Toward Pedagogies for the Future to Address the Climate Crisis

Edward J. Brantmeier

James Madison University, brantmej@jmu.edu

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Cover Page Footnote
Acknowledgements: Thank you to Dr. Kevin Kester and the organizers of the Innovative Pedagogies of Coexistence in a Posthuman World Conference at Seoul National University, Korea in the Fall of 2022. The original version of this paper was presented on a panel for that conference with Drs. Hilary Cremin, Tony Jenkins, and Kathy Bickmore.

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Toward Regenerative Pedagogies for the Future to Address the Climate Crisis

Edward J. Brantmeier, Ph.D

Learning, Technology, and Leadership Education Department College of Education, James Madison University, U.S.A.

Abstract

This exploratory article offers contemplative learning exercises that foster connection and intuition in order to promote adaptive intelligence and anticipatory knowing to address the uncertain future related to climate crisis. The author provides personal snapshots and reflections regarding the impact of the climate crisis and explores hopeful paths for everyday action. In specific, the article suggests that everyday revolutionary acts such as slowing down, practicing humility, and aligning economic choices with core values can make a difference. Drawing on a critical pedagogy of place, the author suggests that connection to the ecological places we inhabit matters much in our efforts toward addressing the climate crisis. A simple solution is offered; we need to harm less, love more.

Thank you to the organizers of

Disclaimer: This is an exploratory thought piece; no specific solutions are offered, just questions and reflections on the potential of transformative educational contexts and regenerative learning exercises.

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Acknowledgments: Thank you to Kevin Kester and the organizers of the Innovative Pedagogies of Coexistence in a Posthuman World Conference at Seoul National University, Korea, in the Fall of 2022. The original version of this paper was presented on a panel for that conference with Drs. Hilary Cremin, Tony Jenkins, and Kathy Bickmore.

Additionally, I would like to acknowledge other peace educators working on regenerative approaches to leadership and learning, such as Stephanie Marie Knox Steiner, Carlotta Ehrenzeller, Jwalin Patel, and Maria McKenna. Maybe someday we could collaborate on regenerative pedagogies for the planet.

Ecological Vulnerability and Everyday Revolutionary Acts

Time Stamp: September 28, 2022

Hurricane Ian has ripped apart the coast of Florida, with so much human and more-than-human destruction in its wake. Hurricane Ian is now ebbing and flowing in strength and destruction on the Eastern seaboard of the United States as I write these lines from the relative comfort of my home office, nestled between the Blue Ridge and Allegheny mountains in the Shenandoah Valley of Virginia, U.S.A. We live just two hours south of the White House in Washington, D.C., where so much power politics happen concerning the planet, ecosystems, war, peace, and natural disaster response. My son’s environmental science kayaking field trip to explore the Shenandoah River ecosystem was canceled this morning because of impending concern over high winds and torrential rains from Hurricane Ian. The above-normal coastal water temperatures and warming waters are part of the scientific analysis that explains the causes and conditions for the brute strength of Hurricane Ian and other related catastrophic global weather events occurring with increased frequency. The climate crisis is real and is disrupting our lives with increasing devastation. We as a human species, whether we like to admit it or not, are vulnerable, and we are connected. We are vulnerable to present and future
climate uncertainties. I worry about my children and my future grandchildren. I worry about your children and your future grandchildren. Their future is in jeopardy. Our maladaptive technologies have created the causes and conditions for much suffering for plants, animals, and ecosystems, now and in the future. We have created much suffering for life on planet Earth. For this, I am deeply sorry. We are connected to a vibrant web of life that sustains and co-creates life on planet Earth.

**Place Matters: Mountain Top Retreat in Sugar Grove, WV**

I am writing to you from a small cabin in the Appalachian Mountain Forest near Sugar Grove, West Virginia, in the United States of America. I am surrounded by mountains and the vibrant autumn colors of leaves that are changing, dying, and decaying. Thousands of acres of the George Washington National Forest are all around. Autumn is a time of change here in these mountains. I thank these mountains, this place, this forest, the ferns, these ponds, and the fish and turtles therein—for they have been my greatest teachers over the last six years. The American conservationist and environmentalist John Muir once said, “The Mountains are my church.” The mountains, for me, are also my sacred place of worship, my place of connection to nature and myself.

