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Annals of Earth

Only Connect



John Todd

Annals of Earth

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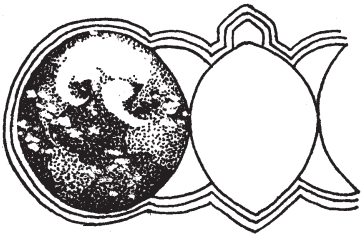
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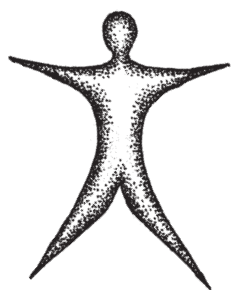
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The rule of no realm is mine,
but all worthy things that are in peril
as the world now stands, those are my care.
And for my part, I shall not wholly fail in my task
if anything passes through this night
that can still grow fair or bear fruit
and flower again in days to come.
For I too am a steward. Did you not know?

J.R.R. Tolkien

About Annals: Only Connect

*In these days of concern for the environment it can be useful to ponder ways in which we can renew our bonds with the natural world. From a long ago reading of E. M. Forster's novel *Howards End* I seem to remember that he used the phrase "only connect." This not such a great challenge for us as a family. We live in the woods close to the sea and have all kinds of other fellow creatures close by with whom we can attempt to connect. When we have lunch in our garden we are visited by catbirds, robins, sparrows, and chipmunks, all of whom are very fond of blueberries. Beyond the garden, in the woods, we see foxes, owls, ducks, coyotes, rabbits, woodchucks, wild turkeys, and a very large golden brown doe with a very new fawn. In our pond, in addition to our very musical frogs, we also often have muskrats and very occasionally otters.*

*In addition to E.M Forster, a number of other insightful writers and artists have been helpful in strengthening our awareness of the natural world. In a recent issue we wrote at length of Carl Safina's wonderful book *Beyond Words* which focuses on elephants, wolves, and orca whales. Primary among other such communicators is the famous English writer and animal behaviorist, Jane Goodall through her accounts of her work with chimpanzees in Africa. According to the magazine *USA Today* "She has become one of the most famous persons on Earth." According*



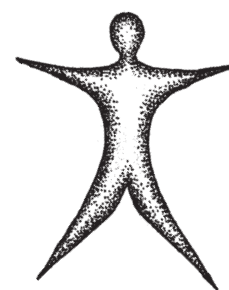
to Stephen Jay Gould, her work there is "one of the western world's great scientific achievements."

*We had the honor of meeting her many years ago at a United Nations related event in Vermont. We can add that we also found her utterly genuine and humble and very concerned about others and about the state of the world. I am currently reading her book *Africa In My Blood* – as it also is in mine. Baroness Goodall's book is an autobiography in letters dating from the*

*time she first went to Africa to study chimpanzees. Another of her books, published in 1971 and entitled *In The Shadow of Man*, was translated into forty- seven languages and is still in print.*

*According to the introduction to *Africa In My Blood* "Prior to Goodall's early discoveries, no one knew that chimpanzees ate meat. We had no idea that they or, indeed, any large mammals other than ourselves fashioned and used tools. And we could not have imagined that they hold in common with ourselves a dark side that includes cannibalism, intercommunity raiding promoted by adolescent and adult male gangs, and persistent male battering of females."*

Jane Goodall arrived in Africa in 1957 and, once settled in, wrote home to her family, "Quite honestly, I really do simply adore Kenya. It is so wild, uncultivated, primitive, mad, exciting, unpredictable. On the



whole I am living in the Africa I've always longed for." She also wrote of her complex relationship with the famous paleoanthropologist Dr. Louis Leakey of whom she eventually became very fond. "I adore working for Louis." She also learned that, to his great credit in my opinion, he wouldn't let any of his family hunt an animal. Having visited people whose walls were lined with the heads of animals they have killed in Africa and elsewhere, I was all the more impressed by this. As Lawrence Anthony wrote in his wonderful book, The Elephant Whisperer, "Hunting for pleasure, killing only for the thrill of it, is to me an anathema...There is not an animal alive that is even vaguely a match for today's weaponry."

Back to Jane Goodall and her life in Africa. She reported to her family in England of having listened to lions roaring at night – as did I long ago but they were in the Johannesburg zoo and not in the wild. More impressively she saw a small pride of them "waking from their daylight sleep and playing together like kittens."

On her many sorties she also encountered wild cats, zebra wildebeast, owls, cheetahs, rhino and gazelle, klipspringer, jackals, mongoose, leopards, and snakes. Most important of all, of course, were the chimpanzees. She did not mention hippos which, when we were in Botswana several years ago, were the only animals our guides were afraid of. And with good reason as they are about the meanest and most ferocious of all the wild creatures there.

In addition to the fact that chimps eat meat and use tools Jane Goodall, also learned that they do a rain dance. she was also able to make friends with a number of them and they gradually began to wander into her camp. As the narrator of her book explains she had "brilliant success in overcoming the normal, natural wariness in these wild animals and eventually habituating them to her presence. She had help from one she called David Graybeard. He became a close friend, and his calm curious demeanor helped break the fears of the other members of his community." As she became more familiar with the area Jane wrote, "The hills and forests are my home. I

think my mind works like a chimp's subconsciously."

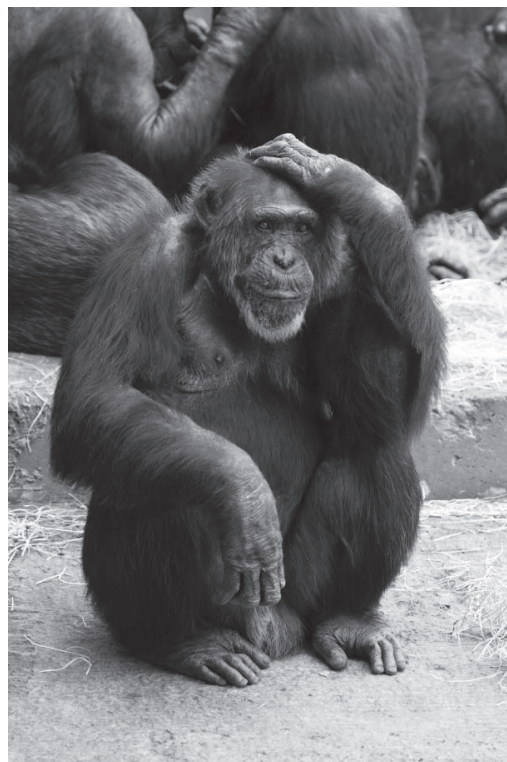
On another occasion she reported, "I saw four chimps being baited by a pack of baboons. The baboons got closer and closer until

the chimps could stand it no longer. The females climbed trees and the males chased after their nearest tormentors. Then all was as before. One baboon came very close to the tree one of them had climbed and was waving her free arm and screaming at the top of her voice. The baboon moved sedately a couple of feet away. In the end the chimps walked off and the baboons followed them to the edge of the clearing. But when the chimps – about six – were all feeding in the tree and the baboons arrived,,, the chimps looked in alarm and swung out of the tree. It's terribly fascinating. I don't think anyone knows much about the relationship between the two before, though I may be wrong."

Another time she reported seeing a male chimp sitting in a tree with a piece of meat in hand. Jane explained, "His wife beseechingly put out her hand, but he tucked the meat firmly under his arm. She made no other move – just sat, gazing longingly and occasionally putting out her hand and touching his. No response. But he did let the child have a taste. The comical thing was that he sat with the meat in one hand and a bunch of leaves in the other. , taking a bite at each, alternating. For all the world like a bloke with a pork pie in one and a stuck of celery in the other."

Again on the subject of her chimps' eating habits Jane wrote to her family in great excitement. "David G. has TAKEN BANANAS FROM MY HAND. So gently, No snatching. The first time I held one up he stood and hooted, swayed from one foot to the other, banged on a tree and sat down. So I threw it to him. The next one he came and took."

The narrator of the book opines that 'By the end of her first year in the forest Jane Goodall had gotten closer to wild chimpanzees, seen more, and learned more about them and their daily lives than any other human ever had. Louis Leakey's faith in the energy, endurance, passion, and intuition of his young protoge was vindicated."



Again in the opinion of the book's narrator, "Jane Goodall thought of her study subjects as sensate beings who shared with her – and us – a significant array of similar, perhaps identical, emotions and perceptions. Her apes lived in a parallel universe." With time in fact, they began observing her. With Dutch photographer, Hugo van Lawick, whom she later married, she wanted the chimps to come closer so they could get better portraits of them. What she really wanted to do was to tame them, to get them sufficiently comfortable with her that she could move readily among them and understand them more thoroughly. She began to brood on how to do so. And of course, her relationship with David Graybeard provided the solution by having taken a banana from her hand.

Jane subsequently decided to provide a regular supply of bananas for her subjects. As the book put it, "provisioning them. She established the camp as a site of temptation by creating the artificial equivalent of a very good fig tree." The chimps responded, visited regularly and "daily became tamer." The adult males came first, then the younger ones and finally the females starting with the very popular Flo and her son and daughter. Many of the chimps also developed a liking for towels and cardboard boxes.

Over time, it seems that many of the chimps seemed to feel that Jane had become one of them. Several began to make the same gestures to her that they did to each other. Her beloved David Graybeard would make soft "hoo hoo" noises to her and once put his hand on her arms with the backs of his fingers and occasionally held her forearm very gently. When he was cross with her he made louder sounds and raised his right forearm and once smacked her arm with as she described it "a lovely nonchalant attitude."

Another of her regulars, William, developed another regrettable human habit and took to stealing. He would stand in front of her tent gazing in to see what he could take. He once tried to take a jersey she was holding and when she said no looked very sad. As Jane described it, he once pushed her off a box so he could look for bananas inside it. At one point she wrote

home, "I am sitting companionably with William who is having a luncheon date with a cardboard box. I was not invited."

In one of my favorite accounts she describes how her David and one of his regular companions whom she called Goliath were spending time under a low tangle of vines. Then she noticed that they were holding hands. Then they began to play with each

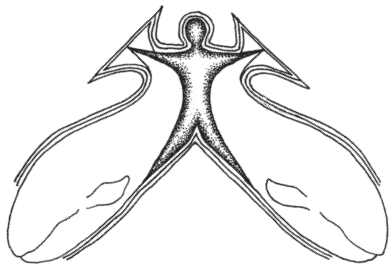
other's fingers, first gently then more actively. "There they were," she wrote, "two old gents, playing together like two year olds, roaring with laughter and tickling each other in the ribs."

Another time several of the other chimps were seen chasing each other round and round a palm tree and grabbing each others ankles as they did so. We subsequently learn that friends quite often hold hands. And sometimes kiss. Another time a younger male was playing with an older female, Flo, whom Jane described as very plain. When one of the younger males was tickling her in the ribs she shrieked with laughter.

More seriously, she was also able to observe her chimps reaction to large snakes. She described them as "distinctly apprehensive" but added that "they showed none of terror characteristic of all captive chimps when they see snakes of any size." On a more cheerful note she reports on a very young male she calls Merlin whom she described as the most adorable little boy.

