dangers of reducing agency to biology, her argument isolates the theme of obesity at the cost of the other elements of these apocalyptic narratives. Kelly Brownell understands obesity as the product of a toxic, obesigenic environment "in which food and agricultural companies produce too many calories, particularly in meat and highly processed foods" (Brownell, 2004 164). Obesity is thus understood as a social issue and not a simple matter of personal choice or even genetics. For Pollan, obesity is but one

example of the effects of modern agriculture, and in recent books and articles, he has focused more on farm policy and ecological literacy (see Pollan, 2008b). Moreover, for Pollan and Oliver, obesity is actually a policy issue. Rather than discussing personal responsibility, they are both critical of a school system trying to save money by feeding children cheap food, and a federal farm policy that subsidizes corn and soy and therefore makes junk food the most affordable way to eat. In this case, the most compelling apocalyptic discourses are rooted in the confluence of obesity and a farm system awash in petrochemicals, suggesting that individuals are less to blame than a structural economic policy.

Jamie's School Dinners takes up the link between individual bodies and public policy by examining the privatization of the school lunch program in Britain. The series begins with an account of the British school meals system, which involves the usual cast of actors: budget cutting bureaucrats obsessed with saving money, unscrupulous corporations shilling processed junk, and ignorant parents slipping fries and chips to their children through the school gates after Oliver tries to take over the school lunch program. The show is an experiment: Oliver wants to take over a London borough and serve 20,000 children healthy school lunches that fit within the governments allotment of 37 pence per portion. According to Graham Sharp, "in 1980 under Margaret Thatcher's brand of neoliberalism, the government released local authorities from the obligation of minimum nutritional standards and the requirement to spend a minimum amount of money" (Sharp, 2007 114). Oliver hopes to reverse this by using the government's own discourses of health to shame it into spending more money on education, food, and staff in order to

address what he sees as a national embarrassment. While the series is fascinating for a number of reasons, what I am interested in here is the way that public and private, class, subjectivity and taste rub against each other. School dinners in Britain are a significant site of class struggle. In some areas, the school dinner is the primary meal of the day, and many children qualify for free or subsidized meals. *School Dinners* begins in Oliver's home, where he feeds his own children a plate of vegetables and organic chicken that he figures costs £3.50 a portion. His own experience running a restaurant is equally disparate. Where a school dinner is allowed 37 pence a portion, Oliver is accustomed to using a ball of buffalo mozzarella, costing as much as seven school dinners, as a garnish. This tension manifests throughout the show.

Oliver is highly critical of the privatization of school dinners and the accompanying deskilling of staff because of the elimination of cooking from scratch. Much of Oliver's effort involves teaching the kitchen staff how to cook rather than reheat, and thus reversing the effects of cost-cutting economic logic within the schools. Most of the cooks are used to opening up packages and reheating them, and the result is an abundance of highly processed and unhealthy foods and children whose taste buds have become numb to anything but salty junk. Like many other texts in the apocalyptic genre, Oliver's relies on horror statistics as a way of shaming the government into action. He turns the government's own bureaucracy and emphasis on health against various ministers, feeding them what the children eat, and showing them the effects. Oliver visits doctors in wards where children have stopped passing stools for months at a time because of the lack of fibre in their diet and the high amount sugar, refined flour, and fat they eat. He shows

local hospitals that hold constipation clinics because some of the children are literally vomiting stool. For many of these kids, french fries are the only vegetable they eat, and because the school dinner is often the primary meal of the day, the home offers very little reprise. *School Dinners* explores the tension between class, taste, and obesity in some fascinating and I would argue, productive ways. Rather than privatizing responsibility, the discourse of obesity is highly public in the show, with the causes and effects rooted in class politics and a government that, in the name of money, has given up on a generation of children.

Oliver's campaign is multifaceted by necessity. The first school meal program he takes over does not proceed as planned. His meals come in way over budget and the children simply do not eat the food, having spent years accustomed to tempting junk food. As a result, Oliver shifts tactics and starts younger, trying to work with elementary age children and emphasizing a much more integrated approach that tries to get the kids cooking and taking part in the culture of food. Much in the line of taste education in Slow Food, Oliver takes the children to a farm, educates them about ingredients, and tries to get all the children participating in the entire process. Taste education isn't concerned with distinction or manners, but rather, with producing a palate capable of interpreting what it experiences in terms of a "situated pleasure" (Parkins and Craig, 2006 86)— a pleasure based on knowledge and one fully aware of the various narratives of production and consumption, of desire and violence that tie together eater and eaten, producer and consumer. Taste education creates an active and engaged subject that is very different from the victim of obesity that Guthman describes. It "attempts to situate food in what it

sees as more authentic, enriched and convivial contexts where the aim is how best to savour and enhance pleasure, rather than gain a momentary 'fix' from food" (Parkins and Craig, 2006 27). In essence, it attempts to move outside the kind of economic reductionism that reduces food to fuel, and instead focuses on community, conviviality, the shared table, and healthy living through the development of skills.

The public and the private further coalesce as Oliver enters some of the homes of children who are particularly recalcitrant. He teaches the parents some basic recipes and about the need to eliminate junk from their diets. Despite the appeal to an obesity crisis, Oliver's *School Dinners* does not reinforce the idea of abject bodies as lacking subjectivity. The emphasis on taste education, government policy, and parental support acknowledges the multiple scales of the issue and avoids privatizing discourses. By the end of the show, Oliver is able to convince the British Government to spend 280 million pounds over the course of three years to improve school dinners. In 2006, junk food and highly processed meats were banned in British schools in favour of freshly cooked meats and vegetables. While the culture of junk food prevails, as demonstrated by the now infamous, maybe exaggerated incidents of parents sneaking chips to their children through school rails repeatedly shown during the program, at least the government has admitted the need to spend more time and money on school meals. Perhaps more importantly, it shows how the discourse of obesity can work in productive ways, and that we must move beyond economics as the only measure of success.

In this chapter I have shown the way in which discourses of nature and capitalism serve various ends by shaping the debate and assigning risk, agency, and responsibility to

various actors. How we frame the environmental crisis is inseparable from the issues themselves. The primary problem with economic arguments is the power they have to displace other arguments, or at least to prioritize the economic over the ecological. The tension between ecological economics and green capitalism reveals the difficulty of changing the system from within. Thus while economic arguments are important and cannot be ignored, any movement that is consciously critical of capitalism, must attend to the force of the economic turn if it hopes to displace the logic of profit and growth. Alternative food movements needs to take into account the power of both enchantment and disenchantment narratives. Along the continuum of capitalism and nature— ecological modernization, technoutopianism, and apocalypticism— each modality mixes aspects of enchantment and disenchantment in order to variously inspire and scare the public into action. Chapter Two and Three will look more carefully at alternative food movements, especially in terms of the stories we tell about food and the use of life narratives and the foodshed memoir as a means of balancing enchantment and disenchantment in the production of alternative modes of biosocial production.

Chapter 2

Storied Food and the Transparent Meal: Writing the Foodshed

One of the most direct and profound interactions between ecology and economy occurs in agriculture. Whether it is the role of subsidies in maintaining certain kinds of production-consumption arrangements, the decline of the family farm, the rise of agribusiness, or the effects of nitrogen and pesticide run-off on the environment, agriculture is a hybrid form of economy and ecology. In any given year, weather can have just as much an effect as farm policy or technological innovation on world grain harvests and crop yield. Moreover, food production accounts for a sizeable portion of humanity's ecological footprint, contributing 12% of greenhouse gasses, 38% of water pollution, and 45% of all terrestrial habitat alternation (Brownell, 2004 168). As the human population balloons and global warming shifts rainfall patterns, the question of how we will feed ourselves will become more central. As I argued in the previous chapter, modern technology has released what appears to be an incredible technological cornucopia, a technoutopian dream of food abundance that is slowly being replaced by a profound anxiety about what the future of food holds. The critique increasingly launched at conventional agriculture, that it has "incurred substantial direct and indirect costs and may represent a Faustian bargain" (Badgley et al., 2007 86), challenges the conventional notion

that only intensified production can feed the world.[40]

While many North American's enjoy relatively abundant and cheap food and treat this abundance as natural, for most of human history and for many people in the world currently, scarcity is closer to the reality. Imagine someone from the 19th century walking through a modern supermarket, with its brightly lit shelves overflowing with the bounty of the entire world. A typical U.S. supermarket contains forty five thousand items (Pollan, 2006 19), many of them travelling around the world several times before arriving for our consumptive pleasure. And yet, that abundance is maintained by a shockingly small genetic diversity. Of those forty five thousand products, a quarter of them contain corn (Pollan, 2006 19). It is estimated that 30,000 vegetable varieties, and 33% of livestock breeds have become extinct in the last century (Parkins and Craig, 2006 23). Not only does this represent the destruction of a significant cultural heritage, since most of these plants and animals are also intimately tied into traditional ways of life, but as global warming shifts the climactic contours and conditions of bioregions around the world, our collective survival depends on the ability of agriculture to adapt, and the means of doing so lies in the seeds we sow. [41] Industrial agriculture has shaped the food we eat very

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[40] Badgley et al. concluded that "organic methods could produce enough food on a global per capita basis to sustain the current human population, and potentially an even larger population, without increasing the agricultural land base" (Badgley et al., 2007 87). They found this is particularly true for developing nations that practice low input subsistence agriculture.

[41] Vandana Shiva's work with the Navdanya movement looks at the connection between biodiversity, economic security, and bioprospecting (the patenting of life by pharmaceutical and seed companies). She argues that seed saving is a right that must be defended because it represents a way of life and a means for addressing climate change (Shiva, 2000, 79-93.)

literally: by breeding plants to become more economically useful, and thus focusing on yield, uniform ripening, the ability to withstand long distance transport, and visual uniformity, many modern day cultivars have sacrificed taste, nutrition, disease resistance, and adaptability in the name of economics (see Roberts, 2008; Pawlick, 2006; Belasco, 2006; Nestle, 2007). Corn, rice, soy, and wheat now provide most of our calories and much of that is limited to a small group of cultivars, many of which are quite sensitive to climactic variations.

Like many other authors questioning the vitality of the industrial food system, Warren Belasco asks: "is the banquet over. Will our grandchildren enjoy the dietary abundance that most of us take for granted? And how on earth will we feed a rapidly growing, urbanized population in the Third World" (Belasco, 2006 viii)? In the US there are 960,000 farmers and two million prisoners (Brown and Brown, 2008 107), a statistic that reveals the profound shift in labour and technology that has occurred in modern forms of industrial agriculture. As a result, most North Americans know farming more through advertisements, nostalgic memory, and literature than through direct experience. For most of us, agriculture is an economic arrangement more than it is an interaction with the natural and social world. Food is therefore primarily engaged with through commodity chains and consumptive practices. Whether that means swiping your credit card at the discount supermarket, or handing over some money at the local farmer's market, the economy has occluded many of the underlying significations of food in North American culture. Even the idea of sustainable or ethical consumption draws on the notion that you can vote with your dollar in order to effect change (Johnston, 2008; Spaargaren and Mol,

2008). Certainly fewer of us have direct experiences of what farm life actually entails, and are thus more reliant on the stories surrounding food. The last decade has seen an explosion of writing and films about food and this chapter will build upon the theoretical framework established in the first two chapters by looking more directly at food politics and the emergence of vibrant food communities as alternative value practices to capitalism. Specifically, I will consider how actual struggles around food and the various stories and practices of food, are emerging, converging, and diverging from the trajectory of green capitalism.

It is with this goal that I approach food and hope to explore how various movements imagine themselves, the kinds of stories they tell, and the political possibilities that are emerging from food narratives, ones that are capable of challenging capitalism, but that might work to reinforce and in fact reinvigorate or save it. There are currently many forms of politics emerging from food, often working at cross-purposes. The organizational schema I propose below will examine some of the diversity within these movements and stories and consider how they are interfacing with a broader project of retooling economics to make it more ecological. Green capitalism is part of the disciplinary mechanism of the market emerging as capitalism struggles with the environmental crisis— an attempt to naturalize the market as a means of regulating all social and biological systems. Chapter Two will outline how food narratives reinforce and struggle against this enclosure in order to create what Massimo De Angelis calls "alternative modes of co-production… [that are] predicated on making visible what capital's value practices keeps invisible" (De Angelis, 2007 64). Chapter Two and Three are not

roadmaps to a sustainable future, but rather, considerations of actual food movements and narratives in relationship to the world.

As I have already begun to explore, the politics of the pantry are effected by many forces, ideologies, desires, and conflicting goals. The profound transformations organic food has undergone as it has become mainstream and industrialized, is an important example of the ways in which discourses of sustainability, choice, citizenship, consumption, and alternatives become caught up in larger narratives of capitalism and nature. It is precisely because I believe that food matters, that it has the potential to connect people to issues of climate change, peak oil, and the green economy in lived, material, and accessible ways, that I take up alternative food movements in the next two chapters. It is also for this reason that I have written myself into the process and will try to avoid the seductive path of negative academic criticism, and instead, focus on some of the enabling aspects of storied food as an alternative value practice to capitalism. I will be following Jane Bennett's model of enchantment to examine some of the ways in which food can invigorate my largely disenchanting tale of capitalism from Chapter One. Where the first chapter engaged in a rather typical "image of modernity as disenchanted… as a place of dearth and alienation" (Bennett, 2001 3), the next two chapters will examine food as a site of mundane enchantment that can foster forms of situated knowledge capable of providing moments of freedom, however fleeting, that are crucial for imagining and practicing what Massimo De Angelis calls the beginning of history, or the "overcoming of a mode of social co-production that is emanating antagonism" (De Angelis, 2007 8). The beginning of history is about conceiving other possible worlds on the borderlines of

capitalism. I will argue that storied food and the practices it entails, can provide moments of possibility within the boundaries of the everyday.

My analysis may at time seem too ludic, as if I am uncritically celebrating alternative food practices as unproblematically good. Food politics, especially various forms of localism, cannot solve the problem of sustainability. Especially in the wealthy West, gourmet food, farmers markets, cooking, and gardening are typically bourgeois pursuits and cannot and should not be offered up as a kind of pan-political movement capable of uniting the world at a mythic shared table. Food, especially from a privileged Western perspective, is a way in, but only one way, and the movement is by necessity fragmented and to a certain extent should remain so. It is precisely in the polyvalence of food that much of its vitality and energy emerges. Unlike other more conventional bourgeois engagements with nature, like getting back to the wilderness, I will argue that growing food represents a more honest effort to work through the contradictions of late capitalist naturecultures.

My own analysis will focus on the attraction of food politics to a very Western, affluent, and writerly audience. As such, there are many gaps in the next two chapters, largely because I cannot address everything food touches upon, but also because I am trying to speak from my own subject-position and understand what it is that has attracted me to this movement. As a thirty-year-old, white male who immigrated from the Ukraine to Canada when I was 4 years old, I view the world through specific lenses tied up in cultural identity, class, leisure, pleasure, but also as an academic with a commitment to political critique and environmental sustainability. My interest lies in examining food

narratives and practices as they relate to enchantment, the everyday, and in a larger project of resisting the discursive and actual enclosures of various lifeworlds by neoliberalism. For the purpose of this chapter, I will luxuriate in the stories with a critical but sympathetic reading that foregrounds the intent and potential of storied food, beginning with a genealogy of the genre. Chapter Three will use my own experiences inhabiting the local foodshed in Hamilton Ontario to explore some of the contradictions and problems of the various narratives. In a sense, I want to explore the tension between writing the foodshed and living in the foodshed, between politics in theory and the entanglements of lived experience.

Storied Food: Lifting the Veil

What to eat? It seems like a simple question, but in recent history, at least in the West, this question has occupied a considerable portion of our day, no less so at the beginning of the 21st Century when technology and a hugely elaborate division of labour has ostensibly liberated many of us from the toil of soil and kitchen. And yet, a quick glance at the media and one will find scores of books, movies, TV shows, documentaries, and blogs devoted to this seemingly simple, mundane and everyday task most human beings do several times a day. Why this resurgence in interest? Why do modern humans feel the need to get expert advice on this topic? What could be simpler than deciding what's for dinner?

The question of what to eat is no simple matter. It is in fact, one of the most complicated questions you can ask and goes to the heart of issues of social and environmental justice, sustainability, animal rights, globalization, the purpose of economics, and the future of capitalism as an organizational logic for human activities. What is at stake is no less than the future of all life, since everything on the earth is bound up in what Carlo Petrini calls the "gastronomic axis" (Petrini, 2003), the web of life that connects all things in a conjugation of the verb "to eat." Humans currently use half of the world's fresh water, have transformed one third to one half of the planet, and use two fifths of the planet's primary productivity (Hawken et al., 2000 8), and so the question of what to eat resonates far beyond the seeming triviality of that everyday task, since food production occupies a great deal of our ecological burden. Industrial agriculture has transformed what was once a solar economy into one saturated in oil, to the point where on average 10 calories of fossil fuels are consumed for every 1 calorie of food energy produced (Pfeiffer, 2006 21).

Food is a discursive constellation of power and knowledge that draws on numerous disciplines and ways of knowing. The struggle over food narratives is linked to competing notions of progress, the good life, pleasure, class, gender, and, most importantly for my purposes, sustainability. Thus to focus on narrative is to focus on the possible shapes that green economics will take. In what follows, I will look at the Slow Food[42] and locavore

[42] Slow Food is a global movement concerned with challenging the dominance of fast food as a social institution and way of life. It emerged from the Arcigola group in 1986 (Parkins and Craig, 2006 19) in opposition to the opening of a McDonalds on the Piazza di Spagna in Rome. Since then, the organization has challenged many conventions of a social movement, with a core emphasis on slowness, eco-gastronome, the preservation of

movement, as well as popular texts like *The 100-Mile Diet, Coming Home to Eat, The Omnivore's Dilemma, Animal Vegetable Miracle, Fast Food Nation* , and *In Defense of Food* as a part of a genre of writing that concerns itself with tracing the convoluted trajectories that food takes through the modern industrial foodshed. This path, frequently obscured and intentionally obfuscated, is at the heart of industrial agriculture. The supermarket is in large part a link in an anonymous, placeless foodchain, providing the consumer with vegetables and fruits out of season, a myriad of packaged and frozen foods consisting of hundreds of ingredients, many of which can hardly be considered food or food-like. Food in the supermarket is purely a commodity: exchangeable and storyless, and to a large extent untraceable. The chicken in its Styrofoam tomb, the package of corn flakes, the gleaming, waxy apple, all bear the mark of commodification. They have no story because that story has been obliterated in the process of getting them to market. Although food perhaps represents the ultimate use-value, it has become transformed by exchange to the extent that we now consume many things past generations would hardly recognize as edible: things that have been bred, selected, and transformed into an idealized form, one that approximates food, but which is at once more beautiful and terrible. Food has become an idea, born of the desire for efficiency and above all else, cheapness: something which sustains and, increasingly, destroys.

Storied food is about creating readable narratives of the foodshed that can reveal the social mystery of capitalism in a lived, material way, and as such, help create the

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traditional foods and techniques, and the promotion of artisanal products from around the world (see Andrews, 2008; Parkins and Craig, 2006 18-37; Petrini, 2003; Petrini 2006)

conditions required for sustainability. Many of the books and films in this genre struggle against a system designed to make this tracing difficult. The chain of meaning can be made obscure, as in the case with a frozen burrito, or it can be revealed, more or less honestly, as in the case of a farmer's market stall. In the process, questions of agency, economics, politics, and ethics become enmeshed in the cultural production of food. Crucially, the meaning of food is always mediated by culture, whether through traditions passed along by generations of cooks and eaters, or through the comfort marketing of Little Debbie and Aunt Jemima. Most of the genre of storied food understands the industrial foodshed to be characterized by a broken semiotic chain: it is exceedingly difficult to know the story behind a package of cereal, whose ingredients are by their nature commodified at every level, right down to the genome. One box of Corn Flakes is identical to the next because the entire process, from seed, to plant, to milling, to transportation, to marketing, and finally to consumption, is rendered anonymous, subsumed in a brand, an idea. Place is eradicated in this equation, as is the labour of the farm worker, the pesticide burden of farming, the huge amount of energy used to process the food, the addition of vitamins and minerals required to qualify the product as food, and the environmental costs of the entire affair. The whole process is opaque by design. In the case of factory farmed meat, the pastoral image of the family farm is a necessary conceit, for to reveal the tortuous conditions and degradation involved in Intensive Livestock Operations (ILO), would turn many off the product.[43] The central concern of storied food

[43] For example, Lillydale Chicken features an image of a verdant green field on its packaging, and many packages of meat contain empty words like "All Natural" to invoke a sense of connection to the farm. Fortino's brand "Naturally Raised" meat, or Metro's

is to peel back the plastic and reconnect people with the "agricultural act" of eating (Berry, 2007 np). The narrative is largely a pedagogical one, announcing itself as revealing an intentionally hidden world in order to change the everyday habits of the audience.

Michael Pollan's bestseller, *An Omnivore's Dilemma* (2006), is one of the path-breaking books in this genre, although Upton Sinclair's *The Jungle* (1906), which revealed the hellish conditions of Chicago's meatpacking industry, was perhaps the first modern example. Both texts share a common impulse: to reveal what is concealed, to make transparent what once was hidden from view. They try to reconnect the material with the sign, food with culture. While Michael Pollan was by no means the first to do this, his text was significant for its impact and its timing. It tapped into and expressed a growing anxiety that something is wrong with the way we eat. The premise behind Pollan's book is simple: a natural history of four meals that seeks to trace the hidden costs, connections, and pathways of the modern food system. In particular, he seeks to address what he sees as the most troubling aspect of industrial eating, "how thoroughly it obscures all these relationships and connections" (Pollan, 2006 10). The goal is thus to show how eating is a transaction, a form of exchange that allows energy to flow and thus entropy to be produced and/or resisted. By tracing an industrial, organic, industrial organic, and finally a foraged meal, Pollan uses his journalistic talent to examine a food system from beginning to end, accounting for it completely: "from a plant, or a group of plants, photosynthesizing calories in the sun, all the way to a meal at the dinner end of the food chain" (Pollan, 2006

"Traditionally Raised," both trade on pastoral appeal, but do nothing to clarify what these terms actually mean or who certifies the natural and traditional conditions.

7-8).

Eventually, this culminates in a perfect meal, "one that's been fully paid for, that leaves no debt outstanding" (Pollan, 2006 409). This meal has been foraged, hunted, and grown entirely by Pollan, and represents the ultimate moment of storied food, in which the entire foodchain is revealed and accounted for: the transparent meal. It is a meal you can eat in full consciousness and in full conscience, and one which is not haunted by the ghost of the real dissimulated by industrial processes. In this revelation, it becomes possible to tell a story, to understand the foodshed in a perfect moment of clarity, however fleeting. This perfection later becomes the ideal to which all other meals aspire, and the basis for a critique of commodification.

The rest of the chapter will look at the genre of storied food by breaking it up into four types in order to get a sense of the work these narratives do: the Commodity Biography, the Nostalgic Pastoral, the Utopian Pastoral, and the Foodshed Memoir. By breaking down storied food into types, I can begin to tease out what these narratives enable and disable. What do they hope to accomplish? What genres do they draw on? What assumptions do they make? How do they conceptualize the environmental crisis? How are they situated in relationship to capitalism? Although many of the books, documentaries, films, and television shows I consider here share traits of each category, by breaking them down as such, I will demonstrate some of the limits and possibilities of the strategies, techniques, rhetoric, and assumptions of each. It is my hope that by exploring these categories I can provide a tentative map of contemporary alternative food movements. In a broad sense, Chapter Two is about writing the foodshed, and thus

focuses on pedagogy, taste education, and the desire to trace and reveal as a key moment of ecoliteracy. Chapter Three focuses more on power, ideology, and the political implications of these food narratives and movements as contextualized within my own attempts to inhabit my local foodshed. However, it is precisely in the entanglement of narrative and practice that storied food emerges as an alternative value practice to capitalism.

