

CULTIVATING CONSCIOUSNESS WITHIN  
COMMUNITY GARDENS: OUT OF THE IRON CAGE  
AND INTO A LIVING WEB

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## **Abstract**

### Cultivating Consciousness within Community Gardens: Out of the Iron Cage and into a Living Web

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Across the United States, the number of backyard, school, and community gardens continues to rise. At the same time we are confronted with climate change, limited fresh water, a climbing population, and reduction in natural resources. Our food system is based on factory farming, our education and health care systems have been systematized and routinized, and our work worlds are ruled by bureaucracies. All of these problems are rooted in the mechanistic thinking that arose with the advent of the scientific method and subsequent industrial revolution. Max Weber describes this rationalized existence as the Iron Cage. Not only is the Iron Cage an external construct dictating our daily experiences, we have also come to internalize it in the ways that we think.

Is there an alternative? My thesis investigates whether the practices of community gardening cultivate forms of consciousness and values that are counter to the dominant rationalized world. To examine the practices that occur within the garden and the shifts in consciousness they allow for, I conducted in-depth interviews with ten community gardeners in Flagstaff in 2013. Using a combined approach of grounded theory, narrative inquiry, and portraiture, I distilled snapshots from their stories that illuminate how time spent in their gardens shifted their ways of thinking and ultimately their values

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## Table of Contents

Abstract.....	2
Acknowledgements.....	3
Table of Contents.....	4
List of Plates.....	5
Dedication.....	6
Chapter 1. Introduction: Where I Came From.....	7
Chapter 2. Literature Review: What Others Have Written.....	38
Chapter 3. Methods: Conducting my Study.....	51
Chapter 4. The Gardeners' Stories: Shifts in Thinking; How Gardening Impacts Body, Mind, and Soul.....	63
Chapter 5. Conclusion: Looking Forward.....	83
References (Works Cited).....	89
Appendix A. Gardener Interview Questions.....	94
Appendix B. Informed Consent as required by the Institutional Review Board...95	

## List of Plates

Plate 1 Sunflower at Southside Community Garden 2013 by Cara Corbinmeyer.....	8
Plate 2 Chard in NAU's SNAIL Garden 2013 by Cara Corbinmeyer.....	38
Plate 3 Kale in Laura Cagney's garden 2013 by Cara Corbinmeyer.....	51
Plate 4 Corn in Sunlight, NAU's SNAIL Garden 2013 by Cara Corbinmeyer.....	63
Plate 5 Pumpkin in Southside Community Garden 2013 by Cara Corbinmeyer.....	83

## **Dedication**

*To the two who gave me a reason and the one who  
helped me every step of the way.*

*To the McCoys who opened the door for me.*



## Chapter 1. Introduction: Where I Came From

*“Food, a French man told me once, is the first wealth. Grow it right and you feel insanely rich, no matter what you own.” -Kristin Kimball*

### Introduction

I have not always been a garden enthusiast. When I was growing up, my father had a garden that he tended next to our house. It had things like horseradish and mustard greens; foods I was not interested in. Also he is practical at the expense of aesthetics. He used strips of old carpet to prevent weeds from growing in the paths. To me it was a ramshackle, misfit place that I did not enjoy being in. It reflected elements of my life that I wanted to get away from.

My parents divorced when I was three. My younger sister and I lived with our dad. After the divorce, he sold the house that we had all lived together in Fayetteville. He moved us to rural Northwest Arkansas to carry out his dream of living in a cabin close to the land. The divorce was hard on everyone, as was my dad's subsequent remarriage and divorce from my stepmother when I was 12. I made friends and adapted to life in the country. I played basketball and made good grades. I joined the youth group at our local church. Despite it all I felt fundamentally flawed and left out of a big part of happiness in life. I wanted to be part of a happy family and feel like a healthy person. I felt like an outsider and grew accustomed to feeling that way. It seemed to me that some people were lucky enough to have happy families and happy lives and some were not.

What changed that perception was interacting with my best friend and her family. I spent a lot of time at Joanna's house. She and her two sisters could cook from a very young age. The McCoys made things from scratch that took a long time, yet they did not seem to mind. Their house was warm and sunny. It smelled good. Music played in the background. I always felt good in their home. I saw what it could be like to be part of a happy family. I learned from Joanna how to make marinara sauce from fresh tomatoes and brownies from flour, cocoa, and sugar.

I took these lessons home, hoping that better food would change my home and make it a warmer, happier place too. In our house I did most of the cooking; I had been using a lot of instant and canned foods because I had not been taught how to cook healthy meals. I started making some of the things that I

learned from Joanna and her family. I made spaghetti sauce from scratch and homemade chocolate chip cookies. Although it did not transform things at my house, it did show me that I had some power over what my existence could be like. As my relationship with food evolved, so did how I saw myself.

I continued to follow good food. I got a job picking blueberries and working on the McCoys' family farm. I went with them to the farmers' market and met other vegetable and fruit farmers. This was work I enjoyed doing. The farmers' market was a place I liked to be. I went on to apprentice on several organic farms. From there I transitioned to promoting community gardens for a variety of nonprofit organizations. Food and farming provided avenues out of feeling stuck, unhealthy, and unloved. I know that there are many ways that people are able to transform their lives. There are many avenues to change the ways we think about ourselves, the world around us, and our place in that world. Food was my way.

It continues to be my way. Eating good food returns me to what is important in my life. Now as an adult, growing food with my children in our community garden plot connects me to the kind of life I want to lead and share with them. Through gardening, my eyes were opened to the connectedness of all life on this planet. I want my children to understand this. I want them to understand that food is not our right, it is, rather a blessing and a gift. To be aware of this and appreciative enhances our life. We have the power of choice. Even as rationalized experiences (and food) are pushed on us, we can choose to step outside, to plant a seed, to share a strawberry with a neighbor and feel the

sun on our faces. We can recognize the lives around us and be curious about their experiences. We can be vulnerable and share with others; we can open up to new ways of experiencing life. I want to stay with that awareness and continue it, learning new ways to be engaged with and aware of the lives around me. I want to give my children not only beautiful food but also access to creative, imaginative, and living surroundings.

From my own experiences in the garden I learned firsthand how, when someone is open to it, his or her life can be changed and improved. I did not go looking for fresh food, but I was open and curious. I was a person who needed nurturing. I was looking for something that I lacked and I found that in *providing* something that need was met. Without consciously realizing it, I had been desiring nurturance. I wanted to be taken care of. By turning it around and taking care of plants and myself in cooking and eating those plants, my need was met. Not because someone was taking care of me, but because I had become a person who was capable of providing something.

I was transformed from a person who was missing something into a person who was able to give something. That ability, and seeing myself differently because of it, changed my life. I learned that I had power, and not in the sense that we often think of power (power over). I learned that I had power over other lives, impacting them in ways in which they are not in control or in favor. Instead I learned about the power of choice and how significant those choices could be in how I lived my life. I had the power to try, the power to value and connect with life around me. I had the power of choice to remain vulnerable

and open to possibilities I couldn't even imagine. I had the power to serve and collaborate with those around me, thereby improving all of our lives and experiences.

This is what I had in mind in conducting my study. Had other gardeners had similar shifts in awareness? Had their gardens demonstrated for them the same kinds of lessons that mine had for me? Were other gardeners aware of ways in which the gardens had provided the space and place to practice a new kind of thinking, one that is outside the dominant power structure of our society in that it values life and connection? For my project I began examining the experiences of community gardeners in Flagstaff to see if their lives had been transformed. To learn from them I conducted in-depth interviews in which I asked them about their family histories and their stories of their gardens to see what impact (if any) their gardens had on their lives. Did they evolve in how they saw themselves, as I had?

This process was in itself another evolution. Originally I set out to determine whether being involved in a community garden had been the catalyst for personal transformation within the gardeners' lives. While I did hear stories about what their gardens meant to them and how their gardens had impacted their lives, I was not able to clearly and definitely show an arc of change in their lives due to the participation in a community garden. However, in the process of gathering their stories, I began to note something else.

The stories they were telling me revealed a kind of thinking and a system of values, as shown by the way that the gardeners spent their time and money

and what they came to care most about, that was outside of the dominant rationalized paradigm and the values and thought processes that accompany it. I went in looking for evidence of personal transformation and I came away realizing that what I could attest to was the way the gardeners learned to think creatively within the gardens and how that creative thinking informed their values and thereby their lives.

So my research question became: Do the practices of community gardening cultivate forms of consciousness and values that are counter to the dominant rationalized existence? It was my intention to name the problem (a rationalized existence), and then focus on the fact that we need not remain stuck in that construct. Through awareness of the problem, forming an intention to step out of the dysfunctional system, and adopting daily practices that support a collaborative and creative experience, we are able to choose a different path for ourselves. The creative thinking practices that take place in the garden offer gardeners experiences of a more mysterious universe that quantum mechanics tells us is far closer to the nature of our universe.

### [Gardens are Growing](#)

Community gardens are growing. The National Gardening Association reported that 36 million households, or 31% of the total in the U.S., participated in food gardening in 2008. The number was expected to increase by 19% in 2009, with 43 million households planning to grow food that year (Johnson 2010). The number of farmers' markets is also on the rise. The USDA reports a steady increase in the number of farmers' markets since 1994, when they began

publishing a national directory of them. According to “Farmers Markets and Local Food Marketing” on the USDA website, the total for 2013 is well over 8,000 nationally. In 2009 Michelle Obama, in collaboration with a group of school children, planted a garden on the grounds of the White House. They replant the garden each year and tend it along with the White House bee hives. More and more schools are planting gardens on their campuses and participating in farm to school programs. The National Farm to School Network reported that over 12,000 schools were involved during the 2011-2012 school year; the figure for 2013 is close to 40,000 (“Find a Farm to School Program Near You”).

Many people are becoming interested in growing and eating fresh food. Food fresh from the garden contains more nutrients than food that has been trucked across the country (O’Connor D4). There are many more reasons for wanting to be part of a community garden, including physical exercise, the chance to interact with fellow gardeners, the opportunity to learn more about growing food, and interacting with nature. Other reasons quoted in the literature on the topic include: mitigating the role of urbanization in global climate change, psychosocial well-being, redefining community, multicultural relations, and community organizing and empowerment, to name a few (Okvat and Zautra). Gardening can be a recreational activity or a way to connect with the neighbors while enjoying some sunshine. It can be a way to save money at the grocery store. It is all of these things and more. For some, gardening opens up a new way to see things and a deeper appreciation for what it means to be alive on this planet.

How can pulling weeds and witnessing the blossoming and fruiting of strawberries and tomatoes change the way a person thinks and what they value? Is it possible that while turning over their garden beds people learn something about the essence of life itself? I know that these things can happen because my own small world view was cracked open and expanded by the beautiful food I was exposed to and the lifestyle that goes along with growing and eating it. Had other people had this experience? What lessons are other people learning from their gardens? I spoke with gardeners and interviewed them about their experiences in their community gardens. I wanted to know if and in what ways their lives and thinking have been shaped by participating in their gardens.

While gardening is experiencing something of a renaissance amongst some in the US right now, it nonetheless often goes unnoticed by the mainstream culture. Moreover, despite its growing popularity and perhaps because it is a lot of work, it is not held in high esteem by the overall culture. So what are the motivations that keep gardeners returning to their garden beds year after year? Are there intangible benefits gardeners are experiencing in addition to exercise, sunshine, and some tomatoes and peppers to take home? For my thesis project I examined the role that community gardening can play in affecting the way a person is able to think creatively and solve problems. How does this impact their values? Does gardening provide an alternative to a rationalized existence? What are some examples of practices or ways of thinking that characterize this alternative experience? Ultimately I wanted to know if gardening provided one

door out of the Iron Cage and, if so, whether the ways of thinking it engenders can be applied more broadly?

Despite our modern, bureaucratized society, some people are able to create and participate in value systems that are outside of and often in contradiction with the mainstream consumerist society. If you turn on the television or tune in to the majority of popular music, it becomes clear that the status quo holds money and power in high regard. There are few shows or songs glorifying involvement in local politics or making a difference in the life of a child in your neighborhood. Our bureaucratic society is organized such that there are inherent hurdles for someone who wants to change policies to enhance his or her day to day reality. While it is possible (with help) to enact legislative change on a local level, it is not easy and it certainly doesn't bring instant gratification.

