Dance Culture, Ecology, and Wellbeing: Towards an Applied Theory of Dance Anthropology

Cultura da dança, ecologia e bem-estar: Para uma teoria aplicada da antropologia da dança

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Abstract

The Anthropocene era marks an acceleration of environmental devastation through urban-industrial development, globalization, and overpopulation, impacting the health, wellbeing, and survival of all species on Earth. Anthropocentrism, which emphasizes human dominion over the natural world, fuels this existential crisis. Conflict, disenfranchisement, and instability, exacerbated by intensifying global economic-political uncertainty, deepen feelings of precariousness. Artists, scientists, and educators recognize that addressing these complex times requires a paradigm shift toward more nature-centric approaches to sustain life's complex, intertwined web. Rising to the challenge are dancers who understand the primacy of motion to animate human-nonhuman relations that may disrupt anthropocentric discourse and positively transform the planet. My claim, which inspired interdisciplinary research that began in 2020, provides a springboard for this article focused on the study of dance culture through an ecosystem lens, necessitating mutual interaction between people and their environment. Indigenous concepts of relationality that value interconnectedness and interdependence offer critical perspectives on sustainable ecosystems, characterized as increasingly diverse and unpredictable. The discussion considers how movement, intrinsic to dance culture, facilitates relational reciprocity, to adapt and survive in dynamic contexts. Dance cultural knowledge systems that further ecological relations heighten wellbeing by practicing encounters with difference to navigate change. This approach moves toward an applied theory of dance anthropology or

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the study of dance culture, which restores and rehabilitates the system's function to grow, develop resilience, and thrive in the future.

Keywords
Vital motricity, Cycles of nature, Narration

Resumo
A era do Antropoceno marca uma aceleração da devastação ambiental, impulsionada pelo desenvolvimento urbano-industrial, pela globalização e pela sobrepopulação, afetando a saúde, o bem-estar e a sobrevivência de todas as espécies na Terra. O antropocentrismo, que enfatiza o domínio humano sobre o mundo natural, alimenta esta crise existencial. Conflitos, exclusão e instabilidade, agravados pela crescente incerteza económico-política global, aprofundam os sentimentos de precariedade. Artistas, cientistas e educadores reconhecem que enfrentar estes tempos complexos exige uma mudança de paradigma, orientada para abordagens mais centradas na natureza, capazes de sustentar a complexa e interligada teia da vida. A este desafio respondem bailarinos e bailarinas que compreendem a primazia do movimento como meio de animar as relações entre humanos e não-humanos, com potencial para perturbar o discurso antropocêntrico e transformar positivamente o planeta. Esta afirmação, que inspirou uma investigação interdisciplinar iniciada em 2020, serve de ponto de partida para este artigo, centrado no estudo da cultura da dança a partir de uma perspetiva ecossistémica, que pressupõe uma interação mútua entre as pessoas e o meio ambiente. Conceitos indígenas de relacionalidade, que valorizam a interconexão e a interdependência, oferecem perspetivas críticas sobre ecossistemas sustentáveis, cada vez mais diversos e imprevisíveis. A discussão propõe-se explorar de que forma o movimento — elemento intrínseco à cultura da dança — facilita uma reciprocidade relacional, essencial à adaptação e sobrevivência em contextos dinâmicos. Sistemas de conhecimento cultural da dança que promovem relações ecológicas contribuem para o bem-estar, ao praticar encontros com a diferença e ao desenvolver competências para lidar com a mudança. Esta abordagem aponta para uma teoria aplicada da antropologia da dança — ou do estudo da cultura da dança — que visa restaurar e reabilitar a função do sistema, permitindo-lhe crescer, desenvolver resiliência e prosperar no futuro.

Palavras-chave
Motricidade vital, Ciclos da natureza, Narração

Prologue
The Anthropocene era, where lasting impacts made by humans on the environment negatively affect the health 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 varied life forms on the planet. From a dancer's perspective, the primacy of movement in uniting the human body with its terrestrial home - a heterogeneous and ever-changing habitat - is key to coexistence. Such thinking inspires research that unpacks the significance of dance culture as a dynamic knowledge system to promote wellbeing and a sustainable future.

