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# Military as an Institution and Militarization as a Process: Theorizing the U.S. Military and Environmental Justice

Camila H. Alvarez,[i] Nicholas G. Theis, and Daniel A. Shtob[ii]

## ABSTRACT

State reactions to Black Lives Matter demonstrations include heavily militarized domestic police responses and the deployment of the National Guard. These events place emphasis on understanding the U.S. military as an institution and militarization as a process; as well as their corresponding environmental justice (EJ) consequences. In this study, we integrate critical race theory, decolonial thought, carceral geography, and military and environmental sociology to theorize the military and militarization as potentially important and overlooked sources of environmental injustice that ought to concern scholars and activists. We use an interdisciplinary framework to highlight: the historical role of the military in the creation and maintenance of racialized and colonized difference, how the U.S. militarization is connected to localized and national overpolicing and environmental harm, and how the environmental risks of warfare may be transferred from combat zones to civilian EJ communities and sites, both domestically and abroad. We stress that the production of colonized and racialized space—and the criminalization of Black, Indigenous, and other bodies of color—happens within the context of militarization as a process and the U.S. military as an institution so future critical analysis should look to these levels. Our goal is to urge scholars and activists to recognize the military as a potentially significant contributor to environmental injustice and outline avenues for future study.

**Keywords:** military, environmental justice, critical race theory, decolonial thought, carceral geography, environmental sociology

## INTRODUCTION

STATE REACTIONS TO Black Lives Matter (BLM) demonstrations—a movement focused on eradicating state-sanctioned violence in Black communities—have included heavily militarized police responses as well as the deployment of the National Guard. These and other events showcase the increased entanglement among the state, militarization, policing, race, and environmental issues. Important work in critical environmental justice (EJ) connects the criminalization of Black bodies and communities to environmental racism.[1,2] Although these connections were initially developed in the context of policing in communities of color, in this study we extend them to the U.S. military as an institution and militarization as a process.

Previous research demonstrates that negative environmental, health, and social effects have arisen from military action in, for example, Indigenous communities

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[1]David Naguib Pellow. *What Is Critical Environmental Justice?* (Polity, 2017).
[2]Lindsey Dillon and Julie Sze. ''Police Power and Particulate Matters: Environmental Justice and the Spatialities of In/Securities in U.S. Cities.'' *English Language Notes* 54 (2016): 13–23.

in the United States[3,4,5,6] and communities abroad that are near and distant from combat.[7,8,9] This suggests that the military represents an important and possibly overlooked institutional source of environmental injustice as a form of state-sanctioned violence. It also suggests the need for research at the intersection of military, militarization, and EJ concerns.

To address this need, we draw on the literatures of critical race theory, decolonial thought, carceral geography, and military and environmental sociology to theorize some EJ consequences of military activity, as a product of the acceleration and propagation of militarization across realms of U.S. society. Decolonial and critical race scholars view the military as a source of state-sanctioned violence against racialized groups, and a defender of white land ownership and resources.[10,11,12] In carceral geography, the militarization of domestic police departments and the U.S.–Mexico border is directly tied to processes of institutional militarization on behalf of the Department of Defense (DoD).[13,14,15]

Meanwhile, a line of thinking at the intersection of military and environmental sociology stresses the contemporary trend in which the environmental risks of warfare are transferred from active combat zones to civilian communities, primarily in the Global South.[16,17]

Based on a synthesis of ideas from these fields, we argue for extending this logic of this trend—known as risk-transfer militarism—across scales to the domestic context. In this way it serves to inform emergent debates about the role of the state in EJ[18,19] as well as more traditional EJ scholarship on the distributive and procedural effects of public and private activity.

Toward this goal, we draw upon these traditions to develop a theoretical frame that provides the following: examines the critical and historical grounding for the role of the military in the creation and maintenance of racialized and colonized difference, links expanding U.S. militarization through localized and national overpolicing to environmental harm, and transfers the risks of military overdevelopment and action to EJ communities domestically and abroad. We stress that the production of colonized and racialized space and the criminalization of Black and brown bodies happens in the context of militarization as a process and the U.S. military as an institution, and among those facing the greatest environmental risks may be military personnel themselves.

## THE MILITARY AS AN INSTITUTION: A CRITICAL RACE THEORY AND SETTLER COLONIALISM PERSPECTIVE

As an institution, the U.S. military enacts racial political projects, mainly through the construction of racialized and colonized spaces and the criminalization and separation of Black, Native, Latinx, and Asian people. Critical EJ studies builds on the insights of critical race theory to position environmental inequalities as part of state-sanctioned violence.[20] The state regulates racial differentiation and devaluation, effectively defining, regulating, and controlling certain marginalized populations.[21] As an integral arm of the empire-state, the U.S. military enforces racial and colonial projects with colonized people, as the case of Native Americans, Puerto Ricans and Guamanians, and other racialized groups, including Black and immigrant people.[22] Renowned psychoanalyst of the colonial subject Frantz Fanon stressed that the police and military constrain colonized populations through ''proximate and frequent, direct intervention'' thereby causing physical and psychological violence.[23]

[3]Gregory Hooks and Chad L. Smith. ''The Treadmill of Destruction: National Sacrifice Areas and Native Americans.'' *American Sociological Review* 69 (2004): 558–575.

