Vancouver Unitarians

The Seventh Principle

Respect for the interdependent web of all existence of which we are a part

VOLUME 4, ISSUE 4 Winter 2011

Unitarian Church of Vancouver Environment Committee Broadsheet

2011 In Review by Grant Watson

Another year is passing into history and it has been a turbulent one from environmental and social justice perspectives. This is a personal look back at some of the key events that brought me hope and trepidation. Let's start with the good news:

Arab Spring – when a Tunisian street vendor took his own life in protest of an oppressive government, a movement grew that has swept through the Arab world, resulting, so far, in the rapid downfall of autocrats in Tunisia, Egypt, Libya and Yemen. Syria is now in a civil war and protests continue in Bahrain and elsewhere. While there is little evidence that the new power structures have settled into something more just and accountable, the people of the region are making their voices heard and are refusing to accept brutal tyranny any longer. Right here in BC, the much-maligned carbon tax took an incremental jump to $25/tonne on July 1. Its still difficult to notice its impact on gasoline prices, as these fluctuate wildly (usually in the upward direction) as a result of increasing global demand, shrinking supply (partly due to unrest in the middle east) and perhaps a little price fixing? Nonetheless, this humble initiative is one of the most significant legislative actions addressing climate change in North America. I see it as an important symbolic gesture, and one of the very few positive things to come out of the Gordon Campbell regime.

The Occupy Wall Street Action – this has grown into a global movement demanding more equitable economic and political systems. It's hard to believe that it just started on Sep 17. While the mainstream media (including the CBC) has done a good job of portraying the movements as unsophisticated and ignorant, it has been a rallying point for a growing community of the disillusioned.

Keystone Pipeline Delayed – the US administration has at least delayed approval of the construction of a new pipeline to pump Alberta Tar Sands bitumen to refineries in Texas. This after over 1200 people were arrested for participating in a vigil outside the Whitehouse, including James Hanson, the NASA climatologist who did extremely important research on the effects of increasing CO_2 concentration in the earth's atmosphere.

There was also some very disturbing news this year as well. Get yourself some comfort food, like a nice bowl of bean-squash soup, and read on...

Remember Fukushima? I know, I want to forget it too. But it *continues* to spew significant amount of radiation and reminds us that we are capable of colossal screw-ups when we play with nuclear fire.

Federal Election – On May 2, Canadians gave Stephen Harper a majority in parliament. We have awarded ourselves with the most regressive, autocratic government in living memory. Sure, Brian Mulrooney created a sophisticated network of corruption (and got away with it), but did he fire any federal watchdog who actually did their job? Did he commit to close to $200 billion in war-toys? While Harper fights a shrinking crime rate, he single-mindedly promotes expansion of the tar sands and tells China they need to stop polluting. Hey Steve, didn't you approve a pipeline to ship tar sands oil to China?

Tar Sands Expansion – since we're on the subject, the most recent production figures I could find for the tar sands is 1.5 billion barrels/day in 2008. According to the Alberta Department of Energy, this is expected to **double** by 2019! This environmental nightmare is already responsible for 31% of Canada's industrial GHG production (2008).

There was another year of devastating floods in Pakistan. With everything else going on, and increasing hostility towards the country by the US, most Canadians haven't even heard of this.

Wikileaks brought down – The money changers disabled Wikileaks by refusing to process donations.

Border Security Agreement – On 7-Dec Canada and the US signed a border security agreement that is intended to streamline the flow of goods. It also provides for greater exchange of personal information on travelers.

GHG Emissions – the latest data from Environment Canada is for 2009. At that time our CO2 emissions had increased by 34% over 1990. Since we have no effective policy to reduce emissions in this country, and tar sands production is expanding at 7% per year, we can assume that our rate of output has continued to increase.

I'm trying to think of something optimistic to say in conclusion and feeling stuck. What can we do besides continue to simplify our lives and keep up the good fight?

Editor's note: Grant was the Chair of the Oak Street Farmer's Market Committee at UCV this past inaugural and fund-raising year. For 2012 Grant has been persuaded to be the Coordinator of an expanded, all organic, fresh, local Farmer's Market at UCV.

Green Fund

Have you noticed Lily Ha selling coffee and chocolate for the "Green Fund" of UCV? So far, almost $5,000 from the Green Fund has gone toward cutting UCV's heating bills and greenhouse emissions. You can help the Green Fund grow with a carbon offset cheque made out to "UCV—Green Fund". If you make a "pleasure trip", consider donating 5% of your airfare…or google "airfare carbon offset" to calculate an appropriate dollar amount. Any donation is much appreciated.

