Harvesting a Sustainable Cultural Consciousness:
Tools, Frameworks and Processes for
Creative Community-Based Energy Descent

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts, Socially Responsible Business and Sustainable Communities

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Harvesting a Sustainable Cultural Consciousness: Tools, Frameworks and Processes for Creative Community-Based Energy Descent. By Zeratha Monique Young

Keywords: Energy Descent, Peak Oil, Climate Change, Whole Systems Change, Whole Systems Design, Systems Thinking, Cultural Narrative, Environmental Art, Grassroots Community Building, Cultural Consciousness

Abstract

This thesis serves as a review, synthesis and resource for community members, organizations, educators, and others interested in learning about possibilities for creatively and collaboratively addressing some of the most pressing challenges currently facing humanity. In this thesis the challenging trifecta consists of: climate change, peak oil and the need for a sustainable cultural consciousness that shifts and transforms dysfunctional cultural narratives. Possible recommended approaches for responding are situated within the fields of systems thinking, whole systems design and whole systems change. There is also significant focus on the role of creativity, spirituality and psychology in responding and adapting on both individual and community levels as well as understanding how we got into the current challenges. This work is not meant to be an in depth analysis but rather a general overview and synthesis of tools, frameworks and processes that can be used as a base level of learning, understanding and inspiration for addressing the aforementioned challenges. There is an intention that the reader gain systemic insights and then chooses which

areas of learning to examine more thoroughly through the further outside learning resources provided. This work is meant to lay the foundations for an active learning and practice journey of the reader's choice

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To my mom who was one of the first inspirations
in my life to live sustainably and courageously.
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helped me feel more confident and sane throughout this process.
To all the creative, brave and amazing change agents
participating in the global paradigm shifting party
for your dedication and wisdom.
To Gaia:
the magnificent trees, rivers, mushrooms
and creeping, crawling, tentacled living creatures
the oceans and moose, mosses and tardigrades
to all those living systems embedded in Gaia.
You have been my never-ending inspiration and motivation.
~A Poem For Being Thankful~
I am thankful for those I love
for all those graceful souls,
animal, mineral and vegetable,
breathing spirit and presence into my lotussoul.
For those who wander with me
as brothers and sisters adrift
on this small garden of eden.
Floating in an infinite universe of possibilities.
you are all beautiful works of creation unfolding.
Sharing energy, space, intention,
opening like a mountain wildflower,
touched by dew, kissed by the sun
resting and holding beauty inside the heart we grow.
Together manifesting a sustainable future
inspiring the architecture of peace and love,
I am grateful for you.

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Introduction

We are in a time of great transition, a period in history where our collective actions and the sum of our individual actions will determine the new cultural narrative that shapes our shared future. The challenges we face are great and complex; span across and between systems of all types: social, natural, economic; and are unfolding on local, national and global levels. To address these problems is going to require the creative participation and collaboration of all stakeholders. These challenges are far-reaching and systemic in nature such as climate change, which affects all living things and all types of systems. In this time of transition we all become stakeholders and the case for creative community-based responses that bring us all together has never been stronger.

So what are the biggest challenges that humanity is facing? In this paper they are considered to be those of peak oil, climate change and the need for a new cultural consciousness: a new guiding narrative. These challenges come together to form the impetus for a cultural transition into energy descent; the pressing need for our global, national and local community systems to shift into a culture that can embrace the transition to a post peak-oil world with optimism and creativity. We will gain a solid understanding of climate change, peak oil, and energy descent. We will also look at how to approach these challenges with courage through an examination of the role that psychology, spirituality and creativity can play.

This transition will require shifting the cultural narrative and consciousness: the story field, especially in the developed world. We will have to individually and collectively challenge and change the stories we have been telling ourselves, and each other. These are stories that make up the cultural narrative of individualism, materialism, hyper-growth, a loss of connection to each other and to the natural world and many other dysfunctional memes. They are the stories that are at the root of so many of our problems, not only peak oil and climate change, they are also the stories that have helped to keep the war machine going, poverty and hunger. They are the dysfunctional cultural narratives that come together in industrial civilization.

These challenges and stories are inextricably intertwined and one effects and feeds off of the other. Because of this level of complexity and interconnectedness there is a great need, indeed a necessity, to understand and apply systems thinking and whole systems design principles and practices in the search for solutions and adaptation. In this paper an overview of tools, frameworks and processes that can be used or replicated in the community to educate and activate systems awareness and practices will be laid out.

In order to harvest a sustainable cultural consciousness there is also a need for a level of human ingenuity and creativity never seen before. We have to think in new and unique ways, to see the world with fresh eyes. There needs to be collaboration between both changemakers and individuals who practice creativity on a regular basis - artists, designers, musicians, engineers and others - so that they can share with us

their knowledge of how to access and harness our own creativity. Creative non-linear thinking skills are going to be critical to envisioning and making the needed transition.

Community organizations, governments and those working for positive change need to ask artists and other creative individuals to be involved. We need to include and value them, to collaborate with them in helping find 'out of the box' insights, processes and projects that can be used to educate the public on the issues in innovative ways, as well as help design creative solutions. We will look at how this is taking place in various contexts and projects and see how we might use the arts and creativity to help us address the above challenges in non-traditional ways. Creativity in this work is at the foundation of change; without it how can we possibly envision the different world we are working towards?

As mentioned previously, there is a need for across the board participation and collaboration in addressing the challenges we face. This includes those in government, business, education, faith communities and perhaps most importantly those at the grassroots level - your neighbors, lovers, brothers, mothers... The changes ahead will affect us all, nobody will be left untouched. Thus the engagement, education and participation of the general public are absolutely vital. In this paper we will examine various grassroots community building tools, frameworks, models and processes to see how this might be done. These are whole systems change tools, which implies that they are effective in engaging the whole social

system, in creating pathways and opportunities for inclusive involvement. These too can be shared and practiced in the community to facilitate change.

Again, to address the dual challenges of climate change and peak oil we need to shift our cultural narrative. This refers to the stories we tell each other, ourselves, the stories that shape our culture, our choices and our lifestyles. Shifting the story field and dealing with the stresses of change and adaptation is going to require a consideration of the insights offered by the fields and practices of psychology, spirituality and creativity. We are going to have to work together in community to make possible the needed changes. It is not something any of us can do on our own. There will have to be a redefining of the role of community, collaboration and interdependence in our lives. This will be more comfortably and healthfully done if we keep psychological, creative and spiritual considerations in mind.

Part of this thesis will be the transcripts of fifteen interviews conducted with change agents working on different projects, in different organizations and in different capacities; all of these individuals seek to create transformational sustainable change. These interviews will help the reader gain an understanding into the work and thinking taking place to create a better world and what the patterns are that emerge between these various individuals and efforts. Each of these interviews is a story in itself and the work being done contributes to the larger cultural consciousness and story fields that will shape our future.

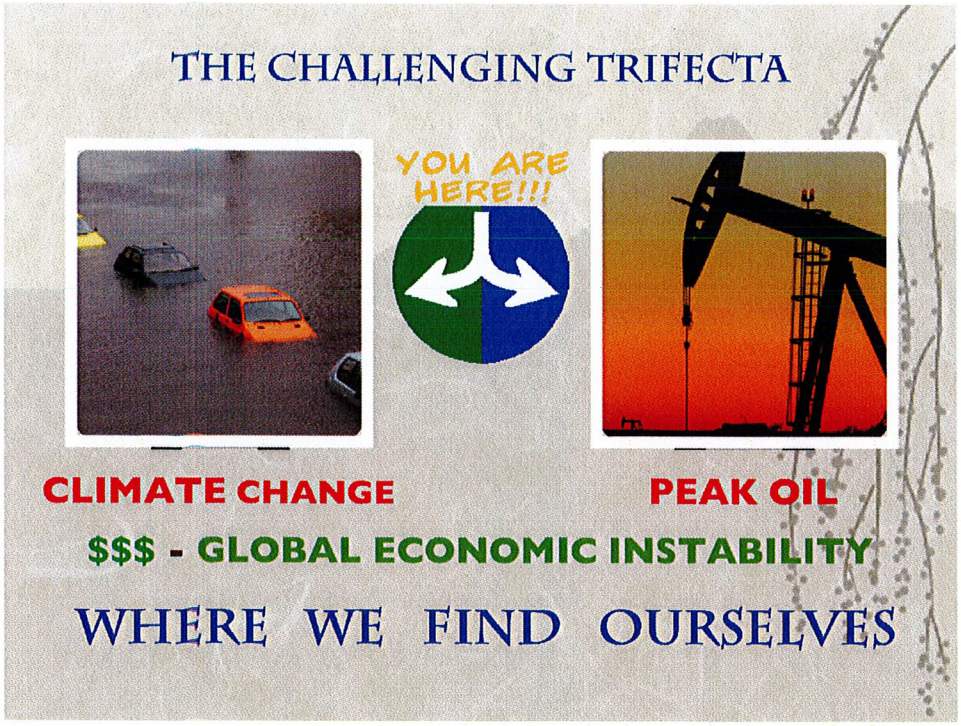
This work will look at a possible combination of ingredients for harvesting a sustainable cultural consciousness. This is a combination that creates a possible recipe for systems change on both the internal individual level as well as the external level. Hopefully this provides readers useful tools to help themselves and their communities begin to make the transition into energy descent with optimistic creativity and calm wisdom. Some of the ingredients are whole systems change processes, whole systems design and models for community engagement.

PART ONE:
THE CHALLENGING TRIFECTA: PEAK OIL, CLIMATE CHANGE AND DYSFUNCTIONAL CULTURAL NARRATIVES

Chapter One:

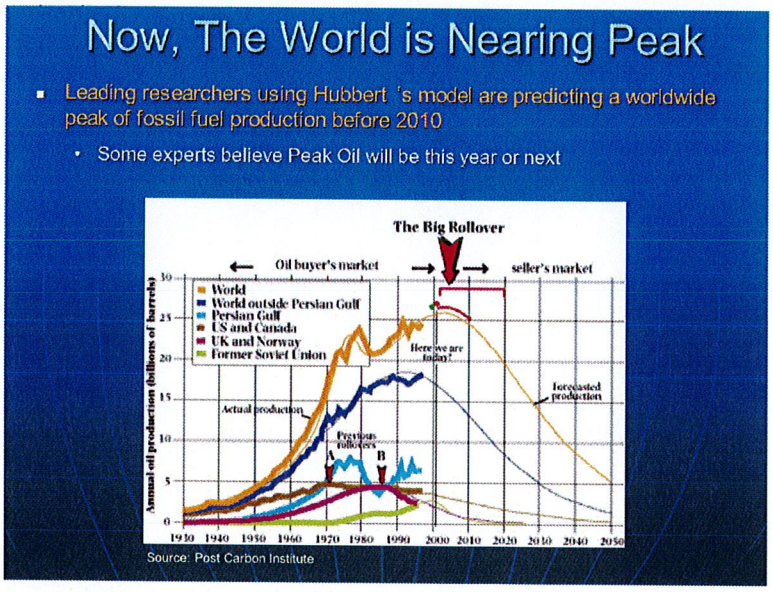
Peak Oil and Climate Change: Intertwined Dual Challenges

We all face choices. We can have icecaps and polar bears, or we can have automobiles. We can have dams or we can have salmon...We can have civilization, or we can have at least the possibility of a way of life not based on the violent theft of resources. This is in no way abstract. It is physical. On a finite world, the forced and routine importation of resources is unsustainable. Duh. We can't have it all. The belief that we can is one of the things that has driven us to this awful place. If insanity could be defined as having lost functional connection with physical reality, to believe we can have it all—to believe we can simultaneously dismantle a world and live on it... is grotesquely insane (Jensen, 2006, p. 148-9).



We have all been hearing a lot about climate change, global warming and the instability of the economy. Many of us have also heard about peak oil, although it is

a term and issue that the general public is perhaps a little less familiar with than climate change. Peak oil refers to the point at which global oil extraction reaches its peak and is subsequently followed by a terminal decline in global production. There are varying estimates about when the world will or has reached 'peak oil' and furthermore, different countries will or have peak(ed) at different times. The United States peaked back in the mid 1970's. However, it is largely agreed upon by economists, energy analysts and other experts that 'global' peak oil is actually taking place right now. The Association for the Study of Peak Oil and Gas (ASPO) estimates that the global peak will take place in 2010; at the time of writing this thesis we are only six months away from 2010.



M. King Hubbert was one of the first people to use the term 'peak oil'. Hubbert was a geoscientist working at the Shell research Lab in Houston, Texas when in the 50's he came up with several models that predicted that peak oil in the United States would happen between 1965 and 1970. Hubbert was greatly ridiculed for his theory

but it actually proved to be accurate as the U.S. did peak right around 1970 as you can see in the graph below. Hubbert then went on to predict that global peak oil would happen at the turn of the millennium in 2000. Though it didn't happen exactly that way, as mentioned above it is largely agreed upon that the global peak is happening right now. Even the Energy Information Administration (EIA) has made startling admittances of the reality of peak oil within the last six months. In the graph below we can see that both reserves and production for the lower 48 states have been steadily decreasing since 1970.

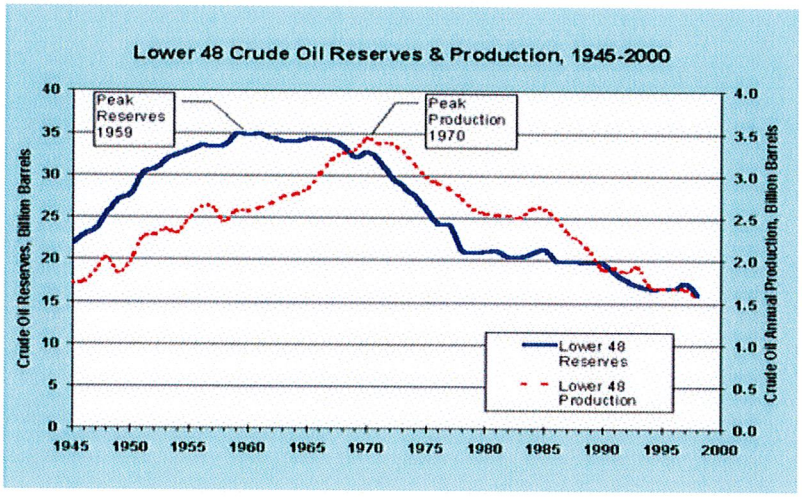


Image: (http://www.eia.doe.gov/pub/oil_gas/petroleum/presentations/2000/long_term_supply/sld007.htm)

Now lets take a look at one of the quintessential visuals for peak oil, the original Hubbert's global peak. We can see that the top of the hill or peak is just about in the present time of 2009.

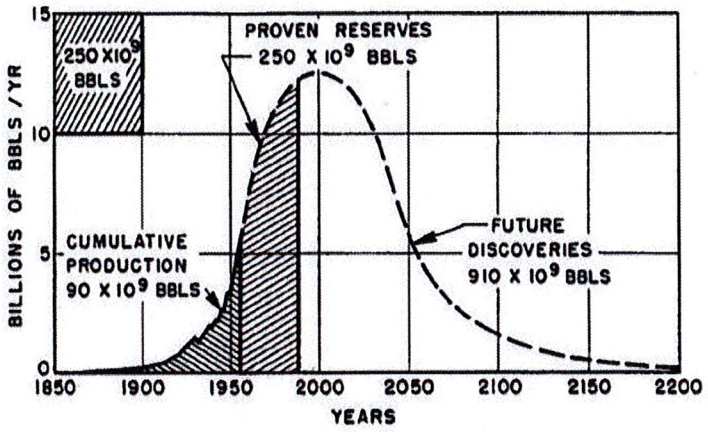


Image: (http://www.omninerd.com/articles/What_You_Need_to_Know_about_Peak_Oil)

Now peak oil does not, as a common misperception goes, mean that we will suddenly be out of oil. What it does mean is this:

- We now find about one barrel of oil for every four that we consume.
- As demand increases supply lessens, which is the current situation.
- Demand is increasing due to growing affluence in developing countries, growing populations and other factors.
- The world's remaining oil is largely in the form of tar sands or is located in politically unstable places or ecologically fragile areas or deeper in the earth and ocean. Because of this the environmental, political and other costs of getting this oil are greatly increased.
- Tar sands are much harder and more expensive to refine and get usable petroleum out of and cause more environmental

damage to extract from the earth. For every barrel of synthetic crude produced from tar sands it takes between 3-4 barrels of water. Fresh water is also becoming an endangered resource.

- Peak oil is the point at which we have used up about half of the fossil fuels on this planet, the easy to get to oil, the cheap oil.
- From peak oil onward every barrel will be harder and more expensive to produce, which means we will produce less and less, while demand may still rise and production declines.
- Eventually it will take more energy to produce the oil than the oil itself will provide. The technical term for this would be a negative EROEI or energy returned on energy invested. This term can be applied to other sources of energy as well such as natural gas.

The general public often has no idea how absolutely dependent on cheap fossil fuels our civilization has been. When one really examines the connection deeply and systemically we can see that it is at the foundation of our economy, politics and culture. Oil has allowed us to perform feats we never thought possible before its discovery; after all it would take a whole year for one human to perform the work of 4-8 gallons of gasoline! "Oil makes us far stronger, faster and more productive than we have ever been, enabling our society to do between 70 and 100 times more work than would be possible without it. We have lived with this potion for 150 years and…have got used to thinking we will always have it, indeed we have designed our

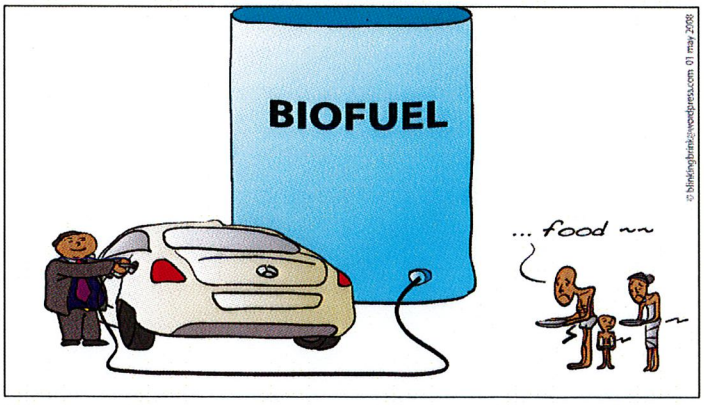
living arrangements in such a way as to be entirely dependent on it" (Hopkins, 2008, p. 19).

This is one of humanity's worst oversights and is convincing evidence of our collective inability to think and act systemically. We have designed everything in our civilization around cheap fossil fuels. Take a look at some of the components of civilization built around and dependent upon fossil fuels:

- Our cities are largely planned around the automobile, with large distances between work and home, etc.
- Our agricultural system and food sources are dependent on fossil fuels
- Our medical and health system; hospitals, pharmaceutical companies
- Our economic and international trade system
- Our transportation systems
- Our military system
- Our standard of living is based upon the mass consumption of globally produced and transported goods, (many made out of oil)
- Our manufacturing systems
- The domination and conquering of other cultures and resources is driven by fossil fuels, our military industrial complex is dependent
- Then consider the products manufactured: clothing, textiles, cosmetics, pesticides, fertilizers, fuel, plastics of all sorts, medicine, shoes, paint, nylon, CD/DVDs, computers, contact lenses, glue, the list goes on and on and on…

The 'peak' concept applies not only to oil but to natural gas and coal as well which will also be nearing their peaks relatively soon. The Energy Watch Group predicts that the global peak of coal will be right around 2025. Natural gas is predicted to peak right around the same time. Sometimes people will use all of this as a reason to promote nuclear power, however there are multiple problems with the nuclear scenario including the 'peaking' of uranium, which it has been argued happened as early as the mid 1980's. Uranium is required for nuclear power and furthermore we must also consider that it takes a lot of fossil fuels to mine uranium itself. To extract and prepare the correct isotope for use in a nuclear reactor requires even more fuel as well as to build the reactor and finally fuel to decommission and take care of the hazardous waste, for which we still have no good solution for proper disposal.

Another commonly thrown out alternative solution is that of biofuels. There are several problems with this as well; the monoculture crops required for biofuels require large tracts of land that could be used to grow food and often land that is helping to mitigate climate change through carbon sequestration. The production and harvest of these crops, the refinement process and the transportation of the biofuels all take fossil fuels to drive them as well. And when you look at the prospect of biofuels



through a whole systems lens we can begin to see the social dimension of the problems posed. The production of ethanol, (corn based biofuel) has caused massive social unrest and food riots over the last year in Mexico where a large part of the culture and economy is dependent upon the corn market. Because of the larger amount of corn being used for biofuel there has been less available for import to Mexico thus causing a massive price spike, which many Mexicans find hard to afford; (this is mocked up in the cartoon below).

Image: (http://blinkingbrink.files.wordpress.com/2008/05/foodandfuel2.png?w=620&h=420)

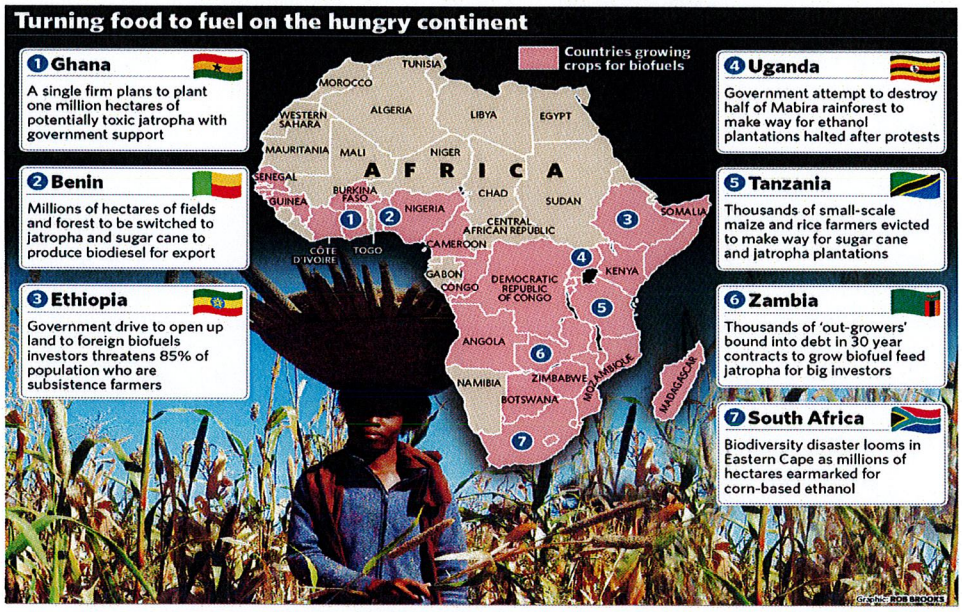


Image: (http://www.independent.co.uk/multimedia/archive/00016/AfricaBiofuelsGraphi_16392a.jpg)

The above diagram shows some of the social effects of biofuels on African countries. The diagram below gives an analysis of some of the costs and benefits of various biofuels. As we can see there are no easy answers; the only thing we can know for sure is that we will have to change our habits, our lifestyles, what we consume and more. Our behavior is ultimately the only thing we can change, that we as individuals

have the power to change and that we know for sure will have a positive effect on both peak oil and climate change issues.

HOW GREEN ARE BIOFUELS?

Biofuels are getting a bad rap as stories of rising food prices and shortages fill the news. But the environmental, energy and land use impacts of the crops used to make the fuels vary dramatically. Current fuel sources – corn, soybeans and canola – are more harmful than alternatives that are under development.

FUEL SOURCES		GREENHOUSE GAS EMISSIONS* Kilograms of carbon dioxide created per mega joule of energy produced	USE OF RESOURCES DURING GROWING, HARVESTING AND REFINING OF FUEL				PERCENT OF EXISTING U.S. CROP LAND NEEDED TO PRODUCE ENOUGH FUEL TO MEET HALF OF U.S. DEMAND	PROS AND CONS
CROP	USED TO PRODUCE		WATER	FERTILIZER	PESTICIDE	ENERGY		
Corn	Ethanol	81-85	high	high	high	high	157%-262%	Technology ready and relatively cheap, reduces food supply
Sugar cane	Ethanol	4-12	high	high	med	med	46-57	Technology ready, limited as to where will grow
Switch grass	Ethanol	-24	med-low	low	low	low	60-108	Won't compete with food crops, technology not ready
Wood residue	Ethanol, biodiesel	N/A	med	low	low	low	150-250	Uses timber waste and other debris, technology not fully ready
Soybeans	Biodiesel	49	high	low-med	med	med-low	180-240	Technology ready, reduces food supply
Rapeseed, canola	Biodiesel	37	high	med	med	med-low	30	Technology ready, reduces food supply
Algae	Biodiesel	-183	med	low	low	high	1-2	Potential for huge production levels, technology not ready

* Emissions produced during the growing, harvesting, refining and burning of fuel. Gasoline is 94, diesel is 83.

Source: Martha Groom, University of Washington; Elizabeth Gray, The Nature Conservancy; Patricia Townsend, University of Washington; as published in Conservation Biology

SEATTLE P-I

Image: (http://gas2.org/files/2008/05/biofuels_compare_c.gif)

We do not have any viable alternative energy sources in place to transition from fossil fuels and certainly none that can even come close to meeting the demand that fossil fuels currently meet. And the problem with renewable sources such as wind or solar is that they are not transportable and cannot produce the same products that oil can such as plastic or petrochemicals and finally cannot fuel the transportation infrastructure. There is also the consideration that any type of massive infrastructure change takes a considerable amount of time, which we don't really have. Our current system is based on the fact that we have invested trillions of dollars in an oil based transport infrastructure. Our economy based on mass consumption can't function without a huge input of fossil fuels. Our agricultural systems are all based on oil,

from the fertilizer to the tractors. Currently there is just no realistic viable alternative; because of this we are going to have to massively change our lifestyles to deal with the coming changes. Our global industrial civilization is not sustainable and will not be salvageable in anything near to its present form. The image below shows the energy density of oil and gives us an idea of the difficulty in replacing it with an equally efficient and productive energy source.

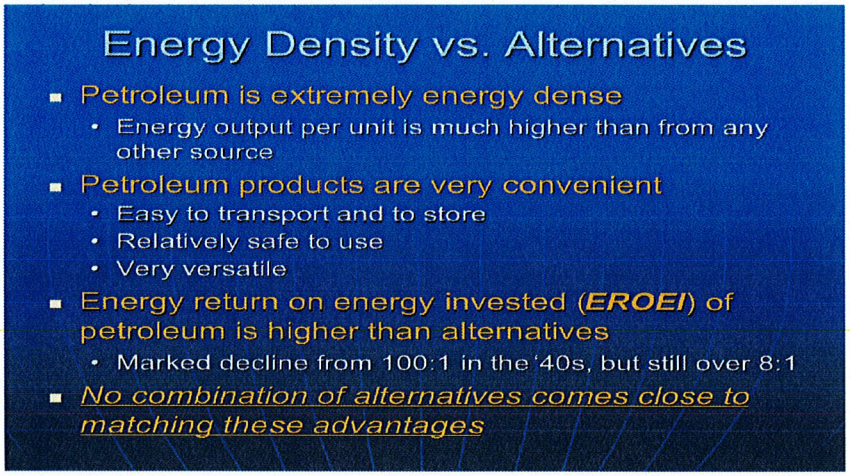


Image: www.portlandpeakoil.org

Currently the simultaneous onset of both peak oil and climate change are presenting themselves as the largest challenges that humanity has ever had to face. As mentioned before climate change has gained a great deal of ground in coming to the forefront of cultural consciousness, while peak oil is just starting to gain ground in becoming a term that the general public is familiar with. A general awareness that these are not two separate issues but are intextricably intertwined is just starting to emerge. As David Holmgren says in his new book, *Future Scenarios: How Communities Can Adapt to Peak Oil and Climate Change*:

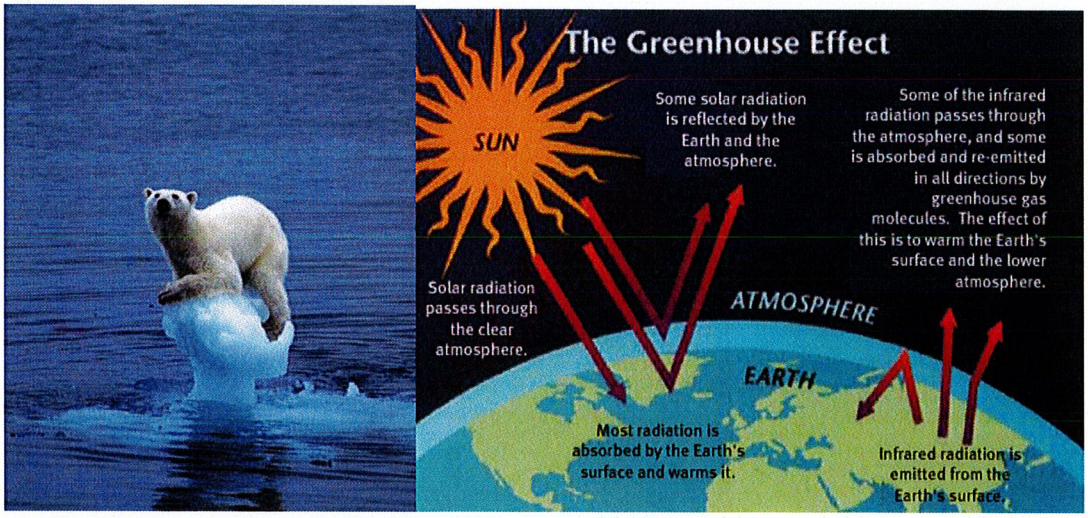
> The simultaneous onset of climate change and the peaking of global oil supply represent unprecedented challenges for human civilization. Global oil peak has the

> potential to shake or even destroy the foundations of global industrial economy and culture. Climate change has the potential to rearrange the biosphere more radically than the last ice age. Each limits the effective options for responses to the other. The strategies for mitigating the adverse effects and/or adapting to the consequences of climate change have mostly been considered and discussed in isolation from those relevant to peak oil. While awareness of peak oil, or at least energy crisis, is increasing, understanding of how the two problems of climate change and peak oil might interact to generate quite different futures is still at an early age. (2009, p.1)

As mentioned before climate change and peak oil are intertwined systemic problems, one feeds off of and contributes to the other's negative effects. Although on the flip side there could also be positive effects of peak oil in the long run on climate change such as a reduction in fossil fuel use, which would contribute to a reduction in greenhouse gasses, global warming and ultimately climate change. However, we have to examine and respond to peak oil and climate change as dual challenges in which proposed solutions must address both issues while also keeping in mind their relationship to the economy. While the onset of global peak oil has the potential to completely rearrange and possibly destroy our industrial economy, climate change has the potential to rearrange the biosphere. Both challenges have the potential to create cultural chaos and the need for new ways of interacting with and understanding each other including new and creative economic systems and solutions.

Climate change and global warming have been heatedly debated in politics and other arenas for many years now. There is just no more denying the reality of the anthropogenic climate change affecting every part of our planet. The science is too good and solid to refute and there is too much available data to keep our eyes closed to the reality of it. Indeed the reality of it is beginning to become undeniable as we

see changes and collapses taking place in social, economic and ecological systems all around us. Carbon in the atmosphere is measured in parts per million (ppm). Pre-industrial levels of carbon were at 278 ppm and are currently at over 385 ppm. It is commonly accepted by climate scientists that 350 ppm is the acceptable upper limit of carbon we can have in our atmosphere without catastrophic consequences. Aside from the highly increased amount of carbon in the atmosphere there is also the consideration of the attendant temperature rise, that while seemingly small, (0.8% above pre-industrial temperatures), is enough to have caused the melting of arctic sea ice which has decreased by over 22% in the last two years alone, and the migration of plant and animal species northward.



Images left to right: (http://newmedia.funnyjunk.com/pictures/oh-no-global-warming.jpg) (http://ces.iisc.ernet.in/hpg/envis/Remote/section162_files/Climate7.jpeg)

If the temperature continues to rise and we reach 1 degree or higher in our warming then we will experience things such as the collapse of the Great Barrier Reef and whole island nations submerged under water. Another part of the problem is that the

carbon dioxide we have already released, will regardless of any current efforts to curb emissions, etc., continue to increase temperatures for years yet to come. The effects of climate change we are currently experiencing are the result of damage done back in the 1970's. So everything we have done to exacerbate climate change since then will continue to effect us for many years into the future, known as 'climate inertia'. So regardless of our current awareness and efforts to mitigate and adapt to climate change, even if we could completely stop releasing emissions into the atmosphere we are still facing a temperature rise of at least 1.4 degrees and possibly more if we do not drastically cut our emissions. The following image is a good visual example of human factors contributing to climate change, some of the threats from climate change and some of the attendant processes.

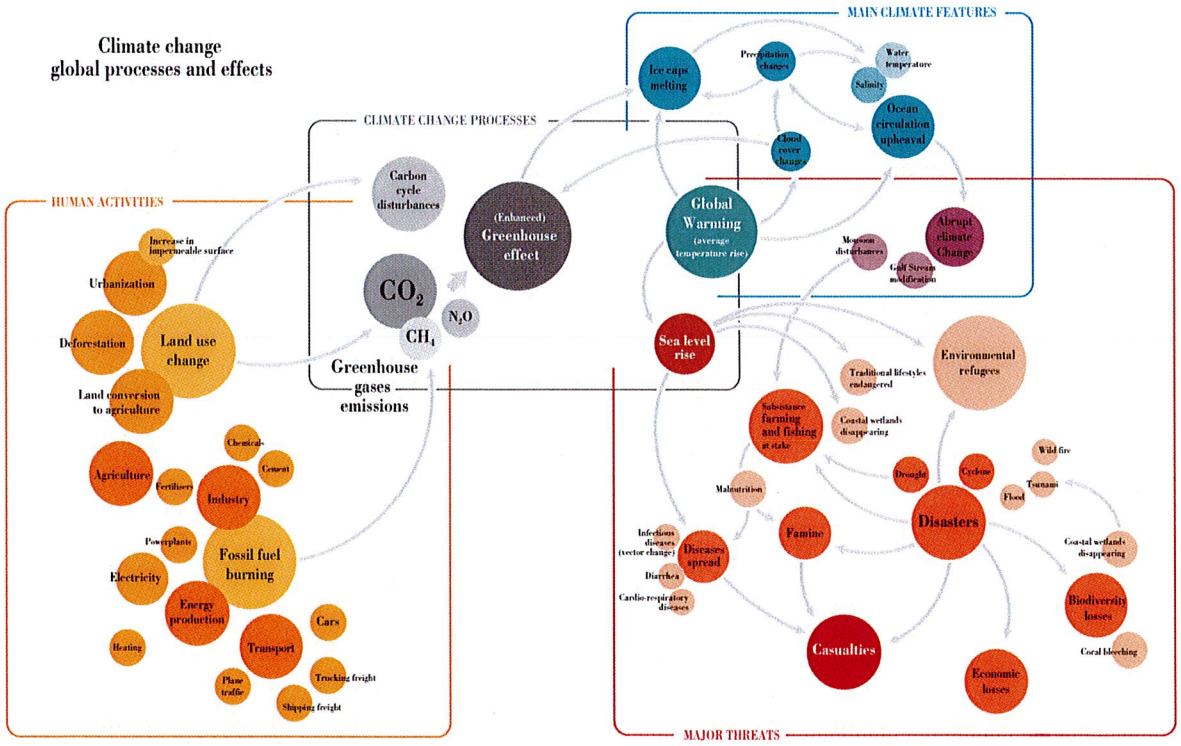
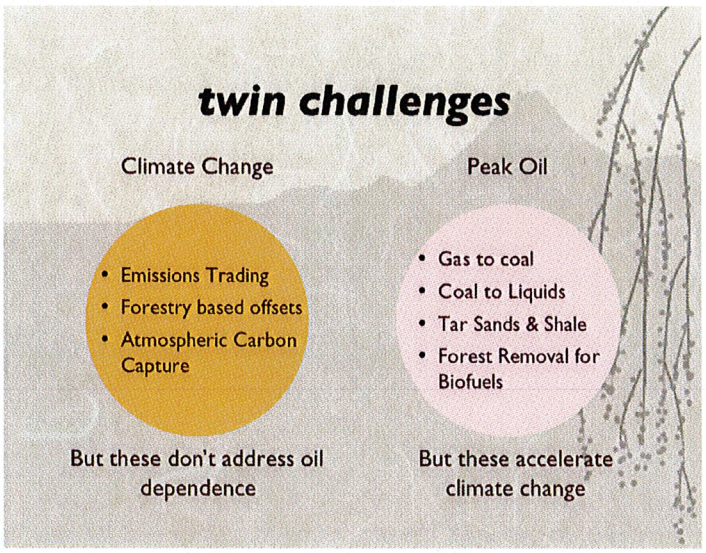


Image: (http://www.unep.org/publications/ebooks/kick-the-habit/Default.aspx?bid=ID0ESF)

We can see above that the issue of climate change is a highly systemic problem where the effects of climate change such as for example, an increase in certain insect species causes the death of attacked trees thus releasing even more carbon.

The paradoxical situation is that sometimes the proposed solutions to either climate change or peak oil negatively exacerbate the possible negative outcomes of either problem. For example you can see this in the image below:



Let's take a look at some of the factors, products and processes connected to both climate change and peak oil:

Climate Change	**Peak Oil**
Meat Production—methane emissions and the clearing of carbon capturing forest and other land for cattle grazing	*Meat Production*—processing, transportation
International Trade—emissions from global transportation	*International Trade*—global transportation
Conflict and War—Think Hurricane Katrina and environmental refugees	*Conflict and War*—over the rights to the remaining good stuff, a lot of the oil left

	is in politically unstable areas
Transportation—emissions	*Transportation*—rising affluence creates the demand for more cars which creates the demand for more oil and rising price spikes
Power Struggles—struggles between land rights of indigenous peoples and the clearing of sacred forest for biofuels	*Power Struggles*—class war/privilege around access to reduced resources
Manufacturing—emissions from production, factories	*Manufacturing*—a huge portion of manufactured consumer goods use fossil fuels, especially petroleum in their production and as a material base
Medicine and Healthcare—climate change produces multiple health risks, rising rates of malaria, heat stroke and related health problems	*Medicine and Healthcare*—our healthcare system, including the pharmaceutical industry is heavily reliant on readily available and inexpensive fossil fuels
Social/Environmental Justice—much of the developing world is experiencing the effects of climate change yet has often not enjoyed the lifestyle that led to it	*Social/Environmental Justice*—due to rising affluence and the spread of industrial civilization's culture to the developing world there is now an increased demand for material goods, automobiles, etc. just as the Western world is realizing the need to use less

These challenges will be huge and significant in transforming the industrial civilization and society we are used to. Before the advent of readily available and inexpensive fossil fuels we lived in a world that looked far, far different from the one we see today and the world of energy descent we must transition into is likely to look

far different as well. There was no quick and easy international transportation or trade, there were no highways, no mangoes shipped from thousands of miles away, no dollar stores…The shift from renewable resources to fossil fuels was the hugest cultural change the human species has ever experienced and it changed everything. Think about this, at the time of John F. Kennedy's assassination there were literally half as many people in the world as there are today in which we have 6.25 some billion humans. This is in large part due to the switch to fossil fuels that enabled the agro-industrial food complex and the green revolution that could produce massive amounts of cheap and subsidized food to grow and feed the human population.

Humanity's primary energy sources determine the structure of our political, economic and cultural systems as well as the cultural narratives that result from and maintain those systems. We are facing the decarbonization of our culture, our economy, our stories, our agriculture, this is going to take a lot of ingenuity and courage. Do we even remember what it was like before? We are going to have create new identities for ourselves that have nothing to do with material goods, we are going to have to take ourselves out of the story of global industrial civilization.

I could write much, much more on both climate change and peak oil but I will leave that to the experts. For now we all realize that the effects of both of these challenges will affect our social, ecological, and economic systems and are likely to have serious consequences such as flooding, drought, species extinction, etc. They are challenges that can no longer be denied. They need to be addressed immediately by all of us on

every level. If you, the reader are interested in delving further into the details and/or science of either of these issues please look at the resource section for further reading and research material. To lighten the mood let us take a look at a few comedic spoofs on climate warming put out in by the UK group Rising Tide:

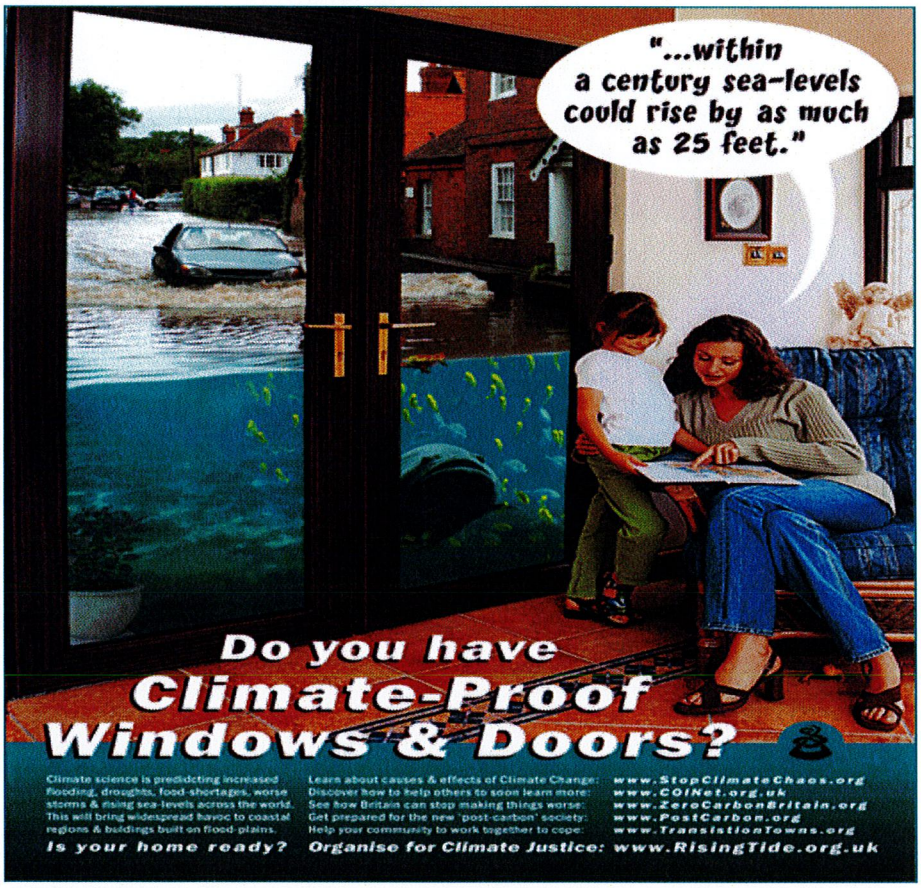


Image: (http://risingtide.org.uk/)

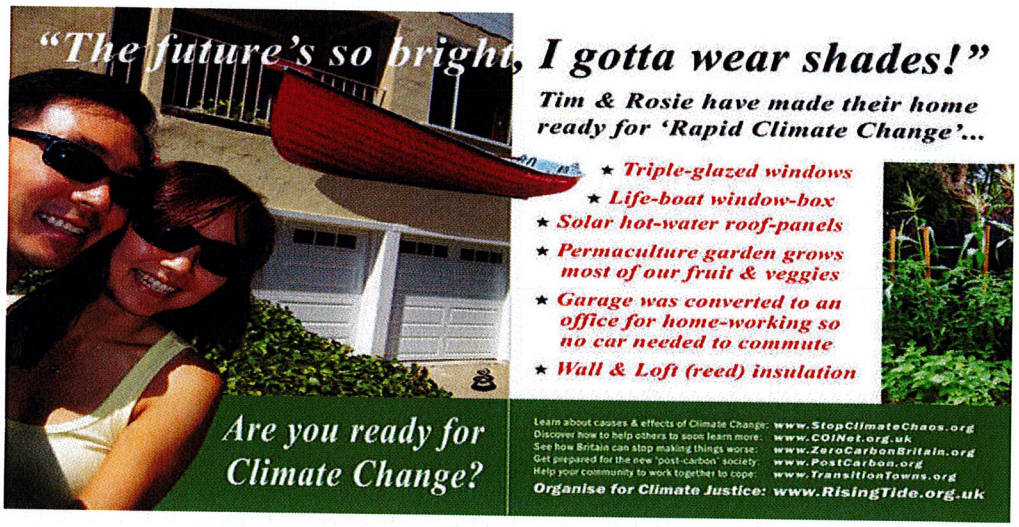


Image: (http://risingtide.org.uk/)

Let us move into the four possible energy futures laid out by David Holmgren in his book titled Future Scenarios: How Communities Can Adapt to Peak Oil and Climate Change. Holmgren is commonly known as one of the co-originators of the field of permaculture which will be discussed further in the section titled whole systems design below. In his new book Holmgren lays out his vision of four possible energy futures as well as four possible energy descent scenarios. These can be helpful to us in examining possible routes the future might take as well as helping us to clarify pathways we would prefer to take. There is the view that energy descent is a process that is going to take place over decades or even centuries and will not be quickly or easily played out or resolved. Energy descent is defined as: the post peak oil phase of transition to a new culture, lifestyle and society based on the use of less fossil fuels, alternative energy sources and the onset of relocalisation. Below is an image of the four energy futures:

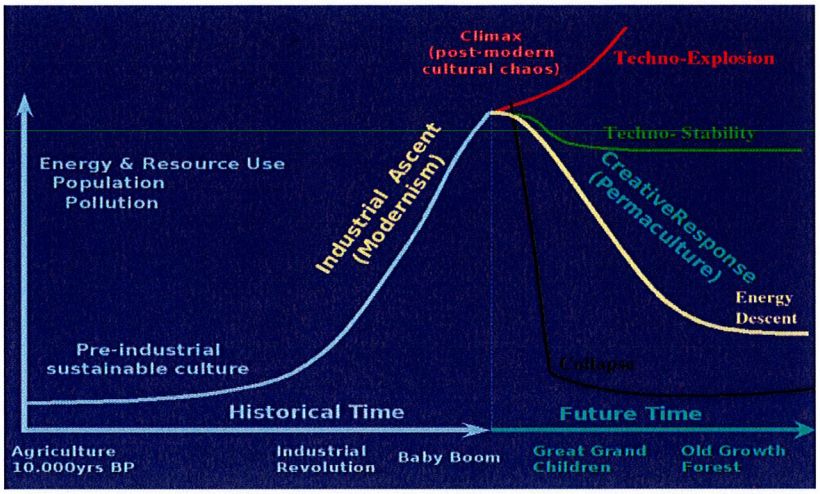


Image: (http://www.futurescenarios.org/content/view/16/31/)

Going into peak oil and climate change we were on the industrial ascent, currently we are at the climax or post-modern cultural chaos. The four energy futures consist of the following:

- *Techno-Explosion* is a scenario in which we find further new energy sources that are as concentrated and useful as that of oil and that this allows for further continual growth in material wealth and human control over environmental and population factors. Technology comes to the rescue and solves our problems letting us continue to grow and expand without requiring us to make many other changes.
- *Techno-Stability* envisions a steady state sustainable society in which the use of renewable energies and technologies takes over and resolves many of our problems. Though still requiring significant change, eventually society comes to a plateau of steady state sustainability. This assumes that we will shift to a decreased amount in our consumption of resources and that the energies and technologies we are using are more sustainable and renewable.

- *Energy Descent* where fossil fuels are rapidly depleted, so too are population, complexity and economic activity. Industrial culture would disappear or change completely with transition to a culture that looks more like that of the pre-industrial era as less use of resources and energy and a reliance on less energy dense sources of energy becomes the norm and requires cultural shift. In this scenario change is not necessarily gradual or continuous but is more likely to be punctuated by crises interspersed with steady states eventually leading to a longer term more permanent steady state based on energy descent and contraction.
- *Collapse* represents a failure of the systems that support industrial society as we know it. Large dieoffs in human population and a great loss in the knowledge that previously maintained industrial civilization. Collapse would be a fast and continuous scenario and would not allow for restabilization or recovery.

As the reader ask yourself which scenario sounds most likely, most preferable, what would you add, can you come up with a different possible scenario? These are situations and possibilities that while possibly uncomfortable or disturbing, are going to become necessary to consider and think about. This is no longer an intangible future world of melting icecaps, environmental refugees, oil fueled wars and species extinction, this is the present, you are here, it is now, make sure you are awake and ready! As I like to say 'wise up and rise up'. You can also view it as a time of great opportunity, challenge and excitement as well as a time of possible discomfort and

sacrifice. Energy descent is the future I personally like to focus on with perhaps bits and pieces of techno-stability thrown in. Navigating the path of energy descent is the focus of this thesis. I believe it is no longer desirable, sane or emotionally, physically, psychologically or spiritually healthy or even feasible to continue to pursue the path of industrial civilizations no holds barred pathological ascent.

Furthering the discussion of Holmgren's book he comes up with four possible energy descent scenarios that are seen from their placement along a line of slow to fast oil decline and slow to fast climate change. Here is an image to help you visualize the different energy descent scenarios and their components:

Characterising Energy Descent Scenarios

Scenario	Energy & Agriculture	Settlement form & mobility	Economy & Wealth	Politics	Gender	Culture & Spirituality
Brown Tech	Centalised network High tech efficiency Non convent oil Gas, coal, nuclear Bio shelter agric.	High density cities, Electric private transport. Regional wasteland, Mass migration	National banks & currency	Fascist National Class structure & rights Price rationing Pop control	Male dominated & blended	Super rationalist/ fundamentalist dichotomy
Green Tech	Distributed network Conservation, Gas, wind, solar, Forest, Organic agric	Compact towns &cities, Electric public transport Telecommuting	Regional currencies & funds	City state & Infrastucture Electronic democracy Rationing	Balanced & blended	Humanist/ Eco-rationalist
Earth Steward	Distributed local wind, hydro, Forest, organic & garden agric,	Ruralisation of suburbia, Rural resettlement	Local currency, barter	Town and bioregion Participatory democracy Rationing	Female dominated & gendered	Earth spirituality
Lifeboats	Distributed local Forest, rangeland, Industrial salvage Oasis agric.	Hamlet and gated communities, Nomads	Household & barter, gold	Feudal system Patriarchal authority	Male dominated & gendered	Warrior cult

Image: (http://www.energybulletin.net/image/uploads/22674/newswire_DescentScenariosEB01.png)

Once again I ask the reader to ask themselves which scenario or combination of scenario components sounds most realistic, most desirable, do you see any of these

scenarios playing out in your community, or in the world at large currently or in the future? In the *brown tech* scenario Holmgren sees a top down constriction of resources as aggressive national policies and action are taken by governments to address the challenges. In the *green tech* scenario there is a greater diversity of responses at all levels; national, city, community, etc. as the crises are not as severe or immediate. In the *earth steward* scenario there are more economic and political stresses and collapses and the response is necessarily done in a more bottom up rebuilding of society. In the final scenario, *lifeboats*, we see a progressive collapse of both social and economic systems and attendant struggles and crises leaving people to salvage whatever they can of civilization and start over from there.

Now that we have considered some of Holmgren's scenarios what if we were to look at a table that shows the current state of society in relation to climate change and peak oil:

Scenario:	Energy and Agriculture:	Settlement Form and Mobility	Economy and Wealth	Politics	Gender	Culture and Spirituality
Business As Usual (Global Industrial Civilization)	Agro-Industrial Complex, GMO's, subsidies, monocultures, fossil fuel based pesticides and	Urban Sprawl, Suburbia, towns/cities based around the automobile, community is often	Economy based on debt and gaps between rich and poor, privatized and corporate,	Largely controlled by corporate interests, not those in the best interest of	Male dominated and gendered	Dominated by consumer culture, media and technology linear, rationalistic and

	fertilizers, food inequities, fossil fuels are main energy source and are controlled by corporate interests	lacking and people often travel long distances between work and home	massive social inequities and injustice, economy based on the destruction of life and Western materialism, does not create relationships between people and the natural world and communities they are embedded in	the humans or the natural world, change takes a long time and is often not effective or hampered by private interests		mechanistic

This is only my own table of observations along the lines of Holmgren's table. I am sure you could add your own observations, categories or modify it to fit your own observations, perhaps you should, maybe with a partner, friend or family member? Now let us start thinking about the components that go into making and maintaining the unfolding story that is our current global industrial civilization. Let us start questioning ourselves, is this what we really want, if so, why? What might be preferable, more healthy, or perhaps unavoidable? Now that we have a basic

understanding of climate change and peak oil and have started thinking about different future possibilities using our imagination let us delve into the third, equally important and perhaps, most important, challenge of the aforementioned challenging trifecta: dysfunctional cultural narratives and the need for a new narrative.

Chapter Two:

Shifting the Story Field: The Great Transition

Nations and peoples are largely the stories they feed themselves. If they tell themselves stories that are lies, they will suffer the future consequences of those lies. If they tell themselves stories that face their own truths, they will free their histories for future flowerings.

~Ben Okri~

(Jensen, 2006, p.22)

Changing the story field of a culture changes what is real, acceptable and possible in that culture.

~Tom Atlee~

(http://storyfieldconference.com/StoryFields.html)

In this time of great transition in which humanity finds itself, one of the most imperative first steps to setting the stage for positive change is that we begin to understand and deeply question the power of narrative and story fields in shaping our individual selves, and the larger social systems we are a part of; communities, economies, cities, nations, etc. The dominant cultural narratives that have been defining our industrial civilization have become largely dysfunctional and outdated. An example of this is the story of individualism that pervades Western cultures. This has created a sense of separateness or loss of connection to the larger community of

humans and the natural world as well as a host of other ill effects. Other dysfunctional narratives could be:

- Endless growth or never ending progress, (the economy can expand forever)
- Materialism will make us happy
- Our individual actions don't make a difference
- The model of industrial civilization is the only one that will work and we just have to fix it

As we can imagine, the list could go on for a long, long time. Until we can begin to understand what the dominant cultural narratives are at play in our civilization and how these create psycho-social story fields of influence we will find it difficult to make meaningful and sustainable change. Many of us have for a long time, been living with our eyes closed, sometimes intentionally, often without even realizing. We have been reticent as individuals, and collectively as participants in Western culture, to examine the destructive stories that have been molding our society and in turn our ecologies. This is no longer an option.

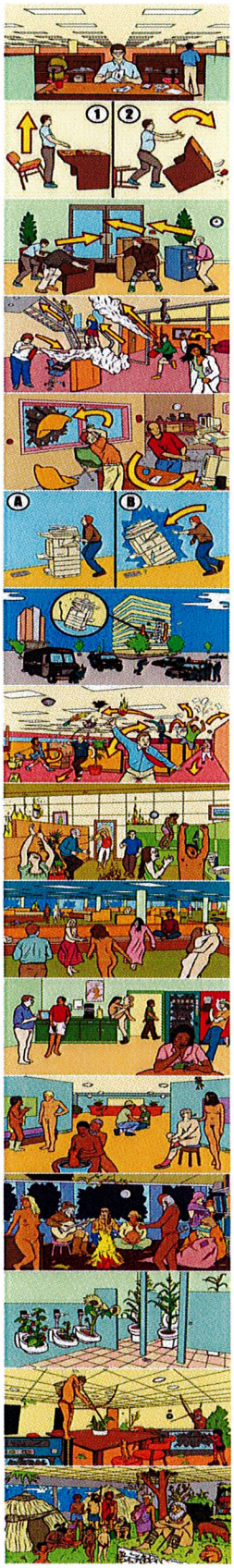
In order to maintain the integrity and survival of not only the human species but the natural world we will have to wake up rather quickly and begin the hard work of shifting story fields. We will have to examine our own personal stories as well as our cultural and collective stories. This is hard and sometimes painful work, yet work that can ultimately be nothing but rewarding and absolutely necessary. Some of the whole systems change tools examined later can help us to do this collectively and some of the insights in the psychology, spirituality and creativity sections can help us to do this in non-traditional, creative and healing ways, individually as well as collectively.

We must stop letting power over structures and systems by corporations, governments, economic institutions, prescribed educational institutions shape and tell our stories for us, deadening our imaginations and inspiration. Who is to for us say there is nothing beyond civilization? This is just one word, defined as: the stage of human social development and organization that is considered most advanced. Well maybe we need to evolve into a new definition, a new word, a new story. Maybe civilization is not as advanced as we thought it was. Global industrial civilization certainly has in many ways turned out to be very harmful and destructive. The quote below is a more revolutionary view of telling new stories that you may find inspirational. Some readers may also find it offensive, unrealistic or unpractical but we then must also question why is that? Why have we been so conditioned to believe that what we can create and imagine for our lives, our culture, our communities must be prescribed and limited by some overarching set of restraints that say one thing is possible while another is not? I urge you to think outside the boundaries, even outside what may feel comfortable or societally acceptable and push yourself to imagine new possibilities, new narratives and new stories. Keep in mind that 'their' system in the quote below is 'our' system that we all contribute to keeping in place when we fail to question it or re-imagine it.

> Yes, it often seems like there's no alternative to working 'within the system' if we want to get things done...Surely if we put all our energy into expanding the spaces in which we can interact as free, equal human beings, rather than trying to repair the burning machinery of this doomed society, we could make at least as much of an impact. Imagine what we could

> achieve if we kept all our potential in our own hands, and refused to waste it ever again working for their system for even a minute. There's no excuse to let a fraction of our lives go by doing things we don't love, or to let any of our talents and efforts serve to prop up a world order we oppose. Instead, let's fight so hard, and live so hard that others inside the cages of mainstream life can see us and are inspired to join us in our complete rejection of the old world and all its bullshit. And let's make our communities something greater than they are; let's make them more open and more capable of offering life-support, so that others *really* will be able to join us. The system we live under offers only losers' games—so why play them? It's up to us to create new games, more joyous and exciting than the old ones. Let's not try to beat them at their games, but make them join us in ours! (Crimethink, 2001, p. 54).

Here's a fun and playful image to go along with the above quote, just to add a little humor to such serious discussions…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B

There has been a fair amount of discussion and thinking about the needed change in our cultural consciousness over the last thirty years. There have also been many different names given to it. The Institute of Noetic Sciences calls it 'The Great Shift'. One of the more commonly known terms is 'The Great Turning' which was originally coined by Craig Schindler and Gary Lapid who used the term to describe the framing idea of their work on Project Victory, founded in 1985. This was work focused on the risks of nuclear war and conflict transformation. In 1989 Schindler and Lapid published a book on the great turning with an endorsement from Joanna Macy. Macy proceeded to expand upon the idea adding elements of Buddhism, indigenous wisdom and psychology and managed to educate and activate hundreds of thousands of people around the world through lectures, workshops, writings and teachings. David Korten then asked Macy if he could use the term 'the great turning' for his book: *The Great Turning: From Earth Empire to Earth Community*, 2007. Korten's work was in turn inspired by two other great thinkers, Thomas Berry and Rianne Eisler. There will be a further examination of Korten's work later.

Some of my personal inspirations have been Tom Atlee, Derrick Jensen, Brian Swimme and Daniel Quinn to name but a few. Quinn wrote a wonderful fictional book series, starting with Ishmael, which, through the eyes of an ape tells the story of how man has enslaved himself to his own dysfunctional civilizational system. Through this story the ape becomes a teacher for the main human character in the book and helps him to see these truths. Swimme is a cosmologist who believes we

need to reinvent society so that there is a deep consciousness of the self-organizing intelligence of the living, evolving universe and a subsequent push towards mutually enhancing relationships with each other and with the natural world. Swimme made a series of videos called *The New Story, 2007?,* that explains some of his evolutionary thinking. I would highly recommend viewing these, which you can find online for free at http://www.global-mindshift.org/memes/swimmeseries/step1-1.asp

Jensen is an amazing author and scathing critic of culture, society and even environmental and social movements. His main philosophical thrust is that industrial civilization is unsustainable and inherently based on harmful and violent relationships and resource extraction. In large part I have to say I agree with him. I do not believe that any mode of society, civilization or subsistence that depends upon the harmful exploitation of the ecology in our communities and the very human beings in it to continue its success can ultimately be sustainable. An integral component of the new stories we will have to create involve how to bring down the unhealthy machine of industrial civilization and the tyranny of anti-life corporatism.

Tom Atlee has been an inspiration to me for years with his work on co-intelligence, story fields and collective democracy and with the co-intelligence institute out of Eugene, O.R. Indeed I believe he is the source of my learning on the concept of story field. His book The Tao of Democracy, is highly relevant to this work and to the needed change in our culture currently. In this book he discusses what his theory of co-intelligence looks like and how it can practically manifest in collaborative

democractic forms. Co-intelligence will be explored further in the whole systems change section. Currently Atlee is working on exploring the subject of evolutionary activism, which greatly resonates with my own thinking. In the interview I conduct with him (find it in the interview section) he discusses the evolutionary perspective as one that brings an awareness and consciousness to the evolutionary process, the deep time story that we have been a part of for billions of years, that we are not separate from, but rather are an integral part of. I relate this to the systems term of complex adaptive systems in which we are all capable conscious agents of change on multiple simultaneous layers dancing in and with the process of evolution.