I invite you to think of the places where you derive sustenance and wellness, the places where your food and water come from, the places you are connected to in your immediate urban and rural environments. Perhaps you, too, wish to thank the places that give your life and provide connection, meaning, and purpose. Perhaps you, too, wish to thank the animals, the plants, the ecosystems, and the Earth itself—for all the bounty it has given you, given us, given humanity—our species homo sapiens. This beautiful blue and green ball we ride through space and time, planet Earth, has given us so much.
Prior to an invited “critical peace education for sustainability” (Brantmeier, 2013) talk at Georgetown University in 2015, I was told that peace studies students there would like practical solutions rooted in theoretical work. I embraced this challenge and shared a simple recipe to make a difference via everyday revolutionary acts: slowing down, practicing humility, and aligning money with values (Brantmeier, 2015).

Many years later, I would like to elaborate more on these three everyday revolutionary acts in this article. **Slowing down** can be a revolutionary act in an extremely fast-paced and future-oriented world. Vegetables and animals take time to grow, for sure. Recognizing and honoring this in how we process, consume, and dispose of food is a way to honor the ecological places from which we derive life. Slowing down in how we consume food invites a more intimate connection to our sources of nourishment and sustenance. Some of us have the power to choose. For example, gathering edible food through foraging and hunting are ways to deeply
appreciate food and the natural ecosystems that grow life. These often are long, intimate processes where one gets close to nature.

Time Stamp: Fall 2020--Ed holding chanterelle mushrooms from an Appalachian mountain forest.

Gathered during a particularly wet and abundant fall a few years ago, the beautiful orange chanterelle mushrooms in the preceding photo have not germinated for two years now, given the local drought/dry weather conditions during summer and fall months. When one looks directly at nature for food, we see how human consumption and climate change impact growth and life cycles on many levels. Those who live most intimately with the land, harvesting food directly from the forests or waterways, are most intimately impacted by recent drastic climate fluctuations that disturb the rhythmic cycles of nature.

Gathering food and hunting for food involve slowing down and observing daily, weekly, monthly, and yearly cycles in unique local natural ecosystems; patience, persistence, and mindfulness are required. Each natural place has its own story and its own processes; learning from these special places takes care and time. Gathering food from the land involves a keen sense of restraint – taking only what one needs or even taking less than one needs, given the larger needs of the ecological community. Perhaps an awareness of the needs of future generations of humans, and more than human inhabitants on planet Earth, is present when practicing mindful restraint. Through gathering for food, one begins to understand the rhythms and cycles of nature in connective and intimate ways. There is great joy and sadness in these processes. Life and death, and realities that life feeds on life, can be contemplative moments that can grow one’s appreciation for the sanctity and felt connection of all life on planet Earth.

Not all of us can gather and hunt, and some of us are vegetarians, so there are other ways to slow down in the ways we support food production and divest from the fast-food industry. Given that the United Nations projects that 68 percent of the world population will live in urban areas in the year 2050 (Retrieved 10-17-22, https://www.un.org/en/desa/68-world-population-projected-live-urban-areas-2050-says-un), it is not pragmatic to think that all of us can gather or forage for food. In fact, the environmental impact and degradation from this would be significant beyond measure and damage the carrying capacity of ecosystems. Yet
slowing down in urban contexts, lessening our meat consumption, and connecting with food and water and their sources through mindful consumption are all quite possible if pressure is put on economic markets. Pressure can be put on economic markets to offer consumer choices that build relationships with the land, farmers, and natural places. Growing “farm to table” movements, farm shares, and community-supported agriculture programs connect farmers and urban consumers; these programs recognize the need for relationship and connection. They aim to build farmer / consumer relationships and healthy, mindful food consumption as well as sustainable and circular food waste disposal. Consuming clean, fair, slow food is part of a growing global slow foods movement (Slow Food USA https://slowfoodusa.org/history/, n.d. https://www.slowfood.com/). When translating slow food principles to diverse learning contexts, what learning exercises might promote slowing down in our food consumption and buying slow foods rooted in localized knowledge and connection to place? What learning activities might invite connective relationships with the sources of our water and food?

I ask the questions to inspire reflective and creative thinking in readers and to invite you to think of transformative learning exercises that might bring about a deep appreciation of slow foods. I was encouraged by a reviewer of this article to share some specific examples of learning exercises. For example, my son Estes and I recently completed a three-year-long project to make maple syrup from sugar maple trees on our family’s 32-acre property in the Appalachian Mountains near Sugar Grove, West Virginia. In year one, I worked with the county forester to identify various trees and edible plants on the property. In year two, Estes and I identified the sugar maple trees in Bear Creek and marked them with unobtrusive gray spray paint at the base of the trees. We learned about the variety of trees by identifying leaf patterns, bark textures, and colors. We asked why and how some trees were present at the creek bottom and discussed the variety of trees and animals found in the mountain forest. These exploratory years were important to understanding the unique ecosystem where sugar maple trees made their home.

