

THESIS

RE-PHRASING TURF-HUMAN RELATIONS: OPENING SPACE TO IMAGINE MORE
POLITE PRACTICES WITH TURFGRASSES

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ABSTRACT

RE-PHRASING TURF-HUMAN RELATIONS: OPENING SPACE TO IMAGINE MORE POLITE PRACTICES WITH TURFGRASSES

This thesis aims to induce wonder and cooperation towards enacting turfgrass formations and discourses in more reciprocal ways. I amplify Kenneth Burke's take on rhetoric as the art of inducing cooperation, but extend this definition to everyday multispecies relations. In the midst of increasingly unpredictable and unstable climatic conditions, it's imperative to collaborate creatively across disciplines, but also with the biotic relations we co-create worlds with. As a scholar in rhetoric and composition, I perform a discursive analysis on an aspect or slice of the myriad discourses enabling and constraining turfgrass practices. I use rhetorical and social studies methods to analyze thirteen scientific articles on turf from the International Turfgrass Society Research Journal. My qualitative research is undergirded by interdisciplinary theories that emphasize material relations and historical conditions. My findings let me theorize that turf is a complex assemblage, currently governed and enacted according to anthropocentric aesthetic principles of aboveground turf canopy quality, uniformity and performance. From this grounded theory, I hope to open space towards cultivating other ways of knowing and attending to turfgrass assemblages that might sustain diverse relations and lifeways. Our interconnected futures depend on a shared ability to respond and become response-able with multispecies others.

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CHAPTER 1: INTRODUCTION

Turf is a complex assemblage¹, though it's common to presume the contrary. Turf comprises hundreds of species and cultivated varieties – cultivars – of “perennial grasses that form a more-or-less contiguous ground cover” (Turgeon and Fidanza 629). Lawns, swards, pastures, yards, greenways, sports fields, golf courses, public parks and more make up the ubiquitous forms turf takes nowadays. But turf and humans are old kin too. Stories of turf cultivation are commonly traced to the extravagant “green carpets” of 17th century France and Britain, but much older turf-human relations are known to have existed over 2,000 years ago (Loch et al. 12). The huge tumuli burial mounds at Gyeongju, South Korea are covered with a thick mat of Zoysiagrass and date back to the Silla kingdom, or around 100 to 400 AD (Loch et al. 12). We don't know much about how these relations were cultivated over time, but they point to long standing turf-human entanglements. The rhetorician Susan Jarratt also alludes to turf-human relations in ancient Greece. The Grecian concept of *nomos* is contemporarily understood to denote the customs and laws of a particular time and place, “as the expression of what the people as a whole regard as a valid and binding norm” (qtd. in Jarratt 41). But Jarratt also points out that before the emergence of democratic norms in Greece, “An older form of *nomos* (*nomós*)

¹ I draw on the work of Vinciane Despret and Anna Tsing to situate my use of the concept “assemblage.” Despret links assemblage (*agencement* in French) to interspecies co-achievements. For example, she writes that to understand the art made by elephants in a sanctuary in Thailand, one must think of the entire *assemblage* making the paintings possible including “sanctuaries, trainers, amazed tourists...nongovernmental organizations...the elephants” and other material actors and events (*What Would Animals Say* 4). She contests that dismissing the elephant-painters as simple imitators of trained behavior limits concepts of agency to artificially bounded (human) individuals, rather than historically contingent assemblages of multispecies actors co-achieving possible relations and realities (and paintings). Similarly, Anna Tsing argues that assemblages “don't just gather lifeways, they make them” (*The Mushroom* 22). She eschews the use of terms like “community” and “organism” in favor of “assemblage” and “lifeway” to emphasize how “ways of being are emergent effects of encounters.” (4) Tsing definitions recognizes that environments are themselves shaped by the everyday negotiations and reciprocities (or lack thereof) of many multispecies actors. Both definitions understand assemblages as open-ended, historically contingent and made up of more than human actors. This way of knowing understands that when it comes to assemblages, the questions of influence and incorporation are “never settled” (Tsing 22-23).

meant “pasture”” (41). Part of Jarratt’s goal in her book, *Rereading the Sophists* is to unsettle the contrast between mythical and logical ways of knowing. Perhaps the linking of laws and lawns, or how plant, animal and human co-domestications enable and constrain greater social formations, points to other ways of knowing and relating that don’t rely on an intellectual reflex to human mastery.

Fast forward the recent present, where in 2015 a NASA study estimated there to be over 63,000 square acres of “lawns” in the US; a cumulative area around the size of Texas² (Wile). By this measure, turf is now the largest “crop” grown in the US (Wile). Eighty eight percent of landscaping services in the United State are based around maintaining and cultivating turfgrasses (“2020 State of the Industry Report”). This domestic industry rakes in an annual revenue of \$93 billion and employs more than a million people (“Landscape Industry Statistics”). Turf has lived alongside humans for thousands of years yet only in the past hundred has turf proliferated to its present extent. This proliferation is made possible through industrialized practices of “progress” that extend and expand certain scalable and profitable assemblages while obfuscating and downright ruining others. The labor demands and resource pressures of large-scale industries like the turf industry, and the stultifying dreams of human mastery over nonhuman lifeways, have created stunning monocultures and cascading ecosystem collapses³. Increasing pollutants from innovative technologies and advancing industries accumulate in the air, water and soils, accelerating these silent implosions⁴. Turfgrass scientists are answering the call, publishing and

² “Lawns” in the article are defined as monocultures of turfgrasses, including residential and commercial greens, as well as golf courses.

³ In the introduction to the “ghosts” side of their book *Arts of Living on a Damaged Planet*, Anna Tsing, Heather Swanson, Elaine Gan and Nils Bubandt write “The problem is not just the loss of individual species but of assemblages, some of which we may not even know about, some of which will not recover. Mass extinction could ensue from cascading effects. In an entangled world where bodies are tumbled into bodies... extinction is a multispecies event” (4).

⁴ The IPBES, the intergovernmental science-policy platform of biodiversity and ecosystem services, an organization made up of internationally diverse stakeholders, wrote the first key message in the 2019 international summary on

researching topics on resource conservation and ecosystem services more now than ever before. Nonetheless, the scale of environmental destruction calls for innovative collaborations across not only disciplines and nations, but species too.

From this situated urgency, defined by increasing and intersecting climatic precarities, I wonder if scientists, managers and maintainers of turf have come to relate with turfgrasses *more politely* than they did 2,000 years ago? Mastery over turfgrasses has undoubtedly increased, but is there a shared future in this model? While I can't make universalizing assumptions, I do venture to say there is no future in models of human mastery. This thesis shows how a slice of scientific turfgrass discourse comes to enable a rhetoric of dominance over turf-soil assemblages. I argue that turf assemblages are more complex and open-ended than the present-day human-centric principles found in my corpus, allow or enable them to be. I do this to inevitably open space; to encourage curiosity about what the everyday relations between turf and humans *could be*, rather than what they *should be*, according to current "binding norm[s]" (qtd. in Jarratt 41).

This thesis engages an aspect or slice of a larger and ongoing "conversation" on turf-human relations to better understand 1) what turf is, 2) what the purpose of turf is, and 3) how to open space for more polite turf-human relations. I bring theories and methods from writing studies, social studies (including but not limited to social studies of science and technology – *STS*) and cultural studies to analyze the discourse of thirteen turfgrass articles in a scholarly journal from 2017. I want to ground this thesis in the spirit (or soil, if you will) of multispecies collaboration. My objective is not to offer a critique of turfgrass science or a solution to climate change, but rather to inquire, as Annemarie Mol suggests, into "a way of changing a host of intellectual reflexes" in hopes of ensuring collective futures (*The Body Multiple* 184).

climate change, saying; "Nature and its vital contributions to people, which together embody biodiversity and ecosystem functions and services, are deteriorating worldwide" (10).

My Orientation

I'll admit it, I've never felt familiar with turfgrasses or the current culture of turfgrass maintenance. I was raised rurally as a middle-class white kid on stolen Cheyenne, Ute and Arapahoe lands – currently called Northern Colorado – where I was familiar with the annual grasses of the mountainsides distributing their seeds in my socks. But I had never dwelled intimately with the sight nor smells of a closely shorn lawn. After living in the Sonoran Desert for thirteen years, I moved to the flatlands of suburban Colorado just before the pandemic hit. I found myself quarantined and in close quarters with turfgrasses and their humans for the first time. This situation, combined with my fear for the future of diverse life on this planet, motivated me to research turf-human relations. Being a stranger to turfgrasses themselves and the discourses of their human managers, maintainers and scientists seemed a detriment at first, but in the process of research I found this seemingly less-advantageous position to actually afford me a useful orientation. Being a stranger to the current culture and principles defining “proper” turfgrass enactment and maintenance, allowed me a rather wide-angle view of what turf could be, as a unique plant-soil community (assemblage) situated between multiple environments, (above and belowground) enabling and constraining many small and large biotic realities. I thereby came to research the human discourse on turf formations more or less unconstrained by the cultural and discursive conditioning (either professional or everyday) as to what constitutes “quality” turfgrass formations and relations.

I research turf-human relations as a specialist in composition and rhetoric drawing from social studies and cultural studies scholarship. I use theory from figures like Charles Bazerman and Vinciane Despret and find inspiration from many others. For instance, when I use the metaphor of listening to the conversation of turf-human relations, I am drawing on a model by

the rhetorician Charles Bazerman. Bazerman is famous for his work on the role of rhetoric and writing in the sciences. He articulates a conversation model of writing and research in his article "The Relationship Between Writing and Reading: The Conversation Model". Bazerman riffs on the metaphor of the Burkean parlor (by rhetorician Kenneth Burke, whom I'll mention again soon) to similarly convey that we are all born into an era with its ongoing conversation, or the specific ways things get talked about in a specific time and place (Nordquist). Both Burke and Bazerman's conversational metaphors build from a most likely familiar experience. If you've ever walked up to a group of colleagues engaged in conversation at a party or café (or in a parlor, perchance) what is the first thing you most likely did? Listened, right? To participate intelligently in an ongoing conversation requires one to listen to and get the gist of that conversation before jumping in. Bazerman says that research and writing can be thought of in a similar way. When approaching an unfamiliar field or topic, it's imperative to read and research – to "listen" to the conversation – before crafting a contribution. This model formed the basis for my engagement with my corpus. My corpus was comprised of 13 articles from volume 13 of the International Turfgrass Society Research Journal (*ITSRJ*) which appeared in 2017.