The desire to see positive effects of our actions may be one draw to the garden. It still is not easy, but in an afternoon of turning the soil and planting starts, it is clear the difference you have made. Perhaps in encountering aphids or gophers in the garden year after year, a gardener confronts the limits of control we have over life and finds a new approach to his or her garden that encompasses insects and animals, honoring their reality in addition to our own. Maybe a gardener is confronted with time constraints and has to make a choice between spending time in the garden and giving time to an organization. A choice must be made about which reality the gardener seeks out and wants to encounter on a regular basis. A gardener may spend time in the garden simply because she loves it and may never know about the lives of the butterflies or the

neighborhood children she has touched in dedicating time to making the space a special one. Gardens may teach us about patience, the interconnectedness of all things, how to bring passion and energy to our work, and how to temper these with the slow and steady nature of the garden.

Gardens may be a perfect living laboratory in which to encounter these and other lessons. Through in-depth interviews with ten people who are currently participating in community gardens, I gathered the stories of people and their gardens. I met them in their gardens and took photographs of their beds. I was curious about any changes their gardens have made in their lives and I wanted to see if any have had their world view expanded by growing and eating fresh food.

### What Stories Reveal

In looking to gardeners' experiences within their community gardens, I wanted to understand if participating in a community garden has an impact on the ability to think creatively, critically, and innovatively. To understand this I asked gardeners about every element of their gardens: how they came to gardening, what they enjoyed, what some challenges were, why they continued, how or if they shared the experience, and how it impacted their lives. What I wanted to get a sense of was their own story about themselves and their garden. Storytelling itself is a creative act in which we define ourselves within our universe. Imbedded in our stories is information about how we define ourselves and how we see the world around us. Our stories reveal our values. As Terry Tempest Williams says,

*“A story allows us to envision the possibility of things. It draws on the powers of memory and imagination. It awakens us to our surroundings. I can follow an owl into a cottonwood grove or listen for Kokopeli’s flute. I can sit in the crepuscular hours of a day or imagine a snake uncoiling from a basket. It is here, by our own participation in nature, that we pick up clues to an awareness of what a story is. Story making comes out of our life experiences. And there are many, many layers we can penetrate... We must create and find our own stories, our own myths, with symbols that will bind us to the world as we see it today. In so doing, we will better know how to live our lives in the midst of change” (3-5).*

Stories are not just interesting diversions or a way to pass the time. They are relevant now. In telling our stories we exercise our free will and creativity. We reveal what we hold dear. We connect ourselves to the body of knowledge that we have been given, and in turn we embellish it, improve upon it and hand it down to the next generation. In this time of constant change in terms of the global climate, the geopolitical landscape, and the decline in available resources combined with the steadily growing global population we have something positive to hold on to. We have a place we can make an impact, improve our small part of the world. In our garden we can connect to our neighbors and together we can create something wonderful. It is important now for each of us to be present and aware of our current situation. What goes on in the garden that gives gardeners the ability to face adversity with a sense of humor? Does

the practice of gardening help gardeners understand the magnitude of a given task and teach the ability to begin addressing it weed by weed?

Stories bind us to our world. They combine imagination, wisdom, and experience in a way that creates new doors out of difficulties. Stories build on current knowledge but come up with new twists. They evolve as time passes, reflecting new possibilities. Stories are appropriate here, rather than a survey or even description, because I want to engage gardeners' memories, imaginations, visions, and engage them in the creative and mysterious process of meaning-making that is needed to speak to the most significant challenges of our present.

I used in-depth interviews to learn about these gardeners' experiences. I did not try to prove a theory or use numbers to make the case that gardens are needed because they can provide x, y, and/or z benefits. I listened deeply to what gardeners in Flagstaff experienced to see if any of those experiences shaped what they value or how they see the world and in what ways.

We know that gardens are good. They green neighborhoods and cities. They clean the air and water around them. They reduce heat island effects while also providing habitat for beneficial insects and birds. They are safe places for children to play and provide health and social benefits to gardeners. While acknowledging all of this, I wanted to also look deeper. I wanted to see if all of these things in combination with the lessons that gardens teach us through things like composting old plants and renewing our beds each year reveal to us something important about life, something that shapes us even when we leave

the garden. I wanted to understand how each gardener defined themselves, their world, and what their work in it is.

### Problems and Theoretical Framework

In order to provide some context for why the lessons that the garden can potentially teach us are so needed now, I will turn to some historical and theoretical accounts that are central to framing the broad problems to which my thesis speaks. The prevailing worldview of our time, that of a mechanistic world, has its roots in the 16th century. Before then we lived in an enchanted world. According to Morris Berman, "Rocks, trees, rivers, and clouds were all seen as wondrous, alive, and human beings felt at home in this environment. The cosmos, in short, was a place of *belonging*. A member of this cosmos was not an alienated observer of it but a direct participant in its drama. His personal destiny was bound up with its destiny, and this relationship gave meaning to his life" (Berman 2). Berman refers to this as "participating consciousness", which I would contrast with the fragmented consciousness we possess today. Participating consciousness was slowly eroded away as people began to get involved in money economies and came to view the world through the lens of the scientific method.

Berman contends that the story of our modern time is one of progressive disenchantment, Berman traces the rise of our modern way of thinking and examines the intellectual changes that accompany the rise of industrialism and capitalism. He begins with René Descartes, the "great methodological spokesman of modern science" (11). As such, Berman refers to our current

worldview as the "Cartesian paradigm". Descartes came out of the tradition of Plato who sought the underlying forms of observed phenomena. Descartes advocated making ourselves masters and possessors of nature. He put mathematics forward as "the epitome of pure reason and the most trustworthy knowledge available" (14).

Together René Descartes, Sir Francis Bacon, and many other leading scientists of their day ushered in the scientific revolution. Bacon sought to "question nature directly by putting it in a position in which it was forced to yield up its answers." *Natura vexata* he called it - "nature annoyed": arrange a situation where yes or no must be given in response (14). It was the inquisition of nature. Bacon saw science and technology as the way forward. Disturb nature to know it, record it, observe it, turn it into data to be collected and compared. Questioning nature under duress was the major Baconian legacy. In seeing everything as a potential subject for study or source of data, both mind and nature were treated as machines.

In pushing forward this new worldview, these men wrested power from the church, which had previously been the authority. Bacon and Descartes advocated starting anew in building a methodology, rather than trying to build on the old way of knowing. Disbelieve all that had been previously known; throw out the old ways of knowing. Descartes sought true knowledge, pure knowledge, or as he said, clear and distinct knowledge. He came up with the procedures for the scientific method to guide him in his quest for knowledge. To begin, state the problem. Then break the problem into its simplest components, examine the

units, and reassemble the whole. Descartes considered this mechanistic process the key to the world's knowledge. Everything is an object with parts than can be observed and known. In summation, "To know nature, treat it mechanically; but then your mind must behave mechanically as well" (Berman 18).

As David Abram summarizes, "It was only after the publication of Descartes's *Meditations* in 1641, that material reality came to be commonly spoken of as a strictly mechanical realm, as a determinate structure whose laws of operation could be discerned only via mathematical analysis" (32). Taken together the ideas of Bacon and Descartes allowed for the manipulation of the environment to take place with logical regularity. Man, using his intellect, can know everything there is to know. It was essential in upholding the new scientific worldview "that the rational intellect hold itself apart from the experiencing body" (Abram 43). Descartes equated thinking with existing and thinking as what separates the observer from the observed. (Quantum mechanics has provided insight upending this view, as I will discuss later.)

The Cartesian paradigm equated truth with utility. This has been most keenly felt in the 20th century. The notions of these men, with their focus on objectivity and utility provided the foundation for the system we operate within today. Modern science became the "mode of cognition" of industrial society. Medieval peoples had a reciprocal relationship with nature; modern peoples recognized and exercised their ability to dominate and control nature and use it for their own purposes.

Galileo and Newton built on this tradition. Galileo advocated for the manipulation of nature to our advantage. He studied bodies in motion; ballistics and ships. Newton promoted the heliocentric understanding of the solar system. He popularized Algebraic formulae and worked on the notion of gravity. Gunpowder and compasses opened up trade routes and empires, exporting these notions to the rest of the world. Historical guilds of craftsmen broke. The commons were enclosed, and peasants were forced off the land and into factories in urban centers where they labored in the mass production of goods. Large scale production became the norm, ushering in the commercial revolution. It was an era of energy and expansion. The new focus was the money economy. As a new class of people came into power, they brought with them their value of innovation.

Time and money became intricately linked as time became regulated and standardized. Linear time and mechanical thinking equated time with money and the clock with world order. They were parts of the same transformation and helped to reinforce each other. Formerly rigid social, class, and professional distinctions broke down. It was the dawn of capitalism. Money became king and brought with it its own justification and authority.

In briefly tracing the development of the idea of the world as a machine, we can see that it extended to our understanding of the economy, technology, engineering, and the way that we approached the natural world. The participatory consciousness became subverted by capitalism and mechanistic science. Berman points out how, like a fish in water, it is difficult for us to imagine relating

to the world in a way other than the way we always have. We are the fish and capitalism is the water we swim in. In briefly tracing the development of the idea of the world as a machine, we can see that it extended to our understanding of the economy, technology, engineering, and the way that we approached the natural world.

Participatory consciousness became subverted by capitalism and mechanistic science. Gary Holthaus reminds us that “we are indeed a subsistence culture, dependent entirely on the land” but “we still languish in the legacy of Newton and Bacon, thinking that we can separate our science from our humanities, and in the legacy of Descartes and Kant, thinking that we can separate ourselves from Nature” (93).

Is that the end of the story? Knowing what we know now, how can we use this knowledge to our advantage and move forward? Clearly it is unlikely that people will stop driving cars, using cell phones and the internet. So how can we incorporate some of the very important parts of participatory consciousness in a modern setting? This is what gardeners have begun to do. Others are addressing this issue as well. We can recognize the power that we have; the power of choice. We can choose to seek out experiences and practices that are more participatory and collaborative in nature. We can step away from technological devices for a while and interact with the natural world. “Despite all the mechanical artifacts that now surround us, the world in which we find ourselves...is not an inert or mechanical object but a living field, an open an dynamic landscape subject to its own moods and metamorphoses” (Abram 32).

David Abram makes the case not just for letting go of our desire to control but also for incorporating wildness in our lives. He says, “We are human only in contact and conviviality with what is not human” (ix). He speaks of an intelligence older than words. The only way to access this power is in interacting with “the earthly web of relations in which community is embedded” (8). To be fully alive and fully human we must interact with plants, animals, trees, rocks and hills around us. We have to step outside of our fabricated, controlled environments in order to touch and be touched by the wild. In doing this, in forming relationships with the nonhuman life we are able to “receive the nourishment of otherness” (ix).

There is something special that happens when swimming in the ocean, feeling the velvet of mullein leaves against our skin, smelling lavender crushed between our fingers, or compost turned to fresh soil. The surprise and joy in seeing a snake slither along the path or in coming upon a deer grazing; something happens that is beyond words. Pleasures exist outside of the logical realm.

In his short video, “Flight from Embodiment” (<http://vimeo.com/14310916>), Abram talks about how people are in a rush to get out of their bodies and their experiences because of a fearfulness associated with identifying with our animal bodies. To be an animal is to be vulnerable to disease, other creatures, mortality itself. To be fully, sensually aware, there is a threshold of grief to step through. Yet Abram says, “The pleasure, the joy, from being *here*... this world is so delicious... to be nourished by all these relationships; the winds, the dragonflies, the hills and creeks. “

It is very important that we feed not only our minds, but also our senses. In order to renew ourselves, yes, but not only as a recharge mechanism, rather for the pleasure itself. There is a reciprocity that takes place between myself and a tree or myself and a bird, a give and take that cannot be approximated in any other way. To define another being as an object is to limit this symbiosis, to block experiencing the joy of reciprocity. To fully experience the wild world, we must be willing to suspend our rationalized thinking and open up to experiences that are beyond our comprehension. We must be willing to learn from a mouse, a flower, even a rocky hillside. To step outside the confines we typically operate within can be a challenge. It is the only way to be nourished by the network of non-human life all around us.

Our society is structured in such a way as to deny us the practices of interaction with the natural world. We have internalized the rationalized experience and become unwitting, if not willing, participants in this arrangement. But we can take our enjoyment of wildness back. Holthaus has “experienced the aesthetic epiphanies that great landscapes have to offer” (200), as have we all. And I would argue that is it not only great landscapes, but the small ones as well. How many cherished moments I have spent with my children, in the morning and at dusk, in our garden water our bed, picking sugar snap peas, some lettuce for a salad, or hunting for cucumbers under the mass of prickly leaves. It is moments like these, strung together that build another kind of existence, outside of the rationalized world which is devoid of beauty.

