CONTENTS

	Introduction	1
1	Theory of the Free Gift	23
2	Unfree to Choose: Capitalist Rule and Existential Freedom	53
3	The Natural Machine: Labor and Nature in the Hidden Abode	82
4	No Such Thing as a Free Gift: The Violent Paradoxes of Social Cost	116
5	Labor of Life: Reproduction and the Nature of the Human	145
6	Planetmaking: Nature as Capital	179
7	Freedom beyond the Free Gift	207
	Epilogue: After the Gift	232
	Acknowledgments 241 Notes 247 Index 309	

Introduction

IN THE ENDLESS expanse of the universe, every living thing we know of exists within a thin layer, spanning just a few hundred meters, of a single planet—Earth. This space of life, sometimes termed the critical zone, is as large, relative to the Earth, as an apple's skin to its flesh. If this zone is small relative to the vastness of space, however, it nevertheless supports an astonishing array of life: sea stars at the sunless, frigid bottom of the ocean and pikas in the upper altitudes of the Himalayas; over a thousand species of ant in the Amazon rainforest alone. Or at least, it has. Today, many of the Earth's beings are not doing well. One million species presently stand at risk of extinction; the last forty years alone have seen the loss of an estimated 50 percent of vertebrate wildlife. The vast majority of vertebrates living on Earth today are domestic animals bred in factory farms for human consumption: livestock now constitute 60 percent of mammals and 70 percent of birds.² Plant life, too, has been drastically remade: vast forests have been felled for timber; plains and marshlands have been steadily converted to monocrop plantations and pasture, or cleared to make way for roadways and suburban sprawl. Others face more oblique dangers. As global temperatures warm, bristlecone pines that have stood for millennia are threatened by the migration of unfamiliar pests and increasingly frequent wildfires. As Arctic snow melts earlier each year, the eggs of the birds that breed on Siberian tundra hatch too late to feed on the insects that emerge from the frozen ground, decimating their populations. Artificial lights disorient insects and turtles; artificial noise disrupts the communication of birds and whales.³

Catastrophic climate change is, of course, the most pressing and obvious ecological challenge we now face, though hardly the only one. Global temperatures have already risen an estimated 1.1°C from preindustrial temperatures, and this rise is projected to reach 2.5°C or more by the end of the century.⁴

1

2 INTRODUCTION

While as recently as a decade ago climate change was still viewed as a problem of the distant future, its effects are increasingly obvious in the here and now: in the punishing heat waves that have swept through India and Europe; wild-fires in Australia and flooding in Pakistan; megadroughts in the American West and the Horn of Africa; cyclones striking Mozambique and hurricanes devastating Caribbean island states. The acceleration of its underlying causes, too, is an astonishingly recent phenomenon: more carbon has been emitted since the fall of the Berlin Wall—or, as David Wallace-Wells observes, since the premiere of *Seinfeld*—than in all previous human history.⁵

This is not a crisis only for nonhuman beings; nor even for self-proclaimed nature lovers or environmentalists. It is a crisis for everyone presently living on Earth—though it affects some far more immediately and severely than others. Millions of people around the world, including most Indigenous peoples, rely directly on wild plants and animals for sustenance. Billions more rely indirectly on other species: wild insects that pollinate crops, marshes that filter water, root systems that ward off erosion. Every single one of us relies on other beings to keep the planet habitable: on the microbes in the soil, plankton in the oceans, and forests spanning huge swathes of the globe, without which the Earth's atmosphere would not support plant and animal life. The planet once seemed to exist beyond us, offering a stable background against which human lives and dramas could unfold. The mounting evidence that this is no longer the case—that, in fact, it has never been the case—has prompted a reckoning in many quarters. In political discourse it has become routine in recent years, to the point of cliché, to describe climate change as an "existential threat." Scientists have proposed naming a new geological era, the Anthropocene, marked by the entrance of human activity into the fossil record. Humanists and social scientists, once content to leave nature to environmentalists, have called for a dramatic rethinking of the precepts of Western thought, and perhaps for abandoning them altogether.⁷

In economics, however, the astonishing transformations of our planet are frequently attributed to a surprisingly narrow cause: the absence of price. As the economist Nicholas Stern observed in his landmark paper on the economics of climate change, "Greenhouse gas emissions are externalities, and represent the biggest market failure the world has seen." In other words, the effects of accumulating greenhouse gases are not factored into the prices of market goods, and as a result, are not taken into account in economic decisions. The use of the Earth's atmospheric and water cycles as an emissions sink, similarly, is typically costless, despite their nearly infinite value to human and nonhuman

INTRODUCTION 3

life. So too are biodiversity and ecosystem loss traced to the literal pricelessness of many nonhuman species, ecologies, and organisms. The economist Pavan Sukhdev, for example, argues that the "economic invisibility of nature" has serious consequences, insofar as no one pays to preserve the Amazon's "rain factory" or for insects' pollination services. Although it is the likes of "peat bogs and bees" that keep life "possible and bearable," the economic journalist Jonathan Guthrie notes in the *Financial Times*, "we have not typically attributed any value to them." This, he adds, "seems like a mistake."

The gap between these two discourses—the language of existential threat and that of economic error—is vertiginous. The idea that the end of the world might come about as the result of an accounting blunder tilts into absurdity. Is it really possible that this "mistake" could bring an end to life on Earth as we know it? And if so, why hasn't it been corrected? For if this is a mistake or a failure, it is one that has proven enduringly difficult to rectify. The paradox of nature's nonvalue is a persistent one in political economic thought. Similar observations have been made for decades, even centuries: by the classical political economist Jean-Baptiste Say and the feminist economist Marilyn Waring, by the neoclassical economist Arthur Pigou and the ecological economist Herman Daly, and by many more beside.

At the same time it is perplexing to regularly encounter claims that nature is endangered because it does not appear in the market. After all, capitalism famously puts a price on everything: it is notoriously merciless in its disregard for moral value, religious belief, sentimental attachment, family ties, and cultural practice. The realm of the market perpetually expands, stripping ever wider swathes of the world for parts; markets regularly destroy the things that are bought and sold, such that everything precious must be protected from them—or at least so generations of critics have claimed. But if capitalism is characterized by relentless commodification, then its continual failure to value many kinds of nature is puzzling. It suggests a different question than the one usually asked: not why *shouldn't* these incredibly useful activities be commodified—but rather, why *haven't* they been?

This problem, I argue, is much more profound than has typically been acknowledged, and deserves more careful critical attention than it has received. That is what this book is about: capitalism's persistent failure to value nonhuman nature, and what it means for politics—as well as for our collective future on this planet. Capitalism, this book argues, systematically treats nature as a "free gift": something that can be taken without payment or replenishing; something that is materially useful but that tends not to appear in exchange.

4 INTRODUCTION

This is not an accident or an oversight; rather, it is foundational to how capitalism works.

The Politics of Nature

To name capitalism as the driving force of contemporary ecological transformations is typically to invite the charge of reductionism. Capitalism is important, many acknowledge, but it is only a subset of a much deeper problem with human relationships to nature. 11 The climate crisis, it's often said, requires us to rethink the basic frameworks with which we interrogate the world, including the relationship between politics and nature itself. Indeed, for much of the history of modern political thought, the very idea of a politics of nature might have seemed unintelligible. Politics is usually understood to be a distinctly human activity, perhaps even the defining human activity, while nature describes the world as it operates independently from human action. Politics concerns the realm of decisions about how things will and ought to be, while nature names that which simply is and cannot be changed. Politics describes the actions of human subjects; nature, the passive backdrop against which they play out. Nature is most present in political thought as landscape or metaphor, resource or territory. 12 The driving force of much Enlightenment thought was the imperative to separate the natural from the political—to debunk superstition, deflate myths, disenchant the world. The distinction between nature—how things are—and politics—how things are made—has stood, G. A. Cohen argues, as "the foundation of all social criticism": only if something could be otherwise, after all, do we have grounds to challenge it.¹⁴

Yet the distinction between nature and politics has also long been questioned from the vantage point of Indigenous ontologies and feminist phenomenologies—and in the past few decades, by ecological thought. Ecologists remind us that human beings are part of nature, dependent on and unavoidably connected to other kinds of life. In recent decades, the reality of interdependence has been brought into ever starker relief by the worsening climate crisis. And yet the crisis has also scrambled our coordinates for what a politics of nature might be.

