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RESTORATION AS CARING PRACTICE: A RELATIONAL PERSPECTIVE ON ECOLOGICAL RECOVERY

By

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Thesis

presented in partial fulfillment of the requirements  
for the degree of

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in Philosophy

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## ABSTRACT

*Daniel Congdon, M.A. Summer 2014*

*Philosophy*

Restoration as Caring Practice: A Relational Perspective on Ecological Recovery

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Ecological restoration is defined by the Society for Ecological Restoration (SER) as “the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed” (9). In practice, restoration typically involves the removal of pollution, human-made structures (like dams or roads), invasive species, and other impediments to ecological health. Removing the sources of ecological impairment is coupled with the reintroduction of flora, fauna, and the physical structures that are necessary for healthy ecosystem function.

The potential for restoration to dominate nature is a concern of environmental ethicists. In theory, domination might stem from the technology used in restoration or the presence and expression of human intentions and ideals. But are such concerns apparent in restored sites? Theoretical concerns about domination of nature and other issues in restoration must be grounded in the realities of ecological restoration as it is practiced. Connecting theory to practice allows us to better understand how the concerns of the philosopher can be perceived and addressed by the practitioners of restoration.

I argue that the ethics of care, and my care perspective that I develop, provide unique insights into the issue of domination in restoration. I apply the relational context and alternative perspectives on autonomy, the self, and universal versus contextual moral principles that care brings to the issues in restoration. In doing so, I argue that my care perspective gives a better account of ecosystem autonomy (as it relates to domination), questions the ecosystems as moral entities with a unified set of interests, and a way to understand partiality or favoritism as a morally acceptable way to make difficult decisions in restoration.

## *Table of Contents*

Introduction .....	4
1. Restoration Philosophy: Review of the Debate and Issues .....	8
2. Clark Fork Restoration: Grounding Theory in Practice .....	30
3. Care Ethics: Caring for ecosystems through restoration .....	44
Conclusion.....	74
Works Cited.....	76

## Restoration as Caring Practice: A Relational Perspective on Ecological Recovery<sup>1</sup>

### *Introduction*

Ecological restoration is defined by the Society for Ecological Restoration (SER) as “the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed” (Clewell and Aronson, 3). In practice, restoration typically involves the removal of pollution, human-made structures (like dams or roads), invasive species, and other impediments to ecological health. Removing the sources of ecological impairment is coupled with the reintroduction of flora, fauna, and the physical structures that are necessary for healthy ecosystem function. For example, the restoration of the Clark Fork River in western Montana, so far, has involved removing sediment from the floodplain of the river that had been polluted by mine tailings, removing a hydroelectric dam, reconstructing the river bank, and replanting the banks and floodplain. This work, although not without its own controversies and shortcomings, has decreased water pollution (*The Clark Fork Coalition: Quality of Groundwater*) and allowed for trout to repopulate once fishless stretches of the river and its tributaries (*The Clark Fork Coalition: Healing Streams*).

Restoration is guided by an understanding of what is in the interest of ecosystems and their members, including and often prioritizing the human members. The difficulty of accurately and equitably representing a variety of often competing interests is one way that restoration generates complex ethical questions. How these questions are answered and how different sets of values are expressed through the design and implementation of a restoration project are important challenges for restorationists. The lives of all types of organisms and the livelihoods of people can hinge on how a

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<sup>1</sup> I want to acknowledge the Philosophy Department at the University of Montana for creating an excellent program for environmental philosophy that promotes theoretical work alongside hands-on experiences. Special thanks to my advisor and chair Deborah Slicer for her encouragement and high standards throughout this thesis process. Thank you to Albert Borgmann, Christopher Preston, and Daniel Spencer for their challenging and engaging classes and their feedback on this thesis. To my fellow students I thank you for the conversations that helped me to articulate and refine my thoughts here in this thesis.

restoration project is implemented. For restoration to avoid misuse and fulfill a positive role in the human-nature relationship, it is important to choose an appropriate ethical theory to frame questions and guide practices. This is where philosophy can contribute to the improvement of restoration.

In the field of environmental philosophy, the first responses to the theory and practice of ecological restoration were intensely critical. Robert Elliot argued that environmentalists should fight against restoration because of its potential to be misused by large companies and government organizations. Eric Katz, another early opponent to restoration, doubted that restoration could produce anything of natural value and claimed that restoration could only result in the production of a human-centered artifact. More recently, some philosophy of restoration has developed towards a positive and pragmatic approach. For Eric Higgs and William Jordan, the hope that restoration embodies is twofold. First, it is a practice that can address the widespread ecological impairment that has been left in the wake of industrial development, and second, it can serve as a new cultural tradition and means to repair the human-nature relationship. There are both cultural and ecological damages that restoration can address. However, to some extent, all of these authors recognize that there are risks associated with even the best forms of restoration.

Regarding the commonly recognized risks and challenges, some of the open questions in the philosophy of restoration are: 1) how can restoration avoid the pitfalls of domination (of both people and nature)? 2) How should distinct human and ecological values be balanced and represented in restoration? And, 3) can restoration be the basis for a new paradigm of environmentalism?

In this thesis I will argue that a care perspective<sup>2</sup> provides a favorable ethical framework for assessing the ethical issues in restoration. Eric Higgs, William Jordan, and Colette Palamar make arguments which are suggestive of a care perspective, but it is worthwhile to make the connection

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<sup>2</sup> The care ethics perspective will be discussed in length in chapter three. I draw from both care ethics and also care-sensitive ethics to form what I call my care perspective in this thesis.

between care and restoration explicit. Beyond clarifying this connection, I also employ a care perspective to assess and respond to three perspectives of domination within restoration literature.

My thesis will consist of three chapters. The first two chapters set the stage for the third chapter, which is where I see the bulk of my contribution to restoration philosophy. Chapter one will dig into some of the well-known essays on the topic of restoration and some less-cited, but nonetheless important, recent contributions. My literature review will make clear the lines of argumentation, the angle or approach, authors have used to critique and support the ethical status of ecological restoration. From this review I will pick out some questions that remain to be answered or that would benefit from further clarification. In chapter two I will show that these issues in the philosophical debate over restoration are instantiated in actual restoration projects. The questions that practitioners of restoration face on the ground do in fact link up with the conceptual issues that philosophers discuss. In the third and final chapter I will respond to the questions that I picked out in the first chapter and connected with grounded examples in the second. The third chapter will be based on my understanding of the feminist ethical theory, care ethics. This branch of ethical theory has been largely absent from the literature on restoration and is a favorable theory for addressing the ethical issues in restoration.

From my care perspective I focus on three different aspects of domination in restoration. Responding to Eric Katz's criticisms of domination in restoration, I look at the view of autonomy he assumes and assigns to ecosystems. In response I suggest that the alternative understanding of autonomy from care ethics shows why restoration is not necessarily a dominating practice. Second I consider Eric Higgs' notion of wild design, a condition of restoration that encourages us to find a balance between human and ecosystem interests. While I find wild design to be a concept that matches up well with a care perspective, I argue that Eric Higgs and others ought to consider the depth and complexity of what ecosystems and their interests amount to. I argue that responsibilities of care, as they pertain to particular needs of individuals and the goal of creating caring communities, shows that we can't care for

ecosystems as individuals. Lastly, I respond to Colette Palamar who adapts Karen Warren's ecofeminist perspective to ecological restoration. She concludes that in order to avoid domination the goal of restoration should be to increase the possibilities, i.e. the self-directedness, of ecosystems. My response is that this requires an unneeded degree of impartiality and I explain how care ethics, in some circumstances, shows that partiality towards those that we are in relationships with is favorable over impartial moral principles.



## *1. Restoration Philosophy: Review of the Debate and Issues*

In this chapter I review some of the hallmark works in the philosophy of ecological restoration, as well as some more recent works, that together represent a development of thought about restoration. The purpose of this chapter is to distill some of the risks, challenges, and benefits of restoration that emanate from the literature. Which critiques reference qualities essential to restoration? Which are concerns about patterns of human mistreatment of nature more generally? What are the limits and appropriate goals of restoration? In chapter two I show how these moral aspects of restoration are instantiated in practice. In chapter three, I provide an analysis of these same issues from a care perspective.

One can hardly read an article about the philosophy of restoration that doesn't reference the early work by Robert Elliot and Eric Katz. These two opponents of restoration were some of the first to speak up against the practice, Elliot's first article being published in 1982. While Elliot has since softened his critique, Katz remains adamantly opposed to restoration. A great number of authors writing today still refer to their early work, and for good reason. The pessimism and mistrust that they express about the inevitability of resource extraction industries and environmental policymakers to use restoration deceptively remains a concern. But the optimists of restoration have a compelling case as well. Eric Higgs and William Jordan express a contagious excitement about the prospect of restoring not only the damaged natural world, but also our relationship with it.

Philosophers who are skeptical of restoration worry that efforts to recover a damaged ecosystem will be used as an excuse to further unwarranted anthropocentric interests. This is a concern for Robert Elliot, who was one of the first critics of restoration. In "Faking Nature" Elliot seeks to refute the "restoration thesis," (142) as he calls it. This is the claim that "the destruction of what has value is compensated for by the later creation (recreation) of something of equal value" (142). He goes on to claim that "restoration policies do not always fully restore value because part of the reason that we

value bits of the environment is because they are natural to a high degree” (144). A reasonable follow up to this claim would be to ask what makes something more or less “natural.” His response is that natural entities, like ecosystems, derive at least some of their value from having a particular history, in this case, a natural history. By this account, an ecosystem is natural to the extent that its causal history is free from human intervention. As Elliot puts it, “the environmentalist’s complaint concerning restoration proposals is that nature is not replaceable without depreciation in one aspect of its value which has to do with its genesis, its history” (146).

Elliot then makes an analogy between art forgery and restoration to show that one of the reasons that we value an original work of art is because it has a particular “causal genesis,” or history. In the case of art, we value not just the finished work, but its connection to a particular painter, a time, place, and other details attached to it. Like art, ecosystems are also valued in part because their current state can be attributed to natural processes, in other words, processes free of human intervention. According to this line of thinking, restoration is thus a fake or forgery because it relies on human means, not natural forces which created it initially, to re-create an ecosystem. Causal genesis simply cannot be replaced; it is lost when the original is destroyed. Because the causal genesis, or history, of an ecosystem cannot be recovered, the full value of the ecosystem cannot be recovered either. Therefore, restoration, as defined by Elliot’s restoration thesis, can’t do what it claims it can, namely, fully restoring natural value of ecosystems. Restoration is deceptive in Elliot’s view because it tries to pass off a forgery of nature as if it were the real thing.

From the conclusion that restoration can’t do what it claims, Elliot then moves to say that we ought to reject restoration in favor of conservation.<sup>3</sup> In his view, it is only through conservation, that is,

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<sup>3</sup> Although Elliot uses the term conservation, his idea of restricting human intervention in nature reflects what is often referred to as preservation, as in wilderness preservation. The preservationist mode of land management is marked by a “leave no trace” and “take only pictures, leave only footprints” philosophy that encourages hands-off means of keeping areas in an untrammelled condition.

a hands-off mode of management, that natural value can be saved. To save nature, we must protect it from human manipulation. Alternatively, if we embrace restoration, we will thereby undermine conservation efforts. Managing with restoration instead of conservation will lead to a greater loss of natural value because of restoration's false pretense that any ecologically destructive act can be wholly remedied. Elliot concludes by saying that his argument provides empirical grounds to reject the "restoration thesis" and that this strategy should be employed by environmentalists in order to defeat restoration. However, it is important to recognize that Elliot's argument does not provide grounds to reject restoration wholesale.

Elliot's critique of restoration only holds true if restorationists adhere to the restoration thesis. If restorationists do not claim that they can restore the full value of a degraded ecosystem, in other words, if they accept that restoration is not an attempt to precisely replicate what was destroyed, then it seems Elliot's charge does not apply. Restorationists could simply state that they are trying to *improve* an ecosystem that has been damaged without claiming that their work will come anywhere near a perfect re-creation. Those promoting and practicing restoration could (and often do) agree with Elliot that their end product will be of less (natural) value than the original. It certainly would have been better if the ecosystem had never been damaged in the first place. However, restorationists are still adding some value back to the system by restoring it.

Furthermore, Elliot's critique seems to only apply to a very narrow context in which restoration would be considered. The situation he considers is one where there is a piece of land that has not already been degraded and future management could go one of two ways. The land could be conserved, or it could be developed under the pretense that any degradation will be reversed by restoration after the fact. It is important to note that this situation, one where restoration is a pre-condition for development, while hypothetically possible, is not the standard context for restoration. In most cases, and in the case of the Clark Fork River restoration, an example to be explored in greater

detail in the next chapter, degradation occurred long before restoration was a common practice. In this sort of scenario, what I claim is the standard scenario for restoration, an ecosystem is impaired, often because of extensive pollution or as a result of development, and restoration is a reasonable (and perhaps the only) way to improve the situation. Restoration is often prompted by the observation of ecological disrepair, as is the case with numerous superfund sites around the country. Thus, restoration in these common contexts is the only course of action that can address an already existing ecological mess. Conservation of a polluted, ecologically impoverished, landscape is not a reasonable or beneficial response in these situations. Conservation would maintain a polluted stream in its polluted state. Or, more likely, a polluted stream would never be seen as a candidate for conservation or preservation because of its less than pristine state. However, it *would* be the most obvious candidate for restoration.

What we can take away from Elliot's analysis is an awareness, or humbled perspective, that the use of restoration is like surgery. While preventative medicine, like conservation, is favorable when it is a viable option, the extent of ecological damage requires that more invasive procedures be used to repair an ecosystem to the highest degree we can. And of course, the highest degree we can return a damaged ecosystem to will never be identical to some real or imagined pristine state. As Andrew Light points out in "Ecological Restoration and the Culture of Nature," we can think of restoration as divided into two forms, benevolent and malicious, and Elliot's argument as thoroughly condemning any restoration that is a means of malicious deception (54). According to Light's distinction, it should be clear that any restoration that is performed in order to disguise destruction of nature ought to be rejected. But for restoration that falls outside this particular malicious form, there is still much to be said about what good restoration is and the more subtle risks that remain.

Eric Katz, another skeptic of restoration, considers Elliot's first essay as a commendable starting point for a deeper critique of restoration. In his essay, "The Big Lie," Katz agrees with Elliot's basic conclusion that a restored ecosystem or landscape is less valuable than the pre-degraded system that

came before it. However, Katz is critical of Elliot's comparison of art to nature, pointing out that paradigmatic art is taken to be a finished, static work, whereas nature is fluid, dynamic, and continuously evolving (237). Katz makes three claims about restoration relating to: 1) human artifacts, 2) a technological worldview, and 3) humanity's domination of nature.

His first claim is that restoration can only produce something artificial. Katz sees the end result of restoration as being an artifact of human interests rather than a natural entity. He states, "A 'restored' nature is an artifact created to meet human satisfactions and interests" (232). An artifact is something that is designed to have a particular structure, function, and use. Something that is the product of intention is an artifact. Therefore, the human intentionality involved in restoration (the planning, designing, and implementation all requiring intention) makes the resulting ecosystem or landscape an artifact. What, we might ask, is the real harm in creating an artifact through restoration?

