**Designing Graduate Climate Change and Climate Justice Education with Contemplative Dimensions: Approaches and Tools via The Work that Reconnects and the Climate Justice Education Spectrum**

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Abstract

Effective climate change and climate justice education supports learners in metabolizing the potentially eco-traumatizing effects of the span and scope of the topics under study. Contemplative and creative approaches support learner resilience and long-term engagement and visionary activism. This briefing provides context, rationale, resources, and curricular structures for experiential and contemplative graduate climate change and climate justice education. Additional details are offered on a useful tool under revision developed through meta-synthesis, the Climate Justice Education Spectrum, to inform and accelerate deep climate justice education.

*Keywords*: climate change education, climate justice education, contemplative climate change education, Active Hope, Work that Reconnects, sustainability education for resilient learners and cultural resilience

Designing Graduate Climate Change and Climate Justice Education with Contemplative Dimensions: Approaches and Tools

**Context**

I am writing to share some strategies, successes, and resources regarding contemplative and creative approaches to climate justice education. My aim is to support and nurture climate change educators to include climate justice education and contemplative approaches in their course materials. A little about me: I am a white, queer permaculturist, poet, and graduate faculty with a multigenerational settler-colonial background. I live in Portland, Oregon where I direct the programs of the Institute of Earth Regenerative Studies, a small educational nonprofit offering programs at the intersection of creativity, eco-restoration, and the living wisdom traditions ([www.earthregenerative.org](http://www.earthregenerative.org)). I also mentor and teach educators who are graduate students at Prescott College in the sustainability education and environmental studies MA and PhD programs. The graduate courses I teach include sustainability education, climate change education, and climate justice. I have been developing and offering educational programs in sustainability for the past thirty years and favor experiential educational approaches and an ecofeminist, activist, and social justice lens. I have over ninety refereed publications and presentations in the past eight years on related topics.

**Experience Developing Climate Change Education and Climate Justice Education**

One of the programs I have developed and piloted for the Institute is a year-long ecosocial incubator for visionary activists in Gaian Resilience and Climate Justice called Womyn Empowering Climate Action Networks (WE-CAN). In this program, adult participants designed and incubated community climate change education programs. In order to develop this program, I needed to have a better understanding of the state of the field in climate justice education in order to ascertain if the scope and span of the curriculum merited the term “climate justice” in the credential. So I undertook what has become a continuing journey in understanding climate justice and climate justice education. I conducted a meta-synthesis of ecojustice, sustainability, and climate justice research and educational resources to develop an interdisciplinary spectrum of increasingly deep adoption of climate justice approaches. This spectrum instrument continues to be iteratively developed. I first developed it for a 2014 Cornell University and EECapacity Measuring Environmental Education Outcomes course (Hauk, 2014b) and presented it at the 2014 North American Environmental Education Association conference as one of 26 international Community Climate Change Fellows (Hauk, 2014c). I revised and expanded the climate justice education spectrum and presented it in 2015 for the Research Symposium of the North American Environmental Education Association in San Diego, California with both a poster and the instrument (Hauk, 2015; <http://earthregenerative.blogspot.com/2016/07/spectrum-of-inclusive-resilience.html>).

The climate justice education spectrum was a part of my course materials when I taught Climate Change Education as a doctoral course at Prescott in Spring 2015. And in Spring 2017, I used it extensively and also gained insight to update it when I developed and taught a climate justice education graduate course: “Climate Justice and Climate Consequences: Education and Action for Social Justice and Regeneration” for Prescott College. My work was enhanced and informed by being a participant of the 2016-2017 Curriculum for the Bioregion Contemplative Climate Change Education Faculty Collaborative. When I was working in small faculty collaborative teams with the Curriculum for the Bioregion, several faculty encouraged me to include the spectrum as one of my main offerings to the curriculum library, so I include it here.

