

What Is This Trash?: Closer Reading for an Endangered World

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Abstract

The dead metaphor of “trash fiction” is in need of resuscitation or, better yet, of reincarnation. To recognize most any printed material as a disposable commodity suggests that those who are interested in discovering ways in which literature and environment interact would do well to begin by addressing the discipline’s own contribution to the world’s mass of disposable prose. Though ecocritical scholarship has drawn attention to important new themes for literary analysis, such studies are often conducted in much the same way as the cultural and formalist approaches they aim to supersede—asking the same kinds of questions, using the same methods to answer them, and conducting these debates in the same kinds of venues. In focusing so intently on the text’s ability to cast light upon elements of the environmental unconscious, the book’s role as an unconscious element of our modern environment has often been elided.

Dismissing mass-market fiction as “trash” is such a critical commonplace for modernity that the metaphor died decades ago. But there’s evidence that an understanding of the metaphor’s material origin was still alive in the early years of the century. Take, for example, Willa Cather’s pessimistic assessment of her era’s literary output:

The novel manufactured to entertain great multitudes of people must be considered exactly like cheap soap or a cheap perfume, or cheap furniture. Fine quality is a distinct disadvantage in articles made for great numbers of people who do not want quality but quantity, who do not want a thing that “wears,” but who want change—a succession of new things that are quickly threadbare and can be lightly thrown away. (44)

Though she primly avoids using the term “trash,” her critique, which sets up the great divide that the aesthetes of high modernism labored to impose between mass-market genre fiction and the boutique commodity of “serious” literature, nevertheless underlines the material reality that typical invocations of the term tend to obscure: trash fiction, “so lightly thrown away,” becomes literal garbage.

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This dead metaphor of “trash fiction” is in need of resuscitation or, better yet, of reincarnation. Postmodern writers and revisionist literary critics have thoroughly deconstructed the unsavory ideological underpinnings of the high/low division this metaphor instantiates, but the phrase might now serve to elucidate a material proof that distinctions between trashy and serious literature have become all the more specious: since even the canonical classics are now available in non-durable, mass-produced pocket book editions, it seems that all printed literature—from the masterpieces of high modernism to the guilty pleasures of genre fiction, as well as to the literary and cultural criticism that attends both—can and perhaps should be recognized as trash.

To recognize most any printed material as a disposable commodity suggests that those who are interested in discovering ways in which literature and environment interact would do well to begin by addressing the discipline’s own contribution to the world’s mass of disposable prose. Though ecocritical scholarship has drawn attention to important new themes for literary analysis, such studies are often conducted in much the same way as the cultural and formalist approaches they aim to supersede—asking the same kinds of questions, using the same methods to answer them, and conducting these debates in the same kinds of venues. Ecocritical work has been carried out as if attending to the ecological impact of our object of study and of our discipline’s own literary output were somehow less interesting and less relevant than hermeneutic procedures intended to evaluate how certain textual representations and artistic techniques affect human perceptions of the environment. In focusing so intently on the text’s ability to cast light upon elements of the environmental unconscious, the book’s role as an unconscious element of our modern environment has often been elided. Since the scholar’s primary professional duties involve reading, evaluating, and then producing printed reading material,¹ questions regarding reading material’s materiality strike me as a particularly salient point of entry for ecocritical analysis.

In pursuing this materialist line of inquiry, we might look to textual criticism as a model. Such criticism draws attention to the communicative potential not only of lexical codes (the text, letters, accents, and punctuation) but bibliographic codes (the non-semantic formal features of a book such as line length, binding-style, the presence or absence of a dust jacket) as well. While a preference for analyzing lexical codes has anchored the close reading practices that have dominated the discipline’s various methodologies over the last century, attention to bibliographic codes demands a different kind of close reading, a “closer reading” that attends to the material support and processes that underlie the semantic content of the words on the page.

In the introduction to their anthology devoted to “new materialisms” in humanities studies, Coole and Froste suggest critics should be more interested in “attending to transformations in the ways we currently produce, reproduce, and consume our material environment,” a critical approach that “demands detailed analyses of our daily interactions with material objects and the natural environment” (3-4). In the essay that follows, I respond to that call by first accounting for the sheer mass of books that make closer reading practices, and the ecological modes of thinking they enact, so timely. Next, I offer a media-specific analysis of two “ecoeffective technotexts”—William McDonough and Michael Braungart’s *Cradle to Cradle* and Colin Beavan’s *No Impact Man*—as a means for exploring underappreciated modes of interaction between readers and these material objects. These books foreground their status as disposable commodities through design features and paratextual elements that simultaneously work to mitigate the harmful environmental effects their disposability entails. The material analysis of such works suggests how posing the productive and often overlooked question of how a book is made can complement formalist (in the limited, New Critical sense of the term)

and cultural criticism's more familiar questions of how a book is written and attune readers to more ecological ways of imagining the material world we inhabit.

How many books are there?

