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Sustainable Activism: the Hanford Nuclear Reservation

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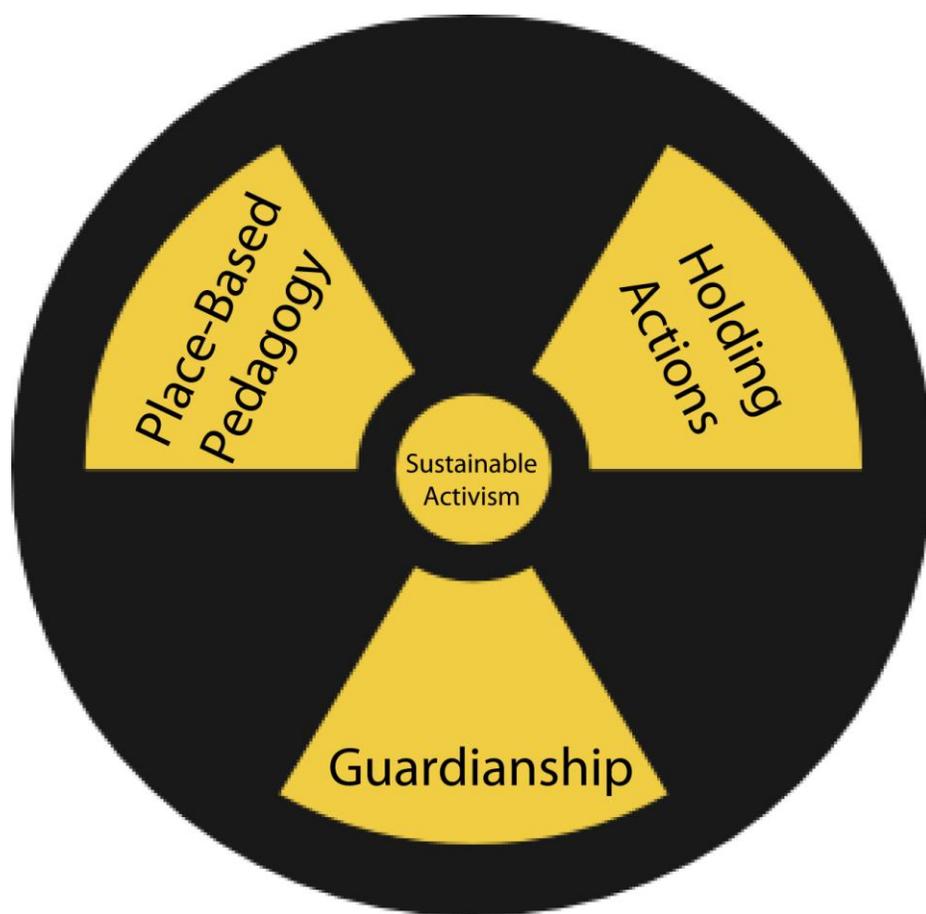
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Sustainable Activism: The Hanford Nuclear Reservation



Portland State University
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Sustainable Activism: The Hanford Nuclear Reservation

Introduction:

On March 11, 2011, following a 9.0 earthquake and consequent tsunami, the meltdown of three nuclear reactors at the Fukushima Daiichi nuclear power plant in Japan led to the release of large amounts of radioactive material into the air and into the ocean. It was the world's worst nuclear disaster since Chernobyl. More than a dozen cities in the United States tested positive for fallout from Fukushima in their water supplies. Scientists found radiation from Japan in milk from Arizona to Arkansas to Vermont (Iversen, 2012, pp.342--343).

Yet Fukushima did not breach the walls of Portland State University (PSU), at least not in the adult education classes I was taking. During this time, I happened to come across an article in *The Solutions Journal* written by PSU's Institute for Sustainable Solutions' director entitled: "Can Nuclear Power be Part of the Solution?" Costanza (2011) wrote that it could be, and that the challenge was to make nuclear power safer after Fukushima. This kind of denial was rife after the disaster as the nuclear power industry rushed to shore up its narrative, touting nuclear power as a carbon neutral and green source of energy. Tokyo's Electric Power Co. (TEPCO) dodged accusations of its negligence in earthquake and tsunami preparedness by essentially blaming the Fukushima disaster on nature. Katsuhiko Ishibashi, professor emeritus of Kobe University who has sat on government nuclear safety advisory panels, offered: "There was an

**Thought-Woman, the spider
Named things and
As she named them
They appeared.**

**She is sitting in her room
Thinking of a story now.
I'm telling you the story
She is thinking.**

(Silko, 1993, p. 6)

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attitude of disrespecting nature: (“One-page Fukushima tsunami plan ruled out,” 2011). It’s interesting how nature becomes a stakeholder during a human-made disaster. Pieces of a pier from Fukushima washed ashore recently to remind us just how connected we all really are (“Dock Launched toward Oregon,” 2012). A postconquest, posmodernist, postprogressive vision of the world is emerging where re-indigenization occurs and we are able to rethink the earth as a living being (Cajete, Mohawk, & Vallidolid Rivera, 2008).

As weeks passed I realized in talking with people, in and outside of the classroom, that Fukushima was of some concern—as Three Mile Island, and Chernobyl had been to people in the 70s and 80s—and as with those disasters, most people’s responses displayed “inactive caring” (McKenzie, 2006, p. 208). This response stems in part from the feeling that they don’t know enough; don’t have the expertise or the time to even begin to understand the technical side of nuclear power and its problematic waste; and even if they could, it’s already too late to make a difference. These are beliefs that maintain what Macy (2012) calls the story of “Business as Usual” (p. 16) in which nature and war on nature are commodities used to fuel an endless economic growth.