[4]Valerie Kuletz. *The Tainted Desert: Environmental and Social Ruin in the American West.* (Routledge, 1998).

[5]Winona LaDuke. *All Our Relations: Native Struggles for Life and Land.* (South End Press, 1999).

[6]Winona LaDuke and Sean Aaron Cruz. *The Militarization of Indian Country.* (Michigan State University Press, 2013).

[7]Eric Bonds. ''Legitimating the Environmental Injustices of War: Toxic Exposures and Media Silence in Iraq and Afghanistan.'' *Environmental Politics* 25 (2016): 395–413.

[8]R. Scott Frey. ''Agent Orange and America at War in Vietnam and Southeast Asia.'' *Human Ecology Review* 20 (2013): 1–10.

[9]Chad L. Smith, Gregory Hooks, and Michael Lengefeld. ''The War on Drugs in Colombia: The Environment, the Treadmill of Destruction and Risk-Transfer Militarism.'' *Journal of World-Systems Research* 20 (2014): 185–206.

[10]Roxanne Dunbar-Ortiz. *An Indigenous Peoples' History of the United States.* (Beacon Press, 2014).

[11]Moon-Kie Jung and Yaejoon Kwon. ''Theorizing the US Racial State: Sociology Since Racial Formation.'' *Sociology Compass* 7 (2013): 927–940.

[12]Frantz Fanon. *The Wretched of the Earth.* (Grove Press, 1963).

[13]Ruth Wilson Gilmore. *Golden Gulag.* (University of California Press, 2007).

[14]Karena Rahall. ''The Green to Blue Pipeline: Defense Contractors and the Police Industrial Complex.'' *Cardozo Law Review* 36 (2015): 1785–1785.

[15]Timothy J. Dunn. *The Militization of the U.S. Mexico Border 1978–1992: Low-Inensity Conflict Doctrine Comes Home.* (University of Texas, 1996).

[16]Martin Shaw. ''Risk-Transfer Militarism, Small Massacres and the Historic Legitimacy of War.'' *International Relations* 16 (2002): 343–359.

[17]Chad L. Smith, Gregory Hooks, and Michael Lengefeld. ''The War on Drugs in Colombia: The Environment, the Treadmill of Destruction and Risk-Transfer Militarism.'' *Journal of Chemical Information and Modeling* 53 (2013): 1689–1699.

[18]Pellow. (2017), *Op. cit.*

[19]Hilda E. Kurtz. ''Acknowledging the Racial State: An Agenda for Environmental Justice Research.'' *Antipode* 41 (2009): 684–704.

[20]Pellow. (2017), *Op. cit.*

[21]Michael Omi and Howard Winant. *Racial Formation in the United States: From the 1960s to the 1990s.* (Routledge, 1994).

[22]Jung and Kwon. (2013), *Op. cit.*

[23]Fanon. (1963), *Op. cit.*: 4.

Although critical race theory focuses on structural racism and how it shapes historical and contemporary social life, settler colonial studies[24] in the United States context specifically highlights the United States' use of organized armed forces to carry out physical, cultural, and political subjugation toward Native American communities. This includes the attempted genocide of Indigenous populations, which contributes to a tradition of racial and spatial oppression. Settler colonialism—a unique form of colonization—focuses on settlers' violent pursuit of land that displaced Native populations, enforced cultural assimilation, and coerced Indigenous populations onto reservations.

To be clear, the settler state and settler ideologies racialize Native populations; however, specific Native tribes do not constitute a racial classification but instead are sovereign governmental entities. This clarification illuminates how and why the development and infringement of treaties between the settler state and Native tribes is integral to U.S. state formation and settler political and economic expansion. Today, many military bases are named after forts used in the Indian Wars.[25] The settler state used boarding schools to implement cultural erasure by banning Indigenous languages or Native cultural practices and punishing any physical trait or practice that was "too Indian."[26] Centering land as part of colonial violence is key because land-based practices are significant in Native cultures.

Thus, infringement of treaty rights or land-based cultural practices, and settler occupation are distinct environmental injustices for Indigenous communities, as ongoing settler colonial relations not only degrade Native lands, but also Native ways of life.[27,28] As such, Indigenous resistance often involves not only the deconstruction of the existing social order predicated on settler colonialism, but the construction of a way of life that embodies "the dual move of defending and caretaking relational life."[29]

This is reflected in *The Principles of Environmental Justice*, adopted by the 1991 First National People of Color Environmental Leadership Summit. The 11th principle states that: "Environmental Justice must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination." Moreover, the 15th principle declares: "Environmental Justice opposes military occupation, repression and exploitation of lands, peoples, and cultures, and other life forms." The implications of ongoing settler colonialism also have tensions with the struggles of Global South decolonizations, as this "ambiguate[s] First Nations with Third World migrants," overlooking each's particular challenges and historical relations with colonialism.[30]

Militarized responses to Indigenous populations within North America continued as part of the enforcement of the U.S. settler state. Water dam infrastructural projects flooded Indigenous lands, displacing Native families and putting pressures on cultural continuance. Indeed, the U.S. Army Corps of Engineers has explicitly ignored Indigenous treaty and water rights in their construction plans, building infrastructure that benefitted predominantly white border towns, whereas flooding Indigenous communities and lands throughout the twentieth century.[31,32]