On the one hand, anthropogenic climate change has crowned a growing suspicion of the category of "nature" itself. In 1989, Bill McKibben famously declared the "end of nature," claiming that human modification of the atmosphere meant that a world standing apart from human beings had ceased to exist. "We have ended," he argued, "the thing that has—at least, in modern

INTRODUCTION 5

times—defined nature for us: its separation from human society." ¹⁵ Many argued in response that nature had never really been separate from human society at all. Environmental scholarship has long interrogated the idea of nature, scrutinizing its representation in culture and language, science and discourse, art and politics. Nature has been thoroughly dissected and deconstructed, debunked and defanged. Time and time again, it has turned out that those invoking "nature"—scientists included—have imported their own social values into their arguments, whether intentionally or accidentally; all too often, the invocation of "nature" has conveniently justified the status quo. At times the idea of nature has seemed not only the most complex in the English language, as Raymond Williams once suggested, but so complex as to be unusable altogether: too liable to act as ideological cover, too imbued with moral and cultural expectation, too rooted in Cartesian dualism or Baconian domination. ¹⁶ The one thing it certainly is not is *natural*: the idea of nature, scholars have concluded, was a thoroughly human construction long before climate change appeared on the scene. Climate change, then, simply confirms that nature is political all the way down.17

On the other hand, the worsening climate catastrophe has also been received as the return of nature: this time as an autonomous world of inhuman matter unvanquished by human fantasies of control and indifferent to human perceptions. The climate crisis, Dipesh Chakrabarty argues, "is about waking up to the rude shock of the planet's otherness." It is about remembering the force of an "inhuman nature" that exists beyond our representation and manipulation. 18 If the *idea* of nature is no longer viable, in other worlds, actually existing nature the physical force of the material world—is as lively as ever. The environment, in turn, is not just a passive medium that surrounds us, but something actively made by living beings—ourselves included. Our human world is populated by countless nonhuman agents, from the billions of carbon molecules accumulating in the atmosphere to the microbes that circulate in our food and guts. 19 Climate change therefore forces us to confront the aspects of our world that we have not made and do not control; it reveals that the modern project of bending nature to our will has failed once again. When Chakrabarty, like McKibben, confronts the end of an assumed separation between nature and society, he is beset by the opposite anxiety: that climate change signifies not the end of nature but the end of the social; the end of a distinctively human history. Climate change reminds us that the achievements we attribute to human action and ingenuity rest on material conditions that we have often taken for granted, but no longer can. Perhaps what we have called "civilization" is really just the

6 INTRODUCTION

contingent stability of the Holocene era; perhaps what we moderns have called "freedom" is really just the product of fossil fuels.²⁰ To understand the world today, some charge, we have to look more closely at this other nature—not nature as idea but as vibrant matter, nature as the multitude of nonhumans that make up our shared world. We must turn from the global to the planetary, Chakrabarty argues; we must come down to Earth, Bruno Latour insists.²¹

Taken together, these revelations seem to point in opposite directions. On the one hand, we live on a human planet, and thus on a thoroughly *political* planet. ²² Yet on the other, we live on an inhuman Earth replete with agencies we do not control or even understand. The implications are often dizzying. To make sense of this predicament, we are called on to interrogate our received wisdom, challenge our assumptions, revise our concepts: freedom, responsibility, action. William Connolly, for example, argues that we must "rethink old ideals from the ground up" in light of what we now know about planetary forces; Cara New Daggett, that "the ontological shift forced upon us by the Anthropocene also upends our understanding of politics." ²³ "We inherit a world that no available political category is designed to manage," Pierre Charbonnier declares, "and therefore we are faced with a seemingly impossible task." ²⁴

If climate change is transforming our planet in unprecedented ways, however, the reflections it has prompted are not as unprecedented as we tend to imagine. We do confront a set of novel and daunting challenges—but so too have all political thinkers past. The project of political theory is fundamentally one of coming to terms with a world in flux.²⁵ The political categories we now see as mundane—mass politics, democracy, the modern state—were once unprecedented in their own right. For that matter, even the ecological challenge to political thought is less novel than it might seem. For decades, work in environmental political theory has asked whether ecological precepts are compatible with core traditions and concepts of modern political thought, and considered how they might be reconciled.²⁶ The growing relevance of these analyses only reiterates their fundamental point: that nature cannot stand apart as a set of issues or ideas to which political theory can simply be applied.

Rather than cordoning nature off from politics or abolishing the distinction altogether, this book starts from the premise that "nature" pertains to politics of all kinds—not only those issues we tend to think of as "environmental." Instead of treating "politics" as the organization of human life, to be distinguished from the scientific or technical organization of nonhuman matter, it holds that to organize human life is always also a material enterprise, and hence a natural one. All of our actions play out in a material world, whether or

INTRODUCTION 7

not they are explicitly posed as environmental or consciously take the morethan-human world into account—and this means that decisions about how to relate to other human beings are always, inevitably, decisions about how to arrange the world around us.

This premise does not mean, however, that nature and politics are *identical*. As ambiguous as it has often turned out to be, whether because we have smuggled politics into our ideas of nature or hidden the material foundations of our politics, some distinction between nature and politics remains essential to the latter. Denaturalization remains a bedrock of critique, vital for interrogating seemingly immutable phenomena and locating their political dimensions. But efforts to denaturalize institutions and relationships often run the risk of dematerializing them: of detaching politics from the material world we call nature altogether. Political thought, then, must undertake denaturalization alongside rematerialization: it must attend to the physical reality of the world while critically assessing the social relations in which it is situated. We do not need a new idea of nature to motivate care for the more-than-human world, or a conception of nature set apart from human artifice that we can protect from our interference. What we do need is a sense of what we can make of the world we are given; of what we can hold ourselves and others responsible for; of what must be as it is, and what can be otherwise. We need a better sense, too, of how the more-thanhuman world works, and how, precisely, we are remaking it: through what kinds of relationships and practices, institutions and structures. We don't need to rethink political theory from the ground up, in other words—we simply need to look at it aslant, so as to better glimpse the places where the politics of nature already appear, and the tools we already have to make sense of it.

A central claim of this book is that one of the densest sites of interaction between nature and politics is in the material realm we call the economy. While historians of political thought have often written of "industrialization" or "capitalism" or "modernity," they have too rarely attended to the transformations of the more-than-human world that these phenomena entail. But it is in the economy that the matter given by nature is transformed into human artifacts, that wild flora become crops and fauna become livestock, that minerals become resources and long-decayed organisms become fuel. These interactions are structured, moreover, by a particular kind of economy, at present the one that encompasses nearly all the world: capitalism. Capitalism is now *the* political economic system upon which nearly all human beings now rely for our livelihoods and for our lives, how we obtain food and clothing, shelter and comfort; how we attend to our wants and needs. ²⁹

8 INTRODUCTION

We are used to thinking about capitalism as a particular way of organizing economic production and exchange, perhaps even as a way of ordering social life writ large.³⁰ But capitalism inadvertently orders, and reorders, relationships among human beings along many dimensions, beyond even the space of the workplace or market. It reorganizes, too, the relationships of the morethan-human world—all the way down to the molecular makeup of the atmosphere itself.³¹ Its emergence is perfectly correlated to the steady rise of carbon emissions; its more recent triumph over the globe, to the near-total decimation of other species. In the course of constructing vast factories, excavating massive mines, and monocropping fields, capitalism has also reconstructed the very biosphere.

Capitalism, in other words, is not only a system for making and exchanging goods, nor even for making the social world in which we live. Today, it is the dominant worldmaking force—and more than that, the dominant *planetmaking* force.³² To understand the politics of nature today, then, we must understand how capitalism both represents nature socially and makes use of it materially. This is what the free gift of nature can help us apprehend.

The Free Gift of Nature

I take the description of nature as a "gift" from the classical political economists who wrote in the eighteenth and nineteenth centuries amid the rise of the industrial capitalism that has so transformed the modern world. To thinkers like Adam Smith and Jean-Baptiste Say, the role of nonhuman elements in production was evident and frequently remarked upon. Nature, the physiocratic thinker Anne Robert Jacques Turgot argued, makes a "pure gift" to production. Elements like water, air, and light, Say observed, are "spontaneous gifts of nature" to human consumption. Smith made note of the work that nature does in agriculture; David Ricardo lauded the abundance of "natural agents" that "perform their work gratuitously." Elements ranging from trade winds to soil fertility, they noted, alternately enhanced, combined with, and substituted for human labor. Nature, these thinkers agreed, clearly made useful and necessary contributions to nearly all forms of production—even if they did not always agree on how these contributions should be characterized.

These depictions of nature as a gift echo a broader tradition of Western thought in which nature is a gift from God—ostensibly to all of humanity. Jean-Jacques Rousseau mused on natural man, who enjoyed the "gifts Nature

INTRODUCTION 9

offered him" without a thought of extracting them; even John Locke noted that the gift of the earth, and of the fruits and beasts "produced by the spontaneous hand of Nature," belong to everyone—at least before those fruits are plucked by an industrious laborer. ³⁶ As these examples suggest, the gifts of nature have often had different valences even within the Western tradition. Sometimes they are understood as a recognition of human superiority: Locke, for example, claims that God gave "inferior creatures" to humanity for the express purpose of our use.³⁷ For Kant, too, human beings have "an equal share in the gifts of nature"—yet the sign of truly human reason, that which raises man above the animals, comes in our realization that wool was given to the sheep not for its use but for ours. 38 Others have insisted that the gift of the Earth must be treasured: the "gift of good land," for the agrarianist Wendell Berry, must be stewarded with care; for Pope Francis, the Earth that has been given to us must be preserved for others yet to come.³⁹ What is common to these interpretations, however, is that they are unidirectional: there can be no real reciprocity for a gift from God. This is illustrated most clearly in the philosophy of Georges Bataille and Jacques Derrida, for whom the gift consists in a pure and absolute form of generosity that exceeds the possibility of return altogether—and thereby stands outside the logic of exchange.⁴⁰

Another tradition understands the gift differently: not in terms of unilateral or unconditional generosity, but as something that carries the expectation of reciprocity. Many Indigenous peoples, too, describe the land and its fruits as gifts: the Anishinaabeg, Winona LaDuke writes, describe wild rice as "a gift from the Creator"; the Potawatomi botanist Robin Wall Kimmerer writes of wild strawberries as "gifts from the earth." But true gifts, Kimmerer observes, "are not free": they must be replenished and returned. Gifts form lasting relationships; they create social obligations and demand responses. For anthropologists like Marcel Mauss and Karl Polanyi, it is the fundamentally *reciprocal* nature of the gift that illustrates the possibility of exchange *without* the commodity form: the gift stands as the central social relation of noncapitalist societies. ⁴³

