EXPLORING THE "EDGE": RE-IMAGINING THE POTENTIAL OF PERMACULTURE'S THIRD ETHIC

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ABSTRACT

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Permaculture with its guiding ethics and principles is a social and ecological grassroots movement that has the potential to transform how people design and engage with the world around them. Permaculture, despite its many social applications, has been widely understood as an ecological-based movement. Using a resilience and cultural change theory lens consisting of nine interviews and a focus group, this research aims to broaden the social implications of permaculture as a transformative movement towards positive change. To expand this discussion this research asked: How are permaculture practitioners interpreting the third ethic of permaculture and putting it into practice? And how are these interpretations impacting how people engage in their communities? Diving into the third ethic and its applications demonstrates a potential "edge" by exploring the varying ways that the ethic and permaculture can be understood and utilized. Some major themes found in this study include: the concept of giving back, discussions of consumption, future-care and legacy, importance of building strong relationships, discussions around reparations, transformative justice and equity, and varying opinions around the concept of fair-share. Additional findings in this study have revealed concerns within the movement, insight surrounding the current role and future of permaculture as a movement, and permaculture ideologies' potential to shift people's beliefs, mindset, and capability of contributing to an increase in community resilience and alternative way of existing in the world.

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Chapter 1: Introduction

This moment in time is one of turbulence and uncertainty. With increased extraction and industrialization, human systems are already overextending the planetary limits earth can sustain (Folke, 2009). As the Intergovernmental Panel on Climate Change (IPCC) report indicates, global temperatures will exceed 1.5℃ over the next few decades, a major threshold, resulting in extreme weather, increased inequality, injustice, and community unrest (*Climate Change widespread, rapid, and intensifying – IPCC,* 2021). In a torn and uncertain world facing the impending impacts of climate change, "cultivating sustainable communities is as important as cultivating sustainable agricultural systems" (McAuliffe, 2020, para. 5). Permaculture is a growing international grassroots movement that fosters both harmonious ecological and social systems. Building justice, equity, and reciprocity in our social relationships fosters strength and increased ability to respond to change, increasing a community's resilience. Resilience is the ability of a social-ecological system to withstand shocks and disturbances, manage and adapt to change, and for a system to be able to turn "crisis into opportunity" (Berkes & Ross, 2013; Folke, 2009, p. 40). Berkes & Ross (2013) consider community resilience to be the capacity for a social system to thrive in a world faced with change and to work toward a common goal to increase collective capacity. A strong element of resilience is the beliefs and mindset that an individual or collective group may hold, and how their perceptions may shift and change to adapt, transform, and emerge an alternative way of existing in an uncertain world (Berkes & Ross, 2013). Increased collective social and ecological capacity is essential to face the future crisis, and permaculture practitioners' individual and collective mindset and actions in their communities may influence a community's ability to withstand changes. Considering this moment of time, I am curious how permaculture directs practitioners' engagement in building sustainable, resilient

communities. Furthermore, how do people's understandings and beliefs surrounding permaculture impact their behavior in their communities? In my research I aim to expand the social implications of the permaculture movement by exploring how permaculturists' interpretations and opinions surrounding the third ethic of permaculture, often known as "fair share," "future care," or "return of the surplus," contribute to creating positive change in communities.

Permaculturists and social change activists are realizing that there is a growing need for a shift in practices, behavior, and the human mindset if humanity is to face and adapt to extreme changes in the future (Cruz & Osentowski, n.d.). Sandy Cruz & Jerome Osentowski (n.d.), both permaculturists in Colorado, note that there must be a monumental shift in how people connect and consider nature. They discuss a need to move from the dominant exploitative mindset to one of sharing in abundance and working alongside the natural world. Looby Macnamara (2020) also discusses the need for a “transformative adaptation” (p. 7) focused on deep systemic changes to manifest the tools that are necessary in a more resilient harmonious future. This shift in mindset, patterns of behavior, and action is essential to create any hope of a positive future. Building resilience and strength in communities in a changing world is vital because it encourages us to "anticipate, adapt, learn and transform" to respond to the numerous challenges (Folke, 2009, p. 41). Adapting to change by shifting collective beliefs and actions is essential because strong communities may build resilient social-ecological systems that are more prepared for an uncertain future.

To manifest resilient alternative visions for the future there is a great need for a “paradigm shift in our value system” (Smith, 2014, p. 173). Activists believe that there must be a transformational shift in culture, social system, and personal development to develop a new form

of society that counters many dominating paradigms at the root of many social-ecological issues (Smith, 2014). Harmful dominating paradigms include the mechanistic and reductionist worldview encouraging the domination over nature, as well as the individualistic mindset of Western society (Merchant, 2005). Rising alongside early capitalism during the seventeenth century, these paradigms have legitimized the use of nature as profit, the domination over natural and human systems, and the prioritization of the individual over the collective (Merchant, 2005). Carolyn Merchant notes that before the rise of capitalism, native peoples of the Americas and past cultures throughout the East and West widely considered the earth to be a living breathing entity, an ideology that is still commonplace today throughout indigenous communities (2005). This understanding of nature as a living, nurturing mother put a "cultural constraint" on the actions of people within their communities, thereby dictating how people would act towards mother earth (Merchant 2005, p. 43). With this embraced belief came the normalization of protection over extraction, as people would not wish to harm the living system of earth. Capitalism, the scientific and industrial revolution, and dominant paradigms have since shifted these beliefs further separating people from people and people from nature.

Cruz and Osentowski (n.d.), Merchant (2005), and Smith (2014) all discuss that to have a more sustainable world there must be a shift in how people connect with nature and one another to counter these dominant paradigms. Society is experiencing a "cultural emergency" in which many modern issues such as climate change are symptoms of harmful cultural values and belief systems (Macnamara, 2020, p.7). Transitioning from a worldview of domination, extraction, and individualism to one of interconnectedness, abundance, and reciprocity is essential to develop a sustainable future and can be aided through several radical environmental movements (Merchant, 2005). A transition such as this is a transformation in people's beliefs, cultural norms, and

actions, a cultural shift. This research delves into the diverse perceptions that individuals create regarding a specific permaculture ideology, the third ethic, with the purpose of examining how these ideas may affect practitioners' personal approaches to and interactions with people and the natural world. Through an exploration of varying perspectives and practices associated with the radical permaculture movement, this study seeks to expand the societal implications of the movement and broaden the potential for the necessary transformational shift.

1.1 Understanding Permaculture

Permaculture is one tool that people can turn to for building sustainable ecological and social systems modeled after the harmonious systems in nature. The term "permaculture" was first coined in Australia by Bill Mollison and David Holmgren in the mid-1970s in a response to an increase in social and environmental degradation (Brain et al., 2017). Grounded in a pragmatic, methodological approach, permaculture encourages both ecological design through observation and experimentation, and a socially based approach to interacting with people and the natural world. Grounded in three ethics commonly stated as "earth care," "people care," and "fair share," as well as 12 principles, permaculture is a framework for designing natural and community systems that are "more resilient and productive," enabling an appropriate collective response to change (Brain et al., 2017, p. 506).

When discussing permaculture, it is essential to acknowledge that much of permaculture ideologies and practices draw heavily from indigenous wisdom combined with modern and traditional practices of agroecology and holistic systems thinking (Starhawk, 2022). Permaculture has received criticism for failing to acknowledge similarities in indigenous ways and for "re-packaging [indigenous] land management practices" as originating within the permaculture movement (Morel et al. 2019, Permaculture traditions and neo-colonialism section,

para 2). Kevin Morel et al. (2019) notes that although Bill Mollison and David Holmgren, the founders of the permaculture movement, emphasized that westerners have a lot to learn from indigenous wisdom, and in the literature encouraged the acknowledgement and respect of these cultural derivations, many critics perceive this as a form of cultural appropriation of this knowledge. Many permaculture practitioners, including those discussed in this research, emphasize it is vital to continuously acknowledge and give credit to indigenous communities when teaching or practicing permaculture, as many ideologies and practices encompassed in the movement are grounded in indigenous wisdom from across the globe (Spangler et al., 2021) Thus, in this research, I wish to forthrightly acknowledge that many of the permaculture ideologies and practices that will be discussed throughout this research study are rooted in many facets of indigenous wisdom, and I humbly offer gratitude and humility in discussing this topic.

"Permaculture" as the term was coined, often gets pinned as a land-based agricultural movement focused on transforming the physical nature of ecological systems. Based on my experience practicing and studying the permaculture movement, much of the published literature, permaculture books, blogs, and forums focus on land-based techniques, practices, and examples to re-envision agricultural production. Although permaculture offers a regenerative, productive methodology and set of practices to develop resilient food systems, there has in recent years been a shift in how to practice permaculture more holistically for all parts of the social-ecological system (Pickerill, 2010).

One of the most potent and growing subsets of permaculture is social permaculture. In this subset of permaculture, ethics and principles are applied to social and societal relationships changing "the social paradigm" to foster a just, equitable, and sustainable future (McAuliffe, 2020, para. 1). An example of this as discussed by McAuliffe (2020) is Everland, a community

near Denver, Colorado that was designed by a small group of collaborators with an aim to encourage sustainable living and provide a gathering space in which many voices are heard and appreciated. This community has a mutual relationship of land restoration work in exchange for food, lodging, and support. Additionally, this organization encourages a social relational system designed around equity and mutuality. Permaculture is not just a framework; it is a complete shift in how to view and interact with the world because there is a deep consideration of the interconnectedness of natural and social systems. Considering the magnitude of societal issues, and increasing need to address many dominating paradigms, the expansion of social tools that are encompassed within social permaculture is necessary for this "transformative adaptation" that Looby Macnamara (2020) speaks to (p. 7).

The expansion of social permaculture and further developing social tools and ideologies to not only shift collective mindset but build strength in community is vital to adapt and transform in a world of uncertainty (Macnamara, 2020; Smith, 2014). A few practitioners in this research also confirmed the need to broaden social permaculture applications. One participant even noted that there is some "naivete" in the beliefs of some practitioners that planting food forests or harvesting rainwater will result in the necessary transformational shift that society desperately needs. By broadening social implications and expanding the potential of the movement outside of its commonly stated "physical" set of tools and applications, society may experience a transformational shift and an alternative way of existing in the world (Fox, 2013; Smith, 2014). One of the main intentions of this research is to broaden varying ideas of social permaculture by offering an expanded view of how permaculture's third ethic can be understood and applied beyond just the physical and ecological realm.

1.2 Permaculture's Third Ethic

Although the three ethics act as guiding lights in the movement, the third ethic has been debated by permaculturists for years (Long, 2017). Tobias Long (2017) theorizes that permaculture has not become more mainstream because of the extended confusion and debate over the third ethic. It is important to note that many people, including some practitioners in this research, don't see the three ethics as existing in a certain chronological order, but rather see them as intertwined ideologies. However, for the purpose of this research the "third ethic" will be based on the Mollison-ian listing of the three ethics as they appear in *Permaculture A Designer's Manual* (1988). The ethics as they appear include: 1) Care of earth 2) Care of people and 3) "Setting limits to population and consumption" (Mollison, 1988, p. 2). Referring to the third ethic, Mollison writes "by governing our own needs, we can set resources aside to further the above principles" (1988, p. 2). The overall theory is to set limits to consumption so that any excess will be used toward the other two ethics of "earth care" and "people care". However, various interpretations of the phrase "setting limits to population" have been concerning because of "overtones of genocide and eugenics" (Long, 2017, para 4). To prevent this future controversy, Tony Anderson, a permaculturist in the 1980s, reinterpreted the third ethic as "fair share." This interpretation, according to Long (2017), however, lacks Mollison's original meaning of the need to set limits. There is a lot of debate on how to label and understand the third ethic, and controversy over the intention and meaning of "fair share." In fact, some practitioners, including a few documented in this research, have asked: What is fair? Who is determining what is fair? And will we ever get there? David Holmgren (2020) notes that the third ethic can be seen as "fair share (setting limits to consumption and reproduction, and redistribute surplus)" (p. 6), Toby Hemenway (2009) imagines it as "reinvesting the surplus" (p. 6), and Jerome Osentowski (n.d.) considers it as "reinvesting in the future." This debate, and the various

interpretations of this ethic, suggest that there are many conflicting ways people interpret how to put this ethic into practice.

In permaculture, one of David Holmgren's 12 principles is number eleven: using edges and valuing the marginal (Wandling, 2020). Edges in physical terms are often defined as where two ecosystems meet, a place of high amount of life, abundance, productivity, and potential for development (Wandling, 2020). Based on Long's (2017) theory that the controversy surrounding the third ethic may be hindering the movement itself, I believe that this ethic exists at the metaphorical "edge" of possibility to expand the social implications of the movement. Exploring this "edge" by further dissecting understandings surrounding the third ethic, this research will present a fertile place to expand how permaculture can be applied to both social and ecological systems. Taking a closer look at the third ethic may also broaden the social implications of the movement and its potential role as a social tool for future changemakers to build a resilient and transformative future.

1.3 Intention and Motivation

Looking ahead at the future, I envision the ideologies of permaculture as a possible pathway to building a more just, sustainable, and resilient future. After everything I have learned from permaculture mentors over the last few years, there is not one way to practice permaculture. There is not one technique that can be applied to every situation; instead, it is the ethics and principles that guide us as permaculture practitioners in our decisions. One of the most impactful aspects of permaculture is that it can be interpreted and applied in so many ways based on individual beliefs, history, geographic location, and community relationships. This exploration of interpretation, views, and practice is essential to inspire and guide future permaculturists.

This research is essential to discover how permaculturists interpret and put the third ethic into practice and how people's beliefs may impact engagement in their lives and communities. I believe there is value in exploring how people think about permaculture because varying ideas and interpretations can resonate with different people and inspire others towards action. I aim to expand how permaculturists envision permaculture and encourage more people to make permaculture-based transformational changes in their own lives and communities. My research would benefit anyone familiar with permaculture, ranging from someone who has been practicing permaculture for decades to someone who is just starting in their permaculture journey or someone who has heard of permaculture and wants to learn more about what is possible through a permaculture mindset. The third ethic is a vital "edge" to explore that is necessary to manifest and nurture a sustainable future, and this research will inspire people as to what is possible when living into this ethic.

1.4 My Journey

I first heard of permaculture in 2018, when I interned at the Golden Bay Sustainability Centre in New Zealand. I lived in a small supportive community grounded in permaculture ideologies manifesting abundance, reciprocity, knowledge sharing, and regenerative food production. I spent my days building soil, cooking, and sharing food with international friends, and building strong relationships with people from all over the world. In this community, I felt truly at peace. I began formally studying permaculture in 2019, when I attended my first official permaculture workshop on the big island of Hawai'i. After various workshops, in 2020 I decided to pursue my Permaculture Design Certificate (PDC) in Bellingham, Washington. In 2020, entering a world riddled with fear surrounding COVID-19, learning permaculture presented an opportunity and a guiding light for me to re-imagine how to design and manifest harmonious,

supportive social-ecological systems. During this scary time, permaculture provided me with a glimmer of hope.

I have since then attended multiple conferences and convergences, such as the Northwest Permaculture Convergence and the Verge Permaculture summit and have lived and volunteered on various permaculture-based farms. Permaculture has become a massive part of my life, as I actively strive to incorporate the ethics and principles into my everyday actions, and I am continuously seeking out permaculture connections in each community I move to. After having studied and practiced permaculture, I have experienced a shift in the way that I see the world and a shift in how I interact with natural and social communities. Permaculture has not only changed how I think about the interconnectedness of our social and ecological systems, but it has impacted how I wish to engage in my current and future communities.

Learning permaculture over the last few years, I have become very interested in social permaculture, a subset under the broad umbrella of the movement. Social permaculture has become more prevalent recently, as people are beginning to explore the complex connections and intersections of ecological and human relationships. According to Starhawk (2022), social permaculture aims to create a "permanent culture," exploring how people communicate, connect, and co-create to work against the oppressive underlying dominant systems at work in society. Social permaculture applies ethics and principles to guide human relationships and social structures to build systems of trust, equality, justice, and conscious relationships between land and people to create effective social change (McAuliffe, 2020; Starhawk, 2022).

Unfortunately, during my PDC in 2020, my instructor spent only two short lessons on social permaculture, which did not feel long enough. Based on conversations with other permaculturists, this is a common experience in many courses, where social permaculture is

mentioned as an afterthought at the end of the course. In my personal experience and observations studying permaculture, people get caught up in agricultural techniques and applications without focusing on the structure of social and human systems that are significant drivers of change. Building swales and catching rainwater is important but understanding human relationships and how to regeneratively design social, political, economic, and human systems is essential as well. It is my belief that social permaculture will increasingly become a bigger component of the permaculture movement as a driver toward transformative change. According to McAuliffe (2020), our interpretations, beliefs, social systems, and human relationships are all vital aspects of life that must be nurtured to create a symbiotic relationship with the land to foster sustainable communities. In my eyes, strength in social systems is key in the collective path towards positive change.

Permaculture may be one powerful tool to design harmonious social-ecological systems and cultivate a new mindset or paradigm shift in how people view their role in building a livable future (McAuliffe, 2020). I see permaculture as one path to build strength in communities because there is a great need to adapt very rapidly in a changing world. Therefore, I am very intrigued by the ways in which permaculture ideologies shift the way people view their role in the world and how this may contribute to strength, adaptability, and a community's ability to transform into something more harmonious.

1.5 Research Question(s)

In this research, I am asking 1) How are permaculturists in the U.S. interpreting the third ethic of permaculture and putting this ethic into practice? and 2) How do these interpretations impact how people engage in their communities? As there has been controversy over the years in the interpretations of the third ethic, I believe it is crucial to further this conversation with

permaculturists in order to provide a clear understanding of how people view their role in fulfilling the ethic. Exploring the varying understandings and applications of the ethic will reveal intentionality and passion for how this ethic is being utilized. Furthermore, I want to explore how practitioners apply permaculture, particularly this ethic, to their own lives and communities, both ecologically and socially. I believe that for permaculture to reach its full potential as a transformative movement, there must be further exploration of the social applications of the movement itself. Exploring the "edge" of possibility surrounding the third ethic will broaden the social applications of permaculture and expand how the movement can be utilized for social and cultural change. This research utilizes resilience theory and cultural change theory to assess how practitioners' knowledge, beliefs, and experience surrounding the third ethic may impact how people engage in communities to contribute to increased resilience and an ultimate shift in mindset, behavior, and belief systems.

Chapter 2: Theoretical Frame

This thesis explores how permaculturists in the U.S. are interpreting the third ethic of permaculture and putting this ethic into practice, with a focus on how these understandings or interpretations may impact how people engage in their communities. The theoretical frameworks used to contextualize the research question(s) are based on the follow assumptions: that there are many ways to visualize or understand the ethic, and that different understandings within permaculture, particularly the third ethic, may shift how people engage in the world and communities around them. The theoretical frames used to explore these questions are an intertwining approach of resilience theory and cultural change theory.

