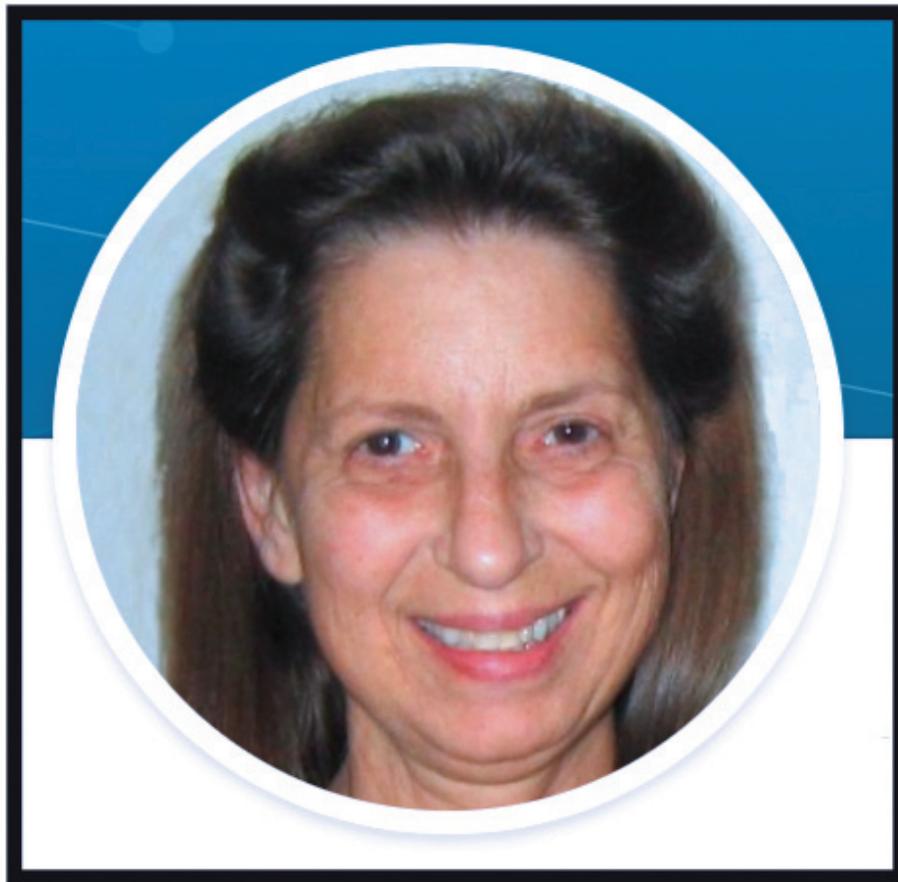


GRETCHEN BREWIER

September 24, 1945 - February 21, 2017



REMEMOIRS

Selections from her memoirs
Compiled by Daniel Knapp, Ph.D.

Gretchen Brewer Remembers

Recycling Hero From the Heartland

September 24, 1945 – February 21, 2017

Excerpts from memoirs she wrote
In the last six years of her influential life

Compiled by Daniel Knapp, Ph.D., a friend.

Wayzata Exotica, and Dad

Our family's first home was in a small town called Wayzata, a far suburb of Minneapolis, Minnesota. It was a great house, with gables and attics that made for cool hideouts. Also there was a large yard, and a big screen porch where we'd sleep outdoors during the hottest nights of the summer on old Army Surplus cots.

Some of my earliest adventures took place in that yard, where I was spooked by a garter snake one morning. I recall being amazed when my Dad blithely remarked, "Oh yeah, I scared him out of the window well earlier this morning." To me, a snake was frightening, like the cobra in *Rama of the Jungle*, an exotic show set in India that I watched on Saturday mornings. After hearing the snake swish through the grass, I was frightened of our yard for weeks!

We had Lilies of the Valley growing in a little garden where we buried our pet turtles who didn't survive—probably from the flowers painted on their shells. We had a nifty wooden sandbox my Dad built, a swing-set, and a wooden rocking boat Dad built that reversed to be a pedestal or stage.¹

¹ from "Kindergarten with Miss Vessladahl."

A First Lesson in Metaphysics

It was one and a half blocks to Hippy's Store, then a block further to Widsten School. Hippy's Store was an old-fashioned storefront grocery store operated by a family who lived in back. It pre-dated supermarkets, and Mr. or Mrs. Hippy would wait on you from behind the counter, reaching items from high shelves, wrapping meat in white paper with string from a giant spool, and stocking various flavors of popsicles as the summer season dictated, with the most special flavor being banana late in the season.

I was such an earnest little girl, so anxious about getting things correct. For instance, one time my Mom sent me with two dimes to get a pack of Pall Mall cigarettes for her at Hippy's. As I walked, I began asking myself how did one pronounce the name of these cigarettes—were they pronounced Pall Mall, rhyming with All, All? Or were they Pell Mell, as in this spelling for going really fast, or as rhymes with Bell, Bell?

I couldn't be sure what my Mom had said, so when I was nearly at Hippy's, I turned around and went back home to ask her. She said they could be pronounced either way, which was a really novel experience for me. I think that was the first time in my life I encountered an either/or where both could be correct! It was one of my first lessons in metaphysics, and an introduction to the very important business of learning how to be content with incomplete information or understanding.²

Boys and Trees

I had crushes on two boys—Jim Pugh, who was very handsome, and Stuart Mitchell, who was very smart. I was proud that they both invited me to their birthday parties. (I was the only girl invited.)

We loved playing in the playground during recess, especially on the hillside where there were some huge old trees with sprawling roots exposed by erosion. These trees were perfect for playing house, or being corrals when we played horsey, or any number of other imaginings. Years later I was broken-hearted when the city cut down those wonderful trees.³

My Mother Taught Me Tolerance and Humility

The Nelson family lived down the hill from our family in Wayzata. We were neighbors from around 1946, after Dad's discharge from the Navy, till 1955, when we outgrew our GI Bill-financed house and moved to another part of Wayzata.

² from "Kindergarten with Miss Vessladahl."

³ from "First Grade with Miss France."

The Nelsons were Evangelicals, a type of Christianity my Mom considered to be too messy and emotional, and lower class compared to us Episcopalians. Still our families were friends and looked out for one another.

I remember one Sunday when Mr. and Mrs. Nelson went off to a tent meeting and my parents kept an eye on their kids for the day. Dinnertime rolled around and the parents hadn't returned so my Mom decided it was really too late and she served an inexpensive, simple meal (like hot dogs and baked beans) to their four kids plus our family (Dad, David and me). The parents got home late that night and we sent the kids home.

The next day, Tommy Nelson turned up at our door with a quart of buttermilk as a gift in thanks for Mom providing their dinner.

After Tommy left, one of us kids said, "Buttermilk, ugh!" Maybe I was the one who said this, not having ever tasted buttermilk, but forming a snap opinion because of what it sounded like—lumpy milk. (I couldn't stomach milk, except if it was chocolate.)

My Mom chastised me for being so scornful of the buttermilk. She said the Nelsons were a poor family and had given what they could as a thank-you gift. It was the spirit that mattered. She said she'd make us buttermilk pancakes for next Sunday's breakfast, and I admit they were yummy.

Mom had great concern for other people and avoided copping attitudes about people for superficial reasons. Another time I came home from 4th grade on report card day bringing my friend Marcia Larson along for an after-school visit. Marcia was the smartest girl in our class, but on this occasion I got better grades than she, one more A, as I believe. I bragged about this to my Mom, out of Marcia's hearing range, I think. But I remember making a big production of counting up how many B's and A's I had, and this could have hurt Marcia's feelings even though she didn't hear my overt bragging in a sing-song voice, "I got more A's than Marcia."

My Mom took me to task for taking this superior attitude towards Marcia and probably hurting her feelings. She coached me to be modest and to realize that things like grades could swing either way by luck or chance. It was unseemly to loudly proclaim myself a better person than Marcia.⁴

Seeds of Service

I'm still trying to remember the earliest influences causing me to trend to social service. I think it was partly just my nature and disposition. My Mom, however, was very instrumental through her activities with our St. Martin's by the Lake Episcopal Church. She was the oldest living member of that church when she passed away in October 2008.

⁴ from Early Neighbors: Part 2."

I do remember going with her to early church services held in people's homes, before we even had a church building.

Mom also was very active with the Altar Guild, which took charge of all of the church preparations for funerals and such, as well as the linens, candles, flowers and other accessories associated with the various ecclesiastical seasons on the church calendar, and the weekly church services.⁵

Scouting

Scouting was planted in me very early. Not sure how or when, but it was well established by the time I was in 2nd grade and in the Brownies, then Girl Scouts. I recall that I was very zealous about selling Girl Scout cookies, and won a merit badge for selling huge quantities in the Holy Name farming community adjoining Wayzata.

Of course, the real credit goes to my Mom, who drove me all over creation to sell to every farming household. I deserve credit, though, because I did have to brave many ferocious farm dogs to make all those sales. These were the days before leashing laws became the norm, when one's dog-friends could still travel freely with one, and one had to face the dangers.⁶

Fire chasers

As a side-note, around this same time Mom and I became fire chasers. When we heard the fire alarm siren in our town, we'd jump in our car and race to the fire station so we could chase the fire engine and watch the fire. The siren rang to summon our volunteer firefighters, since we didn't yet have a paid fire department. That gave Mom and me a chance to get to the fire station in time to follow them to the location and indulge our adventure-lust.

My little brother Jim also went with us to chase fires. I know he was very fascinated by *bouncing-trucks*—his term for fire trucks, and I know he couldn't stay home alone then. Mom and I sandwiched fire-chasing in before she took her first job as a cashier for the Wayzata school district.