For all their differences, both of these accounts of the gift—as an expression of pure generosity on the one hand, and a relationship of radical reciprocity on the other—posit the gift as an alternative to the commodity. Gifts either defy the possibility of return and thus the logic of market exchange, or require a kind of ongoing response that is antithetical to commercial transactions. Gifts are often taken to reflect an ethic rather than a calculation, an emphasis

10 INTRODUCTION

on altruism or community rather than individual gain; they are said to be of a different order than the commodity and the market. Whatever gifts are, after all it is clear that they are *not* bought and sold.⁴⁴

The peculiar, paradoxical kind of gift addressed in this book, however—the *free gift of nature*—is different from either of these. This term—*free gift*—is an odd one. Relative to common meanings of the gift, it seems either redundant or oxymoronic. If a gift is understood as pure generosity, then to call something a free gift is superfluous. If gifts are never really free, by contrast, then the phrase seems like a contradiction in terms. In fact, the modifier *free* is telling: it provides a clue that the free gift is not timeless or universal, but rather a category defined in relation to the market. The free gift of nature is free in the sense of costless, gratuitous: it denotes that something is priced at zero. The free gift, then, is not an alternative to the capitalist commodity at all. Rather, the free gift is a distinctively capitalist social form, no less central to capitalism than more familiar concepts like the commodity and the wage. Key to the free gift of nature is the disjuncture between its obvious usefulness, even its seeming invaluableness, and its utter lack of value in economic terms. The paradox is that the free gift is valuable *because* it is free: because it provides something materially useful without cost. It is this feature, this dual character, that gives coherence to the wide variety of concrete activities that the free gift names. What unifies steam power, sheep organs, soil fertility, and other "natural agents" as a category is not their qualitative features, which are remarkably different in both material function and anthropocentric use, but rather, their nonappearance in the form of value. The free gift is the form nature takes in societies in which commodity exchange is generalized as the primary means of acquiring and distributing the goods necessary for subsistence.

The free gift is also the commodity's shadow. Following its spectral trace can take us into dimensions of capitalism often left unexplored. While capitalism is associated with commodification, the free gift reveals commodification's limits—limits set not by a society seeking to protect itself from the market, but by the market itself. It serves as a reminder that capitalism may be operative even where its telltale signs—exchange value, wages—are not immediately in evidence. It draws our attention to activities that have clear effects in the material world but do not seem to register in the sphere of "the economy." It foregrounds concrete processes often neglected by analyses of the abstract realms of value and money, finance and exchange, and shows how physical qualities figure into even these abstractions. It reminds us, in other words, of the material content that always attends social forms.

INTRODUCTION 1

Nature, as Theodor Adorno insists, always remains nonidentical with the terms we use to describe it: "Objects do not go into their concepts without leaving a remainder." 45 This book is fundamentally interested in these remainders: in the aspects of the world that overspill the bounds of capitalist social form, that are not easily contained within capitalist labor processes, that appear as aberrations in both the physical organization of the world and the concepts used to make sense of it.⁴⁶ It is about the things that are left over when capital has commodified what it can, in what capital abandons or abdicates rather than absorbing. It is about the unwanted "residuals" of production, forms of surplus matter whose negative effects go unreflected in exchange value.⁴⁷ It is about the gifts that give too freely to be expropriated, and the kinds of nature whose qualities and capacities, however extraordinary, are surplus to capital's needs. It is also about the kinds of human labor that can't easily be organized by the wage and the boss, and that persist in seemingly anachronistic forms—or that even seem to be free gifts themselves. Looking at the free gift, in other words, not only gives us a new perspective on nature, but casts capitalism itself in new light. The analysis of capitalism can help us understand the current state of the natural world—and so, too, can the analysis of nature help us understand capitalism.

My analysis of nature and capitalism makes three interventions in particular. The first is to offer a theory of the free gift of nature as a capitalist social form, attending to its dual character: its concrete reality as physical substance, and the way that this substance appears within capitalist social relations. The second is to offer a critique of capitalism's treatment of nature rooted not only in capitalism's environmental consequences, but also in what those consequences indicate about our ability to act freely. The third is to follow the free gift into the world, showing what happens when social relations hit the literal ground—tracking the unusual phenomena that result from this collision, the conceptual apparatuses developed to make sense of them, and the political struggles that have erupted around them.

Theorizing the Free Gift

The first project of this book—to theorize the oft-overlooked free gift of nature and its place within capitalism—joins a growing number of works addressing capitalism's relationship to nature. Such analyses have flourished in recent years, whether tracing capitalism's reliance on fossil fuels and its pursuit of growth or condemning its extractivism and drive to dominate nature.⁴⁸

12 INTRODUCTION

This book approaches the question from a different angle. It does not track capitalism's effects on "the environment" per se, detail its ravenous use of resources, or calculate its material throughput. Instead, it looks at how nature appears in capitalism's fundamental social relations, and how it factors into its core operations. It charges that to understand contemporary ecological problems, we have to understand why some things come to have value under capitalism as a particular organization of economic and social life, and why others do not. While scholars have shown that ideas about "nature" always reflect specific social views and cultural values, critical theorists of "nature" have too rarely attended to the way that the social and natural are defined and ordered by capitalism's particular, and now dominant, system of value. We have to bring the question so often posed in environmental thought—What is nature?—together with one posed by Marx: What is value under capitalism?

Marx's own ecological relevance is much disputed. While he has long been criticized as an anthropocentric Promethean, as enamored with the mastery of nature as any capitalist, he has also been recovered, of late, as a proto-ecological thinker. 49 Indeed, Marx's critique of how the gifts of nature figure in classical political economy is a vital starting point for my own analysis: the "free gift of nature," he claims, is a gift only to capital. Where the means of production are privately owned, capitalists alone benefit from nature's contributions; they alone lay claim to the wealth that nature bequeaths. But these remarks on the free gift are brief. Instead of looking to Marx substantively or reading him exegetically, I draw on him methodologically. For the relationship between the natural and the social is not only present in Marx's explicit discussions of soil fertility and "robbery agriculture"; rather, it is at the heart of his thought about the commodity, value, and other core concepts in his critique of political economy. Marx makes a crucial distinction between the material content of objects and activities, from labor to goods, and their social form: their significance within the set of relationships that govern human social life. Marx's method, in other words, confronts one of the core questions of ecological thought—the relationship between nature and society—while situating it within capitalism as a particular form of social organization.

"Political economy has indeed analyzed value," Marx writes in *Capital*. "But it has never once asked the question why this content has assumed that particular form." For all that classical political economists purported to study the meaning and source of economic value, they had not really asked what value *is* or what is specific about capitalism's definition of it. Marx is particularly interested in the status of human labor: Why, he asks, are so many differ-

INTRODUCTION 13

ent human activities classified under the simple category "labor" and recognized only in accordance with their ability to produce value?⁵¹ Why is labor organized as it is, and how might it be organized differently? How is wealth defined in capitalism, and how might it be understood otherwise?

This is itself a denaturalizing move, one which aims to show that capitalism is a specific rather than eternal form of society. All human societies, after all, have some form of organization that structures which kinds of work are done and who does them; all have some way of meeting needs, satisfying wants, and distributing both surplus and burdens. If there were no possibility that society might be organized differently, then there would be no basis for critique, and no possibility of change. When we ask why production is organized as it is under capitalism, in other words, we recognize that there are many ways that it might be organized otherwise—that we are not fated by nature to live this way. Elements of human collective life that classical political economists treated as necessary, Marx argues, are in fact contingent to capitalism and therefore changeable. This is why Capital is a critique of political economy. 52 The critique of political economy, I argue, also offers a vital basis for a political critique of ecology. For in posing the question of why human labor is expressed in terms of value, Marx implicitly poses another—why nonhuman nature is not.

To address the free gift, then, this book flips Marx's central question. Why does such an enormously wide range of "content"—material capacities ranging from animal digestion to steam power—tend to take the *same form*: the "free gift of nature"? Why does capitalism draw such a stark distinction between human labor and other forces of production? If nature contributes materially to production, why is it not valued in the terms that capitalism counts? Why is the more-than-human world we call *nature* organized in the way that it is?

It also connects a value form analysis of capitalist logics to the nonidentical and irreducible logic of the concrete world—what we might call the logic of nature. For while the critique of political economy aims to denaturalize capitalism, sometimes it also dematerializes it in its own right. Analyses of value typically emphasize the triumph of capitalist social forms over material content, the way that capitalism abstracts away from the concrete world in pursuit of wealth assessed in quantitative terms. Capitalism comes to appear as *entirely* abstract: a system comprising solely abstract labor, abstract time, abstract value. The physicality of production, the concrete dimension of labor, and the specific qualities of use value tend to fall by the wayside. While the analysis of abstraction is undoubtedly vital, to understand the role of the useful but costless gifts

14 INTRODUCTION

of nature, it is also essential to *rematerialize* capitalism as a concrete form of social production. SI Instead of countering the Marxist focus on abstraction with a swerve to understand vibrant matter in itself, however, as new materialists often have, I take seriously the *dual* character of capitalist forms, understanding material and social qualities as two components that are distinct but necessarily *tethered* to each other, and drawing attention to their interaction. Attending to the materiality of the world in a physical sense does not require jettisoning an account of the social or collapsing the difference between the two, as is sometimes suggested. It simply means recognizing that the world is always both: it is composed of many kinds of material agencies that capital has not made and cannot do without; *and* it is organized primarily, if always partially and imperfectly, by specifically capitalist social relations in which the material world is figured as a means to a single abstract end.