After Fukushima mainstream media failed to adequately report how the disaster was directly affecting us. News sources reported officials stating that levels were “below any level of public health concern” (“Radiation from Japan's damaged reactors poses little risk,” 2012). However, other sources, such as the Heart of America Northwest (HOANW) (“Radiation in NW rain,” 2011), were reporting that “radiation levels in rainwater in the Northwest and West Coast cities were measured at hundreds of times the drinking standards based on the Environmental Protection Agency’s own data, which showed levels far exceeding federal standards in the weeks following the Fukushima crisis. HOANW and other watchdog organizations were linking the

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Fukushima disaster to the potential for a similar disaster at the Hanford Nuclear Reservation, located in South Central Washington on the Columbia River, just a four hour drive from Portland—but of a much greater magnitude (“Fukushima-Hanford Update,” 2011). Fukushima taught me what I already knew—that many native and new-native residents as well as outside visitors had never heard of Hanford. According to a recent survey conducted by HOANW (“Public Involvement Fact Sheet,” 2011), the United States Department of Energy (USDOE) is failing to adequately inform and involve residents in clean-up decisions at Hanford, decisions that will affect their lives and communities for generations to come. I would add that we are failing to adequately educate ourselves about nuclear power and its impact on our health and welfare and the local, global biosphere. As Fukushima fades away, Hanford’s chance to emerge as part of the Great Northwest narrative seems to fade as well.

Part of the reason for this unawareness is the fact that these sacrificial nuclear landscapes throughout the country have historically been hidden physically and politically from the public as part of the secrecy of the Cold War. High desert lands of the West and Southwest were considered wasteland, and their inhabitants, typically Native Americans communities—expendable—in what amounted to “nuclear colonialism” (Kuletz, 1998, p. 6). Kuletz notes that “an alternative narrative exists about these dry desert places. Rather than a no man’s land or wasteland, many Indians describe these deserts as places of origin and emergence, as holy places, and sacred geographies” (p. 14). Once the nuclear narrative becomes apparent, it can be changed. By learning the history and myths of the land through our cultural stories, we become conscious of our own life stories and live them as part of a new story of place (Bowers, 1999). A new Hanford narrative needs to include a diversity of stories in order to prevent the destructive nature of a mono narrative such as Nuclearism, “a political philosophy maintaining that nuclear

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weapons are the best means of assuring peace and of attaining political goals” (Butigan, 2003, p. 34).

Growing up in Portland during the 50s and 60s, I never learned about Hanford, formally or informally; it was not part of K-12, secondary or university education. Harden (1996) growing up around the same time in Moses Lake, located in the upper Columbia Basin near Hanford, also noted that Hanford was never taught in school. “The closer people lived to Hanford’s paychecks, the less skeptical they were....Hanford’s believers are upset not at the federal government but at the downwinders who claim to be Hanford’s victims” (pp. 157—158). When I was protesting to shut down Oregon’s Trojan Nuclear Power Plant in the late 70s, I wasn’t even aware of Hanford, where parts of the decommissioned plant were eventually shipped. As a Hanford activist I’d become learned about the wastes, but not about the place, which, ironically, also maintains the nuclear narrative. Without understanding the web of relationships surrounding Hanford—its history, its economy, its ecology, its community—it is impossible to deal with all that’s buried there.

At a typical Hanford public hearing the information transmitted about the clean-up and containment has been described as “mind numbing, shocking, frightening and sci-fi” to the beginner. The technical jargon is confusing and there’s never enough opportunity for clarification. Anger, grief, incredulity and confusion appear at every public meeting to some degree and are never fully expressed or accepted. Understandably an oppositional, often contentious exchange occurs obstructing any significant education or problem-solving. What’s needed is the opportunity to learn about Hanford as part of a whole systems perspective which includes our personal and cultural behaviors and beliefs. What’s needed is a way to grieve in community about what we’ve done and are still doing to ourselves, our descendants and the

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earth, enabling us to tap into the immense gratitude we feel for the resilience of a place so damaged (Macy, 2012). Having established an emotional and spiritual connection to Hanford, we can then move on to the technical side of what can be done. I've tried as an activist to face the Hanford reality with little meaningful success. I wasn't fully a conscious native. I wasn't completely literate about place which involves "food literacy, ecological literacy and cultural literacy" (Kiefer & Kemple, 1999 p. 33). I'd developed a love of nature but not a deep sense of place in terms of really understanding my bioregion, the distinct interrelated natural and social systems of where I lived (Nolet, 2009).

In *Tools for Teaching*, Davis (2009) recommends that when a community crisis takes place, the teacher should make room during class time for students to process the event, discuss it, and share their feelings about it. I was relieved to find this given as a best practice in Educational Leadership & Policy (ELP) literature about teaching adults, but disappointed that I didn't experience this in my classes. Joanna Macy (1983) maintains that the repression of the nuclear threat takes a mammoth toll on our energies and one of the outcomes is what she terms "psychic numbing" which is played out in the following ways: "Fragmentation and Alienation, Displacement Activities, Political Passivity, Destructive Behaviors, Psychological Projection, Resistance to Painful Information, Diminished Intellectual Performance, Burn-out, and a Sense of Powerlessness" (pp. 13-16). Denying and burying toxic feelings that arise from ecocide, may seem like the best way to manage a classroom, but it ultimately leads to the "placeless curriculum" (Gruenewald, 2003, p. 5) from which places like Hanford metastasize. Rather than becoming aware of our places as cultural products, including them in the curriculum and creating a place-conscious education, we tend to develop an unreflective, unconscious attitude towards

place (Gruenewald, 2003). Wheatley (2012) notes: “What we know, we may choose to care for, what we fail to recognize, we certainly won’t” (p. 22).

