LOS ANGELES URBAN AGRICULTURE:
A DEEP ECOLOGY AND ECOPSYCHOLOGY PERSPECTIVE ON ENVIRONMENTALISM

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ABSTRACT

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Humanity is on a trajectory in which environmental crises are worsening. There are many efforts directed at resolving the multitude of environmental problems, but the environmental movement as a whole remains unsuccessful in stopping the rate of ecological exploitation and degradation. Deep Ecology argues that this is because traditional environmentalism addresses symptoms and not root causes of environmental abuse. According to Deep Ecology, the process of industrial-technological modernization and the advent of urbanism have alienated human populations (primarily the consumers of more ‘developed’ nations) from Nature itself. This alienation involves a hegemonic worldview that humans and Nature are fundamentally separate, and that Nature’s value consists only in how it can be utilized by human beings. Deep Ecology asserts that successful environmentalism requires a paradigmatic shift to a worldview that all life has intrinsic worth and should not be exploited for the non-vital needs of humanity. Because the physical separation of urban lifestyles from ecosystems further deepens the current state of alienation, Deep Ecology insists that people need more contact with Nature to mend this problematic rift. The developing field of Ecopsychology overlaps with Deep Ecology and provides supportive theories. Proponents agree that experiencing Nature is an important part of a successful
environmental movement. Contact with Nature facilitates appreciation for, and identification with, other species and ecosystems. This thesis has explored urban agricultural gardening as a practical application of these theories. Interviews were conducted with gardeners in Los Angeles County to explore how their gardening experiences have impacted both their relationships with Nature as well as their environmental behavior. The data suggests that gardening is a meaningful way for urban dwellers to connect with Nature. It also indicates that such a process of connecting can positively influence environmentally responsible behaviors. According to the theories of Deep Ecology and Ecopsychology, urban gardening should be promoted as a way of improving environmentalism by addressing the root causes of environmental abuse and reconnecting society with Nature.
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CHAPTER ONE: INTRODUCTION

The current state of human-induced environmental degradation is at an all time high and threatens the lives and well-being of humans around the world. The variety and number of environmental concerns that we face today is staggering (Brown, 2006). Issues include, but are not limited to: widespread pollutants, loss of biodiversity, destruction of soils, risks of genetically modified organisms, loss of clean water, and global climate change (McKibben, 2010; Ryan & Durning 1997, Wapner; 2010). Consensus is building that a trajectory of environmental changes has been set in motion that can not be undone; difficult changes that could continue for centuries even if all environmentally destructive activities were to cease immediately (Brown, 2006; McKibben, 2010). Derrick Jensen (2006) argues that the collapse of civilization as we know it is unavoidable. The question he asks is, will humanity maintain the current trajectory and head into a total ‘crash landing’, or will we soften the impact of collapse by altering how we relate to and interact with the rest of the earth? It is imperative that the environmental movement adapt to knew knowledge and circumstances to prevent a worsening of this situation (Devall, 2006)

Even though individuals and organizations within the environmental movement have been working to resolve many different issues for decades, success in halting the rate of environmental degradation has been significantly lacking (Jensen, 2006; Roszak, 2001). In The End of American Environmentalism (2006), Bill Devall presents a historical account of the environmental movement in which he notes that each
environmental victory is countered and challenged by social, political and economic forces of mainstream culture. National Parks are too few and receive inadequate funding or protection; environmental regulations are too easily dismantled; new toxins and pollutants are created and released as old ones are banned; environmental hazards are redirected onto the marginalized members of society; corporate influences smother public awareness of environmental problems and stifle public ability to affect change; the U.S. refuses to take significant action to halt climate change; and the list goes on (Devall, 2006). Given the inability of the environmental movement to resolve these issues thus far, the question must be asked, why do people continue destroying the environments that are the sustaining foundation of human existence? This thesis will explore two converging arenas of thought that seek to answer and address this question. The primary focus will be on Deep Ecology. Support for this approach to environmentalism will be drawn from the field of Ecopsychology.

Deep Ecology, originated by Arne Naess (1973), is a philosophical approach to environmentalism, which suggests that the traditional, mainstream environmental movement is inherently flawed. Specifically, through industrialization, modernization, and urbanization, humans have become alienated from the rest of Nature, creating a false perception that humans are separate from and superior to all other life. This results in a perpetuation of exploitation of the earth’s nonrenewable resources.

Grounded in such a paradigm, much of traditional environmentalism seeks to resolve environmental issues for the benefit of humans alone, and according to the perceived needs of the time. With this limited point-of-view the environmental
movement has generally functioned on a case-by-case basis. When individual issues of ecological degradation are determined to be harmful they become an isolated target of concern. Deep Ecologists claim that environmentalism can never adequately protect ecosystems from the destructive exploits of human “development” as long as it continues to approach different issues as separate problems (Drengson & Devall, 2008; Fox, 1995; Jensen 2006; Naess, 2001; Sessions, 1995).

In contrast, Deep Ecology asserts that a successful environmental movement necessitates a reconnection of humans to Nature and a paradigmatic shift in human-Nature relationships. The hegemonic conceptual framework that humans are dominant to Nature and that Nature exists as a resource for human beings must be replaced with an inclusive and nonhierarchical perception of all Life. The pervading belief system that humans are inherently more valuable than the rest of Nature must be replaced with a belief system of eco-egalitarianism, of empathetic identification with Nature. Deep Ecology asserts that this perceptual transformation is necessary to any enduring sustainable relationship between humans and the rest of Nature (Drengson & Devall, 2008; Fox, 1995; Jensen 2006; Naess, 2001; Sessions, 1995).

The developing field of Ecopsychology provides useful insights that supplement and support Deep Ecology well. Proponents argue that humans are products of Nature, physiologically structured to interact with Nature more than we currently do. They suggest that an evolutionary need to experience Nature is part of the psyche, and the absence of Nature contact within our lives can be a hindrance to our psychological health. Evidence of this is said to be the continual exploitive treatment of our environments, the
illogical undermining of the foundation of human existence (Brown, 1995; Buzzell & Chalquist, 2009; Roszak 2001; Wilson, 1984).

Preventing further ecological degradation and protecting our ecosystems requires a return to a particular type of mental health, one that incorporates healthy relationships with Nature. This requires contact with Nature. A developing body of research is suggesting that experience with Nature provides a tangible source of mental well-being (Buzzell & Chalquist, 2009; Hinds & Sparks, 2008; Nisbet et al, 2009; Roszak 2001). Research also suggests that there are correlations between contact with Nature and environmentally friendly behavior. Experience leads to appreciation and appreciation manifests in behavioral adjustments. To successfully address the environmental issues of our time, it is important that people have physical contact with Nature, which is a necessary factor in getting people to feel connected and invested in environmental issues (Buzzell & Chalquist, 2009; Hinds & Sparks, 2008; Nisbet et al, 2009).

This study has explored urban agricultural gardening as a practical method of applying Deep Ecology to everyday lifestyles in an urbanized world. Because it overlaps, Ecopsychology is discussed for its contribution to the environmental movement Deep Ecology advocates for. The last several years have already seen an increase in urban agriculture. The reasons for this increase includes concerns about protecting Nature from agricultural development, reducing the climate impacts of industrial agricultural practices, quality and safety of produce, cultural and community development, and social justice, among others (Lyson, 2004; Patel, 2007; Shutkin, 2001). This study is not intended to explore these types of environmental and social aspects of
urban agriculture. Instead it endeavors to ask if gardening can play a role in facilitating a shift in human-Nature relationships and contribute to a more comprehensive environmental movement.

With Deep Ecology as the theoretical framework, this study looks at the philosophical and psychological significance of urban gardening. Several primary aspects of these two fields were considered in this process. A first thematic explored is that gardens provide gardeners with an experience of Nature contact in an urban environment. As a result gardening impacts how people perceive and relate to Nature, thus fostering an empathetic identification with Nature. Questions considered in this thesis include: does gardening make people appreciate Nature more? Does it help people feel more connected with Nature? Does it lead to seeing oneself as part of, rather than separate from, Nature? Does it lead to increased care and concern for other parts of Nature?

The next thematic is that these garden-influenced relationships with Nature alter people’s environmental behavior. In this context environmental behavior refers to actions and lifestyles that impact the health of natural environments. General questions on this theme include: Has gardening lead people to be more aware of environmental issues? Have gardeners become more concerned with environmental problems as a result of gardening? Does gardening increase a gardener’s natural inclination to live environmentally responsible lifestyles?

The following chapters will include an overview of Deep Ecology, presenting its claims about the causes of, and solutions to, contemporary environmental crises.
Particular attention will be applied to the double-sided approach of Deep Ecological theory, the philosophical and the psychological. This will be followed with a look at how Ecopsychology reinforces the assertions of Deep Ecology. From here the results of a study performed with community gardeners in Los Angeles County will be presented. This will be followed by a discussion of how the data relates to the theory and the original hypotheses of this research project. It will attempt to answer whether gardening can indeed contribute to a deeper understanding and appreciation of Nature, and then conclude with suggestions for further research.
CHAPTER TWO: DEEP ECOLOGY – AN OVERVIEW

Deep Ecology is a particular type of environmentalism. What distinguishes it from other environmental movements is its philosophical and psychological orientation (Devall, 1993; Drengson & Devall, 2008; Fox 1995; Naess, 1989). Deep Ecologists argue that traditional environmental efforts are limited in their effectiveness because they try to solve individual environmental problems as they arise, whereas the Deep Ecology stance is that there must be fundamental change in the Human-Nature relationship in order to solve the current circumstances of world wide ecological degradation. While the accomplishments of traditional, or reform, environmentalism are important, Deep Ecology supporters believe that we need to develop a philosophical worldview that we can ground our environmental activism in. This worldview, which is the essence of Deep Ecology, is characterized by ecocentric egalitarianism, the belief that all life forms share the same inherent value by virtue of being part of the same wholeness of Nature. However, unlike other environmental philosophies, the Deep Ecology movement does not simply rely on moral arguments to accomplish its goal, instead it encourages the psychological development of human beings in order to relate to Nature as part of themselves. This is suggested to be the quintessential missing element in the modern paradigm of Human-Nature relationships. Deep Ecologists argue that there is an alienation from Nature that is experienced (consciously or not) among most people that is the root cause of ongoing environmental problems (Devall and Sessions, 1985; Drengson & Devall, 2008; Fox 1995; Jensen, 2006; Naess, 1989). This leads to Deep Ecology’s
assertion that reconnecting people with Nature is a necessary part of environmentalism. Reconnecting with Nature is also integral to Self-realization, the maturation process that makes caring for the earth a natural inclination for humans, rather than a forced obligation that is likely to be adequately acknowledged only after it is too late. In the following pages I explore the main concepts of Deep Ecology with a focus on the philosophical and psychological theories that offer an outline of a pathway out of our current ecological crises.

The Philosophy of Deep Ecology

Deep Ecology presents an alternative approach to resolving ecological problems to those offered in mainstream environmentalism. The founder of the movement, Arne Naess, says that the goal of Deep Ecology is “a substantial reorientation of our whole civilization” (1989, pp 45). Its fundamental theoretical framework is that the ecological crises of our times are cultural, spiritual, and psychological in nature, according to the late Humboldt State University professor Bill Devall (1993). Advocates of Deep Ecology argue that there needs to be a comprehensive change in the paradigm of how people relate to Nature. Devall defines paradigm as “the construct of reality that dominates our consciousness and perception” (1988). He and George Sessions describe what they see as the current prevailing dominant paradigm of Human-Nature relationships. In *Deep Ecology: Living as if Nature Mattered*, they argue that this dominant worldview has four major components (1985). The first is the belief that
humans are fundamentally different from all other species and life systems, and that this
difference is hierarchical – meaning that humans are intrinsically more valuable and
therefore rightfully dominant to other living things. Second, humans are masters of their
destiny, capable of accomplishing any goal they wish to and overcoming any obstacles in
their way. Third, the world is so large that there are unlimited possibilities for the
potential of human accomplishments. Lastly, progress is the nature of the human species
and no problems are without solutions, thus progress need never stop. Similar yet
varying descriptions of the dominant paradigm have been expressed by other Deep
Ecologists. The prevailing theme among them all is that of the dualistic and hierarchical
dynamic that has resulted in the domination of Nature by humans. This dualism involves
perceiving everything that is not “me” as being “other”, and when the other is a forest, an
ecosystem, or a species it becomes a thing which can be used by and destroyed for the
purposes of humans. This otherizing facilitates the hierarchical structure which leads to
justified exploitation of other living beings and systems (Devall, 1988). Sessions and
Devall argue that this dominant worldview is primarily a phenomenon of Western
civilization, and exemplified in the United States. The causes that led to the development
of this paradigm have been attributed to many historical circumstances including, but not
limited to, Judeo-Christian religions, economic/capitalist forces, and male-dominated
patriarchal societies.