Writers and critics engaging questions of waste are often keen to direct our attention to the cognitive blind spot where our culture's surplus of garbage so frequently resides. This notion has become a refrain in the ecocritical discourse of waste, and such texts typically position themselves as an inoculation against the day-to-day disavowal that allows garbage to proliferate. For example, the "conundrum" of contemporary garbage that Shanks, Platt, and Rathje describe is largely the idea that "[p]eople don't really see the garbage—or the implications of the garbage—that they, like everyone around them, generate every day" (70), and the authors address this conundrum by pointing to examples of literary and artistic texts in which garbage has productively skirted the event horizon of the author's environmental unconscious.² While such trope-oriented criticism among literary scholars interested in garbage has been steadily accumulating in recent years, attention to the disposable materiality of books has often fallen by the wayside. Shanks, Platt, and Rathje generate a fairly comprehensive taxonomy of the thematic roles that garbage plays in literary texts, but, considering Rathje's role as head of "The Garbage Project" (a seminal study in the field of "garbology" that analyzed patterns of municipal waste by excavating landfills and cataloguing household garbage), the essay's exclusively textual focus seems puzzling. After all, one of the more startling discoveries of Rathje's project was that the most wasted material is not Styrofoam cups or diapers, as most people generally assume, but paper, which, in the early 1990s when he conducted his field work, comprised 40% of all municipal waste. Nevertheless, the essay draws no connection between the texts we read and the paper we waste. This failure to address the most immediate way in which garbage intersects with our reading habits indicates how pernicious and intractable our lapses of attention toward the things of the nonhuman world can be.

But how to account for the environmental impact of our reading habits? The Book Industry Study Group's 2005 report, which breaks down the number of units sold into one of eight major categories (adult trade, juvenile trade, mass-market paperbacks, religious, professional/scholarly, university press, elementary and high school textbooks, and college textbooks), estimates that nearly 2.5 billion units were produced in the US over the course of that year, with the majority of those (about 1.5 billion) being trade books from the first three categories—i.e., those marketed primarily for their entertainment value. The latest figures from R. R. Bowker, the firm that assigns ISBN numbers and publishes the monthly *American Book Publishing Record*, suggest that if we take into account all the titles published by the rapidly growing print-on-demand (POD) segment of the publishing industry then there are nearly a million new titles being published on an annual basis. So while the National Endowment for the Arts might decry a crisis in literacy (as in their 2004 "Reading at Risk" report), the million-and-more new books being written on a yearly basis suggest that the literary industry is nevertheless as popular and profitable as ever.

As for how much of this printed material ends up as trash, the EPA's published estimates indicate that paper waste accounts for 28.5% of all municipal solid waste (MSW), a smaller percentage than the Garbage Project's findings but still the lead waste category by a substantial margin (food scraps are the second highest at 13.9%). The US produced 71.31 million tons of waste paper in 2010 and recovered 62.5% of that material through recycling. Books, however, account for a small portion of overall paper waste—a mere fraction of what paper and paperboard packaging contribute, and even amongst our reading materials, books trail behind

newspapers and magazines in resource consumption. But books are also far more likely to be thrown away. While the majority of newspapers (88%) and magazines (54%) are recycled, books are recovered at a substantially lower rate—33% according to the EPA's 2009 estimate. The EPA reported that 940 thousand tons of books were thrown away in 2008. During the same period, approximately the same amount of newspaper was discarded (1,070 thousand tons), but, considering how newspapers account for nearly seven times the amount of gross MSW, the net contribution of books to landfill waste seems excessive.

Perhaps the most troubling aspect of the current system of book production and distribution is its wasteful reliance on "remainders." With so many books being produced every year and with only an exceptional few of those managing to sell out their initial runs, book vendors would be reluctant to risk the losses involved in stocking their shelves with unknown titles if not for the longstanding agreement with publishers that unsold books can be returned for a refund. According to Linda M. Scott, "By the 2000s returned merchandise from bookstores had reached more than 40 percent of mass paperbacks and 33 percent of hardcovers" (84). In the case of hardcovers, a portion of the remaindered books are sold through discount outlets, but since stores receive refunds for returning just the covers of paperbacks, the defaced and unsalable remainders are simply thrown away. As Scott quite astutely points out, "In any other business, the physical waste of 30 to 40 percent of production would cause outrage among shareholders" (84). Indeed, only the food industry, which according to one study consistently wastes up to 50 percent of its products, rivals the book industry's indifference toward the ultimate finitude of the resources it depends upon.³ Not only are classic novels and last season's beach reads being produced, purchased, and discarded at awe-inspiring rates, these statistics indicate that millions of books, more than a third of the total units produced, make their way to the landfill every year without ever having been read.

Both Bowker and the Book Industry Study Group (BISG) have reported substantial increases in e-book sales in recent years, making the arrival of the long-prophesied and equally long-deferred "end of print" appear all the more plausible. But while the advent of a "paperless" reading culture can certainly create an impression of a "greener" reading experience, such an impression doesn't hold up particularly well under scrutiny. While electronic reading technologies are dramatically reducing our culture's appetite for timber, all the paper this supposedly fortuitous shift saves nevertheless generates its own host of ecological concerns. The relatively benign abundance of wastes stemming from our pulp-based reading culture are superseded by far more hazardous "e-wastes." The technology industry's basis in the revenue generating principles of planned obsolescence entails a rapid accumulation of these toxic discards as new models of e-readers, smart-phones, and tablets are unveiled at regular intervals.

Electronic reading formats create another environmental problem in that their use relies upon the continuous production of greenhouse gases. In an article for *Wired* magazine entitled "Dig More Coal—the PCs Are Coming," Mills and Huber astutely note that "the Internet may someday save us bricks, mortar and catalog paper, but it is burning up an awful lot of fossil fuel in the process" (n.p.). Mills and Huber's critique, a little more than ten years old, has only become more relevant. Indeed, their article is charmingly dated by the suggestion that the average internet user is on-line about 12 hours *a week*. Now more than ten years into the new millennium, our lives have become all the more intertwined with our electronic media. The proliferation of portable computers (mp3 players, tablets, smart phones, automobile GPS devices) and the recent advent of energy-intensive cloud computing, which now allow us to remain connected to our electricity-sipping devices at all times, have only amplified our collective carbon output. With toxic e-waste and carbon dioxide belying the seemingly ethereal

nature of our networked reading habits, the development of ecologically sound publishing practices in the twenty-first century will demand careful examination along a number of fronts.⁴

