New Ecocriticisms: Narrative, Affective, Empirical and Mindful

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Abstract

What seem like “new” developments in Ecocriticism have actually been nascent, articulated in conversations and blogs, soon emerging in presentations and print over the past five or more years. Responding to climate change numbing, ecocritics have explored the potential “arithmetic of compassion” (Slovic & Slovic 2015) and the “caring exhaustion” that arises when the numbers of those suffering—humans, animals, ecosystems—becomes too high to encompass. Human responses to the increasingly frightening scenarios of climate change futures have been termed “eco-anxiety” and “eco-grief” (Hutner 2015; Ray 2019). New developments in ecocriticism arise through the nexus of econarratology, affective ecocriticism, empirical ecocriticism, and mindful /Zen ecocriticism. I discuss this continuing trajectory in ecocriticism, developing from econarrative through ecoaffect (approaches that describe readers’ responses to climate change narratives) and on to empirical and mindful / Zen ecocriticisms (approaches that seek to offer strategies for responding to climate change narratives through affect, activism, and contemplative approaches, and for evaluating the efficacy of those strategies).

Keywords: Eco-affects, storyworld, narrative, empiricism, mindfulness, psychic numbing.

Resumen

Lo que parecen “nuevos” desarrollos en el campo de la ecocritica han sido, en realidad, un conjunto de ideas emergentes articuladas en conversaciones y blogs que han tenido una pronta transliteración en presentaciones y publicaciones en los últimos cinco años o más. Respondiendo al entumecimiento del cambio climático, los ecocriticos han explorado el potencial de la “aritmética de la compasión” (Slovic & Slovic 2015) y el “agotamiento de la preocupación” que surgen cuando los números de los que sufren—humanos, animales, ecosistemas—son demasiado grandes como para comprenderlos. Las respuestas humanas a los escenarios cada vez más aterrador del futuro del cambio climático han sido llamados “eco-duelo” (Hutner 2015) y “eco-ansiedad” (Ray 2019). Han surgido nuevos desarrollos en la ecocritica a través del nexo de la econarratología, ecocritica afectiva, ecocritica empírica, y ecocritica consciente/Zen. Este texto discute esta trayectoria continua en la ecocritica, explorando desde el concepto de econarrativa a través del ecoafecto—aceramientos que describen las respuestas de los lectores a las narrativas del cambio climático—hasta las ecocriticas empíricas y conscientes/Zen, aquellas que abordan acercamientos que ofrecen tanto estrategias para responder a las narrativas del cambio climático a través de los acercamientos afectivo, activista y contemplativo, como metodologías para evaluar la eficacia de las mismas.

Palabras clave: Ecoafectos, storyworld, narrativa, empirismo, mindfulness, entumecimiento psíquico.

What seem like “new” developments in ecocriticism have been nascent for over a decade, articulated in conversations and blogs, soon emerging in presentations and print. In 2009, Simon Estok introduced the term ecophobia to describe “an irrational and
groundless hatred,” a “contempt and fear” of the natural world that has created the conditions of climate change, that is “thoroughly interwoven” with “racism, misogyny, homophobia, speciesism,” and demands a “viable ecocritical methodology.” In the ensuing decade, ecocritics responded.

In 2012, Ecozon@ devoted two issues to addressing climate change: “Writing Catastrophes: Cross-Disciplinary Perspectives on the Semantics of Natural and Anthropogenic Disasters” (3:1), and “The Invention of Eco-Futures” (3:2). In 2013 and 2014, “nature” writer Kathleen Dean Moore and the editor-in-chief of ISLE, Scott Slovic, issued the variously titled “7 Ways to Write to the Future” (2013) and “A Call to Writers” (2014) urging the ecocritical and environmental writing communities to “set aside their ordinary work and step up to do the work of the moment . . . which is to stop climate chaos”:

That work may be outside the academy, in the streets, in the halls of politics and power, in the new street theaters of creative disruption, all aimed at stopping industry from continuing to make huge profits by bringing down the systems that sustain life on Earth. These activist efforts need the voices of writers, the genius of thought-leaders, the energy of words. (“Call to Writers” 5)

Responding to Estok, Moore and Slovic, ecocritics began projects addressing climate change affects, developing methodologies to assess the effectiveness of climate change fiction in shaping readers’ standpoint and agency, and cultivating pedagogies to equip students for climate change futures.