My Theoretical Approach

By reading a selection of articles in *ITSRJ*, I engage an aspect or slice of the wider scientific and discursive conversation on turfgrasses to investigate my three research questions; What is turf, what is the rhetorical purpose of turfgrass, and how can spaced be opened to consider more polite practices that could render both humans and grasses more mutually capable of on another? But why analyze scientific articles on turf instead of studying turf itself? If I'm curious what turf is, what turfs current rhetorical purpose is, and how to approach turf assemblages more politely, why not approach turfgrasses and their people directly? Scientific

discourses are one aspect among many practices that come to inform and enact turfgrasses. Besides turf being a complex biological assemblage, myriad other equally complex social and material assemblages inform and enact turf relations. Affective attachments to turf patches as private property, the associations involved in upwardly mobile social-sporting fields, and the price fluctuations of natural gas⁵ are all examples of aspects that inform broader turf enactments. I focused my research on a specific slice of scientific turfgrass discourse to say something relevant, focused and coherent about how the conversation in my corpus comes to inform and enact turfgrass landscapes.

In *The Archaeology of Knowledge*, Michel Foucault writes that through “analyzing discourses themselves one sees the loosening of the embrace, apparently so tight, of words and things, and the emergence of a group of rules proper to discursive practices (49). In this light, texts are not inert material mediators between knowledge and objects but rather act as arbiters of the rules and laws (*nomos*) that come to contingently define, shape and enable certain realities; words and actions reciprocally shape each other and the worlds we co-inhabit. Analyzing texts in this way allows me to approach turf discourse not simply as “groups of signs (signifying elements referring to contents of representations) but as *practices* that systematically form the objects of which they speak” (49, my emphasis).

An anecdotal side note exemplifies how scientific turfgrass discourse comes to enact social and material turf-human relations and formations. Fig. 1 is an image of a piece of domestic mail I received advertising lawn care services. As you can see, besides advertising a new app, this company developed a little man-icon and blurb to convey the ethos informing their services.

⁵ Artificial nitrogen fertilizer is created by transforming urea into a soluble “salt” through a process that requires high heat and pressure. Currently, the fuel used to power the process relies on oil and natural gas, and thus fertilizer prices fluctuate with the global oil and gas market.

The blurb reads, “PhD-developed plans. Guaranteed results” as if a simple causal association *naturally* exists between these two statements. I found this to be a strange yet succinct piece of evidence pointing to how current academic discourses on turf get taken up, advertised and enacted by the “field” at large.

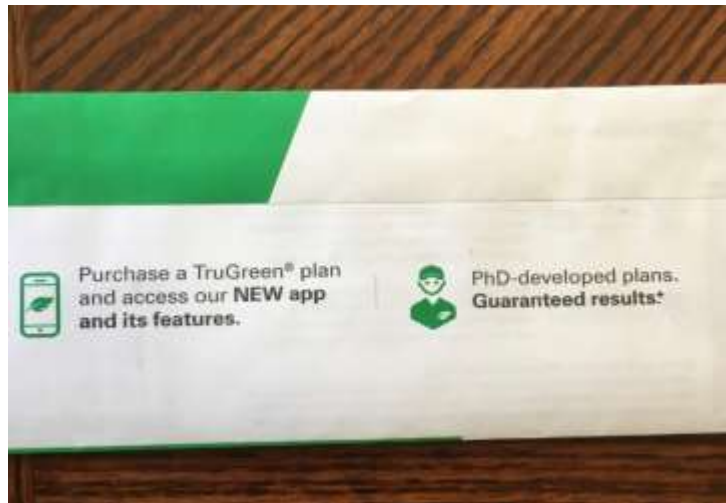


Fig. 1

I analyzed turf discourse-as-practice not to better understand the working concept of turf, but to loosen the grip on this conceptual model to better understand turf-as-emergent and assemblage. When Annemarie Mol studied how the disease Atherosclerosis is enacted across different contexts in a university hospital in Denmark, she recognizes how social-material discourses and many other factors come to enact “medical knowledge [and] medical perception itself” (61). With the help of John Law, Mol expands Foucault’s definition of discourse to be able to account for more complexity and inevitably more mess in medical definitions and practices (Mol 69). Mol cites Law to better advocate for attending to everyday details and discourses in the plural, and to think of discourses as modes of operation, rather than organizing

principles. So rather than thinking of *nomos* as valid and binding, Mol and Law expand the singular and seemingly edificial concept “discourse” to help historicize cultural norms, thereby enabling them to be understood as contingent and adaptable (Mol 69). Their ways of conceptualizing the instability and multiplicity of discursive regimes opens space to consider how social and material relations and realities hang together, and could do so otherwise (Mol 164). This approach helps me understand how turfgrass relations, formations and discourses are in fact plural. It also helps me better trace the ways that discourses and practices resonate with and deviate from each other. Similarly, Mol and Law’s expansion of what discourse is and does helps me attend to how questions of stability, influence and incorporation in turf relations are never settled. Vinciane Despret writes that a version of discourse does “not reveal the world anymore that it veils it, it makes it exist in a possible manner” (*Our Emotional Makeup* 31). I utilize this expanded notion of discourse because it better enables me to approach my corpus as an aspect or slice of many discourses, associations and practices that come to enact turfgrasses and turf-human relations. I perform a discursive analysis in hopes of rendering turf-human relations as more open-ended and complex. I hope this work spurs conversation and thought towards wondering what becoming mutually capable and response-able⁶ with turf assemblages could look like. This thesis opens space to see turf discourses, formations, and relations as historically contingent, complexly messy and excitingly open ended.

For example, in reading the first article in my corpus through this lens, I was able to percolate a more complex and contingent picture of turf than I expected. In A.J. Turgeon and

⁶ I resonate with Donna Haraway’s hyphenation of responsibility to response-ability in *Staying with the Trouble*. She does this to emphasize how rendering ourselves able-to-respond to multispecies and diverse others is a practice of opening space for encounters that impart mutual capabilities. While referring to the work of Isabelle Stenger’s, she writes “The decisions and transformations so urgent in our times for learning again, or for the first time, how to become less deadly, more response-able, more attuned, more capable of surprise, more able to practices the arts of living and dying well in multispecies symbiosis...must be made...” (98)

M.A. Fidanza's article "Perspective on the History of Turf Cultivation" they write that "Turfgrasses are, *for the most part*, perennial grasses that form a *more or less* contiguous groundcover...The turfgrass community *and the soil adhering to its belowground organs* constitute a turf" (629, my emphases). The authors go on to write about how turf assemblages form thatch and mat-bodies that "build up" organic matter which necessitates cultivation (particularly aeration) (629). By reading the first sentence closely, I can see turf as not only perennial and contiguous, but sometimes fleeting and patchwork too. The second sentence also paints an embroiled picture of plant-soil relations. It depicts an image of diffractive relationality between soil and turf or a sort of both/and situation (Barad). This second sentence allows for leaky boundaries to be seen between the hitherto distinct entities of soil and grass to the extent that both come to be defined as "turf." By emphasizing the uncertainty and complexity hidden in plain sight in the quotes above, I can read turf as not only perennial, contiguous, and in-relation with soil life, but also as contingent, unpredictable and indivisible from their soil microbiome.

Situating Polite Practices

I began my research with questions 1 and 3, wondering what turf was, and how we could approach it more politely. Shortly after reading Turgeon and Fidanza's article – early in my research, thankfully – I realized this frame wasn't going to cut it. I realized I needed a middle question; something more to better understand the present-day dynamics of turf-human relations. So, I went back to the drawing board and crafted a new research question – *what is the rhetorical purpose of turf in my corpus*. Through a constant comparative coding analysis, I came to find that the assumed rhetorical purpose of turf was to have its above ground organs conform to anthropocentric aesthetic principles of quality, uniformity and performance (DePoy and Gitlin). Finding this rhetorical purpose for turf in my corpus then made it possible for me to ask my final

question about politeness. A Despretian polite approach means metaphorically seeing eye to eye with turfgrass assemblages. When I found that my corpus established humans as the only active subjects in the field, I knew that opening space to consider turf assemblages more politely – as co-domesticators of urban and rural landscapes – was needed. Researching a slice of the scientific discourse on turf came to reveal an unexpectedly complex picture of turf-as-assemblage, but it also revealed how current discursive practices define what turf *should* be, and thus constrain turf-human relations and the possibilities of what turf assemblages *could* be.

I intentionally emphasize disciplinary overlaps in my work because I see them as generative sites to relate, translate and equivocate⁷ across difference. I draw on multiple forms of scholarship that altogether (yet differently) point to the need to unhinge intellectual reflexes that re-entrench rhetorics of human domination over diverse others. Attending to overlaps in this way can unsettle intellectual reflexes to these narratives of human mastery. While an unsettling can be uncomfortable, I argue it is essential to reinvigorating a state of curiosity towards what more polite multispecies relations could be. I emphasize a Despretian version of politeness as one way to re-approach and attend to the contingencies and possibilities present in everyday and research-based relations.