In my own experience, learning permaculture can shift and change the direction of a person's life and provide a new way of thinking and understanding the surrounding world and ultimately result in a shift in action. As I explore people's perceptions, understandings, and beliefs surrounding the third ethic, cultural change theory provides a unique lens to examine these shifts in beliefs and how these shifts may result in a change of patterns in behavior. Social-ecological resilience and permaculture has been explored for many years as researchers have been seeking ways that permaculture ideologies and practices can be shared and implemented to create more adaptable and resilient communities in the face of environmental, social, and political changes. Resilience theory provides a useful framework to examine complex social-ecological systems, and how permaculturists' engagement with the third ethic may demonstrate various elements to build resilience in communities. By combining resilience theory and cultural change theory, I can look closely at how shifts in cultural beliefs and perceptions of the ethic might be directing people's actions as they put their interpretations into practice, and how these

perceptions and actions may be building strength in communities by reimagining alternatives and displaying various elements related to resilience.

Throughout this chapter, I will explain the history of resilience theory and the basics of resilience thinking by diving into community resilience theory. While exploring resilience theory, I will examine how resilience can connect with permaculture, especially the essential elements related to this thesis. I will then describe the history and basic principles behind cultural change theory and explore how the theory applies to permaculture and the purpose of this research. Finally, I will examine how these two theories, resilience theory and cultural change theory, intertwined, can help understand how people's interpretations of the ethics may direct behavior demonstrating a path to develop more resilient communities.

2.1 Resilience Theory

Resilience theory has many different definitions, interpretations, and applications in various disciplines, including psychology, social sciences, public health, ecology, social ecology, and more (Magis, 2010). Resilience regarding social-ecological systems was first introduced into academia by Canadian ecologist C.S. Holling in 1973 (Folke, 2009; Magis, 2010). According to Carl Folke (2009), Holling explored resilience in social-ecological systems, noting that human and natural systems are profoundly interconnected and dynamic. Folke (2009) argues that resilience thinking is essentially systems thinking, as social-ecological systems are complex adaptive systems that are dynamic, changing, unpredictable, and constantly learning and adapting to disturbances and stressors.

To understand resilience theory as it relates to permaculture it is important to deconstruct some big ideas behind systems thinking. Permaculture and resilience theory both recognize

social-ecological systems (SES) as complex adaptive systems (CAS). Social ecological systems were first studied as complex adaptive systems in the mid- twentieth century as there was an increased global understanding of the close linkages between human systems and ecological systems, and their complex interconnectedness (Folke et al., 2016, Preiser et al., 2018). Ecological systems refer to the living earth, or the biosphere, and social systems align closely with human aspects such as culture, politics, technology, and economy (Folke et al., 2016). Understanding SES through resilience thinking and permaculture ideologies counters the reductionist approach of separating human and natural entities into mechanistic elements; rather, both look at the dynamic interrelationships between the elements that coevolve, adapt, learn, and transform together (Folke et al., 2016, Preiser et al., 2018).

Resilience is an expansion of systems thinking, exploring a system's ability to adapt to changes, absorb disturbances, and respond and reorganize in response to these changes, and can often be compartmentalized and operationalized in three ways, namely, a system's ability to cope, adapt, and transform in the face of stressors or disturbances (Folke, 2009). Brown & Westaway (2011) suggests that people or groups with greater access to personal and social resources are more capable of coping with different stressors as they arise. Additionally, these individuals have a greater sense of agency, allowing them to adjust their behavior to adapt and transform as needed. Folke (2009) notes that any influence on a system's ability to cope, adapt, or transform into a new system can either increase or decrease the system's resilience.

2.1a Understanding Resilience through Adaptive Capacity and Transformability

When looking at different understandings and applications of the third ethic and how practitioners may be engaging with this ethic in their communities through a resilience lens, it is necessary to understand the fundamental basis of resilience as it relates to permaculture, including

a system's adaptive capacity or transformability. It is my assumption that the various interpretations and applications of the third ethic may contribute to resilience by either increasing a community's ability to adapt to changes or providing steps towards envisioning an alternative system or way of thinking, the essence of transformation.

Adaptive capacity is one of the most widely studied components that can lead to an increase or decrease in resilience. Resilience of a SES as a CAS is very challenging to "measure" quantitatively but can often be recognized through an increase or decrease in adaptive capacity (Gallopín, 2006). Adaptive capacity is essentially the ability of an individual, group of individuals, or community system to adjust, change, and learn in response to various disturbances or shocks in a changing world (Jones et al., 2010). An increase or decrease in an individual or community's adaptive capacity can be determined by members' ability to shift, learn, and improve upon existing systems without changing the overall function of the system itself (Cretney & Bond, 2004; Gallopín, 2006; Jones et al. 2010). A system's adaptive capacity reflects on whether the system actors have the resources, knowledge, and capability to adjust to different shocks in the system before reaching certain tipping points that would push for transformation into an alternative system (Jones et al. 2010). Adaptive capacity, however, isn't just about what a system has, but what a system does to adapt, and actions that individuals and community members take (Jones et al., 2010).

As discussed above, an individual's and community's adaptive capacity is associated with the ability to adjust, change, and learn with the presence of knowledge, resources, and appropriate collective action. By acknowledging this component of resilience, permaculture design ethics and principles can provide a framework to share knowledge, observe, learn, and adjust behavior to be more ecologically and socially regenerative. Thomas Henfrey (2018) notes that permaculture as

an action framework aligns learning cycles of observation, reflection, planning, self-evaluation, and readjustment, which are key components of resilience cycles. Looking at the varying understandings and visualizations of the ethic itself may demonstrate how the ethic has evolved and changed through similar learning adaptation cycles found through resilience theory. Examining how practitioners are utilizing the ethic may also demonstrate the adaptation of knowledge and patterns of behavior that are necessary to meet a changing world. Because knowledge, perception, resources, and action are factors that may determine an individual's or communities' ability to adapt to changes, exploring how permaculturists visualize, evolve, transform, and put the third ethic of permaculture into practice in their communities may help determine whether they will have a greater ability to adapt to the future.

While adaptive capacity considers how shifts and changes in a system can maintain stability within a certain threshold, transformability is an element of resilience that focuses on the capacity of a system to cross over certain thresholds to completely redesign the function and trajectory into a "new kind of system" (Folke et al., 2010; Walker et al, 2006, "Proposition 13: Transformation" section, para 1). In this research I am proposing that varying understandings and practices of the third ethic may reflect and move towards such transformability elements. A system's ability to transform into an entirely new structure of functioning or radical change can be caused by undesirable or unsustainable system conditions; in response, actors in the system choose to transform or are forced to because of external economic, political, or environmental factors (Folke et al., 2010; Henfrey, 2018). The potential for transformability of a system can both demonstrate an increase or decrease in resilience (Folke et al., 2010). Exploring how people envision the third ethic in this research may demonstrate certain ideas parallel to transformability, as people are re-imagining alternative ways to think and engage in the world. Transformability of

a system, according to Folke et al. (2010), aligns closely with elements of resilience, including diverse and high amounts of capital, diversity in geography and networks, diverse learning platforms, a sense of collective action, and support from higher governance. Henfrey (2018) notably states that community activists who are sustainability and social justice-minded may consider resilience as being transformative with an aim for "radical reconfiguration of dominant systems of production and consumption and the values and worldviews that underlie them" ("Introduction: Community resilience" section, para 3). Transformational change in this light seeks alternatives to dominating systems and oftentimes comes with a major shift in perceptions, leadership power structures, social networks, and the structure of institutions (Folke et al., 2010; Henfrey, 2018). According to Walker et al. (2006), how and why transformations may occur is a widely unclear and an under-researched process, but transformation of a system may be vital to develop a more sustainable and resilient system when adaptation isn't the feasible or ideal response. This research exploring varying understandings of the third ethic may demonstrate some elements of resilience through transformability by offering alternative ways of thinking to counter the harmful dominating systems that Henfrey (2018) speaks to.

Transformability and transformational change as it relates to resilience aligns closely to the mission and ideologies of permaculture. Permaculture as a movement arose to present an alternative way of thinking about social-ecological systems— to shift perceptions in how humans understand existing interrelationships, and to design sustainable and equitable human and natural systems. Permaculture ideologies seek to create resilient food systems and stable social, economic and systems of governance, but also provide a shift in worldview and perception. Permaculture as a framework, and the potential "edges" of the third ethic, could offer an alternative that counters dominating structures in society and thereby creates this "radical reconfiguration" as Henfrey

(2018) notes of how people think and engage in their communities (Introduction: Community resilience section, para 3). Various understandings of the third ethic may indicate elements of this type of transformability as indicated in resilience literature, as people are re-imagining an alternative system or way of living to push the boundaries of dominating systems. These shifts in beliefs, and understandings of the ethic and how practitioners are putting it into practice, could be an indication of transformability to create resilient alternatives.

2.1b Community Resilience

Community resilience is a relatively new branch of resilience that is still undergoing research about adaptive capacity and transformational capacity. Resilience of individuals is widely studied in the realm of psychology, but according to Buikstra et al. (2010) little of this research has been linked back to communities. Berkes & Ross (2013) note that there is limited research on communities regarding resilience, as most scholars tend to look towards social-ecological resilience in biophysical systems. According to Berkes and Ross (2013), communities are greater than the sum of individual people, groups, and households, and are often composed of dynamic groups that can be local or place-based. Berkes and Ross (2013) note that localized community strength can have impacts on the resilience of the greater region, nation, or global social-ecological system as a whole. Community, in regard to permaculture and resilience, can be understood and conceptualized in a variety of ways depending on the situation. In some cases, community can be straightforward such as a specific town, group, or network with shared vision, cultural, or living situation, or the wider global permaculture network. In other cases, community can be more obscure depending on an individual's or group of individuals' definition. Understanding community throughout this research will shift depending on the varying perspectives of the individuals interviewed and assumptions made by the researcher.

According to Berkes and Ross (2013) and Buikstra et al. (2010), when considering a social system, community resilience can be understood by combining a social-ecological approach with the psychological or social approach to resilience. Community resilience has been directly correlated with social sustainability, as it can be considered a community's ability to mobilize and react to disturbances and uncertainties (Magis, 2010). As resilience can be considered an individual's or group's ability to shift, adapt, and transform through changes in the system, the tools and ability to do so can indicate the strength that lies within a community of individuals. Because of so much uncertainty in the future, Magis (2010) notes that a resilient community consists of members who have developed individual and collective adaptive capacity to thrive, renew, and discover alternative pathways in response to disturbances—ultimately to maintain a sustainable or new transformational path for the community.

Berkes and Ross (2013) conducted a comprehensive review of two strands of literature relating to community resilience, specifically looking in the realms of socio-ecological systems and psychology. In this article the authors worked to derive an "integrated concept" (p. 11) from the two strands of literature and identified a core set of ideas that may suggest an increase in community resilience. Figure (1) below demonstrates these compiled elements.

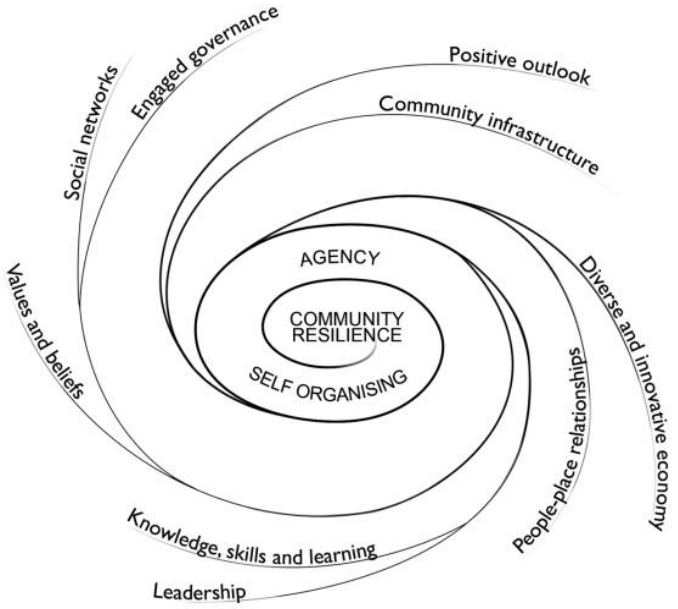

Figure 1. Community resilience as a function of the strengths or characteristics that have been identified as important, leading to agency and self-organization.

Figure (1) derived from Berkes & Ross (2013) p. 14

Some elements of community resilience as displayed in Figure (1), though not an exhaustive list, may include: a community's access to resources, equity among a community, people-place relationships, the ability for collective action and sense of agency, community infrastructure, a diverse economy, an individual's personal resilience in their community, strength in relationships and social networks, self-reliance throughout the community, sharing of knowledge and skills, and a community's values and beliefs (Berkes & Ross, 2013; Magis, 2010).

Conceptualizations of resilience in communities often look at the intersections of various levels of material and human capital (Buikstra et al., 2010). Various capitals include cultural capital (knowledge and values), social capital (social networks and trust within a community), human capital (knowledge and skills), political capital (ability to organize and be heard in community), natural capital (access to resources), financial capital, and built capital (infrastructure and safety) (Buikstra et al., 2010). Looking at these elements can bolster an

understanding of what aspects of the third ethic may contribute to an increase in community resilience, and what components to consider when conducting this research.

Permaculture as a whole-systems design strategy is both an individual and community tool to design beneficial social and ecological relationships and can be considered through the lens of community resilience. Permaculture and community resilience both consider a social community to be greater than the sum of its parts, acknowledging the complex interrelationships between social, ecological, political, and economic systems (McAuliffe, 2020; Nemeth & Oliver, 2017). Because the parts make up the whole, an individual's action or role in their community can influence the greater system; this idea has directed the path of this research, as I explore people's interpretations and actions within the greater system. When considering how permaculturists are interpreting the third ethic and engaging with it in their communities, various elements of community resilience will be useful tools to examine what may bolster adaptive and transformational capacity.

2.2 Cultural Change Theory

Descriptive research on how and why cultural change happens dates to the 1970s, and since then, academics have looked at how cultures shift regarding psychological and behavioral changes (Varnum & Grossmann, 2017). Looby Macnamara (2020) and Varnum and Grossman (2017) indicate that culture can have many definitions and interpretations but can be generally regarded as a set of beliefs, norms, values, priorities, rituals, activities, or behaviors that are shared by a group. My main interest regarding permaculture and the third ethic lies in the realm of anthropological cultural change, particularly in how the spread of variants of beliefs, ideas, and norms may impact behavioral responses in people (Boyd & Richerson, 1994). Modern scholars have begun looking at how and why there are cultural shifts and how these changes in

beliefs, values, and norms may impact how people act within the natural and social world as agents of social change (Varnum & Grossmann, 2017).

Looby Macnamara (2020), a modern permaculturist in the United Kingdom, in her book *Cultural Emergence* notes that humankind is in a "cultural emergency" (p. 7) that stems from cultural values, behaviors, and priorities. Macnamara (2020) states that issues such as climate change are a symptom of a greater cultural crisis, and that our response should be one of action to address the root causes by shifting culture, mindset, and paradigms. Macnamara (2020) notes that cultural values, behaviors and priorities can and will change if presented with an alternative way of thinking or being, as offered by the framework of permaculture. Learning permaculture ideologies can induce a shared sense of empowerment, vitality, and newfound purpose for people who are seeking guidance on a path to tackle root paradigm issues such as separation from nature, domination over nature and people, greed, and oppression (Macnamara, 2020). Immersion in the movement's ethics and principles can offer a defining moment in life, as many express experiencing a shift in thinking or inspiration for change after learning and practicing permaculture (Macnamara, 2020). The broadening and expanding visions of the third ethic explored in this research may also contribute to this shift in mindset and way of thinking that is key to cultural change.

Cultural change may happen in gradual, incremental steps over generations, may happen suddenly because of a social movement, or can occur within a single generation's time (Boyd & Richerson, 1994; Haferkamp & Smelser, 1997). I am particularly interested in this abrupt shift throughout a single lifetime because learning permaculture has not only shifted my beliefs and understanding of the natural and social world but has also impacted how I personally engage in my everyday life within the span of a few years. According to Boyd & Richerson (1994),

anthropological cultural change or "cultural evolution" (p. 74) happens because some ideologies may spread while others recede through the process of "cultural inheritance" (p. 80). The adoption and spread of different norms, beliefs, and values can be somewhat due to influences such as parental impact; however, most values and beliefs are instilled through non-parental figures such as mentors or other community members (Boyd & Richerson, 1994). Exposure to alternative ideas and values from members of the community and varying social circles, according to Boyd & Richardson (1994), may lead to a conscious or unconscious adoption of certain norms and values within an individual. The authors note that when alternative ideas spread to individuals, the process of shifting norms and behaviors can and will accelerate in a community. Permaculture emerged in the 80's as an alternative to shift away from destructive Westernized thinking, and the ideas spread and evolved over decades of time. It is my belief that broadening the third ethic and its impacts through this study may have a similar effect of accelerating the spread of alternative ideas and ways of living.

This aspect of cultural change in the shifting of beliefs and norms resonates with my research interests because permaculture ideologies start small and grow over time through individual thoughts, ideas, and interpretations of permaculture ethics and how to put them into practice. According to Macnamara (2020) permaculture ethics and principles are powerful elements for creating positive cultural change, as they provide an overall framework guiding every-day decision-making and can offer a roadmap when designing social-ecological systems. Exploring the many understandings and applications of the ethic in this research offers potential to expand and broaden how the ethic can be utilized and taught. Acknowledging how practitioners' understandings may influence their own engagement could further encourage the spread and expanding possibilities of the ethic to create an appropriate cultural shift. Macnamara

(2020) emphasizes that spreading these ideologies as alternative ways of thinking and living presents the "potential for [a] massive global transformation" (p. 5) that empowers people to create and design the type of culture and world they want to live in. With this cultural shift and creation, Folke et al. (2010) and Henfrey (2018) both agree that resilience may increase through shifts in mindset, action, and the formation of alternative political and social structures. Looking at the varying interpretations and understandings of the ethic and how people engage with this ethic in their own lives may offer insight into the potential for this ideology to induce change and spread as an alternative way of thinking and living.

