The Growing of Ariadne Garden

Recollections of Kim McDodge, Head Gardener

A digital copy of Kim's recollections is available at www.osalt.org

An Introduction to Kim's Recollections

I became acquainted with Ariadne Garden around 2000, several years after I was fortunate enough to have met Kim and Terence McDodge. I first knew Kim in her role as artist and calligrapher. She would never say this herself, but her calligraphy work is truly exquisite. Kim designed the flyers for Looking Glass Bookstore in downtown Portland, and Terence was the store's computer guy, at a time when I worked special events at the bookstore.

Ariadne Garden, Kim's project over the last 17 years, is a beguiling and oddly comforting place: the winding paths, dark curly kale, variety of lettuces, batches of nasturtiums. It's a spot where a person can assemble the most fun bouquets, with blooming herbs and humble weeds combining fluently with everyday flowers like zinnias and dahlias. All the flowers for my son's wedding in September 2008 were cut from Ariadne Garden. When I lived in the Irvington neighborhood and went to Ariadne almost every Saturday, I used to call her my Saturday Church.

A couple of years ago Kim decided she wanted to tell the story of Ariadne Garden, and that would mean her personal story, too, of course. "I hadn't planned on a garden, being a garden," she says. We started her oral history interviews in late 2009, with recording sessions over several months; we then had many rich get-togethers over her kitchen table to flesh out details and prune her recollections. Kim was ill in the last phases of completing her story, and she died April 5, 2011.

The story that follows is about The Garden but also the evolution of Kim's thinking about food production and soils on our Spaceship Earth, The story is about a neighborhood, now gentrified, and a thoughtfully tended plot on N. E. 11th Avenue in Portland. It's about Kim's research and testing out new ideas. It is about the soil food web--Kim wants gardeners and farmers to *work with* this web. She wants people to *know* where their food comes from. She wants people to *pay attention* to what we feed our kids. Kim asks who will enjoy the

benefits of land and how it shall be "owned." She wants us to respect, and worry about, nitrogen, and to concern ourselves with chemically-induced dead zones in our planet's great water bodies. She asks us to heed how technology is using us and how we might rather, in turn, use it to further life.

Kim saw her story as a teaching project and not just about her work of art, Ariadne Garden. She was keen on pointing what she tried that *did not work*: in life, ideas, fads, philosophies, digging methods. She wanted to share with others the ideas and practices that influenced her at a particular time, even if she later abandoned them. Sometimes I would ask her about a thread she was following, for example, *do you want to use that little section on fructose in the story*? *Yes, it's important,* was her not surprising answer. Kim was much about food and health, and *ideas*. I saw her two days before she died, and she was so very weak. Right on her bed was the volume *Earth* by David Brin, which she was reading. Kim lived intimately with ideas even when her arms were too tired to lift the pages of a book.

Ariadne Garden is a place close to the hearts of many. Visiting there, a person can take away a big bag of good stuff: perhaps some red chard or English cucumbers, a few asparagus ferns for a bouquet, or most profoundly, a sense of the care, thought and artistry embodied in this 100 x 100 foot plot, two city lots sprung from the mind of Kim McDodge.

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An Appreciation from Betty Barker

March 3, 2011

Dear Kim,

I was walking along Broadway yesterday when I thought, "What I really want to be doing is talking to Kim!" It's still a mystery to me how you created your life and Ariadne. I'm guessing that your strength of character, new way of seeing, your generosity and integrity pushed (not the right verb, probably) you in a new direction, to envision something unique, to draw others on the path.

The first time I saw Ariadne, on a spring night, I knew I was seeing something extraordinary, and when I joined in the work, I was amazed at the complexity and wholeness of your vision. Everything fit together—people, plants, plans—and flourished. The garden absorbed mistakes and disasters—a Cadillac hurtling through, an over-eager bean picker tearing the vines, wireworms chomping roots—all mere blips on the cycles of the garden as it taught and nourished us.

When Melissa said, "You know, Oma, coming to the garden is my favorite thing to do in Portland," I was so proud: that I had such a wise granddaughter, and that I was part of Ariadne. It has been the most beautiful, precious thread in my life since that spring night.

Thanks, dear friend.

Betty

Kim McDodge in her greenhouse at her home

Why I Created Ariadne Garden

Ahhh! The goals at the beginning were very vague, but goals are one thing and reactions another. In a word: hunger. Although hunger created Ariadne, the Garden also started as my reaction to the food situation in modernity, the modern Food System, capital S! And of course, being a child of the 1960s, I was reacting against the established order, against corporate structure and what was happening to our food. The stance was very intellectual, puritanical, pious and moralistic, but at the same time I was reaching for sober analysis. The Garden was part of a much larger hunger for truth and knowledge, richness and health . . . and full, glorious fats.

Ariadne stood as a reaction against the way food came in and out of the city, and to those who controlled it. The reaction was partially personal, from my family, as well as from the terrible, industrial concoctions of foodstuffs on grocery shelves, plentiful though they were. When I created the Garden in 1993, my act was definitely a utopian regression into the womb of myth and agriculture. Now, in 2010, I am happy to say this no longer the case. These days Ariadne is more just a garden. WHEW!

Why Tell My Story?

I want to present how a seemingly personal story has many impersonal implications, and how closely interwoven the two are. My desire is to bring to attention pockets of thought outside conventional thinking, thought that contains some very solid work on food and how to feed ourselves on both the personal and planetary scales. Mother Earth is not going to feed us anymore on her own, and certainly Father Industry is not going to stop fabricating food so terrible that we

sicken and die. I want to show how food, gardening and soil treatment practices take place in the context of our home world, with its limits and its perils. Through telling the story of Ariadne Garden, a 100 x 100-foot plot on N.E. 11th Avenue, I also want to introduce the soil food web and give readers a glimpse of the science behind it. I think we gardeners, big and small, have on our hands now a design challenge. We need to mimic Nature's biological fecundity and at the same time regard business and industry's efficiencies as processes essential to feeding ourselves. The tools and capacity to make these processes transparent are available for people on every level to follow, if people choose to do that.

Eaters of all kinds need to know what is behind the food we feed our kids. This is so basic that it sometimes just falls off our screens, out of our consciousness. Continued life on this planet depends on all of us, pros and amateurs, knowing what is at stake and how to take action to make sure we have good food to sustain us. Finally, I decided to tell this Garden story just to get it off my mind! I wanted to get these thoughts out and make my experience available to others.

What to Eat? On Wanting To Do the Absolutely Right Thing !

In my early years in Oregon in the 1970s, I had little regard for the Willamette Valley and the amazing food that grows here. I had no regard for anything except on a very idealistic, reaction-to-industry level.

Ariadne's story necessarily includes some of my own food practices, discoveries, and frequent follies. In early imaginings of the Garden, I wasn't even looking for property. I was trying to figure out how to eat. My digestion was off kilter—I came from a long line of big drinkers, a tradition that I continued. Part of my motivation was the frustration of trying to find my body, which was suffering the results of my eating and drinking habits, and the foods that the industrial era had to offer. That's both the personal and the impersonal of the move to create the Garden. I went off into eating macrobiotics for a long time: low fat, grains, beans, very close to vegan.

Macrobiotics worked for detoxifying from drugs and alcohol, like the artists were doing, like John Lennon and Yoko Ono were doing. And that's what artists were supposed to do, find unconventional ways to do things. I had been trained as a graphic designer, with all of the young arrogance ensuing. I was one with the milieu and stayed with macrobiotics for way too long. Yet it provided a structure—I was very

nervous about life in general and grabbed onto that fundamentalist food rigidity and interpreted it with added rigidity. Some people practice macrobiotics with much more fluidity and skill than I could muster[1]. I do want to note that way before the political correctness of the late twentieth and early twenty-first centuries, most people in the macrobiotic movement were aware of locavore ideals, eating within 100 miles of where one lives.

During the 1970s, there was a big switch from eating animal food to eating grains and beans, which came from social pressure and was partly inspired by cookbooks such as Laurel's Kitchen and Diet for a Small Planet. The change was prompted by worries about the industrial system that we all came from.

Ariadne Garden grew in part out of ideas, practices and fads that did not work, primarily macrobiotics, which had become not only socially acceptable but also politically correct. In macrobiotics, George Ohsawa from Japan and his friends went to Paris after World War II and started preaching how good brown rice is for you, and their ideas were disseminated in the States. I got caught up in that. As fellow travelers, my husband, friends and I ate brown rice religiously.

A group of friends got together for potlucks and taught each other how to cook. I conned poor Terence, my husband, into it. This food fanaticism was a condition of the marriage, my second marriage. When Terence and I got together the understanding was that I was going to cook what I was going to cook: no compromise! Our marriage could have shattered in my crystalline rigidity.

My husband and I made our own bread, ground our own wheat, all the things that industry does so much better. We ate real hippie food that cleaned out your gut and took everything else with it pretty much. Terence and I were de-mineralized after a while and had low energy. The macrobiotic saga continued up until about eight years ago, right until the year 2000. Terence got sick, as did I, from adhering to this rigid diet standard. The deficiencies of the food were partly responsible, plus, too much roughage. We ate excessive amounts of badly prepared grains and beans that we weren't used to, and to which we were not adapted in our heritages or in the industrial trajectory we'd been part of.

In the early to mid-1970s, a small group of people was also going through cleansing with naturopathy, sometimes using the teaching clinic of the chiropractic school at S.E Foster Road and 51st in Portland. Many bodies were trying to find out what was right. I wanted what was absolutely right. I came from over-the-top personalities: they are a part of my inheritance, and in many ways they

1 Donna Gates is very suave in her approaches to macrobiotics, finding the moderate way in this dogma.

continue their influence on Ariadne Garden.

My Family Background, Minnesota

On the surface, Ariadne Garden was a reaction to my family. I came from midwestern, Minneapolis grain dealers. The history of Minneapolis is significant not just in my personal but also in the national story. In the Midwest, after the European settlements, the farmers began to use the beautiful technology arriving on the scene, tractors and new chemicals, and were starting to grow too much grain. Typically, the farm family sent a kid to Minneapolis to trade the grain. This process established a number of small businesses that represented the farmers who traded the grain into various markets: export, manufacturing, mass food preparation. My family ended up in a company called "The Osborne McMillan Elevator Company," the

Kim and her sister Brooks McMillan.

O&M Elevator Company out of Minneapolis.

Yes, grain elevators! The company would store the grain in those elevators after it was harvested and before it was shipped out. Most of the grain went to Seagram's Distillery up in Canada. My family was involved in this trajectory where a lot of grain was turned into, well, wonderful liquor and brought back down to the States whether it was illegal or not. During the 1920s it was illegal, but then prohibition was overturned and the liquor was legalized. I remember sitting by a huge whiskey bottle on a stand in the dark light of the bar at my grandfather Pops' Bob-O-Link gentleman's farm on Lake Zumbra, west of Minneapolis. He received these bottles as Christmas gifts

from the distillers.

Mother was Mary Ellen Wyer McMillan and Father was Cavour Langdon McMillan, C.L., both from old Minneapolis families that were pretty well off, in times that were strained for many people. My parents' families were part of the burgeoning Upper Midwest middle class of the time, much like the movements now in Brazil, Russia, India and China (BRIC nations), the New Core. This New Core in the twenty-first century is following in patterns similar to that of the United States as it went from the Wild West into Modernity; the U.S. is now holding its own as one of the Old Core nations.[2]

In the Wyer line, my grandmother came from a timber baron's family, the Coffins, up in Duluth at the turn of the nineteenth to the twentieth century. Her mother, my great-grandmother, had wanted her daughter to go to Upper State New York because that was the center of all the feminist activities during the Feminist Era back at the turn of the century, the era that got us the right to vote in the 1920s. Esther Coffin was sent to Wells College, and was also left with a large fortune, some of which is supporting me right now, an angle in this story.

Another angle jagged from my father's family, the Langdons, who helped build the SOO Line Railroad up through the Midwest. My paternal grandmother came out of that wealth. My grandfather, Howard Ives McMillan, was a grain dealer, this huge part of my family history. Half of the McMillans went off to form Cargill Incorporated, a large producer and marketer of food, a large multinational company, now diversified.

With my naïve approach to the world as a young adult, I aimed a lot of my spleen at Cargill! Cargill makes its living off over-refining, pulling and cutting plants from the soil, like I do, with the exception that I don't over-refine. Cargill was the corporate entity that I could justifiably hate. That misplaced emotion made me as sick as alcohol addiction.

I have one sister, Ellen Brooks McMillan, a hard-working nurse practitioner in Washington. She's spent most of her life working in hospitals and clinics around Seattle, and now practices in Port Townsend on the Olympic Peninsula. My parents died in 1993 and 1997, Mom in a car accident when she was 70, and Dad five years later from a heart attack, on the eve of his 75th birthday. The family had gathered for his birthday in Bozeman, the wonderful community to which my parents had migrated after their daughters moved to the West Coast. It was a strange and sad birthday celebration indeed.

2 Global analyst and strategist Thomas Barnett articulates this grand trajectory coherently. Also, the Deadwood TV series displays the down and dirty stage that the BRIC (Brazil, Russia, India, China) nations are in today, the one the U.S. and Old Core suffered through 200 years ago. Series is worth watching for a memory jog as we recover from our times of excess.

Parents' Values and Pleasures

We were from the traditions of Protestant culture, Anglo-Saxon, a bit of Swiss Calvinist, but mostly Scottish and English. We didn't like the Irish—my father wore orange on St. Patrick's Day! I never understood this symbolic gesture until much later. Puritan zealot Oliver Cromwell's men swept up through Scotland in a spasm of empire building, bounding over and down through Ireland, killing the males, herding the females to Southern Ireland to be taken to the Caribbean as slaves. The author Michael Ventura in Shadow Dancing in the U.S.A. points out you can hear the Celtic sounds in "The Harder They Come" movie wedding, with West Africa seeping up through New Orleans as jazz rock and roll. Echoes of the fierce tribalism of my father's lineage were expressed in Dad's small orange show on St. Patrick's day.

On my father's side, there was significant high living and addiction through the 1920s, which was normal; this was the era of bathtub gin. His family was just very decadent, playing bridge with F. Scott Fitzgerald and all. Mabel Shaw Langdon McMillan's home was saturated with beautiful Oriental things. My father's side was not oriented toward civic participation—they were Scot, tight-fisted, tribal by nature and lived the life. But they held their decadence with style and aplomb.

The Wyers, on the other hand, had a Puritan streak running through them all. My grandmother was a teetotaler and I think my father saw her once with a cigarette and a drink in all the years they were around Lake Minnetonka. This branch of the family also played bridge all the time. My grandmother, Esther Coffin Wyer, was very socially conscious, but not in a liberal or help the poor, kind of way. When she moved from Duluth and finished her schooling, got married and moved into Minneapolis, she put on her crampons and climbed her way through the social networks, depositing her children securely in those networks, very adeptly. She was no fool when it came to breeding. We used be taken to the Women's Club, where she would propound the lineages of the kids we were seeing, wanting to match us up, enabling us to marry more money and have babies destined for a singular status. We swirled in a cloud of capitalist meat market mentality. Yet, during World War II Gammy was a wet nurse for friends and neighbors whose kids who were not getting mother's milk.

As the rich began their exodus away from cities, which were growing somewhat dangerous with the poverty and riots of the Great Depression, the rich ran to their summer homes. Many settled on the beautiful Lake Minnetonka, which became a suburban utopian fantasy.