This analysis, in turn, opens up political questions that reach beyond the scope of "the environment" or even "nature": Why *do* we value things as we do, and could we choose to value them differently? What, if anything, is wrong with this system of valuation—and what would it mean to genuinely transform it?

The Critique of Capitalist Unfreedom

To diagnose the free gift as a distinctively capitalist social form is to state that this is not a *necessary* relationship to nature, and therefore to open the space for politics. But this alone doesn't tell us what's *wrong* with treating nature as a free gift. Shalthough the project of denaturalization is vital, it stops short of a critique. The book's second project, then, is to offer a critique of capitalism's treatment of nature—one rooted not in claims about nature itself, but in capitalism's limitation of *human* freedom.

The grounds for an ecological critique of capitalism can seem obvious. Capitalism has long been shadowed by charges that its satanic mills have ravaged the natural world, while its calculative logic has disenchanted it. A long-standing strain of ecological thought embraces nature as a wholesome anti-dote to capitalist exploitation, artificiality, and alienation. More generally, a wealth of environmental philosophy has brought normative questions to bear on the more-than-human world, whether debating nature's intrinsic value or expanding the sphere of moral concern to include nonhuman beings. Environmental political theory, too, has often been explicitly normative, considering how various political traditions and regimes have neglected or actively harmed nature, investigating how environmental goods and bads are unjustly

INTRODUCTION 15

shared among human beings, and reflecting on how human societies might live more sustainably.

I share the concerns articulated by many of these thinkers, and recognize the dismay that attends their judgments. The problem, however, is that many ecological critiques of capitalism take the normative status of nature itself for granted. They hold up nature as the standard against which we might measure human society—and threaten to reify nature as the "thing without politics" that can be used to justify political stances. Many environmental philosophies, meanwhile, theorize ethical obligations detached from real conditions and construe our failings in strictly moral terms. They challenge anthropocentric hierarchies of moral status as if they were matters of thought alone—and fail, as a result, to address *why* we act as we do.

The problem with capitalism, in my account, is not just that it destroys nature or unjustly distributes the material harms and benefits of production. Rather, these problems stem from another, second-order problem: that capitalism limits our ability to treat nonhuman nature as something *other* than a free gift. It constrains our ability, individually and collectively, to make genuine decisions about how to value and relate to the nonhuman world, and to take responsibility for those decisions. Put simply: capitalism limits our freedom.

While my analysis joins a growing body of work criticizing capitalism on the grounds of unfreedom, it departs from the republican framework that underpins many contemporary arguments in this vein. I look instead to the existentialist tradition of Jean-Paul Sartre and Simone de Beauvoir as an unexpectedly useful resource for a denaturalized ecological critique. For Sartre and Beauvoir, values are given neither by God nor nature: they are only what we assert and actively commit ourselves to in the world.⁵⁹ This antifoundationalist view of value is a particularly crucial resource in resisting two frequent tendencies in ecological thought: moral naturalism on the one hand, and naïve materialism on the other. It suggests that the meaning and value of more-than-human beings cannot be taken for granted or derived from the world as given, but, rather, must be consciously asserted and enacted. What is so troubling about capitalism, in my argument, is the way that its singular form of value restricts the fundamental human project of determining values for ourselves—not as individuals, but collectively. To treat climate change as a genuinely existentialist challenge, then, would mean taking it as a charge to reevaluate our collective ways of life and the values they reflect. It would require changing not only our lightbulbs or even our energy sources, but our way of recognizing the worth of things, activities, beings.

16 INTRODUCTION

In developing this critique, I diagnose capitalism as a form of rule, with two particularly significant aspects: class rule and market rule. *Class rule* describes capitalism's constitutive division of social power among human beings, rooted in disparate control over productive assets, and the curious form of the rule of the few that results. *Market rule*, meanwhile, describes how decisions and actions are structured in societies fundamentally organized around market exchange. As I show, an existentialist account of freedom is better suited than a republican one to confront market rule in particular, and to address the unusual kinds of unfreedom that characterize capitalist societies—the kinds of actions that seem to happen "behind our backs," unfolding without our conscious intent.

This critique of capitalism does not pertain only to nature: my claim is that capitalism limits our freedom more broadly. A critique of the rule of class and markets, however, offers a new angle on environmental problems typically described in terms of justice or harm. The paradox of the free gift of nature also proves to be particularly productive for exploring broader questions of action and responsibility within capitalist societies. It is precisely because the "free gift" is such an odd category that it draws attention to questions of capitalist value that typically lie hidden within prices. We are used to accepting the judgment of the market as a measure of worth, after all. We may grumble about prices, but we usually have no choice but to pay them. When something is unpriced, however, we're left without a measure of what it's supposed to be worth. We have to think for ourselves about how we should assess it. The absence of price, in other words, leaves a vacuum that politics can fill. This is why, as we'll explore in greater depth, controversies about nature's intrinsic value tend to occur around the frontiers of commodification, where capitalism seems to be expanding into hitherto untouched areas.

More interesting than the question of whether any given element of nature "should be" commodified, however, is what these debates tell us about the nature of capitalist value itself. They point to the real problem, which Sianne Ngai describes as the "mismeasurement of wealth" at capitalism's heart. 60 Ngai explores this mismeasurement through the figure of the "gimmick." Gimmicks, she says, are "overrated devices" whose exchange value is obviously inflated and "flagrantly unworthy" relative to their usefulness, like a banana slicer or an automatic carving knife—but which we want, and perhaps buy, anyway. 61 When we judge something to be a gimmick, Ngai observes, we register "the discrepancy between an overprized object's false claim to value and what we take to be its true worth." 62 The gimmick appears valuable, but turns out to be a swindle.

INTRODUCTION 17

The free gift of nature also points to a disquieting ambiguity around value—but the discrepancy between its usefulness and value runs in the opposite direction. Where the gimmick may be proclaimed "worthless" even though it is expensive, the free gift comes cheap even as it is said to be priceless. Indeed, where the classical political economists describe the gifts of nature with gratitude and even wonder, the free gift is now more often described with concern. There seems to be something *wrong* with the fact that the gifts of nature are free: Why is an obviously valuable thing not valued? How can a centuries-old redwood tree be worth less than a "smart refrigerator"; how can the things most necessary for life—clean air and water, a stable atmosphere—be worth less than the junk we buy and sell every day? The free gift reflects the contradictions at the heart of capitalism—and can illustrate our ambivalence about this way of organizing our lives. Questions about the gap between what nature's value *should be* and what it *is*, I argue, index a critique of capitalist valuation even where it isn't articulated as such.

While this book offers both an analysis and critique of capitalism's devaluation of nature, it does not offer an account of how nature *ought* to be valued otherwise. This is in part because we have an abundance of resources already: many debates about how we ought to relate to nonhuman nature are effectively debates about the values a noncapitalist world should have. They are oriented toward a world in which assessments of ecological function or cultural significance play a meaningful role in decisions about the production and allocation of things deemed beneficial to human and nonhuman flourishing; toward a world governed by more than one standard of value. We do not, at present, live in such a world. But ultimately, the question of how we, as human beings, should relate to the more-than-human world can't be outsourced to a set of inherent qualities or calculated by an ethicist. The critique of capitalist value can't tell us how a noncapitalist world ought to assign value—and in my view, it isn't the place of political theory to decide.

Instead of asserting values of my own, then, I aim to tease out the latent values and judgments that might challenge capitalist valuation, even where they are not articulated as such. I attend to collective intuitions that something is wrong when people are forced to breathe toxic air, when caregiving is largely unpaid, when species are driven to extinction, and attempt to spell them out more clearly. In highlighting the distance between these diagnoses and the actual state of affairs in the world in which we live, I aim to provide an account of that distance: in a world where capitalism reigns, the accumulation of abstract value is what drives decisions about production and distribution, as

18 INTRODUCTION

actively made by a subset of people who own and control the means by which goods are produced. Rather than simply envisioning how the world might be, I hope to identify the possibilities that might emerge from the world as it is.

Getting Concrete: Rematerializing Capitalism

The projects outlined above seek to develop a conceptual armature for thinking about politics, nature, and capitalism via the lens of the free gift of nature. Its third project is to make these concrete, showing what happens when capitalism's social form of value encounters the qualities of a material world that exists over and above it. For the self-valorization of capitalist value can never be frictionless: it must always pass through the material world. I therefore show how capitalism's social relations remake the material world, both within and beyond the formal space of production—but also how the material world often enables, sometimes resists, and always exceeds those forms.

