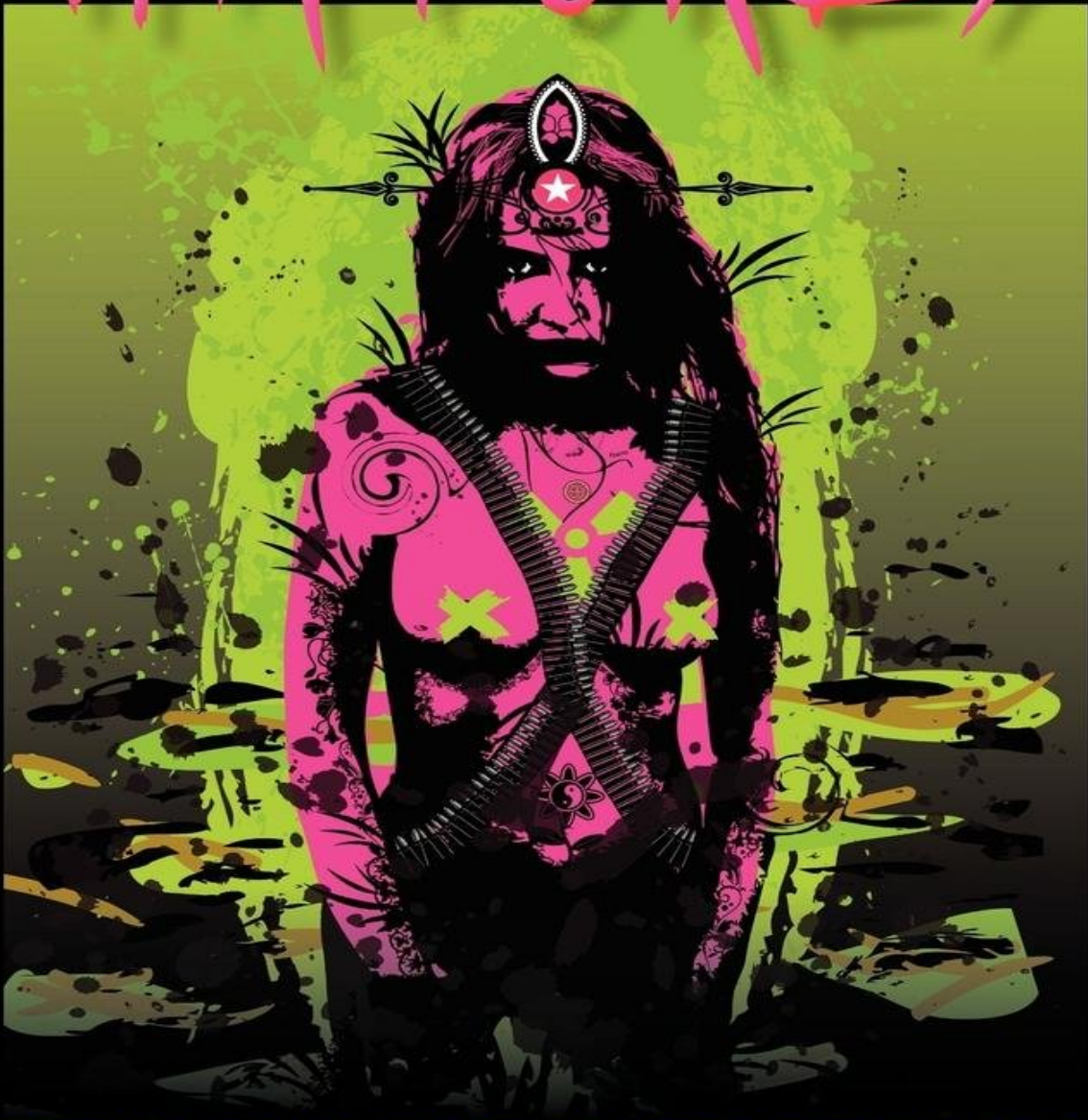


BODILY NATURES



SCIENCE, ENVIRONMENT, AND THE MATERIAL SELF

S T A C Y A L A I M O

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For environmental activists everywhere