## The Iron Cage

Now that we have looked at the intellectual history of the idea that the world is a machine, let us consider mechanistic thinking and how it plays out in forming a rationalized society. Our culture is one of instant gratification. Fast food and factory farmed food are the result of a culture that demands that everything, even what we eat, be fast and cheap. With our technological devices, we have unlimited information at our fingertips at all times. As a people we have come to expect things to happen in the time it takes to google something. Our educational and health care systems have been routinized to optimize speed and efficiency in moving people through them, at the expense of personal, responsive care and interactions. Workplaces have become standardized and bureaucratized to maximize profits and efficiency.

Although many writers have tackled the naming the problems of our modern society, one frame that I will be focusing on is Max Weber's discussion of the rationalization of society, which he calls the Iron Cage. The Iron Cage refers to the seamless string of bureaucratized and standardized experiences and social structures. Authors have written about every aspect of this, from the decline in social capital (Putnam 2000), to the fact that children no longer interact with the natural world (Louv 2006), to the problematic ways that our modern cities are arranged to favor the auto over the pedestrian (Beatley 2011). Each of these examples demonstrates what happens when rationalized thinking colonizes our minds and plays out to the logical conclusion. They are all illustrations of what occurs when we retreat from the natural world and come to

view ourselves not as creative, contributing individuals, but as cogs in a larger mechanized system.

We may be in the Iron Cage and not even realize it. We may only feel that we are missing *something*; something undefinable but important and meaningful. That is how I felt growing up. My life lacked color. I was going through motions. The way I ate became a metaphor for my entire life. For years in order to make dinner for my family, I opened cans of green beans, and boiled water for a package of instant noodles. My sister and I had our favorite flavors of instant noodles. The food filled our bellies, but I wanted nourishment, meaning, and connection. This desire was not even conscious until how what I ate was thrown into stark relief by the beautiful, vibrant food I ate at Joanna's house. In beginning to notice first the food, and then how it came to be grown and cooked, and then the value system behind all that effort, I became aware of a different way of experiencing life. I was ushered into another reality, one that valued taste, beauty, and the enjoyment inherent in the creative process.

To look at why this kind of transcendent experience is so powerful and important, we need to first examine ways that the Iron Cage has shaped our world by looking at some concrete examples. George Ritzer tackles this task in *The McDonaldization of Society*. He gives us the four dimension of McDonaldization, which he equates with the Iron Cage. A rationalized society is: efficient, quantifiable, predictable, and controlled by non-human technology (Ritzer, 12). I will look at each of these four dimensions in turn.

Efficiency is important for speed and maximized profit margins. In an efficient workplace, new hires are not expected to think creatively about the work at hand. They go through training to teach them the most efficient ways of doing their work. Assembly lines crank out all kinds of products, from cars to hamburgers. Gas station and convenience stores have all manner of pre-packaged goods ready and waiting. With internet shopping giants, such as Amazon, you have millions of options at your fingertips that will be shipped right to your door at the click of a button. TV and movies are available in our homes at the click of the remote, making it no longer necessary to have to rent a movie or go to the theater. Even books have been supplanted by simply uploading e-books onto your electronic tablet.

Calculability or quantifiability is essential in moving products. Companies must know how much of each product they have at all times. Quantity comes to be valued over quality in both the process and the experience. Our educational institutions have been reduced to being measured by a series of standardized tests, whose scores track students from first grade through college. Health care providers are increasingly pushed to focus on profits, often at the expense of quality patient care. Politics are ruled by polling numbers and favor candidates who look good on television and score high in polls.

Predictability plays to our desire to remain within our comfort zones. In a rationalized society, people want to know what to expect in each situation. A McDonald's restaurant is roughly the same in any city in any country in the world. The walls and chairs are the same colors and models. This mentality pervades

architecture as well, as seen in subdivisions where all of the houses are one of three models or variations of one design. Many professions are scripted, from fast food jobs, to sales, to customer service and technical support services, many of which have been subcontracted to overseas companies. At low paying jobs, employees are given appearance guidelines, dictating what kind of haircuts, nail polish, and jewelry are appropriate. For food to be made standardized and predictable, it must come from a factory farm capable of reliably producing given quantities of products.

Control is the final dimension of a rationalized society. As previously mentioned, assembly lines systematized workers' actions. Once work has been reduced to a series of machine like actions, it becomes easier to replace human workers with actual machines. And as computer driven machines get "smarter", workers are required to rely less and less on their common sense and problem solving abilities. Cameras monitor the flow of cars in intersections and people in city centers. Robots and machines are taking on more roles within the health care industry, from performing diagnoses and treatments, to filling prescriptions.

These are just a few of the ways that mechanistic thinking impacts our daily lives. The systems of the Iron Cage provide standardized experiences that maximize profits and minimize complexity. In a routinized, controlled world we go through the motions, performing the tasks required to do our jobs and feed ourselves, but are often left desiring more. To find meaning and deep satisfaction in our lives, we must engage and nourish the whole individual; body, mind, and

spirit. We must honor and feed our creative selves. Can we create institutions built upon practices that encourage, rather than suppress our creativity?

We are not all going to stop driving cars, consuming fossil fuels, or leaving carbon footprints tomorrow. So what can we do to pay attention to the looming issues that are going to change our lives and those of our children, while also being gentle with ourselves, renewing ourselves, nurturing and connecting with the lives around us? I am aware that before we can begin a discussion of the importance of creativity and nourishing our spirits, there are certain fundamental needs that must first be met. As any student of introductory psychology remembers, Maslow's Hierarchy of Needs states that we cannot become creative individuals until basic needs such as food, clothing, shelter, and safety are met. Just as every human should have clean water and healthy food, they should also be afforded the chance to experience affection, self-esteem, and beauty. All creatures desire this. We are all connected by life; together we form a Living Web.

The Living Web is a view of an existence in which we acknowledge our dependence upon the myriad other lives that we are surrounded by. And in doing this, we receive the gift of humility and thankfulness for the gifts that we are given. We are able to contribute through exercising our imagination and creativity. We acknowledge that we are not "masters and possessors of nature"; rather we are dependent upon the bounty and celebrate that which we have (Berman 13). All living things are our relations. We are co-creators of our

experiences and realities with a universe that is a vast and mysterious place with much to teach each of us who is willing to engage.

Gardens show us life in the present moment. In working in them we learn to become present too. We are aware of the sun on our skin, whether it rained last night. We hear birds singing around us and make note of how many bugs there are eating holes in our greens. The whole of these experiences can affect our lives outside of the garden by teaching us the sensual awareness required to be present.

The metaphor of the Iron Cage provides stark contrast to sensual awareness and is a powerful way to grasp a world in which one moves from one rational structure to the next in an unbroken chain, never experiencing or interacting with an imaginative, creative, and nurturing world. This is the place I was in when I was stuck in a routine of rationalized food, desiring more but not knowing what.

This is of vital importance because the Iron Cage is not just a theoretical or external construct. It is something so ubiquitous and inextricably linked to our current mechanistic paradigm that it has been internalized. We have begun to think in these rationalized ways. While it is tragic that we have come to do this ourselves, it is also exciting to consider as a possible leveraging point. If we have been thinking in these ways, limiting ourselves to rational experience, then it is within our power to shift them, push them, turn them over and see what happens. It is possible, with intention, to go from efficiency to creativity, from calculating or quantifying to collaborating, from predictability to spontaneity, and from control to

freedom. Rationalized experiences are dehumanizing while interacting with the natural world and thinking creatively are life affirming.

### Quantum Mechanics and the Living Web

Those who have run their hands through the soil, who have planted and watered seeds, encountered pests or a lack of rain and figured out ways to deal with these challenges have experienced the kind of thinking needed to address many of the problems facing us today. Those who have had the chance to combine their knowledge with the living challenges present in the garden understand the creative process. Gardening provides a place to experience the contrast between the rationalized world and the living web. Quantum mechanics describes a universe that is different from that of mechanistic science. The principles of quantum mechanics help articulate the more elusive impacts that the practice of gardening imparts.

Renee Wade says,

*“In the new story, we live in an intelligent universe. From the water of this world with its amazing ability to hold memory, to the plants that can read our minds as they perceive, and decide, and remember without the help of brains, to the biophotons of light that regulate our internal biochemistry while communicating with everything around us, intelligence and organization and meaning surround us every step of the way...It’s all alive... As I spend time in my garden, I tell myself this new story. I am not truly separate from the gophers. We are part of the same continuum of life living Earth into being. Our interactions are*

*multifaceted, complex, and dynamic beyond what my conscious mind can comprehend at this time.*

*Occasionally, these interactions end in the de-animation of a gopher body and the enhanced animation of ant and earthworm bodies. Life leaps unbounded from one form to another. In my story, gardening is vibrant, cooperative, interconnected and living.”*

Gardeners, it seems, are taking part in this dance of life, working with and responding to what is happening with the insects, soil, sun, and rain. They are co-creating their reality within the garden in collaboration with the universe. Some of the intangible elements I hoped to learn more about in speaking with gardeners were things like humility in the face of what the earth provides for us, a deeper understanding that our own life is only one strand in the great web, and thankfulness for what the universe provides for us. Since we are firmly within the frame, and we change things simply by observing them, let us thoughtfully and intentionally utilize our powers to enhance life experiences for us all.

The principles of quantum mechanics bump up against religion and philosophy. Rigid compartmentalization of disciplines dissolves. Quantum mechanics, like the garden, is a nexus where many different disciplines, ideas, and ways of understanding collide. Quantum mechanics provides one way into understanding the mysterious and creative nature of the universe for those who are unused to seeing or thinking of the world in this way.

The scientific basis allows people who are not inclined toward contemplating the unseen structure of the universe to give it some credibility. In

my thesis project I wanted to learn about the role that community gardening can play in transforming the ways we think via the life-affirming practices we adopt. Despite our modern, bureaucratized society, some people are able to create and participate in value systems that are outside of and often in contradiction with the mainstream consumerist rationalized society. Both the principles of quantum mechanics and the knowledge inherent in the practices of gardening point us toward creative thinking that offers experiences of the interconnected nature of life, inherent in our mysterious universe.

We are given insight into the nature of the universe and the role that energy plays in the experience of our reality when we examine the rules that govern microscopic matter. These rules apply not only to minute particles that we are unaware of but also our own consciousness. Instead of dealing with cold, dead matter, quantum mechanics opens the door to a mysterious and playful world that is at once dynamic and creative while it is also concrete and bound by certain laws, much like the garden. Science meets art meets spirituality. Quantum mechanics offers an understanding of reality that may illuminate how the experiences of gardening help gardeners cultivate values different from those that govern mainstream society because it pushes us to acknowledge our role, our power, and our choices. We are in the frame no matter what. Our reality is shaped by the choices we make.

Gary Hunsicker tells us that the word “quantum” means “the smallest amount of a physical quantity that can exist independently” or “the smallest quantity of some physical property, such as energy, that a system can possess”.

Physics is "The branch of science concerned with the properties of matter and energy and the relationships between them"(n.d, web). Haselhurst and Wolff say, "Truth comes from physical reality" (2012). I am as interested in the energy guiding the physical world we experience, as I am in the ways that we can learn some of the more transcendent principles from the physical world.

As our scientific understanding grows, rather than taking us to a more and more rational and regulated world, we come face to face with the mysterious and playful nature of the universe. Below I highlight some of the principles key to my inquiry, although, much like trying to separate health benefits from spiritual ones in the garden, it can be very difficult to say where one ends and another begins. These principles are intricately linked to the point of being different facets of the same thing. And this highlights one of the fundamental assertions inherent in the quantum principles *and* the garden: all life is interconnected. Energy moves from form to form yet something of it remains constant. Life is cyclical rather than linear. Bureaucracies attempt to impose a false logic on us and largely succeed so long as we remain within their confines. But when we choose to step outside of them and observe and participate in the natural world around us, we see and participate in a greater logic and higher order. Some of the specific quantum principles that I look to for insights include:

The wave/particle duality

Subatomic matter is a wave and a particle at the same time. You find the one you seek to measure, but you must let the other go. It is a practice in holding two opposing notions in our mind at the same time. In any given situation, there

is a finite set of possibilities. This set of possibilities is called the wave function. When one possibility is chosen, the wave dissolves and the particle emerges. Through a countless string of choices, we create our own realities, within the garden and also outside of it. We also are waves and particles. We act collectively as waves and independently as particles.

