

IMAGINING A LIBERATED FUTURE  
WITH QUEER ECOLOGY

by

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## ABSTRACT

### Imagining a Liberated Future with Queer Ecology

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As an emerging and expansive transdisciplinary field of study, queer ecology brings queer theory together with ecology. Drawing from diverse disciplines, through this transformative framework, the meaning of “queer” is twofold in that it centers non-heterosexual and transgender organisms in ecological studies as well as centering the perspectives of LGBTQ+ humans, and it seeks to “queer” environmental perspectives by challenges dominant notions of “naturalness” and “normality” grounded in heteronormative ideas of sex, gender, and Nature. *Imagining a Liberated Future with Queer Ecology* explores the potential of queer ecology to first disrupt heterosexist and unscientific charges of “unnaturalness” against LGBTQ+ identities, secondly, it extends our understanding of the historical context in which American anti-LGBTQ+ sentiments became institutionalized in Western science, and lastly, it sheds light on how queer ecology’s goals of transformative justice offer new ways of collaboration, solidarity, kinship/familial relations, and care systems across cultures and species. Throughout my work, I explored literature on queer ecology as well as works that are interconnected with queer ecology, especially ecofeminism, Critical Race Theory, decolonization, and Emergent Strategy. I propose that queer ecologies offers LGBTQ+ identities empowerment through the exploration of queer and transness among non-human species, along with offering possibilities in expanding our ability to imagine individually and collectively other potentials for our present and futures. Queer ecologies is crucial for creating alternative models for humans to exist in the world as well as for organizing together in order to address large-scale issues, such as climate change, that threaten life in all its expressions.

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I also acknowledge the support of my learning community at The Evergreen State College. Without this interdisciplinary liberal arts college, I would never have continued my academic pursuits. I especially want to acknowledge my mentor Frederica Bowcutt, whose wealth of botanical knowledge and ability to bring history, feminism, and natural studies together has been a continual inspiration for me as a student. I am eternally grateful to have had the support from a mentor who has challenged my learning in ways that I have grown from, and a mentor that encourages her students to think critically and embrace the wonder of the Natural world.

## Preface

I couldn't find *myself* in history. No one like me seemed to have ever existed. But I *had* to know why I was so hated for being "different." What was the root cause of bigotry, and what was its driving force?

-Leslie Feinberg, *Transgender Warriors*<sup>1</sup>

In 2015 I was attending a large, traditional university majoring in Natural Resources where I had big dreams in finding a path that would allow me to direct my passions and desires to help create large-scale societal changes. Having spent the majority of my early formative years involved with community service, activism, and being a part of radical communities, I had envisioned that social justice work would fold neatly in with environmental work. However, what I actually found was a culture of hostility towards the notion of intersecting social issues with environmental issues, classrooms dominated by White men who confidently expressed misogynistic, homophobic, transphobic, and racist opinions (typically going unchallenged by instructors or students), anthropocentric dualisms such as humans being separate from Nature, and lessons conveying doomed messages that we were in end times in the Anthropocene. When I challenged these ideologies, tried to engage with alternative ideas that broke with colonial conservationist narratives, or even called attention to the lack of interdisciplinary understandings of environmental issues, I was often met with dismissiveness and condescension. I was told by my instructors and peers that I needed to narrow my studies to either environmental sciences or change majors to the humanities or social sciences—the “soft” sciences that were conveyed to me as less valuable an area of study than the “hard” sciences. As for the rampant misogyny and White, Eurocentric culture of the college, I was told to simply just accept it because that was just

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<sup>1</sup> Feinberg, *Transgender Warriors*, 11.

the way things are and will always be, so don't rock the boat. The isolation and alienation I felt in those classrooms was palpable.

It wasn't until I took an Environmental Racism course taught by a gay Chicano Ethnic Studies teacher's aide, where White students didn't dominate the class demographics and were openly challenged about their ideas in productive ways, and where I was finally able to gain an interdisciplinary understanding of racism, environmentalism, and environmental justice. I felt as though I had finally found some unseen thing pulling me towards it.

Yet with the rigid compartmentalizing of majors and minors, outside of double majoring in Natural Resources and one of the humanities majors, I had no clear or easy path to the interdisciplinary knowledge I was seeking. With the impending presidential election a year away, classrooms became intolerable—I angrily outed myself as bisexual in several classes to disrupt homophobic students going unchecked. The culture of the classroom also followed me to my student staff position at the college's research forest. Simply put, it was an "old-boys club," who were completely inept at handling the situation that arose when I had finally reached my limit of sexual harassment and came forward to put an end to it. What ensued was a poorly facilitated sexual harassment training by a Women's studies teacher who didn't understand intersectionality even in her own class or how to engage with male forestry workers. Ultimately, I was made to feel that I was the problem as some of my male coworkers were now afraid to work with me as they feared getting into trouble for saying something sexist. Yet privately, the other two female staff members expressed their own frustrations of the workplace misogyny (the 50+ year old secretary constantly being referred to as the office "girl"), and one of them even telling me how they didn't identify as a woman. At this point in time I still identified myself as a woman, yet without having the language I have now, I didn't fully understand what they meant that they

didn't identify as a woman, and yet, even without that understanding it still resonated with me deeply.

It only took a year and a half before the alienation and frustration trying to exist and thrive in this place hit a boiling point and I realized I had to reckon with the reality that there simply was no place for me at this institution if I wanted to explore the intertwining of environmental issues as social justice issues. At this time I was also in a toxic relationship with a man who I didn't know how to leave. I felt like I was being pushed back into the closet and forced into a gender role that I couldn't perform. I was failing miserably at compulsory heteronormativity<sup>2</sup> and it was taking a toll on my mental health in very frightening and debilitating ways. It wasn't until after I had transferred to a liberal arts college that had a safer culture to come into my queerness and my relationship had abruptly ended that I came to the realization that I had a lot of healing work in front of me. I was finally walking a path towards finding myself and what role I wanted to play in my community—my own ecological niche.

I cannot overstate how grateful and privileged I am to have access to a non-traditional college that teaches through interdisciplinarity. Although still an institution that has many systemic issues of its own to address, is filled with individuals passionately dedicated to transformative change that I have worked in collaboration with, drawn hope and inspiration from, and have grown immensely from their mentorship. It was in this community of learning that I finally began to feel safe to reject and shed the rigid dominant normative belief systems that I know deep down can never hold me, nor define me. I have witnessed and survived in systems that will never accommodate my needs, were never intended for me to thrive in—systems that I was never meant to exist in at all. Some of these systems have caused me harm

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<sup>2</sup> Often shortened to comphet, refers to notion that heterosexuality is the assumed normal sexuality, assumes the gender binary, and enforced through a patriarchal social structure where women are subordinate to men.

both directly and indirectly, only to treat my harm as necessary for the system to continue-- simply collateral damage. And yet here I still am.

This work has been born from my desire to not only transform myself, but to also transform the systems we live in. It is a response to the intentional erasure of queer and trans education by academia, the escalating violence and criminalization of those marked as “other” in our society, and to be accountable to those struggling and fighting in our current social movements of abolition and solidarity. Like so many others that I have had the privilege of being in learning with and learning from, we are dreaming of a world that is no longer centered on violence, domination, separation, toxic individualism, and exploitation, but rather a world where we see and deeply feel our interconnectedness through kinship with each other, and all other living beings we share our lives with. That dreaming is coming to life through the creation of different systems of care, in spaces held by those working collaboratively to bring transformative justice theory to practices, and from those who continue to share their stories and histories that have been withheld from our systems of knowledge. This work is an offering towards the growing area of scholarship working to queer and decolonize academia, towards the unlearning of harm in our social structures, and towards the shaping of our collective imagination of our present and futures through the context of remembering our buried histories. As a queer, trans/non-binary person working across the nexus of gender, sexuality, and the environment, this work is meant to be in conversation with the current discourses of disrupting harmful dominant ideas that work to uphold rigid hierarchies and unsustainable practices and make space for radically different ways of understanding, relating, and becoming more fluid and adaptable. In the wake of climate crisis our survival may depend upon it.

## Introduction

All of our lives we have experienced ourselves as queer, as not belonging, as the essence of queer... queer not as being about who you're having sex with—that can be a dimension of it—but queer as being about the self that is at odds with everything around it and has to invent and create and find a place to speak and to thrive and to live. And I think that is where we are going towards in trying to find [sexual freedom]. And I think it's so crucial trans people are so at the forefront of that because that is where, among trans people, that the imagination is called forth in the reconstructing and the reinvisioning of self and possibility.

-bell hooks, from 2014 panel discussion hosted by the New School in NYC *Are You Still A Slave?*<sup>3</sup>

We are seeding the future, including our next systems of justice, with every action we take; the fractal nature of our sacred design teaches us that our smallest choices today will become our next norms.

-adrienne maree brown, *We Will Not Cancel Us*<sup>4</sup>

What is normal? Writing this thesis during the third year of the COVID-19 pandemic in 2022 the sentiment of wanting to return to normal has become quite common, however what “normal” looks like after the virus has run its course is shifting. Although many large-scale issues such as climate change, accessible healthcare, affordable housing, and civil rights issues were already visible in the arena of public discourse, the pandemic magnified these problems. With the pandemic making visible the gross inequities of our economy, labor systems, healthcare, justice systems, and housing, political polarization has also deepened. Emboldened by overtly bigoted political leaders, conservative politics have made moves to ban books representing diverse narratives and identities, suppress voter rights, restrict access to affordable and safe abortions and reproductive care, and have fought to keep lessons on Critical Race Theory (CRT), gender, and sexuality out of classrooms<sup>5</sup>. In the wake of escalating anti-trans politics, such as anti-trans

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<sup>3</sup> hooks, “Are You Still a Slave?”

<sup>4</sup> brown, *We Will Not Cancel Us: and Other Dreams of Transformative Justice*, 3.

<sup>5</sup> Hernandez, “Florida house Passes Controversial measure Dubbed The 'Don't Say Gay' Bill by Critics.”

bathroom bills, excluding trans athletes from sports, and restricting transgender healthcare, the year of 2021 became the deadliest year on record for transgender people, with the majority of murdered transgender people being either Black or Latinx.<sup>6</sup> Throughout the past few years it has been a challenge for me to want to read the news as the headlines have become so saturated with suffering that the present has become to feel like a true dystopia—or at least that is where our future is headed as a new “normal.”

However grim this piece of our history might seem, there is still hope because there is still resistance and signs that times are changing. More organizations have formed to provide advocacy, legal assistance, research and public education, as well as healthcare support for LGBTQ+<sup>7</sup> individuals and communities. LGBTQ+ activists have come together to stage protests, create safer spaces for their communities to thrive in, and create content to expand the visibility and representation of LGBTQ+ identities. Yet, individuals simply coming out and presenting their existence is still seen by some as a radical act. However, Generation Z<sup>8</sup> is being recognized not only the most racially and ethnically diverse generation in American history,<sup>9</sup> but also having around 21% adults (one out of five) identifying as LGBTQ+.<sup>10</sup> According to Gallup’s 2022 survey report, the current percentage of U.S. adults that self-identify as LGBTQ+ has doubled since their first report in 2012, with 7.1% of U.S. adults who consider themselves as LGBTQ+ based on 2021 aggregated data from more than 12,000 interviews. With the number of young

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<sup>6</sup> Rummler and Sosin, “2021 is now the deadliest year on record for transgender people.” See also Trans Lives Matter, “Remembering Our Dead” as an additional source for data and details of transgender people who were murdered or took their own lives and is a space to memorialize these individuals during Transgender Day of Remembrance.

<sup>7</sup> LGBTQ+ stands for Lesbian, Gay, Bisexual, Transgender, Queer, with a + to be inclusive towards the ever-expanding identities that do not align with “normative” identities of heterosexual or cisgender categorization.

<sup>8</sup> Gen Z are those born roughly between 1996 and 2003 or 2010, as no consensus has been reached on this generational timeframe

<sup>9</sup> Fry and Parker, “Early Benchmarks Show ‘Post-Millennials’ on Track to Be Most Diverse, Best-Educated Generation Yet 2020.”

<sup>10</sup> Jones, “LGBT Identification in U.S. Ticks Up to 7.1%.”

adults identifying as LGBTQ+ continuing to increase, Gallup's report concludes that many have been able to better navigate their gender identity and sexuality due to the rising acceptance and legal protections for LGBTQ+ communities and individuals. So even though there is currently much opposition to overcome in securing the rights, acceptability, and celebration of those who identify as LGBTQ+ in the U.S., there still has been a significant enough cultural shift in the past few decades which has allowed more adults (and youths) to feel safe and able to come out, alongside the decreasing acceptance of queer- and transphobia.

As a queer, non-binary/transgender individual assigned female at birth (AFAB) unwilling to be silent or complicit in the active harm against myself and those in the LGBTQ+ community, I have sought ways to use the privileges I have as a White environmental studies student to understand and engage in queer resistance. Understanding the importance of intersectionality<sup>11</sup> and that "injustice anywhere is a threat to justice everywhere,"<sup>12</sup> I sought out frameworks that could address both environmental issues together with social issues and support radically different ways of thinking and problem solving. Thanks to another queer/trans student in my learning community also bringing LGBTQ+ issues into the realm of environmental studies, I was introduced to queer ecology, a relatively new discipline that blends queer theory with ecology with the intention of transforming discourse and politics around queerness and the environment.

In writing this thesis, I wanted to take an experimental approach of writing a non-traditional style of thesis by being visible in my research, placing my own experiences and perceptions alongside scientific and historic literature. As I will discuss throughout my work, LGBTQ+

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<sup>11</sup> Crenshaw, "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics." Credited with coining the term "intersectionality" in her 1989 paper *Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics*, constructs intersectionality as the ways that systems of oppression overlap and create different experiences of discrimination for people with multiple social identity categories.

<sup>12</sup> King, "Letter from Birmingham Jail."

identities are rarely discussed in public discourse or scientific literature in unbiased or unemotional ways, even when those expressing negative views claim to be using cold, rational objectivity. The intention behind making myself visible within my work was to create a narrative around LGBTQ+ issues by a person who identifies as a part of the LGBTQ+ community. Too often narratives are formed around LGBTQ+ identities without the insights from LGBTQ+ individuals, often resulting in bad or even harmful portrayals. Additionally, I want to note that throughout my writing, some language or concepts may appear clunky or outdated. This is because language and social constructs are constantly in flux and some terminology I use may not have a better alternative yet, or as an individual continually learning, I may not have been introduced to yet. I will be using the term “queerphobia” as an alternative to “homophobia” as “queer” has become an umbrella term for non-heterosexual identities, and I find “queerphobia” to be more inclusive than “homophobia.” Throughout this work I also capitalize “Nature” to lend the natural world agency as an entity, as well as to prevent the confusion from “nature” being used as a noun. Queer ecology, as a growing discipline has a vast variety of topics in which I could have delved. However in desiring ultimately to understand how to address intersecting and urgent present day social and environmental problems, I worked to understand the history of how we got here and the theoretical lenses in which we can shape potential futures. This work was not only done with the intention of educating myself, but also to be able to educate, invite, and inspire others to examine their personal and cultural understandings of sex, gender, and Nature.

Throughout the introduction section, I work to define queer ecology as an emerging field and examine what a queer ecological framework looks like. Being a transdisciplinary field of study, queer ecology draws from many other frameworks, especially intersectional ecofeminism, and seeks to center queerness in ecological narratives. I discuss how queer ecology works in three

parts, which is to disrupt heterosexist understandings of sex, gender, and Nature, extend upon these notions by first understanding the history of how these notions developed and what other knowledges were erased in the construction of dominant normatives, and lastly, how queer ecology seeks to transform our current models of relating to one another and the more-than-human world.

In the second section, “Disruption (queering Nature)” I engage with the idea of who and what is categorized as “natural” as well as how charges of “unnaturalness” have been launched against LGBTQ+ identities. In essence, this section is a model for queering Nature. I work to disrupt the concept that if a behavior occurs in animals, it is then “natural” and thus acceptable for humans. Drawing from scientific literature, this section covers the difference between the social construction of gender and the biological understanding of sex, as well as arguments for the need to reinterpret and update the sexual selection theory. In this section I also offer a variety of plant and non-human examples of sexual and gender variety to demonstrate the need for biological models that can account for the vast diversity of sexualities and gender variation that exist in our world. Expanding our understanding of the importance of the inclusion of diverse ecological life histories in both humans and non-human species opens “the potential to learn from the behavior of plant [and non-human animal] life in order to formulate better models of human collectivity and communicative cooperation.”<sup>13</sup> In a period of time when there is a need for radically different ways of thinking and structuring our societies, looking to Nature through a queer ecological lens presents an opportunity to reimagine a more collective and sustainable future in which to work towards.

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<sup>13</sup> Gibson and Gagliano, “The Feminist Plant: Changing Relations with the Water Lily,” 126.

Throughout the section “Pathologizing Queerness & Creating The White Wilderness,” I dig into the history of American medical science’s role in pathologizing LGBTQ+ identities, along with the historical entanglement of White supremacy, settler-colonialism, nationalism, and heteronormativity with the modern American environmentalism. Here, for the sake of time, I restrict the boundaries of this research to the late 1800s and early 1900s, as this was a crucial period of time in history when many ideas around LGBTQ+ identities were being institutionalized and disseminated into the public imagination, as well as a dominant “universal” American national identity being formed and solidified. In the present day when how and what history gets taught is being debated, it is crucial that even the dark and difficult parts of our histories are learned in order to understand the foundational values of modern-day institutions and correct the mistakes from the past.

In the final section “Discussion—Transformation,” I explore the potential of queer ecology to invigorate liberatory imaginings for our pasts, present, and futures, as the first step to creating new practices lies first in being able to imagine. As queer ecology has a goal of transformation, in this section I consider how the transformative justice framework of Emergent Strategy used in social justice activism, can blend seamlessly into queer ecologies. Both Emergent Strategy and queer ecology advocate looking to Nature as a teacher in order to understand how humans can integrate diversity and multiculturalism into our social structures as well as reimagine humans as a part of Nature and having an ecological niche. This work is only the beginning of my investigation into queer ecology, and as a developing field I anticipate there is still so much more for me to discover and eventually share, as it is my hope that others will be just as excited by the possibilities that queer ecology works to open us up to.

## What is Queer Ecology?

Queer ecology is a transdisciplinary field that doesn't quite seem to exist yet and is lacking any distinct methods<sup>14</sup>—rather it is a developing field that emerged from intersectional ecofeminist writers<sup>15</sup> merging queer theory with ecocriticism and seems to recently be blooming. While the origins of queer ecology are a bit ambiguous, late 1800s to early 1900s influential thinkers such as sexologist Havelock Ellis, activists Karl Heinrich Ulrichs and Edward Carpenter, as well as authors Oscar Wilde and Walt Whitman, have been considered the roots of queer ecology as these were important figures in developing early queer identities and establishing links between the newly “discovered” homosexuals and nature. Michel Foucault's four-volume study, *The History of Sexuality*, has also been given much credit for laying the groundwork for queer ecology. However it was from the mid-1990's to around 2010 that a distinct body of queer ecological scholarship became visible, with contemporary queer ecology experiencing an expansion of scholarship, interest, and relevance. With the combination of queer theory studies and ecology expanding across a multitude of academic fields, queer ecology appears to be quite nebulous and lacking any boundaries as it intersects and draws from more established frameworks such as (eco)feminist studies, geography, natural history, ecocriticism, biology, environmental justice (EJ), CRT, decolonization, political economy, and social justice movements. In this research I have limited my scope to the United States and will not be covering queer ecology's frameworks exhaustively, as this work is intended as an offering for a starting point for further conversations.

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<sup>14</sup> Wölfe Hazard, *Underflows: Queer and Trans Ecologies and River Justice*, 22.

<sup>15</sup> Gaard, “Ecofeminism Revisited: Rejecting Essentialism and Re-Placing Species in a Material Feminist Environmentalism,” 27.

As a blossoming field of study, many people it seems still have not heard of queer ecology or are just beginning to engage with related research that has yet to be identified as queer ecology. So what is queer ecology? Greta Gaard, a crucial ecofeminist writer on queer ecology, interprets queer ecology as lacking a “single orthodox perspective,” functioning to queer environmentalism and green queer theory.<sup>16</sup> To queer environmentalism, as an example, queer identities and struggles within environmental advocacy need to be visible and uplifted, rather than dismissed and pushed to the side, forcing LGBTQ+ people to “to put one’s sexual identity ‘on hold’ in order to work on environmental issues.<sup>17</sup>” When environmentalist organizations fail to understand the need for diversity and inclusivity of members and priorities, they damage opportunities for coalition building and resource sharing. Hegemonic single-issue environmental organizations lose opportunities to address interconnecting issues, often over-prioritizing White, middle-class concerns (which sometimes in turn causes direct harm to other communities—think Not in My Backyard campaigns) and alienate oppressed individuals and communities from joining their cause.<sup>18</sup>

In a greener queer theory, the ways in which gender plays out in our interactions with Nature can be more thoroughly examined. Although ecofeminist writers have long made connections between the oppression of both women and the environment, ecofeminism has unfortunately become entangled and misrepresented by cultural feminists who essentially flipped patriarchy on its head, positioning women as closer to nature due to their ability to give birth and ultimately as the superior and natural caretakers of Nature. Unfortunately ecofeminism has been dismissed as useful due to surrounding stereotypes of being “socialist, ethnocentric, anti-intellectual goddess-

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<sup>16</sup> Gaard, “Green, Pink, and Lavender: Banishing Ecophobia through Queer Ecologies,” 117.

<sup>17</sup> Gaard, “Green, Pink, and Lavender,” 116.

<sup>18</sup> Finney, *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*.

worshippers who mistakenly portray the earth as female or issued totalizing and ahistorical mandates for worldwide veganism,”<sup>19</sup> despite the diverse variety of methods and perspectives. As a result of cultural feminists who feminized Nature and categorize “women” as a biological category rather than a cultural category (e.g. gender essentialism), writers engaging with the intersecting issues of feminism and ecology have chosen to distance themselves from ecofeminism, preferring to use the terms “ecological feminism,” “feminist environmentalism,” “critical feminist eco-socialism,” or even just “gender and the environment.”<sup>20</sup> Queer ecology presents an opportunity to more deeply engage in the work ecofeminists had already begun, but from a field that starts in intersectionality and provides a fuller examination with the inclusion and centering of “queered” bodies, identities, and notions of Nature. For example, while a prominent depiction of Nature in the U.S. is often of a bountiful, beautiful, caring mother (Mother Nature)<sup>21</sup>, ecophilosophy professor Tim Morton instead argues that Western environmentalism depicts a heteronormative and masculine Nature. Morton writes through a queer ecological lens of masculine Nature being “rugged, bleak...defin[ing] itself through contrasts: outdoorsy and extroverted, heterosexual, able-bodied—disability is nowhere to be seen,” and of masculine environmentalism’s fixation with Nature being “untouched”—concerned for Nature’s “virginity.”<sup>22</sup> When Nature is defined and valued for its “purity” or “untouchedness,” such as landscapes deemed as wilderness areas, other types of landscapes and ecosystems become devalued and seen as unworthy of protection (e.g. urban and agricultural areas). On the flipside, the fixation with “untouched” and unpeopled “wilderness” areas are guarded through exclusionary practices—allowing only those privileged few that can afford to

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<sup>19</sup> Gaard, “Ecofeminism Revisited,” 32.

<sup>20</sup> Gaard, “Ecofeminism Revisited,” 27.

<sup>21</sup> Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution*, 2.

<sup>22</sup> Morton, “Guest Column: Queer Ecology,” 279.

access and recreate in these remote areas, while criminalizing Indigenous communities' access to cultural resources located in wilderness areas and parks systems. Fortunately, some federal policies have been rewritten as a step in reconciliation to allow tribal members to harvest culturally significant plants from protected lands in national parks.<sup>23</sup> However, despite steps being taken to create inclusion in the National Parks Systems (NPS) there is still a long legacy for many that managed ecosystems like the NPS convey a message (whether directly or indirectly) of “stay away,” “not for you,” and “keep out!” When environmentalism is enacted through this idea of a White, able-bodied, heteronormative, masculine Nature, what other environmental issues go unattended when the organizations with the most resources focus on such a narrow idea of what kind of Nature is worth protecting? Who gets excluded and alienated from Nature when predominantly White, able-bodied men are seen as having claim to these spaces?

As one of the foremost writers on queer ecology, Catriona Mortimer-Sandilands defines queer ecology as

a loose, interdisciplinary constellation of practices that aim, in different ways, to disrupt prevailing heterosexist discursive and institutional articulations of sexuality and nature, and also to reimagine evolutionary process, ecological interactions, and environmental politics in light of queer theory.<sup>24</sup>

Queer theory examines the constructions of “normality” and how certain sexualities are assigned “deviant,” as well as challenging ideas of essentialism that make claims of biologically determined gender roles as “natural.” Essentialism, also referred to as gender essentialism or biological determinism, is the notion that all material objects and beings have inherent or inborn

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<sup>23</sup> Henion, “Cherokee Indians Can Now Harvest Sochan within a National Park.”

<sup>24</sup> Mortimer-Sandilands, “Queer Ecology.”

qualities that are universal, that there are intrinsic (read as natural or inborn) qualities that make up “real” men and women. Gender essentialism claims that the categorization of “men” and “woman” are biological—naturally occurring, alongside the patriarchal gender roles that are assigned to those categorizations, and any mixing or crossing of these roles or categories is an error or “against nature.” The logic gender essentialism follows is that “if you changed the essential characteristics of a male then you didn’t have a male anymore; the same holds true for a female.”<sup>25</sup> The mistake of this logic that makes it unscientific is that it equates sex, a biologic category, with gender, a socially constructed categorization.<sup>26</sup> Those who claim to be using the science of biological determinism or gender essentialism to justify sexism, as well as queer- and transphobia, are evoking essentialist views that “real” men and women are so because they express natural “maleness” or “femaleness” that is determined by biology. In this view, anyone that presents outside the rigid two-gender binary of masculine man or feminine woman is perceived as unnatural, a deviant, or inhuman. Through this logic, cisgender<sup>27</sup> men, whether heterosexual or otherwise are not supposed to have “feminine” traits nor are cisgender women supposed to be “masculine,” transwomen cannot be perceived as women who just happen to be born with a penis or transmen as men born with womb, and non-binary and intersex people are erased altogether. However, it is through the queer theory of queer ecology that seeks to disrupt and question the ways gender essentialism has been naturalized and explore ways of normalizing the reality of gender and sexual variation.

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<sup>25</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 3.

<sup>26</sup> Roughgarden, *Evolution’s Rainbow: Diversity, Gender, and Sexuality in Nature and People*.

<sup>27</sup> Cisgender is a gender categorization relating to a person whose gender identity corresponds to their sex assigned at birth. For example someone assigned female at birth that identifies as a woman, which differs from transgender, whose gender expression/identity differs from the sex they had or were identified at birth.

In engaging with the “normativity of heterosexuality,” queer theory explores how heteronormativity interacts with race/ethnicity, dis/ability, and nationality.<sup>28</sup> Queer theory within the context of queer ecology, asks us to examine what we consider “natural” and how these understandings impact our relationships with the environment and each other—specifically drawing attention to the ways that these perceptions have been formed through White settler-colonial Western hetero-patriarchy.

### A Note on Terms

Throughout this research the terms heterosexist/heterosexism, heterocentric, heteronormativity, hetero-patriarchy, and compulsory-heterosexuality (comp-het) will be used interchangeably. These terms refer to the ways dominant settler-colonial Western culture has naturalized heterosexuality as the superior sexuality and is performed through rigid cisgender binary gender roles, and therefore cast queer and trans bodies and identities as “unnatural.” Here, the use of the term “Western” refers primarily to the United States and the dominant settler-colonial culture that is formed by values of predominantly hegemonic, White, middle-class sociopolitical values. Additionally, settler-colonialism is a theoretical framework that describes the particular practices of colonizers of previously inhabited lands who intend to stay and do so through the erasure and elimination of Indigenous inhabitants in order to legitimize settlers and their future generations as the rightful inheritors of the land. In Kari Norgaard’s *Salmon and Acorns Feed Our People*, Norgaard argues that “that North American colonialism is an ongoing structure rather than a past event,” which structures “state relationships [and individual interactions] with Indigenous peoples in terms of elimination and replacement” by transforming “the ecology, laws, policies, mythology and education to make settlers feel as though they are

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<sup>28</sup> Kaishian and Hasmik,” *The Science Underground: Mycology as a Queer Discipline*,” 5.