2.3 Intertwining Resilience and Cultural Change

Resilience theory and cultural change theory as a dual framework intertwine because this emergence and shift in beliefs through permaculture's third ethic can have an impact on patterns of thinking and behavior, which may result in the necessary ability to adapt or transform. Changes in thinking and beliefs about permaculture's third ethic could result in a cultural shift, which may have the potential to increase adaptive or transformational capacity, and may contribute to various elements necessary for communities to respond to change. Anthropological studies of how communities respond to a changing world oftentimes look at cognitive and behavioral responses to shifts, assessing people's lived experiences and interpretation of the phenomenon (Crate & Nuttall, 2016). How people interpret a phenomenon combined with their beliefs and values can impact human adaptive responses to changes, contributing to the transformation of beliefs, norms, and behavior which may either increase or decrease resilience (Berkes & Ross, 2013; Crate & Nuttall, 2016). This applies to the third ethic of permaculture because varying understandings and shifts in beliefs can spread to create change by building adaptation and alternatives to harmful dominating paradigms or ways of thinking. Permaculture

with its ethics and principles offers hope for a "new environmental paradigm," and expanding the "edge" of and spreading new ideas about the third ethic may continue to push a shift in mentality towards this alternative vision (Smith, 2014, p. 174) As new ideas and understandings of the ethic spread, those understandings will manifest through action, as practitioners engage with these alternative practices and encourage others to do so as well.

What is interesting about the ethics of permaculture is that they present a philosophy or a mindset that can be applied in practice in an unlimited number of ways and contexts. Henfrey (2018) explains that permaculture is oftentimes experimental, as its ethics and principles are applied in context-specific ways depending on the specific situation. Permaculture ideologies, and how people understand, teach, and share the third ethic, could have a ripple effect with the potential to induce change within individuals and communities. In her book, Looby Macnamara (2020) discusses the concept of transformative adaptation as a means for cultural change. Through transformative adaptation, people and communities can address the root causes or systemic issues through the "emergence" of alternative ways to think, connect, bring people together, and build long-term resilience (Macnamara, 2020, p. 7). Folke (2010) also notes that transformational change in resilience often involves a shift in meaning-making and perception as well as patterns in leadership and power configurations, which can counter dominating systems or paradigms. The varying interpretations and understandings of the third ethic of permaculture when shared and put into practice offer an opportunity to manifest the "transformative adaptation" into alternative paradigms and systems of belief or action that Macnamara speaks to.

The framework of permaculture and interpretations of the third ethic may impact how practitioners engage with varying communities, as well as their values and motivations to create positive change by presenting transformative alternatives to the dominating systems. People's

interpretations of the third ethic and shift of mindset may also constitute components of alternative thinking and elements of community resilience as mentioned by Magis (2010) and displayed in Figure (1) above from Berkes & Ross (2013). Folke et al. (2010) and Henfrey (2018) both agree that resilience may increase as there are shifts in mindset, action, and formation of alternative political and social structures. Shifts in interpretations and understandings of the ethic and how practitioners engage with this ethic could be demonstrated through an increased sense of collective agency or sharing of skills and knowledge, a shift in collective beliefs and norms, a community's access to resources, overall equity in a community, or the offering of alternatives to oppressive dominating systems. Therefore, the varying interpretations and understandings of the ethic and how people engage with this ethic in their own lives may offer insight into the potential for this ideology to induce change and spread as an alternative way of thinking that demonstrates various elements related to resilience. In order to deepen this understanding of permaculture and the many interpretations and practices of the third ethic as it relates to resilience and cultural change theory, the next chapter will explore the existing literature necessary to explore and answer my research questions in this study.

Chapter 3: Literature Review

As permaculture is a grassroots movement that isn't prominent in academia, much of the literature on interpretations of the third ethic and understandings of how practitioners put it into practice are found in various permaculture books, forums, community pages, blog posts, and websites. Regarding academic literature, much of the literature found discusses how there are many interpretations of what community resilience is, what permaculture is, and how to put it into practice; however, there was very little on different interpretations of the permaculture ethics. I did, however, find studies linking the twelve permaculture principles to action in both social and ecological ways, and one noteworthy study in Cuba in which the researcher considered the varying interpretations of the ethics and how that impacted the Cuban post-Soviet community. Additionally, in this chapter I will explore various studies and literature considering how permaculture ideologies may shift people's mindset and behaviors, countering various dominant paradigms.

Overall, much of the academic literature surrounding permaculture focuses on permaculture as an important tool for building a sustainable future for social and ecological systems. At the end of this section, I will also discuss briefly literature exploring the ecological effects of permaculture and the impacts that permaculture participatory-action research has on climate change adaptation for ecological systems. Additionally, although much of the literature found on permaculture and resilience focuses on ecological resilience, there were various articles linking permaculture with community resilience and studies specifically looking at social-ecological systems that will be discussed later in this chapter. Based on this review of the literature, there is a need to further study permaculture, particularly social permaculture and the

third ethic and how permaculturists are interpreting and putting this ethic into practice to build a more just, resilient, sustainable future.

3.1 Interpretations of the Third Ethic: Non-academic Literature

As permaculture is first and foremost a grassroots movement, academic literature surrounding the third ethic, which will be discussed in the next section, is limited. Despite this, there are several blog posts, online magazines, published permaculture books, and websites acknowledging the longtime controversy of the third ethic, and discussions surrounding the varying visualizations and manifestations of this ethic within the movement. According to the authors Heather Jo Flores (2018) and Tobias Long (2017), a practitioner's understanding of the third ethic may have a lot to do with the knowledge and interpretations passed down from their permaculture teachers or key literature (books) over the many generations of the movement, as well as an individuals' personal interpretation and engagement regarding the ethic itself. Bill Mollison, as the co-creator of permaculture (though I will openly acknowledge that much of permaculture stems from indigenous knowledge), initially presents the third ethic as "setting limits to population and consumption" and suggests that by managing personal needs resources can be applied to the first two ethics of earth care and people care (Mollison, 1988, p. 2). This interpretation surrounding population and consumption, according to Flores (2018), is the most controversial and least accepted understanding of the third ethic within the permaculture movement, and thereby sparked the multi-decade long debate and evolution of how to interpret and define this ethic.

Over the years there have been four to seven (depending on who you ask) major versions or interpretations that have existed or emerged within the movement over time (Flores, 2018;

Olson, 2018). These include limits to population and consumption, return/share/redistribute the surplus, fair share, recycle all resources back to the first two ethics, future care, careful process, and a more recent interpretation of parity, or bringing forth equality, balance, and fairness (Flores, 2018; Long, 2017; Olson, 2018). Many people may resort to popular well-known experts such as permaculture co-creator David Holmgren's interpretation of "fair share (setting limits to consumption and reproduction, and redistribute surplus)" (p. 6), Toby Hemenway's (2009) version of "reinvesting the surplus" (p. 6), Jerome Osentowski's (n.d.) vision of "reinvesting in the future," or social permaculture leader Starhawk's version of "care of the future" (2014, Permaculture ethics section, para. 6). However, there are also other practitioners such as Olson (2018) who is partial to "re-distribute the surplus," and Flores (2018) who resonates with the idea of parity, and Harland (2022) who is adamant about the term "future care." Flores (2018) acknowledges that every version has both merit and flaws, and the commonalities between them includes a focus on sharing of resources, and a focus on "boundaries, limits, and self-regulation" (So, where's the common ground in all of these? section, para 2).

When acknowledging these different interpretations of the third ethic, for the purpose of this thesis it is important to discuss understandings of the different versions and how practitioners may see them manifest in practice. The least popular, limits to population and consumption, is straightforward as the idea is to reduce overall resource use and footprint on the earth. Additionally, redistributing or recycling all resources back into the other two ethics is straightforward as well, as practitioners may make decisions or recycle resources that bolster the ethics of people care and earth care (Flores, 2018). "Share the surplus," according to Olsen (2018) and Hemenway (2009), can be a bit more complex. "Share the surplus," according to Hemenway, is designing systems to have more than necessary, to give excess to others,

countering the ideas of hoarding and scarcity. Examples of this may manifest in the gift economy that builds relationships such as giving your neighbor extra green beans from your garden, or circulating other material goods (Olsen, 2018). Criticisms of this interpretation ask questions such as "what is surplus?", and comment that this version does not address issues with wealth disparities because it is focused solely on material exchanges of goods and resources (Flores, 2018). Tobias Long (2017) notes that "return the surplus" counters the idea of waste and encourages practitioners to return any excess back into the system. Examples of this, according to Long (2017), could include the physical form of chop-and-drop in the garden, or investing time, labor, or resources back into the community. Olson (2018) also notes that reframing "share the surplus" to "redistribute the surplus" may demonstrate an essence of a more mutual gift exchange and means of building relationships. According to Olson (2018) "fair share" equates to voluntarily limiting consumption and reproduction to allow for a fairer share of resources to others. To have an equitable future, "fair share," according to Harland (2022) involves the management and distribution of resources in a fair way, which has not been the case in the history of resource wars involved in colonization. Flores (2018) however asks questions such as: What is fair? Who decides what fair means? Various practitioners in this research also agree with Flores (2018), noting issues with this terminology.

In common with feminist permaculture teachers, "future care" is another main interpretation of the third ethic, which according to Harland (2022) encompasses ideas from "fair share," "redistribution of surplus," and limits on growth. "Future care" was suggested by Starhawk in 2014, who derived it from the African Permaculture School, acknowledging that the concept of "future care" stems from indigenous knowledge. "Future care" focuses on the concept of caring for future generations and considering elements such as legacy (Harland, 2022).

Examples of "future care," according to Starhawk (2014), and Harland (2022), would be shifting from a fuel-based economy to renewable-energy based economy, providing free education and training for people, building soil, and planting trees for future generations. "Careful process" as an interpretation of the third ethic focuses on making decisions with considerations for the needs of all other species and bridges a spiritual connection back to the land (Flores, 2018; *Permaculture Ethics,* 2019). Flores (2018) notes their personal preference of the ethic is through "parity," which promotes the idea of equality, balance, and fairness, and asking oneself what resources used or produced may be taking away from others, while also questioning and considering the concept of equity. "Parity" can be considered a high element of care to find balance such as equal pay, acknowledging and crediting knowledge, returning what may have been taken, and addressing issues of social justice, mental health, and colonization (Flores, 2018). "Parity" may also shift the hierarchy of species on the planet, removing humans from the top and pushing forth the need for a radical consciousness shift towards interconnectedness (Flores, 2018). Based on the literature explored above, there are a great number of ways that practitioners may understand, interpret, and put the third ethic into practice, and a variety of interpretations may contribute varying visions for a path towards a positive radical future.

3.2 Interpretations and Applications of Permaculture Ethics: Academic Literature

This research sought how permaculturists are interpreting the third ethic of permaculture and how practitioners are putting the ethic into practice. In preliminary academic searches, minimal research has been done on the interpretations of the third ethic and how these interpretations contribute to positive change in communities. I did, however, find a recent study conducted in 2021 in which the researchers interviewed permaculturists or community members to understand how they define permaculture as a practice and movement (Spangler et al.).

Additionally, a study in the Lake Atitlán region of Guatemala examined how different actors, including individuals and organizations in the local community, were using permaculture methods to contribute to the social and ecological development of the region (Jerner & Bitic, 2019). Jerner and Bitic's (2019) study looked at both indigenous Mayans, as well as foreigners, finding that both groups overall experienced increased access to food and healthier ecosystems but differed in their intentions, experiences, and applications. Spangler et al. (2021) notes that permaculture as a movement has been interpreted in various ways because each person has a different relationship to permaculture and how to apply it. Depending on the individual's situation, geographic location, community system, and experience learning permaculture, individual perspectives of what permaculture is and how to apply it vary.

Permaculture can be an individual and spiritual experience, as people may create their own meanings of permaculture and the three ethics and principles. One noteworthy study in Cuba explored how permaculture provides "flexibility for individual perspectives" and beliefs, and compared permaculture to a religious-like movement that provides solidarity and mutual aid to communities (Caraway, 2018). In this study, which closely aligns to the study I have conducted, Caraway (2018) did semi-structured interviews exploring people’s interpretations of the primary ethics and looked at how people create their own meanings surrounding permaculture and motivation becoming involved in the movement.

Although there has been some research on the different interpretations of permaculture and the three ethics, there is limited research focusing solely on the interpretation and application of the third ethic. Caraway (2018) in their study, however, did note that in Cuban life the third ethic manifested naturally out of necessity in the post-Soviet era of the 1990’s. Because material resources were limited, and people had to be creative in the way that resources were re-

distributed throughout the community, there was a natural emphasis on “sharing whatever one has if someone is in need,” which aligns well with varying interpretations of the third ethic (Caraway, 2018, “the spiritual dimensions” section, para. 19). In a particular interview with a Cuban woman named Leidis, Caraway notes that Leidis and her husband spent time every day working on someone else's land to share the excess as an expression of the third ethic of permaculture. The findings in this study demonstrates a powerful example of putting the third ethic into practice through the re-distribution of time, energy, skills, and material goods such as seeds to promote a sense of solidarity and strength in the local community.

3.3 Interpretation and Applications of Permaculture Principles

Although Caraway's study focused on the motivation, interpretation, and application of the three major ethics, any additional research studies found in this search focused on how the twelve permaculture principles can be put into action. Lockyer and Veteto (2013) list the twelve principles and discuss how they are being put into action at Earthaven Ecovillage, noting the benefits each principle has to the community. These authors emphasize that the principles can be applied to both ecological and social systems to create "more just, equitable, and sustainable" communities (Lockyer & Veteto, 2013, p. 101). Additionally, Heckert (2014) also lists out how the twelve principles may be applied to social systems, particularly regarding food justice and food security.

Jenny Pickerill (2010) also explores how four of the twelve permaculture principles are being put into practice on Low Impact Development (LID) in Britain, noting the importance of understanding the principles and their applications as they offer guidance on "how to live more sustainably" (p 181). This study examined the successes and limitations of putting permaculture

into practice and emphasized that some LIDs struggled to apply permaculture principles communally because of confusion on what permaculture was and how it can be so diversely used. In my literature search, I found there are various studies looking at the application of permaculture principles and a clear need for individuals and communities to further explore the possibilities of permaculture, its ethics, and principles to inspire and foster social change in communities.

3.4 Permaculture Ideologies to Counter Dominant Paradigms

For this study, it is important to explore not only the intention of individuals but how different interpretations of ethics and principles may shape permaculturists' worldview and behavior. Some research indicated that individual and cultural beliefs and understandings of permaculture may shape how practitioners behave and engage in their communities. Katy Fox (2013), in an interview with permaculture teacher Sarah, notes that "permaculture is not a static framework," (p. 167) as it changes constantly based on who is using it and their individual actions. Fox (2013) dives into how permaculture ethics and principles in the United Kingdom help people envision what is possible for creating a future of hope by comparing them to Romanian peasants. She notes that permaculturists' beliefs and actions related to the three ethics and principles may stem from "commons thinking" rather than a capitalistic dominance or individualistic mindset, enabling permaculturists to live in a state of abundance, trust, and mutuality, which is important in rebuilding resilience (Fox, 2013, pp. 166, 177). This shift in thinking can undoubtedly impact how people may act and behave. Permaculture combined with its ethics and principles can also bring about a "cambio de mentalidad," or "'change in mentality,'" as there is a transformational shift in how people see themselves in relation to other

people and the natural world (Caraway, 2018, p. 2). It is this shift in mindset that guides interpretations into action and induces transformative cultural change in community.

Permaculture ideologies and ethics can be applied in countless contexts and may have the potential to shift individual mindsets and counter harmful paradigms of dominance thinking that encompass much of modern Western culture. Dominance thinking centers around controlling or devaluing other beings and the natural world, separating realms into superior and inferior (Fox, 2013). Dominance thinking and this power over and mechanistic view of nature is a major driver for a widespread disconnection from nature which may be the root of many modern social and ecological issues (Fox, 2013; Merchant, 2005). Caraway (2018) and Fox (2013) note that a powerful component of permaculture lies within the "counterculture," demonstrating alternatives to the dominant paradigms, and promoting a deep interconnectedness with nature and commons thinking as discussed above. Caraway (2018), in their study in Cuba, notes that many people they interviewed in the movement demonstrated a clear shift in how they saw themselves and their relationship with the natural world, noting that "individuals embrace[d] a love of the earth and recognize their dependence upon it for life" ("the spiritual dimensions" section, para 12). A realization of interdependence between human and natural systems is crucial in breaking down this harmful mindset of domination over nature.

Permaculture ethics and principles may also promote a shift from a dominating and individualistic mindset, a prevalent attitude in Americanized culture, to one of commons thinking and cooperation. A culture promoting the common good, and an essence of solidarity and cooperation, is a system in which practitioners actively make decisions and act in a way that would benefit both human and natural systems collectively (Caraway 2018; Fox, 2013). Tazia Gaisford (2010) in a case study in New Zealand, compared anarchist and permaculture

movements, noting that both recognize a need for cultural evolution and demonstrate ethics and principles that promote alternative ways of thinking, aiming to creating a future of solidarity, stewardship and transformative change. Similarly, in Cuba, observations and interviews with permaculture activists revealed a great emphasis on the sharing of resources to promote solidarity and community cooperation (Caraway, 2018). Caraway (2018) notes that during this post- Soviet era in the 1990's, a time of great uncertainty and political upheaval, permaculture played a major role in building community strength as local Cubans demonstrated a sharing of resources such as time and various mutual aid to foster cooperation for collective survival. Additionally, King (2008) discusses how alternative movements for sustainable agri-ecological systems such as permaculture, community supported agriculture (CSA), organic agriculture, farmers markets, and community gardens are vital elements needed to shift from an extractive paradigm to a more harmonious social-ecological paradigm of transformation, in which the systems are mutually beneficial, community-based, and flexible in the face of uncertainties (King, 2008). Mindset shifts away from extractive individualist thinking through the ethics, principles, and ideologies of permaculture are clearly displayed in a number of studies such as that in Cuba and the United States, as people not only demonstrate deeper relationships with the natural world but foster stronger community relationships through actions of cooperation and mutual aid.

3.5 Permaculture and Community Resilience

The next strand of literature I looked at was community resilience literature and studies combining both permaculture and community resilience. Resilience itself is considered highly interdisciplinary, ranging from disciplines of ecology, psychology, sociology, anthropology, and more. While individual personal resilience is linked closely with psychology, community

resilience research, which is relatively new, has deep roots in both ecology and sociology; it looks at qualities that communities must adapt to change (Buikstra et al., 2010). Many studies have been conducted to determine elements that may contribute to resilience using methods such as community-based interviews, professional focus groups, and reviews of existing literature. Buikstra et al. (2010), for example, sought to identify the major elements needed for community resilience in a participatory action research study in a rural Australian community. Further linking community resilience to permaculture, Thomas Henfrey (2018) explored three case studies of social permaculture: the Durham Local Food Network, Transition Research Network, and European Community-Led initiatives for a Sustainable Europe (ECOLISE). Henfrey (2018) argues through these three case studies at the local, national, and international scale that permaculture as a research action through applied permaculture principles may contribute directly to community resilience elements. Henfrey (2018) notes that permaculture design, particularly social permaculture, is oftentimes a continuous process of self-evaluation, reflection, and readjustment to create mutually beneficial social and ecological relationships. Henfrey (2018) and King (2008) both argue that permaculture should be studied under the resilience model III of adaptive capacity, or looking at the ways in which communities can increase collective ability to respond to changes. Both articles indicate specific characteristics that permaculture exhibits contributing to community resilience. Some attributes of community resilience, though not an exhaustive list as related to permaculture, include co-learning, social networks, connection to place, resource mobilization, knowledge-sharing, inclusive-ness, relationship building, having a positive outlook, diverse economy, self-sufficiency, and collaborative governance (Berkes and Ross, 2013; Buikstra et al., 2010; Henfrey, 2018; King, 2008).