I needed to process what happened at Fukushima and its local, global implications in an environment that would critically reflect upon and make meaning of such an event. Facing these kinds of catastrophes in community makes them less threatening. There were probably other students, faculty and staff, who might have felt the same. I became convinced that Hanford needed to become part of PSU’s sustainability curriculum, not only alerting and informing students and faculty of the health threat Hanford poses, but the ecological threat to place as well. Sanders (2007) maintains: “In this hemisphere, many of the worst abuses—of land, forests, animals, and communities—have been carried out by ‘people who root themselves in ideas rather than place’” (p. 8). Stories of place found in Traditional Ecological Knowledge of Indigenous education can teach us how to participate in the web of life as a “keystone species” that creates conditions conducive to life for *all* beings” (Nelson, 2008, p. xxii).

Preamble: Life Skills for the 21st Century

Sustainability education is place-based, and at this point in history must include, by necessity, restoration and reclamation of damaged ecosystems. There are many wonderful models of school and community restoration projects where children and adults adopt and restore their local ecosystems such as the Students and Teachers Restoring a Watershed (STRAW) project reclaiming habitat for shrimp in Stemple Creek in Sonoma County (Stone & Barlow, 2005); the Mattole Restoration Council in northwestern California reintroducing Salmon back to the Mattole River Watershed (Smith & Williams,1999); and the Yakima Nation’s legal action to restore the Columbia and Willamette River Watersheds in order to provide healthy Salmon habitat. All of these efforts involve identifying and engaging the networks surrounding these

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endangered ecosystems. With all of these efforts, relationships between diverse members of the human and non-human biotic community had to be identified and established. “People only support what they create” (Wheatley, 2012, p. 29). Rather than “a problem-based approach to place, (better)...a place-based approach to problems” (p. 94). What would a place-based approach to Hanford look like?

I entered the LSE program dragging my Fukushima/Hanford trauma with me. As I began to learn about sustainability, the interrelationship of ecology/environment, economy/employment, equity/equality, and education (Edwards, 2005, pp. 20-23), I was able to view my activism in the context of the great paradigm shift which Korten has called “The Great Unraveling” (Macy, 2012, p. 17). This is a shift from the industrial growth society, part of the Western, Christian and Cartesian worldview where mind and matter are separate, to what Macy and others refer to as the “The Great Turning” (p. 36). This turning implies a world that is a living web of reciprocal relationships, a just and sustainable world in which there would be no waste. As these movements are happening simultaneously, we learn to inhabit the middle, embrace paradox, and begin a new story.

**This is no time for small talk
This is a time for myth making
This is a time for epic poetry
This is a time to tell the tales of life, love, and resilience
that will become our compass for the days ahead**

(Simmons, 2010, p. 6)

I'd been exposed to the New Science, whole systems theories in the 80s, but to experience them within a living pedagogy transformed my relationship with nature, place and education. My activism, and my distress are part of the process of autopoiesis, “life’s fundamental process for creating and renewing itself, for growth and change” (Wheatley, 2006 p.

20). Sorrow and grief are part of a constructive response, providing necessary negative feedback that allows a living system to change (Macy, 2012). The Traditional Ecological Knowledge of Indigenous science, provide stories of whole systems theory in place which include not only my activism but my very thinking as part of “Kincentric” reciprocal relationships with nature (Martinez, Nelson, & Salmon, 2008, p. 89). Through the activist pedagogy of the Burns’ model of “Teaching for Transformation: (Re)Designing sustainability courses based on ecological principles” (Burns, 2011), the classroom experience, through aesthetic and participatory activities, was a fractal for self-organization, and the emergence of new forms of knowing and experiencing sustainability (Capra, 2002). In this collaborative learning environment of group presentations and community-based learning, I began to integrate principles of ecology. I was becoming “eco-literate,” an ongoing and adaptive process of re-connecting to one’s place by developing the capacity to understand principles of ecology; discern systems and patterns in nature; and integrate insights and the discovery of new patterns to make meaning (Sterling, 2011). I practiced facilitating the emergence of sustainable change in my community through informal conversations; testimony at public hearings; participation in neighborhood workshops and meetings with groups like *We are Oregon* and *Occupy St. Johns* which are involved in direct action in response to a bevy of local and regional issues—thereby developing a “practical knowledge for survival” (Martinez, Nelson, & Salmon, 2008, p. 99). In short I was learning life skills for the 21st century. I began to see how meaningful and ongoing activism around Hanford could emerge from sustainability education.

Part of being able to comprehend and articulate sustainability is to become a sustainability leader, a relational role assumed in response to given circumstances in a living system that demand one’s unique skills and ability, and the willingness to lead when desired and

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needed. A sustainable leader/educator in turn creates a learning environment that enables the necessary relationships to develop among learners (Capra, 2002; Wheatley 2006). By forming a sustainability study group in my neighborhood using the Northwest Earth Institute's curriculum (Sanders, 2007), I was able to practice facilitating the group's self organization. My development as a sustainability leader/educator was strengthened also through engagement with diverse community networks that were practicing place-based education such as Friends of Baltimore Woods, or in need of practicing place-based education, such as the Portland Harbor Superfund and Hanford clean-ups.