‘Indigenous.’”<sup>29</sup> In other words, we are still living in a settler-colonial system which seeks to make non-Natives feel that they belong and are entitled to the ownership of the land, as well as innocent from addressing past and current erasure and violence against Indigenous individuals, communities, histories, and cultural practices. This idea stems from the notion that Indigenous culture has long gone extinct or been assimilated, therefore making (White) non-Natives feel as they are now “native” to the land and the natural inheritors and stewards. Fortunately because of the tireless work of Indigenous activists and their allies, this narrative of cultural extinction is being shattered through better representations of modern and historical Indigeneity in the media, coalition building between tribes and non-Native conservationists, and educators sharing historic and contemporary narratives of Indigenous struggle, resistance, resilience, and prosperity. Within the context of settler-colonialism, queer ecology presents an opportunity to consider who is given power to manage and alter ecosystems, who gets to be considered a “natural” part of the American identity and landscape, and how American identity shapes the way we interact with ecosystems and non-humans. Additionally, I refer to Nature/non-human species as the “more-than-human” as well as animals as “non-human animals” to disrupt human exceptionalism and the notion of humans being separate from Nature or superior to animals.

### Queerness and the Master Model

So what is so “queer” about queer ecology? While the term “queer” was at one point primarily used as a hateful slur towards gay, lesbian and bisexual individuals, in the past few decades it has been reclaimed by the LGBTQ+ community and now serves as an umbrella term for those who do not identify as heterosexual and/or cisgender. Additionally serving a dual

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<sup>29</sup> Norgaard, *Salmon and Acorns Feed Our People: Colonialism, Nature and Social Action*, 85.

purpose, the use of “queer” relates back to its older use in describing something as peculiar, strange, or even other-worldly. As defined in *Queer Ecologies*,

Queer, then is both noun and verb in this project: ours is an ecology that may begin in the experiences and perceptions of non-heterosexual individuals and communities, but is even more importantly one that calls into question heteronormativity itself as part of its advocacy around issues of nature and environment—and vice versa.<sup>30</sup>

Queer, here, relates both to ecological understandings from queer individuals and communities’ perspectives, as well as challenging the heteronormativity of environmentalism and ecological understandings—essentially working to make the normal abnormal and the abnormal normal. Queer can also encompass the “identities, bodies, and behaviors pushed to the margins of Western, hegemonic, heteronormative life.”<sup>31</sup> Where ecology recognizes the importance of interconnected relationships between an individual organism and its system, valuing how all parts of a system work together, queer ecology challenges outdated and inaccurate heterosexist ecological narratives that rely on rigid binaries of essentialism and rugged individualism that ultimately frame humans as separate from Nature.

In Gaard’s examination of heteronormative binaries through a queered ecofeminism, she argues how dominant Western culture can be characterized by its “value-hierarchical thinking, and the logic of domination,” in which normative dualisms “conceptually organiz[e] the world in binaries.”<sup>32</sup> Arguing that this line of logic has close ties to the “institution of Christianity, coupled with the imperialist drives of militarist nation-states,” Gaard examines how despite “20<sup>th</sup>-century western industrialized nations purport to be largely secular, those countries with

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<sup>30</sup> Mortimer-Sandilands and Erickson, “Introduction: A Genealogy of Queer Ecologies,” 5.

<sup>31</sup> Kaishian and Hasmik, “The Science Underground,” 5.

<sup>32</sup> Gaard, “Toward a Queer Ecofeminism,” 22-23.

Christian and colonial origins retain the ideology of divinely inspired domination [through heterosexism, racism, classism and the oppression of the Natural world] nonetheless.”<sup>33</sup> These dualisms construct binaries as oppositional instead of complementary, exclusionary rather than inclusionary, with one side of the binary being valued as superior and the other side as devalued and inferior. Gaard extends upon Val Plumwood’s “master model,”<sup>34</sup> in which Plumwood argues that the master model is at the heart of Western culture, and is “the identity...that has initiated,

Culture	Nature
Human	Nature(nonhuman)
Male	Female
Master	Slave
Universal	Particular
Civilized	Primitive
Public	Private
Reason ( <i>rationality</i> )	Emotion ( <i>intuition</i> )
Self	Other
<b>White</b>	<b>Non-White</b>
<b>Financially empowered</b>	<b>Impoverished</b>
<b>Heterosexual</b>	<b>Queer</b>
<b>Reason</b>	<b>The Erotic</b>
<i>Man (Masculine)</i>	<i>Woman (Feminine)</i>
<i>Citizen/“Native”</i>	<i>Immigrant/Invasive</i>
<i>Cisgender</i>	<i>Transgender</i>
<i>Competition</i>	<i>Cooperation</i>
<i>Individual</i>	<i>Communal</i>
<i>Control</i>	<i>Consent</i>
<i>Domination</i>	<i>Reciprocity</i>
<i>Sameness</i>	<i>Diversity</i>
<i>Normal</i>	<i>Deviance</i>
<i>Healthy</i>	<i>Diseased/Disabled</i>

Table 1. The Master Model  
The Master Model of dominant Western culture value-hierarchal normative dualisms.<sup>35</sup>

perpetuated, and benefitted from Western culture’s alienation from and domination of nature.”<sup>36</sup> Queer ecology utilizes this master model to explore how Western culture values the masculine and “civilized” human society as superior to the devalued feminine and Nature. In Figure 1, I have listed some key elements of the master model, with Plumwood’s dualized pairs in plain text, Gaard’s additions in bold, and my own in italicized, however this list is in no way complete.

This master model places valued elements on the left and devalued elements in

<sup>33</sup> Gaard, “Toward a Queer Ecofeminism,” 122.

<sup>34</sup> Plumwood, *Feminism and the Mastery of Nature*, 43.

<sup>35</sup> Gaard, “Toward a Queer Ecofeminism,” 23.

<sup>36</sup> Gaard. “Toward a Queer Ecofeminism,” 23.

opposition on the right side, creating a “dualized structure of otherness and negation.”<sup>37</sup> This model is meant to demonstrate how claims of certain identities or qualities being superior rely on differences between the self and the other, along with upholding this claim to superiority (“Master”) through the subordination of the other (“Slave”). Additionally with this model, the conceptual linkages between inferiority are made more visible, for example, the vertical linking of Nature and women, impoverishment with non-White, or queer with the erotic. One subversion that is worth noting here, however, is the linkage between queer and Nature. Although both the queer and Nature are devalued, queer sexuality is often framed as unnatural, rather than as something closer to Nature. This is something I will discuss later on, as linkages of queerness and transness to deviance, disease, and as something unnatural (or even a crime against nature) is a primary focus in queer ecology. Where do queer and trans bodies and identities fit into heterocentric ecological narratives then, if they are framed as unnatural or even against Nature itself? Queer ecology attempts to present a different ecological narrative that recognizes the reality of sexual and gender variations among humans, plants, and non-human animals, as well as how “ideas and practices of nature, including both bodies and landscapes, are located in particular productions of sexuality, and sex is, both historically and in the present, located in particular formations of nature.”<sup>38</sup>

### Imagination

Mortimer-Sandilands argues that it is queer ecologies’ “task to interrogate that relationship [between sex and nature] in order to arrive at a more nuanced and effective sexual and environmental understanding,”<sup>39</sup> going beyond “simply... add[ing] ‘heterosexism’ to the long

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<sup>37</sup> Plumwood, *Feminism and the Mastery of Nature*, 42.

<sup>38</sup> Mortimer-Sandilands and Erickson, “Introduction,” 4.

<sup>39</sup> Mortimer-Sandilands and Erickson, “Introduction,” 5.

list of dominations that shape our relations to nature, to pretend that we can just ‘add queers and stir.’”<sup>40</sup> Ultimately, queer ecology is a socially transformative framework that seeks to disrupt heteronormative constructions of sexuality and gender that are entangled with popular understandings of Nature/environment and extend the collective imaginings of both queerness and naturalness. Imagination is a powerful thing from individual to a whole country, because as adrienne maree brown explains, “imagination has people thinking they can go from being poor to a millionaire as part of a shared American dream. Imagination turns brown bombers into terrorists and white bombers into mentally ill victims. Imagination gives us borders, gives us superiority, gives us race as an indicator of capability.”<sup>41</sup> Collective imagination, the imagination of “truth” and future possibilities formed within a community or nation, are often formed by the stories we are told growing up and the stories we continue to tell each other.

From my experience growing up in the U.S., there tends to be a pattern of making our stories around national identity one of universality. Historical stories and contemporary media are oversaturated with representations of “normality” through individualistic, White, able-bodied, heteronormative narratives. This is not to say that there is anything wrong with these types of stories and representations. However presenting one type of narrative as the “true” experience of everyone not only stifles our collective ability to empathize and understand others from different life experiences, but also limits our ability to imagine and enact other ways of being. Universal narratives sanitize the nuance of diverse stories and erases the reality of living within an oppressive social structure experienced by different individuals. Gendered violence arises when we can only imagine our relationships in terms of patriarchy and the masculine domination over the feminine. Transphobia arises when we can only imagine a world with only two genders that

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<sup>40</sup> Sandilands, “Lavender's Green? Some Thoughts on Queer(y)ing Environmental Politics,” 21.

<sup>41</sup> brown, *Emergent Strategy: Shaping Change, Changing Worlds*, 18.

correlate to genitalia and anyone outside that binary as unnatural. Queerphobia arises when we can only imagine a world where only heterosexual love is valid. What if we could imagine something different, a world where categorization of identity didn't result in or rely on harm of the "other"? What if we could imagine our society as one with unending variation, where difference was seen as a strength rather than as divisive? What kind of world could we create if we could shift the imagination of Nature as an infinite resource meant only to be used by humans, to imagining humans as a part of and having no separation from Nature as well as something we have a familial relationship with?<sup>42</sup>

Rather than simply being an academic theory, queer ecology has a political agenda calling "for a re-imagining of what is 'natural,' for greater inclusivity of marginalized groups as subjects rather than objects, and ecological concern for variability...[and] for mobilizing on behalf of important issues, such as climate change, that threaten life in all its expressions."<sup>43</sup> A simplified way that I have come to understand queer ecology is that queer ecology has three crucial elements: 1) it works to *disrupt* heteronormative dualisms of sex and Nature (e.g. reductive, socially constructed binaries, such as man/woman, heterosexual/homosexual, natural/unnatural, etc.) as well as Western-centric universalized knowledge and narratives, 2) seeks to *extend* the scientific and cultural imagination of history and for possibilities of more resilient cooperation, interrelatedness, and interdependence between humans and Nature in the present and future, and 3) provides frameworks for *transformative* coalition building toward justice-centered futurity in which queerness and life in all its varied forms are valued. Queer ecology thus disrupts

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<sup>42</sup> This is the notion of "kincentricity" which will be discussed later on.

<sup>43</sup> Schnabel, "The Question of Subjectivity in Three Emerging Feminist Science Studies Frameworks: Feminist Postcolonial Science Studies, New Feminist Materialisms, and Queer Ecologies," 14.

heteronormativity in ecological narratives, extends possibilities of our pasts, presents, and futures, and seeks to transform our relationships and interdependence.

### Why Queer Ecology?

As a queer transgender person, I have survived gendered violence, felt exclusion and alienation in environmental organizations and learning spaces, and witnessed the active erasure and discrimination against LGBTQ+ identities and narratives. As an academic, my research has been done in the pursuit to fulfill my desire to shape a less harmful world—one where those with oppressed identities fighting for the basic rights and protections aren't seen as having a dangerous, radical political agenda. In my search for an intersectional and transformative framework, I realized that “what we imagine queer ecology to be emerges in tandem with what we hope it contributes to the world.”<sup>44</sup> Guiding my research on queer ecology I focused on two questions: 1) how can queer theory be used to deconstruct and disrupt dominant gendered perspectives and understanding of the environment/Nature in order to create a more nuanced understanding of gender, sexuality, and Nature; and 2) how can queer ecology be used to enhance diversity, equity, inclusion, and justice (DEIJ) in environmental perspectives and practices as well as aid in the creation of a more just and equitable future in the collective imagination?

During this period in history I have observed and experienced LGBTQ+ people having to constantly justify their existence and defend against supposedly “scientifically” supported claims of LGBTQ+ people being a trend or unnatural, and therefore underserving of having rights or to be treated with dignity. In this regard, queer ecology can intervene by naming and addressing institutional heteronormative scientific methods and discourses. Queer ecology recognizes how

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<sup>44</sup> Azzarello, et al., “Queer Ecology: A Roundtable Discussion,” 84.

some Western scientists' perceptions are influenced and shaped by cultural values. In Kaishian and Hasmik's article calling for blending of queer theory in mycology, they explain that

The history of modern science has been disproportionately written by white, often Christian, men from Western Europe, excluding other voices. Consequently, dominant cultural lenses—heteronormativity, racism, sexism, ableism, and binaries inherent to them—have influenced scientific understandings.<sup>45</sup>

Even when scientists don't consider themselves to have biases and believe they are conducting research through pure objectivity, without the recognition of how heteronormative and hegemonic perceptions of "truth" and "reality" have informed the institution of science, scientists will continue to limit potential scientific findings, or worse, serve to justify the harms committed against devalued bodies and identities. In a podcast interview, Dr. Patricia Kaishian calls on scientists to engage with their research and the discourses they participate in with a greater awareness of the institutions they are a part of, and how the knowledge they impart impacts politics.<sup>46</sup> Some scientists are heeding this call, writing more articles for the general public along with using social media platforms to explain how sex is a biological category, whereas gender is a social construction, in attempts to dispel essentialist claims against queer and trans human identities.<sup>47</sup> More and more scientists are writing about queer and transgender animals, the multitude of mating systems among plants and fungi, as well as the variety of animal "family" structures and cooperative relationships.<sup>48</sup> When scientific literature is able to

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<sup>45</sup> Kaishian and Hasmik, "The Science Underground," 2.

<sup>46</sup> Springer, "Queendom Fungi: Mycology as a Queer Discipline."

<sup>47</sup> Sun, "Stop Using Phony Science to Justify Transphobia." See also Editors, "The New Science of Sex and Gender: Why the New Science of Sex and Gender Matters for Everyone."

<sup>48</sup> Imbler, "Female Hummingbirds Avoid Harassment By Looking Like Males." See also Prager, "Four Flowering Plants That Have Been Decidedly Queered: The Queer History of the Pansy and Other Flowers," and Schrefer, "Queer Animals Are Everywhere. Science is Finally Catching On."

explore the “emergent possibilities” of the Natural world’s queerness and interdependencies, our systems of knowledge become more open to different ways of theorizing Nature.<sup>49</sup>

While this type of information works to naturalize/normalize human queer and trans identities, understanding plant and non-human animal relationships free from heteronormative understandings could have massive implications for conservation practices. When conservationist practices are filtered through heteronormative biases, the whole picture of how non-human species interact with each other becomes incomplete. When animals’ behaviors don’t fit compulsory-heterosexual or anthropocentric ideas about what we want to see about ourselves reflected in nature, information gets ignored or misinterpreted in order to serve a heterosexist narrative. This has the potential to lead to practices which hinder our ability to heal the damages human activity created in the first place. At its worse, Western conservation has at times adopted dangerous rhetoric from Deep Ecology or Ecofascist frameworks in which humans are framed as a disease upon the planet or placing the blame of climate crisis upon overpopulation—ignoring the consequences of overconsumption by the wealthiest nations.<sup>50</sup> More often than not, these discourses come from those whose identities hold the most biopolitical power, pointing the finger of blame upon non-White, Global South nations, calling for control over the bodies of those able to give birth. In order to resist heteronormative science which places limitations on Western conservation, more arguments are being made for coalition building with Indigenous communities. Traditional Ecological Knowledge (Indigenous Science) has a significantly longer history and deeper understanding of ecology than Western science, has been formed outside of the influence of capitalism, embraces the responsibility of care for human and non-human communities, and has the ability to envision and incorporate humans—regardless of sexuality or

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<sup>49</sup> Gibson and Gagliano, “The Feminist Plant,” 138.

<sup>50</sup> Dyett and Thomas, “Overpopulation Discourse: Patriarchy, Racism, and the Specter of Ecofascism,” 217.

gender expression—into ecological narratives. If Western conservation is truly dedicated to protecting our world from further loss of biodiversity, then now is the time to embrace the diversity of knowledge production and intellect of resilient, adaptable communities and cultures.

### Queer Futurity and Expanding Possibilities

As more people begin to express a desire for change and recognize the need to take responsibility for the restructuring of our broken systems, queer ecologies seek to offer hope and provide permission to dream of utopia. Not a utopia of hegemonic, assimilated, pre-industrial communities, but one that is diverse, multicultural, socially just and ecologically sustainable. Although utopianism is usually academically dismissed or even shouted down as idealistic, naïve, or impractical, how can we start to work towards a future we would want to live in if we can't even imagine it in the first place? From my own personal experiences in transformative justice communities, charges of utopian thinking as naivety are actually quite unfounded. Many people exhaustively working to effectively transform their communities are far from naïve, fully understand that the causes they are working on may never be achieved in their lifetimes—or ever—however, even with this understanding they continue to fight with the hope that maybe one day a future generation will be liberated because of the work that has been done in the past. In *Cruising Utopia*, José Esteban Muñoz explores queer utopianism and queer futurity through the understanding of queerness as the future's domain, writing that

The here and now is a prison house ... we must dream and enact new and better pleasures, other ways of being in the world, and ultimately new worlds ... Queerness is that thing that lets us feel that this world is not enough, that indeed something is missing...Queerness is essentially about the rejection of a here and now and an insistence on potentiality or concrete possibility for another world.<sup>51</sup>

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<sup>51</sup> Muñoz, *Cruising Utopia: The Then and There of Queer Futurity*, 1.

When living within systems that ultimately reject queerness and transness, being able to imagine other worlds and create alternative systems has become not only a crucial survival tactic, but also a strength of LGBTQ+ communities working towards collective liberation. Without queer utopianism or even simply the ability to imagine different possibilities for a future world, many future imaginings fall into the trap of nihilism. Too often are dark apocalyptic narratives produced, centering an individualistic story of one person's (usually a White man) tooth-and-claw struggle to survive in a world where modernity has collapsed, Nature is hostile, and every other human a potential enemy. These narratives are at the heart of Western anxieties—the fear of Nature destroying and conquering the civilized, the threat of the stranger/other, and the concern over the survivance of White heteronormative masculinity. However, through the use of queer futurity, narratives responding to climate crisis could convey stories of collective survival, building understanding of how humans, as social animals, can rebuild our relations to each other through a sense of interdependence, cooperation, and care. Maybe this sounds too optimistic to envision right here, right now, however LGBTQ+ communities holding onto potential futures are already working to create these alternative care systems within their own communities through mutual aid, bringing those utopian dreams to life.

Queer ecology not only has much to offer up towards the validation of LGBTQ+ identities, but also demonstrates that the lived experiences of queer and trans people offers a different way of looking at the world for everyone— and that this different perspective is actually a gift. Cleo Wölfe Hazard's *Underflows: Queer Trans Ecologies and River Justice*, examines how queer/trans theory presents significant opportunities in ecology, as “queer and trans people's experiences of grieving premature death... can stoke collective action on extinction and

ecological repair.”<sup>52</sup> Moreover, Wölfe Hazard points out how “trans people’s experiences of transfiguring our bodies and social relations model a new way for cis straight people to embrace dynamism and unpredictability,” especially in an effort to disrupt normative dystopian narratives which “too often breed inaction and dissociation among white settlers, who have long avoided responsibility for the dystopian presents our policies have created in Native, Black, and immigrant communities.” Not dissimilar to other communities that experience identity-based oppression, LGBTQ+ people have had to develop their own systems of care, often creating connections among “found family” after being rejected by our own families.

We work to unlearn our own internalized oppressions and to break the cycle toxic behaviors, uplift and celebrate each other, build networks for mutual aid<sup>53</sup>, mourn the losses of our rights and our lives together, and create spaces for our community to be safe, heal, and thrive in. These queer kinships and solidarity networks offer a “model for caring for other species and damaged places”<sup>54</sup> that dominant structures of heteronormativity, nuclear family, individualism, and capitalistic systems of care currently cannot conceive. Queer kinship offers a reimaging of our ways of relating to one another, especially those whom we share no blood ties to. Within queer ecologies, queer kinship is expanded upon through Indigenous world views of “kincentricity,” or the “view of humans and nature as part of an extended ecological family that shares ancestry and origins.”<sup>55</sup> Through the lens of kincentricity, “a healthy environment is achievable only when humans regard life around them as kin” as the idea of having familial responsibilities to plants, non-human animals, the land, air, and water, allows humans to see ourselves as “a legitimate part

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<sup>52</sup> Wölfe Hazard, *Underflows*, 5.

<sup>53</sup> Mutual aid is the support or aid provided by collective effort within a community, especially in an emergency or to help those in need.

<sup>54</sup> Wölfe Hazard, *Underflows*, 17.

<sup>55</sup> Senos, et al. “Traditional Ecological Knowledge and Restoration Practice,” 397.

of nature, that we have responsibilities within nature, and that in exercising those responsibilities we are as ‘ecological’ or ‘natural’ as any other species.”<sup>56</sup> So in taking kincentricity into account, queering kinship not only has the “power to denaturalize heterosexist norms...[and] shift away from an idea of kinship rooted in procreation and lineal descent,”<sup>57</sup> but also reshape our relational responsibilities toward the natural world. Wölfe Hazard illustrates how to conceptualize queer relational methodologies within the practices of environmental science by asking:

If salmon could be kin—if ecologists could, through caring for and closely observing and working to improve the life chances for a given organism, come to feel a kind of queer kinship with the fish—what would that mean, and how would it happen? ... Perhaps if queer ecologists theorize more-than-human kinship, we can replace such mechanistic models of ecosystem function, rooted in control and extraction, with queerly anarchistic models of how to live together.<sup>58</sup>

Queer ecologies offers us an escape from the logics of human exceptionalism in which humans are separate from and the controllers of Nature and opens the potentiality of envisioning an ecological niche for humanity. Western constructions of categories has far too long upheld a dichotomy of “us” vs. “them,” and it is time to unlearn and rethink our relations not just to other humans, but the more-than-human lives upon which we depend for our own health and survival. Queer ecology invites us to reconsider and embrace the messiness of a queered Nature, to see a complex, interconnected, interdependent wholeness of the world around us—and to see ourselves as a part of that wholeness. During this time of great isolation from the ongoing

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<sup>56</sup> Senos, et al., “Traditional Ecological Knowledge and Restoration Practice,” 397.

<sup>57</sup> Wölfe Hazard, *Underflows*, 155-156.

<sup>58</sup> Wölfe Hazard, *Underflows*, 155-156.

pandemic, rethinking and re-feeling our relations and responsibilities may be a beginning place for reconnecting and reimagining what we want “normal” to look and feel like.

## Disruption (Queering Nature)

Biological Exuberance, is, above all, an affirmation of life's vitality and infinite possibilities: a worldview that is at once primordial and futuristic, in which gender is kaleidoscopic, sexualities are multiple, and the categories of male and female are fluid and transmutable. A world, in short, exactly like the one we inhabit.

-Bruce Bagemihl, *Biological Exuberance: Animal Homosexuality and Natural Diversity*<sup>59</sup>

### A Natural Nature

What comes to mind when you think about what is “natural?” Even when the dominant culture devalues Nature, or at least only values certain types of ecosystems and environments over other kinds (e.g. “wilderness”), labeling something as “natural” tends to be interpreted as something positive. We seek out places with natural beauty, we pay more for food and home care products labeled natural, and we place value judgments upon people for their natural talents. But how do we decide what is “natural” for humans? The default logic seems to be that if something occurs in Nature/non-human animals, then “naturalness” can be claimed. By this logic, in determining what is “natural,” or even “unnatural” for humans, we arrive at the equation of *occurs in animals = natural = acceptable in humans*.<sup>60</sup> However, this line of thinking is flawed as it functions more to serve moral judgements rather than scientific reality. We tend to ignore behaviors in animals we don't want reflected in human behaviors and potentially misinterpret behaviors when we anthropomorphize animals. There are plenty of behaviors that humans participate in, and non-human animals do not, such as wearing clothing or reading a book, yet these types of behaviors typically aren't deemed “unnatural” for humans. On the flipside, there are behaviors that animals engage in, such as infanticide, coercive sex (rape), incest, and

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<sup>59</sup> Bagemihl, *Biological Exuberance*, 262.

<sup>60</sup> Bagemihl, *Biological Exuberance*, 76.

cannibalism, which are not often seen as desirable or “natural” for most humans. It would seem then that “when animals do something that we like, we call it natural. When they do something that we don't like, we call it animalistic.”<sup>61</sup> In *Biological Exuberance*, Bruce Bagemihl adds to this argument by pointing out how even when a characteristic of a human population is biologically determined (“born this way”), such as non-White racial groups for example, having a “biological basis for their difference...has done little to eliminate racial prejudice,” whereas religious groups “can claim no such biological prerogative, and yet this does not invalidate the “entitlement of such groups to freedom from discrimination.”<sup>62</sup> In other words, just because a body was born a certain way does not guarantee that individual will have equal rights.

While there still isn't a consensus if LGBTQ+ identities are biologically determined (“nature”) or culturally created (“nurture”)—or maybe a blend of both, many of the arguments justifying discrimination against LGBTQ+ individuals and communities deploy the claim of these identities being “unnatural.” Although calling those with LGBTQ+ identities unnatural is nothing new, I have observed that in previous decades anti-LGBTQ+ sentiments seemed to be expressed largely through religious arguments, whereas recently, I have observed anti-LGBTQ+ sentiments claiming to be backed by science.<sup>63</sup> A prime example of conservatives attempting to weaponize science in pursuit of legal LGBTQ+ discrimination was in February 2021, when Representative Marjorie Taylor Greene posted a video on the social media platform Twitter, of her hanging an anti-trans sign reading “There are TWO genders: MALE & FEMALE ‘Trust the Science!’”<sup>64</sup> in response to Representative Marie Newman displaying a transgender pride flag

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<sup>61</sup> Weinrich. “Is Homosexuality Biologically Natural?” 77.

<sup>62</sup> Bagemihl, *Biological Exuberance*, 77.

<sup>63</sup> Sun, “Stop Using Phony Science to Justify Transphobia.”

<sup>64</sup>Quotations around “Trust the Science!” were from original text on sign. If Rep. Greene is quoting a source, no citation on what “science” we should trust is given. See GLAAD, “Marjorie Taylor Greene - GLAAD Accountability Project.”

outside her office. Unfortunately this type of political display emboldens opponents of LGBTQ+ rights and protections, and as we saw in 2021, increases violent acts against queer and trans individuals. While Rep. Greene is on the extreme end of the spectrum of anti-LGBTQ+ expression, this sentiment has not arisen out of a vacuum. There are still many people that are unaware that there are non-human animals that engage in same-sex sexual activity or that there are plants and non-human animals that do not neatly fit into binary categorizations of male/masculine and female/feminine. Even though there is an ever-growing body of research on queer non-humans and bodies expressing what humans might consider as “gender” outside of a binary, academic and scientific institutions continue to push a heterosexist master narrative for Nature. Many writers such as Stacy Alaimo, Bruce Bagemihl, Noël Sturgeon, and Joan Roughgarden have explored how in this master narrative animals are conceived as having no culture of their own<sup>65</sup> (since culture is viewed as uniquely belonging to humans and animals are thus pure “Nature”) and promotes a reprocentric understanding of non-human animal sexuality. Reprocentricism is the privileging of reproduction/procreation—it is the view that presumes that all animals are heterosexual and that all heterosexual sex is intended for the purpose of reproducing only,<sup>66</sup> and ultimately that reproduction is the goal of life.

However, as Sturgeon points out, while this reprocentric view of biology serves to normalize heterosexuality “as natural and therefore right because it is a form of sexuality that is reproductive,” there is also an underlying logic that goes beyond sex simply being about having babies, and is rather “about preserving and reproducing particular forms of family, social power, and economic principle.”<sup>67</sup> Framing reproduction as the only reason for sex ultimately denies the

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<sup>65</sup> Alaimo, “Eluding Capture: The Science, Culture, and Pleasure of ‘Queer’ Animals,” 57.

