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Crime-Environment Relationships and Environmental Justice

Avi Brisman¹

INTRODUCTION

As a concept, environmental justice has always eluded specific or restrictive definition.² It has been commonly understood as “the pursuit of equal justice and equal protection under the law for all environmental statutes and regulations without discrimination based on race, ethnicity, and/or socioeconomic status”³ or as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”⁴ Recent efforts, however, have been undertaken to enlarge the concept of environmental justice, as well as the scope of the environmental justice movement’s goals. For example, Lynch and Stretsky observe that the environmental justice movement has grown to include a wide range of viewpoints and agendas, each based on different environmental concerns.⁵ Likewise, White distinguishes between *environmental justice*, which he describes as “the distribution of environments among peoples and the impacts of particular social practices on specific populations” where “the focus of analysis is on human health and well-being, and on how these are affected by particular types of production and consumption,” and *ecological justice*, which he defines as “the relationship of human beings, more generally, to the rest of the natural world” (in effect, the health of the biosphere, the quality of the planetary environment, and the rights of other species).⁶

This article builds on a more expansive notion of environmental justice—one that is concerned not only with the distribution of environmental hazards across diverse classes and races but with “social transformation

directed toward meeting human needs and enhancing the quality of life—economic equality, health care, shelter, human rights, species preservation, and democracy—using resources sustainably.”⁷ This article agrees that “[e]nvironmental problems . . . remain inseparable from other social injustices such as poverty, racism, sexism, unemployment, urban deterioration, and the diminishing quality of life resulting from corporate activity”⁸ and employs a theory of environmental justice concerned with a wide range of issues—one that links human oppression with environmental harms and that sees environmental oppression as connected to other forms of oppression. More specifically, this article proposes a way to further broaden the concept of environmental justice by examining the complex relationships between crime and the environment and arguing that such relationships provide the underlying structure on which the environmental justice movement continues to build and be built.

While the hope is that this article will appeal to a broad audience, it is written with three groups of readers in mind: (1) advocates, policymakers, practitioners, researchers, and students of environmental justice in particular and environmental law more generally; (2) advocates, policymakers, practitioners, researchers, and students interested in and working with issues of criminal law and criminal justice; and (3) “green criminologists,” as well as other criminologists and students of criminology interested in the relationships between crime and the environment. The goal is twofold: (1) to allow more individuals to view their work as environmental justice, thereby providing for new avenues of cooperation and collaboration, and (2) to offer potential avenues of inquiry for criminologists interested in green issues, as well as for those concerned with matters of morality and blame, responsibility and injustice, crime and punishment, and unregulated power, corporate misconduct, and governmental indifference.⁹

Part I offers two examples of the interactions between crime and the environment. First, it distinguishes between two notions of harm in the context of relationships between crime and the environment: the “legal-

procedural approach” or “corporate perspective,” and the “socio-legal approach” or “environmental justice perspective.” Next, it highlights another linkage between crime and the environment: the analysis of criminal patterns and proclivities within built environments.

From here, the first section of Part II delves into the wide range of ways in which crime and the environment interact, beginning with a broader-than-usual take on the legal-procedural approach and containing subsections on major environmental laws, lesser-known environmental laws, and criminal laws with unintended environmental impacts. While what this section considers “environmental” is quite expansive, the various subsections are united in that they all deal with unauthorized acts or omissions that violate the law and are therefore subject to criminal prosecution and sanctions. While some of the laws discussed are more directly related to the environment (however “environment” may be conceived) than others, infringement of all of these laws affect the “environment.” Harm, then, is defined by the fact of transgression.

The second section of Part II is closely linked to the first. It deals with the unintended negative consequences of efforts to protect the environment with legal regimes—in particular, the unintended adverse criminal and environmental corollaries of major environmental laws. It also discusses a scenario in which a regulatory regime fails to allow environmental benefits from transpiring.

The third section of Part II presents the second concept of harm, the socio-legal approach. This section begins with a discussion of efforts to broaden the concept of harm and provides three examples of legal harms—harms that are not defined by the simple fact of transgression but by their actual negative environmental impact, such as Hurricane Katrina, “ecocide,” and animal abuse and cruelty.

The fourth section of Part II is closely linked to the third section. Here, the consideration is not of unintended consequences of a legal regime, but how the failure of legal regimes to control certain behavior results in

individuals taking matters into their own hands—what are, essentially, responses to legal harms or “crimes in the name of the environment.”

The fifth section of Part II represents a shift away from considerations of different concepts of harm and how such concepts interface with efforts to protect the environment. In contrast to the previous four sections, this section examines spatial aspects of crime and the impact of the design of physical structures of building space and the quantity and nature of green space on crime. This section also examines the reverse relationship—the the impact of fear of crime *in* the environment, as well as the effect of fear of crime *on the* environment—on one’s attitude toward and interactions with one’s physical and natural surroundings, including one’s desire and willingness to act in environmentally beneficent ways.

It bears mention that Part II does not pretend to offer a comprehensive review of all connections or possible connections between crime and the environment.¹⁰ What follows is intended as a representative sample rather than an exhaustive list. In addition, this list should not be interpreted as a ranking system—the issues discussed first should not be regarded as somehow more important than those mentioned later on—nor should the relationships between crime and the environment described at the beginning of this part be viewed as stronger than those articulated towards the end. The organization of this part is simply an attempt to provide a broad survey of issues and associations to those unaccustomed to analyses of the relationships between crime and the environment, and to offer a new way of grouping such relationships to those with more significant background.

Finally, Part III concludes by showing how both environmental justice scholars and criminologists have called for inter- and cross-disciplinary investigations of environmental harm. It argues that research exposing the linkages between crime and the environment can address these appeals for conversation and collaboration.

I. AN OVERVIEW OF INTERACTIONS BETWEEN CRIME AND THE ENVIRONMENT

Criminologists and other scholars interested in the relationships between crime and the environment often focus on the notion of harm and tend to frame their conception of harm in two ways. The legal-procedural approach defines “the parameters of harm by referring to practices which are proscribed by the law”¹¹ and “privileges the criminal law in the definition of what constitutes serious social injury.”¹² Thus, the legal-procedural approach considers laws regarding air and water pollution, soil quality, deforestation, conservation of natural resources, and protection of biodiversity and frequently refers to violations thereof as “environmental crimes.” The socio-legal approach, on the other hand, “conceives harm in terms of damaging practices which may or may not be encapsulated under existing criminal law”¹³ and “has facilitated the investigation of phenomena such as white-collar crime and denial of human rights by the adoption of conceptions of harm which are not limited by definitions solely generated by the state.”¹⁴ Thus, the socio-legal approach contemplates the wide range of activities and practices that may be legal, but are nonetheless environmentally destructive, such as: using animals in tests and experiments, vivisection,¹⁵ sprawl, the sale of unnecessary and dangerous pesticides and pharmaceuticals banned in developed nations but lacking regulation in developing countries, driving sport utility vehicles (SUVs), the policies leading up to and the responses to Hurricane Katrina, and conflict and war—activities, practices, or “offenses” that may also be referred to as “environmental crimes.”

Other scholars use different terminology to describe the two approaches, but the conceptual divisions remain effectively the same. For example, Lynch and Stretsky distinguish between two perspectives on “green crime”: the “corporate perspective” (akin to the legal-procedural approach) and the “environmental justice perspective” (similar to the socio-legal approach). For them, the corporate perspective recognizes the influence of corporate

power structures on the creation or delineation of those unauthorized acts or omissions that violate the law and are therefore subject to criminal prosecution and sanctions.¹⁶ In contrast to the corporate perspective, which Lynch and Stretsky describe as “a very precise, exact and limiting definition of what can be considered a ‘crime,’”¹⁷ the environmental justice perspective contemplates and includes acts or omissions that may not constitute a violation of an existing form of law, but which result in, or possess the potential to result in, environmental and human harm.¹⁸

While a broader consideration of harm via the socio-legal approach has helped expand inquiries into the relationships between crime and the environment,¹⁹ harm-based (or harm-focused) investigations do not encompass the full range of connections between crime and the environment. For example, the term *environmental criminology* frequently refers to the study of the spatial aspects of crime, such as where, when, and how offenses take place and how far offenders will travel to commit their crimes.²⁰ Consistent with this research, crime prevention through environmental design (CPTED) focuses on developing strategies that influence individuals’ calculus in deciding whether to commit particular criminal acts, such as a perceived risk of detection and apprehension.²¹ Related to environmental criminology and CPTED is work by Kuo, Sullivan, and Taylor among others at the Human-Environment Research Laboratory at the University of Illinois who have explored how everyday, unspectacular green spaces can positively affect mood and attitudes, thereby improving neighbor interactions, decreasing domestic violence, and reducing crime.²² This different kind of environmental design is oriented toward criminals rather than crime²³—toward features of the natural and social environment that affect psycho-social conditions rather than opportunities. Neither environmental criminology, nor CPTED, nor the work at the Human-Environment Research Laboratory contemplate harm to the natural environment and whether such activities and practices are

statutorily proscribed. But all constitute examples of the relationships between crime and the environment.²⁴

II. TYPES OF RELATIONSHIPS BETWEEN CRIME AND THE ENVIRONMENT

A. The Legal-Procedural Approach or Corporate Perspective²⁵ to Environmental Harm

1. Major Environmental Laws

In Part I, I made use of the terms “environmental crimes” and “green crimes.” Du Rées employs the term “environmental criminal law” to refer to the use of penal legislation or criminal law to protect the environment and control environmentally hazardous activities.²⁶ As she explains, because environmental crimes are “assumed, unlike many other forms of criminalized behaviour, to be determined by rational calculation and are generally the result of a premeditated decision . . . [by those] groups of people of high social standing who feel considerable loyalty towards the legal system at the general level,”²⁷ the goal of environmental criminal law is to establish sufficiently severe sanctions for committing environmental crimes so as to deter potential offenders.²⁸

Regardless of the particular term employed—“environmental crime,” “green crime,” or “environmental criminal law”—this particular relationship between crime and the environment is by no means new. As South describes, “[i]n the modern period of industrialization, the ways in which early legislators sought to deal with environmental matters were through public health or resource statutes, in some cases through civil codes and then in other cases through the criminal law.”²⁹ Today, in the United States, almost every major federal environmental law on the books—every well-known, far-reaching law that seeks to protect air, water and soil quality, conserve natural resources, and ensure biodiversity—contains some sort of provision for criminal sanctions for failure to abide by the

requirements set forth in the statute.³⁰ Thus, many statutes³¹ provide for both civil and criminal penalties (fines, in the case of the former, and fines and/or imprisonment in the case of the latter³²), such as: the Toxic Substances Control Act,³³ which deals with the manufacture and use of toxic substances; the Clean Air Act,³⁴ the Federal Water Pollution Control Act (commonly referred to as the Clean Water Act³⁵), and the Solid Waste Disposal Act (as amended by the Resource Conservation and Recovery Act),³⁶ all of which address waste discharge; the Endangered Species Act,³⁷ and the Federal Land Policy and Management Act³⁸ and the Marine Protection, Research, and Sanctuaries Act,³⁹ which attempt to protect natural resources and/or biodiversity; the Emergency Planning and Community Right-to-Know Act;⁴⁰ the Noise Control Act;⁴¹ and the Occupational Safety and Health Act.⁴² In addition, Section 202 of the National Environmental Policy Act, also known as the Pollution Prosecution Act of 1990,⁴³ requires the Environmental Protection Agency, which administers many of the major environmental statutes,⁴⁴ to employ criminal investigators to track criminal polluters.⁴⁵ Other statutes provide for civil penalties that include both fines and imprisonment⁴⁶ as well as civil penalties in the form of fines only.⁴⁷ Indeed, the entire purpose of the Superfund (officially known as the Comprehensive Environmental Response, Compensation, and Liability Act)⁴⁸ is to impose liability on release of hazardous substances and provide financial redress for clean-up costs.⁴⁹

2. Lesser-Known Environmental Laws

Often neglected within the legal-procedural approach are laws that while not labeled “environmental” by state actors (i.e., they are not contained in the same title or section or discussion of laws regarding air and water pollution, soil quality, deforestation, conservation of natural resources, and protection of biodiversity), would fall under a more expansive definition of environmental. Such acts or omissions still constitute a violation of an

existing form of law and, thus, cannot be considered part of the socio-legal approach or environmental justice perspective. Rather, they might be referred to as lesser-known environmental laws (or “less-often-considered-environmental” laws)—laws that, like the more well-known environmental laws pertaining to air and water pollution, soil quality, deforestation, conservation of natural resources, and protection of biodiversity, attempt to broaden or enforce rights, reduce neglect, and diminish harms, and contain civil and/or criminal penalties that include fines and/or imprisonment.

At the federal level in the United States, examples of such lesser-known environmental laws would include the Federal Meat Inspection Act (1958),⁵⁰ the Humane Methods of Livestock Slaughter Act (1958) (also known as the Humane Slaughter Act),⁵¹ the Horse Protection Act (1970),⁵² Wild Horses and Burros Act (1971),⁵³ the Food Security Act (1985),⁵⁴ the Health Research Extension Act (1985),⁵⁵ and the Pet Protection Act (1990),⁵⁶ among others.⁵⁷ While the Animal Welfare Act (1966, as amended in 1970, 1976, 1985, and 1990)⁵⁸ might also be included in this list, it has recently shed some of its obscurity with the case of Michael Vick. Vick, the disgraced former National Football League quarterback for the Atlanta Falcons, who received much attention for his involvement in dogfighting, was initially accused of violating the Animal Welfare Act,⁵⁹ as well as violations of 18 U.S.C. §1952—interstate and foreign travel or transportation in aid of racketeering enterprises.⁶⁰ He eventually pleaded guilty to “Conspiracy to Travel in Interstate Commerce in Aid of Unlawful Activities and to Sponsor a Dog in an Animal Fighting Venture in Violation of Title 18, United States Code, Section 371,”⁶¹ and was sentenced to twenty-three months in prison.⁶²

States also possess lesser-known environmental laws. For example, all fifty states possess some form of animal anticruelty statutes.⁶³ At the time of this writing, forty-nine states prohibit cockfighting.⁶⁴ To return to the example of Vick, in addition to serving a federal sentence, Vick still faces state charges in Virginia for unlawfully beating, torturing, killing, or

causing dogs to fight other dogs, and for engaging in or promoting dogfighting.⁶⁵ Some municipalities have banned certain breeds of dogs⁶⁶ or required owners to use muzzles and/or short leashes in public.⁶⁷ Thirty-three states and the District of Columbia hold dog owners legally liable if their pets maim or kill, with Texas having enacted the harshest criminal penalties for dog owners whose dogs seriously injure a person while off their leashes.⁶⁸

3. Criminal Laws with Unintended Environmental Impacts

In addition to violations of major federal and state environmental laws (such as those regulating air and water pollution, soil quality, deforestation, conservation of natural resources, and protection of biodiversity) and violations of lesser-known environmental laws (such as those pertaining to animal cruelty), some violations of certain criminal laws and policies can bring about unintended adverse environmental consequences. Whereas these laws and policies are meant to regulate aspects of society that are not associated with the natural environment, they may wind up having a strong impact on the environment. Two examples, both pertaining to illicit drugs, will suffice here.

First, the production of methamphetamine can cause serious environmental damage:

Meth[amphetamine] production . . . poses grave environmental and health concerns by creating toxic, hazardous waste endangering the environment and surrounding community. Meth cooks may spill chemicals and/or dump toxic residue near the drug lab where it contaminates the soil, groundwater, and kills vegetation; meth production generates toxic gaseous vapors that cause adverse health effects to the meth operators, their families, and law enforcement, and creates a nearly invisible residue that lingers within the walls of a meth lab home where it poses serious health risks to unsuspecting residents, visitors and guests.⁶⁹

Second, in a more elaborate and international account, del Olmo describes how the cultivation and production of cocaine results in four ecological impacts in Bolivia (especially the Chapare region), Colombia, and Peru: (1) prior to initiating coca cultivation, the deforestation of thousands of hectares of fragile, low tropic jungle near rivers, often with the system of burning as a land-clearing method; (2) erosion due to the lack of soil production in zones of high rain; (3) contamination of water due to the indiscriminate and intensive use of pesticides, fertilizers, and highly contaminating chemicals used to produce basic cocaine paste; and (4) the destruction of valuable genetic flora and fauna resources.⁷⁰ In addition, she reveals the flip-side of the problem of illicit drug production—the ecological impact of drug destruction through government eradication programs employing herbicides. “Drug crop destruction via eradication programs is a priority in the U.S. war on drugs,” she writes.⁷¹ While such eradication may be achieved by a number of different means, “the most effective, although with greater environmental and ecological impact, is aerial fumigation with herbicides,”⁷² including Paraquat or Gramaxone, Glyphosate or “Roundup,” and 2,4-D (more notoriously known as the principal component of Agent Orange).⁷³ This point is echoed by South, who claims:

In a different kind of war—the current “war on drugs,” the use of herbicidal chemical sprays against plant-drug crops in various Central and Latin American countries has also damaged more than just the original targets, i.e. coca bushes and marijuana plantations. These anti-drug crop sprays have, of course, also affected other crops, introduced contamination into the food chain and water table, and been linked to a variety of health problems, birth defects, still births and so on.⁷⁴

Thus, South and del Olmo maintain, while illicit drug production has resulted in significant ecological problems, so has drug crop destruction. And with “illicit drug cultivation provid[ing] the only possible means of survival for many peasants living in extreme poverty and isolation, lacking

opportunities available in more highly developed areas and thus with no other alternative means of income generation available,”⁷⁵ the result has been that illicit drug production itself has actually increased appreciably since eradication programs began.⁷⁶ For del Olmo, the ecological problems caused by illicit drug production and drug crop destruction both merit attention. But she stresses the significance of the latter—which “poses more questions, and should raise more concerns, because of the indifference of governments toward the major environmental and human health problems which pesticide use and misuse produce.”⁷⁷

In conclusion, under the legal-procedural approach, the federal and/or state governments determine harm by defining proscribed behaviors that are punished by fines and/or imprisonment. Some of the activities or practices pertain to more obvious aspects of the environment, for example, air quality and water quality. Some of the activities or practices pertain to lesser obvious aspects of the environment, such as prohibitions on cockfighting and dogfighting, and various regulations regarding the treatment of animals used for research or food. And finally, some of the activities or practices such as cooking methamphetamine and the “War on Drugs” pertain to criminal phenomena that have nothing directly to do with the environment but which nonetheless affect the environment when committed in a certain way in a certain place. Despite the diversity of these examples, all in all, the mechanisms of these environment-crime/crime-environment relationships are the same in each instance: a violation of the laws results in an environmental harm, is considered a crime, and is punished as such.

B. The Unintended Consequences of Regulatory Regimes: “Environmental Black Markets” and Unrealized Environmental Benefits

1. Regulatory Regime Produces Unintended Criminogenic Effects

According to Brack, “‘environmental crime’ occurs when individuals and companies deliberately flout environmental laws and regulations for profit

or power.”⁷⁸ “International environmental crime,” he continues, occurs “[w]here these activities lead to . . . transboundary or global environmental problems.”⁷⁹

These definitions would seem to describe the phenomena discussed in the previous section, such as when individuals or companies, in an effort to decrease costs, “negligently introduce[] into a sewer system or into a public owned treatment works any pollutant or hazardous substance which such person[s] knew or reasonably should have known could cause personal injury or property damage” in violation of the Clean Water Act,⁸⁰ or simply fail to install the Best Available Control Technologies to reduce emissions from a facility, as required by the Clean Air Act.⁸¹ But Brack uses *environmental crime* in a broader sense to refer to the side effects of policies aimed at protecting the environment,⁸² such as when illegal activities result from lack of appropriate regulation,⁸³ when there is a failure to enforce existing laws,⁸⁴ or when regulations create “environmental black markets”⁸⁵ for illegal disposal of hazardous wastes⁸⁶ or illegal products such as endangered species of wild flora and fauna (orchids, birds, tropical fish, ivory, animal pelts, reptile skins), timber and timber products, and ozone-depleting substances.⁸⁷ This subsection focuses on the emergence of environmental black markets, or “criminogenic markets,” to use Szasz’s phrase, that resulted from the passing of the Resource Conservation and Recovery Act (RCRA).⁸⁸

RCRA is a cradle-to-grave statute that mandates comprehensive tracking and management mechanisms of hazardous wastes from their origination to final disposal. But as Szasz—writing in the mid-1980s, ten years after RCRA’s enactment—explains, the system created a situation “in which corporations, some at the heart of the American economy, discharge their regulatory obligations under RCRA by entering into direct contractual relationships with firms dominated by organized crime.”⁸⁹ According to Szasz, “[t]he fact that RCRA not only cannot prevent illegal hazardous waste dumping but has also attracted organized crime participation in illegal

hazardous waste activity suggests that the concept of criminogenesis may be fruitfully extended to regulatory processes as well.”⁹⁰ Szasz continues by arguing that

[a]nalysis of the formation of RCRA legislation shows that corporate generators of hazardous waste were instrumental in securing a regulatory structure that would prove highly attractive to and well suited for organized crime participation. In other words, corporate generators of hazardous waste are deeply implicated in the creation of conditions that made their relationship to organized crime possible.⁹¹

This is what South refers to as “criminogenic policy-making.”⁹²

While Szasz asserts that “the boundary between organized crime and legitimate business is, at points, somewhat ambiguous,”⁹³ he stops short of arguing that corporate generators of hazardous waste were complicit with organized crime in the formation of RCRA:

The cohesiveness and unanimity of generator intervention to shape RCRA legislation certainly shows that they intended something. Nonetheless, no evidence was found in the research discussed here to support an argument that generators consciously intended to create a context for organized crime entry into the industrial waste disposal business, or even that they understood that such an outcome was possible. Rather, it appears much more likely that they acted out of a general tendency to resist full social responsibility for the “externalities,” the environmental and public health consequences, of industrial production, and that they did not much care what, if any, unintended consequences would follow.

....

Analysis of the formation of hazardous waste disposal regulations captures such a criminogenic structure at the moment of its formation. In the mid-1970s, corporations faced the prospect of new legislation that would force them to bear the responsibility and cost of environmentally safe disposal of massive amounts of hazardous waste. They responded with a legislative campaign that effectively limited their liability. The regulatory structure they

advocated would prove to be highly vulnerable to the commission of disposal crime, but these crimes would be committed by others, not by the generators themselves. Even if generators did not intend this outcome, they were well served by it because illegal disposal activity effectively slowed the pace of change and cushioned the shock of transition from an unregulated to an increasingly regulated context.⁹⁴

What Szasz identifies is a system of environmental laws and regulations intended to provide a social good and protect against environmental catastrophe, but which imposes significant costs on businesses and runs counter to the corporate goal of maximizing profits.⁹⁵ While many corporations do play by the rules, others regard attainment of the corporate goal as achievable only by breaking the law. As Brack laments, “[t]oo often, corporations choose to do business with whomever can provide services at cut-rate prices.”⁹⁶ But in Szasz’s view, the relationship between illegitimate and legitimate business is more complex. It “is one of mutually beneficial interdependence,”⁹⁷ or as South maintains, organized crime and legitimate businesses exist in “expanding symbiotic relationships” in the hugely profitable area of illegal waste transfer and disposal⁹⁸—suggesting an inextricable link between the environment and crime.

2. Regulatory Regime Blocks Certain Environmental Benefits from Occurring

Whereas regulations and policies aimed at protecting the environment can produce criminogenic side effects (violations of these laws due to challenges with enforcement or lax enforcement, or environmental black markets for illegal products or illegal disposal of hazardous wastes), sometimes the reverse process occurs: a legal regime precludes a more environmentally sustainable practice from transpiring. For example, in North Dakota, where agriculture remains the largest component of the state’s economy, scab—a fungus also known as *Fusarium* head blight—has destroyed thousands of acres of wheat.⁹⁹ Hemp, which is used in clothes,

lotions, snack bars, car door panels, and insulation, would survive quite nicely in the rocky soil and cool, wet climate of North Dakota. It does not require fertilizers or pesticides and would provide a viable alternative for North Dakota's crop rotation.¹⁰⁰ But hemp is treated like marijuana because it contains tetrahydrocannabinol and, thus, is banned under the Controlled Substances Act of 1970.¹⁰¹ Recognizing the economic and environmental benefits of hemp cultivation,¹⁰² legislatures in Maine, Montana, North Dakota, West Virginia, and other states have passed bills allowing farmers to grow industrial hemp.¹⁰³ But farmers have not undertaken cultivation of industrial hemp out of fear that such efforts, even with state licenses, would violate the Controlled Substances Act.¹⁰⁴

It bears mention that “[i]n the wide-open spaces of this state [North Dakota], an independent streak often runs through the politics, especially when it comes to federal mandates. But the fight over hemp is not political or philosophical It lacks any counterculture wink, any hint of the fear some hemp opponents express that those trying to legalize hemp secretly hope to open the door to the plant's more potent cousin.”¹⁰⁵ According to Roger Johnson, the North Dakota state agriculture commissioner,

hemp fields would be the worst places to hide marijuana. Under [North Dakota] state rules . . . such fields must be accessible for unannounced searches, day or night, and crops would be tested by the state. Also . . . a field of hemp and marijuana would cross-pollinate, leaving the drug less potent.¹⁰⁶

Despite arguments from individuals like Johnson, growing crops of industrial hemp is currently not an option in places such as North Dakota, thereby illustrating a situation in which a regulatory regime impedes an environmental boon.

In conclusion, the legal regimes discussed in the first section vary in their success in protecting the environment and reducing the risk of environmental harm and degradation. And their ability to achieve their goals may not always be linked to the deterrent effect of the criminal and/or

civil penalties provided for in each of these statutes or to the likelihood of imposition of such penalties (which also tend to vary by statute and by administrator). Rather, as this section has attempted to show, the regulations' efficacy may be dependent on whether, and to what extent, certain environmental black markets or criminogenic markets emerge and operate. In situations akin to the North Dakota scab problem, statutes may prove to be a successful deterrent, but the behavior deterred would be beneficial to the environment, not destructive.

*C. Environmental or Green Crimes from a Socio-Legal Approach or Environmental Justice Perspective*¹⁰⁷

In 1990, in what is generally regarded as the first use of the term *green criminology*,¹⁰⁸ Lynch argued that while criminologists had been examining various environmental hazards and crimes for some time, “[a] revitalized approach to crime . . . [could] be framed within the awakening environmentalism of the 1990s.”¹⁰⁹ Lynch foresaw a merging of environmentalism, radicalism, and humanism to construct a “green criminology,” which would include an examination of a wide range of unauthorized acts or omissions that violate laws and are therefore subject to criminal prosecution and sanctions (such as laws and treaties designed to promote sound environmental practices and prevent the destruction of human, animal, and plant life). Green criminology would also include the study of acts or omissions that may not constitute a violation of an existing form of law but which result in, or potentially result in, environmental and human harm (such as governmental and corporate practices and social trends that misuse the environment or result in hunger and homelessness).¹¹⁰

Lynch made clear that his list was not exhaustive and that scholars might approach their research by analyzing environmental and wildlife laws, regulations, and international treaties; investigating the environmental, human health, and social harms (both local and global) resulting from chemical and pesticide manufacturing, as well as the unsafe working

conditions created by chemical and pesticide manufacture; engaging in national and comparative study of environmental politics and power; exploring “drug dumping” in developing nations; and exposing global political and economic structures that allow for the exportation of environmental hazards such as toxic waste from core nations to the periphery.¹¹¹

Since then, green criminologists have followed Lynch’s lead, significantly expanding his list of suggestions. For example, South and Beirne have recently encouraged exploration of:

the abuse and exploitation of ecological systems, including non-human animals; corporate disregard for damage to land or air or water quality; profiteering from environmentally damaging trades and practices that destroy lives and leave a legacy of damage for subsequent generations; military actions in war that adversely affect the environment and animals; new challenges to international treaties and to the emerging field of bio-ethics, such as bio-piracy; illicit markets in nuclear materials; and legal monopolization of natural resources (for example, privatization, patenting of natural products, and so on) leading to divisions between the resource-rich and the resource-impooverished and the prospects of new forms of conflict, harm, injury, damage and crime.¹¹²

Because green criminology suggests the reappraisal of traditional notions of criminal offenses and harmful behaviors, while reexamining the role that societies (including corporate and government actors) play in generating harms to the environment,¹¹³ the list of what could come within this purview is considerable. The legal-procedural approach, discussed in Part II.A and B, limits the inquiry to the study of laws designed to promote sound environmental practices that protect the destruction of human, animal, and plant life. The first two sections of this part add to the legal-procedural approach by including both the study of criminal laws whose violations result in environmental destruction and the examination of criminal laws that proscribe activities that would benefit the environment.

This section provides three examples of acts or omissions that fall within the socio-legal approach—acts or omissions that may not constitute a violation of an existing form of law but may result in, or potentially result in, environmental and human harm.

1. The “Crime” of Hurricane Katrina

The damage caused by Hurricane Katrina is frequently referred to as a natural disaster.¹¹⁴ But for many individuals who experienced the event and for countless more who observed its aftermath, Katrina was “unnatural” and “self-inflicted”¹¹⁵—as much the result of human choices as geology or hydrology.¹¹⁶ Some who make this claim point to the hurricane itself, which might not have existed or might not have been as intense without the influence of global warming.¹¹⁷ Others single out “unwise coastal development” (in the case of Dauphin Island)¹¹⁸ or assert that “[t]he steady destruction of coastal wetlands by residential development and years of oil and gas drilling” destroyed marshes and barrier islands that once provided protection from the waters of the Mississippi Delta and Gulf of Mexico.¹¹⁹ And still others cry that pork-barrel projects in Congress diverted funds away from measures that would have prevented floods.¹²⁰ While there is some disagreement as to the protective role of barrier islands and marshland (where the floodwater that caused the most damage came from) and to which extent lost wetlands would have actually helped to mitigate this damage,¹²¹ the prevailing sense is that the catastrophe was avoidable.