In year three, we studied online videos about maple syrup production and acquired the basic necessary equipment like tree taps/spiles, food-grade plastic lines, collection pales, an evaporator, burner, filters, strainers, a hydrometer, etc. We carefully and selectively tapped the right-sized trees, collected 20 gallons of sap over a week, and boiled it down for over 10 hours to about ½ gallon of maple syrup. Yes, it takes about 20 gallons of good tree sap with high sugar content to make a ½ gallon of pure maple syrup.

Estes, his friend Aaron, and I learned forestry, meteorology, tool use skills, tons of applied math, layers of applied ecological science, research skills, and gratitude for delicious, savory, slow food. Here are some photos documenting the maple syrup-making process.
Maple syrup in jars and on a waffle

We learned all parts of the maple syrup-making process from online videos and neighbors and then collaboratively learned how to make maple syrup. I taught Estes and Aaron how to measure, tap, and collect maple sap. They then co-taught each other by doing it. We learned to
appreciate sugar maple trees, Bear Creek, the mountain forest, and all it has to offer.

Slow food is the reality; nothing is grown or made overnight. Suppose we invite children and adults to have direct experiences growing and making food from natural places. We invite them into a deeper appreciation of the labor, time, natural ingredients, and natural processes involved in nurturing our bodies. In short, slow food can promote deeper awareness, gratitude, and connection. Anyone can look around locally to find food growers who offer workshops on local food production and dive in. Estes is more mindful now of how much maple syrup he puts on his waffles and pancakes; he also alerts his brothers and me when we are being wasteful.

Humility as a Revolutionary Act

Slow down seems an important, everyday revolutionary act that so many of us can choose daily, as does humility. Humility stems from systems thinking (Capra, 1996), seeing the big picture, and recognizing one’s small yet important part in that totality. We each have a vital role in the grand spider web of life — where all things are connected and mutually influence one another. Stare at the Milky Way of stars on a dark-sky night or into a receding ocean horizon. When looking at the stars, consider the scientific fact that we are stardust and the life cycles of stars have an impact on our bodies; our bodies are made of stardust. Yes, many of the elements of the human body are from stars over billions of years old. Schrijver & Schrivijver (2015) maintain, “Every object in the wider universe, everything around us, and everything we are, originated in stardust” (p. 9). Through contemplation and science, we begin to embrace our place within the universe (and the possibilities and plurality of the multiverse). We, our bodies, are stardust. When we slow down and deeply contemplate this, a sense of connectedness and the interdependence of all life can emerge and guide our understanding. Open your eyes to the Milky Way and be swallowed by the wonder and connection of it all. A reverence for the sanctity and preciousness of life emerges.

Humility can be cultivated through this recognition of the interdependence of all life. Interdependence, humility, wonder, reverence for life, compassion, and responsibility can
emerge from contemplation and nature immersion. Gandhi (1924) maintained, “The rock bottom foundation of the technique for achieving the power of nonviolence is the belief in the essential oneness of all life” (p. 390). With a rooted and relational ontology of oneness, nonviolence, solidarity, and community, ecological and social responsibility become the norm and guide our actions in the world.

What learning exercises might promote humility and recognition of our unique contributions and importance? What learning exercise might loosen the grip of addictions to speed, anthropocentrism, ego, and greed? Holistic learning approaches offer a variety of learning exercises that might promote humility and one’s radical connectedness with all life (Miller et al., 2005).

In past multicultural, contemplative, and/or spirituality/ecology learning exercises, I have used variations of a web of life activity with primary learning outcomes focused on the appreciation of diversity and interconnection and the realities that violence impacts us all (See Timpson et al., 2009). The learning exercises involve a small group of people, standing in a circle, and some position-taking with plants and animals. Appreciation is expressed for each individual and yarn is used to connect everyone. We reflect on our unique and humble contributions to the whole. Some individuals drop the yarn and we reflect on how violence against one impacts us all. This learning exercise could be modified to foster humility and the recognition of the interdependence of all life by asking a few different, simple questions. How is humility represented in the circle and the yarn lines of connection? How does your small part matter? What happens if you let go of your small part?