**Rationale for Inclusion of Contemplative Dimensions**

One of the clear points of Kagawa and Selby’s work is the importance of holistic, emergent, creative, and contemplative approaches for climate change education:

Wherever it takes place, climate change education needs to be a social and holistic learning process; climate change is too urgent and important to suffer ‘death by formal curriculum.’ Looming rampant climate change calls for flexible learning and emergent curriculum approaches that embed climate change learning and action within community contexts….The threat is also too urgent to any longer continue with epistemologically under-dimensioned learning confined to rational, linear, analytical, classificatory, and mechanistic ways of knowing and seeking to effect change. Employed exclusively, even predominately, such ways of knowing are tantamount to applying disease as remedy. **There is a need for the complementary and recursive use of artistic, embodied, experiential, symbolic, spiritual, and relational learning, especially in the vital task of reconnecting learners to the earth while enabling them to discover their (connected) identity and realize their full potentials**. (Kagawa & Selby, 2010, pp. 242-243, emphasis added)

This passage from Kagawa and Selby offers insightful guidance for climate change educators and for educators who care about climate change. It serves as a mandate for arts-based, contemplative, and experiential approaches, particularly those embedded or connecting with social and community-based learning. Research suggests that such approaches can nurture a kind of ecopsychological resilience for the learner. Such ecopsychological resilience approaches lend a “characteristic therapeutic response to the emotional impacts of issues like species extinction or global climate change” (Doherty, 2011, para. 7) and can “improve student’s capacity to address multiplex issues with complex and sophisticated problem solving, supporting their ability to manifest persistent hope and psychological resilience” (Leetch & Hauk, 2016, p. 293). Resilient learning and learning for resilience in sustainability education and climate-responsive education are mutually supportive (Hauk, 2016; Sterling, 2010). Contemplative approaches in climate change education support these movements towards resilience, regeneration, and cultural reclamation (Hauk, 2016). Contemplative practices involve a “relaxed yet concentrated presence of mind…attuned to an awareness of itself as it attends to the world” (Eaton, Davis, Williams, & MacGregor, 2017). Such practices can support an expanded way of knowing to allow space for and support holding expanded topics of concern and consideration. Contemplative approaches can also cultivate justice by surfacing unheard voices (Hauk & Pickett, 2017) and supporting social justice learning as a primary process nurturing climate justice perspectives (Hackman, 2015; Hauk & Kippen, 2017).

**Spotlight: Resources for Contemplative Dimensions of Climate Justice and Climate Change Education**

The primary text that I have used in all three adult learning contexts regarding climate change and climate justice education has been Macy and Johnstone’s (2012) *Active Hope: How to Face the Mess We’re In Without Going Crazy*. The text is structured around Macy’s four-fold Work that Reconnects process model. This model is also expressed and explored in *Coming Back to Life* (Macy & Brown, 2014) and the video training material in The Work that Reconnects (Macy, . The model involves starting from strengths, similar to appreciative inquiry. In the model, the first phase of the process is called **Coming from Gratitude**.

Of note, the second process in The Work that Reconnects is a critical one that cannot be overvalued: **Honoring our Pain for the World**. A key dimension of Macy’s process, reflected in *Active Hope* (with Johnstone, 2012) and *Coming Back to Life* (with Brown, 2014), is the way that ecophobic aversion to contending with climate change and climate justice, including the fear of being overwhelmed by the size and duration of the challenges and losses underway, interferes with learning and action on behalf of planetary health. So there are experiential and contemplative approaches to support feeling this pain, together. This second phase of the process can release a lot of psychic and emotional energy for the work ahead. 

An important shift comes in the third phase of the Work that Reconnects and involves building compassion for the understandable pain -- and in fact coming to perceive the pain for the world as an affirming form of empathetic connection with the larger embedding systems of which we are a part. The perception of these widening circles of connection is very empowering for students and mitigates against the deracinating illusion of separation on which much of the cultures of unraveling are based. This perceptual shift is known as **Seeing with New Eyes**. The third phase involves coming to embody a systems point of view and there are many resources and activities to support this paradigmatic expansion.