Resisting Complicitous Critique

In marshaling these figures, I cannot stifle a creeping, intermittent awareness of a troubling hypocrisy in my line of argument. Here I sit, industriously typing up an analysis of publishing industry wastefulness, and to what end? To complete a scholarly monograph on the protean role of waste in American literature that will hopefully become the million-and-first new title rolling off next year's presses. However, if the statistics hold true, a little less than half the total number of copies produced will travel from the press to the dump after sitting around various stockrooms in unopened crates for a couple of months.⁵ What is the irony-savvy and genuinely concerned ecocritic to do? The only excuse I can offer for this exhibition of bad faith is the well-established fact, summed up with its own alliterative maxim, that success in my chosen line of work hinges on publication, preferably in a journal or book with paper pages. How can writers invested in ecological debates maintain the integrity of their arguments when the publishing infrastructure they rely on invariably consumes so many of the resources that they generally wish to protect?⁶

Fortunately, I am not the first to struggle with the compromised position that print culture creates for the conscientious ecocritic (that is, any writer—creative or academic—who wishes to persuade readers to adopt new habits of ecological awareness and thinking). Two recent books in particular—*Cradle to Cradle* by McDonough and Braungart and *No Impact Man* by Colin Beavan—pursue an unconventional, material strategy for communicating their author's ecological thinking while simultaneously combatting wasteful business practices within the publishing industry. These books challenge the complicity of postmodern critique by coupling their ecocritical analyses with innovative publishing technologies.⁷ Since these arguments are actually performed by the book as much as they are rehearsed in the text, the subversive tactics targeting ecologically harmful behaviors begin before the reader even reaches the preface. This effort to foreground a book's materiality offers an innovative strategy for pushing readers to attend to the culture's disposable things in the manner that ecocritical writers drawn to tropes of waste routinely prescribe.

Eco-effective Technotext

My analysis of such non-complicitous ecocritiques builds upon Kathryn Hayles' concept of the "technotext." Hayles's *Writing Machines* argues the need for renewed critical attention toward the materiality of texts, a method of reading she calls "media-specific analysis": "a kind of criticism that pays attention to the material apparatus producing the literary work as physical artifact" (29). Her study investigates several examples of "technotexts," which she defines as "literary works that strengthen, foreground, and thematize connections between themselves as material artifacts and the imaginative realm of verbal/semiotic signifiers they instantiate" (25). In demonstrating how media-specific analysis works, however, she seems almost exclusively concerned with the book's page design, to such an extent that its status as a material artifact is often obscured. Her rigorous attention to the signifying potential of certain material properties of the book makes it all the more odd that she does not attend with equal care to what is

arguably its most material aspect—namely the paper it is composed of and upon. The signifying features she focuses on in the works she analyzes and that she considers in the design of her own book (*Writing Machines* is itself a technotext that rewards attentive readers for performing some meta-level media-specific analysis as they read), include things like typography, font, and page layout. But when it comes to the perfect-bound stacks of bleached and laminated woodpulp her academic investigations ultimately produce, the media-specific analysis offered is not particularly compelling. Though the editor, book's designer, and the author all offer explanatory endnotes on the various design decisions that went into the production of this visually striking monograph, no one mentions anything about the paper—where it was sourced, how it was manufactured, what considerations went into selecting it as the most suitable vehicle for the book's text and design elements.

Despite the relatively conventional layout of each book, *No Impact Man* and *Cradle to Cradle* serve as much more interesting technotexts for ecocritical analysis. The design choices that their authors make are uniquely motivated by a desire to probe the institutional processes through which texts are commonly produced and to explore adequate substitutes for materials whose (ab)use is endemic in the publishing industry. McDonough and Braungart draw a useful distinction between "eco-efficiency," the desideratum of most green-minded industries to "do less harm," and "eco-effectiveness," the more rigorous and progressive ecological ideal of those businesses that adopt the zero waste model of "cradle-to-cradle" design. The explicit attentiveness to the ecological aspects of a book's design and manufacture invites readers to consider a crucial and overlooked "eco-effective" dimension to the technotext concept. The media-specific analysis that follows addresses some of the affordances and limitations of such ecoeffective technotexts.

The Plastic Book

If the goal of *Cradle to Cradle* is to unsettle reader's habitual ways of perceiving the things we buy and then discard, perhaps the most unsettling moment for readers comes in first picking up the book. Though it has the dimensions and appearance of the average trade paperback, it weighs as much as a hardback volume twice its size. The first chapter, "This Book Is Not a Tree" explains: the book—which an umbrella icon on the cover's lower right corner identifies as a "water proof DuraBook"—is not made from paper at all, but rather from a plastic polymer. The authors inform us that the book, unlike many "downcyclable" plastics that gradually degrade through each reincarnation, will maintain its structural integrity no matter how many times it is broken down and reconstituted (the ink is recoverable as well).