Then there was the work of Paul H. Ray Ph.D and Sherry Ruth Anderson Ph.D who wrote a book called: *The Cultural Creatives: How 50 Million People are Changing the World*, 2001. The cultural creatives are a new sociological category that transcends traditionalists, modernists or conservatives and is composed of individuals who share a set of similar values and actions that relate to social activism, creativity, self awareness and other qualities. I believe since the writing of their book as people are becoming more conscious of our shared challenges there are even greater and growing numbers of individuals that fit this category. Then there is Paul Hawken's book called: *Blessed Unrest: How the Largest Movement in the World Came Into Being and Why No-one Saw it Coming, 2008*. Hawken's most recent title explores how the largest social movement, a movement without defined leaders came into being; this refers to the explosion of groups, organizations and individuals working on social and environmental issues that have arisen in the last twenty years. You can

find further places to look for the work of the individuals mentioned above in the resources section, I highly recommend checking these thinkers out to expand your own thinking.

In order to understand the underlying discussion about narrative and story in this thesis let us define some terms through the visualization of a tree representing the story field and all it's attendant limbs and branches, etc. A tree can live for hundreds and hundreds of years and some can bear fruit or nuts that provide sustenance or nourishment, they are usually solid and stable and hard to move or change, they can, however, be cut down if dying or diseased. The whole tree (story field) forms a living system that interacts and reacts to its internal and external environment and has inputs, outputs and processes. I have attempted to look at the main structural components of the tree as those things which create and hold a story field, though depending upon the individual the order, titles or arrangement of the components may required shifting to best fit with the unique perspective of that individual. That is perfectly fine, in fact I encourage you to rearrange and explore different combinations of the story field tree for yourself; you can even draw or create your own, paint one perhaps. The point is for us to have a solid understanding of what a story field is and what it consists of, though it will necessarily mean different things to different people.

The Body of the Tree, the pieces that a story field is composed of:

- **At the trunk**—*Story Field*: A "story field" is the psycho-social field of influence generated by the coherence and interactions among a culture's many

stories, events, roles, practices, symbols, physical arrangements, artifacts, cuisine, etc. A story field shapes the awareness and behaviors of the individuals and groups within its culture. It can be referred to — and aspects of it described — but it cannot be fully articulated. A story field ubiquitously frames what is real, acceptable, and possible, and directly shapes our lives and our world, often without our even being aware of its influence. Changing the story field of a culture changes what is real, acceptable, and possible in that culture. (http://storyfieldconference.com/StoryFields.html)

- **Limb**—*Cultural Narrative*: a guiding big picture or worldview story put into place by a culture that shapes the beliefs and actions consciously or unconsciously, of that cultures members.

  ***Branch**—*Never-ending growth and progress is necessary and positive*

  ***Branch**—*Human dominance over and separateness from nature*

- **Limb**—*Mental Model*: An individual's internal representation of reality, largely a result of social conditioning. A set of assumptions and filters that colors our reality, causes us to reject data that doesn't fit our assumptions and often restricts us from seeing the whole picture.

  ***Branch**—*technology will fix our current challenges*

  ***Branch**—*Time is Linear*

- **Limb**—*Epistemology*: is the study of knowledge, of how we know what we know.

- **Limb**—*Ideology:* a set of ideals or ideas that forms the basis of thinking for a political, social, religious or other overarching belief system.

  ***Branch**—*Dominance and Power Over Structures*

  ***Branch**—*Religion and Capitalism*

- **Limb**—*Worldview*: is a largely unconscious set of beliefs about how the world operates and one's place within it.

  ***Branch**—*Humans are the Pinnacle of Evolution*

- **Limb**—*Paradigm*: a dominant pattern of beliefs, worldviews and actions that shapes and guides culture.

  ***Branch**—*Western Consumer Culture*

- **Leaves, Flowers, Fruits, Nuts**—*Cultural Consciousness* is a collective consciousness shared by members of a culture on local, national or global levels and is shaped by media, politics, beliefs, institutions, philosophies, etc.

- **Leaves, Flowers, Fruits, Nuts**—*Cultural Creatives* are an emerging large section of the global population who are concerned with environmental and social issues and finding creative and non-traditional ways to think about and act upon these issues.

- **Tree Inputs and Processes**, (things that can maintain, alter or shift the story field such as those listed below):

- **Sunlight**—*Visioning*: the practice of visualizing and creating a vision for what is possible and desired. There are many ways for individuals and communities to do visioning work.

  ***Ray**—*Transition Tales*

***Ray**—*Community Asset Mapping*

***Ray**—*Community Conversations*

- **Water**—*Imagineering*: the creative use of story or the arts to imagine, envision, call forth and put into a creative medium a desired vision, to imagineer a sustainable, enjoyable and mutually beneficial reality and to use creative mediums to catalyze and begin creating such a reality.

  ***Droplet**—*Environmental Art*

  ***Droplet**—*Co-Intelligence*

- **Roots**—*Social Constructionism:* a sociological theory concerned with the creation and institutionalization of social phenomena in groups. It is concerned with how such phenonmena develops into the shared perceived norms of a group and thus can dictate what is perceived as appropriate behavior by group members. Social constructionism relates to social conditioning which is the process by which we are conditioned to accept and hold true certain beliefs.

- **Leaves**—*Meme*: the non-genetic transference of cultural ideas or beliefs from one person to another through repetition that eventually becomes a guiding cultural belief, philosophy or action.

- **Nuts**—*Media:* the onslaught of media, advertisements, print, digital, television, etc. shapes what we think we know about the world

  ***Walnut**—*Propaganda*

  ***Acorn**—*Media Literacy*

I hope the journey through the story field tree above helps to elucidate the nature and components of a story field and more generally of the role of narrative and story in shaping our lives. As mentioned above it may help if you draw your own story field tree as a type of mind mapping exercise, it may be even more helpful to do this with a group of people where you can gently help to push each other to further your understandings and make new ones together. It may also be helpful to explore the terms further on your own as there is a rich amount of literature out there.

"our progressive ownership of the world naturally and inevitably accompanies our progressive estrangement from the world, so that in the end we languish in the prison of me and mine which, no matter how great our possessions is far narrower and dingier than the unbounded Wild from whence we came" (2007, Eisenstein, Ascent to Humanity).

As we all go through our daily lives we constantly come into contact with and participate in story fields. This is largely unconscious and many dysfunctional story fields are held in place by our shared mental models, which are also largely unconscious. It can be hard to see what our mental models consist of and how they affect our worldview and our actions. This in turn makes it hard to change and shift the story field into more positive, evolving and sustainable states. So one of the first things we must do is learn to recognize and question our mental models, which are largely products of social conditioning. An example of a mental model can be seen when an individual assumes that an individual with a disability such as blindness

wants your assistance to cross the street. Our mental model is telling us that individuals with disabilities always need, require and want help when the opposite may in fact be true, but we unconsciously apply our mental model to every individual with a disability we meet. The following is a description of how we shape our mental maps and models:

1. We receive data through our senses (observation).
2. We select data from what we observe (filter, subtraction).
3. We add meaning to the data (colour, augmentation).
4. We draw assumptions on base of the selected data and the meaning we added.
5. We adopt beliefs (mental models) about the reality and continue to select data (as per step 2) that correspond to these beliefs)
6. We act upon our beliefs.

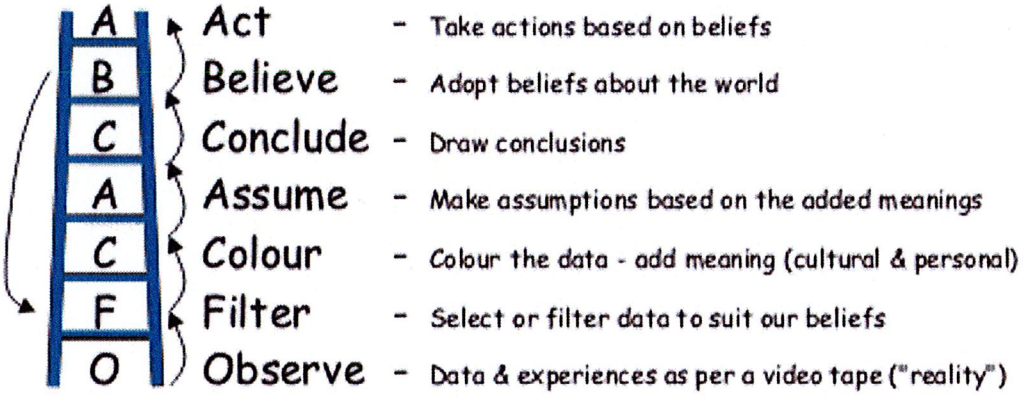


Image: (http://www.change-management-toolbook.com/file.php/1/ladder.gif)

Our mental models can often restrict us from seeing the whole picture, they can be like blindfolds on accurate perception and reaction. It can be psychologically and

emotionally difficult to discover what our internal assumptions are and to realize how they affect us in our relationship to the world and to each other. Often this requires unlearning what we think we know, the process of deconstruction. Humans are largely unconsciously resistant to new learning and change, especially learning that threatens our mental models.

Civilization is at a critical point; the human species is faced with the great challenge of developing a working, holistic and sustainable relationship to the rest of the natural world. Furthermore, humans must also learn how to live equitably and peacefully with their own species, no small feat! This work needs to be done on both individual and community levels. The prospect of energy descent will, in all likelihood create a very different local and global culture than the one we are used to. This is going to require great shifts in story fields. Working on questioning our deepest assumptions and beliefs is going to be necessary and might be done best with others, in community. It can be an uncomfortable process and it will be good to have support.

The formulation, critical discussion, and open inclusive dialogue of creative future visions imagineered in and amongst communities, individuals, governments and organizations is one major, vitally important step towards birthing an ecologically and socially conscious world. This has to be done with the belief that the challenges we face are creating an unprecedented time of opportunity. Those of us who are serious about reconstructing our worldviews in order to build a sustainable present and future for all life realize the inherent importance of optimism. The environmental

movement has been shrouded by too much pessimism for too long. This approach is often likely to lead to apathy rather than motivation. People are motivated by hope, creativity, love, *inspiration*...People need inspiration like an Oregon river ecosystem needs salmon or gently nestled nurse logs. It is something that all life, certainly the human species thrives on, and it is something that is part and parcel in the creation, visioning and discussion of imagineered visions.

What are some of the new stories we need to unearth, imagine and birth as we begin to realize that many of the stories we have held so dear for so long are manufactured artifacts of the dysfunctional narrative of industrial civilization and no longer apply? Furthermore is it a possibility that we also need to look at older stories that may even today be creating negative consequences, Tim Bennett, director of What a Way to Go: Life at the End of Empire, says:

> We white Americans of European ancestry had our indigenous cultures stolen from us, had our land and lifestyles, our lives destroyed, just as we have gone on to steal and destroy around the globe. It happened long ago, of course, so we barely remember it...the land remembers it...it's all there, still reverberating through our bodies, like gongs still sounding centuries after they were struck with the mallet... and that pain shapes us and hurst us still, and that, of course, is the deep reason we do what we do now to the planet. If we don't seek to understand that, how can we ever expect to change our behavior? (Baker, 2009, P. xx).

Is it possible that dysfunctional cultural narratives from many centuries or millennia ago still have reverberating feedback loops present even today? I mentioned above

that I would discuss David Korten's work further in this section. Although I am new to some of his work it highly resonates with my own thinking and I feel he has really made some wonderful insights and understandings in his work and book that he calls 'The Great Turning'. Korten echoes my firm belief that it is our dysfunctional cultural narratives that have gotten us into much of the current situation. I would like to share something from his website called "The Great Turning in Bullet Points": The Great Turning provides a powerful framework for understanding the current times within a deep historical context and for defining the collective choice we must now make as a species. These are the key elements:

- We humans face a choice between two contrasting models for organizing our affairs: the dominator model of Empire and the partnership model of Earth Community.

- After 5,000 years of organizing human affairs by the dominator model, the Era of Empire finally has reached the limits of the exploitation that people and Earth will sustain.

- A mounting perfect economic storm born of a convergence of peak oil, climate change, and a falling U.S. dollar is poised to bring a dramatic restructuring of every aspect of modern life.

- There is no technological fix for the human crisis. The underlying problem is a consequence of social dysfunction and the only solutions are cultural and institutional

- We now face a choice between a last man standing imperial competition for what remains of Earth's natural bounty and a cooperative sharing of Earth's resources to create a world that works for all.

- Empire's power depends on its ability to control the stories by which we humans define ourselves and our

possibilities. Whoever controls the prosperity, security, and meaning stories that define the mainstream culture, controls the society.

- The key to changing the human course is to displace the prevailing Empire prosperity, security, and meaning stories that define dominator hierarchy as the natural and essential human order, with Earth Community prosperity, security, and meaning stories that celebrate the human capacity to live in cooperative balance with one another and Earth.

- Healthy children, families, communities, and natural systems are the true measure of prosperity.

- To end poverty, heal the environment, and secure the human future it is necessary to turn from growth to the reallocation of resources as the defining economic priority. Eliminate harmful uses (military, advertising, sprawl, and financial speculation), increase beneficial uses (environmental regeneration, food and energy self-reliance, health, education, and productive investment), and give priority to the needs of those the old economy excludes and represses (the desperate, hungry, and indentured).

- Security and social order depend on strong, caring communities based on mutual responsibility and accountability.

- All being is the manifestation of an integral spiritual intelligence seeing to know itself through the on going creative unfolding in search of unrealized possibility.

- We humans are a choice making, choice-creating species that can choose to create societies that nurture our higher order capacities for compassion, sharing, and commitment to the well-being of all.

- Meaning is found in discovering our place of service to the whole.

Retrieved from: (http://www.davidkorten.org/BulletPoints)

Now as we can see in the bullet list, Korten also emphasizes the importance of stories in shaping and controlling our lives when he states that whoever controls the stories controls the society, also when he says that we need to replace Empire prosperity, security and meaning stories with Earth Community stories. I could not agree with him more. The Empire stories that promote, encourage and maintain power-over relationships, victim mentalities, consumerist mindsets, scarcity mentality, dominance over nature, and other dysfunctional narratives are beginning to reveal themselves to be self set and perpetuating traps. We need to begin seeing ourselves as co-worlding, as collectively and consciously participating in evolution by weaving and reweaving positive stories and emergent patterns that will move us in truthful directions of inclusive sustainability. We need to realize that we are all capable of being story field shifters and workers, by telling the stories of the futures we want to live and living them now we are manifesting them and bringing them in to the present.

Have you recently heard or experienced a story of a community coming together to help someone in need or addressing their reliance on fossil fuels by beginning a community tool shed? Well, take these stories and share them or replicate them, start replacing dysfunctional cultural narratives, on your own and with your community. Make a list of the stories you want to shift or replace and ask others for theirs, talk about them and come up with a list or a project of ways you can create new healthier, sustainable stories. Read Korten's book The Great Turning. Educate yourself and others in media literacy. Media literacy is a field that strives to educate people to think critically about, evaluate and analyze media messages to detect propaganda,

censorship, bias and to consider the ways in which the owner of the message or the funding model affects the content. This relates back to examining our mental models as media has a large hand in feeding them. Ask your child if they have learned media literacy in school, if not ask your school to teach it. Look for emerging narratives in alternative media, create your own media. There are many ways to question, examine and shift story fields, dig in!

To whet your appetite here is a bit from Carolyn Baker's book *Sacred Demise*: Walking the Spiritual Path of Industrial Civilization's Collapse, "we live in a disenchanted culture, and as Moore states, there is no way to re-enchant our lives in such a culture except by becoming renegades and planting the seeds of a new one....you have already become a renegade and are engaged in the difficult and tedious work of extricating yourself from the values, the careers, the lifestyles, the aspirations, and the soul annihilation that define the culture of civilization (Baker, 2009, p. xxxiv).

Ultimately to face the challenges of peak oil and climate change we will have to significantly shift the story field(s). We will have to create, share, live and practice new narratives of resilience, of simplicity, of sharing, of community, of living happily and more creatively with less, of relearning lost skills. Remember, it is an exciting time of opportunity. If you do not feel as if you are a creative person question whether that also is a mental model that has been prescribed to you? Everyone is creative in their own unique ways that may or may not always fit the stereotypical

checkboxes of artist, musician, etc. However if you feel you need some help jumpstarting your creativity perhaps you could ask some individuals such as artists, activists, writers, or other who work with creativity and shifting story fields on a daily basis to give you some ideas or you could offer to help them. Just remember you are creatively helping to shift the story field when you do what you are good at that it is in service to the whole, whether that be fixing a neighbor's house, planting an herb spiral garden, sculpting, writing, leading a guided hike in the woods…

Here are five suggestions on how to deal with the realization of the changing stories and current challenges from the film "What a Way to Go: Life at the End of Empire". I highly recommend viewing and watching with your friends and family and then discussing together. What a Way to Go is a film about one middle class man's personal journey through coming to grips with climate change, peak oil, and the demise of the American lifestyle. It is an insightful film that anyone can relate to and includes interviews with such individuals as Derrick Jensen, Daniel Quinn, Thomas Berry and others.

1. Fully acknowledge and internalize that the culture of Empire is destroying the support systems on which the community of life depends, and robbing us of our essential humanity.
2. Talk about your concerns with everyone you know. Make Peak Oil, climate change, mass extinction and population overshoot household words.

3. Find your work in the world to preserve life, change this culture and/or create restorative ways for individuals and communities to live in harmony with each others and the non-human world.
4. Assess what you actually need during this transition in order to live and do your work. Only buy what you need and buy from local sources in order to support the creation of local economies.
5. Find or deepen your spiritual connection to that which is greater than you. Ask and then listen for guidance about how to live joyfully and creatively in the face of these unprecedented times.

Retrieved from: (http://www.whatawaytogomovie.com/)

We will touch upon the theme of story again throughout the following sections and by the end you will be an expert. For now let me leave you with this poem:

In the heart of this space
skin of stars, eye of dinosaur
beating and pulsing
atoms of yesterday
moons of tomorrow
the promise of a sustainable future

Remembering how to live as villagers
we mix amongst the tentacles, feathers and scales of life
learning how to balance and reciprocate

breathing in and letting go

old paradigms and constructs

in with the new and out with the old

It is time, it is time

to celebrate, to grow

this is a precious time

between you and I

between the space of possibility, inspiration and action

we are birthing together

this new reality

let us converge

and build this new village

We are lotussouls unfurling

Breathing deep in the village commons

Digging in the ground of our fertile spirits,

Breathing in, breathing out

Sowing, preparing for deep reflective paradigm shifting

We are in ode to sustainable possibilities

Querents wandering, we are answers seeding ourselves

in sun soaked fields lightly stepping on the altar of creation

Giving LIFE, taking life, circulating, recycling

We are birthing this unfurling lotussoul

Cultural Creatives take action!

~Zeratha Monique Young~

PART TWO:
RESPONDING TO THE CHALLENGES: A FORMULA FOR CREATIVE, COLLABORATIVE INTERNAL AND EXTERNAL GRASSROOTS SYSTEMS CHANGE

Chapter Three:

Systems Thinking: The Foundation for Change

It has been said that 'you can't solve a problem with the same type of thinking that created it'. These were some of Einstein's words of wisdom many moons ago and they are of course more applicable today than ever. Our collective inability to question the thinking we have used to grow and expand human civilization has caused humanity and the natural world great difficulties. A long time ago we diverged from a systemic awareness and from an ecological sensibility and moved into thinking in terms of Descartesian reductionism and analysis, linear models and Newtonian mechanistic thinking. We began breaking the world and our understanding of it into smaller and smaller pieces and examining them in isolation from the larger system they are embedded in. This began the onset of the mechanistic thinking that is at the root of many problems today. On the other hand many scientific discoveries would not have taken place without this type of thinking and analysis.

> Paradoxically, our self-imposed separation from nature by way of an "objective" mechanical worldview during the past few millennia has led to the scientific knowledge that makes it possible to understand and reintegrate ourselves into nature's self-organization. It has also brought us to a stage of technology that permits us to share our discoveries and our understanding planet-wide in no time at all, to work together as a body of humanity with hope of transcending our present crisis in a

> far healthier and happier future for ourselves and all the rest of Earthlife (1996, Sathouris, p. 24).

By its nature the field of systems thinking has many other subfields and connected fields of inquiry and discipline: systems dynamics, systems theory, futurism, systems modeling, complexity theory, living systems theory, the list goes on. These areas are not entirely the same though they all have shared elements. We will be focusing on a general understanding of systems thinking here. The field has disputable origins with some saying that it started with *gestalt psychologists* who emphasized the study of the mind as a whole unit rather than a collection of separate parts; they called this holistic thinking.

It is also commonly accepted that Ludwig Von Bertalanffy, a German biologist, is the father of the systems field with his creation of general systems theory, which tried to formulate principles that could be applied to the study of all systems. Bertalanffy viewed systems as the key to understanding various phenomena. Then there was Jay W. Forrester, a professor at M.I.T. who founded the field of systems dynamics in 1956 and developed urban dynamics models. Other notable figures are: Humberto Maturana and Fransisco Varela who worked together to develop the *Santiago Theory of Cognition.* Two other important figures are Dennis and Donella Meadows who wrote (*The Limits to Growth, 1972)*, which has been a landmark work for those in the sustainable development and other fields. Further resources for systems thinking figures can be found in the resources section titled systems thinking. Here is a chart

of some of the more influential thinkers in the field of systems thinking. I encourage you to look them up on your own.

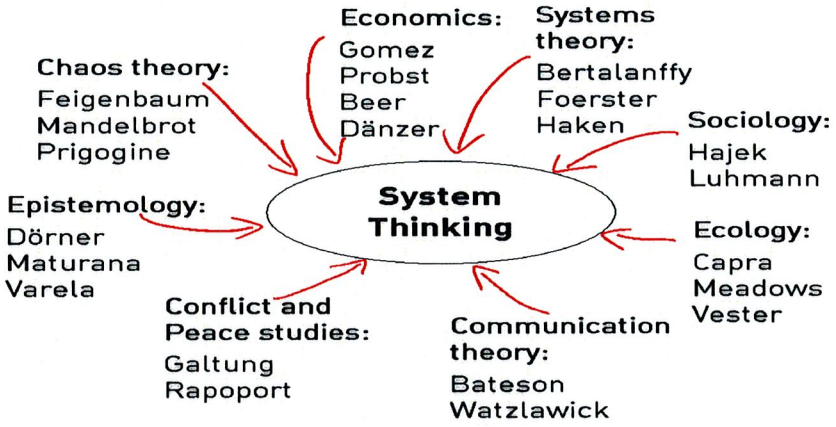


Image: http://geosystemics.com/img/systemthinking.gif

In order to build a new society and a world that will work for all, it is necessary that we begin educating ourselves in systems thinking so that we can see the forest *and* the trees. It also needs to be incorporated into our public education so that the next generation can have the knowledge and critical systems thinking skills that they will need to deal with the messes of the previous generations. As we have increasingly made the world smaller through globalization, technology and deeper interconnections, seemingly and often literally distant events can disturb our lives in our own backyard. For example, a drought in another country (a result of the interconnections and relationships between ecological systems, human systems and choices, etc) may result in an increase in certain food prices in your grocery store, this in turn could affect other systems, such as a family system and their ability to meet their needs, and it goes on and on.

To understand the complexity of the challenges facing us, including especially peak oil and climate change, there is a necessity to be able to examine them from a systemic perspective rather than as isolated problems or incidents. As Hunter Lovins says, 'learning how to think in systems is now part of change-agent literacy' (Meadows, 2008, p. 2). I will also mention here that one of the patterns that emerged in the interviews I conducted with various change makers, artists, activists, etc. was the great need for systems thinking. I highly encourage you the reader to read these interviews to get an idea into some individuals who use a high level of systems thinking in their work (see the appendix).

We have made the world so complex that the technology, science and problems we have created are often beyond our understanding or control now. When we cannot understand the complexity we have created we may feel helpless and thus make ourselves victims of our own knowledge. Systems thinking can help address some of these issues: it can help us to move beyond simply seeing pieces or events and into seeing patterns and the underlying structures responsible for the patterns and events while also not creating new problems elsewhere.

Systems thinking is based on the belief that the components of a system can best be understood in terms of their relationships with other components of the system rather than as isolated pieces. To fully understand the problems in a system and why they might persist is to understand the parts in relation to the whole. Systems thinking is

about more than solving or seeing problems clearly and from many viewpoints; it is also about being a better gardener, managing your family better, being a better activist, managing your health better. It is a way to re-open deep intuitive understandings by seeing and understanding ourselves, and others, as systems in a universe of systems; it helps us to gracefully navigate across the pitfalls our engineered mechanistic thinking often causes us to fall in.

A great definition of systems thinking is given by Barry Richmond: "systems thinking is the art and science of making reliable inferences about behavior by developing an increasingly deep understanding of underlying structure" (retrieved from: http://www.clexchange.org/ftp/documents/whyk12sd/Y_1993-05STCriticalThinking.pdf). If people can get a deep intuitive grasp and understanding of systems thinking then they start seeing interconnections, relationships and feedback loops in and between systems everywhere they look. This then helps them to bring in new stories and pictures into their consciousness and form new understandings and possible narratives. In turn when they share this with others they help to create inspiration and the same process is ignited for the other person and the cycle continues. So the shared learning becomes a systemic exchange in itself. Learning to think in systems also enables someone to expand their realm of compassion and sense of connection to the larger world around them, the trees, a stranger walking down the street, the effect of our actions on someone half the world away. It allows us to see how we ourselves are a system embedded within other systems, the community, our workplace, family, our natural environment.

To give you, the reader, an understanding of some of the characteristics of systems thinking check out the chart below titled "Habits of a Systems Thinker". You may realize that you already practicing many of these and may say to yourself 'well that all seems obvious'. In many cases systems thinking tools and habits are relatively simple and obvious, however it is often those things, which seem the most simple and obvious that are actually the most difficult to realize or to practice!

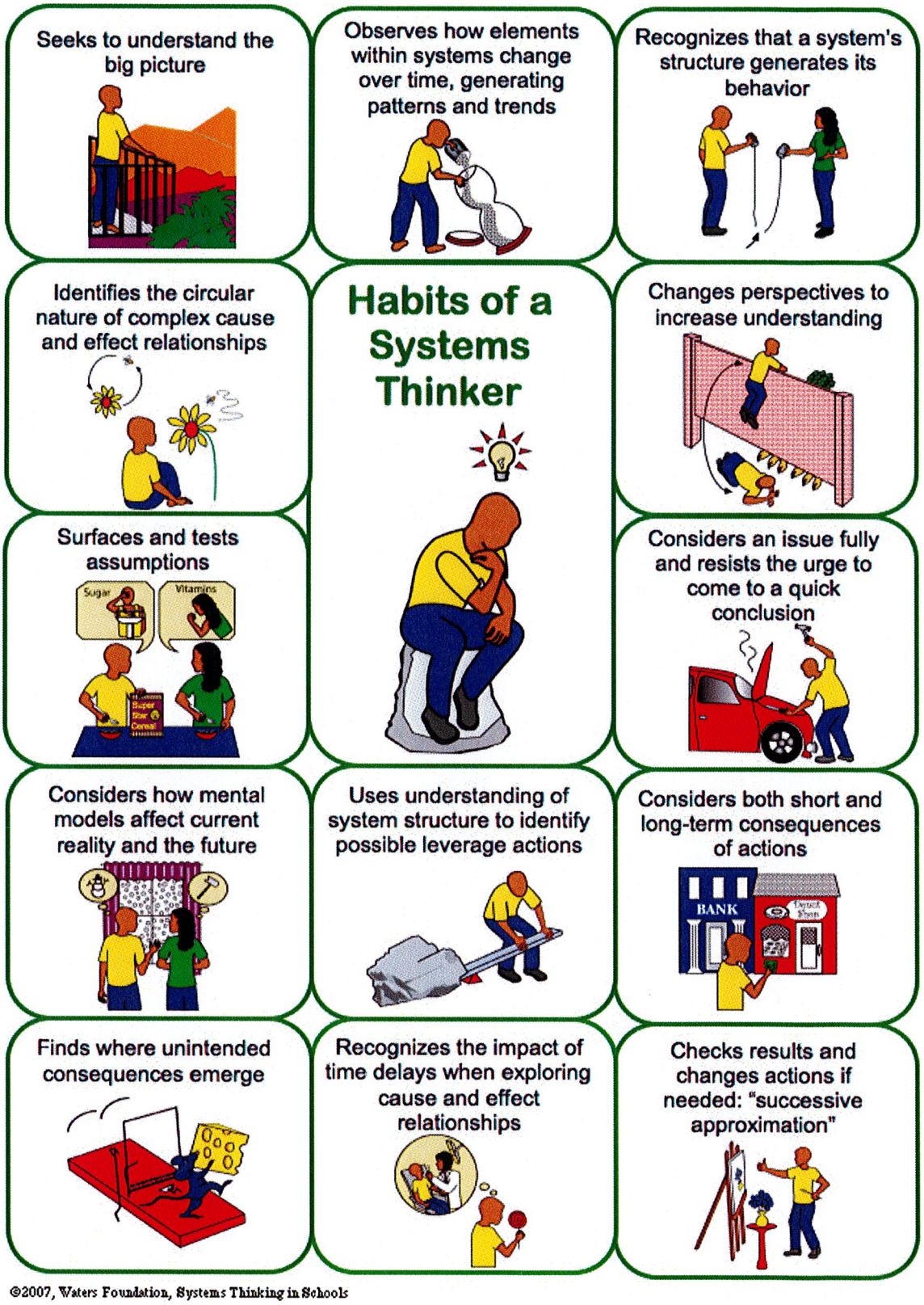


Image: (http://www.pimaregionalsupport.org/systems/images/dn.asp.jpg)

So what is a system? A solid simple definition is one given by Ludwig Von Bertalanffy: "A system is an entity which maintains its existence through the mutual interaction of its parts". A system also functions as a whole through the interaction of its parts. Some easily graspable examples of systems are: particle, atom, molecule, cell, organ, person, community, state, nation, world, solar system, galaxy, and universe. These are of course in increasing levels of complexity. Other examples of systems are beliefs, businesses, families…Here is a chart to help you figure out what is a system and what is not:

A SYSTEM:	A HEAP (not a system):
Has interconnected parts or components that function together as a *whole.*	Is just a collection of parts that does not need to function together.
Change the structure and the behavior of the system changes. The behavior is dependent on the structure of the whole.	The behavior, (if there is any), simply depends on the size or number of pieces of the heap.
The arrangement of the pieces is vital.	The arrangement of the pieces does not have significance.
You cannot cut the system in half. If you take away pieces it will no longer be a system or may no longer be a system.	When you cut the heap in half you get two smaller heaps. The properties of the heap or pieces are unchanged whether you add or take away pieces.
The system components are connected and function together.	The parts of the heap can function separately and are not connected.

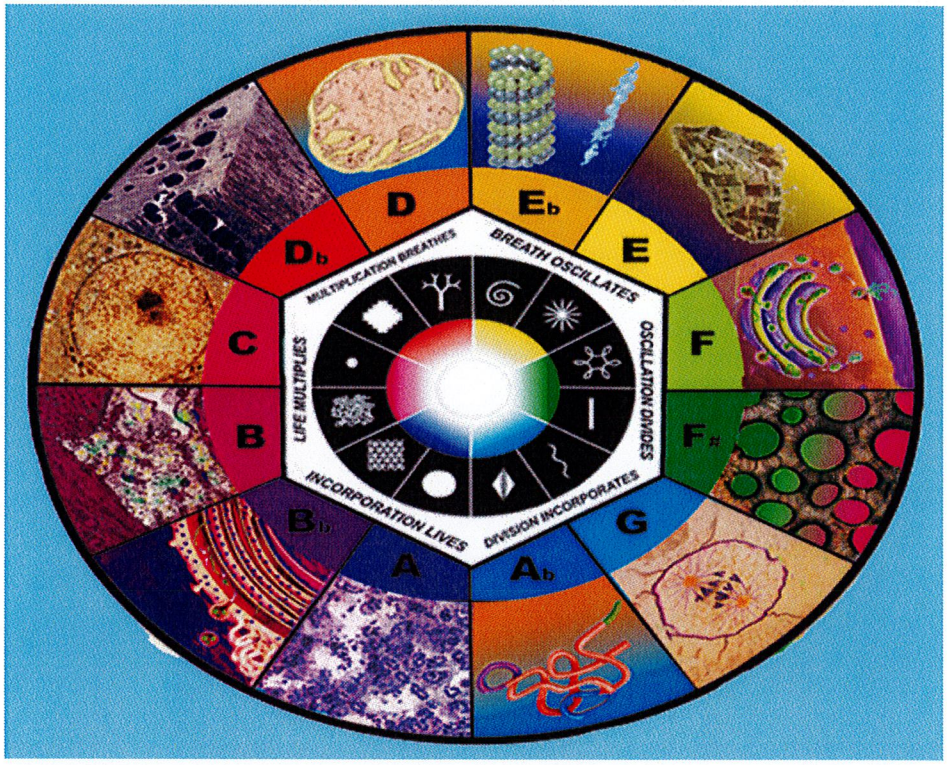


Image: www.creativeharmonics.org

The image above is a visual representation of different cellular structures, which are all systems within themselves. Your white blood cells are little systems within your immune system within the system that is your body which other bacteria, also systems, live on. It can almost be overwhelming when you start thinking about all the systems within and around you; you may find yourself looking at things in new ways. The universe is an incomprehensibly complex system itself and really all other systems are subsystems embedded within it. This is an example of holarchy, which is a nested hierarchy of holons in which a holon is both a part and a whole. We ourselves are holons within our communities and within the natural world; our beings and bodies one system that is a whole but also a part of all the other systems in which it is embedded. Here is another way to look at a holarchic system:

- The Universe
- The Biosphere
- Gaia
- The Noosphere (the layer or realm of human thought that shapes other realms)
- A Country
- A Bioregion
- A State
- A City
- A Community
- The Self –and back again into the top—

Here is another visual to help you see holons:

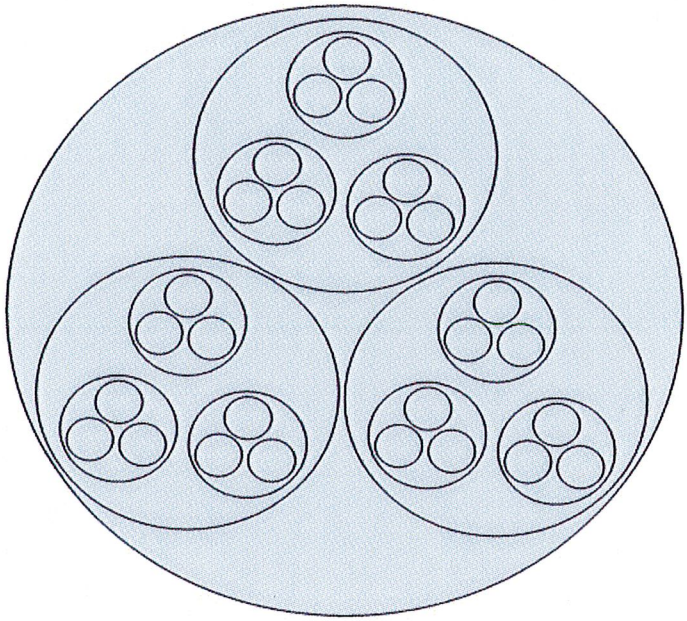


Image: (http://www.ralfw.de/weblog/images/pile/pile51.gif)

So now we know what a system is and is not and what a holon and holarchy is. Let us look at some other fundamentals of systems thinking. At the heart of systems thinking are feedback loops. All parts of a system are connected directly or

indirectly, so a change in one part of the system cascades out and affects the other parts of the system. Then the other parts of the system will change and this will in turn affect the original part which then responds to the new influence. So the influence comes back to the original part though in a modified way and makes a loop rather than a one-way street. This is a *feedback loop*. In a loop if two parts are connected the effect or influence can go both ways. Feedback is essentially the output of a system reentering as its input. It is the return of information to influence the next step taken by the system.

As humans we often choose to ignore feedback at our peril. For example if we find ourselves feeling extra tired a certain wintery day yet choose to still go out dancing and drinking we are ignoring the feedback that is telling us to put the brakes on our system. Stories can also serve as feedback loops. A story we tell ourselves about our worthlessness becomes a reinforcing feedback loop (explained below).

There are two basic types of feedback loops. Reinforcing feedback happens when changes in the whole system feedback and amplify the original change. Reinforcing feedback is often called positive feedback, though this can be misleading because the result is not always 'positive'. This type of feedback pushes the system to make more of the same change or to continue in the same direction, which for obvious reasons may not always be desirable. Exponential growth is an example. Some examples of reinforcing feedback are: cancer, population growth, rumours, self-confidence, etc. Below is a visual and some information about climate change feedback loops.

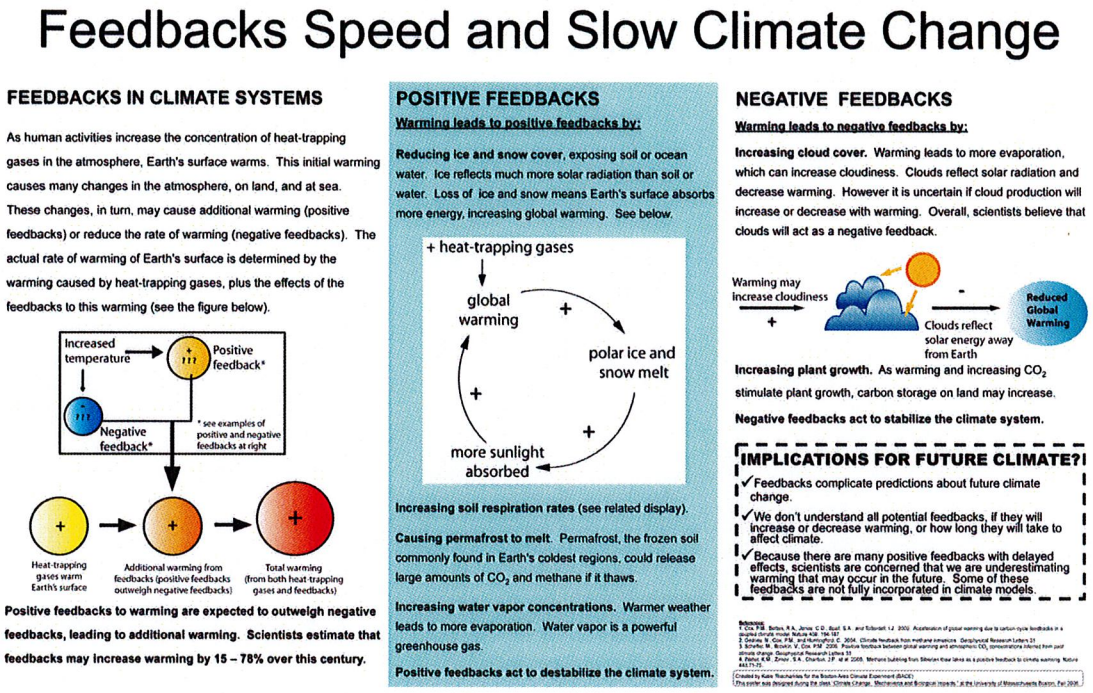


Image: (http://www.ecosystems.umb.edu/FeedbackLoops.jpg)

In relation to climate change the amount of feedback we have ignored either through stupidity or denial has been astounding. The other type of feedback loop is balancing feedback, which happens when the change in the system feeds back to oppose the original change and thus dampens its effect. Balancing feedback is goal seeking. Some examples of balancing feedback are: body temperature, sleep, any action that involves trying to achieve a goal, breathing, leadership, etc. The following visual is an example of a very important balancing feedback loop, that of the hydrologic cycle which maintains the planet earth's water cycle.

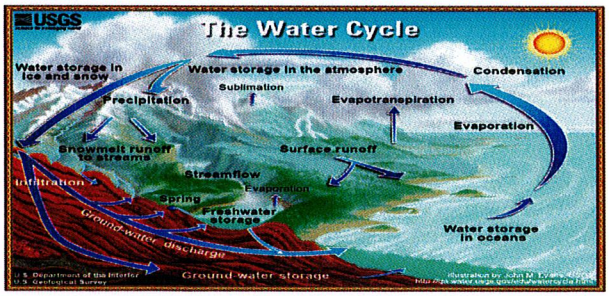


Image: http://www.windows.ucar.edu/earth/Water/images/water_cycle_usgs_big.jpg

Now there are also two different basic types of systems those that are open and those that are closed. Open systems are more flexible and adaptive, and are continuously interacting with their environment, they can exchange information, and material or energy transfers into or out of the system boundary. In the social sciences an open system is one in which there are exchanges into and out of the systems boundary of people, capital, materials, information or energy such as a college. Closed systems respond to change very slowly and are closed to the outside environment. It is often argued in the systems sciences if there really is any such thing as a closed system. Often it is agreed that there are only levels of closure rather than complete closure. In the following visual you can see an example of an open system:

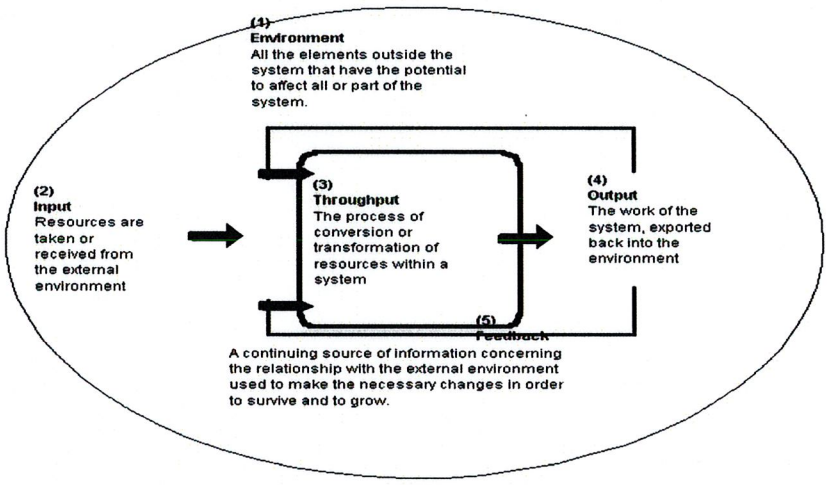


Image: http://preventiontraining.samhsa.gov/cti02/17H-ode1.htm

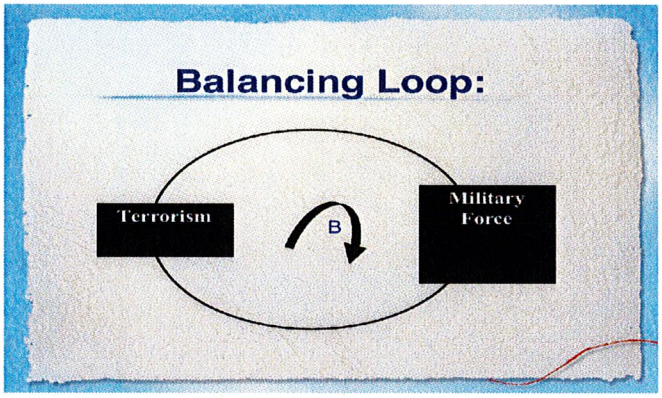
Systems archetypes are patterns of energy or process structures that recur throughout many systems and produce characteristic patterns of behavior; they appear as different types of loops in systems as well as delays. Because they exhibit common dynamics and behaviors it is useful to be familiar with them to identify *leverage*

points. A leverage point is a place in the system at which you can intervene to create the most effective change. If one can identify an archetype ocurring in a system then one can know how to proceed in addressing the problem it is attached to. Donella Meadows, one of the most highly respected systems thinkers identifies twelve places to intervene in systems in an increasing order of effectiveness. I highly recommend furthering your study of archetypes and leverage points by looking at the resource section at the end of the thesis for specific articles including Meadows article. Archetypes and leverage points are especially useful to be familiar with in social and environmental science and for use in community organizing. The following ten archetypes are the typically acknowledged tools for identifying behavior in systems:

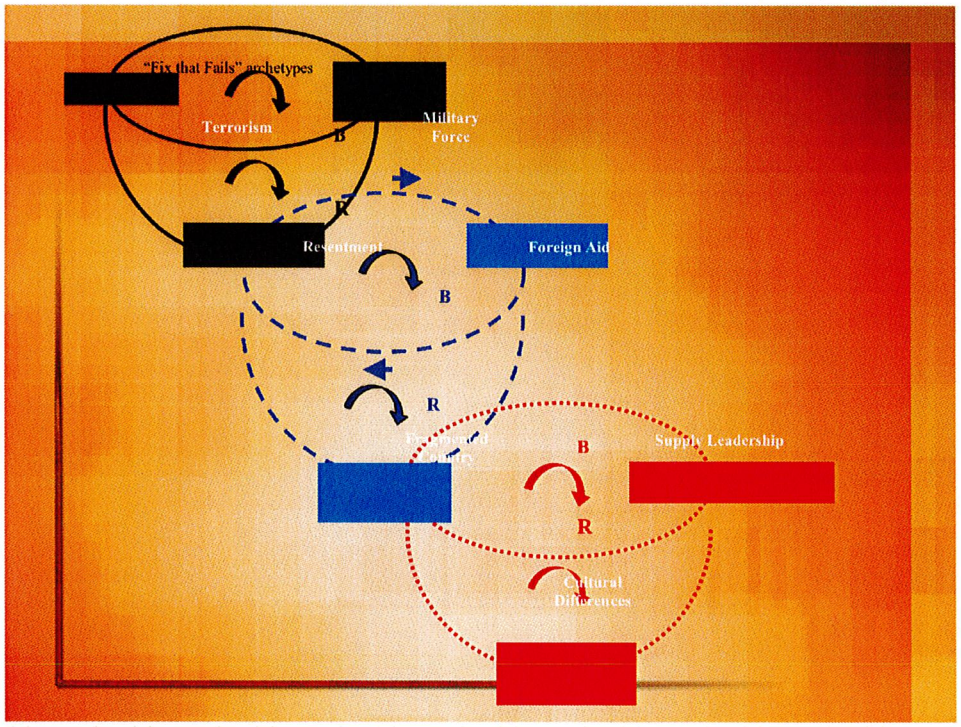
- Limits to Growth (aka Limits to Success)
- Shifting the Burden
- Eroding Goals
- Escalation
- Success to the Successful
- Tragedy of the Commons
- Fixes that Fail
- Growth and Underinvestment
- Accidental Adversaries
- Attractiveness Principle

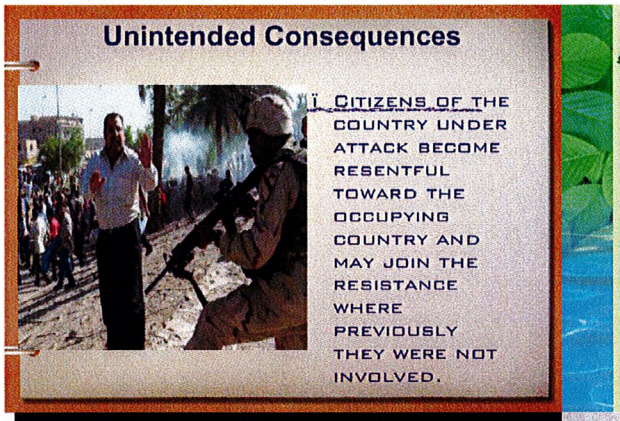
To illustrate both a feedback loop and the 'fix that fails' archetype as well as how to begin to use systems thinking in looking at larger problems and complex systems we will examine the war in Iraq. The U.S. has claimed to enter Iraq with several purposes; those of protecting American citizens from terrorism and catching terrorists following the 9/11 attacks, uncovering WMDs and bringing democracy to an oppressed people. Whether or not these were the true intentions is debatable,

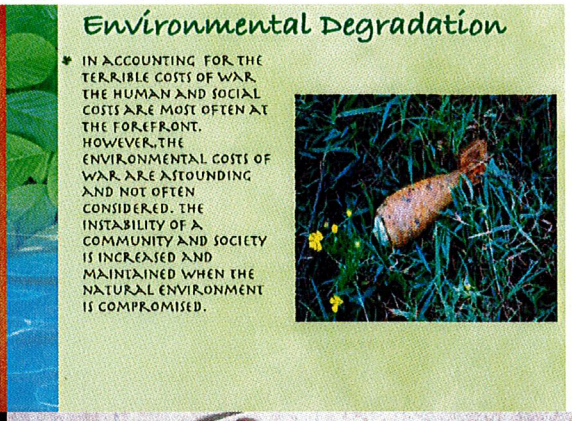
especially considering the hijackers from 9/11 were not even from Iraq. Regardless the basic feedback loop is intended to be a balancing feedback loop where military intervention helps quell terrorism and creates balance in the system (Iraq). This is what such a balancing feedback loop would look like:

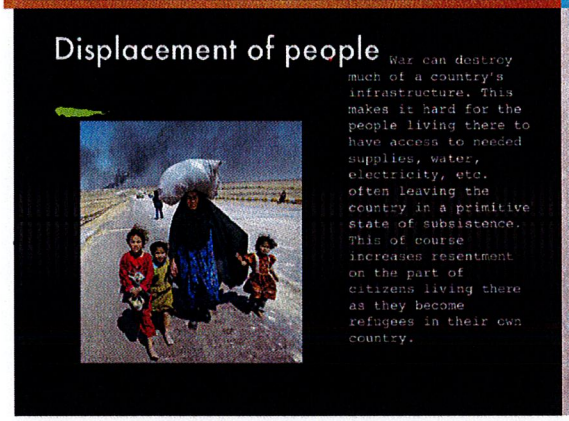


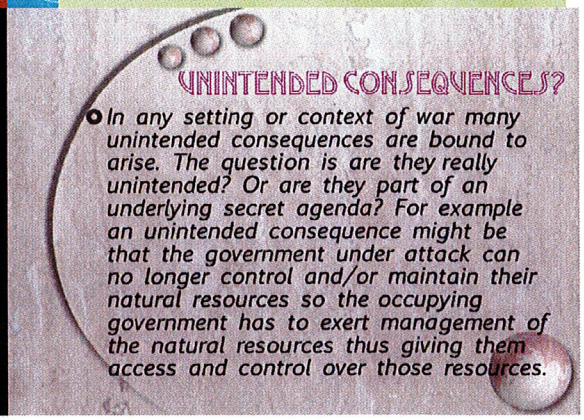
Not only do solutions to complex political, social or environmental problems often not have the intended consequence but can also have many unintended consequences, (this is one of the things skilled systems thinkers are adept at avoiding). Solutions to complex problems also often just shift the problem from one area of the system to another, this is called the'shifting the burden' archetype. Here are some of the unintended consequences of the war in Iraq. Also notice that another systems thinking skill is to questions appearances and question whether something truly is or is not an intended consequence. Below is the archetype represented in this scenario, that of the 'fix that fails' archetype.

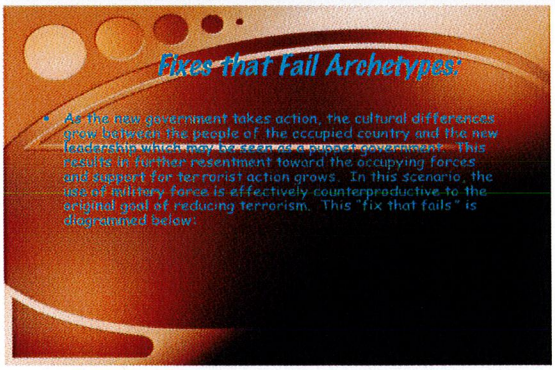

"Fix that Fails" archetypes
Terrorism
B
Military Force
R
Resentment
Foreign Aid
B
R
B
Supply Leadership
R
Cultural Differences











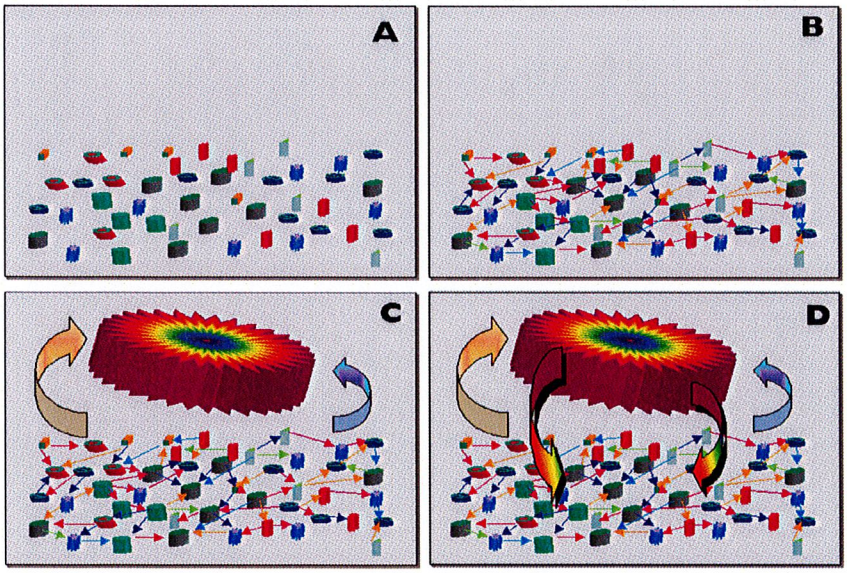
A key concept in systems is that of *emergence*. Emergence only happens in a working system. It is a property of the whole system and can only arise through the interaction of its parts but cannot be duplicated by an individual piece or component. Some examples of emergent properties are: life, rainbows, consciousness, pain, laughter, music, etc. Challenge yourself to think of emergent properties in the systems around you. Climate change could also be considered an emergent property,

one which comes out of a multiplicity of interactions amongst transportation systems, agricultural systems, human behavior, economic systems, etc. Emergence is a phenomenon of social systems as well, think of the saying 'two is better than one'. Emergence creates new connections and properties that can only be created through the interaction of the parts, not by the parts themselves. This can apply to dealing with the challenges of peak oil and climate change on the community level; the emergence of social innovation and possible solutions to the challenges are more likely to be found in working together, than on our own.

Another component of emergence that is so interesting and important to consider is that in emergent phenomena there is not a designated leader. For example in a school of fish that are swimming in tight order through the ocean we can see emergence in the behavior of the whole system or the school. The fish have no particular leader, rather the school is a system of multiple components working together without a designated leader creating an emergent behavior. Another example is a flock of birds or a large crowd of people walking down a busy street.

Another important and related concept in systems is that of *self-organization* which can be defined as the process of a system creating more and greater complexity or structures through the workings or will of the system itself, not the environment it is within. Examples of self-organization could be morphogenesis or the homeostasis of cells. Now self-organization can also more generally be applied to social systems, community organizations, activist groups, etc. The ability to self-organize is an

important part of the work of community systems and neighborhoods in the face of peak oil and climate change. New qualities and capacities for dealing with and responding to change become present through emergence and self-organization of communities. These are qualities that were not present in the individuals themselves and only happen through the interaction of the whole system. The following visual can be seen as an example of both emergence and self-organization. In box A we can see the components of a system, however they do not form a system yet as they are not interacting. In box B we can see what is now a system as the components are now interacting and exchanging information and processes and in turn are self organizing. In box C we see the process of emergence represented by the pink disc; the disc is a property of the whole system that would not be there without the interaction of all of the parts or agents and is a property or product that is not found within the individual agents themselves. In box D we see the emergent pattern feeding back into the system which may in turn create further emergence.



Culture and Complexity Figure 2. Richard Seel

Image: http://www.new-paradigm.co.uk/Emergence.gif

The more capable of self-organization and emergence that a social system is, the more resilient it will be in dealing with challenges. *Resilience* is a term that has come to the forefront in dealing with peak oil and climate change and it means the ability of a system to withstand and recover quickly from shocks and maintain its integrity and essential shape under pressure and stress. If a community has a high level of resilience built in then its essential needs will be taken care of in an emergency. Building community resilience is one of the main goals of the Transition Town model, which will be discussed in a later section.

Looking at both self-organization and emergence:

> In nature, change never happens as a result of top-down, pre-conceived strategic plans, or from the mandate of any single individual or boss. Change begins as local actions spring up simultaneously in many different areas. If these changes remain disconnected, nothing happens beyond each locale. However, when they become connected, local actions can emerge as a powerful system with influence at a more global or comprehensive level…These powerful emergent phenomena appear suddenly and surprisingly. Think about how the Berlin Wall suddenly came down, how the Soviet Union ended, how corporate power quickly came to dominate globally. In each case there were many local actions and decisions, most of which were invisible and unknown to each other, and none of which was powerful enough by itself to create change. But when these local changes coalesced, new power emerged" (Wheatley and Frieze, 2006, P. 3).

Communities are themselves what can be called a *complex adaptive system* or CAS. "A CAS is defined as a dynamic network of many agents (which may represent cells, species, individuals, firms, nations) acting in parallel, constantly acting and reacting to what the other agents are doing. The control of a CAS tends to be highly dispersed and decentralized. If there is to be any coherent behavior in the system, it has to arise from competition and cooperation among the agents themselves. The overall behavior of the system is the result of a huge number of decisions made every moment by many individual agents" (Waldrop, 1992, p. 25). Below is a visual of a CAS.

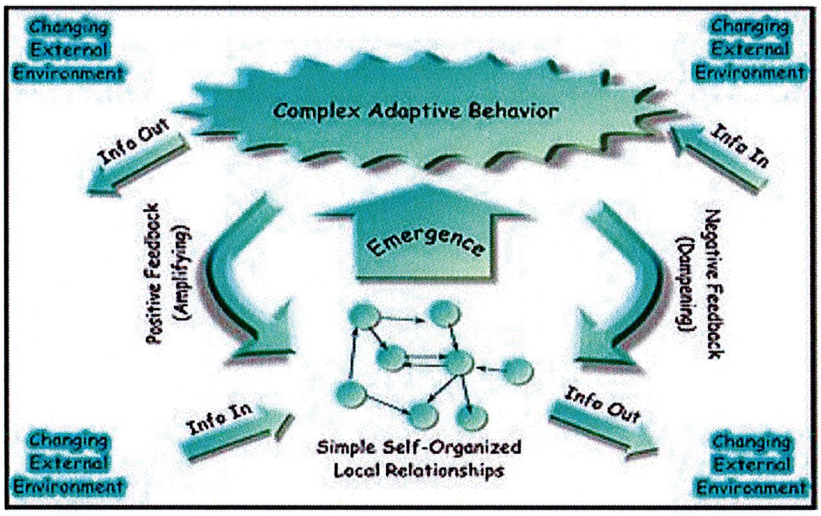


Image: (http://en.wikipedia.org/wiki/File:Complex-adaptive-system.jpg)

A resilient community could also be seen as what is called a *chaordic* system which is any self-organizing, adaptive, nonlinear, complex organism, organization or community, physical, biological or social which exhibits behavior that is dominated neither by chaos nor order but rather blends characteristics of both. There is an argument to be made that some of the healthiest and most resilient systems of any type are chaordic and mix the best of both order and chaos thus maximizing their

learning and efficiency. The zone between chaos and order is also referred to as the area of 'creative tension' and is the zone where some of the biggest discoveries are made.

My goal here is to give you a basic feel for what systems thinking is and the promise it has to offer in addressing the challenges of peak oil, climate change and in building community resilience. There are many wonderful books and learning resources available and as such my aim here is to simply to do a very basic overview. Readers are expected to decide how much or how far to pursue this learning on their own. It will also be found that systems thinking is threaded throughout this work on some level, quite often in an intuitive manner. My intent is also to get you to start thinking about the way you think and to examine relationships, patterns, context, processes and wholes rather than the analytic mechanistic thinking we have all been conditioned to. Whole systems design, whole systems change and environmental art for example all have systems thinking at their core. Finally, below, I share one more visual to give you a further example of systems thinking skills.