Mindful Consumption as a Revolutionary Act

The third point I tried to make with the students from Georgetown in 2015 was about value resonance and behavioral alignment with economic choices. I will elaborate more here and now. According to Naomi Klein (2014), our current economic system is at war with life on planet Earth and with human life. Let me repeat: our economic system, unbridled corporate capitalism, is at war with life on planet Earth. Rampant greed, exemplified by the overconsumption of the power elite at the expense of so many humans and more-than-human others, manifests as structural violence and hinders the survival and thriving of the rest of us. Decades ago in Rethinking Schools, Bill Bigelow (1996) wrote a powerful statement regarding rampant consumerism, connected to an unbridled corporate capitalist system, as he advocates for a more sustainable, Earth-centered curriculum:

The “buy until you die” consumer orientation that bombards us from morning until night is not sustainable. The planet is dying, and despite the conceit that suggests we humans are above it all, our fate is intimately coupled to that of the earth, albeit unequally so based on race, class, and nationality. It’s about time the entire curriculum began to ask: What about the earth? (p.8)

Bigelow points out consumeristic attitudes, like “buy until you die,” harm the Earth, ecosystems, and humans. Indirectly, unbridled corporate capitalist structures are implicated. He reminds us of structures of oppression that show up as environmental racism and as disproportionate suffering based on one’s racial group affiliation, socioeconomic status, and nationality. For me, Bigelow’s quote points to the intersectional dynamics of power, oppression, and privileges caught up in what Patricia Hill Collins (1990) called the “matrix of domination” — the compounding factors of racism, sexism, and capitalism. In the book Black Feminist Thought, Collins powerfully deconstructs the interlocking forces that oppress Black
women specifically. Systems of racism, sexism, and capitalism constrain groups and individuals within them. Engaging in advocacy amid these interlocking systems can be difficult, given that access, opportunity, and choice are limited based on identity and geography. Advocacy for access, opportunity, and food sovereignty shows up in Black and Indigenous farming movements. Soul Fire Farms is a powerful example of an organization actively addressing structural racism and food sovereignty in reparative, regenerative, and life-affirming ways (Available at: https://www.soulfirefarm.org/). Additionally, the Alliance of Native Seedkeepers is an Indigenous owned business that aims to “revitalize and evolve our collective seedkeeping heritage” (Available at: https://www.allianceofnativeseedkeepers.com/pages/birth-of-the-alliance).

Growing one’s own food, stewarding seed heritage, producing one’s own furniture, clothing, and material needs, reclaiming sovereignty, and denying/rejecting marketing messages of insufficiency and inadequacy can be empowering, connective acts that usurp the power of a consumeristic mentality and corporate capitalistic system; this system imprints so many wants and the false need to “upgrade” often and forever into the future. Our “upgrade culture” fosters overconsumption and benefits wealthy elite/businesses that may not always have people and the Earth in mind with their bottom-line of profit. Homegrown, homemade, and contentment with what we have are powerful revolutionary practices.

**Mindful Consumption**

Where does our food come from, and where does it go after we eat and release it? Are we aware of the upstream and downstream consequences of our economic choices? Are our economic choices in resonance with our core values? Mindful alignment of our money with our values requires consumer discernment, sometimes divestment, and sometimes disruption of normal ways of consuming goods and services and relating to the people and businesses connected to consumer goods and services. It requires political advocacy and action to change unjust structures of oppression. Mindful consumption, according to the University of British Colombia’s Mindful Consumption Guide (2024), “…is the practice of using awareness of sustainability issues to inform purchasing decisions — from everyday items to long-term investments… Applying mindful consumption to your life choices allows you to reduce issues like waste, pollution, GHG emissions, and unfair labour practices.” (p. 1, available at https://sustain.ubc.ca/resources/mindful-consumption-guide).
Aligning our money with our values can help with just, sustainable, and peaceful economic practices and systems and is an important everyday revolutionary act. Every day, mindful consumption of goods and services can help, in small ways, to alleviate the destruction of species, habitats, and ecosystems. For example, I have made friends with a local farmer in the Shenandoah Valley of Virginia, Jeremy, who raises all-natural chickens and eggs. I have intentionally cultivated this relationship and gotten to know him, his family, and his farm. My boys visited the chickens, and we learned about life on the farm with chickens, pigs, and steers. Rather than buy Walmart organic eggs shipped from Arkansas, thousands of miles away, the eggs we consume daily are grown on a farm within seven miles of our home. I have also connected several neighbors with weekly egg deliveries—eggs they enjoy with their families. In turn, we support Jeremy’s small family farm. My relationship with Jeremy has grown; we have shared family stories and histories. He’s a former soldier in the U.S. military who served several tours of military duty in Afghanistan. We talk about self-reliance and growing our own food, our families, 9/11, war, and peace. Choosing to get eggs from this local farmer has been a connective communal act, sustainable in terms of environmental impact, and resonates with my core values. This is just one small example of the alignment of economic choices and value resonance. Putting pressure on the large-scale farming industry through political advocacy toward sustainable practices would be another way to change the system.

