

EMBODYING EARTH:  
DANCE CULTURE, ECOLOGY, AND THE ENTANGLEMENT OF WELLBEING

By Pegge Vissicaro

A Thesis  
Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Master of Arts  
in Anthropology

Northern Arizona University

May 2023

Approved:

Kelley Hays-Gilpin, Ph.D., Chair

Emery Eaves, Ph.D.

Kerry Thompson, Ph.D.

## ABSTRACT

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PEGGE VISSICARO

The Anthropocene geological epoch, where lasting impacts made by humans on the environment negatively affect the health and survival of all species, prompts artists, scientists, and educators to address the most complex problems facing Earth. Global spread of the COVID-19 virus, officially declared a pandemic in 2020, further reaffirms the delicate balance among life forms on the planet. From my dance perspective, the primacy of motion to unite the human body with its terrestrial home is key to coexistence. These ideas motivated research in which I investigated human-nonhuman experience through the lens of dance culture. By understanding the anthropological concept of culture as a social phenomenon, this study explored how dancers socially relate with nonhuman ways of being and what that experience looks like. To unpack those questions, I conducted case studies involving in-depth interviews with twelve contemporary movement-based artists recognized by the dance community for their work relating to the natural world. Analyses of pedagogical, performative, and creative processes revealed the capacity of movement to open possibilities for encountering different points of view in which nonhierarchical alliances could form, potentially disrupting anthropocentric discourse. Data also demonstrated the function of dance culture as a relational strategy to practice navigating precariousness. My inquiry contributes to interdisciplinary scholarship that strengthens the anthropology of dance. It also advances phenomenological ecochoreology—a uniquely envisioned methodology focused on researching human-nonhuman experience innate to

dance culture, which may inspire environmental awareness initiatives as well as models for wellbeing that support a more sustainable future.

## ACKNOWLEDGEMENTS

There is neither the space nor time to acknowledge all the influences that shape this work. However, my immediate family continues to provide the strongest foundation and offers a springboard to dream about and ultimately realize personal goals. To my husband, Vito, and sons, Caio and Ari—all of whom give me courage to discover new paths and the motivation to embody my true self—I express the most profound gratitude for the gift of traveling together on this extraordinary life adventure. Also, I want to acknowledge my brother, Robert Harper who guided our numerous youthful adventures with the nonhuman world and stimulated a profound scientific curiosity. Additionally, without the opportunity to participate in the Master of Anthropology program at Northern Arizona University, this investigation would be impossible. For appreciating the power of dance in relation to the Earth and supporting my quest to explore such an idea, I sincerely thank my committee chair, Dr. Kelley Hays-Gilpin as well as committee members, Dr. Emery Eaves and Dr. Kerry Thompson. Finally, I dedicate the entirety of this inquiry and everything that came since our fortuitous 1982 meeting in Flagstaff, Arizona to mentor, friend, and colleague, the late Dr. Joann Kealiinohomoku. She ignited my interest in dance research that fuels an eternal passion to know more. A few years following our initial encounter, Joann and I were at Hopi First Mesa as non-dance participants for a summer ceremony. After many hours passed, *Niman Katsinam* moved toward the sunset, which affected me viscerally, planting a seed that awakened my consciousness about human-nonhuman experience and its connection to dance culture. Those dancers merging into the western sky were a literal representation of the body returning home—to the landscape. That image inspires and grounds this thesis project.

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## CHAPTER 1: INITIATING

The Anthropocene has been officially declared as a new geological epoch owing to the lasting impact made by humans on environments, negatively affecting the health and even survival of human populations. Lock 2017, 1

Anthropocene discourse for the past many decades identifies human generated planetary destruction as an existential crisis threatening the future of humanity that has profound implications for international peace and security (United Nations 2021). First designated by ecologist Eugene Stoermer in the 1980s, and later expanded upon in 2000 by the chemist Paul Crutzen, the term Anthropocene positions ‘anthropos’ as central “in the sense that the rest of nature is understood through human experience and values” (Hamilton 2019, 244). This view separates humans as different from all other organisms, explicating a socially constructed culture-nature binary. Such egoistic exceptionalism has fueled over 400 years of imperialist expansionism—the claim to and occupation of Earth as *terra nullius*, Latin for “nobody’s land”—in addition to colonialization, which blatantly disavows land rights of marginalized communities to exploit raw materials for industrial development and capitalist gain. For too long, these hidden, racist agendas driving technological innovation in the name of progress have contributed to climate change, mass species extinction, and a global pandemic, altering the delicate balance of life on planet Earth.

Anthropocentric approaches that attempt to mitigate and/or manage human-induced problems continue to perpetuate hierarchical structures asserting dominion over the natural world. Instead, dismantling dichotomies and hegemonic narratives demands a different perspective—one that decenters anthropocentric dispositions and conceptualizes “movements of confluent fluxes in-between matter and minds, bodies and souls, natures and cultures” (Küpers 2020, 6). Committed to create a better, more sustainable future, my research explores how

‘anthrodecentric’ orientations may help diminish ideological boundaries. This focus critically examines power relations that challenge the constructed culture-nature divide and offers a theoretical opportunity to adopt “a broader and more complex understanding of the shaping power that constitutes both human life and its environment as necessarily intertwined” (Randazzo and Richter 2021, 6). These ideas also direct me to acknowledge problems associated with the term nature. Its connotation not only varies among English speakers but becomes further complicated when examined in languages such as Western Apache where “no word for nature even comes close” to produce a unified meaning (Basso 1996, 156). Additionally, modelling the world based on human existence may reify nature as a static holistic system that consists of things—a form of “anthropocentric narcissism” (Kohn 2013, 19). An alternative concept of nature focuses on human-nonhuman experience—terminology that this thesis uses to soften resolute binaries or hinder exclusivity.

Ethnographic studies and research that provoke thinking about ways in which humans may enter affective relationships with nonhumans such as animals, plants, the Earth, and atmospheric forces reveal multiple, enmeshed realities (Latour 1993; Descola 1994; Viveiros de Castro 1998). Building on these investigations is a paradigmatic shift across disciplines, which envisions how mutually reciprocal interaction between people and the Earth reflects a collaborative enterprise. Notably, that insight is not without example.

It is important to recognise whilst more-than-human research methodologies currently appear new in the canon of Western academic scholarship, there are long, rich histories and traditions of knowledge about the more-than-human that come from outside the Enlightenment tradition, just as decolonizing work has existed for 500 years within and alongside colonization itself. Noorani and Brigstocke 2018, 15

Failure to acknowledge that Indigenous concepts of ontological relationality and multi-actor agency have long preceded Western Anthropocene literature exhibit systemic colonialism as

noted by Indigenous philosophers and climate/environmental justice scholars (Todd 2015; Whyte 2017; Adams 2021).

Disregard for relational inclusivity is even more obvious today with the confluence of health and climate crises, resulting in socio-economic inequalities. Observing this perfect storm, movement-based artists like myself already recognize that participation in performative practices inspired and/or shaped by the nonhuman world may change one's relationship to the planet, positively impacting the future. Such a body-mediated sensibility, which characterizes the Ecocene, accentuates mutual thriving and cultivates more engaged, enlivened interrelations among all beings that diverge from subjectivist, human-centric concerns (Küper 2020, 7-9). This transition from navigating problems in the Anthropocene to realizing solutions for the environmentally sustainable Ecocene era fuels my investigation. Design theorist Johanna Boehnert explains that "The emergence of the Ecocene depends entirely on what we do now" (2018, 11). With time of the essence, research focusing on the significance of dance involving humans and nonhumans takes one small step to contribute new theoretical and applied understandings that reimagine the necessary transformation to create a more just world.

Many ideas informing this thesis deeply respect and honor an Indigenous relational worldview of comprehensive ecological embeddedness. In radical contrast to Western notions of territory as property and settler-colonial assertions of sovereignty, relationality emphasizes the innate connection between humans and nonhumans. To visualize their dynamic nexus motivates me to develop anthrocentric strategies, which incorporate the specialized behavior of dance. Movement or reciprocal interplay—a relational value—may unify these binaries, bringing into focus the idea of "landscape as the interaction of nature and culture" (Anschuetz 2014, 10). Ideologically highlighting interaction deflects the Western meaning of landscape from a noun to

a verb. More than a physical entity or seen object, landscape becomes “a medium of exchange between the human and the natural, the self and the other” (Mitchell 1994, 5) in which intrinsic motional instability has the capacity to subvert power structures and weaken anthropocentrism.

As a process, landscape also sustains continuities of time, place, and identity that Indigenous scholar Alfonso Ortiz states “you shall have always with you” (1994, 305). His idea of landscape prompts thinking about the term Native survivance, considered an “active sense of presence over absence, deracination, and oblivion; survivance is the continuation of stories, not a mere reaction, however pertinent” (Vizenor 1994, 1). Motion, exemplified by dance, resists abstraction from the environment and rejects dominance by effecting coalescence of past, present, and future. Such convergence means that time has no hierarchy, so by dancing, one is always ‘centered’ within the spacetime continuum. That concept epitomizes for many Natives “the ceremonial-festival networks, which may well constitute the single most important mechanism of cultural survival” (Ortiz 1994, 304) and underscores the importance of dance and motion to Indigenous ways of being. In tribute to the homelands sacred to Native Americans throughout Arizona and in solidarity against the injustices experienced by all Indigenous people, this research unfolds as a story—familiar to some and illuminating to others—about the difference it makes to dance the Earth.

## CHAPTER 2: SITUATING

My investigation begins with the recognition that how people move in and engage with the world shapes their experience. To study experience—a complexly layered and enigmatic concept due to its intangibility—requires multiple disciplines to intersect and intermingle. That juncture opens space for the imaginary. Anthropologist of dance Andrée Grau explains “when artists or academics choose to do interdisciplinary work it is not so much a question of sharing their specialized knowledge and conversing with one another, it is an attempt to create and share something new” (1992, 10). By forming a bridge that ties together social and biological sciences, this research intends to push the edges toward a more inventive, proactive, and forward-thinking anthropology of dance.

Personal interest in dance and the nonhuman world began during an outdoor class at Prescott College, Arizona in 1973 when the teacher prompted us to ‘move’ in the forest. An isolated branch that was lying on the ground, looking like an enormous elk’s rack, called me to slip my arms through its spaces and onto my shoulders and upper back. Movement with this branch was more like a collaboration in which our sensate bodies rhythmically twisted and turned, swayed by the combined weight and size. Oblivious at the time, this dance class would serve as the genesis of my own practice, Terra Dance, that was fully realized 15 years later (Figure 1). By 1989, I had articulated a basic philosophy of Terra Dance and created choreography, facilitated workshops, and published research with the intent to increase “awareness of the varied ways in which dance connects people and the Earth as a comparative strategy to make sense in an increasingly dynamic world” (Vissicaro 2012).



Figure 1. Pegge Vissicaro, *Terra Dance*, Papago Buttes, Phoenix, Arizona, (1987). Photographer: Don Petelle.

My earliest exposure to dance anthropology came from both formal and informal conversations with the renowned anthropologist of dance, Joann Kealiinohomoku (1930-2015). Joann's influence began in graduate school when I read her theories—along with other dancers educated as anthropologists, specifically Anya Peterson Royce, Adrienne Kaeppler, Drid Williams, and Judith Lynne Hanna—about the significance of dance to the entirety of humankind, which radically changed my thinking as a performer, teacher, and creative artist. After earning a Master of Fine Arts degree in 1981, the Southwest called me back to Arizona and Joann, a professor of anthropology at Northern Arizona University and director of her organization, Cross-Cultural Dance Resources. A 33-year mentorship commenced that included numerous visits to Hopi where she had conducted extensive dissertation research, as well as Zuni and Yaqui communities in which dance had always been a central part of life. The more time we spent together, the more I knew dance was something beyond what meets the eye and not only defined by its surface characteristics.

In our exchanges, Joann reinforced the notion that foundational to anthropological study is the social phenomenon of culture—a strategic process by which people learn behavior. All human behavior involves interacting with the environment to construct, store, and transmit

meaning or knowledge for adaptation and survival. Recognizing dance as one of many learned behaviors locates it within the field of anthropology, which led Kealiinohomoku to coin the term dance culture earlier in her career. She explained that dance culture refers “to an entire configuration rather than just a single performance” so comprehending dance as “more than an isolated phenomenon” warrants a holistic study of dance to avoid separating it from the larger cultural complex (Kealiinohomoku 1972, 99; 1976, 233). This requires questioning who dances, when, where, and why do people dance, and what happens while dancing along with asking who does not dance, when, where, and why do they not dance, and what does not happen while dancing to understand how the learned behavior selectively reveals values, beliefs, and ideals of those individuals and/or groups from whom the dance originates. Developed along a historical continuum, dance culture is a microcosm of the total culture—a multifaceted system that consists of many interwoven components.

Kealiinohomoku’s ‘systems’ approach mirrors a basic principle in sustainability science, which considers all parts of a whole as interrelated and interdependent, fortifying Indigenous worldviews of relationality. While not directly using the word relationality, she implies that everything exists ‘in relation’ through the paradigm of Hopi dance culture, which is integral to the ceremonial calendar, making religion visible. Performance and supervision of dances by members of the society further exemplify aspects of social organization, specifically “the network of interpersonal relationships between male and female, chief to village member, maternal uncles to nephew, paternal aunt to nephew, brother to sister, man to nature, and man to the supernatural. From the analysis of these roles, one becomes increasingly aware of the ethos of the people” (Kealiinohomoku 1972; 101). This background clarifies that contextualizing all aspects of the seen and unseen world as well as external and internal conditions to situate these

behaviors is critical for studying dance culture. An emphasis on context helps me identify and assess key factors that shaped the field of dance anthropology, acknowledging dance as culturally embedded bodily practice.

