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LANDSCAPE, HISTORY, AND THE POLITICS OF PLACE IN THE HUDSON VALLEY

A dissertation submitted in partial satisfaction
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

ANTHROPOLOGY
with an emphasis in FEMINIST STUDIES

by

Daniel Schniedewind

JUNE 2022

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Table of Contents:

List of Figures: iv

Abstract: v

Acknowledgements: vii

Introduction: 10

Chapter One: Factorij *Farms*: 39

Chapter Two: *Ecologies of Belonging*: 51

Chapter Three: *Biological Invasion and U.S. Settler Colonialism: Patterns of Disturbance and Circulation*: 84

Chapter Four: *Simplification and Regeneration*: 124

Chapter Five: *Practices of Remembering*: 152

Chapter Six: *"Stop Invasives, Go Native"*: 167

Chapter Seven: *Social Paths*: 200

Chapter Eight: *Freedom Rangers™*: 213

Chapter Nine: *In the Shadow of the Tower*: 240

Bibliography: 256

List of Figures:

Figure 1: Catskills sign. Photo by the author. Page: 78

Figure 2: "Open Space at Work" sign. Photo by the author. Page: 80

Figure 3: Forest scene. Photo by the author. Page: 100

Figure 4: 1843 Emmons illustration. Vispo and Knab-Vispo 2009. Page 130

Figure 5: Ulster County seal. Wikimedia Commons. Page: 156

Figure 6: Ash canopy. Photo by the author. Page: 172

Figure 7: Cornell Poultry Brochure. Cornell University Library. Page: 223

Figure 8: Pig footprints. Photo by the author. Page: 249

Abstract:

Landscape, History, and the Politics of Place in the Hudson Valley

Daniel Schniedewind

This dissertation explores the entwinement of landscape transformation and racial formation in the Hudson Valley since the beginning of the colonial period. Through the term "complicit ecologies," I insist that the nonhuman world and the material landscape were not merely "stages" upon which human historical and political processes took place. Rather, I draw attention to how the creation of a White-dominated society in the Hudson Valley, through the inter-relation of settler colonialism and racial slavery, occurred to a great extent as a result of the activity and reorganization of nonhumans and the material landscape.

Through an integration of ethnographic, archival, and natural history methods, I examine how the human-nonhuman interface remains a vital site of racialized place-making in the present. Ethnographically, I explored how primarily White small-scale animal farmers and conservation professionals engage these patterns of landscape change as they seek to achieve a more sustainable future. The animal farmers and their land conservation NGO supporters were guided by powerful visions of past agrarian landscapes, leading them to look past the fraught social and ecological legacies embedded in the pastoral scenes they yearn to renew. In my adjacent field site, I worked

alongside conservation professionals whose efforts to confront the challenge of biological invasion brought them up against the accumulated fallout of centuries of species introductions motivated by colonial goals of biological enrichment and replacement. In both cases, the ways in which my interlocutors conceptualized the past shaped not only how they went about pursuing their objectives but also the extent to which their work interrupted or sustained the broader social and ecological processes, bound up with colonialism and the fortification of White control, that deliver the precarious present. In approaching the pursuit of landscapes forms that have historically been most amenable to White settlement as a form of violence, I draw from the analysis and experience of Black and Native residents of the Hudson Valley who have long charted alternative landscape trajectories that depart from the regional mainstream.

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Hudson Valley-based ethnographic researchers including Sara Black, Kenji Tierney, Ben Junge, and Yuka Suzuki.

The Ramapough Lunaape Nation maintains an active presence in the Munsee homelands of the southern and middle "Hudson Valley." The accounts of the regional past and present that Turtle Clan Chief Vincent Mann and other Ramapough community members shared on various occasions over the years ramified deeply upon this project.

I am also grateful to my many interlocutors in my primary field sites, most of whom remain anonymous, for sharing their time and knowledge and, in this way, making themselves vulnerable to me. Their generosity leaves me with obligations that I am committed to honoring. I also remain in deep and specific obligation to my many nonhuman interlocutors, such that they were, few of whom survived this research program.

The training I received in Wangunk territory at Wesleyan University prepared me to undertake this project and, in particular, I wish to identify Kēhaulani Kauanui, Demetrius Eudell, Gillian Goslinga, Anu Sharma, Gina Ulysse, Daniella Gandolfo, and Lori Gruen for their enduring impacts on my life and scholarship.

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Introduction

"Put a bit in the mouth of the heathen." These were the ominous words of Willem Kieft, the bellicose governor ["director"] of New Netherland, in February 1643, as he explained the objective for a series of massacres and raids against Native communities that became known as Kieft's War (Dutch Colonial Council Minutes, 1643). Kieft articulated his ambition from the southern edge of the island of Manaháhtaan [Munsee], what he knew as Nieu Amsterdam, the governing seat of a Dutch New World colony with its roots in the extractive trade in beaver pelts but that was increasingly a site of permanent European settlement. The intensity of violence seething through Kieft's statement reflected the horror of what had already happened and what was still to come. I invoke the vicious command not to recount the specific details of the campaign that would ultimately serve to unite Native communities and send Kieft to a watery demise, although these feats came at a terrible toll. Rather, I want to call attention to the specific image deployed to convey the imperative of settler control. In casting the Native peoples living in the vicinity of Manaháhtaan as akin to unruly horses in need of subordination, Kieft discloses the complicated relations that bonded multiple forms of violence at the heart of the colonial project.

Complicit Ecologies

This dissertation emerges from what is an increasingly common point of departure: that the ongoing historical processes responsible for the greatest loss of nonhuman life in 65 million years are also, to a great extent, those accountable for the mass violence directed toward certain humans, unprecedented in its scale and impact, that characterizes the period that has been called modernity (e.g. Vergès 2017). Scarred landscapes, cascading extinctions, and the widest possible variation of wrecked lives are the dividends of the past five centuries, an epoch marked indelibly by the rampage of the "Age of Exploration" and the terror of the Middle Passage. Economies of extraction, cataclysmic for humans and nonhumans alike, took their recognizable form in the crucible of European colonial projection, as chains of torqued biographies connected the plantation to the factory, the theft of land to the pilfering of a livable climate.

And yet, even though the manifold violences directed against specific humans and nonhumans are related, they were never generic. Unique though interwoven patterns of subjectification and subjection emerged as a result of the involvement, forced or voluntary, of particular humans, nonhumans, and places. What follows is, by necessity, a partial account of this global story as told from a small place. My focus on what is in English called the Hudson Valley is not motivated by the exceptionality that many of its more laudatory chroniclers attribute to it. Rather, its particularities were always only the result of contingent interfaces with what was underway elsewhere. Nonetheless, careful

attention to minor corners of the world can demonstrate much about historical and political intensities that extend far beyond them.

I borrow the term "complicit ecologies" from the anthropologist Jon Nyquist and with it gesture toward the pivotal role of "nonhuman" actors and worlds in social and political formations in which humans are generally taken to be the only significant players (I address the complexity of the term "nonhuman" below).[i] While this is hardly an original observation, the term provides a succinct means of acknowledging not only that all political and social initiatives bare upon and involve nonhumans but, further, that politics are enacted *through* more-than-human worlds in a nonmetaphorical sense at the very level of material organization. Colonialism in the Hudson Valley has, every step of the way, been a more-than-human endeavor. The recomposition of the material landscape—including plants, animals, and soils—occurred in inescapably mutualistic relation with the processes of racialization that authorized White control, just as campaigns of Native displacement are inextricable from the construction of a society premised on racial slavery. In other words, by invoking "complicity" I am insisting that the more-than-human, the "ecological," is not just a background or a stage upon which human political dramas occur. Rather, complicity refers to the active role of a co-conspirator, coordination with whom is essential regardless of questions of "intention." In making this argument, I am guided by Neel Ahuja's insight that:

> "a critique of the interspecies zone of the political—which at its broadest would expand beyond the human-animal and human-microbial relations discussed in this book [Ahuja's 2016 *Bioinsecurities*] to include the diversity of living species, matter, energies, and environmental systems that produce everyday life out of biosocial crossings—helps us understand the persistence of empire in a postcolonial age precisely because it conjoins power to forces that retreat into the seemingly natural and ahistorical domains of body and matter (x)."

Far from a distraction from "real" politics, in this vein, I argue that settler colonialism and racial slavery in the Hudson Valley were not only born in fundamental relation to the transformation and fabrication of specific more-than-human worlds (or complicit ecologies) but, following Ahuja, that the persistence of these generative violences is in part due to their enduring enmeshment in the very materiality of the place. While this text will primarily focus on the complicit ecologies essential to successive Dutch, British, and U.S. reigns of terror, I also wish to trouble normative notions of criminality that for some might spur a negative impression of "complicity." Ultimately, the term "complicit ecologies" is simply a means to emphasize the centrality of relations—all kinds of relations—as constitutive of social and therefore political life. "Ecology" is already an inherently relational term and yet the addition of "complicit," despite its functional redundancy, is necessary to overcome the power of the bifurcation that seeks to separate the social from the ecological and politics from the more-than-human. I use political here in the broadest sense of the word, absolutely including the most seemingly banal practices of social reproduction, as these critical activities always work toward some futures and

not others. Although not the primary focus of the dissertation, the century-spanning, often illegal efforts to protect and provision Black and Native life in the Hudson Valley have themselves been undertaken through more-than-human practices (or, in other words, through the nourishing of specific complicit ecologies). In this sense, I argue that all politics are always more-than-human politics and, as others have contended and as I will discuss later, that the very demarcation of the human and the social are themselves primary sites of political activity. Through this methodological and analytic approach, this text will attempt to put the human/nonhuman (and social/ecological) partition, a material and conceptual artifice of foundational significance to North American colonialism, under stress.

My two principal ethnographic research nodes, animal agriculture and invasive species management, share interwoven histories and a status as more-than-human interfaces unusually saturated with the politics of colonialism and racial formation. With these field sites as the text's centers of gravity, I will argue that in the Hudson Valley, White settler land practices and their normalization has been a critical means through which racialization and colonization have occurred and been naturalized. In this region as elsewhere, settler communities are, contrary to their (our) own neuroses, not unconnected to North American more-than-human landscapes. Quite the opposite, colonialism took hold in the Hudson Valley through the creation of particular landscapes with which settlers formed largely exclusionary relations. The importation of many nonnative

species—including farm animals and numerous organisms that would later be deemed "invasive"—were deliberate attempts, within the context of European takeover, to replace the more-than-human webs of relation that have been nurtured by and in turn sustained Native communities. As William Cronon wrote in 1983, "the pig was not merely a pig but a creature bound among other things to the fence, the dandelion, and a very special definition of property (14)." Cronon's choice of "bound" in this formulation aptly addresses the non-severability of the components of this relation while also hinting at the violence and coercion that has often characterized it. The co-constitution of racial slavery and settler colonialism remade the Hudson Valley landscape both materially and discursively, generating a landscape tradition that was as much about mundane practices of subsistence as about affect and aesthetics, as much about particular farming techniques as it was about experiences of belonging and the scenic. Powerful, centuries-old currents continue to flow through the landscape and, though more apparent to some than to others, stabilize a social order that has come at a tremendous social and ecological cost.[ii]

Going Upstate

The Mohicanituk (Mohican: "the river that flows both ways", what in English is called the Hudson River) is partially a tidal estuary—with brackish water sometimes extending 80 miles north of its mouth—and also partly a fjord—as its southern portion is flanked by cliffs and forested mountains

stretching north from New York City. The transitional ecological conditions of this "arm of the sea" make for a biodiversity hotspot, providing habitat for a wide range of fish, amphibians, reptiles, and aquatic mammals, among many other species. My research occurred on both sides of the Mohicanituk in the middle portion of the Hudson Valley, New York, in particular in what is now called Ulster County. This is a heterogeneous area of small, increasingly gentrified post-industrial river cities, the suburban towns that grew during 20th century periods of White flight, and large swathes of forests and farms. Because of the river, strong networks of exchange have existed between those living at its mouth of estuary—the present-day site of New York City—and those further north along its banks since long before the arrival of Europeans. As will be discussed in Chapter One ("*Factorij* Farms"), the Hudson Valley's emergence as an agricultural region during the colonial period occurred to a great extent because of this proximity to Nieu Amsterdam/New York City, a major regional center of imperial commerce and site of consumption. To this day, the river remains a thoroughfare for international shipping while trains and highways now also run north and south along it, maintaining the long-standing regional connection.

Especially since the 19th century, the Hudson Valley landscape has beckoned metropolitan aesthetes, vacationers, and recreationists northward. Rapidly increasing in the past generation has been the long-established penchant of New York City-residents to purchase real estate there for first and

second homes and for speculation. The arrival of increasing numbers of new residents with access to New York City-based wealth in an area that otherwise hosts the kind of economic frustrations common to small post-industrial cities and rural areas across the U.S. is reflected in demographic trends. During the time of my fieldwork, the overall population of Ulster County—about 100 miles north of New York City on the west side of the Mohicanituk and largely rural—slowly declined while the average income slowly increased, as locally raised young people left the area in search of better prospects and were replaced by older newcomers who were often already financially well-to-do. While some longer-term Ulster County residents bemoan the "Westchesterization" of the area—referring to Westchester County, the affluent though highly stratified bedroom community of New York City—and luxury cars become more common on rural roads, over 40% of Ulster County households earn less than the basic cost of living (United Way 2018).

Those moving to the area from places like New York City also tend to be more politically liberal, making Ulster County, long Republican controlled, one of few rural New York counties won by Westchester County-resident Hillary Clinton in the 2016 U.S. presidential election. The gentrification of rural areas by those with access to New York City or other externally based wealth has not only shifted local politics leftward but also resulted in platforms of "sustainability" and "social justice" often being associated with wealthier newcomers. This dynamic is visible in the realm of land conservation in rural areas. "Open space"

in the Hudson Valley, including active and former agricultural land, is increasingly held under tax-free conservation status by both the state and NGOs, a trend that can pit longer standing, low-income residents concerned about elevating property taxes and home affordability against wealthier newcomers or second-home owners from New York City who came because of the scenic rural landscape and now seek to preserve it (although, to be sure, not all long-term residents are opposed to all conservation efforts). The conservation nonprofits that purchase land and conservation easements are themselves also sometimes based in New York City and are always, to varying extents, dependent on New York City-based wealth. The result is that, somewhat ironically, the oft-celebrated charm of Hudson Valley farms and forests that draw metropolitan area residents north in the first place is in many ways a lure publicized and preserved by other New York City-based actors.

For others from the New York metropolitan area however, "going upstate" has an entirely different connotation, as it is disproportionately Black and brown people from "downstate" (New York City and its vicinity) who populate the prison archipelago that dots the New York countryside. The New York state prison system swelled rapidly in the last quarter of the 20th century with bipartisan support (from 12,500 state prisoners at the time of the Attica uprising in 1971 to 72,638 by 2000), promoted as an economic stimulus measure for areas beset by the loss of industrial and manufacturing jobs (Thompson 2017, 565). Often a full day of driving from prisoners' friends and

loved ones, upstate prisons are notorious for their racism and hostility to downstate prisoners. As of 2016, there were 18 "correctional institutions" of various kinds (from maximum security prisons to youth jails) within a one-hour drive from my primary field site in Ulster County, NY (Benjamin 2016, 496). And yet, the thousands held are at once invisibilized by the fortresses' walls while also, until recently, affording rural communities the political advantages of being counted as "local residents" for census purposes despite their severely circumscribed opportunities for political activity (including often being unable to vote).[iii]

While the politics of race and indigeneity in the Hudson Valley are a major focus of the rest of this dissertation, for now it suffices to say that myths of regional Native extinction prevail in the region in a manner consistent with much of the U.S. Northeast, as described by Jean O'Brien (2010) and Amy den Ouden (2005), among others, despite place names like Poughkeepsie and Mohonk everyday surreptitiously reminding residents that they live in the territories of Algonquian language family speakers. The U.S. federal government does not recognize any Native nations to be residing in the Hudson Valley, although there are variously state and federally recognized communities nearby on Long Island, in northern New Jersey, in western Connecticut, and in Haudenosaunee territories to the north and west.

Nonetheless, there are many Native people living in the Hudson Valley, including those whose ancestral connection to the area contradicts the widely

held and printed assertion that local Native people left the region entirely by the 19th century. Four "cacophonous" (Byrd 2011, xiii) centuries of regional settler colonialism during which various Native communities were brought together and driven apart has created a complicated scene in which residents, historians, and archaeologists—some of whom are Native, most of whom are not—have deployed an array of different names and categories for the region's historical Native communities. Taking my lead from local Native scholars and researchers, a basic sketch shows that those who lived (and some of whose descendants continue to live) near the middle and southern portion of the Mohicanituk were Munsee speakers, transitioning to Mohican speakers further upriver. Both Munsee and Mohican are part of the so-called Eastern Algonquian language group and this linguistic connection helped to sustain enduring affiliations between communities up and down the river and among Algonquian language group neighbors to the east, west, and south.[iv] Individual communities were sometimes affiliated with particular Hudson River tributaries and maintained a decentralized political form grounded in complex relations of kinship that linked vast areas and accommodated a high degree of political and logistical versatility. While European colonists sometimes made provisional generalizations about the "River Indians," in the early colonial period, the Dutch and English never addressed the Native peoples who lived along Mohicanituk as a monolithic bloc but rather as discrete communities affiliated with particular prominent individuals, particular places, and in specific relation with other communities

(Romney 2017, 126). Prominent 18th century Wappinger leader Daniel Nimham's multipart self-introduction as "a River Indian of the Tribe of the Wappingoes" who are of "one Nation" with the Mohicans demonstrates how legibility among colonial audiences required an intricate coordination of kin networks and circulating terms of address (New York Historical Society 1762).

The Native residents in the core of my research area historically spoke Munsee and are now often identified as Esopus Munsee although this was almost certainly not a pre-colonial term of self-description. Various dialects of Munsee were and to a lesser degree still are spoken in parts of what is today called New Jersey, Pennsylvania, Delaware, Long Island, and the New York City area. In the present, there are strong connections between Munsee-descended residents of the Hudson Valley and the Ramapough Lenape Nation on the border of New York and New Jersey as well as, to a varying extent, with diasporic Munsee communities in southern Ontario (these communities include the descendants of Munsee people forced from the Hudson Valley).[v] The Ramapough Lenape Nation (sometime Lunaape), state-recognized in New Jersey but not in New York, is the closest Munsee community with any degree of local visibility among non-Native residents. As I will discuss in subsequent chapters, Native peoples in the contemporary Hudson Valley, while often strategically opting to keep a low profile, everyday defy an obituary that has been written for them again and again since the 17th century.

While also facing related attempts at erasure, Black residents in the Hudson Valley oscillate violently between absence and hypervisibility. On one hand, despite having resided in rural parts of the Hudson Valley as long as White people, Black residents are still often regarded as, at best, an anomalous novelty in these areas. This perception obscures the historical scale and depth of Black presence and impact and normalizes their (relative) contemporary absence. As I discuss in Chapter Two ("Ecologies of Belonging"), Black presence in the countryside declined markedly following the gradual abolition of slavery in the early-19th century, rebounding slightly in the 20th century as a result of the Great Migration and the arrival of Jamaican agricultural workers during and following World War Two. Since the time of slavery, the small Hudson Valley river cities—Kingston, Poughkeepsie, Newburgh, among others—have been important Black hubs, where populations endured despite tremendous odds. These long-standing Black communities played a central role in maintaining the vibrancy of the cities during the 20th century ordeals of White flight, divestment, and "urban renewal" and now face new pressures of displacement as a result of gentrification fueled by the arrival of wealthier (and Whiter) newcomers from New York City.

In this dissertation, however, my focus remains on the Hudson Valley countryside, where, despite the longevity of their presence, Black communities remain relatively small. Here, relative "novelty" in combination with deeply seated White American obsession with and fear of Blackness renders Black residents hypervisible, incapable of becoming "naturalized" to the place in the

manner that White populations understand themselves to have been. As Katherine McKittrick has emphasized and as will be explored later in the text, the attempt to impose Black placelessness was a pivotal goal of racial slavery in North America (2006, 9). Being perennially and conspicuously "out of place" in the Hudson Valley countryside has meant being the constant target of suspicion, surveillance, and hostility. This is how, to use but one of countless examples encountered during my fieldwork, a nine-year-old Black child walking down a street in a rural area could trigger the arrival of police following White residents' concerns about a "disturbance." And yet, for centuries, Black people have also moved between Hudson Valley spaces and New York City, creating their own powerful circuits that link the metropole and the hinterland. Nonetheless, that the Hudson Valley has such a minimal Black population despite its proximity to New York City, a global center of the Black diaspora and the largest Black population center in the U.S. speaks to the history of rural White animosity and pervasive exclusion that I will discuss throughout this text.[vi]

The noticeable absence of attention to Latinx and Asian presence in the Hudson Valley is a consequence of this project's focus on the foundational triad of U.S. racialization in relation to specific more-than-human practices that I track throughout the colonial period. Nonetheless, this delineation is not meant to suggest that Asian and Latinx racial formations are irrelevant to the ethnographic scenes I describe. Latinx and Asian people are, as many scholars have emphasized, enmeshed in specific ways within formations of antiblackness

and U.S. settler colonialism (e.g. Fujikane and Okamura 2008; Saranillio 2013) while at the same time are targeted by racism and xenophobia. Today, twenty percent of Hudson Valley residents were born in another country—significantly higher than the national average—and thirty percent of children under 18 are the first generation in their family born in the U.S. (Wang 2020). As is true in many rural and Rust Belt communities, the greatest driver of each of these emergent percentages is the growth of the Latinx communities. These demographic changes will no doubt alter the state of affairs I describe although, as others have argued with regard to other U.S. places (e.g. Sexton 2008; Shange 2019), they hardly assure remedy to the currents of violence that I track.

Some readers may also be concerned that in focusing primarily on race and indigeneity, economic hierarchies fall out of the frame. This was certainly not my intention and I do not take the text to foreclose readings that foreground a class-oriented analysis, even if such an approach may be more fruitful in certain of the ethnographic passages than in others. As is the case with all ethnography, the attempt to temporarily freeze the whirring disorder of the ethnographic scene through writing and description only succeeds in creating a thin sheet of ice that readily cracks under the application of pressure. Rather than take this fragility as a problem to be corrected through supplementary empirical buttressing, I hope readers will rearrange the resultant collection of shards—pointy, incomplete, dangerous, beautiful—into new patterns, identifying other points of interface that I did not consider. In the end, the shards

are the story: this is a nonauthoritative and provisional account crafted with the recognition that description and analysis alone be enough to alter historical trajectories.

Notes on a White Sense of Place

To the extent that this is a study of "the Hudson Valley", it is a story of the world Kieft worked to create and not those he sought to end. The everyday use of colonial names and modes of spatialization are acts through which accounts of the place that have become ascendent and normalized through the use of force are nonchalantly reinscribed. Referring to a place by a certain name is a form of citational practice, an affirming relational gesture toward some earlier speakers and not those who knew it otherwise. Even Kieft did not know the place as the Hudson Valley. When the Dutch sought to solidify their claim to what they called New Netherland in 1624, they did so by building a fort at the mouth of the Mohicanituk or what they called the Noort Rivier (North River) as a companion to the trading post (or *factorij*) they already maintained 135 miles upriver. These twinned settlements, which would become New York City and Albany after British seizure in 1664, made for a riverine interval that would come to be known as the Hudson Valley.

My reliance on colonial names and spatial descriptions—starting with "the Hudson Valley"—reflects this text's conditions of possibility and status as a colonial document. To begin, as this study does, with the arrival of the Dutch,

drawn by the profits that stood to be made from the lives of beavers, is to inexcusably ignore the immense heterogeneity and depth of Native inhabitation that provides a remarkable (albeit not utopian) standard against which the ruination and trauma of colonial period should be judged. Pre-colonial Native presence in the region was never a prelude to be confined to a small text box in the corner of the sign at the local history kiosk. As Nick Estes has argued, Native histories, old and recent, must figure prominently in guiding visions of the future (2019). In this vein, I try to advance an account that foregrounds the reasons why prevailing colonial geographical delineations and attendant assertions of sovereignty remain contested and nonconsensual for many Native peoples who ostensibly live within them. While not the focus of this study, I am powerfully informed by the recognition that other place names remain in circulation and ground divergent histories and bases for belonging. Further, I hope that the use of colonial place names—like Ulster County or New York—throughout this text will be accompanied by heightened awareness of their historical contingency and impermanence. My aim is for non-Native and in particular White readers to experience a sense of disorientation, of the instability of that which is generally taken for granted. On one hand inspired by Kamala Visweswaren's theorization of "homework" as a feminist ethnographic practice (1994), in this case I also hope to scrutinize the historical and political circumstances that enable non-Native residents like myself to make claims of "home" in the first place.

There are significant perils for research in White, middle-class, U.S. worlds, especially when the researcher too fits these descriptions. Principal among them is the risk that the research will unavoidably become a sort of insular, fetishizing sedentism, a narrow preoccupation with something that, in the end, is more infernal than interesting. Telling another version of the same traumatic story necessarily means not telling other stories, stories that more ears may urgently need to hear. I have no reason to think this study avoids these perils. While no justification may prove adequate, in designing this project I nonetheless felt compelled to "stay with the trouble" in the spirit of Donna Haraway (2016), to doggedly track the fabrication and renewal of U.S. Whiteness as a social order. In particular, in a moment of mass extinction and climate crisis, the persistence of a situation in which major generators of global ruin—White, economically comfortable people in places like the Hudson Valley—often wind up generating the prevailing, overwhelmingly ineffective responses to it seemed to me to be a situation worthy of ethnographic attention. This is why, despite misgivings, I opted to do fieldwork within predominantly White spaces, to investigate how and why predominant responses to treacherous ecological crises are, in an increasingly dire moment, critically hamstrung by their envelopment in settler colonial and White supremacist lineages, while always keeping in mind that this research project is internal to the very historical formations I attempted to probe. Given that the anthropologist's primary research instrument is the body, I tried to put the access and trust afforded by

mine to use an attempt to, in Mark Rifkin's words, "map the contours of unmarked, normalized settler geographies of the everyday (2014, 7)", the practices, affects, and perceptions of the past that secure a dying White world. Great effort is currently expended to keep down the surging of other socialities and landscapes that are all the while poised to flourish and proliferate. My hope is that renewed attention to some of the more nondescript operations of settler colonialism and antiblackness will encourage the revisitation of exercises of control that today largely go unremarked upon.

The palpable force of the past within my ethnographic venues, whether overtly acknowledged or not, required a central engagement with regional historical materials, a research imperative articulated by Saba Mahmood when she expressed feeling "compelled to dig beyond the ethnographic encounter to grasp fragments of the past congealed in the present, their temporal weight pressing into it (2016, 23)." Although I use ethnography as the basis for engaging a contemporary state of affairs, my analytic targets are the churning historical currents that deliver the present, not the individuals through whom these currents flow and are articulated. I float with my interlocutors on these inter-generational streams and, regardless of the extent to which our intentions may have varied, soak in the same waters.[vii] In this vein, I hope that this study will assist in the dislocation of associations of Whiteness with phenotype alone and instead depict it as a contingent apparatus of social control embedded in more-than-human webs of relation, one that needs to be constantly repaired and

energized. Moved by the many admirable qualities of my interlocutors and their gracious willingness to have me work and study alongside them, this text is meant to be anything but an exposé, a repudiation, or a self-serving "settler move to innocence (Tuck and Yang 2012)." Quite the opposite, as, following Isabelle Stengers (2012), to do so would be to become seduced by the fallacy of purification, redemption, and the lure of the quick fix . Rather, I only try to stay with the trouble, to provide a partial account of historical processes of White self-realization in one small place. Given the profound sense in which I was already "at home" amongst my interlocutors, the entire dissertation is a sort of ethnographic "arrival story," albeit one that spans four centuries.

Nonetheless, a text focusing on the experiences of Black, Native, or other non-White people might more effectively interrupt the hegemonic Whiteness of the Hudson Valley and undermine presumptions of Native extinction and Blackness as out-of-place. Such a text might emphasize how Black and Native communities have enacted (as they continue to enact) other landscapes through emergent configurations of collective life that embody detours from the route that has led over the precipice, despite their constant subjection to a banal catalogue of genocidal practices. I remain critically aware of the great risk of reinscribing forms of erasure through which colonial violence and the afterlife of racial slavery are normalized, even as my project emerged in formative relation to already existing accounts of these divergent assemblies of experience (e.g. Armstead 2003; Pritchard 2007; Williams-Myers 1994).[viii] For the purposes of

this project, I read my ethnographic experiences with White residents through Black and Native analyses originating from both the Hudson Valley and beyond in an attempt to pry open space for critical reflection. This was accomplished in part through interviews and exchange with Black and Native residents and researchers and was supplemented through attending public presentations, performances, and other events at which these and other residents shared their studies, analyses, and experiences of the place. These accounts particularize rather than center Whiteness and White people in such a way as to weaken our hold on the place, revisiting mainstream accounts from other angles and lingering along the (Black) shoals that stubbornly slow down the prevailing flow of the current (King 2019).

And yet, even if Black and Native people are not often "in focus" within this study, they are certainly never out of the frame. As Toni Morrison famously argued in *Playing in the Dark* (1992), seemingly "White" literary and social spaces are replete with the register of Black (and Native people). This acuity is essentially pertinent in a project like this one that is largely concerned with what White people do not say, whether through strategic self-censorship or because of how some topics or accounts reliably fail to register in White milieus. It was these predictable patterns of what did not come up—and what I often felt I could not risk bringing up lest I end a relationship—that led me in to pay increasing attention to how my interlocutors described affective experiences, accounts that in time helped to explain the freighted gaps in conversations.

That the region played host to the particular, linked horrors of racial slavery and settler colonialism as they occur(ed) together in what became the U.S. requires analytic care in attending to these formations in their specificity. While this results in a confined, U.S.-centric scope too typical of U.S.-focused scholars, my intention is not to suggest that adequate modes of addressing planetary crises could ever come from spotlighting the U.S., "North America," or the Atlantic world alone. Nonetheless, it is no coincidence that the world's only state that was so pivotally formed through the twinned ignominies of racial slavery and settler colonial genocide would in due time become the leading source of levels of global ecological danger unprecedented in human history.[ix] For what it's worth, the Hudson Valley was singled out by the National Park Service in 1996 as "the landscape that defined America" because of its specific history as a gestational site of U.S. nation building and the U.S. nature tradition (Hudson River Valley Greenway Communities Council 2002). Conservationists, politicians, and historians in the region often take pride in claiming the Hudson Valley as the fount of U.S. and even global environmentalism. It is this lore that helped the region stand out as a fitting site to research both White American engagements with and enactments of the more-than-human world as well as why the prevailing U.S. nature tradition has largely failed to stem the tide of habitat loss, mass extinction, and other forms of not-only-human peril (Ceballos et al. 2017). In this sense, this research was conducted in what Savannah Shange calls a "progressive dystopia" (2019), an intentional decision made in order to

mitigate the rush for many in places like the Hudson Valley to always direct concern about racial, ecological, colonial violence elsewhere (such as toward "red states," etc.). Nonetheless, I write with a deep sense of obligation to the place, the people who live there, and out of a desire to insist that other trajectories exist and have existed and that it is not too late to provision different futures.

Landscape and the Nonhuman

This dissertation argues that the ongoing collapse of ecological communities in the territory claimed by the U.S. is the direct result of ongoing U.S. settler colonialism and the antiblackness that persists "in the wake" of racial slavery (Sharpe 2016). How did these great, generative crimes of the modern period—colonialism, racial slavery, environmental ruin—interact historically and coordinate the delivery of the contemporary in this particular place? On offer here is less an attempt at an exhaustive answer to this question and more a study of how prevailing accounts of the past in the Hudson Valley underestimate both the entwinement of these historical phenomena as well as the hold they maintain on the present. Later in this text I address the regional historiographical practices that attempt to confine colonialism and racial slavery to the past, even as their enduring thrust bleeds on through the very materiality of the regional landscape. However, this form of temporal confinement is only one obstacle. Another, perhaps even more crucial, is addressing how the

enmeshment of what are taken to be discreet social and ecological phenomena, histories, and challenges is undermined by available English language terminology and conceptualization. In this vein, before proceeding I will address two compromised terms—landscape and the "nonhuman"—that bear directly on the project at large and speak to its specific conditions of emergence.

First, when using the term to describe my project to others, it became clear many Americans associate the term "landscape" with the vision of scenery, including through artistic representation. This is especially true in the Hudson Valley where the Hudson River School aesthetic movement continues to have an outsized impact on how the region is imagined and engaged. My use of "landscape" is inspired by the geographer Kenneth Olwig's "substantive" notion of landscape (German: *Landshaft)* which he traces to its use in pre-national northern Europe to describe the tangle of relations (social, political, geographic) that imparted experiences of place (1996). I invoke landscape in this richer, multidimensional sense, as places that are lively and lived-in, never just looked at. They are beheld but also hold. They are more-than-human but always also full of humans. In the spirit of complicit ecologies, they are ever-changing sites of politics, mutualisms, and contestations, never singular but always multiple (Mol 2003). The landscape is terrestrial but also aquatic and ambient. Used in this sense, "landscape" helps to undermine the colonial bifurcation of "social" and "ecological" worlds that is only partially addressed by the fusion of neologisms like "socioecological" or "biocultural."

Informed by feminist science studies approaches (e.g. Barad 2003, Haraway 2008), my account of "landscape" refuses the separation of material and discursive phenomena. I will elaborate this relational analysis throughout the text, as it enables fresh attention to both 1) the historical processes and discursive practices that bear upon the configuration of seemingly "apolitical," "purely material" phenomena (such as soils or wild plant communities) and 2) how not-only-human materiality impresses upon the discursive registers often taken to be "purely social" (read: human). In this vein, attending ethnographically to affective experiences invites an appreciation of the entanglement of viscerality, the specific histories that generate aesthetics, the collective aspirations of human communities, and the more-than-human world. When my interlocutors told me that a pastoral landscape looked "right," they were not impressing a floating signifier onto a generic form. Rather, the specific, contingent materiality of the landscape was imperative to the achievement of a declaration that had coherency and traction. A landscape that is "right" is the result of the kind of enabling entanglements of politics and materiality that this dissertation is concerned with. Following the example of environmental anthropologists Andrew Mathews (2018) and Anna Tsing (2015), through field ecology methods the landscape itself became an archive, with particular plant communities and landscape forms indexing different opportunities for specific humans and nonhumans, past and present (see Brooks 2018 for an engagement with "land as archive" grounded in Indigenous studies methodologies). And yet, I

remain aware of how, landscape, like "land" itself, is a colonial concept and my reliance on it, even in this more capacious, textured sense still displaces Native accounts of the area and the webs of relation that sustain it, to say nothing of the ontological apparatuses in which the pronoun "it" would be a thoroughly inadequate term of reference.

Further, throughout the text I will draw on analyses of race and racialization as themselves material-discursive formations. As I revisit in Chapter 7 ("Social Paths"), Christina Sharpe (2016) and Katherine McKittrick (2006) have each argued that specific material infrastructures—including the hold on the slave ship (Sharpe) and the auction block (McKittrick)—were essential to the enactment of Blackness in the context of racial slavery and the Middle Passage. In these cases, the enslaved were rendered Black ("blackened" [Jackson 2020]) by their specific position in relation to the hold and the block, their unique eligibility for a terrible fate imparted through the material-discursive intra-action of the scene. Correlatively, the hold and the block only became the powerful entities they are now recognized to be through this iterative encounter with people excluded from the category of the social. Such an account, in which racial formation is understood to be a material-discursive process, drives this text. Consequently, however, it also allows for how White supremacy, among other colonial social forms, might be undone or arrested through pursuing and populating other landscapes.

If “landscape” might provisionally serve as a sufficiently capacious term to acknowledge human immersion in more-than-human relations, “nonhuman” largely performs a competing function. Who or what is the “nonhuman?” The reliance on this term despite its clear inadequacy reveals the costly limits of the colonial conceptual apparatus within which I work and within which many others struggle to stay alive. On one hand, “nonhuman” undermines the attempt to move attention away from humans by unforgivably defining the incredible diversity of other-than-human entities as merely orbiting around a humanist standard (reminiscent of the term non-White). Terms like “more-than-human” or “other-than-human” face the same shortcoming. While there are instances when using any of these variations on “nonhuman” serve as a generic gesture to the forms of animacy that constitute the great majority of those around (and inside) us, each use nonetheless drives deeper a fictional wedge between humans and the assemblages of agential entities within which we remain in utterly crucial, mutually constitutive relation. In the absence of English terms understood to refer to a wider range of actors that also includes humans, English speakers are obligated for now to address humans and nonhumans separately, if conjoined (as “humans and nonhumans,” etc.). The human/nonhuman bifurcation and its affiliates, such as social/ecological and culture/nature, have always been crystallizations of an incomplete and never only conceptual yearning toward of separation and hierarchy. Today, as the devastating consequences of human exceptionalism are less easily ignored, its origins and

political impact are drawing ever more scrutiny even from those most insulated from its corrosive power.[x]

Across North America, these ontological bifurcations are, crucially, colonial enactments that have ascended and been normalized through the violent suppression of divergent forms of worlding. As Kim TallBear (UWinnipeg 2018) has argued, Native forms of relationality with "humans" and "nonhumans"—in their endless diversity across the continent—have been a primary target of colonial forces seeking to bring practices of sociality and kin-making into conformity with a Christian model. On one hand, this involved the promotion of normative forms of the patriarchal nuclear family and accordant European regimes of private property. Fundamentally interwoven with this however was the attempt to compel Native peoples to abandon practices of world- and kin-making with which "nonhuman" as a discreet, generic, and debased category, Christian delineations of the animate and inanimate, as well as the entire onto-epistemological centering of a normative human subject, were incompatible. Human exceptionalism as a colonial formation sought the practical and ontological transformation of nonhuman kin into property, including through the colonial category of the "animal" as a homogenous category of deselection defined through its vulnerability to violence (Belcourt 2014).

Kieft's command from the beginning of this chapter ["Put a bit in the mouth of the heathen"] poignantly demonstrates how this European ontology is not only an artifact of colonization but a means of enacting it, as Indigenous

difference ("heathens") became interwoven with nonhuman difference within a hierarchical political field devoted to securing settler control. As I will explore later in the dissertation, "human exceptionalism" in this colonial context is always White human exceptionalism, operationalized as a means of perpetuating colonial and racialized violence.[xi] Following Zakkiyah Iman Jackson (2020), I am not arguing that racialization followed speciation sequentially, that is that Native, Black, or other non-White people were slotted into a pre-existing category of "the animal" in order to legitimate the domination of colonialism and racial slavery. Rather, speciation (or the articulation of species difference in relation to an exceptional human figure) and racialization (always in relation to a selected White category) emerged (and still today emerge) together in critical relation in that both have been anchored to a normative White, fully human figure.[xii] As a methodological tack, instead of becoming overly preoccupied with the historical vacillations of the human category (i.e. who has been "in" and who "out" at particular moments), I instead track how the material ramifications of a world made through human exceptionalism and species difference invariably stabilize White supremacy and settler colonialism regardless of whether this is an intentional goal.

Crucially, Jackson and Bénédicte Boisseron (2018) have notably questioned the bid for inclusion within the category of the human, long a stated objective in campaigns against racialized and other forms of violence, given the specific history of the figure and the world it has delivered. By refusing the

human, they correlatively avoid the obligatory renunciation of all that which has historically embodied its constitutive contrast. As Boisseron writes:

> The question is rather how the once chattel slave may be in the best position to challenge this so-called humanity and, in the process, redefine the meaning of existence beyond the human-animal divide. In other words, how can the black diasporic subject in the Americas abide by a different set of identifications, one that would not consist of refuting a putative inhumanity, since such a refutation validates the accepted (racially invested) norm of humanity's signification. Refuting black inhumanity perpetuates the archaic colonial psychology that conditions the black to look at himself (even by way of opposition) through the white's anthropocentric eyes.

Without losing track of the significant divergence between Black and Native racial formations (a key theme in Chapter Two ("Ecologies of Belonging")), these analyses nonetheless resonate with deep currents in anti-colonial Native politics, as exemplified by Koyungkawi poet Linda Noel's statement that "I don't mind being 'close to nature.' But I know what they mean when they say that, and it's not what I mean (in Noel et al. 2014, 159)." These articulations together upend the violence effected by Kieft's deliberate deployment of racialization and speciation, gesturing instead toward divergent figurations of collective life that, in not trying to simply offer a revised version of the universal human category, reject the imperial politics of a "one-world world" (Law 2015).

In what follows, I attend to the unstable interfaces between the human/nonhuman, to say nothing of the very assumption of a

human/nonhuman interface, as crucial, generative sites of racial formation and the perpetuation of the violence of conquest. Studying settler colonialism and racial slavery together as they occurred in the Hudson Valley allows for analysis of a racialized social order as it emerged and transformed from the beginning of the colonial period into the present. Whiteness coalesced to identify not only those whom Native lands were now said to belong but also those situated most advantageously in the Black-White racial hierarchy forcibly introduced in the wake of substantial Native displacement. In a region where landscape is valorized and sustainability is a mainstream priority, the persistence and naturalization of White centrality depends on quotidian practices involving landscape, plants, and animals that are always in relation to the legal and economic forms that generally receive the most attention.

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[i] Jon first proposed the term in the context of a seminar and I use it here with his permission.
[ii] As Mastnak, Elyachar, and Boellstoerff (2014) assert "once we see colonialism as the literal planting and displanting of peoples, animals, and plants—as inscribing a domination into blood and soil founded in the fantasy of molding ecosystems with godlike arrogance—it becomes clear how colonialism ushered in the Anthropocene (367)."
[iii] This "prison gerrymandering" was ended by a change in state law in 2010 despite significant opposition from upstate politicians.
[iv] Algonquian is primarily a term used by linguists to categorize related languages although it is sometimes today also used as a form of self-identification or pan-community affiliation.
[v] Both Delaware and Lenape are names that have historically referred to Munsee peoples and their close relatives.
[vi] To be sure, while I critique the practices of exclusion—the forcible expulsions, the severing of Black and Native connections to place—I do not mean to suggest that "inclusion" in White-dominated society is any sort of panacea or that it has constituted the political horizon of Black and Native mobilizations in the region.
[vii] To borrow the poignant phrasing of Audre Lorde—albeit derived from a distinct instance of claiming commonality across difference—my White interlocutors are very much "other faces of myself (1984, 132)."
[viii] As Angie Morrill, Eve Tuck, and the Super Futures Haunt Qollective asked of Rea Tajiri's 2014 film *Lordville*—which addressed many of these same themes in a locale just west of the Hudson Valley—"how do you grapple with representing vanishing without reproducing the violence of vanishing? (2016, 9)"

[ix] As Paulla Ebron and Anna Tsing have written, "In US-centered scholarship, there is always a tension: on the one hand, U.S. scholars should be pushed to read about other places; on the other, by treating the U.S. as 'just one place among many,' analysts avoid pointing blame where blame is due." Riffing on Jacques Derrida, some have responded to the question "what is the state of the climate crisis?" with "the U.S. is the state of the climate crisis (2017, 661)."