She explained in a letter home, "The other day he sat on the path, a tiny, self sufficient little fellow, and gathered up a number of dried, black, banana skins, which he tried to shove into his 'trouser pocket', between his thigh and tummy, but there were so many that every time he put the last one in the others tumbled out. Others, according to Jane, were terrible thieves. They would steal and chew shoes as well as her husband's binoculars because they liked the flavor of the strap.

Her chimps also loved drumming which they did by stamping on a tree with their feet. They did so almost daily. Jane reported if she or anyone else tried it they "produced only a dull thud." Turning again to their feeding behavior, other than their love of bananas, she reported



seeing them seeming to enjoy large quantities of weaver ants. She tried them and found they had “a most exotic flavor’ and added that she was pondering “a way of marketing them as tropical delicacies.” Her chimps also enjoyed caterpillars and “a type of termite which swarms.”

Jane was not the only one who was fond of David Graybeard. A younger chimp, Fifi, would follow him around, sit on his knee and play with his hand. Being a kind fellow he would occasionally put his arms around her. In Jane’s opinion, “They are so like us. The major difference is the fact that they do not have language.”

And, of course there were problems as well. As more chimps began visiting the camp they stole food as well as clothes and other loose items. They also liked chewing on the canvas in tent flaps as well as wooden chair legs.

An unusual occasion arose when Jane observed one of the mature female chimps playing with a baboon and doing so very gently. But this play is normally rather one sided as the baboons when small are usually quite shy. She went on to explain, “Young baboons and young chimps often play together but Jane felt this “represented a most amazing ‘friendship’ between young wild animals of different species.”

With time Jane began to see the potential importance of creating a permanent station to study her chimps. As she pointed out in a letter home, “When you think of the amount of money poured into the social behavior and psychology of captive chimps you realize how very worthwhile this scheme would be. After all the psychological state of a captive chimp, in most instances, must be rather similar to that of a man in prison.”

Overall this was a very happy period In Jane Goodall’s life. As she wrote home, “I am just in love with the mountains and the chimps and the monkeys – oh and everything.’ And wonderfully, she passes that love on to her readers.

We have already mentioned author Carl Safina’s contribution through his book *Beyond Words*. The British publication *New Scientist* considered one of the most important books of 2015. We look forward to another of his entitled *The Voyage of the Turtle*. But although many people connect more readily to animals, there are others who find their path through the world of plants. The writer Michael Pollan has been instrumental in bringing this to our attention. As he wrote in *Second Nature: A Gardener’s Education* “Anthropocentric as the gardener may be, he recognizes that he is dependent for his health and survival on

many other forms of life, so he is careful to take their interests into account in whatever he does. He is in fact a wilderness advocate of a certain kind. It is when he respects and nurtures the wilderness of his soil and his plants that his garden seems to flourish most. Wildness, he has found, resides not only out there, but right here: in his soil, in his plants, even in himself. But wildness is more a quality than a place, and though humans can’t manufacture it, they can nourish and husband it.”

We have recently discovered another author who speaks eloquently for the plant kingdom. Richard Mabey who wrote the volume *The Cabaret of Plants* has been called “Britain’s foremost nature writer by the *New York Times*. The book has been described as “a masterful globe-trotting exploration of the relationship between humans and the kingdom of plants.” He begins the book with a reference to nineteenth century English author Edward Lear: who was “an astute botanist as well as a brilliant humorist.” He wrote my childhood favorite “*The Owl and the Pussy Cat*” among many other things.

We are reminded of him every time we sail into Great Harbor in Woods Hole as we always have to pass a boat called *Runcible*. For those a bit rusty on their Lear, part of it goes: “*The Owl and the Pussy Cat went to sea in a beautiful pea green boat. They took some honey and plenty of money tied up in a five pound note The Owl looked up to the moon above and*



sang to a small guitar, ‘Oh lovely pussy, oh pussy my love, what a beautiful pussy you are, you are. What a beautiful pussy you are! They dined on mince, and slices of quince, which they ate with a runcible spoon’. Curious about the meaning of Runcible, a quick

google survey revealed that no one, Lear included, knows what a runcible spoon is but there is a café in Bloomington, Indiana called Runcible. As well as a boat in the Woods Hole harbor. Our Random House and Oxford dictionaries chose to overlook the word altogether. But there is always Mr. Lear and the boat in the harbor.

But I digress. Back to *The Cabaret of Plants*: Subsequent to his report on Edward Lear’s botanizing, Richard Mabey tells us of a plant in the Namibian desert whose single pair of leaves “can live for two thousand years, grow to an immense size but, remain in the permanently infantilized state of a seedling.” He goes on to theorize, “We tend not to ask questions about how plants behave, cope with life’s challenges, communicate both with each other and, metaphorically, with us. They have come to be seen as the furniture of the planet, necessary, useful, attractive, but ‘just there’, passively vegetating.... This book is a challenge to that view.”

To do so, so he reports that the United Nations has described the over three hundred thousand species which make up the Earth’s flora as the economy’s primary producer... “as from that silent diurnal act comes everything we have: Photosynthetic cells capture a proportion of the sun’s radiant energy and give us air to breathe, water to drink, food to eat, fibers to wear, medicines to take and timber for shelter.” He concludes his introduction by saying, “It all sounds very serious but plants are also fun and feisty and give us different models for being alive.”

In the next chapter he moves into an area that is a major interest of mine, namely ancient cave paintings. Our refrigerator is well covered with images from the cave walls in Lascaux and we enjoy them daily. Most of us are familiar with the depiction of animals in such works but we know less about plants. Not Richard Mabey. According to him, “From the simple act of looking at the pictures, one thing is indisputable: their creators

were artists in exactly the way we understand today. The Paleolithic mind was the modern mind in embryo.”

Apart from some very early works, Richard Mabey maintains that depiction of plants did not start until five thousand years after the end

of the Paleolithic era and the simultaneous beginnings of agriculture in the middle east. In Egyptian art notional plants began to appear around two thousand, five hundred BC.

When the time comes for him to be specific in his account, the author turns to primroses. This rang happily true for us as the first time we were in the English countryside for any length of time was in the spring and we were delighted at the abundance of wild primroses. They grew everywhere – in ditches, fields, and woods. They were mostly a lovely, pale yellow. Richard Mabey focuses on what he calls a bird’s eye primrose. Another English writer described how “the small neat flowers decorate every bank, every slope, every corner.’ He went on to comment that he had “felt like an ignorant grockle when I first searched for them.” This, of course, left me wondering what a grockle might be. Google subsequently informed me that it is a slightly derogatory term for tourist.

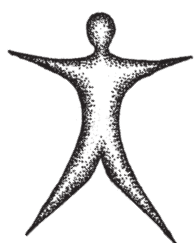
From primroses Richard Malbey moved on to yews, another plant we encountered frequently during our time in England. Apparently there are a few bronze age rock carvings of plants with what might be coniferous foliage. He maintains that it must have been a plant of some significance as hundreds of prehistoric yews still survive. Most of them are in the yards of churches which were built thousands of years after the trees had been planted. Richard Mabey considers this may hint of “some past sacred role.” He goes on to relate, “The yew which trumps them all is perhaps the most celebrated provocative tree in all Europe. It is the Great Yew at Fortingall in Perthshire.” Its girth has been measured at fifty-six feet. There are those who believe that it is older than Stonehenge and is the supreme example of the conjunction between ancient tree and sacred site.”

From England and its yews, the book moves on to Madagascar and the baobab tree, then to California and the sequoias, and back again to

England for its oaks. Richard Mabae claims, “It’s a tree mimic artist, capable of morphing into almost any imaginable arboreal form according to its circumstances. I’ve seen it as a dwarf and spiny shrub in Provence, grazed down to no more than four inches in height but still bearing acorns, and as a stately sixty foot tall, ten foot round timber tree in the mountain in Crete.”

As he later explains, “Availability and durability were the northern oak’s prime virtues. They could be turned into almost any kind of structure where long life and resistance to weathering were crucial. They supplied the timbers for Viking warships and Christian churches.... The roof of Westminster Hall, which contains six hundred tons of oak and spans seventy-five feet without a central support is another statistical marvel and the most remarkable wooden roof ever made.”

From his discussion of the oak the author moves on to trees much less well known to most of us -- the hazels. He describes one setting in which he found some of them. He found, “There were Mediterranean orchids next to arctic avens, cobalt blue gentians and common primroses that were sharing ground in the shade of dwarf hazel copses. We had the bizarre experience of wandering, like Gulliver, through two hundred year old floral forests that came up no higher than our chests. The hazel woods mark time like a metronome, but always seeming, in their multicultural jumble of plants and curious miniaturization, to keep the beat of a landscape which belongs to another time and rhythm, the halcyon days just after the end of the last ice age.”



Having caught our attention with a tree some of us find a bit uncommon, Richard Mabey moves on to one that is closer to most of our hearts – namely the apple. He begins with a fact unknown to me that there is evidence that the domestic apple originated from a wild apple

species found in north western China. He further maintains that all domestic varieties are basically the same species. But he does declare that although plants “may be overridingly concerned” with the survival of their own species but with the exception of a very few forest trees, none of them manipulate their habitats to ensure their own succession.

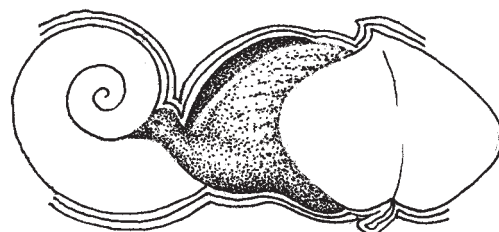
He concludes his book by declaring “The message of this book has been that plants are never simple victims, passive objects but vital autonomous beings, and that listening to and respecting that vitality is the best way we can coexist with

them, and in their difficult times, learn to help them.”

Jane Goodall and Richard Mabey unquestionably are superb models of people who have more than connected with the natural world. They have also, through their work and example, helped many of the rest of us to do so too. If many people are overly absorbed by our computers and other electronics they have reminded us, powerfully and effectively, that there are other realities that are more than worthy of our attention. This further reminds me that one of them is probably getting hungry and it is close to time for me to take some blueberries out to the garden and aim them in the direction of the burrow of our chipmunk.

Opiota Jerzy

NJT



Gulls and Gullibility

by John Todd

John Todd's ponderings on gulls and gullibility first appeared in a supplement of our fine local newspaper, the Falmouth Enterprise where our friend and colleague Bill Hough is editor and publisher. It is also the other working home of Annals layout artist Joanne Briana-Gartner.

I can corroborate John's observations on gulls and their dubious skills as snitchers which we have experienced a number of times. Among the many things we enjoy about our favorite beach, Playa Junquillal, is the absence of gulls there. This also means that your lunch is safe and that you can enjoy watching the surf without defending your food.

NJT



It happened here on Cape Cod late one spring. As I often do, I ended my morning ride at the mouth of a certain salt marsh. Over the years I have come to love the place. It has become part of me. When the tides are high and at full force, my wife and I plunge into the current and ride the speeding water well up into the marsh, quite goofy with delight as we are swept along the meandering course of the tidal creek. Even the herons and egrets seem to accept our company. Without a doubt I would include such creek riding on my list of the great pleasures of life.

