



# Dismantling white supremacy in environmental studies and sciences: an argument for anti-racist and decolonizing pedagogies

Eve Z. Bratman<sup>1</sup> · William P. DeLince<sup>2</sup>

Accepted: 23 November 2021  
© The Author(s) 2021

## Abstract

Many academic disciplines are presently striving to reveal and dismantle structures of domination by working to reform and reimagine their curricula, and the ethics and values that underpin classroom settings. This trend is impelled by momentum from the Black Lives Matter movement in tandem with a worldwide call from Indigenous scholars and their allies for more equality in research and epistemological plurality. We contribute to such efforts through applying perspective and analysis concerning anti-racist and decolonized approaches to teaching environmental studies and sciences (ESS). This article discusses the opportunities and challenges of embracing a decolonized and anti-racist approach with an emphasis on courses in higher education in North America. We conclude with guidance for educators about strategies for incorporating such approaches.

**Keywords** Anti-racism · Higher education · Decolonization · Environmental justice · Citational justice

“The faculty and staff of the Department of Earth and Environment condemn in the strongest possible way all forms of racism, discrimination, and violence against people of color, and we speak out to condemn the violence that perpetuates white supremacy in all its forms, including through silence.”

So began the letter that our department wrote to its students in June 2020, spurred by the murder of George Floyd at the hands of Minneapolis police officers. Our faculty committed to do individual learning and work in the interest of creating a more inclusive and accessible department. Such efforts included scrutinizing our pedagogy and course content so that they better aligned with our moral compasses, while also educating ourselves on issues of racism and colonialism. This letter was but one in a series of endeavors the department took over the past several years aimed at improving upon diversity, equity, and inclusion; we established working groups, scrutinized hiring practices, reviewed our

public images and optics, and more. At times, such efforts were proactively spurred by faculty, while at other times engagements stemmed directly from student feedback and student initiatives. Our department is far from unique in engaging in such efforts. In this article, we seek to widen the conversation in environmental studies and sciences (ESS) in order to identify and describe racism and coloniality within our curricula. We aim to expand upon scholarly efforts that seek to dismantle broader structures of domination through this application.

## Introduction

The work of engaging anti-racism as praxis is ongoing, both in classrooms and beyond in the larger context of academia and society. Our focus in this article predominantly concerns curricular content and classroom settings. By its very nature, the discussion presented here represents a far narrower approach than what is required to dismantle the fundamental gatekeeping structures within the academy and society, more broadly. In this paper, we begin by explaining our own positionality in relation to these issues. First, we clarify the concepts surrounding anti-racist and decolonial education. Second, we highlight three key dimensions regarding the importance of adopting anti-racist and decolonial approaches to ESS and argue that there are multiple

---

✉ Eve Z. Bratman  
Ebratman@fandm.edu  
William P. DeLince  
Wdelince@fandm.edu

<sup>1</sup> Department of Earth and Environment, Franklin and Marshall College, Lancaster, PA, USA

<sup>2</sup> Franklin & Marshall College, Lancaster, PA, USA

well-established responses that allow educators to incorporate anti-racist and decolonial approaches into the field. Third, we identify several standard ESS curricular elements in which racist and colonialist legacies are entrenched. Finally, the paper suggests ways in which equity issues may be corrected and more cohesively addressed in ESS courses. We conclude by reiterating the importance of anti-racism as an active praxis that challenges white supremacy and aims for transformational change.

To make this case, we draw upon our own experiences in an auto-ethnographic manner and present a literature review of the decolonial and anti-racist literatures relevant to environmental studies and sciences (ESS). In addition, our research entailed a close examination of readings and assignments from twenty-three introductory environmental studies course syllabi. By looking at introductory course readings, especially giving weight to those taking social science and humanities approaches to environmental studies, we gained insight into the diversity of authors, types of narratives about specific topics, and structures of the courses that professors relied upon in their pedagogies.

These syllabi we examined represented a sample from a range of public and private universities of a variety of sizes, all from North America. We obtained the sample through the Association for Environmental Studies and Sciences (AESS) syllabus databank, along with publicly accessible syllabi and personal outreach collected via email queries and listserv postings. All syllabi were from the previous nine years, with a majority (52%) from 2018 to 2021. Our analysis of syllabi primarily involved tracking the positioning of non-white scholars and environmental justice-oriented topics. While all focused on society-nature relationships, some courses began with readings related to lifeboat ethics and population growth, and relegated “environmental justice” to the last few weeks of a semester, or did not include it all together. Other courses, in contrast, took a more progressive angle by initiating the course with readings and lectures regarding how the West constructed the idea of nature. The sequencing of topical approaches was also considered as we looked for trends, innovations, and insights. By building on the work of other scholars that seek to dismantle racist and colonialist epistemologies, histories, and assumptions (Baldwin 2017; Garba and Sorentino 2020; Tuck et al. 2014; Tuck and Yang 2012; Zaragocin 2019), we contribute to the ongoing relevancy and fundamentally intersectional work of ESS educators, especially those working in US and Canadian higher education contexts similar to our own.

We hope that this article itself models our engagement with anti-racism as an iterative and ongoing praxis which involves developing theory, acting, and reflecting. We developed these ideas and have written this piece together in a way that prefigures such praxis. The origins of this research stem from autoethnographic reflections and dialog between

both authors about the topic of race and the history of the environmental movement, as well as shared participation in several racial justice workshops relating to the field. Our collaboration is largely inspired by the differences in positionality between us. Most notably, those differences between us involve race, gender, sexuality, and power. Dr. Eve Bratman (she/they pronouns) is a professor of environmental studies at a historically white small liberal arts college in the USA. Their formal academic background was entirely shaped by historically white institutions and involved majoring in environmental studies and politics as an undergraduate and later receiving a PhD in international relations. William DeLince (he/him pronouns) is a recent alum of the undergraduate environmental studies program in which Bratman teaches. Bratman draws upon twelve years of experience in teaching environmental studies to undergraduate and graduate students, while DeLince draws primarily upon his four years of undergraduate experiences. Our positionality as an authorial team also informs our intersectional perspectives on race/ethnicity. Bratman identifies as a cis-female, queer, white Ashkenazi Jew with a middle-class background from Chicago, IL. DeLince grew up in Manhattan, NYC, and identifies as a mixed Haitian-American cis-male who grew up middle-upper-class. Both authors share a commitment to centering equity issues and intersectionality in their research and work toward reparations for past/ongoing social-environmental damage. We are among many in our college and within our department who have been both advocating for and struggling with the question of how to achieve a greater sense of belonging, equity, and inclusion to help meet the needs our increasingly diverse student population.