In the mid-twentieth century, the U.S. military pursued nuclear weapons development and testing, heavily influencing the southwestern landscapes of the United States and the health of Indigenous inhabitants therein.[33] Moreover, technologically intensive military installations following World War II put Native/Indigenous communities more at risk.[34] In 2014, the conflict at Standing Rock showcased how Indigenous water protectors resisting fossil fuels and potential water pollution are met with militarized law enforcement, tactics, and equipment.[35]

The history of the U.S. military can be understood, in part, through its relation to colonized and racialized spaces, including the displacement of Indigenous peoples, slave patrols, segregation, and targeted recruitment efforts resembling a poverty draft. Southern slave patrols served as a mechanism of social control against slaves to preserve the interests of white land ownership and also were an important precursor to modern policing in the United States,[36] thereby showing historical linkages between military and police forces in the United States, as well as racialized efforts toward social control.

In the post-Civil War era, Black Americans joined the United States military to achieve honor and recognition,

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[24]Given our focus on the U.S. military and environmental injustice, we use decolonial thought and settler colonial studies as opposed to postcolonial or anticolonial studies. This is because of the centrality of the settler state and settler ideologies contributing to environmental degradation and racial and spatial oppression. Moreover, the relative lack of attention that environmental justice research has given to Native American communities in the United States, as well as the underdeveloped look at militaries and militarization, warrants theorizing environmental injustice at that intersection.

[25]Spencer Tucker (ed). *The Encyclopedia of North American Indian Wars, 1607–1890: A Political, Social, and Military History Volume 1: A–L.* (ABC-CLIO, LLC, 2011).

[26]Dunbar-Ortiz. (2014), *Op. cit.*

[27]Kari Marie Norgaard. *Salmon and Acorns Feed Our People: Colonialism, Nature, and Social Action.* (Rutgers University, 2019).

[28]Dina Gilio-Whitaker. *As Long as Grass Grows: The Indigenous Fight for Environmental Justice, from Colonization to Standing Rock.* (Beacon Press, 2019).

[29]Melanie Yazzie. "Decolonizing Development in Dine Bikeyah." *Environment and Society* 9 (2018): 34.

[30]Eve Tuck and K. Wayne Yang. "Decolonization Is Not a Metaphor." *Decolonization: Indigeneity, Education and Society* 1 (2012): 29.

[31]Nick Estes. *Our History Is the Future: Standing Rock versus the Dakota Access Pipeline, and the Long Tradition of Indigenous Resistance.* (Verso, 2019).

[32]Dunbar-Ortiz. (2014), *Op. cit.*

[33]Kuletz. (1998), *Op. cit.*

[34]Hooks and Smith. (2004), *Op. cit.*

[35]Estes. (2019), *Op. cit.*

[36]P.L. Reichel. "Southern Slave Patrols as a Transitional Police Type." *American Journal of Police* 7 (1988): 51–77.

since these opportunities were scarce in the civilian labor force.[37] In response, Black veterans were often met with racial intimidation and violence upon return.[38] Segregation in the armed forces perpetuated until 1948, with ''a general separation'' between white and nonwhite service members in general and Black and white service members in particular.[39] Mexican and Native Americans were classified as ''white,'' with more than a third of Indigenous men serving in the armed forces during World War II.[40,41] In the late 1990s and early 2000s, the army actively targeted Latinx youth for recruitment.[42]

This resulted, in part, in the over-representation of military personnel of color. A recent report by the Council of Foreign Relations analyzed racial/ethnic and gender statistics across enlisted personnel and found Black personnel are over-represented in the Army, Latinx personnel are over-represented in Marines, and Black women personnel are over-represented in Navy and Air Force.[43] The report also notes that among higher ranking personnel (i.e., officers and generals/flag officials), the amount of racial and ethnic diversity declines. The lack of racial and ethnic diversity likely has consequences for power differentials and distributive justice.

Examining the military as an institution through a critical race perspective and settler colonial studies demonstrates how the U.S. military has played a major role in colonial and racial political projects throughout history. In the following sections, we explore the importance of militarization as a process in regard to the militarization of domestic institutions and the U.S. military's activities, both domestically and abroad. We then draw environmental injustice connections among these policies, practices, and processes.

## MILITARIZATION AS A PROCESS: A CARCERAL GEOGRAPHY CONNECTION

One arena in which the consequential environmental impacts of militarization and the U.S. military become evident is within carceral geographies—a nexus of work examining the spaces and practices of incarceration, the racialized and gendered processes criminalizing communities, the prison and immigrant industrial complexes, and the effects of prisons on spaces and their neighboring communities.[44] It is important to evaluate the overlooked role of the military and militarization within carceral geographies, especially through examples of the militarization of domestic police departments in state responses to protests, including the Indigenous water protectors at Standing Rock and BLM demonstrations against police violence.[45,46] Beyond these specific examples of the infiltration of militarization into civilian policing, there is a more general cause for critical EJ concern at the nexus of the military and carceral geographies.