That experience on the Lake informed me quite a bit as I grew up in the shreds of Nature, our collective psyche burning in the light of atomic blasts and chemical haze. The United States had dropped atomic bombs on Hiroshima and Nagasaki in August of 1945—we were in a new era.

Religion, Politics and Feminism in My Background

The Minnesota where I grew up has offered me many opportunities to ponder conflicts and contrasts, and I can see them in my garden thinking. The feminist thread of my maternal great-grandmother both did and did not pass to my mother. After all, these people were still Republicans, so Mother's was not the independent liberal feminism of the 1960s. However, Mom was always involved in the politics of our small town. She was elected to the city council of Wayzata on Minnetonka, which was really just a village of 1,500 people at the time. The League of Women Voters was also her passion—she worked hard on both the council and the League, in addition to tending family. She was insistent about teaching us basic democracy by example.

My parents would certainly have been terrified by what's happening now in the Republican Party. They were very conservative, but not reactionary. On the religion side, Dad didn't go to church at all. Rather, he was in service to science and technology. Mom took us to church because she had to, but the dogma didn't really sink in to me. It was a Congregational church, very Protestant, naked as far as imagery went. I was definitely aware that the Congregationalists were on one side of the street and the Lutherans across from them on the other. I've come to see that in Minneapolis culture, the Lutherans and the people from the Nordic countries, called "Scandehoovians," were treated in a degrading way in an attempt to make our tribe seem superior. I am sure the converse was true also. All the tribes did this to one another, as it is the natural order. Dad made money on the Norwegian bachelor farmers that Garrison Keillor in "Prairie Home Companion" talks about. Dad was a middle man, and his people tended to use the Scandehoovians to a certain extent, as was the standard. There was also tension between the Puritans and the Lutherans at times, actually among all religious sects.

The Minnesota of my childhood was also an important seat of the Democratic Farmer Labor Party (DFL, founded 1944), the party that moved Hubert Humphrey into the vice-presidency under Lyndon Johnson. The DFL was vigorous against the people who raised me up, but fought very well for those who did all the handwork to keep our family in its comforts—the cooks, cleaning women, and handymen. Very often these were farmers moving off the land.

As I grew into a young adult, I began to see my own family's place

in its social context. A great leveling, an enormous social shift, had occurred with The Enlightenment. The middle class was lifting the mass from the natural[3] human state of triangular, hierarchical, oligarchic structure into the lovely, hard-won diamond shape artifice called democracy that we have now, which is a much kinder structure to women and minorities. This shift took 2,000 years to surface and though it is under fire now, it is worldwide. David Brin, who has strongly influenced my thought development, holds that if Pericles' dream of democracy falls now, another 10,000 years may go by before we find it again[4]. Brin's picture of social structure is both elegant and concise.

Food Habits and Meals in Our Family Home

We ate good food, considering the amount of commercial propaganda that was being shoved down everyone's throats. Mother was influenced by Adele Davis and The Joy of Cooking, and later, Julia Child. Mother went through at least three volumes of Joy of Cooking. So there was a lot of meat, meat and potatoes, and game. Dad, C.L., was a hunter, so meat and more meat and soaking the meat in butters. It was a rich, rich upbringing.

My grandmothers both had Scandinavian maids that put on amazing dinners at Christmas, Easter, and Thanksgiving. We feasted all through the wintertime, bundling up and getting shoved into cars in zero degree weather and going from one grandmother to another. We ate everything, roasts and butters, cobblers and squashes, corn on the cob and cakes, everything, and in its way extremely balanced. The richness and fecundity remind me of Ingmar Bergman's "Fanny and Alexander," a beautiful movie about children growing up, drunken adults all around having feasts, living in excess. This movie, with its compelling, textured images, really stayed in my imagination. My life has been much about food, sometimes feasting, sometimes stringent regimes, with many reversals and new roads taken.

My Parents' Hopes for Me, and Performing a Stunt to Please Them

3 David Brin observes that at the time man learned to craft metals, arising about the same time all over the planet to wherever humans had dispersed from Africa, one big guy picked up a chunk of it, hit his friend over the head, took his wife, herd, storage of food and carried on. In this manner the Big Guy Rule came to the human race, quite naturally leading to those guys wanting to hold and pass on power to their own, kingships, oligarchies, elitisms of all kinds. We have had to go against this urge to dominate one another in order to establish democracy, a change from each tribe fighting to win. In this uplift, the old identifications are sublated to the larger whole of finding our many selves on a small planet.

4 David Brin.

Mom and Dad didn't want to load me with hopes and expectations, yet they did. You'll do what you need to do, dear, won't you. They earnestly tried not to put too much on it. I think they were startled by what was happening around them in the 1960s, through the political assassinations and the turbulent events of those times. They were scared, and I don't think they knew quite what to do with the children of these times. Born in 1946, I was in my teens and early 20s during these years.

I went to Northrop, a private girls' in Minneapolis, from fifth grade on. It has now merged with Blake, the boys' school. I was scared about what I had to do after the girls' school! I had to go to college. I wanted to please my parents so they would pay for college, so I proved myself to them by getting a pilot's license, which was their desire. I was so afraid that on the night before having to go up in a small craft at 7 a.m., I went to a girlfriend's, set all the bottles in her dad's bar out, and took a shot of each. Flying in a Cessna 182 with a hangover was pretty much the death of me, although I went on to get the license.

I was confirmed at the Congregational church, and the conversations attracted me. Something niggled at me, got into the back of my mind, and I was always working on: what is this about? What is this religion thing about? What is this spirituality about? What's all this about? But I didn't get answers from the church. This niggling is to this day strongly present. I took spirits literally in the form of fire water, which made me somewhat numb to the tugging. Nevertheless, I went into a fascination with structures on every level: myth and archetypes, social patterns, invisible organisms in the soil and the visible ones that walk upon it.

Another thread growing up was athletics—I played everything! I was a team captain for the girls' basketball, volleyball, field hockey, and baseball, and was good at it. Also, in high school I got an award for being friendly, an attribute that's good for retail, you know. However, it doesn't really go with my personality. Then I got out of high school and was wobbly from drinking for a good long spell.

But I kept trying. I went east to Wells College, where my grandmother and my aunt had gone. However, I lost it, flunked biology, flunked everything. In the spring of that year, '65-'66, while I was bottoming out at Wells, Dad flew his Cessna 182 all the way out to enjoy Father's Weekend with me. At that same time, a tornado ran through Lake Minnetonka and took the top off of our family home, tossed our lives into the air and left us dispersed over the Peavy Pond on which we lived.

This unsettling event really gave me an excuse to be reckless, and I was sent to a shrink for help. Dr. Stanley W. Shapiro sat and listened to me for some years through college. This was my introduction to psychology. He was very Freudian, careful and funny. Upon my first marriage, he gave me a hand-thrown clay pot, which sits on the fireplace of the McDodge home 40

years hence. McMillan women had gone to shrinks, a family pattern; Ma Mac went for a while, and Aunt Margaret for decades.

I drank my way out of exclusive education, went back to to the University of Minnesota, starting down in General College with little steps. I earned an Associate of Arts degree and then transferred: I didn't have an idea for myself. I transferred over to the arts, because I thought the arts could hold the kind of craziness I felt that I had. Holding part-time jobs helped me: I did cold calls for Florida real estate, packed wieners at a meat packing plant, worked front line retail in shops.

I earned a bachelor of fine arts degree in graphic design with the help of my family, for what it's worth, and that was a lot. Then I could call myself an artist and be crazy. That was not a terrific excuse for being reckless, but I was just in the milieu of that whole time period and didn't really think. Design intrigued me. I liked finding inner structures of the world around us, and to see through the illusions that advertising was putting onto the structures we build, how artifice was constructed. The arts were actually too wobbly for me, but they were fine for the condition I was in. I liked more structure, which is why I grabbed onto design and macrobiotics. That said, I could not see clearly the structure that I was in, and it took a long time for me to get a historical grasp on where we were as a culture.

Moving to Portland and Discovering C.G. Jung

When I was at college in Upstate New York, I met a guy who was going to Cornell. An anthropology student who became a Special Forces Green Beret, he had been spent his youth in military school. For being a free and footloose artist, I really was a little conflicted. We ended up getting married after he finished his service, and we followed his brother to Portland, Oregon. The next year we moved down to Berkeley Law School. He went on to become a lawyer, and I came back to Portland sick as a dog. I haven't seen him much except to make amends a couple of times. I couldn't go back to Minneapolis, I couldn't stay in Berkeley: I fell into Portland in 1970.

I'd had a Portland Parks and Recreation job the summer after college, and ended up getting hired full time for one year. Following this stint, I worked as a cleaning lady in The Alternative Book Store, which was in that wonderful nook of downtown Portland near the Oyster Bar. I would go in and pretend to clean, and get stuck in M. Esther Harding's work, first a little paperback in the women's section, Women's Mysteries. Harding was a first-generation follower of Jung who worked in New York City and established the C.G. Jung Foundation for Analytical Psychology in 1963.

After Harding, I scanned for more Jungian material, taking out

a volume here and there, not at that time Jung's heavy psychological work. I read Memories, Dreams and Reflections, and a purple book about modern life, The Undiscovered Self (Essays on Contemporary Life), which was sidewise from Jung's collected works. Jung's thinking got under my skin, and I ended up a few years later finding Dottie Kyle and starting with Oregon Friends of Jung. This organization had its beginnings in 1974 when fifty people gathered under a shade tree in Dottie's backyard in Lake Oswego to share ideas about Jungian psychology. The Friends of Jung has flourished here, and is one of the most successful Jungian societies in the world.

Pamela Hepper and I used to help Dottie get the leaflets out and do some of the footwork for those early Jung meetings, in exchange for which we got to go to the talks. Dottie really needed the help Pamela and I could offer, and that's how I got pulled into the Jungians. Ursula LeGuin was a part of those days, and a featured speaker at one point.

So that tugging in confirmation class led me into Jung and a growing fascination with a spirit/matter split background in psychology. This split is everywhere in our culture, from within personalities to our work in science with spitting atoms for energy. I will address this split further as we move through this story.

A background in Jung has served me well in understanding my neighbors, my husband, and in building the Garden. Jung has saved my butt over and over again with his delineation of temperaments, just knowing that these temperaments cross race, they cross gender, they cross gender preferences these days, and also ideologies. For example, living in a multiracial neighborhood, I was able to see across color lines with the temperament framework. I was amazed to meet my uncle Fred, that is, a man of the same pattern as my uncle, only he was from Mississippi, not Minnesota. In 2010, Ariadne Garden had some transgender volunteers. I had to get used to calling a her a he, very interesting! Jung's ideas save me from myself ALL the time. Thank you, Jung!

Jungian Ideas in The Garden Story

For over three decades I've been compelled by Jungian ideas and the language that has come down through the various thinkers in this tradition. In the 1980s I jumped over into archetypal psychology, and followed Dr. James Hillman for 25 years.

At a point in my life when I retreated from modernity into the mythological, I was fascinated with Great Mother, Demeter, Persephone, and the stories around Ariadne. These days I'm more interested in the science of the soil food web than Jungian thought. However, Hillman's

writing was very seductive to me. His understanding of the mythological world, and how he interpreted human nature and particular human stories through that lens, offered me something to chew on for a long time, and it helped me personally. I was drawn to Hillman because he scrutinized how forces like geography, cities, economies, architecture, school systems, and war mentalities shape individual human beings.

The Myth of Ariadne

Ariadne was a multifaceted mythical figure, a vegetation goddess. According to Greek myths, she was the teenage daughter of Cretan King Minos and his wife Queen Pasiphae. Two angles in the many myths about Ariadne grabbed me the most. One was the myth of the Minotaur and how the wise Ariadne helped the hero Theseus get through his initiation by giving him direction out of The Labyrinth. The other was the marriage of Ariadne and Dionysis

Daedalus, the genius builder in Greek times, built The Labyrinth for King Minos, who needed it to imprison the Minotaur, a half bull, half human thing. Zeus had been entranced by the King Minos' wife Pasiphae. So Zeus' wife, the eternally jealous Hera, changed the Queen into the form of a cow, and the cow got impregnated by a man. Out came this Minotaur, a hungry, terrible-looking thing that would gobble people up, a real monster.

Meanwhile, Minos was consumed with grief and hate because of the death of his only son Androgeus in a battle against Athens. As a tribute to his son, Minos demanded that every nine years, fourteen young Athenians would be sent to Crete to be fed to the Minotaur. Prince Theseus was so appalled that one year he volunteered to go as one of the fourteen and try to slay the Minotaur himself.

So there they were, the King ceremoniously pushing kids into this solid cage, and the Minotaur going after everyone, pushing them into the nooks and crannies and chewing on them. But Ariadne saved the day, giving a thread to the handsome Theseus, who killed the Minotaur and was able to come out of the maze by following wise Ariadne's thread.

I was very intrigued with the story of The Labyrinth, especially the fact that the Greeks would take some boys and girls and feed them to the Minotaur. What an interesting to do with teenagers! I'd had social problems as a teenager, and I identified with the story. Also, I thought our situation in America had to be worked out, had to be gotten through. The gruesomeness of the Minotaur appealed to me, because people in America were dying everywhere for causes that were questionable. Through the lens of the myth I could start seeing the

situations more impersonally, not filling myself with emotion that wasn't demanded of the specific situation.

Well, after the maze, Theseus took the astute Ariadne and off they went back to his father's kingdom, which was across the sea and up a block or two. They got to an island, Naxos, and were going to finish the trip the next day, but when Ariadne woke up no one was there—she was abandoned. I saved you and you abandoned me!

But later, Ariadne ended up becoming the wife of the god Dionysius, who happened to drop by and fall in love with her. Dionysius, known for his rampages, had a terrible reputation around the Mediterranean. He would cause mobs of women to become Maenads and go into frenzies, tearing up the structures of hierarchies and doing all these terrible things. I identified with that.

After they married, Ariadne and Dionysius travelled the Mediterranean peaceably, teaching the people math and agriculture and the arts. I always love to tell kids who visit Ariadne Garden about these two stories. When kids hear about the The Labyrinth, they start running around the maze-shape of the Garden, playing teenager Minotaur. Slow down, the Minotaur hasn't eaten you yet!

Another Jungian thinker I was drawn to is Robert Sardello. In discussing Ariadne and Dionysius in his Facing the World with Soul, Sardello says that reason built The Labyrinth, but the thread provided by Ariadne is what allows passage through the convolutions.

Seeds of Inspiration: Ariadne's Clue, a Marylhurst Art Gym Installation

Ideas for Ariadne Garden sprang from many quarters. Years before I started the Garden, I had worked on an art project with Maryanne Caruthers, and had actually helped with her Irvington home garden for a couple of years in the 1980s. Maryanne and I had talked a lot about myths, including Ariadne. Maryanne created an art installation at the Marylhurst Art Gym of a garden in a maze form. She grabbed a couple of people from the neighborhood to help her, a kid who ran a sod cutter and I. Maintenance at Marylhurst had mowed the back lawn, and I spent two or three days just raking up piles of grass clippings. Maryanne used a method of gardening where you just layer cardboard, molasses, grass clippings, and newspapers down—you plant in that matting. In my current understanding of the way the food web works, the bacteria eat it all, the fungi store it like fertilizer bags, and the protozoa spread it around transmuted and ready for the plants to take up very easily. Maryanne combined her farm upbringing and the latest techniques, creating an art project

that came to be called "Ariadne's Clue."