In the early nineties, Despret traveled to the Negev Desert to observe the rather unusual work of the ornithologist Amotz Zahavi (“Domesticating Practices”). She was motivated because of what she had read of Zahavi’s work before, and noticed that his “descriptions of the birds is rather unusual in ethological discourse” ...and his “theory itself is stranger” (26). Zahavi did not

⁷ In *Perspectival Anthropology and the Method of Controlled Equivocation*, Eduardo Viveiros de Castro forwards this notion of “controlled equivocation” which holds space for messy translations between differing agents, knowing all too well that different words and worlds don’t directly translate or match up. Controlling but not dismissing misunderstandings can thus expand and multiply perspectives on various ways of knowing and the worldings these ways can foster.

try to observe the birds objectively or from a distance, but instead actively accounted for his and the bird's presence in the field (26) Zahavi also writes that babbler social behavior shows they are "very interested in issues of prestige" (25). While theories of competition, hierarchy and social rank abound in ethological discourse, ideas of prestige connote a relationality that doesn't eschew mutual capabilities and potential reciprocity, and so is strange to said field of study. Zahavi's ability to bend the conventions of who collaborates in and who dictates research roles drew Despret in. She left for the field expecting to encounter curious birds and their curiouser scientist, but was surprised when she saw the babblers dance herself. She was deeply moved as "The field 'happened to me'" (25).

A Despretian sense of politeness works in this way. It opens space for the possibility of being moved. It holds space for reciprocity, and the possibility of being changed in the encounter. Donna Haraway describes Despret's practice of politeness in her book *Staying with the Trouble*. She writes, it "demands the ability to find others actively interesting, even or especially others most people already claim to know all too completely (127). From this vantage, we can see that when the taken-for-granted object and purpose of turf remains settled, or already firmly understood, it's nearly impossible to re-approach turf assemblages as such; as *assemblages*. Re-phrasing turf-as-assemblage with an open curiosity and willingness to be impressed, is difficult when turfgrass-soil assemblages have been divested of their wonder and ability to impress.

There was another scientist in the field with Despret and Zahavi too. "Jon's" approach to studying babbler behavior was quite different from Zahavi's, Despret notes:

Jon is seeking a model, and therefore he is paying attention to the behaviors that can either be integrated into or that will fulfill or confirm the model. He probably actively

selects. Far be it to say that Zahavi is not selecting: he does select, but he selects different events. Jon is selecting ‘variations’ in patterns; Zahavi is selecting ‘varieties’ (30).

Variations on a pattern branch from a single *vision*. A model seeking variations on a single *vision of what babblers are* “invades the field, it imposes itself from the outside” (29). A Despretian approach to politeness opens space for multiple *versions* or “varieties” of realities and possible relations (29). This is the type of polite practice I theorize is possible with turf. But one must first approach turf assemblages as more complex, open-ended and impressive to imagine other ways of enacting turf-soil-human formations and relations; to see “eye-to-eye” with turf. Plants are not birds, and if one needs convincing of plant intelligence, there is a plethora of literature both old and new to this regard (Darwin *The Power of Movement in Plants*; Gibson and Britts *Covert Plants*; Hustak and Myers *Involuntary Momentum*; Mancuso and Viola *Brilliant Green*; Marder *Plant-Thinking*; Trewavas *Plant Behavior and Intelligence*; Trewavas “A Foundation for Plant Intelligence”). Yet the differences between birds and grasses *matter* in different ways. What congeals bird behavior and enacts turfgrass relations are not the same. To approach these situated lifeways/assemblages, hoping to learn more about how each critter/assemblage is significant in a situated yet shifting way, and how they shape and constrain worldly relations, (to use both senses of the word *matter*), I argue that a Despretian polite approach is needed to render humans and turf more capable of one another. This means opening space to better see what lifeways turf and humans can co-create and sustain together⁸. I advocate for this approach to studying and enacting turf-human relations because I want to do “the energetic work of holding open the possibility that surprises are in store, that something *interesting* is about to happen” in disciplinary and material fields of turf (Haraway 127). I not

⁸ Imagine dryland turf mats enacted for erosion prevention or nitrogen fixing companion species like clovers being welcomed in personal yards, to start with.

only encourage a reinvigorated curiosity towards everyday relations for the joy of inducing of sympoietic possibilities, but also because human caused climate change threatens species and assemblages in radical and terrifying ways. I hope to induce cooperation across multispecies stakeholders to curb the extent to which diverse lifeways are irretrievably lost. In other words, my objective for this thesis oddly aligns with the primary practice of turfgrass cultivation; I want to create openings. My aim is to cultivate an open sense of curiosity towards what turf-human relations could be when imbued with sense of multispecies hospitality.

CHAPTER 2: LITERATURE REVIEW

So far, I've described my influences as either stemming from rhetorical studies, social studies or cultural studies. While this is more or less accurate, there remains a lot of nuance both within and between these fields. This chapter aims to sketch out the theoretical frames I employ and show how the overlaps between them work to strengthen my overarching analytical approach. I think disciplinary overlaps are good things, as they orient readers to intertextual sites from where collaboration and cooperation can more easily be imagined. Being a student of rhetoric and composition, I begin by going over current and historical work in my field that undergirds my own. From there, I'll slide right into the social and cultural studies approaches. Much of my analysis also takes cue from social studies of science and technology (*STS*) scholarship that often theoretically aligns with my use of an expanded discursive analysis (Mol *The Body Multiple*). In this chapter, I re-nominate the big fields of social and cultural studies as two sub-categories that relate to my research: "genealogical historicisms" and "materialisms." Many careers have been made defending and articulating the divide between these two academic orientations. I'm not so sure of the legitimacy of this schism. I separate them simply out of an organizational need. I hope that including them together in this larger project shows how they are integral, integrated approaches. I think this might help ameliorate the inherited divisions between them. Again, I want to amplify and extend Kenneth Burke's definition of rhetoric as "the use of language as a symbolic means of inducing cooperation" (qtd. in Lindemann 37). As diverse critters facing unsure futures due to accelerating climatic precarities, ingenuity and cooperation will be required to co-achieve sharable worlds. This is why I focus my work in environmental rhetorics.

Environmental Rhetorics

Rhetoricians Jennifer Clary-Lemon and Caroline Gottschalk Druschke extend Burke's definition of rhetoric as they compose to induce cooperation not only between humans, but also between humans and situated ecologies and ecological actors. If humans are to respond (to be rendered response-able, as Haraway writes) to intersecting environmental destructions, the dichotomy of nature/culture must be collapsed, says Clary-Lemon in *Planting the Anthropocene; rhetorics of natureculture*. Jennifer Clary-Lemon literally collapses the two words into one in attempt to unhinge this intellectual reflex. She says the impulse to go along with the schism between object-nature and subject-culture has become so thoroughly internalized and de-historicized that it appears natural. Clary-Lemon follows silviculturists (industrial tree planters) in an off-road ethnography grounded in the rhetorician Thomas Rickert's notion of "ambient rhetorics" (*Ambient Rhetorics*). Drawing on this scholarship, her approach attempts to bridge the rhetorical with the material –the everyday stuff of earthly relations – "by navigating both from a *dwelling* perspective" (Clary-Lemon 8 original emphasis). She traces the transformations of forests into lumber, then back into tree farms by attending to phrases, stories, feelings and everyday material relations held together in this specific practice of primitive accumulation i.e., the "salvaging"⁹ of forest life and lifeways for capitalist profit (what I called "resourcification" earlier). Her goal is to forward "a new materialist environmentalist rhetoric" that opens space for a "messier rhetoric of natureculture", sensitive to the nuances of "relational entanglement with plant and animal bodies" (100). Her unpacking of the intellectual reflex to the nature/culture split does similar work to my use of discursive analysis in this thesis. Both approaches understand that

⁹ Anna Tsing defines Marx's concept of primitive accumulation as "salvage accumulation" to show how capitalist practices of progress entail processes of "translation," or the transforming of situated lifeways into commoditized inventory, emphasizing the deleterious effects that capitalist practices have on more than just the human proletariat (2015 83, 110).

complex reciprocal histories come to enact everyday material relations. Both approaches can also open space for seeing how practices, patterns, and everyday relations could be enacted otherwise. Understanding that discourses enact relational practices does work to loosen the grip on similar narratives that bifurcate human-nature relations. In other words, I emphasize how they can both open space to re-approach entrenched concepts with curiosity and rigor. Clary-Lemon's work also overlaps with mine in that we're both urgently interested in re-phrasing "naturehuman" relations to open space for more polite practices; to re-phrase the positionality of humans as always already involved with the natural world, rather than above it (100).

Caroline Gottschalk Druschke follows a similar vein of analysis but from a different context and with a different blend of theory. She conducted a multi-year ethnography around fish-human relations in New England ("Trophic Rhetorics"). She became fascinated – moved, even – by the complex local discourses around native fish. Some humans fought hard for their gustatory rights to these "river herring" while others were forming "old-timey bucket brigades" to assist the fishies over human-made dams during their upstream spawning migrations (para. 2). "The case seemed to beg for a rhetorical ecological approach to analysis" Druschke writes (para. 3). Similar to Clary-Lemon, Druschke understands the potential of analyzing everyday networks and relations as a way to account for how multispecies stakeholders affect everyday human and more-than-human relationalities. She draws on materialist theories and trends to blend Amerindian anthropological and ecological and rhetorical theory to forward what she calls "trophic rhetorics" (para. 4) She writes that "Trophic rhetoric and the sort of new materialist rhetorical trajectory it imagines, can offer a moment of interruption, an equivocal invitation to put different worlds in relation..." (para. 25) Druschke, like Clary-Lemon understands rhetoric to be about dwelling; to "be about the everydayness of being with one another, a means of

negotiating life in common”, or as a tool for navigating the everyday practices of dwelling together, again, in a more-than-human sense (para. 14). In this approach, rhetoric as an interruption makes space for other versions of knowing and other ways of worlding. This thesis draws directly from this type of rhetorical environmentalism, yet stops short of articulating materialisms as anything new.

