

ENTREMUNDOS/CRISS-CROSSING EARLY CHILDHOOD ECOLOGICAL PEDAGOGY(IES) WITH NAGUALISMO AS EMBODIED INQUIRY

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ABSTRACT

The author identifies as a mixed-race early childhood teacher educator, bridging ecology, culture, and learning situated within a university early learning center located on the unceded territories of Multnomah, Clackamas, Willamette, Chinook, Klickitat, Klamath, Cowlitz and other native bands of the Columbia River. Her pedagogical documentation of critical emergent curriculum is inspired by the United Nation's call for early childhood educators to re-orientate pedagogical approaches with an image of the child as a global ecological citizen. This interdisciplinary inquiry crisscrosses between UN Global Goals, Remida philosophy, and post humanist pedagogies while centering Gloria Anzaldúa's (2015) Naguala or shapeshifter metaphor for embodied inquiry. In this investigation, neoliberal interpretations of emergent curriculum are interrupted by drawing on experiences of "pedagogically cultivating conditions of emergence" (Nxumalo et al. 2018, 435) with the creation of an "otherwise" curriculum in an inclusive preschool classroom. Nagualismo as more-than-human theory engages Mexica cosmology in reversing environmental degradation with sustainable consumption and production patterns and becomes deeply embodied by an emergent bilingual child who creatively reimagines the language of his body as shapeshifting into a metal recycler.

KEYWORDS

critical mixed-race studies, Chicana/o/x studies, Remida, early childhood sustainable development, embodied inquiry, common worlds pedagogies, Anzaldúa feminist materialism, UN Global Goals, Nagualismo

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INITIATIONS

We begin by offering the reader a metaphorical sun compass, for orientation as you traverse this interdisciplinary crisscrossing. In facing East, I introduce and problematize how few educators are familiar with UN Article 29, a global call for childrens' right to ecoliteracy. This global call foregrounds an epistemological tension between my commitment to ecoliteracy while maintaining an inclusive classroom under an authoritarian director whose neoliberal approach understaffed our lab school to save the university money and gain upper management approval. This tension was resolved by cultivating ecoliteracies during an 'otherwise' (Nxumalo et al. 2018) rest/time. I think *with* Anzaldúa's (2015) autohistoria-teoría; weaving in personal life stories of ecoliteracy formation as a mixed-race White assumed Chicana teacher/educator. I narrate lived experience in an ancient observatory in Xochicalco, Mexico as an organic metaphor for drawing upon life experiences to understand and critique larger social structures. Then, in Facing South, in the literature review and methods sections, UN Global Goals and Remida philosophy are crisscrossed with post human frameworks for "awakening and quickening ecological minds" (Parnell, Cullens, and Domingues 2022). This is followed by personal narratives of spiritual awakening juxtaposed against "pedagogically cultivating conditions of emergence" (Nxumalo et al., 2018 435) with the invention of a rest/time Green Team (a name borrowed from small groups of university employees whose combined goal is to educate and empower colleagues to establish environmental practices). Finally, in Facing North—First, I interpret data from a post-qualitative way of "doing inquiry" (Kuby 2019) as "emergence in practice, including decisions about what belongs in young children's curriculum-making...that explicitly situates young children's learning within current conditions of late capitalism and its entanglements with the settler colonial, racist structuring and rampant extractive consumerism of everyday life" (Nxumalo et al. 2018, 436). Then, I conclude by reflecting on "multi-metaphorical meta-frameworks" (Sfard 1998) and wonder alongside post human feminisms "how emergence, in resistance to these and other obfuscations of neoliberalism, might be taken up as openings to situate early childhood curriculum within the actual, messy, highly uneven and extractive places and spaces of early childhood education?" (Nxumalo et al. 2018, 435). Lastly, I come full circle by invoking educators' ancestral metaphors for embodying environmentalisms as resistance to eco-illiteracy in future generations.

FACING EAST

1. INTRODUCTION

Until recently there has been a lack of scholarship at the intersection of Chicana studies and infant/toddler and preschool education. There is, however, a rich history of integration of Chicana/o/x Studies applied to elementary, high school, and higher education. This paper is a unique contribution to a growing body of early childhood education (ECE) research foregrounding global south perspectives such as Black and Chicana feminisms (Salazar Perez and Saavedra 2017) and reconceptualizing global north onto-epistemologies in childhood studies (Salazar Perez, Saavedra, and Habashi 2017). This inquiry elaborates on what Anzaldúa's (2015) Naguala

metaphor entails for ECE embodied inquiry and environmental education. In my experience as an ECE educator, the ability to shapeshift is indigenous to children.

