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The Language of Sustainability

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The Language of Sustainability

Though scientific research is traditionally viewed as the backbone of the currently unfolding discourse around sustainability and climate change, language and literature play equally significant roles. Literature's ability to create, destroy and preserve, in conjunction with the inherent precarity and potential of its fundamental component, language, is closely related to the instability caused by environmental crises across the globe. Words, like individual species, or elements, are essential to the composition and conservation of the world's endangered ecological niches and, equally important, its populations of "uninhabitants," or "people who [have] been turned into ghosted casualties" by the cultural and environmental slow violence of unsustainable economic expansion (Nixon 152). Not only do the languages and literatures of environmental and socio-economic landscape mirror its increasing instability, they provide a lens through which to record its present state and predict its future course. As surely as it has been a corporate and governmental tool with which to isolate people and ecologies from their environments, language, be it indigenous universal, or politicized, can effectively shape the future of global sustainability by engaging audiences on both factual and emotional levels. "Nature writing," in the words of Cambridge researcher Dr. Robert Macfarlane, "is succored by accurate description, while at the same time draws attention to large-scale environmental crises and local losses...driven by a sense of purpose that gives it an important role within modern conservation" ("Landscape, literature, life"). The increasing prevalence of language's role in affecting environmental change and clearly defining the plight of the global "South" is highlighted by the recent development of the literary genre of climate fiction, or cli-fi. Cli-fi authors face unique challenges in their efforts to represent the slowly unfolding environmental crises of the Anthropocene. Challenges such as "rendering visible occluded, sprawling webs of interconnectedness" and expanding a reader's perspective "beyond the horizon of imaginable time," require both narrative skill and an understanding of environmental language – not environmental

language as commandeered by scientists or corporations, but as understood and given definition by a place's inhabitants (Nixon 45, 47). Amitav Ghosh's novel *The Hungry Tide*, which explores the precarious ecological and social balance of India's Sundarbans region, is an example of cli-fi literature that seeks to prompt discussion about environmental sustainability and the humanist repercussions of ignoring that discussion.

Although the more eye-catching, catastrophic events that mark the trajectory of climate change merely capture environmental crisis at its most spectacular moments, the examination is worthwhile, not least to confirm the literature's ability to imagine potential futures. A brief examination of the more immediately arresting effects of climate change and environmental degradation yields a view of the world eerily approaching the post-apocalyptic landscapes of previous decades' science fiction novels. Scenes that once seemed only possible in fictional dystopias are now playing out all over the world, particularly in developing and recently industrialized nations, which "often assert a right to pollute in order to grow their economies" as did the world's developed nations over the past century (Portney 28). Burning of coal and other fossil fuels in China – now the largest emitter of greenhouse gasses – has rendered the air so toxic, reports Edward Wong of *The New York Times*, that the government is periodically required to "close schools, force motorists off the road and shut down factories" ("Smog So Thick, Beijing Comes to a Standstill"). Major cities like Beijing, ordinarily buzzing with the activity of millions, are reduced to ghost towns, "shrouded...in a soupy, metallic haze" of deadly particulates (Wong). These episodes provide such ominous glimpses into a future characterized by unsustainable resource consumption that the media has nicknamed them "airpocalypses." In India, United Nations experts have reported that soil degradation, "exacerbated by human activity like deforestation and urbanization" in addition to "injudicious use of pesticides, intensive cropping system, decline in soil biodiversity and depletion of organic matter," now poses an immediate urgent concern (Vasudeva "A third of India's soil degraded: experts"). A future in which India – a nation of 1.2 billion people – is

unable to produce enough food for its citizens is a frighteningly real possibility. Unfortunately, developed nations, like the United States, fearing sustainability will come at the expense of economic growth, also “refuse to accept the idea that the burden[s] of carbon reduction,” and sustainable industrial and agricultural regulations “should fall on them” (Portney 28). So the burden continues to be shouldered by those who have carried it since the early days of colonization: the world’s uninhabitants, “the faceless poor of the third world” (Nixon 47).