Since beginning formal investigation of this idea five years ago, insights continue to unfold, which the following article describes in five parts. The first section provides context about the Anthropocene and how relational orientations rooted in Indigenous worldviews unsettle anthropocentrism. Part two deepens the discussion of relationality through the lens of systems theory by looking at concepts of difference and diversity in ecology

and anthropology. Section three synthesizes that background to define culture as a knowledge system and specifically outline the anthropological study of dance culture in which movement enables relationships to make meaning and know the environment—a characteristic of embodiment. An interdisciplinary analysis of embodied knowing, which constitutes the fourth part, also explores human-nonhuman interactions as a strategy to improve wellbeing. The final section explains why dance cultural knowledge systems that nurture ecological relations restore and rehabilitate their function, offering an effective approach to navigate change and uncertainty in an increasingly dynamic world.

Part One

Anthropocene discourse for the past several decades identifies human-generated planetary destruction as an existential crisis threatening the future of humanity, which 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, p. 244). This view separates humans as distinct 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," and colonialism, which blatantly disavows land rights of marginalized communities to exploit raw materials for industrial development and capitalist gain. For too long, these hidden agendas, driving technological innovation in the name of progress, have contributed to climate change, mass species extinction, and a global pandemic.

Anthropocentric approaches that attempt to mitigate and/or manage human-induced problems continue to assert dominion over the natural world. Dismantling this way of thinking calls for an alternative 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, p. 6). Many scholars already employ these ideas to examine how humans may enter affective relationships with nonhumans such as animals, plants, the Earth, and atmospheric forces, revealing multiple, enmeshed realities (Descola, 1994; Latour, 1993; Viveiros de Castro, 1998).

Building on their investigations is a paradigmatic shift across disciplines, which envisions how reciprocal interaction between people and their environment 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 & Brigstocke, 2018, p. 15)

Failure to admit that epistemologies involving multi-actor agency have long preceded Western Anthropocene literature exhibits systemic colonialism as noted by Indigenous philosophers and climate/environmental justice scholars (Adams, 2021; Todd, 2015; Whyte, 2017). Such disregard is even more obvious today with the confluence of health and climate crises, resulting in socio-economic inequalities.

Observing this perfect storm, many Indigenous and non-Indigenous movement-based artists recognize the potential of performative practices to promote human-nonhuman interactions that positively affect the planet. They advocate for a body-mediated sensibility, which accentuates mutual thriving and cultivates engaged, enlivened interrelations among all beings that diverge from subjectivist, human-centric concerns (Küpers, 2020). My inquiry stands with those ready to address problems in the Anthropocene and realize solutions for the environmentally sustainable Ecocene era. Design theorist Joanna Boehnert explains that the "emergence of the Ecocene

depends entirely on what we do now" (2018, p. 11). With time of the essence, her statement is a catalyst to spark novel theoretical and applied understandings that reimagine the transformation for a more just and healthier world.

Employing the concept of relationality allows humans to manifest a better future. Relationality means that all things exist in relatedness, which challenges the culture-nature divide by embracing the notion that "both human life and its environment are necessarily intertwined" (Randazzo & Richter, 2021, p. 6). This idea motivates exploring the formation of harmonious relationships between people and the natural world through dance. Movement engenders relations. Also, the constancy of motion infers that relations are always in flux, changing power dynamics. Dance informed by relational knowledge epitomizes Ecocene philosophy, in which the ethics of communal wellbeing serve to undermine anthropocentric tendencies—a principal assertion guiding my work.

Ecocentrism offers the only choice for Earth and its inhabitants to survive. As world health rapidly declines, there is a growing concern across disciplines to address this crisis. However, without an international consensus definition of wellbeing, "many synonyms, descriptions, lists of wellbeing components or determinants, are used interchangeably," which complicate the problem (Simons & Baldwin, 2021, p. 984). Despite those limitations, one meta-analysis of academic literature consisting of over 330 sources identifies a typology of wellbeing theories. Of the 12 types reported, my research most closely identifies with ecological wellbeing which references "human inter-relatedness with/dependence on the health of ecological systems" (Mackean et al., 2022, p. 5). For clarity and consistency, this article operationalizes the term wellbeing to highlight ecological wellbeing as germane and inclusive for studying dance culture.