One day I noticed a sign: "Closed to Shell Fishing by order of the State of Massachusetts." I guess I was not surprised. Every few years a new house is built at the edge of the marsh and, in recent years, the houses seem to be getting larger and closer. Like faulty anchors, our conservation laws do not seem to be holding. After seeing the sign I was unhappy all day, grumbling to everyone I met: "People do not seem to know their limits until it is too late." The salt marsh, contaminated with septic tank waste was my proof. Yet all summer we continued to ride the currents up into the marsh. Things were getting back to normal – or so I thought.

Then during a hot and muggy spell in late August,

I again ended my ride at the creek. I was ready for a swim and headed for the inlet. However, posted on a barrier fence was a sign that read: "The creek is closed to swimming because of bacteria." I headed over to the lifeguard chair. It was unoccupied but the same sign was posted there. I looked up and shouted, "They probably do not dig for clams or even swim in the creek – it is just the view they want." I was getting worked up. I yelled. "Where the hell is the sense of stewardship around here anyway?" My rant ended with the chorus, "They will keep building and polluting until the whole place is like Coney Island and then where will we be?"

I headed across the dune on the other side of the marsh and had a long, angry swim. Upon returning, a herring gull sitting on a huge boulder, looked straight at me and squawked with that repetitive sound they make. I look back at the gull and said, "You bastard. You are as bad as some people. There are a few saints amongst you, but mostly there are sinners." That is my current thesis. I did not like to treat gulls with disrespect and even now I do so grudgingly. We have a lot in common. After all, like us, gulls will eat almost anything. Not even crows can rival gulls and humans

in this. We build garbage dumps everywhere and the gulls use them. It is a symbiotic association. We throw away and they pick up. We are in this game together.

Sometimes gulls can dictate our fate as much as we do theirs. Years ago I lent the keys to my almost new Volkswagen camper to a close friend. He wanted to take a new girl friend he was keen to impress on a trip to Baja California in Mexico. This was before there was much of a road in the area. When the scheduled date for his return arrived and he did not appear, I began to worry. Then he turned up a few days later with a sheepish grin and an implausible explanation. He told me that they had been travelling along a remote area of the coast, stopped for a swim then climbed a rocky promontory to watch the surf crashing below. On returning to where they had left their possessions, my friend discovered that the car keys were gone. He told me that he looked up and saw a gull flying off with the keys, rising up over a cliff and then let them drop down into the rocky tide pools below. My Volkswagen was a vehicle that needed a key to turn the steering wheel that was otherwise locked. In this emergency, just connecting the wires on the starter would not do. So my friend and his companion set out across

the desert in search of help. Within a day they found assistance and, in halting Spanish, they persuaded a mechanic to return with them. Their savior ingeniously solved the problem of the locked column by inserting a Campbell's soup can down the shift. This did the deed. The wires were connected, the engine fired into life and my friend, grateful for the rescue, headed back to California.

Quite frankly, I never believed the story. My guess was that my friend had misplaced the keys and blamed it on the seagull. I had the evidence of the soup can but the rest seemed pretty unlikely. Years later I was forced to change my mind. Picnicking on a small island on the outer rim of Great Harbor off the local town of Woods Hole, we left our picnic site for a swim. When I got back my sunglasses and their case were missing. There was no one else on the island besides a few cormorants sunning themselves on the rocks, some terns dipping in the shallow water, and a couple of herring gulls eyeing our site with silent concentration. We looked all over for the glasses without success. Then, quite by accident, amongst a cluster of rocks just above the low tide mark, I spied the case. It was a bit battered but the glasses inside were intact. I noticed that the case was

almost buckled in two by the bill of a bird.

One of the gulls had stolen the glasses and dropped them on the rocks, a skill these birds have developed to open shellfish. I threw stones at the two gulls perched nearby but missed and they barely moved. They may have been getting revenge for my not having a more edible pair of glasses. That night I called my friend and apologized for not believing his story all those years ago. I had been raised on too much of the Jonathan Livingston Seagull version of the gull, soaring Zen-like overhead and not enough on the real politic of the beach or the dump.

This summer I have maintained a watchful eye on the gulls. They are crafty and patient. In recent weeks I have made a major behavioral discovery. The gulls scan the beach and, in some way that I do not understand, can predict the future – at least when it comes to spotting potato chips. Whenever a bag of chips appears, open or unopened, they set up a vigil, usually at a discrete distance. They are more hip than any pickpocket at a county fair. Gulls watch children with a special eye. Sloppy eaters fall under their gaze and are carefully scrutinized for actions that will give them an opening. The gulls seem to know that these

people tend leave their bags open between munches. My grandmother was right. Eat with you mouth closed, chew between bites, and be careful with food. She prepared me for gulls.

One afternoon as I watched this game, the score was gulls two and people zero. The first of the victims was a young couple. They were so intent on each other that the gulls moved within a few feet and, with casual cool, one of them stole an unopened bag of chips. It dragged the bag across some rocks and punctured it with its bill. The couple was so distracted that the other gull did not even follow the first but waited for its own chance. The wait was short.

Then there was the gang further down the beach. – kids, dogs, and many sloppy eaters. No one was even looking at the gulls. I sensed confidence – even bravado – in the birds. Three gulls were pretending to be asleep or dozing. One even had his bill tucked under its wing. A spy could not have been more adept. The people then got up and headed down the beach to greet an incoming skiff. During the greetings, laughter, and pandemonium, the gulls came to life and moved in for the kill. They headed first for the chips, of course. In five minutes they had a haul. Other gulls got wind the



spoils and were swooping in to get what they could. The ensuing problem was one of excess. With so much loot available they all got greedy and all hell broke loose. Then the people realized what was going on and came running back. One kid was out front and running like a bandit. One of the adults was shouting. Spotting the charge, the gulls stopped scrapping with each other and took what they could. They did not go far, just over the dune to an area protected by an outcropping of poison ivy.

I watched with sympathy for the kids whose food was gone. I once lost a loaf of bread when I went to wash my hands in the sea. I missed lunch and I do not like to miss lunch when I am on the water. Watching those gulls in action was eerily like seeing some people at work; self-seeking at times but cooperative when there is an external threat. There are mirrors in nature that make me uncomfortable about my own species.

I have a dinky called the Oystercatcher, after one of my favorite birds. It is my totem animal, or at least one of them. It has a big, chisel like red bill that can break open oysters, mussels, and clams. With its oversized bill it looks as though it is all head and, with its bright yellow eyes, it has a stunned look reminiscent

of a mime or a clown. Oystercatchers normally range between Virginia and Texas, but, in recent years they have extended their range as far north as Cape Cod. They nest in open, shallow stony depressions along the beaches, just above the high tide mark. The parents are good at defending their young from black backed and herring gulls when the odds are in their favor

That particular afternoon the odds tipped the other way. During the nesting season some kind soul usually puts up a sign warning visitors to stay away from the nests. The trouble is that dogs cannot read and, before we could stop an unleashed dog, it swept past us towards a nest. The parent oystercatcher moved to attack the dog. The dog stopped, startled by the bird. A gull, silently watching the scene, saw its chance. With the parent bird diverted, the gull swept down and stole and then ate the baby oystercatcher. The owner of the dog was beside herself. I was angry at her, the dog and especially the gull, for being so clever and having interpreted the whole scene so accurately from the beginning. These shores are fragile places and the opportunists often reign.

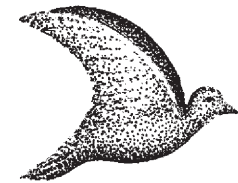
Recently I heard the piercing whistling of another oystercatcher flying low overhead. I waved and wished

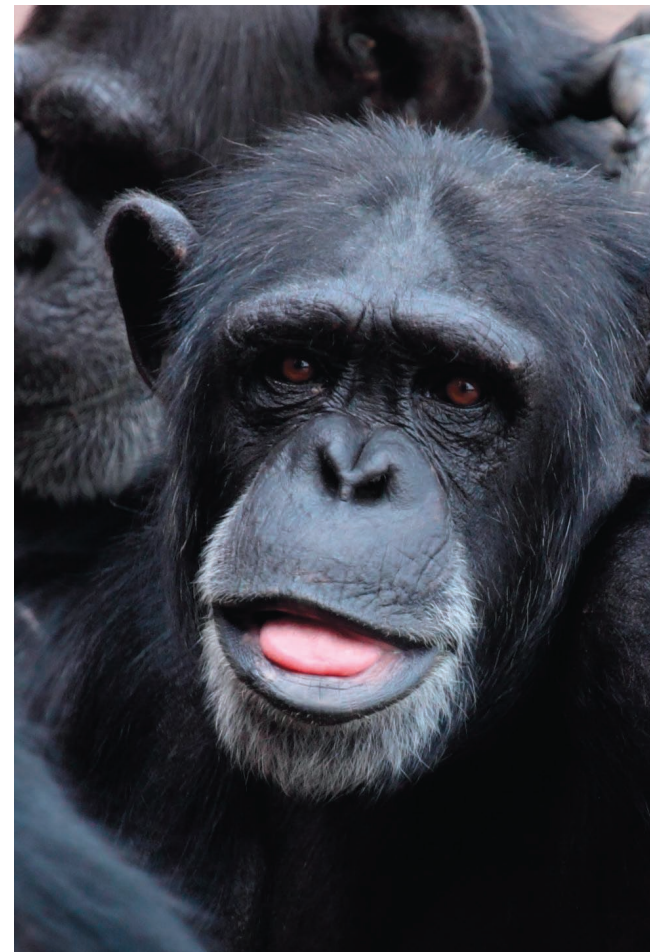
it good luck. Oystercatchers are staying later than I remember, which is a tonic to me. In late August, the art of drawing out the summer is practiced ardently by a few of us sun worshippers and water lovers. We are in denial. The sun is lower and the days are shorter, but the water is still warm enough to swim. At the creek the no-swimming sign is gone. The one about closed-to-shell fishing is faded, but still visible on its post.

I ask myself if the situation in the salt marsh will ever improve. There are people, including myself, developing waste treatment technologies that work on the household scale. Such technologies could protect the marsh, in spite of the location of the houses. I ponder whether people care enough to spend the money necessary to protect the marsh. They can afford to but as long as it is just perceived as scenery, it will remain off limits to shell fishing and swimming and to those of us who find solace there. Yet one morning, over the dune, next to where I swim, the sky was active with terns and laughing gulls doing fancy aerial displays. And again I saw an oystercatcher. If all was not completely well in our salt marsh world, it was and still is, a very vibrant and lovely place.



Dan Pancamo







A Man For All Seasons

David Kupfer interviews Anthony Van Jones

The interview of Anthony Van Jones that follows will be contributing editor David Kupfer's last piece for Annals. He has become so involved with his own work in California and particularly the Bay Area, he has little time for Annals. He will be missed.

Yet what a fine last stand. Learning of the work of Anthony Van Jones is inspiring, as is his range of interests and his dedication. As David himself writes: "Anthony Van Jones, one of the most productive and well known activists of his generation, has had an exemplary career as a social change agent." So true!