The “offloading [of] rich-nation toxins onto the world’s poorest” nations has become an increasingly disturbing trend within the last fifty years (Nixon 2). Essentially, this practice provides an avenue for corporations in the global North to reduce domestic pollution, thereby reducing immediate environmental stress, and appeasing local environmental organizations and activists. The tragedy of this practice is two-fold. Firstly, it eliminates any public sense of urgency to address environmental degradation at a local, state, or national level, by providing both public consciousness and policymakers with a false notion of sustainability. Secondly, it widens the gap between the wealthy and the poor by robbing third world environments of usable common resources like potable water, arable land, and clean air. Additionally, the destruction of local common resources is often accompanied by the extraction of marketable resources, such as fossil fuels, ores, or precious metals and stones. U.S. and European based companies that develop chemicals with toxic by-products, for instance, often outsource production to third world countries, where labor and resources are inexpensive, and environmental regulations are lax. Once the work is complete, or the country’s resources have been exhausted, the company may sell off its foreign assets, leaving the locals at an even greater deficit than before – often with debilitating or fatal health consequences that linger for decades, as in the Union Carbide disaster in Bhopal which began in 1984. This type of exploitation and neglect of foreign environments is not limited to corporations, but can be carried out by governments as well, as in the case of fallout from the Chernobyl disaster of 1986 and the subsequent dissolution of the Soviet state, or during wartime, as in

the nuclear attacks by the U.S. on Japan during World War II. Both nuclear travesties wreaked not only immediate havoc, but have resulted in long-term increased radiation levels that have contaminated soil and ground water, and caused countless cancers and birth defects in local populations, even generations later. It is apparent that the manipulation and endangerment of landscape and human welfare are inextricable, and thus human sustainability requires environmental.

If the plague of environmental degradation has been largely brought about by the unsustainability of human industry, what role, then, can the intellectual endeavors of literature and linguistics play in correcting the damage? The key to utilizing language as a restorative tonic lies in its ability to translate the large-scale, incomprehensible issues of environmental science into meaningful, relatable concerns for the billions of ordinary citizens capable of enacting real change, be it at a grass-roots level, or applying pressure to governments and policymakers to generate and act upon comprehensive sustainability goals. The push towards a sustainable future needs to move us collectively, beyond the piteous images of homeless polar bears and the faceless statistical data of scientific reports. It needs to be made widely known that the disaster of climate change and its associated tragedies are *humanist* issues – language is the way to bridge the gap between knowledge and humanity. As essayist Wendell Berry explains, “people exploit what they have merely concluded to be of value, but they defend what they love, and to defend what we love we need a particularising language, for we love what we particularly know” (qtd. in Macfarlane “The word-hoard”). Essentially, developing an international consciousness and sense of responsibility to the necessary objectives of environmental sustainability requires a vocabulary that will resonate with people on an individual level. Macfarlane describes this essential relationship, between language and landscape as “the power of strong style and single words to shape...senses of place.” This relationship highlights one of the fundamental similarities between the fragility of language and the world’s ecology: both exist under constant threat of depletion and possible extinction. Macfarlane cites the removal of words such as

buttercup, fern, mistletoe, newt, otter and *willow* from recent editions of the Oxford Junior Dictionary – words “no longer felt to be relevant to a modern-day childhood” – in favor of words like *blog, broadband, chatroom* and *MP3 player*, as evidence of the increasing literal and linguistic precarity of nature. If the words to describe the natural world are eliminated from the vocabularies of future generations, how can children be expected to develop a lasting relationship with their environment, much less care enough to protect it? Language, then, becomes both an entity in need of preservation and an act of preservation itself; a means of recording the world’s landscapes before they vanish forever.