CONTENTS

Acknowledgments

1 Bodily Natures

2 Eros and X-rays

Bodies, Class, and “Environmental Justice”

3 Invisible Matters

The Sciences of Environmental Justice

4 Material Memoirs

Science, Autobiography, and the Substantial Self

5 Deviant Agents

The Science, Culture, and Politics of Multiple Chemical Sensitivity

6 Genetics, Material Agency, and the Evolution of Posthuman Environmental Ethics in Science Fiction

Notes

Works Cited

Index

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BODILY NATURES

ONE

Bodily natures

[Matter] is not little bits of nature, or a blank slate, surface, or site passively awaiting signification, nor is it an uncontested ground for scientific, feminist, or Marxist theories. Matter is not immutable or passive. Nor is it a fixed support, location, referent, or source of sustainability for discourse.

—Karen Barad, *Meeting the Universe Halfway*

And the word *environment*. Such a bloodless word. A flat-footed word with a shrunken heart. A word increasingly disengaged from its association with the natural world. Urban planners, industrialists, economists, developers use it. It's a lost word, really. A cold word, mechanistic, suited strangely to the coldness generally felt toward nature.

—Joy Williams, *Ill Nature*

Karen Barad and Joy Williams alert us to the rather shabby theoretical and rhetorical treatment of “matter” and “environment” in the late twentieth and early twenty-first centuries. *Matter*, the vast stuff of the world and of ourselves, has been subdivided into manageable “bits” or flattened into a “blank slate” for human inscription. The *environment* has been drained of its blood, its lively creatures, its interactions and

relations—in short, all that is recognizable as “nature”—in order that it become a mere empty space, an “uncontested ground,” for human “development.”

If nature is to matter,¹ we need more potent, more complex understandings of materiality. Side by side, Barad’s critique of the linguistic turn and Williams’s appraisal of the word *environment* suggest a troubling parallel between the immateriality of contemporary social theory and a widespread, popular disregard for nonhuman nature. This book will address the dematerializing networks that cross through academic theory, popular culture, contemporary discourse, and everyday practices by focusing on the possibilities for more robust and complex conceptions of the materiality of human bodies and the more-than-human world. Specifically, *Bodily Natures* explores the interconnections, interchanges, and transits between human bodies and nonhuman natures. By attending to the material interconnections between the human and the more-than-human world, it may be possible to conjure an ethics lurking in an idiomatic definition of *matter* (or *the matter*): “The condition of or state of things regarding a person or thing, esp. as a subject of concern or wonder” (*Oxford English Dictionary*). Concern and wonder converge when the context for ethics becomes not merely social but material—the emergent, ultimately unmappable landscapes of interacting biological, climatic, economic, and political forces.

Potent ethical and political possibilities emerge from the literal contact zone between human corporeality and more-than-human nature. Imagining human corporeality as trans-corporeality, in which the human is always inter-meshed with the more-than-human world, underlines the extent to which the substance of the human is ultimately inseparable from “the environment.” It makes it difficult to pose nature as mere background, as Val Plumwood would put it,² for the exploits of the human since “nature” is always as close as one’s own skin—perhaps even closer. Indeed, thinking across bodies may catalyze the recognition that the environment, which is too often imagined as inert, empty space or as a resource for human use, is, in fact, a world of fleshy beings with their own needs, claims, and actions. By emphasizing the movement across bodies, trans-corporeality reveals the interchanges and interconnections between various bodily natures. But by

underscoring that *trans* indicates movement across different sites, trans-corporeality also opens up a mobile space that acknowledges the often unpredictable and unwanted actions of human bodies, nonhuman creatures, ecological systems, chemical agents, and other actors. Emphasizing the material interconnections of human corporeality with the more-than-human world—and, at the same time, acknowledging that material agency necessitates more capacious epistemologies—allows us to forge ethical and political positions that can contend with numerous late twentieth- and early twenty-first-century realities in which “human” and “environment” can by no means be considered as separate.