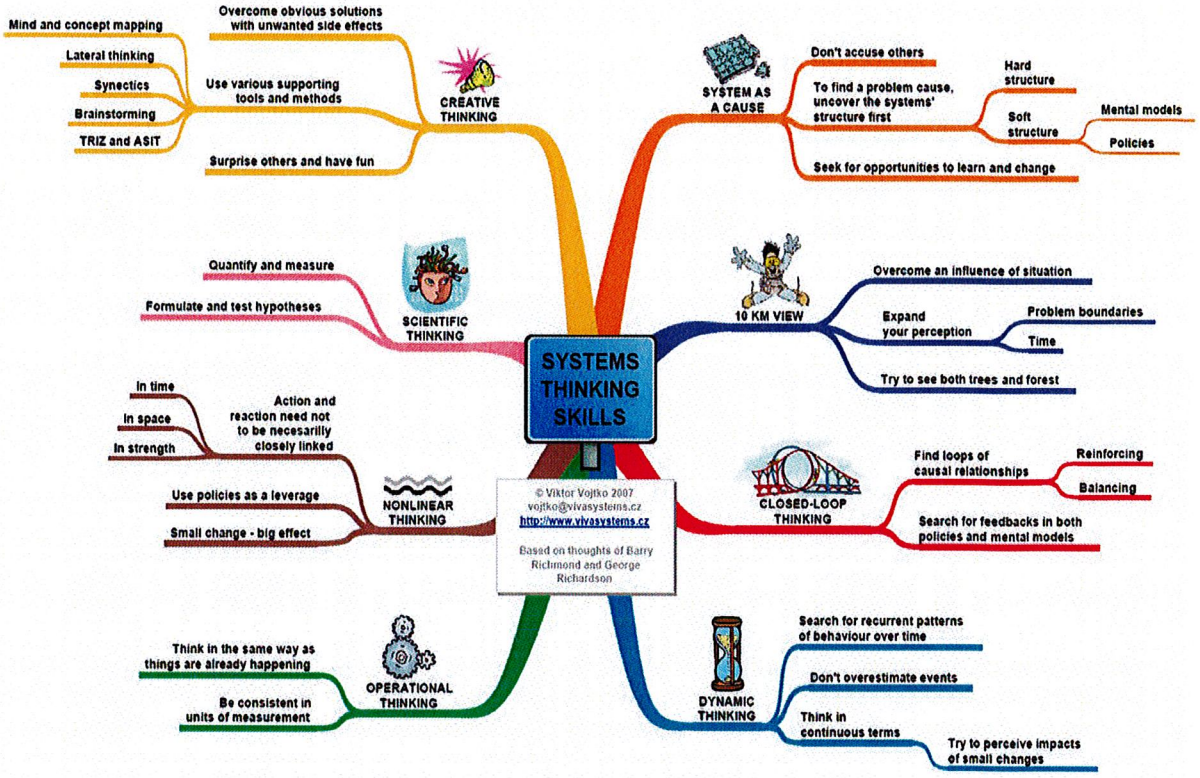
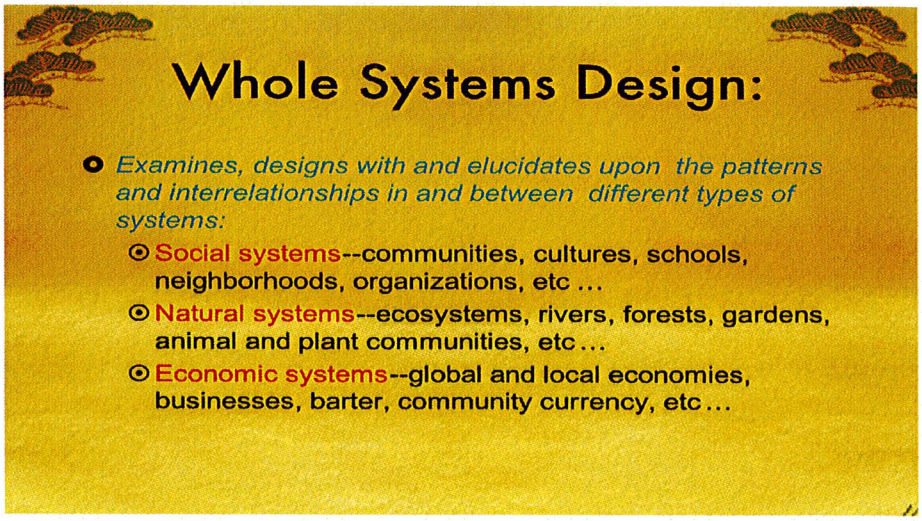


Image: (http://img.mappio.com/guest/systems-thinking-skills-pixel600-Large.jpg)

Chapter Four:

Whole Systems Design: The Blueprint for Change

Whole systems design is a vital key to community energy descent strategies and can help a community plan their own design for adaptation to energy descent on the



individual and family as well as organizational and other levels. We will examine below some of the basics of various

types of whole systems design or WSD and some of the attendant, related or accompanying philosophies, methods, etc. All of these are based in a systemic view of the world and are wholistic approaches to designing sustainable systems of various types.

Whole systems design takes into consideration the needs, limits and functions of both social and natural systems. It is design that looks at the whole picture and the whole system including the subsystems, rather than just their parts. It is designing in context. The relationships, interconnections and patterns within and between the components of all involved social, natural and built systems are taken into consideration in the design process and implementation. This also means looking at issues of social or environmental justice when designing in a community context and having the designer ask such questions as how can this design be inclusive of all voices and opinions? How can it create equity, participation and community building? This is part of why it is called WSD: it is design that is meant to take into consideration not only natural/ecological systems but social, economic and other systems as well. If you are not designing with all of these systems in mind then it is not a whole systems approach.

During the design process decision makers and designers often narrowly identify problems without looking at causes or connections. This often only shifts and multiplies problems. WSD seeks to avoid these mistakes of shallow surface design by looking at the context for deep systemic change in their design. Some of the things a whole systems designer will consider in the design process:

- emphasize relationships between and amongst the personal realm, the community realm, organizational, economical, social and ecological issues and contexts
- seek to understand these relationships from a systems perspective and to approach situations in terms of their interconnections and dynamics
- address design within the context of preferred positive future visions
- look for underlying common causes in seemingly disparate issues by examining the systemic connections between these issues
- integrate problem solving approaches to allow for the emergence of creative alternatives to social, environmental and organizational issues
- optimize not just the parts of a system but the whole system
- look for leverage points by making the systemic connections between problems then when the design is applied you may be able to address or solve multiple issues simultaneously
- consider possible unintended consequences

WSD is still a relatively new field with no overarching prescriptive definition of what it does or does not include. The only prescriptive aspect is that it combines the

academic disciplines and fields of systems thinking and design. Although it is a young field with great possibilities and with little limits on what it can become, it is also field that is rapidly increasing and is being utilized across the board by all types of organizations, communities, businesses, etc. The world is realizing the need to break out of the harmful modes of ecologically destructive and counter-intuitive design that has defined our industrial civilization. Design that can work across and within social and natural systems with intuition, keen insight and creativity and which produces sustainable results that are mutually beneficial for the 'whole system' has never been more vital than now.

Some examples of types of whole systems design are permaculture and ecological design. Permaculture is defined as a design science for human settlements and perennial agricultural systems that works in harmony with the surrounding ecology and mimics the natural world to build resilience, function and sustainability into the system. Ecological design is defined by Sim Van Der Ryn and Stuart Cown, authors of Ecological Design, as "any form of design that minimizes environmentally destructive impacts by integrating itself with living processes". We will look briefly at ecological design below and then in a little more in depth in permaculture design. We will also look briefly at a couple of other disciplines and/or philosophies that are based in a whole systems perspective and are used in WSD.

ECOLOGICAL DESIGN

The slide above illustrates the five basic principles of ecological design.

Let us look at the ecological design principles in a little more detail:

Principle One ~Solutions Grow From Place~

The first principle 'solutions grow from place' requires a careful observation, interaction and relationship with the land and ecology of the place in which the design is to take place. This helps the designer to know the limits, possibilities, resources, etc. of the place so when the ecological limits of a place are approached there is already a knowledge and observation of those limits. The system can be kept in balance using the solutions already available within the knowledge of the place. The place itself = pedagogy. That is to say the place is both a teacher and design partner. The designer can learn from the ecology of the place as well as the people that live there who may in fact be one of the most valuable resources of the place.

This first principle of ecological design places a high value on the knowledge gained through cultural accretion over decades or generations by the inhabitants living in that particular place. In this respect this principle also strives to embrace one of the principles of social and environmental justice, that of inclusivity and participation of affected stakeholders. The designer is encouraged, especially in an impoverished or low-income area, not to assume they know what is best for its inhabitants but rather to consult with and learn from them.

In relation to the issues of peak oil this is a very applicable principle as well. As fossil fuels run down and energy descent becomes a reality we will have no choice but to let our solutions grow from place, from a local level. We will not be able to use petroleum products that have been shipped from great distances. We will have to work with and look to the place we are in for solutions, sustainable and renewable resources and design ideas.

> Only a few generations ago, it would have been absurd to suggest that one should design and build in ways that did not reflect local climate, materials, landforms, and customs. The design of human habitat was limited to local resources, abilities, and ways of doing things…In this century, tried and tested design adaptations to place have been abandoned in favor of standardized modern templates designed to be conveniently dropped into any situation and any location. As we have seen, these templates require extravagant amounts of energy and materials and destroy landscapes wholesale" (Cowan, Van Der Ryn, 89, Ecological Design).

Principle Two ~Ecological Accounting Informs Design~

This principal seems obvious; take into account the environmental and social costs, benefits and effects of any given design. However throughout most of our industrial civilization's design history this element has to a large degree been largely or often completely missing. It is almost unbelievable that we could be so stupid; we may as well have been shooting ourselves in the foot. We are still waking up to the fact that nature's services have inherent value that cannot necessarily be seen with a dollar sign nonetheless is perhaps even more valuable than a dollar sign can attribute. This principle examines the interconnections and relationships in systems and uses them as a form of accounting for the design.

This principle also involves taking into account a deep time perspective that can only be offered by the natural world. Designing for the long term, for sustainability. Designing for value that is retained over time or is at least renewably and/or easily repaired, perhaps even by ecological services themselves. This is where things like life-cycle analysis play an important role as well. This principle requires us to trace and examine the inputs and outputs of a system, the processes and to look at outputs as inputs so that there is no waste leftover. An example of this could be a greywater system in which the dirty water from laundry or dishes is recycled back into the system, being filtered through a native plant garden thus serving as an input and coming back out of the system in its original state of clean water. Sometimes these may be referred to as living machines.

Principle Three ~Design With Nature~

This principle emphasizes a deep examination of the processes inherent in living systems. Where are there examples of cooperation amongst the parts of a system? What processes are already being used well in the system that can be preserved or replicated? Designing with nature means using the wisdom already inherent in the system to do the work which increases efficiency, decreases work and increases sustainability. This principle capitalizes on the emergent and self-organizing properties of living systems.

Principle Four ~Everyone is a Designer~

This principle will also be more important than ever in the age of energy descent when people have to relearn how to live in community and will also have to relearn how to design their lives and settlements to accommodate for simpler lifestyles and basic needs. People may have to learn how to grow their own food again for example. People will probably have to do more things themselves than they were previously used to. This means more people are going to find themselves in the role of designer.

> Ecological design suggests a deeply participatory process in which technical disciplinary languages and barriers are exchanged for a shared understanding of the design problem. Ecological design changes the old rules about what counts for knowledge and who counts as knower. It suggests that sustainability is a cultural process rather than an expert one, and that we should all acquire a basic competence in the shaping of our world (Cowan, Van Der Ryn, Ecological Design, p. 170)

This is also once again where shifting the story field comes into play. One of the dominant cultural narratives of western industrial civilization has been that we have to remain obedient helpless consumers and citizens. Powerless people who are incapable of providing for their own needs outside of the systems set up for them. This principle of ecological design is absolutely vital to energy descent strategies on both individual and community collaborative levels. In enacting this principle we are also promoting social justice as nobody is excluded from its scope. Everyone must learn to work together and share their own unique skills and bring their own individual power to the design table.

Principle Five ~Make Nature Visible~

This principle emphasizes making the natural systems and aspects in our design visible and apparent. For quite some time design has made a concerted effort to hide nature, to cover it up or to subdue it, covering it with cement, non-natural materials and building materials that do not fit into the landscape or ecology whatsoever. Ecological design hopes to bring people back to a relationship with place that involves all of our senses and celebrates and makes nature visible and relatable. This teaches us about the living systems we are all a part of, the processes, the flows, the inputs, the limits, rather than hiding them thus creating a further sense of separateness from the natural world. This also helps to make us aware of the effects of our human activities on the natural world and systems that we are embedded within.

PERMACULTURE

Permaculture can be considered a form of ecological design though it is also considered a separate design field and a separate discipline with more history and detail. Permaculture is more complex than ecological design and rather encompasses all of its principles while adding many more. Permaculture was started in the late 1970's by Bill Mollison and David Holmgren. It has since become a well established international movement and design community. There is some criticism that forms of WSD such as permaculture and ecological design, have been in practice for millennia by indigenous cultures and others. I believe this is true to a great extent. However I also believe the difference is that the modern revisioning of these ancient practices, philosophies, etc. allows them to be more accessible and applicable to current situations and understandings. However, I also believe we must honor and study the wisdom that was there before so-called wisdom became permaculture or ecological design or 'bioregionalism'.

There also needs to be a consideration of using terminology when trying to be inclusive and involve a full spectrum of community participation in projects that may involve permaculture. If one does not use enough common language people may feel intimidated or turned off. Permaculture design courses are also often extremely highly priced and thus not available or accessible to everyone. Ecological design principles are more theory based and general and thus do not require the direct or intensive training that a through understanding of permaculture does. So while I believe that permaculture is going to be increasingly important in personal and

community energy descent strategies I also feel that the accessibility aspect of permaculture is lacking. Perhaps town and city governments should include permaculturists on their payrolls so that they may in turn offer free or low cost training to community members thus making it more affordable and accessible to everyone.

Permaculture design is based on twelve guiding principles that can be used to co-creatively design our environment, our social systems (social permaculture), and our behavior in a way that addresses energy descent, a world of less resources and long-term sustainability. These principles are applicable and can be applied across a spectrum of systems: ecological, agricultural, political, social, etc. They are seen as being universal but will vary in their emphasis and are modifiable and tailorable to the specific context, bioregion, ecosystem and community according to the context and location specific needs and limits.

These principles are seen as universal, although the methods used to express them will vary greatly according to the place and situation. They are applicable to our personal, economic, social and political reorganization. The twelve principles that David Holmgren laid out for permaculture design are illustrated in the permaculture flower below. Each principle can be thought of as a door that opens into whole systems thinking, providing a different perspective that can be understood at varying levels of depth and application. I highly encourage you, the reader, to further explore

permaculture on your own. There is a bevy of resources in the resource section for you to peruse and utilize.

Here we will briefly examine the twelve core principles of permaculture that are at the basis of the whole design system. Each principle can be thought of as a door that opens into whole systems thinking, providing a different perspective that can be understood at varying levels of depth and application. The twelve principles are as follows:

1) *Observe and Interact*—close and careful observation of the natural world and of the systems in which the design is to take place. Interaction with the systems so that one develops a close relationship with the components of that system which in turn leads to better design.

2) *Catch and Store Energy*—use the energy that is freely available to natural systems; the sun, the wind, the rain, etc., catch and store it for use as part of your design. Some examples of this could be rain catchment systems, greywater systems, solar, etc.

3) *Obtain a Yield*—design your systems in order to create self-reliance at multiple levels. Look for positive feedback loops that amplify a yield of food, energy, etc. Utilize productive components in your design that provide

a yield, rather than for example, ornamental plants, use food or function yielding plants.

4) *Apply Self-Regulation and Accept Feedback*—examine how systems create self-regulating, maintaining processes by observing feedback and enhance those self-regulating processes and components of the design/system. Observe where negative feedback loops exist in the system to gain an awareness of the 'brakes' of the system and self-regulation processes that can be used to advantage.

5) *Use and Value Renewable Resources and Services*—in permaculture renewable resources are those that are both renewed and replaced by natural processes without the need for outside non-renewable inputs. Renewable services, also called passive functions can be found in animals, plants, soil, water that we do not consume. For example using a chicken to provide a tillage and fertilizer system for our garden without eating the chicken.

6) *Produce No Waste*—in a permaculture system there should be little or no waste. Rather the waste (an output) should be seen as a resource and an input to fuel other parts of the system, indeed if this is not happening there is a flaw in the system design or components. Another aspect of this principle is valuing timely maintenance which also makes us value what we already have more and prevents costly and timely future repairs.

7) *Design From Patterns To Details*—use a systemic lens to approach the design for your system, noticing relationships, interdependencies, behaviors and patterns before components, pieces or details. In this way one can learn about what each individual component requires and/or offers to the rest of the system before placing/utilizing it in a way that would be less efficient or harmonious. As stated above, systems thinking allows one to see the forest *and* the trees. Replicate and utilize patterns that are observed to be effective and sustainable.

8) *Integrate Rather Than Segregate*—in designing systems focus on the benefits and self organizing patterns of integrated social and ecological relationships rather than separating elements as a typical reductionist strategy would do. The correct placement of components in a system in order to maximize the positive benefits of relationships also lessens the need for corrective management. I am going to talk a little longer about this principle as it seems key to some of the underlying themes of this thesis. Holmgren writes that "Two statements in permaculture literature and teaching have been central:

- Each element performs many functions.
- Each important function is supported by many elements.

The connections or relationships between elements of an integrated system can vary greatly. Some may be predatory or competitive; others are co-operative, or even symbiotic. All these types of relationships can be

beneficial in building a strong integrated system or community, but permaculture strongly emphasizes building mutually beneficial and symbiotic relationships. This is based on two beliefs:

- We have a cultural disposition to see and believe in predatory and competitive relationships, and discount co-operative and symbiotic relationships, in nature and culture.
- Co-operative and symbiotic relationships will be more adaptive in a future of declining energy" (Holmgren, 2008, p. 124)

9) *Use Small and Slow Solutions*—design your systems to perform the necessary and beneficial functions at the smallest scale possible and practical. As our society has made a shrine to speed and mobility and quick and large scale solutions we have come to see the disasterous consequences of this mental model. For example we built our cities around cars to increase mobility and speed but traffic jams and etc. have often been the results instead. A smaller, slower solution is the bicycle that allows for more freedom of movement without such a large need for infrastructure and the resulting pollution. Another example of a result of the need for small and slow can be seen in the creation of the slow food, slow money and slow cities movements. Another very important example of this principle is the concept of the twenty minute neighborhood in which the members of that neighborhood can, within 20 minutes, walk to essential amenities and

services. Due to the constraints that energy descent will incur this is going to be much more of a necessity in the future planning of our communities.

10) Use and Value Diversity—Ecological and cultural diversity, or the combination of these two forms of diversity (biocultural diversity) are staples of any healthy, resilient system and design. Many of us have heard of the negative effects of design that uses large monocultures of crops and trees which reduces diversity and in turn resiliency. Permaculture strives to incorporate not only polycultures but as much bioregional diversity from the nature and culture available to us as possible.

11) Use Edges and Value the Marginal—edges are the areas and interfaces in between different yet connected, natural and social systems. An example of this is an estuary where fresh and salt water meet, converse and interact across different ecologies. Often the invisible or less noticeable functions that happen in the edges are some of the most valuable, productive and stable. See edges as opportunities in your design.

12) Creatively Use and Respond To Change—use change, which is inevitable to your advantage. This principle can be applied to social change and organizational development as well. The adoption of successful innovation in communities often follows a pattern similar to ecological succession in nature. Permaculture is about the durability of natural living systems and

human culture, but this durability paradoxically depends in large measure on flexibility and change. A contextual and systemic sense of the dynamic balance between stability and change contributes to design that is evolutionary rather than random.

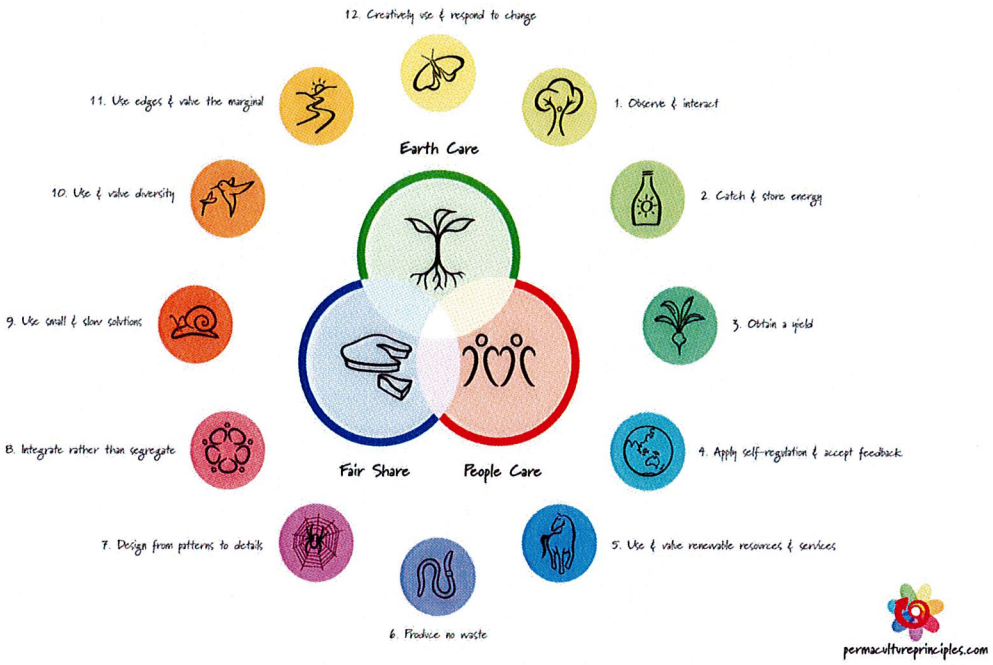


Image: (http://www.permaculturepriciples.com/freedownloads.php)

The ethical foundation of permaculture (center of image) guides the use of these design principles, ensuring that they are used in appropriate ways. The main permaculture ethical principles are that of fair share, people care and earth care. In this manner permaculture ensures for mindfulness of social and environmental justice in its design approach. Since it is a whole systems design form of design these three

ethical principles are key to successful design and harmony between social and natural systems.

BIOMIMICRY

Inherent within permaculture and ecological design is a directive to observe, interact and relate with the natural world when designing. Biomimicry takes this directive a little further and seeks to directly imitate the processes, products or relationships to be found in the natural world. For example modeling a waterproof surface from the design of a lotus petal, mimicking that design through human means and making a product that resembles the real thing as closely as humanly possible, is one example of biomimicry.

Biomimicry is a newer discipline that studies the natural world, its models, systems, processes, elements as well as individual species and then imitates or takes creative inspiration from them to understand and apply biological principles to human designs or to solve human problems sustainably. The field of biomimicry looks at nature as *model, mentor* and *measure*. To model nature means to emulate or imitate it in our human designs. To view nature as a mentor means to value nature as both a partner *and* as a teacher. To use nature as a measure means to judge the sustainability of our innovations through an ecological standard.

Biomimicry is another design science that will help to shift the story field away from the arrogance and dullness of industrial civilization man. That harmful cultural narrative of mans separation from and dominance over nature, shifts back to a story of awe, humility and appreciation. Through modeling and observing nature we come to realize we are not independent from or more special than the rest of the natural world but are rather living in a complex web of interconnected and interdependent processes and relationships. We regain the ability and the desire to ask nature for guidance and to remember that we too are a part of nature.

Biomimicry taps into the 3.8 billion year wisdom of the living world; back when the first bacteria started kickin it on planet Earth. What could be more wise than 3.8 billion years of evolution and life, an amazing biological library full of answers to our design questions? Humans have been designing in counter-intuitive ways that have not been based in the wisdom of natural systems for far too long and we are certainly seeing the consequences. Nature already knows how to build and maintain diverse thriving communities of living creatures that meet their needs in sustainable ways, with the practice of biomimicry we can apply the same wisdom to designing human settlements and systems.

Pictured below are the principles of life, distilled, which biomimicry always uses as the core of its design considerations and insights. Also pictured is the biomimicry design spiral—which brings the viewer through the biomimicry design steps that someone would progress through when using a biomimicry philosophy and process in

their design. These are two of the tools developed by the Biomimicry Institute (www.biomimicry.org). Try applying the design spiral and the life principles next time you design something or consider it as a way to evaluate your purchases.

1) *Distill the design function*—focus on what you want your design to do and why you want it to do that rather than what you want to design.
2) *Translate the function or design to biology*—identify the functions of your design, ask how nature would accomplish the same thing, define the habitat conditions that reflect the design parameters, translate life's principles into the design parameters, use these principles to ask questions that shape your design.
3) *Discover natural models*—go out into the natural world and observe, consider both literal and metaphorical models, do research, brainstorm and consult with biologists, create a taxonomy of the strategies life would use for the design.
4) *Emulate nature's strategies*—brainstorm multiple solutions using what you have found so far, refer back to models and research, consider chimera solutions/models, consult again with biologists, explore more strategies.
5) *Evaluate your design against life's principles*—ask and consider whether your design can adapt and evolve as nature would, ask if your design creates conditions that are conducive to life and finally ask how you can improve your design.

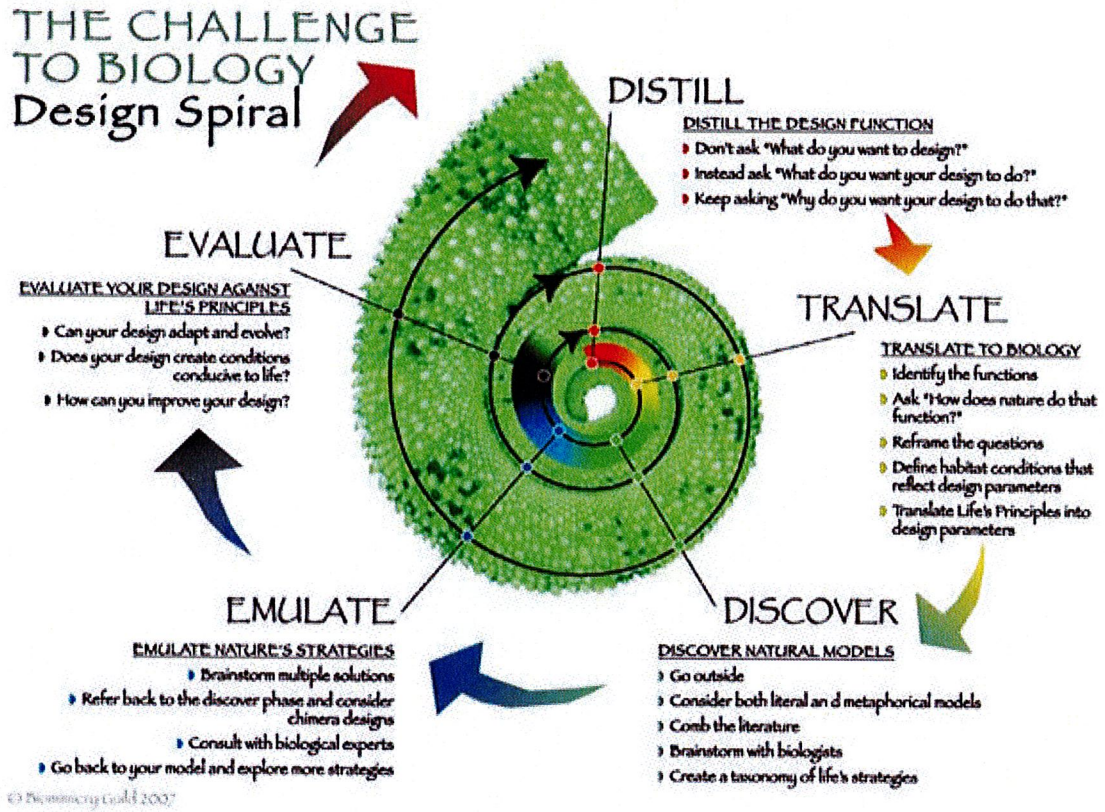
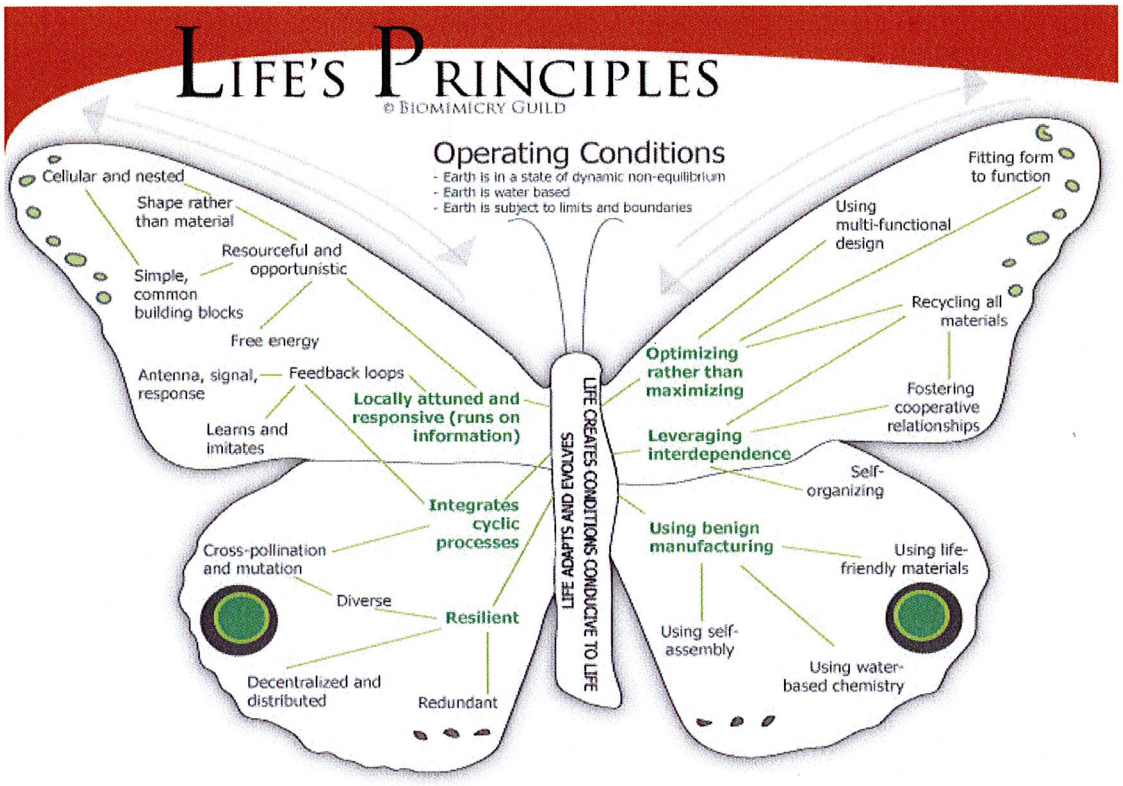


Image: (http://www.biomimicryinstitute.org/about-us/biomimicry-a-tool-for-innovation.html)



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BIOREGIONALISM AND RELOCALIZATION

It is ironic that in an age when the world has become thoroughly connected via information technology, social networking tools such as Facebook, international travel, trade and globalization that it is precisely the moment when we need to seriously examine the philosophy and practice of relocalization and bioregionalism. In the face of peak oil, climate change and systemic problems with both national and international economic structures, more and more people are beginning to realize that the world has to 'shrink' back to a more localized level. In the not too distant future there is the very likely possibility that international transport, trade and travel will

become less and less viable. This is not to say that we will not remain global citizens and stay interconnected, however think about this, even the internet servers and communication companies that help keep us instantly connected require massive amounts of cheap fossil fuels to keep them running.

I put a brief overview of bioregionalism and relocalization in the WSD section as these two philosophies are at the root and core a necessity and a goal of any whole systems design. They are also overarching and guiding philosophies of great importance at the heart of any community energy descent strategy. In fact it is my belief that the guiding principles of bioregionalism and relocalization are at the heart of bringing us back to some semblance of a sane and working relationship with the natural world and in turn with each other. In redesigning our society, our economy, our communities, these two approaches and philosophies will be at the forefront. Relocalization and bioregionalism go hand in hand and are inextricably intertwined almost so much as to be indistinguishable. The main difference in my opinion is that bioregionalism is specifically defined by a bioregion and ecology whereas relocalization may be defined by political or municipal boundaries though still with a focus on 'local'.

So what exactly do bioregionalism and relocalization mean? We will define relocalization first: relocalization is a strategy to build societies based on the local production of food, energy and goods, and the local development of currency, governance and culture. The main goals of relocalization are to increase community energy security, to strengthen local economies, and to dramatically improve

environmental conditions and social equity. The relocalization strategy developed in response to the environmental, social, political and economic impacts of global over-reliance on cheap energy. Our dependence on cheap non-renewable fossil fuel energy has produced climate change, the erosion of community, wars for oil-rich land and the instability of the global economic system.

Bioregionalism is a philosophy, movement, lifestyle and practice, which focuses on how human communities can live sustainably and in harmony *within* the natural and ecological boundaries of the local and native natural systems of the place they inhabit. A *bioregion* is an ecologically and geographically defined area, which is defined and delimited by the dominant watersheds or water features, landforms and distinct assemblages of natural communities of flora and fauna. The cultural features of a bioregion also tend to be distinct. The bioregion I live in here in the Pacific Northwest in Portland, Oregon is called Cascadia. Cascadia stretches from Northern California up into British Columbia and is defined by the Columbia River watershed and the area around the Cascade mountains. Cascadia is a Chinook word which was one of the original native languages of the bioregion. Some of the things that are characteristic of Cascadia are salmon, coastal temperate rainforests, and Doug Fir trees, which you can see on the Cascadian flag:

Image: (http://upload.wikimedia.org/wikipedia/commons/d/d5/Flag_of_Cascadia.png)

So bioregionalism is a guiding philosophy for how to live our lives that is ultimately about living in deep relationship with place, with the place we live, play and work and with the people that live there. It is in large part the way people used to live and relate before the advent of industrial civilization; that which separated us in many respects emotionally and spiritually from human community and from the natural community of the place we live. In this time of great transition we must relearn:

> To become dwellers in the land, to relearn the laws of Gaea, to come to know the earth fully and honestly, the crucial and perhaps only and all-encompassing task is to understand place, the immediate specific place where we live. The kinds of soils and rocks under our feet; the source of the waters we drink/ the meaning of the different kinds of winds; the common insects, birds, mammals, plants and trees, the particular cycles of the seasons; the times to plant and harvest and forage—these are the things that are necessary to know. The limits of its resources; the carrying capacities of its lands and waters; the places where it must not be stressed; the places where its bounties can best be developed; the treasures it holds and the treasures it withholds—these are the things that must be understood. And the cultures of the people, of the populations native to the land and of those who have grown up with it, the human social and economic arrangements shaped by and adapted to the geomorphic ones, in both urban and rural settings—these are the things that must be appreciated…That, in essence, is bioregionalism (Kirkpatrick, 1999, p. 24).

Since we are only doing a brief overview, I wanted to provide you with a summation of some of the basics of relocalization and bioregionalism. Please utiltize the resource section to find further related tools and organizations.

	Bioregional Paradigm	Industrio-Scientific Paradigm	Relocalization Examples/Projects
Scale	Bioregion Community	State Nation/World	Community Gardens CSA's
Orientation	Cyclical Systems based Chaordic	Linear Mechanistic Rigid	Emergence within and between community organizations
Economy	Locally and regionally based Cooperative Conservation/Ecological Self-Sufficient	Exploitative Growth/Progress Globalization Competition	Local Currency Co-op's Bartering Community Energy Grids/Projects Landtrusts
Polity	Decentralized Diversity Participatory Bottom Up	Centralized Hierarchical Uniform Top Down	Town Halls Citizen Councils Neighborhood Associations Grassroots Collaboration and Action
Society	Evolution Power With Dialogue, Community Conversation and	Violence/Disintegration Power Over	Skillsharing Freeskools

	Decision Making		

Many of us realize that the world is not going to look or operate the same way in the not too distant future, even perhaps just twenty years down the road. Climate change has reached bifurcation points within various ecological and natural systems. A bifurcation point is a point at which a system although relatively stable for a long period of time during repeated stress, eventually shifts dramatically due to one or more additional stressors. As ecological and agricultural systems are strained due to climate change there is going to be a necessity to relocalize our food and agricultural systems. This will also be a necessity as the use of fossil fuels to produce fertilizers and pesticides for large monoculture crops and to ship food long distances is not going to be realistic. We will have to learn about the foods available in our bioregion, in our backyards. We will have to learn what we can grow where we live and what to grow in which seasons. We will truly have to develop local and bioregional food partnerships and economies that bring us in tune with the particulars of the land we live on. We will have to learn how to live in relationship with, and in reverence of that which sustains us, our bioregion.

As our warming world goes into energy descent we will see our transportation systems, our manufacturing systems, and our economic systems shrink. Our lives, society and culture will necessarily come back down to a relocalized community level. This is a big part of changing the dysfunctional cultural narratives, learning how to live in healthy relationship with not only our bioregions but also with each

other, to live in community. This is going to require an increase in dialogue and communication skills as well. One of the ways to begin promoting and practicing greater community dialogue is through community events centered around bioregional education and relocalization activities. In his book, *Bioregionalism and Civil Society*, Mike Carr discusses one bioregional community building tool:

> One key purpose of bioregional storytelling is bonding people together in reclaiming their places. Bioregional stories emerge from and are informed by the places where people live. Told in the old oral ways, in a circle or around a fire circle, at important times of the yearly cycle such as solstice or equinox, or during the full moon, stories can stimulate powerful bonding among participants. Such stories bond people to place and to each other to produce a social cohesion grounded in place. Story, as used by bioregionalists, is thus identified as another cultural tool for building ecosocial capital with place. Story is an inclusive form of sharing, a sharing among peers and equals, face to face in circles sharing personal stories, building up information about each other, sharing feelings as well as thoughts, building trust, bonding horizontally (Carr, 2004, p. 122).

So in that spirit I would like to share a few poems about the Cascadia bioregion and finally at the end of the section present a quiz to test your bioregional knowledge.

Cascadian Winter Solstice Entry

Lumbering out of the crimson, yellow, and torched blanket of fall
Lazy Bear said to Maiden Moon
Look, here comes Father Solstice walking through salmon strewn Cousin River
I guess its time for my nap Lazy Bear remarked
What green sun-dappled schemes will you dream this year? asked Maiden Moon
Father Solstice wants me to dream of a land lit with the light of inspiration

I will kindle this flame and pass it to the two-legged Land Walking Lovers
Then Sister Season will ignite in their womb the time of curiosity and compassion
Together we will all birth forth from the crisp and crusted chill of winter hibernation
With hearts full of ideas and souls brimming with creative appetites

Oaks Bottom

In this moss loving den of refuge
I could lay fallow for a while.

Nestled in any one of your multitudinous nooks and crannies,
or the cubby holes within your carved out grandfather trees.
I would love the damp yearning of evolution found there
if…
it weren't for my clumsy human skin.

Your swanky dank delicious mud roving paths
invite me to sink into your wetness
the fecund glory of early spring
that is echoed in your makeup of pthalo greens
and umbert browns.

You have been bold.
Shifting, creaking and breathing in your expansive treed frames of reference.
You have ignored what we ask of you
and have gone on in shades
of
slate blue lichen
neon green moss
tan whirl of grass

and emergent planetary green.
In drifting epiphytes of surrendered grace
I could find myself echoing
the budding, rustling and persistent mold
of stubborn layers of enlightenment
I could find myself melting
into the moldy layered growth
that smells so sweet and silent
I could find myself in joy
through the chirping, snuffling, popping and hopping
of your fertile wonder
I could find myself truly in
the decision of the wind
to blow through only one strand of grass amongst thousands
I could find myself wrapped in
your fuzzy branches
supported by fungi pads of
creation, I could find myself.

Bioregional Quiz

1. What is the name of your watershed and where is it located?
2. Where does your garbage go?
3. How long is your growing season?
4. Name five edible native plants.
5. Name five native animals.
6. What were the primary subsistence techniques of the culture that lived in your area before you?
7. Name the soil series you are standing on.

8. Name five resident and five migratory birds in your area.
9. From where you are now which direction is North?

Chapter Five:

Whole Systems Change: Tools and Processes for Change

Whole systems change (WSC) occurs through the use of processes that engage all people from all aspects of a system to create deep systemic, positive and resilient change. WSC strategies and processes can be used in multiple contexts and on multiple scales: the community level, the organizational level, the governmental level, etc. WSC requires a high level of participation by the actors and stakeholders in the system needing change and is useful for large or small-scale interventions in dysfunctional, unproductive or outdated systems of all types. WSC tools can be useful in contexts where there is a need to include typically marginalized or minority populations. In fact, social justice is a core concern of WSC.

At the heart of WSC methods is the empowerment and activation of the voices of all the stakeholders in the systems and process, although the change also happens on an individual and transformative level simultaneously; thus it is a 'whole' systems change. Depending upon the specific WSC process, if there is a facilitator the purpose of the facilitator is to encourage and make space for the voices of others to emerge, especially those who may not generally have a 'voice' in the community. The individuals involved become the change agents rather than the facilitator and a

facilitator simply opens the space for this to occur. As Lao Tzu says 'when the leader's work is done, the people will say we did it ourselves'.

WSC is as much at the heart of community energy descent strategies as systems thinking and whole systems design; the three must go hand in hand and indeed are all interrelated and play off of one another. WSC is the area in which we can develop the needed social capacity to deal with the challenges of energy descent. While systems thinking is at the core of all three areas, whole systems design deals a lot with the practical physical reality of energy descent, creating new localized food systems for example. Whole systems change helps the community to come together, to have dialogue and conversation and to lay the social foundations for how to work together to build that food system. WSD creates the design for how to carry out the physical project while WSC lays the social framework that brings people together and determines how they will work together to complete the design.

A great example of a whole systems change project that was truly inclusive and participatory was the city of Portland's Vision Into Action community engagement project. I call it a WSC project because, although it may not have utilized a typical WSC tool or framework, it utilized the principles of WSC, that of engagement across and with all members of the system in focus and the express purpose was to enable community visioning on a large scale. This community vision eventually laid the guidelines for how the community wanted future food, transportation and other systems to unfold.

Started in 2005, by then Portland Mayor Tom Potter, the Vision Into Action or VIA project set out to engage the voices of as many Portlanders as possible in creating a new and updated vision for the next twenty years of the city's future. The project had the following explicit purposes: to invite and engage community members to plan for the future of Portland and to open up government to all Portlanders, particularly those in typically underrepresented groups or communities. Potter felt that public governance and ownership of important decisions should be increased and that community members should have the opportunity to actively shape the future of the city. There was also an intent to strengthen existing community networks as well as create new networks of mutual support and involvement. VIA ended up being the largest public engagement process that Portland had ever undertaken as well as being one of the largest in North America.

The project was undertaken through large-scale public engagement processes and events that managed to gather the input of over 17,000 Portlanders over a period of two years. The actual VisionPDX committee was made up of 40+ community member volunteers and also included scores of community groups and other individuals, all on a volunteer basis except for a few short-term paid staff. Organizations and groups that represented underserved or marginalized populations were purposely included in discussions about the project before the data collection process even began. This was to enable trust building and new relationships that would ensure the success and value of the project to all involved. Some of the

organizations included were homeless kitchens, addiction and drug treatment centers, religious groups, gay rights groups, children's groups, immigrant and refugee groups and more. Individuals in these organizations were given separate stakeholder and/or engagement interviews that helped VIA volunteers learn how to best engage their constituents as well as learn more about them and their needs. There was truly an effort to involve the whole system and all of its actors to create change and strengthen community and relationships.

The input and data for the end vision products was gathered through a general survey consisting of four questions that were easy to understand no matter someone's background or educational level. The survey was conducted through online sources, in person sources, interactive theater, one on one discussions, phone calls and community events. There were four simple questions asked:

1. What do you value most about Portland and why?
2. What changes would you most like to see in Portland right now?
3. Imagine Portland 20 years in the future and all your hopes for the city have been realized. What is different? How is our city a better place?
4. As you imagine the Portland you've just described, what are the most important things we can do to get there?

Retrieved from: (http://www.visionpdx.com/reading/)

Ultimately 21,000 pages of data/answers came out of the two-year community visioning process as well as the creation of multiple new relationships, networks, trainings and workshops, community events and more. The final products consisted of the Community Engagement Report, Portland 2030: A Vision For the Future, Voices From the Community: The VisionPDX Input Summary, and a community action grants program to help out groups or organizations doing work that aligns with the future vision findings. The future vision report was broken down into five aspects of the city: the built environment, the natural environment, the social environment, the economic environment and the learning environment.

The findings gathered through the 21,000 pages and input from 17,000 Portlanders ended up revealing a remarkably shared set of values to shape the vision. Some of the most commonly occurring themes according to Juan Ocana, the project co-lead whom I interviewed in 2007 (you can find the interview in the interview section below), are: a high value for the natural environment, a high value for accessibility to things such as services and resources, a high value for equality and diversity across the board, and a high value for Portland's uniqueness which play to Portland's slogan of 'Keep Portland Weird'. For more information on the VIA project, methods of engagement, history, outcomes etc. visit www.visionpdx.org

As we see in the above example in WSC work it is imperative that everyone's opinions, experiences, etc. are all equally valued and expressed to create outcomes that benefit and change the 'whole' system. There is an express intent to use WSC

methods to share power; to create relationships and dynamics that encourage 'power-with' not 'power-over' and to build relationships and interactions that enable power sharing. Starhawk, a spiritual activist and author distinguishes between three kinds of power:

- *Power-over*: is the use of power to dominate and control and is enforced through various negative threats. It is a form of power that, which gives the enforcer the ability to make decisions that encroach upon the autonomy, empowerment and dignity of the subject(s).
- *Power-with*: is power exerted and shared amongst people. It is power that comes from listening, group process, respect, consensus, etc. It is a type of power that is enhanced through the interactions, relationships and efforts of people working together in a democratic manner.
- *Power-within*: is power that comes through the self-development of an individual through various means: creative acts, spirituality, a connection with the natural world, etc. It is a sense of personal power that comes through mastery of the self and the individual that possesses it can be said to contribute in more positive ways to a group situation and to power-with dynamics.

(Infante, Lubeck, Mark, Russ, Sinclair, Trung Tran, 2008, p. 6).

There is an assumption in WSC work that through a group process powerful change can emerge that may not be possible on an individual level. This can be seen to relate to the systems term of emergence discussed in the previous section. Emergence is

possible through the interaction of the components or players in a system and results in a new idea, insight or process that can only arise through the interaction of the components rather than the individual pieces of the system. Emergence in social systems could also be said to be a result of the use of *co-intelligence*.

Co-intelligence is a term that was coined by Tom Atlee in 2003 in his book *The Tao of Democracy*, though he started contemplating the term many years before. It is a term that is not to be confused with collective intelligence, which although related is a separate term with separate authors and scholars. Co-intelligence is a term, like WSC, that can be very difficult to define. We will start by giving a general definition: co-intelligence is a form of intelligence that is manifested through a collective awareness and practice of wholeness, interconnectedness and co-creativity. It is a form of intelligence that, like WSC, values the unique gifts, experiences and opinions of all the members of the group in which it is generated. It is intelligence that integrates these unique facets of the individuals involved to co-intelligently come up with new and creative responses, designs, solutions and initiatives. It is not a collection of individual intelligences; it is a capacity for possibilities that is bigger than the sum of the parts.

I explore co-intelligence a little more deeply here as it is a philosophy that has always resonated with me and has influenced my work and is also directly related to and inherent within WSC practices. You can find an interview with Tom Atlee in the interview section towards the end as well as Peggy Holman who is an expert in WSC

methods. Atlee names ten qualities of co-intelligence. Co-intelligence is multidimensional, inclusive, wise, responsive, grounded in interconnectedness, synergistic, collaborative, self-aware, holistic and systemic. Furthermore there are six basic manifestations of co-intelligence:

- *Multi-modal intelligence:* refers to the multitude of different styles of learning and engagement with the world one can have. Through the body, the mind, the spirit, emotionally, physically, spiritually, etc. Our intelligences are numerous and varied, these unique styles when brought together amongst people can create a new synergistic intelligence.
- *Collaborative intelligence:* refers to the power of cooperating and aligning with other intelligences; adversaries, natural forces or processes, any type of intelligence we can ally with outside of ourselves so that we can accomplish more with less and with greater insight.
- *Collective intelligence:* the intelligence of the whole, of a collective: family, organization, community, etc, the emergent intelligence that is only to be found in the whole rather than the individual pieces.
- *Wisdom:* integral intelligence that enables the ability to see the big picture. Seeing beyond appearances, tolerating change and ambiguity. Intelligence that comes out of and creates life affirming interconnections, insights and relationships.
- *Resonant Intelligence:* is systemic intelligence that evokes and encourages a deeper intelligence in those around it as well as growing in response to other intelligences.

- *Universal Intelligence:* self organizing intelligence, an intelligence that does not exist within a single entity but rather is pervasive throughout life. It is an intelligence present within the essence of life, of complexity.

I discuss co-intelligence here because I feel that an understanding of and an embracing of co-intelligence amongst ourselves, our families, our communities, etc. is a big part of shifting the story field away from those dominant narratives of individualism, isolationism, materialism and towards beautiful new narratives of sharing, deep meaningful relationship and the capacity to work together fruitfully in creating a new sustainable future. Atlee's co-intelligence philosophy is summed up here: "Together we create our communities, our societies, and our world. We are always doing this, together. We can do it more consciously, intentionally and responsibly" (Atlee, 2003, p. 52).

I feel that if people could truly begin to understand that individually we are all as powerful as we let ourselves be, and that together, working co-intelligently we are nearly invincible; if people could really get this then we could begin deconstructing those dysfunctional narratives. Those stories that tell us that we are only powerful within certain rules or frameworks. Those stories that tell us that we cannot imagine and create the world we want if it does not match the dominant paradigm. Co-intelligent WSC tools can enable us to internalize and share these realizations. According to The Change Handbook, there are "seven shared characteristics:

- Contributing to a meaningful purpose compels people into action.

- The power of individual contribution is unleashed.
- The whole person, head, heart and spirit, is engaged.
- Knowledge and wisdom exist in the people in the organization or community.
- Information is co-created by members of the organization or community.
- The method creates a whole system view among members of the organization or community.
- Change is a process, not an event.

These elements from a pattern, linking the individual with the collective, and the inner being with the outer "doing" or work, integrated through communication that connects, and bounded by two key assumptions: a commitment to a systems view and change as an ongoing process" (Cady, Devane, Holman, 2007, p.13).

There are dozens of WSC methodologies and tools and as I do not have the space to write about all of them here I will only share one with you that I have found to be particularly useful in community organizing and encourage you to look once again in the resource section to further your study of WSC tools. Remember there is a WSC tool out there that can fit your particular situation or needs, you just have to do a little digging. Most WSC tools are relatively easy to use on various community levels especially with skilled facilitators and some can be used in groups as small as one on one. If you think a WSC method/tool might be useful in your community energy descent strategies I am sure you can find one that is applicable to your unique setting. The one I would like to share is called 'Open Space'. Open space is a social

technology that although seemingly simple can be surprisingly effective and yield exciting results.

~Open Space in a Nutshell~

Open space, sometimes referred to as open space technology, is one method to bring together a group of diverse people from all types of backgrounds and experience together around a central theme or question of shared strategic importance or complexity. The group can range from 10 to a 1000 people, although there really is no prescribed minimum or maximum it does tend to work best in groups with more than 20 people. There is one facilitator who opens and closes the open space meeting which can last from a few hours to a few days. The facilitator has no other role or control in the meeting other than to explain the method and how the process works. At the heart of open space is the systems concept of self-organization and emergence; open space allows a complex group of people to self organize and come up with insight into complex questions, issues or themes. The insights, discussions, answers, etc. are the result of emergence, of the interaction of the whole system of people in the room, the same results could not be created by individuals within the group.

So this is how it works. A group of people gathers in a room or space around a central theme or question such as 'what does leadership look like in a world of energy descent?'. The group sits in a large circle or concentric circles if the space is limited. The facilitator opens the space by introducing the theme or question and then proceeds to explain the process and how it works. Anyone who has a topic, question

or discussion related to the larger overall theme or question is welcomed to convene what is called a 'session'. In the center of the circle are various colored markers and white sheets of paper. Any individuals that want to lead a session, come into the middle of the circle and takes a sheet of paper and a marker and write down their related topic, question or discussion on the paper and then forms a line with the others in the center. The facilitator then hands the microphone to each individual, one by one, in the line and has them announce their session and a quick sentence or two about it. After their announcement, each session leader goes to the wall with their piece of paper. On the wall there will be a table of times and locations for sessions. The individual finds a spot in which to put their session and sticks their piece of paper there. This way the sessions can be divided into more manageable (size and time wise) chunks for participants. After all the session are announced and posted then everyone is free to wander up to the wall and pick and choose which sessions they would like to attend. In a typical day of open space (10am to 6pm) there might be six hour and a half sessions though it does not have to be structured this way.

At the core of open space are the following principles:

- Whoever comes are the right people: it is not someone's position that matters it is their passion for the topic or question. This levels the playing field and also reminds session leaders that it does not matter how many or how few people choose to come to your session, if it ends up being just you then that you are the right people!

- Whatever happens is the only thing that could have: this reminds participants to not have expectations and thus no disappointments. Open space is all about the learning that takes place in the moments of surprise or emergence. It is not about what should, could or might have been.
- Whenever it starts is the right time: this reminds participants that linear time is a human made construct and does not always apply to creative processes such as open space. Be less constrictive with time during the process.
- When its over, its over: if it only takes ten minutes to successfully complete a session, move to another one! If on the other hand it takes longer and you are deeply engaged then stay longer.

There is only one law of open space, the law of two feet. This law says to take responsibility for what you love and are passionate about. If you are not gaining something from a session or do not find yourself contributing feel free to get up in the middle, end or beginning of that session and follow your feet to another one! There are also the butterflies who move from session/group to session/group. This is perfectly acceptable in open space and not to be looked down upon. Below is an image of the basic open space process.

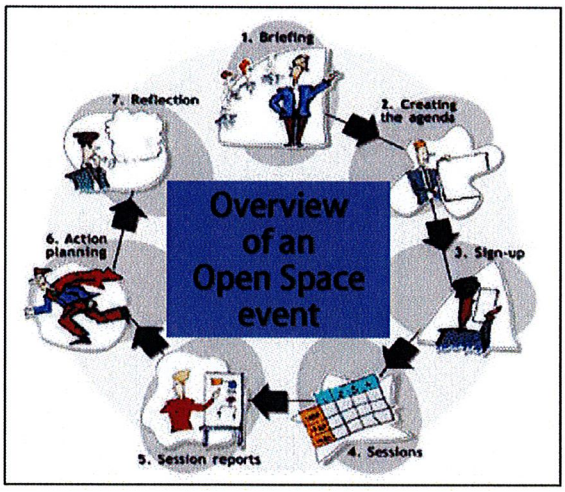


Image: http://www.jackmartinleith.com/images/os-graphic.png

In the resource section you will find more on WSC processes. There are dozens or hundreds of WSC processes and projects to look into and different types will be applicable to differing social or organizational situations. A few of the more common ones are *Future Search* or *World Café.* Future search is a planning meeting appropriate for sixty to eighty people in one room or on a larger scale, hundreds of people in various rooms. Future search can be used to bring together people from various arenas and backgrounds into one room: those with expertise, those with needs, those with formal authority and community members with interest. The meeting lasts for sixteen hours and is spread across a period of three days. The process includes people sharing stories about their past, present and about the future they desire. Then through a deliberative process of dialogue they discover their common ground and only then do they come to concrete plans for action. There is a more specific methodology but I wanted to leave you with a basic taste to see if it may be applicable to your situation so you can research it further if desired. Below is an image of some of the core concepts of future search.

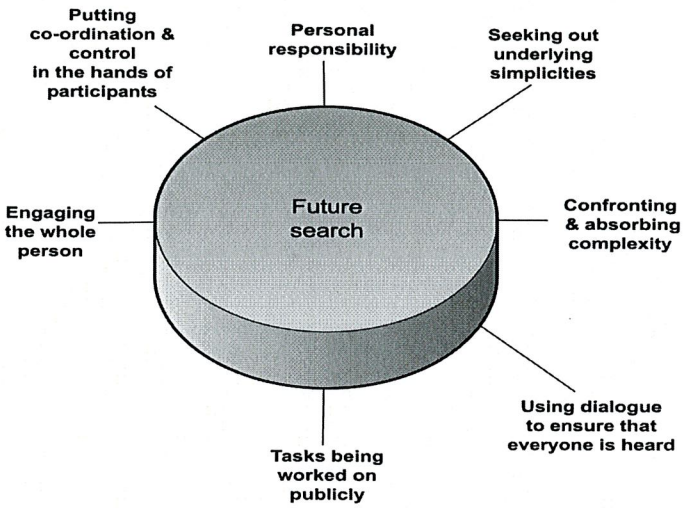
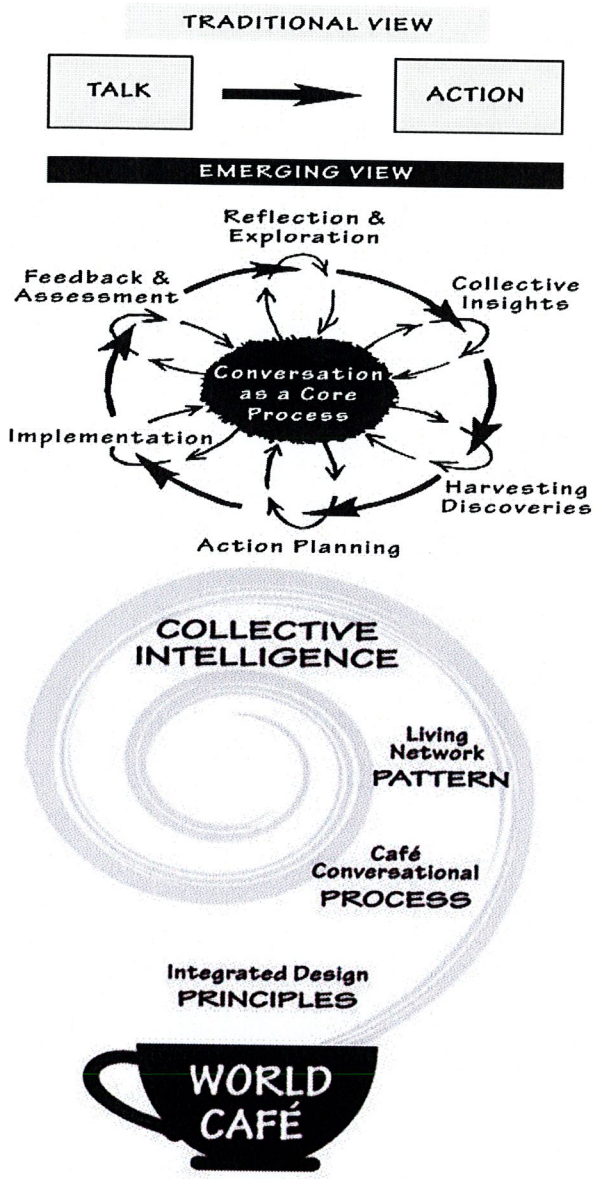


Image: http://www.emeraldinsight.com/fig/0730140403002.png

World Café uses the principles of collective intelligence to bring people together to host conversations about questions that matter. During the process the conversations people have link and build upon one another as people cross-pollinate their ideas. On the world café website they describe the process as a "*conversational process* based on a set of *integrated design principles* that reveal a deeper *living network pattern* through which we co-evolve our collective future. As a living network pattern, the World Café refers to a living network of conversations that is continually co-evolving as we explore questions that matter with our family, friends, colleagues, and community. The metaphor of the "World as Café" helps us notice these invisible webs of dialogue and personal relationships that enable us to learn, create shared purpose, and shape life-affirming futures together" (retrieved from: http://www.theworldcafe.com/what.htm). Below are a couple of visuals that will help you get a better idea of the process and whether you would like to explore it further.



Images both from: http://www.theworldcafe.com/bank_book.htm

PART FOUR:
WHOLISTIC AND RESILIENT SYSTEMS CHANGE:
ASPECTS OF FACILITATING TRANSFORMATIVE CHANGE

Chapter Six:

The Psychological Aspect

Humanity is in a time of great transition, a time when the collective consciousness senses that there is a great shift coming or as David Korten calls it 'the great turning'. As a result of the massive changes underway many people feel a considerable amount of anxiety, depression, fear or other uncomfortable or negative emotions. It seems that there are several evolving responses to the challenges we are facing. There are those who have not yet fully realized and internalized the implications of peak oil, climate change and the economic and cultural situation and thus have not 'named' it for themselves; they have not been able to break through to a conscious understanding of the connection between their anxieties and emotions and the current state of things. Then there are the cultural creatives, activists and concerned citizens, many of whom have internalized the present and future realities and attendant implications awaiting us; their eyes are open and a lot of them are ready to create change on personal, community and societal levels because they realize that our very future wellbeing and survival is at stake.

There are various stages of realization and internalization of the challenges according to addiction and change psychology. In these times of great transition there are going to be a lot of stressful struggles and changes on both the internal and external level. Stretching our vision of what is possible in the future as well as stretching our understanding and knowledge of the huge challenges in front of us can be psychologically disruptive and disturbing and can cause great discomfort and anxiety.

The psychology of change addresses the psychological changes and adjustments individuals and communities will be experiencing; how we experience, react and adjust to change on both individual and group or societal levels. It is one lens through which to examine possible healthful responses to keeping our psyche in good shape and for preparing to be internally resilient when facing these coming changes. There is going to be a necessity to adjust our mental models and to take care of our psyches on the individual level as well as with support in community.