Part Two

While not exclusively pan-Indigenous, relationality encompasses "the multiplicity of relationships that humans have with each other and the natural world" (Wildcat & Voth, 2023, p. 476). This way of knowing shifts attention beyond the importance of relations and one's self-interest to concern for the welfare of others. Acknowledging the interconnectivity of all things, each person must demonstrate reflexivity to understand that a single action will profoundly influence the greater group. Like the butterfly effect, even small alterations can produce cosmic consequences (Shen et al., 2022). With such sensitivity to change, outcomes can be unpredictable, suggesting an inherent precariousness that underscores why being in relation matters.

These aspects of relationality parallel general systems theory, originated by Ludwig von Bertalanffy in the 1940s, which studies life as a system with interrelated, interdependent components that self-organize and are resilient to variances (Van Assche et al., 2019). Among the many disciplines utilizing systems theory, its most prevalent application may be in the field of ecology. Ecosystems are "composed of all the organisms found within a particular physical environment, interacting with it and each other" (Oxford English Dictionary, n.d.b). This concept also is relevant to anthropologists who recognize the significance of how the social and natural world shape one another. They assert that people adapt in assorted ways based on the demands of their immediate environment and it would be "irrational to continue to separate the ecological and social and to try to explain them independently, even for analytical purposes" (Folke et al., 2010, p. 2).

Adaptation strategies differ, which provokes discussion about the role of diversity in ecology as well as anthropology—the study of human life and culture. Anthropology's heritage built on differentiation, "grew directly out of European Enlightenment-era projects of classifying and ranking human racial groups according to physical characteristics, cultural achievements, and intellectual capacity" (Weaver, 2022, p. 68). An influential scholar linking anthropology's origins to stratified schemes was sociologist Margaret Hodgen. She stated that 14th-century mappings of the world sought integration between geographic (nature) and ethnologic (human) description through the arrangement of things based on similarities and differences. Ordering provided historical and genetic explanation with fixed boundaries to emphasize uniform-

ity and regularity (Hodgen, 1964). Differentiation became the rationale for unilineal hierarchy, hegemonic control, and oppression, motivating settler colonial practices worldwide that perpetuated narratives of systemic racism and xenophobia.

For ecologists, hierarchy does not commonly refer to authority and instead indicates levels of classification that vary in scale, according to domain, kingdom, phylum, class, order, family, genus, and species (Deichmann, 2017). This model of differentiation demonstrates relations between varied organisms, with species as the lowest taxonomic rank. Studying species diversity is particularly relevant to my research and offers important insights about how a community can "recover to an equilibrium state after disturbance" (Hamilton, 2005, p. 91). The more diverse a system, the more stable. An indicator of healthy ecosystems, biodiversity suggests that greater variability improves the chances of survival and growth or sustainability of the system. To be vulnerable necessitates resourcefulness, resilience, and adaptation to change. This understanding infers that "increases in diversity enhance, rather than weaken the stability of community dynamics" (Hatton et al., 2024).

While navigating societal complexities, scientists realized how the benefits of diversity and differentiation in the non-human world also applied to the human species. That uncomfortable awareness led early environmentalists and historians to admit that "God had differing races of men in order that they might better adapt themselves to the various geographical and climatic conditions encountered" (Hodgen, 1964, p. 509). Notable among researchers fostering this idea and redefining the field of anthropology was Franz Boas. Interest in the subjective perception of water color influenced his theory of cultural relativism, which assigns the construction, storage, and transmission of knowledge to particular people, places, and times. Boas (1911/1938) rationalized that the spatiotemporal "environment has an important effect upon the customs and beliefs of man" (p. 192). Such interdependency furthers the notion of cultural relativity. Ecologically embedded, human thought and action must be context-specific to enable adaptation and survival. Engagement in this fluctuating process "provides 'performative' proof of [Boas'] basic point about the participatory relations of humans in the world," inclusive of natural milieu (Tully, 2018, pp. 128-129).

