

Project OLE (Operation Layered Earth)

Begun at Casa 12-21-09 Solstice /Continued 1-29-30-11 at Pajaro

Phase One Fall 2009

Our front yard is now a lasagna-like concoction of layered manure, cardboard and leaf mulch which we have dubbed "Operation Layered Earth (OLE!). My spouse, Jennifer, and I love the look of our mulch-blanketed yard, as the last orange, yellow and brown autumn leaves fall from our redbud and maple trees onto mounds of pulverized twigs, branches and leaves. Beneath the layers, earthworms and microorganisms are at work, turning cardboard and leaf mulch into soil.

Jenn and I bought this East Oakland home with its hearty front lawn in 1995. We have been talking for several years about the non-sustainability of keeping a front and back lawn in a time of drought and energy shortage. Our neighbors and their dogs loved our lawn. It gave our Oakland, California, home a neat and tidy look. Meanwhile, an invasive web of deep-seeking Bermuda grass wove its way steadily into the original turf.

As a prelude to OLE, a few springs ago we took out a number of invasive acacia trees from our back hillside. On the eucalyptus-manteled slope, pitched precariously, I planted over 50 natives, with the support and guidance of Kirsten Hopper, a co-owner of the collective Oaktown Native Plant Nursery in Berkeley, California. With Kirsten's encouragement and advice, I planted coffeeberry, bee plant, coyote bush, native grasses like California fescue, sticky monkey flower, California lilac, lupine, poppies, flannel bush, and a variety of other California native plants. Despite my neglect and the heavy presence of acidic eucalyptus mulch, after two years over 75% of the original hearty natives have taken root.

Intrigued with the idea of reclaiming our front yard as well with natives, in the spring of 2007 I visited several East Bay native plant gardens. The annual Bringing Back the Natives Garden Tour that

takes place on the first weekend in May opens over 40 native gardens for the public to enjoy. I was enchanted by the beauty and symmetry of the gardens I visited. The following spring, I invited Jenn to join me. At an Oakland garden less than a mile from our home, we met Liz Simpson, who had designed and planted a charming front yard native habitat. As we arrived, Liz was giving a lecture on creating bee-friendly environments. Impressed with her knowledge of native plants, we asked for her card.

In August 2009, we attended a week-long intensive with Buddhist scholar and environmental justice activist JoAnna Macy, an 80 year old mentor and friend. Her work, called *The Work that Reconnects*, invited the 40 people present to look at our lives and ask ourselves how we might become more engaged in The Great Turning towards a sustainable planet. Jenn and I were impressed by how many of the intensive participants worked with food and gardens. At JoAnna's retreat, we first heard the terms, "Transition Town" and permaculture. Our idea for our front yard grew to encompass both native and edible plants.

That September, we made a date to visit the front yard of our friend, author and earth activist Carolyn North. Carolyn had sheet mulched her yard, surrounded it with a playful fence made of intertwined branches, and planted vegetables and herbs. By fall, her yard was a playground of dinosaur kale, green beans, carrots and other edibles.

After experiencing the whimsy of Carolyn's garden, we felt ready to meet with Liz and discuss our ideas for transforming our front and back lawns, the front lawn to natives and edibles, and the back, to a meditation garden. In late October, the three of us surveyed both yards, armed with clipboards and yellow legal pads.

We set a goal of having all the materials ready for the sheet mulching aspect by Nov 17. This would mean removing all the grass and Bermuda grass and gathering the piles of cardboard, manure and leaf mulch needed for the entire yard. In our planning, we forgot about worms. As we mattocked and dug, we celebrated each worm

that we unearthed and blessed its return to the soil to participate in OLE.

Carolyn stopped by with jars of worms and “worm pee” from her yard. We sprinkled the contents of her jars around the soil and sang incantations for the worms, for their soil-enhancing gifts, and for the future of our garden.

I put out a call for cardboard, sending a plea via our Dimond neighborhood list-serve. That very night a neighbor I had not met who lives a few blocks away wrote that she had a garage full of packing boxes she had kept for 10 years. She would be delighted if I would make use of them, as long as I was willing to recycle the packing material in the boxes.

On a rainy Saturday morning I backed my Subaru station wagon into Linda’s driveway. She gave me a tour of a small garage packed from floor to ceiling with boxes. I was overjoyed. This might be enough for the entire project, I thought. To kill the Bermuda grass, Liz had advised six layers of cardboard and six inches of leaf mulch.

As the small mound of cardboard grew in our driveway, I began exploring other neighborhood resources. The Fruitvale/MacArthur District has many small businesses. I got to know their dumpsters intimately. I became a cardboard junkie, discovering three parking lots behind shopping districts that I had never visited in my fifteen years in the neighborhood. The grocery store, the post office, the string of coffee, sandwich and beauty shops yielded a gold mine of cardboard. Almost every evening, as we began to understand the scope of cardboard we would need, I made my surreptitious rounds. My night was a success when I found three or four boxes in a dumpster or behind a store. Driving on errands during the day, I would dart into an empty parking space if I saw a box or two in front of a store.