One of the book's broader methodological interventions is to read ostensibly different sites—the "hidden abode of production," the polluted environment, the reproductive household, the regenerative ecosystem—as differently situated aspects of the same core process: the same collision of abstract value with a material, more-than-human world. My account doesn't posit an "inside" or "outside" to capitalism, nor a "background" and "foreground." It doesn't center attention on the factory as the "point of production" instead of the household—or vice versa. Nor does it identify some spaces as untainted by capitalism, offering "innocent reservoirs" from which a challenge might be mounted. 63 It does not, in other words, assume that some parts of social and ecological life are "part of capitalism" while others are not. It simply asks how the material world—comprising among other things the various capacities of human and nonhuman beings—is organized by and in relation to the distinctive social relations that characterize capitalism as a mode of production. It shows, in turn, how categories often used to delineate boundaries between capitalism's inside and out—including "the environment"—emerge out of this interaction rather than preexisting it as separate spheres in their own right. This method can help us see familiar problems—the costlessness of carbon emissions, the low value of reproductive labor, the worthlessness of ecosystems—not as discrete issues in need of solutions, but as interrelated consequences of a common cause.

From this basic starting assumption, different chapters track how the free gifts of nature appear as machinery and cooperation, pollution and social cost, reproductive labor and housework, natural resource and natural capital—each

INTRODUCTION 19

associated with a distinct "site"—the factory, the environment, the household, the ecosystem. They reveal how capitalism connects people not only through social relations but also through the material traces of those social relations in the world—how pollution, for example, constitutes potential collectivities as much as the factory does—and suggest how those connections might be mobilized against their source.

Much of this study considers the period now understood as the Great Acceleration: the period since 1950, which has on the one hand seen the rapid increase of human activity of various kinds, including foreign direct investment, GDP, energy use, and population; and on the other, troublesome indicators of biospheric health, measured via levels of nitrous oxide, methane, and ocean acidification. ⁶⁴ At the start of this period, nature was typically described in terms of cyclical, regular change. For Theodor Adorno and Max Horkheimer in 1944, nature was the realm of "inexhaustibility, endless renewal, and permanence"; for Hannah Arendt in 1958, an "unceasing, indefatigable cycle." 65 Yet this seeming regularity has been radically transformed and in some cases thoroughly disrupted by human activity, which is today the core driver of biogeochemical cycles. In the course of the Great Acceleration—so far—the number of motor vehicles on the planet has risen twentyfold; the annual production of plastics, three hundredfold. Most pressingly, nearly 85 percent of anthropogenic carbon emissions have been released since 1945, and more than half in only the past three decades. 66 This rapid change, the environmental historians J. R. McNeill and Peter Engelke argue, constitutes "the most anomalous and unrepresentative period in the 200,000-year-long history of relations between our species the biosphere."67

Nearly all of what we think of as contemporary ecological thought has developed amid this exceptional period—and nearly all of contemporary political thought too. Each chapter, then, also traces how economists, philosophers, activists, and others—including many not explicitly concerned with ecology—responded to these planetary transformations. While the book focuses on Western thinkers, many of the ideas it traces have had global influence. I examine, especially, how the problem of the free gift has been figured in twentieth-century political and economic thought; for although the language of the "gifts of nature" now sounds quaint next to the technical terminology of modern economics, the paradox it describes—usefulness lacking value—has persisted. It underpins many of the central frameworks for addressing environmental problems today, and many ways of thinking about political economy more broadly. The rapid intensification of production in the twentieth century drove

20 INTRODUCTION

many economists to recognize the ways that economic activity spills beyond its designated bounds, while the rapidly developing apparatus of social science generated novel ways of thinking about the problems once addressed glancingly by classical political economists. Collective action problems and seeming aberrations to the rules of commodity exchange occupied the attention of social scientists across the political spectrum, identified in terms of "externalities," "public goods," and the "tragedy of the commons."

Among a variety of twentieth-century thinkers, I therefore pay particular attention to economists like Arthur Pigou, Ronald Coase, Milton Friedman, Friedrich Hayek, William Baumol, and others. I read them as Marx read the classical political economists: with an eye toward understanding as well as critique. ⁶⁸ Instead of simply rejecting them as economistic or neoliberal, I argue that their ideas illustrate something crucial about the predicaments we face, even as they often remain wedded to a model of analysis that cannot fully grasp the dimensions and depth of the problems they confront. I highlight tensions between these resources and those of social and critical theory—but also reveal surprising points of convergence among radically different thinkers.

Although in its broader arc the book begins with the abstract and gradually turns to the concrete, within each chapter it also shuttles between the two—a method that is vital for both clarifying ideas and testing them. The book's concrete analyses don't simply apply the ideas advanced in theory, but rather build on and develop theoretical insights with reference to empirical and descriptive work in the social and natural sciences. Tracking capitalism's transformations of the world alongside the development of the ideas developed to make sense of them, meanwhile, accentuates one of the book's core claims: that nature is integral even to modes of thought that claim only a social purview.⁶⁹

Chapter Outline

Free Gifts begins by laying theoretical groundwork. Chapter 1 develops the core concept of the book—the free gift of nature—by way of classical political economy and Marx's critique of it. I show how Marx's analysis of the radical disjuncture between abstract exchange and concrete use value, in his discussion of the commodity, can illuminate the perennial nonvalue of nature under capitalism. In chapter 2, I articulate the book's critique of capitalist unfreedom as an alternative to moralized appeals to nature itself. Reading Sartre alongside Hayek, I show how an existentialist conception of freedom can clarify the

INTRODUCTION 21

dimensions of class and market rule, while insisting on the importance of choosing values for ourselves.

At this point, the book turns toward analyses of how the free gift appears in concrete ecologies and economies. Instead of looking "behind Marx's hidden abode," I begin there, examining how the free gifts feature in the heart of industrial production before turning to spaces often treated as peripheral or even external to capitalism's core operations—the environment, the household, the biosphere. 70 Chapter 3 follows Marx's descent into the site of commodity production, considering how capital puts both the free gifts of nature and the free gift of human cooperation to work within the quintessential site of the industrial factory—as well as in sectors where control is more elusive. It introduces the idea of subsumption, describing the way that capitalist social relations reorganize physical production itself, while also highlighting its limits. Chapter 4 moves out from the factory, exploring the byproduction of waste that accompanies the production of commodities—often described by economists in terms of social costs or externalities. The social cost names the flip side of the free gift of nature—harmful physical effects that go unreflected in price. This chapter draws attention to capital's ability to costlessly impose surplus matter on others, and its power to remake the environment itself. Chapter 5 looks to the household, asking why certain kinds of human labor tend to be unpaid and unvalued—treated, in other words, as a free gift. Engaging the rich tradition of feminist debates about housework, it offers a sympathetic critique of dominant accounts of the parallels between the unpaid status of reproductive labor and nonhuman nature, and a new explanation for their similar position. Chapter 6 considers the regeneration of the biosphere itself, via the activities of a huge range of species, from plants that absorb carbon dioxide to microbes that break down soil contaminants. These activities present an exceptionally clear demonstration of the paradox of the free gift: they are vital for the continuation of both human and nonhuman life, but economically worthless. Despite years of effort, they have proved remarkably difficult to commodify. They illustrate that many kinds of nature can be valued only through political means.

The concluding chapter 7 steps back from the analysis of the free gift as it operates within capitalism to face the question: What happens if we *stop* treating nature as a free gift? In contrast to the recurring suggestion in contemporary political and social thought that human freedom is fundamentally tragic, premised on the destruction and domination of nature, I draw on Simone de Beauvoir's account of freedom as situated, embodied, and ambiguous in offering an

22 INTRODUCTION

account of freedom for a finite material world—and a way forward amid cascading disasters. A brief epilogue considers alternative relationships to nonhuman nature itself. I read contemporary calls to engage with the nonhuman world differently—with respect, with reciprocity—as expressions of hope for a world in which capitalism's treatment of nature as a free gift no longer dominates, and offer a closing hope of my own.

INDEX

abdication, 87, 98, 104-6, 120, 135, 164, Babbage, Charles, 43 bad faith, 78-81, 224 173-76, 192, 197-98 absence of price, 2-3 Banaji, Jairus, 99, 109, 272n93 absorption power, 134-35 Bastani, Aaron, 214 abstraction. See real abstraction Bataille, Georges, 9, 234 abstract labor, 45 Baumol, William J., 167-69, 173, 177 abstract time, 101-3 Beauvoir, Simone de, 15, 55, 66, 149, 151, 164, abundance: capitalism and, 71, 110, 131, 207; 169, 210, 223-29, 231, 240, 303n74, 303n76, freedom and, 212-15, 218, 222-23, 230-31; 303n83, 304n88, 305n86 of natural gifts, 8, 23, 30-31 Beck, Ulrich, 136-37 actants, 29. See also practico-actant bees, 38-40, 189-90, 192 Adorno, Theodor, 11, 19, 186 Benanay, Aaron, 168, 221 agency: fragmented, 129; moral responsibility Berry, Wendell, 9, 184 and, 129-30; nature and, 29 biological time, 171 agriculture, 86, 100-106, 271n92. See also Biosphere 2, 179–80 nature Blanchette, Alex, 103 Blumenfeld, Jacob, 202 akrasia, 71 the body, 42, 149, 164, 169-72, 215, 217, alienation: and freedom, 57, 66, 69, 74, 76; from nature, 14, 53, 74, 216-17, 225-26 239, 253n6; and property, 48-49, 182, Bolivia, 146 Braverman, Harry, 42-44, 93, 220, 257n92 193, 195 Brenner, Johanna, 158 ambiguity, 149, 210, 223-29 Anarchy, State, and Utopia (Nozick), 124 Brewster, John, 86 Anderson, Elizabeth, 126, 219 Burawoy, Michael, 94, 97 Burkett, Paul, 49 animals, 1-2, 8, 13, 23-24, 38, 44, 73, 100-103, Burtynsky, Edward, 115 147, 194-96, 220, 233-34; animal labor, 171; animal laborans, 150-51; costs to, 138, byproduction, 119-20, 137, 139-41 140. See also livestock; wildlife Anker, Elisabeth, 61, 209 Caffentzis, George, 134 Arendt, Hannah, 19, 150-51, 169, 202 capital: abdication and, 98, 104-6, 174; accumulation and, 17, 47, 71, 92, 98-99, Aristotle, 150, 212 artificial abstraction, 200-201 104, 168, 190-91, 200; authority and, axiarchy, 62 59-60, 87; byproduction and, 119-20,