Part Three

Boas' work is a springboard to visualize culture as a knowledge system, similar to other ecosystems that exemplify relational values and promote collective participation for the sustainability of life. Following von Bertalanffy's theory, this knowing system of interrelated, interdependent components has agency to self-organize as situations warrant. Although Boas influenced many researchers, the impact on his protégé, anthropologist Frank Speck is significant to the field of dance anthropology. It was Speck who first solicited Gertrude Kurath's involvement to describe Indigenous dance practices in the mid-twentieth century America, which demarcates an indirect but clear line of descent between Boas and Kurath. Already a major figure in dance ethnological study, Kurath's reputation grew when she received an invitation from William Fenton, Speck's student, to share research at his 1950 symposium on local diversity in Iroquois culture. Kurath comparatively analyzed homogeneity (uniform patterns) and deviation (diversity) of movement ground-plan, steps, and song type among Indigenous communities from southern Ontario, Canada, to northern New York State and northeastern Oklahoma. By studying the effects "circumstances for diffusion had upon local development," Kurath advanced her theory of dynamic processes, highlighting continuity and change—a conceptual framework that is foundational to the field of dance anthropology (Kurath, 1951, p. 113).

The symposium displays Kurath and Fenton's shared understanding, which was that "a kinship group is fundamentally a local group" showing variations and similarities across Iroquois society (Fenton, 1951, p. 3). This statement seems to exclusively associate kin with the human world. It is unknown whether these anthropologists recognized Indigenous worldviews in which plants, animals, and people were "routinely linked as collaborative kin," honoring Indigenous kinship philosophy that

"requires seeing beyond presumed boundaries of gender, nationality, and even species" (Bruchac, 2018, p. ix; p. xii). In later work, Kurath elucidates how the ecology of a setting affects "the repertoire, the content, and the form or style of ritual and dance" (1960, p. 238). Yet, Kurath's studies of Yaqui people, beginning with her first trip to Mexico and Arizona in 1946, best represent the coalescing of ideas about human expressive movement and the natural world. From observations of ceremonial participants in the Easter Passion drama, she created the term *kinetic ecology* to describe the use of items such as deer hoofs and moth cocoons acquired from the geographic area, which make distinctive sounds on bodies in motion. Other ecological significances include texts for songs that refer to "animal and plants spirits" along with locally grown vegetable gourd rattles filled with "pebbles or corn kernels" used to accompany the dances (Kurath, 1966, p. 38; p. 32).

It is worth stating that the words *kinetic* and *kinship* share the prefix *kin* in which the former focuses on movement and the latter means relation. This similarity draws attention to Indigenous perceptions of ecology and the term *kincentric ecology*—a perspective that explains how humans must view their environment as kin, essential for survival. Rarámuri scholar, Enrique Salmón details the importance of nurturing life through dance, rituals, ceremony, song, language, and other moving relations among his people living in the Sierra Madres of Chihuahua, Mexico. What facilitates connection between all human-nonhuman inhabitants is breath or *iwí*. The prefix *iwí* from *Iwígara* "expresses the belief that all life shares the same breath. We are all related to, and play a role in the complexity of life. *Iwígara* most closely resembles the concept of *kincentric ecology*" (Salmón, 2000, p. 1328).

Breath's movement—the perpetual cycle of inhalation and exhalation—brings into relation the complexity or complex of life, which constitutes many different parts. Deliberate use of the word, complex returns discussion about culture as a knowledge system, which is integral to Kurath's research. In an early article, co-published with William Fenton, she explained that there are "some 50 elements that comprise the Iroquois Eagle dance complex" beyond the dancing itself (Fenton & Kurath, 1953, p. 176). This statement may provide a link to the work of Kurath's most prominent acolyte Joann Keali'inohomoku. At the ground-breaking 1972 Committee on Research in Dance conference in Tucson, Arizona where attendees experienced Yaqui Easter ceremonies in their ritual context, Keali'inohomoku presented a paper where she coined the term *dance culture* to mean "an entire configuration rather than just a single performance" (Keali'inohomoku, 1974, p. 99). To understand dance as more than an isolated phenomenon avoided separation from the larger cultural complex.

Comprehensive study of dance culture includes learning about who dances, when, where, and why people dance, and what happens while dancing as well as who does not dance, when, where, and why they do not dance, and what does not happen during the dance. With its many interwoven components, dance culture is a microcosm of the total culture in which all parts are interrelated and interdependent. Keali'inohomoku's conference paper, referencing another Indigenous group located in Arizona, describes how *Hopi dance culture* mirrors

> 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. (1974, p. 101)

Dance and other structured movement make visible Hopi values, morals, beliefs, and aspirations that assign meaning to action. Such active signification illustrates *kinetic kinship* as vital to a group's raison d'être. This notion of dance to create, strengthen, and expand meaningful webs of relation lays the groundwork for studying embodiment, which supports the potential of movement to encounter change and difference—requisite for wellbeing.