As an artifact, a restored ecosystem is not truly a piece of nature, but rather a uniquely human manifestation. A view underlying Katz's first claim is that nature and humanity are separate. Emphasizing this distinction, he says that, "the processes of the natural world that are free of human interference are the most natural" (238). As humans intervene on and change natural entities, the degree to which they are natural decreases and artificiality increases. On its own, the statement that humanity and nature are mutually exclusive seems to be a descriptive one. This becomes a moral claim when we consider Katz's implication. I understand him to be moving from the descriptive claim that not only are humanity and nature exclusive of one another to the moral claim that we ought to stay out of nature to the extent that we can. According to Katz, we have a moral responsibility to not intervene in nature so as to not turn things with natural value into artifacts.

If restoration claims that it can, and that we ought to, repair natural entities, then it would seem to imply that whatever work is done must not erase the naturalness of the thing. By showing that restoration claims to create something natural, but that it in fact creates something artificial, Katz takes

himself to have shown that restoration constitutes a sort of deception. This deception, as Elliot pointed out as well, is carried out unnoticed through technological means that are widely, but disastrously, accepted as the best way to solve environmental problems.

Katz's second claim is that ecological restoration, and the wide acceptance that it has gained, is the result of a pervasive technological worldview. "On a simple level, [restoration] is the same kind of 'technological fix' that has engendered the environmental crisis. Human science and technology will fix, repair, and improve natural processes" (232). And, connecting technology to the artifacts, "I want to focus on the creation of artifacts, for that is what technology does" (234). His argument implies that what separates humanity from nature, specifically, is our technology.

For Katz, technology is the ultimate expression of the human intention to shape everything around us to our liking. Along this same line, he sees technology as essentially anthropocentric, and thus every artifact that we create with it comes from this unacceptably self-absorbed motivation. On the other hand, non-human, non-technological processes in the world create nature. Natural entities, he claims, have no design or intended use because they are not the product of an intentional creator. But when we alter nature, we infuse it with our intention and design.

In many ways we can see Katz's critique of restoration as a broader critique of society's faith in technology and its failure to value nature on its own terms. As Katz emphatically states, "I am outraged by the idea that a technologically created 'nature' will be passed off as reality" (234). But why exactly is technology, and the resulting artificiality it creates, a problem beyond the initial accusation of deception? If we acknowledge that there is a part of us, something of humanity, in the product of restoration, then this does not appear to be deceptive. As SER's definition of restoration states, we are "assisting in the recovery" of an ecosystem, not creating a new one to replace an old broken one.

Beyond his "visceral" response that restoration is deceptive, he explains that as a technological means, restoration expresses an unwarranted anthropocentrism. Because we view the world through a

technological lens, we see things mechanistically. When we view nature in this way, he argues, we see nature as another machine which we will design and rebuild until it fits our liking. Designing and building ecosystems to create a comfortable habitat for ourselves precludes the possibility of respecting and truly giving back to nature what we previously took away from it. Katz sees restoration as just one more way that the “unrecognized manifestation of the insidious dream of the human domination of nature” will be carried out, “cloaked in an environmental consciousness” (232). And it is the pervasive technological perspective and means that enable us to do so.

We now arrive at Katz’s third claim: the most fundamental wrong of restoration is its manifestation of the human domination of nature. “The fundamental error is thus domination, the denial of freedom and autonomy” (240). With further detail, he adds that “once we dominate nature, once we restore and redesign nature for our own purposes, then we have destroyed nature – we have created an artificial reality, in a sense, a false reality, which merely provides us the pleasant illusory appearance of the natural environment” (240). By expressing only human interests through the artifact-creating technology of restoration, we undermine nature’s self-determination. This denial of autonomy constitutes domination. But what if we design restoration in a way that attempts to promote the self-determination of nature and not our own purposes? Just as I can design and create a meal that will be to the liking of my friends, and not merely my own satisfaction, couldn’t we also restore with the interests of another in mind? Couldn’t we restore nature for nature’s sake?

While these three claims, constituting the core of his argument, do state risks of restoration, they seem overdone. What I mean is that if we take his argument seriously, it will not just lead to an indictment of restoration, but of all the practices that involve technologically mediated interactions between people and the natural world. If this argument is correct, it does not seem possible for humans to exist without dominating nature. But, before considering any further response to Katz, I want to highlight his closing statements which seem to suddenly soften his harsher conclusion.

The point of my argument here is that we must not misunderstand what we humans are doing when we attempt to restore or repair natural areas. We are not restoring nature; we are not making it whole and healthy again. Nature restoration is a compromise; it should not be a basic policy goal. It is a policy that makes the best of a bad situation; it cleans up our mess. We are putting a piece of furniture over the stain in the carpet, for it provides a better appearance. As a matter of policy, however, it would be much more significant to prevent the causes of the stain (240).

It is unacceptable to conclude that human interaction with nature is necessarily dominating, and that is what Katz's argument entails. Although he never directly states that humanity, and our current technology, is unavoidably dominative, his argument fails to show how his concerns are unique to restoration. For Katz, restoration is a form of domination because it promotes only human goals and intentions through technological means and thereby excludes the possibility of nature expressing its autonomy. His critique could easily be directed toward a number of other practices like agriculture, building shelter, and any other human activity where we technologically modify our environment to meet our interests. He places this argument in the context of restoration, and wants to restrict it to this practice, but the conclusion is far-reaching. If his argument correctly points out that restoration is a form of domination, then the argument also correctly identifies this same error in many other human practices. Further, if we conclude on the basis of this argument that we ought not to participate in restoration, then it seems that we ought not to participate in any of those other activities which constitute domination of nature for the same reason. In Katz's defense, it is true that restoration is one practice that claims to actively do something good on behalf of nature. Thus, it may be worse for restoration to be dominating than something like agriculture or industrial development because these are admittedly done for our own sake, not nature's. But as I mentioned before, if domination in restoration is contingent on it also being deceptive, and if deception can be avoided by acknowledging the mark of our own hand in the work of restoration, then it seems his accusation of domination falls short.



So, it makes sense that his closing statements of the essay would take on a milder tone. But even here his statement of the fundamental problem with restoration seems inadequate. I agree, and I think many restorationists would concur, that restoration certainly does make the best of a bad situation. And yes, it does in fact clean up messes that we have made of ecological systems. However, the cleaning up that restoration attempts, and often succeeds at, is not simply an aesthetic one as Katz's metaphor of putting furniture over a carpet stain implies. Removing pollution from the sediment of a river and its floodplain doesn't just make it *look* better; it makes it better, healthier, and more functional for all the aquatic and terrestrial life that consume its water or pull nutrients up out of the soil and into their roots. To imply otherwise is a weak attempt to hold onto a position that refuses to acknowledge any positive potential for restoration. What would strengthen Katz's argument is a statement of the features unique to restoration that make it likely, or at least plausibly, a form of domination.

The fact is that restoration can, and does, go beyond an aesthetic cleanup of our unsavory ecological messes. Along with the successes of restoration, there is also a history of failures. But when done well, restoration has brought back ecological function to places stunted by gross impairment caused by extraction, development, and pollution. However, what we can take away from Katz, a point that will be made clear by Colette Palamar, is that restoration can become a form of domination if appropriate goals and limits are not set.

Katz does not suggest how we can avoid domination, other than the suggestion that we should feel guilt rather than optimism about having to restore nature. More practical guidance is needed and feasible alternatives formulated to address the real concern of unchecked domination.

In the end Katz is certainly pointing to a relevant concern, but we need to know more about why and how restoration is a form of domination. Furthermore, we need to investigate the role that technology, and a technological worldview, play in accepting the domination of nature. There is also the deeper question here for environmental ethics of how any human action can avoid being an act of

domination. Obviously, if every interaction we have with nature can somehow be construed as domination, then the category of domination is no longer a useful or insightful one. We should be wary of claims that say we are providing a net benefit for the environment through restoration, or thinking of it as a generous gift. At the same time we must be able to carve out a role for humanity in nature which is not necessarily harmful. The question relevant here is whether or not restoration can be that practice.

For Katz and for Colette Palamar, as we will see in the next section, the most important concern associated with restoration is human domination of nature. However, Katz only succeeds in showing that the perspective and values of humanity will be present in restoration. The expression of human intention and values in the design of restoration is supposed to inevitably remove the possibility for autonomy and self-determination of nature, thus constituting domination. While this statement may be true to some extent, it is too vague to suggest how such domination actually happens and how it can be avoided. So, it seems a much more specific account of exactly how restoration becomes an instance of domination is required.

In "*Restorashyn: Ecofeminist Restoration*," Palamar provides a critique of, and recommendations for improving, restoration. Her critique is centered on the different ways that restoration perpetuates a pattern of human domination of nature. The definition of domination that she cites is "the exhibition of or tendency toward *excessive* control or command over others" (287, footnote 11). Comparing this definition with Katz's critique, we need to know what counts as excessive control and what sorts of ways we can interact with nature, particularly through restoration, that exhibit control but not excessively. "The notion of domination is one of the central and least explored philosophical aspects of ecological restoration. Domination typically passes unnoticed because the *end* of the restored ecosystem is simply assumed to justify the *means* of restoration" (287). This statement shows that an assessment of restoration must look at both the process (the means) and the product (the

end) of restoration. Eric Higgs addresses the difference between process and product based perspectives of restoration and will be discussed in more depth in the next section. The authors considered so far have mostly focused on how the goals and end result of restoration are morally questionable. Palamar states that the methods of restoration, which typically involve killing off various unwanted species or forcing the landscape to fit unrealistic historical ideals, constitute domination. Here we see that there are two distinct conceptual ways to understand restoration as domination; one relating to a disconnect between our goals for ecosystems versus their own autonomous path, and two, the means that we employ to bring about our goals. An aspect of her critique that I find admirable is that she does not see perfection as the goal, but rather we should try to “alleviate some of the more overt instances of domination present in ecological restoration” (292). It seems that there might always be a way, as Katz showed, to conceive of human intervention in nature as domination. But, pragmatically, to begin by avoiding the worst instances of domination is a worthy goal.

Early efforts in ecological restoration were often guided by the goal of recreating a particular historical state of an ecosystem. Although this thinking is now being reformulated in light of the uncertainty brought on by climate change and other large-scale environmental degradation, history is still used to guide restoration practices. Reference sites, which are ecosystems similar to the one being restored but that haven't been damaged, are used as a blueprint for restoration. What the unrestored ecosystem lacks, restorationists will attempt to replace. Based on this standard that Palamar describes for setting restoration goals, she points out that implementing narrowly conceived ideals often requires “exclusionary activities [that] echo patterns of domination and degradation that led to a need for restoration in the first place” (285). According to Palamar, the guiding ideals of restoration often exclude elements of the past that we overlook or do not value. Further, in the pursuit of re-creating an ecosystem to fit nostalgic desires, species currently living in an area are eradicated in favor of those that

we wish to replace them with. Activities like removing nonnative species only because they are nonnative constitute domination of nature from Palamar's ecofeminist point of view.<sup>4</sup>

Such domination, according to Karen Warren's ecofeminist philosophy, is the result of dualistic thinking. In "The Power and Promise of Ecological Feminism" Warren shows how dualistic thinking justifies a "logic of domination" (128). For example, viewing the world dualistically, where humans and nature are separate, leads to the hierarchical thinking that humans are morally above nature. On the basis of human superiority over nature, the logic that we can shape nature to our liking is justified. Warren's ecofeminist theory responds to this concern of domination by laying out eight boundary conditions<sup>5</sup> that are intended to make us both aware of dualistic, hierarchical thinking that has been used to justify domination and to provide guidance for acting in a way that is not dominant. Following Warren's response to the logic of domination, Palamar describes how applying four of Warren's boundary conditions to restoration will prevent restoration from being "restorative domination." The conditions that Palamar selects are: inclusivism, pluralism, questioning objectivity, and theory in process. Palamar describes how these four boundary conditions can be applied to restoration, and thus help practices avoid restorative domination. She also speaks to the dualistic thinking specific to restoration, primarily the dichotomy between restored and degraded.

In order to explain how each condition could be incorporated into restoration, Palamar focuses on the example of how restoration projects view issues related to species composition. Species composition is not the only or the most important issue in restoration, but it is a straightforward

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<sup>4</sup> While Palamar's critique of restoration's goals informed by history may have once been an accurate critique, restoration has largely moved away from this mode of management. Now, adaptive management practices much less tied to species lists and static points in history guide a great deal of restoration activities. Ecological integrity and resilience are two of the preferred goals that now guide restoration. My account here is limited to Palamar's understanding of restoration and not my own.

<sup>5</sup> Warren explains her eight boundary conditions in both her article, "The Power and Promise of Ecological Feminism" and her book, *Ecofeminist Philosophy*.

example. There are many more aspects of restoration that these conditions are applicable to, including ways they would serve other ecological and cultural goals.

It will be helpful to briefly go over how the four boundary conditions that Palamar picks out are applied to issues of species composition in restoration. Inclusivism means including as many viewpoints in a decision as possible. In the context of restoration, one way inclusivity could play out is by including as many species as possible in a project. This would not just mean bringing other species into an area from which they had been extirpated, but also allowing species, like non-native, non-invasive species, to remain at a restoration site.

Pluralism serves as a check on inclusivism to ensure that no single species (or species interests), among the variety included, become dominant. In theory, it would be possible that many species be included in a project, or allowed to stay, but that the project still was designed around a single species. For example, a stream could be restored in a way that was inclusive of all fish species but still greatly favored an iconic native trout. Pluralism would encourage restorationists to give a voice, metaphorically speaking, to the generally underrepresented species that inhabited the stream as well. Just because the condition of inclusivism is met, including as many species as possible in the project does not guarantee that each will be given the same priority or representation. Think of creating an ideal society where no minority groups are excluded. This would meet the condition of inclusivism. But more than being included, minority groups ought to have fair representation as well. This is how I interpret Palamar's application of pluralism to restoration.

The need for a balance in inclusivism and pluralism can be seen in the single species approach of endangered species conservation. Very often the cute and fuzzy creatures take main stage because of our fondness for them. But perpetuating this sort of view of nature seems to come too close to Katz's concern that we merely see nature for what we want from it. Perhaps by representing the less desired

but ecologically significant species in a restoration project we can counteract an excessively anthropocentric view of nature.

Questioning objectivity pushes back against the supremacy of the scientific and historical grounding of restoration. From a rationalist perspective it is assumed that science and history represent the most comprehensive account of the facts. An ecofeminist perspective, and other perspectives, point out that science can be biased and that supposedly objective fields can present quite selective accounts. There is no doubt that a scientific understanding of ecosystems is needed to perform good restoration, and that history can inform our understanding of how ecosystems change over time. But an ecofeminist perspective is one way to understand that we cannot rely on science and history to make all of the decisions that restoration requires. Acknowledging this helps to accept that our ecological understanding is based on many assumptions, some of which may need to be rejected. For example, there is not a single view of ecosystems which is best for all ecological studies, different perspectives are needed depending on the questions being asked.<sup>6</sup> This condition should not be taken to promote a purely subjective basis for restoration. Rather, an intersubjective account, based on the diverse viewpoints considered, helps to identify the values, perspectives, and limitations that are derived from the particularities of each restoration project.