A significant aspect of the dominant paradigm is the alienation from Nature that
has become embedded into our culture. In *Living Richly in an Age of Limits*, Devall
discusses how contact with Nature has been reduced in recent history as humans have become increasingly urbanized. He says:

“We literally lost touch with nature. Most Americans were now urban dwellers who did not till the soil. Wild nature was found only in remote areas of the continent. Predator-control programs supported by the federal government helped eliminate the howl of the wolf, the yap of the coyote, the sight of eagles in the sky, and the paw print of the mountain lion on the mountain trail. If we wanted to see wild animals we went to the zoo. If we wanted green vegetables we went to the supermarket” (Devall, 1993: pp. 28).

This separation between human lifestyles and the rest of Nature has led to the flawed and problematic conception of a Human-Nature dualism. Seeing ourselves as different from Nature has had two major repercussions. Let it be known that the use of terms such as “us” and “we” are used loosely to refer to members of a modern culture who enjoy the fruits of natural resource extraction. There are varying degrees to which people reap such benefits, as well as different degrees of culpability. Without fully dissecting these dynamics here, the terminology is employed to refer to general cultural themes and not meant to imply that all individuals share the same responsibility.

The first major repercussion is the exploitation and destruction of Nature. We have exterminated countless species and obliterated whole ecosystems to appease our selfish and shortsighted materialistic objectives. As we exploit our lands without considering the full implications of our actions, the ecological health of the entire planet is increasingly threatened. A hierarchy of worth is implicit in the dualistic view, and the paradigm of human dominance and ecological abuse is the natural consequence.
The second repercussion is the psychological harm inflicted upon ourselves. Human beings are part of Nature and Nature is part of us. The belief in a Human-Nature divide is a gap in our mental well-being, a wound in our psyche, and an impediment to our maturity. The self-defeating destruction of the environments humans depend on is evidence of a psychological problem. Naess (1989) says that to distance oneself from Nature is to distance oneself from oneself. Humans don’t know themselves comprehensively and therefore lack the full self-respect and life fulfillment that is possible. It is disservice to oneself to think that they are superior to Nature, and humans are on a trajectory towards drastically worsening ecological crisis as a result.

These two repercussions are correlated to Arne Naess’ two ultimate norms of Deep Ecology, biocentric egalitarianism and Self-realization (Devall & Sessions, 1985). The first (henceforth referred to as ecocentric egalitarianism in order to address concerns for ecosystems as wholes, as well as individual organisms and species) is the notion that all entities share the same intrinsic worth – no more or less than human beings. This should, theoretically, be a guiding principle in all human ecological activity. The second norm, Self-realization, is a process of maturation that includes an expansion of one’s identity to incorporate the non-human world. The value of human experience and potential richness there in is limited by anthropocentric beliefs and alienation from Nature (Devall, 1988; Sessions, 1995). A greater quality of life is possible through increased maturity and ecocentric sensitivity. These two norms are interwoven pillars of the Deep Ecology movement. As one Self-realizes (a concept that will be discussed further in chapter 2) so does one’s perception of ecocentric equality increase, and vice
versa – the appreciation of eco-equality facilitates the Self-realization process. The enduring health of our environments requires that humans Self-realize, and at the same time humans require healthy natural environments in order to Self-realize (Devall, 1985; Roszak, 2001). Additional insight into Deep Ecology comes from contrasting it with conventional approaches to environmentalism, which Arne Naess has called shallow or reform environmentalism. It is important to note that many positive things have been gained from shallow environmental movements, such as the Endangered Species Act, the establishment of National Parks and wilderness areas, the protection of public health and so on (Devall, 2006), but they remain lacking in their potential and impact (Naess, 2008). The crucial complaint about such traditional environmentalism is that it does not challenge the dominant paradigm that has created our ecological crises and therefore is only capable of piecemeal adjustments (Devall and Sessions, 1985). Limited success with only the worst of issues is a woefully unsatisfactory way of resolving the multitude of global environmental problems. Arne Naess’ (1989) original critique also claimed that reform environmentalism was aimed primarily at catering to the health and recreational needs of wealthier and more powerful people, reflecting a social corollary of the domination paradigm. Devall and Sessions, in *Deep Ecology* (1985), claim that the anthropocentric nature of reform environmentalism is fundamentally limiting, that it seeks to address ecological degradation for the benefit of humans, and lacks the ecocentric concern necessary for a comprehensive environmental movement. The anthropocentric-ecocentric distinction is another way of conceptualizing the Human-Nature dualism. Anthropocentric approaches to environmentalism aim to solve
ecological degradation strictly for the benefit of human beings, which is problematic for at least two reasons. First it reinforces the belief that other beings are less valuable than humans and that their well-being is not particularly relevant to our considerations of natural resource use. Second, because it does not embrace a holistic view of Human-Nature relations it is incapable of sufficiently altering the trajectory of environmental deterioration.

Environmentalism requires that humans reconnect with our environments. To Devall (1988) this means the following: grounding ourselves through active and fuller experiences with the earth. It involves rediscovering certain types of meaning, like what it means to be a member of a mixed, biotic community, and to be interdependent with the diversity of beings essential to ecosystems. It is about changing our very experience and perception of our lives and Life in general.

One thing that traditional environmentalism needs, as argued within Deep Ecology, is a philosophical platform that offers a comprehensive framework for altering Human-Nature relationships (Devall & Sessions, 1985). In Ecology, Community, and Lifestyles Arne Naess argues that this framework must stand in contrast to the dominant paradigm and provide ways of viewing the world that do not propose to just fix specific problems but aim to address underlying root causes (1989). He says that the direct actions and targeted campaigns of reform environmentalism are indispensable, yet still weak and incomplete without an all-encompassing philosophy, what he calls a “total view” (1989, pp. 163).
Arne Naess and George Sessions (1985) have formulated an eight point Deep Ecology platform as a working model for such a total view. The principles of this platform are presented in *Deep Ecology* (1985, pp: 70) and are as follows:

1. The well-being and the flourishing of human and nonhuman life on Earth have value in themselves. These values are independent of the usefulness of the nonhuman world for human purposes.

2. Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.

3. Humans have no right to reduce this richness and diversity except to satisfy *vital* needs.

4. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.

5. Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.

6. Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.

7. The ideological change is mainly that of appreciating *life quality* rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
8. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes.

This platform is meant to be reflected upon. Those interested in what Deep Ecology has to offer are encouraged to contemplate the significance of each of the principles for themselves. These principles are not meant to be adopted without scrutiny. This is because Deep Ecologists acknowledge on the one hand, that there is no absolute right way for addressing the Human-Nature divide and, on the other hand, humans need to develop their own commitment and approach to a Deep Ecology platform (Devall and Sessions, 1985). This personal involvement with Deep Ecological theory is essential and I will return to it later on.

Deep Ecology was originally presented as a philosophical movement by Arne Naess in many of his writings, including one of his seminal pieces, *Ecology, Community, and Lifestyle* (1989) and restated as such in a collection of his works called *The Ecology of Wisdom* (2008) edited by Alan Drengson and Bill Devall, two of the more influential advocates in the movement. Since then it has also been successfully presented as a psychological movement by others, especially Warwick Fox in his comprehensive book *Towards a Transpersonal Ecology* (1995). A review of the literature compels one to adopt the view that the strength of Deep Ecology is indeed more psychological than philosophical, but it is important to understand the philosophical underpinnings in order to appreciate the more nuanced psychological relevance, and why it differs from other philosophical approaches to environmentalism.
In *Towards a Transpersonal Ecology* (1995), Fox discusses other environmental ethical philosophies and compares them with the Deep Ecology philosophy. He unpacks the two main types of eco-philosophies: instrumental value theory and intrinsic value theory. Instrumental value theory asserts that the nonhuman environment has no intrinsic worth. The worth of nonhuman life only exists in how it serves the needs of human beings. The three approaches to instrumental value theory are: 1) Unrestricted Exploitation and Expansionism, 2) Resource Conservation and Development, and 3) Resource Preservation. This is not the place to explain these in full, particularly because they are so removed from the Deep Ecology perspective, but it ought to be noted that these three approaches to instrumental value theory are fundamentally anthropocentric. They exist on a spectrum, with the unrestricted exploitation and expansionism being the most extreme expression of the dualistic and hierarchical Human-Nature paradigm that Deep Ecology seeks to deconstruct, and the resource preservation approach being a more tempered view – that natural resources at least have limits, even if they have no intrinsic value. Fox argues that the unrestricted exploitation and expansion framework is predominantly responsible for the current ecological situation.

In contrast to instrumental value theories stand intrinsic value theories, which seek to reject anthropocentric assumptions, at least in part. Fox (1995) describes four types of intrinsic value theory: 1) Ethical Sentientism, 2) Biological Ethics, 3) Ecosystem Ethics, and 4) Cosmic purpose ethics.

Ethical sentientism is the philosophical framework commonly associated with the animal rights movement. Proponents argue that the ability to feel, to experience pain and
pleasure, is the primary factor in determining the morality of human-nonhuman interactions. It is wrong to hurt (unnecessarily) that which can suffer. Criticisms of this approach span from the belief that determining the line between sentient and non-sentient is too ambiguous to the fact that many humans would be considered morally irrelevant.

Biological ethics argues that anything that is alive has value (Fox, 1995). Living things are those that strive towards ends (particularly the ends of reproduction and long life) and interfering with those ends is wrong. Ecosystem ethics, also known as ecosphere or Gaian ethics, argues that we should perceive moral imperatives as extending beyond individual organisms or species to whole living systems. One of the founding fathers of this view is Aldo Leopold, noted for his land ethic. In his pivotal piece *A Sand County Almanac* he states “a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise” (1949: pp. 224).

The final intrinsic value theory approach, cosmic purpose ethics, argues that anything and everything that exists is part of some ultimate cosmic interest by virtue of the fact that it exists at all. To harm or hinder anything unnecessarily violates the cosmic role of that entity and thus is morally objectionable. It should be acknowledged that this approach does incorporate metaphysical assumptions about the nature of the universe that may be exceptionally questionable to some. Even so, this final approach is most closely aligned with Deep Ecology, especially with the ontological process of identification discussed in the next section.

Each of these different intrinsic value theories has its set of problems. More than this, Deep Ecologists hold concerns about philosophical arguments in general. Arne
Naess himself, in *Ecology, Community & Lifestyle* (1989) questions the use of the philosophical term ‘rights’. For clarity’s sake, the meaning of a phrase such as ‘right to life’ is that no being can justifiably hinder or end the life of another except in order to satisfy *vital* needs, such as survival. Each living thing has the right to complete its life cycle and to impinge upon that unnecessarily is an ethical violation of its right to life. While he believes this ethical claim to be true, he finds problems with the rights/ethics approach to environmentalism. His main concern is that ethical approaches to environmentalism ask people to make sacrifices, to act out of altruism. Altruism means doing something for another instead of doing something for yourself. To act altruistically is to sacrifice your own desires out of a moral imperative, and he worries that this is a weak means of accomplishing important ecological goals. If environmentalism is based upon people’s perceptions that they are sacrificing their own interests for some other entity’s good, then the success of environmentalism will be limited by how much people are willing to do that. It is not a solid footing for ongoing action (Naess, 19989).

It should be noted that the current main-stream concept of sacrifice, and the rhetoric surrounding it, warrants critique. Michael Maniates and John M. Meyer (2010) argue that the notion of sacrifice has been constructed and utilized in ways that benefit economic and political interests. To them, sacrifice has been defined in the public discourse as a negative, which steers people away from positive environmental change, thereby maintaining consumer lifestyles that benefit certain economic interests. Sacrifice has become a political tool, a concept constructed to deter people from making environmentally responsible changes in their lives. Paul Wapner (2010) invokes the
contrast of quality versus quantity. He suggests that in the materialistic paradigm of modern civilization, quality of life is often sacrificed for quantity of things. People are not avoiding sacrifice, they are merely sacrificing one thing for another, in this case an ecologically rich life and better future for a temporary culture of stuff.