[x] To be sure, acknowledging the uniqueness of humans "as a species" has its purpose however, like American exceptionalism, emphasizing exceptionality is often undertaken within an argument for supremacy and rarely a tacit one.

[xi] And yet, approaching the figure of the human—and the modes of differentiation it necessarily engenders—as a weapon and not as a securely enjoyed status also emphasizes how, even for White people, formations such as disability and gender ensure that normative humanity is a permanently unfulfilled aspiration. While clearly a racialized account of the world, the universal unattainability of the exalted human form underscores how race, disability, and gender, among other axes of putative difference, cannot be engaged in isolation. In this sense it could be said that we are, in specific and profoundly varying ways, always both more than and less than human.

[xii] With this in mind, I am tempted to capitalize "human" (as "Human") to mark the figure's emergence through specific a historical tradition, that of Western humanism, and to undermine its claim as an inclusive, universal, taxonomic category, as others have rightly done for years with the similar term "Man." I will however refrain from this mark of distinction in order to preempt a rush toward alternative, lower case "humans" as a too quick act of resolution. Rather, in this text I will labor to present the work it takes to stabilize the human across both the longue durée and everyday scenes. Nonetheless, I still choose capitalize racial categories such as White and Black to flag them as mutable products of particular political histories and bids for social control, rather than treat them as neutral phenotypic descriptors.

Chapter One: *Factorij* Farms

Inextricable relations bound landscape change, settler colonialism, and racial slavery together in the Hudson Valley and neighboring regions during the 17th and 18th centuries. Animal agriculture was a crucial hub in which these processes converged and generated material-discursive momentum that ran through the centuries to come. Although etymology is often not the most useful source of historical insight, that the "colon-" of "colony" and "colonization" bears a close lexical relation to *colere* (Latin: to till or cultivate) accurately reflects how the "improvement" of land through European agricultural practices was always understood to be essential to the installation of a new social order (Newcomb 2016). In the Hudson Valley as elsewhere, the filling of the landscape with cows and clover was inseparable from nascent racializations of Europeans as ascendant, Africans as fungible, and Native peoples as disappearing.

The World as Pasture

The role of animal agriculture in the European colonization of North America is both well-known and under-emphasized. With a few significant exceptions (e.g., Cronon 1983; Anderson 2004; Brooks 2018), scholars have generally treated the proliferation of animal farming as an incidental result of colonization rather than as a primary means through which it was enacted. Nonetheless, everyday practices of animal agriculture deepened the hold of the colonial society in critical ways. Through its quotidian centrality as a means of

subsistence, animal agriculture emerged from the onset in co-constitutive relation with formations more widely acknowledged as critical forces in the multidimensional transformation that occurred along the Eastern seaboard in the early colonial period including Christianity, racial slavery, and private property holding. Well-aware of the importance of animal farming to the viability of its fledgling colony of New Netherland, the Dutch West India Company not only offered to transport farm animals free of charge but also dispatched three ships—fittingly called Cow (*Koe*), Horse (*Paert*), and Sheep (*Schaep*)—from which bellowed "one hundred and three head of livestock, plus hogs and sheep" in 1625, the year following the initiation of formal settlement (New Amsterdam History Center; Williams 1995, 248).

While European plant agriculture was no less important as means of colonial subsistence, these animals would have a far greater fallout relative to the calories that they would ultimately yield. Indeed, plant agriculture also depended on farm animals, not only to pull heavy plows but also when later generations of European farmers began to deploy manures to boost plant growth (Merchant 1989). And yet, as would be the case in the centuries to follow, from the outset the amount of land devoted to plant agriculture was greatly exceeded by that made available for animal pasture, as European animals ranged widely across forests and upland areas. The massive amount of space required for grazing and for winter hay production—together essentially anywhere that was not too wet or fenced in—made for constant pressure on the

territorial limits of European settlements as their populations grew. As many historians have described, farm animals, whether loose or pastured, functioned as a sort of advanced guard of settler colonialism, often running amok in Native cornfields and gardens—sometimes released there intentionally—and repeatedly destroying irreplaceable harvests (e.g., Williams 1995; Anderson 2004; Den Ouden 2005). As the farm animals' range expanded gradually in the Hudson Valley in the 17th century, seemingly minor settler assumptions of land access and use cumulatively enabled the nonconsensual expansion of colonial settlement, albeit generally without requiring an official declaration of war. Predictably, Native people's retaliation against the wandering herds became a primary and routine cause of almost constant social and political friction.[i] Sporadically boiling over into formal military violence, colonial animal farming practices served as a sort of low-intensity warfare that characterized the formal period of Dutch settlement in the Hudson Valley (1624-1664), as war and "peace" were constantly intermingled with little chronological distinction.

Although animals loose in Native vegetable fields had the most immediately injurious impact that colonial agriculture had vis-à-vis Native peoples in the Hudson Valley, this repeated damage was compounded by the steady conversion of forests and wetlands into pastures, hay sources, and farm fields as White settlement intensified.[ii] A pivotal aspect of this more thorough ecological remaking was the deliberate replacement of the native plant communities tended by Native peoples with European forage plants. As settler

populations grew and the damage resulting from the initial wandering animal free-for-all ricocheted back onto European farmers, colonists began to fence in their herds, motivating the "improvement" of forage through the introduction of European grasses and legumes. Settlers planted clover (*Trifolium sp.)* fairly early in the colonial period, later introducing other pasture plants like Timothy (*Phelum pratense*) and ryegrass (*Lolium perenne*) (Teale 2018, 61). This botanical transformation occurred gradually despite settlers having from the earliest days of settlement expressed their displeasure with both the level of nutrition provided by native plants and their inability to sustain the grazing pressures of European animals (Piwonka 2008; Teale 2018). Indeed, for the most part, the native plants of the Hudson Valley and much of what would become the eastern U.S. had evolved in the absence of bison or other herbivores whose grazing impact broadly resembled that of confined European animals. Even those Hudson Valley native plants that also grow further west where bison do play a major ecological role cannot survive significant grazing at frequent intervals (Vispo and Knab-Vispo 2009). In contrast, European pasture species typically have low growth points and a rhizomatous habit, enabling them to thrive in the presence of grazers. This capacity is one reason why many of the same species of pasture plants routinely appear today in mowed lawns.

However, the selection of European pasture plants through grazing pressure was not the only factor at play in the transformation of regional plant communities. Importantly, the concentrated presence of herbivores also has a

powerful impact on soil chemistry, in particular as animal excrement elevates nitrogen and phosphorus levels in the soil. This effect would by the 19th century be augmented by farmers informed by the nascent field of soil science through the addition of pH buffers that make the nutrients more biologically available (Merchant 1989). The sun-loving native plants in the Hudson Valley that grew (and grow) in wake of cleared upland forests are generally best adapted to slightly acidic, nutrient poor, "thin" soils common to such settings in the area. European pasture plants on the other hand, relish a "sweeter" (or less acidic) soil and respond well to additional nutrition. Actively abetted by colonial farmers' first unwitting and later intentional alteration of soil conditions, European pasture plants quickly began to outcompete native herbaceous plants in grazed areas. As one Hudson Valley ecological research organization put in describing this phenomenon in the present, "the richer the field is from a production perspective then, generally speaking, the poorer it is from a native species conservation perspective" (Farmscape Ecology Program). Present-day iterations of this process are the focus of Chapter Four ("Simplification and Regeneration").

Although the Dutch were initially drawn to the region by the extractive beaver pelt trade, the distinctively settler colonial practices of deposition and recomposition—of soil nutrients, plants, animals, and social practices—were coextensive with the history of New Netherland. The anthropologist Deborah Bird Rose's concept of "double death," developed through her study of settler colonialism in Australia, aptly describes how efforts to displace and eliminate

Native peoples in the first instance were fundamentally conjoined with the destruction and replacement of the webs of more-than-human relation that would support their demographic and political resurgence (2004). It was this dynamic that the Narragansett *sachem* Miantonomo identified in 1642 as he sought to create an alliance to counter English expansion in New England:

> Our fathers had plenty of deer and skins, our plains were full of deer, as also our woods, and of turkies, and our coves full of fish and fowl. But those English have gotten our land, they with scythes cut down the grass, and with axes fell the trees; their cows and horses eat the grass, and their hogs spoil our clam banks, and we shall all be starved (as quoted in Brooks 2008, 60).

When combined with overt settler violence and vulnerability to pandemics amidst the stress and duress of invasion, the cumulative consequences of animal-centric settler agriculture critically weakened the ability of Native peoples in what would become the northeastern U.S. to survive in their homelands. And yet, as Lisa Brooks in particular has emphasized, the message at the heart of Miantonomo's call for collective response to a "world turned upside down" (2008, 61) would continue to reverberate across the Native northeast in centuries that followed, motivating political mobilization in defense of more-than-human worlds. In the face of colonial efforts of social and ecological replacement, Native communities in the Hudson Valley and elsewhere continued to make lives together, albeit under great constraint, sometimes on the run, and often forcibly separated from networks of human and more-than-human kin. As will be elaborated in the following chapters, they adapted to novel conditions

and forged relations with new organisms while also sustaining those that preceded the apocalypse of European arrival. First though, the fundamental role of racial slavery in these regional transformations must be addressed in order to situate the creation of an agricultural Hudson Valley within planetary networks of European colonial and imperial plunder.

Plantation Landscapes

In her classic study of animal agriculture and early British colonialism in North America, Virginia Anderson (2004) stresses that animal agriculture was, for British settlers, never motivated by subsistence alone. Rather, it was a cultural practice understood to embody Christian civilization. As reflected by multiple valences of the term "husbandry," a patriarchal order radiated through the conjugal relation into the greater *domus* of the farm and beyond. Colonization was, in essence, the forcible expansion of this order and its particular modes of relating to places, humans, and nonhumans. Its foundational exercise was possession-by-improvement, as in the seizure and transformation of Native land justified through proto-Lockean doctrines of natural law that held that that it was not being appropriately utilized. Introducing the practices of husbandry was the primary method of "making the most of the land," resulting in the landscape transformations described above.

However, as Fred Moten and Stefano Harney have underscored, and as I will explore in what follows, practices of "possession-by-improvement" were

never only material-discursive mechanisms for land theft and repurposing but always also a relentlessly future-oriented doctrine that guided the management and optimization of the enslaved, farm animals, and even the self (2017, 85). In this way, while possession-by-improvement as a governing impulse provided a foundation for legal systems of private land holding, the formalization of which occurred unevenly throughout the early colonial period, it cannot be exclusively reduced to them.[iii] As a foundational exercise of settler colonialism, possession-by-improvement was always necessarily a mode of social differentiation, such as in the manner described by Anderson. Over the course of the 17th century, practices of possession-by-improvement became tied not only to the sorting of Christians from non-Christians but also to nascent ontologies of race. As Moten and Harney argue "racialization is present in the very idea of dominion over the earth; in the very idea and enactment of the exception; in the very nuts and bolts of possession-by-improvement (85)." The emphasis on the mutuality and relation between what might otherwise be taken as discrete material practices, discursive articulations, and affective experiences links mundane projects of subsistence, cultivation and management to the historical emergence of belonging, order, and difference. While the ontological, linguistic, and psychological aspects that structure modern racial formations were still being cobbled together, emergent was a selected category of European humanity taken to embody Christian civilization that was also increasingly understood through

terms of heritability and defined through the constitutive exclusions of those who were considered nonhuman or not-fully-human.

The banal practices of improvement that demonstrated European humanity were also taken to be manifestations of a process of civilizational succession in which Native people would inevitably wither away, whether lamentably or not, in the presence of a superior form (e.g. Van der Donck 2008). While Native war captives were frequently sold as slaves in the 17th century, some even sent to the Dutch slave market in Curaçao as a form of punishment, the codification of modern notions of race in the latter 17th and early 18th century in the colonies of the Eastern Seaboard was predicated on the clarification of the institution of slavery as exclusively rendering Black people as eligible for bondage.[iv] This crystallization of slavery as a singularly Black condition relied on the unique debasement of Black people traceable to the pre-U.S. antecedents of what Bénédicte Boisseron identifies as the "longstanding trend in American and trans-Atlantic consciousness to associate blackness with animality (2018, xi)." The very category "live stock"—almost certainly the purest distillation of fungibility and improvement as social values—was constituted through this lethal association and, at both the level of ontology (as a fundamental expression of White human exceptionalism) and that of banal material practices (as the quintessential site of possession-by-improvement), lay at the heart of the colonial society.

The Dutch West India Company transported the first enslaved Africans to New Netherland in 1626, only two years after its founding. Faced with an initial deficiency of both "free" and indentured European settlers, the enslaved quickly became utterly fundamental to all aspects of colonial life in the Hudson Valley. As Frank Wilderson III notes (2010), the creation of "clearings" for colonial inhabitation first required "clearing," or acts of colonial violence directed against Native peoples and their landscapes (and such acts in the early colonial Hudson Valley were always dependent on racial slavery) (207). In this way, to the extent that slavery in New Netherland and later New York was crucial to the capacity for colonial expansion into Native territories, it was always also in essence a military activity.[v] In the Hudson Valley, the enslaved were deployed against Native peoples as coerced fighters in wars of conquest as well as conscripted participants in destroying forests, draining and filling wetlands, and building fences for colonial agriculture. The remaking of the place undertaken to hasten Native departure was, to borrow from anthropologist Ashley Carse (2014), an effort toward the creation of a particular landscape infrastructure, a reworking of land and relations in the pursuit of specific economic and political ends.

By 1660, New Amsterdam (later New York City) held the ignoble distinction of being the most important slave port in continental North America and host to the largest number of resident enslaved people on the Eastern seaboard (Hodges 1999, 29). Within a few generations, the colony—which then consisted of only the Hudson Valley, Long Island, and New York City—would

have a higher concentration of enslaved people than any region north of the Chesapeake. Especially with the waning of the local beaver pelt trade over the course of the 17th century, agriculture had become the primary economic *raison d'être* of the colony by the time the British seizure turned New Netherland into New York in 1664. With enslaved people involved at every juncture, animal agriculture and grain growing expanded such that the Hudson Valley soon became the breadbasket and meat locker of British North America. The primary destination of the Hudson Valley's bounty, as was true of neighboring northern colonies, were the plantation islands of the Caribbean, planted so completely with sugar that dietary staples needed to be imported. With this in mind, Hudson Valley farms in the pre-emancipation period were "factory farms" (or *factorij* in Dutch) in an early modern sense, as the word "factory" then referred to the trading posts (*entrepôt*)—from the Elmina Castle, to the Dutch slave depot at Curaçao, to New Amsterdam/New York City—through which Hudson Valley agriculture was linked through circuits of extraction, accumulation, and terror.

However, the linkages between the *factorij* farms of the Hudson Valley and the classical plantations of tropical and semi-tropical places went beyond their shared enmeshment in global networks of coercion to the essential modularity of their design. In both cases, local ecologies were to great extents replaced with homogenized, relatively non-diverse assemblies of often imported, commoditized species capable of rapid and relatively uniform serialization and scalar expansion (Tsing 2015). To be sure, the Hudson Valley's colder climate,

hilly terrain, and specific pattern of land allocation resulted in farms that were, in general, smaller and less monocultural than were the archetypal plantations further south. Further, the agricultural assemblages established in Europe's temperate colonies were, as Alfred Crosby (2004) famously argued, intended to provision permanent settler populations and were therefore never exclusively commercially oriented. And yet, despite the important differences between these two models of New World agrarian societies, the material-discursive practices of possession-by-improvement operated at the core of each, as specific more-than-human assemblages were brought together to drive processes of transformation and optimization.

Revealing is the interchangeable use of "plantation" and "colony" in the early modern period to describe sites of European settlement and cultivation. Indeed, as Carole Pateman (2007) and Anuradha Gobin (2011) have separately discussed, "plantation" and "settlement" rose in use in British imperial discourse in the 18th century in an attempt to create rhetorical distance from the practices of "conquest" that generated the Black Legend of the Spanish Empire.[vi] Simultaneously sites of biological simplification and racial formation, whereas Europeans risked their lives when they traveled to tropical plantations in a bid to get rich (Brown 2010), temperate plantations by contrast were places where settler futurity was presumed to be unbounded. In the chapters to follow, I will track the synergy that made local sites of cultivation, multispecies management, and improvement points of genesis for broader processes of colonial

racialization, linking political economy to the material-discursive practices of the everyday.

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[i] Illustratively, James Homer Williams reports that during one such flare-up (the First Esopus War (1659-1660)), 100 cows were "evacuated" by barge from the Dutch settlement at Wiltwijck (present-day Kingston) to Fort Orange (present-day Albany) in order to protect them from being targeted by Esopus combatants (257).

[ii] As Vivian Underhill (forthcoming) explains, in addition to being generally "undevelopable," wetlands were also historically sites of both marronage and anticolonial resistance. Draining them mitigates these uses while also converting "unproductive" spaces into valuable property.

[iii] Indeed, considerable amounts of land were held in common in early colonial communities including in the Hudson Valley.

[iv] Importantly, however, as the historian Andrea Mosterman emphasized in a April 27, 2021 lecture at SUNY-New Paltz, it seems that some Native people (including those with multiracial ancestry) remained enslaved into the 18th century and perhaps beyond although these enslaved people were not formally identified as Native but rather as "mulatto" or through related designations (also see Mosterman 2021, 7). This phenomenon, which hastened the nominal "disappearance" of Native peoples in New York, corresponds with broader colonial practices of bureaucratic and military genocide described in Chapter Two ("Ecologies of Belonging").

[v] Vincent Brown has made this point in relation to the Americas more broadly (Bolotnikova 2020).

[vi] Similarly, the Dutch sought to distinguish their empire from that of the Spanish by draping its constitutive violence in notions of free will and the volitional contract provided by Hugo de Groot's nascent theorizations of international law (Merwick 2011).

Chapter Two: Ecologies of Belonging

"I come from a race of drivers of cattle and milkers of cows. I first opened my eyes and hope to close them on a pastoral country."- John Burroughs[i] (1925, 20)

"I'm setting a farm system in place that I hope will last for 200 years" the young farmer stated offhandedly before leading the group over to look at the 150-year-old apple varieties he had recently planted. Walking slowly, he added "I want to feed the local community like in the old days." I was with a group of about twenty-five young farmers and apprentices visiting this small Ulster County farm as part of a regional collaborative farmer training event at which techniques and tips were demonstrated and shared. The trees before us grew cider apples, our host explained, dating back to a period when the consumption of apple cider was much more widespread. While these young trees were still years away from producing fruit, the farmer reported that cider was already being made from a stand of much older trees nearby that had been planted by farm's previous owner. It was this supply that had enabled the farmer and his friends to initiate an annual "pre-Christian" wassail ritual during which, buoyed by warm, spiced cider, they entered the orchard on a cold winter night and sang to the trees.

We had already visited the farm's new flock of sheep, introduced as "new residents we've invited to mow the grass and homestead with us." The sheep had crowded along the fence edge before being let into a different part of the

orchard full of fresh forage while the farmer explained that the flock would be reduced following this first season once it became clear how large a flock their space could support. From the pasture we traveled into an adjacent woodland to hear about another prong of the business, hundreds of logs inoculated with shiitake mycelia.

The farm visit was also doubling as an informal organizing event for the "Farmers Against Faso" campaign, an attempt to defeat the local incumbent Republican congressman. Concentrated at this event were the complicated politics of the small-scale, organic animal farm world that I came to appreciate through my ethnographic fieldwork. On one hand, the opposition to Congressman John Faso—who enjoyed the support of an overwhelming number of farmers in this legislative district—reflected these young farmers' multi-dimensional divergence from the agricultural mainstream. Not only were they more politically leftwing, younger, more female, more queer, and more formally educated than most farmers in the mid-Hudson Valley but they also were much more likely to express enthusiasm about organic methods, the "humane" treatment of animals, and generally "ecologically friendly" farming principles. This particular farm, for instance, described itself as "regenerative," a term I will discuss further in Chapter Four ("Simplification and Regeneration").

At the same time, the young farmer's nonchalant invocation of such a vast historical scale when situating his project (from "the old days" to 200 years into the future) resonated with a common regional version of agricultural history

that I encountered frequently in similar, White-dominated venues throughout my fieldwork. Reminiscent of John Burroughs' epigraph at the beginning of this chapter, the local agrarian landscape was often presented as timeless. The ordinariness of this account was evidenced when the farmer's ambitious chronological scale provoked no questioning or requests for clarification, as might have been expected had a professional in just about any other vocation made a similar claim about transhistorical continuity across the centuries. This distinctive form of articulation between putative pasts and possible futures that the farmers I got to know engaged in regularly became a primary ethnographic interest of mine and I will return to it in the chapters to follow. For now, taking this opening vignette as an introductory example, I will begin to explore how, for many White residents, the experience of the regional landscape is bound up with particular impressions of the past that together encourage specific expressions of belonging and assumptions of enduring access. Inspired by the sheep or the fledgling orchard, those of us on the farm, almost all young and White, were invited to imagine a similarly utopian relation to the place. A broader historical scale, I argue, suggests that the landscape and the everyday affective relations that bond residents to it are important reservoirs of multi-century momentums rarely recognized within conventional political frames.

Old Farms and New Farms

The opening of the Erie Canal in 1825 signaled the end of the Hudson Valley's status as a "breadbasket" and the linking of the densely populated Eastern Seaboard with what became the rich granaries of the Midwest forced Hudson Valley farmers to focus on more specialized market production for New York City consumers. Raising animals for meat and dairy remained a primary pursuit, supplemented by vegetables and, toward the end of the century, fruits like grapes and apples. By the 20th century, the optimization of national and international supply chains further disadvantaged Hudson Valley farmers and their smaller, more topographically varied farms, prompting waves of regional farm abandonment. As part of a trend that occurred across the northeast, the decline of local farming—along with changes in the timber industry and the widespread switch from wood to fossil fuels for heating—enabled an improbable amount of regional reforestation on a scale unseen in the colonial period, as more and more land was taken out of "production." In the Hudson Valley as across much of the northeast, areas that were once nearly completely deforested in the 19th century or earlier became as much as 80% reforested (Thompson et al 2013). Today, as is true in many parts of the U.S., the economic pressure on farms and orchards growing for standard, wholesale commodity chains has not lessened, making it so that often only the largest (over 1000 acres) can earn a profit while more modest outfits struggle to break even year after year.

Given the increasingly dire status of long-standing regional farm businesses, the proliferation of small organic farms (generally 10 acres or less) in the Hudson Valley since the 1990s is remarkable. Proximity to the financial, culinary, and media hub of New York City both provided a critical, lucrative market and also helped to generate the cultural momentum that led to local, artisanal, often organic food achieving new levels of national popularity in the U.S. by the late 2000s. The Hudson Valley became a renowned hotspot for this kind of agricultural production and consumption, with commentators and practitioners frequently presenting the phenomenon as the resurrection of the region's agrarian past (as in the opening vignette). Although a 2010 study found that New York City and Hudson Valley residents spend only 1% of their "food dollars" on local food (Gray 2013, 87), spending time in the small-scale, local agricultural scene gives the impression that the impact of the local agriculture movement is much wider. During the local food movement's prime years of ascendance from about 2005-2015, the passionate devotion of both farmers and their customers could make it feel like the realization of a completely small, "sustainable" farm-based food system was close at hand. New farms were opening all the time and dedication to "buying local" had become widespread. Immersion in the relative insularity of this regional milieu over the course of my fieldwork made me initially surprised to read that, as of 2011, less than 1% of U.S. farmland was farmed through certified organic practices (USDA 2019). By the 2010s, the wave of farm openings and consumer fervor in the Hudson Valley

crested somewhat although the values elevated over the previous decades had been securely woven into the cultural mainstream, becoming institutionalized in forms ranging from restaurant menus to the creation of farm business incubators and advocacy nonprofits for small and/or beginning farmers.

The farmers at the center of this movement tend to be young and enthusiastic, ready to take on the challenge posed by frequently cited statistics about the declining size of the U.S.'s rapidly aging farmer population and the unfavorable economics of running a farm business. Indeed, in a decadal census taken in 2012, the number of U.S. farmers under the age of 35 increased for only the second time in the last century.[ii] Often inspired in the early days by texts like those of food writer Michael Pollan, many come to the Hudson Valley from other places, often starting their own farm business after moving to the area to apprentice on an existing one. Unlike in the past when farming was often an inherited livelihood, most young farmers today are doing this work for the first time (Young Farmers Coalition 2017*).* Although this new generation of small farms in the Hudson Valley could be described as "artisanal" because of their reliance on manual labor and general avoidance of synthetic pesticides and herbicides, most of these farmers also use machines like tractors and not all necessarily employ organic practices. On the other hand, to describe these operations as "boutique" would be a demeaning characterization. In contrast to the hobbyist connotation of that term, these small-scale farmers doggedly work full-time on the farm and generally rely on the money the business generates for

their livelihood. Margins are almost always very tight. Because these farmers can rarely afford to buy land, they typically lease it from either an aging conventional farmer, a land conservation organization, or a wealthy, New York City-based landowner motivated by tax incentives or other rationales.

Revenues for these small farms frequently came from a combination of restaurant sales, the offering of shares through a "community supported agriculture" (CSA) model, and/or from farmers markets in Hudson Valley towns and cities. Those willing to make the drive can sell for higher prices in New York City even as more and more city residents move north into the Hudson Valley and raise the local average income. Unlike the still dominant though precarious larger "conventional" (which I use as shorthand for non-organic) farms in the area, the farms I studied were small enough for all on-farm human labor to be provided by the owners, sometimes with the assistance of part-time helpers or family members, all of whom are generally White. Conversely, the surviving larger conventional farms and orchards rely on primarily Oaxacan and Jamaican farm workers, both seasonal, H2A visa holders and year-round residents. The critical role of these non-White experts as the day-to-day farmers of the land is concealed by the diminishing label "farmworkers" and by the names and likenesses, on road signs, in marketing, and media, of the White farm owners who have often run the farm for generations.

The relationship between the old and new farmers is complicated and, to be clear, not all "new" farmers are politically progressive or deploy "artisanal"

practices and not all "old" farmers are aging inheritors of multi-generational, chemical- and farmworker-reliant operations, although these overgeneralized binaries are nonetheless broadly instructive. Still existing in largely distinct social and commercial spheres, the new wave of farmers has trouble shaking the stigma of not being "real farmers" like their deeply rooted neighbors who are more likely to embody the figure and life history projected in normative conceptions of the American farmer. While the "Farmers Against Faso" initiative demonstrated the willingness of the younger farmers to emphasize their divergence—the campaign's primary effect was to dispute the assumption that all farmers in the legislative district were committed Republicans—they also took measures to try to not alienate their more conservative peers. This was perhaps most poignantly demonstrated when the Hudson Valley Young Farmer Coalition, an advocacy group with a broad "social justice" platform, declined to endorse the Farm Laborers Fair Labor Practices Act, a contentious but ultimately passed state law that assures basic labor standards for which farmworkers and their advocates had campaigned unsuccessfully for over a decade. The proposed law was bitterly opposed by the Farm Bureau, the primary "conventional" farm lobby, who claimed it would raise expenses and lead to more farm closures.

Despite the Young Farmers Coalition's general interest in not alienating the Farm Bureau, their position surprised me, as the individual farmers I knew, all of whom were affiliated with the YFC, would be barely or not at all impacted by the new law which targeted employment arrangements more typical on

larger, conventional farms. Further, as individuals, they either told me personally that they supported the law or else had at other times expressed positions or had personal histories that would make them seem likely to support it. But when asked about the YFC's position, some were uncharacteristically indirect and none indicated an intention to try to persuade YFC leaders to support the law despite often knowing them personally. In many ways, the ambiguity surrounding the YFC's position on the Farm Laborer Fair Labor Practices Act epitomized the young farmers' knotty position. Here were energetic and talented young people yearning to fundamentally improve the lives of those around them. And yet, through their choice of vocation they grafted themselves onto a regional (and national) tradition uniquely implicated in delivering the present they sought to transform.[iii]

My ethnographic research focused primarily on the small-scale, artisanal farms whose ascent in the past 20 years reflects growing popular interest in forms of agriculture that are understood to be more sustainable and humane that those that have predominated since the 20th century. That the Hudson Valley's two top crops (in total acreage) remain hay and apples—neither of which are typically pursued by the kinds of farmers I worked with—evidences the enduring predominance of "conventional" agriculture despite the unrelenting challenges facing these operations (USDA 2017). Small artisanal farms tend to focus on the intensive production of either vegetables or animals, with some undertaking a combination of both. Unlike the farm described at the

beginning of this chapter whose combination of agricultural endeavors was somewhat unusual, those I worked on farmed animals exclusively, often a mix of species raised for meat, eggs, and sometimes milk. Animal farming is popular and growing in this progressive region, a trend that initially surprised me and led me to focus on it. Many of my farmer interlocutors were former vegetarians committed to providing "humane meat." For my ethnographic fieldwork, I joined farmer programs like the one described in the opening vignette, attended social gatherings, and conducted targeted interviews. But even more, I spent time on farms, helping farmers with chores, doing plant surveys in pastures, and visiting with confined animals in the absence of the farmers (albeit with their permission). All the while, as in the scene at the start of this chapter, I was attentive to how the farmers positioned themselves historically within the regional landscape tradition, relying on archival research to help me appreciate how their contemporary material-discursive practices both sustained and interrupted long-running historical flows. While a pivotal insistence of this dissertation is that "social" histories cannot be considered independently of "ecological" histories, for the sake of clarity, I focus primarily in this chapter on the former, reserving the latter for Chapter Four ("Simplification and Regeneration") before attempting a synthesis in the second half of the text.

Securing an Agrarian Society

During its roughly two century span from the 1620s until the early 19th century, racial slavery was indispensable to the establishment of a profitable agricultural economy in the Hudson Valley and benefitted from essentially uniform White endorsement. The density and ubiquity of slaveholding ranged across time and space, with enslaved people frequently constituting between ten and twenty percent of a given town's population (Williams-Myers 1994). As was the case elsewhere, slavery in the Hudson Valley was a publicly sanctioned social and economic institution that shaped the entire society, with those who could not afford to own slaves generally aspiring to. However, as I will explore below, the circumstances of emancipation and its aftermath demonstrate how the depth and definitional character of Hudson Valley antiblackness exceeded racial slavery's nominal function as a forced labor regime. Rather, the experience of the enslaved, the formerly enslaved, and their descendants during the period before and after emancipation attest to the historian A.J. Williams-Myers' pivotal insight, that Hudson Valley settler colonialism was always undertaken in the pursuit of an exclusively White landscape (1994, unpaginated (Preface)).

Prior to emancipation, covert rural networks of Black sociality sustained the promise and practice of fugitivity in a region where the small size of most farms resulted in most of the enslaved residing alone or nearly so (Groth 17). Defying the ultimate restrictions on their mobility, escape and petit marronage were not uncommon despite the risk of extreme retribution. Often multilingual, some of the enslaved spoke the Algonquian languages of Hudson Valley Native

peoples and would sometimes flee to join them (Hodges 52). Coordinated escapes and conspiracies occurred although more common were individual insurrections as when Rachel, an enslaved person in the Hudson River town of Rhinebeck ran away in 1781 only to return soon thereafter to burn down her former master's barn (Groth 21, Armstead 71). Fugitivity only increased in the tumultuous midst of the American Revolution. The thousands who fled slave masters across the colonies to seek shelter among British forces following Lord Dunmore's Proclamation promising emancipation for those who would fight with the British—later expanded in scope by the Philipsburg Proclamation in 1779—constituting one of the largest mass escapes in the history of North America. While there can be no underestimating the level of coercion operative on Black soldiers fighting on either side, that 80% of those who fought cast their lot with the British reflects Graham Russell Hodges' assertion that "Blacks were from the beginning not aligned with new American republicanism (161)."[iv]

Whether emboldened by the proliferating languages of liberty or rightly pessimistic about the prospect of legal emancipation, rates of escape remained high in the Hudson Valley following the creation of the U.S. The enslaved also increasingly agitated and sought to purchase their freedom (Armstead 73). Almost immediately after New York became a U.S. state, calls for emancipation increased among Whites embarrassed by the hypocrisy of slavery's persistence in a society declared to be a novel world experiment in human liberty. While these calls were resisted by those still deeply invested in the institution of

slavery—and the old Dutch planters of the Hudson Valley were consistently the most anti-emancipation constituency in the state—support for emancipation among White New Yorkers nonetheless remained entirely compatible with enduring antiblackness.[v] Whether abolitionists were concerned about the moral and cosmetic tarnish left by slavery on what they otherwise took to be a noble civilizational venture or whether they simply preferred a White-only society, the assumption of Black pathology and inferiority was scarcely unsettled by many White proponents of emancipation (Gellman and Quigley 2003).

The increasing influence of abolitionism coincided with new waves of White settlers both from New England and Europe drawn in part by the "opening" of the northern and western New York following its seizure from Haudenosaunee and Susquehannock peoples in the wake of the British defeat in 1781. Before long, across the state, the hiring of "free" White labor became both socially preferable and more economically expedient than the holding of slaves. Because of the surging level of European immigration and the corresponding available of low-wage White labor, those who settled the western parts of the state never had to rely on slavery as had those parts of the state—the Hudson Valley, New York City, and Long Island—that had been settled when White people were relatively few. The settlers in these newly settled agricultural regions pursued an anti-slavery, antiblack agenda both in order to restrict Black presence in western New York but also to undermine the influence of New York City and the Hudson Valley in New York state politics.[vi] This convergence of

antiblackness and anti-slavery politics in the settler colonial pursuit of a White society was not uncommon in other "frontier" regions further west and resulted in various bans on the migration of non-White people to new states like Ohio, Indiana, and Illinois. In New York, the regional power struggle, together with the pressure of both Black and White abolitionists, the unrelenting flight and assertiveness of the enslaved, and the global specter of the Haitian Revolution combined to enable the passage of a gradual emancipation law in 1799 that would, ultimately, essentially end slavery in the state by 1827 (although exemptions allowed for some to remain enslaved into the 1840s).

While the hardline Dutch gentry in the Hudson Valley remained opposed to emancipation until the bitter end, the union of economic rationales with pervasive antiblackness resulted in the abolition of slavery effectively also serving, and not incidentally, as the abolition of Black presence altogether in the rural parts of the region. No effort was made to provision the lives of the newly freed. Rather, the opportunities offered to them were those of the pre-emancipation period: menial domestic and agricultural work, although even in these sectors they were being edged out by poor White immigrants that employers preferred to hire (White 2007, 32). The highly skilled artisanal positions that both enslaved and "free" Black people had commonly filled in the 17th and 18th centuries had been largely unavailable for decades now. Black land ownership had long been formally restricted throughout the colonial period and following emancipation this remained a *de facto* reality (Groth 76). Haunted by

the presence of slave catchers who kidnapped Black people throughout the antebellum period, historian Michael Groth writes, “the lives of slaves, servants, and free blacks in the mid-Hudson Valley differed little in the long transition from slavery to freedom (90).”

Celebratory treatments of the feat of emancipation critically rest, as Saidiya Hartman elaborates in *Scenes of Subjection,* on the faulty assumption that racial slavery was a private arrangement that could be remedied by legally invalidating a specific domestic property relation (1997). This normative account avoids addressing racial slavery as a publicly authorized, socially generative expression of antiblackness and White control. With emancipation, as Hartman argues, the formerly enslaved became blamable for their own poverty and precarity as “the whip of slavery was replaced with the compulsory contract and the collar of a guilty conscience (6).” Unsurprisingly, facing demoralizing and potentially lethal prospects in the countryside, many of the formerly enslaved joined what Hartman, after W.E.B. Du Bois, has called a “general strike” against the enduring components of slavery after formal emancipation and sought “political asylum within the borders of their own country” (2019, 108) by fleeing for the relative refuge of larger Black communities in regional urban centers like New York City and the smaller river cities of the Hudson River Valley. There, though were still the last to be hired (Griffen and Griffen 1978, 30-31), they had the opportunity to together create a community that provided a modicum of shelter amidst the storm of antiblackness that raged throughout the

Hudson Valley in the 19th century, including attacks on Black churches and the violent expulsion of abolitionist speakers.

Whereas postbellum Reconstruction in the South is often and rightly criticized for its inadequacy, in New York, there was simply no effort made. Rather, the primary response to emancipation from White politicians and the White public was a rehearsal of legal and social segregation that would later be known in the South as Jim Crow. As historians David Gellman and David Quigley write in their study *Jim Crow New York*, "by the middle of the 19th century, segregation had become the preferred method for dealing with emancipation (2003, 202)." The flowering of "New York's white man's democracy" involved the 1821 expansion of suffrage to all White men while Black male voting rights were corollarily circumscribed, as minimum standards for property holding were raised so significantly that all but a literal few were excluded (90). Ironically, despite being one of the largest centers of Black diasporic life in the Western Hemisphere, fewer Black residents of New York could vote after emancipation than before. In the half century after emancipation, the New York electorate voted three times (1846, 1860, 1869) not to extend equal suffrage to Black (male) residents, a resolve that was only broken by 15th Amendment to the U.S. Constitution in 1870 and even then, the New York state legislature initially voted to rescind its ratification of the amendment. In the words of Gellman and Quigley, "New York stood as a central site in the making of racialized citizenship, helping to set the terms of recurrent debates over such issues as racial caste and

the content of American freedom (2)." The formation of race, invented as tool of White social control, was now deployed as a "neutral category of description" to be incorporated into the day-to-day practices of social administration in a society that was separate and never equal (Hartman 1997, 173). While Blackness was now merely "one race among many" it remained a mark of abjection and a ground for exclusion (Hartman 162).

The "slow violence" (Nixon 2013) of the post-emancipation racial purge in the Hudson Valley was both at the time and in the present normalized by White residents and treated as a sort of innocent mystery (discussed further in Chapter 5 ("Practices of Remembering"). "Colored people have gone to cities in a much higher proportion than whites…there used to be twice as many colored people in 1860" wrote an Ulster County newspaper man in 1922 without offering an explanation, let alone to a reference to how the town's other newspaper had called in 1860 for "an end to this black dose" in an editorial opposing Black suffrage (LeFevre 1922; Benjamin 2014, 448). Following emancipation, the number of Black people in the Hudson Valley countryside fell and fell for a century, solidifying the region as a place in which overwhelming Whiteness was taken for granted. In a society where Black lives mattered less than they had during slavery, enforcing Black "placelessness," or the projection of Black people being "out of place" in the Hudson Valley countryside despite having been present there as long as Whites, stabilized White control and concealed the specific historical (and contemporary) violence responsible for the

regional demographic state of affairs. In this way, the effective removal of the enslaved and their descendants from the Hudson Valley countryside no better "resolved" the matter of racial slavery than did the ostensible displacement of Native communities in the Hudson Valley mean the end of settler colonialism. And yet, in one rare instance when one formerly enslaved family was given a small amount of land in a rural part of Ulster County by their former owners at the time of manumission, they and their descendants lived on and maintained a farm there for 130 years. This anecdotal glimmer provides evidence of the road not taken in a region where, although the enslaved had sometimes approached counting for as much as a third of the population in rural areas, Black residents of the Hudson Valley measured only 2.7% of the total population in 1850 and were declining (Smith 2018).

Pastoral Visions

Throughout the years when I was conducting ethnographic fieldwork (2015-2021), report after report appeared in scholarly publications and the popular media describing the specific ecological costs of animal agriculture. Each time, researchers from a range of disciplines seemed to paint a more stark and dire picture. While precise statistics and modes of measurement are sometimes disputed, it is clear that animal agriculture requires amounts of land, fresh water, and produces greenhouse gases to an extent vastly disproportionate to the calories it yields.[vii] Indeed, a majority of the earth's terrestrial surface is now

used for either grazing or growing food for farm animals (United Nations Food and Agriculture Organization 2006). While both animal and plant agriculture are leading causes of habitat loss and enormous declines in wildlife populations in conjunction with the runaway climate change to which they substantially contribute, animal agriculture's impact is particularly acute. In short, the story of extreme global precarity that some have called the Anthropocene cannot be told without addressing the specific and escalating impacts of animal agriculture. However, as is the case with all such global environmental metrics, care must be taken to recognize that those in the global north, and especially in North America, consume a vastly disproportionate amount of animal foods. In the U.S., conspicuous commitment to a patriotic diet featuring large amounts of animal foods has wavered only slightly despite warnings about levels of mass extinction and ecological ruin unprecedented in human history, to say nothing of the pained lives of farm animals, the extreme danger posed to slaughterhouse workers, or the health consequences posed to consumers.[viii]

Given how basic assessments about animal agriculture's outsized impact have now become essentially unignorable for those who pride themselves on being scientifically informed conservationists, I was initially surprised by how eagerly environmental organizations in the Hudson Valley promoted animal agriculture. Curiously, land conservation organizations that otherwise readily invoked the lessons of climate change forecasts and research-based best practice recommendations for land care in their management protocols and publicity

materials were also seeking animal farmers to graze animals on their conserved lands without acknowledging the apparent contradiction. Given that these environmental NGOs are generally keen on positioning themselves as empirically guided protectors of nature, their lack of ecological rationale for this major land use decision was noticeable.