The book thus performatively demonstrates the goal that the authors cheerfully goad the captains of modern industry and conscientious consumers to aspire to: namely, a system of production that accounts for what happens to an object after it has lost value for the customer. As the authors put it, we are currently operating under a "cradle-to-grave" system in which our "crude products"—what they call "monstrous hybrids" cobbled together from both technical and biological "nutrients"—are summarily buried or burned when they reach the end of their useful life, indiscriminately releasing toxic (and often valuable) materials into the ecosystem. Intoning the slogan of "waste equals food" (that is, all "waste" is to be reconceived as raw material that can feed another industrial process), the authors argue for an "industrial revolution" modeled on nature herself. Waste will no longer be an intelligible concept in the ecological and economic system they envision. Having worked with a variety of international corporate industries, the authors—one an architect, the other a chemist—maintain that they

have never had to compromise their environmental ethics. *Cradle to Cradle* thus presents readers with another duo (see also Nordhaus and Schellenberger) of dynamic idealists who, in an unapologetic spirit of corporate utopianism urge environmentalists to abandon their Arcadian pipe dreams and make peace with Moloch "Wouldn't it be wonderful," they ask, "if, rather than bemoaning human industry, we had a reason to champion it?" (90).

The current model of environmentally-sensitive business McDonough and Braungart's innovative book opposes is that of "eco-efficiency" in which ethical benchmarks are defined negatively by the company's ability to do "less bad." Calls to reduce our carbon footprint, they suggest, merely ensure a slower form of ecosystemic suicide and, pointing to how recycled books measure up to their own "upcyclable" tome, "being less bad proves to be a fairly unappealing option, practically, aesthetically, and environmentally" (70). They argue that the paper of a recycled book is more brittle, contains all the toxins in the original paper, and, due to the low contrast between brownish paper and black ink, looks unappealing while imposing a bothersome strain on the reader's eyes. As a rebuttal to the "less bad" ethic of the eco-efficiency experts, their self-reflexive technotext proposes a holistic model of "eco-effectiveness" that takes economic, cultural, and aesthetic considerations into account.

As innovative as the DuraBook concept might be, the mainstream publishing industry has shown little interest in publishing polymer books, which suggests that the "upcyclable" book is more of a clever gimmick than a viable business model on the brink of revolutionizing the design and distribution of printed material. The company that patented the technology publishes only a few other titles, the bulk of them capitalizing on the book's waterproof design (the "Aqua Erotica" series intended for a "steamy" bath reading, as well as a collection of beach-themed short stories) rather than its environmental benefits—the strangeness of a plastic book, its heft and slick tactility, seems to necessitate meta-content that insistently draws the reader's attention to the book's design and the specific environment in which the reading is intended to be enjoyed. It seems doubtful that the printing process such a book requires could match the estimated 474 million or so annual "adult trade" units so readily met by the paper based infrastructure, and, even if it could, the issue of shipping such heavy books at such high volumes poses further logistical difficulties (not to mention a far greater carbon footprint). Considering such formidable and costly limitations, paper to polymer is a technological leap that the publishing industry as a whole seems unlikely to make. Such material considerations suggest that the technology is ultimately less suited to mass-market novels as it is to niche-market novelties.

Another significant impediment confronting this proposed publishing revolution is the lack of infrastructure for consumers who actually wish to recycle their book. As the paper in our landfills and the aluminum soda cans in most any public trash receptacle attest, just because something can be recycled does not guarantee that it will, particularly when the process promises to entail a modicum of inconvenience. For all the page space devoted to enumerating the DuraBook's ecological virtues, instructions about how to recycle it when done reading (if one were so inclined) are not included, and I suspect that at least a few copies are now ironically and incorruptibly residing in a landfill.

These difficulties do not seem insurmountable, and perhaps some cradle-minded chemists are busy designing thinner polymer sheets while the recyclers are working out kinks in the retrieval end of the plastic book industry. For now, however, the book's value as an eco-cultural artifact appears far more symbolic than substantive.

The Brown Book

A less original, though perhaps more viable, response to the problem of how to produce an ecologically responsible volume relies upon the recycling technology that McDonough and Braungart eschew. Colin Beavan's *No Impact Man*—an urban variation on the Thoreau narrative in which a self-proclaimed guilty liberal spends a year attempting to live without producing any waste—offers one of the more fully realized attempts to demonstrate the ethicality, aesthetic appeal, and economic viability of dressing up new books in old fibers. Beavan's hardback edition announces its anti-impact mission through its unconventional design choices. Forgoing the conventional dust jacket, its title is embossed directly onto raw, grainy cardboard. But how does it hold up to McDonough and Braungart's aesthetic objections to books made from recycled paper? The pages within, though speckled and of a marginally lower albedo than a non-recycled book still provide ample contrast between ink and page (no worse, at any rate, than the jaundiced look that even quality paperbacks acquire with age) and seemed (at least in my experience) neither unattractive nor noticeably more tiresome to read.

This is of course a matter of taste, and I am hard pressed to demonstrate an objective scale for measuring the overall "attractiveness" of a book. I can however address a recent shift in aesthetic perception that accounts for why the book's appearance might reasonably be considered so pleasing. The book's crude look taps into an aesthetic of organicism that, so far, has been championed mostly by food packaging—the matte palette of earth tones in which products hawked in organic supermarkets are packaged—but examples can also be found in postconsumer paper products (from notebooks to toilet paper) and dun-colored textile goods (shoes, clothing, home furnishings) woven from organic cotton or hemp. Such an eco-aesthetic effectively communicates what many consumers consider to be desirable ethical qualities that, in purchasing these products, they can enjoy by proxy. The organic look offers a paradigmatic case of the axiological entanglement of ethics and aesthetics, of the good and the beautiful, that our affective responses to waste foreground so effectively. The ethical good, in the case of Beavan's book or the unvarnished box of granola, finds a fitting aesthetic expression that in itself may not necessarily seem all that beautiful but comes to be perceived as such because of the diffractive relationship between the two axiological registers. The flecks and threads speckling the pages, the unadorned cardboard in which they are bound—these features of a recycled book could just as easily inspire the pleasurable reaction that McDonough and Braungart assume must be reserved for pages that embody mechanistic qualities of purity and uniformity. The visible imperfection of a recycled book, even of a mass-produced volume like Beavan's, subtly connotes many positive abstract qualities—authenticity, individuality, originality, singularity, specificity—whose absence more polished volumes have curiously enough taken as a virtue.