Karen Liften (2010) adds to this discussion by pointing out that sacrifice is inherently part of being human. Perhaps the most obvious example of sacrifice in everyday life is that of the parent for the child. Raising children requires years of sacrificing immediate desires to meet the needs of the offspring. Although difficult, such sacrifice is taken on willingly and the results are rewarding. Liften also points out the role of sacrifice in religions around the world. Spiritual traditions typically involve ritual sacrifices of food, time, sleep, physical comfort, etc., but the sacrifice results in a deeper connection with the world one lives in. The giving up of oneself fosters the sense of interconnection and interdependence with other people, with nature, and even with the cosmos (Liften, 2010). These theorists are revealing the use of sacrifice terminology as strategically flawed, neglecting the ways that sacrifice is inevitable, rewarding and even enthusiastically pursued. The fact that sacrifice is framed and perceived as a negative should be considered in any discussion that uses it to hinder the environmental movement (Maniates & Meyer). Deep Ecologists discuss sacrifice in the context of this negative framing but they also try to steer the conversation of environmentalism elsewhere because of its problematic connotations.

In a similar fashion, the affirmation of the intrinsic rights of other life forms is certainly an important part of Deep Ecology, but the dependency upon corresponding
ethical obligations is not. This is not because Deep Ecologists do not believe in ethical duty, but because they believe there is a more profound, albeit a subtler, framework for promoting ecologically responsible lifestyles and changing the dominant paradigm. This is where Deep Ecology transitions from a philosophical to a psychological orientation.

The Psychology of Deep Ecology

As previously mentioned, one of the two core pillars of Deep Ecology is Self-realization. In *Deep Ecology* (1985) Devall and Sessions explain Self-realization as a process of growth and maturity in which individuals progress from seeing themselves as only individual egos to ever expanding circles of identification. It is an ongoing process of seeing self-in-Self. The term *Self*, which refers to the expanded spheres of potential identification, is intentionally capitalized to distinguish it from more narrow constructs of an individual and independent self. This process of Self-identification is of utmost importance in our Human-Nature relationships. In *The Ecology of Wisdom*, Naess (2008) explains identifying with others as the catalyst for empathy. He uses his own real life example of watching a flea dying. It was too late to save the flea, but he empathized with the creature suffering before him. It’s not that he identified as the flea itself, but that he shared the identity of being a living being capable of experiencing pain and pleasure, which led him to feel concern for this other life form. It is this empathetic identification that compels people to care about others, to rejoice in their good fortune and to suffer with their bad, to feel invested in their well-being. In *Ecology, Community, and Lifestyle*,
Naess (1989) points out that a lack of identification leads to indifference. Things that seem foreign and totally unrelated to us receive little of our attention or empathy. A lack of identification with broader Nature has resulted in human neglect and abuse of environments.

Devall (1988) seconds this notion, adding that we do a disservice to ourselves by focusing on the needs of our narrowly defined selves. If we, as individuals and as a society, were to place the vital needs of other beings ahead of our own less-than-vital needs we will discover that we are meeting the needs of our greater Self. Supporting the “other” is in fact a process of connecting with the Self. Relating to another as oneself is at the heart of developing genuine empathy.

In *Ecology of Wisdom* (2008) Naess discusses six key aspects of Self-realization. First he claims that people generally underestimate their “selves”, confusing the limited ego with the Self, which is capable of ever expanding circles of identification. Second, identifying with other Nature is actually part of human nature. Comprehensive maturity of a human being leads to identifying with other (or even all) life forms. Third, an ecological-self is part of the human psyche. Naess (2008) points out that it has been traditionally recognized that human psychological development involves a transition from ego self to social self, and (according to some) from social self to a more metaphysical self. What is largely unacknowledged is that there is also an ecological self, an ecological consciousness that humans need to explore and that this self is cultivated through experience with Nature. Fourth, this process of Self-realization improves the meaning and value of one’s life. Self-realization is a broadening and
A helpful metaphor used by Deep Ecologists is the ancient symbol of the Tree of Life. Self-realization involves learning to see ourselves as little leaves on the great expanding Tree of Life that encompasses the entire Universe (Naess, 2008). According to Bill Devall, in *Living Richly in an Age of Limits* (1993), by recovering our connection with Nature we see that humanity is just another unique leaf on a tree full of unique leaves (potentially infinite leaves). Humans are but one variation on a tree that is by nature endlessly varied, and that each variation of leaf is of equal value to the tree, and therefore to each other. Indeed, in *Ecology of Wisdom* (2008) Naess claims that a benefit to be found in the uniqueness of the human experience is our ability to relate to the rest of life, to be conscious of and appreciate our place on the Tree of Life. Devall echoes Naess when he writes that contemplation of the smallness of our leaf on the great Tree actually leads to participation in the greatness of Life (1993). In *A Sand County Almanac* (1968), Aldo Leopold shares this view. He says that the more humans learn to become plain citizens of the biosphere, as opposed to dominating conquerors, the more we come into our own power.
Warwick Fox (1995) also employs the Tree of Life metaphor. He points out that the biological and physical evolution of the universe, as understood by modern science, is a process of ongoing differentiation. The tree image represents the branching out of ever more manifestations of the same whole. No branch, twig, nor leaf is not part of the tree, and each shares its tree-nature with every other differentiated aspect of the tree.

This metaphor is useful when, in Towards a Transpersonal Ecology (1995), Fox continues to offer insights into the Self-realization process. He begins by discussing a conventional concept of the self as an isolated ego, particular to an individual – the notion that the self is limited to one body, one mind. Moving beyond this rudimentary understanding he explains three ways in which people expand their identification and realize a greater Self: the personal, the cosmological, and the ontological.

Personal, or conventional, based identification is the process of developing expanded identity though personal contact with people and things around you. Beginning with close circles of interaction people identify with their family or their friends, maybe even their pets. People also identify through social networks such as occupational positions, sports teams, political parties, etc. An example of a personally expanded identity could be a person who identifies as a member of the Melinkoff family, an HSU grad student, a Los Angles Clippers fan and as a progressive green party American citizen. Identification is by no means limited to a single individual, but necessitates ever expanding networks of affiliations.

Cosmological and ontological identification (which are similar to each other) are significantly different than the personal. Cosmological identification involves one’s
cosmology, the total (more or less) belief structure about the nature of the Universe and existence itself. Cosmologies can be grounded in philosophy, religious mythology or science. Many religions and science claim that everything that exists came from the same beginning and share a fundamental essence. Whether one believes that everything is part of God’s creation or that everything is ultimately recycled stardust resulting from the big bang, the cosmological basis of identification is a belief system that defines how we are connected to everything else through a formatted explanation of the Universe. Cosmological frameworks are typically transmitted to us by the culture we live in.

The ontological process also involves identifying with all aspects of existence, not from a constructed theoretical cosmology but from direct experience of ‘beingness’. It can be called a metaphysical, even mystical identification process. There is something that everything has in common, existence itself. Sometimes a person is prone to experience a sense of wonder that anything exists at all and feel bonded to everything by sharing existence. Fox (1995) himself admits that ontological identification is difficult to describe, but he makes no apologies for this. As he points out, this type of relationship that some people have to the world they live in is more common in religions and inherently beyond the ability of language to communicate properly. This is because language is a system of symbols that we use to interpret our experiences, while direct experience involves no such intermediary step of interpretation. Language, by definition, is a limited attempt at conceptualizing the phenomena of experience. Direct experience can only be felt, not adequately communicated by the symbolic nature of language, but is nonetheless an experience often referred to in the religious and metaphysical traditions of
many cultures. Ontological identification is perhaps the most relevant to Self-realization and ecocentric egalitarianism. It is also a basis for belief in cosmic purpose ethics, as well as other intrinsic value theories. Both the ontological and the cosmological are represented in the Tree of Life metaphor, in which people come to identify as part of the whole tree, not as isolated leaves unattached to anything else but as integrated and interdependent in essence.

From this understanding of identification and Self-realization we can begin to appreciate the psychological significance of Deep Ecology. The aim of Deep Ecology is ultimately to change the way individuals and societies perceive and relate to the rest of Nature. In *Ecology, Community and Lifestyle*, Arne Naess presents this distinction when he says “assuming that we wish benevolent action to flourish, some of us stress the need for teaching about the moral law, others stress the need for more understanding of the conditions under which people get to be benevolent and well-informed though natural inclination” (1989, pp. 86). It is the cultivation of natural inclination that Deep Ecologists are interested in and it can only result from expanding identification. In *Ecology of Wisdom* (2008), Naess presents three approaches for influencing ecologically positive action: usefulness, moral obligations, and inclinations. Usefulness compels people to act in certain ways based on what tangible results they will get. Being more inline with instrumental value theories, the usefulness approach is not embraced by Deep Ecologists. Moral obligations compel people to certain actions based on a sense of duty and rightness. Inclination is a natural disposition to act in a certain way.
As noted, Naess (2008) himself was weary of the moral obligation approach. In *Ecology of Wisdom* he points out that morality requires a person to make sacrifices, to do what is *right* despite wanting to do otherwise. Sacrifice is not an appealing concept and unlikely to motivate significant numbers of people towards benevolent ecological action. He rejects calls to sacrifice and altruism not only as weak and unlikely to produce hoped for results, but also as irrelevant in the Deep Ecology context. Through the psychological process of Self-realization the distinction between self and other dissolves. The ethical imperative that one ought to act in certain ways for the good of others dissolves into an internally motivated inclination to act in ways to serve one’s Self – the greater collective Self.

Naess (2008) embraces the Kantian distinction between moral and *beautiful* action. Moral action is that which we do not want to do but feel like we must. The proof of a moral action is in fact that it goes against a person’s inclination. However, if we do what we believe is morally right not because of our duty but because we truly wish to do so then we are engaged in what Kant calls *beautiful* action (Naess, 1993). Naess complains that the environmental movement in general has sought to enforce moral arguments on the public, has asked people to sacrifice for some removed ecosystem or species. Instead we should encourage people to *act beautifully*. In *Ecology of Wisdom* (2008) he promotes the “supremacy of environmental ontology and realism over environmental ethics as a means of invigorating the environmental movement” (2008, pp. 93). Morality is not useless, it can keep us on track and remind us when we’ve veered away from a big-Self viewpoint, but it is not the most effective means of fostering
Self-realization is a process of maturation. As Bill Devall points out in *Deep Ecology* (1985), increased maturity is accompanied by increased empathy with other life. Empathy, as an emotionally felt experience of identification, inclines a person towards beautiful action. Unfortunately, most people are too immature and deplete of empathy. This is not due to individual nor species-wide weaknesses, but to life-long emersion in the dualistic Human-Nature paradigm. Cultivating mature empathy is necessary for establishing a new paradigm and a healthy planet.

Warwick Fox (1995) says morality is non applicable when we think about how we treat our individual selves. Whether or not I eat a whole pizza tonight may raise some concerns, but it is not a moral dilemma. Morality is about how we interact with others. Confirming Devall’s and Naess’ argument, morality becomes a non-issue when we mature and Self-realize. When we see the world as who we are we don’t feel obligated to protect *it* from harm, we feel compelled to protect our *Self* from harm. Fox describes such maturation as a progression along a scale from selfishness to Selfishness. When we identify as a leaf on the Tree of Life our actions are inclined toward the benefit of the whole tree, for we are nothing without the tree.
Deep Ecology in Lifestyle

For Deep Ecology to be an influential force it has to be integrated into people’s lifestyles. It must become a way of being. I will here sketch out three of the general components of a Deep Ecological lifestyle; ecosophy, ecological consciousness, and simple means/rich ends. Each of these are interrelated and encompassed within a larger theme of reconnecting with Nature.

Developing one’s own philosophical view of the Human-Nature relationship, or what Arne Naess calls an ecosophy (1989) is a central theme of Deep Ecological living. The term ecosophy is a compound of eco (from ecology) and sophy (from the Greek word Sophia), which means wisdom. Ecosophy involves a reasoning process, a philosophical pursuit for two things: 1) a holistic understanding of environmental problems and 2) a conscious and engaged position within the context of such problems. An ecosophy is, according to Naess, a personalized code of values, a worldview that directs our lifestyle as we actively seek deeper understanding of our Human-Nature relationships. Naess insists that an ecosophy “should be directly relevant for action” (1989: pp. 37). An ecosophy should not be a set of abstract and theoretical concepts, but an actual guide for our everyday decisions and actions.

Naess and other Deep Ecologists are not attempting to teach people what they should think; instead they hope to encourage people to think. They do believe that people will come to similar conclusions to those of Deep Ecology through their own Self-realization process, but they leave the proof of that to be determined by the individual.
Naess (1989) called his particular process and worldview Ecosophy T. The T stands for Tvergastein, the mountain upon which he lived and developed his own philosophical views. There can and should be other ecosophies (for example Ecosophies A, B, C…) for other people. An ecosophy is by definition personal, it must be developed within the individual. At the same time, humans are not isolated entities but interrelational beings; our ecosophies are also necessarily shaped by our experiences within mixed communities, our contact with other humans, plants and animals.