Searching for an explanation, what I found consistently—at public events, in local media, and in private conversations with land conservation professionals—was a commitment to a normative, agricultural landscape, buttressed by a combination of aesthetic preferences and allusions to regional tradition. "Cows are sexy," the executive director of a major private nature preserve answered bluntly at a public event, recognizing that farm animals are what both residents and visitors want to see in the countryside. A different large conservation organization, this one based in New York City, referred to a rural town's "history and culture" as its reason for introducing animals to the large grasslands they had just spent millions of dollars to protect from commercial development. These aesthetic and historical rationales have converged in recent decades with the emergent neo-agrarian, locavore ethos that holds small-scale animal agriculture to be an important component of a sustainable future. Often invoked together in various permutations, these overlapping validations jointly form an implicit consensus, grounded in an ocularcentric, affective sense of rightness that I will explore later in this chapter and in those to follow. This shared sense of what the landscape is supposed to look like pervaded

conversations with predominantly White residents and visitors about rural Hudson Valley landscapes throughout my fieldwork and led the land conservers to place farm animals on lands that had sometimes not hosted them for a generation despite the ecological tradeoffs. However, before turning to this paradox in earnest, I first carry forth the account of how social and ecological changes occurred together in the 19th century, focusing on how a renovation of colonial nature politics set the course for the present-day material and discursive enactment of landscape.

Shelter-in-Place

The agrarian landscape infrastructure that was the material expression of Hudson Valley settler colonialism and racial slavery involved a tripartite racialization—Native, Black, and White—that was largely reduced to a fictive Black-White binary by the 19th century. Having endured the familiar calamities of settler violence and ensuing vulnerability to introduced pandemics, there is no question that in sheer numbers, Native peoples in the Hudson Valley suffered major losses during the 17th century. However, throughout the 17th and 18th centuries, they nonetheless remained widely recognized as major players in the region, in close diplomatic connection with other Algonquian peoples across the northeast and westward into the Ohio Valley. These networks of relation enabled survival in these and subsequent centuries through mutual support and shelter (Brooks 2008). Indeed, throughout the early colonial period, Native

communities in the Hudson Valley had acted strategically to exploit first the French-British and then British-American oppositions (each of which involved complex and contingent alliances with and against other Native peoples). During times of war, White settlers in remote areas constantly feared possible Native raids. In-between wars, colonial settlements were frequently overrun with panic about the possibility of furtive Black and Native conspiracies inspired by the existence of multiracial communities and affiliations.

The loss of the British to the nascent U.S. in 1781 was in substantial ways also a loss for Native peoples across the eastern part of the continent, ironically including those who had fought with the U.S. secessionists. Native communities in the Hudson Valley, as well as their Haudenosaunee neighbors to the north and Susquehannock neighbors to the west, were now left to face land-hungry settlers no longer hindered by British imperial dictums that had sought to limit their westward expansion. As mentioned above, following American independence, the lands of British loyalists and (in particular) British-aligned Native peoples were immediately made available to the victorious settlers who surged west into the prime agricultural lands of the Mohawk Valley and western New York (Summerhill 2008) as the "Empire State" took its modern cartographic form. In the Hudson Valley, many Native peoples who fought against the British found their land taken by their White American "allies" after the war and White settlement expanded beyond what had previously been "local" frontiers within the greater Hudson Valley region. Rehearsing what would fast become a routine

coercive ultimatum offered by the settler republic, after 150 years on the frontlines of colonialism Native peoples in the Hudson Valley were compelled to either move west or renounce their connection to Native communities and conform to the emergent White-Black binary of the new nation-state (Mitrod 2012, 206).[ix] Many Munsee peoples in the Hudson Valley joined relatives further west as part of often heterogeneous Native refugee communities, beginning what for some families became a 100-year odyssey westward with descendants dispersed to Oklahoma, Wisconsin, Ontario, and many points in-between. In distance and duration, the displacement of Munsee peoples and their close relatives (sometimes lumped together as "Lenape" or "Delaware") is likely unmatched in U.S. history. Nonetheless, some stayed in the Hudson Valley despite the persecution and land theft, sometimes joining remote havens, like those provided by the rugged Ramapo Mountains that enabled the preservation of kinship networks that constitute the present-day Ramapough Lenape Nation. Others hid in plain sight, often concealing their continued enmeshment in Native social networks while covertly continuing ceremonial practices and keeping to themselves (Benjamin 2014, 87).

Nonetheless, the "disappearance" of Native peoples from the Hudson Valley and elsewhere in the east was taken as evidence of the inevitability of White ascendance and inheritance of the continent. This historical narrative spawned the racialization of Native people and Native "blood" as fleeting, endangered, and easily "contaminated." The fallacy of the susceptibility of Native

racial "contamination" and therefore absorption into White or Black populations engendered racial purity standards for Native peoples premised on the homogeneity of lineage and on related, White-adjudicated standards of cultural authenticity. Ignoring and undermining Native means of determining community membership and creating kin, settlers increasingly lamented what they described as the irreversible melting away of "real Indians." As Jean O'Brien has demonstrated, throughout the 19th century, White historians in small New England towns frequently depicted the alleged "last living Indian" of the locality, albeit despite also often noting that this person had children nearby. As O'Brien writes, "non-Indians held exclusive sway over modernity, denied modernity to Indians, and in the process created a narrative of Indian extinction that has stubbornly remained in the consciousness and unconsciousness of Americans (xiii)." Here the invention of a racial category of "Native" predicated on its inherent fragility functions as a method of legitimating White control by rendering Native "disappearance" as essentially an act of nature. In turn, White obsessions with the purity of Native people and "Native blood" have everything to do with excusing land theft by suggesting that only those Native people who can satisfy arbitrary pedigree and authenticity standards have any basis to claim territory (although of course, even meeting arbitrary settler standards provides few guarantees). As one Native resident of Ulster County told me, merely mentioning personal Native identity in the present-day Hudson Valley requires

being daring enough to "poke your head out of the mole hill" when you are sure to be "whacked" by people questioning your blood purity.

Whiteness remained the exclusive and selected category, protected from the threat of miscegenation by the violence that enforced segregation. Necessarily untainted by Blackness, Whiteness was capable of absorbing the expiring "nobility" of Native blood which further validated the White "inheritance" of the continent. The casting of Blackness as contaminating both White and Native "blood" is a supreme expression of antiblackness as well as a convenient means of writing off the indigeneity and land claims of the descendants of the many Native communities that had historically accepted Black people as kin (Den Auden 2005; Coleman 2013). The result of this logic of contamination is the evacuation of Native people from census rolls and political consideration as such, resulting in a myth of Native extinction in the Hudson Valley and much of the northeast, and indeed across the U.S. As Jack Forbes remarked, White people "*are always finding 'blacks'… and they are always losing 'Indians'* (original emphasis) (1990, 24)."

The frequently pathologized multiracial communities that Native peoples in the Hudson Valley sometimes formed, including with Black people who were also "disappearing" in the region during the 19th and 20th centuries, still dotted the region into the 20th century, demonstrating an inspiring alternate route through what otherwise became a deeply segregated landscape. While Hartman has described the "wayward lives" ingeniously pursued by the formerly enslaved

and their descendants who fled the rural south for northern urban centers in the wake of emancipation (2019), the miraculous practices of free life assembled "off the map" (King 2019, 85) by those Black, Native, and multiracial peoples who stayed behind in places like the Hudson Valley hinterlands required levels of bold experimentation no less great.

Leave No Trace

By the 1820s, the popular writings of Washington Irving had imbued the Hudson Valley with a romantic charm among readers on both sides of the Atlantic and the region had become a major scenic destination for tourists (Gassan 2008). Fueled by the opening of the Erie Canal in 1825, New York City was growing rapidly on its way to becoming the leading shipping and finance hub on the East Coast. It was also in 1825 that the British-American artist Thomas Cole arrived in New York and took a sight-seeing boat into the Hudson Highlands just north of New York City. The paintings Cole produced from this trip launched his career and catalyzed an aesthetic and political movement. While Cole's Romantic approach to landscape painting was reminiscent of European artists like J.M.W. Turner and Caspar David Friedrich, the ruggedness of his Hudson Valley scenes played into conceptions of the inherent "wildness" of the American continent, resulting in depictions of the sublime more intense than those that had come before. Cole quickly became renowned for his on-location depictions of forested alpine promontories, covered with gnarled or dead trees,

rocky escarpments, and foreboding clouds. In many ways a visual analogue to the novelist James Fenimore Cooper's *Leatherstocking Tales* (1823-1841), scenes from which Cole enthusiastically painted, the work of Cole and his followers in what became known as the Hudson River School presented dramatic images of the putative margins of burgeoning American "civilization," where valiant though vanquished Native people—usually alone and presented as the "last of their tribe"—could be found in austere, remote, forested mountaintop reaches looking despairingly at the onrushing trains and farms in the valleys below. These were early U.S. formulations of the myth of wilderness that environmental historians William Beinart and Peter Coates argue attempts to "freeze" the temporal sliver imagined to exist post-Native and pre-settler (1995, 85).

Developing a devoted base of patrons among merchants and industrialists in New York City and throughout the northeast, the Hudson River School's theretofore novel scenes in time came to train Americans to value wilderness scenes, previously avoided as dismal and frightening, as sites of distinctively American aesthetic and social virtue (Gassan 58). Both Cole and his colleague Asher B. Durand were passionate about phrenology and pursued the possibility of wilderness—both visited in person but also as conveyed through the canvas—serving as an ameliorative "tonic" for the broader population in a rapidly industrializing society. This was an eastern rehearsal of what by the end of the 19th century would become national anxieties about the "closing of the frontier" and attendant fears of incipient (White) American decay. From their

mountaintops, the Hudson River School artists presented the progress of agricultural domestication and industrialism as inevitable but also as potentially corrupting. At stake was what set the U.S.—long mocked by Europeans for its lack of "history"—apart from the Old World: the potency of its "native wildness," exemplified by both its rugged "natural" scenes and the uncivilized Native peoples thought inhabit them. To this end, Cole foreshadowed the present-day push for open space preservation, writing in 1836 that "it would be well to cultivate the oasis that yet remains to us, and thus preserve the germs of a future and a purer system" (1836, 3).

Coinciding with the 19th century campaign to rid rural parts of the Hudson Valley of the formerly enslaved and their descendants, the work of the Hudson River School is in many ways a commemoration of the 19th century purge of non-White people from the Hudson Valley, sanctifying a bloody landscape by blanketing the genocidal violence that "emptied" it in visual narratives of settlement and replacement presented as no more contestable than the seasons or the tides. Erased are the still present Native peoples who refused settler authenticity and racial purity standards that upheld the Black/White binary, to say nothing of the Munsee peoples who had left the Hudson Valley under duress and were, during Cole's lifetime, repeatedly forced further west along with other Lenape refugees by the U.S. military in an unending series of forced displacements (Barker 2011). In contrast to the "mourning" of "extinguished" Native peoples in works by Hudson River School artists, Black

presence was not noted and the departure of Black people was not grieved. As the modern conservation movement coalesced later in the 19th century, it was premised on precept conveyed through the School's oeuvre, namely that the landscape now belonged to White people and it was their responsibility to become its responsible stewards. Poignantly, as Juno Parreñas (2018) reminds us, the very notion of "stewardship" is "rooted in the British manorial system, when someone took the place of an absent landlord to husband the resources of an estate," a model essentially compatible with the "rightful inheritance" myth of American environmentalism (64).

The glorification of wilderness and its attendant racial politics of White ascension imparted by the Hudson River School ramified widely, providing a ready-made narrative to be applied throughout the rapidly expanding U.S. national territory. Albert Bierstadt, although based in the Hudson Valley, would use reminiscent techniques in his depictions of what became the western U.S. states, delivering to the population centers of the eastern U.S. long-lasting first impressions of the place and the Native peoples whose time was taken to be running out. The casting of Native peoples as having a fundamentally ecological presence within the landscape extends an early colonial trope, albeit with a tone of regret replacing one of overt hostility now that the future of settlement is no longer thought to be in question.[x] Emblematic of a form of colonial lamentation regarding the "fate" of Native peoples, their displacement and replacement is taken as an inevitable, civilizational succession even if the settlers express regret

about the loss of these Romantic icons of purity and difference. The popularity and dissemination of these images functioned didactically to instill in urban, bourgeois audiences not only an aesthetic appreciation for wilderness but also the recognition of its ameliorative promise for White American civilization as a source of optimism and redemption.

During my fieldwork, the imagery of the Hudson River School felt omnipresent: it adorned kiosks at hiking trailheads, was common in tourism materials and local print media, and decorated email announcements from regional environmental nonprofits. The artists' residences are now national historic landmarks and significant sites of visitation. Remarkably, a proposal for a massive cement plant was even defeated in part because it would have fallen within the historic viewshed of painter Frederic Church's home. These reverent gestures reflect accounts prevalent within regional historical and conservation circles that take the Hudson River School to be the genesis of the American conservation movement, tracking its impact through early 20th century efforts to preserve the Hudson Highlands just north of New York City to the successful defeat of a hydroelectric power plant at Storm King Mountain that contributed to the passage of the National Environmental Policy Act in 1969.

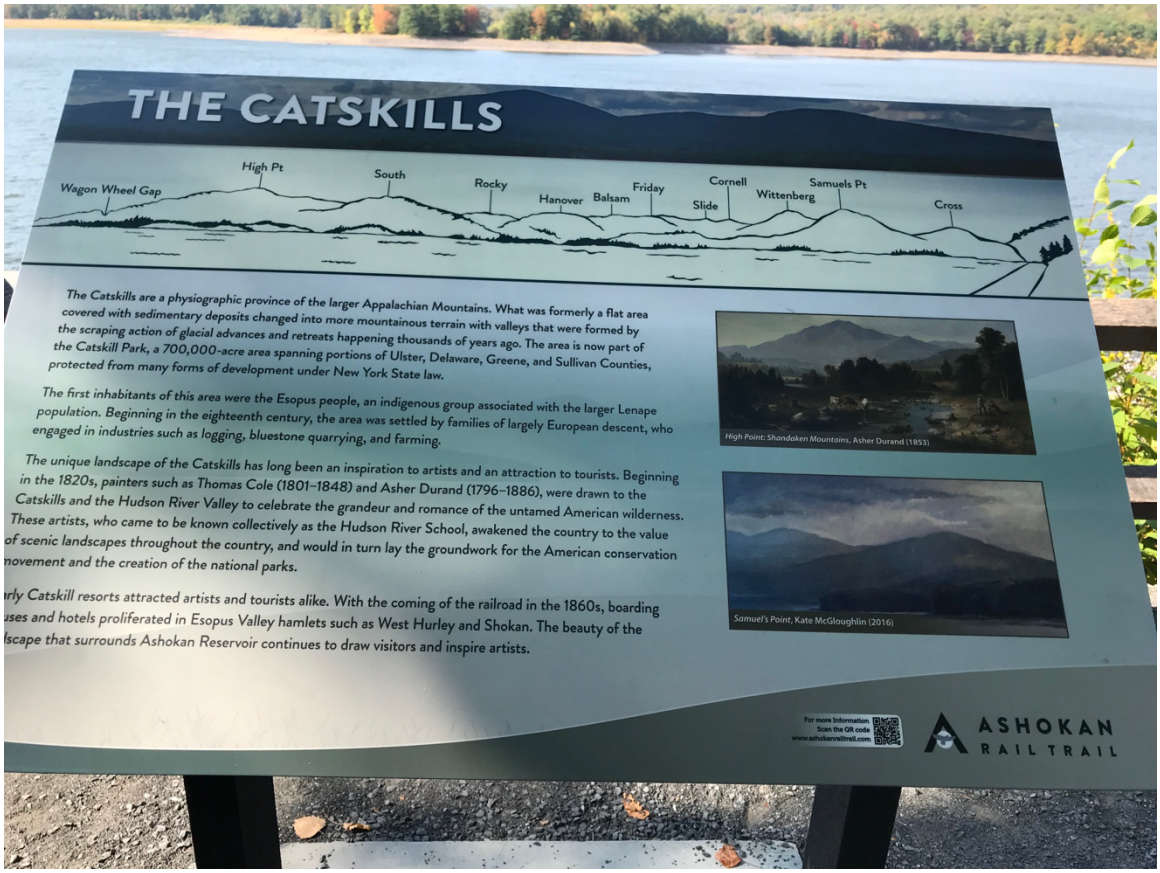


Figure 1: *This unremarkable informational sign, installed in 2019 along a popular rail trail, introduces users to the adjacent Catskill Mountains. The Hudson River School receives the longest paragraph and an 1863 example work is presented (alongside a present-day replicant).*

While it would be difficult to overemphasize the extent of deliberate, public engagement with the legacy of the Hudson River School, the aesthetic movement's most profound impact remains its role in elevating the visual experience of expansive, "empty" (of humans) landscapes as the primary mode of appreciating and engaging "nature," as well as its success in concealing the violence that enables such scenes. This present-day disposition toward the

scenic is evidenced by the popular pursuit of distant views by nature lovers and in the practices of many land conservation organizations.[xi] As I will elaborate in the chapters to follow, in the U.S. today, a striking "viewshed" is often taken as the default indication of ecological health while other possible metrics—such as changes in biological communities—become more and more the narrow realm of experts.

Unabated rates of farm closures in the 1990s resulted in a convergence of prevailing practices of wilderness conservation with the even more deeply rooted veneration of the pastoral landscape, as Hudson Valley land conservancies began expanding their attention to include the protection of farmland. A regional landscape ideal grounded both in aesthetics and in the celebration of local agricultural history (within the context of the ascendant local food movement) mollified tensions that have often marked the relationship between environmentalists and farmers in other times and places. It was in this context that the "sexy cows" came to graze on the conserved lands mentioned earlier in this chapter. A combination of visual, affective, and historical rationales accounted for why the land conservancies did not simply buy the old fields and then not install farmers on them, despite the vacuous ecological merit of prevailing agricultural forms. Instead, with strong popular support, conservation and agriculture were merged through a landscape politics that invoked a nostalgic notion of the past as an inspiration for realizing a sustainable future.[xii]



Figure 2: *This sign, installed along a different popular non-vehicular trail in 2019 by a large, New York City-based conservation nonprofit, attempts to bridge ecological conservation and animal agriculture. The mysterious claims—not actually connected to the functioning of native ecosystems—are addressed at greater length in Chapter Four ("Simplification and Regeneration"). Perhaps most notably, here too aesthetics are primary.*

This confluence was well-illustrated by an acclaimed short documentary film made by a local resident who is also an award-winning environmental filmmaker. The film, which was publicly screened numerous times after its

release by both agricultural and conservation organizations, follows the coordinated endeavors of a group of farmers, millers, malters, brewers, and bakers attempting to resurrect a local grain-based food system. Focusing on the farm at the center of the effort, the film features swelling orchestral music accompanying stunning drone footage of the project's experimental grain plots. Interviews with the various practitioners are interspliced with images of foaming glasses of beer and enticing loaves of bread. The film is aesthetically beautiful and makes a persuasive case for the inherent virtue of the venture. In looking forward, the film and its subjects also look to the past, as when one of the campaign's initiators longingly describes the local grain-based food system that used to exist in the region. The truncated historical account absolves the region's agrarian past of its bloody baggage, in this case neglecting both that settlers fought a major war of conquest to in order to secure the prime valley bottom land where the wheat was being grown, as well as the primacy of racial slavery in the "flourishing" of the historical grain-oriented food system. From the soaring overhead vantage afforded by the drone, the fields of grain bathed in a dazzling sunset become a monument to this specific history even as it goes unacknowledged. As with John Burroughs' epigraph and the opening vignette, agriculture becomes normalized and timeless, imparting experiences of rightness and belonging that largely go unspoken. This historically informed sense of place guides White landscape practices in the present.

[i] Friend of Walt Whitman, Theodore Roosevelt, and an inspiration for generations of nature writers and environmentalists, Burroughs was the first celebrity literary naturalist in the U.S. and was based in Ulster County, NY.

[ii] This statistic, shared by farmer and farm advocate Will Yandik at the 2019 event "Perspectives on Farming with Nature" organized by the Hudson Valley Farm Hub, is drawn from the USDA's 2012 Census of Agriculture.

[iii] To be sure, there are certainly a smaller subset of beginning farmers who, because of their race, gender, or politics, embodied a more substantial departure from the agricultural establishment than did many of their compatriots. Time will tell the extent to which their meaningful deviation can be assimilated by the essential thrust of regional agriculture as a historical formation and institution.

[iv] Fittingly, George Washington would later credit an emergency shipment of grain, pork, and one hundred cows sent from slavery-dependent Ulster County to the starving Continental Army at Valley Forge in the winter of 1777-1778 with "saving my army in our darkest hours of this long struggle." This passage is quoted on a Revolutionary War Heritage Trail sign located at the Old Dutch Church in Kingston, NY.

[v] As Margaret Washington notes, by 1820, roughly 85% of New York's Black population was free. Yet in the Dutch stronghold of Ulster County, the rate of enslaved to free Black residents remained 3:1 in 1825 (2009, 57). Overall levels of enslavement had earlier been high in New York City, in part because the total population of the Hudson Valley grew slowly over much of the 18th century. By the turn of the 19th century, however, slavery in New York City was in its terminal phase but remained significant in Ulster County until the arrival of abolition.

[vi] This "upstate" resentment of "downstate" persists to this day, as evidenced by recent calls by right-wing upstate politicians for the division of the state into multiple new states in order to "free" upstate New York from the control of New York City, which is still the state's economic and demographic heavyweight. The implicit and occasionally explicit antiblackness expressed through such proposals is remarkably unchanged from the early 19th century.

[vii] An analysis published in *Science* in 2019 found that animal agriculture requires 83% of global farmland and produces 60% of agriculture's greenhouse gas emissions while providing just 18% of calories and 37% of protein. This analysis found that 100 grams of beef protein produces 105 kg of greenhouse gases while the same amount of protein from tofu produces only 3.5 kg (Poore and Nemecek 2019). Roughly one third of the world's ice-free surface is devoted to pasture (Ritchie and Roser 2019).

[viii] 41% of the land in the "lower 48 states" is either grazed by farm animals or is used to grow food for farm animals (Merrill and Leatherby 2018). As a point of comparison, to the extent that Native reservation lands are "in" the U.S., they constitute about 2.3% of the U.S. landmass. Of course, there are Native farmers who also graze livestock, including on reservation lands.

[ix] As a result, the post-emancipation Jim Crow system directly impacted both Black and Native residents (including those of multiracial ancestry). It also incentivized those who could to "pass" as White.

[x] As Jessica Cattelino (2017) has suggested, it is no coincidence that there exists a White obsession with "purity" vis-a-vis both Native peoples and "nature" in a society that ecologizes indigeneity.

[xi] Land conservation organizations, including conservation land trusts, work to protect "open space" through the purchase of land development rights or through the purchase of land outright. Largely emerging in the last quarter of the 20th century in response to commercial "development" pressures, Hudson Valley land conservation organizations range in size from those large enough to have robust education programs and networks of publicly accessible trails to others that were smaller and run primarily by volunteers. Today tens of thousands (and perhaps hundreds of thousands) of acres are held in various degrees of conservation restriction by these as well as state actors.

[xii] Normally, when land conservation organizations acquire "wild" lands, uses are restricted to scientific research and certain forms of recreation. If funds are available for "management," this is generally undertaking with the goal of promoting habitat for native flora and fauna. Allowing farming, as a commercial use and fairly significant source of ecological disturbance, is a departure from the "wilderness" model of conservation that remains intact in the management of conserved non-agricultural lands.

Chapter Three: Biological Invasion and U.S. Settler Colonialism: Patterns of Disturbance and Circulation

In the Hudson Valley, the growing season is short and intense. Most native plants pass the colder, darker months that constitute the majority of the year in patient preparation for a hot and humid five-month riot. Then, incited by an abundance of rain and sun, the vertical panoply typical of eastern North American woodlands—herbaceous plants, shrubs, trees, and vines—crowd and tangle together in an unwieldy free for all. At this point, faced with a verdant, unmanageable cacophony, homeowners trained in the imperatives of suburban management, reach for their noisy weapons of choice, as the unyielding din of small-motored machines like mowers and string trimmers evidences an annual quest for order and restraint.

The great majority of field-based invasive species work in the Hudson Valley must be completed during this brief summer sprint and so there I was, alongside Riley, a conservation intern from a leading regional environmental nonprofit, scanning the layers of leaf forms along the forested perimeter at a former estate-turned popular nature park. Our task was to find Japanese angelica tree (*Aralia elata*), a spiky yet elegant suckering tree/shrub that was considered a regionally "emerging" (or not-yet-widespread) invasive plant and was known to grow nearby. While it has a distinctive compound leaf, we nonetheless had to move methodically in our search, carefully scrutinizing the

countless species of plants as we sought out what could be a 20-foot tree or a six-inch seedling.

Riley tracked our location on his phone and guided us, all the while ready to record angelica tree locations through an invasive species data collection app. He described being filled with a mixture of anticipation and dread. On one hand, confirming the presence of the angelica tree in this location—heretofore only a speculation—would be an accomplishment to share with his supervisor and would be noteworthy news in the regional community of invasive species professionals. On the other hand, finding the plant would not only be a further sign of ecological dissolution in the park (and region) but could also mean that Riley would now be tasked with the potentially onerous task of trying to remove it.

Working our way along the park's forest edges that afternoon, we encountered many invasive plants as we searched for the angelica tree. Porcelain berry (*Ampelopsis glandulosa* var. *brevipedunculata*) took advantage of the sun provided by a break in the forest canopy, large swathes of Japanese stiltgrass (*Microstegium vimineum*) carpeted the forest floor in green, and black swallow-wort (*Vincetoxicum nigrum*) sprawled out in parts of the grassland, to name only a few. These however were not formally noted as we carried out our singular search for our target species, as the angelica tree's minimal presence and woody habit made it a uniquely viable target for containment.

When I saw the first black-swallow-wort plants, I mentioned them to Riley in case this emerging species might also warrant recording. "Yeah, it's pretty widespread now so we only manage that when it is near rare or threatened species these days," he responded. My surprise in seeing the porcelain berry, which I was only accustomed to finding in the southern part of the Hudson Valley closer to New York City, was met with similar nonchalance: "it's all over Poughkeepsie so I'm not too surprised to see it here too." As for these other, non-*Aralia* species, the ship was thought to have sailed, as they were taken to be too well established to be potentially controlled by the limited personnel available to the park's managers. Barring a dramatic change of circumstances and despite their various capacities to impair ecological functioning, these species merely belong to an already long list of species that might one day be targeted by biocontrol methods, such as the release of an insect known to consume the plant in its native range, a venture not without its own risks and one that is both time and resource intensive.[i]

The Perils and Politics of Biological Invasion

For many in the humanities and humanistic social sciences, the very phrase "invasive species" prompts wariness and for good reason. As a number of leading scholars have emphasized, concerns about "invading" others are common to dangerous xenophobic and nationalistic politics, often inspiring lethal campaigns of purification and eradication (e.g. Subramaniam 2001). While

I heed these critiques and share many of the same concerns, I emphasize other aspects of the story. Specifically, I argue that the well-grounded aversion to the term "invasive" and its potential implications can distract from the ever-accumulating consequences of biological invasion—which, as I will show, is today never purely "biological"—on particular human and more-than-human worlds.[ii] Drawing from the insights of Native scholars and activists, I argue that biological invasion in a settler colonial society like the U.S. needs to be recognized as a specific expression of the generative violence of conquest, racial slavery, and White supremacy. To be sure, in the context of North America, "invasive species" is itself a colonial term, emerging from a specific legacy of humanism and empire (Haraway 2007, 17-18). Although I use it here, it is by no means the only mode of address for the challenge posed by circulation of certain new organisms in a landscape (see Reo and Ogden 2018, Trigger 2008).

In this chapter and one that follows (Chapter Six: "'Stop Invasives, Go Native'"), I draw from my ethnographic immersion in the predominantly non-Native, "mainstream" anti-invasive species milieu. While somewhat insular, this community of research and practice offers compelling evidence that invasive species merit major concern, especially through their potential to exacerbate the transformative impact of climate change and generalized habitat destruction. However, before presenting the risks associated with the increasing proliferation of invasive organisms, it is worth first briefly indicating the significance of native species, in particular their specific, often nontransferable

relations with human and nonhuman others. I will use plants as my primary examples because they were the central focus of my research, although as I will discuss later, plants are only part of the story. The analysis presented here therefore applies directly to terrestrial plants and to a lesser extent to aquatic plants as well as to invasive species in other taxonomical kingdoms.

Thanks to their remarkable ability to photosynthesize, plants form the basis of terrestrial food webs. However, making the energy plants generate from the sun available to other organisms depends in large part on highly specialized relationships with insects. Unable to move, many plant species have developed qualities that make them unpalatable to most potential insect herbivores. Through evolutionary adaptation, certain insects have overcome particular plant species' defenses, allowing them to enroll specific plants as exclusive larval hosts. The most well-known example of this relationship in the U.S. is that between the monarch butterfly (*Danaus plexippus)* and its obligate host plants within the genus *Asclepias* (the milkweeds). Less well known is that ninety percent of the insect order Lepidoptera—the butterflies and moths, themselves ten percent of all described insect species and the most abundant insect herbivores—are host specific, meaning that the absence or decline of particular plant species could pose an existential threat to the insect species. As has become well known, the massive decline in the number of milkweed plants in the Midwest following the adoption of new herbicide regimes in industrial agriculture in the 1990s (estimated to be near 60% and up to 90% in Iowa corn

and soybean fields) are thought to be a primary reason for the drop in Monarch populations to levels that now risk extinction (Hartzler 2010, Pleasants and Oberhauser 2013).

Because of the absence of similar evolutionary interaction, nonnative plants are, by and large, not eligible surrogate larval hosts for native fauna, at best supporting a smaller number of generalist insects.[iii] Crucially, insect larvae, and especially the caterpillars of lepidopteran species, are in turn an irreplaceable food source for many species of birds.[iv] A single clutch of Carolina Chickadees hatchlings is thought to require as many as 5,000 insects to raise despite the adult birds weighing barely a third of an ounce (Tangley 2016). While the bond between native plants, insects, and birds is only one facet of broader ecological life, it nonetheless poignantly indicates the material, cascading impacts of the replacement of native plant species with nonnative species at a time when bird populations in North America have fallen by at least one third since 1970 (Rosenberg et al. 2019, Tallamy and Shriver 2021).

Somewhat less well known is that many native plants also serve as the exclusive or highly preferred pollen sources for many native pollinator species, including roughly one third of North America's over 4000 species of native bees (United States Geological Survey). Once again, in these relations of mutual dependence, the local or general loss of a species or genera of plants or of the pollinating insect species is an existential risk to its obligate partner. For instance, eleven species of native North American bees rely exclusively on the

pollen provided by particular species in the genus *Solidago* (the goldenrods). The staggering global decline in the number of insects—as much as a 27% loss since 1990 and nowhere more so than in North America (van Klink et al. 2020)—is attributed to a range of factors that can also impair native plant communities, including urbanization and the loss of habitat due to farming.[v] Indeed, forty percent of the earth's plants are now considered at risk of extinction (Lughadha et al. 2020). The specific role played by native plants as larval hosts and exclusive sources of pollen are only two examples of the kind of intricate relations of more-than-human sociality forged through what Hustak and Myers (2012) describe as "involutionary momentum" that cumulatively enable terrestrial life. While the evolutionary potential has always existed for new species to establish novel webs of relation, this occurs at a scale and speed that is vastly exceeded by the extraordinary species loss that marks the planet's ongoing sixth mass extinction event.

While the complicated and pivotal relations described above are increasingly well-recognized within predominantly White anti-invasive species practitioner realms, almost never acknowledged in these spheres is the precise significance of native organisms to specific Indigenous communities across North America. These relations are grounded in unique connections to place and in practices that build affinity, knowledge, and mutual reliance (Carroll 2015, Kimmerer 2013). Native scholars and activists have long emphasized how the ever-escalating wrecking of Native land—and, as Robert Warrior has written,

"every inch of the Americas is Indigenous territory" (in Kauanui 2018, x)—is a primary manifestation of the violence of ongoing settler colonialism (Simpson 2018, Whyte 2018). This violence, whether through major extractive or infrastructural projects or through the more banal practices of clearing, grading, and pollution ubiquitous in late industrialism, undermines the endurance and sovereignty of Native communities composed through their inimitable, co-constitutive relations with place, ancestors, and more-than-human kin. As Leanne Betasamosake Simpson writes, "our knowledge comes from the land and the destruction of the environment is a colonial manifestation and a direct attack on Indigenous knowledge and Indigenous nationhood (2004, cited in Corntassel and Hardbarger 2019)." Elaborating this point in her essay "Land as Pedagogy" (2017), Simpson describes Nishnaabeg practices of harvesting maple sap as a site of ongoing knowledge production and the sustaining of not-only-human relations in the face of colonial violence. That the primary provider of this sap, the (native) tree known in Ojibwe as *aninaatig* (English: sugar maple; Latin: *Acer saccharum*), is both threatened by the invasive Asian longhorned beetle (*Anoplophora glabripennis*) and is predicted to leave parts of Nishnaabeg territory because of climate change only further underscores Simpson's original point.

Through initiatives ranging from land restoration projects to dietary practices, Indigenous peoples across territories now claimed by Canada and the U.S. demonstrate their ongoing commitment to long-standing relations with

specific nonhumans on terms other than property ownership (Carroll 2015, Kauanui 2018, Kimmerer 2013). In but one example, the prominent Songhees activist Cheryl Bryce organizes community efforts—involving both Indigenous and non-Indigenous volunteers—to raise awareness of the threats posed by pollution, "development", and invasive species to the *kwetlal* (*Camassia sp.*) food system in Lekwungen territory in so-called British Columbia. This long-term campaign to promote local populations of *kwetlal*, which produces a nutritious bulb, in city parks and other places, while also ensuring ongoing Indigenous access for sustainable harvesting, is undertaken as part of a broader commitment to contemporary Indigenous thriving (Corntassel and Bryce 2012). In collaboration with Jeff Corntassel, Bryce emphasizes these everyday acts of sustaining human and more-than-human relations as decolonial practices of Indigenous resurgence, writing that "the attempted erasure of Indigenous peoples, communities, plants, and other relationships from homelands and waterways is a central fact of settler colonialism (89)."

In the Northeast, the potentially near-term functional extinction of ash trees (*Fraxinus sp*.) demonstrates the world-transforming power of the most devastating invasive species. At the turn of the 21st century, over eight billion ash trees grew across eastern North America with around one billion in New York alone where they comprised roughly ten percent of the forest (Belke 2018). Importantly, ash species and specifically black ash (*Fraxinus nigra*) are an essential basketry material for Haudenosaunee, Wabanaki, and other Native

communities in the northern Northeast (as well as for Anishinaabeg and others further west). However, the arrival of the emerald ash borer (*Agrilus planipennis*) in New York around 2009 from East Asia via Michigan has since brought about the extraordinarily rapid decline of ash trees in affected areas to the point of near extinction in what is likely the most calamitous forest pest invasion in modern history.[vi] Ash species are generally the last trees to leaf out in the spring, allowing for extra sunlight exposure for native "spring ephemerals"—a group of ecologically valuable plants that flower early in the spring. Because they are quick to degrade, waterbodies nourished by fallen ash leaves also provide optimal conditions for aquatic macroinvertebrates and tadpoles (Youngquist et al. 2020). The cascading impacts of this shockingly sudden near extinction event are massive for humans and nonhumans alike in a landscape that emerged with and around ash trees over the longue durée. Losing species, as Deborah Bird Rose wrote, cuts links to the past and future (175). What is left, in the words of her interlocutor Hobbles Danaiyarri, is a "wild" place whose constitutive relations have been wrecked (2004, 4).[vii]

In most cases though, invasive species do not make their presence felt as rapidly as did the emerald ash borer upon its release in North America. Invasive plants, for instance, are thought to generally require a fifty to one hundred year "lag time" in which they survive in their new setting before becoming invasive, although this varies from species to species (Schierenbeck and Ellstrand 2008). Further, most introduced species do not become invasive, instead either never

achieving an enduring population or else becoming permanent if minor presences in the land- or waterscape. While the infamous story of the European Starling's (*Sturnus vulgaris*) intentional release by the American Acclimatization Society in New York City in 1890 is well-known, this was only one of many avian releases the group attempted, most of which failed (including two earlier attempts to introduce starlings). While species become invasive for a variety of reasons, common catalysts include the release from the predatory controls that exist in their native habitat as well as new opportunities for hybridization as distinct genetic populations of the same species are brought together for the first time in horticultural or other novel circumstances. Unsurprisingly, species that are more likely to become invasive are those that are adapt readily to frequent disturbance, often growing quickly and having high rates of reproductive success.

For ecologists, "disturbance" describes any rapid change to biotic and abiotic circumstances, such as those caused by floods, fires, or powerful storms. Disturbance can also refer to so-called "anthropogenic disturbance" such as clear-cutting a forest or damming a stream. It is in the wake of such disturbance—a sudden abundance of sunlight caused by the loss of a forest canopy or a newly exposed riparian bank created by a racing flood waters—that opportunistic plants might spring forth to take advantage of the newly ample light, nutrients, and space. Yet, as has become well-established in discussions of the "Anthropocene," the "anthro-" in "anthropogenic disturbance" is a

misleadingly inclusive prefix. Through historicizing the phenomenon of biological invasion throughout Hudson Valley colonial history, I argue below that the anthropogenic ecological disturbance that provides the necessary circumstances for invasive species to thrive is better identified as but one form of the multimodal violence of conquest that has saturated the past four centuries in the region. Though this violence may sometimes be immediately directed at land, trees, and waterways, describing it as solely "ecological" would risk misconstruing it as removed from the world of politics and colonial nation-building. Local disturbance and the global networks of circulation are the twin motors propelling biological invasions. These have also been two of the principal activities of colonialism throughout the modern period. Invasive organisms, transported with unprecedented speed and regularity across the world, often have little trouble becoming established in the blasted landscapes where many native species may now grow less readily. Once established, the propagules of invasive species—such as seeds and pieces of rhizome—transit on the wind, in a flood, in the fur of an animal, or on the bed of a truck into the neighboring places, often becoming plentiful despite barely being noticed. More and more in the Hudson Valley and elsewhere, the regional seed and rhizome bank—that is, the abundance of plant propagules existing at a given time in the landscape—is composed of invasive species, meaning that those species are evermore like to seize the opportunities offered on a daily basis by the quotidian acts of disturbance that characterize industrial society.

In one of countless such examples, a local road crew, flattening and expanding a small parking lot for a trail near where I lived while conducting filed research, unwittingly used "fill" contaminated with the rhizomes of mugwort (*Artemisia vulgaris)* to smooth out topographical irregularities. Mugwort, an invasive European perennial herb, tolerates difficult roadside conditions and will readily form dense, monospecies stands in sunny areas. By late summer, small, distinctively fragrant shoots emerged all around the edges of the lot. Noticing this, I pulled as many as I could, well aware that the rhizomes persisted beneath the soil surface and would likely send up new growth again the following spring. Returning to the site years after my field research, I found mugwort growing densely all around the lot up to my eye level, poised to become established in an adjacent old field known to host uncommon native plants and that had heretofore been mugwort-free. Unremarkable acts of construction, "development," and infrastructural expansion and maintenance are cumulatively replacing native plant communities and their inimitable webs of relation with invasive species whose primary enabling relation is to disturbance, to the rumble of a bulldozer as it goes off to destroy another small world. The flourishing of invasive species indexes the broader set of circumstances that are the enduring thrust of conquest.

"Only a Matter of When"

On a damp Tuesday morning I pulled into the forested parking lot of a nature preserve, empty except for a station wagon. Mark was leaning against the station wagon's rear door, smoking a cigarette. I thanked him for letting me join him and we started walking down a trail. Mark was the Invasive Species Coordinator for a state agency but was based locally. Normally, his job consisted of managing a team of seasonal interns, facilitating their work at various state-owned parks and sites. Today, with his seasonal crew in the midst of spending three days at a state park further north working on a plant removal project, he had volunteered for a state-affiliated, regional invasive species management group to follow-up on a report of beech leaf disease in this forest preserve. I had originally planned to meet him at his office for an interview but once he received the request to do the field visit, he invited me to tag along.

Mark was the inaugural person in his position—one of two statewide—and held a master's degree in biology. After leaving his graduate program, he got a job in North Carolina at the regional office of a large conservation NGO before moving to New York to work for a couple of years at a private firm that did contracted invasive species management. He liked his current job best yet because it engaged his training while allowing for a balance of in-office and in-field work. "To be honest, I wish I got to be in the field more—that's part of why I volunteered to do this today. After all, I do this work because I love forests and want them to be healthy. But it's easy for the office oversight and management

work to take up all the time. There's so much coordination to do with other agencies and actors on top of needing to stay abreast of the biological invasion research that is always advancing, not to mention the human resources part of the job. Most monitoring gets done by teams like mine or by volunteers. Because beech leaf disease is new, [the director of the regional group] wanted to send someone out who had a little more sense of what to look for."

The forest was in the lower part of the Hudson Valley, closer to New York City. As is typically true in this area, it has a long disturbance history. Enslaved Africans gradually cleared the forest during the 17th and 18th centuries, sustaining White farm families well into the 19th. No longer profitable by the early 20th century, the farm passed through a series of hands, with small pieces being sold off for residential construction over the decades. Following World War Two, this transformation accelerated, as entire blocks were installed on old pastures, housing the beneficiaries of G.I Bill and the working professionals of New York City and its suburbs. Occasionally during our walk we could hear the sounds of a nearby north-south parkway, built nearly 100 years earlier as cars became the dominant locus of municipal planning. Second growth mixed deciduous forest—a remnant of what took hold after active farming had ceased—still stood on a large rocky ridge that had once been the western half of the original farm property. Once logged and grazed but too topographically uneven to become a suburban neighborhood, the residual forest—in which we now walked—was acquired by a regional land conservancy in the late 1960s and

was now managed primarily by the local municipality as a site of public recreation and ecological conservation.

The houses I had passed during the last ten minutes of my drive maintained a predictable form: a familiar handful of "ornamental" shrubs were planted around their foundations—most nonnative, some invasive—and these were in turn surrounded by lawns. Small, forest fragments, disturbed and neglected, persisted between some of the houses and streets. Invasive species accumulated there, whether "escaping" from nearby homes, resulting from road or other building projects, or having been transported by wildlife. Just as I was about to enter the park itself, one last cul-de-sac sprouted off just across the street. In the small strip of forest left between the first house and the road were invasive plant species I hadn't seen in the rest of the neighborhood, likely growing unnoticed, and poised to hop over into the conserved woodland.