<sup>66</sup> Sturgeon, “Penguin Family Values: The Nature of Planetary Environmental Reproductive Justice,” 106.

<sup>67</sup> Sturgeon, “Penguin Family Values,” 106.

reality that people have sex for other reasons, erasing the relevance of pleasure and desire, the existence of non-penetrative (read as penis-in-vagina) forms of sex, same-sex sexual activity, people who are unable to conceive children having sex, as well as the reality that some people with the ability to bear children chose to terminate their pregnancies—regardless of the legality or access to safe and affordable abortions. Reprocentric understandings of sex seem less about scientific realities and more about preserving a conservative worldview of who is superior and how those with valued identities should present and perform. As both LGBTQ+ rights and reproductive justice are simultaneously under attack currently, Sturgeon looks at how conservatives have mobilized around the fear of the collapse of heteronormativity. Within pro-life and pro-family campaigns, there is an intense fear of allowing women to have autonomy over their bodies through their own decisions about their gender expression, sexuality, and pregnancies. Women’s autonomy undermines politically conservative Christian views of a divinely-created family structure—which is understood as “natural,” with “a father who is the authority; a mother who is the helpmate and chief childcare provider; and several children living in a framework that is Christian, religious, patriarchal, heterosexual, nationalistic, U.S., and nuclear—that is, right- wing.”<sup>68</sup> This narrow imagining of what a family can and should look like limits personal freedoms, but when “this particular family form...[is] located within a [White] suburban, consumer economy dependent on extremes of global inequity,” we limit our imagination for a more just world. We prevent ourselves from being able to imagine and accept other forms of family structures or alternative economic systems that do not rely on the subjugation and exploitation of Global South nations, or for human societies to thrive without causing so much damage to our environments.

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<sup>68</sup> Sturgeon, ““Penguin Family Values,” 102.

Although Western science is hailed as superior for its objectivity, and sometimes viewed as a different “belief” system to religion, writers such as Rachel Stein and Dr. Patricia Kaishian, have argued that the “culture of institutional Science”<sup>69</sup> has a history of being shaped by Christianity. Kaishian examines how early influential scientists “such as Descartes, Euler, and Newton, often were loyal to the Church in their supposedly objective pursuits of knowledge,” and introduces the concept of *agro-heterosexuality*, in which the Christian heterosexual family structure was connected with scientific agriculture. With agriculture serving as a metaphor, “Christian thinkers compared human sexual actions to planting a field and only those activities that corresponded to ‘seeding,’ or procreation, were accepted as natural.”<sup>70</sup> Here, any form of sex that wasn’t intended for or resulted in procreation—both same-sex and opposite-sex—was seen as unproductive and thus unnatural, or even against nature. Kaishian, alongside many other feminist scholars, call for challenging the idea of Western science as the arbiters of truth and to question who these ideas are really meant to serve.

Two primary ways in which Western science’s objectivity can be challenged is in the ways scientists anthropomorphize animal behaviors to fit a complicit master narrative, as well as in the ways behaviors outside this narrative are erased. In Bagemihl’s research, he finds that in scientific discourse around queer animals often mirrors that of discussions on human sexualities. Looking back to the late 1800s, Bagemihl describes how a “litany of derogatory terms...such as strange, bizarre, perverse, aberrant, deviant, abnormal, anomalous, and unnatural” have and continue to this day to be “used routinely in ‘objective’ scientific descriptions.”<sup>71</sup> Alongside homophobic sentiments, derogatory language toward (assumed) heterosexual animals is also

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<sup>69</sup> Kaishian and Hasmik, “The Science Underground: Mycology as a Queer Discipline,” 6.

<sup>70</sup> Stein, “The Place, Promised, That Has Not Yet Been,” 286.

<sup>71</sup> Bagemihl, *Biological Exuberance*, 89.

used when behaviors don't uphold the master narrative of monogamy and the nuclear family as the "natural" family structure. Female birds who lay eggs in other birds' nests are called "parasites," male animals that resemble females or females that look similar to males of the same species are labeled as "mimics" or even "sexual parasites," and female animals that mate with multiple males are referred to as "promiscuous." These types of outright biases not only destroy the credibility of supposedly objective scientific findings, but also promotes the notion that most "fit" animals survive through means of manipulation, deceit, and competition (violence). In one example that Roughgarden explores, it was discovered that in Wattled jacana (*Jacana jacana*) populations females reversed "traditional" gender roles by being larger, spending "their days jousting with one another," and controlling territories with harems of smaller males who tended the eggs. When the male researchers discovered that the males cared for the eggs even though the "eggs were fathered by males outside the harem," the researchers were outraged, "asserting that male jacanas were being 'cuckolded.'" <sup>72</sup> When these sorts of scientific narratives are transferred to humans, other forms of family structures are seen as invalid, women who engage in non-monogamous sexual relationships are labeled as lacking morals, trans people—especially transwomen—are seen trying to trick everyone for some malicious motive or are attacked/murdered and blamed for their attackers' actions under the legal defense of "trans panic," <sup>73</sup> and cooperation is devalued in comparison to competition or is seen as rare among non-human animals.

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<sup>72</sup> Roughgarden, *Evolution's Rainbow: Diversity, Gender, and Sexuality in Nature and People*, 47.

<sup>73</sup> Holden, "The Gay/Trans Panic Defense: What It Is, and How to End It." The gay/trans panic legal defense legitimizes and excuses violent and lethal behavior against members of the LGBTQ+ community. The defense is defined by the LGBT Bar as "a legal strategy which asks a jury to find that a victim's sexual orientation or gender identity is to blame for the defendant's violent reaction, including murder."

When same-sex sexual activity in non-human animals is acknowledged by scientists, alongside pejorative descriptions of queer sexual behaviors, same-sex sexual activity is often framed as being an “error”—that one animal is too unintelligent to tell the difference between a male and female or was tricked through “mimicry.” In other accounts, narratives are created to essentially “explain the gay away” by framing same-sex sexual activity as functioning to “stimulate” or “contribute to” heterosexual reproduction.<sup>74</sup> More often than not, however, scientists either fail to report on same-sex sexual activity because of biases or fear that they will either be accused of being queer, or their work simply will not be published. As Bagemihl points out, in some cases scientific reports that originally included discussion on queer animal behaviors are republished with those discussions removed, or “homosexuality is discussed but is buried in unpublished dissertations, obscure technical reports, foreign language journals, or articles whose titles give no clues as to their contents.”<sup>75</sup> When research on queer animal behaviors is incomplete or inaccessible, scientists who are working in conservation or even zoology go uninformed about the reality of queer animal sexualities, along with the important roles queer animals may play in assuring the survival of that population. When scientists believe that same-sex sexual activity among non-human animals is either unnatural, unimportant, rare, or doesn’t happen at all, not only are understandings of these species incomplete, but misinformation then gets disseminated to the public who absorb these animal narratives and then transfer these ideas into human narratives.

Non-human animals have always been important in human stories. We tell stories about animals as allegory for our own struggles, often times in the form of stories for children to learn important lessons about social norms. Sometimes we use stories about non-human animals to

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<sup>74</sup> Bagemihl, *Biological Exuberance*, 89.

<sup>75</sup> Bagemihl, *Biological Exuberance*, 104.

mobilize people into action around environmental issues, especially around the extinction of charismatic species impacted by climate change, or we use non-human animals as symbols, such as the Bald Eagle (*Haliaeetus leucocephalus*) as an emblem for American freedom and democracy. However, other times we tell stories about non-human animals as mirrors for humans—anthropomorphizing animal behavior as direct reflections to human behaviors, and thus creating the logic of *exists in animals* = “natural” = *acceptable in humans*.

Anthropomorphizing animals is not innately “bad” or necessarily problematic, after all, much Traditional Ecological Knowledge (TEK) is taught through the tradition of oral story telling with animal ancestors being front and center. However, problems arise when stories created from scientific observations are imbued with biases and moral judgements that don’t reflect the diverse realities of animal cultures, or have a hidden agenda of promoting social injustices. What many authors in the field of queer ecologies suggest is not to try to directly compare humans to non-human animals and vice versa, but rather to be open to drawing parallels “between how people behave and how animals behave, as though animals offered biological cultures resembling ours.”<sup>76</sup> In other words, we can learn how “the vast majority of other creatures have an approach to sexual and gender variance that is decidedly humane, rather than human--and they might even offer us models of how societies could integrate differently oriented or ambiguously gendered individuals into the fabric of social life.”<sup>77</sup> One way to illustrate this framework would be to look at some of our contemporary primate ancestors—Chimpanzees (*Pan troglodytes*) and Bonobos (*Pan paniscus*). In both of these species, male and female same-sex sexual activity, pair-bonding (a close relationship formed through courtship or sexual activity), and affectionate behaviors have been observed in the wild and in captivity.

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<sup>76</sup> Roughgarden, *Evolution's Rainbow*, 4.

<sup>77</sup> Bagemihl, *Biological Exuberance*, 59.

Primatologist Paul L. Vasey suggests “that homosexual behavior in primates is characterized by a noticeable lack of hostility and segregation from the animals around them.”<sup>78</sup> The lack of aggression towards non-human animals that exhibit homosexual behavior shows that these close relatives of ours live in a culture that doesn’t “other” or alienate members who are queer, or in other words, non-human animals generally don’t engage in homophobic behaviors. However, an interesting and important difference between Chimpanzee and Bonobo culture is how males interact with females. Male Chimpanzees are often aggressive towards females, using violence and intimidation to sexually coerce females into matings, whereas with Bonobos, sometimes referred to as peaceful primates, male aggression and sexual coercion towards females is rare. Between these two closely related species we can see a contrast in how Chimpanzees socially organize around male domination, whereas Bonobos have a more “female-centered society.”<sup>79</sup> In this example, Roughgarden explains that “no explanation exists for why some societies develop coercive power relations between the sexes, whereas others form equitable power relations,” however, we need to understand that “how power relates to sex is not a biological universal. We may choose to live like some species and not others.”<sup>80</sup> How we treat others around us and what behaviors we are willing to accept as a “normal” part of our culture is ultimately our choice. We can chose to live in a world where we devalue certain identities and bodies which ultimately justifies gendered and racial violence, or we can chose to live in a world where all life has value, and that value is reflected in our systems and interactions with one another.

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<sup>78</sup> Bagemihl, *Biological Exuberance*, 54.

<sup>79</sup> Roughgarden, *Evolution’s Rainbow*, 150.

<sup>80</sup> Roughgarden, *Evolution’s Rainbow*, 53.

## Sex Versus Gender

In the wake of supposedly scientifically justified claims that there are “only two genders: male and female” or that queer sexualities are “unnatural,” one might wonder what science actually has to say about sex and gender. Fortunately, these claims are more of a reflection of heterosexist bias than actual science, and many scientists have begun to be more outspoken around the issue of sex being a biological categorization and gender being one of social construction. American evolutionary biologist and ecologist Joan Roughgarden’s work *Evolution’s Rainbow: Diversity, Gender, and Sexuality in Nature and People*, takes explaining this difference in categorization to task. Roughgarden explains that there needs to be an understanding between biological (female/male) and social categories (woman/man), and that the criteria for social categories are open to change. To clarify how the biological categorization of male and female are understood by biologists, Roughgarden explains that

to a biologist, ‘male’ means making small gametes, and ‘female’ means making large gametes. Period! By definition, the smaller of the two gametes is called a sperm, and the larger an egg. Beyond gamete size, biologists don’t recognize any other universal difference between male and female.<sup>81</sup>

Even though there are some indirect markers of gamete size existing in some species, claims that rely on a universal binary outside of gamete size are often easy to pick a part. For instance, the claim that all males have a Y chromosome and therefore a Y chromosome makes a body male is inaccurate, as not all animal species have a Y-chromosome at all (e.g. amphibians, reptiles, and birds), and not all human males are born with a Y-chromosome—in fact, even some female humans are born with a Y-chromosome! It would seem that the only concrete universal binary

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<sup>81</sup> Roughgarden, *Evolution’s Rainbow*, 23.

that we can currently say truly exists is simply that of large (egg) and small (sperm) gametes—from there the diversity begins to unfold.

Although a true binary between gamete size exists and a body is categorized and “sexed” in relation to which gametes that body produces, gender is typically considered belonging solely to humans. However with the increasing amount of research being conducted on animals that exhibit sexual polymorphism (having more than one or two types of males or females among their populations), the term “gender” would seem to be applicable in non-human animal studies. In defining gender, Roughgarden explains that “gender is appearance plus action, how an organism uses morphology, including color and shape, plus behavior to carry out a sexual role.”<sup>82</sup> Note how there isn’t any language connecting to sex, procreation, or reproductive organs to gender. This way of defining gender allows for the great variation to be recognized and validated without having to deny the universal biological binary between male and female.

### Sexual Selection Theory Undone

While many anti-LGBTQ+ arguments are rooted in bias and a lack of scientific education, much of this bias and misinformation stems from the continued teaching and validation of the sexual selection theory. Although most queer ecologies scholars support Charles Darwin’s theory of evolution through common descent, it is Darwin’s sexual selection theory that many authors argue needs to be reexamined, redefined, or even thrown out altogether.<sup>83</sup> Darwin’s sexual selection theory is one of the first attempts to apply a universal theory of gender and explain through evolutionary biology why males and females should obey a universal template. Basing his claims on his empirical studies, Darwin wrote on how “males of

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<sup>82</sup> Roughgarden, *Evolution’s Rainbow*, 27.

<sup>83</sup> Roughgarden. *Evolution’s Rainbow*, 164.

almost all animals have stronger passions than females,” and that “the female... with the rarest of exceptions is less eager than the male... she is coy.”<sup>84</sup> In other words, males are supposed to be eager for sex, whereas females are more reserved or timid. Darwin also proposes in this theory that when females are open to sex, they choose the most “vigorous and well-armed...the strongest and most vigorous males, or those provided with the best weapons...” which “have led to the improvement of the...species.”<sup>85</sup> In observing peacocks, Darwin also argues that female animals have beauty standards in their mate selection as “many female progenitors of the peacock must...by the continued preference of the most beautiful males, [have] rendered the peacock the most splendid of living birds.”<sup>86</sup> Here, Darwin is arguing that males are universally the way they are because they are ultimately fulfilling what females universally want in a mate—the strongest and the most attractive males—which in turn creates offspring that moves the species towards a state of “perfectibility.”

Attempting to explain the differences between human men and women, Darwin applies sexual selection theory to argue that besides reproductive differences, there are also biological differences in mental capabilities, writing that

woman seems to differ from man in mental disposition, chiefly in her greater tenderness and less selfishness ... Man is the rival of other men; he delights in competition and this leads to ambition which passes too easily into selfishness ... the chief distinction in the intellectual powers of the two sexes is shewn by man’s attaining to a higher eminence, in whatever he takes up, than can woman—whether requiring deep thought, reason, or imagination or merely the use of the senses and hands.<sup>87</sup>

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<sup>84</sup> Darwin, *The Descent of Man: and Selection in Relation to Sex*, 218-222.

<sup>85</sup> Darwin, *The Descent of Man: and Selection in Relation to Sex*, 228-235.

<sup>86</sup> Darwin, *The Descent of Man: and Selection in Relation to Sex*, 449.

<sup>87</sup> Darwin, *Origin of Species and the Descent of Man*, 873.

Extending his theory to explain racial differences, Darwin also argued that innate differences exist as a result of sexual selection and that these differences create a hierarchal structure between the “higher” and “lower” races, with White, Western European races being more “evolved,” and non-White races existing on a spectrum of being less evolved or “primitive”.<sup>88</sup>

Although Darwin seems to have been forward-thinking for a scientist of his time in considering female choice in his theory, he unfortunately contradicts this female-centeredness in mate selection by adopting Thomas Malthus’ theory of “struggle for existence.” Malthus’s theory emphasizes a tooth-and-claw struggle for survival narrative, wherein violence and competition are at the core of evolution and ultimately all life. Even though Darwin argues that female choice in male mate selection plays a role in natural selection, he also argues for the universal template of male domination of females, proposing that

it is certain that amongst almost all animals there is a struggle between males for the possession of the female...the strongest, and ... best armed of the males ... unite with the more vigorous and better-nourished females ... [and] surely rear a larger number of offspring than the retarded females, which would be compelled to unite with the conquered and less powerful males.<sup>89</sup>

In Darwin’s work, expanding upon Carl Linnaeus’s taxonomical classification system, he views diversity as hierarchy, placing “higher” species as superior—closer to perfectness—down to the “lower”—“less evolved/primitive”—and therefore, inferior species, where he stresses “a weeding out of the weak and sickly and naturalizing male domination of females.”<sup>90</sup> The notion that a value-hierarchy exists between species, human races, and the sexes (male and female), that the females seek to breed with the “best” males (e.g. the most attractive, virile, and aggressive)

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<sup>88</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 39-42.

<sup>89</sup> Darwin, *The Descent of Man: and Selection in Relation to Sex*, 498-499.

<sup>90</sup> Roughgarden, *Evolution’s Rainbow*, 165.

and males actively seek to possess the healthiest females—continues to be taught as the universal narrative even today. This narrative has not only been used to justify racism and sexism but has also pitted abled bodies against “disabled” bodies. Those with differences from a “perfectly fit” bodily ideal are framed as diseased or even degenerate, and therefore are less than human, undeserving of accommodation, and at the most extreme end, deserving of eradication.

Even worse still, the contemporary version of sexual selection theory takes the narrative of the “naturally” aggressive and possessive male template a step further by endorsing coercive sex. Roughgarden discusses how the modern notion of sexual selection theory has not been improved upon, but rather has become an even worse reflection of “male hubris”:

According to today’s version, males are supposed to be more promiscuous than females because sperm are cheap, and hence males are continually roaming around looking for females to fertilize. Conversely, females are supposed to be choosy because their eggs are expensive, and hence they must guard their investment from being diluted with bad genes from an inferior male. A male is naturally entitled to overpower a female's reluctance lest reproduction cease, extinguishing the species.<sup>91</sup>

The theory of “expensive-egg-cheap-sperm” and the naturalization of rape was originated by Darwin’s contemporaries, rather than Darwin himself. They proposed that males unable to reproduce through “the ‘usual way’ can reproduce through rape,”<sup>92</sup> and thus spreading the “genes for rape.” Ultimately contemporary sexual selection theory argues that “all men are therefore potential rapists.”<sup>93</sup> While this theory *should* be alarming and offensive (especially to men), there isn’t enough evidence to support this theory as “so many rapes are non-reproductive that rape can't possibly be viewed as a means of sperm transfer for disadvantaged men to

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<sup>91</sup> Roughgarden, *Evolution's Rainbow*, 167-168.

<sup>92</sup> Roughgarden, *Evolution's Rainbow*, 173.

<sup>93</sup> Roughgarden, *Evolution's Rainbow*, 173.

achieve reproduction.”<sup>94</sup>In actuality, sexual coercion and violence is really about relationship dynamics, power, and domination—not reproduction or biology.

As scientific thought and practices continue to evolve along with an increase in the acknowledgement and acceptance of sexual diversity in non-human animal studies, there is enough empirical evidence today to falsify sexual selection theory as a universal template for all males and females. Although there are some males in some species that use aggression to control females (e.g. Chimpanzees) or females who may prefer the showiest males (e.g. possibly Peacocks), there is far too much evidence of other forms of gender dynamics based on cooperation, or even reverse gender stereotypes when a gender binary exists, to support sexual selection theory as a scientifically accurate universal model. With Malthus’s tooth-and-claw struggle for existence theory being discredited in the 1950’s,<sup>95</sup> it is time for scientific institutions to rework the sexual selection theory and reject universal biological narratives of gender essentialism and brutal competition for survival as scientific truth. Roughgarden argues that “the uncritical acceptance of sexual selection theory has led to underestimation of the extent of cooperation among animals, forcing scientists to construe all interactions between organisms as somehow competitive,” and is scientifically inaccurate as it is “unable to account, even by extension, for the diversity of bodies, genders, sexualities, and life histories” that exist among living organisms. Rather than being a scientifically accurate model, sexual selection theory is more readily a tool to promote social injustice and is long overdue for a reimagining or retirement. As more information becomes available about queer animal sexualities, multitudes of animal “gender” presentations, and evidence of animal friendships and cooperation, those

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<sup>94</sup> Roughgarden, *Evolution’s Rainbow*, 174.

<sup>95</sup> Roughgarden, *Evolution’s Rainbow*, 161-162.

belonging to sexual and gender minorities, such as myself, have found empowerment through these new narratives.

Even though Darwin's theory of sexual selection is inaccurate, there is value in teaching it as a way to ground scientific inquiry historically, as it illustrates the influence of cultural bias. Darwin's sexual selection theory intentionally supports the status quo of his time, which was "a society that glamorized a colonial military and assigned dutiful, sexually passive roles to proper wives," whereas today's version of sexual selection attempts to justify gendered sexual violence, reproductive injustice, and patriarchal relationship dynamics. It is no longer acceptable to continue using inaccurate theories and models that either suppress the exuberant biological realities of our world, or frame diversity and difference as deviance, unnatural, or undesirable. Especially in light of the environmental threats posed by the climate crisis, we need scientific frameworks that can be adaptable, accept and accommodate new information that has not been molded by essentialist bias, and can envision both human and non-human relationships through cooperation rather than violence and competition.

### Myths busted

As more evidence of same-sex sexual activity and pair bonds, along with the variety of "gendered" body types present in many species comes to light, sexual selection is unable to account for the diversity of sexual acts, bodies, and behaviors in non-human species. If Western science has any hope of being truly objective and reflective of biological realities, then scientific institutions must begin the work of undoing "heteronormative epistemologies" that ignore certain knowledges in favor of manufacturing particles of truth to fit the particular narrative of the master model.<sup>96</sup> As one major source of transformative research on the sexual diversity of

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<sup>96</sup> Alaimo, "Eluding Capture," 56.

animal behaviors and bodies, Bruce Bagemihl's *Biological Exuberance* documents over 450 different non-human species that have been observed engaging in queer behaviors. While

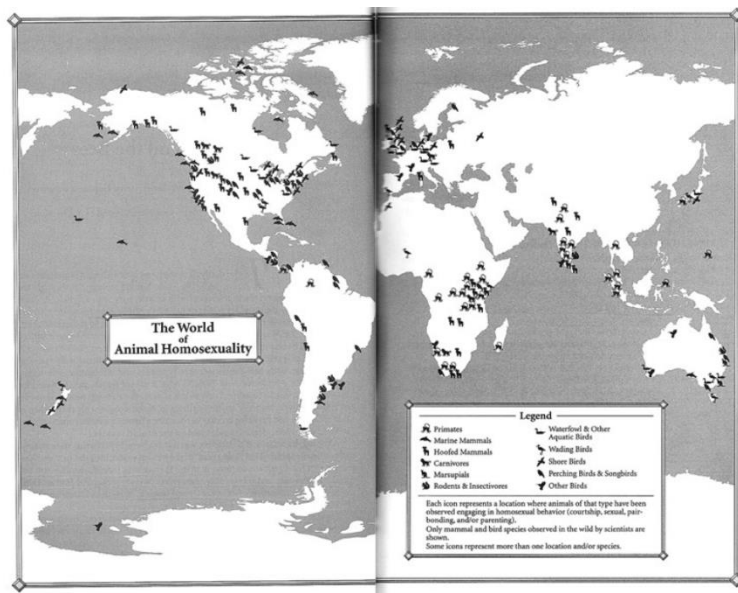


Figure 1. The World of Animal Homosexuality. A map showing a location where animals of that type have been observed engaging in homosexual behavior (courtship, sexual, pair-bonding, and/or parenting).<sup>97</sup>

limiting his work to mammals and birds, Bagemihl examines the wide range of “same- sex acts, same- sex childrearing pairs, intersex animals, multiple ‘genders,’ ‘transvestism,’ and ‘transsexuality’ [(transgender)] existing throughout the more- than- human world.”<sup>98</sup> Finding evidence in his research that

queer animals have been observed

on every continent, as we see on the map in Figure 2, Bagemihl argues that “the world is, indeed, teeming with homosexual, bisexual, and transgendered creatures of every stripe and feather.”<sup>99</sup>

Drawing from over two centuries of scientific observation, Bagemihl’s research shows that

males caress and kiss each other, showing tenderness and affection toward one another rather than just hostility and aggression. Females form long lasting pair bonds-- or maybe just meet briefly for sex, rolling in passionate braces or mounting one another. Animals of the same sex build nests and homes together, many homosexual pairs raise young without members of the opposite sex. Other animals regularly have partners of both sexes, and some even live in communal groups where sexual activity is common among all members, male and female. Many creatures are ‘transgendered,’ crossing or combining characteristics of both males and

<sup>97</sup> Bagemihl, *Biological Exuberance*, 10-11.

<sup>98</sup> Alaimo, “Eluding Capture,” 52.

<sup>99</sup> Bagemihl, *Biological Exuberance*, 9-11.

females in their appearance or behavior. Amid this incredible variety of different patterns, one thing is certain: the animal kingdom is most definitely not just heterosexual.<sup>100</sup>

As another significant source of research on the natural diversity of both human and non-human sexual and gender variation, Joan Roughgarden builds upon Bagemihl's elaborate work in *Evolution's Rainbow*. Within these two exceptional texts from Bagemihl and Roughgarden, both encompassing queer ecology, the enormous diversity of sexual behaviors, parenting and family structures, gender variation, and cooperative behaviors are explored, and thus disrupt sexual selection theory and other heteronormative scientific narratives.

In her chapter "Sex Versus Gender," Roughgarden explains the difference between the biological category of *sex* versus the social/cultural category of *gender*. In her attempts to dispel common misconceptions about human sexuality, Roughgarden challenges stereotypes around sex and gender in zoological and botanical studies. Inspired by Roughgarden and others, I challenge common heterosexist myths with non-human species as examples. To illustrate these examples, I include art work by Humon Comic, from the book *Animal Lives Compared to Humans*<sup>101</sup>. The artist depicts non-human reproduction and relationships through human bodies to educate about the diversity of non-human sex, relationship dynamics, and gender presentation through social media. With LGBTQ+ education being banned in many schools, non-academic and culturally significant spaces, such as the internet, are becoming more and more important as sources for learning.

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<sup>100</sup> Bagemihl, *Biological Exuberance*, 12.

<sup>101</sup> Comics, Humon, *Animal Lives Compared to Humans*.



Figure 2. Barnacles.

“The longest penis compared to body size belongs to the hermaphroditic barnacle. Barnacles are the small shells often found on the bottom of boats or the bellies of whales. The barnacles are stuck in place, so the long penis enables them to mate with one another without ever having to move.”<sup>102</sup>

(1) “*An organism is solely male or female for life.*

No, the most common body form among plants and perhaps half of the animal Kingdom is for an individual to be both male and female at the same time, or at different times during its life. These individuals make both small and large gametes throughout their life.”<sup>103</sup> A body that produces both small and large gametes during some period of its life is either referred to as intersexual (the correct term for human bodies) or hermaphroditic bodies that make both gametes at different times in its life span being sequential hermaphrodites. Tropical ginger from China is an example of sequential hermaphrodism, as “some individuals are male

in the morning, making pollen, while others are female in the morning, receiving pollen. Then they switch sexes in the afternoon.”<sup>104</sup> Another example of sequential hermaphrodism can be found among clown fish (*Amphiprioninae* spp.), where a male will change into a female if the female in a monogamous pair-bond is killed. While sequential hermaphroditic bodies change from producing one gamete size to the other, simultaneous hermaphrodites will produce both gamete sizes in their bodies at the same time. Hamlets (*Hypoplectrus* spp.), a small simultaneous hermaphroditic coral reef fish, require cross-fertilization from another hamlet in order to reproduce and will “change between male and female roles several times as they mate [with] one

<sup>102</sup> Comics, *Animal Lives Compared to Humans*, 7.

<sup>103</sup> Roughgarden, *Evolution's Rainbow*, 27.

<sup>104</sup> Roughgarden, *Evolution's Rainbow*, 35.