One aspect of colonization is a severing of our earth-connected selves (Marya and Patel 2021). Agro-ecologist Devon Peña has long stated that a lack of connection between culture, ecology, and learning exists in Chicana/o/x studies as a field. He warns that, “lacking an epistemology of local knowledge, students of Chicana/o studies will be left few options for critically approaching and perhaps reversing the politic-economic processes that destroy places” (1998, 11). Not only are Chicana/o/x culture, ecology and politics deeply connected, Peña proposes they are “subversive kin” (11) and calls for inventing “critical, reflective inquiries by relating politics to culture, culture to economics, history to philosophy, and all of these to ecological perspectives” (13). Latinx environmentalisms are emerging built on insights of environmental justice scholarship as well as critical race and ethnic studies (Wald, Vazquez, Ybarra, Solis, and Jaquette Ray 2019). I integrate Chicana environmentalisms into my research with preschool children by crisscrossing theoretical frameworks to blur disciplinary borders. Anzaldúa’s feminist materialism is interlaced with posthuman pedagogies, Remida philosophy, and United Nations (UN) sustainable development goals to construct ECE *with* ‘just’ sustainability(ies). ‘Just Sustainability’ refers to a wider perspective of environmental education that combines ecological principles with social justice principles (Domingues 2021).

I was introduced to Freire in Chicano/Latino Studies, and his ideas about ongoing liberation education being connected to the eminently pedagogical character of a revolution. Revolutionaries cannot afford to wait for the powers that be to change the oppressive nature of the educational system because it is not in their best interest to encourage masses of children destined for oppressive working conditions to think critically (Freire 2000). Freire died in 1997 while working on his last book, *Pedagogy of Indignation*, and towards ecological literacy as weaving a broad-based pedagogy of liberation for animals, nature and oppressed peoples of the earth (Khan 2008). Eco-illiteracy guarantees that humans and more-than-humans will continue to experience ongoing climate emergencies, and displacement.

Many ECE folks are advocates for the UN Declaration of the Rights of the Child and treat this declaration as central to their work (Samuelsson, Li, and Hu 2019). Few educators are familiar with Article 29 which identifies children’s right to ecoliteracy. Increasingly, ECE for sustainability is looking to global citizenship as an identity framework. Carla Rinaldi wrote, “To form a sense of self, a sense of belonging that is both local and global, to be clearly bound to the place where we live but, at the same time, to dialogue with the world is an essential value for the future” (1998, 114). In Australia, the national professional association for ECE has updated its Code of Ethics to include “the obligation for early childhood educators to ‘work with children to help them understand that they are global citizens with shared responsibilities to the environment and humanity’ (Code 1.4)” (Davis 2009, 230). The National Association for the Education of Young Children (NAEYC) is a national body that supports North American high standards of educational ethics and works to protect the rights of all children. In the face of increasing climate crises, NAEYC has yet to release a position statement Advancing Environmental Sustainability.

1.1. METAPHORS

Socially constructing knowledge in ECE lends itself to the methodological flexibility of *multi-metaphorical meta-frameworks* (Sfard 1998) in communicating unconventional data and theories (Domingues, 2019). Anzaldúa (2015) teaches, “Metaphors *are* gods. According to archetypal psychology, we have internalized the old deities, animals, and forces of nature that our ancestors considered gods. We could say that metaphors are allies, spirits (transformative aspects of the unconscious seeking to enter consciousness)” (55). Sfard (1998) engages metaphor to reach the core levels of our thinking and to make transparent tacit assumptions and beliefs that guide us. Her use of multiple metaphors for learning was inspired by the concept that “new knowledge germinates in old knowledge” (4) an idea that has been embraced by theoreticians of knowledge construction, from Piaget to Vygotsky. In keeping with a Chicana/o/x approach to social science research, I think *with* Anzaldúa’s (2015) *autohistoria-teoría*. *Autohistoria* focuses on the personal life story but, as the auto-historian tells her own life story, she simultaneously tells others’ stories (Keating 2009).

Autohistoria-teoría: Xochicalco, Mexico. We arrive at the ruins of an agricultural village with ropes and signs closing off the area. My Chilango father, never being one to blindly obey authority, passes under the rope and signals for me to do the same. He is heading directly for the decaying entrance of a cave. A guard exchanges whistles and joins us, offering his flashlight as he guides us into the cavern.