Back in the forest, while there were tall trees all around us, relatively few plants grew on the forest floor. Decades of disturbance, habitat fragmentation, and proximity to commercial and suburban centers had powerfully altered the composition of plant communities in this forest. What we found were often nonnative, invasive species of little appeal to the white-tailed deer (*Odocoileus virginianus*) who themselves thrive in suburban neighborhoods largely bereft of predators. Deer herbivory exacerbated the impacts of nonnative earthworms, common in Hudson Valley landscapes with long histories of European agriculture and horticulture, who create soil conditions that hinder native plant

growth. As we walked along, we encountered some patches of native sedges (*Carex sp.*)—of little interest to deer and less bothered by earthworms—that created a grass-like blanket. Much more abundant were Japanese stiltgrass (*M. vimineum)* and garlic mustard (*Allaria petiolata*), predictable invasive plants that occur in large volumes in "severely impacted" forests like these and the residential neighborhoods that often surround them. "People come here and see all this green and assume it is a healthy forest," Mark said, briefly looking around, "but once you learn some basic identification skills, the plants tell you another story. They are indicators of broader ecological disintegration. I remember getting so excited when I thought I found wood poppy (*Stylophorum diphyllum*, a woodland wildflower native elsewhere in the east) in the forest by my house. For a year I did little things to help it flourish—making sure other plants weren't crowding it, even transplanting it to help it spread. I thought, wow, what does having this great plant here say about this forest? Then a friend came over and told me it was actually greater celandine (*Chelidonium majus*, an invasive lookalike) and ever since then I've been removing it. It completely changed how I felt about the forest—I guess it wasn't as pristine as I had hoped." Mark continued, looking around, "to be honest, I don't spent too much time in forests like this. They are just a very low priority because they are so far gone, the level of ecological function is so compromised. When I worked with the [private] ISM [invasive species management] company, every once in a while a wealthy homeowner in a wealthy suburb would want to put a lot of money into a

forest like this that was privately owned, removing invasives, excluding deer, and doing restoration planting but most aren't so lucky. It's sad because more and more places are looking like this, even up where you live. With a species like stiltgrass, all you can do is hope that one day they find an effective biocontrol."



Figure 3: *Stiltgrass in the foreground, Japanese barberry in the center, and an absence of woody plant seedlings and saplings: a typical scene in a "disturbed" forest in the Hudson Valley, despite the presence of mature trees.*

We reached a slight overlook and watched as a "bomb train" barreled along on a track about 75 feet below us. Car after car loaded with crude oil, we

were reminded that invasive species work occurs in the wake of world-wrecking infrastructures that define our time. The ridgetop was cloaked with about a dozen hemlock trees that looked healthier than those we had passed earlier that had given the weary impression of being beset by the presence of hemlock woolly adelgid (an invasive insect discussed at great length in Chapter Six ("'Stop Invasives, Go Native'")). "These twelve are being treated," Mark explained, his voice tinged with a sort of hopeful hopelessness, "they found a little bit of extra money and decided to spend it here. They were injected last year [with a combination of insecticides] and the treatment will last for seven years. Hard to say if they'll be able to afford doing a follow-up treatment then but it buys them a little time."

As we walked on, Mark updated me about new monitoring efforts and shared the latest reports of various species popping up in different places. Recognizing that he sounded overwhelmed, I asked Mark what he would do if his budget was suddenly doubled. "I would hire more people to do monitoring. That would produce more and better data. It really feels like the only [invasive] species we have a chance with are those we catch really early. The thing is you just never know what species might be hiding on some privately-owned land somewhere. We usually only find out what's found on publicly accessible or land that is hosting research. For instance, when I first moved to this area, I remember everyone was on the lookout for black swallow-wort (*V. nigrum)*. If we found it, it was removed immediately and those who were tracking its spread

were notified. Then one day a homeowner called the ISM firm I was working for because he was wondering about a plant he was seeing more and more of. It turned out he had 10 acres of swallow-wort at his house and had for decades and no one knew, not even him. Who knows how it got there? That's not a horticultural plant. He didn't spend much time in that part of his property and had no idea how it happened. Fortunately, he was willing to contract with us to spray it even though it was a multi-year project. But his neighbor didn't want any herbicides sprayed at her house. We tried mowing and hand-pulling for a few years but it was just taking too long and she decided pretty quickly that it wasn't worth it. I know Cornell is testing a biocontrol for that species but I think they've only found it to be partially effective. Neither wanted to pay to have native plants seeded in after and so I'm worried that we just created a vacuum that another invasive is going to take advantage of. I've seen that happen so many times. You need to have a lot of dedication."

As he finished his story, Mark pulled out his phone and used GPS to identify our exact location. "The infected trees are supposed to be right over there" he said, gesturing down the trail. Sure enough, I could see that the forest ahead was full of the smooth, silvery trunks of American beech (*Fagus grandifolia*). Beech grows throughout the eastern U.S. and provides food for insects (as a larval host) but also for many species of animals that consume its nuts. The extinction of passenger pigeons (*Ectopistes migratorius*, a once prodigious bird species) in the early 20th century is in part attributed to the

clearing of beech forests that were a critical food source. Beech also has the ability to grow in significant shade and is relatively unpalatable to deer. These qualities make it especially important (and abundant) in forests like this one with a densely shading canopy and many deer.[viii] In the northeast, the species had already long been plagued by an invasive, European scale insect (*Cryptococcus fagisuga*) whose feeding enables two fungal pathogens to weaken and sometimes kill trees since its introduction in the early 19th century.

Beech leaf disease was a new and barely understood presence. First noted in Ohio in 2012, the "disease" is apparently the consequence of feeding by the nematode *Litylenchus crenatae mccannii* on leaves and buds, likely in combination with as yet unidentified bacterial or fungal actors, causing terminal damage. The mode of transmission is unclear as is the pathogen's origin. Since biologists in Ohio began sounding the alarm in 2016, the disease has moved eastward, with new reports each year in the Hudson Valley and New England. The curling and discolored leaves on young beeches before us confirmed that the report received by the umbrella organization had been accurate. "Oh boy," Mark sighed, taking photos of the infected leaves, "I knew it was only a matter of when." As we left the trail to try to delineate how many trees were showing symptoms, Mark elaborated: "in a forest like this, where beech is one of the only species growing anyway, the impact could be transformative. What's going to be able to grow to create a new canopy layer if they are lost and the deer eat the other seedlings? [The pace of biological invasion] is just relentless. Think how

long it is going to take to develop a biocontrol—if they ever can even develop a biocontrol—if they don't even know what causes this yet?"

Historicizing Biological Invasion in the Hudson Valley

Accounts of biological invasion in North America should take colonialism as their point of departure but rarely do. While invasive species experts are aware of the intentional introduction of many invasive species, this action is not presented as part of a broader project of White supremacist settler colonialism in which the objective of botanical replacement was a mechanism of wider campaigns aimed at replacing Native peoples and creating a White dominated society. Recently, such an analysis has become less uncommon (Brooks 2018, Neale 2016), as Native and nonnative scholars operating in settler colonial societies have begun to address the invasive species issue beyond interrogations of lurking (or sometimes overt) nativism and critiques of the often-militaristic rhetoric of non-Native anti-invasive campaigners. Below I offer a brief historicization of biological invasions in the Hudson Valley, expanding on the account of the introduction of animal agriculture offered in Chapter One ("Factorij Farms"). The transformation of Hudson Valley landscapes through multispecies campaigns of improvement constitutes the first wave of regional biological invasion. Subsequent waves, involving new species, modes of introduction, and consequences, correspond to particular phases of Hudson Valley settlement and racialization.

Before proceeding, it is imperative to emphasize that many nonnative plants and other nonnative organisms have become valued by some Indigenous peoples as they continue to adapt to changing circumstances. Indeed, as mentioned above, the sorting of organisms into a native/nonnative binary pinned to the historical onset of European colonization is a framing that is far from uniform in Native accounts of more-than-human communities.[ix] Of course, prior to European arrival Native peoples tended a dynamic landscape in which plants and other organisms were constantly in circulation. Indeed, in the Hudson Valley and in much of the Northeast, the horticultural assemblage central to many Native communities at the dawn of European colonialism had likely been in place for no more than a millennia, oriented around plants like corn, beans, and squash that originated far to the south and west. Then as now, Native livelihoods involved practices of ecological disturbance. However, disturbance itself has never been the issue and I am not suggesting that it functions in opposition to an illusory stasis.[x]

Nonetheless, in making this point, in a moment of unprecedented biological invasion and extinction, it is crucial that critiquing the colonial "myth of the ecological Indian" cannot become, as it sometimes does, a sanction for settler world-wrecking. On one hand, Native peoples operate with a degree of license when engaging in practices of disturbance in their own territories—whether they choose to exercise this license or not—that settlers living in so-called North America cannot likewise assert. Further, the level of constant and

escalating disturbance that has been the material impact of U.S. settler colonialism and racial capitalism is qualitatively more routinized, extensive, and hazardous than that which occurred during the entire, incomparably longer history of human presence on the continent. Significantly, settler models of extractive subsistence in the Hudson Valley and across North America have been undertaken to bring about the major recomposition of regional floras and broader landscape communities in order to further specific political aims, namely the building of a White supremacist society through the elimination of Native peoples and the seizure and transformation of their lands. These practices have accomplished the historically rare and ignoble feat of delivering a world on the edge of habitability. Nonetheless, settlers themselves are not, as it is sometimes reductively suggested, themselves "invasive species." Instead, as Robin Wall Kimmerer has suggested, White settlers in North America have often relied upon material-discursive modes of making and inhabiting landscapes, premised on notions of human exceptionalism, that come to resemble the invasive species that accompany them in that they both can undermine Native relationality and thriving (2000). How and why plants and other organisms are introduced and promoted and to what ends such activities are undertaken matters. The question of which humans make worlds with which organisms and where is a matter of politics.

For mainstream anti-invasive species agencies and practitioners, an "invasive species" is understood to be a nonnative organism capable of significant ecological or economic harm or that poses a substantial risk to human health ("Invasive Species," "Species Information"). Additionally, invasive species are generally taken to be capable of becoming distributed and established in a landscape without active human support. Because invasive species, and especially invasive plants, exist in a mutualistic relation with the banal acts of disturbance and circulation that characterize industrial society, this latter quality is difficult to measure. In the absence of the everyday activities of excavators and container ships, already-present invasive species would not disappear, however the engine of circulation and disturbance which today drives an endless series of new and expanding invasions would be compromised. Invasive species ride the waves generated by the churning, enduring processes of historical violence and accumulation that stretch from the "Age of Exploration" to the present. Combating the invasive species challenge in the present requires naming the lively infrastructures—technological, economic, and political—that have been centuries in the making, creating conditions of nonstop, widespread disturbance and facilitating the circulation of some humans and nonhumans while restricting that of others.

A provisional historicization that stresses biological invasion as a desired, if sometimes haphazard mechanism of settler colonialism complicates conventional notions of which species are and are not invasive. For example,

while some of the most assertive introduced forage plants like smooth brome (*Bromus inermis*) and reed canary grass (*Phalaris arundinacea*) are considered invasive (although they are not necessarily legally regulated), many species that have been at the core of the colonial animal agriculture assemblage for hundreds of years, including the animals themselves, are not. European forage plants like the clovers (*Trifolium sp.*), Timothy (*Phelum pretense*), birdsfoot trefoil (*Lotus corniculatus*), orchard grass (*Dactylis glomerata*) are rarely regarded as invasive and are still widely promoted by farmers and university agricultural extension agents for pasture improvement. These species will never go away but are generally outcompeted by native plants or other more assertive invasive plants in the absence of active assistance by farmers. But because they are actively abetted, they cover vast expanses of grazing land and hayfield, providing negligible ecological substitute for the native plants they supplant. Similarly, alfalfa (*Medicago sativa*) and soy (*Glycine max*) are grown in vast, resource-intensive monocultures in order to feed farm animals, displacing native plants and doing great damage to both human and nonhuman communities. They do this as beneficiaries of a vast, systemized form of ecological disturbance called industrial agriculture. Plants grown in such monocultures, whether in the service of animal agriculture or not, could be classified as invasive under the most common definition of invasive species given their various deleterious ecological impacts but are not. While these organisms are certainly dependent on human activities supporting their flourishing, my broader contention is that

the phenomenon of invasion must always be conceptualized in permanent relation to specific colonial practices. In the colonial history of North America, no species are invasive in isolation. In other words, all of the species that could potentially be classified as invasive through my more capacious reading of the prevailing definition—from "conventional" invasives like mugwort, to species that are not normally considered invasive like cows or soy—rely on infrastructures of invasion even though some are targeted as scourges of wild areas and others are promoted as valuable agricultural commodities.

In some cases, the same organism achieves both distinctions. Consider the pig (*Sus scrofa/Sus scrofa domesticus*): in New York and elsewhere, wild pigs, also called feral swine or wild boars, are considered an invasive species. Hunters are encouraged to pursue them and special eradication teams are sometimes hired to kill them. Most of these pigs are escapees from businesses who raise them in order to stock confined hunting areas. But the wild pig/wild boar is the same species as the pigs raised in confinement for meat across the U.S.[xi] While wild pigs, like all pigs, are large, powerful creatures whose vigorous foraging style can damage habitats and intimidate neighbors, their cumulative ecological impact pales in comparison to that of pigs raised for meat in captivity in the U.S. whose impact on water and air pollution, as well as on climate change, is widely-acknowledged (to say nothing of the dangerous and excruciating lives of industrial pig farm and slaughterhouse workers).[xii] Nonetheless, the scale and overwhelmingly documented adverse impacts of industrial pig farming are not

enough to register these animals as sufficiently harmful to be considered an invasive species. Rather, to be targeted by anti-invasive professionals, the pigs need to become feral and be considered out of control.

But out of whose control? Revisiting landscape histories of the Northeast, species that are now or have historically been considered a nuisance were actively promoted by settlers in projects of displacement against Native peoples and only became targets of colonial governments when their impacts began to ricochet back onto the settlers themselves. In the early colonial period, roaming farm animals did great damage to Native livelihoods but fencing laws were often only enforced once the consequences became untenable for settlers, whether because of Native retaliation or because damage was also done to settler farms. In another case from the same period, settlers introduced the common barberry shrub (*Berberis vulgaris*) to New England in the early colonial period only to have it rapidly escape cultivation. Before long, it was recognized that the shrub had a negative impact on wheat yields through its association with a pathogenic rust *Puccinia graminis* and so various state-sponsored eradication efforts were initiated (and it is considered an invasive species today). Here too, the invasive species was only targeted once it was considered to pose a risk to settler livelihoods. I argue that similarly narrow rationales endure in the present-day constitution of the invasive species category, excluding the listing of "useful" organisms like soy or (confined) pigs despite their vast geographic and ecological footprints while including "nuisance" species like common barberry.

Biological invasions in the Hudson Valley can be historicized as having occurred in three primary overlapping phases. Each phase corresponds with particular colonial landscape practices and modes of accumulation, with the intensity of invasion increasing in large part with the escalation of industrialism. Introduced Old World human diseases could, according to some of the criteria discussed above, be considered invasive organisms. While I will not pursue such an account here, doing so could potentially deepen future analyses of the related actions of a range of novel organisms in the turmoil of North American colonization. Paulla Ebron's description of how the slave ships of the Middle Passage provided the conditions for the mosquito *Aedes aegypti*, a major vector of human diseases, to invade the New World is a remarkable step in this direction (2020).

For this historicization of Hudson Valley biological invasion, however, I will build on the previous chapters by returning to the landscape-remaking that began with the introduction of animal-dependent European agriculture. With it came the nonnative food crops, forage plants and their animal symbionts—all common species in Europe—which, over 250 years, came to cover the great majority of all but the steepest and wettest parts of the Hudson Valley with the help of farmer allies. Changes in soil chemistry and the implementation of grazing and haying regimes transformed native plant communities. Although records are limited, it does not seem as though the forage plants or farm weeds

substantially invaded the small fragments of land not actively managed by farmers (de Schweinitz 1832). Rather, these species likely persisted less prevalently when farmer support waned. This invasion started slowly as nonnative pasture plants seem not to have become widely cultivated until settler population densities increased substantially in the later 18th and early 19th centuries when the conversion of land to agricultural uses began to approach its apex (a process discussed at greater length in the following chapter).

The second major phase of biological invasion began soon thereafter, as landscape gardening emerged in the mid-19th century as a formalized endeavor. Earlier generations of wealthy Americans had been inspired by European horticulture and sought to replicate it with both native and nonnative plants in their residential landscapes. By the 1840s, however, the growth of the *noveau riche* in places like the Hudson Valley led not only to horticulture becoming more widespread as a hobby and preoccupation but also to the solidification of a distinctly American mode of practice. At this time, the acquisition of plants imported from far away, many of which would later become invasive, was a mark of distinction. These were the "ornament(s) of empire" (Burd 2014), the botanical booty of Europe's (and to a growing degree, the U.S.') global network of coercion and imperial circulation.[xiii]

Plant importation was encouraged by America's antebellum arbiter of taste, Andrew Jackson Downing, a national trendsetter in horticulture and lifelong Hudson Valley resident who was due to design the grounds of the White

House, U.S. Capitol, and New York's Central Park at the time of his premature death in 1852. Downing, a patriotic landscape theorist and writer who championed private property and self-aggrandizing beautification, popularized many of the components now quintessential to American suburban landscapes. These include the widespread use of nonnative plants, the virtue of diligently maintained lawns, and a distinctively American aspiration toward the "natural" in an attempt to mask the gardener's hand. Seeking to deploy plants and aesthetics toward the creation of a built environment worthy of the majesty of the American civilizational project, in Downing's vision the "wild desolation of the savage" (Schuyler 2012, 17) would be replaced with White cheer and industriousness without losing altogether a kernel of the "wild" element that distinguished the U.S. from Europe and was taken to be a primary component of the new nation's exceptional promise.[xiv]

Downing's legacy was carried forth by his devoted colleague Calvert Vaux and Vaux's subsequent design partner Frederick Law Olmstead, now widely renowned as the "grandfather of American landscape architecture." Like Downing, Vaux and Olmstead used and sometimes championed native species but also planted and popularized many nonnative species that have since become invasive.[xv] Many of what are now considered "legacy" or long-established invasive plants in the Hudson Valley can be traced back to their planting on estates and other garden settings in the late 19th century. Indeed, 85% of invasive woody plants in the U.S. are garden escapes, many of which

were first planted in this period (Reichard and Hamilton 1997). Over the course of the 19th and early 20th centuries, these plants were increasingly conveyed via Europe-based horticultural networks from northeast Asia, a region with climatic and ecological conditions akin to those of the U.S. Northeast. This was the case with the Japanese angelica tree from this chapter's opening vignette, a species that remains widely available in the horticultural trade to this day. That the 19th century was also one of increased industrial activity—including the building of railroads and other large infrastructural projects—facilitated the movement and establishment of these species locally, although some would not become widespread for another century.[xvi]

While the introduction of plants for both agriculture and horticulture that characterized the first two "phases" of invasion continued in the 20th century, the intensification of both disturbance and international circulation that marked the third (and still ongoing phase) created unprecedented opportunities for invasion, including the unintentional release of pathogens and insects capable of incredible impacts. As prevalent and consequential as some plants became, they could not match the unfathomable scale of transformation wrought by organisms that were in many cases essentially invisible. Chestnut blight (*Cryphonectria parasitica*) was introduced on imported Asian chestnut trees planted in New York around 1904 and rapidly caused the functional extinction of the American Chestnut (*Castanea dentata*), a keystone species that had until then constituted one-third of eastern forests. In another staggering case, so-

called Dutch Elm Disease, which refers to a group of Asian fungi dispersed in North America by both native and nonnative beetles, was accidentally introduced on imported logs in 1928 and is estimated to have since killed three quarters of the native elms (*Ulmus sp.*)—another common and ecologically significant genus—in the U.S.

Rates of plant importation increased as well, with one U.S. Department of Agriculture estimate holding that the U.S. federal government alone imported more than 225,000 species of plants between 1898 and 1956 (most of which, to be sure, did not become invasive or even enduring) (Erlanson and Hodge 1956). These efforts were often coordinated with other government agencies, educational institutions, and agricultural services in order to promote the use of particular plants to solve practical problems. Here, the progressive application of plant science reanimated the centuries-old practice of biological enrichment and replacement at the heart of U.S. settler colonial project of social replacement. Multiflora rose (*Rosa multiflora*), now a common invasive shrub, was widely disseminated during the first part of the 20th century for use as "living fences" on farms, as hedgerows, and for soil conservation. Slightly earlier, kudzu (*Pueraria sp*.), a now infamous leguminous vine, was widely distributed for bank stabilization and animal forage. By 1958, the phenomenon of species invasions led the British ecologist Charles Elton to publish *The Ecology of Invasions by Animals and Plants*. Though now considered the foundational study and conceptualization of the field of invasion ecology, the book, like many invasive

plant introductions, endured a long lag phase and received relatively little attention for several decades. By the 1980s however, the increasingly unignorable global impact of biological invasions led to the revisiting of Elton's work and to the early coalescing of coordinated responses to the invasive species challenge, first among scientific researchers and later among governmental entities and conservation organizations.[xvii]

The amplification of industrialism and global integration that accompanied the post-war Great Acceleration had begun a marked increase in opportunities for biological invasion that continues to the present. In the U.S. specifically, 44 million acres of land were "developed," which is to say transformatively disturbed, between 1982 and 2012, in addition to the 70 million considered "already developed" (USDA 2015). Trends in the Hudson Valley corresponded, with "sprawl" increasing 29% between 1982-1997 while population grew around 9% (Pendall 2003). This followed what had already been decades of unprecedented levels of routine industrial disturbance as part of the infrastructural buildout of what Ruth Wilson Gilmore calls the Cold War "welfare-warfare state" (2007). Fueled by Defense Department funding, the Hudson Valley became home to major new research and development hubs for firms like IBM, as local small valley cities expanded and suburbanized seemingly overnight. Post-World War Two White flight occurred simultaneously, also driving suburbanization and resulting in a new round of regional habitat

fragmentation just as the forests of the Northeast were beginning to return in the agriculture's wake.

Breathtaking statistics illuminate the conditions in which my anti-invasive practitioner interlocutors work: as of 2014, global maritime trade had increased 300% since 1992 (Tournadre 2014) and global air travel by 300% since the year 2000 (Brown-Lima 2019). The number of shipping containers arriving at U.S. ports doubled between 2000 and 2017, a scale that assures that some organisms will invariably escape detection by inspectors at U.S. points of entry (Pain 2020). The global plant trade specifically ballooned in the last quarter of 20th century by over 500%, with 3.15 billion plants imported to the U.S. in 2007 alone (Liebhold et al. 2012). The rate of planetary commodity importing continues to reliably increase and diversify, directly linking parts of the world never before so connected, altogether assuring that there is no possibility of the pool of potential invasive species being exhausted. Cumulatively, these factors contribute to a growing "invasion debt" or the abundance of organisms already present in the landscape that have yet to become invasive but are poised to should present conditions continue.

The late 20th century was also, as discussed previously, a time of increased agricultural abandonment in New York. Although I have emphasized that agriculture in the Hudson Valley comes with significant ecological consequences of its own, it is likely that the release of large swaths of land from regular regimes of tilling, grazing, and mowing, among other forms of general

agricultural "maintenance" likely allowed some invasive plants to become more widespread than before. Further, as many farms were turned into residential subdivisions where the primary outdoor activity is lawnmowing, changes in local flora became less and less likely to be noticed let alone responded to. As described earlier in this chapter, invasive plants introduced in the course of construction become established in the lawn's peripheries and a narrow group of nonnative species are planted to ring the foundations of the new houses.

In a general sense, biological invasion is a cost of wealth accumulation. The damage done to previously uninvaded areas is the "slow"—although sometimes also very fast—violence of "economic growth" (Nixon 2013). Across the world, the richness of nonnative floras is directly correlated with national GDP (although this no doubt also reflects disparate opportunities for tracking and reporting new species) (Hulme 2009). In studies of the U.S. specifically, invasive species density correlates to human population density, the value of real estate, the number of years of U.S. statehood and, in nature parks, with visitation rates (Larson 2010; Pyšek et al. 2010; Dawson et al. 2017 The relationship between wealth, population density, proximity to major sites of importation, and species invasion conspire to make New York City and the adjacent Hudson Valley among the areas in the U.S. with the very highest rates of invasive species pressure. Although intentional introductions—both state-approved and otherwise—continue to occur, compared to earlier periods new invasions are more likely to be "unintentional" releases that occur when an

organism is unwittingly conveyed, as often happens in a ship's ballast or in wooden packing material (which was the case with the emerald ash borer). On the other hand, given that 72% of imported plants infected with an invasive organism (such as a pathogen or insect) are not intercepted during routine inspections at U.S. ports of entry (Brown-Lima 2019), to continue to classify such "escapes" as "accidental" obscures what one anti-invasive species practitioner—speaking with unusual frankness—told me once over lunch: that so long as the conditions for invasion continue be exacerbated through the relentless velocity of global circulation and local disturbance, the rate of biological invasion is likely only to increase.

Forms of Response

The search for Japanese angelica tree on the June day described at this chapter's outset was driven by the environmental NGO's desire to know if the species was present in this particular preserve. If so—as it was, albeit in a very small area—the location would be reported to regional databases and the plants would be killed. In this case, there were no specific populations of rare or threatened species nearby that the NGO was trying to protect. Rather, they merely sought to prevent the establishment of yet another invasive shrub within the forest understory in this particular area where native species already faced many challenges.

In what remains of this chapter and in a later one (Chapter Six: "'Stop Invasives, Go Native'"), I will focus on how overwhelmingly non-Native anti-invasive practitioners respond to the world-altering consequences of invasive species within a context of habitat loss and generalized disturbance on a scale unprecedented in human history. Despite more money and attention being directed than ever before to the prevention of new invasions and management of existing ones, to anti-invasive practitioners the task of containing the impact of invasive organisms seems increasingly daunting if not impossible. As I will discuss later, "management" and "eradication" expectations continue to decline as the almost unfathomable scale of the task becomes more and more apparent.

In the Hudson Valley, I did long-term participant observation with a wide range of anti-invasive practitioners. Most of the individuals and organizations I worked with were affiliated with a regional umbrella group—versions of which the New York state government has convened across its jurisdiction—that coordinated regional invasive species management. Made up of almost fifty member organizations, including land conservancies, ecological research organizations, professional invasive species management firms, universities, and groups of park volunteers, the "partners" that together constituted the umbrella group I spent time with are directly responsible for the "management" of over 220,000 acres. I undertook participant observation with a range of different member organizations, as well as with New York state employees who, while not

formally integrated into the umbrella group, were engaged in similar efforts on state-owned lands.

Seasonal interns aside, the partner organizations that made up the umbrella group generally had at most one full-time employee whose responsibilities involved invasive species work to some degree. In many cases, the partner organization was a "land manager" of one form or another, responsible for a park or nature preserve and guided by commitments to both ecological and recreational purposes on their hundreds or thousands of acres. These organizations often had one full-time "stewardship" or "conservation" professional whose responsibilities often ranged from monitoring rare and threatened species, to trying to control invasive species, to cutting up trees blown across a trail in a storm. These professionals had degrees, often at the graduate level, in environmental science or natural resource fields. Many had worked in conservation or environmental fields for years and some were also involved, to varying extents, in academic-based ecological research initiatives. In most cases, long-standing conservation organizations have simply added invasive species management to the responsibilities of their "stewardship" program in the past decade or two with little if any additional budgeting or staffing. As a result, much of the actual in-field labor of monitoring and working to contain the unending avalanche of new invasive species falls on seasonal interns or volunteer "citizen scientists," with the conservation professional managers having to make difficult triage decisions about time and resources,

acknowledging regretfully that they must forego addressing all but a few species or especially prized locations. The interns were low paid, often college students or recent graduates seeking to become conservation professionals. If the umbrella group's occasional group photo was taken at a meeting during the summer intern season, their faces made the group seem younger and less White than it really was.

The umbrella group has its own small professional staff who interacted regularly with state and federal invasive species officials, as well as a seasonal team that is contracted to conduct "management" (primarily herbicide application) on both member and nonmember lands. The entire regional group gathered five times each year for meetings at which priorities were discussed, updates shared, and strategies adopted. I also put in long hours in the field with various members, surveying for various invasive species and sometimes removing invasive plants. Finally, I also attended dozens of presentations, both virtual and in-person, by those working on the invasive species challenge both locally, across New York state, and across the U.S.

The regional umbrella groups were created in 2007 as the formalized successor to what began in the mid-1990s as an ad-hoc statewide council on invasive plants. Looking back, one of this earlier council's conveners, a botanist of state-wide renown, told me that even by then things "were starting to get out of control." And yet, New York was earlier than many other states in organizing its response. Indeed, invasive species did not begin to register as an issue at the

federal level until the early 1990s (Simberloff 2015) and took longer in many states. The group, as well as this text, focus primarily on invasive plants although in both cases this approach has serious limits. As a professional ecologist and umbrella group member complained to me, that the umbrella group's membership included a disproportionate number of small but relatively wealthy suburban New York City land conservancies encouraged an approach that he likened to a gardener's desire to weed and purify. This disposition was reflected in enthusiasm for annual contests in which the umbrella group competed with its neighbors to see who could pull out the most invasive plants. The time and energy devoted to removing plants, the ecologist argued, would have been better spent confronting the invasive forest pests—both insects and pathogens—that threatened irreversible damage to tree species across the forested Northeast. Illustratively, a neighboring umbrella group in the heavily forested Catskill Mountains devoted a much higher percentage of time and attention to forest pests than to plants, although this also was a result of various factors.

Being more familiar with terrestrial plants than with insects or aquatic plants, the Hudson Valley umbrella group's floristic focus enabled me to partake more readily in conversations and field activities. Nonetheless, the ecologist's critique of relative fixation on plants also extends to humanities scholars studying biological invasions. While there is no question that botanical replacement was and is a modality of settler colonial violence as described above, "accidentally" released invasive pests and pathogens likely now pose a

greater risk to Native landscapes and livelihoods, as epitomized by the sudden functional extinction of ash trees across large swathes of the continent.

The extent to which northeastern landscapes persist today as sites for broader human and not-only-human flourishing is to a considerable degree the result of the labor and insight of the generations of Native peoples who tended (and continue to tend) them. Just as Native and non-Native people alike are now, to use one but one example, shaded and sustained by forests whose condition of possibility (and resurgence, following initial rounds of land clearing) depended in part on Native land practices, the constant, wanton introduction of new organisms and the ominous lag time of not-yet-invasive species hint at possible landscapes that stand to be left to those yet-to-come. With this in mind, rather than track a particular taxon, in what follows I will focus instead on the conditions that make biological invasion possible and how alterations to the composition of more-than-human communities redound across generations.

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[i] Indeed, stiltgrass and swallow-wort are already targeted by biocontrol programs. Porcelain berry and angelica tree are, to my knowledge, not yet the subject of biocontrol research. Both are still available through the legal horticultural trade albeit not in all states.

[ii] To be sure, others—including many of those who have critiqued the term "invasive"—have also emphasized these impacts (eg. Mastnak, Elyachar, and Boellstorff 2014).

[iii] The North American members of the genus *Quercus* (the oaks), on the other hand, host over 550 species of lepidoptera.

[iv] "Caterpillars transfer more energy from plants to other animals than all other herbivores combined (Narango, Tallamy, Shropshire 2020)."

[v] One review found bee species richness to have dropped by 25% since the 1990s (Zattara and Aizen 2021).

[vi] The dramatic population loss in White Ash in particular is also due to the unrelated pathogen *Ca.* P. fraxini that causes a condition known as Ash Yellows.

[vii] There are countless such examples: in one illustrative case, researchers are increasingly aware of how the significant decline of eastern hemlock (*Tsuga canadensis*) because of the invasive insect hemlock woolly adelgid (*Adelges tsugae*) results in critical habitat loss for particular species of songbirds (Toenies et al. 2018).

[viii] These qualities also make it a nemesis for commercial foresters who kill beech—which has less value as timber than other species—with herbicides because it "crowds out" more lucrative trees.
[ix] These theorizations, diverging from predominantly non-Native fields of invasion biology research and practice, are discussed additionally in Chapter Six ("'Stop Invasives, Go Native.'")
[x] Indeed, as I will discuss in Chapter 6 ("'Stop Invasives, Go Native'"), many native species too need disturbance to thrive.
[xi] Some taxonomists consider domestic pigs to be a subspecies of *Sus scrofa* ("*Sus scrofa domesticus"*) but many others consider domestic pigs and wild boars to be the same species. This is the case, for instance, with the USDA's Animal and Plant Health Inspection Service (APHIS), the federal government's agency tasked with protecting U.S. agriculture from invasive species (USDA 2020).
[xii] Animal agriculture's role as a major generator of air pollution has also been well-documented (Domingo et al. 2021).
[xiii] In one telling example, the botanist James Morrow accompanied U.S. Commodore Matthew Perry in his 1853 on his mission to "open" Japan to U.S. "trade". Morrow returned with over 1,500 specimens of plants, both dried and alive. One of these became known as Morrow's honeysuckle (*Lonicera morrowii)* and was widely planted as an ornamental (Griesbach 2013). It is now a major invasive shrub across much of the U.S. Northeast and Midwest in association with several similar honeysuckle shrubs.
[xiv] For Downing, the true American home was "not, indeed, the feudal castle, not the baronial hall, but the home of the individual man-the home of that family of equal rights, which continually separates and continually reforms itself in the new world-the republic home, built by no robbery of the property of another class, maintained by no infringement of a brother's right; the beautiful, rural, unostentatious, moderate home of the county gentleman, large enough to minister to all the wants, necessities, and luxuries of a republican, and not too large or too luxurious to warp the life or manners of his children (in Benjamin 2014, 356)."
[xv] This practice corresponded in large part with the horticulture of the U.S.' "Founding Fathers" who, generations earlier, had famously celebrated native plants as a means of wedding settlers to what was now "rightfully theirs" while also importing other plants from around the world (Wulf 2012).
[xvi] Ironically, there are now serious calls to close the Erie Canal—the construction of which was so essential to New York's projection into Haudenosaunee territories—because of its role as a passage for aquatic invasive species between the Great Lakes and the Hudson River. The Canal is today primarily a tourist attraction.
[xvii] Today it is sometimes said by those in the field that the only thing increasing more rapidly than the invasions themselves is the amount of academic publishing on the subject (for one systematic review see Lowry et al. 2013).

Chapter Four: Simplification and Regeneration

I put my notebook in my bag, stood up, and started walking away from the lambs. Even though it was only early evening, the lowering sun and cooler air reminded me that it was September and that it wouldn't stay light as late as it had when I was last here two weeks ago. Walking south along the permanent fence that marked the eastern edge of the field, I couldn't help but notice the remarkable power of that slender, smooth line of high tensile wire. Not that it excluded predators; coyotes, foxes, and probably even black bears would have had little trouble slipping through if motivated. Nor was it particularly effective at keeping the farm animals inside; the farmers had taken to lining the inside of the permanent fence with temporary, electric fencing after lambs and calves had escape. Rather, today it appeared as though the fence had the power to arrest time. Outside it, coming right up along the fence line, was a motley crew of forms, textures, and colors. There was rough goldenrod (*Solidago rugosa*), tall and messy, topped with streams of bright yellow flowers, its leaves looking ragged. There was wild bergamot (*Monarda fistulosa*), its spent flowerheads shriveling up and its foliage tattered. There were also gray dogwoods (*Cornus racemosa*) scattered around, their drooping leaves forming blotches of deep maroon, with barely a lingering white, bird-coveted berry left between any of them. All of these are common native plants of the Hudson Valley, predictable finds on the edge of a large sun-soaked clearing like this pasture. All of them told the story of

late September, when many plants like the bergamot and dogwood are on the verge of dormancy with a frost possible in as soon as two weeks. Others, like the late-blooming goldenrod, continued to bear the flowers that offered a crucial meal for local and migrating fauna.

On my side of the fence, however, it could have been spring. Beneath my feet and all around was a rough carpet green with renewal. It looked, and in many ways was, a slightly shaggy lawn. Under me were a range of nonnative pasture plants: Kentucky bluegrass (*Poa pratensis*, native to the Old World, despite its "New World" name) and orchard grass (*D. glomerata*), some legumes like birdsfoot trefoil (*L. corniculatus*) and common vetch (*Vicia sativa*), and a few nonleguminous forbs like narrow-leaf plantain (*Plantago lanceolata*). The pasture was bright green because many introduced European forage grasses, such as bluegrass and orchard grass, are "cool season grasses," thriving in the milder weather of Hudson Valley springs and falls. All of the plants were short because the lambs had been through this part of the pasture only two days earlier and had clipped the forage low. Unlike cows who use their long tongues to grab and tear plants, sheep use their lips and teeth and can graze forage much lower and more uniformly. The result was a pasture that looked like the growing season was just beginning rather than approaching its end. As with the farm animals killed just as they achieve full size, the management imperatives of the farm leave no room for intergenerational succession in the pastures. The constant replication of fresh, uniform youth is the name of the game.

The less and less intensively managed farms that were increasingly common across the Hudson Valley (and the Northeast) in 20th century became hosts of a novel ecological form: the old field. Simply a sunny, open area only maintained by infrequent mowing (no more than twice per year, often much less), old fields in the Hudson Valley are home to many sun-loving herbaceous, native plants like the goldenrods, wild bergamot, and beardtongues (*Penstemon sp.)*. The scale of farm abandonment following the forest clearing that had enabled the farming in the first place led to there being more of these "old field" species and plant communities in the region than had likely ever existed previously. Today, farmers and landowners often continue to hay old fields roughly once per year whether to make a small profit, maintain eligibility for an agricultural tax exemption, or out of a sense of duty or pleasure, even if they no longer actively "improve" the fields with fertilizer and the seeding of nonnative forage crops. In many cases, this kind of low intensity or quasi-"wild" haying was the last surviving means of agricultural revenue generation on farms that were otherwise effectively nonoperational. So long as the old fields were not "improved" or mowed too frequently, they become important sites of native floral abundance and diversity, supporting a wide range of faunal associates. As native grasslands and pastures in western New York and the Midwest were increasingly subjected to intensified regimes of industrial agriculture throughout the 20th century, the abandoned fields of the Northeast came to function as a sort

of continental "edge" or "buffer" habitat, in particular providing a refuge for some grassland-nesting bird species that likely never occurred historically in high numbers in the Northeast but whose populations in the Midwest were in major decline (Norment 2002).

Fifty years ago—the last time this particular sheep field was actively farmed prior to this most recent period—an earlier fence likely produced a similar effect, as many of these same native plant species likely survived then on the margins of an otherwise primarily nonnative pasture. But in the period between then and when the current fence was installed several years ago as young farmers returned active grazing to the site, the entire 10-acre pasture once again became full of the native sun-loving species now confined to its margin. During that phase, the introduced forage plants accumulated from centuries of improvement retreated to a secondary role in the absence of intensive grazing and mowing and active soil "enrichment." This shift—from "improved" pasture roughly 50 years ago to native-dominated old field following abandonment—occurred in large part because at the time when 20th century farming waned, the seed and rhizome bank of plants poised to take advantage of the changing circumstances was still overwhelmingly composed of native species. Nearby, in a similarly sized series of fields into which grazers had not been recently reintroduced, such a floristic community still largely remains. If the lamb pasture was to be abandoned again today as it had been 50 years earlier, there is no question that many of these native species would again

reappear. However, their restoration would likely be substantially less complete and come less readily than was the case in previous cycles of farming and farm abandonment because of new presence of ambitious invasive plants, either absent or significantly less prevalent previously, that would now also be poised to become major forces in the meadow. While I am deliberately resistant to an account of native plant communities as fragile and delicate—although, of course, some are much more so than others—there is no question that the numerous pressures they now face impairs their capacity for resurgence, one which has for a long time been taken for granted (and largely still is). Restoring this pasture as a native plant-dominated community today would require more than the simple removal of the farm animals as had been the case for centuries.

The long-term, cascading impacts of land practices and the circulation of plant species directs the composition of the regional propagule bank that will compose the landscapes of the future. Just as settlers have relied on the richness of the landscape long (and still) maintained by Native peoples, the seeds left behind today will be an enduring mark of the contemporary moment. The seeds and rhizomes being generated most prolifically by contemporary settler land practices are those of invasive species that undermine long-standing webs of more-than-human mutuality, instead thriving in relation to the "blasting" of landscapes (Kirksey et al. 2014, Tsing 2015) that typify an era of mass extinction. Leaving a material legacy of some propagules and not others provisions specific futures and forecloses others.

Improvement and Homogenization

The absence of modern techniques of refrigeration ensured that animal farming remained a critical facet of the region's economy despite the blow dealt Hudson Valley agriculture by the opening of the Erie Canal in 1825, as perishable meat and dairy—as well as delicate fruits and vegetables—coveted by those in the New York City metropolitan area still needed to be "produced" somewhat locally. What had been somewhat haphazard practices of agricultural "improvement" in the 17th and early 18th centuries, including diking waterbodies, draining wetlands, cultivating imported forage plants, and enhancing pasture soil fertility, became more and more thorough in the 19th century as residual soil fertility became exhausted and "available" land was no longer abundant.