NJT



Anthony Van Jones, one of the most productive and well known activists of his generation, has had an exemplary career as a social change agent. He is well known for his work as an acclaimed author, civil rights advocate, and community organizer. At forty-seven, his dynamic journey has taken him to the streets of Seattle where he protested the World Trade Organization to serving as Special Advisor for Green Jobs, Enterprise and Innovation at the White House in 2009. He is also a best selling writer

Trained as a lawyer, Anthony Jones has spent much of his time in what he sees as an inefficient and prejudiced criminal justice system. He also defies easy categorization. He is an attorney, a human-rights advocate, a political radical, an environmentalist and a churchgoing Christian. He can sit with two feet squarely on one side of an issue, such as rising juvenile prison populations, and simultaneously intuit how others might see the same problem differently.

Anthony Jones spent his early years in rural Tennessee. While attending the University of Tennessee, he wrote for the campus newspaper and started an underground publication called The 14th Circle and helped found a statewide African American newspaper called the New Alliance Project, as well as the Third Eye, a Nashville alternative monthly.

At university Jones enrolled in the Yale Law School hoping to improve laws that foster injustice. He arrived on campus with a Black Panther Party badge on his backpack. In 1992 he spent a semester as an intern at the Lawyers' Committee for Civil Rights in San Francisco. The Rodney King trial concluded the same year. After three out of four officers charged with violating Rodney King's civil rights were declared not guilty, there were riots in parts of Los Angeles and spontaneous protests broke out across the country. Acting as a legal observer at the San Francisco demonstrations, Jones was arrested alongside hundreds of activists. In jail he met a broad cross section of young people fighting for change and was so impressed that, after finishing law school, he moved to San Francisco

to be part of their movement.

Jones was an early leader in the effort to connect two issues that generally have been seen as separate: namely, the downtrodden conditions of inner cities and the need for a healthier planet. Jones has called for the creation of a green-collar job corps that would train urban youth of color to retrofit cities to be more environmentally sustainable.

Ten years ago, because of such contributions, the House of Representatives and the city of Oakland, California, passed legislation mandating the creation of green-collar jobs. This led to Jones being named green jobs advisor to the Obama Administration. In this role, Jones helped to lead an inter-agency process that oversaw a multi-billion dollar investment in skills training and jobs development within the environmental and green energy sectors. He resigned after serving for six months, due to pressure purportedly concerning his early 1990s association with a Marxist group and a public comment disparaging Congressional Republicans, as well as having signed a petition concerning 911 truth.org. While his departure from the Obama Administration caused much concern from the progressive community, he said "I cannot in good conscience ask my colleagues to expend precious time and energy defending or explaining my past. We need all hands on deck, fighting for the future."

At the time Arianna Huffington wrote "Van Jones was undeniably the best person for this job, but the job wasn't best for him. Van Jones is not someone who ought to be stuck behind a desk, calculating tax credits and guarding his opinions from the twenty-four hour news culture vultures."

Anthony Jones has founded or co-founded several other social organizations focused on social and environmental justice. They include the Ella Baker Center for Human Rights in Oakland, which was established in 1996 and is named for a civil-rights heroine. Its mission is to promote democratic control of law enforcement agencies and advance alternatives to the incarceration of young people. Another of his organi-

zations is Colorofchange.org. It is the largest on-line organization of its kind, and works to expand. Yet another is Rebuild the Dream, a coalition building think tank that propagates new innovative problem solving solutions addressing the economy and youth unemployment.

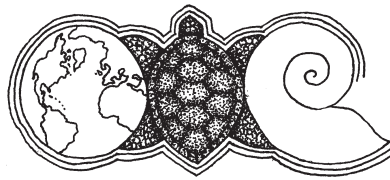
His newest initiative, The Dream Corp works to advance policy solutions to expand new employment opportunities. Several initiatives are: #YesWeCode, aimed at helping train a hundred thousand low-opportunity youth to become top-level computer programmers. Another, #cut50, is working to half the prison population over the next ten years. Green For All, which helps people rise out of poverty via green job training and job creation.

His two books are The Green Collar Economy: How One Solution Can Fix Our Two Biggest Problems written in 2008 is the definitive book on green jobs. In Rebuild the Dream in 2012 he reflects on his own path from grassroots community activist to becoming the White House green jobs "czar" followed by the aftermath of his resignation. They were both best sellers, and helped to put his ideas into the national spotlight.

Anthony Van Jones's approach to political change has evolved from over the decades from being militant to practical. He has perfected the art of collaboration. His current initiative, Cut 50 is a criminal justice reform initiative to reduce mass incarceration. He has been working with the Koch Brothers, Newt Gingrich, and Senator Cory Booker, and has enlisted the celebrity fire power of singer, song writer Alicia Keys.

For a year beginning in 2013, Jones joined a new version of CNN's Crossfire re-launching with panelists Newt Gingrich, Stephanie Cutter, and S.E. Cupp. He remains a CNN commentator, appearing regularly on the network's political coverage and programs.

Mr. Jones has been honored with numerous awards and has been spotlighted on several lists of high achievers. They include the World Economic Forum's Young Global Leader designation; Rolling



Stone's 2012 Twelve Leaders Who Get Things Done; TIME's 2009 "Hundred Most Influential People in The World, and the Root's 2014 The Root 100.

Mr Van Jones lives in Los Angeles with his wife and two sons. Along with his work as a commentator and non profit director, he is studying at MIT where he is a Media Lab Director's Fellow. He is also a senior fellow with the Center for American Progress where he focuses on policy matters related to green jobs and how cities can implement job creating climate solutions.

Speaking with him I felt the lightening whirlwind of his personal passions and political pragmatism. He has had a broad set of experiences and continues to coalesce amongst normally disparate individuals and groups in working for alignment for cutting edge problem solving. He clearly prefers to contribute to his community as a national leader and social entrepreneur from his present position rather than from Washington D.C.

Q: What was the original intention behind the creation of the Dream Corps?

A: I have been working on social justice causes for more than twenty-five years and have had the opportunity to tackle literally every kind of issue that you can imagine ranging from police brutality to environmental racism to immigrant rights to transgender liberation. At this stage of my life I decided that I wanted to create a single platform that would support a broader agenda than any one single issue. Dream Corps is really a home for world changing initiatives. Our main slogan is "Close Prison Doors, Open Doors of Opportunity" and "We are working for twenty-first century jobs not jails". Everything we do somewhat falls under that framework but that lets us do everything from a national scholarship fund for the Yes We Code effort to working on criminal justice legislation from Silicon Valley to Washington DC to move this agenda.

Q: What new coalitions have developed around Dream Corps, and what have been some of its outstanding achievements?

A: For the Yes We Code campaign, we have been able to pull together thirteen major technology companies including Twitter and Pinterest to help us develop an apprenticeship program to get young people of color from Oakland to jobs working in Silicon Valley. With Green for All, we have been working directly with top solar companies, the White House, and the EPA to increase by ten times the number of solar rooftops in communities of color. With Cut 50 we have been working with everybody from Cory Booker to Newt Gingrich to pass criminal justice reform legislation. We think that we will get a bill passed and signed by the President.

Q: What is Cut 50, and how has this initiative already brought about shifts in policy?

A: Cut 50 is focused on creating a bipartisan push to reduce mass incarceration. We have not yet changed policy but we have changed public discussion. We had a summit last March which Newt Gingrich and I pulled together. We thought we'd be wildly successful if we had a hundred bipartisan leaders for an hour, we had seven hundred leaders for seven hours. We had ten Congress people participate, as well as three governors, and two cabinet secretaries including Eric Holder, and also a video from President Obama. That video was his first strong set of statements about criminal justice reform and it inaugurated a bipartisan push for criminal justice reform. I am very proud of Cut 50 and of our staff.

Q: What changes have you seen in the political climate from your session in the Obama Administration until now?

A: I think the republican party has become even more of a parody of itself, and Obama more true to himself. His recent stances on criminal justice and the Keystone Pipeline have been very encouraging.

Q: Do you see a sea change in public opinion and citizen involvement in this country right?

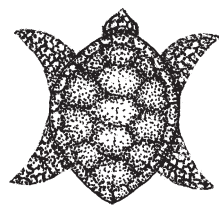
A: In all directions. The republicans are more wacky and more fired up. It is important to note that frustration on the right is starting to boil over and on the left you have movements like Black Lives Matter, Idle No More, and the Dreamers. Through social media and direct action activism African American, Native American, and Latino youth are being heard. Passions are boiling over on the left and right and the middle seems to be stuck and confused.

Q: What is a digital campfire and how does social change benefit from it?

A: Properly used, a digital campfire is a place where all of the social media tools converge to enlighten and connect people. The problem now is we have a lot of data and very little wisdom. We have a lot of connections and very little community. The idea of digital campfires at this moment is to use current tools to build more meaningful community. That is part of what Dream Corps is trying to do.

Q: You call yourself a social entrepreneur., What is that, and what are some signposts of your success?

A: A social entrepreneur is somebody who is trying to create not-for-profit enterprises in order to to make change. A normal entrepreneur creates profit oriented enterprises to make money. I have been blessed to build five successful, thriving not-for-profit organizations. The first one, the Ella Baker Center for Human Rights, has succeeded in doing everything from getting a horrible police officer fired, to help-



ing reform the San Francisco Police Department, to stopping a large jail from being built in Oakland, to helping to close five youth prisons across the State of California. This has resulted in an eighty per cent reduction in young people behind state prison bars. I am proud to having had a hand in establishing it.

Green for All which has helped to create more than ten thousand jobs in green industries for low income people and people of color. Color of Change.org is the biggest, fastest growing online human rights organization in the world, and the Dream Corps is housing some of the newer initiatives. I like to build things that solve problems and have had a very exciting career doing so.

Q: Do you believe that race neutral populism is a thing of the past?

A: Race neutral populism was never going to work on the left, period. This whole idea that people I love like Elizabeth Warren and Bernie Sanders had that they could just talk about Wall Street and social security and put them in some sort of nineteen fifties utopia was inevitably going to blow up in their faces. You are not going to be able to make Wall Street give black people jobs. Fixing social security is not going to do anything about mass incarceration, and we are not going to settle for trickle down justice. We don't accept trickle down economics theory from the right, and we don't accept trickle down justice theory from the left. Nothing good happens for black people by accident. Any progressive movement has to directly target African Americans if we are going to see any real benefit. The fact that the left in the United States is overwhelmingly made up of people of color means that there is no pathway for a progressive, populist agenda that doesn't directly deal with the problems of African Americans, Latinos and Native Americans, and other under represented groups.

Q: What did you take away from your time on CNN? Has it changed your political perspective?

A: I have a more nuanced view now. Working with Newt Gingrich really gave me a tremendous amount of insights into the complexities and nuances of the American right. It gave me a lot more respect for Newt and his level of leadership I also was surprised to realize how that even if you have different politics of the head sometimes you can have the same politics of the heart in terms of who you care about. Newt cares a lot about young people in this country

including young people of color. It has been a real delight to work with him. No one has been more surprised by that than the two of us working together on criminal justice.

As for CNN, I have come to learn that a lot of middle class, middle aged black people watch CNN. So whenever I am shopping or at houses of worship or at airports I get a lot of positive feedback from black folk who are very glad I am on the air and feel like I am speaking for them and also for black immigrants who watched television in Ghana or Ethiopia. They watch CNN regularly. It is a huge honor being on corporate media.. CNN is one of the most channel in the world. It seen on five continents. Eighty million people watched on election night. It is a huge opportunity to be part of people's lives.