The military industrial complex is connected to the prison and immigrant industrial complexes and shares similar characteristics. An ''industrial complex'' is an institution that focuses on profit while performing its administrative purpose. Specifically, the military industrial complex represents the close working relationship of ''self-serving accommodation between corporate elites, government bureaucrats, and the military hierarchy'' to fulfill its military mission while serving capital interests and gaining political power.[47] Alternatively, the prison industrial complex describes the network of politicians, penal officials, and corporate interests that use the rhetoric of crime reduction to serve economic interests through prison construction, administration, and prisoner labor.[48]

Moreover, the immigrant industrial complex represents the connections between the criminalization of undocumented people through policies and institutions and profiteering from immigration enforcement policies.[49] Besides similar names, these industrial complexes share ''a) a rhetoric of fear; b) the confluence of powerful interests; and c) a discourse of other-ization.''[50] Scholars and activists note the rhetoric of fear and discourse of other-ization is fueled by racialized rhetoric of the wars on crime, drugs, and terror, thereby criminalizing Black and brown communities.[51] The convergence of powerful

[37]Margarita Aragon. ''A General Separation of Colored and White.'' *Sociology of Race and Ethnicity* 1 (2015): 503–516.

[38]Bryan Stevenson. *Lynching in America: Targeting Black Veterans.* (Equal Justice Initiative, 2017).

[39]Aragon. (2015), *Op. cit.*

[40]Ibid.

[41]Alison R. Bernstein. *American Indians and World War II: Toward a New Era in Indian Affairs.* (University of Oklahoma Press, 1991).

[42]Jorge Mariscal. ''Homeland Security, Militarism, and the Future of Latinos and Latinas in the United States.'' *Radical History Review* 93 (2005): 39–52.

[43]Council on Foreign Relations. ''Demographics of the U.S. Military.'' 2020. <https://www.cfr.org/backgrounder/demographics-us-military> (Last accessed on June 6, 2021).

[44]Dominique Moran. ''Carceral Geographies.'' *International Encyclopedia of Geography: People, the Earth, Environment and Technology* (2017): 1–3.

[45]David Naguib Pellow. ''Toward a Critical Environmental Justice Studies: Black Lives Matter as an Environmental Justice Challenge.'' *Du Bois Review* 13 (2016): 221–236.

[46]Kyle Powys Whyte. ''The Dakota Access Pipeline, Environmental Injustice, and U.S. Colonialism.'' *Red Ink* 19 (2017): 154–181.

[47]Charles C. Jr. Moskos. ''The Concept of the Military-Industrial Complex: Radical Critique or Liberal Bogey?'' *Social Problems* 21 (1974): 499.

[48]Rose M. Brewer and Nancy A. Heitzeg. ''The Racialization of Crime and Punishment Criminal Justice, Color-Blind Racism, and the Political Economy of the Prison Industrial Complex.'' *American Behavioral Scientist* 51 (2008): 625–644.

[49]Tanya Golash-Boza. ''A Confluence of Interests in Immigration Enforcement: How Politicians, the Media, and Corporations Profit from Immigrant Policies Destined to Fail.'' *Sociology Compass* 3 (2009): 283–294.

[50]Tanya Golash-Boza. ''The Immigration Industrial Complex: Why We Enforce Immigration Policies Destined to Fail.'' *Sociology Compass* 3 (2009): 306.

[51]Rahall. (2015), *Op. cit.*; Elizabeth Hinton and DeAnza Cook. ''The Mass Criminalization of Black Americans: A Historical Overview.'' *Annual Review of Criminology* 4 (2021): 261–286.

interests to carry out these policies and programs are representatives of the state and corporate elite. Given the unequal nature of these processes, they also have significant environmental injustices.

In *Golden Gulag*, Gilmore explains the rise of prisons as a political economic restructuring after World War II and their disproportionate impact on communities of color in California during and after the 1980s.[52] The rise of the prison industrial complex in California is historically situated as a result of massive Cold War spending on the military industrial complex. For example, the Federal Penitentiary in Atwater, California sits directly on the decommissioned Castle Air Force Base and is registered as an Environmental Protection Agency Superfund site due to that legacy of soil and water contamination. The immigrant industrial complex is also evident at this intersection because the United States has a history of housing migrants and refugees at military bases.[53]

Between 2012 and 2017, almost 17,000 unaccompanied minor migrants were housed in military bases.[54] In response to the Trump administration's plans to build a new immigrant detention center on Fort Bliss Base in El Paso, Texas, Earthjustice published an investigation demonstrating numerous hazardous contaminants on the site and a nearby toxic landfill.[55,56] These events illustrate just some of the intersections among prisons, detention centers, and military Superfund sites,[57] and hint at the potential risk for military personnel and staff located on current bases, as well as prisoners, detainees, and inmates on toxic sites. Militarized policing and the rise of militarized immigration enforcement has criminalized nonwhite people and has led to a wildly disproportionate number of Black and brown people in prisons and detention centers. There, they may suffer greater environmental exposure to risk, in part because of military and militarized actions.

The influence of the military in the prison industrial complex is also evident in the increased militarization of tactics and gear of domestic police departments. Rahall outlines a "green to blue pipeline" where federal military programs and grants (as well as heavy lobbying efforts from defense contractors) fund the transfer of military equipment including vehicles, firearms, and protective gear to police departments. As part of the war on drugs, the DoD provided gear and training to combat illegal drug operations.[58] For example, the 1997 National Defense Authorization Act—also known as 1033 Program—authorized the transfer of surplus military gear from the DoD, including armored vehicles and body armor, to domestic police departments at no cost.