As mentioned in Chapter One ("*Factorij* Farms"), Europeans had expressed dissatisfaction with native plants both as forage but also as winter hay since the early colonial period. As one frustrated farmer complained in a more recently "settled" area north of Albany, NY, in the 19th century, "I have frequently counted ten and twelve different species of grass within the compass of few rods square, and no more than one or two of them that has ever been noticed as furnishing food suitable for the sustenance of stock, to say nothing of the great variety of ferns, rushes and mosses growing upon the same spot, which every farmer would be pleased to have annihilated (in Teale 2018, 52)." In cold

latitudes like the Hudson Valley, farmers rely on hay to feed those animals they don't slaughter in the fall during the long, cold winter when forage plants are dormant and snow covered, resulting in a need for significant quantities of hay each year. In the earliest days of European colonialism in the region, wet meadows were coveted as hay sources as they had been in the Netherlands and England (Teale 2017, 186) however their limited abundance fueled the incremental improvement of other areas through the introduction of European forage plants. By the later 18th and early 19th centuries, farmers had begun to regularly turn to nonnative forage plants and the application of animal manures in an effort to optimize their land, the specific impacts of which I discuss in more detail later in the chapter. William Cronon, writing about a similar process in neighboring New England, reports that these intensified practices of colonial agriculture "ramified through most aspects of New England's rural economy, and by the end of the colonial period were responsible for a host of changes in the New England landscape: the seemingly endless miles of fences, the silenced voices of vanished wolves, the system of country roads, and the new fields filled with clover, grass, and buttercups (1983, 128)."[i] [ii]



Figure 4: *An illustration of the cleared Hudson Valley farm landscape in the 1840s. What is normalized as bucolic carried heavy consequences across ecological communities. (Emmons, 1843, in "Ecology in the Field of Time, Vispo and Knab-Vispo.)*

By the 1860s, hay had become Ulster County's primary crop and New York state was the U.S.' leading producer with hay grown both for farm animals and for the "working" horses not yet replaced by machine engines on farms, in urban centers, and along the region's many canals (New York State Agricultural Society, 1863, 403; Teale 2018, 44). New York was the also the national dairying leader into the Postbellum period, an industry that requires large amounts of specialized hay throughout the year (Overstreet 2018, 236). High demand for

volume and quality led to vast areas being plowed, manured, and seeded with Timothy grass (*P. pretense*), among other introduced forages, greatly diminishing habitat for native plants (New York State Agricultural Society 1863; Vispo and Knab-Vispo 2009). Whereas old, "unkempt" wooden and stone fences had provided a modicum of edge habitat, new wire fences and "cleaned up" fence lines further reduced plant diversity and cover for animals (Vispo and Knab-Vispo 2009, 30). As landscape historians Claudia Knab-Vispo and Conrad Vispo describe in their study of nearby Columbia County, NY (2009), even where cereal crops were still being widely grown, wheat and corn took up less land than did hay and pasture:

> "to give a rough picture of the agricultural landscape at this time, in 1875 a bit more than 1/4th of the improved farmland was pastured and nearly 1/3rd was hayed; rye was grown on about 15% of the land, oats and corn on 5-10%, and orchards grew on perhaps 5%. (Some land was probably hayed *and* pastured, other land may have produced more than one crop, so these numbers are not strictly additive.)" (12)

Knab-Vispo and Vispo go on to point out that in 1910, only 1% of Columbia County hay was "wild" (meaning "unimproved" or containing a high percentage of native species or other subpar forage), the vast majority being composed of nonnative forage plants, especially Timothy and clovers (*Trifolium sp*.) (34). Such statistics only began to be collected at the turn of the 20th century but the account they provide likely applies to much of the previous century. While the great trend of farm abandonment would take off throughout the 20th century resulting in diminishing amounts of "improved" farmland, hay would remain in

demand. Indeed, in the late 20th century, the new practice of mechanically baling cut hay in plastic allowed for three harvests per year in contrast to generally just one harvest in mid- to late summer during the majority of the 19th century when the task was done by hand. Cutting early and often replicates the effect of grazers, thus favoring nonnative pasture plants and is often also a death sentence for both those caterpillars on native plants (Vispo and Knab-Vispo 173) and for the offspring of threatened grassland-nesting bird species who nest on the ground from spring until the middle of summer.[iii]

No less so than during its introduction in the 17th century, the ascension of European agriculture in the Hudson Valley in the centuries thereafter was, at its heart, an exercise in racial formation and biological simplification. The massive geographical "footprint" necessary for animal agriculture persisted throughout the period of Hudson Valley agricultural prominence—roughly the second half of the 17th century through the beginning of the 20th—whether as pasture, hayfield, or both. Although intensification varied across time and place, the result was a substantial displacement of not just the forests that had long covered the region but also of the native sun-loving plants that expanded in their wake by nonnative plants as part of European pastoral assemblages. An almost cartoonish narration of this improvement was provided by the prominent Connecticut agronomist Jared Elliot in 1753:

> The baleful thickets of brambles, and the dreary shades of larger growth; the dwelling-place of the owl and the bittern; a portion of foxes, and a cage of every unclean and hateful bird. Now take another survey of the same place, after the labour of clearing, ditching, draining, burning, and other needful culture has passed upon it. Behold it now cloathed with sweet verdant grass, adorned with the lofty wide spreading well-set Indian-corn; the yellow barley; the silver coloured flax; the ramping hemp, beautified with fine ranges of cabbage; the delicious melon, and the best of turnips, all pleasing to the eye, and many, agreeable to the taste; a wonderful change this! (quoted in Teale 2018, 44)

This transformation was materialized in other ways as well, such as through the stone walls (often built by the enslaved) around the edges of pastures and fields whose presence indexes the absence of the trees available for fencing (Beinart and Coates 38) as well as in the realm of animal biomass as deer and elk were replaced with European farm animals. Even the vast majority of plant foods grown by Hudson Valley farmers, such as wheat, grapes, stone fruits, and many vegetables, were nonnative plants. While settlers had readily incorporated certain Native plant foods like corn and squash into their diets, even these have relatively few faunal affiliations, likely in part because they too were relatively recent arrivals.

Becoming with certain landscape assemblages and their constitutive organisms means not becoming with others. The achievement of an agriculturally "improved" landscape in the 19th century, spanning all but the most rugged or wet areas, coincided not only with the severe marginalization of many native organisms and ecological communities but also with the realization of New York as a "white man's democracy" through the regional banishment of

Black and Native peoples recounted in Chapter Two ("Ecologies of Belonging"). The improvement of the land through biological replacement was inseparable from the social improvement taken to be occurring through the region's demographic Whitening, following a trajectory established in the early colonial period and upon which the U.S. national project was grafted.[iv] Nonetheless, Whiteness remained a normalized aspect of the regional landscape through the 20th century and into the present despite economic hardship resulting in many of the improved pastures lapsing into old fields and eventually into forests.

Healthy Soils, Healthy Pastures

"What a vista, no?" inquired the caption of an Instagram post on an interlocutor's farm's feed. The image showed the farmer standing in one of her pastures, the sun just beginning to set. A chicken enclosure was to her side, just out of the frame, and behind her was a locally iconic forested mountain, blanketed with the mosaic of browns, greens, and yellows that signal the onset of fall. The caption continued, "what too often goes unnoticed is that this scenic landscape is only possible because of farming. The heritage of this land is grounded in agriculture. When we farm the right way, the protection of this natural viewshed and regenerative agriculture can work hand in hand." Discussing the post later, the farmer reminded me that "if it wasn't for agriculture, Dairytown Road would all be woods." Anticipating a response she had likely heard before, she added "what's the standard for 'natural', anyway?" Exemplifying the

regional confluence of conservation and agriculture that occurred in the late 20th century (described in Chapter Two ("Ecologies of Belonging")), the post draws upon the region's visually oriented landscape ideal to unite agricultural heritage with the long-standing local commitment to conserving "open space." In this case, the emphasis on "scenic beauty" draws attention away from the sea of invasive and nonnative pasture plants that the farmer stands amongst. Indeed, the only native plants visible in the photo are the trees in the distant forest edge. Prior to the reintroduction of agriculture into this old field about 10 years prior following its acquisition by a land trust, the same photo would have documented a high percentage of the native sun-loving wildflowers, including bergamot (*M. fistulosa*), common milkweed (*Asclepias syriaca*), and various goldenrod species (*Solidago sp*.), not unlike the field edge described at the beginning of this chapter. Indeed, less than one hundred yards from where the photo was taken is an unhayed, ungrazed field fragment renowned for its density of the native wildflower foxglove beardtongue (*Penstemon digitalis*).

The links between conservation, farming, and redemptive conjurings of the past are richly manifest in the notion of "regenerative agriculture" referenced in the post. Despite being vague and infrequently elaborated, the term was powerful currency among farmers, their advocates, and their customers throughout my fieldwork.[v] The ecological value that the term is widely taken to convey exist only in comparison to industrial agriculture, not to the until recently non-agricultural grasslands, such as the one in the photo, that

many animals were being introduced to in the Hudson Valley during my fieldwork. Given that agricultural spheres are generally less attuned to teachings from the ecological sciences than are the land conservation NGOs, making vacuous ecological claims carries relatively little risk. Of course, "organic" and "sustainable," the latter being the adjective supplanted by "regenerative" within small farm worlds in the past decade, can also be used ambiguously and likewise can serve to mask ecological impacts.[vi] Nonetheless, what is conspicuous about regenerative is that while its meaning may be no less precise, its temporal politics are distinctly evocative. Whereas sustainable suggests endurance, regenerative indicates renewal. Left unaddressed however is what stands to be restored given that animal farming in the Hudson Valley is a practice with a short and particular history.

While "regenerative" is deployed to describe to a wide range of agricultural practices, on small-scale animal farms the case for regenerative agriculture is often made through the language of soil health. When I asked my regenerative farmer interlocutors what goals guided the regenerative management of their pastures, the answer I received from one farmer was emblematic of the typical response:

> "I want to restore the soil's vitality—its healthy biological activity and fertility. This will improve pasture plant health by promoting water retention during dry periods and allowing roots to grow deeper. When I arrived on my farm, the soil was depleted. I want to bring the farm back to its glory by allowing the soil to be what it wants to be. Doing this will

> provide appropriate ecosystem services and, most importantly, improve animal performance."

"Healthy soils make for healthy animals" was a constant refrain of my farmer interlocutors and those in the broader regenerative agriculture movement. But what is a healthy (or "fertile" or "resilient") soil?[vii] For animal farmers and university extension agents, a healthy soil is well draining but not dry with a roughly neutral pH containing relatively high soil nutrient levels, all as desired by nonnative pasture plants. On the other hand, as mentioned in chapter one ("*Factorij* Farms"), many of the sun-loving native plants that occur in the upland areas often sought for pastures evolved in what farmers would call "nutrient poor" soils that are generally acidic and often dry. Introducing confined farm animals into old fields substantially alters soil chemistry through the deposition of their excrement, increasing soil nitrogen and phosphorus in particular. ("The animals feed the land and the land feeds the animals," as my interlocutors frequently put it.) This change will transform plant communities—with perceptible results often within one or two seasons—as nonnative pasture plants (and increasingly invasive non-forage plants) are most capable of exceling in conditions of elevated nutrition. While the goal of improving "pasture plant health" may thus be achieved, the pasture plants now established are of almost exclusively of value to the farmers and the farm animals. Applying lime or other pH-raising additives creates a "sweeter" (less acidic) soil in which nutrients become even more available, further favoring nonnative plants.

The great diversity of Northeastern native plants includes specialists for all types of soil conditions, including plants who relish wet or dry soils exclusively. "Healthy soils" in contrast are standardized soils, enabling uniform pastures and reliable animal growth.[viii] Wet areas in pastures, often full of (native) sedges less palatable to farm animals, squished under our boots when we walked through them and raised farmer concerns about the increased likelihood of hoof infections. These areas were generally either to be avoided ("that whole field is sedge" a farmer complained to me once in exasperation) or to be corrected through having their drainage "improved." On the farms I worked on, this latter option involved a Australian permaculture technique called keylining or keyline plowing in which deep incision is made along a field's topographic contours in an attempt to reduce disparities in rates of water infiltration that would usually result in a range of wet and dry areas.

Given that Northeastern native plants will not be able to compete with introduced pasture plants if grazed with any regularity, a "healthy pasture" with "healthy soils" and grazing farm animals will invariably be a pasture in which nonnative plants of scant ecological value overwhelmingly prevail, as described in the vignette at the beginning of this chapter. Elevated soil nutrient levels and the routine disturbance of animal agriculture—whether from the animals themselves or the movement of heavy machines through the pastures—provides an easy opportunity for the establishment of invasive sun-loving plants such as mugwort (*A. vulgaris*), Canada thistle (*Cirsium arvense*, another Old World plant

with a "New World" name), and spotted knapweed (*Centaura stoebe*). These plants are not welcomed by the farmers—they are invasive because herbivores don't like to eat them—but nonetheless their seeds frequently circulate between farms in contaminated hay or on equipment. However, in my fieldwork, farmers did not distinguish between these invasive species and the native forbs that also occasionally turned up in old fields-turned-pastures. While of great ecological significance, the goldenrods (*Solidago sp.*) are, as the livestock educator from the local cooperative extension service explained to me on a pasture walk, "bad forage" that he opts to eliminate by temporarily concentrating his cows so that it will be grazed or trampled to death and encourages others to do the same.

On an early June evening I walked with one of my interlocutors, a farmer named Susan, down a lane that ran through her pastures. Broadly speaking, Susan's biography resembled those of many of my farmer interlocutors. After leaving a position at a corporate accountability NGO in the Midwest, Susan had taken a part-time job at a cheese shop. Then in her mid-20s, what was supposed to be temporary, stopgap employment eventually changed her life as, to her surprise, she found her passion for cheese growing exponentially with every shift. After becoming acquainted with the store's inventory, she quickly came to appreciate the subtle differences in flavors and textures. After work, Susan would come home and read all she could about what made each cheese special. "I became obsessed with the revival of artisanal cheesemaking and specific

regional techniques," she explained to me, "it stood in such sharp contrast to the same few cheeses produced by a small handful of national producers that most people eat all the time." Her employer noticed her growing enthusiasm and offered to have her work more directly with some of the local farmers who supplied the store. "The next thing I knew, I was regularly in touch with local dairy farmers, keeping them updated on what was selling, and learning about new cheeses they were refining and preparing to introduce." Once in a while, the farmers would invite her to visit their operations to learn even more about the process. "The information I learned on these visits drove sales. I would come back to the shop and tell customers what I had learned. They, in turn, relished the chance to go home with something special, especially when they could explain to others why it was unique."

Before long, Susan was attending cheesemaking workshops that a couple of the regional farms offered once a year. This led to a part-time internship on a dairy farm and a new trajectory for her life. "Eventually I decided that, while I loved cheese, I didn't want to work on dairy farms. The time demands on dairy farmers are incredible and the margins are so thin." Instead, Susan applied for an 8-month apprenticeship at a diversified animal farm in the Hudson Valley. "It was a big jump for me but I never doubted it. I was learning every day and the work was so fulfilling. All the while, I came to understand more and more from my boss and co-workers about how broken the industrial animal farming model is, how badly it treats animals, workers, and the planet, how it is contributing to

climate change. What we did was so different because we cared for the land and the animals, organic and free range, all of that."

When her apprenticeship ended, she was offered an assistant manager position for the next summer and took it. Following that second year, she saw a posting from a local land conservation organization that was looking for animal farmers to graze animals on formerly agricultural grasslands in Ulster County that had since reverted into "old field" habitats. "I had been looking for land because I thought I wanted to try starting my own small farm business. Land has become so expensive in this area over the past few years that there was no chance I could buy. I had visited a few second-home owners who had large, old farms that they wanted rejuvenated. In each case, there was a snag. One of them wanted to have control over the farm even though they were totally inexperienced. Another wasn't willing to invest the money it would have taken just to get the land farmable. It's ironic because on one hand, people like these are my customers, on the other hand, their growing presence in this area has raised land prices so much that I can't afford to buy a farm. The land conservancy pastures weren't in great shape either—they had been neglected and didn't offer much to the animals—but the lease arrangement was favorable. I thought I would give it a try. They were very committed to getting farmers, especially ones that would use Earth-friendly practices, back on the land." Indeed, as I learned later, the land conservancy had even issued a press release when Susan and another farmer agreed to the lease arrangement. "We are happy

to carry forth a centuries-old tradition of local agricultural production [by hosting these farmers]," the press release read, continuing that the decision to pursue the arrangement reflected the organization's "commitment not only to the scenic splendor of the Hudson Valley but also to the preservation of its cultural heritage."

As we walked, I noticed a sign the land conservancy had installed for passersby to learn about the agricultural history of the lands. Included was a photo of the stone foundation of an early farmhouse, now surrounded by forest, as well as figures indicating how much grain the farm had produced in the 19th century. The enslaved Africans that had been held in the larger, still-standing stone house that was just visible over the crest of a hill were not mentioned. That house, a mansion by the standards of the early 18th century, was once the home of the original settler who had once owned the land Susan farmed as well as large adjacent swaths. The land had been the site of grain growing and animal grazing for almost two and half centuries before the agricultural economy made hay the only viable crop. Prior to Susan's arrival, the large grassland had not been "improved" in over twenty years, with hay being cut only once each summer. As a result, it had "lapsed" into a classic "old field" ecosystem ("neglected" to use Susan's term), replete with native wildflowers like those described in the beginning of this chapter.

It had recently rained and this only amplifying the effect of a time of year already characterized by surging growth and a lush landscape. Susan remarked

that “when I see the pastures so green, I feel satisfaction and relief. It tells me more than a soil test. Happy pastures make happy animals and happy farmers. I know the animals are getting what they need and the plants are storing so much carbon.” Drawing on affect and aesthetics as a basis for knowledge, she added, “it’s a perfect system.” Susan had been farming here for two years now. “When I arrived, I had to do a lot of reclamation work to get this farm back on its feet. It’s still in progress but it’s also amazing how quickly things can turn around.” By now we were walking in the pasture, toward the far end where the cow herd was currently grazing. “When I got here, there were a lot of weeds—well, maybe you wouldn’t call them weeds [I had made mention of the ecological significance of various native plants to Susan on previous walks]—but they weren’t good forage. Bringing animals back made such a difference though” she said as she ran her hand up a stem of smooth brome (*Bromus inermis*) that would soon flower. “Because the pastures are heterogeneous—some wetter, some drier, some sloped, some flat—there is some variation in response to grazing. But I saw a significant change by the middle of year two, in particular in the best pastures that are flat and have decent drainage. The weeds subsided and the nutritious legumes and grasses eclipsed them.” “Look at this” Susan said, her arms raised, palms up, beholding the mix of European pasture plants around her, “good forage is diverse forage—just like how we humans need a diverse diet.” Susan’s pride in this change led her to frequently post photos of the pastures on her farm’s Instagram.

"Ugh, I didn't realize this thistle was here," Susan groaned offhand as we passed by a patch of Canada thistle (*C. arvense*). "This was a hay feeding station last year early in the season and I guess it came in with that." The spikey, invasive plant forms large patches in old fields, with plants connected underground via a shared root network. "Well, you win some, you lose some, although I have noticed a lot of bees seem to like it." We were now walking across the part of the pasture where the cows had most recently been. It was an area that didn't drain well and so there were muddy, bare spots where hoof traffic had been high. Susan had also driven her truck out here to repair an irrigation line leaving tire tracks imprinted on the soft ground. "I need to talk to the people at the land conservancy about what we can do with this field, it's basically a wetland," she added, walking on.

"I know I'm not supposed to have favorites but this one is my favorite," Susan said as we finally reached the temporary fence enclosing the cow's pasture, "I call her Star because of that distinctive mark on her flank." "Ever since I bought these Herefords from another farm that was liquidating its herd, she has always shown me a lot of affection plus I think she's the best looking. I'm always telling her that she basically has her own Instagram account." The cows were used to Susan's arrival meaning that they would be moved into a fresh pasture and so those that were resting had risen, anticipating the possibility of transit. "Most beef cows in the U.S. finish their lives in a CAFO [Concentrated Animal Feeding Operation] eating grain. My cows will be on grass until the day

they are processed in November. In a CAFO, there can be problems with animal excrement polluting air and waterbodies. Here, the excrement is a critical fertilizer that is at the heart of what I'm doing. That's why I love what I do: I'm improving pasture plant health, doing right by the animals, and getting healthy food to people. I know I've told you this before but I was a vegetarian for years after I learned about industrial agriculture. Obviously, I'm not anymore because I realized that there was this incredible alternative."

Ashley Carse's conceptualization of infrastructure as the material remaking of a place in the pursuit of specific political goals connects everyday material-discursive acts of landscape-making to the broader historical currents that have delivered the contemporary Hudson Valley. While not in direct conversation with Carse, Ruth Wilson Gilmore's attention to how a landscape-as-infrastructure is experienced and normalized makes for a dynamic analysis of the nature of these connections. Revisiting Raymond Williams via the Black radical tradition, Gilmore proposes "infrastructures of feeling" as the "consciousness-foundation, sturdy but not static," that viscerally underlies our sense of possibility and historical and geographical emplacement (2017, 237). With this term, Gilmore recognizes the affective as a powerful site of politics and world-making while also addressing, as a geographer, the critical role of materiality in generating affective experience. Developed through her studies of prisons and opposition, for Gilmore infrastructures of feeling powerfully link the

monumental materiality of the prison with the discursive normalization of carceral geographies. If the prison-industrial complex is hard to see, Gilmore writes, it is because "the many structures that make carceral geographies disappear (which is to say, become ordinary) depend, for their productive capacity, on the infrastructure of feeling (2009, unpaginated)."[ix] Following Gilmore, terms like heritage, stewardship, and beauty that studded public and private conversations about landscape throughout my fieldwork become much more than intangible qualities and rationales. Rather, they are constitutive of the infrastructures of feeling that become manifest through the enabling and constraining of material action (2017). As I will elaborate in the ethnographic chapters to follow, the land conservation organizations' decision to make preserved grassland habitats available for animal farming in the absence of ecological rationales emerged from an infrastructure of feeling in which the creation and maintenance of a particular pastoral infrastructure is inseparable from the sense of affective-historical emplacement, experienced most acutely by some and not others, which is both generated by the infrastructure and which provides its justification.

As one farmer interlocutor told me "'regenerative' means leaving the land better than you found it, improving topsoil nutrition, promoting biological diversity, and promoting plant diversity." While his pasturing practices certainly changed topsoil nutrition, his aspirational claims about biological diversity and

plant diversity had no correlation in the fields themselves. Ecological surveying was not his strength, he readily admitted, limiting his ability to effectively measure his goals. Regardless, this farmer, as well as others I knew genuinely considered enhancing biodiversity to be an important objective and achievement of their hard work. Given that they were not trying to deceive me, I wondered from where had this conviction in the multidimensional ecological virtue of his regenerative practices emerged? As for the land conservation NGOs, the gap between biodiversity as a desired, abstract objective and the actual impact of "improving pastures" was filled by an ambient affective affirmation, grounded in widespread public support, that was reminiscent of what Gilmore calls an infrastructure of feeling and that radiated through the countryside as reflected in the enthusiastic Instagram posts above. The normalization and quotidian celebration of the pastoral scene, taken for granted as universally consensual in White conservation and agricultural spaces, enabled the overlooking of otherwise readily observable changes in old field ecologies, to say nothing of the enduring vestiges of historical violence. An ocularcentric, material-discursive loop in which the satisfaction garnered by the visual appreciation of landscape propels the material practices that sustain it makes it almost impossible not to be certain that small-scale animal farmers are indeed "leaving the land better than they found it."

In this vein, the deleterious impact on native plant and animal communities are anything but the result of the shortcomings of a particular

farmer or their professional training. All of my fieldwork and additional research indicates that there was no way to run a commercially viable animal agriculture enterprise and not have this outcome, although this directly contradicts statements I frequently heard such as the one quoted in the previous paragraph. All of the farmers I studied with actively understood their work as transforming the landscape. Collectively saturated in the colonial material-discursive tradition of improvement and progress, how could this transformation be understood but as a beneficial one? As Mark Rifkin asks (albeit without addressing the relevance and endurance of racial slavery):

> "when and how do projects of elimination, replacement, and possession become geographies of everyday nonnative occupancy that do not understand themselves as predicated on colonial occupation or on a history of settler-Indigenous relation (even though they are), and what are the contours and effects of such experience of inhabitance and belonging (2014, 9)?"

Whereas making "better" use of "squandered" land has been the overt justification for the European taking of Native territories, improvement here functions independently of the promise of personal legal possession of land. Constantly frustrated by their inability to purchase or otherwise obtain permanent access to their farms, for the farmers the application of techniques of improvement to pastures, to animals, and their business was a source of self-validating, affective possession of the landscape. The redemption of "neglected" (albeit more ecologically dynamic) fields through regenerative practices complemented a constant striving for "leaner," more efficient approaches to

saving time and money on the farm, as is explored at length in Chapter Eight ("Freedom Rangers"). The broiler chicken houses ("chicken tractors"[x]) were carefully designed to be portable, hygienic, transparent, and impossible to escape. Confinement and constant access to food conformed absolutely to the chickens' task of rapid growth. The embodied improvement of increasing animal size was itself a manifestation of farmer investment matched by an increased notion of possession, an enhanced claim to future profit. The achievement of improvement internally and externally—of the farmer's own aptitude as well as of the land and what it could be brought to yield—validated feelings of inhabitation, of a self more grounded in the place.

The language of regeneration—its coherence and appeal reliant on the presumed virtues of the agrarian tradition—gives animal agriculture crucial cover in a moment when increased awareness of its high costs has resulted in a heightened level of negative scrutiny. Through the prospect of continued improvement, it offers to strengthen the "knots of attachment" that enable belonging and soothe the crises of legitimate presence that periodically emerge in the wake of colonial settlement (Mitropoulos 2015, 118). The practices of history-making that instill an urge to, in the words of one of my interlocutors quoted above, "bring the farm back to its glory," mask the risks such past-inspired endeavors pose for those who have historically paid the price of regional agricultural ascendency.

Bringing Gilmore's theorization of "infrastructure of feeling" into conversation with feminist science studies, the crucial roles of a range of material and immaterial entities—lambs, landscape aesthetics, notions of the past, historically sedimented landscape forms, among many others—in the cementing of a social order through the formation of infrastructures of feeling prompts recognition of a political field in which the biotic/abiotic opposition is no longer a viable organizing principle. These entities animate social and political formations, albeit in specific and disproportionate ways and, in part through the agency of affect, contribute to the material-discursive infra of infrastructure: the in-between, that which binds, stabilizes, and weaves (Mitropoulos 2012; see also Scott 1990 and Kelley 1994). It is no coincidence that both the Democratic and Republican slates in the local election pose for their photos in front of the bucolic, agrarian scene. As a material manifestation of powerful historical currents and a productive site for a specific "genre of the human" (Wynter and McKittrick 2015), the farm field becomes not just a politicized pasture but a crucial, generative locus of the political field more broadly. To an extent unreflected in the metaphor of "political terrain," power is literally held and directed through both the remaking of landscape and the modes of relating to it. The terrain itself—the soil chemistry, the green sea of nonnative pasture grasses—is politics.

Following Ahuja's observation of power's "retreat into the seemingly natural and ahistorical domains of body and matter (2016, x)," it is by being

presented as no less natural than the forests or the mountains that Whiteness can be at once smothering, ambient, and unmarked, while always antiblack and anti-Native. Together the field, the sheep, and the White farmer form an apparatus for the normalization of ongoing conquest, although this of course also extends far beyond them. This normalization is the basis of what Rifkin calls "settler common sense" or how "nonnative access to Indigenous territories comes to be lived as given, as simply the unmarked, generic conditions of possibility for occupancy, association, history, and personhood (2014, xvi)."

Crucially, I am arguing here against an analysis that would hold the landscape and its inhabitants as "mere matter" entirely beholden to the imprint of ideology or representation. Rather, my contention is that the presence or absence of specific plants and other organisms and the specific composition of the landscape—hydrologically, topographically, floristically, etc—bears directly on the political processes through which some futures are selected and others not. This occurs in part through affective encounters as a particular mode of material-discursive intra-action. The historical and ethnographic material at hand leads me to insist that these landscapes move people, both in the sense of stirring some and impacting their connection to the place but also in the literal sense of ushering certain people into the landscape while ushering others out. The presumed timelessness of "open space," whether as preserved farmland or forest, consecrates the current state of affairs, redeeming specific forms of landscape-making that have long served as motors of colonialism and

legitimating practices of nature conservation that, as will be explored later, have on a broader scale failed to stem the tide of global ruin. Amidst jovial calls from regional agricultural boosters—most of whom, to be sure, are not farmers—to "get back to our 19th century agrarian roots," the undeniable violence that characterized the earlier colonial period endures, if submerged, through the preservation of a still White supremacist landscape infrastructure, the nonexamination of which instills and protects White innocence and belonging.

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[i] Cronon here refers to the end of formal British colonialism in the 1780s.

[ii] In the early colonial period, settlers frequently divided land in a manner that allowed for special roads to be built along the new property boundaries on an east-west axis to allow for the driving of herds of animals from the hinterlands to the ships awaiting them on the north-south-running Mohicanituk. Locating the roads in this way expedited the movement of the doomed animals while also avoiding damage to adjacent farms. Many of these roads and property delineations persist today, testifying to the historical centrality of animal agriculture in the region.

[iii] As mentioned in the previous chapter, hay remains one of Ulster County's primary crops in the present.

[iv] Too often, critiques of the plantation form and its imprint on industrial agriculture imply that the primary problem is one of scale or the intensity of production. In attending to these critical factors, the centrality of biological simplification, as well as that of racial formation, is given short shrift. The history of hay production in the Hudson Valley demonstrates that a mere reduction in the scale of extractive agricultural endeavors does not provide adequate remedy.

[v] "Regenerative" is a term that has circulated in organic farm circles since the 1980s. In the past decade, it has surged and come to connote the possibility of agricultural techniques that restore ecological functioning, going "beyond" "organic" and "sustainable." As a term without a concrete definition, it is widely applied to a range of practices, although animal grazing is considered a core component on most regenerative farms. Scholars have expressed concerns about how the term's mutability potentially lends to its misuse, demonstrating that some high-profile claims of ecological and climate change mitigation impact are exaggerated and misleading (Nordborg 2016, Godde et al. 2017). While regenerative agricultural systems are more "carbon friendly" than their conventional counterparts, the ability of regenerative grazing to mitigate climate change is minimal and less than that of forests or—in many circumstances—ungrazed fields.

[vi] To be clear, unlike "regenerative," there are specific United Stated Department of Agriculture criteria for a farm becoming certified as organic. Nonetheless, many farms are also "functionally organic" without being officially certified. Farmers and others have provided extensive commentaries on the shortcomings of the criteria for organic certification and many farmers I worked with considered them to be a minimal standard.

[vii] In her engagement with soils as historical, relational assemblages, Kristina Lyons writes that "homogenizing claims of global soil degradation rest on geographically uneven conditions and

are underlain by specific—often capitalist—notions of quality and health. This raises a series of questions: How can soil health be assessed without first asking whose territories are being occupied; which enslaved and indentured bodies work no-exhausted plantation fields…(64)?"

[viii] As Lyons asks "how do soils—which may or may not be conceived of as an object called 'soil'—harbor the irreparable wounds and tracks o violence and germinations of transformative proposals and alternative dreams (5)?"

[ix] Gilmore's specific conceptualization of infrastructures of feeling in relation to prison landscapes is nowhere more relevant than in the deeply carceral Hudson Valley. Emblematic of the banal incorporation of mass incarceration into the countryside, a popular bike and pedestrian rail trail in Ulster County, promoted as a green link between rural communities, for years terminated abruptly at both ends because two so-called "corrections institutions" (a state prison and the county jail respectively) had been built literally on top of the old railroad bed. While on one hand inspiring the prospect of fossil fuel-free fugitivity via the "jail trail," that this jarring situation goes unremarked upon by the trail's users and advocates indicates the fundamental compatibility of carcerality with the recreational experience of the rural landscape. This reconciling of the scenic with incarceration is not a new phenomenon, as Hudson River landscape painters frequently incorporated Sing Sing prison, situated literally on the banks of the Hudson River in Westchester County, into their celebrated images in the mid-19th century (Bernstein 2013). Appropriate attention to the subject of the Hudson Valley as a carceral landscape exceeds the logistical scope of this project, although it has received study from others (Huling 1999; Spillane 2014; Tom 2018; for more on the politics of prisons in New York state more broadly see Burton 2016 and Norton 2021).

[x] This basic design was made popular by the prominent organic farmer Joel Salatin and was widely used on the small-scale animal farms I studied.

Chapter Five: Practices of Remembering

"What are we going to do with the Union monuments?"-Walter Johnson[i]

The Wallkill River[ii] follows a long, curving path north into Ulster County, rushing over dams, through a landfill, and near the house where an enslaved Sojourner Truth spent her earliest years before merging with another creek and emptying into the Hudson River. The Wallkill Valley Rail Trail now runs along an abandoned railroad track through the valley named after the river and is a popular venue for recreation. On a stretch of the trail that passes through a historical district, a recently installed kiosk provides trail users with an introduction to the towns connected by the trail. Describing the creation of the railroad in the 19th century, a local businessman is quoted as predicting that "this beautiful valley shall become, as the maker intended, a perfect garden." In the text immediately following this prophesy, the sign's contemporary creators added "it soon did."

This kind of nonchalant transhistorical dialogue occurred frequently across my primary field sites and also in the supplemental research I conducted as I tried to learn more about the regional past that seemed so embedded in the ethnographic present. This latter objective led me to numerous local historical lectures, exhibits, and public conversations that together reinforced Michel-Rolph Trouillot's insight that the academic discipline of history is hardly the only site of history-making. Indeed, as Trouillot asserted, it is in fact likely not the one

with the greatest influence (1995, 20). In a region that prides itself on being "historically rich," there are numerous professional and volunteer historians and organizations eager to share their accounts of the past.[iii] New books on Hudson Valley history are published every year by lay and professional researchers, often gravitating around familiar topics such as the Hudson River School of landscape painting, the regional conservation movement, the historical tourism industry, and the Hudson Valley's role in early U.S. history. A journal hosted by a local college is devoted exclusively to Hudson River Valley history and culture. The tone of this material tends to be triumphal and exceptionalist, enveloping the region and its history in a celebratory atmosphere that residents and visitors alike are encouraged to inhale.

In *The Fantasy of Feminist History* (2011), Joan Wallach Scott explores how the politics and desires of contemporary actors inspire specific forms of connection to the past. Present-day individual and collective crises of identification and belonging are addressed, Scott argues, through the creation of historical accounts that identify and activate what are often otherwise highly differentiated groups of historical actors. Using the category of "women" as a case study, Scott asks "how women with vastly different agendas identified with one another across time and social positions…. What were the mechanisms of such collective and retrospective identification (48)?" Turning to psychoanalysis, Scott proposes the term "fantasy echo" to describe "the psychic operations by which certain categories of identity are made to elide historical differences and

create apparent communities (52)." Scott calls these operations "fantasies" not because they relations are not "real" but because they are exercises of desire capable of transcending historical specificity in retrospectively securing what could otherwise be incoherent assemblies of historical characters (49, 51). "Echo" refers to how fantasies ricochet through time as non-identical replications that lack a clear point of origin (48). Informed by Scott's analysis, in this chapter I focus directly on the forms of transhistorical identification (as occurred at the kiosk) that saturated my broader ethnographic research. As Scott reminds us, the investment in and stabilization of identity categories taken to span centuries is necessarily an ongoing labor. In this vein, the practices of remembering through which some historical connections and continuities are claimed and renewed while others are repudiated becomes a critical matter for the study of the present.

Throughout my fieldwork, White residents notably asserted claims of historical identity through the conspicuous deployments of the pronoun "we." This "we" reached effortlessly into the distant past, revealing the existence of bonds that were apparently widely acknowledged, as when a local historical researcher explained in a public presentation that "we weren't under the jurisdiction of Fort Orange [Albany] until 1661." The "we" here referred to both White settlers living in what became Ulster County in the mid 17th century but also to himself and the many others in the almost entirely White room for whom

he assumed this transhistorical association would resonate. It seemed to matter little that Peter Stuyvesant, the Director of New Netherland at the time and a notorious antisemite, would have been unlikely to reciprocally embrace this eccentric 21st century Jewish lay historian as a peer. Instead, the "we" invoked was entirely unremarkable, as it was when a tour guide provided a list of all that "we" traded for the land that is now Ulster County and when anti-invasive practitioners made use of it routinely in their milieu (as is discussed in the following chapter). To this end, Trouillot inquires do "white Americans remember discovering the New World?" before arguing that "their constitution as subjects goes hand in hand with the continuous creation of the past. As such, they do not succeed such a past; they are its contemporaries (16)."

This time-traveling "we" could have been (and still one day might be) the basis for engendering a sense of responsibility—one that could inspire appropriate action—among White residents in recognition of how our life chances are buoyed by the ongoingness of historical colonial and racial violence. Nonetheless, as I explore in this chapter and elsewhere, in my experience it instead reflected an intuitive sense of being a member of a certain "team", contributing to the creation of a timeless, just-so experience of Whiteness that conceals the constant, violent work necessary to maintain its relative coherence and power across generations. Indeed, this is perhaps the most remarkable achievement of Whiteness in the U.S.: its seemingly effortless ability to mollify the mountain of horror that might logically be expected to accompany its every

breath given the nature of its ongoing constitution. In but one telling example, the present-day seal of Ulster County deploys masculinist imagery of colonial agriculture to represent what is taken to be the historical bedrock of its contemporary claim to political authority. Reflecting a particular connection to the regional past at once both sanitized and ominous, for present-day residents of the County, the seal stabilizes a sense of who "we" are and where "we" come from.



Figure 5: *Contemporary government seal for my primary field site, Ulster County, NY, one of few majority Democratic rural counties in upstate New York. Racial slavery and wars of conquest—which characterized the 17th century—are erased, albeit perhaps obliquely referenced through the man's weaponry, providing an "immaculate conception" vision of agrarian virtue (Wikimedia Commons 2017).*

New Narratives, Old Narratives

Especially since the mid-1990s, local White historians, especially those running public institutions such as museums, have expanded their educational

narratives by acknowledging the (historical) presence of Black and Native peoples and the existence of racial slavery. This largely occurred in response to new historical research as well as external pressure, both provided to a large extent by Black historians and activists. Programming at White-controlled institutions now often uses the language of multiculturalism to provide an "inclusive" account. The introductory video playing on a loop in the visitor center of a local historical museum describes settlers' "multicultural journey" in which the "building" of a "community" of "French, Dutch, English, and African" (albeit not Native) peoples according to principles of "freedom and tolerance" (despite the presence of racial slavery and Native genocide) is recognized as "truly American." As one museum employee explained to me, the goal of this approach is to "shepherd people to truth without shattering their worldview." Frequently, the public programs about Black or Native peoples at institutions like these also provided a critical venue for cathartic self-shaming in which the White participants' journey to "awareness" of this terrible past becomes the primary event, displacing non-White grievances and calls for material redress. At one such event focused on the experience of racial slavery on the land now managed by the museum, the president of the museum's board of directors—also ostensibly speaking on behalf of the descendants of local slave-owning settlers—offered that the process of learning about the history of slavery "has been a long arduous journey for us [as descendants of the original White families]" but nonetheless "we need to learn about this to help America."

Such an ethos has led to the embrace by local White historians and residents of the radical abolitionist Sojourner Truth as "our native daughter" and the ensuing deployment of her life as a regional promotional device in tourist literature and elsewhere. While likely the most famous person ever born in Ulster County, Truth only lived there while in bondage and then in the period immediately following her escape as she sought to be reunited with her still-enslaved children. Thereafter, she left Ulster County permanently and seems to have expressed little longing for the place that had been for her a site of terror, where she was once sold with a flock of sheep and then beaten by the English-speaking family for being a monolingual Dutch speaker. Despite the specific circumstances of her residency, Truth's image and reputation are now publicly embraced by local White politicians eager to be associated with a figure now taken to symbolize campaigns for Black and women's "rights."[iv] As the politicians compete with each other to determine which town will build the next Truth statue, the antipathy she seems to have held for the place is ignored, as is her militancy, her Evangelism (which were in many ways one and the same), and her fundamental incompatibility with the terms of modern liberal politics.[v]

Of primary interest for this study however is how the recognition of what are sometimes characterized as the "original sins" of racial slavery and anti-Native violence and land theft is often accompanied by what I came to think of as historical "lids." This regional practice of historiography seeks to contain historical violence within a delineated period in which it can be unanimously

condemned while also preventing attention to how it surges forth beyond the limit imposed by the lid. This mode of narration allows for an account of historical violence that redeems Whiteness in the present, enabling White residents to remain essentially untarnished by what is understood to have come before. The practices of remembering I describe here closely resemble those historiographic techniques identified by Jean O'Brien in her book *Firsting and Lasting: Writing Indians Out of History in New England* (2010). As discussed in Chapter Two ("Ecologies of Belonging"), O'Brien's exhaustive review of local settler histories from across New England depicts common patterns in which non-Native historians both celebrate documents of "legal transfer" that occasioned the founding of the settler municipality while also lamentingly commemorating the deaths of the "last" local Native person. These related practices serve to seal Native presence in the past, thereby resolving any lingering anxieties about the foundational violence that enabled and sustains White settlement.

The practices of historiographic confinement I describe here ramify distinctively vis-à-vis Black and Native peoples in the Hudson Valley according to the broader regional patterns of triadic racialization. I begin with the 1665 "lid" enacted in prevailing narrations of anti-Native violence in what is now called Ulster County. 1665 was the date of the first signing of the Nicholls Treaty, a compact between the new English governor, Richard Nicolls, and Native

residents of the Ulster County area (identified in the treaty as the "Sopes Indyans" but now generally referred to as Esopus Munsee). The treaty was signed in the year following the British takeover of New Netherland and established the basis for diplomacy between the new colonial power and Native residents in what was then a primary colonial settlement between Manhattan and Albany. Beginning in the mid-2010s, members of the Ramapough Lenape Nation, a Munsee community based primarily in the vicinity of the Ramapo Mountains near the New York-New Jersey border, as well as Ulster County-based Native residents (many of whom are not Munsee), have renewed the Nicholls Treaty in public ceremonies with the Ulster County Clerk, an elected administrator who is the supervisor of the County's Hall of Records but is not the County's chief executive. The treaty was supposed to be renewed annually from the onset and was for about half a century after its signing.[vi] For the Ramapough, who have state recognition in New Jersey but have been thwarted in their attempts to receive it in New York—a state with a modern history of opposition to the granting of tribal recognition and of anti-Native hostility in general—the ceremony lends credibility and standing in a region to which they assert ancestral ties among a non-Native public accustomed to assuming local Native extinction. As Chief Vincent Mann of the Ramapough Lenape Turtle Clan stated at the ceremony in July 2019, "we have an uninterrupted history of ceremony, laughter, and struggle and this is still Lenape land…this treaty needs to be honored every year and if it had been we [all] would have been better off."