#### Heisenberg's Uncertainty Principle

Heisenberg's Uncertainty Principle states that for any given particle at a moment in time, we can know with precision *either* its location *or* its speed, but not both. We must choose what to focus on and in so choosing, let go of the alternate choice. We cannot know all things. What we choose to focus on in our lives paves the way for the realities we experience.

#### Myth of the Impartial Observer

Quantum mechanics has demonstrated through repeated experiments that we change how particles behave simply by observing them. Whereas in the past (Newtonian physics) scientist believed that they could be impartial observers, simply taking note of the occurrences around them, we know now that this is not true. "Quantum mechanics tells us clearly that it is not possible to observe reality without changing it...there is no such thing as objectivity. We cannot eliminate ourselves from the picture. We are a part of nature, and when we study nature there is no way around the fact that nature is studying itself" (Zukav, 33).

## Non-locality and Entanglement

Non-locality is another quantum principle that also may teach us something about human/human and human/universe interactions. All particles in the universe are connected in ways that we do not yet fully understand. Actions exerted on certain particles also affect others far away from and not touching the original ones. Our actions can have far reaching and unanticipated effects. There is no way that we can know with certainty how something will turn out before we begin, or the ripple effects that our actions may have.

All of these principles return us to confronting the ever-changing dance that is life. Our most sophisticated understanding of how the matter in the universe acts, rather than putting us in a perfectly proscribed box, brings us to the edge of the known and points us toward the yet unknown. For me, working with these concepts is exciting and opens new possibilities, yet it also reminds me that I am only one small part in a vast collective. I find it humbling and it engenders a thankfulness in me, much like working in the garden does. In turning to quantum mechanics, I hope to show that some of these experiences we find in the garden are not separate from real life; rather they are a part of the essence of life.



## Chapter 2. Literature Review: What Others Have Written

*“... planting anything involves hope. It doesn't involve certainty. No certain predictability involved, but hope, of course, that the seeds will sprout and do some good.” -Wendell Berry*

What initially drew me to this project was my own experience of transformation. I spent a lot of my youth alone and taking care of my younger sister. Our parents had divorced and we lived with our father who worked long hours. We got ourselves ready for school and walked (or I drove us) down the mile dirt road to the school bus. I did the best I could to prepare meals for us, often using canned or frozen vegetables and boxed instant noodle packages.

Then through spending time at the house of a close friend, I had my eyes opened to an entire different way of being. I saw and experienced a place of abundance. I was given the gift of experiencing cooking and eating as a joy and a pleasure, rather than the perfunctory chore that it had been for me. The doorway to that place for me was growing a garden and eating the food from it. In approaching my thesis project, I was curious to see whether other people had had an experience of having their eyes opened to another way of being, thinking, and valuing. Gardeners participate in something larger than themselves. Their experiences afford them the opportunity to step outside rationalized society and take part in the creative, playful, and unexplainable universe.

Themes of transformation are central to much of the existing literature on the virtues and benefits of community gardens. I see the sources falling on a kind of spectrum from those that take a very practical view of the transformative potential of gardening and the benefits that it provides individuals and their communities, to those that touch the heart and soul of the gardener and transcend the physical realm, touching on spiritual transformation through deep relationships. For the purposes of my literature review I have divided the sources into two major categories. First I will examine books and articles that look at community gardens as tools of practical transformation. Then I will discuss sources that view gardeners and their gardens in terms of deeper relationships and spiritual transformation.

## Gardens as Tools of Practical Transformation

I have grouped the scholarly literature on the subject of community gardens and the benefits they provide under the heading "Gardens as Tools of Practical Transformation" because although the authors are examining different facets of community gardens and their place in the neighborhood, they all speak about gardens in terms of some benefit they provide for the gardeners themselves or the surrounding community. Community gardens provide an array of benefits for a neighborhood. In addition to providing space for urban dwellers to grow vegetables, they also beautify the neighborhood, mitigate climate change, increase social capital, provide opportunities for youth education and employment, and offer financial and health benefits to their gardeners. Municipalities and nonprofit groups have taken notice of the social and health benefits and opportunities that community gardens provide and have begun to work for the creation of more gardens. Scholars too have come to understand the potential in community gardens for social transformation.

Although much has been written about the history of community gardening in the United States, scholarly literature on the topic is limited. Amongst those who have taken on the topic many agree that community gardens simultaneously address societal ills while highlighting and enhancing community assets (Draper and Freedman 460, 488). One benefit many authors look to gardens to provide is an opportunity for civic engagement. Several articles talk about the experience of gardening as a gateway to deeper civic engagement. They see the gardens as a means to a democratic end. Glover et al. noted "community gardens require

gardeners to participate directly in the workings of the association and facilitate face to face interaction. By making collective decisions, associational members are afforded opportunities to join a group effort become an active member of a community, take on leadership roles, and work toward common goals. Consequently, the promotion of democracy and local control often empowers community gardeners to consider an even more active role in the further development of their localities" (80).

Ohmer et al. contend that while gardeners do make better citizens and are more involved in their communities, the gardens also serve to improve disadvantaged neighborhoods and serve as a tool for community enhancement. Their study (an in-depth examination via gardener and community partner interviews and surveys of a community gardening/conservation program in Western Pennsylvania) "illustrates the importance of community gardening and conservation efforts in improving and beautifying distressed communities, promoting sustainable community development, and increasing civic engagement and conservation practices" (Ohmer, Meadowcroft, Freed, and Lewis 377).

Another theme is examining gardens as a tool for enhanced mental and physical health of the gardeners. Barton and Pretty looked at the results of green space on mental health and found that "Every green environment improved both self-esteem and mood (3947). In addition, green spaces mitigate the effects of climate change. They act as natural filtration systems for rain water, provide habitat for beneficial insects and birds, and reduce the heat island effect found in

the expanses of concrete found in cities. Growing plants and trees also sequester carbon from the atmosphere. "Roughly estimating the potential carbon sequestration contribution over the past 10 years of the estimated 10,000 community gardens in the US, community gardens have sequestered 190,000 tons of carbon, offsetting about 1 year's worth of carbon emissions for 30,400 Americans" (Okvat and Zautra 380). Seeing green and growing places calms our minds while physically those same places clean the air and water around us.

Lastly, some authors look at gardens as tools for cultural immersion for recent immigrants to the U.S. and of social cohesion amongst existing residents. Saldivar-Tanaka and Krasny did a case study on Latino gardeners in NYC and found that gardens serve as a locus for social and cultural events and, as such, also promote community activism. In addition, they argue that the gardens "can also be viewed as unique "participatory landscapes" that... provide a connection between immigrants and their cultural heritage" (399). Above I mentioned the health benefits of greenspaces, but the idea of the participatory landscape takes the idea a step further, beyond physical benefits to spiritual or emotional expression. "These personalized, independently-created, and constantly changing "participatory landscapes",... more than any other garden, try to recreate their heritage, where they are from" (Saldivar-Tanaka and Krasny 409).

The literature suggests that gardens perform many functions that clearly enhance and transform community life. Yet, Laura Lawson raises a very important question in her book, *City Bountiful*. Lawson shows the connection between times of national crises and an upsurge in interest in gardening

programs. When we as a people are distressed; when we do not have enough money or food, when our nation is at war, we turn to our gardens to ease our troubled souls and to feed ourselves. Gardens are a refuge. While this is undoubtedly a good thing for times of individual stress and social distress, the question Lawson asks has to do with a far more permanent value. She writes, "The litany of benefits associated with gardening has effectively obscured the real issue: Is the urban garden intended as a means to other ambitions or an end in itself? If it is a means to other ends, the garden is only useful until those other goals are met. If, however, the garden is the desired product, the issue of permanence can be argued with greater authority" (Lawson 288).

Do we garden for heart health, relaxation, to save money at the grocery store, and because home grown tomatoes taste so good, or is there something even deeper? Gardens clearly provide health benefits to individual gardeners (physical exercise, relaxation/meditation, eating more fresh foods) and the surrounding ecosystem (increase in beneficial insects and birds, water filtration, reducing heat island effect, carbon sequestration). Not only that but they also provide a locale for civic engagement and cultural expression.

While there is not a huge amount of scholarly literature on community gardens, the sources that do exist cover a wide variety of topics within the subject, from mental and physical health benefits to community cohesion. These approaches to the practical and social usefulness of gardens are common in the literature and make important contributions. However, the framework they use has its limits, and I turn now to a different approach to the transformative

potential of gardens, one that goes beyond what they can give to us, to what we can learn from them. This is where my own study fits in. I seek to highlight and understand existing sources and to add to them by inquiring in to the variety of ways that having a garden can impact a person's life, not only physically but spiritually as well. To varying degrees, academics have historically shied away from such intangible and ineffable phenomena. I hope that in doing this study I have successfully become a part of a vanguard of academic study increasingly willing and interested in bridging the gap between real life experiences and academic examination.

### Gardens as Relationships

The efficacy of gardens as tools can be difficult to quantify. Most sources base their arguments on measurable data, and while this approach does provide some insight, it often ignores or glosses over spiritual enhancement, which can be difficult or impossible to quantify. The next set of sources takes a different tack, and tries to go beyond logical reasoning to the heart. They show how looking at data on practical benefits of gardens alone leaves out a huge part, perhaps even the majority of the reason for gardening - joy.

We have already seen the many ways that gardens provide beneficial experiences through green spaces that enhance health. Now I will look at sources that go deeper in terms of examining experiences within the garden by allowing for the gardeners' individual perspectives. The sources covered here deal more with the heart and soul of a person. They build on the practical social

benefits provided by the gardens and take it further by approaching the garden as a very intimate part of life. I believe that the willingness to become intimately involved, to open ourselves, heart and soul to all that the garden has to offer is one of the key components in the choice to go from lack to abundance, as I will explain below.

A relationship with a garden provides the gardener with wealth, a form of wealth that exists outside of the mainstream economic model. The garden offers a bounty of tomatoes, a pile of compost, and a host of butterflies and ladybugs. The experience of *abundance* within the garden is a gift that has nothing to do with dollars. It has to do with time spent, energy given, and the give and take that is required to be attentive to the constantly changing circumstances in the garden. The experience of reciprocity and abundance available in a garden to anyone who cares for it and spends time learning from it can be life altering. It can open our eyes to another value system that places a premium on care and tending rather than extracting and amassing. Whereas money is dead, cucumbers are alive, vital, and free for the taking for those who plant and water them.

The sources that approach gardens as relationships with a desire to understand what we can learn from them take a different tack from those that approach with an eye toward measurable practical results of gardening. Yet there are still a variety of angles. First, there are the gardeners' relationships with the dominant power structures and how they redefine themselves or their roles in relation to them. Kate Black discusses how gardeners in Kentucky are

"disconnecting their food sources from corporate domination" while at the same time building skills and connecting with their culture and community (Black, 2010). Reynolds takes a similar stance, that of gardeners reclaiming their power to grow, despite whether or not they have a sanctioned plot of land to use (Reynolds, 2008). Both look at relationships established within the garden in terms of challenging or redefining dominant cultural power structures. Gardeners are intentionally removing themselves from the mainstream or status quo and purposefully selecting a different kind of experience and lifestyle.

A second approach is looking at the motivations and actual stories of people who participate in community, urban, and other kinds of gardens, allowing the gardeners' accounts to speak for themselves. In examining the gardeners' stories and experiences, one prevailing theme is learning from the relationships within the garden and allowing them to permeate life. *Gardening from the Heart* and *A Place to Grow* both give gardeners a voice, allowing them to share their individual experiences in their gardens, what they love about it and what their gardens have given them. Each gardener's experience in her garden is different, yet there are some universal experiences that unite gardeners across time.

Each book honors the individual voice, while also situating the stories within larger themes. *A Place to Grow* examines themes such as, "The Prayer Garden" in which people feel a connection to a higher power through their garden, "Where We Come From" in which people connect with their family, their traditions and roots. Some gardeners have a story in more than one section. Another is "Cultivating Community" which gives examples of ways the gardens

have connected the community members, across race, generation, gender, and class.

*Gardening from the Heart* arranges the stories similarly, grouping together similar stories. Some of the themes Olwell identified include “The Garden as Paradise”, focusing on gardening for aesthetic beauty and “The Garden as Provider”, focusing on fruit, vegetable and flower production. Other themes are “The Garden as Teacher” and “The Garden as Healer” which offer stories about people’s experiences learning from their gardens, and opening up to a new way of being, respectively. The stories included in these books are very diverse, coming from all regions of the United States and beyond. They are people with a wide variety of cultural backgrounds and from all kinds of professions. What unites them is their love of gardening and the experiences they share as a result of choosing to spend their time and efforts there.