Theory in process encourages humility in restoration because our practices should reflect our incomplete, ever-changing knowledge of nature. This condition is simply the acceptance that theories and understanding that we act on today, might tomorrow change. And when this happens, we will accept this and not stubbornly hang onto the way things have been done before. Examples from restoration, especially the list of failed projects, serve as a reminder that although this practice may be

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<sup>6</sup> See Warren's discussion of hierarchy theory in ecology, chapter seven of *Ecofeminist Philosophy*. This subject is also discussed in greater detail in chapter three of this thesis.

informed by science, it is not infallible, and it will inevitably need to be continually updated. Embracing new information as it comes along more readily will speed the improvement of the practice.

It might sound strange on first glance to think that it is problematic to think of a restored ecosystem as superior to a degraded one. The problem, according to Palamar, is not that we make a distinction between the two states, but that this distinction is put into a value hierarchy where degraded systems lack value. We should not want this dualistic view to frame our approach to restoration. If our approach is to transform a system from degraded to restored, the focus is again on the end result and not the process. Instead, Palamar suggests that the motivation for restoration be framed as participating in a process in a way that views nature as an entity that is active. A view where humans are acting *on* the object of nature through restoration should be replaced with the view that restoration is a process of integrating human and natural activities.

In Palamar's view, the main goal of restoration would be to remove obstacles like pollution, erosion, or industrial development, and leave much of the work of restoration up to ecological processes free of purely human goals. "We would no longer see ecological restoration as the restoration of a degraded system but rather as a process by which we set up conditions that open the scope of possibilities for the land" (294). Higgs makes a similar emphasis but also argues that there should be more space for cultural values to be expressed through restoration. Also, Palamar's approach here addresses Katz's concern of domination in which restoration left no room for the self-determination of nature. This suggests a clear way for human participation to coexist with the self-realization of natural entities. Our role in restoration is not recreation, producing a replacement ecosystem, but the alleviation of the obstacles preventing autonomy of nature.

Unlike the early critiques from Elliot and Katz, which cast restoration as an essentially bad practice, Palamar sees a way for restoration as it is currently practiced to be improved. Her inclusive conception of restoration takes up Katz's concern of domination, which cited our failure to grant

autonomy or self-determination to nature due to our overly designed and technologically implemented means. It seems that the intention involved in designing a way to “open the scope of possibility for the land” would hardly result in an artifact, at least not of the sort that is of most concern to Katz. The goal of restoration design being the ability of nature to take its course, whatever that might be, provides a response to Katz’s statement that all design is necessarily aimed at satisfying purely anthropocentric interests and desires.

However, I find it somewhat unsatisfying that any specificity we might want for a restoration, beyond improving the possibility of self-determination for nature, is taken away. Merely removing impediments for natural entities to pursue their teleologically directed ends<sup>7</sup> removes some of the more culturally centered engagement with nature that many people desire. I wonder if it is possible to retain more precise, complexly designed, projects while still avoiding domination. Can we participate in the creation of something that is both to our liking and to the benefit of autonomous natural systems? Is there a way to justify prioritizing some aspects of restoration through cultural traditions and values? And lastly, does Palamar’s notion of restoration require the sort of impartiality that ecofeminists explicitly resist? I will return to the questions I raise here in chapter three.

Palamar brings a fresh approach to the restoration debate with the inclusion of an ecofeminist perspective. Yet, her focus on domination and examples of species composition touch on a narrow band of the full spectrum of issues that an ecofeminist or care ethics perspective is relevant to.<sup>8</sup> Her analysis of dualisms and the logic of domination in restoration is helpful in further developing Katz’s concern of domination, but more work is needed here to add detail on how to respond to these potential errors of

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<sup>7</sup> See Paul Taylor’s *Respect for nature: A theory of environmental ethics*. Taylor describes all life as “teleological centers of life” and from this feature explains an environmental ethics which prioritizes the respect for such centers of life.

<sup>8</sup> It should be noted that while ecofeminism and care ethics applied to environmental issues are distinct, there is substantial overlap, and can therefore be referred to collectively at times. The similarities and differences of ecofeminism and care ethics in the context of environmental issues will be discussed in more detail in chapter three.



restoration. For these reasons, I want to consider her work as a jumping off point in my third chapter where I will apply feminist theory, specifically care ethics, to issues faced by the theory and practice of restoration. In the third chapter I argue that care ethics can also show how we can avoid restorative domination, but that it goes beyond this negative responsibility as well. The relational basis of care ethics shows how we can express a reflective partiality for certain features of ecosystems through restorative practices and thereby fulfill our positive responsibility to care for the natural world as well as satisfy our human aptitudes.

One of the most optimistic perspectives in the restoration literature comes from William Jordan. In his essay, “Sunflower Forest” and a book of the same title, he focuses on how we can restore nature and the human-nature relationship. Jordan’s view of restoration is significantly shaped by his involvement in the prairie restoration project at the University of Wisconsin – Madison. For example, the goals for restoration that he specifies include replicating a species list and might be possible with the restoration of the tall grass prairie. Before this prairie restoration began, almost none of the species that historically comprised the tall grass prairie were present. The project has been deemed an ongoing success by many because of how the landscape has been transformed to a state similar to what it was before it was initially developed. What I appreciate most about Jordan’s work is his rigorous attention to ways that we can build a positive relationship with nature through restoration. Jordan’s emphasis on relationship, and the role that restoration plays in the human-nature relationship, is one reason that I first thought of care ethics as a favorable ethical theory to ground restoration.

In his essay he lists six “essential elements” of a healthy human-nature relationship and then explains how restoration can satisfy each of them (19-20). I won’t go into detail about all of them, but will highlight those that will be relevant to what Higgs has to say and to analysis in chapter three. The core of his argument is that we need to create a positive role for culture within in nature. For Jordan,

human culture's role in nature will only be positive and sustaining if it embeds participation with natural systems in ritualized traditions.

Jordan frames the goal of the environmental movement by stating "The real challenge to environmentalism is not to preserve nature by protecting it from human beings or rescuing it from their influence, but to provide the basis for a healthy relationship between culture and nature" (21). Many authors have maintained the human-nature dualism on the empirical grounds that it is an accurate description of the pattern of human involvement in nature. Jordan acknowledges this regrettable trend, but refuses to see this dichotomy as essential. Instead, Jordan pushes back against the notion that a hands off approach, embodied by a preservationist perspective in environmentalism, can actually save and maintain the goods that we wish to protect. He argues that such an attenuated relationship leaves no option but for people to be consumers of the natural world. If participation and hands on engagement are not allowed, then all we can do is consume from a distance. Positive participation, on the other hand satisfies the innate desire to engage in our natural abilities. He identifies hunting, gathering, and cultivating as some of the human aptitudes that we ought to engage in. While these are all consumptive to a degree, they also include means to give back, or reciprocate in our relationship with nature, in a way that preservationist bystander activities do not. Further, hunting, gathering, and cultivating enrich and deepen one's connection to place and engagement with ecosystem processes. Restoration can satisfy the need for active participation by giving people the opportunity to engage in the land community, to again be members of it, by cultivating not only for their own purposes but also for the purpose of enhancing the ecosystem. As Jordan compares preservation and restoration, he says, "Limiting use is one way to address this problem, but it is only a stop gap measure that does nothing either to satisfy the human hunger for immersion in nature or to deal with the unavoidable problem of ecosystem drift in response to human influence, however subtle" (22).

Restoration cannot stand alone as one practice among many if it is to be the new paradigm for environmentalism. An additional component to this theory is the need to embed these practices in ritual and tradition. Jordan believes that rituals play an important role in “mediating relationships.” While the widespread acceptance and praise for science and technology has widened the gap between humanity and nature, he says, ritual may be the only way to bring the two back together. Integration of people in nature, and the ritual that allows this to happen is vital for the success of restoration. Without it, there will be a disconnect that will inhibit our ability to see ourselves as a community member and restrict our interactions with the land to those of conflict mediation.

Eric Higgs is hesitant to say that restoration should be a religion of sorts, but also heavily emphasizes the integration of culture and nature through restoration. We need the ecological goods that restoration brings back, but also we need restoration itself to nurture our various storied traditions with the land. Connection to place through focal restoration and community involvement will help to restore nature and prevent future degradation. Higgs doesn't shy away from restoration leaving a distinctly human mark on nature and agrees with Jordan that this is inevitable and not necessarily a bad thing. But he distinguishes between focal and technological restoration, as well as the requirements of historical fidelity and ecological integrity, to show what the favorable forms of human intentionality would look like.

While Katz and Elliot only cite industrial scale restoration, and nothing of local, community based practices, Eric Higgs gives a more comprehensive and inclusive account of the good and bad forms of restoration. In *Nature by Design* Higgs digs deeper into Andrew Light's distinction between malicious and benevolent restoration. The question Higgs wants to answer: what are the necessary conditions for *good* ecological restoration? His answer sets out four keystone concepts: ecological integrity, historical fidelity, focal restoration, and wild design. Each of these four keystone concepts represents a risk that must be avoided and a benefit that we should strive to realize.

Ecological integrity conveys a scientific adherence to creating (or re-creating) a functional natural system. Concepts like structure, function, and composition are considered when determining how to recover whatever damage has been done to a biotic community. The risk in ignoring ecological integrity is that we will simply engineer a system to our liking, deriving whatever function is useful only for our own purposes and not those of the nonhuman inhabitants. More and more restoration is driven by scientific understanding of how whole systems of life are connected and flourish. But Higgs, as well as others understand that a reductionist account of ecosystems that a scientific perspective provides is not all that we need to consider when designing and implementing a restoration project. The value that is communicated by putting ecological integrity first is Higgs' prioritization of the ecosystem over our own interests. To paraphrase, if we do not put the ecosystem first, we can hardly call it ecological restoration.

Historical fidelity is one of the more controversial aspects of Higgs' notion of good restoration. What or whose history are we supposed to be faithful too? And why? In many ways historical fidelity is closely tied to ecological integrity. We seek information from the past about what species were present in an area, and what allowed a system to function before it was impaired. Ecological history can inform us about change and variability, serving as a reminder that ecosystems are not static entities, but always changing and adapting to variations in the environment. There are also dangers associated with historical fidelity, mainly the human tendency toward nostalgia. We all have a way of thinking of the past, laden with our psychological, emotional, and personal biases. Nostalgia can obscure ecological, cultural, and historical realities that ought to play into the performance of restoration.

Focal restoration borrows from Albert Borgmann's theory of focal things and practices and is discussed as an antidote to technological restoration. In an age dominated by technologically mediated experience, intense consumerism, and a generally distracted existence, focal things and practices are ways to focus on those aspects of life that bring meaning and richness to our lives. Higgs believes that

restoration is something that can gather people and communities around an engaging practice. Not only can we restore nature, but we can also restore our relationship with nature. Here Higgs places a lot of weight on restoration being performed best by a community living in the region of the restoration project. He is motivated by a developing trend toward the professionalization of restoration. The worry is that restoration will be used to “naturalize” the presence of corporations in nature. Similar to the original concern of Elliot, Higgs also sees that potential for restoration to be misused, and used deceptively, to cover up the destructive nature of industrial activity. Professionalization would also exclude community involvement, and instead of being driven by local knowledge of place, the end product, financial efficiency, and high tech solutions would be the standard. The end result, again drawing from Borgmann, might be the commodification of nature and restoration itself. The moral aspects of commodification show us that drawing things like nature and restoration out of their contexts and into the market removes values from them that are not readily quantified by monetary terms.

The last of the four keystone concepts is wild design. This notion wrestles with the difficulty of balancing human interests with what is in the interest of nonhuman, natural entities. One problem is that we do not have privileged access to what truly is in the interest of an ecosystem, or if such a thing even exists outside of our perspective projected onto nature. Ecological sciences can tell us some of what an ecosystem requires. But this area of science is known for its lack of predictive power. When assessing the interests of natural entities, descriptive sciences can tell us what makes some systems work but we cannot very easily draw precise, normative prescriptions from them. Knowing how an ecosystem functions, what species interact with which others, the basic elements that organisms depend on, and so on, does not necessarily tell us what is in their interest. Compounding the difficulty of understanding what is in the interest of ecosystems is the conflict between ecological flourishing and what many in our culture consider to be human flourishing. Many of the luxuries or even necessities that are taken for granted require the exploitation of natural resources and are antithetical to ecological

flourishing. Human interests do often conflict with even the broadest interests of ecosystems. As a simple example, most people enjoy having roads to travel on but paved roads with constant waves of traffic are categorically bad for ecological health on a number of levels.

Higgs' combination of wild and design seems paradoxical, but is of course intentional. The conjunction of the two words draws attention to the need to combine or reintegrate culture and nature, human intentions with autonomous ecological processes. By considering the ethical primacy of ecosystem interests in restoration along with the inevitability of human intention in design and implementation, Higgs hopes that interests of both parties will be seen as shared interests to a great degree. If they can be shown to be shared interests, then restoration won't represent a choice between humans or nature, but promotion of a combined flourishing.

In the next chapter I will show that these problems do not only exist in the realm of the academic philosopher, as theoretical problems only, but are real dilemmas for those who practice restoration as volunteers and professionals. Grounding the conceptual issues of restoration in examples from the Clark Fork River restoration, clarity about what is really at stake is gained. I will build on the first and second chapter in chapter three the following points. First, restoration philosophy lacks a unifying moral framework and I will suggest that care ethics is a favorable theory to turn to for this role. Second, Katz is right to worry about domination in restoration but his view of ecosystem autonomy is too restrictive of human intervention. Third, Higgs' concept of wild design, in conjunction with the requirements of care motivate us to ask if and how something such as an ecosystem can be cared for. The fourth and last point is that Palamar's notion of restorative domination and goal for restoration that avoids domination, again, along with the requirements of care, lead me to wonder if we must accept impartiality in order to perform good restoration, or if care ethics might show a way to guide and justify the partiality that we might have toward particular species or other aspects of an ecosystem.

## *2. Clark Fork Restoration: Grounding Theory in Practice*

My goal for this chapter is to connect the conceptual issues identified in chapter one with the difficult decisions faced by restorationists on the ground. I want to show how the theoretical concerns from the literature review in the previous chapter are instantiated in actual restoration projects. The restoration of the Clark Fork River, a large scale watershed restoration project in Western Montana, will serve as my primary example.

Between Butte and Warm Springs, Montana, several creeks come together to form the headwaters of the Clark Fork River. The river runs west from here through Montana, winding its way to the Idaho panhandle where it drains into Lake Pend Oreille. In its course, it drains just over 25,000 square miles of the western Rocky Mountains between the Continental Divide and the Bitterroot Range. It is an iconic river, known for its abundance of wildlife, recreation, and as the historical territory of the Salish people (now referred to as the Confederated Salish and Kootenai tribes) prior to the 1855 Hellgate Treaty. The Clark Fork drainage is important habitat for many native species like the Bull Trout and Westslope Cutthroat Trout, as well as the lifeblood of agriculture in the area.