People may also experience withdrawal symptoms as we have to wean ourselves off of cheap energy, oil and our unconscious addiction to certain dysfunctional mental models and cultural narratives. This is why an understanding of the psychology of addiction can also be helpful. Rob Hopkins, in his dissertation titled: *Energy Descent Pathways: Evaluating Potential Responses to Peak Oil*, discusses using the FRAMES approach that is used in addictions counseling as a method for helping people to deal with their psychological and emotional responses to a life in energy descent transition. Frames stands for feedback, responsibility, advice, menu of options, empathy and self-efficacy.

Feedback refers to the counselor, or in this case the organizer, activist or friend, offering a clear and honest assessment of the challenges as well as laying out the possible consequences. In relation to peak oil and climate change this refers to education and awareness raising around the issues. Some ways to begin this process is to share a film or a book and then discuss it with that individual.

The next aspect of FRAMES, *responsibility*, means helping the individual gain a clear understanding and acceptance that the challenges of peak oil and climate change are the result of many individual actions and choices. There needs to be an understanding created that breaking their addiction is going to require a great deal of personal responsibility.

The next stage is to offer clear *advice*, but as a recommendation rather than a prescription. This means helping the individual understand what they can do to address the situations of peak oil and climate change. What changes can they make in their own lives? Offering resources, links to community groups and relocalization projects are all helpful at this stage.

Following this stage it is helpful to offer a *menu of change options* to the individual. This could include visioning processes that help the individual envision individually or in community new pathways into energy descent. Help the individual to find ways to address the challenges that are effective and comfortable for them and fit well with their own unique personality, skills, etc.

The next step is *empathy*; engage openly with the individual listening to what they have to say and learning from them as well. Help that person to look for positive sides and ways of looking at and relating to the challenges. Help to instill a sense of optimism and hope so the individual is encouraged to continue dealing with the

challenges fully. Remember to keep joy and happiness in your approach to helping someone into energy descent.

The last step of *self-efficacy* is a lot like the step above, it is about promoting optimism. In relation to peak oil and climate change help the individual to understand that this is a time of great opportunity and a chance for them to help create a better world for themselves and others. Help to promote a sense of empowerment.

Going further into the psychological dimension of peak oil and climate change we can look at the stages that individuals go through as they truly internalize the reality of the challenges. Some of these stages are similar to those an addict might go through or someone who has dealt with a severely psychologically stressful incident. In some of the community organizing work I do we call one of the possible psychological conditions or reaction 'post-petroleum stress disorder' (PPSD). It is meant to be funny and get a laugh when introducing people to the issues of peak oil and climate change. However it is actually a serious matter as well and could make for a real disorder. There are stages before PPSD sets in:

- individual becomes aware of the existence of climate change and peak oil
- after a certain level of factual education is established about these topics in the individual's consciousness a certain level of 'oh shit this is really happening' sets in and the realization becomes embedded
- this often leads to a questioning of deeply held and entrenched worldviews and mental models

- as previous conceptions of reality and of the future break down the individual often experiences a range of discomforting emotional states: fear, anxiety, disassociation, anger, denial, helplessness

Sarah Ann Edwards and Linda Buzzell call this 'the waking up syndrome' in their article titled the same (*The Waking Up Syndrome)*. They discuss how the threat of losing the comfortable way of life that many of us are used to is uncomfortable in itself but then as the borders of our familiar reality begin to become undone there are definite patterns of psychological reaction recognizably taking place. Stage 1 is predictably, *Denial*. In this stage the authors say that there are four common ways to engage in denial

- I don't believe it; refusing to accept that it is happening, latching onto remaining naysayers.
- It's not a problem; incorporate the problem into an existing belief structure such as religion as the solution but not really dealing with the reality of the problem.
- Someone will fix it; there is nothing we can do personally or individually and the government, science or technology will take care of the problem(s).
- It's useless; what will be will be, eat, drink and be merry.

I am sure we can all think of examples of people we know, institutions, businesses, etc. that would fit into one or more of the above categories. Indeed much of the world is still in denial. This is especially true when one considers the fact that much

of the problems taking place are the result of the Western world's affluence, materialism and overconsumption that has cost the rest of the not so affluent human world as well as the natural world dearly. Much of the world is just coming into affluence and wants what we have had for so long. Trying to educate and engage the whole of the human world in the matters of creating new narratives, dealing with climate change, peak oil and economic realities may indeed be the hardest thing humanity has ever had to pull together to accomplish. There actually are cultural narratives and story fields already in place, some that have been in place for thousands of years that we may want to defer to and learn from. It seems that changing cultural narratives is largely a matter of responsibility for the Western and industrialized world as well as for those in positions of power and wealth.

Now to get back to the waking up syndrome…The next stage, stage two is *Semi-Consciousness* where a bit of eco-anxiety and a subtle grasp of the reality of the challenges begins to settle in and may cause misdirected anger or anxiety in our personal or professional lives. Stage three is the moment of *Realization* where an event, a piece of information or something else finally breaks through into our consciousness and takes a permanent seat there. Stage four is the *Point Of No Return,* in which we find that there is no possible turning back from the realizations that we have internalized.

During this last stage above one can experience a great sense of surrealism as they ease into living in this new world yet find that most of the rest of the world has not

yet woken up to the challenges or the true reality of what is really going on. I find that I experience a sense of feral disconnection; a mental space in which I wonder if it is all really, really true, am I overreacting? All this while simultaneously knowing in my heart of hearts that it is true and real. I also have noticed that people vacillate, (myself included), between the various stages of the waking up syndrome as well as between various reactions. In fact I have been aware on some level or another of the challenges since I was a kid but still find myself experiencing a sense of disconnection from the majority of humanity's sense of reality. This can be really overwhelming sometimes without the support of a community of friends and/or family.

Stage five is *Despair, Guilt, Hopelessness and Powerlessness*. We begin to grieve for our current lifestyles and comforts; driving a car to the store to buy a piece of fruit from across the world, having as many appliances on at once as we would like, and all the other conveniences. We begin to despair when we realize that the challenges facing us are not of the scale that any one of us or even a community of us can resolve or fix. There is no one solution, the challenges we face require whole systems change; deep systemic paradigm shifting on multiples levels and across multiple scales. When this realization settles in we may begin to feel hopeless or powerless as we realize that the challenges facing us are more like a form of a terminal disease, they are not going away, rather they will be ongoing and may even be terminal, possibly resulting in the collapse of industrial civilization.

Stage six is *Acceptance, Empowerment and Action.* In this stage we come to accept our powerlessness to save the world but at the same time we find the power that we do have to affect change in our own lives and in our communities. We are able to fully accept the reality of what is happening and what is ahead and begin to rethink our place in the world. We may feel extra creative or inspired and often begin to focus on what our heart is called to as all the artifice and unimportant aspects of what we thought we knew fall away.

Another field of psychology that is useful to us in examining the psychological aspect of peak oil, climate change and dysfunctional stories is that of ecopsychology. This is a field that strives to understand how our relationship to and with the natural world affects our psychology. Ecopsychologists often see the state of the natural world and the landscape as a mirror that can reflect the state of our psyches. Another result of industrial civilization and mechanistic thinking has not only been the separation of our human bodies from the natural world also from our minds as well. In understanding our psychological reactions to the current challenges, ecopsychologists might see our mind/body/nature split as a form of schizophrenia or disturbed dissociative states.

> The major contribution ecopsychology promises to make…is the identification of the irrational focrces that tie people to their bad environmental habits. For example, some ecopsychologists believe that our consumption habits are connected to deep addictive attractions. Little wonder. The advertising industry is a contingent of talendted "pushers" working to make us compulsive consumers. That

> is psychology working against environmental sanity. Ecopsychology seeks to redress that balance. It wants to know how to free people from the addictions of the shopping mall and to encourage values that serve the life of the planet rather than imperiling it. At its most ambitious, ecopsychology seeks to redefine sanity within and environmental context. It contends that seeking to heal the soul without reference to the ecological system of which we are an integral part is a form of self-destructive blindness (Rozak, 1994, p. xvi).

At the root of the three big challenges laid out in this paper is the dysfunctional human-nature relationship and the story fields this creates. Ecopsychology can help us to ask the questions about what unhealthy beliefs, attitudes and perceptions have led us to this point of destruction and imbalance. Most importantly the questions that need to be asked have to do with how we change and heal this imbalance. First though ecopsychology can help us to see deeply into the psyche of the industrial human and help us figure out how we got here so that we might change our direction. I believe that one of the biggest contributions ecopsychology can make is in helping us to really question and see through the dominant cultural narratives and stories that have gotten us into this mess. With this knowledge we are much better equipped to bravely shift the story field towards community energy descent. With an in depth understanding of the psychological and philosophical dimensions behind these stories and the naming of the stories themselves, we can embrace energy descent with much more positive awareness and confidence.

I challenge you the reader to use the following table as a tool for community energy descent. Read it and discuss it with friends, neighbors, family and community members. Furthermore before you even share it with someone challenge them to create their own table. Explain what story fields are and dysfunctional cultural narratives and see which ones you can and your exercise partner can come up with. Then you can compare it to the table below. These conversations, the ones you have with people in your community and people you care about are a big part of shifting story field shifting and creating openings into energy descent pathways. Start asking yourself and others hard questions. Ask yourself what power structures, media forms or other factors help to keep these stories in place, how? How are these stories sold to you, how are you made to believe that different stories are not possible? What is the *his*-tory of these stories?

In the following table we can see some of the unhealthy beliefs, practices and perceptions of the industrial age that Ralph Metzner, a psychotherapist and ecopsychologist lays out in his book: Green Psychology: Transforming Our Relationship to the Earth. On the right hand we see the beliefs, practices and perceptions that might replace them in the unfolding 'ecological age', (which I see as energy descent).

Industrial Age	**Ecological Age (Energy Descent)**
Universe as Machine	Universe as Process or Story
Earth as Inert Matter	Gaia: Earth as Super-

	Organism
Life as Random Chemistry	Life as Autopoiesis
Linear Causality	Chaos: Nonlinear Dynamics
Atomism	Holism and Systems Theory
Logical Positivism	Critical Realism
Conquest of Nature	Living as Part of Nature
Dominion, Control	Co-Evolution, Symbiosis
Anthropocentric	Eco or Bio-centric
Nature Has Instrumental Value	Nature Has Intrinsic Value
Heroic Individualism	Ecological Consciousness
Owning Real Estate	Reinhabiting the Bioregion
Competing for Territory	Dwelling in Place
Sexism, Patriarchy	Ecofeminism, Partnership
Racism, Ethnocentrism	Multiculturalism, Diversity
Hierarchies of Class and Caste	Social Ecology, Environmental and Social Justice
Nature as Demonic (red in tooth and claw)	Nature as Sacred
Creation as Fallen, Corrupt	Creation Spirituality
Transcendent Divinty	Immanent Divinity
Multinational Corporations	Community-Based Economies
Centralized National Authority	Decentralized Bioregions
Cultural Homogeneity	Pluralistic Societies
Militarism	Commitment to Non-Violence

Assume Scarcity	Assume Interdependence
Limitless Economic Growth	Limits to Growth
No Ecological Accounting	Economics Based On Ecology
Addiction to Fossil Fuels	Reliance on Renewable, Sustainable, Local Energy Sources
Profit-Driven Technologies	Appropriate Technologies
Monoculture	Permaculture
Agribusiness, Factory Farms	Community and Family Farms

Chapter Seven:

The Spiritual Aspect

Swirling universal super glue gravity

of a trillionth second of infinite love

reside there

and know

forever

and beyond

the essence of star monkeys

jumping orbits and dimensional hyper space pods

alien verve millieu of akashic consciousness

access what you have

DNA of supernova soaked genius

bursting forth in space of a million resounding voices of angelic operatic wonder

we must

we must

we must

increase our

trust

carrying peace in our hands

we heal the world

as dreamers, lovers, brothers, sisters, amazing moon gods and goddesses

uniting at the quantum field zero point

of all knowing mindful kindness

love this space

it is in you

and me

it is all around us

Wake up!

~Zeratha Monique Young~

So far in addressing the challenging trifecta of peak oil, dysfunctional cultural narratives and climate change we have looked at three systems based approaches for addressing these; systems thinking, whole systems design and whole systems change. We have also looked briefly at some of the psychological aspects of this time of great transition. Some of the lenses through which to look at our relationship to these

challenges that we have not yet looked through are those of creativity and spirituality. We will look at these in the following sections.

One thing I must make clear again is that the 'whole systems' aspect I see as inseparable from the creative and spiritual aspects of energy descent. All of these things go hand in hand or like peas in a pod; they belong together. For this reason it was hard to separate the sections on the creative and spiritual aspects of energy descent. So I have chosen in the creativity section to mainly focus on a brief overview of the new fields of art, rather than creativity itself which I will look at in this section. If you are interested further in environmental art I encourage you to look for the interviews with two environmental artists in the interview section (Betsy Damon and Ryan Burns). Finally in the creativity section I want will share with you a vision for a future ecological art project that I see as part of a creative community strategy for energy descent.

Sometimes the most profound insights, those wonderful moments of epiphany when we feel the web of life caressing our intuitive sensibilities, are made up of surprisingly simple conclusions. One such insight for me was the following: at the heart of all life, all chaos, all self-organization and all evolution is the principle of creativity. That is to say creativity in its rawest, purest sacred form is what makes all life possible; it is what drives social, natural and other systems. This is what I call 'the sacred self organizing principle of creativity'. Creativity is what causes a virus to mutate, a community to self organize and a cluster of cells to form an embryo and

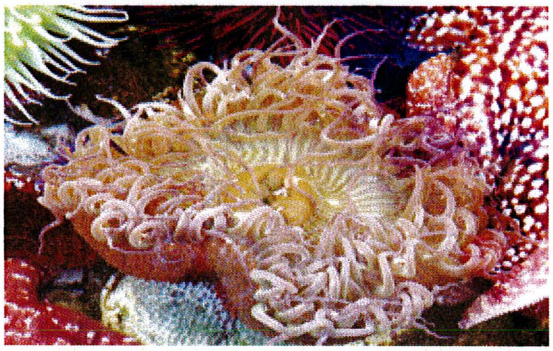
eventually a child. It is also at the heart of the ability of a system to create and maintain 'resilience'.

Creativity is a natural instinct, although not one only seen in humans. All life is creative, from long ago when bacteria became creative in their search to evolve higher forms of biological life, which eventually became the multitude of living forms we can find today. In human beings the difference in relationship with creativity is our conscious, cognitive, intellectual access to the creative process. All of life interacts with the creative process on an evolutionary, presumably unconscious level. The difference with humans is that we can choose to utilize the creative process in a very conscious way whether for life-affirming purposes or destructive ones.

I believe part of the harm we have done to ourselves as a society is to let go of a deeply intuitive and spiritual relationship with the sacred creative; a relationship that is in tune with the systemic nature of the universe; a relationship that is deeply intuitive and in harmony with living systems. For some time now we have been fooling ourselves into thinking that the linear, scientific, rational, Cartesian view and approach based on eternal progress and growth will lead to the Shangri-la pinnacle of human development while putting aside or even denying the importance of creativity and natural cycles, textures and subtleties. Below in the images are some of the things in the natural world and the social world that I draw spiritual and creative inspiration from. For me, spirituality is to be found in a deep and intimate connection

and relationship to the natural world. It is also to be found in the relationships I have with friends, family and community members. Remembering that we are an integral part of a complex web of life and relationships helps to sustain us and give life meaning.

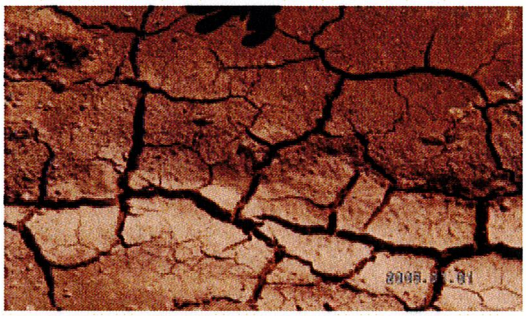
ECOSYSTEMS INSPIRATION: SYSTEMS SCIENCE, THINKING AND DESIGN



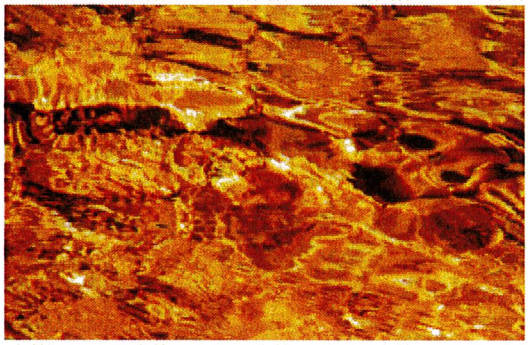
THE ELEMENTS: WHOLE SYSTEMS INSPIRATION

Relationships, FIRE

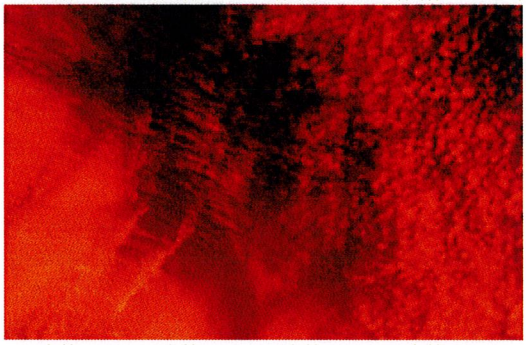
Emergence, EARTH



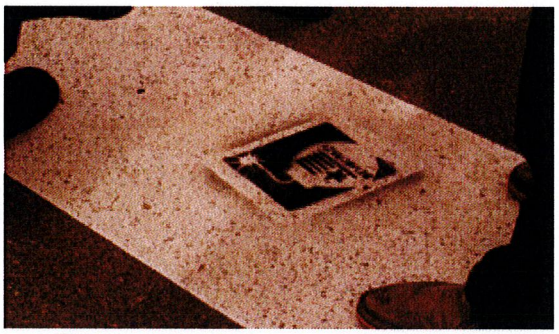
Textures, WATER

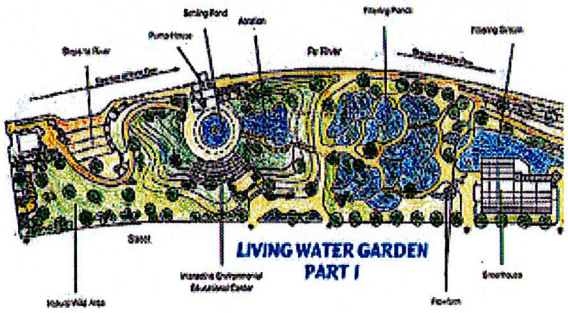


Patterns, AIR



Community/Social Inspiration:





What do these images evoke for you? In this time of great transition and challenge successful energy descent is going to require that we all stay true to our hearts and our spirits and find our passion and creativity. These are the things that will sustain, inspire and motivate us to bravely make the needed changes. In the change maker interviews that I conducted (look for the section titled the same) the most prevalent theme I found in response to my question set was that energy descent is going to require that we all stay true to, and follow our hearts.

It was also commonly mentioned that there is going to be a great need for us to get in touch with our creative selves and to deal with these challenges creatively. Creativity is a term that often conjures up images of an artist sitting in a studio or a musician crafting their next song. However, there are many types of creative intelligences to be found outside of art or music or that which is typically quantified as 'creative'. Creativity when looked for, can be found flowing throughout daily life, throughout multitudes of professions, through the actions of community organizers, mothers, lovers…It is a process, an inquiry, a way of being that is available to everyone.

I believe that we are seeing a shift in the collective consciousness back to an honoring and utilizing of the power to be found in a sacred creative connection. We are also coming into a realization of the power of cultural stories, the stories we tell ourselves that shape our worldview on collective and individual levels. We need to start creating new stories and narratives of resilience, to tell each other stories of a new sustainable and abundant future. To do this requires creativity and a realization of our own role in the unfolding deep time story of the universe. We are reality looking upon itself.

Evolutionary Activism is a term that I learned not too long ago from Tom Atlee and I really resonate with it. In fact it seems to be a good summation of the worldview I have intuitively come from for as long as I can remember, I just never had a term for it. Evolutionary activism means being consciously aware of the fact that we are all active, intelligent, conscious participants in the process of evolution. We are all

participating in systems that are in turn interacting with each other. Evolutionary activism is, depending on how you look at it, a form of spirituality, a form of activism, a form of systems thinking or all those things combined. I look at the formula like this: evolutionary activism=the sacred self organizing principle of creativity+evolutionary dynamics+systems thinking=social change. It is a type of emergence and feedback loop creating a reflexive process of spiritual action that leads to change. Participating in evolutionary activism is story field shifting work, it is activating and honoring the sacred self organizing principle of creativity which is at the heart of all evolution and change. It is awakening the sacred creative intelligence within ourselves that resonates with that of Gaia and living systems.

The essence of spiritual activism seems to be very compatible with indigenous forms of spirituality. Peak oil and climate change may also be unveiling opportunities for us to deeply and spiritually reconnect with our landbase as the world shrinks and we become more in touch with our bioregion. Perhaps we can repossess our indigenous self.

> Indigenous people 'respect' the earth not because they are 'supposed to' or because their ceremony or elders dicate such reverence but because they are in love with it…" according to Richard Tarnas. He goes on to say "the culture of civilization has caused us to exchange our enchantment with the universe for autonomy. 'The high cost,' Tarnas states, "has been a gradual voiding of all intelligence, all soul, all spirit, all meaning, all purpose from the entire world—now exclusively relocated in the human self,…In order to fall in love with the earth once again and be enchanted by it, the paradigm which

> civilization has inculcated must be transformed through reclaiming the indigenous self" (Baker, 2009, p. xxx).

The study of spirituality, religion and ecology and the interconnection of these three is called spiritual ecology and is a relatively young field of study and inquiry. Spiritual ecology studies how the natural world affects our spiritual or religious views and practices and our relationship to spirituality and religion. Conversely it studies how religion and spirituality affects our relationship to the natural world. I believe it is highly important to consider the spiritual and/or religious wisdom to be offered in this time of great transition and energy descent. This knowledge can also help us understand cultural narratives and the stories that brought us to the present.

It is also important and necessary to strengthen relationships and mutual understanding and compassion between different religious and spiritual communities and leaders and indeed agnostics and atheists. We are all in this time of great transition together whether we like it or not. Why not learn from each other?

Some of the wisdom I see Buddhism, to take one example, as offering those moving towards energy descent could consist of the following:

- Buddha taught that change is never-ending and permeates all of life. Deeply embracing and accepting this can help us feel stronger and prepare for the changes of energy descent.

- Buddhism also puts a strong emphasis on non-attachment to physical and material objects. This could be seen as guiding wisdom to reduce our consumption and materialistic habits.
- Compassion for all living beings is also a core precept of Buddhism. This can extend our compassion beyond the human realm and into that of the general natural world.

In Hinduism, Taoism, Aboriginal spirituality and other religions and spiritual modalities the living world is often seen as imbued with spiritual energy and thus is honored and sometimes venerated. There is often a deep sense of the interconnection and interdependence of humans and the natural world of which we are a part. For example in the Aboriginal spiritual mythology of the dreamtime, the rivers, rocks and components of the landscape are all seen as being the homes of the spirits of the dreamtime, those who created the world. Spirit is seen to be in the world and of it, and the stories of the individual components of the landscape or homes of the spirits serve as the means with which to navigate the landscape and the world. The stories are actual maps that locate and give geographical direction through their telling.

It seems that the wisdom within spiritual and religious belief systems could serve as an inspiration and source of inner strength in these times of uncertainty and change. I would encourage everyone, even those who consider themselves agnostic or atheist to explore more of what these beliefs mean to them and what promise they hold in a time of energy descent. Have conversations that matter with your deep inner self and

with those in your life and community. Explore the spiritual dimension of the possible, and perhaps necessary, collapse of modern western industrial civilization.

Chapter Seven
The Creative Aspect

"Art is a framing device for visual and/or social experience and artists can be good at slipping between the institutional walls to expose the layers of emotional and aesthetic resonance in our relationships to the world" (Lippard, 2008, p. 14).

One of the important means with which to shift the story field and educate people on social and environmental issues is through the arts. Art and artists are often not considered when a strategy for addressing social or environmental issues is being planned; yet art can be a powerful and flexible medium for education, inspiration, community collaboration, systems intervention and even ecological restoration. I like to see artists as storytellers and story-field shifters, individuals or groups who work to infiltrate our consciousness and our mental models with creative and inspirational new ways to see and address challenges such as peak oil and climate change.

Joseph Beuys once famously wrote on one of his installation pieces 'creativity=capital'. This is a wonderful statement that captures the importance of art as a valuable resource. Beuys also says

> Only on condition of a radical widening of definitions will it be possible for art and activities related to art [to] provide evidence that art is now the only evolutionary-revolutionary power. Only art is capable of dismantling the repressive effects of a senile social system that continues to totter along the

> deathline: to dismantle in order to build 'A SOCIAL ORGANISM AS A WORK OF ART'... EVERY HUMAN BEING IS AN ARTIST who – from his state of freedom – the position of freedom that he experiences at first-hand – learns to determine the other positions of the TOTAL ART WORK OF THE FUTURE SOCIAL ORDER. (Beuys statement dated 1973, first published in English in Caroline Tisdall: Art into Society, Society into Art (ICA, London, 1974), p.48. Capitals in original (retrieved from: http://en.wikipedia.org/wiki/Joseph_Beuys#cite_note-14).

This statement was written or quoted in 1974 and while I do not completely agree with the first line 'art is the *only* evolutionary-revolutionary power' or 'only art is capable of dismantling' I do feel that art can most certainly be one of the strongest evolutionary-revolutionary powers to deconstruct dysfunctional cultural narratives. Art is one of the only direct ways to arrest what I like to call peoples' 'daily mind,' the almost automatic zombie like, media-subjugated, linear-time-slave consciousness that we often go through our daily lives not even realizing we are in possession or operation of. In the current age of energy descent creative community collaboration that utilizes the reflexive nature of art on our consciousness can help to penetrate our mental models and everyday acceptances of reality and get us to question and shift story fields.

Social/environmental art can also help to break through our apathy surrounding issues of climate change, peak oil and other environmental and social issues because it penetrates our consciousness beyond the surface level. This is especially true if it is participatory; art utilizes more of our senses and demands a more complex interaction that utilizes different parts of our consciousness that an awareness advertising campaign may not be capable of. I like to encourage people to create and undertake

small or large creative acts that I like to call the 'creative disruption of everyday life'. Such things could consist of writing down colorful pictures, questions, exclamations, facts, etc. on the sidewalk in front of your apartment. Questions such as "do you have a community you can count on?" or "got resilience?" or anything you can come up with that takes people out of their normal frame of reference and gets them thinking in new ways or about new things. Another example of a creative disruptive act is the impromptu organizing of a small neighborhood block parade organized around a theme. Ask your neighbors, old and young to participate or for their ideas.

Environmental art also helps to bring us back into relationship with the natural world. It gets us to notice patterns, textures and subtleties. By doing this it also creates an increased sense of connection to and empathy and compassion for what happens to the natural world. Lucy Lippard talks about the systems approach of environmental art:

> Inherent in the perceptual shift required to engage this planetwork is what has been described as an aesthetics of participation. In this context, 'participatory aesthetics' describes an art that is no longer a space for the personal subjective realm, but an art that seeks to re-integrate the human being into the larger ecological system within which he/she is embedded. It requires the surrender of an exclusively human-centric worldview in order to fully engage its meaning. This is an art and art practice that seeks to find a new relevance for itself in the face of enormous global challenges. It is an art that responds to the new understanding in science, philosophy and psychology that form the basis for an emerging 'new paradigm'. The artist as active change agent directly confronts the whole systems challenge we face as an earth community. Employing systems theory strategies, the artist creates an interactive 'space' in which the role of 'viewer' as passive consumer is transformed into that of active participant in an ongoing interdependent relationship with the earth's fragile

> ecosystems. The work inspires new understanding of the crucial role the artist plays in the creation of a sustainable future. It is a clarion call we must urgently heed (Spaid, 2002, p. 151).

Although environmental art can and often is done by an individual artist it is also one of the fields of art that is most often collaborative and participatory. For example an environmental art project may include the involvement of ecologists, biologists, community members, architects, engineers, urban planners and more. This is also where such a project can have a whole systems change effect, when the participation and collaboration of multiple stakeholders, community members of all races, ages, etc as well as experts in their individual fields come together to make such a project with a shared vision successful. The direct reflexive experience of participating in such a project often has a much more long-term transformative effect than an individual artist's vision or piece. Often the long term buy-in and on-going involvement of the community members and stakeholders is key to an environmental art project's success as these are the individuals who will help to maintain such a project's sustainability and ensure its continuance.

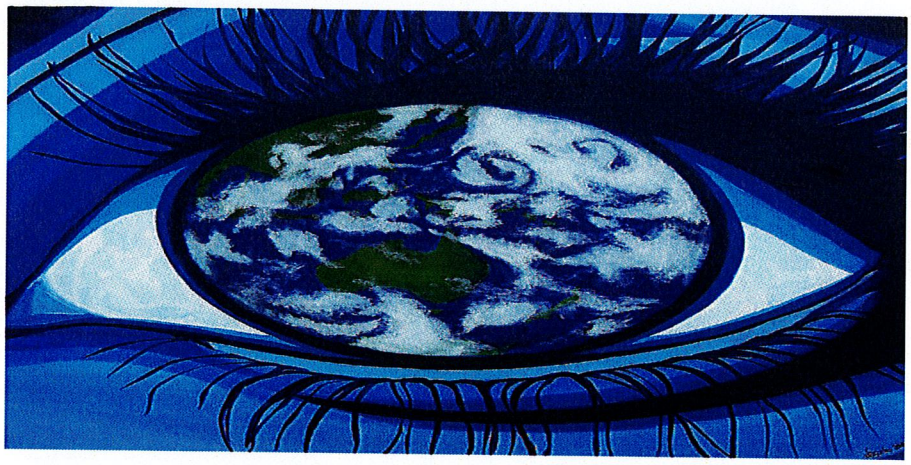


Image: (http://images-1.redbubble.com/img/art/size:small/view:main/684177-3-the-eye-of-gaia.jpg).

It may help here to have a definition of some of the various terms in the 'new' fields or practices of art. Though environmental, ecological and land art are all interrelated fields there are some differences. Because many of these fields of art are relatively new or very new there are varying differences in the interpretation of the terminology and of what project or piece of art belongs to which field or term. In general, for the purposes of this thesis we will use the term environmental art to serve as an umbrella that can encompass the general thrust of the other related terms though it will still help to have a further working definition of them. The following picture is an example of the profusion of terms one is likely to find:

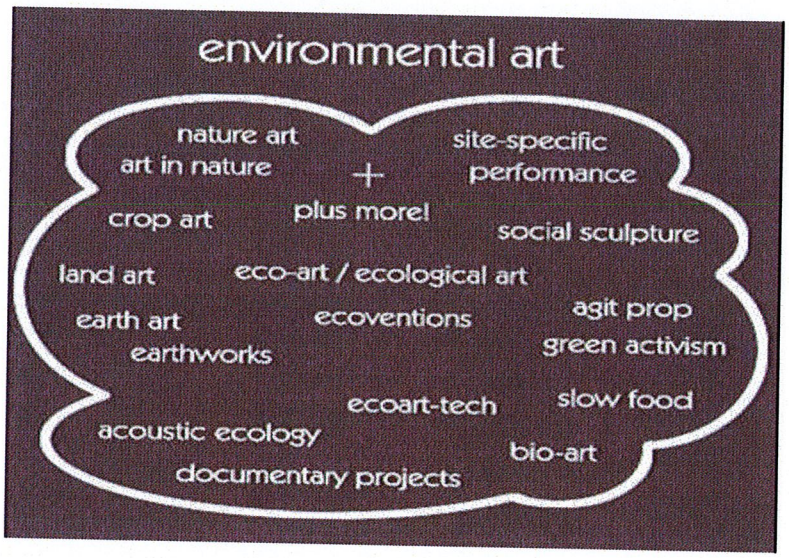


Image: (http://www.greenmuseum.org/generic_content.php?ct_id=306)

Environmental art is defined as art that does one or more of the following: helps to inform our thinking about environmental issues, serves to strengthen our relationship to the natural world, helps to restore damaged natural environments, interprets the natural world through an artistic and creative lens and/or helps to create collaboration around/participation in and solutions to environmental issues. Often various types of environmental art projects will serve to change the thinking and practices of urban planners, engineers, architects, etc. which is one of the positive outcomes and often intended purposes of such undertakings. Environmental art will serve as our umbrella term here, meaning that it can encompass in a general sense the various related fields of art.

~Nils Udo~'The Nest'~1978

Image: (http://www.treehugger.com/nils-udo1.jpg)

Land art is a general term that includes any type of environmental art that activates the land even if only temporarily. *Earthworks* are usually permanent non-natural

large-scale installations situated in wide-open spaces. An example of such an installation can be seen in Robert Smithson's work titled 'Spiral Jetty', (1970).

Image: (http://fthats.files.wordpress.com/2009/04/spiral-jetty.jpg).

Ecological art is defined as art that observes and works with ecosystems possibly mimicking them in order to bring the viewers consciousness into dialogue with the ecology/ecosystem being represented and to surface and consider issues of biodiversity, resources, sustainability, etc. An ecological artist does not always necessarily attempt to transform or intervene in the ecosystem being represented. This is done by an ecovention. *Ecoventions* are artistic inventions or interventions that help to transform, intervene in and/or remediate the ecology of the site in which they are placed.

Art As Social Practice/Action: "Art is not only a form of action, it is a form of social action. For art is a type of communication, and when it enters the environment it

produces its effects just as any other form of action does" (Bradley, Esche, 2007, p. 4). *Placemaking* is a method of creatively recreating urban spaces in order to make the spaces more livable and community oriented. The process is done with a knowledge and aesthetic of the culture and ecology of the area of placement in order to enhance the viewer/participant's relationship with the place. There is often an emphasis on restructuring shared public spaces 'the commons' away from car use and towards pedestrian and bicycle use. There is also often an attempt to emphasize the relocalisation of the area of placement. An example of this can be seen in the work of the organization City Repair, based out of Portland, Oregon. City Repair has conducted multiple artistic site installations around the city including cob community tea bench/bulletin board spaces where there are tea mugs hanging, benches and message board spaces all with the intent of creating a community commons space.

Now that you have a general overview of social/environmental art I would like to share with you my personal project. I do this with the hopes that it may inspire you to undertake your own collaborative, participatory, educational and functional community energy descent art project. There are many ways to look at and address the issues of peak oil, climate change and story field shifting as we have seen in this paper. However participatory community art projects can often serve as a catalyst to ignite larger community relocalization awareness and subsequent projects and energy descent strategies.

My Project is titled:

Art as a Transformative Bioregional Education and Community Building Process: A Participatory Community and Whole Systems Approach to Place Based Ecological Art Installations and Restorations

This project will eventually become a large scale interactive, participatory ecological art park/installation with multiple uses, functions and benefits for the community. The installation/park will be situated in a brownfield or otherwise ecologically compromised and/or degraded location. Such areas are typically located in low-income neighborhoods in need of revitalization. So the hope in locating the installation in such an area is twofold: bring revitalization and services to a disadvantaged neighborhood as well as restore and remediate the ecology of the damaged ecosystem. By using native and edible plants the project participants and those that interact with it can learn about the local plant life.

The overarching educational purpose of the installation is to teach systems thinking and bioregional education. The installation itself is supposed to serve as an artistic visual and interactive whole systems map and representation of the bioregion. This would include the social, natural, economic, other capital, resources and biocultural diversity of the bioregion.

The overarching philosophical aim of the project is to strengthen the bonds of the community with each other and with the natural world and bioregion that they are

surrounded by, including the cultural and natural history of the area. In garnering the participation of as many people as possible there are lots of opportunities for people to learn about climate change, peak oil and energy descent and consider how they can come together as a community to address the challenges, perhaps using the eco-art park as a resource and/or meeting space. Ultimately an experience or interaction with the eco-art park/installation should have a positive, educational and transformative outcome for the individual.

The project aims to be participatory by using the whole systems change methodologies of participatory action research and community asset mapping. Using these two methods I would initiate a community involvement campaign. This would involve activating neighborhood and community volunteers to talk to people and survey them about what they valued in their neighborhood and in their bioregion. For example what do they see as sources of social or economic capital? What aspects of the bioregion would they like to see represented in the installation? What would they like to learn more about? Basically the design process would be a participatory and collaborative process where the community would help design the installation and its components. Eventually the community would also have the chance to learn how to use cob and build some of the sculptural components.

The art park will actually aesthetically and physically represent not only the bioregion and its components but also systems thinking concepts and terms. For example, a feedback loop or the process of emergence, etc…There will be signage throughout

the park explaining what the various sculptural components are and what they represent. In this manner someone can walk through the park and interact with it while also simultaneously learning from it. Finally a large part of the art installation itself will also be functional and will serve as permaculture practice and demonstration gardens.

This project has a multilayered benefit of nested functions for the larger community. This consists of the following components:

*Educational

- Whole Systems Thinking/Design
- Post Peak Oil Skills
- Environmental/Ecological Art
- Bioregionalism—including native plants and animals, ecosystems, the social, natural and economic capital in the region
- Ecology and Ecological Restoration
- Social Justice and Environmental Justice
- Tools and Practices for Grassroots Community Building
- Permaculture
- Natural Building Methods and Materials (Cob)

*Ecological

- The installation itself will serve as an interactive restoration tool for the brownfield in which it is placed. Participants will help to put in native plants and species to remediate the landscape and ecosystem.
- Habitat
- Community gardens—will provide food sources for the community

*Community Connection and Creativity

- All inclusive participation that helps to create bridging and bonding social technology amongst community members, neighborhoods, organizations and the bioregion.
- A chance to be a part of a creative, inspirational process and learn about and practice environmental and ecological art.
- Neighborhood Revitalization

PART THREE
TELLING A NEW STORY: PARTICIPATION, CHANGEMAKERS AND GRASSROOTS COMMUNITY BUILDING

Chapter Eight:

Transition Towns: A Holistic Model for Grassroots Community Energy Descent

There have been many grassroots community-building models brought to life over the last fifty years. However none has caught on so rapidly and with as much excitement and enthusiasm on a global level as the Transition Town model. The TT model is a holistic model and approach for a community to address the dual challenges of peak oil and climate change. Although these two areas of concern are the primary drivers of the TT model it also addresses many other concerns such as the economic situation. I give an overview of the model here as I believe it is a highly useful model and framework from community based energy descent and want to offer it to you the reader for further consideration. It is a model that encompasses many of the aspects and strategies of energy descent I have mentioned throughout this thesis and I personally have been inspired by it.

The transition model idea was seeded by Rob Hopkins in a small town named Kinsale in Ireland in 2004 during his work with the students of the Further Education College on an energy descent action plan (or EDAP). The purpose of the energy descent action plan was to create a community based adaptation and action plan for climate change and peak oil for the town of Kinsale. From there Hopkins moved to Totnes, England and furthered the concept of the transition town model in late 2005 when he and Naresh Giangrande began to start raising awareness in the town around peak oil with talks and film series. This created a desire in the town to launch some kind of

community response, which in turn became the transition town model, which was officially launched in September 2006 at what was called the 'great unleashing'.

Since then the transition model has spread virally around the world, as of today (August 2009) there are currently over 200 officially recognized initiatives throughout the world sprinkled throughout England, the U.S., Scotland, Ireland, Wales, New Zealand, Chile, Australia, Japan, Italy, Germany, Canada. These are just the 'official' initiatives with many other towns, villages and cities currently in the process of implementing the model. Portland, Oregon, the city I live in is an official initiative and one of the biggest cities to take it on thus far. My work in this thesis has been inspired in many ways by my personal and community work with the transition model and with Transition PDX or TPDX.

One of the main differences in the transition model approach to dealing with the challenges of peak oil, climate change and the economy is that it comes out of a place of positive optimism rather than doom and gloom. The transition model espouses a

firm belief that 'we the people' can build the future we want to see and that it may be more rewarding than the present. It is a great social experiment on a massive scale and is continually evolving in new and unexpected ways. In fact, one of the transition principles is 'to let it go where it wants to go' meaning that those working with the model can follow the steps in order or can modify them, and the model itself, to fit their present circumstances, their bioregion, their passions, their skills and their community. One could say it is an 'open source' model for sustainable community building. Open source means that anyone can take the model and change it to fit their own needs or circumstances; it is open to adaptation and experimentation.

It is a holistic model that allows for all of the community and the individuals within it to find a place to plug in or to connect their organization to that is most appealing and passionate to their unique skills or interests. One of the mottos of the TT model is 'bringing the head, hearts and hands of communities together to make the transition to life beyond oil' or 'an evolving exploration into the head, heart and hands of energy descent'. Because of the emphasis on these three areas of practice, inquiry and 'being' the TT model enables whole systems change to emerge. It allows for the emergence of what is most important to the individual while also connecting them to a larger whole, this is whole systems change.

According to the Transition Handbook there are four key assumptions behind the transition model, they are as follows:

1) That life with dramatically lower energy consumption is inevitable, and that its better

to plan for it than to be taken by surprise.

2) That our settlements and communities presently lack the resilience to enable them to weather the severe energy shocks that will accompany peak oil.
3) That we have to act collectively, and we have to act now.
4) That by unleashing the collective genius of those around us to creatively and proactively design our energy descent, we can build ways of living that are more connected, more enriching and that recognize the biological limits of our planet.

(Hopkins, 2008, p. 136).

Once again I firmly believe one of the reasons for this model's success is its firm focus on the positive and joyous side of energy descent. Transition folks believe that we are in a time of unprecedented opportunity to work together to truly create the world we want to live in. Energy descent in the transition model is not seen as a negative doom and gloom end of the world scenario. Rather the transition into energy descent is all about trust and relationship building. As some things contract we will have to learn how to live sustainably and harmoniously in community. We will have to help each other and relocalize our lives, our economies, our food systems. Some of the ways transition town projects are promoting this is through skillsharing gatherings, potlucks, community tool sharing libraries and many other efforts.

The transition model itself consists of twelve steps which can be rearranged or modified to fit an individual bioregion or community's needs. In a nutshell, the steps are as follows:

1. Set up a steering committee consisting of a small group of committed individuals who can help to nurture the initiative in the community. Design for the committee's demise from it's inception to ensure rotating and new leadership.
2. Raise awareness of the challenges of peak oil and climate change. Educate people about the issues and how the planet, their communities and their families are affected. Also educate people about how their choices and lifestyles make an impact. Use tools such as films, lectures, trainings, networking events, get creative.

3. Lay the foundations for a successful transition initiative. Connect the initiative to local groups, projects and organizations as well as local government. Work on related and similar efforts with those groups, individuals and organizations, network, connect, network!

4. Organize a great unleashing. This is a large celebration that signifies that the transition initiative is ready to run on its own two feet. Have fun, be joyous and celebrate, this is an important part of the transition model.

5. From there the initiative should come from working groups. These are the groups that work on all the various aspects of transitioning a community into energy descent successfully and sustainably. These are the groups that will take on their own individual projects and efforts related to the group but within the aim of the transition model and energy descent. These could consist of food and agriculture, health and wellbeing, heart and soul, local economics, housing, transportation, the arts, and so on.

6. Use open space technology (discussed in the whole systems change section). Open space in the transition model is seen as being a primary tool for community organizing.

7. Create and develop tangible and visible manifestations of the particular initiative. Examples of this could include community gardens, community tool libraries, local currencies, etc.

8. Facilitate what is called the great reskilling. Reskilling is all about relearning lost and important skills such as food preservation, even how to grow our own food, how to repair things, etc. Think about skills that will be useful and/or necessary in a post-peak oil world. We will have to be much more self sufficient. This step is all about learning, relearning and sharing our individual and unique skills with one another.

9. Build a bridge between your initiative and your local government. Although the transition model is inherently a grassroots bottom up model this is still a very important step as you will want the support of the local government. Once your initiative has a critical mass then they will have no choice.

10. Honour the elders and the children in your community; make sure they are valued and included. Seek out stories about how things used to be from elders, see what you can learn that may be useful. Make sure to build in lots of places and ways for kids to be involved and valued.

11. Let it go where it wants to go. The transition model is in essence a social experiment and should not be prescriptive or domineering. It should remain an evolutionary and adaptable model open to change, learning and improvement as needed.

12. Create an energy descent action plan. This is the overarching ultimate tangible goal of a transition initiative. The EDAP is a plan that addresses the community's vision, goals and plans for transitioning all aspects of their community into energy descent.

So those are the basic twelve steps which as I said are not prescriptive and do not necessarily have to be done in that order or at all. The transition model is young and evolving and what works in one town may not work so well in another. There are seven basic principles that the model is based upon that one should use as guidelines and goals when working with a transition initiative:

- Positive Visioning
- Access to Information and Trust
- Inclusion and Openness
- Sharing and Networking
- Building Resilience
- Inner and Outer Transition
- Self Organization and Appropriate Level Decision Making

Finally to end my overview of the transition model here I would like to leave you with the transition town movement's cheerful disclaimer:

"The transition movement is a social experiment on a massive scale. There is no guarantee this will work. But of this we are convinced: if we wait for government, it will be too little, too late. If we act as individuals, it will be too little. But if we act as communities, it might be just enough, just in time".

Farewell...

It is my great hope that through this thesis you gain some new knowledge, inspiration and tools to help you further explore your role in the great transition into energy

descent. I hope that you find your capacity as a story field shifter and worker is increased and enlightened and that you feel courageous and creative in approaching and adapting to the challenges humanity is facing. Remember this is a time of great opportunity for us to embark upon the creation of the future we want to build, live and love in.

We are all little unfurling stories
whose creative breath of existence
smelling of revolution,
can surely blow down a fortress of crumbling narrative,
can wrap itself around evolutionary possibility
and seed the story field with actions and answers

Little atom seeds
bumping around
we are reality looking upon itself.
Welcome to the paradigm shifting party!

~Zeratha Monique Young~

Resources For Further Study/Research/Engagement By Topic:

Since this thesis is based in systems thinking, systems design and a general systemic orientation many of the resources below will overlap and all will be related in one respect or another. Keep this in mind as you browse through them, a resource under one topic category may easily fit just as well under another. However, to limit

repetition I put them under what I saw as the most relevant category. I also included a list of experts that you can look up as well. You can also look all of these topics up on the internet (be sure to try www.youtube.com for a slew of videos on your chosen topic) or in your local library or ask people in your community and find a wealth of other information and resources.

Climate Change

Websites:

www.epa.gov/climatechange/

www.ipcc.ch

The website for the International Panel on Climate Change.

www.pewclimate.org

The Pew Center on Global Climate Change.

www.unfcc.int

The United Nations Framework Convention on Climate Change.

www.350.org

Films:

The 11th Hour

The Age of Stupid

The Great Warming

An Inconvenient Truth

Experts:

Dr. Stephen Schneider

Al Gore

Dr. James Hansen

Dr. Kathleen Miller

Books:

Climate Change: Picturing the Science, by Gavin Schmidt, Joshua Wolfe and Jeffrey D. Sachs

The Atlas of Climate Change: Mapping the World's Greatest Challenge, by Kristin Dow

The Great Warming: Climate Change and the Rise and Fall of Civilizations, by Brian Fagan

Field Notes From a Catastrophe: Man, Nature and Climate Change, by Elizabeth Kolbert

Hot, Flat and Crowded: Why We Need a Green Revolution and How it Can Renew America, by Thomas L. Friedman

Six Degrees:Our Future on a Hotter Planet, by Mark Lynas

Resilient Cities: Responding to Peak Oil and Climate Change, by Peter Newman, Timothy Beatman and Heather Boyer

An Inconvenient Truth: The Planetary Emergency of Global Warming and What We Can Do About It, by Al Gore

Cool It: The Skeptical Environmentalist's Guide to Global Warming, by Bjorn Lomborg

The Live Earth Global Warming Survival Handbook: 77 Essential Skills to Stop Climate Change, by David de Rothschild

Peak Oil

Websites:

www.theoildrum.com

www.peakoil.net

www.energybulletin.net

www.portlandpeakoil.org

www.aspo-usa.com

The website for the Association for the Study of Peak Oil and Gas

www.chrismartenson.com/crashcourse

This site focuses on the economic implications of peak oil and features a series of excellent overview videos.

Films:

Crude Awakening: The Oil Crash

The End of Suburbia: Oil Depletion and the Collapse of the American Dream

The Power of Community: How Cuba Survived Peak Oil

What a Way to Go: Life at the End of Empire

Energy Crossroads: A Burning Need to Change Course

Experts:

Richard Heinberg

Howard Kunstler

Matthew Simmons

Kenneth Deffeyes

Michael Ruppert

Books:

Peak Everything: Waking Up to the Century of Declines, by Richard Heinberg

The Party's Over: Oil, War and the Fate of Industrial Societies, by Richard Heinberg

Plan C: Community Survival Strategies for Peak Oil and Climate Change, by Pat Murphy

The Transition Handbook: From Oil Dependence to Local Resilience, by Rob Hopkins

Crossing the Rubicon: The Decline of the American Empire at the End of the Age of Oil, by

Michael C. Ruppert and Catherine Austin Fitts

The Long Descent: A User's Guide to the End of the Industrial Age, by John Michael Greer

Future Scenarios: How Communities Can Adapt to Peak Oil and Climate Change, by David Holmgren

The Long Emergency: Surviving the End of Oil, Climate Change and Other Converging Catastrophes of the Twenty-First Century , by James Howard Kunstler

Depletion and Abundance: Life on the New Home Front, by Sharon Astyk

Systems Thinking

Websites:

www.pegasus.com

This website has wonderful resources and also has a lot of great systems thinking books and products.

www.thinking.net

www.systemdynamics.org

www.systems-thinking.org

www.watersfoundation.org

A great resource for systems thinking for the education system.

Experts:

Donella Meadows

Russell Ackoff

Jay Forrester

Peter Senge

Humberto Maturana

Francisco Varela

Ilya Prigogine

Fritjof Capra

Ludwig Von Bertalanffy

Gregory Bateson

Howard Odum

Peter Checkland

Books:

Thinking in Systems: A Primer, By Donella Meadows

An Introduction to General Systems Thinking, by Gerald M. Weinberg

Introduction to Systems Thinking, by Daniel Kim

The Art of Systems Thinking: Essential Skills for Problem Solving and Creativity, by Joseph O'Connor and Ian McDermott

The Systems Thinking Playbook: Exercises to Stretch and Build Learning and Systems Thinking Capabilities, By Linda Booth Sweeney and Dennis Meadows

The Fifth Discipline: The Art and Practice of the Learning Organization, by Peter Senge

Systems Thinking, Systems Practice, by Peter Checkland

The Systems View of the World: A Holistic Vision for our Time, by Ervin Laszlo

Limits to Growth: The 30 Year Update, by Donella Meadows

Panarchy: Understanding Transformations in Human and Natural Systems, by Lance H. Gunderson and C.S. Holling

Resilience Thinking: Sustaining Ecosystems and People in a Changing World, by Brian Walker, David Salt and Walter Reid

The Web of Life, by Fritjof Capra

Cultural Narratives/Story Fields

Websites:

www.storyfieldconference.net

This is the website for the first official 'story field' conference and has a lot of great resources.

www.global-mindshift.org

This is the website for the videos of 'The New Story' series mentioned earlier by cosmologist Brian Swimme. There are also many other wonderful resources here.

www.ted.com

This is the website with hundreds of videos of changemakers around the world. TED stands for technology, entertainment, design. This site is highly recommended.

http://storyfieldcreations.wordpress.com/

http://www.publicsphereproject.org/patterns/

This is a website for a pattern language for a revolution in communication.

www.thegreatturning.net

This is the website that has a lot of information on David Korten's work on 'The Great Turning'.

Experts:

Tom Atlee

Brian Swimme

David Korten

Starhawk

Joanna Macy

Derrick Jensen

Daniel Quinn

Books:

The Great Turning, by David Korten

Endame: Vol. 1, The Problem of Civilization, by Derrick Jensen

A Culture of Make Believe, by Derrick Jensen

Ishmael: An Adventure of Mind and Spirit, by Daniel Quinn

Beyond Civilization, by Daniel Quinn

Running On Emptiness: The Pathology of Civilization, by John Zerzan

The Spell of the Sensuous: Perception and Language in a More Than Human World, by David Abrams

The Great Turning: From Empire to Earth Community, by David Korten

Days of War, Nights of Love: Crimethinc For Beginners, by Crimethinc

World As Lover, World As Self, by Joanna Macy

The Fifth Sacred Thing, by Starhawk

Whole Systems Design and the Transition Town Model

Websites:

www.permaculture.org

www.permacultureprinciples.com

www.permaculturеactivist.net

This website is affiliated with a magazine of the same title you may be interested in.

www.thedirt.org/ppg

http://www.permaculture-magazine.co.uk/

Another useful permaculture publication and website.

http://www.ecotecture.com/

www.biomimicryinstitute.org

www.transitionculture.org

Rob Hopkin's blog and information website, the founder of the Transition Town model.

www.transitiontowns.org

www.transitionus.org

www.transitionpdx.org

www.relocalize.net

www.biocongress.org

The website for the bioregional congress, useful resoures.

www.planetdrum.org

Great bioregionalism resources.

www.salmonnation.com

www.postcarbon.net

www.cityrepair.org

www.ecocitybuilders.org

http://gen.ecovillage.org/index.html

The website for the Global Ecovillage Network.

Experts:

Bill Mollison

David Holmgren

Sim Van Der Ryn

Larry Santoyo

Richard Register

Janine Benyus

Rob Hopkins

Books:

Bioregionalism, by M. McGinnis

Lifeplace: Bioregional Thought and Practice, by Robert L. Thayer Jr.

Dwellers in the Land: The Bioregional Vision, by Kirkpatrick Sale

Bioregionalism and Civial Society: Democratic Challenges to Corporate Globalism, by Mike Carr

The Rediscovery of North America, by Barry Lopez

Permaculture: A Designer's Manual, by Bill Mollison and Reny Mia Slay

Introduction to Permaculture, by Bill Mollison

Earth User's Guide to Permaculture, by Rosemary Morrow

Gaia's Garden: A Guide to Home-Scale Permaculture, by Toby Hemenway

Permaculture: Principles and Pathways Beyond Sustainability, by David Holmgren

The Permaculture Way: Practical Steps to Creating a Self-Sustaining World, by Graham Bell

Edible Forest Gardens: Ecological Vision, Theory for Temperate Climate Permaculture, by Dave Jacke and Eric Toensmeier

A Pattern Language, by Christopher Alexander

Ecological Design, by Sim Van Der Ryn and Stuart Cowan

Design Outlaws on the Ecological Frontier, by Chris Zelov, Phil Cousineau and Brian Danitz

Cradle to Cradle: Remaking the Way We Make Things, by William McDonnough and Michael Braungart

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The Sustainability Revolution: Portrait of a Paradigm Shift, by Andrew R. Edwards and David W. Orr

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The Transition Timeline: For a Local, Resilient Future, by Shaun Chamberlin

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Whole Systems Change

Websites:

www.co-intelligence.org

Tom Atlee and the Co-Intelligence Institute website.

www.openspaceworld.org

www.futuresearch.net

www.theworldcafe.com

http://www.change-management-toolbook.com/index.php

www.thenaturalstep.org

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Experts:

Peggy Holman

Tom Atlee

David Cooperider

Harrison Owen

Marvin Weisbord

Peter Senge

John Kotter

Margaret Wheatley

Books:

The Change Handbook: The Definitive Resource on Today's Best Methods For Engaging Whole Systems, by Peggy Holman, Steven Cady and Tom Devane

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Theory U: Leading From the Future as it Emerges, by C. Otto Scharmer

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The Handbook of Large Group Methods: Systemic Change in Organizations and Communities, by Barbara Benidict Bunker

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Leading Change, by John P. Kotter

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Spiral Dynamics: Mastering Values, Leadership and Change, by Don Edward Beck

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The Tao of Democracy: Using Co-Intelligence to Create a World that Works for All, by Tom Atlee

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Websites:

http://changingminds.org/index.htm

www.joannamacy.net

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This is the link to the American Psychological Association's report on the psychology of climate change.

www.hopedance.org

www.greenearthfound.org

Experts:

Theodore Roszak

Ralph Metzner

Joanna Macy

Starhawk

Books:

Green Psychology, by Ralph Metzner

Ecopsychology: Restoring the Earth, Healing the Mind, Edited by Theodore Roszak, Mary E. Gomes, Allen D. Kanner, and Lester R. Brown

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Social Constructionism, by Vivien Burr

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Websites:

www.greenmuseum.org

This is an excellent website and source of information and resources on all things environmental art.

www.greenarts.org

www.ecoartspace.org

Another excellent resource for ecological art.

www.orlo.org

A Portland, Oregon nonprofit that focuses on exploring environmental issues through the creative arts.

www.resurgence.org

A website for the intersection of earth, art and ecology. Great resource.

www.newclimates.com

A website and blog for art that addresses climate change and networked culture.

www.boommuseum.nl

www.sitkacenter.org

The Sitka Center for Art and Ecology's website.

Experts/Artists:

Patricia Johansan

Lucy Lippard

Betsy Damon

Fritz Haeg

Transformaciones

Many, many more under the following link:

http://greenmuseum.org/content/all_artists_index/order_by-cat.html

Books:

Land and Environmental Art, by Jeffrey Kastner and Brian Wallis

Art in Action: Nature, Creativity and Our Collective Future, by Achim Steiner and Natural World Museum

Ecological Aesthetics: Art in Environmental Design, Theory and Practice, by Heike Strewlow, Herman Prigann, and Vera David

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Art and Survival: Patricia Johanson's Environmental Projects, by Caffyn Kelley

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Chaos, Creativity and Cosmic Consciousness, by Rupert Sheldrake

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The Spiritual Aspect

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www.hopedance.org

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http://fore.research.yale.edu/

Yale University's forum on religion and ecology.

www.ecobuddhism.org

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A Portland, OR organization focused on social change, spirituality and ecology.

http://www.earthministry.org/about

Books:

Indigenous Traditions and Ecology, Marilyn Evelyn Tucker and John A. Grim

Asking for the Earth, by James George

Thinking Like a Mountain: Towards a Council of All Beings, by Joanna Macy

The Work That Reconnects, by Joanna Macy

Spiritual Ecology: Reading the Book of Nature and Reconnecting with the World, by Rudolf Steiner and Matthew Barton

Spiritual Ecology, by Jim Nollman

Shamanism: The Neural Ecology of Consciousness and Healing, by Michael Winkelman

The Oxford Handbook of Religion and Ecology, by Roger Gottlieb

Deep Ecology: Living as if Nature Mattered, by Bill Devall and George Sessions

Ecologies of Grace: Environmental Ethics and Christian Ecology, by Willis J. Jenkins

The Spiritual Activist: Practices to Transform Your Life, Your Work and Your World, by Claudia Horwitz

Ecology and the Jewish Spirit: Where Nature and the Sacred Meet, by Ellen Bernstein

Dharma Gaia: A Harvest of Essays in Buddhism and Ecology, by Allen Hunt Badiner and The Dalai Lama

Earth Prayers from Around the World: 365 Prayers, Poems and Invocations for Honoring the Earth, by Elizabeth Roberts

Islam and Ecology: A Bestowed Trust, by Richard C. Foltz, Frederick M. Denny, Azizan Baharuddin, and Kaveh L. Afrasiabi

Green Sisters: A Spiritual Ecology, by Sarah McFarland Taylor (Catholicism)

Hinduism and Ecology: The Intersection of Earth, Sky and Water, by Christopher Key Chapple, Mary Evelyn Tucker, Anil Agarwal, and Kelly D. Alley

Mother Eath Spirituality: Native American Paths to Healing Ourselves and Our World, by Ed McGaa Eagle Man

Experts:

All Religious and Spiritual Leaders!

Starhawk

Joanna Macy

Appendix:

Change Maker Interviews

In this section I interview fifteen different individuals involved in various change-maker projects, organizations or efforts. By change maker I mean an individual who is directly involved in some capacity in consciously trying to create positive change in their community to address issues of social/environmental justice, energy descent, sustainability or other related issues. These individuals do this work in a variety of different manners and through different mediums. It is my hope that these interviews will give you a direct and insightful window into the hearts and minds of the individuals on the front lines of community energy descent as well as inspire and fire you up to start some change making work of your own.

All of the interviews in this section are semi-structured and took between an hour to two hours, with an average of an hour and a half. The interviews took place in various places, some via phone, some in person, some via Skype technology. Some were transcribed live while the interview was conducted with pauses to validate with

the interviewee the accuracy of the transcription. Some were digitally recorded and transcribed after the actual interview. Most interviews followed the same skeleton set of questions as you will notice as you read them. I did this to give the reader a glimpse into the patterns that would emerge in the interviews and for continuity and depth in answering the specific questions. However I did make sure to give semi-structured interviews so that when the questions were not appropriate for the individual or when new questions arose there would be flexibility to adapt mid-interview.

