In My Backyard: Bioregional Communities as a Climate Mitigation Strategy

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Introduction

Climate change has inarguably arrived. It is no longer a possibility that looms in the future, but rather a stark reality of everyday life. Events such as wildfires, hurricanes, tornados, flooding, and droughts have become more than just natural disasters, but destructive tragedies exacerbated by rising global temperatures. One such example is the extreme flooding that Philadelphia suffered in the fall of 2021 as a result of Hurricane Ida. While the time has passed to prevent climate change entirely, it is still possible to mitigate the worst effects that are yet to come. The question then is, what are effective mitigation strategies?

Throughout this thesis, I will be using the term climate mitigation. I follow the lead of climate justice activists who clarify that, "mitigation within the mainstream of the climate discourse has come to mean reducing the amount of greenhouse gasses emitted into the atmosphere, and to a lesser degree, increasing the capacity to sequester carbon" (Movement Generation 2014, 24). The phrasing of climate mitigation acknowledges that the effects of climate change are already being felt. Climate mitigation is our reactive attempt to prevent the worst consequences.

One possible sphere through which climate mitigation could occur is the economy. There is a significant relationship between climate change and the economy due to the use of natural resources enabling the production of goods (Spash and Smith 2019). The most significant example of this is the extraction of oil, natural gas, and coal to use as fuel. Other examples include the mining of lithium to use in batteries and the cutting down of trees for lumber and paper goods. In this way, climate change is the greatest market failure of the global economy (Cato 2013, 220). The free market did not regulate extraction, and instead, profited from it. The global capitalist economy therefore exacerbated, if not engendered, a climate crisis with

irreversible impacts. Common rhetoric encourages the individual to reduce their consumption, reuse what they already have, and recycle what has been used. However, with a crisis as global as climate change, individual actions fail to have an impact at the necessary scale. An economic approach to mitigating climate change must occur at the highest level, challenging the very structure of our economy. The current capitalist system seeks to accumulate wealth and maximize profit, often without thought to the natural ecological limits of the resources it is extracting. Some scholars, including economists and environmentalists, argue that the environmental destruction incurred by globalized capitalism originates from a lack of geographic accountability (Ganesh and Zoller 2013). For example, the mass extraction of crude oil results in unstable ecosystems, poisoned waterways, and further greenhouse gas emissions that pollute the atmosphere. However, these extraction sites are typically based in remote, sparsely inhabited locations. The final product of oil, typically gas for cars, is then sold to individual consumers across the world who are unaware of the destruction that has occurred during production. Therefore, the global level at which the economy currently operates obscures any sense of environmental limits or the urgency of the climate crisis.

One strategy that emerges from an understanding of globalized capitalism as "amnesiatic about location" (Ganesh and Zoller 2013, 238) is to re-localize our economies. The proponents of relocalization propose that constraining economic activity within the natural limits of ecosystems will create a sense of accountability and sustainable maintenance of local resources. This strategy and the theoretical work that accompanies it has been labeled eco-localism.

In this thesis, I seek to understand this theoretical model of eco-localism and determine if it is effectively practiced anywhere in the world. In order to do so, I will be exploring possible

eco-local communities that have emerged in the United States. This thesis will explore the capabilities and shortcomings of eco-localism as a theory of climate mitigation.

While the literature I reviewed pertains to all of eco-localism, I employ bioregionalism as the theoretical grounding of this thesis. The theory of bioregionalism proposes that local communities should be defined by naturally occurring boundaries (see fig. 1). Scholars such as Cato (2013), Evanoff (2010), Fôn James (2014), Plant (1990), and Thomashow (1998) argue that globalized capitalism has a destructive impact on the natural environment and bioregionalism is the most promising alternative for a sustainable future. A significant omission in the literature is an empirical grounding of bioregionalism. These scholars fail to present a case study of bioregionalism being practiced in the contemporary world, which raises the question of if it could be effectively implemented. This thesis seeks to explore that omission in the literature and compare the theoretical ideas to case studies of self-proclaimed bioregional communities. I will be investigating if these communities' practices of bioregionalism are effective as a climate mitigation strategy by consulting the projects they have pursued and the impact that said projects have had on their ecosystems.

(Figure 1. Salmon Nation 2017. A map of the United States drawn according to hypothetical bioregional boundaries)

My data in this thesis serves to supplement and operationalize the theory of bioregionalism. I will use the case studies of existing bioregion communities, specifically the Cascadia Bioregion and the Terran Collective. The larger of my case studies, the Cascadia Bioregion, encompasses large swaths of the Pacific Coast of North America, stretching from Alaska, across Canada, and into Northern California. The Terran Collective is centered in the Bay Area of California and is a recently established organization that simultaneously works as a software development company. Through this data, I will demonstrate that the literature around bioregionalism is a valuable framework, but in order for it to be adopted as a a realistic practice, bioregionalism must start small by clearly articulating their values, being intentional about the scale of their work, and operating within the current global capitalist framework.

I argue that while bioregionalism remains a largely abstract theory, it is capable of reinforcing the necessity of community action, centering the idea of accountability to natural resources, and challenging the current capitalist economy to move away from extraction. However, bioregionalism is currently incapable of implementing the large-scale change it envisions. The immediacy of the climate crisis requires a prompt response, one that would be hindered by the goal of dismantling the global system of capitalism as is vocalized in bioregional literature. The work of bioregional communities reveals that the first and most necessary step in creating a new social system is to imagine it.

This thesis will be organized into a context section that explores both capitalism and communities, a review of bioregional literature that clarifies the theoretical vision, and a case study analysis of two communities to investigate bioregionalism in practice. The context section will serve to identify the relationship between globalized capitalism and climate change. It will also argue that climate mitigation is best pursued at a local level through community actions. By establishing this relationship and scale, local economic strategies become a powerful tool for climate mitigation.

One such strategy is eco-localism, or further specified, bioregionalism, which I explore and clarify in my literature review. Bioregionalism is a vision of re-localizing economies and defining their reach by natural boundaries; the goal in doing so is to emphasize accountability to resources and challenge the global capitalist system. Scholars argue bioregionalism is a strong climate mitigation strategy because it emphasizes accountability and reciprocity (Curtis 2003; Cato 2011; Evanoff 2010; Ganesh and Zoller 2013; Thomashow 1998). However, other scholars critique bioregionalism as hyper-theoretical and lacking the necessary structure to become a reality (Albo 2007; Brennan 1998; Hahnel 2007; Jabłonowski 2011). My work aligns most

closely with Cato and other proponents of bioregionalism because I demonstrate how

bioregionalism offers a unique, economically-based strategy against climate change. I diverge

from these scholars in arguing bioregionalism must be able to respond to the climate crisis

immediately before attempting to challenge the capitalist system.

My data section comprises case studies of two distinct bioregional communities, the

Cascadia Bioregion and the Terran Collective. I will analyze their success in organizing

economically as a bioregion as well as the impact they have had on their local environment by

exploring the projects they have undertaken in the past decade. Through examining these

communities, the capabilities of bioregionalism are clarified, especially the significance of

accountability while the shortcomings are made apparent. Such shortcomings include the

inability to dismantle the global capitalist system at this current moment and the timeline in

which bioregional organizations can be established.

For the Cascadia Bioregion, I will utilize their website as a primary source for facts and

figures, project summaries, and how it was initially established. I will also use the websites of

affiliated organizations and government documents as a means to demonstrate the scope of the

Cascadia Bioregion. These primary sources are supplemented with articles written by

environmentally conscious journalists about their work.

For the Terran Collective, I will similarly consult their website which includes an

overview of their philosophy, project summaries, and goals for the future. I will also be using

information about their software development company that I collected across LinkedIn,

podcasts, and reports. One of the ways I sought to measure community impact was by reading

articles written about the organization by regular community members. However, in looking for

additional data about the Terran Collective, I was unable to find any articles written by other

people living in the Bay Area discussing their work or the impact on the community. Any articles that I found were published by members of the stewardship team and reflected internal messaging bias in favor of the organization. Therefore, most of my data from the Terran Collective is a primary source.

Both of these case studies will explore the capabilities and limitations of bioregionalism in practice. My data will be limited to these two case studies although they often collaborate with non-affiliated organizations that are also focused on climate justice. For the Cascadia Bioregion, which includes a vast network of affiliated organizations, I limited my data to the groups and projects that were currently active and had the most impact on climate mitigation. In the case of the Terran Collective, my data is largely derived from their work as a non-profit, although I also discuss their role as a software development company. The projects undertaken by the Cascadia Bioregion and the Terran Collective demonstrate the scale of bioregionalism's practicality and extent of effectiveness within the restrictions of globalized capitalism.

This data serves to fill the gap of evidence in the literature around bioregionalism. The projects I will be analyzing move bioregionalism from a utopian theory to a practice that can be evaluated. My argument is made more nuanced from this data, as it demonstrates both the valuable strengths that bioregional communities offer mitigating climate change, while also revealing the limitations of bioregionalism that are not fully acknowledged by the scholars I align with.

Bioregionalism asks us to restructure economic decisions according to ecological sustainability. Overall, my thesis seeks to understand how this theory of bioregionalism is put into practice and if it results in an effective climate mitigation strategy. Before we are able to

fully understand bioregionalism though, it is necessary to discuss the relationship between globalized capitalism, climate change, and how local communities can respond.

Economies and Ecosystems, Capitalism and Climate Change

Ecosystems and economies are intrinsically connected. For one, they share the root word 'eco-,' which comes from the Greek word for home, *oikos.* Ecosystem means "home together," encapsulating the concept that a place is not defined simply by the organisms that exist there —such as trees, water, soil, and fungus —but also by the web of relationships that sustain them collectively (Movement Generation 2017, 4). The term ecosystem acknowledges that in the natural world, "all life is connected and inter-related, teeming with diversity and complexities" (Plant 1990, 21). Conversely, economy means "home management." It is most commonly understood as how we manage wealth generation and distribution, but also encompasses, "how we organize our relationships in a place, ideally, to take care of the place and each other" (Movement Generation 2017, 4). Highlighting home as the foundation of both of these words reveals that economies organize the management of our ecosystems.