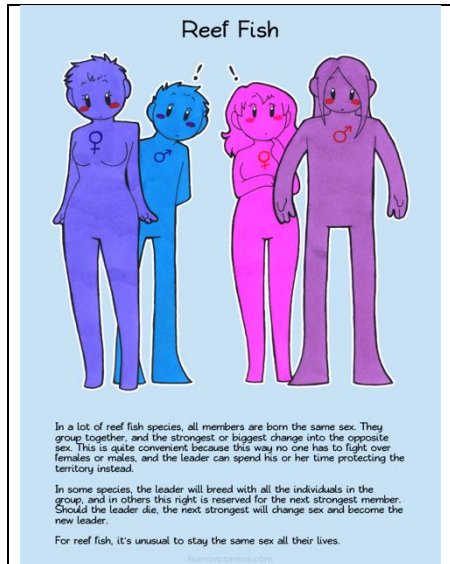


Figure 3. Reef Fish.

“In a lot of reef fish species, all members are born the same sex. They group together, and the strongest or biggest change into the opposite sex. This is quite convenient because this way no one has to fight over females or males, and the leader can spend his or her time protecting territory instead. In some species, the leader will breed with all the individuals in the group, and in others this right is reserved for the next strongest member. Should the leader die, the next strongest will change sex and become the new leader. For reef fish, its unusual to stay the same sex all their lives.”<sup>106</sup>

individual release[ing] a few eggs and the other fertilizing them with sperm,” then switching roles throughout the mating ritual.<sup>105</sup>

While hermaphrodism is common among marine invertebrates and fish, mammals can also be hermaphroditic, although the appropriate term to use here is intersexed. An intersexed body is one that “has gonads to make both eggs and sperm and/or combinations of sperm-related and egg-related plumbing parts,” that can develop in a variety of combinations.<sup>107</sup> In some wild populations of Grizzlies (*Ursus arctos horribilis*), Black Bears (*Ursus americanus*), and Polar Bears (*Ursus maritimus*), “as many as 10-20 percent of the Bears in some populations” exhibit intersexuality, having “the internal reproductive anatomy of a female combined with portions of the external genitalia

of a male, including ‘penislike’ organs...with most adult intersexual Bears...[being] mothers that successfully raise cubs.”<sup>108</sup>

<sup>105</sup> Roughgarden, *Evolution's Rainbow*, 33.

<sup>106</sup> Comics, *Animal Lives Compared to Humans*, 28.

<sup>107</sup> Roughgarden, *Evolution's Rainbow*, 36.

<sup>108</sup> Bagemihl, *Biological Exuberance*, 234.



Figure 4. Whiptail Lizard.

“In some whiptail lizard species, males don’t exist and the females reproduce asexually by laying eggs that hatch into offspring which are identical clones of their mothers. One would think this is an advantage because they don’t have to find a mate to reproduce, but oddly enough, having another female to simulate intercourse with helps with egg production. The only time there is any evolution in these species is on the rare occasion when one of the females feels like trying something different and crossbreeds with a male from another whiptail species.”<sup>109</sup>

In non-human animal species, this form of asexual reproduction is known as parthenogenesis, “where each member of a parthenogenetic species is biologically female (that is, capable of producing eggs)” and doesn’t require “sperm to fertilize these eggs, however, she simply makes an exact copy of her own genetic code.”<sup>112</sup> One interesting example of a parthenogenic species are some whiptail lizards (*Cnemidophorus* spp.), who despite being born all female and reproducing asexually, will engage in same-sex courtship behaviors and rituals that even involve cloacal region contact and mounting. These lizards illustrate two points: 1) even when non-

Additionally, there are a number of species of plants, fish, lizards, insects, and other invertebrates that are all born producing large gametes, thus making every organism in the species female, who reproduce asexually—without a male. In plant species, this form of reproduction is called apomixis, “in which seeds are formed but they contain embryos that are produced independent of fertilization” in which “the embryos are genetically identical to the parent.”<sup>110</sup> In Kentucky bluegrass (*Poa pratensis*), which occasionally hybridizes with related species, new distinct varieties of hybrids that are sterile, “may become widespread by asexual means,” allowing the “individual strains...[to] be particularly successful in specific habitats.”<sup>111</sup>

<sup>109</sup> Comics, *Animal Lives Compared to Humans*, 35.

<sup>110</sup> Evert, Eichhorn and Raven, *Biology of Plants*, 214.

<sup>111</sup> Evert, Eichhorn and Raven, *Biology of Plants*, 214, 217.

<sup>112</sup> Bagemihl, *Biological Exuberance*, 37.

human animals don't need to engage in sexual activity to reproduce, sexual activity still occurs, and 2) that non-human animals do in fact engage in same-sex sexual activity—although the “reason” why is still up for debate. Even though I have been taught that the “normal” state for bodies is having separate sexes in separate bodies, exploring the vast variety of hermaphroditism and intersexuality that can occur among individual bodies and entire species, is it not simply human hubris to claim that separately sexed bodies is the norm for all bodies?

(2) “*Only two genders occur, corresponding with the two sexes...[and] males and females look different from one another.* No, many species have three or more genders, with individuals of each sex occurring in two or more forms... [and] in some species, males and females are almost indistinguishable.”<sup>113</sup> Typically when talking about plants and non-human animals, the term “morph” is used in place of “gender,” as the term “gender” may be perceived as solely belonging to humans, however many authors attempting to disrupt heteronormative and human exceptionalism narratives use the term “gender” in their texts regarding non-human species. As we saw in the last misconception, bodies don't always have separate sexes in separate bodies as the norm. However, even when species do follow a sexual binary of separate sexes in separate bodies—male (small gamete producing) and female (large gamete producing), there isn't a guarantee that males and females will look differently than each other.

In some species, such as the shore bird Pigeon Guillemots (*Cephus columba*), males and females are nearly indistinguishable from each other, however there are also other

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<sup>113</sup> Roughgarden, *Evolution's Rainbow*, 28.

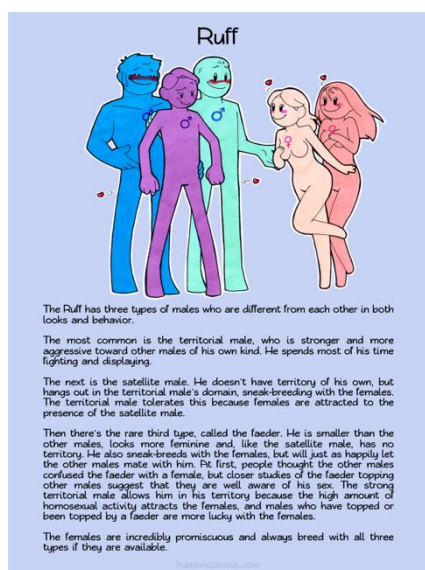


Figure 5. Ruffs.

“The Ruff has three types of males who are different from each other in both looks and behavior. The most common is the territorial male, who is stronger and more aggressive toward other males of his own kind. He spends most of his time fighting and displaying. The next is the satellite male. He doesn't have territory of his own, but hangs out in the territorial male's domain, sneak-breeding with the females. The territorial male tolerates this because females are attracted to the presence of the satellite male. Then there's the rare third type, called the faeder. He is smaller than the other males, looks more feminine and, like the satellite male, has no territory. He also sneak-breeds with the females, but will just as happily let the other males mate with him. At first, people thought the other males confused the faeder with a female, but closer studies of the faeder topping other males suggest that they are well aware of his sex. The strong territorial male allows him in his territory because the high amount of homosexual activity attracts the females, and males who have topped or been topped by a faeder are more lucky with the females. The females are incredibly promiscuous and always breed with all three types if they are available.”<sup>114</sup>

societies. Many reef fish species exhibit a range of multiple genders, with Striped Parrotfish

species that exhibit multiple genders. While the scientific community plays catch-up in developing proper language around discussing non-human queerness and gender, Bagemihl suggests using the term “transgender” to refer to species that cross or traverse existing gender categories.

Although using some dated language (especially if used towards humans), Bagemihl refers to organisms that

appear to be “imitating the opposite sex, either behaviorally, visually, or chemically” as transvestism, whereas organisms which “physically [become] the opposite sex,” as transexuality.<sup>115</sup> Regardless of what terminology is used, there is far too much variety of gender presentations in the non-human world to ignore and claim that only a rigid binary of masculine males and feminine females exists and is therefore the “norm.”

In mushrooms, for example, “it is rare for a fungus to have only two biological sexes, and some fungi, such as *Schizophyllum commune*, have as many as 23,000 mating types.”<sup>116</sup> Fish, lizards, and birds also once again offer a plethora of examples of species that live in polygendered

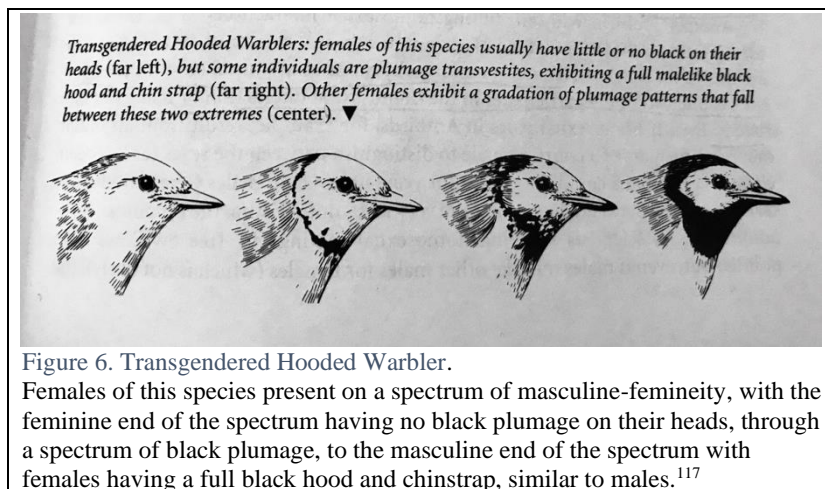
<sup>114</sup> Comics, *Animal Lives Compared to Humans*, 29.

<sup>115</sup> Bagemihl, *Biological Exuberance*, 37.

<sup>116</sup> Kaishian and Hasmik, “The Science Underground,” 10.

(*Scarus iserti*) having five distinct genders, as it is common for Striped Parrotfish to change sex over their lifespan. With the advancement in methods and technology, sex determination in non-human animal studies has become more accurate and has led to the realization that there is vast diversity in gender presentation in birds as well. For instance, in Hooded Warblers (*Wilsonia citrina*), not only has male same-sex sexual activity, pair-bonding, and child-rearing been documented, but also a range of transgender females has been recognized.

While male Hooded Warblers tend to present with a dark black hood and chin strap, females have been documented exhibiting a spectrum of “feminine” to “masculine” presentation. As seen in Figure 7, on the feminine end of the spectrum females lack any black plumage on their heads,



whereas on the masculine end of the spectrum, females exhibit a full black hood and chinstrap, similar to the males. Furthermore, there are females that fall somewhere in between these two ends of the

spectrum with a gradation of plumage patterns—possibly what we might consider as non-binary birds? As Roughgarden puts it: “Indeed, whenever one looks deeply into any biological category, a rainbow is revealed. The living world is made of rainbows within rainbows within rainbows, in an endless progression.”<sup>118</sup>

<sup>117</sup> Bagemihl, *Biological Exuberance*, 153.

<sup>118</sup> Roughgarden, *Evolution's Rainbow*, 44.

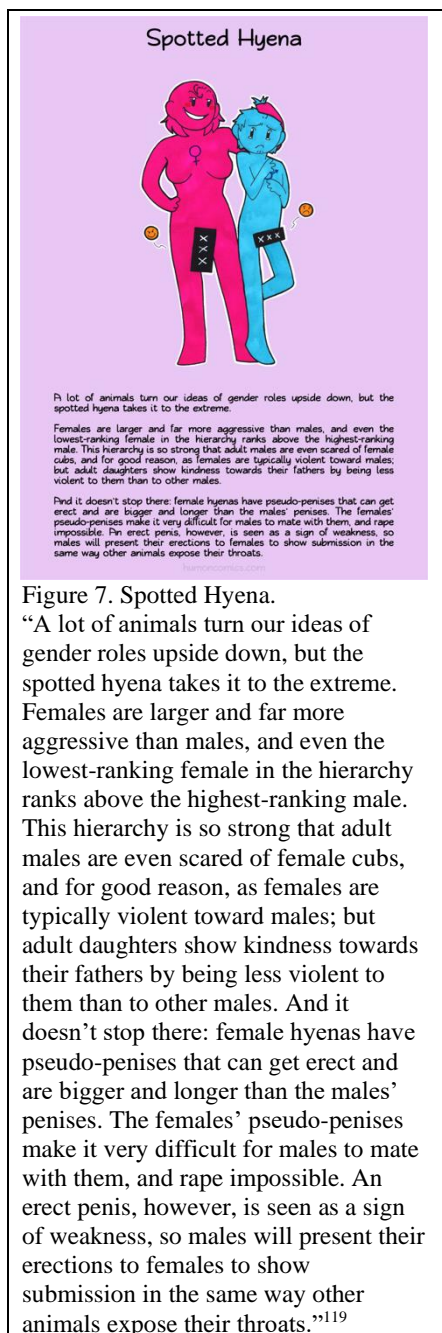


Figure 7. Spotted Hyena.

“A lot of animals turn our ideas of gender roles upside down, but the spotted hyena takes it to the extreme. Females are larger and far more aggressive than males, and even the lowest-ranking female in the hierarchy ranks above the highest-ranking male. This hierarchy is so strong that adult males are even scared of female cubs, and for good reason, as females are typically violent toward males; but adult daughters show kindness towards their fathers by being less violent to them than to other males. And it doesn't stop there: female hyenas have pseudo-penises that can get erect and are bigger and longer than the males' penises. The females' pseudo-penises make it very difficult for males to mate with them, and rape impossible. An erect penis, however, is seen as a sign of weakness, so males will present their erections to females to show submission in the same way other animals expose their throats.”<sup>119</sup>

(3) “*Males control females*. No, in some species females control males, and in many, mating is a dynamic interaction between female and male choice. Females may or may not prefer a dominant male.”<sup>120</sup> In many non-human species, even when there is one distinct male morph and one distinct female morph, males and females don't always follow heteronormative gender roles of the dominating, aggressive male and the submissive, caretaking female, but rather change up these roles entirely. For instance, the Spotted Hyena (*Crocota crocuta*) live in matrilineal clans, with males living in single sex groups during their adolescence, eventually joining different all-female clans throughout their adulthood. All female hyenas outrank males (which are smaller than females) in their highly organized social system, hunt and live together cooperatively, as well as raise their young as single mothers. However the most interesting aspect to have learned about female hyenas is that all female hyenas are intersexed as they have an elongated clitoris that resembles a penis in structure, sometimes also

referred to as a “female penis,” which they are able to urinate through.<sup>121</sup> Rather than having a vaginal opening, hyenas' labia are fused closed, resembling a scrotum, along with an enlarged

<sup>119</sup> Comics, *Animal Lives Compared to Humans*, 32.

<sup>120</sup> Roughgarden, *Evolution's Rainbow*, 28.

<sup>121</sup> Roughgarden, *Evolution's Rainbow*, 38.

clitoris that is “90 percent of the length of the males’ penis (nearly seven inches long) and equal to it in diameter; it can be fully erected.”<sup>122</sup> Having no vaginal opening, a female hyena is able to invert her clitoris to allow for penetration during mating, however, as the clitoris is located on her lower belly, actual penetration is challenging, and ultimately making rape next to impossible. Hyenas also give birth through their clitoris, which can cause significant bodily trauma and even death, so to prevent pregnancy many females do not allow penetration during mating, often acting aggressively towards males attempting to mount them. Due to this genital design and aggressive behavior towards males, the majority of hyenas are considered non-breeding, meaning they never produce offspring. Female hyenas also engage in homo-social or sociosexual behavior—females often mount one another, with occasional clitoral penetration, as well as engaging frequently in “meeting ceremonies” where two females stand parallel to each other head-to-tail, licking, nuzzling, and sniffing each other’s genitals. If a fight breaks out during one of these meeting ceremonies, often the subordinate hyena will signal by erecting her clitoris—as an erect penis in hyena language is a symbol of submission, usually resulting in reconciliation between the two.

Spotted Hyenas offer an extraordinary example of female bodies that resemble male bodies, engage in same-sex sexual and social behavior as a part of their highly structured matriarchal social groups, which include meeting rituals as a part of their culture and are dominant over males. Another additional favorite queer animal of mine that shakes up our ideas of heteronormative non-humans is the Bighorn Sheep (*Ovis canadensis*). In the wild, these sheep live in sex-segregated groups, only coming together for a few months in the year when ewes are able to conceive (estrus). Males live in what’s been described as “homosexual societies,”<sup>123</sup> as

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<sup>122</sup> Bagemihl, *Biological Exuberance*, 446.

<sup>123</sup> Roughgarden, *Evolution’s Rainbow*, 138.

same-sex courtship behaviors and same-sex sexual activity occurs regularly among all males living together. While females typically won't allow themselves to be mounted unless they are in estrus, so prevalent is same-sex activity among male Bighorns, that females trying to mate with males have been observed "mimicking" (behavioral transvestism) the behavior patterns "typical of younger males being courted by older males, thereby sparking sexual interest on part of rams because, ironically, they now resemble males."<sup>124</sup>

Even more interesting, the only male sheep who do not live separately with the other males, and also does not engage in same-sex sex, are the males that live with the females year-round. Physically, these males look the same as the other males, however, these males behaviorally "mimic" females, as they adopt "effeminate" behaviors like crouching to urinate (like females), do not dominate the females, and are less aggressive overall. In Bighorn Sheep society, the "normal," aggressive, "masculine" males all live together, court one another, and regularly have "full- fledged anal sex with other males,"<sup>125</sup> whereas the "aberrant" (as previous researchers have implied) exclusively heterosexual males live with the females, adopt "effeminate" behaviors, and are overall less aggressive. As humans, we like to use animals as symbols, and the Bighorn ram is an iconic, charismatic animal used by sports teams and even as a truck brand as a symbol of rugged male heterosexuality. However, in reality, the typical "macho" male Bighorn is quite queer, whereas the "feminized" male is the one who avoids homosexual encounters and gets along with the females. Once again, the more-than human world offers us an array of examples of bodies and behaviors that resist cis-heteronormativity!

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<sup>124</sup> Bagemihl, *Biological Exuberance*, 407.

<sup>125</sup> Roughgarden, *Evolution's Rainbow*, 138.

Within birds, where 90% of species form monogamous pair-bonds and raise offspring together,<sup>126</sup> one or both sexes may have sex with the same or opposite sex even though they are in a pair-bond. Additionally, one of the birds might initiate “divorce” when their partner “cheats,” or leave their partner for another higher-ranking bird.<sup>127</sup> With mammals, the majority of species have polygamous systems, which “take the form of either one male with several females (polygyny), one female with several males (polyandry), a combination of both (polygynandry),” or have promiscuous systems where animals of either sex mate with multiple partners, forming no long-term bonds.<sup>128</sup> In some species trios (or as I like to call them “throuples”) will form, sometimes with all animals engaging in sexual activity with one another, and in other instances, the bond is more of a companionship, without sexual activity taking place. These trios come in a variety of forms, some being homosexual bonds between three animals of the same sex, they can be bisexual trios with two males and one female, or with two females with one male, or they can be heterosexual trios, where “two animals of the same sex are bonded with an opposite-sexed individual but not to each other.”<sup>129</sup>

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<sup>126</sup> Roughgarden, *Evolution's Rainbow*, 54.

<sup>127</sup> Roughgarden, *Evolution's Rainbow*, 28, 54-55. See also Bagemihl, *Biological Exuberance*, 207.

<sup>128</sup> Bagemihl, *Biological Exuberance*, 207.

<sup>129</sup> Bagemihl, *Biological Exuberance*, 22.

In Saddle-backed Tamarin monkey (*Leontocebus fuscus*) family structures, “22 percent consist of one female with one male in a monogamous relationship, 61 percent of one female with multiple males, 14 percent of multiple females with multiple males, and 3 percent of males only.”<sup>131</sup> Saddle-backed Tamarins organize their families in a structure called cooperative



Figure 8. Cotton-Top Tamarin.

“Tamarin monkeys are known to have all possible variations of families, such as one male and one female, or one male and two females. But by far the most common family arrangement is one female and two males. This is quite logical because tamarin females usually give birth to twins and the males are the ones who care for the young, only handing them over to the mother to breastfeed. Carrying the young around is a lot of hard work and the males even gain muscle weight while the female is pregnant to prepare for the task. They then each care for one of the twins, making child rearing significantly easier. A male with two females might risk having to carry around four babies.”<sup>130</sup>

polyandry, as the males help in caring for the offspring and cooperate with one another in doing so. Even in families with only one male and female, older offspring will assist in the caring for younger offspring. In Eurasian Golden Plovers (*Pluvialis apricaria*), a heterosexual pair-bonded male and female couple will join another heterosexual couple and raise their offspring together as a quartet, in a double-parenting structure. In American Red Squirrels

(*Tamiasciurus hudsonicus*), it is typically the female that raises the offspring alone, forming no bond to the males she mates with, however there has been documentation that occasionally females will form bonds with one another female, engaging in “sexual and affectionate activities leading to joint parenting.”<sup>132</sup>

Alongside these different family configurations, “nearly 300 species of mammals and birds have developed adoption,

parenting-assistance, and ‘day-care’ systems, in which offspring are raised or cared for by

<sup>130</sup> Comics, *Animal Lives Compared to Humans*, 10.

<sup>131</sup> Roughgarden, *Evolution’s Rainbow*, 58-59.

<sup>132</sup> Roughgarden, *Evolution’s Rainbow*, 141.

animals other than their biological parents.”<sup>133</sup> Nuclear families are only one of multiple constellations of non-human families and child-rearing structures. What could humans learn to change about our own systems of childcare from non-human animals that raise their offspring together or have males that cooperate with one another to raise offspring they may or may not be the biological father of? Could more people be accepting of same-sex or non-monogamous/polyamorous relationships if they were taught how infrequent life-long monogamous, nuclear families were in non-humans?

(5) *Bisexuality is a uniquely human quality.* No, “the participation of an individual in both homosexual and heterosexual activities is widespread among animals: bisexuality occurs in more than half of the mammal and bird species in which same-sex activity is found.”<sup>134</sup> Interestingly, there is even diversity among types of bisexuality among non-human species, as each individual in any given population of species will have their own sexual orientation. Perhaps one of the best models used for expressing the spectrum of human sexuality, is the scale developed by Alfred Kinsey, as “individuals generally fall along a range from those exhibiting predominantly or exclusively heterosexual behavior, to those exhibiting a balance of both, to those exhibiting predominantly or exclusively homosexual behavior, and every variation in between.”<sup>135</sup> In other words, an individual’s sexual orientation will fall somewhere on a spectrum, with exclusive homosexuality on one end and exclusive heterosexuality on the other end—this orientation may change over an individual’s life history, but this is something that is in need of more research, both in human and non-human populations.

Variations of sexual orientation occurs across populations, where

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<sup>133</sup> Bagemihl, *Biological Exuberance*, 206.

<sup>134</sup> Bagemihl, *Biological Exuberance*, 50.

<sup>135</sup> Bagemihl, *Biological Exuberance*, 51.

In some species, the majority of animals are exclusively heterosexual, but a small proportion engage in bisexual activities (e.g. male Ostrich [*Struthio camelus*]). In others, the vast majority of individuals are bisexual and few if any are exclusively heterosexual or homosexual (e.g. Bonobos). Other species combine a pattern of nearly universal bisexuality with some exclusive homosexuality (e.g. male Mountain Sheep). In other cases, the proportions are more equally distributed, but still vary considerably.<sup>136</sup>

In what is referred to as sequential or serial bisexuality, a non-human animal will alternate between periods of exclusively engaging in same-sex sexual activity or opposite-sex sexual activity. These periods of time can differ between and within species, sometimes correlating to breeding season patterns or even age. Some quick examples of the range of bisexuality are walruses (*Odobenus rosmarus*), who typically participate in same-sex courtship and sexual activity outside breeding season; giraffes (*Giraffa*), where younger males typically engage in same-sex activity; or some in African elephants (*Loxodonta*) same-sex courtship and sex is more typical in older elephants.<sup>137</sup> Another range of bisexuality is called simultaneous bisexuality, where one non-human animal might court both a male and female at the same time or within a short span of each other, or in instances of group sex, sexual activity with both opposite- and same-sex will take place at the same time.

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<sup>136</sup> Bagemihl, *Biological Exuberance*, 53.

<sup>137</sup> Bagemihl, *Biological Exuberance*, 50.

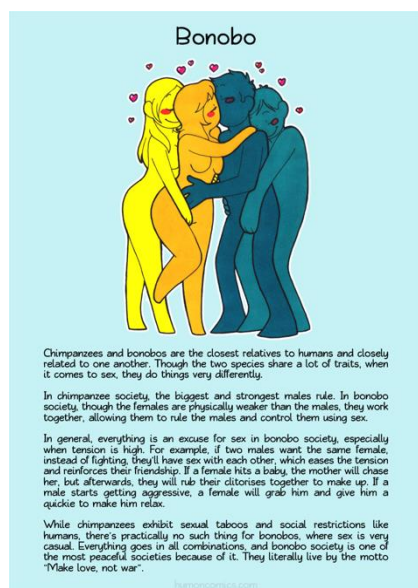


Figure 9. Bonobo.

"Chimpanzees and bonobos are the closest relatives to humans and closely related to one another. Though the two species share a lot of traits when it comes to sex, they do things very differently. In chimpanzee society, the biggest and strongest males rule. In Bonobo society, though the females are physically weaker than the males, they work together, allowing them to rule the males and control them using sex. In general, everything is an excuse for sex in Bonobo society, especially when tension is high. For example, if two males want the same female, instead of fighting, they'll have sex with each other, which eases the tension and reinforces their friendship. If a female hits a baby, the mother will chase her, but afterwards, they will rub their clitorises together to make up. If a male starts getting aggressive, a female will grab him and give him a quickie to make him relax. While chimpanzees exhibit sexual taboos and social restrictions like humans, there's practically no such thing for bonobos, where sex is very casual. Everything goes in all combinations, and Bonobo society is one of the most peaceful societies because of it. They literally live by the motto 'Make Love, not war.'"<sup>138</sup>

Bonobos, one of human's closest primate relatives, are nearly all bisexual (similarly with Chimpanzees), with their preference of partners existing on a continuum. Bonobos have a promiscuous mating system, with females forming tightly bonded smaller groups where they are dominant to males. Group sex occurs frequently among Bonobos, "often with one individual thrusting against a pair who are copulating, and individuals may participate in several bouts of heterosexual [and homosexual] activity in rapid succession."<sup>139</sup> Although both male and female Bonobos engage in both opposite- and same-sex sexual activity, females tend to have more sex, will mount males, and some females have been documented having a clear preference for same-sex partners, ignoring males making appeals for sex. Some females will also have multiple sexual partners at once and have been shown to have "favorite" partners, especially among their female partners.<sup>140</sup> In looking at female Bonobo sexuality, some authors have argued that pleasure needs to be more seriously considered in scientific theories surrounding reproduction and survival. Researchers have suggested that

"because same-sex matings can be as common as between-sex matings [in Bonobos], the

<sup>138</sup> Comics, *Animal Lives Compared to Humans*, 9.

<sup>139</sup> Bagemihl, *Biological Exuberance*, 273.

<sup>140</sup> Bagemihl, *Biological Exuberance*, 272.

geometry of the genitals may be shaped to promote same-sex contact as well as between-sex contact.”<sup>141</sup> Bonobo matings often takes place in a face-to-face position, with female pairs rubbing their genitals (referred to as genito-genital rubbing or GG-rubbing) together by moving in a side to side motion to both receive pleasure, whereas in male-female pairs, researchers suggest that male Bonobos assume a frontal position in order to adjust for the female partner’s genital geometry. As Roughgarden points out, “from the standpoint of female reproduction, little is gained by placing the clitoral neurons near the vagina to further between-sex mating when males are well motivated for intercourse anyway. Instead, the pleasure neurons are shifted to a location that promotes same-sex matings and may yield more effective same-sex bonds, increasing overall Darwinian fitness at no reproductive cost.”<sup>142</sup>

In Chimpanzees, male same-sex sexual activity is highly variable and occurs frequently after males get into a fight, as a form of tension relief and reconciliation. However, most males that engage in same-sex sexual activity also mate with females, ultimately making them bisexual. Although much research still needs to take place on why bisexuality occurs in so many species, some scientists, such as biologist Vincent Savolainen, suggest the theory called the “bisexual advantage.”<sup>143</sup> According to this theory, bisexuality might give certain animals an evolutionary advantage to survival, especially in social species, as purely heterosexual animals might lack the ability to form same-sex alliances that lead to higher rates of survival, but a purely homosexual social structure would lead to low/no reproduction of offspring. So in this sense, a bisexual

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<sup>141</sup> Roughgarden, *Evolution’s Rainbow*, 157.