Dancing

I loved dancing and dreamed of being a dancer. One of my earliest memories is stuffing Kleenex in the toes of my moccasins and trying to ballet dance on pointed toes. I got this idea from the movie *Hans Christian Anderson*. I imagined myself the ballerina for whom the love-struck Danish storyteller (played by Danny Kaye) made the ballet shoes with special padding in the toes.

⁵ from "Good Deeds & Service."

⁶ from "Good Deeds & Service."

I also remember seeing hula dancing on the Arthur Godfrey show. It was the early 50's, and we were the first family in the neighborhood to have a TV. I loved the brown-skinned girls with the swaying hips, dancing to the uniquely Hawaiian styles and rhythms. I made myself an attempt at a grass hula skirt by cutting a large square of calico into many slender strips, wrapping it around myself, and then danced for my Mom and little brother Dave, "Aloha Ohhhh".

I'm sure that if we had had the funds, I would have taken dancing lessons, possibly even ballet. I gobbled up all the dancing I could see on TV, and lived out my dreams by making dance costumes for my dolls and imagining them in made-up dances.

I know that I sensed the sexuality of dancing movements and costumes and felt the thrill even from a very young age before I knew the facts of life. There was a forbidden quality to dancing, like when one spun, then one's skirt would go up and people could see one's underpants. When the ballet dancer lifted the ballerina up her underside was revealed. I vaguely understood this was associated with romance, marriage, etc.

I emulated the girl partners of male heroes on TV shows. I was ga-ga over Flash Gordon and imagined myself as Dale Arden, his scantily clad blonde sidekick, who was always being captured by Ming, the bad guy, so that Flash Gordon (played by Buster Crabbe) had to rescue her.

Skating (Ice-dancing)

Ice-skating was available very early to me, at age 4 or 5, about the same time our town of Wayzata, MN built its skating rink. This was for years a perfect outlet for dance given our Minnesota long, bitter cold winters. Our town had a huge outdoor ice skating rink in a low-lying field that was flooded every day so that the surface was nearly perfectly flat. It was designed like a donut, with a hockey rink in the center where the donut hole would be.

The rink had a cozy warming house with rows of benches, where we could put on our skates, and boxes on the wall where we'd put our street shoes. In a second small room the rink manager ran the heat, played records of music to skate to, and operated the lighting and the pop machine. The rink stayed open till well after dark. It was probably only till 7 PM, though it seemed much later to me.

I'd bring my slacks, warm socks and skates to school with me each day. The dress code in elementary school was dresses—no pants. But in winter, girls often wore pants under their skirts to keep warm. The minute school let out, I changed clothes and walked to the rink, often arriving before it was officially open.

I spent every moment of the winter that I wasn't in school or asleep at the skating rink. I was always the last one there when the high school senior who ran the place on weeknights turned out the lights. For one period of time, a cute blond boy managed the rink and would drive me home in his jalopy after closing. I had quite a crush on him, but

all was as innocent as could be. He'd always chat with my Mom when he dropped me off.

I wasn't able to afford skating lessons either, but idolized Sonja Henie, and tried to teach myself some of her tricks, like the spiral, spinning, and shoot the duck. But mostly, I loved to skate really fast, and I loved the spontaneous game of Pom Pom Pullaway—a type of tag involving nearly all the skaters at the rink who'd race from one side to the other dodging the growing line of people who were “it” in the middle. It was thrilling when we got down to just one or two free skaters—usually Richard Engman and Duane Hoffman—deftly eluding the mob trying to catch them.⁷

Reality vs. Dreams (Pragmatic vs. Profound)

By the time I reached 9th to 12th grade, reality set in in two ways. First, we had a string of snowless winters, and this was before indoor arenas made year-round skating possible. Also, the moment I turned 16 and could legally work, I started a part-time job as a checkout girl at the local Red Owl Supermarket. I joined the Amalgamated Meat Cutters and Packers Union, earning roughly \$5.50/hour, plus time and a half after 6 PM, for an average of about 20 hours per week. It was much better money than I had ever made babysitting, and a good start on college savings.

Becoming a serious wage-earner...enabled me to buy myself a wardrobe befitting my status in the main clique of the high school, the students with top grades. Our ‘uniforms’ consisted of penny loafers, knee socks, plaid wool wraparound pleated skirts with a giant safety pin, white blouses, and Garland brand cardigan sweaters the same color as our knee socks. Yes, peer pressure had moved in, and first loves for things like dancing and skating were pushed aside.

Conformity also factored into my desire to have a boyfriend...

Conformity, Then Rebellion

These dance stories may seem benign and harmless, with little relevance to recycling. But what I've really been thinking hard about is what's at the bottom of my tendency to self-sabotage. For instance, doing very unhealthy things like smoking cigarettes. And doing rebellious things...that seemed designed to hurt my Father's feelings. Why did I try to hurt him by hurting myself?

I know I felt overly restricted by my parents' rules. I was a real goody-goody, stayed out of trouble, and mostly was an excellent student. So I couldn't understand why I was denied the kind of freedoms my brother enjoyed. He'd go off hunting or on fishing trips with his buddies and no adults, whereas I was never allowed such liberties. I didn't hang out with the fast crowd of girls, but I would have liked a taste of some of their adventures.

⁷ From “Dancing Dreams.”

Freedom, and Complexity

During summer break before my college junior year I applied for a teaching position at Lemoyne College, a black college in Memphis, Tennessee. The summer term was an opportunity to get teaching experience in support of my major at Grinnell College.

It was practical, yes, but I was also fascinated by the thought of a plunge into black culture, which was totally foreign to me. I was intrigued by the possibility of dating a black man.

This prospect set my father off in an unforgettable way. I still have a long hand-written letter in which my Father tried really hard to respect my interest and desire to do good, but could not stop himself from flying off about the one thing that all black men want from white women. I believe it was terribly painful for Dad to countenance this possibility, but also that he was really trying to not be prejudiced. I told myself I never expected this reaction, but I had to know this would set off fireworks.

My Poor Parents Were Doomed.

This was a couple of years before the movie *Guess Who's Coming to Dinner* pitted Sidney Poitier against the white girl's parents Katherine Hepburn and Spencer Tracy in a match that almost no one could find fault with.

I was conforming and rebelling at the same time. Like many classmates, I tried to bring black boyfriends home after this movie came out, undoubtedly inflicting serious pain. I feel remorse for this now! I was really heartless!

I vividly remember one Christmas when I called my parents to forwarn them while driving home to Minnesota with my black boyfriend Larry Hines in tow. They had never met. My parents said to me, "If you're bringing him, then don't come." So, Larry and I turned around and drove to Indianapolis, Indiana, his family's home, and I celebrated Christmas 1970 with them.

That relationship fizzled out shortly after when Larry flunked out of college and was drafted to very likely go to Viet Nam. I drove his mother and sister in their Cadillac to Ft. Campbell, KY, to see him graduate from Basic Training. I was broken-hearted to see him shorn of his beautiful natural (Afro), feeling as if his spirit was thus stolen. I had baked him an apple pie from scratch.

I stuck by him through his 82nd Airborne training where he became the 'Standing Landing King' in Ft. Benning, GA. Before his next step, he visited me in Chicago, and worried about what our fate would be as a mixed couple. How would he cope with having a white girlfriend when the Black Revolution came? I think he sincerely believed there would **BE** a black revolution.

I had a love affair with a Chinese guy from Hong Kong in 1973, and DID take him home to meet my parents. Also, I took Aaron Crane, a Jewish guy, home. I dated around with several black men till I met Wayne, who became my partner for decades. Wayne didn't call himself "black," he said he was "mulatto."

I took Wayne home at the very beginning of our relationship, before I really knew him at all. He briefly met my Mom and brother Dave in 1974. And he has briefly met my other brother Jim a few times. But there hasn't been any sort of lasting interaction between Wayne and my family.

By virtue of being involved with unusual men, and particularly Wayne, who was disinclined to form any sort of family ties, I have virtually closed off partner possibilities that might have met with my parents' approval. I'll never know whether they and Wayne could have hit it off because now they're gone.

I'll never know how much I may have hurt their feelings by not marrying and having children—giving them grandchildren—or how much I may have disappointed them. We got past the bumpy phase of my trying to shock them, and mainly I just stayed a loner as far as they were concerned.

They didn't hold a grudge or stay angry with me. I was free to come home for visits often, which became an increasingly desirable thing as they aged. I supported my Mom through my Dad's long illnesses, and visited her often to provide moral support. Later, after my Dad died, I continued frequent visits to help my Mom, go on adventures with her, and—ultimately—become her caregiver before she died in 2008.

But one of the really painful things in my life is that I have an unconventional relationship that I have pretty much felt obliged to keep hidden, or low profile. If I had been more average....

Chicago and the South Bend Nexus

It's funny how certain patterns, or themes—and in this case, locales—repeated themselves in my adventures. For instance, south Chicago, and the bend where Chicago hugs Lake Michigan then curves into Indiana turns up many times in my life:

Here is an itemized list of trips through/around what I'll call *the South Bend Nexus*.

1961 (approximately.) With a Community Church Pilgrim Fellowship youth group, I traveled to a religious confab at Purdue University in Lafayette, Indiana. En route, we witnessed the green skies and acrid air of South Chicago and Northeast Indiana where steel mills and other unregulated industrial activities were yet to be placed under EPA safeguards.

1962 I joined high school band trip to South Chicago to play a concert at Chicago Vocational School (CVS). Here was more big city shock, mainly caused by the vertical walls of granite, not the green skies. I later spent my first year teaching at CVS.