Part Four

While the term embodiment elicits many interpreta-

tions, the definition most relevant to my work points to its phenomenological origins that identify a moving body as the epicenter of human experience and consciousness. Early theories in the study of phenomenology examine the social aspect of experience, involving the interplay between the body engaging with its environment. This shared "dynamic, shifting, and intersubjectively constituted existential reality" suggests that one cannot separate themselves from the world in which they live since they already exist with others (Desjarlais & Throop, 2011, p. 91). As experience unfolds, meaning derives from an awareness of these relations, which aligns with scholar Maxine Sheets-Johnstone's (2015), description of embodiment as the way all animate organisms move "in relation to the surrounding world, thereby, creating synergies of meaningful movement" (p. 30) that "is not the same from one moment to the next" (Sheets-Johnstone, 2019, p. 144). Moving must be towards something with the intention to relate or make meaning. Intentionality moves, inviting relations. However, as movement spontaneously varies in response to ongoing change, new and different interactions continually happen. Uncertainty ensues with unpredictable effects, so that meeting the unfamiliar is an essential practice of life.

Foundational to Sheets-Johnstone's scholarship is her focus on the biology of embodiment. This view considers the direct experience of individual cells. A complex network of nerves using projections called dendrites that attach to the soma or nerve cell body exchange information (Ludwig et al., 2023). Key studies on biological phenomenology describe how a nervous system facilitates the coordination and intertwining of moving, sensing, and acting. Beyond a spontaneous response to external stimuli, the "body-self" voluntarily and consciously engages in the world (Jékely et al., 2021). Organization or creation of the body-self happens through movement to produce desired outcomes, necessary to sustain its existence. This idea draws from various theories, including Maturana and Varela's notion of autopoiesis in which living systems self-organize and enactivism that elucidates how cognition emerges from sensorimotor activity. While exceeding the scope of my current research, major points amassed from the collective body of literature emphasize the self-determination of an organism and its capacity for action to know as not just "a passive recipient of information with a prespecified meaning" (Marshall et al., 2021, p. 3).

The study of embodiment as meaningful movement combines the quest to relate with the pursuit of wellbeing. That journey begins at the intersection of biology and society where "health and wellbeing are located in a set of dense, dynamic interrelationships between the body and the world around/within" (Hayes-Conroy et al., 2022, p. 2). Known as the biosocial approach, it acknowledges that the measure of wellbeing is more than the interaction between bodies and their environment. Instead, "the 'bio' and the 'social' are now seen as always becoming, non-linear, active, and fluid, as well as inseparable" (Hayes-Conroy et al., 2022, p. 3). This concept of *becoming*—the antithesis of order and stasis—corresponds with philosophers Deleuze and Guattari's *rhizomatic theory*, which originates in biology. From the Greek word *rhizoma* or mass of roots, *becoming* "has no beginning or end; it is always in the middle, between things, inter-being, intermezzo" (Deleuze & Guattari, 1987, p. 25). The middle represents a flexible, 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 larger system. As the rhizome develops, these different parts interweave and overlap so that identifying where the nodes begin, or end is unrealizable. The increasingly interrelated nodes of a rhizome demonstrate "nonhierarchical alliances, symbiotic attachments, and the mingling of creative agents" (Deleuze & Guattari, 1987, p. 241-242). Using the *rhizome* image to describe *becoming*—an analogy for experience—represents how relationships formed through movement create a shared space and time in the endlessly shifting world. This fleeting convergence may offer a grounding point to help counter, balance, mitigate, and/or cope with relentless

change that affects wellbeing.