<sup>142</sup> Roughgarden, *Evolution’s Rainbow*, 158.

<sup>143</sup> Savolainen and Hodgson, “Evolution of Homosexuality,” 5.

organism has an advantage by being able to form and maintain strong alliances with both opposite and same-sex organisms.<sup>145</sup>

Alongside pleasure being an important component of Bonobo culture, these close relatives of ours are also an empowering example of a sexually fluid society where female pleasure seems to be placed at the center of social interactions. So important is sex in Bonobo society, that Bonobos have even developed their own form of gestural communication (basically sign

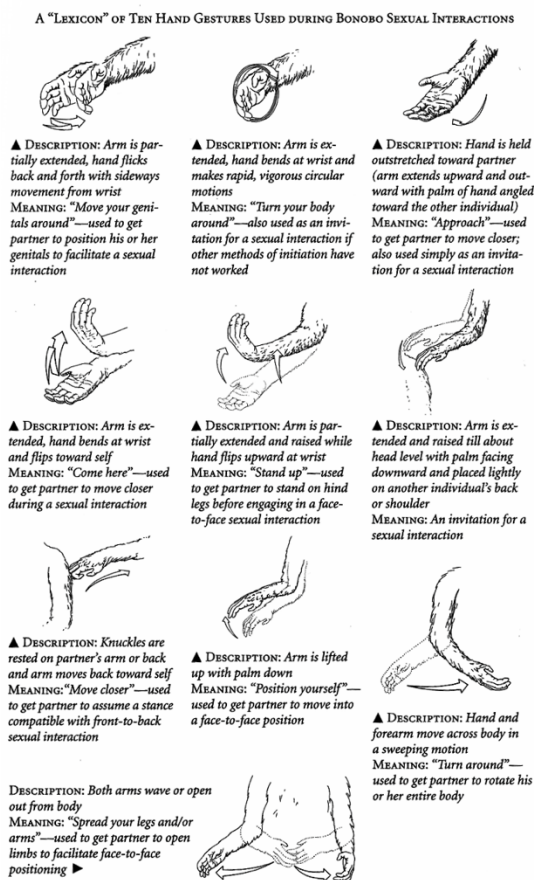


Figure 10. Bonobo communication. Bonobo "lexicon" of ten hand gestures used for communication during sexual interactions.<sup>144</sup>

language) used specifically for sex. Over 25 distinct gestures used during sex have been identified, with some accompanying illustrations as seen in Fig. 11. Studies of Bonobo hand gestures could have significant implications for not only understanding communication systems among Bonobos and other species, but also understanding humans' early communication development. Primates studies can be more impactful than other animal studies, as they resemble humans, and at some point in humanity's evolutionary history, our ancestors may have lead

To me, some primate studies seem to be just as

much about learning about the animal as it is about trying to learn something about ourselves. If

<sup>144</sup> Bagemihl, *Biological Exuberance*, 67.

<sup>145</sup> Bawagan, "Overturning Darwin's Paradox."

studying primates is truly giving us a peak at some of the possibilities for how our early human ancestors lived, then once again we can see there is no universal template for sex and gender.

### Reimagining Possibilities

This list could go on with the numerous heteronormative stereotypes often taught as “natural” and universal, however, aren’t aligned with the reality of biological diversity. While a biological binary does exist between sexed bodies producing large gametes/eggs (female) and small gametes/sperm (male), that is ultimately where universals end, and the diversity begins. Even a gamete binary isn’t universal, as we saw in some of the examples above, that many invertebrate species exist in bodies that produce both gamete sizes (intersex/hermaphrodite), along with many species being able to change their sex during their live span as well, such as many reef fish. In species where two separately sexed bodies are the norm, we can find that many species can have multiple of one or both morphs/genders, like in many birds, fish, and lizard species, in addition to having bodies that don’t align with what we would think as typical for an animal of that sex, such as the enlarged clitoris of the Spotted Hyena. When it comes to behavior or “gender roles” of non-humans, no heteronormative universal binary exists either with all females being submissive to males and “coy,” or all males being competitive with one another in order to control females. While this dynamic may be true for some species, there is far too much variety of “gender roles” and behaviors that have been observed to support the idea that patriarchy is the “natural” model. Some animals flip these roles upside down, with females being more aggressive and controlling of males and the males playing the role of offspring caretakers (e.g. Wattled Jacana), or in other species, where other configurations of behaviors and dynamics have been created where cooperation is a crucial quality and violent competition is rare. Queer animals, or non-humans that pair-bond and/or engage in sexual activity with the

same sex, exist in abundance along a spectrum of sexualities alongside species with variety of gender presentations and expressions. Western science's continued denial of sexual and gender diversity in favor of heteronormative interpretations or framing this diversity as something gone wrong in Nature, is not only unscientific, but results in an inaccurate depiction of non-human behaviors and bodies, which then gets projected onto humans. Not having the whole picture of what is really going on in non-human species can have negative effects for non-human species we are trying to conserve along with serving to promote injustices amongst humans.

As humans, we use our understandings of Nature and more-than-human species to understand our own "true" natures, often times believing that if something occurs in Nature, than it must be "natural" for humans to do as well. However, as we see that queerness is an integral part of Nature and many non-human cultures, has not meant that queerness among humans has been accepted as "natural" or acceptable characteristic for either non-humans or humans. I am thoroughly curious how much U.S. culture might change around its views of human queerness and transness if queer ecology were to be taught as a regular part of academic curriculum, or even simpler, if Nature documentaries leaned less heavily on promoting heteronormative narratives and rather showed the diversity of queerness, gender presentation, and relationship dynamics that exist. Would education about queer and trans animals be strong enough narratives to curb queer- and transphobia? If nothing else, these narratives are empowering for LGBTQ+ people who have had to cope with a constant barrage of discourses that frame their identities as "unnatural," alongside making anti-LGBTQ+ arguments claiming to be backed by "science" easy to debunk.

Even as more scientists and activists respond to these arguments and attempt to spread information on the abundance of diversity of our world to wider audiences, if scientific and

educational institutions do not actively work to undo inaccurate heterosexist models, change will be a slow process. Additionally, many Western science institutions holding onto these models usually have heterosexist cultures, often being hostile environments for LGBTQ+ scientists, who often remain in the closet or feel alienated and that their work is devalued in these spaces. These types of institutions often exclude those whose life experiences greatly differ from those with “normative” identities, such as women, people of color, and differently-abled bodies, so much so that individuals will leave their jobs or places of learning because they don’t feel that they belong there. So while these institutions’ models limit our understanding of biological diversity, the exclusion of scientists from oppressed identity groups further stifles intellectual diversity. In a time when we are in desperate need of alternate models and imaginings of different ways of being, excluding a diverse range of intellect and ways of problem solving could potentially be our downfall. When I was much younger and coming to terms with the fact that my sexual and gender identity didn’t align with what I had been told my whole life was “normal” or “natural,” I felt my identities were a burden—something that would keep me from ever feeling accepted or acceptable. However, as I grew and came into my queerness, I became thankful for being so different and realized I have a lot to offer the world from these differences. Seeking out queer/trans spaces and communities, I have witnessed so much healing, care, and resilience first hand, as so many LGBTQ+ individuals have had to make connections through found family after being rejected by their own flesh and blood. This is not to say that LGBTQ+ communities are always perfect—there is a lot of trauma in these communities and sometimes this results in what is essentially wounded people wounding others to cope with their pain—however in no other community that I’ve been a part of have I ever seen so much effort being put in to turning toward these wounds collectively and working to heal and unlearn harmful behaviors learned from

living in a hetero-patriarchal society. It would seem then, that if we are looking for different cultural models to live by, we don't even have to look at other species as there are plenty of other "non-normative" cultures in the U.S. to look at.

### Indigenous Perspectives in Queer Ecology

Where Western science fails at accounting for and incorporating the multitude of non-human behaviors, many queer ecologies authors have advocated for the uplifting of Traditional Ecological Knowledge (TEK) and Indigenous science, and Western science learning from Indigenous communities, not through appropriation, but as co-creators and collaborators. Within Western science, queerness in both human and non-human species "is an anomaly, an unexpected behavior that above all requires some sort of 'explanation' or 'cause' or 'rationale,'" whereas in

many Indigenous cultures around the world, homosexuality and transgender are a routine and expected occurrence in both the human and animal worlds...[and have] accumulated a vast storehouse of knowledge about the natural world—including the sexual and gender systems of animals—over thousands of years.<sup>146</sup>

Western science has had a far shorter history and scientists have only begrudgingly began to recognize queerness in both humans and non-humans over a span of the last 200 years, and this recognition hasn't always been framed as something positive. Because of the devaluing of Indigenous knowledge within Western culture, TEK is often over-simplified and framed as the same as Western ecology, but with more spirituality or seen as needing to first be validated by Western science to be taken seriously. Western science not only devalues TEK because of anti-Indigenous racist ideologies, but also because much Indigenous knowledge is stored and shared

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<sup>146</sup> Bagemihl, *Biological Exuberance*, 215.

through oral tradition and lore, rather than having been written down as empirical data. However, as more non-Native academics look for alternative solutions to address climate change and transform Western conservation practices, more scientists and institutions have begun to work with Indigenous tribes and communities in order to implement models based on TEK. These coalitions and partnerships are but one step towards not only healing relationships between Native and non-Natives, but also empowering these communities through the ability to manage their lands through cultural practices.

Although much Indigenous knowledge is encoded in mythological stories, this lore is grounded in thousands of years of direct observations from the natural world from cultures that don't view humans as being separate from Nature. As Bagemihl points out in his research on Indigenous perspectives, that "aboriginal knowledge about the organization of the natural world often mirrors the findings of more 'objective' scientific inquiry, sometimes down to the most minute detail," as well as many Indigenous cultures having "developed comprehensive classification schemata for plant and animal species that rival the system of scientific nomenclature used by biologists today."<sup>147</sup> In Bagemihl's examination into perspectives on queerness and transness among various Indigenous cultures, he notices commonalities between Native North American, New Guinea/Melanesian, and Siberian/Arctic cultures, which include, symbolic representations of animals associated with human queerness and transness:

beliefs about mutable or nondualistic gender(s) of particular species, often represented in the figure of a powerful cross-gendered animal or in sacred stories ('myths') about sexual and gender variability in animals; ceremonial reenactments or representations of animal homosexuality and transgender, sometimes combined with ritual reversals of ordinary activities; and animal husbandry practices that encourage and value intersexual and/or nonreproductive creatures.<sup>148</sup>

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<sup>147</sup> Bagemihl, *Biological Exuberance*, 238.

<sup>148</sup> Bagemihl, *Biological Exuberance*, 216.

It is important to note that Indigenous cultures are not a monolith—each culture has different beliefs, stories, and cultural practices and deserve recognition of these variabilities.

Many queer ecologists, whom many are non-Native, are advocating for TEK because so many cultural practices and knowledge have been formed through the observation and caring of the “natural” world. In her collaboration with the Karuk tribe in what we know today as California, Kari Norgaard observes that:

by all accounts, the diverse Indigenous notions of gender that organized human communities...have long been more fluid, less binary, and organized around caring and stewardship rather than hierarchy and domination. Gender constructions have also been intimately interwoven with ecological activities and responsibilities.<sup>149</sup>

Specifically looking at the gender construction among the Karuk, Norgaard observes that for Karuk men, masculinity is performed through fishing—providing food for their immediate family and community, as well as having a responsibility to maintaining the ecosystem in a way that allow culturally important fish species to thrive. For Karuk women, managing lands with fire in order to perpetuate culturally important plant species, such as tanoak, along with the “gathering, preparing, and sharing [of] food, fiber, and medicinal plant resources with the community,” were viewed as the “domain of females.”<sup>150</sup> For the Karuk, as well as many other Native communities, having access to ecologically healthy lands and waters that can provide the community with sufficient resources is necessity for individuals to effectively perform their gender role and cultural survivance.

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<sup>149</sup> Norgaard, *Salmon and Acorns Feed Our People*, 165.

<sup>150</sup> Norgaard, *Salmon and Acorns Feed Our People*, 166.

In settler-colonial culture, “heteropatriarchy and heteronormativity should be interpreted as logics of colonialism,” as masculinity is performed through dominance and femininity is performed through subservience to the masculine.<sup>151</sup> Settler-colonialism and heteropatriarchy become mutually reinforcing as

Heteropatriarchy disciplines and individualizes communally held beliefs by internalizing hierarchical gendered relationships and heteronormative attitudes towards sexuality. Colonialism needs heteropatriarchy to naturalize hierarchies and unequal gender relations. Without heteronormative ideas about sexuality and gender relationships, heteropatriarchy, and therefore colonialism, would fall apart.<sup>152</sup>

However in Karuk culture, gender performance is based more on responsibility and care for the community and non-human species (often referred to as “kin”) that are relied upon. Within many Indigenous cultures there is the view of “kincentricity,” or that humans are a part of and related to the more-than human/Natural world and thus have a responsibility to care for those relations, which has begun to be suggested as an alternative model for Western ecological understandings. For many Indigenous communities, cultural genocide is ongoing as many communities lack access to ancestral lands, have limited rights on harvesting materials from these lands, or lands and waters have been so poorly managed through Western practices that culturally important species (such as salmon) are in such low numbers that they are virtually inaccessible or threatened with extinction. Without the ability to manage, process, and distribute these culturally valuable resources, social connections are disrupted, gender roles are unable to be performed, and communities are forced to rely on unhealthy commodified foods—all resulting in both mental and physical health issues. However, although many modern settler-colonial narratives

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<sup>151</sup> Finley, “Decolonizing the Queer Native Body (and Recovering the Native Bull-Dyke): Bringing ‘Sexy Back’ and Out of Native Studies Closet,” 33.

<sup>152</sup> Finley, “Decolonizing the Queer Native Body (and Recovering the Native Bull-Dyke),” 33-34.

depict American Native culture and communities as either “extinct” or fully assimilated into White Western culture, many North American Indigenous cultures have survived ongoing settler-colonialism, and some even continue to thrive. Native activists are at the forefront of defending against oil pipelines (ex. Standing Rock) and other unsustainable practices in natural resource management, often without the support of well-funded mainstream environmentalist organizations, putting much time, energy, and resources into legal battles against the U.S. federal and state government and corporations.

As a White, non-Native academic, I am just beginning to understand various Indigenous cultural beliefs and practices, as well as learning how to build better relationships with Native communities and individuals within Nature-based work. In the collection of essays in *Queer Indigenous Studies*, Native scholars and activists write about Indigenous-specific forms of queer- and transness and bring “critiques of colonial heteropatriarchal gender/sexuality into broader conversations within queer and Indigenous studies that link queer Indigenous people within and across Indigenous nations, colonial borders, and global networks.”<sup>153</sup> In this Indigenously produced body of work, authors discuss how current and pre-colonized Native nations fully accepted and integrated identities, behaviors, and bodies that were outside of a heteronormative binary. However, authors writing from nations within the United States draw attention to the fact that some tribes have internalized heteropatriarchal colonialism and have attempted to establish heteronormative gender roles as a part of their traditional culture. Native activists in these communities push back by fighting for decolonization of their culture, arguing that “Native nations that mirror the U.S. nation-state by relying on homophobia and heteropatriarchy to establish national belonging and exclusion are not ideal models to further Native sovereignty.”<sup>154</sup>

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<sup>153</sup> Driskill, et al. “Introduction,” 3.

<sup>154</sup> Finley, “Decolonizing the Queer Native Body (and Recovering the Native Bull-Dyke),” 39.

In order to cultivate belonging amongst LGBTQ+ Native Americans, Indigenous communities came together in 1992 to propose the use of the term Two-Spirit (2S) as a means for Indigenous LGBTQ+ to name “their diverse lives and their sense of relationship to Indigenous tradition of gender/sexual diversity and spirituality.”<sup>155</sup> The introduction of the community-based label was also intended to replace the term *berdache*, which was created by colonial anthropologists who framed sexual and gender diversity among Native populations as deviance. While the original intent in proposing the label of Two-Spirit was to create “an Indigenously defined pan-Native North American term that bridges Native concepts of gender diversity and sexuality with those of Western cultures,”<sup>156</sup> not all Native LGBTQ+ people use the term Two-Spirit to self-identity. As Two-Spirit is a term intended to connect queerness with Indigeneity, some individuals will use Two-Spirit only when they are in Native communities as they feel non-Natives will not understand the context of the term, or they will use multiple labels alongside Two-Spirit, such as gay, lesbian, bisexual, or queer. In many tribes, much cultural knowledge has been lost due to ongoing settler-colonial violence and cultural genocide, where in some instances, it is unknown if specific tribes at one point had different names for queer sexualities and genders. Some tribes may not have had different labels as queerness was not viewed as abnormal, or due to loss of language, certain labels have been forgotten or are unable to be confirmed as historically accurate. However, some tribes do have nation-specific terms that they utilize or have worked to create contemporary labels of their own.<sup>157</sup>

Ultimately, in the creation of the Two-Spirit label, the goal was to create an Indigenous-specific LGBTQ+ label established by Native peoples in order to “disrupt external and

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<sup>155</sup> Driskill, et al., “Introduction,” 12.

<sup>156</sup> Thomas and Jacobs, “‘...And We Are Still Here’: From Berdache to Two-Spirit People,” 92.

<sup>157</sup> Driskill, et al. *Queer Indigenous Studies: Critical Interventions in Theory, Politics, and Literature*.

internalized colonialism, heteropatriarchy, gender binaries, and other forms of oppression,”<sup>158</sup> as well as to strengthen nation building across Native regions and cultures that do not replicate colonial narratives of nationalism and nation-states. Within decolonial Indigenous nation-building, nationalism is not based on “notions of nativism or binary oppositions between insider and outsider, self and other” nor does Native nationalism “root itself in an idealization of any pre-Contact past, but rather relies on the multifaceted, lived experiences of families who gather in particular places,”<sup>159</sup> making identity relational and grounded in a particular place in its history. It is because of Native communities’ ability to come together to nation build outside the context of settler-colonialism and recognize a nation that is multi- and cross-cultural, centering responsible relationships and interconnectedness, that so many non-Native academics are now advocating for the uplifting of Indigenous leadership, especially in the Climate Justice movement and conservation efforts. Indigenous perspectives offer methods for “reimagining kinship...for affirming...diversity without reinforcing heterosexist norms of family or nation,”<sup>160</sup> as well as for human and non-human relationships. One example of reimagining relationships to land can be seen by looking back at the Karuk, where women (or people who identified as women) used fire as a tool to manage the land and encourage particular species to thrive, as opposed to male-dominated Western conservation, which views fire as a danger to property and therefore needing to be suppressed. In one culture, fire is seen as a natural part of the landscape and something that can be cooperated with in order to make biodiversity flourish, whereas in the other cultural view, fire is an enemy to private property and something in Nature that humans must control. Although Indigenous tribes work to heal their communities from internalized colonialism, much of the

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<sup>158</sup> Driskill, et al., “Introduction,” 19.

<sup>159</sup> Brooks, “Afterword,” 244.

<sup>160</sup> Driskill, et al., “Introduction,” 20.

literature written from both queer ecologists and Native scholars establishes that queerness and transness has always been a part of Indigenous traditional cultures. As more Western scientists and conservationists acknowledge the legitimacy of TEK and begin to build coalitions with tribes, it is crucial that views on both queer and transness in both human and non-human species are also included. As Bagemihl argues, that:

For too long, negative views have been sanitized to make them palatable to non-Indigenous people. In a world where Native American spirituality is co-opted...it has become something of a cliché to speak of the environmental ‘balance’ and ‘harmony’ of Indigenous cultures. The reality is that homosexuality and transgender—along with many other beliefs and practices that would probably be considered objectionable by large numbers of people—are usually an integral, if not a central, component of such ‘balance’...What western science can learn most from aboriginal cultures is precisely this polysexual, polygendered view of the natural world.<sup>161</sup>

When we are able to step outside heteronormative ideas of sexuality and gender, we can see that in both human and non-human cultures that there is an explosion of diverse sexualities, gender presentations and roles, as well as relationship dynamics. Worldviews that suppress diversity or try to force bodies and behaviors into limited categorizations are not only scientifically inaccurate but cause more harm than good. I very much doubt that the majority of people would want to live in a world that is so often depicted in Western apocalypse narratives. However, if we cannot learn to unlearn heteropatriarchal, White supremacist, individualistic nationalism, which relies on the domination of Nature, the feminine, the queer, and non-White bodies, then a bleak future is possibly in store for current and future generations. Yet I remain hopeful that this nihilistic story is not one that we are destined to follow, as conversations around identity and systemic oppression that would have been seen as “too radical” a few decades ago

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<sup>161</sup> Bagemihl, *Biological Exuberance*, 244.

are taking place in public and mainstream discourses. Because of the ease of sharing new information and our own personal narratives through media and the internet, more people have been able understand the struggles of others and be exposed to new ways of thinking, being, and identifying. As resistance grows, so too does the collective imaginings of our pasts and potential futures, slowly developing “a worldview that is at once primordial and futuristic, in which gender is kaleidoscopic, sexualities or multiple, and the categories of male and female are fluid and transmutable. A world, in short, exactly like the one we inhabit.”<sup>162</sup>

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<sup>162</sup> Bagemihl, *Biological Exuberance*, 262.

## Pathologizing Queerness and Creating The White Wilderness

You think your pain and your heartbreak are unprecedented in the history of the world, but then you read...The things that tormented me most were the very things that connected me with all the people who were alive, or who ever had been alive. Only if we face these open wounds in ourselves can we understand them in other people.

-James Baldwin, *Life* magazine 1963<sup>163</sup>

“History is not the past. It is the stories we tell about the past. How we tell these stories - triumphantly or self-critically, metaphysically or dialectally - has a lot to do with whether we cut short or advance our evolution as human beings.”

-Grace Lee Boggs, *The Next American Revolution*<sup>164</sup>

Everybody’s journey is individual. If you fall in love with a boy, you fall in love with a boy. The fact that many Americans consider it a disease says more about them than it does about homosexuality.

-James, Baldwin, *Conversations with James Baldwin*<sup>165</sup>

In the United States, there is currently a battle being fought over whose history is being taught in schools, colleges, and universities and how. On one hand you have those desiring for a multicultural, diversity-affirming approach where many histories are taught as a reflection of our multicultural nation, along with the need to engage with history more critically in order to heal from past harms whose legacies remain today. Then on the other hand, you have those who are actively resisting teaching anything but a sanitized universal mythology that centers Whiteness and heteropatriarchy, and work to achieve this goal by banning books and suppressing pedagogies that confront racial and heteronormative power as a diversity-suppressing approach. History, or rather how and what history is taught is powerful—as Grace Lee Boggs said, “history is not the past. It is the stories we tell about the past.”<sup>166</sup> The stories we tell about the past are

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<sup>163</sup> Baldwin, “The Doom and Glory of Knowing Who You Are.”

<sup>164</sup> Boggs and Kurashige, *The Next American Revolution: Sustainable Activism for the Twenty-First Century*, 79.

<sup>165</sup> Baldwin, *Conversations with James Baldwin*, 79.

<sup>166</sup> Boggs and Kurashige, *The Next American Revolution: Sustainable Activism for the Twenty-First Century*, 79.

often reflections of what we want the past to be, especially when history is taught through a diversity suppressing lens that focus on a hegemonic, universalized narrative. Ignoring diversity affirming stories such as those that center Blacks, Indigenous peoples, people of color, women, the differently abled, as well as LGBTQ+ people, has created a sort of historical amnesia. These mythological versions of the past ignore difficult stories involving injustices and violence that are woven into the fabric of our country, making it is easier to “forget” the cultural genocide of Indigenous peoples that took place in order for White settlers to become “naturalized” as the rightful owners of the lands now called the United States. Sanitized histories make it easier for some to dismiss ongoing violence and injustice when historical accounts erase unsavory facts altogether and replace actual events with a “nicer” version of the past. It is easy to “forget” that we live in a highly racially segregated and White supremacist nation when we teach civil rights history as though everything has been resolved in the past and we live in a post-racial society. Women are perpetually marginalized due to misogynistic beliefs that they, with the except of a few “Queen bees”, don’t do anything that is historically noteworthy. It is easy to “forget” that LGBTQ+ individuals have always existed—and in different periods of time and places been accepted and honored—when we erase these people from our stories or believe that queer and trans people are somehow a new “phenomena.”

In attempting to learn about myself as a queer and trans person, I have had to do a great deal of self-educating as the majority of academic institutions I have attend from childhood to adulthood have failed to provide this education. While I have felt empowered learning about current and past individuals and communities who fought for their rights—and ultimately my rights that are now endangered—these histories also hold a lot of pain and trauma. Knowing that the source of this violence stems from homo/queer/transphobia, I have found it helpful to dig into

history in order to try to understand where this mindset came from in the first place. How did homo/queer/transphobia become so naturalized in American culture in the first place? Early in my academic pursuits I had the good fortune of being able to take a pilot class with an out gay professor who had the same question:

Much of what follows is derived directly from questions posed to me by my students in American history, the most frequent in which has been, ‘But why do people hate gays and lesbians so much?’ I thought I had some insight into the basic question because I had had firsthand experience. In 1975, I was a Special Forces First Lieutenant and was court-martialed for allegedly engaging in homosexual acts. The raw hate I received shook me to the core, and I sought to discover why my fellow soldiers reacted so negatively to behaviors only asserted, not even proved. The only answer I came up with was education. *These men and women were literally trained throughout their lives to hate homosexuals for no other reason than that they were ‘faggots.’* That was, I thought, stupid and utterly irrational. What had any homosexual ever done to them that called forth such profound vituperation? As far as I could tell, nothing, but the fear and anger persisted despite their not even knowing a single gay or lesbian.<sup>167</sup>

As I learned from my professor Jay Hatheway in both his lectures and in-depth book *The Gilded Age Construction of Modern American Homophobia*, homophobia, or as I will refer to it as queerphobia, in the U.S. had roots spanning back to the late 1800s. Although the roots of queerphobia stem back much further in U.S. history due to the institutionalization of Christianity, however it wasn’t until the late 1880’s that same-sex sexuality was “discovered” in the U.S. and began being written about in scientific literature of the time. Writing through a queer ecological lens as well, it was throughout the early to mid 1900s when queer and trans identities first became pathologized and Nature became a source of “treatment.” This was a tumultuous period of time in American history, slavery had recently ended after the Civil War. During the Reconstruction period, demographics were quickly shifting with massive amounts of immigrants

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<sup>167</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 1. Italics added for extra emphasis.

arriving primarily from Eurasia. The U.S. was rapidly urbanizing and industrializing during the 19<sup>th</sup> and early 20<sup>th</sup> century. With racial demographics and gender roles changing and restructuring throughout this period, the powerful elite—mainly wealthy White men—feared losing what power and control they had, and it was through early medical practices and environmental conservation that these anxieties played out.

### American Anxieties of Moral Decay

Queerphobia in the United States has a long history of being expressed through religious views, however it was during the late 1800's through the early 1900's when scientists began studying the “phenomena” of same-sex attraction and gender variation under the pretense of “curing” these forms of “deviance” through medicine. During this period of time in the U.S., “homophobia, although not a word then in use, found its roots in this matrix of disease, degeneration, and national decline.”<sup>168</sup> In an era faced with great instability and change, the belief in American exceptionalism greatly appealed to “the mostly urban, white middle-class Protestant, which initially held that the United States was exempt from the historic processes of national decline by virtue of its enlightened republican government, freedom of economic opportunity, and dependency upon divine grace.”<sup>169</sup> According to Hatheway, this was also a period when educated elites wanting to elevate and secure the status of their scientific professions gained authority with

the assistance of the educated middle- and upper-class white professionals who together with industry could affect reform and preserve America's national ideology from the trash bin of history. Linked by education, patronage, and birth, the new elites coalesced into a transnational aristocracy with the intent of making America a better place.<sup>170</sup>

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<sup>168</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 197.

<sup>169</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 5.

<sup>170</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 67.