Not only is language essential to developing a sense of place, it must be utilized effectively in fostering the widespread appeal of sustainable choices. Much in the way people “defend what they love,” human nature tends to resist change, unless that change is directly beneficial or otherwise wholly attractive to it. Sustainability has, until recently, carried the unattractive stigma of compromise. Recycled and eco-friendly products are frequently regarded as less comfortable, less effective and more expensive. Steve Howard, Chief Sustainability Officer for the Ikea corporation, describes some of the early bases of these stereotypes: “detergents that could wash...whites grayer;” “the early energy-efficient light bulbs that took five minutes to warm up” and “left [people] looking a...sickly color;” “rough, recycled toilet paper” (TED Talks). In a world where the growing middle class is primarily concerned with day-to-day matters like earning a wage, feeding a family and paying bills, most individuals lack the primary resources – money and time – to make sustainable choices their top priority and to be able to make such compromises on the environment’s behalf. At the same time, the expanding middle class places an increasing strain on an already resource-strapped planet, bringing sustainability “from a nice-to-do to a must-do” (Howard). While the sheer numbers of the middle class demand its collective commitment to sustainability, there lies a substantial burden on the leaders of industry to assist in facilitating the necessary changes to our ways of life. Business owners must commit

to running their operations sustainably – powering stores and factories with renewable energy, using sustainably harvested raw materials, etc. – in order to provide consumers with “beautiful, functional, affordable, sustainable products” that enhance, rather than compromise efficiency (Howard). In order to maximize the impact of such a shift in business, the use of language to alter consumers’ perspective is critical. Sustainable products alone will be ineffective if people do not feel enticed or compelled to purchase them. There is a distinctly Whorfian aspect to marketing that sustainable industries must learn to take advantage of in order to put their products in the homes of middle class consumers.

Seaweed farming – an ingenious potential remedy to the oceanic damage caused by overfishing and chemical run-off – is an example of a sustainable option in need of such linguistic assistance.

Seaweed, or kelp, has the remarkable ability to absorb “dissolved nitrogen, phosphorous and carbon dioxide directly from the sea,” can withstand severe weather conditions, such as hurricanes, and is surprisingly nutritious, making it an ideal sustainable food source (Goodyear). In addition to its direct ecological benefits, seaweed also provides a natural habitat for filter feeders, like barramundi, scallops, clams and shrimp. Cultivating seaweed could not only offer a sustainable food source itself, but help repair damaged coastal environments. Despite the obvious benefits of adopting seaweed as a staple of the global diet, there is one glaring hurdle: getting people to eat it. While seaweed has been on the menu in certain cuisines, like Japanese, for millennia, its popularity in most countries remains underwhelming. One of the primary deterrents is simply the word *seaweed*, a decidedly “unlovely name” mainly associated with the slimy green-brown masses that wash up on beaches (Goodyear).

Seaweed farmer Bren Smith explains that the first step in creating public appreciation for seaweed as a food item is giving it a more palatable name. “Smith...prefers to call his produce *sea vegetables*” or *sea greens* (Goodyear). Whole Foods and other natural food stores have recently begun promoting “sea veggies” as delicious additions to salads, soups, stir-fries and other dishes. The company’s website contains recipes and guides for preparing sea vegetables, and even addresses consumers’ concerns

about taste. While the prospect of simply “eating seaweed” does little to entice potential buyers, the allure of “the sweet, mild flavors of arame and wakame” makes seaweed more approachable for those with less adventurous taste buds (“Sea Veggies”). As important as language is to the promotion of sustainability, marketing is not the only, nor indeed the most important, arena in which language functions to this end.

Returning to Macfarlane’s theory that words are intrinsically connected to our sense of place, it is critical to note that literature, as an extension of language, does more than simply repackage environmentalism into easily digestible terms – it manages to simultaneously personalize and universalize ecological concerns once perceived to be merely the problems of “other people” in “other places.” By interweaving factual representation and emotional empathy, literature of landscape “allow[s] us glimpses through other eyes, permit[s] brief access to distant lifeworlds and habits of perception” and raises a sense of interconnectedness among international audiences in ways that pure scientific evidence can not (Macfarlane). That this capability exists within literature, however, by no means implies it is an easy feat for an author to attain. Novelist Benjamin Kunkel explains the two main obstacles in attempting to represent climate change within works of fiction. Firstly, “the worst effects [of climate change] aren’t here yet,” thus “fictional character, like flesh-and-blood citizens, have more urgent concerns than the state of the climate twenty years hence” (“Inventing Climate-change Literature”). Secondly, it is not “easy for people, real or imaginary, to feel any special moral relationship to the problem,” given the heaviest burden of blame lies with large-scale fossil fuel and industrial corporations (Kunkel). In recognition of these shortcomings, the genre of cli-fi has emerged. Cli-fi resolves the issue of the distant future by employing settings and characters of the present, thereby creating a sense of immediacy and urgency within both its characters and readers. The representation of present, as opposed to future, dystopias and disasters works in tandem with the inclusion of relatable, “ordinary” characters to elicit an emotional response from readers. Judith Curry, chair of