Starting in the 1800's and continuing through current times, sites along the Clark Fork (and Silver Bow Creek, one of the main tributaries comprising the Clark Fork's headwaters) have also been areas of intensive resource extraction, particularly the mining and smelting of copper ore. The Berkeley Pit in Butte Montana is the largest of the many mining sites in the area. Mine tailings from this and other mines are the source of the majority of the pollution in the Clark Fork watershed. About 120 miles downstream from its inception, the Clark Fork reaches the former site of the Milltown Dam, in Milltown, Montana. In 1908 a 100 year flooding event washed millions of cubic yards of sediment laced with toxic mine tailings downstream that piled up at the head of the Milltown Dam. In the decades following this flood, heavy metals and other toxins like arsenic leached out of the tailings, contaminating the well water used by residents in Milltown, and leaving ecological dead zones, known as "slickens" from Silver

Bow Creek all the way down to Milltown. Human health effects, such as cancer rates and birth defects, and ecological effects like fish kills and hundreds of acres where vegetation never regrew, drew mounting concern over the decades. In 1981 when routine water quality checks on wells in Milltown, Montana showed this contamination, the Environmental Protection Agency (EPA) began investigating. Eventually, in 1983, the EPA added this stretch of the river, named the Clark Fork/Milltown Dam site, to the National Priorities List (NPL) for superfund cleanup. To this day, it remains the largest superfund site in the western United States.

In 2008, a settlement was reached that required The Atlantic Richfield Company (ARCO) to pay \$123 million for the cleanup of the Clark Fork/Milltown Dam superfund site. The cleanup of the river has been comprised of several projects overseen by the EPA, Montana Department of Environmental Quality (DEQ), and other groups such as the Clark Fork Coalition. Much work has already been completed, including the removal of the Milltown Dam and sediment, restoration of sections of Silver Bow Creek and the Upper Clark Fork River, and the creation of what can be called a “restoration ranching” operation at The Dry Cottonwood Creek Ranch in the Deer Lodge valley. In this chapter I will focus primarily on these three aspects of the restoration project, though there are certainly more that could be discussed.

The first conceptual issue related to domination that I will consider here pertains to the ideals that guide restoration. Potentially, the problem is that the goals we set might not represent what is in the interest of the ecological entities. For example, being “true to history,” might turn out to be better described as forcing the landscape to fit the selective memories or desires that people have for the area. Palamar was particularly worried about the removal and exclusion of non-native, non-invasive species. Removing or otherwise excluding non-native, non-invasive species seems like unwarranted domination of nature to her because it shows excessive and unnecessary control over species composition, rather than an opening of possibility for the ecosystem to develop as species come and go. Eric Higgs’ notion



of wild design is related to Palamar's concern because it explores how we can find a balance between the inevitable mark of human intentionality in restoration with a respectful representation of the autonomous voice of ecosystems.

Both Palamar and Higgs noted the potential for historical fidelity to play a role in the domination of nature. If restoration projects are designed on the basis of what Palamar argues are arbitrary and unrealistic historical ideals (returning ecosystem composition to an arbitrary, static point in history), or what Higgs says is an expression of unchecked nostalgia (creating nature to reflect an impression of wilderness or nature that does not correlate to ecological realities), then it seems restoration will force the land to fit a mold that only promotes our interests. This is basically Katz's concern about domination as well. Although he takes a more pessimistic view, Katz is concerned that restoration will promote only human interests and exclude the possibility of self-determination for nature. Higgs offers a solution to this unique problem of design for restoration. When articulating the keystone concept of ecological integrity, he states that ecological values and interests must be the primary value guiding restoration. Ecological, not human, values must come first. Furthermore, Higgs's explanation of his fourth keystone concept, wild design, acknowledges the challenge of simultaneously representing what is in the interest of humans and the ecosystem. Here he says we need to listen to the quiet but persistent, voice of ecosystems which is all too easily drowned out by our own voice, but ought to have priority.

The question to ask in this chapter is how the design and implementation of the Clark Fork restoration has been informed by history and other sources of information. And, do these sources of information, as the basis for restoration design, promote purely human interests as Higgs, Palamar and Katz worry? Or does it meet Palamar's vision for restoration as simply opening the scope of possibilities for the land and Higgs's ideal of wild design?

Two project goals for restoration of the Clark Fork River and Silver Bow Creek, from the headwaters down to the Milltown Dam, are to remove sediment in areas that have particularly high

levels of contamination and to lower the elevation of the flood plain. Achieving these goals requires designers to draw on many sources of information, including facts about the current state of the watershed, general ecological and hydrological understanding, the historical states of the river and the organisms that inhabit the area, and an estimation of future circumstances that the restorative process must anticipate.

The landscape might be dominated (in the broad sense that Katz implies) in an overt (but plausibly justified) way through the use of heavy equipment to remove and haul out the sediment, to bring in new, clean fill, and to reconstruct the banks of the river. These more general forms of domination, those forms related to exerting our control of nature through technology that are not unique to restoration, will be left to the next section. In this section the focus is on the more subtle issue of how the implementation of the physically intrusive work is justified and if it can be called “domination” at all.

Historical records, meaning records that indicate the state of the river prior to mining activity and the massive flood in 1908, are used to understand the sinuosity of the river before mining and other activities channelized and redirected portions of it. The same records are also used to determine areas where the flood plain has become elevated over time, and should now be lowered to create a river drainage that will be more resilient to future flooding events. Based on these records and current-day constraints in the area (like bridges, railroad tracks, and other structures that won't be removed) areas of sediment have been removed, riverbanks rebuilt and revegetated, and flood plains lowered and structured to respond better to flooding events.

Palamar discusses the relation of historical ideals to domination by arguing that the time periods that restorationists want to return an ecosystem to are chosen arbitrarily. She describes how the time period right before European settlement, about 500 years ago, is often the time period which ecosystems are restored to, but that this choice reflects a purely human vision for the landscape, and

not an ecological one. She asks, why not choose a time period “5,000 or even 50,000 years ago instead of 500 years ago” (288). The choice of this time period as the preferred state of an ecosystem then justifies removing all the species that didn’t exist back then. And the act of removing species to meet a human, not ecological, vision of an ecosystem constitutes restorative domination. But the time period chosen in the Clark Fork project doesn’t seem to warrant the same accusation. There is a very specific event that changed the river basin in concrete ways, namely the history of mining in the area and the 1908 flood that washed mine tailings downstream, that justify this design. All history is doing in this case is identifying the point at which pollution was introduced and the river was chemically, structurally, and ecologically changed for the worse, for humans and non-humans alike. The restoration efforts simply seek to reverse this. There is no species list from long ago that will be recreated, requiring the destruction of the current system for no good reason.

Perhaps a case similar to the native vs. non-native one that Palamar makes could be made based on a polluted vs. non-polluted dichotomy. In this case, Palamar suggests that the native vs. non-native distinction, where native is equated with good, and non-native with bad, results in domination because it is used to justify the removal of all non-native species, even if they are not invasive, or have even become naturalized after being in the area for hundreds of years. In the Clark Fork restoration, plants, and anything else in sediments they grow out of, which are highly contaminated, are killed and removed as part of the restoration process. Taken out of context, this destructive part of restoration might be seen as domination. But in the context of the Clark Fork restoration, it would be shortsighted to call this a form of unwarranted, anthropocentric domination. The pollution, mainly the lead, arsenic, and cadmium, are most detrimental to human health, and the copper and zinc are most detrimental to the plant life. All these toxins are mixed together in the soil such that removal of the sediment on its own cannot be seen as favoring humans or nonhuman ecological entities. Restoration in this case is a

combined effort done for the good of ecological and human interests because they are inherently intertwined, not separate endeavors.

Future ecological communities (the plants and animals that will inhabit the area after restoration) will benefit from the unpolluted environment, not the current organisms being destroyed in the process of restoration. Even so, the sort of domination that Palamar is talking about still does not seem to apply here. One of the reasons why is because this seems exactly like the sort of work that must be done in restoration to open the scope of possibilities for the land and its future self-determination. We can see here that even this domination-avoiding notion of restoration will require some violence and destruction. The real difficulty here seems to be determining how we should understand and justify the unfortunate necessity of destruction in restoration.

In terms of the selection of plant species used for revegetation in the Clark Fork, all of the information I could find suggested that plants common to the area were used for vegetation, meaning that the same composition is represented in the pre- and post-restoration states. In terms of the recovery of animal species, the project's approach has been to set up the conditions for fish in healthier sections of the river to naturally repopulate the formerly fishless zones once restoration has been completed. The return of Westslope Cutthroat has already been documented in stretches of Silver Bow Creek that have not seen fish for decades. So this also does not appear to be the sort of action that the authors fear may amount to domination.

One aspect related to how history informs restoration that might be linked to domination is the incorporation of agricultural needs into the project. The Clark Fork Coalition's three part strategy is to "Rewater, Reconnect, and Restore" the Clark Fork River and its tributaries (*Clark Fork Coalition: Healing Streams*). Part of this involves negotiating with the agricultural community on how much water can be diverted. A strict adherent to historical ideals might say that all river diversions should be cut off for this to be true restoration. In this sense historical ideals might actually better serve the ecological integrity

of the restoration project. However, the Clark Fork Coalition has been able to negotiate for reduced diversion and has brought water back to tributaries allowing native cutthroat and other species to return to the area. This is an improvement over the state of things had these areas not been restored, even if a perfect ideal was not met. The sense in which this might amount to domination is that human values are imposed on the landscape by continuing to divert any water for agriculture. This agriculture is not of ecological value, and if these practices were abandoned, then native composition, or at least somewhat wild composition of things would return. But the fact that restoration represents an improvement over the pre-restoration state should be the emphasis here.<sup>9</sup>

Ecological integrity, a keystone concept for Higgs based on an understanding of ecological sciences, is very important for the restoration of the Clark Fork River. From a scientific perspective, pollution should be removed because it impairs, and in many places altogether prevents, ecological function. Fishless stretches of the river and its tributaries, and the dead zones along the bank known as slickens are two examples in the case of the Clark Fork River. Restoration of the Clark Fork has promoted recreation, or rather the presence of recreationally valued species, as a prominent reason to restore.<sup>10</sup> A native trout, the Westslope Cutthroat, is one of the prized species for anglers in this area. Western Montana is famous for its fly-fishing and this is an important aspect of the economy for many small towns in the Clark Fork drainage. However, an overemphasis on returning ecological integrity for the purpose of recreationally prized fisheries is one case where restoration on the Clark Fork may over-emphasize a human value. Even if this is the case, it stands to reason that restoration done to promote a fishery can still be to the overall ecological benefit of the place. The ecological concept of keystone

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<sup>9</sup> I will talk more about this topic in the next chapter, but I will say briefly that care ethics helps to make sense of the goal of improvement of ecosystems, rather than the perfectionism implied by reconstructing an ecosystem to fit a pre-European pristine state. However, as mentioned previously, idealized pristine states of the past have lost the importance in today's restoration versus restoration in previous decades.

<sup>10</sup> The Clark Fork Coalition draws support from fly-fisherman and emphasizes how restoration is a good thing for sportsman because it will improve populations of Westslope Cutthroat trout.

species, which Westslope Cutthroat are considered to be for their aquatic environment, justifies a project that promotes their flourishing because it will have a sort of ecological trickle- down effect on the other organisms that make up the food web and ecosystem. Nonetheless, it could be that more representation should be given to the organisms that we haven't heard as much about, perhaps some amphibian species, a group of animals that is known to be particularly sensitive to pollution and climate change. Without a specific example though it is unfair to judge the project on this basis.

Coming to Higgs's concept of wild design, we meet the difficulty of simultaneously promoting human and ecological interests head on. To recap the notion of wild design, the term itself gets at what some have seen as the paradox of restoration, especially in areas considered to be wild. To many people, wildness is equated with areas of nature where people have had no effect, meaning that such places could not be wild if they were designed by people. Yet restoration has often been seen as the attempt to design nature, including designing wild places. Higgs wants to confront the dualism between people and nature with the concept of wild design. He wants to convey the possibility that natural places, even wild places, can speak through people in a way that allows us to represent the interests of natural entities. Higgs goes as far as to speak of "restoration as conversation" saying that we engage with the natural world, work with it, in order to become attuned to its more specific interests, desires, and requirements (286). I will pick up with the difficulties contained in the notion of wild design more in the next chapter, but for the purposes here, suffice it to say that wild design acknowledges that human intentionality and ecological interests are not mutually exclusive, but rather, two value sets that at times conflict, and at other times, share a common ground.

It seems that the condition of wild design is more easily met in cases like the Clark Fork restoration where restoration involves removing pollution from the environment which is detrimental to all. The most obvious damage to the Clark Fork watershed, that is, the heavy metal laden sediment in the river, banks, and floodplain, is damaging to the human and nonhuman inhabitants alike. When

there is a common ground like this, we can see how restoration can be an effort toward a combined flourishing rather than a resolution between two parties with opposing interests. We truly can design a restoration project where, at least in one aspect of it, human interests also directly serve ecological interests.

Three other concerns that I will now consider are artifactuality, misuse, and deception. In one way or another, each author reviewed in the first chapter expressed at least one of these concerns. A point I want to emphasize here is that it is important to understand that these criticisms, if they point our real concerns for restoration, also apply to the other technologically mediated interactions that we have with nature. Restoration is not unique in its use of technology to alter the natural world and shouldn't stand alone in bearing such criticisms.

Katz worries that anything we create with technology will be an artifact. When it comes to the use of technology to alter nature, this is a special sort of concern, because we may be changing something from nature to artifact. So the first question to ask here is, does the resulting landscape and ecosystem appear to be an artifact? A piece of nature? Or something in between?

The removal of the Milltown Dam is an especially interesting counterpoint to Katz's concerns about artifactuality and technology. Katz directly states that the product of technology is necessarily an artifact (236). The dam is obviously an artifact and a piece of technology (Katz even uses a dam as an obvious example of something that is not nature). Removing the dam and the polluted sediments as part of the overall restoration of the river required that people intervene with other forms of technology, yet what was left seems to be more a part of nature than what came before it. The restored confluence of the Blackfoot and Clark Fork Rivers, the former dam site, is now a functioning river bed and flood plain. Trees, bushes, river rock, and all kinds of terrestrial and aquatic organisms now fill a space previously occupied by a hulking mass of concrete clogged by logs, earth, and toxic mine tailings. For human health, the source of pollution that was making its way into well water has at the

very least been reduced. Fish migrations, primarily the threatened Bull Trout, can again take place in this area which was once known to the Salish people as a place where these important fish were big and abundant. It is good for the fish, it is good for the people, and it seems that the dam was removed for both reasons. To say that this restored area is an artifact would miss a crucial point. Yes, there are still bridges and walkways, and the reconstructed riverbanks have visible signs of our intentions, but what seems most important here is that the current state is an ecological improvement over the prior one, and that this improvement could not have taken place without the use of advanced and admittedly invasive technology.<sup>11</sup> If this area is an artifact, it didn't gain that status through restoration, it gained it through the initial hydrological development.