This section serves to specify and clarify the connection between ecosystems and economies, specifically how economic mismanagement has, in part, caused climate change. The intersection between the two becomes most visible through economies usage and reliance on the natural resources that comprise ecosystems. Although there are multiple different economic systems, I will be focusing on the current system of capitalism. This section will briefly discuss how the globalization of capitalism has exacerbated the climate crisis. Consumers and producers have become geographically distanced from the extractive practices that produce goods (Klein

2014; Spash and Smith 2019). From that, I will explore why the localization of economies to the scale of community is a promising strategy for climate mitigation.

The extractive economy and capitalistic economic growth is predicated on the continued existence of resources such as fossil fuels, minerals, trees, and soil.[1] However, there are ecological limits to these resources as defined by the natural timeline of their regeneration. It is not only a climate crisis but an economic crisis because "an economy based on extracting from a finite system faster than the capacity of the system to regenerate will eventually come to an end—either through collapse or through our intentional re-organization" (Movement Generation 2017, 3). It has gotten to the point that the very ecosystems the economy relies on are in danger of going extinct.[2]

Although climate change could have occurred as the result of any economic system,[3] capitalism has intensified its impact. Capitalism is founded on the accumulation of wealth and maximization of profit. It does not just exploit the labour of people, but the health of the land as well (Cato and Fôn James 2014). Since the natural resources of ecosystems are necessary to making profit, capitalism has continued extracting far past the ecological limits. Rosa Luxemburg, a Marxist scholar, argues that capitalism varies from other economic systems because it "uses the fruits of exploitation not exclusively, and not even primarily, for personal

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[1] The majority, if not all, goods that are produced rely on natural resources. Trees are cut down for lumber. Minerals like lithium are mined to make the batteries necessary for phones, laptops, and cars. Coal, oil, and natural gas have been especially vital to creating and sustaining economic growth. The combustion of these fossil fuels powers cars, heats buildings, generates electricity, and a number of other things that are vital to our current world (Understanding Global Change 2022).

[2] One example of the mutually constructed nature of the climate crisis and economic crisis is peak oil. Peak oil refers to "the point at which the world reaches the highest possible level of oil production. After that, oil production must necessarily decrease. Decreasing production will mean increasing prices" (Shiva 2008, 1). The continued usage of oil has led to worsening air pollution and more greenhouse gas emissions. Regardless, we are still reliant on oil for basic things like electricity, fuel for cars, or material for plastic.

[3] Movement Generation argues that "the horrors of resource intensive industrial production are true under capitalism but will also play out under any other economic system that engages in a Dig-Burn-Dump industrial production process, such as was the case under socialism in the Soviet Union" (2017, 12)

luxury, but more and more to increase exploitation itself. The largest part of the profits gained is put back into capital and used to expand production (as cited in Cato and Fôn James 2014, 175). However, there are only so many trees that can be cut down, oil reserves that can be drained, and ecosystems that can be leveled before the expansion of production causes wide-scale destruction. And we are far past that point.

Capitalism is not only about economics, it is also "a system of power and a system of culture" (Simon 2019). Capitalism would be especially difficult to dismantle because it has become the foundation of society, especially in the Western world. Some of the characteristics of capitalistic culture include valuing endless linear growth and believing in human dominion over nature (Movement Generation 2014). Since corporations hold power in capitalism, these values are used to conceal the destructive consequences of our economic decisions. Individuals living within the capitalist system may recognize consumerism as the main characteristic that is present in their lives. In this context, individuals are framed primarily as consumers, a target audience for companies to sell their products to. The typical marketing is that buying more products will result in improved happiness or healthiness. Consumerism simultaneously exists on the global scale where "quality of life is defined in terms of moving away from traditional ways of life towards the high consumer lifestyles prevalent in developed countries" (Evanoff 2010, 129). In both of these cases, the accumulation of stuff is prioritized over the long-term stewardship of ecosystems. While consumers can take action against climate change "by reducing the number of commodities they purchase individually," the globalized scale of capitalism makes these decisions largely inconsequential (Curtis 2003, 93). It is not up to individual consumers to mitigate climate change; the most effective response would require a globally coordinated effort.

As discussed, economies and ecosystems are significantly intertwined. Therefore, "if you globalize the economy, you globalize the ecosystem" (Movement Generation Justice 2014, 23). The benefit of this globalization is that people are able to consume goods from across the world, whenever they want, at relatively cheap prices. However, the major consequence of this is that all of our vulnerabilities are connected to each other. The expanse of the food trade has grown exponentially and countries have become reliant on each other for specific food goods. For example, the United States imported $3.8 billion worth of agricultural products from China in 2020 (Office of the United States Trade Representative). This helps make food available at all times, regardless of season, and decreases the price, but magnifies the instability of our supply lines. If China experiences a change in their production due to climate change, whether that be a natural disaster, rising temperatures killing crops, or farmland becoming infertile, then it has an impact on the United States food supply. This example of interconnectedness can be applied to any countries that have an agricultural trading relationship with each other.

These long, unstable supply lines allow continued exploitation of resources to occur because consumers are unaware of the environmental consequences of production (Ganesh and Zoller 2013). Therefore, effective economic climate mitigation strategies must emphasize a sense of accountability to ecosystems. In this context, accountability revolves around natural resources and ensuring that they are used in a sustainable manner rather than being exploited beyond ecological limits. This is most easily practiced at a local level where people can accumulate a depth of knowledge about the natural ecosystem of that place and how it is responding to climate change. Cato writes, "globalization is seen as a system that divorces people from their locality" (2011, 483). Community is an important concept because it is an active social entity, a role similar to that of a family, household, or neighborhood. A community can collectively make

political and economic decisions, in this case, how they want to respond to the climate crisis. I argue local communities are best situated to practice resource accountability given their inherent spatial identity and relational capability to make quick, responsive decisions. As previously identified, the globalized scale of capitalism makes it nearly impossible to challenge the system. However, local communities are able to exert authority over their own sphere of influence and move towards environmentally sustainable lifestyles. Using Barrett's work, a community is defined by shared identity, collective interests, and normative structures (2014). The nexus of these characteristics is what establishes local communities as a strong site for climate mitigation.

The first characteristic of shared identity refers to how membership in the community becomes a personal identifier. This shared identity creates long-lasting ties between individuals and elevates communities from a group of individuals to an acting social entity. These shared identities are "embodied in common traditions, customs and rituals that emerge through long-standing patterns of interaction, shared history and collective struggles" (Barret 2014, 191). Shared identity is therefore not only a feeling, but is also something that is continually practiced and reinforced within communities. Geographic location is another essential aspect of shared identity since people "distinguish between places in terms of their sense of belonging" (Day and Murdoch 1993, 100). Often, when people talk about being 'from' a place, they specify in terms of geography. For example, one of the communities analyzed later in this paper is from the Bay Area in California. The area has been clearly defined in relation to the most prominent geographic feature, the San Francisco Bay. Additionally, the old-growth forests of the Pacific Northwest are discussed with a deep fondness by the people that live there (Cascadia Wildlands a). Therefore, local communities forge a "dialectic between the spatial and the social" in which their identity is defined equally by both interpersonal relationships and geographical location

(Day and Murdoch 1993, 85). Beyond the economic dependence on natural resources that was discussed earlier, communities rely on ecosystems as the container for social relationships as well.

At the community level, collective interests typically involve continuing their social relations and growing the standard of living. Collective interests connect communities to their natural resources as a way to support well-being. Barret approaches resources from a primarily social and economic perspective, noting the resources of knowledge and labour as strengthening a community (2014, 187). However, resources must also include the natural environment, such as clean water, healthy soil, and unpolluted air. In the context of the climate crisis, the collective interest of many local communities is preserving ecosystem health.

Normative structures are the social standards of conduct and unwritten rules "which emerge around long-standing patterns of interaction" (Barret 2014, 189). One such norm in communities is reciprocity, the practice of exchanging support and aid. The reciprocal responsibility of everyone in the community allows for collective strengthening and personal growth. Reciprocity as a community norm refers primarily to social relations between individuals, but could also be expanded to include a reciprocal relationship with natural resources. This would entail practices that work to ensure the long-term success and flourishing of natural resources, even as those resources are used to sustain the lifestyle of communities.

Additionally, accountability is an essential normative structure for both sustainable communities and effective climate mitigation strategies. Barret observes long-standing communities that have built deep relational ties to each other practice a "sense of duty or responsibility to others in their community" (2014, 193). Accountability is the long term practice of this communal responsibility, it is "being responsible for your choices *and* the consequences

of your choices" especially when it harms other members (Rai 2020). Furthermore, accountability requires harm to be mended and encourages people to take actions that will prevent similar harm from happening in the future. Local communities are similarly accountable to their natural resources and the harm that is caused to the ecosystems as a result of economic decisions. Climate mitigation strategies serve to address this harm and move forward in a more environmentally sustainable manner.

The destructive scale of climate change has been caused by the economic decisions of globalized capitalism. The accumulation of wealth has been inseparable from the exploitation of natural resources and as a result, our ecosystems are collapsing. Capitalism has expanded across the globe, bringing us closer together economically, but in doing so, making all of us more vulnerable to the consequences of the climate crisis. One response to the climate crisis is to relocalize our communities and economies. Local communities are the best equipped social entities to economically respond to the climate crisis because they are built upon characteristics that are easily adaptable for climate mitigation: shared identity, collective interests, and normative structures. They can more effectively establish economies with norms of accountability to nearby resources and a sustainable constraint around growth. As Michael Shuman states:

> A community in which people know and care about each other is the basic building block for all other civilized activities, whether commercial, political, social or spiritual. If we cannot care about our neighbors, we will never develop the capacity to care about our nation or world. And there is no better expression of caring than to create a local economy which meets the basic needs of every one of our neighbors, and to help other local economies throughout the world to do likewise (as cited in Hines 2000, 38).

The practice of climate mitigation takes many forms, but localized economies that evolve out of communities allow for broad-reaching and comprehensive action. Local communities assuming

an active role in the economic response to the climate crisis will help mitigate the current and future ecological destruction.