I am going to first lay out the basic information about the interviews below. After that you will find the transcripts of the individual interviews/interviewees. If any of these individuals or their work particularly interest you, you might find some of their work in the bibliography or resources section and can most likely research them or contact them. Enjoy!

Interview Research #1

Jeanne Longley of Portland Peak Oil and Transition Sunnyside/Transition PDX

Date of Interview: 5-21-09

Questions:

1. Which Transition groups do you work with, what is your role within them?

I work with Transition Sunnyside and Transition Neighborhoods. My role with the neighborhoods group is to be a type of leader, to provide a space and help arrange and facilitate the meetings. My role with Transition Sunnyside is basically to be a catalyst. We have two very strong leaders of the sustainability committee, so I

basically just wanted to support them, though I am part of the core group. We have kind of an informal five or six people in the core group for Sunnyside. The sustainability committee is part of the neighborhood association and it hosts Transition Sunnyside.

2. What is the structure of that particular group and what projects is it working on currently?

In terms of Transition Sunnyside it is pretty much currently monthly events and the sunflower seeds project. We have 3600 newsletters to stuff with sunflower seeds. The Energy Missionaries was a project of the Sunnyside sustainability committee. People would come to your house and help you figure out how much energy you were using. Everything from your refrigerator to your computer.

3. What drew you to the Transition model?

The positive approach, I was getting very tired of the prophecies of doom. The transition model presented a more positive and creative model that also uses organizational development tools. It is basically an organizational change model that is bottom up instead of top down. It is a really good solid process but it is more patient than a typical organizational development process/model and is more trusting of people to do the right thing. It is more optimistic, it is like permaculture in that you have faith that you can work with the natural flow of things and that it will work out alright. And, it is fun and it is light, it does not have to be grim and doomy.

Because of my background I was very interested in how the tools for OD are being used in transition town, but yet it is a self organizing system.

I think the climate change and peak oil aspect as a foundation may be a mistake. When you build a garden, you don't build on a mistake, you build on hope and optimism. If I were to change the transition town model I would definitely downplay the peak oil and climate change aspect. I'm not even in the conversation anymore about whether we survive or not anymore, I see us as having fun during whatever happens.

The power of groups is really used in the Transition model to influence how people behave, that is always a wonderful leverage. I have personally been very influenced by what people around me are doing. For example watching Rueben and his wife and daughter get on bikes to go somewhere encourages me to do better. Group influence is highly important. The transition model empowers people, and it is a great model to also empower workers to take control of their own life, let people go where they need to go.

4. How does your work encourage participation by community members?

Allowing people to follow their bliss. There is so much work to do that no-one has to be put anywhere. Were talking about a million people transforming a city so there is a million niches that people can put themselves into. People want to feel like they are creating possibilities and people are starting to realize that we owe something to other

generations. In terms of the structure of transition towns, the way it is structured with the different committees and groups there will be so many places where people are needed. There is no particular formula, you tailor it to where you are at, everyone gets to create and tailor the structure to fit where they are at.

5. What is the hopeful outcome of this work?

I would say that we create a compelling and sexy reason to conserve and that we create cohesive communities at the block level so that people who live next door to each other could actually depend on each other in an emergency. And that we gently encourage each other to care for each other and for the earth. The peer support can be really wonderful. To replace consumption with community.

6. How do you see Transition working in Portland?

I see it neighborhood by neighborhood. I think Christopher Alexander's pattern language idea of 7-10,000 people being the optimal amount of people to make a difference is a good one. I see the job of the hub group as providing the connection between the neighborhoods. I see within five years all of the 95 neighborhoods being involved with some kind of transition initiative. I think all the neighborhoods will be influenced by this model. I see the functional groups operating as staff support, so for example there would be a food group, so a clearing house for all the resources available related to food in Portland. The functional groups and the neighborhood groups are a matrix, so each neighborhood has its own food group while being part of the larger overall food group. The hub has a second function too besides coordinating

everything going on in Portland, to also connect to the larger Transition U.S. The other thing that the hub can do is act as a clearing house for everyone that wants to be involved and help plug them in.

7. What other Portland sustainability related organizations and/or groups do you have a relationship with?

At the moment, there are some remnants of the Peak Oil Task Force that will be meeting on June 4th. I used to be the chair of the Portland Harbor Superfund Community Advisory Group, met to discuss how the Willamette River is going to be cleaned up. I have not met with them in some time because I got discouraged. I go to Natural Step breakfasts fairly regularly, attend the Illahee lectures, was part of the Zero Waste Alliance. I got to go on a trip to Curitiba with Peter Schoonmaker and several others. Got one of the early certificates in sustainability from PSU.

Z—What is your educational and professional background?

I have a PhD in Social Psychology with an emphasis in Organizational Development from SUNY Buffalo, studied under Barbara Bunker, first worked in Cummins Engine company where we set up work teams and participatory management. The plant I was working with got shut down which disillusioned me, while all of the traditional plants survived.

8. Which of the following categories does your work relate to and how?

**Whole Systems Change*—the term 'spread virally' is a really central concept of this. The idea is to attract people by allowing the ideas to catch on in people's imaginations, by offering the opportunities to do whatever they have a passion for. People can choose one aspect of the whole, which adds up to the whole. People can find a niche, which is what nature does, biodiversity, pioneer plants, invasive species, through creativity and imagination. The spirit and the excitement and enthusiasm is growing. **Community Building*—we are at the most basic level of offering events, purely to get people's attention and raise awareness, not doing much else at the present moment.

9. How do you think your work is creative and/or utilizes creativity?

I think that the most creative thing I've done is to propose a whimsical project, what if 3600 people all planted sunflower seeds in their front yards. I also took pictures of Reuben's daughter planting in the garden for an onoline journal, it is called little green thumbs. Shot for the alternative transportation journal. I am using my photography, my art to work towards the sustainable message as well. Suggesting the open space will be a creative endeavour to enable people to create their own projects. and I am also creating an urban food forest.

Interview Research #2

David Johnson, Ecopsychologist, Transition PDX Core Hub Member

Date of Interview: 5-29-09

Questions:

1. What do you see as the most pressing needs in moving us towards sustainability and equity in the Portland metro community?

I in some ways still feel relatively new to this city but I am guessing overall that aside from all the green credentials that the general structure of the city is still the same as other cities. For example, where I am from there are all kinds of neighborhoods…I am sitting here thinking that the needs are just so different depending on whether you are living up in the hills or sleeping on a street downtown somewhere. The people up in the hills might have some extra resources whereas the people on the street may just be worried about where their next meal is coming from. In an equitable world we all just want the same things, to be fed, watered and clean.

Z-have you lived in any other cities in the U.S.?

D—Only when I was 3 for a year in Seattle but I don't remember it. I had a conversation with Peter in England last night and he mentioned that there seems to be a sense of more urgency in the U.S. than in England. I'm wondering if in Brittain there is still more of a sense of community in cities in the U.K. than in the U.S.?

2. What do you see as some of the most pressing changes that need to take place to move us towards sustainability and equity as a global community?

There was a woman who watched the Transition movie the other week and remarked afterwards, where are all the ethnic groups in this? In the transition movement it has definitely stayed in white educated arenas. I think we do need to act on a local level

but share as many ideas as we can globally because we have forgotten how to do so many things like grow the potatoes for these fries. I think we need to go back to local food production. Looking at a more equitable finance situation as well, make a transaction out of barter. Now money has become a commodity as well, there is something dreadfully wrong here. Moving towards a society where we value life again.

3. If, in 25 years, you were living in the world you are working to create or the world that you would most like to see what would it look like?

Quieter for one. More community. Slower paced. I think one thing Transition can offer at the moment ifs a way of exploring how we can work together. I think one of the strengths of transition is that people can come together and explore how they fit together. I would certainly like to see a world where whatever we use for finance doesn't rule our world. When we are in a world where money becomes more important than life there is something really wrong. Im also thinking of Bhutan who has a measurement for gross national happiness. I don't see traveling stopping it will just take longer. Spending some time to get to know other cultures and each other. I would like to think there is less or no consumerism. I would like to see more spirituality, a reverence for the world that we live on, a resacralization of the planet. So we see things as being sacred just because they exist. In the last hundred years or so we've taken so much out of our lives. I would like to see us just appreciate what It means to be alive on this planet. What value can you put on a good friend? I'm not

under the illusion that it's going to be a big love fest but just having more respect for life.

4. What do you think are the most important tools or education that a community member needs to feel empowered to participate fully in creating a sustainable future?

I think they need to feel as though they are valued and that their presence is recognized. That their voice can be heard. That whether they know a lot about a subject or not that they still feel that they can contribute to that. I think you need to have inspired leaders.

5. What sustainability related project/organization/effort do you work with/on currently?

Transition PDX

6. What Transition groups do you work with, what is your role within them?

Heart and Soul, the Hub, keep in touch with the neighborhood meetings…don't do much with the buzz group, I am also on the Transition U.S. board, that is really still trying to find its place, it is still really new, only really had a couple of meetings so far. I was invited on Rob's suggestion because of my Heart and Soul background.

7. What is your role in this work and what drew you to it?

I do wonder at times. I certainly don't want to say leader cause I don't feel as if I am the leader. I am a keen participant. Bringing some of the historical U.K. perspective.

I've been asked to be on the U.S. board so maybe I can be a Portland contact. It's bringing out a lot of creative ideas in me, I wish I had a lot more time to explore ideas like that. One through knowing Rob and watching him over the years. I remember him before he even knew about permaculture, he kind of stumbled across it, because of Rob's integrity and seeing the work he's done over the years. Even if you meet him there is a real humility about him. Because of my own particular interest in the H+S aspect of it. I've also always been interested in this idea of giving power back to ordinary people, of just realizing that anybody who is used to leadership from above can take things into their own hands. It is a positive vision but yet a recognition of the problems at hand and that fun is one of the most important factors. I just like the idea of that you have this big problem but yet people can walk away with a sense of hope and possibility that they can do something about it.

8. How does your work encourage participation and collaboration by community members as well as other projects/organizations?

I think in it's ideal state Transition goes back to a neighborhood or town or village or whatever and says what is your passion and interest? and uses that in the process of creating a vision for a better future for yourself. Using that, nothing is left out. In terms of Transition bringing in other groups and organizations is a real challenge. I think you have a lot of groups out there doing wonderful work but maybe who aren't working together. The things you see when all these groups work together is so much more than when all of the individual groups work separately. The actual process of getting people together is a science in itself.

9. What are some of the visible manifestations of this work?

The brochures and the website. In terms of practical projects we are far off. The CAP space and the Open Space events could be manifestations.

10. What does the term 'whole systems change' mean to you? If it does mean something to you how does your work engage in it?

I understand it as meaning a system going through a change.

11. What organizational development or whole systems change processes are you familiar with (i.e. open space, world café, wisdom councils, etc.) What role do these play in Transition PDX or in the transition model in general?

The only two I am really familiar with are open space and world cafes. Open space seems to be the one that gets the most airplay. I don't have enough familiarity with them to argue whether open space is the 'one' to use.

12. What role do you see creativity playing in the Great Turning? How do you think your work is creative and/or utilizes creativity for yourself and/or others involved?

I suppose I would have started off just by answering that we all have a part to play. We all have skills to offer and a part to play. I think I'd like to think that. One thing that upsets me at the moment is that work around ecopsychology and connecting to nature, that unless you are talking to people in that field it is still seen as kind of a woowoo subject, some people feel such a strong connection with that area that they

almost go over the top in their presentation of it. I just see that if we can really tap into and acknowledge who we are in a deeper sense of the word and tap into all of that so many of the problems that we are looking for solution to will be answered. This idea of constantly chasing after things and buy, buy, buy when we have so much around us already. John Seed saying that he feels that indigenous people carry on doing rituals is because it is so easy to forget. We are so hardwired away from it that it is almost like a junkie...

13. How do you relate to and/or view your work through the lens of spiritual ecology?

I think for me ultimately all this work is spiritual work. Much of it, the formal stuff, is not as much for me, I prefer to do more overt explorations of the spiritual side of it. I'm reading a book right now called 'a spirituality of resistance' feels as though it is just what I have been looking for. Taking spiritual practice into the world of activism. I've longed for this. It is the thing that took me to Naropa, where when I was finally in my Buddhist community where there was very little recognition of the environmental issues. This went on and on and on where I'd switch back and forth between my Buddhist self and the environmental aspect. I wanted to find out where these two came together and explore more of the Buddhist or spiritual connection to the natural world. A lot of the crises that we are caught up in are crises of the heart. I remember a book came about fifteen years ago called 'Towards a Transpersonal Psychology'.. This is when I'd bumped into Buddhism, this book talked about Arnne Naess, Deep Ecology. It all comes back into the same question/subject of our

connection to the natural world. To me there is so much richness out there. Im speaking to the sense of poverty we have in the world today. We have so much around us already, why do we have to dig a bigger hole for ourselves. Wholeness of the heart, our connection to the larger whole, this creativity that you are speaking of. It is all spirituality for me. I think one of the challenges over the next few years is to create a richer world and carry forth the new knowledge that we are gaining right now. I think the challenges over the next few years, we really do have an opportunity to create a better world. My own particular interest is I suppose I really love the work of Swimme and Berry, seeing the sacredness of the universe. The transition model can start going deeper with the story.

14. How do you see Transition working in Portland?

Transition has grown up in Britain in communities of 10-12,000 and this is probably the ideal size for a transition community. Here we are in Portland with a half a million to a million or more people. It is a big challenge to figure out how you transition a city. In Bristol they are working on having a main coordinating hub with maybe a laison with government and then they set up transition neighborhoods. As a number of people have said is that there is no right model, for example you are going to have different sized neighborhoods, possibly some that are much larger than others. I can almost foresee situations where the needs of some neighborhoods are going to be very different than the needs of others so how can one central source decide how to set these things up. One model that comes to me is that when Valerie asked me to do a talk for the church a few months ago…Maybe you have some kind of other

interlocking initiatives to start with and then allowing the systemic nature of this, I'm interested in whether human networks or communities can be seen as complex adaptive systems. We've got this model we are using at the moment, if Transition is really allowed to develop, you have this process that we are all playing with and in the same way that you learn new skills you start to see your own potentiality expand…what does not appear apparent to you now, does so in a couple of years…if the community does morph into something else over a few years, its that an example of a community as a Complex Adaptive System which is adapting because it is being completely open, it has inputs coming into it but naturally flows off down the road in whatever natural direction it should go.

Talking about the trainers working group and how it applied transition to itself. There was a steering committee and then it dissolved and it felt very liberating, then there was a breakthrough. If we can find a community that is really supportive of each other then we can go some wonderful places.

15. What are some of the challenges for Transition PDX?

Personalities. The first step in transition encourages one to set up a steering group and plan for it's demise. I think we have to ask ourselves how much of this are we doing to meet our own agenda. Like for example I don't see the communication problem as a huge one, its just that it got lost in the bigger picture. I think we have to be careful that we really question what we are doing and really sit and listen to other

people all the time. And not assume that just because our project seems big that we value each other as well.

16. What does inner sustainability mean to you? Can you talk about the Heart and Soul aspect of the transition model? What role does this play in The Great Turning?
How we cope with whatever is thrown into our lives. I think to a greater or lesser degree we know what is going to happen to us in five minutes time but yet we also don't know so in some sense we need to build up an inner resilience to cope with life's situations. Someone whom has built up complete inner resilience would be happy, they are content regardless of whatever is thrown at them, even if someone might be ruining your reputation you still have compassion for that person.

I think Heart and Soul can fulfill a number of roles. One it can be a sort of holding base for communication skills within the whole of the initiative that it is involved in, that can manifest in many ways, holding workshops, observers at meetings to watch successful communication. I think you can have home groups. To support each other in the process they are going through. It might be going out for a drink and chatting or going for a walk or whatever just to support each other in whatever process you are going through in the work you are doing. It think as well H+S can offer a resource for how you deal with the challenges of what we are going through. H+S can offer workshops for the wider community and for transition itself to… so that people can have the space in their mind and their heart to hear and experience the news of what is happening and still be able to do their work whether that be with transition or their

day to day job. If people feel called to it they can start exploring healing rituals however that might look. In particular exploring the disconnection from the natural world and our sense of place, which is something that has long interested me. A sense of place not only just living in a city and knowing your city well, the characters, different neighborhoods, but also if a bird lands on your windowsill do you know what it is? If we deepen our level of respect for the natural world, I just have a sense that if we had that, that a lot of the problems that we have now wouldn't be here.

17. What do you think needs to happen for Transition PDX to be successful?

I think part of that is to define what successful would be. Perhaps Portland successfully relocalizes and copes with the transition like a pro surfer. Getting the message out about where were at, if TPDX does manage through up and downs to make some kind of start, networking with all the other groups in Portland, how they can manage the transition. Communication, individually, in neighborhoods, between grassroots and government, really valuing communication. FUN make sure that is in there. People within transition having a real openness to let go of ideas of their own sense of importance, if you are part of a group that is no longer important, let it go. While communication is there reaching out to other transition initiatives and projects around the world, let's really use this time to network and share ideas and maybe in another sense recognize that something better may come along and allow for that.

18. What organizational development or whole systems change processes are you familiar with (i.e. open space, world café, wisdom councils, etc.) What role do these play in Transition PDX or in the transition model in general?

The only two I am really familiar with are open space and world cafes. Open space seems to be the one that gets the most airplay. I don't have enough familiarity with them to argue whether open space is the 'one' to use.

Interview Research #3

Betsy Damon, Environmental Artist, Founder of Keepers of the Water

Date of Interview: 5-30-09

Questions:

1. What project are you working on currently, and is it through Keepers of the Waters?

The project that I myself have initiated is an integrated systems approach to saving living systems resources, which implies all the resources from the cultural to the ecosystems and all the complexities in between. Theres a lot of parts to it, most of the key systems, most of the water systems are disappearing rapidly. Theres also no mapping of them taking place. People don't realize that the small things like springs, etc. are the networks keeping the larger water systems alive. Then there are the cultures that have recognized this for a long time but are being extinguished. I am doing a project to address this in reality rather than theoretically. I am documenting the headwaters of the Tibetan culture, the micro water systems that have kept these communities alive and well. I am just starting this project. Then I am starting the

South Florida Environmental Art project or SEAP. We're starting this project in the fall, to mentor a small number of artists to become eco-activist artists. Everything we do will be documented and projects produced. This person Mary Jo Eggerson would like to initiate other projects like this in Florida and elsewhere. She deeply believes that the arts are a vehicle for uniting people and getting things done. I believe that it is providing hope and getting people to realize how deeply hurtful it is to lose any aspect of the ecosystem. There is giving people the information they need to make the right choices and then there is making the right regulations. The people whom have taken out the mangos and hardscaped their community need to pay themselves to restore it. We need complete systemic change in our culture from one of appropriation to one of realizing that if even 20% of your community is poor so are you. This is very hard to grasp as a U.S.'er. If we are going to have an integrated culture we need to live off our own footprints.

In 1995, during the living water park project, 25 artists collaborated with each other brilliantly, figured out how to engage their communities and work together. If I do it in the U.S. the community doesn't necessarily pitch in behind them. In China the entire city got themselves involved emotionally. The entire city helped out.

2. What role do you see creativity and art playing in the needed transformation of the world we live in?

I think that it can play a role in creating vision, hope and actual real action, the kind of hope where you don't need to get 25 permits. It's the kind of art that you won't

see in a museum. The problem here is that you don't get paid for that work. The problem is that almost everything in our society is strucured against this. But it is usually the artists that do this important work. As the economy collapses, increasingly the artists are getting together to address this. Portland is interesting cause it has the language but it needs to go a lot further. We don't really know anymore what it means to become an integrated system with each other, where we make sure we all thrive, and we share the resources we all need.

3. What do you think are some of the most important tools and education that a community member needs to feel empowered to participate fully in creating a sustainable future?

Each person needs to feel heard and listened to. Each person needs to be able to know that their contribution is important no matter what it is. To understand what it means to not only think about oneself personally but also what is the greatest good for everyone. How can we make sure that everyone has at least basic nourishment. It can be a creative project to do this, that takes active creativity. There are ping pong tables in lines in China, so when people feel frustrated with waiting they can play ping pong, creative ways to deal with things. When a big project is done in China, the entire company goes out on a getaway and picnic no-one is considered extraneous, not family members or anyone.

4. How does your work encourage participation and collaboration by community members as well as other projects/organizations?

In Florida, the whole community or whomever wishes will be networked into projects and the activist community. Urban waterworks in Portland, OR. My generation, the 60's kids, we don't have the same expectation to have the way paved for us that almost everyone under 50 now has, we probably had more hope and less spoonfeeding, we weren't exposed to Reaganism and the same materialism that you probably were…If I were your age I would collectively live with a group, I wouldn't try and work the system, galleries and grants…I'd try and break the boundaries and boxes. I applied for a sustainability position in Portland, OR, at PSU but it still seemed so academic.

5. What does the term whole systems change mean to you? How does your work engage in it?

Whole systems change means an entire change of consciousness, how we live together, it means changing the whole system. I kind of think the economy should crash. It would mean that Portland did not put in the big pump and pipe system but used all their ravines to clean the water,…voting for massive public transportation so that cities could become carless. It would mean deciding that the entire system has to be healthy cause we are all part of it, and that it is unhealthy to accumulate a lot of money. As soon as you start breaking it down to you cant do this and you cant do that---it means you have to change the whole system,…the health care system…it means me thinking who am I, Im just one person….

6. How does your work relate to systems thinking, permaculture and living systems design?

I don't think permaculture should be sanctified as the only system to work. A lot of people were doing this before. A lot of people don't even know what an integrated system is anymore. But you don't have to put people through a permaculture system to do this. The idea that we have to go and teach people something can sometimes be wrong. Maybe they have a sustainable system that already is working there. Maybe there just needs to be a little education to bring awareness of the systems already around them.

7. How do you relate to and/or view your work through the lens of spiritual ecology?

I find the word spiritual means, for twenty years people tried to get me to call my work or identify as a spiritual artist, but I hate this question. I understand how water works energetically, water as the connector of everything, I relate to that spiritually, I always feel that, I can tell when a design isn't correct, I can feel the aching of a water systems that is being chopped up. The only work I succeed at has to come from my heart…understanding that in a highly materialist society and functioning like that is not easy. Certain change is taking place right now in consciousness where things are being responded to intuitively and collectively, this makes it easier to come out in this passion and knowing. When I do a project in a community I literally say that every person in the community is involved in this project, whether they are building the dam, everyone is implicitly involved in the project, cause everyone needs water. People have to talk to each other and get to know each other and that creates change.

8. Do you utilize narrative or the telling or creating of stories in your work?

Sometimes, but not a lot. I have not made this part of my artwork implicitly yet, but it may become part of it.

9. Who are some of your favorite change agents, authors, and artists currently?

William Balsworth, Joseph Beuys, Planet Walker, Andy Lipsky, Brad Lancaster, Ross Doleman, people that are promoting urban farming, Peggy Kahler.

10. What are some of the most important changes you see as needing to take place to move humanity towards a sustainable and equitable future?

One thing that is really important is changing the individualistic focus, for example, the Mcarthur wont be awarded to couples or groups, it is the collective mind that will come up with solutions rather than the individual. Understand real collaboration, using that to solve real problems. A diverse collective is always greater than the single mind, we've celebrated the genius for the last few hundred years, a lot of it is about ownership, about how do I get paid rather than about the collective. We need to be able to understand the value of putting care of everyone above the material quantitative. How we think about the value of things should reflect the context of how we live, how extremely important it is to have our hearts whole.

11. Have you heard of the term energy descent and does your work relate to energy desent?

To me I think that means integrating energy and water…

12. What have some of the biggest challenges been in your work and how have you dealt with them?

How to keep going when there's people that keep getting in the way, how many groups have I inspired to help, who now want to go their own way to get money. The other huge challenge is a lack of collectivity and cooperation.

Follow your heart and be persistent, not I'm here notice me or support me, but figure out where you are needed in the community and go for it. Artists have been put out to the edges and have become tremendously isolated, as the economy collapses artists will be collaborating more. We have to give up thinking were better or more special than other people. We can function a little differently and don't necessarily fit in the 9-5.

I got grants to start with that were enough to pave the way.

Interview Research #4

Barbara Gerke, Artist, Community Organizer, The Real Wealth of Portland

Date of Interview: 6-1-09

Questions:

1. What are some of the most important or urgent changes you think need to take place in the world to move us towards equity and sustainability?

Inner world, reconnecting, at first I think of rebalancing, but I think through reconnecting that rebalance will come through. The reinstallation of rites of passage. Coming back into creativity with the natural world. At the same time partnering with each other, once that balance is restored partnering with each other in community and reweaving to come to that place that supports equity and sustainability. Addressing the sense of loss, that is unspoken. Renewing the sense of connectedness that is within us and within the natural world helps heal that sense of loss.

2. Are you familiar with the term energy descent? What do you think are the most important interventions to make in the challenging trifecta of peak oil, climate change and the economic situation?

Yes I am. I kind of have a three part answer…When it comes to peak oil I feel that one of the interventions is increasing our awareness/education level of alternative fuels as well as conservation. Along with that including transportation, logistics, looking at where do we live and work? With economics the big intervention is shifting to exchange economies, bringing up the visibility of what we really value, skills, talents, resources and abilities to meet our needs and to see money as an exchange of information, seeing currency more as that, open money. The intervention for climate change seems to be on a deeper level so that we are seeing sort of that expression of Chief Seattle that we are just a strand in the web, seeing the holistic view of how we're all interconnected. So that highlights the need to be aware of the choices that we make. How we grow our food, how we treat our water and air sources. Everything starts coming into a deeper connection with our choices.

3. If, in 25 years, you were living in the world you are working to create or the world that you would most like to see, briefly, what would it look like?

Edible gardens everywhere, people of all ages everywhere together, connection to creativity freeflowing within us all, that natural connection to creativity, and space where community grows and learns together and where rites of passage and initation take place on an ongoing basis. Where its about people having livelihoods, enjoying their livelihoods, rather than being about the job. Where social innovation is supported and is thriving.

4. What do you think are the most important tools and education that a community member needs to feel empowered to participate fully in creating a sustainable future?

One of the tools is the invitation to be fully present, be acknowledged then for their talents and lifeskills, their resources that they uniquely bring for and to the community. The education I feel like goes back again to reconnecting with our surroundings, with the Earth and how woven the interdependence of our biosphere is. Reconnecting on that level. We need to mentor with indigenous people and bring in the story again, storytelling. I feel part of the tools is the hands on learning, learning through doing. So we can learn together. And then somehow to be able to reflect our story back to each other to honor where we've been and are going with this. So each community can relate to and support each other.

5. What sustainability related project/organization/effort do you work with/on currently?

The Real Wealth of Portland, bringing focus to that which is sharing and caring, the real wealth resources which is us, a healthy vibrant and resilient economy, honoring environment, community and family. There's a project called the Innovative Cities Project that the Springboard is bringing together that I'm also working on. The IT is in the early stages. Basically having a toolkit that will support social innovation startup businesses. To support them while they come through and connect to a community that's ready to kick those ideas into gear. We would like to see it happen in cities in Oregon and then take it national. A toolkit that each place can use and adapt to their own needs. Supporting social innovation.

The other project is SOBA, Sustainable Oregon Business Alliance, helping with outreach on that.

Z—It seems that you are drawn to the leg which is economics on the stool of sustainability? Why do you think this is?

B—I am thinking of Paul Hawken, The Ecology of Commerce, up until then the environmental groups I was volunteering with back in the day, anytime the issue of working with nature and business was brought up, it was always an either or, you cant be profitable if you go green. Hawken was one of the first ones to bring that together for me. So I feel drawn to that, it's a bridge building opportunity because people making business decisions, it has a wide ripple effect in those choices on our natural

world. When that comes into alignment with what is good for Mother Earth than we are getting somewhere, I see it as part of that approach to bring things back into balance. Also, I love innovation, creativity meeting the business world, that fascinates me.

6. What is your role in this work and what drew you to it?

I volunteer with all three. I was inspired to be a part of this change and so I want to support it with action in ways that connect me to that part of me that feels most alive, to heart centered action. Ideally I do to want to be able to work with that livelihood and be able to partner and collaborate with organizations like that, I want to do the connector thing, to have a number of different hats.

Z—in the past what are some of the projects/groups, etc. that you have worked with or on?

B—I volunteered with a couple different projects, Rails to Trails, where we replaced old train tracks with bicycle trails in Cincinnati. I also helped with field studies with butterflies and Peregrine Falcon introduction, supporting the natural world to come back to a place with more diversity. Some Sierra Club projects. I did also volunteer with the Zoo in Cincinnati for a couple of years, a real learning experience about how we were and weren't connecting with the natural world and to work with members of the public who really weren't aware at all of that disconnect.

7. Which power structures do you think need to shift or change to create a better world and how?

It comes back to that inner connectedness with our inner power and initiation. I feel too that power structures would also be coming from a balance of inner masculine and feminine energies, working in local government structures as well as regional, by having those connections to that more integral whole systems view as we apply that to decision making, then it will be more appropriate.

So when it comes to decisions of how corporations interact with society that it would only be through a sustainable decision making process. No corporate personhood.

8. What does the term 'whole systems change' mean to you? If it does mean something to you how does your work engage in it?

Yes, and it does come to the permaculture outlook, so it's holistic and it's deep and far reaching and inclusive, that's how I describe the economic innovation or changes within the economic structures. So it becomes much more expansive and inclusive of what's possible within us all to participate. And it helps to facilitate needs well met, that facilitation of the flow between needs and resources comes easier. Permaculture partnership, collaboration, symbiotic relationship.

9. What role do you see creativity playing in the Great Turning? How do you think your work is creative and/or utilizes creativity for yourself and/or others involved?

I feel that is what energizes it, through us and into that change. It is the birthing, partnering with the mystery, there is an openness in it, an exploration and a joyfulness and it is heart centered again.

For me the underlying common thread with all the projects I am working on is the connectivity and collaboration, it allows that exploration with potential, it allows for exploring ideas to then connect to our highest potential.

Z—What kind of artwork do you do?

B—Photography, mandalas, collage, just about anything I can get my hands on. When I go down the ecopsychology path, I would like to do this more. I love anything that connects us through the arts. Honoring our inner creativity, and reflecting that out into the community. That is the other thing I'd like to do is community art projects.

10. How do you relate to and/or view your work through the lens of spiritual ecology?

I feel that expression of a spiritual being having a human experience is true. I feel the more that I am honoring the heart mind spirit connection then that is acknowledging that I am on my path for whatever I need to do. I feel that has helped me to embrace the mystery, like Rumi, following that which has that strong pull on your heart. When that happens then I feel like I am honoring the 'gift' and that is when I feel most fully alive.

11. What does inner sustainability mean to you? What role does this play in The Great Turning?

To me it is feeling grounded and centered in the midst of the unknown. Chaos and creativity, both are necessary but to feel centered and grounded with it and keep the heart open.

12. What interests you about the intersection of social movements, the arts and narrative, why? What role do stories have in your work?

I love storytelling, stories. I really appreciate the more interconnectedness of the arts in our communities, it supports being fully alive as individuals and as vibrant communities, I'd like to see more.

13. Who are some of the biggest inspirations in your work, artists, musicians, activists, authors, or anyone?

Riane Eisler definitely, actually the fellow we heard this week-David Korten, what he has done with integration and the economic aspect. The other fellow is Paul Hawken and Blessed Unrest. John Perkins-Confessions of an Economic Hitman. Jean Houston, as far as the human potential movement, she is a real inspiration coming from a lot of worlds. Jane Goodal, she's amazing.

Interview Research #5

David Bartecchi, Director of Village Earth

Date of Interview: 6-2-09

Questions:

1. What are some of the most important or urgent changes you think need to take place in the world to move us towards equity and sustainability?

Especially working with the groups that I do, I think there needs to be a recognition of rights, for one, of people, of restoring historical inequities. It's just appalling what is going on with the land situation with Native Americans. It takes a lot to understand it, but once you do it surprises me how much people aren't up in arms about it. How much that inequity has disrupted the distribution of land. Until the US owns up to that, this is just going to continue. The Kobell lawsuit estimates that the US owes the Native Americans about 56 billion dollars, direct payments that were never made. The last judge acknowledged that they are owed this money, but he ruled they get 400 million. I don't get how that even compares, compare that with bailing out all those banks. I would say owning up to that, in the future recognizing people's rights to land. Not just basing our land use around extraction of resources, getting off oil is going to have a big impact on indigenous people around the world. They've been pushed to the margins and that is now where the last remaining oil exists, like the Amazon. As prices go up it makes extracting that oil to the companies more feasible.

2. Are you familiar with the term energy descent? What do you think are the most important interventions to make in the challenging trifecta of peak oil, climate change and the economic situation?

I think in terms of energy descent the only source of outside, the notion of peak oil is, there's always going to be some oil out there, the only reason companies haven't gone after it is the opportunity cost. Or places like Iraq or Iran you know it's sort of like a cost benefit equation, the point of peak oil has already happened. At which point do we say it's unfeasible? If we made the oil companies pay for these different environmental and social factors, it would be. In terms of descent, working with the buffalo caretakers, it's a whole different ethic. Getting this buffalo meat to market, we've encountered a lot of ethical issues along the way. Once you get to a point where you're shipping meat around the country in little containers, that's not going to be feasible eventually. So we've really focused on creating a local market, started a CSA market where people can buy in bulk. Other things like just the way they raise the animals. I think they are kind of showing us how this current mode of production is totally destructive. Like getting around the feed lots is much more expensive and challenging. To do the right thing means its only accessible to the rich. This is going to be a real challenge to do things in a non energy intensive manner. Its ironic that doing it in the right way costs more. If we developed our local market enough and gas goes up to 5 or ten dollars a gallon we could be delivering meat on our bikes. Planning for that eventuality is important. It's a political situation too. Gas probably should be 50 a gallon if we took all of the costs into account. I think it doesn't have to mean a decline in, I think we can see more growth, if we start tapping more into sun and wind. If you think about the Earth as a closed system, the only source that comes in is the sun. Wind essentially is a product of solar energy. I think its interesting working with the buffalo co-op, they have a different ethic about raising

animals. For instance, we were processing six buffalo this last weekend, all of the sudden they made a decision that they didn't want to do that many, the reason they did that is they went out to the pasture and just made a gut decision about the health of the pasture and whether that would disrupt the buffalo. The other thing is that most people are going to process animals from 18-34 months but you cant really talk about that when you are trying to keep the social order of a herd together. The way they decide which ones is to take a holistic consideration of the herd and what's best for it. Getting away from a purely economistic view of nature, people need to be educated about that as well.

3. If in 25 years, you were living in the world you are working to create or the world that you would most like to see what would it look like?

Well I would hope that we would be off fossil fuels for one, that is really at the root of all these things. I'd like to see some dramatic shift in the corporate structure, generally shifting to more accountability to communities at the local level. Basically the basic platform of the Republican party but before they got corrupted by corporations. We've got to fundamentally alter the way we think about rights, land rights, the rights of other creatures. I think in one way it will happen on its own, but in another we can't wait for that, if we wait it will be chaotic. Who knows, we may have gone too far already. Western culture has already come into question, with the collapse of the financial system, globalization in the last five years has lost so much steam, even five ten years ago people were drooling at the mouth, not so much anymore. Is it people reflecting back or is it the pendulum swinging back, are we

back to Carter and then it will go back to Reagan? Its amazing how much and quickly people forget. Like with gas prices, there hasn't been a cultural critique.

4. What do you think are the most important tools and education that a community member needs to feel empowered to participate fully in creating a sustainable future? I would say in order to participate, there is the whole personal history, especially working on a place like Pine Ridge where you've got so many layers of oppression going on, where you've got generations of alcoholism, abuse, rape, etc. In order for people to participate in seeing and creating a different scenario you've got to deconstruct all of that, which is unbelievably complicated and painful. I've never encountered anywhere else that has had such layers of oppression and such an intense psychological impact. Having an understanding of that, for one, is critical, the impact that its had on you and others and stop blaming and looking for solutions, if you can cast off that baggage, everything around you that tells you that you're worthless or incompetent, that's where Freire makes so much sense, analyzing that and the exploitation of land. Working on an internal process that is trying to do something about it. This is the most challenging area and is also where narrative comes in, so much of what defines that dehumanization is that narrative about yourself and your community. The Oglalla narrative of 'we fight among each other' doesn't have to be like that, it can be a different story. Common right of passage story, men get out of high school start drinking, get into their 30s, go into rehab, recovery takes till their forties, then they come back to help their community, and the life expectancy is 57 so have 17 years to help. Creating a new narrative where maybe you can skip the

drinking part and go right into the helping part. In terms of tools the ability to reflect and communicate is the most important. Reflect, communicate and then act.

5. Which power structures do you think need to shift or change to create a better world and how?

Changing Western patriarchal individualistic power structures at the base and just Western culture in general, primarily because this is one thing I really…we can talk about indigenous communities as being more in tune with the earth. If you're working practical on the ground, the way that translates is this fierce notion of collectivism. When people try to excel or expand their business people will attack them for it, people will hold you accountable. In actuality that means what right do you have to consume more resources than us, you have a right to share the wealth with us. It's a totally different conception of how to exist. In Western culture it's almost a status to just consume as much as you can, that has a direct implication upon the earth. Say you have a forest on indigenous land someone can't go out and cut down all the trees you want whether you own them or not. Those resources are everyone's, no individual has a right to consume an unlimited amount of resources. We criticize it as saying it keeps people form rising up, but at the same time it supports everyone. Until we can get to a notion that no-one has a right to destroy the earth, but also everyone has a responsibility to take care of one another. Western culture is built on ownership. Even on the buffalo land, if it's your land you don't have the right to have a uranium mine, there will be justice and people will let you know that's not right. Whereas we have this system that protects people's property

rights that allow you to do whatever you want no matter what the harm. So we have the state power structure and then within that the corporation, the mindless zombies, where there is no accountability. There is the concept of eminent domain and the notion that the state can intervene and do what is best for the broader whole but it's not at the community level like it should be. The state is really a container for that.

6. What project/organization/effort do you work with/on currently?

Pine Ridge of course, there we're working with the Lakota Buffalo Caretakers Cooperative. We have two streams to what we are doing up there, supporting land owners who are utilizing their land, our main concern is that 60 or 70 percent of the land is being utilized by non tribal members. The BIA has very little enforcement and the land is being destroyed and very little of the money generated from that land goes back into the community. So our focus is getting the land back to the people, which puts it back into their cultural ethic. Supporting the ones who have gotten their land back to utilize it well, with gardening, with the buffalo. The other stream is helping the families get their land back and navigate the bureaucracy. We developed this map book based upon what we've learned to help families do that. The biggest obstacle in getting their land back is learning the truth, a lot of what they've heard isn't true. Serving as advocates to them for the BIA and the land office. There is no one else working directly with land owners. No one else is working directly with the grassroots, the irony is that they have suspended all their grants until at least July, so we are finishing out the one we have, they wont even announce whether they will give them until the end of July. These grants are based off their investments, some of

it comes from railroad money, 80-90 % of their money is in investments, so when the stock market collapses they probably lost like 30-40% of their money. Their mission is to get indian land to Indian people but yet they are tied in with this capitalistic system, when that collapses this foundation doesn't have money, it is very ironic. Or the money in the first place came from the very problem like the railroads who made their money from taking Indian lands.

Working with the Shipibo, helping to form the regional organization, ODDOAP, organization for the defense and development of the peoples of the Amazon. First organization like it. This came out of the graduate certificate session you were in a couple summers back when the leader of the Shipibo was there. The 120 tribes had groups helping them individually but no one group that was representing all of them, there was no unified voice to fight back against the illegal loggers, or the exploration for oil. Onc village would be fighting on their own rather than as a unified force. Right now we are trying to raise funds to create a radio station so they can communicate between the villages. We want to form an indigenous bank because they face discrimination in the other banks. Also development because they want to promote their crafts and fish farming etc.

We also have projects in Cambodia, Guatemala and India, though they are mostly autonomous, we serve at their fiscal sponsor.

7. What does the term 'whole systems change' mean to you? If it does mean something to you how does your work engage in it?

In Freire's approach, I believe that you can't just change the oppressors. You'd have these liberations that were going on, and you would have the revolutions, and the people that became liberated would end up become the oppressors. His approach was to address both the oppressed and the oppressors, people have to fundamentally question the underlying values of our society, it can't just be flip-flopping power. I think an emphasis on visioning rather than just organizing around problems, in doing that, you're able to visualize a different scenario. In doing that visioning you are able imagine a whole different scenario, rather than just coming from the place of the problems. That's one area where I stray from Freire is he does tend to start with the problems rather than the vision or alternative scenario.

8. What role do you see creativity playing in the Great Turning?

Arpudo Escobar—great article, where he makes the argument that there are no modern solutions to modern problems, both capitalism and communism are projects of modernism, both are the basis of the problems, birthed out of Western civilization. His argument is that it's likely the solutions are going to come out of these new movements such as the indigenous rights movement or the anti-globalization movement. A whole new way of thinking, like the permanent forum on indigenous issues, or Evo Morales who said we don't want to grow, we want to live well. It's a different way of looking at progress, not as growth anymore but as living well and taking care of each other. The drive to growth is causing the problem in the first

place. Like the carbon credits and things all based off the market approach to solving these problems. Countries like Ecuador they have the intangible zone where the government recognizes they can't touch it. Now though they are threatening that they will unless other countries pay us for the carbon credit in that land because of the oil that could be extracted. Holding the land ransom, all based on carbon credits. Need more emphasis on creating more empowerment for people. This whole carbon thing is going to create a drive to commodify the whole planet. Once you create a market for it…Ecuador wouldn't be holding it ransom otherwise, pay me for it or I'm going to cut it down or extract it, where do we draw the line on that, can we commodify every square inch of air? That s where creativity comes in, its not going to come from our elitist perspectives, but has to be led by the oppressed, by working alongside them they show us the lines of perspective, show us exactly where our culture is oppressing them. This helps show us our own culture and how it is working, we have to be directly engaged with the oppressed. They have to show us the contours of the cage that they're in, we can t see it cause we are it.

9. Do you relate to your work in a spiritual sense, if so, how?

I would say, partly my drive is these connections being made with people. My roots are always coming from a Marxist point of view, I've heavily been driven by a social justice kind of framework. Through this work in working with indigenous people especially I've learned of the importance of looking at in a spiritual sense that goes beyond injustice or inequities, and being fueled by that. It is going to have to be a spiritual transformation that takes place. Tapping into the buffalo management, they

will go to ceremony to make decisions about how they handle the buffalo. Less of an economistic decision, looking at an infinite amount of variables that can only come from connecting to your own self and others in that way. In that sense that's where the indigenous rights movement is going to show us a different way of relating to religion and spirituality. That it can't be separate from what we do in our daily lives. In actuality Christianity helps drive them. Working with the oppressed in this sense it helps you see how deeply embedded these things are in ourselves, learning to listen like that and be open to those challenges. Liberation is a birthing process Friere said, it is a painful process that we have to grow through.

10. What interests you about the intersection of social movements, the arts and narrative, why? What role do stories have in your work?

I really see that through, especially the work in Pioneer Ridge and Peru, just how powerful narrative is in shaping the way we look at the world, and how powerful it is in changing the way we think about the world. Art as being a tool that shapes that, a different tool of development, looking at people's narratives about themselves in community and how that reinforces their oppression and their liberation. We primarily use film to both capture their story and what are the alternative stories. Once you start doing that people can start re-imagining their future. Influence of Campell and Jung, the archetypes become the model of how relate to ourselves and one another, even in a community. For instance you do a documentary and people see themselves as characters within a story and can broaden that out to a global

perspective they begin to see themselves within a global narrative. It is a powerful tool.

Z—What is the documentary work?

D—Part of the grant is to do a film on the whole buffalo work project, trying to base it in how do you do these things, exchange your land, get it back, obstacles faced, what did they learn along they way? Steps to take, people telling their experiences and trying to tie this into the bigger picture, interestingly a lot of people don't know the history of their land, showing the long view, when people see how unjust it is…oh my god its ridiculous, the narrative is this is what we do, don't know that maybe their great grandfather was deemed incompetent. Showing examples and stories.

11. Who are some of the biggest inspirations in your work, artists, musicians, activists, authors, or anyone?

Well for sure Ed Schinn, he was a mentor, he really challenged me to be critical in a sense, forcing me to give my opinion, not just agree, he forced me to do that so much that it popped a cork in a way, cause we learn to default to authority so much that we don't critically think for ourselves.

Henry Redcloud on Pine Ridge, he can withstand so much, such a hard worker it's amazing. He's always said just you gotta keep pressing on, even when things are falling down all around. When there is a storm cows will get pushed into the corner of a fence and sometimes end up getting hurt whereas buffalo will walk into a storm

and do well, he always used that as the analogy, you just gotta be like the buffalo man and just keep walking into it.

Interview Research #6

Randy White of Bright Neighbor

Date of Interview: 6-3-09

Questions:

1. What are some of the most important or urgent changes you think need to take place to move the Portland metro area towards equity and sustainability?

I think one of the most important changes is that the community begin discussing the real crisis not being energy, not being the economy, the real crisis being time and time management and the way we spend our time. In other words I find that, to give an example, I have a friend that was just laid off two days ago and he is now spending his time trying to chase down another job that will pay money. If our Portland metro area had a conscious collective discussion of using our time effectively, could he donate 20% to helping the community prepare for the perceived crisis of money and the monetary crisis? Even beginning to get the community talking about a participatory discussion of a 20% civic active engagement and consciousness shift. The way we think about spending our time begins with right now how much time do I have left before my mortgage is due again, how much time left do I have to find a job? How much time do I have left to participate in an older system that is obviously not functioning properly, rather than how much time can I dedicate right now to assist the new forces coming to the forefront and become a participant in the new economy

based on local food production? Helping create deeper relationships in the community, concentrating on gradual social equality through those deeper relationships. But because we can't know everyone and have a deep relationship with everyone, to focus on at least getting involved with a segment and getting used to the idea of being out of a comfort zone and if people would expose themselves more to being out of a comfort zone and realize that that in and of itself becomes a comfort zone because it's fun. But as of late the peak oil mindset has been changing that it's not so much trying to prop up the existing system as we run Washington and as we run around the world, existing systems of trade, existing systems of monetary policy. This is the best opportunity we've ever had to become free, truly free, absolutely free.

You still have to have somebody show up to the electric company in a hard hat. So what's the intent for that person and I think we need to identify, say, here's an example. Digg, the website Digg, they've come up with a model to let their user base decide which advertisements have merit in their community and how much that advertiser should pay to reach them. That's democracy of the market right there. If we can do the same with doctors, with Tri-Met bus drivers, and have a redefinition of social values. What is relative, fair, equitable? Because okay if the financial system collapses tomorrow we still have to have work. It's the compensation that's questionable. So the financial crisis, to me is a time crisis. Because people who are being laid off aren't thinking in terms of this, people who are being laid off need to focus on the educational component of getting them to think in terms of time is not on the old systems side any longer its on the new systems side so we may as well get

used to the idea that this change is here to stay and that its coming down to active involvement with existing community projects and also starting their own.

2. Are you familiar with the term energy descent? What do you think are the most important interventions to make in the challenging trifecta of peak oil, climate change and the economic situation?

I think again it comes down to learning systems, how do we learn, what are we taught? Theres a youtube video that shows an example of a teenage son telling his mother that hes an atheist, and apparently his little brother puts a video camera on the table while the mother is railing at this kid, swearing at him, you have to believe in god, the kids saying I don't, and the absolute threat to his mother that her belief system could be wrong and she wasn't going to hear it, saying you're going to go to church twice as much. So the conflict and the point of intervention is if there's systemic points that we can address for intervention, I think that's what it is, that video itself was an archive of an experience. So what I am doing with bright neighborhood tv is archiving the change, documenting change and creating learning systems for people to learn by example. So we have people like Leonard Barrett that his mushroom class that he puts on and shows this is a chance to start a new business, feed yourselves, feed others, Jeremy O'Leary and his backyard and his permaculture. So the point of intervention is how much crap is online that is a timewaster and then there is the actual learning information and trying to sift that to what is relevant to this ecosystem…and what's relevant is not just a how-to plant onions video, you know, but showing how to do it with people in your community, in your area and get

involved and create deeper relationships at the same time. So the video archive the context of it is all local. The other intervention would be at the K-12 level and immediate adult realistic overhaul of what they are prepping kids for, for a future that does not exist, highly, highly activating those kids in the realities of biology at an earlier age, the reality of ecosystems at an earlier age. From a standpoint of the time the kids are in third grade they are a master of a type of crop, and then Betty knows beets, Billy knows carrots and then they're trading and then by the time they are in high school they are in an apprenticeship program where they choose what they want to do, things that are more relevant to local food systems, water systems, transportation systems, art, art is a huge one, I mean were seeing kids getting cut back on art in all the budgets, absolutely the wrong way to go. So, system intervention at an earlier age to overhaul the entire educational system.

3. Aside from Bright Neighbor, are there any other projects or additional efforts that you are actively working on in the community?

I dip my toes in all kinds of things, I'm a member of Transition PDX, so many groups, the ones I am focused on more are, well, Bright Neighbor certainly keeps me busy. I mean just going to other meetings and finding out what they are doing and how I can help them. You know the PDX Green Team, Jeff Cogen's crops project for the Multnomah County Farm that is just starting.

4. How does Bright Neighbor help patterns of sustainability to emerge?

Hmm. Can I have a moment?

We are a catalyst…while we are a radix or an edge of a root system that is helping sustainable behavior emerge through a mix of media, video, audio, internet, print, four major media. Using this mix to drive change with a combination of civic engagement, real world versus electrons and then turning around, assessing what happened and then promoting that through the same channels that we just did something with. So it's a constant moving of a peg forward, looking back at how we moved that peg forward and then taking that knowledge to move the peg forward to the next spot and constantly assessing what we need to improve upon.

Z—You say 'we' are a catalyst, who else is behind Bright Neighbor besides you?
There is a programming team of three others and then bright neighbor volunteers. I'm still getting this tour set up, I need some help, I really do, to start lining this neighborhood revolution up and getting the neighborhood ambassadors.

Z—What does being a neighborhood ambassador consist of?
R—A Bright Neighbor ambassador consists of if you live in one of the 95 neighborhoods and you'd like to volunteer to verify your neighbors as members of the neighborhood, so you verify where you live and then you send me a message saying 'hey can you verify this person' and since I trust that person, like if you for example said hey verify this person, I would. So, a neighborhood ambassador is being the first tier in that neighborhood that helps spread the knowledge of Bright Neighbor. There are now 4000 members in Bright Neighbor, while I think that is awesome, it is still a website, a technology, it's a mechanism for learning and

exchange but…the neighborhood ambassadors are independent to do what they need to do to make this change and however they can use Bright Neighbor to do that.

Z—So, Bright Neighbor, how did the idea originally percolate in your brain and come to fruition?

R—The original idea came to my mind as being aware of oil depletion, energy descent that we would need a ride share solution, and that there wasn't and acceptable ride share solution online. So I created the site Carpool Crew, which was that so you could find neighbors. It will show you the people that live around your area. I realized that with Bright Neighbor the context of dealing with all of our challenges at once went way beyond just ride sharing so I realized I had to have a bigger system that had ride sharing as a component but was not the central concern. That was late 2007 when the epiphany hit, I mean we just launched in November.

Z—So do you have other means of income right now or are you just focusing on Bright Neighbor?

R—I quit a $70,000 plus a year job to do this thing. I've paid myself twice in the last year now. I want to show my wife that there is at least some life, some opportunity here. She looked at me three months ago and said that you said you were going to do this and make money, not save the world, you tricked me. Now, we do have some revenue channels though and while money has value in the present system I want to make as much of it as possible and put it to good use, money has power and you can do good with it.

5. Which power structures do you think need to shift or change to create a better world and how?

Starting with the family, immediately is what comes to mind, starting with the family in making small incremental changes that they are proud of, changing something about their house, installing solar, installing rain water catchment systems, converting their lawn to food, making it a family affair so that it becomes a group dynamic and ego and pride involvement because when you do something yourself, you know like how many first time gardeners or farmers that first time they have that carrot realize that is the most delicious carrot ever, well it's because they themselves made it. So whether it's a power structure of a corporation or a government or a community I see it as in the reverse, instead of at the 10000 foot level seeing it a smaller level . Who can you influence and move towards a generally accepted scientific, reasonable, ecologically friendly adaptive behavior? Adaptive behavior at home will help change the larger power structure.

6. What does the term 'whole systems change' mean to you? If it does mean something to you how does your work engage in it?

What comes to my mind in whole systems change, I see whole systems change in this transition that needs to be made like seasons where we won't jump straight from Winter to summer, we need to go through a thaw and have a spring. We need to see the emergence, help what needs helping along, training the leaves to go certain ways, whole systems change that would be successful if treated as such, looking at systems

change in terms of time, and that we should give ourselves a season. What I've come up with is a three year plan, a fruit or nut tree takes three years to start bearing fruit, or asparagus to start bearing healthy stalks. The first successful revolution of the transition movement will take three years, if everybody took one action and put in a fruit tree, a nut tree that within three years time we could look back on a progressive partnership and have evidence of change and see how we are doing. Rather than looking at whole systems preservation what they're trying to do now is return to what was. I would equate whole systems change to earth systems and seasons.

7. What interests you about the intersection of social movements and narrative, why? Narrative being the stories that we tell ourselves and tell each other, cultural stories, the stories that are creating the world that we live in or have for a very long time and looking at how those stories are changing.

Z—Do stories or narrative have a role in your work?

R—Stories help my narrative, like we humans do being able to try and make inferences about the future by looking at what we can infer from the past. I don't believe in all of the probabilities of the thoughts of the future cause I've learned that I have been mistaken. But I can look back at even the narrative of Bright Neighbor, as a story in and of itself, it has character, it has suspense, drama, it has all the elements of what we're living right now. We're actually living a blockbuster movie, it's been all fun and games up until now, but now we are up to the part of the movie where the shit hits the fan. You know like when Darth Vadar and Luke start fighting and all

that stuff, I mean the real conflict is happening. And I see out narrative as a happy ending as long as we can avoid violence, pain and suffering as much as possible. But I also think we're in a narrative of a choose your own adventure story, unlike where I was a kid and chose the wrong path and got killed and in the end I got to back to the page and choose something different. This is a serious story. I'd say we are actively in a narrative and this is the most exciting story I've ever participated in. Wow, wow, look at what were doing, I mean you're part of it, I'm part of it, this whole city is part of it.

8. What role do you see creativity playing in the Great Turning?

I see creativity as an art form and it should be presented as such, and when it is presented creativity gives people the chance to express their purpose, beyond function, if you give people the chance to be creative you're giving them the change to participate in something greater. I would say along with creativity recognition of that creativity to encourage more creativity. On the flipside of creativity is danger, look at the internet there's a gazillion websites. What is a standard that is emerging? Facebook is one of them, were seeing the iteration, the evolution of the internet, craigslist, then to myspace, now throwing up facebook as a mature platform, I see Bright Neighbor as the next evolution of a context specific…the signal to noise ration is ridiculous, of I'm going to lunch, now my cousins updating that he just won some game. All these, twitter, all the chirping, what is relative to what really matters, it's the context of what you are creating, are you creating a new system, are you creating

an art, are you creating something with a specific intent to get people to do or believe in something. I see it as a double edged sword for sure.

9. Do you relate to your work in a spiritual sense, if so, how?

Yes. The way I relate to my work in a spiritual sense is that I have stopped worrying about the afterlife. Not worried about the afterlife any longer… So, my spirituality is limited to this presence on earth, in this body, in this form, for this life. While I have consciousness in this form do what I can to enjoy it and give back to others and try to make the world a better place and what happens after that I really don't care.

10. Who are some of the biggest inspirations in your work, artists, musicians, activists, authors, or anyone?

The Kids In The Hall, huge inspiration because I am inspired by comedians because I think comedy is authentic and there are truths being pointed out and we laugh when we recognize truths being put to us in a manner we may have not thought about before and that causes a laughter response. I think that humor and comedy are an absolute necessity for change to happen because people learn through comedy, through laughter. Robin Williams, Bill Hicks, Malthus, my friends and family.

11. How do you see Transition working in Portland?

I see transition as an educational vehicle but not logistics coordinators, I think transition has an important role, as facilitators of getting people interested in doing their own exploration after they're introduced to the idea. Not only what is going on

but that the idea that transition is there to help because there are those of us who have been thinking about this, who have been planning this. And transition's role is an important role to give people hope that it is part of a movement of people that care, that are out there on the forefront. I also see it as an important brand outside of Portland around the world and the Portland chapter as a rep of the greater whole is important because what we can show were doing here and feeding that back to the larger system. I'm going to offer up a criticism, how does transition know when its achieving its objectives, how does transition towns gauge metrics of success. I guess I would just ask that question for the group to ask themselves.

Z—So how does transition know when it is achieving its objectives and what are the metrics to gauge that?

Are you seeing a ten percent increase in membership per month is that higher or lower than you were shooting for? Something like that. Being able to look back after three months of metrics gauging and say are we making headway here, are we losing members, why? Are we losing members, why?

Z—So how are you involved in transition here in Portland?

By creating relationships with transition members. We are all in the same league we are just playing on different teams so I like to check in and see how the season's going and I also offer Bright Neighbor as a tool to help transition do whatever it needs to do.

12. Does the term inner sustainability mean anything to you and if so what role do you see that play in everything that's going on right now?

There's a rule or a known saying that in swiftwater rescue save yourself first and then help others. You're not much use to others if you can't first help yourself. I've been under an enormous amount of stress, financially, I've risked everything , to me inner sustainability is about being able to keep going without having to sacrifice yourself. So you're not much good if you burn out.

Z—I guess when I talk about inner sustainability I'm referring also to the heart and soul aspect of the transition model and things like the psychology of change and the psychology of addiction and all of the anxieties that people are going through as they realize that we are all in a sense addicts and that our culture is filled with addiction to cheap energy and to consumerism and to what we've been used to for so long and helping people cope with those changes, the emotional and psychological changes that we're all going through with these changes or will be going through.

R—Let me ask you a question, have you had a massive emotional trauma in your life?

Z—Many, yes..

R—I would say the reason you are able to cope, your coping mechanism, is because you haven't gone through life with the most important thing being who wins the sports team challenge of the year. You've been introduced to pain and trauma and suffering and it has either helped or hindered you in certain ways. So inner sustainability I would also say is your coping mechanism with change and whether

you can handle rapid, rapid fast change, dealing with that shock. It seems that the average citizen right now is starting to deal with is the recognition that all is not well and that something fundamental is changing and they're not sure who the leaders are anymore. Inner sustainability is also confidence in the future, so the emotions of not knowing your purpose in and of itself is exceedingly traumatic. Do I have a purpose anymore, what is my purpose? I've lost my job and that was my purpose, that is what I did, people are losing their purposes left and right. Anyways the answer to the question would be for each person it depends on what level of trauma they've dealt with, how they relate to things…

13. What organizational development or whole systems change processes are you familiar with (i.e. open space, world café, wisdom councils, etc.)

Not enough to speak about….

14. Do any of the following terms mean anything to you either personally or in relation to your work in the community?

*biomimicry *co-intelligence *relocalization *the story field *pattern language

In any free time that I have I steal away I quite enjoy watching the TED talks, they're cerebral and phenomenal and entertaining, the use of multimedia within multimedia, the ability to take biomimicry and once you learn about that, the only media limitation is only the way you know how to learn, if you look at google and see the first search term, probably wikipedia, then you are looking at the collective knowledge of whoever created that and seeing that this real, this is truth, this is what

is…I would see from a systems perspective that what we are heading towards, the new buzz term is singularity, the new buzz word, we're headed towards a singularity in consciousness, with artificial intelligence being created as we keep entering this information in the data flow and stream, the now is so important that I feel that time relativity is changing, that's why I go back to the real crisis is time, and how can fields like biomimicry or others can help that consciousness emerge. Everything about time is about the way that we are using it.

Interview Research #7

Milt Markewitz of Appreciative Sustainability

Date of Interview: 6-4-09

Questions:

1. What are some of the most important or urgent changes you think need to take place in the world to move us towards equity and sustainability?