The transfers involve little to no oversight on usage of this equipment, yet there were nearly two million transfers valued at $1.5 billion between 2006 and 2013 alone.[59] Of special concern is that the green to blue pipeline "threatens to further erode what was once a clear delineation between military and domestic police"[60] because the influence of military and processes of militarization have seeped into domestic policing. Similarly, we see the impact of the military in the immigrant industrial complex with the militarization of the border.[61] Moreover, the justification of these federal programs—and increasing entanglements between the military and civilian policing—through the *wars* on crime, drugs, and terrorism each represent a set of racialized policies that manifest in intensive policing in nonwhite communities and racial profiling.[62,63]

These dimensions intersect with EJ concerns because most military equipment is industrial grade and may inhere significant environmental consequences for local ecosystems.[64] For example, equipment such as the heavy armored vehicles that have been used by domestic police departments during BLM protests are known to deteriorate ecosystems abroad.[65] Domestically, their usage contributes to air and water pollution through emissions and runoff. Another important example is "tear gas," a chemical deployed in World War I that is now used in domestic demonstrations[66] and causes health effects, ranging from skin, throat, and eye irritation to blindness, glaucoma, and respiratory problems.[67]

In short, decommissioned domestic military sites with environmental problems are used to house inmates, and

[52]Gilmore. (2007), *Op. cit.*

[53]David Naguib Pellow and Jasmine Vazin. "The Intersection of Race, Immigration Status, and Environmental Justice." *Sustainability (Switzerland)* 11 (2019): 1–17.

[54]Lawrence Kapp and Barabara Salazar Torreon. *History of Use of U.S. Military Bases to House Immigrants and Refugees.* "Historical Use of Military Bases to House Immigrants and Refugees (IN10937)." (2018).

[55]Michelle L. Edwards, Briana Luna, and Hannah Edwards. "Environmental Injustices in Immigrant Detention: How Absences Are Embedded in the National Environmental Policy Act Process." *Environment and Planning E: Nature and Space* 4 (2020): 429–450.

[56]Eathjustice. "Stopping Toxic Cages." 2019. <https://earthjustice.org/features/migrant-children-detention-center-fort-bliss-documents> (Last accessed on June 6, 2021).

[57]Pellow. (2017), *Op. cit.*

[58]Rahall. (2015), *Op. cit.*

[59]Steven M. Radil, Raymond J. Dezzani, and Lanny D. McAden. "Geographies of U.S. Police Militarization and the Role of the 1033 Program." *Professional Geographer* 69 (2017): 203–213.

[60]Rahall. (2015), *Op. cit.*: 1788.

[61]Dunn. (1996), *Op. cit.*

[62]Radil *et al.* (2017), *Op. cit.*

[63]Rahall. (2015), *Op. cit.*

[64]Michael J. Lawrence, Holly L.J. Stemberger, Aaron J. Zolderdo, Daniel P. Struthers, and Steven J. Cooke. "The Effects of Modern War and Military Activities on Biodiversity and the Environment." *Environmental Reviews* 23 (2015): 443–460.

[65]Ibid.

[66]Anna Feigenbaum. *Tear Gas: From the Battlefields of World War I to the Streets of Today.* (Verso, 2016).

[67]Craig Rothenberg, Satyanarayana Achanta, Erik R. Svendsen, and Sven-Eric Jordt. "Tear Gas: An Epidemiological and Mechanistic Reassessment." *Annals of the New York Academy of Sciences* 1378 (2016): 96–107.

demonstrations for racial justice are met with militarized police presence and ''decommissioned'' military technology. This provides direct evidence of entanglements between policing, incarceration, and militarization that have racialized consequences for environmental exposure. Taken together, this suggests that the U.S. military has taken part in state-sanctioned environmental violence through the militarization of domestic institutions such as police departments and border control.

Demonstrating the links of the U.S. military to carceral geography highlights how militarization manifests in domestic institutions and partakes in the production of racialized spaces through the criminalization of Black and brown communities as well as forming environmental injustices. Having illustrated the importance of the military as an institution and militarization as a process, we now theorize unique aspects of the U.S. military as EJ issues.

## MILITARIZATION AND EJ: INSIGHTS FROM MILITARY AND ENVIRONMENTAL SOCIOLOGY

EJ focuses on every community's right to clean and healthy environments, including equity in distribution, procedure, and recognition.[68] In this study, we turn to environmental injustice related to the military and militarization that manifests across scales because it connects ''the militarized oppression of African-American bodies and communities to the U.S. military's oppression of people of color elsewhere in the world…where the U.S. uses military force directly or by proxy to protect its interests.''[69,70] We recognize that military action differs from domestic policing because although it often operates locally at military bases, it does so in pursuit of global goals.[71,72] It is across these scales—domestic and foreign, local and global—that the military takes part in producing racialized and colonized spaces.