- 1965 With some friends, I took an inner-city plunge on Spring Break from Grinnell College. I met a Syrian student who could have been a *jihadi in the bud*. I managed to avoid being seduced.
- 1966 The first half of my senior year at Grinnell College was spent in an ACM Urban Studies & Urban Education Semester.
- 1966 I launched an Independent Project with Joe & Gerry Garza, students at Bowen High School.⁸
- 1967-68 I was hired to teach fulltime after graduation in an inner-city high school in Chicago. By coincidence, I was assigned to CVS, the same school where our band had played the concert in 1962.
- My goal in joining the teaching service was to repay National Defense Education Act loan that underwrote my college education at Grinnell.
- Spring 1968 The assassination of MLK shocked the nation. My CVS students escorted me to the bus stop to make sure I got home safely on the day riots were brewing in Chicago.
- 1968 The assassination of Robert Kennedy stirred further unrest.
- 1968 Major street disturbances broke out at Chicago Democratic Convention. I and friends were tear gassed in Grant Park across street from the National Guard troops who were blockading the Conrad Hilton Hotel.
- 1968-1970 I left teaching to be employed fulltime in Lyndon Johnson's War on Poverty program. My program was linked to the Chicago Committee on Urban Opportunity (CCUO). I was stationed at the Woodlawn Urban Progress Center as an Urban Life Advisor. Ironically, my job was to help rural black migrants from the US South learn how to cope with life in the big city, something with which I had no experience. I soon learned about evictions, burned out homes, excess children, welfare, food stamps, and much more. Also ironically, from 2011 on, since age 66, I have had personal experience with welfare and food stamps now that I'm a senior citizen.
- 1970-1972 I was still with CCUO, and promoted to Community Services Coordinator. There I was trained in group therapy, then called Transactional Analysis and Gestalt. I served as a community organizer on Chicago's south side. I often helped inner city residents pursue transitional employment in companies like Bethlehem Steel).
- 1972-1978 I met Wayne Johnson, and we began a lifelong partnership.
- 1973-75 I became a member of the founding staff of a federal pilot program called Jobs for Rehabilitated Drug Abusers.
- 1975-1978 When this pilot, renamed Options, Inc, south loop rolled out to a full-scale employment development program, I became Personnel Director administering outreach, intake, training, and benefits.
- 1978 – I went on a Chinese Culture mission, and learned Taoism.
- 1978 – Reading EF Schumacher's Buddhist Economics turned me away from traditional social service and toward what became my career in recycling economic development. I introduced Tom Carlson at the Community Renewal Society to Gandhi & meditation.

⁸ "James H. Bowen High School is a public 4 year high school located in the South Chicago neighborhood...." South Chicago is "a working class neighborhood," one of "16 lakefront neighborhoods near the Southern rim of Lake Michigan." Wikipedia, 2017.

1980 – I performed a feasibility study for a youth recycling employment program in Hammond, Indiana.

1980-1981 – I was recalled to Options, where I introduced Sam Huffman to EF Schumacher.

1980-85 – As a founding member of the Coalition for Appropriate Waste Disposal, since renamed Chicago Recycling Coalition, I did lots of organizing. I worked with grassroots groups fighting the landfill intensity in south Chicago, publicizing underground landfill fires that burned for years.

1985 – I received a review copy of a book detailing the “landfill-arama” situation in south Chicago.⁹

Vows and No Vows

Surprising events serendipitously steered my path in life so often that I count myself very fortunate overall.

In 1972, I was still employed full-time as a social worker in LBJ’s War on Poverty Program, a career I could enter without an advanced degree. I had been caught up in the Civil Rights movement, and plunged into the black culture of Chicago’s south side. My destiny, I thought, was to continue in social work, and probably participate in desegregating Woodlawn by marrying a black man.

Then a very different kind of black man came into my life and became my life-partner: Wayne Johnson.

When I met Wayne, he had just begun teaching himself t’ai chi ch’uan¹⁰ from a book. I was impressed that he made a vow to himself to not miss a day of practice for the rest of his life. I can say now, since his death, that he did keep that vow up until a few weeks before he died, at which point he was too weak and in too much pain to continue.

He and his 3 year-old son Ahrue moved in with me and I had the opportunity to see Wayne make good on this vow. I remember him taking over the living room of my apartment with his daily practice, regardless of what I might wish to be doing or with whom. Indeed, his self-centeredness, as I perceived it then, was a problematic feature in our relationship. He had no interest in forming a conventional relationship. His entire focus was self-cultivation.

⁹ from “Good Deeds & Service.”

¹⁰ Translation: Chinese for supreme ultimate fighting, a soft style of self-defense relying on finesse, balance, technique, rather than brute force as in western-style boxing. Central to this approach is the concept *wu wei*, or non-action. But this is not literally the absence of action. Rather it means an appropriate amount of action suited to the situation, allowing for timing and other factors to be played to full advantage. Hence one avoids over-extending or over-exerting. By virtue of accurately appraising the situation, one can know when, if, and how to act. Gandhi was a master at this. Asian martial arts also use this technique. One’s opponent does the defeating for one.

In 1974, I got mugged while walking home on Chicago's north side. Four black girls tried to grab my purse and one whacked me in the eye. That experience prompted my decision to learn self-defense. I knew Wayne's t'ai chi was a form of self-defense. After checking out a bunch of different t'ai chi teachers, I decided to study with Robert Cheng. Soon afterwards, Wayne joined the class, too, and we both studied with him for a couple of years.

When Bob Cheng moved to Africa for a job with USAID, I began studying t'ai chi with Prof. Huo Chi Kwang in 1976. Wayne moved on to Hawaii with Ahrue, then returned in late 1977. Wayne studied t'ai chi with Sam Kekina, a Chinese-Hawaiian man who was a master and taught many students over 20 or more years till he died in around 1996. Wayne persuaded Ahrue to study t'ai chi, too, by offering to pay him his year's allowance in a lump sum if he didn't miss a class. This is how Wayne taught Ahrue the value of making and keeping a vow.

Wayne was NOT an introduction to black culture in the way I anticipated. Rather, his main direction was toward world literature and especially, eastern philosophy. He introduced me to Gandhi, the Bhagavad Gita, the Mahabharata, the Tao Te Ching, and more great literature. I read everything by or about Gandhi I could get my hands on, most especially his autobiography *The Story of My Experiments with Truth*. I also read everything by Dostoyevsky, and some Henry Miller.

Wayne's favorite saying was: "A beautiful youth is an accident of nature, but a beautiful old person is a work of art." His goal was to grow up to be a wise old man.

Another of his favorite sayings was:

"Believe nothing, no matter where you read it or heard it or who said it, not even if I said it, if it doesn't agree with your own wisdom, common sense, and experience." —Buddha

Early Recycling Adventures¹¹

I read "Buddhist Economics" by E.F. Schumacher in 1978. This essay triggered my realization that recycling could be the career that would combine my personal goal of self-realization with my opportunity to help others find meaningful work in the movement to conserve resources and the environment.

At that time I was preparing for a trip to Taiwan with my t'ai chi teacher at the time, and this essay appeared in *Asian Handbook*, a collection of historical essays I was reading in preparation for the trip.

"Buddhist Economics" opened a door to a change in direction. I was looking for meaning in life and on the verge of my realization that recycling would be my calling.

¹¹ From "Part A: Early Recycling Adventures." Urban Ore archives project.

By then, I had tried teaching, social work, and vocational rehabilitation, but none of these pulled together the solutions I wanted to see to help people realize fulfillment and self-sufficiency. However, they did arm me with much useful know-how for my plunge into recycling.

After reading Dr. Schumacher, I sought out any and all environmental organizations and information I could find in the library, the phone book, etc. There wasn't a recycling field yet, nor barely an environmental field, although US EPA had been formed in the early 70's, surprisingly by Richard Nixon.

I wrote letters to every group I found, including the organizations EF Schumacher had formed—the Intermediate Technology Development Group (ITDG) in the United Kingdom and its branch in New York City. Back then, letters counted for something, and I actually heard back from Ward Morehouse of ITDG, who became a friend of the Resource Center later on.

Training Tours

I traveled to Los Angeles several times to take t'ai chi classes. My teacher held classes in the “west-side” of Los Angeles, a Bohemian side of LA. I spent a couple of weeks in classes each time I visited.

On one of these trips I ran into Deirdre, a former colleague from the Mayors Office of Employment & Training, where I had worked in Chicago from 1978-1980. She had also been interested in recycling, and ended up getting a job in LA working for Paperback Recycling. They used the name of paperback books, but they recycled office paper. At first I thought this was a clever name, but later realized it would be confusing.

Through her I met a real wheeler-dealer in recycling whose name was Gary Petersen. I think his company name was US Recycling. He invited me to interview for a job vacancy in Santa Monica, and I made elaborate arrangements to travel there on a shoe-string.

I remember speaking on the phone with the Santa Monica Personnel Director, and having to put him on hold repeatedly because of the noise of the El train going past my house. At that time I lived at 949 West Armitage, next to the Ravenswood track, and the sound of the train drowned out calls. Each time I had to put him on hold, I said, “Please hold, there's a train going by.” After repeating this several times, the Santa Monica guy put me on hold and said, “Please hold, there's a surfboard going by.”

Later he gave me a hard time because I wore an informal outfit of recycled clothes for the interview. He asked “Why?” and I replied it was a choice of buying the plane ticket or a new outfit and I chose the ticket. He definitely didn't have the recycling ethic.

Also, I learned that this vacancy had been rigged so that a woman named Debbie Raphael would get the job. Had I known that, I wouldn't have wasted my money or time.

Gary Petersen gave me one of his company t-shirts. The slogan was “Recyclers do it more than once,” kind of crass I think.

Meeting Urban Ore’s Founding Couple

In general, the Los Angeles recycling crowd I met turned me off, whereas the Bay Area recyclers, particularly Dan Knapp and Mary Lou Van Deventer, were inspiring.

I made several more trips west in the early 80’s while I was semi-employed and volunteering parttime with the Resource Center. This is before I was able to land a steady job in recycling. Luckily I had some savings, plus unemployment compensation, which allowed me to finance my self-training. And the best training was from trips for conferences and to visit recycling programs pioneered by the early thought-leaders.