The Commodity Biography: The Social Mystery of the Twinkie

If you have ever picked up a box of cereal or a package of cookies and stared haplessly at the ingredients, twisting your tongue over the mysterious multi-syllabic additives and furrowing your brow at how the best before date extends into the next decade, then you are caught up in the modern industrial foodshed. Much of the food we eat today is assembled: engineered from a clever combination of soy, corn, and edible petroleum products to generate mouth-feel, scent profiles, and texture; stabilized, sterilized and irradiated so as to ward off bacteria; and designed to manipulate evolutionary preferences for sugar, salt, and fat. In many ways, the production of modern food has more in common with the automobile industry than with the pastoral image of agriculture many people still hold in their heads.

In recent years, there has been a renewed interest in understanding where our food comes from. The popularity of the 100-mile diet, eat local campaigns, and the organic

movement speaks to a desire to know the story of food, to meet the people who grow it, or to participate in the lifecycle directly by growing it yourself. The Oxford Dictionary word of the year for 2007 was "locavore," a word and practice that captures the desire for people to know where their food comes from. There are far too many books, documentaries and television shows in this genre to discuss comprehensively, so I will focus on a small handful that are paradigmatic and/or popular: *Food Inc.*, Jamie Oliver's *Fowl Dinners*, and *The Omnivore's Dilemma.*[44] All of these texts share a common goal or aspiration: to reveal the ways in which modern food production systematically conceals environmental damage, health effects, and the exploitation of animals, farmers, and labourers. Jonathan Morris describes the commodity biography as a text that "should be able to demonstrate how the relationship between consumers and producers (understood in the widest sense) around the globe has been mediated – both materially and metaphorically - through the product itself" (Morris, 2008 3). Within the genre of storied food, the commodity biography is thus primarily concerned with educating the audience to a hidden world, usually through some combination of statistics, shock tactics, and guilt. In many respects—such as the emphasis on commodification, consumer-label laws, and standardized accreditation, and appeals to consumer rights, choice, and full-cost accounting—the commodity biography draws on the ideology of ecological modernization.

The documentary *Food Inc.* is a perfect example of the commodity biography. It

[44] Other examples include: *Fast Food Nation, Black Gold, King Corn, Sweetness and Power: The Place of Sugar in Modern History* , and *Supersize Me* .

begins with a menacing Tim Burtonesque soundtrack that sets a mood for the shock and revelation to come. The camera pans over a series of agricultural stereotypes: a vast field of grain, a cowboy rancher rustling in a herd, and a red barn surrounded by a faded fence. From actual landscapes and people, to packaging utilizing the same images, the movie establishes a visual metaphor immediately. The voice-over is provided by Michael Pollan: "the way we eat has changed more in the last fifty years than in the previous ten thousand. But the image that is used to sell the food is still the imagery of agrarian America." (Kenner, 2008). The mood and music reinforce a sense that something is awry, that the viewer doesn't know the entire story. Pollan laments that most of what we get in the supermarket is an illusion, the mere idea of food, not food itself— a hyperreal artefact of industry that increasingly bears no connection to nature. There are no seasons in the supermarket: you can get a tomato any time of the year, picked when it was green, gassed to ripen it, and shipped halfway across the world. It is the idea of tomato, what Pollan calls the "notional tomato" (Kenner, 2008). And yet, the images used to sell the food remain pastoral.

As Pollan puts it, there is a deliberate veil erected in the "spinning of a pastoral fantasy" because "the industry doesn't want you to know the truth about what you're eating, because if you knew, you might not want to eat it." (Kenner, 2008). And so the movie follows the foodshed backwards from the shrink-wrapped package, to the processors, the farmers, and finally to the companies that provide the seeds: tracing an industrial ecology in its entirety. The images quickly became an anti-pastoral inversion of the opening scene: the machine has invaded the garden and we see a sinister fleet of

combines harvest a field, while in the background factories belch smoke into a post-apocalyptic sky. A lone man in a business suit carrying a briefcase walks across the field, suggesting the power of business over the farm is disproportionately in the hands of a few. The film sets out to reveal what Eric Schlosser calls "the world deliberately hidden from us," (Kenner, 2008). Pedagogically, the film wants to inform the reader that knowledge will set them free, alternating images of the farm, industrial slaughterhouses, huge chicken warehouses, farmers who have no control over their land or animals, and numerous other aspects of the industry that are deliberately concealed. The commodity biography focuses on telling the story of production by piecing together the fragmented lifeworlds and labours involved in food's transformation: it literally reassembles the food system piece by piece. It assumes a reader that is unaware by design, and echoing the cultural industry thesis of Horkheimer and Adorno, seeks to wake that reader up through criticism— to push through the fog of false consciousness with a process of demystification.

The primary concern for the commodity biography is to move from image to reality, and this usually begins with investigating the colonizing effects of capitalism on nature and culture. Like many aspects of our economy, the food system is a vastly complicated network consisting of seed producers, chemical manufacturers, growers, processors, transporters, and sellers. Many of the components of this system are vertically integrated and in the United States, a dozen companies control most of what American's eat (Heintzman and Solomon, 2004 x). For example, Cargill and ADM control one third of all corn grown, and are involved in every step of the process, making Cargill the biggest privately held corporation in the world (Pollan, 2006 63). The days of the small family

farm are largely gone, with most agricultural production in the hands of a few large companies that farm according to brutally Taylorist principles. *Food Inc.* demystifies the pastoral imagery used to conceal the worst abuses of the system by showing images of systemic brutality towards animals, and stories of family farmers cast in a David vs. Goliath role. The commodity biography is thus primarily pedagogical, seeking to illuminate a reader/viewer who is trapped behind the pastoral veil and social mystery of the commodity.

Jamie Oliver's *Fowl Dinners* employs similar tactics in order to reveal the whole story of the chicken and the egg. Hosted by Oliver, this one-and-a-half-hour special challenges many of the expectations of the cooking show genre. Staged as a gala dinner, the show is a vehicle through which Oliver attempts to tell the true story of cheap food in the hopes that knowing where food comes from will convince people not to eat battery-cage chickens and eggs. From the opening credits, the announcer asks: "Will they change what they buy when Jamie tells them the truth about fowl dinners?" The audience, consisting of self-avowed junk food addicts, organic foodies, "average" people, and executives of food processing and distribution companies, is placed in the middle of the story. The stage surrounds a typical white linen service— a gala dinner complete with silverware, waiters, and hungry diners. All around them are various stages and screens, each relating to some aspect of the chicken's life. For the first course, the waiters come out with a series of silver dinner cloches and place them on the table to reveal a dozen little chicks. The audience is immediately filled with doe-eyed empathy for the cute little birds as they spread out over the table in a cacophony of yellow fluff, collapsing the

typical distinction between consumption and production.

Oliver asks each audience member to sort the chickens by sex, placing the male ones in a box by the table. The story is about to begin. To the horror of the audience, Oliver takes the male chickens to a pair of white coated men standing next to a clear plexiglass box unfortunately named the dispatching chamber. In the egg industry, male chicks are economically useless. They do not produce eggs and are not used for meat, so every male chick is either gassed or tossed alive into a giant blender, where they are minced for livestock feed or pet food. The announcer warns the audience that they will be witnessing every aspect of the production process and may find some of it disturbing. The chicks are placed in the chamber and a mixture of carbon di- and monoxide is pumped in while the audience watches as the cute little birds gasp for air and die. Symbolically and literally, the cloche is raised and the veil between consumer and product, life and death, nature and culture is temporarily lifted as Oliver removes the layers of mystification that usually protect the industrial eater. He reveals the story of the food they are about to consume, and as such, fosters a process of co-production that suggests consumers participate in the production and destruction of a lifeworld every time they buy something. While the tactic is brutal and in-your-face, the goal is to reveal the social mystery of the commodity, while at the same time offering an alternative mode of production in the form of organic and sustainable agriculture.

As in *Food Inc.,* Oliver oscillates between pastoral and industrial imagery throughout the show. From death they move on to life, showing what a wild chicken looks like and explaining that this is a bird that can live for 10 years. In contrast, "modern

chickens are living machines, not a real bird at all" (Oliver, 2008). They lay up to 300 eggs a year, and get to slaughter weight in 38 days. Oliver suggests that perhaps the male chicks are the lucky ones because they don't have to live these short, brutal lives. But the industry has been pushed by the supermarkets towards producing more and more cheap ingredients, especially for processed food, which rely on liquid eggs and mechanically reclaimed meat (MRM) for binding agents and cheap fillers.[45] Once again, the audience is shocked when Oliver shows them what a battery-cage looks like and asks if they would still buy the eggs if there was a picture of this on the front. Like *Food Inc.*, Oliver points towards the role of pastoral imagery in concealing the truth. The show tries to smash the commodity nexus by revealing the brutality of the economic calculus. Oliver repeatedly emphasizes that the drive to save a few pence, to provide cheap meat, is at the heart of the problem. In the process, the hen becomes a cog in the machine, as close to life colonized by capitalism as possible. The film reinforces the machine-in-the-garden metaphor as Oliver walks through a large egg processing facility that looks like something out of *The Matrix*—thousands of chickens, all of them shoved in cages without enough room to spread their wings, eating corn from a mechanized conveyor-belt, and laying eggs that are quickly rolled away.

The commodity biography works on the premise that respect and responsibility is impossible without accurate information. Because so much of the production process remains out of sight and out of mind, it is difficult for the average consumer to demand

[45] There is a perverse way in which the process of extracting MRM can be argued as environmentally friendly, since the whole process is designed to minimize waste. Every part of the chicken is utilized and consumed.

better conditions for chickens: they buy eggs, not a lifeworld, and it is this disconnection the commodity biography seeks to bridge. Oliver tries to show the audience the true cost of the system: cheap unhealthy food that tastes bad, wretched and sickly birds, an obese population, farmers that have little control over their lives and are forced to comply with what the supermarket demands, and a huge environmental cost. In the process, consumption and production are re-united.

The program returns to the conventional cooking show format Oliver is known for, but with another twist. This time Oliver makes a number of dishes for the audience to compare. Some with liquid boxed eggs, MRM, and battery-cage chickens, and others with the finest organic, free-range birds and eggs. He wants to show the audience that this food is better tasting and still affordable when you cook it yourself. Especially in the commodity biography, the desire for storied food is at least in part about the narrative impulse, the reflexive ordering of life in a post-traditional order that is often characterized by various interlocking obfuscations and alienations that conceal the inter-relation of humans and the natural world within the commodity nexus. The commodity biography attempts to remove some of these alienations so as to foster more ethical and sustainable modes of co-production. For Massimo De Angelis, "the basic precondition for the constitution of alternative modes of co-production is predicated on making visible what capital's value practices keeps invisible" (De Angelis, 2007 64). This is precisely what the best kinds of food narratives accomplish. They reveal a social mystery while at the same time imagining a new world, although in the case of many food narratives, this world is decidedly old-fashioned.

In the end, "authentic" pastoral imagery is used to revive the sense of consumer power. Both *Food Inc.* and *A Fowl Dinner* rely on this somewhat ironic return to the pastoral which can be read in a number of ways. At best, the commodity biography helps foster a sense of co-production. In the case of the two documentaries I have chosen, this sense of co-production comes from the consumer making a choice to support a farmer who treats his/her animals and land with respect. For Oliver, this means free-range and organic farming of birds. As an antidote to the anxiety produced by his in-your-face approach, Oliver offers a rather pastoral farm scene that shows what a chicken's life can be. Unlike the horror of the industrial shed, these birds play in the dappled sunlight of shade trees and roam about pecking in the dirt searching for grubs and other delicious morsels. Although he encourages everyone to buy these kinds of chickens and eggs, he realizes not everyone will spend the money, since the birds cost up to three times as much. As a middle ground, he supports the Royal Society for the Prevention of Cruelty to Animals Freedom Food Standard, which uses open concept barns with roosts, natural light, and an overall more stimulating environment for the chickens, and only costs a pound extra per bird. The RSPCA establishes and monitors a series of standards that include maximum animal density, availability of shade, and other elements related to animal welfare. It is not perfect, but Oliver realizes he needs to get people in the door. Like many certification schemas, the consumer must trust the organization which sets standards according to "the limit of what is achievable, in terms of an animal husbandry and commercial viability, and aim to deliver improved animal welfare above and beyond 'standard' or typical UK production" (RSPCA). While Oliver is clearly not fully satisfied

with the standard and its ambiguity, he nonetheless supports it as better than factory farming and as a means of assuring a basic level of animal welfare for those concerned but unwilling or unable to afford the organic birds.

Like the Slow Food movement, which Oliver supports, the focus on ethical consumption, the emphasis on food communities and co-production is significant because it brings the world of consumption and production together. This is very important because it allows for the enfranchisement of, for example, small producers from the global South, and also begins to peel away the layers of alienation engendered by the consumption of mass produced commodities. Slow Food's Terra Madre awards support traditional modes of production by providing access to funds, marketing, and connections to affluent consumers in the West. Although the awards are often small, they help from a pedagogical standpoint by linking producers and consumers across continents, highlighting traditional practices around the world, and thereby making it more likely that they will survive. It also helps attract young people to farming by making it economically viable.

Likewise, the Ark of Taste, also an initiative of Slow Food,[46] attempts to save endangered plants and animals and the communities that produce them. In both cases, Slow Food emphasizes that consumption is always an act of production, in that we choose to support certain practices and lifeworlds every time we eat. While Slow Food has been criticized for being an elitist dinner club, the concept of co-production is crucial in

[46] Petrini defines it as a: "protective receptacle for quality produces that should be saved from the deluge of standardization and world-wide distribution" (qtd in Parkins and Craig, 2006 23)

articulating a counter-globalization that respects local traditions and modes of production, without slipping into cultural xenophobia or petty nationalism. Both of these are dangerous aspects of the celebration of local food and will be explored more extensively later in this chapter. Petrini identifies Slow Food and events like Terra Madre as instances of community building that promote a "virtuous globalization" (Parkins and Craig, 2006 27). Slow Food is thus primarily concerned with becoming aware of the connections that bind us to distant others, and thus the creation of what Parkins and Craig refer to as "ethical cosmopolitanism" (Parkins and Craig, 2006 25), a counter-globalization that recognizes and puts into lived practice the ecological injunction that everything is interconnected. The model of the Ark of Taste is a complicated interplay of capitalist naturecultures, ecotourism, gourmet taste, ecologies, cultures, and economics that recognizes the role that capitalism has in maintaining and destroying certain lifeworlds. The first step in the process of fostering these networks is the commodity biography, which, by emphasizing the underlying conditions of production and attempting to tell the story hidden from us, allows the consumers and producers to enter into a kind of community, even if it takes place over considerable distances and is nonetheless mediated by money.

However, as in the case with ecological modernization, the commodity biography can easily be folded back into capitalist modes of production through the emphasis on codification and standards. As Julie Guthman has pointed out, "the drive for regulatory legislation effectively subsumed much of the organic movement into an organic industry" (Guthman, 2004 111). As a result of the focus on standards and consumer labelling laws,

organic food has become a lucrative arm of green capitalism, focusing on the "sentiment that shopping creates possibilities for consumers to 'change the world'" (Johnston, 2008 235). Because of this, the organic industry has followed a largely industrial path, substituting botanical inputs for artificial ones, but nonetheless maintaining the production and distribution systems of large-scale mono-cropping (see Obach, 2007; Guthman, 2004; LaSalle and Hepperly, 2008; DeLind, 2000).

Both *A Fowl Dinner* and *Food Inc.* end with a call for labelling laws and stricter standards, and for consumers to spend more time and money on food. Oliver tries to connect money with welfare: "the more you pay for your eggs, the better quality of life for the hen." Although both texts try to expose and thereby escape the commodity nexus, the knowledge gained is easily folded back into the system it challenges. Because the suggestions are largely focused on consumption: go to a farmers market, demand accurate labelling, buy fair trade, meet your farmer etc., the knowledge gained can quickly be reincorporated into the commodity chain. In her analysis of the organic industry, Laura DeLind argues that "when seduced by the charms of convenience and commodification, the addition of an ubiquitous organic label certifying an organic product's authenticity will absolve the consumer of any further need to think about the agrifood system" (DeLind, 2000 203). Whether or not the local food movement will succumb to the same pressures organics did, depends largely on how narrative and practice are reconciled within the political and ecological imaginary of its practitioners.

Pastoral Narratives: Failing the Recovery?

In the previous chapter, under the theme of apocalypticism, I discussed attempts to value nature outside the logic of capitalism. There are many ways of doing this, and many consequences to these representations of nature, and in this section I want to consider pastoral imagery within the alternative food movement. Whether this means using the supermarket pastoral in appealing to a product's connections with a simpler life, or the back-to-the-land experiment of Kingsolver's *Animal, Vegetable, Miracle* and Gary Paul Nabhan's *Coming Home to Eat*, storied food has a complicated relationship to pastoral metaphors and imagery. While many food narratives are critical of the supermarket pastoral and the way it conceals a corporate food system through images of harmony and rural bliss, those very same narratives often rely on an ostensibly authentic form of pastoralism in the form of organic farming, farmers markets, and so called "real" food. The tension between authenticity and the real, and simulation and materiality is a central problematic in arguments for and against the reformation of the current food system. Many of the texts in storied food are guides meant to cut through the confusion, and books like Pollan's *Food Rules*, function as a translation matrix, helping readers decode the meaning of various additives and ingredients, and providing an overall picture of the industrial food system. This section focuses on pastoral imagery within a few key texts in order to consider its role in storied food, both as a metaphor, but also, as a material reality. What I mean by this is the actual lifeworlds invoked, lived, and written about. As in the previous section, my goal is to consider the work that pastoralism does, especially as a

rhetorical device situated to bridge the text with the world. Specifically, how do narratives of fall and recovery function in storied food? What role does romantic idealization play in them? What, if any, is its pedagogical value? The following will consider the complicated use of pastoral imagery and aesthetic appeals to nostalgic narratives of harmony, ecological purity, and capital N Nature.

Pastoralism has a long and complicated history stretching back to Virgil's ecologues and also a Christian ethic of care; it generally refers to an idealized conception of nature that laments the loss of the simple life associated, at least traditionally, with a shepherd and his flock. According to Leo Marx, whose 1964 book *The Machine in the Garden* examines pastoralism within the American context, the pastoral has traditionally valued a cultivated, rural, and peaceful "middle landscape" (Marx, 1964 71) between wilderness and civilization. Such a middlescape eschews both "the violent uncertainties of nature" and "the repressions entailed by a complex civilization" (Marx, 1964 22). The pastoral life invokes concepts of simplicity, spiritual wealth, connection to the cosmos, and material self-sufficiency. It does not regarded nature as "sweet and pure," but admires "improved nature, a landscape that is a made thing, a fusion of work and spontaneous process" (Marx, 1964 112). In the American context, the pastoral was exemplified by Thomas Jefferson's vision of an agrarian America inhabited by the yeoman farmer:

> self-sufficient and frugal, he lives off the land and is not dependent on others for his livelihood; he is also independent of urban society and its corrupt ambition and acquisitiveness. He thus has the virtue, simplicity of wants, and independent character necessary for self-governing citizenship in a democratic, egalitarian society of small property holders. (Cannavò, 2001 77)

For Marx, pastoralism is trapped in either pessimism or privatism. Its visions of

harmony and simplicity are implicated in the have-your-cake-and-eat-it-too attitude to nature and industry, a sentiment that also manifests in discussions of green capitalism. In a sense, it requires a subject who has temporarily fled civilization, and thus can claim a privileged position in regards to nature as a more authentic base of experience without actually giving up the very industry that made this escape possible. Green capitalism trades on the same fantasy, seeking a reconciliation of growth, profit, and greed with the idea of sustainability. In both cases, the privilege of class, the infrastructure to access the landscape, the social arrangements of ownership and labour, all tend to disappear behind the appearance of Nature constructed as pure and untrammelled. Ultimately, Marx rejects pastoralism as

> a rhetorical formula rather than a conception of society, and an increasingly transparent and jejune expression of the national preference for having it both ways. In this sentimental guise the pastoral ideal remained of service long after the machine's appearance in the landscape. It enabled the nation to continue defining its purpose as the pursuit of rural happiness while devoting itself to productivity, wealth, and power. (Marx, 1964 226)

As with the use of nature in rhetoric surrounding the greening of capitalism, the question of limits, power, and class are strategically ignored or forgotten. This is the quintessential antimodern position that Latour refers to as the jumping out of progress (Latour, 1993 9), and one of the central dynamics in the struggle over terms like "sustainable," "renewable," "green," and "ecological."

In his classic work *The Country and the City*, Raymond Williams rejects the pastoral on grounds similar to Marx, arguing that from its inception in Greek poetry, pastoralism was always about a receding golden age of harmony beating on the present with the stick

of "the good old days" (Williams, 1973 9). The Arcadia of the golden age is always receding in memory while at the same time being projected into a future utopia, a mythical memory, a precarious retro-future that imagines a world that was once whole and now stands broken. For Williams, this narrative is usually in service of conservative politics and thus must be treated as suspect. For example, the tension in classical pastoralism between pleasure and loss, harvest and labour, and summer and winter is gone in the Renaissance, which celebrates the "happy rural retreat" (Williams, 1973 18) and takes root in the country house and its estate (Williams, 1973 22). For Williams, the pastoral relies on erasures and hidden labour, such as the case of Sidney's Arcadia, which was written in a park "made by enclosing a whole village and evicting the tenants" (Williams, 1973 22).The Edenic imagery of the country home as a natural order that has returned to the grace of nature, where food appears as feast and labouring is no longer required, occurs by making the labourers part of the natural landscape/order (Williams, 1973 32).Williams identifies the appeal of the golden age as rooted in the shift of values from a feudal and post-feudal way of life as a total system with "reciprocal social and economic relations" (Williams, 1973 35), to the alienated organizational order of capitalist agriculture. For most, "it was a substitution of one form of domination for another: the mystified feudal order replaced by a mystified agrarian capitalist order, with just enough continuity, in titles and in symbols of authority, in successive compositions of a 'natural order', to confuse and control" (Williams, 1973 39).

Pastoralism is often charged with sentimentalism and succumbing to a romantic idealization of nature hidden behind pseudo-scientific notions of harmony and balance

(see Phillips, 2003 42-82). For Mark Morton, the idealization of nature has prevented us from recognizing our role within ecology: "the dreamy quality of immersion in nature is what keeps us separate from it." Morton argues that "to contemplate deep green ideas deeply is to let go of the idea of Nature, the one thing that maintains an aesthetic distance between us and them, us and it, us and "over there"' (qtd in Gifford, 2008 7). Like Cronon, who advocates abandoning the idea of wilderness, Morton is highly critical of the idea of Nature and the ideological baggage it carries.[47] Many theorists now focus on social entanglements of nature as a way out of the quagmire of binary logic:

> there is now a large and increasingly familiar set of metaphors that strive to capture this sort of relationality: networks, webs, assemblages, rhizomes, cyborgs, topographies, cartographies. Each in its own way seeks to avoid falling back into a nature-culture dualism; each emphasizes the contingency of the present, and asks how some things come to be fixed. (Braun, 2002 266)

What I am interested here, is the appeal to authenticity and the real beneath the concept of nature and the pastoral, to what Morton refers to as Romantic notions of Nature. Pastoralism has indeed been guilty of various erasures. Aware of many of the problems of pastoralism, some ecocritics have nonetheless tried to salvage it. Lawrence Buell identifies pastoralism broadly as an anti-urban desire to return to a more authentic, "natural" state, although this state is profoundly shaped by cultural norms. "Historically, pastoral has sometimes activated green consciousness, [and] sometimes euphemized land

[47] Both Timothy Morton and Zizek argue that we need to abandon notions of nature as a domain of organic harmony and purity. Following Morton (Morton, 2008 84), Zizek argues that "what we need is ecology without nature: the ultimate obstacle to protecting nature is the very notion of nature we rely on" (Zizek, 2008 58). For Zizek, ecology is the new opium of the masses (Zizek, 2008 55)

appropriation" (Buell, 1995 31).[48] Although the pastoral is often dismissed as a "willful retreat from social and political responsibility" (Buell, 1995 44), Buell contends that despite its contradictions and ideological baggage, the pastoral can function "as a bridge, crude but serviceable, from anthropocentric to specifically ecocentric concerns" (Buell, 1995 52). For example, Buell considers the beginning of *Silent Spring* and the pastoral imagery of the decay of a typical "Our Town":

> this pastoral inset trades strongly on the old dream of the simple life but it is hardly a simple nostalgia piece, since it was intended and was perceived to be a direct challenge to the chemical industry. To read it as a regressive fantasy is to read it the same way the pesticide industry's defenders want us to read it. (Buell, 1995 44)

Jane Bennett suggests that we must allow ourselves to "become temporarily infected by discredited philosophies of nature" (Bennett, 2010 18). For Bennett, it is important to practice a "methodological naïveté" (Bennett, 2010 17) in order to cultivate a sense of the world that is receptive to non-human agents, assemblages, and an otherwise out-side that can impel people to see the world as filled with forces, trajectories, propensities and tendencies of their own (Bennett, 2010 viii). For Bennett, "the image of dead or thoroughly instrumentalized matter feeds human hubris and our earth-destroying fantasies of conquest and consumption" (Bennett, 2010 ix). The following section will consider the possibility of inhabiting the discredited philosophy of pastoralism as opening up actual and imagined places that encourages the cultivation of a slow and mindful inhabitation of

[48] For Glen Love, "the redefinition of pastoral...requires that contact with the green world be acknowledged as something more than a temporary excursion into simplicity which exists primarily for the sake of its eventual renunciation and a return to the 'real' world at the end" (Love, 1996 234-35).Thus Love works towards a definition of pastoralism as "literature which recognizes and dramatizes the integration of human with natural lifecycles" (Love, 1996 235).

the world.