Well I think two of the major paradigm shifts are moving from a mechanical orientation to an organic one. The way to do that is primarily through the education process, teaching our children what brings life, what makes a living system, how it is different from a mechanical system. How we might look at all the organizations and processes in our life as living. The second would be the world view of shifting culturally from a world view of perceived scarcity to a world view of limited abundance. The very definition of sustainability to me is being in harmony with the earth. So we can take, but it's always within the bounds of mother nature healing. So inherent in that is really getting a grip on what's our cultural meme and getting in

touch with what it means to be sufficient. What it means to get in touch with our relationships with each other and with the earth. The quote from the Eshwa Indians, we need to change the dream of the North. I think another major paradigm shift is how do we view life? Is it a problem or a blessing? I think this is one of the reasons people are so discontent with religion because it views life as a problem as opposed to the indigenous view. There's another major paradigm shift, being able to see things from a generational perspective, the problems we have weren't caused in an hour or year. I think when you put in that element of time we are really getting to another shift that is about critical and systems thinking. That leads to another major paradigm shift and the doubling of speed and cost, we tend to view life as more and more complex when in fact the basic essence of life has the same simplicity that it has for millions of years and the way to see it is another paradigm shift.

2. Are you familiar with the term energy descent? What do you think are the most important interventions to make in the challenging trifecta of peak oil, climate change and the economic situation?

To recognize that the economic situation if we understood systems thinking clearly we'd understand how we created this. Amazingly even when we we're our wealthiest our conversation was one of scarcity. We not only have to find our own economic means, we have to recognize our wealth and be giving back. One of the keys to sustainability is to move into recognizing the earth as a commons. Peak oil, big deal, so what? We fell in love with the automobiles and the world did just fine without any of that for much, much longer before. I think the way out of it is to basically tell all

of the large corporations to keep designing ways in which stimulating creativity and entrepeneurship and to tell companies like GM etc that you are welcome to play in the game but you have no embedded advantage. I absolutely believe that it is a terrible mistake to have the assembly of cars all over the place. Global climate change is a huge education problem, the biggest thing now is you have to see this in terms of a living earth and how does it recognize things as an organism? I don't think there is a clear picture about what population the earth can support…I think we should get a clear picture of that. Helping people to understad how to act locally. How do you change to recognize what are the national resources and how do you share them? Water is essential, oil is not.

3. If, in 25 years, you were living in the world you are working to create or the world that you would most like to see what would it look like?

It would be peaceful, a minimum of conflict and the capacity for dealing with it, it would be in harmony with the earth. People would be comfortable with the life death cycle so they could give themselves back relatively easily. There would be a much stronger communal feeling, and generosity, a sense that we are in this together. I think things like every entity would sort of be in touch with its guiding principles, like governance would say well only do this if is sustainable. I think the last thing would really be seeing things in a different perspective. To be able to suspend disbelief, to open ourselves up to possibility.

4. What do you think are the most important tools and education that a community member needs to feel empowered to participate fully in creating a sustainable future?

Understanding of living systems, a really deep appreciation for the world, for community, for family. Appreciation in a word. Systems thinking is really high on my list, particularly organic living systems. An understanding of democracy, what it is, how fragile it is, what's necessary to keep it alive. Basically educating for character.

5. Which power structures do you think need to shift or change to create a better world and how?

The power structures that we know and have come to count on are basically military structures. Here's another paradigm shift, theory y—is that people are good if you give them the information they need they'll make good decisions for the common good, theory x—says that people are inherently bad that they'll sabotoge the process and I think that is grounded because of the hierarchy that we have, which helps create the story for theory x. Another shift along with this is moving away from seeing things in a duality. The structure of things needs to assume theory Y and be fundamentally relational rather than hierarchical. The military structure has tainted even those of us who are enlightened. In most of our exchanges in life we should be doing it with the assumption that we are all equal, there is no hierarchy in the end.

6. What project/organization/effort do you work with/on currently?

The Parliament of World Religions, the Network for Spiritual Progressives, there's a major interfaith effort at the congregation that I am in. I'm co-chair of the Interfaith Council of Greater Portland. I have the website Appreciative Sustainability, I would like to develop that as a workbook for university students as well as age appropriate for K-12 students. I am also on the fringe of TPDX.

7. What are some of the visible manifestations of this work?

The website is built around visual manifestations. What does dialogue look like if it is viewed as a living system? Pictures that are worth a million words. The Network for Spiritual Progressives has a declaration for a global reinitiation of the Marshall plan, both domestic and global. How do we really upgrade this virtue of generosity? The interfaith work is just working with Imam Truroe to exemplify an example of people who see others through a lens of humanity rather than the lens of whatever their religion is and awakening that in all of us. Well keep doing events and workshops. Also working with Living Earth and Betsy Toll and on a workshop for the fall where we bring together these pictures, how do you feel that in your heart and soul, embodiment, how do we get in touch with and really feel with the living earth?

8. What does the term 'whole systems change' mean to you? If it does mean something to you how does your work engage in it?

After I left IBM I got involved with learning organizations where we got people ready for change. I began to understand what is meant by conscious evolution, so I went back to school at Antioch in the whole systems change program. Fundamentally I am

a systems thinker. The whole systems design is to look at it from half a dozen interesting perspectives. People will explain whole systems in very different ways. Probably the most important is more shamanic and indigenous, does this really play out over a long period of time and how does it connect in way where I am really in touch with other people and other life forms and so that I am flowing with all of them? We as a culture need to understand systems thinking.

9. What role do you see creativity playing in the Great Turning?

It is absolutely essential. How do we create a system that stimulates creativity and acknowledges and rewards it? We have to look at our system today and see how its stifled. So I think, with global climate change creativity is going to be absolutely essential. Creativity that is in touch with systems where we are flowing with them.

10. Do you relate to your work in a spiritual sense, if so, how?

Very much so, in fact Id say ten years ago today there was a professor that was really mad at me and said sustainability was like a religion for me, and I said yes it is. The fact of sustainability that most intrigues me is the spiritual one. Creating an ethical compass for yourself. I think in themselves all the critical resources like air, water are spiritual. The four questions I live with that really drive my work is who are we for each other, who are we for the earth, who are we for future generations and who are we relative to whatever the source of life is. I think spirituality is a beautiful blend of individual need, sense of truth and belonging, and communal. In 2002 there was a guy here, Alan Hammond who spoke about the three basic models for

sustainability, a market model, a transformational model and a fortress model. He discounted the marketing model and the fortress model very quickly because of the obvious problem with them. And then he talked about the transformational model where he talked primarily about business. When he was done I said you know you talked a lot about the technological and business aspect, could you address the spiritual aspect and he looked at me and was like whoa where are you from. And I told him, you know, this is really about understanding our ethic and our relationship to the world. It is pretty damn easy to define the severity and urgency of the problem. But it's very difficult to define where we get the will to do the work and that's a spiritual thing in my mind and he just lit up and he said wow, yeah this is really important work.

11. What does inner sustainability mean to you? What role does this play in The Great Turning?

I think its minor, I am much, much more about community than I am about self. My life is mostly defined around ethics. Seeing life as a blessing is totally important, you can't view life as a problem. I think kind of an extension of that is we need to look at our stories about life, we need to develop a new cosmology.

12. What interests you about the intersection of social movements, and narrative, why? What role do stories have in your work?

Ok there's two levels, one is this cosmological level as a culture we don't really have our story, and what we rely on in the mechanical tradition is genesis. In the Abraham

traditions we rely on Abramist but we don't look at it as a cosmology. In Judaism we have an oral tradition but it is not written, we haven't asked what was lost. Because we don't spend time around a fire telling stories and asking people to go into their own story and their own sense of truth. So the website that I did, the opening quote is taken from a Native American book, every story told is an invitation for the listener to get into their own story. Every chapter is written as a story and has a question for the reader to ask themselves, the whole things is like an ongoing story, that builds and creates new stories. I asked a visiting Rabbi, talking about shatterings and the Holocaust, and we go to talking about how all our stories are written now so we don't sit around telling our stories anymore. Stories are a big deal and in all the work I do I use appreciative inquiry. The questions are all really oriented towards what is it we most deeply care about and once people get into that story it is clear what it is they want for themselves, their children, their village.

Z—So in a way would you say appreciative inquiry is about helping people to tell their stories?

M—Absolutely. It gets them to tell a very different story. So it isn't just telling stories but telling those stories about things that we really deeply care about. I think then when two people or more get together and are telling stories that may even seem trivial when they know they are in communion with those other people it is that relationship that adds to the story. Berry said "we're not a collection of objects, we're a community of subjects". You know every once in a while you see these incredible people who find joy in every moment and really see life as a blessing.

That's one of the major shifts we need to make, finding joy in every moment, deep optimism, gratitude. There's a notion of resilience. I was down at the biosphere in Arizona a few years ago. I asked if there was anything that wasn't working and she said yeah we grow trees but they only get to be about this tall and then they fall over. There is no wind there, and it's like the wind that creates the tensile strength in the tree's roots, so without the winds of resistance the root system can't develop properly. If we don't have the winds of resistance we wont develop the strength to do whatever needs to be done. If we really saw this as life we would develop an appreciation and understanding of ceremony and ritual and life passage events and how absolutely important these are to developing character, community. In the U Process, Jaworski tells a story of going to a coach or a mentor cause he wants to experience nature. As I read the story he was virtually guaranteed that if he did all these arduous things he would connect, and time went by and nothing happened and then one day he connected deeply and profoundly with this otter. These tribes are going through these rites of passage knowing that these young people are going to connect with life in a way that is absolutely essential and we don't do that. My worldview is that somewhere that appreciation is there it's just been covered up with so much muck.

13. What organizational development or whole systems change processes do you find most useful? (i.e. open space, world café, wisdom councils, etc.)

Appreciative inquiry is at the top of my list and one of the reasons is that I can blend it beautifully with virtually any of the other processes and it seems to be a life process. All of them have their place. I think future search, all of them become very

influenced by the culture that they are in. I haven't experienced world café as much as I'd like.

14. Who are some of the biggest inspirations to you personally in your work, in your life artists, musicians, activists, authors?

Thomas Jefferson, Tom Hartman, Richard Tarnas, Willis Harman, David Cooperrider, Matthew Fox, Joanna Macy…Desmond Tutu

Interview Research #8

Ryan Burns, Environmental and Process Artist

Date of Interview: 6-5-09

Questions:

1. What are some of the most important or urgent changes you think need to take place in the world to move us towards equity and sustainability?

What ten simple steps? Is that what you said? (Laughter)…That's really complicated and I don't feel like I even have an answer to that. I really think that some art can achieve that on a small scale, just exposing people to issues. Well I think that people, like the project I am working on with the Democratic Republic of Congo, that is probably one of the worst places, there are five places in the world that are like horrible nightmares for people, you know, so, that's one of them. I had no idea about the subjects and stuff there so I wanted to learn about it and so I am making this art project about it and you know, maybe a lot of people wil see it in Portland and go. I didn't' know about it either, so maybe it will spread alittle bit and bring awareness,

but once you're aware, you know what can you do, that's all about cell phones and electronics cause soderite and transformers, coltan, but then the soderite the Eu regulated the lead based soder in all the circuit boards to be a tin based soder so the Ewaste isn't so hazardous, but the result is where are they gonna get it, theyre gonna mine it, they're not gonna mine it, these militia armies are going to enslave people to mine it and then its gonna get sold to the West and have no documentation where its from and a few people are making money from, and a few people were making money off of it and a few people were maybe eating. That's a huge part because everyone is so into, like, oh we're gonna become aware by our electronic devices but then the electronic devices themselves have this little, you know things attached that's creating, devastating people's lives, and those people that are mining it have no idea what its for you know? I mean, and nobody can go, there's a documentary about the smog, about those areas. And maybe, I'm working with these people who recycle cell phones to get the coltan out so that the mining will go down when the mining first started people were making a lot of money and it was a like a big boom and they were getting wealthy a little bit and eating and then it just dropped off and a lot of the armies just control everything.

Z—So you found out about this through the Bear Deluxe magazine?

R—Yes, some people that were there for the peace corps were exposed to the situation and were so like horrified by it that they wrote this really good article.

Z—and that inspired you as an artist to put this into some kind of creative, visual form?

R—It took all these aspects of things that were already at my fingertips, you know, and kinda ideas I was thinking about it, but it helped me bring all that stuff together.

2. Which power structures do you think or feel need to shift or change to create a world that works for all?

Woah, well there's dozens of obvious things, corporate dominating factions that destroy everything and enslave everyone, they kind of suck, you know? Like who feels that, like, we don't feel it here, you know, but everywhere else in the third world the third world has to deal with it pretty much directly. While we can try and figure out like, oh is this happening, cause it's all so obscure, some of the issues, but now there is so much stuff that's just kind of like out there. You know years ago it would be like everything's, any kind of corporate things you would talk about, it's like, oh that's conspiracy theory. Like testing products on animals, that would be just some sort of crazy idea you know. Now it's like, pretty much now, I guess there's a lot of people that still don't know, but there's like, certifications on products. Like the Greeen Building Council here, some guy was obsessed with that whole thing. This guy had been in the Amazon a lot and knew what the wood looked like, and he was like what is that wood doing in Portland on that certified green building? You know that's like Ebay wood from Brazil, you know, and he had to find the contractor to talk to him and like there's this certification but there's this wood on there and this wood comes from really far away and its probably not sustainably harvested. And he was

like, you know, well, we ordered sustainably harvested wood but it was going to take longer than we thought so this time we just got what we could get and then put it on. But they got the stamp of approval anyways.

Z—Do you think art or creative approaches to making the changes we need or educating people about what those are, do you think those can make more fundamental shifts or make those possible?

R—In some sort of timeline, no. Well yeah, my personal process, not knowing anything about the subject and then going well I want to cram my head with as much information about it, and make this project, so I can kind of share what I learned about it. And a lot of people I talk to don't know about it or seem surprised, like the people that work with computers and stuff. It has significance for sure, I mean that's the whole thing, take some subject or approach and art makes it significant, so its like okay here's this, now people see it and are like, now its significant, its this art project. And if its easy to absorb and learn, what it is like displaying, like the water filtration thing and the sculptural thing, and people get to see it in a public space but do they then go home and like put a greywater system in their house and say oh I learned this from the public square, are they even allowed to do that?

Z—Art is something that can be more tangible and visceral of an education about social and environmental issues, it's a wonderful way to educate people in a way that uses more than just their intellects, its something that's more inspirational and transformative, though maybe not to everyone. What do you think is the difference in

someone's relation and reaction to learning about an issue through art as opposed to reading about it in, say, National Geographic?

R—That's the interesting thing about, you know, art and subjecting somebody to this environment where off the bat people are really reactionary against art. And there's a lot of art that really challenges people. So I mean its interesting, people feel challenged by it because it's art and maybe they absorb it. Other people absorb things easier that way, just because of the visual language. Art is so many different things all embodied into one. Cause I mean the thing that I'm doing is sort of like archaeology and this museum type thing or you know specimens, a science approach to it. And that brings up these questions of imperialism and archaeology and how did that science evolve, you know? Like, oh we can't understand the third world until it's like the past and we can dig it up and analyze it because we're western science people so far remove from a lot of basic realities that other people go through. We're kind of mesmerized and comforted by different things, I think. But then there's a whole branch of archaeology that becomes so complicated because it's clearly a social issue. Like you're working with this culture that's on the fringe of their existence or something and then, so then your effort is to try and assist these people by studying them and working with them and you know, recording their knowledge or something. But, I think that's an old kind of a troubling subject for a lot of people and its changed a lot and you know what do you do? You just isolate yourself and study some really far remote tribe and soon the oil is bring drilled next to this tribe and people are starting to work for that company and clearing the jungle and it becomes a total social problem and this hierarchical corporate structure is imposing on these people. So,

how does someone analyze that and translate it into, it becomes like a report cause its archaeology, so then you know if the archaeologist was you know, is archaeology art or I can bring this, make this fictitious thing that overlaps and encompasses everything, all the different aspects of what it is and put it out for people to look at and judge and criticize.

There is definitely a conservative contingent that expects that from art. A lot of people want comfortable art. The funniest thing is all of these French impressionists, Toulousse Lautrec and VanGogh and all these people were absinthe addicts who just hung out and drank absinthe and drew and painted prostitutes and now its like, oh there's little calendars and coffee mugs and stuff and people love it, like little conservative grandmas. The art shock value of art.

Z—If you could undertake a creative disruptive act of everyday life in the public sphere what would it be?

R—There are a couple of DIY parades, like friends of mine who would come up with some theme, not as elaborate, you know maybe bicycle powered floats…For some things there's a much higher tolerance.

3. Do you relate to your work in a spiritual sense, if so, how?

That's just sort of like in the way of a sidyl, I don't want to reveal my secrets. Whatever, you know the aspect of transforming things through art. And so, maybe some kind of alchemy or something, Taking a negative subject and transforming it

into art, I think theres a lot to do with that. You know, even if it's some really dark gruesome subject you're spending so much time thinking about it and your intention is to kind of rip it open and expose it so people can see it for what it is and in that act you're transforming it somewhat through exposure, you know using materials however through things that have some symbolic meaning. But, in that aspect of spiritual quality you know? And just transformation of the energy that surrounds that subject. Having an intention and building, making creating, with it, that's as far as I'll go with that one. A healing process, taking the wound and trying to heal it.

Z—Would you consider yourself an environmental artist, if you had to put yourself in a category as an artist what would it be?

R—My sort of path of art you know it comes from just such a weird kind of place. Its becoming, its evolving, you know, more…like I used to really think about my perception of art, and what art was, and things it was supposed to address, and maybe with that definition that I had would put me into one of those categories? Conceptual activist art is something I have used in grants before. There are definitely people and stuff that tell me what it is I try to do. Hmmm…I mean I think it's just art, maybe dabble in a lot of things. My background, I grew up skateboarding so you know skateboard graphics are embedded in my head. And then I got into surrealism and Dada and stuff, I was really into that, painting surreal stuff, and then I got more into my actual environment. Even the surrealistic stuff was depicting manipulated landscapes that were maybe in a surreal context, the manipulation of landscapes in a

kind of broad way and then there were other things like these science fiction masks for future living, for breathing.

Z—What was the impetus for those things?

R—You know like the humans tearing the earth apart…(Laughter)

Z—what do you find draws you out of your head to create or express whatever is going on internally? Is it a walk in the woods, is it a lecture, another artist, what is it that most does that for you, that pulls something out of you?

R—I don't think it's too complicated, you know, it happens all the time. There's all these little things that can become art, but the things I really like are more process oriented. It can be tied into the conceptualization of art, like the process creates the art. Like the tree things I was doing, I have this, ok I'm going to collect all this paper and then I have all the paper and I'm going to like you know, tear it all up and make all these collages after carrying the paper out into the forest, into the clearcut and it's there and put it all together kind of like in this process way, where I'm not sitting there like thinking about, I mean I think about composition but it doesn't dominate what I'm doing I'm more into tricking my rational process. So, I'll make a mechanism that draws me into the process of creating and I like that a lot.

Z—So the process is what creates the outcome rather than the outcome making the process? Can you give me an example of process that might take place, for example in the tree rubbings, what was a process that might take place in that work?

R—So, idealistically what was going on was I had to go from New Orleans to here, you know Pacific Northwest and I was driving my ambulance that I converted to run on vegetable oil, and that's a symbolic you know like, emergency.

Z—What's a pattern of process that you've seen throughout your work?

R—I would say lots of scavenging. The vegetable oil collection gave me a chance to go around and like find architectural firms old blueprint plans, random selection, whatever I found I would try and use. What is this object I found and what does it relate to?

Interview Research # 9

Giovanni Ciarlo, Co-Founder of Huehueycotl Ecovillage, Mexico and Chair of the Global Ecovillage Network board

Date of Interview: 6-6-09

Questions:

1. What are some of the most important or urgent changes you think need to take place in the world to move us towards equity and sustainability?

Ok, I think that's a good question to start with, because the first thing I believe we're going to have to do as a humanity really, is to adopt a worldview or you know, new mental models that allow us to live a different story than the one were living now of over-consumption and basically domination and power over and all these things that in my mind have a negative connotation and are not working to help us evolve in the way that our beings are aligned to evolve. I think were going in a different direction

than the direction that we probably should be going in. So, that's where I would start, new mental models, new story, different, well expanded worldviews perhaps and like that. So that's where we should start, most important changes.

2. Are you familiar with the term energy descent? What do you think are the most important interventions to make in the challenging trifecta of peak oil, climate change and the economic situation?

I am familiar with the energy descent. I'm familiar in the way that David Holmgren has presented it, through permaculture design and things like that. Basically, my general take on that question is that we as individuals, and I would even start with households perhaps, need to reduce an incredible amount of energy that we are using so that we can live within an energy budget that is more adequate to the supply that we have from the sun and from natural processes, natural systems. So I think its very possible to reduce our energy consumption by a huge amount, I don't have a number in my mind, but easily by half, but reduce it and maybe increase our wellbeing, our life comforts and our lifestyle. So basically that's as far as peak oil goes, energy is at the main, at the center of that. And then there is other areas like our waste stream you know, and to just not look at waste as waste any longer but really try to have a different view of waste and see it as resources and as possibilities for material that's already been mined and doesn't need to be remined.

Z—I'm curious have you heard of the Transition Town model?

G—Yeah.

Z—Do you have any involvement with that?

G—Well not directly, but through the global ecovillage network we are kind of partnering with transition towns we are dialoguing about how we can do training together and working together to have a similar goal between ecovillages and transition towns. Ecovillages being more on the fringe of mainstream whereas Transition Towns are trying to co-op more of the mainstream source sustainability. The Transition Towns, I mean from what I've seen there are processes of moving towards sustainability, it's not so much unique as exciting but a lot of stuff that the TT are doing, the 12 steps and all that sort of thing have been done by people developing sustainable communities for a long time really. Are you familiar with Gwen…

Z-Hallsmith?

G—Yeah, her book, um sustainable cities, I think its called it has the same, its like a guide for transition towns, its amazing. But it's very exciting, the whole movement and its picked up alot of publicity and stuff so people are getting more and more familiar with it.

3. If, in 25 years, you were living in the world that you are working to create, or the world that you would most like to see what would it look like?

Well to paint a picture of it I would say that that world would be composed of many little villages, well, little and medium sized villages, villages from 50-2,000 people.

In some cases there would be neighborhoods in a city but there would be this kind of organization all over where there are small communities that are human scale where people can know each other mostly and see each other easily and walk form one place to another or move by easy public transportation or bicycles and things like that. I think I would like to see a world where there are fewer roads, but still have the facility to get to where you're going. I also, like on the economic side I see more of a world where people own the businesses that they are working in, so more cooperatives, there would be, not only more, but probably everything, I don't know if in 25 years, but somewhere down the road I could see where every enterprise is a collective enterprise, a cooperative enterprise where there aren't big powerful centralized owners and administration but that it's a cooperative effort. And you know education wise that more liberal type of education in the sense that students can learn at their own pace and they are encouraged for learning about their own place in the world and in society. And this is really striking me know cause I have two grandchildren and my daughter is telling me now that in order to get the older on into kindergarten she has to know how to read and write her own name in order to get into kindergarten and I'm like outraged by this. What do you mean, kindergarten you have to know how to write already? You know if she hasn't learned already its because she hasn't wanted to. It's obvious to me that she's going to learn it. If you expose somebody long enough to that kind of stuff then they will learn it. So all this pressure, you know I'm really totally against that, all this pressure for kids to learn the things that adults think they should know. So that, like that I guess, it's all pretty radical kind of thinking but that's what I think, that's what I would love to see 25

years from now. And that's what I'm giving my life to, giving about as close as I can get to that.

4. What do you think are the most important tools and education that a community member needs to feel empowered to participate fully in creating a sustainable future? Ok, well there are many of course, but I would say some of the very first things that a community member needs to get skillful at is understanding who they are and knowing how they fit in their community. What do they bring to the community? What do they get out of the community? Who are they in terms of you know this group that they're working with? And that's a simple way to put it in, but you know it's a lot of work, of course, of introspection and communication and you know dialogue with people so all the assumptions come out and all the ideas that we carry with us that make us who we are, are out in the open. So that to me is a basic tool to use, is to learn how to communicate different, well for some people. And then from there I say that basic organization development type of tools, like knowing about facilitation and understanding participation and empowerment and leadership and those kind of things. Because I believe that the big change that we need is going to have to come from people linking to each other and having this collaborate effect of a lot of people working together.

Z—One of the things I've seen the most in my community organizing work is a real tension between people who are more process oriented and people that are more action oriented.

G—That's a very classic divide.

Z—That's something that I've been trying to learn more about how to address, you know how do you bridge the divide between those two types of personalities or needs?

G—We run into that with the ecovillage network, when starting organizing a network of this magnitude, its pretty amazing. There were people who were just like let's go make pamphlets, let's go make posters, let's go do fundraising, whatever. And then there were other people who were still holding everything back, going we need to talk more about this, or we need to clarify it better, we need to find better words, all that kind of stuff. We finally decided that you know we need to kind of pay attention to both of those things, view them like equal weights in some way and make sure that some doing always gets done as well as some progress in the process. So it's a little bit of a balancing act but I think the two together make the whole.

5. Which power structures do you think need to shift or change to create a better world?

Well I look at power, I tend to look at in a two sided thing, one is power over, you know the power people exert over groups, which is authoritarian usually and very patriarchal, and all that domination type of power. And then the other one is the power with others, the willingness, this is why right from the beginning my whole thing is about knowing ourselves, knowing our mental models and exploring really who we are sort of thing. The power with is the ability that we may have to listen to other people's opinion and to consider other angles of view you know? So I think

power structures that need to change mostly have to do with including the voice of all the stakeholders. Everyone that is going to be affected by a new regulation. A new system of doing things or whatnot should have the opportunity, but you know really seek out that opportunity for them to participate and hear that voice because it's so important that it's there right from the beginning and not make it be something that becomes a protest voice later, a resistance type of voice later. And I think that can be avoided by creating a process where inclusion really takes place, people really feel that they have a way to contribute.

6. What project/organization/effort are you working with or on currently?

At the moment my main activities have been with developing training curriculum for sustainability and developing programs that I can bring to all levels of society. But mostly lately I've been working with children a lot. So I've been developing a program to sensitize children to climate change and to solutions that they can bring to their home and suggest to their families and integrate into their own lives. Along with that I've also been working on ecovillage design courses, a curriculum I've been developing with a large group of people from all over the world. And then I'm a musician so I try to book as many performances as I can cause that's where the money comes from. I've had a very heavy season this past spring and now it's tapering off. And we'll see in the summer.

Z—What are you doing with the Global Ecovillage network specifically currently?

Well right now I'm president of the board of the GEN and were trying to restructure the network to make a stronger web presence. Update the website with more interactive things, you know more content, basically upgrading that and also developing partnerships. We have consultative status at the U.N., so I go to meetings occasionally here in New York at the UN with the economic and social council and we're preparing to do a big presentation at a climate change conference in Copenhagen at the end of the year. All that is to kind of present models and case studies experiments that ecovillages are going through that will help reduce energy consumption and help integrate society and all that sort of thing but at the moment ecovillages are like little labs where we're trying all our ideas all over the world. We didn't know we were doing that, in fact until we created the GEN and started seeking out people who are doing the same thing in the US in Brazil, Japan, Africa, Europe, all over the place.

Z—I'm curious what's going on at Hueyhuey these days that's exciting?

G—Things are well, they're always very exciting there for one reason or another. Right now we are working on our security a little bit more. We had a robbery down there that was pretty freaky. We had a caretaker that was held at gunpoint and they went in one of the houses and walked away with a safe. This is the first time this has ever happened. We're trying to see how to work with the authorities and how to increase our security and all that kind of stuff, you know something most communities don't have to deal with but sooner or later everybody does. So there's that and then there's always in Mexico at the moment we are very involved with corn,

transgenic corn and trying to stop the legislation with that. Basically they are passing laws that make it very difficult for people to grow heirloom corn and to preserve their seeds and pass them on and all that kind of stuff. There's a group of herbalists and people like that that we work with, always doing letters, going to protests, demonstrations, talking to legislators, all that kind of stuff, yeah.

7. What does the term 'whole systems change' mean to you? If it does mean something to you how does your work engage in it?

Well I don't know what you mean by whole systems change exactly. To me it's more like thinking in systems. Having a perspective of how systems work together so that we can find leverages where we can tweak the systems to work differently than it is. So system change is about knowing the cycles, knowing what is reinforcing what, what is causing things to be the way they are, without so much judgment, but rather looking at it objectively so that we can identify places where we can boost things a little bit this way or that, so that the feedback is more to what we want it. Because I think systems work naturally, nature takes care of systems. It's set up where there's a natural law that kind of balances them but sometimes we want those systems to change to give use the results that we are looking for and so then that's when we need to intervene in different places in the system. I don't know if that's what you mean by whole systems change but that's what I understand anyway.

Z—So how do you educate people in systems thinking, do you have any input on that?

G—Well systems thinking is a pretty complicated thing but in very short it is just to see, to highlight cause and effect and to draw diagrams. I've done this in a school system for example, you can see how the decision made at the budget level affects the staff, affects the materials, the supplies for the school, which in turn affects what students are going to learn and how they're going to score on tests and how the funding comes in, so it creates a whole circle like that. So it's all about cause and effect and drawing out all the elements of a system, that's how I try to teach about systems thinking and then to see if one can identify more subtle things, like the delay of a system or stereotypes, not stereotypes…what do you call those?

Z—archetypes?

G—Archetypes, exactly, how to identify all those things in any given system that we can expect them to have in some way, so that in some cases we don't need to fight it so much but just identify that that's what's going on and then see you know little tweaks that we can make there.

8. What role do you see creativity playing in the Great Turning?

That's a great question, and you know being a musician and stuff of course creativity is everything in this work. I believe you have to be playful you know and have fun and really be open to possibilities and spontaneity and what can come out of something that you can't imagine even. So I think creativity is the key to the big change that we're looking to make. We have to be creative, cause if were not we don't know what, we can't imagine what it can be, and without imagining what it

would be we're not going to try out things. How we can make electricity form the sun if we don't imagine it first and then go create it? and through trial and errors and things like that. So all that is linked to the creativity that we bring, the sensibility that we each have inside of us. That idea of wanting something to be beautiful, wanting something to work well, wanting to hit the target right, all that sort of thing, I think that's what creativity is about. I've always felt that, you know, and it doesn't have to be in the arts, although I am drawn to the arts more, when we created our ecovillage in Mexico for example, I don't know if I ever told you this story, we all kind of gave each other architectural diplomas and made each other architects and said you know what you want to live in, go build it. So playfulness like that has played a big role in our ecovillage down there. Which I hope sometime you come visit by the way, you have a home there.

9. Do you relate to your work in a spiritual sense, if so, how?

I do, but when it comes to how and defining that aspect of being a change agent it's a little muddy. It's a little tricky to define spirituality in this kind of work. There's so many kind of preconceived ideas and so many resistances to it. But basically the way I come from, the place I come from is to just know that we're all creatures of the earth, that we ourselves, as human beings we're very evolved mentally and cognitive, and things like that, we can put abstract things together that other living beings can't. But in essence we are the same, we're made of carbon atoms and really just the same as a blade of grass or a bird or anything like that. So I feel that spiritually, I am very connected to the earth and to the life-force of the earth. But I don't understand, I

don't have full, what do you call it? I don't have full mastery of how to navigate all that stuff. I think other people have spent more time paying attention to that aspect of our being and are probably better at understanding or interpreting messenges. I don't do that, but I do feel very connected spiritually with the earth and with living beings that's the best I can probably tell you about that.

10. What does inner sustainability mean to you? What role does this play in The Great Turning?

Yeah, I think that is something definitely to pay a lot of attention to, and people are and there's a lot of transformational work being done in places. Well I know of Findhorn for example and at the Omega Institute here in the Northeast. You know Esalen, places like that where there's a lot of work being done with this transformation issue. But I think mainly, well, I've always gotten a lot of strength in that respect from meditation, from walking in nature, from just like, I have to keep reminding myself to take care of myself and I think this is something a lot of people do, we all recognize at some point that we are being drained too much and we need to refill. And so going for hikes, meditating, dancing, creating a piece of art, writing, spending time with family, with loved ones, just kind of making time for nourishing our being in those kinds of settings is extremely important and it is something that people often forget. You know a lot of people, like the typical workaholic is doing, doing, doing all the time and that's not the most effective way to bring about change. I think it's important to be well balanced and feel, what do you call it, well nourished, but more taken care of, and sometimes we have to do that ourselves. But this

connectivity, I think this is where communities are so important, well this is why they have been for me, is that there are other people there to kind of reflect, to see as a mirror and to know, people that can tell you when you're doing too much, carrying too much weight or whatever and just sharing meals sometimes with them. So this is what I think about inner sustainability is that we do have to take care of ourselves the world is too big for any one of us to think that were going to solve it.

11. What interests you about the intersection of social movements, the arts and the power of narrative?

Well I think that's where I started, by talking about new stories. So new narratives, new stories, in my case I apply mostly to songwriting and storytelling, in that sense. Lately I've been reading a lot about prehistory and evolution and just alot about how we got to where we are today as human beings and it's amazing to realize that just maybe fifty thousand years ago we were just hunters and gatherers and when culture came around just maybe twelve thousand years ago. It's amazing what a short period of time that it has been that has gotten us to where we are today. So I think you know this intersection of being a living creature, living on the earth, sharing it with so many people and yet having had this great evolution in our humanness. I find that very interesting. When we created our ecovillage in Mexico I had a similar experience, because one time I had a kind of flash of going from being hunter-gatherer nomads to kind of settled agricultural practicing people in one lifetime. You know in my twenties I was traveling a lot, living on school busses and all that kind of stuff and at that time, for about ten years, I thought that's how I was going to live for the rest of

my life. Cause I didn't want to settle down anywhere. I just wanted to travel and was finding people that wanted to do that with me so that was great, but then we did settle down and found by traveling we could not meet some of the aspirations that we had for sustainability and energy reduction and things like that and for combining art into all that. So you know we always have focus on the arts and trying to make bridges between the arts and the ecology, art history, art and narrative you know all that kind of stuff. S I bring that wherever I go, I am always interested in that kind of developing more of art focused activities that define who we are.

Z—Do you have any good tools or know people doing work in that area that you could recommend looking into?

G—Yeah let me see there's a group in Berkeley, I cant remember the name, I think they're called Art for Revolution, they do a lot of street theater and a lot of happenings and festivals and things like that. Almost all these, well you know of the Bread and Puppet Theater. The Bread and Puppet theater is another group that does that kind of consciousness raising through the arts. There is the Living Theater in New York, they are really incredible. Julian Beck and Judith Molina, off broadway productions to really get out a social message they use all kinds of methods, plays, and, very revolutionary…Some superstars have even gotten on that bandwagon, well I guess Bono and Sting is one of them. You know, sometimes in my workshops I have a couple of activities where we use art for change and self awareness and things like that but I call it creative mayhem.

Z—Im really interested in doing acts that I like to call the creative disruption of everyday life, things that get people to come out of their everyday story and add a new thread and stop and think about the world and what they are doing in life.

G—(Laughter) That's wonderful, I really like that.

12. What organizational development or whole systems change processes are you familiar with (i.e. open space, world café, future search, wisdom councils, etc.), do you use them in your work?

Yeah I'm actually familiar with all of those and do use them. Open space is one of my favorites and also world café, I use that a lot. A lot of these organizational development processes where you can set people talking with each other, there is affirmative, not affirmative but, um,…Things where you can get people to talk to each other anyways, looking for positives, looking for success trends in their stories and how to use those successes to bring about or apply them in other areas, so anything that gets people talking to each other and mingling, I use that a lot, a lot of different ways.

Z—Were you looking for appreciative inquiry?

G—Yeah, thanks. There's also the charrette, there are a few others, the letter of inference, that's also a very good one, and I use a lot of tools from nonviolent communication in solving conflicts sometimes or getting people to better understand each other.

What is important is that you have facilitators that have some experience using those things so that they can choose at any given time, the appropriate process. It's not a big deal, it's just to have people who know about facilitation. I do a lot of facilitation training so that people know what they need to do to facilitate a group and not impose their will on the group and throw out important decisions from the group, if you don't have people trained like that it may be a good thing. There are several people in the NW who do training, might be a good things to bring in someone and do a one day kind of training thing. There's always stuff to learn, people mostly have to practice that, there are a lot of books and you probably have enough literature about it, but there is one that puts together all the processes like these, it's a pretty thick book, its called the change handbook.

Z—Yeah I love the change handbook I'm actually going to be interviewing Peggy Holman who put the book together.

G—Wonderful, yeah, I met one of them, Steve I think, I forgot his last name. He gave a workshop at one of the OD conferences and I was really impressed. And the other one that's good to have around is Roger Schwartz's 'The Skilled Facilitator' its called. He's got a field book that goes with it too. So I think good facilitation is key to change and you know decisions and to all these things that we are talking about right now. People don't give it enough credit sometimes I think people take for granted that anyone can facilitate but it does take skill and lots of practice.

13. Who are some of the biggest inspirations in your work, artists, musicians, activists, authors, or anyone?

That's a very long list, so many people, there really has been. I really admire for example the work of David Orr, he wrote about ecological literacy and it was very important when he wrote it and all these organizational development people who have written great books about ways to bring about change. Peter Senge, with his whole systems theory, Donella Meadows, Lovins, Hunter and Amory, I mean I've been lucky I've met most of these people actually, Anita Rodderick as well. It's amazing when you have a place like we do in Mexico, an ecovillage even though its small, it just attracts a lot of attention all over from people who want to know what you are doing. So Jose Arguelles came down there, Starhawk, all these people have really impressed me and made me want to do the kind of work I am doing which is the kind of work that you're doing. But in larger more philosophical terms, maybe like Gandhi and MLK and all these people who are just very easy to name because they have had such a huge impact globally but mostly I've been impressed and inspired by people who have tried to live with others in a different way and have created intentional communities or ecovillages or changed their own composition or whatever and there not so famous, most of them.

Interview Research #10

Jim Newcomer of Transition PDX and Common Good Finance

Date of Interview: 6-9-09

Questions:

1. What are some of the most important or urgent changes you think need to take place to move us towards equity and sustainability?

The end of cheap fuels, oil, fossil fuels, means a lot of changes, most of which are beneficial, some of which could be fatal. The most important ones are the decentralization of civilization itself from large continental sized nation states, including Russia, the U.S., Europe, China, down to communities, well we don't know, but devolving into smaller units that are can be linked by transportation that's not dependent on fossil fuels. So that means, I mean the important changes could be a large number of unscheduled deaths. I once an archaeologist talking about extinctions and when somebody asked him about our own he said he doubted that it would happen because some species are adaptable under many conditions, rats, cockroaches,humans, so forth, so probably humans wont become extinct but life wont be the same as it is now. He thougfht we would be living in small isolated bands probably along coastlines where the food is easy to get and I think we can do better than that. But the changes then, in order to survive that epic shift, are really forming communities where face to face communication is possible. Maintaining memories of the technology and reading skills and sort of thing that went before that devolution. Maintaining the rights of the citizens in each community, that's going to be a big, you know the media means of the world are multifarious and many, so there could be a a lot of hassles there. So if we do it right we will evolve ways to prevent dictatorships, police, you know that sort of thing.

2. Are you familiar with the term energy descent? What do you think are the most important interventions to make in the challenging trifecta of peak oil, climate change and the economic situation?

The issue with whole systems change is chaos, you never know what the consequences of any one intervention are going to be.

Z—The unintended consequences...

J—Yeah when we came through this last oil price spike for example who knew that it would be the housing markets and the banks that would be the sub, the contingent systems unraveled because of the, what you know the next subsystems and bubbles that will be called in the press will be as the whole system begins to unravel. So where to intervene, I don't know because there's got to be a sort of combination of fundamental system wide change that would lead to a long term sustainability of human survival. In the interim phases where we step down, you know its like were not all gonna go to bicycles in one day, we'll have Priuses and you know electric cars and then well have something else and then more bicycles and horse carts or whatever we have. So there's both a fundamental systems change which is unpredictable, in any system we don't know where the strange attractors is gonna emerge. And a step wise process that will go through part of that shift anyway, it wont look like any change except bad news keeps coming, so and prices get higher. And so is the banking system the critical link, I don't think so. I happen to be working for a different kind of community oriented bank, which will probably emerge as the ultimate, but what will happen in between? Is electricity, well obviously we'll have

some electricity when we get done, what else I don't know, how much oil we'll have, how wise people are in hoarding the last of the petroleum supplies and the generation of electricity from rare ? and that kind of stuff is going to be interesting and I cant tell you where the critical points are to intervene except I think social organization is probably the most important.

3. If in 25 years, you were living in the world you are working to create or the world that you would most like to see what would it look like?

People would be associating in communities and probably living sometimes with two to three families to a house. But making it a happy experience instead of, you know I've seen Chinese communities where people got doubled up in rich people's houses and weren't always happy. There would be enough food and people would know where it came from because people will have raised a lot of their own. There would be a lot of trading of stuff back and forth. I hope there would be still some electronics and some ability to communicate worldwide. And I would hope in 25 years there would still be some vehicles that go back and forth. There might not be a lot of paved roads but some, and people can get back and forth if they have to and not just by horse or oxcart. I would hope people had reinvented sailing so that there was some trade across waters and oceans. And that some remnant, that's a settled issue that's not still being struggled about, a national network if not a government, but some kind of network that binds people of a culture together. That there's a sense of future, that people know enough about the situation they're in that they can look forward to creating the future out of that situation. In Cuba, the big thing I was looking for in the

movie and I had not known it before you know, was clear to me, there was a widespread education about the situation they were in, why it was important to become organic, to learn how to farm, to go ahead and starve a little bit, but we'd all get through this. So people understood, there was a fundamental shift in the society and that's very hard to do, especially in America where you can think whatever you want and the main propaganda channels are devoted to selling this, selling beer. So I would hope we have enough, one of the things we can do with Transition Towns is provide that education, do it underground so it gets around to enough people that there's an understanding of what we're doing so in 25 years we'll feel confident about the changes going on so far and how they're handled and can still continue creating that hope.

4. What do you think are the most important tools and education that a community member needs to feel empowered to participate fully in creating a sustainable future?

I think, I'm biased, an understanding of the historical change that we're going through is critical. And of both valuing what we have that works that we don't want to give up so we don't lapse into feudal and make use of this history

5. Which power structures do you think need to significantly shift or change to create a world that works for all?

Well, you know if you'd asked me ten years ago I would have gone down a list, imperialism, multinational corporations, oppression, dah de dah, class struggle but in fact the reduction in the community life will render multinational corporations

obsolete. How can you shift computer chips from Portland, O.R. to Nanjing, China by air when you know, with that kind of fuel consumption to keep a 747 aloft? Or trucks back and forth across the United States. Ocean shipping is relatively cheap and its possible somebody will come up with sails what do you know at some point but who knows if people will be smart enough to do that. So I think the multinationals and all that stuff with just in time shipping and you know da de dah will just fall one by one its probably true for the military structures of the great continental powers as well. You know how can you keep an American army functioning in Iraq or Afghanistan when you have to ship in gasoline through hostile fire you know to keep your trucks running and hummers and stuff. So ? the generators in air conditioned tents because Americans couldn't possibly live in the desert in all that heat. So the idea that we'll project power around the globe is ludicrous. Paul Hawken says we'll thank George Bush for destroying our military. But the whole structure will, I think, gradually wither cause there wont be money to pay for it, there wont be fuel to run it, there wont be energy to fuel it or banks to fund it. So well just see things fall one by one, until we're sort of left where we are. So I don't think we'll have those battles of class warfare to fight anymore. I don't think the multinationals are going to be an oppressing force anymore. I mean obviously you kill a dragon and the tail goes all over the places and you know causes a lot of destruction while its dying so who knows what will happen when IBM breaks up or General Motors, well we know what happened with that, bad but not fatal. So, we'll see what else, you know, happens.

6. What project/organization/effort are you working with or on currently?

Well one is the Transition PDX Hub, the neighborhoods, planning the open spaces, planning a program for the summer. My goal for transition is to fill the rose garden with Portlanders for the Great Unleashing. I'm also working with this bank which has the same kind of vision as transition and it fits right into the pattern. It's called Common Good Bank and where there's any group of people, 50 or more preferably, then a few local businesses or a nonprofit can from their own branch or their own division, with their own people and their own money so its like a Grameen Bank in that sense. Its for ordinary people to start their own bank and create their own lending policies. So Paul Hawken draws a distinction between corporations and commerce, corporations were created to conquer territory like kings in Europe, commerce has always gone on wherever there are humans. So supporting commerce is going to be important because people are going to need small businesses in their communities forever.

10. What does the term 'whole systems change' mean to you? If it does mean something to you how does your work engage in it?

I've been working for, since I did my own dissertation in the 70's, trying to figure out how you plot or measure grass, what goes on in human systems, in self organizing systems, we know they create a pattern of interaction but how do you measure the interaction, how do you measure the information flow. It's beyond my capabilities. You know all I can do is say there are patterns of interaction within human societies that create systems, you know what we call systems. So what does it mean to me.

It's just a way of holding the emergent qualities of a society in consciousness and pointing a way to the critical subsystems. But since the system is always a creation of the observer anyway then that may or may not be an accurate, any given observers sense of where the critical subsystems are may or may not be accurate. I think we get a certain intercoder reliability here, you know all of us sitting in the same room saying the same thing, you know, who knows. Whole systems change I'm fascinated by it and I you know think were in a situation now a chaos situation you know just before the water boils and suddenly the whole structure simplifies when it becomes steam.

Z—The bifurcation point?

J—Yeah, and all I can do is tell you the results wont look like any of us predict.

11. What role do you see creativity playing in the Great Turning? How do you think your work is creative and/or utilizes creativity for yourself and/or others involved?

I'm never sure how to pin down the word creativity. I taught a course actually at one point, maybe that's a place to begin, you know Fritz talks about creativity being a matter of setting a goal, what you want to see happen and then working toward it. That's when you're creating decisions that seem simple because you're doing the next thing to get to the goal of course you have to invent that next thing so that's probably the creative part. You know that's where we all are right now. So some people you know look at, like in the hub we're trying to build a future you know, but nobody knows quite what to do. So somebody says well let's try setting up the schedule for

the summer. Oh, what a brilliant piece of creativity, other people might think, well duh. Of course that's what you do, schedule events out in front and then see what happens. So that's what we're beginning to do but you know getting people together, it's a hard process when you do creativity in a group and you try to do it in a democratic way cause everybody's got a little bit and nobody's got the whole picture. It's sort of like making a movie but without a director. It's just very complex and full of bumping up against each other and you know, so, I see it as, I'm using the term in a nontechnical sense, a chaotic process. You just bump along and do the best you can.

12. Do you relate to your work in a spiritual sense, if so, how?

Yeah, when I don't I fail. I mean I just cant, I'd love to be crass and just make money but I don't seem to be able to do things I don't have my heart into. To translate the spiritual sense into another phrase, but, I see the great turning originally, generally in the Macy sense but before that in a lot of fundamental ways as a movement, as a spiritual movement at it's deepest level. There's a, it becomes a lot of stuff, a shifting back from the male gods to somewhere between the male gods and the female goddesses. It encompasses both the movement away from structured religions toward confronting the deeper reality of living or not living in ourselves and towards ritual that's us instead of somebody turning the music up? That is part also of the appreciation of the earth, the female of the earth and which gives rise to the whole environmental movement which is now necessary to save our children and

grandchildren. Like somebody once said about gravity, it's not just a good idea, it's the law. So, yeah there's a spiritual basis to the whole thing which is profound.

13. What does inner sustainability mean to you, if anything? What role does this play in The Great Turning?

You know I really don't know, my gut sense is that the people who are able to look at the myth straight in the face and be willing to change the story and join the new story field are more together or more comfortable with themselves, I don't know less anxious than people who aren't. There's a tendency for people who are anxious to get frozen into patterns and repeat and repeat and repeat.

14. What interests you about the intersection of social movements, and narrative? What role do stories or narrative have in your work?

Well any social movement starts with telling a new story and discarding the old story. What surprising to me always is how hard the society as a whole holds on to the old story. And that's partly because people get comfortable doing their piece of it. And partly because the society, the web is set up so its not just agreements, it also takes the form of property rights, as a part of the old story. You know, money and banking and finance which are part of the old story, interest rates, you know having to have a car to get places is part of the old story. But also building suburbs which require a car to get to the grocery store is part of the old story and the old story takes a concrete form that you can't just tear down by telling a new story. You really have to go at it in a deeper way so the whole society shifting, that's part of the unpredictable part of

all this stuff. Will people in the suburbs starve or will they have the most luscious gardens and they'll all do fine and people in the city starve? You know will we go through a phase like the Cubans did where we cut holes in the trailers of busses to get people to work because nobody lives near their work? Like in China when they built factories they built apartments right around the factories so everybody just walked to work, walked home to lunch, walked back to work in the afternoon after their naps. Most energetic country in the world and they were all taking a nap at lunch. So all these patterns are set in, you might say concrete, actually literally looking at the pavement out there, concrete streets, concrete foundations, all that stuff, zoning laws, you know commercial laws about trade and arbitration, you know all that stuff all has to shift. And that's going to be really rocky, were just starting with this climate action plan we're going to be discussing, getting to break some of those assumptions.

15. What organizational development or whole systems change processes are you familiar with (i.e. open space, world café, wisdom councils, etc.) and which do you use in your work?

I've led open spaces, appreciative inquiry, future search, I worked with Marv Weisbord on future search. I've never done world café, I'd like to try it sometime. They all are and you know I've done hybrids. Essentially there all the same thing, you bring the whole tribe into the center of the village and you talk about it. I notice in what we're doing in transition towns it's really crucial, going into these neighborhoods in N and NE and if you don't have representatives of the whole system in the room you don't have the whole system. If there just aren't as many

black people as there are white people in that room you're just not going to get the right energies. I'm familiar with those processes its one of the things that I read in the transition book where I was like, oh open space, guy knows what he's doing, you know. And I don't have a favorite, I use them in specific circumstances when you want to get a certain kind of result or there's a specific kettle of fish that you want fried or boiled.

Interview Research #11

Karen Steer- Program Coordinator, Partnerships for Community Sustainability, Healthy Forests, Healthy Communities Partnership, Sustainable Northwest

Date of Interview: 2-2-06

Questions:

1) How did you become interested and involved in the field of sustainable development?

All my life I have been interested in conservation work. In college biology was my major but when in the Peace Corps I realized that what I wanted to do was more about managing the people, the economy and the community. I was also interested in the Peace Corps and ended up pursuing that with placement in Honduras.

2) How did you narrow your area of interest in sustainable development in order to specialize and pursue specific career goals?

It happened organically-after the Peace Corps I wanted to do international work. I applied to the Yale School of Forestry. I was accepted and was doing community forestry work. I worked with the Wilderness Society, and then went to work for

Sustainable Northwest. At that point I became "pigeonholed" into community forestry work and have now been with the organization for 5 and a half years. Sustainable Northwest just celebrated 11 years of working on the fine line between conservation and development.

3) What or who were some of the influences that led you to sustainable development?

Key professors in graduate school—people I met working in the field along the way; community leaders who mentored me in a practical way. Sustainable Northwest works on a partnership model. We have many projects and work going on in rural small communities. Influences have not been so much reading or in class work as much as on the ground experience. Almost all the local leaders I have worked with have been women in sustainable development and community forestry.

4) Can you tell me about your international work?

I just took a 4 month leave of absence to "recharge my batteries". During this time I did consulting with the Nature Conservancy on a sustainable forest program or BOLFOR that takes place throughout Bolivia. This involved strategic planning to create long term financial stability in forest communities. My expenses were paid. Bolivia is one of the leaders in sustainable forestry. The gov't has given land to indigenous and community groups for 20 year concessions. They are trying to focus people on feeling more ownership towards land in a sustainable way that can still make money.

5) What are the main projects you are working on at this time with your organization?

Sustainable Northwest started the Partnerships for Community Sustainability program recently and this is the main project I work on. The founders of this program were sick of "jobs vs. owls" and so went to Wallowa County to see what change could be done. Residents were mad and wanted environmentalists to go home. Therefore, the founder held small meetings with residents in coffee shops and at their homes to discuss what their concerns were surrounding the spotted owl controversy. Eventually he started to go deep with this one community. It started as a mentor relationship and ended up as a peer relationship. This is the history of Sustainable Northwest.

Z—Can you tell me more about the process for Sustainable Northwest's work?

Sustainable Northwest does work at the community and policy level. We are a regional network of nonprofits, agency personnel and local rural communities. We work to develop convening collaborative groups in order to find common ground with multiple stakeholders while Sustainable Northwest facilitates the process. Sustainable NW became involved at the policy level when it was realized that our mission could not be completed if we were not also working at the policy level. This is where the sustainable forestry policy program was created and takes community leaders to Washington. We also recently created a sustainable ranching program.

6) What are the pros and cons of the sustainable development career field?

Pros: It is very fulfilling. There is a gratifying social component working with community well-being and environmental conservation. There is also a gratifying long-term component working with empowering people. It is an exciting job, you get to learn along the way and there is no right way to do anything. Plus I have been able to travel a lot within the U.S.

Cons: It is hard to do if you are not immersed. International groups need to be more "local"; international sustainable development cannot be done from here. You really need to be involved in the community. There is lots of funding for this work internationally but not enough domestically.

Z—Can you say more about that?

Sustainable Northwest does the same work here as is done abroad but yet cannot get the same funding. Non-profits are often extremely competitive and some will not share contacts, etc., others think we need to work together. Sometimes it is difficult to get funding because foundations do not understand the difference between say Ecotrust and Sustainable Northwest. Most of the funding is philanthropic, donors, grants, etc. Funding is always an issue.

7) What advice might you give someone interested in pursuing a career in sustainable development?

It is definitely worth the pursuit. It is a very fulfilling field. It is based a lot on relationships; you need constant care and maintenance of these relationships. In international work it is very important to spend time abroad (such as in a mud shack)

so you can understand the communities needs directly. Spend as much time in communities as possible. I would highly recommend the Peace Corps.

Interview Research #12

Jonathan Brandt—project coordinator for the V.I.S. (Village Information System) with City Repair (organization)

Date of Interview: 5-21-07

Questions:

1) *What is your involvement with the V.I.S. (Village Information Project) project and with City Repair? How did you become involved and when?*

I am used to doing the interviewing. This is interesting. I have a radio show podcast on the internet. I am the project coordinator for the V.I.S. I became involved this last November.

2) What is your educational and professional background, does it relate to the skills necessary for working with the V.I.S.?

My bachelors is from the University of Virginia in sociology. I feel this definitely relates to the V.I.S. It helps me to see the patterns in social systems. A school, a business, etc. I have done outreach with the ecumenical ministries to other faith based organizations for energy conservation and environmental concerns. I have done work with the new voters project which worked on registering new young voters. I did outreach, canvassing, public speaking. I did business development at Music Today, a web co. for music acts and bands. I have two part time jobs. I tutor math at Portland Impact and do administrative/scanning work with the bureau of

development planning. This is through the city of Portland's land use division. It is a really interesting position because I get to see all the proposals for land use that come through.

3) What is the purpose of the V.I.S. project?

To create a tool to geographically map out and display the human, material and natural resources of the Portland Metro region. The idea is to have it be open-source (the code). It will use G.I.S. *(Here I asked Jonathan a lead off question):* "By open source do you mean that anyone can contribute to the actual project, kind of like the frappr website? *(He said he was unaware of Frappr, I explained to him that it was a website where anyone could contribute to the collection of social maps. I gave him an example. I then asked him if he had heard of the Green Map project)* He said that he had not heard of it and I told him I would send him this information.

(Here I asked Jonathan a lead off question):

If I said natural, social and economic capital, would that be an accurate portrayal of what you are talking about? *(He asked what social capital was exactly) (I said "social capital represents the social assets of a community, connections, skills, movements, etc.)* Jonathan replied that "that would be mostly accurate except I am not so sure about the economic capital. By material resources I mean something like a bread factory, actual physical items. But we are also interested in possibly mapping out economic capital. (We agreed that these were related terms).

4) What is the timeline of the project?

The timeline is open-ended. We would like to have the framework up and running by the end of the year.

5) What was the impetus for the project, who was the originator?

A coworker mentioned a grant that was available through the Portland Office Of Neighborhood Involvement. And some people in the PPO (Portland Peak Oil) were interested in the idea of mapping out community resources. We never got the grant but some of us continued to discuss the idea of mapping. We are in the process of getting more funding. *(Here I asked Jonathan if they had any sponsors, foundations, etc. in mind?)* Metro, the Knight Foundation and the City of Portland. *(I then asked if there was one particular original founder of the idea or project?)* Ryan with City Repair had worked with the original concept to map out the Village Building Convergence in order to match projects and volunteers. *(I asked him if he was talking about Ryan Matson, he said yes and explained to him how I knew Ryan and had worked with him on SRSF stuff.)*

6) What will the final product of the project be?

The final product will be a web interface that anyone can use to look for a specific resource, natural or social, etc. People will be able to zoom in and out and see their neighborhood. We want people to see how close they are to related resources and build social capital.

7) Who else is involved at City Repair? Are there other organization or projectss involved?

PPO and City Repair, we are hoping to get SRSF/The Dirt! involved, possibly with fruit and nut tree project and maybe the CLF's Regional Equity Atlas. *(At this point there was a short conversation about how I feel that SRSF/The Dirt! and the V.I.S. project are inherently related and interconnected. I stated that any of the organizations, etc. that post through the Dirt! website could be represented in the V.I.S.*

8) How is the community involved in the project?

The community at large is not involved yet. Eventually the community will hopefully be contributing info. and connecting people.

9) Would you consider the V.I.S. to be theoretically compatible with the theory, practice and application of participatory sustainable development? If so, how is this exhibited and/or practiced?

Jonathan said he didn't know exactly what PSD is? I offered an explanation.

I think it is definitely compatible with PSD. People in the community need to participate for this to work. It helps strengthen community and connect people. It helps things to go in a new direction of empowerment.

10) Is the V.I.S. compatible with the theory, practice and application of action research (AR) or community based participatory research (CBPR)?

Jonathan said he didn't know exactly what these terms meant either. I offered explanations. I also told him that this might be one of the many ways that I could be of help to the V.I.S project was through and academic level helping to bring the theory and practice of these things into the V.I.S. I explained to him that it would be almost like practice consultant work.

I would say that the V.I.S. is definitely hoping to use CBPR and AR.

11) *Is the V.I.S. related to the Green Map project? If so, how so?*

Jonathan asked me to explain the Green Map project to him again. I explained what the Green Map is and told him that I had been somewhat involved in it years ago and that I was really excited about the V.I.S. because I had been talking to friends and family about doing something like the V.I.S. for years and it was really neat to find out that something like it was already being done.

The Green Map seems to be related, definitely send me the info.

I also told Jonathan about Stuart Cowan's pattern map of a conservation economy model and how it seemed to be related to the V.I.S. I expressed interest in The Dirt!/SRSF getting grants for bioregional websites and how this might be directly correlated to the V.I.S.

12) How does the V.I.S. relate to Stuart Cowan's conservation economy model? (This was discussed above...)

13) How does the V.I.S. relate to whole systems thinking and/or design?

We want to enable resources to be cultivated, exchanged and bartered within a local system, conserving resources and reducing waste.

We had some discussion of how I saw the V.I.S. as related to whole sytems design and thinking and how I would like to use such a concept/project as the V.I.S. as part of my consulting framework.

14) Are there similar projects going on elsewhere that you are aware of?

B.C., Vancouver did a social sustainability study to develop metrics/measurements of social sustainability. A professor in Alberta did a community asset-mapping project measuring the liveability index.

Interview Research #13

Howard Silverman—Director of Public Information, Ecotrust

Date of Interview 3-13-07

Questions:

1) *What is your position at Ecotrust and how long have you been in that position?*

The director of public information, 3-4 years

2) What is your educational and professional background, how did you get where you are today?

Bachelors from the business school of the University of Pennsylvania, did a lot of traveling, was an English teacher for a while, a freelance web designer, actually started with Ecotrust as the webmaster eight years ago

3) What are your main job functions and/or responsibilities?

I do a lot of writing, manage the communication department. I developed the Section Z reports that went into the papers a few years ago.

I also manage the citizenship program

4) Which staff at Ecotrust do you work closely with and in what capacity?

I work with everyone, I provide communications support for all the programs. It is a very non-hierachical organization, everyone works closely together.

5) Are you currently working on any specific projects? If so, what are their timelines and are there any collaborators?

I am working on the annual report of which there are lots of collaborators. I am the designer and co-writer for that report. I am the forestry program head doing writing and messaging for that program.

6) Do you work closely with any community organizations, non-profits or city government? In what way do you work with them?

Each sector program has networks of partners. Some of these include farmers, fishers and foresters. We do lots of collaboration with other non-profits. We do consulting for Metro such as the 2040 Greenspaces project.

7) How do you involve the community in your work and/or Ecotrust's work?

Section Z was used to provide community environmental education and outreach. (I then asked if there was a good response to that) Yes, it was used in schools and lots of people became interested in our organization. The Salmon Nation book and Section Z both helped to spawn the Salmon Nation Project. Then there is the Salmon Nation Block Party. We want to promote the idea of living in place and to celebrate it, to build the story and put it into a tangible informational source such as Section Z. The sectoral programs work with specific communities. There is the EatLocal.net project which is was a visioning process for creating sustainable food system and economy in a California region.