## What is anti-racist and decolonized environmental education?

We start from the understanding that anti-racism involves an “active process of identifying and eliminating racism by changing systems, organizational structures, policies and practices and attitudes, so that power is redistributed and shared equitably.” (National Action Committee on the Status of Women no date) We also engage anti-racism as a praxis centered upon challenging the system of white supremacy. It is an ongoing process in which one strives to understand and unpack inherited assumptions, and to transform them to be more emancipatory and egalitarian. Following from this, anti-racist stances are not mere statements of belief or assertions, but rather entail ongoing work to dismantle structures of oppression.

Engaging in anti-racist environmental teaching as we understand it extends beyond addressing citational justice (that is, countering the reproduction of white hetero-masculinity through the use of citations) (Mott and Cockayne

2017), increasing the diversity of authors represented in course syllabi, or broadening the geographical scope of environmental studies courses to achieve greater representation. It means unlearning some of the more common histories surrounding the origins of the environmental movement, and more capaciously imagining the environment itself as a space where people live, work, and play. Widening an epistemological scope of understanding and confronting narratives surrounding who is affected by the efforts of environmentalists, moreover, are important dimensions of unveiling the larger structures underpinning white supremacy in academia.

Decolonizing ESS courses is equally important, and in our view is certainly linked to such anti-racist efforts. Put simply, decolonization involves a paradigm and culture shift oriented toward recognizing that knowledge is not owned by anyone and broadens fields of knowledge to include traditionally excluded perspectives. It also considers the power dynamics that underpin the creation of knowledge. The aim of decolonization is to strengthen and improve education with the goal of achieving equity. We understand equity as being concerned with the structures and systems that create inequalities.

We distinguish equity, too, from the related goals of achieving diversity and inclusion, both of which are concepts that concentrate on supporting the needs of marginalized or minoritized groups, despite inequities (Cochrane 2018). The Keele Manifesto (Keele University 2018) offers a useful general description of what decolonizing the curriculum entails, along with eleven specific principles. In environmental studies, such decolonization would include challenging inherited epistemological assumptions that are based on dominant Eurocentric constructions of humans and nature as separate entities (Mignolo 2011), interrogating the liberal norms that underpin assumptions of what environmental justice can and should entail (Ranganathan 2016; Ranganathan and Bratman 2019), and questioning the commonplace narration of the origins of the environmental movement (Sörlin 2012; Ybarra et al. 2019).

Most broadly, a key value present in decolonizing the ESS field includes actively embracing the concept of justice. We support Rawls' notion of justice as involving a social contract in which cooperation and reciprocity are essential (Rawls 1999). We add, however, drawing upon decolonial perspectives on environmental justice, that heterogeneous strategies must also be employed to embrace epistemological plurality and to co-construct strategies for alleviating environmental burdens by and with the most closely affected communities, recognizing that existing legal and distributive justice-focused frameworks can erase, co-opt, or institutionalize the marginalized or conquered people they purport to protect (Álvarez and Coolsaet 2018; Bradley and Herrera 2016). Decolonial environmentalisms embrace dignity and respect as core values (Ybarra et al. 2019). The importance

of decolonizing as an actual process of giving back land, while centering rights and equality, should be taken seriously (Tuck and Yang 2012), especially by those in the field of environmental studies and sciences since the field treats land use, land management, and land ownership questions in direct ways.

## Significance: why embrace a decolonized and anti-racist approach to ESS?

The general aim of adopting an anti-racist agenda is to work against the tide of systemic racism so that greater diversification and equity can be achieved, whether within a specific discipline or through achieving changes in governmental policies (Kendi 2019). Within the field of environmental studies and sciences, there is a considerable amount to unlearn and to question with regard to the interplay of whiteness and exclusionary narratives, as well as a number of specific opportunities that arise through re-orienting our pre-existing assumptions about what environmentalism is, who it aims to support, and what it can become.

Engaging in decolonizing and anti-racist approaches to ESS curricula are crucial dimensions of the field's broader embrace of social justice values. Integrating social and ecological justice pedagogies into the curricula and practices of environmental classrooms across educational levels comes as a response to environmental inequality, massive global inequalities, and a neoliberal agenda that often masks what Canadian anti-racist educator Sheela McLean refers to as "the violence of ongoing white-settler colonialism." Instead of reifying white-settler states as blameless, and entrenching identity-based inequalities along the lines of sexuality, race, gender, class, ability, and other subjectivities in environmental education (McLean 2013), adopting an anti-racist stance helps position students and educators alike with a more cohesive understanding of the system of racial capitalism. By highlighting the industries and structural forces that underpin many environmental problems, the "timid environmentalism" rooted in misguided tropes of individual responsibility for environmental harm (Fang 2021; Maniates 2001) can be replaced with a more activist-oriented, lucid, and ultimately impactful learning experience.

Second, a host of today's most exciting currents in environmentalism are a far cry from the institutional "mainstream." Understanding these newer forms of civil society protest—whether at Standing Rock, in the Extinction Rebellion, or in the courts of law as rights of nature cases are brought forward by necessity requires a more explicit foregrounding of the epistemologies and histories of Black, Indigenous, and People of Color (BIPOC) experiences. If we are to understand these recent and game-changing struggles, a sharper analysis must refocus historical narratives in

environmental scholarship. Importantly, educators should be mindful of the importance of frameworks that engage the experiences of dominant structures as sharing symbolic and material common ground (McKittrick 2006), while not collapsing the differences between historically marginalized groups (Garba and Sorentino 2020; Tuck et al. 2014). Additionally, organizing and teaching about human relationships to the natural world with attention to how Western histories, ontologies, and epistemologies shape spatial and temporal scales of analysis will allow educators to better appreciate such currents within the environmental movement (Álvarez and Coolsaet 2018). Conveying the importance of such contemporary struggles to students is not the only thing at stake in such efforts. Since global conservation institutions and projects are marked by the ways that racism and colonialism “are etched in the dominant philosophy, models, and institutional apparatus” (Kashwan et al. 2021), educators have a crucial opportunity to scrutinize the ways in which environmentalism itself is implicated in legacies of forced labor, displacement, dispossession, and disenfranchisement. Through unveiling such structures of anti-Black and colonizing violence, students and scholars alike continue the work of dismantling them (Baldwin 2017; Wright 2021).