So despite the proverbial warning, it is difficult to avoid judging books by their covers—and by the tactile and visual qualities of their interior surfaces as well. Imagine Beavan's book in the context of the typical megachain bookstore that Delillo describes in *Mao II*:

There were rows of handsome covers, prosperous and assured. He felt a fine excitement, hefting a new book, fitting hand over sleek spine, seeing lines of type jitter past his thumb as he let the pages fall.... Bookstores made him slightly sick at times. He looked at the gleaming best-sellers. People drifted through the store caught in some unhappy dazzlement. There were books on step terraces and Lucite wall shelves, books in pyramids and theme displays. He

went downstairs to the paperbacks, where he stared at the covers of mass-market books, running his fingertips erotically over the raised lettering. Covers were lacquered and gilded. Books lay cradled in nine-unit counterpacks like experimental babies. He could hear them shrieking *Buy me*. (19)

Beavan's book, with its muted tones, offers a radical alternative to this scene. Although DeLillo's bibliophile initially evinces enthusiasm for his shopping excursion, the description also registers his disgust and bewilderment—the cumulative effect of being exposed to so many books whose sheer volume, gathered in one building, eventually blurs their individual differences in design. This mass of slickly packaged books (“sleek,” “gleaming,” “lacquered and gilded”) appeals to the bauble- and gleam-enchanted child within each of us, inciting desire while simultaneously eliciting a vaguely nauseating sense of claustrophobia—the bipolar experience wrought by immersion in an environment supersaturated with shiny objects shamelessly angling for our consumer dollar (“*Buy me*”). A stack of recycled, unjacketed hardbacks placed amidst this glossy excess, even if “arranged in artful fanning patterns” (19), would disrupt such an ostentatious and carefully orchestrated display of literary consumption as much as a box of corrugated cardboard left in the middle of the floor. The “unvarnished” nature of the recycled book's design is both material and metaphoric. Beavan's book, unlike those that DeLillo's novel catalogs, does not attempt to slap a multi-colored coat of toxic lacquer over what it essentially is—a bound stack of cooked woodpulp, a cellulose delivery system for lithographed text. If, as DeLillo's passage suggests, the ultimate effect of trade book design on the human sensorium is sickness and vertigo born of sensory overload and a barely suppressed recognition of the avarice driving those design decisions, a recycled volume that dispenses with the gimmicky trappings of the typical marketing strategy, that foregrounds rather than effaces the materials from which it has been constructed, offers the book-consuming public something of an aesthetic anti-emetic.

The content of Beavan's text, like that of McDonough and Braungart's, complements the performative dimensions of the book's design by explicitly addressing the environmental rationale behind its production. The “Note on Production” appended to this narrative describes not only the processes through which the book was produced but also the alternatives that were considered and abandoned along the way. Plans were tested to print the book without wood (he mentions bamboo and coconut fiber as two of many potential alternatives), to print it on new paper from sustainably harvested trees, and, finally, to print it on recycled fiber. The woodless option was dropped for technological and agricultural reasons: “some of those materials couldn't easily be printed on, and others couldn't be gotten in sufficient quantities” (227). The dilemma between recycled or sustainable sources was resolved in favor of the former for reasons not elaborated upon (economic, no doubt), but Beavan, at any rate, is clearly satisfied with the decision: “I am proud to say that this book is made from 100 percent postconsumer recycled paper and cardboard, processed without chlorine. Additionally, the paper was manufactured using energy generated from biogas” (227). The note of self-congratulation does not, however, elide the ecological compromises that even the most ethically laid plans inevitably entail: he himself suggests in the “Note” that even 100% postconsumer fibers processed with biogas energy nevertheless have to be trucked in from great distances by diesel-powered trucks spewing toxic exhaust into the atmosphere. Nevertheless, in attempting to account for as many strands as possible in his book's long and forking web of production, his project, from inspiration to publication, offers the modern

publishing industry's most ecoeffective technotext. Such exacting attention to the material features of a book proposes a model that others might emulate.

Eco-effective Paratext

The statements of disclosure we find in McDonough and Braungart's and Beaven's texts are becoming a more common feature of the contemporary book's paratextual apparatus. The copyright page, in particular, whose boilerplate disclaimers typically indicate a society of vigilant litigants standing watch against the day their person or property should be gainsaid in print ("This is a work of fiction, any resemblance to persons living or dead is entirely coincidental," "No part of this publication may be reproduced without prior written consent of the copyright owner"), has more recently begun to reflect the environmental concerns of publishers, authors, and readers. Though few books boast eco-friendly claims as bold as Beaven's, an increasing number are using the copyright page to underscore the environmental considerations that influenced the manufacturing process.

This trend seems both revolutionary and startlingly belated. Looking back on the polemical ecoliterature of the early 1990s, it is hard to believe how few of these texts address the environmental impact of publishing technology. *The Earth First! Reader* (1991), *Confessions of an Eco-Warrior* (1991), and *Radical Environmentalism* (1993)—books which were written to publicize the monkeywrenching campaigns of radical environmental groups like Earth First! and the Earth Liberation Front (ELF)—are all printed on non-recycled paper. The fact that environmental groups, composed of people who bury themselves neck-deep in the middle of forest service roads, spike or chain themselves to trees, or set up camp for months at a time in their canopies, could face injury, deprivation, and even death to prevent logging interests from clear-cutting forests but then turn right around and publish books to spread the word about the righteousness of their cause might strike charitable readers as a puzzling irony and hostile critics as a damning inconsistency.