Literature analyzing permaculture-based movements after disaster and in response to unsustainable systems demonstrates some elements of community resilience. For example, Henfrey (2018) and Cretney and Bond (2014), both note the impact that the Transition Town movement may have on building community resilience through hyper-localized community-run initiatives such as timebanks, community gardening, and a community-run co-op. Cretney & Bond (2014) specifically note how Project Lyttelton community responded and learned to cope with the 2011 earthquake by working to increase skills, social networks, and sharing of resources, which may be crucial elements of building resilience. The movements discussed in these two articles clearly demonstrate a community's ability to self-organize, collaborate, and build collective strength, and present key characteristics towards building resilience.

Although the literature surrounding social permaculture and community resilience is still growing and changing, permaculture's role in building community resilience could be assessed using various attributes as indicated in Berkes and Ross (2013), Buikstra et al. (2010), Henfrey (2018), King (2008), and Magis (2010). King (2008) in their article explores permaculture as one of several impactful movements such as organic agriculture, biodynamics, community supported agriculture, farmers markets, and community gardens that can enact positive change. King (2008) notes that these alternative movements may contribute to more sustainable and resilient communities by providing space for resource sharing, relationship building, and knowledge sharing. According to King (2008), permaculture contributes to community resilience by allowing for co-learning, increased social networks, self-sufficiency, learning and adapting to changes, and shifting or transforming mindsets and beliefs. Various studies as discussed above are being conducted linking permaculture with community resilience through research such as interviews, focus groups, and extensive literature reviews. These studies demonstrate that an

increase or decrease of a community's capacity for positive change could be scrutinized by looking closely at various resilience elements.

3.6 Permaculture and Resilience to Climate Change

Much of the existing literature on permaculture reveals various degrees of climate change research, particularly permaculture's role as a tool for ecological adaptation and resilience in a changing world. Recent studies have shifted from focusing on mitigation to adaptation, opening an opportunity for transformation to "reimagine and reshape our world for the better" (Henfrey & Penha- Lopes, 2015, p. 16). As social and ecological shifts are necessary to build adaptive capacity to face climate change, the need for eco-sociological resilience has become a huge part of the recent conversation. Permaculture has been identified and studied as an integrated tool, philosophy, and methodology to tackle the challenges the world faces as permaculture encompasses a framework for creating more sustainable, just, and resilient social and ecological systems (Brain et al., 2017; Henfrey & Penha- Lopes, 2015). Brain et al. (2017) furthermore indicates that permaculture-based resilient systems can prove to be more adaptive to the impacts of climate change.

Additionally, there are various studies linking permaculture, resilience, and the importance of integrating permaculture ideologies directly into the hands of communities. The case study of the "Bee Inspired Gardens," a permaculture movement in Moab, Utah is a model for other communities as to how people can come together to design community spaces and redesign the way in which resources and water are managed in the face of climate change (Brain et al., 2017). Additionally, on a broader scale, Misiaszek et al. (2019) explores the positive impacts that permaculture curriculum implementation and application can have in climate change-induced ecological degradation of small rural communities in Kenya, Uganda, and

Malawi. These studies underscore the building of socio-ecological strength using permaculture principles and techniques and demonstrate the importance of implementing this work directly through the community to have the most significant effect. Yet, although these studies touch on the importance of social systems and community strength, there is little focus on the importance of community resilience and the role that permaculture can play as it relates to a path towards collective resilience.

3.7 The Gap

Based on the literature searches, more research is needed to understand how practitioners interpret the third ethic and how this ethic is being put into practice to build stronger community systems. Because permaculture ideologies and ethics can be very impactful and induce this "change in mentality" shaping people's beliefs and actions, there should be more research done to further understand the different interpretations and potentials for social change through permaculture ideologies (Caraway, 2018, p. 2). Additionally, a recent thesis was put out on a research study that interviewed permaculturists; it noted the limitations that permaculture has as a social movement and recommended that permaculture should incorporate more intersectionality of social justice (Cameron, 2020). This study was small in scope as it was limited to B.C. Canada, and the author indicates that "my argument here is not that permaculture cannot be used for social justice, but the way that Mollison and Holmgren present permaculture fails to make social justice a priority" (Cameron, 2020, p. 82). Social permaculture focuses on the interweaving of community building with social and environmental justice, and has gained attention and traction over recent years, as there is increased understanding of the need for healthy social systems (McAuliffe, 2020). One of the overarching goals of this study is to indicate that although further work is always needed, the third ethic through its varying

interpretations can be a way to broaden the potential of the movement's social implications and manifest justice-focused, resilient social-ecological communities. This research explores the edges of possibility that can be pushed regarding the third ethic by broadening the varying understandings of the ethics, and discussing the number of ways that people can apply the ethics in their work and lives. Through further research and expansion of the possibilities within permaculture ideologies, more people will be inspired to make a change in their communities and take action towards a transformative sustainable future.

Chapter 4: Methodology and Methods

In the previous chapters, I provided an extensive review of the literature surrounding this research and a dive into the theoretical frames used to understand the data. This chapter will first outline the steps taken in designing this qualitative research study and the methods utilized to answer the following research question(s): How are permaculturists in the U.S. interpreting the third ethic of permaculture and putting this ethic into practice? and 2) How do these interpretations impact how people engage in their communities? In this chapter, I will review the process of interview selection, as well as the intention behind the chosen qualitative research methodological approach including mixed methods of semi-structured interviews and a focus group. Additionally, I will discuss the qualitative data analysis steps taken to code and analyze the data collected to find themes and ideas that emerged throughout the process. Finally, I will discuss various limitations of the research design, and how this data will be disseminated for the greater permaculture community.

4.1 Methodology: A Qualitative Research Design

This research addresses permaculture practitioners' interpretations and beliefs of how they view the third ethic of permaculture and how these understandings may impact how people engage with the third ethic in their communities. According to Blair (2016) and Hammarberg et al. (2016), researchers may choose a qualitative research approach for studies that involve a small number of participants; such an approach is often associated with understanding how people socially construct knowledge, meaning, or personal perception in their lived experiences. Hammarberg et al. (2016) notes that qualitative research may take many forms, including the process of small-group discussions (focus groups) and semi-structured interviews. In this study, a qualitative research approach was taken consisting of a small number of in-depth semi-structured

interviews and a focus group. This approach allowed me to take a holistic perspective in understanding permaculturists' passions and personal creation of meaning based on their lived experience surrounding the third ethic and its varying applications.

The methodological approach chosen in qualitative research for "social inquiry" is typically dictated by the research question and what knowledge the researcher is seeking (Hammarberg et al., 2016; Lewis et al., 2014, p. 20). As this research seeks a deep understanding of beliefs, opinions, and attitudes, I utilized a hybrid approach to qualitative inquiry that focuses on "subjective opinion[s]" and understandings surrounding lived experiences (Kennedy, 2016, p. 1370). A hybrid qualitative research approach enabled this study to be directed using interviews and a focus group, and according to Kennedy (2016) was appropriate because the foundation of meaning making was based on participant individual experiences in permaculture, as well as my own personal biases and understandings surrounding the movement as discussed in section 4.5 of this chapter.

A qualitative research approach of semi-structure interviews and a focus group aligns well with permaculture as a field of study and past research that has been conducted surrounding understanding permaculture. Henfrey (2018) notes that social permaculture as a framework itself is a process of self-reflection and evaluation grounded in action and application. In my experience learning and practicing permaculture, the movement itself is based on collaboration, participatory action, and the emergence and applications of understanding theories of knowledge. Therefore, embodying the essence of permaculture through qualitative research by facilitating a group discussion and open-ended interviews built around collaboration and meaning making was appropriate. Additionally, permaculture's core process around cyclic learning, according to Henfrey (2018), aligns closely with the open-ended collaboration that is often found in

participatory-action research. Although not originally planned, hints of participatory action research (PAR) informed this study as participants made suggestions of where and how to disseminate the data. Additionally, the semi-structured nature of the interviews and focus group enabled participants to consider what was important to address in the conversations and asked them to develop meaning-making surrounding resilience, community, and permaculture's third ethic. The utilization of a qualitative research design combining semi-structured interviews, a collaborative focus group, and aspects of participatory action informed how I listened to the participants and uplifted their voices and beliefs surrounding the third ethic.

A similar qualitative approach to this research can be found in Cameron's (2020) study, in which he sought how people are utilizing permaculture for social change through semi-structured interviews. This approach enabled the researcher to understand people's interpretations and applications within the movement. Additionally, Caraway, seeking the impacts permaculture may have on communities in Cuba, conducted a 2020 qualitative study combining both observation and semi-structured interviews to understand how people are interpreting and applying permaculture ideologies. Utilizing a qualitative approach through semi-structured interviews and practitioner collaboration in a focus group follows along the framework of permaculture and aligns with some previous studies conducted surrounding permaculture ideologies and practices.

4.1a Scope of Participants and Recruitment

For this study, I recruited permaculture practitioners who are well-known in the permaculture movement for their work within the intersections of permaculture design and social permaculture. The Permaculture Institute of North America (PINA) considers experienced permaculturists to be those with 6 years in the field, and senior permaculturists (highly

experienced) to have 10 years in the field (*Diplomas*, 2022). To involve experienced and influential leaders in the permaculture movement, the criteria for this study were for participants to have at least 10 years of experience; the one exception was that one of the participants held approximately 9 years of experience. Criteria for participation in the study included: attending one or multiple permaculture design courses, teaching or leading several design courses, completing various permaculture designs, owning a consulting company, or founding or heavily involved in a permaculture-based organization. The scope of this study was national to the United States.

To find and recruit participants, I utilized a combined approach of networking through my personal permaculture network, and the snowball method, whereby participants would refer me to someone else at the conclusion of the interview. Being actively involved in the movement, I was already familiar with many of the leaders in social permaculture who were interviewed in this study and found a few additional practitioners through the internet. Utilizing both personal social networks and connections through snowball sampling is a common approach to qualitative research, and utilizing an "organic social network" may enable a unique formation of knowledge (Noy, 2008, p. 329). With an aim to have a diverse set of participants including equal gender participation and diverse representation, to illuminate minority voices, I sent emails inviting practitioners to participate in the study. I found emails and connected with practitioners through the internet, social media, and by network referrals.

4.2 Institutional Review Board (IRB) Process

After submitting documents to the NAU Institutional Review Board in spring 2022 about my intentions for the project, I received approval to move forward with the research design. I submitted for a waiver of formal consent, which allowed me to get informal verbal consent over

Zoom or informal written consent from the participants via an email exchange. As per the requirements of the IRB process, I kept participants clearly informed about the process before starting the interviews and informed them of their ability to withdraw from the study at any time. As outlined in my approval from the research board, I was very clear about the intentions of the research and how I would manage the transcripts and audio; I sent copies of the transcripts for participants to edit and approve. I only moved forth with the data analysis process when I received approval from each participant. Halfway through my interview process, a participant suggested exploring the possibility of distributing the focus group audio or transcript to benefit the greater permaculture community with this discussion. I submitted an amendment to the IRB to change the data distribution process for the focus group and received approval. After approval I informed all participants of this possibility and received verbal consent about potentially distributing the data in this way on public permaculture community forums or other permaculture-related outlets.

4.3 Methods

Semi-Structured Interviews

I conducted nine semi-structured interviews via Zoom from September 2022 – October 2022. Due to the wide geographic scope of the study as well as limited time and money, both the interviews and focus group were facilitated over Zoom. Zoom has various benefits, including being able to record, transcribe, and save discussions, save time and resources needed when covering a wide geographic area, and minimize one's carbon footprint (Gray et al., 2020). Semi-structured interviews were selected because they built a human connection between participants and me enabling the conversations to take a deep dive into individual beliefs, actions, and lived experiences (Fontana & Frey, 1998). I conducted semi-structured interviews to understand how

people's beliefs and values guided how they interpret the third ethic and how they put it into action, which required a deep dive through individual conversation. For the interviews, I came prepared with ten questions to gently guide the conversation and seek out the information needed to fulfill the research. However, the semi-structured nature of the conversation also enabled people to take the interview in many different directions to explore other topics, examine their intentions and emotions, and reflect on themselves and their role in the world. The interviews ranged between 45 minutes to 1 hour and 45 minutes, depending on the participant's availability and the ease and natural flow of the conversation.

At the end of the interviews, in consultation with study participants about the next steps in the process, participants were invited to join an optional Zoom focus group with other practitioners in November 2022. After the interview, the audio and transcripts were downloaded from Zoom, and saved onto a password-protected computer. The transcripts were edited and sent to the participants for approval and edits before moving forward with analysis.

Focus Group

After completion of the semi-structured interviews of the transcripts and approval of the transcripts I conducted a preliminary data analysis process. I read through the transcripts and did the first round of coding in a qualitative software program, Dedoose. I will further discuss the data analysis process in the next section of this chapter. This initial analysis allowed me to develop five questions to guide the conversation in the focus group. After the interviews, I sent out a poll to interested participants to select a time for the Zoom focus group. The focus group was approximately two hours in length, with six total participants of equal gender representation (male/female).

A focus group was utilized as part of this study because permaculture is heavily grounded in "collaborative learning," and in my experience attending virtual permaculture conferences, group-based discussion forums result in some of the deepest conversations (Henfrey, 2018, "Background: research as social permaculture" section, para. 6). Having multiple passionate practitioners in the same space to bounce ideas off one another inspires collaboration, learning, and according to Blaxter et al. (2001) can often lead to unexpected findings. The focus group provided a space for people to listen and hear diverse perspectives and discuss their personal thoughts on how the third ethic plays into the future of permaculture and the building of a sustainable future. The goal of this study was not only to gather information on how people understand and practice permaculture but to also open space for collaboration and sharing of information to broaden the possibilities and future of the movement. After the focus group, the transcripts were edited and sent out to all participants for approval, and participants were asked if they had thoughts or opinions on where to share the data. All participants expressed gratitude for the deep conversation and the creation of a positive discussion space.

4.4 Data Analysis and Interpretation

After downloading, editing, and receiving approval from the research participants, the raw data was then decontextualized, and recontextualized using data analysis techniques inspired by qualitative data analysis process, comparative analysis, and grounded theory. Grounded theory, according to Charmaz (2006), is a commonly used methodological data analysis tactic that recognizes the construction of theory based on participant and researcher experiences. A grounded theory approach considers the emergence of themes and similarities within the data and acknowledged my role as a researcher in structuring the results and discussion as it relates to resilience and cultural change theories (Charmaz, 2006). Similarly, a comparative analysis

process consists of assessing all the data present in the data set, then reducing and re-coding the data allowing for main themes to emerge (Fram, 2013). Using a combined comparative analysis and grounded theory-inspired qualitative data analysis approach, I conducted an extensive thematic analysis, looking at relationships and correlations between themes and ideas as they emerged through the data collection and transcript coding process (Charmaz, 2006).

Similar to the thesis research of Douglass-Gallagher (2017), a data analysis process inspired by a grounded theory process bolstered and provided confidence in understanding the natural emergence of themes as they intersected with the theoretical frameworks utilized in this study. This approach provided the development of meaning-making of the participants' interpretations surrounding permaculture as they related to these two bodies of theory. For the coding process, I utilized the qualitative analysis software Dedoose, which enabled me to upload transcripts, conduct a multi-step data coding process, and save excerpts in the software itself. The process began by reading through all transcripts, then coding a single transcript, identifying, and categorizing meaningful sections into codes. Each subsequent transcript was then coded to find similarities and dissimilarities in the data. This, according to Blaire (2016), displays elements of a grounded theory analysis approach, as similar and dissimilar themes and ideas emerged.

Following Blaire (2016) and Kennedy's (2016) approach to qualitative data analysis, the focus of the analysis process was based on finding patterns that emerged. The first round of coding to discover emergent themes was conducted before the focus group; similarities and differences in the conversations guided the formation of questions for the focus group. Following a comparative and grounded theory approach, many themes emerged in the data (this indicates an inductive process), which were then compared to each subsequent transcript (Fram, 2013).

After the focus group, a second process of coding occurred, and when done, there were approximately 78 identifiable codes. Following the process of inductive coding and re-coding, the data was then reduced to approximately 10 themes related to the research question(s) (Fram, 2013). Many of the additional codes that emerged through this inductive comparative process brought to light interesting topics and additional themes surrounding this research that will be discussed in the results and discussion chapters of this thesis.

After compressing and pinpointing applicable codes to the research question(s), the data was then re-contextualized back into context by identifying applicable excerpts and re-reading the transcripts a third and fourth time. During this process of comparing codes, I re-read all transcripts and jotted down major themes that revealed themselves in-context and compared them to the codes and themes gathered in the software. Some aspects of this analysis process were inspired by Kennedy's (2016) recommended process for qualitative analysis, whereby data is scanned for variations, categorized, evaluated through key words of importance (codes), and verified through both internal and external sources of reasoning and theory. Additionally, this process follows along Blaire's (2016) recommended process of qualitative data analysis, in which the data is decontextualized into parts out of context through coding, and then recontextualized back into context to further dissect meaning and comparison.

4.5 Limitations of the Research Design

Acknowledging My Positionality in the Research Design

As I moved forth with the research process, it was important to recognize my own personal positionality and biases that may have influenced how I approached this research and the analysis of the data. Blair (2016) notes that researchers must understand and acknowledge

their connection to the research topic, as I, a human in this world, have a socially constructed view based on my personal experiences and relationship to the permaculture movement. It is essential to note that I have been involved with the permaculture movement for approximately four years and took my Permaculture Design Certificate course in 2020. Permaculture and related ideologies have become a major part of my life journey and have dictated the direction and interests that I wish to take in my life. Permaculture and learning permaculture have provided me with a transformative learning experience and may have presented biases as I approached this research study and conversations with participants. On the other hand, my familiarity with the permaculture movement, design course, theories, and practices may also have provided me with a natural connection with my participants as there may have been a "one of us" attitude. This common connection in the movement may have enabled me to dive deep into questions and topics of interest for the participants and given me a unique lens as a researcher during the data analysis process.

To ensure that my findings are valid, I needed to ask: are these results by chance or by research? How well did I carry out this research? What might my biases be? And were my methods suitable for my research question? When conducting research, recognizing the validity of the claim, any personal biases, and errors in the study is vital for a successful study. It is vital for me to acknowledge that, having studied permaculture design and with my great passion for the future of the movement, I already had biases walking into this study. Additionally, it is important for me to acknowledge the socioeconomic privilege that I have as a researcher which enabled me to access the necessary resources to contact practitioners and connect virtually throughout this study. To validate the findings in this study and follow along with the permaculture framework of collaboration, I intend to share the results with interview participants

and the greater permaculture community to see what resonates. Throughout this process, I as a researcher maintained academic and ethical professionalism, and recognize that further research will likely need to be conducted to cross-reference findings to validate any themes, claims, or generalizations discussed in this study.