Narrative, Affective, Empirical

Responding to climate change numbing, ecocritics have explored the potential “arithmetic of compassion” (Slovic & Slovic) and the “caring exhaustion” that arises when the numbers of those suffering—humans, animals, ecosystems—becomes too high to encompass. Conscious of this potential for psychic numbing, ecocritics writing in Extinction Studies have taken care to record narratives of loss in the sixth mass extinction by exploring one species at a time, “staying with the lives and deaths of particular, precious beings” (Rose et al. 8). Attending to “species as intergenerational heritages,” the volume’s contributors mourn, revealing that the loss of species is a diminishment of joy, taste, perception: “the world dies from each absence; the world bursts from absence” (9, 219).

Human responses to the increasingly frightening scenarios of species extinctions, environmental “development” and climate change futures have been variously termed eco-grief, solastalgia, and eco-anxiety (Hutner; Weik von Mossner, “Green States of Mind”; Ray Field Guide, “Coming”), prompting the rise of econarratology, affective and empirical ecocriticisms. Companioning these developments, mindful and Zen ecocriticisms also took root.

In The Storyworld Accord, Erin James defines “storyworld” as “a mental model of context and environment within which a narrative’s characters function” (x). Readers “transport” themselves from their present-world environments and relations into the world of the narrative, producing and inhabiting “mental simulations of a narrative’s
“worlds,” an “immersive” and ultimately environmental process (x-xi). James’ research leads her to affirm “the potential of narratives and their world-creating power to increase understanding among readers of different environmental imaginations” (3-4). Citing research in cognitive science, she explains that “reading about an activity in a narrative” is neurologically linked “to performing the activity in real life,” as “understanding an activity you read about . . . requires a mental simulation of that action and its context” (19). Given the cognitive and affective-inducing power of narrative, James argues, ecocritics “would do well to question how the process of losing yourself in a [narrative] can be harnessed toward environmentalist ends” (34). In other words, “storyworlds” create both narrative and affective components—but only recently have ecocritics focused on the affective elements.

Affective ecocritic Jennifer Ladino “distinguish[es] affect, which (for many theorists) precedes or eludes cognition and discourse, and can transcend the individual body, from emotion, a more personal, subjective experience [that can be treated] as consciously interpreted or narrated affect” (134). Complementing James’ work, Alexa Weik von Mossner names “the strongest barrier to feeling with and for others” as “empathy inhibition—the cognitive suppression of empathic distress for egoistical, economic, practical, ideological, or cultural reasons” (Affective Ecologies 82). In narrative, ethically-motivated writers try to bypass these forms of empathy resistance through “authorial strategic empathizing” (aligning the narrative viewpoint with those experiencing injustice, or with a narrator who isn’t directly affected but who learns to care for those experiencing the injustice) and its uses to cultivate “moral allegiance to the victims of environmental injustice” as well as “trans-species empathy” (Affective Ecologies 83).

As another strategy for reviving affective responses to environments and storyworlds, queer ecocritics have celebrated the eco-erotic affects in texts such as Beth Stephens and Annie Sprinkle’s Goodbye Gauley Mountain: An Ecosexual Love Story, an eco-documentary that bridges working class mining culture, Appalachian poverty, and queer eco-activist tools such as camp, performance and pageantry, culminating in marriages between human and ecological communities. In Strange Natures, Nicole Seymour develops a queer ecocritical reading of texts that “have imagined empathetic, ethical interrelationships between the queer and the non-human” (23) and illustrates that “failures of queer ecological empathy . . . can have disastrous results not just for the environment, but for those individuals who fail,” thereby producing “a devastating isolation, a disconnection from human and non-human others alike” (18). Seymour’s Bad Environmentalism advances her study of queer empathy to demonstrate how “queer theory’s trademark sensibilities”—playfulness, irreverence, perversity, irony—as well as queer culture’s characteristic delight in “absurdity, camp, frivolity, indecorum, ambivalence, and glee” create “new opportunities for inquiry into environmental crisis” (23, 24).