This scientific aristocracy framed themselves as the authority that would prevent the decline and collapse of the U.S. as science was seen as “rational, allegedly universal, practical...[and] it was precisely because of America's practical application of science that Americans now consider themselves the rival to Great Britain and, more importantly, the last repository of freedom in the world.”<sup>171</sup> Around 1870, the country had been a largely rural nation with Western European immigrants and their descendants holding the most political and economic power. However, with the rapid development of the railroad, steel, iron, and oil industries combined with the arrival of “approximately 12 million immigrants... from central and Eastern Europe replacing those who had come from the ‘traditional’ locations of Scandinavia, England, English Canada, Ireland, and Germany” sought economic opportunity primarily in cities.<sup>172</sup> For instance, in 1880 of the 457,000 immigrants arriving in the U.S., 312,000 immigrated from Northern Europe and Germany, 38,000 came from Eastern Europe, 6,000 from Asian countries (predominantly China), 100,000 entered from Canada, 1,400 immigrated from the Caribbean, and 18 came from African countries. Compared to 1900, of the estimated 448,000 new arrivals, 103,000 were Northern European and German, 321,500 arrived from Eastern and Southern European regions, 18,000 were Asian, 5,000 immigrated from Canada, 30 from Africa, and 400 came from Australia.<sup>173</sup> The country began to shift from being a predominantly White rural nation to one with quickly growing multicultural urban centers.

With more women entering the workforce alongside dispossessed Black farmers and immigrants from Eastern Europe and Asia moving to cities, the status quo was being challenged.

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<sup>171</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 68.

<sup>172</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 34.

<sup>173</sup> States, *Historical Statistics of the United States: Colonial Times to 1970*, 22-23.

“Newer” immigrants at this time were “darker” than the previous immigrants and often Jewish or Catholic, and often English was not their first language. For White Protestant Americans, the influx of African Americans, non-Protestant Eastern European, and non-European immigrants into the cities alongside the rate of women entering the workforce outpacing that of men entering the workforce, was seen as a threat to their way of life.<sup>174</sup> Being a time where bigotry was expressed overtly, “racists and nativists made no attempt to hide their disdain for ethnic minorities and agitated for immigration reform, the exclusion of Asians, segregation of African Americans, and the destruction of Native American culture.”<sup>175</sup> Up until 1875, the United States had relatively open borders, however West Coast conservatives introduced the Page Act of 1875 (Sect. 141, 18 Stat. 477, 3 March 1875) wherein Chinese workers were “targeted...as the source of economic depressions and unemployment problems... [and] female Chinese [were branded] as prostitutes, whose arrival in America would corrupt the morals of the nation's youth.”<sup>176</sup> Being the first restrictive federal immigration law in the U.S. and being based on race and class, the Page Act of 1875 attempted to slow the number of unskilled Chinese laborers and Chinese women from immigrating to the United States. Expanding upon the this act, the Chinese Exclusion Act of 1882 “prohibited the immigration of Chinese laborers for a period of ten years and barred all Chinese immigrants from naturalized citizenship” in which class bias in the act was demonstrated by exempting “merchants, teachers, students, travelers, and diplomats” from exclusion.<sup>177</sup> With the high levels of political and economic corruption of the time leading rapidly growing urban areas to become overcrowded, polluted, having high levels of poverty and

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<sup>174</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 33-44.

<sup>175</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 62.

<sup>176</sup> Peffer, “Forbidden Families: Emigration Experiences of Chinese Women Under the Page Law, 1875-1882,” 28.

<sup>177</sup> Lee, “The Chinese Exclusion Example: Race, Immigration, and American Gatekeeping, 1882- 1924,” 36.

crime, as well as being sites for labor-related protests, urban areas and the working classes became linked with “moral decay” brought about by modernity.

Within the growing industrial economy, new “white collar” jobs often required some form of higher education and offered more social privileges due to higher income. These positions often went to the children of the urban middle-class from the Protestant, Anglo-Saxon gentry “who formed the backbone of the bourgeoisie elite.”<sup>178</sup> While still a small population, the “middle class gradually exerted a great deal of influence by virtue of its increasing importance as educated professionals in the expanding national economy” and began connecting the idea of American exceptionalism with “good character” to their success.<sup>179</sup> Between the educated middle- and upper-class, it was their “belief that the United States was a unique and exceptional place where the historical ‘law’ of corruption and national decline could be suspended. The key was to clearly understand the causes of corruption then devise and implement strategies that would ensure continued growth and development rather than decay and degeneration.”<sup>180</sup> During a period of tumultuous change, a growing middle-class of predominantly White Protestants who feared the end of their way of life and ultimately the collapse of America into “degeneracy,” science stepped up as an authority to discovering the “natural laws” in which to live by and prevent the country from decline.

Supported by educated elites in the middle- and upper-classes, science was advocated as having the ability to understand and establish “behavioral norms” structured by essentialism, “that if internalized and followed properly provided direction, order, and personal fulfillment.”<sup>181</sup> Here is where social sciences took on the task of “locating universally binding principles to

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<sup>178</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 38.

<sup>179</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 38.

<sup>180</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 48.

<sup>181</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 48.

which a majority of people, in spite of their very real differences, might agree,”<sup>182</sup> and thus “produce a smoothly functioning society that was naturally moral.”<sup>183</sup> With the social sciences positioning itself as an authority on social norms, scientific medicine situated itself as an authority on healing those who had deviated from those norms.

### Pathologizing the Queer

As essentialist science was leaned on more heavily to be a moral authority guiding America into continued growth and progress, the new field of criminology and medicine influenced each other. Within the field of criminology, “the notion of ‘natural born criminal’ thus entered the scientific imagination, and was picked up throughout the medical community where it was particularly well received.”<sup>184</sup> The idea of a person being born a criminal was accepted and linked to social illness as a part of the degeneration theory, which “asserted that some illnesses, especially the mental ones, were inheritable, and as they passed from generation to generation, they got worse and threatened the very fabric of society itself.”<sup>185</sup> Social illnesses that were linked to degeneration could include alcoholism, pauperism, insanity, engaging in non-reproductive or same-sex sexual activity (e.g. anti-sodomy laws), or not conforming to gender roles based on essentialist views of heteronormativity. Often times those assigned to have an essence of inborn criminality were “individuals who were economically less well off than the middle and upper classes...lived in the inner cities of North America” and were often “the darker Eastern European, the Jew, the Italian, or the African American...[along with] women...who engaged in non-gender conforming activities.”<sup>186</sup>

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<sup>182</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 63.

<sup>183</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 65.

<sup>184</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 87.

<sup>185</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 86.

<sup>186</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 88.

While social scientists in fields like criminal anthropology played the role of “discover[ing] the laws that ensured the ‘evolutionary’ victory of the liberal, Protestant, republican, capitalist America and reverse the frightful slide into chaos,”<sup>187</sup> those in the newly emerging psychology fields worked to understand the cause of and to treat those exhibiting deviance. However, this was also the period in time when the idea of nature vs. nurture—whether certain behaviors were something an individual was born with or developed due to their upbringing and environment—was being debated<sup>188</sup>. Whether a characteristic was congenital (inborn/nature) or acquired (nurture/environmental) mattered greatly as it determined how society should handle deviance from social norms that had been established through biological essentialism. If a behavior was congenital, then was it really fair to legally punish someone as a criminal for something that couldn’t be helped? On the other hand, if a deviant behavior was acquired, then should it not be up to doctors to treat and “heal” those suffering from deviance? This is the debate that brought queer/trans individuals into the scope of early medical discourse.

Prior to the American medical community taking an interest in same-sex attraction, it was in a newly unified Germany among the neuro-psychiatric community that same-sex attraction was “discovered” and became medicalized. Karl Westphal, a neuro-psychiatry professor published an article in 1869 detailing two cases of people who dressed in the opposite gender’s clothing and were attracted to the same sex. Dubbing these behaviors as “contrary sexual feeling,” Westphal argued that these behaviors were congenital and that “this condition was usually pathological, and should be the concern of the physician rather than the court, where

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<sup>187</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 66.

<sup>188</sup> During the late 19<sup>th</sup> century and early 20<sup>th</sup> century, the field of genetics was developing alongside theories of inherited traits, which set the stage for the “nature vs. nurture” debate, especially around concepts of criminality being inheritable.

victims of this phenomenon traditionally found themselves.”<sup>189</sup> Westphal had also been influenced by Karl Heinrich Ulrichs, “self-proclaimed lover of men and the first major figure in the 19th-century German homophile movement.”<sup>190</sup> Ulrichs was a lawyer and journalist who was publicly working to stop “paragraph 143 of the Prussian penal code that criminalized sex between members of the same sex” from being included in the German Empire’s new constitution.<sup>191</sup> Prior to the unification of the German States, Ulrich’s home in the Kingdom of Hanover had no laws regulating sex among consenting adults—same-sex or opposite sex. Ulrich wrote twelve tracts called the *Riddle of “Man-Manly” Love*, where he argued for the “biological innateness of same-sex attraction” in hopes that “if lawmakers understood the same-sex attraction was as natural and normal as opposite-sex attraction, they would be more inclined to reject paragraph 143 outright.”<sup>192</sup> Alongside Ulrich and Westphal, Austro-Hungarian writer Karl Maria Kertbeny spoke out against paragraph 143 and is credited with not only bringing this issue to public attention, but also for coining the terms “homosexual” and “heterosexual.”<sup>193</sup> However, it was Viennese neurologist Richard von Krafft-Ebing who is credited for “moving homosexuality out of the shadows of vice and into the light of science and medicine.”<sup>194</sup>

Although Krafft-Ebing firmly argued that homosexuals should be the responsibility of doctors rather than the courts, he was also influenced by the essentialist science of his time. Scientists working of newly emerging theories of evolution believed they had discovered the “sex instinct,” which “drove species to propagate by means of sexual reproduction, the lack of which would lead to extinction...any form of non-procreative sex was a perversion of the sex

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<sup>189</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 101.

<sup>190</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 101-102.

<sup>191</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 101-102.

<sup>192</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 101-102.

<sup>193</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 103.

<sup>194</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 103.

instinct because it would not lead to reproduction and the survival of the species.”<sup>195</sup> Thus Krafft-Ebing viewed any sexual activity that did not lead to procreation as a sexual aberration, introducing the concepts of “acquired” and “congenital” sexual perversion that would eventually be picked up by American scientists. For Krafft-Ebing, acquired homosexuality was “the result of bad habits or influences that had the cumulative effect of turning an individual away from normal sexual behavior,”<sup>196</sup> whereas congenital homosexuality was “a biological perversion of the sexual instinct,...clinically a ‘functional sign of degeneration’ and...in most cases hereditary.”<sup>197</sup> However, the idea that would really stick with American scientists was Kraft-Ebing’s theory that “sexual pathologies were caused by the stress upon the central nervous system, an unfortunate side effect of civilization.”<sup>198</sup> Krafft-Ebing believed that even though Europeans had “progressed...from its own barbarous and decadent past...he was worried that as modern cities increased demands upon the nervous system, decadence, sensuality, and effeminacy would result and undermine the ‘morality and purity’ of the family.”<sup>199</sup> For those exhibiting moral degeneration, the stresses of modernity were to blame.

For American doctors practicing in a country that was rapidly industrializing and urbanizing with racial demographics and gender roles in flux, modernity seemed like the perfect culprit for moral degeneracy. Although those writing on sexual perversion in Europe at the time were mostly referring to homosexuality rather than transgender, Edward Spitzka, the first American physician to write about “contrary sexual feelings,” lumped both homosexuals and transgender together, thus setting the precedence for other American medical practitioners. Working from

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<sup>195</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 105.

<sup>196</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 107.

<sup>197</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 108.

<sup>198</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 106.

<sup>199</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 106.

Krafft-Ebing's work, Spitzka further developed four categorizations of sexual perversion, which were those who lacked any sexual feelings, having too strong of sexual feelings, having sexual feelings at an "abnormal time in life", and having a sex instinct that "is simply perverted, this is, not of such a character as to lead to the preservation and increase of the species."<sup>200</sup> In the U.S., doctors studying sexual abnormalities seemed to be of two minds on treatment that often reflected class-based prejudices. Physicians who primarily treated the (often White) educated middle- and upper-class, also known as nerve doctors, sexual perversion was seen as congenital, or being biological in that:

the victim was not necessarily mad, delusional, psychotic, or depraved...[rather] bad biology was at fault and under the circumstances one was certainly not responsible for the condition and should be allowed to go about ones business discreetly.<sup>201</sup>



Figure 11. Portrait of Walt Whitman and Peter Doyle.  
Walt Whitman and Peter Doyle, by M.P. Rice, circa 1869.<sup>202</sup>

Remaining in the "closet" or hiding one's same-sex attraction during this time was a crucial survival tactic, which has made identifying some historic LGBTQ+ figures a challenge as speculation is all we have to go on sometimes. Yet rereading personal correspondents and writings of some historical figures through a queer lens has revealed some possible "new" historic LGBTQ+ icons. The nature-

<sup>200</sup> Spitzka, "A Historical Case of Sexual Perversion," 379.

<sup>201</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 125.

<sup>202</sup> Rice, "Image of Walt Whitman and Peter Doyle."

loving poet Walt Whitman is one prominent figure that is now being suggested as having been gay, although his writing on same-sex attraction is written in a more spiritual tone than erotic. In Whitman's collections of poems *Leaves of Grass*, he celebrates the comradeship of men, which to the public could be read as heterosexual friendship, however in his letters to Peter Doyle, a romantic tone is much more obvious (unless you intentionally ignore it and force a heterosexual reading). Writing about Doyle in *Leaves of Grass*, Whitman writes:

When I heard at the close of the day how my name had been/receiv'd with plaudits in the capitol, still it was not a/happy nigh for me that follow'd,/And else when I carous'd, or when my plans we accomplish'd,/still I was not happy,/ .... And when I thought how my dear friend my lover was on his way/coming, O then I was happy,/O then each breath tasted sweeter, and all the day my food/nourish'd me more, and the beautiful day pass'd well,/ And the next came with equal joy, and with the next at evening/came my friend,/And that night when all was still I heard the waters roll slowly/continually up the shores,/I heard the hissing rustle of the liquid and sands as directed to/me whispering to congratulate me,/For the one I love most lay sleeping by me under the same cover/in the cool night,/In the stillness in the Autumn moonbeams his face was inclined/toward me,/And his arm lay lightly around my breast – and that night I was/happy.<sup>203</sup>

However in the case of asylum doctors whose observations came from patients from lower classes, sexual perversion was seen as an acquired condition “as a result of bad habits” with “insanity...[as] the diagnosis” and thus institutionalization as a required treatment.<sup>204</sup> During this period of time when professional medicine was still in its early development, medical conditions linked to inappropriate gender expression and sexuality were commonly addressed with “treatments” that could today be likened to forms of torture. Women's behavior during the 19<sup>th</sup> century was of great concern to middle- and upper-class society, and “merely being a woman in the 1860s was tantamount to having a medical condition. Women with a sensitive clitoris might

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<sup>203</sup> Whitman and Bucke, *Calamus: A Series of Letters Written During the Years 1868-1880 by Walt Whitman to a Young Friend (Peter Doyle)*, iv.

<sup>204</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 125.

awaken to find it amputated by a doctor as a cure for ‘hysteria.’”<sup>205</sup> For queer and transgender men and women, “sexual inversion”<sup>206</sup> was often the diagnosis with a variety of “treatments” such as “aversion therapy, lobotomy, clitorrectomy, and physical or chemical castration.”<sup>207</sup> Aversion therapy, for example, could consist of exposing a queer person to a nude person of the same-sex in-person or in erotic photography, and then physically punishing the patient if they showed any sign of arousal. The theory behind aversion therapy was that the patient would associate the “erotic photograph with pain and learn somehow not to be aroused—much as a mouse is trained with rewards or punishment in operant conditioning.”<sup>209</sup> Even though there were medical scientists at this time such as sexologist Havelock Ellis,<sup>210</sup> who early on

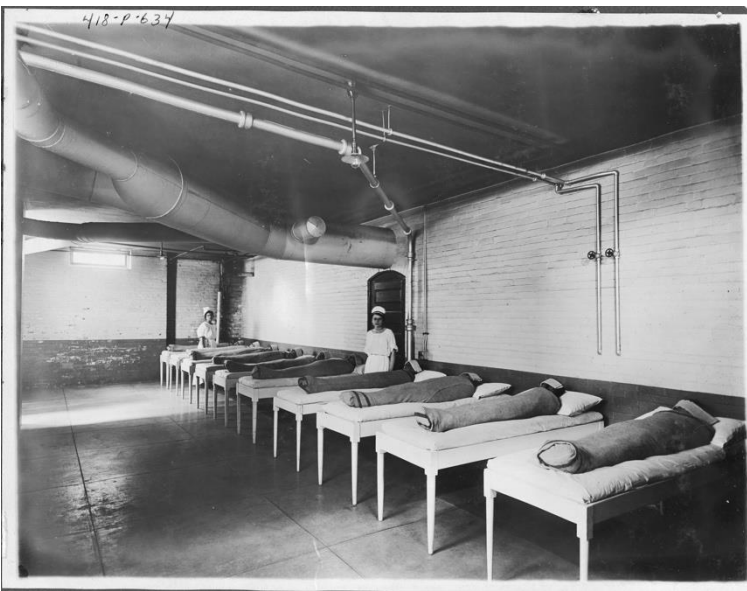


Figure 12. Hydrotherapy. Patients were subjected to forms of hydrotherapy practice, where attendants wrap patients in wet sheets and wait for several hours or days. The photo above was taken circa 1900, retrieved from the National Archives and Records Administration/National Building.<sup>208</sup>

understood aversion and conversion therapies were ineffective, both aversion and conversion therapies for changing sexual orientation continue in some states in the United States to this day, despite there being no evidence that these types of “treatments” do anything but harm.<sup>211</sup>

<sup>205</sup> Roughgarden, *Evolution's Rainbow*, 303.

<sup>206</sup> Mortimer-Sandilands and Erickson, “Introduction,” 8-9.

<sup>207</sup> McWhorter, “Enemy of the Species,” 90.

<sup>208</sup> Stamberg, “‘Architecture of an Asylum’ Tracks History of U.S. Treatment of Mental Illness.”

<sup>209</sup> Roughgarden, *Evolution's Rainbow*, 294.

<sup>210</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 149.

<sup>211</sup> APA, “APA Resolution on Sexual Orientation Change Efforts.” See also Movement Advancement Project, “Conversion ‘Therapy’ Laws in the United States.”

During the early 20<sup>th</sup> century, Social Darwinism gained popularity and gave rise to a belief that “modern America had become a cauldron of unstable passion as each person laid claim to his or her individuality, unchecked by religion or reason, and thus without morality.”<sup>212</sup> Social Darwinists argued that “acquired and congenital homosexuality were ‘diseases of society’ that demanded draconian measures to ultimately eradicate them if the United States were to be healed and returned to a state of health and vigor.”<sup>213</sup> This idea influenced the American eugenics movement which theorized and popularized that diseases and mental disorders were solely linked to genetic inheritance and that human populations could be improved through selective breeding. Combining Christianity with biological essentialism, Social Darwinists and eugenicists sought to rid the country of those who “tainted” the good morals of society in an effort to return the nation to “traditions and standards that had once made the country great.”<sup>214</sup> This was also a time when scientists were expanding on “race science” developed by Enlightenment Era thinkers like François Bernier, Georges-Louis Leclerc, Comte de Buffon, and Carl Linnaeus, going beyond simply categorizing racial differences and rather seeking to find ways to improve races through breeding.<sup>215</sup> After the horrors of genocide committed by the Nazis, it was only after it came to light during the Nuremberg trials that the Nazis had been inspired by American eugenicists like Madison Grant’s deeply racist work *Passing of the Great Race*, that Americans began to pull back the acceptance of eugenic ideologies.<sup>216</sup> Although the sentiments of destroying the “unfit” have waned in popularity and acceptability after the atrocities committed by the Nazis, the influence of social Darwin and eugenics still lingers in many American institutions and among

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<sup>212</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 151.

<sup>213</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 153.

<sup>214</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 150.

<sup>215</sup> Lopreato, “Biology’s Influence on Sociology: Human Sociobiology,” 1219.

<sup>216</sup> Farmer, *Trees in Paradise: A California History*, 69.

conservative thinkers today.<sup>217</sup> It was only in 1973 that homosexuality was removed from the Diagnostic and Statistical Manual of Mental Disorders (DSM) as a mental illness, while it wasn't until 2012 that the American Psychological Association changed "gender identity disorder" (transgender) in the DSM to "gender dysphoria," and 2019 that the World Health Organization removed gender nonconformity from its global manual of diagnoses, the International Classification of Diseases, and thus no longer recognizing transness as a mental illness. Yet despite the removal of same-sex sexual attraction and transgender from mental health diagnostic materials as mental illness, there is still much work to be done by those in the medical fields to undo the stigma against LGBTQ+ individuals.

### Social Darwinism and Conservation

The late 19<sup>th</sup> century and early 20<sup>th</sup> century was a period in which Western scientists and other influential thinkers looked to Nature to understand human society and to search for the “natural laws” humans were to follow in order to thrive. This was also a time of great societal changes and conflict in America, and those from predominantly wealthy White classes feared losing power. For those of the capitalist class with political economic power, subjugating those with characteristics deemed inferior (e.g. women, Eastern European and “non-White” immigrants, African Americans, Native Americans, working class/impoverished, disabled, etc.), social Darwinism and eugenics offered solutions. Social Darwinists took ideas from Charles Darwin and twisted his notions of evolution and natural selection to justify individualistic competition and *laissez-faire* capitalism, alongside White supremacy and nationalism. This philosophy was also used to advocate for the idea that those who are successful have earned their

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<sup>217</sup> Although with the emergence of the “alt-right” politics emboldening bigoted ideologies, some individuals have utilized the tactics of using coded language to express prejudices to avoid being labeled as a racist. One example has been to identify as a “race realist, a euphemism that reflects how they like to believe the scientific facts are on their side,” in order to avoid being identified as a White supremacist or White nationalist. See Saini, *Superior: The Return of Race Science*, 98.

success and that the “unsuccessful” in society are deserving and to blame for their failures.

Although social Darwinists claimed to be applying biological concepts to society, in the present day many scholars recognize social Darwinism as a form of pseudoscience with the sole purpose of advocating for the naturalness of misogyny, racism, imperialism, or even fascism.<sup>218</sup>

Although Darwin utilizes the term “fitness” in his works as a means of describing the mechanics of natural selection, fitness in Darwinian terms more refers to reproductive success and an organism’s ability to survive in its environment in order to reproduce offspring. Social Darwinists however, utilized the notion of “survival of the fittest” as interpreted by English philosopher, biologist, anthropologist, and sociologist Herbert Spencer. In his 1864 book *The Principles of Biology*, Spencer imagines “fitness” as physical characteristics that enhance survival and reproduction, writing that:

This survival of the fittest, implies multiplication of the fittest...This survival of the fittest, which I have here sought to express in mechanical terms, is that which Mr. Darwin has called ‘natural selection, or the preservation of favoured races in the struggle for life.’...That organisms which live, thereby prove themselves fit to live, in so far as they have been tried; while organisms which die, thereby prove themselves in some respects unfitted for living; are facts no less manifest, that is the fact that this self-acting purification of a species, must tend ever to insure adaptation between it and its environment.<sup>219</sup>

For Spencer, “fitness” implied physical and mental fitness, and that competition allowed certain individuals and societies to flourish by allowing the strong to thrive and the weak to be eliminated. For Darwin, Spencer and other Western scientists of this time, the concept of race, racial differences, and racial hierarchy were a continuation of Antiquity and Enlightenment Era

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<sup>218</sup> Rutledge, “Social Darwinism, Scientific Racism, and the Metaphysics of Race.” See also Schoijet, “On Pseudoscience.” and Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 38-48, 143-155, 183-194.

<sup>219</sup> Spencer, *The Principles of Biology*, 444-445.

thinkers who debated whether humanity was monogenetic, one unified species, or polygenetic, “that humans evolved from several independent pairs of ancestors.”<sup>220</sup> Often using the terms “race” (sometimes conflated with ethnicity) and “species” interchangeably, Enlightenment scientists such as Georges-Louis Leclerc, Comte de Buffon, and Carl Linnaeus, sought to define differences between races as well as create distinct categorization.<sup>221</sup>

From the 15<sup>th</sup>-18<sup>th</sup> centuries the meaning of “race” tended to have no stable definition in biological terms, often having two dimensions. As Michael Banton argues, the vertical dimension of the use of “race” framed all humans as descendants of Adam and therefore “identified the historical origins of what made a set of persons distinctive, emphasizing heredity and genealogy ... fitted with the anthropology of the Bible,” whereas the horizontal dimension of the use of “race” instead “identified the nature of that distinctiveness.”<sup>222</sup> From the period of the Renaissance until around the 18th century, scientists’ understandings of human diversity was filtered through natural theology, where scientists studied Nature as a means for understanding “the Bible’s record of creation and for a better understanding of the Creator’s plan.”<sup>223</sup> Interested in finding a natural method of classification for plant, animal, and even human diversity (although only a small portion of his work), the work of Carl Linnaeus helped establish race as a scientific concept, even though the word “race” was not utilized in his taxa, but rather through the use of “varieties.” In Linnaeus’s 1758 edition of his *Systema naturae*, he categorized humans into two classifications, *homo sapiens* (creatures of the day) and *homo troglodytes* (creatures of the night). *Homo sapiens* were then further divided into four “varieties”, the *Americanus*,

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<sup>220</sup> McWhorter, “Enemy of the Species,” 81. Also see Schiebinger, *Nature's Body: Gender in the Making of Modern Science*, 143-183.

<sup>221</sup> Banton, “The classification of races in Europe and North America: 1700-1850,” 45-50. See also Linnaeus, *Systema Naturae*.

<sup>222</sup> Banton, *What We Now Know About Race and Ethnicity*, 11.

<sup>223</sup> Banton, *What We Now Know About Race and Ethnicity*, 12.

*Europeanus*, *Asiaticus*, and *Africanus*, which included physical and cultural characteristics of each of these varieties. Concerned mainly with classification, Linnaeus's classification was not hierarchical and believed all varieties of *homo sapiens* were one species, unlike most of his contemporaries who were more interested in the causes for human variation. Linnaeus's contemporary Count de Buffon advocated that human diversity arose from the "influence of climate, from the difference of food, and of the mode of living, from epidemical distempers, as also from the intermixture, varied *ad infinitum* of individuals more or less resembling one another."<sup>224</sup> Although rejecting polygenist ideas of different variations of humans being separate species, some writers of this time, such as Buffon and Immanuel Kant expressed racist ideologies, with Buffon making "disparaging accounts of Negroes and Lapps" and Kant describing "the Jews as a nation of swindlers."<sup>225</sup> For 18<sup>th</sup> century writers, Christianity and scientific understanding went hand in hand, with three main lines of understanding for human variation emerging: 1) that human variation was the result of divine intervention and "blackness being a curse or punishment upon the descendants of Ham"; 2) human variation arose from environmental influences and inheritance (although genetics had not yet been identified); or that 3) "variations had been there all along, having been part of the Creator's intention ... [which] denied the possibility of evolution ... represent[ing] the natural world as static and was sometimes associated with the claim that the Bible was the story of Adam's descendants only."<sup>226</sup> Although Darwin's natural selection theory debunked the third explanation for human variation, this view of human diversity gained in support scientifically, publicly, and politically throughout the 19<sup>th</sup> century. Throughout the 19<sup>th</sup> century, scholars debated if differences could be

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<sup>224</sup> Buffon and Duchet, *De l'homme/Presentation et notes de Michele Duchet*, 320.

<sup>225</sup> Banton, "The classification of races in Europe and North America: 1700-1850," 47.

<sup>226</sup> Banton, "The classification of races in Europe and North America: 1700-1850," 48.

attributed to “the nature of the environment” or if “the main human stocks had always been distinct” and were “original and permanent.”<sup>227</sup> For both sides of this debate, the notion of “race” was developed into the explanations for variation as well as becoming associated with ideas around “nation” as nationalist movements of the time were gaining momentum.