Third, a robust and growing body of scholarship concerns how our discipline can be made relevant to an increasingly diverse body of students (Brunsmas et al. 2012; Lloro-Bidart and Finewood 2018; Taylor 2014; 2018a; b). Achieving such relevance will allow our field to escape the insularity of an insidious legacy of whiteness and patriarchy that limits its capacity to be more diverse. Moreover, it will allow scholars and students alike to better explain and participate in the environmental movement at present and into the future, because incorporating diverse voices inevitably will broaden our understanding about what environmentalism is, whose interests it serves, and what it can be.

Furthermore, anti-racism and decolonization’s elision within ESS tends to perpetuate the ethical and moral problems that we have noted above by actively ignoring historical and present-day violence and the importance of peoples’ self-determination. Environmental education helps to uphold a Rawlsian notion of the social contract insofar as it fosters ethical consciousness, as well as concern for difference in social relationships and equal opportunity. Importantly, such the language of anti-racism and decolonization all too often collapse difference, becoming supplanted upon social justice discourses through decentering settler/white perspectives, without substantively honoring the lived realities, struggles, desires, and contributions of the very groups they seek to uplift (Tuck and Yang 2012; Zaragocin 2019). Through a justice framework such as that we have described above, we contend that socioeconomic, racial, and ethnic diversity can be improved upon alongside the field’s existing normative commitments to salvage biodiversity and improve ecological

health, more broadly. Giving recognition and making space for discussion of the legacy of colonial violence and white supremacy that underpinned much of the conservation movement of the nineteenth and twentieth centuries will allow for a more accurate and holistic environmentalism, while also highlighting the intersectionality of the field across gender, class, economic, and racial divides.

## Grappling with environmentalism’s racial blind spots

The major works of the mainstream environmental movement and common writings incorporated into environmental history tend to tell one story: one that is inherently flawed due to its legacy of racism, nativism, and white supremacy (Purdy 2015). The origin story of the environmental conservation movement is premised upon the elision of Native American populations from the landscapes that eventually became American national parks, instead privileging John Muir, Teddy Roosevelt, and other of their white male contemporaries as the heroes of present-day conservation efforts (Taylor 2016). Not uncommonly, environmental studies students begin with the transcendentalist writings of Henry David Thoreau or the conservationist essays of Aldo Leopold, both of whom elide colonialism, even as they bemoan the conquest of land at the behest of economic forces. Later, the conventional narrative of influential North American environmentalism tends to center Rachel Carson, and the conservationists such as David Brower, Sigurd F. Olson, Harvey Broome, Guifford Pinchot, or Edward Abbey. Such narrations leave minoritized students with few historical role models. Moreover, they entrench the messaging that the environmental field was created by and meant for white people, while rooting the epistemological and ontological focus of environmental concern as one that defends and entrenches the human-nature divide. Such blindness has implications for how just responses to global environmental challenges are envisioned—or disregarded (Davis et al. 2019; Haymes 2018).

Illustrative is Garrett Hardin’s infamous “Tragedy of the Commons” article, which has been cited some 40,000 times since its 1968 publication. Yet Hardin was a known racial eugenicist, and many of the connections between environmental scarcity and individual choices that the article celebrates ultimately justify racial discrimination (Mildenberger 2019). The “lifeboat ethics” positioned by Hardin shape environmental thought and imbue racism into environmental solutions. Contemporary examples also abound in the environmental field, in which widely publicized studies regarding conservation policy continue to be blind to issues including researchers’ positionality, global inequalities, and ignoring the need to engage frontline stakeholders (Agrawal

et al. 2020; Kashwan 2020). Beyond shining a light on such racially fraught elisions, it is important for educators to also work to dismantle the structures of domination and imbalances of powers and authority that such blind spots historically perpetuated.

The challenge of achieving equity in environmentalism is something necessitating “systematic and extensive institutional change” for environmental organizations and higher education settings alike, given minoritized groups’ reticence to consider working in the field (Taylor 2007; 2014; 2018a). Taylor’s extensive national surveys have found large differences in how diversity is viewed given variables of gender and ethnicity. Her work also suggests that significant efforts from mainstream education organizations to focus on diversity still fall short, often being blind to the motivations and aspirations of students of color (Taylor 2018b). Educational outreach efforts to dismantle racism and broaden diversity within the environmental field include webinars, educational modules, diversity statements, and a wealth of pedagogical resources for diversity and cultural competency. These resources can easily be found on websites of the North American Association for Environmental Education (NAAEE), the Association for Environmental Studies and Sciences (AEES), and the Geological Society of America (GSA), among others. Nevertheless, the number of doctoral degree holders in the USA who are in minoritized groups in earth, atmospheric, and ocean sciences is extremely low, with virtually no progress in the past forty years (Bernard and Cooperdock 2018).

A more diverse set of voices is essential to unearth historical oppressions and to inform how we can more equitably address our current problems. This set of voices already exists, albeit currently in the margins or hidden behind a white canonical veil in most environmental study courses (Kennedy and Ho 2015). Numerous scholars from the humanities are especially paving the way, offering Indigenous and Black environmental histories, essays, novels, and case studies to contend with dominant assumptions and stereotypes about non-white relationships with nature/environment (e.g., Butler 1993; Johnson and Wilkinson 2020; Kimmerer 2013; King et al. 2020; White 2018). Alice Walker’s “Everything is Human Being” essay (1988), for example, offers a stark contrast to the tendency that white liberalism has to individualize the experience of nature and to perpetuate a human/nature epistemological binary. Walker describes dialog with trees, critiques humans’ objectification of natural resources, and recognizes collective experiences rather than individual ones in relation to environmental issues. Walker also illustrates the intersectionality of racial violence and environmental harm, while uplifting the leadership of Native Americans and offering Black feminine perspectives. Recent scholarship similarly offers correctives to over-arching conceptual and theoretical approaches such

as the “plantationocene” to more adequately describe lived experiences of oppression in wilderness and nature, while foregrounding the intersectionality of colonial-racial legacies with attention to capitalist development and more-than-human epistemologies (Davis et al. 2019).