It is cool inside, and a dark, moist, narrow entrance opens into a spacious room of ancient stone that feels holy. The guard instructs us to form a circle around a puddle of water that has collected in a small cavity on the stone floor in the middle of the room. He turns off his flashlight. As my eyes adjust to dark, I begin to see a bluish light emanating from a human made hole in the cave ceiling. Light shines down creating a microcosm of the sky above as it reflects in the puddle of rainwater. My ancestors, ancient astronomers who designed this living observatory, studied the cosmos by looking down at the reflection they created in water. This experience leaves a lasting impression of indigenous genius on me. I engage the paradox of Xochicalco observatory as an organic metaphor for drawing upon life experiences to understand and critique larger social structures and our place in the world. Freire conceptualized this as “Read the word, read the world” (Freire and Macavedo 1987).

Understanding how women of color theorize forms of self-knowledge and self-ignorance is underexplored within contemporary mainstream epistemological literature (Pitts 2016). It is important to recognize differences among BIPOC practices of knowing, and I am contributing to *autohistoria-teoría* method as a mixed-race and White presenting scholar. More vignettes of my spiritual awakening are woven into the narrative section and juxtaposed against a monoracial 4-year-old co-protagonist’s embodied inquiry. My co-protagonist chose the pseudonym JW, which

are initials of his Chinese first name, also used as his English middle name. The first Chinese character means “eyes bright and piercing,” and the second character means “prestige”. JW is familiar with crisscrossing cultural worldviews and possesses, “the capacity for shape-changing and shape-shifting of identity” (Anzaldúa 2015, xv). His father is employed at a university as a professor. JW was born in Oregon, and his grandparents immerse him in Chinese lifeways. He learned to speak English at 3 years old during his first year at the lab school and identifies as both Chinese and American. JW is competent at negotiating complex social identities, and familiar with crisscrossing cultures.

FACING SOUTH

2. LITERATURE REVIEW

In the literature review and methodology sections that follow, UN Sustainable Development Goals (SDG’s) and Remida philosophy are crisscrossed with post-human frameworks for ‘awakening and quickening ecological minds’ (Parnell, Cullens, and Domingues, 2022).

2.1. UN SUSTAINABLE DEVELOPMENT GOALS

There is a sturdy bridge between the UN Declaration of the Rights of the Child (UNDRC), and Reggio Children which is an international center for the defense and promotion of children’s rights and potentials located in Italy. Many ECE educators are aware that in 1989 the UN adopted the Convention on the Rights of the Child (UNCRC). Since then, 195 countries have signed and ratified the UNCRC. The United States (US) is the only country not to ratify the UNCRC. Rinaldi expounds on the child as a global citizen,

The child is not a citizen of the future; he is a citizen from the very first moment of life and also the most important citizen because he represents and brings the ‘possible’ A bearer, here and now of rights, of values, of culture.. It is our historical responsibility not only to affirm this but to create cultural, social, political and educational contexts which are able to receive children and dialogue with their potential for constructing human rights. (2006, 32)

These UN initiatives reinforce an image of the child as a global citizen,

- UNDRC and its corresponding Article 29
- Chapter 25 of Agenda 21 generated from the Rio De Janeiro Conference on Environment and Development
- Decade of Sustainable Development
- UN Global Goals

In 1959, the UN General Assembly set forth its UNDRC, followed in 1989 by the UNCRC. Article 2 of this Convention makes clear that children’s rights are universal. However, many are unaware of Article 29 of the Rights of the Child, which declares children’s right to eco-literacy and that “education... should encourage children to respect others’ human rights and their own and other cultures. It should also help them learn to live peacefully, protect the environment, and

respect other people” (<https://www.unicef.org/>). In 2015, SDGs were adopted by all UN Members, as a call to action to increase global ecoliteracy by 2030.

2.2. REMIDA CREATIVE REUSE CULTURAL EDUCATION

Since late 1940s, Italian Municipal Preprimary Schools and Infant/Toddler Centers of Reggio Emilia’s system have grown from a vision of inclusion and social justice in the politics of the town for which they were named. Centers like Remida—a cultural project that emerged in Italy—socially construct global citizenship through giving value to waste materials and are aligned with the 12th UN Global Goal to ensure sustainable consumption and production patterns. International Remida centers represent a sensitive, relevant approach that respects a child’s understanding of sustainable consumption and production patterns and allows them to have a voice (Reggio Children 2005).

The Remida creative recycling center opened in 1996 and is run by the Municipality and IREN, an energy company in Reggio. This Center,

Represents a new, optimistic and proactive way of approaching environmentalism and building change through giving value to reject materials, imperfect products, and otherwise worthless objects, to foster new opportunities for communication and creativity in a perspective of respect for objects, the environment, and human beings (Reggio Children 2019).