Fundamentally, the anthropology of dance builds on Boasian theory in which cultural relativism grounds inquiry. Beginning with his work among the Northwest Pacific Coast Indians in the early 20th century, Franz Boas shared at a 1944 symposium, organized by his daughter, Franziska, that nearly “every aspect of Kwakiutl life is accompanied by some form of dance, from the cradle to the grave” (Boas 1972; 5). This perspective depicted dance as an integrative tool to strengthen communal bonds and recognized its social influence, also inspiring Franziska to notice the psychological implications of dance to foster body-mind unity or wellbeing—background that informs my research. Interest in ‘moving bodies’ aligned with an already increasing awareness of the different ways people interacted with each other and their environment, brought on by tremendous socio-economic change from the late 19th century into the 20th century. Such heightened attention catalyzed social scientists, medical researchers, philosophers, educators, and artists to examine how people and other aspects of the world ‘moved’ to navigate a given setting. Boas thought that culture was “the ultimate source for what [we think] constitutes common sense,” which strongly resonated in the work by two of his underrecognized disciples, Zora Neale Hurston and Ella Cara Deloria (King 2019, 9). To study culture was not to be stuck in past but rather to observe how groups and individuals identified with one another in the present—in other words, exploring what methods people used to construct, store, and transmit meaningful information. Their research emphasized the role of folklore, storytelling, dance, music, language, and other culturally relative behaviors as sense making strategies that they advocated to dispel certain stereotypes of African American and

Native American lifestyles and heritage respectively. Additionally, Hurston and Deloria's ability to interpret cultural practices from the 'inside' or emic view forms the basis for an anthropology of dance and my research.

Pioneers of this field were professional movement-based artist-musicians like Katherine Dunham and Gertrude Kurath who researched various culture groups as well as intimately knew the world through their own sensing bodies. Dunham's participation in and observations of dance allowed her to understand how the "form of a dance related to its function" through fieldwork in the Caribbean that demonstrated the dynamics of diasporic performance to adapt and serve new purposes (Das 2017, 45). Kurath gradually focused less on her own performance and instead created unique documentation methods to preserve Indigenous cultural knowledge in the American Southwest and Midwest that included facilitating 'staged' pageants. Some critiqued this practice of extracting information as salvage anthropology—which oversimplifies "complex cultural habits and unique cultural traditions," leading to the essentialization of "diverse, evolving societies into static, unchanging entities" (Redman 2021, 207). Regardless, her detailed audio-visual records of Native American dance and music in addition to exchanges between folk dance scholars, namely the Janković sisters from Yugoslavia and Maud Karpeles from England precipitated the formation of ethnochoreology. This field, first named ethnochoreography, means "the scientific study of ethnic dances in all their choreographic aspects (steps, formations, rhythms) as related to their cultural significance, religious function or symbolism, or social place. Comparative choreography is the juxtaposition and interpretation of salient elements in dance forms" (Kurath 1949, 352).

It may be valuable to briefly unpack the term ethnic dance in Kurath's statement, which refers to ethnicity—an important identity domain—that fosters a sense of belonging or affiliation

to a particular group as well as a label distinguishing people. Defining ethnicity has transformed over time to indicate biologically based and often discriminatory hierarchies, projects of development and social change, celebratory markers of diversity and inclusion, and political issues of commodification and appropriation (Shneiderman and Amburgey 2022). Kurath's interactions with European colleagues likely influenced her understanding of ethnic dance, informed by ethnographic representation emphasizing tradition and strong attachments to national or regional customs. While observation, description, and analysis conducted by dance ethnographers supplied the building blocks of anthropological research, Kurath recognized that "the next step is that of comparison...to make more general statements about human society and behavior" (Royce 2002, 36). Her realization set the academic discipline of ethnochoreology—synonymous with an anthropology of dance and dance ethnology—in motion.

Ethnochoreology provided a cross-cultural framework to pursue the study of dance culture in all societies throughout time and space, "eliciting the place of dance in human life" (Kurath 1960, 250). Although Joann Kealiinohomoku first used the term dance culture in 1972, research by Kurath and others was indeed an integrated approach to studying dance cultural knowledge. This framework established the significance of context to understand dance culture as a dynamic process, which Kurath described in her revolutionary 1960 *Current Anthropology* article. She introduced a new technique for investigating cultural continuities and changes that expanded movement notation to look at "fuller spatial and contextual information" for systematically comparing dance culture in different settings (Dunin 2014, 203). To focus on context—in other words, how society and the world shapes dance as well as how dance shapes society and the world—is to learn about dance culture. Many people do not realize that cross-cultural methodologies distinguish ethnochoreologists, dance ethnologists, and dance

anthropologists from other dance researchers. However, if they contribute “to central debates in the human sciences, especially to an understanding of culture in terms of process and diversity,” then the anthropology of dance community will continue to grow (Wulff 2015, 669). This demands that scholars from other disciplines such as psychological, biological, information, and communication sciences as well as gender, ethnic, and cultural studies dedicate themselves to dance culture inquiry, which will strengthen dance in the academy, encourage more curricular offerings, and advance the anthropology of dance.

The robustness of Kurath’s dynamic processes model is its application to comparatively exploring dance culture through a variety of contextual frames. One most closely associated with my thesis considers intersections between the natural environment and the moving body. Beginning in the 1950s and 60s, Kurath investigated the ecological significance embedded within Indigenous dance cultural knowledge systems, epitomizing Native worldviews (Kurath 1966, 38; 1970, 13). She was astutely aware of borrowings between culture groups and highlighted the way geographical location as well as climate featured in their respective and diverse ceremonial patterns. Kurath posited that the ecology of a setting affects “the repertoire, the content, and the form or style of ritual and dance;” one example among many that she described was “the prominence of the Cherokee bear complex, for bears abound in the cold mountain forest of the southern Appalachians” (Kurath 1960, 238; 1961, 187). Kurath profoundly energized Kealiinohomoku, inspiring her famous work cross-culturally examining ballet as a form of ethnic dance. One comparison suggesting an ecological focus describes how “[The] ethnicity of ballet is revealed also in the kinds of flora and fauna which appear regularly. Horses and swans are esteemed fauna. In contrast we have no tradition of esteeming for

theatrical purposes pigs, sharks, eagles, buffalo or crocodiles even though these are indeed highly esteemed animals used in dance themes elsewhere in the world” (Kealiinohomoku 1970, 30).

Comparative studies about ecology and dance in the latter half of the twentieth century may have benefitted from a reaction against Western European hegemonic ideologies in which discourse about the human body became front and center, free of Victorian strictures. This corporeal turn continued to gain steam so that by the late 1970s, “when theoretical interests in the social sciences sought to reverse the all-pervasive disembodied view of human beings, the primary focus was on the body as a social and cultural object” (Farnell 2018). American educator Thomas Hanna emerged on such a vibrant intellectual scene with his transdisciplinary concept of somatics. From the Greek, *sôma*, meaning body, a core idea is that “the sensory system and motor system are made to intertwine, creating a greater sensory awareness of our internal activities and a greater activity of our internal sensory awareness” (Hanna 1979, 198). Somatic practices, like dance, yoga, tai chi, Feldenkrais, and Alexander technique, emphasize how the body and mind work together to selectively interpret and integrate external stimuli internally for adapting and surviving to change. Knowing why these practices enhance humans’ capacity to navigate this process aligns with the function of dance—an impetus for my research. While it is impossible to fully discuss the extensive, complicated lineage of somatic paradigms in a thesis, this investigation does examine theories of embodiment that promote novel pedagogical and mental health applications, which have obvious relevance today.

Movement is primal; it is how living organisms learn, adapt, and grow. For humans and perhaps all life, moving necessitates feedback or reciprocity. My previous research advocating the study of dance culture as a knowledge system affirms that to move is to know another; to know another is to know self (Vissicaro 2017; Vissicaro 2019). From a sensory perspective,

Abram similarly states that “to touch is to feel oneself being touched” (Abram 1996, 69). This back-and-forth exchange may generate empathy, equilibrium, and relation between whatever one encounters. Kealiinohomoku further describes dancing as time continuous in which every movement is relative to spatio-temporal positioning that simultaneously recognizes and blurs difference. Distinction between here or there, before or after is seamless, creating a “perpetual continuity of sensory existence” (Kealiinohomoku 1976, 313). Motion integrates the entire body with all physiological facets unifying space and time. According to cultural ecologist David Abram, the body represents an omnipresent and “interpenetrating network of perceptions and sensations” (Abram 1996, 65) where inherent variation continuously draws one’s awareness in unexpected and unpredictable directions. No movement, feeling, or experience remains the same so that difference between humans and nonhumans allows dancers to explore kinesthetic possibilities as a matter of interest and even necessity.

Some culture groups and individuals pursue a human-nonhuman nexus through dance, although that is less common for many dancers conformed by Western European principles. An exception to Western trained dancers is Anna Halprin (1920-2021) who took an avant-garde departure from mainstream modern dance in the 1940s and relocated with her husband, a renowned landscape architect, to Northern California. This geographic region quickly became the mecca for a mélange of ecologists, psychologists, and artists to co-create with ‘nature’ as teacher. An internationally recognized dance pioneer, Anna’s environmentally inspired style of movement exploration informed her Life/Art Process model to facilitate healing through personal, interpersonal, and social transformation (Figure 2). An example of her early work involving dance and the natural world is *The Branch Dance* (Figure 3). Describing the 1957 performance, dancer Simone Forti said of Anna “she taught the process of going into the woods

and observing something for a period of time, and then coming back and somehow working from those impressions.... She led us to this awareness of somatic sensations in response to perceptions outside so that the inside and outside of each of us would be working together” (Halprin “Performances” 2016)—an example of perceptual reciprocity, which I experienced during workshops at Anna’s Mountain Studio between 2010 and 2015.



Figure 2. Anna Halprin with Shinichi Iwano-Kova in *95 Rituals* (2015).  
Photographer: Pak Han.



Figure 3. Simone Forti in Anna Halprin's *The Branch*,  
Kentfield, CA, (circa 1957). Photographer: Warner Jepson.

Motivated by personal somatic and scholarly investigations, this thesis positions the study of dance culture as a social phenomenon within an ecological context to explore human-nonhuman experience. How do dancers socially relate with nonhumans? What does that look

like? And why does knowing about this matter? My research rekindles the flame of dance anthropology to reclaim and fortify its place in academe, encouraging interdisciplinarity with the potential to nurture relations between all animate beings and move toward an Ecocentric future.

## CHAPTER 3: FRAMING

Dance culture is the major focus of this investigation, however, I begin with an abridged discussion about what dance is and is not. Although dance exists in every human society, it offers a curious paradox due its seeming lack of universal functions (Kealiinohomoku 1976, 42). An emic or insider's approach takes such inconsistency into consideration by recognizing dance as intentional behavior. To that point, my research collaborators self-identify as dancers and use the term dance to reference their work; however, they do not use the term dance culture. The intention to dance builds on Kealiinohomoku's proposition that it also serves both biological and psychological needs (1976, 43), which when combined, demonstrate body-mind (biological-psychological) integration—an exemplar of somatic practice. These ideas provide a conceptual springboard to study human-nonhuman experience through the lens of dance culture. The following theoretical framework offers foundational and emergent perspectives that range from philosophy, sociology, anthropology, biology, neuroscience, and environmental studies, along with definitions of key terms, to guide data analysis.

One feature of dance—common to human experience and fundamental to life—is motion. From birth to death, people interact with and know the world through movement. This concept applies to all phenomena so one may infer that movement is a conduit through which experience shows itself. Moving is experiencing; to study one reveals the other. Creatively relating that idea to physics, scientists first used bubble chamber photographs to examine the activity of subatomic particles, or their 'experience' displayed by movement tracks formed in liquid hydrogen, facilitating deeper comprehension of the universe (Figure 4). These studies, which originated in the 1950s, also enabled physicists to understand how particles move in response to other

particles within their immediate environment. Particle movement demonstrates interactional patterns that may show affective relationships; an idea that sparks my imagination.

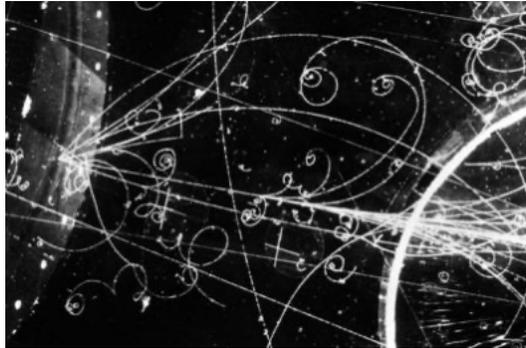


Figure 4. Bubble chamber photograph of subatomic particle activity  
Fermilab National Laboratory, Batavia, Illinois, 2004

### *Phenomenology*

Transitioning from physics to anthropology, the study of experience helps social scientists to “reconfigure what it means to be human, to have a body, to suffer and heal, and to live among others” (Desjarlais and Throop 2011, 88). Such orientation acknowledges experience as vicissitudinous and always in motion. The proposition that movement is intrinsic to experience and necessary for it to appear provides a major assumption and point of departure for my research.

Introduced in the late 19th and early 20th centuries, phenomenology may be described as “the study of the structures of human experience and consciousness” (Johnson 2012, 272).

Although phenomenological investigation did not emphasize one theoretical outlook, principal ideas eventually coalesced in the work of German philosopher Edmund Husserl, considered the father of phenomenology. For Husserl, a major interest was *leib* or the lived body, considered the epicenter of experience. *Leib* “functions as the central ‘here’ from which spatial directions and distances are gauged; that it is the locus of distinctive sorts of directly felt sensations such as the experience of tactile contact; and that it is capable of self-movement, opening a rich range of

practical possibilities” (Behnke 2021). To recognize the lived body as a sensory organ of perception, subjectively experiencing the world from within, expands the understanding of human behavior.

This background segues to Husserl’s theory of the life world or *lebenswelt*, “an all encompassing horizon of our individual and collective lives...where experience is constructed and where consciousness is revealed” (Buttimer 1976, 280-281). *Lebenswelt* consists of both subjective sensations and first-person perspectives (*leib*) as well as a shared physical and social world so that experience suggests an interplay between the lived body engaging with its environment. It is difficult to fully address the complexity of *lebenswelt*, yet two ideas extrapolated from the previous statements warrant attention and are relevant to my research. First is the social aspect, implying that inhabitants of the sharable life world must include multiple, different lived bodies—human and nonhuman. Sharing space and time with others leads to the second point about *lebenswelt*, which Husserl describes as “a dynamic, shifting, and intersubjectively constituted existential reality” (Desjarlais and Throop 2011, 91). In this realm that Husserl calls the horizon of experience, a “repertoire of possible bodily action” elicits potential exchanges (Welton 2003, 230).