Liz described to us a special kind of tool for uprooting Bermuda grass and turf grass. She called it a pick with one forked end. She drew me a picture. I headed for my favorite local hardware and found

several choices of the special pick. I asked the tool salesman for advice. "This one," he said, holding up a sturdy oak-handled pick with a steel head, "will last longer than you will."

My dad, who built both my childhood homes, had always said money invested in a tool is money saved. "There is a right tool for every job," was Neal's motto. A few days later I showed off my new tools to my handyman brother, Rich. "That was dad's favorite tool," he said, "It has a weird name...mattock." I looked on the handle of my new prized pick: sure enough, it was labeled "mattock."

November 2, 2009: Late one night, under a full moon, I stepped out onto our front yard grass and struck the first blow with the mattock. I wanted to try out my tool and see how it would feel to dig up the grass we had lived with for fifteen years. By street lamp and moonlight, I dug up the first small stretch of grass, perhaps a square yard, near the house. It was very satisfying.

November 9: One of the special young people we met at JoAnna Macy's intensive was Chad Morse, who had lived and worked on the organic farm at the University of California at Santa Cruz and had also volunteered on an organic farm in Tennessee. Chad offered to bring his younger muscle power to our project and moved in to our guest room. For two mornings, Chad and I spent several companionable hours digging up the grass and Bermuda grass. Meanwhile, Jenn, a computer teacher, generated a Project OLE sign explaining our process to neighbors and passersby. We posted the sign near the front sidewalk.

I had left messages with several arborists suggested by Liz asking for donations of leaf mulch. No one had returned my calls. As Chad and I were working, directly across the street my neighbor's trees were receiving fall haircuts. The arborist in charge waved to us and came across Whittle Avenue. "Could you folks use some leaf mulch?"

"If you dig it, they will come," I thought. I have often heard it said that once you set your vision into action, events will conspire to support you. Later that day, Chris Bowen dumped a huge pile of

chopped leaf and twig mulch in our driveway. “I can bring more tomorrow,” he said.

“Sure,” I said. “We are going to do the backyard eventually.” The pungent fragrance of freshly chopped leaves filled our neighborhood for weeks.

After Chad left, we hired someone to finish the mattocking of grass and Bermuda grass. This was the toughest and most tedious stage of our project. Neighbors offered their green cans to cart away the mounds of lawn and weeds.

The unmistakable fragrance of horse manure permeated our home and neighborhood after I borrowed a friend’s pickup and drove to a nearby Oakland hills stables where manure is abundant and free. Feeling like the San Joaquin Valley farm woman of my roots, I supervised the shoveling of massive amounts of manure that overflowed the truck bed as I lumbered out of the stable. Back at my driveway, I wore sturdy boots and work gloves to shovel out the back of the truck.

The manure pile sat next to the mulch pile and the teetering mound of flattened cardboard boxes. All the ingredients of our organic sheet mulch lasagna were in place. For several weeks, Jenn and I spent our spare hours layering the front yard. Instead of tomato sauce, noodles and cheese, we had manure, cardboard and mulch.

We put manure down first in areas where we planned to plant vegetables. Then we spread the full recipe of six layers of cardboard, tucking adjoining sections under one another to prevent the sun from stimulating Bermuda grass. Our red plastic wheelbarrow carried load after load of leaf mulch to dump in each area, where we spread it with rakes. We worked a few minutes or a few hours, day and night, when we had breaks in our schedule.

[Barbara Kingsolver has long been one of my favorite writers. When her book, Animal, Vegetable, Miracle came out in 2008, Jenn and I found ourselves challenged and excited by the concept of

“locovore,” one who eats mostly local foods, grown within a hundred miles of one’s home. We began paying closer attention to our grocery purchases and NOT buying December’s Chilean apples and blueberries shipped thousands of miles at a huge carbon footprint. Kingsolver’s family’s intentional adventure, developing the old family farm in Appalachia into a sustainable experiment that fed a family of four, whetted our imagination.

A first step for Jenn and I was joining the Full Belly CSA (Community Sustaining Agriculture) whose pickup for a weekly box of organic vegetables was about a mile from our home. After enjoying Full Belly’s nourishing and delicious produce for a few months, we approached the farm about becoming a distribution point for our own neighborhood. We were sure there were more than 25 families in our neighborhood who would want to participate.

It took almost a year for Full Belly to approve us as a site, but once they gave the go-ahead, we had over 20 families signed up within six weeks. Currently, Full Belly delivers over 50 boxes of organic veggies from the Capay Valley to our driveway every Wednesday.]