Affective ecocriticism has a pedagogical branch as well. Through her environmental studies courses, Sarah Jaquette Ray observes students moving through an “affective arc,” from “idealist, to lost innocence, shame, denial, grief, apathy, optimism,”
and ideally, agency (“Coming of Age,” 299). To help students move past the often paralyzing eco-anxiety that arises when they learn “the scope of historical injustice” (306) and recognize that “personal change is not the same as social change” (307), Ray draws on essays from Rebecca Solnit, Howard Zinn, and Adrienne Maree Brown to replace hope with agency. Her Field Guide to Climate Anxiety addresses students directly, providing skillful guidance in managing climate change affects.

From the affective to the cognitive, empirical ecocriticism advances an “empirically grounded, interdisciplinary approach to environmental narrative,” drawing on the reader-response theory of 1970s-1990s literary criticism and developing a methodology for documenting “the ability of environmental narratives to stimulate real-world conversations and influence behavior” (Schneider-Mayerson 476). Noting that “the ecopolitical value of environmental literature has been a key subtext for the growing interest in climate fiction,” Matthew Schneider-Mayerson wonders why “there have been no systematic attempts to investigate” the demographics of such readers, their motivations for reading, and the perspectives they take away from their reading (474). Recruiting readers through a crowd-sourcing service, Schneider-Mayerson’s research obtained participant reports on reading over ten different climate change texts, with remarkably negative affective responses—“helpless,” “incredibly sad,” “scared and nervous,” “depressed” and “unsafe”—that pose obstacles to “persuasion and mobilization” (489). When climate change fiction is “framed as an encroaching disaster,” this “creates a wish to avoid the topic” (490). Yet the outcomes Schneider-Mayerson also found were that almost half of his respondents “discussed the book they had read with friends or family,” thereby stimulating conversations about climate change, but confirming that “clearer and stronger messaging about appropriate responses to climate change is urgently needed” (495).

**Mindfulness Pedagogy and Zen Ecocriticism**

Buddhist approaches to environmental literature and culture include works by poets Kenneth Rexroth, Allen Ginsberg and Gary Snyder, feminist science fiction writers Ursula LeGuin and Octavia Butler, and numerous ecocritics (Barnhill). Buddhist writers such as Joanna Macy, Stephanie Kaza, and Barbara Gates have brought a Deep Ecological perspective to environmental literature; Buddhist women’s environmental justice literature has notably expanded the canon, with work by Jeanne DuPrau, Melody Chavis, Ruth Ozeki, Alice Walker and bell hooks (Gaard, “Beyond Gary Snyder”); even the music of John Cage cultivates an ecopoetics (Jaeger). Throughout these diverse perspectives are the Buddhist concepts of interbeing (replacing the euro-western view of a separate, individual self), impermanence, the unavoidability of suffering, and present-moment awareness, free of Buddhism’s “three poisons” of greed, hatred and delusion.

Through material ecocriticism, these Buddhist concepts re-emerge (Gaard, “Mindful New Materialisms”). “Trans-corporeality” and the “intra-actions” of the human and the non-human access the Buddhist understanding of not-self, as does new materialism’s concept of “onto-epistemology,” describing the ways human identity and
material reality are continually reconstituted through material-discursive intra-actions. Buddhism’s concept of dependent origination becomes “viscous porosity” and the “mangle” in material ecocriticism’s focus on entanglements of matter and meaning.