At the first conference I attended in about 1981 or 1982 in San Francisco, the only speaker who really interested me was Dan Knapp. He told the story of how he came to found Urban Ore and write *Resource Recovery—What Recycling Can Do*. I wrote a review of this book for the Illinois Association of Recycling Centers newsletter that was published in 1983.

A second article I wrote for IARC News featured the story of the Berkeley incinerator moratorium, “Recycling Gets a Five Year Chance in Berkeley.” This details the further work of Dan Knapp, his partner and later wife Mary Lou Van Deventer, and more Bay Area and northern CA recyclers I was meeting, either through their publications, or in-person via training trips.¹²

¹² In a 2016 email, Mary Lou Van Deventer provided this summary of how the pair used Dan’s books “Berkeley Burn Plant Papers” and “Resource Recovery: What Recycling Can Do,” to help defeat several proposed incinerators in the San Francisco Bay Area, including this one in Brisbane that would have burned San Francisco’s discard supply.

“The final defeat of the Brisbane incinerator happened when the people of Brisbane voted whether or not to change the zoning on the property where the incinerator would have been located. Dan Knapp and I participated in the ballot campaign as speakers opposing incineration. The Berkeley incinerator had already been defeated, and we spoke against incinerators in Brisbane, Redwood City, San Mateo County, and in the East Bay - Fremont I think. We were able to distribute anti-incineration literature bound into what Berkeley Mayor Gus Newport called “Dan Knapp’s yellow book that seems to be everywhere,” the “Berkeley Burn Plant Papers.” The Brisbane anti-incinerator ballot campaign was funded in part by companies in buildings that would have been downwind.

“You’ll recall that at time the code phrase for incineration was “resource recovery.” It

My Recycling *Hajj*

I came to call my series of trips to the west coast My Recycling *Hajj*, similar to the trip Muslims take as the inspirational highpoint of their Islam religion. For instance, I made another trip west to tour many of the programs written up in *Resource Recovery—What Recycling Can Do*. I remember touring the El Cerrito program; seeing the reuse center in Redding that Pavitra Crimmel was running at the time; and spending the night at her house on a grungy recycled couch; then driving up the coast to Oregon to visit Portland-

was one of the continuing parade of semantic coverups that wasting uses to disguise itself to look useful like reuse and recycling.

“Previously, in 1980, the Brisbane incinerator had been given a green light by Governor Jerry Brown's California Air Resources Board as an experimental technology. I was working for the California Office of Appropriate Technology at the time, and OAT thought incineration was an inappropriate technology and method for handling resources. OAT sent a letter to the Mayor of Brisbane opposing the incinerator despite the Air Board's approval. Governor Brown was running for President. I was told by a State employee who seemed to have knowledge - but I don't have confirmation - that Leonard Stefanelli had hosted a \$1,000-a-plate fundraiser for the Governor. Whether or not that is true, shortly after the OAT letter was sent to Brisbane, our agency head was called to a meeting in the Governor's office. When he returned, OAT no longer opposed incineration.

“At that moment, OAT had already contracted with Dan Knapp to write a white paper on recycling. I was his contract manager and editor. As part of his paper, Dan opposed incineration. Just then I left OAT to work at SIERRA magazine, but I stayed with Dan and helped with his paper from the author's side instead of the State's. Dan's new contract manager at OAT was Judy Roumpf, the new California Recycling Manager. Judy and OAT rejected the paper because of the anti-incineration content. Dan and I toned it down but wouldn't eliminate it, and the State accepted the paper and paid for it. Judy said OAT wouldn't publish it though, and it was too bad, but the paper would be put into a drawer and forgotten.

“Fortunately, I had recommended to Dan that he negotiate with the State to retain the copyright, contrary to the State's boilerplate provisions. They were surprised, but they agreed. Since Dan held the copyright, when the State refused to publish the paper, Materials World was able to publish it as “Resource Recovery: What Recycling Can Do.” It was our first effort to take back language that wasting uses to co-opt reuse and recycling. It was also Dan's first analysis of the pernicious and misguided funding structure that denies service fees to recyclers, bankrupting them when markets are down - as they are now - while wasting is 100% subsidized by service fees.

“Yours for recycling, which is planet-friendly disposal that deserves disposal fees,

“Mary Lou Van Deventer email, 2016.

area recycling programs and attend an Association of Oregon Recyclers (AOR) conference.

Also on this trip I drove to Menlo Park, CA to meet with Peter Gillingham, author of *Good Work*, the collection of E. F. Schumacher's speeches from his last lecture tour of the US in 1977. Peter had recorded all of Fritz's talks and compiled and edited this collection.

The only thing I can remember from my meeting with Gillingham is that his desk was heaped with papers, and there were cockroaches crawling all over, which didn't seem to bother him. We had an animated conversation, which he recorded. I don't know what he did with the recording, nor did he and I stay in touch.

I do highly recommend *Good Work* as the culmination of Fritz Schumacher's best ideas. I think Fritz died in 1977 or 1978. Sadly, I never had a chance to meet him.

Other Northern CA Recycling Mentors

Other recycling writers included Tania Lipschutz who—with financial backing from with nonprofit entrepreneur Mike Andersen—authored *Waste to Energy—The False Panacea*, plus a recycling curriculum guide called *Garbage Reincarnation*, and a waste composition study and guideline for Santa Rosa, CA. Portia Sinnott and Linda Christopher were two mores who became mentors and friends.

From Social Worker to Recycling Pioneer¹³

Social work helped me help people by linking them into the existing economic system with its big factories and big companies. But I found myself thinking more and more about what all these people who are in this big city could be doing in the way of more meaningful work. I was looking for work for them, and for me, that provided both dignity and a livelihood. At a certain point it sort of all clicked together: recycling could be a good enterprise, a job creation enterprise.

I started helping a group, a non-profit that was in startup mode with a recycling buy-back on the south side of Chicago. I also hooked up with the founder and head of an organization called the Resource Center, a recycling program that started *really* early, like in 1968 in Chicago.

I learned everything I could from the Resource Center's founder Ken Dunn, who is a brilliant guy.

¹³ This section is from the Linda Knapp interview with Gretchen Brewer, Blue Mountain Center, New York, 2007. The original is digitally rhived at Brookens Library Oral History Department, University of Illinois, Springfield. Also see National Recycling Archives, a joint project of Institute for Local Self-Reliance, Washington DC, and Urban Ore, Inc., Berkeley, California.

In my first couple of years I was volunteering at the Resource Center and running this program for Options and trying to read everything I could find. There wasn't very much. So, I didn't really become aware that recycling was a movement until around 1982 when I went to a Northern California Recycling Association conference and I heard about the incinerator wars. Also, I started hearing about the recycling leadership in New Jersey where Maurice Sampson was working.

In 1978 I made up my mind that recycling was going to be my career for the rest of my life. It was like a vow. I had been reading Gandhi and I was in that frame of mind. Buddhist texts started me thinking about right livelihood for myself. I didn't want to be like someone who works at a nuclear power plant and who finds later in life that he or she is really sorry because of what they did for a living. I figured with recycling I would never be sorry. Beyond the avoidance of harm, I embraced recycling with great enthusiasm because it was all so new. We had to invent things as we went along. A lot of pleasure can come with that nexus.

You didn't do it for the financial reward, though. You had first to be a volunteer, or so it seemed to me. It was not possible to get a job that paid anything at first. My first chance for pay came as I was spun off from a rescue operation that failed, then recalled. The group that I helped set up the buy-back for kind of went under after a year. They had a management problem with another part of their enterprise that was entirely independent of recycling. The recycling center was actually their only successful business venture, but it couldn't save them and so they went under.

Meanwhile, I had found paying work for the City of Chicago. Harold Washington was running for Mayor of Chicago. A friend of mine was working on his campaign. My friend said to me, "Gretchen, you're always talking about recycling for economic development and job creation. The economic development debate is on in a few days, so why don't you write a little position paper about it and submit it? So, I did. I hurried. I looked up essays that Neil Seldman had written and reread things from California. I pieced together what little data I could to make a case for a plan.

It turned into a blockbuster that drew lots of media attention. What I submitted was citywide waste recycling plan for Chicago that would create around a 7,000 jobs.

It was the early 1980's. It might have been '83 I'm a little hazy on this. Anyway, my friend called me up on the day of the Mayoral debate and said, "Gretchen, you won't believe this! There are a lot of dedicated campaign workers who've been working night and day putting together all sorts of position papers for Harold Washington. Yours has floated right up to the top of the stack!"

Candidate Washington then got on TV and announced he was going to create a citywide recycling program that would employ local people in the neighborhoods and it would create 7,000 jobs. We were so thrilled!

(Include here a photo of my first meeting Harold Washington in March 1982, while he was touring the Options Recycling Team I started in 1981.

Then he got elected. He scored a lot of good press from that announcement, and he toppled the machine in Chicago temporarily. I, representing the Resource Center where I was still volunteering, went to Mayor Washington's his economic people. I said "We Resource Center people helped you with this concept, so now why don't you fund some pilot programs? And behold, they did!

We got a contract and money to pay us to start buy-backs in three other communities in Chicago. Under Ken Dunn's direction, our staff used a Robin Hood type arrangement. The buy-back would be located somewhere inside a poor community where there would be lots of people from the Southeast Asia, as well as blacks and Native Americans. At this time we were also seeing a lot of abolition whites who were migrating up into this one part of Chicago where we were. They needed the work and the money just like the others. So they'd bring car loads of people, and they just find a vacant lot, put in a scale, and set up the barrels.