What learning exercises might promote economic choices aligned with value resonance? What learning exercises might challenge, disrupt, and/or move the needle on changing economic structures and inherent extractive processes that cause environmental destruction and waste? What learning exercises might help envision alternatives to an economic system that is too often driven by self-interest and extractive profit? What about a healthy Earth, social equity, more-than-human health, and flourishing as markers of economic success?

Learning exercises that promote exploring alternative economic systems, currencies, and values beyond profit seem important to encourage. How can we do things differently? Exploring the gross national happiness index initiated in Bhutan is one way. The Gross National Happiness movement in Bhutan helped change the global conversation about a
country’s wealth and prosperity beyond the bottom line of profit as measured by gross domestic product. Gross National Happiness, according to Bhutan, involves four pillars: ecological sustainability, cultural health, sustainable and equitable development, and good governance and legal systems (Gross National Happiness Commission, 2009). Though riddled with complexities, Bhutan’s efforts to implement and advocate for a country’s success beyond markers of economic productivity engage us in a healthy conversation about educational sustainability: viable economies; healthy ecosystems; and social equity (Nolet and Wheeler, 2010). Gross National Happiness has now become a global movement. The 2024 Gross “Global” Happiness Summit was hosted by the University of Peace in Costa Rica.

**Toward Allostatic and Regenerative Approaches to Address the Climate Crisis**

How do we teach these things – slowing down, practicing humility, and aligning daily economic choices with value resonance? The above learning exercises are small examples of attempting to meet a huge challenge. Are these solutions to the climate crisis, and can they offer hope? They might be a humble start, yet there is a myriad of ways to create transformative educational contexts and learning exercises to foster slowing down, humility, and value resonant consumerism. Please join the effort in education to address fragmentation, disconnection, and dislocation—all integral to problems fueling the climate crisis. I would like to explore a few approaches that hold promise.

At the fore of my thoughts these days are exploring, developing, and trying regenerative and allostatic pedagogies rooted in vulnerability, connection, and a vision of peace. Co-creating regenerative pedagogies that promote healing, collaboration, holism, and partnership (Wahl, 2019) requires all of us to invent and try creative learning exercises for the future. With Gruenewald’s (2003) critical pedagogy of place guiding educational endeavors, a focus on reinhabitation, connection, and decolonizing our minds, relationships, and structures (think political, economic, and socio-cultural) have guided my educational endeavors with university faculty, graduate, and undergraduate students over the past decade; this approach, among many possible, seems to be a promising way to continue the journey toward a regenerative future.

In university-level courses such as *Inclusive/Contemplative Leadership for Sustainable Peace*, I have attempted to connect students with their core values and to community organizations and local farmers dedicated to social equity, the environment, and sustainable economies (Brantmeier & Webb, 2019). Connecting the local to the global, we also explore and critique macro–United Nations Sustainable Development efforts. Deeply connecting with the heart, hand, and head to co-construct a vision of a sustainable future and then acting in regenerative ways to bring that sustainable future into being is part of the critical peace education for sustainability project and might foster sustainable peace for the planet (Brantmeier, 2013; 2019).

As ecological and systems thinking evolves, my thinking is that “sustainable” peace should be replaced with “regenerative” peace to follow emergent trends in regenerative systems thinking (Wahl, 2016). “Sustainability” assumes maintenance of a status quo, of maintaining a certain order and balance between and among elements that are in relationship. It comes from the Latin word “sustinere,” which is related to the words tenere or “to hold”; it is related to homeostasis or a desired maintenance of balance in an environmental system. In our ever-changing learning environments, do we really desire the restoration of balance, a status quo, or do we desire responsiveness and the cultivation of predictive capacities to anticipate and respond to dynamic and interactive change?

Futuristic pedagogies need to focus on healing, resilience, and holism. Allostatic,
regenerative, and holistic pedagogies seem to be the way forward to address the current and future climate crisis. Allostatic pedagogies need to openly embrace our human vulnerabilities with humility and a reverence for not knowing -- just as a pedagogy of vulnerability approach does (Brantmeier & McKenna, 2020). Allostatic learning exercises need to connect humans on cognitive, embodied, emotional, and spiritual levels with the more than human world. Allostatic learning exercises need to encourage creative problem-solving rooted in predictive guessing and anticipatory/intuitive knowing regarding changing ecological and social realities. There are a lot of ideas that need unpacking; let's begin by exploring definitions of allostasis, examining a critical pedagogy of place, and then moving on toward integrating these approaches.