Maryanne's installation was situated outside the Art Gym on the lake side of Marylhurst College (now University), away from the parking lots. She planted roses, which the Marylhurst nuns tended for a time. What a delightful creation! I thought what Maryanne started was important; I was looking to take the idea and develop it a little further. I copied a design on labyrinths from one of Maryanne's books, and would later use it in the garden. Although Maryanne created Ariadne's Clue long before I started Ariadne Garden, I held Maryann's ideas in my mind through the years up to the time I bought the plot and designed the Garden.

My Portland Gardens and My Grandmothers' Gardens

I did make some attempts to garden my first years in Portland, but I think the gardening story of my life truly began with my grandmothers, who were garden club women: very garden club women. They were into it as recreational competition, a my garden is better than your garden kind of thing. They both had ex-farmers as handy men to help them, so they had beautiful gardens. My maternal grandmother's garden was pure Sense and Sensibility (sigh), a Jane Austen theatre, very much out of a Jane Austen esthetic. My mother and Grandmother Coffin's esthetic was in stark contrast to the Oriental influence of Ma McMillan, my paternal grandmother.

This contrast went right into my imagination: the decadent Oriental versus the Puritan Jane Austen fantasy. The "Sense and Sensibility" movie director used little figurines straight out of that time period, just like the ones my grandmother had on her mantel. I looked at that movie and went, he's in my grandmother's house. It was such a strong esthetic and the director Ang Lee captured it well.

My Grandmother Coffin's garden of the Austen esthetic was horse shoe-shaped, with delphiniums and formal box wood borders. My grandmother-of-the-Oriental influence strew bright pink petunias down into the entry way, splashy wild colors all together. So one grandmother was over the top reserved and the other was over the top impressionistic, both of them over the top with whatever they did. They both had large kitchen gardens where we kids would lose ourselves in the corn and tomatoes. The kitchen gardens came out of the Depression anxiety of their generation, though my grandmothers themselves had no need to be anxious about having enough.

Mom and Dad also loved to garden and they grew a big flower

garden. They had a large static compost heap for the grass clippings, leaves, and dead rabbits, which Dad would shoot from the deck. In Minnesota, roses were the thing, with people spending lots of time trying to get roses through winter. They used various materials for insulation: manure in the fall after severe pruning; burlaps and cloth or newspapers; straw and animal bedding, banking the rose bed high; commercial "cosies," all kinds of ways. Protecting the roses became an obsession with some people and an outright competition with others. We must remember that it drops way below freezing during the winter in Minnesota, with wind chill much worse, so with good reason did this survival game take importance.

My father finally stopped gardening when he sprayed too much DDT and killed his roses. He realized that he had overdone the application. In addition to the roses, I think he was fascinated with the technical power of chemicals to keep his roses beautiful. This was the chemical era: spraying was also a fact of life.

Lake Minnetonka was surrounded with ponds and swamps, so to get rid of the mosquitoes we sprayed DDT all summer long. We used to have huge elm trees on our road, and the tree guys would come along with large spray machines. Plumes of DDT would go far up into the trees all around us. The mosquitoes, a fact of life there, ate us up anyway. The gardens of my memory have formed and shaped me; they are present to this day.

A Garden Strip on S.E. 32nd and Sellwood

While I was working at The Alternative and living in Southeast Portland, I met Jerry and Ben, who later started the Bosco-Mulligan Foundation on Grand. They were glassmakers who did architectural work and stained glass. Jerry and Ben had extra houses, and I rented a small apartment from them. My wonderful roommate Cindy Hardy and I planted a garden in the parking strip on S.E. 32nd and Morrison. Way too many trees! To that must be added the fact we didn't tend it at all. It was a terrible garden, but it was a start.

After Terence and I met, we moved to Sellwood, and immediately started putting in gardens. In 1978 we moved to Irvington, buying a red house on N.E. 13th and Klickitat from one of Terence's friends. We kept putting in a backyard garden, but all under the big elms. Unable to get tomatoes to ripen well, we were always looking for another place to garden. The red house, where we stayed until 2002, was where I got serious about gardening and learning about garden technology.

My Growing Interest in Land Trust Ideas

I hadn't planned on a garden, being a garden. This is Portland, standing in what is left of a forest. I needed a sunny place to grow tomatoes! I asked myself, where am I going to get access to some land? At that point, Portland Parks Community Garden program was just getting started, but it was a long way from Sabin. Terence and I didn't have a car, so that limited us greatly.

I began work in the mid-eighties with a non-governmental agency, the Sabin Community Land Trust. I had come to realize how unfair the whole housing system can be to people in their efforts to get mortgages and hold homes. Settling down in single family dwellings, given the roil of markets, seemed to run counter to, and ruin, any community understanding of land and how to care for it in the long term. The system was not conducive to a real understanding of the carrying capacity of lands. This is to say nothing of the system's failures, illustrated in the predatory lending policies of certain financial institutions. I had really started to appreciate how hard these fluctuations are on people who want to own a plot of land or a home. So I became drawn to land trust ideas.

One persuasive idea came out of the Institute for Community Economics (ICE), founded in 1967 in New Hampshire. The housing model of ICE develops equity for homeowners while preserving public subsidy and affordability in the long term. Understand, I am not a socialist! Capitalist ownership mode was what I was born to and raised in. However, our societal values in the U.S. are becoming very split off from how we actually live our lives, expressed, for example, in the absurdity of 30-year mortgages, given our mobile lives.

I went on a search for sturdier frameworks in which ground myself, for ideas to understand land and ownership. Certainly, collective conventions about ownership have been wearing mighty thin and the time for these conventions is dead. More dynamic and variegated frames for ownership might serve us better than the predatory capitalism in which we live.

A Different Model: Community Land Trust

With the community land trust model, a community buys the land under houses. People then can buy the houses for a little bit less money, because the community owns the land and makes decisions about that land in an ecological framework.[5] This model was structured so the house was there for a family in a long-term,

5 I will get to this later in a discussion about Holistic Management.

equity lease, with lots of incentives to fix things up. I was very drawn to this idea as one of a flock of ideas that could be utilized in new societal constraints or an ecological emergency that could be imposed by a situation like the toxic effects of chemicals in our world.

Near our home on N.E. 13th, I knew about some people in the neighborhood who were trying to get this idea together. Jean and Ray Hansen lived on N.E. 12th and raised their kids there. Ray was an intuitive thinker and understood the structural importance of community land in trust. After Ray died of cancer, Jean married Jimmy 'Bang Bang' Walker, a boxing figure in the Black community. He did not share Ray's interest in the land in trust idea. When that marriage didn't work out, Jean ended up moving to Atlanta. Her move was part of a migration where many Blacks in N.E. Portland and in our nook Sabin were following their kids looking for opportunities that Portland does not offer.

This Sabin land trust group never really worked, and I take some responsibility for that. In the late 1980s, we ended giving the non-profit status to a group called the Environmental Justice Action Group (EJAG), a community-based educational organization in Portland. They took the non-profit status, changing the name to suit their purposes better, and they have a little office in North or Northeast Portland where they still concern themselves with environmental justice, especially with industry moving into minority poverty areas and making things worse by polluting water and air.

How I Made a Living in Early Gardening Years

I was taking any job I could get, making signs and fliers, doing graphic design. I made signs for Looking Glass Bookstore and Food Front. I wrote the signs for three years at Kasch's Nursery, and five years at Portland Nursery. Computers were coming in then. I didn't know how to work them, and never made that jump to designing with computers. But I worked all kinds of odd jobs, making enough bread and butter money to survive—it was hand-to-mouth for a long time. In fact, it was hand-to-mouth until my family's inheritance came to me at age 50. Plus, Terence had a little income as a retiree from the Marine Corps, which gave us shelter and, luckily, paid our already low mortgage for a long time. Terence and I have been subsidized by this civilization and are grateful to it.

Terence and I also got by because we were thrifty and used food clubs a lot. We hauled in 50# bags of brown rice, twenty-five pounds of beans, imagine it! We had a food club; we still have a food club. In 2010 we still take our groceries straight from a truck. There

are a LOT of food clubs in Portland. When Terence and I moved to Northeast Portland we were in a food desert—the area did not have an abundance of good grocery stores, which gave me another reason to dream up a garden.

My Husband's Role in My Garden Explorations

I've mentioned Terence several times; I want to tell you how we met. Wouldn't you know, at The Alternative Bookstore! Lou Ann Schreiber's Children's Bookstore was in the same area of downtown Portland as The Alternative. Lou Ann was a member of the family that owned the Oyster Bar, which has been a Portland institution

Kim and her husband Terence Dodge.

since 1907. Lou Ann then had a card shop in the middle of that same block. Terence came into Lou Ann's store after he had gotten out of the military—he was a Marine for four years. Lou Anne did not know quite what to make of him, and after a while sent him over one block to The Alternative, which was owned and run by Carol and Joe Fowler.

I thought Terence was the strangest man in the world. He was a military man, and all I knew right at that moment in time were long-haired guys, you know, hip. Terence was just a bright guy who had time on his hands, and he'd found this little nest of book people. He used to make rounds from the Looking Glass Bookstore on S.W. 4th and Taylor, then come down to The Alternative, where he would

sit in the big barber's chair in the store. He had Marine hair, which means no hair. I thought he was so strange, but he was funny, telling stories and making us all laugh. So that was the beginning.

Terence initially was not involved with the land trust organizations or Sabin. His role while I was developing my ideas was that of encouragement. He was off somewhere else, working computers or helping at Portland Macintosh Users Group (PMUG). He was also very sick for five years in the 1990s and had several surgeries. This was a very difficult time for Terence, for us both. We knew that caregiving was my worst suit. We literally suffered through this time, day to day. But he was always in the background encouraging me about my ideas and creating the Garden. He was always, even in his sickness, supportive: go ahead, go out and do what you're going to do; as long as I can do what I like to do, go ahead.

During recuperation he came to life with computers, freelancing in his way. The computers gave Terence something challenging on which to concentrate so that he could get better, a focal point, just as Jungian thought and archetypal psychology had given me. Really accomplished at computers and machines, Terence's strength is in service to others and enabling them to do what they must. With his long understanding of photography, technology gave him his place in this world at that time. In the early twenty-first century, Terence has become active with the Neighborhood Emergency Teams (NET), and moving onto Amateur Radio Emergency Services (ARES).

Finding the Piece of Land that Would Become the Garden

Jean and Ray had taken note of a plot on N.E. 11th Ave., knowing it was owned by George Nunley, who owned a lot of properties in North and Northeast Portland. He bought them up during the era of the post-War white flight to the suburbs. Nunley was a territorial Black man, a very smart guy who purchased many land plots, acquiring properties with houses that had burned down or degraded. His kids were selling off some of this portfolio. He had died about the same time as my mother. When my mom left me $10,000, in terms of using this money Terence and I did not fix our roof, we did not buy a car. I insisted on buying this particular lot. I didn't really look at other lots. The plot was three blocks away from our home on 13th, on a street settled by middle class homeowners. It was a neat place, albeit covered in blackberries. It had been the home

of two houses that burned down.

In 1993 I handed a lawyer a check, he intermediated and closed it, and I found myself with a 100 x 100 plot of land to take care of. The neighbors were wonderful, and I just moved in and started gardening. It may have been mainly my need of tomatoes and pondering what to eat that drove me to the Garden, but it was also a fulfillment of the land trust idea, which Ray and Jean had fantasized for the Sabin neighborhood.

This was an era in Portland of the flourishing and folding of various non-profits. Ariadne was happening alongside other creative ventures. By the time the Sabin Community Land Trust had disintegrated, Sabin Community Development Corporation had blossomed. This successfully organized non-profit advocates for affordable housing and gets people into housing at reasonable rates. Still pretty powerful in North and Northeast Portland, it operates near N.E. 15th and Alberta. Diane Meisenhalter, a community organizer with well-articulated social values, once headed it up. She received a 2009 Spirit of Portland Award from the Office of Neighborhood Involvement.

I Gave the Plot to Oregon Sustainable Agriculture Land Trust (OSALT)

In the early 1990s I read in an alternative magazine about the formation of a little land trust called OSALT, Oregon Sustainable Agriculture Land Trust. OSALT had no land in trust when I first learned about the organization. It was important for me to put the Garden in trust. I knew that it took a while to work the soil of any spot to a generative state, especially in a city, and I wanted the Garden plot protected against building development. The soil would need cultivation over some years to bear fruits. I ended up giving OSALT the deed to Ariadne in 1997, four years after my mom died. The Trust is a good framework, limited to Oregon, with a regenerative statement of purpose. It is a fine, lean little org and has some wonderful people caring for their land. Will Newman and Sue Clark are important in forming and holding this idea, and are smart about how to run it. Through their attention, OSALT has grown into what it is today, an infant institution among other bodies in the civic life of our city and state. Will and Sue's little Canby farm, Natural Harvest, is tucked into the trust now, along with several others. Bravo to them!

I gave the Garden to OSALT mainly out of an interest in continuity. Again, as a person so skeptical of modernity and as a

follower of James Hillman, who constantly presses continuity with the myths, I wanted people without access to land at all to have a place. So I thought the Land Trust, OSALT, would allow kind of continuity.

The day I handed the deed over, the OSALT people were present, plus several volunteers and a few neighbors from the block wandering into the Garden. We had a nice little ceremony, gathering and planting a couple of grapevines, which have since been overwhelmed by an elm tree.

Getting to Know Neighbors by Working the Plot

I really was concentrating on the Garden, and as I started to work I got to know people on the block, a lively and wonderful process. They were lovely, generous people who all became mentors, each in a particular way. They'd keep me in line or could be gruff about my habits, and question me about gardening.

We had a few incidents related to my practices. Please picture that this plot was a vacant lot with no barrier in the front at all. I had gone awry with making the paths, hauling in a whole bunch of cardboard, and placing it where I thought the paths should go. Of course, a wind came along and blew all the cardboard pieces into the street. Mr. Randall calls me up and says, "Your cardboard's all over the street. Please come and pick it up!" Little scenes like that were part of my first days and among my minor blunders. The neighbors usually were busy tending their homes, which they owned, keeping them up as best they could. When age took them as age does, the Paul and Barbara Cremeen family helped them all a lot. Paul had long lived on N.E. 11th, having actually grown up there, and he was determined to teach his kids the values of neighborliness, of hard work and how to do it, like it or not. Thank goodness for that attitude and the stalwart parenting, foundations of community as they are.

Growing Vegetables amid a Garden of Personalities: Our Neighborhood

Before I established Ariadne, several people already had garden plots on the property. Mrs. Brown, from across the street, had a plot that Growing Gardens had helped put in. Growing Gardens is a non-profit organization that addresses hunger by building organic home gardens in urban backyards and schools.

The volunteers and I maintained her plot a year for her

as we roughly laid out Ariadne. Mrs. Brown, however, decided to take her plot home, even though there was a huge cherry tree in her back yard and no sun at all. We couldn't convince her: she didn't trust us enough to appreciate that we had any interest in her, period. Mrs. Brown wanted her whole plot at her own place. The Growing Gardens people came and lifted all the dirt and the frame, and placed them behind her house.

Mrs. Brown passed on and her daughter Phyllis Cooke now lives in the house with her friend Lois. They've taken down the cherry tree with help from the Cremeens. Phyllis has a beautiful set of flowers gracing her summer front porch and it brightens up the street considerably. She comes over to Ariadne all the time.