8) Would you consider your work and/or Ecotrust's to be theoretically compatible with the practice and application of participatory sustainable development? If so, how is this exhibited and/or practiced?

Vivid Picture.net is a good example, envisioning a sustainable food system. We worked with a wide variety of stakeholders to create indicators. case-and-e.org is another good example, the center for applied science of ecological economics—a group of economists working to rethink ecological economics. Frank Ackerman at the University of Mass. Amherst heads this up.

9) Do you involve the public in your actual research process? Are methods or applications of action research or community based participatory research involved in your work or in Ecotrust's work?

Yes, we are pioneering in many ways in this respect. With our fisheries work we contract with the CA fish and game dept. We are in the middle of a multi year process to implement protected marine fishery areas. Ecotrust constructed this process using local knowledge interviews, just finished the central coast of CA. We interviewed over 100 fishermen from 22 fisheries and compiled the data into G.I.S. maps. The Dept. of fish and game can weight the info. to make decisions on protected areas. The principal investigator has been Astrid Schultz.

10) Are you familiar with whole systems thinking and design? Are these areas of inquiry and practice part of your work or ecotrust's work?

Absolutely. The vivid picture project is an example of this as well. It took 18 months altogether. We used Christopher Alexander's Pattern Language and applied this to a sustainable society. It has been very inspiring for many people. We get lots of emails, especially from urban planners. The pattern map for the conservation economy site took a couple of years to put together.

11) What action based results do you see as a possible public product of the awareness this work is trying to raise?

--an awareness of regional based economies

--rural-urban people's dependence on each other

--learning from native peoples in the region

--more farmers and buyers make local purchases

--more buyers purchasing based on best practices

12) Does Ecotrust have internships available? How might I become further involved with Ecotrust?

Each program has separate internships, self designed with a staff, send me your info. and resume if you'd like

Interview Research #14

Hanling Yang, senior program manager, China-US Center for Sustainable Development, One World Trade Center

Interview Date: 2-8-06

Questions:

1) How did you become interested and involved in the field of sustainable development?

I am originally from China. I came to Portland to attend Lewis and Clark Law School. This was not my original interest area though; my original interest area was in international business. During my 2nd year I got a chance to work at the center due to my Chinese background being multilingual. I spent the summer as an intern. I learned about environmental law and land use. Throughout the next years working with the China-U.S. Center I became interested in environmental law.

2) How did you narrow your area of interest in sustainable development in order to specialize and pursue specific career goals?

Through my academic background taking environmental law classes in law school. I interned at the center in 2000 and officially started in 2001. The center picked me

because of my Chinese background and I was able to narrow my interest by luck and coincidence. My major interest is in land use and urban planning. I currently manage the training program for land use. Chinese officials come to Portland where I host them and conduct the training. The vice minister of China, the minister of land use and resources was very impressed with Portland and we recently signed a 5 years memorandum of understanding for land use training.

3) What or who were some of the influences that led you to sustainable development?

At the center I have had the opportunity to interact with a lot of people: gov't, leaders, locals. Our U.S. Chairperson is the famous Willy McDonough. He is a green architect who wrote "Cradle to Cradle". A lot of our board members joined because of him. It has been a great opportunity to work with someone with great vision.

4) Can you tell me about your international work?

U.S.-local training in China focused on "Sustainable Village Project" in N.E. China to help consolidate sparsely located villages to create better infrastructure. This is also called "New Town" projects and they all involve sustainable urban planning. I have only studied abroad here in the U.S. where I still am. I do get to travel a lot within the U.S. and go to China once a year.

5) What are the main projects you are working on at this time?

McDonough is doing the master design project, jointly sponsored by the local gov't. They are very supportive. In China there are a lot of successful entrepreneurs in the

villages with liquor, cattle, farming. For rural village development there is no template, the gov't has no set policy. For sustainable development you need good economic infrastructure and very linked, very natural processes. The Chinese gov't is starting to pay more attention because of the urban-rural gap. For example we are working with BP using solar technology on 2 demo houses. The gov't has no building code to regulate what green building should look like in rural areas, only in urban areas, there is no regulation and the center wants to create a template for this. The Center started in 1999. Vice President Gore at the time was very enthusiastic about this. The center was placed in Portland to avoid political influence so it was not located in D.C. In China there is a secretariat in the U.S. there is joint management.

6) What are the pros and cons of this career field?

Pros: I feel really good about what I am doing. There are social benefits for the 2 most influential countries at this time. I feel good about facilitating; good that it is not purely money driven. We work with large corporations such as Intel and Nike. People interested in sustainable development are usually great thinkers.

Cons: The challenge of funding working with a nonprofit. I have not come across other organizations that are structured the same way. I have not seen other organizations setting the same precedents. We are blazing a new trail and there are lots of uncertainties, lots of exploration. This can also be a benefit, we are the founding people. Such as the green chemistry and industry project which is locally based and the green school project-ecoschools that we are starting.

7) What advice might you give someone interested in pursuing a career in sustainable development?

laughter

First of all you really have to know this is something you have a passion for. It is a new field. You may have to sacrifice financially if working for a nonprofit. The compensation is not competitive; you have to be aware of money. Everyday you are exposed to a huge amount of information. You have to know how to narrow your interest. It is a very promising area to work in.

Interview Research #15
Date of Interview: 04-02-07
Juan Carlos Ocana, project co-lead, Vision PDX

Questions:

1) When did you first become involved with the PDX Vision project?

I first learned about the project through a job announcement. It seemed very much in line with my background in anthropology and seemed like a great opportunity to let people with a stake have a say in the planning of a city. Currently I am the co-leader of the project, I started as the vision committee coordinator.

2) What is your involvement and/or role with the PDX Vision project?

Right now I am working on the outreach, we are in the second spring engagement phase. There are monthly vision committee meetings. I am coordinating these, creating agendas and working with volunteer groups to process the data that has been collected.

3) What is your educational and/or professional background?

I have an MA in cultural anthropology. I am originally from Ecuador. I went to OSU for my BA and MA. I was a non-profit program manager, focusing on fundraising and resource development. I also worked for a housing and eco-development project for nine and a half years.

4) Do you work with the other staff on the project, in what ways and what are their roles?

We started with a team of four from the mayor's office, three people from the city planning office, it was kind of like working for a board of directors. There was also an executive committee, and a volunteer committee that sets the pace. There is an engagement manager and one co-leader of the project, a project assistant and there were three city planners, now there are two.

5) In your words what is the purpose of the PDX Vision project?

To create a new vision for PDX for the next twenty years. Originally the goal was thirty years but for some reason people seemed to have an aversion to the thirty year goal and were much more comfortable with the concept of a twenty year plan. Older people felt like they wouldn't be around and it didn't apply to them. We want to really listen to people's hopes, dreams and aspirations. We are combining this with objective information about community trends to create a realistic picture.

6) What is the timeline for the project?

We hope to deliver a report to the city council with the new vision in September of this year. The original project timeline was based on a two year goal. we have already started preliminary action plans and we have partnerships with many organizations. The timeline has been extended slightly past the two year goal but we are running out of funding.

7) What was the impetus for the project?

The government does not have all the answers. Communities, governments and organizations need to work together. There was already an interest in the bureau of planning to do such a project. The mayor also independently had a vision for this project. There has not been a visioning project done for PDX in over fifteen years so it was time because a lot has happened and developed in PDX in the last five, let alone fifteen years.

If the charter reform does not pass then city commissioners will need to be in alignment with the project.

What will the final product be and how will it be implemented?

The leaving documents will be the committee action plan and the city government strategic action plan. Both of these will come out of the vision presented to the city council in September 2007.

8) Has the public participation in this project been as great as was hoped? How were community members engaged?

Originally Mayor Potter was aiming for the involvement of 100,000 people. This was a very ambitious goal and he has been criticized ceaselessly in the press and otherwise based on this goal. Basically we ended up reaching out to 13,000 people. This was just in PDX, not the entire metro area, this is statistically significant. We had a 1.5 million budget for the entirety of the project. There were 20,000 pages of data collected which were read collectively by 38 people. There were volunteers and various other roles and the vision committee members whom were also volunteers. The committee is divided into six subcommittees which were: engagement, grants, research, communications, analysis and the speaker's bureau.

9) Community members helped to design and run the project, will they also help implement the final product and/or stages?

We hope so. Soon there will be a conversation about what the leadership structure will involve. The community action plan will be volunteer driven. The city plan will also need volunteers but we are not sure to what degree.

10) How has the project educated the public and those involved about the current state of the city?

Through talking about different components of city and government. In the second engagement phase we will take input and have more conversations about how the city government can be involved. We want to have a concept of what the tensions are in the city, the present tensions within values. A lot of the educational component has yet to be realized, the city government has not done well in this area.

11) How did the project use the information gathered to create action plans? What areas of concern and/or planning are touched on in these plans?

The action plans are not done yet.

12) What other organizations and individuals have played important roles in PDX Vision?

Organizations from different refugee and immigrant communities such as IRCO and the Center for Intercultural Organizing. The business community such as the Portland Business Alliance and the Oregon Business Council. We have worked to involve all stakeholders.

13) What types of professionals have been and will be involved in PDX Vision? for ex. city planners...

City planners, sociologists, anthropologists, public administration. The volunteer committee was designed to be diverse however it tends to be more educated people and those in their forties and older although there are young people as well.

14) How was the alternative scenarios/choices phase of the timeline carried out, what did that consist of? Was a certain framework used for the process?

This was not as necessary as was originally thought, there was much more solid agreement on shared values than was originally expected.

15) Could you describe the visioning sessions, how they were facilitated and what schools of thought or practice came into play?

Surveys were the main tool used, we collected over 21,000 pages of data. Then there was a summarization of the data and the readers decided upon the most prevalent shared values in the data.

16) What have been some of the challenges of the PDX Vision project?

People have had good intentions of participating but did not realize how much work was involved. There was some disagreement amongst committee members. There was not enough political support for a five year process. The media also has not really understood what we are doing, they have often viewed it as another waste of taxpayer money. Also the city has not done the best to involve everyone, mostly it has been white middle class homeowners.

17) What are some of the most commonly occurring themes in the data compiled?

The value for the environment was the strongest voice. Accesibility to services and resources was another strong value. Equality was an all encompassing across the board value. Uniqueness was another very strong value, the "keep Portland weird" value. Like the bumperstickers you see. There were seen to be five aspects of the city. The built environment, the natural environment, the social environment, the economic environment and the learning environment which overarches across everything and includes different ways of learning and lifelong learning.

18) What theoretical background and/or fields of discipline is the PDX Vision project embedded in?

It is certainly multi-disciplinary. Urban planning of which 'visioning' is a sub-field of. Social science is also certainly a component.

Z—any others?

J—Australia, New Zealand and Canada are far ahead of us in terms of the visioning process and practice.

Interview Research #16
Stuart Cowan, General Partner, Sustainable Systems Design, LLC
Date of Interview: 4-2-07

Questions:

1) *According to the Apoiesis website you have a degree in complex living systems, could you tell me a little bit about your doctorate work and how it applies to what you are doing now?*

I have a PhD from UC Berkeley in complex living systems. I focused on applied mathematics, chaos theory, strange attractors, and non-linear dynamics. I was looking for ways of understanding dynamics across fields; living systems, biology, math, complex systems, and physics.

2) You are currently a general partner in Sustainable Systems Design, how was this organization founded and when?

Sustainable Systems Design or SSD is about one year old. It builds on an older company with a different name with a ten-year history. I formed SSD so it would have the more legal flexible structure of an LLC. This way you can have more legal partners and benefits, you can write in your values. I believe in a co-op model so everyone can own the company. My wife is my partner and we are hoping to grow to 5 or 6 people within a year or two.

3) Can you tell me about the focus of Sustainable Systems Design?

The focus is bioregional restoration and development. We do not see conflict between developed areas and ecological areas or wilderness. We want to make more creative and alive human settled areas. We are interested in catalytic projects, mixed use projects. We need to include social equity as a main component. How do we understand large-scale restoration with an understanding of biocultural diversity? We want to recreate connections. Density and livability together can support not sprawling out.

We are also focused on ways to finance extremely green buildings using financial incentives. Put this together on a large enough scale to bring to Wall St. investors. For large buildings we partner with clients. We are thinking about the Rose Quarter building off the Broadway Bridge. It has a green systems design and we are wondering what to attract there.

4) What projects are you currently working on either with Sustainable Systems Design or on your own?

Right now they are all through SSD. We are working on an art center in the Klamath Basin in Northern California. This was a small town that had a hard time as logging declined. We are interestingly enough trying to work with the U.S. Forest Service to get a grant to create the center. Artists are moving up there and down the river for about 100 miles. The center will be created using woodchips and clay, which is a German form of the cob technique called leicutleumbau. We want to catalyze the community and build using local materials. This building will be a prototype for others. I also just completed a workshop in Toronto, Canada on our coming post carbon future.

5) Can you tell me about the triple bottom line investment standards you developed?

In 1998 I looked at triple bottom line loan standards for Shore Pacific Bank. We looked at how the bank might evaluate potential loans from "green" perspectives. By asking questions such as "will it have a catalytic value?" It is a way to re-evaluate loans based on specifics. High-level tools for discovering leverage on an organization wide assessment basis are used. I developed a loan scorecard that is till used today that integrated considerations of a tangible value based on economy, social dimensions and social and environmental considerations. This thinking in a project or loan has evolved to a "blended value use, linking together all three values. We also took conventional bank use and focused on green bank use, willing to take lower returns on one aspect. I also have done extensive work with the Portland

Family Funds group. We focused on how to integrate triple bottom line returns into your investments.

6) When you were with Ecotrust you led the development of the conservation economy framework, what was the impetus for this project and how was it undertaken?

We wanted to understand what was necessary for a sustainable bioregion. Which social/environmental/ecological patterns make up such a bioregion? We wanted to get at the deep structure of what goes into such a bioregion. We looked at the pattern language that could represent this and be used around the world. Christopher Alexander's book "Pattern Language" has been influential.

We looked at best practices, case studies, and stories. The idea is that if you look at the highest level, of for example a sustainable agricultural pattern, it can apply anywhere, not just the bioregion. Three key ecotrust members worked on this project, which spanned over two years between 1999-2000 with a major revision in 2002. I developed the conceptual framework and Howard Silverman helped me with that.

7) How does the conservation economy framework apply to whole system design and systems thinking?

It is a systems approach to bioregional sustainability. It is very cross and interdisciplinary. It helps us to understand the bioregion as a 'whole' system. This helps management of and relationship with the land, the built environment as well as

the managed and wild environment. It helps us to look at each piece of the landscape at its interconnections in all of its complexity.

The framework has been used both locally and internationally.

8) What are some of the practical uses of the framework and how has it been utilized by people or organizations?

The University of Columbia has used it. An organization in Eugene looked at it using local examples. The original intent was for it to be a sort of open source tool. Unfortunately it was developed as such and that part of the project never quite came to fruition.

9) As a previous student at Antioch University in Seattle I noted that you taught there. What course did you teach at Antioch? Which courses have you taught elsewhere?

"Yes, which program were you in?"

I taught a unit on sustainable communities for two quarters in an intensive weekend format. I have also taught courses on voluntary simplicity, complex systems, the universe story, math and chaos theory. I also taught at Bainbridge on local living economies and at PSU's Piiecl program in a course titled global political ecology.

10) Your website apoiesis emphasizes the word participatory in both it's description of a local living economy as well as in your methods of working with the public and with clients. What does this mean exactly, how do you engage those you work with to

be active participants in the process? Does this concept relate to the field of participatory sustainable development?

When working on a design project we use opnespace. We use Christopher Alexander's pattern language processes, we work a lot with these. We ask the questions 'does this create more life, more wholeness?' We have the client and the architect work together on the models. We also do a lot of work with organizational transformation using visioning processes and recording the highest aspirations of the community. We also use techniques of deep listening and appreciative inquiry as well as community asset mapping and assessment.

11) Would you consider yourself to be a consultant? Do you have any advice for someone looking to eventually work as a whole systems design consultant?

Sure, although I do not know if I like the word consultant so much anymore. I am striving for a different way of working with clients, a means of 'joint inquiry' and deep dialogue. Together with clients I want to identify grants, key people and organizations and build the self-organizing tissue like the autopoiesis model. It is a difficult niche; I have to convince the client that there is value, that this will help you be more adaptive; it will also help your bottom line. It can be a hard sell. No one will understand what you do, people will try and put you in a box and will not understand the whole systems approach.

12) I noticed in looking at apoiesis that you utilize the Natural Step framework in your work, can you tell me a little bit about how you use this framework?

Earlier I did a lot of trainings on TNS, used to guide on metric and evaluational tools. It is the core conceptual tool in our work and is at the heart of the conservation economy. Unfortunately the TNS 'brand' has eroded here in the U.S. and somewhat abroad. In Portland it is still strong although has even declined somewhat here. It is a brilliant conceptual framework that can help get us through 'massive' structures that create wrong pricing of solar/wind vs. oil for example. We are using ecological footprinting in our work more and more; it is very tangible and easy to use that way. We are also using the WRI or world reporting initiative. We have such huge economic barriers right now. I feel that the biggest barrier to sustainability now is the economic barrier of a world without the right pricing.

13) *Would you like to see whole systems thinking and/or design brought into the general public consciousness and if so, how?*

Systems thinking and ecological thinking can be taught to children and can be brought into the curriculum. In high school students can begin to understand linkages. Places like Goddard and Antioch could be considered 21st century whole systems schools. Students have to engage a fragmented world.

14) Finally, what would you consider to be the integral areas of study for a student of systems thinking and whole systems design?

Non-linear dynamics, complexity theory, chaos theory, fractal geometry, real depth around living systems, evolutionary linkages/theories. Frijof Capra, the universe story, through time and up and down different scales. Sustainability, knowing your

place bioregionally, nutrient cycles, carbon cycles. Biocultural diversity, bioregions connectivity. Organization development and learning. All the way from physics to living components to human interaction. To be an effective change agent helps to keep touching on all of these elements.

Interview Research #17
Date of Interview: 1-19-06
Jonathon Scherch- Antioch faculty, Environment and Community Program, involved in sustainable development in India

Questions:

1) How did you become involved in international sustainable development?

I traveled a lot with my family as a kid. We went to Israel, Egypt, across the U.S. and Canada, this informed my desire to be more involved. You cannot disconnect the personal from the professional. Originally I started out as a social worker with child welfare organization. I began to realize that you healthy families need healthy communities and a healthy environment. This is when I became aware that I wanted to integrate social realms into sustainable development principles. While I was in the Peace Corps in Jamaica from 1991-1993 I saw that in social work there is a continuum from the individual and family to the community.

2) Would you recommend the Peace Corps for someone interested in a sustainable development career?

Yes, it is not for everyone though. However, it is a fantastic opportunity to become intimately knowledgeable with ecology, economic, place, etc. It is most difficult coming back home because you are no longer the same person you were.

3) Do you feel the Peace Corps benefited you professionally?

Absolutely. It was not only a great learning experience but also gave me some professional legitimacy. After I came out of the Peace Corps I went into a PhD program at the U. of Tennessee.

4) What was the focus of your studies there?

The self-identity of individuals who were living sustainable lifestyles in the region. My thesis was titled "Living Responsibly, A Study of Sustainable Living in East Tennessee and the Southern Appalachian Bioregion". I also co-authored a book at the same time titled "What Have We Done", which was a bioregional assessment of the region. You can check this out as well as my other works at my website: www.designtrek.net. I also just finished the second book in the series, which is titled "A Land Imperiled, The Declining Ecological Health of Southern Appalachia". This book focuses on what sustainable living activities people in the region are doing now.

5) Can you tell me about your sustainable development work in India?

Sure. I leave again on February 16th for another 3 weeks to go to Nepal again. I am consulting with the Tibetan gov't in exile to facilitate permaculture/agriculture sustainable development projects within refugee settlements. There are currently 135,000 Tibetan refugees. My project is called "Cultural Preservation in Exile". I am focusing on sustainable economics and the use of technology to preserve the ecology, hydrology and flora and fauna of the area as well as setting up composting.

I want to encourage and facilitate organized agriculture without the use of oil inputs and a manner of living that has integrity with minimal use of inputs and resources.

6) How did you become involved in this work in Nepal?

I was approached about 3 years ago by a former student of mine who was then in a sustainable development graduate program at Brandeis U. He was trying to decide what to do for his graduate project and was seeking input from me. He is a young Tibetan man and is from a refugee settlement there. Eventually with my help he developed a project proposal and sent to the Prime Minister there. My real passion right now is sustainable bamboo development. Bamboo has been a part of indigenous culture for 1000's of years. I believe it is a very important component of sustainable agro-forestry development. Some of my work abroad with bamboo has been in China where I did a research trip and in Vietnam where I recently was doing research and presenting my paper on sustainable bamboo systems at a conference. Again, you can find more of this information on my website.

7) Finally I want to ask what advice you have for someone interested in an international sustainable development career?

Become acquainted with what is going on in the world; with what you identify with so you do not have to start from scratch. Antioch is a good place for sustainable development as the E+C program is complementary to this aim. Look at opportunities for travel study as well as aspects of sustainable development around

the world. Use opportunities for travel study such as independent credits or a research project.

Interview Research #18
Tom Atlee, Author of The Tao of Democracy, Community Organizer, Founder—The Co-Intelligence Institute
Date of Interview: 6-6-09

Questions:

1. What are some of the most important or urgent changes you think need to take place in the world to move us towards equity and sustainability?

Most of my thinking on this has to do with enhancing the collective intelligence of society, particularly in it's political and governing systems and secondarily in its economic systems. My sense of what would have the most leverage on that would be citizen deliberative councils, things like citizen juries, and citizen assemblies, these are all varieties of a type of innovation where citizens are picked at random anywhere from a dozen people to over a hundred in examples that I've seen and these are things that have been done hundreds of times around the world. They're seldom put in positions of significant influence and I'm thinking it would be good to have them in positions of significant influence either directly affecting policy or proposing things that the electorate can vote on. This is a body of people who look at an issue, study an issue well from all different sides and come up with recommendations about what they think ought to be done about the issue. It doesn't replace representative democracy but it is a very powerful voice, what I call a voice of the whole, a voice of we the people, it doesn't exist currently in government. Our current systems are

based on battles between partisans fighting for a majority. There is currently no real voice that can legitimately represent the whole, all you have is majority. It's like right now the democrats are the majority in the congress and they talk about what America wants and all this but its like it's still just the Democratic voice and what would an integrated bipartisan voice look like, that's assuming that the parts are real rather than people who aren't representing interest groups or partisan viewpoints can come together and come up with common ground insights and activities and policies which is pretty well demonstrated. There's lots of demonstrations that value these things and doing that, it's just a matter of getting people out of all the very powerful assumptions of adversarial politics. But trying to get activists to push this is very hard because the activists are so habituated to adversarial activism that they don't see exactly how this would serve them. That's an innovation which if it was empowered in a variety of different ways which I won't go into but a bunch of them are described on an article on my website which I can send you the link to if you want. There's a book about different uses of this kind of thing by John Estell at the University of Washington which I've learned a lot from and gone beyond, it's an academic book on this topic. There's a sense of the people as a whole being able to generate some coherent sense of where they want it to go and then…being selected randomly like a jury is, its much more closer to a jury than a parliament in it's logic. And the voters can see that there are resolutions to a lot of the issues that they're struggling with and they're often kept in adversarial camps by the way our system is organized, so creating a democracy that is more based on the voice of the whole than the voice of the parts is one of the things that I think could make a gigantic difference, where then

the voice of the whole is informed, where the voice of the whole includes minority viewpoints and considerations rather than suppressing them and there's a tremendous amount of process knowledge that can be used to enable that to happen. In the economic realm the biggest thing that I can think of…

Z—Stops interviewee and directs him to the next question…

2. Are you familiar with the term energy descent? What do you think are the most important interventions to make in the challenging trifecta of peak oil, climate change and the economic situation?

Well so much depends on our assumptions about what's going to happen and what is possible. I have different sets of things that I think of as high leverage when I think there is a strong chance of the larger society holding together in a non-fascistic way, when I think its going to become fascistic or I think the center is going to basically totally crumble I have a different sense of what would make sense and I really don't know, I don't have a good solid opinion of which way its gonna go. I tend to think that within twenty to fifty years we are not going to have centers holding unless they're being held by incredible violence and oppression. That's not the mainstream of what I do in my work, my work is largely how we can consciously transform it under the expectation that we are under real threat and that that threat contains opportunities. And we can proactively make changes that would reduce the chance of total collapse but I'm, those assumptions are very questionable. If things, if you think in terms of a collapse scenario, a relatively half way collapse kind of thing where the

centers, the institutions are shaken to their foundations, which is starting to happen already. But there's not total, total collapse then things like the Transition towns are especially appealing. There's a sense ultimately that we need to distribute power and decision making activity in most realms more wisely, there are some realms, like you cant have community control of the oceans I mean that's sort of absurd. So the idea of having what are the rules of the game, the rules of the game when you're dealing with oceans or the atmosphere to a certain extent you need larger bodies or networks or something to create agreements around that. But the creation of more resilient communities and more collectively intelligent communities seems to me central, one of the things I was talking about, the citizen deliberative councils can be done at least as well locally as they can you know, statewide or nationally and if things really come apart then there's, its not a matter of intervening anymore there's a lot of the assumptions underlying transition towns that would theoretically get totally swamped in a really thorough collapse. And then it's a matter of what is society going to be like after the big shakedown, you know the mass die offs, and you know the fascistic and warrior lord default kinds of settings we have for when we devolve and you know we go through a period where there's massive suffering and violence and death and trimming down of society and then what happens after that? Particularly in a society that's highly toxified as it would be in a total collapse, when all the controls on our nuclear materials etc are removed. It's just sort of hard to imagine what society would be like and when I try to think strategically about that I try to think in terms of transition towns being a medium for the spread of positive possibilities, that could, like a diaspora of ideas, that could be embedded in a lot of different places in the

world. And we don't know which areas are going to survive, but if there are positive possibilities and know-how spreads broadly, the chances of it surviving somewhere are fairly good and sixty or a hundred or two hundred years later when the trauma, the collective trauma has shaken itself apart and gone through it's process, people will want some more order, they'll want some more freedom. They'll want whatever and something more sane might be able to be started in a much more level population and a higher level of understanding of what's going on. So this is all, who knows, you know in my, when I look at the actual figures about all of this I think of it as being a 99% set up for total disaster so I'm looking for, the fact that its overwhelmingly negative doesn't negate the fact that if there's a crack in the dyke that you can stick your crowbar into or a crack in the concrete that a seed can be planted in ultimately its not a matter of size or volume it's a matter of you know to a certain extent the chance is built into chaos theory and an effort to try to understand and have good intentions about all this. So you know in nonlinear systems so to a certain extent your questions has embedded in it an assumption of being able to do a linear change to say I'm gonna create this change if I can muster enough people were gonna have that happen and I'm less confident that that is a viable way to function then I was you know twenty years ago. It's a matter of being part of a larger process.

3. What do you think are the most important tools and education that a community member needs to feel empowered to fully participate in creating a sustainable future? Various forms of systems thinking, various forms of process and communication skills and I personally would add an evolutionary perspective. To me the

evolutionary perspective includes the other two in very powerful ways that has not been made clear by advocates of it so far, but one of my main purposes right now is to articulate the evolutionary perspective in a way that includes the process of consciousness and systems thinking quite clearly.

Z—Can you tell me more about what the evolutionary perspective is and what that means to you?

T—Yeah, Peggy Holman and I did a bunch of research on this a couple of years ago, how evolutionary dynamics could be used to change social systems and the definition of evolution that we came to was diverse entities interacting in contexts that are challenging or supportive and that that definition is descriptive of how novelty emerges and how functionality develops and is descriptive of from the very cosmic beginnings and the big bang all the way though the development of the planet earth and societies and when we are, when we have the evolutionary perspective and understand that we are part of a deep time story that has been going on for billions of years and is going to continue to go on for billions of years and that we are not separate from it, we are an integral aspect of it and on our planet we are a dominant aspect of it that we are bringing consciousness, that evolution has given us consciousness and that we are being called to bring that consciousness which includes awareness, intelligence, wisdom you know choice, all these things that go along with consciousness we are being challenged to bring that to this process that's been going on unconsciously for billions of years. So to be aware that the value for example of diversity, the value of interactivity and understanding that different forms of

interactivity can be destructive in different forms and some can be extremely creative and that there's something to know, to bring consciousness to. Humanities been interacting, diverse entitities interact during war but there is a level of unconsciousness about what's going on in war that we could bring more consciousness if we weren't shooting at each other if we were talking in some of these generative ways, dancing and co-creating, there are ways to co-create and interact maintaining our diversity and searching for the gifts that are in the dissonance the ways we are rubbing each other wrong are at least as valuable as the ways that we agree on things and the evolutionary perspective values that you know. Evolutionary bursts of creativity in the evolutionary path that come through tremendous conflicts and tensions and problems, crises, you know when things fall apart. Planets, when the stars explode most of the larger elements that we need for life and for just being a planet came out of supernovas incredibly violent forceful interactions going on there and we can bring an ? for crises on this planet over and over again, a comet hits the planet and buries it in a winter for years and years and years, creates tsunamis and stuff and the dinosaurs die out and up comes the mammals which is us, if that comet wouldn't have hit we wouldn't be here its like the sense of dissonance, crisis, difference, these are all resources, it's a whole shift in viewpoint, these are resources, and the crisis we are going into now will create evolutionary change whether those evolutionary changes will have us in it is very largely up to us and the amount of consciousness we bring to the process cause if we don't bring consciousness to the process than the mechanics of the situation will take over and its really clear where the mechanics are taking us so the idea of humanity becoming extinct is absolutely

totally real the vast majority of species has gone extinct were a really young species the idea of us going extinct is totally, totally possible. So that's to me is the evolutionary perspective, knowing that the capacities that we would have to have, who we would have to be individually and collectively to survive the challenges that are coming constitutes an evolutionary link, we will not come out of this looking the same as we do now, I mean that's just totally real. What do we want that to be like?

Z—How do we get people to that point? How do we start educating kids from the very beginning in systems thinking?

T—I'm interested in that question too. There's apparently a book that came out just in the last few years which I just ordered from Amazon, a woman has written a book on teaching systems thinking to kids and from what I understand from reading on Amazon that she has taken existing children's stories like Dr. Seuss stories and analyzed them for their lessons in systems thinking and provides guidance for parents and teachers to talk about these stories in ways that kids start to get it at a more conscious level what's going on with systems and there's another book that's stories to teach systems thinking that is written for adults that I've also ordered, I can give you those things. And there's another one that just came out from Donella Meadows.

Z—Yeah her Thinking in Systems book just came out, the full version, I'm reading that right now.

T—We're learning how to teach this, its been taught in ways that very few people can understand in the past and I know when I talk about systems thinking I'm talking

about something that's very intuitive and real to me and when I have to articulate it, it becomes very difficult you know trying to talk about it, it suddenly becomes very mechanistic and its frustrating thing to me, I'm finding out myself how to talk about it. When I talk about systems level change its like the idea that you can change the story of a culture, its like the feminist movement altered the story of global culture. That creating, naming the existing story as patriarchy and burrowing into every field that exists virtually, I mean there's feminist writings in the sciences, social sciences, physical sciences, in poetry and novels and art, and architecture, its all over the place. The feminist sensibility sort of invaded all these disciplines and reframed what they were about and started to do novel kinds of research and creativity that didn't exist before. that's an example of a success story of systems change at the cultural narrative level. the idea of changing the measurement of our economic success, you know triple bottom line, you know change gross domestic product to real progress indicators, we have all these discussions about getting away from materialist monetary measures of what it means to be a successful economy that those are changing the systems at the measurement level you know and all these things change assumptions, they come out of assumptions that are different than the dominating assumptions and they import into the functioning of the systems whether its at a story level or a measurement level or some other level they import into the functioning of the systems a different set of assumptions about what it means to be alive and that is, that's what I intuitively feel, anything that fits that function is for me a systems level change and some feedback loops are extremely real to me and it feels like having people get an intuitive feel for feedback loops an intuitive feeling for their existence

for the impact that occur in feedback loops, its like if you have a feedback loop that exists in the local community it has a whole different quality than a feedback loop that reaches to Washington. You know the fact that the mayor is going to see the people in the local store changes the dynamic.

4. Which power structures do you think need to shift or change to create a world that works for everyone?

Well in general there's a shift from power over to power with and power from within, understanding the power of synergy, the power of design, the sense of leadership not as a function of individual leaders but as the function of the design of a system and the emergent phenomenon of systems which can be designed to facilitate emergent phenomena so there shifts form points of power to sort of power as a field phenomena power as a function of the dynamics of a system so for me the biggest shift might be called catalytic or facilitative power. In terms of our individual agency what we as agents of transformation want to do is to create space I which the positive self organizing life energies of individuals and groups and communities and societies and various systems can find their way to their next level of wholeness. What new wholeness is trying to emerge out of the struggles of the people who are involved? It's like citizen deliberative councils are creating a greater capacity for the system to lead itself they aren't create some source of top down…If you really believe in power with you have to include within that power with the top down structures, its not necessary you have to get rid of all the top down structures, if you're power with you have to go ok there are some functions for hierarchy, there are some functions for you

know the top down leadership and what is the proper role of that, what are the things that are needed to deal with the shadow side hierarchy? Just like there's a shadow side to collaborative distributive systems. How can we get out of sort of advocacy for one way or another and become more, what are the gifts and limitations, one of my teachers of wholism gave me that language, what are the gifts and limitations of any given structure, of any given person, of any given idea, how everything has gifts and limitations and we don't need to decide whether its good or bad we just need to understand more about what's its gifts and limitations are and where it fits in the larger patterns were working with? So to me that's the ultimate sense of working with whatever's there, power with the circumstances, power with other ideas, power with…

5. How do you personally define whole systems change? What role does it play in your work, how do you engage with whole systems change?

The center of my work is conversation, the power of conversation to create the internal feedback loops of the system for it to self organize. One of the first things is what people in conversation based processes is getting the whole system sin the room and getting the whole system in the room could look like getting stakeholders on an issue together, it could look like getting the conflicted parties in conflict together it can look like a random selection of ordinary citizens so you get people of all different types representing the community in the room and then having them in an inquiry about what serves them all, what serves the whole. So if you can get parts of the whole that are connected in various ways to the larger whole in a room and have them

interacting in a way that pursues something that is of benefit to the whole. One of my definitions of co-intelligence is accessing the wisdom of the whole on behalf of the whole so that is one of the ways of getting the whole system. Ultimately whole systems work is humble because you know there's no such thing as the whole system except the system itself. There's no such thing as a model of the universe that is totally accurate except for the whole universe so any given system has a boundary but that boundary is almost by definition permeable. That which separates me from you also connects me to you. So part of it is a humility and an N plus, N plus one equals, wherever you've got to in terms of who you've included, in terms of the way that you've figured out how things are. Wherever you've gotten to there's more to it that that and that is fundamental so that you're always, the question for conversational people based work, people gather a bunch of stakeholders together, they'll have a conversation and then the facilitator will say who else should be here, who else should be part of this conversation, you know knowing that there's people who know people who should be there so get them to bring that knowledge in to expand it. So whole systems work has this quality to it and looking at the existing interactions, possible interactions, the functionality, dysfunctionality of those interactions among the different parts of the system. If whole systems work could be put in a box it couldn't be described as whole systems work.

Z—Tell me about what you call the story field in your work and how you view the power of narrative?

T—A story field is a coined term that has roots in a different narrative metaphysic, you know there's ways to do it from a purely cultural sociological viewpoint but for me it is, it goes deeper than that. There's a very old, Burkheiser has a poem in which he says the universe is made of stories not atoms. You can say its made of atoms well each of those atoms has a story. That atom came from somewhere and it has been in lots of different places and it brings its story to wherever it happens to end up and that's true of every person you meet, every situation. SO there's a sense of story as being fundamentally built into the structure of the unversed and our ability to span the structure of the universe. Well it makes sense to us is whatever fits our story and if something doesn't fit our story it doesn't make sense. There's endless things I could talk about with this, its very, very real to me. So when we are living in a narrative field it is not just the explicit stories it is also the implicit stories when you are watching TV and they have things tin the advertisements and things in the news the selection framing of those things have narrative implications and they shape our sense of what is real, what is possible what is good or bad, all those things are being shaped by what we look at. The fact that when you get out have high school you should go to college. I mean where does that come from, you know. These are parts of the narrative field that are built in. I mean all of the statistics that we have the fact that we focus on the average or the main majority or something like that rather than the extremes, the extremes are interesting, the field effect, etc, etc. Its like you can focus all sorts of different places, the choices of where to focus have narrative implications and shape our consciousness and behavior in really profound ways. SO I think of the story field as the cumulative wholistic result of all that it isn't one thing, you can

never describe the story field, you can look at dominant pieces, its like looking at patriarchy, its like were going to call this storyfield patriarchy. But that's not in any way encompassing the reality of the story field but its talking about one major dimension of it. So you can say ok how do we have impact on this, how do we get the people who create curriculum, the people who create online games, the journalists, the people who create movies and novels, the people who do advertising and PR, the politicians, you know who are incredibly attached to story. What if we pulled together lots of people who feel that were living in a story field and destroying us and who come together, how can we actually synergize our work, how can we do things in ways where the pieces complement it. Its like you watch this TV, the movies they have all these knockoffs, the little dolls from the movies, the masks, you know the movie has a Pepsi in it. The commercial people have figured out how to create synergies between the actual artifact and all these other activities. So how do we who are transformational agents get together to do synergistic work that is deemed as transforming the story field so that our individual efforts together add up to more than our individual efforts separately. That was the idea of doing storyfield conferences, it didn't unfold that way, and I still have this dream of trying to have the level of impact and ultimately the conference then becomes an example of how to consciously impact the storyfield. Ideally you would have lots of such conferences, this is not something that one side does in order to manipulate it is something which if we could do it consciously ultimately you could have the whole society working together to shape the story field. So we shape the systems that shape our consciousness. So why not do all that consciously. If this is an effort to experiment

what would it be like? You know, Wikipedia shapes our knowledge but we are shaping wikipedia. So what would it be like to do that at a cultural narrative level. What would be the institutions, online, face to face, whatever, what institutions would have to be in place to enable people to co-create the story, a larger story that they're all living together. And that could be the larger story for a group, the larger story for a community, the larger story for society. And I see that dynamic in Transition Towns, its not developed anywhere near where it could be but the seed of it is in the transition towns, the understanding that were going to create a vision that were then going to live into. That is a story field activity and trying to engage as many people and I don't think most of the people in the transition town movement from all I can gather, they don't understand the potential power of that, they're still into just doing things on the ground and getting things done and that's you know, fine but I keep sensing the potential conversation, the potential story field being unrealized and transition towns comes so close but they don't quite step over, they don't quite step through the looking glass into the other side. It's both inspiring and frustrating to me.

Z—Can you talk about the concept of evolutionary activism and what you're doing with that?

T—Well that to a certain extent I already mentioned it but to me ultimately evolutionary activism dissolves into being evolution. It's like recognizing, its not like us being conscious evolutionary agents, were not going to be activists trying to change x into y were going to be evolutionary agents helping the evolutionary process unfold in a more conscious way and after that, the next stage of awareness after that is

were not evolutionary agents at all. Were not separate from evolution. The sense of layers of awareness, where one layer is being conscious of evolution and the way…living systems and engineering design. The idea that there are different levels to evolutionary activism, one of which, are you familiar with biomimicry?

Z—I am, that's a big part of my work actually.

T—Ok, so yeah, this is like looking at living systems and organisms for answers to engineering problems and the evolutionary activism can be used looking at evolution for lessons about change since that's the oldest change system we have in the universe and its had billions of years of practice. SO you can learn about change by studying evolution so thats one form. There's another form of we are going to be facilitators of the evolutionary process which is happening anyways but we are going to bring more consciousness to it and a lot of the people who do process, conversational activism are in that category even if they don't think about in terms of evolutionary process. Then there's the realization that we aren't agents of evolution, we are evolution. We are that aspect of evolution which is experimenting with the potentials of consciousness. Just like the birds and the bees are dimensions of evolution that have participating in exploring the dimensions of life, etc. And our work, the work that we do, so for me the evolutionary activism, conscious evolutionary activism is one of these strings of reference, one of these ways of doing activism and there's certain kinds of activism, certain kinds of things that one wouldn't tend to do that are ordinary activist things if one is thinking in terms of evolutionary process or evolutionary leverage or you might do them in ways that are

very different than usual. One of the things I always wanted to see was a demonstration in Washington DC celebrating George Bush as the most powerful evolutionary agent on the planet and I would just love to see it. If there were a hundred thousand people doing that and they actually meant it because it is true or was true and then having the media come up and try to understand what the hell they were talking about would be a very interesting educational moment and they actually appreciate George Bush like appreciating the fact that Hiroshima happened because if we hadn't had Hiroshima we would have destroyed the world already. There's this funny way in which the dark negative forces are powerful drivers for the positive and to learn how to use that more consciously is a big part of evolutionary activism, which is very timely.

So in terms of my current work the work that I most want to do is articulating the evolutionary perspective from an activist perspective and Vie done a lot of that but it still isn't up to the level it needs to in order to communicate to most people to get what I'm talking about when I do say it. It overlaps with a concept form Michael Dowd, an evolutionary evangelist, that evolutionary integrity has to do with living in concert with what is and its like that from biological evolution, the idea of fitness, of being fit from the environment and the extent that you are really are engaging with reality in its fullness and behaving in he full recognition of what that is you have evolutionary integrity. And it fits in a very weird and interesting way with evolutionary activism because in the, since part of my understanding of evolution is a continual search for new forms of wholeness whenever there's dissonance or

problems or catastrophes or whatever, there's a new search for what's the new form to take that will dissolve this dissonance and that that is almost like a yearning to move to the next form of wholeness sometimes it looks like its moving backwards like when you heal form a cut the cut is going back to the original form and sometimes its totally different in its form but there's always a seeking for wholeness. From a spiritual perspective that seeking for wholeness, I stumbled in one of my writings, I stumbled upon the idea that that's great so there's a way in which evolutionary integrity and evolutionary activism are conscious participators in grace. I'm very interested in what a spiritual movement that's motivated by these understandings would look like so part of my, of the articulation that I'm trying to do is more analytic and looking at the dynamics and part of it is more poetic and looking at the spiritual dimensions. The wholeness that I'm talking about there's a phrase that Peggy and I came up with in our research which is evolving differentiated wholeness. The sense hat wholeness embraces both unity and diversity simultaneously and that it's not static, wholeness is not static. Wholeness is constantly evolving and the creativity is an emergent phenomena of that activity of wholeness moving on to its next stage of wholeness. So it's a foreground background kind of shift, the creativity is centered on the generation of it, you know generating the next thing and this is saying that our feeling of creativity our sense of a creative force in ourselves and in the world around us comes out of this tendency to go for, when there's imbalance to go for balance. Always trying to get the next form of wholeness. That's a whole zone which is the strongest calling I have and what's weird is that in my current life is that like in five, three to six years ago the focus of my life was on the co intelligent

forms of democracy all the conversational things that, councils al that sort of thing. People were not responding to it particularly, it's largely because people weren't responding to it that I was so attracted to the evolutionary perspective and I got off into that. And now largely through Obamas' election and his languaging of things, its kind of hard to tell exactly who Obama actually is but as an archetype, as an evocateur he's creating, generating all kinds of interesting energies where suddenly people are, the mixture of Obama as a positive pole and the economic collapse and global warming and peak oil kind of as the negative pole. People are suddenly growing interested in conversational approaches and a conversational approach to democracy and collective intelligence and all of that and suddenly that's where the demand is coming on my time and the feeling of if I want to create real impact on the world I need to be dealing with that stuff and I am and its like 80% of my work is now in that realm. Whereas what I really want to do, its kind of like old stuff for me, its like been there, done that so what I want to do is this other stuff but its not so simple so I have my own dynamic tension in my life struggling to figure out what is being called from the outside, called from the inside, the creation of an evolutionary activism movement. Right now it feels like its dead in the water, there's so few, so little responsiveness to it that it feels like a waste of time but under the right circumstances it could be totally revolutionary and I feel I'm called to create some of the circumstances that would make that possible even if it looks like its not going anywhere now. And having that attitude sitting right next to all these people saying hey would you help us on creating this public dialogue and this, its like eh what do I do?

6. What role do you see creativity playing in the Great Turning?

Boy that's a very provocative question. Well the pat answer is that it's essential. And I don't assume that the only source of creativity is individual. In the Y2K era, when I first met Michael Dowd we were in Ashland at a Y2k conference for two days and I was giving a speech on the second day and he did for those of us who were giving talks who were sort of in need of this or that we were sitting around after the first day and he said I want to show you guys something I've been working on and he did an hour long of the story of the universe that just knocked my socks off. This was before he started his mission. The next day I started my speech it was called Y2K as a door that looks like a wall. I started my speech by saying we are nature's creativity on speed and that we will only survive by applying our creativity to the creation of ways to monitor our creativity. Because we are creating the means to destroy ourselves way more rapidly than we are creating the means to survive our own toxicity as a species. So it's not just the amount of creativity there is a consciousness about that creativity and choicefulness like the technological developments the kind of creativity that is motivated by power and profit. The fact that most of the validating systems in our society are built around power and profit mean that the creativity we have is channeled in that direction. The potentials for dark side use even sometimes dark side dimensions of the right and the light side use of the technology for developing the potentials it gives to us as a collective society and as just driving cars. We just wanted to get from A to B more effectively so now we have cars and its like the idea of a side effect that destroys the atmosphere is a whole

wild reality that fact that we are doing research on nanotechnology largely driven by a mixture of market economics and medical things, things we could do with medicine if we develop nanotechnology. Going wait a minute, wait a minute, what is the dark side of this thing we are doing? Its like the Amish, they aren't against technology they just spend a lot of thought on which technologies they're going to use and trying to track what are the dark sides,. They're trying to live the good life they're not trying to just get the latest biggest thing and I'm very concerned that our creativity is not adequately embracing the dark side of our creativity, not being reflective about what were doing. Weird answer.

Z—There are no weird answers (laughter)

T—That's a great line! Or it's like the weirder the answer the more sense it makes.

7. Do you relate to your work in a spiritual sense, if so, how?

Yes I do, and it is at this point it is largely, I had an evolutionary epiphany, I had a full blown, my desk and house and world dissolved into sparkles of stardust waves of emergent reconfigurations so I can switch at anytime to a consciousness its like right now I can feel that this conversation is a part of the evolution of the plane, of the universe, of humanity and it is stardust reconfiguring itself, it is the current shape of the big bang unfolding. That's all very, very real to me, the sense of wholeness, the evolving differentiated wholeness as the undercurrent of that. I mean it takes me out of myself. I am doing this work, I am a change agent, into being part of this larger flow and there are ways, ways I hunger for a spiritual practice, like the Buddhist

spiritual practice of being in the present with what is there, with what you see and feel now. There's a sense that I have that its possible to access the whole story that's going on, you know where does everything here come from, at a very immediate and intuitive perceived level. This now is, you know, I am a boat on the river, this now is a moment in a larger flow, a larger story and that I am part of that. I'm also interested in exploring the, what you might call the 'godding' of powers of universal forces, having a personal relationship, actually it's a very funny thing I just got yesterday a friend sent me a thing, a story from a book that's about different afterlives, different ways of looking at the afterlife and it's the viewpoint form bacteria. It raises the question of whether the god of bacteria even has any comprehension of us that we exist on a level that has nothing to do with the stories bacteria are living and the issues in their lives. The god of bacteria is created for them, were…(connection broke up) So Michael is talking about having a relationship with God…the biggest nesting doll there is, I articulated that as the creative power of the universe, he agreed that God.. as a creative force…(connection lost again)

8. Who are some of the biggest inspirations in your work, artists, musicians, activists, authors, or anyone?

Michael Dowd, Annie Barlow are tops. David Sloan Wilson, Brian Swimme, Thomas Berry, Robert Wright. These are evolutionary thinkers that have inspired me.

Z—Have you worked directly with any of them, weren't some of them at your evolutionary salons?

T—Not David and Thomas, but the others. We started the salons at Michael's request. In my other work, Jim Rough and John Gastil and Ned Crosby were major influences on citizen deliberative council ideas. Economic ideas, Paul Hawken, David Korten. Marilyn Ferguson was an early inspiration on holism. Peter Senge and Meg Wheatley on organizational transformation. Peggy Holman and Juantia Brown on process. Arnold Mindell, Paul Ray, Dee Hock. Elisabet Sathouris. Buddhism and Taoism, in religions.

Interview Research #19
Ann Driscoll, Program Director—Socially Responsible Business and Sustainable Communities—Goddard College
Date of Interview: 6-6-09

Questions:

1. *What do you think are some of the most important or urgent changes that need to take place in the world to move us towards equity and sustainability?*

I think one is that we need to get a critical mass of people on the planet understanding that systems are going to fail and that I think we need to have not just within our own country but literally on a planetary level as well conversations about things that we need to do differently in order to dramatically reduce the impact of the human species on the planet. I would say one more is that business has a particular role in this transition because it is a mighty force, it is one that both shapes and reflects our cultural values and in terms of the whole systems change piece business in particular

needs to help lead this, basically this very necessary revolution that we need to have happen.

2. Are you familiar with the term energy descent and what do you think are the most important interventions to make in the challenging trifecta of peak oil, climate change and the economic situation?

One is I think that we have got to figure out in terms of peak oil, we have got to get off of oil so we've got to figure out other energy. Wind, solar, water, etc. and I think in terms of climate change we've got to get the carbon reduced as fast as possible and the economic situation is one where we've got to build local economies and we've got to revisit the purpose of what the economy is. For example is it simply to produce wealth and if that's the case how do we define wealth? Is it just the money in our pockets or are there other kinds of wealth, which might be things like everybody having a roof over their head, healthy food on their table, and a chance for an education. So part of what I think is that we need to redefine what's the good life or what is wealth and we need to create an economy that's got different drivers. Part of what goes hand in hand with that is addressing issues and the ever widening gap of haves and have nots.

3. What do you think are the most important tools or education that a community member needs to participate fully in creating a sustainable future?

I'd say that as individuals we need to understand things like carbon footprint, we need to understand the planet is in peril and the human species is in peril and we need to

understand why some of those things are happening and then we need to have the wherewithal to not be paralyzed by fear or overcome or overwhelmed by what some might is looming tragedy. I mean I think we've still got choice points. So I think a starting place for what a community member needs is information and then I think that, I think as human beings trying to live in community with one another we all need better skills for how to do that, how to talk to one another and how to resolve conflict, I mean age old issues around conflict and misunderstanding culture and not being able to address, then have conversations about the issues that come up within a culture. I think that, I'm just kind of speaking randomly here Zeratha but I think in terms of somebody feeling empowered to participate fully in creating a sustainable future it's going to be really hard for some individuals who the bulk of their day is spent worrying about are they going to have food on the table for example. Are their children safe so I think that the things that somebody needs to feel empowered or to feel like they have a voice or the time to be involved in organizing or activism or just making different lifestyle choices part of it is going to have a function of how much is their life absorbed by whether they have clean water to drink for example, etc, etc.

4. What project/organization/effort are you working with or on currently?

Well my biggest one currently is Goddard College which is helping to nurture and create and support a setting, wait let me back up…People need more than passion and in order to take informed action they need information so they need an education and there are lots of different ways to get that information and education and some of it can come from self education some of it can come from seat of the pants learning and

another powerful way to get an education is formally in a classroom setting or in a formal learning setting. I think Goddard has a specific and a unique role to play and I hope we're not alone in it, I hope that there continue to be other colleges and universities that offer the same. What I'm excited about is that we're offering something that's not an MBA, its an MA and it is designed to help people immerse themselves in getting grounded and well informed in understanding what are the causes of, what are the things that are intertwined and interconnected , that are operating in conjunction with one another that have created an unstable environment, an unstable economy, a socially oppressive condition s in the world, etc. So what I'm excite baout is that I think we've got a situation at Goddard where we're trying to help people who I really think can make a difference in their communities. This is how this is going to happen by individuals who are well informed and combine that with passion and skills to help create change.

Z—What other projects or efforts are you working on. I know you've been involved with the Pachamama alliance.

A—Yup I've become a facilitator for the awakening the dream, changing the dream symposium. I've done a number of those and have a few more coming. They've been great. I had a chance to do one with Vermont Businesses for Social Responsibility at their annual conference last month and was able to shape that particular Awakening the Dreamer symposium around what is the particular role that business might play in terms of leading this change. I'm doing it with a colleague in

two weeks actually and were doing it with a group of folks who are associated with a service organization actually that Bill and I are a part of as well. It's a group that's getting ready to go for the fifth year in a row to go to Nicaragua where we're connected to a community there and a micro-lending operation is set up. Part of the reason we're going to do the symposium is to, the people that have already gone to Nicaragua and are interested and curious about what is happening in the world and they want to do good and were hoping that the symposium will help them get a better deeper grasp of understanding the linkages between understanding environmental sustainability, social justice and really the act of spiritual fulfillment that is hearkening the doors of a lot of people these days. I feel like the Awakening the Dreamer symposium is a little bit like Al Gore's Inconvenient Truth, it's something that's spreading like wildfire and it's a lot about information and it's also a lot about helping people figure out what can they do individually and collectively and helping people understand that being stuck or feeling guilty or overwhelmed is not the route we need to go. There are still choice points, there are still things that can be done and so it's really about inspiring people to action.

5. Which power structures do you think need to shift or change to create a world that works for all?

One is certainly business and I mean in some ways we're a global, there are many cultures at work. There's one way in which wer'e a global culture and business is certainly helping to drive that, so business world wide is one. A second one is that I think that industrialized countries, first world countries, we both have been drivers of

some of the choices and forces that have created unjust systems and have helped to put the planet in peril we also have access to some of the resources and that may mean intellectual capacity, it may mean technological, it may mean dollars and sense in my pocket, whatever it is we've got some resources that we can add to help creating change as well. You know when I think about those answers Zeratha, those are on such a large scale that what I don't want to underestimate is the power of the individual and small communities. For example communities are figuring out strategies to create local food systems and local economies for example I mean that's huge and every one of those changes starts with one person standing up. That's how any change begins, it begins with one person. It's not like 25 people get in a room and all vote and say ok look let's have a change, one person begins to speak and is passionate and informed and persuasive and that leaves people climbing on board. So if I think of every single living breathing entity, whether it's an individual or a small community or a family or a large community or and NGO or a nonprofit or a for profit, whatever it is, every single one of those entities has structure and has power. So the choices that we make within whatever structure we're operating in can either be choices for or against creating profound change.

Z—I think one of the biggest changes that needs to take place is a shift from power-over structure to power-with structures which is where I think a lot of that community ground level change will take place when people realize they can work in a power with structure that will actually create effective change.

A—I can't agree with you more, I love what you're saying. I'm not trying to too Goddard's horn but I think that this is one of the reasons why we need more places like Goddard where people can come to get informed. One of the things that we emphasize is the overarching importance of social justice and in order to be well versed you need to understand what social oppression is and what the absence of social justice is and you need to understand the dynamics of cultural identity that create dynamics of power and privilege that lead to what you're calling the power over or power with structures. If I go back to an earlier question you had when you said what are the most important tools or education that community member needs and you asked me to answer in terms of a general community member if I had looked at it the other way which is what are the skillsets that an activist, community organizer, change agent needs I think to be well versed in the very human dynamics that relate to culture, power and privilege that result in the power-over structure or power-with structures. And the reality is that if every individual community member was well versed in those things it would help to inform the critical work and places where we have our formal and informal leaders of change be able to understand those things. Cause when we don't understand them we just keep reproducing the same pattern.

6. What does the term whole systems change mean to you and if it does mean something to you how does your work engage in it?

This is so important to me Zeratha I can't even tell ya. You know years ago in the late eighties and early nineties when I was doing my own doctoral work at that time

in multicultural organizational development and social justice education part of the foundation of that was around systems change and I do OD consulting and I've been doing that for a long time so that's a part of my professional practice as well. So I'm sold hook, line and sinker in terms of we have to pay attention to whole systems and very simplistically what whole systems or whole systems change means to me is that you can't look at fragments. I can remember years and years ago for example early on when I was doing social justice work and the college said to me, was talking about you can't look at social oppression and social justice work as if it's a tootsie roll. I'm like what the heck are you talking about? You know a tootsie roll is a segmented candy and so you break off a segment and you feel like you've got a whole tootsie roll still in your hand but you can't do that with any of the stuff we're talking about whether it's social justice or environmental sustainability or social responsibility or whatever it is. Because everything is interconnected so it's a whole system and what that means is that when you push a lever way over here on the left it's gonna have an impact on something in the middle of the circle, or something way over on the right or something way up high or way, way down below. So we can't just take parts of these problems as discrete stand-alone issues. We have to understand that everything is connected to everything else. So we have to be thinking about the health and well-being of the whole system not just one piece in it.

7. What role do you see creativity playing in the great turning and how do you think your work is creative or utilizes creativity?

In order to create a new, let me back this up to say, what I've come to understand when we say the planet is in peril is that the planet is not going to blow up and break into ten zillion pieces floating around in space. What is in peril is the human species on this planet and we've done enough damage with climate change that we're dramatically altering weather patterns that are going to be occurring on the planet. Really one of the questions is whether the human species is gonna surive and in the same way that we've got species dying left and right because of the conditions we've created human beings are a species that is in jeopardy as well. SO in order to envision whatever this new world is gonna be or world in which the human species can thrive as well as all the other species on this planet is gonna require innovation I mean its gonna require imagining things and designing things and creating things some of which we've never seen before. I mean just getting off of oil for example is driving us to invent and imagine things that we never could have done before. I mean the great turning because its also, like when David Korten talks he's not just talking about a different kind of economy, that we need a different kind of economy, a local living economy but he's also talking about we need a just world. And there have been people working in social justice for decades, hundreds of years. I mean its just been called different things. But we've got to accelerate our ability as a human species to talk to one another, to problem solve and to resolve conflicts. So creativity could be on the level of technological innovation, I think it's also gonna be on the level of relationships and human dynamics. I mean what we're really being asked to do right now is to evolve as a human species and that's going to require creativity like we've never seen before.

8. What interests you about the intersection of social movements and narrative and what role do stories or narrative have in your work?

These are great questions. I would say that we're in the midst of an enourmous social movement right now. I mean when Paul Hawken wrote Blessed Unrest, he identified that and talked about that. I think that with any change movement there are all kinds of people, there are early adopters who see the signs, maybe you don't even have to finish the sentence. Well actually first of all there's the people who put two and two together and they're the ones that begin to, they're the heralds that raise the cry. And then there's the very early adopters who as soon as they begin to see stuff, and that's what I mean you don't even necessarily have to finish the sentence and they climb on board. And then there's you know a group who's not sure and may be beginning to think about it and then there's a big group who's really not paying attention, you know they're shrugging their shoulders and not really getting it. And then there's another group who is critical and resistant and in denial. Anyways, long story short the place where I'm getting at is that I think any social movement has to call out to people. It can't be done just with fear, like throwing numbers at people, you know talk about tragedy and doom and gloom. It has to be something that is inspiring and possible. And I think storytelling because of the nature of how we are as a species is that we respond to story. I mean before we had a written tradition we had an oral tradition. So I think that that narrative and those individuals that can, whether its in one on one conversation or in a written narrative or a spoken narrative are able to lay out what the concerns are or what possibilities might look like or offer suggestions on

a next step that we might take. I think that that's really critical because I think that's how we both persuade more individuals to join the movement and I think as people do join it you need to become more deeply informed. I mean you don't learn it all, you don't get all the data, all the information, you don't understand how all the systems operate on the basis of one book for example, or one movie or one conversation. Sorry this got to be a really long-winded answer. The simplest thing I would say is that I think that narrative matters, it speaks to people's hearts, it speaks to their minds, it motivates, it inspires and it helps them see ok I can envision a next step I can take.

9. What organizational development or whole systems change processes are you familiar with and which do you use in your work? For example, open space, world café, future search.

Well I'm familiar with and I've used all of those. You mentioned future search. In general I'm familiar with organizational development models. And a model that has been particularly informative for me has been the multicultural OD model. Because early on it really, at a time in my own development it was very important in shaping my own development because that model helped me understand dynamics of power and privilege and those are always important.

Z—Which one of those change processes would you see as being highly effective on the community level, in a community organizing sense?

