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CULTURING SUSTAINABILITY:
A COOKBOOK FOR ARTISTS AND EDUCATORS

By

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Culturing Sustainability
a cookbook for artists and educators



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with special thanks to Gloria Filax, Sacha Kagan, Ann Rosenthal and Rajni Shah

along with directors, students and members of the [Islands Institute](#)

members of the [Engaged Art Network](#)

and all the others who have contributed to this project

Cover Illustration: Diana Lynn Thompson, www.dianathompson.net, *Drinking blue-greens*, installation September 2007. St. Mary Lake, which is a primary source of drinking water on Saltspring Island, is subject to blooms of cyanobacteria (blue-green algae). Thompson developed a project on the lake that allowed people to really “see” the algae – not just murky water. Used with permission.

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Introduction

“Whoever you are, no matter how lonely,
the world offers itself to your imagination,
calls to you like the wild geese, harsh and exciting –
over and over announcing your place
in the family of things.”

– Mary Oliver, [“Wild Geese,”](#) (Oliver, n.d.*)

“My heart is moved by all I cannot save:
So much has been destroyed
I have to cast my lot with those,
who, age after age,
perversely, with no extraordinary power,
reconstitute the world.

– Adrienne Rich, “Natural Resources” (Rich, 1984, p. 264)

*references drawn from online and electronic resources are not paginated.

Image overleaf: [Rajni Shah](#), www.rajnishah.com, photo made collaboratively with photographer [Manuel Vason](#) and costume designer Lucille Acevedo-Jones. Used with permission.

Destroyed ecosystems; devastated communities: every day we bear witness to the evisceration of sustaining social and natural systems. The objects we use, the food we buy, the culture we consume and the work we do all partake, in some measure, of a global system that seems bent on earth's destruction. Those of us who would turn the world away from this apocalyptic trajectory can be consumed by a sense of panic. The stakes are huge; we are pushed by the urgency of our work for change. At the same time, we are caught in a web of personal compulsions, deadlines and ambitions. The organization of work and leisure, the ever-expanding expectations of employers and funders, and the bludgeoning specter of growing unemployment seem to leave us all with less time for reading, reflection, and experiment with paradigmatic change.

Despite these conditions, artists and educators are working with others around the world to invent new models for art, inquiry and learning community that resist hegemonic knowledge and global economic pressures. Expanding the space of the possible, "creating conditions for the emergence of the as-yet unimagined...." (Davis, 2004, p. 184), they are culturing sustainability.

This text aims to explore some of the methods, motives and consequences of these innovative practices while contextualizing a research project built over the course of my studies at Athabasca University from 2006 through 2008. The web-based project aims to support, mentor and inspire those who would engage in culturing sustainability, while creating a network through which these efforts can proliferate and converge. With critical inquiry, dialogue, images, education, and an ongoing online network, the project makes space in which inviting alternatives to the dominant culture can unfold.

Project Description

This text is part of a three-year project at the Islands Institute of Interdisciplinary Studies. The project is simultaneously a community development project, an action-research project, a collaborative art project, and an act or attitude of creative experimentation with the integration of art and survival. It is both my own personal project and a project co-created by more than 250 participants. Although completely unfunded, the work has been supported by numerous mentors, teachers, and contributors, along with the board and advisory council of the Islands Institute of Interdisciplinary Studies.

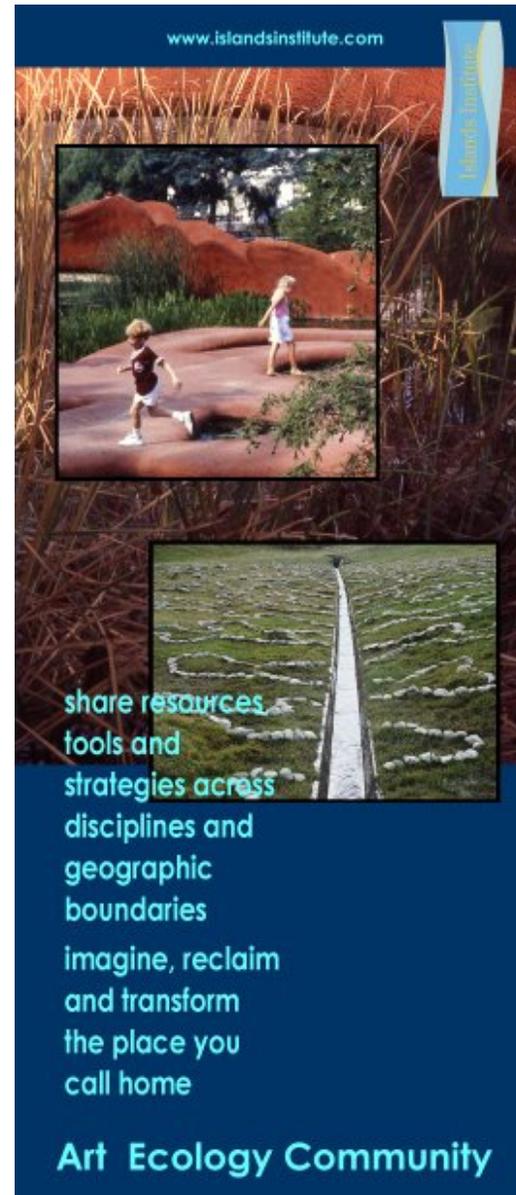
The Islands Institute is a non-profit society that aims “to link art and survival through interdisciplinary approaches and to foster creative solutions to social and environmental problems” (Islands Institute Constitution, August 15, 2005). Informed by ecological artists whose work transforms and restores local ecosystems (see Spaid, 2002 and Kelley, 2006) the society aims to address bioregional challenges on the Gulf Islands and Vancouver Island with art-inspired approaches to knowledge, inquiry, and design problems in human communities. As I began studying for a Masters degree at Athabasca University, I obtained the support of the society’s board for developing an online space and program for pursuing these aims as a research project.

With the board’s guidance, in 2006 I began to design and implement a small-scale, web-based educational environment. The approach was suggested by Václav Havel, who writes of choosing creative actions to engender small, open and dynamic structures that serve as social alternatives. The primary purpose of such structures is to have an impact on society, not to address officially constituted power. Through the pedagogy of engagement that can take place within the breathing space created by such structures, people are encouraged to withdraw their consent from the system by refusing the very terms in which its problems are posed (Havel, 1978, cited in Briton, 1996, p. 101-103). The online institute was conceived as an anti-institutional alliance: an inconstant web, not an enduring edifice; a structure that costs no money, takes up no space, and yet works subversively to transform cultural norms. A primary intention was to design for disappearance. I wrote, “The goal is not the institute. The goal is a world in which new ideas and approaches are woven so deeply into the culture that they do not exist, and yet serve as a pattern language – the stories, images and archetypes on which a culture is unconsciously built” (Kelley, 2006b).

Through the years I developed a website for the society that included an online library, cafe and gallery. I designed and experimented with teaching online courses in “Art and Ecology” and “Creative Social Change.” In October, 2007, I coordinated an online conference on the Art of Engagement that gathered over 200 people from around the globe to consider what makes art a vital part of cultural and social movement towards sustainability, and what militates against an art that matters.

I continue to participate in the Islands Institute as a director and teacher of the online courses. I administer the website, and coordinate the ongoing online network on the Art of Engagement that is a legacy of the 2007 conference. Much of this work has been documented elsewhere (see Kelley 2006b and c, 2008, and the Islands Institute website). In what follows I turn my attention to describing the theory and practice that inform the project, as I explore possibilities suggested by the convergence of voices in the online network.

Newsletters and brochure from the Islands Institute at www.islandsinstitute.com. Used with permission.



Research questions

As an educator I want to know: How can knowledge and inquiry be embedded in interdisciplinary approaches, natural systems, social justice and creative inquiry?

As an artist I ask: How do we image and imagine the work of art at this moment in history, when the survival of the planet is threatened? What role can art play in transforming the current cascade of social and environmental crises? Where does art intersect with social struggle?

As both educator and artist I wonder: How can we forge alternate models for culture, and open spaces for art and education that are innovative, creative and deeply embedded in sustaining or restoring human community and natural systems?

Pursuing these questions as they intersect with creative practices of artists and educators from around the globe, I aim to produce here a kind of “cookbook” that empowers its readers with recipes and resources. This “cookbook” is intended as one among many texts that may be useful in the “kitchen” – that is, the multiple spaces in which the project of culturing sustainability unfolds.

As in all the work I have done for the Islands Institute, this text and its online presentation planned in the summer of 2008 represent an attempt to open space for further dialogue. I know that the questions I am interested in exploring cannot be adequately addressed by an individual researcher. In addition to inviting dialogue, I also hope to open space for silence by including images, poetry, instructions for creative projects, and other interruptions to the academic text. “Spaces for silence” is a key concept in all the Islands Institute programs I have conceived and developed. Loretta Todd (2006) notes that silence is not emptiness; it is a moment of knowledge integration within attentiveness. Silence is a space where we can productively meet each other.

Research Methods

My research methods throughout this three-year project were an evolving amalgam of practices that that can be described as practice-based research, situated inquiry, visual research, community cultural development and open space.

Practice-based research

Practice-based research is a term used to describe research projects that unite theory with practice, and projects in which knowledges are opened by means of artifacts, events or environments made to be utilized beyond the research base. The U.K. Council for Graduate Education report (Frayling et. al., 1997) notes that for students engaged in practice-based research, “the claim for doctoral characteristics of originality, mastery and contribution to the field are held to be demonstrated through the original creative work” (p. 14). The Creativity and Cognition Studios at the University of Technology in Sydney (2008) note that in practice-based research “Whilst the significance and context of the claims are described in words, a full understanding can only be obtained with direct reference to those outcomes.” The online conversations, images and environments at www.islandsinstitute.com comprise both the ground and outcome of the research.

Situated Inquiry

Practice-based research is rooted in an understanding of knowledge as *situated* in specific systems that produce and constrain what is thinkable. Jenny Wolmark and Eleanor Gates-Stuart (2002) use the notion of situated knowledge to refuse a bifurcation of theory and practice that would limit research to codified forms of academic inquiry. They write, “One way forward in this debate is to think about research as a cultural practice that is generated by and through the intersection with other cultural practices, and that knowledge can therefore be understood as ‘situated.’ ...Situated knowledge is no longer decontextualized and removed from the social and cultural relations in which it is embedded.”

(p. 2, cited in Sullivan p. 85).

With a situated understanding, research cannot be conceptualized as an individual activity, nor produced as artifacts separable from their contexts (see Lattuca, 2002, p. 713). We can abandon the fruitless pursuit of truth and error and eschew techniques that facilitate the production of decontextualized “results.” We can instead follow Michel Foucault in exploring an archaeological level of knowledge, where we adopt an attitude of permanent critique of both the present (our historical era) and ourselves (how we are historically constituted as autonomous subjects). Foucault (1984a) characterizes “the philosophical ethos appropriate to the critical ontology of ourselves” (p. 316) as “at one and the same time the historical analysis of limits imposed on us and an experiment with the possibility of going beyond them” (p. 319).

Proceeding from an understanding of knowledge and the world as “mutually and dynamically constitutive” (Heaney, 1995), I developed a model of “situated inquiry” for this project. The model describes research as an iterative process, involving repeated circling from original questions through investigation, creation, discussion, reflection and reformulation. It suggests moments of intersection and interrogation between self and other, self and world, the known and the unknown, limit and power. Traversing this spiral path of inquiry allows me to incorporate new understandings, deepen approaches and address challenges from critics and participants.

Visual Research

I designed the research as a multifaceted community art project that would produce rich visual artifacts and non-verbal texts in addition to linguistic components. Images, videos, online gallery shows, and other visual elements of the project were collected and used to spark participants’ imaginative engagement with the research questions. Hurworth (2003) notes that visual research can “challenge participants, provide nuances, trigger memories, lead to new perspectives and explanations...” (p. 4). Halford and Knowles (2005) write “Working visually involves a significant shift away from the often oddly lifeless and mechanical accounts of everyday life in textual representation, towards sociological engagements that are contextual, kinaesthetic and sensual: that live. Visual work allows us to see the ongoing and embodied practice of everyday life, productions that are multi-dimensional and chaotic: skills and performances that cannot be reduced to words and which words alone cannot represent.”

Here I follow the work of Wells (2004) and draw on insights from my own research project with Anne Zeller in 2005, where we found that visual research techniques encouraged participants to explore the pull of contradictory forces on their subjectivities. Participants in our Queer Mapping project (Kelley, 2005) produced complex, multifaceted narratives that integrated conscious and unconscious processes, challenged easy understandings, and showed their ongoing interaction with a changing world.

Community Cultural Development

Don Adams and Arlene Goldbard's *Creative Community: The Art of Cultural Development* (2001) describes the field of community cultural development as encompassing "elements of activism and community organizing more commonly seen as part of non-arts social-change campaigns." According to Adams and Goldbard, the term "community cultural development" captures important features of this interdisciplinary work, in that the word "community" acknowledges its participatory nature, the word "cultural" is used to "indicate the generous concept of culture (rather than, more narrowly, art) and the broad range of tools and forms in use in the field,..." and the term "development" suggests "the dynamic nature of cultural action, with its ambitions of Conscientization ... and empowerment" for participants and communities.

They write: "Many liberatory ideas converge in community cultural development practice, which asserts each human being's value to both the local and the world community. The heart of the work is to give expression to the concerns and aspirations of the marginalized, stimulating social creativity and social action and advancing social inclusion. Inherent in this approach is asserting the value of diversity, fostering an appreciation both of difference and of commonality within difference. In valuing community cultural assets both material and nonmaterial, community cultural development deepens participants' comprehension of their own strengths and agency, enriching their lives and their sense of possibility. By linking the personal and communal, community cultural development brings people into the civic arena with powerful tools for expression and communication, promoting democratic involvement in public life. Essential in an era of globalization, it creates public, noncommercial space for full, embodied deliberation of policies affecting citizens...."

This research method can also be described as “action research,” “engaged research,” or “research as praxis.” Engaged research “is concerned with social problems and ... gets actively engaged in addressing those problems” (Banks and Mangan, 1999, p. 11). Patti Lather (1986) critiques the notion of research as a value-neutral investigation of existing facts and suggests a process of mutual teaching and learning in which “researchers involve the researched in a democratized process of inquiry characterized by negotiation, reciprocity, empowerment....” (p. 257).

Open Space

In contrast to the traditional research model that aims to reduce variables by constructing a closed and closely-guarded systematic inquiry, I aimed to create a radically democratic environment and an open, nutrient-rich project with permeable boundaries. Here I drew on a large body of theory that invites us to contrive processes through which people are empowered to participate in developing the intentions, design, and outcomes of research projects. Lather (1991) and Fine (1998) are well-known examples – as well as pioneers – in this tradition in qualitative research.

Working in an online environment employing Web 2.0 technologies, I drew on the concepts of “crowdsourcing” and “collective intelligence” that are emerging in collaborative online practices for interactive education and research. According to Wikipedia (July 1, 2008), “Collective intelligence is a form of intelligence that emerges from the collaboration and competition of many individuals” and “crowdsourcing” is a term used to describe practices wherein the public is invited to develop a new technology, carry out a design task, or help capture, systematize or analyze large amounts of data. Wikipedia is often cited as a successful example of crowdsourcing.

In addition, I drew on the research and writings of those involved in the “Great Turning,” a term coined by Joanna Macy (2008) to describe “the vast, global movement: the epochal transition from empire to Earth community” (p. 54). Many involved in this bottom-up movement have been concerned with developing bottom-up processes and environments for knowledge and inquiry, leadership and community development. As one example, “[The Art of Hosting](#)” website (July 1, 2008) encourages and teaches people to host conversations with the premise that “The challenges of these times call for collective intelligence. We must co-create the solutions we seek.” Their work is designed to generate connections and “release wisdom within groups of people.” Practices for inviting dialogue:

“foster synergy and provide ways:

- To go from fragmentation to connection
- To ground our actions in that which is meaningful
- To access and draw wisdom from all our collective intelligences
- To be able to lead from the ‘field’
- To shift our patterns of organizing and interacting.”

Particularly influential in my design of [the Art of Engagement online network](#) was the “Open Space Technology” model for group process developed by Harrison Owen some twenty years ago. The model has been used around the world to enable a wide variety of people and organizations to create inspired meetings and events. It can be employed whenever a self-selected group convenes to consider a question of passionate concern. “Open Space” participants sit in a circle, then come forward to share every issue that matters to them, and to take responsibility for convening small groups in which these issues can be addressed. Participants document their discussions and invite responses from others, producing a permanent record of the dialogue that can guide future work (see Owen 1997, 2000).

Definitions

Culturing

I take culture as a verb. Culture is not – or at least not only – some reified pattern of human knowledge, behavior, custom and belief. It a dynamic process, constituted in everyday acts, attitudes and objects. Moreover, I address this text to artists and educators who are conscious culture-makers, culture-jammers and cultivators.

Yes, we need to understand the hegemonic knowledge systems interwoven with ecological devastation and social injustice. This text touches on a history that many others have written: How does the dominant culture proscribe and prescribe the limits of knowledge and inquiry? How did we come to believe – and act as if – the earth could support toxic dumps, mountaintop removal mining and nuclear testing? How are we culturing unsustainability through the

practice of freedom and individuality, subject and object, education and development, gender and sexuality? But there is a self-congratulatory notion common in cultural studies of the environment that when limits to knowledge and inquiry are identified they are somehow magically transcended. This is what I wish to eschew with my observation that culture is a verb. “Culturing” is a way to ask: How can we do this differently?

This project suggests that instead of making and remaking a culture bent on continually identifying and overcoming limits, can we begin to invent and practice a SLOW culture of balance, sufficiency, pleasure, appreciation, beauty and craft. Moreover, this culturing can be contemporary, critical and catalytic. In imagining a grounded culture, I find it useful to understand culture as cultivation. As artists and educators in these dangerous times, we can design culture as permaculture.

Sustainability

With the word “sustainability” I hope to evoke the possibility or memory of cultural systems that integrate with – and enhance – the living and dying of planetary systems. Madhu Suri Prakash (2008) describes the concept: “‘Sustainable’ signifies a family of ideas or ideals of non-violence and peace, at the very heart of which lie decentralization and diversity (cultural as well as natural). This peace that celebrates and honours diversity has been integral to keeping alive the physical and cultural spoils of peoples, their places, their waters, their traditions....”

I have previously described the word “sustainable” as ruined by its association with “development.” But I am encouraged to retrieve the concept from the compost by Sacha Kagan, who with Volker Kirchberg poses sustainability as “a new frontier for the arts and cultures” in a 2008 publication. Kagan quotes Moore (2005) on the definition of sustainability: “The concept speaks to the reconciliation of social justice, ecological integrity, and the well-being of all living systems on the planet. The goal is to create an ecologically and socially just world within the means of nature without compromising future generations. Sustainability also refers to the process or strategy of moving toward a sustainable future” (p. 15). In the forward to their book Günther Bachmann notes that the concept of sustainability invites us to amplify North/South equity concerns with a passion for of intergenerational justice (p. 10).

The word *sustain* implies holding, suffering, nourishment, and interrelationship. In this way the concept of

sustainability suggests a vision for culture and nature that I first encountered in the writing of Alexander Wilson (1991). Wilson writes, “[Nature] is not a timeless essence, as Disney taught us. In fact, the whole idea of nature as something separate from human experience is a lie. Humans and nature construct one another. Ignoring that fact obscures the one way out of the current environmental crisis – a living within and alongside of nature without dominating it” (p. 13).

Paul Hawken (2007) has another definition for “sustainability” that I enjoy. He writes, “Sustainability, ensuring the future of life on earth, is an infinite game, the endless expression of generosity on behalf of all” (p. 187).

Interdisciplinarity

The integration of historically separated knowledge systems is an imperative, primary movement in this project, as an attempt to link art and survival situates the inquiry in a web of radical relatedness. Environmental issues are complex, specific and situated. They lead us inevitably to issues of justice, to the interplay of conscious and unconscious forces, to economy, mythology and politics. In his book on *Education as if the Earth and People Mattered*, Rolf Jucker (2002) observes that a transdisciplinary approach is key to apprehending the cultural roots of the ecological crisis, and to exploring the cultural changes that will allow sustainable human communities to unfold.

Edgar Morin (1999) notes that “Pertinent knowledge must confront complexity. *Complexus* means that which is woven together. In fact there is complexity whenever the various elements (economic, political, sociological, psychological, emotional, mythological...) that compose a whole are inseparable, and there is inter-retroactive, interactive, interdependent tissue between the subject of knowledge and its context, the parts and the whole, the whole and the parts, the parts amongst themselves” (p. 15). Morin describes an integration of disciplines as essential to the future of education. He writes, “The predominance of fragmented learning divided up into disciplines often makes us unable to connect parts and wholes; it should be replaced by learning that can grasp subjects within their context, their complex, their totality” (p. 13).

Disciplinary thinking makes us monsters, capable of compartmentalizing aspects of our lives and constraining our

comprehension of the interplay between them, so that we pursue career, consumption, creativity and spirituality along discreet and decontextualized trajectories. Only when education separates art from geography, biology, gender studies, economics, health, philosophy and politics can we “buy in” to a world where North American retailers and consumers have externalized almost every overwhelming environmental and social cost of the objects they consume to less privileged countries and future generations.¹

In claiming interdisciplinarity as a starting point, I refer again to Michel Foucault, whose “archaeological” practice of examining knowledge through a history of adjacent practices, places, ideas and objects unearths an “unconscious” of knowledge, or “rules of formation, which were never formulated in their own right, but are to be found only in widely differing theories, concepts, and objects of study....” (1970, p. xi). In *Discipline and Punish* (1977) Foucault critiques “a society penetrated through and through with disciplinary mechanisms,” rhyming disciplinary divisions in the human sciences with prison practices of the 18th century that also created “multiple separations, individualizing distributions...an intensification and ramification of power.” For Foucault, an attitude or ethos of interdisciplinary critique is as close as we get to the practice of freedom. Furthermore, he argues for the situatedness of all such inquiry. “It is the reappearance of what people know at the local level, of these disqualified knowledges, that makes the critique possible....” (2003).

Online Education

This project is an ongoing experiment in developing an online learning community. Can the Internet be used to create a quiet, inviting and stimulating learning space in which collective wisdoms can emerge?

Online learning can be a shorthand description of substandard educational environments, wherein both students and disciplines are isolated – with no student activism, student support services, cross-disciplinary dialogue, or research on new ideas. For Arthur Versluis (2004), the loss of education’s vital social dimensions make online educational

¹ See, for example, the documentary *China Blue*. This film tells the story of three young country girls working in a Chinese factory. They live crowded together in cement dormitories where water has to be carried upstairs in buckets. Their meals and rent are deducted from their wages, which amount to less than a dollar a day. The jeans they make are destined for North America, <http://www.pbs.org/independentlens/chinablue/film.html>

institutions no more than “degree-delivery machine[s]” (p. 46). As Versluis notes, a World Bank study on higher education advocates the use of Internet technology to achieve “increased educational production” (Johnstone, Arora, & Experton, 1998). Tony Bates (1997) warns that Web technology can lead to the destruction of public education systems by powerful multinational corporations. There is pressure to cut costs and increase profits, and this can only be achieved by standardizing curriculum, eliminating independent learning, forgoing student services, and reducing opportunities for human interaction. Contending with these economic and political forces, online educators are pressured from all directions to conceive of education as a technical process involving a simple transfer of skills and knowledge from pre-packaged curriculum to student.

There are problems associated with online education, but there are also promises. The advent of online learning widens access to education. It allows for the possibility of international, intercultural learning communities (Bates, 1997). Online education has been and will be used to include marginalized peoples and empower minorities. It has the capacity for linking individuals and communities in unprecedented ways. The Web’s potential can be used to allow student access to a wealth of online research, and to link less and more experienced students in online communities of practice. In addition, the Web allows students to post their work online, and so to contribute in a real way to the opening of knowledge systems. Interactive Web 2.0 technologies invite us to envision, with online education advocate Stephen Downes (n.d.), “a system of society and learning where each person is able to rise to his or her fullest potential without social or financial encumbrance, where they may express themselves fully and without reservation...Where they are able to form networks of meaningful and rewarding relationships [and] where knowledge and learning are public goods, freely created and shared, not hoarded or withheld in order to extract wealth or influence.”

Furthermore, online education makes ecological sense. The Web allows us to form communities of inquiry that are diverse and wide-ranging, while leaving every participant situated in a home place. Through the Internet we can envision and practice a democratic internationalism that respects and cultivates cultural pluralities based in bioregional citizenship. The separation of online community members in space and time can be viewed as a positive quality that can be celebrated, along with the cultural, social and psychological differences that distance allows. In the vision for online educational community described on the Islands Institute homepage, participants are invited to “Share resources, tools and strategies across disciplines and geographic boundaries [while they].... Imagine, reclaim and transform the place [they] call home.

Engaged Art

First, what is art?

John Carey argues that in pre-industrial societies art is an activity “spread through the whole community” (cited by Morrison, 2005). Separating artists from craftspeople and art from everyday life is a conceit peculiar to Western culture. As I have argued elsewhere (see Kelley, 1994) the separation of art from life is a move required by the art market of the 19th century, used to establish the commodity value of unique art objects in a world of ubiquitous image-making.

David Haley (n.d.) explores the word’s etymology, “Art: rt from an Indo-Aryan noun/adjective of the Rg Veda, meaning the dynamic process, by which the whole cosmos continues to be created.” Haley describes the possibility of an art of *ecopoesis* (or interwoven, context-dependent creative processes). This notion is a counterpoint to the *autopoietic* aim (of self-contained, self-generating, self-referencing production) that typifies the mainstream of contemporary art. Haley writes, “I perceive our ability to survive climate change as the enactment of an evolutionary narrative. My interdisciplinary research attempts to integrate quantitative and qualitative methodologies into the creative process. This informs my ecological arts practice to generate poetic dialogues that resonate as creative interventions, in pursuit of aesthetic diversity to develop communities of inquiry for an eco-centric culture.”

This project aims to link art with environment, justice, and community development. But what real differences separate an engaged art from art that is disengaged? Can art matter? In a world of social crisis and looming ecological collapse, can art be anything more than a frill? There are cultural, economic and political forces that militate against an art that matters. Art is held apart from life inside a cultural frame that keeps it simultaneously overvalued and irrelevant.

The definition of “engaged art” is under construction at the Islands Institute and the Engaged Art Network, which aim to function as parts of a web connecting artists whose practice turns on a desire to change the world. The project hypothesizes that in an online open space where we can engage in dialogue with one another and with activists, educators and experts of all descriptions, we can argue and learn how to make art that matters, and art that connects with communities. Together we can foster creative solutions to real-world problems, connect practitioners with projects, and support, mentor and empower engaged art practices. We can think about what art can add to projects now

described as ecological restoration, waste management, agriculture, community education or environmental justice, and what techniques, practices and world views from these projects we can productively join with art.

Outline of Text

How can knowledge and inquiry be embedded in interdisciplinary approaches, natural systems, social justice and creative inquiry? To find recipes for culturing sustainability, this text focus on three movements through which engaged artists and educators challenge the dominant culture's deep assumptions and develop inviting alternatives.

Complicating Objectivity and Subjectivity

What is self, and what is other? How does the bifurcation of subject and object function at the root of knowledge systems? When does this bifurcation contaminate the way we understand and interact with human and nonhuman nature? What techniques, strategies, objects and processes can be employed to complicate objectivity, subjectivity, and the relationship between them?

Fostering Systems Thinking

Culturing sustainability involves fostering systems thinking. According to Fritjof Capra (1996), systems thinking requires shifts in perception, so that we think in terms of relationships, connectedness, and context instead of decontextualized objects and agencies. It means thinking like an ecosystem. What art and educational processes can be used to map and model this way of understanding the world around and within?

Shaping Spaces of Possibility

Where can we do this work? Opening space for culturing sustainability means letting go of control, and trusting in the transformations and diversifications of collective wisdoms, emergent forms and unknowable forces. In this process, art is not a luxury, as Audre Lorde says. Art dances in the dark, reaches down into the chaos. It can empower us to dwell within a dynamic process of creating and learning, so that the organizations and the objects we make stop partaking of spiritless abstraction, stop preserving discredited epistemes, and instead open to the shifting patterns, metamorphoses, diversity and distinctiveness of enspirited, organic life.

Each of these chapters speaks to and in some sense iterates the others. In a concluding chapter, I briefly explore the metaphor of self-organizing systems as a potential model for learning communities.



Complicating
Objectivity and
Subjectivity

I – see – birds.

You -hurt- me.

A subject performs an action; an object receives the action. Basic English grammar situates us, every time we speak, write or think, in a specific understanding of the world. But as many artists and educators have argued, this culturally-specific understanding of what is real, and how reality can be known, is exceedingly problematic.

Subjectivity both limits and isolates us. It is far from an obvious or neutral category through which to understand and experience the active, the individual and the personal. Satish Kumar (2003) writes a “Declaration of Dependence” at the conclusion of his book *You Are Therefore I Am*. He critiques the dualistic way Western thought conceives and practices a separation between subject and object, writing that Newton, Descartes, Darwin and Freud all have in common a worldview that is centered on a subject that operates independently of the objective world around it. “These theories are...at the root of the ecological, social and spiritual crisis of our time. The dualistic world-view gives the illusion that I exist independently of the Other. This attitude is founded on the belief that there is a substantial, separate, individual Self, which can act on its own accord, irrespective of the Other.” He contrasts this with Relational Philosophies from around the world – philosophies that aim at consciousness of interbeing or “codependent arising.”

M’Gonigle (2000) writes that acknowledging the self as but one point within circles upon circles of being potentially transforms both politics and culture. “If we exist in relation, then the very fact of that relational existence dictates not a good life of the separate self, but an involved life of respect for the wholeness of that other which breathes life and consciousness and meaning into our self” (p. 27). He notes that historically, Western politics and culture have been driven by a compulsion to escape shared being and dependence by implementing structures of control. The “project of progress has been a process of development through enclosure, conquering and developing whatever wild or communal

Image overleaf: Tania Willard, RedWillow Designs, www.redwillowdesigns.ca. Graphic for a project called *The Colouring Book* which featured young writers of colour working together to express themselves and their experience through creative writing. Used with permission.

spaces and traditional communities remained....” (37). And as Foucault (1977) observes, this process also operates in the construction of autonomous individualities; power encloses and colonizes the “wild territory” of obsessions, compulsions, unconscious processes and unwanted behaviors. He writes that the growth of individual capacities is historically connected with “the capillary functioning of power [through] ... the assignment to each individual of his ‘true’ name, his ‘true’ place, his ‘true’ body.... It is not that the beautiful totality of the individual is amputated, repressed, altered by our social order, it is rather that the individual is carefully fabricated within it....”

Objectivity is a similarly problematic category. Western-educated, English-speaking people live in an objective world where things arrayed outside the self can be observed, counted, and acted upon. Objectivity is the premise of our science and the language of our desire. But it is a culturally specific way of ordering the real and construing knowledge of it.

Bruno Latour (2004) argues that the notion of an objective nature is a way of assembling political order and ordering political life by the division of what is objective and indisputable from what is subjective and arguable. He suggests a way forward in a thoroughly political ecology that has “nothing whatsoever to do with nature, this jumble of Greek philosophy, French Cartesianism, and American parks.” He continues, “Political ecology does not shift attention from the human pole to the pole of nature; it shifts from certainty about the production of risk-free objects (with their clear separation between things and people) to uncertainty about the relations whose unintended consequences threaten to disrupt all orderings, all plans, all impacts” (p. 25). He suggests that we are witnessing “the progressive transformation of all matters of fact into disputed states of affair” (p. 25). As an example, he cites the compound asbestos. Once described as an inert material, asbestos’ status has shifted through decades of political struggle to become a nightmarish imbroglio of law, hygiene and risk.

Chet Bowers (2000) points out that there many ecologically damaging assumptions in a worldview that represents “intelligence as an attribute of the autonomous individual....” These assumptions include “an anthropocentric view of Nature” and a cultural chauvinism that assumes “Third World cultures will adopt the western model of development....” (p. 10-11). David Abram (1996) writes more lyrically of the capacity of human intellect to become rooted in and borne by a sensuous relationship with multiple nonhuman shapes and processes (p. 49): “My body is a sort of open circuit that completes itself only in things, in others, in the encompassing earth” (p. 62).

Traditionally, artists work to produce unique objects while educators work to produce thinking subjects. But for educators and artists who embark on culturing sustainability, complicating objectivity and subjectivity becomes a fundamental task.

From Object to Imbrogio

“We mutually regard our product as the power each one has over the other and over himself. Our objects in their relation to one another constitute the only intelligible language we use with one another. We would not understand a human language, and it would remain without effect.”

– Marx, “Free Human Production” (1994, p. 52)

A nylon jacket, a piece of paper, a flashlight, a carrot, a tire: these are some of the hundreds of everyday objects produced with sulphuric acid, H₂SO₄, the most important manufactured chemical in the world. Darren Almond’s 35-minute video loop *Bearing* (2007), depicting a Sulphur miner in remote Indonesia, reveals a genealogy of these objects.