Mrs. Brown was a remarkable woman in a lot of ways. She wasn't as proper as many of the other church-going Blacks in the neighborhood. More of a street woman, she definitely knew how to handle herself in that environment. I never asked her directly, but she talked about "the life" once in a while, something she sure did know about. She could spot somebody's walk from two or three blocks. She grew up on the South Side of Chicago, and came out here following her daughter. Mrs. Brown would argue with anyone, all of us, all of the time. She related to people through arguments. It was okay. I tried to be nice, and I couldn't, because that was her point, to see where I would pop.

She'd argue about anything: what are you going to do with this place? What are you going to plant there? I think you should plant that over here. She would just tell me what to do! That's just it. After a while I got very comfortable with it all, she was just part of the block here. But her presence was awkward—the neighbors didn't like her because she wasn't middle-classy, tame enough. She was down and dirty sometimes, and they didn't like the quality of people that she had over. Ariadne's neighborhood knew conflict between the straighter people and the more bent ones.

Early Ariadne Volunteers: Strewing Leaves and Dumpster Diving for Roses

In the years immediately after the 1993 purchase, we just tossed chips around and put down leaves and grass clippings. One of the early Ariadne helpers was Susan Hansen, who had a little Toyota truck. We would go to Portland Nursery and pull out roses from the dumpster. All those roses along the fence of Ariadne that you can see in 2010, oh my god, they all came from the dumpster at Portland Nursery! Because I worked at the nursery, I just asked,

can I do this? And they said, sure, go ahead.

A retail nursery doesn't sell all of the stuff it buys; it sends the unused plants to the composter. The nursery industry actually throws out plenty of plants, including lots of good roses, and even paw paw trees—we had two paw paws in the Garden that had been thrown in Portland Nursery dumpsters. They were just young things, and Anne Greenwood retrieved them. Portland Nursery subsequently formalized its giving to non-profits so the Nursery could write this expense off. More and more gardens were springing up and wanted to take advantage of nursery surpluses.

Ariadne was granted fall privilege to go into the dumpsters and pull out discards. We planted the roses along the front of Ariadne to make a barrier by the sidewalk. We could not afford a fence initially. Susan with her trusty truck would help me haul things in. She gave us a sweet gum tree, which we had to cut down because it would have covered the whole place, which was sad. I didn't want to cut it down. Susan moved to Molalla and went on to other activities.

Other early volunteers, Lisa Kristen-Scott and Bill Samatowec, were so upset the sweet gum was cut down that they went to the Sandy River and got river wood to make a trellis for the grape, placing it in the empty space where the tree used to be. This episode is one of many where volunteers have made creative contributions to our variegated Garden history. The trellis lasted until the Cadillac bumped it off. The Cadillac in the Garden—now that's a story I'll get to later.

Anne Greenwood was a friend I first met at Portland Nursery. She was skittling around Northeast Portland trying to get settled. Anne would show up with some kids and we would plant leftover tulips from the nursery. Eventually she found an apartment near Mississippi Avenue and would stop by Ariadne and shovel chips. We had a big job in getting a lot of chips and leaves down in the soil. If asked to, the City of Portland used to dump leaves in people's yards during the fall leaf collection. The City doesn't do that much anymore. Rather, they compost the leaves and make money on them now. But when the City used to come by Ariadne, the trucks would sink into the mud. We had to build a gate and put down concrete for traction.

Terence and Paul Cremeen built the Ariadne fence. A couple living in a little house behind Ariadne also helped us a lot. They were fundamentalist Christians who had bought their property on a homesteading grant, which could still be done in the 1990s. Ashley, the man of the house, gave us bricks, a bathtub,

and the chain link part of the fence. One of his kids liked to graze on the kale! They raised their kids in the neighborhood, but have since moved to Medford.

Anne brought Maureen, another gardener. We used to have conversations when moving chips around to get them in the pattern I imagined, the one I took from Maryanne's book, an old Hopi design of Mother and Child, two nesting mazes. In one the mother goes in one direction; in the other the child goes the other way inside her. The pattern of the paths was laid out in chips, and the blackberries were pulled and mulched onto the beds.

Methods, Techniques, Philosophies that I Explored

I am extremely interested in recounting both what did not work and what did. My gardening philosophy evolved when I began studying techniques in the 1980s—in the sobriety I then had I could concentrate more. I did a lot of reading about the structure of gardening, how gardens and the soil work. In the 1980s, I was influenced by the Bio-intensive, John Jeavon's work of Ecology Action down in the Bay Area. This non-profit organization teaches people how to feed

Kim teaching a Permaculture class in the garden.

themselves while they simultaneously nourish the soil and conserve resources. Jeavon incorporated Alan Chadwick's work on bio-intensive gardening, which Chadwick had brought over from Britain. Chadwick was an innovator in organic gardening techniques, and an educator in the method of French intensive gardening

The Bio-intensive Way First Engaged Me

This technique has a three-legged structure: composting is one leg, and I was busy composting in the 1980s. The second leg is double-digging, which is very destructive to the soil food web, something I came to understand when I learned how the food web works. Double-digging refers to digging deeply, almost two feet down, then planting very closely in triangular patterns. In this way the plants form canopies, which create the third leg and protect the soil from the sun and the rain. I was attracted to the three legs of the bio-intensive approach and tried it for a while, but in northwest soils the method is a little iffy. Wonderful for hard clay soils, it might be more workable in places closer to the equator. Even so, according to my understanding now, the bio-intensive way disturbs the microbes and soil structure too much, breaking up the soil up and pulverizing it. The soil is incited to flame for the next few croppings, and then it falls, compacted and exhausted.

I ultimately rejected this approach, but the Bio-intensive was still significant for me when I started the Garden. I wanted to bring to Ariadne the various techniques I had used at my house, including the bio-intensive double-digging. Terence, my friend Anne Greenwood and I critiqued theories and practices going around, threading through them and taking a few to see if they would work for us in Portland.

I want to emphasize again that we were creating not only a Garden that might flourish for generations, but also new ways to live in the world, and bodies that would work well. When Anne starting having babies she became concerned about the grains and beans regimen, so she and I started reviewing all the theories out there besides Diet for a Small Planet, trying to get beyond my generation to hers. She was scared that she'd taken a wrong turn with her first daughter, and found a whole slew of new ideologies coming up through the literature.

Sally Fallon and Dr. Weston Price

Trying to address the kitchen piece took me in many directions. Sally Fallon and Nourishing Traditions influenced Terence, Anne and me for a while. Fallon follows the work of Weston A. Price, a dentist who did research in the early part of twentieth century. Price went

around the world to societies not yet modernized. He followed a thread through all cultures, from Switzerland to the Amazon, to Fiji and the Indonesian Islands, all the way around the earth, up into China and Russia. In researching the tribes, his questions were: what are they feeding their kids to keep them healthy? What was causing dental jaw lines of Americans to become thinner and thinner, not strong enough to hold all our teeth?! As a dentist, that was his basic question, but he made some really interesting discoveries along the way, primarily that nutrient dense foods, including animal fats, are essential to health.

Then Terence and I, influenced by Price, started eating fat again, high fat—we went from no fat at all to high fat. We were fat-starved, had been fat-starved for decades. I'm sure our brains shrank in our skulls quite a bit. Eating fat again helped us both get a lot healthier. Sally Fallon Morrell and Nourishing Traditions are pushing Price's work through the Weston Price Foundation. A unique set of people follows this program, with elements of both the right and left wing pushing it. I see in this case the right/left split turned on its head, with hippies and evangelicals holding similar ideals. The right's fear of government bureaucracy and the left's fear of corporate control bear similarities. I believe the one overlooks how important bureaucracy is to making our society function, and the other does not give efficiency its due. Both have improved the human condition. I have to give credit to all those bureaucrats who sat at their desks, pushing paper, insurance, moving lumber and grain across and around the world, solid members of the middle class. My life right now depends on what happened then.

Fallon is continuing Price's work, which is definitely outside of modern medical convention, and also outside of corporate values and practices. The Fallon tradition emphasizes raw milk from pastured cows, raw butter, fats and more fats, with the exception of trans-fats, which are in the highly refined vegetable oils. Fallon runs contrary to diet regimens that were accepted, which stressed low fat, but often the foods recommended were processed. Nourishing Traditions was not only an influence, but a true boost to the health of both my husband and me.

Looking at Fallon and Price opened Terence and me up to a wide variety of views from all kinds of people. We waded into the muck of Dr. Mercola, D.O. Mercola.com is a health and wellness aggregating site that includes the work of Richard Johnson, M.D., a fructose researcher, and Ron Rosedale, M.D., who helps many people manage their diabetes.

I did a lot of research to figure out what bodies need, but being able to address that kitchen piece was underneath all I really wanted. In the 1960s I had had a visceral reaction to reaction to industry's processed

food. Some of my intuitions have been validated by science. In recent times, convincing research has been done at the University of Colorado and San Francisco State on high fructose corn syrup, so widespread in our foods and beverages. The research shows how fructose acidifies the blood, leading to all kinds of diseases. When acidity is lowered, it's been discovered that the body can self regulate again and fight off diseases instead of turning on itself.

This understanding is what I was aiming for all these years, and now the science has come up and held true on some of the faint inklings I was following as a kid and as an intuitive. Observers have pointed out recently that some of the different diets do have interesting commonalities. For instance, the Macrobiotic (high carbohydrates) and the Atkins (high protein) have in common restrictions on amounts of fructose allowed.

From Trends and Utopias to Science

In recent years I've more and more looked toward science. Nourishing Traditions and the macrobiotic are very idealistic, utopian ways. In the last two decades medical research has explored ideas about how metabolism works in certain patterns, with people of varying temperaments needing different kinds of diets, because we all have different metabolisms. Rosedale has done some great work on diabetes, in the area of leptin balance. Leptin, an amazing hormone that moderates our appetites, was discovered ten years ago. With discoveries in recent years, people can moderate utopian visions with actual numbers, using and understanding science. If they want to!

I've been watching the big conflicts between conventional science and science at the edge of accepted knowledge. Add to that then the pseudo sciences. Oh, such rancor going back and forth! What pains! Where to turn? The scientific method is disturbing our certainties in the area of feeding ourselves. It has happily disturbed mine. I continued to make discoveries about wise eating as we shaped and formed Ariadne Garden.

Holistic Management

At the end of the 1990s, Terence and I went to a conference at Portland State University introducing the Natural Step, an organization that deeply concerns itself with civilization hitting a wall. A lot of destruction is happening: institutions, businesses, indeed, human beings just not making it. Natural Step has made progress within

the business community, and is now an influential organization in Portland and the world, addressing how to moderate this destruction.

One speaker at the conference, Allan Savory, just came out and grabbed me; he had started something called "Holistic Management." That day at Portland State remains vivid to me. When Savory was talking about how animals help keep the land alive and how eating good meat keeps the soil alive, students were just nasty to him. The environmentalism of the time vilified cows, and taught that grazing and cows were killing the land. Being a city girl and quite politically correct myself, I also went oh!

Savory described holistic decision making as a process that was helping ranchers and farmers get profitable by making their decisions within a framework of four cycles: Energy Flow, Mineral, Water, Community Dynamic. By monitoring these cycles rather than aiming directly for profit, farmers and ranchers were able to make their decisions based on the biosphere that they inhabit. Savory just put us into a spin. His views were so complex, complicated, and attractive: Terence and I got dragged along for quite a while.

About Allan Savory

Terence was fascinated with him, partially because Savory was ex-military. He was in the Rhodesian military before Rhodesia became Zimbabwe, but decided to stop killing Black people. After getting kicked out of the Army for that, he went to South Africa and started farming. Trained as a wildlife reserve manager, he was used to seeing huge flows of herds and watching what those herds did after they trampled the grass. Savory also incorporated theories coming out of France. Andre Voisin was studying how grass can be grazed, especially the grass's need for seasonal cropping by ruminant herds–goats, sheep, cows–for completion of the its life cycle.

Of course, industrial agriculture had moved to feeding grain to domesticated grazers, which makes them sick and in need of antibiotics. Baking soda in big trucks was hauled into feedlots to calm their systems. However, these grazers will get healthy again when they're feeding on green grass. If you put a cow on grass right before you butcher it, (or never feed it anything but grass, as in Nature,) the E. coli leaves its system. Give them grass. Cows love grass!

Savory and others figured out a system called "mob grazing" or intensive grazing. Once a year a herd will be taken to a particular field, where the animals are moved through the field in small, moveable paddocks. In each paddock the grazers then eat down, plow with their

feet, and fertilize with their poop. Mob grazing is changing how people are working with their herds—ranchers don't have to fertilize their pastures anymore. They just have to create paddocks and keep the cows moving from place to place like a herd would. They're crowding the herd, not letting the cows spread out and eat whatever they want. Similar to how the cows behaved when they were protecting themselves from wolves, massing together with the calves in the middle, cowboys are massing the herd together with electric fences, and holding them together so they eat everything. The herd will stomp down everything they don't eat into the soil. The cowboys keep them moving so they get enough to eat.

Farmers let the grass mature again, even go to seed. When a mature plant gets grazed, the root mass that supports the bigger growth falls away because the plant does not need all that structure. It dies into the soil and leaves all that organic matter for the microbes to chew back down into the soil. Fertility increases because carbon is sequestered down in the soil where it is needed rather than being burned off with plowing and overgrazing.

It's amazing. Stocking rates, the ratio of heads of cattle to acres of land, are going way up and ranchers using this method are making significantly more money, and their herds are healthy. The cows are not brought back to a particular confined place until the grass is fully grown again. They aren't allowed to eat little sugary shoots, which can hook them. Farmers let the leaves get big again, then they are grazed down by the cows, get big again, and are grazed down again. In summer they're letting the mix get really big and old, falling over and going to seed. The cows adore that stuff. Their stomachs are built for it, breaking down all that roughage!

Holistic Management and Our Plot on N.E. 11th

To apply the principles of Holistic Management in an urban garden, to break the framework into a city landscape, two 100' lots, was a challenge. Holistic Management is a framework used for tens of thousands of acres, and there we are with 10,000 square feet! Our task on N.E. 11th is to understand how these cycles work and how we humans can work together to make decisions toward keeping them resilient. The four cycles serve as the corners of a frame in an ecology, very simply: Energy Flow, Water, Mineral, Community Dynamic.

Although Savory's ideas, and later, Dr. Elaine Ingham's, did a fine job knocking my orthodoxies apart, I was so busy moving leaves and chips around the lot that I didn't have time to drive myself crazy. At Ariadne in 2010, decisions are just made between people,

by talking around kitchen tables, or at the Garden while crossing the beds as we work.

The Soil Food Web

The soil food web refers to the complicated and intriguing community of organisms in the soil. The soil web framework is a lot different from Holistic Management because this web is scientifically based, very quantitative. Terence and I comprehended this framework immediately and came, over time, to see that science does offer better ways of looking at growing things than utopianism.

We follow Dr. Ingham, who has ways of counting the microbes in the soil. Dr. Ingham was an academic with Oregon State University, and is now the President and Director of Research at Soil Foodweb Inc., a small business that grew out of her OSU research program, as well as Chief Scientist at the Rodale Institute. She researches the organisms in the soil and on the foliage of our plants, looking at which organisms benefit which types of plants, which organisms are good for and which harm plants, and how to maintain soil fertility.

Terence and I took classes from Dr. Ingham, and now we send Ariadne soil samples to her lab, which we have been doing for ten years. She will tell us if we have sufficient populations so the minerals already in the soil can be made available through the life/death/life cycle of the microbes, through what we call the Nitrogen Cycle, or the Poop Loop.