310 INDEX

capital (continued) Chandler, Alfred, 94 139-41; controlling production and, 89, 92, Charbonnier, Pierre, 6, 208 94–99, 105–6; disinterest of, 103–4; family Cheung, Steven, 189-90, 192-93 labor and, 108; finance and, 104, 191, 194; class power: externalities and, 132-33, housework and, 174; independent 136-37; production and, 94, 98; producers and, 99; Marx and, 32–33; as unfreedom and, 58-60 metaphor, 184; origins of, 24, 190; class rule: capitalism as a form of rule and, structures of payment and, 106. See also 16; class division and, 36; coal and, 96; class rule; externalities; free gift of counterfinality and, 75; unfreedom and, nature; market freedom; market rule; 58, 60, 209-10 unfreedom climate barbarism, 230 capitalism: agriculture and, 100-106, climate change: absence of price and, 2-3; 271-72n92; alienation and, 48-49; capitalist ambiguous freedom and, 227-29; social forms and, 33-34; capitalist capitalism and, 15; freedom and, 229-31; unfreedom and, 14–18; collective action market rule and, 128-31; the politics of and, 76-78; as the dominant planetmaknature and, 4-8; threat posed by, 1-2 ing force, 8; domination and, 65-66, 72, coal, 83, 95-97, 132, 208 105-10; dual character of capitalist forms, The Coal Question (Jevons), 95–96 14, 254n50; extractive, 24; the free gift as coal-smoke fogs. See pollution Coase, Ronald, 120, 124-27, 131, 135, 141, 143, capitalist social form, 10, 25-27, 35-37; free gift of nature and, 3, 15; The Giving 189-93 Coase Theorem, 126, 190, 278n57 Tree and, 232–33; labor and, 34, 37–42, 89-91; labor power and, 152-53; the cocoa, 105 Cohen, G. A., 4, 93, 133, 212-13 material world and, 18–19; micro, 106; nature and, 11–14, 23–25, 49–55; political collective action, 76–78, 110–11, 139–43; economy and, 12-13, 28-32; seriality and, critics of, 185-88 70, 76-78; social domination and, commodity/commodification, 33-36, 218-23; social relations and, 49-51; 40-41; the free gift and, 10; nature subsumption and, 48-49, 85, 91-93, and, 16, 193-96; of nature and, 189-93, 112-15; technology and, 93-94; unfreedom and, 55-57; valorization and, Commoner, Barry, 116-17, 120, 143, 146, 184 89; wage labor and, 44-46. See also class common pool goods, 195 rule; externalities; free gift of nature; commons, 193-96 market freedom; market rule; unfreedom competition, 71, 90, 106 capitalist unfreedom. See unfreedom complicity, 60-61, 119, 128-30. See also carbon: emissions of, 2, 5, 8, 18-19, 21, 60, 71, responsibility 75, 77, 81, 118-20, 129-30, 135, 139, 191; The Condition of the Working Class in England (Engels), 117 removal of, 203, 230; sequestration of, Connolly, William, 6 172, 179-80, 184-85, 188-91, 194, 203, 238 care, 17, 145, 159-60, 169-77; ecosystems consciousness, 42-44; human distinction and, 39, 42-46, 170, 224, 226; nonhumans and, 187, 196, 202-3, 234. See also housework; reproductive labor and, 41, 45, 258n57 Carson, Rachel, 140, 183, 240 consumption, 1, 8, 51, 56, 118, 129-30, 207,

212, 214

Chakrabarty, Dipesh, 5-6, 208-9, 214

INDEX 311

René

cooperation, 84, 90, 92, 221. See also free gifts of social human labor cost-benefit analysis, 184, 186 cost disease, 163, 167–68, 171, 173, 175–78 counterfinality, 74–76, 130, 173 Cox, Nicole, 166 Critique of Dialectical Reason (Sartre), 50–51, 67–68, 264n70 Cronon, William, 31 cyborgs, 49–50, 92

Daggett, Cara New, 6 Daily, Gretchen, 181, 186 Dales, J. H., 119, 194 Dalla Costa, Mariarosa, 152, 154, 169 Daly, Herman, 138, 184 Darwin, Charles, 183 Dasgupta, Partha, 181 Daston, Lorraine, 234 Davis, Angela, 156, 164, 168 Davis, Mike, 106 democratic socialism, 222 Dempsey, Jessica, 191 Demuth, Bathsheba, 31 denaturalization, 7, 13, 148 Derrida, Jacques, 9 Descartes, René, 23. See also dualism Dialectic of Enlightenment (Adorno and Horkheimer), 186 Dialectic of Sex (Firestone), 215, 301n38 Dickinson, James, 102-3 domestic labor debates, 165-66 domination: capitalism and, 110; commercial sphere and, 99, 105; direct forms of, 60, 107, 134, 136, 139, 175; the market and, 57, 61, 65-67, 71; as materially mediated, 85, 94-96; of nature, 5, 21, 88; and republicanism, 58, 60-61, 65, 71-72, 84, 218-19; social, 218-23; subsumption and, 91; in the workplace, 56, 59, 84-85, 87, 209 Douglas, Mary, 119, 138

Dover, Daniela, 229

Dowling, Emma, 174

Du Bois, W.E.B., 168 ecofeminism, 23, 147-48, 158, 203, 216-17 ecological debt, 188 ecological economics, 184 ecologically unequal exchange, 188 ecological reparations, 188, 206 Economic and Philosophic Manuscripts of 1844 (Marx), 39 "Economics as a Life Science" (Daly), 184 Economics of Welfare (Pigou), 122 ecosystem services: abdication through disinterest and, 192; advocates for, 186-87; bees and, 192-93; calculating the value of the biosphere and, 187-88; common pool goods and, 195–96; decline of, 183-84; ethical critique of, 186; natural communia and, 195; property rights and, 189–91, 193–94; rent and, 193; Say and, 195; the state and, 198-201; value and, 181, 183-84 Ecuador, 146 Elster, Jon, 72 enclosure, 24, 49, 182, 190, 195, 198. See also primitive accumulation The Energy of Slaves (Nikiforuk), 207 energy slaves, 207-8 Engelke, Peter, 19 Engels, Friedrich, 117, 119 environmental justice, 53, 118-19, 132, 139 Estes, Nick, 203 existentialism, 15-16, 55-57, 66-67, 151, 229-31 expropriation, 11, 107, 182, 190, 204, 271n92. See also expropriation approach expropriation approach, 23-24 external economy, 122. See also externalities externalities: birth of, 121-23; Coase on, 123-26; ecological costs and, 137-39; market failure and, 126-28; market rule and, 128-31; markets and, 121; pollution and, 120; positive, 189-90; rights of

dualism, 5, 24, 27, 148. See also Descartes,

312 INDEX

externalities (continued) capitalist social form, 10, 25-27, 35-37, nature and, 141-43; social costs and, 238–39; descriptions and understandings 128, 131-33, 135-37, 143-44; unfreedom of, 8-11; dual character of, 36-37; fishing and, 112-15; giving back and, 233; The and, 133-35 extinction, 197 Giving Tree and, 232-33; Gratisnaturkraft and, 255n46; history of, 28-31; and the factory, 83, 85, 87-91, 93, 99-100, 174. human cooperation, 90; Marx and, See also industrial production 31-32; as real abstraction, 25-26; Factory Acts, 93 reciprocity and, 233-34; thinking beyond family, 108 the, 235-36. See also nature farms, 86, 101-5, 108-9, 189; farmworkers free gifts of social human labor, 84 and, 118, 137, 140. See also agriculture free lunch myth, 116-17 Federici, Silvia, 45-46, 153-55, 160-61, Friedan, Betty, 151, 153 Friedman, Milton, 116, 124, 127-28, 133 166, 188 Fuller, Buckminster, 207 feminism, 145–47. See also housewifization; housework; Wages for Housework fully automated luxury communism, 214 fertility, 150 Firestone, Shulamith, 147, 151, 153, 168, 171, Gail, Suzanne, 169 Gardiner, Jean, 168 215, 308n84 Gardiner, Stephen, 129 fishing, 112-15 floods, 2, 74, 77, 130, 135, 139, 227, 299 gender, 60, 147, 149, 154-55, 175, 287n79. Folbre, Nancy, 147 See also feminism; housewifization; Folkers, Andreas, 143 Wages for Housework Fontenelle, Bernard de, 146 Georgescu-Roegen, Nicholas, 103 forests, 1, 29, 74, 77, 102, 106-7, 184, 188, gestation, 147, 149, 152, 158-59, 168-69, 171, 202-3, 233-34 225 Getachew, Adom, 249n32 Forrester, Katrina, 250n46, 284n30 Fossil Capital (Malm), 96 gifts: in Indigenous thought, 9, 233; in moral Foster, John Bellamy, 217 philosophy, 177; in Western thought, 8-9, 234. See also free gift of nature Fracchia, Joseph, 42 Francis (pope), 9 gimmicks, 16-17 Fraser, Nancy, 146, 191 Gingerich, Jonathan, 229 The Giving Tree (Silverstein), 232–33 freedom, 208-15; ambiguous, 223-29; to choose, 55, 62, 66-70, 80, 126; climate Glenn, Evelyn Nakano, 158 global North, 188 change and, 229-31; double, 58, 176, 196; as material, 208, 210-18; modern narratives global South, 188 of, 208-9; from necessity, 212-16; within Gonzalez, Maya, 168 necessity, 216-18; nondomination and, Gorup, Michael, 107 218-19; as social, 218-23; social domina-Gorz, André, 181 tion and, 218-23; as tragic, 215-16; as ugly, Great Acceleration, 19-20, 115, 132 209. See also unfreedom Grotius, Hugo, 194 free gift of nature: and absorption power, Gumbs, Alexis Pauline, 197 135; agriculture and, 100–103; approaches Gunnarsson, Lena, 164 to, 23-25; capitalism and, 11-15; as a Guthrie, Jonathan, 3