Q: What is your take on the incredible up swelling of support for Bernie Sanders? What comes after Bernie? Is there a grassroots network you see building to push for change?

A: Bernie has been doing an extraordinary job. He is a blessing to this country. Not the least is his great response to the concerns of Black Lives Matter. He has set a very good example, responded well and learned quick. He has become a great champion for all Americans. I was thrilled by his candidacy My hope is it could have become a place and platform where people of all ages and races could unite and work together so that, no matter who won the primary, progressive forces will be more consolidated.

Q: Do you have any critique of issues of controversy such as Israel or foreign intervention?

A: Not particularly. All these issues become very complex the higher up the food chain you go. Nobody, not, even Jimmy Carter, has been able to speak effectively to the whole range of issues and concerns overseas and still be heard and well regarded. I understand his struggle. His main strengths have to do with his domestic agenda and now that that is more inclusive I think that is a big plus.

Q: Do you perceive a decisive demographic and generational shift in electoral sentiments at present?

A: The young people are very different than people of my age, middle age or older. I think they are disgusted by the lack of authenticity they see in too many

of our political leaders. I think they are very impatient for real political change. They also have more power in the palm of their hand with their mobile devices than entire corporations had twenty years ago, so they will continue to be a force to be reckoned with.

Q: Do you think Hillary Clinton would be a progressive force if she wins?

A: I don't think Hilary Clinton will be any more progressive than the progressive movement forces her to be. I think that is true of every President. We expect whoever is in the white house to report to the left edge of the democratic party. That is not how it works. We have to have a leader in the white house who is willing to be moved and you have to have a movement that is willing to do the moving. That is the combination. You have to have both LBJ and Martin Luther King. You can't just elect an LBJ and have everybody sit down and think he is going to do anything. At the same time you can't elect some horrible person like George W. Bush who was not willing to be moved no matter what you do. You always have to have a combination of an elected leader in the white house who is willing to be moved and leaders in the street who are able to do the moving, that is how we won on Keystone.

Q: What is your feeling on the best strategy for real grassroots change in this country?

A: My best strategy is to try to create organizations that are solution oriented and as clear about what they want as what they don't want. One fundamental critique of the left is that we are too focused on what we are against in that we are anti racist, anti war, anti homophobic, anti pollution but nobody knows what we are for. When you are more clearly defined by what you are against than what you are, you have a problem. Most important is for us is to build organizations that are primarily oriented to build solutions, not just describe more problems.

Q: Why do you feel that the Obama era of black silence on issues that matter critically is over and that the black community is in free fall?

A: Early in the Obama era most black people felt that we needed to mute our criticism because we did not want to aid and comfort the enemies of Obama. So there were a lot of things such as the level of unemployment, and the housing issue, to say nothing of

mass incarceration, and other major issues that really hurt the African American community that we didn't know how to express with a black president. After the shooting of black teenager of Trayvon Martin, a new generation stepped forward that didn't care who the President was. Increasingly this younger generation just doesn't care. Now they can vote and tweet and they want change. That era of black silence was not to give aid and comfort to the enemies of Obama. It has come to an end. You can't tell people who are hurt not to holler. Our unemployment rate is twice as high as that of white folks. We got hurt first and worst in the 2008 crash. Most of our money was in housing, not the stock market. The stock market has come back the housing market has not. Those who were evicted or foreclosed had to start over on a negative level. There is a lot of pain. You add to that police brutality, vigilantly violence, and mass incarceration, and you have a community in free fall

Q: Are you seeing new coalitions and partnerships formed around issues related to liberty and justice, racial equality and environmental justice?

A: I see new coalitions being formed all the time or the potential for new coalition. If we are a country for liberty and justice, we have a long way to go on criminal justice. The right wing is a defender of liberty at its best with concern for individual liberties and limited government. That principle of liberty is being run over by mass incarceration. The left wing is our best defender of justice insuring that no one group is singled out and mistreated. Yet that notion of justice is being run over by the incarceration industry. There are principled reasons for us to work together and to do something about it. Similarly, when you look at environmental issues, the tea party doesn't want to live under government domination. But the utility companies are a government created monopoly that forces everybody to consume dirty energy at a price they set. They also often rob people of the liberty of powering their own homes and their own property with solar power and wind power. Utility companies often rob people of the liberty of selling the power they generate on their own land to whoever wants to buy it. We are living under a monopoly domination.

We are beginning to address the potential for an alliance between the green tea party and home owners the right to power their own property and to sell their excess on the power grid. Native Americans who are fighting to get solar and wind going on their reservations and folks in urban communities who want

weatherization and solar power. All that is possible and we are working to pull those kind of coalitions together.

I may be a lefty but I want to see a free market approach in the power sector. There is no free market in the energy sector but we are trying to create one with clean energy. There are so many potential coalitions that are left/right inclusive which people don't pursue because they are more interested in being in their own small tribe and feeling superior. That is the case on the left and the right and we really need to look at that.

Q: I know you see the present spiritual and economic crisis as creating great opportunity. How does entrepreneurialism factor into this?

A: Fundamentally I think people feel lonely, isolated, and divided right now. Any idea or solution that is going to work will necessarily bring people together to get it done. There is medicine there for society. If you pride yourself on being able to describe the problem better than anyone else you can do that by yourself. You can be righteous and lonely, which is the case with a lot of people on the left unfortunately, and on the far right as well. If you pride yourself on describing a solution that might work, you have to work across all kinds of lines to get a solution that will work. So by being entrepreneurial in trying to solve a problem, you wind up working with all kinds of people and with a more nuanced view for solving things and, sometimes, a more hopeful view of humanity.

Q: How did you come in alliance with Koch Industries and Newt Gingrich?

A: I have never met a single person behind bars who said, "Well I want to get out of here, but I sure hope the Republicans don't help." I have never talked to anybody who has a parent or child behind bars who has said "Look I want my loved one home but for Gods sake please don't get the Republicans involved to get that done". The math alone says that the Republicans control more than thirty state houses, all of the senate, and the house, and many courts, so it was bipartisan consensus that created mass incarceration in the first place and it is going to take bipartisan consensus to undo it. Bill Clinton was in favor of mass incarceration, as is Jerry Brown, Democrats are just as guilty as Republicans in demagoging on this issue in the 1990s and into 2000s. We are going to have to

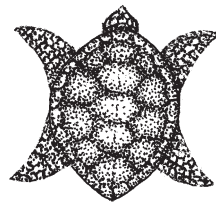
have a bipartisan effort to turn it back. I am happy to say I was able to be a part of the movement that beat Koch Industries on Keystone, and yet I am working with Koch Industries on the issue of criminal justice. That means we are mature grown ups and we aren't doing "you have the cooties" politics, which has taken over Washington D.C. If you don't agree with somebody in a democracy you are supposed to fight them, if you do agree with them you are supposed to work with them. Unfortunately that old Tip O'Neal - Ronald Reagan notion of working together has just completely fallen away. Politics has gone the way of the playground, "you have the cooties I am never going to play with you, no matter what". We are very proud to fight the Koch Brothers on campaign finance reform and pollution, and very proud to work with them on criminal justice reform and we hope that that will let other progressives find areas to work across party lines on our issues and not put ourselves in a box that only hurts the poorest and vulnerable groups among us.

Q: Where did you grow up and what events helped to shape you?

A: I grew up in the rural South on the edge of a small town in West Tennessee. My Dad grew up in segregation and poverty in Memphis. He joined the military to get out of poverty and put himself through college. He married the college President's daughter, my Mom, and then put his little brother and a cousin through College, and my sister and me through college. Both my parents instilled in me the belief that excellence is a weapon against racism, and that education, hard work, and a healthy faith in something bigger than yourself is the key to making a good life and the world better. I owe a lot to my Dad. He died in 2008. I will never be as able to be as great as my Dad as I did not have to overcome as much. Whatever I have achieved I achieved on his shoulders. He was able to get away from a situation that breaks a lot of people to become a homeowner and seeing both of his kids in college and becoming a successful. That was a long part of the family journey. Everything I have done since then, Yale Law school, teaching at Princeton, having several bestsellers, are just part of the journey.

Q: He sounds like your number one hero.

A: Probably the person I admire the most is my Dad. Watching him have to fight to bring in the



NAACP into my home county in Tennessee just so that he could be the principle of a middle school. He had to fight in court to have that opportunity. He wound up prevailing. They gave him the worst school in our county and He turned it into the best one. When he died, white and black people were in line around the church to get in and say goodbye to him. I grew up with that, so hopefully you carry that on.

Q: What transformative moments in your life can you relate?

A: Going to the White House changed my life and leaving the White House changed my life. I went there on a big wave of hope and optimism. The whole world was experiencing the Obama phenomenon. The green energy discussion going through the roof with a new generation taking power in the nation. I left as one of the first casualties of a kind of tea party backlash and the end of a lot of hope and optimism. I played an iconic role for some people in the rise and in the fall. Then you have to get up and find your way again. It has been six years since I have been out the White House, and it has been a similar period for me as well as the country, trying find a way to get back to solid ground. Movements like Black Lives Matter, Idle No More, Occupy Wall St., and the Dreamers got to that solid ground before I did. A whole new kind of politics that immersed out of the rubble of the Tea Party backlash gives me hope and inspiration every day. I am proud to be one of the few people on national television to interpret this new source of hope. It is more of a crowd sourced hopeful phenomenon and less a single person driven sense of hope which Obama was.

I just turned forty-seven and am looking back on four decades trying to figure out how I turned out this way. People may be puzzled by me, as in my twenties I was as far on the left in the Bay Area as you could possibly be. You have somebody who in their twenties was on the left edge of the left and then in their forties is a former White House advisor and a mainstream TV personality. That journey only makes sense if you know the twenty years prior to my time in the Bay Area where I am basically Willie Jones' son, in public schools in the rural South, in church most Sundays, and trying to find a way to live up to my Dad's commitments to do something to help our community. That took me to Yale Law School and the Bay Area. It took me to the White House and it will take me to other places. My answers have changed over time as to what I think is effective and what is useful for me to do at any point. My questions have not changed. My questions are still what are we go-

ing to do for poor people, what are we going to do for people of color, what are we going to do for the Earth. My answers have changed, I can do different things being closer to fifty than twenty. I hope you have noticed, you've never seen me on television put down a protester. I was one of the first people on on television speaking up for Occupy Wall St. when every national democrat was running way from them. I was one of the few national democrats that defends Black Lives Matter every time I am on, even when they are going after Hilary Clinton or Bernie Sanders. I am no longer a street level protester, but I understand the need for street protests and I try to use my experiences to defend and interpret to people all around the world. I have never apologised for anything and for any cause I have championed, and I am proud to point them out. People are surprised to hear that I was working on transgender issues in San Francisco in the mid 1990s, I helped to create something called Transaction and am proud of it. We have a tendency to try to figure out

its or points for describing problems and denouncing wrong doers. I think that is cheap and easy and that is ninety per cent of what we do on the left. If I give myself a cookie it is because I describe a solution and figure out a way to get the solution right, not to blame the person who got it wrong. We often talk about accountability on the left as a levelling weapon against anybody who desires to shine or stand out in any way. Well who are you accountable to? Who gave you the right to speak? Who gave you the right to take on that issue? Who gave you the right to have an opinion? I am not accountable to anybody but my children, and sometimes not even them. But I am responsible. I take responsibility for what is going on in my country, I was brought up to do something about it. I am a lot more interested in people who take responsibility than people who try to release accountability. I am not accountable to anybody except my children, but I am responsible for a lot and I want to continue to be.