Anthropologist Tim Ingold takes a comparable approach to envision experience as fungal mycelium, describing the interwoven lines as paths in which animate organisms must travel and continually attend to as their journey unfolds, noticing and responding to others along the way. To experience means 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, p. 77). Developing that perspective, all animate or relational beings of Earth have in common their planetary home. The term *ecology*, conceived in 1866 by zoologist Ernst Haeckel and derived from the Greek word *oikos*, means home, or place to live (Schwarz & Jax, 2011, p. 145). Most broadly, the science of ecology "is the study of our species' dwelling place, the planet Earth" (Meyer, 1994, p. 875). Dwelling with others further details Ingold's concept of *meshwork*, which promotes a sense of togetherness as well as the mutual attention that the movement paths engender. This relational tapestry supports open and indeterminate dialogue so that different, potentially contradictory points of view and voices contemporaneously interact, perhaps serving as a resource from which to garner valuable data in unfamiliar and uncertain situations. As relational beings, each must affect the other so the experience is a two-way street that may encourage greater mutuality to produce wellbeing. In this "domain of entanglements," movement exchanges occur so as organisms grow into the world, the world grows in them (Ingold, 2006, p. 14; 2011, p. 6). Where these differences meet, illustrated by a weaving's warp and weft, contrary forces of tension and friction generate new forms to bind lives in relations of kinship and affinity.

Scholars transforming assumptions about boundaries that separate humans and nonhumans understand the process of becoming "is always about becoming with," which reveal the "intricate and intimate webs of connection [between] all those with whom people come in contact—be they human or animal, animate or inanimate" (Haraway, 2008, p. 244; Drichel, 2005, para. 1). Human-nonhuman relationships that are mutually constitutive bring each other into existence. This co-constructed effort also implicates responsibility for the consequence of actions since being is a collaborative enterprise. Scholar Belma Oğul expands these ideas with an ecological paradigm of the body—the medium of dance.

> [The body as eco or home] consists of many moving parts…[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, pp. 92-93)

Oğul's ecochoreological research considers a systems-like picture of the world and all its inhabitants as co-participants, furthering principles of posthumanism. Posthumanist theories posit that "the elements of the world we recognize around us (e.g. people, things, monuments) emerge through relations," which emphasize agency as demonstrated by "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 & Harris, 2021, pp. 470-471). To explore relational matrices broadens understanding about the role of difference in systems. The intriguing idea that "there is no system without difference" becomes even more provocative when one redirects focus away from the individual elements (Schwanitz, 1995, p. 137). Rather than differentiate each part, attention must shift toward the relations themselves. Difference in systems reside within the possibilities of relations or "dynamism of forces" that influence things to intra-act (Barad, 2007). The concept of intra-action or the mutual exchange between entangled agents necessitates reciprocity between different forms of matter that also may collapse socially constructed divisions. Physicists refer

to the way elementary particles intertwine as quantum entanglement (Wolchover, 2014). Through the process of entanglement, individual particles lose their autonomy by adopting characteristics of other particles. Entanglement troubles the notion of Other since intra-action means that one already is another. Reciprocal relations are more than a cornerstone in the field of health sciences described as "connection wellness" (Clarke & Lewis, 2023, p. 189). Elementally, intra-action reveals and shares something of each other, which the movement of subatomic particles throughout the universe ignite. This idea transitions to the final section that links dance culture, ecology, and wellbeing.

Part Five

Recognition of a fundamental nonduality between humans and nonhumans implies that wellbeing is not singular but must involve knowing another's experience, which affects one's own. A case in point is anthropologist of dance Andrée Grau's early work with the Tiwi of Melville and Bathurst Island in 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, p. 12; p. 17). Broadening Keali'inohomoku's interpretation 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, p. 177). This example suggests that when dancers embody the Earth, the Earth embodies them. It also illuminates how all human-nonhuman elements of the dance culture ecosystem interrelate to inform the emergent experience.

Moreover, entanglement corresponds with Indigenous thinking about landscape, which refers to "the interaction of nature and culture" (Anschuetz, 2014, p. 10) and "always with you" (Ortiz, 1994, p. 305). Considered a verb rather than a noun, landscape as process sustains continuities of time, place, and identity in response to change. This alludes to the term survivance, used by Indigenous scholar Gerald Vizenor to counter settler colonial narratives. Described as "an active sense of presence over absence, deracination, and oblivion, survivance is the continuation of stories, not a mere reaction, however pertinent" (Vizenor, 2008, p. 1). Motion, exemplified by dance and other cultural practices, resists abstraction from the environment and rejects dominance by effecting the 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. The moving body's role mediating voluntary and involuntary change explains why ceremonial-festival networks "may well constitute the single most important mechanism of cultural survival" (Ortiz, 1994, p. 304). Survivance, located at the heart of Indigenous ways of wellbeing, also aligns with Haraway's concept of natureculture as the "synthesis of nature and culture that recognizes their inseparability in ecological relationships that are both biophysically and socially formed" (Malone & Ovenden, 2016, p. 1). These notions of landscape and natureculture, which decenter anthropocentrism by obliging multispecies entanglement, shape best practices for health and wellbeing across disciplines. Ecopsychology is one such field that is leading in this direction.