A Theoretical Exploration of Bioregionalism

The globalized capitalist system has precipitated and exacerbated climate destruction through its extraction of resources and accumulation of wealth. In response, scholars have proposed eco-localism as an alternative - local economies that would operate within ecological limits (Cato 2011; House, Jordan, and McGinnis 1998). This literature review will outline the theoretical framework of eco-localism and explore strategies that have emerged from it. The key benefits of adopting an eco-local economy as a strategy for climate mitigation is the inherent accountability and focus on sustainability. The limitations, however, include being able to immediately transition to this way of organization since it fails to address how to dismantle capitalism in a timely manner or propose a structure of governance. I begin by introducing the theoretical framework of eco-localism, born out of Curtis' work (2003), and the various forms that have emerged from it. I then detail the strengths of eco-localism, specifically the accountability to resources. Scholars such as Albo (2007) and Hahnel (2007) offer constructive critiques around the formal economic model of eco-localism while Brennan (1998) argues that eco-localism would not be an effective economic or political paradigm. These critiques help illustrate the disparity between the abstract understanding of eco-localism and the practical implementation of the concept. Additionally, the internal discussion about the relationship to capitalism clarifies what the economic goals of eco-localism should be realistically. Bioregionalism emerges as the most promising form of eco-localism given Cato's articulation of boundaries (2011), Thomashow's exploration of cosmopolitan bioregionalism (1998), and Plant's

feminist lens on place-based organizing (1990). I will continue to use bioregionalism as the primary theoretical framework throughout this paper.

Given how deeply globalized capitalism is ingrained in daily life, it is necessary to imagine an alternative to begin the work of resistance and recreation. Eco-localism therefore offers a vision of resource accountability and ecological sustainability. I argue eco-localism, and specifically bioregionalism, provides a possible way forward and the initial steps to get there. Furthermore, I argue that the critiques of eco-localism, and subsequently bioregionalism, made by Albo (2007) and Brennan (1998) illuminate what it can realistically look like in practice. Bioregionalism can not be the revolutionary framework that emerges in a post-capitalist world, but it *can* be an organizing philosophy that mobilizes people to practice accountability to the land they live on.

The Broader Framework of Eco-Localism

Place-based organizing such as eco-localism offers strategic sites to quickly adopt policies of climate mitigation. Eco-localism emerged in response to the belief "that macro-level policy initiatives are too slow, ineffectual, compromised and partial to deal with these crises" (Ganesh and Zoller 2013, 237). Curtis is often credited as first conceptualizing eco-localism; he defines it as local, largely self-reliant economies that work within their unique ecological limits (2003, 83). Expanding upon this, eco-localism refers to small communities that adopt an internal economic organization prioritizing locally made goods and minimizing waste from production. In its constrained form, the economy becomes a strategy for environmental sustainability. Curtis further defines "sustainability as the preservation of natural capital," or resources (2003, 84). By scaling down economies and adopting an eco-local mindset, resources are not endlessly extracted, but instead sustainably harvested and equitably distributed amongst community

members. Scholars support Curtis' framework of eco-localism as a more balanced approach to economic organization (Ganesh and Zoller 2013; Jabłonowski 2011). As Curtis describes it, the health of the local ecosystem determines the health of the local economy and vice versa (2003, 86). Eco-localism requires the economy to be subordinate to the needs of the environment to achieve overall community health.

Many scholars have continued to write about this concept using the term eco-localism, but others have given it new names. Cato refers to this overarching framework as 'home economics,' meaning that local communities must economically treat their ecosystems as home, and proposes that, "we are responsible for all our waste and we have a neutral impact on the natural cycles that maintain the earth in balance, primarily the carbon cycle" (2011, 482). De Angelis and Harvie use 'the commons,' a historical concept referring to an area of communal land typically used for agriculture, to describe economies of shared resources (2013, 280). They argue that for resources to be managed sustainably, there must be "rules that govern the commons [according] to the local social and environmental conditions" (De Angelis and Harvie 2013, 285).[4] Additionally, Ganesh and Zoller discuss the shift from high-consuming, fossil fuel dependent societies to low-consuming, renewable energy societies as the Transition Movement (2013). They specifically emphasize that "economic decisions are made by communities who understand the vital role played by local ecosystems" (Ganesh and Zoller 2013, 236). These scholars present different terminology, but they all refer to the same concept of local economies that work within natural ecological constraints and emphasize community participation.

Regardless of the name used to describe it, or the sub-theories that have emerged from it, eco-localism as an overarching concept proposes a societal-scale value shift away from

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[4] De Angelis and Harvie argue that the tragedy of the commons is a significant misstatement, and is instead the tragedy of open access. The tragedy of open access is the result of independently acting individuals who do not have relations to each other or share normative structures (de Angelis and Harvie 2013, 284).

extraction and towards accountability. The current capitalist system and its goal of profit has fostered a culture which values independent consumption above all else. At the extreme, consumerism produces greed, isolation, and selfishness. Across the literature, scholars agree that the values and characteristics of consumerism prevent the eco-local vision of ecological-based economies driven by the active participation of people (Evanoff 2010; Löwy 2015). Eco-local scholars instead advocate for values such as accountability, cooperation (House, Jordan, and McGinnis 1998), stewardship (Cato 2011), and resilience (Ganesh and Zoller 2013). The most consistent value that emerges from eco-localism though is community, both building it and being in one (Cato 2011; Curtis 2003; de Angelis and Harvie 2013; Ganesh and Zoller 2013; Hahnel 2007; Thomashow 1998; Plant 1990). Barrett argues that communities are well-situated to take on the task of climate mitigation given the observed sense of duty and responsibility to other members (2014, 193). When a community intentionally expands its awareness to resource preservation, individuals develop a sense of responsibility to the ecosystem as well. Preserving local ecosystems becomes synonymous with sustaining the community and supporting oneself. Given the limitations around implementing eco-localism, as will be discussed later, these values emerge as the most important piece of the philosophy since they constitute a mindset that can be adopted by individuals and organizations in their climate mitigation work.

The strongest case for eco-localism that scholars present is the "direct accountability for our resource use" (Cato 2013, 224). In an economy that operates in a geographically defined space, people feel intimately the consequences of reckless resource usage and are therefore accountable for their decisions. Eco-local scholars refer to this as the In My Backyard (IMBY) effect (Curtis 2003, 93; Cato 2011, 488; Hahnel 2007, 65). Curtis deftly articulates this as: "any pollution, waste disposal or resource depletion arising from the production or use of locally

produced goods and services remains in the community… as a result, only such products whose environmental impacts are acceptable to the community will be produced" (2003, 93). This is how ecological constraint could be placed upon local economies; the consequences of production would not just be felt by the consumers, but the producers as well, since they all occupy the same geographical space.

In the current globalized capitalist system, corporations are removed from the impacts of their production. The case for eco-local accountability is exemplified by "... a small local business that must share the fate of the local community," compared to a "large absentee corporation that is set up to escape the fate of the local community" (Berry as cited in Curtis 2003, 36). The idea of In My Backyard (IMBY) posits that local communities must take responsibility for their own small geographic units of the economy. As Cato writes, "if every local community protects its own backyard… then we can expect higher levels of social and environmental responsibility" (2011, 488). The transition to local economies that are each responsible for its own backyard would eventually create a global network of accountability to ecosystems. However, as Hahnel identifies, the IMBY principle no longer holds weight if neighboring local economies are not also practicing accountability since pollution and other similar environmental consequences have no concept of boundaries (2007, 73). The obvious limitation of this eco-local responsibility is that it would be extremely difficult to coordinate such a large-scale transformation across the globe. The more realistic version of IMBY is not establishing a global network of local communities, but rather encouraging this sense of accountability to be taken up by more communities, even if they are few and far between.

The notion of accountability may seem restrictive, but Cato (2013) and Ganesh & Zoller (2013) argue that it is empowering. The current capitalist system works on a globalized scale,

with small communities being vulnerable to macro-level decisions. Cato contends that localized economies are "an attempt to regain power for people within areas that they can feel responsible for" (2013, 223). In eco-localism, individuals would theoretically have an increased opportunity to shape their community as they see fit without the intervening hand of globalized capitalism. Ganesh and Zoller maintain that economic decisions should be made by communities that understand the necessities, risks, and potential impacts of local ecosystems (2013, 236). However, this stance values community knowledge that has been built over generations through an ongoing relationship with resources. This makes it more difficult to implement eco-localism in emerging communities since they are trying to amass generational knowledge in a limited time-frame. Regardless, this conceptualization of accountability continues to be the strongest point of eco-localism since the process of reconnecting with the land, becoming attuned to dynamics of their ecosystem, and making decisions based on that knowledge can be undertaken by small groups or even individuals. It is a necessary first step in mitigating the climate crisis.

Constructive Critiques Towards Implementation

Despite its vision of economic justice and ecological preservation, there remains pervasive criticisms of eco-localism. However, these critiques offer insight as to how eco-localism could be realistically implemented and identify key weaknesses for further study or possible modifications. One such critique that Albo (2007) and Hahnel (2007) take is that eco-localism falls short in offering a governing strategy to accompany its economy or what it will take to get there. While eco-localism offers a strong foundation, neither a formal model of the economy or governance has yet to be outlined (Hahnel 2007, 70; Albo 2007, 350). Many eco-local scholars - such as Curtis (2003) and House, Jordan, and McGinnis (1980) - fail to propose a form of political organization at all. Hahnel offers his own vision of a participatory

planning procedure to make economic decisions. In his model, there would be worker councils, consumer councils, and a facilitation board that would collaboratively determine the price (Hahnel 2007, 75). This would give local communities more power over their own activities but could be relevant for larger community cooperation through the use of councils (Hahnel 2007, 76).

 In response to these critiques, many eco-local scholars have adopted a model of centralized economy and direct participatory democracies (Cato 2013; Ganesh and Zoller 2013; Löwy 2015). Adopting this principle, Löwy proposes that "the prices of goods themselves would not be left to the laws of supply and demand, but determined as far as possible according to social, political, and ecological criteria" (2015, 24). However, these responses remain rooted in what will occur once eco-localism is already established and do not address how to get there. These critiques reveal that eco-localism is not yet a feasible theory of political or economic organization. Eco-localism must first establish itself as a valuable mindset and set of organizing principles for small communities before it attempts to expand its reach.