Reggio Emilia philosophy was born when female factory workers of Villa Cella built the first preprimary school to foster democracy out of material rubble of post-fascist war (Barazzoni 2005) producing a cultural value of building in a sustainable way. Since then, Remida-inspired educators are redesigning spaces for ecological awareness out of the material rubble of hyper-consumerism (Domingues 2019). Whereas co-founders of the educational experiences of Reggio Emilia were building physical space to transmit democratic principles during the decline of fascist Italy, contemporary educators are designing physical and conceptual spaces out of reuse materials to generate intercultural experiences, and global ecological citizenship through “fostering intelligent moderation in the next generation” (Parnell et al. 2017).

3. METHODS

The “doing of inquiry” is an alternative to conventional processes of developing a research question, followed by designing a methodology and then collecting data for analysis (Kuby 2019). The body of scholarship—thinking with theory—is situated in a growing body of “post qualitative inquiry,” which complicates normative ways of doing qualitative research (Kuby 2019; St. Pierre 2011). The “post” refers to both a usage of post-foundational theories (ie., post structural, post humanist) and this movement focuses not only on epistemology, but on ontologies and ways of being. Kuby (2019) describes how Jackson and Mazzei (2012) conceptualize the assumption that theory *is* method (Lenz Taguchi and St. Pierre 2017) as *thinking with theory*, and advocate for research to be a process of assembling data and theory together.

3.1. PEDAGOGICAL CULTIVATION OF EMERGENT CURRICULUM

Reconceptualist scholars from Common Worlds Research Collective (CWRC) assert that emergent curriculum, “stands in contrast to, and is an important site of resistance to standardized and theme-based curriculum in ECE” (Nxumalo et al. 2018, 434). Critical emergent curriculum is marked by “questions and speculations that complicate and destabilize prevailing “evolutionary” understandings of emergent curriculum and some of its taken-for-granted characteristics” (Nxumalo et al. 2018, 434). In troubling emergent curriculum, they consider how it “might be more ethically and politically situated” (434) and are “interested in creating epistemological shifts away from neoliberal, child centered, and romanticized ways of understanding emergent curriculum” (434). Emergent curriculum is reconceptualized as ‘Living’ or ‘Otherwise’ pedagogies,

I am interested in the relation between what emerges and the material possibility for *something else* to form as that which charges curriculum with life. Underlying this interest is an attempt at experiencing curriculum as a site for something more than following the lead of the child. It is here that the possibility to think curriculum as a site for the search of alternative subjective and relational processes lives. (Numalo et al. 2018, 434)

ECE is encouraged to ‘trouble’ (Haraway 2008) emergence. Nxumalo et al. (2018) argue that educators can misinterpret what Reggio Emilia approach signifies by ‘conditions of emergence’ and run the risk of having liberatory curriculum become a pre-packaged commodity. F. Nxumalo et al. (2018) resonate with Pacini-Ketchabaw et al. who argue that “work accomplished in early childhood by people in Reggio Emilia has been (mis)interpreted by many in North American context[s] as an evolutionary project—one that builds on existing positivist ideas. [When] they are *revolutionary*, reconceptualist, and post-foundational in nature” (2014, 122).

3.2. AUTOHISTORIA-TEORÍA

Anzaldúa (1987) invented the term *autohistoria-teoría* as an alternative to Western autobiographical forms and informed by reflective self-awareness in service of social justice. She imagines it in multiple ways including “as a personal essay that theorizes” (2009, 578). Pitts extracts that “from this brief articulation, Anzaldúa appears to point to the manner in which the act of giving meaning to oneself provides a platform for collaborative forms of meaning-making” (2016, 2). Keating (2009) has noted that although Anzaldúa never offered a systematic definition of the concept, she did exercise the theory throughout her writings, interviews, lectures, and teaching (as cited in Pitts 2016).

3.3. POSTHUMAN PEDAGOGIES

CWRC is an interdisciplinary network of researchers concerned with our relations with the more-than-human world. Members work across the fields of childhood studies, ECE, children’s and more-than-human geographies, environmental education, feminist new materialisms,

Indigenous and environmental humanities. ‘EntreMundos’ is multi-metaphorical and is a Spanish interpretation of the conceptualization of ‘common worlds’ between human and more-than-human.