One way of conceptualizing this form of contemporary environmental injustice is through what is known as risk-transfer militarism.[73,74] Put simply, risk-transfer militarism implies the transfer of the risk of armed conflict away from combatants and battlefields and toward civilians in zones where secondary military activity takes place.[75,76,77,78,79]

Risk-transfer militarism is usually ascribed to the technological intensification and tactical development of the military over the course of the past century: innovations that protect combatants while exposing civilians to greater risk. One set of mechanisms focuses on the use of aerial bombardment from afar, involving airplanes, missiles, and other projectiles, and the use of remote control drones that keeps operators far from open conflict but may nevertheless endanger civilians.[80,81,82,83,84] A second set is more specifically environmental, and focuses on activities including the use of aerial herbicides in proximity to Colombian civilians as part of the U.S. supported war on drugs[85] and the impacts of the burning of solid waste near bases in Iraq and Afghanistan.[86]

Although approaches to environmental risk-transfer tend to focus on foreign activity, it is reasonable to expand them to domestic contexts involving military personnel and adjacent communities, especially as there may be little opportunity for local procedural involvement in military decision making. What this shift emphasizes is the need to merge research demonstrating the EJ effects of risk-transfer overseas with the less immediately apparent effects of the contemporary transformation of military presence and activity in the United States, including around military facilities and support activity.

This brings risk-transfer militarism—and the technological and tactical developments to which it attaches—into conversation with more traditional EJ concerns about the distributive and procedural elements of industrial siting near poor neighborhoods and communities of color. It also provides a foundation for a reconsideration of the EJ effects of noncombat activities, including the

[68]Dorceta E. Taylor. ''The Rise of the Environmental Justice Paradigm: Injustice Framing and the Social Construction of Environmental Discourses.'' *American Behavioral Scientist* 43 (2000): 508–580.

[69]Pellow. (2017), *Op. cit.*

[70]Julie Sze, Jonathan London, Fraser Shilling, Gerardo Gambirazzio, Trina Filan, and Mary Cadenasso. ''Defining and Contesting Environmental Justice: Socio-Natures and the Politics of Scale in the Delta.'' *Antipode* 41 (2009): 807–843.

[71]Hooks and Smith. (2004), *Op. cit.*

[72]Gregory Hooks and Chad L. Smith. ''Treadmills of Production and Destruction: Threats to the Environment Posed by Militarism.'' *Organization and Environment* 18, (2005): 19–37.

[73]Shaw. (2002), *Op. cit.*

[74]Ibid.

[75]Gregory Hooks and Chad L. Smith. ''The Treadmill of Destruction Goes Global: Anticipating the Environmental Impact of Militarism in the 21st Century.'' In Kostas Gou (ed). *The Marketing of War in the Age of Neo-Militarism.* (Routledge, 2012), 72–96.

[76]Andrew K. Jorgenson and Brett Clark. ''The Economy, Military, and Ecologically Unequal Exchange Relationships in Comparative Perspective: A Panel Study of the Ecological Footprints of Nations, 1975–2000.'' *Social Problems* 56 (2009): 621–646.

[77]Shaw. (2002), *Op. cit.*

[78]Smith *et al.* (2013), *Op. cit.*

[79]Chad L. Smith and Michael R. Lengefeld. ''The Environmental Consequences of Asymmetric War: A Panel Study of Militarism and Carbon Emissions, 2000–2010.'' *Armed Forces and Society* 46 (2020): 214–237.

[80]Hooks and Smith. (2012), *Op. cit.*

[81]Jorgenson and Clark. (2009), *Op. cit.*

[82]Shaw. (2002), *Op. cit.*

[83]Smith *et al.* (2013), *Op. cit.*

[84]Smith and Lengefeld. (2020), *Op. cit.*

[85]Smith *et al.* (2013), *Op. cit.*

[86]Bonds. (2016), *Op. cit.*

green to blue pipeline and the changing nature of the disposal of surplus military technology in civilian contexts (or the adaptation of military technology for these contexts).

Critical race and settler colonial perspectives demonstrate the historical role of the U.S. military in producing racial and colonial political projects domestically and abroad. Moreover, examples within carceral geography demonstrate the direct links between the U.S. military to the militarization of domestic institutions such as police departments and border control agencies. This is coupled with the fact that the military is one of the largest employers in the country,[87] military facilities often have military towns and communities in nearby areas[88] and it has a history of selectively targeting people of color and poor individuals for recruitment,[89,90] a practice known colloquially as the poverty draft. Consequently, the environmental impacts of the military[91] should be conceptualized as potential EJ issues that manifest across domestic and international scales.

Therefore, although the distributive injustice[92,93] that arises from risk-transfer militarism applies to civilians in the Global South, this should not occlude investigation and organization around analogous domestic instances that occur near domestic military facilities and support industries. This is because environmental consequences of warfare—and especially preparation for technologically intensive warfare—are also found domestically through the military industrial complex, and may affect military personnel, support staff, civilians, and communities that live on or near current military facilities or decommissioned toxic military sites that have been repurposed for uses such as prisons or immigrant detention centers.