In contrast to the other critics of eco-localism who argue there needs to be more concrete structures in place, Brennan (1998) is simply opposed to eco-localism as a form of political and economic organization. His background is as a liberal political theorist rather than as an ecologist, economist, or sociologist as many of the other scholars are. He believes that organizing society through eco-localism would necessitate centralized planning and could lead to totalitarianism, a stifling of human creativity, and an override of basic rights (Brennan 1998, 216). However, he believes that eco-localism is a beneficial project when it merely seeks to reconnect people with the land (1998, 225). Although Brennan fails to understand the theory of eco-localism as an urgent response to the worsening climate crisis, his critique offers a possible

first step in the implementation. Communities should begin by paying attention to the "impositions on nature which we make without regard to the way we dwell in the land" (Brennan 1998, 224). Integrating Brennan's critique does not preclude eco-localism from existing as a political or economic structure, but recognizes that realistically, it must be adopted as a mainstream mindset first.

An important internal divide that has emerged in the literature is around whether or not eco-localism must be explicitly anti-capitalist. This debate takes form around what the primary issue is that fuels climate change and economic stability, the globalized scale of capitalism or capitalism itself? For scholars such as Curtis (2003), Hines (2000), and House, Jordan and McGinnis (2007), the problem is the instability of lengthened supply chains and the solution is to decrease the scale of economies rather than to challenge the capitalist foundation. On the other side of the discussion, Albo (2007), Evanoff (2010), Löwy (2015), and Shiva (2008) identify the problem in the extractive nature of production itself. Albo specifically argues that there is an irreparable "inconsistency between capitalist imperatives for growth and ecological sustainability" (2007, 344). This divide represents the gap between the theory of eco-localism and the realistic implementation. The global system of capitalism, the extraction of natural resources to produce goods, and the goal of sustaining profits from said goods are inconsistent with a desire to sustainably manage ecosystems and mitigate climate change. However, working to deconstruct capitalism is a monumental task in and of itself, regardless of its relationship to eco-localism. Therefore, these two positions in the scholarly debate are not mutually exclusive, but rather a natural progression of goals. Curtis argues that minimizing the scale of capitalism will require buying less as consumers and limiting our consumption to primarily eco-local resources (Curtis 2003, 91). This is already a significant undertaking since the supply lines that

have emerged out of globalized capitalism enable people to consume things from all over the world, regardless of the distance (Hines 2000). Only if eco-localism is able to successfully encourage a decrease in the scale of capitalism through limited local consumption does it become relevant to discuss how to move past capitalism.

A minor, but still important, critique that Jablonowski makes is that eco-localism is too idealistic; it is simply a romanticized notion of returning to agrarian lifestyles (2011, 36). The optimism that another world is possible seems naïve to people who are directly experiencing the crises present today. While it may appear impossible and utopic to escape the globalized capitalist system, Hahnel responds by asking, "how can we know what steps to take unless we know where we want to go?" (2007, 64). This is a central facet of my paper; the theory of eco-localism provides one possible alternative to the exacerbated climate crisis and economic instability. It is necessary to imagine a different world in order to identify solutions that would get us there.

Defining Bioregionalism

Scholars have taken the foundation of eco-localism and proposed their own varying forms of it. One of the most prolific theories that has emerged from eco-localism is that of bioregionalism, with Cato (2011; 2013; 2014) being the forefront scholar. Other scholars that advocate for bioregionalism include House, Jordan, and McGinnis (1998), Evanoff (2010), Thomashow (1998) and Plant (1990). A bioregion "is an area defined by geographical rather than political boundaries" and a bioregional economy would seek self-reliance (Cato 2013, 220). The concept of bioregionalism is essentially that of eco-localism, but serves to define the boundaries of local economies and also considers how it can be implemented within the context

of the contemporary world. Such considerations include how bioregionalism can be adapted to cosmopolitan landscapes as well as how to prevent the domestic sphere from being a site of oppression against women. Bioregionalism offers the most theoretically comprehensive form of eco-localism, and therefore, the most thoughtful ideas around implementation.

Bioregionalism attempts to specify the scale of eco-localism. It suggests that the boundaries of local economies should mimic natural systems (House, Jordan, and McGinnis 1998, 207). Cato consistently defines bioregions as "unique regions defined by natural, rather than political, boundaries" (2011, 481; 2013, 220). Bioregionalism provides a necessary complement to eco-localism by theorizing how local economies will be geographically structured. Although the physical boundaries of bioregions are difficult to define with certainty, House, Jordan, and McGinnis raise the point that bioregional scale is about honoring the perceptual limitations of the individuals living within them; boundaries mark the extent to which people can understand themselves as an integral part of an ecosystem (1998, 218). A bioregion must cover enough ground to include essential resources while still being small enough for people to feel connected to the place (Cato 2013, 225). Therefore, the scale of bioregions varies according to resource availability and the strength of community identity. As will be discussed in the data section of this paper, bioregional organizations give further nuance to the definition of scale when considering how many people they want to be involved in their projects and what a sustainable level of membership is.

The strategy of bioregionalism offers the most effective form of eco-localism primarily because of the thoughtful contributions that its scholars have made. Cato (2013) and Thomashow have explored cosmopolitan bioregionalism, an especially vital task given that there are approximately five hundred cities with populations of over one million (Thomashow 1998, 123).

Cato envisions an ecopolis, where "an urban settlement is linked to its hinterland but made of energy-intensive structures and powered by renewable sources of energy" (2013, 229). Cities would not individually constitute a bioregion, but would instead have to establish practices of community with the surrounding hinterland. Thomashow's work on cosmopolitan bioregionalism complexifies Cato's argument and proposes how place-based organizing can embrace migrants, a necessary perspective given the inherent mobility of people, but even more significant due to the increase in climate-forced displacement (1998, 123). He observes that if the current ecological crises continue, "having a homeland will represent a profound privilege" (Thomashow 1998, 123). Cosmopolitan bioregionalism embraces the values of eco-localism and welcomes a variety of place-based knowledge from migrant and diaspora communities. Bioregionalism does not just serve as a site to develop place-based knowledge, but also "as a foundation from which to explore the relationships between and among places" (Thomashow 1998, 125). Although a critique of eco-localism is that it seeks to return to a historical form of agrarianism, Cato and Thomashow express how bioregionalism can be implemented as a modern structure.

Additionally, bioregionalism tries to incorporate modern values of social equality, specifically feminism. Plant explores bioregionalism as an opportunity to embrace feminist practices rather than perpetuating the oppression of women (1990). The misguided rhetoric that often emerges from place-based organizing is that people should "find a place and stay there," essentially, make a bioregion their home (Plant 1990, 21). However, this restriction of movement has isolated women and relegation to the home has traditionally devalued women's labour (Plant 1990, 21). Plant argues that bioregionalism must be accompanied by feminism in order to fully be effective in its vision of community. The gendered stratification of society prevents shared accountability for economic impacts on local ecosystems (Plant 1990, 23). Women must have

equal access to political and economic institutions for local participation to be successful and for community decisions to be equitable. Feminism also strengthens the anti-capitalist framework of bioregionalism that Löwy (2015) envisions because it demands that unpaid, domestic labour - that which has typically been assigned to women - has greater societal value (Plant 1990, 23). In bioregionalism, the practices of taking care of a home extend to local ecosystems and must be seen as valuable even without the incentive of profit. Rather than working for the purpose of capital gain, House, Jordan, and McGinnis contend that bioregionalism embraces work for the purpose of ecosystem sustainability (1998, 229). For both feminism and bioregionalism, "[home] is where the consequences of political decisions are felt" (Plant 1990, 21). Through their theoretical synthesis, local ecosystems become a strategic site in which personal values of liberation have political and economic impacts of sustainability.

As Shiva remarks, there is "no other challenge so global in scope" than that of the climate crisis (2008, 3). The rising temperatures, intensified natural disasters, and ongoing air pollution will affect every person to varying degrees and solutions are required to prevent the dangerous consequences that are yet to come. In this section, I reviewed literature from scholars who have responded to the climate crisis with a theory of a new economic system: eco-localism. The umbrella term of eco-localism describes local, place-based economies that would be situated within ecological limits —meaning that the use of resources must not exceed its natural timeline of regeneration. Although not the first to propose place-based organizing, Curtis (2003) clarifies the purpose of eco-localism as a climate mitigation strategy and is used as the foundation for many of the following scholars. Expanding upon his ideas, scholars like Ganesh and Zoller (2013) identify that one strength of eco-localism is the practice of accountability to resources. Cato (2013) suggests that this accountability occurs when communities care about what happens

'In My Backyard' and are responsible for the waste and emissions that they produce. Scholars such as Albo (2007), Hahnel (2007), and Brennan (1998) critique eco-localism for lacking a clear vision of how it will be implemented as a functional political or economic structure. However, these critiques reveal that eco-localism is not yet developed enough to foster that type of transition and must first be a mindset that is adopted by individuals, small groups, and organizations. The most promising form of eco-localism is bioregionalism, which was theorized by scholars such as Cato (2011), Evanoff (2010), Thomashow (1998), and Plant (1990). They specify that local communities and economies are defined by natural boundaries such as the territory of a resource or watersheds.

Throughout this section, I argued that eco-localism, and specifically bioregionalism, is a worthwhile climate mitigation strategy because it proposes a philosophy that is based on accountability to resources. The idealistic vision is to deconstruct capitalism and adopt bioregionalism as the new economic structure that organizes communities. While this cannot be implemented in the timeline necessary to respond to the climate crisis, it sets up a vital framework of relocalizing our economies and practicing responsibility for what happens in those areas. Although bioregionalism has the most comprehensive theory, there is a significant gap of empirical evidence. In the next section, I use two case studies that are practicing bioregionalism to explore how the theory has been operationalized.