In Buddhism, present-moment awareness is often cultivated through mindfulness of the breath, but as ecocritics have observed, breath awareness appears in many ancient cultures. As David Abram describes in “The Commonwealth of Breath,” the Dineh / Navajo speak of the “holy wind,” the whole body of air or atmosphere that includes “the wind within one,” which is “continuous with the enveloping wind at large” (306). The Hebrew ruach is a term for divine wind or “rushing spirit” that is inhaled and exhaled by all breathing beings; it is “the living breath of awareness” (307). Among the Inuit and Yupik people of the circumpolar Arctic, the “wind-mind of the world, source of all breath,” is Sila (303), a term Janet Tamalik McGrath defines from Inuktut, the Inuit language, as “the interconnection of all phenomena”: the “life force ... inside of all humans [known] through its sacred movement—our breath” (257).

In Buddhism, sila (Pali) means “precepts.” In “Buddhist Environmental Ethics,” Jaharlal Debbarma and K. Y. Ratnam explain “the Buddhist teachings of the Five Precepts (non-violence, non-stealing, non-infatuation, non-lying, and non-addiction) and the four Buddhist virtues (loving kindness, compassion, empathetic joy, and equanimity) reflect environmental ethics” (166). Sila or “morality” grounds the path to freedom from suffering, a path Debbarma and Ratnam argue provides the foundation for dismantling climate change root causes of greed, hatred, and delusion. Freed from guilt or remorse through the practice of the precepts, and cultivating the four virtues, practitioners clear the mind for cultivating present-moment awareness.

Diverse strategies for using Buddhist mindfulness practices as pedagogy have developed in North America and in the U.K., Denmark, and Germany, both across the curriculum, in diversity courses, and in environmental education. According to Mindfulness Centers at universities such as Oxford, Aarhus, UCLA, Stanford, and the Universities of Massachusetts, Minnesota, and Wisconsin, students benefit from learning skills for concentration, stress reduction, self-compassion and empathy—the very skills cultivated through mindfulness. Along with the well-known benefits of Mindfulness-Based Stress Reduction (Kabat-Zinn) used at Medical Schools throughout the U.S. and Europe, mindfulness practitioners are in general 10% happier (Ricard), more relaxed and less anxious, more aware of mental and emotional phenomena, and experience greater compassion for self and others (Hanson). When students are self-aware, equipped with healthy strategies for soothing anxiety and cultivating concentration, more learning and more critical thinking can take place.

Inspired by the research on mindfulness, ecocritics have developed theory and pedagogy for using mindfulness to support students in grappling with climate change. Texts such as Contemplative Practices in Higher Education (Barbezat & Bush), Contemplative Approaches to Sustainability in Higher Education (Eaton et al.), and Integrating Mindfulness into Anti-Oppression Pedagogy (Berila) have merited ecocritical attention, with some ecocritics joining professional organizations such as the Association for the Contemplative Mind in Higher Education (ACMHE) in the U.S. and the Mind and
Life Institute in the U.S. and Europe. At ASLE 2019, the first panel on “Contemplative Pedagogies for the Environmental Humanities” was offered to a room overflowing its capacity, and ecocritics from Thailand, Canada and California, Washington and Wisconsin described the goals, strategies, and outcomes of using mindfulness pedagogies.

Mindfulness ecopedagogy encourages awareness of mental narratives, but unlike narrative ecocriticism, mindfulness invites students to “let go of the story,” thereby cultivating intimacy with present-moment experience. As Buddhism’s second Noble Truth explains, the root causes of suffering are our perpetual distraction by mental narratives which keep us continually engaged in grasping or resisting the present moment and clinging to a delusional sense of a separate self and a set of conditions that are impermanent. The end of suffering—the third Noble Truth—can be experienced by meeting the present moment just as it is, without the mental narratives or a false self-identity intervening.