I will therefore propose two strains of pastoralism within storied food. The first is a traditional Nostalgic Pastoral narrative that tends towards a Christian, conservative, romantic notion of wholeness rooted in the Jeffersonian yeoman farmer and an escape from the city. It tends towards a narrative of fall and recovery, sin and redemption, and although it tries to escape the negative associations of rurality, nonetheless reinforces the town-country split. I will focus on Barbara Kingolver's *Animal, Vegetable, Miracle* and the works of Wendall Berry to explicate this form of pastoralism. The second is much more urban and less romantic. I will focus on the very popular British cooking shows *Jamie at Home* and the *River Cottage* series, and *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City.* I will make the case for the emergence of an urban pastoralism that is tied into surviving the threat of peak oil and regaining home skills like gardening, pickling, bread making, and cooking. Although both strains of the pastoral imaginary overlap in places, the distinction is crucial to understanding how practices of inhabiting the foodshed and the politics of food emerge from the ostensibly pedagogical impulse of these texts. Since both nostalgic and utopian pastoralism have clear ecoliteracy goals, it is important to tease out some of the history and ideological momentum contained within.

Nostalgic Pastoralism

Barbara Kingsolver's *Animal, Vegetable, Miracle* is the 2007 bestseller that chronicles her family's attempt to live a more authentic, local life on their Kentucky farm. Fleeing from the city life of Tucson Arizona, "we wanted to live in a place that could feed us: where rain falls, crops grow, and drinking water bubbles right up out of the ground" (Kingsolver, 2007 3). From the onset, the book takes the format of what Susie O'Brien refers to as a "pedagogical memoir" (O'Brien, 2009 4). Kingsolver's family journey is twofold: "We were about to begin the adventure of realigning our lives with our foodchain" (Kingsolver, 2007 6). This realignment takes place on the private level: her family literally flees the city in order to live what they regard as the good life and reconnect to family roots and nature, following a rather typical downsizing narrative of cosmopolitan urbanite seeking a simpler, more authentic life in the country. Carl Honoré's *In Praise of Slow* examines this trend in the 21st century, but as Raymond Williams has pointed out in *The Country and the City*, there is a long history of rural escape, especially tied into a gentleman's countryside that conveniently erases the actual labour on the land. And yet as a memoir, her transformation is a public act— a demonstration of an alternative value practice and way of life. She often makes statements such as: "if every U.S. citizen ate just one meal a weak (any meal) composed of locally and organically raised meats and produce, we would reduce our country's oil consumption by over 1.1 million barrels of oil every week" (Kingsolver, 2007 5). The personal and the political is reconciled through the act of eating. Kingsolver recounts a pastoral narrative of fall and

recovery: we have left the land and become an industrial people who have lost any connection to nature. She laments that "for modern kids who intuitively believe in the spontaneous generation of fruits and vegetables in the produce section, trying to get their minds around the slow speciation of the plant kingdom may be a stretch" (Kingsolver, 2007 11). The book is filled with recipes, suggestions, DIY tips, the stories of plants, especially old varieties, and generally celebrates rurality as a more authentic way of life.

Like Kingsolver, Wendall Berry celebrates an organic society, one literally rooted in the soil and made whole through a realignment with nature. Berry is without a doubt America's pre-eminent pastoralist and voice for rural values, having written countless essay collections, novels, and poetry celebrating rural living in Kentucky. Julie Guthman identifies his oeuvre as one of the strongest voices in "contemporary agrarian populism" with its "concern with corporate power, the role of big science in agro-industrialization, and the implicit links between the social organization of farming and ecological outcomes" (Guthman, 2004 10).[49] Berry embraces the Jeffersonian ideal of the freeholder, "one who works his own land and nothing more" (Guthman, 2004 11). Agrarian populism looks towards "a purer American vision of a society founded on the order of nature" (Buell, 1995 34).

In the same way apocalypticism seeks to root society in a more authentic form of nature ("homo naturalus"), nostalgic pastoralism embraces an idealized agrarian order as

[49] Agrarian populism echoes the Jeffersonian yeoman tradition, with its understanding of democracy, family values, the connection between ownership and stewardship, and the negative role of government in ensuring the small farmer/citizen isn't trampled by corporate interest.

the basis for a more democratic and authentic society. Both Kingsolver and Berry understand this to be fundamentally rooted in small-scale sustainable farming, and such an understanding re-writes the notion of modernity as progress. For example, Kingsolver makes a connection between the Green Revolution and a munitions industry that needed to find a use for ammonium nitrate after World War Two. In the process, a system of violence is extended to the farmer's field with devastating results. For Kingsolver, the violence permeates society: "the next explosions were yields on Midwestern corn and soybean fields" (Kingsolver, 2007 13), inaugurating a process that has made the current system possible.

In his book *Just Food*, James McWilliams follows Guthman in arguing that many of the misconceptions surrounding food boil down to "the misleading allure of a lost golden age of food production— a golden age of ecological purity, in which the earth was in balance, humans collectively respected the environment, biodiversity flourished, family farms nurtured morality, and ecological harmony prevailed" (McWilliams, 2009 6). Furthermore, "the perpetuation of this myth is a cheap but powerful rhetorical strategy to burden the modern environmentalist with a false standard of pastoral innocence" (McWilliams, 2009 6). Both Berry and Kingsolver tend to mystify our relationship with the global in favour of harmony rooted in honest labour on the land. They rely heavily on a romantic wholeness to inflect and justify their political and social projects, appealing to nature and ecology as transcending ideology. However, as Zizek points out, ecology is never innocent, and "the very gesture of stepping out of ideology pulls us back into it" (Zizek, 1994 10). For Kingsolver, local food just makes sense, and in the same way

technoutopianists try to move beyond politics by focusing on facts, Kingsolver marshals a series of scandalous statistics about ignorant children who cannot identify where their food comes from (Kingsolver, 2007 11), the ecological insanity of transporting food across the world, [50] and the role of food cultures in rooting a people in nature (Kingsolver, 2007 15). Food transcends ideology in the sense that it roots humanity in a deeper, more authentic, organic relationship with the earth and thus with other people through an "edible patriotism" (qtd in Kingsolver, 2007 338).

Guthman and McWilliams make a good case that pastoral narratives are dangerous in their reliance on purity, authenticity, and nature as a good beyond politics. The invocation of edible patriotism (see also Katz, 2006 33; Nabhan, 2002 252), organicism, and other dubious appeals to nationality and locality are troubling because of the easy way in which they become wrapped up in other narratives. For example, Kingsolver argues that "shopping at the hardware store owned by a family living in town. Buying locally raised tomatoes in the summer, and locally baked bread. Cooking meals at home. These are all acts of love for a place" (Kingsolver, 2007 150). But what exactly does this mean? Are all local hardware stores good? What if they have a racist hiring policy? What if the local baker uses white flour that has been bleached until it has no nutritional value? What if you are a terrible cook— is that still loving to your family? Home is a complicated site that is filled with comfort, memory, security, escape, but also violence, fear,

[50] Her book is filled with examples such as this, which use rhetorical hyperbole to reveal the connection between food and oil: "transporting a single calorie of a perishable fresh fruit from California to New York takes about 87 calories worth of fuel. That's as efficient as driving from Philadelphia to Annapolis, and back, in order to walk three miles on a treadmill in a Maryland gym" (Kingsolver, 2007 68).

commodification, and a retreat from the political. Nostalgic pastoral narratives rely on a kind of knee-jerk, Manichean world view where local and small is always good and global and big is always bad. While the appeal to pastoralism is meant to reveal a fundamental dependence of humanity on nature, the emphasis on a particular form of rurality has the effect of erasing certain class and gender histories and embracing certain kinds of conservative politics. Guthman rejects agrarian populism as a deeply conservative vision that in many ways supports the very institutions of private property that have led to the agricultural crisis. She argues that agrarian populism "places tremendous value on farmer independence rather than collective action" (Guthman, 2004 10). It is also "deeply suspicious of state intervention, does not question the individuation of markets, and, most fundamentally, remains a defense of private property" (Guthman, 2004 12). Ownership and stewardship are linked in a variety of the tragedy of the commons: you wouldn't destroy your own land. For Berry, "the household is the last bastion against cultural estrangement" (Guthman, 2004 11).

But what of those left out? What of those with no place in the home? For example, Sandor Katz warns against the heteronormativity of the family farm ideal of agrarian mythology, which historically, has often excluded many people (Katz, 2006 95). As a homosexual Jew with HIV living in a commune in rural Tennessee, he has first hand experience of the power of community to not only include, but to exclude. We must not forget that many housewives of the 50s celebrated the introduction of frozen meals as liberating them from the daily drudgery of housework. On an even broader ecopolitical level, it is important to consider the consequences of discourses of locality as they relate to

global environmental issues that simply cannot and should not be dealt with on a local level. How, for example, can global warming be addressed locally? While the appeal to home cooked meals, scenes of gentle farmers tilling the land with respect, and equally happy animals frolicking in green meadows can provide a powerful critique of modernity, we must also ask: what kind of politics do these texts envision? And for the purpose of this dissertation, what kind of economic system do they envision? What relationship between economy and ecology do they endorse?

Nostalgic pastoralism is predicated on escape: the subject falls into a Romantic conception of Nature, seeking redemption and atonement by extracting him/herself from the evils of society. Trading on images of rural harmony, s/he falls into the anti-modern position Latour criticizes, which tends to create "pretty ghettoes" (Buell, 1995 4) that allow him/her to re-create and experiment with pastoral harmony without giving up the comforts of industrial civilization. For storied food, this often takes the form of the life experiment, where the author tries to transform his or her life, whether through a 100-Mile diet, by giving up certain foods, or generally, by embracing a lived philosophy. The last section of this chapter deals with the transformation of the everyday, which demands a kind of hardship and individualism, although community is its first refrain. For nostalgic pastoralism, there is no room for the city. Authenticity involves a "casting off of all things modern in order to enable one to become a true subject of nature's will" (Bowerbank, 1999 174). One gets a sense in reading Kingsolver and Berry that their experiences with bucolic bliss has saved their souls, that they have managed to find an authentic mode of being in a postmodern world.

But how does the reader do the same? How do they cross the great divide between urban and rural, simulation and the real, and commodity and life? And what about those people who like city life and would never want to actually live in the country? Do these texts serve a purpose for them? Are they anything more than a literary adventure, a form of virtual ecotourism? How is the appeal to authenticity any different than the marketing campaigns of so many companies that promise authenticity, natural ingredients, and various other blandishments of the supermarket pastoral? Michael Pollan's *Food Rules* and *In Defense of Food* offer a simple heuristic: if your grandmother wouldn't recognize it as food, don't eat it. The tension between real and fake manifests very strongly in storied food. Within the commodity biography, we see this in the distinction between real and artificial food, the supermarket pastoral and the real deal. Most of the texts don't seem particularly concerned, as if Grandma is a category of truth in and of herself, appealing to common sense and thus ignoring the complicated process of signification, class, taste, and history behind food practices. Even the search for the transparent meal raises the question: what is the status of representation in storied food? How does one move from being caught up in the machinations of the food complex, towards being a critical consumer consciously participating in modes of co-production that sustain rather than destroy nature?

In the next section, I will argue that the discourse of Real Food can function as a rhetorical bridge from text to world, a crucial step to the appeal and power of storied food to so many different people. It is precisely this transition, this bridge, that can transform storied food into a political movement capable of addressing the reality of contemporary

capitalist naturecultures. The narrative of utopian pastoralism, understood as a project of imagining a better future, an alternative value practice rooted in hope, is less nostalgic and more forward looking. It is about teaching people the arts of the urban homestead, and thus focuses more on alienation and labour than recreating a pastoral Eden.

Utopian Pastoralism

Political theorists of revolutionary change have always struggled with the question: how do we get from here to there? How do we move from one socio-economic order to another? In his book *The Beginning of History*, Massimo De Angelis considers how to move beyond the conception of capitalism as the end of history, in obvious critical reference to Fukuyama. He tries to lift the "soporific veil" (De Angelis, 2007 25) of everyday naturalizations of the market that conceive of capitalism as a totalizing force without an outside, and which, as in the case of ecological modernization, work by internalizing and colonizing alternatives through a process of accommodation.

By focusing on autonomous zones and practices, fields of relations, commons, conviviality, and gifts that exceed the logic of capitalism, De Angelis begins to theorize the possibility of alternative value practices that challenge the social antagonism (De Angelis, 2007 8) endemic to capitalist modes of production. He calls this process the beginning of history, which rather than fighting against capitalism for a particular system, struggles "for the conditions making up a context of human interaction in which value

practices that are alternatives to those of capital can flourish and prosper" (De Angelis, 2007 36). By looking at capitalism as a subsystem of a larger system of social cooperation, whether that is family kinship, community, gift exchanges, friendship etc., (De Angelis, 2007 37) De Angelis tries to avoid the kind of reification of capitalism that sees all resistance as futile. Since capitalism aspires to be a whole, to colonize all lifeworlds, it is crucial to acknowledge the presence of "temporary space-time commons" (De Angelis, 2007 24) so that we can "see more clearly how things are related, so that on our return into the midst of the scenery, we can measure ourselves and others, our relations of co-production, and the values that give meaning to our actions more thoughtfully" (De Angelis, 2007 23).

The rest of this chapter and the next will be spent arguing that food politics represents one of these alternative practices that De Angelis theorizes, and that even in its provisionality and the tension between resisting capitalism and reinforcing it, food can provide glimpses into the beginning of history. This section will consider pastoralism in a different light, as a practice grounded in the everyday that tries to foster what Susan McManus calls "utopian agency." McManus argues that the utopian challenge to think differently "seeks to open spaces of alterity and critique; its alterity seeks to alter, to intervene within the configuration of the present by revealing new and different possibilities, not to legitimate the world as it is already given, already known, already ordered" (McManus, 2007 3). Once again, we must return to how we get from here to there, or what Fredric Jameson defines as the "the space of the utopian leap" or "the gap between our empirical present and the utopian arrangements of [an] imaginary future"

(Jameson, 2005 38). I would like to consider this gap as it relates to food politics, precisely because this gap is a key argument against alternative food movements. Whether it is the claim that organic cannot feed the world and that it is only for the elite, or the spectre of Malthusian depopulation and its programs of rational state planning and enforced vegetarianism,[51] the accusations of impossibility continue to haunt the movement and discredit it as utopian in the pejorative sense.

In his later works, Leo Marx "departs from his earlier view of pastoralism as antipolitical and instead sees it as offering a radical challenge to late capitalism. Such a challenge would draw on pastoralism's utopian energies as well as its substantive values" (qtd in Cannavò, 2001 86). Many critics have argued that the inability of environmentalism to deal with working landscapes dooms the movement to failure (Brown, 1995; Reed, 2003; White, 1996; Wilson 1991). This is one reason that I consider the pastoral middlescape, as a representation of a working landscape, in terms of its ability to provide a model of human-nature interaction. As an inhabitation of discredited philosophies and utopian imaginaries, utopian pastoralism can begin to open a space of possibilities that registers actual landscapes and modes of life, while at the same time imagining a better world. Whereas the nostalgic pastoral searches for an authentic self, the

[51] Belasco notes that vegetarian crusaders have been arguing for over 200 years that the planet could be fuller and happier if we simply gave up the extravagance of meat. Those opposed to the eat-less paradigm, argue that meat eating creates superior civilizations. For example, arguing for increased consumption of British Beef was a key rhetorical strategy that pitted the "superior" British people against the "the rice-eating Hindoo and Chinese, and the potato-eating Irish" (Belasco, 2006 9). Thus, "whether posed in racial, economic, or nutritious terms, these evolutionary tales usually locate utopia in the meat-eating West and dystopia in the grain-based East" (Belasco, 2006 12).

utopian pastoral is much more concerned with the unalienated subject, although appeals to the real are nonetheless present. The utopian pastoral is about fostering skills that break down the everyday mystifications and divisions of labour characteristic of capitalism and thus can be read as an attempt to produce a more complete, but not necessarily authentic, human.

Anthony Giddens argues that "the deskilling of day-to-day life is an alienating and fragmenting phenomenon so far as the self is concerned" (Giddens, 1991 137). In terms of food, this deskilling[52] manifests in a number of ways, ranging from a broad inability to even recognize a fruit or vegetable in its unprocessed form, the inability to grow your own food or butcher an animal, to an increasing reliance on processed foods and take-out. According to many studies, in the developed world "up to half of consumer expenditure on food and drink is now spent eating out" (Sharp, 2007 114). Because food is an inelastic product— we can only eat so much— processors know that convenience is a major selling point, and dollar per dollar, much more is made on a box of corn flakes than on a cob of corn. The marketing of convenience, the deskilling of basic cooking ability, and poverty have all contributed to the over-consumption of processed foods that are high in sodium, fat, and sugar. Today, one of the fastest growing food trends is in portable snacks that can be eaten with one hand and yield no mess, because 19% of meals in America are eaten in a car (Pollan, 2006 110). Many of the texts within storied food lament the effects of this deskilling, ranging from the loss of the shared table as the centre of family life (Honoré,

[52] The techno in technoutopian participates in this process of deskilling by placing the solutions of environmental problems in the hands of technocrats and government.

2004; Kingsolver, 2007; Estill, 2008), to a profound disconnection from nature (Nabhan, 2002), the rising obesity crisis (Pollan, 2006; Oliver, 2010), the reduction of agricultural biodiversity (Petrini, 2003), the corporatization of food (Shiva, 2005), and global warming (McKibben, 2007), just to name a few. Overall, there is a sense that capitalism has colonized eating, transforming it from its original contexts of home and hearth and source of culture, to something more vulgar and utilitarian.

The series *Jamie at Home* is a great example of utopian pastoralism. Filmed at his country home, the show oozes pastoral appeal. Each episode is organized around a seasonal ingredient from Oliver's elaborate, walled kitchen garden, which he uses to demonstrate various recipes from field to fork. The meal is always accompanied with a brief history of the plant and suggestions of how to grow it, with an emphasis on small urban places. For example, in the episode on potatoes, Oliver shows the audience how to grow a sack of potatoes on a balcony in a plastic bag filled with dirt, leaned against the wall. The whole show is rustic: from Oliver's casual dress, the ancient cutting boards and mismatched ceramic bowls and platters, his tendency to cook right in the garden on a stump over some coals, to the very style of his cooking; onions are left with stalks on them, garlic is unpeeled, food is haphazardly manhandled, and measurements are rarely taken. All of it speaks to the quality of the ingredients and a pastoral aesthetic of rugged, rough and ready cooking that epitomizes Slow Food: simple, yet elegant peasant food for an urban audience. Skills are what allow you to make it delicious and quick. He is always a bit messy, tossing things over his shoulder in the garden, and sometimes presenting food that looks slightly burned. Much of the fit and finish of a typical cooking show is

intentionally absent.

The emphasis of the show is on cultivating skills by demystifying gourmet food. He consciously abandons the figure of chef as auteur associated with the cooking show genre, as he seems to almost bumble through the recipes. We get a sense that we are actually watching Jamie in his home, and while this is obviously crafted and scripted, the effect is important. For example, in the "Winter Salad" episode he slips while walking over the raised beds, and the wind is blowing so hard he can barely stand: it hardly seems like the right time to film a show, and one wonders why they did not simply postpone for another more suitable day. The viewers pleasure is tied into making the home a public space. The dinner always starts in the garden, reinforcing that food comes from the earth, and revealing the foodshed while teaching old skills. For example, in the episode on root vegetables, he teaches the audience how to clamp beets, which involves putting them in sand and covering them up so you can store them without refrigeration. Although this seems arcane, it results in tastier, crisper vegetables, and means a small closet can serve as a rudimentary root cellar. Another episode teaches basic skills involved in pickling and preserving. He often emphasizes what he calls "mothership recipes," techniques that translate into many different skills and which allow you to cook a dinner from scratch very quickly, using a variety of ingredients on hand, and thus avoiding processed, so-called convenience foods.

For Alexander Wilson, the cognitive dissonance between the imagined landscapes of pastoralism and the actual landscapes of capitalist agriculture are maintained by the sentimental and selectively nostalgic versions of country life. The only way around this is

to bring food production "back to the city, especially the raising of fruit and vegetables, poultry and fish. These old skills need to be recovered and propagated" (Wilson, 1991 203). Oliver trades on the fantasies of pastoral harmony while at all time insisting these are skills for city folks. His own persona embodies this tension. The country house participates in the fantasy of the happy rural seat, especially since the very wealthy Oliver spends most of his time at his London residence. However, his country home is also a working farm that provides most of the produce and eggs for his restaurant Fifteen, which Oliver established as a school for disadvantaged youth who want a way into the culinary industry. In general, *Jamie at Home* embodies the Slow Food aesthetic and philosophy of uniting pleasure and politics. By celebrating the pleasure of food, Parkins and Craig argue that "self-artistry affects the ethical sensibility of individuals in their relations to others" (Parkins and Craig, 2006 14). In other words, the slow arts are not merely cultural or individual, they respond to the subjectivity of a globalism imposed from above in a way that allows the individual to reposition themselves and resist in an everyday manner, transforming the mundane act of eating and cooking into a political critique of the established global order.

Both *River Cottage* and *Jamie at Home* are demonstrations of the Slow Food philosophy. In a sense, Oliver's success can be attributed to a balance between the various sub-genres of storied food I have identified. He relies on the pastoral image to bring the audience home and to encourage them that cooking can be fun and useful. The genteel countryside can be found throughout *Jamie at Home*, and affords a number of pleasures for the viewer. The pleasure of celebrity, the pleasure of home, an idealized country estate,

a fantasy of escape, but also, a rewriting of home work as pleasure rather than drudgery. This part of Oliver's public persona is vital in seducing the viewer and for providing the capital he needs for his more political projects, which end up costing him money. Neither Fifteen nor Oliver's anti-obesity crusade could exist without their profitable pastoral counterpoint. Oliver seduces the viewer with the sensual experience of food as culture, food as comfort, and food as celebration. He embodies the tension and contradiction in Slow Food between pleasure and politics.