Adrian Searle (2008) describes the film: “A man labours in hell. He is harvesting Sulphur from inside the crater of a volcano, breathing in the acid smoke swirling up from the ground. All he has to break up the Sulphur is a metal rod. All he has to carry the chunks are two baskets slung from a pole balanced on one shoulder. His only protection is a bit of cloth, which he intermittently stuffs in his mouth to suck air through. His eyes are bloodshot, his teeth are eroded, his breathing is wheezy, and his knees are ruined from carrying his loads – maybe 100kg – over the crater rim and down to the weighing station.” Sulphur is a stinking, corrosive irritant and miners have a life expectancy of “not much over 30 years.”

What is a Flower?

“Looking deeply into a flower, we see that the flower is made of non-flower elements. We can describe the flower as being full of everything. There is nothing that is not present in the flower. We see sunshine, we see the rain, we see clouds, we see the earth, and we also see time and space in the flower. A flower, like everything else, is made entirely of non-flower elements. The whole cosmos has come together in order to help the flower manifest herself. The flower is full of everything except one thing: a separate self, a separate identity.” – Thich Nhat Hanh (2002, p. 48)

“Banana is not an easy thing.”

In 1996, Shelley Sacks brought together banana growers and banana consumers in a project that complicated objects with their history, fostered acknowledgment of subjects' lived engagement in the lives of objects, and shaped space in which participants and viewers were invited to embark on a process of rearticulating subjects and objects – a process that is simultaneously imaginative, visceral and economic. Making twenty stitched ‘sheets of skin’ from Windward Island bananas initiated the work. The artist then traced these bananas back to their origin in the Caribbean and recorded the voices of the growers, bringing these voices into a gallery show and later a web-based exhibition with ongoing relevance. Sacks (n.d.) writes, “Through the situation of the banana producers and the effects of ‘free trade’ in one particular region of the world, *Exchange Values* emphasizes the interconnections between producers and consumers in our complex global economy and our roles as ‘artists’ in re-envisioning our world.”

When Sacks began the project the United States, acting on behalf of the multinational Chiquita banana corporation, had just initiated a proceeding in the World Trade Organization (WTO) that posed a threat to the economies of several banana-producing nations of the Caribbean. In an effort to protect small Caribbean democracies from serious economic dislocations, a trade agreement then in place guaranteed Caribbean producers access to a small percentage (6 to 10 percent) of the banana market in countries of the European Union.

Writing at that time, Bob Herbert (1996) noted that most of the countries affected by the dispute were former European colonies, and that continuation of their historic access to the European banana market was crucial to the survival of these small, fragile economies. “A handful of multinational concerns still control 60 percent of the European market, and 70 percent of the world market. But for the multinationals, enough is never enough.”

In the course of her research in the Windward Islands, Sacks and her colleague met with the farmers who had grown the actual bananas she purchased in Britain and used to make the sheets of skin. She writes of their conversations, “We were increasingly drawn into discussions about the ‘banana situation’ and strategies for the future. In recent years the banana strategy in St. Lucia seems to have been to try to compete with the multinationals by perpetually trying to increase quality and yield. But now, as the enormous multinationals can afford to flood the market for weeks at a time with underpriced bananas, and the shortcomings of this strategy become apparent -what happens? On the one hand there is more pressure to increase chemical inputs to maintain yields and unnaturally ‘neat’ fruit. On the other, although the small farmers of the Windward Islands now have the chance to control their banana production, they are being told

by the St. Lucian Prime Minister – after a few centuries of slavery and colonialism – to diversify into international tourism!”

Sacks continues, “As I went from farmer to farmer with my sample sheet of skin I became more convinced than ever of how motivated, creative and inspired people become when they engage with a situation imaginatively. As one of the farmers said: “You can see from this ‘skin’ that a banana is not an easy thing. It has our lives in it. Our culture. Our struggle. Maybe people will see that even if we love bananas, we can’t go on like this anymore. Something has to change.”

Although subtitled “images of invisible lives,” Sacks believes that *Exchange Values* is not simply an artwork that documents the unseen. It is also a “social sculpture” that invites each viewer to become “an active, creative participant in the shaping of our society” and “in rethinking agriculture, progress, value, money, and our global social-economic structures.”

Today banana growers and harvesters face ever-more difficult working and living conditions. Their independent trade unions are violently suppressed, with another Guatemalan banana union leader shot dead in March 2008. The agrochemicals, pesticides and intensive farming methods used in banana production practices lead to deforestation, water pollution, biodiversity damage and soil deterioration, as well as severely damaging the health of banana workers. Four multinational corporations supply 80 percent of bananas to the Northern markets, where international retail giants including Wal-Mart have engaged in “banana price wars” over the past few years, deducting the cost of price reductions to Northern consumers from the prices they pay to Southern producers. It is increasingly impossible for many banana workers – even though working in intolerable conditions on plantations – to earn a living wage.

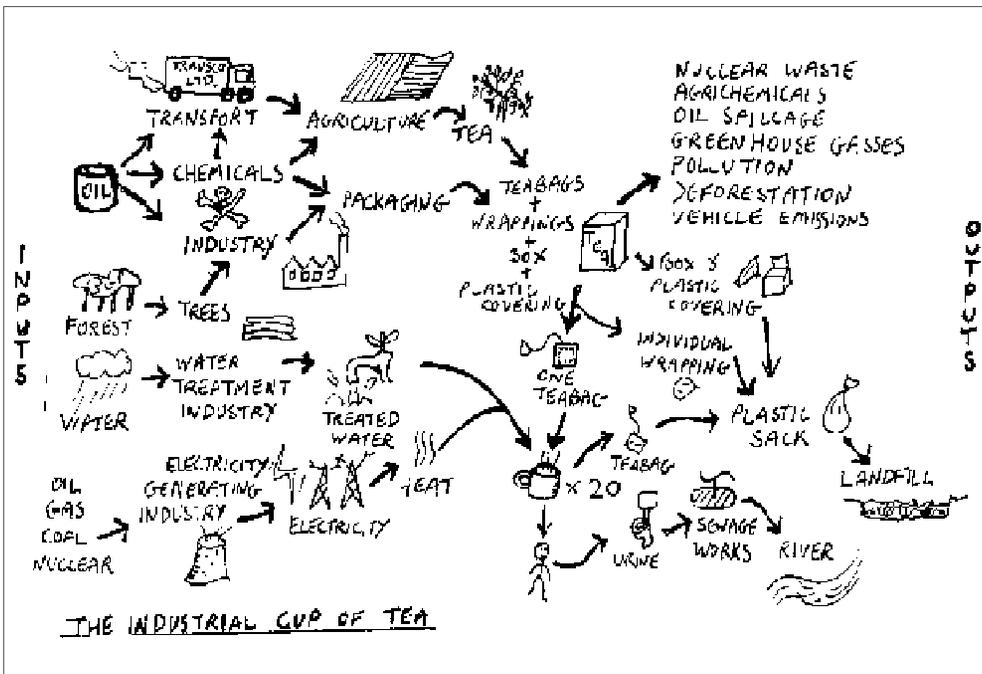
Yet positive changes have also occurred in the twelve years following Sacks’ project. Northern consumers are increasingly aware of the environmental and the social costs that are externalized from commodities in the existing food chain. More organic and fair-trade bananas are available and being purchased, in a general context of expansion of organically produced food products. Associations between Latin American banana workers’ trade unions, small Caribbean farmers and non-governmental organizations in Europe and the U.S. have been developed. Oxfam has initiated an international campaign for a fair and sustainable banana industry. In March 2008 the Windward Islands farmers association announced a contract to sell bananas through their national fair trade organizations directly to a company that markets bananas in the UK, while in the US a new, Massachusetts-based tropical fruit importer has opened with a simple mission: to improve the lives of banana farmers and workers by making sure they get a fair price for their fruit. (Information from United Nations Conference on Trade and Development, Oxfam America and BananaLink).



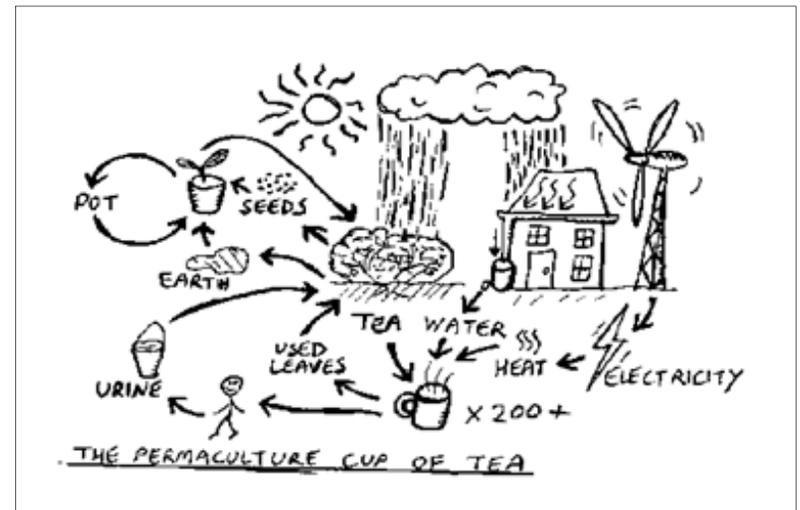
Exchange Values: Images of Invisible Lives, A social sculpture project by Shelley Sacks in collaboration with banana growers of the Windward Islands and representative organizations. This sheet of skin is made from bananas grown by Matthew Frederick & Herbert Augustin F630398 Copied from <http://www.exchange-values.org/>. Used with permission.

Exercise: Complicating Objects

Where does power come from? What energy inputs does an object encode? Illustrate aspects of how energy moves from the sun to you through the natural and social environment by drawing a “Food Web” about something you eat. Include in your web the social relationships between people that usually appear only “in the fantastic form of a relation between things” (Marx, Capital , Ch. 1).



Images are from 'Permaculture: A Beginners Guide' by Graham Burnett <http://www.spiralseed.co.uk/permaculture/> Used with permission.



Exercise: Life Cycle Assessment

Indira Nair is Vice Provost of Education, Carnegie Mellon University and a Professor of Engineering and Public Policy. Her research and teaching focuses on green design. She has been active in developing and teaching innovative interdisciplinary undergraduate courses. In a 1999 article from which the following exercise has been adapted, Nair writes of an exercise suitable for interdisciplinary and diverse classrooms based on the concepts of green design and life cycle analysis. It has been used in the context of problem-based learning with interdisciplinary teams, generating “great student involvement and excitement, in engineering courses as well as courses for humanities students” (p. 490), over a period of many years.

1. Use a Life Cycle Assessment to compare two products with equivalent function. Which is the most environmentally friendly? Possible comparisons include:

- cloth or paper napkins
- glass or plastic bottles
- incandescent or florescent light bulbs
- disposable or rechargeable batteries
- organic or inorganic tomatoes
- biofuel or gasoline

2. Analyze the resources embodied in the products, and the waste flows and emissions to the natural and social environment that occur during the manufacture, use and disposal of the product. Draw a flowchart or map showing the material, energy and residual flows for your particular pair of products.

3. Based on your analysis and experience, develop a set of criteria for evaluating which is the “better product choice.”

From Subject to System

“Capital’s ceaseless striving towards the general form of wealth drives labour beyond the limits of its natural paltriness, and thus creates the material elements for the development of the rich individuality which is as all-sided in its production as in its consumption.”

– Marx, *Grundrisse* (1973, p. 325)

The notion of a critical, self-directed and autonomous individual is a root metaphor in capitalist, industrial culture – one that shapes all practices of art and creativity, teaching and learning – as eco-justice educator Chet Bowers explains. Bowers locates the ground of this metaphor in the Industrial Revolution, and the destruction and displacement of traditional cultures and non-monetized relationships. Capitalism is based on wage labour unattached to family and fealty; it provides a material basis for personal autonomy. Bringing workers into competition with each other and generating an ever-increasing dependence on consumer goods, market forces destroy traditional lifeways while promoting individualism and individuality. Bowers believes that education aimed at eco-justice must subvert “the form of individualism and the destruction of community that is required by the spread of the West’s industrial/consumer-dependent culture” (2005, p. xiii). Education – or art – that promotes the critical consciousness of free individuals who can change the world has unconsciously and destructively adopted the capitalist-industrial paradigm, and its built-in bias against all forms of intergenerational knowledge, participation in the commons, and systems of mutual support and kinship between all forms of life (p. 67).

“The subject” of our discourse and our history is an individualized self-consciousness that exists as if independently, for itself alone. This subject cannot undertake to know itself in the externalized world of objects and processes through which it comes into being and within which it is sustained and jeopardized. Systems of mutual support and kinship between all forms of life seem not to matter. “Objects” count, and get counted, only when “the subject” consents to acknowledge them. In social and psychoanalytic terms, this subject is always to be nourished by the objective identity cast into the abyss inside the self; it is not sustainable. Is there a way to culture sustainable subjectivities, so that our individuality is not constructed through the disavowal of our objective engagement with the world?

Arne Næss, founder of “Deep Ecology,” speaks to this problem with the concept of an “ecological self” (1995). Næss begins with an understanding of the physical embeddedness of every “one” in the whole earth community. He suggests that the tri-partition of subject, object and medium that becomes part of a child’s self-development in Western culture can be interrogated, and our self-consciousness widened and deepened to incorporate an indivisible unity with all that is other. Moreover, he notes, this unity is profoundly joyful. He writes, “Part of the joy stems from the consciousness of our intimate relation to something bigger than our ego; something which has endured for millions of years, and is worth continued life for many more millions of years. The requisite care flows naturally if the ‘self’ is widened and deepened so that protection of free nature is felt and conceived as protection of ourselves” (p. 236). Næss continues, “...we must find and develop therapies which heal our relations with the widest community, that of all living beings” (p. 236).

Elizabeth Bragg (1996, p. 95) draws from a review of the literature of deep ecology to outline affective, cognitive and conative aspects of the ecological self:

1. “Ecological self is a wide, expansive or field-like sense of self, which ultimately includes all life-forms, ecosystems, and the Earth itself.
2. Experiences of ecological self involve:
 - (a) an emotional resonance with other life-forms;
 - (b) a perception of being similar, related to, or identical with other life-forms;
 - (c) spontaneously behaving towards the ecosphere as one would towards one’s small self (with nurture and defense).
3. It is possible to expand one’s sense of self from the personal to the ecological.”

David Abram (1996) describes Western culture’s historically observable move from an experienced world of felt reciprocity between self and other to a world in which human awareness is internalized and distinguished from the world around us. For Abram, conversing with more-than-humanness involves speaking *with* the world, instead of *about* the world (p. 71). He notes, “when we attempt to explain [the life-world] conceptually, we seem to forget our active participation within it” (p. 40). He sees the objective universe presumed by scientific discourse as a lie, and this form of discourse as a discredited form of knowledge that confines thought inside the human skull, where it is held apart from the endlessly shifting patterns and metamorphoses of organic entities.

A self-consciousness that incorporates an attitude of respect for and entanglement with all living beings is represented in every spiritual tradition, as Brent Davis (2004) notes (p. 159). It is embodied in the very word spirit, from the Greek word for breath. Each breath enacts our continuous physical interchange with the world around us. But in the acts,

attitudes and knowledge systems of contemporary capitalist-industrial societies, the continuously lived experience of self as dependent and always-emerging is continually overwhelmed by a concept of the self as separate from and unimplicated in the world in which it is physically embedded.

The way in which human beings are individualized and specified as separate from their environment emerges from the history of Western culture, where the separation of self from biotic world is constructed through language, science, economy and society. This separation produces a culturally specific experience of self, as Morris (1994) and many other scholars explore. In addition, the separation of self from the biotic world can be seen as a transcultural experience that is traceable in each child's coming-to-know. Psychoanalyst Jacques Lacan (1977) describes a mirror-stage as formative of self-consciousness. In the brittle plane of a mirror, a child sees only surfaces. Reflections there say nothing of bodily fluids, organic needs, and interior functions. All the eye perceives in the mirror is an "I" who appears to be whole, complete, and independent. While still "sunk in motor incapacity and nursing dependence," a child overcomes fear by assuming an identity with the insentient object he or she appears to be, in the mirror. The "I" is formed in this mirror-stage as a self-consciousness that is separate and self-sufficient. "I" forgets fear and danger. "I" repudiates knowledge of time and space, where we are interwoven with an intricate web of life. Yet no one has blood and breath apart from this. So "I" must stay trapped in paranoid structures. "I am" always poses (historically, linguistically) as a self-sufficient entity, disavowing identity with what it lacks. All that is other becomes viewed as inessential. The subject inhabits a negatively characterized world of objects. Lacan describes this "mirror stage" as a misrecognition that comes to characterize the ego in all its structures. He calls it a "knot of imaginary servitude that love must always undo again, or sever."

Each culture can be seen to have a repertoire of stories and practices with which to address this separation of "I" from ecology. Social forms, spiritual practices, totems, songs and creation myths all function to bridge the gap between self and other. They work to address and ameliorate the fearful and defended structure of self-consciousness that originates with the simultaneous recognition/denial our profound neediness, or what Lacan (1977) describes as a consequence of "the specific prematurity of birth in man." Western culture's stories and practices, from the evolutionary creation myth through Hallmark cards to the nuclear family, can be said to have profoundly failed to bridge this imaginary distance between self and other. We need new myths, ceremonies, poems and identities that re-embed the self in its lived relationship with the world.

On the other hand, the space and promise of unique individualities can be seen as a great achievement of Western culture and the capitalist-industrial system. Artists are accustomed to working in the "free" space created by the culture of individuality and an economic system of commodity production and consumption. Where social relationships between producer and consumer become invisible, consensual meanings need no longer be negotiated between them.

The development of alienated individual genius becomes a real possibility; it may even be a requirement of the art market's particular form of commodity exchange (see Kelley, 1994). Is there a way to braid a capacity for a rich, multi-faceted individuality – for critical, independent thought and provocative, creative action – into the aim of culturing sustainability?

“The process of acquiring a self is referred to as differentiation,” Jessica Benjamin (1983) writes. “Differentiation means developing the ability to see ourselves and others as independent and distinct beings” (p. 281). She notes that our social structure, culture and economy enforce an isolation of individuals while emphasizing strict boundaries between self and others. When we are unable to recognize the other without effacing the self, or assert the self without effacing the other, we cannot ever really acknowledge our dependence or independence. An essential tension breaks, and differentiation fails – the subject is always split between its licit (subjective) self-sufficiency and its illicit (objective) dependence on all that is other. This failure of differentiation promotes a sense of isolation and unreality, and subjectivity becomes a “numbing encasement” from which violent boundary transgression seems the only escape. Benjamin describes true differentiation as the *tension* between self and other; differentiation can only be lived in this perpetually contested space between negation and recognition, singularity and connectedness, continuity and discontinuity of self and other.



Erica Fielder, Ducks and Geese, 32" x 40" with text. Pastel over gouache printed on Plexiglas. Copied from <http://www.ericafielder-ecoartist.com/works.html> . Used with permission.

"Ah, not to be cut off,
not through the slightest partition
shut out from the law of the stars.
The inner – what is it?
if not intensified sky,
hurled through with birds
and deep
with the winds of homecoming."

– Rainer Maria Rilke (cited in Abrams,
1996, p. 261)

Toxic Bodies

pen and ink

sunlight chokes this small room
i continue making lines
head pulsing joints screaming
my hot sweat
the black odours of india ink
and promised lightening

hard, threatening music
leans against my pen
i feel sharp points insisting
in my flesh and i wonder
if this is only body pain where
the boundary
is

– zana (1983)

The artist and poet zana suffers from
environmental illness.

For people suffering from environmental illness, the contaminants and chemicals typical in ordinary human environments can incite dramatic and debilitating reactions, including severe pain, seizures, paralysis and death. Stacy Alaimo (2007) describes environmental illness as a way to think through the interface between human and more-than-human nature. Our bodies are in constant dialogue with the environment. Toxic bodies prove that the environment is

not out there; it is in here. Alaimo quotes Joy Williams (2001), who writes: “And the word environment. Such a bloodless word. A flat-footed word with a shrunken heart. A word increasingly disengaged from its association with the natural world. Urban planners, industrialists, economists, developers use it. It’s a lost word, really. A cold word, mechanistic, suited strangely to the coldness generally felt toward Nature. It’s their word now.” When we undertake the real entanglement between subject and object, we can experience our bodies as living scrolls that record our exposure to environmental contaminants. Matter can no longer be made into a collection of objects; environments cannot be drained of blood and separated from ecosystem function to become the uncontested ground for human development. Through attention to environmental illness, we can create new models of materiality.



Zulis Yalte's multimedia installation and performance work, *Border Crossings*, explores the personal and social meanings of environmental illness. Used with permission.

Susan Hoenig (2008) describes a series of work exploring her body's intersection with the environment:

“The last six months life was very difficult for me. I was in so much pain in my mouth, felt sick and couldn't concentrate. It took a lot of strength to get through... nurturing my family and teaching. But, I finally discovered what was at the root of my problem: a mouthful of silver fillings. I found a holistic doctor and had tests which revealed high mercury toxicity.... I had a total dental revision, including jaw surgery to clean out more toxic waste in six infected cavitations. Months before I had started a project about the Red Knot Rufa, an endangered bird. It's one of the champion long-distance migrants of the bird world- from the high Arctic to Chile, South America, a 10,000 mile journey. They stop to feed on the Horseshoe Crab eggs in Southern Jersey on the Delaware River beach. The crab eggs are diminishing from pollution and the Red Knots are dying. When they do not thrive they cannot continue their full journey and die half-way....

“I have a deep feeling for the Red Knots' flight, determination and stamina... the course of its migratory path... earth connection. I am making a series of small sculptures, various sizes: small, unable to thrive, and then larger more nourished. The lines sculpted within each are the [migratory] paths/routes they take; like a landscape on each of their backs. My perspective somehow joins with them; a need for an aerial viewpoint. Then, I want to sculpt them in the earth, connecting their lines with the earth's energy.”



Susan Hoenig, Red Knot Rufa, burlap relief sculpture, 2008. Used with permission.

“The Animal Relief Paintings are an extension of the earthworks. They are made of burlap and painted in earth tones. There is a process I go through while forming the animal. The sculptural surface becomes a land formation, the scale of which I imagine is immense. The contours are like a topographical map marking irregularities, gullies and great areas of color....

I feel a strong connection between the plight of the Red Knot and my own inability to thrive from toxic mercury overload.... The birds fly from breeding to wintering grounds and stop mid-way to feed. Their cycle of life is not to be interrupted, for then there is no way home.”

Susan Hoenig, ecological sculpture, Oaxaca, Mexico.
Used with permission.



Abjection

The complication of objectivity and subjectivity requires that we scrutinize the space of differentiation between subject and object. It is here we can identify a vector of abjection that perpetually produces the cast-off, refused, excluded, marginalized, and shadow aspects of the speaking subject – the disembodied subject that is required by the signifying system in which we dwell. In the vector of abjection, we find the formulation of race and gender, the splitting of human from inhuman, and the bifurcation of death and life.

Subject	Object
Culture	Nature
Man	Animal
Male, masculine	Female, feminized
Deracinated	Racialized
Human	Inhuman
Language	Silence
Knowledge, Reason	the Unconscious
Voluntary functions: thinking, speaking, acting upon another	Involuntary functions: digestion, illness being “subject to” another
Life	Death

Interrogating Whiteness

White racial identity only has meaning in power-over and difference-from non-whiteness. The white body is a body of knowledge – history, memory and discursive practices that claim entitlement through the differentiation of self from other, subject from object, insider from outsider. Whiteness demands clear edges and sharp delineations between Christian and Savage, man and nature. Where native North American cultures hone capacities for kinship and transformation, western psychic and social organization relies on the difference and distance between human and animal, us and them. Ruth Frankenberg (1993) observes that the white self does not pre-exist the production of others. It is constituted in the process of constructing a range of bounded others, relegated to service, ghettos, reservations and distant corners of the world. Scrutinizing the space of abjection, we might interrupt and destabilize the production of whiteness, and show the despised other moving restlessly and beneath the surface of a badly-constituted self.

Whiteness also names a normative space. David Roediger (1994, p. 13) describes whiteness as “the empty and terrifying attempt to build an identity on what one isn’t and on whom one can hold back.” Whiteness also took its present shape in the 19th century, when race was bedecked with the new evolutionary science, and posed as an immutable fact instead of a violent and volatile regime. Whiteness invented a phantasmagoric unity between the warring peoples and classes of Europe – at least in North America – while Europe was torn to pieces with class conflicts and inter-national warfare. Identifying with whiteness conferred enormous privilege. The wages of whiteness included property, food, mobility, suffrage, access to medical treatment, the right to territory. The obvious material benefits were supplemented by “a public and psychological wage,” W.E.B. DuBois pointed out in 1914 (in Roediger, 1998, p. 100). The price of the ticket was forgetting or denying darkness and becoming white. The complexities and divisions that make up anyone’s identity got closed down to this: are you light enough to pass as white, or not?

Whiteness is constructed by the abjection of darkness: blood, earth, sin and shadow are ascribed to racialized others. Whiteness is white bread and process cheese, vanilla sex, the absence of suffering, the sound of silence. It is a culture Roediger describes as “the absence of culture” (1994, p. 13). It is a psychology of empty minds and pitiless hearts. Amnesia, denial and evasion are constituent elements of whiteness. James Baldwin comments (1985, p. 375), “The white man’s unadmitted – and apparently, to him, unspeakable – private fears and longings are projected onto the Negro.” Chaos, compulsion, the nightmare and the Beast are consigned to an other, or to the inner darkness that is white racial identity’s unacknowledged burden. Baldwin urges white people to meet and embrace their inner darkness, if they would be released from its tyranny. “The only way [the white man] can be released from the Negro’s tyrannical power over him is to consent, in effect, to become black himself, to become a part of that suffering and dancing country

that he now watches wistfully from the heights of his lonely powers and . . . visits surreptitiously after dark” (p. 375). Baldwin calls us to admit the refused shadows and integrate the Beast that whiteness projects onto an other.

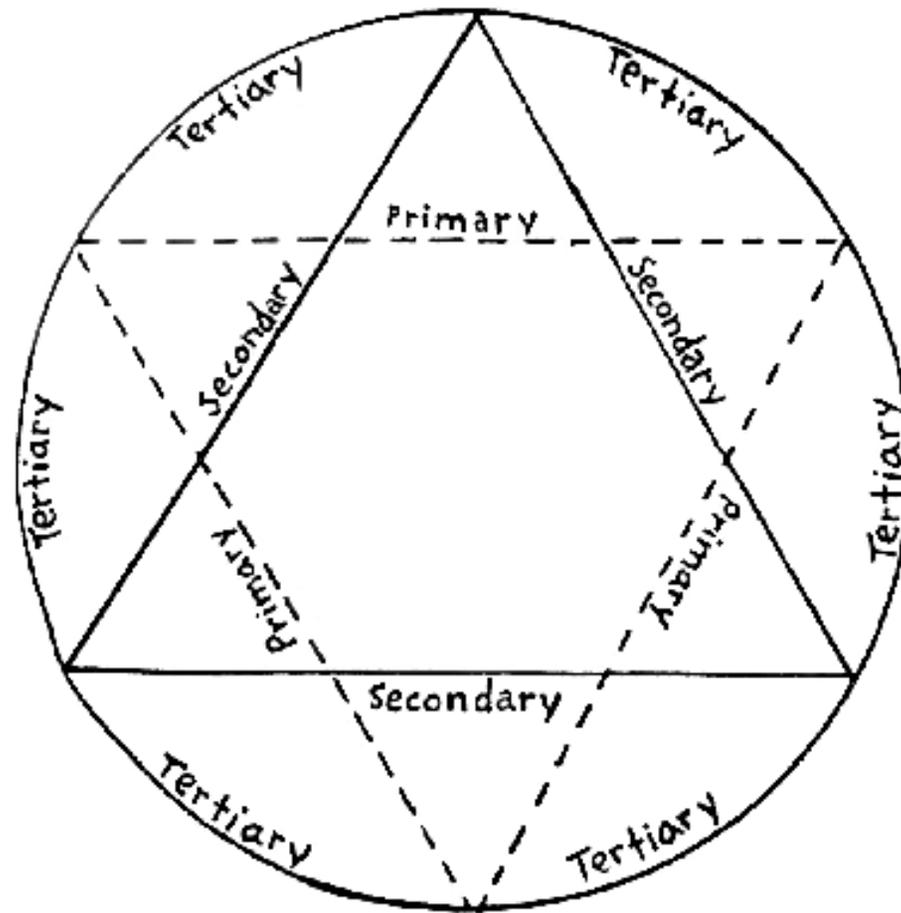
In Canada white racial identity develops explicitly around the question of place and the right to territory. In BC the population was 75% Aboriginal when European immigrants claimed and began to rule the place as their own. A culture that viewed nature as an “untamed wilderness” devoid of ancestors was an integral part of this giant land grab and the associated process of ethnic cleansing. When identity is rewoven with landscape and story the legitimacy of a dominant white racial identity is undermined.

The material relations of racism implicate white people in guilt and shame. But whiteness is constituted by the denial of guilt and the repudiation of shame. Pretense, disavowal and forgetting create the privileged space of white racial identity. Thus white-identified people are singularly unprepared to confront reality, and to change it. Perhaps for this reason, the majority of work interrogating whiteness seems to be low-wage work relegated to minorities.

Exercise: Self and World – The Artist’s Palette

What palette do you work with? What are your primary colors? Where are the intersections and blendings of self and world? (Consider eyes, affinities, heart, history, mind and habitat.)

Create a colour wheel that conveys social, historical, personal and cultural connotations of colour and light.



Taking Tea with Monsters²

“The dream space of the soul is the real terrain we should map. If not, then nothing else that we are fighting for or against has any possibility of transformation: not the militarism we resist, not the oppression we deplore, not the toxic waste dumping on the land of the poor, not the racism or sexism that we expose. None of these concerns can be taken on unless they are examined, acknowledged, and confronted within the inner territory of the self, the earth that, in fact, we are.”

– Estella Conwill Majozo (1995, p. 88).

Artists and educators concerned with culturing sustainability soon come to the edge of the known world. Consciousness, as Carl Jung points out, is a relatively recent experiment in human history, and not a particularly successful one. Consciousness is precarious, frail, and easily menaced; its failures and projections encompass far more of the world than what is “known.” If we confine ourselves to the drear parameters of conscious knowing, life seems meager and plagued with all sorts of imaginary wants, because too much has been left outside of it (Jung, 1954, p. 182).

Jung advises: “Consciousness, no matter how extensive it may be, must always remain the smaller circle within the greater circle of the unconscious, an island surrounded by the sea; and, like the sea itself, the unconscious yields an endless and self-replenishing abundance of living creatures, a wealth beyond our fathoming. We may long have known the meaning, effects, and characteristics of unconscious contents without ever having fathomed their depths and potentialities, for they are capable of infinite variation and can never be depotentiated. The only way to get at them in practice is to try to attain a conscious attitude which allows the unconscious to co-operate instead of being driven into opposition.” (1954, p. 178).

Outside the conscious mind, a whole series of monsters – including the looming apocalypse of global warning, the proliferation of waste, and the eco-justice catastrophe of contemporary food production – twine themselves round our relationships, and possess our lives like evil demons. Culturing sustainability means we must confront the irrational and unconscious contents of mind and culture, and take tea with monsters that menace both self and world.

² This metaphor is Steven Levine’s

In the premodern worldview, monsters abound at the porous borders between human, gods and nature (Seth, 2003). They serve as signs of a frightening, uncontrollable inhuman world that surrounds and threatens the human community, claiming its victims and converts without regard to god's will and in defiance of the righteous order of things. This world of monsters goes underground in the modern worldview, wherein identity and difference are established, measured and positioned in a rational order that allows the extension of human rights to men at the very outskirts of humanity. Beyond these borders the inhuman (nature, slaves, animals, women) comes to exist as a world of disassociated objects that can be observed and exploited by man. But the refused world that is other and inhuman to the rational order (including the unconscious processes of its thinking subjects) proceeds apace, so that, as Horkheimer and Adorno observe, "the Enlightenment [becomes] its own dark other, its own grotesque myth; the role of reason encompasses the capitalist domination of nature, the imperialist eradication of the other, the fascist regression into the irrational (and now the potential extinction of us all)." Today monsters reappear as the schizoid consumers/producers of the catastrophe of history and the coming apocalypse. Monsters-R-Us.

Taking tea with these monsters we may find, as Donna Haraway (1989) does, that the apocalypse is embedded in how we think nature – certainly in any notion we have of preserving, protecting or honoring it. Indeed, we may lust after the apocalypse. Warner (1998) writes of the various ways and means we employ to "scare ourselves to death," noting that "Emotions that thrill and pierce and shake or otherwise affect the body return presence and being to the person..." (p. 9). In Ancient Greece, participants in the Eleusinian mysteries got "polluted" with wine and psychotropic drugs, approaching the secrets of Mother Nature by reaching for an ecstatic dimension, lowering the bar of the conscious mind. Archetypally, the ecstasy of annihilation does not mean absence or emptiness, but rather the end of differentiation, conflict and separation. Given the anxious "subject" of Western discourse, so profoundly and inadequately separated from the world of objects, this crisis may indeed be earnestly sought.