*Leib* and *lebenswelt* are conceptual tools for approaching the work of Husserl’s student, Martin Heidegger, and his notion of being-in-the-world, known as *Dasein*, derived from the German language, meaning existence. Heidegger theorizes that people cannot separate themselves from the world in which they live since they already exist with others. Further, *Dasein* reconfigures the ontological focus to being-in-the-world as dwelling within a temporal state that continually unfolds (Wheeler 2020). This contemporaneousness of self and other is what Heidegger describes as the “Being of the between” (Heidegger [1927] 1962, 162; 170),

which may support experience as a transitional or liminal state. Originating from the Latin term *limen* and an important idea explored in disciplines such as anthropology, religion, psychology, arts and media, liminality refers to an interval or margin “when the past is momentarily negated, suspended or abrogated, and the future has not yet begun, an instant of pure potentiality when everything, as it were, trembles in the balance” (Turner 1982, 44). Dancing visibilizes the “Being of the between” or self-other dyad—another assertion guiding research.

The experience of dance is never past or future, it is ever present. This ambiguous presence may be conceived as boundaryless so that contrived dualities collapse and are largely indistinguishable. Elaborating on these ideas and pertinent to my thesis is how liminality, as the “interstitial passage between fixed identifications opens up the possibility of a cultural hybridity that entertains difference without an assumed or imposed hierarchy” (Bhabha 1994, 5). Stated earlier, dismantling the socially constructed ‘culture-nature’ binary levels the playing field so that perceived differences are no longer in opposition but rather complementary and necessary to maintain homeostasis or balance, like the principle of yin and yang (Figure 5). Tao or “the way,” represented by a line separating the light/left and dark/right halves, illustrates equilibrium, which is neither static nor defined but rather in motion as a never-ending process. Each half also requires the other to exist; they are mutually constitutive so that both parts derive meaning in relation to one another.



Figure 5. Taoist symbol of yin and yang.  
Donald Trung, Public domain, via Wikimedia Commons, 2021.

Unconstrained from Cartesian dualisms, dwelling in the space and time of *Dasein* enables self-other interaction to occur—an idea that leads directly to the work of theorist Maurice Merleau-Ponty, strongly influenced by Husserl and Heidegger. In the *Phenomenology of Perception*, Merleau-Ponty articulates how association between self and its environment begins with the body. The immediacy of movement through the subjective body activates or ignites perception of the objective world (Merleau-Ponty 1962, 580). That subjective orientation inevitably differentiates the body from any other object. Its permanent presence or the “peculiarity of always being here” led Merleau-Ponty to describe the body as pre-objective (Merleau-Ponty 1962, 182). An astronomical metaphor to clarify this concept is the prime meridian—an obvious tool of imperialist expansionism yet one that unavoidably has widespread application as a model. This construct defines zero degrees longitude and serves as a benchmark for measuring distance both east and west around the Earth; it also establishes ‘absolute’ time to reference and determine time zones worldwide. The body or *leib* may be compared to how the prime meridian functions, providing perspectival anchoring—the zero point—to its experience of the objective world. For Merleau-Ponty, the pre-objective body aligns with being-in-the-world to imply that the element of embodiment or corporeality must come first, before any objectivity” (Kříž 2021, 123).

Merleau-Ponty’s theory frames in part a nondualistic paradigm of embodiment developed by anthropologist Thomas Csordas for studying human behavior that offers valuable insight for my research. Csordas reinforces a phenomenological view of self as the corporeal grounding of consciousness, which is “given” (Csordas 1990, 36). Exemplifying this idea from the perspective of embodiment, Csordas describes how glossolalia or speaking in tongues asserts unity of body and mind where “the physical experience of utterance (*parole*) comes into balance with the

intellectual experience of language (*langue*)” (Csordas 1990, 26; 31). An inspired form of praise to God or inspired message from God, the speech act of glossolalia adapts “its phonetic contours to the affective contours of different situations,” resisting isolation of the senses, and inviting improvisation—a principle of indeterminacy (Csordas 1990, 27). Open-ended variability transcends the inadequacies of natural languages that facilitates divine communication to promote an absence of duality not only between mind and body but also self and other, which in the case of glossolalia, is human-nonhuman interaction (Csordas 1990, 24). Indeterminacy, an essential element of existence or being-in-the-world, parallels the characteristically vague liminal state, defined by uncertainty, spontaneity, and unpredictability. Every present moment offers an existential beginning, which, for the pre-objective body, makes the world possible as *Dasein* or experience unfolds.

Such thinking highlights the work of philosophers, Gilles Deleuze and Felix Guattari and their rhizomic theory of becoming that references biology and the Greek word *rhizoma*, meaning mass of roots. They explain how “any point of a rhizome can be connected to anything other, and must be. This is very different from the tree or root, which plots a point, fixes an order” (Deleuze and Guattari 1987, 7). Becoming focuses on the experiential process itself since the rhizome “has no beginning or end; it is always in the middle, between things, inter-being, intermezzo” (Deleuze and Guattari 1987, 25). The middle represents an open, flexible, indeterminate, expanding universe with infinite potentiality in which the rhizome is in constant motion, perpetually connecting any point to any point. In botany, this usually horizontal subterranean plant stem has nodes out of which other stems grow, differing from the actual roots. The offshoots of these nodes ceaselessly grow to establish new relations, comparable to a chain with links that are part of the whole. As the rhizome develops, these different parts interweave and

overlap so that identifying where the nodes begin, or end is unrealizable. Rhizomes demonstrate “nonhierarchical alliances, symbiotic attachments, and the mingling of creative agents” (Deleuze and Guattari 1987, 241-242) and serve as an analogy to more deeply understand dance through the concept of embodiment.

### *Embodiment*

While my thesis will not comprehensively cover all theories pertaining to embodiment, it is important to note that much misunderstanding about the term exists. Philosopher-dancer Maxine Sheets-Johnstone argues that the “current and pervasive practice of ‘embodying’ in present-day philosophical and scientific writings is an epistemologically and ontologically improper practice verging on phenomenological malpractice” (Sheets-Johnstone 2015, 23). She compares popular meanings of embodiment that emphasize ‘having’ a body to a “static spatial container...in the common, everyday sense of embodying a feature or quality such as compassion,” which provide an “all-purpose lexical band-aid” (Sheets-Johnstone 2015, 25-27). This misinterpretation takes a radical departure from the early phenomenologists’ views of embodiment as the direct and immediate experience of ‘being’ a body “brought to life by consciousness” (Merleau-Ponty 1962, 167). Returning to Husserl’s concept of the lived body, Sheets-Johnstone shifts the discourse to examine how an animate organism moves “in relation to the surrounding world, thereby, creating synergies of meaningful movement” (Sheets-Johnstone 2015, 30). The “notion of kinesthetic consciousness, which is not a consciousness ‘of’ movement, but a consciousness or subjectivity” (Behnke 2021) of the body’s capability to move freely and responsively, connects the primacy of motion to embodiment.

At its core, embodiment is animation—an aspect characterizing all species that move. “To be animate requires both sensory organs of some kind that register features within an

animate organism's surrounding world and movement organs of some kind that register and modulate the animate organism's movement within its surrounding world" (Sheets-Johnstone 2019, 144). This idea underscores Husserl's theory of kinesthesia as "the sheer experience of the subjective capability of movement" (Behnke 2021)—a corporeal-kinetic consciousness of the world "which is in constant motion" (Husserl 1970, 109). It is significant that the "foundational animate reality and significance of kinesthesia, a sensory modality...informs one's life from beginning to end" (Sheets-Johnstone 2019, 165). From an evolutionary perspective, organisms adopt this strategy to navigate the environment and survive. Biological research differentiates the development of tactile surface recognition sensitivity using external proprioception sense organs into a direct kinetic subject-world relationship, which involves neuro-muscular systems or internal proprioceptors no longer dependent on external stimulation (Laverack 1976). The later sensory modality "anchored in sensory nerves in muscles, tendons, and joints" is known as kinesthesia (Sheets-Johnstone 2019, 146). Kinesthesia aligns with Husserl's term sense-experience (Husserl 1970), referring to perception or awareness of oneself and the world.

Discussion about awareness adds to my theoretical framework. To reiterate, every animate organism comes into the world moving. This basic freedom and agency to move is the "most elementary form of spontaneity" and reflects a primal awareness of being alive—embodying, sensing, experiencing (Sheets-Johnstone 2016, 156). Husserl proposes that the "functions of spontaneity belong to every perception" (Husserl 1989, 63). Based on his idea, one could extrapolate that spontaneous body motion must have perceptual consequences since any action generates an effect. Spontaneous awareness leads to intentional awareness in which certain movements produce desired outcomes, which helps to explain Husserl's statement that intentionality is "the capacity of consciousness to be directed toward something in experience"

and a “process or source of meaning formation” (Apostolopoulos 2016, 677; 689). Meaning derives from being in relation—a constitutive duet between the self and the world or what Husserl calls a two-fold articulation (Sheets-Johnstone 2016, 156). While intentionality most informs to my thesis, it is important to emphasize that spontaneous and intentional awareness require each other, and both are an essential part in learning or knowing about the world (Sheets-Johnstone 2016, 163).

Kinesthesia, as the locus of experience in which awareness and subsequently meaning making occurs through the moving body in relation to its environment, has clear human cultural implications. To explore that idea, it may be productive to reexamine the concept of soma and pioneering practitioner Thomas Hanna’s well-cited definition of somatics:

Somatics is the field which studies the soma: namely the body as perceived from within by first-person perception. When a human being is observed from the outside—i.e., from the third-person viewpoint—the phenomenon of a human body is perceived. But when this same human being is observed from the first-person viewpoint of his [her] own proprioceptive senses, a categorically different phenomenon is perceived: the human soma. Hanna 1995, 341.

Hanna does not differentiate between internal and external proprioceptors using kinesthetic and tactile senses. Nor does he explicitly mention soma as the cell body of every neuron—the basis of neuroscience, which is a discipline focused on understanding how “neural circuits control sensation and action, perception, and cognition” (Spruston et al. 2014, 231). However, his medical training combined with a background in theology and philosophy likely motivated him to envision the human soma and somatics to be a clarion call for social change that cultivates individual potential, leading to a healthy, productive, compassionate society (Hanna 1991).

Somatic movement practices encourage self-awareness to investigate one’s experience through a first-person viewpoint, which links cognitive and physical activity. His methodology “asserts somatic perspectives as an epistemological principle” (Landborn 2003, 100) that recognizes body

knowledge and the body as an environment within and from which to investigate. It also highlights the importance of somatics to social sciences, and specifically anthropology since “the body is a productive starting point for analyzing culture and self” (Csordas 2002, 87). This idea opens the door to examining why people perceive or internally ‘sense’ themselves as they do, what factors inform their experience, and how, where, and when that happens.

Risking overgeneralization, it is reasonable to assume that culture or rather cultural knowledge systems—the preferred term my thesis employs to avoid an essentialized, static view of meaning production, preservation, and transmission—plays a major role in shaping the soma or perception from the viewpoint of one’s own proprioceptive senses. Such interest in the biocultural basis of experience situates the body and its interaction with the environment as a central site for inquiry, which attracts anthropologists and scholars from other disciplines, claiming that “the body mediates all reflection and action upon the world” (Lock 1993, 133). Explication of these approaches to explore the body through a cultural prism exceeds the capacity of this thesis, however, groundbreaking work by Mary Douglas must not go unnoticed. There is an obvious somatic ethos underlying her ‘two bodies’ theory in which “the social body constrains the way the physical body is perceived” so that the physical experience of the body “sustains a particular view of society” as a microcosm of it (Douglas 1996; 69; 77). Meaningful to my research is the distinction between social formality and informality and how that appears in the moving body. The former “signifies social distance, well-defined, public, insulated roles” while the latter is appropriate to “role confusion, familiarity, and intimacy” (Douglas 1996, 75). Examining social informality in relation to constructs of space and time adds one more interpretive layer. Douglas’ work is crucial to discourse focused on the body that includes many contributors; especially prominent are Michel Foucault and Pierre Bourdieu. Collectively, their

socio-political positioning of the body emphasizes the relationship between power and knowledge as well as the dynamics of power in society—somatic analysis of these ideas offers additional insight and warrants further investigation beyond my thesis.

Discussion about the soma or body as perceived from within, logically includes the senses also framed by a biological-cultural interface. Every animate organism has a network of sensory systems that inputs information from the environment. “Each system responds with some specificity to a stimulus, and each employs specialized cells...to translate the stimulus into a signal that all neurons can use” (Hendry and Hsiao 2013, 499). This highly complex process requires various systems to compare sensations received by other sensory systems with past events. Sensation usually refers to detection of a stimulus and recognition that an event has occurred; perception is the interpretation and appreciation of that event, which along with activating stored memories, form the conscious basis of experience (Hendry and Hsiao 2013, 499-450). These ideas provoke me to extrapolate that sensory entanglements are the basic elements that constitute experience.

By building on neuroscience research to include an anthropology of the senses, my thesis acknowledges that socio-cultural influences shape sensory perception and thus, human-nonhuman experience as a vital component of dance culture. Sensory anthropologists concern themselves with how perception, experience, and representation of the world varies between different groups, revealed by the meanings and emphases that people attach to the senses. Beyond the five classical senses—sight, sound, taste, touch, smell—one may also explore under-investigated, under-theorized modes of experience and identify ways in which the senses have become tools of power (Howe 1991, 4; Howe 2003, xii). Rather than function in isolation, “the senses operate in relation to each other in a continuous interplay of impressions and values”

(Howe 2003, 47). This interchange may demonstrate both collaboration and conflict, but most certainly the sensory embeddedness of socio-cultural beliefs and their significance to those who negotiate and share meaning. An emergent methodology, sensory data collection enriches ethnographic research for cultural analysis, encompassing perspectives of both the researcher and those with whom the researcher engages (Stoller 1989; Howes and Classen 1991; Pink 2009). Besides anthropologists, interest by scholars in sociology, history, archaeology, geography, communications, religion, philosophy, literature, art history, film, multimedia, performance, disability, education, design, architecture, advertising/marketing, data science, and artificial intelligence demonstrate the interdisciplinarity of sensory studies that advances knowledge about what constitutes embodiment.