As already mentioned, the pastoral is often dismissed as a retreat from the political. But this is only the case if one ascribes to a model of politics that eschews pleasure. Within the context of enchantment, utopian pastoralism can be critical and aware of its own history, utilizing the enchantment of a harmonious world, however tenuous, and mobilizing pleasure into projects of ecoliteracy such as farm to school programs that focus on urban youth growing and preparing their own meals (see Vallianatos et al., 2004), or the One Pot Pledge, which tries to convince urbanites in the UK to plant a herb or vegetable in their window or balcony. These practices attempt to reconnect the urban with the rural by making the city a vital part of food production, and in the process, reminding people that food actually comes from the land. From the perspective of narrative, the utopian pastoral is important in its ability to "register actual physical environments as against idealized abstractions of those" (Buell, 1995 54). The entanglement of narrative and practice in storied food insists on the transformation of self as a moment of possibility for maintaining forms of enchantment that can energize environmental perception and organize that energy into a schema. Wendall Berry argues that: "a significant part of the

pleasure of eating is in one's accurate consciousness of the lives and the world from which food comes." (Berry, 2007 4).

Too often, environmentalism is associated with apocalyptic messages, and as I have already argued in Chapter One, this can lead to a feeling of paralysis that reinforces the notion that we have reached the end of history, or, conversely, it can buttress the construction of consoling fantasies of nostalgic pastoralism. Pleasure is vital in (re)enchanting environmental politics in the 21st Century. There must be something worth saving, a world we can love and enjoy. In her assessment of the local food movement as an outgrowth of organics, Laura DeLind argues that "without an emotional, a spiritual, and a physical glue to create loyalty, not to a product, but to layered sets of embodied relationships, local will have no holding power" (DeLind, 2006 126). We need more enchantment, more non-econometric arguments and affective attachments to provide utopian moments of possibility that push upon the edges of capitalism. A self-conscious revitalization of the discredited, deeply pleasurable philosophy of pastoralism, with all its contradictions and layers, can provide such a moment, and thus begin to challenge the market-based grammar of the economic turn.

In order to do this, utopian pastoralism must resist nostalgic narratives of the Real and instead, focus on authenticity as a form of "informed or situated pleasure" (Parkins and Craig, 2006 25). This is a crucial shift from the appeal to the real in nostalgic pastoralism because it gets away from discourses of Edenic fall and recovery, and instead, conceptualizes pleasure as an ethical engagement with the current historical-ecological context, one which stimulates a utopian drive towards a new world. It is the possibility of

a new world, not a retreat into the past, that impels members of Slow Food to preserve a dynamic cultural and ecological heritage. As in nature, where biodiversity is the best means for ensuring a future, in Slow Food, tradition and locality are a means of establishing the conditions for survival. In moving from text to world, storied food provides a kind of narrative enchantment that encourages action and participation. It also moves between the private and the public, a tension I will explore more carefully in the section on the foodshed memoir and in Chapter Three.

The *River Cottage* series is another example of the utopian pastoral and its emphasis on building skills. The creator Hugh Fearnley-Whittingstall is a popular celebrity chef, real food[53] campaigner, author, journalist, and downshifting smallholder. The *River Cottage* series consists of a number of television shows and books that explore Fearnley-Whittingstall's attempt to simplify his life by becoming a smallholder in a gamekeepers cottage in Dorset. I will focus on two separate series within the overall oeuvre, *Escape to River Cottage* (1999) and *River Cottage Treatment* (2006), both of which focus on educating an urban audience disconnected from the land. *Escape to River Cottage* chronicles the beginning of his journey and announces itself as a typical rural fantasy: "like many city dwellers it's long been my dream to escape the urban sprawl, find a little place in the country and live off the fat of the land, thriving on whatever I can grow, gather or catch." (Fearnley-Whittingstall, 1999).

[53] Like Pollan's emphasis on real food, Fearnley-Whittingstall emphasizes eating unprocessed whole foods as a means to detach from the worst aspects of industrial food system.

Escape to River Cottage contains six episodes that track his first year on the farm, and while the setting is bucolic and very pastoral, the pastoral is not idealized, nor does it attempt to hide the actual labour on the land. It involves death, failed gardens, slugs and pests, struggle, heartache, and lots of work. One particularly difficult episode shows Fearnley-Whittingstall struggle over killing his pigs, both of which had become part of his daily routine for months. He goes through the whole process, acknowledging that if he is to fill his pantry for the winter and pay back his neighbours for all their help, he needs some porcine currency. By revealing the whole life of the pigs and taking responsibility for their death, Fearnley-Whittingstall inhabits the foodshed in a way that can translate pastoralism into a lived reality. His pigs are more than just pork: he must take responsibility for their lives and deaths, and quality becomes more than just an economic calculus. It is a process of co-production, one which the audience hopefully acknowledges and translates into a sense of responsibility and respect. After processing the pigs, curing his own ham and prosciutto, boiling the head to make headcheese, simmering the ears, and stuffing the stomach, Hugh throws a pig party to thank his neighbours and friends for their support. He uses every part of the pig, transforming the most disgusting bits into gourmet food.

The show takes a more explicitly pedagogical turn with *The River Cottage Treatment* (Fearnley-Whittingstall, 2006), which tries to reform the lives of a bunch of self-defined junk food addicts who never cook from scratch and rely almost entirely on takeout and convenience foods. In the same vein as *Food Inc.*, *River Cottage Treatment* focuses on the consequence of the supermarket pastoral, which in the case of meat, relies

on the erasure of the animal's lifeworld from the process. More than just taking the life of an animal for nourishment, the consumption of meat has become profoundly disconnected from the actual lives involved, and has allowed an industry to develop that only considers efficiency and cost. The *River Cottage Treatment* shows the audience and the fast-food junkies what eating a chicken really means. He makes the group kill a chicken, clean it of feathers, gut it, and cook a lovely meal from scratch. Echoing a common refrain in storied food, the series attempts to reveal the hidden costs of industrial agriculture by demystifying the process. In addition to taking responsibility for a specific chicken's life, the series teaches the participants how to eat quality, humanely raised ingredients for less money than the prepared food they are used to, by making things from scratch. The campaign for real food relies on the emotional resonance of care and stewardship that emerges from the pastoral imagery and experience as a way out of the malaise of being trapped in the commodity nexus.

The people chosen for the series are all urbanites and will most likely remain so, and the target of the show is an urban audience who does not have experience with these elements of the agricultural lifecycle. Because such a small portion of the developed world is involved in farming, storied food is crucial to revealing what farm labour entails. Rather than maintaining the urban-rural split, the show helps to reunite the two by forcing the audience and participants to realize that every decision they make in the supermarket literally shapes the landscape around them. It helps foster a sense of co-production that moves away from the simplistic consumption-production bifurcation, and thus empowers the viewer to support alternative models of agriculture that are more humane, sustainable,

and delicious.

While the utopian pastoral does depend on the concept of authenticity and the real as an antidote to modern alienation, especially in its reliance on the rhetoric of downsizing and escaping the city, it does this by celebrating all aspects of the food chain and demystifying it. By celebrating without idealizing, the utopian pastoral can move away from a politics of scarcity and sacrifice, while at the same time acknowledging the violence of nature and what it means to be a carnivore. It idealizes at the same time that it reveals the muck and dirt and blood involved. Especially when it comes to killing an animal, *River Cottage* tries to push the audience beyond sentimentality and into a practical ethics of stewardship that attempts to realign the gastronomic axis within a circuit of co-production that makes it possible for the city to help the country thrive. By bringing the rural into the home of the viewers and reminding them that consumption is always an act of production, while at the same time empowering through an emphasis on skills, Oliver and Fearnley-Whittingstall help to create the possibility of ecological wisdom and enchantment in everyday life. Like *Food Inc.* and *A Fowl Dinner*, *The River Cottage Treatment* tries to reinforce the ethics of eating storied food by showing the conditions of chickens in an industrial slaughterhouse. While the ultimate suggestion is to buy organically raised birds and cook from scratch, and thus can be read as nothing more than green consumerism, I argue that it pushes beyond this precisely because of the paradigm of co-production that emerges, and the ways that authenticity becomes entangled in the process of narrativization and a critique of alienation.

In recent years there has been a whole series of books released that celebrates the

home arts and tries to teach people how to live sustainably. I will briefly focus on one volume here to show how the pastoral can function to unite the rural and the urban, rather than separate them. *The Urban Homestead: Your Guide to Self-sufficient Living in the Heart of the City* is a guide filled with tips on vermicomposting, backyard chicken coops, grey-water systems, rain-barrels, raised bed gardening, canning, ecological pest control, and numerous other skills. What is most interesting to me, however, is the rhetoric of the urban homestead. The book tries to move away from the idea that one needs a smallholding somewhere in the country, and thus the capital to make this happen, and instead, gives suggestions on how to become responsible and self-sufficient within a city. It celebrates cities like Shanghai and Havana that produce many of their vegetables and much of their meat within the city limits. Growing your own food, even small amounts, changes your relationship to food. It changes you from just a consumer to a producer as well and helps foster, in other aspects of your consumption, an awareness of what co-production means: "we do not accept that spending is our only form of power. There is more power in creating than in spending. We are producers, neighbours, and friends" (Coyne and Knutzen, 2008 16). It emphasizes precisely those practices and values that exceed capitalism and thus participates in the beginning of history as an inhabitation of alternatives, however temporary or incomplete they may be. Coyne and Knutzen advocate turning your lawn into a garden, joining a community garden or CSA, or simply occupying empty space in the city: "to an urban homesteader, any empty place means and opportunity to grow food" (Coyne and Knutzen, 2008 25). The emphasis on skills and ecological literacy helps the reader to move from text to world, from theory to action. Jane

Bennett argues that "ethical political action on the part of humans seems to require not only a vigilant critique of existing institutions but also positive, even utopian alternatives" (Bennett, 2010 xv). The utopian pastoral attempts just such a dual outlook, inhabiting the future by looking to the past as a model for ethical engagement.

Life Narratives and the Foodshed Memoir.

In his book *Coming Home to Eat,* Gary Paul Nabhan asks a simple but profound question that goes to the heart of storied food: "what if each of us, day by day, fully fathomed where our food comes from, historically, ecologically, geographically, genetically? What would it be like if each of us recognized all the other lives connected to our own through the simple act of eating" (Nabhan, 2002 163)? Nabhan talks about this in terms of "coming into the foodshed" (Nabhan, 2002 32), a process that is as much a literary act as it is a physical one. It is about finding ways to repair the fabric of local life that globalization and modernity has ripped asunder— about finding the narrative transversals that connect us to the myriad of lives that the simple and daily act of eating reveals. *Coming Home to Eat* is a document of his journey to eat locally from around his desert home in Arizona, and involves an "extended communion with [his] plant and animal neighbours, the native flora and fauna found within 250 miles of my home" (Nabhan, 2002 33). Nabhan reinserts himself into the narratives of naturecultures that constitute the fabric of community, the fabric of sustainable living. By shortening the narrative distance between the lives he is connected to within the gastronomic axis,

Nabhan engages in a truly sensuous form of situated knowledge that offers one version of what it might mean to live sustainably.

Most of the texts I have explored in the previous section all have something in common. The author makes a commitment at the beginning of the book to transform his or her life in an attempt to realign his or herself with the foodshed. For Pollan, this involved hunting, foraging, and creating a perfect, transparent meal. Kingsolver takes it a bit further and tries to produce most of her own food on her farm. Unlike Kingsolver who flees the desert in order to go somewhere that can feed her, Nabhan tries to inhabit his desert home fully and completely. In all cases, the author transforms his or her life to realign themselves with the local environment in a way that is attentive and celebratory.

The popular 100-mile diet campaign is perhaps the quintessential foodshed memoir, and has generated countless blogs and community efforts to eat local. Spurred by a Vancouver couple, Alisa Smith and James MacKinnon, the 100-mile diet has rocketed in popularity, with countless groups and 100-mile clubs popping up around North America. The 100-mile blog is a perfect example of the foodshed memoir, chronicling the struggles and joys of discovering what your locality has to offer, and in the process, engaging in nature writing as a technique of self discovery and ecological subjectivity. Smith and MacKinnon began their book as a blog on *The Tyee*, and numerous other forums exist that encourage others to engage in their own 100-mile meals, documenting and in the processes forming a social network for sharing resources and suggestions. Ooooby (Out Of Our Own Back Yards), is a social network site out of New Zealand that connects backyard growers with others in order to facilitate produce trading, skills exchange, and a

general sense of community. When I started my 100-mile diet, it was hard to find local sources for many things, but now, a quick websearch will yield what took me months to research, thanks in part to these early adopters and bloggers who documented their foodshed memoirs.

Like many other books in the genre, *The 100-Mile Diet* begins with an idyllic, transparent meal, gathered mostly from around Smith and MacKinnon's remote cabin, and eaten with friends. It asks: "was there some way to carry this meal into the rest of our lives?" (Smith and MacKinnon, 2007 3). Storied food often contains this kind of dawning awakening and realization of disconnection as a motive force behind the narrative. The meal is emblematic of larger issues including the dissatisfaction with the speed of their everyday lives. MacKinnon and Smith begin with a sense that something is out of joint, that the world has "gone sideways" (Smith and MacKinnon, 2007 4) and a recognition that to tread lightly and with awareness is the only option. Their story is about a personal journey of redemption that attempts to connect the private and everyday with broader global concerns of agricultural diversity, economic systems, and public policy. The book functions as a counter-narrative of enchantment for those disillusioned by the promises and comforts of modernity. The 100-mile diet is meant to function as a daily reminder of how we relate to the world around us and the true costs and consequences of Western living. Their experiment is a way of taking that knowledge and making it bodily: "We could continue to decipher every far-flung product that appeared on our supermarket shelves. Or we could start fresh. We could immerse ourselves in the here and now, and the simple pleasures of eating would become a form of knowing" (Smith and MacKinnon,

2007 33).

There is something about food that makes the above step necessary. It is at once immensely personal and political; resolutely material and also abstract. And for this reason, it demands an engagement with the everyday. When I started working on this dissertation, before I had read much of the literature discussed here, and before the 100-mile diet had been released, I felt it necessary to transform my everyday life. Although I have always been concerned with the ethics of food, having been a vegetarian for over a decade, I felt I needed to go further. So for the last few years I have been actively coming into my own foodshed and re-skilling in the lost home arts. I have eaten a largely local diet, learned how to forage wild edibles, extensively preserved the bounty of summer, grown a large heritage garden, worked on an organic farm, and participated in various CSAs. This processes has been difficult at times, but immensely rewarding and the next chapter of my dissertation will deal with those experiences directly. For now, I want to focus specifically on this desire to transform the everyday that underlies the genre. I have separated Chapter Two and Three based on the distinction between stories and practice because I wanted to examine some of the discourses, rhetorical strategies, and ideologies beneath the narratives. However, I have also attempted to show how storied food doesn't so much tie narrative and practice together, as show how they are already enmeshed and how they do or could reciprocally shape one another in positive ways.

Most storied food takes up the relationship between narrative and practice very directly by experimenting on the author's life and documenting the process. In addition to providing a kind of authenticity, however questionable the ideal may be, these narratives

of personal transformation play out the difficulties and possibilities of ethical glocalism and self-reflexive cosmopolitanism (Parkins and Craig, 2006 11) in a way that allows readers to imagine themselves embedded in the same mechanisms without the feeling of helplessness that often comes with awareness of the ecological crisis. By focusing on the mundane everyday enchantments of baking bread, gardening, and cooking, storied food appeals to categories of the real and authentic in order to bring the reader into a more direct and urgent relationship to the material. According to Anthony Giddens, self-identity is a process of narrative formation. It requires that the individual create and write their history and future (Giddens, 1991 76). In a sense, this is precisely what storied food is about—the desire to write oneself into the foodshed, into a life process that has been severed and fractured by capitalism. By transforming a subject's everyday life so that storied food permeates their experience of the world in a daily fashion, the experiment becomes something more. It is a way to account for one's own ecological debt without slipping into the reductionism of the economic turn. It opens the door to multiple and often contradictory subjectivities and agentic assemblages that acknowledge the incomplete nature of agency. Perhaps most importantly, it creates the potential for shifting economic discourses in some very specific and productive ways. By writing and coming into the foodshed, storied food helps to narrativize the profound anxiety and tensions of what Parkins and Craig call the "global everyday" (Parkins and Craig, 2006 x). The foodshed memoir is an attempt to shift one's relationship to nature from an anthropocentric to ecocentric orientation, utilizing narrative as technology of self that emphasizes the inseparability of writing the foodshed and inhabiting it, and in the process,

opens the possibility of an alternative future.

Chapter Three

The Foodshed Memoir: The Enchantment of Place

Ruminate: to chew on cud, to regurgitate, to bring to the surface, to consider deeply, to eat. This one word embodies many of the goals of this chapter as I consider the foodshed memoir as a practice of inhabiting the world, and of narrativizing an ecological subjectivity that is conscious of the negotiations, confluences, engagements, translations and contradictions of food as an object and subject of knowledge. I have spent the last chapter ruminating on various narratives of food, categorizing them in order to understand what they do, and what kind of actions/worlds they imagine. Where Chapter Two is about writing and narratives, this chapter is about the production of place and the politics that informs and emerges out of those food stories as a lived and material practice of inhabiting everyday life. This chapter is an attempt to consider the ways in which my own life has become embedded in a narrative arc as I have tried to come into the foodshed of Southern Ontario.

Anthony Giddens argues that in modernity "place becomes phantasmagoric" (Giddens, 1991 146). Food is one means of embodying place, making it solid once again. This chapter traces my experience of the ghost of place as I struggle to come into the foodshed and account for various ecological debts I have incurred, but also reflects on technologies of self as tools of ecological consciousness (Bowerbank, 1999), and the work of academic labour as it manifests in this specific place and time. The previous two chapters have examined the ways in which counter-discourses to economic arguments for

solving the environmental crisis become displaced by the very attempt to make nature speak economically. The development of the industrial organic model specifically, and ecological modernization generally, are examples of what happens to an idea when it becomes embroiled in the larger project of green capitalism. This chapter will argue that challenging the hegemony of green capitalism as a normalizing force requires forms of enchantment that rely on a non-instrumental, non-economic approaches to food. That is, it requires arguments, modes of being, metaphors, and social practices that do not reduce alternative food practices to individual health or to arguments for reforming a flawed market mechanism. While all these goals are fundamentally important and should not be ignored, the instrumentalization of food participates in the economic turn in environmental discourse, a turn which naturalizes the marketplace as the primary locus of social and environmental reform.

This chapter will therefore make the case for inhabiting the space of enchantment as a means of producing place and thereby challenge the reductionism of economic language. As Laura DeLind argues, we must de-rationalize the arguments surrounding place within local food, focusing instead on the affective bonds to specific landscapes and ecologies:

> Local is now represented in terms of miles, city blocks, county or state boundaries, and occasionally a natural feature (e.g., mountains, rivers, watersheds). Because such units can be externally measured, mapped, managed, and/or reproduced, they also can be correlated with dollars spent, with calories burned, with milligrams of vitamin A consumed, or with CO2 emissions released, sold, or exchanged. The outside remains outside" (DeLind, 2006 129). For DeLind, "local and place are not the same. They are not interchangeable and local is not enough. While certainly an aspect of place, local, as both a popular and analytical concept, remains too superficial, too quantifiable, for nurturing or expressing this deeper commitment" (DeLind, 2006 134).

In order to do this, the production of place requires that we cultivate language, metaphors, and stories, which respect the co-creation of meaning and materiality that occurs within bodies in specific places.

The foodshed memoir, in which the author transforms her/his life, is the predominant form of storied food. In this sub-genre, the writing of place and food is always connected with the transformation of self and with a practice that emerges from the act of narrativizing. The projects of writing and inhabiting thus become deeply entwined, and the work of this chapter will be an exploration of the process guided by the following questions: how is food becoming a site of struggle for alternative value practices to capitalism? How might storied food aid in the formation of an ecological self capable of participating in less destructive arrangements of production? Can food politics escape or push at the boundaries of economic language? How can storied food offer different models of co-production that challenges the social antagonism of capitalism? If so, what emerges? How do the private and public relate? And what role does consumption have in environmentalism?

Many of the most vigorous critiques of Slow Food and the locavore movement come from a basic distrust of the consumer-citizen hybrid model (see Johnston, 2008; Pollan, 2006), a model which Chad Lavin argues does nothing but recapitulate neoliberal modes of subjectivity by reducing citizenship to consumption. Much of Lavin's critique, which I will return to later in this chapter, rests on a rejection of life politics in favour of a Marxist revolutionary paradigm. Lavin dismisses the kind of intervention offered by Pollan on the grounds that it "offers a food politics that resonates with the lived experience of

neoliberalism, in which political agency is all but unthinkable except in the terms of consumerism and in which sovereignty is an embattled concept increasingly difficult to apply to the actions of citizens or states" (Lavin, 2009a). While Lavin is correct in drawing attention to the limitations of consumer-based politics, I will argue that storied food can help expand the notion of politics by emphasizing the concept of co-production and biosocial production and thus pushing out of mere consumer activism. Thus while Lavin's criticism that "Pollan's characterization of responsible consumerism as political action is yet another symptom of a consumer society, in which identity formation and social control are largely a function of consumer choices rather than position in a labor hierarchy or workplace management" (Lavin, 2009a), is important in considering how capitalism incorporates critique into itself, this chapter will argue for the significance of life politics in addressing the environmental crisis.

Anthony Giddens defines life politics as "happening where the individual and the global meet and influence each other (Giddens, 1991 214). Because, as Bauman has noted, "lifestyles boil down almost entirely to styles of consumption'' (Bauman, 1990 207), life politic has been discounted by many as privatizing social concern by emphasizing individual choice.[54] While alternative food does engage in a form of consumer activism, the environmental crisis demands a different kind of response partly because it is a radically different kind of crisis, one with which traditional political forms struggle with (see Giddens, 2009 55; Beck, 2010; Nordhaus and Shellenberger, 2007). The

[54] The emphasis on how healthy organic food is, rather than on the environmental benefits, would be one example of life politics.

transboundary nature of pollution, the difficulty of nation-states to address the problem,[55] the uncertainty of risk, and the difficulty of devising a political grammar capable of framing the complexity of the problems and solutions, all mean we have to rethink traditional emancipatory politics. This is not to say that emancipatory politics do not matter, but that we must take seriously life politics as a potentially powerful response to the unique configuration of the environmental crisis in late capitalism.

The citizen-consumer model (cautiously) supported by Johnston, Pollan, Spaargaren and Mol, and Soper, recognizes the changing role of the nation-states in dealing with environmental reform. Increasingly, it is on the level of life politics and self-identity that modern environmentalism hinges. Spaargaren and Mol make a convincing argument that "lifestyle politics are important for sustainable consumption policies primarily because they deal with individual affairs without disconnecting the private and the personal from the public and the global" (Spaargaren and Mol, 2008 357). And yet, as I have shown in Chapters One and Two, sustainable consumption is a fraught practice that often participates in the very systems it seeks to challenge. Alternative food movements are caught between the poles of capitalism and nature, and between those of agency and incorporation, and as such, it is important to critically investigate the potential of concepts like life politics, micropolitics, and enchantment in providing alternative modes of agency

[55] Spaargaren and Mol argue that "the diminishing management capacities of nation–states are not just related to global environmental problems that transcend the national level, e.g., ozone layer depletion, loss of biodiversity and climate change. The regulatory autonomy of states also declines with respect to 'normal' environmental problems as for example the implementation of import restrictions and export bans (of hazardous waste, toxic substances)" (Spaargaren and Mol, 2008 351).

capable of resisting the discursive, material, and territorial enclosures of capitalism.

Building on the work of Félix Guattari, Jane Bennett argues for the indivisible nature of person, environment, and culture, which will not only require "new 'laws, decrees and bureaucratic programmes' but 'new micropolitical and microsocial practices, new solidarities, new gentleness, together with new aesthetic and new analytic practices regarding the formation of the unconscious" (Bennett, 2010 114). It is precisely in the focus on techniques and forms of expert knowledge, in moving beyond politics into science-based policy, that the environmental crisis has become a domain of analysts and bureaucrats, and thus inaccessible to the vast majority of people. The technoutopian paradigm, with its flow charts and dreams of meals in a pill embodies this tendency. This is why, within the flows of late capitalist naturecultures, micro and life politics matter, because this is where grassroots alternatives can emerge and begin to challenge the totalizing aspirations of capitalism.