INDEX 313

Haeckel, Ernst, 183 Hägglund, Martin, 80, 222 Hall, Stuart, 153, 229 Hansen, Bue Rübner, 99 Haraway, Donna, 205, 251n54, 284n24 Hardin, Garrett, 72-75, 130, 195-96, 305n106 Harvey, David, 190 Hayek, Friedrich, 63-67, 72, 123-24, 126, 144, 199, 28on89 health care, 171 Heinlein, Robert, 116 Helm, Dieter, 195 homo faber, 150-51, 202 Horkheimer, Max, 19 housewifization, 156-57, 163-64, 287n79 housework: domestic labor debates and. 165-66, 287n93, 288n101; housewifization and, 156-57; the ideology critique of housework and, 153-56; life processes and, 169-73; naturalization thesis and, 160-62; "The Manifesto for Maintenance Art" and, 145–46; theorizing, 149–52. See also labor Huber, Matt. 213 human behavior, 72-74, 114 The Human Condition (Arendt), 150 human consciousness, 42-44 human corporeal organization, 42 Hume, David, 248n13

ideology, 148, 151, 153; ideological critique of housework, 153–58, 160–62
Ince, Ulas Onur, 251n53
Indigenous thought, 4, 9, 146, 203, 223
industrial production: free gifts and, 82–83;
Marx and, 88. See also the factory
the Industrial Revolution, 88, 95
infrastructures, 85, 90, 112, 121; ecosystems
as, 189–90, 234; and planetmaking,
203–4; for politics, 141, 143
institutional care. See care
International Fisherman and Allied
Workers of America (IFAWA), 113–14

International Monetary Fund, 185 Intrinsic Exchange Group, 190

Jaeggi, Rahel, 27
James, David, 217
James, Selma, 152–54, 169
Jameson, Fredric, 50
Jevons, William Stanley, 95
justice, 16, 84, 118, 233, 264n64, 264n67
Justinian (Roman emperor), 194

Kant, Immanuel, 9 Kapp, K. W., 131, 135–36, 2801100 Kautsky, Karl, 212 Kimmerer, Robin Wall, 9, 146, 186, 233 Kolodny, Niko, 62 Krause, Sharon, 204, 210 Kropotkin, Pyotr, 233

labor: the architect and the bee and, 38-40; capitalism and, 33-34, 90-91; capitalist value and, 40-42; discipline of, 43-44, 90-91, 94-96, 106-10, 175; domestic, 165-66, 289n98; dual character of, 34; energy slaves and, 207-8; the family and, 108; fishing and, 112-15; freedom from necessity, 212-15; freedom within necessity and, 216-18; human consciousness and, 42-44; labor process, 34, 39-40, 43, 47-48, 84-85, 87-89, 91-93, 95-96, 98, 105, 148-49, 169-73, 256n56; labor theory of value and, 30; Marx and, 13, 34, 37-38; migrant, 108; of natural forces, 95-97; naturalization thesis and, 160-64; nature based sectors and, 110-12; nonstandard forms of managing, 108-9; political organization of, 110-15; politics of, 115; production and, 84-87; productive and unproductive, 165-66, 169; service sector and, 167-68; sharecropping and, 108; slavery and, 108, 258n94; small agricultural producers and, 104-5, 111; social, 105, 110; subsumption and, 91-92; technology and, 93-94; total

314 INDEX

labor (continued) abundance and, 214; wage, 44-46, 253ng. See also housework; reproductive labor Labor and Monopoly Capital (Braverman), 42 labor power, 35-36, 40-41, 43-44, 46, 56, 90-91, 133-35; reproduction of, 149, 152, 158-59, 164, 170-71, 174, 176 LaDuke, Winona, 9, 140, 200 laissez-faire, laissez-passer, 29 Landes, David, 88, 95 Laslett, Barbara, 158 Latour, Bruno, 6, 29, 51, 249n27 Le chant du styrène, 82-83, 115, 132 Lewis, Sophie, 171, 240 Li, Tiana Murray, 197 Lichtenberg, Judith, 129 Lichtenstein, Nelson, 115 Limits to Growth (Meadows), 187 Liu, Andrew, 106 livestock, 1, 7, 28, 102, 118, 173, 192, 196-97 Locke, John, 9, 30, 182-83, 194 logging, 107 London, 122. See also pollution Luban, Daniel, 63, 219 Luxemburg, Rosa, 190

MacGilvray, Eric, 62, 130 machines, 83-84, 89, 93-95, 100 maintenance, 145, 147, 176. See also animals Malm, Andreas, 27, 37, 48, 96 Mandeville, Bernard, 63-64, 72, 74, 76, "Manifesto for Maintenance Art" (Ukeles), 145-46 Mann, Geoff, 113, 252n68, 259n121, 274n124 Mann, Susan, 102-3, 108 Man's Impact on the Global Environment (report), 183 Manufactured Landscapes (film), 115 market abjection, 197-98 market dependence, 33-34, 46, 62, 70, 197 market despotism, 94 market failure, 121-23, 126. See also externalities

market freedom: nonresponsibility and, 62-64; republicanism and, 65-67 market rule: capitalism as a form of rule and, 16; climate change and, 128-31; externalities and, 130; market management and, 106; the rule of value and, 62; seriality and, 70; unfreedom and, 60-62 market seriality, 67-70 market subordination, 107-8 Marsh, George Perkins, 183 Marshall, Alfred, 122 Martínez-Alier, Joan, 138 Marx, Karl: accumulation and, 190; agriculture and, 100-101; anthropocentrism and, 12-13, 35, 229, 251n49; the architect and the bee and, 38-40; Aristotle and, 212; capital and, 32-33; cooperation of human workers and, 90; critique of political economy and, 13, 20, 27-28, 31-36; enclosure and, 24, 182, 190; freedom and necessity and, 211, 213; free gift of nature and, 12-13, 31-32, 35-36; hybrid subsumption, 98–99; industrial production and, 88-95, 100-102, 111; labor and, 13, 34, 37–38, 111; method and, 12-13, 35, 229, 251n50; natural and social forms and, 33-34; pollution and, 117; reproduction and, 152, 165, 171; social relations and, 50; subsumption and, 85, 91–93; theory of ideology and, 153; wages and, 106 materiality: capitalism and, 49-52; freedom and, 210–18; natural barriers and, 95–97, 136-37; Sartre and, 50-51, 75-76; Sartre on, 50; tragedy of, 75. See also material mediation material mediation, 72-76, 140 matsutake pickers, 86-87 Mau, Søren, 25, 42 Mauss, Marcel, 9, 250n43 Mazzocchi, Tony, 118 McKibben, Bill, 4 McNeill, J. R., 19 Meade, James, 189, 192

INDEX 315

Meadows, Donella, 186-87 Mellor, Mary, 171, 214 Melville, Herman, 117, 237-38 Merchant, Carolyn, 23, 88, 148, 158, 170 merchant capitalism, 99, 115 merchants, 117, 237-38 Mies, Maria, 147, 156-57, 216-17, 301n47 Moby Dick (Melville), 237–38 Modern Times (Chaplin), 173 monistic social theory, 26-27 The Moon Is a Harsh Mistress (Heinlein), 116 Moore, Jason, 24-25, 37, 147-48, 163, 287n84, 297n107 moral philosophy, 126-28, 186 mother, 145; earth as, 146 Müntzer, Thomas, 182

natural agents: classic political economists and, 28-30, 35; commodification of, 194; Marx and, 31–32, 35–36; pricing, 183–85; production and, 89-90, 180 natural capital: accounting, 187-88; as metaphor, 184; valuation, 181, 184, 291n12 natural disasters, 2, 75, 101, 119, 229 natural forms, 33-34 naturalistic fallacy, 248n13 naturalization thesis, 160-64 nature: capitalism and, 3, 11-14, 23-25, 53-55; as cheap, 148; commodification of, 16, 189-96; death of, 88, 148; earth as a mother and, 146, 158; externalities and, 137-39, 141-43; ideas of, 4-5, 23, 162-63; mastery of, 12, 93, 97, 115; as moral standard, 5, 14-15, 51-54, 73, 178, 185-86, 205-6, 248; naturalization thesis and, 162-64; nature-based production and, 85-87; the politics of, 4-8; pricing, 181-89; socializing, 203-4; surplus species and, 196-98. See also agriculture; free gift of nature Nausea (Sartre), 238-39 necessity, 69, 147, 150-51, 210-18, 221-27, 230

neoliberalism, 55, 86, 123-24, 181, 191

Neton, Jeanne, 168
Neuhouser, Frederick, 300113
Ngai, Sianne, 16
Nikiforuk, Andrew, 207
Nixon, Rob, 118, 233
nondomination, 218–19
nonresponsibility, 62–64, 70, 72, 198
Nordhaus, William, 181
Nozick, Robert, 63, 124
Nussbaum, Martha, 236