In practical terms, taking tea with monsters involves taking "dream time," as the poet and academic Estella Conwill Majozo describes it. She calls "dream time" the time "when we leave this world and go into our own sacred space, seeking the grace needed to create our work. Dream time holds the turmoil and trauma of the world at bay and allows vision to be granted and the healing notes to attune us" (1995, p. 92). All too often, we get swept up in the urgent demands of life in community. "Our work in the outer terrain can become so demanding that we think we cannot stop to meditate" (p. 92). But until we stop, we cannot truly confront the unknown, unconscious, irrational and hidden world beyond our prejudices, fears and limitations; we will "fall into the trap of making art that is simply creative rather than truly visionary" (p. 93).

This need for "dream time" affects educators equally with artists. Laura Rendon (2000), in her research for an "Academics of the Heart," interviews university faculty and administrators who describe a lack of purpose and

meaning in their work that is directly related to time pressures. Ever-rising expectations ask them to do more and more in an atmosphere of competition and conflict, creating excessive stress that diminishes their personal and professional lives. They often refer to higher education as a “meat grinder” (p. 4-5). Rendon suggests three elements for a new research paradigm that applies equally to artists and educators:

1. View research as a relationship-centered process;
2. Honor diverse ways of knowing ; and,
3. Engage in contemplative practice, self-reflection and introspection.

Only when research undertakes the complex relationships through which we know – between subjectivity and objectivity, self and other, mind and body, reason and faith, conscious and unconscious – does a climate for genuine inquiry occur.

The complexity of ecological systems within which we are participant is vast and measureless, it cannot be consciously apprehended. At least, the intricacy of functioning systems cannot be understood by way of a knowing subject, dominant to an external object. Just so, Paul Hawken (2007) observes, if we tried to consciously control our bodily functions, we would die. “The exquisite integration of movement, thought, physiology, sight, touch and metabolism supersedes the complexity of any ...system we can imagine.” He sees this as a metaphor through which we might grasp the way in which hundreds of thousands of voluntary and non-profit organizations around the world act like complex organisms building cooperating communities of cells; they are functioning as the earth’s immune system. No one can lead or control this movement; no spokesperson can represent it; no person can grasp how the multiple parts relate to the whole. Hawken posits instead “an involuntary and endemic intelligence freely exchanged on the cellular and intracellular level.” We could call this “enlightening, enlivening pulse” biology, or God – it does not matter; “however we name it, it is not knowable” (p. 177).

Carl Jung's Recipe

for the amplification and integration of unconscious contents of mind and culture

"The initial question to be directed . . . would be: "Who or what has come alive? : . . Who or what has entered my psychic life and created disturbances and wants to be heard? To this you should add: "Let it speak" Then switch off your noisy consciousness and listen quietly inwards and look at the images that appear before your inner eye, or hearken to the words which the muscles of your speech apparatus are trying to form. Write down what then comes without criticism. Images should be drawn or painted assiduously no matter whether you can do it or not.

Once you have got at least a fragments of these contents, then you may meditate on them afterwards. Don't criticize anything away! If any questions arise, put them to the unconscious again the next day. Don't be content with your own explanations no matter how intelligent they are. . . .

Treat any drawings the same way. Meditate on them afterwards and every day go on developing what is unsatisfactory about them. The important thing is to let the unconscious take the lead."

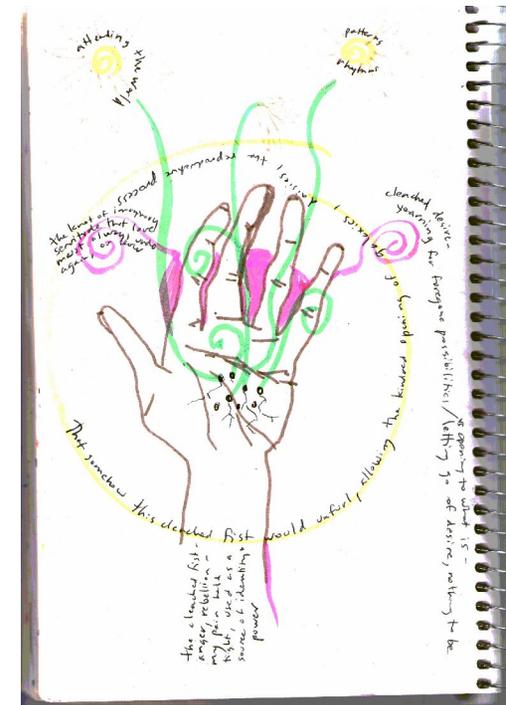
- Carl Jung, letter to Count Hermann Keyserling (cited by Claire Dunne, 2000, p. 86-87).

Recipe: Mind Mapping

A mind map is a graphic that uses words and images to represent ideas, tasks and associations that “radiate” from a central question, image or idea. It is a way to engage image and language functions of the brain in problem-solving or exploring the unconscious contents of mind and culture.

These are selected foundation structures of a Mind Map as described by Tony Buzan (1993).

1. Start in the centre with an image of the topic, using at least 3 colours.
2. Use images, symbols, codes and dimensions throughout your Mind Map.
3. The lines must be connected, starting from the central image.
4. Use colours – your own code – throughout the Mind Map.
5. Develop your own personal style of Mind Mapping.
6. Use emphasis and show associations in your Mind Map.



Mind Map by Caffyn Kelley – a daily practice.

Non-doing

Open Space facilitator Chris Corrigan writes:

“Getting out of the way allows people to fill space with their passion. Letting go of expectations leaves room for responsibility to come forth. All of this is integrity. Every piece of doing requires the strong presence of non-doing to anchor it.

Stifling every impulse to intervene, to give directions and orders leaves space for others to design their lives. You can create a container and then stand by and watch it fill and teem with life.” (2006, p. 7)

Culturing sustainability – whether through ecological restoration, art or education – often requires this “strong presence of non-doing.” Our actions, if any, need often be limited to removing barriers or toxins that impede a system’s flourishing. In the ecosystems in which we are embedded, in human communities beset by difference, and in our relationship with the unconscious contents of mind and culture, we can adopt an attitude of non-doing to make space for the unfolding world.

Exercise: Standing Still

Erica Fielder (n.d.) developed *The Standing Still Project* as “One Artist’s Response To Environmental Degradation.” She writes, “What socio/ecological changes might occur if each of us stood still for just a few moments, or an hour every week? Collectively, we could create a significant influence on the consumption of the Earth’s air, rivers, forests and soils. I periodically stand still in the midst of bustling public places around my community. The sign reads:

By standing still:
you reduce air pollution,

you slow the cutting of trees,
you stop consuming,
you avoid throwing things away,
you halt the race,
and you remember what you forgot.”



Erica Fielder sits still in a bird feeder hat, 2003. Image from “The Birdfeeder Hat: Seeding Watershed Awareness” at the Mendocino Coast Botanical Gardens in Mendocino County, California, see <http://www.birdfeederhat.org> Used with permission.

“At each location, for six consecutive weekend engagements, Fielder sat quietly demonstrating to visitors how to interface with wild birds, and then she invited others to share in the experience by offering an array of various birdfeeder hats to wear on their own heads.”

- Patricia Watts (2005)

Exercise: Self-Portrait with Metaphoric Objects³

Contemporary Western culture describes the material world as if it were dumb and devoid of meaning. People at other times and places experienced the world as studded with symbols. Objects held messages and animals brought insights. The world was always speaking to them.

I developed the “Self-Portrait with Metaphoric Objects” exercise as part of the Trout Lake Community Mapping Project – a year-long project that engaged hundreds of community members in making diverse maps of their home place. In this particular exercise we considered and created bowls as maps of the intersection between self and world.

To begin this exercise we discussed how we might open ourselves to a more intuitive wisdom, and find ways to let the world speak to us. First, we reflected on the questions: Who am I? What do I bring? Each participant was given a bowl to use as part of their installation. We considered the bowl as a metaphoric object. We walked separately in the park looking for objects that spoke to us about ourselves. Could a leaf, a stone, or a piece of grass represent some aspect of the self or inform us of some important quality? Rather than seeking objects that would represent some aspect of the self we already understood, we sought a place of “not knowing,” looking for things that beckoned to us.

We collected five objects and brought them back to the studio where we arranged them inside and outside the bowl, seeking a sense of “rightness.” Participants were invited to incorporate other objects from the room, or things they had made. Then each one of us introduced the others to their piece, deciding whether to explain the piece, ask for audience response, or experience the work in silence.

We looked for meanings that spoke to us through objects, and also through the relationship between different objects. Where we placed things, and the intervals between them, were often as important as the objects themselves. We asked how the arrangement of metaphoric objects would have to change to represent the person we would like to be.

Real creativity can come from this space of openness, when we don't know the answers, when we ask and pay attention.

³ Developed with inspiration from Peter London (1989).

Paradox

“There is no “the truth,” “a truth” – truth is not one thing, or even a system. It is an increasing complexity.”

– Adrienne Rich (1975)

The anxious self-certainty of subjectivity can only be achieved by the transcendence of objectivity. It is the objective truth of separation and independence that guarantees one’s insufficiency and need. But this endangered, ecological (“objective”) self can only be admitted through an inversion of notions like freedom, agency and empowerment – notions that have been uncritically adopted by many progressive artists and educators.

Nikolas Rose (1998) writes of how “The forms of freedom we inhabit today are intrinsically bound to a regime of subjectification in which subjects are not merely ‘free to choose’, but obliged to be free.... Human beings must interpret their past, and dream their future, as outcomes of personal choices made or choices still to make yet within a narrow range of possibilities whose restrictions are hard to discern because they form the horizon of what is thinkable.... The practice of freedom appears only as the possibility of the maximum self-fulfillment of the active and autonomous individual” (p. 17). Culturing sustainability, we may come to understand this figure of the active, autonomous subject as a damaging fiction.

Rose (1991) describes the implementation through the 20th century of a discourse of self-regulation and investigates its links with the organization of social power, noting “technologies of subjectivity are established that enable strategies of power to infiltrate the interstices of the human soul” (p. 8). For the contemporary subject for whom the self has become thinkable and manageable, “Achieving freedom becomes a matter not of slogans nor of political revolution, but of slow, painstaking and detailed work on our own subjective and personal realities....” (p. 253). Inevitably accompanying this self is a project of “constant and intense self-scrutiny” and “a continual evaluation of our personal experiences, emotions and feelings in relation to images of satisfaction.” Rose concludes, “The self that is liberated is obliged to live its life tied to the project of its own identity” (p. 254). Rose’s analysis invites understanding of how “the subject” assumes its shape within a discourse that obviates the lived experience of biotic and social interrelationship, structuring self-knowledge within a particular continuum of knowledge and power.

If the self is seen as separable from its environment, and if singular human beings are the aim and site of knowing, questions of ethics are silenced. Brent Davis (2004) writes: “If everything in the realm of the nonhuman operates on a cause-effect, mechanical logic, and if there are no transcendent unities, it hardly makes sense to engage with matters of meaning, value and conduct” (p. 175). Rose (1991) notes that through the implementation and popularization of psychotherapeutic discourses, problems of defining and living a ‘good life’ have been transformed from an ethical to a psychological register” (xiii), producing “the self freed from all moral obligation but the obligation to construct a life of one’s own choosing, a life in which [the self] realizes itself” (p. 254). The ethical project of ecological self-fashioning can scarcely be formulated when the self is envisioned as a locus of private meanings, feelings and characteristics that are constitutionally withheld from biotic and social life.

We might agree subjectivity exists only as a ruined possibility, because for centuries it has been sustained by the death of objects cast into the abyss inside itself, because it has been produced as a white and male-sexed identity accorded only to those “individuals” whose self-expression/denial is a sound and fury that now signifies the end of the world (see Kelley, 1992). Yet in the slag-heap of subjectivity there is a *prima materia*, a potential source of energy. Notions of singularity, autonomy, freedom and agency have been enclosed and structured by power, yet they also contain aspects that remain unruly and ungovernable. Can the self and its desires be a locus of possibility, a place of action and change that subverts the social order? Monique Wittig writes, “. . . if ultimately we are denied a new social order, which therefore can exist only in words, I will find it in myself.” This is not the form of self envisioned by contemporary psychology as a space of private meanings and unique characteristics withheld from social life. Perhaps our most intimate passions and personal pleasures can be used to imagine and invent an outer world that is not yet possible.

Objectivity is subjectivity’s long-suffering obverse. The object guarantees the subject’s power through its service. Reified of relationship and poisoned with passivity, the objective realm is devoid of language, stripped of agency, and incapable of invention, intervention, breach.

The notion of an objective truth diverts the aim of ecological knowledge. Catriona Sandilands (1999) comments that “the idea of an objective nature perpetuates a problematic opposition between nature and culture” (p. 90). This notion of objectivity is based “on the very historically specific idea that nature is what is left over when the human is subtracted.” M’Gonigle and Starke (2006) describe a dedication to objective truth as a “too-limited ambition.” If tied to this construction of knowledge, scholars will forever be tied to the task of separating legitimate from wild knowledge. In contrast to the notion of truth, they suggest an educational system dedicated to developing and excavating local knowledges, refused / disqualified and “subjugated” knowledges, “unqualified or disqualified knowledges.”

And yet, perhaps an alternative consciousness lives in the world of objects: organic, endangered bodies; trees and rain; food and water; books and music; blood and skin. In objects our dependence and independence at once oppose and create each other; objectivity is the site of a fissuring that produces real differentiation. Our independence, our irrevocable separation from all that is other, our solitude, our mortal destiny: this is one objective truth – the truth of individual life, and skin. Our dependence, our inevitable integration with all that is other, our hunger, our species-life, our heteronomy: this is what stands opposite – the truth of indivisible life, and blood. Grief, risk, want, love, sex, laughter all illuminate – at times with unendurable clarity – the gap between the individual and indivisible life of our selves as objects.

Can we forge and find ways to make art, teach and learn despite or outside the paradigm of objectivity – subjectivity? Can we articulate the unity of self and world, while still extending and transforming the continuum of life with each person's individuality and differentiation? Culturing sustainability, we need to complicate subjectivity and objectivity enough to explore the spaces between them.

"The journey from cloud cuckoo land to reality lasted a long time. In my case Pilgrims Progress consisted in my having to climb down a thousand ladders until I could reach out my hand to the little clod of earth that I am."

- Carl Jung, age 84 (cited in Dunne, 2000, p. 3)



Fostering Systems Thinking

“Fragmentation, competition, and reactiveness are not problems to be solved – they are frozen patterns of thought to be dissolved. The solvent we propose is a new way of thinking, feeling, and being: a culture of systems.”

- Fred Kofman and Peter M. Senge (1995).

“The world is a complex, interconnected, finite, ecological-social-psychological-economic system. We treat it as if it were not, as if it were divisible, separable, simple, and infinite. All our persistent, intractable global problems arise directly from this mismatch,” Donella Meadows (1982) observes (p. 101). We know that individual “things” – plants, people, schools, watersheds, artworks, ideas – are not really separable from the larger ecological-social systems in which they exist. “Fostering systems thinking” is a way to describe cultural work that is consonant with – and that cultivates – this knowledge.

Systems thinking means shifting focus:

- *From parts to the whole:* A living system is an integrated whole whose properties cannot be reduced to a description of its constituent parts. Whole system properties include growth, collapse, oscillation, equilibrium, and resilience.

Image overleaf: Nicole Dextras Project: *Cultivate*- outdoor installations on the land during an art residency at I-Park in Connecticut during the month of May 2008. Materials: Rye Grass, soil and wood. . See <http://islandsinstitute.ning.com/photo/album/show?id=1163070:Album:15443> Used with permission.

- *From static objects to functioning relationships*: A system is an evolving community made up of networks of relationships. These communities are embedded in larger and smaller systems with interdependent functioning.
- *From contents to patterns*: Instead of focusing on what objects living systems are made up of at any given moment in time, we can focus on identifying patterns that unfold in durational and reciprocal relationships. Meadows (1982) quotes a Sufi sage: “You think because you understand one you must understand two because one and one make two. But you must also understand and” (p. 101-102). Understanding patterns in one system can give us insight into other systems’ functioning.
- *From predictable outcomes to points of instability*: Instead of structuring understanding as the act of identifying eternal truths from investigations designed to yield predictable outcomes, systems thinking invites us to play with/in the aliveness and unpredictability of evolving relationships. This process helps us to identify leverage points, or points of instability, where a small shift in one thing can produce big changes in everything.
- *From visible to invisible*: The eye sees things that appear like independent objects. But they are not. In time, in need, and in the functioning relationships of smaller and larger interdependent systems, every one thing proves united with all that is “other.”
- *From calculating inputs and outputs to exploring limits and boundaries*: Systems thinking requires us to acknowledge that despite the incalculable numbers of elements in any system, one single factor can set a limit to system functioning. (Without food, there is no economy.) With systems thinking, boundaries are permeable. There is no authentic partition of environmental and social problems. There is no separation between products and byproducts; “there is no ‘away’ to throw things into” (Meadows, 1982, p. 102).
- *From detached observer to engaged participants*: Cognition can be developed from the point of view of an individual, detached observer who documents an external world. Expression can be seen as issuing from an individual artist, pupil, or author with “original thoughts.” Systems thinking suggests that cognition and expression emerge as properties of interacting human and inhuman communities, and that art and knowledge act, in turn, upon the world.

- *From cause-and-effect to multiple feedback loops:* Cause-and-effect is a way of thinking that shapes our grammar and our government; identifying cause-and-effect is a basic strategy for conventional teaching and learning. But with systems thinking, there is no such thing as simple cause-and-effect. Instead we can discern multiple, interacting, negative and positive feedback loops that inform system functioning.
- *From scapegoating judgments to attentive responsibility:* Rather than looking for external causes of system dysfunction, blaming particular ideas and individuals, or defining discrete elements as good or bad, systems thinking suggests that the source of problems is located within the system that suffers the problem. Systems cause their own behavior (Meadows, 1982).

Systems thinking helps us understand the functioning of a single cell and the whole earth community. It allows us to discern and intuit the embeddedness of microscopic and macroscopic systems in one another. It points to the importance of each individual and each act in sustaining the function or dysfunction of systems.

Systems thinking leads us to scrutinize the rules and interrogate the goals of the dominant culture. It invites us to challenge the paradigms in which unsustainable social and economic systems have developed. Meadows (1997) describes “just a few of the paradigmatic assumptions of our culture, all of which utterly dumbfound people of other cultures:

“There is a difference between nouns and verbs.
People who are paid less are worth less.
Growth is good.
Nature is a stock of resources to be converted to human purposes.
Evolution stopped with the emergence of Homo sapiens.
One can ‘own’ land.”

These paradigms powerfully shape cultural, environmental, and economic systems. They are root assumptions that are hard to discern and tough to change. But as such, they are points of instability that, when altered, can entirely transform systems. Meadows comments: “there’s nothing physical or expensive or even slow about paradigm change. In a single individual it can happen in a millisecond. All it takes is a click in the mind, a new way of seeing. Of course individuals and societies do resist challenges to their paradigms harder than they resist any other kind of change.”

The project of culturing sustainability has led many artists and educators to cultivate systems thinking; Sacha Kagan (2007) describes this effort as key to making art and learning environments that matter. He comments that we can assess the quality of creative projects by asking: “Does the art project help participants to think in terms of inter-relations, feedback loops, short-term and long-term effects, obvious direct vs. perverse indirect effects, structures of imbalanced dynamics or balancing mechanisms. ... or does the art experience perpetuate the typical Modern linear thinking that establishes simple cause-effect mechanisms in our reality? In the later case, the art project might seem wonderful in the short term, but end up as the many other ‘fixes that fail’.”

Tim Collins (2003) writes of pioneering artists whose work both fosters and exemplifies systems thinking: “The Harrisons secured a Sea Grant at the University of San Diego and studied the life cycle of crabs and the function of estuaries, leading to work in the Salton Sea and San Francisco Bay. In New York, Alan Sonfist proposed the restoration of a native forest to parklands throughout Manhattan, resulting in the *Time Landscape* in SoHo. Agnes Denes grew wheat at Battery Park City beneath the shadows of the twin towers. Shifting a brownfield site from a wasteland, *Wheatfield* became a symbolic source of wheat and bread for a city that had long forgotten its relationship to agriculture. These are just the first of many artists’ projects with living systems. While earth-art was among the first [environmental art] to go public, these ecological artists were the first to act in the greater interest of nature and concepts of the commons.”

Creative work is central to the cultivation of systems thinking, because systems thinking requires us to think differently, as Meadows (1982) points out: “One’s rational, figuring-out ability ...leads one to look at pieces of systems, and to make judgements based on short-term and incomplete information.... I think we do have within us the ability to see whole systems and to sense leverage points [where interventions can remove obstacles that prevent a system from working]. What we don’t seem to have is the ability to win arguments, even within ourselves, with that “reasonable” side of us. We keep expecting a solution to be near a symptom, a long-term gain to start off with a short-term gain, or a winning strategy to produce instant gratification for all the players. We know complex systems don’t behave like that. But something within us keeps insisting they should. And so we pursue difficult policies that can’t work, and miss seeing rather simple policies that can. We try to compete instead of cooperating, to push against environmental limits instead of noticing that there is already enough, to hang on to a deteriorating status quo instead of welcoming changes that take us where we really want to go. The results are hunger, weapons, pollution, depletion. And just within our grasp, accessible through our innate systems understanding, are sufficiency, peace, equity, and sustainability” (p. 108).

Exercise: Discerning Systems

Hans Dieleman, and Don Huisingsh (2006) describe the problem:

“As a result of a few hundred years of the scientific heritage, we are poorly equipped to reconstruct the whole after the analysis and deconstruction. We focus more on the parts than on the whole. What sustainable development requires of us is to understand the effects of one dimension on the other dimensions and on the whole (and back and forth). However, since we are so poorly equipped to think in systems terms and to comprehend systems behavior, we are tempted to deconstruct systems and to analyze the parts.

We lack the cognitive tools to comprehend systems and therefore, we keep ‘flipping-back to an analytical mode,’ even though we know we should not do so. One of the key challenges of sustainable development education is to develop a ‘systems thinking language.’ But as long as we are not there, we can make use of other non-cognitive-approaches to ‘record’ reality and to begin to ‘understand’ sustainability. On an emotional and intuitive level, we are capable of apprehending and ‘experiencing’ complex systems.”

Sharon Almerigi (2006) helps people approach systems thinking with this simple exercise. Her students stop, put their hand on their heart and listen to their breathing – noting that with this one action they are observing two major, but separate components of the human cardiovascular system interacting with each other. This is a “micro-level” view of systems. Exploring then how multiple systems within the body interact with each other and with an infinite range of interpenetrating ecological systems, students begin to apprehend the “wheels within wheels” character of systems.

Foucault (1970) invites us to imagine “How can man be that life whose web, pulsations, and buried energy constantly exceed the experience he is immediately given of them?” (p. 323). He suggests a *cogito* that traverses the space between thought and non-thought with constantly renewed interrogations, so that “I think” is embedded in and animating the unthought/ unconscious/materiality/other in which “I am.”

Exercise: Changing the rules

“Suppose taxpayers got to specify on their return forms what government services their tax payments must be spent on. (Radical democracy!) Suppose any town or company that puts a water intake pipe in a river had to put it immediately **DOWNSTREAM** from its own outflow pipe. Suppose any public or private official who made the decision to invest in a nuclear power plant got the waste from that plant stored on his/her lawn.” This exercise invites participants to consider the rules, identifying the incentives, punishments, and constraints govern the functioning of systems in which we are embedded. “The rules of the system define its scope, boundaries, degrees of freedom,” Meadows (1997) observes. “To demonstrate the power of rules, I ask my students to imagine different ones for a college. Suppose the students graded the teachers. Suppose you come to college when you want to learn something, and you leave when you’ve learned it. Suppose professors were hired according to their ability to solve real-world problems, rather than to publish academic papers. Suppose a class got graded as a group, instead of as individuals....

“Rules change behavior. Power over rules is real power.”

Collaborative versus Conventional Art

Art that opens space for a proliferation of voices is work that directly confronts the aesthetic and economic system of conventional art practice, revealing its rules and shaping paradigms. Suzy Gablik describes these: “Most artists still see art as an arena in which to pursue individual freedom and expression. Under modernism this often meant freedom from community, freedom from obligation to the world and freedom from relatedness” (2002, p. 7). Grant Kester (2005a) notes that the artist’s relentless assertion of self, and the repudiation of obligation to others, takes shape within a construal of subjectivity and objectivity that has profound ecological consequences. According to a culture in which property is a precondition for public agency, “The only way you can achieve subjectivity, and experience freedom, is at the expense of an ‘other’ person/thing which serves as the vehicle through which you actualize, experience and express that subjectivity. Within the larger economy (of identity-as-capital), there must always be something that you own or possess – a constant supply of material to be controlled or appropriated.... It is an active, acquisitive, transformative relationship in which the world exists as a vehicle for your own redemption and fulfillment as subject” (p. 25). Kester observes that in this construal of subject and object, the world is always resource rather than interlocutor (p. 19).

Kester (1999, 2000) describes engaged art practices as “littoral art” – an art of edges and transitions that transgresses existing systems of knowledge-construction, challenging the shaping paradigms of subject and object to refashion the artist’s individual self-expression and the work of art’s encounter with the world. He writes, “It is necessary to consider the Littoralist work as a process as well as a physical product, and specifically as a process rooted in a discursively-mediated encounter in which the subject positions of artist and viewer or artist and subject are openly thematized and can potentially be challenged and transformed. I am particularly interested in a discursive aesthetic based on the possibility of a dialogical relationship that breaks down the conventional distinction between artist, art work and audience – a relationship that allows the viewer to ‘speak back’ to the artist in certain ways, and in which this reply becomes in effect a part of the ‘work’ itself.”

For engaged artists, a collaborative aesthetic is an important trajectory through which we might unlink the work of art from the “possessive individualism” (Kester 2005a) of modernist subjectivity and post-modern cynicism. Differences between collaborative and conventional art described by Kester and others are explored in the table below:

Collaborative Art	Conventional Art
Enactment	Representation
Process	Object for consumption – “bitter pill”
Somatic knowledge	Intellectual knowledge
In time: reciprocal, durational	Out of time: withdrawn from process
Not transmitting knowledge but honoring a process that is itself generative, restorative and transformative “Truth is not one thing, or even a system. It is an increasing complexity.” (Adrienne Rich)	Artist as teacher, truth-teller, provoking transformational shock via confrontation with (stupid) audience
Collective work, participatory intelligence: Artist as initiator and facilitator of an extended process of exchange with the community.	Art as the “product of the artist’s unfettered, expressive self”; The artist’s “promethean subjectivity” asserted through invention (Kester, 2005a, p. 20)
Memory, restoration	The shock of the new

The goal of collaborative and participatory artwork is not just to acknowledge our dependence on others but to develop an interdependence, to work it, to allow it – to become skilled practitioners of interdependence through a “reciprocal, durationally extended process of exchange” (Kester, 2005a).

Tim Collins, a well-known environmental artist and Director of the Centre for Art, Design, Research and Experimentation at the University of Wolverhampton, UK, posits a “focal point of critical engagement with transformative (social and environmental) practices” in “the dialogue that has the potential to change us, and at the same time forge new bonds off social connectivity and emancipatory desire which can lead to action.” He suggests questions that invite critical engagement with artwork that is not contained in a material product: “Is there evidence of original thinking and unique language (visual, verbal, written text, symbol, narrative or metaphor) in the dialogic

exchange that attends the work? Does the work subvert the dominant consciousness and elicit a sense of creative social connectivity amongst its collaborators, participants or viewers?" (2007).

Tim Collins photo: definitions informing the work of "3 Rivers, 2nd Nature" (Pittsburgh). Used with permission.

Public art is the expression of a single author or collaborative professionals in a place, deemed public.

Community art is the expression of a creative author in relationship to, or with a specific community.



Art activism is the external critique and manipulation of existing social political systems, symbols and content.

Art and radical planning integrates critique, citizen engagement and strategic creative manipulation of systems, symbols and content. It is a dialogic process of creative inquiry and manifest intent.

Exercise: Identifying Embodied Knowledge

The notions of “freedom from community, freedom from obligation to the world and freedom from relatedness” (Gablik, 2002, p. 7) that Gablik identifies as root metaphors for contemporary artists are also shaping paradigms in contemporary educational systems. Chet Bowers explores how deep cultural assumptions about the value of individuality and the shape of agency inform both current educational systems and its critics. The high-status knowledge conveyed and constructed in universities is designed to produce autonomous, rational, critical, self-directed individuals. These free individuals are emancipated from all forms of communal authority and responsibility. They function well inside an extractive economy, in active, acquisitive, transformative relationship with the world around them. The knowledge, skills and patterns of interaction that contribute to participation in an ecologically grounded, intergenerational community are actively undermined by this educational system. Bowers lists the following questions through which he invites his students to explore and develop a different kind of knowledge. This can be described as the knowledge embodied in functioning systems: a participatory intelligence we need to cultivate for sustainable citizenship in local ecosystems.

- Who are the mentors in your home community and what do they contribute?
- Who are the elders, and why are they important?
- What are the networks of mutual aid?
- What are the characteristics of a life based on the principles of voluntary simplicity?
- How can the interdependence of rural and urban economies and ecologies be strengthened?
- Which intergenerational skills and knowledge represent an alternative to meeting personal needs through consumerism?
- What are the areas of community life in which a barter system can be utilized?
- What is your community’s source of fresh water, and where do the wastes go?
- What are the patterns of animal migration in your bioregion?
- What are the native plants and animals, and which are now threatened with extinction?
- What features of the land are most likely to be affected by extreme weather conditions, and thus are unsafe to build on?
- Are there narratives that contain wisdom about culture- nature relationships that were not understood by previous generations and still go unheeded today? What are they?
- How have the experiences of place influenced your personal sense of identity and values?

(Bowers, 2001, p. 153)

Exercise: Short Term and Long Term thinking

Meadows (1997) observes: "A complex system usually has numerous negative feedback loops it can bring into play, so it can self-correct under different conditions and impacts. Some of those loops may be inactive much of the time—like the emergency cooling system in a nuclear power plant, or your ability to sweat or shiver to maintain your body temperature. One of the big mistakes we make is to strip away these emergency response mechanisms because they aren't often used and they appear to be costly. In the short term we see no effect from doing this. In the long term, we narrow the range of conditions over which the system can survive.

"One of the most heartbreaking ways we do this is in encroaching on the habitats of endangered species. Another is in encroaching on our own time for rest, recreation, socialization, and meditation."

Invite participants to identify emergency response mechanisms in their bodies and their environment.

- How do these emergency response mechanisms support our survival over the long term?
- What are the known effects of stripping these emergency response mechanisms away?
- What might be the unknown effects of stripping these response mechanisms away?
- When is short-term thinking more appropriate than long-term thinking?

Water

Systems thinking is fostered by the contemplation of water's inarguable unity: through time, through every living thing, around the world. Tides ebb and flood, linking continents. Blood circulates, continually replenished. Rivers flow to the sea, carving canyons into mountainsides. Water is constantly moving, and it is always there. It flows around or below any obstacle. And we are all more water than we are anything we can call our "selves"; the average human body is 70 percent water.

The crystals formed in frozen water reveal change when specific, concentrated thoughts are directed towards them. The crystals formed by water from clear springs, and water that has been exposed to loving words, show brilliant, complex and colourful patterns. In contrast, polluted water, or water exposed to negative words, forms incomplete, asymmetrical patterns with dull colours. The implications of this research by Masaru Emoto (2004) provoke a systems awareness of how we can change the physical world through individual thoughts and community projects.

Betsy Damon: *Living Water*

Betsy Damon is an artist who has dedicated her work to water for more than thirty years. In 1995 she developed a project in Chengdu, China, where three friends urged her to work on the filthy river in the heart of this bustling city of 11 million people. Despite the enormity of the task and the seeming impossibility of obtaining government permission for the project, Damon began. She made a pilgrimage to the headwaters of the river, in Tibet, and engaged the participation of several Tibetan artists. Developing plans for the projects with scientists and artists from China, Tibet and the USA, she sought and finally obtained government permission. Teacher training programs throughout the province initiated water monitoring programs. Art events began with a performance of “Washing Silk” in the Fu-nan River. Damon describes the project: “The river was once called the brocade river because when silk was washed in the river it became brighter. Dressed in white with red gloves, the artists rinsed long stretches of white silk in the river water. The silk turned brown and grey. This event was stunning and went right to the heart of the people of Chengdu” (1995). With a panoply of art projects, dissemination of information on water quality, and mass media coverage culminating in a program broadcast nationally, the project had a profound effect on individuals and the community. On its completion, Damon was invited to create a six-acre public park in Chengdu which was built in 1998. The park features an award-winning passive water-treatment system designed by Damon, various flow form sculptures and an environmental education system. In 2000, she returned to China to work with the Beijing Water Bureau.