We recognize the weighty challenge for environmental studies and sciences faculty to strike the right balance between inclusivity of the natural sciences, social sciences, and the humanities, while also giving a sense of coherence to the field as a whole (Proctor et al. 2013). Yet, correcting the record and re-centering our narratives surrounding whose experiences of benefits and harms matter most is fundamental to an anti-racist environmentalism, as we detail below.

## Correcting the record

White scholars have tended to mis-represent Indigenous approaches to environmentalism in what ultimately become historically inaccurate and tokenizing narrations of Indigenous history (Kashwan et al. 2021). One important illustration of this is Chief Seattle’s supposed words about the “web of life” and how “all beings share the same breath.” Popularly quoted, such ideas figure into many environmental conversations, in the classroom and public sphere alike, yet the speech from which such poetic and inspirational quotes is entirely a fictional product of white interpreters (Clark 1985). Appropriating Chief Seattle’s speech and re-interpreting it through a white lens ultimately serves to uphold stereotypes about Native Americans. These may intend to appeal to the present-day environmentalists’ imagination and inspire a spirit of solidarity, but instead functions paradoxically as a tokenistic mechanism of settler colonialism in several important ways. First, its aggrandized historical placement seems to wrongly suggest Indigenous and non-Indigenous people experience similar social positions. It also works to tokenize Indigenous people while regulating and controlling narratives about them (Kashwan et al. 2021). Last, it distances the very environmentalists that purport to hold scientific accuracy as a value from gaining a more nuanced and fact-based understanding of Indigenous history and culture (Abruzzi 2000).

The Indigenous movement has a long and important history that should offer a helpful set of correctives to how environmental history is narrated. A good starting point is Dina Gilio-Whitaker’s *As Long as Grass Grows* (2019), which gives readers insights into how the Indigenous movement intersects with environmental justice issues and specifically conveys the real-life challenges that the Standing Rock water protectors experienced when “mainstream” environmentalists imposed their own narratives and values upon the Indigenous community. The notion of wilderness, which is frequently taught using William Cronon’s 1995 classic essay

“The Trouble with Wilderness,” could be helpfully coupled with excerpts from Roxanne Dunbar-Ortiz’s *An Indigenous History of the United States* (2014), in which a “follow the corn” approach is used to decenter the notion of wilderness while revealing how settler seizures of land and interruptions of Indigenous trade routes led to food shortages and dependency on colonizers. De-centering the presentation of wilderness as an essentialized, empty space will not only help dismantle the reification of the concept of wilderness itself, but also contribute toward educational decolonization by challenging the narratives that allow white goodness, innocence, and origin stories in relation to nature to be entrenched (McLean 2013).

The depth of environmental knowledge that African Americans have cultivated over generations is the epistemological and empirical foundation that should also be uplifted within the goal of making ESS courses anti-racist. As Kimberly Smith details in her excellent book, “the mainstream environmental tradition advocates humility, restraint, and respect for the integrity of natural systems. The black tradition, in contrast, highlights an older, less romantic theme in Western thought, conceptualizing the American landscape not as pristine and innocent wilderness but as a corrupted land in need of redemption.” (2007) Dorceta Taylor’s comprehensive history of the American conservation movement, likewise, offers an alternative reading on the rise of conservationism that centers the racism, classism, patriarchy, and nativism that was the backdrop for the rise of the environmental movement in North America, while highlighting that urban elites’ concerns were a driving force behind protecting nature elsewhere (Taylor 2016).

In teaching students about the most consequential figures and events of environmentalism, it is also well worth remembering that figures such as George Washington Carver, Ben Chavis, and the civil rights and farmworker movement leaders Cesar Chavez and Dolores Huerta played significant roles in influencing the course of American agriculture and environmentalism, to say nothing of present-day activists. Globalizing the curriculum by teaching about environmental activists around the world, too, can help to decolonize the field, by de-centering the hegemony of American environmentalism. As such, discussion of the Indian Chipko movement, the Amazonian socio-environmentalism of Chico Mendes, the alternative cosmologies of the Zapatistas, or the Greenbelt movement led by Wangari Mathaai (to name just a few such efforts) can similarly function to broaden and amplify decolonization in the ESS curriculum.

Indeed, urban environmental topics and the social forces that drive environmental concern could helpfully inform a more conscientious approach to environmentalism as a movement that is geographically cross-cutting. Carolyn Finney (2014) sums up the problem of Black voices being omitted from the mainstream narrations of

the environmental movement as having a long historical origin story, in which the view of Black people as less than human precluded their voices and their engagement from many of the spaces, intellectual and otherwise, where European-American voices held sway. In similar tension, recent scholarship on Black ecologies has formulated “an alternative epistemic entry point for historicizing and interrupting mounting ecological crisis” drawing upon Nathan Hare’s work (1970) to highlight the vulnerabilities that are also deeply tied to the social, economic, and ecological predicaments facing the Black community (Roane and Hoseby 2019). What is “Black ecology?” Hare writes that white [sic] ecology wants “clear water, for boating, and swimming, and fishing—and clean water just to look at... Similar involvement includes the planting of redwood trees, saving the American eagle, and redeeming terrestrial beauty.” Black ecology, on the other hand, involves approaches to problems of pollution in over-crowded urban ghettos, sees the entanglements between this issue and the social and psychological pathologies that become adherent to it, and requires economic correctives, in addition to political self-determination for the Black community, as a response to the ecological crisis (Hare 1970). His words remain prescient as the movement for climate justice urges that “there is no climate justice without racial justice,” and as scholars unpack the racially rooted realities of New Orleans’ Lower Ninth Ward in the wake of Hurricane Katrina (Derickson 2014) and the lead-contaminated water crisis in Flint, Michigan (Ranganathan 2016).