What is Allostasis?

Modern medical thought and medical education embraced a new way of thinking that replaces homeostasis with allostasis. What is allostasis? Homeostasis is about regaining balance, while allostasis is about anticipating, predicting, and responding to inevitable environmental changes. Anticipation of changing environmental circumstances is at the forefront of allostatic thinking. According to Peter Sterling in his book *What is Health?: Allostasis and the Evolution of Human Design* (2020), allostasis is predictive or anticipatory change based on the perceived future rather than a regulative response to existing, static circumstances. Originally conceived and applied to medicine and medical education, Sterling (2020) writes, “The allostasis model defines health as the capacity to respond optimally to fluctuations in demand” (p. 154). That anticipatory, predictive capacity to respond to an unknown future sets this allostatic model apart from the homeostasis model governed by the restoration of balance and harmony between and among.
What insights does this new way of medical thinking have for pedagogical thinking? Instead of inviting a response to changing environmental circumstances like homeostasis thinking, allostasis is an anticipatory and predictive capacity to the perceived needs of the future. How do we cultivate adaptive and anticipatory intelligence in our learning environments? Adaptive intelligence is cultivating responsiveness to changing socio-cultural and environmental circumstances. For example, inviting teachers and educational leaders to grow in their self-awareness, other awareness, and systems awareness contemplatively invites new ways of connecting with and honoring their own diverse cultures in multicultural learning environments (Brantmeier & Brantmeier, 2020). This invites responses to and predictions of diverse needs in multicultural learning contexts.

Anticipatory adaptive intelligence – predicting the future with data-driven knowing and then responding according to that data, leaning into those hunches, that intuition-- seems like a capacity that is needed in classrooms and society. On Turtle Island -- several Indigenous people’s name for North America -- various groups of Indigenous people continue to demonstrate adaptive intelligence, resilience, and innovation in response to legacies of colonialism and related environmental crisis. For example, the Navajo people demonstrate a creative ability to appropriate, co-opt, and integrate mainstream cultural content.

Local cultural groups, through the faculty of adaptive intelligence, adapt, modify, co-opt, and integrate the cultural content of globalization to local cultural formations, needs, and circumstances…. Adaptive intelligence can be defined as an individual or cultural group’s capacity to modify, adjust, and/or co-opt changing circumstance that are presented by the interface of the global with the local. (Brantmeier, 2008 p. 372)

Predicting, adapting, modifying, building resilience, regeneration—these are the change-embracing skills of the past and the future.

If, as humans, we are to survive the upcoming climate uncertainties and the vulnerabilities we have created, we need to practice futurist thinking, hone our intuition, cultivate our
adaptive intelligence, and respond now accordingly. Ideas and trends in futures studies and future thinking explored in the *Journal of Futures Studies* hold promise (Available at [https://jfsdigital.org/](https://jfsdigital.org/)). Can we see the light at the end of the tunnel and respond to the potential of multiple futures in ways that will promote the well-being of future generations of people and planetary co-inhabitants?

**Critical pedagogy of place**

In 2013, I published an article in a special edition focused on the future of peace education for the *Journal of Peace Education*. In that article, I attempted to ignite a conversation regarding critical peace education for sustainability. Inspired by a critical pedagogy of place, I quote from that article at length here:

…Critical peace education praxis involves deconstructing situated power dynamics and engaging in change toward the lofty goal of vibrant, sustainable peace. Gruenewald (2003) synthesizes and analyzes the orientations of critical pedagogy with place-based education and thereby defines the aims of a critical pedagogy of place as:

(1) Identify, recover, and create material spaces and places that teach us how to live well in our total environments (reinhabitation) and

(2) Identify and change ways of thinking that injure and exploit other people and places (decolonization) (Gruenewald 2003, 9).

Gruenewald argues that the processes of reinhabitation and decolonization put place and connection to the non-human world (place-based education) at the forefront of educational endeavors while simultaneously deconstructing the power dynamics inherent in relationships (critical pedagogy). Identifying and changing ways of violent thinking, behaving, and valuing that promote direct and indirect forms of violence and more deeply connecting with our social and ecological environments has the potential for hopeful change toward a vibrant, sustainable peace. (Brantmeier, 2013, p. 251)

To be clear, the use of decolonization in this article refers directly to becoming aware of power dynamics and exploitation by the power elite inherent in legacies of coloniality; it refers to re-envisioning ways to heal, honor, and partner with historically marginalized groups in life-nourishing ways in order to repair the harmful effects of colonialism. Reinhabitation, according to my interpretation of Gruenewald (2003), refers to healing people, their relationship with one another, and their relationship with the natural world through co-creating human spaces and deeply connecting with ecological spaces. What I write above is similar to and inspired by “connections” in holistic education and holistic curriculum (Miller, 2007). Deep connections to
people and places via transformative learning experiences are the way to resolve fragmentation and isolation as well as alleviate other forms of violence. Holistic education and peace education are fellow travelers.