Betsy Damon is also the founding director of the “Keepers of the Waters,” an organization that supports and encourages communities around the world to engage in interdisciplinary water projects that combine art, science and community involvement to restore, preserve and remediate water sources.

Exercise: The Harvest Game

Dennis Meadows (January 2005) generously offers this version of “The Harvest Game” – an exercise we can use or adapt to foster systems thinking. He comments: “Some features of this exercise were originated and used by others, long before I came along. But the exercise described below has unique characteristics for which I am responsible. It is in the public domain, and it may be copied and adapted by anyone for any purpose. It would not be correct to give me full credit for this game. I do not know its parentage.... A slightly more complex version of Harvest, based on teams, is described in the *Systems Thinking Playbook*.”⁴ (A well-known computer game, *Fishbanks Ltd.*, was Meadows’ first formulation of the Harvest game.)

Supplies

To run the game you need one medium-sized bowl, a whistle or bell, and 150 – 200 pieces of candy.

Participants

The game may be run for groups of from 3 to 15. [Participants represent either single fishers or small groups of fishers who go out on the ocean.]

Objective

To maximize their profit, over the long term.

Player Instructions

Here is a bowl with 50 pieces of candy in it.

In just a moment I will blow my whistle to start the first round. Then all of you will have 5 seconds to take from the bowl as many pieces of candy as you wish to or are able to grab.

After 5 seconds I will blow my whistle again, and you must stop.

⁴ Sacha Kagan (2008, personal correspondence) recommends the *Systems Thinking Playbook* by Dennis Meadows and Linda Booth Sweeney as a useful resource for teaching systems thinking.

After you stop, I will count how many pieces of candy are left in the bowl, and I will double them or bring the total up to 50, whichever requires fewer pieces of candy. So, for example, if you left 35 pieces in the bowl, I would add 15, making the total for the next round 50. If you left 20 pieces in the bowl, I would add 20.

After I have added the required number of pieces of candy, I'll give you a few moments to consider your strategy, and then I'll blow the whistle again to start the second round. In that round each of you will once again have 5 seconds to take as many pieces as you wish to or are able to grab.

After 5 seconds, I'll stop the round, count the candy, add the necessary pieces, and give you few moments to consider your strategy. Then I'll blow the whistle for the third round.

We will continue in this way for several cycles.

Your goal is to get as much candy for yourself as you can.

Facilitator Notes

I usually try to blow the whistle for the first round before they have a chance to talk about a common strategy. But after that, if they ask about the possibility of talking together, I say they should do whatever they feel will let them maximize the amount of candy they can get. If they ask how many rounds will be played, just say, "We'll do this for awhile, until I decide to stop."

Debrief

One key issue in the game is the choice between collaboration and competition. Collaboration requires joint decision making, coordination, and trust. It is useful to get the participants to share their thoughts, observations, and strategies on this choice and to discuss where and how this choice confronts them in real life.

The game introduces a concept analogous to "Maximum Sustainable Yield" in a renewable resource system. If the participants take the candy to zero, you do not add any more for the subsequent rounds. But blow the whistle anyway for several more rounds, so they can experience intensely the frustration of going to an empty bowl. If they do not take any candy, leaving it at 50, you also do not add any. By taking enough candy in each round that the bowl is left with 25 pieces, the participants can maximize the amount that you must add each round.

Of course, over the long term, they cannot take out on a sustainable basis more than you put in. You can draw a graph to make this clearer. On the horizontal axis is “Number of pieces at the end of the round” ranging from 0 to 50. On the vertical axis is “Number of pieces added” ranging from 0 to 25. The data curve has the shape of an equilateral triangle with its peak at the point (25,25). Engage them in discussions about where this kind of regeneration confronts them in real life. The relation to fisheries, forests, and ground water is obvious. The game also makes points about softer resources, like faith in government.”

Dieleman and Huisingh (2006) comment “The game shows, in a marvelous way, how and why the ‘tragedy of the commons’ occurs and what mechanisms account for it. The game provides much valuable input for extensive debriefing on what needs to be changed in our way of collaboration in order to achieve sustainable development.”

Care of the Soil

a handful of earth
cries aloud
i used to be hair or
i used to be bones
- [Rumi](#) (n.d.)

“In our culture, soil gets little respect. Most of the words for this fundamental substance are derogatory.... We hold at arm’s length anything soiled, dirty or muddy. Yet soil is miraculous. It is where the dead are brought back to life. Here, in the thin earthy boundary between inanimate rock and the planet’s green carpet, lifeless minerals are weathered from stones or decomposed from organic debris. Plants and microscopic animals eat these dead particles and turn them into living matter. In soil, matter crosses and recrosses the boundary between living and dead....” permaculture maven Toby Hemenway comments. (2000, p. 57).

Systems thinking allows us to see and cultivate this repudiated dialogue between life and death, recuperating abjected substance and the miraculous unity of animate and inanimate things. Care of the soil is care of the soul.

“I dream of a place between your breasts
to build my house like a haven
where I plant my crops
in your body
an endless harvest
where the commonest rock
is moonstone and ebony opal
giving milk to all my hungers
and your night comes down upon me
like a nurturing rain.”
- Audre Lorde, (1978, p. 82).

Mel Chin: *Revival Field*

“Plants are the new art,” sculptor Mel Chin decided in 1990, when he read about the use of plants as hyperaccumulators that could absorb toxic metals and restore health to poisoned landscapes. “We live in a world of pollution with heavy metals saturating the soil.... [If pollution] could be carved away, and life could return to that soil, then a diverse and ecologically balanced life, then that is a wonderful sculpture.”

Working in partnership with a scientist, Chin designed and built the project *Revival Field* at Pig’s Eye Landfill in Saint Paul, Minnesota. Sue Spaid (2002) describes the sculpture project as “the first such on-site experiment in the United States and one of only two in the world.” Chin and his partner Chaney “selected one cadmium and one zinc hyperaccumulator (*Thlaspi caerulescens*) and two other known indicators of metals (*Silene cucubalus* and hybrid *Zea mays*). Merlin red fescue and romaine lettuce were also included to test for metal tolerance and food chain influence. From the 96 plots designed to assess different soil and pH treatments, they discovered that *Thlaspi* samples absorbed the most zinc and cadmium. The results provided data essential to confirm laboratory tests and create a new technology.”

Chin says the aesthetic of *Revival Field* “relates to my interest in alchemy and my understanding of transformative processes and the mutable nature of materials. The contaminated soil is transformed back into rich earth, capable of sustaining a diverse ecosystem.”

Read an interview with Mel Chin and watch a 1-minute cartoon that explains the science at <http://www.pbs.org/art21/artists/chin/clip2.html#>

Death

The great sea
Has set me adrift,
It moves me as a weed
in a great river,
Earth (Nuna) and the Great Weather (Sila)
Move me,
Have carried me away
And move my inward parts with joy.

– Song of the Igloodik female shaman, recorded in the 1920s
cited by Rachel Attituq Qitsualik (2004)

By cultivating the illusion of safety, we hold the world at arm's length. But we cannot have life without death. There is only a shriveled semblance of life, parched by withholding. So much of contemporary society seems intent upon avoiding risk. Old age is approached as a disease to cure. Science intends to conquer disability. Children are confined to playpens. We love nature by “preserving and protecting” it, instead of becoming it, or inviting its interlocutory intervention into our politics. Culturing sustainability means using systems thinking to perceive and to practice our unity, in time, with all that is other.

After eco-philosopher Val Plumwood barely survived a crocodile attack in 1985, she focused much of her subsequent work on death and its part in nature. She writes (2007), “By understanding life as in circulation, as a gift from a community of ancestors, we can see death as recycling, a flowing on into an ecological and ancestral community of origins. In place of the western war of life against death whose battleground has been variously the spirit-identified afterlife and the reduced, medicalised material life, the Indigenous imaginary sees death as part of life, partly through narrative, and partly because death is a return to the (highly narrativised) land that nurtures life.

“Such a vision of death fosters an imaginary of the land as a ‘nourishing terrain’, and of death as a nurturing, material continuity with ecological others, especially the lives and landforms of country.”

With systems thinking, we see that life does not stand opposite death; aliveness is not resident in a different system from dying. Rather, the ecological system of aliveness/dying in which we are materially embedded can be said to stand opposite a psychic and cultural system of numbness or resistance to aliveness/dying.

“Listen more often to things than to being
Listen more often to things than to being
'Tis the ancestor's breath
When the fire his voice is heard
'Tis the ancestors' breath
In the voice of the water, now
Whoosh—shhh-wshhhh”

– *Birago Diop, (n.d.)*

Doran George: a Culture of Bereavement

UK artist Doran George explored this refusal of death and grief that seizes the heart of contemporary culture with an interdisciplinary art residency at Chisenhale Dance Space, London, 2007 (George and Schmidt, in press). George developed the project after the loss of his father in 2006. He writes, “When someone dies, we don’t know how to talk to those around us, and they don’t know what to say either... The expression of emotion, in body-based art forms, is suited for the rawness of loss when words fail.”

In his various approaches to the project, George explored the ways in which his performance practice might deal with the *actuality* of grief, rather than simply illustrating it, while acknowledging with Theron Schmidt that “An artistic approach to bereavement would be less about finding new ways of achieving recovery than it would be about exploring bereavement with ‘curiosity’, creating spaces for discoveries without knowing what form or use those discoveries might take” (George and Schmidt, in press).



Image of
Doran George
from
<http://www.chisenhaledance.space.co.uk/interface.htm>
Used with
permission.

Schmidt writes, “The idea behind *The Mourner’s Dance* was to bring together the different disciplines of experimental art practice and health and welfare practice. However, Doran quickly found that this approach would put him outside the remits of both fields. A prominent medical figure in the field of recovery was interested in Doran’s project, but warned that he or she would only be able to be involved if there were sufficient controls in place to ensure the welfare of the participants and also to be able to measure the effectiveness of the recovery process – in other words, a strict scientific model in which the effectiveness of a hypothesised outcome could be measured within expected parameters, and in which nothing unexpected could occur. On the other hand, a leading curator within the field of Live Art practice told Doran that he or she could only engage in dialogue about work which was conceived as broader provocation around these issues, but not work which was intended to promote specific healing and recovery on a personal level.”

George conceived a potential “culture of bereavement.” By investigating his own bereavement, he would shape a space of possibility for people to imagine and create a place for death and grief in an emerging culture. He developed a list of methodologies (reproduced in part below) as approaches to this work. (These methodologies were developed early on in the residency and changed a great deal in practice. See George and Schmidt, in press.)

Doran George: Methodologies in Performance Looking at Bereavement

(Used with permission)

I have written these methodologies in the first person possessive. I can imagine at some point they could be turned into suggestions or even instructions. But at this point in my own bereavement, I couldn't take instruction so I feel too vulnerable to give it.

Conversation and time

....There's a kind of poetics of human connection to it all that can't be skipped over, that has it's own pace. The conversation has to go where it wants without the concern of what being achieved. I have to follow the desire to talk, and be aware when I reach your capacity with talking. I have to remember not to push it or allow myself to be pushed because there's always something that lies beneath what we know that is essential to the work.

Yes and No

There is often a yes and the no in the conversations, places of sameness and difference. They direct us to where we need to go in the work. The yes and the no in conversation are the points of connection with another person in a conversation/collaboration. They are both meaningful. They are pointers in the collaborative journey. It sounds simple, but it took me a long time to accept that I could sit with a “NO” or an “I'M NOT SURE ABOUT THAT,” even if I didn't have a “YES” to retort with. Places of disagreement, uncertainty and agreement are all pathways toward the new territory that the collaborative practice of working with someone on bereavement entails.

Writing

....I open up to the unexpected and write what needs to be written, my feelings about the person who has died, about my family, friends, other significant others who became important. I have also written other feelings, issues, problems that have no logical connection to bereavement but are on top.

Objects/Activities

I've gathered objects of significance, and allowed anything to have significance even if it defies logic, is superstitious, seems emotionally scary or crazy, I've tried not to censor it. The object of significance can be material things, actions, ideas, practices or activities....

Continuity of objects

Think of the object as material that can be changed. In changing the form its significance changes. Things can be burned, baked, buried, immersed in water, broken up, reassembled, framed, written on etc. etc. The residue of the object that's undergone change is also significant. The residue of actions, or of things that you have done to objects can be kept, that actions can be photographed, filmed. The objects or their residues, films, photographs can also be brought into contact with body, worked with through body practices, projected onto the body.

Physical Places

Places that have significance... places that can and can't be visited. These may be directly related to the person, but also might be just related to the feeling, a feeling.

Body Practices

I'm interested in body practices where we can experience ourselves beyond the familiar as a way to mark or honor the significance of mortality physically. Ways to bring us into contact with our physical and psychological limits and ask us to go beyond them, and by doing so change our sense of ourselves. This can happen with stillness, temperature change, bringing the body into contact with materials that are taboo in contact with body like food, and also engaging in archaic ritual practices around the body that have 'sacred' significance.

Encasement of the body

Being wrapped/encased is an intense physical and mental process that offers a gateway into experiencing yourself differently. You take a journey through a set of practical concerns that open up psychological/emotional possibility. Constraint, Protection, Concealment, Safety, Helplessness, Solace, Subjugation, Receiving tenderness. When the layers go on it can feel unfamiliar, perhaps a little uncomfortable but it becomes familiar and can be comforting. With materials such as plaster, gaffers tape and other strong materials you are able to relax your body inside the support of this outer shell that is being created on you.... When you start to cut yourself out it can also feel unfamiliar, like you don't want to come out perhaps, and then as you go you'll find the cutting out can have the feeling of breaking into freedom, or struggling to release yourself from something. The person being encased is giving up a lot of control, and the transitions between stages are delightfully rich with complexity and potential growth. A delicate relationship of responsibility and care can emerge between the person encasing and the person being encased. There is something almost sacred in this relationship.

Movement Practice

"Scores," or active images for contemplation that are significant in the process, can be constructed ... as an initiator of movement. This might involve working with a specific memory, feeling, or question.... "Allowing" the body to move from a place where I am contemplating the issue at hand and being mindful of thoughts and feelings that come and pass....

Waste = Food

“Missing feedback is a common cause of system malfunction. Adding or rerouting information can be a powerful intervention, usually easier and cheaper than rebuilding physical structure,” comments Donella Meadows (1997). The economic-cultural-social systems we participate in have externalized information crucial to their continuance. Nowhere is this more obvious than in our treatment of “waste.”

The cradle-to-grave design paradigm of manufacturing systems since the Industrial revolution has produced its awful consequences by treating aspects of the process of production and consumption as waste that can be externalized in landfills or postponed to future generations. Price signals are disconnected from damage to society and the environment. By adopting a “cradle-to-cradle” paradigm for design, modeled on living systems, William McDonough and Michael Braungart (2004) invite us to “Imagine a world in which all the things we make, use, and consume provide nutrition for nature and industry—a world in which growth is good and human activity generates a delightful, restorative ecological footprint.” In living systems, waste equals food, and by basing all design on living systems, we can create products, buildings, and regional plans that allow inhuman and human economies to fruitfully co-exist.

“Conventional growth runs like a ‘conveyor belt’, turning free resources from nature into saleable products and then into accumulating wastes in the air, land and water (or ‘ecosystem waste’). Success with this ‘linear’ growth model means running the conveyor a bit faster every year; taking, making and dumping ever more, without meeting more people’s needs. Conventional ‘solutions’ try to slow down the conveyor by constraining its emissions (or other unwanted effects) when the underlying problem is that the entire model is obsolete,” writes economist James Greyson (2007).

Waste = Food means that we use waste as a resource, closing the feedback loops, and recuperating information crucial for system functioning. Instead of flushing away our bodies’ abjected contents in sewer systems that make a problem out of a solution, we might find ways to “take care of our shit” and reclaim it as a precious resource. For Madhu Suri Prakash (2008), this move is vital for ecology, society and spirit. He notes: “More than 40% of the water available for domestic purposes is used everywhere for the transportation of shit. And this causes problems of health and serious pollution of soil and water... Mixing three marvelous substances (water, urine and shit), we concoct a poisonous industrial cocktail. At an extremely high cost, we try to separate them again, in treatment plants. Since it is virtually impossible to do that, we produce, instead of water, H₂O plus chemicals, which additionally pollute the world and create problems of public health” (p. 15). Referring to Gandhi’s integration of “Bread Labour” – including cleaning

latrines – with a social vision and spiritual practice, Prakash notes that although education and development relentlessly operate to separate the privileged from their shit, “A bucketful of soil collected from our own backyards, combined with some lime, is all we need to disconnect ourselves from unsustainable practices” (p. 16).

Nancy and John Todd: Living Machines

“Pollution problems resulting from the disposal of human waste are relatively new phenomena. For thousands of years, our body wastes were an intricate part of the planet’s natural recycling system, providing food and fuel for the microorganisms at the bottom of the food chain. But with the huge growth in world population and the concentration of that growth in urban centers, human waste has been disconnected from the cycle. Today our wastes seem to miraculously vanish simply by flushing the toilet. But that’s where the problems begin,” comments Mary Guterson (n.d.) in an article on the work of Nancy and John Todd. The Todds founded the Center for the Restoration of Waters at Ocean Arks International (OAI) in 1981, a not-for-profit global center for water awareness and action. OAI’s goal is to introduce sustainable alternatives to conventional waste disposal, fuel production, heating and cooling, air purification, and food production through engineering systems that are ecologically complex, but mechanically simple. By combining living organisms – chosen specifically to perform certain functions – in contained environments called “Living Machines,” OAI has completed 80 ecological waste treatment projects worldwide.

Says John Todd: “A Living Machine is basically a home for a wide variety of organisms, in some cases thousands of species, which serve a function that helps assist human needs.”

Nancy and John Todd (n.d.) describe their work on the [Ocean Arks International](#) website: “Much of our current work is based on the concept of linking normally unconnected sectors of society’s infrastructures. This stage has been labeled industrial ecology. In broadest terms, industrial ecology creates symbiotic systems throughout society which share and exchange resources internally just as ecosystems do in nature. Industrial ecologies can have high overall efficiencies because of resource sharing. Also, pollution can be mostly, if not completely, eliminated as one component’s waste is another component’s energy, nutrient or materials source.”

Patricia Johanson: Survival Sculptures

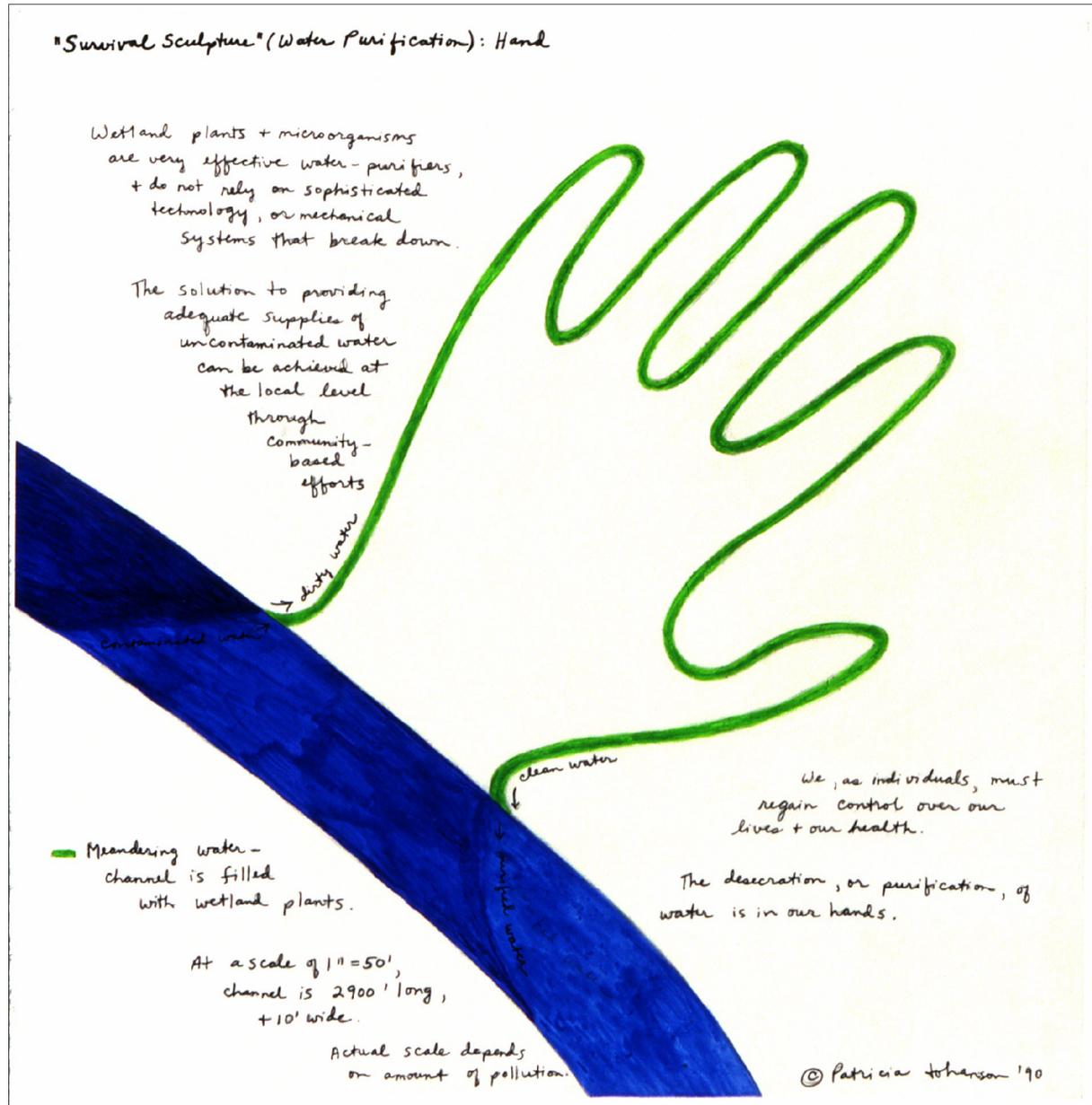
In the 1990's, environmental artist Patricia Johanson created a series of Survival Sculpture designs for Nairobi River Park in Kenya. She describes the project:

“A major component of the park is a series of environmental sculptures...whose primary purpose is water purification. The images in the sculptures...are universal symbols associated with regeneration and the living world, and the configurations are placed alongside existing bodies of polluted water. The forms themselves, constructed as long, narrow, meandering channels and shallow wetland ponds, range from two to three feet deep, and are thickly planted with aquatic vegetation (bulrushes, cattails, reeds, and sedges) and filled with microorganisms, such that suspended solids sink to the bottom and are decomposed by bacteria. Water is diverted into these natural filtering systems (‘functional sculptures’) whenever pollution becomes dangerous and cleansed water is returned to the river after its ‘journey of purification.’” (Johanson cited in Kelley, 2006).

“The self is at once itself but, fundamentally, all other things. It does not just belong to the world; it is the world.”

– Elizabeth Lange (2004)

Patricia Johanson,
Survival Sculpture (Water Purification): Hand, 18" x 18", acrylic and ink, 1990. Used with permission.



Points of Instability

According to the well-known narrative, the modern worldview emerged when an integrated, hierarchical cosmic order, animated by spirit, was displaced by a world of observable, describable components. As the old worldview was undermined by social and economic changes, and “as the unifying bonds of the older hierarchical cosmos were severed, European culture increasingly set itself above and apart from all that was symbolized by nature,” Carolyn Merchant writes (1989, p. 143). For Francis Bacon (1561-1626), often described as the father of modern science, “nature takes orders from man and works under his authority” (cited by Merchant, p. 171).

Hooker (1996) notes that this worldview remaps the landscape, separating the human from its enmeshment with nature and spirit “to privilege human beings and the uniquely human perspective....” As nature takes on a new configuration, identity and difference can be established, measured and positioned in a rational order that allows an extension of human rights to men at the very outskirts of humanity. Beyond these borders the inhuman (nature, slaves, animals, women) comes to exist as a world of disassociated objects that can be observed and exploited by man.

Feverish colonization and the Inquisition’s pursuit, torture and murder of witches and sodomites comprise the seething social background to this paradigmatic cultural change. Merchant (1989) observes that as the new science of nature that emerged in the context of a hotly debated controversy over women’s “natural” roles and the prosecutorial murder of witches, it used the Inquisition as a model for knowledge-finding inquiry that was explicitly cited by Francis Bacon and others. Foucault comments, “empirical knowledge that covered the things of the world and transcribed them into the ordering of an indefinite discourse that observes, describes and establishes the ‘facts’ (at a time when the western world was beginning the economic and political conquest of the same world) had its operating model no doubt in the Inquisition....” (1977, p. 16).

The shaping presence of this worldview in contemporary industrial society and postmodern culture is clear, and the image of nature as describable and controllable by rational understanding and scientific method continues to dominate culture, politics and economics. But anti-colonial struggles, anti-racist activism, animal rights activism, women’s liberation, gay liberation and the environmental movement all challenge this worldview from the margins: they claim space and agency for the disenfranchised and inhuman; they challenge the authority and integrity of knowledge-systems. Aligned with these social movements and culturing sustainability, artists and educators (along with archetypal

psychologists) speak of recuperating shadow projections and integrating the other, the inhuman, and the un-lived life with our own self-knowledge.

Gender, race and nature remain interconnected areas of vast unease in contemporary society and culture. Sites of deep-rooted cultural anxiety, they can be described as “points of instability” that potentially function – in systems terms – as “leverage points,” or places within a complex system where small shifts can produce big changes. As educators and artists we might exacerbate their contradictions and cultivate the aliveness of shifting meanings.

bell hooks (1990) writes of “choosing the margins as a space of radical openness.” Gruenwald (2003b) notes that marginal spaces hold alternative ways of being and give us new language to analyze the dominant culture. Whereas conventional education is about empowering people by bringing them into the centre, systems thinking points to the vitality of the margins and the importance of developing knowledges through communities of resistance. “The margin...is both a metaphorical and material space from which relationships of oppression might be reimagined and reshaped” (Gruenwald p. 631) – and a standpoint from which an oppositional worldview is constructed. In the margin, gender, race and nature are contested by culture-makers and occupied by social change movements, making these knowledges into chaotic, dynamic spaces where paradigmatic shifts and system transformations may suddenly emerge.

The Inhuman

Bruno Latour (2004) suggests that instead of seeing the social as a prison that stands opposite nature, we might more productively view the social as a shifting collectivity into which newly-recruited non-humans are assimilated. He asks what political institutions can be forged or adapted to redistribute speech between humans and non-humans, “while learning to be skeptical of all spokespersons” (p. 62, 232).

Thinking the inhuman can be seen as the key movement of thinking nature. Latour (2004) writes, “...if we take nature away, we have no more ‘others,’ no more ‘us.’ The prison of exoticism suddenly dissipates. Once we have exited from the great political diorama of ‘nature in general,’ we are left only with the banality of multiple associations of humans and non-humans” waiting the work of collection into a unity of those who live upon a common earth (p. 46). Sandilands (1999) calls for a form of analysis that can shift to a “questioning of specificities through the recognition of polyvocality – but also with a direct confrontation with the bifurcating categories of human and nonhuman experience” (p. 74).

Latour (2004) notes that political philosophies – and emancipatory struggles – have focused exclusively on human politics, “leaving most questions to be sorted out elsewhere, in secret...in an assembly of nonhuman objects that were undertaking mysterious operations to decide what nature was made of and what sort of unity we humans formed with nature.” (p.53). He argues that we need to refuse to collect the world into the categories of human (the social world of politics) and inhuman (the natural world that is the realm of science), and refuse also to seek a reconciliation or unity between these two ruined opposites. Politics can become instead the convocation of a new unity that rejects this bifurcation.

Perhaps the fact that who and what counts as human changes drastically across cultures and in different historical periods is self-evident to women (white women became persons in Canada only in 1929; Aboriginal women’s personhood is still legally and socially contested), and to queers (who in this country – though not elsewhere – are barely enfranchised at the contested edge of humanness). The contested boundary between human and inhuman also functions in establishing “racial” difference. Isolated from the inhuman, Western thinkers need exotic “non-Western” people to mediate between themselves and nature (Latour, 2004).

More human		Less human
privileged		exploited
Culture		Nature
Mind		Body
Citizen, subject		Disenfranchised, object
Deracinated (White)		Racialized (Colour)
Science: "evidence" of difference; the production of (racialized) knowledge and naturalization of (racial) difference		Politics: Emancipatory struggle = contestation of (human) privilege

Democratic struggles create new collective identities and “mark alternative sources of strength and legitimacy to some extent outside (or on the margins of)...dominant codes of meaning” (Sandilands, 1999. p. 42). But is the democratic struggle always and inevitably one which strives to center this new identity, to naturalize and normalize it as fully human and thereby identical with power, subjectivity and citizenship (without questioning these dualisms that structure our political aims and replace our capacities for imaginative engagement with the world)? What would it mean instead to allow or listen to the inhuman in both self and other? Such an approach suggests fostering strangeness, inviting the inhuman as interlocutor, and, as M’Gonigle and Stark (2006) advocate, allowing place its agency in shaping human affairs (p. 65).

Lynne Hull addresses this issue by developing a “trans-species art.” She creates her sculptures as habitats for wildlife whose territory is vanishing because of human interventions. “Hull proposes ‘EcoAtonement Parks,’ or community healing places, where we can restore devastated sites and come to terms with ‘the wounds left from our war against nature’” (Lippard, 1997, p. 130).

Perhaps even more telling in its address to the human/inhuman divide is a remarkable work of public art organized by native women on the downtown Eastside of Vancouver every Valentine's Day since 1992. Hundreds of people gather to honour the memory of women who have been murdered in the area. At a smudge ceremony they name the dead women, and form a healing circle to honour their lives. The group then marches through the streets, stopping periodically at sites where women have died violently.



1992 Valentines
Day
Demonstration.
Photo: Caffyn
Kelley

The Valentine's Day demonstration works on multiple levels: it is at once art, social analysis, ceremony and media event. The occasion is one of solidarity and community resistance. It asks that we see patterns, take sides. At the same time, the event reveals the city as a whole community, where some profit and others die because of their class, race and sex. The ironic choice of Valentine's Day as a date for the demonstration implicates the whole culture of desire. It invites recognition of the process through which these women are deprived of humanness by the dominant culture, where they are voiceless objects of a desire that is forever disavowed. It asks whose interests are served by unlinking the practice of prostitutes frequented by suburban men from the privileges and precariousness of suburban women. The annual demonstration began thirteen years before the teeth and toes of dozens of murdered women were discovered on a Port Coquitlam farm where the women had been butchered and fed to pigs.

Latour (2004) comments that where Western culture has described (and created) the social as a prison that stands opposite nature, we might more productively view the social as a shifting collectivity into which newly-recruited non-humans may be absorbed. With this view, we can undertake the work of collecting and recruiting tangled beings who are both (or neither) human and inhuman. The Valentine's Day demonstration does more than demand the substitution of a positive ("human") representation for a negative ("inhuman") representation in the dominant culture; it refuses to produce this happy ending. Instead of telling a seamless narrative, it establishes a dialogical space in which new collectivities can potentially be forged.

Exercise: Council of All Beings

Johanna Macy (n.d.) writes, “According to theologian Thomas Berry in *The Dream of the Earth*, the ‘shamanic personality,’ which can understand and speak for other life-forms, is essential to our survival. It helps us to break free from our culture’s anthropocentrism and dispel the trance of industrial civilization. The life-giving powers shaping creation from the beginning of time are still present within us.... They exist as “deep spontaneities,” accessible through the imagination.” Johanna Macy and John Seed together developed the idea of “A Council of All Beings,” a workshop in which nonhuman lifeforms speak through human participants.

“As Lichen, I turn rock into soil. I worked as the glaciers retreated, as other life-forms came and went. I thought nothing could stop my work; but now I’m being poisoned by acid rain.”

“Humans! I am Mountain speaking. For millennia your ancestors venerated my holy places. Now you dig and gouge for the ore in my veins. Clearcutting my forests, you take away my capacity to hold water and release it slowly. See the silted rivers? See the floods? In destroying me, you will destroy yourselves.”

“I, Condor, give you my keen, far-seeing eye. Use that power to look ahead beyond your daily distractions, to heed what you see and plan.”

You can find a Resource page on running a Council for All Beings at <http://www.rainforestinfo.org.au/deep-eco/coab.htm>



“In my practice, I become acquainted with various organisms, cultivating relationships. The acquaintance is developed outdoors – in the woods, on the beach – but the work is completed in my studio. The artworks that result from this process – whether sewn, bound, painted, written or planted – are essentially portraits, hopefully conveying something of each non-human persona I encounter, emphasizing the selves that help us, as Barry Lopez said, ‘in the quest to understand landscape not only as something that is living, but something that includes us and upon which we are subtly dependent’. That is, an animate ‘landscape’ that consists of persons who require our care and respect for their survival and our own.”

– image and text by Basma Kavanagh, Engaged Art Network participant from Doha, Qatar. Used with permission. Copied from <http://islandsinstitute.ning.com/profile/basmakay>

Decolonization

“All of the world’s big problems are in reality very small and local problems. They are brought into force as realities only in the choices made every day and in many ways by people who are enticed by certain incentives and disciplined by their fears. So, confronting huge forces like colonialism is a personal and, in some ways, mundane process. This is not to say that it is easy, but looking at it this way does give proper focus to the effort of decolonizing.”