Natural science and ecology can also be harnessed and adapted to champion anti-racist approaches. Highlighting science that uplifts Indigenous and Black contributions while correcting the factual record is crucial. For example, M. Kat Anderson’s *Tending the Wild* (2013) reveals that the Sierra Miwok and Valley Yokuts Indians’ land management practices involved the cultivation of the California wilderness, informing how John Muir saw California’s Central Valley and the Yosemite mountains. Indigenous peoples of Wisconsin have similarly managed forest ecosystems with positive outcomes for thousands of years (Waller and Reo 2018). For other topics, resources are also abundant. Recent publications detail how to cultivate an anti-racist lab (Chaudhary and Berhe 2020; Grover 2020), in addition to unpacking the racial dynamics of outdoor education and field experiences (Finney 2014; Jennings and Jennings 1993; McLean 2013; Morales et al. 2020). The underrepresentation of minoritized groups in the geosciences has also been thoroughly analyzed (Carroll 2020). Harvard University has compiled an impressive list of anti-racist resources in the STEM fields,<sup>1</sup> as have many other institutions.

<sup>1</sup> See: <https://projects.iq.harvard.edu/antiracismresources/science>

Our examination of many contemporary environmental studies syllabi indicates that the topic of environmental justice and the environmental justice movement is frequently a relegated subtopic within an introductory environmental studies syllabus for housing the histories and narratives of racism and the disproportionate harms experienced by people of color and their communities. In so doing, the concerns of Black Americans tend to be sidelined to a historical origin point in the mid-1980s, whereas their ties to land, to earth care, and their disproportionate suffering under slavery in fact took place centuries earlier. Native American experiences of colonization and displacement, moreover, become relegated to footnotes within a triumphalist narrative of parks conservation led by white men, ignoring the problems of settler colonialism that drove the imperative for such parks in the first place (Kashwan 2020; Kashwan et al. 2021). Environmental justice courses—and the field of environmental justice in its own right—are centrally important to environmental studies curricula. Rather than exiling environmental justice to the margins, an anti-racist approach would center such experiences, re-telling of the genealogy of the environmental movement through such lenses.

Another crucial starting point entails uprooting the voices of known racists and eugenicists from our discipline, while working to see and understand the structures and politics behind the white-centered environmentalisms that we may have inherited. By bringing such structures to light, systemic oppression is able to be dismantled with a greater clarity of purpose and intent, even if such reckonings involve painful personal and collective struggles (Kendi 2019). Topics that are traditionally a “core” in environmental studies such as managing common-pool resources, defending wilderness and wildlife, and addressing population growth are commonly presented through readings that center the perspectives of white, male writers: Guifford Pinchot, Madison Grant, Garrett Hardin, or Paul Ehrlich, for example. The inclusion of these voices introduces students to the zombies of racial supremacy arguments, while also entrenching a patriarchal narrative in the field (Wohlforth 2010). In so doing, people of color and historically marginalized populations can often, even if inadvertently, become depicted as solely a cause of problems, barriers to progress, and passive sponges on the receiving end of environmental harms.

Anti-racist approaches to teaching environmental studies should embrace these topics, integrating and centering them into the origin story of the field of environmental studies. Too often, exiling them as special units that present such concerns as special topics within the field can send a message that they are “add-ons” and relatively unimportant, rather than central to the field itself, which more powerfully

could be reimagined through a justice lens. In making this suggestion we do not mean to suggest that environmental justice be swallowed up by the currents of mainstream education. In centering environmental justice and its lineage of activism, the field gains some of its assets in participatory action research, community-based learning and the praxis-based theorization that underpins the transformational political and social system critiques offered by the approach. These theoretical and methodological strengths may enhance offerings for students through applied learning opportunities, informing policy, and contribute robust theoretical and political projects through which to inform conversations on social power disparities and their environmental impacts (McIntyre-Mills 2003; Sze 2020; Sze and London 2008).

### **The praxis of anti-racist environmental education**

Decolonizing ESS courses could go well beyond including certain new texts while working to diminish or excise the attention given to white supremacist and eugenicist writers in course syllabi that we have outlined above. Embracing epistemological plurality requires the narratives, knowledge systems, and concerns of marginalized actors and communities to be recognized, if not also given increased centrality within courses. The colonial legacy of North America must acknowledge that we are on Indigenous land, which has been protected for 500 years by Indigenous groups despite their experiences of historical and ongoing genocide. A deeper understanding of justice requires that non-Indigenous people learn how to support land defenders. The challenge is no small one, given that notions of time and space are often themselves premised upon Euro-American settler ideologies and institutions (Rifkin 2017), such that even central topics like the Anthropocene have debatable time horizons and origins when taken under such lenses (Yussof 2019).

Additionally, moving away from liberal individual narratives of environmental harm and salvation within our courses can help students better see and understand the structures and politics behind environmental harms, and allow them to critically engage with the solutions to those problems. Given that understanding ecology, culture, economic systems, and society as interacting systems is central to environmental studies and sciences, helping students develop theoretical and empirical tools can allow them to better unravel claims about power and social change with regard to environmental issues (Maniates and Princen 2015). Theoretically, students should be better equipped to engage with systems-thinking, structural violence, and actor-network theory in the interest of helping uncover the structures and dynamics of social and environmental harms more coherently (Proctor et al. 2013).

How can these lofty goals be achieved within an introductory-level classroom? Many introductory courses teach students about ecological footprints and have them calculate their own. Other common exercises ask students to track—or even keep—the trash that they accumulate throughout a week of regular life. While meritorious on multiple levels, these exercises emphatically should not be undertaken within an assumption of a socio-political vacuum. Such activities can easily be tied into discussions regarding why some countries' carbon footprints are so much larger than others because of how their technological, economic, and political systems are designed, while the waste-tracing exercise can easily be steered away from the individual responsibility trope and into a conversation about the corporations, cultural norms, and systems that create upstream and downstream harms (Fahs 2015). Higher-level classroom discussions, whether about pesticide use in agriculture or about the adoption of geoengineering technologies to address climate change, can interrogate who benefits, alongside who and what is most harmed (McLean 2013), and what the implications are of any single decision across different time horizons, geographical scales, and socio-ecologically affected communities.