Thinking with. Nagualismo has various identities as a “Mesoamerican magic supernaturalism,” a Toltec worldview, shamanism, global traveling, an alternative folk epistemology, and (especially) shapeshifting. Here, Nagualismo, inspires us to think *with* theories—an innovative approach in ECE. Thinking *with* theories is a post-foundational assumption that theory *is* method, and of concept *as* method (Kuby 2019; Lengs Taguchi and St. Pierre 2017). Post humanism is an overarching term for more-than-human ontologies informed by postcolonial, anti-racist and feminist ways of thinking about the nature of reality (Common World Collective 2020). This philosophy refuses to take the distinction between human and more-than-human for granted. Thinking *with* is a way to (re)think human *in relationships with* more-than-human (including this paper itself) and to build upon interdependent relationships with the world and theories (Kuby 2019). Images conjured up during experiences with naguala are similarly reconceptualized by Anzaldúa as relationships *with* more-than-human, “They are not images; they are not images *of* animals but images *as* animals. They show us that images are daimonic forces, equivalent to ‘spirits.’ Images are animals, helping beings who assist us on our underworld journey each night. All inner images, says Hillman, are ‘power animals,’ and the power is imagination” (2015, 28). I acknowledge that Indigenous ways of being and worldviews, have always decentered the human (Nxumalo et al. 2020).

NAGUALISMO

‘EntreMundos’ is multi-metaphorical and is a Spanish synonym for the Nahuatl concept of ‘nepantla’ or in-between space. Being multilingual can lend itself to identification with what Anzaldúa terms a “naguala,” for whom “Living between cultures results in ‘seeing’ double, first from the perspective of one culture, then from the perspective of another. Seeing from two or more perspectives simultaneously renders those cultures transparent” (2015, 127). “According to nagualismo, perceiving something from two different angles creates a split in awareness. This split engenders the ability to control perception” (127). Multiple perspectives of the Nagual engenders a critical consciousness.

Anzaldúa teaches, “To talk about the work of embodying consciousness, you appropriate the word ‘naguala’ from your ancestors, the indigenous Mexicans, who believed that certain humans could turn into animals” (2015, 105). The cultural concept of naguala is used in multiple ways and Anzaldúa has extended the metaphor to include “an aspect of the self that is unknown to the conscious self. Nagualismo is a mexican spiritual knowledge system” (237). She associates it with the creative process, and magical thinking (Keating 2015). From a feminist materialist standpoint, it is an “alternative epistemology, a folk theory of knowledge conditioned by a long-standing ideology and belief system. Nagualismo’s basic assumptions (worldview) are shapeshifting (the ability to become an animal or thing) and traveling to other realities” (32).

Shapeshifting and transformation become a metaphysical strategy for crisscrossing worlds for B/border crossing adults and children alike.

Answering the global call to foster eco-literacy was challenging during a grueling teaching year. This investigation draws on doing of inquiry as "pedagogically cultivating conditions of emergence" (Nxumalo et al. 2018, 435) with the invention of a rest/time "Green Team" in our classroom. This co-research allowed for the ethical navigation of the epistemological tension in "the spaces between curriculum-as-plan and curriculum-as-lived" (Nxumalo et al. 2018, 435). I engage post-human pedagogies to disturb interpretations of emergent curriculum as simply following children's leads.

Facing West

4. NARRATIVES OF SPIRITUAL AWAKENING AND GREEN TEAM PEDAGOGIES

AUTOHISTORIA-TEORÍA: TAKAYAMA, JAPAN. I arrive at the Buddhist Yoko farm to begin training. Members from Asia, Australia, and North America participate alongside me. We learn many things regarding spiritual relationships between human beings and nature and are encouraged to go out and experience this relationship ourselves.

One night, I join a group of women and sleep outside with cucumbers. Next morning, I feel refreshed when I wake up. A mentor tells us how energized people feel when they sleep close to earth and plants. After offering my morning prayers, I greet the cucumbers on either side of me. I thank them for allowing me to share their home. Then I notice others quietly talking to the cucumber plants, coaxing the tendrils to wrap around their fingers. I sit there, too, with my index finger eagerly outstretched, waiting for a tendril "hug". After some time, I feel frustrated as I hear others gasping with joy. I think the cucumbers must not like me very much and am filled with self-pity. Another woman sees the look on my face and encourages me to persevere. I continue to sit, enjoying cucumbers' company, observing their characteristics. Moments later, a tendril begins to wrap around my finger slowly, and my heart expands with deep gratitude and love. I feel indescribable humility and kinship.