In the pursuit of developing an ecosophy, people are encouraged to contemplate life. Deep Ecology argues that the environmental movement requires the maturation of human beings, and maturity results from, among other things, an earnest exploration of one’s beliefs and values. Self-realizing, the deep maturation process, requires an active quest for meaning and understanding. Naess says the essence of Deep Ecology is about examining our lives more thoroughly than people typically do:

“In general… people do not question deeply enough to explicate or make clear a total view. If they did, most would agree with saving the planet from the destruction that’s in progress. A total view, such as Deep Ecology, can provide a single motivating force for all the activities and movements aimed at saving the planet from human exploitation and domination.” (1985, pp 74)

Deep Ecologists believe that there is a natural ecosophical trajectory and that people who pursue one will arrive at common understandings. Deep Ecologists believe in what they promote but they do not seek to take people by the hand and tell them what to think. The Deep Ecology approach is similar to the old adage, “give someone a fish and they eat for
a day, but teach someone to fish and they will eat for a lifetime”. It is not merely about teaching the principles of Deep Ecology, it is about teaching people how to think about, and reconnect with, Nature.

Also part of a Deep Ecology lifestyle is the reawakening of ecological consciousness. Humans lived sustainably in complex ecosystems for thousands of years. It is only relatively recently that human beings have forgotten how, and why, we ought to respectfully co-inhabit the earth with other species. Like other Deep Ecologists, Devall and Sessions (1985) assert that humans have a vital need to develop an ecological consciousness, and that this need is tied to the health of the planet. An underdeveloped eco-consciousness entails an underdeveloped ecological conscience, which manifests in and reinforces the dualistic non-empathetic hierarchical view of Human-Nature relationships and the concomitant current state of global ecological disaster. There is a direct line of correlations between our alienation from Nature, our social-psychological state, and ecological health.

The two pillars of Naess’ Deep Ecology, Self-realization and ecological egalitarianism (1985), can be seen as two sides of the same coin of ecological consciousness. Consciousness is, after all, a product of Nature’s evolutionary process itself, not a result of human ingenuity. As a person Self-realizes they increasingly perceive the world within an ecocentric value system, and vice versa. When identification is ecologically broadened, the dualism of alienation dissipates and environmentalism transitions from defending the external environment to acts of Self-defense. This is the heart of the Deep Ecology movement, that we actually are
predisposed towards saving our bigger Self, Nature itself. An underdeveloped eco-
consciousness, however, hides this drive from ourselves. Beautiful action, in the
ecological context, is dependent upon a well-developed ecosophy and a well-cultivated
ecological consciousness. We need a theoretical understanding to shape our views and
actions, and we need an empathetic connection to our world, our big Self, to drive our
behavior so that we may heal our human selves as well as earth itself (1988).

Devall and Sessions (1985) encourage people to cultivate their own versions of
Deep Ecology. People should consider how they relate to the principles put forth in the
Deep Ecology platform and consider the ramifications of acting from such principles or
doing otherwise. Because the dominant paradigm exists within the minds of individuals,
it is imperative that each person engages in their own process of changing their
worldview, of healing from the wounds caused by alienation from Nature. “Drastic
reevaluation of our lifestyle and a conscious decision to change our habits – habits of
thought and habits of behavior – may be the most courageous action we can take in this
“moment of truth” (Devall, 1993, pp 48).

There is one remaining simple guideline for a Deep Ecology lifestyle that I wish
to touch upon: live simply in means, live richly in ends. Implicit in this phrase is the
belief that there is an important distinction between quality of life and standard of living.
As Devall (1993) illustrates in Living Richly in an Age of Limits, the West and especially
the United States, have for many decades been on a path in pursuit of ever increasing
standards of living. This has been achieved at the expense of our quality of life. A
certain standard of living is essential for a happy life, but the ratio of happiness to
standard does not remain consistent with perpetual increases in living standards. Indeed, an increased standard of living is portrayed within the dualistic dominant paradigm as the luxury to be separate from Nature, the freedom from living directly off the land, a liberation from the hard realities of Nature. However, this supposed luxury is actually a hindrance to our well-being. Too much separation manifests in a decrease in the quality of one’s life, regardless of the living standards. The point here is not to romanticize non-western and subsistence cultures but to suggest that a simpler life, one rooted to the ways of Nature and not overburdened with excessive standards of living, is conducive to a fuller and richer life experience.

Connecting with Nature frequently is part of living simply and richly. This is why even though Deep Ecologists do not insist on a particular path of Self-realization, they do insist that it must involve contact with Nature. The alienation from Nature that pervades civilization prevents individuals from experiencing their ecological consciousness and the full quality of their lives. Simplicity in lifestyle creates the space in our psyches to cultivate a healthy eco-consciousness, the development of which includes “a deeper love for ourselves as part of Nature, changing our attitudes towards materialism and over consumption, and becoming mindful of our connections to Nature” (Devall, 1993, pp 17).

In *Ecology, Community and Lifestyle*, Naess (1989) presents his vision for humanity. He acknowledges the pervasive belief that what makes humans special is our capacity to dominate all other species. Naess rejects this by portraying the hierarchical-dominator quality of modern civilization as only a hurdle along the way to greater
collective Self-realization. He says that the real value of Human experience is, in fact, the rejection of dominance and the embodiment of ecocentric equality. Humans alone, for all we know, are the only species capable of such conscious interaction with the other living beings we share this earth with. Human potential is not actualized through conquering the world, but through loving it deeply.

Conclusion

Deep Ecology is an environmental movement unlike any other. It stands apart from traditional, or shallow, environmentalism in its emphasis upon creating an all-encompassing philosophy as a necessary foundation for all environmental struggles. Deep Ecologists support many of the efforts and approaches of the traditional environmental movement, but they argue that enduring success is contingent upon a collective ecocentric worldview and a more ecologically mature human population. As long as humanity and environmental movements are grounded in anthropocentric frameworks there will be significant limitations to what can be accomplished.

The ecocentric worldview that Deep Ecology promotes should be understood through both philosophical and psychological lenses, though the latter is perhaps the more promising of the two. The philosophical lens justifiably implores us to respect the intrinsic value of all other life forms and to honor their right to life by not causing any unnecessary harm. This philosophical approach relies on ethical and moral principles. Unfortunately it is limited by these same principles, for the act of sacrifice that is inherent to moral action is not a sufficient mechanism for an enduring environmentalism. The
psychological approach of Deep Ecology, on the other hand, aims to avoid the weaknesses of the moral approach. From this view, Deep Ecologists argue that healthy and mature human beings will identify empathetically with the world they live in, and strive to care for and protect it out of natural inclination. With a solid ecosophy and a sensitive ecological consciousness, and through Self-realization people are internally driven towards environmentalism by disposition. The ecological crisis we find ourselves in requires more than the belief that we ought to do something, it requires that people feel genuinely concerned for their fellow life forms, and internally compelled to engage in a new paradigm of Human-Nature relationships.
CHAPTER THREE: ECOPSYCHOLOGY

The developing field of Ecopsychology provides a lot of support for the theories of Deep Ecology (Buzzell and Chalquist, 2009; Clayton and Opotow, 2003; Roszak, 2001; Roszak, Gomes and Kanner, 1995). A main premise of Ecopsychology is that all environmental problems have a psychological component to them. Practitioners and theorists of Ecopsychology argue that there is an important and fundamental connection between the mental health of human beings and the health of natural environments. Ecopsychologists claim that humans in the modernizing world suffer psychologically from a lack of contact and connection with the natural world. This results in the abuse and negligence of our ecosystems and broad spread environmental degradation. Supporters of Ecopsychology therefore suggest that resolving environmental problems must include a psychological approach to understanding and mending the rift between humans and nature. This chapter will examine how certain themes within this field strengthen the assertions of Deep Ecology. These themes include an overview of how psychology is necessary to addressing environmental problems, an exploration of the biophilia concept, and a discussion of environmental identity.

The notion that there is a psychological dynamic within environmental issues is quintessential to ecopsychologists. Theodore Roszak (1995), in *The Greening of Psychology: Exploring the Ecological Unconscious*, argues that the role of Ecopsychology is to understand this link between environmental issues and human
mental health. Specifically, Ecopsychology aims to understand what role contact with Nature has on the human mind, as well as what role a lack of such contact has.

Echoing Deep Ecology’s claim (Devall and Sessions, 1985; Fox, 1995; Naess, 1989) that the traditional environmental movement is inherently insufficient because it is not deep enough (it does not address the fundamental relationship between humans and their environments), Roszak (2001) describes Ecopsychology as a dialogue between two separate communities. On one side are the environmental activists who seek to prevent and reverse the damage caused to Nature. On the other side are the psychologists and therapists who strive to explore the inner world of the human psyche in order to protect and restore well-being to people. It is necessary that these two fields work together in order to address human-caused ecological problems (Brown, 1985; Roszak, 2001). Like Deep Ecology, Ecopsychology argues that the harm caused to Nature, and the hope for reducing future harm, is unavoidably linked to the root cause of human alienation from Nature (Roszak, 1994). This state of alienation from nature has become common place among humans who participate in the (albeit often unconscious) destruction of their ecosystems. Roszak (2001) says that we need to begin asking ourselves how the human psyche, rooted in the natural environment, has resulted in planetary environmental crisis.

Linda Buzzell and Craig Chalquist (2009) share this view. In *Ecotherapy: Healing with Nature in Mind*, they argue that the ecological crisis reflects not only technological and social forces of modernization, but a problem within consciousness itself, describing ecosystem degradation as “suicidal destruction of our own habitat” (p. 19). Ecopsychologists are saying environmental problems arise from a particular mental
health issue and must be treated as such. This mental health issue is in fact an alienation from our environmental self. This correlates with Arne Naess’ call for the cultivation of our eco-identity. Environmentalism requires a collective process of re-identifying with nature. Ecopsychology provides some theoretical support for this through the concept of biophilia.

Biophilia

Biophilia is a foundational theoretical construct. Put forth by Edward O. Wilson (1984) in *Biophilia: The Human Bond with Other Species*, biophilia refers to an innate drive that human beings have towards nature. *Bio* refers to life; *Philia* refers to an attraction or affinity towards something. Wilson calls it an “innately emotional affiliation of human beings to other living organisms” (1993: 31). This attraction is, according to Wilson, a product of two million years of human evolution, a process that has structured human physiology to be compatible with the natural environment that was the entire setting of human existence. The types of sensory stimulus within the natural environment provide the type and amount of sensory information we are designed to experience. The varieties and degrees of visual, audio, tactile, and olfactory experiences that are part of living in nature are intrinsically valuable to human beings because human genetic makeup is structured by them, and this is manifested in biophilia, an appreciation for nature.
Clayton and Opotow, in *Identity and the Natural Environment: The Psychological Significance of Nature* (2003), add to the theory by suggesting that humans are actually drawn to certain elements of natural landscapes more than others. The reason for this difference is that some landscapes were more conducive to the well-being and survival of the species than other landscapes. These preferred types of environments include bodies of water, prominences with good views of open grasslands, and forests with high tree canopies. Landscapes with water are important for the water itself and the variety of plant and animal life (food sources) associated with it. Prominences provide views that are useful for spotting both prey and predator. Forests with higher canopies provide food, shelter and room to move around, as opposed to forests with dense foliage that limits maneuverability.

The Ecopsychology discourse on biophilia correlates significantly with Deep Ecology claim that the industrialization and urbanization of societies are problematic for human beings both individually and collectively (Clayton and Opotow, 2003; Maller et al, 2005; Van den Berg et al, 2007). In an article addressing the conflicts between urbanization and preferences for nature contact, Van den Berg et al (2007) describe the dynamic in this way:

“Human appreciation of nature may in part be a distant effect of the conditions under which early humans evolved. In the world they inhabited, it was of vital importance to approach non-threatening objects and situations that provided shelter, food, and other basic necessities, and to evaluate positively informational characteristics of the environment that supported basic functions… As a result, modern humans are still born with a predisposition to like or prefer certain features common to natural but not to urban or other built environments” (2007: 82).
That the biophilic drive is stifled by current living circumstances correlates with Naess’ (1995) claim that the potential of human maturation is stunted by urban modernity. Naess asserts that contemporary urban centers and lifestyles greatly lack the type of natural stimulus and direct contact with nature that healthy Self-Realization depends on.

Hinds and Sparks (2008) add to this understanding. They explain that technological advancement has occurred at a rate far faster than our evolutionary development. It is only in the last couple centuries that living in the urban environment has become a typical life experience of human beings, a period of time tremendously too short to impact our evolutionary design. As a result we live in the built environment that leaves our bodies and psyches lacking the types of stimulus and experience they are structured to relate to. Therefore, there still exists a need to relate to nature.