As I have already began to explore in the previous chapter, the foodshed memoir participates in this process of self-unfolding. In considering the use of technologies of self in relation to vegetarianism, Joseph Tanke describes the value of a Foucaultian approach.

> Through his genealogy of ethics, Foucault came to understand the self as a network of practices that are tied up with power relations and truth obligations. The self, for Foucault, is not an ahistorical, worldless subject with an ethics then added on to it. The self exists only by way of a series of practices, in a world where there are relations of power/politics. (Tanke, 2007 89)

Thus ethics can be understood as a project that involves a somatic inhabitation that trains the body in habits of wonder, affect, and love capable of providing the "energy needed to challenge injustice" (Bennett, 2001 128). Following Schiller, Bennett argues that "only a

cultivated disposition can bridge the gap between 'acceptance' of truth and the 'adoption' of it" (qtd in Bennett, 2001 139). Finding ways of convincing people that being an environmentalist does not only involve deprivation or ascetic frugality is important in shifting the terms of sustainability away from greenwashed, capitalist versions. To become an ecological self means investing in activities, practices, narratives, and modes of being that recognize and put into practice what it means to be a member of a species with incredible destructive power. It means committing to a perpetual "becoming other" in Deleuze/Guattarian terms, that is invested in maintaining a radical diversity.

Building upon the idea of technologies of self, Sylvia Bowerbank examines the nature journal as "deployed to construct and narrativize green subjectivity" (Bowerbank, 1999 164). She looks at nature writing as a means of producing forms of subjectivity that push beyond the "prison-self of separate ego" (Bowerbank, 1999 165). For Bowerbank, storytelling is "a cultural technology of connectivity and groundedness; stories are told in the flesh, on the ground, by a body in a specific place" (Bowerbank, 1997 np). By creating "narrative grounded in geography" (Woolf et al., 2006 31), we can begin "considering nature not just as the stage upon which the human story is acted out, but as an actor in the drama" (Glotfelty and Fromm, 1996 xxi). [56] The autobiographical nature of storied food, and the approach I am taking by considering my own journey and life experiment, is an

[56] Ziser and Sze argue that "one way to tell the climate story in its historical complexity is through large-scale economic studies and sweeping historical narratives of fossil-fuel use. In the realm of culture, however, a more effective approach can be found in narrative forms that combine individual biography with environmental history in order to provide concrete examples of environmental damage that can become the basis for redress and reform." (Ziser and Sze, 2007 403)

attempt to work through these habits and daily comportments in order to consider the ways in which green capitalism and its attendant codes and obligations, its systems of power/knowledge, are engaging the environmental crisis. Storied food, as a technology of self, as a life(style) politics, offers a nuanced and complicated understanding of how various actors and agents are caught up and produce lifeworlds with specific consequences.

The demands made by various environmentalists and ecocritics for a politics and ecological subjectivity capable of producing a sustainable way for humans to live on this planet must be answered with more than just policy and technology. The 100-mile diet, for example, can be seen as a technology of self that helps internalize a trust in the foodshed through a daily practice that makes one aware of the abstract and material costs of their diet. The act of narrativization, whether through a blog or a book, or even in the establishment of a story of self, is thus part of the self-transformation that is the first step to producing an (ecological) subject position capable of biosocial production. The foodshed memoir functions as an account of this process and invites the reader to consider their own everyday lives and practices as embedded in various structures of knowledge, power, and everyday practice.[57] By shifting the tenor from moral codes to bodily comportment and affect, the foodshed memoir can act as a means of negotiating

[57] Henri Fefebvre focuses on the duality of the everyday: "I see the humble events of everyday life as having two sides: a little, individual, chance event— and at the same time an infinitely complex social event, richer than the many 'essences' it contains within itself... It remains for us to explain why the infinite complexity of these events is hidden, and to discover why— and this too is part of their reality— they appear to be so humble" (Lefebvre, 1991 57).

alternative value practices to capitalism, and as such, is crucial to challenging the hegemony of economic definitions of sustainability. The very process reveals the importance of stories in framing the environmental crisis.

While critics such as Chad Lavin are harsh to reject the citizen-consumer as nothing but neoliberalism masquerading as sustainability, I argue that certain aspects of this shift are necessary to challenge the economic language of contemporary environmentalism. This is one reason I felt it necessary to write myself into the story. When I started writing my dissertation, I knew from the beginning that I must live the way I read, that I must undertake a transformation of my everyday life to reflect those values and experiences I was reading about. Somehow the topic demands it— you cannot read about fresh baked sourdough, or the fecundity of a garden in the summer, or the pedagogical impact of school gardens without, in some measure, transforming your own life. I was already a foodie[58], so I was excited by the prospect of new recipes, techniques, skills, and approaches. Although I hate to use the term, it was a natural step.

In early 2007, I decided to commit myself to a year of eating locally. As one of the most popular manifestations of storied food, the 100-mile diet emerged from the blogosphere and was made popular by Smith and MacKinnon. Aside from reducing the distance their food travelled, the experiment, of which their have been many variations, mixes narrative with (self) pedagogy, forcing you to become intimately aware of your own

[58] Johnston and Baumann take up the tension between access and distinction in gourmet food by considering two story lines. The first deals with food as democratic and often celebrates local, family owned eateries. The second, looks at food as a source of distinction and cultural capital. (Johnston and Baumann, 2009)

environs by considering the story of every piece of food you eat. More than anything, it forces you to abandon the realm of packaged food almost entirely, relying on whole foods that you must cook from scratch. It largely removes you from an industrial foodshed that exchanges convenience for quality, and forces you to ask questions of your food, to treat it like "an active inducer-producer of salient, public effects, rather than a passive resource at the disposal of consumers" (Bennett, 2001 134). For those not accustomed to this, it is a radical transformation of your everyday, involving new skills, and a kind of sustained awareness that is both revealing and challenging to maintain. I knew right away that I could not adequately understand the appeal, potential, or limitation of food politics without committing myself to a similar process. To this day, I still produce, buy, barter, forage, and grow most of my own food from within a slightly more expanded, but regionally more appropriate boundary.

Food is always about negotiation, about the overlapping lifeworlds of slowness and speed, of humans and plants and animals, of bacteria and fermentation, and the intersection of the global within the space of the home. This is my foodshed memoir, one which I am trying to write with a broader question about life politics that considers, self-reflexively, how narrative and practice emerge out of storied food. This is a story of critique and enchantment, one which tries to walk the line between academic text and poetic celebration of food in order to consider how alternative food practices such as Slow Food relate to the greening of capitalism and the numerous value struggles surrounding environmental and social justice. How does the everyday negotiate space and time within global flows of capital, commodified desire, and the dubious class politics of gourmet

pleasures and distinctions? This is my attempt to write and live through some of the considerations of narrative and pedagogy as they relate to the global everyday. This is my attempt to consider some of the ways in which food signifies, to ruminate about my own journey, and to connect it to a broader politics of the pantry.

Beginnings: Heirloom Seeds and Florescent Light

It is a grey and dreary day in Hamilton. The winter has been warm and dry, but today it is raining ever so gently. It might be a bad year for the garden: they're calling for a hot, dry summer and we already had a snow drought, so unlike the last two years which were cool and damp, this year may be a struggle for water. Although that might be a blessing, since last year's weather transformed my garden into a slug buffet. Gardening is always a joyful negotiation with things outside of your control and an effort-bargain regarding the labour and time you are willing to expend dealing with problems that arise. The slugs have a right to part of my harvest, just as much as Thoreau's woodchucks had a right to his beans (Thoreau and Atkinson, 1992 157), but that doesn't stop me from setting out beer traps and oatmeal flakes. The beer lures them with its yeasty aroma and they drown in drunken ecstasy in the saucer, while the oatmeal is slightly more violent. The slugs eat the grain and it begins to expand in their stomachs until they explode. I feel bad about the slugs, but worse about the holes in my tomatoes and the wilted bed of arugula languishing in the damp. Every gardener knows their control is a mere illusion, a house of

cards dependent on more factors than they can enumerate. To plant a garden is to enter into a negotiation with the world, to transform yourself, to manifest your desire in a material-semiotic[59] form, and to cultivate a world that is resilient enough to satisfy your own needs, and those of the slugs and birds and squirrels. You need to be magnanimous: providing shelter for insects and birds, encouraging beneficial relationships, and building upon the desires of other creatures. The garden doesn't reward solipsism, no matter how much it may seem like you are in control.

Growing your own food changes your relationship to the world. While the effect on the environment might be small, from a pedagogical standpoint, it helps "to internalize a trust in one's own foodshed" (Kingsolver, 2007 343). It is a daily reminder that we survive because of the bounty of the natural world, and not solely the conveniences and technological innovation of civilization. Planting a garden helps re-establish the material-semiotic chain between nature and culture: "labors like this help a person appreciate why good food costs what it does. It ought to cost more" (Kingsolver, 2007 102). The garden is a space where one can supersede alienated forms of labour. It is a place of active transformation, creativity, and co-production, where agency emerges in moments of translation and the slippage between flesh and vegetable. You don't need to be an expert, or rely on technocrats, and most importantly, you see the product of your labour directly,

[59] Donna Haraway uses the term "material-semiotic actor" to move away from conceptions of nature that treat it as a resource. The material-semiotic actor can be human or non-human, but it must be an "active, meaning-generating axis of the apparatus of bodily production" (Haraway, 1991 200). This term is crucial for Haraway's attempt to shift agency into a much broader, less objective direction and forms the basis of considerations of cyborgs and companion species.

while at the same time realizing the extent to which labour is always an act of co-creation with nature, something which cannot be fully accounted or controlled, and which must be cultivated on the edges.

I use the term co-production with a number of different valences. First, I draw on Carlo Petrini's understanding that "food consumption cannot be divorced from issues of food production and distribution" (Petrini, 2003 xii). The concept of eco-gastronomy (which unites environmental concerns with food), the Ark of Taste (protecting traditional plants, animals and forms of production), as well as Terra Madre (connecting artisanal producers with consumers), all work on the assumption that food is co-produced by farmer, consumer, and the pact they make with the land, plants, animals, and the whole host of ecological "services" provided by nature. Storied food is largely about sustaining this knowledge, and this basic premise runs throughout the chapter. I am also using the term in the sense employed by Massimo De Angelis, who uses it as a way of understanding the social nature of production, without reifying capitalism as a totality, and therefore leaving no room for resistance. He argues that "the process of social constitution of a reality beyond capitalism can only be the creation, the production of other dimensions of living, of other modes of doing and relating, valuing and judging, and co-producing livelihoods" (De Angelis, 2007 1). The focus on co-production emphasizes that resistance and incorporation are always communal acts, and that much of the struggle against capitalism is about the co-production of alternatives to the social antagonism emanating from capitalism (De Angelis, 2007 8).

This chapter will extend De Angelis' analysis of co-production into what I have

called biosocial production, which brings nature deeper into the equation, and self-consciously attempts to produce connections between nature, economic and political systems, and ethical concerns in a way that fosters human and non-human diversity and moves beyond the economic reductionism of capitalism. The term is multivalent and will emerge throughout the chapter: to some extent, an openness is necessary to accommodate the kind of flexibility required for a revolutionary politics of the everyday. As I have shown in the previous chapters, the "hegemonic redefinition of discourse" (De Angelis, 2007 143) is one of the primary ways that green capitalism functions to incorporate alternatives into the logic of growth and profit. It is thus my intention to show many different approaches to the term and practice, and to leave it open enough to accommodate the very diversity it seeks to embrace and produce.

Within storied food, co-production is best revealed in practice. As an academic, cooking and gardening are some of the few things I do that manifest in direct and immediate ways. Seeing the loaf rise, watching the sprouts poke their verdant first leaves through the moist loam, making a meal with vegetables still warm from the sun, is satisfying for so many reasons. These acts help connect me to the most basic act of labour as a transformation of nature and culture, an entanglement of self and world before they become caught up in the commodity nexus. Even though my small patch of green earth can by no means support me, the feeling of self-sufficiency, and of learning to decode terroir[60] as a practical semiotics of the land, help me see the world in a different way. I get

[60] Terroir is defined as the "combination of natural factors (soil, water, slope, height above the sea level, vegetation, microclimate) and human ones (tradition and practice of

pleasure from small moments of pastoral harmony even if I know they are an illusion, perhaps partly because I know they are discredited philosophies.

Beside my computer, blocking the window of my third floor home office, is a plastic shelving unit with three levels. Each level is a haphazard mixture of fluorescent and halogen lights, some for sheer illumination, and others to cast off heat. This is how the growing season starts for me; actually, it starts earlier, as I thumb through the seed catalogue and luxuriate over the heirloom varieties with their narrative pedigrees and colourful names: Amish tongue lettuce, scarlet emperor, orca dry beans, and fairytale eggplants. Heirloom seeds are their own genre of storied food— they have a history, and more importantly, a future. They tempt us to join a long line of co-production, of farmers and gardeners observing and saving, passing along and trading plants with a myriad of flavours, styles, and ripening times. All heirloom varieties are open-pollinated, meaning they will stay true to their type and evolve with the landscape. They are living stories, transformed by local microclimates, expressing terroir. Hybrid seeds, those great boons to the holy triad of industrial agriculture: yield, uniformity, and efficiency, produce offspring that do not share the vigour or productivity of their parents. You need to buy hybrid seeds every year, since trying to save them will yield a different plant all together. This strategy has been great for seed sellers, but has nearly decimated centuries of seed saving as a practice of amateur genetic co-evolution of landscape, plant, and humans.

The industrial simplification of the food chain has profound effects on the

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cultivation) that gives a unique character to each small agricultural locality and the food grown, raised, made, and cooked there" (Trubek, 2009 238).

availability of different cultivars, with the result that anyone wanting an alternative has to go outside the typical pathways of corporate agriculture, either by finding a farmer's market with progressive farmers, or by growing it themselves. Many seed catalogues and groups are emerging that are trying to preserve our common agricultural heritage. Since seeds need to be grown every few years in order to be maintained, it is vital that people actually plant the seeds. Groups like Seeds of Diversity in Canada provide a forum for members to exchange heritage, open-pollinated cultivars and thus the opportunity to transform the space of the backyard into a site of political, ecological and social transformation. Buying, sowing, and saving open-pollinated seeds means you can engage in an act of co-production outside the enforced enclosure of genetic diversity that consolidation in the seed industry has produced. It also fosters the process of producing place, literally engaging in a transformative act that brings plant, human, and landscape into a closer relationship.

I usually start the eggplants and herbs first, as they need the longest time to mature and cannot stand any frost. Like tomatoes, these tropical plants need a bit of coddling to prosper, but with some care and patience, they do well in this climate. My seedling nursery is also where I do my work, where I write and think. It seems like a good combination, and the full spectrum lights help cut through some of the haze of cloudy days like today, and the little electric heater makes my normally unheated office a bit more comfortable. But it is also a hybrid space, a kind of cyborg that translates between nature and culture. The light from the window is insufficient to produce robust plants, at least not the kinds I desire. I live too far north for tomatoes, so I need to give them some

help. They will be spindly and have a harder time surviving the harsh world outside, so I have to make sure they are ready. I try to simulate ideal conditions as best I can. Germination requires moisture and heat. Seeds react to spring when the soil warms to about 21 degrees Celsius. If they jump the gun, the precious reserves of energy saved so carefully in those tiny seeds will be lost to a sudden frost. Consummate opportunists, seeds are also by necessity conservative. They wait until the conditions are just right, so I make sure the temperature is 22°C, the soil is moist and that they have 16 hours of light to stimulate their roots to form a resilient ball that will get them through the shock of transplant. It's tough for a seedling used to a controlled environment to make the move into a world filled with wind, bugs, harsh sun light, cold nights, and cats intent on using my raised beds for a litter box.

It is late March, and only the basil has popped up. It is a blend, and I already see the purple leaves of the Queen Siam variety (from Thailand), but everything else is a bit slower. Once they all come up, I will put a fan on the whole lot, simulating a wind, and causing the plants to build up a stronger stem. The whole system is fairly automated: everything is on a timer and, although I water them myself every few days, I have toyed with automating the system so that when I am away, the plants don't need a babysitter. It would be rather simple to rig up a drip irrigation system tied into a small moisture sensor and a reservoir of water. I could even connect it to the internet and be able to control the whole system from anywhere in the world, preserving my mobility and shifting the effort-bargain towards a more leisurely pace. For now my watering can and eyes will do, and I don't mind being tied to the verdant green of these first leaves.

Beside the seedlings is my desk where I have written much of this dissertation. It is covered with electronics, computers, screens, and other tools I use. Like the plants, many of which are not native to Ontario, this room embodies some of the contradictions, possibilities, and intersections of the global and local that emerge and confound the politics of storied food. I ordered my seeds off the internet from a company in Vancouver at the recommendation of some farmer friends. Besides having a great variety of heirloom plants, their seeds have high germination rates. The first year I planted with some local seeds, I was very disappointed by how few of the seeds actually sprouted, so based on germination alone, I ordered from West Coast Seeds, even though I felt some cognitive dissonance beginning the process of coming into my foodshed with Canada Post. Somehow, the fact that tomatoes and eggplants and basil are not indigenous to this region made me feel absolved, as if I was consciously tapping into an even longer global trade of plants and knowledge. In *Coming Home to Eat,* Nabhan plants some summer squash in an old satellite dish, literally making the connection between mobility, information, and the work of producing place.

> I remembered that old adage for peacemakers: 'swords into plowshares,' Perhaps I could offer an amendment for today's *place makers*: satellite dishes into squash planters. We could let the local seeds grow where we had once placed our hope for 'keeping in touch with the outside world' (Nabhan, 2002 41, /emphasis added/).

The idea of producing place is very important for alternative food movements, and throughout this chapter much of my emphasis will be on exploring this process from a number of different perspectives, as it is precisely in fetishizing the local that food politics

can descend into shallow forms of consumer activism and "edible patriotism" (qtd in Kingsolver, 2007 338) that ignore the postcolonial legacy of landscape transformation (see O'Brien, 2009; Sluyter, 2002) and the geopolitics of food production. However, as a practice, the production of place can be a mindful and self-conscious activity, a slow practice that can help provide a temporary space-time commons that eludes technocratic forms and structures of ecological modernization. It is precisely in this tension where food can become a site of negotiation between nature and culture, and where alternative value practices to capitalist modes of production can emerge and evolve, challenging even the most persistent and hegemonic discourses of green consumerism.

It is often hard to see how something like planting heirloom seeds can be an act of resistance. How can capitalism be challenged by eating nice bread or buying expensive olive oil? As an ideal, the focus on local food has come under some criticism by various camps, especially in James McWilliam's book *Just Food,* where he argues that local eating is nothing but a "symbolic gesture" (McWilliams, 2009 11). Focusing on food miles, he reduces locavores to solipsistic consumers that try to feel better by engaging in a "small act in the larger drama of saving the planet" (McWilliams, 2009 22). This assessment is valid to the extent that taking food as a locus for political action and mobilization is often associated with the privatization of ecological debt. Chad Lavin makes a convincing argument that locavores are guilty of

> reducing politics to consumerism and political economy to ethics, [and] current approaches to responsible foods tend to reflect the actual foreclosure of political opportunity. By locating political action to the actual and metaphorical space of the market, these trends reflect a reduction of political discourse to the terms of global capitalism to the extent that it is only in the rhetoric of free consumption that

> freedom can be imagined. These trends thus veer toward postpolitical fantasies that differ in content – but not in form – from the neoliberal promise of a harmonious society governed only by voluntary contracts and consumer sovereignty. (Lavin, 2009b 1)

On one level McWilliams and Lavin are right. The emphasis on consumption and the market is troubling when it comes to sustaining discourses of green consumerism and providing an alibi for capitalism to continue unsustainable patterns of infinite growth in the name of ecology. In organics, the villains were big business and toxins, whereas for locavores, it is distance and oil. In both cases, there are a number of invisibilities that must be acknowledged and accounted for. Alternative food trades on a significant amount of cultural and monetary capital, drawing on the desires of a largely educated and affluent group that can afford the price premiums usually commanded by organic and local products, and who have the leisure and education to participate in the often time-intensive activities associated with alternative food. This is a very real limitation of the movement, but as I will continue to argue, does not represent an impasse so much as the necessity to be aware to how food interfaces with these larger issues of class, gender, sexuality and race.

Complicated environmental issues are challenging what is considered political, especially as it relates to non-human actors. Storied food as a narrative and material practice of inhabiting and shaping everyday life, has the room to tell various narratives, and the demand for connection, for unalienated experiences, can at least begin to account for the privilege associated with good food. The alternative food movement's longevity will largely depend on how successful it is in making connections to issues of environmental justice, gender, economic development, and sustainability and becoming

more inclusive in the process. Many leftists are attracted to alternative food for exactly this reason. [61] For example, Jane Bennett celebrates Slow Food as a distinctive assemblage that "celebrates, in one fell swoop, ecological sustainability, cultural specificity, nutritional economy, aesthetic pleasure, and the skill needed to make meals from scratch" (Bennett 2010, 50). Eating, like all social practices, is layered with various relations of power and distinction.[62] It is precisely in its polyvalence, in the connection to such a diversity of issues, that food can offer a dual perspective that looks back at traditions while also offering a vision of the future.

McWilliams reduce the value of local eating to an obsession with food miles, a red herring that makes for a convenient argument about the efficacy of the movement, since only a small portion of energy is used in transportation. He argues that "the prevailing argument for stressing food miles is driven less by concrete evidence of improved sustainability than by a vague quest to condemn globalization. In this respect, buying local

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[61] Parkins and Craig are attracted to Slow Food for its notion of artful or mindful consumption and eco-gastronomy, with its emphasis on situated pleasure and mindful eating that promotes conviviality, diversity and an ethical understanding of your relationship to the lives connected to you through the act of eating. They compare the focus of traditional gastronomy, which is about the elite cultivation of taste based on an "omniscient connoisseur's knowledge of world cuisine" (Parkins and Craig, 2006 86), to that of situated pleasure based on taste education, which they argue is more democratic.

[62] See Rachel Slocum for consideration of how race plays into alternative food movements. Slocum points out that while "shopping local is often shopping white" (Slocum, 2007 8), it is important to consider the progressive aspects of the movement in working through various forms of privilege and producing forms of "embodied ecologies: situated, corporeal ways of connecting across differences through engaged universals. Embodied ecologies would build on a global sense of place, enact ethical relations with nonhuman life, and devise a politics out of the friction of difference. The questions of how and what and whom, like the outcomes, are open" (Slocum, 2007 4)

is a political act with ideological implications. The ulterior motive of political empowerment... identity politics and anticorporate angst" (McWilliams, 2009 30-31). I agree that local eating is politically motivated, but disagree that it is largely a feel-good act with little efficacy. For many in the movement, food miles are the least convincing and valuable aspect of the idea and practice. In my own experiences and based on discussions with others in the movement, food miles is useful for its effects and affects, not in and of itself; thinking about food miles cause one to fundamentally shift aspects of one's everyday in ways that produces forms of situated knowledge. For myself, limiting my food selection to a geographic area had very little to do with distance measured in miles. It was a way to become involved, to gain a somatic knowledge of my own foodshed. Had I not decided to eat closer to home, I would not have met the various farmers, gardeners, seed savers, and other people passionate about food and politics that have shaped my foodshed. I would not have clambered through the woods, eyes affixed on the forest floor looking for ramps, fiddleheads and morels. It was in the limitation that a new world opened up to me, that a new kind of freedom was born.