***My questions have not changed.
My questions are still what are we going to
do for poor people, what are we going to do
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for the Earth.***

who is selling out as opposed to trying to figure out who is growing into new roles and how we can work with them. The question isn't how is someone selling out. The better question is to ask as people grow into new roles and responsibilities, is how can we better work with them, how can we work together? That is the better question to me.

Q: How has being a parent changed you, how has being a father altered you?

A: When you are a young person you think, screw this school. When you are a young parent you think, fix this school. Immediately your perspective changes on what matters. I have two boys who are seven and eleven. I am accountable to my Dad and I am accountable to them. I don't give myself any cookies or cred-

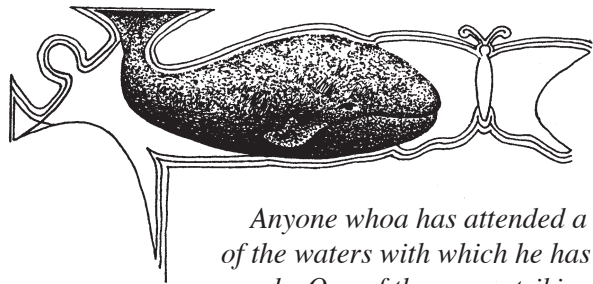
Q: Do you learn more from your boys or they from you?

A: A good relationship with your kids you promise to teach them everything that you know and let them teach you everything that you forgot.

Mr. Van Jones' current views can be seen at <https://twitter.com/VanJones68>

Remediating Polluted Waters

By John Todd



Anyone whoa has attended a lecture by John Todd will have seen the before-and-after images of the waters with which he has worked. It is a classic case of one picture being worth a thousand words. One of the more striking shows a pond adjacent to a disposal area here on Cape Cod that was so badly polluted it was visually repulsive. After several months treatment with one of his Eco-Machines the water ran clean and clear as a mountain stream. The EPA agreed.

NJT

Several decades ago scientists were worrying about the possible global effects of a nuclear war. Their hypothesis was that such a war would create firestorms that would emit large amounts of black carbon or soot into the atmosphere. Their models showed a darkened sky that could last many years -- as much as decades or more. Such a darkened sky could cause major destabilization of the Earth's ecosystems accompanied by untold harm.

We are beginning to witness an equivalent phenomenon now in the world's waters. It is not, however, caused by nuclear radiation or firestorms. However carbon is definitely at the heart of the story. Unlike a nuclear winter this tale has begun and is unfolding now, albeit at a slower pace. Lakes and rivers are becoming brown and murky. As they darken such browning is blocking sunlight from reaching bottom dwelling algae as well as the free floating phytoplankton in the waters above. This is reducing photosynthesis. As a result internal oxygen production is less and, in some cases, almost extinguished. Fish habitats are being reduced or eliminated. This has been chronicled around the world.

Such browning is critical in so far as it affects photosynthesis and the production of oxygen. Although it is not widely known, close to half of the global photosynthetic carbon fixation occurs in aquatic environments. These environments are important and possibly crucial to a healthy planet. Reversing such browning should be at the top of the list of the commitments of the world community.

The browning of the waters has been caused by a dramatic increase of carbon. In this case the carbon is dissolved organic carbon (DOC). The decade straddling the turning of century saw a doubling of dissolved organic carbon in the waters of North America and Europe. It continues to increase. It is influenced by, and is affecting climate change as well. With less light entering the waters, non-photosynthesizing bacteria begin to dominate and feed directly on the organic carbon, producing more than normal amounts of carbon dioxide. The excess carbon dioxide in turn enters the atmosphere and drives climate change even further.

Some scientists have attributed the rise of

dissolved organic carbon to a reduction in sulfur in the environment. This is a consequence of declining acid rain levels as industrial emissions are curbed. With declining sulfur concentrations, the dissolved organic carbon became unstuck.

While this may be a factor, I believe that the primary cause of the increase in browning waters may lie in changes in the ways landscapes are managed, particularly in the area of agriculture.

Modern farming and landscape management techniques with their use of chemical fertilizers, pesticides, fungicides, herbicides in addition to constant plowing, are breaking apart the ecological relationships that normally keep the various forms of labile and stable carbon in dynamic circulation in soils. These factors, combined with the loss of biodiversity caused by the increase in the scale of deforestation and the expansion of monolithic lawn environments are compounding the problem. As a result soil systems, essential to the health of the planet, are subjected to stress and decline. Such carbon content in soils is on the decline almost everywhere. The result is an exodus of dissolved organic carbon into the waters during rains. The life that normally keeps carbon in the soils is going, or is gone.

Even a small country, like England, with its relatively benign climate, has lost over four million tons of soil each year for the past twenty-five years. On a global scale soil loss, and with it soil carbon, has been estimated to be at least seventy-five billion tons per year with an annual economic loss of four hundred billion dollars. The figures border on the incomprehensible and the tragic.

This need not be. Soils can be created and improved. Courtney White in his book *Grass, Soil, Hope: A Journey through Carbon Country* writes of experiences in successful soil rebuilding experiments around the world. It is a remarkable tale and one with the potential to revolutionize how agriculture and landscape management can be transformed in the twenty-first century. The breakdown of the world's soils can be reversed, even in arid and semi-arid areas like the American southwest. There are a number of working examples of this reversal already.

Healthy soils are complex systems with unprecedented amounts of diversity. One of the most significant parts of the system is the relationship between the root systems of plants and their symbiotic relationship with beneficial mycorrhizal fungi that include ectomycorrhizal, ericoid mycorrhizal and arbuscular mycorrhizal fungi. This, combined plant root and fungi mutualism, is one of the keys to soil formation and the sequestration of carbon from the atmosphere.

Nutrients from plant roots, including carbon, in close association with the fine root hairs of plants and the hyphae of the fungi, produce a sticky protein. The protein is called glomalin and has been described as one of nature's superglues. Eventually glomalin binds itself to particles in the soil and forms larger and larger aggregates that mediate soil formation and carbon sequestration. The soils become resistant to wind and water erosion and a magnet for living organisms. In the process humus, the dark organic matter characteristic of rich soil, is created.

Soils are the greatest repository of carbon on Earth. They play a seminal role in climate management. Healthy soils, with an annual increase in their carbon content through farming ecologically represent our best chance to bring climate change under control. High carbon soils are also our best chance of reversing the browning of water bodies.

Through studying soils and soil carbon I have come to see that contemporary methods of remediating polluted waters are flawed by many of the same mistakes being made in agriculture and landscape management. The common use of chemicals, such as alum, (aluminum potassium sulfate) to control excess algae in lakes and ponds, actually weakens the ability of a lake or a pond to manage its own nutrient and carbon cycles.

Like most water managers, I have been guilty of seeing the remediation of waters in too linear a fashion. As a general rule I have followed Leibig's law-of-the minimum, which states that the potential of a system such as soil or a water body, is dictated by the amount of the least abundant nutrient. It is a law that demonstrates that a chain is only as strong as its

weakest link. The chemical phosphorus is deprived of its ability to cycle in the system by the alum and its effectively becomes the weak link in the chain.

In my own work with eco-machines and floating lake restorers, we use living technologies to remove nitrogen from the water and therefore make it the limiting factor in the equation. This is done through a three-stage process. First, in the presence of abundant oxygen, which is often pumped into the water body at a significant energy cost, bacterial nitrification is triggered. Ammonia is then converted to nitrites by one group of bacteria and then by another group of bacteria to nitrates, also through an oxygen demanding process.

Afterwards through the circulation of water, through carbon rich and oxygen poor environments, the nitrates are converted to nitrogen gas through a bacterial process called denitrification. The nitrogen gas in turn leaves the water and enters the atmosphere. In this way we limit nitrogen and mitigate excessive blooms of algae.

The ecologically based technologies including the eco-machines and their floating restorer counterparts have proven to be effective technologies and many a body of water has benefited from their presence. Despite their successes, I worry about their efficacy in the big picture. They do the job, but we have yet to convincingly prove that they can trigger beneficial process that will allow for a body of water to self heal internally, including sequester its own carbon as can happen in soils. Are we overlooking the carbon cycle and is there the equivalent of glomalin being made by aquatic plants and fungi?

Although the literature is sparse, it has been found that the fungal and plant symbiosis, as well as glomalin, have been recorded from some, but not all, aquatic environments. This is good news if one is attempting to create a carbon centric rather than a nitrogen or phosphorus centric approach to the healing of polluted waters. In other words what would it take to remove dissolved organic carbon (DOC) from the waters and convert that carbon into stable organic carbon based upon sticky proteins like glomalin. By focusing on the carbon side of the story we might just change the whole equation and create the aquatic analog of dark healthy soils.

The question arises as to the best way to create approaches to treatment that are holistic and embrace all the kingdoms of life. Equally important they need to

obtain high rates of water circulation between the water body and living organisms, including plants and their root systems. Secondly, our ecological technologies have to be designed to impact well beyond their immediate treatment zones. They need to function as incubators for beneficial organisms for the whole pond or lake. In an inshore marine environment such as a bay, cove, harbor or salt pond, they would have to have a similar catalytic function.

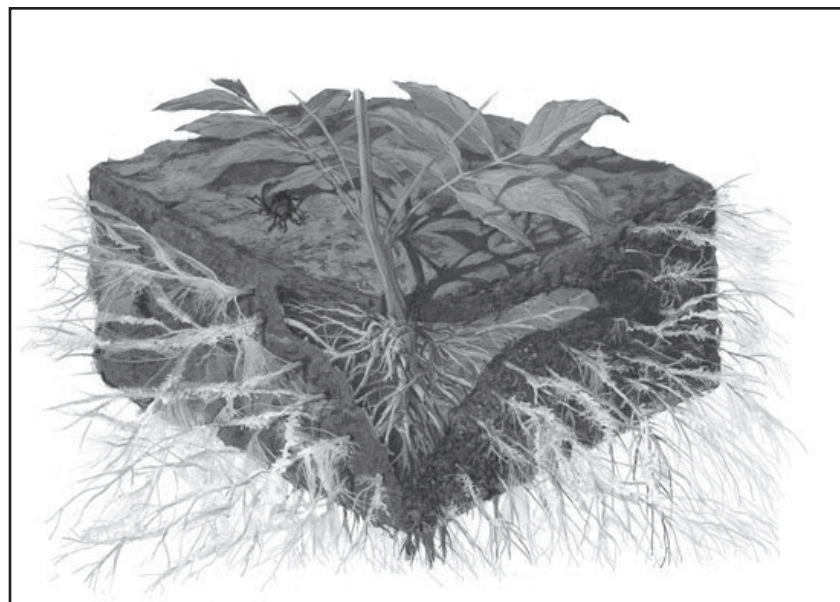
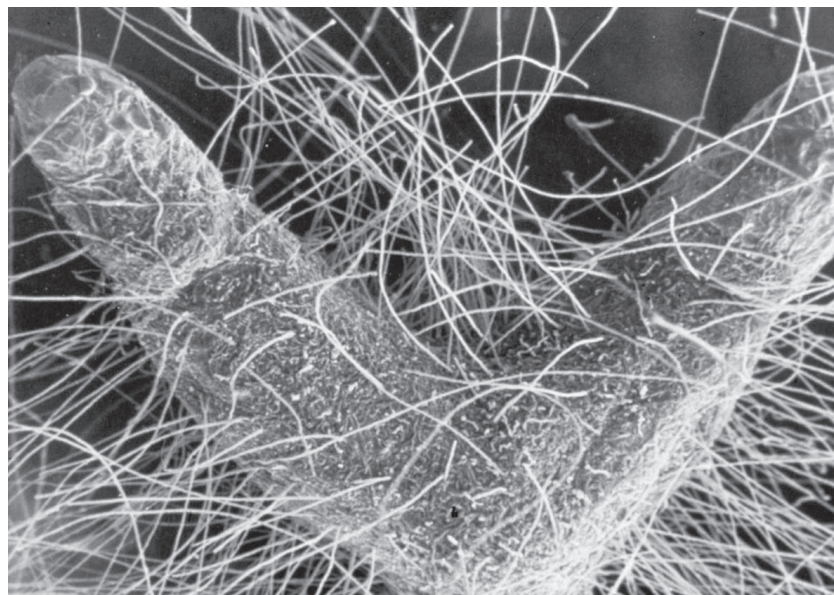
Our hypothetical restorer eco-machine would have to be comprised of a number of discrete elements. First, the water would have to be circulated and possibly aerated, potentially employing renewable energy to do so.