Two particularly striking movements of the late twentieth century—environmental justice and environmental health—mark significant material interchanges between human bodies and the environment. Thus, much of this book focuses on the literature, science, and popular culture of these two movements, quite broadly conceived, including the erotic early twentieth-century “environmental justice” writings of Meridel Le Sueur, contemporary accounts of environmental racism, environmental memoirs in which the material world becomes the very substance of self, and the volatile scientific and political struggles to define or dismiss the syndrome of multiple chemical sensitivity. As they promote substantial interconnections between humans and the wider world, environmental health and environmental justice accounts often reconceptualize material agencies—the often unpredictable and always interconnected actions of environmental systems, toxic substances, and biological bodies. Strangely, popular renderings of genetics ascribe agency to genes, but tend to disconnect genes from the environment and evolution. Thus, the final chapter envisions a posthuman environmental ethics in which genetics, evolution, and environment are imbricated in and affect the emergence as well as the unraveling of the human.

This chapter introduces some of the theoretical models, questions, and arguments of the book, focusing on how feminist corporeal theory, disability studies, environmental humanities, and science studies productively engage with the materiality of human bodies and nonhuman natures. Ironically, despite the tremendous outpouring of feminist theory and cultural studies of “the body,” much of this work tends to focus exclusively on how various bodies have been

discursively produced, which casts the body as passive, plastic matter. As Elizabeth Wilson puts it, “The body at the center of these projects is curiously abiological—its social, cultural, experiential, or psychical construction having been posited against or beyond any putative biological claims” (*Neural Geographies* 15). Bracketing the biological body, and thereby severing its evolutionary, historical, and ongoing interconnections with the material world, may not be ethically, politically, or theoretically desirable. Trans-corporeality offers an alternative. Trans-corporeality, as a theoretical site, is where corporeal theories, environmental theories, and science studies meet and mingle in productive ways. Furthermore, the movement across³ human corporeality and nonhuman nature necessitates rich, complex modes of analysis that travel through the entangled territories of material and discursive, natural and cultural, biological and textual.

Throughout the book, I will examine how various models of trans-corporeality are emerging not only in a broad expanse of scholarship and theory, but in popular culture, literary texts, and social practices. My intention is not to conjure up a new theory so much as to work across separate fields, forging connections and suggesting ethical and political perspectives. If trans-corporeality were some sort of rarefied, new theoretical invention, it would not travel very well across intellectual, scientific, political, and popular domains. Moreover, the fact that “bodily natures” are emerging across different domains suggests that the concept has the potential to perform potent cultural work. Although most of this book does not address cultural studies directly, cultural studies models—that take popular culture seriously, that trace peculiar but potent intersections, and that insist upon the political relevance of academic practice—deeply inform my approach. I find the many bodily natures discussed throughout this book—of science studies, environmental health, environmental justice, popular epidemiology, disability studies, corporeal feminism, film, photography, material memoir, science fiction, and evolution—to be both theoretically provocative and politically potent, as they recast our most basic understandings of self and world as separate entities.

Pheng Cheah, critiquing the disdain for nature and “the given” in contemporary cultural theory, argues that this “obsessive pushing away of nature may well

constitute an acknowledgement-in-disavowal that humans may be natural creatures after all” (108). I think it is crucial to address this “obsessive pushing away of nature,” which has not only dominated social theory and humanities scholarship, but also infuses everyday beliefs and practices, rendering environmentalism a distant, dismissible enterprise. Rather than arguing, however, that humans are natural creatures, that nonhuman animals are cultural creatures, and that the nature/culture divide is not sustainable (all of which I believe), I will locate my inquiry within the many interfaces between human bodies and the larger environment. Those particular sites of interconnection demand attention to the materiality of the human and to the immediacy and potency of all that the ostensibly bounded, human subject would like to disavow. Trans-corporeality, emerging in social theories, science, science studies, literature, film, activist web-sites, green consumerism, popular epidemiology, and popular culture, counters and critiques the obdurate, though postmodern, humanisms that seek transcendence or protection from the material world. Thus, *Bodily Natures* grapples with the ways in which environmental ethics, social theories, popular understandings of science, and conceptions of the human self are profoundly altered by the recognition that “the environment” is not located somewhere out there, but is always the very substance of ourselves.