In *Correlates of Pro-Sustainability Orientation: The Affinity Towards Diversity*, Corral-Verdugo et all (2009) argue that the biophilic disposition, the natural affinity for other life, is an essential part of being human. Our physical, intellectual, and emotional needs are met through contact with living diversity. In their words:

> Appreciating diversity would be an adaptive tendency that humans have developed after the positive impact it produces on us, manifested as survival and well-being. The idea of biophilia establishes that a natural affinity for any life form is the very essence of humanity, binding us all to other living species, as well as to the existing variety among them. (Corral-Verdugo et all, 2008,)
This line of thinking resembles Naess’ theory of the potential environmental paradigm mentioned in the previous chapter. Naess (1989) suggests that the current state of exploitive anthropocentric dominion over nature is only a phase in the Self-Realization process of the human species. As we mature we will enter a new paradigm, one that incorporates an interdependent and reverent relationship with the planet.

Environmental Identity

An important overlap between Deep Ecology and Ecopsychology is their shared concern for the link between identity and environmentalism. Both fields argue that urbanized people suffer from a stunted aspect of identity development that results from a deprivation of sufficient environmental contact – alienation from Nature. The identity concern is not only about individual well-being however. As noted previously, Naess (2008) claims that a comprehensive environmental movement necessitates increased identification with Nature. Likewise, Ecopsychologists are exploring the same argument, that an individual’s identification is linked to broader environmentalism.

Identity is a developing concept, one that is often explored in varying psychological contexts. Authors of *Identity and the Natural Environment: The Psychological Significance of Nature*, Susan Clayton and Susan Opotow (2003) present some general understandings of what identity entails. Identity is our concept of the self. It involves beliefs about who a person is and who she/he is not, as well as what a person wants to be and does not want to be. Identities are constructed through lived experience,
predominantly seen as cultural and social. An identity is a complex of many interconnected and even contradictory concepts. A person’s identity expands into their societal environment. People identify with groups of people beyond themselves such as their neighborhoods, schools, and country. Many types of social subgroups inform identities, such as gender, ethnicity, religion, musical preferences, income, friendships and family, etc.

Identities are also formed in contrast to others, which is a healthy part of individuation and personality development (Clayton and Opotow, 2003). The process begins at infancy as the baby learns to identify itself as separate from the mother, and the process continues as people learn how to exist in a very dynamic world. While functionally essential, identifying against the other has major challenging ramifications, such as ethnic, religious, and political conflict. Deep Ecologists argue that “otherizing” is environmentally very problematic. Bill Devall wrote, “The dominant view in modern society is to define what’s not me as ‘the other.’ When the other is a bioregion, a forest, or a redwood tree, then it is a ‘thing,’ an object which can be manipulated by and for humans for narrow purposes” (1988: 40). It may be an essential part of human development to differentiate from the other, but it is also a process that must be tempered before it leads to self-destructive acts. That is why Deep Ecologists perceive the ‘I’ in relation to the ‘other’ (Devall, 1988).

Furthermore, identification is directly related to behavior. What a person says and does depends on his/her identity. Identifying as a responsible citizen can lead to voting;
identifying as a student can lead to diligent study habits; identifying as a compassionate person can lead to good Samaritan acts.

Clayton and Opotow (2003) promote the idea of an “environmental identity”, which strongly reflects Arne Ness’ notion of an “ecological self”. As it implies, an environmental identity refers to identification with the natural environment. Such an identity incorporates aspects of the natural world into the concept of the self. It involves increased perception of similarity and sameness between one’s self and Nature, and a decrease in the perception of one’s self as being totally separate from Nature.

In the same way that Deep Ecologists say that environmentalism requires the maturity of the ecological self and the process of Self-Realization, Ecopsychologists promote the necessity of the environmental identity. There exists a direct relationship between the stunted eco-identities within industrial culture and the degradation of Nature. Roszak (1995), one of the predominant influences in the Ecopsychology field, states “the core of the mind is the ecological unconscious. For Ecopsychology, repression of the ecological unconscious is the deepest root of collusive madness in industrial society” (1995: 5). Such madness must be addressed to prevent further ecological destruction, and cultivating the ecological self is the Ecopsychology prescription. As clinical psychologists and Ecopsychology educators Lane and Sarah Conn (2009: 112) say, “To restore our own individual health, it is necessary to develop an ecological identity, a consciousness of one’s place within the web of life.”

It is this context of the psychological factor of environmental problems that Deep Ecologists resist philosophical ethics as a successful approach to environmental
movements. Ethical demands that people ought to end environmentally harmful lifestyles are insufficient. Instead, environmentalism should seek to heal the collective repression of the ecological conscious. Roszak sums up the Deep Ecologist’s argument well when he says “is there an alternative to scare tactics and guilt trips that will lend ecological necessity both intelligence and passion? There is. It is the concern that arises from shared identity: two lives that become one. Where that identity is experienced deeply, we call it love” (2001: 39).

This love is the source for the Beautiful Action promoted by Arne Naess. Only when the relationship between humans and Nature transforms deeply, within the very identification process that unites humans to Nature or alienates them from it, can ecosystems be safe from anthropocentric degradation. The eco-egalitarian paradigm that Deep Ecologists seek is predicated on the empathetic motivations of deeply shared identification.

Nisbet, Zelenski and Murphy (2008: 717) claim that environmental concern is directly related to how much a person feels connected with the natural environment, whether or not “damage to the planet is seen as damage to the self.” They also claim that there is a direct correlation between feeling connected to Nature and the amount of time spent in Nature. They therefore repeat the idea that embracing the biophilic tendency by pursuing more Nature contact is beneficial for both the health of the individual as well as the planet.

Wesley Schultz and Jennifer Tabanico (2007) support both Roszak’s theory of an ecological unconscious and Naess’ concept of an ecological self. They argue that a
fundamental aspect of identity actually has to do with perceptions of nature. According to them, whether a person believes that nature is a part of who they are or something completely separate is a pivotal aspect of how people perceive the world and themselves. Because of the biophilic tendency, they argue, that it remains more likely for people to develop associations between self and nature than between self and built-environments. Being immersed in built environments can significantly hinder a person’s likelihood of relating to Nature.

Identification with Nature is of primary concern to the environmental agenda of Deep Ecologists. Corral-Verdugo et al (2009) claim that environmental identities have a direct effect on environmental behavior. They found that there are definite correlations between environmental experience and environmentally friendly behavior. Particularly they found increases in recycling, signing petitions in favor of environmental policies, use of public transportation, and green consumerism. In addition, they found that these behaviors were stronger in people who have been engaged with nature since childhood than with those who are just beginning to increase their nature contact. Ecopsychology reinforces the Deep Ecology assertion that contact with Nature is necessary to cultivating the ecological self. Engagement with a mixed community is promoted by both.

In support of the Deep Ecology, Ecopsychology boosts the argument that a successful environmental movement requires a deeper connection of people with natural environments. Through the concept of biophilia and environmental identity, Ecopsychologists are showing that it benefits both individuals and ecosystems when people connect with Nature more.
Through the lens of Deep Ecology and Ecopsychology, this research has explored the idea that urban gardening may provide a meaningful form of Nature contact. To determine this, a study was conducted with active urban gardeners in which three general research questions were explored. The first question was “Does gardening act as a form of Nature contact for those who garden?” There are obviously major differences between the experience of Nature in a wilderness-type area and that of an urban garden, but this does not ensure that experiencing the mixed-community of an urban garden does not provide some degree of significant Nature contact. Building on this thematic, the study then asked, “Does gardening alter a gardener’s relationship with Nature?” The aim was to see if perceptions of Nature and of the self are altered by gardening. Within this thematic, the study investigated what such a change in relationship or perception looks like. The last general research question was, “Does gardening impact a gardener’s environmental behavior and lifestyle?” This takes the inquiry into the realm of active environmentalism. In the pursuit of paradigm change, as promoted by Deep Ecology, this study considers if gardening can play a role in influencing how people think about Nature, and if that results in tangible changes in how people live. The results of these three areas of exploration are discussed in later chapters.
CHAPTER FOUR: METHODOLOGY

Selection of Participants

The study was conducted in Los Angeles County at six community gardens. Los Angeles County was selected as the location for the following reasons. The region is a major urban area and the theoretical framework highlights urbanization as a significant factor in environmental problems. The area is also known for its negative effects on surrounding environments. Also, there has been a recent increase in community gardens in L.A. County, which makes it a suitable location for this focus.

Selection of participants for this study involved purposive and convenience sampling methods. As noted by Earl Babbie (2010), in *The Practice of Social Research*, in some cases an accurate probability sample of a population can be unfeasible to acquire due to access issues, population size, time and funding constraints, etc. In such circumstances researchers must rely on non-probability sampling, an approach more suitable to qualitative research then quantitative. This was the case for this study. The sampling method was purposive in that it focused on gardeners alone, specifically community gardeners, rather than a broader more generalized population. It involved convenience sampling because it was limited to available subjects, those who chose to volunteer.

The University of California Cooperative Extension Los Angeles County Common Ground Garden Program provides a contact list of community gardens online.
Each garden has a listed point person for contacting purposes. This list provided a satisfactory staring place for selecting participants. The point-persons of two-dozen community gardens were randomly selected and notified of the study. They were asked to inform their community garden members of the opportunity to participate. Several offered to forward (via email) the request and the researcher contact information to their members. Eventually fifteen people volunteered to participate. The volunteers came from six different community gardens. Eleven were female (73%) and four were male (27%). One was younger than thirty (6%), six were in their forties or fifties (40%), and eight were in their sixties or older (53%).

Instrumentation

This research was conducted by using a qualitative interview approach, which enables a researcher to be flexible with the inquiry process (Babbie, 2010). Each participant was asked the same eleven questions, but the interviews were partially conversational allowing certain topics to be expanded upon. For example, when a participant would respond with a simple “yes” or “no” answer they would be asked to talk more about that subject.

This qualitative approach, also called a semi-structured interview format, provides both a systematic means of gathering data from various subjects, while at the same time allowing certain themes to be explored more fully (Berg, 2004). Since different
participants offered varying amounts of information at different times, this method was useful in prompting a more complete exploration of the research themes.

A framework used during the interview process was that of narrative inquiry. The research was conducted with the understanding that each subject has their own valuable story to tell; that each person has a unique perspective and set of insights (Creswell, 2007). Within this framework more detail in the opinions of participants could be expressed. The combined approach of semi-structured interviews and narrative inquiry allowed for follow-up questions and elaboration that made the interviews more meaningful.

Data Collection and Analysis

Each interview was recorded with the permission of the participant. All participants signed an informed consent form that explained the purpose and nature of the study, the confidentiality of all the data, and their right to cease their involvement with the study at anytime. After the interviews were performed, notes were taken about what themes of interest arose. The recordings were then transcribed and further notes were made. In the first step of analysis the data was manually coded and organized according to the three general research questions: Does gardening act as a form of Nature contact for those who garden? Does gardening alter a gardener’s relationship with Nature? Does gardening impact a gardener’s environmental behavior and lifestyle? Additionally, the
data was also analyzed for emergent themes that participants felt valuable, but were not part of the original focus of the study.

A technique used to analyze the data was *concept mapping*, which can help a researcher perceive the various dynamics between data themes and research questions (Babbie, 2010). This technique involves creating maps with concepts represented in shapes, and their relationships with each other depicted with labeled arrows. Using this visual approach the data was compared and reconsidered multiple times, using overlapping concept maps to explore different possible connections between the emergent themes and the original research questions.

Concept mapping facilitated the process of coding the data. Several different formats of categories were used to consider how the data fit together. In this way data that supported the research themes could be juxtaposed to the data that did not. Also the unanticipated emergent themes were balanced with intentional ones. This dual process of concept mapping and coding revealed the influential relationships between concepts.

One additional process in the coding of this data is worth mentioning, some interpretation on the part of the researcher was necessary in order to categorize responses into cohesive units. For example a respondent might not directly say the term *therapy* but would mention the relaxing and healing qualities of gardening. In such circumstances responses were categorized according to the overall theme of the content. The accumulated data will be presented and discussed in the following two chapters.
CHAPTER FIVE: OUTCOMES
THE FOUR BENEFITS OF URBAN GARDENING

Of the fifteen interviews conducted with community gardeners in Los Angeles County a variety of themes are evident. The four primary themes discussed by participants were 1) gardening as a way to connect with Nature, 2) the therapeutic benefits of gardening, 3) the physical health benefits gained from quality food, and 4) environmental concern and behavior. Each theme was expressed by participants as beneficial. They were aspects of gardening that improved their lives. This chapter will focus on presenting these four significant themes. The following chapter will analyze more closely how the interview results relate to the theoretical framework of this research.