Examining phenomenology and neuroscience help bridge the gap between first-person (subject) and third-person (object) or physiological approaches to explore body-mind unity and the consonance it may engender. Both perspectives further suggest that registering the world through the senses imbues “those registrations with significance” (Howes 2015, 153), which implies the investment of value that “always involves a reference to the body” (Merleau-Ponty 1962, 52). Initially theorized by Husserl through the concept of kinesthesia, sensing as meaningful movement underscores the primacy of the ‘signifying moving person,’ terminology proposed by pioneer anthropologist of human movement, Drid Williams who posits the “somatic is necessarily semiotic” (Farnell and Varela 2008; 221; 227). The subjective awareness of doing informs and assigns meaning to action. With each sense offering its own unique mode of intending, the capacity of movement or motility, which Merleau-Ponty describes is basic intentionality (Merleau-Ponty 1962, 137) “can be understood as a matrix of poly-intentional threads woven by the body’s different sense organs” (Montani 2019, 382).

This background helps introduce the social theory of dynamic embodiment intrinsic to all sociocultural life (Farnell and Varela 2008; 217). Dynamic embodiment augments the paradigm of embodiment proposed by Csordas focused on one's "being-in-the-world as a dialogical partner" but starts with "the premise that all human action is the discursive practice of persons" (Farnell and Varela 2008, 224; 217), where doing-in-the-world is a multi-sensory, co-constructed, meaning-making practice. Emphasis on reflexivity and communication exchange also may destabilize power to privilege the marginalized other, which suggests that producing knowledge recognizes all participants—human and nonhuman—as collaborators in the socio-cultural world. To develop a stronger argument about dynamic embodiment, it may be useful to reinterrogate Csordas' paradigm, which centers around somatic modes of attention. He clarifies:

Somatic modes of attention are culturally elaborated ways of attending to and with one's body in surroundings that include the embodied presence of others. Because attention implies both sensory engagement and an object, we must emphasize that our working definition refers both to attending "with" and attending "to" the body. To a certain extent it must be both. To attend to a bodily sensation is not to attend to the body as an isolated object, but to attend to the body's situation in the world. The sensation engages something in the world because the body is "always already in the world." Attention to a bodily sensation can thus become a mode of attending to the intersubjective milieu that give rise to that sensation. Thus, one is paying attention with one's body. Csordas 1993, 138

These ideas build on Husserl's concept of *lebenswelt* to explain that people are not isolated subjectivities trapped within their bodies. Instead "a somatic mode of attention means not only attention to and with one's own body but includes attention to the bodies of others" (Csordas 1993, 139), which may lead toward greater empathy of one's actions and consequences.

Dynamic embodiment takes one additional step to justify how first-person awareness serves as a perspectival anchor from which active signification of meaning with others transpires. In somatic education and movement therapy, there is a parallel to the social theory of dynamic embodiment grounded in part on the practice of Body-Mind Centering® (BMC) developed by

renowned movement educator-artist-researcher Bonnie Bainbridge Cohen and expanded upon by Martha Eddy (Eddy 2009, 19). Cohen's approach works with the body-mind connection to maximize physical awareness for deeper psycho-physical understanding. A BMC principle is that bodies are "looking for health; they *want* to move toward wellbeing" (Kaufman and Maes 2022). My thesis builds on this idea to suggest that bodies intentionally desire movement to learn about their environment both internally and externally. Grounded in neuro-motor development research, application of dynamic embodiment principles to teach, create, and/or perform may culminate in negotiating conflict and promoting better communication (Eddy 2020). Focus on dialogue aligns with the characteristics of somatic experience, which include "a sensitive connection with oneself, with the other and with the environment, since, when sensitized and attuned to our membranes, we feel more intensely that we are crossed by the environment; that we are part of something bigger: society, nature, the world, time, mystery" (Teixeira de Souza 2020, 14-15). The concept of dynamic embodiment energizes my investigation of human-nonhuman experience through the lens of dance culture intended to assuage the Anthropocene era's destructive consequences.

### *Posthumanism*

To consider a bigger picture of the world and its inhabitants as co-participants turns this discussion toward the topic of posthumanism that recontextualizes *Homo sapiens* "in terms of the entire sensorium of other living beings" (Wolfe 2009, xxv). A posthumanist approach critiques anthropocentrism but is not a-human, denying the importance of humans in the world. Rather, "it argues that the elements of the world we recognize around us (e.g.; people, things, monuments) emerge through relations," emphasizing "the capacity for bodies to affect and be affected, that is their sensitivity to relations, and the way in which they form relations with other

bodies around them” (Crellin and Harris 2021, 470-471). In relational matrices, difference cannot be intrinsic since things are inseparable. Instead, difference resides within the possibilities of relation or “dynamism of forces” that give agency and influence things to intra-act (Barad 2007, 141). Intra-action necessitates mutual exchange between different forms of matter that collapses divisions.

The release of binary tensions helps to undermine dichotomies such as nature and culture. This idea transitions to the work of scholar Donna Haraway and her notion of natureculture, which demonstrates “a synthesis of nature and culture that recognizes their inseparability in ecological relationships that are both biophysically and socially formed” (Malone and Ovenden 2016, 1). The term helps transform assumptions embedded in Cartesian thinking about boundaries separating humans and nonhumans. Haraway writes that “[If] we appreciate the foolishness of human exceptionalism, then we know that becoming is always becoming *with*—in a contact zone where the outcome, where who is in the world, is at stake (2008, 244).

Discussions about posthumanism force one to reimagine “the intricate and intimate webs of connection with all those with whom people come in contact—be they human or animal, animate or inanimate” (Drichel 2015). Researchers at a symposium hosted by the University of Otago in New Zealand explored this topic to question how relational beings are co-implicated in each other’s lives and drawn into ethical accountability for those with whom they stand in relation.

While human-initiated activity transforming the globe may heighten self-awareness about “what people are doing, with profound implications for politics and the allocation of responsibility” (Chakrabarty 2009, 3), it is equally important to broaden discourse about other forms of perceptions, experiences and ways of being in the world, which is precisely the contribution of anthropologist, Philippe Descola. In his studies among the Achuar, an

Amazonian community, Descola connects human and non-human actors by means that confirm reciprocal determination of technical and ecological factors. A foundational theory in social psychology—reciprocal determinism—explains the three factors that dictate behavior are the individual, the environment, and the behavior itself (Bandura 1978). Reciprocal determinism unsettles the ‘culture-nature’ binary and is central to posthumanist thought. It recognizes that people are both in the world and of it; they act in relation to it and the world acts within them through their behaviors; and bodies and the environment in which they live affect each other in mutual relation. Achuar epistemology, and for other indigenous people, emphasizes treating “certain elements in the environment as persons endowed with cognitive, moral and social qualities analogous to those of human – and thus to incorporate, within the category of persons, spirits, plants and animals as part of a cosmology that does not discriminate between human beings and non-human beings” (Descola 2013, 31).

In these complex and troubled times of human-initiated planetary destruction, Descola may be supporting the need to embrace ontologies, particularly those that allow humans to live in harmony with other than humans to preserve world ecosystems. Acknowledging the diversity of knowledges and experiences is the focus of multispecies ethnographers. In a nonhuman world where animals, plants, fungi, and microbes also live, Eben Kirksey and Stephan Helmrich discuss the emergence of studies centered on “how a multitude of organism’s livelihoods shape and are shaped by political, economic, and cultural forces” (Kirksey and Helmrich 2010, 545). They explain that the interest of these ethnographers is to study borderlands between ‘nature and culture,’ which positions their work within ecological concerns. Ecological awareness—the consciousness that humans and nonhumans are closely interconnected and inevitably interdependent on each other—notes the limitations of human knowledge in contrast to

nonhuman beings (Morton 2017, 186); it also promotes developing “an ethic that cares for vulnerable nonhuman others living in a more-than-human world” (Yamada 2020, 6). Inquiry beyond exclusively human domains poses new methodological and analytical challenges that scholars such as Tim Ingold question.

With a background in biology and anthropology, Ingold’s work investigates the human-animal interface largely informed by ethnographic studies of hunter-gatherers and herding people. His ecological approach to anthropology recognizes that the contexts of activities and relationships within those contexts mutually unfold as an active engagement of being-in-the-world, discussed earlier in reference to Heidegger’s concept of *Dasein*. A starting point for Ingold is the premise that “one must already dwell in the world and, in the dwelling, enter into relationships with its constituents, both human and non-human” (Ingold 2000, 77). Dwelling in the environment or “domain of entanglements” entails exchange of movement so as organisms grow into the world, the world grows in them (Ingold 2006, 14; Ingold 2011, 6). This understanding describes a sentient ecology based on “feelings, consisting of skills, sensitivities, and orientations that have developed through long experience of conducting one’s life in a particular environment” (Ingold 2000, 25). For Ingold, sentience, which he also calls animacy, is clearly related to but different from Husserl’s kinesthesia. “Animacy, then, is not a property of persons imaginatively projected onto the things with which they perceive themselves to be surrounded. Rather...it is the dynamic, transformative potential of the entire field of relations within which beings of all kinds, more or less person-like or thing-like, continually and reciprocally bring one another into existence” (Ingold 2006, 10).

*Ecological Perspectives*

Symbiotic behavior encourages dialogue within and between species to support ecological sustainability. Etymological analysis of the word ecology allows a deeper reading of Ingold's dwelling concept. From the Greek word *oikos*, ecology—a term coined by zoologist Ernst Haeckel in 1866—means household, home, or place to live (Swartz and Jax 2011, 145; Ingold 2018, 155). Most broadly, the science of ecology “is the study of our species' dwelling place, the planet Earth” (Meyer 1994, 875). Although this definition does not appear to be species inclusive, my work considers the planet Earth as an environment within which all animate beings dwell. Ecology generally refers to the “interactions between individual organisms and their environments, including interactions with both conspecifics and members of other species,” which has obvious relevance to human and nonhuman wellbeing (Sarkar and Elliott-Graves 2016). Principally, ecology is about relations so ecological thinking is relational thinking; this correspondence applies to an individual's body and the collective Earth body. Ingold provides a creative metaphor to visualize ecology differently. He asks:

What if we were to think of the person, like the fungal mycelium, not as a blob but as a bundle of lines, or relations, along which life is lived? What if our ecology was of lines rather than of blobs? What then can we mean by ‘environment’? People, after all, don't live inside their bodies, as social theorists sometimes like to claim in their clichéd appeals to the notion of embodiment. Their trails are laid out in the ground, in footprints, paths and tracks, and their breaths mingle in the air. Ingold 2018, 215-216

For Ingold, the movement of lines illustrate his concept of meshwork, which addresses the interplay between social and ecological systems. Similar to Deleuze and Guattari's rhizomic theory of becoming, interwoven lines are paths in which animate organisms must travel and continually attend to as their journey unfolds, noticing and responding to others along the way. Meshwork brings into focus an image of togetherness as well as the mutual attention that requires. Central to Ingold's concept of meshwork is knotting, which he calls the fundamental principle of coherence. He conceives of knotting as “how contrary forces of tension and friction,

as in pulling tight, are generative of new forms” that bind “lives in relations of kinship and affinity” and are meaningful (Ingold 2018, 18; 20).

Intersecting points where the movement of lines enmesh develop significance. For geographer Yi-Fu Tuan, this differentiated space functions as “a center of value” (Tuan 1977, 18), which he calls place. He uses the word *topophilia*—a love of place to mean the “affective bond between people and place or setting” (Tuan 1990, 4). Additional terms that describe such feelings toward place include place attachment, place identity, place dependence, and sense of place, which may imply similar concepts. However, what aligns these ideas is how the transformation of space to place happens. In a well-cited definition by environmental psychologists Setha Low and Irwin Altman, places are “repositories and contexts within which interpersonal, community and cultural relationships occur, and it is to those social relationships, not just to place *qua* place, to which people are attached” (Low and Altman 1992, 7). My research proposes broadening their explanation of place to encompass the attachment of social relationships between humans and nonhumans.

Besides the social dimensions of place, physical features also impact one’s connection to an environment (Hidalgo and Hernández 2001, 279). Design, size, shape, texture, color, and other characteristics in addition to the actual material contents that define the area itself powerfully evoke emotions. Yet, the single most decisive factor shaping relations and the phenomenon of experience may be time. The more one gets to know a site and endow it with value, the more affiliations cultivate. Long-term, regular, and/or patterned interaction within a particular location encourage association with others. Additionally, temporal markers such as time of day and year determine what activities happen when, where, why, how, and with whom. My previous research in Brazil and China identifies the significance of time to transform space

as sites of belonging through expressive movement in which participants purposefully encounter different people, ideas, and practices (Vissicaro 2017; Vissicaro 2021). In Xichang, China, emphasis on structured dancing every night in the public square represents a model of chronometric time, dictated by the strict start time of 7:00 PM and a 45-minute predetermined set. The study in São Paulo, Brazil demonstrates circular time in which dancers perform *quadrilha* for Festas Juninas—an annual celebration associated with Earth’s solar orbit. Both chronometric and circular time refer to a relatively objective system (seconds, minutes, hours, solstices, equinoxes, quarter days, etc.) for determining when something happens.

In these examples, time proceeds from past to present to future, described as time’s arrow—a concept in physics involving models that “predict, prescribe, or explain events” (Hooft 2018). This orientation provides an order or sequence in which future events cannot impact the past because the construct of time moves in one direction.

Coffee cools, buildings crumble, eggs break and stars fizzle out in a universe that seems destined to degrade into a state of uniform drabness known as thermal equilibrium. The astronomer-philosopher Sir Arthur Eddington in 1927 cited the gradual dispersal of energy as evidence of an irreversible “arrow of time.” Wolchover 2014

The second law of thermodynamics affirms such behavior but does not address an important quality about how energy disperses. Physicists recognize that objects equilibrate “because of the way elementary particles become intertwined when they interact—a strange effect called “quantum entanglement” (Wolchover 2014). As individual particles entangle, they lose their autonomy by adopting characteristics of other particles. Not only does time’s arrow increase correlations but those entangled phenomena also share information—considered the “stuff” of spacetime (Cowen 2015, 291).