– Taiaiake Alfred (2005, p. 25)

The diverse and multi-faceted environmental justice movement is rooted in an understanding that the quest to preserve and protect the natural environment is irrevocably united with the elimination of racism and colonialism from all aspects of culture and society. “The widespread existence of degraded, hazardous physical environments in poor communities and among people of color is apparent and indisputable” (Tyson et. al. p. 1784-5). Poor people, people of colour and third-world people receive the displaced consequences of rich, white first-world peoples’ unsustainable lives. The 20% of the world’s population that consumes 80% of the world’s resources barely registers the effects of the environmental contaminants and climate change. Environmental degradation is a not-so-new colonialism dominating and displacing indigenous populations around the world.

Rasmussen (2005) comments on the “rescuer” mythology through which Euro-American civilization assumes “the mission of rescuing the rest of the world [with education and development], when, in fact, the rest of the world tends to view Euro-America as the culprit who through them overboard to start with” (p. 116-117). He urges us to examine the tools of rescue to see how they function not as life-preservers, but as life-eroders. The development paradigm means massively restructuring previously nonmonetized economies so that all things of value – food, shelter, land, clothing, medicine – are privatized, made scarce, and then sold back to individuals for money. The education paradigm means eviscerating oral cultures with “Individualized, competitive, argument-oriented literacy...[that] tends to cosmopolitanize and uproot civilizations; it breaks their multigenerational links and molds the atomized remnants into human rental units” (p. 123). Euro-American rescuers need to heed Gary Snyder’s (1995) advice on how to save the environment: ‘Stay Put.’As long as our way of life is causing most of the problems that the world has to deal with,

the best thing we can do is deal with our own way of life.... Figure out how to clean it up, slow it down, stop it.” (p. 127; 128). This will involve addressing the environmental contaminants that form the body burden of poor people, people of colour and third-world people. It will involve challenging deep-rooted cultural paradigms – including individuality, money, land-ownership, work – that are built into our experience of self and society. It will involve making open space that invites the emergence of counter-narratives to the overwhelming colonial narrative – space for telling innumerable stories that have been excised, repressed.

Gruenwald (2003b) describes decolonization and reinhabitation as two dimensions of the same task. Responding to assaults on human and biotic diversity in particular local places is an approach that problematizes Western patterns of uneven development, inviting scrutiny of overdeveloped cultures rather than problematizing the developing world.

Donna Haraway (1989) invites us to imagine, “What might a post-colonial reinvention of nature look like?” She cautions, “Western forms of love and knowledge of nature have been profoundly colonial; [but] knowledge of how this has been so cannot be allowed to degenerate into an excuse for losing an historical capacity to know, love and act in relation to the strange and dynamic category still somehow able to be called ‘nature.’” (p. 274). She writes of “negotiating the terms on which love of nature could be part of the solution to, rather than part of the imposition of, colonial domination and environmental destruction” (p. 275).

Katsi Cook: *Mothers' Milk*

“The woman’s body is the first environment,” notes Katsi Cook, (Tyson et. al., 1997, p. 7-8), midwife and principal investigator for The Mother’s Milk Project of First Environment Communications and the State University of New York, Albany, NY (SUNY). “The Awkwesasne Mohawk Nation sits at the convergence of three rivers into the St. Lawrence River in the Great Lakes Basin. This is a veritable sink and is basically a big septic system for industrial society.... Since the industrialization of the St. Lawrence in the 1950s, the cancer rate has increased exponentially in the Awkesesne people.” Cook initiated a project in which Mohawk mothers and SUNY researchers worked as co-investigators to monitor PCB levels in Mohawk mothers’ milk. One-hundred-twenty-five Mohawk women were trained as researchers. “From 1985 to 1991, Mohawk mothers had twice the level of PCB congeners in their milk as controls living near Albany.” As the project proceeded, community members, primary health care providers – both traditional Mohawk and Western scientist – and health research scientists came together to communicate with one another. For Cook “This was an especially significant development, because the Awkwesasne people have experienced generations of disrespect by authorities who built industrial complexes in the 1950s in the Great Lakes Basin: the Mohawk’s home site for generations. The Native American community has been subject to constant and repetitious devaluing of Mohawk tradition, culture, observation and assessments by institutions, and educational systems spurred by industrial complexes. Now, this community is in the position of brokering relationships with institutions on the basis of environmental justice principles: respect, equity, and empowerment.” The Mohawk mothers retained the right to access data gathered on them; this ensured that they could use the information to make responsible decisions regarding their own destinies and maintain control of their own lives.

The Mother’s Milk Project advised pregnant and nursing women to stop eating fish from contaminated waters, but Cook notes this was not an effective strategy, since fish was largely replaced by junk-food substitutes. The Project also launched a campaign against corporate polluters including Alcoa, General Electric, and Reynolds and helped establish the Six Nations Birthing Center to promote midwifery. The project continues to be a model project for research, advocacy, direct-service provision, and sustainable science.

Gender Transgression

The inhuman is a necessary constitutive of the human; unreason lurks menacingly at the border of reason and evokes the authority of its opposite. So do female and feminized stand with undiscovered nature in the silent, secret realm of the yet-to-be described by (masculine) thought.

Butler (1990) writes “Gender is not to culture as sex is to nature. Gender is also the discursive/cultural means by which ‘sexed nature’ or a ‘natural sex’ is produced and established as ‘pre-discursive,’ prior to culture, a politically neutral surface on which culture acts.” (p. 7). Haraway (1989) notes that in Western masculinist accounts “disconnection from the category of nature is essential to man’s natural place; human self-realization (transcendence, culture) requires it” (p. 282). The patriarchal “subject” is constituted in this disavowal of dependence on the other, the earth. She asks, “Can the heterosexual reproductive imperative be relaxed in knowledge – power fields enough to permit escaping the binary restriction on sex and gender? What kinds of evolutionary narratives could have more than two sexes or genders?” (p. 325).

What would nature look like, if gender transgression was sought and interwoven with desire and culture, ritual and sex? If queer is nature, then nature is polysexual and exuberant. The nuclear family is not after all the inevitable model for love and breeding. According to the paradigm of contemporary Western science, the natural world is ordered by competition and reproductive usefulness. It is a view that would have nature mirror the social regime of contemporary society, while it justifies the pillage of an insensate earth. Queering gender suggests new knowledge paradigms, evoking archetypes of cross-species sexuality and animal ancestors, and so a world of nature that is emotionally complex and culturally intricate, and a human life that unfolds in the lived understanding of biological diversity. Queering gender invites us to act and advocate for the wild.

Monique Wittig (1992) observes that the “straight mind” forms its idea of nature around an ineluctable heterosexual fact. The obligatory social and sexual relationship between men and women is the inescapable origin and end from which all phenomena are interpreted. Not only is the world ordered by a drive to reproduction and organized in breeding pairs. The whole non-human world is experienced as other. Nature is innocent, violent, illogical, helpless, endangered – in short, female. Man pits himself against it, saves it, deciphers it, fashions it to his needs. Systems thinking invites us to forgo this totalizing bifurcation into male and female and explore the fractal qualities of separations into gendered and queered.

Brent Davis (2004) suggests fractals as interpretive tools that can foster systems thinking. He notes that many of the terms we use in education are derived from Euclidian geometry: correct, standard, right, normal, straight, true – and that these come freighted with their antonyms, like warped, distorted, kinky, twisted, deviant, false. Inasmuch as fractals offer non-linear interpretive tools, they allow us to see and imagine a more complex world and more open process of coming to know.

Sandilands (2002) writes of how lesbian separatists in Oregon land communities have worked to pursue or create “imaginative leaps that opened the world to the possibility of living gender and nature differently” (p. 145). She advocates for a queer ecology that will produce a counter-hegemonic culture of nature, “drawing insight from queer cultures to form alternative, even transformative, cultures of nature” (p. 135). A queer ecology might involve an opening to the inhuman, allowing us to establish an “outlaw discourse” and “criminal conversation” between human and non-human beings (Haraway, cited by Sandilands, p. 192). A queer ecology might eschew the essentializing, anthropocentric tendencies of identity and identification (including taxonomies of species, gender, race), and allow us to instead choose complexity, fluidity and interconnection. In a nature that is made, constructed, constantly changing and changed, queer ecology might involve the intentional and creative construction of (temporary, provisional and pleasurable) sameness: strategic essentialisms.

Queer is identified with wildness – a concept not to be confused with the racist and imperialist concept of wilderness. Wildness is life energy, the intricate wisdom of natural systems, instinct, anima (breath, soul). Queer is strange, and Sandilands (1999) argues that ecology should preserve and foster strangeness. She writes, “Nature is gloriously strange; it is an unrepresentable kernel around which discourse circulates but which language can never fully apprehend, and which thus keeps the democratic conversation going. A space is left open for other experiences, for Otherness, for the recognition that discourse, no matter how democratic, cannot be complete” (p. 203-4).

Interdisciplinarity

Sacha Kagan (2008) notes that “Sustainability poses the challenge of perceiving and processing interconnections beyond the fragmentation of socially constructed realities. It also practically implies the ability to work on interdisciplinary and ultimately transdisciplinary teams on projects” (p. 18). Culturing sustainability means we will need to develop what Kagan describes as “inter”competences: inter-cultural, inter-subcultural and inter-conventional. He believes that in developing these competences, artists and educators “will be tapping a human capacity for enhanced empathy, beyond sociocentrism and ethnocentrism.” Inter-competency implies systems thinking.

Edgar Morin (1999) describes how disciplinary specializations shatter contexts and complexities, so that tremendous obstacles to sustainability accumulate within educational systems: “These systems make the disjunction between the humanities and the sciences, and the division of the sciences into disciplines that have become hyper-specialized, self-enclosed. Complex global realities are shattered, the human is dislocated and redistributed. The biological dimension, including the brain, is enclosed in biological departments; the psychological, social, religious, and economic dimensions are separated from each other and relegated to social science departments; the subjective, existential, poetic qualities are restricted to literature and poetry departments. And philosophy, which by nature is a reflection on all human problems, becomes a self-enclosed realm. Fundamental problems and global problems are pushed out of disciplinary science. They are safeguarded only in philosophy, but no longer sustained by contributions from the sciences. In these conditions, minds shaped by disciplines lose their natural aptitude to contextualize knowledge and integrate it into its natural entities. A weakened perception of the global leads to a weakened sense of responsibility (each individual tends to be responsible solely for his specialized task) and weakened solidarity (every individual loses the feeling of his ties to fellow citizens).”

The inadequacy of disciplinary systems obscures:

- The context
- The global
- The multidimensional and
- The complex

(Morin, 1999, p.15)

Fostering systems thinking means struggling against disciplinary segregations in mind and society and constructing interdisciplinary teams to work on projects. But as Hans Dieleman and Don Huisingh (2006) note, the interdisciplinary approaches required to culture sustainability are not easy to achieve: “Sustainable development education requires multidisciplinary collaboration. It requires teachers and students to become co-learners who are able to make the connections between the diverse domains of knowledge generation and knowledge application, in real life situations. This means they have to be able to bridge different professional cultures, traditions, gender differences and ages. The experiences within environmental sciences during the past 20 to 30 years show that such connections and bridges can be made, but it is a very difficult challenge for persons involved in transdisciplinary projects to mutually understand each other.” As a practical suggestion to facilitate interdisciplinary collaboration, the authors offer this suggestion. “In such efforts, we discover that we all have implicit images of reality and ‘taken-for-granted,’ working methods in our minds. Since these images and methods are not the same for people coming from various backgrounds and ages, they must not be ‘implicit’ but must be made explicit and must be openly discussed and acted upon.”

“I don’t think there are cheap tickets to system change. You have to work at it, whether that means rigorously analyzing a system or rigorously casting off paradigms. In the end, it seems that leverage has less to do with pushing levers than it does with disciplined thinking combined with strategically, profoundly, madly letting go.”

– Donella Meadows (1997)

Keepers of the Water Process

Betsy Damon describes relationship as the primary medium for her work on large-scale public projects that address water issues around the world. The following is a summary of her guidelines for interdisciplinary projects addressing water issues as described on the [Keepers of the Waters website](#).

To make sure a living water project has the most effect long term, the process of creating a living water project must be as important as the final project. The process is multidisciplinary, inclusive and based on relationships. Bringing together artists, scientists and other community members to address water quality in this way can initiate changes in attitude almost immediately. When we can blend various disciplines we have more hope and can come up with better and more unique solutions.

Before you start

We strongly encourage individuals interested in starting a project to build a multidisciplinary and as diverse team including artists, scientists, environmentalists, community representatives, landscape architects and government representatives from the beginning.

It is also important to develop your relationships within the group. The better your relationships among each other, the further you can go. Talk honestly about yourselves, sharing your personal stories, your strengths and weaknesses, and what you want from the project.

1. Research local water issues

What are the key water issues in the community and which water do we want to treat? In order to change water quality, citizens have to understand the source of their water and begin to take responsibility for it.

2. Envision the project

Brainstorm about what you really want to see happen in your city. Ask yourself,

- a. What is the vision in all its aspects?
- b. What is the science that needs to be communicated?

- c. What is the water history in your city? (This should cover multiple cultures over time.)
 - d. What do people need to know about water in my community in order to change behavior?
 - e. Do I want to address this in my backyard, my neighborhood, or my city as a whole?
- Projects do not have to be big to start a ripple.

3. Choose a site

4. Develop partnerships

Develop the partnerships that will allow you to acquire the site for your project. Your partners can be government agencies, environmental groups, schools, corporations and community associations.

5. Feasibility Study

A feasibility study will answer many of the technical questions such as: how large to make the treatment ponds, how much water can be treated, the best ways to move the water, what the contaminants are, and which plants are most appropriate for the contaminants and climate.

6. Organize community support

Make presentations to civic groups, religious organizations, neighborhood associations, schools, and professional organizations. Also keep your local media informed about your various activities and successes.

7. Create a design team

This team should include scientists, landscape architects and artists. It can also involve hydrologists, bioremediation specialists and engineers.

8. Organize a community workshop and design charrette

The event can include hands-on water experiments, drawing, brainstorming, and sharing of scientific, cultural and community issues. Use your imagination to create a fun, positive and open-ended event.

Ann Rosenthal: Project-based Art and Learning

“Today’s environmental artists focus on the interrelationships between physical and biological pathways and the cultural, political or historical aspects of ecosystems and work to extend environmental principles and practices directly into the community. Ecological art can challenge perceptions, elucidate the complex structure of an ecosystem, examine a particular issue...or work directly to restore the biophysical environment.”

– Ruth Wallen, 2000, cited in Rosenthal (2003)

Islands Institute director Ann Rosenthal is a leading environmental artist and educator who teaches systems thinking and practice through environmental art. She notes, “Eco-art offers a vehicle to cultivate systems thinking, interdisciplinary problem-solving, collaboration, and social and environmental responsibility... [in a] world that demands creative and far-reaching responses to the damage we have wrought upon human and non-human systems. The toxic landscapes within and around us know no disciplinary boundaries. Promoting their health requires collaboration across diverse fields to rectify destructive practices and design alternative materials and processes” (2003, p. 154-155).

Rosenthal finds that ecological art projects provide an effective framework for integrating knowledges across disciplines, particularly when students work on collaborative projects that balance theory and practice. As students develop “imaginative form, processes, and solutions that communicate or create new relationships and patterns across disciplines” (p. 156), they combine deeper understandings of environmental problems with the lived experience of going beyond them. Rosenthal shares her experience and recommendations in depth in an important 2003 article. The following is quick summary of her approach:

Ann Rosenthal (2003) on
“Teaching systems thinking and practice through environmental art.”

1. Preparing the Ground

- Teacher develops interdepartmental alliances and fosters a diverse mix of students within the classroom.
- Students submit a resume and complete an assessment of their skills to share with fellow students.
- Students bond together as a learning community by sharing personal stories on their relationship with nature.

2. Fostering Systems Thinking

- Readings in environmental history and philosophy foster critical and systems thinking and refute nostalgic, essentialist analyses of environmental problems.
- Students apply theoretical perspectives to their lived experience through journaling and discussion.

3. Experimenting with Systems Practice

- Review of eco-art examples informs and inspires diverse approaches.
- Students form teams and work on eco-art project to address local issue. The process includes team building, project conception, proposal writing, compiling resources and materials, production, publicity and presentation to the public.

4. Project Assessment

- Students complete feedback questionnaire that invites reflection prior to class discussion.
- Assessment focuses on process rather than product and encourages students and teacher to integrate feedback into future work.



Ann Rosenthal, mixed media installation for the Andy Warhol Museum in collaboration with Steffi Domike and Suzy Meyer. This installation addressed the carbon miles of the food we eat and included a menu for a fictional diner listing carbon emissions rather than prices. Reproduced from <http://islandsinstitute.ning.com/profile/atrart> . Used with permission.

Suzanne Lacy: *Underground*

Over thirty years, Suzanne Lacy has created large-scale public projects that make real interventions into the apparatus of power. In the 1990's she worked for two years on a public art process and series of installations she called *Auto: On the Edge of Time* – a memorial against violence against women. In these works, battered cars are images of flight and imprisonment, of women trapped in or fleeing from the intersection of private and public space where domestic violence takes place.

Lacy began this series with *Underground*, an installation she developed for the 1993 Three Rivers Art Festival in collaboration with the Greater Pittsburgh Women's Center and sculptor Carol Kumata. The arts festival takes place in a small park at the intersection of three rivers. A fourth river runs underground, coming up in a magnificent fountain at the place where the rivers meet. Inspired by the place and the history of the underground railroad active in Pittsburgh during slavery, Lacy planned an installation. She ran a railroad track 180 feet through the park. It ended at a phone booth. Alongside it she placed three battered cars.

The first car is stenciled with the paralyzing comments women hear from the batterer and society: "I'll change"; "I'm sorry"; "A woman can't leave her family anyway." The car windows are etched with lines from a woman's interior monologue – phrases like "He's going to change" and "I love him." The second car, burned to a crisp, bears brass plaques with the names of 181 women who were killed in Pennsylvania over the 18-month period in which the piece was constructed. On the outside of the third car, little-known statistics are stenciled: "Battering is the single-largest cause of birth defects." Inside, several suitcases are thrown open to reveal lists of what women have left with: "I took the clothes on my back"; "I took every stick of furniture in the house"; "I took his guns and hid them."

As you walk along the railroad track you read a poem, carved into the rails. The poem speaks of the underground river, and a woman trapped in "the twisted steel and broken glass" of domestic violence. "She silently makes her decision...takes her children in the family car running she goes underground." The poem ends, "help is only a phone call a dream of who you could be a decision to get away." The railroad tracks deliver people to the phone booth, where viewers can choose to talk to counselors organized by the battered women's shelter, listen to stories of women who have escaped, or leave comments on an answering machine.

Lacy's work makes space for grief; it incorporates individual voices. It also provides a deep-rooted analysis of social conditions. It does not assume a public space, but works to create occasions for community. Simultaneously, it works to create the chance for a woman's private decision to get away from violence. The art connects viewers with resources and describes underground networks that can sustain an escape.

In Lacy's words, a public artwork can be an "unmediated, unpredictable, authentic experience" (1994, p. 17). In contrast to the cynicism and inhibition generated by media spectacle, art can sharpen ethics and present the possibility of choice.

The art of *Underground* is not made to generate an iconic object, star an individual subject, or take up residence within a self-referential art historical tradition. The work accepts the social conditions it addresses as the space of its consequence; it fails if it doesn't make sense in the street. Yet its meanings are not determinable. The work accepts participation not only in its process but also in its outcome. In the geography of economically and racially segregated places where rivers are buried and women are victimized, such projects could function as provocations, resources, and points of connection that foster systems thinking.



Shaping Spaces of Possibility

“We are of one mind that the only way to prepare for an unknown future is to begin practicing how we would like that future to be, now. We desire a future in which the human spirit is seen as the blessing, not the problem. We envision communities that are healthy and resilient. And to bring these dreams into form, we realize that it’s up to us to start embodying these ideals and practices right now, day-to-day.”

– Meg Wheatley, Berkana 2007 Annual Report.

Climate change, species extinction, toxic wastes permeating air and ocean. What can one person do? The magnitude of the problem leaves me feeling inadequate and useless. Despite my heartfelt ecological values, my own complicity in environmental destruction is inarguable. Like Scarlett O’Hara, I cry: “I can’t think about that right now. If I do, I’ll go crazy. I’ll think about that tomorrow.” My reaction can be described as one of “psychic numbing.” The idea of psychic numbing was first developed by Robert Jay Lifton, based on research with survivors of the atomic bomb in Hiroshima. Lifton found that when a threat is too terrible to assimilate, people respond by turning off, numbing affect, registering facts without feeling their import. Sobel (1999) comments on the relevance of this concept to environmental education, noting that by inundating young students with information about environmental destruction, we may in fact “be engendering a subtle form of dissociation,” somewhat similar to the kind of detachment from pain that children experience when they watch gratuitous violence on TV, or in more extreme instances, when they are victims of physical or sexual abuse.⁵

Educating people about the urgent emergency of environmental problems is having profound effects – but not the effects environmental educators desire, suggests pollster Angus McAllister (2008). Recent research in Canada indicates that people in all sectors of society are very conscious of environmental problems, but they see these problems defined in ways that cannot be changed through public policy or community action. While environmentalists talk with

Image overleaf: Patricia Johanson, *Fair Park Lagoon*, Dallas, Texas: *Pteris multifida*, detail of sculpture: nesting habitat. Used with permission.

government, the media and one another, 70% of people are addressing environmental crises by “bunkering down” – that is, by taking what steps they can to protect themselves and their immediate families.

⁵ This section is indebted to a discussion on the Engaged art Network. See “Awakening the senses through art and coping with psychic numbing” at <http://islandsinstitute.ning.com/forum/topic/show?id=1163070%3ATopic%3A4096>

Culturing sustainability, environmental artists and educators need to shape spaces of possibility in which a future can be imagined and made. To do this, we must address psychic numbing while expanding people's sphere of influence. These aims require profound shifts in the ways we conceive, construct and communicate knowledge, so that we can undertake our creativity, teaching and learning in spaces beyond, outside, above and below the suffocating vault of existing knowledge systems.

Muhammed Yunus of the Grameen Bank (2007, p. 19) comments "Poverty is caused by failure at the conceptual level, rather than any lack of capability on the part of people." Scarcity, injustice and environmental crises can be said to be caused by linked conceptual failures that profoundly underestimate human capacities, while shaping physical space in which these unthought capacities cannot be conjured. By living – however partially and inadequately – a possible future, we may create sanctuaries where new forms of natureculture can begin to flourish, where old forms can be restored. We may find that such spaces allow expanded access to larger capacities for conceiving, knowing and interacting with one another and the earth. While it seems evident these larger capacities cannot be "learned" or "acquired" in existing knowledge-systems, the good news is, we may already "have" them. Maurice Burton (1967) reminds us, "[The] ability to recognize damage and to repair it is perhaps more remarkable than any other feature of animal building. It is a skill possessed even by plants (p. 25).

Exercise: Appreciative Inquiry

Proponents of “Appreciative Inquiry” have long noted that approaches to education and community development that begin with a community’s needs and problems are not successful. They suggest that we can instead build on a base of any community’s existing assets, skills, and capacities. Appreciative inquiry explores and identifies the strengths of a particular place and the achievements of its people, and uses these strengths as a way to shape space for envisioning possible change.

Other community development initiatives begin – as environmentalists have – by identifying problems. But as Charles Elliot (1999) writes, this approach “can often disempower the community it is meant to help, by conditioning local people to view their ... place as full of problems that only outsiders can solve, and needs that only governments can meet.” Beginning instead with identifying assets and achievements can empower people to dream. Elliot continues, “When people look for their strengths, they are often amazed to discover how resilient, adaptive and innovative they are.... By focusing on their strengths they can use the “positive present” to build a shared vision of a better future, one that is grounded in reality. Appreciative inquiry creates a development pathway based on what is right rather than what is wrong.”

“Appreciative Inquiry encourages people to think deeply about what they value and what contributes to the well-being of their community. Does material success matter more than clean water? How do they value time spent with children, traditional food, local agriculture, animal companions? Can they choose a future that does not sacrifice the things they treasure to achieve other goals?”

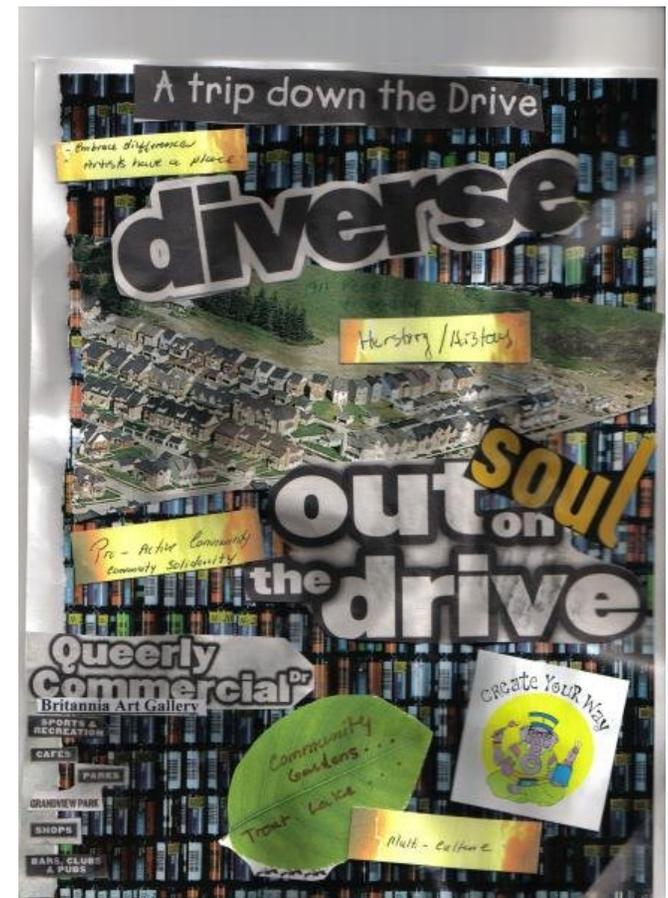
The process of Appreciative Inquiry allows participants to construct and share a story about their place. Elliot writes, “It is this plasticity of memory and our freedom to remake the history of our organization that is essential for the appreciative approach. For what is at stake is the capacity to construct a narrative of the organization that highlights the worthwhile and life-enriching themes without denying the darker or more somber tones that are also likely to be present. It is only when we can read the history from this perspective that we are likely to transcend the problematic present or the fearsome future.”

The following Appreciative Inquiry exercise is from *Beginner’s Guide to Community-Based Arts*, (Knight and Schwarzman, 2005):

“Find the heartbeat of the community.”

- Is there a specific location you identify as the center of your community?
- What are the shared experiences and events of your community?
- What image might represent the heartbeat of your community?
- How does the heart of your community beat in you?”

Appreciative inquiry collage
on a Vancouver
neighbourhood by Islands
Institute student Rhonda
Simmons. Used with
permission.



Richmond Rhymes With Enrichment

Richmond welcomes you, the end of 2007 & leavening of the
Inherent spirit shared, invested & expressed in Richmond's
Community. We know we're no Utopia or Mayberry RFD. Our
History also demonstrates a brilliant resilience, & one
May or may not know about 'Silent Spring' or a mayor who not
Only cares about the Earth & air, she's green as growing things &
Not as worried about a glass half-full or empty as dirty or clean!
Diversity, we celebrate & we raise our vibrations to accommodate
Richmond's creation of our loftiest aspirations. We undoubtedly
Have a history of ship-building & building a friendship with Earth.
You only need search the culture of our first residents, the Ohlones.
My city Richmond rhymes with enrichment which we remind the
Enemies of our environment. We can ill afford to not get the
Super-polluters onboard. We shall & shall prevail because
We share a mayor that majors in the priorities of minorities,
In the arts & humanities. Art is in the word heart & is part of
The life-blood pulsing through the public works we love. We say,
How great thou artists & phenomenon-profits. We teach that we
Each are Touchable Stories & implore thee to the tour ye scramble.
Nigh is the day Richmond leads the way through pure example.
Responsibility, like charity begins within & a parody of parity
Increasingly creates polarity. The Chinese use the same symbol for
Crisis & opportunity. Our Tent Cities focus attention on solving &
Healing the conditions in Richmond. Our intention is to have us
Mentioned as the big, little city that ultimately & successfully
Exemplified faith & action applied. A kite flying in the sky is
Not the only thing that rises against the wind. How & why did
The residents of Richmond win? Against all odds succeed?
Because it is the lion that gives the antelope its speed!

Appreciative Inquiry Acrostic
Poem by Islands Institute student
dwayne o. parish. Used with
permission.

John Jordan: *Paths Through Utopias*

“Utopia is on the horizon: When I walk two steps, it takes two steps back. I walk ten steps, and it is ten steps further away. What is Utopia for? It is for this, for walking.”

Eduardo Galeano, cited by John Jordan (n.d.)

Artist turned activist John Jordan (n.d.) developed a project called *Paths Through Utopias*, walking on a 6 month journey through Europe in search of ways of living despite capitalism. He writes:

“*Paths Through Utopias* are trails drawn by realist dreamers, lucid idealists whose vision of a better world is not projected into an unreachable future but created every day, in the here and now. These paths are not motorways destroying forests to get to a pre-decided destination as fast and as straight as possible... they are trails following the valleys’ contours, tracing the rivers and desires of those who build them.

In a society obsessed with profit and consumption, self destructing under the threat of Climate Chaos and the jack boot of neoliberalism against everything and everybody who resists, *Paths Through Utopias* takes us towards islands of hope: projects that may be almost invisible, drowned by the surrounding pessimism, yet are filled with life.

Paths through Utopias is an exploration of projects which offer, in their own ways, large or small, modest or ambitious, recent or old, a range of alternatives to the capitalist system.

All over Europe a multitude of small-scale long term experiments see the making of the future in the present as the most constructive act of resistance. And given the precarious state of the world’s life support systems, these alternatives are also attempts to build lifeboats for the choppy ride ahead. By attenuating their ecological footprint, by using renewable energies, reducing dependence on destructive agriculture and supermarkets by producing their own food, addressing issues of power through non-hierarchical social relationships, these projects are striking evidence that living otherwise, outside the dictatorship of consumerism, competitiveness and ecological destruction, can take many forms which are very different from commonly spread stereotypes and can be beautiful, viable and fulfilling.”

Aviva Rahmani: *Cities and Oceans of If*

Ecoartist Aviva Rahmani (2001) asks,

“What if ... there were abundant birds, fish, and clean water?
... our needs for clean water and food were protected?
... we planned for water?
... all the marshes, where fish and birds are born, were restored?
... we designed the oceans with adequate space for dolphins and whales?”

Imagine, Rahmani suggests, not the perilous world many scientists believe we inhabit, but a beautiful and utopian future based on a world of “If.” She believes we can bring the needs of our daily lives into harmony with those of the earth....

The “Cities & Oceans of If” project is based on Rahmani’s research and collaborative work with scientists on the relationship between habitat protection and water conservation. She maps connections between coastal cities, oceans, and inland wildlands and finds “ecological acupuncture points” where small interventions could make a difference.

Rahmani engages local scientists, city officials and the average citizen in discussions about environmental systems, with the view that “when art is married to the sciences, environmental issues can be clarified and solved in ways that are intuitive, imaginative, and realistic.”



Aviva Rahmani, *The Cities and Oceans of If* began as a series of city redesigns in the Gulf of Maine, near Rahmani's own year-round residence.

Research artifacts for the Re-design of Back Cove, Portland, Maine 2000:

Including drawings on historical documents (courtesy of the collection of the Maine Historical Society) 24" x 24" details of 16 panel grid installation. In the collection of USM Gorham.

The problem on the site of the city of Portland, was that it was built on fill in an estuary. Historical connections to both indigenous peoples and wild species had been buried. The solution was a poetic and metaphorical installation in the City Planning Department of the University. It made connections between lost species, settlers' records and development. It also made proposals to reintroduce predator species in enclosed city areas. This would re-establish ecological balance.

<http://www.ghostnets.com/citiesofif/imagesfromvenues.html> Used with permission.

Discerning and Developing Non-commodified Spaces

“Growth” in capitalist economies is derived from enclosing previously non-monetized relationships, economies and knowledges in a system of commodity-exchange. Corporations move to simultaneously capture the commons while externalizing the costs of production to uncompensated labor, low-status environments and future generations. Culturing sustainability must involve claiming, renewing and inventing non-commodified things, relationships, traditions, places and forms of both art and learning.

Chet Bowers (2000, 2001, 2005) proposes that we develop an eco-justice pedagogy that challenges the “mythic thinking associated with high-status knowledge” while developing and renewing vital alternatives. He writes (2001, p. 159): “One of the most dynamic and disruptive characteristics of modern culture is its tendency to commodify knowledge, relationships and skills. Indeed, one of the hallmarks of modernization has been the shift in market relationships from a peripheral though essential aspect of community life to the dominant focal point of human interaction.”