Gardening as a Way to Connect with Nature

Connecting with Nature was expressed as one of the primary benefits of gardening by all of the participants. Even though no single interview question resulted in every participant speaking on this topic, over the course of the entire interview, the appreciation for greater connection with nature was inevitably expressed by all. For example, when I asked the basic question “How has gardening affected you?” only three participants said that it provided a means for enjoying nature. This is in contrast to other
effects that were more common such as improved mental well-being, improved physical health, and an increase in knowledge about how to grow food.

In response to a different question however, “What is your favorite aspect of gardening?” contact with nature become the most common response, followed by the quality of the food, the benefits to mental well-being, community involvement, the creative process, and physical activity. Answers to these two questions begin to reveal the theme that connecting with nature is a significant benefit of gardening and can be seen in some of the following quotations from interview participants:

Participant G: I’m in awe of the art of the trees, the birds. Hollywood boulevard is just right down the hill here and I hardly even hear the traffic. Because I listen to the sounds and see the butterflies.

Participant I: It’s amazing. My passion is actually more in the beauty and feel of the garden, the space itself. To have this amazing place in the middle of the city where there’s butterflies and food. Food is sort of the byproduct. But it’s the feel of being here.

Participant J: I guess it would be the contact with nature. I don’t wear gloves, I need to feel the dirt on my hands… And the joy of seeing things grow, like my little radishes there, I put the seeds in last week and now they’re coming out. And even, I must say, the fight with the slugs and snails, and the birds that too is fun.

Some evidence that gardening actually leads to increased appreciation of nature did occur, but sometimes it was ambiguous. When asked, “Have you become more interested in nature since you started gardening?” four respondents said yes, eight were unclear in their response, and three claimed that the direction of influence was actually reversed - that it was their appreciation of nature that influenced their gardening.
<table>
<thead>
<tr>
<th>Type of Response</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unclear</td>
<td>8</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>Opposite/Reverse</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Of the four respondents who claimed that gardening did lead to increased interest in nature, here are a few samples:

Participant C: Completely. From the time I went from an indoor lawyer who didn’t even notice gardens to the transition into gardening and listening and looking and learning the names and varieties of plants and learning how they’re used. Now it would be normal for me to travel to see gardens, I have thousands of pictures of gardens. And my appreciation for nature as a whole is so much richer, you learn about how nature works in your garden.

Participant F: Well, it’s like my connection to nature. The love keeps growing, it’s always been there anyway, but it just keeps growing man.

Participant G: I’ve become closer… More interested? Yeah. More and more all the time.

The eight unclear responses do not negate the possibility of some causal effect, but neither do they confirm it as can be seen in these examples:

Participant E: Up here you get nature, you can sit and watch the birds. A lot of birds. We had bees at one time, but the city got afraid of the hives and people getting stung. The only real problem we have is with gophers. Nature, that’s why I like being here.

Participant K: It’s kind if like being in nature. I don’t know if I’m more interested, but I love nature.

Participant M: Sometimes I find myself talking to them. Like this tomato plant that is not doing very good. Year after year I save the seeds. And now number eight is not doing good so I talk to it. I’m bonded with them, with everything here, I really am.

In the following question the cause and effect impact of gardening on the gardeners connection with nature becomes more evident. When asked, “Has your
experience with gardening influenced your views of nature?” the majority of responses were affirmative with eleven saying yes and only four saying no.

Table 2: Views of Nature

<table>
<thead>
<tr>
<th>Type of Response</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>11</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Some of the following responses illustrate the influence experienced by gardeners:

Participant D: It’s made me appreciate it so much more.

Participant G: Yes. It’s made me care for it more and more. Gardening here is how I interact with nature.

Participant N: I think it changes your way of looking at the outdoors. For example bees, I love bees now, and I have no fear of them and I’m around them. When you’re a gardener you know that bees are an important part to your garden working and they’re not a pest anymore, they’re your friend. I think there’s certainly a link there. I mean, there are good bugs and bad bugs but you get a feeling that we’re all in it, part of it, together – nature and people – when you have a garden.

Participant O: Definitely improved my understanding, that and being in nature. You learn about how plants depend on each other, and how plants are important to other species and vice versa. It’s like being around anything, you just get to know it better over time.

Further evidence that gardening might increase gardener connection to nature can still be found. When asked, “Why did you originally begin gardening?” contact with nature was mentioned only three times, a less common response than physical health, encouragement from spouse or friend, and being raised as a gardener. However, when asked, “Why do you garden currently?” five respondents expressed contact with nature as
a major reason, an increase of two. And, as noted previously, nature contact was listed six times as a favorite aspect of gardening.

Therapeutic Benefits of Gardening

Another primary theme expressed by interviewees was the therapeutic benefit found in gardening. The therapeutic value of gardening is something that gardeners became aware of over the course of their experience rather than a reason for gardening in the first place. When asked, “Why did you originally begin gardening?” there was never any mention of therapy as a factor.

Table 3: Original Reasons for Gardening I

<table>
<thead>
<tr>
<th>Reason</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapeutic Benefit</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

In contrast, when asked, “why do you garden currently?” six participants claimed improved mental well-being as a reason. The therapeutic value was something individuals discovered through direct experience. Examples of how this was expressed include:

Participant F: It’s just a beautiful thing to do. Our bodies need it, our minds need it.

Participant J: …It’s relaxing. I have a very demanding job that is stressful. When I get here within five minutes I don’t have traffic. I’m in my own place with my own thoughts and it’s very therapeutic.
Participant M: It’s therapy. My therapy is here. When I come to my garden I don’t think [about] anything but my garden. I don’t know or care if there is a world of people doing bad things, I’m entertained here. I like to eat everything. I don’t waste anything. So I love the fun to eat. Look at that beautiful lettuce, isn’t that beautiful.

Despite the therapeutic influence, this was not listed as the most common favorite aspect of gardening. When asked, “What is your favorite aspect of gardening?” there arose two factors that were more frequently mentioned. They were contact with nature and the quality of food.

<table>
<thead>
<tr>
<th>Favorite Aspect</th>
<th>Frequency of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with Nature</td>
<td>6</td>
</tr>
<tr>
<td>Quality Food</td>
<td>5</td>
</tr>
<tr>
<td>Therapeutic Benefit</td>
<td>3</td>
</tr>
<tr>
<td>Community</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Even though the therapeutic benefit wasn’t explicitly the most common favorite aspect of gardening, when asked, “How has gardening affected you?” it become the primary response. Nine times mental well-being was proclaimed to be a significant effect from gardening. After that physical health, increased knowledge, and contact with nature were mentioned six times combined.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved mental health/therapeutic benefit</td>
<td>9</td>
</tr>
<tr>
<td>Improved physical health</td>
<td>3</td>
</tr>
<tr>
<td>Increased knowledge</td>
<td>2</td>
</tr>
<tr>
<td>Contact with Nature</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>
Some participant statements about this therapeutic effect of gardening include:

Participant D: …I think the garden is most healing. Its great therapy, great exorcise, and
healing. That’s another reason I like to just be out here and just enjoy nature, the birds,
everything.

Participant E: It’s fun. I’ve enjoyed my life more I’d say.

Participant H: It’s like church. I don’t even go to real church anymore. My kids say,
‘mom how come you don’t go to church anymore?’ I say ‘I do, my church is the garden’.

Participant N: It’s very meditative. As you move around the garden you keep seeing
things that need to be done and soon a couple hours go by and it’s been kind of this very
quiet meditative process.

Similarly, when participants were asked, “In what ways have you seen gardening
affecting other people?” therapeutic benefit was by far the primary response, followed by
positive community involvement, the enjoyment of children, and the nutritional value of
the food.

<table>
<thead>
<tr>
<th>Effects</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapeutic Benefit</td>
<td>10</td>
</tr>
<tr>
<td>Community Involvement</td>
<td>3</td>
</tr>
<tr>
<td>Children’s Enjoyment</td>
<td>1</td>
</tr>
<tr>
<td>Quality Food</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Some examples of the claims that there are therapeutic benefits to fellow
gardeners are as follows:

Participant D: I guess in the same way it helps me. It’s great therapy. I think if you have
problems – whether its health, whatever problems – you come out to the garden and it
just like all goes away. It does. If I had this garden at home I would never leave. Very
therapeutic.
Participant E: I think it gives us a chance to get away from the everyday hubbub of the traffic and the noise. You step into a different world when you’re up here. And you’re closer to nature… And when people come up here, if they have problems or if things are not going well for them, they can get up here and more or less shed these problems because of the tranquility that is surrounding them.

Participant F: Oh yeah, it’s so healthy right. We were just discussing how a day like this, it’s therapeutic right. You can come and sit here and listen to the birds and all the good things you get from nature – there’s a little piece of it right here. It’s cool. It’s amazing here, like you’re out in the country.

Participant M: Everybody says it’s therapy. This man, this woman. Lots of people think it and mainly the women, we think this is our therapy.

The therapeutic value of gardening was quite common. Most people directly experienced such benefit from gardening, and many witnessed it in others.

Physical Health Benefits from Quality Food

The benefit to physical health was a third primary theme raised during the interview process. This benefit results mostly from the quality of food (sometimes the physical activity of gardening was also mentioned). In response to the question, “Why did you originally begin gardening?” physical health was one of the three primary reasons mentioned, accompanied by prompting from others and childhood gardening experience. A couple of the participant responses include:

Participant A: Well, originally because the tomatoes you buy in the shop are tasteless, and I wanted to be able to taste the tomatoes, so that was the impetus. They taste much better and you just knew their good for you. And there’s room for more than just tomatoes in the box so I started finding other things to plant. And I don’t use any chemicals in it, it’s healthier that way.
Participant B: A couple reasons. For one thing I found, that the produce we got at the grocery store just had no flavor, especially tomatoes, but most of it does not have a lot of flavor and so I miss the flavor. And then also as more information became available how a lot of the vegetables were grown I was concerned about what they were putting in the produce that may not be healthy.

The importance of improving their physical health increased for the majority of participants during their gardening experience. In contrast to only four people who began gardening for their physical health, thirteen gardeners said, in response to the question, “Why do you garden currently?” that physical health was a main reason. The abundance of responses on this theme reflects how important it is to the gardeners. Several of their answers were as follows:

Participant B: For the food, it’s healthier and tastes much better than stuff from the market.

Participant D: I like the food and the activity. One good reason for gardening is you know what you’re eating. You know where your food is coming from. It’s not going to be chemically. Plus you can grow stuff you can’t find in the market, enjoy all kinds of varieties.

Participant E: You know it healthy because you use no pesticides.

Participant F: Our bodies need it.

Participant L: Turns out everything tastes better this way. And we like to control what goes into our food. I don’t care what people say, those chemicals are not good for you. That’s why we are totally organic.

Interestingly, even though physical health was by far the primary factor put forth as a reason for gardening, when asked the question, “What is your favorite aspect of gardening?” it did not dominate. Contact with nature was mentioned more, and therapeutic benefits almost as much.
Table 7: Favorite Aspect II

<table>
<thead>
<tr>
<th>Favorite Aspect</th>
<th>Frequency of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with Nature</td>
<td>6</td>
</tr>
<tr>
<td>Quality Food</td>
<td>5</td>
</tr>
<tr>
<td>Therapeutic Benefit</td>
<td>3</td>
</tr>
<tr>
<td>Community</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

However, those who claimed that the quality of food was a favorite aspect of gardening were passionate about this position. They said things like:

Participant B: It’s really for the food. I was raised on home grown food and I just don’t want to be without it anymore. We had a really successful fall garden that we planted in October and it came up around January and it was great to have fresh produce for the table. It tasted so much better like I knew it would. It had all that great taste. The city of Santa Monica does not allow anyone to use any pesticides here, at all. Which is good. So it was fun to learn ways to combat insects and disease without pesticides, and it was great to see our produce do well without it. And it would be so much better for us.

Participant F: The harvest right, is the favorite thing. I mean you feel it, its delicious right, so it kind of upgrades your whole diet just touching it gives it an extra special flavor, that’s how I feel about it.

Participant H: All the delicious food.

Participant N: I really have to say the food. I’m a big foody. Michael Pollan’s like my biggest hero

The one gardener who mentioned activity said:

Participant L: The activity. I’m not working now, but believe me I wish I was, and it calms me down to be here. Maybe that’s weird, that being active is calming but I need to be doing something and I can feel good about this.

In a final question related to this theme, when subjects were asked, “How has gardening effected you?” only three mentioned positive impacts to their physical health.