Limitations of the Research Design

There are a few elements in the research design that may have been limiting for the research itself. Although in-person interviews are the traditional approach to qualitative research, in a 2020 study, Zoom was assessed as a tool for its advantages and disadvantages in conducting semi-structured interviews (Gray et al.). Zoom has been studied as a useful tool for qualitative researchers to gather "rich data" and conduct studies that span a large geographic area, save time and resources, and provide a personal yet comfortable space for participants while also fostering a meaningful connection between interviewer and interviewee (Gray et al., 2020, p. 1298). In this study, hosting interviews on Zoom also opened the opportunity to interview folks who were unwell or COVID-19 cautious and simplified the process of recording and saving audio and transcripts. Despite Zoom's many benefits, the use of video conferencing data collection may have been limiting in building a stronger connection between the researcher and the participants. Although Gray et al. (2020) reports that video software does not hinder people's willingness to participate in research, it may also result in "missed opportunities" (p. 1298) as the researcher is not able to physically observe the participants' body language, and there may be an increase in distractions or lack of privacy. Alternatively, with more time and resources, this study could have consisted of in-depth in-person interviews, enabling physical observations and additional time with each participant. Although the interviews and focus group conducted in this study

resulted in strong engaging conversation, in-person interviews and focus group might have had the potential to produce deeper conversation, results, and connections.

Another potential limitation of the design was that I could have chosen to give participants an in-depth informational overview of the research questions and topic. When approaching participants, I did give a general overview of the focus of the research, but with more background or information participants could have had time to gather their own thoughts and feelings. Certain studies in psychology show that if people have a deep understanding of the essence of the research direction, there can be greater creativity and connections made, which can foster learning and understanding (Shukla, 2019). Giving my participants time to think beforehand could have deepened the research and brought about more thoughtful, meaningful conversation, as people could have gathered their thoughts and beliefs beforehand. However, giving participants time to prepare ahead of time could have also been limiting, as people might have rehearsed responses and limited the organic flow of the conversation.

Limits on Participation

Another limitation was the lack of diverse representation in the research participants for this study. In designing this research, it was my intention to uplift ethnic minority voices within the permaculture community, as it is a majorly white and male dominated space. In a survey unrelated to this research project conducted in the United States, Australia, Canada, and the UK, many permaculture respondents identified as white, with minorities being Hispanic and Black Indigenous People of Color (BIPOC) (Fig. 2. (a) Permaculture lacks ethnic diversity, n.d.). Eight out of the nine people involved in my study were white; four identify as female, and five as male. There was, however, some diversity in religious or cultural beliefs such as Jewish, Zen Buddhist, and one participant who noted that they grew up Brethren. To bolster further research on this

topic I would recommend uplifting indigenous permaculturists' perspectives into this research, as much of permaculture ideologies are derived from indigenous wisdom and practices. In this research, I went through the process of submitting documents for approval through the Tribal Liaison and tribal board; however, the interview did not happen because of limitations on participant availability.

Another limitation of this research was the failure to more deeply explore the ethnic, racial and socioeconomic demographics of the communities that practitioners engage in. Exploring this would have provided a context of how people's behaviors may impact specific communities. Another constraint of the study was difficulty contacting potential people to talk to, and the time commitment of the study. Some potential participants responded that they did not have time or space for the conversation, and some interviews ended up being shorter because of limited individual availability. Finally, it is important to acknowledge that the narrow scope of participants recruited in this study may present a limited view of how people throughout the permaculture movement may be understanding and practicing the ethic. The ways in which these known leaders in the movement interpret and practice the ethic may differ from other permaculture practitioners based on differences in interest or experience levels. I recommend that validating any claims made in this research would require additional studies conducted with practitioners with a range of permaculture experience levels. However, it is important to acknowledge that because they are leaders in permaculture, many practitioners in this study are actively engaging with, writing about, and teaching many topics explored in this research.

Disseminating the Data

As a goal of this project is to further the possibilities and potential of permaculture, I would like to disseminate the data in a few different ways. After getting approval from the IRB

to disseminate the raw data from the focus group, I hope to submit the edited transcript or video to some type of permaculture public website or forum. Providing open access to this research is important to me as a permaculturist and an academic, as I believe that permaculture knowledge should not be behind a paywall. Additionally, I also hope to write a summary of findings and article of major implications from this research in *Permaculture Design Magazine*, and I have been considering writing an article for publication in an academic journal. Additionally, I intend to reach out to my permaculture network and participants from this research to see if they might recommend any outlets to disseminate this information. This step in my graduate work is very important to me because I believe sharing this information will further how people understand, practice, and envision the future of permaculture.

Chapter 5: Results and Analysis

In this chapter I will describe the major descriptions and definitions that participants used when discussing their understanding of the third ethic in order to answer the first half of my first research question: How are permaculturists interpretating the third ethic of permaculture and putting it into practice? Next, I will discuss six major themes that emerged amid the discussions of varying definitions. The words and verbiage used to define the ethic will shed light on how practitioners discuss the ethic, and the themes that emerged amongst the varying definitions will shine light on the deeper meaning behind the interpretations and understandings of the ethic as people conceptualize how to put it into practice (as discussed in the next section of this chapter). I will also explore the varying of opinions between practitioners as to whether it is an issue that the ethic is clearly defined or understood, essentially: does defining it even matter? Additionally, I will discuss connections between how people understand the ethic, and how that may guide their practices. Finally, I will discuss a few additional findings that emerged in the data that are not directly related to my research questions, such as concerns within the movement and visions for the future of permaculture.

The table below represents the demographic and experience breakdown of the nine participants in this study and indicates which practitioners attended the focus group.

Name	Location	Estimated Years practicing permaculture	Affiliate Organization(s)/ work	Gender/ Ethnicity/ Beliefs	Focus Group
Adam Brock	Denver, CO	~16 years	Founder of GrowHaus, co-creator of Regenerate Change, author	Male/ Caucasian / Jewish	X
Abrah Dresdale	Hudson Valley, NY	~15 years	Founder of Regenerate	Female/ Caucasian/Jewish	X

			Change, author, UMASS instructor		
Andrew Millison	Corvallis, OR	~27 years	OSU instructor, prominent YouTube channel, global designer	Male/ Caucasian	
Asia Dorsey	Denver, CO	~11 years	Reparationist, founder of multiple Coops, Regenerate Change	Female/ Black	
Jason Gerhardt	Pennsylvania	>15 years	President of Permaculture Institute of North America (PINA), designer	Male/ Caucasian/ Zen Buddhist	X
Mark Lakeman	Portland, OR	>25 years	Founder of City Repair Project, and Communitecture	Male/ Caucasian	X
Rhonda Baird	Bloomington, IN	~ 18 years	Indiana University faculty, founder of Sheltering Hills Design LLC., editor of Permaculture Design Magazine	Female/ Caucasian	X
Roslynn Brain McCann, PhD	Moab, UT	~ 9 years	Associate Professor at USU	Female/ Caucasian	X
Scott Mann	Falls Church, VA	~15 years	Founder and host of The Permaculture Podcast	Male/ Caucasian/ raised Brethren	

Table (1) above shows the breakdown of research participants, including name, location, approximate years involved in the movement, professional involvement in permaculture, basic demographics and whether they attended the virtual focus group discussion.

"~ " is an approximation of the number of years in the field

">" over X number of years

In the following sections, I will discuss the results regarding how people envision the third ethic and put it into practice. The following questions were used in the individual interviews to explore varying understandings and practices surrounding the third ethic and answers to these questions directed some of the findings found in the next few sections of this chapter:

1. What comes to mind when you think of the "third ethic of permaculture"? Can you elaborate/ tell me a little bit about why?
2. Do you feel that the third ethic manifests in your work? How so? Can you give me specific examples?

3. What challenges and opportunities do you see for permaculturists to grow and/or expand their working definitions and applications of the third ethic?

5.1 Interpretations of the Ethic

Before diving in, it is important to note that during the interviews, after I asked the question: "What comes to mind when you think of the third ethic of permaculture, and why?" approximately a third of my participants asked me to clarify which ethic I was referring to, noting that they do not often think of them in a particular order at all, but rather see them as highly interconnected. I clarified that I was referring to the widely accepted Mollison-ian version of the ethics: 1) Care of earth 2) Care of people 3) Limits to Consumption and reinvesting all efforts back into the other two ethics (which later has adapted and changed over time into a variety of other interpretations as discussed in other sections of this thesis) (Mollison, 1988).

Not surprisingly, the verbiage or definitions used when practitioners described the ethics ranged widely. A quick summary of how participants teach or discuss the ethic: three participants described their definition of the third ethic as "redistributing the surplus," while two people also described the third ethic as "reinvesting everything back into the first two ethics of earth care and people care." Jason Gerhardt noted that when he teaches the ethics, he does not give the third ethic a name, and rather will write the first two ethics of earth care and people care, then write "third ethic" and draw an arrow back to the first two ethics. Two practitioners, Scott and Asia, are partial to using "fair-share," while other interview participants showed their distaste for that verbiage. Differing from most of the interviewees, Abrah defined the ethic as "resource share," and Rhonda uses only "fair-share" when teaching kids and uses "future care"

the rest of the time. Only one participant, Scott, noted "fair share" and "limits to consumption" within their primary definition of the ethic, however, two other people discussed consumption as extensions of their other definitions. Yet, these particular words that participants use to name the third ethic demonstrate only the surface level of their understanding of the ethic itself. After expressing their shorthand definitions of the ethic, practitioners further discussed how they visualized and interpreted their version of the third ethic, which is the true essence of my research question(s). I pulled out six themes that stuck out during data analysis that I will use to help further dissect these short-hand definitions of the ethic. The themes include: the concept of giving back, discussions of consumption, future-care and legacy, importance of building relationships, reparations and equity, and varying opinions around fair-share. In the following sub-sections I will discuss each theme and the varying implications surrounding it.

5.1a Redistributing, Re-investing, and the Act of Giving Back

Despite the varying ways of expressing the ethic, when participants were asked to explain how they visualize the third ethic, the largest overlaps of interpretations throughout all the interviews were an emphasis on the need to redistribute, reinvest, and the concept of giving back. The phrase "giving back" emerged in almost all the interviews when discussing the third ethic, referring to physical resources such as money, non-material resources such as time, labor and energy and relationships of reciprocity and mutuality. Jason Gerhardt and Andrew Millison both said that their understandings of the ethic were in line with Bill Mollison's expression of the ethic in chapter 14 of the designer's manual, which is to take any surplus including time, labor, money, and resources and invest it back into earth care and people care. By reinvesting and redistributing everything back into the first two ethics, according to Andrew, a regenerative cycle

is created. In fact, Jason noted that this ideology to give everything back to the earth and people is in line with indigenous views on the role of a human as a "custodial species."

In the discussions about the third ethic and the need to reinvesting surplus, questions came up such as: What is surplus? What is the appropriate thing to do with surplus? Andrew Millison noted that generally when he considers the third ethic he views it on the physical level, referencing Ahupua'a, the Hawaiian management practice from mountain to sea, in which the main idea is to consider how the water is consistently being put back into the system, creating something regenerative. When considering wealth and resources in the current system, financial surplus is concentrated into a small percentage of people, and the ethic calls to question what is best for the entirety of the system. In the focus group, Adam Brock mentioned that he is unhappy with the term "surplus" because it reduces the third ethic into something needing to be measured. He noted that the third ethic counters this idea of accumulating for self, and "reorients our relationship to resources" by emphasizing the importance of redirecting resources to the areas in the system that need it most, such as marginalized and oppressed communities. Mark Lakeman in the focus group added that the third ethic is about cycling resources, and not hogging or storing these resources, to assure everyone has what they need. Looking at the ethic in this way counters dominant capitalistic ideologies of accumulation and individualism, as resources are instead accumulated with the intention to give back to the entire system. In the focus group, Adam brought up that in his experience working with indigenous communities in Colorado there is an inherent mindset of giving, which he feels is the true essence of the third ethic. Roslynn agreed and noted that based on the destructive forces of Western society, it is radical for most people to truly live within the intentions of the ethic.

5.1b Limiting Consumption

Interestingly, although limits to consumption, and less popularly, limits to population were the main emphasis of Bill Mollison's third permaculture ethic, it was not something that was prominent in my data findings. Rhonda stated that she mentions these two ideas when teaching her permaculture design courses out of obligation because of how it was originally stated in Mollison's designer's manual, even though her personal interpretation of the ethic is much different. The only individual I found who put a lot of emphasis on interpreting the third ethic as telling us to limit our consumption was in my interview with Scott. He noted that consumption is "the bigger issue" and made the point that if civilization can increase efficiencies, and people can adjust their everyday choices, this would "free up resources for others," demonstrating the fair-share ethic. When I asked Scott how the third ethic manifests in his work or everyday life, a lot of the examples he referenced were geared towards making choices that lessen his personal and familial consumption. Although not directly mentioning consumption as an issue, Adam Brock discussed in the interview that the third ethic speaks to the need to redirect surplus, meaning limiting one's accumulation and instead redirecting resources where they are needed the most in the system, either physically or socially. This concept ties into the most common theme that I found throughout the interviews, as all practitioners saw the third ethic as guiding them to redirect, redistribute, and give back in a variety of ways.

5.1c Future care and its Implications

It is worth mentioning that only one person in the interviews, Rhonda Baird, identified their understanding of the ethic as linked to the phrase "future-care" and the need to deeply consider the legacy being left for future generations. My discussions with other participants about consumption and surplus and where resources and energy should be funneled also

connected back to protecting future generations, but this reference to legacy only manifested when talking with Rhonda. In our discussion, she noted that it took her years of practicing permaculture to see beyond the physical implications of the movement. When referring to the third ethic she spoke of raising her children, and the importance of legacy, and questioned what social tools are being left behind for future generations to build community and adapt to a changing world. Seeing the third ethic through the lens of "future care," according to Rhonda, calls for addressing "inherited patterns and behaviors" and healing personal, intergenerational, and historical traumas. Understanding the third ethic in this way has major implications towards a necessary shift and cultural change moving towards a healthier future.

Because only Rhonda brought up this legacy piece in conversation when considering the third ethic, I brought it up during the focus group to assess what others had to say about future-care and legacy. This opened a larger discussion, and agreement about, permaculture's and the third ethic's role in creating what Abrah called "regenerative relationships." Abrah and Roslynn both reflected on the inherited patterns they have subconsciously adopted or are actively being mindful to address before passing it on to their children to protect future generations and this element of legacy. Roslynn, when reflecting on intergenerational trauma and the work that is needed to teach and lead people into a space of living more fully in the third ethic of giving back, expressed her own personal trauma surrounding food and a deep food scarcity mindset she experienced in her childhood. According to my data analysis, through the concept of legacy and future care the third ethic dives in into understanding human behavior and patterns, and addressing the ancestral, historic, and personal traumas that humans hold and pass on so "future generations have less of that to carry" (Rhonda).

5.1d Relationship-Based

Another theme that came up in data analysis was that the third ethic calls for the creation of connection and mutually beneficial relationships. In their interviews, Scott Mann and Mark Lakeman both referenced the third ethic as a means of strengthening relationships. Mark referenced the way that place-making and common community spaces can be utilized to build community through connection. When discussing his experience working with houseless communities in Portland, Oregon, Mark referenced the third ethic as an "inherent state of thinking and being with each other" and commented that when people are drawn into a space of collaboration and community of need, they exhibit healthier ways of being, which is the natural manifestation of the ethic. When people are living in direct relationship with one another, countering the isolationist capitalist paradigm, people's basic needs can be met through their connection and "reciprocal behaviors," even without individual access to money or capitalistic resources. The concept of mutual relationships, connection, and living in a state of reciprocity came up multiple times throughout my discussions of the third ethic.

When discussing the potential of the third ethic, Scott Mann and Asia Dorsey noted that an individualistic society has discouraged people from needing one another. For example, when you have access to financial resources, you might not need other people or community relationships to fulfill basic needs. Asia noted that in this case one might pay for a childcare provider rather than ask a neighbor or aunt to help, which would further build relationships within the community. Understanding the third ethic through this interpretation of connection and relationships, according to Asia, has the potential to meet people's needs through community, and by recognizing that financial capital is not the only way to accomplish that. In my conversation with Scott, he explained that he believes that the great essence of the third ethic speaks very strongly for the need to foster relationships, which results in stronger communities

and the creation of culture. Ultimately, interpreting the third ethic to be relationship-based normalizes the emergence of a culture of healthy reciprocal behaviors in which people are living in meaningful direct connection with one another.

5.1e Reparations, Equity, and Transformative Justice

Out of the nine interview participants, Abrah Dresdale and Asia Dorsey when asked to describe their vision of the third ethic spoke specifically to the need for deep reparations work to mend historical traumas, and just transformation around resource redistribution. Abrah, in the interview and the focus group, spoke to the fact that she felt there was a distinction between how the ethic is currently being practiced in the movement, and the untapped potential of the ethic that would require a deep cultural transformation. She explained that the ethic as it is currently being portrayed in the movement and courses can be touted as "justice-washing" or "woke-washing" and put forth as "well, let's not forget to think about the rest of the world." In the interview, Abrah described her vision and potential use of the third ethic as depicting a culture around reparations, land re-matriation, decolonization, restorative and transformative justice, resource redistribution, and alternative means of financial exchange. The closest label she could attach to this large vision to was "socialism"; however, she noted that the word *socialism* even felt a "little regressive." Reaching this potential of the third ethic, according to Abrah, is challenging due to the oppressive restrictions of the capitalistic, patriarchal forces of the "over-culture," and would require a huge cultural shift.

Partial to referring to the third ethic as "fair share," Asia envisions fairness within a historical framework, and it is viewing fairness in this light that is a reach towards equity. When describing the third ethic, Asia referenced the need to repair the harm caused by "colonialism, patriarchy, and the insecurity of whiteness," and brought forth the example of dividing up a

metaphorical pie. Rather than dividing the pie equally, Asia said questions need to be asked about "who had pie yesterday?", "who knows where the knives are?" and "whose house is the pie in?" Not only does fairness reference past, present, and future divisions, but fairness is also "transhuman," and thoughts of fairness must be given to the earth and non-human forms of life. Asia states that as a black woman with a deep background in Marxist theory and a privileged experience in higher education, she does not expect people to "make the cognitive leap to reparations" as a means of expressing the third ethic, but for her it sparks a conversation about repair and mending harms resulting from a broken system.