In the past we have used vertical axis windmills.

On one pond in Massachusetts we used a hybrid solar electric/wind generator to good effect.

Secondly, it will be necessary to feed the technology with beneficial organisms and trace minerals and electrolytes. This mixture should include algae, fungi and bacteria, as well as trace minerals from rock powders or seaweed and mineral electrolytes that are capable of carrying a weak electrical charge.

Thirdly the technology needs a huge amount of surface area to support the above organisms. Years ago I co-created and patented a technology I called an ecological fluidized bed. Very large volumes of water were air lifted through a semi buoyant media with sticky rough surfaces or microsites attractive to beneficial organisms. Another way to put large



volumes of water in contact with surface areas would be to circulate the water through the roots systems of plants floating on the surface. The fine roots hairs of plants have abundant surface areas for treatment.

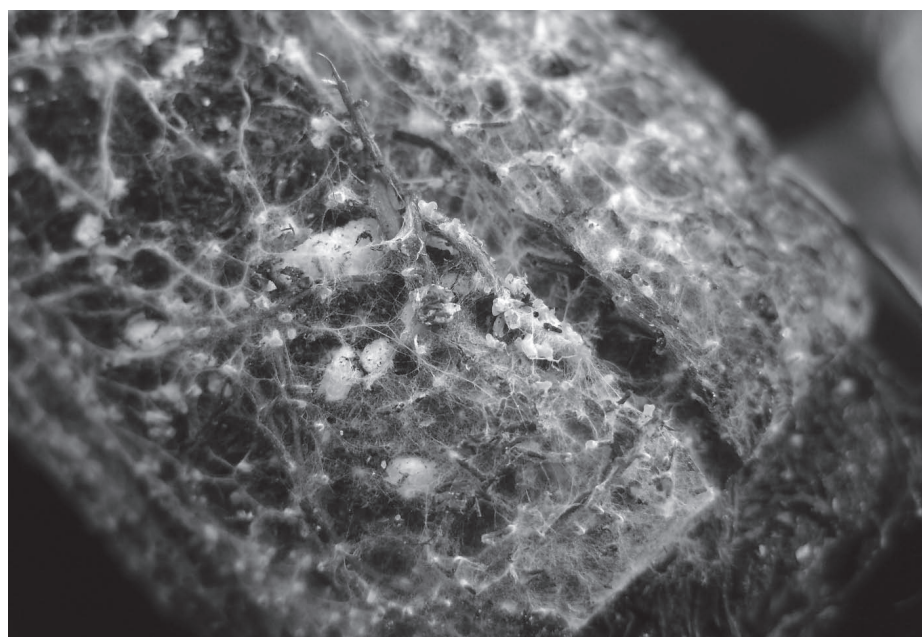
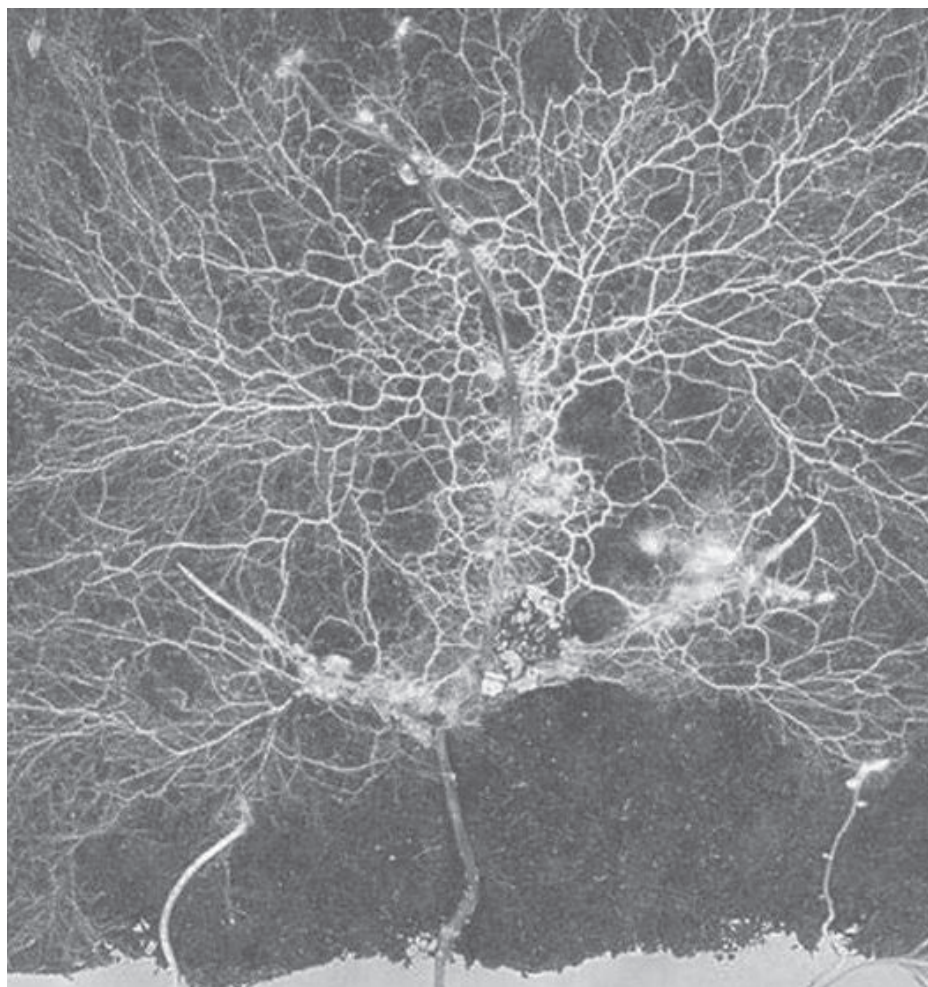
Fourthly, the water has to flow through carbon rich sediments, that are analogous to soils in lakes and ponds. This is done with coarse media bottom filters through which the water is circulated. Water treatment in such zones that are out of sight can be remarkable.

Finally the restorer eco-machines need to be biologically diverse. In some cases aquatic life from over half a dozen local water bodies contributes to the system. Filter feeders, such as freshwater mussels, are especially important. Plant species like bulrush (*Scirpus* spp) are also key actors at this ecological stage.

The other key challenge will be to create cost effective solutions that would allow communities to adopt an ecological approach to managing their waters. A step-by-step approach might be worth a try. The first step would be to create water circulation, followed the addition of beneficial organisms and trace minerals. There is a substantial amount of evidence that with the right kinds of supplemental microorganisms of sufficient density that water bodies can be dramatically improved. (1&2) This includes improved water clarity, the inhibition of algae blooms, nitrification and denitrification, as well as the digestion of bottom sediments.

Depending upon feedback, if the system is not responding dramatically, it might prove wise to ratchet up the process to a third step that would include high-rate Restorers with both aerobic and anaerobic treatment components. Of course each step would increase the treatment cost, hence my step-by-step approach.

Coming back to my larger concern, namely the healing of waters and the equally important task of making ponds and lakes a sink for stable carbon. While we do not have a lot of evidence to go on yet, we do know that healthy ponds and lakes can be carbon sinks, whereas degraded ones are excess exporters of CO₂ into the atmosphere. If we can combine water remediation with aquatic carbon sequestration there is a good chance that we will find ourselves on the front line of helping stabilize the earth's climate.



1 www.bactupur.com

2 www.urthagriculture.com

BioCellars: Bringing Daylight to Foundations

By Jean Loria

Jean Loria, the author of the article that follows, grew up in a small town in Northeast Ohio in the fifties and sixties. Being outdoors in all seasons with her friends and family was a rich part of her childhood. The boundless creativity of nature continues to be the center of her interests. She studied biology and has a BA from Cornell University and has worked as a research assistant in life sciences in a number of labs at several universities. More recently she has been involved in designing, installing, and maintaining an aquatic ecosystem to replace the chemical management of an indoor swimming pool; Additionally she is educating people about an urban stream that runs through their backyards.

NJT

In the late eighties, I was part of a small group we called green guerillas. We made gardens in inner-city vacant lots. Lack of safe, healing, green space was my motivation. The women and children at a battered women's shelter were too frightened to be outside in an adjacent vacant lot that we had planted with vegetables and flowers. Ellen Swallow was the first woman to earn a Ph.D. in advocated science from MIT. She did so as a means of empowerment that brought together her concept of ecology with the idea of bringing daylight to the foundations of abandoned buildings. Years of research and work led to actualization of a solar greenhouse design I named BioCellar. The image here is of the biocellar at the vineyard of Chateau Hough in Cleveland, Ohio. The grand opening was in the fall of 2014.

A biocellar is a variation on the theme of bioshelter: in the form greenhouse designed to protect and nurture plants, animals & people. It is architecture inspired by biology in order to support and manage ecosystems. Bioshelter innovation arose, in part, from recognition of the pressing need to explore ecological ways to care for people in a world with an ever expanding human footprint. BioCellar innovation adds a dimension of reuse. Our neighborhoods, towns, cities, and industrial areas often have a large number of abandoned buildings. A biocellar is a passive solar greenhouse built in the basement of a demolished vacant building. Green and natural construction, ecological design, and neighborhood connection are among their defining features which are intended to be potential mini-economic engines of urban/rural revitalization.

There was a history of solar greenhouses including bioshelters in a publication of the New Alchemy Institute. At that time, the New Alchemy Ark or bioshelter was eleven years old. Knowledge and experience harvested from years of operation and documentation of this and other New Alchemy projects fostered the building of a number of bioshelters here and abroad.