Collaborating with diverse community members through the Social Sustainability Colloquium where students and community members together learn about local and global sustainability movements, expanded my horizons for what was possible, for what could be happening and wasn't, yet. I also had the opportunity to experience "translocal" learning—sharing and adapting what works in one community with another (Wheatley, 2011)—in a study abroad course in Costa Rica. Their work to create a sustainable society through eco-tourism, for example, was problematical in terms of being sustainable; however, their cultivation of a peaceful society is a key component of a sustainable system. Other opportunities for collaborating with diverse communities came from participating in a variety of conferences and workshops such as: the Western States' *Activists Mobilizing for Power* conference: Tribal Sovereignty in Action; Pachamama Alliance's *Reawakening the Dreamer* workshop; and the Popular Education workshop through Multnomah County. In these educational contexts I learned how important multiple discourses are—the ecological/political/socio-cultural/economic/ethical relationships—in enabling sustainable change (McKenzie, 2006).

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ELP core studies provided me with the opportunity to reflect on my own adult learning process. By reclaiming my life learning and expertise as an artist and community organizer, I am becoming a community-based sustainability educator. Understanding how educational research creates a certain knowledge about reality, and through the study of andragogy, I grappled with the politics of the university curriculum and its ability to create significant learning experiences for adult literacy students whom I was tutoring at Portland Community College. Core studies also gave me the opportunity to collaborate with diverse students outside the Leadership for Sustainability Education (LSE) cohort, and to articulate and integrate sustainability concepts where not already part of the foundational curriculum.

Sharing this educational journey with my cohort, my community of practice, allowed me to feel part of a nurturing web of sustainable learning. Through their various commitments to sustainability I was able to renew my own commitment to Hanford and join in the Great Turning.

Part II: Place

The Hanford Reach National Monument in South Central Washington is a landscape of irony—lush green orchards against bleached floodplains, voluminous water, wetlands juxtaposed with desert soil, the largest original shrub-steppe remaining in North America, and the Columbia's last free-flowing and non-tidal stretch. It owes its preservation to the Manhattan Project and the Cold War which claimed thousands of acres in the early 1940s to build the world's first atomic bombs (Zwinger, 2004).

An eerie movement unfolded during the 19th and early 20th centuries. The Plateau people believed that the world had always existed and would continue forever—that is, until European disease arrived foreshadowing the world's end. Tribes up and down the river believed an Armageddon would cleanse the land of its abusers,

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that the earth would heave up and the ancestors would rise again. The prophets with the help of Coyote told them to dance to hasten the apocalypse so that happier times would quickly follow. The Ghost Dance anticipated something terrible unfolding here, perhaps a prescience of nuclear weapons (Zwinger, 2004 p. 39).

The Yakima Nation loaned 586 miles of high desert country to the United States government in 1943 on condition it be returned to them as they'd found it. It was home to the Shahaptian speaking Indians. Their descendants are the Cayuse, Palouse, Nez Perce, Umatilla, Walla Walla, Yakama, and Wanapum (Yakima Nation Environmental Restoration/Waste Management, 2012). They were followed by the farming communities of Hanford, White Bluffs which were also displaced to make room for the Hanford Nuclear Reservation. After forty years of plutonium production, Hanford became known as “the most toxic site in the western hemisphere” (Maddow, 2011).

The bomb dropped on Nagasaki in 1945 was made at Hanford, in the famous B Reactor, a popular tour site drawing people from all over the world. “How the memory of sacrifice for the nation is preserved and exhibited is thus a crucial element for a community and its self-understanding” (Miyamoto, 2012 p. 21). What constitutes a responsible practice of remembering Hanford as part of Nagasaki in the U.S.? “The atomic bombing, I would submit, is one of the memories that should be shared by humanity because of its degree of destruction and continuing relevance to our lives” (p. 27). Weapons production from 1944 - 1963 flooded the Columbia River “with long-lived radioactive pollution, including plutonium, and isotopes of uranium (half-lives from 247,000 to 4.5 billion years) (Oates, 2003). “Even a milligram of plutonium caught in

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the body will simply blaze away at nearby cells until they have gone cancerous” (p. 187).

Plutonium, one of the most toxic substances in existence, has a half-life of 24,000 years, which means that every 24,000 years half of a given amount of plutonium will shed energy, turning gradually into a nonradioactive material. The other half remains in all its toxicity (Iversen, 2012). Some of the earliest waste was pumped directly into the earth—approximately 1.7 trillion gallons of contaminated wastes. More than a third of the 177 underground (single shell) storage tanks have leaked resulting in more than a million gallons of liquid High-Level Nuclear Waste contaminating groundwater near the Columbia River. Double shelled tanks in use to retrieve waste from single shelled tanks have recently also begun to leak. Much of this released material was diluted, sent down river, sent out to sea. Some of it is deposited in sediments along the way, ticking away like little time bombs. Some finds its way into the general ill-health of the world’s living beings, generating cancers and genetic mutation (Oates, 2003).

By the late 1950s, radiation’s ability to cause cancer had become well known and more recent medical research has confirmed this. Direct causation cannot be proved, as it may take twenty to thirty years for health effects such as cancer, immune deficiencies, or genetic defects to become manifest. It wasn’t until 1986 when an environmental group in Spokane, WA forced the release of classified documents from which the public learned that huge atmospheric releases of radiation, had occurred, all of them secret and some of them intentional such as the infamous “Green Run” in 1949, where radiation from Hanford had drifted east with the prevailing winds across Washington, Oregon, and Northern Idaho (Harden, 1996; Iversen, 2012).