It is important to note that the concept of equity, whether physical/ material or social, came up throughout half of the interviews and in the focus group, regardless of the words people used to define the ethic. Fair share, according to Scott, asks of permaculturists to consider how resources can be more equitable, as consuming less will free up resources for others, and Roslynn noted that she believed that equity and inclusivity would become larger focuses in the future of permaculture and the ethic. Abrah and Asia envisioned social equity as a horizon goal that must be achieved through a reparative mindset and process. Whether social or material in the sense of sharing the surplus, equity is important when considering the future of the third ethic and its potential towards change.

5.1f Fair-Share

It is important to mention "fair share" because it is one of the common ways that the third ethic has being portrayed in permaculture, and has sparked a lot of debate amongst interview participants. In fact, "fair share" was how my instructor in my PDC expressed the ethic when I took the course in 2020. In the interviews most participants expressed distaste for the catchy, sing-songy nature of fair-share and asked questions like: What is fair? Who decides what is fair?

And are we ever going to get there? The consensus amongst the members of the focus group was that fair-share does not get to the "heart and soul" (Adam) of the meaning behind the ethic, and it oversimplifies it to something that can be measured, which it cannot. Contrarily, Scott felt that fair-share was something that could be easily understood and was partial to the sing-songy nature of the phrase, and Asia expressed her affinity for "fair share." Although some practitioners voiced that they weren't sure how they could put fair share into practice as an expression of the ethic, others, such as Mark, expressed it as an inherent state of living in connection with others; Scott tied it to issues of consumption as discussed above; and Asia saw it as a pathway to work towards equity and repair. Obviously, there are a lot of differing opinions on fair share as a way of expressing the ethic, which speaks to how wide the range of interpretations is and can be amongst the movement.

5.2 Does Defining it Matter?

Based on the data found in this research, there are several ways to define and interpret the ethic, and a question that arose is: does defining it or coming to a clear consensus about the ethic matter? Multiple practitioners in the interviews agreed that the third ethic lacks clarity. Jason Gerhardt, director of the Permaculture Institute of North America, even added "it's a little bit of a mess," before sharing how he personally interpreted the ethic. Jason described the three ethics of permaculture as a stool and acknowledged that if one leg is wobbly the foundation is compromised, and the structure will struggle to stand. Later in the group discussion, Jason stated that his issue is less about semantics and more about clarifying the process, approach, and intentions behind the words as new people enter the movement. Interestingly, Adam in the interview hypothesized that the open-to-interpretation nature of the third ethic is intentional

because it speaks to the differencing of interpretations of what permaculture is within the movement itself.

After I brought this idea up in the focus group, practitioners agreed that the third ethic was and should be constantly evolving and developing with the cultures and peoples who are utilizing it. In the discussion, Adam and Mark emphasized that how the ethics were written decades ago shouldn't be considered as "dogma"; instead, they should consistently be cycled and shifted in parallel to the changes within cultures and society. Practitioners agreed that how people interpret it is inherently context-specific based on individual experience and locale, and many seemed content to let it continue as a question moving forward. Roslynn noted that it is healthy to question ideas when considering the strongest path forward, and Mark Lakeman said he was happy to "keep sitting around the campfire, entertaining forever, just learning from each other by posing the question." Acknowledging the third ethic as consistently evolving and changing puts more focus on the intentions and process, as Jason mentioned, as opposed to the specific words used.

5.3 Putting the Ethic into Practice

Although the data revealed there are many interpretations for the third ethic, the intention behind the ethic and processes of putting it into practice varied based on my conversations. In the interviews I asked participants to tell me about their work, experience, understandings of the third ethic, and how they felt the ethic manifested in their work and life. Based on participant responses to this last question, and parallels I found to their work and interpretations, I was able to assess how practitioners may be putting the ethic into practice. Many of the practitioners noted that truly engaging and living a life honoring the third ethic can be challenging because of pushback from the "over-culture" such as capitalism, individualism, isolationism, and

consumerism. Despite this societal pushback, most practitioners noted that the third ethic serves as a guiding light, north star, or constant reference point, as something to aim towards that calls them to constantly question whether their actions are supporting both the earth and people. Although each participant expressed varying examples of living within the third ethic based on their unique interpretation, I have identified major themes that demonstrate how practitioners are engaging with and manifesting the ethic in their own lives. There is a lot of overlap between "social" and "ecological" themes, but for the sake of clarity I have split them into physical and social manifestations of the ethic.

Physical Examples

5.3a Consumption

As mentioned above, although consumption was one of the themes that was discussed minimally in the interviews, it is important to mention because of how the ethic was described in print by Bill Mollison. Clear manifestations of limiting consumption came up in two of the interviews. Rhonda made it clear that limiting the number of children she brought into the world and making intentional choices on personal consumption in her household was important for future-care. Additionally, when I asked Scott how he felt the third ethic manifested in his life, many examples he listed off were consumption-focused, including using LED bulbs, being in a family with only one car, buying used, living in a city with accessibility to walking, minimizing food waste, and making intentional choices about the products and businesses he and his wife support.

5.3b Cycling and Redistribution of Resources/ Materials

A common expression of the third ethic that I saw throughout my data analysis process was a push to cycle and redistribute resources, whether material or financial, to care for the entirety of the social-ecological system. Small, physical examples of this were discussions surrounding water usage, and how to decide where and how water collected in rain barrels should be distributed in a garden design. Adam asked questions such as: should food crops get priority or native plants? And who makes that decision? In a conversation about native Hawaiian water management systems, or Ahupua'a, Andrew Millison brought up that a watershed managed from mountain to sea allows everyone to have access and stresses the importance of returning water back into the system in some way. In regard to cycling and redistributing water, Roslynn also spoke to her home's greywater system feeding various fruit trees on her property as a means of redistributing the water surplus. Cycling and redistributing physical resources also showed up in examples regarding food, as Roslynn mentioned that the University of Utah Moab campus garden is open to the public, and hence any excess fruit and produce goes to people who need it or is donated to the local community center.

When discussing the third ethic, there was a clear pattern displaying examples of redistribution of financial resources to create community spaces and benefit the overall needs in the local community. These examples have distinct overlaps with other themes in this section, such as creating commons and wealth distribution. Asia and Jason both shared an expression of the third ethic as working with wealthy individual(s) to invest their money into projects that benefit the community as a whole. Jason explained that he assisted a wealthy funder in designing a 240-acre property in St. Louis and, in the design, considered how this project could serve the needs of the local community. The project provided a community space that produced healthy accessible food and hosted nature immersion programs open to the public. Another example of

redistributing financial resources to serve the greater community was Asia Dorsey's example of her convincing a wealthy landowner to convert his property and home into a community land trust. Asia noted that it was a positive exchange because the wealthy individual desired community and had a financial surplus to help manifest that for himself and people who needed it. This project created an anti-gentrification movement with intentionality to serve the land and inspired local community activists to work with other land developers to create a 400-unit apartment building under the land trust model. Similar to these examples, Adam spearheaded a nonprofit in an underserved community in Denver that provided food access and education directly to the community. Finally, a noteworthy example of the ethic through redistributing financial resources was Abrah's work in a jail-to-farm-to-college and employment program, where financial resources from the county/ state were funneled into garden and employment training programs for incarcerated people, often BIPOC individuals.

5.3c Monetary

One of the major themes that emerged in the interviews of how the third ethic can be put into practice were conversations surrounding money and distribution of financial resources. For many of the practitioners, money was one of the easiest ways to explain how the third ethic manifests. A few of the permaculturists expressed that living the third ethic involved being able to get enough financial resources necessary for oneself and then being able to subsidize people who don't have necessary financial resources. An example of this that came up in the conversations with Adam, Andrew, and Roslynn was how the cost of the Permaculture Design Course (PDC) can be limiting for many lower-income peoples. Adam explained that to manifest the third ethic, in the design course he teaches (base rate at $1600-1800) he will charge a few extra hundred dollars more than necessary and redistribute that financial surplus towards a

scholarship fund for someone to take the course at a lower cost who might not have been able to afford it before. Adam also explained that he takes a similar approach within his design projects, charging top dollar for large organizations and then re-investing some of those financial resources to do pro-bono consulting for BIPOC and other marginalized communities. Roslynn also described her plans to start an intermountain west PDC and her wish to create a sliding scale, or a work-trade scenario for people who cannot afford the market cost of the course. Scott and Andrew expressed that they also monetarily support various charities, mutual aid organizations, bail funds, and Andrew gives up to $50,000 in scholarships for his courses. Andrew added that in his YouTube content design work he aims to create a closed loop system, in which he re-distributes financial surplus back into the international communities he works in. This re-distributing of financial resources by giving back to marginalized communities and donating to charities is one expression of the ethic and manifests itself in many ways.

Regarding how money is spent, two practitioners noted that they try to be mindful about what products they buy and the companies they support. Scott in the interview noted that it is important to give back and make "investments in the people and community around us" by supporting local farmers markets, entrepreneurs, and fair-wage organizations. Adam noted that although he is mindful about how he moves in the world in this way, it is very difficult to be an absolute purist of moral high ground in a society that pushes back on this.

In a few of the interviews and the focus group, the concept of equity and economic redistribution arose. Abrah noted in both the interview and focus group that the potential of the third ethic begins conversations about equity and wealth distribution. Andrew stated that he felt the best way rich countries could live into the third ethic is by funneling money into developing nations so that local international communities can themselves complete permaculture projects in

a place where the United States Dollar (USD) holds greater value. Considering the third ethic in this way calls for practitioners to accumulate resources, in this case financial resources, not for the sake of accumulating but to give back to meet the needs of the system as a whole. Adam Brock theorizes that one of the reasons ideas surrounding the third ethic in this way aren't more popular, even in permaculture circles, is because the ethic calls for people to limit personal wealth accumulation and thereby counter many capitalistic and dominating ideologies.

5.3d Creating Commons

Another theme that arose often through the conversation about putting the third ethic into practice was the creation of commons, or public community spaces. Because some interpretations of the ethic were heavily relationship-based and involved re-investing resources into the community to support everyone's needs, the creation of commons was a natural manifestation. When I was Zooming with Adam, he explained to me that he was speaking with me from an old historic church in Denver that he and a few other social permaculturists were working to turn into a community space for healing. The space would be open to the community for co-working, yoga, spiritual circles, classes, and a space for indigenous peoples to practice ancestral traditions. Another example of creating public commons as an expression of the ethic was Roslynn's discussion about her work at the USU Moab garden where people from the community could come and gather, harvest, and share food growing in the garden. Roslynn also noted that she will often encourage houseless individuals to harvest from her various fruit trees that are right next to the public bike path. Creating public spaces for gathering, or sharing a surplus, expressed some of the interpretations of the ethic.

The strongest examples of the creation of community spaces to manifest the ethic arose in my conversations with Mark Lakeman. Mark's work centers on community-generated public

spaces. He is the co-founder of City Repair Project, a community place-making non-profit in the Portland, Oregon area, and founder of Communitecture, a community-based design organization. When I lived in Portland, I had seen and heard of the work done by City Repair Project, as they bring neighborhoods together to transform intersections into places of gathering and relationality. Mark noted that in these projects, when people feel connected into place and share a common goal of creation, they begin to find commonalities and build relationships with the people around them, which is an expression of the third ethic. I realized in my conversation with Mark that another expression of the third ethic as creating common community spaces of sharing manifests in his work with houseless villages. Mark reveled in his explanation of the naturally forming structure of these villages, as people will "generate human settlement patterns" in "the most beautiful way." In these villages, outside of formal structures of authority, Mark described how people create common spaces immediately, whether as multi-use community spaces for cooking, growing or sharing food, meeting, administrative tasks, managing composting toilets, or a community trash or recycling system. These common spaces are community-generated and provide a place for people to distribute and share resources and live in deep relationship with one another to meet basic needs, which is an essence of the third ethic.

Social Examples

5.3e Building Relationships / Connection

Building relationships and connection as an example of the third ethic was another recurring theme in my data that overlaps closely with the previous section on creating commons. Rhonda, in her discussion about the third ethic as a legacy piece, noted that her grandest work is in her relationship with her children, teaching them how to grow food, connect with nature, and adapt in the future. Mark, regarding his work at City Repair and in houseless villages, stated, "I

see fair share happening as a behavior that is hardwired in us. It is something we are coming back to when we work in collaboration with each other." This idea that living in relationship with other people is an expression of the third ethic that emerged in a few of my interviews. Mark explained that when people are place-based and living in connection with one another, their needs can be more immediately met. One small example in the houseless villages Mark spoke of was when someone needs new shoes, and new shoes are found in the community, they find feet immediately, because place-based living naturally manifests a state of care for one another.

Similarly, Asia and Scott in their interviews discussed the importance of community relationships to meet basic needs and mentioned that relying on social capital over financial capital is essential. Asia expressed that fair-share encourages people to think outside of monetary resources to meet their needs, and instead encourages people to reach out to a neighbor or family member, thereby bolstering connection (example: childcare). Mark and Asia both agreed that building relationships and a sense of interdependency in community open up space for behaviors and opportunities that are beyond economic. Asia simply put "when you have community, you need less money," displaying how relationships manifest living within the third ethic.

5.3f Sharing Skills, Time, and Knowledge

A concept that appeared throughout all the interviews and focus group regarding putting the third ethic into practice was the sharing of skills, time, and knowledge. In the focus group, Adam commented that based on his experience working with indigenous communities, people are always looking at what they can offer, which in his opinion is the true basis of the ethic. The general idea of giving back when discussing sharing and exchanging knowledge and, as Andrew stated not "locking it [knowledge or information] behind a paywall," was a common theme.

Andrew commented that the power of social media and the internet opens immense opportunities for sharing of knowledge as his free YouTube channel has millions of views worldwide. Podcasts are also a major space for breaking down the paywall for knowledge. Asia has both a medicinal herb and reparations podcast, and Scott's work spanning over a decade on The Permaculture Podcast has shared a great amount of information to the public. Teaching and workshops were also expressed as a form of knowledge sharing, as Roslynn noted that in her workshops she benefits as much as her audience when running an educational session.

Along with knowledge exchange, the sharing of time and skills were also discussed in my conversations on the third ethic. There were multiple examples in my data demonstrating giving back surplus time by babysitting for a friend, or volunteering. In my conversation with Scott, he noted that the third ethic calls people to give back what they are good at, whether that be hosting a podcast or teaching a friend to play guitar. Half of the practitioners expressed the third ethic manifesting in their consulting work, as Asia consults in facilitation and creation of worker co-ops, Abrah and Adam enter various communities to teach and empower people to implement strategies that are found in each of their books, and Andrew brings skills and knowledge to international communities to empower developing communities. Both Abrah and Andrew emphasized the need to empower local groups with the skills that they can implement themselves to remove dependency on an outside party. Another demonstration of sharing time and skills was Adam's example of a prominent vegan chef conducting a workshop at the GrowHaus nonprofit in Denver. This chef held a workshop for wealthy white individuals and insisted on also holding a free one for marginalized black and brown peoples to attend. Holding space for teaching, sharing skills, and disseminating knowledge are powerful manifestations of the third ethic.

5.3g Addressing Oppressive Institutions and Intergenerational Traumas

As mentioned in the previous section, two practitioners put addressing oppressive systems, and providing space for conversations about reparations, intergenerational trauma, transformative justice, and decolonization, at the forefront of their understanding of the third ethic. When I asked Abrah how she felt the third ethic manifested in her work, she noted that a lot of her work is a step towards this goal, but pondered "how far are those ripples going?" A clear manifestation of the ethic is in her work with jail-to-farm-to-college and employment program, where financial resources are being poured into supporting individuals (often neurodivergent and BIPIC) victim to the oppressive forces of incarceration. Abrah notes that these programs of gardening and workforce development are really pushing people to enter spaces of sovereignty and could encourage people to "work towards enacting systemic change" within the toxic systems activity oppressing them. Some other examples Abrah discussed were her work in education, such as her food justice social permaculture course and her book *Regenerative Design for Change-Makers,* which takes an anti-racist/ anti-oppression lens providing strategies to be an agent of change and address conversations around redistribution of power. In our conversation, Asia noted that the bulk of her "embodied practices [of the ethic are] as a reparationist." Asia's work is very focused on healing bodies, creating curriculum for regenerative conflict and transformative justice, and providing space for conversations through reparation education and research. She works closely with the Denver Black Reparations Council to create an African-centered approach to reparations, and travels to oppressed communities in the United States as a healing justice coordinator.

Another major theme that arose throughout various interviews and in the focus group was a conversation about healing historic, personal, and intergenerational traumas. In the conversation, Asia spoke about the need to intentionally repair and support people experiencing

grief and trauma. She mentioned her podcast “Healing Black Futures,” where she opens space for discussions reimagining a future of repair and reparations. Abrah also spoke of her work training leaders in the Jewish farm and food program, fostering conversations about processing grief and power dynamics in a regenerative and empowering way. The topic of intergenerational trauma and being mindful of the patterns and processes that are passed down from generation to generation was also brought up multiple times. In our one-on-one conversation, Rhonda mentioned an expression of the third ethic as recognizing what patterns she and her husband may pass down to her children and how to shift those patterns in a healthy way. In the focus group, Abrah, Rhonda, and Roslynn also mentioned the importance of addressing their own inherited patterns, and how for healing and cultures to shift, there must be a conversation about these traumas and patterns for future generations to prosper. Although the concept of legacy was found in my literature search under the topic of future care, these topics of reparations work and addressing intergenerational traumas were not something that I discovered in my literature review process.

5.4 Connecting Interpretations with Engagement

There are many understandings and examples of how to put the third ethic into practice. All the interview participants see the permaculture framework as a set of tools that guides them in their work, as the ethics weave deeply into everyday actions and thoughts. In the interviews, many of the practitioners had to actively consider how the third ethic manifests in their own life, because the three ethics interwoven together have become such an engrained part of their work and how they move in the world. Looking at the varying understandings of the ethic, and the examples that have arisen, I can better understand the motivation of people’s actions and work. Looking at how people individually interpret and envision the ethic and put it into practice sheds

light on my sub-question: How do these interpretations of the ethic impact how people engage in their communities?

Although the discussions surrounding the ethic ranged widely during each one-on-one conversation, and there were many similar themes that jumped out as discussed in the above sections, there are clear indications that varying understandings may guide how people put the ethic into practice. Scott, for example, sees the ethic as consumption-based, and therefore directs a lot of his actions towards reducing his impact on the world and making choices that can benefit people around him. Mark, on the other hand, when describing the third ethic does not talk much about consumption but rather speaks to the need to build relationships and connection, which manifests in his work in creating community and commons in City Repair and houseless villages. Andrew sees the more physical implications of the ethic of redistributing surplus, which is shown in his work of sharing both knowledge and financial capital. Asia sees the ethic as directing her reparations work and helping communities heal, which is revealed in her involvement in varying transformative organizations. Abrah sees a great distinction between the current state and the aspirational potential of the ethic, pointing to a need for a grand transformational shift to manifest ideas such as transformative and restorative justice, decolonization, and land re-matriation. Much of Abrah's work, according to her, is a "toss in that direction," such as her work in Jewish farm circles, and the jail-to-farm-to-college and employment program. Rhonda's main vision of the ethic surrounds ideas of legacy and addressing skills and patterns being passed on to future generations, which is demonstrated in her approach in raising her own children. Adam sees the ethic as calling him to redirect everything into the areas of the system that need it most, which is reflected in his work with marginalized communities and his guidebook on creating change. Jason, seeing the ethic as primarily

redistributing everything back into earth-and people-care, sees himself making daily choices in his engagement with the Permaculture Institute of North America and design work that could better the people and earth around him.