One the other hand, for the County Clerk and other White residents, the treaty ceremony is a well-meaning acknowledgment of both the historical presence of Munsee peoples and, less explicitly, of the anti-Native violence that preceded the formal creation of Ulster County in 1683. As the Clerk, Nina Postupack, said at the same ceremony in 2018, "let's do this for 300 more years of peaceful coexistence and look forward, not back." In this way, renewing the Nicholls Treaty enables a historical account in which Ulster County can be said to have been launched through legitimate, consensual diplomacy. Such an account, which extends beyond the annual ceremony into local historiography, addresses the dilemma of legitimacy that Amy den Ouden argues faces settler societies because of the survival of Native peoples and which elevates the treaty as a foundational charter that marks an ostensibly peaceful legal political transition (2005).

What escapes these emotional and symbolically significant proceedings however is that the Nicholls Treaty was a statement of capitulation in which the Esopus formally acknowledged the cession of much of their land to settlers following two bloody wars of conquest and plunder undertaken by the Dutch in the preceding years.[vii] The Esopus who signed the treaty had little leverage, saturating the document with the coercive violence that goes unmarked in the transcript, as is the case with many similar compacts between Native communities and colonial governments. The renewal consecrates the cession of land to settlers and, while the County is acknowledging the endurance of the

Ramapough, their primary location roughly an hour's drive to the south serves to stabilize the corollary assumption of local Native evacuation. In this way, the Nicholls Treaty, anything but a consensual political transition, functions for many non-Natives as a local iteration of what O'Brien calls "lasting," a settler historiographic form that heralds the "last" of the local Native population, thus rescuing the settler polity from any residual threat of political contestation.[viii] The Treaty's specific provision of Esopus access to settler communities for purposes of visitation, lodging, and trade as part of a relation of unceasing obligation has not to my knowledge been publicly explored. As a result, the County and White residents' taking of the Nicholls Treaty as a symbol of political succession not only effectively confines local Native presence to pre-1665 but also, perhaps most crucially, obscures what occurred in the interval, namely over 300 years of relentless anti-Native hostility, forced assimilation, and erasure (or, in other words and perhaps more crucially, over 300 years of enduring Native presence).

Such forms of historical confinement have played out prominently in the U.S. legal system, as when courts have denied Native land claims by invoking juridical principle of laches, arguing that the validity of such claims are neutralized by the passage of time since the original act of land theft and displacement. Notably in 2005, Ruth Bader Ginsburg, writing for an 8-1 majority, held that to recognize Oneida land claims in the northern New York city of Sherrill—regardless of the basic legal and historical legitimacy of the claims—

would be to "rekindle[e] embers of sovereignty that long ago grew cold (*City of Sherrill v. Oneida Indian Nation of New York*)." In a region like the Hudson Valley, laches extends beyond jurisprudence, acting as a generalized social and political principle that permeates "settler common sense" and renders Native people and any possible claims they might hold to be fundamentally "out of time" (Bruyneel 2007, 2). "Volunteer educators will lead youngsters back in time to a Native American encampment" read one unexceptional local newspaper article, prosaically reinforcing the historiographic consensus in an article about a local nature preserve. It is in this vein that Kevin Bruyneel argues that settler practices of memory-making vis-à-vis Native peoples do not rely, as they are often said to, on "forgetting" as much as on an unwillingness to reckon with how Whiteness and White control (i.e. claims of jurisdiction, presumptive right to occupancy, etc.) in the present day depends on enduring structural violence toward the Native peoples who maintain a persistent, spectral presence in the White imagination (2021).

Slavery's Ends

The second critical "historical" lid that I encountered time after time in White narrations of local history was 1827, the year of emancipation for the great majority of New York's enslaved. Despite the eagerness with which local White historians now condemn slavery, the interstitial period that spans from the time of emancipation to the present has been largely neglected by both lay

and professional historians. Indeed, Black people generally fall out of local histories after the end of slavery (as do Native people post-1665), a phenomenon that, if recognized at all, is taken to be incidental. This is in part because Black lives are most thoroughly documented in conventional historical archives as slaves through the fungibilizing violence of wills, bills of sale, and runaway notices. When Black figures do appear in accounts of the post-emancipation period, it is typically as beneficiaries of White underground railroad agents or as the exceptional Black property owner, in either case serving as a misleading stand-in for the masses of Black residents who, like Truth, fled from the region throughout the 19th and early 20th centuries. Revisiting O'Brien's analytic is not altogether unfounded here as 19th century Black residents are also subjected to a form of "lasting" albeit without the tropes of lamentation or commemoration patronizingly directed toward "extinct" Native peoples. As discussed in Chapter Two ("Ecologies of Belonging"), the story of Black endurance in the Hudson Valley after slavery is one of overcoming incredible odds imposed by a White majority that had no interest in provisioning regional Black presence, as the violence of a world made by racial slavery and White power bled through emancipation, was absorbed into the landscape, and became naturalized. Though no less potent, this violence came to be incorporated into White aesthetic sensibilities, quotidian practices, and notions of belonging and community premised on New York's instantiation of Jim Crow instead of the formal practice of racial slavery. Slave cellars were put to other

uses but the White domestic scene upstairs endured abolition unscathed. In the present, the 1827 lid creates a scenario in which Black residents of the Hudson Valley become blamable for their struggles after emancipation while White post-slavery "achievements" once again become eligible to be lauded as evidence of individual and collective merit.

The prevailing narration of local slavery and its aftermath was notably challenged in 2017 and 2018 when, in a moment of national reckoning over monuments and memorials to prominent White supremacists, a local state university faced escalating pressure to rename five buildings named after local slaveholders. For over two decades, Black and Latinx students, campus employees, and community members had urged the university to change the names of the buildings to no avail amidst broader, long-term campaigns against intractable antiblackness and White supremacy on campus. Under unprecedented student pressure, in 2017 the university begrudgingly began a formal process to consider the renaming of the buildings. In the public input sessions that followed, Black students continually defied the 1827 lid by describing the continuities that spanned from the times of slavery to their own experiences of insecurity and degrading treatment in the present. Time and again they invoked personal stories that powerfully evidenced Saidiya Hartman's insistence that "if slavery persists as an issue in the political life of black America, it is not because of an antiquarian obsession with bygone days or the burden of a too-long memory, but because black lives are still imperiled and

devalued by a racial calculus and a political arithmetic that were entrenched centuries ago (1997, 16)." Although White transhistorical identification is encouraged through the noncontroversial use of a century spanning "we," non-White students were told by White critics, including on the university's governing council, that the actions of long-dead slave owners had no bearing on their lives, that they were hallucinating their intimacy with the enslaved, and that calls to change the building names advanced a platform of "racial score settling and intergenerational blood guilt." Here it is hard not to think of Trouillot's admonition that "we are never as steeped in history as when we pretend not to be (xix)."

Leaning on a report in which a special committee's archival research "empirically validated" what Black students had been saying for decades, namely that the present-day building names were a direct link to local practices of slaveholding and ongoing antiblackness, the university's governing council responded to the near unanimous outcry by eventually deciding to remove the slaveowners' names (and only then by a single vote). After profusely praising the contributions made by the slave-owning families after emancipation—an attempt to re-secure the historical lid by confining slavery to pre-1827—the university then elected to rename the buildings after various local scenic landscape icons—including mountains and a reservoir—each of which has a Native-derived name. With this decision, the university attempted to redeem its image tarnished with the stain of slavery through an appeal to the purifying

powers of nature and indigeneity. With no corresponding material commitment to Native students or Native studies on what has long had a reputation as a campus (and university system) hostile to Native people, the university sought recourse in the myth of local Native extinction by opting for names that provided them with multicultural cover without the risk, they assumed, of contemporary political controversy.[ix] Confronted over their long-term sponsoring of a local historical narrative that celebrated White supremacist "heritage" and legitimated antiblackness, the university turned to the regional tradition of landscape loving that "honors" Native peoples in what is understood to be their permanent absence. It is primarily through such acts of "reverential naming"—whether of the buildings and the mountains or of public schools, summer camps, and downhill ski runs—that Hudson Valley Native presence lives on in the consciousness of non-Native residents, as these gestures of memorialization function simultaneously as acts of erasure (Blee and O'Brien 2019).

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[i] Quoted in Bolotnikova 2020.
[ii] Pritchard (2020) suggests "Magonck" (alternatively "Mogonk") as a Munsee name for this waterbody, referring to a prominent mountain nearby.
[iii] Indeed, every town in New York is required by law to appoint a Town historian.
[iv] Of course, great tension and complexity characterizes the conjoining of "Black" and "women" here, as it did during Truth's life.
[v] Invoking the prospect of racial retribution to be occasioned by the coming rapture, Truth asked "'well, children, when you go to heaven and God asks you what made you hate the colored people, do you have an answer ready? Because when I go before the throne of God and God says, Sojourner, what made you hate the white people? I have got my answer ready' (then undoes sleeves and shows scars….) (Mabee 1995, 4)."

[vi] This annual renewal likely represents the final formal state recognition of Native peoples in this part of what would become New York.
[vii] These were the so-called First and Second Esopus Wars (1659-1660 and 1663), the dynamics of which were in many ways reminiscent of King Phillip's War that would occur in New England in the following decade. Deflagrations amidst extended periods of low-intensity hostilities, widespread tensions around settler farm animals lay the groundwork for these bloody campaigns (Romney 2017, 185) and, fittingly, the first item of the treaty assures the protection of farm animals.
[viii] Although, to be sure, the erasing "closure" that "lasting" provides to settlers is itself never entirely stable: at an event for which a local historical museum invited back representatives of a diasporic Munsee community, the museum's non-Native president slipped in her opening remarks, stating "this is their [referring to the Munsee community] land" before catching herself and restoring the past tense ("this was their land").
[ix] Perhaps predictably, a Sojourner Truth statue was soon proposed for the campus amidst student protests over declining levels of Black enrollment.

Chapter Six: "Stop Invasives, Go Native"

And just like that, the umbrella group's existential justification was on the table and at stake. Five times a year, representatives from the various partner organizations that made up the regional invasive species umbrella group gathered together in an attempt, through coordination, to have their modest but tenacious efforts live up to the scale of their task. The sites of the meetings rotated among the five partner organizations that had headquarters large enough to host a gathering would reliably attract forty to fifty people. While the meetings and indeed the milieu always struck me as understandably tinged with despair, that the venue for today's meeting—now a university extension office—had once been an infamous children's asylum only compounded, at least for me, a latent sense of sorrow. After preserved specimens of round gobies (*Neogobius melanostomus*)—an invasive fish species on the cusp of arriving in the Hudson River—had been passed around and those assembled were implored to "keep calm and circle the wagons" by New York state's aquatic invasive species director, the agenda turned to a long-unresolved internal item.

Reflecting the U.S. nature tradition's veneration of purified spaces, each regional umbrella group across the state was allowed to identify "Priority Exclusion Areas" [PEAs] understood to be relatively uninvaded, "high value" locations that were facing increased invasive pressure. If selected, these areas

would become eligible for additional funding for invasive species mitigation and management. A tension had emerged within the group as some members wanted to create a region-specific definition of a PEA instead of adopting the statewide criteria. While the rubric was intended to set a high bar and had resulted in only a handful of PEAs being designated statewide, the Hudson Valley experiences such a high rate of invasion that only one site—belonging to a non-member, no less—within the region would likely qualify as a PEA. As a result, some in the umbrella group favored a region-specific weakening of the criteria so that more areas in the region could potentially become eligible.

As discussion continued over what exactly should qualify as a PEA, one participant reframed the terms of the debate. "What will a PEA be like in 100 years?" he asked, before describing PEAs as landscape museums in which an isolated native habitat or two would be preserved through the intensive deployment of resources. Tellingly, no one contested the implications of his comment, namely that the organization's current triage [or, more aptly, *tree*-age] approach, despite all of the energy and determination of its core members, was massively overmatched by the scope of the challenge they were confronting. While some responded by suggesting that protecting these small pockets would still be worthwhile, no one disputed the argument at the heart of his remark, that whatever the fate of the PEAs, the vast majority of native habitats would become seriously and permanently invaded, the webs of constitutive more-than-human relation transformatively compromised despite the passionate efforts of

the group. And yet, neither did it seem that anyone took this sobering thought, which had heretofore only existed as a sort of ethereal, unspoken sentiment haunting these already-anxious invasive species worlds as an opening to discuss a broader reconsideration of tactics.

Making Do

Given the incredible scale of the invasive species challenge, group members were forced to rely on ardor and dedication in order to accomplish what they could, with participants often squeezing invasive species work into workdays already full of responsibilities at their respective organizations. Despite their effort and determination, there was no mistaking how incredibly understaffed and under resourced they were given their massive task. In one emblematic instance, when I asked a seasonal invasive species intern at a state park what she would change if she could alter one thing about her job, she answered that she wished she had more time to apply for grants in order to fund the insecticidal treatment of additional eastern hemlocks (*Tsuga canadensis*). The third most common tree in New York state, hemlocks are a slow-growing, keystone species and a staple of "climax" forests that expanded their presence in the wake of the now functionally extinct American Chestnut (*C. dentata*). Currently, insecticide is the only means of protecting the species from the invasive hemlock woolly adelgid, a small scale-like insect, that otherwise threatens their survival. Over 400 canopy insects, themselves also vulnerable to

the power of the insecticides, are associated with hemlocks (Coots et al. 2012; Kung 2013), contributing to the role of hemlock stands as a preferred home for many migratory songbirds. The density of hemlocks' evergreen shade are also critical to maintaining water quality in the streams that form much of New York City's drinking water supply.

At this particular 20,000+ acre state park, there are likely tens or hundreds of thousands of hemlocks. Because the insecticidal application ostensibly provides protection for seven years before needing to be reapplied, the park's budget only allows for the treatment of the most iconic and highly valued individual trees. Even then, their ongoing chemical defense is vulnerable to future budgetary contingencies. The grants the seasonal intern was applying for were often not even intended for invasive species work but instead to support "trail maintenance" or "visitor safety." Here, she had tried to align insecticidal treatment with the focus of the funding opportunity by pointing out that a forest of dead hemlocks could cause trail erosion and endanger hikers. Although this was the primary anti-invasive species program at the park, hemlock woolly adelgid was hardly the only invasive species present there. That a temporary intern had to resort to creative grant applications to fund the treatment of a few individuals of a charismatic keystone species at a popular state park demonstrates the desperation of the invasive species challenge. While there are statewide research initiatives underway seeking to counteract the hemlock's disappearance (described later in this chapter), the predicament of

the intern at the state park reflected both the resourcefulness as well as the inadequacy of responses that I encountered frequently throughout my fieldwork.

Because hemlock woolly adelgid spreads relatively slowly—being dependent on birds, wind, and human activities to move around—and because a healthy tree can potentially survive adelgid presence for up to twenty years, investment in hemlock protection, while modest, has so far been relatively sustained. The case of the emerald ash borer (*A. planipennis*), in contrast, starkly revealed fundamental limits in prevailing modes of response. The ash borer, unlike the adelgid, can kill healthy stands of ash trees within five to six years, as thousands of larvae create meandering corridors below the bark, physically interrupting the tree's ability to internally circulate nutrients and water. The borer also spreads quickly, both through flight and the transportation of ash wood. The predators and parasites that regulate emerald ash borer populations in its native range in eastern Asia are absent from North America (although researchers are beginning to release them to uncertain effect) and, while North American ash species seem to be capable of mounting forms of defensive response common among their Asian cousins, they do not do so nearly as frequently. Although the adult borer itself is a brilliant green, they are rarely observed alive even by researchers who study ash full time. The standing, "blonding" trunks of dead ash trees, bark removed by woodpeckers searching for

the larvae inside, become the primary evidence of the borer's world-altering presence.[i]



Figure 6: *The ruptured canopy of a skeletonized ash forest.*

I remember visiting relatives in western New York in the late 2000s and seeing the purple traps that researchers hung high in trees as part of early detection efforts. At that point, as a young person, the insect felt more like a rumor, the traps an experimental effort that would determine if it was true. Ash was still ubiquitous in Hudson Valley forests then, with conscientious foresters "thinning" the crowded seedlings to give selected trees more room to grow. Few

realized that this might be one of the last such generations of young ash in the landscape and that even these trees would likely not grow old enough to produce seed. Its presence in New York confirmed in 2007, the ash borer moved rapidly across the state, as restrictions on the movement of ash wood had only limited impacts. A decade later in the summer of 2018, with dead ash omnipresent throughout my particularly hard-hit field site, the New York state Department of Environmental Conservation lifted quarantine restrictions that had prevented the movement of ash out of areas known to be inhabited by the emerald ash borer, symbolically conceding its spread and the ensuing loss of ash populations across New York. As national biocontrol and resistant tree breeding programs have so far shown only limited promise, the state-wide effort to prevent the functional extinction of the regionally present portion of the genus, now "red-listed" as critically endangered by the International Union for the Conservation of Nature, largely fell to a resolute but precariously funded two-person ecological research team who tried to convince whoever would listen not to speak of ash in the past tense. With whatever organizational partners and volunteers they could gather, they set about to identify and protect individual "lingering ash"—the between 1% and .1% of all trees that show evidence of genetic resistance—in many places now nearly as novel as dinosaurs.

The great shortage of personnel—whether paid, barely paid (interns), or volunteer "citizen scientists"—and funding limited the amount of time that could

be spent "in the field." As a result, throughout my fieldwork with the regional umbrella group, there was great interest in the ongoing development of GIS and predictive analytics-based tools to prioritize management efforts. These tools promise not only to save the labor and time required to survey an area in person but also to estimate the likelihood of success for any management action. (To the extent that in-person, "ground truthing" surveys do occur, they are often either the incidental work of experts who happen to notice an invasive species in the course of doing something else or the labors of volunteers with varying degrees of experience and consistency.) While widely embraced as a means of making the most efficient use of human labor and organizational budgets, this mode of algorithmic prioritization assumes limited resources, constant new species introductions, and low probabilities of management "success." Species of all taxa are sorted according to regional prioritization tiers with already widespread "legacy invasives" (those that have accumulated through the previous centuries) rarely if ever addressed by the thinly stretched on-the-ground management teams. Instead, the teams' seasonal work focuses almost entirely on protecting areas with rare, threatened, or endangered species or on "early detection and rapid response" efforts with new and emerging invasive species.

The understandable motivation to limit the spread of new and emerging species led me to a rural cemetery one August afternoon as a volunteer surveyor for the "mile-a-minute" vine (*Persicaria perfoliata*). The site was one of the first confirmed locations of the fast-growing plant in the county although it was

abundant in the next county to the south and was thought to be expanding. A special seasonal employee had been hired to target this plant specifically and preventing the establishment of new populations was a top priority. While that afternoon's survey suggested that no mile-a-minute had survived the previous year's removal efforts, my eyes were increasingly drawn upward to the Asiatic bittersweet (*Celastrus orbiculatus*) climbing the trees and fences around the graveyard. A constricting vine capable of strangling mature trees, it also outcompetes and hybridizes with the native American bittersweet (*Celastrus scandens*), contributing to the potential loss of that species as genetically distinct (Pooler 2002). And yet, the Asiatic bittersweet was barely noted during the mile-a-minute survey, its status as a quintessential "legacy invasive" with long-standing and widespread distribution making it an impractical target for all but the most local invasive plant removal efforts despite its significant impact.

Faced with an invasive species challenge that far exceeds currently available response capacity, what would it mean to shift the focus from invasive species themselves to the conditions that enable invasiveness? Or to supplement the protection of dwindling populations of rare, threatened, and endangered species with efforts to counteract the factors that make these and other species' futures all the time more perilous, pushing more and more toward "threatened" status? It is well-known, for instance, that 90% of invasive wood-boring insects (like the emerald ash borer) arrive via shipping pallets and wood packaging (Cary Institute 2016). Further, 70% of the most damaging forest pests and

pathogens arrived via imported plants (Liebhold et al. 2012). Hemlock woolly adelgid, for instance, was transmitted from southern Japan to Richmond, Virginia, in contaminated nursery plants in the 1950s. The spotted lanternfly, the latest invasive insect to generate major concern in the Northeast, was first observed in Pennsylvania in 2014, likely arrived on a shipment of stone from Asia in 2012. Japanese stiltgrass seems to have been introduced after being used as packing material on a shipment of porcelain from Asia to Tennessee in the 1930s. As explored in Chapter Three ("Biological Invasion and U.S. Settler Colonialism"), the emergence of professional attention to the invasive species challenge has coincided with the unabated intensification of such modes of introduction. In one-on-one conversations, anti-invasive practitioner after anti-invasive practitioner readily acknowledged that the twin engines of invasion—practices of ubiquitous (national and international) circulation and routine, local disturbance—were unimpacted by the in-field containment work to which so much energy was devoted. This recognition was a primary reason why the umbrella group was increasingly drawn to education and outreach to a largely disinterested public; they realized that despite the local impacts of their in-field labors, without broader mobilization they were doomed to a Sisyphean task. Nonetheless, public knowledge about local flora and fauna, let alone of invasive species and their ramifications, remains extremely limited and is generally taken to have little relevance to the average person's day-to-day life.[ii]

Given these predictable patterns of invasion and the often-despairing emergency work it generates for anti-invasive practitioners, I was surprised by how little attention the umbrella group devoted to addressing the pathways of invasion. This was always an item on the annual action plan and yet it reliably received few volunteers. For already busy participants, the daunting scope of the endeavor no doubt contributed to the lack of appeal. One conservation professional who had volunteered for the "pathways" working group told me that he became frustrated after producing documents and proposals that never seemed to gain any traction. But the lack of action on the "pathways" issue also revealed both internally and externally generated limits within which the group operated. At one of the earliest meetings, an aquatic ecologist's proposal for "raids" on bait shops and nurseries to check for invasive species inventory was dismissed as too rash, in particular because supporting commercial horticulture is one of the responsibilities of the university extension agents who also played a central role in the umbrella group. This contradiction echoes that of my earlier discussion of the ambiguous status of pigs (in Chapter Three: "Biological Invasion and U.S. Settler Colonialism") and underscores the extent to which formal state and federal anti-invasive species efforts are still primarily oriented around perceived risks to agribusiness, timber, and horticultural industries. In New York, the full force of the state's resources are activated for rapid response efforts only when a new introduction is understood to be a threat to these sectors. Otherwise, responses fall to a more informal network of actors within

state agencies, universities, and the regional umbrella groups. In a similar vein, as one "pathways" working group volunteer explained at a meeting, proposals could be made to the USDA Animal and Plant Health Inspection Service (APHIS) to open a "federal weed investigation" of possible emerging invasive plants that could—after an arduous bureaucratic review—lead to their regulation but only if the species in question were not sold in the nursery trade.[iii]

In this way, the group's tactics were limited to a large extent by the state's role as a regulator whose ultimate purpose is to enable commerce, as well as by broader national invasive species management and invasion biology milieus that likewise rarely question the prioritization of the market and industry. Among the academic invasion biology researchers who promote the application of their findings to anti-invasive practitioners, recommendations are generally confined to narrow management advice. Uncharacteristic was the conclusion of botanist Robert Bertin and geographer Chelsea Parise whose article on long-term patterns of nonnative plant populations in central Massachusetts called for serious reflection regarding the consequences of the international plant trade and the rampant habitat fragmentation incurred through residential and commercial "development" (2014). Generally unwilling to make bold suggestions like these, national invasive plant management entities have long been criticized for their envelopment in commercial and research networks beholden to chemical companies (e.g. Orion 2015; Cockburn 2015), leading, largely, to a narrow focus on invasive plants and the promotion of herbicide,

emphases that rub off on regional practitioners.[iv] Indeed, it was reported in 2015 that up to half of the federal government's two-billion-dollar anti-invasive budget is used to buy herbicides like glyphosate (Cockburn 2015).

The appeal for sponsors for the 2019 North American Invasive Species Management Association's annual meeting—held in 2019 in upstate New York—reflected this approach. Whereas an interested financial sponsor committing $1,250 would find themselves at the lowest sponsorship level, "Prevention," $2,500 would attain "Identification," $5,000 "Plan of Attack," $7,500 "Control" and, for $10,000: "Eradication." Here prevention, by far the most effective mode of addressing invasive species and the one which causes the least disturbance and effort, is belittled as potential funders were encouraged to covet the militaristic fantasy of eradication. The language of eradication is one that, as all practitioners know, applies only to rare instances of early detection of new invasive species and not to the well-distributed species that have collected for centuries. Among the many hazards of such a framing is that it renders invasive species as isolatable units rather than as components of complicated socioecological assemblages with particular and extensive historical roots (and "routes").

As critics of the nonprofit form have long argued (e.g. *INCITE!* 2017), self-perpetuation becomes the primary if sometimes inadvertent objective of bureaucratic organizations, whether NGOs or state entities. In anti-invasive work, this resulted in opting for what are taken to be apolitical methods of

scientifically informed invasive species management and public education.[v] In their publicly directed messaging, the umbrella group and similar anti-invasive species entities took the endurance of current conditions "upstream" (i.e. invasion "pathways") for granted while still giving the impression that existing control and prevention measures are essentially up to the task. This stood in stark contrast to the accounts given to me privately by members of the group who were more inclined to liken biological invasion to a runaway train.

The relative lack of attention to "pathways of invasion" extended to historical pathways and the legacies of violence that produced "legacy invasives." References to a wider historical scale were few and far between, most commonly occurring in the first two slides of conference keynotes meant to briefly introduce the invasive species challenge. "This was all wilderness when we came over," explained a decorated federal invasive species expert addressing a major regional conference in one such presentation. The transhistorical "we" invoked here was also a frequent feature of the fleeting references to history that would occur from time to time in the course of my in-field research, as when someone would nonchalantly refer to when "we" introduced this or that invasive species. While these remarks from overwhelmingly White interlocutors could have been an opening to discuss invasive species as the accumulated biological fallout of centuries of species introductions motivated by colonial goals of biological enrichment and replacement, this "we" instead reflected but also

unconsciously secured the anti-invasive milieu as a White community of practice by suggesting that the "we" responsible for introducing the invasive species in the first place would now need to act to mitigate their impact. The presumptive coherence of this "we" as culpable yet capable implicitly affirmed faith in not only the "who" but also the prevailing "how" of invasive species response. Wittingly or unwittingly, the "we" legitimated insularity and discouraged a more expansive historical scope that might foreground the entwinement of biological invasion with the racialized work of accumulation and ecological ruination, of nation-building and social rout. Doing so protected an implicit fidelity to the notion that progress was still attainable, whether upheld privately or not, that made it possible to stay the course despite the loss of three quarters of North American elms and the borer-riddled skeletons of millions of ash.

Less frequently, I encountered an "inclusive" version of the invasive species origin story which held "humans", in the words of one conservational professional, to be responsible for "moving organisms around and making a big mess." As with the fraught imprecision of "anthropogenic disturbance", by neglecting the specific scale of programmatic, largely unidirectional importation that has characterized European projection in the modern world, this narration obscures how biological invasion has endured as a critical component of conquest.[vi] In both the White-centered and "universal" account, Native peoples are nowhere to be found as their home landscapes are, as Jessica Cattelino has argued, "nationalized statutorily in ways that render the settler state [their]

rightful inheritor and steward (2017)." Through the landscape politics articulated by the Hudson River School, environmentally minded settlers are then able, in the perceived absence of Native peoples, to "become native" to the land through their embrace of an ecological patrimony seemingly conveyed by birthright and the "lamentable, though inevitable," past while nonetheless still experiencing "nature" as a sort of quotidian interface with historical non-settler difference.

In a region with a long and lively tradition of erasing Native presence, the slogan the umbrella group emblazoned on their public outreach tent ("Stop Invasives, Go Native") facilitated this affective exercise. Ironically, whereas nonnative species have often been introduced as a means of stabilizing White settlement, today removing them comes to bolster a similar sense of connection to the landscape that nonetheless smooths over the prevailing violence of colonialism. In this way, addressing the invasive species challenge, among other ostensibly remedial acts of environmental conservation, often serve as acts of redemption for the sins of past and are undertaken obligatorily by those who have inherited the responsibilities of stewardship from Native people taken to be long gone. It was bitterly ironic that although much of their work occurred in southern New York, the NGO that was contracted by the state to administrate the regional umbrella group was headquartered in the same northern New Jersey town that is also a major base of the Ramapough Lenape Nation. During much of my fieldwork, the Ramapough were in a protracted and ultimately victorious

standoff with the town over its persistent legal harassment of their community events and ceremonial practices that occurred on their own privately held land. Despite their high-profile presence in the town and to a lesser extent in a portion of the region covered by the umbrella group—including as a result of significant land and water defense work— the Ramapough were never mentioned in the many hours I spent with the umbrella group. Missed here was an opportunity to broaden the organization's devotion to native species to also include a commitment to those who have long tended them and who were now in the midst of a long-running struggle for self-determination and survival.[vii]

Losing Faith

As a thoroughly bureaucratized endeavor, much professional invasive species work occurs in offices, as conservation professionals apply for funding, prioritize management goals, and participate in the endless stream of educational webinars hosted by state agencies and university extension entities. In many organizations, a single "stewardship" staff member would be responsible both for this work and for in-field management. Only state-funded entities, including the umbrella group, had full-time (albeit small) seasonal teams to do in-field "management" work, generally consisting of applying herbicide. During the five or so months when plants are growing, the team would travel throughout the umbrella group's region attending to a wide range of species across numerous sites. While mowing is also sometimes employed as

a method of controlling invasive plants, the shortage of labor, time, and resources compels parks managers and invasive species professionals to choose the fastest and most affordable method that, while it may not eliminate a population of plants or exhaust a seedbank at once, will most reliably kill individual plants. This state of affairs was behind a notable shift that occurred in the midst of my fieldwork when one of the most prominent regional land conservation NGOs ended its longtime internal herbicide ban in light of the severity of their invasive species problem. The overwhelming reliance on herbicide is another indication of generalized desperation as concerns about the probable negative impacts of these herbicides—most commonly glyphosate—on both human and ecological health are widespread enough that this mode of treatment would likely not be as broadly deployed were it not taken to be the only option given the scale of the task.[viii]

A few members of the umbrella group consistently raised concerns about the in-field impacts of glyphosate application on wildlife, a subject that felt was understudied, but these were invariably outweighed by the perceived imperatives of the triage scenario. This situation was epitomized in a telling exchange at a meeting of the umbrella group: when an ecologist implored an invasive species management professional to wait until the end of songbird nesting season before spraying Japanese Knotweed (*Reynoutria sp.)* that might contain bird nests with herbicide, the herbicide applicator's poignant response was "you have to crack eggs to make an omelet." Donna Haraway's insistence

that “anytime we kill or cause suffering in the name of a cause, like conservation, we should never leave feeling comfortable or satisfied” (2007, 117), urges the reframing of the taken-for-granted choice between poisoning the land- (and water-) scape or else accepting habitats becoming even more saturated with invasive species. In the case of efforts to protect hemlock trees from the hemlock woolly adelgid, the injection of trees with imidacloprid and dinotefuran, both neonicotinoids that are, like the other systemic insecticides of that class, banned in the European Union, also potentially endangers numerous “non-target” herbivorous insects and the other animals who eat them. Ironically, when confronting hemlock woolly adelgid, anti-invasive practitioners must choose between neonicotinoid injections and the release of moderately effective predatory biocontrol species (beetles from the genus *Laricobius* and silver flies from the genus *Leucopis*), as the insecticide would otherwise kill the biocontrol species as well. Invasive species and conservation professionals defend their use of neonicotinoids on ash and hemlock trees because both tree species are wind pollinated and so do not rely on insects visiting flowers for the purposes of pollination. This is a minimal comfort however as, for example, imidacloprid is now being recommended for topical and foliar spraying for spotted lanternfly, a more recently arrived invasive insect, on a wide variety of woody plant species that do rely on animal pollinators. Further, non-neonicotinoids used against invasive species—such as emamectin benzoate to protect trees from emerald ash borer—bear their own risks to humans and “non-target” organisms.

Methods of biological control, such as the release of organisms that are known to impair an invasive species in its home range, have long been deployed as an alternative recourse when invasive species are thought to exceed the capacities of human agents, albeit to varying effect. When the biocontrol organism is capable of moving around the landscape without active human assistance, this method bypasses the need of invasive species managers to get permission from private landowners to access invasive species on their properties. However, biocontrol is itself a complicated response, requiring years of expensive testing and research without guaranteed impacts. While I was routinely assured by some researchers and invasive species professionals that more thorough contemporary testing protocols vastly mitigate the chance of modern biocontrol measures having unintended consequences, this concern resurfaced frequently in conversations with ecologists and botanists when discussing various biocontrol efforts. Like the release of any new organism, introducing a biocontrol agent is generally irreversible. In my interviews with anti-invasive practitioners, importing organisms for biocontrol purposes was increasingly regarded as a silver bullet, a method that could assure landscape-wide control of an invasive species while requiring minimal labor and expense (following an extensive research process). In this vein, biocontrol was repeatedly invoked to justify the relative lack of attention to more aggressively attempting to obstruct invasive species pathways.

While some professed hope about the ongoing introduction of new biocontrol measures, the localized and fraught impact of herbicides, as well as the recognition that herbicides are expected to become less effective with elevating levels of atmospheric CO2 (e.g. Matzrafi et al. 2019), combined with the unabated onrush of new invasive organisms to prompt reflection on the utility of the entire invasive species management project. The crisis of confidence in prevailing modes of response, generally confined to internal conversations and private moments, was indirectly on display in the vignette that opened this chapter, as well as in the outlooks of many of the just-graduated interns I interviewed who said things like "at least I'll always be able to get jobs doing this work because the problem is never going away."

While there is clearly no quick fix, the assumption that biological invasion is an inevitability is another consequence of engaging invasive species as individual organisms rather than as part of a historical, contestable colonial assemblage whose ramifications were never "only" ecological. However, rather than rethink the deeper politics of biological invasions in North America and revisit the issue of systematic disturbance and unimpeded global commerce, the primary critical call, from both within and adjacent to the ecological sciences, has instead been to embrace "novel ecosystems" in which invasive and other nonnative organisms would be accepted as part of newly composed land and waterscapes resilient enough to weather the ravages of climate change, industrial disturbance, and mass extinction. While even the fiercest native plant

advocate would readily concede that, in a general sense, invasive and nonnative organisms will never be excised, the implications of the novel ecosystems argument have proven controversial among ecologists and biologists. Of primary interest in this dissertation however, is how the call to accept novel ecosystems as "the new ecological world order" (Hobbs et al. 2006) and thus "shake off the yoke of history" (Marris et al. 2013) fails to reckon with the long-standing historical role of biological invasion as a powerful engine of settler colonialism. In this way, novel ecosystems advocates in places like the U.S. take for granted a sort of settler futurity that does not acknowledge what "novel ecosystems" specifically mean (and have meant) for Native peoples. The same can be said for the argument sometimes heard in nonacademic spaces that invasive species, and the examples cited are almost always plants, are a response by "nature" to "heal" the wounds caused by industrialism. While there is no question invasive species do often readily populate disturbed areas and begin basic processes of ecological functioning, they are also themselves in intimate relation to specific modes of historical violence.

Nonetheless, I take the increasing intimations I heard throughout my fieldwork regarding the likely futility of ongoing invasive species management as the writing on the wall for an embrace of novel ecosystem approaches by government agencies and other conservation professionals in the U.S. for whom tightening budgets are simply not up to the task of responding in a significant way to the invasive species challenge. The New York Department of

Environmental Conservation's [DEC] ready capitulation in 2018 in the face of the rapid decimation of ash by the emerald ash borer, while an extreme example, could prove to be a harbinger. [ix] As I write, the results seem no better regarding concerted state efforts to limit the spread of spotted lantern fly—a more benign pest but nonetheless one that is more damaging for agriculture—across New York. Returning to the vignette from the beginning of the chapter, invasive control efforts will likely continue in PEAs or similar selected areas. However, the slippery slide of standards and objectives for invasive species management, even perceptible over my relatively brief years of fieldwork, suggests that, barring a reassessment of the challenge through direct attention to its enmeshment in settler colonialism, industrialism, and racial capitalism, the end may be near for the period when invasive species management was taken as a viable project in a general sense. Formal, professional management work that is already largely confined to early detection, rapid response, and the protection of rare species will likely explicitly shift to becoming exclusively so.

Infernal Alternatives

Vast portions of the Hudson Valley are very much already novel ecosystems. Postwar White flight resulted in the creation of suburban neighborhoods that fragmented forests and made paved surfaces and lawns ubiquitous. Across the U.S., an area four times as large as the state of New Jersey is currently paved. Lawn grass species, almost entirely nonnative and sometimes

invasive, now cumulatively cover an area about the size of Texas, by far the largest irrigated "crop" in the U.S. (Melesi et al. 2005). Reminiscent of industrial monocrops discussed in Chapter Three ("Biological Invasion and U.S. Settler Colonialism"), the turf grasses of ever-spreading lawns essentially function as invasive species because of their immense cost to ecological communities but are not targeted as such. In these residential landscapes, what is not paved or mown is generally devoted to a small suite of often non-native ornamental plants, providing habitat for primarily human-adapted, generalist fauna. Along with the extirpation of local carnivores, suburbanization's rendering of much of the Hudson Valley landscape into a patchwork of fragmented forests and lawns encourages elevated populations of white-tailed deer (*O. virginianus*), also essentially extirpated from New York at its moment of agricultural apex in the 1800s. White-tailed deer are edge grazers, preferring a diverse diet of forbs, fruits, and the new shoots of woody plants. Deer herbivory patterns select for invasive plants—often invasive precisely because they are not appealing to herbivores—interrupting forest succession and dramatically impairing native plant populations. As a general principal, forest fragmentation generates an abundance of forest edges more likely to become invaded than the interior forest. Under the soil, invasive earthworms disrupt soil structure and nutrient cycling which also hampers native plant regeneration and promotes conditions in which invasive plant species thrive.[x]

The cumulative result of these inter-related factors is the hollowing out of huge swaths of the Hudson Valley (and indeed, North American) landscape in which, both because of these pressures and relative social indifference, a vast homogenization of plant communities becomes all the time more complete, nonchalantly and unspectacularly wiping out the floristic base of terrestrial life (although, of course, biological simplification has been at the core of the colonial landscape project in North America for 400 years). As landscape historians Knab-Vispo and Vispo write about nearby Columbia County, NY, "today, the county (and probably much of the Hudson Valley) is at a stage when relatively little habitat for native species is being created and existing habitat is being eroded….most land that will revert to forest already has and forested areas are declining, land in agriculture is declining and remaining agriculture intensifies…. (2009, 177)." In contrast to the one, late-summer cut standard prior to the late 19th century, present-day hayfields are often now triple cut, essentially eliminating native plant diversity and creating an "ecological trap" for ground-nesting birds. 67% of wetlands in New York and New England were destroyed between the 1780s and 1980s (Teale 2017).[xi]

Nonnative plants that provide diminished value to native fauna and are now often 30% of floral diversity in forests and fields, a percentage that can be much higher in more disturbed areas or if percent cover rather than total number of species is measured (Bertin and Parise 2014).[xii] Whereas previously hedgerows, windbreaks, marginal lands, slopes, and wet areas, among other

spaces not actively managed by farmers, were overwhelmingly composed of native plants and likely provided critical refugia during the historical high-water marks of improved pasturage, today such "neglected," out-of-the-way places are often now invaded. New invasive species will expand their ranges north as warming temperatures allow and both these and existing invasive species stand to become more prolific given elevated levels of CO_2 and the disturbance and strain caused by more intense storms.

Within the mainstream of U.S. environmentalism, the protection of select wild areas, inspired by the Hudson River School and at the heart of the American wilderness tradition, has always been accompanied by the *de facto* condemnation of that which is not selected to the routine depredations permitted by property ownership. The persistence of Edenic refugia provides occasional rejuvenation for primarily White urbanites while industrial expansion is otherwise accepted as inevitable. This approach has left a legacy of national parks, their local analogues, and sacrifice zones (or "wastelands" (Voyles 2015)). Following Peter Dauvergne (1997), the latter might be considered "shadow ecologies" or the non-selected spaces whose plunder sustains national power and industrial growth, enabling some other areas to be "protected" or kept free of human inhabitation.[xiii] While the bifurcation of space into "natural" and "cultural" (or human-shaped) realms runs deep in U.S. society, a historically informed account makes clear that it is particular ways of life, and

not humans themselves, that are responsible for widespread habitat destruction and climate change, among other means of undermining ecological function. Further, if any clarity is provided by ever-worsening ecological crises, it is that the preservation of particular sanctified landscapes, whether as scenic vistas or biological "hotspots," will not be adequate measures to prevent mass species loss and climate-related ecological breakdown. Such "preserved" spaces are, more-than-ever, entirely vulnerable to the ubiquity of pollution and the intensity of disturbance all around them.

Thom van Dooren, drawing on the legacy of Val Plumwood, writes that "human exceptionalism grounds a dangerous illusion in which the loss of nonhuman others is understood to never quite touch human lives and possibilities (Van Dooren 2016, 141)." This critique is augmented and deepened when re-considered in light of the "boomerang effect" described by one of Western humanism's great critics, Aimé Césaire. Writing soon after the end of the Second World War, in *Discourse on Colonialism* (2000) Césaire diagnosed the horrors of European fascism as the application in Europe of techniques of violence long practiced in Europe's colonies. Western humanism had both legitimated colonial domination through the elevation of Europeans while also smugly insinuating that they could only ever be the "beneficiaries" of the terror and looting that constituted the modern period in so much of the world. Far from

being Western humanism's undoing, Césaire insisted that the ascent of the authoritarianism and Nazi genocide was actually its culmination.

Others working in Césaire's wake have since elaborated how the prerogatives said to be afforded to "humans" within accounts of Western traditions of human exceptionalism have been variously unavailable to those who can at least nominally be described as the great majority of humanity (non-White people, women, disabled people, among others). The toll borne by those incompatible with humanism's normative ideal is as pertinent to any discussion of "human exceptionalism" as that of those that van Dooren gestures toward in invoking "nonhuman others." What Césaire and Plumwood (via van Dooren)'s accounts share, however, is a warning about the presumption of superiority, distance, and invulnerability, the narrowly self-interested elevation and exculpation that suggests the license to wreck without ever being wrecked. As Césaire insisted, prior to returning to the thrower, the boomerang has all the while been shattering human lives and possibilities elsewhere. Within the context of U.S. settler colonialism and racial slavery and its aftermath, White settlers have both created the conditions of invasiveness and ecological ruination through practices that have also been catastrophic for great swaths of humanity.[xiv] While these practices continue unabated, mainstream campaigns against invasive species continue to toxify the landscape in order to try to prevent the calamitous damage of native species loss. The choice on offer here is between poison and ever intensifying species population declines and

extinctions. Given what have been so far inadequately mitigative results, it seems that the current tack yields first poison and then extinction.