Figure 1. The Work that Reconnects four-fold process model of Joanna Macy. Picture sourced from https://workthatreconnects.org/wp-content/uploads/2012/05/dandelionspiral.jpg

From this connected place, the fourth phase of The Work that Reconnects involves **Going Forth** to take action emboldened by the experiential and contemplative work supported thus far. This part of the work involves identifying and collaborating with larger circles and cycles of time, community, and culture to maintain enthusiasm and momentum. As Figure 1 depicts, the cycle of The Work that Reconnects is imagined as an iterative spiral.

Additional resources for reflective and experiential contemplative activities can be found in the trove of activities in Coming Back to Life (Macy & Brown, 2014) and in the video teaching materials on The Work that Reconnects, plus related web and video materials (e.g., joannamacy.net , activehope.info , workthatreconnects.org , etc.).

In most cases, as one of the core texts for climate change or climate justice education, students read a chapter a week of *Active Hope* (or relevant parallel cadence) in order. I usually encourage student to co-design thematic curricular units, and so learners or learner-teams leverage the experiential and contemplative approaches and activities embedded in each chapter of *Active Hope* as a basis for in-class catalytic experiential activities involving activity, reflection, and conversation cycles. Table 1 reflects the unfolding themes for each the climate change and the climate justice education courses.

**Table 1**

**Themes and Flow of Three Climate Change and Climate Justice Education Programs Relative to Work that Reconnects Themes**

| **Work that Reconnects Process Cycle**  (See Macy & Brown, 2014; Macy & Johnstone, 2012) | **Case 1.**  **Climate Change Education Graduate Course**  (Spring 2015) | **Case 2.**  **WE-CAN Ecosocial Climate Justice and Gaian Resilience Incubator**  (Fall 2015-Spring 2016) | **Case 3.**  **Climate Justice and Climate Consequences: Education and Action for Social Justice and Regeneration Graduate Course**  (Spring 2017) |
| --- | --- | --- | --- |
| **Coming from Gratitude** | Macy Video – Shambhala Warrior Myth  Climate Change Basics  Coming from Gratitude | Blessings Activity;  Seeing Seeds and Mandalas of Possibility | Course Introduction - Rhythms - Core Concepts, including Distributive Justice |
| **Feeling Our Pain for the World** | Current Climate Disturbance;  Activities from Feeling our Pain for the World | Non-human beings – Sentence Completion  Climate Change and Climate Science 101 with Activity from *Curriculum for the Earth* (Bigelow & Swinehart, 2014) | Social Justice and Climate Justice - including in Education |
| **Seeing with New Eyes (Empathetic Shift)** | A Wider Sense of Self;  Climate Science and the Planetary System | The Goddesses of Climate Change | Climate Ethics; Fieldworking (throughout) |
|  | Power With and Planetary – Gaia Theory and Climate Systems  A Different Kind of Power | Soul Collage Creation – Generating Images of Earth Regeneration | Environmental Racism and Environmental Justice |
|  | A Richer Experience of Community;  Community Education and Action  Climate Ethics and Deep Time | Ecofractal Pattern Languages | The Climate Justice Education Spectrum for Effective Curricular Design; Website Design |
| **Going Forth** | Catching an Inspiring Vision;  Climate Justice | Collaboration Strategies | Community Organizing Exemplars and Vibrant Practices; Continuing Projects in Fieldwork and Web |
|  | Daring to Believe it is Possible  Future Climate Scenarios | Storyboarding Projects | Coalition, Allyship, and Solidarity, and Regenerating Capacity for Intergenerational Flourishing; Continuing Projects |
|  | Building Support Around You  Completing Articles | Developing Pitches with Mentor Coaching | Distributive Justice and the Global Context |
|  | Thriving in Uncertainty; Website and Article Completion and Sharing | Community Presentations | Course Wrap-up |