The compulsion to situate environmental rhetorics as “new” is a pervasive and ironic trend, because studying, teaching, and inquiring into forms of collaboration across beings and cultures is an old game. Yet the non-materialist, language-based take on rhetoric makes this history hard to see. This is why genealogical historicism is useful, but I’ll get there shortly.

Rhetoric is popularly understood as a strictly linguistic political practice of baffling your opponent to achieve your individual purpose; a requisite survival skill in a world construed as harsh and impersonal. In this truly anthropo-centric reality, it’s hard to convince other humans of the possibility and actual necessity of listening and attending to more-than-human relations. This understanding of rhetoric enacts anthropocentric realities, making for an uphill battle when describing the significance of environmental rhetorics. If we reach far enough back though, Clary-Lemon and Druschke’s environmentalist rhetorics can be seen not as isolated or fringe takes on rhetoric, but rather as a re-emergence of original Sophistic principles.

Most folks associate Plato as the progenitor of rhetoric proper. Scholars such as Susan Jarratt show the that in fact rhetoric was a well-developed and widely practiced educational art long before Plato’s time. In *Rereading the Sophists: Classical Rhetoric Reconfigured* Jarratt notes that although the Sophists were a diverse group of individuals “a general profile emerges of a group of intellectuals (in the active sense of the term) *who rejected speculation about nature as an isolated activity* but rather took their own *materialist* anthropology as the starting point for

understanding and teaching effective *discourse performance* in the new democratic polis” (xx my emphases). Jarratt’s book helps us see that a discursive understanding of rhetoric (one that enacts practices, performs realities and patterns relations with/in nature) was widely known, taught and performed before Socratic and Platonic philosophies took precedence. Environmental and materialist rhetorics that induce cooperation amongst various agents can thus easily be seen as ancient in origin. Environmental rhetoricians nonetheless still face the Sisyphean task of convincing others that nature and humans reciprocally shape one another; we must work continually to situate the historical contingency of the story that passive nature is fated to be subject to the modes of ordering of not just any humans, but the ones “fatefully” situated along the upper end of Plato’s social hierarchy.

So, folks aren’t wrong when they associate rhetoric with politics, it’s just that the quotidian definition of politics could use expanding. Annemarie Mol offers us the term “ontological politics” to this very point (“Ontological Politics”). She writes:

If the term ‘ontology’ is combined with the term ‘politics’ then this suggests that the conditions of possibility are not given. This also suggests reality does not precede the mundane practices in which we interact with it, but is rather shaped within these practices (75).

Ontological politics accounts for the influence of how everyday discursive practices reiterate, adapt, conjugate and enact relational patterns. This is a politics shaped-by and reciprocally shaping the entities involved – a politics historically situated and made always already contingent through the shifting, mundane practices of humans and other critters dwelling together. This definition of politics re-grounds it in the messiness of everyday life, making it compatible if not aligned with the environmental (including early Sophistic) rhetorics.

Environmental rhetorics can thus be seen not simply as new interruptions in the dominant anthropocentric narratives in rhetoric, composition and other academic fields, but rather as pervasive pre-Western ways of knowing and being that continue to be kindled across diverse disciplines and stakeholders.

These rhetorical orientations help me situate this thesis within an academic lineage that is broader and older than the West itself. So, it makes sense if my theories and concepts such as *discourses*, *politeness* and *material relations* seem obtuse or unwieldy when paired with turfgrass science; they go against the working models of *the human*, *nature* and *politics* that make progress and large-scale industry possible. It would be foolish to say this progress and industry hasn't brought much fortune, freedom and proliferation to certain agents at certain times on the planet. It would be equally foolish to avert our gaze from the violence and poverty these models create. I align my work with these rhetorical orientations to hold space for the complexities and possibilities of turf-human relations. These *versions* of doing rhetoric continue to open space for understanding and articulating the everyday political roles, stakes and abilities of multispecies actors in co-creating livable, even flourishing worlds.

The desire to reimagine local plant, fungi, animal and microbial relations isn't shared by rhetoricians alone, by any means. The problem of the nature/culture split and the accelerating climatic precarities it foments, concerns a milieu of critters, including those who identify as social scientists.

Genealogical Historicism

In his book *Facing Gaia* Bruno Latour brings light to the history of climate change skepticism to argue that humans are in need of a Copernican-level shift. This time, not to recognize the earth as round, but to reconceptualize the earth as *sensitized*, as impacted by our

impressions. Latour devotes a lot of writing to making visible the narrative trend of de-animation in scientific discourse as just that – a trend. He writes:

The idea of a Nature/Culture distinction, like that of human/nonhuman, is nothing like a great philosophical concept, a profound ontology; it is a *secondary stylistic effect*, posterior, derived, through which we purport to simplify the distribution of actors by proceeding to designate some as animate and others as inanimate (68, original emphasis).

I start this section with this quote because it exemplifies the work genealogical historicism does in clarifying the historical and cultural contingencies behind concepts and practices.

The work of genealogical historicism – an amplifying of the historical conditions that come to make a certain concept/practice exist in the way it does – was made famous by Michel Foucault. I quoted from his text *The Archaeology of Knowledge* in the introduction. He devotes this book to historicizing the concept/object of the written text. In other books, he performs historical “genealogical” analyses of clinics (*Madness and Civilization*) prisons (*Discipline and Punish*), and western sexuality (*The History of Sexuality Vol. 1 & 2*). I put the term “genealogical” in quotes here to convey that it’s essentially a metaphor created to convey the work of getting to “the root” of a concept/thing by tracing its “genealogy,” first used in this way by the old master of hyperbole himself; Fredrick Nietzsche. He used the metaphor of a genealogical inquiry in his text *On the Genealogy of Morals* where he investigated the history of Western moralism. What started as a hyperbolic metaphor for deep historical inquiry has transformed to become a veritable research method utilized by many a present-day scholar.

In Vinciane Despret’s first book, *Our Emotional Makeup: Ethnopsychology and Selfhood*, she unpacks Plato’s move to amalgamate human emotions as universal, and relegate them as the “passions.” Despret’s early work of researching human emotions from a socio-

psychological and “genealogical” lens laid the theoretical ground for her later work in human-animal studies. It’s here she first articulates her distinction between a “*versional*” versus a “*visional*” theoretical approach. She argues that emotions are enacted differently depending on the context, time and place and thus are historically contingent, adaptable and performative. She does this through historicizing Plato’s take on emotions (130-135). She historicizes the stable Platonic object of *what emotions are* (as universally ubiquitous) and rather reiterates them as performative and enacted differently depending on context (20). A Platonic universal model or vision of emotions seeks a stable essence. Platonic metaphysics forwards that materials and beings have an ideal and essential soul beyond the physical. Hence, it’s a meta-physics. This “ideal form” apparently exists somewhere, and is often defended as essential and stable though strictly immaterial.

Despret historicizes a Platonic definition of emotions-as-universally-ubiquitous-passions to better understand the current material-discursive affects this *vision* has in the present (*Our Emotional Makeup* 159). This is a good example of genealogical historicism because like Nietzsche, she takes a concept firmly ensconced in contemporary quotidian ways of knowing and being (emotions) and questions these concepts through historicizing them, thus performing a sort of de-pedestalization of the concept through showing its historical formation. Despret’s work provided me the theoretical underpinning to inquire into enacting other “*versions*” of turf and turf-human relations (like other versions of morals or emotions), knowing all too well that current formations and relations aren’t *essential* or Platonically ideal, but rather are adaptations and choices made over time, informed through shifting historical conditions and events¹⁰. So,

¹⁰ For instance, in the March 1942 edition of *Turf Culture*, John Monteith Jr. writes about the importance of turf for airfields, airplanes and other defense projects. The events of World War II and the requisite increase of aircraft use helped propel (pun intended) turfgrass science and industry. A small photograph in the article shows a propeller plane covered in a cloud of dust as it lands on an American airstrip (197). In the caption, Monteith writes that poorly

while I draw inspiration from a tradition of genealogical historicism, this research project does not perform a genealogical or historical analysis of turf-human relations. My ability to analyze my corpus in this way comes directly from the work of Despret and others (Butler *Gender Trouble*; Derrida *Monolingualism of the Other*; Mignolo *The Darker Side of the Renaissance*; Stengers *Another Science is Possible*; Strathern *Partial Connections*) that adapted, honed and extrapolated on the principles of Nietzsche's "genealogical" inquiries.

Materialisms

As is to be expected, materialisms pop up a lot when addressing environments, critters and the everyday relations therein. Nodding to materialisms has become perfunctory across many disciplines nowadays and is essentially a signal that you care about everyday relations, beings and things. Despite the current trend in much of the humanities to nod to materialisms and concurrently label them as "new," investigations and experiments attending to material relations are nothing new.

In addition to the sophists bringing their own materialist anthropologies to rhetorical ways of knowing and teaching, Indigenous peoples around the world have and continue to reiterate the importance of attending to material relations. For instance, Kristin Arola, a "mixed-race scholar of Ojibwe and settler origin" writes "every time I try to engage with object-oriented ontology, critical posthumanism, new materialism, or affect studies...I cock my head perplexedly, and at worst I shut down entirely" (*My Pink Powwow Shawl* 386). The terms Arola lists above are all different takes on materialism – different materialisms – each forwarding their own way of attending to *the everyday stuff of earthly relations*. When Arola asks many rhetorical

turfed airplane landing strips and the dusty conditions they created "has been reported to reduce the life of the airplane motors by as much as 90 percent" (197). Thus, the mid 20th century proliferation of turfgrass formations cannot be separated from the intersecting assemblages of wartime efforts. Also, for a theoretically and materially related tangent, see John Law's book "Aircraft Stories: Decentering the Object in Technoscience".

or “materialist” scholars why they don’t cite indigenous folks, she finds a common excuse; “That’s cool, but I don’t *do* American Indian rhetorics” (387). This articulation makes visible how certain disciplinary discourses – radical or rigorous as they may be – make space for certain theoretical overlaps while obfuscating others. This is a direct influence of what Manu Vimalassery, Julianna Hu Pegues, and Alyosha Goldstein call “colonial unknowing” (“Colonial Unknowing” 1). They understand the pervasive lack of acknowledgement of historical and contemporary forms of colonialism –both external and internal¹¹– as “not simply a matter of collective amnesia or omission” but rather as “aggressively made and reproduced, affectively invested and effectively distributed in ways that conform the social relations and economies of the here and now” (1). So, while Indigenous scholars have been articulating and amplifying the particular intricacies of material relations for centuries, much of the western world (and other nations too) still obfuscates Indigenous voices, rights, and ways of knowing.