Discussing time’s arrow reinforces how phenomenologists recognize experience, which materializes through the unity of past, present, and future. The related succession of inseparable

moments from one's subjective point of orientation or 'now' is what Husserl calls "the immanent time of the flow of consciousness" or time-consciousness, involving simultaneous connection between past, present, and future (Husserl 1964, 23). Heidegger describes these three interlocking dimensions of time as temporality, being-in-the-world, or simply *Dasein* that necessitates "relations to things, objects or events" (Merleau-Ponty 1962, 412). The concept of *Dasein* exemplifies quantum entanglement since people cannot separate from the world with which they interact. As the self and its environment entangle, new relations form that combine features from both so knowing one may enable knowing the other. A trend in phenomenological research is the suggestion that "[W]e are never inside ourselves, but always stand in a certain correlation that lies beyond the distinction of inside-outside" (Hepach 2021, 1290). This nondualistic approach not only diminishes binaries but more importantly, liberates discourse about human-nonhuman experience.

Positioned at the confluence of ecology and phenomenology is the hybrid field of ecophenomenology. A kind of philosophical ecology, ecophenomenology concerns itself with the environment of which humans are part and recognizes humans as part of the environment of nonhuman beings to help balance the scale away from a one-sided environmentalism. For ecophenomenologists, participation within a shared context between humans and nonhumans reveals the inherent social quality of experience.

When we engage with world, we are directed toward the world in particular ways that shape our relations to the world precisely by the things with which we are engaged. In this way it is not only that things bear the marks of the nonhuman, but also that humans carry within us the marks of the nonhuman. Bannon 2016, xii

Ecophenomenology—a term coined by philosopher Ted Toadvine in 2003—combines ecological phenomenology and phenomenological ecology to study the experience of individual organisms and their environments. Dedicated to "the pursuit of the relationalities of worldly

engagement, both human and those of other creatures,” ecophenomenologists emphasize human-nonhuman intersubjectivity, which furthers Barad’s notion of intra-action and the mutually constitutive way in which things manifest through relation (Wood 2001, 80).

From this perspective, one of the goals of ecophenomenology is to correct an inherited, dualist, hierarchical value of the human capacity for reason over the nonhuman world at large, where such a privileging of human rationality has helped lead to the current ecocrisis. LeVasseur 2011, 160

Living in the Anthropocene provokes the expansion of ecophenomenological work intended to change how humans perceive their relationships with the environment, taking on a political orientation not unlike other environmental philosophies such as land ethics, deep ecology, and ecofeminism.

One outgrowth of the ecological movement is arts-based environmental education. Eco-arts are an interdisciplinary field that develops “awareness of and engagement with environmental concepts such as interdependence, systems-thinking, biodiversity, conservation, and sustainability. It can also offer opportunities for artistic forms of environmental activism” (Inwood and Taylor 2012, 66). Inspired to create in ways that draw attention to local and global environmental problems as well as offer solutions, dancers, painters, actors, musicians, writers, and multi-media artists around the world are implementing initiatives focused on preservation, restoration, and overall stewardship of the Earth, indicative of the rising number of conferences, workshops, programs, texts, and concerts focused on these issues. Besides reaching audiences, the merging of eco-art with environmental education also seems “to offer an alternative way of free and creative expression and communication of the concerns and anxiety for the environmental crisis” (Tsevreni 2022, 492), assisting participants to channel those emotions.

Eco-art making is an advocacy and/or wellness tool that shifts distress into something healthier and productive. With such a rapidly growing area of interest, my research narrows its

focus on eco-arts to performative inquiry, specifically dance and structured movement, which still requires greater discussion due to the wide range of contributions by artists worldwide over at least the past 75 years—Anna Halprin being among the first. Many individuals have political motivations to effect change, some emphasize the therapeutic aspects, while others see their work fulfilling both purposes. Regardless of intent, the curative benefits of eco-dance or ecological dance fosters individual, community, societal, and planetary wellness. Additional labels for these practices are environmental dance, dance and nature, landscape dance, and site-specific performance (Stewart 2011). It is unrealistic in my thesis to address the entirety of these efforts but there must be proper acknowledgment of key pioneers as well as major influencers, including Eiko Otake, Takashi Koma, Bonnie Bainbridge Cohen, Min Tanaka, Sondra Fraleigh, Nala Walla, Taira Restar, Shinichi Iova-Kova, Karen Jamison, Paula Josa-Jones, Naoyuki Oguri, Nigel Stewart, Jennifer Monson, Martha Eddy, Marylee Hardenberg, Tamara Ashley, Joanna Stone, Rulan Tangen, Mique'l Dangeli, Vangelis Legakis, Jess Allen, Mia Heckstall, Jane Carr, Rebecca Enghauser, Matthew Nelson, Jennifer Conley, Janey Lee, Susan Shell, Terre Parker, Ali East, and Merián Soto. Several of the forementioned artists profoundly influenced and/or directly participated in my investigation.

To theoretically structure this body of work, I employ scholar Belma Oğul's concept of ecochoreology, inspired by ecomusicology—a subfield of ethnomusicology.

Body as eco, in other words as a home, is considered as the main agency of the dance. It consists of many moving parts as well as hosting emotions, mind, biological agents, experiences and others. On the other hand, the body also exists in relation to and entangled with other agents within eco, such as other bodies, walls, floor, ceiling, mountains, rivers, animals, plants and many others. Thus, one of the fractal definitions of the dance would be then 'the movements of entangled agencies in an intra-active becoming' based on its temporality, which is not only seen in the performance of the dance but also in the becoming of the dance. Body as eco positions and manipulates itself with respect to the places, spaces, time and other aspects affected by the ecosystem, while it may also modify its ecosystem. Oğul 2021, 92-93

Oğul posits that ecochoreology emphasizes the mutual relations and co-existence of diversity in an ecosystem, informing dance culture. Both a research subject and methodology of dance studies, ecochoreology integrates critical ecology and posthumanist approaches. My investigation acknowledges her model that ascribes individual awareness of the body's relationship to itself (as eco) and its environment (in eco). Motivated to contribute to this emergent area of inquiry, I employ the term phenomenological ecochoreology to interrogate what experience looks like between “movements of entangled agencies” (Oğul 2021, 91).

Discussion of phenomenological ecochoreology—a method to study human-nonhuman experience through the lens of dance culture—must account for the established work of other eco-disciplines and specializations, namely in the health profession. Notably, a shift in consciousness toward this area of research likely occurred after the 1968 Apollo 8 lunar orbit, featuring the iconic ‘first earthrise’ photo. That widely distributed image offered a new perspective on human-nonhuman relations by visually linking the Earth and its inhabitants, which for many Western European nations such as the United States, gave rise to initiatives such as an annual Earth Day, created in 1970, and the Clean Water Act of 1972. These events and policies fueled the efforts of psychologists, therapists, and somatic practitioners who observed how human-nonhuman interdependence had critical health and wellbeing implications. The field of ecopsychology emerged as an umbrella term for health interventions that integrate principles of ecology and psychology. Grounded in the notion of biophilia or the “love of life,” ecopsychology furthers the idea that “the psyche is rooted inside a greater intelligence once known as the *anima mundi*, the psyche of the Earth herself” (Fromm 1964, 13; Roszak 1992, 16). The metaphor of Earth as home and its inhabitants as family creates sympathetic bonds. Ecopsychologists advance the idea that Earth, similar to one's mother, is the original dwelling of

existence. To feel at home aligns with Oğul’s concept of ‘body in eco,’ which may imply comfort, safety, and coherence.

Imaging one’s Earth home creates a therapeutic landscape that fosters individual healing and personal growth. Another ecopsychology strategy focuses on the individual as Earth, sharing identity. This viewpoint transcends the sense of a separate self that realizes “nature as self in which self-identifications are broadened and deepened to include the non-human world” (Davis 2011, 139). Recognition of a fundamental nonduality between humans and nonhumans, like Oğul’s concept of body as eco, avoids isolation and disconnection. These ecopsychology paradigms of the Earth as self and home represent anthropocentric perspectives, emphasizing the human client’s health. However, it is important to envision that wellbeing is a two-way street. Entanglement theory informs phenomenology, dance, ecology, and quantum physics to suggest that through intra-action—what all movement ignites—elements combine so being in relation reveals something about another. Thus, a comprehensive ecopsychological approach to wellness must consider that knowing both sides of the coin means human and nonhuman experience is mutually constitutive. Making that case, anthropologist of dance Andrée Grau references her early work with the Tiwi of Melville and Bathurst Island of North Australia. For Tiwi, “the vertical spine connects the human body to the trees,” vibrations in the air created by calling out “the name of a place...link two geographical spaces, reinforcing the bodily connections Tiwi people have with the land,” and that while dancing “kin are manifested through the dancers’ bodies” (Grau 2011, 12; 17). Broadening Kealiinohomoku’s concept of dance culture as a microcosm of the total culture, Grau explains that “through dance the Tiwi world-view and the Tiwi landscape also find a body” (Grau 2003, 177). This example epitomizes the idea that when dancers embody the Earth, the Earth embodies them, which my analysis and discussion detail.

## CHAPTER 4: GATHERING

Data collection methods for these case studies consisted of interviews with professional dancers that actively teach, perform, and/or create work inspired or shaped by the natural world. The professional dance field is a niche group with whom I have extensive involvement. My recruitment plan was to message various listservs (National Dance Education Organization, International Association for Blacks in Dance, International Council for Traditional Music Ethnochoreology Study Group, Cross-Cultural Dance Resources, etc.) and post on my personal Facebook page the recruitment information to solicit participants. This process began in late September 2020 once the Institutional Review Board (IRB) approved my application to conduct human subject research (see Appendix A). By mid-October, I had received confirmation from twelve individuals. Nine represented North America (United States and Canada); their native language was English. Two dancers were Japanese by birth while another dancer was Greek; their native languages were not English. All participants were older than 18 and had long dance careers teaching students, collaborating with other dancers, and/or presenting to an audience in person and/or through media. The interviewees' exact ages were unknown. They did not share confidential or demographic information such as sex, gender, ethnicity, or nationality unless this came up voluntarily in the interview. Further, I did not ask questions about previous dance training or movement styles since it was not my intent to know background influences except for specific motivations that led them to pursue dancing inspired and/or shaped by more-than-humans. Generally, the focus was on current and/or relatively recent work although some very established dancers spoke about relevant creative research occurring decades earlier or childhood experiences that informed their artistic philosophy and practice.

All research for this project took place during of the COVID-19 pandemic in which the best medium for interaction was Zoom—a web-based communication technology that employs videotelephony or teleconferencing to bolster reception and transmission of audio-video signals by users in different locations for synchronous or real time interaction between people. The interviewees were familiar with and comfortable using Zoom. They received a consent form by email to participate in the study and record the conversation for transcription purposes; I also reconfirmed this agreement prior to each interview. Each interview was 60-80 minutes in length. Zoom records audio-video data and provides a mp4 file, which I uploaded to Sonix—an automated transcription software. Synchronization of text to the audio-video helped me perfect the transcript when I recognized mistakes or needed to clarify data. After my first round of corrections, I emailed each transcript to the interviewee for their review, which yielded more improvement to accurately document our Zoom exchange. Formatted as a Word document, I could highlight and code themes for analysis as well as have encoded timestamps to enable text searches.

The interviews were in-depth and semi-structured, unfolding in a flexible, conversational manner with open-ended questions that followed a guide to address specific topics or domains. This qualitative data gathering technique is useful to investigate personal and complex experiences, which may be difficult to articulate in a rigid questionnaire (Longhurst 2009, 582). The approach may empower participants to direct the discussion in ways that are most meaningful and determine how much time they need to explore more subtle issues, which demonstrate the value interviewers should place on their interlocutors' knowledge. Semi-structured interviews also facilitate understanding lived experience and help to build rapport (Bernard, 2011). Prior to the Zoom encounter, I had met only three of the twelve participants.

However, the interview design allowed us to quickly discover many mutual interests and create familiarity, encouraging conversation. Further, the topics we discussed involved using words that described sensations felt in the body, often evoking non-verbal language, particularly facial expressions and hand gestures. This bodily communication reinforced the type of intersubjective connections and unity dancers feel when moving together. It also reminded me of the importance to provide equanimity, which meant being reflexive and aware of my positionality to minimize impact on the interviewees' response.

The use of Zoom likely facilitated a greater democratic research process in which interaction between people transcended spatial and temporal boundaries. A major benefit was international sampling since physical distances did not limit access and offered more opportunity for research participation on a global scale in an affordable way (Lo Iacona et al. 2016). It also was important that each collaborator chose when and where interviews occurred. Having agency helped balance control and distribute power to diminish perceptions of me as overly authoritative. Convenience, safety, and flexibility were paramount to build rapport, trust, and deepen exchange. Interviews occurred outdoors and in homes, studios, or offices, allowing freedom for anything to happen as a natural part of one's life. Birds chirping in the background and conversations with family created an environment in which I felt part of my interviewees' world, strengthening our connection. Zoom also supported sharing additional personal data such as media files, websites, and chat text. It was common during interviews to explain an idea or specific work by showing information in real time, which provided nuance and detail that enhanced the interview.