While focusing on food miles may indeed only capture a small portion of the energy used in agriculture,[63] the emphasis on locality has other effects. For Slow Food projects like the Ark of Taste, the goal is to preserve traditional modes of production and older varieties of plants and animals that are pushed out by industrial methods and regulations geared towards making those methods hygienic. As Petrini argues, the Ark is "trying to

[63] Transportation only accounts for 11% of the energetic costs of food. Most comes in the production (McWilliams, 2009 25-6).

resurrect older models of production and revitalize local economies, [by] pointing to a new way for world agriculture" (Petrini, 2003 16). Distance is one of many ways to accomplish this. By focusing on local production, it is much easier to influence how that production plays out, especially when it comes to the kinds of agency available to those of us embedded in neoliberal modes of production. In particular, local food involves cultivating different forms of trust. Anthony Giddens identifies trust as being a key component of modern systems within a risk society: "the risks of ecological catastrophe form an inevitable part of our horizon of day-to-day life" (Giddens, 1991, 4). As a result, according to Giddens' argument, we need people like Al Gore to help establish trust in the wise leadership of dispassionate scientists with our best interests in mind. You must have some trust because nobody can be an expert in all the features of modern life. We make an "effort bargain" with the institutions of modernity in order to allow us to navigate the terrain of modern life without an excess of anxiety (Giddens, 1991 23).

Food is one of the most profound elements of this effort bargain, with convenience the hallmark of modern food systems, and the justification for everything from monoculture cropping to toxic additives and exploitative labour practices. Thus "a person may go to great lengths to avoid eating foods that contain additives, but if that individual does not grow everything he or she eats, trust must necessarily be invested in the purveyors of 'natural foods' to provide superior products" (Giddens, 1991 23). For the most part, this trust is acquired through labelling organizations, organic certifiers, and brands, justifying the interpretation that locavores can easily replicate the contours and logic of the current system. Despite all the advances in food safety, one in four Americans

is affected by some food-borne pathogen each year, with 325,000 requiring hospitalization and 3,000-9,000 dying (Roberts, 2008 177). The high speed, high volume, global food system is very convenient for microbes to mutate and travel through, turning a local outbreak into a global phenomenon very quickly. Paul Roberts points out that, ironically, "for all the concern about terrorists poisoning the food system, it now seems more likely that our food system will attack itself" (Roberts, 2008 178). The nature of modern agriculture, with its reliance on monoculture and focus exclusively on yield, has created perfect conditions for disease and insects and has caused us to rely on some extremely toxic chemicals to control effects generated by the system itself.

A litany of food scares, ranging from BSE, e-coli, and the contamination of waterways have engendered a general distrust in food systems and are one of the motivating forces behind the local food movement. Trust is key to understanding the desire for storied food. A distrust in the expert systems of various organic organizations, lobbying groups, industries, and the general trend towards greenwashing forces people to look elsewhere for assurance. For locavores, trust is achieved through the direct acquisition of experience, whether by growing the food on your own, or meeting the farmer directly. It is one way of stepping out of federal bureaucracies and certification organizations, whose methods of accreditation favour large producers and remain largely mystified. A distrust in organic certification is partly responsible for the popularity of local food (DeLind, 2006 123). Ecoliteracy programs like the edible schoolyard supported by Alice Waters and Slow Food USA, attempt to re-skill and establish a deep trust in the everyday by empowering children with the ability to identify plants and understand what

is involved in good food (see Vallianatos et al). [64] These programs go a long way in providing the basis for establishing diverse systems of co-production.

For many in the local food movement, security is based on trust, and food security requires skills, and local/individual control. Like many others, Kingsolver points out that "certified organic does not necessarily mean sustainably grown, worker-friendly, fuel-efficient, cruelty-free, or any other virtue a consumer may wish for" (Kingsolver, 2007 121). Many growers are now choosing to eschew organic certification and its lengthy and costly bureaucracy in favour of direct relationships with consumers. For example, I was talking to a local farmer in my area about her CSA farm and she told me with pride about an experience she had. Because her farm is off a highway, many of her customers are commuters who pick up a weekly share on their way home from work. She was out one day in the fields spraying some of the plants with a combinations of oil and soap to control an outbreak of bugs. Although the spray is harmless, one of her customers was driving by and immediately stopped to ask her what she was doing. The farmer was able to reassure her that no chemicals were used and the woman left feeling confident that she was supporting a form of production she could live with.

Most of the storied food I looked at in the last chapter treats the local as a kind of bioregional primer; coming into the foodshed is a literary act as much as a physical one. Storied food involves learning about one's environment and forging sustainable links with

[64] Parkins & Craig argue that "if they can manage to avoid the twin pitfalls of the instrumentalism of traditional nutritional education and the distinction of traditional gastronomy, school gardens can reconnect daily practices of food with larger questions of ethics and pleasure" (Parkins & Craig, 2006 29).

farmers, labour, and communities. The local becomes a political space and—in a much greater capacity than organics was ever able to—the local defetishizes capitalist relations precisely in the establishment of a sphere of agency in which the co-producer can emerge, a hybrid citizen-consumer who can effect and be affected by his/her environment and who is self-consciously aware of the role he/she plays in sustaining or destroying certain lifeworlds. Whereas organics was easily incorporated into the market, with its emphasis on the commodity, economies of scale, purity, and regulation/labelling, the locavore is impelled to act in a different way, and produces a different kind of model. This does not mean locavores are immune to the hegemony of green capitalism, but the movement can cultivate certain buffers to guard against it.

For Lavin, politics are foreclosed within locavorism, which he writes off as a "populist do-it-yourself ethos and belief in American entrepreneurialism that has always evoked a suspicion of institutional politics" (Lavin, 2009b 2). Certainly, the history of ecological modernization as a tactic of accommodation by capitalism speaks to the truth of Lavin's critique. However, from the perspective of enchantment and life politics, the kind of consumption participated in by locavores can become a catalyst for something much more radical: the disarticulation of the divide between consumption and production central to the reproduction of capitalism. Capitalism is much too big to take head on, and from the perspective of inspiring ecopolitical action amongst diverse groups, fear is not enough. By emphasizing the construction of alternatives to capitalism, to the economic rationalization of ecological modernization, lifestyle politics can and is becoming a kind of testing ground for counter-discourses to green capitalism.

For alternative food, the connection between consumer and producer is mediated partly by pleasure. Unlike voluntary simplicity, which tends to favour the rural over the urban and offers up a kind of "ascetic frugality," slow living exhibits an "investment in the pleasures of everyday life" that represent a "conscious negotiation of life in the present, rather than a nostalgic retreat to an imagined community or pastoral golden age" (Parkins & Craig, 2006 3). Parkins and Craig argue that micropolitics and arts of the self are a political site of great importance in the global economy. Slowness can become "a deliberate subversion and form a basis from which alternative practices of work, leisure, family and relationships may be generated" (Parkins & Craig, 2006 39). Moreover, Slow living is

> not an escape from global culture into an ossified past but rather it is part of contemporary arguments about how we are to live now and in the future. The idea of slow living represents a contemporary interpretation of the past of places and communities and a mobilization of their traditions, principles and values in order to critique the present and provide alternatives for the future. (Parkins & Craig, 2006 78)

Slow Food promises to put pleasure back in the quotidian as a central part of imagining a less destructive way of life. Its critique of globalized, standardized food eaten mindlessly and in a hurry, focuses on the effects on our lives and on the pleasures of the shared table. For Slow Food, pleasure is much more than just the personal pursuit of what feels good— it is a nexus for considering the ways in which we are interpolated and situated as global subjects within the nodes of capitalist agriculture and an economic system obsessed with rationalized efficiency. The pleasure principle of Slow Food is thus

both a promise and critique, taking up the capitalist colonization of time directly. By focusing attention on cultivating slow experience, it becomes possible to become enchanted by the small pleasures of life, for it is often in these moments we become aware of how interconnected we truly are. Pleasure in slow food has the ability to break the mundane only when it is practiced with great diversity, such as the pleasure of eating seasonally, and thus with social and environmental effect.

While it is important to keep the goal of challenging the capitalist impulse to grow at the forefront, framing the ecological problem as a possibility for creating a new world has very positive effects by inspiring a politics of hope. Without this utopian impulse to temper apocalyptic messages, the transformative power of affect cannot break out of the neoliberal solipsism of privatized responsibility. The citizen falls away and is replaced by the consumer in an uneven articulation of desire and choice, without the responsibility or possibility of temporary release. Focusing on the apocalyptic implications of climate change is important, but so are community gardens, moments of enchantment, and the shared table. Holding these elements in a productive tension is in a sense what biosocial production aims for. It is also why I have structured this dissertation into focusing on disenchantment and enchantment and the inevitable mixing and cross-pollination that occurs between the two discourses.

Traditionally, revolutionary change is conceptualized as the process of seizing power, based on a linear logic of historic stages involving a party that drags the proletariat towards communism (De Angelis, 2007 5). In this formulation, the process of demystification is essential for revealing the true nature of exploitation. John Holloway

has criticized this idea extensively in *Change the World Without Taking Power* by emphasizing the "historical failure of a particular concept of revolution" (Holloway, 2005 12). He argues against a concept of revolution that relies on seizing power, and instead, focuses on forms of anti-power and the dialectic of hope and negation, of apocalypse and utopia, in establishing alternatives in the form of social power to do, rather than power over (Holloway, 2005 28). The transformation of everyday life is crucial to internalizing this sense of agency based on the power to do, to create and struggle for a new world, rather than against this one. By emphasizing the utopian character of enchantment and making it possible to inhabit this pleasurable spot, Slow Food can energize and enliven an otherwise apocalyptic critique of modernity.

At its best, the locavore movement attempts to cultivate attention to one's environment in a way that is mindful of the everyday and which has "positive potential beyond the individual subject to mobilize new forms of political investment and revivify everyday life" (Parkins & Craig, 2006 5). As such, local eating as a practice questions the nature of agency within a system capable of incorporating almost anything into itself—one concerned with policing borders, but also making them nonexistent. Because of this ability to incorporate, agency is by necessity fractured and impure. The Left has historically eschewed pleasure as somehow suspect, a bourgeois affectation that cannot provide a basis for true politics (\see\ Petrini 2006; Andrews 2008). Bennett follows Foucault in conceptualizing freedom as a "tentative explorations of the outer edges of the current regime of subjectivity" (Bennett, 2001 146). This is a good way to think of storied food: as circumscribed within a larger project of the greening of capitalism upon which it

pushes at the boundaries, at the edges. Storied food doesn't break out with an apocalyptic rupture or utopian leap, it tentatively expands the space for alternatives to the story of commodification and alienation. As such, it is vital to understand the movement as provisional and incomplete, always in a state of becoming.

There are many issues, especially time and class, that limit the transformative potential of food politics. Despite attempts to reach out to the developing world in the form of Terra Madre and the Ark of Taste, the food movements I have examined are particularly white and bourgeois. My own experiment often required leisure time, a car and money, since local food is often more expensive. As a graduate student who works largely from home, I have the time to cook from scratch, tend a garden, and spend an afternoon rambling through the woods looking for edibles. This is indeed a luxury and must be acknowledged as such. However, to dismiss the movement based on this misses some important contributions food politics is making to imagining alternatives to capitalism. Storied food can provide a space for cultivating various forms of enchantment and skills that, on a material, spiritual and social level, help foster ecological subjectivity. It helps internalize biosocial production as a practice of self, but also as a way of challenging econometric appeals to valuing nature. Precisely because of the polyvalence of storied food, it is easy to afford too much revolutionary potential to the everyday, or to qualify the whole project as mere neoliberalism and ineffectual consumer activism. I am unsatisfied with this stark opposition. As usual, the truth lies somewhere in the middle, in the nasty bits we don't want to eat.

Biosocial production emerges out of these contradictions and provisionalities.

Nabhan exemplifies the negotiations required by rediscovering desert plants that thrive in low water conditions and making connections between landscape and identity that are simultaneously conscious of the global, postcolonial history, and economy. He begins his journey with a trip to Lebanon where he rediscovers some of his family's own food traditions and brings back some seeds. And while his local diet would never sustain the population currently residing in Arizona,[65] the underlying desire is foundationally important to creating a sustainable system because it redirects humans from the goal of transforming the desert to transforming themselves, something which I think is the basis of the locavore challenge and the goal of biosocial production. The desire to reduce one's own ecological debt, to find a way to tread lightly on the planet, must be understood as a process of translation and transformation, where one enters into an uneasy negotiation with various actors. This needs to be the goal of storied food— to shift the basic approach humans have to nature in terms of material relations, but also in the stories we tell.

We can understand the 100-mile diet as diagnostic of the global problem of ecological debt, which has the potential to reinforce current modes of production and, as such, must be framed as a form of resistance, a practice of producing place that sustains alternative modes of production. This is the greatest value of storied food and locavorism: they can provide a model, a lived experience of nature that reminds us that we are of the earth. What emerges is a politics of the pantry that takes the everyday act of eating,

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[65] One of the irrational, intransigent circumstances with which alternative food politics must reckon is this: humans have settled parts of the world that cannot sustain the kinds of lifestyles and cultures living in them. Both Arizona and California, for example, rely extensively on fossil fuels and fossil aquifers to provide for domestic and agricultural use. Marc Reisner deals with this in the *Cadillac Desert*.

something so simple and taken-for-granted in the wealthy West and yet so foundational to the world's economies, our environmental footprint, and to geopolitical relations. Local eating will not solve our food problems: it is not a panacea or silver bullet. But it is a way in, a way of revealing the social mystery of modernity, of the way our lives are often bound invisibly together, obscured by global flows of capital, political machinations, and an ecological debt we must somehow account for.

Back to the garden. The seedlings I sit next to as I write this have histories and trajectories that take them around the world, and it is a mistake to ignore these stories. The local should not eclipse the global or lead to what chef Peter Gordon calls "culinary xenophobia" (Gordon, 2010). Even foods we equate wholly with certain traditions and cultures—like tomatoes and basil with Italianness— were originally brought from India and Thailand respectively. For me, being a locavore is more than geography, it is about sustaining forms of situated knowledge that can challenge the values associated with capitalism. Following an heirloom tomato that made its way from India hundreds of years ago, to Italy where it became a part of various local cuisines, through circuits of international commerce that equated particular foods with Italianness, to North America where generations of farmers have bred and selected the tomatoes for traits they value, and finally to the seed catalogue I am looking at, connects the local and global in an enchanting complexity. The local and global are always imbricated within each other and, it is through gardening and eating locally that these relationships are revealed and can be celebrated. These circuits become manifest in the processes of co-production that tie me into the lifeworlds of plant, soil, animal, and human history. Eating local has ironically

made me more aware of mobility, and the ties that bind me to distant others.

For example, last year a friend of mine returned from Italy with a gift: a small bag of tomato seeds from an old man his mother knew. This man, now close to his end, had cultivated a unique variety of tomato that was extremely delicious. Known only to him and his family, the tomato was an expression of his labour and love, of the dedication of one man to this unique line of co-evolution. Unfortunately, his children were not interested in gardening, so he worried that this variety would die with him. Knowing my passion for gardening, this friend brought over a few seeds for me. They made it across the ocean and ended on my kitchen table, and with excitement I anticipated the joy of continuing the line, saving seeds, and allowing the plant to evolve alongside my own labour and land. Thanks to my carelessness, this line may die. I thought I put it away with my box of seeds, but as I start my seedlings this spring, they are nowhere to be found. Gardening is always precarious, susceptible to the vagaries of chance, and in this case, my inability to put things in a safe place. This is perhaps one of the most disturbing aspects of radical localism, that in the name of preserving diversity, it creates false utopian enclaves of illusory isolation that are vulnerable to disruption, and that rely on an imagined and dangerous autonomy that is impossible and undesirable in today's world.[66]

It is important to recognize the global, even as we celebrate the contributions of

[66] Latour talks about this as the anti-modern position, which attempts to retreat into a pure nature and rejects any intervention into that same nature. For Latour, "the sin is not to wish to have dominion over nature but to believe that this dominion means emancipation and not attachment" (Latour, 2007 12). He uses the example of Frankenstein and argues that his sin wasn't creating the monster so much as it was abandoning him and thus not taking responsibility.

local flavour, as this is the only way to transform the energy and enchantment of storied food into a broader democratic project. On the tailcoats, ships, and furs of countless peoples throughout human history, plants have migrated with us, adapting, transforming, and colonizing, sometimes with devastating consequences, but often with great contributions to the pleasures of life. My little trays of seeds represent a vast historic migration and process of co-evolution, one which the very local and private act of gardening reveals. This complicated interplay between mobility, place, landscape, and labour can only form the basis of a broader ecopolitics if we acknowledge the impossibility of the local in the purest sense, and instead, focus on how the local connects us with human and non-human nature.

On its most literal level, gardening is about producing place. As a gardener, you choose what to plant, and nourish particular lifeworlds. One of Michael Pollan's most interesting arguments in *The Botany of Desire* reverses the subject and object relationship within agriculture, challenging the notion that the garden is a sovereign human space dominated by our choices and desire. Resonating with Haraway's concept of cyborgs and companion species, Pollan reverses the common thought on domestication and argues that plants have a choice as well. Like a bumblebee, we have been enlisted by plants, enticed by their fruit, seeds, and sweetness to spread their genetic material for them. We are human pollinators, much like the bee. This simple reversal, while it seems trite at first glance—a mere philosophical pondering—has the effect of overturning the most basic anthropocentric conceit that humans tend to indulge in, the notion that we are in control, that we are the subject and nature the object. While it is certainly true that we make

choices, and the lines of botanists, breeders, farmers, seed savers, gardeners, and the generations of decisions they have made have shaped a large part of the world we live in, the plants are also shaping us.

The seed packets I hold are part of this. The packaging looks "natural," made of recycled paper. It appeals to my organic aesthetic, one cultivated by years of so-called ethical and sustainable consumption. Even the electricity powering my seedling nursery is sourced from wind and solar. I have long ago hailed the call of green consumption, despite serious reservations that buying can be sustainable at all. Obviously some part of me doesn't agree, because I am a very good green consumer. But I also produce: these seeds connect me to something much more intricate, more ambiguous and material. They are the stuff of fantasy and stories, transplanted across the world— human history is written in the journey of seeds. Every spring I open the little green and tan packages with glee and thumb through the paper bags of seeds and plan out my garden.

A lot can be done in a garden in the winter. With the help of some simple cold frames made out of wood and plastic, I was able to extend the growing season well into December. Even with snow on the ground, my kale, leeks, carrots, beets, and salad greens thrived. With nothing but some sun and a little greenhouse effect, I was able to eat from my own labours well into the winter. Unfortunately, that was also the year that we were dumped on by over a meter of snow in one night. I didn't want to commit too much money into covering my 12x6 raised bed, so I opted for an inexpensive and light frame. The snow crushed it and many of the plants below were buried before I had a chance to enjoy them.

This winter, I left most of the garden work to the mind: it's the time to plot out your garden. I have a very deliberate method that tries to maximize my small backyard by planting intensive groupings in families that have similar nutritional needs and which benefit each other by their proximity. Tomatoes and basil grow well next to eggplants and peppers. All these plants like lots of sun and water. Interspersed within, some borage, one of my favourite plants in the garden. It grows almost as big as the tomatoes and branches off into thick hollow stems that curve and explode in iridescent violence into azure bumble bee shaped flowers that droop with a purple halo of fuzz. They attract bees, which also enjoy the hundreds of tomato flowers awaiting their quivering hum. Without the bees the flowers would drop off in sexual frustration, dying a virgin death and yielding no delicious food for me.

Almost all the plants we eat need pollinators, without which civilization would literally collapse. So who is to say which of us is subject or object? Am I the subject because I chose to place borage in my garden in order to attract bees? Or does the bee, whose services I am existentially and materially bound to, retain the mantle of agency? Perhaps it is the borage, for seducing the bee with its fragrance and nectar, and for appealing to my aesthetic tastes and utilitarianism? Or the plant catalogue, for appealing to my desire for storied food? I suspect none of us are agents, and that the word is insufficient for explaining the need, desire, and action we are entangled within. The subject-object distinction is meaningless in terms of co-evolutionary relationships. Just because we are conscious of this bargain does not change a thing. The bee selects for symmetry and sweetness, and we for intoxication, sweetness, control and beauty, four

desires that Pollan identifies as central to agriculture (Pollan, 2001). The plants that play on an animal's desires with the most success, are the ones that spread their genes most effectively, trading on an animal's ability to move.

Domesticated animals and plants are a cultural text of our desires, a natural history inscribed on land, language, and bodies. Jane Bennett refers to this relationship as "agentic assemblages" (Bennett 2010, 137). She argues that "eating, then, reveals not only the interdependence of humans and edible matter, but also a capacity to effect social change inherent in human and nonhuman bodies alike" (Bennett 2010, 134). We are all caught up in this gastronomic axis, and in some ways I feel like the plants choose me from the catalogue. I am seduced by the descriptions, by the promise of the smoky flesh of Black Krim tomatoes, or the mottled streaks of purple and white of dragon tongue bush beans. They entice me with their flavour and colours in the same way the bee is intoxicated by the nectar or the shape of a flower. Like an enamoured lover, I want the best for my plants, and so I try to give them what they need. While industrial agriculture favours monocultures, my garden is intentionally wild. In the height of summer, the vegetables are overgrown, crawling upwards on poles and trellises, interspersed with herbs and flowers that attract and repel certain insects, and positioned to maximize solar exposure or shade as necessary. I love my garden, and I would like to think it loves me, although I am sure this is a conceit. We have entered a very productive relationship: my little urban space produces hundreds of pounds of vegetables every year, and given the fairly mild climate in my area, I could easily extend the season almost year-round with a cloche greenhouse or some sturdier cold frames.

The idea of domestication needs to shift to reflect biosocial production as the dialogic process of producing place through a self-conscious cultivation of situated knowledge. Companion planting is one example. North American Aboriginal groups have long practiced this technique, with the "three sisters" being the most famous grouping. I have tried this for a few years now, and can attest to the success of the technique, one which I utilize throughout my garden, and which is instrumental to making organic agriculture more productive than monoculture cropping (see LaSalle et al). One could survive eating the three sisters, which involves a combination of corn, squash and beans. You start by making a little hill, in the centre of which you plant some corn. Once the corn is two inches high, you plant some pole beans at the base of the stalk. At the same time, you plant some rambling squash or pumpkin plants in between the hills of corn. As the corn grows, it provides a perfect platform for the beans, which need something to climb. The beans, in return, provide a much needed boost of nitrogen, the result of another co-evolution between the roots of legumes and nitrogen fixing bacteria. The squash or pumpkins vine throughout the empty space and choke out the weeds, minimizing my work and yielding an incredible amount of food in a small space with minimal human labour. Donna Haraway describes companion species in terms of "co-habitation, co-evolution, and embodied cross-species sociality" that constitutes the material-semiotic terrain of natureculture (Haraway, 2003 4). The process of companion planting, specifically, and biosocial production, generally, is about translating this knowledge into our lives in ways that help foster modes of being less devastating to nature and other humans.

Sauerkraut and Sourdough: Cultivating the Everyday Wild

Bread: staff of life, daily ritual, civilization itself. Few foods are as polysemic as bread. For some, it represents home: the smell of fresh baked bread can transport you into another world; even for those who did not grow up with home bakers, it is powerfully symbolic of the hearth. For a generation of women, bread tied them to the kitchen, forcing them to wake up early and bake loaf after loaf to feed their families.[67] Cheap white bread available at the supermarket liberated those same women from domestic drudgery. Meanwhile, for the 60s counterculture, white bread came to symbolize what was wrong with the food system, and dense, hearty brown breads, often home baked, were as much an act of resistance as the housewife buying Wonder Bread was challenging patriarchal modes of production and consumption.[68] For Richard Manning, bread is part of the fall of

[67] In *Animal, Vegetable, Miracle,* Kingsolver talks to a local cheese monger and asks about rennet, revealing that she makes cheese at home. In response, the women states that: "You are a real housewife" . To which she adds: "It has taken me decades to get here, but I took that as a compliment" (Kingsolver, 2007 156). The question of gender and domestic labour complicates many of the celebratory discourses of the shared table, which is often shorthand for mother's cooking. Pollan is guilty of talking about Real food in the same way, glossing over questions of gender, class, and unpaid labour. For example, Pollan argues that nutritionism has displaced "the influence of tradition and habit and common sense— and the transmitter of all those values, mom" (Pollan, 2008a 81). This can lead to a devastating critique of Slow Food in the same vein as nostalgic narratives of nature. It is crucial to acknowledge and work through the cultural and political dynamics of gender, especially as they relate to domestic labour, though a detailed consideration of these questions is beyond the scope of my dissertation. (\See further Parkins & Craig, 2006 8; Slocum, 2007 10; Shiva, 2005 111).