Such viewpoints illustrate the socio-legal approach because acts or omissions (especially those on the part of the government) that did not constitute a violation of an existing form of law¹²² still resulted in (considerable) environmental and human harm.¹²³ But some are unwilling to couch Katrina in the terms offered by the socio-legal approach. Rather, they attempt to call greater attention to the injustices that transpired by appropriating the language of the legal-procedural approach. For example, the John Jay College Student Work Brigade (a group of New Yorkers

comprised of students and faculty from the John Jay College of Criminal Justice, members of Iglesia San Romero de Las Américas-UCC, and members of Da Urban Butterflies Youth Leadership Development Program of the Dominican Women's Development Center) conducted research in post-Katrina New Orleans and declared in its "Manifesto of New Orleans":

While talking with the people in New Orleans, we realized that what happened in New Orleans was not a "natural disaster—it was murder!" Contrary to the government's Christian theocratic belief (ironic, since we visited during Holy Week), we learned that what happened in New Orleans was not a punishment from God, but a failure of the government to act. This was a crime against humanity. Much of the damage and loss of life caused by the hurricane could have been prevented with better planning and better use of governmental resources.

On the eve of the second anniversary of this tragedy, we learned that the failure to act was another manifestation of the Bush doctrine: illegal but legitimate. The definition of a crime was filtered through the ideology of an elitist creed, letting us see the lack of democracy in our political system. We have no reservations when we say that this was a well-calculated terrorist action that exposed and magnified the crime against humanity and the genocide that were already present in New Orleans. From this knowledge, our political consciousness awoke.¹²⁴

This formulation uses the vernacular of the legal-procedural approach, but calls into question the elements that generally constitute a criminal offense (actus reus, mens rea, a harmful result caused by a defendant's act or omission, as well as some degree of concurrence or proof of certain attendant circumstances). In so doing, the John Jay College Student Work Brigade offers a scathing commentary on the "law" as a monolithic entity. Far from a reflection of social consensus designed to ensure fairness and to equitably and justly resolve disputes,¹²⁵ the "law" is seen as an "elitist creed"—an apparatus that perpetuates and exacerbates existing inequalities and that serves only the interests of a special, privileged class.¹²⁶

Regardless of whether one finds such standpoints convincing, and regardless of whether one prefers to consider Katrina along the lines of the socio-legal approach or in the terms set forth by the John Jay College Student Work Brigade, Katrina spurred and continues to create other linkages between crime and the environment. While such connections operate under a legal-procedural approach of harm, they merit brief mention here. For example, some displaced by Katrina now live in communities without the crime that plagued the poorer sections of New Orleans.¹²⁷ For these individuals, their new neighborhoods may lack the pace, culture, and diverse offerings of the Big Easy, but their new homes may also offer a change from the violence and demands of pre-Katrina New Orleans. For others, a different phenomenon may have transpired. Recall the images of rampant looting that took place after disaster set in¹²⁸—much of it understandable in light of the need for food, water, and other provisions.¹²⁹ Psychologists have speculated that the looting may have produced a “cascade,” whereby new definitions of normative behavior were created.¹³⁰ As one psychologist explains, “People who would never dream of stealing a TV set might be inclined to do so if they first stole some water, bread, cereal, milk, and so on.”¹³¹ This is not to suggest that everyone who looted in the immediate aftermath of Katrina has since become an electronics thief. But for some, especially those who stayed in New Orleans or who returned shortly thereafter, the initial transgression may have provided sufficient impetus for continued criminal activity. Combined with the paucity of jobs and high rents, that first taste of crime might have precipitated subsequent criminal events.¹³²

In sum, while the etiology of crime—on either a society-wide or individual level—can rarely be reduced to one or two reasons or factors, Katrina has generated a number of linkages between crime and the environment. It represents not only a different approach or perspective to the issue of harm from what was articulated in the first section (i.e., practices that are proscribed by law), but serves as an event that has

impacted individuals' interactions with crime in both positive and negative ways.

2. "Ecocide" Under the Socio-Legal Approach to Harm

Ecocide refers to the process whereby an organism destroys its ecosystem through its own intentional or unintentional actions.¹³³ While the term can apply to biological processes, increasingly it is used interchangeably with *eco-war* to describe human activities and practices that cause widespread damage to habitats and environments.¹³⁴ Whereas the terms *ecocide* or *eco-war* are sometimes employed broadly to describe "state-sanctioned destruction of an ecosystem"¹³⁵ (seemingly any adverse impacts caused by humans' industrial, manufacturing, or technological processes¹³⁶), at other times, the terms may be used in the context of military conflicts—either as a result of conflict, as a result of the preparation for conflict, as well as the reason for conflict. This subsection focuses on the narrower notion of *ecocide*.

Few would dispute that military conflict and war have brought about environmental damage.¹³⁷ For example, Lebanon is still trying to cope with the "toxic stains of war" (the collateral damage), including environmental devastation, from the attacks by Israel on the Shiite militant group Hezbollah in the summer of 2006. According to one report, "[i]n the worst single incident [of the attacks], Israel bombed an electricity generating station at Jiye, south of Beirut, in July of 2006, sending 15,000 tonnes of oil into the sea—the most severe oil slick ever seen in the eastern Mediterranean."¹³⁸ Whereas the damage incurred by Lebanon was incidental to Israel's military strategy, during the first Gulf War (Operation Desert Storm), Iraqi troops engaged in *ecocide* by deliberately dumping 400 million gallons of crude oil into the Persian Gulf and by setting fire to Kuwaiti oil fields during their retreat out of Kuwait.¹³⁹

Preparation for conflict, violence, and war can also adversely impact the natural environment. Military sonar use by U.S. and NATO ships

frequently result in mass stranding events, whale deaths, and other harm to marine mammals.¹⁴⁰ Seager asserts that

militaries are the biggest threat to the environmental welfare of the planet. . . . In the United States, hundreds of towns have been poisoned by the military; places such as Fernald, Ohio; Hanford, Washington; or Rocky Flats, Colorado, have become symbols not only of environmental catastrophe but of the flagrant abuses that derive from a hands-off military environmental policy.¹⁴¹

Seager adds that “the Canadian government, usually considered to be a bit player in global militarism, spends twelve times as much on the military as it does on the environment,”¹⁴² and contends that:

the price of military expansion everywhere in the world is environmental neglect, increasing social inequality, and deterioration in the daily quality of life for hundreds of thousands of people. . . . Militaries, multinationals, and governments are on an unrestrained global wilding spree, one that cannot be halted by a few new law-and-order regulations. Environmental regulations are necessary, but not sufficient, precisely because they leave intact the culture of institutions of destruction. Strategies for real environmental protection have to be rooted in understanding how race, gender, and class privilege are integral to the functioning of these institutions.¹⁴³

Aside from environmental degradation resulting from conflict or the preparation for conflict (military use of sonar, the diversion of funds from protecting the environment and rectifying environmental wrongs), conflict, violence, and war may also occur over environmental and natural resources (or may stem from the absence of certain resources) and may also be labeled ecocide. Williams, for example, notes that environmental problems have become “a source of conflict between nations or regions in relation to scarcity of essential resources such as water.”¹⁴⁴ In a similar vein, Polgreen reports that “environmental degradation and the symptoms of a warming planet are at the root of the Darfur crisis.”¹⁴⁵ Likewise, Pellow and Brulle suggest that increasing production of hazardous waste by the global North

has led to competition for global “pollution havens,” creating tensions between nations and exacerbating the threat of conflict.¹⁴⁶ And finally, many regard the current war in Iraq as a war for oil—a position that is frequently articulated with the chant “No Blood for Oil!” at antiwar marches.¹⁴⁷ Whether the United States undertook either the first or second war in Iraq for oil-related reasons is subject to considerable debate. But because of U.S. consumption of and infatuation with foreign oil, Friedman eloquently argues, “[o]ur military is in a war on terrorism in Iraq and Afghanistan with an enemy who is fueled by our gasoline purchases. So we are financing both sides in the war on terror.”¹⁴⁸ The particular target of Friedman’s vitriol is a “fuel price protection program,” whereby General Motors (GM) guaranteed a gasoline cap price of \$1.99/gallon for one year, with no limit on mileage, for residents of Florida and California who purchased certain gas-guzzling vehicles.¹⁴⁹ Friedman describes the actions taken by GM (its “fuel price protection program”) “[l]ike a crack dealer looking to keep his addicts on a tight leash”¹⁵⁰ and concludes that “[t]he more Hummers we have on the road in America, the more military Humvees we will need in the Middle East.”¹⁵¹

Friedman’s logic, appealing as it may be, is a bit reductive.¹⁵² But the notion that acts of war can occur because of a desire for natural resources (or because of the lack of certain natural resources) and can bring about destruction of ecosystems resonates with the socio-legal approach. None of the activities or practices described herein are proscribed by criminal or environmental legal regimes, but all cause “harm”—and arguably, greater harm than that generated by acts or omissions covered by various legal regimes.

In conclusion, MacNaughten and Urry claim that “[w]hat is viewed and criticised as unnatural or environmentally damaging in one era or one society is not necessarily viewed as such in another.”¹⁵³ But the reverse is also true: what is viewed as natural and undamaging in one era or one society or one level of society is not necessarily viewed as such in another.

The socio-legal approach tries to reveal instances in which this is the case. In addition, there is often an assumption, as articulated by the legal-procedural approach, that what is criminalized—what is deemed a harm by the criminal or legal regime—is somehow worse than those harms that are not. The socio-legal approach challenges this ranking system. As Lynch and Stretsky argue, we need to “redirect[] attention towards serious and widespread environmental harms that, even more than ordinary crimes, threaten human life and community”¹⁵⁴—harms like Hurricane Katrina and ecocide, discussed above, and animal abuse and cruelty, examined in the next subsection.

3. Animal Abuse and Cruelty Under the Socio-Legal Approach to Harm

On December 18, 2007, the Associated Press reported the following story:

Deputies made nearly two dozen arrests after breaking up a dogfighting operation, Sheriff Bob Buckley of Union Parish [Louisiana] said. Sheriff Buckley said that at least six units from his office and from the State Wildlife and Fisheries Office raided the operation about 1 p.m. Sunday in woods on private property about six miles southwest of Farmerville. “We took 12 vehicles, guns, and 11 dogs were seized,” Sheriff Buckley said. Some of the dogs were dead, he said. The dogs were taken to the Ouachita Parish animal shelter.¹⁵⁵

Because this story did not involve a high-profile professional athlete, it did not receive the same publicity as Michael Vick’s dogfighting case. But it likely became news because the activities described were particularly abusive kinds of crimes—socially unacceptable, intentional or deliberate, and unnecessary.¹⁵⁶ While much criminalized animal abuse¹⁵⁷ goes undetected, arguably, an even greater amount of animal abuse is entirely legal.¹⁵⁸ As such, Beirne argues that “precisely because so many human practices that are harmful to animals lie outside the scope of existing

criminal law the latter is far too narrow a basis for the study of animal abuse.”¹⁵⁹ Similarly, Halsey asserts “criminology should not be constrained by a strictly delimited field of analysis. Indeed, the vitality of the discipline depends on its capacity to subject to critique events and processes which, when viewed through one lens or another, are apt to attract the label ‘harm’ or a closely associated term.”¹⁶⁰ Likewise, Agnew declares: “I do not believe that criminologists should restrict their attention to criminal acts as legally defined. We should also call attention to and examine non-criminal acts which cause serious harm.”¹⁶¹

Agnew further fleshes out his rationale for investigating “non-criminal acts which cause serious harm” by explaining that “[w]hile many of the acts defined as abusive . . . are not criminal or even considered deviant by most people, all such acts harm animals, serious moral objections have been raised regarding these acts, and there is convincing evidence that such acts result in much collective harm to people.”¹⁶² Indeed, there has been extensive research finding that animal abuse and cruelty may serve as a signifier of actual or potential interhuman conflict, especially domestic violence¹⁶³—partner abuse,¹⁶⁴ child physical abuse,¹⁶⁵ child sexual abuse,¹⁶⁶ and sibling abuse.¹⁶⁷ Other research has looked retrospectively at adult mass murderers and serial killers such as Jeffrey Dahmer, Dennis Rader, Lee Boyd Malvo, and Columbine High School students Eric Harris and Dylan Klebold and discovered that many had engaged in animal abuse and cruelty earlier in life.¹⁶⁸

Agnew’s perspective that noncriminal acts perpetrated on animals may cause serious harm and thus merit criminological inquiry echoes the socio-legal approach. But his rationale is that such noncriminal animal-directed abuse may lead to human-directed crime—or acts that fall under the legal-procedural approach. Furthermore, while the socio-legal approach includes acts or omissions that may not constitute a violation of an existing form of law but which result in, or possess the potential to result in, environmental and human harm, many in the environmental justice movement regard the

caring for animals as a luxury and animal welfare or animal rights issues as secondary to those environmental matters affecting human health and safety.¹⁶⁹

The notion that environmental justice cannot encompass caring for animals and must restrict itself to matters affecting human health and safety is unfortunate. This is not to suggest that matters pertaining to animal abuse and cruelty should take a more privileged or even an equal place with respect to those environmental issues pertaining to human morbidity and mortality. I simply wish to point out that if a form of noncriminal environmental harm (animal abuse and cruelty) begets human-directed crime such as domestic violence and murder,¹⁷⁰ the likelihood that such noncriminal environmental harm will precipitate the type of noncriminal environmental harms that do concern environmental justice advocates seems high. As Cartmill writes (albeit in a different context):

The line that our culture draws between people and beasts is a moral as well as a conceptual boundary. More precisely, it is the moral boundary: the borderline dividing persons from property, the line that separates responsible agents with rights and duties from more or less neutral stuff that can be made into soap and lampshades. . . . Because the animal-human boundary is the boundary of the moral universe, the stories that we tell about human origins, even if they are true stories, are myths; and the general point of those stories is explaining—and legitimating—human control and domination of nature.¹⁷¹

By extension, elevating human-oriented environmentally criminal and noncriminal harmful acts above animal-oriented environmentally criminal and noncriminal acts, assuming such divisions are always clear,¹⁷² simply serves to endorse “human control and domination over nature.” And human control and domination over nature does not distinguish between those activities and practices (both environmentally criminal and noncriminal) that result primarily in harm to humans and those that result primarily in harm to animals. Under this formulation, then, noncriminal acts which

cause serious harm to animals—and which result in “much collective harm to people”—should be considered examples of the socio-legal approach. That being said, many argue that animal abuse and cruelty should be investigated (and reduced or eliminated) in its own right, irrespective of the impact on humans. The following section considers this attitude by examining responses to “non-criminal acts which cause serious harm,” in many instances, to animals—acts that are, in most instances, criminal under the legal-procedural approach.

D. Responses to “Legal Harms” and “Crimes” in the Name of the Environment: Ecodefense, Ecotage, and Monkeywrenching

Recognizing that a wide range of legal acts or omissions (i.e., practices that may not constitute a violation of an existing form of law) on the part of individuals and corporations result in, or possess the potential to result in, environmental and human harm, some individuals, often working in cell-like groups, have taken upon themselves to call attention to and/or stop these activities. Such responses to “legal harms,” directed at farmers, scientists, foresters, universities, housing developers, business owners,¹⁷³ and “anyone who is destroying the environment for the sake of profit,”¹⁷⁴ include a wide range of civil disobedience and direct action that are frequently considered crimes or criminal under the legal-procedural approach: firebombing, defacing, or slashing the tires of SUVs; vandalizing business walls and windows with glass-etching cream and spray-paint; damaging construction equipment used for housing developments or mega-stores; burning buildings (such as laboratories, horse corrals, and unoccupied housing developments); tree-spiking (placing spikes in trees to fend off loggers’ chainsaws); “net-ripping” (which, similar to tree-spiking, involves dumping into the ocean tons of steel I-beams welded together to form large spikes that destroy bottom-trawling nets); blocking access to forest land that would otherwise be logged; disrupting hunts or otherwise preventing recreational hunters from hunting; sabotaging research or

facilities using animal-testing techniques; and liberating or removing animals from fur farms or laboratories and industries that conduct animal-based research.¹⁷⁵ Broadly speaking, all of these actions are undertaken for the sake of environmental protection or in the name of the environment. But the reasons and rationales for specific actions vary. And while the actions are often intended to and can stand on their own, these reasons and rationales for specific acts may become clear only through a communiqué issued by the activists or an individual serving as a spokesperson for the activists.¹⁷⁶

To illustrate the range of goals and purposes for such responses to “legal harms,” consider, for example, the Sea Shepherd Conservation Society (Sea Shepherd), an international marine wildlife conservation nonprofit organization, which states that its

mission is to end the destruction of habitat and slaughter of wildlife in the world’s oceans in order to conserve and protect ecosystems and species. Sea Shepherd uses innovative direct-action tactics to investigate, document, and take action when necessary to expose and confront illegal activities on the high seas. By safeguarding the biodiversity of our delicately-balanced ocean ecosystems, Sea Shepherd works to ensure their survival for future generations.¹⁷⁷

Engaging in “coercive conservation,” Sea Shepherd uses its ships¹⁷⁸ to ram whaling, sealing, and fishing vessels on the seas¹⁷⁹—actions intended to stop these particular activities, but also to protest the 1982 United Nations Convention on the Law of the Sea¹⁸⁰ and the ineffectiveness of the International Whaling Commission to manage the world’s whale fisheries¹⁸¹ and to call attention to illegal fishing, violations of international conservation law, and the overall extirpation of aquatic species.¹⁸²

On land, the Earth Liberation Front (ELF)¹⁸³ conducts its activities in order to stop certain environmentally destructive practices from transpiring or from continuing to transpire, to inflict economic damage on those profiting from the exploitation of the natural environment as symbolic

gestures to express outrage at the destruction of the planet, or to further pedagogical purposes—to reveal, educate, and inform the public about various individual and corporate practices that have adverse environmental effects.¹⁸⁴ Similarly, the Animal Liberation Front (ALF), an anonymous, leaderless, cell organization that often works in conjunction with ELF,¹⁸⁵ “carries out direct action against animal abuse in the form of rescuing animals and causing financial loss to animal exploiters, usually through the damage and destruction of property.”¹⁸⁶ ALF’s expressed guidelines are:

1. To liberate animals from places of abuse, i.e., laboratories, factory farms, fur farms, etc., and place them in good homes where they may live out their natural lives, free from suffering.
2. To inflict economic damage to those who profit from the misery and exploitation of animals.
3. To reveal the horror and atrocities committed against animals behind locked doors, by performing non-violent direct actions and liberations.
4. To take all necessary precautions against harming any animal, human and non-human.
5. To analyze the ramifications of all proposed actions, and never apply generalizations when specific information is available.¹⁸⁷

According to ALF, its “short-term aim is to save as many animals as possible and directly disrupt the practice of animal abuse. [Its] long term aim is to end all animal suffering by forcing animal abuse companies out of business.”¹⁸⁸

Just as the range of actions and reasons and rationales for such actions vary, so, too, do the terms used to refer to them. “Ecodefense,” “ecotage” (or “eco-sabotage”), “monkeywrenching,” “ecoterrorism,” and “environmental terrorism” have all been used somewhat interchangeably as descriptive terminology,¹⁸⁹ depending on the perspective of the individual or individuals discussing them. While eco-defense and monkeywrenching (and, to a lesser extent, ecotage) are generally used by those supporting or

participating in such activities,¹⁹⁰ ecoterrorism and environmental terrorism are more frequently employed by opponents of such methods and means.¹⁹¹ Using the word *terrorism* to refer to actions taken in the name of the Earth and for the sake of environmental protection—something that is usually done by government officials and corporate officers¹⁹²—is unfortunate and exceedingly and, arguably, intentionally misleading: it conflates actions taken to thwart environmental destruction—actions that have never resulted in human injury or death¹⁹³—with those acts that use the environment as a tool for indiscriminate violence or threatened violence to large numbers of innocent civilians for the purpose of causing disruption, panic, harm and death.¹⁹⁴ As Mancuso-Smith delineates:

Although the immediate target is the environment, the motivation behind an environmental terrorist attack mirrors that of the geopolitical or ideological terrorist group. The threat of tampering with a food or water supply or the release of nuclear material or biological weapons is made to create fear and economic hardship that would result in affected populations and to gain support for the terrorist's cause through their success. Unlike an eco-terrorist . . . the environmental terrorist is not concerned with a need to protect the environment or raise awareness of environmental issues. For the environmental terrorist, the environment is targeted simply because of the human impact resulting from its tampering or destruction. . . .

Eco-terrorism . . . is often confused with or mislabeled as environmental terrorism. The interchange of terms occurs primarily because the natural environment features prominently in each and the organizational structure of the participating groups is often similar. . . . With environmental terrorism, the natural resource itself is attacked because of the fear, panic, and impact on the human population resulting from its destruction or tampering. With eco-terrorism, the immediate focus is not on the natural resource but rather on a physical or manmade structure such as a dam, house or construction equipment, destroyed in order to deter or cause economic harm to those entities whom the group identified as enemies of the environment.¹⁹⁵

Accordingly, advocates and scholars of eco-defense, ecotage, and monkeywrenching have argued against the application of the term *ecoterrorism*¹⁹⁶ when discussing actions intended to stop government or corporate operations that damage the environment. Mancuso-Smith, for example, proposes keeping the term *environmental terrorism* to refer to “true” terrorism and replacing ecoterrorism with “eco-vandalism” or “eco-sabotage” to indicate violent tactics by radical environmentalists.¹⁹⁷ Some have even tried to invert the word *ecoterrorism* to apply to “the terror and destruction inflicted on the natural environment by industry.”¹⁹⁸ But law and policymakers have capitalized on fears of terrorism stirred by the Oklahoma City bombings and September 11¹⁹⁹ and have won the battle of discourse: the word *terrorism* continues to be used broadly to refer to both actions taken to curb environmental destruction and those that use the environment as a tool to cause human harm and death, and the word *ecoterrorism* now appears in various pieces of federal and state legislation and proposed legislation.

Examples at the federal level include the Animal Enterprise Terrorism Act,²⁰⁰ as well as the Environmental Terrorism Reduction Act.²⁰¹ At the state level, a number of states have passed ecoterrorism legislation based on model legislation (the Animal and Ecological Terrorism Act) crafted by a coalition formed between the U.S. Sportsmen’s Alliance and the American Legislative Exchange Council.²⁰² For instance, on April 14, 2006, Governor Edward G. Rendell (D-PA) signed H.B. 213, referred to as an “ecoterrorism bill,” which provides that an individual is guilty of ecoterrorism if that person commits a number of “specified offenses against property” with the intent to intimidate or coerce another individual lawfully participating in an activity which involves animals, plants, or natural resources, or the use of an animal, plant, or natural resource facility, or by committing a specified offense against property with the intent to prevent a person from lawfully participating in an activity involving animals, plants, or natural resources, or using an animal, plant, or natural resource

facility.²⁰³ The penalty for committing ecoterrorism in Pennsylvania is one degree higher than it would be otherwise.²⁰⁴ Other states inspired by the Animal and Ecological Terrorism Act include Arizona, Hawaii, Kansas, Missouri, New York, Ohio, Oklahoma, South Carolina, Texas, and Washington.²⁰⁵

In conclusion, measures taken to address or combat eco-defense/ecotage/monkeywrenching—what this article has referred to as responses to “legal harms” or crimes in the name of the environment—and what are mislabeled with the moniker “terrorism,” represent an interesting dynamic in the relationship between crime and the environment, as well as in the legal-procedural approach versus the socio-legal approach to environmental justice. As a response to legal harms, some individuals commit actions that constitute crimes in the sense of being unauthorized acts or omissions that violate the law. Those who enact these responses to legal harms often regard their activities as “necessary” to stop “the rape of the land.”²⁰⁶ For them, statutes alone can never fully address the threats to the environment or repair the destruction committed²⁰⁷ and a “focus on justice and redress through the existing legal system may actually reinforce the very institutional relations that create and maintain environmental injustice.”²⁰⁸

As Sea Shephard’s Watson writes:

In anthropocentric society, a harsh judgment is given to those that destroy or seek to destroy the creations of humanity. Monkeywrench a bulldozer and they will call you a vandal. Spike a tree and they will call you a terrorist. Liberate a coyote from a trap and they will call you a thief. Yet if a human destroys the wonders of creation, the beauty of the natural world, then anthropocentric society calls such people loggers, miners, developers, engineers, and businessmen.²⁰⁹

The “real terrorism,” individuals such as Watson argue, is committed by governments and industries that obliterate ecosystems and annihilate species. Governments, in turn, respond to these responses to legal harms by imposing harsher penalties²¹⁰—sanctions that Gillespie might consider

“organized state violence in the name of ‘law and order.’”²¹¹ Both sides are locked in a race to the bottom where aggressive measures are met with more aggressive measures. All the while, legal harms continue.

But harm is not the only arena in which crime and the environment interact. The next section turns away from definitional questions of harm, the presence or absence of legal regimes, and situations created by the presence or absence of legal regimes. Instead, it explores causal and spatial issues pertaining to the impact of the physical and natural environment on crime, as well as the effect of the fear of crime in the environment and the fear of crime in general on attitudes towards and interactions with physical and natural environments.

E. Spatial and Situational Linkages Between Environment, Crime, and Fear of Crime

1. Environmental Criminology, Crime Prevention Through Environmental Design, and the Impact of the Environment on Crime

In previous sections of this article, I used the phrase, “the relationship of crime to the environment” mostly to mean the relationship between crime and the natural environment. Thus, these sections contemplated harms, however conceived, to air, water, soil, forests, and animals. This section employs the word *environment* in a slightly different manner to mean “surroundings” or “surrounding conditions” that influence or modify. Although these surroundings or surrounding conditions include the natural environment, they also include the physical or built environment, as well as variable aspects of a location or site, such as its design, use, or the management of the space.²¹² *Environmental*, then, becomes an adjective synonymous with “situational” or “circumstantial” or “incidental.”

In most articulations, environmental criminology reflects this latter use of the term *environmental*, referring to the study of spatial aspects of crime, such as where, when, and how offenses take place,²¹³ whether and how the presence or absence of opportunity affects when and where criminal events

occur;²¹⁴ and how far offenders travel to offend.²¹⁵ This concept of environmental criminology is not entirely uniform²¹⁶ or uncontested,²¹⁷ but in general, environmental criminology posits that offenders and potential offenders consider situational features or cues to the perceived risk of being caught and adapt their behavior based on the opportunities and risks provided by each setting. Thus, for example, Michael, Hull, and Zahm's case study of auto burglary in Washington, D.C., parks examines the relationship between urban park settings and auto burglary, considering how "the commission of a crime is a process that follows a pattern, or script"²¹⁸ and indentifying a sequence of behaviors, discernible in the commission of auto burglary. The behaviors are organized as seven acts: (1) the *select act* of auto burglary (when offenders identify target vehicles);²¹⁹ (2) the *approach act* (when offenders approach the target for further selecting and/or to begin gaining entry);²²⁰ (3) the *perpetrate act* (techniques used to break into cars);²²¹ (4) the *escape act* (when the offender leaves the target and moves to a place where he can examine, discard, or cache goods);²²² (5) the *examine act* (when the offender examines and sorts the stolen goods soon after perpetration and escape);²²³ (6) the *discard act* (when the offender casts off useless and problematic proceeds from the theft);²²⁴ and (7) the *cache act* (when the offender stows stolen items).²²⁵ They conclude that environmental factors influence opportunities for auto burglary, such as how a park is patrolled, what "uses" surround a park, and how a park is accessed (by paths or by parking lots)²²⁶ and that such criminal behavior is rational—a product of knowledge and information allowing the offender or potential offender to weigh the costs and benefits of offending at a particular place at a specific moment in time—rather than random.²²⁷

As a corollary to environmental criminology, crime prevention through environmental design (CPTED) focuses on developing strategies that influence offenders' and potential offenders' calculus in deciding whether to commit particular criminal acts.²²⁸ CPTED strategies include: (1) "target

hardening”—measures that increase the effort it takes to commit a crime, such as the installation of bars on residential or business windows, shatter-proof glass for windows in the case of auto burglary, fences, automobile and home alarms, and electronic or tamper-proof locks; (2) improvements to the physical structures of built space, such as limiting access to sites, reducing the interconnections between building, and emphasizing the distinction between public and private space—all of which control the flow of individuals into and out of a space; and (3) steps to increase the risk of detection and apprehension, such as security cameras and closed-circuit TV monitoring, alarms, natural surveillance (additional lighting), and formal surveillance (security guards or police patrol).²²⁹

One particularly interesting and noteworthy issue within environmental criminology and CPTED research concerns parks and outdoor spaces and the role of vegetation—research that has produced some conflicting results. For example, Michael, Hull, and Zahm remark that “parks have the potential to be important activity nodes and therefore crime locations because they serve as gathering places and pathways between daily activities and provide recreation”²³⁰ and note that vegetation can provide concealment during the “select act,” allowing offenders and potential offenders to inconspicuously observe victims and potential victims, as well as providing locations for offenders to discard useless and problematic proceeds from the theft.²³¹ As such, some in law enforcement argue for less vegetation as a means of reducing criminal activity.²³²

But researchers at the Human-Environment Research Laboratory at the University of Illinois–Urbana-Champaign have reached somewhat different conclusions, finding that everyday, unspectacular green spaces (such as high-canopy trees, low shrubs, and grassy areas) can attract people outside, positively affecting mood and attitudes, increasing and improving social encounters among neighbors and subsequently fostering higher levels of social cohesion in the community, decreasing domestic violence, and reducing crime.²³³ Thus, while parks may present offenders and potential

offenders with criminal opportunities arising out of routine activities and, while vegetation may assist their routines,²³⁴ the loss of green spaces, plantings, and other vegetation can result in a reduction in site quality and other negative, crime-related consequences,²³⁵ thereby complicating the impact of the environment (in both senses: surrounding conditions and natural) on crime.