One justification for why these texts are not written on recycled paper, and the reason it would not even occur to these authors to append some sort of apologia for their dereliction, has to do with the fact that post-consumer paper, though not a new technology by any stretch of the imagination,⁸ has only been made commercially available in the last few years. In the 1990s, the American paper recycling industry was still in its infancy. Though calls for the development of recycling programs could be heard around the time of the first Earth Day in 1970, and though there was some initial success with the recycling of newspapers (an isolated victory since newsprint, having one primary use and a fairly uniform appearance, is easy to distinguish and separate from other paper waste), the Reagan administration's endorsement of incineration over recycling as a solution to the nation's mounting disposal problems quelled paper recycling initiatives throughout the eighties both within the federal bureaucracy and among the general public.⁹ By the early nineties, when radical environmentalists began publishing books to bring their cause into the public forum, only 9% of the pulp used to manufacture paper in the US was composed of recycled fibers (Smith 182). Standards for the post-consumer content of recycled paper at that time were nebulous at best, and such low percentages of recyclable wastepaper, along with consistent growth within the paper industry, suggest that the production of recycled products would hardly stem industrial incursions into the US's few remaining unlogged forests. A popular outdoor magazine offered critical readers an explanation that fairly well summarizes the problem: "We want to save landfill space and we want to save trees. The recycled paper

now available, however, contains negligible amounts of postconsumer waste... effectively accomplishing neither goal. To use it, in our analysis, would be to cave into the hype without achieving any real progress" (qtd. in Smith 187). The availability of post-consumer paper demands the creation and maintenance of a good deal of pre-consumer infrastructure (collection centers, public education), and opportunities for such a system to develop, despite the volunteer efforts of many concerned individuals, had been effectively undermined in the early nineties by twelve years of federal discouragement.

Environmental writers from the end of the twentieth century might therefore be excused in the same way we often generously pardon otherwise compassionate white authors whose writings predate the civil rights movement when they employ terms that fail to conform to today's standards of racial discourse. However, now that the availability of recycled paper has improved so dramatically (writing and printing paper with as much as 100% recycled post-consumer content is now readily available at any office supply store), we should perhaps find it more problematic when authors of environmental critiques continue leaving themselves open to charges of hypocrisy and negligence. For example, *Crimes Against Nature* (2004), Robert F. Kennedy, Jr.'s indictment of the then-current Bush administration's environmental policy, only tells us that it is printed on acid-free paper, a material consideration that concerns the durability of the book more than the ultimate neutrality of its environmental impact. I realize that putting too fine a point on this criticism will only exemplify the unproductive Tu Quoque reasoning hostile critics use to undermine virtually any plea to reform the ecological impact of any human activity. The fact that these criticisms can be constructed so easily does not invalidate them so much as it underscores the ecological maxim that everything is connected. None of us are without our ecological sins in this big glass greenhouse that's getting hotter, more crowded, and more uninhabitable by the day, so when we cast our stones (as we inevitably will) it seems a good policy to cast them lightly enough for others to catch them. Kennedy offers some pertinent criticisms of the Bush administration, but an eagerness to locate a scapegoat—a distinctly guilty entity ("Bush and his corporate pals") that can be abstracted from the collective problem—bespeaks a serious problem in his own ecological thinking, a problem that is tellingly manifest in the book's ostensible lack of consideration for its own "crimes" against nature.

By point of contrast, *Strategic Ignorance* (2004), a similar anti-Bush polemic taking the former president to task for his environmental record, does a substantially better job practicing what it preaches (as we might expect from a Sierra Club imprint), claiming 50 percent post-consumer fiber processed without the use of chlorine, 25 percent from trees harvested in non-old growth forests, and the remainder coming from virgin fibers. The fact that the critique in this latter text carries over into the material considerations of the book's design strikes me as a much-needed stylistic contribution to its ecocritical engagement—an essential consideration that is missing from Kennedy's. Eco-effective technotexts whose rhetorical force is bolstered by aesthetic considerations of book design effectively illustrate ecocritical writer J.G. Ballard's suspicion that "many of the great cultural shifts that prepare the way for political change are largely aesthetic" (n.p.). The ethical propositions of ecocritical texts, however necessary, are not enough for achieving an epistemological shift toward ecological modes of thinking that will, in turn, lead to more humane environmental policy.

So, again, the ways that authors and publishers have begun to foreground aesthetic considerations of book design remain subtle and, with the rare exception of a Beaven or McDonough/Braungart, are found mostly on the copyright page. A great amount of variation also exists among these disclosure statements so describing any consistent progress in the environmental practices of book publishers remains difficult. An examination of twenty different books written on environmental themes reveals as many variations on their

environmental disclosures, many of which are written in what seems to be intentionally vague, even misleading, language. An early example that sets the tone of many copyright pages to come can be found in List's *Radical Environmentalism: Philosophy and Tactics* (1993). A statement like "This book is printed on acid-free paper that meets EPA standards for recycled paper" performs an Orwellian feat of doublespeak. Using the past participle "recycled" (rather than the more honest adjective "recyclable") creates enough ambiguity for readers to infer that the paper in the book has in fact been recycled when all that this statement of environmental ethics really claims is that the paper meets certain unspecified requirements for recyclable paper. It would be far more clear and accurate to state that the book is made from normal printing paper and that it would be nice of you to recycle it when you finish reading.