**Table 2**

**Descriptions for each Climate Change Education Case**

|  |  |
| --- | --- |
| **Program**  *Location/Context* | **Description** |
| Case 1. Climate Change Education Graduate Course  *Spring 2015*  *Prescott College*  *Doctoral Students* | This course will feature focused reading and information gathering, Moodle discussion, writing assignments, joint sessions, research, and study culminating in a climate change paper and praxis project. Each student will select a climate change study emphasis or project that is specifically relevant to their course of research and study. The course is structured around Joanna Macy’s four-phase approach to engaging with large ecosocial topics, and includes emotional, social, scientific, mental, community, and cultural dimensions of engagement. Course topics include: climate change basics; climate science; current disturbance; the climate system and Gaia Theory; research-based community education and action; climate ethics; climate justice; and future climate scenarios. Students will maintain a research journal throughout the course to trace the arc of their own thinking and engagement. A shared project will build a resource site for climate change educators. Mutual learning generates a supportive context for engaging with what can be a daunting topic. |
| Case 2. WE-CAN Ecosocial Incubator for Visionary Activists  *November 2015-July 2016*  *Institute for Earth Regenerative Studies, Portland, Oregon*  *Participants are Adult Community Organizers* | A one-year certificate program in Climate Justice and Gaian Resilience kicking off Fall 2015 in Portland, Oregon. Recruiting a first cohort of 9-12 women and queer women activists interested in arts-based, ecopreneurial, and/or regenerative design/permaculture approaches to community-based climate resilience. Each visionary-activist meets in monthly learning circle, engages in peer support, and is matched with a community mentor. The program intends to generate a nexus of support for our experiential, project-based programs for Cascadian Climate Resilience.  Optimizing strengths: Providing tools, processes, and strategies to unleash the talent and creativity of the next generation of climate change leadership. Bootstrapping appropriate technology and social networks while cultivating skills to connect and inspire. Collaborative action: Participants become designers and facilitators of group genius. Genius not only with humans, but also with the earth's systems and biocultural and social capital within the systems that sustain us. Culturally responsive: Experiential, project-based learning supported by a circle of mentors catapult learning deeper. Rainbow pedagogy and Women's Ways of Knowing empower learners to thrive.  A crack team of women and womyn leaders including educators, permaculture designers, natural builders, healers, deep green enterprise mavericks, facilitators, artists, and leaders mentor a cross-pollinating cohort of brilliant visionaries. We span the gamut from traditional and unconventional backgrounds, priming the collaborative cycle of culture and earth regeneration. We are dedicated to nurturing women as leaders, facilitators, and healers through embodied, integrated action. WE-CAN is a project of the Institute for Earth Regenerative Studies. Supported by a training fellowship from the EE Capacity, Civic Ecology Lab, the North American Association of Environmental Education, and the EPA, we are designing and unfolding the first year-long program in community climate resilience. Mentoring one-on-one and the Mentor learning circle bridges generations of successive waves of contribution, talent, and creativity. All this with the intention of creating planetary thrivability.  The WE-CAN Program year offers a dynamic, interactive learning and action context for community-based climate change resilience projects. Whether you are interested in increasing community-based organic gardening or food forests, want to bootstrap a public-benefit enterprise in transition skills, or want to increase community involvement through large puppetry or murals…We nurture Gaian thriving, in learners' growing vision, along multi-disciplinary dimensions. Our mentor match program is excellent. |
| Case 3. Climate Justice Education Course  *Spring 2017*  *Prescott College*  *Graduate Students* | “Climate Justice and Climate Consequences: Education and Action for Social Justice and Regeneration”  Course Description: Climate change entangles issues of fairness, vulnerability, historical and structural inequities, intergenerational ethics, and procedural and distributive justice. At sociocultural, regional, and global scales, often the populations who are most at risk for climate change impacts are least responsible for generating them (Adger, Paavola, & Huq, 2006). Attention, research, and investments in those communities more vulnerable and dispossessed could provide high value mitigation and adaptation zones (Taylor, 2000). Community-emergent organizing within the resilience zones of the most marginalized offer high-priority climate justice action spaces. This climate justice course brings clarity to the structural dimensions of climate change and argues that community-based action to redress structural inequities can be effective at taking action on the environmental justice dimensions of climate change. Students use ethnographic research methods in community service engagement relevant to their research trajectory. They will also co-develop web resources for other climate justice researchers on exemplars from the field. Topics in this course include: climate ethics, environmental racism and environmental justice, the climate justice education spectrum for effective curricular design, community organizing exemplars and vibrant practices, coalition, allyship, and solidarity, and regenerating capacity for intergenerational flourishing. The course is structured with three simultaneous tracks (theory, educational context, and field organizing) and takes place during a seven-week burst in the second half of the spring semester. |