Next is the concern that technology will be misused or otherwise used deceptively. Misuse and deceptive use, as they are discussed in the literature I reviewed in the first chapter, are so closely related that it is best to consider them together. This concern goes all the way back to Elliot's first essay, where he was worried that restoration might be used to hide ulterior motives. Higgs gives an updated version of this concern when he wonders if restoration will be a means for corporations to "naturalize" their presence, in a sense hiding the destructive nature of their business by engaging in restoration. Can a case be made for the Clark Fork doing something like this? Are there corporate interests that are hidden from view by the good work that is being done to restore the river? Concerns of tech fixes, often associated with the Deep Ecology distinction between shallow and deep fixes, is also a concern for Katz. Is restoration yet another example of a tech fix which superficially appears to address the problem, yet perpetuates an underlying problem that caused the issue in the first place? While many of these

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<sup>11</sup> While I admit that there may not be a rigorous definition of ecological improvement, I want to argue that there are some cases where restoration does improve the ecological state of things quite obviously. For the Clark Fork, I think it should be obvious that having less heavy metals in the sediment of the river is an ecological improvement. Reforesting a clear cut area that is suffering from erosion, siltation of rivers, and so on, is an improvement. Many cases could be in a gray area, but my point should be true as long as there are some instances where it is clear to most interested parties that restoration results in an improvement of the ecological state of a place.



questions would involve far more inside information about the restoration project than I have access to, there are some interesting aspects to consider based on public information.

Milltown State Park, which now includes an overlook of the Milltown site, is a great example of how the concern of deception can be addressed. Here, a series of informational panels represent different stages of history, starting with the Salish people, moving through the periods of industrial development, and ending with the removal of the dam. This is a standing acknowledgement of some regrettable events which serves as an important reminder. It shows that Katz's expression of restoration as a piece of furniture put over a stain in carpet is a possibility, but not an inevitability. The park will remind people for generations that while restoration is a powerful tool, it is also an indication that we've made costly mistakes. Part of the "power and promise" of restoration is then the power to remind us that it is often our failures that necessitate restoration, and the promise that we will both try to repair it and also to seek out new ways of making a living on earth that won't require it in the future. Additionally, although the point was made in the previous section as well, the Milltown Dam is also clearly a case where Palamar's notion of restoration as opening the possibilities for the land, and Higgs' concept of wild design, is met. Palamar's notion of restoration and Higgs' concept of wild design are related, but differ in the sense that wild design more explicitly acknowledges a place for human intentionality, while still giving priority to ecosystem interests.

One last point, relevant to both type one and two concerns, I would like to continue to consider Palamar's notion of restoration, its possible shortcomings, and Higgs' related but distinct condition of wild design. A very unique aspect of the Clark Fork River restoration is the Dry Cottonwood Creek Ranch (DCCR). Overseen by the Clark Fork Coalition, the DCCR is a working cattle ranch adjacent to the Clark Fork River in the Deer Lodge Valley (*Clark Fork Coalition: Our Working Ranch*). The ranch is leading the way for what is called restoration or conservation ranching, which essentially means that they combine agricultural, ecological, and economic sustainability. Additional practices, typically seen as deeply

anthropocentric endeavors, are also attaching the term restoration to indicate the integration of ecological values, as in the book “Restoration Agriculture” where restoration principles are integrated into agricultural practices (Shepard). Unlike Higgs’ notion of wild design, which emphasizes that although culture will always be visible in restoration, ecosystems must be prioritized, the DCCR and related operations take practices that were previously focused almost solely on cultural interests and integrate ecological ones. The DCCR has, for example, worked to exclude cattle from portions of the Dry Cottonwood Creek to allow for re-vegetation, which in turn cools the water making for better trout habitat. They have also worked on their own ranch, and with others, to reduce the amount of water diverted for irrigation from the Clark Fork and its tributaries. All of this is done while still maintaining a viable, grass fed, cattle operation. Ecological restoration takes the ideals of conservation or preservation, ecologically centered ideals, and asks how human technology, intention, and design can shape the natural landscapes to benefit ecosystems. Coming from the other side, operations like restoration ranching, or restoration agriculture, begin with human-centered ideals and necessities and asks how ecological systems and principles can be used to meet our needs. In the first, ecological values are prioritized and in the second human values are prioritized, but both seem to qualify as restoration because they are both, at bottom, attempts to improve upon the health, integrity, or functioning of an ecosystem. Furthermore, in reference to wild design, it seems that the principle underlying this concept should be relative to current management practices. For example, restoration in a wilderness area might allow for far less signs of human intentionality and design than restoration of an agricultural area, and even less yet, for an urban setting, because the marks of humans are already greater in the latter two places, and will continue to be. Saying that an ecosystem should have priority in an urban restoration project might not mean much in a literal sense if there is not a functioning system. We won’t replace buildings with a forest, but planting gardens and tending to urban apiaries on skyscraper rooftops still seems like an ecological improvement that warrants the label of restoration. Additionally,

as I will discuss in greater length in the next chapter, even in contexts more closely resembling wild landscapes, the limited clarity of, or access to, ecosystem interests will put limitations on what we can claim is truly done on behalf of the ecosystem.

Restoration can be instantiated either by incorporating human elements into ecological processes or incorporating ecological elements into human practices, it is interesting to compare different notions of restoration. This idea, instantiated in DCCR's operation, is an insightful point of comparison for Palamar's notion of restoration, where the cultural role in restoration is restricted to opening the scope of possibility for the land. Expressing partiality for a particular entity within the ecosystems seems vulnerable to Palamar's critique of restorative domination. While the DCCR operation could be seen as allowing for greater self-determination of nature, it is accompanied by a very specific practice that on its own, might be seen as dominating. A cattle ranching operation, after all, whether in a traditional mode or the alternative of restoration ranching, still constitutes forcing a strictly human vision on the land, which is Palamar's explanation of restorative domination. Looking at DCCR's operation, what we see is an improvement, ecologically speaking, through the incorporation of restoration principles into traditional land practices. Going back to Palamar's basic definition of domination as excessive control, through the perspective of restoration ranching or agriculture, it begins to seem like excessive control doesn't tell the whole story of domination. Rather, domination of nature through our management practices stems from a failure to make improvements on behalf of ecological entities, or something along those lines. Concerns related to Palamar's notion of restoration and Higgs' concept of wild design will be a primary focus in the following chapter.

A general take away point from this chapter is that issues that may seem clear conceptually are often muddled by the complexity of reality. This is not to say that problems in theory do not match up with the problems in practice, but that it is rarely so straightforward in the context of practice. In recognizing the strengths and weakness of a care perspective in the next chapter, I hope to show that

although the means we have to articulate care can at times also be abstract, that it still aligns more closely with on the ground morality. Thus, this chapter was about connecting conceptual issues with concrete examples, but also about anticipating the sometimes frustrating, but what I argue is more accurate and compelling, complexity, vagueness, and flexibility of a care perspective on restoration.

### 3. Care Ethics: Caring for ecosystems through restoration

“We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.”  
-Aldo Leopold

In this last chapter I will show how a care perspective can contribute to the philosophy of ecological restoration.<sup>12,13</sup> The first section provides an overview of care ethics and focuses on aspects that together comprise my care perspective in this thesis. The second section places restoration in the context of care ethics by exploring the ways that people and ecosystems are mutually dependent. Given the mutual dependence between people and ecological communities, as seen from a care perspective, restoration is cast as a critical way to maintain this relationship. My description of our relationship with ecological communities, and the role restoration plays in the relationship, also suggests why care ethics is a favorable moral framework to ground restoration. In the last section I take insights from care ethics and apply them to three different issues pertaining to domination in restoration.

#### **Overview of Care –**

As a scholarly theory, care ethics began with Carol Gilligan’s work in moral psychology. After working with Lawrence Kohlberg, whose studies on the stages of moral development resulted in his theory that women are morally deficient and slow to develop, Gilligan sought a different explanation. She performed her own studies that cast women’s responses to ethical issues as representing a different moral voice, rather than an impoverished one, hence the title of her book, *In a Different Voice*. In this

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<sup>12</sup> Although I refer to multiple feminist philosophies in this thesis, the ethics of care and philosophical ecofeminism, my arguments are not directly about gender issues. Rather, I use these perspectives because they focus on issues of domination, personal relationships, caring practices, and responsibility. They encompass and prioritize values that are important for an analysis of restoration but that have been underrepresented thus far in the literature. Furthermore, this chapter does not represent the only way that care ethics, and the related perspective of ecofeminism, could be cited in the context of restoration. This is my perspective on a couple of issues that caught my attention in the literature. Others could potentially take care ethics and ecofeminism in another direction with regard to restoration, for example, focusing on issues of sexism, classism, and other environmental justice issues in restoration. This chapter is simply meant to bring some further ideas into the restoration debate and I want to acknowledge that many of the thoughts have been inspired by the ethics of care.

<sup>13</sup> To my knowledge, there is no published work that explicitly applies care ethics to ecological restoration, and I take this chapter to represent my contribution to philosophy of restoration.

work she argues that Kohlberg's work made the false assumption that applying abstract, universal moral principles to hypothetical dilemmas, in a sense treating them like math problems, describes the pinnacle of moral thought and development for all people. Instead, Gilligan noticed that women in Kohlberg's and her own studies tended to make moral decisions on the basis of the web of relations that they were actually a part of. Her own studies focused on actual, not hypothetical, situations where women had to make difficult moral decisions. What she found was that their understanding of caring and taking responsibility was primary in their decision-making process more than abstract, impartial principles about duty or overall utility.

The ethics of care is grounded in the universal experience and understanding of caring relationships. Empirically, it accurately describes how our lives, identities, and ability to flourish are intertwined with others. Normatively, care ethics can be seen as a standalone, alternative theory and also as an addition to the perspectives of justice, rights, and utility. The ethics of care starts with the universal experience of care and through reflection on the values, motivations, and ideal standards that should guide these universal practices, the theory is continually shaped. Caring is often seen as a basic value and pre-condition without which we would not develop as morally admirable persons who respect the rights and values of other people as well as nonhumans.

Despite the connection to a universally shared experience, care ethics, and care itself, have been notoriously difficult to define. There are different versions of care ethics theory which emphasize different aspects of relationships including the experience of parenthood (especially motherhood), looking after disabled persons, and issues of trust and vulnerability.

In an effort to find the commonalities between the different theories, Virginia Held, in her book *The Ethics of Care: Personal Political, and Global* discusses features that are common to all versions of care ethics. Care involves values and practice. There are attitudes, dispositions, and emotions that a person must have and continue to cultivate in order to be a caring person. Caring values alone do not

constitute a caring person. These values must also be put into practice, meaning that the needs of others that depend on us are actually met through our actions. Care is often understood and analyzed in contrast with justice. An ongoing debate in the literature of care asks whether care or justice should be primary in moral decision making and action. Some see care as one virtue among others from the perspective of Aristotelean virtue ethics, while many care ethicists argue that it is a related but alternative ethical perspective. In an attempt to summarize what she sees to be important features of an ethics of care, Held lists five features.

First, an ethics of care is focused on meeting the needs of particular others that we find ourselves responsible for. Alternatively, dominant moral theories are focused on maintaining one's rights, upholding duties to social contracts, maximizing overall utility, or improving one's individual virtues. Second, care ethics values emotions like sympathy, empathy, sensitivity, and responsiveness which are needed to cultivate good caring relationships. Dominant moral theories are known to reject emotions and favor abstractness and impartiality. Emotions are thought of as a form of bias which hinder, rather than inform, true ethical conclusions. Third, the goal of care ethics is cooperative well-being rather than the traditional ethical goal of mediating conflicts. Fourth, the public-private split of dominant moral theory is rejected because care is equally relevant in both places. Ethical theories have traditionally been structured to deal with political, economic, or otherwise disinterested or conflicting parties and to overlook the moral issues in the domain of private lives. Care ethics seeks to recognize the importance of ethics in the context of families, the household, and relationships between people who have an interest in one another and also to show that justice in the public sphere requires care as well. Fifth, care ethics rejects a liberal individualist view of personhood, a view of people as independent, self-sufficient, and autonomous. Instead, a view of persons as fundamentally interdependent and constituted in part by their relationships is favored. From a care perspective,

people still have autonomy but this aspect of our identity is balanced alongside the ways in which our lives and identities are intertwined with others.

Virginia Held addresses the ethics of care in the context of social relationships. The context that care ethics came from is interpersonal relationships but the theory has since entered the context of the human-nature relationship. Karen Warren is well known in environmental philosophy for her work in ecofeminism. While her version of philosophical ecofeminism is not an ethics of care per se, she does take a “care-sensitive” approach. Although Warren stresses that hers is not an ethics of care, it shares many features with Held’s account. For example, both Warren and Held favor a relational view of persons and autonomy over an abstract individualist view, respond to issues of patriarchy and domination, include the importance of certain emotions in morality in addition to rationality, and recognize the importance of both universal and contextual aspects of morality. In this chapter, Warren’s analysis of perspectives in ecological sciences that accord with her care-sensitive ethic are of particular interest. Warren grounds ecofeminism in hierarchy theory in ecology, the view that there a multitude of useful perspectives of ecosystems but no single objective view. She chooses hierarchy theory because it matches up with epistemic, ontological, and methodological views of ecofeminism. Particularly, hierarchy theory is similar to ecofeminism because: hierarchy theory gives contextual accounts of ecosystems, sees science as theory in process, rejects objectivity as the goal of understanding ecosystems, acknowledges bias instead of denying or avoiding it, and it is an inclusive view that integrates many perspectives on ecosystems.

### **My Care Perspective –**

What I refer to in the remainder of this chapter as my care perspective is a combination of themes, ideals, and conditions that I draw from Gilligan, Held, and Warren. Specifically, I draw on these authors and their views on domination, autonomy, conceptualizing selves, others, and their interests, and contexts in which partiality overrides impartial moral principles.



Beyond the academic motivations, I want to take a care perspective in this thesis because I feel that it captures something in environmental ethics that best matches my own intuitions. In addition to studying environmental philosophy I have continued to work outdoors in various capacities. Volunteering on a farm that raises native wildflowers for seed, managing a 90 acre wooded parcel on the Bitterroot River, and spending my free time hiking, birding, and growing a garden, have each given me an opportunity to explore the connection between ethical theory and practice. Some of the theories that I have become familiar with over the last few years, while they are often compelling on paper and in the classroom, sometimes feel detached from the reality of my work as a steward of the environment (Eric Katz and Paul Taylor are examples). But seeing plants, animals, and the landscape as bearers of rights never seemed to encourage the respect, admiration, or even love that I sensed actually motivated me to care about them. While justice and rights are perhaps suited for legal and political contexts, rousing people to respond to environmental crises, I have come to believe, has to be rooted in a genuine feeling of compassion.

I will not argue that taking a care perspective on restoration will necessarily improve practices. Regardless, I feel that a caring approach is a better one. This thesis, and this chapter in particular, is a small initial attempt to articulate the thoughts, intuitions, and feelings that I have developed during my Master's program. In this thesis I explore in an academic manner how a care approach can respond to issues in the theory of restoration. At times I worried that I was playing an intellectual game, trying to make pieces of concepts fit together rather than identifying things that I thought were true and good. I hope that I have avoided that pitfall and have been charitable to the authors I consider.