A bioshelter at the Three Sisters permaculture



farm in western Pennsylvania has been in continuous operation since 1988. Darrell Frey wrote and published iBioshelter Market Garden: A Permaculture Farm about this site Darrell Frey and published in 2011. The Three Sisters Farm Bioshelter is central to the success of their permaculture designed farm.

I coined the term bioellar in 2008 after talking to Terry Schwarz, the director of Kent State University's Cleveland Urban Design Collaborative). Terry Schwarz initiated the collaborative's Shrinking Cities Institute in Cleveland to grapple with the reality of population decline and large-scale urban vacancy in north east Ohio. Ms Schwarz listened to me talk about reusing foundations of vacant buildings as substructure for solar greenhouses. She also looked at my five or more sketches of greenhouses for a range of purposes. Soon afterwards, the collaborative undertook and published phases one and two of the studies of architecturally approached and urban design parameters and the economic feasibility of biocellars. The first phase looked at biocellars as infrastructure, with functional uses ranging from growing food to fostering health. The report also outlined a building process and urban location scenarios. The report from phase two built on the initial work and included possible building designs, performance modeling, vari-

ous biocellar uses, and site selection. Potential challenges and limitations were also outlined in anticipation of a biocellar pilot project.

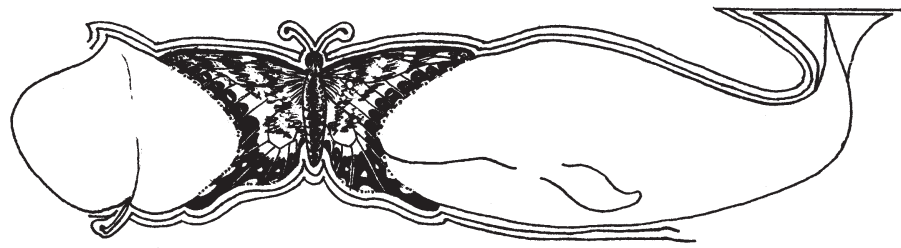
In 2011 I met Mansfield Frazier who would become a driving force for construction of the first biocellar. It was the first time the urban design people had suggested building a biocellar using a vacant house just north of the inner city vineyard he had established in 2010. Mansfield Frazier is a native of Cleveland self- the executive director of Neighborhood Solutions, Inc. Robert Donaldson is co-designer and architect of the BioCellar at the Vineyards of Chateau Hough.

The organization's mission is to work with youth who are at risk, veterans, and formerly incarnated individuals. We met at the vineyard on urban design biocellar site selection visit. A collaboration began. Mansfield Frazier stepped forward when the biocellar project was chosen

for a TED talk intended to uplift a community known primarily for the Hough Riots of the 1960's. Under Mansfield Frazier's leadership, Neighborhood Solutions is the builder and owner of the biocellar at the Vineyards of Chateau Hough.

Robert Donaldson is the co-designer and architect of the biocellar at the Vineyards of Chateau Hough. He expressed an interest in joining the team. In the fall of 2012, Neighborhood Solutions, Rob and I began working together on designing the biocellar. a registered Architect with a specialty in building design and construction. His portfolio is impressive. He has a passionate commitment to sustainability and urban food production. Due to his efforts, the biocellar at the Vineyards of Chateau Hough was selected for a presentation at the American Institute of Architects National Meeting in May of 2015.

By Fall 2013, the once grand Victorian style house that had been a home for generations of Hough residents was torn down and the floor of the basement was exposed to the sky for the first time in a hundred and twelve years. Mr.Mansfield oversaw work to repair the foundation. He brought in men who were in transition from prison back into society to put their for labor. handprint on building the first BioCellar. Con-



struction began in the spring of 2014 and was completed by that fall.

There is evidence of subterranean greenhouses were used by ancient cultures. In terms of architecture and ecosystem design, a biocellar differs, in one way, from pit greenhouses or solar pit greenhouses in that construction begins with a demolition. The foundation is a remnant and is not newly constructed. Part of the definition of a BioCellar is a requirement that the building be vacant and not a candidate for restoration. At the Vineyards of Chateau Hough, the expense of deconstruction as opposed to demolition of the adjoining derelict house was not warranted as years of vandalism and weathering has destroyed anything worth salvaging.

The biocellar was designed to be off the grid in terms of water and electricity. The area of the basement floor is approximately eight hundred and ten square feet. It measures twenty-three feet from north to south and thirty-five from east to west. The volume of the entire structure is approximately eleven thousand cubic feet. Data on the shading of the north part of the BioCellar in summer was used to position the thermal mass for maximum solar exposure in winter. The north wall is insulated. The east wall has vents and a port for roof storm water runoff conveyance to storage.

The glazing and metal roof intercept approximately five hundred gallons of storm water per inch of rain. A gutter on the south side runs east with an outfall to a rain garden. Solar energy is absorbed passively and stored in the thermal mass of the cistern. Passive ventilation currents are aided by a solar operated vent., Solar powered interior lights were installed for security purposes.

Ecological design and biological equity, meaning just access to and distribution of basic resources for living, are integral to biocellar design and function. To explore the potential for biocellars to be mini-economic engines, obtaining a yield was a design principle. Gradients of incident light, temperature, moisture, and air-flow so useful in constructed ecosystem design are exaggerated by the below-grade level. The programmatic plan (figure 6) for the interior ecosystem utilizes these to advantage to create a biologically di-

verse and pleasant work space. Temperature and light gradients are suitable for mushroom cultivation steps of spawn run and fruiting. Carbon dioxide generation from mycelia growth and spent sawdust substrate for micro remediation are useful by-products. Strawberries from an ever-bearing variety that can produce full size fruit inside in winter is a market niche as well. Herbs, cool crop vegetables, native plant nursery stock including ostrich fern for fiddleheads are also included. A solar aquatic ecosystem fed from the cistern adds thermal mass and humidity as well as potential for plant and aquatic species growth.

The project continues to receive favorable and extensive publicity as well as generous funding support. Currently, the focus is on using this biocellar as an educational resource.

On the front page of the Boston Daily Globe for December 1892 was the following headline, "New Science. Mrs. Richards names it – Oekology." The previous evening Ellen Henrietta Swallow Richards gave a speech proposing the introduction of a new environmental science. The entirety of her speech was not recorded but she did say the following. "For this knowledge of right living, we have sought a new name... . As theology is the science of religious life, and biology the science of [physical] life ... so let Oekology be henceforth the science of [our] normal lives ... the worthiest of all the applied sciences which teaches the principles on which to found... healthy... and happy life." From the Greek work oikos or household, "Oekology" was to be a science of "everyone's home" ---humanity's home". Ellen Swallow was the first woman to earn a Ph.D. from MIT. In her writing, science career, and life pursuits, she advocated science as a means of empowerment. Ellen Swallow: 1

"To live is to appreciate the joy of work, and work for humankind; this joy includes an appreciation of the possible meaning of it all." Ellen Swallow.

The New Alchemy Institute, Ocean Arks International, Permaculture Designers, Eco-feminists and many many other individuals and organizations have labored to bring the beauty, utility, and necessity of natural ecosystems into our daily lives. BioCellars in neighborhoods could be a touchstone for people to see ecology as an accessible science relevant to improv-

ing the health of our food, water and air in our own home -- humanity's home.

The Woman Who Founded Ecology by Robert Clarke. On the front page of the Boston Daily Globe for December 1892 was the following headline, "New Science. Mrs. Richards names it – Oekology." The previous evening Ellen Henrietta Swallow Richards gave a speech proposing the introduction of a new environmental science. The entirety of her speech was not recorded but she did say the following. "For this knowledge of right living, we have sought a new name... . As theology is the science of religious life, and biology the science of [physical] life ... so let Oekology be henceforth the science of [our] normal lives ... the worthiest of all the applied sciences which teaches the principles on which to found... healthy... and happy life." From the Greek work oikos or household, "Oekology" was to be a science of "everyone's home" ---humanity's home". Ellen Swallow was the first woman to earn a Ph.D. from MIT. In her writing, science career, and life pursuits, she advocated science as a means of empowerment. Ellen Swallow: 1

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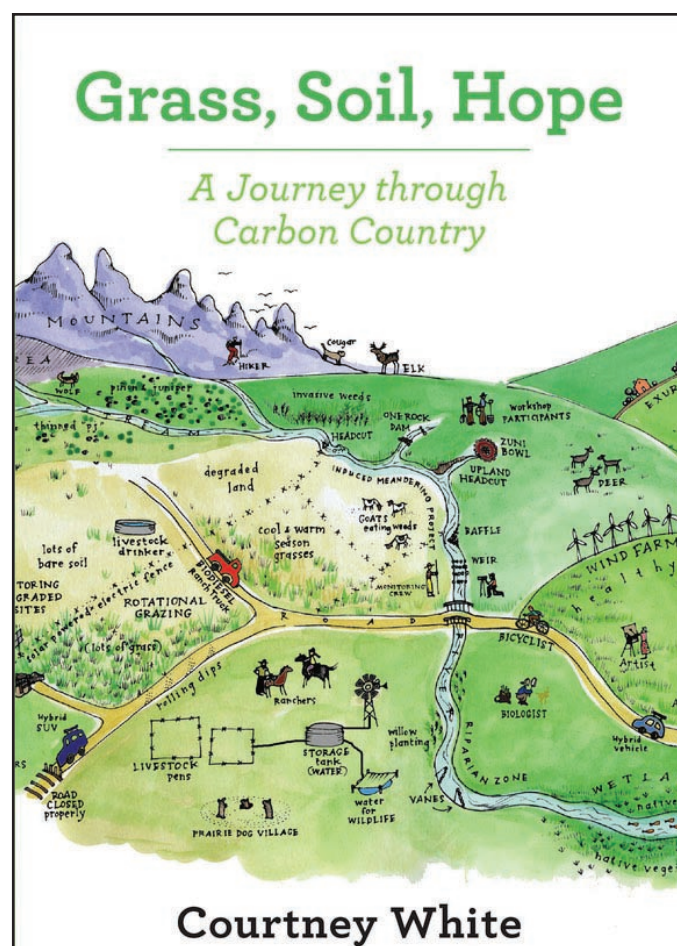
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The Woman Who Founded Ecology by Robert Clarke, Chicago, Follett Pub. Co. 1973)

GRASS, SOIL, HOPE, A JOURNEY THROUGH CARBON COUNTRY

By Courtney White

A Review by John Todd



This is a very important book that should be of interest to all who are concerned about the future of agriculture and the large-scale protection and healing of soils and waters. It is about bringing the current climate crisis back into balance through the sequestration of excess atmospheric carbon into stable soils. Courtney White tells stories of creative people around the world who are revolutionizing agriculture. They are farmers who, in addition, practice earth stewardship and environmental healing.

While growing foods of all kinds they also store carbon and build carbon rich soils. Their applied ecology has the power to feed the human family while restoring degraded environments. With a forward by Michael Pollan, the book is filled with characters, visionaries, and creative growers working on varied landscapes and in divergent climates. They can be found in small towns in New England, the mountains of the southwestern United States, and beyond as far as the outback of Australia.

Ultimately this is a hopeful book, about being able to feed humanity, correcting the legacy of poor land management, and reversing climate change through habitat rebuilding. It will serve as an inspiration for a new generation of farmers whose big picture visions change the world.

The publisher is Chelsea Green Press of White River Junction, Vermont.