Culturing sustainability involves subverting the inevitability of the market as we nourish forgotten alternatives.

Exercise: Cultural Survey

Ask participants to consider: “What aspects of individual and community experience have not been commodified and calculated as part of the gross domestic product?”

- Consider commodity exchange – and the absence thereof – within systems of care: love relationships, education, health.
- Consider various forms of work and service.
- Consider aspects of leisure.
- Consider the natural world.
- Consider both open space and shelter.
- Consider food and water.
- Consider rituals surrounding marriage, seasonal celebrations, death.

- Consider beauty, craft and creativity.

Chet Bowers suggests this question of what is and is not monetized in our lives and relationships is, for students from elementary grades to graduate school, “the starting point for an examination of alternatives to the symbolic infrastructure that supports globalized commodification” (2001, p. 161).

Claiming the Commons

Claiming the commons is a concept that can be useful when considering large-scale issues in the global environmental commons, including air and water, public broadcasting, eldercare, infrastructure, seed saving, and intergenerational justice. Around the globe, economic interests are seeking to create wealth by privatizing resources previously held by communities, while people fight to retain and regain control of the commons, and give shape, beauty and meaning to public space.

Claiming the Commons through “intellectual property rights” has become a huge issue in recent years. Sacha Kagan (2007) refers us to the Open Source movement slogan, “Intellectual Property is Theft.” Vandana Shiva (2000) says of intellectual property: “Patents and intellectual property rights are supposed to prevent piracy. Instead they are becoming the instruments of pirating the common traditional knowledge from the poor of the Third World and making it the exclusive ‘property’ of Western scientists and corporations. When patents are granted for seeds and plants...theft is defined as creation, and saving and sharing seed is defined as theft of intellectual property.... Sharing and exchange, the basis of our humanity and our ecological survival, have been redefined as a crime. This makes us all poor. Nature has given us abundance. Women’s indigenous knowledge of biodiversity, agriculture and nutrition has built on that abundance to create more from less, to create growth through sharing. The poor are pushed into deeper poverty by being made to pay for what were their resources and knowledge. Even the rich are poorer because their profits are based on theft and on the use of coercion and violence. This is not wealth creation but plunder.”

Exercise: Claiming the Commons

The organization “Streets are for People” invites us to consider:

WHAT CAN YOU DO with a 6 x 12 foot parking space?

- * do what makes you happy
- * play games
- * plant a garden
- * perform
- * ... anything is possible with a little imagination!
- * read
- * make music
- * have a picnic
- * draw portraits



Text and image from <http://streetsareforpeople.org/actions/carfree2006.html>

Used with permission. (A “Streets are for People” representative writes “everything we do is covered by ‘anti copyright’ rules – distribute at will, thanks for letting us know.”)

“Since 2002, **Streets are for People!** has used costumes, trumpets, and big tricycles to liberate the commons from the mundane rule of that deadly beast — the automobile. We deliver the straight-up message that **CARS SUCK**, while **creating the city we all want to live in**, a comfortable place where laughter, romance, and dancing children fill the streets.”

Making Public Space

James Howard Kunstler (1996) argues that public space could be something much more than the scraps left over from private development; it could be artfully designed, deliberately shaped, and put to nourishing use (p. 27). Why are our cities and suburban landscapes so dismal? He says, “the public realm that binds them together is degraded, incoherent, ugly and meaningless” (p. 35), and urges us to see how “The public realm is the connective tissue of our everyday world.” Public space “is made of those places of terrain left between private holdings. It exists in the form of streets, highways, town squares, parks and even parking lots. It includes rural or wilderness landscape: stretches of the seacoast, national forests, most lakes and rivers, even the sky.... The public realm exists mainly outdoors because most buildings belong to private individuals or corporations.... The ...public realm...is that portion of our everyday world which belongs to everybody and to which everybody ought to have equal access....” (p. 36).

Norman Nawrocki is a Montréal-based educator, artist, and activist who works with cultural groups, trade unions and others to teach the practice of “Creative Resistance” – using art to effect radical social change. Nawrocki believes that we need to rethink the questions of “What is Public Art?” “What is Public Space?” and “Who are the Artists?” Where traditionally “public art” might be some monument created by a professional artist to occupy a patch of lawn in front of City Hall, contemporary public art might be found in the sculpted air of contested space and the imagination of people in that space. He cites as an example the midnight construction of “Parc Oxegen” in his Montreal neighbourhood. Tired of dangerous traffic and the futility of petitions, letters and representations to City Council, the neighbourhood took matters into their own hands. They dug up the asphalt, brought in truckloads of topsoil, landscaped and planted a park that blocked traffic from the residential street. This public space, activated through public initiative, can certainly be described as public art (Nawrocki, 2006)

Landscape designer and artist Patricia Johanson has a vision of natural processes determining urban form, “so that people can dwell in a matrix of reconnected, self-sustaining and regenerative nature” (Johanson quoted in Kelley, 2006). For Johanson, nature ought not be considered as a decorative amenity that incorporated into landscapes. Nature is functional and productive. In her landscapes it ameliorates flooding, filters sewage, and restores complex habitat for numerous species, as well as shaping beautiful educational and recreational space for human visitors.

Nicole Dextras, *Red Carpet*.
Project: *Belonging, sous le pont* - installations under the Burrard Bridge in Vancouver (where homeless people live). <http://islandsinstitute.ning.com/profile/mamzellenix>
Materials:
Blackberry vines, grass, Douglas Fir branches and cones, Willow, Mountain Ash berries, Yarrow. Used with permission.



Finding a Sense of Surplus

Toby Hemenway (2005) describes a basic principle of permaculture as “giving away the surplus.” But how do we find a sense of surplus that allows us to relax and share our time, our resources, and our material wealth with others? Hemenway suggests we will know there is enough if we cultivate our connections with natural cycles and seasons, embedding ourselves in a cyclical sense of time instead of the progressive, linear model of time that dominates contemporary knowledge systems. He comments, “With no faith in renewal, it’s easy to believe that we could lose everything. This fosters the illusion that we live in a world of scarcity. Economics itself, our secular religion, is defined as ‘the allocation of scarce resources among competing demands’”

Rather than educating people to see the looming apocalypse as the paradigm governing our relationship with nature, artists and educators culturing sustainability may choose to celebrate the abundance and exuberance of natural systems. Instead of posing art as the rare genius of a favoured few, we can understand this view as another market-produced false scarcity, and support the creativity that waits to flourish in all things. A sense of surplus is fostered by an abundance of supportive, non-commodified relationships. It is nourished by a connection with spirit.

Our economic system profits from the waste of things and people. But people’s wasted art, their mute creativity, and their unmet needs for community and connection comprise an entropic energy that artists and educators can use as a force for change.

The detritus chain begins with organic matter from abjected material – animal waste, plant waste, and decaying bodies. Scavengers and decomposers feed on detritus and in turn become food for a succession of other animals. The detritus chain is the foundation of earth’s ecosystems. In order for plant life to continue converting solar energy into organic material and oxygen, the detritus cycle is prerequisite.



Claudia Lorenz, Compost
People, forest-feeding sculpture
made with invasive ivy vines.
The piece is currently
decomposing in Webster
Woods art park, part of the Port
Angeles Fine Arts Centre, WA.
Image from
[http://www.islandsinstitute.com/
gallery/Regeneration/Lorenz/in
dex.html](http://www.islandsinstitute.com/gallery/Regeneration/Lorenz/index.html)
Used with permission.

Initiating Gift Economies

Generosity disturbs our economy's paradigmatic assumption that in any transaction between people each one is out to get as much from the exchange as possible. Hemenway (2005) points to societies around the world where goods, land and services circulate as gifts. He writes, "open-ended giving links both people, and points toward a future exchange. The giver is seen by the group as useful, reliable, and generous, and is accepted into the communal flow of goods and labor, while the receiver is indebted to a system that supports him." He notes that in gift economies, people must cultivate a sense of abundance and trust, in contrast to the experience of fear and scarcity that is structured by the monetized economy. Gift economies suggest a circular and circulating rather than linear and progressive experience of time, seasons and society. They weave a web of gratitude and obligation, love and commitment. Does a gift economy still exist in aspects of our lives and relationships?

Rajni Shah: *Small Gifts*

UK artist Rajni Shah is fascinated with the idea of art as gift. “Recognizing that some of the most beautiful acts are performed, written or received for and by other people as the gesture of a friend on some level” (Shah, February 2007), she has explored gift-giving in various public interventions and community projects. She describes her work with sex workers:

“This year [2008] I’ve started work with a group of female sex workers in London, interpreting gift in the most literal way, making thank you cards and sending photos to family members. The drop-in centre where I am working is a real home, and a really creative home, it’s a constant place of refuge that is filled with changing artistic activity and stimulus. And it’s a real example to me of how creativity is not surplus but lifeblood. It’s not that the women who use the centre wouldn’t be alive without the artistic content of the workshops, but that they wouldn’t value being alive in the same way. The opportunity each week to have a voice, to engage, to question and wonder brings out the best qualities in these women. In some of them, the transformation between the moment when they walk into the group – bitter, angry, sullen – and when they leave – grateful, laughing and engaged – is hard to believe. And their desire to continue the chain of gifting, to keep giving to others, is strong” (Shah, 2008).



Rajni Shah, *Small Gifts*, 2007.

“This was a series of interventions which took place over the last three days of the National Review of Live Art, at different times of day. For the duration of the piece, I took a vow of silence and tried to keep a silent mind; I did not make eye contact with anyone, I did not read anything, write anything, or engage in any activity other than meditation. In this photo, I am offering my clothes and hair to passers-by as gifts in return for a trace of themselves.”

Image and text from:

<http://islandsinstitute.ning.com/photo/photo/show?id=1163070%3APhoto%3A15196&context=album&albumId=1163070%3AAlbum%3A15201> Used with permission.



Rajni Shah, small gifts: colchester (2007)

“During my research into gift and public intervention, I spent three nights in Colchester, basing myself at the Colchester Arts Centre. The weather was bad and I was working on my own so was unable to do very much with my own body, so I decided to write letters and leave gifts around the town. This image is of a series of empty gift boxes I left at bus stops, in the movie theatre, in shops and doorways across town. I included a note in each box inviting the person who found it to use it to send a gift to someone unusual or unexpected. “

Image and text from <http://islandsinstitute.ning.com/photo/photo/show?id=1163070%3Aphoto%3A15193&context=user>. Used with permission.

Diana Thompson: *Alluvion*

Suzy Gablik (2002) asks, “are we forever locked into the inevitability of a world view based on materialism – and with it, a certain kind of art fixated in the notion of saleable objects? Or...can art actually help us to revision ourselves and our way of living on this earth?”

For twenty years, Diana Thompson has created art addressing social issues. Her multi-media, collaboratively-created projects on motherhood (*Conceptions* 1998-2000), childhood (*Memory’s Children* 1997-1998) and violence against women (*Witness* 1990-1991) have affected viewers in galleries across Canada. Yet Thompson no longer wants to make art objects that circulate within the tiny realm of art – no matter how meaningful and subversive these objects may be. She questions, “Can the magical impulse of imagination – of discovering something beautiful unfold in one’s hands – still be kept alive without the world being filled with more stuff?”

In the years 2000-2006 she created *Alluvion* as an environmental/interactive/insertion art project. Thousands of shaped and engraved pieces of shell were given to 140 participants, who placed these shells on beaches, rivers and waterways around the world for others to find. Thompson reflects, “I gave the shell pieces to each person to do with what they wanted: no restrictions were made, and few suggestions offered. What was most important was the involvement of the individuals in an act of art, of celebration, thought, playfulness, meditation – or a moment of decision-making, thoughtfulness, honouring or joy.”

Thompson’s work subverts notions of art that privilege creativity as the extraordinary function of uniquely qualified individuals. She seeks places inside everyday life where “ritual, magic and meaning” might become credible. Behind her effort is a view that everyone is or can be an artist – and that her role is not best found in the expression of a personal vision but rather in the creation of a space of possibility in which a multi-vocal creativity can unfold.

Images from Diana Thompson's *Alluvion*, left: Jamie McColl – Lake Winnipeg; right: Rachel Larson-Long – Flathead Lake, Montana.
Copied from <http://www.dianathompson.net/Alluvion/alluvion.html> Used with permission.



Art is not a luxury

Ecological artists design places and systems where numerous species can flourish; community artists invite us to invent and practice new ways of living in extended, creative processes of exchange. Other artists create beauty and meaning that sustain our spirits; they interpret or draw attention to issues and problems. Whether we work in any of these modalities (or one not mentioned), our images draw on the irrational contents of mind and culture. Audre Lorde (1984) invites us to see that art is not a luxury, because art is how we explore the space between what is intuited, but still inchoate, and what is articulated and joined with other humans. Art reminds us that our rational minds are usually good only for generating pieces of systems and short-term solutions.

Carl Jung describes our propensity to overestimate the role of conscious intention in our individual lives and in world history (1968, p. 22), suggesting that in times of despair and hopelessness, attention to the unconscious is the greatest help. When working with unconscious contents of mind and culture, “all advice is completely useless,” as Marie Von Franz (1968) observes. The ecological crisis generates mountains of facts, and yet all the alarming evidence fails to change us. “There is only one thing that seems to work, and that is to turn directly toward the approaching darkness, without prejudice and totally naively, and to try to find out what its secret aim is and what it wants from you” (p. 170). Art invites us to explore the difference between intended and unintended contents of mind and culture, acknowledging the power of those unintended contents, and shaping space in which their mystery can play, sparkle and speak.

The shadowy world called unconscious or irrational may be the source of our impulses to abjection, violence and self-annihilation. It may also be the root of hope, for here we find each detail of our lives interwoven with the world of nature, and 10,000 years of human history, through which archetypes speak and symbols flourish. J. E. Cirlot (2002) notes that where natural science establishes classificatory relationships between horizontal groups of beings, symbolic systems erect ‘vertical bridges between diverse objects.... Symbolism is...a magnetic force, drawing together phenomena which have the same rhythm and even allowing them to interchange’ (p. xxxiii). Consciousness provides clarity and definition whereas the subliminal contents of mind/culture/nature are amorphous, mysterious, related through analogy, indefinite. Walking into our fear, we may find memory and power that reaches past our individuality. Here art can suggest the breathtaking possibility that each one of us may not have to know it all or do it all – and that a language of images, symbols, dreams and rhythms can empower us to become part of a collective intelligence.

Artist Christo, famous for creating large-scale public projects, says “I think the artist can do anything he wants to do....The work of art is a scream of freedom” (cited by Gablik, 2002, p. 169). In the preceding pages I have argued against the egoic artist whose belligerent individuality is commodified and marketed as genius. And yet the space of

possibility that art can shape invites us to engage in processes that would bring this scream of freedom and dream of individuality, with all its wealth and power, into social transactions, collective intelligence, meaning and community. Culturing sustainability, we can cultivate space for an ongoing dialogue with the rich resources of each person's unique creative voice.

Social sculptor Shelley Sacks (n.d.) describes it: "Through the integration of the aesthetic and the political, an imaginative space is created in which we can engage with the re-shaping and transforming of our lives and our society, and explore ways to develop a more participatory and sustainable society. This expanded workspace where ... the personal and social imagination moves and weaves, is a creative space accessible to all."

Beauty

So much of living unsustainably seems to function with and through the abjection of the intuitive, the imaginal, the darkness, the inhuman and the unthought yes! of beauty. Amy Lenzo (2007) writes, “I am passionate about the transformational power of beauty – not the beauty of pleasant surfaces, but the beauty of depth, terrible magnificence and utter simplicity; the beauty of implicate pattern and wholeness; the beauty of human beings and of the earth, air, fire, water and space we are all made of.” She maintains a blog called The Beauty Dialogues at <http://www.beautydialogues.com> where she writes, “The Beauty Dialogues is a space to celebrate beauty – not just the beauty of form, but also those patterns of essential wholeness that go beyond the visible. This view of beauty integrates the spiritual, intellectual, relational and economic realms of life and dissolves the illusion that they are separate.”

Amy Lenzo photograph, from <http://islandsinstitute.ning.com/profile/amysue> Used with permission.



Creating Sanctuary

Shaping spaces of possibility for deep cultural and personal change means creating spaces that are safe, sacred, and held apart from the urgencies of everyday life: spaces of sanctuary. Elizabeth Lange (in press) sees fostering a learning sanctuary as a crucial aspect of her work in restorative and transformative learning. How can a learning sanctuary be created? She identifies three ways:

1. Holding open space.

“First, a sanctuary space is created as I suspend my desires and old assumptions and approach this space with a respect for the deeper learning that occurs beneath any pedagogical plans, beyond what I can know in terms of each individual, their personal journeys and relationships, and the collective impact of their changes.... I simply try to hold this space open for the needed dynamics to occur – a risky place to inhabit.”

2. Being outside.

The second aspect of sanctuary is created by Lange by bringing her class into direct contact with the natural world. “[C]oming into contact with ground and sky, a space is created where the living world can teach us of our embeddedness and where relationships are (re)membered....”

3. Caring relationships.

A third aspect of creating sanctuary emerges through the caring relationships the participants develop with each other and the facilitators. People “(re-)experience what it means to talk deeply from the heart, and be mentored....” Key to this process is that the teacher is herself a learner, open to the transformations, diversifications and collective wisdoms that emerge in the process of restorative and transformative learning.

“learning sanctuary honours participants; creates space for compassion and hope on the life journey; models relations of equality, responsiveness, and depth; and engages the whole person.”

– Elizabeth Lange (in press)



Sanctuary Building,
Hollyhock Centre, Cortes
Island, photo: Caffyn Kelley

Permaculture

Permaculture is a concept and practice with great relevance to artists and educators engaged in culturing sustainability. Permaculture is described by Graham Burnett (2001) as “creating abundant and sustainable human habitats by following nature’s patterns.” The permaculture movement offers a set of principles for shaping spaces in which human and inhuman intersect in systems that nourish and restore. These principles can be applied to society, ecology, education and art.

Permaculture Principles

1. Observe. Map, research, dialogue, and dream. Eschew urgency. Use long-term, thoughtful observation rather than quick and thoughtless action. Always know there is much you do not (and cannot) know.
2. Do no harm. Use organic, renewable resources and services. Produce no waste. Everything cycles. Waste equals food.
3. Connect. It is the number of connections among elements that creates a flourishing, diverse system, not the number of elements. Each element performs multiple functions and each function is supported by multiple elements.
4. Catch energy. Identify, collect, and hold the energy flows moving through the system.

5. Work smarter, not harder. Find “leverage points” in the system and intervene there, where the least work accomplishes the most change.

6. Learn pattern language. By stepping back, we can observe large and small-scale patterns that recur throughout the natural world and human history, and begin to use this language of sustainability in our designs. Begin with large, archetypal patterns, and embed smaller, local patterns in them.

7. Maximize Diversity. Diversity increases joy while reducing vulnerability. Notice local distinctiveness.

8. Multiply edges. Value the marginal – The interface between differences is where the most interesting things happen.

9. Go slow. Design small scale, slow, intensive systems. Start at your doorstep with the smallest systems that will do the job.

10. The problem is the solution. Constraints inspire creative design – or, in the words of Bill Mollison, “You haven't got an excess of slugs, you've got a duck deficiency.”

11. Get paid. Design for both immediate *and* long-term returns from your efforts: “You can't work on an empty stomach.”

12. Abundance is unlimited. There are always new niches to utilize, new techniques to try, and new ways of multiplying benefits. By comprehending and copying natural systems, we can consciously foster abundance.

13. Trust the process. Begin. Learn by doing. There are no wasted efforts, just tools for learning (Waste equals Food).

(adapted from David Holmgren, Graham Burnett and Toby Hemenway.)

Atonement

Between 1983 and 2002, more than sixty women vanished from the mean streets of Vancouver's downtown eastside in the context of a vast silence and inattention from the public and police. Now that teeth and toes have been sifted from pig shit on a Port Coquitlam farm, the public sphere resounds with representations. Journalists crowd the trial of the accused serial killer. There is outrage, fascination, a hunger for detail. Yet women in the downtown eastside of Vancouver today still live with violence and urgent danger. What form of culture might actually contest this space? How might we shape a space of possibility in which to begin the work of atonement?

Some fifteen years ago, a group of feminists worked hard to create a lasting monument dedicated to "all the women murdered by men." Although located in the downtown eastside of Vancouver, the monument was not inspired by the native women, sex-trade workers and drug addicts murdered and missing in this dangerous neighbourhood, but by the slaughter of fourteen female engineering students from 4000 miles away. Elsewhere I have written on the construction of race, class and whiteness implied by the "Women's Monument" (Kelley, 1995). A recent article by neighbourhood resident Paulr Taylor (2006) affirms that this monument continues to insult the women of the downtown eastside. Without denying the achievements of the project, I believe that its failures invite us to begin again.

The "Women's Monument" inserts the presence of murdered women into a terrain where women are silenced and endangered. In so doing, it challenges the prevailing organization of space. Yet perhaps its claim to space is not radical enough; its dream is too small. The monument seeks to empower "women" within the parameters of a culture that sustains power through the powerlessness of excluded others. It fails to embrace the challenge of difference, or to address the operation of dominance and entitlement in a system of unequal development. If we see sexism, racism and relative worth as central features in the design and construction of space, we might choose new beginnings. Rather than seeking to value women inside a system that generates value through unequal development, we might instead use women's experience of exclusion to suggest new cultural strategies. We need a monument that will initiate new relationships with one another, with value, and with the natural world.

My own 1993 design for a "Women's Monument" was inspired by a question posed by the project organizers. In an invitation to designers, they wrote: "Monuments have traditionally been built to remember figures and events in history that men have considered important. How would a women's monument be different?" This question helped me to move my work from the sterile realm of art. In this realm, women have been excluded and their work denigrated. But this

exclusion has never prevented women from doing creative work: artful paintings and sculpture, yes, and also quilts, food, clothing, gardens. In women's approaches, art can be enhanced and not diminished by its usefulness. Creative work can be an opportunity to establish resources, build bridges, and design points of connection.

My design for a "Women's Monument" in the downtown eastside suggested a "Women's Building" that could serve as shelter and safety for the women of the neighbourhood. While incorporating art and landscape in a deep poetry of the psyche, the design also provided a space for community and made bridges between communities. I envisioned the monument as a place to imagine new forms of power, strengthened by diversity and structured by openness. I suggested excavating the buried landscape, restoring habitat, and allowing wild nature to inform the work. Designing the "Women's Monument" as building, pond, garden, playground and interactive public memorial, I understood that a monument need not simply be art – a static object of value – but instead, could function as an open system that accepts change and encourages repeated, intimate participation.

The traditional monument promotes masculine power and the joys of reproductive heterosexuality with an erect phallus straining towards the sky. A monument to commemorate women – or feminized men – who are victims of violence might invert these meanings. It might attend to the connections between wild, woman and queer that lie buried in culture of nature we inherit. My design for victims of homophobic violence in Winnipeg (1995) included a tallgrass prairie garden and a daylighted creek. It used shapes, horizontal movement, words and restored habitat to make space in which the suppression of diversity is posed as a profound and dangerous cultural pattern.

In a Vancouver park I had the opportunity to construct a small monument in the land. *Water Dream / Water Memory* (2001-2) was a memorial to a buried ecosystem. I worked with a community to build a 400-foot long dry creekbed following the path of a buried stream. The environmental sculpture incorporated river rocks, riparian plants, and rocks engraved with a poem about water. The concept involved creating a tiny complex piece of nature to serve as habitat. It echoed an intricate, unseen and refused (queer) nature; it explored connections between blood, tears, constrained complexity, and a buried stream. *Water Dream / Water Memory* invited visitors to embrace the intersection between self and world. Listening to elements, we might attend to their flow through our own bodies, finding there an openness to new (or old) forms of agency within the tangle of self and other. The sculpture lasted about six weeks before it was removed by the Park Board to make way for a baseball outfield.

Writing on the earth, I conjure an archetype: woman/mother/earth. Carl Jung (1959) calls this archetype "the mysterious root of all growth and change; the love that means homecoming, shelter, and the long silence from which everything begins and in which everything ends." Here is the wild order of life and death, the deepest mystery. Jung continues, "Intimately known and strange like Nature, lovingly tender and yet cruel like fate, joyous and untiring giver

of life – mater dolorosa and mute implacable portal that closes upon the dead.” Excavating the archetype, I risk the stereotype that would tie woman and nature in a pliant unity, obscuring the social relationships that construct these concepts in subordinate relation to man and culture. And yet, as I have explored in detail elsewhere (Kelley, 2003), there is an electric space between empty stereotypes that keep us locked in trivialities, and powerful archetypes that link us with myth and history. Jung (1949) writes, “Not for a moment dare we succumb to the illusion that an archetype can finally be explained and disposed of. . . . The most we can do is to dream the myth onwards. . . .”

How, and where, might we build an appropriate monument to the murdered women from the downtown eastside of Vancouver who died on a pig farm in Port Coquitlam? Alongside acres of recently-built, picture-perfect suburban homes, 953 Dominion Avenue is a 10-acre wasteland, completely denuded by forensic teams combing through mud and shit in search of bone fragments big enough to yield the murdered women’s DNA.

The city and its suburbs is the landscape in which the scene is set for the murder of women. Here land expropriated without compensation from native people is the basis of wealth in a system of land tenure from which native people are completely excluded. Real estate speculation proceeds at a hectic pace, generating both wealth and poverty in a system of unequal development. In the early 1960’s the Picton family purchased swampland just west of the Pitt River when fewer than 10,000 people lived there. Today Port Coquitlam is one of Canada’s fastest-growing suburbs and a paragon of urban sprawl. Most of the more than 50,000 residents make the long commute into Vancouver, driving 45 miles each day. The Pictons made a fortune selling the wetlands for development; two land sales in the 1990’s netted 3.5 million dollars.

Twenty-two miles west the downtown eastside of Vancouver sits on another buried wetland. Thanks to police crackdowns on the relatively safe practice of hotel prostitution and the successful efforts of outraged citizen’s groups to evict the sex trade from other, less disempowered neighbourhoods, prostitutes share dark alleys with drug dealers and turn tricks in cars. “From 1985 to 1989, 22 prostitutes were murdered in Vancouver. From 1990 to 1994, there were 24 murders. Since then, another 50 or 60 women have likely been murdered,” writes Gardner (2002). The downtown eastside is an enclave of poverty and danger at the nervous edge of an otherwise thriving city. (Vancouver is “the world’s most desirable place to live,” according to the Economist Intelligence Unit’s liveability survey, which looked at conditions in 127 cities. See McKenna, 2005).

Every existing physical space is simultaneously a cultural space; the relationships between spaces denote a cultural practice. Between the liveable city and the alluring suburbs, the downtown eastside is a cautionary tale for women. Paulr Taylor (2006) describes the women of the neighbourhood as “raising shit and resisting.” These women don’t matter to feminists, the media, the public and the police because of “not finishing university or high school, not

marrying an upwardly mobile (well-to-do) guy, not being an anonymous wage-slave, having and losing independence and using/abusing one or more substances, leaving an abusive relationship or an abusive home life, getting caught up in the lifestyle of one's chosen or just found micro-community and acquiring the monikers addict or junkie or hooker or mule or fluff or mental case... and the categorization in this illusory hierarchy sticks like tar." In contrast, the suburban women of Port Coquitlam are – however provisionally – women who matter. Taylor reflects on the outcry that ensues if even one obedient middle-class white woman is murdered.

Creating a memorial for the other(ed) women whose body parts were excavated from the suburban mud, we can contest this geography. Whose interests are served by unlinking the practice of prostitutes frequented by suburban men from the privileges and precariousness of suburban women? A monument on Dominion Street in Port Coquitlam could include designs for housing, transportation, drug rehabilitation, a bordello, and a community garden: spaces for conversation, designs to provoke engagement, and economic strategies for the empowerment of women from diverse backgrounds and locations. A design might make room for a vast array of personal responses, within a territory that renders "public space" a living possibility.

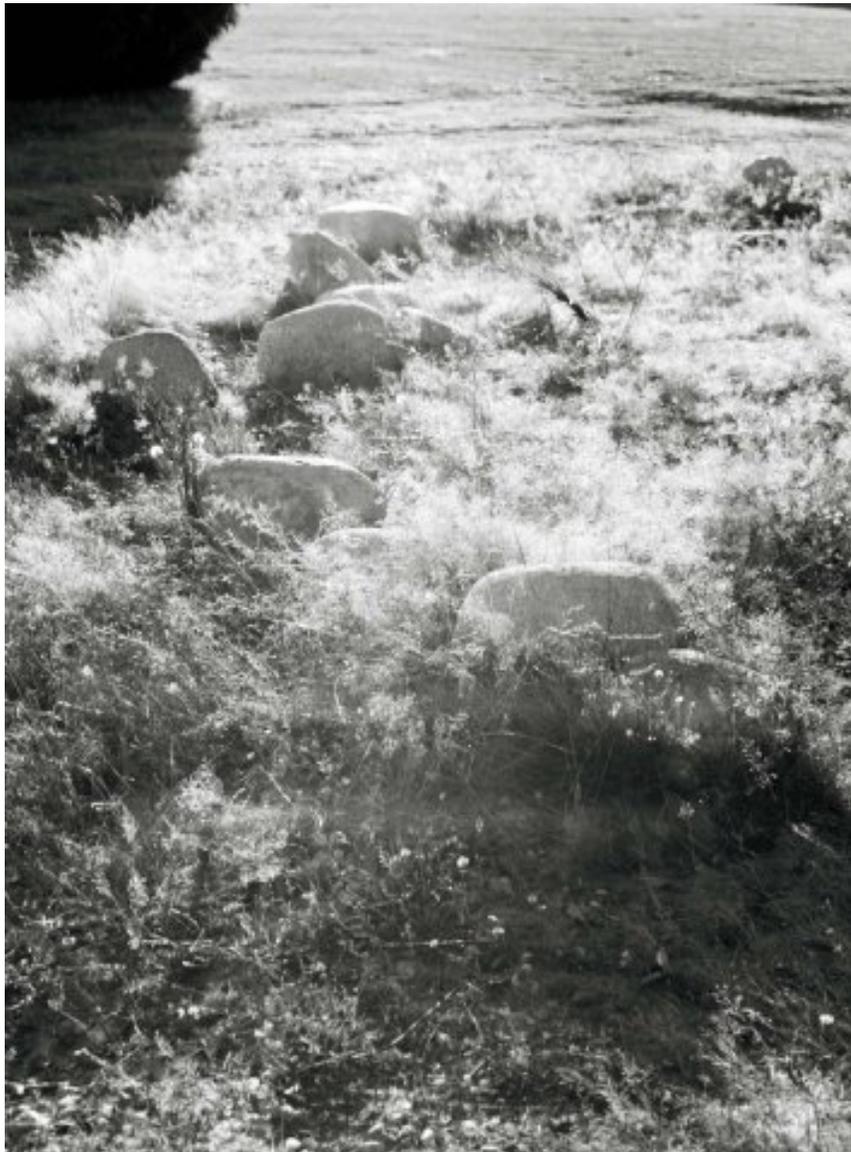
What form of attention, culture, or memorial might actually address the conditions that engender the murder of women? A fitting monument to the missing and murdered women of Vancouver's downtown eastside will acknowledge the depth of grievous loss. It will speak to the multiple ways in which specific oppressions and entitlements shape our lives, our culture, and the land beneath our feet. It will honour our kinship with all life, without disallowing the radically different ways we are endangered because of class, race and sexuality. It will contest the system of suburb and city, and create a public sphere. It will change what – and who – matters.

I dream of making such monuments – atonements that may be described as utopian, impossible. But if we forget what is not possible, the unthought aches, like phantom pain in amputated limbs. It may be more fitting that the monuments I design do not (yet) exist in specific places. I imagine an invisible, viral replication of ideas that infect, and finally overwhelm, the body politic that makes such monuments necessary.

"To salve the world's wounds demands a response from the heart. A viable future isn't possible until the past is faced objectively and communion made with our errant history.... Making amends is the beginning of the healing of the world. "

- Paul Hawken, (2007, p. 188)

Caffyn Kelley and the community of Trout Lake, Vancouver (2001). *Water Dream/Water Memory*: images from the built project (now destroyed). Photos by Femke Van Delft



Remembering

“I am beginning to believe that we know everything, that all history... is part of us, such that, when we hear any secret revealed... our lives are suddenly clearer to us, as the unnatural heaviness of unspoken truth is dispersed. For perhaps we are like stones; our history, and the history of the world embedded in us, we hold a sorrow deep within and cannot weep until that history is sung.”

- Susan Griffin (1993, p. 8)

Beneath the pavement of every city – no matter how thoroughly ditched, dyked, dammed, buried and filled with poisons – the water is still there, singing its secrets.

Theodor Adorno wrote to Walter Benjamin that “all reification is forgetting... objects become thinglike at the moment when they are seized without all their elements being contemporaneous, where something of them is forgotten.” As artists and educators culturing sustainability, we can work to restore the forgotten dimension of aliveness and mutability in objects and relationships: the time – the history and violence – through which they are fabricated; the time – and patient work – through which they can be changed.