Bioregionalism in Practice

Bioregionalism, a theory of organizing local economic communities in regards to the natural boundaries of ecosystems, offers a potential strategy in mitigating climate change. Scholars of bioregionalism have argued that it is a strong climate mitigation strategy because it

emphasizes accountability and reciprocity (Curtis 2003; Ganesh and Zoller 2013). On the other hand, scholars have critiqued bioregional as hyper-theoretical and lacking the necessary structure to become a reality (Albo 2007; Brennan 1998; Hahnel 2007). I demonstrate that the principles of accountability to resources and responsibility over local ecosystems are essential to climate mitigation strategies (Cato 2011). However, I challenge the assumptions made by Cato (2011), Löwy (2015), and other proponents of bioregionalism that we need to disrupt capitalism in order to combat the climate crisis. The case studies presented in this section are the Cascadia Bioregion and the Terran Collective. For each case study, I will consider which bioregional principles are at play, analyze the impact that they have had on their local environments, and explore how they have economically situated themselves within the global capitalist system. These case studies demonstrate the limited, but necessary, work that bioregionalism can accomplish.

In this paper, capitalism is understood to be an economic system that seeks to maximize profits and accumulate wealth, allowing the free market to regulate how crises are approached. I refer to it as the globalized capitalist system to recognize how interconnected states have become due to trade, multinational corporations, and world economic institutions. I argue that while a goal of transitioning away from capitalism is necessary, it is not a prerequisite to adopting bioregionalism. The urgency of the climate crisis requires a more immediate approach and the theory of bioregionalism can adapt to meet that realistic need. Bioregionalism can instead advocate for a more sustainable use of natural resources, thereby incrementally reforming capitalism away from extraction and exploitation. I will explore bioregionalism's economic practices, as well as the scale in which they operate, in my case studies.

The Cascadia Bioregion was established in the late 1980s and covers multiple states in the Pacific Northwest of the United States and Canada. It operates as a group of multiple

organizations across states that are all working towards climate mitigation, economic growth, and resource accountability in the region and are then connected, guided, and funded by the central organization of the Cascadia Bioregion. Although there are many significant projects and goals, the primary focus of the Cascadia Bioregion is around decarbonizing the economy in their area. Cascadia Bioregion's ability to engage in region-wide decarbonization projects is dependent on government support and economic funding.

The Terran Collective is a small bioregional organization established in 2016 that is based in the Bay Area in California. They have a deep grounding in bioregional principles such as reconnecting with their local land and addressing climate change at the community level, but are still in the process of creating working relationships with other organizations in the area. Additionally, the Terran Collective operates both as a non-profit organization and as a software development company. This role as a business is a sharp divergence from how bioregions are envisioned in the literature as independent economic organizations. Both of these case studies explore how bioregionalism is a promising set of organizing principles for climate mitigation projects.

The Cascadia Bioregion

The Cascadia Bioregion was established in 1986 when a group of policy planners, community organizers, and first nations representatives convened at the inaugural Cascadia Bioregional Congress (Department of Cascadia Bioregion a). The bioregion covers the land that is sourced by the Columbia and Fraser river valleys as well as the Salish Sea; this is primarily the corridor of British Columbia, Washington, and Oregon, but also encompasses parts of Idaho, northern California, and southern Alaska (Department of Cascadia Bioregion a). Over the past forty years, the Cascadia Bioregion has sought to "further local autonomy, empower individuals

and communities to better represent their own needs, and create sustainable local economies through bioregional planning" (Department of Cascadia Bioregion e). They have done this through creating an extensive network of committees, programs, events, affiliated organizations, and government collaborations that are largely independent with their own leadership structures. The Cascadia Bioregion remains the organization at the center of this web —connecting groups together, distributing funding, and articulating what bioregionalism is through external communications. In this section, I use Cascadia to discuss the geographic area and Cascadia Bioregion to specify the central connecting organization.

The Cascadia Bioregion is run as a non-profit organization sustained by individual donations. This money is then funneled towards supporting "projects, events, and groups working to foster a strong and healthy bioregion" (Department of Cascadia Bioregion b). However, given that Cascadia covers multiple states with large cities, it theoretically encompasses an already thriving economy. With a population of approximately 16 million people, Cascadia "would have an economy generating more than $1.6 trillion worth of goods and services annually, placing it as the world's 9th largest economy and roughly equivalent to that of Canada or Italy" (Department of Cascadia Bioregion a). Notably, Cascadia is the homebase of some of the most profitable companies in the United States, including Starbucks, Amazon, Boeing, and Microsoft (Department of Cascadia Bioregion d). The Cascadia Bioregion works within and benefits from the economic framework of globalized capitalism that these companies embody. This is in contrast to the anti-capitalist bioregional literature that argues multinational companies such as Amazon or Microsoft should have limited power and re-localize their operations (Hines 2000). However, it is a more feasible approach than prioritizing a dismantling of capitalism; the Cascadia Bioregion has financial resources at their disposal due to being

situated in an increasingly wealthy area of the United States and able to receive funding from private companies for specific projects.

Many of the large-scale, highly visible climate mitigation efforts in the region are being undertaken by the state governments or major corporations. Yet, it was Cascadia Bioregion that advocated for a green, sustainable economy and was the driving force behind even considering these projects. At the 1988 Cascadia Bioregional Congress, a committee on community-based economics declared that "as bioregionalists we believe that the economic activities must be clearly in sustainable alignment with ecological systems" (Cascadia Media 2020). They resolved to "promote an economy which should be self-regulating" and "meet our region's energy needs without dependence on non-renewable fossil fuels" (Cascadia Media 2020). This philosophy guided them through the 1990s as the Cascadia Bioregion implemented workshops and projects that educated people about renewable energy and sustainable economics. Their principles and beliefs were then taken on by the Pacific Northwest Economic Region in 1992 and the Cascadia Mayors Council in 1996 (Department of Cascadia Bioregion e). This foundational knowledge supported the early adoption of climate policy in the region —Seattle passed its first Climate Action Plan in 2005 while British Columbia implemented a carbon tax in 2008 (Roberts 2018). The Cascadia Bioregion continues to be a powerful organization in its own right, but is additionally the inspiration behind many projects that they are not directly associated with.

The Cascadia Bioregion illustrates that the scale of bioregions emerges from a tension between connection and capacity. It also demonstrates how a functional bioregional organization must work within the framework of global capitalism for the time being. The Cascadia Bioregion seeks to operate an autonomous economy as much as possible and practice responsibility for the emissions in their own economic sphere.

Cascadia Bioregion: Scale and Climate Impact

This section explores how scale influences bioregions' ability to have a significant

protective impact on their ecosystem. The central organization of Cascadia, Department of the

Bioregion, is no longer doing the brunt of the work, but is instead resourcing, connecting, and

empowering the groups and individuals that are working to protect the local ecosystems.

Cascadia Forest Defenders and Cascadia Wildlands are both examples of affiliated organizations

taking a political approach to promote bioregional principles in their work of mitigating climate

change. Cascadia Forest Defenders is a grassroots organization that arranges non-violent, direct

actions in protest of the industrial timber industry and extractive practices in mature-growth,

temperate forests (Forest Defense Now b). Currently, Cascadia Forest Defenders are engaged in

a long-term protest against a logging project in Oregon's Willamette Forest. The project, run by

the U.S. Forest Service, involves "logging more than 2,000 acres of publicly owned forests

surrounding the community of McKenzie Bridge" (Forest Defense Now a). In response,

Cascadia Forest Defenders have hosted tree sits or equipment blocks, where protesters sit in the

trees or on the construction equipment for extended periods of time to temporarily halt logging.

The existence of forests in Cascadia are essential for managing carbon emissions because in

Oregon alone "forests take in between 23 and 63 million tons of carbon dioxide, making them

unmatched in their ability to store carbon" (Cascadia Wildlands b). If logging goes forward as

planned, it "will prevent the storage of at least 500,000 tons of carbon over the next 50 years"

and will set a legal precedent for future logging permits (Forest Defense Now a). The actions of

Cascadia Forest Defenders are protecting a large swath of forest that acts as a carbon capture site.

Cascadia Wildlands is another affiliated organization with the vision of "a stable climate,

and vibrant communities sustained by the unique landscapes of [Cascadia]" (Cascadia Wildlands

a). They are doing similar work protecting old-growth forests but their other projects include the

reintroduction of wolves into the area,[5] protecting wild salmon, and adapting to the intensifying

wildfires. Cascadia Wildlands uses legal tactics to further these projects: they were able to

restore the endangered species protections for gray wolves through a federal court and have filed

multiple lawsuits against the Bureau of Land Management to prevent logging projects in

old-growth forests (Cascadia Wildlands b). The Cascadia Bioregion has transitioned to doing

more behind-the-scenes work of publicizing their approach, recruiting new members, and

gathering donations. With this background support, affiliated sub-organization like Cascadia

Wildlands and Cascadia Forest Defenders are then able to continue climate mitigation practices

on the ground. Both Cascadia Wildlands and Cascadia Forest Defenders are working to protect

forests and ecosystems in the bioregion. And they are only two of the twenty organizations,

fourteen events, and six research initiatives that are aligned with the Cascadia Bioregion

(Department of Cascadia Bioregion c). By working as separate organizations unified by the

Cascadia Bioregion, they are able to utilize a variety of tactics towards the same goal of climate

mitigation and resource sustainability.

The Cascadia Bioregion has expanded their reach beyond the internal work of their

organization and now collaborates with the state governments encompassed by the envisioned

bioregional boundaries, primarily British Columbia, Washington, and Oregon. One of the most

high-profile and promising projects currently underway is a high-speed rail that would run from

Eugene, Oregon to Vancouver, British Columbia; the entire 460 mile trip would take just under

two and a half hours (Cascadia High Speed Rail). Transportation is the primary polluter in

Cascadia, with driving and flying contributing about 60% of annual emissions (Cascadia Rail). A

study done by the Washington State Department of Transportation found that the proposed

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[5] Wolves are important to the overall health of ecosystems in the Cascadia Region, especially facilitating natural recovery from wildfires (Cascadia Wildlands b).

high-speed rail would reduce state carbon emissions by 6 million metric tons over the first 40 years (2021). The high-speed rail would meet the intercity transportation needs of residents while also working to reduce air pollution in the region. The project was originally envisioned by one of the Cascadia Bioregion affiliated organizations, Cascadia Rail, and has since been adopted by the associated state governments. In November of 2021, a Memorandum of Understanding was signed by Oregon Governor Kate Brown, Washington Governor Jay Inslee, and British Columbia Premier John Hogan that stated, "we commit our states and province to advancing work on the Ultra-High-Speed Ground Transportation project and to pursuing emissions reduction with a focus on equity, inclusion and meaningful community engagement" (2021, 4). The work of the Cascadia Bioregion has influenced the local political sphere and they are seeing large projects that would connect the bioregion while protecting the environment come to fruition.