It was the whole nine yards approach like Neil Seldman had described: all hand labor, even featuring a hand operated baler for cardboard. Once that buy-back got established we'd run curbside routes, small curbside routes out from the buy-back hub into the adjoining middle class neighborhoods. So, there were little satellite programs springing up in different neighborhoods of Chicago

This grassroots model became one other cities used. It had a lot of things going for it, and it lasted about 10 years.

In the interim, we also helped write the City's first waste management plan. It set a goal of recycling 25%. I co-authored the plan and goal with the planning staff from the city. I was placed on a big commission that Mayor Washington appointed. Our group got into negotiations with the Department of Streets & Sanitation. They had their own garbage crews. They still do on the residential streets. They collect from all the 1 to 3-unit buildings, and then privates do the rest.

We negotiated a diversion credit with them. The diversion credit was based on research. Since garbage disposal was paid for, recycling disposal should be paid for as well. The diversion credit paid us \$15 for every ton we kept out of the landfill. This greatly strengthened the Resource Center and allowed it to do more good work. Ken Dunn has told me that the Resource Center earned \$10 million dollars over 10 years during the period where that fee was in effect!

Several other grassroots programs, including one startup in uptown Chicago by East Asian refugees, are still going. But others eventually did close because mayor Richard Daley the Second eventually got elected after Mayor Washington died. He adopted the notorious Blue Bag program, which tied into automated processing and therefore saw our labor-intensive approach as unfair competition.

Personally, the grants did mean that I was able to be paid for my work after 4 years of mostly volunteering.

Later this “diversion credit” that came from my report has come to be called a disposal service fee, which fits what it does far better. Credit isn’t money, at best it is an entry on the plus side of a ledger. But fees are money; fees jingle, fees can buy stuff.

So one of my firsts is to have helped invent disposal service fees for application to recycling businesses handling postconsumer commodities. Though it makes perfect sense to pay these fees to recyclers to insure better disposal outcomes, the disposal service fee remains a neglected strategy for putting recycling in a position to make the dream of Zero Waste come true.

Fighting Over the Discard Supply Breaks Out in Illinois

We didn’t have as many incinerator battles in the Midwest as were happening on both coasts. But I was heavily involved in some of the northern ones.

Dan Knapp wrote extensively about 5 or 6 proposed incinerators that northern California recyclers blocked during the 1970’s and ‘80s using various strategies and often casts of characters. Meanwhile, Barry Commoner and Neil Seldman were fighting multiple burn plant plans up and down the east coast. I reported these events to my recycling colleagues in Illinois, and wrote up recycling developments elsewhere that I learned about to help everyone advance.

During the Chicago Mayoral campaign I expanded my networking to Chicago organizations and helped form an *ad hoc* group we called Coalition for Appropriate Waste Disposal (CAWD). We coalesced to serve as a watchdog group when Mr. Washington became Mayor and told his staff to launch a waste management planning process.

Harold Washington stimulated genuine interest and effort from numerous citizens. Mr. Washington, and his predecessors in the Chicago Urban League—particularly Whitney Young—fostered a more positive and pragmatic approach to community organizing. These early community leaders (some called them the Chicago Eleven) successfully dialogued with Richard Nixon to help create the US EPA, the Clean Air Act, and similar legislation in the 1950’s and 1960’s.

(Initially, I thought Barack Obama’s election would provide similar inspiration, but that didn’t come to pass. It’s a huge disappointment that we instead have had such a negative backlash to what could have been so creative an opportunity.)

The planning process launched by Mayor Washington in 1983 also brought out the big guns—the proponents of high tech approaches such as incinerators. An article done at

the time compared a \$107,000 consultant study by Envirodyne, and performed for Mayor Jane Byrne, with the free study I wrote on behalf of recycling for Mayor Harold Washington. The Envirodyne study came first, then mine. The author, Bruce Fisher, was very favorable toward my job creation plan.

Here is how Bruce Fisher summarized the differences, in part: “When Ken Dunn and Resource Center Development Office Gretchen Brewer watched the candidates debate job development plans and heard that Washington was thinking about recycling..., they got in touch with him.

“By March 11, 1983, Brewer had submitted a 14 page study/proposal...to Washington’s research staff.... It is a minuscule document compared to the massive Envirodyne opus, but its very existence—and its contents--- demonstrate that the \$107.000 spent on the Envirodyne Report may have been a waste of money.

“What Harold Washington got for free from the Resource Center is a well-researched study of how Chicago mishandles its garbage. Gretchen Brewer’s study suggests that...\$40 of every \$100 that Chicago spends to get shut of its garbage goes for “landfill fees, incineration, and long-distance hauling” and therefore each ton of junk diverted to a recycling sysem would save the city forty bucks.

“Given that about 36% of the solid waste produced here is recyclable, all that’s needed to save \$109 million over...five years is to come up with a way to collect the stuff that can be resold. And Ken Dunn, as people all over the South Shore know, has such a system in place.”¹⁴

In 1983 and 1984, what I had learned about incinerators from Urban Ore and other Bay Area and East Coast recycling leaders had proven timely and persuasive. As part of the Chicago Waste Management Planning Task Force, I was able—along with the rest of our recycling committee—to counter forces wanting mass burn incinerators. An op-ed I wrote titled “Burning Waste and Money” summarized my argument for Chicago.

Our Critique of the Lake County Incinerator Proposal Was Effective

My next opportunity was to take on an incinerator proposed for Lake County, IL, just north of Chicago. At this point, CAWD was newly formed and we hadn’t taken positions on anything except that we were pro-recycling for Chicago. We were still a loosely formed group without officers or by-laws. We hadn’t really discussed incinerators.

I pulled a fast one by claiming that I represented CAWD in opposing the Lake County incinerator. I spoke at several public hearings, and wrote a hard-hitting critique of the waste management plans proposed for the County by their consultant Metcalf & Eddy.

¹⁴ Bruce Fisher, “Campaign Watch: Recycling Politics,” in *Short Cuts*. 1983.

My critique ran to 8 pages and was full of factual information. My testimony was featured in a News-Sun article with the headline “Incinerator Plan Draws Heat.”

I used a *wu wei* strategy from Asian martial arts to great effect. *Wu Wei* is an important concept in Chinese philosophy, especially Taoism. Translated, it means “non-doing” by which is meant natural action, or action that does not involve struggle or excessive effort.

While claiming I spoke for all of the Coalition, in fact, I acted on my own authority. Most of the members didn’t care, but Bob Ginsberg of Citizens for a Better Environment (CBE) protested that incinerators did not conflict with recycling, & commissioned a study by two CBE scientists to disprove my stance. In the end, the CBE study supported MY position, not his.

Further, the weight of most research since has come down in favor of recycling and other genuine “highest and best use” resource recovery approaches, such as reuse, reduction, and composting based as much as possible on separation at the source.

It was around 1982 when I became a paid member of the staff at the Resource Center, Then I worked for them as the development officer. I started new programs, and did lots of public education activities and so forth. Eventually though, I found just couldn’t live on the low salary. I had an opportunity to apply with Massachusetts Department of Environmental Protection in ’85 and I moved there

But by this time, I had moved on to Boston for new job w/ Commonwealth of MA DSWM (Division of Solid Waste Mgmt). I never saw the CBE study.

Venturing Into Uncharted Territory in Massachusetts and Rhode Island

From 1986 to 1988, I designed the plastics recycling plan for Massachusetts and Rhode Island. The challenge we faced as a state government was to explain the situation to the public. To get an idea of what the problem looked like to one person, I saved my own plastic discards for 1 year. Then I measured and projected the results out into the cubic yards of “permitted landfill airspace” for 4 million people over 20 years. With a dense still-growing population and little open space for new landfills, it was clear that aggressive plastics recycling was our best bet to avert some very bad consequences.

But, plastics recycling was so new at that time! My work group once again was required to create new solutions never tried before. We literally had to start from zero, creating and putting all the pieces together for a two-state program.

For starters, we knew we'd need MARKET PULL to assure that collected plastics would be converted, sold, and used again as new products. So, I began searching for ANY company ANYWHERE that was making ANYTHING out of recycled plastics.

It was slim pickings in the US, with only a handful of companies using, or even willing to consider, post-consumer plastics. However, we learned that a number of European and Canadian companies were making recycled plastic products. Thus, we knew IT COULD BE DONE.

To prime the pump, we looked for ways that state government could become a large customer for recycled plastic products. The prospect of guaranteed sales would be a key incentive we would use to convince manufacturers to retrofit plants or invest in new technology for using recycled plastic raw materials.

At that time, Massachusetts did not have a Buy Recycled policy, program, or interest. This was years before the State of Massachusetts Operational Services Division implemented the state's model Environmentally Preferable Purchasing program, or EPP. So we had to choose a recycled post-consumer plastic product over which the Massachusetts Division of Solid Waste could control the purchasing decision.

The Suspense Was On...Us

First we had to pioneer a product. And where better to begin than with the statewide recycling program? If we were going to COLLECT plastics, then why not also FEATURE recycled plastic products in the program? We chose recycling set-out containers, at the time the well known "blue box", figuring manufacturers would be motivated by the chance to sell millions of them to state government.

In practice this was a big gamble for us to take. We did not know for sure if ANY vendors offered, or were capable of producing, recycled content set-out containers. But, we took the leap, and in 1986 issued the first purchase order in the United States for this product. We specified 10-25% post-consumer plastic. We told vendors that boxes with higher content would score higher in the bidding. We required that sample containers be included with all bids.

The suspense was on, then, to see if any bidders would meet our specs, and what sort of samples we'd get. The samples that came in were a motley assortment—mostly off-the-shelf items intended for altogether different purposes, like plastic crates and even a large flower pot! But, thankfully, we also received several promising looking containers.