Just what is the UCV Environment Committee?

Guided by the 7th principle of Unitarianism, the UCV Environment Committee (Enviro C'tee) is open to all members of the Unitarian Church of Vancouver. We meet [most often in the Lindsey Priestly room] at 12:30pm on the second Sunday of the month from September to June.

February Forum "Zero Waste" by Ann Foster

In November, I attended a session on "Zero Waste" at Mt. Pleasant Community Centre, presented by SPEC members. I was pleased to see thirty or forty young people show up; in fact I was the only senior! Marnie Newell and her two colleagues covered the topic very thoroughly, especially as it relates to our region, offering many practical tips and contact information on how to reduce our waste. Canadians produce three billion tons of waste per year, 40% of which is residential, amounting to 2.7 kilograms per person per day. In Metro Vancouver alone, we average 300,000 tons of garbage in December, our most wasteful month. Recycling has helped, but reducing would be even better. Luckily for UCV members, Marnie and her friends have generously offered to bring their power point presentation to a UCV forum in early February. Please watch for the date and don't miss out on this opportunity to reduce your waste in 2012!

Parsnip Soup adapted from *Color Me Vegan*, by Colleen Patrick Goudreau, by Denise Swanson
~a decadent, mood-enhancer of a dessert, full of selenium

2 yellow onions, roughly chopped
4 parsnips, peeled and chopped into uniform-sized pieces
1 large yellow potato, peeled and diced
2 tsp minced garlic
1 tsp minced fresh ginger
1/3 cup dry white wine (cooking wine OK)
¼ tsp salt, plus more to taste
1 bay leaf
1 tsp dried thyme
1 tsp dried tarragon
¼ tsp ground nutmeg
2 cups vegetable stock
1/3 cup yellow/light miso (Shiro)
4 cups nondairy milk (soy works well)
Freshly ground pepper, to taste

In a large soup pot, combine the onions, parsnips, potatoes, garlic, ginger, wine and salt. Cook over medium heat for 10 minutes, or until the liquid evaporates. Add the bay leaf, thyme, tarragon, nutmeg and stock. Cover and simmer for 30 – 40 minutes, until the parsnips are fork-tender. Remove bay leaf, add miso, and blend in blender until smooth. Return to pot and stir in the milk, adding salt and pepper to taste. Re-warm over low heat. Do not boil after adding miso.

Whole Earth Discipline: An Ecopragmatist Manifesto by Stewart Brand.
~ A book review by UCV Environment Committee Chair Karl Perin.
http://web.me.com/stewartbrand/DISCIPLINEfootnotes/Contents.html

"…The highest compliment one can give a book is 'it changed my mind.' It changed mine and I am grateful." Paul Hawken, author of Blessed Unrest. *"One of the reasons inequality gets so deep in this country is that everyone wants to be rich. That's the American ideal."* Jay-Z. *"Anyone with three meals a day and hot running wat*er is *rich."* Rex Weyler.

Heresy is our heritage. Sometimes, a good Unitarian is a bad one. Example: Emerson booted out of his pulpit. Sometimes the truth hurts. So I need to report some heretical thinking by Stewart Brand (Whole Earth Catalog, Co-Evolution Quarterly, etc.), James Lovelock, and Freeman Dyson. It's no fun being a heretic, or a myth buster ("Actually Virginia, there is no Santa Claus.") but it is time to shake things up when it comes to Climate Change.

We've been aware of the "How to Boil a Frog" problem for a long time. Now it's getting hotter, and we see fervent denial all around us. The governing myth is that growth is good, more is better, and, surprisingly, getting richer is more fun than getting happier (Costa Rica is happier than the U.S.A.) If voluntary simplicity were ever to catch on, it would be too slow and too late to stop Global Warming.

A bit of voluntary simplicity suits me fine: I love shopping at Value Village but I still have a long way to go. Although I applaud "De-Growth" and the Work Less Party, I don't expect to witness pounding cars into plow-shares in the next decade.

Like it or not, we are not utopians designing an ideal community in Tuktoyaktuk, far from the military-industrial complex. We can promote voluntary simplicity, and hope our example has influence. But we can also examine old beliefs in the light of recent research. We can compromise and be hard on the problem, and easy on the people, as Tzeporah Berman demonstrates.

In the context of Climate Change, and the inertia of capitalism (still ignoring the future), as well as public resistance to the draconian authority which would be necessary for the radical economic change necessary to avoid deadly Global Warming, I would like to explore a heretical direction: business-as-usual with technological breakthroughs that might allow civilization to survive, or at least buy time by reducing GHG (greenhouse gas) trends.