Allostatic and Regenerative Pedagogies of Place

A guest at the Sustainable Self Summit at James Madison University in 2015 offered an insightful comment, “The future already exists, it’s just unevenly distributed.” How do we design and facilitate deep learning experiences that will prepare ourselves and others for the unknown, uncertain landscapes of the future? Inviting vulnerability (Brantmeier & Mckenna, 2020), disruption, connection, creativity, and courage into the learning process via a variety of contemplative and holistic educational practices holds promise. For example, much research has been conducted on the positive physiological and psychological effects of forest bathing or shinrin-yoku (Rajoo, Karam, & Abdullah, 2020). Forest immersion has positive impacts on the body and the mind. Yet it also has a spiritual impact that can help to increase sensitivity to changing circumstances and one’s intuition of subtle shifts and irregularities in energetic fields. In short, forest bathing, accompanied by sensory awareness, meditation, and connective activities, can sharpen one’s ability to observe, know, and anticipate change. It can create the conditions for a deeper connection with oneself and the natural world.

When teaching a Contemplative Leadership for Sustainable Peace course at the University of Innsbruck in Austria for the UNESCO Master’s Program in Peace Studies, my students and I went to the nearby alpine forest in the Austrian Alps, found a special spot, sat down for an hour, and journaled about the question – what can you learn about connection, vulnerability, and leadership from nature? After an hour or so, we gathered as a learning community in a circle in the forest; our conversations were insightful and profound and backdropped by birds
chirping and planes whizzing past. Later, we decided to hold more classes in the forest, sitting in a circle rather than in a square, enclosed room with windows. The air was refreshing in the forest, as was insight from our conversations.

We started each class in Austria, as we do with most of my university classes, with an invitation to experience **Quiet Centering**, a basic mindfulness practice. I do this intentionally to settle us into the moment, prepare the ground for deep learning, and encourage connection via group experience. Mindfulness practice is one learning exercise; a wide variety of contemplative practices can be used to deepen awareness, communion, and connection. When I facilitate contemplative practice or contemplative pedagogies workshops for university students, faculty members, or K-12 teachers, I habitually use the Tree of Contemplative Practices as a tool to introduce a wide variety of learning activities that can promote deep connection and awareness:

![The Tree of Contemplative Practices](image)

The tree of contemplative practices naturally and readily offers a variety of practices, from stillness to creativity to movement practices; these practices use various learning modalities for insight, connection, and compassion. In teaching and learning practices such as quiet centering, deep listening, storytelling, and dialogue, we begin to grow in our self-understanding, other understanding, and understanding of the complex systems in which we are embedded — the inseparable systems (environmental, socio-cultural, economic, political) of which we are part and parcel. In this growth and awareness of systems interdependence, we are open to change and the intuitive insight of our own and humanity’s need to adapt, survive, and thrive in an uncertain future riddled with global climate change and related anomalies and weather irregularities.

These contemplative practices are regenerative because they hold the potential for cultivating moment-to-moment awareness and connection, as well as intuitive, anticipatory thinking to changing environmental circumstances. Sometimes deeply connecting to the moment allows for the “mud to settle, and the waters to become clear,” a paraphrase of Lao-Tzu (1998) that I often draw on when guiding mindfulness meditation. Rather than distraction,
confusion, and muddy waters, contemplative practices can provide focus, clarity, insight, intuition, and connection. They hold the potential to invite students to rehabit their relationships with others, the natural world, and their own bodies. They can invite trust in intuition. They can provide respite for the ongoing advocacy for structural change.

Various embodied learning exercises, such as martial arts practices from *tai chi chuan* or *aikido*, hold potential for growth and healing. As a martial artist who has studied *tai chi*, *tae kwon do*, and American freestyle karate with several different teachers in various contexts over the decades, I recommend, if interested, that you visit a few different schools to observe how instructors interact with their students and how the environment itself feels to you. What is the goal of learning martial arts at the school? Discipline, perseverance, strength, and peace? Do teachers advocate for competition, force, and aggression, or humility, nonviolence, and integrity? Watch the black belts closely; how do they behave, act, and serve as role models for others? These will be good indicators if it’s a good fit for you.