For example, linkages between settler colonialism and risk-transfer militarism include the developing and testing of nuclear weapons in the southwest, putting Native American lives and lands at risk of ionizing radiation used in the Cold War, as well as armed conflict.[94] Potential research topics for future investigation include how its foreign and domestic forms share similar and distinctive logics and how their spatial elements and scale interact with neocolonial and imperial logics and systems of power relations, as well as the existence

of domestic peripheries[95] and sacrifice zones.[96,97,98] In other words, the changing spatial attributes of modern warfare and changing demographics on and near military bases require a multiscalar understanding of how they generate harm and how they challenge principles of indispensability for those proximate to military activity.[99]

It may also implicate a sort of slow violence[100] that operates against those working in the military, in military support economies, or in other associated sectors of the military industrial complex. The environmental consequences of war are often framed in sociology in terms of the treadmill of destruction,[101] which distinguishes harms that arise from the logics and dynamics of military processes from economic processes.[102,103,104] Despite these distinctive logics, it is intriguing to consider how that line might be blurred in the context of the military industrial complex due to the presence of support economies that supply military needs.[105,106] The existence of the military industrial complex and economies that support the technological development of the military, including through contracting,[107] illuminate the mutually constituting relationships between the political and economic forces embedded within the military.

Indeed, although examples abound of communities actively seeking the economic benefit of military bases,[108,109,110,111,112] the environmental consequences

[87]Defense Manpower Data Center. ''DoD Personnel, Workforce Reports & Publications.'' 2020. <https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp#> (Last accessed on June 6, 2021).

[88]Amy Lutz. ''Who Joins the Military? A Look at Race, Class, and Immigration Status.'' *Journal of Political and Military Sociology* 36 (2008): 167–188.

[89]Mariscal. (2005), *Op. cit.*

[90]Lizette Alvarez. ''Army Effort to Enlist Hispanics Draws Recruits, and Criticism.'' 2006. <https://www.nytimes.com/2006/02/09/us/army-effort-to-enlist-hispanics-draws-recruits-and-criticism.html> (Last accessed on June 6, 2021).

[91]Lawrence *et al.* (2015), *Op. cit.*

[92]Shaw. (2002), *Op. cit.*

[93]Dorceta E. Taylor. *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility.* (New York University Press, 2014).

[94]Kuletz. (1998), *Op. cit.*

[95]James R. Elliott and Jeremy Pais. ''Race, Class, and Hurricane Katrina: Social Differences in Human Responses to Disaster.'' *Social Science Research* 35 (2006): 295–321.

[96]Hooks and Smith. (2004), *Op. cit.*

[97]Kuletz. (1998), *Op. cit.*

[98]Steve Lerner. *Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States.* (MIT Press, 2010).

[99]Pellow. (2017), *Op. cit.*

[100]Rob Nixon. *Slow Violence and the Environmentalism of the Poor.* (Harvard University Press, 2011).

[101]Hooks and Smith. (2004), *Op. cit.*

[102]Kenneth A. Gould, David Naguib Pellow, and Allan Schnaiberg. ''Interrogating the Treadmill of Production: Everything You Wanted to Know about the Treadmill but Were Afraid to Ask.'' *Organization and Environment* 17 (2004): 296–316.

[103]Allan Schnaiberg. *The Environment: From Surplus to Scarcity.* (Oxford University Press, 1980).

[104]Allan Schnaiberg and Kenneth A. Gould. *Environment and Society: The Enduring Conflict.* (Blackburn Press, 2000).

[105]Charles Tilly. *Coercion, Capital, and European States, AD 990-1990.* (Basil Blackwell, 1990).

[106]Schnaiberg and Gould. (2000), *Op. cit.*

[107]Lutz. (2008), *Op. cit.*

[108]Ted K. Bradshaw. ''Communities Not Fazed: Why Military Base Closures May Not Be Catastrophic.'' *Journal of the American Planning Association* 65 (1999): 193–206.

[109]Tadlock Cowan and Baird Webel. ''Military Base Closure: Socioeconomic Impacts.'' *CRS Report for Congree.* 2005. <https://apps.dtic.mil/dtic/tr/fulltext/u2/a435331.pdf> (Last accessed on June 6, 2021).

[110]Mark A. Hooker and Michael M. Knetter. ''Measuring the Economic Effects of Military Base Closures.'' *Economic Inquiry* 39 (2001): 583–598.

[111]M. Matsuoka. ''Reintegrating the Flatlands: A Regional Framework for Military Base Conversion in the San Francisco Bay Area.'' *Capitalism, Nature, Socialism* 8 (1997): 109–124.

[112]Barney Warf. ''The Geopolitics/Geoeconomics of Military Base Closures in the USA.'' *Political Geography* 16 (1998): 541–563.

may be hidden or underexplored due to exemptions from regulation and a focus on employment.[113,114]

These concerns are not merely hypothetical. Recently, environmental effects from domestic military facilities have come to light, as nearly 700 bases are suspected or confirmed to have polluted groundwater and tap water with per- and polyfluoroalkyl substances (PFAS), a human-made toxic fluorinated chemical.[115] In addition to distributive injustice for increasingly diverse military personnel and families near bases, this implicates both the possibility of procedural injustice in base siting and institutionalized misrecognition of these dangers generated by elite capture of the process of attracting military and civilian facilities that produce, distribute, and consume military technology.[116] Through the confluence of acts of warfare and its economic support, both domestic and overseas cases of direct and indirect environmental injustice may occur.