In a milieu in which the transformation of a heavily invaded area into a well-managed golf course was presented at one umbrella group meeting as "a good thing," I am drawn to Isabelle Stengers' insistence that the field of possibility cannot be confined to "infernal alternatives (2015)." In *Capitalist Sorcery: Breaking the Spell*, Stengers and Philippe Pignarre remind a frightened world that we must reject a "realist" account of the situation in which we are asked to make "reasonable sacrifices" and then still choose something terrible (2007). Refusing the prevailing terms of the situation, a Stengersian intrusion might insist that we cannot afford to restrict ourselves to a single issue—that of invasive species—given that doing so contradicts what we know to be true about the constitutive role of broader assemblages of disturbance and circulation. It would further insist that we not dejectedly accept limited capacity or the conditions that destroy the not-only-human world that we seek to sustain.[xv] This golf course-to-be, and all mowed, paved, plowed, or invaded places, long provisioned other worlds and can do so again.

Perpetuating Resurgence

In *Braiding Sweetgrass* (2013), Robin Wall Kimmerer, a plant ecologist based in Onondaga territory in so-called upstate New York, describes the long-term practices of unspectacular labor that arise for her from a commitment to

native plants, Native peoples, and their ongoing relations. For Kimmerer, reminiscent of Cheryl Bryce, techniques of dedicated tending, incremental and local but sustained, are a necessary and pragmatic response to the ever-accumulating never-only-human toll of colonialism. In an article written amidst calls for forest conservation professionals to work toward restoring North American forests to pre-(European)settlement states, Kimmerer argues that such forest "structure and function may not be possible without also understanding the relationship of the original inhabitants to the land (2000)." In contrast to the U.S. wilderness model's glorification of the pristine, in *Braiding Sweetgrass* Kimmerer discusses how for both black ash (*F. nigra)* and sweetgrass (*Hierochloe odorata*), regional Native practices of localized maintenance and harvesting carefully create micro-disturbances that enable the flourishing of these otherwise declining "cultural keystone" species. In a time before emerald ash borer, black ash basket makers' harvesting practices create canopy gaps that allowed light to reach the next generation of saplings (149). Sweetgrass, because it rarely grows from seed, thrives through human transplanting and its growth is spurred through sustainable harvesting (262). For Kimmerer, these humble, on-the-ground practices of attention and care for relations are a quotidian lifeway, as well as a promising means of reversing the declines of native species and managing the impact of invasive ones. The scale and modesty of Kimmerer's proposal, precisely that it is not a rapid bid for eradication, is part of what makes it so transformative. On the other hand, there can be no underestimating the

scope of the transformation that the wide-spread adoption of such acts of noticing and caring stands to bring about in a moment characterized by the greatest loss of nonhuman life in 65 million years. This is a radical love for place that treats each inch as habitat, refusing the "necessity" of the sacrifice zone as well as the approach that holds "nature" to be a destination somewhere "out there."

In contrast to much native plant conservation work undertaken by non-Native people in the U.S., "gardening for habitat" in this case refers to habitats from which humans too derive material sustenance, not merely aesthetic enjoyment or an abstract affirmation of morality. Attending to plant communities as embedded in constitutive relations within a more-than-human landscape encourages attention to a scale that exceeds the property delineations that otherwise bind individual conservation or restoration efforts to capitalist models of home ownership, instead promoting a non-proprietary notion of place. No matter how carefully a single site is tended, it matters little if it is surrounded by a heavily invaded landscape. Never simply a one-off weeding or planting event, the accumulation of the minor practices promoted by Kimmerer and Bryce—promoting some species and not others—can over time redirect the composition of a seedbank, the tending transforming a given site from a base of operations for invasive plants to one from which native species surge. Replacing nonnative pasture plants with sweetgrass alongside students and residents of the Mohawk community of Kanatsiohareke was, for Kimmerer and her Mohawk

colleagues, a bid to "undo Carlisle,"—the Indian Industrial School in Carlisle, Pennsylvania where Native children were forcibly detained in an effort to assimilate them into White society by turning them into farmers.[xvi] Returning sweetgrass to the meadow so that it could be incorporated into Mohawk harvesting and basketry practices was an essential exercise in the transmission of Mohawk modes of not-only-human relating and a rebuke of the colonial tradition of improvement through botanical simplification. It was also a reminder of not only that the capacity for resurgence that exists all around us at all times but indeed of the immensity of effort—through mowing, paving, and monocropping—consistently exerted to frustrate it.

More broadly, as Nicholas Reo and his co-authors have documented, Indigenous peoples in North America are actively engaged in managing invasive species, calling upon a wide range of techniques and realms of expertise, including but not limited to those typically deployed by non-Native invasive species professionals (2017). They do this in varying degrees of coordination with state and other predominately non-Native "land managers." Reo et al. emphasize that Native people have been responding to "ecological" change forever, although rates of transformation have accelerated with European colonialism. Further, invasive species are but one of many challenges facing Native communities, including more existential threats like the loss of territory. In a later article (2018), Reo and Laura Ogden discuss how Anishnaabe "tradition bearers" in Michigan provide accounts of invasive and other nonnative

species that sometimes diverge from those that prevail in non-Native professional invasive species management worlds. In many cases, the Anishnaabe experts objected to the demonization of individual species, shifting focus instead to the possibility for forming new relations with some of these introduced nonhuman "nations." More primarily, they also denounced the "invasive land ethics" that they traced back to the beginning of the colonial period. Such land ethics, exemplified by large scale infrastructure projects such as channelizing and damming rivers, the wanton introduction of new species, and the widespread use of herbicides (including by invasive species managers), were criticized as arrogantly disrupting not-only-human webs of relation (Kimmerer 2000 also makes this point), generating concern that surpassed that brought about by individual nonnative organisms.

The U.S. nature tradition has attempted, without success, to preserve small sublime pockets of the landscape from the otherwise unaddressed industrial storm that surges around them. Jeff Corntassel and Tiffanie Hardbarger's notion of "perpetuation," by contrast, "differs from a conservation ethic of preservation, which entails shielding something from adverse impacts but does not necessarily allow it to flourish or grow stronger (2019)." Theorized in relation to Cheryl Bryce's *kwetlal* restoration initiative mentioned in Chapter Three ("Biological Invasion and U.S. Settler Colonialism"), perpetuation involves both active practices of caretaking as well as the rejection of endless violence directed at not-only-human land- and waterscapes as articulated by Reo and

Ogden's interlocutors, together provisioning profoundly different futures through the sustaining of long-term webs of relation. Every small act, such as the planting of sweetgrass at Kanatsiohareke, nurtures possibility by providing an opportunity for something other than what are taken to be political and temporal "inevitabilities," be they Native extinction, infinite accumulation, or the embrace of novel ecosystems. Rather than assuming the endless endurance of conquest, these practices of resurgence and perpetuation are guided not only by the memory that things have not always been this way but also by the prophetic insistence that they will not stay this way foreve

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[i] In many parts of the Hudson Valley, it was common to see forest stands full of dead trees although it is also telling that this loss—recall that ash trees were roughly 10% of the forest in New York—occurred with seemingly little acknowledgement from the general public.

[ii] To an inexperienced eye, the landscape can also be deceiving. On one hand, because the northeast remains largely forested—with trees along highways, in residential landscapes, and in "untended" areas, to many this "green" gives an impression of "health." On the other hand, a closer consideration of which species are present (and which are not) can tell a very different story.

[iii] 61% of listed invasive species are still for sale in the U.S. (Beaury et al. 2020).

[iv] Herbicide manufacturers have made the most of this market opportunity by giving their products names like "Habitat" and "Restore."

[v] Indeed, many individual members of the umbrella group are even prohibited from participating in any form of political "lobbying" because of their employment at nonprofit organizations.

[vi] As Poteau et al. note (2020), "Europe is the second-most important donor continent of naturalized alien plant species, after Asia. However, the European flora is by far the most successful in naturalizing. Of the *c*. 14,200 vascular plant species native (i.e. both endemic and non-endemic) to Europe, 3,383 have become naturalized somewhere in the world; this is three times more than expected by chance (van Kleunen et al., 2015)."

[vii] It is worth noting that further north, ecological scientists have engaged directly with Anishinaabe and other northern Indigenous communities and experts, taking the cultural value of ash (and specifically Black Ash) as a pivotal aspect of preparation as the emerald ash borer expands northward. After the end of my formal research, I became aware that a link had been made between the ash researchers mentioned earlier in this chapter and Haudenosaunee communities north and west of my field site although these connections seem less well developed. In any case, the framing of biological invasion as an "environmental justice" issue remains uncommon.

[viii] It is nonetheless worth noting that attention to the human health impacts of herbicides and other chemicals rarely if ever take into account the pollution and other "externalities" of

manufacturing that themselves sicken and endanger frontline human and nonhuman communities.

[ix] Indeed, this decision by the DEC to lift all existing quarantines on the movement of ash timber—the last primary measure meant to slow the spread of the borer—was replicated by the federal government in December 2020 when USDA APHIS declared that its quarantine on moving ash out of impacted areas had failed and that efforts should be focused on biocontrol.

[x] Many invasive plants also actively transform soil conditions to their advantage through exuding allelopathic compounds.

[xi] As one conservation professional pointed out, wealthier towns, often in the lower Hudson Valley suburbs of New York City, have in recent years often created very stringent land and water conservation laws but ironically have little left to protect having already been substantially "developed." More rural areas with incredible habitats are also often more economically desperate and subject to contemporary proposals for extractive industry and other forms of "development," leading them to think they cannot "afford" conservation measures. The result is that conservation occurs, when it occurs after the fact (and often as a rural area gentrifies), a scenario he characterized as "too little, too late."

[xii] Because landscapes are hard to measure systematically, studies of floristic change generally focus on a small area. Reading across multiple studies conducted in a range of habitats in the northeast, native plant abundance and diversity seems to be decreasing while nonnative diversity is clearly increasing. It is important to point out that some of the loss of native species diversity can be attributed to the loss of sunny habitats that coincided with reforestation during the 20th century. See Robinson et al. (1994); Standley (2003); Primack et al. (2008); Hamlin et al. (2012); Mackenzie et al. (2019).

[xiii] The instruction to "leave no trace" when in protected areas is emblematic of the constitutive paradox of wilderness' enmeshment in industrial society, as the command pertains only to actions presumed to blemish the park but not to the industrial infrastructure that, in a broader sense, provisions the visit.

[xiv] To be sure, these practices have had damaging effects for great swaths of the White population as well if factors like class, gender, and disability are considered, despite the protections that Whiteness has nonetheless also afforded them.

[xv] I deliberately use "we" to emphasize my overwhelming commonality with my often White, typically middle class interlocutors. Whatever our differences, I greatly admire their passion and expertise and hope that it is clear that, to the extent that this text resembles a critical engagement, its targets are formations that are far larger than any particular individual or organization and in which I too am embedded.

[xvi] As Kimmerer recounts (2013), there Native youth were coerced to recite an oath: "I am no longer an Indian man. I will lay down the bow and arrow forever and put my hand to the plow (261)."

Chapter Seven: Social Paths

"I've been thinking about what it takes in the midst of the singularity, the virulent antiblackness everywhere, and always remotivated, to keep breath in the Black body."- Christina Sharpe (2016, 109)

In 2017, the historians and historical reenactors Joseph McGill and Terry James led a group of local Black residents and students as they spent the night in the basement of a stone house built at the turn of the 18th century in the Huguenot Street Historic District in the Ulster County town of New Paltz. Such "sleepovers" are the primary activity of The Slave Dwelling Project, an organization founded by McGill to bring attention to the presence of slavery at historical sites across the U.S. As is the case at many such locations, the slave quarters on Huguenot Street had only been preserved because they were also the basements and attics of the homes once inhabited by prominent White residents.[i]

At a public event months after the sleepover, participants described their experience, recounting both the trauma they felt as well as their relished proximity to each other and to ancestors. Participant after participant stressed how, upon entering the crowded cellar, the two centuries since emancipation readily evaporated, leaving them viscerally aware of their adjacency to the enslaved and adamant that "there is no past tense." As one recalled, "the first thing the ancestors asked me was 'what's going on and why don't things feel

different? Why are we still sleeping on the floor?'" Another participant described the surreal experience of climbing the stone steps of the cellar the morning after the sleepover and discovering, to her disbelief, a charity road race taking place on the street before her. Watching the multi-generational White crowd pass by cheerfully, numbers pinned to their chests, their movement volitional, her mind was immediately overcome with memories of Black flight through the surrounding landscape, weighted down by chains and children, spurred on by intense desperation.

This striking illustration of disparate opportunities for mobility encapsulates and places into sharp relief the fundamentally divergent relations with the Hudson Valley landscape experienced by Black and White residents over the long durée. What has long been a site of recreation and rejuvenation for some is for others saturated with memories of dread and fugitivity, of the need to run to die free. [ii] In a 2016 conversation with Saidiya Hartman on the subject of the Black outdoors, Fred Moten described that when he lived in North Carolina and would go hiking in the forest with his family he would invariably hear the sound of someone running (Duke Franklin Humanities Institute 2016). The Black experience of the outdoors in North America, as Hartman, Moten, J. Cameron Carter, and Sarah Jane Cervenak elaborated, is redolent with familiarity, possibility, and petit marronage but always also with terror and unavoidable constraint. In this way, while Black people have always "outsiders"

in the Americas, the improvisation of an "outside" has never been entirely separable from the experience of enclosure and duress.

In 2003, the historian A.J. Williams-Myers suggested that the Hudson Valley's remote integrated communities formed by Black, White, and Native people since the pre-U.S. period embodied the "road not taken" in a region otherwise characterized by *de facto* White supremacist segregation and the violent regulation of Black mobility in the countryside.[iii] Despite keeping a low profile by necessity, these communities provide a powerful reminder that segregation and White despotism were never "natural" or inevitable. Rather, attempts to regulate the location of certain bodies and forms of association has required and still requires great exertion and expenditure. A social path (or "social trail") is a term used by land managers to refer to an unauthorized route through the landscape. Sometimes also called "desire paths," they are created by humans and others who are dissatisfied with the already given possibilities for movement and location in a landscape. To be sure, these sites of unlicensed multispecies forays are not entirely benign, sometimes resulting in slope erosion and the trampling of sensitive plants. While never passages to redemption, they are nonetheless material evidence of the defiant pursuit of something or someplace else.

Other Landscapes

Flight from the postbellum south increased the Black population of New York City more than threefold from 1900 to 1930 although Black residents still comprised only 5% of the city's total inhabitants ("Demographic History of New York City" 2022). In Ulster County, roughly 90 miles north of New York City, in 1930 the Black population was 1.7% of the total, somewhat less than in neighboring counties (Mabee 2008, 18) and significantly less than the roughly 20% of the total population that existed in parts of the Ulster County countryside during slavery (Groth 2017, 46). The historian Carleton Mabee reports that there was only one Black student in the public schools in the town of New Paltz in 1935 (2008, 20). Improbably, it was because of this fierce segregation and exclusion, as well as proximity to New York City, that the Harlem-based International Peace Mission movement identified Ulster County as its "promised land" and began acquiring property beginning with a farm in New Paltz.

Then nearing the height of its prominence, the International Peace Mission movement was a racially integrated, nonviolent utopian social change movement composed of followers of Reverend Major Jealous Divine (widely known and referred to hereafter as "Father Divine" or "Divine"). The movement was based in New York City but by the 1930s had branches and millions of devotees across the U.S. and around the world. Divine and his followers lived in communal residences, pooled their resources, and established an extensive network of business ventures that prioritized quality and affordability. This model provided livelihoods and a standard of living that was otherwise out of

reach for many in the midst of the Great Depression. Men and women in the movement were considered equal but lived separately and all members, including Divine, were obliged to celibacy. The movement campaigned prominently in support of a federal anti-lynching law and integration, leading W.E.B. Du Bois to opine that, "of all the various religious movements of our day, there is least in this that one may criticize" (Mabee 2008, 49).[iv]

Upon establishing a beachhead in Ulster County, the movement expanded its local presence rapidly, relying largely on vengeful property owners seeking to spite their neighbors by selling their properties to buyers that they knew would integrate the neighborhood. Miraculously, within a decade of arriving the movement became the largest landowner in Ulster County, with over two thousand members living in twenty-five communities spread across a countryside that was otherwise overwhelmingly White and deeply segregated. It is difficult to overestimate how remarkable this achievement was, almost overnight introducing voluntary, integrated cohabitation on a scale unsurpassed in Ulster County, and indeed across the rural Hudson Valley, either before or after. Movement members ran cooperative farms, feeding themselves, the Peace Mission's other outposts and cooperative grocery stores, as well as supplying ingredients for the massive free meals the movement offered in Harlem. Well-aware of the life-threatening dangers posed to Black travelers in "sundown towns" in the era of the "Green Book," the Peace Mission opened integrated gas stations and offered guest rooms at many of their residences across the county.

Peace Mission children attended and, in some cases, desegregated local public schools in parts of Ulster County where Black people had been scarce for a century. Emphatically committed to evangelizing integration, errands to non-movement businesses were always run by a pair of Black and White community members. In perhaps its most audacious move, the Peace Mission integrated the president's neighborhood, purchasing an estate with a mile and half of riverfront across the Hudson River from Franklin Roosevelt's Hyde Park mansion. Drawn by their pacificism to initially oppose World War Two, the new residents at the estate painted "PEACE" in huge letters on the side of their boathouse where it would be in plain view of Roosevelt, his family, and guests. Throughout this period, specially chartered steamships would come up the Hudson River from New York City, docking at the Ulster County seat in Kingston where thousands of elegantly dressed members, many of them older Black women, would proceed on foot to one of the nearby Peace Mission estates for recreation and banquets.

As is well-known, segregation across the U.S. has long been motivated by fears of miscegenation and the erosion of White exclusivity. That the presence of the Peace Mission movement in Ulster County drew the ire of those committed to the maintenance of the White supremacist social order despite the movement's ardent celibacy and gender segregation underscores the subversive power of their very presence and example. Speaking on behalf of the Chamber of Commerce, a New Paltz lawyer responded to the Peace Mission's purchase of its very first Ulster County site, the New Paltz farm, by explaining that:

> "since 1678, this [Wallkill River] valley has been inhabited and developed by our ancestors. By inheritance, possession, industry, and thrift, we have a prior right upon the social, education, and welfare units of this community. Most of the social and religious doctrines of that element known as the followers of Father Divine are diametrically opposite, obnoxious, and repugnant to our principles on religious, social, and economic standards. We cannot mix but one must eventually exclude the other. The migration and transportation of a disproportionately large number of people into our midst….is shocking and obnoxious to our social order. He and his kind were not invited and are not wanted in our community (Mabee 2008, 45)."

The principal of the New Paltz State Normal School, a teacher's college that would later become the state university discussed in Chapter Five ("Practices of Remembering"), conveyed the similar concerns: "those of us who are interested in the welfare of the State Normal School located at New Paltz can see but one result to the establishment of [another] colony by this group in or near the village. Attendance at the Normal School College would drop materially" (Mabee 2008, 45). In turn, a local newspaper, referring to a nearby town largely abandoned following the closing of a canal and since renovated by Peace Mission members, warned that "one has only to drive through High Falls to realize the pitiful wreck the whole county may become unless drastic measures are taken (Mabee 2008, 56)." This last call did not go unheeded and the vandalism, harassment, arson, and cross burnings that ensued are a reminder of the continual labor necessary to enforce and normalize a segregated landscape.[v] In response, Divine denounced "Hitlerism" as it occurred both in Germany and in Ulster County (Mabee 2008, 168), remaining steadfast in the commitment to the

realization of an integrated "promised land" in the face of White supremacist violence and persecution.

The movement gradually diminished in ranks as a result of both the demographic consequences of celibacy as well as the changing economic and social terrain that followed the Second World War. Although a few Peace Mission sites endured in Ulster County until 1985, its regional (and international) presence peaked in the 1940s (Mabee 2008, 207). Despite this longevity, today its improbable feat—that of making a Black-led, communal movement with a substantially working-class Black female membership the largest landowner in what in the present remains a highly segregated, White-dominated county—is largely forgotten or ignored. The only historical marker I am aware of was installed privately by the prominent civil rights attorney Michael Ratner at his weekend home—a former Peace Mission site—near High Falls.

In 1910, between Ulster County and its cross-river neighbor Dutchess County, Black residents owned a total of sixteen farms (Smith 2018). In 2017, in Ulster County the number was one (USDA 2017). Today, as a small but growing number of Black farmers struggle to gain access to the space and resources needed to practice their craft, the Peace Mission experiment provides a powerful testament to the possibility of a kind of Black presence in the Hudson Valley countryside unthinkable within the history of White-directed Hudson Valley landscape-making. And yet, the Peace Mission movement was nonetheless (and likely unwittingly) building upon a long history of Black community-making in

the rural Hudson Valley, a tradition that has always been a sustained, critical response to dominant regional practices of property ownership and exclusionary modes of kinship (see: Williams-Myers 1994; Armstead 2003; Groth 2017). Reminiscent of Sylvia Wynter's influential theorization of the slave plot (1971), the Peace Mission's rural outposts, like the other smaller but longer-lasting multi-racial Hudson Valley communities, were sites for the collective rehearsal and literal provisioning of other worlds composed through alternative modes of relating to land, nonhumans, and each other. Although the Christian overtones of the "promised land" language invoked by the Peace Mission is a reminder that this provisional world-making was never entirely outside of the greater horror that is the story of the "New World," it nonetheless plotted a trajectory that diverged sharply from the prevailing course which has continued to delivered danger and ruin since its fashioning in the 17th century.

Fittingly, perhaps the most tangible legacy of the Peace Mission's presence in Ulster County was the conception of another barely less unlikely realization of the Black outdoors: Peg Leg Bates' Country Club. Clayton "Peg Leg" Bates was a legendary tap dancer who consistently appeared in (and desegregated many of) the most prominent live and televised entertainment venues throughout the 20th century. The son of a sharecropper, Bates was literally disabled by the afterlife of slavery, losing his leg in a cotton conveyor in South Carolina at the age of 12 (Davidson 1992). Driven to avoid the dim

prospects afforded by White-controlled agriculture in South Carolina, upon attaining profession prominence Bates constantly faced the insult of being denied accommodations in the very resorts he performed in (Winerip 1985). This experience led Bates and his wife Alice to open their own getaway venue that would be welcoming to all guests. Having performed in the famous Borscht Belt resorts in New York's Catskill Mountains numerous times, Bates was made aware of the Peace Mission communities nearby. This tip led the Bateses to purchase a former turkey farm in Kerhonkson, NY, in the foothills of the Catskill Mountains and not far from several Peace Mission sites, which they converted into an integrated entertainment and vacation destination.

In an area where the Ku Klux Klan was active until at least the late 1970s, Bates took pride in creating what he described as an "oasis" of welcoming conviviality (Davidson 1992). From 1951 to 1987, the Country Club hosted major Black performers and offered tens of thousands of guests an affordable country retreat easily accessible through chartered buses from the New York metropolitan area. Guests swam, relaxed, walked, biked, and roller skated through what is still otherwise an overwhelmingly White, rural, forested landscape. In creating a place where, in Bates' own words, "we can run and have some fun" (Davidson 1992), the Country Club renewed a minor regional tradition of inter-racial frolic best exemplified by Pinkster, an annual Hudson Valley Pentecost festival celebrated prior to emancipation that resembled Mardi Gras and Carnival. Eventually banned in some jurisdictions because of its

subversive potential, during Pinkster as at Bates' Country Club, the putative inevitability of Black toil and sacrifice was rejected, as was the rigidity of racial hierarchy and segregation, making way for the temporary consummation of divergent socialities. The license for joy and frivolity was, following Hartman's refusal "to believe that the slave's most capacious political claims or wildest imaginings are for back wages or debt relief," a chance to reevaluate what freedom might have been (2008, 170). During a period when this part of the Hudson Valley was increasingly promoted as a site of nature recreation for overwhelmingly White visitors, Peg Leg Bates' Country Club—along with Smitty's Dude Ranch and Vi Ferguson's Wicky Wacky (two smaller, shorter-lived, Black-run establishments nearby)—provided a literal escape from long-running regional efforts to suppress not only Black enjoyment but Black presence writ large. Like many similar Black-owned vacation refuges around the U.S., the Country Club eventually lost clientele as a result of both the *de jure* integration of vacation and recreation destinations, as well as the emergence of budget air travel. While White people would come to the County Club for dinner and to see a show, in reflecting on the impact of industry-wide integration on his business, Bates reflected regretfully that they would never stay overnight (Winerip 1985).

In *Demonic Grounds: Black Women and the Cartographies of Struggle* (2006), Katharine McKittrick emphasizes the material and spatial constitution of

race and gender, addressing the auction block as a formative site of racial differentiation and hierarchization. McKittrick writes,

> "slaves were sometimes sold alongside livestock, furniture, land, and other forms of property; their position on the auction block discloses how race, sexuality, and the economy are bound up with place: the auction block *positions* excessive dehumanization and observation and obscures black humanity by violently transforming human beings into commodity objects through the act of commodity exchange (73)." [original emphasis]

Christina Sharpe has advanced a similar argument: that Blackness as pathologization was produced in part through the very materiality of scenes like the ship's hold and the coffle. For both McKittrick and Sharpe, analyzing the material-discursive constitution of race underscores the possibility of undoing the violence of racial hierarchy through the creation of alternate material and spatial relations. In the Hudson Valley, the violent normalization of the countryside as a White space has always marked Black bodies as "out of place," the landscape itself literally saturating phenotype with pathology. Returning to Carse and Gilmore's theorizations of infrastructure presented in Chapter Two ("Ecologies of Belonging"), both Bates' Country Club and the International Peace Mission movement's transformation of Ulster County from a site of antiblack violence and banishment into a "promised land" can be considered attempts to materially undo the legacy of racial slavery through the pursuit and population of different landscapes. These were experiments in "changing places" that exceeded familiar tropes of subjection and resistance, enacting infrastructures of feeling that enabled experiences of (non-exclusive) Black belonging,

emplacement, and flourishing in contravention of hegemonic White connections to place. A sociality of hospitality was always also a transformative spatial politics epitomized by Bates' radical desire for all guests to be able to "have a good time." This sociality promoted forms of relation to the place and to others that refused to further postpone the realization of Black life (but never only Black life) on terms other than those inherited from the times of slavery. If segregation was a manifestation of White supremacy premised on the principle of Black inhumanity, the Peace Mission communities and the Country Club existed in defiance of what McKittrick has called a "a broader geographic project that thrives on forgetting and displacing blackness (2006, 33)." Recalling their stories undermines myths of northern innocence that approach White supremacy and segregation as malignancies of the south.

In closing, I realize that focusing on these two notable ventures risks erasing the lower-profile but no less significant day-to-day practices through which other Black residents have made lives in an inhospitable Ulster County countryside throughout the 20th century (see: Williams-Myers 1994; Armstead 2003). The Bates family in particular was well-integrated into these rural networks. Although the scale and ambition of both the Peace Mission's "promised land" venture and the Country Club make them particularly prominent social paths, those involved were hardly the only ones who dared stray off the authorized trails through the Hudson Valley landscape. Both endeavors relied on the perilous if also remarkably durable circuits of

connection and transit maintained between Black people in New York City and the Hudson Valley. These social paths exist in spite of centuries of restrictions on Black mobility to and through the Hudson Valley landscape, from slave codes that carried a death sentence for any Black person found 40 miles north of Albany unaccompanied by a White person to the school bus driver who resigned rather than transport Black Peace Mission youth in a rural Ulster County hamlet [Mabee 2008, 168]. Nonetheless, the expressions of insecurity and displacement shared by the participants of the Huguenot Street sleepover roughly 30 years after Peg Leg Bates sold his resort and the Peace Mission closed its last Ulster County outpost resist a progressive account of gradual transcendence beyond the pain of the past. Indeed, the fact that the Peace Mission sites are neither marked nor protected and that Bates' resort is now abandoned and in disrepair speak to the endurance of an antiblack social order that has continued to render Black placemaking a necessarily fleeting experiment in what Tiffany King describes as the "forg[ing] of life on landscapes meant to kill you (2019, xviii)."

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[i] There are numerous telling contrasts: the site of a rare free Black community in the hinterlands of the southern Hudson Valley was passed over for historical preservation for years until the site and its surroundings were ultimately bought by the county but for purposes of ecological, not historical preservation. The site was turned into a nature park. In another Hudson Valley town full of well-preserved White churches, the AME Zion Church, upon its closing, was turned into a chicken coop.

[ii] This gulf is also evidenced by the historical district's hosting of an annual "Haunted Huguenot Street" Halloween event. Here the promise of amusement and thrill offered by spooky cemeteries and accounts of the paranormal belies the altogether more sinister and inescapable way in which the site—as a location of bondage and torture—remains permanently and nonconsensually "haunted" for those who remain uniquely vulnerable to local legacies of racial terror.

[iii] Williams-Myers' description also evokes Toni Morrison's assertion that "racism is a path, it's a route (Banks 2014)."

[iv] My account of the IPM movement in Ulster County leans on Mabee's earlier research (2008). There is a paucity of materials about both the IPM's "promised land" endeavor and Peg Leg Bate's Country Club—discussed later in the chapter—in conventional archives in the Hudson Valley.

[v] The Peace Mission movement also faced discriminatory rates of taxation—despite having volunteered to pay taxes that, as a religious organization, it did not technically owe (Mabee 2008, 62)—amidst general hostility and intimidation.

Chapter Eight: Freedom Rangers

"It is all extremely prosaic, relentlessly mundane, and exactly how worlds come into being."-Donna Haraway (2008, 26)

The russet-colored chickens before me are called "Freedom Rangers™." Named and sold in Pennsylvania since the early 2000s by a family of Mennonite missionaries, this variety has quickly become popular among small-scale, artisanal animal farmers who raise them primarily for meat. Unlike the itinerant bearers of freedom who bred and marketed them in Pennsylvania, these Freedom Rangers™ live all but their first days in an eight by ten square foot structure made of wire mesh surrounding a wooden frame.

I sit motionless in the grass near the center of a large forest-ringed field. A dozen paces away is one of five wire mesh enclosures in which a group of seventy Freedom Rangers™ endure my lingering presence. There are undeniable visual cues of unease: their bodies cluster as far away from me as the constrained quarters allow, at the far end of their "house" intended to hold only forty birds. Although I orient my body away from them, careful to only ever glance out of the corner of my eye, I can tell that the stares never entirely come off me. Their breathing deepens visibly whenever our eyes temporarily lock. But it is the aural experience that slices into me and alters my research plans. After the first moment, what escapes the open-air confines are no longer "alarm calls," those singular, emphatic warnings issued when a hawk is spotted overhead.

Rather, I am immersed in unabated expressions of nervousness that border on desperation. The chickens' staccato chatter replaced with clucks that are elongated and ascending, each note containing a pause that postpones closure, waiting instead with trepidation for what might happen next. Subject to a situation they had no say in, their bodies and voices exude wariness. The tension saturates the summer air. I put my notebook back in my bag and get up to leave.

Confinement is a liberal punishment. Those held are alive but contained, their captors "humane" but coercive. The liberalism of the wire mesh, which admits air and light while preventing escape, is more than incidental. Made up of individual strands of galvanized wire woven into a honeycomb pattern and known informally as "chicken wire" or "poultry netting," the wire mesh's invention in 19th century England was inspired by the industrial looms that wove cloth, a suggestive link between British industrial technologies, the world of empire and plantations that enabled them, and the emergence of modern animal agriculture. Living roughly nine weeks, these Freedom Rangers™ (categorized as "meat chickens" or "broilers" by the farmers) could behold the world around the through their excellent sense of sight but would escape the confinement of the cage only on the day of their slaughter. Their freedom and ranging utterly circumscribed, they made lives together under duress.

What do you do if your interlocutors just want you to leave? When an interest in multispecies methods becomes an exercise in "extractive

ethnography," research possible only through the unrelenting force of confinement? While this was neither the first nor last time I would visit the chickens during their brief two and a half months of life, it didn't take long to convince me that my initial goal of extended ethnographic fieldwork with them in the absence of the farmers was not worth the stress it generated for any of us. While they were without question major players in my research on the farm, their ready expression of skittishness, vulnerability, and, if the farmers or I got too close, terror seemed more ethnographically significant than the details that I had initially sought to accumulate about their social lives.

There was nothing exceptional about this farm or the techniques practiced there. Sources of stress were unremarkable but unremitting, whether simply the residential crowding or the danger presented by our daily chores of dragging the enclosures to new parts of the field and entering their crowded houses to replenish the grain supply. These banal tasks constituted "caring" for the chickens, as they were essential to their survival. That such "care" was also a daily experience of fright and hazard for the chickens evidences a paradox at the heart of this kind of small, artisanal animal farm: deprived the prospect of ferality by the wire limits of their open-air hold, they were rendered perilously dependent on the farmers, literally the architects and builders of the cages themselves.

The small-scale, regenerative farmers who kept these Freedom Rangers™ were, like their peers described earlier in this dissertation, motivated to

demonstrate an alternative to all that they took to be wrong with industrial animal agriculture. They were also keen adherents to principles of "lean farming," stressing efficiency, replicability, flexibility, and control as essential to operating a farm business whose demands, despite the farmers' dogged work ethic, could easily overwhelm them. The philosophy of lean farming was popularized by an Indiana vegetable farmer (Ben Hartman) who sought to apply the productivity principles of the Japanese assembly line to small-scale agriculture. As his 2015 book's cover description explains: "to many people today, using the words 'factory' and 'farm' in the same sentence is nothing short of sacrilege. In many cases, though, the same sound business practices apply whether you are producing cars or carrots."

Economic concepts are world-making practices. So inspired, my farmer interlocutors created meticulous protocols for doing their chores in order to achieve consistency, timeliness, and to avoid mistakes. Every time we visited the Freedom Rangers™ to feed them and move the enclosures to a new patch of pasture, we diligently followed the same sequence of steps, beginning with testing and then disconnecting the electrified fence that deterred nonhuman predators. We would then carefully pull the enclosure forward to a new patch of field, moving slowly and cautiously to avoid catching any birds under the pen's advancing edges. The water dispenser, also detached prior to relocating the enclosure, was then reattached and checked. One of us would then enter the enclosures to pour feed into the hanging hopper. Finally, the electric fence would

be reattached and turned on. This was repeated for each of the four or five enclosures twice per day although the interval at which the enclosures were moved varied throughout the season based on the size of the birds and other factors. “I’m sorry to be anal about these protocols” Rob, one of my farmer interlocutors apologized after correcting me for again forgetting one of the many steps, “but we have to be fastidious and consistent or this whole thing [the farm business] just comes crashing down.”

"Fencing is critical,” Amanda, Rob’s business partner later explained to me, “because if you lose ten birds to [nonhuman] predation it’s like burning $200." In agricultural systems premised on confinement, fences make farms, distinguishing the forcibly included from the excluded outside while allowing farmers to transit between both. Electric fences not only kept out nonhuman predators and restricted farm animal movement, thus protecting the farmers’ investment and exclusive right to kill, but also enabled biological simplification in the interest of efficiency. Broilers lived with broilers, pigs with pigs, cows with cows, and lambs with lambs, allowing for easy headcounts, specialized conditions, and the careful regulation of provisions.[i] Here as elsewhere, “species” is not “merely” a taxonomic description but a mode of sorting that does material work. On the farm, being one and not another resulted in distinct life experiences that came about as a result of being subject to particular intensifications of control and varying violences of optimization within an economy of property. To be a “lamb” entailed an exclusively grass diet, the

experience of gender segregation, and a brief, roughly twelve-month lifespan determined by your appreciation of a certain body mass. To be a "duck" involved a slightly smaller pen and a diet engineered to sustain a multi-year life dependent on reliable reproductive fertility (as the ducks on this farm were kept for their eggs).[ii] Species here was enacted as specific packages of utility and potential for the farm business. The reduction to kind through residential segregation facilitated the pursuit of imperatives of production that would have otherwise been undermined by the inefficient flux of disordered mixed species sociality.

The specific techniques of fencing were also determined by lean farming principles. As small as possible while still allowing the farmers to enter them, the broiler houses' transparent wire mesh walls allowed for air circulation and prompt observation of any signs of "ill health."[iii] To confine their other animals, Rob and his business/life partner Amanda used easily adjusted temporary electric fences powered by tiny solar panels instead of relying on the permanent pasture fences already installed on the land they leased from an environmental NGO. These solar fences not only required less maintenance than the older permanent fences but also allowed for the grazing animals to be both concentrated and moved frequently throughout the field, in principle both accelerating the "improvement" of the pastures and the animal's growth through constant access to fresh forage. This system of rotational grazing is a pivotal component of regenerative pasture management (described in Chapter Four:

"Simplification and Regeneration"), as constantly confining the grazers to a small area assures that each part of the field would receive their ameliorative impact—fertilization and the intensive grazing pressure that promotes nonnative pasture plants—evenly, whereas giving grazers greater freedom of mobility introduced unwanted randomness into the pasture regime. Rotating the grazers through the field in an intentional sequence in principle results in each paddock being grazed thoroughly and at the ideal time in the forage's life cycle, fertilized, then allowed to rest as soils, plant communities, and animal bodies are together refashioned through the application of lean business principles. Whereas Reviel Netz (2009) notably argued that barbed wire was essential to the infrastructures and practices—from the enclosure of the Great Plains to the creation of the prison camp—that constituted the "ecology of modernity," my farmer interlocutors' nimble, green pens infuse the commercial tenets of Taylorism with the ethos of sustainability.

A Bird Built for Confinement

The prospect of continued improvement that characterized the early colonial *factorij* farm and its regional successors resurfaces in lean farming's emphasis on optimizing the productive potential of farmers and the multispecies assemblages they curate, while also linking the CSA (Community Supported Agriculture) to the CAFO (Concentrated Animal Feeding Operation or "factory farm"). Nowhere are the lively ramifications of improvement more densely

concentrated than in the body of broiler chicken and its constitutive agro-industrial assemblage. Despite artisanal animal farms often coming to resemble, intentionally or not, a combination of a living history museum and memorial to agrarianisms past, broiler chickens (such as Freedom Rangers™) are undeniably creatures of the industrial age. While efforts to improve techniques of poultry husbandry occurred throughout the 19th century (and before), chickens long held an essentially marginal position in the U.S. barnyard. Through the first part of the 20th century, many rural households maintained a flock of chickens primarily for their eggs, extra of which were sold or traded. Chicken keeping was a deeply gendered practice. Not only because collecting eggs and tending the flock was generally the responsibility of women and children but also because differently gendered bodies resulted in distinct life possibilities for the birds themselves. Almost all male chickens would be killed upon reaching an appreciable size. Female birds would generally only be killed once their reproductive capacities waned and they stopped laying eggs. Killing a younger female chicken was a significant gesture reserved for special occasions or moments of desperation, as valuable eggs were understood to be sacrificed. Typically foraging around the barnyard during the warmer months, a local Ulster County newspaper reported in 1908 that a flock of 100 laying hens was "quite extensive." As a result, in contrast to present rates of U.S. chicken meat consumption—nearly 100 pounds per person per year (National Chicken Council 2022)—chicken meat consumption in the U.S. at the dawn of the 20th

century was negligible: only about 10 pounds per person per year in 1910 (USDA 2021).

The consequences of this remarkable dietary change have literally been earth-shattering. While entrepreneurial farmers had occasionally expanded their flocks to take advantage of market opportunities (especially for eggs), by the early 1900s accelerating campaigns for improvements in poultry husbandry involved increasingly formalized networks of distribution, the promotion of specialized supplementary feeds, and university research in animal "health" and nutrition. All of these efforts, again undertaken almost entirely in the interest of egg production, resulted in men becoming more involved in on-farm chicken worlds as well as in new practices of culling "male" chicks as soon as they could be gendered. These conditions together fostered the "accidental" advent of the modern broiler or meat chicken enterprise, which poultry industry mythology often identifies as occurring in 1923. It was then that Celia Steele of Delaware mistakenly received 500 laying chicks instead of the 50 she had ordered. Embracing the mishap, she raised the birds to full-size and found a ready market in nearby urban centers for their flesh. Within three years, she was raising 10,000 chickens for meat and, inspired by her business success, others were soon replicating her model. A new architectural form, the broiler house, was conceived to isolate the chickens raised for exclusively for meat from other farm animals and maximize replicability, production, and scale.[iv] This corresponded with the literal remaking of chicken architectures, as breeding programs worked

toward introducing a distinct morphological form, one bred for fast-growing flesh and not for egg generation: the "broiler."

Through the intimate relation between often university-based projects of optimizing chicken genetics, "health" (again referring to the ability to grow as quickly as possible without critical physical impairment), and an industrial infrastructure, a transformative impact on the U.S. diet was rapidly achieved. By 1952, broilers became the primary source of chicken meat for a generation of Americans that were eating more chicken than ever before. As the National Chicken Council narrates (2022), "by the mid-1960s, 90% of all broilers produced would come from large integrated operations," a number that today is around 99% (Anthis 2019). While animal agriculture was industrialized across the board in the 20th century U.S., giving rise to the horror of the modern factory farm, the broiler is unique given its very conception in the midst of the modernizing surge of the Great Acceleration. Although other farm animals have been genetically recomposed according to the logics of the CAFO, the broiler alone exists in permanent relation to the relentless imperatives of improvement manifested in the suffocating confinement and optimized life that characterize "large integrated operations."[v] In this way, the modern broiler is a trembling artifact of the effort that delivered the factory farm more generally, depicted here in a promotional pamphlet describing the labors of Professor James Rice, the renowned poultry scientist who led the pioneering Department of Poultry Husbandry at Cornell University:

AN AMERICAN INDUSTRY IS BORN

. . . and has grown to Maturity

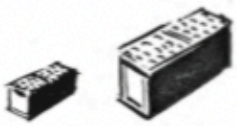
Measures of Growth of the Poultry Industry in the United States During Fifty Years of Active Participation by Professor James E. Rice



1900 1948

Egg production per hen has almost doubled.

1900—66 eggs
1948—129 eggs



1900 1948

Total egg production has increased three and one-half times.

1900—16,000,000,000
1948—55,000,000,000



1900 1948

Commercial chick industry was established.