The garden is a meditational space and place for life practice. “Gardening is about awareness and relationship – consequential relationship” (Johnson x). Johnson's entire book takes this perspective, and although she is coming from the Zen tradition, there is much that is applicable in general. She uses a myriad of examples to show how our lives impacted and transformed as a result of coming to understand our place within our own specific community. And that community is not just the people we know, but the land itself and every life form it supports, from the microbes in the compost to the flowering plants and trees that provide us sustenance year after year. She contends that becoming intimate with a place and allowing ourselves to care deeply about that place and the lives that

are interconnected with it enhances our own experience in ways that are unquantifiable. "We are never in control of the garden, anyway, so why not yield to the mystery of transformation" (Johnson xiv)?

Holthaus, in his book, *Learning Native Wisdom*, holds with this valuation in reminding us that there are templates for this kind of understanding, outside of the traditional western account. Native peoples have histories that predate those of settler cultures and surpass them in terms of valuing the intangible parts of life. He examines how daily practices come together to produce a guiding cultural tradition and how we can be intentional in selecting what we choose to value and preserve.

A third theme we find in the literature on relationship and transformation concern soil and plant life and the relationships that radiate from them. People are healthier both mentally and physically the more they interact with plants. People have experienced measured reductions in stress simply by being visually exposed to green plants. Nature "is a vital ingredient in healthy human functioning" (Malakoff, 1995). Plants are more sentient than previously understood. We are only just become aware of how plants are able to perceive and respond to their environments. The vast number of ways that plants have devised to propagate themselves defies the imagination. They are aware of the movement of the sun and moon. They sense seasons transitioning from one to the next.

Whether it is basic organic gardening, permaculture or biodynamic principles, we are only beginning to comprehend how limited our understanding

of the interactions between life forces have been. With each new development we understand more how little we previously knew. Rather than being mere lowly plants, we are coming to understand that humans have much to learn from our plant, animal, and microbial cousins. There is a wealth of data available about the benefits of gardening. There are also many benefits that cannot be quantified, such as joy, pleasure, and deep satisfaction that comes from harmonically collaborating with other lives inside the garden. Many gardeners attest to having their own lives changed, in small ways or large, by opening up to all that occurs in a garden ecosystem.

Soil, too, is not some inert substrate in which we grow plants; rather it is alive and teeming with worm, insect, and microbial life. Microbes interact with humans symbiotically and have a large impact on our overall health. We are now coming into the legacy that some pesticides and fertilizers have left in our soil. Soil is life. We begin to see that the natural order of things is infinitely wiser than anything a chemist has been able to create in his lab. From *The Secret Life of Plants* we learn that “all living things are biochemical photographs of their environment” and that “soil makes the plant, the animal, and man” (Tompkins and Bird 235). Both of their books, *Secrets of the Soil* and *The Secret Life of Plants*, in rich detail, chronicle the ways in which our lives are bound to that of the soil and plants around us.

They show how plants are sentient and capable of making actions, reactions, and more importantly, can interact with humans. Their roots can go on for miles. They sense the movement of celestial bodies. They devise all manner

of tricks to spread their seeds. The findings and knowledge available in these books predate but provide an understanding for new studies showing that animals that eat organically produce healthier milk, which provides a health benefit to people who consume it (Allison and Block 2014)(Doughton 2013). We are all intimately linked to the soil which sustains us.

But it goes beyond that. Wilson argues that “to the degree that we come to understand other organisms, we will place greater value on them, and on ourselves” (Wilson and Kellert 4-5). David Abram puts this in poetic form saying, “We are human only in contact, and conviviality, with what is not human” (22). There is something more to be gained by interacting with the natural world than just the directly recognizable social benefits. “Human identity and personal fulfillment somehow depend on our relationship to nature. The human need for nature is linked not just to the material exploitation of the environment but also to the influence of the natural world on our emotional, cognitive, aesthetic, and even spiritual development” (Wilson and Kellert 42).

Gardeners and those who spend a lot of time outside instinctively understand this. They reap the health rewards that gardens offer people, their communities and surrounding ecosystems. Even deeper is the joy and interconnectedness with life that gardeners experience when they become intimately involved in their gardens. The literature, predictably, is more adept at covering the many kinds of practical social benefits that gardens can offer. There are fewer sources dealing with the ineffable, the mysterious, and spiritual. Yet

these are some of the most significant, potentially transformative experiences gardeners can have.



## Chapter 3. Methods: Conducting my Study

*“It’s the same mistake we keep making in so many arenas: Once we learn the basics of how a system works, we assume we know everything; anything we can’t measure or fit into the equation must not exist. Only much later do we start to discover that we’ve hopelessly oversimplified things and missed vital pieces of the puzzle.” - Rowan Jacobsen, American Terrior*

### Introduction

My life was altered and improved as a consequence of spending time gardening, cooking, and working outside. New ways of being opened up for me and I wanted to see if other people had had experiences similar to mine. To investigate this question for my thesis project, I decided to speak with those who were currently gardening in Flagstaff. I was interested in community gardeners

rather than backyard gardeners because I wanted to learn about the personal, spiritual, *and* communal aspects of gardening. Were individual lives and ways of thinking impacted by gardening? How? Was the community affected? Rather than using quantitative data to construct a picture, I was most interested in the gardeners' stories. The use of in-depth interviews was the most appropriate way to gather these. In analyzing the data I wanted to remain true to the heart of the stories. I used grounded theory, narrative inquiry, and borrowed (with modifications) some methods from portraiture.

### Methodological Framework

Why stories? As I noted in my Introductory Chapter, Terry Tempest Williams says, "*A story allows us to envision the possibility of things. It draws on the powers of memory and imagination. It awakens us to our surroundings... Storytelling is the oldest form of education.*" It is the most important vehicle for passing on the knowledge and practices of a people. "*We must create and find our own stories, our own myths, with symbols that will bind us to the world as we see it today. In so doing, we will better know how to live our lives in the midst of change (3-5)*". In looking into gardeners stories, I want to learn not only about their personal experiences of how their ways of thinking had impacted but also about the cultural traditions that are created and upheld through their actions. Hearing people's stories is the best way to learn what they value, how they prioritize knowledge and information, and how they see themselves in relation to their world. Therefore narrative inquiry was a good fit for my aims because

“simply stated...narrative inquiry is stories lived and told” (Clandinin and Connelly, 20).

There are three “commonplaces” of narrative inquiry that tie that particular inquiry to its surroundings: temporality, sociality, and place. “They provide a kind of conceptual framework for narrative inquiry...We cannot focus only on one to the exclusion of the others” (Clandinin, Pushor, and Orr, 23). For each of my interviews, I made record of each of the three commonplaces. I noted the date and time of the interview. I wrote about how I knew each interviewee, and also their position within the community. I noted each place an interview took place, whether it was my house, the interviewee’s house, or the Applied Research and Development building on the campus of Northern Arizona University.

Grounded theory was most appropriate because I had an open question – Did gardeners experience forms of consciousness and values counter to the rationalized world as a result of gardening? I wanted to ask questions all about this and see what kind of themes or patterns emerged from their answers. As Strauss and Corbin say, “the researcher begins with an area of study and allows the theory to emerge...to offer insight, enhance understanding, and provide a meaningful guiding action” (12). I approached the analysis of my interviews from a grounded theory perspective, meaning that I did not go in expecting to find certain patterns, rather I let similarities and dissonances emerge. By dissonances I mean that as well as listening for stories about sanctuary, for example, I also listened for the inverse. Many gardeners spoke about their garden as a kind of oasis; some talked about the garden being chaotic or stressful at times.

I was not sure what I would find. Were gardeners' lives and ways of thinking impacted by their gardens? In what ways? Did these ways of thinking provide them with alternatives to a rationalized existence? Were their experiences similar to mine or to one other's? Many gardeners talked about the importance of gardening with their children and teaching them about where food comes from. Many talked about how the garden is a sanctuary for them that gives them a place to meditate, process, and feel calm. Several gardeners talked about some kind of connection between their garden and their spiritual beliefs or practices. I sorted the quotes on each of these subjects, grouping them together.

In attempting to take the rich stories the gardeners shared with me and situate them in a larger context, I turned to narrative inquiry in general and portraiture specifically for guidance. Although I did not do complete portraits as proscribed by Lawrence-Lightfoot and Davis, I turned to this method because of the way it "blends art and science, humanistic sensibilities and scientific rigor. The portraits are designed to capture the richness, complexity, and dimensionality of human experience in social and cultural context, conveying the perspectives of the people who are negotiating those experiences" (Lawrence-Lightfoot and Davis 3). Instead of creating a full portrait, I modified the methods for a more concise version; a snapshot of each gardener.

### Conducting the Research

To connect with people currently working in their gardens, I emailed three community gardens in Flagstaff: Southside Community Garden, Bonito Street Community Garden, and Izabel Street Community Garden. I sent an open

invitation to participants of these three gardens, inviting them to share their gardening experiences with me for the purposes of my thesis project. I interviewed the first ten gardeners who responded to my invitation. There were six women and four men. Their ages ranged from 21 to 59. Most were Caucasian or Caucasian mixed. Five were parents. The majority were relatively new to Flagstaff. Three gardened at Southside Community Garden, one at Students Nurturing Alternatives in Landscaping (SNAIL) on the Northern Arizona University (NAU) campus, two at Bonito Street Community Garden, three at Izabel Street Community Garden, and one who had previously gardened at Izabel had a home plot.

The questions I used to interview my participants went through several different iterations. They were designed to get at an understanding of the relationship between the person and his or her garden. Was it just a functional place to grow food, or did it go beyond that into the spiritual? Did they primarily garden alone, or share the task? In asking for stories from their gardens, I was trying to hear what the gardeners valued in this place they planted seeds and picked tomatoes (Appendix A. Gardener Interview Questions). Because all of the interviews were conducted face to face, I was able to pick up on subtle non-verbal cues. I was aware of when they were more engaged and could probe into those areas. I remained true to the format (list of prepared questions) but did take the liberty to ask follow up questions on topics they were excited about.

I asked practical questions about how long they had been gardening in general and gardening in Flagstaff specifically because Flagstaff is a particularly

difficult place to grow things. I asked about their family history and whether they had grown up gardening. I asked to hear stories about their garden, what they had learned (if anything) from their garden and what (if any) impact it had had on their life. In listening to their responses I was listening not only to the words they used and the level of excitement they expressed, but also what was underlying or between the words. I was trying to get a sense of their worldview; what was important to them. I used the discussion of gardening to open up this dialogue.

The interviews took approximately an hour. I also asked if I could have a follow up date to take photographs of the interviewee in their garden. Ten gardeners allowed me to interview them and nine allowed me to return and take photos. I asked if I could record the interviews both with audio recording equipment and video. (Appendix B. Consent Form). I conducted the interviews in March and April of 2013. They were done in the homes of the interviewees, at my home and in the Applied Research and Development (ARD) building on the NAU campus. After conducting the interviews, I transcribed them in order to compare and contrast what the gardeners had to say about their experiences. I looked for commonalities and differences (to each other and to my own story) in what each gardener had to say, as will be elaborated upon more in the next section.

### [Analysis and Interpretation Process](#)

For the analysis of my gardener interviews, I turned to the narrative inquiry tradition in general and to guidance from portraiture specifically. I did this because the approach of blending art and science was most in line with the heart of my project. I was looking not to use data to prove an argument, but rather to

listen intently to the voices of the gardeners I spoke with and to convey something of the essence of what they expressed in light of my key inquiry – the experience of cultivating consciousness outside of the rationalized world.

A very important part of interpretation of my interviews was the writing of their stories, in which I included my observations and their words. To write about each person, I had to get inside of their perspective. Using the information they provided me, along with my own observations of and interactions with each person, I combined creative writing techniques with inclusion of gardener quotes to provide readers with a snapshot of each gardener and their unique perspective.

I turned here again to the three commonplaces of narrative inquiry because temporality (where we are in time), sociality (where we are in relation to our community), and place (where we are in space) defines us and ties us to our world. In incorporating temporality, I noted not only the time of day, the month, and year of our interview, but also something about where each gardener was in life (student, young parent, or parent of grown children, for example). In my stories of the gardeners, I wove in information about each gardener's role in his or her community. Some were garden leaders, some were teachers, one was an activist, and one was a birder. In listening to what the gardeners shared with me about their respective roles in their communities, I learned about who and what they valued. I learned how they defined their own roles within these communities. Incorporating information regarding place provided further detail in the snapshot of each gardener's story. I learned about where they gardened, where they lived,

and how they got to their garden. These stories provided details about their daily lives.