In this way, the environmental consequences of militarization not only implicate traditional EJ concerns such as distributional and procedural equity, as well as recognition,[117] they also directly implicate multiscalar analysis of threats to indispensability across foreign and domestic contexts. This again calls the role of the state in EJ into question[118,119] by suggesting that it may be an institutional agent of state-sanctioned environmental harm. Our adaptation of risk-transfer militarism, therefore, provides a framework that connects the environmental consequences of military development to a variety of long-existing and newly emergent EJ concerns, ranging from distributive and procedural questions to indispensability and multiscalar analyses of process, while linking these with primary military activities such as combat as well as secondary support industries and practices.

We have demonstrated how militarization as a process and the U.S. military as an institution is involved in racialized treatment, environmental effects, and physical violence. These environmental injustices are linked together through racialized discourses of the wars on crime, drugs, and terror. The United States is the world's leading jailer and military force, both of which are fueled by militarized responses to racialized discourse. For example, a well-studied aspect of the war on drugs was the moral panic surrounding the "crack epidemic," where racialized discourses labeled Black bodies as "thugs" and "criminals," serving to exacerbate already existing racial disparities in arrests and incarceration.[120] The harsh treatment of inmates, legitimated by racial discourse that dehumanized racial and ethnic minorities, was exported into the war on terror.[121]

Parallel to the war on drugs, the war on terror involved racialized discourse toward Middle Eastern, Muslim, and immigrant people. Dehumanizing Muslims and Middle Eastern people through racial war narratives is directly linked to the severity of the treatment of Middle Eastern prisoners in U.S. military facilities, such as Abu Ghraib,[122] and the treatment of Middle Eastern cities as "socially polluted places," as seen through open pit burning by U.S. military.[123] Moreover, the logic and rhetoric of the war on terror has "translated into a War on Immigrants."[124] By using the military and militarizing institutions as a solution to social problems and relying on racialized discourse, the state reproduces disparate racial environmental outcomes.

## CONCLUSION

The U.S. military as an institution, and militarization as a process, has historically and contemporaneously been involved in racial projects and produced unequal environmental outcomes along racialized lines. Owing to the centrality of the military in U.S. society, the intrusion of militarization into civil responses to perceived unrest, and the intensity of the military's environmental footprint,[125] the need for EJ research at the intersection of U.S. militarization and systemic racism is clear. To initiate and advance these conversations, we theorize routes for EJ scholars and activists examining the environmental injustice of militarization by using insights from critical race theory, decolonial thought, carceral geography, and military and environmental sociology.

We outline various ways that the military and the militarization of institutions produces colonized and

[113]Hope Babcock. "National Security and Environmental Laws: A Clear and Present Danger?" *Virginia Environmental Law Journal* 25 (2007): 105–156.

[114]Erin Truban. "Military Exemptions from Environmental Regulations: Unwarranted Special Treatment or Necessary Relief." *Villanova Environmental Law Journal* 15 (2004): 139.

[115]Jared Hayes and Scott Faber. "Updated Map: Suspected and Confirmed PFAS Pollution at U.S. Military Bases." 2020. <https://www.ewg.org/news-and-analysis/2020/04/updated-map-suspected-and-confirmed-pfas-pollution-us-military-bases> (Last accessed on June 6, 2021).

[116]Lutz. (2008), *Op. cit.*

[117]Taylor. (2000), *Op. cit.*

[118]David N. Pellow. 2000. "Environmental Inequality Formation: Toward a Theory of Environmental Injustice." *American Behavioral Scientist* 43(4): 581–601.

[119]David Naguib Pellow. "Political Prisoners and Environmental Justice." *Capitalism, Nature, Socialism* 29 (2018): 1–20.

[120]Richard Dvorak. "Cracking the Code: De-Coding Color-blind Slurs during the Congressional Cocaine Debates." *Michigan Journal of Race & Law* 5 (1999): 611–663.

[121]James Jr. Forman. "Exporting Harshness: How the War on Crime Helped Make the War on Terror Possible." *NYU Review of Law and Society Change* 33 (2009): 331–374.

[122]Erin Steuter and Deborah Wills. *At War with Metaphore: Media, Propaganda, and Racism in the War on Terror.* (Lexington Books, 2008).

[123]Bonds. (2016), *Op. cit.*

[124]Golash-Boza. (2009), *Op. cit.*: 304.

[125]Neta C. Crawford. 2019. *Pentagon Fuel Use, Climate Change, and the Costs of War.* <https://watson.brown.edu/costsofwar/files/cow/imce/papers/2019/Pentagon%20Fuel%20Use%2C%20Climate%20Change%20and%20the%20Costs%20of%20War%20Final.pdf> (Last accessed on June 6, 2021).

racialized spaces, contribute to the criminalization of Black and brown bodies and communities, engender insecurity, and transfer risks to the Global South and EJ communities in the United States. Our key theoretical intervention links risk-transfer militarism across spatial scales from military base sacrifice zones to increased militarization of domestic police forces and border patrols thereby treating bodies of color as expendable in cumulative ways.

We believe that this theoretical exposition and expansion of the role of the military in producing spaces of racial environmental inequality is consistent with recent scholarship on and calls within the BLM movement. Moreover, it advances continued inquiry into the role of the state in the critical study of race and the environment. We invite future research into important related topics of intersectionality theory such as the military's involvement with extractive industries and gendered, racialized, and colonized violence.

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