The Yakama Nation has lost access to “scared sites, burial sites, subsistence resources, ancient fishing village sites, and a rich record of archaeological sites associated with prehistoric

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villages and activities” (Yakima Nation Environmental Restoration/Waste Management, 2012). Russell Jim, Director of the Nuclear Waste and Restoration Management programme for the Yakima Nation, revealed that there seems to have been “a human radiation experiment on the Yakama Nation involving the radioactive isotope “phosphorus-32” which has been found to go directly through the eyes of the Salmon and to the soft bone inside the Salmon head (Jim, 2001). The tribe planned to sue the USDOE for failing to protect the Columbia River from Hanford’s wastes which they maintain has contributed to declining Northwest Salmon populations in the last 50 years: "From time immemorial, the Columbia River and everything in it have been the lifeblood of the Yakama people," Ross Sockzehigh, Tribal Council chairman, "We have to do whatever is necessary to see that our river is fully healed and the salmon runs restored (Ashton, 2003).

The nuclear legacy of the site poses, in perpetuity, a direct threat to the health and well-being of all downwinder, downriver communities, which includes the Portland Metro area.

**I begin your chant, openmouthed exhaling into spacious
Sky over silent mills at Hanford, Savannah River,
Rocky Flats, Pantex, Burlington, Albuquerque
I yell thru Washington, South Carolina, Colorado,
Texas, Iowa, New Mexico
where nuclear reactors create a new Thing under the
Sun, where Rockwell war-plants fabricate this death
stuff trigger in nitrogen baths...**

**I enter your secret places with my mind, I speak with
your presence, I roar your Lion Roar with mortal
mouth.**

From “Plutonium Ode” (Ginsberg, 1995, p.246)

Emergence of a Hanford Curriculum

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As part of a summer internship for AARP-Oregon, I developed a Community Service-Learning curriculum for volunteers participating in a four-week service-learning series to address senior hunger in Washington County, with subsequent service-learning toolkits (AARP, 2011). From my own service-learning and volunteer experience, I felt that community volunteering which included reflection, critical thinking, and group discussion, as well as action, would provide volunteers with a much deeper and more meaningful engagement with an issue than single event volunteering would. I developed a working definition of **community service-learning** described as: *peer led community-based service-learning in which volunteers partner with other community stakeholders to address a community need.* Subsequently, I added the community-university partnership component to this model while writing a PSU Solutions Generator grant: *hearing Hanford: A Community-based Service-Learning Workshop.* The community-university partnership would allow the university to participate in the act of restoration, “moving education beyond the classroom and laboratory, from theory to application and from indifference to healing” (Orr, 2004, p. 59). In this way the community contributes its expertise from the field and develops new skills, a new identity, and a new story. As this information and knowledge flows through the system we become “beings through which the Earth has acquired a self-reflective consciousness” (MacGillis, 2009 p. 63).

Through a collaboration of PSU students, faculty, and community members and stakeholders such as representatives from watchdog organizations, health, business and government sectors, participants would teach and learn about Hanford symmetrically from their expertise, or interest area. Using an arts-based approach they would experience Hanford “scientifically and intuitively” enabling what Steingard (2005) called “a breakdown-breakthrough-reformulation paradigm process” (p. 232). In preparation I searched PSU for any

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precedence of a Hanford curriculum, or students and faculty members who might be interested in participating in such a workshop. I discovered a student-lead and student-designed deliberative forum, focusing on the Hanford clean-up as part of a Freshman Inquiry class “On Democracy.” The professor, Alex Sager (2010), reports: “that project gave students an opportunity to engage in political decisions of regional and national importance and to assess the democratic process and reflect on political reform.” (p. 1).

It was inspiring to find a precedent similar to the kind of holistic curriculum I was proposing: collaborative, horizontal teaching and learning; acquiring a multiplicity of skills to address this pressing community issue; working with various experts from the community; and inviting community-at-large to participate in the discussion. It also included a field trip to Hanford (Sager, 2010). Though the forum provided students and community with a significant learning experience, I felt it lacked a deeper dimension of transformative learning in which the student develops an empathetic knowledge and emotional connection to Hanford leading to a sense of responsibility and commitment beyond the workshop.

This deeper, more personal connection to place can be experienced holistically through artistic expression. In “Raising Catchment Consciousness” around the River Dearne in South Yorkshire, England, the surrounding community used creative writing as a way to educate people about the river, and to gradually develop a relationship and guardianship of the river. The writing process was not regarded as a mechanism to impart information; but as experience of the river itself—where it comes from and where it’s going, and the challenges it faces. Imaginative approaches have the potential for creating ‘symmetrical’ interactions, relating emotionally to places, and enabling participants to view the world through alternative frames (Rogerson, 2011). “Engaging with histories and futures, and comprehending complex environmental systems can

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be enjoyable and build confidence and skills with outputs that can be disseminated to various audiences” (p. 112). Hanford hearings and Willamette River Superfund meetings could benefit greatly by approaching restoration work in a similar manner. “Water management professionals and scientists could learn to communicate scientific information and engineering solutions with the help of our “insider knowledge” about the physical behavior of rivers, and the knowledge of the local history and the stories and values associated with them” (p. 119).