2. The Impact of the Fear of Crime in and on the Environment

As noted in the previous subsection, parks and other outdoor spaces present offenders and potential offenders with criminal opportunities.²³⁶ While most of the criminal events perpetrated in parks occur in urban places, those that occur in national and state parks receive significant publicity,²³⁷ leading many to fear nature and avoid spending time in such spaces.²³⁸ According to Richard Louv, author of *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*:

Stranger danger isn't the only reason families draw the boundaries of children's life tighter. Children and adults are even beginning to see nature as our natural enemy—a bogeyman, a stand-in for other, less identifiable reasons for fear . . .

A few years ago, a motel handyman confessed to the FBI that he killed three Yosemite sightseers just outside the national park, and later decapitated a naturalist in the park. Other recent stories may have jarred Americans' confidence in the outdoors. In Washington's Olympic National Park in 1998, there were eighty-two break-ins, forty-seven cases of vandalism, sixty-four incidents involving drug and alcohol abuse, one sexual assault, and one aggravated assault with a weapon. The park's rangers now carry semi-automatic weapons. Also in 1998, in the Great Smoky Mountains, a deranged landscaper who enjoyed singing gospel music shot and killed National Park Service ranger Joe Kolodski. Elsewhere, two park rangers were shot, one fatally, in Oregon's Oswald West State Park.

Movies tap into this fear. The 1930s Wolfman seems mild compared with the terror exploited in the lengthening string of

summer-camp slasher films or *The Blair Witch Project*, a horror movie set in the forest.²³⁹

Louv argues that this “nature fear”²⁴⁰—this fear *of the* environment and fear of crime *in the* environment—has proven corrosive. By associating nature with crime and fear, parents, and subsequently their children, have little direct contact with the outdoors.²⁴¹ Consequently, not only are they unable to receive the many benefits of such experiences,²⁴² but they fail to form bonds with outdoor green spaces and places. The end result may be that such individuals fail to act in environmentally benevolent or beneficent ways, causing harms under either the legal-procedural approach, the socio-legal approach, or both. These individuals, overwhelmed by fear and suffering from “nature deficit disorder,” may find themselves unable to forge relationships with others and develop a sense of community. Louv warns that:

as more parents keep their children inside the house or under rigid control, youngsters will be deprived of chances to become self-confident and discerning, to interact with neighbors, or to learn how to build real community—which is one defense against sociopaths

Parents may now buy a cheerfully colored, three-ounce bracelet called the global positioning system (GPS) personal locator, and lock it on their child’s wrist. If the water-resistant bracelet is cut or forcefully removed, its continuous signal activates an alarm and notifies the manufacturer’s emergency operators. At least at first glance, resistance to global personal tracking seems not only futile but also selfish—because we love our children and want to protect them. But guaranteed safety, or the illusion of it, can only be bought at a dangerous price. Imagine future generations of children who have been raised to accept the inevitability of being electronically tracked every day, every second, in every room of their lives, in the un-brave new world. Such technology may work in the short run, but it may also create a false sense of security and serve as a poor substitute for the proven antidotes to crime: an

active community, more human eyes on the streets, and self-confident children.²⁴³

In addition to fear of crime in the environment, individuals may possess a more generalized fear of crime.²⁴⁴ The fear of crime leads to the “flight from blight” and the unlimited outward expansion of cities.²⁴⁵ Those living in the suburbs tend to drive more frequently (contributing to poor air quality—a type of legal harm),²⁴⁶ and often drive SUVs—legal harms on wheels (because of their poor fuel efficiency) that prey on individuals’ fear of violence and crime.²⁴⁷ An unfortunate, albeit ironic, effect of this fear-induced fleeing to the edges of cities is that crime from urban areas may follow,

spill[ing] into the sea of public land that surrounds many of the fastest-growing cities in the Western United States. . . . [A]s cities like Reno; Denver; Phoenix; Tucson; Albuquerque; and Boise, Idaho; and smaller communities like Bend, Oregon, and Moab, Utah, grow at rates far beyond the national average, they bump against the public land that surround them, carrying urban crimes to open space.²⁴⁸

A subsequent effect, then, may be the very fear described by Louv above—the creation of a cycle between fear of crime and environmental harm.²⁴⁹

III. CONCLUSION

In *Power, Justice, and the Environment: A Critical Appraisal of the Environmental Justice Movement*, Pellow and Brulle, siding with both Faber²⁵⁰ and Mutz, Bryner, and Kenney,²⁵¹ argue that the environmental justice movement has not extended its reach broadly enough to combat both environmental degradation and social inequalities.²⁵² Disagreeing with Foreman’s contention that environmental justice advocates and scholars have spread the movement too thin by considering and engaging with issues only tangentially related to environmental and social justice concerns,²⁵³ Pellow and Brulle suggest a number of directions for researchers of

environmental justice, including: (1) continued documentation of the range of problems facing communities of color coupled with “a stronger move toward a solution orientation”,²⁵⁴ (2) stronger social class analyses of environmental injustices;²⁵⁵ (3) efforts to forge connections between environmental justice research and other disciplines “in order to build the field and produce advances in theory. . . . [and] to engage in a conversation across disciplines that redefines the way those disciplines approach questions concerning not only the environment but also race/ethnicity, class, gender, and nation”,²⁵⁶ and (4) exploration of innovative methodological approaches to create new knowledge.²⁵⁷

Pellow and Brulle’s third recommendation—their appeal for conversation and work across disciplines—is echoed by criminologists such as White, who acknowledges “that investigation of environmental harm requires analysis which is wide-ranging and multi-disciplinary, and which is sensitive to the inter-connectedness of social and ecological phenomena.”²⁵⁸

Likewise, South maintains that:

Criminology must recognize the finite nature of the earth’s resources and how this fits with global and socio-economic trends which have profound implications for the social sciences. A criminology relevant to the next century should have the intellectual breadth and constitutional space to be able to embrace environmental, human and animal rights issues as related projects....

....

Green issues open up a wide range of possibilities for interdisciplinary work, both within the social sciences and with disciplines in the natural sciences offering the potential for collaboration between criminologists and economists, geographers, biologists, health specialists, human rights workers, lawyers and others.²⁵⁹

This article has attempted to respond to the calls from both realms and to open the lines of communication between researchers in these diverse areas

by highlighting some of the myriad relationships between crime and the environment. While previous efforts have articulated environmental justice concerns with issues of crime,²⁶⁰ more work is needed in this area. As Faber and McCarthy advise in *Green of Another Color: Building Effective Partnerships between Foundations and the Environmental Justice Movement*—a report by the Philanthropy and Environmental Justice Research Project at Northeastern University:

Environmental grantmakers and other foundations can play an instrumental role in facilitating the transformation of green politics in America by funding those organizations championing the sorts of fundamental social and institutional changes needed to address the ecological crisis. However, if foundations and the environmental movement continue to conceive of the ecological crisis as a collection of unrelated problems, and if the reigning paradigm is defined in neo-liberalist terms, then it is possible that some combination of regulations, incentives, and technical innovations can keep pollution and resource destruction at “tolerable” levels for many people of higher socio-economic status. However, poorer working class communities and people of color which lack the political-economic resources to defend themselves will continue to suffer the worst abuses. If, however, the interdependency of issues is emphasized, as in the environmental justice movement, so that environmental devastation, ecological racism, poverty, crime, and social despair are all seen as aspects of a multi-dimensional web rooted in a larger structural crisis, then a transformative ecology movement can be invented. This is the aim of environmental justice activism, and foundations need to better assist the movement in achieving this goal.²⁶¹

Thus, future explorations of the relationships between crime and the environment should continue to reveal their intricate networks. Furthermore, such investigations should show that crime and the environment are sufficiently intertwined as to bolster environmental justice as it confronts increasing levels of social inequality. Research along these

lines may also contribute to the foundation of environmental justice. Indeed, it must. For as Van Jones, board president and co-founder of the Ella Baker Center for Human Rights in Oakland, California, pleads, “If we want to have a broad-based environmental movement, we need more entry points.”²⁶² By allowing more individuals to view their work as environmental justice, thereby providing for new avenues of cooperation and collaboration, crime-environment relationships can do just that.

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² See, e.g., Richard Hofrichter, *Introduction* to TOXIC STRUGGLES: THE THEORY AND PRACTICE OF ENVIRONMENTAL JUSTICE 1, 9 (Richard Hofrichter ed., 1993) (“No settled definition of environmental justice can adequately capture its many dimensions.”); Avi Brisman, *Toward a More Elaborate Typology of Environmental Values: Liberalizing Criminal Disenfranchisement Laws and Policies*, 33 NEW ENG. J. ON CRIM. & CIV. CONFINEMENT 283, 370 n.439 (2007) [hereinafter Brisman, *Values*] (“Numerous definitions and descriptions have been offered for the concept ‘environmental justice.’”); Miranda Welbourne, *The Environmental Justice Movement’s Response to Hurricane Katrina, A Critique: Problems Faced, Successes, Failures, and the State of the Movement One Year Later*, 32 T. MARSHALL L. REV. 125, 128 (2006) (“‘Environmental Justice’ is a recently developed concept that does not have one clear definition.”); see also Michael Fisher, *Environmental Racism Claims Brought Under Title VI of the Civil Rights Act*, 25 ENVTL. L. 285, 289–91 (1995) (discussing the different definitions of environmental justice, environmental racism, and environmental equity).

³ This definition was promulgated in 1991 at The People of Color Environmental Leadership Summit in its document, *Principles of Environmental Justice*. ENVTL. JUSTICE RES. CTR., PRINCIPLES OF ENVIRONMENTAL JUSTICE (1991), available at <http://www.ejnet.org/ej/principles.pdf>.

⁴ Beverly Gard et al., *Law for Healthy Homes*, 35 J.L. MED. & ETHICS (Special Supp. to Vol. 35, Issue 4) 43, 44 (Briana Grovhoug Kennedy ed., 2007) (remarks by Priscilla D. Keith at the Public’s Health and the Law in the 21st Century: Fifth Annual Partnership Conference); see also Avi Brisman, *EPA’s Disproportionate Impact Methodologies—*

RBA and COATCEM—and the Draft Recipient Guidance and Draft Revised Investigation Guidance in Light of Alexander v. Sandoval, 34 CONN. L. REV. 1065, 1107 n.19 (2002) (“[T]he fair treatment and meaningful involvement of all people regardless of race, ethnicity, income, national origin or educational level with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no population, due to policy or economic disempowerment, is forced to bear a disproportionate burden of the negative human health or environmental impacts of pollution or other environmental consequences resulting from industrial, municipal, and commercial operations of federal, state, local and tribal programs and policies.” (quoting COMM. ON ENVTL. JUSTICE, INST. OF MED., TOWARD ENVIRONMENTAL JUSTICE: RESEARCH, EDUCATION, AND HEALTH POLICY NEEDS 1 (1999))) [hereinafter Brisman, *Methodologies*]; Dorceta E. Taylor, *The Rise of the Environmental Justice Paradigm*, 43 AM. BEHAV. SCIENTIST 508, 511–17, 523 (2000) (discussing environment, injustice, and “collective action frames,” as well as the range of issues and problems that environmental justice organizations work on and their priorities with respect to these issues and problems, highlighting that the environmental justice movement “examines how discrimination results in humans harming each other, how racial minorities bear the brunt of the discrimination, and how discriminatory practices hasten the degradation of environments.”).

Note that within the last few years, the EPA has considered changing its definition of “environmental justice.” See Urban Habitat, Race, Class, and the EPA’s Environmental Justice Strategic Plan, <http://urbanhabitat.org/epa> (last visited Mar. 28, 2008); see also Welbourne, *supra* note 2, at 128.

For a criticism of the concept of environmental justice, see Mark Halsey, *Against ‘Green’ Criminology*, 44 BRIT. J. CRIMINOLOGY 833, 844 (2004) (“What is called ‘environmental justice’ will be as susceptible to the forces of social, symbolic and rhetorical competition as those impacting the meaning(s) of environmental crime/harm. Justice, to be clear, is never pure or unadulterated.”) [hereinafter Halsey, *Green Criminology*].

⁵ Michael J. Lynch & Paul P. Stretsky, *The Meaning of Green: Contrasting Criminological Perspectives*, 7 THEORETICAL CRIMINOLOGY 217, 222–23 (2003).

To illustrate, Lynch and Stretsky offer three examples of environmental justice movements: *ecofeminism* (which asserts that the domination and exploitation of nature is related to the domination and exploitation of women, contends that patriarchal structures have produced and reproduced the exploitation of women and nature and are ultimately responsible for the impending ecological crises, and criticizes capitalist profit-growth orientations and their patriarchal nature); *the struggle against environmental racism* (which seeks to eliminate racial discrimination in environmental decisions, actions, and policies, attempts to connect issues of distributive justice—e.g., how environmental hazards are distributed across diverse races—to issues of productive justice (what and how things are produced), and whose primary concerns include equality in environmental regulation enforcement, the siting of polluting industries and waste sites, and the elimination of products and production processes that largely affect communities of color); and *red-green movements* (which connects economic oppression to environmental degradation by asserting that capitalism exploits both working class labor and

environments, by criticizing the phenomenon whereby workers have been removed from decisions regarding how things are produced and related forms of environmental damage, and by contending that the battle over a sustainable environment is as much a class struggle as an ecological one). *Id.* at 223–25.

For an additional perspective on ecofeminism, see, for example, Pauline Lane, *Ecofeminism Meets Criminology*, 2 THEORETICAL CRIMINOLOGY 235, 236–40 (1998) (noting the ecofeminist perspective of the clear link between the domination of nature and the domination of women and the “new environmental or ecofeminist ethic that challenges the oppression and domination of women and nature”) (citations omitted).

See, e.g., Fisher, *supra* note 2, at 289 (explaining that, in contrast to environmental justice, *environmental racism* is defined as “racial discrimination in environmental policy making and the unequal enforcement of environmental laws and regulations. It is the deliberate targeting of people of color communities for toxic waste facilities and the official sanctioning of life-threatening presence of poisons and pollutants in people of color communities.” (citing *Environmental Racism: Hearing before the H. Subcomm. on Civil and Constitutional Rights*, 103d Cong. (1993) (testimony of Benjamin F. Chavis, Jr.))).

For additional perspectives on the relationship between capitalism and environmental degradation, which undergirds the red-green movement, see, for example, Hofrichter, *supra* note 2, at 5 (“Because achieving environmental justice demands major restructuring of the entire social order, a beginning point for considering basic change is a challenge to absolute property rights and the logic of industrial capitalism’s emphasis on growth without limit.”); David Naguib Pellow & Robert J. Brulle, *Power, Justice, and the Environment: Toward Critical Environmental Justice Studies*, in POWER, JUSTICE, AND THE ENVIRONMENT: A CRITICAL APPRAISAL OF THE ENVIRONMENTAL JUSTICE MOVEMENT 1, 4 (David Naguib Pellow & Robert J. Brulle eds., 2005) [hereinafter Pellow & Brulle, *Power*] (“[T]he capitalist economy forms a ‘treadmill of production’ that continues to create ecological problems through a self-reinforcing mechanism of ever more production and consumption.”); Ted Benton, *Rights and Justice on a Shared Planet: More Rights or New Relations?*, 2 THEORETICAL CRIMINOLOGY 149, 169 (1998) (“[T]here can be little doubt that modern capitalism . . . profoundly exacerbates and intensifies the harmful consequences of [antagonistic] dispositions.”); Michael J. Lynch, *The Greening of Criminology: A Perspective on the 1990s*, 2 CRITICAL CRIMINOLOGIST 3, 3–4, 11–12 (1990) (arguing that “powerful groups . . . manipulate and use race, class, gender and the environment to preserve the basis of their power” and that “conservation, social responsibility, humanism, anti-individualism . . . are, at some level, in opposition to the ideological foundation of capitalism,” and stressing the need “to discover the pervasive political and economic powers that negatively affect all life on this planet each and every day”); Frank Pearce & Steve Tombs, *Ideology, Hegemony and Empiricism: Compliance Theories of Regulation*, 30 BRIT. J. CRIMINOLOGY 423, 423–43 (1990) (describing the fundamental contradiction between the social goal of conserving natural resources and protecting the environment and the corporate goal of maximizing profits); Paul D. Raskin & Stephen S. Bernow, *Ecology and Marxism: Are Green and Red Complementary?*, 4 RETHINKING MARXISM 87, 87–103; BRIAN S. TURNER, MEDICAL POWER AND SOCIAL KNOWLEDGE 209 (2d ed. 1995) (“[A] Marxist medical sociology

argues that the prevalence and shape of sickness in contemporary society is largely an effect of the exploitative character of capitalist production. Just as capitalism is associated with the destruction of the environment through exploitative systems of production, so capitalism is associated with the production of illness through the exploitation of labour.”); Rob White, *Environmental Issues and the Criminological Imagination*, 7 THEORETICAL CRIMINOLOGY 483, 486, 501 (2004) [hereinafter White, *Imagination*] (viewing the political struggle and the contest over class power as central to any discussion of environmental issues); Verlyn Klinkenborg, *Millions of Missing Birds, Vanishing in Plain Sight*, N.Y. TIMES, June 19, 2007, at A22 (“Environmentalists of every stripe argue that we must somehow begin to correlate our economic behavior—by which I mean every aspect of it: production, consumption, habitation—with the welfare of other species. This is the premise of sustainability. But the very foundation of our economic interests is self-interest, and in the survival of other species we see way too little self to care. The trouble with humans is that even the smallest changes in our behavior require an epiphany.”); cf. TOM ATHANASIOU, DIVIDED PLANET: THE ECOLOGY OF RICH AND POOR 134 (1996) (noting how the Soviet green movement fought against the communists in defense of nature preserves); MARK HALSEY, DELEUZE AND ENVIRONMENTAL DAMAGE 18–21 (2006) [hereinafter HALSEY, DELEUZE] (describing ecomarxist theory by stating that “[f]or ecomarxists the primary cause of environmental conflict is capitalism, or indeed any system based on exponential material growth and antagonistic class relations,” but critiquing ecomarxist conceptions of humanity, rationality, and the state); JOSEPH A. MILLER & R.M. MILLER, ECO-TERRORISM & ECO-EXTREMISM AGAINST AGRICULTURE 4 (2000) (“After learning of recent laws and how they have been enforced, individuals everywhere may begin to question if owning any type of property in the U.S. today is a wise investment. Especially since the abuses of environmental laws are so serious and surprisingly widespread. This elimination of privately owned property—towards all property being communally owned (such as in the case of the former Soviet Union)—is an often-stated goal of many eco-extremists.”).

⁶ White, *Imagination*, *supra* note 5, at 493–94.

⁷ Hofrichter, *supra* note 2, at 4.

⁸ *Id.*; see also Hofrichter, *supra* note 2, at 1 (“[A] culturally diverse grass-roots movement for environmental justice . . . include[s] social conditions that people experience everyday. [It is] making connections between undemocratic production and investment decisions, energy policies, international trade and lending policies, environmental effects of nuclear radiation and military power, and the inequities of race and class that affect the quality of their lives and the world in which they live.”); Lynch & Stretsky, *supra* note 5, at 234 n.2; Nigel South, *A Green Field for Criminology?: A Proposal for a Perspective*, 2 THEORETICAL CRIMINOLOGY 211, 217 (1998). See generally Carl Anthony, *The Environmental Justice Movement: An Activist’s Perspective*, in POWER, JUSTICE, AND THE ENVIRONMENT: A CRITICAL APPRAISAL OF THE ENVIRONMENTAL JUSTICE MOVEMENT, *supra* note 5, at 92 (contending that “the popular understanding of environmental justice is based on too narrow a view of ‘environment’ and too narrow a view of ‘justice’”); Benton, *supra* note 5, at 150 (“[M]uch of our contemporary environmental concern has become too detached from central questions about the nature of our society and its continuing injustices.”); BIOTIC BAKING BRIGADE,

PIE ANY MEANS NECESSARY: THE BIOTIC BAKING BRIGADE COOKBOOK vii (2004) (“[I]t’s impossible to have a healthy environment without social justice. Likewise, we can’t have a sustainable society without intact ecosystems. An objective observer cannot dispute that the global market has brought the planet to the brink of economic collapse and that the export oriented ‘free trade’ model has been devastating for people and the environment alike.”); Pellow & Brulle, *Power*, *supra* note 5 (“[E]xploitation of the environment and exploitation of human populations are linked.”); Joni Seager, *Creating a Culture of Destruction: Gender, Militarism, and the Environment*, in TOXIC STRUGGLES: THE THEORY AND PRACTICE OF ENVIRONMENTAL JUSTICE, *supra* note 2, at 62 (“Everywhere in the world social justice and environmental protection are inseparable.”).

⁹ South, *supra* note 8, at 220, 224.

¹⁰ For example, this article does not discuss a number of prison-environment relationships, such as how rural prison building taps the precious water reserves of poor, dry, sparsely populated western and southwestern counties in the United States. See SASHA ABRAMSKY, CONNED: HOW MILLIONS WENT TO PRISON, LOST THE VOTE, AND HELPED SEND GEORGE W. BUSH TO THE WHITE HOUSE 107 (2006); Sasha Abramsky, *Incarceration, Inc.*, THE NATION, July 19, 2004, available at <http://www.thenation.com/doc/20040719/abramsky>; see also Brisman, *Values*, *supra* note 2, at 392.

Nor does this article analyze the adverse environmental impact of overloaded and undermaintained prison and jail wastewater treatment systems. See John E. Dannenberg, *Prison Drinking Water and Wastewater Pollution Threaten Environmental Safety Nationwide*, LEGAL NEWS, Nov. 2007, available at <http://www.prisonlegalnews.org/displayArticle.aspx?articleid=19162&AspxAutoDetectCookieSupport=1> (providing an in-depth analysis of seventeen states whose prisons and jails are leaking environmentally dangerous effluents not just inside their facilities, but also into local rivers, water tables, and community water supplies).

For other adverse environmental impacts of prisons and prison building, see, for example, CRITICAL RESISTANCE, PRISONS: NEW FORMS OF ENVIRONMENTAL RACISM (2002), available at http://criticalresist.live.radicaldesigns.org/downloads/Prisons_EvrnRacism.pdf (contending that prisons are not “clean industries” and arguing that “[t]hey suck up scarce local resources such as water; they require towns to pay for roads, sewers [and] utilities; they generate tens of thousands of miles of commuting pollution, often in the most polluted parts of the state; they take irreplaceable land out of any productive use, wasting valuable public resources for nothing but holding people in cages.”); Halsey, *Green Criminology*, *supra* note 4, at 845 n.15 (“[P]olice vehicles are linked to the production of magnesium and other metals, as much as they are a means of transport or surveillance, and prisons—in so far as they require multiple resources for their construction and day-to-day operation—are as much a drain on the earth’s ecology as they are places for incapacitation or rehabilitation”); see also Brisman, *Values*, *supra* note 2, at 392. But see *Georgia: Water Cutbacks*, N.Y. TIMES, Oct. 25, 2007, at A18 (reporting Governor Sonny Perdue’s order for state inmates to take shorter showers as a conservation measure to reduce water use).

Finally, this article also does not explore what might be referred to as “the environment as punishment”—the oppressive and cruel “penal farms” that predate contemporary private prisons. See, e.g., DAVID M. OSHINSKY, “WORSE THAN

SLAVERY”: PARCHMAN FARM AND THE ORDEAL OF JIM CROW JUSTICE (1997); cf. James Inciardi et al., *Drug Control and the Courts*, at 23–24 (Drugs, Health, and Social Policy Series vol. 3, 1996).

For various perspectives on some of the less harsh and more constructive environment-related interactions that current prisoners have had—involvement that has proven beneficial to both the environment and to the prisoners—see, for example, GREG BERMAN & JOHN FEINBLATT, GOOD COURTS: THE CASE FOR PROBLEM-SOLVING JUSTICE 83 (2005) (discussing community court sanctions in which supervised offender work crews perform yard work for residents over age sixty and on fixed incomes (citing Sam Oliver, *Yard Work Program Sows the Seeds of Good Neighborhoods*, COMMUNITY CT. REP. (Multnomah County Community Court Project, Portland, Or.), July 2001, at 1); Avi Brisman, *Fair Fare?: Food as Contested Terrain in U.S. Prisons and Jails*, 15 GEO. J. ON POVERTY L. & POL’Y (forthcoming 2008) (describing the insect “farming” program at the Seminole County Correctional Facility in Florida, where inmates raise “beneficial bugs” that reduce the need for chemical pesticides and fight invasive pets, as well as programs in correctional facilities in Connecticut, Georgia, and Indiana where inmates grind, mix, monitor and turn compost, reduce organic loading (nitrogen and BOD—biochemical (biological) oxygen demand), and produce better landscaping through compost application (citing Nancy Allen, *Composting Food Scraps at Georgia Prison*, BIOCYCLE, Apr. 1994, at 90, 90; *Waste Wood, Food Rejects Make Great Combo at County/State Prison Site*, BIOCYCLE, July 2001, at 19, 19; Dave Block, *Composting Prison Food Residuals*, BIOCYCLE, Aug. 1997, at 37, 37–39; Chuck Woods, *Seminole County Inmates Raise “Beneficial Bugs” for UF and USDA Researchers*, UNIV. FLA. NEWS, Nov. 8, 2004, <http://news.ufl.edu/2004/11/08/prison-bigs/>; Chuck Woods, *Bailed Out by BUGS*, AM. VEGETABLE GROWER, Dec. 2005, available at <http://www.allbusiness.com/agriculture-forestry/crop-production-vegetable/978091-1.html>).

¹¹ Mark Halsey & Rob White, *Crime, Ecophilosophy and Environmental Harm*, 2 THEORETICAL CRIMINOLOGY 345, 345 (1998).

¹² *Id.* at 346.

¹³ *Id.* at 345–46. See generally Rob White, *Environmental Criminology and Sydney Water*, 10 CURRENT ISSUES CRIM. JUST. 214, 214 (1998) [hereinafter White, *Sydney Water*] (“[D]ifferent approaches and perspectives associated with the study of environmental harm . . . range from analyses which primarily focus on the law, as either a means of regulation or facilitation of environmental harm, through to those which challenge prevailing conceptions and definitions of ‘harm,’ often through reference to some notion of ecological rights.” (citation omitted)).

¹⁴ Halsey & White, *supra* note 11, at 346.

¹⁵ Note that by February 2008, all American medical schools will have ended the practice of operating on dogs to examine their beating hearts. See Nicholas Bakalar, *Killing Dogs In Training Of Doctors Is To End*, N.Y. TIMES, Jan. 1, 2008, at D5.

¹⁶ Lynch & Stretsky, *supra* note 5, at 218, 229. See generally Benton, *supra* note 5, at 166 (describing the “consequences of acts of commission or omission on the part of large private organizations—transport disasters, chemical plant explosions, the break-up of oil tankers and the like.”).

¹⁷ Lynch & Stretsky, *supra* note 5, at 229.

¹⁸ *Id.* at 227; *cf.* HALSEY, DELEUZE, *supra* note 5, at 42–56 (acknowledging the difference between environmental damage or environmental harm and environmental crime, and providing a good summary of Lynch and Stretsky’s corporate perspective and environmental justice view, but critiquing their failure to clarify their position regarding the role of the state and its relationship to strategies of environmental renewal, their alignment with Marxist notions of power, their dialectical view of society, and their deployment of the phrase “environmental justice”); Halsey, *Green Criminology*, *supra* note 4, at 833, 836, 843–45.

Lane, to offer another vantage point, critiques “traditional” environmental law on the grounds that

[e]nvironmental law (national and international) predominantly utilizes a modernist, utilitarian approach to nature that is anthropocentric (i.e. human centered). These laws have been based upon specific ‘readings’ of nature; predominantly through the disciplines of the ‘natural’ sciences and economics. Within this approach, nature is seen to be of instrumental value for humans; nature has few intrinsic rights (although some areas of the law, such as the preservation of endangered species, move beyond utilitarianism).

Lane, *supra* note 5, at 244.

Along the lines of both Halsey and White and Lynch and Stretsky, Lane declares:

As coalitions of actors (those *transient alliances* involving academics, new age travelers, lawyers, ecofeminists, ecologists, etc.) combine their forces, they are starting to resist these modernist, utilitarian approaches to nature. ‘Postmodernist’ environmental-movement alliances are starting to act as a mirror to the dominant anthropocentric approach to nature. They are engaged in a process of questioning people’s relationships with/in nature and attempting to establish new environmental ethics. If these alliances are to prevail, they will need to challenge the current valuing of nature; if they succeed, then criminology as we know it will no longer suffice. We may see the law shift from anthropocentrism (human centred) to becoming more ecocentric (nature) centred, where nature is seen to have value in its own right and ‘rights.’ Not only would this criminalize previously acceptable behaviour, but also *liberate* behaviour that is currently seen as criminal.

Id. at 244–45.