Ecopsychology, a term devised by historian Theodore Roszak in 1992, has as its guiding tenet the cultivation of healthy human-nonhuman relationships. Grounded in the idea of *biofilia,* or the "love of life," (Fromm, 1964, p. 13) ecopsychology explains that "the [human] psyche is rooted inside a greater intelligence once known as the *anima mundi*, the psyche of the Earth herself" (Roszak, 1995, p. 16). The metaphor of Earth as home and its inhabitants as family forges sympathetic bonds, which help avoid feelings of isolation and disconnection. Ecopsychologists advance the idea that Earth as mother is the original dwelling of existence. Being at home, like Oğul's suggestion of body within eco, implies comfort, stability, safety, and familiarity. The vision of an Earth home also may create a therapeutic scenario that fosters self-healing and personal growth. Ecopsychology further highlights the individual and Earth's shared identity, akin to Oğul's body as eco. This view transcends notions of a separate self

by realizing "nature as self in which self-identifications are broadened and deepened to include the non-human world" (Davis, 2011, p. 139). Associations with Earth may soften constructed identity boundaries to explore commonalities and prompt interaction. Identifying as Earth offers inspiration and empowers individuals to imagine themselves as strong, resourceful, and able to sustain life.

These integrative characteristics defining ecopsychology are central to the field of somatics advanced by educator Thomas Hanna in the 1970s. The core precept of somatics asserts 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, p. 198). Directly influenced by theories of embodiment, somatic approaches emphasize how the body and mind work together to selectively interpret and integrate external stimuli internally. By incorporating a first-person perspective, somatic practices utilized in dance and other structured movement may enhance wellbeing. Techniques used to heighten physical sensitivity motivate more purposeful, conscious movement. Building on those ideas is the concept of ecosomatics, which "rejects any separation between the body and its 'others', which develop a sense of self as a milieu for the other living beings whose presence makes our own life possible" (Bardet et al., 2024, p. 91). A leader in ecosomatic research, influencing generations of dancers and creative wellness practitioners, is Anna Halprin. Her environmentally inspired movement explorations informed development of a Life/Art Process model to enable healing through personal, interpersonal, and social transformation. An example of Halprin's early work involving dance and nature is *The Branch Dance*. 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….So 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. (Ross, 2007, 126)

Halprin's model significantly impacts my own creative inquiry that explores how movement experiences in the natural world facilitate individual and community empowerment. Such ecosomatic-based orientations restore and rehabilitate dance culture to fulfill its most vital role of serving as a relational knowledge system.

Passive restoration of an unhealthy system, largely considered an unassisted conservation measure, when combined with active restoration fosters recovery. The dual process aims to "recreate, initiate, or accelerate the recovery of an ecosystem that has been disturbed, so that the success should be measured by monitoring not only the survival of the restored populations but also the biodiversity recovery of the associated biodiversity" (Bianchelli et al., 2023). This complementary approach increases ecological value by putting the system to new or altered uses, improving its function. To resituate the focus on restoration and rehabilitation moves toward an applied theory of dance anthropology or the study of dance culture. Notably, Keali'inohomoku's 1976 doctoral dissertation outlining theory and methods for an anthropological study of dance mentions applied ethnochoreology. Preference for the term ethnochoreology to reference the field of dance anthropology demonstrates Gertrude Kurath's dramatic influence. In the final part, chapter seven, entitled Applied Ethnochoreology, Keali'inohomoku reintroduces the term dance culture, which she presented a few years earlier at the Committee on Research in Dance conference. She declares that analyzing dance culture must include "knowledge of the larger cultural universe and population" (1976, p. 233). Her assertion *applies* dance cultural study to understanding the interrelatedness and interdependence of dance in society.