PSU’s Art and Social Practice program also provides students with the opportunity to collaborate with place in its social and historical context. By connecting the symbolic realm of fine art directly to communities and social networks the practice allows for a dialogue and exchange of ideas where both artist and community experience the agency of making change. (Art and Social Practice, 2012). An arts-based, therapeutic approach allows participants to understand, synthesize and integrate some of the most troubling knowledge they will ever learn.

As a poet I knew there was a deeper way of coming to grips with Hanford. I embarked on my own creative exploration of this elephant in the region. I wrote a narrative poem, *hearing Hanford* (Feldman, 2011) to read as part of a neighborhood poetry series. It was a transformative experience. To my amazement doors flew open. It was like finding the magic web. The poem was published as a small chapbook and led to my discovery of “Particles on the Wall” (P.O.W.) (Washington Nuclear Museum and Educational Center, 2012), an art and science travelling exhibit about Hanford, which includes part of my book, and is currently installed at Central Washington University in Ellensburg, WA. The Northwest Earth Institute will be including parts of P.O.W. in their alternative, sustainable energy curriculum. Writing the poem helped me to begin a deeper dialogue with Hanford and its community. For the first time I began to actually deal with what I knew Hanford to be and to express the need for a moral,

spiritual response. I took a step closer to becoming a sustainability leader. “A poem is an extension of the body: of self, of community, of body politic. When I write an activist poem, it is not a matter of getting on a soapbox, but of placing my body in the line of discussion” (Kinsella, 2010 p. 13). The book propelled me into many conversations about Hanford with others in my community. A different kind of activism began to emerge.

What is Sustainable Activism?

Place-based education + Activism = Sustainable Activism.

Sustainable, place-based education that does not address ecological crises within its bioregion such as Hanford is incomplete, unsustainable; as well, an activism that does not emerge from place is incomplete, unsustainable.

The burnout and hopelessness I often experienced as an activist were due in part to the fact that I perceived activism as a separate part of my life (like the nuclear waste I was trying to make go away) and that life, in many ways, was separate from place. “It’s hard to credit our pain for the world, if we believe that we are essentially separate from it” (Macy, 1998, p. 31). My activism was duty bound and in opposition to a much greater power than me, which I also wasn’t connected to. “Because problems are never solved by ignoring interconnections, disappointment and fatigue are built into our current problem-solving approaches. Not only do we fail to find solutions, we end up generating more problems” (Wheatley & Frieze, 2011, p. 96). My activism had become part of the nuclear narrative. I had yet to see myself as a “socio-ecological leader and activist” (McKenzie, 2006, p. 204), part of a greater network. Moving through the spiral of “the work that reconnects” (Macy, 2012, p. 39), one begins seeing leadership with new eyes. I began to view my activism as part of sustainability. “Activism can take the form of holding actions which are campaigns in defense of the earth. They include all the political, legislative,

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and legal work required to slow down the destruction, as well as direct actions—blockades, boycotts, civil disobedience, and other forms of refusal” (Macy, 1998, p. 17). They are simultaneous with the “shift in consciousness” and “life-sustaining systems and practices” as seen in Macy’s diagram of “The Three Dimensions of the Great Turning” (Macy, 2012, p. 32). Each one participates according to their conscience and ability, as part of personal and communal rituals of renewal and well-being. “Whenever we act from bodhichitta, the desire that all life be well, we are being an activist” (p. 217).

Sustainable activism, rooted in place, goes beyond an episodic bout of attention; rather it contributes to a growing awareness and understanding of the complexities of nuclear waste transport, disposal and clean-up in the Columbia River Watershed. By acting in “situations” of place, for example, growing one’s own food, creating art that embodies and expresses the history and culture of place, walking instead of driving, one practices “conscientizacao,” “reading the world” as political text (Freire & Macedo, 1987; Gruenewald, 2003 p. 5) through which we gain agency to challenge the nuclear narrative. We become ecoliterate and ecopoetic. “...ecopoetries, by offering revised, less dogmatically binary perspectives of interaction between human and nonhuman realms, suggest ways of being in the world that might lead to less exploitative and destructive histories” (Gander & Kinsella, 2012 p. 15).

Hanford advocacy groups in the Cascadia bioregion include: the Yakima Nation’s Environmental Restoration/Waste Management, Washington and Oregon Departments of Energy, The Hanford Citizens Advisory Board, Heart of America Northwest (HOANW), Columbia Riverkeepers, Hanford Challenge, Oregon and Washington Physicians for Social Responsibility chapters (OPSR/WPSR), all whom work to make the public aware, informed and involved in the oversight of the cleanup. No Nukes NW, part of the Occupy Portland

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movement, organizes direct action on Hanford issues such as the threat of waste movement through the Portland Metro Area. HOANW, WPSR and Hanford Challenge have, or are developing Hanford curricula for use in schools and community settings. Yet, a gap still exists between these efforts and creating critical mass for wide public engagement to take place. One of the reasons for this gap is the disconnect between educators/experts and community activists/inhabitants who are motivated by similar concerns but promote different strategies for social, ecological change. “Popular Education for the Environment” (Whelan, 2005) provides a possible pedagogical model for education as social action, in which action and learning are inextricably and dialectically linked as praxis or reflective action. Through a partnership between the university and the community, “educators and activists can share their respective expertise, change efforts and outcomes resulting in a more socially engaged curriculum and pedagogy, on the one hand, and forms of campaigning and activism that are more democratic and dialogical on the other” (p. 118). Community members have place smarts but lack access to research materials, networking information, and other educational resources. They also lack the time and focus necessary to study places like Hanford which a student or faculty member would have. The reorientation resulting from a university/community partnership will require dialogue between the activist and environmental education communities, the development of trusting relationships and heightened recognition of the learning dimension of activist campaigns. The shift will involve redefining education (Whelan, 2005).