But Lane diverges somewhat from the formulations of Halsey and White and Lynch and Stretsky:

To aim to criminalize all anti-environment activity implies an acceptance of a single concept of nature (and what is best for nature), as well as an acceptance of resort to the processes of criminal law as the correct mechanism for dealing with the problems. Perhaps an environmentally sensitive criminology can learn from those coalitions of actors concerned about environmental degradation who are recognizing the strengths of a diffused approach, utilizing both the dominant ideas about nature (i.e. science and economics) as well as

promoting new ideas (such as deep ecology). Actors within these new alliances are aware of the need both to recognize the possibilities of working inside the current legal structures as well as challenging or rejecting them.

Id. at 245–46.

For additional points of view on the boundaries of crime and environmental crime, see, for example, Herman Schwendinger & Julia Schwendinger, *Defenders of Order or Guardians of Human Rights?*, in CRITICAL CRIMINOLOGY 113, 113–46 (Ian Taylor, Paul Walton, & Jock Young eds., 1975) (discussing debates surrounding “legal definitions of crime” and arguing that “[i]f the terms imperialism, racism, sexism and poverty are abbreviated signs for theories of social relationships or social systems which cause the systematic abrogation of basic rights, then imperialism, racism, sexism and poverty can be called crimes”); South, *supra* note 8, at 213–14, 227 n.3 (“The earth and its resources are being wasted and over-exploited by processes in which human beings are commodities in chains of production and distribution, and profit is put before sense or sensibility. In these processes, multiple and numerous crimes, violations, deviations and irregularities are perpetrated against the environment, yet go largely unchecked. . . . In this essay I usually refer to crimes and violations defined as such by law and regulatory bodies. However, in the tradition of work on ‘crimes of the powerful,’ I also use the terms where they may not *legally* apply.”); White, *Imagination*, *supra* note 5, at 485 (distinguishing between limited and broad definitions of environmental crime); Christopher Williams, *An Environmental Victimology*, SOC. JUST., Winter 1996, at 16, 19–20 (criticizing existing formulations of “environmental law” on the grounds that “[e]nvironmental law usually embodies the principle that the outcome of an act must have been ‘reasonably foreseeable’ for it to constitute an offense. So far, however, most environmental law relates to damage to the physical world, not human injury.”). See NAOMI KLEIN, NO LOGO: TAKING AIM AT THE BRAND BULLIES 263–64 (1999) (“Despite the widening gulf between rich and poor consistently reported by the UN and despite the much-discussed disappearance of the middle class in the West, the attack on jobs and income levels is probably not the most serious corporate offense we face as global citizens: it is, in theory, not irreversible. Far worse, in the long term, are the crimes committed by corporations against the natural environment, the food supply and indigenous peoples and cultures.”); Lynch, *supra* note 5, at 166 (discussing “environmental destruction as an outcome of the structure of modern, industrialized capitalist production and consumption patterns that are protected by corporate ideology, governmental consumption, and lax regulation. . . . [E]nvironmental crises are . . . ‘corporate crimes’ that violate humanistic sensibilities.” (citations omitted)).

¹⁹ In addition, a broader consideration of harm via the socio-legal approach or environmental justice perspective has helped increase rights, improve protections, and reduce injury and degradation.

²⁰ See *infra* Part II.E.

²¹ See *infra* Part II.E.

²² See *infra* Part II.E.

²³ FRANCIS T. CULLEN & ROBERT AGNEW, CRIMINOLOGICAL THEORY: PAST TO PRESENT 427 (3d ed. 2006).

²⁴ This is not to suggest that the organization of linkages between crime and the environment around the broad themes of harm and criminal patterns or spatial aspects of crime is the only possible grouping available. White, for example, arranges his discussion of drinking water in Sydney, Australia, under the categories “ownership and control,” “consumption and maintenance issues,” and “the regulatory environment.” White, *Sydney Water*, *supra* note 13, at 215.

²⁵ For sake of clarity, this article will hereinafter refer to the “legal-procedural approach” or “corporate perspective” as simply the “legal-procedural approach.”

²⁶ Helena du Réés, *Can Criminal Law Protect the Environment?*, 2 J. SCANDINAVIAN STUD. 109, 110 (2001). Although du Réés’s article is based on research conducted in Sweden, her discussion of employing criminal sanctions to prevent environmental damage and disaster is relevant to the United States.

Note that according to one commentator, such activities and practices “were accepted as regulatory violations” until recently. Timothy S. Carter, *The Failure of Environmental Regulation in New York*, 26 CRIME, L. & SOC. CHANGE 27, 27 (1997). Today, the public is “more likely to view such offenses as resembling traditional crimes.” *Id.* Nevertheless, “[t]he paradox of environmental crime, as something less than real crime, is a product of social construction. This particular perception is an artifact created by the economic, political and social forces affecting the regulators, and the manifestation of this attitude among environmental enforcement agents is very real.” *Id.* at 28.

²⁷ *Id.* at 111.

²⁸ *Id.* at 111–12.

²⁹ South, *supra* note 8, at 220; *see also* Anna Alvazzi del Frate & Jennifer Norberry, *Rounding Up: Themes and Issues*, in ENVIRONMENTAL CRIME, SANCTIONING STRATEGIES AND SUSTAINABLE DEVELOPMENT, at 1, 6 (Anna Alvazzi del Frate & Jennifer Norberry eds., U.N. Interregional Crime & Justice Research Inst., Publication No. 50, 1993). Note that according to South, “[s]ince the mid-1970s, most western countries have toughened up anti-dumping and pollution laws.” South, *supra* note 8, at 218.

³⁰ In addition to federal environmental law, states and municipalities have a wide range of environmental laws and a wide range of sanctions for violations of them. *See, e.g.*, Malcolm Gay, *The Catfish Are Biting (and It Hurts)*, N.Y. TIMES, July 28, 2007, at A8 (describing how “noodling” or hand fishing is illegal in Missouri, but legal in thirteen states in the Midwest and Southeast, including Kansas, which just allowed its first noodling season); *infra* notes 57–63 and accompanying text; *see also* Alvazzi del Frate & Norberry, *supra* note 29, at 2 (noting that “environmental protection operates at quite different levels—national, state or provincial, and local”).

On a broader scale, international environmental law attempts to deal with a wide range of cross-boundary or transnational issues affecting the global environment and also contains a wide range of sanctions for violations of international environmental law provisions. *See, e.g., id.* at 18–19 (discussing both multilateral conventions and protocols and bilateral agreements); Luan Low & David Hodgkinson, *Compensation for Wartime Environmental Damage: Challenges to International Law After the Gulf War*, 35 VA. J. INT’L L. 405, 420–21 n.134, 461–64, 483 (1995) (discussing transboundary

environmental harm and various conventions, protocols, and cases attempting to affect or provide redress for such harm).

Finally, other countries possess a broad array of environmental laws that may or may not have U.S. counterparts and which, in some instances, may run counter to U.S. federal and/or state law. For recent examples, see Regan Morris, *Ban on Kangaroo Hides Puzzles Australians Here*, N.Y. TIMES, July 25, 2007, at A11, (discussing how the California Supreme Court has effectively banned the sale of kangaroo leather soccer shoes, whereas in Australia, kangaroo culls occur annually to keep the population in check); see also Ellen Barry, *A Taste of Monkey, and Maybe of Prison*, N.Y. TIMES, Nov. 17, 2007, at A17 (discussing different perspectives on “bushmeat” in the United States and Liberia); Tom Hays, *Monkey Meat at Center of NYC Court Case*, BOSTON GLOBE, Nov. 25, 2007, available at http://www.boston.com/news/nation/articles/2007/11/25/monkey_meat_at_center_of_nyc_court_case/. To keep matters manageable, this article focuses on U.S. federal and state law. For an in-depth examination of environmental crime and the legal frameworks for environmental protection in Australia, Argentina, Brazil, Czechoslovakia, China, India, Nigeria, and Tunisia, see Alvazzi del Frate & Norberry, *supra* note 29.

³¹ Note that some countries possess constitutional guarantees of environmental protection. For a discussion of the constitutions of Brazil, China, and India, see Alvazzi del Frate & Norberry, *supra* note 29, at 6–7. The United States Constitution does not provide such a guarantee. A proposed amendment to guarantee U.S. citizens the right to an environment free of pollution failed in 1971.

³² According to two commentators who have conducted a worldwide examination of sanctioning strategies, imprisonment for violations of environmental protection laws occurs far less frequently than monetary penalties. Alvazzi del Frate & Norberry, *supra* note 29, at 14.

³³ Toxic Substances Control Act, 15 U.S.C. § 2615(a), (b) (2006). For an accessible discussion of some of the provisions of TSCA, see Lynn R. Goldman, *Toxic Chemicals and Pesticides*, in STUMBLING TOWARD SUSTAINABILITY 403 (John C. Dernbach ed., 2002).

³⁴ Section 113 of the CAA (42 U.S.C. § 7413(c) (2006)) contains criminal penalties; section 205 of the CAA (42 U.S.C. § 7524(a) (2006)) provides for civil penalties. For an accessible discussion of some of the issues regarding air pollution, as well as some of the provisions of the CAA, see David M. Driesen, *Air Pollution*, in STUMBLING TOWARD SUSTAINABILITY *supra* note 33, at 257.

³⁵ Section 309 of the CWA (33 U.S.C. § 1319(b), (c)) contains criminal penalties; section 404 of the CWA (33 U.S.C. § 1344 (s)(4)) provides for civil penalties. For an accessible discussion of some of the issues regarding water and water pollution, as well as some of the provisions under the CWA, see Robert W. Adler, *Fresh Water*, in STUMBLING TOWARD SUSTAINABILITY, *supra* note 33, at 197.

Recently, the U.S. federal government levied the largest civil penalty for a pollution violation under the CWA: on January 17, 2008, the coal producer, Massey Energy Company, agreed to a \$30 million settlement (\$20 million in civil penalties and \$10 million investment in pollution control improvements at its forty-four mines in Kentucky,

Virginia, and West Virginia). See Ian Urbina, *U.S. Mines Mine Owner \$20 Million For Pollution*, N.Y. TIMES, Jan. 18, 2008, at A14.

³⁶ Sections 3008(d) and (g) of RCRA (42 U.S.C. § 6928(d), (g) (2006)) contain criminal penalties. For a brief overview of RCRA, see Frank Scarpitti & Alan A. Block, *America's Toxic Waste Racket: Dimensions of the Environmental Crisis*, in ORGANIZED CRIME IN AMERICA: CONCEPTS AND CONTROVERSIES 115, 118–19 (Timothy S. Bynum ed., 1987) [hereinafter Scarpitti & Block, *Racket*]. For a more in-depth discussion of RCRA's provisions as they relate to hazardous waste, municipal solid waste, and radioactive waste, see Marian Chertow, *Municipal Solid Waste*, in STUMBLING TOWARD SUSTAINABILITY, *supra* note 33, at 467; Joel B. Eisen, *Brownfields Redevelopment*, in STUMBLING TOWARD SUSTAINABILITY, *supra* note 33, at 457; Joel A. Mintz, *Hazardous Waste and Superfund*, in STUMBLING TOWARD SUSTAINABILITY, *supra* note 33, at 443; James D. Werner, *Radioactive Waste*, in STUMBLING TOWARD SUSTAINABILITY, *supra* note 33, at 479.

³⁷ Endangered Species Act, 16 U.S.C. § 1540(a), (b) (2006). For a critical assessment of the ESA, see A. Dan Tarlock, *Biodiversity and Endangered Species*, in STUMBLING TOWARD SUSTAINABILITY, *supra* note 33, at 311.

³⁸ Federal Land Policy and Management Act, 43 U.S.C. § 1733 (2006).

³⁹ Marine Protection, Research, and Sanctuaries Act, 33 U.S.C. § 1415(a), (b) (2006).

⁴⁰ Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11045 (2006). For an accessible discussion of some of the provisions of EPCRA, see Frances Irwin & Carl Bruch, *Public Access to Information, Participation, and Justice*, in STUMBLING TOWARD SUSTAINABILITY, *supra* note 33, at 511–540.

⁴¹ Noise Control Act, 44 U.S.C. § 4910(a)(1), (2) (2006). Note that many cities and towns have noise ordinances and laws that cover a range of activities—from lawn mowers, leaf blowers, and weed whackers to pool parties to dog whining and barking. For a recent discussion, see Jennifer V. Hughes, *Who (Doesn't) Let the Dogs Bark*, N.Y. TIMES, July 22, 2007, at 14NJ; Paul Vitello, *That Racket? It's the Sound of Suburbia*, N.Y. TIMES, July 22, 2007, at 14NJ. See generally Rebecca Cathcart, *Enemy Aircraft Sighted and, Above All Else, Heard*, N.Y. TIMES, Nov. 24, 2007, at A9. Ironically, in the 1999 Census Bureau housing survey, noise was listed as the top neighborhood complaint and reason to make people consider moving, ahead of crime, which ranked second. See U.S. CENSUS BUREAU, AMERICAN HOUSING SURVEY FOR THE UNITED STATES: 1999, NEIGHBORHOOD—OCCUPIED UNITS, tbl.2-8 (2005), available at <http://www.census.gov/hhes/www/housing/ahs/ahs99/tab28.html>; see also Vitello, *supra*. The most recent of the Census Bureau's biannual surveys of housing conditions in the United States (2005) produced similar results. See OFFICE OF POLICY, DEV. & RESEARCH, U.S. DEP'T OF HOUS. & URBAN DEV. & U.S. CENSUS BUREAU, U.S. DEP'T OF COMMERCE, AMERICAN HOUSING SURVEY FOR THE U.S.: 2005, at 62 tbl.2-8 (2006), available at <http://www.census.gov/prod/2006pubs/h150-05.pdf>. For a discussion of noise pollution in Asian countries, see, for example, Alvazzi del Frate & Norberry, *supra* note 29, at 4.

⁴² Occupational Safety and Health Act, 29 U.S.C. § 666 (2006).

⁴³ Pollution Prosecution Act of 1990, 42 U.S.C. § 4321 (2006).

⁴⁴ The EPA administers the Clean Air Act (CAA); the Clean Water Act (CWA); the Comprehensive Environmental Response; Compensation, and Liability Act (CERCLA); the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); the Marine Protection, Research, and Sanctuaries Act (MPRSA); the Oil Pollution Act (OPA); the Resource Conservation and Recovery Act (RCRA); the Toxic Substances Control Act (TSCA); the Noise Control Act (NCA); and the Safe Drinking Water Act (SDWA). The Department of the Interior has primary responsibility for the Endangered Species Act (ESA), the Federal Land Policy and Management Act (FLPMA), and the Surface Mining Control and Reclamation Act (SMCRA); the Department of Labor has primary responsibility for the Occupational Safety and Health Act (OSHA).

⁴⁵ Note that Section 202(a)(5) of the Pollution Prosecution Act required the EPA to employ two hundred criminal investigators by October 1, 1995, but the number of criminal investigators has actually dropped to 174. See Rita Beamish, *Number of Environmental Cops Decreasing*, ASSOCIATED PRESS (AP) NEWSWIRE, July 26, 2007, available at <http://asia.news.yahoo.com/070726/ap/d8qk4sfg0.html>. For a report on how the number of environmental criminal cases filed by the United States Department of Justice (DOJ) is down, along with drops in civil penalties, criminal fines, and criminal investigations, see Press Release, Environmental Integrity Project, Efforts Under Bush Administration's EPA Drop on Four Out of Five Key Points (May 23, 2007), available at <http://www.environmentalintegrity.org/pubs/052307%20EIP%20EPA%20enforcement%20data%20news%20release%20FINAL3.pdf>; ENVTL. INTEGRITY PROJECT, PAYING LESS TO POLLUTE: ENVIRONMENTAL ENFORCEMENT UNDER THE BUSH ADMINISTRATION (2007), available at <http://www.environmentalintegrity.org/pubs/Paying%20Less%20to%20Pollute.pdf>.

Note also that the State of California deputizes bounty hunters to help enforce its environmental laws. Private lawyers receive a quarter of any penalty (the rest goes to the state) plus legal fees. The system is somewhat controversial. While some laud the efforts of these "citizen enforcers," who are able to extract quick settlements, others regard it as "legalized extortion" and claim that the public gains little from the litigations (such as notices and warnings about the emission of carcinogens from dried paint, furniture, parking lots, wiring, etc.). See Adam Liptak, *Environmental Bounty Hunters, on Trail of Cash, Are in California Official's Sights*, N.Y. TIMES, June 11, 2007, at A14.

⁴⁶ See Surface Mining Control and Reclamation Act (SMCRA), 30 U.S.C. § 1268 (2006).

⁴⁷ See Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. § 1361 (2006); Oil Pollution Act (OPA), 33 U.S.C. § 2716(a) (2006).

⁴⁸ Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601–9675 (2006).

⁴⁹ Note that CERCLA regulates unintentional emissions and releases of hazardous substances, rather than just planned or permitted emissions. Unlike RCRA, which pertains to the *prospective* handling and management of hazardous waste and solid waste stream, CERCLA is *retrospective*, regulating the remediation of spills or releases of hazardous substances. The distinction between "waste" and "substance" is key—CERCLA deals with hazardous *substances*, which may not be wastes *per se*. Thus, CERCLA includes not only the RCRA list of hazardous wastes but also hazardous

chemicals regulated by the CWA, the 189 hazardous air pollutants under the CAA, and the substances regulated under TSCA.

⁵⁰ Federal Meat Inspection Act, 21 U.S.C. §§ 622, 675, 676 (2006); *see also* Piers Beirne, *For a Nonspeciest Criminology: Animal Abuse as an Object of Study*, 37 CRIMINOLOGY 117, 126 (1999) [hereinafter Beirne, *Nonspeciest*].

⁵¹ Humane Slaughter Act, 7 U.S.C. §1907(c) (2006); *see also* Patti Bednarik, *What the General Practitioner Needs To Know About Pennsylvania Animal Law*, 77 PA. B. ASS'N. Q. 88, 92 (2006) (noting that, unlike livestock, poultry is not covered under the Humane Methods of Slaughter Act); Beirne, *Nonspeciest*, *supra* note 50, at 126.

⁵² Horse Protection Act (HPA), 15 U.S.C. § 1821 (2006); *see also* Beirne, *Nonspeciest*, *supra* note 50, at 126.

⁵³ Wild Horses and Burros Act, 16 U.S.C. § 1338 (2006); *see also* Beirne, *Nonspeciest*, *supra* note 50, at 126. *See No Wrongdoing In Donkey Shootings*, N.Y. TIMES, Dec. 18, 2007, at A30 (reporting that two Texas state park officials had been cleared of wrongdoing in the shooting deaths of wild donkeys and feral burros).

⁵⁴ Food Security Act, 16 U.S.C. §§ 3801–3862 (2006); *see also* Beirne, *Nonspeciest*, *supra* note 50, at 126.

⁵⁵ Health Research Extension Act of 1985, Pub. L. No. 99-158, 99 Stat. 820; *see also* Beirne, *Nonspeciest*, *supra* note 50, at 126.

⁵⁶ *See also* Beirne, *Nonspeciest*, *supra* note 50, at 126.

⁵⁷ For a discussion of the Sportsmanship in Hunting Act of 2005, H.R. 1688, 109th Cong. (2005), which would prohibit the interstate transport of exotic mammals for the use of “canned hunts,” *see, for example*, Bednarik, *supra* note 51, at 91; Christopher Shays, *Animal Welfare: Its Place in Legislation*, 12 ANIMAL L. 1, 2 (2005). For a discussion of H.R. 503, 109th Cong. (as passed by House, Sept. 7, 2006), which would amend the Horse Protection Act to ban horse slaughter for human consumption in the United States as well as the transport and sale of horses across U.S. borders for the purpose of slaughter for human consumption, *see, for example*, Catrin Einhorn, *Death Across the Border Awaits Horses Spared It in the U.S.*, N.Y. TIMES, Jan. 11, 2008, at A10; The Humane Society of the United States, *End Horse Slaughter Permanently* (Oct. 3, 2007), http://www.hsus.org/legislation_laws/citizen_lobbyist_center/help_end_horse_slaughter.html.

In a different vein, a Nevada woman was recently indicted on charges of theft of government property and willingly damaging government property for removing three large one hundred-year-old trees from environmentally sensitive federal land near Lake Tahoe in order “to improve her view.” She faces up to ten years in prison and a \$250,000 fine for each count if she is convicted. *Woman May See Bars Instead of View*, N.Y. TIMES, Jan. 24, 2008, at A13.

⁵⁸ Animal Welfare Act, 7 U.S.C. §§ 2131–2156 (2006); *see also* Bednarik, *supra* note 51, at 90; Beirne, *Nonspeciest*, *supra* note 50, at 126; Mariann Sullivan, *The Animal Welfare Act—What’s That?*, N.Y. ST. B. J., July–Aug. 2007, at 17, 17–23.

Note that the Improved Standards for Laboratory Animals Act of 1985 (ISLAA), 7 U.S.C. §§ 2131, 2158–2159 (2006), further amended the AWA. *See, e.g.*, Shigehiko Ito, *Beyond Standing: A Search for a New Solution in Animal Welfare*, 46 SANTA CLARA L. REV. 377, 384 (2006); Katharine M. Swanson, *Carte Blanche for Cruelty: The Non-*

Enforcement of the Animal Welfare Act, 35 U. MICH. J.L. REFORM 937, 941 (2002); see also Beirne, *Nonspeciect*, *supra* note 50, at 126. Note also that the Pet Animal Welfare Statute (PAWS), introduced as H.R. Res. 2669, 109th Cong. (2005), would amend the Animal Welfare Act to strengthen the ability of the Secretary of Agriculture to regulate the pet industry. See, e.g., Bednarik, *supra*, at 90; Sullivan, *supra*, at 22.

⁵⁹ Animal Welfare Act, 7 U.S.C. § 2156(a), (b); see also *United States v. Vick*, No. 3:07CR274, at 1 (E.D. Va. Aug. 24, 2007), available at <http://www.usatoday.com/sports/football/nfl/vick-summary-of-facts-070824.pdf> (summary of facts).

⁶⁰ See *United States v. Vick*, No. 3:07CR274, at 1 (E.D. Va. Aug. 24, 2007), available at <http://www.usatoday.com/sports/football/nfl/vick-summary-of-facts-070824.pdf> (summary of facts).

⁶¹ See *id.* (plea agreement).

⁶² See Juliet Macur, *Vick Receives 23 Months and a Lecture*, N.Y. TIMES, Dec. 11, 2007, at D1. For a report on how the sentences received by Vick's co-defendants exceeded the government's recommendations, see Michael S. Schmidt, *Message Sent in Sentencing of Two Vick Co-Defendants*, N.Y. TIMES, Dec. 1, 2007, at B12.

⁶³ See, e.g., Bednarik, *supra* note 51, at 89–90 (discussing illegal dog fighting in Pennsylvania as well as puppy mills, the breeding and training of fighting dogs, and “Internet hunting”); Robert D. Roth, *A Dog's Best Friend: California's New Animal Cruelty Protections*, 38 MCGEORGE L. REV. 230 (2007) (discussing legislation regarding dog tethering in California).

According to Beirne, while state anticruelty statutes “vary somewhat in how they define crucial terms like ‘animal’ and ‘cruelty,’ they generally recognize that animals ought to be protected from cruelty, abandonment, and poisoning and that they must be provided with necessary sustenance, including food, water, and shelter.” Beirne, *Nonspeciect*, *supra* note 50, at 126 (citation omitted). But, Beirne adds,

a majority of state anticruelty statutes define the acts of commission and omission that constitute cruelty to animals as misdemeanors rather than felonies. Among the 16 states that define the offense as a felony, penalties for violations vary considerably. For example, while the maximum fine for cruelty to animals is \$5,000 in Alaska and Pennsylvania and \$10,000 in Wisconsin, it is only \$50 in Missouri. Prison sentences, too, span a wide range: from nothing at all in Ohio and Virginia, to a maximum of six months in Alabama and California, three years in Maine, and five years in Oklahoma.

Id. at 126 n.6. Similarly, Bednarik points out that Pennsylvania exempts “activity undertaken in normal agricultural operation” from its animal cruelty statute.” Bednarik, *supra* note 51, at 91 (quoting 18 PA. CONS. STAT. § 5511(c)(3) (2004)). This is true in other states. See, e.g., TEX. PENAL CODE ANN. § 42.09(a)(5), (9) (Vernon 2007).

Note that sometimes cases involving animal cruelty can pit defenders of one animal species against another. In a highly publicized case in Texas in 2007, a bird enthusiast was tried on charges of animal cruelty for shooting and killing a cat that he claimed was stalking endangered shorebirds. Bird-watchers helped fund his defense, while cat-fanciers condemned him as a “murderous fascist” and “diabolical monster.” See Kate Murphy, *Judge Declares a Mistrial in Texas Cat Killing Case*, N.Y. TIMES, Nov. 17,

2007, at A11; Kate Murphy, *Trial Begins for Bird-Watching Expert in a Cat Killing*, N.Y. TIMES, Nov. 14, 2007, at A15.

⁶⁴ Louisiana is the only state that permits cockfighting. Oklahoma banned it in 2002, and New Mexico banned it in March 2007. Several bills are currently being debated by the Louisiana legislature that would end the cockfighting tradition. See Michael Perlstein, *In Cajun Country, A Fight to the Finish*, N.Y. TIMES, June 1, 2007, at F1.

⁶⁵ Steve Wyche, *Vick's Future Clouded Further*, ATLANTA J. CONST., Sept. 26, 2007, at A1. If convicted on the state charges, the judge could order the sentences to run consecutively, as is typically the practice in Virginia, or concurrently. *Id.* The judge also has the option of eliminating the state sentence based on time served in federal prison. *Id.*

Beirne would likely regard Vick's conviction and sentencing in federal district court and his subsequent indictment on state charges as an exception rather than the rule, noting that "even if particular acts of animal abuse are defined as cruel or otherwise illegal, detection of them is quite rare and prosecution and conviction very difficult." Beirne, *Nonspeciest*, *supra* note 50, at 128 (citation omitted). In support of Beirne's pessimistic perspective, consider that felony animal cruelty charges were recently dismissed against another Atlanta Falcon, defensive tackle Jonathan Babineaux, because of insufficient evidence. See Judy Battista, *Babineaux's Felony Charge Dropped*, N.Y. TIMES, Nov. 8, 2007, at C31. More poignantly,

[I]ast year, the [American Society for the Prevention of Cruelty to Animals'] cruelty hotline received more than 50,000 calls and determined that 4,191 . . . were bona fide complaints. Of those, officers made arrests in 103 cases, or 2.5 percent. . . . Police agencies typically make arrests in a higher percentage of cases, even for tough-to-solve crimes like burglary, where officials generally push for clearance rates above 10 percent.

Glenn Collins, *For "Animal Precinct," Reality off Camera Is Subject to Dispute*, N.Y. TIMES, July 23, 2007, at A18.

⁶⁶ See Devin Burstein, *Breed-Specific Legislation: Unfair Prejudice & Ineffective Policy*, 10 ANIMAL L. 313 (2004); Karyn Grey, *Breed-Specific Legislation Revisited: Canine Racism or the Answer To Florida's Dog Control Problems?*, 27 NOVA L. REV. 415 (2003); Safia Gray Hussain, *Attacking the Dog-Bite Epidemic: Why Breed-Specific Legislation Won't Solve the Dangerous-Dog Dilemma*, 74 FORDHAM L. REV. 2847 (2006); Lynn Marmer, Comment, *The New Breed of Municipal Dog Control Laws: Are They Constitutional?*, 53 U. CIN. L. REV. 1067 (1984); Sallyanne K. Sullivan, *Banning the Pit Bull: Why Breed-Specific Legislation is Constitutional*, 13 U. DAYTON L. REV. 279 (1988); see also Rebecca J. Huss, *No Pets Allowed: Housing Issues and Companion Animals*, 10 ANIMAL L. 69, 110 (2005).

Note that at least twelve states prohibit local municipalities from passing breed-specific legislation on the grounds that such bans are costly and impractical to enforce because breeds are often difficult to identify and many dogs are of mixed breed. See Ian Urbina, *States Try To Weigh Safety with Dog Owners' Rights*, N.Y. TIMES, July 23, 2007, at A10.

Note also that some insurance companies will exclude certain breeds of dogs from coverage under homeowners' insurance policies. While such "breed discrimination" in insurance is often prohibited, "[h]omeowners and renters who own certain breeds of dogs may have difficulty getting certain insurance companies to underwrite policies, and it is difficult to prove that ownership of a disfavored breed caused the insurance company to refuse to underwrite insurance." Bednarik, *supra* note 51, at 89; *see also* Larry Cunningham, *The Case Against Breed Discrimination by Homeowners' Insurance Companies*, 11 CONN. INS. L.J. 1 (2004).

⁶⁷ Urbina, *supra* note 66, at A10.

⁶⁸ *Id.* In Texas, a conviction carries with it a possible ten-year prison sentence. *See* TEX. HEALTH & SAFETY CODE ANN. § 822.005(a), (b) (2007); Robert Fugate, *Survey of Texas Animal Torts*, 48 S. TEX. L. REV. 427, 433–34 (2006); Urbina, *supra* note 66. Echoing Beirne, *Nonspeciest*, *supra* note 50, as well as the statistics cited by Collins, *supra* note 65, Urbina states that "[e]ven with stiffer penalties, animal control departments are often under-financed and therefore unable to apply the laws." Urbina, *supra* note 66, at A10.

⁶⁹ Avi Brisman, *Meth Chic and the Tyranny of the Immediate: Reflections on the Culture-Drug/Drug-Crime Relationships*, 82 N.D. L. REV. 1273, 1278 (2007) (footnotes omitted).