Earth and Atmospheric Sciences at Georgia Institute of Technology, refers to this unique ability of cli-fi novels as “‘a way of smuggling some serious topics into the consciousness’ of readers who may not be following the science” (qtd. in Evancie “So Hot Right Now”).

Enter the Sundarbans: a tidal region, dominated by mangrove forests, shared by both India and Bangladesh that has remained largely hidden from global consciousness for centuries. Dr. Ranjan Chakrabarti describes, “[the region] is half water and half land...a terrain where land making has not yet come to an end” (“Local People and the Global Tiger” 73). This is true in terms of not only geographic but also regional and national identity. In the late nineteenth century, the Indian government declared the resource-rich Sundarbans a Protected Forest, not for the purported conservation of the native tigers and their habitat, but for “the purpose of increasing revenue and upgrading a growing stock of various kinds of timber” (82). The government’s seizure of timber resources resulted in the displacement of thousands of local inhabitants and their subsequent isolation from the resources that had sustained their communities for centuries. In the 1970s, the global conservation movement pressured the Indian government to develop “Project Tiger,” a program which, by adopting international conservation guidelines, increased the amount of land allotted to protected habitats and further reducing land available to locals. Compounding the ongoing land struggle is the large population of Bangladeshi refugees living in the Indian Sundarbans, for which neither government accepts accountability. A place where resource exploitation, environmental uncertainty and social unrest are constantly swirling together is certainly one of those “occluded, sprawling webs of interconnectedness” that Nixon asserts must be revealed in order to be understood.

Amitv Ghosh’s *The Hungry Tide*, published in 2004, is an early example of cli-fi set in the Sundarbans. Ghosh uses a variety of tactics, including framing devices and indigenous language to address issues of climate change and sustainability while engaging the reader on an emotional level.

The novel's primary framing device is a journal written by Nirmal, the uncle of one of the main characters, a New Delhi entrepreneur named Kanai. Nirmal's journal provides first-hand descriptions of the Sundarbans' ecology and its shifting, constantly threatened nature:

"The islands are the trailing threads of India's fabric, the ragged fringe of her sari.... They number in the thousands, these islands. Some are immense and some no larger than sandbars; some have lasted through recorded history while others were washed into being just over a year or two ago.... The rivers' channels are spread across the land like a fine-mesh net, creating a terrain where the boundaries between land and water are always mutating, always unpredictable" (Ghosh 6).

The environment is described here in such a way that the reader is able not only to grasp the image of the Sundarbans, but its essential instability as well. Threads of fabric – as of a sari or a net – in water convey a certain fragility and impermanence to those unfamiliar with the local geography that the simple word *island* cannot. The reader is being given a distinct representation of landscape by one who lives within it, which lends a degree of authenticity despite the absence of scientific data. To borrow a phrase from Curry, the environment of the Sundarbans is effectively "smuggled" into the consciousness of readers who may never have known of its existence. Not only does Nirmal's journal portray the physical properties of the Sundarbans, it imbues the landscape with character. Nirmal describes the mangrove forests that cover the Sundarban islands, where the vegetation is "tough and leathery, the branches gnarled and the foliage often impassibly dense.... At no moment can human beings have any doubt of the terrain's hostility...of its cunning and resourcefulness, of its determination to destroy or expel them" (Ghosh 7). Like the "tigers, snakes and crocodiles," that roam its topography, the land is a wild, predatory being (7). This understanding of the *region's* character allows the reader to more readily identify with the emotions, fears and desires of the *novel's* characters.