Dr. Ingham also said, now don't say no to chemicals because you just might need them sometime. If a chemical works in a particular situation, if a cash crop is going to go down to a bunch of pests, use a little bit, and then come back with some compost tea or something to put the microbes back in after you kill them all. Get specific with those poisons! Many universities have adopted this attitude. The ideas of both Savory and Ingham got my goat at the time because I was rigidly organic.

The story of what goes on in that busy garden community underneath our feet goes like this: plants get fed by the microbes, bacteria, fungi and protozoa. These plants exude a substance out of their roots made up of carbohydrates, protein, some sugars—essentially cake and cookies coming out of their roots, which the little bacteria and fungi just love to eat. The fungi are more prone to move around in the soil than plants are since they do not have the spatial restrictions of roots that plants have. A plant says to the fungi, okay, go get some eggs over there, over there at the store. Get me some eggs! Okay, the fungi go and get raw materials (pumped via their filamentous tubes),

come back, and then they poop and sweat it out for roots to take up, often in a symbiotic embrace.

Most of the vegetables we eat will have fungi around their roots. A good fungal mass of hyphae, which resemble spaghetti around plant roots of all kinds, does not let in the bad bugs. The fungal mass allows those nutrients to go into the root system much faster than if the roots were naked. They mediate between the soil and the root. You can see them in some photographs being half in and half out of the root, which means that they are symbiotic, needing the plant on which to live, yet feeding that plant as well. Fungi, especially the mycorrhizal variety, are essential for plant life. This fungal food web in many places has been damaged by plowing and killed off by chemicals. It is up to us to learn how it works, and bring the fungal food web again to life.

Microbes figure in any conversation about what we're having for dinner tonight. When Dr. Ingham lectures, she talks fully with wonder about this life—she has a Midwest Scandinavian tone that comes across as if she's talking around a kitchen table. She's helping us understand that we're in the kitchen with all the little guys who are eating and pooping and having babies and parties. Living: it's very basic. You get into Poop Loops, then you get into sex in the garden, so basic that a lot of ideologies and high-falutin' scientism comes down to earth: well, what are we going to have to eat today?

Identity and Mystery of the Microbes

The priests, the scientists, tell us what we have in our Garden soil, but they haven't even figured out what to name all these guys. They have, I think, only 9,000 different names for the bacteria, but know there are 50 million more different types out there, depending on the land and the atmosphere. Science is just beginning to understand this complexity.

Dr. Ingham counts the different kinds of organisms: bacteria, fungi, protozoa, nematodes. Size-wise, the community goes right up through nematodes, then into the bugs. Her gift to the scientific and agricultural communities is in the use of direct microscopy in counting microbes, showing us a better way than putting some soil in a sterile dish, and trying to count the microbes there. She has offered a very high standard.

At home we use the microscope that Terence keeps downstairs, checking what's in a sample of the soil and the compost tea; we make slides of both the compost and of the soil. The compost tea is about getting the good bacteria and fungi to the plant surfaces and the soil so the good bacteria will settle down, reproduce, and help us create a

robust garden. I will give a fuller account of the compost tea later in this story.

Before I return to the plot, our Garden in the twenty-first century, her neighbors, volunteers, and what we grow, I want to delve into a very important approach for me, the four dynamics, which I sometimes call the four cycles, or ecosystem processes.

The Community Dynamic

This is really a continuation of the conversation about the soil food web. Part of the way I see our Ariadne Garden task is that we are herding: not cattle, not sheep, but microbes, those wonderful little devils that feed our vegetables from under the soil. And how exactly do we herd microbes? We feed them! They in turn are able to deliver absorbable nutrients to the plants.

One teaspoon of soil has a billion bacteria in it, and that's just a common soil. The action is to keep the herds big and lush, living and having babies all the time, their exudates feeding other microorganisms and also the roots of the plants. That's the fertilization process, the life cycle of microbes, what they do in their whole lifespan of 20 minutes! They don't hold on the way we like to, although they enable we humans to continue based on their churning.

So all of those guys, which you can't see, make perfect work for an artist or designer—perfect work for me!—because artists are always the mediators between what can and cannot be seen. We take our clues from the sciences, where with microscopes, scientists take all these lovely pictures of these things we can't see. They print them for us so that when we ourselves look under a microscope we can recognize the microbes.

Chemicals and additives, a huge topic, is multifaceted, but a reminder here: during the Industrial Age, the practices in our agriculture veered toward the use of chemicals, whether they were inorganic or organic. We've put the chemicals directly into the soil, and the plant can grab some of it. But 80% of the applied substance goes right out into the water. So you have to put more and more chemicals into the soil, which kills all the microorganisms.

Oh, what we've done to pests! The realization of how much our lives depend on microbes puts us in a Community Dynamic that's really different from the viewpoint of the era we've been in, where we've looked at smaller organisms as pests. We've viewed weeds as invasive, fungi as bad, all to be dealt with by killing them with harsh chemicals rather than viewing them as an indicator of our habit of compacting soils. We haven't looked at pests in light of the symbiotic

relationships between us and them. We've been burning the soil and salinizing it, which we can do quite well with organic as well as inorganic chemicals. And every year the microbes die, every year we feed the concentrates and chemicals in, the microbes which lift the soil die, and the soil gets more and more compressed and we have to add more chemicals, and dig it deeper.

Microbes need to be able to build their little houses in the soil! By doing so, they lift the soil and keep it alive. In digging deeper, we blow off more carbon, which results in downward tightening of the soil and polluting the air with carbon, a lifeless cycle. Let me emphasize: in a vibrant garden process we sequester the carbon where it's needed. The plants love it!

Add Little Bits at a Time: I want to stress that there is a way we could put concentrates into our compost heaps in small amounts, let the compost cure, then spread it out over our soils. The microbes in their bodies will carry the nutrients to the soil and plants carefully, in a fully absorbable way. I think that in this view of concentrates, we get underneath the polarization of organic or not.

The Water Cycle

We make sure that enough water is retained in the Ariadne soil by keeping organic matter on and in the soil. The way to maintain organic matter levels is to keep adding more organic matter. At Ariadne we add leaves, straw, and chips in a constant process of supplying the soil with organic matter. This matter holds the water so that when rains pummel Ariadne they don't just wash everything through. We try to hold onto as much water as we can. Our water bill is about 300 to 500 bucks for the whole year, which isn't bad really, for the amount of vegetables that we grow.

The Mineral Cycle

The Mineral Cycle requires a landscape littered with organic matter, and a biologically active soil where the nutrients cycle between plants and microbes. It's the Poop Loop I've talked about. The Poop Loop gives us a picture of how minerals, primarily nitrogen, contained in proteins of all living bodies, are cycled by organisms of all sizes, from bacteria to insects, mice, raccoons, animals and cows, and humans.

Nitrogen: only small amounts of nitrogen are available naturally to cycle among all organisms. Ever since we human beings learned to make high-nitrogen synthetic fertilizers, we have been changing the ecology of our planet in ways of which we are just becoming aware. We

are injecting great quantities of nitrogen into the soils so that now one third of our human population is dependent upon it for daily foodstuffs. We have developed this dependency in a very short twentieth century within the lifeline of earth. Unfortunately, nitrogen burns much of the microbial populations, addicting the plants to what they can grab as the excess nitrogen passes through into the ground waters. This groundwater then goes out to the river mouths, contributing to dead zones, bodies or areas of water where marine life cannot be supported because of oxygen depletion. Artificial nitrogen has been used in bombs and wars and death camps, in our fertilizers, and runaway nitrogen has filled our great water bodies: this element miraculously applied and abused must be unblinkingly acknowledged and the ramifications of how we use it faced.

Dead Zones: Dead zones are accepted fact that we ignore at our own peril. If you look at a map of dead zones, the largest in our part of the world is at the mouth of the Mississippi River. Much of the death of marine life in the Mississippi is attributable to our industrial practices of pouring raw and refined chemicals into the waters of that once mighty body. One result is the decimation of the life that protects our coasts from strong weathers. We are painfully aware of the grief and destruction this practice has caused. From North Dakota all the way down the Mississippi, farmers have been using refined chemicals that leak into the great river.

Poop and its Nitrogen: what the microbes do not themselves use is offered to the plant root environment by all kinds of elimination like drool and spit, sweat, whatever the microbes do not need to reproduce and live themselves. If the poop lands in a place where dung beetles are active, those dung beetles will come up and take that poop underground within a minute. We've all seen them, those little bugs that love feces.

Beetles and ranchers: ranchers are encouraging beetles back into their pastures. When the dung beetles are plentiful, methane gas cannot be released from the utilized poop. Food and just food comes out of the disintegration process, if handled aerobically and coherently. Beetles, like flies, lay their babies in the rich poo so their kids will have something strong to eat the moment they hatch. Insects immediately start cleaning up. The whole Poop Loop is a cleaning cycle. Everything keeps moving—the process is about tending offspring everywhere, managing fluids.

Industrial life has interrupted this cycle and made a lot more work for we humans. In addition, we have lost control of our most elusive and important mineral, nitrogen. In bio-intensive, holistically managed paddocks where ranchers are raising grass fed beef now,

ranchers move the cows once or more a day, so that the cattle don't hurt grass plants by mowing them too low. Again, this practice moves the poo down in the soil by nighttime, or at least by the next day, the poo first having been trampled into pastures by hooves. Then the powerfully efficient actions of insects and microbes get to work. Some ranchers have had to unlearn generations of assumptions to rise to this ecological understanding and find their part in the cycles through the small, everyday decisions they make.

A busy, churning, mineral cycle brings the minerals up into our food, giving us the nutrient density we need to concentrate on our tasks and get on with tending our lives, neighbors, our world. We worry ourselves rightfully about minerals we're not absorbing, such as calcium, iron, and selenium. What a wonderful opportunity we humans have now in our ability to establish less toxic artificial cycles to intensify the plenty this world has offered us.

At the Plot, Feeding the Invisible Community

At Ariadne we spend almost all our time feeding and herding the invisible community. We put down alfalfa meal on top of the soil whenever we lift the soil, and bales of alfalfa hay to cover the soil in order to keep microbes close to the surface to be at the plants' bidding. We place recycled grocery store cardboard on the walkways, then chips that feed fungi. The wood chips we use are from the guys who trim the trees all around here. GRRRRR The machines making all the noise are chipping the prunings. Harrity Tree Specialists, in particular, have been trimming up the neighborhood trees and bringing the remains to Ariadne for a decade now. I'd say we go through ten truckloads, piles, of chips a year between November and March. We lay new paths every year, digging out a quarter of the rotted pathways, which get lifted into the compost pile. This feeds the vegetable beds in the spring.

If we maintain the Community Dynamic in our soils, we actually have less physical work to do and our powers of observing and thinking are tuned more acutely to the watching the results of our efforts. If the herds of microbes are big and diverse enough, the plants will take care of themselves, inviting in the microbes that will feed them and protect them from the so-called pests. If a plant can get enough of the right things to eat, its immune system will convert sunshine into sugars.

This process scares off the bugs, which do not have livers to filter the sweet and alcohol out of their bodies, so bugs die quickly when they eat plants that have been fed right. They know to stay away. If a plant cannot get what it needs from the microbes, those bugs and fungi form clean-up crews who come in to do what they are built to

do, recycle the plant, chewing it down to reduce the waste. We humans can then come along, carefully use that waste reduction process to our advantage. We can manage it to keep nutrients grounded by making the waste reduction material into good compost. By doing this we intensify and complete the life/death/life cycle.

At Ariadne we have to watch the population cycles of the insects as well. Wireworms and symphylans thrive in Northwest soils. If they are not predated, their numbers kept in check, they will run out of food and help themselves to the roots of the foods we like, if not the fruits themselves. At Ariadne we make sure the herds are big enough to feed these nasty insects. We also overplant their favorite crops so that the nasties can take down a good amount of what we like and still have enough left for ourselves.

The Flow of Energy

Most of life as we know it depends on the sun made usable through plants to all the beings living on the earth, including humans. This energy does not cycle. It flows through the ecosystem until it is used up. Energy Flow follows the laws of physics in ecology. Plants are the base of a pyramid, from which we—fish, birds, insects, reptiles, mammals—all spring and all return, giving heat to others along the way. Predators work atop that structure, with scavengers finishing the job of maximizing sunlight. The process of active decay then follows. Energy is lost as heat between the transformations from one level to another. Industrial practice has broken this efficiency. We are losing much more heat into the atmosphere than we can afford.

Bear in mind, animals and grasses co-evolved. Ruminant grazers digest grasses better than any others on earth because they have several stomachs and cuds to handle this coarse material. They burp it back up into their cuds, and digest it more. In our industrial frenzy we have made these ruminant grazers eat stuff that they are not adapted to, grains and soybeans. As I noted when talking about Holistic Management, we have to respond by trucking in tons of baking soda to aid their overwrought digestions as they stand in feedlots, many up to their knees in their own feces.

Where Are We Headed?

We have had to go through this industrial frenzy to find the heat to throw ourselves into space and to send Hubble to see what is out in the cosmos, bless our souls. Having done this, perhaps we also could

apply some of that technology and science to the workings of the earth, for example, to managing massive numbers of livestock to hold life in the soil. We could mimic Nature's ways in coherent, generative ways to hold back desertification, stopping the soils beneath us from turning into shifting sands. In this process, a side effect might be a contribution to the increasing preference humans have for eating healthy meat.

Learning the Facts of Life by Gardening

These four ecosystem processes—Water, Mineral, Community Dynamic, Energy Flow—are working as night turns into day, dynamic, never stopping. Working with them, we can progress in finding our places in and of this world with a scientific attitude of discovery. You can't ever know what's really going on, but you get a sense of it, if you are observant and working in it.

Gardening is one way for people to get introduced to the facts of life here on Earth and to become part of ecologies here as well as wherever the collective soul has us headed. Our conscious attention is essential to resilient and robust survival. We are the only ones on this planet who have the capacity to think these things through, to analyze, manage, tend and finesse the complexity of our home world. At this time, of course, we're aided by the counting machines, computers which can give us objective quantifying data with which to guide our decisions, we hope....

Ariadne's Helpers

Of course, the Community Dynamic includes also those who walk above the soil, we gardeners, our customers and our neighbors, all of us who graze on the vegetation of the place, a herding challenge of its own!

I've mentioned some of the gardeners. When Kristen came to Ariadne in 1997, she added class to the place. She is excellent at the details of making customers happy and getting tedious tasks carefully finished, as is her style in art also. Vanessa didn't have time to help much but she was always encouraging. Then, numerous people, like outstanding gardener John Walters, just came for a time and went. People would come in and weed, and take some vegetables and go away. Some summers we had a wash of people that would come through, realize how much work it is, and then they wouldn't do it anymore! The process tends toward lifting the veils of illusions; utopias get questioned. But waves of people still come in and help.

Betty Barker, a retired school teacher, came to the Garden in

2003. A master gardener since 2001, she brings a more traditional understanding of how things are grown. She supports the model at Oregon State University Master Gardeners and gives a lot of time to the local chapters. We must drive her crazy sometimes! She really puts up with us. But she brought a tradition to the Garden that we just could not ignore. We couldn't sit there, the way that a bunch of artists tend to do, and trash things. Oh, this society is like this, so we're just not going to do it that way. We couldn't be that reactionary anymore. We had to mind our manners to a certain extent, and that was useful. We also couldn't be as knee-jerk in respect to her middle class, hard work ethic. She, over anybody, was available to be there and to really work. She just came in and started weeding. The Garden is close to her house, and I think she was fascinated with us, because we were all persons having art shows. I think we gave her enough to do to stimulate her imagination and she, likewise, gave to us. Betty gets those seeds into the ground at the right temperature, following through using her OSU Master Gardener schedules, and tending the greenhouse all spring. Betty wasn't there when the Randalls and Mrs. Brown were alive, when most of the people in the neighborhood were healthy, coming by a lot, and looking and saying, what are you doing?