The success of the Cascadia Bioregion demonstrates that bioregionalism is scalable beyond the community garden or even city level. In their case, the bioregion is more expansive than individual states and even crosses country borders. Curtis argues that "scale is the key issue of economic sustainability" (2003, 90). Although his argument is that economies need to be made smaller in order to have resource accountability, Cascadia Bioregion offers a counterpoint that bioregions need to be big enough to have active participation. The scale of their bioregion encompasses multiple states and a population of over 16 million (Department of Cascadia Bioregion d). By covering such a large geographic space, the small groups of people that live across the bioregion are able to have a much more significant impact because their efforts of climate mitigation are coordinated to protect a shared ecosystem. Cascadia Bioregion has a numerous set of affiliated organizations, but they are dispersed across the region. Having multiple organizations provides various entry points for new members to get involved and be

more deliberate in what issues they want to address. These organizations like Cascadia Forest

Defenders and Cascadia Wildlands can then pursue different strategies based on bioregional

principles to more comprehensively mitigate the effects of climate change. Furthermore, the

scale of Cascadia means that more land is being sustainably taken care of. Many concerns around

bioregionalism are that the area will be too small to have a significant impact; Löwy writes,

"local initiatives [would be] equivalent to a drop of water on the arid soil of the…desert" (2015,

8). However, the Cascadia Bioregion indicates that bioregions can be sizable areas, in their case

750,000 square miles, that include multiple cities. It is still merely a drop of water, but it is not

insignificant as a starting point.

The major cities contained within the boundaries of Cascadia are Portland, Seattle, and

Vancouver. In his constructive critique of bioregionalism, Albo interrogates how to coordinate

across cities, especially since there are approximately five hundred cities with populations of

over one million (2007, 349). However, the cities in Cascadia coordinate precisely *because* they

are so closely linked; the high speed rail project emerged from a need to travel between the

cities. Cities can facilitate projects such as the high-speed rail that require funding, resources,

workers, permits, inspections, and maintenance. This further illustrates the point that bioregions

must be big enough to have pre-existing infrastructure, usually from governments, to be able to

pursue the projects that will have the most significant protective impact on their ecosystems.

Cities are not antithetical to bioregionalism and can instead be integral to determining the scale

of each unique bioregion. Thomashow argues that "the local landscape can no longer be

understood without reference to the larger patterns of ecosystems, economies and bureaucracies"

(1998, 126). In Cascadia, the landscape is best understood with the cities of Portland, Seattle, and

Vancouver acting as economic anchors and guiding political actions. Given their geographic

proximity to each other, these cities and their existing infrastructure then influence the scale to which Cascadia extends.

Cascadia Bioregion: Navigating the Global Capitalist System

This section discusses bioregionalism's relationship with the global capitalist system and how bioregionalism in practice takes a different economic approach than what is outlined in the literature. The primary goal of the Cascadia Bioregion is to decarbonize their regional economy (Department of Cascadia Bioregion e). Decarbonization requires an intensive economic mobilization to transition from oil, natural gas, and coal to renewable energy sources. However, many industries that are integral to providing jobs and stability in Cascadia, such as logging, transportation, agriculture, and energy, continue to be reliant on fossil fuels that emit carbon (Department of Cascadia Bioregion d). Therefore, part of decarbonization requires considering "how employment can transition along with energy" (Fairly and McClure 2021). As jobs in the oil, gas, and coal industries are phased out, there needs to be replacement jobs that support clean energy. Some of the jobs that the Cascadia Bioregion has proposed include: electric vehicle technician, emissions auditor, environmental accountant (calculating the cost of pollution), and wilderness restorer (Gamage 2021). These would be in addition to the growing industries of wind, solar, and hydro power. In Washington, the construction of renewable power plants could lead to a projected 60,000 additional jobs (Fairley and McClure 2021). Since bioregionalism is founded on the importance of local communities, the Cascadia Bioregion is working to provide continued employment opportunities for members of the community even as there is an economy-wide transition to renewable energy.

These strategies of decarbonization —expanding employment in green jobs and transitioning industries to rely on renewable energy— require Cascadia Bioregion to coexist and

collaborate within a capitalist framework. This approach is in contrast to the theory as many forefront scholars argue it would be impossible to adequately address the climate crisis within any form of capitalism (Cato and Fôn James 2014). However, the goal of the Cascadia Bioregion is not to dismantle capitalism, but to take accountability for the carbon emissions of their local economy. This is a significant undertaking in itself given that if the bioregion was analyzed as an independent economy, it would generate more than $1.6 trillion worth of goods and services annually (Department of Cascadia Bioregion a). Rather than attempting to embrace an economy that is "geared to production for need, not for profit," Cascadia Bioregion is undertaking projects that are meant to either eliminate or offset the emissions of current industries (Cato and Fôn James, 2014, 173). This is not to say that it is illogical to protest against capitalism. Organizations such as Cascadia Wildlands and Cascadia Forest Defenders are actively protesting the logging industry and its inherently exploitative practices in forests. However, the strategies of the Cascadia Bioregion signal that current urgency of climate change requires transitioning away from the most extractive and polluting industries first before taking on the full capitalist economic system. Their work demonstrates that the values of accountability and stewardship are more important to immediate climate mitigation strategies than working against globalized capitalism.

The Terran Collective

The Terran Collective was founded by Tibet Sprague and Aaron Brodeur in 2016 as an actionable response to the question, "how can humans cooperate better with each other and the planet?" (Politano 2020). It is a small, non-profit organization operating across the nine counties comprising the Bay Area in Northern California (Terran Collective a). The work of the Terran

Collective falls under Five Scopes of Practice: community weaving, technology for thriving, regenerating the commons, collaborative ecosystem mapping, and storytelling for cultural evolution (Terran Collective d). Within each of the Scopes of Practice, the bioregional framework guides the Terran Collective to seek projects that build relational interdependence, support resource abundance, and encourage community autonomy (Terran Collective b). So far, this has meant holding regular Zoom calls with leaders of other climate justice organizations in the area, endorsing ongoing sustainability projects, and hosting a weekend conference to connect local climate justice activists. Currently, the Terran Collective is an organization building a vital web of connection between other climate justice, economic justice, and Indigenous land rights organizations in the Bay area. This facilitation is important work, but it diverges from both the goals of bioregionalism to have a direct, positive impact on ecosystems and the stated mission of the Terran Collective to "shape our bioregion into a model for the world of what regenerative civilization can be" (Terran Collective b).

Since its inception, the Terran Collective has expanded to a core stewardship team of five people that run the organization's operations (Terran Collective b). The work of the Terran Collective is resourced by their own non-profit branch, the Terran Watershed, a 501c(3) ("Terran Watershed"). The Watershed is described as "the primary container where we receive and steward resources in support of our efforts to bring about systems, tools, and infrastructure for the more beautiful world our hearts know is possible" ("Terran Watershed"). However, the Terran Collective is not merely a non-profit organization, but a start-up software development company as well. Each of the members of the stewardship team came to the Terran Collective as digital entrepreneurs; their backgrounds are primarily in digital communications development as software engineers (Terran Collective d). As software developers, the Terran Collective has built

websites for a couple of other businesses and created their own app that serves as a communication platform. The Terran Collective comprises both the non-profit organization and the software development company. Their website is almost exclusively about their non-profit, bioregional work with a few sentences that acknowledge their goal to create technology that assists sustainability (Terran Collective b). Beyond their website, however, the non-profit work and business projects of the Terran Collective are more inseparably connected.

The Terran Collective has embraced the philosophy of bioregionalism. Their website consistently acknowledges central principles of bioregionalism, such as the necessity of connecting to the land that they live on, practicing resource accountability, embracing a regenerative economy over extraction, and strengthening community relationships to be a cohesive unit of organization (Terran Collective b). This philosophy is beneficial for connecting groups in the area because it serves as an umbrella vision that unifies a variety of organizations. However, the Terran Collective is not yet actively hosting or pursuing activities that have a measurable impact on their ecosystem. The extent of their work remains in the digital sphere; their ability to pursue projects that would have direct impact on nature are limited by the initial demands of creating and sustaining a bioregional structure. The Terran Collective is still in the stage of building community relationships and encouraging groups to adopt the bioregional structure as a guiding framework for organizing in the region. Therefore, they are not yet as effective as the Cascadia Bioregion, but a revealing case study nonetheless.

Terran Collective: The Necessity of Community Relationships

This section will discuss how community relationships influence bioregional organizations' ability to undertake projects that mitigate climate change. Bioregionalism envisions a structure of decision-making that emerges from a generational foundation of

community within a particular ecosystem. In the case of the Terran Collective, the decisions are made by the core stewardship team which comprises five individuals. While all of them currently reside in the Bay Area, only one member originally from there. This complicates their ability to engage in climate mitigation given that they have to dedicate time towards creating relationships with people who have resided in the area for years.

For example, one of their main projects was hosting the Terran Cospiracy[6] in October of 2019. This fell under the Scope of 'community weaving' and served to deepen relationships among people and organizations working on resilience and regeneration in the Bay Area bioregion (Sprague 2021). Over the span of a weekend, 150 community leaders were convened to make connections with each other, learn about the principles of bioregionalism, and establish the foundation for future collaboration (Sprague 2021). During the Cospiracy, attendees created a map displaying which organizations were active in the Bay Area and what work they were doing.[7] This agenda and the priority of mapping organizations illustrates that the stewardship team is not yet operating from their unique experience with the land, but rather, facilitating other organizations that are more historically connected to the bioregion.