Although many major themes and overlapping ideas surrounding the ethic arose as discussed above, how people create their own understanding surrounding the ethic may have an impact on how they move and engage in their work and community around them. An important reflection that arose during the focus group discussion cautions permaculture practitioners from holding these three ethics up "as dogma," just because that was how they were originally written. Practitioners agreed that they should consider their own interpretations and experiences and practice the third ethic in the context that fits their own reality and situation. Practitioners agreed that "we can't be static," saying that they need to be "constantly composting and cycling the meaning of the work" (Adam) to adapt and transform with society.

5.5 Additional Findings

As the interviews and focus group were semi-structured, guided with a few directed questions, the conversations took many different directions. A few noteworthy topics emerged in these conversations relating to the permaculture movement that I will discuss in the following section. Although these discussions were not directly related to my research questions, they are important to mention because they were common conversations across the board. This section discusses these additional findings, such as several concerns within the movement itself and ideas about the future and role of permaculture moving forward.

5.5a Concerns within the movement

One of the recurring topics that interview participants expressed was various concerns regarding the permaculture movement. A few participants commented on the commercialization and gatekeeping of knowledge that has encompassed the movement, as courses are packaged and sold at high prices that many people cannot afford. Additionally, a few participants commented on the history of permaculture as a white male-dominating space; Asia noted there is a lot of "unintentional bias against women," which appears to be slowly shifting in the movement. Another concern that came up in almost all the conversations is a lack of proper indigenous acknowledgment and credit to worldwide indigenous practices, from which much of permaculture is derived. A few practitioners, after acknowledging this issue, commented that the permaculture founders "did the best they could at the time," but Adam Brock noted that the movement would be better off if everyone saw permaculture as a "holistic problem-solving system rooted in ecological wisdom and indigenous practices." Multiple practitioners mentioned that they envision a future of permaculture that weaves a path of proper consistent acknowledgment and continuous research and credit to indigenous peoples. Based on this finding, I would recommend future research exploring these connections and how to transition the movement to properly acknowledge the indigenous wisdom from which permaculture stems.

Another concern that wasn't surprising in the conversations is the landscape-focused history and misconceptions surrounding permaculture and how this focus is limiting change. Many practitioners commented that it pains them when people refer to permaculture as a set of "gardening techniques," because it was "never just about regenerative agriculture." Jason pondered if this was the fault of the current design course structures and the human attachment to materialism or attaching to what people can see and do (such as building a rain garden or an herb spiral). Participants recognized that many people are still practicing land-based permaculture, but

those effects only percolate so far. Jason, for example, pondered during the focus group how there is a sense of naiveté believing that "if we had food forests in all the parks [or rain gardens in all the streets] …everything would be okay." Acknowledging that permaculture goes beyond just the physical landscape level and broadening the social implications of permaculture, which is one goal of this research project, is important if the movement is to enact impactful change.

Based on my respondents and additional permaculture literature, it is clear there are a lot of concerns and need for change within the movement. When discussing this topic, Asia Dorsey expressed that the "permaculture haters" are making the movement stronger and contributing to more energy and publicity of the movement. In my conversation with Asia, she noted that many permaculture teachers are already adapting to the necessary changes that people are harping on in the movement, and the movement is constantly changing to meet the needs of the people in it. Roslynn also cautioned against feeding into the "hate" against permaculture from both inside and outside the movement, and instead shared that people in the movement should be asking: "how can we strengthen?" and "is this the right thing moving forward?" By shifting the focus away from the concerns within the movement and pointing blame, the focus should be on how to strengthen the movement and make it a relevant framework for resilience and change (Roslynn).

5.5b The Future of Permaculture

Throughout this research, practitioners offered many visions for the future of the permaculture movement. Many participants stated that there is a clear trend moving away from land-based permaculture and into stronger social implications of the movement. There is also a clear trend to continue uplifting voices and increasing involvement within BIPOC and LGBTQ+ communities. Based on my conversations, the future of the movement is shifting to be female-focused as white males will take a step back and female and other minority voices will come to

the forefront. Rhonda also envisioned seeing permaculture ideologies infiltrating into existing institutions to help redesign social, economic, and political systems. Practitioners have also expressed a future vision of permaculture-based ideologies being normalized as a part of early childhood education as children's permaculture courses increase in popularity.

Another interesting finding that emerged throughout this research was practitioners acknowledging that the permaculture movement is experiencing a "schism" (Adam) and is being co-adapted and absorbed into other movements. A few practitioners commented on the growing trend of permaculturists leaving permaculture behind or even abandoning the term "permaculture" itself. There is a growing separation between people practicing social-based permaculture, considering topics such as indigenous acknowledgment, community benefits, re-imagining social and political structures, and people solely practicing land-based permaculture. A point of tension, according to respondents, is that many land-based practitioners do not consider the newer social aspects as relevant to permaculture, which creates a lack of unity in the movement. As the permaculture movement lacks unity and clarity, Rhonda and Jason expressed concerns about the movement being co-opted into other movements such as agroecology or regenerative development. They expressed worry that these movements don't capture the true essence of "interconnectedness that permaculture so heavily encompasses." Rhonda also expressed concerns about permaculture being dispersed and re-focused in different movements because "the whole will be lost." Other practitioners voiced that they were content with permaculture dividing up into different movements, saying that they see it as a natural adaptation of the movement and would be perfectly fine if permaculture simply just disappeared.

Chapter 6: Discussion / Conclusion

Based on the results in this research, multiple interpretations, thoughts, and applications surround the third ethic and inform how it can be applied in practice. In this concluding chapter, I will examine these findings through the frameworks of resilience and cultural change theory to assess how they may align with ideologies suggested in these theories. First, to conceptualize resilience, I will examine the connections between how practitioners envision resilience and how the third ethic is being utilized based on the findings. I will then expand on one noteworthy finding related to resilience, namely the importance of shifting mindset and dominating paradigms, and explore how the findings surrounding the third ethic may guide a shift that is crucial for cultural change to occur. I will also explore some of the "edges" or potentials of the ethic found in these results that could broaden the social implications of the permaculture movement. Finally, I will discuss the importance of permaculture and these expanded visions in shifting beliefs and mindset, and the need to constantly re-imagine the role of permaculture in creating an emergent transformative culture.

6.1 Community Resilience and Putting the Third Ethic into Practice

When considering my research question(s) through the lens of community resilience, various issues arose around what community is, how practitioners conceptualize and engage in the communities around them, and how they envisioned a thriving, resilient community. In order to fully understand how people's understandings and applications of the ethic impact their work in communities, it is important to contextualize the varying visions of what community is. In the following sections, I will break down the varying ideas that practitioners expressed surrounding community, then briefly discuss the diverse visualizations and reoccurring themes of resilience that came up in the interviews. Finally, I will highlight similarities between the data in how

research participants are utilizing the third ethic, and how this aligns with different ideas surrounding community resilience.

6.1a Setting the Context: Conceptualizing Community

Based on people's responses to questions about community, and by analyzing their involvement in permaculture, I have examined how people visualize, define, and engage in community. Participants such as Rhonda and Andrew note that they have inherent connections to their respective local communities through the universities they teach at, but a lot of their work is international. Andrew builds permaculture connections globally through social media and his work in communities overseas, and Rhonda's work with Sociocracy is internationally based. Adam Brock's work and engagement is mostly within his bioregion surrounding the Denver-metro area, with small amounts of engagement nationally. Roslynn notes that a lot of her work is within the state of Utah, but has established deep roots in the town of Moab where she lives.

It is important to note that people's understandings and involvement in community are based on many factors such as geography, common interests, and individual engagement. Mark and Roslynn both note that community is majorly place-based as people come out to build connections and relationships to "strengthen the social fabric of place" (Roslynn). Jason considers most of his involvement in community to be national through the Permaculture Institute of North America and is less connected to his local location. In our discussion, Scott noted that community is about connections and relationships, whether relationships centered on geography, virtual connections, or around a common interest. Scott and Adam both compared their views of communities to the permaculture zone model, in which the zones increase in number in the order of necessary maintenance or frequency of visits. For example, Scott said his zone one would be people he connects with regularly, and his zone five would be the grander

scale of community that he may participate in rarely but does not feel very connected to. Notably, in our conversation, Adam noted that he felt the word *community* is often misused, as his definition of community is "a group of people who need each other to meet their basic needs" that exist in a state of "mutual reciprocity." His argument was that people rarely exist in a state of need and interdependence with other people in this way. Despite the wide range of answers, common themes about how people visualize community appear to be based strongly on relationships and connections, geography, and place-making.

6.1b Envisioning Resilience

When practitioners were asked in the interviews how they envision a regenerative, resilient community, there were a wide variety of responses. Multiple participants noted difficulty in answering this question because it is context-specific and depends on the needs of the members of the specific community. However, there were some common themes amongst the responses that aligned with elements present in community resilience theory literature. Almost all practitioners mentioned the importance of building relationships and collaboration in creating a resilient community, and Adam and Mark also emphasized the importance of intentional communication and addressing conflict as a form of building strong relationships. Jason, Roslynn, and Andrew commented that a major focus of a resilient community should be on the process or approach of meeting needs such as growing food regeneratively, assuring proper water management, and the approach to building shelter, i.e.: green infrastructure. Abrah and Adam both referenced the need to address historic, personal, and intergenerational traumas to have a resilient community. This involves opening spaces for conversations about healing and the process of healing to address these historic, personal, and intergenerational traumas.

More than half of the practitioners discussed a need to shift culture, belief systems, and overall mindsets to shy away from damaging, oppressive dominating patterns, asking questions such as “is what we are doing good?” (Roslynn). Jason and Scott emphasized the essential role of education, and the importance of the process and approach to learning and teaching future generations. Roslynn added that a resilient community would ask and consider how they can progress in the future, underlining the need for the system to learn, improve, and adapt to changes. This process of learning and improving in response to change is also referenced in Folke (2009) as a means of identifying resilience.

Another re-occurring response in the interviews was the concept of place-making and building connection to the land and people within a common space. Based on the data, practitioners consider place-based communities as displaying high levels of care for both people and the land; this may then build strength in community. An example of this came in Mark’s response. He said that the best way to describe a resilient community was to look at Dignity Village, a houseless encampment in Portland, Oregon. Mark commented that this place-based village, and many other houseless villages, display elements of a resilient community in their way of self-governing, low carbon footprint, building of physical commons, and natural state of sharing and living in interdependent relationship with one another. Mark noted that when people are invested in the physical space and people around them there is a state of mutual reciprocity and people naturally have their needs met.

6.1c Connecting the Third Ethic and Visions of Resilience

To understand how varying interpretations of the third ethic impact how people engage in their communities through a lens of resilience, I explored notable overlaps of how people visualize a resilient community with the major themes of how the ethic was being applied.

Understanding what is important to the practitioners in both their interpretation of the ethic and what they visualize to be important for a regenerative, resilient community can create a clearer sense of why and how people engage with the ethic. After comparing the responses, I found seven meaningful overlaps. These include:

1. Relationships, connection, and collaboration
2. Physical examples (infrastructure, resource management)
3. Creation of commons / community spaces
4. Place-making and connection to land
5. Knowledge exchange / education
6. Addressing intergenerational traumas
7. Countering oppressive systems and dominant paradigms through shifts in beliefs and mindset

Based on the responses found in the interviews, the different understandings and applications of the ethic could demonstrate that practitioners are working towards adapting and transforming the ethic to manifest a relevant resilient system. Notably, some of these demonstrated overlaps also coincide with elements of community resilience as discussed in the literature, including sharing of knowledge, strong relationships and social networks, community-based infrastructure, people-place connections, and values and beliefs within a community (Berkes & Ross, 2013; Magis, 2010). These elements from the literature are shown below in figure (1).

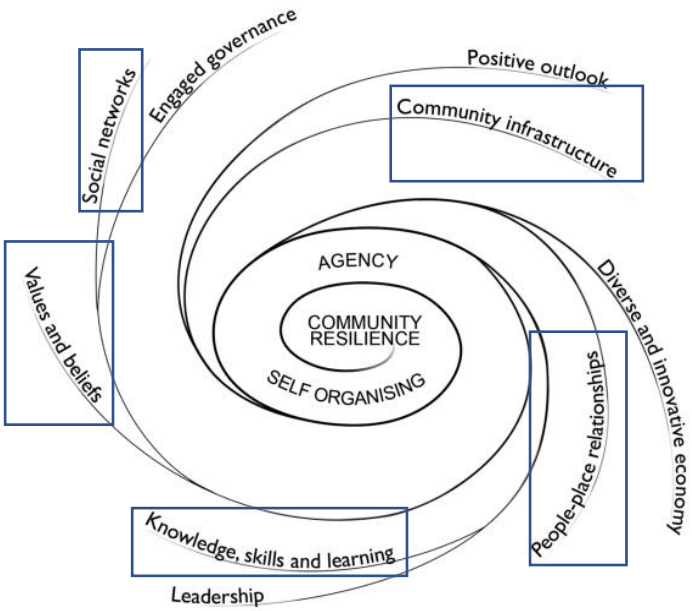

Figure 1. Community resilience as a function of the strengths or characteristics that have been identified as important, leading to agency and self-organization.

Figure (1) derived from Berkes and Ross (2013) p. 14. The boxes surrounding the elements in this figure indicate resilience element findings and how the third ethic manifests in practice based on participant responses.

The demonstrations of the ethic and how they overlap with community resilience elements from the literature may indicate that practitioners are developing necessary tools for adapting to uncertainty and creating a transformational path towards a more resilient system. Figure (1) shown above, as discussed in chapter 2, is shown to demonstrate the overlaps with the resilience literature with how research participants are visualizing resilience and how varying practices of the ethic coincide with these elements of resilience.

Comparing applications of the ethic with varying visions of resilience suggests that the third ethic has the potential to further both the social implications of the movement and future of the ethic. As mentioned, discussions regarding the ethic centering on reparations, healing intergenerational traumas, transformative justice, and creating commons were limited or nonexistent in the literature reviewed prior to this study; thus, participant perspectives in this

research are expanding the boundaries and potential of the ethic. Experienced permaculture practitioners are demonstrating resilience by adapting and constantly evolving their own understanding of the ethic to align with relevant issues. An important element of resilience theory, according to Folke (2009), is not only the process and approach that individuals and communities can take, but the process of learning and improving to facilitate necessary changes. Broadening the possibilities of the ethic, and constantly re-interpreting and composting the relevancy of the movement and its ideologies to a changing society, demonstrates these elements of learning through adaptive capacity and transformability as discussed in Magis (2010).

Something noteworthy that stuck out in this research were several conversations surrounding number (7) in the list above: countering varying oppressive systems and dominant paradigms by shifting beliefs and mindset. Although this was not entirely surprising based on the findings in the literature review, it demonstrates that practitioners are pushing to adapt and ultimately transform into an alternative way of thinking and system of beliefs that will result in the necessary radical change referenced in resilience and cultural change literature (Henfrey, 2018; Macnamara, 2020). Resilience theory indicates that a transformation may be necessary for the system when adaptation is not feasible, and a shift in mindset and perception may be necessary to induce this transformation. Additionally, based on resilience literature, shifts in perception and creation of meaning may suggest alternative pathways and increase the potential for transforming many oppressive dominant systems (Henfrey, 2018). The data in this research demonstrates that practitioners are creating and adapting meaning surrounding the third ethic, thereby enabling them to work towards alternative visions countering dominant ideologies. The findings of this study also indicate that practitioners view a shift in mindset as a logical and inevitable approach towards creating a thriving and resilient future.

Figure (2) below demonstrates the resilience overlaps found in this study of participant visualizations and practices as listed in 6.1c and compares these findings to major ideologies of cultural change theory as found in the literature. The importance of shifting dominant paradigms through belief and mindset changes, as identified in this study and in resilience and cultural change literature, is represented by the overlapping section in this figure below. This demonstration further bolsters the conversations around number (7) in section 6.1c and the importance of shifting dominant paradigms by adapting meaning and beliefs surrounding the ethic.

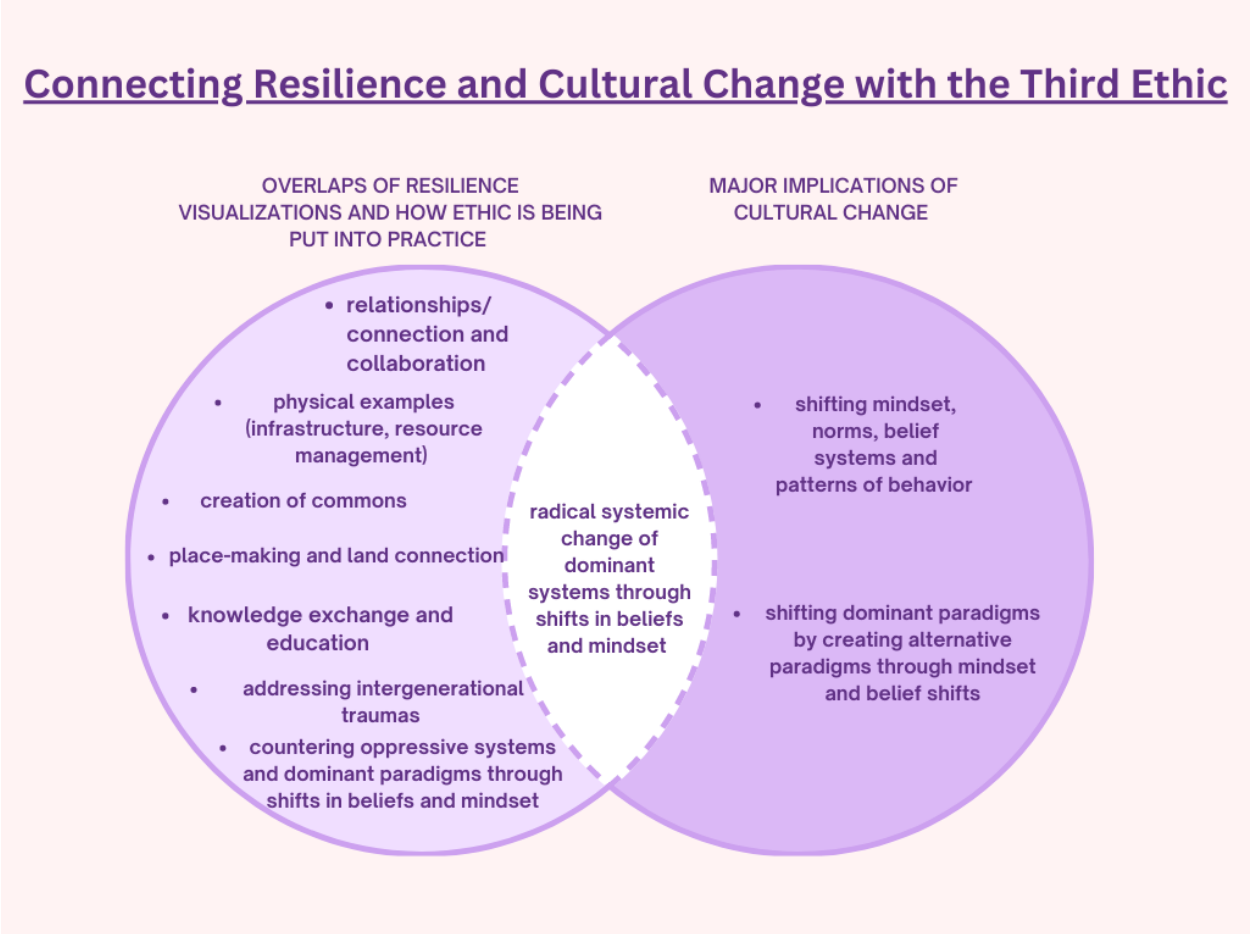

Figure 2. Connecting the overlaps of varying visualizations of resilience and how the third ethic is being utilized (as listed in section 6.1c) with necessary elements of cultural change.