The goal was to take all of the important things the gardeners had to say relevant to this inquiry and weave them together in such a way as to make it accessible to the reader while also remaining true to the essence of what was initially conveyed. Whereas Lawrence-Lightfoot and Davis liken the process of analysis and interpretation to weaving, Clandinin and Connelly, in *Narrative Inquiry*, liken the process to making a soup. There is some fluidity involved. Much is up to the cook, but there are some requirements. They say, “In writing narrative research texts, we must be mindful of balancing the tensions of writing within the three dimensional narrative inquiry space, of writing in ways that narratively capture the field experiences, and of balancing these with audience. Although there are imaginative possibilities in constructing research text forms, writers are constrained by the particularities of their three-dimensional narrative inquiry space” (154).

When transcribing and after many subsequent readings of the transcripts and listening to the recordings, I began to identify words, phrases, and thoughts that recurred throughout the interviews. Lawrence-Lightfoot and Davis recommend going through each transcript four different times (I did many more). They say, “each reading offers the researcher the opportunity of listening for a “different voice,” from a different angle, and with an ear to the subtle meanings and complex perspectives” (191). From there I sorted the echoes into overarching themes. I further sorted the larger categories into specific sub-

themes. I then began sorting quotes that either specifically mentioned or alluded to the thematic topics. From there I thought about how to organize the themes in an order that made sense of the data.

The logical flow that followed most closely with the heart of the project was organizing the stories that related to the body, to the mind, and then to the soul. I did this to reflect that gardens are not linear constructions. They are organic, living places, each season building upon the one that came before. Within each of the time sections I pulled together relevant quotes from the gardeners and wove them together with my observations and insights. I wanted the reader to be able to get a sense for the intimate connections between the gardeners and their garden beds.

### [Why These Methods Are Best and Limitations](#)

Some strengths of my chosen methods include keeping with the theoretical argument I am making in my work in favor of honoring the playful and creative nature of the universe by focusing not on numbers, but the content of the gardeners' stories. This experiment in social research on community gardening and cultivating consciousness in Flagstaff did not have a control group. It was not my intention to be clinical. I was not looking for quantitative data. This approach would have gone against a major tenet of my thesis – that we have to look beyond hard factual data and turn to intuition and creative thinking in order to be able to address some of the major problems that we are currently facing (climate change, extreme weather, population increases coupled with resource decreases, and a rationalized world).

Since there was creativity involved in the way that I pulled together the stories the gardeners that I interviewed told me, if it had been done by someone else, it would have been done differently. If I did the study again, I too would have new insights and techniques to try to best convey what I had learned. It is very important that selected analysis methods be chosen carefully to most clearly convey the results, as was my intention here.

Some limitations of my chosen methods include possibly unintentionally selecting for a certain type of gardener by going with the first ten who responded to my open call for interviewees. I may not have connected with some kinds of storytellers because of this –shier ones, for example. There were several older gardeners I had in mind who may have had very interesting stories to tell from a different perspective than the ones I got. Although I did have a wide range of ages, it was skewed a bit to the younger side. Also I had two older women but no older men. I clearly am intrigued by the experience of community gardening and consciousness building. Also I am a lower-middle class white woman and my understanding of what is possible or normal reflects my own experiences. In terms of research, my qualitative study will not be reproducible in the same way a scientific, number-focused study would be, nor was that the goal. Although the research was conducted rigorously, the analysis and interpretation of the results was a creative process that would be expressed a little bit differently by each person who did it.

## Validity

This research is an authentic snapshot of a moment in time. I learned about the personal experiences of ten community gardeners in Flagstaff in 2013. What I discovered about the sense of satisfaction, renewal, hope and practical optimism that the experience of community gardening provided people with is directly applicable to greater issues that we as a society are confronted with. It is authentic because although I did include my own observations and insights, it is primarily based upon the experiences of the gardeners. Both grounded theory and portraiture are recognized as valid methods of social research.

The intention was not to create verifiably “true” results, rather, the intention was to authentically represent the knowledge and experiences the interviewees shared with me. While I did not return drafts of my results to my interviewees for verification, I did invite all of them to the presentation on my project and feel that I have honored the spirit of what was shared. I did attempt to remain self-critical as I worked to represent the voices of my interview subjects. As I worked I retained also my common sense and internal bullshit detector, finding the middle road between academic rigor and the true to life essence of what my interviewees conveyed in the course of our collaborations. I worked to incorporate the dissonant voices and stances and not eliminate outliers. I did focus more intently on the commonalities; this was intentional and built in to what I was searching for.

## Ethical Considerations

For my thesis project I completed the Internal Review Board (IRB) training required by Northern Arizona University. I passed an online training course and submitted copies of all the documents I used to solicit volunteers and inform interviewees about my project. Prior to each interview I discussed the purpose of my project (master's thesis) and had each interviewee sign a consent form (Appendix B.) granting me permission to interview them and record our interview (either with an audio recorder, video recorder, or both). I also asked and was granted permission from nine of the ten gardeners I interviewed to subsequently meet them at their garden and take photographs of them in their gardens. My interviewees understood from the outset that anonymity was not the goal; rather I was interested in hearing, gathering, comparing, and sharing their stories in an effort to understand some of the experiences of community gardeners in Flagstaff in 2013. They agreed to share their stories for the purposes of my written master's thesis as well as a public presentation of the information.



## Chapter 4. The Gardeners' Stories: Shifts in Thinking; How Gardening Impacts Body, Mind, and Soul

In previous chapters we have examined the ways in which the Iron Cage is such a pervasive problem because it is not only an external force, pushing rationalized experiences on us, but it also becomes internalized in the ways that

we think and experience the world. Rationalization has become institutionalized in our schools in the reverence for standardized test scores, in our food system with the rise of fast foods and factory farmed foods with their predictable outputs, and in our health care systems and workplaces replacing human workers with robots and machines wherever possible.

Let us look to the gardeners' stories to see another way. What kinds of activities happen within gardens that call upon alternative and creative ways of thinking and problem solving? One of the beautiful things about the garden is its chaotic, riotous nature that invites people in by making it clear that there is no one right way to do things. There is not one clear place to begin; you look at the concert of things occurring simultaneously and jump in where you like.

For this same reason it is difficult to separate the garden into discrete pieces for examination. Although I attempt to do so for the sake of discussion, I offer up the disclaimer that while I will look at each part in turn, I want to acknowledge that within the garden all are happening at the same time, repeatedly, now as a solo, now in unison, over and again.

I will begin by introducing snapshots of some of the gardeners I spoke with, providing some of their stories, including a history of their relationship with gardening, why they are gardening now, and what meaning it has for them. In the following sections I am distilling the ways that gardening provides a space and place to learn lessons in creative thinking, impacting forms of consciousness and the values that flow from them. To do this I will sketch each gardener's story

using the three dimensions of narrative inquiry as discussed previously:  
temporality, sociality, and place.

*Mark Linhart, 39*

Mark grew up gardening with his dad. Upon moving to Flagstaff to study microbiology, Mark got a plot at the Southside Community Garden. More recently he joined the newest communal student garden on the Northern Arizona University (NAU) campus, the Students Nurturing Alternatives in Landscaping (SNAIL) Garden. Unlike the traditional community gardening model, in which each person has a plot to do what they will with, at the SNAIL Garden the students plant, tend, and harvest communally. Mark has found it easier to meet people with shared interests at the garden. For him it is exciting to give food away to others and watch them enjoy it as well.

*Teddy Fantano, 21*

Teddy grew up gardening with his mom, dad, and two older brothers. The garden, for him, was a relationship builder that provided a space for him and his mom to collaborate as partners. She valued his opinion and respected his ideas. His relationship with the garden continued as he went out in to the world. He was part of a group that installed a garden bed at his high school. In college he has been involved in various on-campus gardens. He has gone through intensive phases with his garden, growing motivated by fear of food insecurity, “need(ing) to be an activist and create sustainability.” And has come to a more relaxed and

easy place with it now, growing for the enjoyment of it. “I just want to do it because it is beautiful.”

*Jonah Hill, 35*

Jonah is a Hopi man who grew up in the village of Kykotsmovi farming with his family. The Hopi ceremonial calendar is intricately tied to agriculture; their culture is centered on agriculture. Their belief system includes the notion of planning four years out in terms of having seeds to plant and preserved foods to eat. Jonah remembers watching his grandmother garden. She taught him how to grow chilies. The Hopi use dry farming techniques in which they plant the seeds very deep and rely on snow and rainfall to provide moisture for the seeds to germinate and grow. All the families come together to prepare and plant the fields together. Harvesting is also a group activity. He learned about seed saving from his family and is carrying that knowledge forward now by sharing it with his children. He also shares with the community around him through educational workshops on things like seed saving, salve making from traditional medicinal plants, and cold frame building.

*Kim Monke, 57*

Kim has gardened for over 30 years in many different places. She enjoys eating fresh and local foods, but most of all she loves flowers. She loves their aromas, their colors, their beauty, and their transience. They are not going to last forever; they are here to be enjoyed in the moment. Kim cuts flowers for

bouquets in her house and she likes to share them with others. She grew the flowers for her wedding. She says that gardening is a spiritual experience that makes you feel like you are doing something good for your soul. Kim has two grown children who have both gone into professions relating to food, much to her delight.

*Jen Cody, 36*

Jen recently moved to Flagstaff from Phoenix, where both her back and front yards were oases of plants. She gardens with her partner and three sons but also likes to spend time in the garden alone. Jen has learned many things from her garden including chemistry, biology, spatial reasoning. She also talks about soil amending, knowing which plants are nitrogen fixing, and companion planting. The garden “teaches math and science and in a fun way that sticks in your head. It can give somebody hope.”

*Lorena Caballero, 28*

Lorena grew up gardening in Peru with her extended family. When she thinks of gardening, she gets a mental picture of her grandfather with his hose. She remembers harvest days with her cousins and aunts. Where she grew up in Peru, it is common to have a garden in your backyard. Her grandparents had various fruit trees, all kinds of herbs, and her grandfather’s favorite – grapes. He babied his plants. Lorena now has a daughter of her own and places a premium on sharing with her where food comes from, the earth. Her own daughter is

intimately involved in the garden, picking peas and sharing strawberries with the other community gardeners. For Lorena, gardening is a communal activity, to be shared with other people.

*Laura Cagney, 28*

At the time of our interview, Laura was raising her daughter alone. It was “so important with Autumn, my daughter, to recognize that food does not come from a shelf in a building.” Laura tells a story about Autumn going to visit her grandparents. Her grandfather was teasing her saying that all they would feed her would be carrots and peas. Laura says, “Autumn was thrilled. She was like, ‘I would love to have peas and carrots!’ because she had picked them fresh off the vine and pulled them out of the ground and she know how good they were.”

“So much happened in my life while I was learning to garden, it’s hard to parse out where and how the gardening aspect of things was significant or not significant. But I do know that once I started getting into gardening I felt that I began the healing process from the relationship and breakup with Autumn’s dad. Gardening was a critical step in my personal refocusing to who I had expected to be in the years after college. When I was in that hard relationship and not gardening I felt lost.”

*Linda Shapin, 59*

Linda moved to Flagstaff from Hawaii, where it is very easy to grow. She has had some challenges adjusting to the drastically different climate and finding

appropriate varieties that are well suited to high desert extremes. Despite the challenges she has had here with the short growing season and selecting varieties that do well in our climate and soil, she remains optimistic. She gardens “for the joy of it. For the simple joy of it. And to just dig around in the dirt and watch things grow and know that I am helping them to grow.”

Linda is a birder and enjoys providing a nurturing habitat for the birds in her garden. She places water dishes around the garden, brings them bird seed, and selects plants she knows that the birds like. She says the garden is “a really lovely place to go after work. When I get off work, I head straight for the garden. I do whatever needs doing and sit for a while.” “It gives folks a place to go, the folks that want a place to go and hang out and be surrounded by beauty and positivity.”