AUTOHISTORIA-TEORÍA: PHOENIX, ARIZONA. I knock on the door of a Chicano Centro, drawn to the building by public murals. Having recently reconnected with my estranged Mexica/n father, I want to learn more about my heritage. Salvador—a veteran of the Chicano movement—answers the door, re-cognizes me as a "White woman of color" and introduces me to Chicanismo. In reciprocation for teaching ESL to im/migrants, I participate in Mexica danza, temescal, and Nahuatl lessons. Salvador invites me to partake in a traditional form of physical and spiritual purification. Lodge is handmade with wood branches, covered with blankets and sits in a community member's backyard in South Phoenix. A pile of large stones sit cooking on embers of a fire pit outside the lodge. I am given instructions on how to enter respectfully. Inside, I sit anxiously and eagerly in damp darkness, knee to knee with other folks and elders. The leader of ceremony instructs us to do our best to remain for the entirety of the ceremony. If we get uncomfortable, we can lean back, roll out of the tent, and lay in cool grass looking at stars.

Ceremony begins with four rounds of prayers. Each round involves a new set of burning red grandfather stones over which water is poured creating a powerful steam heat. Steam makes me aware and grateful; all I care about becomes sips of rosemary water in between rounds, the merciful breeze when blankets covering lodge are lifted in between rounds and the dirt to which I suddenly feel firmly grounded to. I become elemental—fire, water, air, and earth energies.

This narrative data integrates critical mixed-race studies (CMRS) with autohistoria-teoría. CMRS is an emerging discipline and emphasizes fluidity of race and other intersecting identities to critique processes of racialization and social stratification (Daniel 2014). This method is meant to be self-reflexive, allowing me, someone who identifies both as BIPOC and White *and* neither, to theorize embodied experience as well as to be in conversation with New Mestizaje frameworks. As someone who describes myself as a White person of color (wPOC), I trespass racial borders.

GREEN TEAM NARRATIVE DOCUMENTATION

As an educator, I favor negotiated curriculum, and pedagogically cultivate ecoliteracy with creative reuse cultural education. We make space in the Fall for a Remida-inspired creative reuse studio in our classroom as planned curriculum, but quickly realize that our “epistemology of display” (Domingues 2019) is neglected in our struggle to create inclusion in an understaffed classroom for multiple children with neurodevelopmental dis/abilities, emerging bilingualism, and post-traumatic anxiety disorders. JW asks throughout our harried day if we can deposit classroom recycling materials (see Figure 2) in the city bin located in the front office.



Figure 1. Classroom recycling center

In October 2019, JW is one of the first two children on Green Team and is increasingly intrigued with recycling, composting and creative reuse (see Figure 1). One day during rest/time when more than half of the children are asleep, I check in with children who are restless in the back room, eager to research and trying to stay quiet. JW asks if he can empty classroom recycling into the city bin. To maintain rest/time student-teacher ratio, I ask, “Does *everyone* want to go recycle?” and receive a unanimous “Yes!” What follows is cultivation of a rest/time Green Team, and JW’s embodiment of sustainable development principles.



Figure 2. JW's reuse self-portrait

THE RECYCLING GAME. During rest/time in Remida studio, children who are awake quietly play the “Recycling Game” (see Figure 3) by categorizing materials into mixed and glass recycling, compost, garbage, reuse, and eventually, toxic waste. Questions grow about how different materials are recycled, eventually leading to a child asking how humans are recycled? When JW asks how cars are recycled—we watch a video of a scrapping yard. Reggio-inspired ECE is not a media-free philosophy. Watching YouTube videos of smelting, pulping and scrapping helps explain complex processes of recycling and the group is fascinated by the transformation of materials. Car scrapping captures JW’s imagination, and later inspires his shape shifting. Scrapping, however, is seen as gruesome by some of the group and initial reactions include, “Poor cars!” and “No! Don’t destroy them!”



Figure 3. Rest time recycling game

During Winter conversations with Green Team about life cycles of materials, and materials management, the topic of toxic waste emerges after reading a rest/time nonfiction book about an otter who survives a California oil spill. The following dialogue ensues,

Michel: We’ve been talking about materials and where they go when we’re done with them. We’ve been talking about compost, recycling and garbage and...

JW, 4 yrs.: and reuse!

Michel: And there’s a new material that we’ve been talking about called toxic waste. What is toxic waste?

JW, 4 yrs.: Toxic waste is not good for your body. I saw toxic waste get turned into garbage!

Helena, 4 yrs.: Me too!

Mike 5 yrs.: I saw a show where reuse was turned into trash! You pushed a button and it transformed into trash!

Aila 5 yrs.: I brought reuse to school.