Recalling that anti-racism is a process rather than a singular product, it is also important to interrogate and rethink syllabus language, classroom spaces, and inter-personal classroom dynamics such that empathy, local/personal stories, and recognition of non-Eurocentric epistemologies are uplifted. In classrooms, lab and field experiences, and within higher education institutions more generally, creating a welcoming, inclusive, and supportive environment for BIPOC students as well as others who may not be accustomed to environmental studies courses (i.e., first-generation students and international students), is also a well-recognized challenge (Martinez-Cola 2020; Morales et al. 2020; Posselt 2016). While not a focal point of this article because it has been treated extensively elsewhere, it is also important to recognize that in ESS, as in many other fields, there is a need to remove barriers to hiring, supporting, and promoting faculty and staff from historically marginalized communities. Addressing policy and practice alike in ESS departments and higher education institutions more generally to equitably retain diverse faculty, staff, and students is an important consideration in order to ultimately shift the broader cultures of such departments and institutions toward anti-racism. Our task as antiracist educators is to cultivate a sensibility of active work to uproot white supremacy. Doing so requires attention and self-critical examination about professorial language, student writing and communication (Inoue 2019; 2021), and inherited assumptions about the field.

Finally, educators, most of whom are white and who may have been trained in the ESS field by learning the entrenched norms of white privilege within the discipline and within

predominantly white institutions, have considerable unlearning to do. Recognizing the power dynamics across diverse teacher-student relationships is especially important. While white and non-white individuals should be seen as sustaining a process of collaboration and mutual work (Keele University 2018), the onus lies predominantly on those holding power to uproot and understand how racial privilege and racism may operate within their classrooms (Joseph et al. 2015).

## Conclusion

Reimagining environmental education as a decolonized and anti-racist praxis should involve “looking inward,” engaging in self-critique, at the same time as it looks outward (Lloro-Bidart and Finewood 2018). If interpreted in the strictest sense, decolonizing academia may ultimately call into question the positionality of the educator as the singular source of expertise that is upheld through various systems of academic instruction (classroom layout, the power dynamics entrenched in grading, and more), since embracing multiple sources of knowledge and actively working to equalize knowledge-power relationships is imperative to the endeavor. As the Keele Manifesto asserts in principle 8: “Decolonising [sic] requires sustained collaboration, discussion and experimentation among groups of teachers and students, who themselves have power to make things happen on the ground and think about what might be done differently. The change will take different forms in different universities and disciplines. There is no one size fits all solution.” (Keele University 2018) The notion of *praxis* is crucial: action, reflection, and theory should be interacting to continually inform each other.

Fortunately, many resources exist to help educators navigate the curricular and pedagogical shifts that we have called for in this article. We wish to note a few of the resources that have been most informative and helpful in our own journey in this learning. These include a progressive environmental anthropology syllabus oriented toward citational justice and decolonizing approaches (Guarasci et al. 2018), and the syllabus diversity self-assessment tool developed by a group of professors at James Madison University and University of DC (Brantmeier et al. 2017). The North American Association for Environmental Education, Climate Generation, and Unlearning Racism in Geosciences (URGEG) are actively working to create a racially cognizant environmental education landscape by hosting online workshops for students and educators.

While well-meaning, environmentalism often perpetuates oppression. In this paper, we have suggested some of the key ways in which the field of ESS can begin undoing some of its problematic legacy, giving particular attention

to pedagogical contexts. Even after completing such trainings in anti-racist approaches and adopting the changes we have detailed above, we note, by way of conclusion, that falling short is to be expected (Tatum 1997). Perhaps, for example, such failures will entail inability to see the problematic assumptions in one's work that thereby entrench inherited power dynamics, or in a classroom conversation, one might miss a chance to counter racist speech effectively or respond with fragility instead of adequately honoring others' experiences of hurt or harm. Such failures should be taken in the spirit of genuine desire for learning and growth. Reforms within the classroom, moreover, may often remain constrained by the structures of power disparities and gatekeeping realities that are present within the academy.

By being re-imagined, re-thought, and re-taught, environmental studies and sciences can and should be engaging in the daunting task of embracing anti-racism and decolonization. Audre Lorde's words ring true: "It is not our differences that divide us. It is our inability to recognize, accept, and celebrate those differences." (Lorde 1984) Just as teaching climate change without hope leads to a helpless and uninspired environmentalism (Ojala 2012), to engage in environmentalism without anti-racism means tuning out reality, rather than tuning in and facing up to its mighty challenges.

**Acknowledgements** The authors thank the staff, faculty, and students of the Franklin & Marshall College Department of Earth and Environment for the many conversations and engagements that led to this work. We are grateful to Anthony Boccetti for editorial assistance.

**Author contribution** Conceptualization: Eve Bratman; Formal analysis and Investigation: Eve Bratman and William DeLince; Literature search and Data analysis: Eve Bratman and William DeLince; Writing original draft preparation: Eve Bratman; Manuscript review and Editing: Eve Bratman.