⁷⁰ Rosa del Olmo, *The Ecological Impact of Illicit Drug Cultivation and Crop Eradication Programs in Latin America*, 2 THEORETICAL CRIMINOLOGY 269, 270–72 (1998). As she further explains:

[C]oca cultivation contaminates first, because of cultivation itself and, second, because of the elaboration of basic cocaine paste. In the first case, the need to obtain bigger leaf production leads to the use of chemical fertilizers above normal levels, and monocultivation favours plagues against which plaguicides are used, contaminating the land and the environment. In the second case, very toxic chemicals are required such as sulphuric acid, acetone, quick lime, kerosene plus toilet paper. The residues of all these products end up in the rivers. Official estimates indicate that the Peruvian Amazonia has lost 700,000 hectares in the last 15 years due to coca cultivation.

Id. at 271 (internal citation omitted). Elsewhere, del Olmo adds "regional violence" to this list of environmental impacts, which as discussed in *infra* Part II.C, can cause significant ecological damage. *Id.* at 272.

⁷¹ *Id.* at 272.

⁷² *Id.* at 273.

⁷³ *Id.* Del Olmo adds that while these three herbicides have been used most frequently to destroy marijuana and poppy plants, "[a]s time goes by, and the war on drugs hardens, new herbicides have been produced and applied, making it more difficult to determine which ones are actually in use." *Id.*

⁷⁴ South, *supra* note 8, at 219–20. For additional research on the environmental and human health problems posed by both illicit drug production and drug crop destruction, *see* Rosa del Olmo, *Aerobiology and the War on Drugs: A Transnational Crime*, 30 CRIME & SOC. JUST. 28, 28–44 (1987). For additional research on the law enforcement and military impacts on the environment, *see, e.g.*, PETER H. SCHUCK, AGENT ORANGE

ON TRIAL: MASS TOXIC DISASTERS IN THE COURTS (1987); *THE GENDERED NEW WORLD ORDER: MILITARISM, DEVELOPMENT, AND THE ENVIRONMENT* (Jennifer Turpin & Lois Ann Lorentzen eds., 1996).

⁷⁵ Del Olmo, *supra* note 70, at 275–76.

⁷⁶ *Id.* at 275.

⁷⁷ *Id.* at 276.

⁷⁸ Duncan Brack, *Combatting International Environmental Crime*, 12 GLOBAL ENVTL. CHANGE 143, 143 (2002). *See* Seager, *supra* note 8, at 59 (“[L]arge-scale environmental problems are the result of control exercised by people within very particular clusters of powerful institutions, that include, prominently, militaries, multinationals, and governments, which often act in collusion.”).

⁷⁹ Brack, *supra* note 78, at 143.

⁸⁰ Clean Water Act, 33 U.S.C. § 1319(c)(1)(B) (2006).

⁸¹ *See* Clean Air Act, 42 U.S.C. § 7475(a)(4) (2006).

⁸² Brack, *supra* note 78, at 147 (“The growth of environmental crime is a serious side effect of the development of policies aimed at protecting the environment.”); *see also* Nigel South & Piers Beirne, *Introduction to GREEN CRIMINOLOGY*, in *GREEN CRIMINOLOGY 2006*, at xiii, xxiii (The Int’l Library of Criminology, Criminal Justice & Penology, Second Series).

⁸³ Brack, *supra* note 78, at 144; *see also* Carter, *supra* note 26, at 32–42 (offering a case study illustrating how an environmental law loophole—the unpermitted dumping of construction and demolition materials (C&D)—was exploited by organized crime); Pearce & Tombs, *supra* note 5, at 433, 439 (“[I]t is both possible and desirable that industry be subject to more punitive forms of regulation It is only the fear of effective legal sanctions that will make management genuinely safety-conscious.”); Stephen J. Dubner & Steven D. Levitt, *Unintended Consequences: Why Do Well-Meaning Laws Backfire?*, N.Y. TIMES MAG., Jan. 20, 2008, at 18–19 (describing how the Endangered Species Act may be creating “perverse incentives” that actually endanger rather than protect species); Elisabeth Rosenthal, *In Europe, the Catch of the Day Is Often Illegal*, N.Y. TIMES, Jan. 15, 2008, at A1 (“Even when permits and treaties make the fishing [practices off the coast of West Africa] illegal, it is not always sustainable.”). *See* ATHANASIOU, *supra* note 5, at 136 (discussing how countries “whose environmental movements are less influential, whose laws are less rigorous, whose administrators are less vigilant, and whose economies are less affluent than the ones ‘at home’” are highly susceptible to shipments of toxic incinerator ash from rich countries.).

⁸⁴ Brack, *supra* note 78, at 144. According to Brack, illegal activities stemming from the failure to enforce existing laws include the “suitability of regulation/enforcement methodology and costs of compliance, regulatory capture, lack of resources and infrastructure, political will and/or expertise, corruption, and political and economic disruption.” *Id.*; *see also* Alvazzi del Frate & Norberry, *supra* note 29, at 7, 13, 16; Carter, *supra* note 26, at 41–42, 48–49; Low & Hodgkinson, *supra* note 30, at 483 (“Enforcing international obligations has always been a problem in international law.”); Raffi Khatchadourian, *Neptune’s Navy*, NEW YORKER, Nov. 5, 2007, at 56, 69 (“The Ecuadorian Navy, which monitors and controls the movement of all ships in [the Galapagos National Park—a marine protected area], is reluctant to fight environmental

crimes and, at times, has blocked other agencies from combating them.”). See generally Rosemarie Gillespie, *Ecocide, Industrial Chemical Contamination, and the Corporate Profit Imperative: The Case of Bougainville*, SOC. JUST., Winter 1996, at 109 (describing how the case of Bougainville highlights the nature of the conflict between “[c]orporate interests and the role of state violence in protecting these interests” and “[t]he interests of peoples in protecting their land and environment from destruction by mining and its industrial by-products”); Pearce & Tombs, *supra* note 5, at 439, 440 (asserting that “there is a need for the criminal law in this area to be strictly and consistently enforced,” but recognizing that “[t]he parameters of capitalist social relations place real limits on how far such reforms can proceed”); White, *Sydney Water*, *supra* note 13, at 218 (“Politically, governments which are materially and ideologically supportive of corporatisation and privatisation will tend to not want to undermine such processes by appearing to intervene too heavily in private corporate affairs. Neo-liberalism is precisely oriented toward less, rather than more, government regulation of corporate activity.”); Peter Maass, *The Fuel Fixers*, N.Y. TIMES MAG., Dec. 23, 2007, at 26 (“[I]n an era of scarce oil, can America afford to punish anyone who cuts corners to win deals for American firms? In 2003, when oil sold for less than \$30 a barrel, it was possible to believe we could have our anticorruption statutes and our cheap gasoline. Four years later, with oil going for \$95 a barrel, it’s not so clear. . . . The choice is simple: Make painful but necessary changes to reduce our addiction to oil, or sink deeper into our moral sludge.”).

Note that the absence of regulatory infrastructure can lead to the failure to enforce existing laws, as can “implementation gaps,” Alvazzi del Frate & Norberry, *supra* note 29, at 7–8, 16, and the tragedy of the “regulatory commons,” whereby numerous regulators share potential jurisdiction over a regulatory opportunity, resulting in no action by any of the regulators. William W. Buzbee, *Recognizing the Regulatory Commons*, 89 IOWA L. REV. 1 (2003).

⁸⁵ *Id.* Brack, *supra* note 78, at 144.

⁸⁶ Carter, *supra* note 26, at 31, 32, 43–49; Andrew Szasz, *Corporations, Organized Crime, and the Disposal of Hazardous Waste: An Examination of the Making of a Criminogenic Regulatory Structure*, 24 CRIMINOLOGY 1 (1986).

⁸⁷ Brack, *supra* note 78, at 143–46. See generally Susan Saulny, *Timber Thieves Strike at the Heart of Lands Held Dear*, N.Y. TIMES, Jan. 20, 2008, at 13 (describing how the rise in timber value and increase in worldwide demand for timber has resulted in timber theft in the United States, and comparing illegal logging in the United States to “countries like Indonesia, Malawi and Brazil, where unauthorized harvesting has led to serious deforestation and attendant environmental problems”).

For a discussion of illegal logging in Malawi, for example, see Michael Wines, *Malawi Is Burning, and Deforestation Erodes Economy*, N.Y. TIMES, Nov. 1, 2005, at A3 (describing how illegal loggers have “laid waste” to half the country and that “Malawi’s impoverished millions could benefit from saving the woods instead of clearing them,” but noting that “[i]n few places do the dictates of modern environmentalism butt so painfully against economic reality as they do . . . in Malawi. . . . For hundreds of thousands of . . . rural dwellers, sales of firewood and charcoal provide virtually their only income.”).

For a discussion of illegal fishing off the West African coast, to offer another example, see Sharon Lafraniere, *Europe Takes Africa's Fish, and Migrants Follow*, N.Y. TIMES, Jan. 14, 2008, at A1 (describing how illegal fishing and overfishing have resulted in the collapse of many of northwest Africa's fisheries, creating economically dire situations in many coastal communities); Rosenthal, *supra* note 83, at A1 (“[F]ish are poised to become Europe’s most precious contraband.”); *see also* Editorial, *Until All the Fish Are Gone*, N.Y. TIMES, Jan. 21, 2008, at A20 (summarizing the disastrous environmental, economic, and human consequences of illegal industrial fishing). It bears mention that overfishing off the West Africa coast—much of it illegal—has resulted in another type of illegal activity, widespread attempts at illegal immigration to Europe in the hopes of better economic opportunities. *See* Lafraniere, *supra*.

⁸⁸ Szasz, *supra* note 86, at 3.

⁸⁹ *Id.*; *see also* Scarpitti & Block, *Racket*, *supra* note 36, at 120, 125. *See* Brack, *supra* note 78, at 28, 31 (“[W]herever law is enforced, some corruption exists . . . there will, apparently, always be those who will attempt to circumvent the intended controls.”).

Note that this situation is not peculiar to the United States. Referring to the phenomenon as “environmental blackmail,” Williams writes:

The degree to which the environment will become a vehicle for domestic and international blackmail is difficult to predict and little thought has been given to possible responses. On the domestic level, threats equate with other forms of blackmail. The Mafia has taken an interest in toxic waste in the U.S. and Italy, which extends to threats to dump waste on private land if landowners do not pay up. (This gives a new meaning to the term ‘environmental protection’!). In 1994, most of Lithuania was without electricity for a day because of a Mafia bomb threat at a nuclear power station. It was not reported whether money changed hands, but the incident raises the possible specter of ‘double blackmail,’ in which a poor state turns to its wealthy neighbors and suggests that they might pay the sum demanded, because they are just as likely to suffer if the treat is carried out.

Williams, *supra* note 18, at 31; *see also* ATHANASIOU, *supra* note 5, at 134–38 (discussing organized crime’s involvement in the Russia’s forest resources—“forest mafias”—as well as “waste mafias,” who have been smuggling toxic garbage throughout Eastern Europe).

For a recent example of mafia interest in waste, *see*, for example, Elena Ferrante, *Our Fetid City*, N.Y. Times, Jan. 15, 2008, at A21 (describing how in Naples, “organized crime controls the garbage industry and runs a staggering number of illegal dumps”); Ian Fisher, *In Mire of Politics and the Mafia, Garbage Reigns*, N.Y. TIMES, May 31, 2007, at A1 (“There is also the problem of the Camorra, which profits extraordinarily in the endless crisis over trash, much as arms dealers thrive in war. The Camorra controls many of the trucks and workers used to haul away trash. But it also operates illegal dumps used more in times of crisis—and far more harmful than legal ones to humans and the environment.”).

⁹⁰ Szasz, *supra* note 86, at 4. *See* Brack, *supra* note 78, at 28 (“[C]rime syndicates have benefited indirectly (and probably unexpectedly) from the failure of the regulators to treat

environmental crime as tantamount to serious traditional crime.”). As South further explains:

In New Jersey, for example, organized crime had controlled the garbage industry through ownership of garbage hauling firms, through ownership of or control of landfills, and through labor racketeering. The new regulations governing hazardous waste would have had to have been carefully written and tenaciously enforced were organized crime to be kept from applying this highly developed infrastructure to the new market. In fact, as will be shown below, the opposite happened and organized crime easily entered both the hauling and the disposal phases of the hazardous waste handling industry

In retrospect, it is hardly surprising that, given the opportunity, organized crime would enter the newly created market for hazardous waste handling. It was an extension of their current business activity. They had the equipment and organization. They had both the know-how and the will to corrupt the manifest system. It was an attractive prospect. Both the potential size of the market and the potential profits were enormous. Even if they charged only a fraction of the true price of legitimate disposal, that price would be much higher than the price they charged to move the same stuff when it was legally just garbage, but their operating expenses would stay the same (if they commingled hazardous waste with ordinary garbage) or decrease (if they simply dumped). Why organized crime would want to enter into relationship with corporate generators when the opportunity presented itself needs no subtle unraveling.

Szasz, *supra* note 86, at 8, 10 (citations omitted).

⁹¹ Szasz, *supra* note 86, at 4; *see also* South, *supra* note 8, at 216 (“[RCRA] provided new opportunities for the participation of organized crime in the hazardous waste haulage and disposal industries. The corporate generators of such waste pressured for a weak regulatory structure which produced a disposal market highly vulnerable to criminal infiltration—this may not have been their intention but it was certainly a market development from which they subsequently benefited.”).

⁹² South, *supra* note 8, at 216.

⁹³ Szasz, *supra* note 86, at 2 n.1.

⁹⁴ *Id.* at 19, 23–24.

⁹⁵ *See generally* CULLEN & AGNEW, *supra* note 23, at 295–96; Mark Halsey, *Green Criminology*, *supra* note 4, at 833 (“[G]lobal depletions of biodiversity, as well as human-induced declinations in air, water and soil quality, are chronic processes rather than fleeting events. . . . [T]hey are fundamentally linked to the ‘normal’ operation of various political, cultural and economic practices.”); Pearce & Tombs, *supra* note 5, at 425, 431 (“Even if a corporation wished to act with a primary commitment to social responsibility, this would entail ignoring the very rationale of the corporation and the nature of the existing economic system. . . . The hegemony of corporate ideology . . . has facilitated the representation of arguments for greater external regulation of corporations as being both in principle unjust and counter-productive; indeed, such is the power of this ideology that the exigencies of business—most fundamentally, accumulation—at times

appear to be, and are represented as being, morally superior to the exigencies of law.”); White, *Sydney Water*, *supra* note 13, at 216 (discussing how, when a profit-oriented company is placed in charge of providing drinking water for a city, “efforts will be made to reduce costs associated with production.”).

⁹⁶ Brack, *supra* note 78, at 31–32; *see also* Scarpitti & Block, *Racket*, *supra* note 26, at 115–28.

⁹⁷ Szasz, *supra* note 86, at 3.

⁹⁸ South, *supra* note 8, at 226. For additional perspectives on why organized crime expanded its solid waste operations into other aspects of the waste-handling industry and how they succeeded in protecting their illicit affairs, *see*, for example, ALAN A. BLOCK & WILLIAM J. CHAMBLISS, *ORGANIZING CRIME* (1981); ALAN A. BLOCK & FRANK SCARPITTI, *POISONING FOR PROFIT: THE MAFIA AND TOXIC WASTE IN AMERICA* (1985); DONALD J. REBOVICH, *DANGEROUS GROUND: THE WORLD OF HAZARDOUS WASTE CRIME* (1992); Alan A. Block & Thomas J. Bernard, *Crime in the Waste Oil Industry*, 9 *DEVIANT BEHAV.* 113 (1988); Alan A. Block, *Defending the Mountaintop: A Campaign Against Environmental Crime*, in *GLOBAL CRIME CONNECTIONS: DYNAMICS AND CONTROL* (Frank Pearce & Michael Woodiwiss eds., 1993); Alan A. Block, “*On the Waterfront*” *Revisited: The Criminology of Waterfront Organized Crime*, 6 *CONTEMP. CRISIS* 373 (1982); Frank Pearce & Steve Tombs, *Hazards, Law and Class: Contextualizing the Regulation of Corporate Crime*, 6 *SOC. & LEGAL STUD.* 79 (1997); Frank Pearce & Steve Tombs, *US Capital Versus the Third World: Union Carbide and Bhopal*, in *GLOBAL CRIME CONNECTIONS*, *supra*, at 187; Scarpitti & Block, *Racket*, *supra* note 36, at 115–28.

⁹⁹ Monica Davey, *Sober North Dakotans Hope To Legalize Cannabis Without the Kick*, *N.Y. TIMES*, July 21, 2007, at A1.

¹⁰⁰ *Id.*; *see also* ENVTL. TECHS. ACTION PLAN, *CONCRETE APPLICATIONS OF HEMP IN SUSTAINABLE CONSTRUCTION* (2006), http://ec.europa.eu/environment/etap/pdfs/may06_hemp.pdf.

¹⁰¹ Davey, *supra* note 99, at A1; *see also* Controlled Substances Act, 21 U.S.C. § 812(c)(17) (2006).

¹⁰² For example, and as alluded to in the text, hemp may be a potentially viable biomass fuel, it has proven to be an effective alternative to cotton (which uses a large amount of pesticides, fertilizers, and water), and it is a sturdy and effective construction material that reduces the need for air conditioning because of its insulating properties. *See, e.g.*, ENVTL. TECHS. ACTION PLAN, *supra* note 100; *Any Questions: What Are the Environmental Benefits to Using Cloth Versus Disposable Diapers? What Types of Cloth Diapers Are Available?*, *ENVIROZINE*, Aug. 5, 2004, http://www.ec.gc.ca/EnviroZine/english/issues/45/any_questions_e.cfm.

¹⁰³ Davey, *supra* note 99.

¹⁰⁴ *See, e.g.*, Brief and Addendum of Appellants David Monson and Wayne Hauge, *Monson v. Drug Enforcement Admin.*, No. 07-3837 (8th Cir. Feb. 19, 2008), *available at* http://www.votehemp.com/PDF/Monson_v_DEA_appeal_to_eighth_circuit.pdf; Vote Hemp, *Legal Cases: North Dakota*, http://www.votehemp.com/legal_cases_ND.html#Overview (last visited Apr. 26, 2008).

¹⁰⁵ Davey, *supra* note 99.

¹⁰⁶ *Id.*

¹⁰⁷ As expressed above, for the sake of clarity, this article refers to the “socio-legal approach” or “environmental justice perspective” as simply the “socio-legal approach.” See discussion *supra* note 27.

¹⁰⁸ South & Beirne, *supra* note 82, at xiii.

¹⁰⁹ Lynch, *supra* note 5, at 165.

¹¹⁰ *Id.* at 166–67. Lynch listed these as follows:

(1) the study of crimes committed against humanity through environmental destruction; (2) the study of laws, treaties and movements designed to promote sound environmental practices that protect the destruction of human, plant and animal life; (3) examinations of the successes and failures of governments and corporations to protect humans and animals from environmental hazards; (4) the study of specific governmental and corporate practices and social trends that destroy the environment and thereby threaten the survival of humans, animals and plants; (5) the study of reckless, negligent or willful destruction of humans and animals through misuse of the [sic] environment or environmental predation; (6) examination of the testing of chemical compounds of commodities and chemicals that have negative effects on all forms of living organisms; and (7) the study of hunger and homelessness as the product of corporatism, individualism, greed, corruption, poor planning, overuse/poor use of land, excessive pesticide use, etc.

Id.

¹¹¹ *Id.* at 167.

¹¹² South & Beirne, *supra* note 82, at xiii.

¹¹³ *Id.* at xv.

¹¹⁴ See, e.g., Editorial, *Nature's Revenge*, N.Y. TIMES, Aug. 30, 2005, at A22; cf. David Brooks, *Katrina's Silver Lining*, N.Y. TIMES, Sept. 8, 2005, at A29 (claiming that “Katrina was a natural disaster that interrupted a social disaster”—significant urban poverty in New Orleans).

¹¹⁵ *Nature's Revenge*, *supra* note 114; THERE IS NO SUCH THING AS A NATURAL DISASTER: RACE, CLASS, AND HURRICANE KATRINA (Gregory Squires & Chester Hartman eds., 2006); see also Cornelia Dean, *From the Air, Scientists Comb a Ruined Coastline for Clues and Lessons*, N.Y. TIMES, Sept. 6, 2005, at D1 [hereinafter Dean, *Coastline*] (describing damage to barrier islands and other uninhabited islands of Gulf Islands National Seashore as a “matter of interference by people” and “a human tragedy” (quoting Robert S. Young, Duke University Program for the Study of Developed Shorelines)); Cornelia Dean, *Some Question Protective Role of Marshes*, N.Y. TIMES, Nov. 15, 2005, at D4 [hereinafter Dean, *Question*] (“It is practically an article of faith in Louisiana that if the state’s marshes had not been allowed to deteriorate over the years, New Orleans and other flooded areas would have been preserved from the devastation of Hurricane Katrina.”). See HALSEY, DELEUZE, *supra* note 5, at 20 (“The depletion of China’s and Russia’s forests, for instance, owed/owes as much to the human desire for fuel, food and shelter under Asiatic (that is, non-capitalist) modes of production as it does to the ravages wrought by successive natural disasters (which, in any case, can

no longer be viewed as independent of human conduct.”); Andrew C. Revkin, *The Future Of Calamity*, N.Y. TIMES, Jan. 2, 2005, at § 4:1, 4 (“[C]atastrophes are as much the result of human choices as they are of geology or hydrology.”).

¹¹⁶ Revkin, *supra* note 115.

¹¹⁷ See, e.g., Richard Bernstein, *The View from Abroad*, N.Y. TIMES, Sept. 4, 2005, at WK5 (reporting that “[a] few environmentalists in Europe seized on the situation [Katrina] to express one of their greatest irritations: the unwillingness of the Bush administration to sign the Kyoto Protocol,” and quoting Jürgen Trittin, minister of the environment in Germany, for the proposition that “[t]he American president has closed his eyes to the economic and human damage that natural catastrophes such as Katrina—in other words, disasters caused by a lack of climate protection measures—can visit on his country”).

¹¹⁸ Dean, *Coastline*, *supra* note 115.

¹¹⁹ *Nature’s Revenge*, *supra* note 114. See also Cornelia Dean, *Louisiana’s Marshes Fight for Their Lives*, N.Y. TIMES, Nov. 15, 2005, at D1 (describing how wetland loss was due to “the longstanding practice of interfering with marsh—for flood control, navigation, agriculture, oil or other gain—in hopes that engineering could restore it” (citing Oliver Houck, professor of law, Tulane University School of Law)); *Nature’s Revenge*, *supra* note 114 (“[S]ystematic levee-building along the Mississippi upstream of New Orleans has blocked much of the natural flow of silt into the delta. That, in turn has caused the delta to subside and made the city and its environs even more vulnerable to the waters of the Gulf of Mexico, which itself has been rising.”).

¹²⁰ John Tierney, *A Case for a Cover-Up*, N.Y. TIMES, Sept. 10, 2005, at A27 (maintaining that “[e]verybody anticipated the breach of the levees,” and that both Democrats and Republicans are responsible for shortchanging projects that could have protected New Orleans from the flood).

¹²¹ According to Robert S. Young and David M. Bush, professors of geology at Western Carolina University and the University of West Georgia, respectively:

First, many people—scientists and otherwise—have insinuated that if we had begun wetlands restoration in the Mississippi Delta years ago, it would have reduced the impact of Hurricane Katrina on New Orleans and the coast. This is highly unlikely. Storm surge waters approached the coast from the east, pushed into Lake Pontchartrain by the counterclockwise flow of the hurricane’s winds; the natural wetlands that used to exist downriver from the city would have done little to mitigate the damage.

Second, some have suggested that rebuilding the Louisiana barrier islands would protect the delta region in future storms. But just look what happened elsewhere: Hurricane Katrina’s storm surge quickly inundated the barrier islands of the Gulf Islands National Seashore off Mississippi, which are far more robust and vegetated than the Louisiana islands ever were, on its way to devastating the state’s shoreline. Let’s face it, even if reconstructed, the Louisiana islands would be little more than a speed bump to a storm the size of Hurricane Katrina.

In addition, none of the restoration plans address the root causes of wetland loss: man-made alterations to the Mississippi that reduce the amount of sediment flowing into the marshes, the saltwater allowed in by navigation canals cut through the delta, and a lowering of ground levels throughout the region brought on by natural and industrial activities.

Robert S. Young & David M. Bush, *Forced Marsh*, N.Y. TIMES, Sept. 27, 2005, at A27. Compare Dean, *Question*, *supra* note 115 (“[T]he floodwater that caused the most damage in New Orleans entered the city not from the marshes but from Lake Pontchartrain and, possibly, the Mississippi Gulf Outlet, a much-reviled canal that runs from the river at New Orleans southeast to the gulf.”), with Editorial, *Redemption in the Bayou*, N.Y. TIMES, Sept. 5, 2007, at A22 (“[New Orleans’] heart-rending tragedy is partly traceable to years of federal efforts to manage the Mississippi River in ways that it did not intend to be managed, keeping it from going where it wanted to go and thus weakening the natural defenses that might have spared the city the worst. . . . The problem, in a nutshell is this: the Louisiana coast, its protective fringe of barrier and coastal marshlands, is disappearing. Over the last 75 years, 1.9 million acres have vanished. Every year, another 25 square miles, an area roughly the size of Manhattan, sinks quietly beneath the waves. In some places, the coastline has receded 15 miles from where it was in the 1920’s.”).

¹²² This is not to suggest that investigations—especially investigations into Washington’s slow response to Katrina’s victims—would not uncover violations of existing laws.

¹²³ For an additional perspective on how Hurricane Katrina resulted in “harm” under a “socio-legal approach”/“environmental justice perspective,” see Michael Wines, *Drought Deepens Poverty, Starving More Africans*, N.Y. TIMES, Nov. 2, 2005, at A1 (reporting that Hurricane Katrina helped drive up the price of corn—a staple in Malawi—thereby exacerbating hunger for millions of Malawians and other southern Africans).

¹²⁴ John Jay College Student Work Brigade, *Manifesto of New Orleans*, NEW ORLEANS INDEP. MEDIA CTR., Apr. 27, 2007, <http://neworleans.indymedia.org/news/2007/04/10167.php>; see also Manolo de los Santos, Claudia de La Cruz & Angela Carrasco, John Jay College, New Orleans: It Was Not a Natural Disaster; It Was Murder!, Address at On the Edge: Transgression and the Dangerous Other, an Interdisciplinary Conference Presented by John Jay College of Criminal Justice and The Graduate Center at City University of New York (Aug. 10, 2007) (referring specifically to how the depletion of the wetlands resulted in the failure of the levees when the hurricane came).

¹²⁵ For example, French sociologist Émile Durkheim, in contemplating how social order is maintained in different types of societies, contends that laws and legal sanctions reflect the “conscience collective” (or “collective conscience”) of a given society, and that punishment reinforces social solidarity by expressing outrage at violations and transgressions of the society’s moral code. See ÉMILE DURKHEIM, *THE DIVISION OF LABOR IN SOCIETY* (George Simpson trans., 1964). For an examination of Durkheim and his theses regarding the relationship of law and punishment to social solidarity, see, for example, *DURKHEIM AND THE LAW* (Steven Lukes & Andrew Scull eds., 1983); DAVID GARLAND, *PUNISHMENT AND MODERN SOCIETY: A STUDY IN SOCIAL THEORY* 2–81 (1990); STEVEN LUKES, *ÉMILE DURKHEIM: HIS LIFE AND WORK* (1973).

¹²⁶ See Leslie Eaton, *Judge Steps in for Poor Inmates Without Justice Since Hurricane*, N.Y. TIMES, May 23, 2006, at A1 (reporting that more than nine months after Hurricane Katrina, many criminal defendants remained behind bars because they had no access to lawyers, and the public defenders' office was short-staffed and broke).

¹²⁷ Adam Nossiter, *With Regrets, New Orleans Is Left Behind*, N.Y. TIMES, Dec. 18, 2007, at A1.

¹²⁸ See GEORGE B. VOLD, THOMAS J. BERNARD & JEFFREY B. SNIPES, THEORETICAL CRIMINOLOGY (4th ed. 1998) (“[L]ooting often accompanies large-scale disasters such as floods, earthquakes, violent storms, wars, and riots. Home owners and store owners flee the disaster, leaving their property unprotected. The police often are busy with more pressing matters, such as saving human lives. Many people who normally would not commit crime take advantage of the opportunities in the situation and steal whatever they think they can get away with.”); Robert D. Kaplan, *Next: A War Against Nature*, N.Y. TIMES, Oct. 12, 2005, at A27 (“When such disasters occur, security systems break down and lawlessness erupts. The first effect of the earthquake in the Pakistani town of Muzaffarabad was widespread looting—just as in New Orleans.”).

¹²⁹ This is not to suggest that all the looting that transpired in the immediate aftermath of Katrina was survival oriented or inspired. Plenty of individuals viewed the breakdown of the rule of law as an opportunity to steal televisions and other luxury items—a phenomenon evidenced by the fact that looting has continued in some poor and/or sparsely populated neighborhoods. See Susan Saulny, *Crime Rising, New Orleans Asks for National Guard*, N.Y. TIMES, June 20, 2006, at A10.

¹³⁰ Benedict Carey, *Storm Will Have a Long-Term Emotional Effect on Some, Experts Say*, N.Y. TIMES, Sept. 4, 2005, at §1:26 (citing Suzanne Yates, psychologist, Lehman College).