By Thanksgiving, a few square feet at a time, we had matted out all the grass and Bermuda grass, shoveled manure into the future vegetable beds, covered the yard with six layers of cardboard, and capped the entire casserole with six inches of mulch. Over the winter months, as we and the earth rested, the worms, time and weather bubbled their organic magic.

Phase Two: Of Rock, Soil and Plants

For four months, we looked out from our front porch on a wintry, barren landscape, as the mulch turned from vibrant greens to shades of brown. Our front yard looked almost as neat and tidy with its mulch blanket as it had with grass. There was something quiet and restful about a browning landscape.

To make room for a small front and side yard orchard, we hired a gardening friend to take down a non-fruiting plum tree, setting aside

many of the beautiful branches of the tree to later create trellises and woven fences for the garden. Through the winter months, Jenn and I worked with clippers and saws to prepare the branches and twigs for later use.

The first “breaks” in the sheet mulch came when Liz arrived in late March with four fruit trees to plant in the front yard. We watched her cut round holes through all six layers of cardboard. Working like a master chef, she carefully folded back each layer after scraping the mulch back from the cuts. Liz set each tree...a persimmon, a pluot, an apple and a plum... carefully in the ground and gently massaged soil around their roots. Then she re-covered the hole with the layers of cardboard and mulch. It was an exciting moment when we stood back and saw four tiny trees emerging valiantly through the mulch cover.

In early April, we met with Liz to create a final design for the front beds and backyard rock garden. We laid out green garden hoses to approximate oval shaped vegetable beds and areas for natives. The areas within the green snakes would be filled with soil. We marked April 8, 9, and 10 on our calendars for G Days...Garden Days.

In late March, we had gone with Liz on a field trip to American Soil, an amazing East Bay supply mecca for landscapers and urban gardeners that sells everything from organic soils to flagstone. Our mission was to pick out rock for the boundaries of the vegetable and native garden and accents in the rock garden. Jenn and I sat on a number of huge boulders to find the ones that called to us as centerpieces for our rock garden. By pressing our hips into magnificent boulders and stroking them, we made “seat of the pants” decisions on which rocks would be right for our garden.

Early the morning of the 8th, several truckloads of rocks arrived. An invasion of wire corrals containing rock began to fill our driveway.

For the April garden construction event, Liz invited her competent helpers, Pedro and Jose, to work with us. For three days, we shared breakfast and lunch and called ourselves, “la familia.” Between long

periods of intense work, spreading soil, laying rock, creating a complex irrigation system, and planting, we feasted on beans, rice, salads, and homemade soups. We made coffee, herbal teas and lemonade for the entire crew.

Installing the backyard rock garden offered our one moment of high drama. Liz' inventive friend, Stewart, backed into our driveway with our huge center rock lodged snugly in the back of his pickup. He sprang lithely out of the truck and within moments began constructing an a-frame brace in the driveway that looked like a tall balance beam. The frame would support a winch. In less than an hour, the temporary frame was complete and with Pedro and Jose's help, using a thickly roped winch, Stewart slowly cranked the huge rock out of the truck and onto a waiting platform on wheels.

The three men then rolled the platform through the gate and onto a ramp. Suddenly, a wheel of the platform skidded off the ramp, the rock tilted, broke loose from its moorings, and tumbled end over end across the bare earth that had been prepared for the rock garden.. The rock landed upside-down less than a foot from where we had planned to place it. Fortunately, no limbs, fingers or toes were lost.

We all took a deep breath, stepped back and stared at the rock. It was upside down. That is, the side exposed was the side it had been sitting on at American Soils. Jenn and I had never seen that side. We loved it. Liz agreed that the rock had chosen well. With some grunting and jimmying, Shannon, Pedro and Jose nudged the boulder into its appropriate spot in one loop of the figure eight or infinity labyrinth.

Each step of creating the labyrinth came under Liz' artistic eye. Each pebble and rock found a mindful destination. On one side of the infinity circle, Jenn and Liz worked together with the flagstone-like flat slabs that would become a Tai Chi platform facing the creek. They teased each stone, trying different angles and combinations. I watched from the deck and offered commentary: "That looks great." "No, I think the darker one should be next to that one." "Try angling it a little to the left." Finally, the three of us stood on the deck. "Wow," said Jenn. "It's perfect. I love it."

That night, before we went to bed, Jenn confessed to me, “It feels like too much rock.”

I had had the same feeling when I saw all the rock arriving in our driveway. I worried that Liz vision for our transformation had too many harsh edges.

But I wasn't counting on the softening effects of plants, time and weather. The next day we began placing native plants in the earthen centers of each loop of the figure eight. Yellow-eyed grass, thyme, fringe cup, seat thrift and coral bells offered green, mitigating contrast to the white and earthen rock tones.