One would expect books dealing with issues of waste to demonstrate a more nuanced sensitivity to the environmental concerns of their production, and occasionally this supposition holds true. Tristram Stuart's *Waste* (2009), for example, a polemical study on the appalling amount of food wasted by industrial countries on a daily basis, details a problem that, if addressed, could solve many of our looming environmental crises. Not only is Stuart attuned to the serious problem of food wastage, the broad scope demanded by his ecological perspective has likewise become manifest in the production of his book—an artistic decision that is both material and rhetorical, with the copyright page letting everyone know that "This book was printed on recycled paper." But unlike Beavan's conscientiously earth-toned book, Stuart's looks no different than any other hardback you might find on the shelf at your local big-box book retailer, so while it challenges the protocols of book production, it apparently does not wish to tamper too with the aesthetic conventions of book design. The conventional look of the book (bright pages, glossy photo insert, colorful jacket) and the fact that the percentage of postconsumer material is not specified also suggest ambiguities in the definition of "recycled paper."

The copyright page of *Mongo* (2004), a journalistic account of various subcultures in New York that thrive on scavenging, likewise informs readers that "[a]ll papers used by [the publisher] are natural, recyclable products made from wood grown in well-managed forests. The manufacturing processes conform to the environmental regulations of the country of origin." Read with the glancing interest that the casual reader generally takes in the book's fine-print front matter, this information might appear to make a fairly strong statement of environmental concern; the ethical claims, however, do not hold up so well under scrutiny and even suggest a fairly blatant attempt to capitalize, through imprecise language, on the profitable rhetoric of environmentalism. The key words "natural" and "recyclable" connote much while saying little—"natural" tells us that the book is made of wood, which of course could be said for most any printed material these days and therefore describes a fairly unimpressive ecological claim, while "recyclable," following List's example, functions as the verbal equivalent of the triangular arrow icon embossed on the bottom of many consumer goods and packaging materials—a symbol indicating not that the product has been recycled but that it might be, depending on consumers' willingness to do so and the facilities available in their community. The definition of the hyphenated qualifier "well-managed" likewise remains unspecific, and the notion that the publisher conforms to the environmental regulations of the book's country of origin is as unimpressive as it is vague. To articulate such a claim is even a bit disturbing since it suggests that a manufacturer's voluntary compliance with environmental regulations is exceptional enough to warrant mention in the first place.

No governing body mandates ecological statements of disclosure, so publishers who voluntarily provide this information should be commended for at least realizing that the material processes of production might be of interest to readers. Indeed, most publishing

concerns have yet to adopt the policy of publicizing the relative sustainability of their production strategies and to lay open those processes to public scrutiny. However, as no institution exists to regulate or verify these voluntary disclosures, such statements should also be read with care and skepticism. Close reading suggests that publishers who provide eco-effective paratext still tend to assume ecological virtues they don't really possess as a means to bolster their environmental ethos in the eye of the book-buying public. Unless more readers begin to interest themselves in such disclosures and to hold writers and publishers accountable for the commodities they produce, little motivation will exist to institute meaningful changes in current modes of literary production. As *The Lorax*—a beloved environmental fable that ironically claims to “speak for the trees” through the medium of non-recycled paper—memorably concludes: “Unless someone like you cares an awful lot, nothing is going to get better. It's not” (58).

L'Envoi

The texts in this analysis do not fit comfortably into the belletristic tradition that has been the focus of the discipline since its inception, so I sympathize with those who find themselves wondering what remains of the literary in the vision of literary scholarship I have outlined. Such a materialist approach might readily lend itself to the analysis of at least two literary genres—the artist's books that Hayles addresses in her own analysis of technotext or the postmodern metafiction that conscientiously foregrounds its bookishness for readers (albeit rarely for the purpose of drawing attention to ecologies of book production). But while focusing on such literary genres might put an ecocritical media-specific analysis back on more familiar footing, we might also question whether any narrowly-defined concept of the literary is a particularly interesting concept for an environmentally engaged literary scholarship to cling to.

As Franco Moretti suggests about the field of literary criticism, “the collector of rare and curious works, that do not repeat themselves, [that are] exceptional—and which close reading makes even more exceptional, by emphasizing the uniqueness of exactly *this* word and *this* sentence here—is still by far the dominant figure” (3). He counters this qualitative focus on the close reading of exceptional with a quantitative ideal of “distant reading,” a mode of literary analysis that borrows conceptual tools from the fields of social science, evolutionary biology, and cartography as a means for examining a much broader swath of the literary field. Analytic models such as maps, graphs, and trees, he suggests, assist critics in dealing with an untapped bounty of published material that has so often been elided by critical approaches geared exclusively toward canon formation: “a canon of two hundred novels, for instance, sounds very large for nineteenth-century Britain (and *is* much larger than the current one), but is still less than one percent of the novels that were actually published: twenty thousand, thirty, no one really knows” (4). A striking parallel exists between this distanced vision of literary scholarship and one recently proposed for the field of archaeology (Shanks). The questions that quantitative literary scholarship and garbology both pose to the reigning methods within their respective disciplines are roughly the same: do we learn more about a culture by studying what has been conscientiously preserved or by recovering what has been casually thrown away? Should we, in other words, continue to be aesthetes devoted to explicating the masterpiece, or has the time come to forge a new disciplinary identity that is free from the elitist assumptions suffusing the old one? A truly materialist ecocriticism—one that is sensitive to the disposability of its object of study and of the books and journals it produces to facilitate scholarly dialogue—

proposes an alternative model that will inevitably follow the democratizing trajectory of cultural criticism in regarding any text as an object of potential interest for academic inquiry. To recognize all printed literature as incipient trash is to level the generic hierarchies that canonicity depends upon, and it offers the opportunity to begin asking new questions about the material significance—not just the ideological signification—of the things people read.