Lastly, I recognize that philosophy has its limits and that whatever we say in the classroom will have to be reconciled with the realities that we encounter only through actual hands on engagement. The desire to bridge the gap, in at least my own mind and life but hopefully for others, between strong

ethical theory and the way that people feel, interact with, and come to care about the environment has motivated the thoughts I express here.<sup>14</sup>

### **Restoration in the Context of Care –**

Certainly, there is nothing new about viewing humans as another member in the community of nature. Many authors, Aldo Leopold in *A Sand County Almanac* being one example, speak of people as being in a relationship with “the land” and as equal members in the “land community.” Also, such a view is embedded in the basic ontological approaches of some cultures, like the varying Native American and First Nations people, who, although their specific views differ, share cosmological commonality in the kinship model where animals, plants, specific places, and materials are members of one family (Warren 86-87). I do not mean to propose the relational context of care as new, or even that no other work on restoration has taken such a view (Higgs speak of “Restoration as Conversation,” on pages 285-289, for example). Rather, I want to emphasize how the various views of people as deeply intertwined with nature, rather than separate and above, suggests that care ethics is suited well for environmental issues, especially restoration. The views underlying an ethic, the basic ontological assumptions, shape the ethic. Care’s focus on how relationships generate moral responsibility make it a fitting perspective for restoration, an environmental issue which powerfully brings out the difficulty of balancing human interests and ecological interests.

As Paul Taylor states succinctly, “We share with other species a common relationship to the Earth” (*The ethics of respect for nature*, 208). “Relationship” has both broad and narrow meanings in everyday use. Relationship can simply mean that two things are connected, usually explanatorily or

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<sup>14</sup> To further qualify my care perspective, I should note here that there is a great diversity of thought that falls under the heading “care ethics.” Additionally, some care ethicists reject the notion that care ethics can or should be applied to domains outside of inter-human relationships. They would thus reject my application of care ethics to the context of restoration. Other care ethicists, however, would accept such an application of care to relationships between humans and non-humans. I am in the camp of care ethicists who argue that it is valid and appropriate to apply care ethics to relationships between humans and nonhumans.

causally, as in “the relationship between the rate of unemployment and economic growth.” This type of use refers to the way two concepts are causally related.

In a narrower sense, a relationship is a social connection that indicates that a person plays a specific role in our life. We have many kinds of social relationships. We distinguish between friends and mere acquaintances. In the workplace we have business relationships with bosses, clients, and coworkers. Close friends and family relationships have their own dynamic. What is significant for a care perspective is how a particular relationship generates responsibilities to care.

Our relationship with nature could be limited to the broad sense only, but I, along with many others, want to push beyond this and say that it is more importantly of the specific kind, similar to our social relationships in some ways. Our interactions with nature are not limited to mathematical correlations or economic exchanges. Nature, ecosystems, form our identity, shape us cognitively, inspire our creativity, nourish our bodies, give us solace, and teach us humility and respect. We interact with the land daily, even in a culture that constantly finds new ways to further detach us from it.<sup>15</sup>

Care ethics often focuses on particular relationships we have but also deals with distant others and how to create caring societies. The models of care that Held talks about with regard to distant others and others we do not know personally may be relevant to restoration, but for the sake of narrowing the scope of this thesis, I will focus on what care ethics has to say about particular relationships. Since restoration is necessarily performed with actual, particular ecosystems, and in acknowledging Higgs’ emphasis on local community engagement through restoration, the models of care ethics which deal with our particular personal relationships and home communities are fitting for this context. Additionally, while a care perspective is also fitting in the context of environmental justice,

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<sup>15</sup> I talk about the scientific understanding of ecosystems and make a distinction between two types of ecosystems, those that are “natural” and those that are designed and managed intensively by people. But unless otherwise noted, I use nature, ecosystems, and land or landscape all interchangeably to refer to the nonhuman environment and organisms.

where the unequal distribution of environmental burdens on groups of people is the focus, I will limit my approach to how care speaks to issues between humans and nonhuman nature.

The first step in applying care ethics to the issues in restoration is to understand the human-nature relationship and the role that restoration can, does, and ought to play. I will explain two interconnected ways that we can understand a care perspective to be a favorable ethical framework for restoration and the role that restoration plays in the human-nature relationship. The first reason is that, descriptively, we are in fact dependent on and interdependent with nature, which includes functioning ecosystems. Who we are is constituted in part by the natural systems that we are in a relationship with. The fact of our dependence on and interdependence with ecosystems is foundational to our moral consideration for them.

Second, the kind of relationships that we have with ecosystems shows us that nature has moral value and that it deserves our moral consideration. While there is no way to prove it, many of us share the attitude and assumption that nonhuman nature is valuable on its own terms and deserves our moral consideration.<sup>16</sup> Explanations for why nature has intrinsic value or at least deserves our moral consideration vary from the features nonhuman nature shares with us, the experience of pleasure and pain, or being a teleological center of a life. For the purposes of this thesis, I will assume that my reader at least shares the latter assumption, that nonhuman nature deserves our moral consideration, and that care ethics rightly locates relationships of mutual dependence as a source of moral value that we ought

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<sup>16</sup> Warren explains, via Joel Feinberg, that the moral considerability of nature is “groundless” in the sense that there is not set of premises from which we can deduce the intrinsic value of nature on pages 74 to 76. Feinberg talks about how justifying the equal worth of humans is similar to trying to justify why a parent loves a child. Warren cites Feinberg’s conclusion that we can explain the things we love about our children, what led us to love them, but we cannot justify or prove that love. The statement of love is most ultimate or basic evidence that we can give. Stating that we love our children describes an attitude that we have rather than naming a property of that relationship. Carrying that conclusion over to the realm of nonhuman nature, Warren says that nonhuman nature is morally considerable to the extent that we take such an attitude toward it. The attitude is basic in the sense that more ultimate reasons cannot be given to justify it. While there may in fact be features of nonhuman nature that make it morally considerable, she states further, it seems unlikely that we will ever be able to prove it to the satisfaction of most rational agents.

to respond to. The ethical theory that we choose to frame and navigate the dilemmas that arise in our relationships with natural systems should also be based on or take into consideration the basic fact of our dependence on and interdependence with ecosystems. Care ethics does just this and is thus a favorable theory through which to understand how we should navigate the issues that arise from the practice of ecological restoration.

Care ethics is grounded in the fact that we are all dependent and interdependent on the care of others through our entire lives. The extent to which we succeed in many respects is dependent on the quality of care we receive, that is, whether care meets the conditions of *good* care. Our existence is dependent on our parents, the nurturing needed to make it to adulthood depends on those who look after us as infants and children. In adulthood, our flourishing is interdependent because it is based on the collaboration and support with those in our family, community, and larger society. If parents take the time to read to their children, an example of a good caring practice, the children are more likely to succeed in school. Good care prepares us for a life where we are able to flourish and reciprocate the care that we have received.

Moving outside of the social context, we are dependent on, and interdependent with, nature and more specifically ecosystems. What ecosystems are and what we can understand to be in their interest will be discussed further in the next section, but a basic definition will be helpful here. Nature, understood as the physical environment which includes nonhuman animals, plants, all other kingdoms of life, ecosystems, and the raw materials of life, provides the conditions we need to live. An ecosystem, the unit of life within the whole of nature on which restorationists focus, is “a prescribed unit of the biosphere that consists of populations of living organisms that interact with each other and with the physical environment that sustains them” (9). We are dependent on nature for life and our lives are a part of the natural community. Respiration of plants maintain our atmosphere, clean the air and water, microbes breakdown and make nutrients available for the plants to live, we and other animals eat these

plants, and our evolution was enabled by the eating of animals. People cannot live without functioning ecosystems, whether they be highly managed systems of agriculture or more “natural,” self-sustaining systems. In these very basic ways we are completely dependent on nature, and more specifically our existence is intertwined with both naturally and agriculturally functioning ecosystems.<sup>17</sup>

Since caring relationships are reciprocal to some degree, that is, both parties depend on the other to give and receive care to the extent they are able, we must understand how, if at all, ecosystems are dependent on us and how we can care for them. Just as importantly though, there is an asymmetry in many caring relationships, such as those between a mother and infant. Even so, there are important exchanges in asymmetrical relationships. An infant responds to the mother’s care and a caring mother will take that response into account. For my analysis here, both the asymmetry and the reciprocity or exchange between humans and ecosystems is important for describing the state of our mutual dependence.

I see two ways to conceive of ecosystems as dependent on us. The first kind of dependence involves ecosystems that have a higher degree of management, like agriculture systems, where the existence and maintenance of the system depends on human care. The second kind of dependence is relevant to those ecosystems more closely resembling “classic” or what I call “naturally functioning” ecosystems. These ecosystems become dependent on human care for their continued existence when they become impaired in ways that they do not have the means to recover from on their own.<sup>18</sup>

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<sup>17</sup> A “naturally” functioning ecosystem, loosely defined, is one based on a co-evolved community of organisms like the Ponderosa forests of western Montana. An agriculturally functioning ecosystem, loosely defined, is a system of species (or a single species in the case of monoculture agriculture) that people have selectively domesticated and cultivated for particular purposes. These two types of ecosystems exist along a continuum, with many systems existing as the result of co-evolved species and selective pressure from humans over time. I make this distinction to reflect the fact that we are not as dependent on what are called “classic” ecosystems, what I take to be those more closely resembling “naturally functioning” ecosystems, and we are more dependent of the biological communities that we have created, what I call “agriculturally functioning” ecosystems.

<sup>18</sup> E.g. heavy metals pollution in the Clark Fork. It may eventually be washed out of the system or very slowly degrade, but the timescale for “natural recovery” is longer than the usual timescale assumed for the purposes of environmental ethics. Any environmental problem could be rationalized as non-problematic given a long enough timescale, perhaps with the exception of extinction.

To begin with, ecosystems are less dependent on us, than we are on them. Those systems of the “naturally functioning” or “classic” kind will not cease to function if humans suddenly vanished. Biological communities existed before humans and will continue to exist after our presence has gone. However, what I call “agriculturally functioning” ecosystems, those that involve a high degree of intentional cultivation and management and are not “self-sustaining” are dependent on us for their current and continued existence. These human-dependent systems require that environmental factors like moisture or nutrient availability and processes like weed and pest control, seed harvest, planting, and breeding be continually managed. If people ceased to irrigate, plant, and otherwise give a competitive advantage to agricultural species and systems, they would soon fail and be replaced by another set of community members and processes. This is the first way that ecosystems are dependent on people.

The second way that ecosystems become dependent on human care involves “natural” or “classic” ecosystems. The Clark Fork River restoration serves as an example. While there is some agriculture in the area, the river itself, and the aquatic life in it count as a classic or naturally functioning ecosystem because the assemblage of organisms present prior to ecological damage would still exist in a similar state if it weren’t for human-caused pollution. And the system would continue to exist without the intentional management of people. When people cause damage to a natural system, and that damage is of a kind that the system does not have the means to recover from, it becomes dependent on people for its recovery.<sup>19</sup> The watershed, as discussed in chapter two, became highly polluted as a result of intensive mining in the area. This type of disturbance is not one that the ecosystem has the means to

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<sup>19</sup> As is the case with many things, dependence comes in degrees. Dependence is not a black and white, all or nothing feature of relationships. When I say an ecosystem doesn’t have the means to recover from some kinds of disturbance on its own, this is perhaps an overstatement. Polluted sediment would eventually leave a system like the Clark Fork, even if it took thousands of years or more. However, it seems more useful to think of these issues on a shorter timescale. The polluted stretches have remained polluted for over 100 years. Human intervention is the only short timescale solution. After all, we don’t want to say that nature can recover from anything that we throw at it.

rebound from or at least has not co-evolved to respond to. The “slickens,” the zones void of life, throughout the watershed are evidence that the watershed ecosystem will not overcome this obstacle anytime soon without some help. Dead zones have remained in place for over 100 years following the flood that laced river sediments with pollutants. Recovery of the polluted system is dependent on intentional human management. This system is dependent on our care to remove the obstacles that inhibit ecological function.

Care ethics locates moral significance in relationships, not just in features of autonomous individuals. While some theories of environmental ethics extend moral considerability to nonhumans based on shared features, my care perspective in this thesis looks at our relationships with these nonhumans. Restoration is cited, even in SER’s technical guide to the practice, as a way of repairing our relationship with nature as well as recovering lost ecological function. Since we are factually dependent on ecosystems, and in contexts which restoration is appropriate, ecosystems depend on us, the relational basis of care ethics makes it a favorable theory to ground restoration.

Moving to the second reason that care ethics is a favorable moral frame work for restoration, our dependence on and interdependence with ecosystems creates responsibilities to those natural entities. From a care perspective, our responsibilities to provide care arise from our relationships, the kind of dependence and interdependence we have with particular others. Warren states, “For ecofeminist ethicists, *how* a moral agent is in relationship to another – and not simply the nature of the agent or ‘other,’ or the rights, duties, and rules that apply to the agent or ‘other’ – is of central significance” (99). In our social relationships, a person’s ability to flourish depends on being cared for. Recognizing this, the ethics of care emphasizes that we all need to receive *and* reciprocate care to flourish. From a care perspective of restoration then, we should recognize that our mutual dependence with nonhuman nature produces responsibilities. If we depend on others to flourish, and they depend on us for the same, then we ought to care for those others for our own instrumental good, for the good



of others, and in order to create an environment where care can be perpetuated. Furthermore, how exactly we should care for others with whom we share an intertwined flourishing will depend on the particulars of our relationship. Caring for infants is different from how we maintain caring relationships with our adult peers because the needs of an infant and an adult are often times different. Similarly, how we care for different species or places will depend on their needs and the ways that we depend on them. While there may often be elements of utility in our relationships, as I will argue later in this chapter, this does not exclude the non-utilitarian elements of these relationships and the response of care to them.

The imperative to care for nonhuman nature comes to life when we realize how deeply we are embedded in and dependent on natural systems. When we overcome the estrangement that our modern technological society creates and can clearly see that we are not the rulers and controllers of ecological communities but are all mutually dependent knots in a great web of ecological relations, then we will be infused with the responsibility to care. If we could somehow imagine that nature were an intentional manager of the land who had our technological means and not us, would we not prefer it to be a caring entity? If we could somehow trade places with the ancient groves of trees, with the deer and the river, would we not look at ourselves through their eyes and hope that we would choose to accept our responsibility to care? We can still live a good life to some extent even when we fail to care for nonhuman nature as we know from the current condition of things. Nonhuman nature is not reflective and intentional in the same way we are and will not complain in a literal sense about how we treat it. We can treat nature as a commodity for only so long before the effects catch up to us, as they now are. But when we take up the responsibility to care for nature, humans as well as the greater ecological community will flourish. Good care anticipates the future and maintains practices in the present that will sustain relationships. This full realization can be encouraged by explanation,

argumentation, and narrative, but finds its true manifestation in the compassionate interpretation of and response to one's lived experiences.