Setting Standards While Shooting in the Dark

Our next challenge was to rate the samples without benefit of established standards for strength, weatherability, and so on. So, we invented a highly scientific (?) method we called the "stomp test". We turned each container upside down on the floor, then my boss leaped into the air and jumped on it with his full weight. We figured his weight approximated one to two weeks' worth of recyclables plus wear and tear.

We disqualified all containers that cracked, or collapsed and did not spring back to their original shape. Fortunately, two passed, and we ended this phase by selecting the one with better design features, proof of recycled content, and delivery guarantees.

In this way, **Massachusetts became the first state in North America to issue a recycled post-consumer plastic content standard for recycling set-out containers.** Once 25 percent content was proven, it was an easy step to require 75 percent and then 100 percent.

Getting this one product launched set the ball rolling for what soon became the industry standard nationwide. Indeed, most jurisdictions now specify post-consumer plastic content not only for recycling set-out containers, but for a wide variety of compost and garbage collection bags, bins, and other receptacles.

From State Planner to Plastics Industry Insider: A Move that Proved to be Unsustainable

I was hired into the State of Massachusetts Environmental Program because of my success as a recycling movement researcher and a writer of credible and influential reports that delivered measurably better results in the early stages. But I had done little or no work on plastics as a separate market category when I was given the job of writing the state plan for plastics recycling.

You might think I was unprepared, and in one way I was. I had never even taken a chemistry class! I had to give myself the equivalent of a crash college major in polymer chemistry. I started out thinking plastics were impossible to recycle. Also, I had an attitude against the plastics industry because it had not stepped up to take responsibility for its products via recycling programs, unlike paper, glass, and metals manufacturers.

But my general training and experience worked to my advantage in this new situation. Research methodologies are wonderful tools because they can readily refocus on new questions. I spent the next twelve or so years answering key questions about plastics, which became a big issue worldwide at that time. Here is a quick overview of those years. I had some victories, and some defeats. The victories came early, the defeats later on. Throughout, I entered a new and unfamiliar workspace highly charged with passionate emotion. At times it was difficult to stay on track with my principles. I changed employment many times, becoming bicoastal, with a heartlandish underlayment.

Massachusetts Department of Environmental Protection, 3 years. This was my debut performance in a to-then neglected subfield of recycling. My research on the Statewide Plastics Recycling Plan covered all elements of full-scale recycling systems as developed at that point in Europe and the US, including plastic discard generation, public health and environmental problems from plastics; collection methods; and market studies for recycled outputs such as pellets and lumber. Through tours, conferences, and consulting with experts, I analyzed Materials Recovery Facilities' processing methods and costs and assessed the performance of competing recycling technologies.

Council for Solid Waste Solutions (CSWS), 2 years. Working for this industry group was to be the pinnacle of my plastics career, but the seeds for a longer-term decline sprouted there as well. In this insider role, I served as strategic advisor to a well-funded plastics industry consortium formed to defend plastics from bans and other restrictions. I educated the public and decision-makers on the benefits of plastics and began building a plastics recycling infrastructure via research, pilot programs, grants, technology development, and other initiatives.

After My Purge by the Plastics Industry, I Returned to Government, Working for the San Diego County Dept of Solid Waste and Recycling, one year, plus two more years as volunteer lead of Plastics Task Force. I designed a plastics recycling action plan for San Diego County. Per a directive from the County Board of Supervisors, I negotiated industry support and evaluated the outlook for a countywide plastics recycling program rather than enacting bans or other restrictions on Styrofoam™ and other plastics.

Earth Circle, 6 years. I became an independent self-employed consultant on various plastics recycling projects. One big one was a plastics waste management implementation plan that involved designing and running a shipboard plastics waste composition study for Naval Station San Diego. I worked on technology transfer for the first plant in the USA that made trash bags from 100% post-consumer plastic film. I performed an agricultural film plastics recycling feasibility study for San Diego growers.

I tried to keep an open mind throughout this twelve year specialization, recognizing that while I might hate certain plastic products like packaging, I also valued other plastic products like my computer and eyeglasses. My view was that if the plastics industry was going to market an ever-increasing quantity and diversity of products, then they should take responsibility for implementing genuine, comprehensive recycling programs for optimum recovery of this scarce resource.

Eventually, and increasingly, it became difficult to hide my disappointment at some of the tactics I witnessed. Eventually I became a critic of the industry, based on their actual performance. This had very negative consequences for my financial well-being.

Strategies I Observed Over Ten years of Work with Plastics Recycling, from 1986 to 1996

My perspective of the plastics industry draws on extensive sources, including plastics recycling technology plant visits in the US and a research fellowship to Europe, which at that time was over 10 years ahead of the US plastics industry in recycling and development. Our team had market studies by specialists working on the Massachusetts plan, and I was able to make many in-person visits to pilot plastics collection programs. I visited and observed many Materials Recovery Facilities and Plastics Recycling Facilities, and on and on.

Subsequently, I had the advantage of seeing the plastics industry from the inside as strategic advisor to the Council on Solid Waste Solutions. I did not limit myself to a few publications that clearly took a non-supportive editorial stance on plastics recycling, and clearly were pro-WTE. Throughout, I read broadly, took notes, created files, and grounded my conclusions in factual information.

But early on I observed that some of the authors of industry sources were serially guilty of what one of them called “eco-gibberish.” For instance, I can’t understand to this day what the following quote from a plastic industry source means, can you?: “The best place to start environmental conservation is where cost is low and benefit is high, Dr. Mead said. If you go beyond the point where benefits exceed costs, you are wasting resources. Recycling, for example, is consistent with resource conservation only if the benefits of recycling exceed the costs. If recycled products are not cheaper than new products, then recycling is wasting the nation’s resources.”

With that example in mind, perhaps it’s not surprising that the plastics industry position on recycling as it evolved in its somewhat clumsy early states was of several minds about recycling. Some of its organs advocated waste to energy, calling combustion a form of recycling even though burning destroyed material in the name of saving it. But others advocated and for a time paid for rigorous science-based operations research such as the kind I did. Then again the industry would spend millions of dollars paying lobbyists to fight or overturn bans and handling fees. One of their favorite tactics was to trot out official sounding organizationa snd councils to be spokespersons for industry positions. They launched the Center for Plastics Recycling Research at Rutgers University to do unneeded and arcane research dreamed up by professors and of little use to working recyclers, who were eager learners when they could use the knowledge to grow.

Immensely rich, they the plastics industry threw money at their problems. The Center for Solid Waste Solutions, which formed in 1988 and was staffed in 1989, created a startup budget of \$23 million by collecting \$1 million annual dues from each of 23 member companies.¹⁵

¹⁵ Council for Solid Waste Solutions member companies:

- American National Can Company
- Amoco Chemical Company*
- Chevron Chemical Company*
- CIBA-GEIGY Additives Division
- Cryovac Division, WR Grace & Co
- Dow Chemical USA*
- DuPont*
- Eastman Chemical Company
- Exxon Chemical Company*
- HIMONT USA, Inc
- Hoechst Celanese Corporation
- Mobil Chemical Company*
- Novacor Chemicals Inc*
- Occidental Chemical Corporation*
- Paxon Polymers
- Phillips 66 Company*

With this structure, they set forth a three-pronged strategy for defending plastics:

1. They repeatedly launched propaganda to convince government leaders and the general public that plastics aren't the evil or dangerous materials environmentalists portray them to be. Prominent examples include:

Time Magazine insert – This was an 8-page, \$1 Million ad in 1989 listing benefits of plastics, dashing myths about them and the alleged shortage of plastics feedstocks from natural gas and petroleum, and falsely framing the plastics problem as a lack of landfill space. There was no shortage of landfill space in the USA at the time, as their own facts had proved to them. This propaganda piece was pitched to decision-makers.

Plastics Recycling Blueprint – This was presented as a general planning guide for municipalities, but industry PR was woven into it. The Blueprint was launched in the spring of 1990. **The strategic plan adopted as its core idea was a scaled up version of my Plastics Recycling Action Plan for Massachusetts.** The intent was to guide governments, so it included the goal of 25% plastic bottles recovery by 1995. This 25% recycling goal was rolled out at the North American Recycling conference in Montreal in 1990. I was there when it was launched, and I was in on the advanced discussions of this initiative with CSWS staff.

Super Bowl advertising – This was a sophisticated pitch aimed at Joe the beer-drinker that intended to dispel so-called myths about plastics. These ads started in 1990 and continued till 1995. They won all kinds of awards for changing consumer opinion about plastics, as measured by pre- and post-campaign surveys. Once the numbers showed that most Americans were no longer disturbed about plastics, this campaign—and many other American Plastics Council programs—were quietly closed down.

2. They jumped into government affairs like lobbying, in order to kill bills and win over local and federal government leaders. They wanted electeds and officials to see plastics in favorable light so they would not allow passage of bans, taxes, or other restrictions on plastics' drive for market share over metals and glass. Results were mixed, and there was pushback.

Quantum Chemical Corp, USI Division*
 Scott Worldwide Foodservice
 Solvay Polymers, Inc*
 The Procter & Gamble Company
 The Society of the Plastics Industry
 Union Carbide Corporation*

On the victory side, APC member companies and lobbyists were sent out to work on industry's behalf in all states where restrictions were passed or pending. Since 1987, when Berkeley, California and Suffolk County, New York passed the first bans on Styrofoam™ carry-out containers, anti-plastic measures of all types had swept the nation at all government levels. Eventually these industry reps started winning. They got laws reversed, sank or delayed bills, and largely prevailed against fees, taxes, and bans, at least in the short run.

The Massachusetts PRAP came out with the first estimates of plastic discards generation, landfill space taken up, and disposal costs for this burden on local governments. Others followed and built on this knowledge base. Massachusetts PRAP also contained a comprehensive discussion of the environmental and global resource problems associated with plastics. It challenged the plastics industry to join in teamwork with New England governments, local industry, and academia to mount comprehensive plastics recovery systems that would boost recycling of plastics from its abysmal record of 1% recovery in 1988. Competing materials at this time had recycling rates anywhere from 16% to 90% and track-records of years of thoughtful programs and cooperation.