Mixchel: Thank you for bringing reuse treasures from home to share at school. I have a book about toxic waste I want to read to you. What sorts of materials might be called toxic waste?

JW 4 yrs.: Computers! Phones!

Mixchel: The materials inside of computers if you break them open to recycle them can be very toxic and not good for your body or the earth.

Erica 5 yrs.: Flashlights!

Mike 5 yrs.: The batteries inside of flashlights are not good for the earth!

JW 4 yrs.: Paint!

Mixchel: Some discarded paints are toxic waste, that's right. You can't put it in the recycling or compost or even regular garbage.

The idea of toxic waste is captivating, and they decide to design a red recycling bin for toxic disposal (see Figure 4).



Figure 4. The Green Team creates toxic waste bins for the recycling game.

As children become proficient in identifying life cycles of a material, they volunteer to lead the recycling game and teach other children and adults how to play (see Figure 5).



Figure 5. JW teaches a student staff how to lead the recycling game.

BECOMING ACTIVISTS. Green Team grows as more non-sleeping children desire to join in recycling classroom materials in the city bin. This creates a need for more recyclables, and children

decide to go around to other classrooms during rest/time to collect their blue bin materials which contain plastic, paper and metal. Eventually, we also take our classroom food scraps to the kitchen's large city compost bin. When a neighboring teacher asks what 'Green Team' means to them, a 4-year-old activist explains, "It's where we give things sometimes, and take them away, and put them in our bin." Eventually, we add glass and garbage collection to our recycling route by collecting these materials from other classrooms (see Figure 6) and deposit them in city containers. Oftentimes, Green Team moves through the building at rest/time quietly imagining themselves and collectively shapeshifting into a recycling truck.



Figure. 6 Cultural exchanges between classrooms and Green Team.

Green team activists bravely approach front doors of classrooms and offices, stand at their borders, and wait for teachers and children who are awake to greet them. With some prompting, children ask, "Do you have any mixed recycling for us to take for you?" or "Do you have any used-up markers for us to collect today?" and "Do you want some compost tea for your plants?" Teachers, student staff, and children from other infant/toddler and preschool classrooms ask the group to explain what compost tea is, or what they are going to do with recycled materials. Over time, I'm surprised by how eloquently Green Team articulate their ecoliteracies. Pretty soon children from other classrooms ask to join Green Team, give donations of banana peels for our compost bin, and gift us books about recycling. Community activism affords connections otherwise rarely made during the day between isolated learning communities (see Figure 7).



Figure. 7 Collecting materials from a neighboring classroom.

SHAPE SHIFTING. During rest/time we go outside, and JW transforms a playground bicycle into a recycling truck which collects leaves. JW transforms into an active Green Team leader and takes responsibility for our vermicompost bin on a regular basis (see Figure 8).

Figure. 8 JW vermicomposts during rest time.

JW's bicycle transforms into a recycling truck, and routinely drops off leaves into our



vermicompost. These transformations culminate in his mother sending me a Marco Polo (platform) video of him re-imagining his body into a metal scrapper during COVID-19 lockdown in March

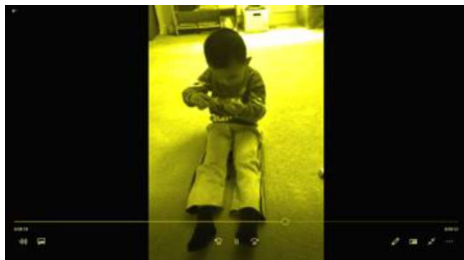


Figure 9. Video of JW releasing toy cars between his vigorously shaking legs.

In response to questions while watching the video together (during COVID-19 remote kindergarten February 2021) about his motion of dropping toy cars between his vibrating legs, JW 5 yrs. 7 mos. identifies,

I'm a machine that crashes cars
The machine is my body
My body is the machine that
Crashes them flat
Instead of throwing materials away
We reuse them
They turn into cans.

This inquiry documents a method of thinking *with* post-qualitative concepts of pedagogically cultivating emergence, which is then overlaid onto reflections on community activism that took place during rest/time and becomes doing of inquiry as thinking *with* experience.