The practice of closer reading I have proposed provides only one of many possible perspectives for ecocritical literary scholarship in the twenty-first century, and, if taken by itself, would provide an understanding of literature every bit as limited as more familiar formal and cultural approaches. Since the methods and materials through which a book is constructed only become urgent matters of ecological concern when we consider the economies of scale that literary production and distribution depend upon, modes of quantitative analysis that wish to account for the significance not of particular texts but of literary production in its entirety serve as a useful complement. Indeed, I think we need to pull back the lens even farther than Moretti's version of "distant reading" suggests. An ecocritical media-specific analysis will strive to account not only for those twenty or thirty thousand forgotten titles, but for the even more indefinite number of forgotten volumes and editions of those titles that a literary culture produces.

And whether we begin our analyses by zooming in to the fibers of the page or by zooming out to encompass the material networks through which literature is produced, there is no need to abandon the hermeneutic questions that have traditionally exercised the analytic prowess of textual scholars. The literary discipline's ability to clarify the meaning of ambiguous textual matters will no doubt remain paramount, though I think it is reasonable to propose that our investigations of a text's meaning can no longer remain dissociated from questions concerning that text's materiality. The analysis of a text does not stop with the copyright page, but considering the relevance of such ecological questions to the continuation of human existence on this planet, I think it might do well to begin there. We need not be deep ecologists to appreciate the disavowal that our reading habits are based upon and to recognize that the paper behind the text should be valued more than it traditionally has by the publishers, writers, critics, and readers who have gone about the business of textual production and consumption as if their lives did not depend on a forest's singular ability to clutch soil and scrub air. The most popular modes of literary analysis encourage us to attend to the squiggles on the page and to miss the significance of the page itself, to discount it as a potential feature of the book's ethical and aesthetic message, to treat it as irrelevant to the values that the text's words have more or less consciously been written to express, to treat it as the waste it inevitably—though not necessarily—must become.

Endnotes

1 Recent estimates from The Book Industry Study Group (BISG) suggest that more than 200 million academic books are produced every year. While academic monographs, geared as they are to a specialized audience, typically have small runs, there are apparently still a substantial variety of titles being produced to account for academic publishing's 8% stake of the total books published in a given year.

2 According to Lawrence Buell, the environmental unconscious is "the limiting condition of predictable, chronic perceptual underactivation in bringing to awareness, and then to articulation, of all that is to be noticed and expressed.... [E]nvironmental unconscious in its negative aspect refers to the impossibility of

individual or collective perception coming to full consciousness at whatever level: observation, thought, articulation, and so forth. I do not pretend to be able to identify all the many causes of foreshortening: scientific ignorance, inattention, specialized intellectual curiosity, ethnocentricity, self-protectiveness, the conventions of language itself—the list is long. Yet environmental unconscious is also to be seen as potential: as a residual capacity (of individual humans, authors, texts, readers, communities) to awake to fuller apprehension of physical environment and one's interdependence with it" (Buell 22). This book was "printed in the United States" according to the copyright page—no indication as to the composition of the paper, however.

3 For statistics on food waste, see Stuart's *Waste* (2009) or Singer and Mason's *The Way We Eat* (2006), both of which were printed on recycled paper.

4 For more extensive analyses of the perils of electronic media see Gabrys's *Digital Rubbish* (2011) and Maxwell and Miller's *Greening the Media* (2012). Neither copyright page indicates any use of recycled paper; this seems much less of an oversight for Gabrys in light of her exclusively digital focus, but since Maxwell and Miller devote their second chapter to "the ecological context of the printed word and the environmental problems that have been bequeathed to present and future generations" (43), some sort of attempt, paratextual or otherwise, to address their own contribution to this problematic bequeathment seems conspicuously absent.

5 Note to publishers: the self-deprecation here is for rhetorical purposes only.

6 Considering the massive scope and incommensurate nature of its objects of study (electronic literature has very different, if equally troubling, environmental ramifications than print), life-cycle assessments that have taken on the daunting task of comparing the ecological impact of paper vs. electronic publishing formats generally offer limited and tentative conclusions (see for example Gard and Keoleian). Suffice it to say there is no easy answer to the question of which technology is more "eco-efficient," if that's the question we should even be asking. My own compromised response to this complicated problem is to publish in an electronic format, a solution which—though based, in the absence of definitive empirical proof, on the much shakier foundation of intuition—nevertheless seems like the lesser of two evils even if, as indicated above, the internet is by no means the immaterial and environmentally benign publishing format it might initially appear.

7 Linda Hutcheon uses the term "complicitous critique" to underscore the necessarily ironical status of a postmodern critique that recognizes its inability to propose a reasonable alternative to the capitalist system it questions.

8 Recycling has actually been a pillar of the papermaking industry since its invention by the Chinese in the first century A.D. Until the eighteenth and nineteenth centuries, when technological developments such as the kraft process made wood a profitable source of paper stock, paper was composed of vegetable fibers (often from agricultural waste) and used rags. Smith (1997) notes that the first American paper company, Philadelphia's Rittenhouse Mill, est. 1690, "relied exclusively on recovered fiber derived from cotton and linen rags and wastepaper" (15) and that even at the time of writing her book, up to 90% of pulp in countries like China was made up of nonwood sources, primarily straw. The paper used in Smith's book, according to the copyright page, "is both acid and totally chlorine free (TCF)."

9 For a fuller discussion on the conflict between the federal government and recycling advocates and on the moderate success of newspaper recycling initiatives, see Smith pp. 182-202.

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