One of Buddhism’s primary vehicles for achieving present-moment awareness is the breath. As David Abram observes, “we drink the air ceaselessly . . . yet seem unable to fully bring it to our attention” (303). By “taking the air for granted,” and regarding it merely as “empty space,” “an absence of stuff, without feeling or meaning,” we began to use air as a “dump site” (301, 302). Though breath-awareness, Mindful ecocriticism brings attention to smog through explorations of smog psychology and smog affects; it invites ecocritics to recall their experiences of air, and the “airstories” associated with air (Gaard, “UnStoried Air”). It introduces new concepts such as “transspecies airshed justice” (Gaard, “UnStoried Air”), cultural “smog-scapes” and “smog cultural studies,” a subfield of green cultural studies proposed by Chia-ju Chang for its capacity to “zoom in on smog, black carbon, or PM2.5” as a lens into “the many entangled naturecultural phenomena and a rich body of smog-related cultural texts (i.e. art, literature, as well as smog-related texts, images and jokes in social media).”

A Buddhist-ecocritical companion to Mindful ecocriticism, Chang has developed a Zen/Chan ecocriticism “based upon the study and the use of koans in Chan meditation,” exploring their presence in literary, cultural, and filmic texts such as Bae Yong-kyun’s Why Has Bodhidharma Left for the East? or Ang Lee’s Crouching Tiger, Hidden Dragon (“Art of Self-Emptying”; “Missing View”). Western critical theories of social change lack the “alternative eudaimonic [happiness, human flourishing] path for catalyzing both personal and communal transformation,” Chang explains (“Missing View,” 370):

Ecological destruction and the contemporary post-industrial, capitalist mode of happiness feed on and intensify one another, creating a vicious circle. Underlying this cycle is a deep sense of insecurity that is both universally existential and particularly environmental. What constitutes eudaimonia therefore needs to be re-examined in the context of ecology and the burgeoning global mega-discipline of environmental humanities, responding to climate change and the sixth extinction crisis in order to provide antidotes for our current schizophrenic state in the era of the Anthropocene or, alternatively, Capitalocene. (“Missing View” 372)

What are the climate change cultural narratives and affects of human-nature relations—and of human identity and happiness that underlying those relations—that have led to the present climate crises?
Mindful and Zen ecocritics suggest that through conquests of humans, animals, and environments, Euro-Western narratives have created the heroic individualist identity—by concentrating on a single and privileged gender, race, ethnicity, class, religion, sexuality, species, and ability. These heroic narratives train their readers to view the inhibition of empathy as the storied path to heroic identity and achievement (Gaard, “Climate Change Affects and Narratives”). In these narratives, happiness is equated with the pursuit of finding home; obtaining love, marriage, family, and friends; winning at a game, a war, or a challenge; getting the right job; fighting and vanquishing the villains. Such narratives seem disinterested in happiness itself as a storyworld: instead, happiness ends the story. In North Americans’ relentless pursuit of happiness through activities seen as the appropriate means for achieving happiness—wealth accumulation and profit, improved housing, new designer clothing, car culture, airline travel—these very activities contribute to unhappiness, an isolated self-identity, and the environmental injustices that are fueling climate change (Hartman, Adamson, Gaard, and Oppermann). Understanding and responding to the climate justice crises of the Anthropocene requires an ecocritical reconsideration of dominant cultural definitions of happiness (Gaard, “Climate Change Affects and Narratives”).

In contrast with the Western view of self-identity, happiness, and the good life, a Buddhist eudaimonia is “better understood negatively, as sunyata, or emptiness,” Chang explains: “a Buddhist approach to wellbeing focuses on how one eradicates craving and attachment to forms, permanence and selfhood,” since “happiness has nothing to do with the fulfillment of desires” (“The Missing View,” 373-74). In Zen Buddhism, koans are used to focus the mind, bewilder the discursive intellect, and trigger an awakening to a state beyond the reach of dualistic thinking, beyond the self-other habitual way of viewing the world. Reading the filmic narrative of Crouching Tiger, Hidden Dragon as a visual koan, Chang demonstrates that “when a person experiences her body, mind and the external world as interconnected, yet without clinging to a solid and continual sense of selfhood,” this non-dualistic sunyata (no-self ) provides “the foundation of a Buddhist eudaimonia, compassion and ethics” (378, 382). And this formulation of happiness “poses a radical challenge to the Western or modern anthropocentrism that has brought the world ecosystem to the edge of collapse” (Chang “I am not insubstantial,” 799).