Beyond capturing the ecological permeability of the Sundarbans, Nirmal's journal also represents the vulnerability of its people and their precarious position between government and environment. The journal tells the story of Kusum, a refugee displaced from the Bangladeshi

Sundarbans during the Indo-Pakistani war and placed in Dhanbad, a government settlement camp, where refugees are used as cheap mining labor. When Kusum and her fellow refugees attempt to leave the camp for the tidal island of Morichjhāpi, the Indian police “swarmed on the trains...put blocks on the roads” in an attempt to retain them (137). Although the refugees escape and settle on Morichjhāpi, they are continually harassed and eventually besieged by the police, as Morichjhāpi has been designated as a protected forest. At one point Kusum, questioning the comprehension of the global audience, broaches the issue at the heart of sustainability – the need for humans to exist harmoniously with their environments: “our fault, our crime, was that we were just human beings, trying to live as human beings always have, from the water and the soil” (217). To jeopardize one is to jeopardize the other.

A secondary frame, which Ghosh uses intermittently throughout the novel, is the reference to scientific studies by the protagonist, a cetologist named Piya. In these moments, too, a kind of smuggling transpires, providing the reader with factual details under the guise of narrative. One such instance occurs as Piya is recording the movements of the endangered Orcaella, a variety of dolphin. “Piya remember[s] a study that had shown there were more species of fish in the Sundarbans than...the whole continent of Europe” due to the intermingling currents of fresh and salt-water currents (104). Like Nirmal’s journal, Piya’s remembrance of the study transmits the image of the Sundarbans as a place, not only of great ecological wealth, but of constant fluctuation and precarious balance. She describes the “microenvironments” created by the tides as “balloons suspended in the water...chang[ing] positions constantly” (104). Piya’s mention of the Sundarbans’ extensive biodiversity is countered shortly thereafter by a conversation between Kanai and Moyna, the wife of a local fisherman. Moyna expresses her concern “that in fifteen years the fish will all be gone” as a result of the “new nylon nets [used] to catch...the spawn of tiger prawns....so fine that they catch the eggs of all the other fish as well” (111). This environmental travesty has human implications as well: “It’s people like us,” says Moyna, “who’re going to suffer and it’s up to us to think ahead” (112). By localizing the global

disaster of a fishless ocean, and attaching direct human consequences to characters with whom the reader shares a degree of empathy, Ghosh provides a lens through which one can more acutely understand the need to think and live sustainably.

Another method Ghosh uses to establish a sense of place for an international audience is the inclusion of vocabulary specific to the Sundarbans. The word *mahona*, which first appears in Nirmal's journal, is repeated throughout the novel to describe the Sundarbans: "In the language of the place, such a confluence is spoken of as a mahona – an oddly seductive word, wrapped in many layers of beguilement" (6). This particular word for an estuary or delta conveys, like the trailing sari in the water, both geographical properties of the landscape and an air of mysterious intrigue. The name of Nirmal and Nilima's community foundation, the Babadon Development Trust, also directly mirrors the nature of the Sundarbans region. *Babadon* "derive[s] from the Arabic *badiya*, which means 'desert'" and "joins Arabic to Sanskrit – *bada* to *bon*, or 'forest.' It is as though the word itself were an island, born of the meeting of two great rivers of language – just as the tide country is begotten of the Ganga's union with the Brahmaputra" (69). Ghosh's inclusion of specific place words and names, as a way to create a sense of place, makes use of Berry's theory on "particularizing language." In order to care about endangered regions like the Sundarbans, global audiences need words that set those regions apart, that render them unique, and thereby worth saving.

Fortunately, due to the growing popularity of cli-fi like *The Hungry Tide*, efforts by corporations to produce and market sustainable goods, and word preservation of researchers like Macfarlane, issues of sustainability and preservation comprise an ever-increasing portion of global consciousness. It is critical, however, that language remains at the forefront of conversations regarding climate-change and other associated ecological concerns. Global citizens must be given the opportunity to visualize and comprehend the ecological desolation and the resulting implications for human survival. Without

language and literature to preserve the world's landscapes for future generations, engage individuals both factually and emotionally, establish and maintain human relationships with the environment, the struggle to achieve a sustainable future falls prey to complacency and apathy.

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