Advancing application of Keali'inohomoku's theories and methods of dance anthropology reveals the purpose of dance culture: to construct, store, and share knowledge that enables adaptation and survival in a dynamic world, which is the meaning of culture that my scholarship argues. To consider dance cultural knowledge sys-

tems in which ecological relations are foundational restores and rehabilitates the function of dance culture to heighten wellbeing, that in turn impacts other aspects of health and wellness. Relational approaches demand reciprocity among all components of a dance culture system forming an interconnected, interdependent web of significance. Further, dance culture must grow in diversity to sustain its health, which means being open to new relations. Navigating change is efficacious and improves the system's usefulness. Intentional movement—which describes all animate life—also manifests multiple relations that synchronously intersect. Such concurrence suggests that the rapid speed at which information processing occurs in the moving, sensing body does not afford much time to distinguish the unfamiliar or unpredictable. As movement creates more relations in a system, confusion proliferates. To adjust, anthropologist Eduardo Kohn posits that all relations—especially those involving humans and nonhumans—must hinge "neither on intrinsic difference nor on intrinsic similarity" (Kohn, 2013, p. 100). Instead, he presents the concept of indifference towards or forgetting to notice difference, which distributes knowledge as cultural capital across the system. Additionally, ecological or relational commingling offers boundless potential to share unexpected affinities since everything belongs to the system, increasing its net worth. Possibility becomes investment, that adds robustness, benefitting the system. Finally, indifference to difference unsettles formal, hierarchal structures, specifically the socially constructed culture-nature binary that kindles anthropocentricism. Healthy systems consist of unwieldy power—an asset. Dance culture, embedded within its ecological context exemplifies that characteristic. The greater the chaos generated by intensified relations through movement, the easier it is to dismantle dominant ideologies that control oppressive narratives. This may facilitate discourse, so dialogue with the unknown becomes both necessary and provocative, stimulating interest.

Epilogue

Dance cultural knowledge systems are future-oriented in which one movement gives rise to the next. Connecting what happens now and what may happen next continuously brings the future into the present. In all systems, movement exists for future's sake, anticipating unforeseen relations. Emphasis on this relational probability may assuage the fear or anxiety of not knowing and help to orient, anchor, and feel safe encountering unfamiliarity—in other words, to survive. These ideas invite yet another understanding that derives from the etymology of the word survival, which means "to live beyond life" from the Latin *supervivere* (Oxford English Dictionary, n.d.a). To survive is to thrive and be well; applying theory and methods for an anthropological study of dance culture not only prepares for but also aspires to and believes in the realization of that future.

Planetary precariousness in the Anthropocene era is the systemic consequence of polarization created by human ideological conflict, societal inequalities and injustices, triggering environmental devastation from urban-industrial development, globalization, and overpopulation. These factors encourage disentanglement from the Earth and from one another, which exacerbates uneasiness. Alienation begets alienation. Unable to reconcile such estrangement, illness develops. At the time of writing this article, mental health problems are at their highest level and demand for treatment exceeds health care capacity.

> 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, p. 1)

The COVID-19 pandemic and the current world disorder challenge artists, scientists, and educators to rethink the concept of relationality and its relevance in the year

2025. Formal research motivated by this topic five years ago is the catalyst for imagining an applied theory of dance anthropology that now frames current scholarship. A systems model of dance culture, which encompasses ecological relations, may encourage more reflexive, respectful, and trusting familial ties between all of Earth's inhabitants as kin sharing a home where everything that one thinks or does affects the wellbeing of all others. For those feeling lonely, lost, or insignificant, strengthening these connections offers comfort. Dance cultural knowledge systems that emphasize human-nonhuman reciprocal intra-action maintain a sense of responsibility and stewardship toward the common good. Through movement, all life entangles. Cultural ecologist David Abram states that when touching another, one experiences "being touched" (1996, p. 69). Similarly, to dance in relation with the Earth is to be danced by the Earth. Knowing dance culture as interrelated and interdependent with its ecological environment requires knowing the ecological environment as interrelated and interdependent with dance culture—an awareness that may enhance wellbeing in an uncertain future.

Conflicts of Interest

The author declares no conflicts of interest.

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