Conclusion

As affective ecocritics have observed, the psychic numbing of being overwhelmed by the narratives of climate change leads people to turn away from the sometimes painful and disturbing affective responses which can be used to power real structural changes. Numbing prevents us from addressing the root causes of climate problems—overconsumption/scarcity, alienation/false selfhood, and the illusion of helplessness, an inability to contribute meaningfully to climate solutions. Narrative ecocriticism points to the “storyworlds” that direct readers either toward or away from narratives that expose our ecological interrelationships and our ecopolitical agency. At the root of this “overwhelmed” affect is a false self-identity, as mindful and Zen ecocritics suggest: it is...
the illusion of a separate self. Euro-Westerners continue to believe they alone must heroically make a difference in climate change solutions, and this belief is disempowering. It creates not heroes but zombies with affective numbing. As an antidote, Buddhism’s ecological concept of “not-self” is not the absence of identity, but the presence of inter-identity—with environments, elements, and all vibrant matter; it is the emptiness of an individual and separate human selfhood, and the presence of material ecocriticism’s transcorporeality. It grounds and gives rise to affects of joy, connection and agency—affects that enable ecocritics, and our students, to respond to climate change.

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Works Cited

Abram, David. “The Commonwealth of Breath.” Material Ecocriticism, edited by Serenella Iovino and Serpil Oppermann, Indiana University Press, 2014, pp. 301-314.

Barbezat, Daniel and Mirabai Bush. Contemplative Practices in Higher Education: Powerful Methods to Transform Teaching and Learning. Jossey-Bass, 2014.

Barnhill, David Landis. “Good Work: An Engaged Buddhist Response to the Dilemmas of Consumerism.” Buddhist-Christian Studies, vol. 24, 2004, pp. 55-63.

Berila, Beth. Integrating Mindfulness into Anti-Oppression Pedagogy: Social Justice in Higher Education. Routledge, 2016.

Chang, Chia-ju. “‘I am insubstantial in the universe. But in the universe, there is nothing which is not me’: Toward a Chan/Zen Ecocriticism, Ecology, and Experience of Film.” ISLE, vol. 17, no. 4, 2010, pp. 797-799.

---. “The Art of Self-emptying and Ecological Integration: Bae Yong-kyun’s Why Has Bodhidharma Left for the East as a Case Study.” Screening Nature, edited by Anat Pick and Guinevere Narraway, Berghahn Books 2013, pp. 225-240.

---. “Smog Cultural Studies: China as a Case Study.” Presentation for National Chung Hsing University, Taiwan. November 23-24, 2018.

---. “The Missing View in Global Postsecular Cinema: Crouching Tiger, Hidden Dragon as a Visual Koan/Gong’an.” Paragraph Journal, vol. 42, no. 3, 2019, pp. 370-386.

Debbarma, Jaharlal and K. Y. Ratnam. “Buddhist Environmental Ethics: A Strategy for Survival.” Ecocultural Ethics: Critical Essays, edited by R. K. Alex, et al., Lexington Books, 2017, pp. 161-170.

Eaton, Marie, Holly J. Hughes, and Jean MacGregor, editors. Contemplative Approaches to Sustainability in Higher Education. Routledge, 2017.

Estok, Simon C. “Theorizing in a Space of Ambivalent Openness: Ecocriticism and Ecophobia.” ISLE, vol. 16, no. 2, 2009, pp. 203-225.

Gaard, Greta. “Beyond Gary Snyder: Buddhism’s Influence on U.S. Environmental Literature.” Revista Canaria de Estudios Ingleses / Journal of the Canary Islands, vol. 64, 2012, pp. 61-78.
--- “Mindful New Materialisms: Buddhist Roots for Material Ecocriticism’s Flourishing.” Material Ecocriticism, edited by Serenella Iovino and Serpil Oppermann, Indiana University Press, 2014, pp. 291-300.