Since the study consisted exclusively of interviews during a single encounter with people that were essentially strangers until we met on Zoom, it was neither mixed methods nor

ethnographic. This imposed limitation, dictated by COVID-19 restrictions, does not suggest inadequacy but rather the situational reality. Interviewing as an interpretive practice places my investigation in the tradition of qualitative research that “locates the observer in the world” (Denzin and Lincoln 2005, 3), or the lives of participants, with the intent to investigate phenomena and the meanings they bring to them. The reliance on texts, specifically a series of interview transcripts, to examine human-nonhuman experience through dance offers interesting methodological and analytical challenges. First, I recognized that this research structure necessitated having multiple perspectives to triangulate or compare data and therefore, sample size was an important consideration to reach data saturation. Two types of saturation were possible, theoretical—“the point at which where the main ideas and variations relevant to the formulation of a theory have been identified” and thematic—“the point during a series of interviews where few or no new ideas, themes, or codes appear” (Weller et al. 2018, 2). The concept of theoretical saturation, first articulated in 1967 by Barney Glaser and Anselm Strauss, involves inductive analysis in which the interview content serves as a guide toward understanding the topic of study. Thematic saturation, while similarly subjective and iterative, may happen earlier in the analytical process, which was evident in my work. After interviewing four participants, the repetition of ideas became obvious, however pushing forward with five more interviews, several new themes emerged. With such a limited number of available participants, I fortuitously obtained three additional interviews and gained confidence that these transcript data would yield thematic saturation. Formulation of theory happened slowly but began to surface during the data analysis process.

Besides encouraging context specific (i.e., non-generalizable) descriptions of their experiences, I took seriously the responsibility to guarantee confidentiality for each participant as

stated in my IRB application. The proposal’s methodology affirmed storage of identifiable data on an encrypted and password protected device to minimize risk to the interviewees. Further, I made every attempt to maintain privacy and safety while conducting the interviews by requesting that participants isolate themselves and follow all CDC guidelines for COVID-19. Other protective steps during data analysis included the use of labels such as Interviewee #1 for pseudonyms.

All twelve interviews for these case studies had the same structure and followed a specific guide or “written list of questions and topics...covered in a particular order” (Bernard 2018, 165). Intuitively, the predetermined sequence varied to create a more logical flow and better transition between ideas. Some questions were combined, altered, or even omitted; also, I prompted several participants to elaborate on certain responses that redirected our discussion to other topics. Some questions were combined, altered, or even omitted; also, I prompted several participants to elaborate on certain responses that redirected our discussion to other topics. The interview questions addressed eight domains or content areas, ranging from two to five questions each (Figure 6). These domains, which focused on dance practices inspired or shaped by the natural world were 1) personal motivations, 2) teaching methods 3) performance, 4) creative processes, 5) spatial factors, 6) temporal factors, 7) sensory stimuli, and 8) nonhuman interaction.

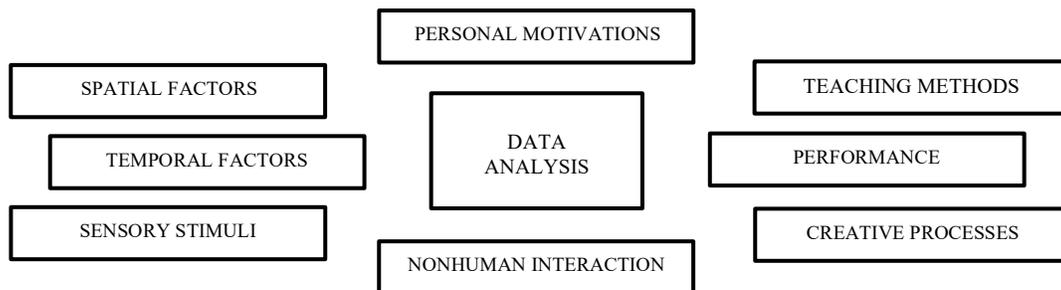


Figure 6. Data Analysis Domains.

Once interview transcripts were complete, I coded data for encryption, indexing, and measurement purposes (Bernard 2018, 318). Encryption means assigning numbers to participants instead of using their names to maintain anonymity. Indexing helps to distinguish themes and measurement implies counting the number of times a word was used or content and meaning were mentioned. Another inductive or open coding technique that facilitated the discovery of grounded theory was to identify key words or phrases as well as exemplar or direct quotes from the respondents, which I bolded and italicized. Further, I used colored highlights to classify data according to the eight different domains.

Before concluding the methods section, I will briefly address standards of rigor pertaining to qualitative research: validity and generalizability. Issues of reliability and internal validity are perhaps the biggest criticism when it comes to using highly subjective interview data to study phenomena such as human-nonhuman experience through dance. However, since the postmodern turn led by Foucault and other critical theorists in the mid-twentieth century, emphasis on multiple truths or voices that signify culturally constructed, context specific knowledge and practices have enhanced ethical inquiry and created inclusive spaces for mutual exchange to dismantle hierarchies embedded in Western colonialist influenced research paradigms (Thambinathan and Kinsella 2021, 3). The notion of polyvocality which represents “multiple viewpoints and discourses coexisting without privileging one voice over the other” (Raju 2009, 265) recognizes the heterogeneity of interpretation to respect variability and inconsistency between how individuals negotiate meaning, avoiding a single, integrative, omniscient result. No truth is more significant than any other. Different versions of how the interviewees uniquely understood their experience contradict any generalizability of the findings that could be applied to a broader group of people or situations.

## CHAPTER 5: IGNITING

The following description synthesizes data generated from interviews conducted with the twelve movement-based artists that examines their dance practices inspired or shaped by the natural world. After addressing each of the eight interview domains, I provide a more critical discussion in the final chapter, which synthesizes all input to reveal insights about what human-nonhuman experience through dance looks like. It is impossible to know whether the interlocutors' reference to 'nature' or the Earth implied nonhuman since I did not seek that clarification during our interviews. For purpose of this thesis however, transcript excerpts that use the word 'nature' or the Earth will be thought of as synonymous to nonhuman.

For domain one—personal motivations—there were eight individuals who spoke extensively about their childhood living in or near rural areas with low human population density. Interviewees described growing up in the countryside, by the high desert or near the ocean, lake, and other bodies of water. Walking through fields and forests, swimming, and climbing boulders as well as being close to whales, frogs, snakes, and birds promoted a sense of freedom and happiness. “Dance has been very connected to the Earth for me since the beginning. My mom likes to tell this story about how when I was a week old, she put me naked in the grass and she says she has never seen, that was the first time she saw my face respond like that. Like I was just completely elated” expressed Interviewee #11. My own background also speaks to living in undeveloped suburban areas with a ravine, creek, and apple orchard directly outside by house. Feelings of comfort, respect, trust, playfulness, and expressions of love about and toward the natural world were common themes.

A second area of motivation that generated dance practices inspired and/or shaped by the natural world were specific events that happened. One spoke of the 'back to the land' movement

of the 1960s that encouraged people to become more self-sufficient; another described meeting a well-known performance artist whose cooperative initiative included working on an organic farm. These influences promoted ecological consciousness and were foundational to the development of each interviewee's subsequent practice. Specific environmental issues also played a pivotal role, encouraging reflection on how humans negatively impact the environment. Examples such as nuclear disasters, conserving habitats for endangered species, and watershed contamination heightened awareness to which their dance practices served as a response.

All the interviewees have teaching practices inspired and/or shaped by the natural world, which focuses on the second domain. Five of the collaborators work in higher education and facilitate courses engaging with students in environments that emphasize nonhuman experience. Other teaching contexts include residencies, workshops, and master classes in addition to instructing dancers and/or audience members that have performative outcomes. Two topics emerged through data analysis: sensing the natural world and environmental activism. Interviewee #2 spoke about "how it feels to be on the earth and not in a studio...it's nice to actually feel the real thing sometimes" while Interviewees #5 and #11 discussed having opportunities for "sensory awareness," "sensory explorations in nature," and finding solace in nature as important in their teaching. Additionally, descriptions of Hiroshima, Nagasaki, and Fukushima, considered "nuclear stuff" and "concern for the Earth" by Interviewees #1 and #3 exhibited dance pedagogy as a form of nonviolent protest or advocacy.

Another area related to educational methods is from the interviewees' perspective as a student in which learning is from human and nonhuman teachers. "I mean we're learning from our environment, you know, and Earth is our greatest school" spoke Interviewee #12. There was an implicit understanding that all research collaborators had a profound teacher-student

relationship with the natural world. Another example from Interviewee #10 referenced a workshop where a tree's 'lesson' offered direction. In this illustration, the interviewee explained how a teaching moment became role modeling in which workshop participants saw the human teacher transform as student, receiving guidance from a nonhuman instructor. The tutorial epitomized the importance of paying attention and listening, explicitly intended for the class to emulate in subsequent movement explorations.

The third domain of performance practices influenced by the natural world consists of public presentations with an invited audience committed to the realization of the entire event, open performances like an installation where audiences enter and leave the event without staying in a fixed location for a specified time, filmed performance, and mixed media in which live and recorded images coexist. Once again, all interviewees shared many personal illustrations. Two discussed their body of work beginning in the 1970s; two others initiated their personal trajectories of dance inspired and/or shaped by the natural world in the 1980s. Among the twelve interviewees, these four individuals I consider to be pioneers in this performative genre involving human-nonhuman experience through dance. Interviewee #7 spoke about a two-year project that originated as a multi-day investigation near Joshua Tree National Park, California. It developed into a documentary film that required an audience; over two years there were several iterations. This artist explained one of these instances in which they "spent the night camping together in a place. Then in the morning, I danced with my company members. So, I didn't tell audience it was starting in the morning as they were sleeping, I woke them up with a bell sound - myself and three other dancers began as the audience was sleeping on the ground" (Interviewee #7). By blurring lines that artificially divide performance and everyday life, distinctions soften between

different perspectives, questioning who performers and audience are and whether these roles could be open to human and nonhuman participants.

Performing with an audience could involve a specific score or set of instructions by which the event unfolds and/or participants engage. Interviewee #11 conditions the audience to prepare for a performance by taking them through a series of sensory awareness activities. It “helps people get at ease. And then I can frame, we're going to be traveling in the environment.” Not being confrontational, calm, and low key with audience participants is especially important to promote wellbeing—a major objective of the work. There also are guides for safety purposes and to focus on the dancers who demonstrate respect for the natural world through their actions. “It is very transformational for people to see me or another dancer in such an intimate, touching relationship with the environment in a way that's like I never even thought that is possible, that I could be covered in mud or that I could caress this tree” (Interviewee #11). In these settings, both dancers and audience are aware of their impact on the natural world, which extends beyond the performance as environmental consciousness. Heightened sensitivity also illuminates the performative role of nonhuman participants. Situating oneself in relation to nonhumans brings attention through contrast “to see the little details” and amplifies another’s presence, giving voice that “makes the landscape speak for itself” (Interviewee #1). This idea may empower nonhumans to suggest they are as much a dancer as the human. Many interviewees spoke about such performance interaction, exhibiting relations that further positioned the “Earth as a participant, as a leader in what we’re doing” (Interviewee #11) in which “a life goal is for nature to be the lead dancer (Interviewee #10). One artist expressed how the wind “was such a great player in the whole thing,” referring to its performance.

Performance led by, with, as, and in the natural environment warrants investigating creative processes—the fourth domain. While the prepositions by, with, as, and in signal temporal and/or spatial relations that align to the fifth and sixth domains, movement artists view space and time as an interconnected canvas upon which to create, which consists of basic compositional elements. Some of these elements include speed, rhythm, accent, duration, size, line, shape, direction, and level. Human-nonhuman experience through dance demonstrates these elements and influence creative composition so that “from wood that is the particular shape and particular texture it’s a soft movement and another is more rapid and more edgy and more spiky” (Interviewee #12). Describing the creation of work, another artist explained:

...there is something about the horizontality of this landscape, and we, I was thinking about depth and being far away and coming close. So, it was it kind of moved through space and this kind of hiccupping suspended rush forward and back that was repetitive and went on and on and on, like when you drive through the cornfields there, just this kind of rhythm and the elevation goes from the ground level to about seven feet in the, right before the harvest, and then goes immediately down again, so there are some, this the way one experiences elevation through time that I was playing with too choreographically. Interviewee #3

Collaboration—at the heart of all creative processes—seems to be different between humans and nonhumans. Rather than design specific outcomes, the effect is less known. Such open-ended possibility could mean that “even if you're if you're starting to like take the shape of that tree and it's, you thought a tree was like this, but when you're actually looking at it, it's becoming something else” (Interviewee #8).

In that example, the artist’s response to change requires spontaneity, which is central to improvisation and common for human-nonhuman experience through dance. Typically, movement improvisation involves more or less equitable exchange to encourage dialogue and collaboration between participants. However, no interviewee spoke about the nonhuman actor relinquishing creative control. Rather, the improvisational process demanded relation building,

which looked more like a one-way adaptation. Due to this power imbalance, human performers seemed susceptible. In one instance, Interviewee #9 described how the wind became the soloist, literally stopping the performance because the tent where musicians played was being torn apart. Another theme among several artists was dancing without clothes and allowing forces of nature direct them. To be naked is synonymous with the “bare naked landscape” and “rendering my body into nature” (Interviewee #1). Literal exposure suggests a relinquishing of self to other in which another artist described a video piece with a “single shot of many women floating down a river and over a small waterfall over and over again” (Interviewee #11). By “letting the wind go through me,” “letting my feet go”, and “letting ourselves to flow,” Interviewees #5, #11, and #12 implies abandoning preconceived ideas about what to do and become open to whatever happens. Similarly, “to float downstream” at the will of the river meant submitting to its current (Interviewee #1).

Two other examples of ‘opening’ to the nonhuman world include dancing barefoot and performing in dangerous situations. Interviewees #2, #4, and #8, specifically discussed feeling the earth with their feet. Interesting, Interviewee #6 spoke about not being able to ground unless one was barefoot. Elaborating, this artist explained that tradition was a way to “honor where my gift (dancing) comes from, my feet, by getting our traditional tattoos on my feet.” “It just opened up a whole other level and connection to the creation of our dances” (Interviewee #6). Another artist spoke about how being in areas that were “declared toxic and physically dangerous to human bodies and be there to dance and be vulnerable and open? And I really want to question, especially as a queer person who, you know, not so much now, but in the past, have been considered perverted and polluted and dangerous and all these things” (Interviewee #3). In this

illustration, the individual draws an obvious parallel between human-nonhuman susceptibility and the marginalization of otherness.