The Take the Wrap campaign is a good example of the pushback phenomenon. Take the Wrap was initiated in San Diego and went national at the 1991 National Recycling Coalition conference in Boston. It took advantage of one of plastics' most advertised strengths: its light weight and resistance to breakage. With minimal cost to participants, it got plastics activists to mail back their excess plastic packaging to the industry, care of the Society for Plastics Industries (SPI). I was working with CSWS at this point. I did not personally see the packaging influx, but SPI was deluged by shipments of used plastic packaging sent by disgruntled citizens from all over the country. Each shipment bore the message: Take the Wrap! which of course is a pun. But the hard-edged punchline behind the pun said the plastics industry must step up and take responsibility for recycling the plastic packaging they were putting into the environment, or face pushback like Take the Wrap!. They got the message, and parts of their apparatus stepped up by funding technical interventions such as research and development of recycling infrastructure.

3. Strategic Recycling Planning and Technical Assistance – At its best this plastics industry initiative engaged recyclers and consultants to research and implement plastics recycling strategies including pilot programs testing on-truck densification, curbside plastic collection models, publicity and labeling, materials recovery processing, dropoff program design, market development, new recycled plastic product development, and some information transfer on successful plastics recycling technologies developed in Europe and available to US companies. CSWS created and managed a large grant program that gave \$100,000 and sometimes more to pilot programs they strategically selected from around the country. Larger streams of money flowed to places where anti-plastics pressure was building. Many how-to-recycle manuals were issued, including recycled plastic products directories and a plastics handlers manuals. In this way the

industry broke down some obstacles and started building a durable plastics recycling infrastructure. The Research and Development part of this push looked at improved balers, processing equipment, and collection trucks; a stand-alone system of Plastics Recovery Facilities or PRFs; and new recycled plastic products and markets. Last but not least for me personally, they paid for my research and some articles I wrote for trade publications. I focused on European and American plastics recycling technologies, including ET/1, Recycloplast, AKW, Bezner MRF, Sorema, and Sonoco-Graham.

Each of these three missions was staffed with a team of people. Some were employees of SPI, but many were consultants and high-powered consulting firms contracted to SPI/CSWS. Each division also had a group of plastic industry executives serving on the CSWS board, as well as subcommittees of additional industry reps supporting each division.

The structure was top-heavy, unwieldy, and time-consuming with factions battling over how much each would receive, and which approach had priority. But overall, the whole messy apparatus worked!

That Said, Who is the Plastics Industry?

Petroleum and natural gas companies are plastic resin companies, are pharmaceutical companies, are petrochemical companies, are weapons companies, are synthetic textile companies, are cosmetic companies, and on and on.

While I worked for the American Plastics Council, we were required to have legal counsel present at all multi-company meetings. That meant every meeting, since committees and multiple layers of committees carried out actions and campaigns. The point of this lawyering up internally was to guard against our creating any appearance of collusion or other activities violating antitrust laws.

But this often seemed a fool's errand. Because it was readily apparent to any close observer, as I was for years, that plastics industry members—companies large and small—whether or not orchestrated or centrally directed—coordinate with one another to an amazing degree for the betterment of all. These multi-nationals, aided by globalization, are wealthier and more powerful than most countries. A book called *The Seven Sisters* says seven of these petrochemical giants dominate the military-industrial complex, and can topple governments, and provoke wars.⁶ While individual employees may seem like perfectly nice people, *en masse* their single-minded profit motive kicks in like Adam Smith's *invisible hand*.

They can and do play hardball, as I learned from personal experience.

These industries change names whenever it suits, like the shape shifters of Native American lore. For example, after the Exxon Valdez oil spill, Exxon changed its name to Millennium. When the situation cooled down, they changed their name back to Exxon, then merged with Mobil. So who are the Seven Sisters? The original seven were the

Standard Oil Company of New Jersey (later Exxon); the Standard Oil Company of New York (Socony, later Mobil, which eventually merged with Exxon); the Standard Oil Company of California (Socal, later renamed Chevron); the Texas Oil Company (later renamed Texaco); Gulf Oil (which later merged with Chevron); Anglo-Persian (later British Petroleum); and Royal Dutch/Shell.¹⁶

This lineup was mainly a pre-recycling industry. When I met their least admirable spokespersons, I found they were fixated on ever more sales of virgin resins and plastic products—the more short-lived the better. Every plastic package meant another package to soon replace it. The ideal was a Styrofoam™ carry-out container or a plastic straw discarded in just minutes from moment of use. The more discards, the more sales and profits. The industry was drunk on its growth record, celebrating its 50th anniversary in 1988 with production of 50 billion pounds of virgin resins in the US. and a vast potential for growth.

In 1985, 36% of US resin production went to packaging including inks, coatings & adhesives, and 8% of resins went to commercial and institutional products such as food serviceware in restaurants, schools, prisons and take-out packaging in on-the-go venues such as ball parks, zoos, beaches, and fast food restaurants¹⁷ By 2011, 41% of plastic resin production went into packaging including inks, coatings & adhesives, and 25% was used in commercial and institutional applications. The grand total going to single use disposable products was 66%!

From 44 to 66 in 26 years—a 50% increase! What does this tell us about the plastics industry's motivations? It tells us that while they were recycling more, they were also churning out more difficult to recycle packages, such as 6 layer pouches. That's why it is understandable that the industry is again pushing for Waste To Energy, and also is big on promoting buzzword technologies such as “conversion” and specific technologies like plastics to fuel, or PTF, depolymerization, or distillation.

This also helps explain what it means that ACC has just hired a director of “Recovery” as well as Recycling. By “recovery,” they definitely mean non-recycling technologies, even if the material is destroyed in the “recovery” process.

At first, the industry claimed they were unfairly singled out for criticism, given that plastics were only 7 percent of the discard stream. Besides, they argued that plastics had so many benefits in terms of keeping food safer; providing lighter weight, less fuel-intensive shipping; ushering in a revolution in personal computers, portable electronics, contact lenses, artificial hearts, and so many other breakthroughs made of miracle materials.

But pushback has continued up to the present, and there is no end in sight.

¹⁶ Wikipedia; *The Seven Sisters: The Great Oil Companies and the World They Shaped*. New York: Viking Press, 1975.

¹⁷ *Plastics AD 2000*, Chem Systems, Inc., 1987.

A Shotgun Approach to Industry Development

This shotgun approach pulling in many member companies to multiple programs, strategies, and work groups like purpose-formed councils, is how the American Chemistry Council (ACC) works. As I reflect now on the in-fighting I saw back in the day, and consider the competition between approaches, names, slogans, resins, and interests, I realize I was participating in early formative stages of what is now a multi-pronged response entity. Under ACC, a cluster of many, many coordinated new organizations have continued growing and learning—publicly or privately—until now.

With so many member companies and constituencies and never a shortage of funds or personnel, ACC probably has formed numerous councils to address every issue area, always with room for more. APC Technical, for instance, set up programs in the 90s to deal with auto plastics, e-scrap plastics, and other durable plastic products.

When dealing with global issues, such as marine plastic debris, ACC also has enlisted involvement of their overseas counterparts: EPIC of Canada, Plastics Europe, and like bodies in other regions of the world. They do not hesitate to call in support—both funds and personnel—from their member companies in the US and abroad.

Council for Solid Waste Solutions Becomes American Plastics Council

As for Council for Solid Waste Solutions, it changed its name to distance itself from wasting. Sometime in 1993 or 1994 it became the American Plastics Council (APC). This perhaps reflected its earlier tilt, in which it opted to spend such a large share of its budget and program to defend the most controversial plastics, notably expanded polystyrene and foamed polystyrene, along with funding the first efforts to defend plastic bags.

The Polystyrene Recycling Council. A subgroup of companies formed the Polystyrene Recycling Council (PSRC). They opened Plastics Again in Massachusetts in about 1990. The heart of Plastics Again was recycling plant that was a joint venture with McDonald's. The partner companies were looking for a way to continue using expanded polystyrene clamshells rather than change carryout packaging. Under pressure from an Environmental Defense Fund (EDF) study, however, McDonald's opted to switch to paper carryout packaging after all. Deprived of its support from McDonalds, Plastics Again closed.

Other member companies launched other polystyrene recycling ventures that failed, including a processing plant in Los Angeles run by Talco Plastics.

But some succeeded, and one of these thrusts affected me personally as I continued transitioning from well-paid expert to cash-strapped expert volunteer. Dart Container, which makes polystyrene carryout packaging and school lunch trays, was backing few recycling plants elsewhere in the USA. But in my locality Dart also strung out the volunteer San Diego Plastics Task Force – which I was on -- for two years over a simple question: whether vendors at San Diego Zoo and the Wild Animal Park could stop buying expanded polystyrene serviceware in favor of a more environmentally friendly form of carryout packaging made of paper. Dart made it impossible for us to implement best practices for the environment. Thanks to their stalling tactics, the resin companies, which had already told the public they had school recycling collections underway for polystyrene lunch trays, was able to work out an offer to schools they couldn't refuse. They gave them a price reduction on long-term contracts to keep buying polystyrene products, but only if they “closed the loop” by joining the recycling effort.

To those of us watching with dismay as these tactics were used, this was a tempest in a teacup. We thought the economics of polystyrene recycling were impossible due to many unresolved issues such as contamination and lightweighting, and that shipping costs would inevitably sink any closed-loop initiative. But most schools were lured back into purchasing plastic polystyrene lunch trays by the more attractive upfront prices and the promise of a chance to help industry work out the kinks of recycling this difficult material.