Our responsibilities are often not of our choosing but come about through circumstance. In a social context, we might become responsible for caring for an elderly relative when they become ill or unable to fully take care of their basic needs. Good care in such a case requires that we be sensitive, attentive, and responsive to their particular situation. At a minimum, care involves meeting the needs of a particular other. The inabilities of those needing care dictate what we ought to provide for them. If they cannot eat, get dressed, or otherwise meet their needs on their own, our relationship with them requires that we provide what they cannot provide for themselves (whether directly or indirectly).

Similarly, human cultivated and highly impaired ecosystems fall under our responsibility as well, either because we have setup the conditions that remove their self-sufficiency or because ecosystems lack the means to overcome obstacles that we have imposed on them (again, at least not on a short timescale). Thus, it seems that we are responsible for removing those obstacles. Restoration is what uniquely enables us to fulfill this responsibility and thereby plays a central role in caring for ecosystems. The needs of a particular ecosystem that has been impaired in a way that can't be overcome by its natural processes depends on our caring restoration to meet its needs.

What I want to be clear in this section is that the circumstances of our relationship with degraded ecosystems are characterized by mutual dependence. Although the dependence of ecosystems on us is different than our dependence on them, we can make sense of a literal interdependence. Dependency and interdependency in relationships is the basic condition from which care ethics arises. The details of the interdependence suggest what the specific responsibilities are that we have to nature. We can also explore the question of what an ecosystem owes us, or more literally, the ways in which we are justified in having consumptive interactions with ecosystems.

I want to be careful to avoid saying anything that sounds patronizing. I do not mean to paint a picture where ecosystems are at our mercy, feeble children unable to help themselves, and human saviors come to their rescue. We have simply entered into a relationship with ecosystems in both positive and negative ways that now require ongoing care for those systems to be maintained. From our relationships with particular ecosystems, specifically those that we have impaired in some way, the caring thing to do is begin a process of restoration. What that process will entail, how it will be designed and carried out from a care perspective, requires a further look at the paths that authors Eric Higgs and Colette Palamar have begun to pave.

### **Three perspectives on domination and a caring response –**

The previous section took the first step toward a care-based reorientation of the issues in restoration. By reorientation I mean that a care perspective frames issues differently than other perspectives in restoration literature. The reorientation that a care perspective provides pertains to how we view ecosystems and the practice of restoration. For example, a justice-based approach, as seen in John Basl's notion of restoration as restitution, views ecosystems as "the objects of wrongdoing" and restoration as a way to compensate for the loss of ecological value (Restitutive Restoration). Additionally, on Basl's view, restoration should be about reforming the character traits of the wrongdoer that led to their act of injustice. Restoration is then focused on ecosystems as objects that have lost value and the moral defects in individuals who have damaged ecosystems. Similarly, Robert Elliot's view, discussed in chapter one, is that restoration fakes or forges nature, much like a painter could forge a Monet by replicating it as precisely as possible. The view that nature can be faked implies a subject-object view of restorationists and ecosystem. On this view, the human restorationist is an active participant and the ecosystem a passive object. Alternatively, a care perspective's initial contribution to the debate in restoration is to frame restoration as a way to maintain a healthy relationship with ecosystems and to view ecosystems (or their community members) as active participants.

Viewing restoration and ecosystems in a relational context is not new to this body of literature but the explicit application of an ethical approach which acknowledges the salience of relationships is. Higgs, Palamar, Jordan, the Society for Ecological Restoration, and others all imply a relational view. However, a care perspective meshes a relational view of restoration and ecosystems with an ethical framework that supports it. Doing so makes a clear connection between a favored way to view nonhuman nature, one that is now common in environmental thinking, and an ethical theory that is grounded in the reality and ubiquity of relationships (as opposed to rights, justice, or utility views which seem to perpetuate a subject-object, culture-nature dualism).

But it is necessary to push a care perspective further in the context of restoration to show how it can answer questions, frame issues, or problematize assumptions in a unique and helpful way. To take the next step in applying a care perspective to issues in restoration I will focus on three particular issues within the broad issue of domination. Domination in restoration is a concern for Katz, Higgs, and Palamar. Each of their concerns and responses bring out a different aspect of domination in the context of restoration.

Care ethics is concerned with finding good ways to actively care for others while refraining from domination. Like restoration, a general issue in care literature is how to provide for others while not overstepping and turning care into a form of paternalism, oppression, or domination. In the context of restoration, care can then help address the difficulty of intervening on behalf of ecological others while avoiding domination of nature. In the following sections I will show how a care perspective can clarify and respond to three views of domination in restoration.

#### **Katz's view of domination – Ecosystem Autonomy**

Katz was the first author I considered who cited domination as a central concern for the theory and practice of restoration. He states, “the fundamental error [of restoration] is thus domination, the denial of freedom and autonomy” (240). Restoration is an “attack on the preeminent value of self-

realization” (240). On Katz’s view, restoration does not assist the recovery of ecosystems, as SER’s definition states. It destroys nature by replacing it with a human artifact. An ecosystem’s freedom, autonomy, and self-realization are violated or even destroyed, on his view, by the act of restoration. Katz supports this claim by drawing a distinction, which I discussed at length in chapter one, between natural processes, which create natural entities, and the human creation of artifacts by the intentional technology of restoration.

Underlying Katz’s distinction between the status of natural ecosystems versus artificially created human environments (the latter being the result of restoration, in his view) is the deeper conflict of nature’s autonomy with human intention and technology. He takes the two to be mutually exclusive. Thus, nature’s autonomy is defined as its ability to maintain self-realization, which, from Katz’s perspective is “its own independent [from human technology] course of development” (240). The dichotomy is clear: either nature chooses for itself or humans choose. Autonomy is expressed through free, independent choice, although “choice” for ecosystems must be thought of differently than for people, a point I will discuss later in this section.

Katz’s view of ecosystem autonomy, the basis of his accusation of domination, and the conflicting sphere of human intentions and technology parallel traditional views of liberal individualism and the contractual model of social relations that Held critiques in *The Ethics of Care*. Liberal individualism is the view that persons are autonomous individuals capable of making rational decisions free from constraints and bias. In terms of relationships, such a view holds that people can freely choose who to engage with and when. Exchanges between the persons of liberal individualism are those of self-interested agents who make agreements only when it is mutually beneficial. Instead, Held says that care “calls on us to *take* responsibility, while liberal individualist morality focuses on how we should leave each other alone” (14-15). Held claims that the liberal individualist conception of persons is an inaccurate description and an impoverished ideal. Liberal individualism fails to recognize our relational

identities, how we are embedded in familial, social, and historical contexts, in addition to our independent selves. Furthermore, we do, and should, make moral decisions from within the constraints of these contexts (13-14).

Coming back to Katz's view, we can see from the perspective of liberal individualism why leaving an ecosystem alone and refraining from restoration seems to him the only way to respect an ecosystem's autonomy. Although it may sound absurd, the underlying reasoning seems to be that unless an ecosystem "freely chooses" or "agrees" to restoration as a mutually beneficial end, we cannot proceed without violating its autonomy. And because Katz seems to take the view that human interests are antagonistic to ecological interests, an ecosystem would not choose any ends that we set for it. Carrying over Held's critique of liberal individualism, I argue that Katz's way of viewing ecosystems is also a false description and an impoverished ideal.

From the alternative perspective of care, ways of respecting autonomy while still participating in our relationship with ecosystems through restorative practices become evident. Held's (and some others in the care literature) alternative view of autonomy is that of relational or mutual autonomy (55). Relational autonomy accepts that we are embedded in various relational contexts and conceptualizes free choice as accepting or refusing responsibilities of care, revising or ending uncaring relationships, and cultivating new relationships. The choices made from within relational contexts can then be assessed by the standards of good care, rather than mutual but independent benefit alone. While the caring thing to do might sometimes be to leave others alone, it more often requires us to actively promote the good of others. To be caring means to respond to the needs of others and to reciprocate the care that others have provided to us when we were in positions of dependency. The goal of good care is a combined flourishing of those in a relationship and restoration can achieve the human, ecological, and combined ecocultural goods that make that possible.

Drawing on a large body of literature on relational autonomy, Held describes the autonomy of caring persons as a set of competencies that allow for self-discovery, self-definition, and self-direction. At the same time, though, we should also recognize that the very competencies that allow us to achieve autonomy are learned from others that we are in relationships with and are honed by practicing these competencies in the context of relationships. Autonomy is not being unencumbered by familial, social, and cultural realities, but is created shaped by those realities. Part of what it means to be a caring person in relationships is allowing people the freedom to learn and practice such competencies but also to actively help them achieve those goods. For our management of ecosystems it seems that caring restoration should find a balance between hands-off respect for the self-direction of ecosystems and our active assistance in recovery which will shape, but not define, ecosystems. Just as we shouldn't try to create identities for other people, we also shouldn't create the totality of the identities of ecosystems through restoration. No doubt there is a fine line to toe between restoration as a total reflection of ourselves and as a hands-off policy.

To end this discussion I want to bring in some examples from the last chapter to ground these two different notions of ecosystem autonomy. The reality of ecosystems suggests that we can't think of them as free, rational, agents as we do of people. The Clark Fork watershed cannot be said to have a goal for its future in the same way that I have goals for my future. Perhaps what this watershed does have is a telos, or directionality, which generally points toward a future state of sustained populations and processes, assuming the absence of catastrophes. Ecosystem autonomy must be something like its ability to react and adapt to changes in the biotic and abiotic environment (what ecologists and restorationists refer to as resilience or stability). Again, in the case of the Clark Fork, the removal of polluted sediment removed an obstacle for aquatic life. Species (or more precisely individuals of a species) responded by slowly repopulating formerly fishless stretches of Silver Bow creek and other areas. The adaptive, reactive, capacities of ecosystems and their members are what give us the sense

that they self-regulating entities. Ecosystems are not literally reflective, goal setting entities. Ecological concepts of stability, integrity, and what Higgs refers to as a “historic range of variability” are all ecological phenomena related to the independent, teleological expression of ecosystems that form the basis of what we could call ecosystem autonomy.

Thus, ecosystems lose autonomy when their ability to respond to changes is lost.<sup>20</sup> Losing the capacity for response or correction is how restorationists often define damage or impairment to ecosystems. For example, the pollution in the Clark Fork watershed which created slickens, the dead zones in the river, would be a clear example of where autonomy of the system was violated. However, it does not seem like all human intervention in ecosystems violates their autonomy, as Katz suggests. When we do something that ecosystems *do* respond to (aside from dying off as a response), like prescribed burns in fire suppressed forests and prairies, removing dams from rivers, or cleaning out pollution, it does not seem like their autonomy is violated, but is instead increased.

A care perspective on ecosystem autonomy does not dissolve the notion of self-determination for ecosystems, but it refuses to equate it with total freedom from human action. Just as care suggests that humans are not isolated rational agents who choose ends for themselves without consideration for their social ties, we should not think of autonomy for ecosystems as free from human presence but as the ecosystem’s ability to react, adapt, and flourish within the bounds of reasonable constraint that we impose on it. Our job in caring for ecosystems and respecting their autonomy in the context of restoration is to meet the requirements of good care. Doing this will mean understanding and responding to the dependency of ecosystems on us that is caused by our damage and neglect while avoiding overbearing, paternalistic tendencies toward creating too much of the ecosystems character and identity. Something that remains to be understood then is when restoration is overbearing, when

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<sup>20</sup> See Clewell and Aronson’s *Ecological Restoration* p. 109 for a more detailed account of ecological resilience.



our control of ecosystems is excessive, and when it is an appropriate response to our fellow ecological community members.

The view of relational autonomy from Held's care perspective shows how we can conceive of autonomy in spite of constraints that may exist. For ecosystems, even those that are impaired, the potential for self-determination remains. Although the ecological dead zones in the Clark Fork watershed may be examples of where their autonomy has been diminished, our assisted recovery of restoration helps to increase the ecosystem's capacity for self-determination. If we took Katz's rejection of restoration seriously, although he contradictorily states we should clean up our ecological messes, respecting the autonomy of the Clark Fork would result in letting natural processes deal with pollution on their own terms. Following the more rigid constraints of individualist autonomy and leaving the pollution in place would have prevented aquatic life from returning to the now repopulated creeks. As Palamar's notion of opening the scope of possibilities for ecosystems suggests, restoration in the case of the Clark Fork River actually increases the ecosystem's ability to respond and adapt, increasing its autonomy.

**Higgs' view of domination** – Can we care for an ecosystem?

My conclusion from a care perspective on ecosystem autonomy supports Higgs' notion of wild design. Relational autonomy, the alternative that care provides to individualist autonomy, shows that we can make sense of ecosystem autonomy alongside at least some human constraints and intervention. Relational autonomy, as I suggest, poses the challenge to restorationists of finding a middle ground between caring intervention and dominating constraint. Similarly, Higgs says that the challenge of wild design, "lies in reconciling apparently opposite tendencies in restoration: the fact of intentionality and the independent character of ecosystems" (273). In other words, in order to avoid domination we need to know what the independent character of an ecosystem is and give it a prominent place in the design and implementation of restoration. At the end of his discussion of wild

design Higgs proposes the model of “restoration as conversation” as an intuitive, down to earth model for how to achieve balance between the ecological and cultural spheres of interest. He says,

A lovely aspect of conversation is that a true conversation implies a sharing of information, perspectives, knowledge, and wisdom. If one person gets the upper hand, it turns into an argument, a fight, or the domination of one will over the other (286).

Qualifying his model of restoration as conversation, Higgs understands that, “Ecosystems cannot speak in any conventional sense, but attunement to the specific needs of ecosystems allows restorationists to represent their interests” (286)

While Higgs points out this challenge, his account of the “independent character” and “wants” of ecosystems doesn’t move out of a scientific (ecological integrity) and historical (historical fidelity) understanding and to a moral account. We need to know more about what an ecosystem is, its independent character, its different voice, in order for restoration to be a practice that responds to an ecosystem’s call to care. The science and history of ecosystems are certainly informative but require interpretation in order to say what our responsibilities to them are. Before I move on to how a care perspective can contribute to the conceptualization of ecosystems and interests, I want to first acknowledge the ways that Higgs’ concept of wild design overlaps with a care perspective.

Wild design shares many desired values and attributes of the caring person. Sensitivity, sympathy, attentiveness, and responsiveness to a particular others’ needs, which are necessary to cultivate and maintain caring relationships, are all themes that Higgs says will enhance our understanding of how to make restoration *good* restoration. Wild design also shares elements with ecofeminism, such as pluralism and inclusivity, when Higgs says that there is not one right way to design and restore, but many good forms, and that these good forms will include the cultural, historic, and ecological values of the place. Higgs acknowledges that restoration is always a theory and practice in process, that it will continually be honed, a boundary condition of Warren’s ecofeminism (Higgs, 272-273). Furthermore, he conceives of ecosystems as active participants in restoration, and even as

conversational partners. And in conversing, we need to listen to the unconventional and soft-spoken, or as Gilligan and others might put it, the different voice of the ecosystem. Lastly, “Our connections [to place] depend on the practice we engage and on the stories we tell” and the stories told and passed down through generations “will enrich the care of place” (285). Good restoration is a way to care for people and nature.