It is crucial to realign materialisms to Indigenous voices to make visible and halt the trends of colonial unknowing. Being settled on Indigenous lands and not re-entrenching the violence of colonial relationalities necessitates attending to the imbrications of settler-colonialism. That is why it is imperative to have an analysis on settler-colonial relations. Not appropriating nor ignoring Indigenous lifeways and ways of knowing means rendering settler selves and non-Indigenous-based research response-able to Indigenous peoples, lifeways and more-than-human assemblages. To approach turf assemblages politely also means not re-

¹¹ Eve Tuck and K. Wayne Yang write “to remind their readers what is unsettling about decolonization” in the article *Decolonization is not a metaphor* (4). They situate the verb *decolonization* to be incommensurable to current trends to decolonize this or that thing. They advocate for an increased analysis of settler-colonial relationality in the academy and beyond. This form of analysis necessitates an external, internal, historical and contemporary understanding of colonialism. They write “*External colonialism* (also called exogenous or exploitation colonization) denotes the expropriation of fragments [lifeways, I imagine Tsing would say] of Indigenous worlds, animals, plants, and human beings” (4) On the other hand, “The other form of colonialism that is attended to by postcolonial theories and theories of coloniality is *internal colonialism*, the biopolitical and geopolitical management of people, land, flora and fauna within “domestic” borders of the imperial nation. (4)

entrenching patterns of colonial unknowing. For instance, my use of the term “relations” as a framing device for turf and humans primarily comes from an Indigenous way of knowing and being. Kristin Arola writes, “The notion of relationality is found in the everyday lived practices of traditional American Indians” (*A Land-Based Digital Design Rhetoric* 203). She cites Viola F. Cordova’s book on Native American philosophy, *How It Is* and Cordova’s reworking of the popular metaphor of the ripple effect. Arola writes:

In Western thought, the analogy of a stone thrown into the pond is usually used to indicate how our individual actions have impacts beyond what we might originally intend. However, as Cordova describes it, the rock is never solitary. Broadly speaking, in American Indian thought the ripple is just one piece of the overall picture and the overall cause. It is the stone thrown, the air through which the stone travels, the person throwing the stone and where and how she’s standing, it is all of these things and more. It is all of these relations (203).

Bruno Latour reworks a similar version of this ripple metaphor, writing that “You can follow the undulations produced by a stoned tossed into a pond, but not the waves produced by hundreds of cormorants plunging in all at once to catch fish” (*Facing Gaia* 100). Only a *vision* of humans above all others can create an isolated model of multispecies interaction devoid of reciprocal relational fluctuations. Realities are more cacophonous and entangled than most settler-colonial models can render.

The Rhetorician Kenneth Burke also wrote about how seeing in one way is not seeing in another. If you’ve ever seen an anxious horse wearing blinders on either side of their eyes, the point is that limiting their vision often reduces their anxiety. Humans are like horses in that we can get anxious about the complexity and unpredictability of the world around us. Burke said,

whenever we look at a concept or thing through the dominant *nomos* common to the era we're in, we employ a terministic screen or blinder where we are *not* looking at a multitude of other takes or versions of reality. While Burke makes clear that terministic screens cannot be “taken off” per se, much work can be done to expand or increase the limits of one's particular blind spots. These metaphors and heuristics are tools that can do work—that can align with Indigenous materialisms – towards unsettling *visional* models that promote universalizing narratives and models of human mastery. To ensure collective multispecies futures means peoples imbued in settler-colonial privileges and relationalities must widen our ways of rendering realities; we must expand our versions of reality to be more multiple, contingent and complex. This is partly why each subsection in this chapter ends in the plural. Botanist, writer, and Potawatomi citizen Robin Wall Kimmerer writes that:

One of our responsibilities as human people is to find ways to enter into reciprocity with the more-than-human world. We can do it through gratitude, through ceremony, through land stewardship, science, art, and in everyday acts of practical reverence” (*Braiding Sweetgrass* 190).

While narratives of human exceptionalism and universally stable ideals may temporarily stave off feelings of anxiety at the openness and unpredictability of worldly relations, I argue that this sense of indeterminacy is a wonderful (and imperative) place from which to imagine more polite practices with everyday multispecies relatives.

In this chapter I've attempted to outline some of the literature this thesis relies on. At this point I've loaded you with, yes, more specificity, but also more mess. The folds between a discursive analysis, Indigenous materialisms, genealogical historicisms and both ancient and contemporary environmental rhetorics are deep. Yet they all provide ways of seeing how

historically contingent practices come to inform diverse worldly relations. These ways of knowing invoke a perhaps unsettling openness to multiple realities. I acknowledge this acknowledgement can be overwhelming, yet as the literature above attest, there is a need and a lure in leaving space for awe. In the midst of the most modest or minuscule relations, the everyday stuff of dwelling gets hashed out. When space is opened to see beyond residual, de-animating narratives of human mastery, we open ourselves to sensing the cacophonies of relations influencing and enacting material worlds all around us. This is the complexity that both genealogical and material analyses hold space for, and that must be opened too in order to induce cooperation between diverse and multispecies actors in the face accelerating climatic precarities.

There are many routes to come to this same conclusion, yet many fall into the trap of colonial unknowing. A genealogical glance at Native American her-story reveals that to not re-trench patterns of mastery and violence means developing an analysis of settler-colonial relations. I see academic overlaps as good things, if their intersections are understood as places from which to better imagine more polite (and just) relations. I amplify the overlaps between materialisms and genealogical historicisms, for instance, because it takes historicizing everyday realities to understand how discursive practices enable and constrain material realities. I also highlight the overlaps between contemporary versions of materialisms with Sophistic and Indigenous materialisms to unsettle new careerist articulations of the concept. This thesis relies on and amplifies these overlapping yet distinct forms of scholarship. I don't attempt to historicize turfgrasses nor map their present material geographies. Instead, I use rhetorical, social and culturally based theories and methods to open space for re-phrasing turf-human relations more hospitably. In the next chapter, I get into the specific methods I used to analyze my corpus and argue why a more polite approach to turf-human relations is needed now.

CHAPTER 3: METHODS

This chapter of my thesis takes you through my research methods. I'll clarify why I chose to research the *ITSRJ*, how I read it and what I did to make sense what I read.

Engaging the *ITSRJ*

I chose to engage the *ITSRJ* as my corpus for a few reasons. The first being that it represents a reputable, peer review journal in the field of turf science. The *ITSRJ* isn't the biggest journal in the field, nor is it the smallest. It adheres to the conventions of a scientific journal and so represents an authoritative perspective on turf.

Besides being an authority on turf, I chose to research the *ITSRJ* because it publishes articles on varying issues across a wide range of topics. In the early stages of my research, I learned that turf science is organized around certain topics, such as Integrated Pest Management (*IPM*), Physiology and Stress physiology, conservation and environmental quality, establishment and maintenance, and more.¹² Since my thesis is spurred by an exigence of ecosystem collapse due to anthropogenic climate change, I wanted to engage with turf articles also concerned with current environmental exigences. While I was interested in articles that attended to issues related to climate change, the articles I chose were written across varying contexts and offered different perspectives, issues, and themes on turf and climate. I decided not to read articles under topics such as “weeds and pests” “genetics and breeding” or “establishment and maintenance” because they seemed less concerned with climate change, not to say they eschewed these concerns entirely. Researching a single volume of a peer-reviewed society journal helped me avoid

¹² I learned this in a personal conversation with Dr. Yaling Qian, a turf scientist in the Horticulture department at CSU.

choosing articles from various journals that supported a single perspective or agenda, although it's important to recognize that society journals may have agendas of their own.

I also wanted to research an international journal. Although I'm situated on Indigenous lands in the Americas, globalization distributes conceptual models at incredible scales and speeds. I wanted to analyze an international journal on turfgrass science to better understand a slice of the current international discourse on turf, and to make my conclusions more broadly accessible and interesting across disciplinarily diverse and international audiences. So, although I aim to make this thesis broadly accessible, I also chose to research the *ITSRJ* to make my findings more applicable to an audience in the field of turf science and industry.

Reading my Corpus

While a discursive analysis undergirds my approach to researching turf-human relations, the bulk of my research utilized a constant comparative research and coding method¹³ to build theory. I also employed a conceptual content coding scheme¹⁴ near the end. A constant comparative research method and coding scheme comes from the tradition of grounded theory. In the International Encyclopedia of Social and Behavioral Sciences, K. Charmaz writes that "Grounded theory is ...an inductive comparative methodology that provides systematic guidelines for gathering, synthesizing, analyzing, and conceptualizing qualitative data for the purpose of theory construction" (6396). I'm not using grounded theory to try and make universalizing or positivist claims, though this method has been used for this purpose in other instances. I rather chose this research and coding method because I wanted to build theory based

¹³ See Dorothy Pawluch's chapter "Qualitative Analysis, Sociology" in the book *Encyclopedia of Social Measurement*.