Methane (CH4)?

"Consider also the gases that come out of us and our livestock and pets exhaling, burping, and farting. Lovelock says that accounts for 23 percent of all GHG emissions. Australia is on the case. One project there is engineering lower-lignin grass that would reduce the methane emitted by cows by 20 percent…" pg. 201. Methane could be massively reduced by eliminating beef from our diet. Do it. You won't regret it.

Nitrous Oxide

"Consider nitrous oxide, a GHG three hundred times worse than CO2 that fumes up from soil drenched with chemical fertilizer. If the use of nitrogen fertilizer went down by a third, says a report in *New Scientist*, that "would reduce greenhouse emissions by more than grounding every single aircraft in the world." More organic farming will help. So will new varieties of rice and other crops now being engineered for far more efficient uptake of nitrogen from fertilizer, so less is needed, saving the farmer money while reducing atmosphere and water pollution." pg. 201.

Carbon Dioxide (CO2)

CO2 is abundant (and now, destructive) because the balance of plants, animals, and fossil fuels has been out of whack since at least 1750, when CO2 ppm were 270, and the earth was comfortably cool. The problem with seven billion people returning to 1750 life-styles is

1. Few would do it, and
2. There's no room for seven billion farmers, no matter how efficient, and
3. There are efficiencies of scale and technology in the present (unhealthy) high carbon, high profit agricultural systems, which would be difficult to quickly replace with low carbon systems, especially when the stock market is so powerful. However, organic farming and bio-char, which sequester carbon in the soil, and improve its productivity, might be profitably up-scaled quite quickly.

Time for an extensive quote from Stewart Brand, founder and editor of The Whole Earth Catalog (1968-85), in this 2009 book:
"I have a history with organic farming—more than I realized. Reading *The Omnivore's Dilemma* (2007),

Michael Pollan's natural history of American agriculture, I was surprised by this passage:
'*Organic Gardening and Farming* (magazine) struggled along in obscurity until 1969, when an ecstatic review in the *Whole Earth Catalog* brought it to the attention of hippies trying to figure out how to grow vegetables without patronizing the military-industrial complex. Within two years *Organic Gardening and Farming*'s circulation climbed from 400,000 to 700,000.'

At Whole Earth we did indeed promote the intensely organic publications from Rodale Institute in Pennsylvania, and I got to be friends with Bob Rodale…. (Various books) convinced me that the quality of a civilization, and its likely longevity can be judged by the quality of its soil. Thus I'm cheered by the current proliferation of new genres of soil centered agroecology—*organic, permaculture, polyculture, conservation agriculture, biological farming,* and *integrated farm management*. We can add to the list *transgenic crops*, if they're designed right and used right."
"Transgenic"?! Why even consider mixing genes from different species?

First, the Climate Change rationale for considering transgenic/GMO/synthetic biology. We are now at 390 ppm CO2 in the atmosphere. We may already have passed tipping points and are actually in the beginning phases of run-away Global Warming: witness the accelerating Arctic melting and the positive feedback loop of decreasing albedo as dark ocean replaces light snow and ice. However, the UN says that 450ppm CO2 is too much (or to cut the crap: 450 is suicidal). We are presently climbing at 2 ppm per year during recession years, and about 3 otherwise. If we optimistically estimate 2.5 ppm increase per year (as population and CO2 per capita continue to increase) we have 24 years before the s**t hits the f*n: i.e., irreversible runaway climate change quite probable. 2012 + 24 = 2036. From 2012 when I will be 67, and our son Ben will be 28, to 2036, when I may be 91, and Ben will be 52, is quite a short time. And of course there's a lot of CO2 already in the pipeline. So, either we get the yearly CO2 average well below 2.5 ppm per year during this decade, or we bake. It's not rocket science.

So that is the incentive to

1) reduce our production of CO2, primarily by keeping carbon (coal and Tarsands oil, especially) in the ground, and
2) to find ways to suck it out of the atmosphere and lock it up (CCS or Carbon Capture and Storage, or "sequestering carbon"). CCS usually refers to capturing CO2 at its source: smokestacks. "Sequestering carbon" includes photosynthesis, which takes in CO2 and gives off O2. Here's where transgenic plants come in, since plants are still the best CO2 absorbers around. (Brand, like Lovelock, likes Bio-char if it can be scaled up.)