The consequences for would-be competitors were severe. Manufacturers of alternative “greener” packaging—typically small start-up companies—could not recover from market intervention on such a scale, and fell out of the competition. With much of the buzz silenced by plastics industry PR campaigns and intensive lobbying, it's my impression that local task forces petered out for lack of funding, school boards lost interest, and polystyrene companies returned to growing their business as usual by the mid-1990's.

This campaign illustrates industry's ability to outlast, outspend, and out-staff government, non-profit, and volunteer organizations.

The Rutgers University ploy rested on investing in “show” research, but for the most part the results developed no real legs or commercial viability in the marketplace. Their researchers declined to work with in-the-trenches recyclers to develop pragmatic, proven, industrial-scale solutions to plastics recycling barriers, such as solving the problem of sorting different plastic resins and colors into separate streams that could actually be sold. More generally, Rutgers—and the US plastics industry in general—gave no credence to plastics recycling technologies with proven track-records developed much earlier in Europe. In the meetings and hallways I often heard them say: “If it wasn't invented in the US, it doesn't exist!” For *Resource Recycling* I wrote and published a series of articles on European plastics recycling technologies. Each article was designed in part to refute this sloganistic thinking.

But CSWS, which funded Rutgers U, also funded me, and we were at cross-purposes.

APC member companies and others announced many joint ventures with plastics recycling conglomerates to do collections and processing of foamed PS, PVC, HDPE, PET, and plastic bags. Some 20 programs and plants were announced just in 1990-91, including the following examples:

The National Polystyrene Recycling Company was formed by Dow Chemical, Amoco, Mobil, Chevron, Fina Oil, Polysar Inc, ARCO, and Huntsman Chemical Corp in 1990. They pledged to spend \$16 million per year to launch five plants around the country and recycle 250 million pounds per year of polystyrene. This was equal to one-fourth of polystyrene plastic used annually for foodservice and packaging.

Dupont and Waste Management, Inc. formed a Plastics Recycling Alliance with offices in two cities, Chicago and Philadelphia, as I remember.

BFI & Union Carbide built a plastics recycling plant in New Jersey.

MacDonald's & Polystyrene Recycling Companies started Plastics Again, targeting Styrofoam™ and polystyrene utensils recycling.

The National Recovery Technologies (NRT) initiated research and development for an automated plastic resin sorting system

The Vinyl Institute sponsored recycling trial programs for Polyvinylchloride. I listed fifteen more in *Plastics News*, 1990-91. I reported on them again in *Plastics Recycling Action Plan for San Diego County*, August 1991, written by me for the County of San Diego Department of Public Works.

Here's Some Elder Advice to the Next Generation

The plastics industry is like the multi-headed hydra, always growing more branches, and branches of branches. The more we righteous recyclers mount campaigns against them, the more we will incur their oppositional tactics. **We must beware underestimating their power or thinking we've bested them. Even if we win occasionally, they have the ability to outspend us, outlast us, and most especially to out-evil us.**

Remember that the plastics industry is the petroleum industry, is the chemical industry, is the pharmaceutical industry, is the weapons industry, is the military industrial complex. *The Seven Sisters* describes one phase—the break-up of Standard Oil in the US—and the divvying up of world oil reserves among the main countries—US, Britain, & the Netherlands originally after World War II. This led to OPEC embargo in the '70s. Later, Mexico & Russia became players too.

Here is a list of common plastics industry techniques that I observed:

- Put words in your mouth.

- Mis-state what you are about and get you so tangled up in a mess of obfuscation that you waste your time and energy trying to clarify your stance.
- “Have sound bite, will obfuscate.”
- Distort your concern by claiming it is really something else.
- Change names frequently, like Native American shape-shifters did, and do.
- Rewrite history – as in claiming falsely that recyclers were wildly happy about the resin codes.
- Deliberately get you outraged and off-balance.
- Trot out “experts” and official sounding organizations, like the Plastic Bottle Institute?, or the Center for Plastics Recycling Research (CPRR).
- The more heated the controversy, the more committees and councils with formal sounding names suggesting scientific rigor, organizations like COPPE and NREL.
- Harp on the safety of plastic food packaging to avoid foodborne disease and guard public health.
- Never underestimate the plastics industry.
- The plastics industry does not play fair.

These techniques constitute a page from a well-worn playbook that’s become very familiar since the Citizens United decision, and since G. W. Bush relaxed many other regulations. Now, a corporate bigshot need only wait one year before he can go to work as a high-paid lobbyist influencing the US Congress to favor the big multinationals. Many former executives are available for this work while hanging safely suspended by their golden parachutes.

Industry, in a 2013 retrospective from American Chemistry Council, claimed resin codes were wildly popular with recyclers, the opposite of the truth. A National Recycling Coalition committee that was convened to get the codes withdrawn was outlasted, outlobbied, and finally outvoted by the plastics industry in a showdown at a board of director’s meeting about a year before the NRC membership collapsed and the organization spent a couple of years reconstituting itself. By phasing in plastics-friendly legislation in the first states, the plastics industry was able to head off more restrictive packaging measures while legislators were convinced to give industry time to phase in codes in more states. Ultimately 39 states adopted the codes, and only 1 state later repealed the codes, I think Vermont.

The plastics industry’s claim that burning packaging plastics will improve combustion in incinerators – which they call “borrowed energy or fuel value,” takes advantage of legislators’ ignorance of how these high-tech systems work, and a matching ignorance by them of what’s really in the discard stream. It’s very tempting to government decision-makers to throw big bucks at a black box fix. Incinerators look good because they generate energy, and they are a remedy for anti-landfill NIMBY-ism.

Some arms of the plastics hydra urge governments to adopt flow control rather than allow free-market competition for the discard stream.

This I Believe and Know

Stubborn opposition from some in the plastics industry to recycled plastic content over the years took advantage of ignorance of recycling and packaging advances in Europe. Forward stampede thinking by these people is dead wrong, along with “inherent limits on recycling rates,” and the notion that waste and wasting is good for the economy. The idea that production and profit are more important than any other value is likewise dead wrong.

Recycling is good for the economy, and the more recycling, the better.

Recycling is an economic engine for the economy.

Recycling threatens runaway production for single-use that’s a be-all, end-all goal for the plastics industry.

On balance the plastics industry has shown profound cynicism and lack of imagination as it tries to justify its existence.

In Europe Waste To Energy is floundering due to shortage of discards to feed the beast. Sweden is importing trash from Norway to feed its 30 incinerators.

Meanwhile, our nation’s 70 or so incinerators are the largest source—along with plastics, and especially polyvinylchloride—of supertoxic long-lived dioxins released into the air and water.

Plastics are also a big player in landfill construction – They get you coming and going.

Laid Off Again, This Time Over Wood

In 2010 Earth Circle had a small contract to evaluate a document from Massachusetts Department of the Environment about the recycling potential of wood derived from construction and demolition debris. I completed my report in 2011.¹⁸ It was highly critical of the approach used in the study. I said “It starts with wasting of construction and demolition wood as a given, rather than looking at how construction and demolition wood could be recovered as-is and sold for reuse. Ultimately the goal should be to reduce pressure on forests to obtain new wood raw materials.” This was to be the last attempt on my part until now to communicate a wiser use of forest resources.

The Massachusetts Department of the Environment laid me off soon after receiving this analysis. I described this devastating experience to Dan Knapp soon after he offered to start paying me to write my memoirs. “For me,” I said in an email, “your offer of support came at a point where I was in free-fall, panicking at having been suddenly laid off when I was not in the least ready. It was like I was pushed out of a jet at 40,000 feet hurtling toward the earth, destined to be a grease spot, and I was magically handed a parachute to slow my fall and give me the reassurance...that at least I would have a soft landing.”

¹⁸ “Comments on C & D Scope for Draft Assessment of Construction and Demolition Derived Wood Used for Fuel.” by Gretchen Brewer, Earth Circle, July 9, 2010.

What Do the Forests Bear? Soil, Water, and Pure Air¹⁹

I continue to have a special interest in the fate of forests around the world. I would like to take an active role in preserving forests of all types, and in developing ways to keep forests standing as oxygen banks, carbon sponges, and rain-makers. The Chipko Reforestation movement in India has the slogan: "What do the forests bear? Soil, water, and pure air."

I'm convinced that the climate change meetings in Copenhagen *must* devise a sweeping program to preserve and restore forests and plant more trees around the world to soak up all the CO₂ we keep churning out in countless ways. After all, what are we thinking? We need oxygen to breathe, and trees and plants are the machines that make oxygen. We must have holes in our heads to think we can knock down trees, wipe out forests, and not reap the consequences. In New England, where we are privileged to have luxurious forest cover, the trees make our weather just like rainforests. If plans went forward, as some wish, to harvest our forests to burn for energy, we would turn New England into a desert. Farming would cease, lakes and rivers would dry up, soil would blow away, ecosystems would collapse, and our sublimely livable environment would become a wasteland. All this for a flash-in-the-pan shot of energy that's but a fraction of our energy needs.

I would like to see a new type of socially responsible investment created, or find out if such a thing already exists, that I'll call *forest credits*. It would be along the lines of micro-finance, that is, a small investment within the reach of most people, whereby individual contributions could add up to a huge fund to support preservation and restoration of forests worldwide. It would work along the lines of a carbon fund, and would be directly tied with bona fide, verifiable efforts to keep forests intact, such as the Prince's Rainforest Project led by Prince Charles of Great Britain.

Besides recycling paper to save trees, I would like to work to create such a program, or otherwise be directly involved in forest protection and tree-planting. The silver lining of having recently been laid off from my government job is that I now have the free time to work on this to my heart's content.

--Gretchen Brewer, 12/12/09

¹⁹ Quoted from the Chipko Reforestation Movement in India; the two paragraphs are taken from "On Living Among Trees," Gretchen Brewer.