FACING NORTH

5. INTERPRETATIONS

'EntreMundos' is multi-metaphorical and symbolizes ecological crisscrossing between disciplinary worlds. My 4-year-old co-protagonist's *nagualismo* is interlaced with my own. My

image of the child is indigenous; children are present-time oriented, an oral culture, believe in the supernatural and are collectivistic. In Green Team pedagogical documentation, and with the “Becoming activists” narrative in particular, their collective ability to shapeshift is documented when the group moves through the building at rest/time quietly imagining themselves and collectively shapeshifting into a community recycling truck. This psychic transformation resonates with Anzaldúa’s cultural teachings of *nagualismo* as “A hyperempathic perception fuses you with your surroundings; you become what you observe” (2015, 105). The group transforms themselves into that which transforms. Tesar et al. (2021) share this idea that the capacity for shapeshifting is indigenous to children, and cite documentation of this fascinating capacity in children who easily become other-than-human, other-than-themselves, and any other being or thing they desire to become (Rautio and Jokinen 2015). Through the “force of imagination” (Sallis 2000), children are able to bring together what cannot be brought together, transform any object into anything else, and animate a non-animate thing. With next to nothing at hand, they can create worlds where beings and things connect in unlikely ways. This capacity could be a fertile soil for social imagination, that, according to Maxine Greene, refers to “the capacity to invent visions of what should be and what might be in our deficient society” (1995, 5).

In “Shape shifting” narrative, *Nagualismo* as more-than-human theory engages Mexica cosmology in reversing environmental degradation with sustainable consumption and production patterns and becomes deeply embodied by JW who creatively reimagines the language of his body as shapeshifting into a metal scrapper. When JW’s mother sent the video of him becoming a car scrapper, I realized his literacy of material, cultural and identity transformation now goes beyond understanding--toward “instanding” or internalized knowledge. Anzaldúa summons a conception of *nagual*, to articulate the work of encapsulating consciousness or theory(ies), “Once fed blood, once fleshed, the bones of inert and abstract ideas become embodied, become mental and emotional realities living inside your skin” (2015, 105). *Nagual* is fur and flesh on the bones of this paper. It’s hide, pelt, warmth, and protection. It’s the spirit. JW manifests conservation (metal scrapping) with his whole body and vibration—which I interpret as a spiritual experience/awakening as he becomes that which transforms. In *Autohistoria-teoría: Phoenix, Arizona* I juxtapose my own spiritual awakenings during my first temescal ceremony and JW’s *nagualismo*. In *Autohistoria-teoría: Takayama, Japan* I reflect on reconnection with a more-than-human cucumber tendril and (CWRC) positing that “the notion of common worlds is an inclusive, more than human notion. It helps us to avoid the divisive distinction that is often drawn between human societies and natural environments” (1). This is research as ceremony—a paper offering of gratitude for finding my way back to my ancestors—to medicine. In the absence of an ancient observatory, a temescal, or an organic farm to illuminate our ancestors, elemental energies, and intimacy with more-than-human, it is possible to transmit deeply embodied ecological consciousness as ECE *with* just sustainability(ies). In our understaffed, highly inclusive classroom community, pedagogical cultivation of emergence took place largely during ‘otherwise’ rest/time.

6. CONCLUSIONS

Eco illiteracy is global oppression actively maintained by late-stage capitalism. SDGs cannot be achieved without realization of child rights. Children around the globe are rising to secure their right to climate justice (<https://www.unicef.org/sdgs>). Climate crisis is a child rights crisis. It robs children of their ability to grow healthy and happy, and causes illness, dis/ease, and death. Our intention as educators to sustain a livable climate must not only account for unique needs and vulnerabilities of young people; we must also include them in solutions. Children have critical skills, experiences, and unorthodox theories for healthier, more sustainable societies. They are not simply inheritors of our inaction, they are living the consequences today (<https://www.unicef.org/>). It is also important to recognize that if we listen, young people are beginning to teach adults about eco-literacies. Now is the time to align *with* young activists and to learn from each other. Children are wired for ecological consciousness. We as educators cannot afford to wait for the powers that be to change the oppressive nature of the educational system in late-stage capitalism because it is not in their best interest to encourage masses of children destined for climate instability to consume critically. Edwards, Forman, and Gandini place Remida Centers within a global ecological context, “The proposals, with differences and specificities, dedicated to bringing discarded and recycled materials into schools are present throughout the world. A bastion of working with discarded industrial materials in schools is Remida Reggio Center, part of the Reggio Emilia Approach, deeply interested in the connection between children and their environment” (1998, 170.) As a mixed-race Chicana and Remida-inspired teacher/educator, I embody multiple sustainability’s and cultural ways of knowing and am inspired by UN Global Goals. How might Naguala as a more-than-human way of knowing inspire educators’ mixed/ancestral metaphors for embodying environmentalisms as resistance to eco-illiteracy in future generations? Aho!

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