People of all ages find their ways into the Garden; if they stay they'll pick certain things they want to do. Everybody has a bent to follow. Lisa Sagrati has been working very carefully for a couple of years, first with weeding, then concentrating on our Brussels sprouts being eaten by aphids. Neighbor Jeff Strang likes to get up in the trees and pull the fruit down. His support is important for the fig trees, for weeding and general upkeep. This has taken him on to be a principal in the new Sabin Orchard Project. This community fruit tree project is an example of the exuberant creativity that we have in our Portland town right now. The Orchard Project goal is to one day harvest the fruit and distribute half to volunteers who pick it, and the other half to food banks in the Sabin area.

Tamara Boyd helps visitors to the Garden, and she likes to eat. She makes sure things are weeded, harvested and displayed on our tables. She's very good at keeping the Community Dynamic of people going. Terence, who is compost master, doesn't get to the seeds, and he doesn't pick. He's down with the compost. He gets the Mandatory Community Service people sifting and moving chips and compost. Evie Erdmann made a solid display table out of recycled materials this spring, and included running water! He keeps his friends moving around the place when I get preoccupied. Sye Laird takes care of the signage and the flyers. Both Evie and Sye help with the inventory in the winter. So a variety of personalities,

temperaments, and interests find a place in the Ariadne world, going with what grabs them.

Mandatory Community Service Volunteers

We also have volunteers from the Multnomah County Court System who have been sentenced to Community Service. Ariadne is eligible for these volunteers because we are a part of OSALT, a non-profit. And we are lucky: these volunteers have been great for the Garden. Having committed misdemeanors, they are working time off. It's mostly people who've just made mistakes, or gotten caught for the rest of us!

We've gotten to know crew leaders Dori Larson, Harold Phillips, and Kwame, a Ghanaian. Harold has just been wonderful. All of the crew leaders who come to Ariadne are excellent with their people. They like the Garden because we likewise are good with their people, and don't look down on them. We talk a lot about sobriety between the beds and weeds. Some of the conversations are just wonderful.

Sex in the Garden

When Ariadne gets piles of chips, these volunteers put down new paths. Joe Harrity's guys dump chips for the new paths every year after the Garden closes down in late fall. Trimmed branches go through the chippers behind the truck. Bacteria and fungi are present before the chipping starts. However, by chipping, more surface areas are created and a veritable land rush is started with the new access to their preferred nutrients. The bacteria are so happy to have all that food that they reproduce, they have sex by splitting into two, which generates heat. This causes steam to rise from the pile, and causes the piles to shrink from being chewed up. The crew moves chips on cold November and December mornings. Steam billows as we break them into piles and redistribute them onto the fresh dumpster cardboard that we place on the old paths. Our cardboard is from the Alberta Food Coop dumpster.

These mandatory community service volunteers have never been introduced to gardens in our particular way, because we immediately talk about sex in the garden, the constant roiling reproduction going on. Everybody perks up!

We talk about sex back in the compost heap: who's eating whom? And who's pooping and making it available to the plants? Our talk about the soil food web framework is much more interesting to people than ordinary garden talk. In a special way Ariadne can afford to be different from a regular garden club, and we're really privileged in

our version of what happens at the Garden. Betty once mentioned that the reason we get together at Ariadne is to talk dirty to one another!

I recommend Sex in Your Garden, a lovely 1997 book by Angela Overy (!), who articulates what the flowers and insects do. With the help of microscopes, we can see that we are very similar to other organisms peopling the places we live. We can be a part of that plain joy, if we choose.

Occasional Problems with People in the Garden

On the crews, once in a while we'll get a stubborn person who wants to challenge our authority. This person may start to do something and then do it intentionally wrong. It's usually, I hate to say this, a hung-over, stoned, drunken guy. But the guy usually can't keep it up very long. So he falls back in, and everybody works anyway. Mexicans are the best organized of the workers. They know how to take care of themselves and pace all of us.

When I was first working at the plot we used to have a lot of people coming up with empty gas cans asking for money: I've run out of gas. It's a street trick, to see how vulnerable we might be. But I never took money to the Garden. No thanks, I'd say to the scammer.

Then once in a while we'll get passers-by who are a little belligerent: What're you doin' here? This is just part of gentrification. Yep, we are, and just trying to be as honest as we can about it. We haven't had many comments like that in very recent years, but the neighborhood has changed somewhat, too. More people walk their dogs, and a lot less people scam. One guy named Michael used to hang around on both sides of Fremont. He was very good at picking objects up and putting them down. If you left anything out in your yard, he would take it along and try to sell it. He'd come by and try to sell us lawn mowers, weed whackers, tools of all kinds. You want one of these? No thank you, Michael, we got enough tools, thank you. Some of those tools were nice. I was tempted a couple of times, but we didn't. Michael was around for years, but may not be alive now. His mother moved out of the house where he lived at 14th and Siskiyou.

Occasionally I've had conflicts with the Cremeens, and they are class conflicts. Paul's a real Teamster. We had a series of union members involved with the Garden, including our great helper John Walters. I think Paul makes fun of us sometimes because we're not serious workers—as a union guy he isn't crazy about volunteers. You don't give away your labor. You get paid for your labor (fist knocking on table), and that's the way it is. He can be very hard line and he should be. Life is hard for union people right now and has been for the last few decades,

actually always has been hard on them. So tensions like these are part of the life of our neighborhood and the Garden. Ariadne is a story about contrasts and varieties, in who we are and what we grow.

Changes in the Neighborhood

Ariadne's neighbors have come from the South, the Midwest, the Southwest. Mrs. Reed was Black, from South Carolina. The Randalls were from Texas, Mrs. Brown from Chicago, but her line had come up from Alabama. Mr. Green across the street, who died a year ago, was also from Alabama, a farm family. I want to talk about Mr. Green, a wonderful man. A World War II veteran, he'd worked for the Veteran's Administration. After the Randalls and Mrs. Brown died and Mrs. Reed moved to the home, he came by often. He was such an amazing man I barely know where to start. Mr. Green is very close to my heart.

He was the most reserved of all the neighbors, not wanting to interfere with anybody. Of a naval background, he had spent a lot of time, I believe, on boats, and traveled worldwide. He and his wife brought up four or five kids in the big blue house mid-block. His wife died from cancer before 1994, so I never met her. Mr. Green was having the time of his life between 1994 and 2008. He traveled all the time, sometimes taking in fashion shows and going to blues festivals in New Orleans and on the West and East Coasts. His daughter Donna would come down from Seattle, where she is a social worker. He went to San Diego to visit his son, he went on a cruise to Alaska dressed to the nines. At his funeral service we learned that on Sunday mornings he didn't go to church, but would get dressed up and visit his favorite women friends around town.

Mr. Green wasn't very gregarious, but he and I had rituals. We always engaged in negotiations around buying elephant garlic in the fall. He would come over and get Romaine lettuce, and got us trained so we wouldn't give him too much. I don't know what it was about him, perhaps his presence that was so strong and solid.

Oh, his funeral was inspirational, watching people come up to his casket and salute. He had worked his way up in the VA hierarchy to a position of authority. A lot of those who worked under him held him in the highest esteem. It was just great to see a very large room of people testifying about him.

Our Block Today

Now we have about fifteen households on the block, and most are not Black. How it's changed! When we started Ariadne the area was

almost completely Black, except for the Cremeens and Grace, on the east side where the Garden is. When we bought the plot, one house on the block was a rental, but otherwise it was all middle class homeowners. The block was more stable then than it is now, with people tending their own places. In the present situation, we have some people moving in and out, and landlords handling maintenance who have little stake in the block. We also have more cars running up and down.

The house right next to Mrs. Brown's was always a church house, run by people who were rescuing youth—there's a network of non-profit church organizations that would put one or two adults in

Adriane Garden at N.E. 11th Ave., Portland.

the house and then take in kids that were falling through social cracks, housing and feeding them. As I relate this story in 2010, for the first time in 18 years, this house has not been active.

Many of the kids from that house came over to Ariadne and helped out, and took vegetables home. Some of them were disruptive, but usually they were interested because, really, they were just bored to death and we had some bit of action. There was a girls' house for maybe seven or eight years, and more recently it's been a boys' house. A couple of kids came over who were fascinated with all the knives at the Garden. When Betty first came to the Garden, she encouraged us in her polite and firm way, now we should be more careful, we've got to stop those kids from throwing those knives around too much. Yet these kids have brought a kind of reality check into the Ariadne dynamic,

lest we take our middle class mores with no reflection.

The Old Neighbors, and Honoring Those Who Have Passed

I carry a lot of memories of some neighbors on the block back in our beginning days. As old as he was, Mr. Randall would still go out fishing and from time to time leave us some crappies in a bucket over the fence. We took vegetables to the Randalls weekly. Mrs. Reed used to come down and sweep the front of the Garden when we were gone. She was a wonderfully engaging neighbor and so humble. I say humble, but she had a strong personality! She was in a way stronger than Mrs. Brown, who made herself known in a very physical way. Mrs. Reed was just a little slyer about her strong personality. She would tell us what was wrong and what was right. Mrs. Reed, who has Alzheimer's, eventually had to move to a care facility and does not recognize anyone, including her daughter.

We have our rock pile of the people who've passed on, rocks with people's names on them. We need to get one for Jimmy Green. The rock pile is in the middle of the whole Garden, right near the bird bath, the butterfly bushes. We get the names carved on the rocks by a group from the coast. We go online and order a rock, and it comes with an engraving. It's a decision the gardeners made, to do this for the neighbors.

Ariadne in the Twenty-first Century The Share System and Beth Rasgorshek

Ariadne set out to be a neighborhood CSA, Community Supported Agriculture. CSAs are now found on the outskirts of cities and in cities all over the United States. CSAs have established themselves in the last 15 – 20 years, which is good. The woman who set Ariadne's standard operating procedures is Beth Rasgorshek, a seed farmer in Idaho. She lived for a time around the corner from us in the Sabin neighborhood. She and two men partnered in a venture called Urban Bounty Farms, where they served 100 households.

Scaling her 100-family CSA down to ten for Ariadne, Beth set us on our way with schedules and checklists. Originally, we had five families to support us; they would give us $500 in the spring for which we would deliver a big bag weekly with the capacity of two plastic grocery bags full of vegetables. We took this to the families'

front porches by bicycle cart. That was too labor intensive, given that we were volunteers. Growing the abundance necessary to keep up such a distribution also required us to buy quantities of concentrates to add directly to the soil. By using the concentrates we were booming, and had huge amounts of vegetables, but the soil was going to be busted at the end of each year if we did not keep up this additive habit.

Ariadne's practice has always been organic, within the Tilth guidelines and very energy intensive as far as both the handwork by people and the food web. In the early days we'd been putting a lot of concentrates directly onto the soil to get a lot of produce out, the point of on-the-ground production agriculture, chemical or organic. When we started, our customers were overwhelmed by the amount of vegetables, which is good, but they were complaining to us that a lot of them were going to waste. I think the delivery CSA lasted about three years, and then we decided in 2003 to just let customers come in and do a kind of a U-pick CSA. We went at that time to more of a salad garden, because people wanted greens and salads more than they wanted large amounts of hard veggies. We shifted our goal from producing quantities to making an effort to implement practices that took the soil food web into consideration. Our attention turned to compost, to science and more informed technology, to learning. With Betty's entry into the Garden, we planted flowers. We could sell them, and off we went! Ariadne is still a CSA, because it's supported by a community, but it is not a production-oriented, hardcore CSA.

Will Newman points out that CSA does have a core definition: it is an arrangement between a number of people (harvest shareholders, members) and one or more growers, wherein the members supply the funds, and sometimes labor, needed to run the farm for a year, and the grower(s) manage the operations of the farm and usually provide the bulk of the labor. The entire harvest is distributed to the members. In this way adequate income is assured for the grower(s), and fresh, locally grown food is provided to the members. At the heart of the arrangement is the provision by the members of the funds needed to operate the farm for a year, the best efforts of the grower(s) to produce healthful, nutritious food for the members, and the distribution of the entire harvest to the members. From this comes the phrases "share the risk, share the bounty" and "communities supporting farms, farms supporting communities." These phrases are accurate for true CSA operations because in good years there is abundance, all of which is shared with the members, and in bad years when the harvests are small, the reduction in bounty is shared among all the members, but each year the grower(s) income is still adequate to keep the farm and make a living. Bad years occur about one year in five, on average, and the reduced income for the non-CSA farmer who is subject to market pricing is the main reason that traditional

growers go broke in those bad years.

Tilth and Groups that Certify Farms and Factories

I mentioned Tilth—let's look at Oregon Tilth. Tilth is actually the word for tillage of the land, coming from the root to till, cultivate. Oregon Tilth grew out of Northwest Tilth, covering Washington, Oregon, Idaho, parts of Montana and Northern California. It was not originally a certification organization, but a research and networking organization for organic growers and supporters. After a few years Northwest Tilth split into Oregon Tilth, and Washington Tilth as Idaho, Montana and California went their own ways. Oregon Tilth was a pioneer in organic certification. Washington Tilth is an educational and community action organization, not a certifier.

As an authorized certifier under UDSA standards, Oregon Tilth cannot have standards more rigorous than any other USDA authorized certifier (by law, they all certify compliance with identical USDA standards), but they are rigorous in making sure all standards are met. They are also active in advocating changes to the national organic standards that better reflect the goals of organics, in contrast to the efforts of industrial agriculture's efforts to weaken the standards.

By law, no organization can certify "organic" foods without being authorized by the USDA, and using USDA standards. The Organic Labeling Law specifically prohibits using standards either more or less rigorous than the USDA standards.

I believe that transparency of certification processes is sorely needed. We must see through the lies that dull our senses and decisions. We need to follow the money behind claims, and judge for ourselves whether they are life-building or not. We know that the powerful and entrenched in the certifying industries will be watching us. We need to turn the cameras and reportage on them, and offer the public information about their frequent opacity. This can be done.

Paying Volunteers Fairly, Using the Share System

Volunteers are paid in vegetables. This has been very interesting in the last couple of years; in 2010 Ariadne had plenty for every person that lifted a hand. In the last two years we've had fewer paying customers because people are starting to grow vegetables at their own houses. We've had fewer customers for the vegetables that are easy to grow, like tomatoes. However, we do have more people coming to work at Ariadne, apartment dwellers that don't have room to garden. A lot of them are volunteering for food. Yet another group of workers wants

to be put to serious work, and they want their vegetables served with gardening instruction.

Some of our workers are eager for information about the soil food web, or they want to know more about concentrates. We now add all concentrates to Ariadne's compost heap to be taken up by the bodies of the microorganisms first. This method disperses the concentrates, making them more bio-available to the plant through the compost. We are adding more alfalfa, chips and manure, all of this to grow and feed the good workers that are toiling both above the ground and in it.

In our share system now, we're not making as much money, but

Ariadne's plenty on our kiosk.

we've got solid workers and they're being fed, and that's really important. Of the ten shares that we grow, four are allocated to workers, four to sales so we meet our expenses, and two for giving away. Our expenses are $500 annually for insurance, $500 for water, $500 for microbe food and maintenance.