Feminist Theory’s Flight from Nature and Biology

Nature has long been waged as a philosophical concept, a potent ideological node, and a cultural repository of norms and moralism against women, people of color, indigenous peoples, queers, and the lower classes. In *Undomesticated Ground: Recasting Nature as Feminist Space*, I argued that because *woman* has long been defined in Western thought as a creature mired in “nature” and thus outside the domain of human transcendence, rationality, subjectivity, and agency, most feminist theory has worked to disentangle *woman* from *nature*. Working within rather than against predominant dualisms, many important feminist arguments and concepts necessitate a rigid opposition between nature and culture. For example, feminist

theory's most revolutionary concept—the concept of gender, as distinct from biological sex—is predicated upon a sharp opposition between nature and culture. Even as it would be difficult to overestimate the explanatory and polemical force of feminist theories of social construction, such theories are haunted by the pernicious notions of nature that propel them. Thrust aside, completely removed from culture, this nature—the repository of essentialism and stasis—nonetheless remains dangerously intact. Rather than fleeing from this debased nature, which is associated with corporeality, mindlessness, and passivity, it would be more productive for feminist theory to undertake the transformation of gendered dualisms—nature/culture, body/mind, object/subject, resource/agency, and others—that have been cultivated to denigrate and silence certain groups of human as well as nonhuman life (Alaimo, *Undomesticated Ground* 4–14).

Human corporeality, especially female corporeality, has been so strongly associated with nature in Western thought that it is not surprising that feminism has been haunted not only by the specter of nature as the repository of essentialism, but by, as Lynda Birke puts it, “the ghost of biology” (44). She charges that the “underlying assumption that some aspects of ‘biology’ are fixed becomes itself the grand narrative (albeit implicit) from which feminist and other social theorists are trying to escape” (ibid.). Nancy Tuana, noting a resurgence of popular belief in racial and sexual determinism, charges that “we feminists have been epistemically irresponsible in leaving in place a fixed, essential, material basis for human nature, a basis which renders biological determinism meaningful” (“Fleshing Gender” 57). Only by directly engaging with matter itself can feminism do as Tuana advocates: render biological determinism “nonsense.” For instance, rather than bracketing the biological body, Birke insists upon the need to understand it as “changing and changeable, as *transformable*” (45). Cells “constantly renew themselves,” bone “is always remodeling,” and “bodily interiors” “constantly react to change inside or out, and act upon the world” (ibid.). Even with these few examples, it is clear that the notion of biology as destiny, which has long haunted feminism, depends on a particular—if not peculiar—notion of biology that can certainly be displaced by other models. Since biology, like nature, has long been drafted to serve as the armory for racist, sexist, and heterosexist norms, it is crucial that feminists recast the

norms, values, and assumptions that permeate this field. For example, Hird in “Naturally Queer” offers an abundance of biological examples that make heterosexism seem utterly unnatural: “The *vast* majority of cells in the human body are intersex”; “most of the organisms in four out of the five kingdoms do not require sex for reproduction”; and, marvelously, the Schizophyllum “has more than 28,000 sexes.” She concludes by arguing, “We may no longer be certain that it is nature that remains static and culture that evinces limitless malleability” (85–86, 88). If this biology sounds queer, all the better.⁴ As a “situated knowledge” (see Haraway, “Situated Knowledges”), this queer biology contests not only the content and the ramifications of normative hetero-biology, but its claim to objectivity and neutrality.

Perhaps the only way to truly oust the twin ghosts of biology and nature is, paradoxically, to endow them with flesh, to allow them to materialize more fully, and to attend to their precise materializations. The theories, literature, activist websites, photography, and other texts and practices discussed in this book perform exactly this sort of cultural work as they grapple with both apparent and seemingly apparitional materializations.