The Hanford Guardianship Project:

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The Hanford Guardianship Project is an environmental advocacy curriculum defined as: *a university-community service-learning partnership that educates and activates communities in the Columbia River watershed to learn about the Hanford Nuclear Reservation and its impact on the bioregion, by committing to past, present and future generations, remediation and guardianship of the wastes stored there.* The project's mission is to draw all stakeholders together, including pro-nuclear power proponents, to address the most threatening and challenging environmental crisis of our time. "Every change is fostered by a change in self-perception. We will change our self if we believe that the change will preserve our self. We are unable to change if we cannot find ourselves in a new version of the world. We must be able to see that who we are will be available in this new situation" (Wheatley, 1996 p. 50). Every one of us must be able to find ourselves in this new situation, this new narrative of ongoing ecological, political, technical and moral understanding required for the responsible care of radioactive materials for many generations (Oser & Young-Brown, 1996).

This sustainable activist pedagogy would be implemented as a system of community workshops designed and conducted by PSU students/staff/ faculty from diverse disciplines along with community members and stakeholders. The project would be coordinated by the Institute for Sustainable Solutions at PSU. Students/staff/faculty would get class credit for the term, and community stakeholders would enroll in the workshop for free.

The orientation workshop would draw from the following:

- Discovering a Sense of Place (Northwest Earth Institute, 2007)
- Learning about Hanford from different community perspectives
- Skills for social action
- Art as Activism

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- Respect, Reflect and React: social solutions for environmental futures
- Working together: team building through participatory leadership
- Sustainable activism: avoiding burnout
- Deep Ecology and environmental philosophy (Whelan, 2005)

Workshops would be conducted using “Art of Hosting” (2012) practices which design community conversations that encourage participatory leadership. These include: Open Space Technology, World Café, Circle Dialogue and Appreciative Inquiry, all of which in some way harvest knowledge, listen for themes and explore questions. Diverse perspectives lead to the emergence of new collective wisdom. Community activists along with sustainability educators from within the PSU academic community experienced in facilitating this kind of participatory leadership would host the first workshop.

From this initial workshop, a cohort is formed that will convene a series of *hearing Hanford workshops* throughout downwinder communities. A “community fellow” from the Hanford advocacy community would be chosen each academic year to help guide the process. The “Cornell Civic Leaders Fellowship Program” has been conducting a similar university-community exchange program for the past seven years. University-community collaborative relationships are strengthened by involving community leaders to reflect on past practices, plan for the future, and enhance capacities of their communities. They also contribute to instructional and research activities (“Cornell Civic Fellow Leadership,” 2012).

Action study groups would emerge from these *hearing Hanford workshops* resembling study groups as described in the Nuclear Guardianship Project (Oser & Young-Brown, 1996; Macy, 2012). Based on their particular skills and interests and needs of their communities, group members educate themselves and others through teaching and reading; contact with experts and

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organizations; fieldtrips; and collaborating with other downwinders to strengthen the guardianship of Hanford. “Through acts of imagination, they practice projecting themselves into past and future time as a way of making a commitment to ancestors, present and future generations to keep radioactive materials out of the biosphere, recognizing the extreme damage these materials inflict on all life-forms and their genetic codes” (Oser & Young-Brown, 1996 p. 3).

These *action study groups*, comprised of students and community members, would remain part of The Hanford Nuclear Guardianship Project network, continuing to draw from and contribute to an evolving curriculum. The university-community partnership would continue to draw the pedagogy and accountability out towards places; to connect the school discourse and practices to those of the world outside, and to enlist teachers and students in the firsthand experience of local life and its political process enabling them to help shape what happens here (Gruenewald, 2003).

Example of an Action Study Group project: *Pilgrimage to Hanford*

Last spring I organized a student tour to Hanford. The tour changed everything for me in terms of experiencing an emotional and spiritual connection with Hanford, as well as understanding the complexities of its existence. We experienced “a shift from learning *about* place to learning *in* and *with* place” (Curthoys 2007, p. 69). I wanted other students to have this opportunity, but learned from our Hanford guide that there would be fewer tours next year. Any authentic learning about Hanford would have to include a visit to the site. I began to imagine a pilgrimage to Hanford, as a way for PSU students and community members to engage in a multi-faceted learning experience of not only Hanford but the Columbia River watershed and its network of relationships.

“Pilgrimage” is variously described as “a round-trip journey undertaken by a person who considers their destination sacred in some way—to ask or hope for a miracle; answer an inner call; to experience a place of power; to express gratitude to God; to prepare for death; to reclaim lost or forgotten parts of oneself; to honor a vow made in response to an extreme situation; to temporarily leave behind the normal routine of life so something new can happen (Butigan, 2003 p. 165)” These are all good reasons for walking to Hanford.

A pilgrimage to Hanford would allow inhabitants to learn the story of place by moving through the different ecosystems and human communities along the Columbia River, beginning from the sea, following the route of the Salmon people returning to their spawning grounds, reversing the journey of Lewis & Clark, all the way to the Hanford Reach, the last free flowing section of the River. Nuclearism would become a “practical, corporeal, kinesthetic actuality” (Butigan, 2003, p. 169) a contested part of the Hanford narrative. Hanford would cease to be a frightening, incomprehensible nuclear waste dump, but part of the story of Cascadia. Pilgrims would encounter Native American stories of King Salmon and Coyote; the Missoula Floods; the dams; and other adverse effects of energy and industry; recreation and restoration efforts; and the stories of human and non-human habitation.