--- “Climate Change Affects and Narratives: Toward Transspecies Happiness in the Anthropocene.” The U.S. and the World We Inhabit, edited by Silvia Guslandi, Adele Tiengo, Anastasia Cardone, Paola Loreto. Cambridge Scholars Press, 2019, pp. 102-118.

--- “(Un)Storied Air, Breath, Embodiment: Smog Cultural Studies.” Invited keynote for “Grounding Story,” the Seventh Biennial Conference of the Association for the Study of Literature, Environment, and Culture of Australia/New Zealand. University of New England, Armidale, Australia. February 13-15, 2019.

Hanson, Rick. Buddha’s Brain: The Practical Neuroscience of Happiness, Love and Wisdom. New Harbinger Publications, Inc., 2009.

Hartman, Steven, Joni Adamson, Greta Gaard, and Serpil Oppermann. “Through the Portal of COVID-19: Visioning the Environmental Humanities as a Community of Purpose.” Bifrost Online, Spring 2020. bifrostonline.org/steven-hartman-joni-adamson-greta-gaard-serpil-oppermann/

Hutner, Heidi. “Eco-Grief and Ecofeminism.” TEDxSBU. 17 November 2015.

Jaeger, Peter. John Cage and Buddhist Ecopoetics. Bloomsbury, 2013.

James, Erin. The Storyworld Accord: Econarratology and Postcolonial Narratives. University of Nebraska Press, 2015.

Kabat-Zinn, Jon. Full-Catastrophe Living. 1990. Random House, 2013.

Ladino, Jennifer. “Mountains, Monuments, and Other Matter: Environmental Affects at Manzanar.” Environmental Humanities, vol. 6, 2015, pp. 131-157.

McGrath, Janet Tamalik. “Sila.” An Ecotopian Lexicon, edited by Matthew Schneider-Mayer and Brent Ryan Bellamy, University of Minnesota Press, 2019, pp. 256-265.

Moore, Kathleen Dean and Scott Slovic. “A Call to Writers.” ISLE, vol. 21, no.1, 2014, pp. 5-8.

--- “7 Ways to Write the Future.” Orion Magazine, 9 September 2013. orionmagazine.org/2013/09/a-call-to-writers/. Accessed 18 October 2019.

Ray, Sarah Jaquette. A Field Guide to Climate Anxiety: How to Keep Your Cool on a Warming Planet. University of California Press, 2020.

--- “Coming of Age at the End of the World: The Affective Arc of Undergraduate Environmental Studies Curricula.” Affective Ecocriticism: Emotion, Embodiment, Environment, edited by Kyle Bladow and Jennifer Ladino, University of Nebraska, 2019, pp. 299-319.

Ricard, Matthieu. Happiness: A Guide to Developing Life’s Most Important Skill. Little Brown & Co., 2003.

Rose, Deborah Bird, Thom van Dooren, and Matthew Chrulew, eds. Extinction Studies: Stories of Time, Death, and Generations. Columbia University Press, 2017.

Schneider-Mayerson, Matthew. “The Influence of Climate Fiction: An Empirical Survey of Readers.” Environmental Humanities, vol. 10, no. 2, 2018, pp. 473-500.
Seymour, Nicole. *Strange Natures: Futurity, Empathy, and the Queer Ecological Imagination*. University of Illinois Press, 2013.

---. *Bad Environmentalism: Irony and Irreverence in the Ecological Age*. University of Minnesota Press, 2018.

Slovic, Scott, and Paul Slovic. “The Arithmetic of Compassion.” *The New York Times*, 6 December 2015.

Stephens, Beth, and Annie Sprinkle. *Goodbye Gauley Mountain: An Ecosensual Love Story*. Kino Lorber, 2013. DVD.

Weik von Mossner, Alexa. *Affective Ecologies: Empathy, Emotion, and Environmental Narrative*. Ohio State University, 2017.

---. “Green states of mind? Cognition, emotion and environmental framing.” *Green Letters*, vol. 22, no. 3, 2018, pp. 313-323.