Genetically Modified Organisms (GMOs) (pp. 117-205)

Stewart Brand argues powerfully that GMOs in 2011 are no longer that bad or risky, and that they are common in North American foods, medicines, etc. He gives the example of a GMO used in food/drug testing that determines whether a substance is carcinogenic. It is in wide use. Also "synthetic biology" is a rapidly growing field, in and out of academia and industry, so this genie will not go back in the bottle. While fast-growing GMO trees would help to absorb carbon quickly, I am not completely convinced that we should go that route—but it is enticing.

The old growth forests on our coast contain more biomass per hectare than any other ecosystem on earth's surface (with the possible exception of raised bogs). Could plantations of GMO trees lock up even more carbon? (Freeman Dyson's dream in a 2007 essay.) Could massive poplar and bamboo plantations remove enough CO2 to slow down Global Warming? What if the nitrogen fixing bacteria in the root nodules of legumes (beans, peas, clover) could reduce the need for energy intensive artificial fertilizer in non-legumes (and phosphorus and potassium could be quickly and biologically recycled as well)?

The possibilities (and risks?) of "synthetic biology" are endless. Are we at a point where a strict "precautionary principle" has outlived its usefulness, after forty years of research, with no GMO disasters yet? Of course, there could still be one. But I would risk a possible GMO disaster, if GMOs allowed millions to live because of GM drought and/or salt tolerant plants. And with more people living healthy lives, I would be happy to find GMO plants which absorb CO2 and other GHGs faster than we can produce them. At this point, we don't have too many other "eco-pragmatic" solutions.

Sow Now, Reap Later: Spring Garden Planning
found by Diane Crosbie

Design and plan your garden during the winter months in order to get a fresh and early start in the spring. Now is the best time!

The weather outside might still be frightful, but if you're planning to grow a garden this spring, now is the best time to choose a site and prepare your soil. Determine a garden spot that's sunny most of the day, (keep in mind that bare winter trees will block sun in summer) and where it will be convenient to pop out and harvest something fresh for a meal. Access to tool storage, water, a compost pile and possibly electricity (for power tools) is also helpful.

Consider designating three or four distinct garden plots, which will allow you to rotate crops—a traditional method of plot management in which vegetables with like needs are grouped together. The three main groups are brassicas (cabbages, cauliflowers and Brussels sprouts), root crops (carrots, parsnips, beets and potatoes) and legumes (peas and beans). Make a fourth group with whatever miscellaneous tender vegetables you decide to grow, such as zucchini, sweet corn, celery and tomatoes. Divide your garden plot into three or four areas, and rotate each crop group to a new plot every three or four years to avoid the buildup of pests and diseases that can occur when the same crops grow in the same spot year after year. Planning for crop rotation also allows you to prepare and feed soil in the ideal way for each crop.

Good Soil

Soil is a plant's essential source of moisture, air and nutrients. Good soil is a living, thriving community. Many small beneficial creatures such as earthworms, wood lice, centipedes, microscopic bacteria and fungi contribute to a healthy ecosystem by converting dead material into organic matter. Topsoil is the rich, well-cultivated uppermost layer in which most plant roots grow. It's generally around 12 inches deep, although depth varies depending on whether soil has been well-cultivated or neglected. One of the best ways to improve soil is to cultivate deeply, which opens up soil for air and water to penetrate plant roots.

Prepare your soil for growing vegetables by turning soil over in advance, ideally during winter, digging 6 to 12 inches deep. Add organic matter in the form of compost, leaves, rotted manure or seaweed. If you don't have your own compost, you can often find it for free or for sale in your community; search online for "compost" and your community name.

As the soil starts to dry in spring, finish the seedbed by breaking down the surface into a fine crumble, using a fork and rake. If the soil is not sticky, you can walk on it at this stage, which breaks the clods and gently firms the surface. Apply a balanced organic fertilizer, then do a final raking. Remove excess stones, remaining clods and any weeds. Ideally, you should prepare your seedbed well in advance of the first sowing, allowing time for a first crop of weeds to germinate. Hoe off the weed seedlings immediately before sowing your garden seeds, which will give your crops a head start.

What's Your Soil Type?

Depending on your soil type and pH, it may also be helpful to amend your soil before the gardening season begins. First, determine what kind of soil you're working with. The mineral components of soil are clay, silt and sand. A good soil is one that contains a mixture of all three; gardeners call these soils loamy.