A—Well I think that they're all useful, they've got different purposes like when I think of open space or future search that's people coming together in community for a couple of days to go through a facilitated process where they might look at what isn't working and some strategic planning. Appreciate inquiry is another OD model, whole systems change model and that's one that emphasizes what works. I think things like World Café are, I imagine that as a way for people to exchange information, be inspired, be more deeply informed. I think the OD model or the tool actually, I actually think these are tools that you choose depends upon things such as the size of the group, the work that you're trying to do, the outcome that you're trying to get to, how much time you have. So I think those kinds of questions are the ones that lead to what type of whole systems change tool do I want to use for this particular situation.

10. What does inner sustainability mean to you, if anything, and what role do you see this playing in the great turning?

Zeratha have you been to an Awakening the Dreamer symposium?

Z—I have, I was at one the last time I was out at Goddard.

A—So I have to say that one of the reasons that that symposium has been a particularly useful piece in my life, I've understood the environmental sustainability piece and I get the social justice piece no question. The new piece for me that I've

particularly resonated with is this third piece around spiritual fulfillment. Somebody else might refer to it as psychological health and well-being or inner health and wellbeing, you know people who are put off by the word spiritual, you know whatever, it works for me. And the notion that, you know what I've really taken from the symposium is this idea that because we've been so wealth driven and have filled our lives with accumulation and things the absence of meaning and depth and connection in our lives is what creates such profound levels of disconnection and sadness and depression and loneliness and isolation and all those things that lead people to things like excessive use of anything. Alcohol or drugs or food or gambling, or whatever it is. You know we're constantly trying to fill unfillable hole inside ourselves because we're trying to fill it with the wrong kind of thing. So where that leads me to in terms of your piece about inner sustainability is that I loved your word about resiliency because I think that every human being as a part of our individual human development is that we encounter setbacks in life, you know knocks and bruises and you know we fall down. And part of learning to grow up and to be a healthy human being is that we have to learn to be resilient, we have to learn how to balance. You know we have to learn that we've got skills and abilities and that we can rely on ourselves and we can make important relationships with friends and neighbors and people that we love as well. And we can count on that as well, I mean all of that is part of the resiliency. So in terms of the inner sustainability I would agree 100% that it's having that capacity to respond in the face of setback. Actually Daniel Goldman when he talks about emotional intelligence one of his dynamics of emotional intelligence is all about emotional resiliency. I think a second

one about this inner sustainability and it's one I've been thinking a lot more about is this whole piece about the role of spirituality in our lives as human beings or spiritual expression. By that I'm not talking about organized religion but whatever this thing is that's about being spiritual beings and being able to nurture that.

11. Do you relate to your work in a spiritual sense and if you do how so?

You know I am loving having this conversation with you. If you could ask me this you know nine ago, well maybe that's not true. Certainly if you would have asked me this two and a half years ago I would not have said yes. One of the things besides Awakening the Dreamer is that I've been involved in for the last two and a half years is the Courage to Teach program which is grounded in a lot of the principles of Palmer and really I think just started out as a rejuvenation program for educators. I've never felt like I needed to be rejuvenated, I love my work but what I was attracted to is that it's a program that four times a year for two years you get together for three days with a small community of people and you do a lot of personal reflection and thinking about your skills and your path as an educator and leader and a lot of poetry is one of the tools that is used, a lot of art and a lot of reflective activity and ultimately its very much a spiritual process. And I've always know that I've had a spiritual life but I think in the last couple of years some of these kind of experiences that I've had have helped me to frame it and to understand that that's actually an essential part of what I do and this whole thing of the Awakening the Dreamer piece and seeing the notion of inner wholeness. You know spiritual wellbeing, whatever you want to call it is just as important as understanding dynamics of social justice and

planetary environmental wellbeing. It's really given me pause to think and consider. So I think, as a quick aside Zeratha its always been an interesting experience, its always a privilege and an opportunity to be involved in an interview like this with somebody. For one you're asking really provocative and very thoughtful questions and I'm trying to give good answers and that's prompting me to think and consider and that's always a useful process cause our days are always so busy we often don't get to do that. So I guess the last piece I'd say to this is that what I've always been drawn to in my work as an educator is things like facilitation of group process and trying to create environments where people feel safe and have a voice and feel heard and you can try things out and not have to be perfect. And be caring towards themselves and towards one another. That's part of what drew me to the work that I do as an educator and as an OD person and I think another way of defining that is that there's a very spiritual dynamic about that, I mean it's trying to help individuals and groups organizations be the very best they can.

12. Who are some of the biggest inspirations in your work and in your life whether they be activists, educators, musicians, artists or anyone?

You know this is a really a hard question for me to answer because there are so many and I often don't have them on the tip of my tongue. I, you know, my sources of inspiration and rejuvenation are my partner and friends, faculty and students at Goddard, in my larger network. I'm somebody that reads a lot so books and poetry and music, those are all things that give me pause, they sustain me they inform me.

I'm always hesitant to begin my list of individuals cause I don't want to leave anybody out, you know there's a lot of people.

Z—Ok well let me directly ask you for example who is a poet that inspires you?

A—Wendell Berry, Mar Oliver are a couple who I really enjoy. McKeil McBride, Sharon Olmes. People inspire me in different ways. Wendell Berry inspires me because he completely gets it about place and agriculture and home and you know Mary Oliver inspires me because she is a very astute observer. McKeil McBride she's also wise and fun and puts language together in creative and amazing ways. So again I'm really hesitant on being quoted on that, I know I'm going to forget people…

13. What have you heard about the Transition Town model and what do you like or dislike about it?

I honestly have to say I don't know enough about it. What I do know is or what I feel like is that it's spreading like wildfire which is great because its popping up in all kinds of places. It feels like to me whatever its about its about empowering communities meaning that its getting communities to act on their own behalf as opposed to someone coming in and telling them how to do it or mandating things or legislating things. My sense is that its something that's very participatory and democratic and I need to dig into it. I was really disappointed that I missed your presentation.

and so on. And then there's also how we make ourselves more resilient, on an emotional level, looking at some of Joanna Macy's work, looking at different tools for individuals becoming more resilient. But also within our own lives learning more of those skills so that we feel more able to turn our hand to anything. We've become so siloed and specialized, what actually I think we need is a whole new generation of generalists rather than so many specialists. Yeah and I think that would be hugely beneficial across the board really.

3. Which power structures do you think need to shift or change to create a world that works for all?

Well I think the financial system has just been disastrous which we have seen in recent times. It doesn't look like actually the reform of that that we thought was going to happen is actually going to happen. No I think, I think what's really important are those kind of models that are now communities trying to invest money into themselves rather than…you know I was always very interested by Vandana Shiva who said one time these systems only function because we give them our support and if we control our support than they cease to function. And actually if we can, financial systems are really a key part of that, so credit unions, local currencies, local banks, locally owned energy companies, investing that money within communities is I think really, really important. But I think sometimes you know there's this tendency to assume we need to sweep away all the kinds of structures of local government and in their place come up with something new. Those systems are very often evolved over a long period of time. I like to consider it important that

people who hold these positions have evolved some of their views of Transition over time stand in government, start businesses and start to try and shift out in that way as well rather than just sitting around and making statements of which people are already acutely aware of.

4. What does the term whole systems change mean to you, if anything, and if it does mean something to you how does your work engage in it?

I mean I suppose to me it means change that takes a look at the holistic picture rather than just focusing on changing individual bits and seeing those bits as part of a wider system. It's about changing our systems as a whole. I was always inspired by a guy called Kip Jones who was a socially engaged Buddhist activist writer, he used to say that actually what we needed to do wasn't to change the climate, not to win the argument, but to change the climate. And there's what we try to do with Transition, there's something about it which is very ?...and which fixes itself onto all kinds of different things so you see it popping up in a range of different places as an appropriate idea or as an appropriate response and it feels like to me that rather than campaigning against one particular manifestation of the kind of growth based climate it's partly about building what you'd need in place to step off that. But it's also about a community trying to change their thinking and I think we're actually starting to see that in quite a few places. Well actually someone mentioned to me that when you're in the middle of things to keep a sense of perspective about how things are changing. Even just from a year ago the world is changing, in terms of what's happened

economically and in terms of the surge of interest all of these things, it's really quite extraordinary.

5. Do you relate to your work in a spiritual sense and what role do you see spirituality playing in addressing our current challenges?

I suppose I do personally yeah because I see Transition as a manifestation of the Bodhisattva ethic in Buddhism about living in service to others and doing what's most appropriate to that person's skills and most needed at that time. So to me Transition is a deeply compassionate response to what's happening, it's not about…So it's really that idea that Transition is trying to do is to provide an act of service in a time that needs it really. But I think for me I tend to make this something implicit rather than explicit. I think that Transition is something that if seen as an explicitly spiritual thing then it immediately starts to exclude some people. But so to me you know the more that people catch onto it that's great and if they don't that's still great. Certainly that's my own personal experience.

6. What role do you see creativity and the arts playing in the great transition?

I think it has to be something that is really playful. So harnessing those kind of creative skills and tools, one of the ways that we do that in Transition is through stories, coming up with new stories and tales from the future. There's a lot of power in that, you know the whole question of visioning and actually bringing some kind of shape to that visioning, that process is really important. SO the arts and writing and film all have really important roles to play. You know less and less people read the

newspaper, as people's attention spans get shorter and shorter we need to find other ways of engaging people as well I think. There are some people who take on information in the more accepted ways, books and so forth but actually short plays, songs, I think also have a really powerful tool in spreading this message. I think one of the ways we can do that is by giving these ideas form so that you can imagine. What would it look like, smell like, feel like if you woke up where you live in twenty years after this transition had successfully been achieved, what would that actually look like? I think that can be done in a number of ways but it's really, really important that we do that.

7. What does inner sustainability mean to you and what role does this play in the great transition?

Inner sustainability, you could think of as resilience actually. You know it's actually, there are some people who when something troubling happens to them just fall to pieces and there are other people who seem to be able to dance amongst most things really. Resilience is what I think of, how adaptable are we really? What degree of attachment have we cultivated to what's around us, to what degree do we see the things around us as cast in stone and concrete and to what extent are they fluid and part of an everchanging flow of things really? That's all a question of moving from gross national product to gross national happiness, happiness indicators I think are really important.

8. What is the most important steps to relationship and trust building in community organizing work? How do you create and maintain good working communication? Well there are lots of tools. Some of which are in the Transition handbook some of which come from other fields such as communications and designing meetings to run properly so you don't end up with the tyranny of structurelesness. I think just how we are when we present is really important as well. I often kind of see this thing as being an alternative green movement which can be a tendency sometimes to being snug and ? and to sort of imagining that we have all the answers, that it's just a case of everyone waking up finally and realizing we were actually right all along. Which is actually really is not very helpful and which puts off people. So I have to think that part of it is really being observant of this in ourselves. There's lots of tools out there I suppose about how to, one of the other things is that its really about trying to maximize the inclusiveness of the whole thing, to try and get away from it just being the usual suspects. To have a process which people, which Transition uses, they have a food group and an arts group and a housing group and heart and soul group and so on and so on. Actually there's a lot of surface area to those initiatives with the single issue campaigning thing so there's a lot more ways for people to connect and find a way in to that initiative even if they don't buy into some of the founding things. Actually it's designed so there's lots more ways into it for lots more people.

Z—Actually that's one of the questions that's been coming up a lot for Transition in Portland is how do you create the space to hold all of that together and maintain healthy working communication between all the different efforts and groups?

R—Wehat happens, certainly based on my experience here in Totnes, it's something that can quite rapidly become an enormous sort of beast really. People say oh well what's happening in? Well it's such a huge thing that I don't necessarily know what's happening in half of it really cause there's so many different group doing different things. I suppose, what do they call it, John Croft, he has his model for community projects,' which is about dreaming, planning, doing and celebrating as a continuum cycle and I think we very often don't do enough of the celebrating. I think often the Transition groups that do well they do a lot of the celebrating, for people to come together and celebrate what they've been doing. I think if people come together and have fun together and eat together and enjoy themselves together that's one of the key things that can really sustain it.

9. What role does story have in your work, what cultural narratives do you think need to be changed, dissolved or shifted?

Well I touched on that before, I think stories are really, really important. Because we don't have that many culturally appropriate stories. So we have the stories about everything unraveling, we have lots of collapse stories, narratives in films and in books, there's lots of them coming out at the moment. We have the kind of Star Trek, technology running wild and solving every problem, going from planet to planet kind of stories. We have the stories about everything just running as usual in the future but with a bit more of everything. We don't really have those stories about what it will look like when a culture faced with something on the scale of something like peak oil and climate change actually responds imaginatively and creatively and actually

manages to turn it around. I think those are the stories that we really, really need, moving away from those stories about the planet being something that's just there for us to plunder. There are several, there are quite a few people who write stories set in the near future, I've not yet read any that quite yet did it for me. I read one called Legacy by a woman in L.A. but they all seem to be quite obvious like she picked up a handbag and kind of popped in…I know James Kunstler wrote a novel that was set in a post-oil future that was sort of bleak and rural. Then these other people who did, what she's called, the one about the blind assassin, Margaret Atwood has just written a book that's set in the near future and a couple of other people as well. SO yeah I think we need a lot more of those, more people writing them and there are some of those in the Transition Handbook. The New Economics Foundation just did some rather interesting work around that as well. So there are people working around that but I think they are vital, they need to come back, often they all seem a bit too obvious and slightly kind of worthy. I think they need to be a lot more subtle and a lot more playful and a lot more rooted in existing cultural narratives than they are at this point.

Z—I'm also very interested in how we get people to start questioning their mental models...

R—Some of the stuff talked about in motivational interviewing, which is a tool from the addictions field. One of the things they pull up in there which is very interesting is this whole question of discrepancy. They try to get away from the idea that people

only change when they absolutely have to which is the usual response you get when you start to do this work. Based on the research they do with addiction they argue that the point at which people change is when their behavior comes into such a degree of discrepancy with what they are actually doing that they just can't do it anymore. So a very good example of that is, I don't know if you've heard of, there's an English TV chef called Oliver…Well he did this brilliant program called Jamie's school dinners which was about looking at the food that children get food in their school dinners over here and how absolutely squalid it is and how most children's diet in the UK these days is absolutely shocking and at one point in it he said this is the first generation of children to die before it's parents because of the diet that it's eating. That was a brilliant example of that because everyone's core value is that they want their children to live a healthy life, to enable them to have more opportunities than they did. Nobody wants the opposite to be the case but more people are doing it on a daily basis is causing that. I think finding ways of mirroring those kind of discrepancies is a really powerful tool for that. So there's a book called motivational interviewing which set a lot of groundwork in the addictions field.

10. What is your role currently with the Transition Town movement and what are you working on accomplishing?

Okay, my role is I am still a bit in the office with Transition Town Totnes. My official job title is outreach manager so I'm working on things like some of the new books and things we've come out with. We've just finished a film called 'In Transition', which was filmed as sort of a wiki film. We've been doing, we've got

this book called Local Food which is coming out in a week or so which is a guide to local food for Transition groups, about projects they can set up. We've a new web platform coming out soon. A range of things and then sort of working with other organizations and trying to build initiatives and some of that is around stories actually and working with different faith groups on appropriate stories for Transition in that regard.

11. What do you see as the Transition model's biggest successes?

I think the viral quality of the idea, how far and fast it has gone. I think the quality of the materials that come out from various places. The people who get involved I think and the stuff that they do. I think Transition has always been designed to be a sort of open source, iterative process whereby people take these simple tools and ideas to Portland or Johannesburg or Totnes and then feedback what's working and what's not working and the model evolves and changes and grows and I think that openness to rethinking itself is one of it's great strengths. In terms of practical things, things like the local currency thing are very interesting. I think the fact that I really have no idea what's happening in most of it and the different initiatives on the ground is something which I think is great because people just don't wait for permission to do things they just go off and get on with it and snap with enthusiasm. I think as well what we're seeing in terms of central government, seeing Transition as something being really important. I think there's a sense that which what Transition is doing is giving voice to ideas that are very important and timely and current at this point in time in a way which because it doesn't have that sort of whose fault is this, blame culture element to

it a lot more people are able to take ownership of and feel part of than they would otherwise have been.

12. What are some of the ways that Transition initiatives are doing that feeding back and that iterative process of letting each other know what is and isn't working.

Well on the Transition Network website there's the forums which are used a lot for that kind of thing. There's the books, the food book is based very much on interviews with people all around the world about food projects. So it's very much a kind of, it's trying to draw all of that experience in and communicate that and the way that we do the national conference is always done as kind of open space, brings people together in order to share what's happening. Then there is the new website which is gonna be up and running in a couple of months which is going to make that sort of exchanging of information much, much more doable, much, much more easy. Then there's also what we're starting to see now with kind of regional Transition governings as well, getting together on a regional sense, organizing Transition initiatives in their county where a lot of that information exchange happens as well.

13. What do you see as the Transition model's biggest challenges or obstacles?

I think there are several. I think there is deepening the degree of engagement, and taking, engaging, finding ways of communicating Transition in such a way as to engage people who don't normally get engaged in there's kind of things. I think maintaining momentum is always a challenge. You know you can start Transition with a great big fireworks and marching bands but the key is all in how you still keep

people enthused and engaged in a sense that something really tangible is happening on the ground. I think funding is always an issue. I don't think that funding is something that you need to get started but after two or three years after you reach a certain scale if you don't bring some kind of funding in then you risk people just burning out. I think there is that challenge in terms of burning out, generally in terms of feeling that transitioning this entire community is their sole responsibility or two or three people's responsibility. People get to a stage of feeling something's not working, that's not a healthy place to be. Just keeping it feeling fun and like a celebration. I think watching people engaged in environmental things can slump things into a kind of earnestness and I think it's that kind of playfulness which is really what distinguishes Transition and which is something really important to preserve.

14. How do you see the Transition model playing out in bigger cities and what advice to you have to give those in working on Transition in cities?

I think the challenge in cities is very interesting. What we're seeing in different places is again, from seeing iteration and what does and doesn't work that the best way the cities work is really working on the neighborhood scale. So in London for example there really is no such thing as Transition London yet. What there is, is lots an lots of neighborhoods doing Transition in their own place and at some point they may feel it makes their work more skillful if they can network at the citywide level. In other cities they start with whatever the whole city is and then after a little while some of them come to the conclusion that it's best to focus on the neighborhoods.

And there are some cities that have started a city-wide initiative and just kind of burnt themselves out because the scale they've taken is just kind of insane. So it feels like the best way for it to work and get the momentum going is at the neighborhood level. There is a person with the Transition Network here who is writing a Transition guide for cities and that is based upon going around the UK network and talking to urban Transition groups and trying to distill their experience. It should be out in sort of February or something I think.

15. What do you see in the future of the Transition Town movement, how do you see it evolving over the next twenty years say?

Well I had no idea two years ago that it would evolve like it has now so it's really hard to predict really. I suppose my hope is that we have something rich that continues to grow at the rate that it is now, something which continues to embed into local government in a meaningful way. That we have people in local government carry these principles. That actually what happens is that Transition initiatives start to become relocalization agencies in their communities. They become social enterprises who actually enable the nuts and bolts of Transition to actually be put into place so they set up community banks, community run energy companies, they hold a lot of, you know they become real drivers for this and do so in such a way that they maintain their integrity but also work quite closely with local government and local authorities and so on. And actually the thing that's been most exciting about it so far is letting it go where it wants to go, it really has done that. You know, I suppose really, in ten

years or twenty years it has just become the way things are or they way they are happening cause if it hasn't really it's all a bit too late really isn't it.

16. Who are some of the biggest inspirations in your work, whether they be artists, activists, musicians or anyone?

Probably the quickest way for me to answer that is to say if you look in the Transition Handbook, just inside the front cover there's a list called 'trailblazers and assorted sources or inspiration' and they'd all be in there. Well I've been following what's been happening with Van Jones in the states, he's always been a huge inspiration I think what he's done is quite extraordinary. Ricahrd Heinberg, the sort of people you would imagine really but most of them are on that list and some of them are pretty obscure, some of them are well known, some are sort of Transition people and some are musicians in bands too.

17. If, in twenty five years from now you were living in the world you are working to create what would that look like?

It would look like, it would be much more localized although not kind of isolationist. There would be a lot of, there would be a very strong local food culture, there would be a lot of renewable energy, there would be a lot less cars, it would be quieter, it would smell better, we would be healthier, wiser, we'd have more time for each other. We'd tell each other more stories, more of us would be able to sing, we'd have time to sit under trees and think. Harvest time would be more of a feature of our lives. We would know what our hands are for. We would know more about where things

came from. We would be less in debt. We would work less and play more, we'd be less consumers and more producers and there would be more poets who could write you poems about walnut trees.

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I realized early on the irony of my father as juxtaposed to the other inmates. A man that is extremely intelligent with a pre-existing masters degree then moving on to a PhD yet sitting in prison even with all that education and knowledge. This is a man who had been raised by an upper middle class family in Chicago and had wanted for relatively little. Then there were the majority of the other inmates who often lacked even basic education, were often raised in abusive families or poverty-ridden environments. I reflected upon similarities and differences between inmates and their circumstances probably due to the ostracism I experienced as a child. Those who once thought we were wealthy due to my Dad's various businesses now realized this was not the whole picture and did not approve (especially when it came to their kids hanging out with me or my younger brother).

A couple years later my mother hooked up with a rich Danish gentleman whom we moved in with, relocating to a three-story Victorian beach house on the salty, rocky N.H. seacoast. Here I observed, once again, class differences beginning my first stint in public school, which was very different from the Montesorri school I had previously attended. The community of Rye, N.H. had a great deal of wealth and it seemed that often those kids who came from poorer families were treated differently and did not have access to the same opportunities.

I also saw this echoed in the communities I visited in other countries we traveled to with my mom's boyfriend while we were on a ship for a year. This travel experience, was I believe, another impetus of my wish to work as a change agent today. We visited all of the Carribean Islands, Venezuela, Greenland, Canada, Germany and a few others. Our longest stay was in Denmark where we actually lived for several months, even attending school there although we did not speak Danish. The vast inequalities between those living in shacks and those living in large expensive homes as well as the differences between healthy ecosystems in areas untouched by development and those devastated by human industry and placed in poor

communities were patterns I saw visible repeatedly throughout the places we visited. This led to many lifelong questions surrounding social and environmental justice and the human relationship to the natural world that I am still exploring today.

Moving to Appleton, Wisconsin at the age of 12 was another cultural change for me. From traditional New England to beer drinking culture, brats (the meat kind), cheese, Packers and paper mill culture was quite a change. Upon moving to W.I. we lived in poverty and I am still relatively poor to this day. So it was not only the cultural change, but the class change from very wealthy, traveling the world, to food pantries and my mother working twelve hour shifts at the paper mill that was a definite adjustment. Once again life lent itself to lots of reflection and observation.

Alcoholism is a rampant problem in the Fox Valley area where Appleton is located and my mom having always had a drinking problem became heavily immersed in this culture. This gave me the opportunity to observe the connections between social conditions, class, culture and substance abuse. I also observed once again that often those with money tended to stick with those with money and vice versa. These questions and observations often stuck out in my mind. I personally experienced the discrimination that those with family members with mental illness and substance abuse problems experience as a result of their connection to their family.

This gave me even more determination to study cultures and society and the problems rife within them and to seek insight to such issues as discrimination and class. Throughout my school years social studies and art were always my best subjects. In high school I pursued sociology, art and advanced American studies courses. During my eleven years in Wisconsin (minus a six month stint at 19 in Sacramento, C.A.), I deeply explored my art, creative writing, the rave scene and the drugs and counterculture that it entailed, my spirituality and finally what it meant to be me. This was also the period of time when I

started my environmental activism through working with an environmental organization called the Wisconsin Grassroots Alliance where I canvassed on issues relating to forestry and pesticides, agriculture and children.

Throughout my youth and teenage years I tended to hang out with those kids whom were treated differently due to a disability, seeming weirdness, difficult family situations or pure unpopularity. I have always felt an innate sense of treating everyone with compassion, equality, justice and kindness. This often served to isolate me from many kids may own age but I could not be any other way or justify being a jerk like many of the other kids just to satisfy some youthly egoistic popularity craving. I believe this quality of personality has always lended itself towards pursuing a path of being a 'change agent' although I did not consciously realize this was the path I was pursuing until five or six years ago.

Reflecting back upon the roots of my identity as a change agent I realize that I have always been a creative covert leader and teacher in some respects, though not necessarily with that intent. As a kid I was always creating my own businesses (private Zera spy services), pretending to be a teacher and conducting art and biology classes, directing kids in plays of my own creation and organizing opportunities for others to be a part of some type of project or creative undertaking. As a young adult I did this in other ways, teaching others about forms of spirituality or philosophy, creating energy circles, organizing parties and bringing networks of friends together whom eventually became tightknit. At the same time I was a remarkably shy kid, and believe me, people did remark upon it!

Shyness is a cloak that I have been working to lift from my personality's outfit my entire life. I started doing this more intentionally when I became part of the festival and rave culture around the age of 16/17, and started coming out of my shy shell a little in a large group setting. This inner work was furthered by moving to Portland, Oregon at the age of 23 to go to school at Marylhurst University. Moving to Oregon immersed me once again in a

different cultural and indeed natural environment. This is the place I still reside and am still in love with after seven some years. Although I firmly believe that my multicultural, checkered quilt of past experiences has shaped me into the change agent I am today, I strongly feel that Portland, Oregon is the locus of my blossoming identity as a change agent.

Portland, Oregon and Marylhurst University:

Portland called to me for several reasons. My boyfriend at the time wanted to move here, I had been told for a long time that this would be a great and fitting place for me, I wanted to get the heck out of W.I. and Marylhurst University had one of the only art therapy and interdisicplinary programs that appealed to me. Everything fell into place when several years after sending away for information on Marylhurst I suddenly received it in the mail years later. Looking through it I remembered it was located right outside of downtown Portland, O.R. where my boyfriend and I at the time were considering moving. Then I discovered they had an interdisciplinary program that offered combinations of disciplines which at that point I was interested in. Serendipity had waved its magic wand and off I went across the country to Portland.

The first thing I connected to on a deep level was the natural environment. The Willamette Valley is absolutely gorgeous and I fell in love with the verdant, lush landscape and felt at home here. The campus of Marylhurst University itself was also beautiful and inspirational. I began studying art and anthropology as I had been at the university of Wisconsin. I then began taking various classes in spirituality, social sciences and other areas. I began to become frustrated with art and the strict, creatively confining method in which it is traditionally taught. I also began to realize through the other classes that I was taking that I wanted to explore further those questions of social and environmental justice that I had been pondering throughout my life and incorporate them further into my exploration of art.

I decided that I would have to put aside the academic pursuit of art and pursue it on my own terms. I began interdisciplinary studies combining the concentrations of ecology/ environmental studies, social studies and spirituality. I felt that at the nexxus of these areas of inquiry lay some of the answers to the questions I wanted to pursue. The more classes I took with titles such as 'global environmental problems' or 'human ecology' the more and more I felt a building sense of urgency to explore such issues and take action on them.

In the meanwhile I was meeting many interesting people in my classes, which usually had a ratio of less than twenty students to one professor leaving room for thoughtful discussions and reflection between class members. This also gave me an opportunity for the first time in a college setting to explore social and environmental issues with a group of other people who were of a similar mind of exploration and action. Portland itself was also proving to be very fertile ground for all that is progressive and sustainable and culturally conscious. Growing into Portland and discovering the amazing diversity of action and socially and environmentally conscious events, individuals, organizations, etc. was a huge inspiration and catalyst for learning and self-exploration.

Another important facet of my growth and learning here has been my interaction with the natural world. Over the last seven years I have explored Crater Lake, the Redwoods, Hells Canyon, Silver and Multnomah Falls, Oxbow Park, Mt. Hood and many other astounding natural areas and sites within Oregon and the Pacific Northwest. This deeply personal and spiritual exploration of the PNW has firmly and permanently established my commitment to protecting the natural world. I have always felt an inherent spiritual connection to the natural world since those years growing up with the forest nymphs in the deep New England woods.

This is one of the reasons I chose to focus on spirituality in my studies; to explore the connection and understanding of the spiritual plane through humankind's relationship to the

natural world rather than the arcane or built world. As I have stated previously I have always been very interested in other cultures and have always brought this into my studies as much as possible including the books I have read on my own time. At the university of W.I., I studied cultural anthropology and Eastern philosophy amongst other explorations of culture and spirit. At Marylhurst, I had a chance to further my studies with classes such as shamanism and nature and spirit. I am still pursuing my interest in spiritual ecology to this day and this is to some degree reflected in the thesis work I wish to do for my master's degree at Goddard College.

In the final year of my studies at Marylhurst I did an internship at the Environmental Middle School. This was a great experience in which I was able to design curriculum, help organize a recycled fashion show, do site monitoring field trips with the kids and help out with fundraising for the yearbook. It was a great learning experience and was one of the first opportunities in which I felt I was able to physically and actively participate working in an arena that was related to my studies. The final product of my undergraduate work was the interdisciplinary binder of which the prize product was the final thesis paper titled "Harvesting a Sustainable Cultural Consciousness".

Americorps:

After graduating with my B.A. in interdisciplinary studies I was unsure about which direction to go. I knew I wanted to get my masters degree but did not want to go straight back into school but rather take some time off of academia. And even though I now had a degree I had relatively no professional experience in my field of interest having worked through school as a waitress and mainly as an Alternatives to Employment Program Coordinator for a company named Dungarvin where I worked with individuals with developmental disabilities.

In the fall of 2004 I opted to join Americorps and committed to a year of service in Portland. I took a position that was not ideally what I wanted as it was not completely related to my field of interest. In retrospect though, my position as The Arc of Multnomah County's volunteer coordinator was actually very valuable to both my work now and my growth and experience as a change agent. The Arc of Multnomah County's mission: "The Arc of Multnomah - Clackamas advocates for, supports and serves children and adults with mental retardation and/or related developmental disabilities and their families". As a volunteer coordinator my responsibilities included developing a volunteer program for the Arc and managing the Young Adult Recreational Club (or YARC).

The environment I came into at the Arc was rather chaotic. The executive director whom had been there for about 35 years was leaving, one of the key staff that had been there for dozens of years had passed away, several other key staff members were leaving, a three year Americorps program previous to myself had just ended and finally The Arc was moving offices! Not the most ideal time to attempt coming into a highly well known and established organization and design and develop a volunteer progam. I had no previous experience coordinating volunteers or for that matter working in an office. This was certainly a challenging and demanding experience.

As a change agent, the year in Americorps was rewarding and enriching in many different ways. During that year I was able to attend many Americorps leadership and social justice and community development trainings, as well as attend many volunteer management and other professional trainings through the Arc. All of these trainings furthered my professional experience and gave me more effective skills as a change agent and leader. Although it was extremely difficult to develop a volunteer program as well as expand and develop a fledgling recreation club in such a chaotic environment I left the Arc feeling that I had accomplished much during my time there.

Some of the most valuable learning experience I gained was due to the fact that this was the first position where I really worked completely under my own guidance and determination. I created all the materials (newsletters, volunteer applications, brochures, database, etc.) for the volunteer program. I interviewed the volunteers, matched them with clients, created the volunteer trainings and conducted them and conducted and helped organize various outreach activities, materials etc. Interviewing and training the volunteers gave me my first managerial experience and due to the chaos at The Arc I had no supervisor to help or guide me. It was a true test of my ability to work independently without supervisor direction. I have always worked well this way anyways, that is, when I am allowed to have ownership of and creative input into what I am doing. Creating and conducting the training was something I really enjoyed and that came naturally to me as it extended upon my experiments as a teacher and coordinator of activities as a child. This experience served to help me firmly realize that I had good natural training, coordinating and teaching abilities and that these were indeed some of my innate talents that I should bring into my future work.

This was reinforced by the experience of expanding, upgrading and running the Young Adult Recreational Club or YARC. YARC is a fun recreational club for youth 18 and up (although at that time younger members were also allowed), that provides social, learning and recreational opportunities for youth with developmental disabilities. As the manager of the club I worked closely with a board member; this was an important learning experience in project development collaboration. I also worked closely with volunteers to help develop club activities and monitor member's behavior and development.

One of the goals I had for the club which was to ensure opportunities for members to be self advocates rather than 'victims' or helpless members of society who always needed a helping hand was successful through several means. One of which was the 'people first' language and advocacy training that I conducted with volunteers during the trainings.

People first language means putting forth the understanding and perception of individuals with developmental disabilities as equal members of society ahead of their status as developmentally disabled. Aside from the training component I also wrote an article for the Arc newsletter on self advocacy for individuals with developmental disabilities and the concept of 'people first' language. The second success involved my efforts to include opportunities to change the societal paradigm that these individuals often experience which is the perception that they are unable to contribute equally to society and always need a helping hand. I did this by turning this concept around on its head by providing opportunities for these individuals to instead help others through various volunteer opportunities such as serving the homeless lunch. This served as self-advocacy in action as these individuals felt empowered through their valuable volunteer contributions, which in turn helped others.

Antioch University:

After Americorps I felt like I was ready to go back to school and work towards my masters degree. After a lengthy period of intense indecision about which program or school fit what I wanted to do, (at that point was international sustainable development), I decided on Antioch University in Seattle, Washington. I entered the Center for Creative Change in 2005, at Antioch University as an Environment and Community student although I was torn between this concentration and the Whole Systems Design concentration.

The Antioch venture started out with a week-long experience beginning with a cohort retreat on an island outside of Seattle. The retreat lasted 3 full days and was a very intense experience that consisted of many workshops and peer community building activities. This experience was very overwhelming and draining for me and I felt anxious and shy throughout the retreat. This was the first really intimate like-minded peer group that I had ever had the opportunity to work with and it was a totally new and intimidating experience for me especially being a naturally shy person. Most of these individuals (between the various

concentrations, about 40 people), had previous professional and leadership experience while I had relatively none.

After the retreat we headed back to Seattle for our first four days of classes (Friday through Monday), which would be the normal monthly schedule for the cohort program. For about ten months I stuck with Antioch driving up to Seattle by myself Thursday evenings returning Monday evenings and staying with a different cohort member each time as well as a younger cousin a few times. This was a draining and long trip to take once a month staying with someone I did not really know in a city I was not familiar with. Eventually it wore on me and I dropped out for this and other reasons. One of which being that I felt much of what I was learning was often repetitive of what I had studied during my undergraduate work.

Reflecting back though I think that in any pre-set environmentally focused program this would have been hard to avoid. My undergraduate interdisciplinary studies often included graduate level courses and included courses on so many different topics that I gained a broad depth of knowledge that others often do not in traditional undergraduate programs with narrower focuses. I also felt that I did not have as much flexibility to explore the issues and questions that would lead to the career as a change agent that I wanted. This is eventually what led me to Goddard, the freedom to ensure I could design my own program and structure my learning around new specific areas of inquiry.

Although Antioch did not work out for me it was a valuable experience on several levels. The most important of these being that I learned a lot about myself; my capabilities, weaknesses, talents, interests, etc. In the classroom at Antioch we were usually set up facing one another in one large continuous circle. I found this to be very intimidating and not effective for my personal communication style. I have since found that I have become more comfortable with this scenario especially when it is a smaller group of peole, not 50 plus! I

believe I needed the initial group experience of this type, no matter how excruciatingly uncomfortable in order to break into the ability to do large group activities in the future.

The other valuable learning I gained while at Antioch had to do with systems thinking, case studies, types of interviewing and large group change projects. Prior to Antioch I had heard of systems thinking but had never taken a formal class on the subject like I did at Antioch. The subject material was immediately fascinating and intuitive to me and made me feel as if I finally discovered the language to voice what I had known my entire life. I realized that I have always inherently, intuitively been a systems thinker and designer and have since chosen this as a major emphasis on my academic and career path. So, this was certainly a very valuable discovery although the professors that taught the course did so in a very ineffective manner and I am still disappointed in my experiences with teaching styles at Antioch. Although eventually I found Antioch not to be quite the fit I needed at that time, what I experienced and learned during this ten months was integral to my experience and work as a change agent today. Some of the important learning follows below.

One of the most valuable learning experiences centered around the large scale, group change, project that the whole cohort had to self organize and conduct over a period of three academic quarters. This exercise and project was basically left completely up to the students themselves and centered around how to bring in and welcome the next cohort through training, facilitation and orientation. The professors basically watched the process unfold and the entire cohort of forty plus people had to self organize this project themselves. This was a very interesting learning experience as well as very frustrating and certainly taught me a lot about my abilities and styles as a leader in groups as well as group dynamics, organizational development, polarities, tensions and personalities within groups.

The required interviews and case study that I conducted while at Antioch were also very valuable learning experiences in academia and taught me how to do several types of

professional social scientist interviews as well as a case study. I also helped to take the lead on a quarter long project for a course titled 'Global Pluralism' in which groups assigned in the cohort had to explain, diagram and present what were called the five p's of the situation laid out in a book chosen to read by that group. The five P's centered around the following concepts: polarity, paradox, unintended consequences, paradigm, the problem, fixes that fail and feedback loops. The book my group was reading is titled Hegemony or Survival: America's Quest for Global Dominance by Noam Chomsky. I took the lead on this project helping to facilitate conversations about the book and the five p's and finally creating the powerpoint presentation and conducting the in class presentation for the group in front of the entire cohort. This was a good experience for me to get up in front of such a large group and lead a presentation and discussion for a group of people. I discovered that I can indeed do such a presentation in front of a large audience and can do it well no matter how nervous I feel. As a change agent part of my identity centers around challenging myself to expand my possibilities and capabilities by stretching the boundaries of what I am normally comfortable with and this project helped me to do that.

The Dirt!/Spreading Roots, Spring Forth (SRSF) and Community Nonprofit Resources Group (CNRG):

While at The Arc, during my time in Americorps I found out about a volunteer opportunity to write environmentally focused material for an online publication called The Dirt! As a 'warbling songster writer' I wrote short social and/or environmental and educational content for the introduction to the weekly online publication, which had a large Portland audience of over 1,600 people and organizations. The publication itself went out weekly to people's inboxes and consisted of the introductions and following that. a list of the environmental and socially focused events, activities and volunteer opportunities going on in the PDX area. The point of the newsletter was to enable individuals in the PDX area who

wanted to be active and involved in their community to have one central source of information to turn to in order to enable their activism and community involvement. In PDX there is such a huge amount of interesting organizations, events, etc. that it can be overwhelming to know where to start looking so The Dirt! makes the process easier by serving as an informational portal for the social and environmental community and to this end hundreds of organizations post their events with The Dirt!

After writing for the Dirt for over six months I found out that there was an effort to create a non-profit organization to further the efforts and possibilities of The Dirt! To this end there was a search for new board members to make this effort a reality. I applied as the outreach coordinator board member and was elected to the position. This was my first leadership experience as a board member with an environmental organization. Since my original election, the founder and board chair has moved to Alaska and is no longer involved while most of the original board members stepped down. The Dirt! has became a highly functional website (www.thedirt.org) and the newsletter no longer goes out but rather content for now, can be found on the website. We gained our 501c3 status as SRSF or (Spreading Roots, Spring Forth) shortly before the founder left and I have since become the board chair.

Holding, facilitating and conducting board meetings has been a great learning experience as a change agent. I never saw myself in such a leadership position and am still learning what it means to be a board chair. I have helped develop materials for the website, get the website up and going, do outreach and hold such events as a fundraising house party and an Earth Day booth. Currently we are working on integrating SRSF with another very well known PDX organization called CNRG or (Community Nonprofit Resources Group).

This would mean that we would be CNRG's 501c3 sponsor and would file a DBA or (doing business as) with the IRS at which point SRSF would become a committee of CNRG and would still have autonomy to do it's own projects but under the umbrella of CNRG's

mission and scope. This has been and is a very interesting process with a lot of tension between the very well known professional board and organization of CNRG and the small and more grassroots radical organization and board that is SRSF. In July 2007 I was elected to the CNRG board and until the integration finalizes will be on both organization's boards. The group dynamics, reservations and tensions in conducting this integration are proving to be a great learning experience as a change agent. We are coming up on our combined board integration visioning session this weekend (10-14-07) and it will prove to serve as the final decision for both boards as to whether we will go through with the proposed integration.

Environmental Educator Positions:

The next year after Americorps, in between jobs I had the chance to work with two wonderful youth environmental education programs. In the summer of 2006 for about three months I worked as an Environmental Youth Corps crew leader. I led two separate crews of youth between the ages of 14-17 in doing restoration work at both an environmental education center and a federal tree seed farm. We also went on a number of fieldtrips and once again I was able to design and determine the direction of the curriculum and training.

The second position was through an organization called Wolftree and consisted of working with a different group of 6-10 sixth grade students every day at a fish hatchery environmental education center. I had to lead the kids through the day usually with the assistance of a volunteer parent field trip leader but otherwise on my own. The site was in Washington at the convergence of sixteen downhill springs and a wetland located next to a forest. I led the kids through water testing, bird, animal and plant i.d., soil testing and other field ecologist activities. Each group of kids had a completely different dynamic and the days were often exhausting. It could be cold, wet, rainy and muddy and you would be outside for many hours in a row. It was rewarding despite this though to help make intimate connections and systemic insights into and with the natural world of which we are a part.

Although I do not foresee myself as a youth environmental educator in the long run I will definitely come back to this experience as a volunteer in the future.

Prior to coming out into the field our group of six teachers would visit individual schools in Vancouver, WA to prepare the kids for their day as a field ecologist. We did this by conducting geology, mapping, field preparation, weather and other workshops with groups of kids that would be coming out the following day. The entire sixth grade would be broken up into three groups and pairs of teachers would alternate sessions and labs with the kids. By the end of this position we had worked with every sixth grader in the city of Vancouver! Both of these environmental educator positions as well as the position at the Environmental middle school were incredibly valuable experiences for my growth as a change agent. I learned a lot more about developing my leadership with groups of different ages and abilities and learned a lot about my abilities as an educator. Overall, the reward of seeing a group of kids who may have never even been hiking in their lives light up with excitement at the wonder of the natural world was a gift.

Goddard College:

After leaving Antioch I took about eight months off of school feeling somewhat disillusioned by graduate school and just needing a break from academia. In the summer of 2006 I started exploring other graduate program possibilities and happened upon Goddard. When I discovered that Goddard offered self designed programs I felt like I had finally found just what I was looking for to truly follow the path I was interested in. The funny thing is I originally applied to the environmental studies concentration in the IMA program until Ann Driscoll contacted me about the new SRBC program and told me that according to my application and interests that she thought it to be the more fitting program for me. Ultimately it has been the most fitting program and I am very grateful for the invitation that Ann put out to me.

I feel that Antioch prepared me for the type of progressive intensive group setting that Goddard offers and because of my experience at Antioch I came to Goddard ready for the intimate group learning community and experience that the intensive residencies offer. It does of course help that the circles and groups are much smaller to start with than the massive 45 plus size groups at Antioch. At Goddard I have been able to truly sculpt my change agent path and my identity as a change agent has thus become much richer and self-directed. My identity as a change agent now centers around seeing myself as a whole systems visioning and design consultant which is ultimately the work I feel called to do and hope to practice through my thesis project work and in my own practice one of these days.

The Graduate Certificate in Participatory Sustainable Development:

This summer, I chose to supplement my studies at Goddard during the summer break with a graduate certificate program through an organization called Village Earth whom offers the certificates through Colorado State University. I applied for a volunteer scholarship in order to financially afford to attend and was accepted. Thus I was able to do the two week certificate program for a cost of $100 plus travel expenses, my housing was included as well as I stayed with volunteers through the organization. I am very grateful that I had this opportunity and was able to go to Colorado for two weeks. The group taking the certificate program was less than twenty and consisted of students that came from all over the world. An indigenous tribal leader from the Peruvian Amazon, a couple of Kenyan community leaders, individuals working in Nigeria, Seoul, Laos, Guatemala and many other places around the world and the U.S. as well. The experience and sharing I gained through my interaction and experience with these individuals over the period of two weeks was invaluable. I learned so much about how cultures, conditions, available resources and circumstances affect one's ability, style and personality as a change agent.

I was the only individual in the course that had never yet done international sustainable development work and at first worried that I would not have anything to offer because of my lack of professional experience. However, it turned out that I was also the only one working locally in my own home community in the environmental and social arena. My concept of 'creating a village out of the city' was new to my peers there and I was told provoked a lot of thought for people. My identity as a change agent was definitely affected and expanded by my experience during those two weeks in Fort Collins, Colorado.

I learned that as a change agent I tend to be a rabble-rouser and ask questions of social and environmental justice and advocacy that others often do not think of or might be afraid to voice in a group setting. I had never really realized till then that this tendency of mine to shake things up with tough questions was a large part of my identity and action as a change agent. I am very, very interested in questions about large destructive power structures. Questions about how to examine and deal with those structures which are causing social and environmental degradation and situations of injustice; questions about how those that are in situations of oppression can address and recreate these structures.

During the collaborative group sessions I also realized that my ability to see things systemically, critically and in an open-minded mode is a unique gift that allows me to be creative and visionary as a change agent. I also found that I am able to find a point of relation with almost anyone and this seems to be an important skill to have as a change agent. My experience in Colorado helped me to see and clarify some of the abilities I have as a change agent and to further shape my identity as a change agent.

Art and Creativity:

I have always been a creative individual with the ability to see outside of the box and around the edges. Coming up with creative solutions that inspire people is a huge part of what I want to do as a change agent. A big part of my identity as a person revolves around

art and creativity and I bring this into my identity as a change agent. I want to engage people in participatory processes and projects that evoke creativity and inspire action and out of the box solutions. This is where my identity as a designer comes in as well; I want to help people design better, more connected and creative communities and solutions to environmental and social problems. I believe that this will occur when people are empowered by the realization that we are all designers and thus are all capable of creating and designing a more sustainable world and community. Elizabeth Thompson sums this up quite well in the book Ecovention by Sue Spaid:

> "the artist as active change agent directly confronts the whole systems challenge we face as an earth community. Employing systems theory strategies, the artist creates an interactive 'space' in which the role of 'viewer' as passive consumer is transformed into that of active participant in an ongoing interdependent relationship with the earth's fragile ecosystems. The work inspires new understanding of the crucial role the artist plays in the creation of a sustainable future…Systems theory can be applied directly to an interpretation of the work included in Ecovention. The artists work collaboratively with biologists, community planners, educators, engineers and others, and employ innovative interdisciplinary problem-posing and problem-solving strategies to 'render' the work. The resulting installations reveal to us the complex web of dynamic interrelationships between natural and human systems. The art occurs within the relatedness and interaction between all parts of the system. The artist becomes active agent/strategist/inventor and facilitator of a larger interactive process of social and environmental change" (151).

Participatory Sustainable Development:

As an advocate of a participatory model of development and community it is my belief that one of my personal duties as a 'PSD change agent' is to enable people to recognize their innate ability to act as change agents in their world. This belief is one of the underlying philosophies in PSD and underlies any action taken on behalf of and with a community by a PSD change agent.

The ability to work as a change agent is available to everyone no matter thier creed, gender, race or educational level. It is not a sacred inaccessible realm of practice and theory but rather a realm of everyday actions, needs and practices. There are of course multiple levels of change management and action, some of which education and training are needed to undertake. As a PSD change agent I see myself helping people learn how to become more

informed effective change agents by giving them the opportunity to educate themselves and in turn educate others. This can be done through such methods as PAR or participatory action research, community assets mapping and collaborative community projects among many other creative participatory methods.

My identity as a PSD change agent involves the belief that one of my talents is to bring diverse individuals together in a manner that is connective, reflective, inspirational and productive. I like to think that I am able to get people to question their reality and to critically question the power structures and paradigms that are a part of that reality. Finally I believe I am good at coordinating projects that involve diverse groups of people working towards a common cause.

Systems Thinking and Design:

Looking through the lens of whole systems thinking and design one can find a base guiding belief that each and every living being is constantly in an interactive, systemic, dynamic, feedback based relationship with the world. To expand upon this belief one could say that each living thing is inherently a change agent in some manner since they are affecting the social, natural and other systems that they are embedded in and interacting with. To become a conscious change agent acting through a systems thinking and design modality means to recognize that one is constantly in 'relation' with the systems they are embedded in and those they interact with. As a systems thinker and designer change agent I believe that I have the ability to arouse a deep reflective questioning of the systems we find ourselves in as both individuals and networks of cultures and societies. A large part of my identity as this type of change agent involves being an educator. This means inspiring people to break out of the dichotomous boxed in mode of thinking that our society has been stuck in for so long now. This means educating people about whole systems thinking and design and encouraging them to shift their mental paradigm into one that is systemic, holistic, creative

and helps them become conscious whole systems designers of their own lives, families, communities and cultures.

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Social Responsibility, Socially Responsible Business, Social Entrepreneurship and Sustainable Communities

About seven years ago I made a major life decision to move halfway across the country from Appleton, Wisconsin to Portland, Oregon. This decision was influenced by several factors; two of the main factors being my decision to attend a school with an interdisciplinary program (Marylhurst University) and second, my desire to live amongst cultural creativity and environmental responsibility and innovation. Since this initial decision I have been awed and delighted by the autopoietic, evolutionary and inspiring city that is Portland and have chosen to dedicate my life to furthering similar sustainable development wherever my career may land me.

In this paper I will elucidate my understanding of the fundamental and defining qualities of SR (social responsibility), SRB's (socially responsible businesses), SE (social entrepreneurship), and SC (sustainable communities). I will do this through the lens of the city of Portland, Oregon where I have gained a treasure chest of experiential knowledge of these concepts and practices as well as through an 'ecological' langugage. I will use examples based on city projects, non-profit organizations and endeavors and personal experiences.

In both the local and global cultural consciousness there has been over the last forty or so years, an urgent recognized need for a new co-intelligent, self-organizing or autopoietic model of relationship to both each other and to the natural world. The need to harvest a sustainable cultural consciousness (the title of my undergraduate degree) has become the focal point of action amongst many communities, governments and organizations of all types. In order for us humans to undertake the massive evolutionary

shift that is now required, the components of SR, SRB, SE and SC will need to be the core guiding principles behind our lives both individually and collectively.

Let us examine basic definitions of these concepts. SR, or social responsibility can be defined as "a systemic understanding on an individual, community, business and societal level of an inherent interconnectedness and responsibility to promoting the values of social equality and social justice so that the present and future generation's needs are met sustainably". SRB, or socially responsible business can be defined as "business practices and philosophies grounded in the concept of sustainability and based on the triple bottom line: environment, equity and economy". SE, or social entrepreneurship can be defined as "the work of a social change agent to organize, create and run a venture that works towards improving a social problem and measures success in terms of social benefit rather than profit". SC, or sustainable communities can be defined as "a community organized around the concept of meeting the needs of the present and future generation in a sustainable whole systems manner".

The reason I chose to use Portland as one of the lenses for my personal definitions and understanding of these concepts and practices is that it is one of the most impressive and progressive cities in the world incorporating all of these concepts in much, if not most, of it's government, communities and development. In 2006 Portland was ranked the most sustainable city in the United States according to Sustain Lane, the premier online sustainability best practices knowledge base for state and local government. In a press release from the Portland Office of Sustainable Development:

> The 2006 SustainLane.com Sustainable City Ranking is a peer-reviewed benchmark study measuring each city's cumulative performance based on 15 economic and quality-of-life categories. The index integrates almost 2,000 data points from public and non-governmental organizations including U.S.

> EPA, U.S. Census, Environmental Working Group, Smart Growth America, Trust for Public Land, Risk Management Solutions, The Texas Transportation Institute, Texas A&M and the Public Policy Institute of California. The study also includes primary research conducted with more than 200 city officials and experts.

The fifteen economic and quality of life categories used in this study were as follows: city commuting, metro public transit, metro congestion, air quality, tap water quality, waste diversion, planning/land use, city innovation, affordability, energy/climate, local food/ag, green economy, knowledge base, LEED buildings and natural disaster risk. Embodied within these categories one can find the essence of the SRB principles.

Let us start by looking at an example of the principle of social responsibility. This principle can be seen in the PDX Vision project implemented by Mayor Potter two years ago. The opening statement for this project is: "VisionPDX is a City-supported, community-led initiative to create a vision for Portland for the next 20 years and beyond. The project provides an opportunity for all Portlanders to share their hopes and ideas for the future (http://www.visionpdx.org/home.html). Mayor Potter's intent in starting this project was to involve as much of a cross-section of the Portland population in determining the future of the city as possible through using a cross-cultural, inclusive participatory basis for collaborative visioning. I believe this project illustrates the principle of social responsibility that can be found in many sectors of the city by realizing our mutual community based interdependency in realizing a sustainable future vision for the city. By including all sectors of the population social justice and equality become forefront values in the execution of the city's future vision and actions.

Another example of social responsibility can be found in the philosophy and practice of a Portland non-profit: Growing Gardens. From their website:

> GROWINGGARDENS gets at the root of hunger in Portland, Oregon. We organize hundreds of volunteers to build organic, raised bed vegetable gardens in backyards, front yards, side yards and even on balconies. We support low income households for three years with seeds, plants, classes, mentors and more. Our Youth Grow after school garden clubs grow the next generation of veggie eaters and growers! Through Learn & Grow workshops and work parties, we teach gardeners all about growing, preparing and preserving healthful food while respecting the health of the environment.
> We plant seeds for good food and healthy people by making sure low income people have the resources they need to grow organic vegetables at home. Through this work, community members meet over the backyard garden, through volunteering, by attending classes, and through sharing extra produce (http://www.growing-gardens.org/about-us.php).

Volunteers and supporters of Growing Gardens are displaying the core practice of the principle of social responsibility through their commitment to helping other community members meet their essential needs in a sustainable ecologically conscious manner.

Now let us look at the principle of SRB, which can be found in a general cross-section of the 'local, green economy' movement within Portland. An example of this effort can be seen in the Redirect Guide, a listing of businesses that cater to the triple bottom line of earth, equity and economy. From their website:

> The ReDirect Guide is a new breed of media company - one that is dedicated solely to creating innovative and effective media that encourages green living and sustainable communities; one that focuses on the end result of its messages instead of simply contributing to the chatter of commercialism; one that holds itself to the market rigors of a for-profit corporation while operating with a mission and ethics expected of a non-profit organization; and one whose actions are driven by three bottom lines - planet, people, profits. Our products and services are designed to promote businesses that incorporate environmental and social responsibility, to strengthen community, to provide educational resources, and perhaps most importantly, to make it easy for consumers to find healthy and sustainable products and services in their area. As our name implies, we redirect consumer support to sustainable companies by providing an easy to use guide to green businesses and local resources (http://www.redirectguide.com/AllAboutUs.htm).

Moving on to the principle of SE I would like to use the example of SRSF/The Dirt! the nonprofit I have been involved with for several years now. Our basic mission statement at this point is:

> "The mission of Spreading Roots, Spring Forth (SRSF) is to strengthen the connections between people and the environment. SRSF believes that education facilitates community dialogue and action. SRSF makes timely information and resources on the local environment available and accessible to all members of the greater Portland area. SRSF serves to encourage people from all walks of life to learn and engage in environmental activities that are both enjoyable and beneficial to their local environment and communities. Everybody wants clean air to breathe and water to drink. Everyone has the power to make a change in their lives that will affect the outcome of the whole. By exposing people to a variety of different environmental groups, issues, and activities, SRSF hopes to inspire people to believe that real possibilities of change exist so that we can live life in a more sustainable manner as a society. To this end, SRSF educates the general public and involved community groups by providing exceptional access to information and environmental activities taking place in and around the Portland metropolitan area. We promote these activities in an inclusive and non-confrontational manner. We hope that by publicizing a wide variety of activities, people can feel free to participate at whatever level is most comfortable for (http://www.thedirt.org/mission).

The website serves as a portal of information for the eco-community, connecting individuals to appropriate and timely resources and connecting them to hundreds of related organizations with opportunities for involvement. There is so much going on in the Portland community when it comes to environmental and social issues that an individual that wants to get involved can be wholly overwhelmed by the amount of information and opportunity. That is where we come in. Someone interested in getting involved can go to our website and search our events calendar by date, type of event, etc. and find a large amount of events and opportunities going on in their particular area of interest rather than having to search around dozens of webpage trying to find the opportunity one is looking for. SRSF/The Dirt! represents the principle of SE in essence. The Dirt! was started by our founder, Laura Nobel over seven years ago. The small upstart of The Dirt! was conducted independently by one individual who wanted her community to have an easier format of access to involvement in desired issues. Laura

started the organization with no money and no concern for profit rather a concern for the service she was providing to the community than any personal gain. Seven years later the original effort started by this one social entrepreneur has evolved into a larger blooming non-profit with much promise of providing greater services to the community. This is often the way it works with SE; one individual with a vision plants a beautiful seedling and that growth moves on to become something much larger than the individual and encompassing a greater community based vision.

The final SRB principle, that of SC, is the whole systems umbrella for the other three SRB terms: SR, SRB, and SE. Without the principle of SC in place it is very difficult to integrate and incorporate the other three principles as SC is the foundational element allowing for a flourishing and synthesis of the other three principles. SC is my main area of focus and I believe to build a sustainable community we need ongoing *evolutionary approaches* and must consider *three forms of capital: social, natural and economic*.

These three forms of capitol are the underpinnings of a *healthy sustainable community*. The move to viewing these forms of capital in terms of interrelationships rather than isolated needs, functions and products is key to moving towards an *ecological consciousness* and subsequent realistic eco-systemic solutions to the problems facing us. It is also important to conserve and learn about *biocultural diversity,* which exists at the nexus point between the three forms of capitol. Let us define and explore some of the terminology and components of an ecologically sustainable society and community. The terms we will explore below showcase the tools, philosophies and systems that need to

become part of a globally shared common language that is accessible and understood by all in order to create sustainable communities.

- *Paradigm Shifting* ~ A paradigm is defined as a "set of assumptions, concepts, values, and practices that constitutes a way of viewing reality for the community that shares them" (http://dictionary.reference.com/search?q=paradigm). Paradigm shifting refers to the need to move beyond the dominant Western capitalist paradigm that does not place equal value on ecosystems services and into a whole systems based ecologically conscious paradigm.
- *Social and Natural Systems* ~ A social system is an interconnected set of people and relationships formed around culture. For example a neighborhood community is a social system or a group of volunteers or the members of a church. A natural system is an interconnected set of relationships and functions that consists of biological species and processes as well as geochemical processes and functions. An example of a natural system is a wetland ecosystem or a watershed.
- *Whole Systems* ~ Systems thinking and/or whole systems design consists of: "The concept that "the whole is more than the sum of its parts". Whole systems have emergent properties that can't be deduced by studying their components… Thinking about whole systems involves shifting our attention from the parts to the whole, from objects to relationships, from structures to processes, from hierarchies to networks. It also includes shifts of emphasis from the rational to the intuitive, from analysis to synthesis, from linear to non-linear thinking" (http://members.iinet.net.au/~rstack1/hent/fundamental.htm).
- *Global Commons* ~ traditionally the commons referred to a piece of land held in common for the good of all, today the commons crosses national boundaries. In the interconnected smaller world of today the global commons consists of the lithosphere, atmosphere, hydrosphere and biosphere as well as the shared intellectual commons of the internet, and culture. There is much disagreement as to the definition of the global commons, however for the purposes of this paper the above definition serves as a general starting point for understanding the concept.

- *Evolutionary Approaches* ~ An evolutionary approach is a flexible dynamic approach to and view of a 'problem' or issue that is not static and can continue to evolve as needed in respect to the given issue. It is based on the process of backcasting or looking at a solution to an issue from a future desired state where the solution leads to the fulfillment of basic systems conditions for sustainability and is simultaneously built on a flexible platform that is responsive to changes in technology, environment and stakeholder needs.
- *Three Forms of Capital: Natural, Social and Economic* ~ Natural capital is the services an ecosystem provides such as timber, water filtration, oxygen, food, etc., it is also the biological species contained therein. Social capital consists of social networks such as civic groups, volunteer organizations, and any form of social relationship, cultural capital such as the arts and education are also in this definition embedded in social capital. Economic capital is the services and products produced through the flow of the global economy.
- *Healthy Sustainable Society* ~ Broadly defined, a sustainable society is an equitable society that values and wisely uses all three forms of capital, (social, natural and economic) and can meets the needs of the world's present population without compromising or diminishing the ability of future generations to meet their needs. By generations this is meant to include not only generations of human animals but non-human animals as well.
- *Ecological Consciousness* ~ having an ecological consciousness means that one has a holistic and systemic awareness of the natural world around them, their impact upon it and their relationship with it and that they make decisions accordingly and ethically.

Biocultural Diversity ~ is the collective cultural, linguistic and biological diversity of the planet. This is a different way to view biodiversity so as to include culture and language. This is done because throughout human history the natural environment, culture and language have been intricately linked and have affected and shaped one another.

In order for the global and local commons to be a healthy, inviting, accessible and sustainable arena this shared language needs to be taught through environmental whole systems based education starting from kindergarten and interweaving through an individual's entire academic career. We must shift ourselves towards an ecological consciousness and assure that future generations do not need to waste time relearning how to see things systemically but rather are already educated ecologically conscious global citizens ready to move forward into new frontiers defined not by the amount of problems we can overcome but by the amount of equity available to all.