**Spotlight: Climate Justice Educational Design and the Spectrum of Inclusive Resilience**

Developed by meta-synthesis and refined by multi-case application, this research offers a three-tier spectrum to assess and design for depth of implementation of transformative climate justice approaches in curricula and projects, to avoid greenwashing and move more deeply towards social transformation, community-based action, inclusion, and resilience in environmental education. Users of the spectrum will be able to:

* understand how adaptation models, environmental justice frameworks, and climate change education align to suggest a roadmap for ethical research and educational design
* investigate how educators could apply the Climate Justice Education Spectrum to enhance inclusion and resilience in their curricula and projects
* generate ideas for dynamic approaches to move their climate change educational engagements toward justice and transformation

**Conceptual/Epistemological Frameworks**

This prototyped educational design and assessment spectrum is sourced from climate change response strategy (Pelling, 2013) and climate change education literature (Chang, 2014; Downey et al/EE Capacity, 2013; Selby & Kagawa, 2009), most particularly climate justice education (Bigelow & Swinehart, 2014; Gardiner, 2010; Lotz-Sisitka, 2009). More generally, this research quilts into civic ecology (Krasny, 2013), community-based environmental education (Price, Krasny, et al/EE Capacity, 2014), and environmental justice education (Agyeman, Bullard, & Evans, 2003; Taylor, 2000).

**Methods**

This tool was developed through focused meta-synthesis (Saldana, 2013; Thorne et al, 2004) of more than thirty sources in environmental justice, climate justice education, climate resilience theory, and climate change ethics. It was vetted by peers at NAAEE 2014 and via an EE Capacity “Measuring Environmental Outcomes” course. It has subsequently been improved based on comparative case application, to both (1) a doctoral climate change education course; and (2) an innovative, community-based climate resilience incubator.

The spectrum portrays three nodal clusters for climate justice education, with eighty summative statements and detailed descriptors. It describes trajectories from mitigation through transition to transformation of curricula, systems, and structures.  It includes detailed statements for each node on the spectrum. Proactive application by educators, researchers, and program designers would produce more transformational designs within their climate change and climate resilience projects and curricula. Additionally, multiple reviewers could assess current curricula with the spectrum.

During a time when climate chaos threatens to undermine core living systems (Shiva, 2008), while also inviting education for addressing deep structures (Klein, 2014), research into pushing the leading edge of environmental education toward climate justice promises to cultivate a connective ecological consciousness (Sterling, 2009) and ensure inclusion and resilience.

**Table 3.**

**Summary, Climate Justice Spectrum (see Appendix for full instrument)**

SPECTRUM, NODE 1:

+Strives to maintain or return to status quo or “business as usual,” sees current state as normative

+Focus on ameliorative technologies and mitigation

+Single-dimensioned, linear, analytic, classifying, and mechanistic ways of knowing

+Static, deterministic, and hierarchical pedagogically

+Oriented to risk, control, management, and rights

+Sees oppressed (and learners) as something to be managed or a problem to be solved or dealt with

SPECTRUM, NODE 2: TRANSITION

+Moves toward transformation, still oriented around structures of domination and control.