¹⁴ See the Writing Across the Curriculum (WAC) Clearinghouse's writing resources for more in-depth information on both relational and conceptual content analyses. Busch et. al. writes that "Conceptual [content] analysis can be thought of as establishing the existence and frequency of concepts most often represented by words o[r] phrases in a text".

off of what I read. A grounded theory approach allows for findings to develop through the research process itself, then tests those findings against the original text to assess their validity. In this way, grounded theory, and specifically a constant comparative coding schema is primarily qualitative and inductive. My reading of my corpus was informed by these methods.

I began by reading each article in my corpus and highlighting textual appeals concerning climate change or general things that I found interesting. I noted these appeals in one color of highlighter and in a different color I highlighted instances of general interest. I learned a lot through this enjoyable first read. I answered my first research question and learned that I needed another one. I came up with my second research question by using a simple heuristic common to rhetorical pedagogy called the rhetorical triangle. The rhetorical triangle, in fig. 2, is taught as a means of attending to the rhetorical features enacting compositions differently across different contexts. The three points of the triangle are denominated as “Purpose,” “Audience,” and “Author”. Accounting for this trifecta along with the context of a composition, can help a reader understand the rhetorical situation informing a text or help a writer compose a text more accurately.

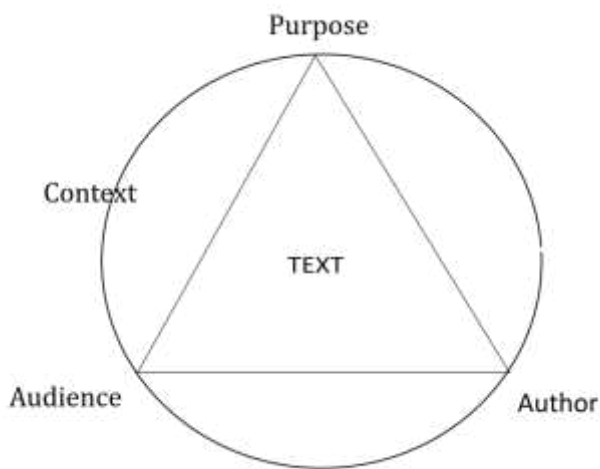


Fig. 2

I came up with this question – what is the purpose of turf – based on this heuristic, or learning tool. I substituted the middle concept “text” for “turf” because I wanted to understand the rhetorical context surrounding enactments of turf. In this way, I interpret turf as a type of composition. Which isn’t a stretch to imagine if we consider each turf assemblage to also have a context, audience, author and a purpose. I devised this question and rhetorical take on turf because of how quickly I answered my first research question, and also because that question didn’t give me what I needed to open space for a more polite approach to turf-human relations. Before being able to phrase this third question, I needed to better understand *current approaches to turf-human relations*. I didn’t know I needed to understand the principles informing current turf enactments until I found such modes of ordering to be omnipresent across my corpus. After developing my second research question on turfs rhetorical purpose, I read through my corpus again. I attended to my articles more closely this time, highlighting textual instances that articulated the rhetorical purpose of turf. I highlighted and took marginal notes as to the specific ways the rhetorical purpose of turf came to be articulated. Because my corpus was specific, my conclusions and findings are limited to this body of work. My specific conclusions nonetheless trace a notable pattern that may align or diverge (hang together) with other assemblages that inform turf enactments. To make meaningful and rational groupings of these findings, I went through and coded them into the modes of ordering (principles) that enact, enable and constrain the discourse on turf in my corpus.

Making Sense of My Corpus

After developing my initial results, I went back through my corpus for a third time to see if my theories held water. This tertiary read was briefer, as I knew each article by then and I was specifically looking for instances that would contradict my findings. While a few articles in my

corpus did make me question my results, they inevitably did not contradict the theories I came to; that in my corpus turf can be seen as assemblage, while the rhetorical purpose of turf is based on anthropocentric and aesthetic principles of turfgrass canopy quality, uniformity and performance.

CHAPTER 4: RESULTS

What is Turf?

I found the answer to my first question the first time I read my corpus. Turgeon and Fidanza's article *Perspective on the History of Turf Cultivation* defined what turf is in the first few sentences of their article. They write:

Turfgrasses are, for the most part, perennial grasses that form a more-or-less contiguous ground cover, filling the surface soil with fibrous roots (Turgeon 2012). With some turfgrass species, the organs – typically crowns and rhizomes – also inhabit the soil. The turfgrass community and the soil adhering to its belowground organs constitute a turf (629).

This definition not only answered my first research question, but it also helped me open space to understanding turf as assemblage; complex, historically contingent, and in diffractive relation with its soil microbiome. The language Turgeon and Fidanza use to define turf left space for ambiguity and open-endedness, which in turn allowed me to theorize turf as assemblage (629). The space left open by their definition enabled me to articulate turf as complex and messy to the extent that questions of incorporation, association and inclusion are never settled. This open-ended perspective led me to wonder if turf and turf-human relations *could* be enacted differently if a more polite relationality was fostered. But I found out quickly that the working definition of turf is shared and assumed in my corpus, and thus absent from all articles. In other words, what turf is, is common knowledge to the everyday audiences of my corpus (blackboxed), and so a definition of *what turf is*, is mostly absent. I understand the primary purpose of this move is to not waste time explaining something everyone knows. Yet a subsidiary effect of this move is an

“objectifying” of turf; assuming a common, stable definition of turf in turn stabilizes turfgrasses *as a common thing*. Stabilizing the object/concept of turf makes it easier build more complex theories and experiments as turf scientists, but only within the agreed upon parameters of what turf should be (remember Burke’s blinders). Yet it made it harder for me to understand what principles enact and stabilize turf as such.

Finding the answer to my first research question – that turf is assemblage – didn’t help me understand what principles or modes of ordering govern the enactments of turf and turf-human relations. I realized I needed to understand how my corpus rhetorically situated the purpose of turf before I could reasonably argue that a more polite approach to turf formations and relations is needed. What I found while reading my corpus a second time was many similar or exact iterations of what turf *should be*, or many similar articulations of shared principles that came to enable and constrain “proper” enactments of turf. Even though Turgeon and Fidanza’s article defined turf as having both above and below ground organs, I found that in my corpus, it was almost always the above ground canopy that dictated how accurately a turf assemblage was conforming to its rhetorical purpose¹⁵. The implications being that turf is a more complex biological assemblage than current enactments allow or recognize. Finding this pattern helped me develop my second question.

¹⁵ The only exception was Craft et al.’s article *Maintaining Soil Physical Properties in Athletic fields using Alternative Technology*. While this article did concern itself with the belowground aspects of turf bodies, the principles I identified as defining proper turf enactment were reiterated without question, and the concern for “soil physical properties” wasn’t a multispecies or environmental concern, or one that acknowledged turf’s complexity, but rather was preoccupied with the physical wellness of human bodies recreationally using said fields.

What is the Rhetorical Purpose of Turf?

Through a constant comparative coding analysis, I found the object/working definition of turf was made stable as such through an agreed upon purpose – found present in all thirteen articles – of what turf “should” be; namely, of high quality, uniformity and performance. It’s from theorizing these slightly differing yet overlapping and distributed purposes of turfgrasses from my corpus that I was able to argue the need for opening space to re-imagine what more polite turf-human relations could be. While overtly overlapping, I coded for all three concepts because I thought the differentiations they brought up mattered.

Quality

“Quality” was the most prevalent concept that I found scientists using to organize turf’s purpose around. I was tempted to elide the categories of uniformity and performance and just go with the overarching theme of quality because a human aesthetic concept of what did or did not constitute “high-quality” turf formations was by far the most ubiquitous principle or mode for organizing successful or “proper” turf enactments. Eight out of twelve articles directly referenced the concept of quality when referring to how turfgrass does or does not conform to its projected purpose¹⁶. Two articles in my corpus used visual rating scales from 1-9 to determine the quality of turfgrass assemblages in their experiments. In turn, this rating was also used to determine the relative success or failure of their experiments. In Goss et al.’s article “Quality-Based Field Research Indicates Fertilization Reduces Irrigation Requirements of Four Turfgrass Species”, they set out to determine the “best management practices that conserve water” in current turf maintenance practices (761). Similar to Chabon et al.’s article, they determine the success of their experiment through a “quality-based” rating scale where “all plots were

¹⁶ Goss et al.; Chabon et al.; Bae et al.; Shaddox et al.; Craft et al.; Mertz et al.; Thompson et al.; and Loch et al.

rated...for visual turfgrass quality on a scale of one to nine (1 = brown, dead turf; 6 = acceptable; 9 = ideal)” (Goss et al. 763). If turf was rated below a six, then both turf formations and water conservation methods were deemed unsuccessful. Chabon et al. determine the relative success that multiple types of inputs have on reducing necessary irrigation amounts for Tall Fescue turfgrass. What became understood as “necessary” amounts of irrigation were determined by “turfgrass quality [which] was rated weekly on a scale of 1 to 9, on which 1 indicates brown, dormant or dead turfgrass and a rating of 9 represents *optimum color, density and uniformity*” (757, my emphasis).