O'Connor, James, 146, 200 oikos, 150

Pareto efficiency, 124 Parfit, Derek, 129

Paulson, Henry, 181

paracapitalist agents, 108, 175, 200

peasants, 24, 73-74, 77, 85, 100-101, 104-5, 111, 139, 156-58, 182, 216, 2741126 Pellow, David Naguib, 127 Pettit, Philip, 65, 218, 263n50 Petty, William, 146 Phillips, Leigh, 213 Pigou, Arthur, 120-23, 125, 127, 189-93 planetmaking: Biosphere 2 and, 179-80; commodification of nature and, 189-96; conscious, 201-6; natural agents and, 180; natural capital and, 181-83; pricing nature and, 183-89 plantations, 107 Plumwood, Val, 147-48, 158 Polanyi, Karl, 9, 131, 191 pollution: collective action and, 77, 139-42; definition of, 119, 138, 144; effects of, 118-19; externalities and, 120, 123-24, 126-28; as a factor of production, 125, 127, 131; markets in, 126-28; rights of nature and, 141-43; shifting costs back and, 135-37; as "the price of progress," 117; tragedy of the commons and, 73. See also externalities Postone, Moishe, 65-66, 93, 101, 220-21, 223

316 INDEX

The Power of Women and the Subversion of the revaluation of values, 80, 288 Community (Dalla Costa and James), 152 Ricardo, David, 8, 30, 88-89 practico-actant, 51, 74-75, 94, 137, 139 Rights of nature, 141-43, 146 Riofrancos, Thea, 115 practico-inert, 50-51 risk society, 136 predatory inclusion, 198 primitive accumulation, 24, 182, 190, 253n7, The Road to Serfdom (Hayek), 124, 199 Roberts, William Clare, 65-66, 71, 155, 219, 294n55 private government, 94 223, 300n13 "The Problem of Social Cost" (Coase), 124 Robertson, Morgan, 190-91 production, 84-87; agriculture and, Rousseau, Jean-Jacques, 8-9 100–103; byproduction, 119–20, 139–41; Rowbotham, Sheila, 173 cooperation of human workers and, 90; labor of natural forces and, 95-97; Sahlins, Marshall, 212 natural agents and, 89–90; patriarchal Salleh, Ariel, 203 model of, 108; pericapitalist, 86; Sandel, Michael, 126, 128, 186, 192 suprasumption and, 98-100 Sartre, Jean-Paul, 15, 50-51, 55, 66-69, 74-75, property, 24, 48-49, 57-58, 182-83, 189-95, 78-79, 94, 118, 227 Satz, Debra, 128 201-2, 204 public goods, 20, 195 Say, Jean-Baptiste, 29-31, 88, 100, 171-72, 195 scarcity, 73, 181, 195, 211-15, 227, 230 racial domination, 108-9, 162 Schiff, Jade, 80 real abstraction, 25-26, 187, 200-201, 237-38, Schumacher, E. F., 184 Scott, David, 228 298n107 Scott, James, 182, 298n107 reciprocity, 9, 22, 197, 233-35, 239-40; social second ecological law, 120 cost and, 123, 125, 127, 131, 142 remainders, 11, 52, 168. See residuals The Second Sex (Beauvoir), 151, 225, 240 rematerialization, 7, 18 seriality, 67-70, 76-78, 130, 140, 264n64, remnants, 149, 168, 174. See remainders 264n70 service sector, 167–68 rent, 49, 193 reproductive labor: abdication and, 173-76; sex class, 153, 171 cost disease and, 176-77; gifts of nature sharecropping, 107, 273n100 and, 146–49; labor power and, 152–53; Shiva, Vandana, 216 life processes and, 169–73; naturalization "Should Trees Have Standing" (Stone), 141 thesis and, 160-64; naturalizing of, Sieyes, Abbé, 88 147-48, 159; service sector debates and, Silent Spring, 132, 146, 183 167–68; subsumption and, 149; wages Silicia, Andrés Saez de, 43, 91 and, 178. See also housework; labor; the situation, 149, 164, 203, 224-26, 230. See also Beauvoir, Simone de; Sartre, Wages for Housework republicanism, 55, 58-59, 61, 65-67, 84, 86, Jean-Paul 210, 218-20 slavery, 107, 109, 207-8, 258n94; chattel slavery and, 107 residuals, 52, 132, 143 Resnais, Alain, 82 slow violence, 118-19 responsibility, 61-63, 70-72, 80, 117, 128-29, Smith, Adam, 30, 63, 165, 191, 197, 199 Smith, Neil, 190 143, 205, 234, 239. See also complicity

INDEX 317

social cost. See externalities The Social Costs of Private Enterprise (Kapp), 131 social domination, 218-23 social forms, 33-34, 80, 237-38 socialization: of byproduction, 139; of labor, 34-35, 110; of nature, 202-5 social murder, 118-19 social reproduction theory, 156–58 social structural processes, 79 Sohn-Rethel, Alfred, 25 Soper, Kate, 27, 42 spontaneous order, 63 the state, 60, 63, 67, 108, 123-25, 134, 198-201, 298n108 Stern, Nicholas, 2 Stigler, George, 126 Stone, Christopher, 141-42 styrene, 82 subsumption, 48-49, 85, 91-93, 96-100, 112-15, 168, 170, 176; commercial, 99-100, 105; formal, 91-92, 98-100; hybrid (Zwitter), 98-100; real, 92, 95, 98-100, 102, 132, 149, 217. See also suprasumption Sukhdev, Pavan, 3, 187 Sullivan, Sian, 186 Summers, Larry, 127-28 Summers memo, 127-28, 130 suprasumption, 49, 98-100, 103-4, 132. See also subsumption surplus matter. See externalities surplus population, 179 surplus species, 196-98

Táíwò, Olúfémi 206
Taylor, Keeanga-Yamhatta, 198
Taylor, Sunaura, 140
technology, 71, 84, 93–94, 104, 215–17, 220, 222, 225, 269n48
Timpanaro, Sebastian, 215, 300n36
Toscano, Alberto, 75
total abundance, 214–15

Swyngedouw, Eric, 201

tragedy, 228

tragedy of materiality, 75
tragedy of the commons, 72–74, 114, 195
"The Tragedy of the Commons" (Hardin),
72–74
Tronto, Joan, 171
true costs, 53, 135–36, 143
Tshisekedi, Félix, 188
Tsing, Anna, 86, 101, 180, 236
Turgot, Anne Robert Jacques, 8, 28

Ukeles, Mierle Laderman, 145–46, 176 unfreedom: bad faith and, 78–81; capitalism and, 55–57; class power and, 58–60; class rule and, 209–10; externalities and, 133–35; market rule and, 60–62; proletarian and, 133–34; social domination and, 218–23. *See also* freedom unintended consequences, 63–64, 72–76, 98, 119–23, 143, 173. *See also* counterfinality

valorization, 34, 40, 48, 89, 91–92, 97–98
value: debates about, 235–36; disjunctures
in, 20, 80–81, 122, 177–78; in exchange,
10–11, 33–40, 119, 256n50; law of, 60, 72,
236; moral, 51–54, 177; rule of, 62; in use,
33, 35–36, 40–41, 119, 134, 198, 204, 256n50,
256n62, 288n101; value-form theory and,
13, 26, 33, 253n13. See also axiarchy
Vettese, Troy, 197
violence, 24–25, 49, 107, 118–19, 123, 144, 198,
238; as slow, 118–20, 238
Vogel, Lise, 159
Vogel, Steven, 74, 76, 235
Vrousalis, Nicholas, 58–59

wages: anthropocentrism of the, 44–46; disguised, 109; and fraud, 155; housework and, 155–56; reproductive labor and, 178; structures of payment and, 106–10; wagelessness and, 46, 153–54, 156, 166, 197. See also housework; Wages for Housework

318 INDEX

Wages for Housework, 152–57, 159–60, 166, 178. See also housework; reproductive labor
Wallace-Wells, David, 2, 227
Waring, Marilyn, 147
water, 96
Werlhof, Claudia von, 157
whales, 140, 185, 189, 198, 237–38
White, Richard, 31
Wiel, Samuel, 194
wildlife, 1, 9, 86, 192–93, 200, 203–4, 227.
See also animals
Williams, Raymond, 5

Wilson, Edward O., 181

Wilson Gilmore, Ruth, 198
Winant, Gabriel, 170, 174–75
Wittgenstein, Ludwig, 45
"Woman Question," 151–52, 159
women's work. See housework; reproductive labor
worldmaking, 8, 83, 180, 202, 236, 249n32.
See also planetmaking
worldview approach, 23
Young, Iris Marion, 69, 79

Zelizer, Viviana, 186 Zerilli, Linda, 210