¹³¹ *Id.* (quoting Elliot Aronson, psychologist, University of California at Santa Cruz).

¹³² Nossiter, *supra* note 127 (noting that murder claimed the lives of about two hundred individuals in New Orleans in 2007). See Christopher Drew, *Police Struggles in New Orleans Raise Old Fears*, N.Y. TIMES, June 13, 2006, at A1; Saulny, *supra* note 129.

¹³³ MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY (11th ed. 2003).

¹³⁴ See ATHANASIOU, *supra* note 5, at 120–41; DAVID DAY, THE ECO-WARS (1996); see also Richard A. Falk, *Environmental Warfare and Ecocide—Facts, Appraisal, and Proposals*, 4 SECURITY DIALOGUE 80, 80–96 (1973) (describing how targeting the environment was a specific military strategy during the Vietnam War); George Johnson, *A Question of Blame When Societies Fall*, N.Y. TIMES, Dec. 25, 2007, at D1 (describing how the inhabitants of Easter Island and the Pitcairn Islands, as well as the Anasazi of Chaco Canyon, the Maya, and the Norse of Greenland, might have committed “ecocide,” contributing to the decline and collapse of their civilizations). See generally STUART KIRSCH, REVERSE ANTHROPOLOGY: INDIGENOUS ANALYSIS OF SOCIAL AND ENVIRONMENTAL RELATIONS IN NEW GUINEA (2006); Pellow & Brulle, *Power*, *supra* note 5, at 1, 19 (describing the “war on nature” and the “war against nature”).

The use of “eco-war” to refer to “ecocide” is a bit confusing because the term *eco-warrior* is frequently employed to describe environmental activists who engage in direct action and other confrontational or aggressive means of safeguarding natural resources and protecting the environment—a far cry from ecocide. See, e.g., DAVE FOREMAN,

CONFESSIONS OF AN ECO-WARRIOR (1991) [hereinafter FOREMAN, ECO-WARRIOR]; ROBERT HUNTER, WARRIORS OF THE RAINBOW: A CHRONICLE OF THE GREENPEACE MOVEMENT (1979); DAVID B. MORRIS, EARTH WARRIOR: OVERBOARD WITH PAUL WATSON AND THE SEA SHEPHERD CONSERVATION SOCIETY (1995); PAUL WATSON, EARTHFORCE (1993); PAUL WATSON, OCEAN WARRIOR: MY BATTLE TO END THE ILLEGAL SLAUGHTER ON THE HIGH SEAS (1996); PAUL WATSON, SEA SHEPHERD: MY FIGHT FOR WHALES AND SEALS (1981); PAUL WATSON, SEAL WARS: TWENTY-FIVE YEARS ON THE FRONT LINES WITH THE HARP SEALS (2003); Khatchadourian, *supra* note 84, at 56–72; Jeffrey “Free” Luers, *How I Became an Ecowarrior*, EARTH FIRST!, Mar.–Apr. 2004, at 33, 33–35; Jeffrey “Free” Luers, *How I Became an Ecowarrior Part II*, EARTH FIRST!, May–June 2004, at 39, 39–41; *infra* Part II.D. As such, this article uses the term *ecocide* exclusively.

¹³⁵ Gillespie, *supra* note 84.

¹³⁶ See, e.g., HALSEY, DELEUZE, *supra* note 5, at 22 (describing ecofeminist theory and stating, “[b]y excluding . . . key debates and issues, men, it is contended, can *only* reinforce androcentrism and, its necessary corollary, ecocide.”); Gillespie, *supra* note 84 (describing discharge from the copper concentrator into the Kawerong River in Bougainville, an island in the Solomon Islands; stating that “[a]luminum, heavy metals such as mercury, cadmium, lead, zinc, and arsenic, contributed to the ecocide;” and proclaiming that “[o]ut of this harmony there emerged, as if from some poisoned seed, people whose love of power was greater than their love of life itself. . . . Hierarchy replaced harmony and the natural cooperation between peoples was replaced by coercion and violence. War, rather than reason, consultation, and consensus, became the final arbiter. . . . Greed and exploitation were proclaimed virtues. Corporate superstructures grew like parasites in the nation-states that harbored them.”).

¹³⁷ See, e.g., EXPLOSIVE REMNANTS OF WAR: MITIGATING THE ENVIRONMENTAL EFFECTS (Arthur H. Westing ed., 1985); Andrew Leibler, *Deliberate Wartime Environmental Damage: New Challenges to International Law*, 23 CAL. W. INT’L L.J. 67 (1992); Low & Hodgkinson, *supra* note 30, at 405 n.2, 408 nn.16 & 19.

¹³⁸ Sylvie Groult, *One Year on, War Pollution Still Stains Lebanon’s Shores*, ILOUBNAN, Aug. 7, 2007, <http://www.americanintifada.com/2007/08/08-07-13.htm>.

¹³⁹ See, e.g., WILLIAM THOMAS, BRINGING THE WAR HOME 137 (1998); Richard Lacayo, *A War Against the Earth*, TIME, Feb. 4, 1991, at 28; Williams, *supra* note 18, at 31; Jeffrey Pollack, *Oil Spill: After the Deluge*, DUKE MAG., Mar.–Apr. 2003, available at <http://www.dukemagazine.duke.edu/dukemag/issues/030403/oil1.html>.

Note that the Iraqi attacks on Kuwaiti oil fields have also been referred to as “ecological terrorism,” “environmental terrorism,” and “ecoterrorism.” See, e.g., Low & Hodgkinson, *supra* note 30, at 406, 423, 430 (explaining that the Gulf War has been termed an “eco-war” and that Iraq’s actions have been considered “environmental terrorism” (citing Lacayo, *supra*; Andrew Rosenthal, *Bush Calls Gulf Oil Spill a “Sick” Act by Hussein*, N.Y. TIMES, Jan. 26, 1991, at L5)); Jessica E. Seacor, Note, *Environmental Terrorism: Lessons from the Oil Fires of Kuwait*, 10 AM. U. J. INT’L L. & POL’Y 481 (1994); Bernard A. Weintraub, *Environmental Security, Environmental Management, and Environmental Justice*, 12 PACE ENVTL. L. REV. 533, 536 (1995); Kristin D. Wheeler, Note, *Homeland Security and Environmental Regulation: Balancing*

Long-Term Environmental Goals with Immediate Security Needs, 45 WASHBURN L.J. 437, 464 (2006); *infra* Part II.D.

To give a sense of the magnitude of the volume of oil dumped into the Persian Gulf, consider that the November 7, 2007, oil spill in the San Francisco Bay involved fifty-eight thousand gallons of fuel. See Jason Dearen, *Criminal Probe Opened on Bay Oil Spill*, ASSOCIATED PRESS (AP) NEWSWIRE, Nov. 11, 2007; Carolyn Marshall, *Crew Involved in Bay Oil Spill Refuses To Talk*, N.Y. TIMES, Nov. 15, 2007, at A23; Carolyn Marshall, *U.S. Prosecutors Start Investigating Oil Spill*, N.Y. TIMES, Nov. 13, 2007, at A25; see also *Charges in Oil Spill*, N.Y. TIMES, Apr. 27, 2008, at WK2; *Oil Spill Pilot's Record Indicated Problems*, N.Y. TIMES, Apr. 10, 2008, at A17; *Ship's Pilot Is Charged in Oil Spill*, N.Y. TIMES, Dec. 8, 2007, at A14. The 1999 Exxon Valdez tanker disaster spilled roughly 262,000 barrels of crude oil into Prince William Sound, Alaska; the 1979 Ixtoc oil well blowout in the Gulf of Mexico released close to 3.3 million barrels. See Low & Hodgkinson, *supra* note 30, at 409.

For a discussion of the environmental impact of the first Gulf War, see, for example, Frank Barnaby, *The Environmental Impact of the Gulf War*, 21 ECOLOGIST 166 (1991); Florention Feliciano, *Marine Pollution and Spoliation of Natural Resources as War Measures: A Note on Some International Law Problems in the Gulf War*, 14 HOUS. J. INT'L L. 483 (1992); Low & Hodgkinson, *supra* note 30, at 408–12; Glen Plant, *Legal Aspects of Marine Pollution During the Gulf War*, 7 INT'L J. ESTUARINE & COASTAL L. 217 (1992); Marc A. Ross, *Environmental Warfare and the Persian Gulf: Possible Remedies To Combat International Destruction of the Environment*, 10 DICK. J. INT'L L. 515 (1992).

¹⁴⁰ See, e.g., Editorial, *Whales in the Navy's Way*, N.Y. TIMES, Jan. 22, 2008, at A20; Carolyn Marshall, *Judge Imposes Stricter Rules On Navy to Protect Marine Life*, N.Y. TIMES, Jan. 5, 2008, at A8; Jesse McKinley, *White House Exempts Navy from Sonar Ban, Angering Environmental Groups*, N.Y. TIMES, Jan. 17, 2008, at A18; Jesse McKinley, *Judge Reinstates Rules on Sonar, Criticizing Bush's Waiver for Navy*, N.Y. TIMES, Feb. 5, 2008, at A20; Natural Resources Defense Council, Issues, Wildlife: Protecting Whales from Dangerous Sonar, <http://www.nrdc.org/wildlife/marine/sonar.asp> (last visited Mar. 28, 2008). See generally Michael Janofsky, *Pentagon Is Asking Congress to Loosen Environmental Laws*, N.Y. TIMES, May 11, 2005, at A14.

¹⁴¹ Seager, *supra* note 8, at 58, 59, 62.

¹⁴² *Id.* at 65 (footnote omitted); see also RUTH SIVARD, WORLD PRIORITIES INST., WORLD MILITARY AND SOCIAL EXPENDITURES, 1987–1988 (12th ed. 1987) (finding that military and civilian programs must compete for limited national revenues and that high levels of military spending result in fewer funds for civilian programs); John C. Dernbach, *Sustainable Development: Now More than Ever, in STUMBLING TOWARD SUSTAINABILITY*, *supra* note 33, at 45, 48 [hereinafter Dernbach, *Sustainable*] (“Money spent on arms is money that is not used to meet basic human needs such as drinking water and sanitation.”).

¹⁴³ Seager, *supra* note 8, at 65.

¹⁴⁴ Williams, *supra* note 18, at 31 (citing G.V. BACHLERBOGE, S. KLOTZLI & S. LIBISZWESKI, THE DESTRUCTION OF NATURE AS A CAUSE OF CONFLICT (1993)); see HALSEY, DELEUZE, *supra* note 5, at 44; Mark Halsey, *Green Criminology*, *supra* note 4,

at 836 (“[O]ne of the greatest perpetrators of ecological damage is the (post-)modern state.”); see also John C. Dernbach, *Synthesis*, in STUMBLING TOWARD SUSTAINABILITY, *supra* note 33, at 1, 5 [hereinafter Dernbach, *Synthesis*] (“Although poverty and environmental degradation are important in their own right, they also can cause or contribute to wars, starvation, ethnic tensions, and terrorism, which are more likely to get headlines than their underlining causes.”).

Although certain environmental problems and the scarcity of certain natural resources can result in conflict and violence, one commentator notes that oil-rich countries are often run by authoritarian regimes. According to this commentator, democracy, with its rights and protections, appears to decline when oil revenues surge. See Janine di Giovanni, *Democratic Vistas*, N.Y. TIMES BOOK REV., Jan. 20, 2008, at 21 (reviewing LARRY DIAMOND, *THE SPIRIT OF DEMOCRACY: THE STRUGGLE TO BUILD FREE SOCIETIES THROUGHOUT THE WORLD* (2008)).

¹⁴⁵ Lydia Polgreen, *A Godsend for Darfur, or a Curse?*, N.Y. TIMES, July 22, 2007, at §4:1.12. In the 1980s, droughts in Sudan forced migrations and other social changes and increased competition for water and land between farmers (many of whom are non-Arab) and herders (many of whom are Arab). Polgreen questions whether a newly discovered lake in Sudan may help bring some deliverance from the conflict in Sudan. But John Prendergast, a founder of the Enough Project, an initiative of the Center for American Progress and the International Crisis Group to abolish genocide and mass atrocities, claims that “[c]limate change and the lack of rain are much less important than the land-use patterns promoted by the government of Sudan and the development policies of World Bank and I.M.F., which were focused on intensive agricultural expansion that really mined the soils and left a lot of land unusable.” *Id.*

In a different vein, Kristof links China’s thirst for oil to the Darfur genocide. Echoing Friedman’s comments regarding the relationship of U.S. lust for oil to violence and conflict in Iraq, *infra* notes 147–50 and accompanying text, Kristof states that, “in exchange for access to Sudanese oil, Beijing is financing, diplomatically protecting and supplying the arms for the first genocide of the 21st century.” Nicholar Kristof, *China’s Genocide Olympics*, N.Y. TIMES, Jan. 24, 2008, at A23.

¹⁴⁶ According to Pellow and Brulle,

The evaluation of the EJ movement is of significance because, as economic globalization continues at an unchecked pace, as the United States and other industrialized nations continue to produce greater volumes of hazardous waste, and as the level of social inequality in these societies also increases, the frequency and intensity of environmental justice conflicts will also rise. These conflicts will become more routine in the United States and in the global South as global North nations continue dumping waste in both domestic and global “pollution havens” where the cost of doing business is much cheaper, regulation is virtually non-existent, and residents do not hold much formal political power. In some cases, these practices have nearly led to military confrontations among nations, threatening geopolitical stability.

Pellow & Brulle, *Power*, *supra* note 5, at 10–11.

¹⁴⁷ See, e.g., Katie Zezima, *Rice's Appearance Draws Protests in Boston*, N.Y. TIMES, May 23, 2006, at A21; BloodForOil.org, <http://www.bloodforoil.org/> (last visited Mar. 26, 2008); David Truskoff, *No Blood for Oil*, COUNTERCURRENTS.ORG, Oct. 5, 2006, <http://www.countercurrents.org/us-truskoff051006.htm>.

¹⁴⁸ Thomas L. Friedman, *A Quick Fix for the Gas Addicts*, N.Y. TIMES, May 31, 2006, at A19; see also Josh Lauer, *Drive to Extremes: Fear of Crime and the Rise of the Sport Utility Vehicle in the United States*, CRIME MEDIA CULTURE, Mar. 2005, at 149, 165, 166 (discussing how sports utility vehicles (SUVs) pose “a threat to national security by fostering American over-reliance on oil from the Middle East,” and concluding that “[i]f the SUV provided a haven of euphemistic safety and space for upwardly mobile Americans during the 1980s and 1990s, it did so at considerable social, environmental, and (arguably) geo-political cost”).

¹⁴⁹ In California, the 2006 and 2007 Chevrolet Tahoe and Suburban (half-ton models only); Impala and Monte Carlo sedans; G.M.C. Yukon and Yukon XL SUVs (half-ton models only); Hummer H2 and H3 SUVs; the Cadillac SRX SUV; and the Pontiac Grand Prix and Buick Lucerne sedans. In Florida, the 2006 and 2007 Chevrolet Impala and Monte Carlo; Pontiac Grand Prix and Buick LaCrosse. Friedman, *supra* note 148. The Hummer H2, weighing in at 6,400 pounds, averages roughly nine miles per gallon; the Chevy Suburban, around fifteen miles per gallon. *Id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.*; see also Dernbach, *Sustainable*, *supra* note 142, at 46, 47, 59 (“The terrorist acts of September 11, 2001, reinforce rather than diminish the importance of sustainable development. . . . Social and economic development are impossible in the absence of peace. . . . Sustainable development is not antagonistic to a campaign against terrorism; it requires that campaign.”); John C. Dernbach, *Synthesis*, *supra* note 144, at 1, 7 (noting the linkages between economic, social, environmental, and security goals).

¹⁵² There does, however, appear to be good support for the reverse proposition—that the presence of military Humvees in Iraq spurred interest in the civilian version, the Hummer, in the United States. See Lauer, *supra* note 148, at 163–66.

¹⁵³ Phil MacNaghten & John Urry, *Towards a Sociology of Nature*, 29 SOCIOLOGY 203, 210 (1995).

¹⁵⁴ Lynch & Stretsky, *supra* note 5, at 231.

¹⁵⁵ *Dogfighting Operation Broken Up*, N.Y. TIMES, Dec. 18, 2007, at A30; see also *Dozen More Sought in Union Parish Dogfighting Operation*, KTBS 3 NEWS, Dec. 18, 2007, available at <http://www.ktbs.com/news/Dozen-more-sought-in-Union-Parish-dogfighting-operation-7229/>.

¹⁵⁶ Robert Agnew, *The Cause of Animal Abuse: A Social-Psychological Analysis*, 2 THEORETICAL CRIMINOLOGY 177, 179 (1998).

¹⁵⁷ For a definition of abuse, see *id.* at 179 (noting, among other factors, that “abuse may be physical (including sexual) or mental, may involve active maltreatment or passive neglect, may be direct or indirect”).

¹⁵⁸ See GARY L. FRANZIONE, *ANIMALS, PROPERTY, AND THE LAW* (1995); CLIFFORD J. SHERRY, *ANIMAL RIGHTS: A REFERENCE HANDBOOK* (1994); MURRAY A. STRAUS, *BEATING THE DEVIL OUT OF THEM: CORPORAL PUNISHMENT IN AMERICAN FAMILIES* (1994); Agnew, *supra* note 156, at 179 (“Most of the harm on animals is legal.”).

¹⁵⁹ Beirne, *Nonspeciect*, *supra* note 50, at 128–29.

¹⁶⁰ Halsey, *Green Criminology*, *supra* note 4, at 837 n.6.

¹⁶¹ Agnew, *supra* note 156, at 180. Agnew makes clear, however, that he is neither the first, nor alone, in making such claims: “This argument, of course, has been made by conflict theorists and others. And some of the best work in criminology has called attention to harmful although non-criminal acts, including work in the areas of family violence and white-collar crime.” *Id.* (citations omitted).

¹⁶² *Id.* at 180–81 (citations omitted); *see also* Perlstein, *supra* note 64, at D1 (“[Cockfighting is] cruel and barbaric and it desensitizes people to violence. This needs to be banned immediately, and for a ban to be enforceable, it needs to be a felony.” (quoting Laura Maloney, director, Louisiana Society for the Protection of Animals)).

Note that for some ecofeminists, cruelty to women results in cruelty to animals, rather than vice versa. *See, e.g.*, HALSEY, DELEUZE, *supra* note 5, at 26 (“Feminine suffering is universal because wrong done to women and its ongoing denial fuel the psychosexual abuse of all others—race, children, animals, plants, rocks, water, and air.” (quoting A. SALLEH, ECOFEMINISM AS POLITICS: NATURE, MARX AND THE POSTMODERN 14 (1997))).

¹⁶³ Beirne, *Nonspeciect*, *supra* note 50, at 124. Note that some of this research has resulted in the transformation of some noncriminal harmful acts to the status of criminal. *See* People for the Ethical Treatment of Animals, Factsheet, Animal Abuse and Human Abuse: Partners in Crime, http://www.peta.org/mc/factsheet_display.asp?ID=132 (last visited Mar. 28, 2008) (“In March 2006, Maine Governor John Baldacci signed a law—the first of its kind in the United States—that permits judges to include animal companions in court-issued protection orders against domestic abusers. Those who harm animals in violation of a court order can face fines and jail time.”); *see also* Sharon Kiley Mack, *Law Protects Pets of Abuse Victims*, BANGOR DAILY NEWS, Apr. 1, 2006, at A1.

¹⁶⁴ *See, e.g.*, ANGELA BROWNE, WHEN BATTERED WOMEN KILL 157 (1987); RICHARD J. GELLES & MURRAY STRAUS, INTIMATE VIOLENCE 68, 119 (1998); CLAIRE RENZETTI, VIOLENT BETRAYAL: PARTNER ABUSE IN LESBIAN RELATIONSHIPS 21 (1992); Phil Arkow, *Child Abuse, Animal Abuse, and the Veterinarian*, 204 J. AM. VETERINARY MED. ASS’N 226, 226–47 (1994); Frank Ascione, *Battered Women’s Reports of Their Partners and Their Children’s Cruelty to Animals*, 1 J. EMOTIONAL ABUSE 119, 120, 120–33 (1998); Frank Ascione, Teresa M. Thompson & Tracy Black, *Childhood Cruelty to Animals: Assessing Cruelty Dimensions and Motivations*, 10 ANTHROZOOS 170, 170–77 (1997); Gary Patronek, *Issues for Veterinarians in Recognizing and Reporting Animal Neglect and Abuse*, 5 J. HUM.-ANIMAL STUD. 267 (1997).

¹⁶⁵ *See* Elizabeth Deviney, Jeffery Dickert, and Randall Lockwood, *The Care of Pets Within Child Abusing Families*, 4 INT’L J. FOR STUDY ANIMAL PROBS. 321, 321–29 (1983) (finding that 60 percent of more than fifty New Jersey families being treated for child abuse also had animals in the home who had been abused); People for the Ethical Treatment of Animals, *supra* note 163.

¹⁶⁶ *See, e.g.*, Barbara W. Boat, *The Relationship Between Violence to Children and Violence to Animals: An Ignored Link?*, 10 J. INTERPERSONAL VIOLENCE 229, 229–35 (1995); William N. Friedrich, Anthony J. Urquiza & Robert L. Beike, *Behavior Problems in Sexually Abused Young Children*, 11 J. PEDIATRIC PSYCHOL. 47, 47–57

(1986); MIC HUNTER, ABUSED BOYS: THE NEGLECTED VICTIMS OF SEXUAL ABUSE 214, 214–16 (1990).

¹⁶⁷ See, e.g., R. VEMON WIEHE, SIBLING ABUSE 44–45 (1990).

¹⁶⁸ People for the Ethical Treatment of Animals, *supra* note 163; see also MARTIN DALY & MARGO WILSON, HOMICIDE (1988); Beirne, *Nonspeciest*, *supra* note 50, at 123; Sara C. Haden & Angela Scarpa, *Childhood Animal Cruelty: A Review of Research, Assessment, and Therapeutic Issues*, FORENSIC EXAMINER, Summer 2005, at 23; Stephen R. Kellert & Alan R. Felthous, *Childhood Cruelty Toward Animals Among Criminals and Noncriminals*, 38 HUM. REL. 1113 (1985); Kenneth White, *The Shape of Cruelty*, LATHAM LETTER, Summer 1992, at 6, 6–7; *Animal Cruelty; Common in Many Killers*, SUNBURY MACEDON REGIONAL, Apr. 26, 2005, at 3; Paul Bradley & Kiran Krishnamurthy, *Right and Wrong 'An Illusion' Psychologist Who Met with Malvo Said Teen's Disorder Limited His Moral Judgment*, RICHMOND TIMES DISPATCH, Dec. 9, 2003, at A7; Ethan Bronner, *Terror in Littleton: The Signs; Experts Urge Swift Action To Fight Depression, Isolation, and Aggression*, N.Y. TIMES, Apr. 22, 1999, at A27; Ruth Larson, *Animal Cruelty May Be a Warning. Often Precedes Harm to Humans*, WASH. TIMES, June 23, 1998, at A7; Tim Potter, *BTK Describes His Own Crimes*, WICHITA EAGLE (Wichita, Kan.), July 16, 2005, at 1B; Deborah Sharp, *Abuse Will Often Cross Species Lines*, USA TODAY, Apr. 28, 2000, at 3A; Mitchell Zuckoff, *Loners Drew Little Notice*, BOSTON GLOBE, Apr. 22, 1999, at A1; cf. Arnold Arluke & Boria Sax, *Understanding Nazi Animal Protection and the Holocaust*, 5 ANTHROZOOS 6 (1992); Aleksander Lasik, *Rudolf Hoss: Manager of Crime*, in ANATOMY OF THE AUSCHWITZ DEATH CAMP 288 (Yisrael Gutman & Michael Berenbaum eds., 1998).

¹⁶⁹ See, e.g., Linda Pifer, Kinya Shimizu & Ralph Pifer, *Public Attitudes Toward Animal Research: Some International Comparisons*, 2 SOC'Y & ANIMALS 95 (1994); Taylor, *supra* note 4, at 558 (“Because of their environmental experiences, the distinction between environment and social justice is an artificial one for people of color. The [environmental justice paradigm] encourages its supporters to view the home and community, work, and play environments as interconnected environments. Therefore, efforts . . . to isolate and concentrate only on certain aspects of these environments is anathema to people of color. The practice of focusing on the distant, wild, natural environs while paying less attention to the people environment is problematic.”).

¹⁷⁰ For additional perspectives on how animal abuse and cruelty begets, precipitates, and signifies human-directed crime, see, for example, David Crary, *Program Links Domestic Abuse, Pets*, ASSOCIATED PRESS (AP) NEWSWIRE, Mar. 11, 2001; *Man Accused of Killing Puppy with Ax*, ATHENS BANNER-HERALD (Athens, Ga.), Nov. 18, 2003; *Man Charged with Threatening Children*, BUCKS COUNTY COURIER TIMES (Bucks County, Pa.), Feb. 29, 2004, at 8C; *Police Remove Children from Filthy House*, ASSOCIATED PRESS (AP) NEWSWIRE, Jun. 17, 2005; Andrea Vance, *10-Year-Old Luke Kicked a Lamb To Death Like a Football*, NEWS WORLD (U.K.), Jan. 23, 2005; Frank R. Ascione, *Children Who Are Cruel to Animals: A Review of Research and Implications for Developmental Psychopathology*, 6 ANTHROZOOS 226 (1993); Frank R. Ascione, *Enhancing Children's Attitudes About the Humane Treatment of Animals: Generalization to Human-Directed Empathy*, 5 ANTHROZOOS 176 (1992); Ronald Baenninger, *Violence Toward Other Species*, in TARGETS OF VIOLENCE AND AGGRESSION 5 (Ronald

Baenninger ed., 1991); Piers Beirne, *The Use and Abuse of Animals in Criminology: A Brief History and Current Review*, SOC. JUST., Spring 1995, at 5; Donna K. Darden & Steven K. Worden, *Marketing Deviance: The Selling of Cockfighting*, 4 SOC'Y & ANIMALS 211 (1996); Alan R. Felthous, *Aggression Against Cats, Dogs, and People*, 10 CHILD PSYCHOL. & HUM. DEV. 169 (1980); Alan R. Felthous & Stephen R. Kellert, *Childhood Cruelty to Animals and Later Aggression Against People: A Review*, 144 AM. J. PSYCHIATRY 710 (1987); Paul J. Frick et al., *Oppositional Defiant Disorder and Conduct Disorder: A Meta-Analytic Review of Factor Analyses and Cross-Validation in a Clinic Sample*, 13 CLINICAL PSYCHOL. REV. 319 (1993); Karla S. Miller & John F. Knutson, *Reports of Severe Physical Punishment and Exposure to Animal Cruelty by Inmates Convicted of Felonies and by University Students*, 21 CHILD ABUSE & NEGLECT 59 (1997); David R. Offord et al., *The Epidemiology of Antisocial Behavior in Childhood and Adolescence*, in THE DEVELOPMENT AND TREATMENT OF CHILDHOOD AGGRESSION 31 (Debra J. Pepler & Kenneth H. Rubin eds., 1991); G.R. Patterson, Barbara D. DeBaryshe & Elizabeth Ramsey, *A Developmental Perspective on Antisocial Behavior*, 442 AM. PSYCHOLOGIST 329 (1989).

¹⁷¹ Matt Cartmill, *Human Uniqueness and Theoretical Content in Paleoanthropology*, 11 INT'L J. PRIMATOLOGY 173, 178 (1980).

¹⁷² Bendarik, for example, notes that “[t]he issue of disaster preparedness was unlikely to be in the top twenty concerns of animal advocates [before Hurricane Katrina]. However, the graphic scenes of distressed people forced to choose between the safety of an evacuation shelter and staying in their flooded homes with their pets is indelibly etched in the national psyche.” Bednarik, *supra* note 51, at 92. With Bednarik’s observations in mind, one could suggest that Hurricane Katrina was the sort of noncriminal event that caused the type of harm that both environmental justice advocates and those concerned with animal abuse and cruelty include within a socio-legal approach/environmental justice perspective. The suggestion that disaster preparedness may serve as an area in which environmental justice proponents and animal welfare and rights activists might share common ground gains some traction from post-Katrina efforts like the Pet Evacuation and Transportation Standards Act of 2006 (PETS), Pub. L. No. 109-308, 120 Stat. 1725 (codified as amended at 42 U.S.C. § 5196(b) (2006)), which would ensure that in the event of a major disaster or emergency, government officials will not separate people from their service and companion animals. *See, e.g.*, Pets Evacuation and Transportation Standards Act of 2006, *available at* http://www.animallaw.info/statutes/stusfd2006p1109_308.htm; Marjorie A. Berger, *2006 Legislative Review*, 13 ANIMAL L. 299, 304–06 (2007); Bednarik, *supra* note 51, at 92; Shays, *supra* note 57, at 1.

¹⁷³ *See, e.g.*, Bruce Barcott, *From Tree-Hugger to Terrorist*, N.Y. TIMES MAG., Apr. 7, 2002, at 16. Note that while the responses to legal harms may be directed at a wide range of individuals, “[the violence] is aimed at inanimate machines and tools that are destroying life.” FOREMAN, ECO-WARRIOR, *supra* note 134; FOREMAN, ECODEFENSE: A FIELD GUIDE FOR MONKEYWRENCHING (1993) [hereinafter FOREMAN, ECODEFENSE].

¹⁷⁴ Lisa Bacon, *Rash of Vandalism in Richmond May Be Tied to Environment Group*, N.Y. TIMES, Nov. 18, 2002, at A15 (quoting Craig Rosebraugh, former spokesperson, ALF and ELF).