Understanding race through evolution during the 19<sup>th</sup> and 20<sup>th</sup> century, scientists categorized humans into distinct races according to geographic regions, as well as physical characteristics

#### Who was more likely to be sterilized in North Carolina?

From 1937 to 1966, Black women were most likely to be forcibly sterilized in the state; desegregation coincided with a dramatic increase in the rate. White women were the next most likely demographic group to be forcibly sterilized, followed less frequently by Black men and white men. The chart illustrates sterilization rates per 10,000 people, by race and sex.

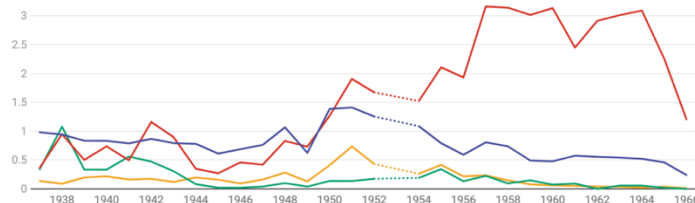


Figure 13. Who was more likely to be sterilized in North Carolina? “From 1937 to 1966, Black women were most likely to be forcibly sterilized in the state; desegregation coincided with a dramatic increase in the rate. White women were the next most likely demographic group to be forcibly sterilized, followed less frequently by Black men and white men. The chart illustrates sterilization rates per 10,000 people, by race and sex.” Missing 1953 data is interpolated.”<sup>228</sup>

like skin color.<sup>229</sup> Each race was placed along an evolutionary hierarchy with “White” Western Europeans at the top, being viewed as the most advanced societies and thus superior to the “lower” races, who were viewed as “savages” and “primitive.”<sup>230</sup>

Although Darwin wrote in disgust

about slavery in his work *The Voyage of the Beagle*, in the U.S., “slavery’s defenders turned to science,” arguing that “negroes were simply not fellow human beings...for Negroes and Caucasians were in fact distinct species.”<sup>231</sup> After the emancipation of slaves in the U.S., alongside the increasing workforce of women and immigrants (who were also engaging in fighting for better work conditions), the educated White male elites turned to social Darwinism “to support their overtly racist and sexist attitudes toward women and people of color by keeping

<sup>227</sup> Banton, *What We Now Know About Race and Ethnicity*, 14.

<sup>228</sup> Stern, “Forced Sterilization Policies in the US Targeted Minorities and Those with Disabilities--and Lasted into the 21st Century.”

<sup>229</sup> Darwin, *The Descent of Man: and Selection in Relation to Sex*, 355-384.

<sup>230</sup> McWhorter, “Enemy of the Species,” 75-76.

<sup>231</sup> McWhorter, “Enemy of the Species,” 79.

them in their ‘place,’” and in turn “deny[ing] the same power to those on the outside by virtue of their alleged, ‘inherently unfit’ natures.”<sup>232</sup> Through the logics of social Darwinism, those who were at the bottom of society belonged there as they were “naturally unfit to survive or be successful in a competitive environment of the most fit.”<sup>233</sup> To give those deemed “unfit” assistance was seen as unnatural, a squandering of resources, and ran the “risk [of] the possibility that the unfit may one day artificially populate the world rather than go the way of the dinosaur.”<sup>234</sup>

With middle- and upper-class White men benefiting the most from rapidly growing industries under capitalism through the exploitation of its labor force, the so-called captains of industry promoted social Darwinism, viewing themselves as exemplary models of superiority. Andrew Carnegie, a steel magnate and supporter of the eugenics movement wrote in his essay “The Gospel of Wealth” how the survival of the fittest was crucial for the good of the nation:

While the law may be sometimes hard for the individual, it is best for the race, because it insures the survival of the fittest in every department. We accept and welcome, therefore, as conditions to which we must accommodate ourselves, great inequality of environment, the concentration of business, industrial and commercial, in the hands of a few, and the law of competition between these as being not only beneficial but essential for the future progress of the race.<sup>235</sup>

Likewise, oil baron and supporter of eugenics John D. Rockefeller, viewed the survival of the fittest as both biological and divine law:

The growth of a large business is merely a survival of the fittest...The American Beauty rose can be produced in the splendor and fragrance which bring cheer to its beholder only

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<sup>232</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 39.

<sup>233</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 39.

<sup>234</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 39.

<sup>235</sup> Carnegie, “The Gospel of Wealth,” 16-17.

by sacrificing the early buds which grow up around it. This is not an evil tendency in business. It is merely the working out of a law of nature and a law of God.<sup>236</sup>

Although social Darwinists favored industrialization and the economic growth that arose from it, urbanization rocked the status quo with an influx of African Americans, working women, and

#### Sterilization rates per 1000 institutionalized patients

In the first half of the twentieth century, approximately 20,000 people – many of them Latino – were forcibly sterilized in California.

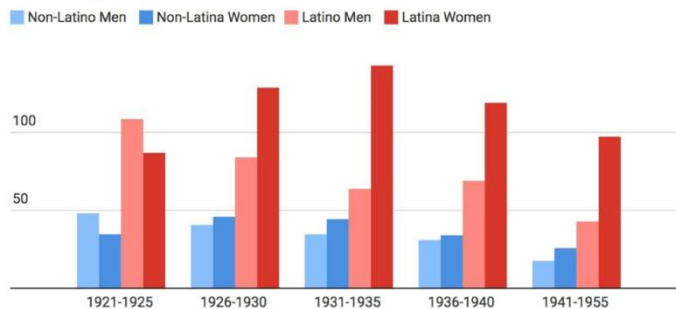


Figure 14. Sterilization rates per 1000 institutionalized patients. “In the first half of the 20<sup>th</sup> century, approximately 20,000 people—many of them Latino—were forcibly sterilized in California.” Chart by The Conversation, CC-BY-ND Data by California Eugenic Sterilization Dataset, University of Michigan.<sup>237</sup>

immigrants posing a threat to American exceptionalism. Likening modern America to the Roman empire in decline, social Darwinists feared that without regulation of moral conduct America would be doomed to collapse.<sup>238</sup> Viewing queer people, people of color, the chronically ill, disabled, and those who went against

gender essentialism of heteronormativity, were seen as “biological enemies of the human species, pollutants and pathogens whose very presence posed a physical and possibly mortal threat not only to individuals but to the species as a whole.”<sup>239</sup>

In order to avert further moral decay of American society, social Darwinists turned to eugenic law and medicine to assure that only the “fit” were able to thrive and that the “unfit” were eliminated—or at least kept from over-populating. Marriage control in the form of “granting marriage licenses only to those who showed no ‘signs’ of mental or moral deficiency,” as well as

<sup>236</sup> Ghent, *Our Benevolent Feudalism*, 29.

<sup>237</sup> Novak and Lira, “Analysis: California’s Forced Sterilization Programs Once Harmed Thousands, Especially Latinas.”

<sup>238</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 151.

<sup>239</sup> McWhorter, “Enemy of the Species,” 76.

disallowing interracial and same-sex marriages, was viewed as a way to assure that “only those and those deemed “incurable,” the recommended “therapy” was often a stripping of civil rights, life-time imprisonment, forced sterilization, or even death.<sup>240</sup> The practice of forced sterilization would have a long legacy in the U.S., with over 65,000 Americans being “legally sterilized without their consent” by 1972.<sup>241</sup>

### The Progressive Era and the Conservation Movement

Social Darwinists and eugenicists helped popularized the notion in the U.S. that moral degeneracy, such as homosexuality, arose from the stresses of modernity and that there was a need to return to a pre-industrial lifestyle by reconnecting with Nature.<sup>242</sup> During the Gilded Age, industrial capitalism led to polluted and overcrowded cities, mismanagement of natural resources, economic depression, rampant political corruption, as well as civil unrest in response to its excesses. The U.S. began to move into the Progressive period between the 1890’s and 1900 which lasted until around the beginning of World War I. The Progressive era heralded a wave of social activism and political reform in response to industrialization and urbanization, with politicians pushing for corporate regulation, urban pollution control, restricting immigration, along with the rise of environmental preservation and conservation. Although there are many influential individuals from what is now known as the early modern environmentalist movement, Theodore Roosevelt’s legacy as a conservationist and president is indeed a complicated one. While Roosevelt is often praised for his strong support of scientific natural resource management (influenced by his friendship with Gifford Pinchot) along with his hand in the creation of five national parks, too often the darker side of his motivations go unexamined. In Roosevelt’s mind,

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<sup>240</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 155.

<sup>241</sup> McWhorter, “Enemy fo the Species,” 86. See Figure 14 and Figure 15 for more forced sterilizations data.

<sup>242</sup> Hatheway, *The Gilded Age Construction of Modern American Homophobia*, 154.

conservation was “a great moral issue...[involving] the patriotic duty of insuring the safety and continuance of the nation.”<sup>243</sup> For environmentalists of this era, “the creation of ‘wilderness’ and public lands (parks and forests) was the centerpiece to the nation-building project of defining who we are as Americans...these lands...[are] supposedly, the best of who we are and who we can be.”<sup>244</sup>

Roosevelt’s 1910 “The New Nationalism” speech conveyed his desire to join Americans under a shared universal national identity that could “distinguish the United States from Europe,”<sup>245</sup> and was rooted in “the right kind of character - character that makes a man, first of all, a good man in the home, a good father, a good husband - that makes a man a good neighbor.”<sup>246</sup> However, what and how to create “good character” for Roosevelt was informed by social Darwinism, which intertwined with gender and race, and he feared “racial suicide”<sup>247</sup>—the idea that the “unfit” (non-White, criminals, mentally or physically ill/disabled, non-Christian, and the impoverished) would “outbreed” the “fit” (White, wealthy, “native-born” Protestants), thus driving the “fit” into extinction. The extinction of the most “fit” American citizens was ultimately Roosevelt’s greatest concern and priority, writing in a correspondence stressing the importance of hard-work, essentialist gender roles, and procreation:

What is fundamentally infinitely more important than any other question in this country-- that is, the question of race suicide, complete or partial...The man or woman who deliberately avoids marriage, and has a heart so cold as to know no passion and a brain so shallow and selfish as to dislike having children, *is in effect a criminal against the race, and should be an object of contemptuous abhorrence by all healthy people*...If the men of the nation are not anxious to work in many different ways, with all their might and strength, and ready and able to fight at need and anxious to be fathers of families, and if *the*

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<sup>243</sup> Roosevelt and Abbott, *The New Nationalism*, 22.

<sup>244</sup> Finney, *Black Faces, White Spaces*, 50.

<sup>245</sup> Finney, *Black Faces, White Spaces*, 29.

<sup>246</sup> Roosevelt and Abbott, *The New Nationalism*, 33.

<sup>247</sup> Van Vorst and Van Vorst, *The Woman Who Toils; Being the Experiences of Two Ladies as Factory Girls*, vii-ix.

*women do not recognize that the greatest thing for any woman is to be a good wife and mother, why, that nation has cause to be alarmed about its future.*<sup>248</sup>

Not only was Roosevelt informed by the heteronormative and White supremacist logics of social Darwinism, but also by the idea of sublime wilderness and the passing frontier. Influenced by John Muir and other preservationist notions of “wilderness,” lands in which the majority of Indigenous peoples had violently been removed, were now fetishized as a “pristine sanctuary, where the last remnant of an untouched, endangered, but still transcendent nature [that] can for at least a little while longer be encountered without the contaminating taint of civilization.”<sup>249</sup> Ignoring the level of sophisticated knowledge and land management practices of Indigenous cultures that cultivated these “pristine” places to begin with, wilderness was mythologized as “untouched” lands where one could go to commune with (Christian) God. Alongside this construction of “pristine wilderness,” the myth building of the U.S. frontier profoundly influenced Roosevelt and his racial conservation efforts. Inspired by historian Frederick Jackson Turner’s 1893 work *The Frontier in American History*, he builds the frontier myth through the narrative of early European immigrants leaving civilization, “rediscover[ing] their primitive racial energies” through the rigors of taming wild lands and ultimately constructing a rugged, individualist form of democracy in which a new American ethnic and national identity was formed.<sup>250</sup> However, Turner points out that this rugged individualistic character was in danger as Americans begun to run out of “free land,” writing that:

Movement has been [American life's] dominant face, and...the American energy will continue to demand a wider field for its exercise. But never again will such gifts of free

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<sup>248</sup> Van Vorst and Van Vorst, *The Woman Who Toils; Being the Experiences of Two Ladies as Factory Girls*, vii-ix. Italics added for emphasis.

<sup>249</sup> Cronon, “The Trouble with Wilderness; or, Getting Back to the Wrong Nature,” 69.

<sup>250</sup> Cronon, “The Trouble with Wilderness,” 76.

land offer themselves...and now, four centuries from the discovery of America, at the end of a hundred years of life under the Constitution, the frontier has gone, and with its going has closed the first period of American history.<sup>251</sup>

In Turner's eyes, the frontier had been a special place for White Americans to re-create themselves in new lands, which ultimately embodied true American freedom and identity. Yet, with the frontier "closing," this American identity was at risk of disappearing unless lands were set aside for Americans to exercise and once again reclaim their rugged individualism. Roosevelt and others who felt nostalgia for the frontier "lamented not just a lost way of life but the passing of the heroic men who had embodied that life."<sup>252</sup> To Roosevelt, the image of the tough, stoic (read as White) cowboy was the epitome of American masculinity, writing nostalgically in his book *Ranch Life and The Hunting Trail* of the "fine, manly qualities" of "the wild rough-rider of the plains."<sup>253</sup> Creating the national parks was a means of conserving not only a nostalgic idea of American identity, but as protection against the effeminizing effects of modernity—as the wilderness was a place where "a man could be a real man, the rugged individual he was meant to be before civilization sapped his energy and threatened his masculinity."<sup>254</sup> Additionally, while early environmentalists were influenced by transcendentalists like Henry Thoreau and John Muir, who viewed Nature as a source for spiritual renewal and a place to commune with God, Ralph Waldo Emerson helped incite the idea of Nature as a commodity and to be used by man. Advocating the virtues of individualism and capitalism in his essays "Self-Reliance" and "Wealth," Emerson's essay "Uses of Great Men" frames Nature as a resource:

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<sup>251</sup> Turner, *The Frontier in American History*, 27-28.

<sup>252</sup> Cronon, "The Trouble With Wilderness," 77.

<sup>253</sup> Roosevelt, *Ranch Life and the Hunting Trail*, 100.

<sup>254</sup> Cronon, "The Trouble With Wilderness," 78.

Nature seems to exist for the excellent...As plants convert the minerals into food for animals, so each man converts some raw material in nature to human use...The destiny of organized nature is amelioration, and who can tell its limits? It is for man to tame the chaos; on every side, whilst he lives, to scatter the seeds of science and of song, that climate, corn, animals, men, may be milder, and the germs of love and benefit may be multiplied.<sup>255</sup>

Ironically, as William Cronon claims, men like Roosevelt, who perpetuated this masculinist idea of using Nature to escape from civilization, were often “elite urban tourists and wealthy sportsmen” who in a “peculiarly bourgeois form of antimodernism...projected their leisure-time frontier fantasies onto the American landscape and so created wilderness in their own image.”<sup>256</sup> These nostalgic frontier narratives and the construction and commodification of wilderness reflected the desires of powerful White men to return to a time when America, in their eyes, was great, and thus these desires played out through the creation of the National Parks systems, strict immigration laws, as well as eugenic laws.

It would be easy to dismiss the ideas of individuals from over 100 years ago—as simply just ideas from a time when racism and sexism were overt and widely accepted. Yet, these men are sanctified as heroes who founded the modern environmental movement and major mainstream environmental organizations. Although their words may have been forgotten, their ideas linking conservation, nationalism, and racism are still playing out.<sup>257</sup> Environmental organizations, such as the Sierra Club, have opposed immigration as late as 1998, “using arguments that differed in little but terminology from those eugenicists would have used,”<sup>258</sup> as well as mainstream environmentalists supporting the idea that overpopulation is at the core of environmental problems. Overpopulation, usually using Global South nations as the prime

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<sup>255</sup> Emerson, “Uses of Great Men,” 1, 4, 7.

<sup>256</sup> Cronon, “The Trouble With Wilderness,” 79.

<sup>257</sup> Wohlforth, *The Fate of Nature: Rediscovering Our Ability to Rescue the Earth*, 166-177. See also Wölfe Hazard, *Underflows*. And Finney, *Black Faces, White Spaces*.

<sup>258</sup> Wohlforth, *The Fate of Nature*, 174.

problem nations, is “an appealing distraction from the effects of capitalism and industrialization...effectively turning attention away from the consumption activities of white, middle- upper- class Americans who often made up the movement's membership...[which] the discourse continues to resonate today.”<sup>259</sup>

While there is far more complex history and nuance than I can talk about here, many scholars such as Carolyn Merchant and Carolyn Finney, have critiqued the ideas that form the bedrock of the environmental movement and environmental policies,<sup>260</sup> as well as working to expand the diversity of environmental narratives beyond a White man’s perspective.<sup>261</sup> Critiquing the dominant universal narrative and expanding to multiple narratives is crucial, as “the American environmental movement remains predominantly white and middle class, detached from minorities, immigrants, and the poor along the same lines of class and color that existed a century ago.”<sup>262</sup> In a time of deep political polarization and increasing concern over the dangers of climate change brought about by human activity, we must brave facing these wounds and heal together so that we might have a chance at cooperation. We can no longer idealize American individualism, as large-scale issues of environmental degradation and social inequity cannot be solved by any one person—but rather are problems we need to address collectively in solidarity. We live in an interconnected world full of interdependencies—we have the choice to recognize and embrace those connections and find our own ecological niche within our world, or we can deny these connections in favor of individual superiority and remain fearful and violent towards each other. It is our decision what kind of world we want to live in and create.

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<sup>259</sup> Gosine, “Non-White Reproduction and Same-Sex Eroticism: Queer Acts Against Nature,” 153.

<sup>260</sup> Merchant, *American Environmental History: An Introduction*, 141-155, 162-168.

<sup>261</sup> Finney, *Black Faces, White Spaces*.

<sup>262</sup> Wohlforth, *The Fate of Nature*, 174.

## Discussion—Transformation

-Jonathan: What is it about non-binary people and trans people that is so threatening to these systems of power?

-Alok: We represent possibility. We represent choice, being able to create a life, a way of living, a way of loving, a way of looking that's outside of what we've been told that you should be.

-“Can We Say Bye-Bye to the Binary” on Jonathan Van Ness’s *Getting Curious* show (episode 3) on Netflix<sup>263</sup>

We hold so many worlds inside us. So many futures. It is our radical responsibility to share these worlds, to plant them in the soil of our society as seeds for the type of justice we want and need.

-adrienne maree brown, from *Octavia’s Brood: Science Fiction Stories from Social Justice Movements*<sup>264</sup>

### Through the Lens of Queer Ecology

My exploration of queer ecology was born from a desire to understand how to bring the work of anti-oppression and the liberation movement together with that of environmentalism. Far too long has it felt that as a queer and transgender person, that I was confined by the binary thinking that I could either fight for human rights, or for the environment—but not both. As climate crisis worsens with more severe and frequent natural disasters occurring and impacting the most vulnerable populations, ignoring the interconnectedness of social and environmental issues is not only unjust, but for many—such as myself—intolerable. As an emerging transdisciplinary field, queer ecology is brimming with potentiality to continue the work ecofeminists began in bridging the theoretical gap between sex, gender and Nature through an intersectional lens, alongside offering possibilities for new ways of constructing identities and being in relation not only to each other, but with the more-than-human. Although the

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<sup>263</sup> Ness, “Can We Say Bye-Bye to the Binary?”

<sup>264</sup> Imarisha, et al., *Octavia’s Brood: Science Fiction Stories from Social Justice Movements*, 279.

examination of links between sex, gender and Nature has a long history dating back to ancient times, queer ecology draws from the work of (eco)feminists who “juxtapose[ed] the [egalitarian] goals of the [women’s liberation and ecology] movements” to construct “new values and social structures, based not on the domination of women and nature as resources but on the full expression of both male and female talent and on the maintenance of environmental integrity.”<sup>265</sup> As Prudence Gibson and Monica Gagliano argue, a feminist approach to ecological understanding “involves the dismantling of conventional constructs and habits that do not treat everyone and everything fairly and equally” as well as there being great potential in learning from plant life (as well as non-human animals) “in order to formulate better models of human collectivity and communicative cooperation.”<sup>266</sup>

Expanding on feminist works within ecological understandings, queer ecology not only seeks to broaden linkages between the domination of women and nature, but also to examine the exclusion of LGBTQ+ identities from this analysis, the ways LGBTQ+ individuals have been charged with “unnaturalness,” and to center the perspectives and experiences of LGBTQ+ identities within ecological contexts. The goal of queer ecology being not to only uplift and make more visible LGBTQ+ ecological narratives, but to offer different possibilities of heterosexual dynamics, femininity, masculinity, non-binary or spectral gender identities and sexualities, care and relational systems, as well as different ways of humans relating to and fitting into the non-human/Natural world. During this period of deeply polarized politics generating oppressive conservative law making that diminishes the rights of “othered” humans and Nature, queer ecology provides a lens in which to view “new social concerns” in order to “generate new

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<sup>265</sup> Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution*, xix.

<sup>266</sup> Gibson and Gagliano, “The Feminist Plant,” 125-126.

intellectual and historical problems” along with “new interpretations of the past [to] provide perspectives on the present and hence the power to change it.”<sup>267</sup>

Queer ecology can be understood as having three functions: 1) to question and disrupt the colonially-constructed, heteronormative ways in which Western societal understandings of “(un)naturalness” and “(ab)normality” of sexual and gender identity have been grounded in biology and constructions of Nature; 2) to extend the diversity of cultural, biological, and environmental narratives of the past and present beyond the dominant universalized narrative conceived by mainly White, heterosexual, cisgender, middle- and upper-class men; and 3) to transform frameworks of our understandings of sex, gender, identity, and Nature that aren’t limited by value hierarchies, rigid binaries, White supremacy, settler-colonialism, and heteropatriarchy. What I have found to be the strongest part about queer ecology is that it goes beyond only having the goal of deconstructing “normality,” offering a reconstruction of current ideas and the systems built upon those ideas. Queer ecology ultimately has the goal of expanding our collective imagination of the past along with potential presents and futures of creating new systems of care in place of systems of harm, as well as seeking healthier ways to be in relation with each other and our environment from an individual scale to a global scale.

Throughout my time in “traditional” academic institutions I have been fed the narrative of social justice issues being separate from environmental problems, climate change being framed as doom and gloom narratives in which problems were given with no solutions along with blame was placed on individual behavior, or solutions rely on top-down (government or institutional) approaches in which bottom-up, community-based solutions were framed as too idealistic. Framing social and environmental issues as separate has not only limited our ability to

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<sup>267</sup> Merchant, *The Death of Nature*, xix.

tackle large-scale intersecting injustices but has also limited the ability of coalition building and addressing systemic issues from a bottom-up grassroots approach—that is through stronger community participation in decision making. Much scholarship has already been done to examine these issues, often looking at the history of the modern environmental movement which rose out of the later 19<sup>th</sup>- and early 20<sup>th</sup> century conservation and preservation movements when “the perception of abundant unexploited lands teeming with wildlife and fertile soils began to turn to one of wasted resources and inefficient use.”<sup>268</sup> Between the emergence of both the conservation and preservation movements, the understandings of Nature as a natural resource to be utilized by humans, as well as “wilderness” being framed as a uninhabited space for White middle- and upper-class visitors to exercise and have a religious experience, became solidified in the foundation of the modern environmental movement. As writers like Carolyn Merchant and Carolyn Finney argue, “the narrative of the great outdoors in the United states is explicitly informed by a rhetoric of wilderness conquest, Romanticism, Transcendentalism, and the belief that humans can either control or destroy nature with technology.”<sup>269</sup> Within the conservation movement, Nature was viewed through a utilitarian lens in which “natural resources” should be regulated for “the greatest good for the greatest number...for the longest time.”<sup>270</sup> Promoting the idea of scientific forestry and better regulation of *laissez-faire* capitalism’s misuse of natural resources and lands mismanagement, forester and friend of President Theodore Roosevelt, Gifford Pinchot, institutionalized “resource efficiency in the use of forests, water, and rangelands” as well as “a sustained yield process in which timberlands must be reforested after cutting.”<sup>271</sup> Although better regulation of natural resource management and extraction is

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<sup>268</sup> Merchant, *American Environmental History*, 141.

<sup>269</sup> Finney, *Black Faces, White Spaces*, 28.

<sup>270</sup> Merchant, *American Environmental History*, 145.

<sup>271</sup> Merchant, *American Environmental History*, 143.

something worth celebrating in history, often times the darker side of the intentions of founding conservationists gets left out of the history lesson. During the mid to late 19<sup>th</sup> century scientific understandings of inheritable traits through genetics were being expanded upon and the notions of improving both plants, livestock and humans through selective breeding were being popularized through the eugenics movement. Being advocates of eugenic ideologies and fearing those deemed as “unfit” (e.g. non-White, Eastern European and Asian immigrants, disabled, impoverished and “moral degenerates”) outbreeding “fit” populations (White, Protestant, middle/upper class, able-bodied, Western European immigrants/descendants), early conservationists not only promoted conserving natural resources for future generations, but also the imperative of conserving the White race.<sup>272</sup> Theodore Roosevelt promoted these efforts in his idea of a “new nationalism” in which conservation of Nature became a moral imperative and patriotic duty as it was a means of preserving the superiority of the White race.<sup>273</sup> For Roosevelt, and men involved in the outdoors movement during this time, “wilderness” was seen as a crucial place for White men to reclaim their virility and masculinity, because “in the wilderness, a man could be a real man, the rugged individual he was meant to be before civilization sapped his energy and threatened his masculinity.”<sup>274</sup> For affluent White men fearing that modernity was leading to the effeminization of masculinity, reestablishing their masculine domination of feminine Nature was in-line with the logics of (social) Darwinian “fitness.”<sup>275</sup>

While conservationists viewed Nature through a utilitarian framework, preservationists, who also played an influential role in the formation of modern environmentalism, split from conservationists on the use of Nature. Rather, preservationists, viewed “wild nature” as “a

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<sup>272</sup> Finney, *Black Faces, White Spaces*, 39.

<sup>273</sup> Wohlforth, *The Fate of Nature*, 166-177.

<sup>274</sup> Cronon, “The Trouble With Wilderness,” 78.

<sup>275</sup> Merchant, *American Environmental History*, 147.

treasure to be cherished and preserved” with “mountains, waterfalls, valleys, and even deserts [taking] on characteristics of the sublime, associated in the public mind with the awesome power of God.”<sup>276</sup> Largely influenced by John Muir’s advocacy in preventing a dam being constructed in the Hetch Hetchy valley in Yosemite National Park, “people who had never visited Yosemite National Park or the Hetch Hetchy Valley wrote to Congress, urging that the valley be saved,”<sup>277</sup> thus initiating the largely White, middle-and upper-class public involvement in environmental protection. In the efforts to preserve “wilderness” as spaces “devoid of permanent residents” through the creation of the National Parks System, “native and rural peoples living in a subsistence mode of daily life” were “often displaced in the effort to create a heroic narrative of national conservation.”<sup>278</sup> The idea of “wilderness” as uninhabited by people has encouraged the erasure of the role Indigenous cultures played in shaping the lands, as well as the violent removal of tribes and those who relied on the lands for survival in order to create parks for more wealthy tourists and outdoor enthusiasts. Although many mainstream environmental organizations today would not overtly express the racist and misogynistic views of their founders, with some organizations taking steps to reckon with problematic founders, the modern environmental movement is still “grounded in these values, beliefs, and attitudes of the individuals who construct[ed] them...[which] manifest in our everyday environmental practices, affecting our livelihoods and our interactions with each other.”<sup>279</sup>

This has led to many mainstream environmental organizations and learning institutions to prioritize White, middle-class, heteronormative values, in which protecting “pristine” Nature and over-prioritizing charismatic animals, while the voices and concerns of those who may relate

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<sup>276</sup> Merchant, *American Environmental History*, 147.

<sup>277</sup> Merchant, *American Environmental History*, 151.

<sup>278</sup> Merchant, *American Environmental History*, 152-153.