Ariadne's way for workers to keep track of their hours in exchange for the produce is like this: first, we translate an hour of work into solar dollars[6], then minimum wage[7].If a person works for two hours, that person can take $17 worth of whatever we have: food,

6 Solar dollars do not tend to damage our biological processes that support us. It is the only category of wealth that can actually feed people. Holistic Management: A New Framework for Decision Making, Island Press, 1999, pg 176.

7 About to become $8.50 Paper Dollars/hr in Oregon in this Fall of 2010. Our neighbor and fellow gardener Tamara Boyd keeps us up on this. Her position at the Bureau of Labor and Industries keeps her aware of this fact of life.

flowers, plants or starts, concentrates, sometimes equipment. If we do not have what a person wants, the solar dollars can be saved on a homemade credit card in the money box. People save up their solar dollars to spend for the fruiting bodies as they come ripe: tomatoes, grapes, apples, raspberries, Some people just take the produce we have harvested and placed on the table and do not keep written track. We act as adults taking care of ourselves. Some workers come to listen and learn from conversations about food and its culture cloud; some come to break the monotony of gardening alone. Some come to wonder about the confusions of our time.

Ariadne has morphed into a come and get it operation. We now sell through our wonderful new kiosk that Evie built especially for us.

Paying Customers

We have figured out that we get about 500 people walking into the Garden a year. Of those bodies about 50 are returns, so we have a core, I would say, of 30 – 50 customers that keep coming back, once every two weeks, once every month, or just when they are able. So we do have a customer base. We do need to find ways to remind more people that Ariadne is here to be used and enjoyed. The neighborhood's gone through some changes, with people moving out and new people moving in. With these shifts, people can somehow not hear about us, or even forget about us. Whoever walks in or does not, we have all this food coming out, and I assure you it gets eaten by those willing to work.

I want to emphasize <u>again</u> that the Community Dynamic holds us all up. I am making an effort at this time to track some of the data from the Garden and put it into a program to facilitate the handing off of garden responsibilities in an electronic format to the next generation. At Ariadne we see the full spectrum of the community: gardeners, customers, and insects, microbe, with plants the focus of us all.

In the early years, Ariadne grew a few vegetables only, kale, collards, tomatoes, cucumbers, basic first-run stuff. We handed out collards galore to our neighbors, plus kale and broccoli, those wonderful things. We workers at Ariadne would, of course, eat them too. At one point we formalized a process for giving what we grew away, but at the beginning we just grew things and people came by for them. These days during the harvest months volunteers and paying customers can find a beautiful variety on our kiosk: garlic and cucumbers, eggplants and broccoli, squashes and more squashes, beans both string and flat, and many families of tomatoes. I hope I haven't left too many out!

In the first decades of the twenty-first century, some people in the neighborhood buy their veggies over at Alberta Coop on N. E. 15th, an enterprise that grew out of a food buying club and that opened its doors as a store in 2001. Terence and I lent the Coop $10,000 to help them get going, and other people also gave them a boost with some bucks. Terence and I got all our money back, plus interest. I am very pleased Alberta Coop has become so successful, and I'm proud of them.

On the Level of Knowledge Necessary to Help at the Garden

None! Terence and I came to this experiment out of exhaustion, fear, reaction, misunderstandings, and out of absolute ignorance. When people walk into the gate, it doesn't matter if they have never even picked up a tool before, or if they are afraid to handle plants. We work with people at the level where they enter the place, with whatever knowledge they have or don't have, just as long as they have two hands and are willing to move stuff around and help others. You don't really need to know.

The longer people hang around, they ask: Why are we putting this straw down? Why are we throwing this meal all over the place? Why are we sifting this compost? We can start conversations from these questions, and they can draw us down into knowledge of the processes. We had a paper making class with some kids that visited this year. Our papermaker friend Helen Hiebert was generous enough to include us in a grant she got to teach her kids at the Pacific Village School in North Portland. When the kids came to Ariadne, they were each given ten minutes at five different tasks: gathering, putting straw down, going through compost and sifting it out, and moving chips from a storage decomposition pile to the apple fence. This led to many "why" questions and the children's vocal wonderings about how a certain process unfolds. This led us into talk about the biological processes, and students going around to collect material for them to take back to the studio and make their paper by hand. A lot of kids have visited Ariadne; kids freely start conversations and want to hear stories about the soil food web.

How I Exercise My Role as Head Gardener

I get asked the question: what do we do? What do we do? Betty's got me trained now. We figured out that we needed a list of what must

be done. Take your pick of what you want to do from the list of tasks, or go with that person there, and get a tool over here. My role is really direction.

But I'm not sure sometimes! Betty thinks I'm okay at directing bodies. But I'm not comfortable with being a boss; I'm not very good at sitting down and getting to know somebody across the bed. There's a lot of good talk and gossip and great information that passes across a bed between two people planting things in that bed, or shaking the other side of the compost sifter, a two-person job. What are you watching? What are you listening to? What did you do this weekend? That kind of exchange always happens, because that's what just happens when people get together. For my part, I'm better at explaining and thinking a question out in light of how the soil food web works, okay, the reason we're doing this is that. . . I really like to bring the invisibles, the herds, into the conversation.

I worry the paperwork into the electronic form on our working site at Google docs; I do the money, manage the e lists, and now Facebook. I think about the problems we have and consult with Terence about Ariadne's business, all those pesky tasks that daily life requires. My image of what I do actually is: get there and run around like a chicken with my head cut off for about four hours, then go home and have lunch.

Terence's Aerobic Compost Tea

"Compost Tea" is not a phrase in the vocabulary of even most gardeners. So what is the stuff? A discussion of compost tea refers to many of the principles I've already pointed to, especially the Community Dynamic. Terence and I were drawn to the use of aerobic compost teas partly because we have a history of being composters and wanted to address compost in a new way. We know how hard it is to lift a compost pile after getting older, 40, to 60 years of age. We wondered: how are we going to keep on getting compost onto all these beds? How will we do this job without hurting ourselves? We also wondered how we would avoid importing too much onto the place. It is a fact of life that we do indeed have to carry our compost in some form right to our Garden.

Large Farms and Compost Teas

With big operations, it's quite a different story, and we can learn from them. Dr. Ingham has found in her work with farmers and ranchers on all scales—small farms, big corporate tomato producers in Belize, corporate onion producers in Russia, all over the world

where she consults—that we don't have to lift the compost and take it to the fields and beds. Producers started solving this problem in the valleys of Southern California with strawberries, in fields that had been nuked with methal bromide, killing everything. Farmers couldn't afford to bring compost in, because the gasoline and labor of lifting it were too expensive. So the farmers did it incrementally along with practices they already used, which was to plant the strawberry plants right into the compost rather than in the sterile mix in the greenhouses, and then transplant the starts in the compost to the fields.

The farmers tried to get or make the best, most alive, compost they could. Then they made a tea by putting the compost in a large tea strainer and into big baths, from five gallon buckets to 500 gallon totes. They added huge amounts of oxygen, using fish pond pumps, making the whole mixture aerobic. Humic acids, molasses, a little sugar, some carbohydrates and protein were added. The microbes were crazy over this food and put on a big raving party.

The farmers would then spray this actively aerobic compost tea right away, using the same type of equipment they formerly used to spray pesticide. But now they were spraying life, which would compete with nasty organisms in the soil. This life ate the nasties right up, a dynamic efficiency instead of a reliance on deadly chemicals.

The microorganisms would go down into the plants and soil through the holes in the plastic. They'd loosen up the clay, looking for food. They could make their little homes in the soil as long as the chemicals hadn't been added to it. Growers allowed the organisms to colonize a whole area, bringing soil back to life, just by taking the tea out and spraying it. It was much easier for growers to go through that whole process, even if it meant brewing the tea for 24 hours, than it was for them to lift loads of compost and put it on the soil.

Actively aerobic compost tea starts reviving dead soil. It's the cheapest and most efficient, effective way of getting good bacteria and fungi back into soil. This can be done on a scale anywhere from Ariadne Garden to huge plantations, for example, banana plantations in Indonesia. On a large scale, this way of composting is also saving lives of the workers. Generally, the people who work with the soil and plants using this approach are not getting sick, another reason the growers are really happy to use it.

The tea can be brewed in huge industrial containers, or right on the tractors that are used to drive out and spray. Picture this: every night a bunch of potato farmers over in Idaho brew in huge vats, take the tea out and put it on the soil in the daytime. It's quite amazing.

More and more corporations are using this understanding to grow better crops and save lives of their workers. Landscapers are not

endangering children's health as much, and our institutions are tending public lands with more complete understanding. The best companies are responding to social pressure and offering non-toxic services to families. Colliers and OrganiCare are using this approach.

We test both soils and compost. Not many compost operations test regularly for the intensity and diversity that gardening with the food web demands. We need to measure, try best practices, take them to disputation arenas in real time and on the Web, and have it out over all different approaches.

We can make this actively aerobic tea in our little five gallon buckets for a spot like Ariadne. Terence brews in five or ten gallon buckets, and can go up to 20 gallons with his garage tea setup. He either orders the best compost, or we go to Earth Fortifications in Corvallis. It's important to understand that brewing up compost tea is still considered an unconventional practice that can be dangerous if not held to best standards.

Terence brewed beer many years ago for us. When I stopped drinking, he stopped brewing until the teas came along. His temperament is very suited to this kind of work. He is superb at explaining and teaching how the teas work and how people can apply and use them. Understanding the food web and brewing tea has given us energy to continue Ariadne, me with the bird's eye view, he with the attention to detail that the maintenance of a brewing regime demands.

I tell people to read Teaming with Microbes: A Gardener's Guide to the Soil Food Web. Jeff Lowenfels and Wayne Lewis have translated this science into standard operating procedures for gardeners. Lowenfels is a lifelong gardener and garden writer in Alaska who is as interested in microbes as he is in humans. Lewis is a fellow Alaskan and technical whiz. Wayne Lewis has helped us understand how we can now move more diligently around our gardens and farms without fear of poisoning ourselves, our kids, life around us. Teaming with Microbes is introduced by Dr. Ingham. As Alaskans, Lowenfels and Lewis noticed that in construction of new homes, the developers were bulldozing their virgin topsoil aside into big piles so they could build houses, urban sprawl, actually. This is topsoil that has never been touched nor trod upon, neither plowed nor poisoned, and still holds many beneficial microbes. Lowenfels and Lewis decided to box it up and export it! Tea brewers in the Lower 48 use it to add diversity of microbes to our soils.

Quality composting is just getting its feet on the ground. Brewing compost tea at home is not expensive at all, but you have to be careful, because you can breed up the wrong kinds of organisms. It can be dangerous to humans if you get the wrong kind of organisms

like E-coli into the mix. You have to put in enough of the microbial good guys. Honestly, it's a good guy/bad guy interaction in that stuff. Even the bad guys sometimes switch into good guys, a complex society!

Dangers: a Word about Aerobic and Anaerobic Decomposition

Tea that's been sitting around for longer than a day without oxygen pumped in will go anaerobic and start stinking. This odor is an indicator of danger. When we put too much poop in lagoons, as we do in factory farming, concentrated feedlot situations, the lagoon goes anaerobic, gets inhabited by bad microbes, and breeds nasty organisms. At the bottom of nearby lakes and rivers, the muck is all anaerobic. You know it's anaerobic because it stinks like sour milk, like barf, the smells from which we instinctively back away.

Some of those anaerobic guys are lethal. We're dealing with life here, so we've got the nasty ones along with everybody. There is a place for anaerobic decomposition, like fermentation and brewing, but anaerobic decomposition does no good on industrial sites where it just tends to sit and stink in such mass.

We can literally turn all this around so that it is life-giving if we grab onto the potential in this waste for building well-cultured compost. We can convert this sad stuff of nightmares into materials we need to further life.

At one point Terence and I just blew it and bought a way too expensive brewer. But you don't need a complicated set-up to make tea on a neighborhood level. I am sure I made myself sick from my handling practices, spraying with no protection when my immune system was low. Histoplasmosis and other fungal diseases can result in the bad handling of compost tea and breathing the stuff. Terence and I made many discoveries along the way to our understanding. We learned from the Collier people that they had hired an ex-beer brewer to make their compost tea. Vintners and brewers are very savvy about this process.

The aerobic brewing practice can work anywhere that electricity is available. However, basic standards of measurement have not been set. Brix[8] has not been firmly set. Many minute standard operating procedures need to be established by people who make compost teas, especially on a commercial level. A few people in commerce are trying to educate about soils and compost. The Collier man who consulted

8 According to Wikipedia, "Degrees Brix (symbol °Bx) is a unit representative of the sucrose content of an aqueous solution by weight", a measure of sugar in foodstuffs. Brix can tell us if the quality of the food we buy is high enough to nourish us.

with us on a tree said that soil testing is the hardest idea to sell to homeowners. Helping scientists add to their data is not a particularly sexy selling point.

My belief is that we test soils because it is a necessary part of accepting our place in modernity. The age of the committed amateur is here and we are part of that. Although participation has got to come from many sectors and directions, at the same time, standards have to be set and maintained by the best science. The industries that grow and work with soil are not innovative as a whole. Conventional science[9] also has a way of bureaucratizing itself, and really does not thrive on the challenge inherent in the scientific process itself. Consider China's full-scale adoption of standard agricultural science to keep up with their nation's expanding population. It has been successful in keeping up quantitatively, but as in the States, the agricultural practice has been disastrous for the quality of life for many human beings, bringing with it an expansion of modern illnesses, diabetes, cancers and all.

Conversations on compost and compost teas, though stalled ten years into the twenty-first century, do continue worldwide on a Yahoo tech site. Unfortunately, academia is often attached to, literally, the chemical model and industry. Dr. Ingham challenges all practitioners to do the best we can as we toil through changes in both our attitudes and habits.

The roles of artists and designers are to craft structures in every field that can offer lively solutions for survival. We are called to follow the best ecological practices, not conventional standards, in any field of concentration. Ariadne Garden was created by artists and designers and is tended by people who understand this premise.

Current Practices of Portland Gardeners

Portland gardeners have many resources and come in a variety of temperaments. Most will not be too interested in the structural understanding of the soil. Some might hold this understanding up as a better way, establishing practices that are coherent with what can be seen of biological reality. Until recently, Ariadne has not been able to show how well this structural understanding can work because we are not even able to keep up with the basic gardening the place demands. The standard convention that many smart people practice is chemically oriented, and it will take crises to upset our habits of adding refined stuffs.

9 By conventional science, I mean science that has bureaucratized itself into long standing institutions that are organisms within and unto themselves. They often behave as large organisms do in that they are slow to change and overly defensive of their funding and established connections which may not be adaptive in scope, nor safe for the general public they purport to serve.

The burden of proof is on any new paradigm that is challenging the established order. It's on the soil scientists, and the proof will happen in the disputation arenas, which can take time. David Brin explains this as an arena where those who disagree must answer each others' criticisms and complaints, where one group's model of the world can be tested and appraised. This arena is underpinned by the knowledge that the truth is never for sure

Reorganizing around Food in the Twenty-first Century

There is huge room for anyone interested in food to experiment and collaborate, with both amateurs and professionals keeping meticulous records of their findings, and adding them to databases. Workable new ways could emerge with collaboration across sectors and with informed arguments in the public square. Unfortunately, workable new ways are sometimes dissed and covered up by oligarchies and ignorance. In our small Garden on N.E. 11th Avenue in Portland, Oregon, we're striving for just that, workable new ways.