Spatial factors are the fifth domain, which delve more deeply into compositional elements that focus on physical characteristics of dance inspired and/or shaped by the other than human. How artists explore elements of size, configuration, and distance offer insight to their experience. Interviewee #3 considers variation of size to provide contrast moving through space; “I get small, I get big.” Size or volume also refers to the amount of space between different bodies and demonstrates relationship. For instance, becoming low, which Interviewee #9 explains is to hide or “disappear to a degree,” positions the nonhuman as larger and in the foreground. Diminishing one’s corporeal mass redirects the spotlight to the natural world, so that being seen is not always important. Further, to be small empowers and helps the “landscape speak for itself” (Interviewee #1). Purposeful redistribution of power happens by creating spatial juxtaposition between humans and the environment, which also impacts emotions. As a dancer experiences the sheer size of an immense boulder or strong tidal flow, there are strong feelings of danger. Interviewee #1 describes working alongside a mighty river, “In terms of making me feel pretty small, right [...] you saw me very small and you see like the how, in this kind of environment, I need to be so careful because I be swallowed, I’d be gone.”

Studying the spatial configuration of dance inspired and/or shaped by other-than-humans may suggest that one goal is to achieve a certain visual design. Although artists interviewed for my research can identify where experiences will occur, which suggests a motive, they avoid determining the way interactions happen or look. Interviewee #9 explains that “some amount of confinement or some amount of framing” must provide a locus point for the work. Such definition most certainly influences how dancers move within that environment. Additionally,

locations depend on individual preferences and vary significantly. In these settings, there is a distinct awareness of the distance between humans and nonhumans, which comments such as “responding to space,” “the space between you and the tree,” and “to see a rock pile in the distance and move towards it” suggest (Interviewee #3; Interviewee #3; Interviewee #4). Thus, spatial relations experienced through distance serves as a compositional tool to effect movement.

Emphasis on space also invites exploration of the concept of place. Previous discussion about how personal motivations refer to a sense of belonging and emotional attachment to a location demonstrate an affective bond. Nothing supports this idea more than the use of pronouns artists use to describe the connection they feel to the environment with which they engage. The singular first-person pronoun ‘my’ is a possessive adjective so, as a modifier, someone or something belongs to the individual speaking. The phrases, “my place,” “my home,” and “my home place” imply relation although it does not imply ownership or control (Interviewee #5; Interviewee #10; Interviewee #11). During the interviews, artists employed this pronoun to describe belonging to a location. Specific locations evoke memories of desire and/or comfort being there. Through recollection or the retelling of an experience, place identity emerges when self and environment inform each other.

...in that place where the, the main Colorado and the Little Colorado meet, those two waters meet, there's a merging there. And I feel that it, it encourages a sense of merging like my molecules becoming and being the same as the molecules of the water, as the fish, as the air, as the rock as the, you know, that I am becoming that place as much as that place is becoming me. Interviewee #2

Envisioning “the sandy beach where a river comes to the ocean,” in which one “keeps going back to” effectively reinforces place attachment that occurs both viscerally and as an imaginary (Interviewee #5).

The sixth domain examines temporal factors to understand human-nonhuman experience through dance. Discussion addresses Earth rhythms, different sense of time, duration, speed, repetition, when events happen, and timelessness. Dance inspired and/or shaped by the natural world follow the Earth's rhythm such as solstices, equinoxes, and sun-moon cycles. Artists "attune and attend to planetary movements, seasonal movements" mindful that "it's certainly practical to work in the summertime" and align their work with certain "months based on moon cycle calendars" as well as specific times of day to be on a "beautiful boat at the sunset, singing to the ocean, singing and dancing to the ocean into the sunset" (Interviewee #3; Interviewee #9; Interviewee #8; Interviewee #6). By far, the preference is to teach, create, and/or perform in the summer or fall seasons. These times take advantage of warmer temperatures but also need to address other seasonal phenomena like "mosquitoes where I just talk to them and ask them to leave or dancing and, you know, including a very gentle brush over the whole body to ask the mosquitoes to leave, keep going" (Interviewee #11).

Perceptions of time vary between humans and nonhumans. Even temporal differences between "some bug, to this sense of time of a lizard or a mouse" are as vast as those between the "East Coast dance world and West Coast dance world (Interviewee #3; Interviewee #11), impacting how artists approach teaching, creating, and/or performing dance inspired and/or shaped by the natural world. These considerations affect the speed and duration of movement. For example, Interviewee #11 explains that "glacial time and rock time is an even more...extended time as opposed to tree time or bird time." This seemed to have a major effect on human-nonhuman experience through dance since all research participants spoke extensively about the necessity of duration or how long something lasts from beginning to end. This includes allowing time for audiences to settle in and/or move with the dancers and for the dancers to

explore their surroundings. Some artists mentioned reducing speed and repeating movements, which gives the impression of extending time. From the perspective of Interviewee #5, “Slowness helps to be, to get into the sense of being connected, to move really slowly and, and to allow like the wind to go through me it really just expands my awareness incredibly.” Another interlocutor preferred the term “small speed” to describe how “you’re making so much experience” within a given time (Interviewee #7). Speed reflects change; moving slowly offers the opportunity to make more connections.

Each context shapes how much time a dance or specific movement takes, which supports the improvisational structure of human-nonhuman experience. What kind of energy the dancers feel in their environment directly influences timing and repetitiveness of movement. Interviewee #6 describes this as being “quite responsive to...our witnesses and the energy that's being reciprocated by those that are watching...one more round is a lot of times to reciprocate the energy that they are giving us in terms of their responses to...the dances.” Determining how many times to repeat something in such dynamic conditions is unpredictable—one just knows “that it needs to be at least two more rounds” (Interviewee #6).

Importantly, repetition does not mean that movements or experiences are identical. Comments like, “You know, the moon draws the water, it doesn’t have a certain pathway...it doesn’t do the same thing” and when “I do the same piece twice, it’s completely different;” “[the] experience...is not the same” support this idea (Interviewee #3; Interviewee #7). However, dance that coincides with specific times of the day, year, or other events can be repetitive in their patterned occurrence and demonstrate purposeful action. For instance, dance may signify meaning through association between humans and nonhumans corresponding to a solstice. Repetition in this context links past, present, and future, providing a sense of timeless continuity.

Also, artists may repeat work to accentuate environmental destruction caused by a nuclear disaster or polluted aquifers (Interviewee #1; Interviewee #3; Interviewee #9). Such activism strengthens as a practice by persistent and active messaging to promote socio-political change.

The exact timing when a dance begins and ends is fluid. By not imposing a specific agenda, “there's a calming part...[that] people kind of ease into” (Interviewee #6). The “conditions for experience” for both performers and audience may involve starting in darkness and closing one’s eyes (Interviewee #3; Interviewee #11). Such quieting increases perception of one’s surroundings, which transitions into the seventh domain of sensory stimuli, emphasizing aspects of sound, sight, taste, smell, and physical sensation on the skin such as temperature, texture, and weight. It is not possible to address all sensory stimuli nor can one identify everything that constitutes the senses. Instead, my discussion focuses on how research participants discuss sensory integration then highlight individual senses that they deem important since they chose to describe them.

From a big picture perspective, human-nonhuman experience through dance is highly complex, involving an accumulation of “all present sense moments...when there are myriads and myriads of information that are bombarding us at all times” (Interviewee #12). Dancers moving in the natural world receive stimuli “on a multisensory level,” where “our senses are opened and activated” (Interviewee 8; Interviewee #5). Sight, touch, smell, and other senses entangle. For example, Interviewee #2 describes how “the water is particularly blue and I could see the fish, I could feel them around me, you could feel the, the temperature of the water and the temperature of the air, slight breeze,” Interviewee #3 observes “the light...the texture of the bark...the sensation of the wind and temperature across my body”, and Interviewee #4 notices one can “smell the fresh water...[and] the way the soil looks.”

The sense that interviewees most frequently mentioned is sound. Human-nonhuman experience initiates by “listening” (Interviewee 4; Interviewee 8; Interviewee #9; Interviewee #11). To tune into and listen to the “Earth speaking,” intensifies sensory awareness, which is most effective with closed eyes. This point of departure narrows one’s focus to more clearly hear the environment and helps to internalize the experience—exemplifying somatic receptivity. Accenting sound also engages other senses so that the body becomes more participatory—an active agent able to interact or communicate with the natural world, which the following excerpt demonstrates.

The sound, you know, it's that thing of like when you drop into silence, that's when the sound opens up. And then suddenly you can hear things way on the other side of the canyon, a little tiny drop. And it's, it's, it's so dimensional. And it takes a while because we're not so tuned into being quiet, being yeah, being quiet, meaning listening more to languages that we haven't spoken for a long time. Languages of you know, wind on rock, the language of wind, wind on leaves language of yeah, language of that which is beyond words, feeling texturally. Usually there's like a prickliness of the temperature that's on you. Interviewee #8

Feeling one’s bare feet on the earth is like “putting the land on” and smelling evokes an “animal understanding” that creates an “empathic relationship with other things...that just makes me more open and more porous and more available at all levels (Interviewee #6; Interviewee #8; Interviewee #3).

This consciousness provides a conduit to connect humans and nonhumans as a strategy for ‘making sense.’ It also demonstrates how artists, inspired and/or shaped by the natural world, develop their practice, which segues into the final domain for data analysis—interacting with nonhumans. Interlocutors described encounters with the sky, rain, wind, birds, fish, frogs, camels, llamas, branches, trees, dirt, glacial rocks, mountains, canyons, forests, beaches, streams, rivers, oceans, and the Earth itself. Interview data, collected from October through December 2020, also refer to the COVID-19 pandemic as an opportunity and incentive to work in

collaboration with natural world. One interviewee explains that media work such as “the forest ones and the bird ones [are] all from the pandemic,” while another spoke about students “needing to dance together, outdoors, to be outdoors, you know, to be connected to, to the earth, gravity, wood” (Interviewee #1; Interviewee #3). Interviewee #3 further describes the ability to revitalize a personal practice of “going to the woods” during the first shutdown, which was “social distance insurance” just as another artist expressed that “[U]nless I had a pandemic. I would have never made those pieces. We're working outside because it's safer (Interviewee #2).

Dancers’ sensitivity heightens in response to nonhumans. Statements such as “[T]he night sky where [you] can’t see anything but you stay there for ten minutes you can clearly start to see many things” and working with “the branches...really opened up all sorts of things for me” suggests that such encounters awaken and/or intensify the senses (Interviewee #1; Interviewee #5). Their comments recognize the range and totality of sensory stimuli that occur. This necessitates “actually paying attention to all the things,” which may seem overwhelming (Interviewee #9). However, several artists spoke about this issue as an inspirational theme. Interviewee #4 states, “I’m always creating pieces around chaos—excellent entanglement, messy,” while Interviewee #7 shares a love for chaos, which at the same time means, “you have to be very prepared, aware of everything.” Chaos implies disorder, which another artist approaches by investigating the term confusion. “It is not necessarily a state of not knowing what to do,” rather, “I take it as the word...con [meaning] with from Latin or Spanish ‘with fusion.’ So, it's like how to fuse so many different experiences and elements together to bring coherence into the present moment” (Interviewee #12).

Unable to anticipate or have any expectations for what may happen involves making “thousands of tiny micro adjustments all the time” to unpredictable changes (Interviewee #8). As

part of the creative process, one artist even employs such modifications to shape the movement score so that “[W]hen something caught your attention, on some, on some sensorial level, so like you feel breeze going around you or you hear a crow call, you could shift” into another position (Interviewee #10). Human-nonhuman collaboration demands adjusting to the circumstances. In the case of “the weather and the cold, it's just so out of our control. So, I think it makes one very adaptable” (Interviewee #9). Interviewee #7 describes that the “[S]easons and the weather you cannot control, so, nature is always involved,” suggesting power relations are in flux. “It's never boring, you know, moving and watching, moving in the environment, always something surprising happens. The bird goes through, you fall, like I'm teaching one day and someone's on a rotting log and the rotting log collapses” (Interviewee #11).

An initial feeling of astonishment turns dramatic as basic survival strategies take effect. For example, “if we're stepping on small river stones, you know, it's, it's slippery and...you have to sort of read like your arm has to go this way because your foot's this way so you learn how you accommodate to something that is not smooth and even” (Interviewee #8). Perseverance furthers. From “the minute you go outside of that, you're into a place where it's not as easy (Interviewee #2).

When that big monsoon storm came in. And you could see upstream that the canyon was disappearing. It's like these sort of veils of water and it's coming towards you. And so that's the first of all, you kind of feel the wind of it and then you can see it traveling over the water, the wind and then this veil coming in and then eventually you're just in this deluge of water, just intense rain, and then the waterfalls start coming off the, the cliffs and down through the side canyon and, you know, that was a very an epic experience, the side canyon was flash flooding and we nearly lost our camp that night. Interviewee #2

Not just metaphorical or imagined, engaging with the more than human depicts situations of life or death, safety or danger. An artist described one example of endangerment by explaining that, “At the end [they were] going to the ocean and [were] literally swallowed by the high waves”

(Interviewee #1). Also, utilizing all senses to effectively navigate slippery ground “take[s] precedence” to avoid falling (Interviewee #9). From another perspective, Interviewee #6 explains that “the strength and resiliency and survivance as Gerald Vizenor says” experienced between human and nonhumans through dance promotes continuities of time, place, and identity. Invoking the name of this indigenous scholar, the interlocutor—also the last interview—brings my inquiry full circle to address why dancing with, in, as, and/or led by the natural world may challenge dominant ideologies and decenter anthropocentric discourse. Much of my previous research highlights dance as a form of dialogic resistance to negotiate feelings of vulnerability impacted by change, conflict, and instability. What this investigation does is focus on how dancing between humans and nonhumans more equitably distributes agency among all actors to navigate a healthier future.

## CHAPTER 6: SUSTAINING

Since beginning research in 2020, my process to develop theory and methods for the study of human-nonhuman experience through the lens of dance culture continues to generate insights. The most exciting part of this anthropological inquiry is exploring conceptual ideas to heighten awareness about social phenomena and applying that knowledge to examine real life issues of the Anthropocene era and contribute solutions. The quest to know without a practical purpose feels empty. For these reasons, I feel deep satisfaction reflecting on how my time on Earth dedicated to expressively moving with the nonhuman world may offer an Ecocentric path forward and promote health on the broadest scale. Motion brings things into relation—the big take away. From this relational perspective, all experience is a dance of entanglement, where things come into existence “by their physical interactions with the rest of the world” (Rovelli 2022). Envisioning reality as a system of relations opens new areas of research for a more inclusive anthropology that emphasizes how the welfare of humans alters nonhumans and vice versa.