[68] Johnston points out that alternative food politics is rooted in feminist understandings of social reproduction: "Food shopping is not simply a banal, private concern, but represents a key private/public nexus, as well as a potential entry-point to political engagement. This

civilization from a healthier, more leisurely, and certainly more humane and ecological hunter and gatherer way of life. He argues that agriculture has led to a dulling of the senses (Manning, 2004 22), the conquest of human desire over natural evolution (26), sedentary life styles (29), the spread of disease (57), and social systems based on hierarchy and patriarchy (32). More than many foods, bread signifies.

From a culinary standpoint, bread is at once the simplest and most complicated dish you can make. At its most basic, it is just flour, water and yeast. And yet, baking bread is one of those activities that brings fear to cooks: it separates tinkerers from the hardcore, partly because of its polysemic aura. If you have never baked bread, the task seems monumental, hardly worth the effort since bread is so cheap and plentiful in the grocery store. My first serious foray into bread was actually inspired by a class I took in the first year of my PhD. We were discussing Slow Food and I decided to make a soft farmers cheese and fresh bread for the class as part of my presentation. At first, I began with the predictability of commercial yeast, which for the novice baker is very comforting. It rises when it should and you can largely follow a recipe. Although it was delicious, I wanted to try something even more local: sourdough is one of the few foods a cook can experiment with at home that really expresses terroir. San Francisco sourdough is famous because the yeast is unique to that area, not because it was baked there. Every area will yield its own unique flavours and textures, immediately discernible from another. Sourdough takes

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understanding draws from feminist understanding of social reproduction, which emphasize that food choices are not neutral, private matters, but rather represent a politicized, gendered, and globalized terrain where gendered labor and households intersect with states, capital, and civil society in varying balances" (Johnston, 2008 239).

patience and attention: it demands a different kind of mindfulness and consideration and a willingness to relinquish control and allow wildness into your life.

My sourdough bread is a three day process, and in many ways embodies some of the contradictions and possibilities of storied food as a social and political movement. Sourdough is the ultimate slow food. At its most basic, you capture wild yeast from the air and nurture a sponge of live culture in a mixture of flour and water. With some time and patience, this is all you need to make the most wonderful bread you have ever eaten. It is so incredibly simple and satisfying, but also frustrating and finicky. Like anything wild, it resists accommodating clock time. More than many other foods, sourdough is an agentic assemblage, a hybrid being with the power to enchant. It achieves its flavour from a mixture of yeast and lactobacteria, a symbiotic relationship that yields some delicious results. Unfortunately, the bacteria and yeast are out of sync: they exist in slightly different temporalities, and as such, balancing the rise you get from the yeast with the sourness of the bacteria is a tricky process. For this reason, modern yeast, of the variety you find in packages and jars at your local supermarket, is genetically engineered to be extremely fast and reliable. It eschews the delicate sourness and complexity of lactobacteria in favour of speed, reliability, and loft. The lactobacteria naturally present in bread has no chance to catch up. But it is convenient, and I have been tempted to add some commercial yeast to a loaf of bread that stubbornly refused to fill with the precious exhalations of the teeming billions I have tried to provide a good home for. Without these microscopic breaths, the bread comes out like a brick, hardly palatable, dry, and frustratingly dense.

Making good sourdough takes a particular mindset; you must learn to coexist, to imagine the world from the smallest perspective and be generous and accommodating of the microbe's temporality. You must comprehend what the yeast and bacteria want, and if you can provide those conditions, culinary perfection awaits. I have a batch of sourdough that is six years old, and like a fine wine, it is better today than when I started. It sits in my refrigerator and provides the basis for breads, pizza, baguettes, waffles, pancakes, and once even an experiment with booza, an ancient fermented, beer-like beverage the Egyptians used to drink that is made from sprouted wheat groats, half-baked-sourdough and water. An acquired taste to be sure, but magical as an example of how two ingredients in different ratios can yield so many different forms. I have tended this batch with care, and it has surprised me with its resilience, coming back from near death on a number of occasions when life has made me negligent of the colony in my fridge.

And wait you must: the problem usually comes down to time and timing. I start my bread in the evening, proofing a sponge of refrigerated sourdough mixture by adding fresh water and flour, and gently inciting the microbial world from its somnolence by leaving the mixture out for twelve hours. By the morning, the sponge is bubbly and smells wonderful, with a complex, mildly alcoholic smell that is redolent of over-ripe fruit. I take part of this, return it to the clay jar I keep my starter in, and mix in some more fresh flour and water. This goes into the fridge and back into microbial torpidity, awaiting a new feeding or a fresh batch of bread. If tended this way, sourdough cultures will keep for decades and even centuries, becoming tastier and rising with more vigour as they age. Lately, I have been frustrated by the dough because it was taking so long to rise and was

hard to time. Unlike commercial yeast, which generally takes a few hours to rise and re-rise, sourdough is much more particular and susceptible to the vagaries of humidity and temperature. Since I live in a draughty old house where we keep the temperature rather low, it is always a battle to get the right conditions that balance the flavour with the rise, for sourdough is pure terroir, an extension of the local landscape and weather. Every place will yield a different culture, a different flavour, and every time you bake it, the bread is unique. I have baked hundreds of loaves, and it is always different. It is precisely for this reason sourdough is gourmet and why even breads advertised as sourdough are rarely leavened only by wild bacteria and yeasts. Sourdough takes skill and patience and a willingness to engage with the bread on its own terms. Industrial methods always prefer domesticated over wild forms as they are more predictable and easier to control. But like my garden, the wildness gives it vigour and flavour.

After the sponge is ready, I begin the first of three rises. At its most basic, flour and water is all you need, but I like to mix in flax meal, different kinds of flour, oatmeal, nuts, honey, milk, and dried fruit to enhance the bread even further. Next, the flour, to which I add water, milk, honey, oil, and salt and which I kneed until silky smooth. It is a mistake to use precise measurements at this point, as once again, the amount of flour you use will depend on the humidity of the air and the moisture content of the original sponge. Its best to simply feel for a particular texture. It requires that you become viscerally involved with the dough, pulling and stretching, caressing until it becomes an extension of your arm. It is heavy work, and sweat from your brow often mixes with the dough. This is not a processes for people who like the comfort of a recipe; you must be flexible to

accommodate the life of the bread, to account for the lifeworld you must nurture. Sourdough is an act of responsibility: you must care for the yeast, tend to it, feed it like an animal or plant. It is an act of love, of symbiosis.

After ten to fifteen minutes of kneading, the bread goes into a greased bowl and is covered with a damp cloth and will spend the next twenty four hours proofing in the refrigerator, slowing the yeast and allowing the lactobacteria, which is more tolerant of cold temperatures, to impart its tang. The next day, the dough comes out and I add some warm water or milk and some more flour and the nut mixture. This must rise once again, which can take twelve hours or more, before I punch it down and put it in a loaf pan or baguette tray, which requires another six hours to rise. As you can imagine, timing is tricky, and unless you work from home or are around on a weekend, it can be quite difficult to get it right. Although you can leave it unattended, because of the variability, you must be cautious not to allow the bread to rise too much. If you do, disaster may strike in the form of limp bread. If the carbon dioxide produced by the yeast exceeds the capacity of the gluten to hold together the bread, like a soufflé taken out of the oven too soon, the loaf will collapse into a sad, limp, and dense shadow of what could have been. In a cool house, this means watching carefully and, potentially, a very early morning rise or late night bake. Older style stoves used to have a pilot light that would warm the stove just enough for proofing bread, but I have nothing of the sort.

The solution for me was some DIY hacking: I built a grown-up version of an easy-bake oven to control the temperature and humidity for optimal conditions. After the overnight proofing, the bread has more than enough sourness, and it is best to let the yeast

take over. The yeast prefers the temperature to be a constant 30 degrees. At this temperature, you can halve the rising time and achieve a levity that rivals commercial yeast. So I lined a large plastic Rubbermaid container with insulating foam, hung a small 35 watt halogen lamp with a dimmer control inside the box, and rigged up a thermometer to register the temperature inside. With this set up, I use the dimmer to adjust the temperature so it sits at exactly 30°C for around four to six hours, after which the bread bursts out of the bowl with a celebratory sigh. One more punch down, a new home in some loaf pans, and back into the box for two to three hours, and the loaf is both sour and lofty. Now I can control the conditions more carefully, providing a better environment for the bread, while also balancing the need of slowness for the real time pressures I must negotiate in the rest of my life. Negotiation with the microbial world takes some patience and flexibility, but it is well worth it. With this set up, even if I have to work and be away from the house, I can still time the bread properly. I am lucky that I work largely from home, and as such, can allow other temporalities into my life.

Capitalism is largely about time discipline, and allowing other temporalities into your life can be a luxury. Carl Honoré's *In Praise of Slow* looks at how various slow movements are challenging the colonization of time, and how work-sharing arrangements, Slow Food, down-shifting, and other slow practices are shifting the emphasis from labour as a means of upward mobility (higher pay), to questions of time (less work). Honoré advocates the concept of "time autonomy," as a way of resting the colonization of fast life (Honore, 2004 209). Certainly time autonomy is a concept rooted in bourgeois alienation and expectations, the desire to have control over one's life, and the specific class position

from which it emerges needs to be acknowledged and accounted for. However, the underlying focus on time is crucial, since it is precisely in the ability to allow other temporalities into one's life— those associated with family, nature, wildness, and leisure—that alternative value practices such as storied food can challenge the discourses of efficiency and profit that pervades green capitalism.[69] Smith and MacKinnon often reflect on the difficulties of the 100-mile diet in terms of time: "we do not live in a world that stops every other activity to bring in the harvest. Putting away food for winter was like adding a part-time job to our full-time lives" (Smith & MacKinnon, 2007 161). It thus becomes easy to place canning, gardening, and other activities into the category of leisure, making them easier to reincorporate into green consumption. This is precisely one of the ways in which food politics can be contained, by being relegated solely to the realm of commodified leisure. But this is also where the seeds of an alternative value practice begin to emerge— where co-production offers up a different sort of relationship between time, value, consumption and production.

William Morris's *New From Nowhere* (1890) features unalienated labour in the form of artistic production as a utopian reconciliation of work and life. In a sense, Kingsolver's experiment is celebrating precisely this kind of life of self-artistry, and while it is largely made possible by access to land and money, the provisional nature of resistance it provides is nonetheless useful in challenging the economic reductionism and discursive enclosures of green capitalism. Returning housework from the associations of

[69] Parkins & Craig refer to this as "time poverty," which they challenge by emphasizing the irreducibility of time contra the popular notion that time is money (Parkins & Craig, 2006 47)

drudgery, celebrating the toil of soil with the fecundity of life, transforming work into art, and celebrating the simple pleasures, are all attempts to bring forms of unalienated leisure and work into the centre of life and, in the process, to challenge the extraction of surplus value from labour. All of these elements are at the heart of many of the food narratives I have explored, and are integral to the utopian vision of storied food as an alternative to capitalist value practices. While provisional and tentative in the resistance it provides, and stemming from forms of bourgeois alienation that critics such as Lavin are suspicious of, gardening, canning, and baking bread represent a more honest approach to negotiating the entanglements of capitalist naturecultures than the commodified escape into wilderness.[70]

Unlike the desire for wilderness, with its concomitant fantasy of escape and purity, the focus on labour and time recognizes that the struggle for alternatives is rooted in the process of producing value. Any escape must therefore be provisional, for it is precisely in the liminality of storied food, in its incomplete escape from consumerism and bourgeois practices, that the discursive enclosure of sustainability can be challenged. In its failure to escape, alternative food reveals that value is always about negotiation and struggle. As such, it is important to temper the revolutionary zeal of storied food with the reality of capitalism. No movement will simply take down the system and replace it with something new. However, by emphasizing time as a locus for alternative value practices, slowness

[70] Parkins and Craig argue that unlike the folk revivalism popular in Italy, Slow Food's lament of the loss of tradition does not ossify the past in a static and facile nostalgia, but engages with a dynamic global everyday in much more subtle and productive ways. It is an engagement and not an escape from the world. "In the discourse and philosophy of Slow Food, authenticity is not a pristine or timeless state but a quality derived from *terroir*, understood as a distinct cultural and historical identity in which 'the resources of the past are activated to build the future" (Parkins & Craig, 2006 102).

can challenge one of the most powerful sites of capitalist disciplinary mechanisms.

The temporality of the microbial world witnessed in baking sourdough is one such alternative timescape. In his celebration of bacteria and food, Sandor Katz describes fermentation as a process of "developing a symbiotic rhythm with these tiny fermenting organisms, nurturing them so that they will nourish us" (Katz, 2003 4). An extension of the microbial flora within our guts, fermented foods remind us of the unseen world we rely on, one which modern food sanitation laws and hygiene have set to destroy in a misguided application of industrial standards to small scale production. Carlo Petrini rejects the "disastrous agricultural policies that don't respect natural biorhythms, the threat of environmental degradation, and hygiene laws drafted for large industries that are absurd when applied to small artisan producers"(Petrini, 2003 85). Whether it is laws that don't allow people to buy raw milk and cheese, home cured meats, or to process animals on their own farms, "small-scale production methods have effectively been outlawed by hygiene regulations that are designed for mass production" (Katz 2006, 143). Because of this, small producers often find it impossible to comply, even though their techniques rarely result in bacterial outbreak and, even if they do, the scale of toxicity is contained. Whereas a small beef producer might contaminate a couple hundred pounds of beef and make a few people sick, a single burger processed in a modern slaughterhouse may have meat from a thousand animals in it (Roberts, 2008 180) and, as such, one sick cow can infect tens of thousands of pounds of meat.

Following the logic that bureaucracy is the only way to assure safety, massive facilities are considered safer by the government than a small farm butchering its own

chickens or cows. In Ontario, Michael Schmidt, a farmer who provided raw milk for members of his farm through a cow-share arrangement, was embroiled in a 3 year legal battle with the government over the safety of his product, which when tested has lower levels of bacteria than pasteurized milk. Katz refers to "the raw milk underground [as] one of the most widespread civil disobedience movements in the United States today" (Katz 2006, 163), a response to a bacteria-phobic regulatory regime in the United States and Canada that disempowers local control over food security. In this case, hygiene laws add to the deskilling characteristic of modernity, shifting safety into the factory and licensed kitchen. Cooking from scratch, baking, fermenting, and preserving are all skills that need to be demystified and relearned for a vibrant food culture to emerge.

Katz makes a connection between health, biodiversity, and microbes: "your body is an ecosystem that can function most effectively when populated by diverse species of microorganisms" (Katz, 2006 11). Once again, we return to the importance of perception. The ecological crisis is largely a crisis of culture and as such, we must shift the basic understanding of how we relate to the world, especially in terms of the value assigned to nature within economic systems. Even seeing dandelions as food rather than weeds is important as it shifts from antagonism (killing with Roundup), to a much more gracious world view accommodating of difference. This is especially true of fermented foods, which require one to abandon the modern obsession with hygiene. For Katz, the act of fermenting foods in your home makes you more "interconnected with the life forces of the world around you. Your environment becomes you, as you invite the microbial populations you share the Earth with to enter your diet and your intestinal ecology" (Katz,

2006, 12).

Along the same lines, Neil Evernden uses ecology to undermine the sense of self bound by skin and thus moves into an expanded mode of "fields of self" (Evernden, 1993 33). Drawing on observations about organisms such as lichen that are comprised of cooperative algal and fungal elements, he asks the question, where does one organism begin and another end? Are the bacterial flora that help people digest "human," even though they are "separate" organisms which we could not survive without? Are mitochondria, which "replicate separately and independently of the cells, and are made up of RNA that is quite unlike the RNA of the cells," a separate organism, symbiotic, or simply an aspect of the collective human being (Evernden, 1996 95)? Ultimately, any multi-cellular organism faces such blurring of categories. The notion of literal interconnectedness changes the role of border zones from vulnerable areas in need of patrol and careful surveillance, to the always incomplete process of biosocial production where mutual interpenetration, cooperation, and survival require the active cooperation of all parties involved. Biosocial production is always concerned with making this border more permeable and self-reflexive.

Live foods, raw milk, unpasteurized cheese: all of these foods are highly regulated by a system that favours large processors. But we need these microbes: they improve digestion of food, immune functions, and nutrition. The lactase in raw milk breaks down lactose, making it more digestible (Katz, 2006 164). The war on bacteria has led to increased rates of asthma and allergies (Katz, 2003 9) as the immune systems of children raised in increasingly sterile environments fail to learn what constitutes a threat. As Katz

reminds us, "health and homeostasis requires that humans coexist with microorganisms," of which the human body is host to in excess of 100 trillion (Katz, 2003 10). But I am not here to argue about the health effects of unprocessed food. What is most worrying is the effect this has on small producers like Michael Schmidt, who cannot sell raw milk to willing customers because of government regulations favouring big producers whose very methods generate pathogens.

Mutual cooperation and coexistence, the goal of biosocial production, manifests in even the smallest places. The lessons we learn from making sauerkraut, fermenting a pot of kimchi, or tending carefully to a crock of sourdough starter for years and decades, extends into the production of sustainable communities. Learning how to be accepting of wildness is a start, a way of resisting the logic of green capitalism. Biosocial production moves in this direction, shifting the basic compact so that humans learn to adapt to nature, learning from the smallest examples of co-operation, and applying them to designing our cities, economic systems, and internalizing a generosity of spirit.

The small act of baking bread, brewing homemade wine or beer, or making a crock of sauerkraut with friends, helps generate alternative value practices and create communities that can resist the commodification and alienation of technoutopianism and ecological modernization, both of which lead towards large bureaucratic modes of addressing the environmental crisis, and both of which tend to accentuate the social antagonism of capitalist modes of production. Keeping in mind the ways that the organic movement was largely co-opted and contained by capitalism, Slow Foodies and locavores need to be aware of the ways in which they are embedded within a larger project of the

greening of capitalism. The demand for storied food is best satisfied within a much smaller, direct economic engagement that eschews technocratic solutions, bureaucratic regulations, and marketing campaigns in favour of face-to-face food communities. Storied food can help transform a consumer into a food citizen.

Meat: The Generosity of (Eating) Life

I have a friend who has travelled along a similar culinary path to mine. Over the last few years, we have challenged each other, shared countless meals, and tried to find outlandish new recipes and techniques to hone our skills and celebrate the joys of the kitchen as a space of transformation. One recent project was a goose. We called a local butcher a couple weeks in advance and began to plan. We knew we wanted to use every part, truly engaging the animal in its entirety. I was inspired by an episode of *River Cottage* that featured a recipe for a goose neck sausage that utilized the skin of the neck, the organs, and the neck meat in order to make a large coil of sausage. Although I always use every part of the animal I get, you have to request the bird the way we wanted it. Even the butcher rarely gets the bird with the neck on, since most people don't know what to do with it and are slightly repulsed by the reminder of the goose's fleshly presence. I wanted to celebrate the entirety of the bird by revealing its animality and not hiding from it.

Taking responsibility always begins with knowledge, and the boneless, skinless, almost deathless package of meat from the supermarket just would not do. Using whole

animals or whole parts is an economical and delicious way to eat meat and can largely offset the cost of buying organic, free-range animals. Many of the texts in the commodity biography are very critical of the loss of knowledge and skill surrounding animals precisely because the meat that comes to us—drained of blood, deboned, seasoned, or worse yet, mechanically reclaimed— performs a kind of disappearance that allows us to forget that we are eating something that was once alive. This deliberate forgetting is instrumental in transforming the animal into something Other, unworthy of our sympathy and respect. I buy most of my meat directly from farmers, and I prefer whole cuts. Bones in particular have largely disappeared from the grocery shelf. By learning a few basic skills, even someone on a tight budget can buy a whole organic chicken for the same price as a boneless, skinless chicken breast in the grocery store.

Unfortunately for us, it was not goose season. In order to get a goose with a neck, we would need to special order from the farm, so we had to settle for a frozen bird with its neck already cut off. The organs would go into the gravy, but we still wanted to make a sausage, so instead of a piece of skin, the butcher gave us a long piece of hog intestine. Most sausage today is made either with a processed collagen casing, cellulose, or even plastic. Traditionally, sausage was made when the animal was butchered in the fall and every part was utilized. After scraping the fat and mucous from the intestines, they can be stuffed with a mixture of meat, herbs, honey, spices, and organs. Our casing was already prepared by the butcher, so all we had to do was stuff it. This was the fun part, and since we didn't really have the proper equipment, we had to improvise. The intestine is very strange: it looks like an oily, white rope. It is surprisingly strong and resilient, and yet

delicate. We ripped a hole in it a couple of times and had to push the whole sausage down further to avoid the tear. The trick was getting the meat inside without the proper device. I found an unused piece of plastic tubing from a shelving unit in my basement, cut it to size, and filed down the edges. It was surprisingly good at the task, but it demanded a slow and methodical push and pull from us.

Making the sausage was a very visceral experience, literally of the viscera—the tumescent intestine slowly swelling in our oily hands, the sexual sound of the meat slurping down the tube, the tenderness of our hands as we tried not to rip the precious casing. I felt as if we were transported back, that we were doing something basic, ritualistic. We had our hands in something real, something deep inside the animal. It took us much longer than we anticipated— over an hour, but in the end we had a beautiful, continuous coil over a meter long, and five, individual sausages twisted and tied in a fashion echoing the original organ. We were actually surprised by how much sausage we got, especially since the cost of the meat was so small. For under ten dollars, we had approximately twenty sausages and the labour was truly a pleasure. Neither I nor my friend had much idea what we were doing, but with some patience, a search on the internet, and some common sense, we were able to figure out the process.

Both Jamie Oliver's *Ministry of Food* and Hugh Fearnley-Whittingstall's *River Cottage* series emphasize teaching basic skills so that the audience can make ethical decisions without spending a fortune. Cooking skills are the only way to break the seductive cycle of convenience, and learning to cook from scratch begins the process of coming into the foodshed. I was a vegetarian for over a decade before I began my 100-

mile diet, so I understand the mental block people have with handling raw meat. There is something unsettling about the sound it makes, the sheen of the flesh, the bones and skin, even the heaviness. All of it is too real, too hard to hide from. I remember the first fish I gutted. After crushing its skull with a rock, I had to slit the gut and literally tear out the organs. The fish was still twitching a bit, but it is best to clean it quickly. Working with whole animals reminds you of the compact we make with nature. For there to be life, there must be death. It is also one of the only ways to know the story of the animal. I have a couple of farmers I buy my meat from. Usually I get a half or quarter pig or elk and keep it in the freezer for the year. It is truly economical and most of the money makes it to the farmer directly, supporting them so they can treat their animals and land with respect.

Last year, I ordered a half Tamworth pig from a local farmer. The Tam is an heirloom variety that has nearly gone extinct because it likes to be outside and takes twice as long to grow to half the size of commodity pigs. Ironically, the only way to ensure the survival of this breed is to eat it. When I called the farmer, he asked me if I wanted the half in its entirety, literally cut down the middle and delivered to me in all its glory. For a moment I thought about it seriously, but then I realized the logistics of over a hundred pounds of pig in my kitchen and my wife threatening divorce as I boiled the head and bumbled through a butchery job I really did not understand. Instead, I got it cut up and vacuum packed, but I did take as much as I could see using, including the fat (for rendering into lard), the cheeks and jowl, and the ears. I used the jowl to make Guanciale, a cured but not smoked form of bacon that is very hard to find, but extremely tasty. It is one of the simplest cures for an amateur, requiring only salt, sugar, some herbs and about

a month of hanging time. Unlike traditional bacon made from the belly, guanciale contains less fat and more collagen, making it ideal for thickening sauces. In addition to utilizing every portion of the animal, transforming the nasty bits into something delicious connects you with the most basic aspect of food: the translation of nature into culture. Being cognizant of this interplay, of the push and pull, of the negotiation, is central to biosocial production as a practice of inhabiting place responsibly and sustainably.