This is only one third of the amount of people who listed therapeutic benefits, but still more than increased knowledge and contact with nature were mentioned.
Table 8: Effects of Gardening II

<table>
<thead>
<tr>
<th>Effect</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved mental health/therapeutic benefit</td>
<td>9</td>
</tr>
<tr>
<td>Improved physical health</td>
<td>3</td>
</tr>
<tr>
<td>Increased knowledge</td>
<td>2</td>
</tr>
<tr>
<td>Contact with Nature</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Two examples of what respondents said include:

Participant G: I have crohn’s disease. Doctors tell me if I hadn’t been a vegan I would have needed most of my stomach removed. I think gardening has saved me, in so many ways.

Participant L: Well it’s kept me healthy. Look at all this stuff. Carrots and kale and peas and lettuce. We eat this stuff all the time, and it’s all organic. And I get to move around and get some exorcise.

When the subjects were asked about how they’ve seen gardening affecting others, the benefit to physical health was only listed once. This may be because it is harder to witness this type of benefit than others.

Environmental Concern and Behavior

Environmental issues eventually became a primary theme in participant responses when interview questions directly prompted such answers. Prior to those questions, however, environmental issues were only mentioned twice. In one of these instances a participant said of their original reason for gardening:

Participant G: I am very devoted to getting back to the earth. I’m a tree hugger. I try to be as good an environmentalist as I can. I am appalled at GMOs and all the different
modified seeds that are coming out into production like Monsanto and the rest of those corporations that are doing such a number to our farm system.”

In the other instance, when speaking about their current reasons for gardening, participant F simply included “the planet needs it” in a list other reasons.

Despite this initial lack of commentary on the subject, all the participants did express significant concerns about environmental issues. When asked, “Are you concerned with environmental problems?” the result was a unanimous “yes”.

<table>
<thead>
<tr>
<th>Type of Response</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>15</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Many of the responses actually reflected quite significant concern, as can be seen in these examples:

Participant A: Oh god am I ever. We’re in big trouble I think.

Participant C: Oh yeah, especially when people are using chemicals growing plants. I think that all grass lawns should go. There are so many native plants that are drought tolerant, so many plants that you hardly have to water. That’s what I would like to see. We don’t have to use all the chemically stuff on the lawns. To me, not just with gardening but in the world in general, I see such easy solutions that never get put into place.

Participant F: Of course, of course. You know I love the earth, you know. We got radiation concerns, we got so many concerns and the food thing it’s just a good investment right now.

Participant G: I’m so concerned! We’re really doing a number on our environments.

Participant L: You’d have to be deaf or stupid to not be, right? My buddy does not even believe in global warming, can you believe it? But we’re seeing it right here.
Participant N: I’m terribly concerned. What aren’t we destroying? Oceans, forests, soils, air. It’s awful. That’s part of why I garden. It’s so overwhelming all the harm we’re causing…

After answering this question, the participants were asked a follow up question, “Has this changed in response to your gardening experience?” Nine of the participants said yes it had, four were unsure or not clear, two said that the opposite was true – that they gardened in response to their environmental concern (interestingly, when asked earlier why they began gardening only one person mentioned environmental concern).

<table>
<thead>
<tr>
<th>Type of Response</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, Concern Developed through Gardening</td>
<td>9</td>
</tr>
<tr>
<td>Not Clear if Concern Developed Through Gardening</td>
<td>4</td>
</tr>
<tr>
<td>No, Gardening is Response to Concern</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

Following are a few samples of the participants who claimed their environmental concern was impacted though their gardening experience:

Participant A: It’s changed a little. I know more about big agriculture now and how much better it is to grow food locally, and without all the chemicals. And I’ve learned how important bees are and how bee populations are in danger.

Participant I: I’m really crazy about composting now. Instead of just throwing unused food in the trash and it going into a landfill is wrong, I’m just so into the idea of putting it back into the earth. Hopefully that compost, I’ll be able to use it, it’s almost like eating it, so it goes into the process of feeding me again. It sort of continues the closed loop of my own sustainability. It just feels good to see it turn into soil again, to use it again. There’s so much to the composting process. Before I’d only heard the word composting, I never really knew what it meant.
Participant G: I’ve come to realize that what’s healthy for me is also healthy for the planet. These organic foods, produced right here are not only better for me, they’re better for the land. What they’re doing in the central valley, all those huge farms, they’re destroying that land. Here we’re saving it, and we’re healing too.

Participant J: I am more sensitive with the use of water, or the misuse of water in particular. Without water we cannot live so I think that’s the number one concern we ought to have. There is no life without water. I think overall, here, gardeners are pretty careful. I don’t water when the sun is out. Global warming.

Participant L: These summers are getting hot, and sometimes it’s hard to keep your crops from being cooked. Growing your own food will make you think about that real quick, you tend to notice when your months of care and work disappears as your zucchinis die in the heat.

Not every gardener claimed that environmental concern developed from gardening, but the following two said that environmental issues were one of the reasons that they gardened.

Participant H: That is why we left our home in Mexico. That is why everyone should garden. It is better for the environment.

Participant K: There are so many environmental problems. That’s one of the reasons why we do this. It’s good for the environment too.

A final question was asked to further explore the potential dynamic between how people relate to environmental problems and their gardening. The question was, “Have you become more engaged in environmental activity or activism in response to your gardening experience (such as recycling, using less energy, buying green products, joining organizations, signing petitions, protesting, etc.)?” There were four response categories. Two participants said they had become more involved in both environmental activity and activism, four said more involved in activity but not activism, five said that
gardening actually was their form of activity/activism (not necessarily their only form),
and four said no, they had not become more involved in either:

<table>
<thead>
<tr>
<th>Type of Response</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes: Both Activity &amp; Activism</td>
<td>2</td>
</tr>
<tr>
<td>Yes: Activity but Not activism</td>
<td>4</td>
</tr>
<tr>
<td>Yes: More Gardening As Activity/Activism</td>
<td>5</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

The two participants who claimed yes two both said:

Participant A: I have been becoming more active with my habits for a while now. Gardening has certainly led me to be more aware of my water usage. When I think about what I get from watering food when compared to watering our lawn I get very upset at how much water we waste here. It’s awful, just awful. So now I’m very conservative with water. I even fill a bucket with shower water while I wait for it to heat up, and I make my husband do that to. Then I water my plants with that. It’s like 2 gallons a day. I’m not the most politically active, but I do forward email petitions often. And I’m a voter. I try to vote for candidates with more environmental policies, it’s hard though with our choices sometimes.

Participant K: We’re both part of Sierra Club and we do our part. Everyone has got to do what they can, right? We’ve learned a lot about how to use less and reuse more.

Two examples of those who said that they had become more interested in environmental activity, but not environmental activism are:

Participant D: Well I’m not really politically inclined. All I can do is the best I can do with this. I’m not going to get involved with organizations and stuff, there are plenty of them. But I buy my seeds only from companies that encourage non GMO and organic and heirloom varieties. I’m a total recycler. But people don’t seem to care and that upsets me to no end. Why? What is so difficult about it? I recycle everything I can. Everything in this garden is something I’ve found around.
Participant M: No, I don’t join organizations. I don’t even vote anymore. What’s the point? But I recycle. I turn off the lights when I’m in a different room. I try to do the right thing but I don’t think I can have any impact, that’s not why I do it. I do it because I want to have a clean conscience.

Three examples of respondents who said gardening was their form of environmental activity and/or activism (though not excluding other forms) include:

Participant I: This is my environmental activity. Growing my own food, not using pesticides or herbicides, or eating asparagus from Argentina or oranges from South Africa. Composting and reusing whatever I can. And one of the reasons I like this location is that there’s a lot of bike traffic, so many bikers heading to the beach, and they all see what we’re doing here, and people are really drawn to it. So I feel that I do my own part and I promote it.

Participant L: We’ve learned to be more efficient, to not waste so much. Just growing your own food, organically of course, makes a big difference. And you get into it. You start thinking about how nature does not produce waste. Everything is food for something else. We just try to live our lives that way. It’s difficult in the world we live in, but we do the best we can.

Participant N: Yes. Supporting local gardeners and markets. You know the Monsantos of the world are just really evil. I think that supporting the people that are, little by little, fighting the good fight against them, and trying to eat local is definitely important to me.

These four themes of nature contact, therapeutic benefit, quality food, and environmental behavior changes were direct products of the interview process. Each of them was expressed as a positive result of gardening. They have been presented in this chapter as raw research data. In the following chapter this data will be analyzed through the lens of Deep Ecology and Ecopsychology to see if urban gardening can help improve human-Nature dynamics and deepen environmentalism in general.
CHAPTER 6: DISCUSSION

The point of this study has been to explore if urban gardening is valuable to environmentalism by positively influencing the current paradigm of human-Nature relationships. Deep Ecology and Ecopsychology both argue that experiencing Nature is critical to environmentalism because people must feel bonded with their natural environments to be sufficiently motivated to pursue their protection. This study has explored whether urban gardens can function as a source of Nature contact capable of shaping people’s perceptions of Nature and their relationship with it. The results are promising.

The interview process generated information that lends some credibility to the research hypotheses. There is significant support for the first thematic of this thesis, that urban gardening provides a way for people to connect with Nature and develop their relationship with it. There was also some support for the second thematic that such an increased connection with Nature manifests in increased environmental behavior. In the following section the data will be discussed according to how it relates to these two themes.

Urban gardening can impact how people perceive and relate to Nature. This will be shown in relation to three overlapping concepts: 1) gardening as a practical engagement with a mixed-biotic community in an urban setting, 2) gardening as a way to meet our psychological biophilic impulse, and 3) a cause and effect relationship between the act of gardening and increased appreciation of Nature.
Mixed-Community in an Urban Environment

One of the most evident outcomes of this study is that urban gardens are indeed a form of Nature, according to participant opinion. Gardening fosters the interaction with a mixed-biotic community that Deep Ecologists encourage. Each participant viewed his or her garden as part of Nature, not separate from or other than Nature. It is significant that gardening was unanimously a valuable means of connecting with Nature for each interviewee. At different times for different people such sentiments arose throughout the interview process and can be seen in statements such as:

Participant B: I don’t see them so different actually. This here is a little part of nature.

Participant C: Gardening is a way to enjoy my love of nature, and I’ve learned to love it more and more.

Participant F: It connects me to the earth, to the Mother.

Participant J: Gardening is nature. What else would it be?

Participant M: I love nature. Isn’t a tomato plant part of nature? I think it is. I love to be here.

In light of the theories presented in earlier chapters, it is promising that urban gardens function as a genuine means of Nature contact. Deep Ecology urges people to reconnect with Nature and that involves being part of a mixed-biotic community, something far less possible in an urban center than in natural environments. Being a member of a mixed-community, as Aldo Leopold (1968) puts it becoming “plain citizens
of the biosphere,” can be aided by the act of gardening. This is especially important when urban lifestyles dramatically reduce any chance for mixed-community experiences.

Deep Ecologists point to the urbanites deprivation of Nature contact as a root cause of the current paradigm of human-Nature alienation and concomitant environmental crises. Reconnecting with Nature is therefore a key factor in solving fundamental causes of ecological degradation. Gardening can enable such reconnection for urban dwellers. It allows people to experience the growth cycles of other life forms, such as plants from seed to sapling to seed production and reproduction. In a garden, people gain first hand experience of the interactions between organisms and between species. They can develop awareness of how everything lives within a complex web of interactions inherent to all healthy ecosystems. Experiencing the diversity of interdependent organisms and species, and oneself as part of the greater whole, is a beneficial quality of urban gardening. Here’s how some participants phrased this:

Participant A: I’m more aware of how different things need each other. Like bees and flowers, or ladybugs and aphids.

Participant N: When you’re a gardener you know that bees are an important part to your garden working and they’re not a pest anymore, they’re your friend. I think there’s certainly a link there. I mean, there are good bugs and bad bugs but you get a feeling that we’re all in it, part of it, together – nature and people – when you have a garden.”

Participant O: Definitely improved my understanding, that and being in nature. You learn about how plants depend on each other, and how plants are important to other species and vice versa. It’s like being around anything, you just get to know it better over time.

The notion that gardens provide something not found in the built environment of cities is clear to gardeners. Many of the gardeners were clearly aware that when they
entered their garden they transitioned from one type of sensory experience into another. Further, this transition was always experienced as valuable. Three participants said it this way:

Participant E: Well, you get up here, away from the everyday traffic… it’s like a different world. I mean you’re removed from life as we know it in Los Angeles. It becomes a different world and you can relax up here.

Participant G: Hollywood boulevard is just right down the hill here and I hardly even hear the traffic. Because I listen to the sounds and see the butterflies.

Participant J: I have a very demanding job that is stressful. When I get here within five minutes I don’t hear traffic. I’m in my own place with my own thoughts.