The work of remembering may transform environmentalism by folding the historical construction of race, whiteness, indigeneity and wilderness into an ecological understanding of what needs to be done to save the planet. Julie Cruikshank (2007) points out that instead of seeing glaciers as redeemable objects to be saved, Tlingit stories describe glaciers as sentient beings that make moral judgments and punish infractions. A country that listens has to disappear to make room for manufacturing and mining. Wilderness is historically constructed by the erasure of memory, people, connection, voices and stories from a landscape, so that today white-identified environmentalists struggle to save the wilderness, while indigenous groups struggle to get the word “wilderness” removed from UNESCO’s world heritage site designations. Whiteness is constructed in a parallel process of reification, through the erasure of human connection to particular landscapes, traditions, ethnicities and stories. With identities based on what one can forget – and on whom one can hold back – white-identified people may be singularly unprepared to confront history and to change it. Decolonization involves each of us in the re-articulation of people and place. Remembering, researching, observing,

mapping, storytelling, listening and gardening become key pieces and projects of our environmental work to save the world.

Like buried rivers, “forgotten” ideas and stories have not disappeared but only gone underground, slipped out of sight. “There are no new ideas,” says Audre Lorde (1984), “Sometimes we drug ourselves with dreams of new ideas.... But there are no new ideas waiting in the wings to save us as women, as human. There are only old and forgotten ones, new combinations, extrapolations and recognitions from within ourselves – along with the renewed courage to try them out” (p. 38).

Shelley Sacks: A Social Healing Arena

Social sculptor Shelley Sacks (n.d.-b) describes work developed to “model processes for re-immersing ourselves in the living being of the world.” She believes that by becoming internally active, we may activate a space for environmental citizenship and social healing: “an ethical space where love and imagination of ‘the other’ as oneself are at the heart of experience.” Local water from a river, lake or spring provides a medium for participants’ remembering, rethinking and renewal processes – processes that break through the numbness and re-enliven internal and external worlds.

“Thought Bank 2 is installed in three small, dark cellars under city streets. In the room of remembering, each person is invited to work with an image that insists itself and ‘live into it’ and explore it. Participants are asked to place a bandage on the wall at the end of this process. In the room of rethinking, participants formulate, either on their own or in discussion with others, how things might be different. These thoughts and images are then transmitted into water in a large flask by means of copper head pads. Ancient knowledge and recent discoveries have found that water can carry non-material information. This potent water, filled with images and thoughts is then decanted into smaller flasks that are hung on racks in the third room of renewing. Each flask has a copper capillary extending out of it, allowing the transformed thoughts to be released into the atmosphere. The small flasks in this room create the thought bank.

“Working with our thoughts is a necessary form of contemporary alchemy, in which we become conscious of the power of our thought to shape things differently.”

Shelly Sacks, *Thought Bank 2: A social healing arena*. Used with permission.



Joanne Plourde: *Ghost*

Joanne Plourde took calcium carbonate, a powdered lime used to neutralize the effect of acid rain in lakes and rivers, and used it to paint a life-sized blue whale in the Saguenay River estuary, where these whales once ranged. The constant action of the tide washed the huge drawing away in three months. For Plourde “The principal visual quality of the calcium carbonate is its extreme whiteness – just like a ghost.” The whale is a symbol “of both hope and human destruction at the same time – a symbol of ecology.”

Rebecca Belmore: *Speaking to their mother*

Rebecca Belmore set up a huge, intricately-carved wooden megaphone, some two meters in diameter, and asked First Nations people at urban, rural and reserve sites across North America to address the earth directly through the device.

Belmore (n.d.) says, “This artwork was my response to what is now referred to in Canadian history as the ‘Oka Crisis.’ During the summer of 1990, many protests were mounted in support of the Mohawk Nation of Kanasatake in their struggle to maintain their territory. This object was taken into many First Nations communities – reservation, rural, and urban. I was particularly interested in locating the Aboriginal voice on the land. Asking people to address the land directly was an attempt to hear political protest as poetic action.”

Atoning to Wetlands

Wetlands are the slimy in-between places where earth and water meet and mix. They are places of vast diversity. They stink with the sharp, sulphurous smell of life's beginning. Light transforms into life. Every tablespoon of water contains millions of organisms: phytoplankton, zooplankton, bacteria. Wetlands stabilize soil and clean water. They are vital habitat. The history of European settlement in North America is a history of the devastation and elimination of wetlands. Estuaries were buried, and dredged to create harbours. Bogs were drained, marshes were filled, and swamps were turned into farms and suburbs. The fur trade eliminated millions of acres of beaver-built wetlands. Water was diverted, dammed, ditched, and captured for irrigation, sanitation and electric power.

The European adventurers hated slime. Jean-Paul Sartre (1969, p. 607) describes it thus: "Slime is the agony of water. It presents itself as a phenomenon in the process of becoming; it does not have the permanence within change that water has. . . . Nothing testifies more clearly to its ambiguous character as a 'substance between two states' than the slowness with which the slimy melts into itself."⁶ My thinking here owes much to Gordon and his use of Sartre. White, Western man wants clear edges and sharp delineations between land and water, differences as obvious as those between Christian and Savage, man and nature. Where native North American cultures hone capacities for kinship and transformation, European psychic and social organization relies on the difference and distance between self and other, male and female, human and animal, us and them. When one state melts into another, what might not be destabilized by the stink and slime of intense diversity?

Revegetating streambanks and restoring wetlands, we may simultaneously restore (or invent) these cultural spaces of complexity, paradox, reversal and infiltration.

⁶ Footnote: This passage was first brought to my attention by Lewis Gordon, (1995, p. 126).

Exercise: Streambank Restoration

Planting stripped streambanks with indigenous vegetation complicates edges and softens transitions between land and water, fostering the richly productive interplay of systems. Streamside vegetation is habitat for birds and small mammals. Leaf litter makes food for fish. Streambank vegetation prevents erosion, while acting to filter toxins from water draining into streams. Small projects can be accomplished with no money – some plants such as willows regenerate easily from cuttings.

1. Plan project for winter when trees are dormant.
2. Collect willow cuttings from new growth 1/2 to 2 inches in diameter and 4 to 6 feet long.
3. Trim away leaves and buds.
4. Soak cuttings – they should be 80% submerged in water for 48 hours before planting
5. Plant cuttings deeply (2/3 below ground, 1/3 above).

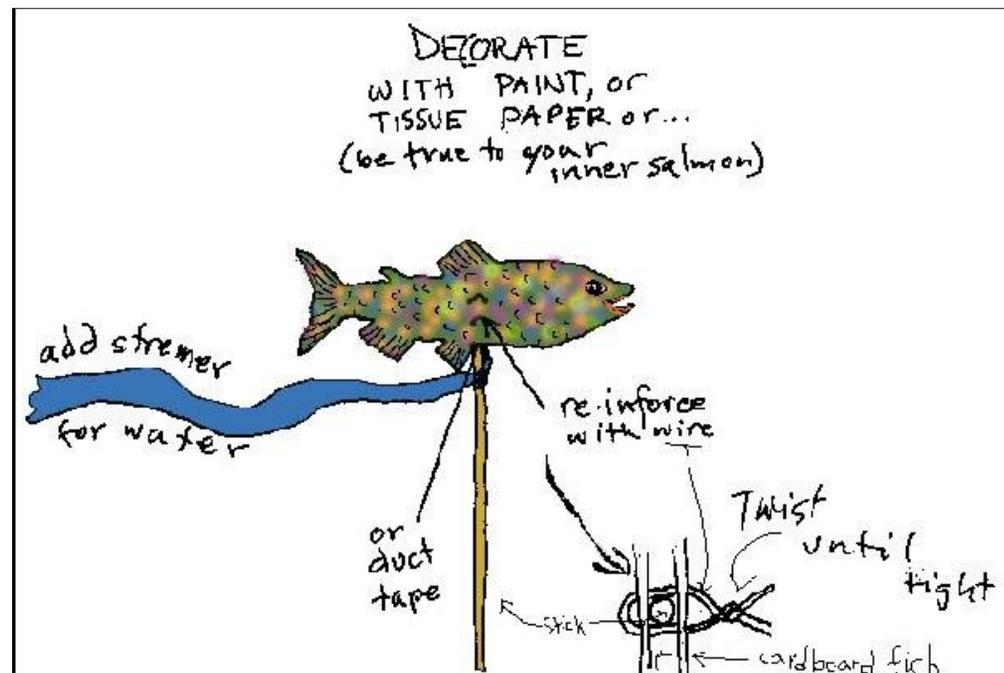
This simple process, however imperfectly followed, should result in at least *some* of the cuttings rooting and growing, initiating a multiplying process of restoration along the stream.

Exercise: Opening Channels

Imagine and make a parade about opening channels. Consider disconnected watersheds, blocked streams and rivers, buried wetlands, dysfunctional family systems, connections between conscious and unconscious processes. Are there rhymes between them? Imagine an ecological restoration that invites analogies with creativity and memory – or keeping contact with the past, the dead.

According to Agnes de Mille, at a time when she was “bewildered and worried that my entire scale of values was untrustworthy....Martha [Graham] said to me, very quietly”: “There is a vitality, a life force, an energy, a quickening that is translated through you into action, and because there is only one of you in all of time, this expression is unique. And if you block it, it will never exist through any other medium and it will be lost. The world will not have it. It is not your business to determine how good it is nor how valuable nor how it compares with other expressions. It is your business to keep it yours clearly and directly, to keep the channel open. You do not even have to believe in yourself or your work. You have to keep yourself open and aware to the urges that motivate you. Keep the channel open. ...’

Instructions for making a fish on a stick, for the Wild Salmon Guild, 2004. Sketch by Paula Jardine, colorized by Robi Smith.
<http://www.islandsintute.com/gallery/Jardine/Nature/slides/1u-fishstickinstruc.html>
 Used with permission.



Fish on a stick created by the Wild Salmon Guild in public workshops. Paula Jardine writes, “We didn’t have funding initially so everyone raided their arts and crafts stashes and we ended up with a marvelous assortment. We felt this was appropriate as genetic diversity is of extreme importance for species survival.” Photo: Robi Smith. Image and text copied from <http://www.islandsinstitute.com/gallery/Jardine/Nature/slides/1s-salmonevening.html> Used with permission.



Exercise: Infiltrations

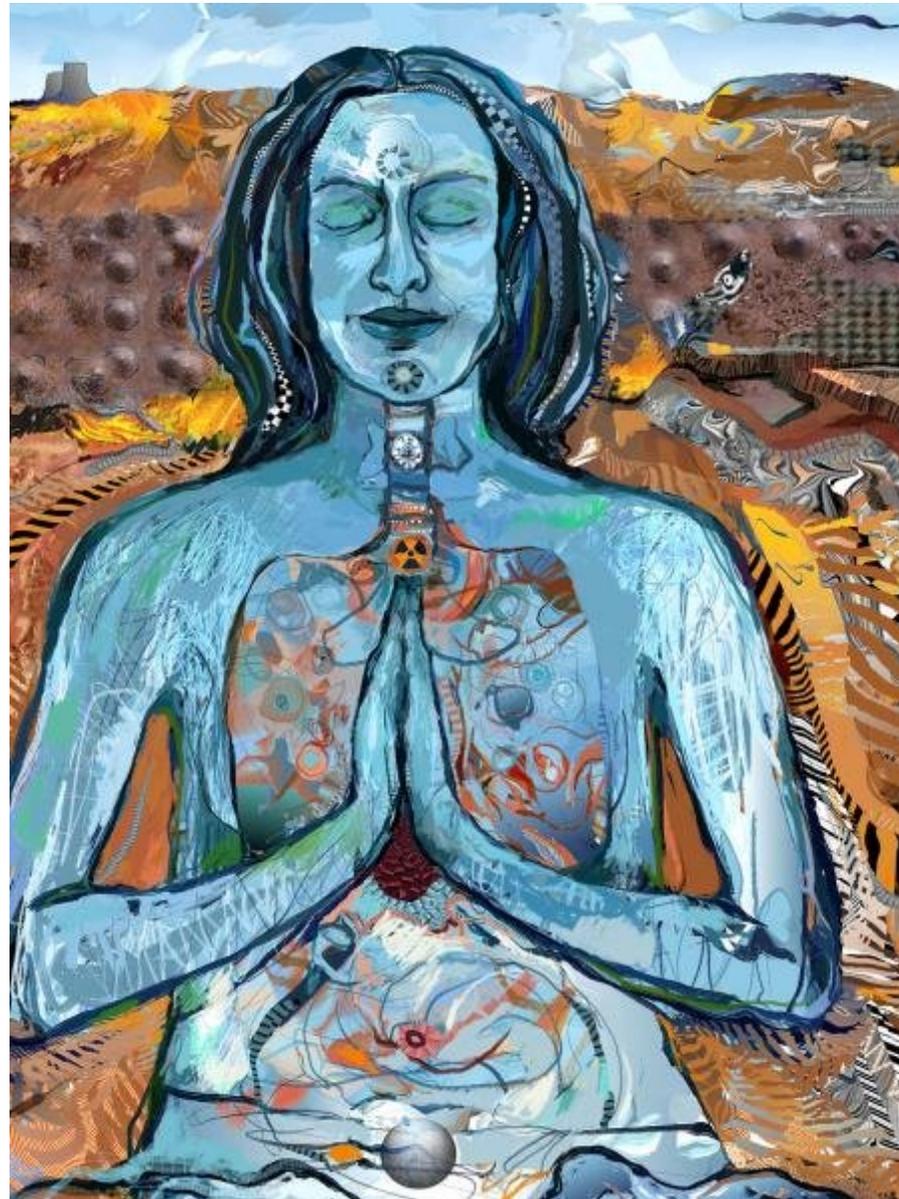
Try thinking like a beaver, and designing a shelter (for human or inhuman nature) that also functions to create habitat for diverse species, multiply edges and transitions, and create slimy in-between places that function as filters (cultural? natural?) – kidneys for a continent.

Consider this quote from Joseph Beuys: “the spreading of ideas to the different forcefields of human ability [is] a kind of inspiration that takes effect through a physical process of capillary absorption: psychological infiltration, or even infiltration of institutions” (cited in Spaid, 2002).

The care of rivers is not a question of rivers, but of the human heart. With love comes understanding and motivation for right action.

– Tanaka Shozo, cited by Betsy Damon, Keepers of the Waters workshop materials

Beverly Naidus, Yucca Mtn.
Boddhisattva, copied from
<http://islandsinstitute.ning.com/profile/bnaidus> Used with permission.



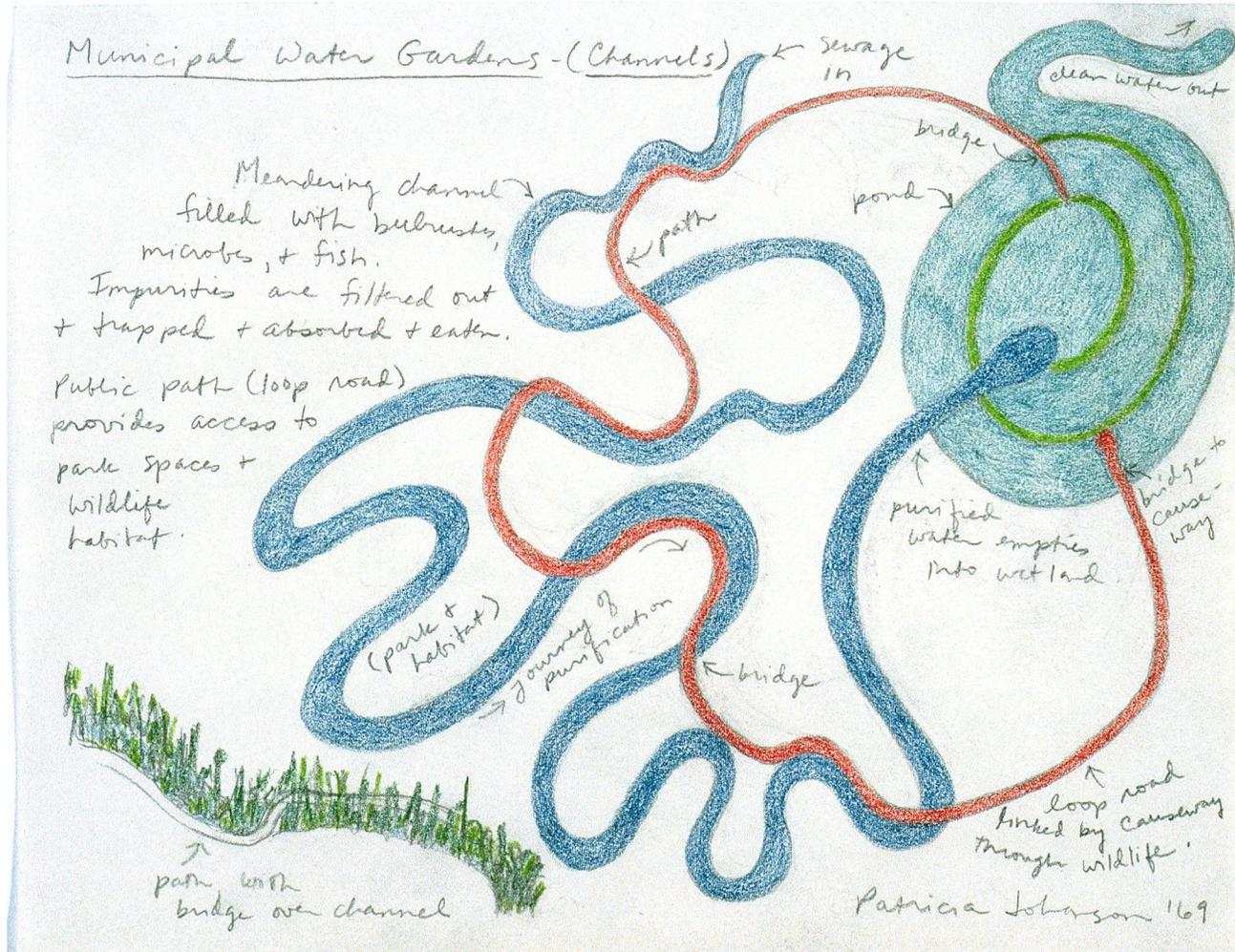
S-L-O-W

The Slow Food Movement began in Italy in 1986 in response to the opening of the first McDonalds there. It countered American “Fast Food” with the notion of locally grown, carefully prepared “Slow Food.” The movement opposes the standardization of taste and the industrialization of agriculture. Slow Food intends to preserve the traditional farming and processing techniques of diverse places, and to foster the cultural diversity tied to food and farm traditions. It fosters biodiversity by celebrating endangered multiplicity of animals and vegetables – domestic and wild.

The concept of SLOW has infiltrated various disciplines and spawned other suggestions, including Slow Education, Slow Money and Slow Art. Katherine Dunster of Bowen Island coined the term “Slow Islands” to mean islands that understand that their unique cultures are the result of a close relationship with both the land and their surrounding waters, islands that recognize that agriculture is the foundation of the cultural landscape, and islands that recognize that their biological and landscape diversity is an essential ecological asset that has existed for millennia. Slow islands mean slow, narrow roads full of pot-holes, acceptance that ferries rarely run on time, “places so diversely interesting that you are enticed to walk somewhere, and places where you can walk anywhere” (Dunster, n.d.).

SLOW movements suggest the energy of “do nothing extra” – as in Tai Chi practice – or an erotic energy that is found in unwinding, relaxing, allowing and acceptance. Rather than teaching and learning how to act, culturing sustainability might look more like slowing down, doing less, taking time and making room for the flourishing of diverse cultures and ecosystems. In ecological restoration, it is often the case that ecosystems will heal when simply given space and time. SLOW spaces of nurturance and connectedness cannot always be constructed, but they can often be discovered by tending – or patiently attending – the healing that is already there.

Slow Education can be advanced as a space in which to resist the drive to pile on more work, more knowledge-construction, more efficiency, and more educational production. Slow Art might look like the work of Elaine Carol and Miscellaneous Productions. This group collaborates with at-risk youth in British Columbia. They spend no less than 3 years on each project, working diligently to get to know the youth participants’ parents, grand-parents, aunties, uncles, school administrators, teachers, youth workers and social workers. Carol advises, “We spend years doing follow up on each individual youth” (2008). Or Slow Art might look like the work of Patricia Johanson, whose small drawings, made on 8-1/2 x 11 typing paper in 1969, are only forty years later at last beginning to be built in diverse locations around the world. Rejected in 1969 as quixotic, they are now described as proposing “a renewal of garden design [and] a new role for the visual arts in pursuit of the unfinished project of modernity” (Wu, 2008).



Patricia Johanson,
*Municipal Water Gardens:
Channels*, 8-1/2 x 11",
pencil and coloured pencil,
1969. Used with permission.

Integrating Time

“The first mandate... is to ensure that our decision-making is guided by consideration of the welfare and well being of the seventh generation to come.”

– the Bemidji Statement on Seventh Generation Guardianship (July 6, 2006)

Calculating the costs of production and consumption through seven generations, viewing all acts and attitudes from the perspective of intergenerational justice, the indigenous environmental justice movement asks that we incorporate the dimension of time into our understanding of systems functioning. Thinking through time helps us resituate perceived conflicts between immediate “now” needs of self, family, and loved ones in the present, and the extended “then” family of seven generations and the earth. We experience the unity – in time – of ourselves with all that is other.

Integrating the dimension of time into knowledge systems shifts the realm of knowing from mind and eye, observing superficially discrete objects, to the whole sensate body with its needs and vulnerabilities. Embodied knowing accepts lack, desire, and interconnection; we know our scars. “The body of a human being is the primary instrument of connection between his personal life and the fullness of the physical universe,” notes Ira Progoff (1977, p. 194). “When we experience the world as our own body, illusions of duality dissolve, and with them, old assumptions about a distinct and separate ego-self codified by our culture” (Gablik, 2002, p.54)

Integrating time into ethical understanding allows us to forgo the puerile expectation that doing it “right” leads to the cessation of suffering. In time, we must learn to be with suffering and death. Embodied knowledge affords no power. The refusal of suffering constitutes so much of our culture and economy. It shapes our rites and practices around education, health care, environment, food, and personal dreams. Instead of learning to be with suffering, we inflict our suffering on others and the earth, the inhuman, marginalized, far away, and silenced.

Integrating time, we may integrate the process of dis-integration into a new view of wholeness. In time, wholeness is not some object held apart in perfect splendor. Wholeness integrates decay, suffering and death in systems function.

The world is overfull of superficial knowledge – “truths” observed outside of time and construed as information, facts, prescriptions, actions and ethics. Integrating time allows us to create space in which deeper, older forms of actuality may become possible.



Mideo Cruz, *Miracle of Colonization*, sound, sight and fumes installation, Cultural Center of the Philippines, 2003, copied from <http://islandsinstitute.ning.com/photo/photo/show?id=1163070%3APhoto%3A6635&context=user>. Used with permission.

The Long Now

The Long Now Foundation began with the idea of building a monumental-scale, multi-millennial, all-mechanical clock as an icon to represent and foster long term thinking. Participants agreed that by actually building this clock, discussions around long-term thinking would become far more focused, and it would lend itself to good storytelling and myth – two key requirements for anything lasting a long time.

The Long Now Foundation hopes to provide counterpoint to today's "faster/cheaper" mind set and promote "slower/better" thinking. They work to creatively foster responsibility in the framework of the next 10,000 years.

Guidelines for a long-lived, long-valuable institution

- Serve the long view (and the long viewer)
- Foster responsibility
- Reward patience
- Mind mythic depth
- Ally with competition
- Take no sides
- Leverage longevity

Adapted from <http://www.longnow.org/about/> June 1, 2008

David Hillis of the Long Now Foundation first proposed a large ("think Stonehenge") mechanical clock that would be powered by seasonal temperature changes. "It ticks once a year, bongs once a century, and the cuckoo comes out every millennium."

Alan Sonfist: *Time Landscape*

Artist Alan Sonfist believes that “it is not enough to repair the landscape; one must also ‘repair the hole in the psyche which is left when all traces of biological and ecological roots are obliterated.’” (Spaid, 2002, p. 5). In a project first proposed in 1965 and finally built in 1978, Sonfist developed *Time Landscape* – a 45 x 200 foot patch of pre-Colonial landscape (including oaks, hickories, junipers, maples, and sassafras) planted in Manhattan. *Time Landscape* continues to evolve. The project is habitat for wildlife and memorial to the forest that once thrived there. It has inspired an ongoing city-wide project that converts barren street spaces into parks planted with trees and shrubs. Sonfist’s project has received criticism as a visible but locked park that may in some ways reinforce a division between human and nature. But the project also suggests an understanding of world and self which moves to “repair the hole in the psyche” by making space and time in which healing can unfold. Eschewing the conventional pathways of objectifying knowledge and healing interventions, *Time Landscape* imparts a space for Slow Knowledge like that suggested by Jung (1968), who writes that the deepest insights of consciousness and highest intuitions of spirit cannot be thought up (p. 273), but must grow in time, from unknowable roots, nourished by fluidity and connectedness.

Revisoning Place

Culturing sustainability through Slow Art and Slow Education suggests a process of coming home to the places we inhabit. Gary Snyder (1990) comments, “There are millions of people in North America who were physically born here but who are not actively living here intellectually, imaginatively or morally” (p. 40).

Judith Plant (1990) and others have explored “the practice of coming to terms with our ecological home” (p. ix) under the rubric of Bioregionalism. In contrast to the citizenship model of allegiance to jurisdictional boundaries described by various levels of government, bioregionalism suggests allegiance to the species, process, and natural systems that inhere to a specific place. Plant explains: “Bioregionalism...involves becoming native to a place through becoming aware of the particular ecological relationships that operate within and around it. It means understanding activities and evolving social behavior that will enrich the life of that place, restore its life-supporting systems, and establish an ecologically and socially sustainable pattern of existence within it. Simply stated, it involves becoming fully alive in and with a place. It involves applying for membership in a biotic community and ceasing to be its exploiter” (p. 81).

Practically speaking, bioregionalism might mean:

- eating local food;
- getting to know the birds, animals, trees, plants and weather patterns of your home place;
- learning the cultural and natural history of your home place;
- supporting local artists, musicians, theater companies, storytellers instead of watching TV;
- shopping at locally-owned stores instead of big chain stores;
- withdrawing money from the global money market and investing in local people and businesses;
- knowing where your garbage goes, reducing and reusing waste;
- knowing where your water comes from, and where your electricity is generated;

- reducing your Ecological Footprint;
- telling stories of and for your home community.

According to the [Great River Earth Institute](#) (n.d.), “Bioregionalism is a fancy name for living a rooted life. Sometimes called ‘living in place,’ bioregionalism means you are aware of the ecology, economy and culture of the place where you live, and are committed to making choices that enhance them.”

Bioregionally inspired place-based education can be paired with a critical pedagogy that seeks social transformation through attention to relationships of power. Gruenwald writes, “If place-based educators seek to connect place with self and community, they must identify and confront the ways that power works thru places to limit the possibilities of human and nonhuman others” (2003 a, p. 7).

M’Gonigle and Starke (2006) speak of reinventing education, so that all those involved can act as collective producers of community and place, rather than fragmented, individual consumers of knowledge-power (p. 150). They comment that as the university now functions “...faculty, staff and students are fragmented and act as individual consumers of bureaucratic power rather than collective producers of community and place” (p. 150).

Reclaiming despised spaces and making them into places – wastelands, garbage dumps, sewers, hydro lines, brownfields, parking lots – has been a key aspect of ecological art. Carlo Rotella describes Patricia Johanson’s project in the rust-belt town of Brockton, Massachusetts as working “with the grain of a city’s deep structure” (2002, p. 197). Johanson began her plan for the town’s renewal with its history, historical meanings, and existing built and natural environment. In doing so, she deliberately moved “against the grain of urban renewal” (clearing it up and staring over). For artist Tim Collins and historian Kirk Savage (1998), reclaiming a 240-acre steel slag dump (Pittsburgh’s Nine Mile Run) began with the notion that the place was not a void awaiting the civilizing hands of a reclamer. “Although we recognized and examined the site’s environmental problems, our aim was to initiate a process of qualitative assessment...that would... investigate the site’s assets – its positive value to the city and the region” (p. 210). In their view, such positive assessments of industrial sites may open space for community-led solutions – rather than development-led evasions – of the complex interface between industrial, natural and social landscapes that can be found at brownfield sites.

Mapping

Mapping subverts established notions of what art is or can be, as it brings together image and science to create community knowledge. A map tells a story about a place. It is an image that communicates what we see and cherish in the world around us. We are surrounded by maps made by developers, engineers and scientists, but these maps can obscure both the intricate workings of natural systems and the values held by local residents. In recent years, people around the world have been inventing new ways to describe their home places. Community mapping projects are opportunities for local people to contribute their own knowledge, experience and values to images of the land.

There is a Zen koan that pertains to mapping: “Without surroundings, there can be no place.” Mapping engages us in a process of “coming home” to the places we inhabit. When we map, we pay close attention to both inner and outer worlds, as we search for images and words to describe their connections.

Doug Aberly (1993) talks about the spiral of dissociation that comes when we have no ways to defend, document and celebrate the places we inhabit. He writes, “If land, weather and nature are invisible abstractions, we tolerate the destruction of the web of life more easily.”

Maps shared can create community knowledge, charting the future as well as bringing the past to life. Maps that are personal and communal descriptions of space can also depict process and relationship. Maps are about “Giving the Land a Voice” – the title of a book by Sheila Harrington on Community Mapping. Maps can be painted on paper, stitched in fabric, woven, sung, and danced. They can illustrate, in intimate detail, a particular tree or patch of ground, or show how each place is connected – physically and culturally – with the entire globe. Maps empower communities. They help us find our way.

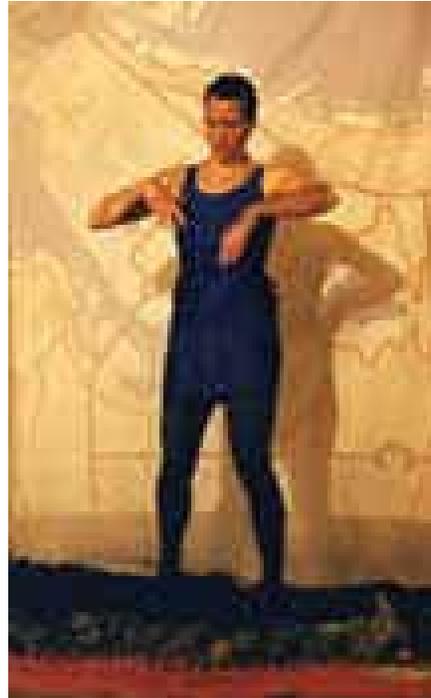
The contemporary community mapping movement was initiated in the 1980’s with the Parish Maps project of Common Ground. This organization maintains a rich website at <http://www.commonground.org.uk/>. Sue Clifford, one of the originators Common Ground, writes: “Making a Parish Map is about creating a community expression of values, and about beginning to assert ideas for involvement, it is about taking the place in your own hands. It begins with, and is sustained by, inclusive gestures and encouraging questions. What is important to you about this place, what does it mean to you? What makes it different from other places? What do you value here? What do we know, what do we want to know? How can we share our understandings? What could we change for the better? Turning each other into experts

in this way helps to liberate all kinds of quiet knowledge, as well as passion, about the place. Making a Parish Map can inform, inspire, embolden.”

Briony Penn, Map of Hesquiat Harbour. Used with permission.

Penn comments (personal conversation) that she has never seen a community map created without some powerful, shaping effect on the land.





Saille Abbott, *Precious Resource* (2002 performance). As part of the installation mapping the False Creek shore in Tideline, Abbott made a moving map of her own body. She found a way of making land, weather, nature and history into embodied experiences. Used with permission.

Exercise: Song Lines

Aviva Rahmani (2006) describes an activity she participated in at a Workshop for Science and Social Change at Woods Hole Oceanographic Institution. Workshop participants created individual “sense of place” drawings, mapping autobiographical areas of interest, and addressing the questions “Where am I? Where have I come from? Where am I going?” After wall-mounting the pages, they connected common concerns in the drawings with yarn. Rahmani says, “This was a playful approach to identity, difference and connection.” The drawing of interconnected “Song Lines” formed a starting point for a complex activity designed by Rahmani to “daylight” participants relationships to water and global warming, define personal connections between actions/choices and global effects, and identify “trigger points” for action and change.

Open Space

Educational organizations, like art organizations, are typically closed and closely-guarded hierarchical systems, constituted by way of fiercely defended boundaries that separate insiders from outsiders, qualified from disqualified. Harrison Owen (2000) invites us to ask where, in a closed system, does power come from? He notes that while no system is actually closed, in those which aim to be so “learning in a deep sense comes to a halt, and innovation withers.... [T]he firewalls, external and internal, that defend the organization also isolate it from the external world, and internally its members are locked in hermetically sealed chambers” (p. 113-114). In ivory towers, as in white boxes, there is no way to change – no place for accident or for difference that makes a difference – and so the system’s irrelevance is insured. In such claustrophobic conditions, “the whole system becomes toxic,” and we must change or die (p. 81 ff).