**Data availability** N/A.

**Code availability** N/A.

## Declarations

**Competing interests** The authors declare no competing interests.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

## References

- Abruzzi WS (2000) The myth of chief seattle. *Hum Ecol Rev* 7(1):72–75
- Agrawal A, Bawa K, Brockington D, et al. (2020) An open letter to the lead authors of 'protecting 30% of the planet for nature: costs, benefits and implications.'. Available at: <https://openlettertowal.dronetal.wordpress.com/>.
- Álvarez L, Coolsaet B (2018) Decolonizing environmental justice studies: a Latin American perspective. *Capital Nat Social* 31(2):50–69. <https://doi.org/10.1080/10455752.2018.1558272>
- Anderson MK. (2013) *Tending the wild: native American knowledge and the management of California's natural resources*, Berkeley
- Baldwin WA (2017) Decolonising geographical knowledges: the incommensurable, the university and democracy. *Area* 49(3):329–331
- Bernard RE, Cooperdock EHG (2018) No progress on diversity in 40 years. *Nat Geosci* 11:292–295
- Bradley K, Herrera H (2016) Decolonizing food justice: naming, resisting, and researching colonizing forces in the movement. *Antipode* 48(1):97–114. <https://doi.org/10.1111/anti.12165>
- Brantmeier E, Broscheid A, Moore CS (2017) Inclusion by design: survey your syllabus and course design. <https://drive.google.com/file/d/0B0ulz5eHbyjYdmY0eF9ablRRcHM/view?resourcekey=0-30tISr52Ig9e7RXqpLLE2A>. Accessed 5 Dec 2021
- Brunsmas DL, Placier P and Brown E. (2012) Teaching race at historically white college and universities: identifying and dismantling the walls of whiteness. *Critical Sociology*: 1–22
- Butler O (1993) *Parable of the sower*. Grand Central Publishing, New York
- Carroll MJ. (2020) Understanding the systemic indifference related to the retention of underrepresented geoscientists. *National Association of Black Geoscientists*.
- Chaudhary VB, Berhe AA (2020) Ten simple rules for building an antiracist lab. *PLoS Comput Biol* 16(10):e1008210. <https://doi.org/10.1371/journal.pcbi.1008210>
- Clark JL (1985) Thus spoke chief seattle: the story of an undocumented speech. *Prologue Magazine*, Spring. U.S. National Archives and Records Administration, Washington, DC
- Cochrane G (2018) The problem with diversity, inclusion, and equity. Available at: <https://scholarlykitchen.sspnet.org/2018/06/22/problem-diversity-inclusion-equity/>. Accessed 5 Dec 2021
- Davis J, Moulton AA, Van Sant L, et al. (2019) Anthropocene, capitalocene, ... Plantationocene?: a manifesto for ecological justice in an age of global crises. *Geography Compass* 13: 5, N.PAG-N. <https://doi.org/10.1111/gec3.12438>.
- Derickson KD (2014) The racial politics of neoliberal regulation in post-katrina mississippi. *Ann Am Assoc Geogr* 10(4):889–902
- Dunbar-Ortiz R (2014) *An indigenous peoples' history of the United States*. Beacon Press, Boston
- Fahs B. (2015) The weight of trash: teaching sustainability and ecofeminism by asking undergraduates to carry around their own garbage Radical Teacher: a socialist, feminist, and anti-racist journal on the theory and practice of teaching 102: 30–34. <https://doi.org/10.5195/rt.2015.186>.
- Fang CC. (2021) The case for environmental advocacy. *Journal of Environmental Studies and Sciences* January. <https://doi.org/10.1007/s13412-020-00650-5>.
- Finney C (2014) *Black faces, white spaces: reimagining the relationship of African Americans to the great outdoors*. University of North Carolina Press, Chapel Hill
- Garba T and Sorentino S-M. (2020) Slavery is a metaphor: a critical commentary on eve tuck and k. Wayne yang's "decolonization is not a metaphor". *Antipode* 52: 3, 764–782. <https://doi.org/10.1111/anti.12615>.