*Bethany Stocker, 23*

Bethany is a special education teacher at Flagstaff High School. Bonito Street Community Garden is right down the street from her house. She initially got interested in the garden and ultimately got a garden bed to share a learning experience with her students. She has seven severely disabled students. They are not able to speak, but Bethany has modified activities so that even with their limited abilities they are able to participate and enjoy work in the garden. She tells stories of assisting them in watering the garden with a hose and picking tomatoes off the vine. Even without words they are able to express their enjoyment.

*Zac Walberer, 25*

Zac works for a pharmaceutical company and looks to his garden to provide a counterbalance to his work life. He gardens with a group from his church and gets a lot of satisfaction from doing something within the community. He enjoys the food from his garden and the friendships he is able to build with his fellow gardeners as they work together.

**Body: Hands in the Dirt**

*"...just the mud under my nails. Looking at my hands and thinking, 'Yeah, so I did something good today.'" – Lorena*

Some come to the garden to save money on their grocery bill or because they have heard about the legendary flavor of home-grown tomatoes. They find what they seek, but also much more. The garden initiates us to a sensual awareness. We learn to observe. We see drops of rain sitting on kale leaves. We notice leaves blowing in the wind. We hear birds singing and talking to one another. We feel the sun on our faces and arms. We enjoy our muscles moving and straining as we weed and turn the soil over. Something happens when we bite into that first juicy strawberry of the season. The physicality of the work lulls us into a rhythm, allowing our mind to wander. While our body moves and stretches, so does our mind. We slow down and breathe. We feel good about the work we are doing.

When asked why they gardened, food was but one of the responses, and not the most often cited. Others were: sustainability, joy, meditation, community, flowers, and being outside. Food is clearly a big draw to the garden. And not just

food, but what has to happen in order to be able to grow food. Mark says that his garden has taught him “a lot about our relation to food and how, before gardening I always thought that dirt was dead, like it was just rocks and stuff. But I realize that it is its own living thing that the plant grows alongside of.” Healthy soil is essential for healthy food. Our bodies are tied to the body of the earth; the health of the earth affects our health. Several gardeners mentioned the taste of homegrown tomatoes and strawberries. There is nothing comparable. The grocery store fruits cannot come close to providing the burst of flavor that comes with eating something right off the vine.

Not only do the fresh foods taste delicious, they are also good for our bodies. We are more likely to eat a salad if we can get excited about the lettuce that we have planted the seeds of, watered, and watched grow. In addition, the work required to cultivate a successful garden bed keeps our bodies healthy. When asked why she gardens, Jen says, “Because it makes me feel good. I go outside and the sun bakes my shoulders and my muscles move better and I can squat for hours on end and pulling weeds makes me feel good. That’s it – it just makes me feel good.”

As we dig and weed and shovel manure, our muscles stretch and work. We stretch not only our bodies, but also what we conceive of as possible. When asked what difference gardening made in her life, Bethany says that her garden helped her relax and make her days more pleasant. “The summer was more meaningful because I wasn’t just cooking food and biking around. I had

something to take care of...It definitely helped me stretch myself...It brought me a lot of peace.”

Gardening is hard work. In Flagstaff the spring gardening season coincides with very strong winds and harsh sun. As we work in those early spring days, we may come home wind or sun burned. The soil is nutrient poor, and needs amendments like manure to enhance the nitrogen in the soil. Applying horse, alpaca, or llama manure to garden beds can be an arduous and stinky job. The sore muscles that result remind us of how physical gardening can be. Weeding can give you a rash. It is monotonous and strenuous. Knapweed is invasive; it can take over a garden. We learn to sit with these things; the desire to pull out the knapweed is tempered by the realization that you can't do it all today. There is a push and pull, a give and take in the garden in which we are able to take part.

#### Mind: Thank the Worms

*“...in the garden the other day...I had a conversation with a worm. I was thanking it for being there. Earthworms are a sign of really health soil. I was excited.” - Jen*

Our mind learns a new form of satisfaction. It comes not from ticking items off a list or outperforming our previous pounds of produce grown, but from taking part in a process larger than ourselves. We learn to notice what is happening in the garden, and what needs to happen next. We trellis peas, repair beds, and plant new seeds. We compost the old plants from last season and in so doing, we notice the cycles that occur within the garden and learn our place within them

as well. Our thinking become more organic. We come to understand the unspoken limitations. The garden gently teaches us.

The garden provides calm and peace through teaching us sensual awareness. When we pay attention to what we can see, hear, smell and feel, our troubles temporarily drop away. We see leaves blowing in the wind. We hear birds singing. We can taste berries and carrots while work; smell flowers or herbs crushed between our fingertips. We can feel the sun shining down on the garden, allowing the plants to photosynthesize. We can feel the cool water coming from the hose and begin to understand the relief the plants feel when they are watered after several days.

Sensual awareness and being aware of our surroundings, has a direct impact on our minds. Lorena says, "It really does clear your mind. If you sit there and look at the leaves moving with the wind and smell the flowers and look at the bees and birds. It really does work." Lorena says that learning the process of growing a garden has impacted her other interests in that she is a lot less linear. The cyclical nature of events within the garden impacts our minds and stays with us as we take on other work.

Jen says her garden has impacted her thinking in that she is able to "approach things in a much more open way. I'm ready and willing for things to happen and on their own time. There are different seasons and different cycles to everything. Some things are slower and some things happen really fast. Sometimes you have to dig down to the layer of rock and dig them all out so the

roots can grow deeper. I can look at the rest of my life that way.” She has learned to allow for rocky patches in her relationships.

We learn about limitations and how to work with them. Mark says he has learned to “keep trying new things. Stick with what works, discard what doesn’t but don’t be bitter about it not working.” Linda learned from trying to grow Hungarian Paprika peppers. She very much wanted these peppers to grow, despite the variety not being well suited to Flagstaff’s climate. Her garden taught her that “there is more involved than just my determination. Sometimes no amount of determination and pampering and pleading will do any good.” She has a deeper appreciation for her fellow gardeners’ knowledge. She is appreciative for her community and not just the humans that are willing to share their knowledge and experience.

Linda is a birder and loves being able to provide a nurturing habitat for the birds who frequent the garden. She puts seeds out for them, provides water dishes, and hangs out a feeder for the hummingbirds. She also plants sunflowers for the birds to feed on. She is happy when she sees them eating, drinking, and enjoying the space. There is joy in observing the natural world around us. In fact, when asked why she gardens, Linda says, “For the joy of it. For the simple joy of it. And to just dig around in the dirt and watch things grow and know that I am helping them to grow.”

There is satisfaction in taking part in something beautiful and larger than ourselves. The garden can act as an oasis, but it is not untouched by the pressures of the outside world. The gardeners spoke about being stressed out in

the short term by the demands of the garden. When germinating seeds, you have to water the garden every day. If you let them go too long, young seedlings and germinating seeds will die from lack of water.

Sometimes there are unwelcome visitors. Gardeners spoke about stray dogs making their presence known in beds. Teenagers make sport of picking and smashing prized pumpkins. The Southside garden was frequented by homeless men looking for a place to drink when the shelter was overfull. Rather than vandalizing the garden, some of the Native American men chose to water the garden for the gardeners. They shared with one gardener, Teddy, the importance of returning something back to the soil. “We were all eating a carrot together. They said that we should break some off and give it back to the soil instead of eating it. It makes total sense; it is nutrients to the soil. But also the idea of it made sense. Respect who gave you this fruit. I thought that was a really cool thing. I always try to remember it.” The knowledge the garden imparts feeds not only our minds but also something deeper.

### Spirit: Something Primal

*“There is something primal, spiritual, Zen-like about [gardening]. It’s a meditation for the mind and body and soul all at the same time.” – Mark*

The garden becomes not only our teacher and sanctuary, it also connects us with something larger than ourselves. In becoming attuned to the natural world and the life cycles that occur there we find solace and meaning. Our life becomes one of many whose story is unfolding. Our troubles are eased through being placed in a larger context. We connect to memories of our family. We

participate in building a culture we value through sharing our knowledge with the next generation. We are a part of a community. We share with fellow gardeners, earthworms, ladybugs, bees, and birds. We acknowledge our part in the living web. We become humbled and appreciative of the many gifts we have been given. The garden nurtures us as we nurture the lives within it.

Each gardener spoke about the connection to something larger than themselves, although they used different words. Kim said that “gardening is a spiritual experience. I wouldn’t say I’m out there looking for God in the soil but I do believe it’s a spiritual experience because it makes you feel good. It makes you feel like you are doing something good. For your soul.” Jonah, as a Hopi man, experiences a direct link between agriculture, religion, and the cultural practices of his people. Agriculture is intimately tied to their spiritual beliefs. Their traditional ceremonial calendar is tied to the seasons. In the Hopi religion, they are taught “if you plant something you have to take care of it throughout its whole life cycle” Jonah says. They are taught to be aware of the results of their energy and to take responsibility for their actions. Jonah says, “The Hopi we believe that you should have enough seeds or stock, vegetables or whatever, to last you four years.”

Most of the gardeners did not participate in a formal religion but spoke about their own connections between the garden and their spiritual beliefs or practices. Lorena felt the connection through “seeing the cycles and how things grow and what it takes for them to grow, the nurturing. The patience and all of that really resonates with me.” Laura says that for her spirituality is tied to being

aware of her surroundings; “noticing things growing, watching leaves blow in the wind.” Teddy believes that God is in plants; that plants themselves are holy.

Jen gives thanks in the garden, out loud and in her head. “I thank my plants every time I leave. I thank them for growing. I thank the bees for pollinating. I thank everything out there.” She nurtures her garden bed and gives thanks. In return, her garden has taught her “so many things. To be quiet I think is the biggest thing. To listen to myself and to listen to the things around me. And to find quiet in my head because it’s not often quiet in there.” Zac’s garden has grown his interest in sustainability and grown his dreams of what his garden could be. The gardeners all spoke about meaningful experiences in the gardens using different terms, but all expressed an appreciation for the opportunity to be surrounded by beauty and take part in something larger than themselves: the living web.

### Carrying Knowledge beyond the Garden

As you have seen from the stories, each gardener has found something deeply meaningful in his or her garden. I began by looking for moments when a gardener’s life was revolutionized by their garden. What I found instead of lightning bolt revelations was evidence of slow and steady impacts over time. No one’s life was changed in an instant. In gardening season after season, the gardeners experienced moments of deep significance.

There are key elements community gardens provide that initiate and continue this evolution. One element is the importance of interaction with other people who are perhaps in different stages of decolonizing their minds from the

rationalized world, but are taking part in the same journey. The importance of community cannot be overstated in counteracting the impacts of rationalized experience. Together people can initiate and participate in ways of being that are counter to the dominant paradigm.

Sharing food is one example. Communing and celebrating with friends and neighbors was an often mentioned example of an incidental activity that took place as a natural outpouring of the bounty of the garden. Growing food leads to cooking and eating food, a practice that draws us into a deeper understanding of the interdependence of lives on this planet. When we plant a seed, water it, mulch it, and tend it to fruition and then get to eat that fruit of our labor, we have a much deeper understanding of what it means to eat. Additionally we understand the resources that go into each strawberry on our plate. We have a knowledge of the amount of sunlight and water required. We know how much water each plant needed over time. There is no way to remain ignorant of the larger issues that come to bear, such as limited availability of water and how it does and will affect everyone on the planet. The physicality of the tasks required in the gardens impart a certain physical knowledge that cannot be gained any other way than through doing.

Gardening teaches not only our bodies, but also our minds. Gardening can teach us about the states of mind that can lead to another kind of existence, one that acknowledges the forces that are beyond our control. Having an open and playful mind allows the universe to show us an understanding of things that goes beyond the limits of the outdated paradigm of Newtonian physics, a

universe composed of inert material. Some of the elements that I am speaking of here and have mentioned previously include: openness, a willingness to allow ourselves to be surprised, experimentation, creativity, and acting in partnership with something beyond ourselves. In composting, planting, weeding and watering, we take part in poetry in action. Our spirits are lifted and our souls are renewed.

Gardeners have the opportunity to experience life and a value system that operate outside of the dominant rationalized existence. They are exposed to life lessons in a living laboratory whose practical knowledge provides metaphors for something deeper about life. This stands in contrast with the way as a society we are infatuated with the latest and greatest gadget, and the cheapest and easiest food and toys. Our reliance on fast food and our constant connection to electronic devices are two examples of the problem and ways that we continue to perpetuate it. When a person goes from occasionally relying on fast food or existing within a corporate, capitalistic paradigm to existing in an unending string of these experiences, he or she has entered the Iron Cage. Weber also called it the “polar night of icy darkness” because of the way the rationalized experience leaves people feeling trapped and without hope.