Since the Terran Collective currently focuses the majority of their energy towards building community relationships, they have not yet been able to pursue projects that would have a tangible impact on their local ecosystems. Four of their five Scopes of Practice — community weaving, technology for thriving, collaborative ecosystem mapping, and storytelling for cultural evolution — exist in the abstract or virtual sphere. Each of these practices is necessary for building a deeply relational community, but does not have an immediate effect on the ecosystem. The Scope of Practice most aligned with climate mitigation and the theoretical vision of

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[6] *Co*spiracy as a twist on *con*spiracy. They derived the name from co-spire, or "breathing together" (Sprague 2021)
[7] Map can be found here: https://miro.com/app/board/o9J_lLxfzlk=/?invite_link_id=419589916018

bioregionalism is regenerating the commons (Terran Collective d). The goal of this practice is to "return to an understanding that governing our shared resources is a shared responsibility" (Terran Collective d). Their current work under this practice involves "relational work required to be in deep coherence as a team," "researching collective governance models," and "seeding bioregional guilds across many sectors" (Terran Collective d). Although under a different name than the other Scopes of Practice, this work remains resolutely in the planning stages instead of implementation. On their timeline of goals, the Terran Collective states they will eventually "begin acquiring land; create a commons of distributed land projects, shared and stewarded by all; [and build] community centers in various parts of the bioregion, that allow people to collaborate, meet, share space in person" (Terran Collective d). However, this is not scheduled to happen until the fall of 2022 at the earliest.

One of the reasons that the Terran Collective may be focusing on relation building is because the majority of their stewardship team is not from the Bay Area. It is not impossible to practice bioregionalism as a newcomer to a geographically and community bounded place. Thomashow acknowledges that a modern, cosmopolitan form of bioregionalism must "allow for permeable boundaries, and recognize the connections between places as intrinsic to the well-being of any one place" (1998, 129). Human movement is natural and is even expected to increase with climate forced displacement becoming a more immediate concern. However, this transiency of the leadership team is not conducive towards the initial, construction work of establishing a bioregional structure. Barrett notes that "communities are contested spaces" in which having individuals that share geographic space is not as important as the presence "of certain emergent structural properties" (2014, 183 and 194). The Terran Collective is in the process of creating those structural properties that support a community.

While bioregionalism calls for the strengthening of community ties, the theoretical vision assumes that there are preexisting relationships or structures in place (Cato 2011, 489). In reflecting upon the Terran Cospiracy event, the Collective stated that they see strong relationships "in place-based communities, as an essential precursor to effective 'bioregional coordination'" (Sprague 2021). The phrase "essential precursor" communicates that the Terran Collective has adopted the values of accountability and interdependence of a bioregion, but is not yet operating as such. The practice of the Terran Collective reveals that there is a vital piece missing from the literature regarding the timeline of establishing bioregionalism. Bioregionalism may be more easily established in communities with pre-existing normative structures that lend themselves towards resource stewardship. However, in the case of organizations that are attempting to form bioregional communities, it takes time to cultivate trust in each other and an understanding of accountability to the local ecosystem. Therefore, Terran Collective's focus on personal relationships is a necessary step before collaboratively stewarding the Earth towards a more sustainable state. In order for Terran Collective to fully embrace bioregional principles, they must postpone projects that would have an impact on their ecosystem. The Terran Collective have chosen to engage in the foundational work of creating a bioregional community instead of immediately pursuing climate mitigation projects and engaging. Despite the urgency of the climate crisis, this time spent in building community relationships will hopefully strengthen the Terran Collective's ability to protect their ecosystem in the future.

Terran Collective: A Community of Employees

This section will investigate the impact of bioregional organizations situating themselves as both a nonprofit organization and for-profit business. In its current formation, Terran Collective relies on having paid staff to host Zoom calls, organize retreats, and develop software.

The core stewardship team may believe deeply in the practice of bioregionalism, but they are also actively employed by the Terran Collective rather than engaging in it purely as community members (Terran Collective's *LinkedIn*). As mentioned earlier, the Terran Collective relies on their own non-profit branch, the Terran Watershed, to fundraise money for their work. The Terran Collective is not yet making economic decisions about money or valuable products that are being made *within* the community, but relying on donations to fund their work. Their fundraising goal for 2022 is $500,000 and as of February, have collected a little over $2,000 ("Terran Watershed"). The money collected by the Terran Watershed is then put towards projects that fall within the Scopes of Practice.

The Terran Collective is both a bioregional non-profit organization and a software development business. This dual reality of hoping for a better future while also profiting off of the current work is best reflected in Terran Collective's messaging. On Facebook, their 'About' section states that they are "amplifying cooperation among people regenerating our communities and our planet." Since this is where the majority of interested community members will find them, it is more explicitly grounded in climate activism and bioregional values. However, the LinkedIn page for the software development branch of the Terran Collective promises that "our team of seasoned entrepreneurs, designers and developers will turn your vision into reality." In fact, much of their work connecting organizations in the Bay Area is conducted on their app Hylo, which the Terran Collective launched in 2020 (Politano 2021). A previous campaign of the Terran Watershed raised $192,000 to launch the app ("Terran Watershed"). The app itself is free, but requires organizations in the bioregion to adapt to the technology of Terran Collective in order to engage with the network they have facilitated (Politano 2021). By looking at this app

and the various messaging of the Terran Collective together, it reveals that their organizing work and business ventures are inextricably connected.

Each of the members of the stewardship team worked on projects before joining the Terran Collective. For example, Sprague was previously the Vice President of Engineering at One Block Off the Grid, a residential solar industry, for seven years. Sprague's bio on the Terran Collective's website mentions that "after watching the corporate industrial complex destroy everything [One Block Off the Grid] had built, he co-founded the Terran Collective to figure out how humans can cooperate fully at every level with each other and the earth" (Terran Collective b). Understanding this from a cause and effect perspective, the failure of One Block Off the Grid through a traditional corporate framework led to establishing Terran Collective as a bioregionalism venture to circumvent previous downfalls. Sprague confirms this in an interview with The ReWork Podcast saying that the Terran Collective answered his personal question of "how can I do my work in a way that it can be protected from the dangers of capitalism?" (Hildner and Wong, 2021). It is necessary to understand the background of Terran Collective as an individual's business venture and their ongoing position as an non-profit and employer to analyze the economic impact that they have had as a bioregional organization.

The Terran Collective is committed to the values of bioregionalism, but has not implemented an operational economic structure. They are still working as employees rather than community members and rely heavily on donations through the Terran Watershed. Theoretically, a key factor in the scholarly definition of bioregionalism is that they operate as local economies (Curtis 2003, 83; Cato 2011, 481). However, Albo's critique (2007) that bioregionalism has not yet specifically articulated how to start post-capitalist economies becomes applicable in this circumstance. Currently, bioregional organizations like the Terran Collective have the most

freedom and autonomy to engage in climate mitigation projects if they operate as a non-profit. They do not have enough visibility or buy-in to transition to an independent local economy. Although a harsh critic of bioregionalism, Brennan's argument that bioregionalism should be a process of reconnecting people with the land, or facilitating a sense of 'at-homeness,' may be the necessary first step to reaching the economic independence that other scholars advocate for (1998, 224). Bioregionalism proposes a radical change in how we approach our land usage and how our economy is organized. A greater awareness of your bioregion and its idiosyncrasies must precede defining an economy by the boundaries of it. It is necessary to start small before gradually gaining support for their goal of bioregionally defined economies.

Terran Collective's role as a software development company makes it difficult to truly measure their impact on the environment from an economic standpoint given that they are operating in the digital realm. As Curtis writes, "eco-local consumption is largely consumption of goods produced within the boundaries of the eco-local community, where the consumers themselves reside" (2003, 93). Working in the digital realm makes it easy to avoid the extraction of resources because the Terran Collective does not have to utilize local resources to produce goods. Despite their business not directly interacting with natural resources to make profit, the digital world is increasingly part of economies and natural landscapes. For example, the Bay Area as an urban space will likely have more cell phone towers than a rural town. For the Terran Collective, it will be important how their technology influences other people's relationship to the ecosystem and economic interactions.

Concluding: Cascadia Bioregion and Terran Collective in Conversation

While neither are an exact implementation of bioregional theory, both Cascadia Bioregion and the Terran Collective reveal how the theory can be adapted to be put into practice. Although these case studies have been analyzed individually, there are interesting points that can be drawn from them in conversation, specifically, time necessary to establish bioregional communities and the scale at which these communities can realistically operate.

One of the major distinctions between the Cascadia Bioregion and the Terran Collective is how long they have been around. As stated earlier, the Terran Collective was only recently established in 2016. Given their newness, they are still in the preliminary stages of building community relationships and much of their work is focused there instead of on climate mitigation. Conversely, the Cascadia Bioregion is resolutely a long-term bioregional project as they have had forty years to establish and nurture their community relationships. Therefore, Cascadia Bioregion's programs, such as the Cascadia Forest Defenders and high speed rail project, can be more explicitly focused on climate mitigation and resource accountability. The early nature of the Terran Collective's work does not make it any less worthwhile than the Cascadia Bioregion. By expanding their community now, later projects undertaken by the Terran Collective will have more initial support and likely be more successful. The varying capacity of these two communities and what they are able to pursue reveals that supporters of bioregionalism must dedicate an extensive period of time to setting the foundation of community relationships before attempting to become a bioregional organization. Although this paper has discussed the urgency of the climate crisis, bioregional communities are still a worthwhile climate mitigation strategy regardless of the time involved in establishing them. The Terran Collective is not yet able to take on projects at the same scale that the Cascadia Bioregion is able to, but it is still

encouraging individual members to reconnect with the local Bay Area. No matter how small, each step of the process to create bioregional communities is geared towards expanding our collective knowledge of local ecosystems and building practices of resource accountability.