<sup>279</sup> Finney, *Black Faces, White Spaces*, 28.

differently to the “environment” are often excluded. In turn, this has also led some social justice activists to focus narrowly on single identity issues while avoiding an exploration of how these issues are entangled with and need to be simultaneously addressed with environmental problems. Additionally, I have seen and felt the effects of nihilistic framings of climate change—the blaming of the individual rather than demanding accountability of corporate industries at the center of environmental damage or that we are too late to stop climate change so therefore all hope is lost. This mindset has done nothing but stun individuals into inaction because of fear, guilt, or the overwhelming feeling that we are trying to solve such a complex issue all on our own. I have to ask then, what good is this “traditional” model for? Fortunately, we live in a deeply diverse world full of individuals and communities who are giving the rest of us the permission to question and flat out reject this model of cynicism and impending extinction in favor of alternative models which embrace hope and collective survival.

In the first section, I examined how queer ecology disrupts the idea of normality and how there is a misconception that “normal” human behavior is a result of biology, and that if a behavior occurs in non-human animals, it is then acceptable in humans. However, there are numerous behaviors in animals that many human cultures would not find acceptable for humans, and human behaviors that are not seen in other animal behaviors. In looking at American culture, a “master” narrative exists in which certain characteristics and identities are organized through normative dualisms, where valued traits are placed on one side of a binary and thus naturalized as superior to its opposite. Rather than being based on anything scientific or biological, valued traits are more of a reflection of the desires of those with the most power and privilege to justify injustices enacted upon devalued identities to maintain inequitable power dynamics. The masculine is valued over the feminine, White racial groups are valued over non-White racial

groups, heterosexuality and cisgender are valued over queerness and transgender, and human culture is valued over the non-human or Nature. Much of queer ecology literature examines this binary line of logic in response to supposedly biologically-based arguments for denying certain groups of identities basic human rights and protections, especially those that frame LGBTQ+ as “unnatural” and other characteristics that are deemed closer to Nature (e.g. the feminine, intuition, BIPOC). In unpacking these arguments, scholars have noted that often times gender is misinterpreted as a biological category linked to reproductive organs and strict binary gender roles, rather than understanding gender a culturally constructed categorization that changes over time, and sex being a biological categorization linked to whether a body produces eggs or sperm (or both in cases of intersexed bodies).

In working to understand where this current logic of sex and gender has arisen from, scholars have pointed to Charles Darwin’s sexual selection theory. Darwin proposed in his theory that there is a template that all males and females (both non-human and human) naturally follow in order to successfully reproduce and thus further the species. In Darwin’s mind, males were constantly in competition with one another, more intelligent than females, and virile, whereas females were meant to be more passive, caring (especially of offspring), and coy (not as eager to engage in sexual activity). Additionally, through the rationale of sexual selection theory, procreation becomes the most important mechanism for evolution despite all other behaviors and traits that exist that assure survival, thus creating repro-centric ideologies in which making babies becomes the goal of life rather than surviving and thriving. This has led to many queer ecologist and ecofeminist writers to suggest a rethinking of not only sexual selection theory, but also calling out how repro-centric narratives of survival through procreation ignores the complexities and importance of non-reproductive sex (such as same-sex sex) and the

undervaluing of other social behaviors that ensure survival, such as cooperation. Additionally, I explored some of the “common-sense” lessons I have been taught through American culture and education that attempt to uphold compulsory heterosexuality and the privileging of cisgender identities.

Throughout these biased lessons, I offered a small pool of plant and non-human animal examples that not only prove heterosexist claims about Nature scientifically inaccurate, but also showed that the world we live in is an explosion of sexual and gender diversity that refuses to be confined to a rigid universal binary. These examples are not meant to necessarily naturalize human queer and transgender identities through the logic of *occurs in animals = acceptable for humans*, but rather debunk claims that queerness and transness is a uniquely human characteristic. However, in a time when LGBTQ+ individuals are constantly having to justify their existence and survive in a country where it is acceptable to debate and deny rights to certain groups of people based on identity, learning that queerness (in both the sense of sexuality and the opposite of “normal”) is abundant and crucial in Nature may be empowering information for LGBTQ+ individuals as well as heterosexual and cisgender individuals who suffer under heteropatriarchy. Ultimately the main arguments for uplifting the knowledge of queer and transgender non-human animals are that Western science has limited itself as a model. By being largely unwilling to incorporate the vast diversity of life in our world, scientists often rely on a diversity-suppressing mode of thinking in which difference is framed as “deviance” or a “mistake.” In studying the life histories of non-human species, we are offered a plethora of models of other possibilities and other ways of being in relation with each other that can accommodate a diversity of sexualities and gender presentations, as well as ways of being cooperative, rather than competitive.

In my own lifetime, I have witnessed more individuals expressing concern over the loss of rights, political polarization, and concern over the continued loss of biodiversity that has only been increased in the face of climate change. The models we have now that value individualism over collectivism, universality over diversity, and exclusion over inclusion, are being recognized by many fighting for lasting change as unsustainable. Some activists and scholars have suggested looking at different non-human animal societies for different models of being for humans, as many social species utilize cooperation and have been able to integrate queer and transness into their social structures.<sup>280</sup> Others have suggested uplifting Traditional Ecological Knowledge alongside Western science, as many Indigenous cultures hold a deeper understanding of sustainable land management based on mutual respect and care for Nature and the non-human—or the notion of kincentricity, gender dynamics that do not rely on patriarchal control and domination over the feminine and Nature, having a responsibility to one’s community, as well as queerness being an integral part of many Indigenous traditions. TEK models and Indigenous leadership is invaluable for climate justice movements as it offers different ways of thinking outside of colonial concepts, emphasizes multiculturalism, community governance and solutions over reliance on the state, and has been formed from cultures that have essentially already experienced their own form of apocalypse under colonial genocide, in which they have had to be adaptable and resilient in order to survive and thrive.

Lastly, LGBTQ+ communities have also been suggested as a potential model in which we might utilize during this time of crisis. LGBTQ+ people have often needed to find different ways of being in a world that outwardly rejects us as well as finding ways to live authentically when a repressive binary doesn’t suit our identities. We have created new families of our own

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<sup>280</sup> Bagemihl, *Biological Exuberance*, 54.

when our “biological” families have turned us away. We have carved out safer spaces for ourselves and communities when all other spaces have worked to exclude us and keep us out. We have created our own art, literature, music, and media in response to harmful representation or bad representation that was created about us, without us. We have formed new ways and systems of care through mutual aid when it has become apparent that the government and our institutions are not meant to provide for us or actively harm us.<sup>281</sup> We have created a vast variety of our own identities and terminology when the language available can’t accurately describe us. Since LGBTQ+ identities span across all other existing identities, there is great potential in coalition building and solidarity building across race, class, age, ability, nationality, and so on. This is not to say that there is one model that is better than the other, or that we even need to settle on just one. Rather, we need to be open to entirely new ways of being that don’t replicate our current structures of oppression and control. Even within oppressed communities that organize to address systemic problems, internal conflict arises due to internalized oppressive power dynamics, the inability to conflict resolve, along with the inability to agree on what actions are best to take in providing solutions. This is why it is so important for those seeking liberation to recognize and unlearn heteropatriarchy, White supremacy, and colonial thinking in order achieve effective and long-lasting change created through collaborative action. It is also crucial that both scientists and scientific institutions be open to new ideas and knowledge productions, such as the existence of queer and transgender animals, the idea that humans are not separate from or meant to dominate Nature, and that TEK is a crucial model for addressing social inequity and creating ecologically sustainable futures.

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<sup>281</sup> Lang, “Behind the Fundraisers Saving Queer and Trans Lives during COVID-19.”

In the second section, I examined how queer ecology offers extensional scholarship through the historical roots of queer- and transphobia, specifically in the United States, and how this prejudice became entangled in the formation of American national identity and the early environmental conservation movement in the early 20<sup>th</sup> century. Presently, there is a major fight over the teaching of American history being played out through the banning of books and curriculum on race, gender, and sexuality. This is an effort to dismiss the realities of inequity in our culture and perpetuate a historical amnesia that allows those with the most power and privilege to be perceived as innocent from causing harm or that change (or at least the changes those on the political left want to see) isn't needed. When we deny the reality of our collective history, not only do we deny a very real part of our individual identity as Americans, but we deny ourselves the potential to learn from past mistakes, to empathize with those whose lives have differed from our own, and we lose the ability to understand how we have arrived at present-day problems. In looking back at my own education as a child, which lacked much nuance or discussion around any of the topics conservatives are currently working so hard to ban, my childhood learning feels more like propaganda than an actual meaningful education. I have no doubt in my mind that if my early education had engaged at all with sexual and gender diversity as being "normal" I would have figured quite a few things out about myself sooner, rather than in my early thirties. If I had been taught to critically think about systems of oppression in a historical context at an earlier age and in learning communities, I would have potentially been a better ally as a White person earlier in my life, as well as grappled less with how as an individual I could support the changes I would like to see.

Through my research on 19<sup>th</sup> and early 20<sup>th</sup> century American history, I was shocked to see that some of the same arguments being made against LGBTQ+ people (as well as women

and people of color) today were being made over one hundred years ago. Although the majority of anti-LGBTQ+ arguments I have noticed have been within a religious context, there have still been a significant amount made on the basis of “scientific” evidence that LGBTQ+ people are “unnatural,” mentally ill, are a new “trend,” or flat out don’t exist. This has been the legacy of the pathologizing of LGBTQ+ individuals and communities during the 1800s and 1900s when scientific medicine was deeply engrained in the ideology, which extends back to Antiquity, that men and women were “naturally” heterosexual and had immutable inborn gender-based characteristics. This was also a time that viewed any deviation from heteropatriarchal gender roles as pathological. People of the same sex falling in love or engaging in sexual activity were seen as either ill, because of the stress of a rapidly modernizing country, or moral “degenerates” who needed to be removed from society to prevent their “moral taint” from spreading. During this period of time, scientists expanding upon Enlightenment theories of “race science” with social Darwinian notions of fitness, worked to normalize even further that “non-White” races were less evolved than “White” races, and therefore could be seen as less-than human (or even as separate species). Fortunately, modern doctors and psychologists have made great strides in the last century in recognizing that framing LGBTQ+ individuals as mentally ill is scientifically indefensible and trying to “fix” them through conversion therapy is ineffective and causes great harm—a violation of the hypocritic oath to do no harm. There is still much more work to be done within our care systems for LGBTQ+ and people of color, as there are still bigoted medicine practitioners who either treat their patients poorly or flat out refuse to provide care. I personally have also experienced doctors and mental health providers who have failed to educate themselves on treating LGBTQ+ patients, where I have had to spend a great deal of time and energy trying to explain my identity. I have listened to the experiences of others who end up with

doctors who refuse to assist in gender affirming care and continue to misgender and deadname<sup>282</sup> them. Depending upon which state someone lives in, if a trans person wants to change their legal name or gender marker on their identification, they must provide documentation from a doctor that they are receiving gender affirming treatment. If they can't find a safe doctor to assist, or don't desire to medically transition, this makes gender affirmation in other ways next to impossible. Even in the year of 2022, there are still states that allow conversion therapy to be done on children, as well as states that have worked to criminalize parents who allow their children to transition<sup>283</sup>, despite mounting evidence that gender-affirming care for transgender adults and youths can save lives.<sup>284</sup>

While the legacy of pathologizing of queerness and transness by scientific medicine is slowly beginning to shift, sentiments of LGBTQ+ individuals being “unnatural” have also been entangled with the legacy of social Darwinism’s ideas around “survival of the fittest” and the desire to destroy the “unfit.” Throughout the pandemic, I have noticed these arguments becoming louder in public and political discourse, in the sense of resistance to protecting the most vulnerable to not only the COVID virus, but also in assisting those who were already housing, food, and medical care insecure. Social Darwinism was constructed by White, wealthy men who feared losing their power during a time of great social change and shifting demographics and sought to use pseudoscience to justify using violence to maintain their power. These men believed that through eugenics they could encourage the best “stock” of people (read

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<sup>282</sup> Deadnaming refers to using a trans person’s birth name (the name given to them at birth) rather than using their “preferred” or chosen name that they use to affirm their gender. This is a transphobic tactic used to invalidate and degrade transgender individuals by denying trans people’s autonomy to self-identify as the gender they feel they are.

<sup>283</sup> Chappell, “Texas Supreme Court Oks State Child Abuse Inquiries into the Families of Trans Kids.”

<sup>284</sup> See ACLU, “Doctors Agree: Gender-Affirming Care is Life-Saving Care.” See also The Trevor Project, “Gender-affirming care has been shown to reduce suicide ideation and attempts in transgender individuals, along with social support, familial support, and reduction of discrimination.” Also see Turban, “The Evidence for Trans Youth Gender-Affirming Medical Care: Research suggests gender-affirming medical care results in better mental health.”

as “fit” Whites) to procreate to ensure the best quality of American citizen, all the while attempting to eliminate those deemed “unfit” and seen as threats to making America a truly exceptional place. Through this lens, LGBTQ+ people are seen as “unreproductive” or morally degenerate for engaging in non-procreative sex and therefore have no place or purpose in society—they are reproductively and morally unfit. Similarly, the gender-nonconforming, immigrants and people of color were also seen as threats to American exceptionalism as they were seen as “morally degenerate,” or less civilized than White Western European races. Mingling with the ideas of social Darwinists and eugenicists, early conservationists, such as Theodore Roosevelt, saw the conservation of natural resources and “wilderness” as a means of saving the White race and being a place for White men to reclaim their masculinity, rather than viewing Nature on its own as valuable or having rights.

The long-lasting result of these attitudes has been the “othering” and exclusion of those outside “dominant” or “normal” identity groups from participating in not only the environmental movement, but how Nature and differing identities fit into and participate in nation-building. Some of the largest, most well-funded environmental organizations in the U.S., such as the Sierra Club, The Audubon Society, Greenpeace, and the World Wildlife Fund, have remained largely made up of White, middle-class members, as well as focused on campaigning to save “pristine” environments and charismatic non-human species.<sup>285</sup> Some of these and other environmental organizations have worked to increase diversity within their organizations over the last decade. Organizations like Green 2.0 have even emerged to promote accountability for inclusivity in the environmental sector, reporting that many mainstream organizations have increased the diversity

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<sup>285</sup> Andrew, “The World's Top Environmental Organizations Are Still Predominantly White, a New Report Finds.” See also Green 2.0, “2021 NGO and Foundation Transparency Report Card.”

of their organizations, however, still remain largely White.<sup>286</sup> To those with the most power and privilege, there is a disconnect from other identities who experience oppression, and often times are unable to even recognize that there is a problem of exclusion within their organizations.<sup>287</sup>

Many writers and activists have worked to draw public attention to this issue, arguing that:

Understanding the history of racism in the conservation movement is important, not to assign blame, but to diagnose our unhealthy relationships with each other and with nature, learn from our mistakes, and begin cooperating in the ways that we must in order to reverse our destruction of the earth's ecosystems.<sup>288</sup>

Climate change, along with other large-scale issues that are at the forefront of many American's concerns, such as housing, food security, the ability for a community to deal with natural disasters and shifting weather patterns, are problems that cannot be solved by any one individual alone, but rather require collective solutions. Due to the slow response of many environmental organizations' inability to understand issues of inequity and increase diversity and inclusivity of not just a variety of identities, but also prioritize tackling interrelated social and environmental issues, new environmental organizations that center anti-oppression have emerged in response. Some organizations, such as Latino Outdoors, Outdoor Afro, Native Women's Wilderness, Queer Nature, Queer Ecojustice Project, and The Venture Out Project have organized to create safe spaces for those who experience identity-based oppression to engage with environmental advocacy, as well as cultivate a stronger connection to Nature that they may have previously been denied in mainstream organizations. These spaces have been critical in modeling different frameworks for understanding the interconnections between social and environmental advocacy,

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<sup>286</sup> Green 2.0, "2021 NGO and Foundation Transparency Report Card."

<sup>287</sup> Finney, *Black Faces, White Spaces*, 95-96.

<sup>288</sup> Wohlforth, "Conservation and Eugenics."

as well as transform the community structures in which this work has been done. More importantly, these spaces are fertile grounds for reconnecting individuals and communities who have been excluded from Nature spaces by allowing them to interpret the value and connection to Nature on their own terms.

## Transformation

These intersectional organizations are crucial in fostering a stronger sense of community amongst oppressed individuals who understand that they “share an imperative with the rest of humanity to live more sustainably on the planet,”<sup>289</sup> but have had to previously chose between fighting for their civil rights or fighting for the environment. Alongside identity-centered environmental organizations emerging, a variety of grassroots organizations focusing on intersectional environmentalism have arisen alongside the Climate Justice movement. Organizations such as Organizing People Activating Leaders (OPAL) Environmental Society, The Sunrise Movement, Generation Green, Climate Justice Alliance (CJA), and Intersectional Environmentalist, have missions on making environmentalism more intersectional and inclusive—that is, uplifting the voices and increasing the participation of Black, Indigenous, People of Color (BIPOC), woman-identifying women<sup>290</sup>, and LGBTQ+ communities within environmentalism. Within this new wave of intersectional environmentalism, organizations draw from the Environmental Justice framework of recognizing that everyone’s life histories are shaped by overlapping identities in which they may experience oppression and/or privilege.

Using the principles of Environmental Justice, various organizations have focused on addressing environmental racism, linking environmental work with the Black Lives Movement,

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<sup>289</sup> Gray, “Heteronormativity without Nature: Toward a Queer Ecology,” 137.

<sup>290</sup> Women-identifying women is a term used to be inclusive of not just cisgender women, but transgender women as well.

and have brought the framework of anti-racism into organizational missions. In a time when terminology is quickly forming and changing, writers and activists, such as Ibram X. Kendi argue that it is important to define what is meant by “anti-racism.” In Kendi’s book *How To Be An Antiracist*, he defines “anti-racism” in the difference between a racist, a “not-racist,” and an anti-racist:

What’s the problem with being ‘not racist?’ It is a claim that signifies neutrality: ‘I am not a racist, but neither am I aggressively against racism.’ But there is no neutrality in the racism struggle ... The opposite of ‘racist’ isn’t ‘not racist.’ It is ‘anti-racist.’ What’s the difference? ... One either allows racial inequities to persevere, as a racist, or confronts racial inequities, as an antiracist. There is no in-between safe space of ‘not racist.’ The claim of ‘not racist’ neutrality is a mask for racism ... ‘Racist’ is not ... a pejorative. It is not the worst word in the English language; it is not the equivalent of a slur. It is descriptive, and the only way to undo racism is to consistently identify and describe it—and then dismantle it. The attempt to turn this usefully descriptive term into an almost unusable slur is, of course, designed to do the opposite: to freeze us into inaction. ... The good news is that racist and antiracist are not fixed identities. We can be a racist one minute and an antiracist the next. What we say about race, what we do about race, in each moment, determines what -- not who -- we are.<sup>291</sup>

Following the framework of anti-racism, many organizations have expanded the logic of anti-racism into anti-oppression, which is the idea that no one can truly be free from oppression until everyone is free from oppression. Blending many frameworks from CRT, eco/feminist studies, and ecocriticism, queer ecology has the potential to provide a model for including Nature into the ideation of liberated futures. For those engaging in ways to implement transformative justice with the incorporation of the natural world, emergent strategy has been a crucial framework in coalition building and re-imagining possibilities outside of settler-colonialism, White supremacy, late-stage capitalism, and heteropatriarchy. One of the foremost authors on transformative justice, adrienne maree brown explains how “emergence emphasizes critical connections over

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<sup>291</sup> Kendi, *How To Be An Antiracist*, 9-10.

critical mass, building authentic relationships, listening with all the senses of the body and the mind,” defining emergent strategy as “how we intentionally change in ways that grow our capacity to embody the just and liberated worlds we long for.”<sup>292</sup> In brown’s work *Emergent Strategy: Shaping Change, Changing Worlds*, she engages the tactics in which social justice movements working under the framework of transformative justice can learn from “the ways creatures and ecosystems function together in and with the natural world.”<sup>293</sup> Brown asks us to reimagine different life forms as teachers of resilience, for example, rather than viewing dandelions (*Taraxacum*) as unwanted weeds, recognize these flowers as food and detoxifying medicine (nourishing and healing), a lifeform that can resist aggressive removal and regenerate itself through its long taproot (resilience, adaptive, and regenerative), as well as spread itself “far and wide in the wind”<sup>294</sup> (decentralized, far reaching community). Brown wants us to consider in what ways can we as individuals and communities be like a dandelion—to be more decentralized, resilient, resistant, and regenerative? She invites us to reflect upon what we can learn from mycelium about interconnectedness and remediation, or from ants (*Formicidae*) about cooperative work, and even from starling (*Sturnus vulgaris*) murmurations<sup>295</sup> about collective leadership and adaptability.

In the same vein of transformative work, Alexis Pauline Gumbs blends emergent strategy in her studies of marine mammals and their resilience during a time of ocean rising and acidification. Gumbs urges those engaging in activism towards a sustainable future to look at the societies of marine mammals to question “what becomes possible when we are immersed in the

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<sup>292</sup> brown, *Emergent Strategy: Shaping Change, Changing Worlds*, 3.

<sup>293</sup> brown, *Emergent Strategy*, 5.

<sup>294</sup> brown, *Emergent Strategy*, 46.

<sup>295</sup> brown, *Emergent Strategy*, 46. brown describes the potential of learning from starling murmurations, or the synchronized movement patterns of a flock in flight: “Guided by simple rules, startling murmurations can react to their environment as a group without a central leader orchestrating their choices; in any instant, any part of the flock can transform the movement of the whole flock.”

queerness of forms of life that dominant systems cannot chart, reward, or even understand?”<sup>296</sup>

Much like the end goal of queer ecology, the framework of emergent strategy is intended to strengthen our imaginations—both individually and collectively. Our imaginations allow us to contemplate different structures that will liberate us all rather than a privileged few. We must begin to imagine how to construct multicultural societies that don’t work to assimilate difference and allow us to move from independence to interdependence. Collectively we must imagine how we are going to transition from a capitalist system where labor is undervalued, and environmental damage is acceptable collateral damage along with how we can transition from fossil fuels to ethical green energies. Within the context of ocean rising, how can we imagine ways of preparing for mass migrations from coastal cities? What care systems can we imagine to assure people’s basic needs are met and that the most vulnerable populations are kept safe during times of heat waves, intensified winter storms, droughts, and floods? In light of the unbelievable tragedy of the COVID pandemic and associated grief, we must now dream and enact how we can heal and care for one another when our own governments fail to do so, and political polarization tears our connections with each other apart. These lines of collective organizing are far from anything new, as in the early 1900s when American social Darwinists were working to normalize violent competition and the struggle for existence as the driving mechanism for evolutionary “fitness,” the opposite notion of cooperation and mutual aid as the main driving force in evolution was being argued by Russian anarchist philosopher Peter Kropotkin. In his 1902 book *Mutual Aid: A Factor in Evolution*, Kropotkin works to debunk social Darwinism by examining how cooperation rather than competition within species ensures survival:

In the animal world we have seen that the vast majority of species live in societies, and that they find in association the best arms for the struggle for life: understood, of course,

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<sup>296</sup> Gumbs, *Undrowned: Black Feminist Lessons from Marine Mammals*, 109.

in its wide Darwinian sense – not as a struggle for the sheer means of existence, but as a struggle against all natural conditions unfavorable to the species. The animal species, in which individual struggle has been reduced to its narrowest limits, and the practice of mutual aid has attained the greatest development, are invariably the most numerous, the most prosperous, and the most open to further progress. The mutual protection which is obtained in this case, the possibility of attaining old age and of accumulating experience, the higher intellectual development, and the further growth of social habits, secure the maintenance of the species, its extension, and its further progressive evolution. The unsociable species, on the contrary, are doomed to decay.<sup>297</sup>

Once we break away from thinkers who worked to uphold the status-quo of individualist capitalist social structures, such as Kropotkin or Brown, we are offered entirely different ways of viewing our world and the possibilities of ways to construct our social systems. Without being able to first imagine different ways of existing and relating to each other, we cannot begin to create a multitude of solutions that will be needed to preserve the abundant life on our planet that we are at risk of losing in the face of human-driven climate change and unadaptable, unjust systems.

### Concluding Thoughts

Within my research on queer ecology, I could have gone in many different directions as this area of study and practice is by nature highly interdisciplinary. As a queer/trans-nonbinary student learning within communities of those with a deep desire to alleviate human suffering and avoidable environmental damage, engaging with queer ecology has become a wellspring of inspiration and hope. In this period of crisis, having hope and inspiration for the possibility of change is crucial. My research in queer ecology has been done with the intention of educating myself on LGBTQ+ issues and history that has been denied to me through my formal education, as well as an attempt to understand how queer- and transphobia has been engrained into our

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<sup>297</sup> Kropotkin, *Mutual Aid: A Factor in Evolution*, 157.

national identity. Queer ecology has great potential to disrupt the universal narratives of “naturalness” that stifle our imaginations of other’s realities and possible futures. Learning about the profuse variation of sexualities and gender among non-human species has been indeed empowering for myself and others who I have shared my new knowledge with. I find it endlessly invigorating to learn of how many non-human animals engage in same-sex relations with one another, the enormity of gender presentation and changing that occurs, and how scientists are coming to realize how much non-human species rely on cooperation—rather than violent competition, in order to survive. Growing up in a culture that lacked good media representation and witnessing the ongoing fights for basic rights and protection against violence for LGBTQ+ people, knowing just how integral and diversely abundant queerness is in Nature can be greatly affirming that queerness is indeed “natural,” has always existed, and is all around us.

I have always appreciated learning a more nuanced version of history when I am trying to understand the present. So much of our current history has been sanitized of violence and reduced down to a single “truth,” denying the reality of present-day problems that have been long-ongoing. Engaging with history through more nuance and critical thinking opens the space to understand where certain ideas actually came from, what the real legacy of our supposed heroes actually were, and gives us the opportunity to learn not only from past mistakes, but to break visible cycles of systemic injustice we are trapped in. Although my primary focus of history was to understand the roots of certain oppressive ideas and how those ideas became entangled with environmentalism, there is thankfully many others who are doing the work of uncovering erased histories and bringing to light narratives that can teach us about past forms of resistance and survival, and thus giving us new figures to celebrate.

Over and over I have heard the sentiment of needing new and better ways of being and doing things being expressed, and that is ultimately the goal of queer ecology—to allow us to imagine those other possibilities and bring those dreams into being. Queer ecology asks us to be critical of the frameworks that trap us into uncreative, nihilistic, reductive ways of viewing the world, each other, and how we relate and interact with those around us (both the human and non-human). While I have found great importance in queer ecology's disruptive and extensional scholarship, it is possibly the transformative work that is the most relevant. Too long has environmental and social justice movements been acting and thinking separate from one another. Queer ecology seeks to heal this separation by reframing environmentalism through transformative justice and building a framework in which to understand how human culture and Nature are connected. Often times those working to solve environmental problems (especially those regarding climate change) become overwhelmed with the enormity of uncertainty or inability to effectively counter misinformation, ultimately leading them to a place of despair and inability to feel that they can do anything to help. It is here that queer ecology can offer hope, drawing from radical thinkers engaging in transformative justice work, that seek to teach us ways of seeing problems in their wholeness, understanding how to build coalitions across difference, and giving us permission to break away from social norms that feel toxic to building healthier relationships. To quote the brilliant Grace Lee Boggs: "Every crisis, actual or impending, needs to be viewed as an opportunity to bring about profound changes in our society. Going beyond protest organizing, visionary organizing begins by creating images and stories of the future that help us imagine and create alternatives to the existing systems."<sup>298</sup>

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<sup>298</sup> Boggs and Kurashige, *The Next American Revolution*, xxi.

Being in conversation with a multitude of disciplines, queer ecology allows us to recognize the isolating influence of an individualist society and find ways to return to each other. Queer ecology asks us to question the validity of universal narratives and scientific institutions that normalize certain identities as “natural,” but frame “others” as “deviants” or “unnatural.” Viewing our world through rigid binaries and diversity-suppressing models limits our ability to see the world in its wholeness and interconnectedness. In a time with such deep political polarization and those committed to resisting new ideas, queer ecology will probably seem like radical propaganda to conservatives. However, for LGBTQ+ individuals who are constantly having to justify their existence and defend their basic rights, queer ecology can be a source of empowerment. Queer ecology can also have relevance for non-LGBTQ+ individuals as it seeks to liberate everyone from oppressive and toxic forms of identity-based power dynamics. Even more importantly, queer ecologies provide models for the most vulnerable populations to build stronger coalitions by understanding the interconnection of each other’s identity-based struggles, create mutual-aid networks, along with building an understand on how to ideate and create a better future together.

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