In the course of my research on Slow Food and local food movements, I spent a season working on an organic farm that runs a CSA program. One of the hardest decisions I made was whether or not I would maintain my vegetarianism. Before I started the 100-mile diet I was an ardent vegetarian for almost a decade. I was sure that this was the morally and environmentally superior position, but as I started getting more involved in food production, I realized that vegetarianism often relies on the highly processed meat substitutes, long distance transportation, and an agricultural-industrial complex that I was in principle against. Moreover, many of the problems of modern industrial agriculture stem from the separation of animals and crops, for animals are an integral part of the farm ecosystem. Without animals, farmers must buy artificial fertilizers from far away, or convert grasslands, which are indigestible to humans, into crops that probably should not grow there. Farms with both plants and animals tend to be much more diverse than those with only one. From a personal standpoint, I was concerned that as winter set in and I was relying on my preserves for vegetables, with only a few humble roots providing a fresh source, that I would begin to waste away. I was unable to get locally sourced tofu or beans and thus my protein choices were severely limited. Ultimately I chose to include local and

ethically raised animals in my diet.

Without getting into a protracted discussion of vegetarianism and meat eating, I would like to consider a specific encounter I had with some chickens I was taking care of, because the encounter helps elucidate the concept of biosocial production as a de-commodified biography of food that self-consciously participates in a production of place and that respects the diverse needs and desires of human and non-human actors. It recognizes the co-production of food made possible by both the farmer, consumer, and the pact they make with the land, plants, animals, and the whole host of ecological "services" provided by nature. Rather than breaking up the process, biosocial production seeks to reconnect people with the means of production, and in the case of food, reconnect the rural and the urban. This is precisely the goal of Community Supported Agriculture and organizations such as "farm-folk city-folk," which try to make consumers realize they need to take responsibility for the lifeworlds they help produce. Sustaining this awareness is crucial to creating a sustainable economic system that can relate to nature beyond the cash nexus and the reductionism of profit and growth. Storied food becomes nothing more than an adjunct to the greening of capitalism without this fundamental shift in the relationship between production and consumption. By focusing on the borderlines where ruptures and couplings between the way capitalism measures and values abuts on other systems, other imagined communities and modes of being, food can become a site of hybridity and an alternative value practice. By breaking from a reductive Marxist narrative of capitalism as a prehistory for socialism, storied food, in its untidy citizen-consumer hybridity, its supposed neoliberal subjectivity, can facilitate the conditions for the

emergence of modes of co-production that practice revolutionary politics in the everyday.

Like most people, I get my eggs from the sterile, brightly lit aisles of the local supermarket. Since I became a vegetarian, I have always tried to buy and eat only free-0range and/or organic eggs. I had read about the sad life of the modern chicken and reacted with the kind of anger and indignation that sustains many environmentalist discourses. The industrial chicken is a horrible example of what capitalism is capable of with minimal regulation and when guided solely by the profit motive. Having decided not to be a vegan, I felt better that at least the eggs I was eating came from free-range chickens. I imagined that these chickens, although probably not nestled in the bowers of the pastoral landscape of an idyllic pre-industrial farm, at least had room to wander, roost, and do other things that make a chicken a chicken. Perhaps the greatest lesson I have learned while working on the farm relates to the subtle violence that nonetheless prevails even in the most beneficial symbiosis. Unlike the sad chicken lives that persist behind the pastoral conceits typical of the organic industry, these particular chickens I was taking care of were able to roam freely around the whole farm, roosting as they saw fit, and engaging in the activities that make a chicken a chicken. Not only do their lives seem to be relatively happy, but the eggs are of a different category all together, with brilliant yellow yolks, firm whites, and a taste that echoes the quality of their lives.

While these chickens are "free" in a sense, it also remains the case that eating eggs involves using another animal for your benefit. Chickens are nurturing creatures, expending $1/8^{th}$ their body mass on the production of eggs every day. They roost and instinctually hide their eggs to protect them from all the animals who covet this nutritious

and dense source of food. They are the archetypal good parent of the animal kingdom. I was tasked with feeding the chickens and collecting the eggs, so I lifted the back flap of the chicken-coop and looked in on the mothers. There weren't many eggs; most of them were under one chicken who was doing the work of tending a few eggs at once. I tentatively reached in and was pecked away by the hen. I was told that it was important to get the eggs out from under her as soon as possible, for if the eggs are warmed, they begin to develop bloody spots, something most of us do not enjoy in our morning omelette. So I reached in and blocked the pecking with the egg carton, an irony that was not lost on me that morning. To the hen's dismay, I was successful in providing for my lunch. What I was struck by the most, however, was the plaintive howl that continued from the mother as I walked away. I could hear the pain in her voice as she lamented her lost children, and for the first time I was truly aware of the cost of eating an egg. This was a face-to-beak encounter that left a mark on me because I was responsible, in a direct way, for that specific chicken's suffering. In the most basic sense, it was an unmediated and unalienated experience.

However, I also felt responsible, by choosing to support a farmer who respects his chickens and allows them to live as chickens, for what I can honestly say within the limits of human imagination, is a good life. I was part of the biosocial production of a lifeworld that respected the being of that chicken. In the wild, these chickens would be predated by foxes, coyotes, weasels, and all sorts of other animals that want both their eggs and the hen. At the farm, they are relatively safe and live to see many of their chicks hatch before they join the fate of all creatures in the human gastronomic axis and make their way to the

soup pot. I always knew of the abstract costs of my diet, but that day, I saw the complete picture. I had to be comfortable with myself and the system I was part of, and rather than handing over a few dollars and hiding behind the false civility of commerce, I reached in behind an actual chicken and stole an egg from a mother. Instead of being a passive spectator who purchases eggs, I was able to have an encounter that commodification precludes from occurring, or at least makes difficult to experience. I felt part of a mundane enchantment that revealed the true costs of eating, and in the process, connected me to a much larger economic, political, social, and ethical system.

Whereas the experience of buying organic, free-range eggs is mediated by the cash nexus, the face-to-beak encounter of taking the egg from its mother forced me into a shared co-habitation, a fleshly presence that helps defend against the instrumentalization of being characteristic of so much of our agricultural system. The chicken and I become enmeshed in an ethico-political dynamic that protects against the symbolic and real violence of techno-commodification that occurs within the factory farming system. While by no means clean or morally clear, my encounter was productive in the sense that it produced a reciprocal being, a biosocial network of need and desire that suffuses chicken, human, and landscape in a way that forces reflection, adaptation and negotiation, something that is lacking in the somnolent and alienated act of purchasing food in a grocery store. By hearing the cry of the chicken, rather than the inarticulate squawking of a mass of birds, or the silence of the egg carton, I acknowledged that the chicken was asking me something, that she was an articulate being with her own world, desires, and needs. Her mourning was as powerful as mine, and demanded from me the right of

hospitality and inclusion in a community with a right to a good life. She called on my generosity, and in turn, provided her eggs. The next time I took eggs, she did not emit the same cry, although I am sure her mourning was still deep.

These kind of interactions are only possible when vibrant local economies thrive, where people can meet those who produce their food, and where they share a stake in that production. The CSA model is particularly emblematic of biosocial production because it requires consumption and production to be reconciled. When you purchase a share at the beginning of the season, you make a pact with the farmer. Your share of the produce depends on the weather, temperature, precipitation, availability of labour etc. Being a locavore is so much more than distance. Shortening the miles your food travel makes it possible, necessary even, to know the story in a material way. Most CSAs are by definition open to the public, inviting their members to participate in harvest, farm tours, dinner nights, and school tours. The CSA I am currently a member of hosts regular events, focusing especially on school-age children. Since most people in North America do not live on farms or have regular access to farm animals, giving children the opportunity to witness the actual lives of their food is an important step in establishing a cultural ecology capable of fostering respect. From a pedagogical standpoint, the CSA can help bridge the gap between town and country, and in the process, foster a sense of co-production.

One of the most interesting sections of the *Omnivore's Dilemma* is the portrait of Joel Salatin. He owns and operates Polyface Farms, a beautiful example of biosocial production. Salatin describes his farm as "management-intensive grazing" (Pollan, 2006 180). He rotates his cows along the pasture so they do not overgraze. After they have

eaten and fertilized the pasture, he sends in the chickens three days later, so that the grubs in the cow paddies have become plump enough for the chickens to feed on, which in the process sanitizes the field. Salatin mimics the natural relationship between herbivores and birds. His kind of farming requires a deep understanding of the local landscape— a bioregional knowledge. In nature, predators keep herbivores mobbed and moving, and thus they never overtax the grass. He accomplishes this with movable electric fences and a chicken tractor that allows him to follow the cows with the birds. His system results in healthier grass, as the cow's rumen takes over the nutrient recycling role of the grass during the dry months. He works within the economy of nature, modelling his farm after natural processes that improve rather than degrade the soil and land.

Biosocial production eschews some degree of control or hierarchy and recognizes that humans cannot control and should not seek to control nature completely. It moves from notions of conquest to those of cooperation and co-production. This begins with recognizing that nature is an agent, which for Salatin means taking on the role of an "orchestra conductor," making sure everybody is in the right place at the right time (Pollan 2006, 212). While he nonetheless remains in control and functions within a capitalist system, the animals retain dignity and can live their lives well. Moreover, where an Intensive Livestock Operation has a waste problem, Salatin is able to transform cow patties into very healthy and delicious eggs, and some happy chickens. There is no waste anywhere, and his reliance on fossil fuels is extremely minimal. His farm functions as an integrated system with complex loops that mimic those found in nature. This must be the goal of biosocial production, to encourage, nurture, and replicate these kinds of co-

productive relationships found in healthy ecosystems by integrating human culture into them. By building upon co-evolutionary relationships, like that between grass, herbivores, and birds, Salatin orchestrates reciprocal loops that improve rather than degrade the quality of the land.

Conclusion: Preserving Naturecultures

Jane Bennett describes enchantment as

> a feeling of being connected in an affirmative way to existence; it is to be under the momentary impression that the natural and cultural world *offer gifts* and, in doing so, remind us that it is good to be alive. This sense of fullness… encourages the finite human animal, in turn, to give away some of its own time and effort on behalf of other creatures. (Bennett, 2001 156).

For Bennett, "an enchantment tale disrupts the apocalyptic tenor of the news and the despair or cynicism it breeds… For such attentiveness can help transform shock at tragedy into a political will to reform painful social structures" (Bennett, 2001 160). Enchantment thus becomes a way to be "enamoured with existence and occasionally even enchanted in the face of it in order to be capable of donating some of one's scarce mortal resources to the service of others" (Bennett, 2001 4). When it comes to environmental problems, whose scope and scale and implications are often so huge and unwieldy that they genuinely paralyze people, enchantment is a vital store of energy for generating change. The clean sweep of the apocalyptic narrative, the technoutopian tale of the scientist-hero releasing a cornucopian abundance, the ecological modernizer reuniting economics with ecology, all fail to capture a vital moral energy, one capable of knitting together a resilient and sustainable system that also acknowledges non-human agency.

There is an easy way in which storied food can slip into a disenchantment tale, especially within nostalgic pastoral narratives that fetishize a prelapsarian world of harmony and independent yeoman farmers in contrast to the complexities of modern life. Likewise, the commodity biography participates in a narrative of disenchantment,

replicating what is essentially the cultural industry thesis according to which seeing through the ruses of marketing provides knowledge, if not emancipation. In storied food the revelation of the commodity's social mystery does not produces an authentic, post-ideological experience of the real, but rather, a situated knowledge of food as an agentic assemblage. Without a dialectic approach, storied food fulfils the paradox of attempting to step out of ideology according to Zizek. Moreover, that story can easily become, as Pollan has shown, a brand folded back into the very social mystery it seeks to reveal.

Thus, rather than focusing on the real, it is more productive to focus on alienation, responsibility, and control: what do these stories of food reveal about agency, collectivity, power, and nature? Do they help challenge some of the fundamental categories that naturalize exploitation? Can they provide an alternative vision? Can they foster utopian agency and wonder capable of challenging the end of history rhetoric of capitalism, or the impasse of apocalyptic thinking? I argue they can precisely because of the interface between the real and representation, between production and consumption, and nature and culture that emerges dialectically in these narratives. But in order to do this, storied food has to focus less on the problems of distorted representation, on revealing the commodity's biography, and more on the biosocial relations made possible or impossible by competing narratives. This is what biosocial production involves, a reflexive awareness of narrative as power and, as such, a localization of the ability to write one's own story in a way that reveals the multiple connections between natural and cultural agents. Biosocial production must be magnanimous, accommodating of heterogeneity in its most radical sense. Many of the distinctions between the apocalyptic, ecological modernism, and

technoutopianism rest on the ability to write your life story, to participate in the production of place, rather than simply experiencing the after-effects. Especially in terms of technocratic management, the question of scale and the locus of power is really the struggle that food politics is engaged in. For example, Vandana Shiva's focus on seeds is fundamentally about control over the enclosure of common resources. Likewise, the critique of agribusiness comes down largely to the alienation of control from the level of the individual and community. Storied food opens up a space of possibility, one where relations of social power can be revealed and contested.

In this revelation, however, storied food must be careful not to replicate the disenchantment narrative of modernity. The pastoral is an interesting site of ambiguity in this regard because, on the one hand, it reinforces the notion of modernity as disenchanting. On the other hand, the utopian pastoral embraces the moments of enchantment associated with unalienated labour as fragments of clarity, windows into new ethical and political arrangements and affective ties to other members of the community; in other words, moments of possibility when new value systems emerge that challenge the hegemony of capitalism. The pleasure of Slow Food based on the situated knowledge of regional cuisines and terroir, is an attempt to introduce enchantment into the everyday, to weave critique into a somatic knowledge of bodies in place. Without this enchantment, we are left with the impasse of the apocalyptic clean sweep or the scientist-manager and his bureaucracy. This is why the pastoral dimension is so important, because it helps us escape a trap of so much cultural critique, one which creates a dichotomy of dupes with no agency, and super-subjects who see through the veil and somehow step outside ideology.

Bennett reminds us that "an ethical politics requires more than rational demystification" (Bennett 2001 128).

This is why elements of storied food that emphasize pedagogy and the everyday, such as community gardens, kitchens, and even shows like *Jamie at Home* are so important. They help internalize an ethical comportment, to introduce pleasure back into the apocalypticism of environmental ethics. While it is important to maintain a sense of the immensity of the crisis and the changes necessary, it is equally important to maintain a hope for the possibilities inherent in that crisis, for the chance to remake the world. Within storied food, a sense of play, of somatic reverence and ethical energetics, emerges in the pastoral. Even though the pastoral has its conservative elements, utopian pastoralism can enliven and enchant, make a better world seem possible and indeed necessary. Without this possibility, without a sense of hope, the apocalyptic mode will limit the power of storied food, failing to inspire change precisely because it can only recognize rupture as the means towards a new world. The appeal to a yet distant futurity will in essence assure the impossibility of imagining a future, of imagining a new world.

Enchantment is very important in the move from the end of history to the beginning, from chastising food movements as ineffectual forms of consumer activism, to focusing on the positive affirmations and dispositions suggested by those food stories. In a sense, the final chapter is this: a weaving of theory and life into an affirmation of possibility. This doesn't mean I don't see a place for critique; as the rest of this thesis has shown, without critique and awareness, storied food will very easily become the next organic food or cloth shopping bag, an artefact of its own incorporation. Only within a spirit of critique

can storied food emerge as a challenge to the hegemony of capitalism. And only with a spirit of pleasure and celebration and enchantment can storied food offer a new beginning, a new value practice that contains the seeds of a better world, one in which the currents of economy no longer run in opposite directions to the currents of ecology. This world must be nurtured and tended to, engaged with like a garden. Not as a site of domination and the manifestation of colonizing human will, but one of co-production, of biosocial production, with enough generosity and wildness to accommodate a world of difference and myriad agents. One in which there are enough beans for the woodchuck, and where slugs dine on lettuce and then drown in beer. I share an affinity for Georges Bataille's concept of "wild exuberance" (Bataille, 1988 33), shifting the tenor from an economics of scarcity to one of fecundity and wildness that can accommodate cross-species encounters, desires, enchantments, and produce a world capable of sustaining human life without destroying countless others.

The foodshed memoir in storied food sets out to cultivate the bodily comportments and affects of an ecological self, especially in its most ludic moments of celebrating conviviality and the fecundity of nature. In other words, while sustainability must emerge from a code (regulations, laws etc), it also requires a transformation of self that can internalize, perform, and at times resist these codes, to impel bodies to make productive choices. Because food is something most of us experience multiple times a day, it can provide a platform for this process. And while many of the texts, particularly those concerned with life narratives, recollect the hardships of their experiments, the overall tenor is one of enchantment, conviviality, and pleasure. It is precisely in the synthesis of

apocalyptic elements including moral codes, and utopian drives embracing alternative value practices that the most useful elements of storied food begin to emerge.

Slow Food's celebration of pleasure comes out of the same dynamic that Bennett discusses. To activate an ethical system capable of reacting to ecological problems requires more than guilt and heavy-handed regulation. Especially since any meaningful change will result in some massive reductions in the kinds of goods and services people in the developed world can use, a central aspect of transforming everyday lives to align with an ecologically more harmonious worldview is to convince people that they are not giving up their lives on the alter of Mother Earth. Slow Food tries to shift this discourse towards something more enchanted, more lively and celebratory by arguing that the only thing you will lose are those things that are currently making you fat, unhealthy, and unhappy. Carl Honoré's *In Praise of Slow* is a good example of the philosophy of Slow Living extended to a whole physical and moral comportment, as is Bill McKibben's *Deep Economy*. I want to end by reuniting the various categories I have delineated, in the sense that it is precisely this fragmentation within storied food that we must resist. Biosocial production is my solution because it knits together the best aspects of each sub-genre, and tries to search for the positive aspects within capitalism as well.

And so I end with my own life narrative. When I came into my first winter as a locavore, I was anxious about what I was going to eat. This is Canada of course, and even in Southern Ontario, winter is long and greenery disappears well before it seems possible to survive through the cold and dark. I compensated for this in local dinners I had with friends, putting out dish after dish— arrays of homemade pickles, cheeses, fresh bread and

sausage, as if saying to myself and my guests: this is not a barren land. We can survive here, even in the winter, and it can be delicious. What it takes is labour and planning and love. To eat a local diet in the winter, you must begin in the summer: freezing, drying, pickling, canning, and jamming. Nature provides her largesse in bouts: an extravagance of seasons that can overwhelm even the most prepared. Some of my fondest memories of my food experiment have been the days I needed to complete big projects. Making 250 perogies, canning 25 jars of tomato sauce, making 30 jars of salsa, or preparing a 100 litre crock of sauerkraut. Although each of these projects were exhausting and took a lot of time and effort, with the help of some friends, the task was transformed into a communal event. We took the opportunity to share in the bounty, transforming the kitchen into a space of enchanted materialism that connected us to a legacy of survival and celebration, an activity as old as the human species. Many of us in Canada have lost the joys of preparing for winter, of squirreling away and sharing, and finding ways to transform decay into delicacy. Some of our most delicious foods: cured meats, cheeses, miso, pickles, beer and wine, all emerge out of this necessity to juggle the seasons, to accommodate nature's bounty when it arrives, and plan for her miserliness. Eating in season helps internalize this valuable lesson; the line between famine and feast is often razor thin, and on this line, culture emerges by preserving nature.

Bennett points out that one of the ways enchantment works is by "slowing down or speeding up the usual tempo of something" (Bennett, 2001 127). This temporal shift is precisely the pleasure I receive from looking at my wall of pickles, jams, salsas and preserves. It represents labour frozen, plans enacted, seasons respected, and time

compressed and expanded. It is a wall of time, labour, celebration, and friends. I look at the 30 jars of salsa, and I think about my friend and the afternoon we spent chopping and dicing, sipping wine, and enduring the heat of the steam from the water bath we used to sanitize the mason jars. Or the night my wife and I set up a camp stove on the porch to make pickled asparagus in order to avoid heating the house up during an early heat wave in May. I am enchanted, transfixed by the sight of a loaded pantry— I admit, sometimes I steal away into my basement and just look at the jars, their myriad colours, the small flecks of pepper and coriander, the almost artificial glow of turmeric, the sheen of the metal catching the light. They transfix me with the miracle of preservation and the transformation of flavours that salt, sugar, and vinegar can accomplish. One of the biggest and most obvious changes that occurs when eating locally is the force of seasonality. The end of summer is always a flurry of activity in my kitchen as I think about the upcoming winter. Giant crock pots and mason jars are a permanent fixture as I madly try to keep up with the summer harvest. One year I put away nearly 200 jars of preserves— I am still eating from that embodied labour two and a half years later. The labour is hot and long at times, but not only do you have a store of food produced locally, at minimal cost, and with a small environmental footprint, but the satisfaction is truly intoxicating. It gives you a sense of the fecundity of nature, of the lascivious bounty of flowering plants and the possibility of a solar economy. Each jar reveals its story, standing bare before my eyes in its connection to land and labour.

Preserving your own food and preparing for the winter is one of the ways to internalize the ethical comportment of wild exuberance and participate in biosocial

production on the micro level. It is as an engagement with the everyday, one which crucially engages economics, ethics, taste, and pedagogy in order to transform and to be transformed. Both green capitalism and more critical environmental approaches rely on an apocalyptic narrative of Malthusian dread and a politics of scarcity. They mobilize guilt in order to force change. Following Bennett's arguments for the ethics of joy and affect, storied food can be one of those everyday sites where guilt mixes with joy to offer an alternative to the momentum and trajectory of greenwashing and shallow forms of sustainability, the effect of which is to enclose more of nature and culture. Slow Food opens up the utopian possibilities of the everyday, a material politics of enchantment that reunites the public and the private. Environmentalism is largely a discourse of futurity and design, in the sense that it is simultaneously preoccupied with the possible end of life and the human future, but also the shape of that future. The cynicism regarding pastoralism and the wild in contemporary ecocriticism can foreclose the possibility of mundane enchantment, those encounters with alternative value practices, temporalities, other beings, and the quotidian that emerge from food.

While capitalism does encompass many aspects of our lives, it is a mistake to reify it into an all-encompassing totality. There is an outside, a field of relations that is not defined only by commodities and money, but by conviviality, commons, and gifts. The enormity of the idea of capitalism tends to close the cracks and openings necessary for the emergence of new commons. It is a word that suggests an all-encompassing force, a totalizing system or logic that has no outside. As such, the resistance to capitalism is often framed as a fight for a particular system, whereas what we should be fighting for is the

ability to write a collective story and for the chance to reopen the commons. Ironically, the very failure of alternative food to change the system, ensures that it remains, at least provisionally, on the outside. By emphasizing those moments and values that exceed the logic of capitalism, we can challenge the idea of limitless growth. Food is a key site of this process, precisely because of the polyvalent ways in which it signifies, engages, supports, and challenges capitalism. Because, and not in spite of its liminality, we must engage questions of food politics as central to establishing a better future. After all, we must eat.

We are at a very interesting point in human history where a global system is coming against its own limits and must transform in order to survive its own internal contradictions. What system emerges depends on numerous factors, but to sink into despair and announce every push outside the logic of capital as bound to fail is to admit defeat before the fight has even begun. Even the very act of struggling against various enclosures and commodifications helps to expand the ethical and environmental accommodations capital must make. The politics of food, the conviviality of the shared table, the abundance of the farmer's market in August, the smell of home baked bread—all of this is part of the shifting landscape of economy and ecology in the 21st century. What shapes it will take is a mystery, but the struggle must continue. The future must be contested.

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