In the next section, I will expand on this overlap as displayed in Figure (2), discussing how practitioners may see permaculture and the third ethic as a tool to counter dominant paradigms, and thereby demonstrate varying implications of cultural change and resilience.

6.2 Cultural Change: Shifting Dominant Paradigms

Practitioners reported that there are many forces resisting not only social and culture change, but the radical principles present in permaculture and the third ethic. Abrah, in our one-on-one conversation, listed some of these forces: internal and external conditioning, legislation, policies, belief systems, paradigms, and practices. In our conversation, Jason Gerhardt referenced Donella Meadows' work and her emphasis on the need to shift mindset and paradigms, because that is the most effective way to change systems. Based on resilience literature, transformative resilience may encompass a "radical reconfiguration" of dominating structures and perceptions which may be achieved through these interpretations of the ethic (Henfrey, 2018, "Introduction: Community resilience" section, para. 3). Additionally, according to Macnamara (2020), a transformational shift in mindset, beliefs, and practices is essential to break-down harmful dominating ideologies that act as impediments to the emergence of an alternative culture.

In this research, various ideas emerged on how practicing permaculture ideologies, particularly the third ethic, not only directly counters dominant paradigms but presents an alternative mindset or pathway that indicates the potential for transformational and cultural change. In fact, Andrew Millison expressed that "the third ethic is asking us to enter into a different consciousness," to manifest an alternative reality or culture. Four dominant paradigms that emerged throughout these conversations were: the push for 1) individualism and 2) isolationism, 3) domination over nature, and 4) the damages of capitalism as a push for over-consumption, wealth accumulation, and inequality. In the following sub-sections I will discuss

how applying the third ethic can challenge these prevailing paradigms by promoting a change in perspective and facilitate a transition towards alternative ways of thinking. This shift in perspective and the spreading of alternative beliefs through the ethic has the potential to manifest a cultural change or "cultural evolution" as Boyd and Richerson (1994) describe, which may spread and completely transform society itself (p. 74). If the third ethic can counter dominant paradigms and present alternative ways of thinking, it has the potential to grow and spread to completely transform the current state of Westernized culture and society.

6.2a Countering Dominant Paradigms

Ideas surrounding individualism and isolationism emerged in this study as participants expressed how Western American culture prides itself on creating an individualistic attitude. The city-state, according to Mark, is designed to keep people isolated from one another, and concepts surrounding rugged individualism and isolationism, according to Adam, push people to "look out for their own" selves and families. The third ethic "is an argument against individualism" (Adam) which is demonstrated in various ways by encouraging the building of strong relationships, creating community spaces and commons, and actively working in a mindset of "giving back" to both the earth and people. Houseless villages in Portland where people are living in connection with one another and other examples where practitioners reinvested their time, money, and labor to support parts of the system that need it most (often marginalized communities), counters these ideas of individualism and isolation. The third ethic calls for people to build in relationship with one another to fulfill basic needs and live a life of sharing and abundance.

One of the strongest implications of permaculture ideologies and ethics is that they encourage practitioners to acknowledge the interconnectedness of human and nature. This

directly counters the mechanistic paradigm of human domination and control over nature (Merchant, 2005). The third ethic encourages an element of care, giving back to mother earth, and building strong people-place relationships with the land, which is also strongly reflected throughout indigenous communities. Many practitioners noted that listening to indigenous communities to build deep interconnections with nature is vital for any type of future. Permaculture and the ethics inspired by the teachings of indigenous communities, according to Jason, call for humans to take on the role of "caretakers" or "custodians" of the land, rather than dominators. Moreover, during my discussion with Mark, he mentioned that individuals who embody the third ethic will experience a deep connection to nature, their surroundings, and community, leading them to instinctively prioritize care for both people and the planet.

Capitalism and its many incentives to consume and accumulate wealth and resources, was a common restrictive force discussed throughout the research. Permaculture and the third ethic, based on my findings, discourage both consumption and accumulation of resources. Based on practitioner responses, the third ethic calls for an "ethical obligation" to consider the needs of the entire system by redistributing and redirecting resources (Adam). The topic of wealth accumulation came up several times throughout this research, as it contradicts the major ideologies of permaculture. Many practitioners acknowledged that transitioning from a mindset centered on wealth and resource accumulation to one that values sharing and re-distribution, although difficult to accomplish, would be transformative. Permaculture and the third ethic, according to Roslynn, also counters a capitalistic scarcity mindset, encouraging a culture of sharing and abundance. Asia also noted that "capitalism shifted our relationship with one another," and that it convinces people that money is the only form of valuable capital. Based on the data, the third ethic presents value in alternative forms of capital such as social, cultural,

human, and natural. Therefore, following the ethic and living within a mindset of abundance and relationship naturally provides alternative forms of capital and in so doing manifests a community that can meet everyone's basic needs.

Based on the results of this research, the ethics and ideologies of permaculture direct people into a mindset and set of actions that actively counter oppressive dominating paradigms. Considering this and Boyd and Richerson's (1994) vision of cultural change, there is potential for the current dominating ideologies to recede while the transformational alternative beliefs surrounding the third ethic become more prominent. Permaculture's ideologies and ethics may serve as a guide for practitioners toward the radical transformation necessary for a cultural change. As noted by Asia, without these ethics, permaculture is just a "raggedy set of tools" that can be exploited by capitalists. The ethics are essential because they provide direction and serve as a beacon to shift practitioners' mindset, worldview, and approach, resulting in the creation of an alternative way of thinking and living. Permaculture and the third ethic, by presenting alternative ways of thinking apart from dominating paradigms, offers the potential to further spread these ideas leading to a "global transformation" shifting beliefs, norms, and behaviors and manifesting an emergence of an alternative culture (Macnamara, 2020, p. 5).

6.2b Cultural Change: Shifting Mindset and Beliefs

According to many practitioners in this research, a transformative shift in mindset and beliefs is imperative to shift dominant paradigms and conventional Western ways of thinking. Permaculture, and the varying understandings of the third ethic, offers an opportunity for people to envision transformative alternative systems that counter existing oppressive forces of current society (i.e., individualism, patterns of domination, accumulation, oppression). Learning permaculture ideologies and envisioning new ways to understand and engage with the third ethic

is an opportunity for future changemakers to experience a mindset shift and re-envision their role in making change. Rosylnn reflected, “for that mindset to change” people need to see themselves “as part of the solution.” Providing a sense of personal and collective agency through application is essential to empower individuals and communities towards change. Through its many interpretations and applications, the third ethic offers an increased sense of agency by offering many ways that people can facilitate transformational change in their communities. Exploring varying interpretations and ways that people can get involved in manifesting change through the third ethic will broaden the potential for a necessary transformational cultural shift.

Many practitioners also acknowledged that learning permaculture has personally been a transformative experience. A few practitioners mentioned that learning permaculture brought into focus their own path and role or even offered an “aha!” moment or awakening. Many added that they were already seeking a path of transformative change, and stumbling on permaculture shifted the direction of their work and provided a lens to view the world. Asia expressed that to teach permaculture is to witness a transformation, as people come into class seeing the world one way and leave seeing it another way. She also added that permaculture personally shifted her worldview by offering different “kinds of knowing” that allow her to transition out of the “centrality of Western white imaginations” into alternative spaces of thought. Permaculture ideologies and ethics offer an opportunity to shift how people view themselves in the world, asking them to re-envision themselves from a “parasite on this earth” (Roslynn) to a force of positive and regenerative change. This mindset shift that can occur in learning and practicing permaculture, and the evolution and constant re-imagination of the third ethic, is essential to induce a cultural change. These types of shifts in mindset and beliefs, according to Jason, are

what is necessary to “uplift society” and direct an emergence of a transformative resilient culture.

6.3 Looking to the Future

This research offers an opportunity to broaden the possibilities of social permaculture by examining the diverse methods in which permaculture's third ethic is being conceptualized and implemented by practitioners. Social permaculture offers a roadmap for transforming social systems and striving for social, climate, and environmental justice, as it emulates the interdependent relationships found in nature (McAuliffe, 2020). Practitioners have reported concerns that permaculture, as it has been commercially packaged and sold through the permaculture design curriculum, often gets caught up in land-based techniques and physical applications of the movement. A few participants expressed their pride in the significant growth of social permaculture in the last decade but noted that there is still vast potential for further expansion to create a more resilient, transformative society.

Although Cameron (2020) and McAuliffe (2020) noted that broadening the social justice focus of permaculture is essential for the future of the movement, I found only limited research that connects the third ethic to many visions found in this study, such as reparations and decolonization work, addressing intergenerational traumas, and creating commons. Findings in this research expand on Flores’ (2018) vision of the third ethic as “parity” focusing on social justice initiatives, and the need to address issues such as colonization and inequity throughout communities. Additionally, these findings surrounding the importance of relationships and building commons align with Caraway’s (2019) findings that permaculture ideologies manifest a state of commons thinking. I believe it is essential for the movement to continue to expand these types of justice-focused initiatives by furthering discussions surrounding the ethic, which will

encourage both future research and future conversations amongst permaculture practitioners about social permaculture as a movement focused on justice. For permaculture to remain relevant, the movement must consider how ideologies and applications can be applied to counter oppressive forces that are limiting the potential and health of society. Expanding possibilities and applications of the third ethic, or exploring these "edges," as highlighted by this research, plays a significant role in achieving these goals to re-imagine alternatives and shift people's perspectives.

Considering how the ethic was originally written by Bill Mollison as limits to consumption and population and redistributing back into the ethics of earth care and people care (Mollison, 1988), compared to how practitioners are envisioning this ethic today speaks to the way the movement has evolved over just a few decades' time. Discussions around consumption and redistribution of time, labor, and materials into the other two ethics were not surprising in this research; however, other findings within this research are pushing the boundaries or "edges" of how the ethic can evolve and be applied. For example, conversations about legacy, addressing intergenerational traumas, creating commons, leading with a mindset of care, and the potential of the ethic to guide reparations and transformative justice work offer a broader understanding of how the ethic can be used that is relevant to address many pertinent issues in society. Acknowledging that the third ethic is asking permaculturists to enter a "different consciousness," (Andrew) also opens the potential for the ethic to guide actions that counter many destructive dominant paradigms as discussed above. Broadening the possibilities of the ethic and how it can be applied offers potential to not only inspire future changemakers but to broaden the possibilities of the permaculture movement itself in building an alternative way of existing in the world.

Most permaculture practitioners in this research agreed that shifting people's beliefs and mindset are essential for the necessary cultural change and pathway to build alternatives away from the current destructive system. This "radical reconfiguration," as discussed in resilience theory, that directs away from harmful dominating systems is a necessary path in creating an alternative transformative culture (Henfrey, 2018, "Introduction: Community Resilience, para. 3). Jason Gerhardt, when discussing how cultural change happens, referenced an analogy from his studies in Zen Buddhism that to wear a hole in a rock, water must drip on it constantly. Jason portrayed his work, and that of fellow practitioners and other activists, as "drips" that must be continuous to evoke change. Permaculture and the expanding ideas surrounding the ethic may offer an opportunity to create an emergent culture that can help shift the "the social institutions that we've inherited that need to adapt and change" (Rhonda). Culture, according to Scott, has been "given to us from the top down," and permaculture and the third ethic is "where we [can] create culture" from the ground up by fostering relationships and a community rooted in place. This thinking aligns closely with Looby Macmamara's (2020) thoughts on cultural emergence, as alternative ways of thinking, connecting, and action will emerge to address systemic issues and bring about a culture with greater resilience to face the future (p. 7). Through this cultural emergence, there will eventually, out of necessity, be a societal shift in ideals that according to Rhonda will "rise up to meet a transformed society" and mitigate some of society's biggest challenges.

Based on my findings, permaculture is not an "end all be all" answer, rather it is one transitional set of tools among many existing tools to aid a transformation into an alternative state of being and existing in the world. In the focus group, practitioners agreed that permaculture should be considered an "on ramp" towards transition, leading society into a new

culture of harmony and greater integrity with other humans and species. In agreement with other practitioners, Adam Brock noted that he sees permaculture as a "death doula" that is shepherding the "death" of the current culture and composting it into what may be next for society. Through this transition or "death," the major ideologies baked into permaculture will become engrained within society in a new emergent culture, while the frameworks and tools used to aid this transition, unneeded, will compost and degrade. Relating this idea to his own work, Mark agreed that the goal is to become "obsolete" as the effort and frameworks used are absorbed into the culture as a newly adopted set of patterns and behaviors.

As perceptions and interpretations of the ethic evolve, the potential to expand the social implications of permaculture has also expanded. Based on this research, there is a constant cycle of meaning and interpretation surrounding the third ethic, and this cycling plays an important role in the evolution and resilience cycle learning process that permaculture faces. The third ethic itself is undergoing a transformation, shifting beyond its original interpretation outlined in Bill Mollison's 1988 *Permaculture a Designer's Manual* and becoming more expansive and relevant, as new understandings arise to meet the needs of society in the present moment. As these ideas and expanded visualizations of the ethic grow, learn, and improve, they play an important role in the transition and re-imagination of what is needed to manifest a cultural shift to a more resilient society. By questioning, cycling, and evolving these ideologies and promoting them on a wider scale, it is possible to create a path towards an alternative culture in which permaculture is no longer necessary. The evolving ethics and principles of permaculture offer a valuable framework for a transitional adaptation process that has the potential to lead to a radical change in the current culture. Once this cultural shift has taken place, the tools and pathways that aided this change will become integrated into the new cultural fabric.

If the aim is for the framework and ideologies of permaculture to compost into an alternative culture, what then does this mean for the varying understandings of the ethic? Based on this research, practitioners understand the significance of continually cycling and pushing the boundaries of what permaculture ideologies can offer as a means of learning and adapting to an evolving society. Broadening the varying interpretations of the ethic offers new possibility to re-imagine the ethic itself and broaden the potential applications of social permaculture in this transitional phase. This then brings me back to: does defining it matter? Or is it more about the process, approach, and context as to which the ethic is being applied? As change is inevitable, so too is the adaptation and shifting of ideologies that will guide society into a transformational alternative culture. Therefore, perhaps dissecting the ethic's terminology and its many applications is relevant in this time of transition, but eventually the terminology and words that were once used will become meaningless in a new alternative society, as these ideas will also become embedded in the existing culture. For now, in this moment of transition, it is timely to constantly ponder and re-work visualizations of this ethic to enact transformative change and broaden the possibilities of permaculture.

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Appendix

A. Interview Question Guide

1. Tell me about your experience and background in permaculture?

2. What first drew you to permaculture? Has permaculture impacted the direction of your life? How? Do you feel like learning permaculture has shifted your way of thinking?

3. Tell me about your current work/ current involvement in permaculture right now? Are you engaged in permaculture in your home community? How so?
   Are you engaged in the greater permaculture community? How so?
   (if unclear how they define community - ask what they mean by "community"

4. What do you believe is the role of permaculture in fostering stronger, more resilient communities?

5. What comes to mind when you think of the "third ethic of permaculture"?
   Can you elaborate/ tell me a bit more about why?

6. Do you feel that the third ethic manifests in your work? How so? Can you give me specific examples?

7. What challenges and opportunities do you see for permaculturists to grow and/or expand their working definitions and application of the third ethic?

8. Describe your vision of a thriving resilient and regenerative community. What elements do you feel are essential?
   Do you feel your work (is or has) contributes(ed) to this vision? If yes, how?

9. What gives you the most hope or inspires you right now in the permaculture field? Where do you see the most opportunity for growth?
   What do you see as the future of permaculture?

10. Is there anything else you may want to share? Or do you have any questions for me?

B. Tally of how people in the interviews referred to the third ethic
Note: some practitioners referred to it in multiple ways

Consumption: 2
Equity: 3
Fair share: 3 people like "fair share" (a few others disliked it)
Future care: 1
Connection/ relationship based: 2
Redistribution to other two ethics: 3
Resource share: 1

Re-distribute the surplus: 3

C. Focus Group Question Guide

Interpretations of the ethic

1. Abrah, in our conversation you talked about the current reality of the ethic versus the potential of it –and you stated that you felt that the third ethic wasn't being fulfilled to its greatest potential. I am curious if you could expand on this a bit – looking at the reality of how it is being practiced and the larger potential of the 3rd ethic?

2. Rhonda you were the only person that I talked with who visualized permaculture primarily through the lens of "future-care". Rhonda would you be willing to start us off to discuss the third ethic in the sense of "future-care" and where your thoughts are on this? I am curious where do we all feel this legacy piece fits in to the third ethic?

3. Adam, you commented that the 'open to interpretation' nature of the 3rd ethic is intentional and Jason, you said that 'the third ethic is a mess because there are too many interpretations 'So I am curious what everyone's thoughts are regarding this – do we see these varying interpretations as an opportunity or a hinderance to the movement or applications of the third ethic?

Future of Permaculture

4. In the interviews there was a differing of opinions on the future of permaculture. A few of you noted that you were worried about permaculture "niching out/ being co-opted by other movements" because it moved away from the true framework or ideologies of permaculture. Others said that they are completely fine with it niching out and co-evolving into something else or if permaculture as a movement "died". What are everyone's thoughts on this?

Miscellaneous

5. Is there anything else anyone would like to discuss?