Careful gardening depends on conscientiousness about the human place in the world, and understanding the life/death/life cycle. As I noted earlier, there are some beautiful gardens hooked on chemicals. The trouble is, the more chemicals that you add, the more that practice booms the bacteria and then busts the garden soil that's getting fed all this nitrogen out of a bag. Microbes get excited bingeing on quantities of concentrates, but then they die off, leaving the soil depleted. Depending upon the scale of chemicals people can afford, effective and sumptuous lushness can be aspired to and achieved, but at the expense of the rest of life, including our children's and neighbors' quality of life. I am talking about chemically dependent grounds overdosed on water.

We are up against a well-established chemical bureaucracy. We have to carefully come in and show alternative ways that have been proven to work within the logic of homes and businesses. This is especially true these days, when the chemicals are getting more and more expensive.

I'll shout it again: the trouble with adding either organic fertilizers or chemical fertilizers directly into the soil is that 80% of what we add ends up in the water: 80%! The plant is able to grab a little bit as the additive washes through and the runoff deleteriously affects the water. Runoff acidifies inland waters, then oceans, thus changing the habitat for our sea of food. The tricky politics of solving these problems centers on the need to change from a chemical, anthropocentric stance

to a more inclusive biological paradigm.

What We Are Seeing with Farmers and Vendors at Local Markets

These days, as we're becoming more and more awake and aware, the mentality is changing from this industrial chemical model. Even the University of Oregon and Oregon State, which get most of their funding from corporations, are suggesting to their master gardeners to always use the least toxic ways to pull the pests back, always the least toxic. This message is everywhere, including at OSU Master Gardeners' farmers market info booths, Get the Real Dirt.

People know that there's something wrong in how we grow and produce food, and that we really can't go on in the old chemical industrial mindset. But we don't quite know where to go, because all the facts may be available, but these facts do not translate into political will. Philip K. Howard proposes ways to revive our American can-do spirit in his "Manifesto for a New Politics," which people can check out at The Daily Beast, 9/20/2010.

Young parents and careful grandparents often do have this will when it comes to feeding and nourishing their young. Reorganization around food is already happening. However, localizing our food supplies is not the whole answer, though this approach is well-meaning and popular. Some individuals take a moral and holier than thou attitude to get people charged up in some right and absolute way, just like I did when purporting macrobiotics.

At that time I lacked the inherent understanding that regressing to pre-industrial states is futile, and that we must truly accept the task of facing the industry and cleaning it up. We must grasp the importance of efficient use of a land's sunlight. We must apprehend the essential role photosynthesis plays in growing crops to keep the land from desertification, i.e., the persistent degradation of dry land ecosystems.

Are we willing to investigate where the best sunlight and soil conditions are for raising basic foods suited to a range of human metabolisms? Trade must go on. It does not take long growing up in the more northern climes to see how dependent we are on the sunshine of the equatorial countries. The food miles rhetoric of the locavores fades in comparison to the task of understanding the whole in which we dwell. We need to intimately know the lands we manage. However, we must also keep in mind the planet's multifaceted ecosystems. Some are better suited to being grazed with ruminants. Some ecosystems are more appropriate for growing crops in large holdings managed by mono-cultural corporations, privately or cooperatively owned.

Changes can be strongly resisted in the chemical industrial mindset as well as in the reactionary good intentions of locavores.

Lots of chemicals, and many a salesman's mortgage, are dependent on the sale of chemicals that burn. We have to think of all the players, the humans and the other beings. Basic relationships have to be changed and re-formed. Changing from the chemical way can be discouraging. People may pick food web info up and then throw it away, because it doesn't work very fast. The learning curve is slow and long. And then we have to go back to the chemical industrial mindset for economic reasons, to grow enough food to feed ourselves, all the while becoming painfully aware of the damage that we do.

No doubt the pain will cause us to move onto something else that we cannot now comprehend at all. Technology may spread the powerful examples of peer to peer exchange and price signaling faster than we can blink.[10]

Chemicals work. They work fast, they work furiously. But we can't afford to be hooked on them for very long, or else they will kill the soil completely. They hurt the water and hurt the people. We've gone too far to stay with the chemical processes, but we don't quite have enough political will to make us jump to the biological. Certainly, there's enough information with the Rodale Institute, with Tilth and others, even with the land grant universities. The push is on. The chemical mindset can't afford to not start making moves in other directions. The re-formation includes farmers and explorers of many ilks—freelancers, university researchers and all first adapters—people who have committed themselves already, are successful in their work, and are able to show others how to dive onto this newer platform.

Soil Health and Longevity in the Social, Civic, and Economic Challenges of the Time

In the City of Portland we have a lot of land that can be used intensively for growing vegetables. Many people, and I count myself as one of them, are like the county community service workers doing time for the courts: we've made mistakes. But I can rectify my habits and take a little pressure off the family household budget, pressure off the water table. Gardening in our yards not only takes pressure off the family money, but it is also a generative act that includes learning how to use tools. A whole pool of people has fallen off the industrial map, ways of earning livelihood that are disappearing.

One idea circulating is that some individuals who don't have

10 This will be expanded further on, so please hold steady with the mention and let it prick your curiosity for a moment. Thank you Scott Sheldon for insisting on this incorporation.

jobs and can't really hold jobs in the old understanding of factory employment, could help harvest the local gardens. They could then hand the produce to people on bicycles and bring it directly to consumers' doors. Now, this is going to take some electronic infrastructure. Such a system is already being practiced, using cell phones, in the big cities of Kenya, leapfrogging our infrastructure technologically; by this I mean bypassing established ways of delivering food into the hands of people. In Portland, for example, we would have to figure out a way of peer to peer payment, maybe through PayPal, a way of price structuring and signaling, maybe with a carbon standard[11]. Some of us who tumbled out of the industrial norm might be able to work for food, with payments made by homemakers and cooks somehow transferred by cell phones into accounts, thus diving underneath the conventional consumer/middleman mode. This supporting infrastructure could leave the growers to learn and keep up with the latest soil science relating to agriculture, rather than having to baby the fruits of their labors through a more abstract system of distribution.

We're in an epochal time of people starting to reorganize around food in cities all over the world. It's fascinating! I don't know if Ariadne Garden can help in this restructuring. I know we won't be feeding people in the old social, non-profit "let me help you" mode. I'm referring to certain liberal attitudes of helping ingrained in the United States, and often connected to hierarchical established power. With Ariadne, it's like this: We have got this task to do, let's get it done. If you can help, you can have the foods we grow.

This new, yet old, way of which I'm speaking means direct work for food, or trade in some form. I don't know how it will all play out, but there's truly something happening. The City of Portland started a waste reduction/recycling facility some 20 years ago, up between Columbia Boulevard and Marine Drive, right next to Inverness Jail, where the leaves pulled off the streets are taken. This facility also recycles used concrete, gravel, and chunks of the streets themselves. The City's second pulling of leaves is made into some beautiful mulch. Of course, Portlanders know that the City's been collecting our yard waste that we put in the green container. They're going to start asking us for our kitchen scraps, also, for raw material.

Concern is alive in the City and Metro about the waste stream we're producing. Metro brings Dr. Ingham to talk through Metro gardening interface. She highly differentiates between mere reduced waste material and cultured compost, emphasizing that the second stage of making compost after waste reduction is to culture it with

11 Such as a star rating for the amount of carbon used to make, transport, use this material so we can see how much we are spending for this and buy accordingly as we begin the decarbonize and switch to non-carbon forms of electricity generation.

beneficial microbes. Yet, basically, everybody that recycles is already aware, however vaguely, of the food web. We citizens are working on all these problems just by changing our waste sorting habits. This effort has just been getting established in the last 30 years: it's managed to get its toe on the ground.

The anti-Nature trajectory on which the West has been careening has been exciting yet exhausting. The forces are so much bigger than we are, especially with this industrial push we've undergone, with which we are stuck, an end of a long era. We use technology all the time, so we have to figure out what it wants of us, and ask: do we want to go where it wants to take us, or not? What does it want of us? What does the larger collective soul want from all this work? It does look like we humans were needed to fabricate a nervous system of electricity around us all, an artifice upon which humans and Nature in its infirmity rely, where humans are needed to tend and to maintain Nature.

Nature is not particularly our friend in her process of actively working to discard us after childbearing. Yet when we intensify Nature's workings and trajectories with human ingenuity, life does reward us with intensity. The whole of reductive agriculture has brought us to this point of poisoning our planet, the home of our children. This is not a crime, just a fact of life and an unintended consequence of the chemical industrial era.

With just a bit of imagination we can get ourselves and our kids ready to face these unintended consequences, now sometimes threats, with a "sober, pragmatic approach (technological, scientific, rational) one, very much down to earth, without any higher aura of having a soul meaning."[12] Wolfgang Giegerich is a contemporary Jungian whose thinking, though difficult, is rich and instructive for me, especially in his analysis of the collective soul and technology.

Yes, organic gardening is Sunday idealism contrasting with our everyday immersion in technology. It can be another ideological delusion when no pragmatism is attached that acknowledges our dependence on mass culture, and it can be as heedless as chemical agriculture. Getting one's hands dirty with the details of how to grow carrots will give pause to any attempt to fit us all onto rural communes, yet when and if cities become uninhabitable we can find places outside of them for feeding ourselves. I think the education process about the soil food webs needs to be scaled way, way up. If industry decides to take the food web on, Dr. Ingham can tell industry how the species work together. I will be happy in my own efforts to involve anybody, because we need soils built. We need to form terrain to rehabilitate and

12 Giegerich, Wolfgang. *The Psychologist as Repentance Preacher,* Spring Journal, Vol.82, The Symbolic Life, 2009, pg 207.

restore the soils of our home planet. We have found it doesn't matter whether you're a person or a big corporation with lots of muscle. We can lend our hands, in the city and in the country, to restore the soils.

It Can Be Done

Dr. Ingham and her colleagues in Australia know that the soils on this planet are young, and minerals abundant. We can find ways within this framework to use technologies, regenerative biological technologies, to bring life back to ruined soils so that they can release nutrients more completely into our foods. We can extend their resilience by tending the soils and our animals more coherently than we have been. In doing so, we can thrive and prosper, finding that as our interdependence increases, we will do better. We will find ways that we can all win in a Brown Revolution based on the regeneration of covered, organically rich, biologically thriving soil, and brought to pass by many of us tending the soils and producing food. We can still do well on this small Spaceship Earth, first described by Buckminster Fuller, where the earth has become a single spaceship, without unlimited reservoirs of anything.

The Plot: The Evening a Cadillac Barreled through Ariadne

I was home making dinner one December evening in the early winter of 2005. It was just getting dark, about 4:30 p.m. The phone in my kitchen rang, a call from a renter living in the house next door to the Garden, the place formerly owned by Mrs. Reed, who at one point sold the house, and then another person lived there, fixing and cleaning it up enough so that it could be rented. The renter was Katie, partner of our neighbor Eric. Katie was young, beautiful, and athletically active.

Katie was on the line: SOMETHING'S HAPPENED AT THE GARDEN!! I heard this NOISE, just this NOISE. I said Okay, I'll be over. I called Terence, who was at the Albina Branch of the library—he had his new mobile phone with him. Terence got to Ariadne first. As he was unlocking the garden gate, he realized there was a car all the way back by the shed, way a hundred feet back—it was a Cadillac. He described that there was a woman at the gate on her way out. A very nervous man was standing by the car, which had a flat tire and was not running anymore. When I arrived, the woman was just leaving the gate and Terence was with the car. I asked the woman if she was all right, thinking that something had happened—I hadn't seen the car yet.

She said, oh, yes, and hurried away toward Fremont. I thought that was odd. Terence had gotten a little of the story from the car's owner, Ariadne's very upset and nervous neighbor Albert, who lives across the street and a few houses down from the Garden. Understandably shaken by the turn of events, he wanted the car out of there immediately. We calmed him down and finally, asked him how it happened. He didn't disclose exactly how it happened; rather, he just said what had happened.

The Cadillac had been backed onto N.E. 11th from Albert's driveway, headed toward Fremont, which is 150 feet south of the Garden. A kerfuffle developed: the gas pedal was engaged despite the wheel being fought over by the person driving and the owner. In this moment, the car went up onto the parking strip on Albert's side the street, swung into a 90 degree turn, and then lunged across 11th Avenue, up over the sidewalk into the roses, straight into the Garden under the fence.

Now the fence, this being Ariadne, was built backwards. We had put the chain link on the inside instead of the usual outside. The chain link fence very generously lifted itself, well, was pushed up. The car was low enough so it went under the bar and didn't hurt the fence at all.

What Katie had heard were the chain links raking over the top of the car, hideous sound it must have been. The car had gone right between the posts. It hadn't hit anything very sturdy, except for a rose, which survived well. It went down and luckily straddled one of the beds, pushing out beets and carrots. The car went down through the whole Garden, missing the grape vines but taking down the trellis. Then it banged into a big white fish box against the back neighbor's garage. There was a bit of a dent in the garage, and the box was all broken up. The flat tire was caused when the car hit one of the pieces of rebar we use for bed markers. There it was: a 360-horse power Cadillac sitting in our Garden.

We finally calmed Albert down enough to convince him it would be better if all of us came back in the morning, because it was dark by now. This event was remarkably odd in many respects. I actually was not upset by it, but was just AMAZED that they could do a 90 degree turn in such a short amount of time, moving with enough speed to get 100 feet to the back of the Garden.

Stories circulated about what had really happened. The next morning Terence went to Ariadne to dig the car out, and our neighbor Eric helped. From Minnesota, Eric as a young man had dug a thousand cars out of snow banks. He and Terence changed the tire, with Eric slowly backing the car out so it wouldn't hurt anything. Terence, who doesn't drive, was doing his part by unlocking the gate, making sure

A Cadillac sits in the garden.

they got the car out in a way that wouldn't damage the Garden in any way. Terence remembers that Albert had stayed at Ariadne all night with his car because he was so nervous about it being damaged in any way or stolen! Albert was in the car and had it running when Terence got there at 7 a.m.

I don't know what really happened! Stories and attitudes came flying out, first in discussions that Terence, Eric and Albert had about getting the car up and out. It seems Albert had hired this woman and they were done with their job, whatever she was hired for, and she was leaving fast. It appears she had wanted to drive a Cadillac. They had a fight and power trip over the steering wheel. One story that came out was: You know, those women, they just can't be trusted behind the wheel! Terence noted that this was an attitude he hadn't come across for quite a while. Down and dirty was this whole phenomenon, the attitudes and the messed up Cadillac on a misty evening in early December.

I made a report to the DMV, but we did not call the cops because we didn't want to be bothered with it. The DMV report was never followed up on. We did send a couple of letters encouraging Albert to help and/or pay for some of the mess. Albert and I are not on speaking terms, though I growl at him once in a while. That said,

Backing the car out.

we acknowledge each other still, nodding when our gazes accidentally cross coming and going.

The more I have thought about the car event, the more it was apt and timely, and helped put the Garden in a new framework. I had been in an escape from modernity for quite a while, seeing agriculture as a womb into which I could retreat. That was my delusion, or my dream.

The real situation is that this present era does not allow us to go back to that womb. After a time I came to see the Cadillac as a tocsin signaling me to detach from this mythological ideology I had adopted, or from any absolutist stance.

The car event remains startling to me and I am still learning from it. The car never leaked a fluid, amazing for a car not to do so. Nobody got hurt. That big hunk of technology harvested the beets and the carrots. In fact, I distinctly remember putting them into the for-the-taking bucket Ariadne always hangs on the outside of the gate.

I invite readers and takers to come by and see what's in the bucket, join us in our work, enjoy some solar dollars, see what really happens. Learn about the soil food web, and make the acquaintance of those who work both above the soil and within it.