- Gilio-Whitaker D (2019) *As long as grass grows: the indigenous fight for environmental justice, from colonization to standing rock*. Beacon Press, Boston
- Grover N (2020) An anti-racist classroom in the natural sciences. *FASEB J* 34(S1):1–1. <https://doi.org/10.1096/fasebj.2020.34.s1.06718>
- Guarasci B, Moore A and Vaughn SE. (2018) An updated reading list for a progressive environmental anthropology. *Teaching Tools*.
- Hare N (1970) *Black ecology*. *The Black Scholar* 1(6):2–8. <https://doi.org/10.1080/00064246.1970.11728700>
- Haymes. (2018) An Africana studies critique of environmental ethics. In: L. Nishime KDHW (ed) *Racial ecologies*. Seattle: University of Washington Press, 34–49.
- Inoue AB (2019) Classroom writing assessment as an antiracist practice: confronting white supremacy in the judgments of language. *Pedagogy* 9(3):399–400
- Inoue AB (2021) *Above the well: an antiracist literacy argument from a boy of color*. WAC Clearinghouse and University Press of Colorado, Louisville
- Jennings CL, Jennings BH (1993) Green fields/brown skin: posting as a sign of recognition. In: Bennett J, Chaloupka W (eds) *In the nature of things*. University of Minnesota Press, Minneapolis, pp 173–197
- Johnson AE, Wilkinson K (2020) *All we can save: truth, courage, and solutions for the climate crisis*. One World, New York
- Joseph NM, Haynes J and Cobb F. (2015) Interrogating whiteness and relinquishing power: white faculty's commitment to racial consciousness in stem classrooms.
- Kashwan P. (2020) American environmentalism's racist roots have shaped global thinking about conservation. *The Conversation*.
- Kashwan P, V. Duffy R, Massé F, et al. (2021) From racialized neocolonial global conservation to an inclusive and regenerative conservation. *Environment: science and policy for sustainable development* 63: 4, 4–19. <https://doi.org/10.1080/00139157.2021.1924574>.
- Keele University (2018) *The keele manifesto for decolonising the curriculum*. Keele University, Staffordshire, UK
- Kendi IX (2019) *How to be an antiracist*. Penguin Random House, New York
- Kennedy EB, Ho J (2015) Discursive diversity in introductory environmental studies. *J Environ Stud Sci* 5(2):200–206. <https://doi.org/10.1007/s13412-015-0245-9>
- Kimmerer RW. (2013) *Braiding sweetgrass: indigenous wisdom, scientific knowledge and the teachings of plants*, United States: Milkweed Editions.
- King TL, Navarro J, Smith A (2020) *Otherwise worlds: against settler colonialism and anti-blackness*. Duke University Press, Durham
- Lloro-Bidart T, Finewood MH (2018) Intersectional feminism for the environmental studies and sciences: looking inward and outward. *J Environ Stud Sci* 8(2):142–151. <https://doi.org/10.1007/s13412-018-0468-7>
- Lorde A (1984) *Sister outsider: essays and speeches*. Crossing Press, Berkeley
- Maniates M, Princen T (2015) Fifteen claims: social change and power in environmental studies. *J Environ Stud Sci* 5(2):213–217. <https://doi.org/10.1007/s13412-015-0247-7>
- Maniates MF (2001) Individualization: plant a tree, buy a bike, save the world? *Global Environmental Politics* 1(3):31–52
- Martinez-Cola M (2020) Collectors, nightlights, and allies, oh my! White mentors in the academy. *Understanding & Dismantling Privilege X* 1:25–57
- McIntyre-Mills J (2003) *Critical systemic praxis for social and environmental justice: participatory policy design and governance for a global age*. Springer, US, New York
- McKittrick K (2006) *Demonic grounds: black women and the cartographies of struggle*. University of Minnesota Press, Minneapolis
- McLean S (2013) The whiteness of green: racialization and environmental education. *The Canadian Geographer* 57(3):354–362
- Mignolo WD (2011) *The darker side of western modernity: global futures, decolonial options*. Duke University Press, Durham
- Mildenberger M. (2019) *The tragedy of the tragedy of the commons*. Scientific American.
- Morales N, O'Connell KB, McNulty S et al (2020) Promoting inclusion in ecological field experiences: examining and overcoming barriers to a professional rite of passage. *Bull Ecol Soc Am* 101(4):e01742. <https://doi.org/10.1002/bes2.1742>
- Mott C, Cockayne D (2017) Citation matters: mobilizing the politics of citation toward a practice of 'conscientious engagement.' *GenD Place Cult* 24(7):954–973. <https://doi.org/10.1080/0966369X.2017.1339022>
- National Action Committee on the Status of Women. (no date) *International perspectives: women and global solidarity*. New York: National Abolition Hall of Fame and Museum.
- Ojala M (2012) Hope and climate change: the importance of hope for environmental engagement among young people. *Environ Educ Res* 18(5):625–642. <https://doi.org/10.1080/13504622.2011.637157>
- Posselt J (2016) *Inside graduate admissions: merit, diversity, and faculty gatekeeping*. Harvard University Press, Cambridge
- Proctor JD, Clark SG, Smith KK et al (2013) A manifesto for theory in environmental studies and sciences. *J Environ Stud Sci* 3(3):331–337. <https://doi.org/10.1007/s13412-013-0122-3>
- Purdy J (2015) *Environmentalism's racist history*. The New Yorker. The New Yorker, New York
- Ranganathan M (2016) Thinking with flint: racial liberalism and the roots of an american water tragedy. *Capital Nat Social* 27(3):17–33. <https://doi.org/10.1080/10455752.2016.1206583>
- Ranganathan M and Bratman E. (2019) From urban resilience to abolitionist climate justice in washington dc. *Antipode* 0: 0, 1–23. <https://doi.org/10.1111/anti.12555>
- Rawls J (1999) *A theory of justice, revised*. Harvard University Press, Cambridge
- Rifkin M (2017) *Beyond settler time: temporal sovereignty and indigenous self-determination*. Duke University Press, Durham
- Roane JT and Hoseby J. (2019) Mapping black ecologies. *Current research in digital history* 2.
- Smith KK (2007) *African american environmental thought*. University of Kansas Press, Lawrence
- Sörlin S (2012) Environmental humanities: why should biologists interested in the environment take the humanities seriously? *Bio-science* 62(9):788–789. <https://doi.org/10.1525/bio.2012.62.9.2>
- Sze J (2020) *Environmental justice in a moment of danger*. UC Press, Oakland
- Sze J, London JK (2008) Environmental justice at the crossroads. *Sociol Compass* 2(4):1331–1354
- Tatum BD (1997) *Why are all the black kids sitting together in the cafeteria?* Basic Books, New York
- Taylor DE (2007) Diversity and equity in environmental organizations: the salience of these factors to students. *Journal of Environmental Education* 39(1):19–43
- Taylor DE (2014) *The state of diversity in environmental organizations*. Washington, DC: Green 2:192
- Taylor DE (2016) *The rise of the American conservation movement: power, privilege, and environmental protection*. Duke University Press, Durham
- Taylor DE (2018a) Enhancing racial diversity in the association for environmental studies and sciences. *J Environ Stud Sci* 8(4):379–384. <https://doi.org/10.1007/s13412-018-0518-1>
- Taylor DE (2018b) Racial and ethnic differences in the students' readiness, identity, perceptions of institutional diversity, and desire to join the environmental workforce. *J Environ Stud Sci* 8:152–168

- Tuck E, McKenzie M, McCoy K (2014) Land education: indigenous, post-colonial, and decolonizing perspectives on place and environmental education research. *Environ Educ Res* 20(1):1–23. <https://doi.org/10.1080/13504622.2013.877708>
- Tuck E and Yang KW. (2012) Decolonization is not a metaphor. *Decolonization: indigeneity, education & society* 1: 1–40.
- Walker A. (1988) *Everything is a human being. Living by the word*. San Diego: Harcourt Brace & Company, 139–151
- Waller DM, Reo NJ (2018) First stewards: ecological outcomes of forest and wildlife stewardship by indigenous peoples of wisconsin, USA. *Ecol Soc* 23:1. <https://doi.org/10.5751/ES-09865-230145>
- White MM (2018) *Freedom farmers: agricultural resistance and the black freedom movement*. University of North Carolina Press, Durham
- Wohlforth C. (2010) Conservation and eugenics. *Orion Magazine*.
- Wright WJ (2021) As above, so below: anti-black violence as environmental racism. *Antipode* 53(3):791–809. <https://doi.org/10.1111/anti.12425>
- Ybarra PS, Wald SD, Vazquez D et al (2019) *Latinx environmentalisms: Place, justice, and the decolonial*. Temple University Press, Philadelphia
- Yusof K (2019) *A billion black anthropocenes or none*. University of Minnesota Press, Minneapolis
- Zaragocin S (2019) Gendered geographies of elimination: decolonial feminist geographies in Latin American settler contexts. *Antipode* 51(1):373–392. <https://doi.org/10.1111/anti.12454>