¹⁷⁵ For in-depth discussions of the actions, histories, and philosophies of individuals and groups involved in such activities, see, for example, FOREMAN, ECO-WARRIOR *supra* note 134; FOREMAN, ECODEFENSE, *supra* note 173; CHRISTOPHER MANES, GREEN RAGE: RADICAL ENVIRONMENTALISM AND THE UNMAKING OF CIVILIZATION (1990); RIK SCARCE, ECO-WARRIORS: UNDERSTANDING THE RADICAL ENVIRONMENTAL MOVEMENT (1990); TERRORISTS OR FREEDOM FIGHTERS?: REFLECTIONS ON THE LIBERATION OF ANIMALS (Steven Best & Anthony J. Nocella eds., 2004); SUSAN ZAKIN, COYOTES AND TOWN DOGS: EARTH FIRST! AND THE ENVIRONMENTAL MOVEMENT (1993).

For recent examples, see, for example, (in chronological order) Bruce Barcott, *supra* note 173; Bacon, *supra* note 174; *Fire Destroys Hummers*, N.Y. TIMES, Aug. 23, 2003, at A8; *Arrest Made in S.U.V. Fire*, N.Y. TIMES, Sept. 14, 2003, at 19; Jo Napolitano, *Group Takes Blame for Vandalism*, N.Y. TIMES, Oct. 31, 2003, at A15; 3 in *Environmental Group Plead Guilty*, N.Y. TIMES, Jan. 13, 2004, at A18; Matthew Preusch, *Animal Rights Arrest*, N.Y. TIMES, Jan. 16, 2004, at 12; Adam Liptak, *Judge Throws Out U.S. Suit of Greenpeace*, N.Y. TIMES, May 20, 2004, at A20; Robert Hanley, *Animal Rights Advocates Charged with Making Threats*, N.Y. TIMES, May 27, 2004, at A27; *F.B.I. Warns of Protest Threat*, N.Y. TIMES, June 12, 2004, at A11; *University Fax Machine Linked to Ecoterrorism Claim*, N.Y. TIMES, June 19, 2004, at A12; *Charges in Animal Rights Arson*, N.Y. TIMES, July 27, 2004, at A13; *Guilty Pleas in Ecoterror Case*, N.Y. TIMES, Oct. 2, 2004, at A9; *Fire May be Tied to Activists, Police Say*, N.Y. TIMES, Feb. 8, 2005, at A15; Frank Eltman, *Animal Welfare Activists More Aggressive*, SAN DIEGO UNION TRIB., May 18, 2005, available at <http://www.rickross.com/reference/animal/animal89.html>; Timothy Egan, *6 Arrested After Ecoterrorist Acts*, N.Y. TIMES, Dec. 9, 2005, at A18; Michael Janofsky, *11 Indicted in Cases of Environmental Sabotage*, N.Y. TIMES, Jan. 21, 2006, at A1; *Environmental Activists Indicted*, N.Y. TIMES, Jan. 27, 2006, at A13; David Kocieniewski, *Activists Are Accused of Championing Animals by Making Targets of People*, N.Y. TIMES, Mar. 1, 2006, at A23; David Kocieniewski, *6 Animal Rights Advocates Are Convicted of Terrorism*, N.Y. TIMES, Mar. 3, 2006, at A21 [hereinafter Kocieniewski, *Convicted*]; *14th Indicted in Ecoterrorist Case*, N.Y. TIMES, Mar. 31, 2006, at A13; *British Animal Rights Protesters Admit Plotting Against Farmers*, N.Y. TIMES, Apr. 12, 2006, at A10; Kirk Johnson, *4 Are Indicted on Arson Charges in 1998 Fires at a Resort in Vail*, N.Y. TIMES, May 20, 2006, at A9; Randal C. Archibold, *Facing Trial Under Terror Law, Radical Claims a New Outlook*, N.Y. TIMES, May 3, 2007, at A15; *13-Year Sentence in Ecoterrorism Case*, N.Y. TIMES, May 25, 2007, at A14; *Mistrial in Ecoterror Case*, N.Y. TIMES, Sept. 21, 2007, at A15; Khatchadourian, *supra* note 84, at 56–72; Elizabeth M. Gillespie, *Luxury Homes Burn in Apparent Eco-attack*, ASSOCIATED PRESS (AP) NEWSWIRE, Mar. 3, 2008; William Yardley, *Ecoterrorism Suspected in House Fires in Seattle Suburb*, N.Y. TIMES, Mar. 4, 2008, at A16; ASSOCIATED PRESS (AP) NEWSWIRE, National Briefing: Northwest: Washington: *Woman Guilty in 2001 Arson*, N.Y. TIMES, Mar. 7, 2008, at A11; see also Bednarik, *supra* note 51, at 92.

Note that these responses to legal harms are not confined to the United States. Such direct action in the name of the earth and for the sake of the environment have occurred worldwide. See, e.g., Chrystal Mancuso-Smith, *From Monkeywrenching to Mass*

Destruction: Eco-Sabotage and the American West, 26 J. LAND RESOURCES & ENVTL. L. 319, 324–25 (2006); *see also* Gillespie, *supra* note 84 (describing the struggle of the people of Bougainville, an island in the Solomon Islands archipelago, to force the closure of an environmentally destructive copper-mining operation, and asserting that “Bougainville is the first place in the world where an indigenous people have forced the closure of a mine that was raping their land and environment, and kept it closed”); Williams, *supra* note 18, at 32 (“In Bougainville (Solomon Islands), indigenous people’s resistance to pollution from copper mining by Rio Tinto Zinc (RTZ) included blowing up electricity pylons, which brought about the closure of the mine. This catalyzed an independence struggle, which has transmuted into an ongoing conflict with blockades and a shoot-to-kill policy involving local people, RTZ, the Papuan militia, and the Australian government. The outcome is in no one’s interests, particularly that of RTZ, which consequently experienced difficulties in attracting financial backing for other projects.”).

Note also that not all responses to legal harms committed *in the name of* the environment or to *protect* or *improve* the environment involve vandalism or violence. For example, “guerrilla gardening” is a form of nonviolent direct action whereby environmental activists take over or squat on an abandoned piece of land and grow crops or plants. Although guerrilla gardening may violate local ordinances and laws regarding trespassing, guerrilla gardeners possess a different purpose than those engaging in ecodefense, ecotage, or monkeywrenching: by reclaiming and assigning a new purpose to land perceived as neglected or misused, guerrilla gardeners hope to put the land to a better use and to engage in a political commentary about land ownership, land rights, and land reform. But under existing state-defined crime, their actions, like those who undertake ecodefense, ecotage, or monkeywrenching, may well constitute property crimes. Similarly, seed bombs or seed grenades—compressed clods of soil containing seeds or live vegetation, water, and sometimes fertilizer—are sometimes thrown, hurled, or dropped into or onto abandoned or otherwise neglected lots in an effort to introduce vegetation and improve the aesthetics of the area. Again, like guerrilla gardening, seed bombing may technically be against the law, but the tactics and end results differ greatly from ecodefense, ecotage, or monkeywrenching. *See, e.g.*, AVANT GARDENING: ECOLOGICAL STRUGGLE IN THE CITY AND THE WORLD (Peter Lamborn & Bill Weinberg eds., 1999); DAVID TRACEY, GUERRILLA GARDENING: A MANUALFESTO (2007).

¹⁷⁶ *See, e.g.*, CRAIG ROSEBRAUGH, BURNING RAGE OF A DYING PLANET: SPEAKING FOR THE EARTH LIBERATION FRONT (2004).

¹⁷⁷ Sea Shepherd Conservation Society, Mission Statement, <http://www.seashepherd.org/mission.html> (last visited Mar. 28, 2008); *see also* Khatchadourian, *supra* note 84, at 56, 58 (describing the Sea Shepherd Conservation Society’s goals “to protect the world’s marine life from the destructive habits and the voracious appetites of humankind”).

¹⁷⁸ Sea Shepherd’s fleet, Neptune’s Navy, is captained by Paul Watson, an original founder of Greenpeace. *See* Khatchadourian, *supra* note 84, at 56.

¹⁷⁹ Watson refers to the procedure by which his vessel rams into another’s stern, “Operation Asshole,” and uses the term *steel enema* to describe jamming ships in their slipways. Khatchadourian, *supra* note 84, at 56, 58, 62. Neptune’s Navy will also pull up long lines of poachers and engage in net ripping and other activities to impede fishing vessels or prevent what it considers to be the tragedy of the commons. *Id.* at 62, 69, 71.

¹⁸⁰ United Nations Convention on the Law of the Sea (UNCLOS), Dec. 10, 1982, 1833 U.N.T.S. 397. UNCLOS provides that only sovereign states may take action to protect and preserve the marine environment and that the *high seas*—the area beyond the exclusive economic zone (EEZ) (more than two hundred nautical miles off the coast) is beyond national jurisdiction and part of the global commons. *Id.* For an overview of UNCLOS, see, for example, DAVID HUNTER, JAMES SALZMAN & DURWOOD ZAELEKE, INTERNATIONAL ENVIRONMENTAL LAW AND POLICY 659–67 (2d ed. 2002); see also Robin Kundis Craig, *Oceans and Estuaries*, in STUMBLING TOWARD SUSTAINABILITY, *supra* note 33, at 227, 229–31; Khatchadourian, *supra* note 84, at 56, 58; Low & Hodgkinson, *supra* note 30, at 439–41.

¹⁸¹ See International Convention for the Regulation of Whaling (ICRW), Dec. 2, 1946, 10 U.S.T. 952, 161 U.N.T.S. 72; see also HUNTER, SALZMAN & ZAELEKE, *supra* note 180, at 977–95; Anthony D’Amato & Sudhir K. Chopra, *Whales: Their Emerging Right to Life*, 85 AM. J. INT’L L. 21, 21–61 (1991); Khatchadourian, *supra* note 84, at 56, 58.

One particularly controversial issue that has plagued the IWC is its provision for aboriginal subsistence whaling. For a discussion, see, for example, Anne M. Creason, *Culture Clash: The Influence of Indigenous Cultures on the International Whaling Regime*, 35 CAL. W. INT’L L.J. 83 (2004); Alyson Decker, *Save the Whales—Save the Whalers—Wait, Just Save the International Whaling Commission: A Fresh Look at the Controversy Surrounding Cultural Claims to Whale*, 16 S. CAL. INTERDISC. L.J. 253 (2006); A.W. Harris, *The Best Scientific Evidence Available: The Whaling Moratorium and Divergent Interpretations of Science*, 29 WM. & MARY ENVTL. L. & POL’Y REV. 375 (2005); Brian Trevor Hodges, *The Cracking Façade of the International Whaling Commission as an Institution of International Law: Norwegian Small-Type Whaling and the Aboriginal Subsistence Exemption*, 15 J. ENVTL. L. & LITIG. 295 (2000); Leesteffy Jenkins & Cara Romanzo, *Makah Whaling: Aboriginal Subsistence or a Stepping Stone to Undermining the Commercial Whaling Moratorium*, 9 COLO. J. INT’L ENVTL. L. & POL’Y 71 (1998); Diana Wagner, *Competing Cultural Interests in the Whaling Debate: An Exception to the Universality of the Right to Culture*, 14 TRANSNAT’L L. & CONTEMP. PROBS. 831 (2004).

For a recent discussion regarding the Makah and whaling, see, for example, Sarah Kershaw, *In Petition to Government, Tribe Hopes for Return to Whaling Past*, N.Y. TIMES, Sept. 19, 2005, at A12; J. Michael Kennedy, *Tribal Group Kills Whale Off Washington*, N.Y. TIMES, Sept. 11, 2007, at A21; *Charges in Whale Killing*, N.Y. TIMES, Oct. 6, 2007, at A10; ASSOCIATED PRESS (AP) NEWSWIRE, National Briefing: Northwest: Washington: *Plea in Whale Killing*, N.Y. TIMES, Mar. 25, 2008, at A17; see also Alx Dark, NATIONAL COUNCIL FOR SCIENCE AND THE ENVIRONMENT, THE MAKAH WHALE HUNT (1999), available at <http://www.ncseonline.org/NAE/cases/makah/index.html>.

¹⁸² Khatchadourian, *supra* note 84, at 56–72. A crucial tactic of SSSC is the filming and generation of publicity surrounding their campaigns. *Id.*

¹⁸³ “Members” is placed in quotation marks because ELF, as an anonymous, decentralized organization and contains no formal membership. Those who engage in ELF-type activities do so as part of affinity groups, rather than as members of a formally structured organization. See, e.g., Animal Liberation Front, The ALF Credo and

Guidelines, http://www.animalliberationfront.com/ALFront/alf_credo.htm (last visited Jan. 5, 2008) (“Because ALF actions may be against the law, activists work anonymously, either in small groups or individually, and do not have any centralized organization or coordination. The Animal Liberation Front consists of small autonomous groups of people all over the world who carry out direct action according to the ALF guidelines. *Any group of people who are vegetarians or vegans and who carry out actions according to ALF guidelines have the right to regard themselves as part of the ALF.*”); Bacon, *supra* note 174; Jason Laurendeau & Erin Gibbs Van Brunschot, Home-grown Brand of Al Qaeda: Moral Panics and the Construction of “Eco-terrorism” (Nov. 3, 2006) (unpublished manuscript presented at the 2006 Annual Meeting of the American Society of Criminology, L.A., Cal., on file with author); Mancuso-Smith, *supra* note 175, at 322.

¹⁸⁴ See sources cited *supra* note 173; see also Bednarik, *supra* note 51, at 92 (“In order to educate the public and protest the conditions of animals, some animal activists have trespassed on private property in order to document the horrific living conditions of these animals.”); Mancuso-Smith, *supra* note 175, at 322 (discussing how some individuals hope to “trust environmental issues to the forefront of the public’s attention,” while others “hope . . . that causing fear and economic damage will scare perceived ‘violators’ into stopping behavior [they] find . . . offensive or harmful”).

For a note on terrorism as a symbolic gesture, see, for example, *Easing Anxiety on Mass Transit*, N.Y. TIMES, July 17, 2005, at WK4 (quoting Juliette N. Kayem, terrorism scholar, Kennedy School of Government, Harvard University).

¹⁸⁵ See, e.g., Laurendeau & Gibbs Van Brunschot, *supra* note 183.

¹⁸⁶ Animal Liberation Front, *supra* note 183. See also Egan, *supra* note 175; Eltman, *supra* note 175.

¹⁸⁷ Animal Liberation Front, *supra* note 183.

¹⁸⁸ *Id.*

¹⁸⁹ Note that ecodefense is more likely to be applied to activities involving the rescuing or liberation of animals, whereas ecotage or monkeywrenching are more likely to be used to refer to measures taken to slow down or halt activities that the “eco-saboteur” or “monkeywrencher” perceives as destructive (such as development or logging).

¹⁹⁰ See, e.g., EDWARD ABBEY, HAYDUKE LIVES! (1991); EDWARD ABBEY, THE MONKEY WRENCH GANG (1975).

¹⁹¹ See, e.g., RON ARNOLD, ECOTERROR: THE VIOLENT AGENDA TO SAVE NATURE (1997); Laurendeau & Gibbs Van Brunschot, *supra* note 183.

According to Rosebraugh,

[i]n the mid-1990s, the term *ecoterrorism* began to be used to refer to acts of sabotage committed in defense of the environment. This label was not used within the environmental movement itself, but rather by mainstream news media, law enforcement, and politicians, who were acting deliberately to reduce public support and increase condemnation of such acts. Do acts of property destruction taken to further the environmental movement constitute a form of terrorism? It all depends on whom you ask.

ROSEBRAUGH, *supra* note 176, at 236.

Note that two commentators use the terms *ecoterrorism* and *eco-extremism* interchangeably to refer to a wide range of phenomena, including environmental laws. Miller and Miller preach:

[A] new environmental problem has entered the lime light in recent years. A problem far more dangerous to the present and future of our world than any pollutant The problem of eco-terrorism and eco-extremism. Not the rational environmentalists whom our world needs, the effects of these individuals can be seen in the crimes some of them commit. In the propaganda they promote. And in the legislation others propose and enforce. Some eco-extremists secretly or openly cheer when the rights of others are ignored or violated. Some are blatant criminals. Some are employed by governmental agencies.

. . . .

In recent years, numerous statutes and regulations have been passed to try to help protect our environment. Some are implemented in a haphazard manner. Few, if any, accomplish what they set out to do. Many reflect oppressive and dictatorial attitudes. And the desire to instill fear and obtain control over others, regardless of the goals and results. Additionally many eco-laws and regulations seem to be kept secret from the public until the government begins turning the wheels of prosecution against an unsuspecting citizen.

. . . .

There is no doubt that environmental laws are out of control.

MILLER & MILLER, *supra* note 5, at 2–6.

¹⁹² See, e.g., *The Threat of Eco-Terrorism: Hearing Before the Subcomm. on Forests and Forest Health*, 107th Cong. (2002) (testimony of James J. Jarboe, Domestic Terrorism Section Chief, FBI), available at <http://www.fbi.gov/congress/congress02/jarboe021202.htm>; see also ARNOLD, *supra* note 191; MILLER & MILLER, *supra* note 5; Laurendeau & Gibbs Van Brunschot, *supra* note 183 (explaining that “[i]n recent years, law-enforcement agents, media outlets and corporate spokespersons have employed the term ‘eco-terrorism’ to describe certain kinds of radical environmental actions (especially those involving destruction of property such as logging machinery, SUVs and luxury homes),” and stating that the FBI defines “ecoterrorism” as “the use or threatened use of violence of a criminal nature against innocent victims or property by an environmentally-oriented, subnational group for environmental-political reasons, or aimed at an audience beyond the target, often symbolic in nature”); ROSEBRAUGH, *supra* note 176, at 238 (“The FBI defines terrorism as ‘the unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.’”).

¹⁹³ See, e.g., Laurendeau & Gibbs Van Brunschot, *supra* note 183.

¹⁹⁴ For example, ecoterrorism has been used to refer to the possible attacks on public water supplies in the United States. To illustrate, the Public Health Service Act (PHSA), 42 U.S.C. § 300i-2(a)(1) (2006), provides that “[e]ach community water system serving a

population of greater than 3,300 persons shall conduct an assessment of the vulnerability of its system to a terrorist attack or other intentional acts intended to substantially disrupt the ability of the system to provide a safe and reliable supply of drinking water.” Subsection (b) provides that “[e]ach community water system serving a population greater than 3,300 shall prepare or revise, where necessary, an emergency response plan that incorporates the results of vulnerability assessments that have been completed.” *Id.* § 300i-2(b). See generally *New Jersey Chemical Rules Stand*, N.Y. TIMES, Jan. 11, 2008, at B4 (reporting how states may pass laws protecting their residents from attack on chemical facilities within their borders that are tougher than national standards.). Along similar lines, ecoterrorism has also been applied to the Iraqi attacks on Kuwaiti oil fields in the first Gulf War. See Leibler, *supra* note 137.

For a critique of the word *ecoterrorism* on the grounds that it generates significant confusion, see Laurendeau & Gibbs Van Brunschot, *supra* note 183.

¹⁹⁵ Mancuso-Smith, *supra* note 175, at 322.

¹⁹⁶ See Mike Davis, *Dead West: Ecocide in Marlboro Country*, NEW LEFT REV., July–Aug. 1993, at 49, 51 (“Peterson’s *Troubled Lands* and, especially, Feshbach and Friendly’s *Ecocide in the USSR* have received spectacular publicity in the American media. Exploiting the new, uncensored wealth of Russian-language sources, they describe an environmental crisis of biblical proportions. The former Land of the Soviets is portrayed as a dystopia of polluted lakes, poisoned crops, toxic cities and sick children. What Stalinist heavy industry and mindless cotton monoculture have not ruined, the Soviet military has managed to bomb or irradiate. For Peterson, this ‘ecological terrorism’ is conclusive proof of the irrationality of a society lacking a market mechanism to properly ‘value’ nature. Weighing the chances of any environmental clean-up, he holds out only the grim hope that economic collapse and radical de-industrialization may rid Russia and Ukraine of their worst polluters.” (citing MURRAY FESHBACH & ALFRED FRIENDLY, JR., *ECOCIDE IN THE USSR* (1992)); D.J. PETERSON, *TROUBLED LANDS: THE LEGACY OF SOVIET ENVIRONMENTAL DESTRUCTION* (1993); Nic Groombridge, *Masculinities and Crimes Against the Environment*, 2 THEORETICAL CRIMINOLOGY 249, 250 (1998) (criticizing how “the censorious discourse of ‘crime’” is more often applied to those who seek to protect the environment).

Some scholars do not comment directly on the use of the term *ecoterrorism*, but do suggest other means of referring to such activities. For example, MacNaughten and Urry use the term *environmental deviance* to refer to deviant activities by environmental activists. MacNaughten & Urry, *supra* note 153, at 203, 214 (“These new social movements, often formed as a response to perceived threats of environmental abuse (e.g. such as ‘*Hunt Saboteurs*’, ‘*Animal Rights*’ groups, ‘*Earth First*’ actions, and other direct action groups), have effectively moved outside the legitimate sphere of state regulated, consumer-oriented action[.]. . . what one might call ‘environmental deviance.’”).

Along similar lines, Wee distinguishes between “acts of terror” and “extreme communicative acts” (ECAs):

It is perhaps a sad indication of the times we live in that one might naturally ask how the notion of ECA [extreme communicative acts, such as self-immolation and hunger strikes] might be distinguished from so-called ‘acts of

terror' such as suicide bombings. An important feature to bear in mind is that ECAs involve only harm to the actors themselves, not to any others, and most certainly not to innocent bystanders. Acts of terror, in contrast, deliberately target innocents.

Lionel Wee, "*Extreme Communicative Acts*" and the Boosting of Illocutionary Force, 36 J. PRAGMATICS 2161, 2162 n.3 (2004).

Although Wee does not mention ecoterrorism, his desire to draw a line between ECAs and acts of terror might signal a similar discomfort with combining responses to legal harms (ALF/ELF activities) with environmental destruction intended to harm innocent bystanders (such as contaminating drinking water supplies). Future research might consider whether it would be appropriate to consider ecodefense, ecotage, and monkeywrenching as extreme communicative acts.

¹⁹⁷ Mancuso-Smith, *supra* note 175, at 323, 338.

¹⁹⁸ ROSEBRAUGH, *supra* note 176, at 215; see John Jay College Student Work Brigade, *supra* note 124 (referring to Hurricane Katrina as "a well-calculated terrorist action that exposed and magnified the crime against humanity and the genocide that were already present in New Orleans.").

As Rosebraugh further articulates:

[E]ven though the FBI calls what the ELF does "terrorism," it does not mean that it is terrorism. The ELF has widely publicized guidelines that preclude any actions that endanger life, human or otherwise. Terrorism is random, bombs exploding in crowded shopping plazas and actions of that nature. Terrorism seeks to frighten and demoralize by causing harm or even death. . . . I had always equated the term *terrorism* with the threat of or actual injury to human life. . . . I argued that ecoterrorism to me meant some form of terror that is caused to the natural environment.

ROSEBRAUGH, *supra* note 176, at 169, 236, 237.

¹⁹⁹ See, e.g., Mancuso-Smith, *supra* note 175, at 319, 322, 332 ("[T]he acts of environmental activists have been swept up in the race to protect Americans from geopolitically motivated terrorists. . . . Opponents of such tactics deliberately use the term terrorist in order to capitalize on the general public's strong negative association with the word in the hopes of minimizing sympathy for the actors' cause. . . . Capitalizing on the post-September 11 momentum in quickly passing legislation under the guise of protecting Americans from future terrorist attacks, several special interest groups spearheaded campaigns to rid themselves of their nemeses—the radical environmental groups."); see also LEE HALL, CAPERS IN THE CHURCHYARD: ANIMAL RIGHTS ADVOCACY IN THE AGE OF TERROR (2006); Andrew N. Ireland Moore, *Caging Animal Advocates' Political Freedoms: The Unconstitutionality of the Animal and Ecological Terrorism Act*, 11 ANIMAL L. 255, 261 (2005) ("The events of September 11, 2001 triggered a strong response to terrorism in the United States."). See GARLAND, *supra* note 125, at 64 ("[H]ostility towards the criminal helps promote solidarity and love between the citizens." (citing George Herbert Mead, *The Psychology of Punitive Justice*,

23 AM. J. SOC. 577, 577–602 (1918)); Joni Seager, *supra* note 8, at 60 (“All militaries use national security as an excuse for their activities and as a cloak of secrecy.”).

²⁰⁰ Animal Enterprise Terrorism Act, 18 U.S.C. § 43 (2006); *see also* Berger, *supra* note 172, at 300–03; Tricia Engelhardt, *Foiling the Man in the Ski Mask Holding a Bunny Rabbit: Putting a Stop to Radical Animal Activism with Animal and Ecological Terrorism Bills*, 28 WHITTIER L. REV. 1041, 1056–57 (2007); Kocieniewski, *supra* note 175; Mary Ann Liebert, *Law Against Animal Rights Extremism Strengthened*, 26 BIOTECHNOLOGY L. REP. 30, 30 (2007); Ariel Meyerstein, *The Law and Lawyers as Enemy Combatants*, 18 U. FLA. J.L. & PUB. POL’Y 299, 364 n.296 (2007).

Note that the Animal Enterprise Protection Act of 1992, Pub. L. No. 102-346, 106 Stat. 928, was the precursor to the AETA. *See* Kathy Hessler, *Mediating Animal Law Matters*, 2 J. ANIMAL L. & ETHICS 21, 42 n.54 (2007); Alyson B. Walker, *A Field of Failed Dreams: Problems Passing Effective Ecoterrorism Legislation*, 18 VILL. ENVTL. L.J. 99 (2007).

²⁰¹ Environmental Terrorism Reduction Act, H.R. 2583, 107th Cong. (2001) (introduced by Rep. Darlene Hooley (D-OR)). The stated purpose of this legislation was “[t]o establish a national clearinghouse for information on incidents of environmental terrorism and to establish a program to reduce environmental terrorism.” *Id.* The bill was introduced again in the 108th Congress, but it never became law. *See* GovTrack.us, H.R. 2583 [107th]: Environmental Terrorism Reduction Act, <http://www.govtrack.us/congress/bill.xpd?bill=h107-2583> (last visited Apr. 26, 2008). Sessions of Congress last two years, and at the end of each session all proposed bills and resolutions that have not passed are cleared from the books. *Id.*

Note that the Racketeering Influenced and Corruption Organizations (RICO) Act, 18 U.S.C. §§ 1961–1968 (1994), and the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act, Pub. L. No. 107–56, 115 Stat. 272 (2001) (codified at 8, 12, 15, 18, 20, 21, 22, 28, 31, 42, 47, 49, 50 U.S.C. (2006)), have both been used to curb ecodefense/ecotage/monkey wrenching.

For a discussion of the application of RICO to ecodefense/ecotage/monkeywrenching, *see*, for example, Xavier Beltran, *Applying RICO to Eco-Activism: Fanning the Radical Flames of Eco-Terror*, 29 B.C. ENVTL. AFF. L. REV. 281 (2002); William W. Cason, Comment, *Spiking the Spikers: The Use of Civil RICO Against Environmental Terrorists*, 32 HOUS. L. REV. 745 (1995); Mancuso-Smith, *supra* note 175, at 330–31.

For a discussion of the application of the USA PATRIOT Act to ecodefense/ecotage/monkeywrenching, *see*, for example, Dennis R. Case, *The USA PATRIOT Act: Adding Bite to the Fight Against Animal Rights Terrorism?*, 34 RUTGERS L.J. 187 (2002); Mancuso-Smith, *supra* note 175, at 329–30.

²⁰² AM. LEGIS. EXCH. COUNCIL, ANIMAL AND ECOLOGICAL TERRORISM IN AMERICA (Sandy Liddy Bourne & Matthew McNabb eds., 2003), *available at* <http://www.alec.org/meSWFiles/pdf/AnimalandEcologicalTerrorisminAmerica.pdf>; *see also* Ireland Moore, *supra* note 199; Mancuso-Smith, *supra* note 175, at 319, 332–34.

²⁰³ 18 PA. CONS. STAT. § 3311(a) (2002) ; *see also* Pennsylvania Governor Signs Ecoterrorism Bill into Law, LEGAL ACTION NEWS, Apr. 16, 2006, <http://www.p86.net/>

pennsylvania_governor_signs_ecoterrorism_bill_into_bjdc.aspx; Bednarik, *supra* note 51, at 92; Engelhardt, *supra* note 200, at 1055–56.

²⁰⁴ 18 PA. CONS. STAT. § 3311(b) (2002); *see also* Bednarik, *supra* note 51, at 92; Engelhardt, *supra* note 200, at 1055–56; Pennsylvania Governor Signs Ecoterrorism Bill into Law, *supra* note 203.

Note that 42 PA. CONS. STAT. § 8319 (2002) provides for civil actions for any individual aggrieved by the offense of ecoterrorism as defined in 18 PA. CONS. STAT. § 3311(a) (2002). *See generally* Mancuso-Smith, *supra* note 175, at 333–34 (discussing H.B. 213, 189th Gen. Assem. (PENN. 2005) (codified at 18 PA. CONS. ST. §§ 3311, 8319 (2006))).