Articles from Bae et al and Shaddox et al. point towards similar uses of principles of quality in turf canopies to judge “proper” turf enactments, but without employing a rating scale. Bae et al. investigate the use of silicon in alleviating drought pressures on Kentucky Bluegrasses (591-600). They write that “Water management is critical to maintain *the quality* of turfgrass under conditions of water scarcity, which if not addressed, can limit the extension of turfgrass area and application” (591, my emphasis). While the purpose of their article acknowledges the increasing effects of climate change, their articulated rhetorical purpose of turfgrasses is judged as proper or acceptable depending on a human’s ability to “manage” turfgrass assemblages according to human-made and human-focused principles of “quality” (Bae et al. 591). Bae et al.’s use of the term “quality” conforms to the other five articles that mobilize the theme while aligning closely to Shaddox et al’s use. Shaddox et al. set out “to determine the minimum amount of N necessary to produce acceptable quality centipede grass”, where the idea of “acceptable” is again judged by human aesthetic principles of “quality, color, growth rate and nitrate leaching” (86). Nitrate leaching wasn’t judged by above ground canopy qualifiers, so this marked a change from my previous findings (86). Yet the authors still write that turf is to be

maintained at an “acceptable turf quality and color” to be judged as acceptable or “passing,” so to speak (86). They claim the minimum nitrogen input amount (18 kg per hectare per year) can be recorded and registered as such because this level of input still enacts “quality” turf assemblages (92). If the quality of centipedegrasses in Florida’s panhandle was judged solely on the nitrogen leachate samples collected by Shaddox et al., then this finding would have redirected my theory. Yet because aboveground anthropocentric and aesthetic concerns for turf canopies still constituted the parameters that define “quality” turf enactments in their article, this instance didn’t change my findings (92) None of the articles above clarify *whose* notion of *quality* turf is to be judged by, because the only knowing subject recognized in this research is the human researcher.

Uniformity

Uniformity was another concept I noticed crop up when authors in my corpus were referring to turf’s rhetorical purpose. I found the qualifying concept of turf uniformity to be closely related to concepts of turf quality, but I also noticed how notions of uniformity differed, and so coded for its presence. I also kept this term because it specifically points towards anthropocentric trends in enacting monocultured landscapes.

Both Mertz et al. and Thompson et al.’s articles used many qualifiers besides “quality” and “uniformity” to judge “proper” turf enactments. Mertz et al. set out to investigate if amino-acid based organic by-products might serve as alternative sources of nitrogen fertilizer to “improve” the “performance” of creeping bentgrass (575). They contend that organic byproducts could be sufficient sources of alternative fertilizer, which is really cool (583)! Still, the imperative rhetorical purpose of turf is to be maintained to anthropocentric ordering principles of “quality, density, uniformity and texture of the canopy” (577). Thompson et al. reiterate an

analog variation on the theme I've theorized (566). They recognize that the cool-season turfgrass species roughstalk bluegrass declines notably in late Summer heats (566). They want to know whether this decline is more associated with physiological or pathogenic factors (566). To find the answer to this question, they (once again) articulated that "Turfgrass quality was rated considering color, density, and uniformity" of the turf canopy, and these were the sole factors influencing the parameters of what was considered "states of decline" (568).

I coded the concept of "uniformity" and its influence in enacting turf-human relations because it speaks to a special aesthetic principle common to modern agricultural and horticultural practices; that of organizing and maintaining uniform and scalable monocultures. Human aesthetic and economic desire for uniformity has more influence on anthropogenic climate change than my thesis can adequately address. Suffice it to say that enacting monocultures as industrial scales wreaks havoc on autochthonous lifeways¹⁷. This is part of the reason I theorize the principle of uniformity to be an important mode of organizing in my corpus.

Performance

The last comparative code that came up through my research process was "performance". Many articles hinted at the importance of turf "performance" while a few in particular cited performance as a vital aspect defining acceptable turfgrass formations. There was overlap between performance and the other organizing categories I coded for, yet performance stood out because it was less aesthetic oriented and more concerned with material associations of touch and impression.

¹⁷ See Vandana Shiva's book *Monocultures on the Mind: Perspectives on Biodiversity and Biotechnology*, Wendell Berry's *The Unsettling of America: Culture and Agriculture* and *The One-Straw Revolution* by Masanobu Fukuoka for more on the different deleterious effects monocultures have on humans and nonhumans.

Turgeon and Fidanza relay a brief history of turf cultivation (629-635), while Craft et al. write about soil physical properties of sports fields (636-641) and Meyer et al. are interested in “Breeding Cool-Season Turfgrass Cultivars for Stress Tolerance and Sustainability in a Changing Environment” (3-10). While Turgeon and Fidanza give me the only definition for turf in my whole corpus (and a wonderful one at that), they reiterate the history of turf cultivation to tell the story of how cultivation techniques have improved over the years to “minimize surface disruption and its effects on playability,” thereby reiterating turf’s rhetorical purpose to be based around human recreational and aesthetic use i.e. they reiterate the purpose of turf to aligned with human play and human-based visual desire (34).

Craft et al. do focus on other organs besides turfgrass canopies to define turf’s rhetorical purpose (636). Their goal is to determine the best cultivation techniques “to achieve minimal surface disruption while improving soil physical properties” (637). While these authors do attend to belowground turf and soil properties, they do not attempt to expand the rhetorical purpose of turf (grass or soil aspects) beyond anthropocentric concerns. They write that the purpose in maintaining soil physical properties in sports fields is to “obtain ... a high-quality athletic field” that is both “safe” and “successful” for human athletes (637). Thus, humans and our current standards are again foregrounded as the primary concern when articulating the purpose of turf, whether aesthetic and aboveground or not.

Meyer et al.’s article is up front and center in the 2017 volume of the *ITSRJ*. They “discuss the impact climate change will have on plant breeding objectives [and] breeding techniques” (3). They articulate that the purpose of turf is to be maintained to the agreed upon human-based material and aesthetic standards of “overall turfgrass performance, functionality, and distribution” in order to “cope” with reduced inputs “(i.e. water, nutrients, and pesticides)”

due to climate change (3). So, although Meyer et al. (3) and Loch et al. in “Ecological Implications of Zoysia Species, Distribution, and Adaptation for Management and Use of Zoysiagrasses” (11), speak directly to the impending factors of how climate change will affect breeding strategies and change regional cultivar resiliencies, both articles also reiterate all three anthropocentric rhetorical purposes I coded for and theorized; that turf assemblages are managed and maintained to human-defined parameters of quality, uniformity and performance. Meyer et al. position turf and humans as needing to “cope” with impending climatic fluctuations, rather than perhaps needing to pivot, expand or adapt current ways of thinking and acting (3). Loch et al. write how “considerable progress has been made in better recognizing how zoysiagrass *should* be used and managed for turf purposes...” (19, my emphasis). While their article seems to not to reiterate the same concepts of “quality” that other articles do, their similarly aligned assumptions of turfs purpose reiterates my theory that turf is enacted in my corpus according to anthropocentric and aesthetic standards of quality, uniformity and performance of primarily aboveground organs of turfgrass assemblages; or that the parameters defining a more or less proper enactment of turf are based on human visual interpretations of turf canopies. Constantly comparing rhetorical enactments of turfs purpose in my corpus shows how current concepts of turf quality are firmly ensconced in anthropocentric assumptions of the what turf assemblages *should* be.

Other Articles

There were two other articles in my corpus that made me stop and question my findings. James A Murphy’s introduction to the 13th International Turfgrass Society Research Conference (ITSRC) speaks to “Beautification and recreation” as being traditional values of turf assemblages, but that “the numerous environmental services provided by turfgrasses are often

overlooked by society” (1). It’s wonderful to hear the importance of attending to environmental concerns in this introduction, yet the anthropocentric principles defining proper turf enactments are still readily assumed. Murphy reiterates the principled *vision* of what turf should be but doesn’t say what these environmental services (ES’s) might be, instead moving on to emphasize how climate change will increasingly inform turfgrasses management (1). While Murphy’s article did seem hopeful in how it might articulate another purpose to turf, thereby speaking to turf’s complexity, it didn’t do this and so the article didn’t alter my findings. On the other hand, Dahl Jensen et al. *do* give me some ideas as to what environmental services in the turf industry might look like. In their case-study of three Nordic golf courses, they cite potentials for increasing the multifunctionality of golf courses with activities like cross-country skiing, birdwatching, horseback riding, hiking, biking, trail use and more (238). They argue that increasing the functions that a golf course can fill for human users can support both more diverse nonhuman lifeways and local human inhabitants (236-238). They conclude that “there is a need to inspire golf facilities” and that they “should be seen as a resource in the urban landscape and region for the benefit of the general public” (238). So, while attending to possible ecosystem services turf assemblages might fill seems important, this work doesn’t attend to the rhetorical purpose of turf assemblages themselves, just the golf facilities that manage and maintain them. To be fair, attending to turfgrasses themselves was not Dahl Jensen et al.’s aim. Yet, to partner with golf courses to the extent they advocate for requires adhering to the principles that enact and enable *turf as a golf course*. So, while these Murphy and Dahl Jensen et al.’s articles did make me stop and question my process, they didn’t convince me to change my conclusion.

Lastly, Rinehart et al. wrote “The Grass Roots Initiative: Bringing Turfgrass Science to the Public” to examine the role the Grass Roots Initiative (an educational outreach body) had in

promoting “the importance of turfgrass in landscapes and society in general, from 2013-2018” (486). This short historical look at a now defunct organization didn’t articulate the rhetorical purpose of turf much at all, but also didn’t provide any evidence that my theory was ill founded.

Management, Maintenance or Domestication?

The last analysis I performed was a conceptual content coding analysis inspired by what I found through following a constant comparative method. At the end of reading and coding, I noticed a pervasive use of objective-seeming tropes of turf “management” and “maintenance”, yet no use of terms connoting care or responsibility, such as “domestication”. Practices of domestication with plants do not directly imply associations of care and responsibility. Yet domestication at least implies the liveliness of the beings we share lifeways with. I coded for the term domestication because I saw it as a term that could start to convey a sense of aliveness to turf, and so spur further polite ways of seeing “eye to eye” with turfgrass assemblages. While many other tropes and terms could convey this sense, I found domestication to be a preliminary concept that needs be acknowledged (like turfs complexity and open-endedness) before more polite practices could be enacted. The results of a simple content analysis convey that there was zero use the term of idea “domestication,” and a copious use of variations on “management” and “maintenance”. See figure 3 for a table conveying these results. Finding this led me then to wonder what other phrases might be used to convey and imagine more polite practices with turfgrasses. I also found that my corpus articulates the rhetorical purpose of turf from a perspective that assumes humans are the only knowing subject in the field. So, while my corpus suggests that attention to intersecting environmental concerns is indeed increasing in turf discourses, the intellectual impulse to the nature/culture division and the single *visional* approach it takes, seems firm.