The Material Turn in Feminist Theory, Environmental Humanities, and Science Studies

Wondering whether it makes her a “survivor or a traitor of the age of (post)structuralism,” Teresa de Lauretis boldly suggests:

[N]ow may be a time for the human sciences to reopen the questions of subjectivity, materiality, discursivity, knowledge, to reflect on the *post* of posthumanity. It is a time to break the piggy bank of saved conceptual schemata and reinstall uncertainty in all theoretical applications, starting with the primacy of the cultural and its many “turns”: linguistic, discursive, performative, therapeutic, ethical, you name it. (368)

What has been most notably excluded by the “primacy of the cultural” and the turn toward the linguistic and the discursive is the “stuff” of matter. Theorists within the overlapping fields of feminist theory, environmental theory, and science studies, however, have put forth innovative understandings of the material world. Some feminist theorists, such as Moira Gatens, Claire Colebrook, and Elizabeth Bray, have embraced the work of Spinoza and Deleuze as counter-traditions to the linguistic turn. Others have reread theorists at the heart of poststructuralism—for example, Jacques Derrida (Vicki Kirby and Elizabeth Wilson), Michel Foucault (Ladelle McWhorter and Karen Barad), and Judith Butler (Karen Barad). Together, these theorists, along with others, constitute the material turn in feminist theory, a wave of feminist theory that takes matter seriously.⁵ Such radical rethinkings of materiality are difficult to sustain within a discursively oriented theoretical cosmos. For example, Donna Haraway’s influential figure of the cyborg, which muddles nature/culture dualisms, has been celebrated in most feminist theory and cultural studies as a figure that blurs the bounds between humans and technology—but, in this latest flight from nature, the cyborg is rarely embraced as an amalgamation of human and nature. Significantly, feminist cultural studies have embraced the cyborg as a social and technological *construct* but have ignored, for the most part, the *matter* of the cyborg, a materiality which is as biological as it is technological, both fleshy and wired, since the cyborg encourages human “kinship with animals” as well as with machines (“A Cyborg Manifesto” 154). Disturbingly, the critical reception of the cyborg as technological but not biological insinuates a transcendent cyberhumanism that shakes off worldly entanglements.

The material turn is by no means exclusive to feminist theory. New conceptions of materiality that are neither biologically reductive nor strictly social constructionist are emerging in many disciplines: environmental philosophy, corporeal feminism, disability studies, transgender theory, science studies, animal studies, new media studies, race theory, and other areas. The work of Gilles Deleuze and Felix Guattari, especially *A Thousand Plateaus*, and of Brian Massumi, who criticizes cultural theories of the body in which “matter, bodily or otherwise, never figures into the account *as such*” (4), presents palpable models of materiality. The

body, “as such,” is also essential to disability studies. Tobin Siebers, for example, in his essay “Disability in Theory: From Social Constructionism to the New Realism of the Body,” contends that the “disabled body seems difficult for the theory of social construction to absorb: disability is at once its best example and a significant counterexample” (740). Transgender theory, according to Bernice L. Hausman, must examine the body as “a material entity, beginning with an interrogation of those categories, like gender, that have contributed to the body’s contradictory status by serving as an alibi for a notion of identity that exists as pure information” (212). Scholars are even beginning to consider the dangerous proposition—given the virulent history of racial essentialism—that analyses of race need to attend to materiality. Michael Hames-Garcia in “How Real Is Race?” argues:

[T]here are important reasons not to eliminate all considerations of biology and the body from our discussions of race, provided we understand biology as mutually constituted with culture and as significantly less determinate than it is often taken to be. In particular . . . an important dimension of what race is and how it functions results from the interaction of social ideologies of race with visible human difference. (324)

While it is still crucial to analyze and critique how “nature” and the “environment” circulate as potent discursive formulations, many of us would like to find ways to complement and complicate that sort of analysis with investigations that account for the ways in which nature, the environment, and the material world itself signify, act upon, or otherwise affect human bodies, knowledges, and practices.⁶ Notwithstanding the fact that theories of social construction have performed invaluable cultural work by critiquing the naturalized and oppressive categories of race, class, gender, sexuality, and ability, from an environmentalist perspective, such theories may bracket or minimize the significance, substance, and power of the material world. David W. Kidner, in an essay in *Environmental Ethics*, argues that social constructionism “colludes with commercialism in the long-term industrialist project of replacing the natural by the artifactual, defining a form of human existence which claims independence from natural processes and rhythms.