The call for restraint in human intervention in nature is necessary to keep unwarranted anthropocentrism in check. But I feel that too much of the work in restoration has passed off ecosystems interests as something that science can fill us in on or that we will surely become attuned to them if we just do a better job of listening. I am not rejecting the input of ecologists, but science does not tell us everything about the values or interests of an ecosystem. I am also not rejecting the view that personal engagement with ecosystems will tend to improve our practices more than a tech-fix attitude. My position is that referring to ecosystem interests as if they were the interests of a discreet, autonomous, independent individual is at times a helpful shortcut, but is inaccurate. In order to care for someone or something we can't take the shortcut. We need to know who or what actually can be known and given care.

Trying to understand what ecosystems are and what is in their interest opens up a whole cluster of questions about individuals, agency, what it is to have interests vs. something being in one's interest, and various scientific concepts of ecosystems. Each of these issues are areas of ongoing contention, and I cannot address all of them here. For the purposes of this section I will suggest some ways that we can conceive of ecosystems and how these conceptions suggest care should respond.

In developing her care-sensitive ecofeminist ethic, Warren draws on hierarchy theory in ecosystem ecology to talk about what ecosystems are. Traditionally, ecologists have argued about what the best, most objective, view of ecosystems is. Hierarchy theory rejects the view that there is a single correct objective view of ecosystems. Instead, according to Warren's understanding, hierarchy theory in

ecology suggests that how an ecosystem is defined, how we view its component parts, and how the boundaries are drawn depends on the questions ecologists are asking, the methods they will use to collect data, and other considerations. Simply, what we call an ecosystem is a human construction. This does not deny the fact that there are varying degrees of connectedness between organisms and the abiotic environment in an area. But it does reject the idea that we can think of an ecosystem objectively as an individual. This issue is certainly up for debate within ecology and environmental ethics, but for now I will leave the status of ecosystems as helpful human constructions.

So what does this view of ecosystems mean for a caring perspective of restoration? First off, if it is true that there is no objective view of ecosystems as individuals, literature in restoration shouldn't treat the sphere of "ecosystem interests" as if it is a unified set of goods that favor a particular entity. While choosing a particular view of ecosystems is useful for scientific research, for the purposes of ethics it seems that it will be better to focus on either providing the basic conditions of life for all organisms or caring for particular entities below the ecosystem level (individuals, populations).

Looking to how a care perspective responds to particular social or familial relationships versus our participation in community and society level relationships is helpful. We can have caring values and engage in practices of care towards particular others that we are in a relationship with and we can contribute to the existence of caring communities. Caring for particular others and contributing to a caring society both require that we cultivate and act on the same set of values and emotions. Care for close family relationships and promoting a caring environment are both grounded in the universal experience of care. Held argues that while early perspectives on care limited it to the private domain of the home, family, and friends, care is also relevant in the public and global domain.

Although the basis of care is the same for particular others as it is for communities and society, the approach and goals differ. Caring for particular others requires that we know their specific interests, desires, and preferences well enough to be able to respond in a way that shows we are sensitive and

sympathetic to them *as the individuals they are*. Care for particular others reflects that we have an understanding of them that goes beyond the general things that everyone else also needs and desires.

Contributing to the existence of a caring society or community, alternatively, aims at creating an “environment of trust,” creating the pre-conditions for respecting the rights of others, and fostering the connectedness that motivates others to reciprocate care. While a liberal approach assumes the establishment of rights and universal toleration as the starting point, a care perspective claims that a pre-requisite for liberal democratic society requires that people care enough about others and having a fair society to actually respect others and tolerate differences. We can presume that caring for community and society would involve things like participating in community events that bring people together, maintaining the vibrancy of public spaces, and other activities that would promote the feeling in the community that there is mutual consideration and solidarity. Essentially, caring for communities indirectly cares for individuals while care for particular others is direct. For communities we ought to help provide the basic conditions necessary for a caring community to exist.

I want to suggest something similar for how restoration can be a caring practice for ecosystems. I do not think that ecosystems are in fact individuals in the sense that they have a set of interests unique to them that can't be reduced to the interests of the organisms that ecosystems are composed of. Given that, caring restoration could be seen to have two basic approaches. For the whole of the ecological community we can practice care in the sense that we help to provide those ecological goods shared by all. This would be the basics of clean air, water, soil, and refraining from unnecessary development that generally tends to decrease ecological function in one way or another. The removal of pollution, dams, and other obstacles that generally inhibit ecological function should be the basic goal of caring restoration. This general form of care for ecological communities is quite similar to Palamar's goal of creating the conditions that open up possibilities for the land. However, I think we can go

beyond this basic goal and practice restoration as a form of care for the particular relationships we might have with members of ecological communities.

Taking the Clark Fork as an example, we can think of the ranchers working on Dry Cottonwood Creek Ranch. They have a particular relationship with the land as ranchers. Beyond the cattle and fields of alfalfa, these ranchers actively engage with the more “wild” members of the land community such as the wolves, deer, elk, songbirds, trout, Ponderosas, dogwoods, and Bitterroot. And these interactions can be judged and altered to be more or less caring as they engage in what I earlier called restoration ranching. It seems that because of their history with the land and their role in the ecosystem as it now exists, these rancher-restorationists should be able to go beyond the basic care of the land community and foster their relationship with the creeks they fish in, or the wild grasses that their cattle prefer in spring. But what does a care perspective have to say about this kind of partiality? Can we show a caring favoritism in restoration? Or will this just be another opening for accusations of restorative domination? Palamar’s view of restoration brings up issues of impartiality as it relates to restorative domination. Returning to her views provides the context for understanding the strengths and weaknesses of a care perspective on partiality in restoration.

#### **Palamar’s view of domination – Impartiality and favoritism in restoration**

Palamar defines domination as excessive control. Restorative domination, that is, excessive control exerted by restorationists over nature, occurs when specifically human visions for the land and arbitrary human ideals are forced on the landscape and ecosystem members. As Palamar puts it, “Restorative domination occurs for a variety of reasons, including (1) the choice of a rather arbitrary historical ideal, (2) the difficulty of developing complete species lists, and (3) the fact that current species compositions include both nonnative and naturalized plants and animals” (287-288).

Drawing on four of Warren's eight<sup>21</sup> boundary conditions (inclusivism, pluralism, questioning objectivity, and theory in process), Palamar concludes that the way to avoid restorative domination is to make restoration "a process by which we set up the conditions that open the scope of possibilities for the land. These restorative conditions will also encourage parameters allowing the land to participate actively in outcomes" (294). For Palamar, domination stems from arbitrary human ideals being imposed on the land. Instead of human ideals having priority, the focus and goal for restoration is creating the greatest number of possibilities or choices for the land. She even states that if a species decreases possibilities for other species, they should be removed (294). Why is it that possibilities or choices for the land is the greatest good to aim at?<sup>22</sup>

The ideal that Palamar sets for restoration is a good starting point and in some cases it may be all that we should do (perhaps in Wilderness areas, for example). Furthermore, a care perspective, as I have described it, would encourage providing the basic conditions for all life. However, I do not think that opening the scope of possibilities for the land should be thought of as a necessary restriction on restoration such that if we cross it we have dominated the landscape. My position is that Palamar's view unintentionally supports an impartiality that precludes the possibility for restoration to reflect our personal relationships with members in the land community. Quoting Warren,

Care-sensitive ethics permits that special relationships, particularly dependency relations, provide contextual reasons for not treating all interests equally. It does not do this *carte blanche*: It is not always moral to act on one's preferences, especially if so acting violates the care practices condition or keeps in place unjustified practices of domination (*Ecofeminist Philosophy*, 134).

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<sup>21</sup> Found in both the article "The Power and Promise of Ecological Feminism" and her book *Ecofeminist Philosophy*, Karen Warren explains eight boundary conditions that delineate necessary, but not sufficient conditions for ecofeminist ethical theory building. These eight conditions are: opposition to oppressive -isms of domination, it must be a contextual ethics, it should pluralistic, inclusive, a theory in process, question objectivity, recognize values often ignored by traditional theories, and reject abstract individualism as it reconceives of the self.

<sup>22</sup> Her justification comes from Warren's boundary conditions of inclusivism and pluralism, but it is unclear to me how such a prescription is not also arbitrary in the context of ecosystem composition. For example, that are ecotypes that are known to have low diversity and it doesn't seem necessarily like a good thing to add more species to the area if we were to restore it.

From a care perspective, impartiality is appropriate in some contexts but shouldn't be thought of as a universal prescription for right action. Instead, a care perspective looks at instances where partiality is acceptable and perhaps even favorable over impartial moral principles. In a hypothetical that Held considers, two children are drowning, one of which is the child of a nearby parent. The parent can only save one child and they choose their own. A utility view of this dilemma might ask which child's life is of the greatest value or a Kantian approach would try to establish a universal principle to make the decision. A care perspective recognizes the harsh reality of such a choice but does not let the impartiality of utility or rights override the fact of the bond between parent and child. The minimum that this example shows is that there are at least some circumstances where partiality based on personal relationships overrides the impartial view from utilitarianism where people are vessels of utility and or from duty which demands equal respect in response to equal rationality. While this example is extreme, I wonder if there is a way to understand something similar, a warranted, caring kind of favoritism in restoration.

The first kind of favoritism that a care perspective might recommend has to do with the places that we choose to restore. The goal of opening the possibilities for the land explains one reason why we should restore the Clark Fork River. Pollution has reduced the possibilities for many species in the area. My care perspective adds the community and relationships sustained in the area to the reasons to restore. Those living in the Clark Fork River valley have a relationship with the place and share in the burden of pollution. Removing polluted sediment is a practice that promotes intertwined flourishing of all the community members. But it could also be seen as a warranted kind of favoritism to place. If increasing the number of possibilities is the primary goal for restoration, there could be other places that have been impaired even more. However, while a care perspective does at times emphasize ways to care for distant others, it seems that the relationship and mutual dependency between the river valley and its human inhabitants justifies them in favoring the place they call home.



A second kind of favoritism might stem from recognizing a particular vulnerability of a species. Held says that caring overrides impartiality when we have a “responsibility for a vulnerable being in need of one’s care” (92). In the Clark Fork restoration a special emphasis has gone to tributaries and stretches of the main river that run through agricultural land. Irrigation diversion and cattle have resulted in a reduction of vegetation on the banks of streams, water flow is reduced, water temperatures have increased and oxygenation has decreased. Native trout are particularly vulnerable to such conditions and thus restoration efforts have been tailored in response. Restoring the conditions that are favorable for trout certainly opens up the scope of possibility for those fish and other aquatic organisms. But leaving the streams as they were would have kept open the possibility for other species of fish and aquatic life that are better adapted to warm, oxygen poor conditions. Re-vegetating stream banks and excluding cattle opened up possibilities for more trees and shrubs, but before there were more possibilities for grasses and forbs to live in the stream bank environment. My point here is that increasing possibilities for the land does not provide adequate means to make decisions in restoration. It is not always so simple a matter as seeing which options would increase possibilities the most. While other species besides the trout were certainly vulnerable, our understanding of what these native fish need have come from a relationship with them. Fewer people have an understanding and relationship with the other aquatic and riparian life that is equally as vulnerable as the trout. Recognizing specific vulnerabilities of species or other entities through our relationships with them is one way that a care perspective can make sense of favoritism and show how it can assist in making necessary decisions.

Lastly, another kind of favoritism that my care perspective could at times support is for culturally important plants, animals, or places, what Higgs might describe as being part of a “storied landscape.” Though it may walk a fine line between utility and relationships in the eyes of some, favoring plants like huckleberries, blue camas, or others that are harvested annually and are a part of the cultural heritage for various groups (historically native American groups, but also European settlers

who have made it a family or community practice) in an area is another kind of partiality a care perspective can consider as salient moral input. Not only do these species have use value but they are also partners in a particular human-nature relationship. On the one hand it seems that we *should* follow the guideline of creating more diversity and possibility, thereby refraining from promoting these plant species over others. But on the other hand, we would not want to use our relationship with these plants to justify creating a monoculture (as we have with corn in the Midwest, a practice that I believe a care perspective would object to). While my care perspective does not give us principles to know exactly when partiality has gone too far, it does suggest that there is some degree to which we can understand favoritism to be a form of care for nonhuman nature that also satisfies some of our own needs.

In the end, the care perspective that I develop shows a few ways that a relational view of restoration could and sometimes should override impartiality. Sometimes it is caring relationships that should have priority over impartial moral principles. We should at the same time be wary of using personal relationships as a justification for acting purely on self-interest. Responding to favoritism in restoration should be limited to when it is truly an expression of a caring relationship. If partiality goes too far in promoting one voice in the ecosystem over all others, we should think of Warren's condition of inclusivism and pluralism, or even insights from utilitarianism and rights, to understand when care has become the kind of domination it seeks to diminish.

*Conclusion:*

As the debate over ecological restoration has evolved, more authors have come to focus on the issue of domination. On a theoretical level, arguments like Katz's, judging by how many times he has been cited, are compelling to many readers. However, when we stand on the ground and observe the day to day activities of restorationists, or participate in restoration ourselves, the gap between some theoretical approaches and the reality of the practice become clear. Domination is not the sort of feature that we can directly look at in a restoration project. Yet it rouses the concern of many people who care about nonhuman nature and good environmental practices. For this reason, philosophy of restoration will be improved when, like Higgs, authors experience and participate in the activities for which they form theories. Participation, I believe, will both clarify the gap between theory and practice and motivate us to engage in alternative theories like the ethics of care.

The ethics of care may be seen by some as deficient because it lacks the rigidity and clear applicability of traditional rights and utility theories. But in its flexibility also lies its strength. For restoration, a care perspective mediates between the world of theories and the world as we experience it. Such a perspective can recognize our emotions, intuitions, relationships, and history as valid input for moral decision making without succumbing to total relativism. The ethics of care also has the potential to help support some means of restoration over others (like controlled grazing instead of herbicide application to control weeds on a rangeland, or genetic swamping as opposed to piscicide for controlling invasive fish species in wilderness lakes). As a practice that represents a diversity of personal, cultural, and ecological interests, restoration is well supported by the complexity and thoughtfulness of care. A care perspective, like the one I have developed here, can help us clarify and respond to the middle ground of restoration between a hands off management policy and the danger of engineering the independent identity out of nature.

This thesis only scratches the surface of what can be said about restoration and other environmental practices from a care perspective. I feel that I will have succeeded if I only convince people that care, compassion, and responsibility are rigorous enough moral structures that they can potentially lead to the improvement of practices like restoration. Further, a relational view of restoration does not mean that we have to take a spiritual view of nature as in Gaia theory. Our relationship to nonhuman nature is literal, direct, and calls for our consideration. Restoration should be defended as a caring practice that gathers people and communities to recognize and engage their role in the greater ecological community. Although argumentation cannot prove it, caring for the environment around us is a way to ensure a future of intertwined flourishing. Our challenge and responsibility is to go out and show that this is true.

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