Vandana Shiva in her many books and speeches advocates planting a seed to break the cycle of negativity. Community gardeners seem to be a group that flies in the face of the trend toward the cheap, easy, and meaningless. They choose to unplug and engage. They choose to go outside and play. They choose to enter into a situation that is a collaboration. By planting a seed they enter into

the creative process, connecting with fellow gardeners and the plants and animals who live in and enjoy the garden.

In the course of my research, I was able to hear from gardeners what their families had shared with them about growing food, and got to see the gardeners, in turn, sharing this knowledge with their own children and fellow gardeners. I witnessed the passing on of traditional family practices. Each gardener valued the sense of community the garden provided them. This encompasses both the fellow gardeners with whom they traded tips and stories with, as well as the host of creatures doing their own work within the garden. They talked about birds. They talked about worms and bees. Gardeners have a heightened awareness of these other lives carrying on around us who impact and enhance our own experience.

It is difficult to fully express in words the value of the garden as a sanctuary. It goes beyond a person having a space and place to decompress after work. How can we measure how this space enables gardeners to be gentle with themselves and those around them? How can we count the fights not had or the sharp words not said as a result of a person having a living sanctuary to retreat to when needed? The feelings of refreshment and restoration of spirit are not measurable: they are valuable beyond all measure.

As a culture we are retreating from mystery; we avoid exposing ourselves to that which we do not understand or cannot explain. Our modern practices seem to be carrying us farther away from our connection with the millions of other lives upon which we interdepend. From the dawn of the scientific method

we have been increasingly drawn in to the illusion that things are black or white, mine or yours; that we can know a thing by dominating and measuring it. This mentality and the practices that accompany it are depleting the limited resources we have been given and diminishing our quality of life by removing reverence and thankfulness for that which we have been given.

The rhythm in the garden is apart from this fractured existence. Gardeners dig in to the work of building something beautiful and meaningful. It is hard work to dig deep. But this is where the juice is; the pain, the rawness, the exaltation; moving away from a surface interaction of floating through life, looking for distraction and diversion to experiencing more deeply the pain and exultation that is part of being a human. Some want to experience life in Technicolor. I went to the gardens to find those people who emerge from their beds more fully aware of the tenuous nature of life and its inherent interdependence on other life forms. I was interested in those seeking an existence that is imbued with a profound understanding of thankfulness for the opportunity to live on this planet, eat food, have friends, hear music, create beauty and give love. Gardeners cross boundaries of race, age, gender and whether or not their family gardened.

Each gardener's story was distinct. From birding, to activism, to Peruvian or Hopi cultural roots; each gardener brought a unique perspective to the garden, informed by his or her individual life experiences. They had different reasons and motivations for coming to the garden. Some wanted to meet people. Some wanted fresh food. Some wanted a healthy hobby or to have a reason to spend

time outside. They valued varying facets of the gardening experience. They used different words in articulating what they most valued.

Although they used different terms in describing their experiences, there were commonalities that unified their experiences. All of the gardeners possessed a curiosity about life around them. They are pragmatic yet optimistic, excited by each new season yet bound by the knowledge gained in previous experiments within the garden. A gardener is someone who cares about the earth in general and his or her garden specifically. A gardener is someone who wants a place to play, someone who loves fresh tomatoes and flowers. Ultimately a gardener is someone who does not always know what he or she is doing, but *is willing to try anyway*, and then share the knowledge they gain in doing. This is small and subtle, but magical. These traits, to be willing to try and then share, can change so much. There is something fundamentally important in exposing ourselves to the unknown and allowing the universe to guide us toward what we need, to teach us something new that can change the way we see and think.



## Chapter 5. Conclusion: Looking Forward

*Diversity as a way of thought and a way of life is what is needed to go beyond the impoverished monocultures of the mind. – Vandana Shiva*

Now you have a sense of the personal experiences that drew me to this project. I was a child desperately in need of nurturance. This feeling of missing something so fundamental allowed me to deeply respond to the loving care that I experienced at Joanna's house through gardening and eating fresh food. This experience propelled me to investigate Flagstaff community gardeners' experiences within their gardens, in search of personal transformation and finding instead ways that gardens provided living lessons in how to think more

organically. This non-linear thinking, coupled with time spent in the garden season after season resulted in a re-valuation, a priority shift that was counter to the dominant rationalized world.

In our modern world, we have withdrawn from the natural world to the extent that in our daily lives we now have control over most aspects of our lives (climate controlled houses, schedule-filled calendars, and information at our fingertips at all times via our many technological devices) and have removed opportunities for the universe to communicate with us through spontaneous events that can challenge our ways of thinking and expand our understanding of life and how the universe works.

We know that the number of gardens is rising. Across the country we have seen upsurges in farmers markets as well as community gardens, backyard kitchen gardens, and gardens in the schools. People are interested in not only healthy eating, but gardening as a practice that connects us with the fundamentals of life. Participating in the practices of gardening allows us to see ourselves in a positive light. We can be agents for change, doing good in our neighborhood. The garden provides the locus to allow us to practice our curiosity and creativity. In the garden we can play and learn. We come to understand that there are fundamental life processes that encompass not only our human lives, but also those of the butterflies and ladybugs in the garden. Observing in this way we are able to see how simply weighing, measuring, and counting is a very limited approach in attempting to understand something about the nature of the universe.

In the garden we are given the opportunity to gather with our friends and neighbors. We commune with all of the lives in the garden, human as well as bird, insect, and earthworm. The garden is a nexus. Everything comes together; memories, the sound of birds singing, soil and water on our hands, seeds unfolding themselves, art, science, and spirituality. These connections buoy us and insulate us from the sense of isolation that so many feel when they are disconnected from community. Akin to the sense of connection or community is an intentional allowing in or releasing of control. In interacting with others of all shapes and sizes we open ourselves to unknown possibility. We can be pleasantly surprised by what someone does or says.

And to take that a step further, when we collaborate with and aid other people and non-human friends we are serving a higher purpose that carries with it its own indescribable reward. When we do not seek to dominate the natural world, we realized that our life is just one strand of the greater living web, no more or less important than any other. In creating by doing we make the world we want to see; we take part in actions that call into being the world that we want.

Gardeners learn to be mentally fluid in a very important way. They experience something of the nature of parts and wholes, waves and particles. Each activity is a part of something larger and also a whole in itself. There is essential information contained within the poems and metaphors that play out in the beds. Deep knowledge and information about the nature of the universe resists precise language. Ultimately why we garden cannot be fully charted or

graphed. What we get from it eludes definition. There is something deep and difficult to articulate. Learning, growing, changing, taking part in something larger than ourselves, and making something better are deeply satisfying experiences. The garden affects our minds, our bodies, and our spirits.

In living these experiences, a person is given the ability to see him/herself in a new light. Gardeners come to view their own lives in context with the innumerable lives that surround them. The sense of self-worth morphs from being based upon his/her annual salary, type of car, or some other status symbol, to being based upon actively participating in and contributing to the dance of life. Gardeners begin to see their lives defined in the context of their communities. Their sense of self-worth changes when viewed in light of the collective.

This is essential to keep in mind when confronted with the structures of a rationalized world. In encountering the Iron Cage we can choose instead to be a part of a Living Web. We have choice. We have power. Our actions have consequences. We can use this as leverage to seek out the kind of experiences that nurture our deeper selves, and the lives of all those around us. Instead of striving for efficiency, we can be curious and willing to try. We can exercise our creativity.

Instead of quantifying and calculating, we can connect. In seeking to put numbers and labels on everything, we miss so much. Instead we can connect with all of our relations, both human and non-human, to see what they have to

teach us. There is a joy inherent in simple observation of the natural world around us that we are deprived of when we seek to measure instead of interact.

The rationalized world strives for predictability so that no one has to step outside of their comfort zone in not knowing what to expect in a given situation. To move out of the rigid rationalized structure, we can choose to be vulnerable, to ask questions, to not know but to try anyway. We can open up to unknown possibilities and opportunities. The universe will provide us with new ways to learn when we consider the possibility of an intellect greater than our own and step into the unknown. Taking part in the creative process requires that we go outside of what we already know. We can let go of trying to control others and choose instead to collaborate with them. In serving and aiding others we too, are given a gift; the gift of feeling capable and a part of something bigger than ourselves, the value of which is immeasurable.

Knowing how to shift each of the dimensions of the rationalized world in favor of situations that nourish life gives us an opportunity to reenchant ourselves with the natural world, to reenvision how our societies are structured and what our collective values are. Clearly these are larger questions, outside the scope of my project. Yet I am invigorated by the possibilities they open up. Can we use the knowledge of a Living Web in larger applications like how our education system is structured, how our cities are designed, or even bring it to bear on social movements and democratic processes? In completing the work of this project and beginning to think of larger applications, I am excited by the possibilities.

Conducting the research for this project has been a challenging but ultimately life-affirming endeavor. I was honored to have the gardeners I spoke with share their life and gardening stories with me. I learned so much throughout the course of the project about how to conduct this kind of research and the challenges inherent in articulating the findings. I would have liked to have learned more about the application of the kind of creative thinking the garden provides an opportunity for us to learn and its greater applications. I am persuaded that there is something hopeful in this kind of creative and innovative thinking that can be applied to large problems like climate change and smaller ones such as a lack of social connection and how our cities are arranged in such a way as to encourage or prevent a sense of community. I would love for the work that I have done here feed into a larger investigation of these kinds of issues, toward the goal of providing everyone with an opportunity to be curious, connect with the people, animals, and insects around them, open up the unknown, and collaborate with others. There is deep joy and satisfaction in these endeavors that every life should be afforded the opportunity to experience.

For now, I continue to grow food in my plot at Izabel Community Garden. I take my son and daughter with me to share in the joys of planting and watering seeds. We feel the sun on our faces and look for the biggest earthworms. We plant carrots and sugar snap peas. They delight in watering our bed, as well as the shared beds and children's plots next to our garden. In working and sharing with them, I acknowledge my role as teacher and nurturer. Although I often make mistakes or lose my patience, I am humbled by the opportunity to share the give

and take that occurs in the garden with them, to honor our parts in the Living Web.

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## Appendix A. Interview Questions for Community Gardeners

### Gardener Interview Questions:

1. How long have you lived in Flagstaff?
2. What is your gender?
3. Does or how does your family history inform your approach to gardening?
4. Do you have a first memory of gardening?
5. How long have you been gardening?
6. Why do you garden?
7. What are some of the challenges of gardening here?
8. Why do you choose to continue gardening despite those challenges?
9. Can you tell me a story about your garden?
10. What would you say gardening has taught you?
11. Has your work in your garden impacted your life outside the garden?
12. How has learning the process of growing a garden impacted your other interests?
13. Why do you choose to be a part of a community garden?
14. Does gardening have an impact on your community?
15. Is having a meaningful experience in the garden a personal practice or one you share with other people?
16. Do you feel any connections between gardening and your spiritual beliefs or practices?
17. On the whole do you see a difference in your life from before gardening and now?
18. Is there anything else you want to add that I forgot to ask about?

Appendix B Informed Consent as required by the Institutional Review Board

Cara Corbin  
Thesis Project  
2013

Thank you for participating in my project and being willing to share your gardening story. I am looking at the ways that gardens can impact the lives of people. My own life was improved by learning about gardening and fresh food. I want to learn about whether or not other people have had similar experiences and/or what their experiences have been.

I will use the information you share with me in writing my thesis. I also hope to make a short video compilation of what I have learned. I want to make sure that you are comfortable sharing your information. Please check one to indicate what you are ok with:

\_\_\_\_\_ Do not record me.

\_\_\_\_\_ You can record my voice but do not video record me.

\_\_\_\_\_ You can video record our interview.

In the spring I want to photograph each gardener in their garden. Do I have your permission to photograph you in your garden?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

Thank you so much for sharing your knowledge and experience.

\_\_\_\_\_  
Print your name.

\_\_\_\_\_  
Sign your name.

\_\_\_\_\_  
Date

Community gardens are places where neighbors can gather to cultivate plants, vegetables and fruits. Such gardens can improve nutrition, physical activity, community engagement, safety, and economic vitality for a neighborhood and its residents. Community gardens can be integrated into broader community projects such as after-school programs for children, activities for the elderly and a resource for food banks and homeless shelters. Allow zoning for community gardens. Boston established a specific community garden category that can be zoned as a sub-district within an open space zoning district. Identifying prime locations for community gardens aides in their creation and emphasizes the importance of this use to the city.