A significant distinction that emerges between the two bioregions is the scale at which they operate. The Cascadia Bioregion covers multiple states while the Terran Collective extends only over the nine countries that comprise the Bay Area in California. In both cases, they are organized around a shared ecosystem that local communities feel connected to: the old growth forest along the Pacific Coast and the San Francisco Bay. Although counterintuitive, having a larger bioregion allows the Cascadia Bioregion to take on bigger, multifaceted projects and involve a high number of active participants. The high speed rail project is a prime example of this since it extends 460 miles from Oregon to British Columbia. The Cascadia Bioregion is therefore not only decarbonizing transportation in one city, but within and between cities as well. There is still ambiguity around the size of a bioregion, but Cascadia clarifies that localizing economies can span multiple cities, states, and even countries. The capabilities of the Cascadia Bioregion demonstrate that relocalizing does not have to be restrictive.

The case studies of the Cascadia Bioregion and the Terran Collective were analyzed to fill a gap in bioregional literature. They supplemented the theoretical vision with their work as bioregional communities in practice. Although they are not actively trying to challenge the globalized capitalist system as scholars like Cato (2011) and Löwy (2015) propose, they have integrated other significant aspects of bioregional theory into their work. Most notably, both Cascadia Bioregion and Terran Collective practice the value of accountability. Cascadia Bioregion is taking accountability for the carbon emissions of their local economy while the Terran Collective is building interpersonal accountability by strengthening community

relationships. The case studies of the Cascadia Bioregion and the Terran Collective reveal that bioregionalism can be implemented *and* can be an effective climate mitigation strategy.

Conclusion

We are living in the reality of climate change. We are dealing with devastating natural disasters, record-breaking heat waves, rising sea levels, slowly disappearing coastlines, infertile soil, and climate forced displacement. It is no small task. Our response must be prompt and it must be all-encompassing. There is no longer time to think of small changes, halfway solutions, or reform measures. Bioregionalism may seem utopic and unachievable, but the preservation of globalized capitalism is just as unrealistic in the face of climate change. The thoughtless extraction of natural resources produced this crisis, it will not end it. Instead, the alternative of bioregionalism asks us to reconnect with our local ecosystems in order to save ourselves.

I argue that bioregionalism is a beneficial organizing philosophy and a vital climate mitigation strategy. In its current form, bioregionalism is unable to challenge the globalized system of capitalism and move into a non-extractive economic system. Although this may be a valuable long-term goal, the urgency of the climate crisis requires strategies that can be more immediately implemented. The value of bioregionalism in this moment is it encourages people to reconnect with their local communities and ecosystems. The process of relocalization emphasizes resource accountability, which first requires local community members to develop an intimate knowledge of the natural resources in their area. Then, they can recognize economic practices that are detrimental to those resources and work to repair that harm before adopting more sustainable choices. Bioregionalism is currently functional and powerful as a set of

organizing principles, but not as an independent economic structure. Regardless, it is still a vital strategy that should be considered in mitigating climate change.

I developed this argument first through a discussion of the relationship between globalized capitalism and climate change. Economies and ecosystems are connected because the production of goods is reliant on natural resources. Due to the capitalist system's goal of accumulating wealth, the extraction of natural resources has exceeded ecological limits. This thoughtless extraction, and subsequent consumption, is one of the causes for climate change (Spash and Smith 2019). The globalized nature of modern capitalism has connected the world together economically, but it has done so at the expense of local awareness. A response to both globalized capitalism and the climate crisis is to relocalize our communities. These local communities — active social entities that emerge from a shared identity, collective interests, and normative structures— can exert authority over their own ecosystems. Therefore, local communities with an intentional focus on resource accountability and environmental sustainability, are powerful actors in climate mitigation.

Bioregionalism specifies that local communities are geographically based within ecosystems and that the scale is defined by naturally occurring boundaries (Curtis 2003; Cato 2011). I reviewed the literature on bioregionalism in order to clarify the theoretical vision and identify the possible capabilities and limitations. The greatest strength of bioregionalism is that it requires direct accountability for resource usage (Cato 2013; Ganesh and Zoller 2013). In the theory of bioregional economies, extraction and production would occur in the same geographical area as consumption. This requires everyone involved in the economy to be aware of the environmental impacts and share the burden of the consequences (Curtis 2003). One aspect of bioregional theory is that it is primarily anti-capitalist. Scholars such as Löwy (2015)

argue it is the very system of capitalism itself that is the driving factor of climate change, not the globalized scale at which it operates. However, other scholars such as Albo (2007), Brennan (1998), and Hahnel (2007) observe that bioregionalism does not outline how to move past capitalism nor does it specify what governance structure would be used if bioregionalism was the prevailing economic structure. The literature, both supportive and critical, reveals that for bioregionalism to be most effective as a climate mitigation strategy, it must first be adopted by local communities as a mindset and practice of accountability before seeking to dismantle and replace the system of globalized capitalism.

Although the literature presents a comprehensive theoretical framework of bioregionalism, it lacks empirical evidence. I analyzed two case studies of self-proclaimed bioregional communities, the Cascadia Bioregion and the Terran Collective, to fill this gap and examine how bioregionalism works in practice. The value of accountability is clearly present in the Cascadia Bioregion's work since their main goal is decarbonization, or taking responsibility for the carbon emissions in their local economy. The early work of the Terran Collective reveals that bioregionalism requires strong community relationships to be effective. The varying scale of these case studies demonstrates how the boundaries of 'local' can be widely different: the Cascadia Bioregion covers multiple states while the Terran Collective covers only nine counties around San Francisco. The analysis of these case studies reveals that bioregional communities are currently building local relationships, reconnecting to their ecosystems, and practicing accountability within their sphere of the globalized capitalist economy. Despite what bioregional theory envisions, neither the Cascadia Bioregion nor the Terran Collective have the capacity to operate outside of capitalism since they still exist within the governmental and economic structures of the United States.

The ability to fully achieve the bioregionalism that is expressed in the literature would require sovereignty. Sovereign bioregions scale up the idea of local communities controlling the economic and political decisions made within the borders of ecosystems. Then, the governing body of the bioregion would be able to control what happens within their territory, including how natural resources are extracted and if capitalism or another economic framework is used. For example, the Cascadia Bioregion would have control over the $1.6 trillion economy that their bioregion encompasses rather than just existing within that economy.[8] Climate justice advocates conceptualized this as bioregional governance (Aguilar 2020) and see it as an alternative to the modern nation-state. Some scholars have briefly explored what this would look like: Hahnel (2007) proposes a network of bioregions that are governed through direct, participatory democracies while Jablonowski (2011) argues in favor of a centralized eco-state in which there is public ownership of industries. Sovereignty and bioregional governance would resolutely shift power into the hands of the people that live in those local ecosystems and instill them with the responsibility to steward their natural resources. Although bioregionalism today works as small communities nested within larger capitalist nation-states, this raises the question of how bioregional borders can be made politically legitimate.

Bioregional governance may seem fully out of our grasp at this current moment in time. Yet, the history and culture of Indigenous peoples across the globe remind us that this idea is not impossible. Aguilar argues that:

> One of the barriers to living into our principles of collective determination and bioregional governance is the *psychological barrier*. This is not an innate barrier, but one strategically conceived over the course of over five hundred years. **Colonization, conquest, and attempts at**

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[8] Although not discussed in this paper, Cascadia is home to a robust secessionist movement. The Department of Cascadia Bioregion states that "the reason for being independent is a simple one. It is fundamentally better for all of us if decisions about Cascadia's future are taken by the people who care most about Cascadia – that is by the people of Cascadia. It is the people who live here who will do the best job of making our nation a fairer, greener and more successful place." (Department of Cascadia Bioregion a).

**genociding our ancestors instituted a colonial worldview that is the mainstay of an
extractive economy** [emphasis theirs] (2020).

The case studies of the Cascadia Bioregion and the Terran Collective were analyzed in this paper

because they are self-proclaimed bioregional organizations. However, there are many Indigenous

groups that are practicing bioregionalism without describing it as such. Such examples include

the De La Tierra organization run by the Kofan people in the Ecuadorian Amazon, the Nile

Journeys organization that supports regeneration in the Nile River Basin, and the Anishinaabe

people around the Great Lakes area in North America. All of these groups draw from Indigenous

cultural knowledge in order to build local communities that make environmentally conscious

economic decisions. This paper has already talked about bioregionalism being a mindset of

accountability, but grounding it within the context of Indigenous practices argues that the

mindset must also be anti-colonial.

Throughout this paper, I argued that in order for bioregionalism to be effective as a

climate mitigation strategy, it should not take on the task of dismantling the capitalist system.

However, I want to be clear that globalized capitalism *is* causing the intensity of the climate

crisis and bioregionalism should eventually turn its attention towards challenging the system.

Spash and Smith clearly state "that the structural and multiple causal mechanisms creating social

ecological crises are not being addressed and cannot be addressed by neoclassical economics,"

such as globalized capitalism (2019, 224). Bioregionalism offers a possible alternative once it is

more comprehensively developed as a mindset and organizing philosophy. And while many will

"attempt to compare the advantages of the bioregional economy against the charms of the

high-energy, 24/7, globalized shopping mall we live in today," Cato reminds us that the potential

of bioregionalism "is not that such a life would be preferable in all respects, but rather that it

would be sustainable and equitable" (2013, 232). We must move away from the endless

extraction of natural resources, the hyperfixation of endless growth, and the relentless accumulation of wealth if we want to truly address the root of the climate crisis.

The climate crisis *will* change everything we have ever known, regardless of whether we are prepared for it. Bioregionalism is a practice in imagining a new reality, an articulation that a better world is possible and we have the capability to create it. It is a "crucial, powerful and pragmatic *starting point* for any meaningful intervention into the ecological devastation wrought by capitalism" (Ganesh and Zoller 2013, 238). Bioregionalism is an ambitious theoretical framework, but the ever-worsening crises of climate destruction and economic disparity necessitate the aspirational vision. It is a theory that will be refined through practice as we reconnect with each other, relocalize our economies, and relearn how to be in relationship with the land. Bioregionalism is not the end point, but a current path that we could take to protect ourselves against the worst consequences of climate change. Bioregionalism offers us a radical opportunity to reconnect with the places we call home.

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