“Hanford created another accidental and pernicious byproduct, a binary society: Technicians versus hayseeds, believers versus victims, separated by the river, they had come to see each other as nothing less than murderers and fools” (Harden, 1996, p. 157). This divisiveness has lessened during the years as communities closest to Hanford have become more aware of the effects of living close to Hanford—the heart of their economy. In negotiating a new path to Hanford, diverse communities could test their assumptions, experience a shift in

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consciousness and perception, and create a broader map of activism (Macy, 2012). As with the annual pilgrimage of the Nuclear Desert Experience (NDE) to the Nevada Test site, this pilgrimage would become a way to contest and demythologize nuclear power (Butigan, 2003).

People could walk the entire route or part of it. It would be celebratory, family friendly and accessible to all (at least partially). The *action study groups* involved would organize the logistics and enlist various community participants—organizations, artists, government and business stakeholders, etc. These different groups would create waystations en route where pilgrims would learn and experience various aspects of the river through ritual, storytelling, creative imagining, music, dance, drama, crafts, art installations, poetry, science and other river activities. Upon approaching the site, pilgrims would meet with Elders and other tribal members of the Yakama Nation who could tell their stories of the land and what it's like living in this nuclear landscape today. Residents of Richland, the town closest to Hanford, could also tell their stories. Ecological literacy could be achieved *on the ground* with the “Other” where action outcomes are noticeable (Curthoys, 2007 p. 71).

The pilgrimage would culminate at a place on the nuclear reservation or near it where pilgrims would gather “at the place of deep encounter” (Butigan, 2003 p. 167) to *hear Hanford* through enacting a healing ritual with direction from the Yakima Nation. This could include memorializing the spot by burying an “Earth Treasure Vase” on the site as part of a global mandala of healing vases buried all over the world (“Earth Treasure Vase project”, 2012). Hibakusha, victims of radiation contamination, from Fukushima, and Nagasaki would be invited to help lead this ritual.

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Drawing from the Nevada Desert Experience's Antinuclear Pilgrimage (Butigan, 2003) the Peace Pilgrimage for a Nuclear Free Future from Boston to Albany (Media Sanctuary, 2011), and Roxbury neighborhood toxic tour in Boston (Whelan, 2005), the Hanford Pilgrimage would provide us with an opportunity to sharpen our awareness about the nuclear burden, which now includes "the thousand tons of depleted uranium weaponry used in Iraq and Afghanistan and the cancer causing aerosol it leaves behind which has the half-life of four and a half billion years... as long as the age of Earth" (Macy, 2012 p. 157). The pilgrimage would lead to the adoption of a Nuclear Guardianship Ethic (Oser & Young-Brown, 1996) which includes: "Future generations have the right to know about the nuclear legacy bequeathed to them and to protect themselves from it (p. 4). Kumar (2002) reminds us that Gandhi embodied a "social spirituality" rooted in powerful non-violent activism. The modern pilgrimage was paradigmatically defined by Gandhi's 1930 march to the sea to challenge the British monopoly on salt and to ultimately end imperial rule. "This was public ritual where spirituality and politics were dramatically and unmistakably interwoven" (Butigan, 2003, p. 169).

As part of **The Hanford Guardianship Project** the pilgrimage could be offered to students as an ongoing service-learning course that would evolve in scope over time but consistently provide university and community members with a valuable partnership for a rich collaboration in the study and guardianship of the bioregion. The pilgrimage will "ritualize in both a simple and rich way the dynamics of a world in which adversaries assist one another in drawing back from a precipice they were both stumbling blindly towards" (Butigan, 2003, p.172-173).

Enrich this Plutonian Ode to explode its empty thunder

**through earthen thought-worlds
Magnetize this howl with heartless compassion, destroy
this mountain of Plutonium with ordinary mind
and body speech,
thus empower this Mind-guard spirit gone out, gone
out, gone beyond gone beyond me, Wake space,
so Ah!**

From "Plutonium Ode"
(Ginsberg, 1995, p. 249)

Conclusion:

The university-community partnership is important for the success of The Hanford Guardianship Project. Long-term goals would be to establish an Environmental Advocacy Department in PSU's Institute for Sustainable Solutions that would include The Hanford Guardian Project, along with other damaged ecosystems in our bioregion that demand urgent attention, and are in need of long-term guardianship. I'm hoping the ideas in this paper contribute to making sustainable activism a vital and meaningful part of PSU's sustainability mission.

Short-term goals: I would like to teach The Hanford Guardianship Project as a senior capstone course. I think it lends itself well to the course criteria as academic, community-based learning that would involve interdisciplinary group work. Previous capstone projects have also been conducted in this area such as *The Columbia River Basin Project, 1997 – 2000* which included CRBP community and oral history, along with an integrated curriculum program ("Center for Columbia River History," 2012). I hope to share these ideas with other Hanford activists and community advocacy groups to incite sustainable activism towards greater public awareness and involvement with Hanford; and I would like to form an action study group to begin the walk to Hanford.

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I give you a story.

AUDIENCE: I give you another

I came and I saw

AUDIENCE: See so that we may see

Little Leper of Munjolóbo

(as told by Mā Kelezensia Kahamba)

(Rothenberg, 1985, p. 185)

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