Owen writes, “High Learning occurs when chaos cracks the established order, permitting us to see some difference that makes a difference. We find ourselves on a quantum leap past, and through, what we knew before, and on to a new way of perceiving the world” (2000, p. 29). Open Space practitioners describe this “Chaordic field”: “There is a path to take between Chaos and Order that leads us to the new, collective learning, real time innovation. It goes through our fear, and confusion, but together we can travel this Chaordic path” (Art of Hosting, n.d.). Open culture “acknowledges cultural diversity, favours participatory polyarchic polities and adapts itself to the non-human environment” (Kagan 2008 p. 18-19). There are many facilitation models that artists and educators use to create radically democratic learning environments and open, nutrient-rich space with permeable boundaries.

“A proliferation of living environmentalisms”

The Environmental Justice movement has demonstrated that pollution’s effects fall disproportionately on people of color, Indigenous Peoples, and low-income communities. Race is the single best predictor for having to suffer the direct impact of hazardous waste disposal and environmental contaminants. A report on twenty years of advocacy for environmental justice comments, “Polluting industries still follow the path of least resistance. For many industries it is a ‘race to the bottom,’ where land, labor and lives are cheap. It’s about profits and the ‘bottom line.’ Environmental ‘sacrifice zones’ are seen as the price of doing business. Vulnerable communities, populations and individuals often fall between the regulatory cracks” (Robert D. Bullard et. al., 2007).

“A proliferation of living environmentalisms” described by Giovanni di Chiro (2007) connects the survival of diverse and disenfranchised communities with the survival of the planet. Decades of vibrant environmental activism by poor people, people of colour and third world people present an integrated and inclusive vision of social and environmental change. She invites us to imagine and practice a politics of difference in a world of one water and one air, and to begin by defining environment as the place where we live our lives and build our communities, rather than some distant wilderness.

Jemez Principles for democratic organizing

“We must be the values that we say we’re struggling for and we must be justice, be peace, be community.”

On December 6-8, 1996, forty people of color and European-American representatives met in Jemez, New Mexico, for the “Working Group Meeting on Globalization and Trade.” The Jemez meeting was hosted by the Southwest Network for Environmental and Economic Justice with the intention of hammering out common understandings between participants from different cultures, politics and organizations. The “Jemez Principles” for democratic organizing were adopted by the participants.

#1 Be Inclusive

If we hope to achieve just societies that include all people in decision-making and assure that all people have an equitable share of the wealth and the work of this world, then we must work to build that kind of inclusiveness into our own movement in order to develop alternative policies and institutions to the treaties policies under neoliberalism. This requires more than tokenism, it cannot be achieved without diversity at the planning table, in staffing, and in coordination. It may delay achievement of other important goals, it will require discussion, hard work, patience, and advance planning. It may involve conflict, but through this conflict, we can learn better ways of working together. It’s about building alternative institutions, movement building, and not compromising out in order to be accepted into the anti-globalization club.

#2 Emphasis on Bottom-Up Organizing

To succeed, it is important to reach out into new constituencies, and to reach within all levels of leadership and membership base of the organizations that are already involved in our networks. We must be continually building and strengthening a base which provides our credibility, our strategies, mobilizations, leadership development, and the energy for the work we must do daily.

#3 Let People Speak for Themselves

We must be sure that relevant voices of people directly affected are heard. Ways must be provided for spokespersons to represent and be responsible to the affected constituencies. It is important for organizations to clarify their roles, and who they represent, and to assure accountability within our structures.

#4 Work Together In Solidarity and Mutuality

Groups working on similar issues with compatible visions should consciously act in solidarity, mutuality and support each other's work. In the long run, a more significant step is to incorporate the goals and values of other groups with your own work, in order to build strong relationships. For instance, in the long run, it is more important that labor unions and community economic development projects include the issue of environmental sustainability in their own strategies, rather than just lending support to the environmental organizations. So communications, strategies and resource sharing is critical, to help us see our connections and build on these.

#5 Build Just Relationships Among Ourselves

We need to treat each other with justice and respect, both on an individual and an organizational level, in this country and across borders. Defining and developing "just relationships" will be a process that won't happen overnight. It must include clarity about decision-making, sharing strategies, and resource distribution. There are clearly many skills necessary to succeed, and we need to determine the ways for those with different skills to coordinate and be accountable to one another.

#6 Commitment to Self Transformation

As we change societies, we must change from operating on the mode of individualism to community-centeredness. We must "walk our talk." We must be the values that we say we're struggling for and we must be justice, be peace, be community.

by Rubén Solís, Southwest Public Workers Union; and Chair of the SNEEJ Border Justice Campaign [published by the SouthWest Organizing Project, April 1997] Activists meet on Globalization at available online at <http://www.ejnet.org/ej/jemez.pdf>

Opening Space in Knowledge Systems

Foucault distinguishes an epistemological level of knowledge – scientific consciousness, knowledge of order of things – from his effort to restore what has eluded consciousness. Attending to the positive unconscious of knowledge unearths the subterranean rules that produce what is thinkable. In this attention, we may open spaces of possibility, both in the mind and in the streets. Work examining “the instances of discourse that articulate what we think, say, and do as so many historical events” (Foucault, 1984a) can be used to suggest multiple sites of contestation, and create “new opportunities for both scholarly and political intervention” (Halperin, 1995, p. 42).

Cary Wolfe (2007) comments on the subliminal and actual violence of existing knowledge paradigms. We wield knowledge as mastery, rather than suffering our shared vulnerabilities and not-knowings with the so-called inhuman world. The Hegelian dialectic of Master and Slave produces pathologies of agency; knowledge as “mastery” produces a disavowed dependence on the abject other. What might take the place of this “knot of imaginary servitude that love must always undo again, or sever” (Lacan, 1977)?

Many indigenous cultures practice some form of “walkabout” through which people find their power and language in silence, solitude, and dialogue with the other. Artists and teachers, shamans and healers in non-Western cultures may fast, ingest hallucinogens, sweat and pray, and such practices may help Western-educated activists loosen the grip of what is thinkable. But rather than undertaking such practices with the aims of simplification and purification, we might instead aim for acceptance of the messy, mysterious, paradoxical, minute and unknowable processes of infiltration, instability, slime and duplicity. Jung comments that as soon as we think ourselves purified, we flip over into the most toxic, fearful and dangerous mode of being that can be imagined (1968). So long as knowledge aims for essence, it performs a kind of violence on the abject. Shaping spaces of possibility in what and how we know, we might forgo the tyranny of truth and eschew the obligation to aim for a happy ending. We might learn to live with our incompleteness, sufferings and imperfections.

Mystery

Culturing sustainability, we invite mystery and allow the play of contradictory elements. We accept the limits of knowledge systems and make space everywhere for not-knowing. Not-knowing is humility, emptiness, readiness. Not-knowing is an open mind and a heart that can admit what is new, forgotten, transforming, impossible.

Donella Meadows (1997) writes of letting go into not-knowing as the most critical key to effective thought and action that is rooted in a systems understanding of the “immense and amazing universe.” She observes that “People who cling to paradigms (just about all of us) take one look at the spacious possibility that everything we think is guaranteed to be nonsense and pedal rapidly in the opposite direction.” But accepting mystery, and understanding that there is no certainty in any worldview, is a basis for radical empowerment. “If no paradigm is right, you can choose one that will help achieve your purpose.” She observes, “It is in the space of mastery over paradigms [or not-knowing] that people throw off addictions, live in constant joy, bring down empires, get locked up or burned at the stake or crucified or shot, and have impacts that last for millennia.”

Wes Jackson (2004) writes, “To call the unknown by its right name, ‘mystery,’ is to suggest that we had better respect the possibility of a larger, unseen pattern that can be damaged or destroyed and, with it, the smaller patterns.....If we are up against mystery, then we dare act only on the most modest assumptions. The modern scientific program has held that we must act on the basis of knowledge, which, because its effects are so manifestly large, we have assumed to be ample. But if we are up against mystery, then knowledge is relatively small, and the ancient program is the right one: Act on the basis of ignorance. Acting on the basis of ignorance, paradoxically, requires one to know things, remember things — for instance, that failure is possible, that error is possible, that second chances are desirable (so don’t risk everything on the first chance)....”

Critical or Traditional Knowledge?

Opening space in knowledge-systems was a goal for Elizabeth Lange (2004), who designed an adult education class wherein participants explored the notion of sustainability in work and world. The course, titled “Transforming Working and Living,” drew on transformative learning theory and critical pedagogical practices to foster a Freirian “Conscientization,” facilitating students’ understanding of their situation within the world, and their potential to transform the world. And yet Lange found that it was a dialectical process of transformative and restorative learning that worked best to foster profound personal change and active social engagement. She writes: “Throughout the course, the participants clearly stated that they did not transform their fundamental principles and values as transformative learning theory often supposes. Through their self-reflections, most of the participants [said they]... were able to *return* to their inner compass, which was submerged under the deluge of adult expectations, cultural scripts and workplace practices” (emphasis added). Re-acquaintance with deep values helped participants become open to new ideas and engage in a critique of global economic relations. Lange continues, “A second part of restorative learning was to restore an organic or radical relatedness to time, space, body, and relationships.”

Chet Bowers (2005) has explored how critical pedagogy and its transformative aims may work to reinforce cultural beliefs that underlie ecological problems. Conscientization can mean shaking off local knowledges and traditional ecological knowledges and adopting a western knowledge paradigm, with its individualism, belief in the progressive nature of change, and anthropocentrism. Transformative aims can contribute to anti-ecological thinking. As Gruenwald (2003a) comments, “deciding what should be *conserved* suggests a trajectory for critical inquiry that may be missed when transformation is pedagogy’s paramount goal” (p. 10, emphasis added). Compare, for example, educating for a critically conscious individuality with an educational practice that aims to preserve cultural traditions, resist change, and advocate for a future in which the whole living world – including rocks, water, and other species – is understood as invested with soul and agency.

Gegeo and Watson-Gegeo (2002) note that Traditional Ecological Knowledge is often regarded as a static body of information that can be learned and exploited within the aim of “development.” They write, “knowledge is treated as content and human minds as individualized containers. The extractive, textual nature of knowledge is an Anglo-European, top-down assumption congruent with modernization, even when applied by those critical of modernization.” To the contrary, when the Solomon Island villagers described by Gegeo and Watson-Gegeo apply indigenous

knowledge in development, “they are involved in a process of constantly (re)theorizing, (re)creating, and (re)structuring knowledge” (p. 381). Indigenous critical practices for constructing and applying knowledge may not conform to Western practices, nor yield outcomes and relationships that can be predicted through Western approaches to knowledge and inquiry. They may not, for example, yield the paradigm of progressive development (nor the process of individual Conscientization), but may tend to preserve and invent quite different trajectories and intentions.

Elizabeth Lange: Practicing Restorative and Transformative Learning

Elizabeth Lange (in press) placed the concept of “sustainability” at the centre of a course that invited participants to “transform their work in ways that were personally meaningful, contribute to community needs, balance family/individual well-being, and respect the natural world.” She describes her practice:

The introductory sessions enable participants to state the issues that brought them to the course, usually through a pictorial collage, and to begin a social critique of why they feel stress and pressures. ... [A] reflection process to position their experiences within a larger socio-political-historical context...is further facilitated as they tell their work stories – usually through drawing a work genealogy – to identify the key principles by which they work and live. Many participants identify the Protestant work ethic, especially the idea of hard work before leisure or pleasure, as one key principle that is both a positive and problematic cultural message. I then introduce sustainability to contrast the what-is with the what-is-possible, as a critique of incessant doing and workaholicism that compromises health and relationships.

To foster the possibility of transformation and deter participants’ despair, she follows this preliminary immersion in the world that is with a trip “to meet individuals who are exemplars of sustainability.” The class visits an organic farm, an off-the-energy-grid home, a woman who makes tree-free paper by recycling old clothes, and “an outdoor equipment and clothing store that has adopted sustainability in all of its sourcing practices, building materials, energy practices, and employee relations.” Lange continues: “We meet at an organic restaurant, visit an environmental activist who shares his low-impact approach to living focused on social (not material) wealth, visit a brewery that recycles 99% of all the products it uses, and hear from a man running a thriving strawbale home construction company. Meeting these people is one of the most powerful aspects of the course as participants discover that such people are not ‘out there’ but simply people like them – except that they have structured their work around specific principles, including sustainability, to enhance their quality of life.” These meetings shape a space of possibility for course participants, giving them hope, generating energy, and suggesting real possibilities for change.

In the following classes, participants perform “a self-audit assessing how they spend their time (every minute of each day for several weeks) and money (every cent for a month, if possible) and plotting their overall habits of consumption, relationships, and work.” They examine this audit to understand how they live out – and buy into – cultural myths and patterns of thinking that foster anxiety and preclude sustainability. Lange continues, “To help re-pattern ways of living... I suggest simple, largely non-commodified activities like walking every other day in a ‘wild’ area.... Another activity is to slow down and mindfully enjoy the sensual pleasures of eating an apple, drinking a glass of water, playing with young children, or having a bath. As we debrief these experiences and their surprise and joy, I also give presentations on the history of the consumer society as well as research studies that illustrate the inverse relationship between consumption and happiness.”

Once participants become aware – and have lived – the experience of detaching from unsustainable patterns of working and living, Lange engages them in “a broader socioeconomic analysis that illustrates linkages between North American consumption habits and the global impact on people and the environment.” Ecological footprint calculation and Life Cycle Analysis of commodities in their lives “makes these linkages apparent and unveils the global structures of production and work – who benefits, who does not, and why.” Participants reflect on questions including: “What work could I do which would most benefit the local/global community? How could I transform my working and living to be non-harming and life-giving?”

In final “action planning” sessions, participants ...“consider what is actually ‘do-able’ and what manifests principles they want to live by.” Lange describes the process, and the support and sanctuary she feels is crucial to it. On a retreat at a lodge, participants “engage in various relaxation activities to distance ourselves from concerns and in a guided visualization for discernment. An environmental educator joins us to lead various experiential activities outside. Whether sitting against a swaying tree, lying on the peaty earth in tall grass watching clouds, coming to understand the life cycle of a tree and the energy and matter cycles in a forest, or studying the story buried in layers of fallen snow, they reconnect with themselves, others, and the natural world in profound ways. Using art, creative writing, music, and movement activities, they create a set of principles and intentions they wish to manifest in their lives, out of which flows a concrete action plan.”

Social Computing as a Space of Possibility

Networks as graphic symbols only came into use in ideographic structure of the 20th Century. Is the network really something new? I note with Carl Liungman (1991) that while woven, interlacing patterns can only be expanded within the limits set by the structure, the network is not closed and can be added to indefinitely. In contrast to a closed circle where a (privileged) few influence and define a cultural community, the network suggests a form for art and learning that is forever open, interrogative and multiplicable. Web 2.0 interactive networks, practices and technologies allow us to imagine temporary, provisional, contested communities whose purposes and powers are opened by infinite layers of hypertext, and argued in asynchronous discussions where each person can speak without being interrupted. Multiple approaches – including email, private forums, public forums, collaborative work space, online events, and offline catalysts make space for friendships and gradations of intimacy. Rather than opening space for a dreamed-of community, the online network offers space for a perennially branching web of relatedness in a culture of infinite complexity.

Bill McKibben (2007) writes: “Internet scale is neither big nor small; it’s *distributed*, as energy and food supplies may someday be. The small nodes hook together into something much larger, but not so monolithic it can’t easily hive off into new sites and communities and forums. Despite every effort to turn it into one more television set controlled by the largest info-conglomerates, the Internet continues to operate more like...a farmers’ market, where a million people bring their produce to sell. Or, really, to give away” (p. 174).

Catriona Sandilands (1999) suggests that ossified democratic forms can be reconfigured as collaborative practices that are juicy and joyful, and that social computing is a medium that invites this reconfiguration. She writes, “We must create an ‘erotic democracy’ that decentralizes power and allows for direct participation in the decisions that determine our lives.... We must rethink technology as a creative art form that can add to the splendor of both social and natural worlds” (p. 196).

On the other hand, the increasing use of Internet technology for teaching and learning is undermining public support for traditional universities and creating a global, open market in education (Versluis, 2004). Rumble (1989) notes that distance education is vulnerable to abuse by economic and political interests. It may be used to eliminate student activism, and opposition to forces including privatization and globalization, by dispersing and isolating students. For Chet Bowers, moving university education online and substituting computers for professors means getting rid of the *only* remaining space where people can interrogate cultural and economic paradigms without penalty.

David Abram (1996) describes how computer-mediated communications separate us from a capacity for language that is informed by our embeddedness in natural systems. Because the body is “an active and open form, continually improvising its relation to things and to the world,” it keeps us in sensuous, breathing, dynamic, ever-unfolding relationship with the world around us. What is it in our work, our practice, and our relationships that demands the presence of the body and the breath?

Bowers (2001) writes: “Computers can process and model thought only in a decontextualized language system – which is profoundly different from face-to-face communication.... Face-to-face communication is always contextualized and is not a sender-receiver process of communication. That is, it involves personal memories, patterns of metacommunication, and individualized interpretation of cultural patterns formed over generations of collective experience....” (p. 139). In his view, computer-mediated communication reinforces the forms of high-status knowledge already promoted by universities, and eliminates space for cultivating the low-status knowledge so essential to survival with and in ecosystems: “the non-commodified, face-to-face, intergenerational, embodied, convivial, place-specific and mutual support experiences of everyday life” (p. 140). Wide cultural variations in embodied knowledge of diverse cultures cannot be communicated via computer. Cultural traditions transformed into digitized documents become viewed as entertainment; this transformation becomes “part of the process of commodification that reinforces the cultural patterns associated with the autonomous individual who enters the process as spectator” (p. 146). Computers are commodities and their use in education commodifies the most basic activities and relationships: thought and communication (P. 144). And yet computers may make education more accessible in a society where education has long been commodified, and must be purchased by a privileged few, and at great price.

On the Internet we are at once isolated from one another, and situated right inside a global social context. This context is characterized by the emergency of environmental degradation, the uncertainty of rapid social change, the displacement of traditional cultures, and an overwhelming quantity of information. The difficulty of engaging in sparkling conversations asynchronously can further isolate us from one another. Do online conversations tend to be superficial interactions? Is this conversation limited to communicating more information, rather than cultivating vital relationships? Or do Web 2.0 technologies allow us to reconfigure some of these critiques, and imagine, with Steven Downes (n.d.), “a system of society and learning where each person is able to rise to his or her fullest potential without social or financial encumbrance, where they may express themselves fully and without reservation [and].... where they are able to form networks of meaningful and rewarding relationships with their peers....”

Downes (2007) describes a vision of how “the emergence of the personalized web, the interactive web, web 2.0, or e-learning 2.0” allows us to form networks, rather than groups, and how that change can shape a radically different space

of possibility for culture and learning. He comments, “Groups are defined by their unity. In fact, one of the first things you do in a group is you try to maintain its unity. A group needs to be, in some sense, cohesive, united.... Without ...sameness, you don’t have the group....” Furthermore, he says, “Groups are closed.... They require a boundary that clearly defines the distinction between members and non-members.... Membership has its privileges....” Technologies that speak to and support groups include television, radio, newspapers, and books. “Networks, on the other hand, are open. They are defined by their diversity. In a network, information, wealth, and the process of knowing and coming-to-know can be widely distributed, radically democratic, and infinitely multiplicable.

Downes identifies three major reasons to reconfigure education through social computing networks rather than groups:

First of all, the nature of the knower. Human beings resemble ecosystems more than they resemble lumps of metal.

Secondly and very importantly, the quality of the knowledge. Because [when] the knowledge comes from the authority, from the center... the knowledge of groups is limited by the capacity of the leader to know things....

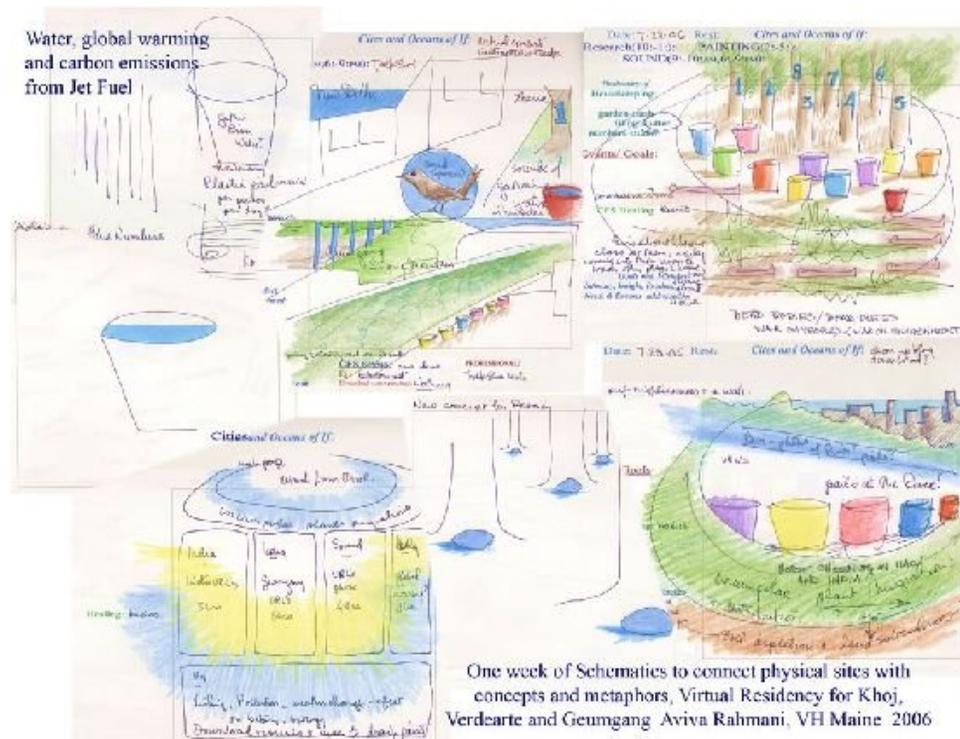
And then finally, the nature of the knowledge itself – the knowledge in a group replicates the knowledge in the individuals and it’s passed on simply in a transmission communication kind of way.... But in a network, the knowledge is emergent.... [I]t’s a knowledge that cannot, does not, exist in any individual, but only in the network as a whole.

Downes says, “a network is like an ecosystem where there is no requirement that all the entities be the same, where the nature of the entity isn’t specifically relevant, where the number of entities isn’t specifically relevant. (I once got a twenty out of ten, I was so proud, on a project. It was a bottle of water from the stream and it was tightly sealed and I called it ‘closed ecosystem project.’ And I reported on the slow death and decay of everything inside that bottle.)” Graphic below is by Downes (2007).



Social Computing and Ecological Art

At a workshop with scientists at Woods Hole Oceanographic Institution, ecological artist Aviva Rahmani mapped a “serious disconnect” between her theory and practice. At that time she was “jetting all over the world to venues to practice ecological art, spewing jet fuel into the waters, incidentally exhausting myself and accelerating global warming” (2006). When more international opportunities to practice came her way, she responded by developing a “Virtual Residency.” Participating agencies included Anke Mellin, of Germany and the Geumgang Nature Art Biennale, South Korea 2006, the Khoj International Workshop in New Delhi, India and Verdearte in Pescia, Italy. The residency addressed these four physical sites simultaneously and virtually, analyzing and searching for answers to on the ground problems. The base venue was Rahmani’s own website. Progress was chronicled on her blog, and events climaxed online with two experimental “Virtual Concerts” using new software for streaming broadcast. Rahmani writes, “I believe this direction opens up possibilities for marginalized “outsiders” to participate in restoration work.” With friends and colleagues who are well-known and deeply experienced ecological artists, cultural historians and social activists, she has created a series of podcasts and an electronic space for strategizing responses to global warming at http://www.ghostnets.com/talkshoe_shows_word.html



Aviva Rahmani , drawing for *Virtual Cities and Oceans of If*, http://www.ghostnets.com/images/Schematic_Concept_Collage2.jpg. Used with permission.

Dreamed-of Community

The bird a nest, the spider a web, man friendship.
– William Blake, *Marriage of Heaven and Hell*, 1790-1793, Pl. 8. (1966, p. 151)

Shaping spaces of possibility, we work inside and outside a dream of homecoming. Starhawk (1997) writes: “We are all longing to go home to some place we have never been – a place, half-remembered, and half-envisioned we can only catch glimpses of from time to time. Community. Somewhere, there are people to whom we can speak with passion without having the words catch in our throats. Somewhere a circle of hands will open to receive us, eyes will light up as we enter, voices will celebrate with us whenever we come into our own power. Community means strength that joins our strength to do the work that needs to be done. Arms to hold us when we falter. A circle of healing. A circle of friends. Someplace where we can be free.”

This Dreamed-of Community may never exist; perhaps it should not. As Jean Vanier (1979) comments, “Human friendships can very quickly become a club of mediocrities, enclosed in mutual flattery and approval” (p. 7), while discord and enmity shatter innumerable communities.

It may be true that we know community best by its opposite: silence, isolation, the incapacity for intimacy and connection. What form of dialogue can scrutinize and embrace the silences inside our lives? “Community” is a warm, persuasive term, but what is it really? An advertising slogan, a paradox, a yearning, a sense of danger? Contu and Willmot (2003), in their critique of the “communities of practice” theory, note that as this theory has been appropriated by businesses, “Community is conceptualized in a way that tends to assume, or imply, coherence and consensus in its practices. Such usage ... glosses a fractured, dynamic process of formation and reproduction in which there are often schisms and precarious alignments that are held together and papered over unreflexive invocations of hegemonic notions including ‘community,’ ‘family,’ ‘team,’ and ‘partnership.’” (p. 12). They admonish us to view the context of learning as a contested history, not a neutral background, and to address the continuity of knowledge and power. Can we pose the question of community so that connections, friendships, supports and alliances emerge without diminishing productive edge-zones and moving to center the margins – thereby suffocating difference and strangling possibilities for critique, innovation and change?

Below: image by Pam Hall from Risky Business: Speculations on the Challenges of Engagement, see Islands Institute Gallery show at <http://www.islandsinstitute.com/gallery/Pam-Hall/index.htm>. Used with permission. For three years, Hall was a member of an interdisciplinary team of scholars exploring the ethical dimensions of the fisheries crisis on Canada's east and west coasts. This project enabled Hall to broaden and deepen her work on the fisheries, to work with biologists, ethicists, theologians, historians and others, and to create a body of work intended to include the voices of practicing fishers in the scholarly discourse around these issues.

THE RISKS OF ALLIANCE... speaking with, speaking for, speaking BESIDE
How do we choose what VOICES to "throw"?

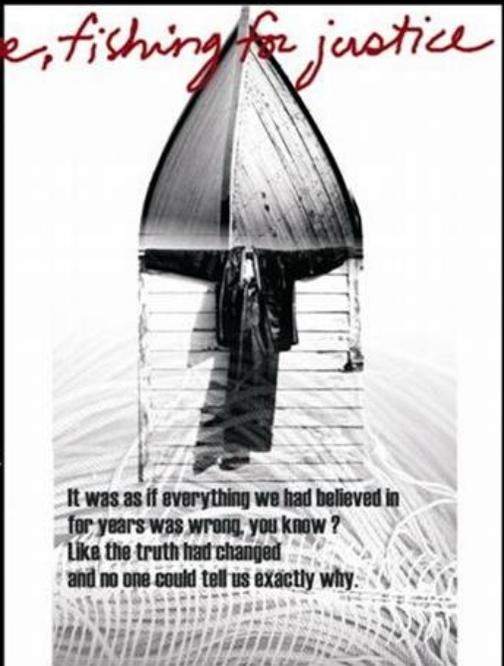
do we work for FISH or Fishers? big fishers? small fishers? white? native? who and what do we privilege?

fishing for knowledge, fishing for justice

heart of a person - heart of a place



from body scientists to fish scientists
diagnostics for the body politic
another team, more ethics
from one practice to another
HEALING AS MORE THAN JUST A METAPHOR - ENGAGED
EMPATHY - DIS-EASE and
DEATH - HEALTH & WEALTH



It was as if everything we had believed in for years was wrong, you know? Like the truth had changed and no one could tell us exactly why.

Taking the risks of INCLUSION... EXCLUSION-and taking the consequences...



Self-Organizing Systems

“Any system, biological, economic, or social, that scorns experimentation and wipes out the raw material of innovation is doomed over the long term on this highly variable planet.

The intervention point here is obvious but unpopular. Encouraging diversity means losing control. Let a thousand flowers bloom and ANYTHING could happen!

Who wants that?”

– Donella Meadows (1997) on self-organizing systems

Image overleaf: from The Future is on the Table – a “stream, an art stream, a river of art projects... with sources in India, England, South Africa, Nigeria, France; the United States also, South Carolina and Charleston in particular. Global in spirit and momentum. Not the Global of greed, financial madness, war, repression, self-censorship, individual and mass depression. Everything to do though with the new century, moved by diversity, social justice, small as beautiful, and – why not? – peace, as necessities for the well being of the world. The Future is on the Table has chosen water and shelter as focal points to assert its relevance. Each participant has been exercising the freedom, offered by the practice of art, to create original works based on various collaborations with communities or other artists.” See project website at <http://thefutureisonthetable.ning.com/profile/TheFutureIsOnTheTable>; project initiated and guided by artists Gwylene (Ghislaïne) Gallimard and Jean-Marie Mauclet. Used with permission.

What will the university of the future look like? Is it possible to imagine a change so profound that knowledge and inquiry become embedded in interdisciplinary approaches, natural systems, social justice and creative inquiry? What will the art world of the future look like? Is it possible to imagine the emergence of a system so radically different from the *status quo* that art becomes central to a process of intuiting, exploring, restoring and constructing whole relationships between human and inhuman natures? The space between now and then is vast; it looks unbridgeable. Here I find the existence of “self-organizing systems” allows me to hold a vision of what is possible, while I attempt to practice the future of art and learning communities in my work.

Harrison Owen (2000) locates a model for broad social change in the notion of self-organizing systems. His model, adapted from physics, chemistry and ecology, describes the mysterious emergence of order from chaos in open systems that draw energy from the surrounding environment. Owen summarizes the conditions in which self-organization will emerge over time, and they are conditions that can be cultivated in the design of meetings, organizations, art projects and learning environments:

- relatively safe and protected, nutrient-rich surroundings;
- high levels of diversity in the elements present;
- high levels of complexity in terms of potential inter-connections;
- a drive towards “fittingness” with the environment;
- sparse prior connections between the elements present (so nothing is fixed); and
- the presence of chaos, disequilibrium.

(see Owen, 2000, p. 7-8).

In the model of self-organizing systems, learning, adaptation and organization are understood as durational processes that unfold over time, through heterarchical structures wherein all elements share in the design and management of the system. Self-organization is an ongoing movement without a determinable aim or end. As Owen observes, the

existence of self-organizing systems invites interrogation of such bifurcating notions as self and other, order and chaos, power and surrender, knowledge and ignorance.

Margaret Wheatley and Deborah Frieze (2006) of the Berkana Institute write: “the world doesn’t change one person at a time. It changes when networks of relationships form among people who share a common cause and vision of what is possible... Rather than worry about critical mass, our work is to foster critical connections. We don’t need to convince large numbers of people to change; instead, we need to connect with kindred spirits. Through these relationships, we will develop the new knowledges, practices, courage and commitment that lead to broad-based change.”

The emergence of new systems begins when discrete, local efforts towards paradigmatic change connect with each other as networks. “But networks aren’t the whole story,” Wheatley and Frieze (2006) continue. The possibility of emergence expands when networks become self-organized, intentional communities of practice – but communities of practice with a difference. In Community of Practice learning theory all communities are seen as having centripetal and centrifugal forces within borders that separate outside from inside. Network architecture challenges this model for learning community. In contrast to a closed circle where a (privileged) few influence and define the community, the network suggests a fractal form for collaboration, learning and association that is forever open, interrogative and multiplicable. Rather than establishing the dreamed-of community, network architecture makes space for a perennially branching web of relatedness in a culture of infinite complexity.

Wheatley and Frieze (2006) continue their description of how social innovations evolve into powerful systems capable of global influence by describing the convergence of communities of practice and the sudden, surprising emergence of new systems at a greater level of scale. At this stage, “Pioneering efforts that hovered at the periphery suddenly become the norm. The practices developed by courageous communities become the accepted standard.... And critics who said it could never be done suddenly become chief supporters (often saying they knew it all along).”

This text on *Culturing Sustainability*, like the project at the Islands Institute and the Engaged Art Network on which it is based, at once investigates and aims to inspire a potential community of practice sited at the intersection of ecology, justice, art and learning. This work is in some sense innovative; it seems homeless in the world we know. And yet, it is surprisingly commonplace. In the form of hyperlinked text, I show below a very small selection of the networks that are associated through this project. The proliferation and convergence of these networks affords artists and educators multiple opportunities for learning, sharing experiences, supporting each others’ work – for creating new knowledge, and restoring old knowledge – for culturing sustainability. By participating in the joyful process of dialogue with kindred spirits, we may just be generating energy for the emergence of enormous systems change.



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