To say that gardens are Nature is not to imply that they are the same as wilderness areas. This thesis does not claim that there is no qualitative difference between a vegetable garden and other ecosystems. The purpose is only to explore gardens as a source of meaningful Nature contact. According to these results gardens do provide this. One of the ways this can be seen is by considering how it relates to the biophilia theory.

Psychological Need and the Biophilic Impulse

According to Deep Ecologists, urban existence has a negative impact on the development of human potential. They argue that the well-rounded maturity of human beings involves an awareness of both the individual and the species as part of the greater whole of Nature. The Deep Ecology process of Self-Realization involves appreciating Nature for its intrinsic value, not for its instrumental value to human beings. The
alienation from Nature that pervades urban lifestyles facilitates an ultimately harmful sense of superiority and separateness from Nature. The problem with this hegemonic perception is evident in the trajectory of increased environmental crises that threaten the people and the planet. Given that the cause of this problem is lack of Nature contact, more contact with Nature is seen as a necessary antidote.

Ecopsychology conceptualizes this with the idea of biophilia, that we have an innate affiliation for Nature, an inherent need for contact with diverse forms of life common to natural ecosystems. Urban, human-built landscapes deprive people from the sensory stimulus of a mixed-community that are a source for psychological well-being. Ecopsychologists suggest that the deprivation of the biophilic need contributes to environmental problems by suppressing appreciation of Nature. The overlap between Deep Ecology and Ecopsychology is strong, both assert that contact with Nature is necessary for development of the human psyche, and that lack of such contact results in psyches that exploit and destroy the Natural word.

The data in this study offers some support that urban gardening provides an experience that can foster this important part of the human psyche. There are two ways that this can be seen. The first is in the explicit claims that gardening is a pleasurable form of therapy. Participants were quite clear that they found gardening enjoyable and that they received tangible therapeutic benefits from it. The second is in the passionately expressed appreciation of Nature contact gained through gardening. It is this researcher’s opinion that these are two sides of the same coin – the value of connecting with Nature. What one person calls the joy of watching things grow, another person may call the
therapy of watching things grow. For example, here’s a quote directly mentioning the therapeutic quality:

Participant J: I guess it would be the contact with nature. I don’t wear gloves, I need to feel the dirt on my hands. I think the physical contact is part of the therapy.

Another participant said something similar, reflecting the psychological component of gardening without referencing therapy:

Participant I: I find every time I put my hands in the soil it does make me feel good, I really love that.

Either way, the numerous declarations of the benefit to well-being is indicative of the fact that gardens provide some beneficial Nature contact lacking in the urban environment. Some of the gardeners even expressed philosophic viewpoints akin to Deep Ecology/Ecopsychology thinking:

Participant F: This is what life should be. I mean it’s good for you.

Participant I: Most of the people who come out here just love coming out here, it’s there place to get away and get quiet. Just rebalance… It does something to people, it’s so primal or something. I think it’s important to the community and to our members. I don’t know exactly why, or if other people do, but I can see it in their faces.

Participant O: And it’s fun, all those things are fun. And it’s a sensory thing. I love putting my hands in the ground. And water, I love watering and all that’s involved. I think there is something innate in humans, most humans, to connect to the earth.

The biophilic tendency to appreciate Nature seems evident in this data. The gardeners interviewed find the elements of Nature in their gardens enjoyable in themselves. The appreciation extends well beyond the production of food. They exhibit wonder and fascination for the diversity of life they experience in these types of mixed-biotic communities. Not only do they find pleasure in gardening, they find improvement
to their well-being, a therapeutic benefit of interacting with Nature. This suggests the applicability of the biophilic theory even for urban settings.

Increased Appreciation of Nature

The current paradigm that promotes urbanization and places only instrumental value in Nature as a set of resources for human needs drives perpetual ecological degradation. A successful environmental movement necessitates a transformation from the pervading worldview of instrumental value, to a collective belief in the intrinsic value of Nature.

This study has explored the idea that gardening, as a form of Nature contact, can actually influence people’s appreciation of Nature. Can an urban garden cause an urban person to find more inherent value in Nature itself? Another way of thinking about this is asking if the biophilic disposition can be cultivated through experience. Does the affinity for Nature become stronger when more Nature is experienced? The data already shows that gardens are a form of Nature. It also shows that individuals value gardening for this very reason: the chance to connect with Nature. There is also some support within the data that gardening actually does increase appreciation of Nature itself.

Because the interview questions were designed to avoid leading participants toward certain responses too much, the term appreciation wasn’t always used. Instead questions on this theme asked if participants became more interested in Nature, or if gardening influenced their views of Nature. This was an attempt to leave the type of
response open to the interviewee. To some degree this was successful and participants did express a type of increased appreciation. Here are a few examples of such cases:

Participant C: Gardening is a way to enjoy my love of nature, and I’ve learned to love it more and more.

Participant D: It’s made me appreciate it so much more.

Participant G: I’ve become closer. This is nature, all this. The trees, the birds, even the snails and the soil. More interested? Yeah. More and more all the time.

Participant O: Yes. Well, I’ve had an interest, but the interest became more defined I would say. I learn more about native places and the history of the area, the soils and compatible plants. So the knowledge became deeper I would get more fascinated and that encouraged me.

These types of responses suggest that gardening in an urban setting can increase a person’s appreciation of nature. This implies that the biophilic tendency is malleable and can be cultivated through experience, which is hopeful from the Deep Ecology perspective on human-Nature relationships. There are also some indications that do not fully reflect the connection between gardening and Nature appreciation was typical, sometimes a causal connection was not indicated. Some of these cases include:

Participant I: I would wonder if the person who already has interest in nature is attracted to this, I don’t know.

Participant K: It’s kind if like being in nature. I don’t know if I’m more interested, but I love nature.

Participant L: More, no I wouldn’t say more, but I’m big nature dude. I used to go camping all the time when I was younger. Now my wife and I do a lot of backyard bird watching. We even do that here. You see some cool birds here.
In light of responses such as these it appears that gardening can increase appreciation of Nature, but it does not enhance the connection necessarily. It should also be noted that for those participants who said there had been no increase in their appreciation of Nature, they already had significant appreciation before they began gardening.

The second thematic of this study was that, if it is true that gardeners cultivate relationships with Nature through gardening, then these relationships will produce an increase in gardener’s environmental behavior. Environmental behavior is defined here as actions that promote the welfare of natural environments. These are broken into two types of such behavior. The first is in lifestyle choices such as recycling, buying environmentally responsible products, conserving energy, and the variety of behaviors similar to these. The second grouping of environmental behaviors considered here are activism actions such as, but not limited to, voting behaviors, signing petitions, protesting, joining organizations, etc.

The study generated information that does lend some support for a relationship between gardening and environmental behavior. Nine of the fifteen participants said that their environmental concern had increased in response to their gardening. In addition, eleven said they had increased some form of environmental behavior since gardening. The outcomes of this study indicate that there is a link between gardening activity and broader environmental behavior. The following statements recap how some of the participants expressed this:
Participant A: I know more about big agriculture now and how much better it is to grow food locally, and without all the chemicals.

Participant G: I’ve come to realize that what’s healthy for me is also healthy for the planet. These organic foods, produced right here are not only better for me, they’re better for the land. What they’re doing in the central valley, all those huge farms, they’re destroying that land

Participant I: I’m really crazy about composting now

Participant J: I am more sensitive with the use of water, or the misuse of water in particular. Without water we cannot live so I think that’s the number one concern we ought to have. There is no life without water. I think overall here gardeners are pretty careful.

Participant M: I think a lot about water now. Everywhere you go there are lawns. Big stupid waste of space lawns. That’s not what water should be for, water is for drinking, for growing food.

Positive changes in environmental behaviors were typical among the participants in this study. The gardeners involved demonstrated both increased awareness of environmental issues as well as new lifestyle choices that reflected their new understandings. The particular environmental issues that concerned the participants varied, including water issues, pollutants, ecosystem health and more. Despite the variety of concerns, it is evident that gardening tended to result in some form of positive change in environmental behavior for the participants in this study.
CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATIONS

This thesis has looked at how urban gardening can support environmentalism by influencing the paradigm of human-Nature relationships through the theoretical lens of Deep Ecology and Ecopsychology. It began by stating the premise that environmental degradation is reaching unprecedented levels. Humans and Nature are in the midst of environmental crises. Ecosystems around the planet have been and are being destroyed individually, while climate change presents a threat to Earth systems on a planetary scale.

The theory of Deep Ecology was explored for what it says about the limited potential of traditional environmental movements. Deep Ecologists argue that mainstream environmentalism is inherently inadequate to address environmental crises. This critique asserts that environmental efforts are too piece-meal. They are targeted on specific ecological concerns and do not resolve the broader issues that lead to the multitude of ecological problems. It is said that traditional environmentalism is too shallow, and the fate of Humans and environments requires a deeper approach to address root causes of the problems we face.

The root cause for widespread ecological destruction, according to Deep Ecologists, is that humans are becoming increasingly alienated from Nature. Through industrial-technological development and the advent of urban lifestyles, humans are psychologically disconnecting from the broader the web of life. This disconnection is resulting in the environmental problems we face. Reconnecting with Nature is a necessary part or remedying the situation.
The two sides of Deep Ecology, the philosophical and the psychological, were discussed and evaluated. The philosophical argument for healthy human-Nature relationships is that all life shares inherent worth and that it is wrong for people to hinder the lives of other species for non-vital needs. It suggests that humanity has been increasingly viewing Nature as instrumentally valuable, a set of resources, the worth of which is only in how it can be used. Deep Ecologists argue that ecological egalitarianism should be the norm and that people ought not destroy Nature. Despite this, Deep Ecologists also claim that using such moral arguments is not satisfactory and is an inherent weakness in traditional environmentalism. That is why the psychological side of Deep Ecology becomes so important.

This thesis explored and supported the idea that environmentalism requires a psychological shift within individuals and societies, an increased bonding with Nature. Because the ethical assertions of environmental philosophies are not adequate to alter the trajectory of ecological degradation people must become invested in the protection of Nature. Alienation from Nature manifests as a hierarchical separation in which people view themselves as separate from, other than, and dominant to the rest of earth. It is imperative that people reconnect with Nature, that they identify with it, so that the protection of ecosystems is associated with the protection of the self. Deep Ecology asserts that this type of psychological transformation is necessary and insists that contact with Nature is how it is accomplished.

Next, the field of Ecopsychology was explored for some of its contributions to Deep Ecological theory. The concept of biophilia, that humans have an innate drive to
appreciate the diversity of life, was discussed as factor within the psychological disconnect from Nature. Through urbanism the biophilic tendency has been stifled which has a negative impact on psychological health. Ecological crises are the proof of this problem within the psyche. Therefore Ecopsychologists argue, like Deep Ecologists, that spending time with Nature is necessary for healthy human development and healthy sustainable relationships with our environments. Both fields claim that the cultivation of an environmental identity through Nature contact is essential.

With these theories as a theoretical framework, urban agricultural gardening was explored as a potential means for reconnecting urban dwellers with Nature. The results of interviews conducted with urban gardeners in Los Angeles County were presented and discussed. It was found that gardens do provide a kind of contact with Nature, a source for reconnecting with Nature. The data also showed that gardeners felt that such contact was healthy and improved the quality of their lives. Further, there was support for the thematic that such connection would manifest in positive changes in environmentally responsible behavior. Urban gardening can improve broader environmental movements by addressing the root cause of alienation from Nature.

These aspects of urban gardening should be investigated further. There are many questions that could lead to a broader and more nuanced understanding. How much time must a person spend gardening in order to enrich their relationship with Nature? What features of a garden are most conducive to this? Does it matter how old a person is? Is the change in relationship significant in the broader context of the human-Nature paradigm?
Further interviews with other urban gardeners and with variations of questions like these would help explore these issues. Investigations into the matter should also focus on certain themes not made primary in this interview process. These themes include the role and formation of environmental identities, as well as the development of ecosophies and how they influence lifestyles. Possibly the most important area for further research is the investigation of what make people adopt environmentally friendly behaviors. This thesis adds to the knowledge that contact with Nature, specifically via urban gardens, can have positive effects in this matter. The amount of change necessary for a sustainable humanity is very great, and there remains very much need to explore how humans can become more proactive in changing their lifestyles.

If information continues to support these hypotheses then the major implication of this research is that urban gardening should be more promoted. City planners should incorporate community gardens into urban development planning as a means of addressing broader environmental degradation. Environmental organizations should support urban gardening as an indirect way to strengthen environmentalism. Reconnecting urban dwellers with Nature through gardening should be a matter of general policy. In light of Deep Ecology and Ecopsychology, urban gardening can help protect ecosystems in ways that traditional environmental movements have failed. Gardening can help transform the relationships between humans and Nature.
REFERENCES