Authors	“Maintenance”	“Management”	“Domestication”
Turgeon and Fianza	3	19	0
Goss et al.	30	10	0
Dahl Jensen et al.	3	15	0
Craft et al.	2	6	0
Chabon et al.	5	7	0
Bae et al.	5	2	0
Rinehart et al.	3	3	0
Mertz et al.	11	10	0
Thompson et al.	3	0	0
Shaddox et al.	7	2	0
Meyer et al.	7	4	0
Loch et al.	11	23	1
			(in reference section only)
Murphy	1	4	0

Fig. 3

As you can tell, domesticating practices with turf assemblages are nonexistent in my corpus. This final analysis coded for the presence of the word “domestication,” curious if this concept could do work towards opening the conditions of possibility for turf-human relations. Perhaps it could, but according to my situated findings, it hasn’t yet. This final analysis helped

me wonder what other terms of care might be adopted to convey more polite relations with turf. This instigated state of wonder represents the overarching aim of my thesis. Opening space to approach turf assemblages more politely requires that we question intellectual reflexes that validate, iterate and stabilize relations of human mastery over those whom get labeled as “other.” Opening space in this way can be seen as a necessary first move before enacting more reciprocal and hospitable multispecies relations.

Opening space for more polite practices

Opening space to get curious about more polite turf-human relations is the overarching aim of this thesis project. If coding and analysis took methodological lead in researching my first two questions, then “genealogical” and Indigenous-based theories scaffolded this one. My own lack of experience with turf bodies and discourses proved useful here. Being a stranger to the field compelled me to approach the bodies and theories of the field politely. It was my work as a scholar in rhetoric, composition and social (change) studies that informed this approach. Not knowing proved to be a powerful position to move from. Specifically, being a stranger to turfgrasses and turf-human relations allowed me the space to read between the lines; it allowed me space to understand turf as a situated, open-ended, and a co-achieved assemblage. Vinciane Despret draws on Donna Haraway’s use of “companion species” as a way to think through what it could mean to “honor” the relations of those whom we dwell with every day (86). Despret writes:

This way of honoring still remains to be invented. This invention requires that we pay attention to words, to the ways of saying that validate ways of acting and being; it requires us to hesitate, to invent new tropes...that remind us that nothing is obvious, that “nothing goes without saying”” (86).

Understanding how discourses enact practices differently across contexts, time and places is imperative to adequately unhinge intellectual reflexes to nature/culture divisions. Much important work is being done in the turf sciences that attends to the exigencies of increasing climate precarities, yet without a retrofitted discursive analysis calling to task practices of human mastery, the discourses enacting current relations aren't likely to pivot to the extent that would allow for a more polite relationality. As Despret notes in the quote above, a way of honoring companion species – in this case turf assemblages – remains to be invented.

Chapter 5: CONCLUSION

In the recent March 2021 issue of *High Country News*, Mark Bowlin quotes Felicia Marcus, a Stanford water policy expert, saying that it's "red alert" for the water use in the Western US ("High and Dry" 21-29). This is where I am from. I have lived in the West most of my life and I want to be response-able to the histories that shaped this place, while also being accountable to diverse life and lifeways on these lands. Living in the West comes with its particular and increasing precarities, just like everywhere else. Recently moving to a suburban dwelling with its requisite turf relations had me amazed at the care my neighbors put into their yards. I saw how they shared tasks of tending to grass not divided by front yard fences. Summer barbeques were staged across multiple front lawns and driveways. I came to see how turf assemblages connect people. Literally. There is no visible dividing line in the grassy meter between me and my neighbor. We are vastly different households, connected through a small strip of living green. But when the practices and patches that hold peoples together begin to wither (figuratively and literally), it can wear at social cohesiveness. Marcus noted that one of the biggest problems looming as the Colorado River, Lake Powell and Lake Mead reach their lowest levels in recorded history, is that everyone "from governments down to people watering their lawns, come to expect the current amount of available water" (29). Imagining the water austere future and how drastic a change is coming for many intersecting and divergent lifeways is scary. Especially for those stuck on the lowest rungs of political (and thus material) concern; animals, plants, and humans who face systemic exclusions and continuing violence from models of mastery and profit.

Yet imagine we must. We must imagine beyond anthropocentric, settler-colonial relationalities to induce cooperation between more than human actors. Current turf formations often connect humans to each other, but could different turf-human relations also connect humans with their immediate micro and macrobiotic turf-soil relatives? I want to say yes. Throughout this paper I've switched back and forth from the terms turf, turfgrasses and turf-soils, lawns and grass. Each phrasing offers a slightly different way of seeing turf-as-assemblage. Turf itself is a contested term, used in certain arenas of turf enactment and not in others. This again exemplifies the complexity of not only turf assemblages themselves, but the material and semiotic assemblages that hang together and enact grass landscapes differently.

My overarching theoretical frame accounts for how discourses enact practices and shape realities. In this case, what turf scientists write, and how they agree on the purposes and limits of turfgrasses, can change what turf becomes. When I argue it's imperative to re-phrase turf-human relations in the face of increasing climate change, I'm noting that discursive phrasings enact realities. If I as a scholar of rhetoric and writing were to ask a turf scientist to change the way they understand turf and turf-human relations, they might scoff at me for simple lack of experience and knowledge. I hope this research project proves otherwise. But if that same scientist found a new way of thinking-with turf published in a scientific, scholarly journal, would their wonder be more buoyant? Again, I venture to say yes. The scholarship I draw on and the methods I use provide new tools to think with, rather than new extrapolations on a universally constant truth. My claims are grounded in the slice of discourse my corpus represents. While I claim that turf is more complex than current principles allow, I try not to critique turfgrass scientists. Following the Burkean definition of rhetoric, this thesis aims to induce cooperation, rather than critique (my aim is to call in, rather than call out). I hope turfies get this sense. In

this way, I hope this thesis offers openings rather than closures; ones that invite readers to kindle their curiosity towards re-phrasing the everyday discourses that shape and constrain current practices with turfgrasses.

In this paper I argue that turf is complex and open-ended; a rather diffractive assemblage. I also argue that the current rhetorical purpose of turf in my corpus is governed and enacted according to anthropocentric and aesthetic modes of ordering (principles) of aboveground turf canopy quality, uniformity and performance. But turf is so much more, right? It's here, from what I imagine as an overlap of agreement, that I posed the question; what *could* it mean to approach turf-human relations more politely? This question is intended to open space, rather than be answered outright. A Despretian sense of politeness asks us to be attentive and present in our everyday relations and research approaches. It doesn't convey colloquial manners, but instead cares for the material relations involved in encounters. This sense of politeness fosters a presence open to reciprocal impressions. An Indigenous understanding of materiality (that undergirds contemporary adaptations of the concept) points towards a need to develop an analysis of settler-colonial relations and to deconstruct the intellectual reflex to the nature/culture division, and the practices of human mastery these narratives enable.

Turfgrasses are not interesting, per se. Yet it takes a lot of work to keep turf this way. It costs a lot to keep turfgrasses stable, predictable, monocultured, and simple. The current modes of ordering that enact turfgrass assemblages and relations make turf one of the most ubiquitous and costly (economically but also environmentally) features across developed suburban and urban areas alike. Yet attending to more unpredictable and extreme climate futures means questioning the discourses, practices, and relations that keep turf simple. It means becoming sensitive to the needs and complexities of turf as assemblage. Re-phrasing turf-human relations

means opening space to see reciprocity and hospitality in everyday relations. Similarly, it requires cultivating a sense of wonder, especially where it's been most denuded. But these versions of turfgrass reality remain unapproachable from current discourses, relations and associations that articulate (passively or actively) the subordination of turf assemblages to human mastery. The story of human exceptionalism and the nature/culture division it foments, directly fuel capitalist practices and narratives of "progress". This story also enacts anthropogenic climate change, resulting in the "resourcification", objectification, and increasing ruin of our co-achieved worlds. If relations of mastery continue to define the baseline of approach for turf science and industry, hopes of adequately addressing increasing and intersecting climatic precarities remains thin.

Opening space to re-phrase turf-human relations involves posing more questions; it asks us to be open to being moved by unpredictable and reciprocal encounters with turf and the milieu of beings that share stake in turf-soil assemblages. Robin Wall Kimmerer poses a *version* of how scientists *could* pivot towards a more polite relationality with plants when she writes:

Plants were here first and have had a long time to figure things out. They live both above ground and below ground and hold the earth in place. Plants know how to make food from light and water. Not only do they feed themselves, but they make enough to sustain the lives of all the rest of us. Plants are providers for the rest of the community and exemplify the virtue of generosity, always offering food. What if Western scientists saw plants as their teachers rather than their subjects? What if they told stories with this lens? (346-347).

What might it mean to be moved by fields of grass? Can the sub-turf speak? What would it look like to listen? How could we hold space for multiple versions of turf, who's purposes might be as

divergent as the regions they are in, and the purposes they achieve? What might turf look like if its purpose was to foster soil richness? What if Indigenous folks are given land back? What if scientists, managers and maintainers of turfgrasses re-approached turf as an agent of soil stability, and thus a co-achiever of future lifeways, lifeforms and relations? How could relations be different?

It's an effervescent feeling of curiosity that I aim to percolate through this thesis. If the principles of turf enactment remain sequestered in above-ground aesthetic presentation, can turf-as-assemblage be approached differently? Politely? This thesis argues no, and instead offers openings (different tools for thinking with) through which to imagine and cultivate other ways of knowing that attend to how multispecies turfgrass assemblages can enact flourishing relations and sustain more-than-human futures.

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