²⁰⁵ *See, e.g.*, OHIO REV. CODE ANN. § 901.511 (West 2008); OHIO REV. CODE ANN. § 2923.31 (West 2008); OKLA. STAT. tit. 2, §§ 5-103–5-106 (2008); *see also* Engelhardt, *supra* note 200, at 1053–59 (discussing legislation in Arizona, Ohio, and Washington); Ireland Moore, *supra* note 199, at 276–77 (discussing successful efforts in Ohio and Oklahoma); model AETA-type legislation that died in committee in Hawaii, Missouri, Texas, and Washington; and legislation pending in committees in New York and South Carolina); Mancuso-Smith, *supra* note 175, at 333–34 (discussing Kansas and Oregon); *see* ROSEBRAUGH, *supra* note 176, at 214 (discussing Maine’s Act to Deter Environmental Terrorism in the State, as well as measures in Oregon and Washington).

²⁰⁶ Gillespie, *supra* note 84.

²⁰⁷ *See* Williams, *supra* note 18, at 16.

²⁰⁸ Robert J. Brulle & David Naguib Pellow, *The Future of Environmental Justice Movements*, in POWER, JUSTICE, AND THE ENVIRONMENT, *supra* note 5, at 294 [hereinafter Brulle & Pellow, *Future*]; *cf.* Laurendeau & Gibbs Van Brunschot, *supra* note 183 (“[P]art of the strategic benefit of extreme action is that it makes other forms of activism more palatable to the general public.”).

²⁰⁹ Khatchadourian, *supra* note 84, at 56, 68 (quoting Paul Watson). Note that not all media refer to ELF and other radical environmentalists in negative terms. Indeed, the journal *Earth First!* reports favorably on ecodefense and monkeywrenching on a monthly basis. For a list of sources referring to ELF and other radical environmentalists in “benign” terms, *see* Laurendeau & Gibbs Van Brunschot, *supra* note 183.

²¹⁰ Note that in some situations—especially in highly contentious controversies surrounding zoning and development, as well as environmental protection and animal rights—corporations, industries, other businesses, development firms, and operations have turned to Strategic Lawsuits Against Public Participation (SLAPPs) to deter both mainstream and radical environmental activists from speaking out against various public issues. SLAPPs—“civil court action[s] which allege[] that injury has been caused by the efforts of non-government individuals or organizations to influence government action on . . . issue[s] of public interest or concern”—aim to harass, intimidate, and distract activists from their cause and prevent community-minded individuals from voice their concerns. SHARON BEDER, GLOBAL SPIN: THE CORPORATE ASSAULT ON ENVIRONMENTALISM 64, 71 (2002). While a SLAPP must rest on some technical legal ground such as libel, defamation, conspiracy, nuisance, invasion of privacy, or interference with business or economic expectancy (i.e., business damages claims), and while the supermajority of SLAPPs are dismissed by courts, SLAPPs can “shift the

balance of power, giving the firm filing the SLAPP suit the upper hand when they are losing in the political arena.” *Id.* at 64, 66. As Bender explains, one of the “effect[s] of the SLAPP is to distract the key antagonists from the main controversy and use up their money, time and energy in the courtroom, where the real issues are not discussed. Activists use the political arena to expand the debate, enrol citizens on their side and spread the conflict. The firms and developers that utilize SLAPPs are trying to subvert and circumvent that political process ‘by enlisting judicial power against their opponents.’” *Id.* at 66.

It should be understood that “[t]he target of [SLAPPs] are generally not radical environmentalists, nor professional activists: they are ordinary middle-class citizens who are concerned about their local environment and have no history of political activity. This concentration on middle-class citizens is no accident. They often have the most to lose, and don’t have the support and ideological commitment that a professional environmentalist in a large environmental organization usually has.” *Id.* at 66–67. Several states (California, Florida, Nevada, New York, and Washington) have introduced SLAPP-detering legislation, so that individuals who are SLAPPED can SLAPP back (i.e., can sue in return on the grounds of abuse of the legal process, malicious prosecution, or interference with the exercise of constitutional rights of free expression). SLAPPs are less frequent outside the United States, in large part because the United States is unique in granting citizens access to government and the courts with respect to regulation formation and decisions that affect the environment. *Id.* at 73, 69. SLAPPs have proven an effective means for those responding to legal harms—those acts or omissions that may not constitute a violation of an existing form of law, but which result in or possess the potential to result in environmental and human harm. *See id.* at 62–74; *see also* Beltran, *supra* note 201, at 301; White, *Imagination*, *supra* note 5, at 498.

It also bears mention that in other parts of the world, environmental activists—both those that have engaged in ecodefense/ecotage/monkeywrenching, and those that have elected to employ less aggressive forms of resistance—have been subject to assault, victimization, and murder. Examples include Ken Saro-Wiwa, Dorothy Stang, and Kinkri Devi. For a discussion of the murder of Ken Saro-Wiwa and other environmental activists who opposed oil pollution caused by Shell in Nigeria see, for example, Williams, *supra* note 18, at 32; KLEIN, *supra* note 18, at 331, 339, 383–85, 392–93, 417, 418, 419, 445. For details of the murder of Dorothy Stang, an American nun and advocate for rain forest protection in Brazil, see, for example, Larry Rohter, *Brazil Promises Crackdown After Nun’s Shooting Death*, N.Y. TIMES, Feb. 14, 2005, at A3; *First Arrest Made in Nun’s Slaying in Amazon*, N.Y. TIMES, Feb. 21, 2005, at A9; Editorial, *Sister Dorothy’s Killers*, N.Y. TIMES, Mar. 2, 2005, at A24; *Brazil Farmer Held in Killing of Nun*, N.Y. TIMES, Mar. 28, 2005, at A7; Editorial, *The Amazon at Risk*, N.Y. TIMES, May 31, 2005, at A18; Editorial, *A Healthier Amazon Jungle*, N.Y. TIMES, Sept. 13, 2005, at A28; David Stang & Marguerite Stang Hohm, Letter to the Editor, N.Y. TIMES, Sept. 18, 2005, at WK11; Larry Rohter, *Brazil’s Lofty Promises After Nun’s Killing Prove Hollow*, N.Y. TIMES, Sept. 23, 2005, at A3; *Supporters of Slain American Nun Vow To Pursue Planners of Killing*, N.Y. TIMES, Dec. 12, 2005, at A13; *see also All Things Considered: Interview by Melissa Block with Sister Mary Alice McCabe, Sisters of Notre Dame de Namur* (NPR radio broadcast Feb. 15, 2005) (discussing the murder of

Sister Dorothy Stang in Brazil and the violence in the Amazon over land disputes). For a description of Kinkri Devi's fight against illegal mining and quarrying in the northern Indian state of Himachal Pradesh and the death threats she received from quarry owners, see, for example, Haresh Pandya, *Kinkri Devi Is Dead at 82; Fought Illegal Mining in India*, N.Y. TIMES, Jan. 6, 2008, at 25.

²¹¹ Gillespie, *supra* note 84.

²¹² See Sean E. Michael, R. Bruce Hull & Diane L. Zahm, *Environmental Factors Influencing Auto Burglary: A Case Study*, 22 ENV'T & BEHAV. 368, 369 (2001).

²¹³ Mike Maguire, *Crime Data and Statistics*, in THE OXFORD HANDBOOK OF CRIMINOLOGY 241, 247 (Mike Maguire, Rod Morgan & Robert Reiner eds., 4th ed. 2007).

²¹⁴ CULLEN & AGNEW, *supra* note 23, at 427.

²¹⁵ Mike Maguire, *supra* note 213, at 247.

²¹⁶ White, for example, uses the term *environmental criminology* in a very different way than those who use it to describe the study of the spatial aspects of crime. White's paper, *Environmental Criminology and Sydney Water*, sets forth "a political economy of environmental harm—that is, an appreciation of the economic and political relationships which shape the way in which human beings interrelate with the natural world, including water." White, *Sydney Water*, *supra* note 13, at 214. White contends that "adequate study of environmental harm must proceed from sustained analysis of the basic institutions and structures of late capitalism," and concludes his article by stating,

From the point of view of environmental criminology, a number of tasks suggest themselves. One is to explicate the way in which the phenomenon is being defined as an environmental and criminological issue, and how 'harm' is being construed in philosophical and legal terms. Another is to explore the limitations of existing regulatory machinery, which encompasses corporate, administrative and environmental legal dimensions, among others.

Id. at 218.

²¹⁷ Groombridge, for example, contends that environmental criminology, in the sense of "the analyses of the relationship between place, crime and offending" might be better called "topographical criminology," and that a "genuine environmental criminology" should be more than just the "criminology of place" or MacNaghten and Urry's "environmental deviance," noted above. See Groombridge, *supra* note 196, at 251–52, 264.

Similarly, South bemoans the use of term *environmental criminology* to refer to studies of place and "the spatial patterning of crime" and notes that criminological investigations of animal rights and "the symbiosis between human societies and ecological systems" render problematic the restrictive use of the term *environmental criminology*. South, *supra* note 8, at 212.

²¹⁸ Michael, Hull & Zahm, *supra* note 212, at 370.

²¹⁹ *Id.* at 374–77.

²²⁰ *Id.*

²²¹ *Id.* at 378–79.

²²² *Id.* at 379–80.

²²³ *Id.* at 380. According to Michael, Hull & Zahm, “environmental features enabling an examine act are critical. Cars parked in places without accessible examination areas are much less likely to be burglarized.” *Id.*

²²⁴ *Id.* at 380.

²²⁵ *Id.* at 380–81.

²²⁶ *Id.* at 372, 382.

²²⁷ *Id.* at 370, 382, 385.

²²⁸ *See, e.g.*, CULLEN & AGNEW, *supra* note 23, at 430.

²²⁹ *See, e.g.*, CULLEN & AGNEW, *supra* note 23, at 430; Michael, Hull & Zahm, *supra* note 212, at 384.

For a brief overview of the impact of environmental design on crime, see, for example, Adam Crawford, *Crime Prevention and Community Safety*, in THE OXFORD HANDBOOK OF CRIMINOLOGY *supra* note 213, at 875–76; Joel McCormick, *Designing Against Crime*, PARKS & RECREATION, May 2006, at 34, available at <http://www.nrpa.org/content/default.aspx?documentId=4205>; Blue Ridge Community College, Trees and Crime: The Role of Landscape in Crime Prevention, <http://www1.brcc.edu/murray/research/cpted/> (last visited Apr.28, 2008). For more in-depth considerations, see, for example, ALICE COLEMAN, UTOPIA ON TRIAL (1985); ENVIRONMENTAL CRIMINOLOGY (Paul J. Brantingham & Patricia L. Brantingham eds., 1981); G. HUGHES, CRIME AND COMMUNITY (2006); C. R. JEFFERY, CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (1971); Paul J. Brantingham & Patricia L. Brantingham, *Nodes, Paths, and Edges: Considerations on the Complexity of Crime and the Physical Environment*, 13 J. ENVTL. PSYCHOL. 3 (1993); Ronald V. Clarke, “Situational” Crime Prevention: Theory and Practice, 20 BRIT. J. CRIMINOLOGY 136 (1980).

²³⁰ Michael, Hull & Zahm, *supra* note 212, at 370.

²³¹ *Id.* at 377, 382.

²³² *See id.* at 369. In a slightly different way, Richard Louv suggests another way in which vegetation can affect crime:

Covered by vegetation—native grass or even trees—[greenroofs] provide protection from UV rays, clean the air, control storm-water runoff, aid birds and butterflies, and cool homes in summer and insulate them in winter. The higher initial cost of such a roof is outweighed by its longevity. From above, the green looks like an expanse of fields. Increasingly, architects incorporate construction requirements for ‘greenwalls’ of ivy and other plants, which naturalize a building and prevent graffiti.

RICHARD LOUV, LAST CHILD IN THE WOODS: SAVING OUR CHILDREN FROM NATURE-DEFICIT DISORDER 246 (2006).

²³³ *See, e.g.*, Rebekah Levine Coley, Frances E. Kuo & William C. Sullivan, *Where Does Community Grow?: The Social Context Created by Nature in Urban Public Housing*, 29 ENV'T & BEHAV. 468 (1997); Frances E. Kuo & William C. Sullivan, *Aggression and Violence in the Inner City: Effects of Environment via Mental Fatigue*, 33 ENV'T & BEHAV. 543 (2001); Frances E. Kuo, *Coping with Poverty: Impacts of Environment and Attention in the Inner City*, 33 ENV'T & BEHAV. 5 (2001); Frances E. Kuo & William C. Sullivan, *Environment and Crime in the Inner City: Does Vegetation Reduce Crime?*, 33

ENV'T & BEHAV. 343, 345 (May 2001); Frances E. Kuo et al., *Fertile Ground for Community: Inner-City Neighborhood Common Spaces*, 26 AM. J. COMMUNITY PSYCHOL. 823 (1998); Frances E. Kuo, Magdalena Bacaicoa & William C. Sullivan, *Transforming Inner-City Landscapes: Trees, Sense of Safety, and Preference* 30 ENV'T & BEHAV. 28 (1998); Byoung-Suk Kweon, William C. Sullivan & Angela R. Wiley, *Green Common Spaces and the Social Integration of Inner-City Older Adults*, 30 ENV'T & BEHAV. 832 (1998).

For an overview of the research at the Human-Environment Research Laboratory, see Brisman, *Values*, *supra* note 2, at 400–05.

²³⁴ Michael, Hull & Zahm note that almost 5 percent of all violent crimes reported in the United States take place in parks and other outdoor places but conclude that while “environmental features are used by offenders to support their criminal activities in parks . . . [v]egetation removal . . . may not disrupt the offender’s routine.” See Michael, Hull & Zahm, *supra* note 212, at 369, 383, 385.

²³⁵ See CULLEN & AGNEW, *supra* note 23, at 430; see also LOUV, *supra* note 232, at 177 (mentioning how access to public parks and recreational facilities has been linked to reductions in crime and juvenile delinquency).

To their credit, Michael, Hull & Zahm do acknowledge the potential negative effects of removing vegetation and the work of some of the researchers at the Human-Environment Research Laboratory. See Michael, Hull & Zahm, *supra* note 212, at 384.

Two other environment-crime relationships bear mention here, one arising out of the negative impacts of the environment on crime, the other involving the positive impact of environment on crime. With respect to the former, some researchers have asserted correlations between exposure to lead and negative affects on brain functioning, leading to learning disabilities, hyperactivity, and attention deficit disorder and increasing the risk of antisocial, delinquent, and/or criminal behavior. See, e.g., RESEARCH LINKS CHILDHOOD LEAD EXPOSURE TO CHANGES IN VIOLENT CRIME RATES THROUGHOUT THE 20TH CENTURY, available at http://www.icfi.com/Markets/Community_Development/doc_files/LeadExposureStudy.pdf; see also Jascha Hoffman, *Criminal Element: Was Getting the Lead Out of Gasoline a Factor in the Drop in Crime?*, N.Y. TIMES MAG., Oct. 21, 2006, at 32 (discussing the October 2007 research of Reyes and Nevin); Rick Nevin, *Understanding International Crime Trends: The Legacy of Preschool Lead Exposure*, 104 ENVTL. RES. 315 (2007); cf. Williams, *supra* note 18, at 29. For an overview of studies on lead toxicity and aggressive behavior, see, for example, VOLD, BERNARD & SNIPES, *supra* note 128, at 84, 85, 321, 323. For observations on other metal exposures to crime, see Gillespie, *supra* note 84. Note that because racial minorities are disproportionately impacted by environmental health hazards, overemphasis on lead exposure as a prediction of violent crime may run the risk of correlating race and crime.

With respect to the latter, a significant number of researchers have examined the positive effects of outdoor green common spaces on human behavior and functioning. For a discussion of the therapeutic benefits of gardening, especially in urban environments, see, for example, Rachel Kaplan, *Some Psychological Benefits of Gardening*, 5 ENV'T & BEHAV. 145 (1973); Rachel Kaplan & Stephen Kaplan, *Preference, Restoration, and Meaningful Action in the Context of Nearby Nature*, in

URBAN PLACE: RECONNECTING WITH THE NATURAL WORLD 271, 288–90 (Peggy F. Barlett ed., 2005) [hereinafter URBAN PLACE]; RACHEL KAPLAN & STEPHEN KAPLAN, THE EXPERIENCE OF NATURE: A PSYCHOLOGICAL PERSPECTIVE (1989); Barbara Deutsch Lynch & Rima Brusi, *Nature, Memory, and Nation: New York's Latino Gardens and Casitas*, in URBAN PLACE, *supra* at 191, 192–94 (noting the therapeutic effects of cultivation, in general, and to the New York City Latino population, in particular); Catherine McGuinn & Paula Diane Relf, *A Profile of Juvenile Offenders in a Vocational Horticulture Curriculum*, 11 HORTTECHNOLOGY 427, 430, 433 (2001) (noting the success of horticulture rehabilitation-vocational training programs); Susan M. Stuart, *Lifting Spirits: Creating Gardens in California Domestic Violence Shelters*, in URBAN PLACE, *supra* at 61, 85 (describing the psychosocial and therapeutic benefits of gardening to residents and staff of grassroots domestic violence shelters in California); Malve von Hassell, *Community Gardens in New York City: Place, Community, and Individuality*, in URBAN PLACE, *supra* at 91, 92 (describing community gardens not only as green space but as providing opportunities for community life, education, and political action). For a discussion of gardening activities as a drug and crime prevention strategy, see, for example, Raby Ratliff, *J.L. Newbern Students Take Part in Learning Tree Project*, VALDOSTA DAILY TIMES (Valdosta, Ga.), July 26, 2007; *Troy Treasures: Sixth Avenue Neighborhood*, RECORD (Troy, N.Y.), Mar. 23, 2003.

²³⁶ See Michael, Hull & Zahm, *supra* note 212, at 370.

²³⁷ See, e.g., Brenda Goodman, *Killing of a Young Hiker Puts North Georgia on Edge*, N.Y. TIMES, Jan. 14, 2008, at A12.

²³⁸ This is not to suggest that individuals do not ever fear crime in urban parks. See, e.g., LOUV, *supra* note 232, at 144 (noting how some children fear neighborhood parks controlled by gangs).

For a discussion of a different kind of fear and safety in urban parks, see, for example, Allison Arieff, *Danger: Playground Ahead*, N.Y. TIMES, May 29, 2007, at A19 (commenting on growing concerns about injury at playgrounds).

²³⁹ LOUV, *supra* note 232, at 128–29.

²⁴⁰ *Id.* at 144.

²⁴¹ As Louv argues,

Most children today are hard-pressed to develop a sense of wonder, to induce what Berenson called the “spirit of place” while playing video games or trapped inside a house because of fear of crime. Asked to name their favorite special places, children often describe their room or an attic—somewhere quiet.

. . . .

Fear is the most potent force that prevents parents from allowing their children the freedom they themselves enjoyed when they were young. Fear is the emotion that separates a developing child from the full, *essential* benefits of nature. Fear of traffic, of crime, of stranger-danger—and of nature itself.

Id. at 95, 123.

²⁴² See Brisman, *Values*, *supra* note 2, at 400 n.572, 403 n.580 and accompanying text.

²⁴³ LOUV, *supra* note 232, at 127–28. See generally JAY LIVINGSTON, *CRIME & CRIMINOLOGY* 16 (2d ed. 1996) (describing how the fear of crime causes damage to social life).

²⁴⁴ For an in-depth analysis of the fear of crime, its origins, its importance, the role of the media in its construction, and its effects on the politics of law and order, see LIVINGSTON, *supra* note 243, at 12–49; see also Lauer, *supra* note 148, at 154–57 (distinguishing the fear of crime from crime rates and stating that “‘fear of crime,’ as opposed to actual rates of victimization, did not exist as an articulated social problem until the late 1960s, and it soon became a popular index for assessing the civic health of the nation. . . . [C]ontrary to commonsense assumptions, fear of crime often exceeds the actual risk of personal harm.”). For recent notes about fear of crime in the news, see, for example, Jake Mooney, *Crime Is Low, but Fear Knows No Numbers*, N.Y. TIMES, Dec. 16, 2007, at C41; Ben Schott, *Who Do You Think We Are?*, N.Y. TIMES, Feb. 25, 2007, at WK15.

Note that fear of crime is similar to fear of terrorism or fear of a terrorist attack: “continual fear of terrorism is a strain on the social fabric. . . . People become reluctant to even get together when public spaces are turned into fortified zones.” John Tierney, *Living in Fear and Paying a High Cost in Heart Risk*, N.Y. TIMES, Jan. 15, 2008, at D1. For a recent study finding that the post-September 11, 2001, fear of terrorism has resulted in increased diagnoses of cardiovascular ailments, see E. Alison Holman et al., *Terrorism, Acute Stress, and Cardiovascular Health*, 65 ARCHIVES GEN. PSYCHIATRY 73 (2008).

²⁴⁵ Avi Brisman, *Double Whammy: Collateral Consequences of Conviction and Imprisonment for Sustainable Communities and the Environment*, 28 WM. & MARY ENVTL. L. & POL’Y REV. 423, 431, 456–62 (2004). For additional support for the proposition that crime may affect inner city residents’ decisions to relocate, see, for example, PIETRO S. NIVOLA, *LAWS OF THE LANDSCAPE: HOW POLICIES SHAPE CITIES IN EUROPE AND AMERICA* 7, 71 (1999) (“[B]usinessmen frequently identify crime as the major impediment to locating in the inner city. . . . [T]here is simply no way this country can end the headlong retreat of families and firms from . . . cities without an even sharper and sustained reduction in their levels of violence.”); see also Julie Berry Cullen & Steven D. Levitt, *Crime, Urban Flight, and the Consequences for Cities*, 81 REV. ECON. & STATS. 159, 159–60 (1999) (examining the relationship between crime and urban flight across three different data sets and concluding that (1) for every reported central city crime there is a net decline of approximately one city resident; (2) almost all of the crime-related impact on falling city population is the result of individuals leaving the city (out-migration) rather than a decline in new arrivals (in-migration); and (3) highly educated households and households with children are most responsive to crime; there is little difference between blacks and whites); WESLEY G. SKOGAN, *DISORDER & DECLINE: CRIME AND THE SPIRAL OF DECAY IN AMERICAN NEIGHBORHOODS* 18–20 (1990) (concluding, based on studies of forty neighborhoods in eight cities, that crime rates affect individuals’ attitudes towards their neighborhoods and their decisions to relocate); cf. Vitello, *supra* note 41, § 14:1, 6 (noting that crime ranks second to noise as the top neighborhood complaint and reason for individuals to consider moving). For a relatively recent study of the linkages between crime and population change in central cities and

their suburbs, see Joong-Hwan Oh, *A Dynamic Approach to Population Change in Central Cities and Their Suburbs, 1980-1990*, 64 AM. J. ECON. & SOC. 663 (2005).

Within these sprawling suburbs, individuals may opt for gated communities, which can adversely affect the level of social interaction between individuals—a point discussed in the text above. See Jonathan Simon, *Guns, Crime, & Governance*, 39 HOUS. L. REV. 133, 139 (2002) (citing David J. Kennedy, Note, *Residential Associations as State Actors: Regulating the Impact of Gated Communities on Nonmembers*, 105 YALE L.J. 761, 765 (1995) (“The dominant motivation for moving into gated communities is fear of crime and frustration at perceived government failure to deal with it.”)).

²⁴⁶ See generally William Buzbee, *Sprawl’s Political-Economy and the Case for a Metropolitan Green Space Initiative*, 32 URB. LAW. 367, 368–69, 372 (2000) (“Unlike more dense urban forms where residents use mass transit and do much of their travel and shopping on foot, suburban living leads to fewer random interactions with strangers and neighbors. This greater predictability and insularity of suburban living is, of course, part of suburbia’s attraction for many citizens. . . . [S]prawling growth often leaves behind increasingly impoverished central urban areas, destroys green space, converts agricultural land to residential or business use, and contributes to deteriorating air pollution as residents must drive increased distances to jobs and to obtain basic amenities.”). U.K. GOV’T SUSTAINABLE DEV. UNIT, *Building Sustainable Communities, in A BETTER QUALITY OF LIFE: STRATEGY FOR SUSTAINABLE DEVELOPMENT FOR THE UNITED KINGDOM*, ch. 7 (1999), available at <http://www.sustainable-development.gov.uk/publications/uk-strategy99/07.htm> (finding that crime results in another type of unsustainable practice in the cities: “It makes people reluctant to walk or to take public transport.”).

²⁴⁷ See Brisman, *Double Whammy*, *supra* note 245, at 431, 462–71.

²⁴⁸ Timothy Egan, *Rangers Take on Urban Woes Spilling into Wide Open Space*, N.Y. TIMES, July 26, 2006, at A1; see also Press Release, Office of Nat’l Drug Control Policy, Bush Administration Cracks Down on Mexican Drug Gangs Polluting U.S. Parks: As Borders Tighten, Multi-Billion Dollar Industry Turns National Parks into Havens for Crime, Violence, Environmental Destruction (Aug. 30, 2006), available at <http://www.whitehousedrugpolicy.gov/news/press06/083006.html>.

In another type of irony, Lauer notes that “the SUV, which emerged in part as a physical and psychological response to public fear of crime, has itself become a source of incivility and public menace.” Lauer, *supra* note 147, at 165.

²⁴⁹ This cyclical process may become even more complicated and more pronounced if Dick Kempthorne, Secretary of the Interior, lifts the prohibition on carrying ready-to-fire weapons in national parks and wildlife refuges. See Ralph Blumenthal, *Texas Proceeding with Plan To Auction Nature Preserve*, N.Y. TIMES, Nov. 3, 2007, at A11; Editorial, *Keeping Guns Out of the Parks*, N.Y. TIMES, Jan. 7, 2008, at A20; see also Editorial, *Packing Heat in the Parks*, N.Y. TIMES, Feb. 20, 2008, at A22.

²⁵⁰ THE STRUGGLE FOR ECOLOGICAL DEMOCRACY: ENVIRONMENTAL JUSTICE MOVEMENTS IN THE UNITED STATES (David Faber ed., 1998); see also DANIEL R. FABER & DEBORAH MCCARTHY, GREEN OF ANOTHER COLOR: BUILDING EFFECTIVE PARTNERSHIPS BETWEEN FOUNDATIONS AND THE ENVIRONMENTAL JUSTICE MOVEMENT (2001).

²⁵¹ KATHRYN MUTZ, GARY BRYNER & DOUGLAS KINNEY, *JUSTICE AND NATURAL RESOURCES: CONCEPTS, STRATEGIES, AND APPLICATIONS* (2002).

²⁵² Pellow & Brulle, *Power*, *supra* note 5, at 17.

²⁵³ See CHRISTOPHER H. FOREMAN, *THE PROMISE AND PERIL OF ENVIRONMENTAL JUSTICE* (1998).

²⁵⁴ Brulle & Pellow, *Future*, *supra* note 208, at 296.

²⁵⁵ *Id.* at 297.

²⁵⁶ *Id.*

²⁵⁷ *Id.*

²⁵⁸ White, *Sydney Water*, *supra* note 13, at 214.

²⁵⁹ South, *supra* note 8, at 225–26.

²⁶⁰ See FABER & MCCARTHY, *supra* note 250, at 23; see also Pellow & Brulle, *Power*, *supra* note 5, at 15.

²⁶¹ FABER & MCCARTHY, *supra* note 250, at 4–5 (citing John Rodman, *Paradigm Change in Political Science: An Ecological Perspective*, 24 AM. BEHAV. SCIENTIST 49 (1980)).

In support of Faber and McCarthy’s concerns regarding the limited potential of “technical innovations,” see, for example, Mark Halsey, *Green Criminology*, *supra* note 4, at 836.

In support of Faber and McCarthy’s emphasis on the “interdependency of issues” and the belief that “environmental devastation, ecological racism, poverty, crime, and social despair are all . . . aspects of a multi-dimensional web rooted in a larger structural crisis,” see, for example, Brulle & Pellow, *Future*, *supra* note 208, at 293, 299 (“All of Earth’s living inhabitants are caught in a web of mutual destiny. . . . Mass movements have a greater chance of success when they appeal to a broad base of the population.”); MARY DOUGLAS & AARON WILDAVSKY, *RISK AND CULTURE: AN ESSAY ON THE SELECTION OF TECHNOLOGICAL AND ENVIRONMENTAL DANGERS* 85, 136 (1982) (“The broader the scope of groups supporting your cause, the more seriously the Congressman will consider it It seems logical that the broader the scope of groups supporting a cause, the more seriously will established politicians have to consider it. Thus FOE has shown greater conscious interest in recruiting the support of blacks and labor than more established conservationists.” (internal quotation marks omitted)). See KLEIN, *supra* note 18, at 267 (“Transnationals are affecting democracy, work, communities, culture and the biosphere. Inadvertently, they have helped us see the whole problem as one system, to connect every issue to every other issue, to not look at one problem in isolation.” (quoting John Jordan, a British anarchist environmentalist)).

For different perspectives on when certain levels of environmental damage may be accepted or tolerated, see, for example, Alvazzi del Frate & Norberry, *supra* note 29, at 1 (stating that polluting behaviors have often been “seen as normal and inevitable consequences of industrialisation and national progress”); du Rées, *supra* note 26, at 116 (“A certain level of environmental damage is accepted in modern society since it serves to provide for other social interests.”); Low & Hodgkinson, *supra* note 30, at 418–19, 422 (describing how in peacetime, “some environmental damage is accepted as a mere consequence of modern life,” and reiterating that “[e]ven in peacetime, modern living results in some degree of acceptable pollution”).

²⁶² Thomas L. Friedman, *The Green-Collar Solution*, N.Y. TIMES, Oct. 17, 2007, at A27 (quoting Van Jones, Esq., Board President and Co-Founder, Ella Baker Center for Human Rights, Oakland, CA).