+Might not focus on multiple scales (personal, social, structural)

+Begins to connect ecological and social dimensions, with nascent movement towards systems interrelation and transformation

+Pedagogical methods begin to diversify

+Begins to honor indigenous and community-based ways of knowing and acting\

SPECTRUM, NODE 3: TRANSFORMATION

+Justice orientation

+Systems thinking deeply integrated, including accepting change

+Embeds Environmental Justice Principles and Earth Charter

+Radical transformation of current structures, power, and paradigms

+Oriented towards change and action

+Nurtures community and learner strengths and meaning

**For the Future**

I am currently gathering material to extend the spectrum, and the most notable additions I would make to the spectrum would be to include the work of Heather Hackman (2005, 2015) who has worked extensively in the space of social justice and climate justice education. Bigelow and Swinehart’s (2014) *People’s Curriculum for the Earth* also has relevant activities and materials to integrate. Further, I would also include more references and resources for activist climate justice organizations as well as the Just Transition movement. Additionally, I would include more of the recent literatures on climate justice as a topic, including radical field insights of Angus & Rebick (2010) and Moore (2016); climate ethics work by Gardiner, Caney, Jamieson, and Shue (2010), Gardiner (2011), and Tremmel and Robinson (2014); the policy dimensions of Roberts and Parks (2007); and the climate justice insights of Tokar (2014) and Posner and Weisbach (2010). Further inclusion of the bodies of scholarship on the Anthropocene seems appropriate (Haraway, 2015, 2016; Moore, 2016).

Climate justice education is still largely undertheorized in the academic literature. I also think that there is a further work to be done to include contemplative and creative expressive dimensions within climate change and climate justice education. These dimensions become very strong in the third part of the spectrum, leveraging insight from Selby and Kagawa’s “Climate Change Education: A Critical Agenda for Interesting Times” (2010). During this time of increasing need, contemplative and expansive approaches such as Macy’s Work that Reconnects Model and the use of the Climate Justice Education Spectrum can enhance the contemplative, reflective, and creative approaches to climate change education, enabling more flexible, resilient, and long-term engagement of learning communities with the important work toward which the world is calling us.

**Prayer to Future Beings**

Oh you who come after, fill our hearts with love. You live inside us, beings of the future.

In the spiral ribbons of our cells, you are here...

O you who will walk this Earth when we are gone, stir us awake.  Behold through our eyes the beauty of this world.  Let us feel your breath in our lungs…, that we may honour the life that links us.

You have as yet no faces we can see, no names we can say.  But we need only hold you in our mind, and you teach us patience.  You attune us to measures of time where healing can happen, where soil and souls can mend.  You reveal courage within us we had not suspected, love we had not owned.

O you who come after, help us remember: we are your ancestors.  Fill us with gladness for the work that must be done.

*-Joanna Macy*

**Curated Resources**

* Appendix 1. Climate Change Education – Graduate Course – Syllabus (Hauk, 2015)
* Appendix 2. Climate Justice Education Spectrum Metasynthesis Instrument, with References - Version 2.0 (Hauk, 2015, presented to the North American Association for Environmental Education Research Symposium)
* Appendix 3. Climate Justice Education Spectrum, Poster (Hauk, 2015, presented to the North American Association for Environmental Education Research Symposium)
* Appendix 4. Climate Justice and Climate Consequences: Education and Action for Social Justice and Regeneration – Graduate Course - Course Flyer (Hauk, 2017)
* Appendix 5. Climate Justice and Climate Consequences: Education and Action for Social Justice and Regeneration – Graduate Course - Course Briefing (Hauk, 2017)

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*Note: This reference list to be used in conjunction with the reference list from the Climate Justice Education Spectrum in the Appendix of this document*.

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