Thesis results start to clarify the critical link between being in relation and being well. Relations, which suggest precarity, aligns with scholar Judith Butler’s notion of “precariousness as a generalized human experience that stems from the fact that all humans are interdependent on each other and therefore all are vulnerable” (Kasimir 2018). By expanding this statement and including nonhumans, one may observe why mutual reliance between every lifeform invites vulnerability. Based on such reflexive awareness, any experience is susceptible to situations that affect one’s wellbeing. Conflict, disenfranchisement, and instability, exacerbated by rising global economic-political uncertainty, deepen feelings of precariousness. With a progressively insecure, agitated, and demoralized populous worldwide, the threat of diminished physical and mental

health becomes more obvious. This complex and highly significant problem mobilizes artists, scientists, and educators as activists, advocating for change.

The twelve self-identified dancers involved in my study embraced a common circumstance of precariousness. Precarious means more than the messy, everyday variety associated with entropy where random, spontaneous change creates limitless variation and thus, unpredictability. Following Butler, several interviewees drew attention to the fragile, politically unjust, and discombobulated world that life in the Anthropocene exemplifies by literally putting their bodies in harm's way; others focused on their own personal dystopias where physical and mental health problems created almost unsurmountable challenges. While encounters with disaster and upheaval would stop most people in their tracks, my interlocutors clearly recognized reality as balancing on the edge. Their experience of vulnerability seems enigmatically counterintuitive. Yet, purposefully positioning oneself in situations that essentially rehearse precariousness is consistent with research findings. As my analysis unveils, knowing more about this behavior has profound consequences as well as interdisciplinary impacts beyond the development of educational, creative, and performative practices.

To dive deeper into these ideas, it may be useful to briefly revisit anthropologist Joann Kealiinohomoku's definition of dance that recognizes intention as a universal feature. To know one is dancing is to be dancing. Intentionality moves. At the most fundamental level, every animate organism uses proprioceptive senses to direct focus and attend to the environment for adaptation and survival. Movement, which is intrinsic to all experience, provokes relations that are unavoidably interdependent and vulnerable. Applying this logic, one may infer that dance culture—a movement knowledge system—functions as a strategy to practice relating and thus, navigating precariousness, necessary to adapt and survive in the world.

Another important point that Kealiinohomoku and other scholars make is that while representational, dance culture does not function as a language per se. Some dance styles have specific steps or movements that form syntactic patterns, which may be recognizable to those that share meaning. Dance vocabulary communicates information used for classroom teaching or recreating fixed choreographic sequences; familiar movements in exclusively human settings also may strengthen relations between participants. However, data transmission can never be precise since no two bodies or interpretations are identical, generating variability. Therefore, the suggestion of linguistic familiarity in multispecies contexts is completely irrational. Even more nonsensical is using a language-like model to describe human-nonhuman experience through dance, which linguistically colonizes relations as a human projection and weakens the anthrocentric orientation that my research furthers (Kohn 2016, 83-84). To address this issue, I specifically prioritize dance as movement in time and space, redirecting attention to the relation itself. Movement changes relation between things. The moving body also instantiates relations, which explains why movement constitutes experience or *Dasein* and why experience signifies relation. While moving, dancers have little choice but to receive change and relate to whatever comes their way. Additionally, movement induces multiple relations all at once. A dancer must simultaneously relate to the ground's texture, air's temperature, and all other sensory stimuli, largely without reservation. Relational receptivity is key to understanding human-nonhuman experience through the lens of dance culture and why that knowledge may be beneficial.

Refocusing on dance as movement in time and space demonstrates an inflection point at my last stage of research that motivates deeper analysis of the data domains: spatial and temporal factors. This final synthesis uncovers three building blocks that constitute human-nonhuman

experience through dance, which I describe as durational, informal, and open-ended. My thought process crystallizes into following visualization (Figure 7).

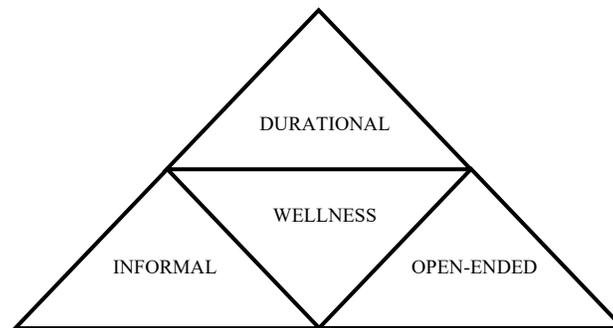


Figure 7. Human-Nonhuman Experience through Dance

All twelve interlocutors describe their interactions with nonhumans as expanding time. To extend how long something lasts from start to finish or its perceived duration may promote and deepen relations, which I assert is purposeful. Duration—one of the components essential to human-nonhuman experience through dance—implies deliberate, unhurried, and/or a prolonged period of movement. Emotions alter perception of time that scientists recognize have profound implications on wellbeing (Dawson and Sleek 2018). While my thesis cannot fully address such an interesting topic due to ‘time’ constraints, it is worthwhile to highlight psychological research that identifies the “motional slow down effect,” which happens when “grouping individually moving elements into a coherent object appears to slow down” perception of time (Kohler et al. 2009, 675). This phenomenon has relevance to my investigation that takes an ecological or relational approach to study human-nonhuman experience as dance cultural knowledge. Emphasis on the broader context also aligns with other scholarship that considers perceptual vastness or awe. Encounters with “something immense in size, number, scope, complexity...” such as “being in nature” broaden perspectives that boost “life satisfaction” by perceiving there is more time (Rudd et al. 2012, 1130). These studies complement mine but do not address the

notion that intentionally increasing the amount of time it takes to do something offers additional opportunities to relate as well as be receptive to the interdependence and precariousness of human-nonhuman experience through dance. Duration demonstrates a critical strategy to explore relations, embrace subsequent vulnerabilities, and enable adaptation to dynamic contexts.

The previous description of duration suggests a *laissez faire* attitude towards time. Not knowing precisely when actions begin or end appear to disregard rules and regulations, which appropriately transitions to the second building block of informality. The unpredictable variability of human-nonhuman experience through dance may loosen restrictions that might otherwise direct when, where, how, and with whom relations happen. Greater feelings of relaxation means that order and structure soften or disappear since acquiescing to relation is the only option. Less constraints also provides freedom, inspiring other types of opportunities to move, entangle or intra-act, and thus, relate. This assertion helps introduce Eduardo Kohn's vision of life as a "multilayered cacophonous web," which flourishes "through a form of relating based on confusion" (2016, 79; 86). The word confusion, meaning with fusion as discussed in my analysis section, implies the incorporation of parts to produce a larger formation. That definition aligns with the concept of an ecosystem in which everything commingles by virtue of belonging to the whole system. As movement creates more relations in a system, confusion proliferates. To adjust, Kohn posits that all relations, especially those involving humans and nonhumans, must hinge "neither on intrinsic difference nor on intrinsic similarity" (2016, 100). Instead, he presents the concept of indifference towards or forgetting to notice difference. Indifference means that two or more actions have the same value. The importance of Kohn's model is that ecological or relational commingling offers boundless potential to share unexpected affinities and recognize differences that distinguish each animate being. The notion of

indifference unsettles formal, hierarchal structures, specifically the socially constructed culture-nature binary. His idea also illustrates Douglas’ theory of the informal body referred to earlier that may weaken or fully dismantle dominant ideologies since power within an ecosystem is unwieldy. Informality suggests being unrestricted or fluid, voluntary, and unhindered, which provides the conditions to welcome relations. However, the consequence of such closeness or intimacy is that interdependence and precariousness increase. Without concern for comparison, dance between humans and nonhumans yields informality by releasing control and allowing one to more be flexible. In these situations, leader-follower roles also are of no consequence; confusing duties or positions also adds a healthy mix of uncertainty.

This discussion on informality leads to the third building block describing human-nonhuman experience as open-ended. Like the spider that spins her web, movement intentionally extends relations. For many spiders, webs are the physical and social environments within which they closely identify. Adapted for personal needs (protection, food, nurturing offspring, etc.), these home-like structures symbolize continuity and change, which may visually represent their everyday experience unfolding. Focus on the web’s design may simultaneously reveal the central point from which threads originate and its outward expansion. Grounded but inviting change, the ‘cacophonous web’ intensifies precariousness—an indicator of growth in an ecosystem as expressed in the image below (Figure 8).

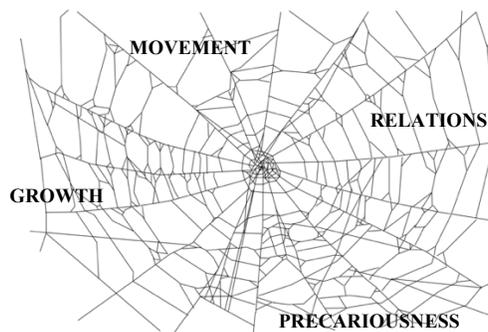


Figure 8. Web of Experience

Definitions, categories, or boundaries may accent difference, which disrupts growth by closing the system. Conversely, an emphasis on similarities within a system can erase uniqueness that also closes any possibilities for new relations to occur. Instead, Kohn offers another explanation about how indifference or indistinction “figures as a central aspect of relating” (Kohn 2013, 16). This idea supports my final assertion in which human-nonhuman experience continually opens to the future, where instability and ambiguity, uncertainty, and vulnerability are a matter of fact. In an open rehearsal for what may come, forgetting difference is productive by encouraging humans and nonhumans to relate and share qualities with each other simply as parts of the whole.

Dance culture as a knowledge system creates the future in which one movement gives rise to the next. To connect what is happening and what might potentially happen brings the future into the present. Movement for future’s sake can ease the fear or anxiety that occurs by not knowing something by amplifying relations. It also offers a roadmap or compass to orient, anchor, clarify, direct, and feel safe experiencing the unfamiliar—in other words, survive. In this complex ecological context, an additional understanding emerges from etymological study of the word survival, which means to live beyond life from the Latin *supervivere* (Merriam-Webster 2023). To survive is to thrive and be well—studying dance culture as human-nonhuman experience prepares for, aspires to, and believes in the realization of that future.

Disconnect from the environment in which one lives exponentially generates uneasiness. Alienation begets alienation. Unable to ameliorate such estrangement, illness develops. At the time of writing this thesis, mental health problems are at their highest level and demand for treatment exceeds health care capacity. However, studies about dance culture in ecological contexts may help researchers understand how to combat dis-ease caused by loneliness.

Furthermore, moving in relation with nonhumans can heighten a sense of permanence—after all the Earth is over 4,500,000,000 years old—and kindle the imagination of possibility since change is constant. By dancing, one is at home, rooted not just in a physical body but also embodying Earth. The significance of my research examines why relational receptivity between humans and nonhumans may decenter anthropocentric discourse but more importantly it contributes to scholarship focused on healing ourselves, each other, and the planet. The purpose of this work also furthers the anthropology of dance and advances the phenomenological ecochoreology approach that my work pioneers.

Shrouded in uncertainty, the Anthropocene era marks an acceleration of environmental devastation through urban-industrial development, globalization, and explosive population—the systemic consequence of polarization created by human ideological conflict, societal inequalities and injustices. Such correspondence demonstrates interconnection between humanity and planetary precariousness; dancing the Earth helps to be well and survive.

Given the burgeoning effects of human activities on the environment sufficient to herald a new geological epoch, combined with the relegation of genes to a reactive function in response to environmental stimuli, the time is ripe, it seems, for cultural and social anthropologists to reassemble mind and body. Our task, or part of it at least, must surely be to assess the lasting effects of the dominant values and desires of our era on the state of the planet itself and, by extension, on the health and well-being of humans and other life forms. Lock 2017, 1

To dance the Earth is for us to know the Earth; to know the Earth is for the Earth to dance us. The recognition that we share relation facilitates opening to the precariousness of life, which may reveal why dance as a cultural knowledge system prepares and supports encounters with difficult times. Studying human-nonhuman experience through the lens of dance culture rehearses those possibilities yet to be imagined.

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## APPENDICES

## Appendix A: Interview Questions

1. How long have you been involved in dance practices that are inspired or shaped by the natural world?
2. Was there a specific experience that motivated you to explore this type of dance practice?
  - a) How did it look visually?
  - b) What did it sound like?
  - c) How did it feel texturally?
  - d) How did it smell and/or taste?
  - e) What other senses did this experience activate and why?
3. Why do you teach, perform, and/or create work that directly or indirectly involves human-nonhuman interaction? What is your motivation or purpose?
4. If teaching involves human-nonhuman interaction, please describe an example of what that looks like. Where does it happen and when? Who participates and how?
5. If performing involves human-nonhuman interaction, please describe an example of what that looks like. Where does it happen and when? Who participates and how?
6. If creating work involves human-nonhuman interaction, please describe an example of what that looks like. Where does it happen and when? Who participates and how?
7. For dance practices that involve human-nonhuman interaction, how is time a factor?
  - a) Are there specific times of the year, month, day, etc. that have significance in your work and why?
  - b) In terms of duration, how long are the dance practices involving human-nonhuman interaction?
  - c) How is improvisation a factor?

8. How is space important for dance practices that involve human-nonhuman interaction?
9. Do you feel a sense of belonging or emotional attachment to the places in nature where you work? If so, how?
10. What does the experience of presence look like?
11. What is the most profound experience you had as a dance practitioner interacting with nature?
12. Do you consider yourself open to interacting with diverse people, place, ideas, and/or practices?
13. Do you think human-nonhuman interaction facilitates experiencing unfamiliarity in general? If so, how?
14. How do you think your dance practice involving human-nonhuman interaction shapes encountering difference or unfamiliarity?
15. In what ways does your practice impact personal perceptions toward the Earth?
16. Is there an example of how your perceptions toward the Earth have changed as a dance practitioner involved with human-nonhuman interaction?