1900—0
1948—1,300,000,000

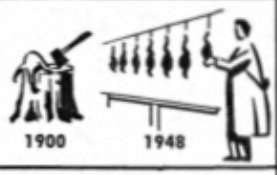


1900 1948

Hens and pullets on farms January 1.

Poultry is the only class of livestock which has increased as fast as the human population of this country.

POULTRY POPULATION	HUMAN POPULATION
1900—234,000,000	**1900—76,000,000**
1948—426,000,000	**1948—147,000,000**



1900 1948

Commercial broiler industry established.

1900—0 **1948—350,000,000**

The production of turkeys and ducks has also grown tremendously in this same time.



1900 1948

The Use of Feed by Poultry has More than Doubled

1900—11,932,000 tons
1948—25,732,000 tons

This doesn't fully measure the growth of the commercial feed industry for in 1900 most of the feed used was home grown and home mixed. But to-day a high proportion of poultry feed is commercially manufactured.

Figure 7*: "He Put his Faith in Hens and People; We're Keeping Faith with Him..." The National James E. Rice Poultry Library Committee. ca. 1950. Cornell University Library.*

As a condition of engineered dependence, confinement requires supplementary feeding. When my farmer interlocutors introduced the broiler assemblage into the bucolic pasture, along with it came reliance on commodity cereal fields, as materialized through bags of grain (as in the above pamphlet's final panel). While all of the animals on the farms I conducted fieldwork on lived "on pasture," only the cows and lambs did not obtain the majority of their calories from grain purchased off-farm. Although the broilers foraged lightly on plants and insects that appeared in their congested enclosures, nearly all of their diet was supplemental feed. Just as the overwintering cow is in constitutive relation with vast pastures that had to be hayed to sustain them indoors during the months when forage plants are dormant in northern latitudes, the "free range" broilers (as well as the layers and pigs) grew through the calories yielded by a commodity-scale grain farm run in a neighboring county by the Rockefeller family.[vi] Paradoxically, it had been the petrochemical-fueled emergence of industrial corn and soy in the Midwest that contributed in large part to the 20th century abandonment of all but the largest farm operations in the Hudson Valley, producing the old fields that the young farmers were now once again introducing animals into. The phasing out of artificial field fertilization that occurred as farms slowly went broke allowed for the resurgence of native plants as the soils once again became "poor" and acidified (this process is described in

detail in Chapter Four: "Simplification and Regeneration"). Now, the calorie-rich grain that was constantly available to the chickens on the artisanal farm renewed the intense deposition of nitrogen and especially phosphorus through feces that once again "sweetened" the old fields (and the air), inviting the proliferation of nonnative pasture plants and a new suite of invasive plants that had been either less common or not yet introduced the last time these pastures were grazed. Ironically, these consequences were not lost on the managers of a different Rockefeller-funded farm further south in the Hudson Valley. There, concerns about excessive field phosphorus levels and adjacent surface water contamination led this high-profile farm to begin dramatically reducing the use of supplemental grain (including by eliminating its once substantial broiler operation) during the same period that Rockefeller grain rapidly brought about the displacement of native plants in old fields I studied in Ulster County.

My farmer interlocutors bemoaned their reliance on grain, not because of the impact on native plant communities but because it was an expensive "short cut" that tied them to the industrial agriculture apparatus they opposed. And yet, the diminished rate of growth that would have resulted from raising chickens and pigs on forage alone (to say nothing of the additional acreage that would be necessary) would have erased what were already narrow profit margins and added to an already too long workday. Under the farmers' "compromise" approach, the grain-fed animals—pigs, chickens, and ducks—were allowed to register the negative ecological impact that came as a result of their being "on

pasture" (the loss of native plant communities through soil chemistry changes and, in the case of pigs, through grazing) despite the vast majority of the nutrition coming from industrial grain and not from the grazing itself.[vii] Here, the near complete sacrifice of the native plant communities was allowed in order to afford the pigs and chickens a "free range" "quality of life" that the farmers and their customers would be comfortable with, albeit one underwritten by the shadow ecology of industrial grain farming. More than once one of the farmers noticed my eyes lingering over the often stark, de-vegetated areas left behind after we rotated the chickens and especially the pigs. "It's amazing how it all comes back," Rob reassured me, "I was worried the first time I did it too." While Rob was right that the paddocks would indeed be revegetated in a few months' time, what would come back would be an "improved" pasture whose elevated nutrient levels primed the establishment of non-native forage species.

As a veritable "fantasy echo" (Scott 2011), the broilers whose condition of possibility remains the productivist priorities of the 20th century animal science labs and the organizing logics of the CAFO were integrated into the idyllic pasture of the retrospectively oriented artisanal farm. Although the broiler houses were generally set far away from roads frequented by passersby, their small size and unpretentious construction seemed to ease their blending into the traditional as I never heard anyone, including the farmers, mention the relative incongruence of their recent and particular provenance. The ready assimilation

of this industrial bird and its attendant infrastructures and husbandry techniques into the mythos of "agricultural heritage" on one hand demonstrates the flexibility of this agrarian legacy as well as the extent to which the artisanal farm is already enveloped in thoroughly modern circuits of capitalist production. In this way, the relatively seamless incorporation of the broiler and the practices and priorities that necessarily accompany it helps to locate the small-scale farm not in opposition to the CAFO (its constitutive foil) but rather proximate to it within colonial agriculture's tradition of improvement, distinguished by degrees of intensification.[viii] And yet, it often felt as if the implicit positioning the artisanal farm as a quaint reminder of the CAFO's antecedent also suggests a kernel of redeemability at the heart of CAFO if only the worst "modern" excesses could be excised.

"But we won't do Cornish Cross," Rob explained to me, drawing the line, "it's too cruel." Cornish Cross is another variety of broiler chicken and is the industry standard for both "conventional" and "pastured" poultry farmers. The result of the 70 years of relentless breeding that introduced the "broiler" as a distinct bio-industrial entity, Cornish Cross chickens are celebrated because of their propensity for rapid weight gain despite this quality assuring that they will quickly encounter life threatening health problems even if not slaughtered by the promised eighth week. As Rob continued, "it would be cheaper for us because they reach a saleable size so quickly but they get so many health problems, by the end they can barely walk because their breasts are so oversized

and they are in constant pain. Freedom Rangers™ take an extra week or two but they are healthy birds." On farms like Rob and Amanda's and at the farmers markets they sell at, the specter of the disabled Cornish Crosses licenses the barely longer but "healthier" lives of Freedom Rangers™ as humane. Although the Freedom Rangers™ are bound by the same mesh, crowded in with the same number of peers, eat the same amount of the same food, and are slaughtered in the same way that they would be if they were Cornish Cross, the choice to raise one variety of chicken and not the other is a claim of distinction from the acknowledged violence of the CAFO.

Nonetheless, reminiscent of their trepidations about supplemental grain, many farmers I spoke with were uncomfortable about raising broilers, whether Cornish Cross or another variety, because the compulsion toward fast growth, confinement, and short lives were exactly what they considered wrong with contemporary agriculture. Consumer demand and expectations for relatively affordable chicken in what was already a fairly exclusive end of the market led them to proceed despite their misgivings. Amanda and Rob's final yield from the circumscribed lives of 300 Freedom Rangers™, by far the most populous animal on the farm, was only several thousand dollars. Despite the efficiency of their lean practices, they were nonetheless always up against the limits of their time and financial budgets, expressing anxiety about the compromises they felt forced to make. Commitment to a farm business premised on a nuclear family model meant that practically all the work fell on two exhausted people. Amanda had to

quit her off-farm job halfway through the season because the amount of on-farm labor had spread Rob and herself so thin. The broiler houses themselves were intended to hold forty chickens but the farmers' busyness resulted in the repairs that one house needed being perpetually delayed, resulting in the "temporary" crowding of seventy birds in each house becoming permanent.

Possessing opportunities for reflection less available to my busy interlocutors, it was hard for me not to wonder why the farmers had contrived such a stressful situation for both themselves and the animals, one in which the animals' confinement made them entirely dependent on the farmers' constant attention and grueling labor, all in exchange for revenues that would only force them to take second jobs off the farm and never have a vacation? From there flowed other questions regarding related knots of dissonance: how was I to make sense of Rob's passionate devotion to a deathly sick lamb whose uncertain fate prevented him from sleeping and whom he nursed back to health through tears, only to send her off to slaughter four months after her miraculous recovery (denying the parasites the chance to do what he would ultimately do)? Why let the pigs denude a paddock full of native plants when their calories came almost entirely from grain anyway? This complicated scenario led me back to the matter of "affective wages" or the kind of seemingly non- or pericapitalist practices and motivations that feminist critics of capitalism, among others, have long emphasized play a pivotal, animating role in capitalist worlds (Gibson-Graham 1996; Tsing 2009; Paxson 2012).

Agricultural, Environmentalism, Belonging

In 2019, I attended a workshop hosted by an arm of a major regional biodynamic farm.[ix] This farm and the community around it promote regenerative agriculture as a means of both "spiritual" and "ecological" healing, a combination that informed the workshop's titular focus on agriculture, environmentalism, and belonging. Although the farm was in a heavily White rural county, two of the primary invited presenters were prominent Black women farmers based in the southern end of the Hudson Valley. The approximately forty-five workshop attendees were overwhelmingly White, of mixed ages, and included both farmers and non-farmers. Prior to the morning program, participants chatted and settled into their seats, many even opting to remove their shoes. As the first panel began, their apparent comfort was immediately put into stark relief as the first of the two Black farmers prefaced her comments by explaining the degree of restraint with which she felt obligated to operate in addressing such a White room, forcing her to choose between speaking frankly and alienating her audience. In what followed, she described how she came to farming after long struggling to disentangle a personal connection to landscape from the rural legacy of racial slavery. She recounted growing up in the Midwestern countryside relishing the ability to ramble widely through the sparsely occupied terrain but also experiencing unbearable racial hostility that eventually compelled her to flee to the city. Later in life, she found

healing through farming, allowing her to once again embrace her childhood connection to land. Emphasizing that this return would not have been possible had she apprenticed on a White-run farm, she explained that she now farms so that other Black people might also feel safe rebuilding their relationship with the landscape.

This farmer's specific story of trauma and exile, reminiscent of the historical Black experience in the Hudson Valley hinterlands, contrasted sharply with the next panelist's agricultural origin story. A prominent farmer in his own right, this White, German-American farmer, recounted moving to the U.S. to avoid the what he described German post-war preoccupation with the aftermath of Nazism. He felt "freer" in the U.S., he explained, in part because "nature is more vibrant here," the living memory of racial slavery and genocide, which he mentioned in passing, registering less forcefully than had that of the Holocaust. The particularity of his own ease of mobility and access presented as a universal condition, farming for him was a quest for spiritual, social, and ecological renewal that began in earnest when he "fell in love with a dairy cow." This fundamentally divergent experience of movement, emplacement and belonging to land was articulated again by a different White panelist later in the day who, in illustrative contrast to the first Black farmer's account of displacement to the city, bemoaned the difficulty of "feeling connected to the land" after voluntarily moving to an urban setting in order to be able to live without a car.

Following the German farmer, themes from the first panelist's remarks were echoed by her friend and colleague—the other Black woman farmer on the panel—who stated directly that she farms "because it is an act of defiance." She then described her parents discouraging her from land-based work because for them too the reverberations of racial slavery remained too strong. As a retort to both her parents' aversion as well as to the hegemonic Whiteness of the mainstream sustainable agriculture movement (and of the room), she then proceeded to chart an alternative history of sustainable subsistence practices through Black agricultural and horticultural traditions both prior to and after the Middle Passage. Citing the legacy of slavery and colonization in North America, the panelist called for turning away from fungibility and monetary exchange, arguing that seeds, land, and animals are not items to be owned. Stressing the nationally declining numbers of Black farmers and rates of Black farm ownership in the present day, she warned that while she had become accustomed to addressing largely White audiences, the sustainable agriculture movement could not accomplish its goals without specifically supporting young Black farmers. White supremacy and the toil wrought by conventional agriculture were historically intertwined, she asserted, and demanded to be addressed together. How different might the terms of the day's discussion be, the panelist concluded, if the room's racial composition was reversed?

Over the course of the day, the accounts and provocations provided by the two Black panelists were not taken up by the assembled group of workshop

participants as the general thrust of the conversation became fixated on what were described as "universal" experiences of "spiritual," "social," and "ecological" alienation, returning again and again to the revitalization of a "colorblind" sense of land-based community as articulated earlier by the White panelists. The problems that the participants collectively identified as necessary to overcome included a generic "lack of connection to the land" and "mass ignorance" about its importance. Persistent appeals by atttendees over the course of the day to the "simple healing of nature" masked the embodied historical relations born by all but manifest in profoundly disparate experiences of the place. As a "wrap-up" activity, when the conveners asked us "whose 'voices' are being left out of conversations about the food system?", participant after participant prefaced their statements by expressing their gratitude for the "diverse perspectives in the room" before offering vague responses that ranged from "nature's voice" to "the intuitive voice." No one mentioned nonhumans, farm workers, Native or Black peoples, actors whose centering stood to transform the very notion of a "food system." While much more was said that indicated the extent to which two Black farmers' lonely contributions went unheeded, to recount these details risks distracting from the more generally observable dynamics in the room that make this vignette worth mentioning at all.

It was, of course, a single event and a particular collection of people not all of whom were farmers or even from the Hudson Valley. Nonetheless, the workshop served as a powerful distillation of how, in the Hudson Valley,

prevailing White investment in "nature" and the agriculture as universal sites of self-realization and social regeneration actively inhibits attention to the generative violence through which not only the landscape but also these very forms of affective connection are and have been constituted. As I argued in previous chapters, the historical realization of White ecologies of belonging in the region have come at a tremendous social and ecological toll. The two Black panelists stressed the corrosive impact this historical inheritance has had on their everyday lives and life chances, resulting in a relationship to the place utterly unlike that of the White majority. This specific history had everything to do with the make-up of the room—reflecting varying opportunities for mere presence in the region—and the seemingly inevitable drift of the discussion away from the deeply divergent present-day experiences of the place, endlessly deferring the possibility of accountability and material redress.

Bodies of Extraction

Despite their lustrous copper feathers and crimson combs and wattles, the Freedom Rangers™ never made it onto the farm's polished Instagram feed alive. Their crowded quarters prevented a photo of them that would adequately resemble the kind of expansive, bucolic image that the farm's loyal customers were eager to swallow. A butchered breast appeared once posthumously under gravy, the roasted skin almost approaching the reddish brown of the feathers that once protected the breast from sun and wind. What did feature prominently

on the farm's Instagram feed were photos of smiling farmers cuddling with infant animals and of the sun setting behind open fields where the small herd of cows grazed in the last moments of daylight. While carefully stylized—I narrowly avoided ruining one idyllic pasture photo by unwittingly almost riding my bike through the back of it—these images were never as deceptive as the cartoonish farm images commonly seen in the logos of industrial animal farmers and distributers. After all, I had deliberately sought out commercial animal agricultural at its most benign. My goal was never to produce an exposé or to selectively focus on rare moments of extreme violence. Partially for this reason, I did not attempt to observe the process of slaughter. Other researchers have done the commendable, much more dangerous work of infiltrating and documenting the unfathomable pain and agony that characterizes farm animal life at industrial agricultural operations (as well as that of the precariously positioned people who work there) (Pachirat 2011; Joyce et al. 2015). My interest instead was on the banalities of farms like Amanda, Rob, and Susan's, run by earnest, compassionate people who were quick to tell me that they wanted people to eat less meat and whose commitment to "animal welfare" ensured a quality of life for their farm animals that is exceptionally rare. And yet, when Rob explained to me once that he farms animals [and not vegetables] "for the connection," probing the nature of this bond began to feel all the more important.

What is authorized by the cute and humane? What does a photo of a farmer nuzzling a lamb permit? Kin separation, gender segregation, selective breeding, quarantines, castration, unnecessarily shortened lives, and constrained, stressful existences are *de rigeur*. As wielded in the small farm worlds I studied, the humane insulates the sharp edges of the property relation, deferring rising criticism of U.S. animal agriculture in general. Only in the shadow of the horrors of the CAFO could a sleeping pig, its snoring nose inches away from a powerful electric fence, tickle the hearts of Instagram users who would respond with messages like "so adorable." Fortifying the taken-for-granted policies of captivity and abridged lifespans, the humane suggests restraint and demonstrates care. It mattered little that the altruism prominently exhibited by the farmers occurred within the context of a contrived arrangement of complete vulnerability guided by priorities of production. On the farm, the cute sanitized the quotidian violence of confinement and coercion that inundates animal agriculture on its best days, allowing one farmer to delight in "getting to be around baby animals all day" without acknowledging how this intimacy is made possible by electric fences. The cute sterilized the lingering, discernible residues of the bloody past that made the place, the socio-ecological improvement that rendered the landscape pastoral. This is how one farm could be located on Delaware Drive, a 19th century homage to a people assumed to be long gone, without anybody thinking twice. The cute bathed Whiteness in benevolence and innocence, genially normalizing land theft and White control in

the realm of the everyday. The timeless look of a sunset photograph, the soft, curls of the lamb's fur, the smile on the farmer's face impart a redemptive and stabilizing affective politics via the sensorium of White belonging.

While the flesh of these animals would only be directly metabolized by a relatively small group of farm customers, it will nonetheless be digested at a far greater scale by the many thousands who, through tourism, social media, and residential adjacency, become affectively invested in the pastoral landscape. As an infrastructure of feeling, it both builds upon and sustains the multi-century material-discursive tradition of improvement. This is how it could be that those—like me—whose presence should generate the most suspicion and merit the most concern are those who transit the space most carefree and self-assured, how it is that those—again like me—who are most responsible for the multi-century crime wave that continues unhindered are those who expect to enjoy unrestricted mobility and assume total access. Were the farmers or I to be spotted in the farm's fields by a passerby, the resulting photo would not be scrutinized as potential evidence of wrongdoing but would instead be submitted to a social media audience reassured by the persistence of a tradition of stewardship and an agrarian heritage. Through the serialization of banal, unexceptional scenes, the tacit presumption that "this is all rightly ours" becomes unstated orthodoxy.

The almost sacrosanct regional veneration of animal farming in a moment of planetary calamity would not be possible without, in part, an erasure of

specific histories of violent landscape formation. Apropos here is Jill Casid's description of the role of landscape-making in 18th century Jamaica as a "process through which relations of power and social and subjective identities are formed and yet made to seem organic and eternal (2005, 191)." That the regenerative farmers, often leftists themselves, are heavily dependent on liberal, urban-based wealth, whether at the weekly farmers' market or on the board of the New York City-headquartered (or funded) land conservancies prevents a reduction of this state of affairs to a simple "red vs. blue" issue. Indeed, it is this progressive, affluent sector of newcomers, tourists, and second-home owners, drawn upstate by the views and the lure of rural life, whose investment and envelopment in the prevailing infrastructure of feeling and the conservative practices of remembering that sustain it might seem most puzzling and unnecessary. And yet it is their influential support, whether through land conservation practices, shopping habits, or nonchalant affective experience, that critically elevates the pastoral as not only "beyond politics" but also as a sort of balm or point of consensus that can reach across class and help sooth political factionalism. Embracing the pastoral becomes a means of accessing a fount of American virtue taken to be uncontaminated by partisanship. In this way, while the unabashedly conservative convictions of some of the old-time farmers may frustrate the liberal newcomers, these unpalatable political articulations are taken to be unrelated to the pastoral landscape form and its conditions of possibility. Every rejuvenating weekend spent in the country upstate or "like" on a small-scale

animal farm's Instagram cultivates the viscera, normalizing the prevailing infrastructure of feeling, postponing Ruth Wilson Gilmore's call to turn "what becomes ordinary towards the extraordinary…[and] cause what disappears to be visible, palpable, present here and now (2009, unpaginated)."

For Moten and Harney, possession-by-improvement is fundamentally a project of interrelated racialization and speciation, of distinction from those who own neither "self or earth" (2017, 83). The figure of the human engendered through the material-discursive practices of possession-by-improvement is therefore an exceptional figure, one that, despite its heralded autonomy, has nonetheless been "subtended", as Mel Chen notes, by its contrastive proximity to "entities like disability, womanhood, sexuality, emotion, the vegetal and the inanimate (2012, 106)." Colonialism in the Hudson Valley, but not only there, has been wrought by this figure. The pastoral landscape has been its quintessential infrastructure, critically—and almost exclusively—provisioning European settlement and serving as a site through which humanity, freedom, and therefore Whiteness could be enacted and normalized in permanent relation with a range of variously deselected others. The farmers and I, as the real freedom rangers, yielded our mobility and subjectivity in part through our respective extractive enterprises on the farm, although these possessions remained available to us far beyond them. We could traverse our cherished landscape unencumbered, our

capacities as self-directed individuals affirmed. Long futures—in principle—awaited us just as long pasts validated our agentive roles in the present.

The Freedom Rangers™ were held in not only by the legacy of British manufacturing and the farm business' bottom line but also by an infrastructure of feeling. More than dollars, their anxious (and "sexy") bodies are sites for the production of virtue, place, and belonging for some humans at the expense of others. It is this political power contained in affect and aesthetics—the entwinement of green grass and Whiteness—that has guaranteed the continued acceptability and standing of "redeemed" forms of animal agriculture despite increasingly widespread shifts in opinion regarding the treatment of animals and the seriousness of multiform environmental crises. Recipients of self-described "animal lovers'" proprietary love and nonconsensual participants in infrastructures of feeling that normalize landscapes of violence and absolve centuries-old crimes, extracted from their bodies was not just meat but an individual and collective sense of self.

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[i] "Laying hens," however, were separated from "broiler chickens" indicating a level of simplification and specialization that went beyond the species category. When a chicken is called a "broiler" it receives a name that shadows its entire life with its untimely death, reflecting that its paramount value is its eligibility to be killed young.

[ii] Conversely, to be a "human" here assured unlimited access, the ability to regulate touch, and the possibility of dying of old age.

[iii] Health on the farm referred to the ability to rapidly gain weight.

[iv] In Ulster County during this period, the embrace of "improved" chicken varieties and techniques ushered in changes that impacted the entire farm such as rural electrification.

[v] Today, as the factory farm is ever more widely recognized as one of the most hideous achievements in history, it's devastating multidimensional consequences harder than ever to ignore, there are more broiler chickens killed in the U.S. each year (over nine billion) than there are wild birds (of all species) in the U.S. (National Chicken Council 2022; Rosenberg 2019). The CAFO model is increasingly common around the world and, while estimates vary, there are likely at least three to five times as many chickens as humans on earth.

[vi] Members of the Rockefeller family have for decades directed philanthropic resources toward various agricultural initiatives and research farms. A primary goal of this particular farm is to experiment with more "sustainable" techniques of providing commodity-scale grains and feeds.
[vii] It was for these reasons that the southern Hudson Valley, Rockefeller-affiliated farm mentioned above, a diversified operation created to model "regenerative" techniques, had also recently abandoned their long-time practice of rotating pigs through forest "pastures," instead now raising them on either a concrete pad or in a single sacrificed forest paddock. ("Pigs in the woods" is a traditional European technique that was also infamously widespread in the early colonial period in North America.) While these pigs had always also received supplementary grain, their vigorous foraging nonetheless had powerfully deleterious consequences for woodland plants and soil erosion. As one employee at this farm told me "everyone likes pigs in the woods except the woods" (referring to how popular the earlier, photogenic practice had been with visitors and the farmers themselves). The pigs' impact on the farms I worked on was no less severe, as the entire paddock would be denuded by the formidable animals who enthusiastically root below the surface of the soil. Given their conspicuous impact, I was surprised when Amanda told me that the pigs received essentially no calories from foraging, only from grain.
[viii] Agriculture scholars Margaret Grey (2013) and Katy Overstreet (2018) have made similar observations about how terms like "local" and "family farm" rely on a false binary between "industrial agriculture" and what are taken to be its alternatives. As Grey specifically has argued, these terms often function as a shield for a range of harmful practices. During my fieldwork, regional small farm organizations would often—and not unjustly—criticize the "corporate" food system. More fraught was their subsequent claim: that unforgiving market forces prevented positive changes on their own farms, such as paying workers fairly or adopting less ecologically damaging techniques.
[ix] "Biodynamic" refers to a specific agricultural tradition emerging from the philosophy of the early 20th century German iconoclast Rudolf Steiner. While by no means identical, there is significant overlap between "biodynamic" and "regenerative" farm worlds.

Chapter Nine: In the Shadow of the Tower

Crickets chirped constantly as I ascended the small knoll toward the cows. It was two weeks before the first frost and a month before the remaining members of small herd would be loaded into trailers and leave the pasture, sunlight, and each other forever. Two were already gone, taken away last week. Frenzied warblers and vireos worked the forest edge, visibly rushing to fill up on the insects and berries that would enable their migration to the tropics. There was no humidity in the air anymore and the trees leaves were losing their chlorophyll, turning yellow, red, and brown. There was a palpable sense that time was running out.

The cows were resting when I found them near the top of the knoll. Tails flicked and noses were scratched against neighbors' sides. Their numbered ear tags dangled, earrings they didn't put on and could never take off. What are the perils of being known through number? These were "cull cows," older cows whose reproductive performance had been called into question by a former owner, thus making them available to be purchased at a discount by my farmer interlocutors for this one last season on pasture. There's no room for old animals on a lean farm. They took turns watching me as I kneeled outside of the fence, my intrusion into their world triggering a level of attention undirected toward the brown-headed cowbirds who came and went, landing on heads and walking down spines.

In time, the ethnographic depth that I had at first sought from my prolonged visits with the farm animals seemed less vital to the research than did, following the notable example of Juno Parreñas (2018), the momentary experiences of particular affective sensations that link diverse bodies brought together by specific processes of world-making. The heightened viscerality that had always saturated my time in the pastures had become, more and more, the primary subject of my field notes. And yet, does a shift toward affect nonetheless imply that the project of representation could be salvaged and put to worthwhile ends in scenes like this where unnecessarily shortened lives are the *raison d'être*? Here I fear the rush to expand ethnographic accounts beyond the human risks ignoring why nonhumans were excluded in the first place. In this case, did attention to the various modalities of ethnographic attunement merely distract from the circumstances in which I enjoyed and exercised the powers of the researcher? Such a reframing shifts emphasis from possible representations of the various farm critters to my accountability to them as something other than a "theoretical spectacle (Dave 2014, 441)." How was I obligated to alter the research project in light of our undeniable if unsought relationality?

Because the knoll was at the foot of the mountain, the stone fire tower that was perched prominently on the ridgetop above loomed unavoidably over the scene. Built in the 1920s in honor of Albert Smiley, owner of the Mohonk Mountain House resort that sits just below it, the tower-topped ridge profile is

locally iconic, reproduced in business logos, t-shirts, and school district letterhead. Progressive Quakers, Albert and his brother Daniel were members of the National Board of Indian Commissioners and put the White- and Christian-only resort to use convening U.S. presidents, prominent reformers, and various other dignitaries to set national policy agendas in high-profile conferences on a variety of topics around the turn of the 20th century. The 1890 and 1891 Mohonk Conferences on the Negro Question were the only two of their kind to occur likely because, according to historian Jacqueline Feare-Segal, to enough attendees "the absence of black participants was seen as an unacceptable protocol" (2009). The Lake Mohonk Conferences for Friends of the Indian were not likewise derailed, instead occurring annually from 1883-1916. With politicians, influential clergymen, decorated experts, and high-ranking government functionaries in attendance, the proceedings from these conferences directly informed federal Indian policy as it formally shifted from campaigns of overt military conquest to bureaucratic modalities of "civilizing" such as education, religious conversion, and assimilation (White 1991, 109). In no small part, the West was "won" through these polite, lakeside conversations that targeted the more-than-human social fabric of Native communities, hastening the imposition of models of private property holding that resulted in massive land loss and the kidnapping of children to boarding schools.[i] [ii]

Impossible Worlds

What do you do if your interlocutors just want you to leave? I walked away from the cow pasture and continued down the farm road. My goal was to visit the rams but I had to pass the laying hens and pigs on the way. The three noisy geese, egg layers and watchdogs who the farmers placed with the hens as an anti-predator security measure, started honking just before the I came into range of the sweet, pungent smell of chicken excrement. There were poultry transport crates scattered just outside the portable electric fence that enclosed the layers. The geese and hens were all for sale, the latter's laying rates waning, as the farmers faced the cost of keeping them alive all winter. A dead hen I had found near the edge of their paddock during my last visit prompted no concern or investigation. "Thanks, Dan," Rob texted me unflappably when I alerted him, explaining later that the hen was only worth $2-$3 dollars at this stage in their life, their days already numbered. Warned by the geese, the chickens left their coop area, heading off in a nervous formation into the adjacent "forest" of Canada thistle (*C. arvense*) where I couldn't see them. Opportunistic house sparrows promptly arrived to enjoy the now vacant feed hoppers. Despite having temporary access to an extra-large portion of the pasture at the moment, beyond about 20 feet from the chicken coop, the area didn't show signs of recent chicken foraging. Apparently, the layers had primarily been staying in the area near the coop, muddy, messy, and crossed over by tire tracks, with only the unpalatable Canada thistle and spotted knapweed (*C. stoebe*) left standing. I wondered if it was the grain that kept them there, the relative shelter of the

coop, or the opportunity for communion with each other. Amanda told me later how happy she was that a buyer emerged who was willing to purchase all of the laying hens and geese together, thus keeping their multispecies kin group together a little longer. Fungible assets enclosed by an electric fence and the property relation, they cobbled together a precarious sociality that could be severed at any moment.

Aspects of the flock's social life had been a point of frustration for the farmers over the previous months. Because, being artisanal practitioners, my farmer interlocutors had assembled a layer flock composed of "heritage" or "heirloom" chicken breeds, "broodiness" had been a recurrent problem. A "broody" hen is one who refuses to stop incubating eggs, whether their own or that of another, resulting in both the inability of the farmer to collect the eggs as well as in the hen ceasing its laying. The onset of broodiness can be unpredictable and seemingly contagious within a flock. Modern poultry breeding undertaken in the unending pursuit for higher volume egg production has essentially eradicated broodiness in industrial settings, but these were century-old pedigrees adapted for a pasture setting. Like any other wildcat strike, bates of broodiness were to be "broken," it was explained to me, by isolating the offending hen in a transport crate for several days. Even more subversive, at least one member of the flock had become an "egg eater," pecking at and consuming eggs before the farmer could collect them. Like broodiness, egg eating can "spread" throughout the flock, making the timely identification of the

saboteur a top priority. For a while, whoever had been eating the eggs successfully blended into the 130-bird flock. Rob never told me exactly how he ultimately decided who was the responsible party, only that Amanda had criticized him afterward for immediately killing them in sight of passersby on a busy road.

The loud honks of the geese continued unyielding. They pointed their bills at me, standing behind the small plastic children's pool left as an alternative source of water. Their tone was anticipatory, waiting for the next shoe to drop. Was I about to come closer? A Barred Rock hen emerged tepidly from the thistle forest issuing notes of caution to the others. A monarch butterfly flew over the enclosure, on their way to Mexico.

Ethnographic Extraction

Was not their passage into this text, to a great extent, not unlike their passage into the enclosure, a one-way street of instrumentalization, of being put to someone else's ends? Whenever I approached an enclosure, especially when I was alone and only there to take notes, I would try to drape myself in the Harawayan insight that we are always in complicated, nonconsensual, and intimate relation with others, often in extremely asymmetrical ways. There is no refuge of a life of study in safe solitude, I would tell myself, and so we have to do our best knowing that it may never be enough. Yet the retreating farm animals before me made clear that this was still a classic ethnography "of" not "with"

ethnographic subjects. Protected by a fence and sanctioned by the local authorities, I did not request permission but only placed myself where, in most cases, they had nowhere to hide. The violence of my ethnographic presence and the tenuousness of their sociality undermines the notion of "interlocutors." Given the fraught nature of the "inter-"—that which was between us—how were they to "locute" with me? Through our affective proximity? Through emotional, political, or, in the case of the pigs and cows, physical threat? While the absence of human speech seems to make way for other forms of subjectivity or nonsubjectivity, did the ethnographic form only prevent their register, thwarted by utterly inadequate instruments of recognition? As Mel Chen writes:

> I wish to assert that limiting ourselves to reworking the philosophies of animal-human dependencies, or the ethological studies of a particular animal, or this or that human-animal relationship, carries certain risks: namely, the importing of historical racializations and queerings (or, indeed, imperial tropes) that subtend the very humans and animals under discussion, despite all the bracketing we may be cautioned to do (of Aristotle and his problems, or Derrida and his, etc) (2012, 106).

Approaching the pig enclosure as I walked along the forested road, I saw the mourning doves were right where I had last seen them ten days before. It was hard to believe there was any grain left for them to scavenge. During my previous visit with the pigs, the one farm critter who would readily approach me anytime I visited, they had seemed so frantic, feverishly searching their pen for anything edible. I brought them acorns and hickory nuts from outside the fence, as if a handful of calories made a difference to creatures that now weighed over

300 pounds. A toad had hopped through a corner of the paddock then, looking for a place to spend the winter. I was grateful that I was the only one who noticed this, given the pigs' ravenous quest to supplement the hundreds of pounds of grain they were now sharing every day. I remembered watching two pigs resting tranquilly next to each other as the rest foraged desperately around them, using their snouts like shovels to bust up roots and find any just-fallen mast. The prostrate pigs' two noses stayed active but their eyes were closed. A tender ear bite was reciprocated with an ear nibble and face lick. Half of one of them was coated with mud which now acted like an adhesive affixing a dozen red maple leaves along their flank. Tactile, romping critters with seemingly few reservations about intimacy, a third pig attempted to walk between the two cuddlers, only to change their mind halfway and try to retreat. A tail was stepped on and squeals ensued. Re-evaluating their options but with no more regard for "personal boundaries," the intrusive offender, grunting brusquely, then decided to make a sharp 90 degree turn and simply walk over one of the pair, recumbent but wriggling, as the interloper's improbably dainty, elegantly sloping hooves made them resemble a high heel clad human wobbling over a gelatinous mound.

Now though I only hear a gray catbird calling and a brown thrasher scolding. The fence is down; the trampled and tilled landscape the pigs' material legacy. Leaves have fallen over the hoof prints the dead pigs left in the mud. The clearing feels haunted. I keep expecting the intrepid group to come out from

behind the thicket of multiflora rose (*R. multiflora*). I suddenly hear a snorting and jump, having accidently spooked a white-tailed deer that must have been resting on the edge of paddock. It runs off as I turn around. There is the loading area set up with a ramp, its base resting on the last soft soil the pigs ever felt. The brilliantly red bittersweet leaves (*C. orbiculatus*) that they used to eat were scattered around untouched. The stiltgrass (*M. vimineum*) outside the paddock looks tired but has not yet been defeated by frost. The clearing feels like an empty, worn-out shell, like a person who has had the wind knocked out of them.



Figure 9: *The dead pigs' last hoof prints.*

Ethnographic Failure

One question that might emerge through proximity to captive farm critters could be: how best to ethnographically represent what is going on here? Another could be: why are they still in there? By ethnographic failure here, I mean two things: on one hand, the fundamental failure of ethnography to provide remedy or redress, as in my failure to my ethnographic subjects, periodically subject to terror, gathered under a death sentence, who would be gone before I even typed up these notes. However, I also recognize, in the spirit of Jack Halberstam (2011), a different sense of ethnographic failure: the failure of positivism, of an over-confident empiricism, the refusal of ever knowing what is "really" going on with critters or what their experience was "really" like (Stengers 2012). How could I have described them in my notebook as being "happy" one day when Amanda brought them food, given not only that their precarious community was bounded by extreme and arbitrary violence but also given the heavy humanist baggage carried by such implications of sentience and individuality? Here, a recognition of nonrecognition, that is knowing that the social worlds made within the cages were important even if I barely knew them at all, might inhibit the rush toward casting the farm animals as either willful subjects or else as "absent referents" (Adams 1994)—genericized, fungible, and always part of someone else's future.

Even if I confined my ethnographic attention to flushes of affect or to the most readily apparent outer surfaces of the farm animals' social worlds, what was the value to them of a research program that I knew all along they wouldn't survive? The rams were now grazing where I had last seen the Freedom Rangers™ three months earlier. Separated from their sisters to spare the farmers the trouble of castration, as I had first approached, the rams had initially run to the opposite side of the paddock. When I stopped, they pivoted, gathering next along the edge of the temporary fence, eager to gain access into the next pasture. One had stayed sleeping in the middle of the paddock the entire time and once it became clear that I was not there to move them, a few of the others went back to wake up the dozer, who then re-joined the rest of the group. The sun began to peek out amidst the clouds and the rams basked in it, relishing the warmth that was now restricted only to the hours of peak daylight. Soon many were once again resting with their eyes closed, chewing their cud. Others were grazing on patches of birdsfoot trefoil (*L. corniculatus*). There were cowbirds here too, inspecting fleeces for tasty morsels. One ram started running near the center of the group and, like a chain reaction, the invariable collisions that ensued initiated a scrum that prompted in a period of pushing and sniffing, chasing and mounting. Here was an insurgent social world, the terms of which were incompatible with those that authorized their enclosure. Energetic, playful, and just entering the prime of life, at first blush it was hard to believe that they

had no future or at least no future other than that provided by the metal sheep chute—another one-way street—that was waiting outside the enclosure and through which they would pass in six days.

The surging, heterogenous vitality demonstrated that afternoon is what animal husbandry can neither abide nor do without. This is the irreconcilable dissonance in the conjunction "live-stock," an apt description for a practice that fundamentally depends on life even as the relative perfection of its execution is predicated on the ability to almost absolutely restrict the exercise of that life.[iii] Constraints of all sorts limit movement and possibilities for social relations within and amongst these various creatures of empire. They are separated from kin, their possibilities for intergenerational relations carefully circumscribed. And yet, it is the truncated socialities they form under duress that, as much as the industrial corn and soy, keeps them alive and thus capable of improving their value to the farmers. This is what Anna Tsing calls "salvage accumulation" or the "creation of capitalist value from noncapitalist value regimes (2015, 128)." Following Tsing, I contend that this is a form of primitive accumulation that, rather than being confined to some early stage of economic history, remains a pivotal engine of political economy in the present (2015, 296). The value generated, however, exceeds the merely monetary, as the farm critters' capacity to make their circumstances endurable anchors the agrarian landscape's status as a redemptive site of White utopian yearning.

These scenes and this project unfolded in the shadows cast by the tower, which is to say, in the shadow of the Lake Mohonk conferences. Those assembled at those annual gatherings were committed to recomposing Black and Native practices of self- and never-only-human kin-making in order to bring them into conformity with the colonial model of possession-by-improvement. As organizer Albert Smiley emphasized to a prospective attendee prior to one of the conferences, the "elevation of the Negro thru his education and [Protestant] Christianization" would be the task before those assembled. In 1891, as the Board of Indian Commissioners convened by the lake, the tasks of uplift and assimilation remained yet incomplete. Speaking in the wake of the Wounded Knee massacre, Amherst College president and conference chair, Merrill Gates, expressed his frustration with Native peoples' unconsummated reception of White reason and their delayed adoption of civilized life. The massacre was the foreseeable consequence of the "Ghost Dance" (Caddo: *Nanissáanah*), Gates contended, as its transformative promise of Native renewal and the deliquescence of colonialism's material artifacts moved its practitioners beyond White accessibility. The appeal and world-altering power of the "Ghost Dance" prompted Gates to reflect "that for one brought up in the atmosphere of Christian civilization to enter the consciousness of the savage at such a time is almost as impossible as it is for us to get behind the great, blue limpid eyes of the ox as he chews his cud in the pasture, and know how the world looks to him (Fear-Segal 2009, 39)."

Here was the ghost of Willem Kieft ["put a bit in the mouth of the heathen"], once again turning to figures of animality to express exasperation with the enduring recalcitrance of those who refused to realign their worlds according to colonial models of relation within and beyond human communities. Animating these appeals to a human exceptionalist order was the ultimate frustration of men like Gates and Kieft that there was always something else going on, always other socialities, other worlds. Kieft and Gates' aggravation with the persistence of this incongruence—even after the most severe exertions of force—as well as with the opacity that thwarted White efforts for comprehension and control, led them to invoke animal figures, validating domination through the ontologizing of difference as deficiency. All that linked the ox and the Ghost Dancers, other than their shared albeit differentiated exclusion from the realm of the human, was their respective capacities to frustrate White orders of knowledge and regulation that, as a result, rendered each vulnerable to specific forms of punitive violence.

This is why the conferences were framed as addressing the recalcitrant "questions" (or problems) of Black and Native being in the wake of the formal end of conquest and racial slavery. The gatherings were, fundamentally, a form of inquiry into why Black and Native peoples had not yet managed to improve themselves, an attempt to identify and correct the pathologies that continued to hinder their progression toward the realm of the human. Following Zakkiyah Jackson (2020), what is humanization—the remedy often sought for the burden

of the dehumanized—but inclusion, often forcible, into the White supremacist, ableist, human exceptionalist world delivered by humanism? Merely expanding the realm of the human ignores its historical role as a weapon of mass destruction and preserves it as a tool of differentiation to be used against others. Working in the long shadow of these conferences and the three centuries of improvement they sought to consolidate obligates a revisitation of the pedagogical value of unknowing. I mean this both in the sense of "unlearning" certain inherited accounts but also as recognizing the limits of our specific empirical capacities and how they open up opportunities for accountability and the assembly of other kinds of relations.

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[i] Recall Robin Wall Kimmerer's reference to the Carlisle Indian School graduation pledge: "I am no longer an Indian man. I will lay down the bow and arrow forever and put my hand to the plow" (2013, 261)).

[ii] At one of the Negro Conferences, the famous lawyer Albion Tourgée offered characteristically frank words of dissent, denouncing the conferences' "watering-place gushiness, which seeks to bait the Devil a little way towards heaven by agreeing not to say anything about the 'airs of hell' which cling to his clothes" continuing "…for the Indian and Negro, you might as well try to cure cancer by giving me treacle as expect any good from such gathering (Fear-Segal 2009, 38)."

[iii] The "stock's" value is present almost entirely in the anticipation of their death. The "live-" portion of conjunction is both a liability as well as, in the hands of a skilled farmer, an opportunity to increase a stake in future profit. Other than animals used in breeding, the value of livestock is predicated on the animal's fundamental killability.

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