• Clay soils are heavy and difficult to cultivate. They can be wet, poorly drained and slow to warm in spring. They do retain moisture through summer. Clay soils can be improved with cultivation, added organic matter and possibly sharp sand.
• Sandy soils drain well, are easy to cultivate and tend to warm up quickly in spring, making them good for growing vegetables, in particular root vegetables such as carrots. Sandy soils do not retain water or fertilizer well, so they tend to need more irrigation and regular feeding.
• Silty soils are not common but are also good for growing vegetables.They generally behave like sandy soils but are richer and less prone to drying.

Determine what type of soil you have by rubbing a small sample between your wet fingers. Sandy soil feels gritty and does not stick together.

Clay soil feels sticky and rolls into a ball. Silty soils feel silky and smooth. If you have loamy soil, you may be able to feel all of the constituents in the mixture in varying proportions.

Soil pH is also an important factor—soils above 7 on the pH scale are alkaline and soils below 7 are acidic. The ideal pH for most vegetables is 6.5, just slightly acidic. Soil testing kits are readily available from garden centers. They'll advise you on natural materials you can work into your soil to raise or

lower the acidity, achieving a pH range that will allow your plants to take up the nutrients they need.

To make soil more acidic, many test kits recommend adding lime; to make it more alkaline, add wood ashes. Autumn is the ideal time to apply lime to the soil, but you can apply it in winter if the soil isn't frozen. Beware that it is difficult to reverse the effects of liming, so use small quantities and monitor the effects before adding more. Never apply lime at the same time as manure, as the two react and produce ammonia, which will scorch roots. Also keep in mind that soil's pH is not constant; you might want to test every few years. Tests will also reveal any toxins in your soil. If you find you have toxic soil, don't worry. You can either add several feet of uncontaminated soil and compost, or grow food in containers or raised beds.

Bike Advocate

U.C.V. Member: Well, B.A., 'tis the season of black ice and snow.
Bicycle Advocate: Yup, and I won't ride in December due to drivers suffering seasonal-distraction disorder.
U.C.V. Member: A couple of years ago we whiled away the time on public transit with a sports trivia quiz but this year I have found something of a spiritual nature to occupy you. I've got a Zen *kōan* for you to contemplate while you are on the Skytrain, "I ride my bicycle to ride my bicycle"*. What do you think?
Bicycle Advocate: Let me say this about that:

I know precious little of Buddhism [and by that I mean, what little I know is precious to me] and I'd recommend that readers apply to the Reverends Epperson, Imayoshi, or Hewett, or to one of the many U.C.V. members who are very knowledgeable regarding the practice of Buddhism in all its forms, for a real assessment of the merits of this *kōan*. My guess is that it is more of a *pseudo-kōan* than a *neo-kōan*.

That said, I am a thrice recognized *bodhisattva* of cycling [and you thought the "B." stood for Bike] so I have plenty to say about this *kōan* from a cycling point of view. In brief this is 'bad biking'. Time and time again I've pointed out that if it's exercise one wants one is best advised to leave the bike in storage and get out and walk, hike or run or run to the gym. Cycling becomes 'good' exercise when it replaces a motor vehicle. Going for a recreational ride in the country with the family as opposed to going for a drive is 'good' exercise. Cycling is a mode of transportation or a sport.

In the struggle to overcome suffering one may strive to "live in the moment"; thereby overcoming so much illusion. A cyclist who is only alive to the moment is likely to very soon be an injured or late cyclist. Cyclists should constantly have in mind the recent past, the immediate present and the anticipated future. There are said to be highly trained bike couriers who can clearly see a full eight to ten seconds into the future.

Not long ago I wrote that the "best" bike helmet is one that fits and that is a cross-country mountain biking (XC MTB) helmet or commuter helmet modelled on an XC MTB helmet. These helmets are ideal because they are designed for a rider who has her head up, who is looking where she is going. While I have little use for the self styled "Bike Culture" [which ain't – there's not even a bike subculture – riding a bicycle in no way distinguishes you from the rest of your particular culture or subculture] I will cheerfully misappropriate one of their maxims, that is "To be at one with your bicycle". Absolutely! Sadly this means no ear-buds or headphones; no meditation tapes [or music] while one is riding a bicycle. All one's concentration should be on riding, safely, from point "A" to point "B". Listen to your bike, is it functioning properly; listen to the sounds around you, are you avoiding injury and injuring others?

Cycling and meditation is not a good mix. The bicycle is a vehicle to transport one to the Unitarian Church of Vancouver – now there's a good spot to meditate and a fine way to get there.

**"The Quotable Cyclist" ed. Bill Strickland; Breakaway Books, New York City, 1997, page 296.*
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