Embodied learning exercises such as drawing, painting, dance, yoga, nature immersion, and light martial arts practices have positive impacts on people; co-learners respond wonderfully to these pedagogical practices in my classroom, perhaps because, it seems, they are rarely used in higher education. When using some of these in adult learning environments, students are open to new ways of connecting with their bodies, each other, nature, the cosmos, and their volition and courage for action. The body often remembers the learning for a long time after these kinesthetic experiences.

In *Mindful Courage Men’s Retreats*, I use several embodied learning exercises in various ways. For example, in a recent retreat for men in Sugar Grove, West Virginia, I asked participants to individually hike up and down a small mountain trail. Participants were asked to stop along the path through the mountainous forest, meditate, and reflect in writing about courage, vulnerability, and connection when their intuition moved them. It was a simple, open-ended question. The mountain forest itself was a primary teacher for the retreat and a source of inspiration. After we returned to Base Camp, we reflected on their insights using a circle process under the Peace Pavilion. Our conversation was touching, to say the least, and we also reflected on the journey itself – climbing the mountain, reaching the top, and the ascent down and back to base camp. These are all metaphors for stages of a journey or life itself. We had a man in his 20s and someone in their late 70s reflecting on their current path in life – a truly intergenerational dialogue. Nature was our teacher. Contemplation was our method. Sharing was the source of connection. Inspiration was a result.

**Innovative, Futurist Pedagogies**

As a graduate student at Indiana University in the early 2000s, I was fortunate to attend a global leadership training institute at the United Nations in New York City. I was introduced to Elise Boulding’s “Imaging” learning exercises. These early and impactful learning experiences invited me to dream of a different world and work toward building that world. We imagined what peace would look like and feel like 15 years into the future in various conflict hotspots worldwide. In detail, we described the social-cultural context, the political and economic systems, the government, the relationships people had with one another, and the natural ecosystems from which they derived sustenance. After imagining a nonviolent future in a specific context, we charted the historical steps that would need to take place in order to achieve that peace, looking backward at the past from the ideal state of peace in the future. It was futurist and regenerative pedagogy for sure, given it invited participants to ponder the
steps needed to achieve a peaceful future while predicting and adapting changes and shifts in chronological time. In an essay entitled “A Journey into the Future: Imagining a Nonviolent World,” Boulding (2001) wrote, “The point of ‘remembering history’, working back from the future to the present, is to help participants decide what action strategies they personally will commit themselves to in the present, in order to bring the desired future about” (p.1). Toward the end of the global leadership training institute, I wrote the following in my personal journal: “Love – an articulated intelligence that manifests as peace, harmony, and beauty” (8-22-2002). While abiding and being guided by love, we need to imagine nonviolent alternatives and futures and take action steps to achieve those regenerative futures.

I am inspired by Robin Kelly’s (2003) work, Freedom Dreams: The Black Radical Imagination: Without new visions we don’t know what to build, only what to knock down. We not only end up confused, rudderless, and cynical, but we forget that making a revolution is not a series of clever maneuvers and tactics but a process that can and must transform us. (p. xii) Kelly’s ideas bring to mind one of my favorite artists: soulful African-American singer and songwriter Tracy Chapman. In her 1995 “New Beginnings” song, she sings:

We can learn, we can teach, we can share The myths, the dream, the prayer The notion that we can do better Change our lives and paths Create a new world

We need to make new symbols Make new signs Make a new language With these we'll define the world

(Songwriters: Tracy L Chapman New Beginning lyrics © Sony/ATV Music Publishing LLC).

What kind of world do we want to live in? One without hunger, without bloodshed. One without political dictators or cultural demi-gods who manipulate the masses with money and propaganda. One world -- without discrimination based on skin pigmentation or who someone chooses to love? What new world do we want to co-create together?

What kind of education cultivates and fosters anticipatory, predictive, and regenerative capacities to respond optimally to some of the wicked problems of our time? We face/d the aftermath of a quadruple pandemic: the global health pandemic; structural racism evidenced in the streets; chasms between grossly wealthy and desperately poor; and a climate crisis evidenced by extreme weather phenomena. The children of the seventh generation (Vukelich, 2023) and countless species and ecosystems depend on us. Earth care binds us all. What about the Earth in our teaching and research? We need to harm less and love more. We need
allostatic vision and regenerative approaches to address the climate crisis. The future is calling. I am reminded of the words of the 18th-century mathematician/physicist Euler:

“The pull of the future is stronger than the push of the past.”

Thank you for listening…
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